

**OSCODA TOWNSHIP  
REGULAR BOARD MEETING  
AGENDA & NOTICE  
April 24, 2023 – 6:30 P.M.  
SHORELINE PLAYERS  
6000 N. Skeel Ave.  
Oscoda, MI 48750  
(989)739-3586**

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Posted Date: April 20, 2023

Press Notification Date: April 20, 2023

Posted by: Tara Lyons

**CALL TO ORDER**

**PLEDGE OF ALLEGIANCE**

**ROLL CALL**

**AGENDA ADDITIONS:**

**PUBLIC COMMENTS:** (Please fill out a comment card and submit to the Superintendent – you have 4 minutes to speak)

**CONSENT AGENDA:**

**Approval of Minutes:**

1. Regular Meeting Minutes – March 27, 2023
2. Special Meeting Minutes – April 3, 2023
3. Special Meeting Minutes – April 17, 2023

**Finance:**

1. Payment of Bills (Oscoda Township) – Total – \$153,044.71
  - a. Prepaid – \$43,894.67
  - b. Check Run – March 31, 2023 - \$3,800.00
  - c. Check Run – April 3, 2023 - \$1,443.85
  - d. Check Run – April 4, 2023 - \$32,188.53
  - e. Check Run – April 6, 2023 - \$26,263.32
  - f. Check Run – April 11, 2023 - \$17,511.79
  - g. Check Run – April 18, 2023 - \$27,942.55
  - h. Checking Report - Bond Interest Expense
  - i. Checking Report - Bond Interest 2015
  - j. Checking Report - Overpayments of Tax Bills
  - k. Investments – March 2023
  - l. EFT Report – WEX
  - m. Checking Report – C2R2
  - n. Checking Report – CWSRF
  - o. Checking Report – Bond Payments

**SUB COMMITTEE REPORTS AND PROJECT UPDATES: (As Available)**

1. April 2023 Engineering Report
2. Oscoda Charter Twp 2024 CWSRF Project Plan

**SUPERINTENDENT'S REPORT ----- Kline**

1. Drop Off Refuse Dates 2023
2. Township Engineer Contract Renewal – See Rowe contract for open ended contract
3. Pump Station #4 Replacement Parts Purchase
4. Dust Control Bid Award
5. Fire Hydrant Purchase Request
6. Sting Invoice and Report
7. Rowe Invoices
8. OWAA Building Lease – Fire Department
9. Fire Department Ventilation Fan Purchase Request
10. Cured-in-Place Lining at Mission Drive RFP

**RESOLUTIONS AND ORDINANCES:**

1. Ordinance 2006-233 Amendments – Public Safety and Fire Emergency Response Cost Recovery
2. Resolution No. 2023-07: Agreement Between Iosco County and Oscoda Township for Housing Commission Services
3. Section 1.6 Permit Renewal from Ordinance 2021-270 – Marihuana Permit Renewals

**OTHER:**

1. Letter of Support Request – Interim Remedial Action to Remove PFAS at Former WAFB
2. Auto Dialer Discussion Revisited
3. Surplus Vehicle and Portable Building Sale Request
4. Munetrix Software Renewal
5. AYSO Operating Agreement 2023
6. Oscoda Youth Softball and Baseball Agreement 2023
7. Furtaw Field Use Request
8. Annual Meeting of the Boards Scheduling
9. Sergeant Position Appointment
10. Change in Police Officer Employment Status – Ethan Brandt
11. Downtown Light Pole Banner Mounting Bracket Purchase Request
12. AuSable Resident Agenda Item Request

**PUBLIC COMMENTS:**

**BOARD COMMENTS:**

**INFORMATIONAL:**

1. ACC Talks – Just Jobs
2. 2020-2023 Water Loss by Area
3. Oscoda Township Quarterly O&M Report 2023
4. Oscoda PFAS Status Report March 2023







Charter Township of Oscoda  
110 South State Street  
Oscoda, Michigan 48750  
Office of Supervisor: (989)739-3211  
Office of Clerk: (989)739-4971  
Office of Treasurer: (989)739-7471  
Office of Superintendent: (989)739-8299  
Fax: (989)739-3344

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## Regular Board Meeting Minutes March 27, 2023

**Call to Order** – Mr. Palmer called the meeting to order at 7:02 p.m. The meeting was held at SHORELINE PLAYERS 6000 N. Skeel Ave. Oscoda, MI 48750.

### PLEDGE OF ALLEGIANCE

**Roll Call** – Board Members Present: [Mr. Spencer in late @ 6:31pm, Ms. McGuire, Mr. Sutton, Mr. Palmer, Mr. Cummings, Mr. Wusterbarth]

Board Members Absent:

Others Present: [Ms. Kline.] Mr. Freeman

### **Public Comment** –

**Cathy Wusterbarth** - I wanted to bring up the resolution that I've been asking the board for. I do want to remind the board that the state of Michigan has requested the center of remedial actions take place and the Iosco County commissioners also have created a resolution of support.

**Consent Agenda** – Mr. Spencer supported a motion by Mr. Cummings to approve:

#### Approval of Minutes:

1. Regular Meeting Minutes – March 13, 2023
2. Special Meeting Minutes – March 15, 2023
3. Regular Meeting Minutes – February 27, 2023

#### Finance:

1. Payment of Bills (Oscoda Township) – Total - \$58,909.10
  - a. Prepaid – March 21, 2023 - \$46,901.74
  - b. Check Run – March 28, 2023 - \$12,007.36
  - c. Utility Billing Refund Checks Report
  - d. C2R2 Checking Report
  - e. Common Account Checking Report – Traylor Tax
  - f. CWSRF and C2R2 Checking reports.

Oscoda Township Regular Board Meeting Minutes

March 27, 2023

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ALL YEAS:

MOTION CARRIED

**SUB COMMITTEE REPORTS AND PROJECT UPDATES: (As Available)**

1. **March 2023 Engineering Report – Rick Freeman** – Updates on current projects (Water, Sewer, and Bike Path)

**SUPERINTENDENT REPORTS:**

**Request to Pursue Litigation – Kratos Gas** – Mr. Sutton supported a motion by Mr. Palmer to approve *the Superintendent to work with the Township's Attorney to begin litigation against Kratos Gas.*

ALL YEAS:

MOTION CARRIED

**Old Orchard Park Mapping Proposal** – Mr. Cummings supported a motion by Mr. Spencer to approve *the mapping proposal from Rowe Engineering in the amount of \$6,900.00 to be paid from Fund 218-000-984.000. (Old Orchard Park CIP Fund).*

ALL YEAS:

MOTION CARRIED

**Phase VI Water Main Project Additional Scope of Work Proposal** – Mr. Sutton supported a motion by Mr. Spencer to approve *he additional scope of work proposal in the amount of \$12,600.00 to be paid through C2R2 funds after reimbursement has been requested and deposited into the Township's checking account.*

ALL YEAS:

MOTION CARRIED

**Lakewood Shores Mapping Proposal** – Mr. Wusterbarth supported a motion by Mr. Cummings to approve *the proposal from Rowe Engineering in the amount of \$10,840.00 to be paid from Fund 236-266-801.000.*

ALL YEAS:

MOTION CARRIED

**Railroad Crossing Removal** – Mr. Spencer supported a motion by Mr. Cummings to approve *the Superintendent to move forward with MDOT removing the railroad crossing at Perimeter and Georgia Street.*

ALL YEAS:

MOTION CARRIED

**Large Meter Replacement** – Mr. Spencer supported a motion by Mr. Cummings to approve *the purchase of the meters listed in the quote for \$54,522.08 to be paid from Fund 591-000-974.000 (Capital Improvement/Outlay).*

ALL YEAS:

MOTION CARRIED

**Budget Amendment** – Mr. Spencer supported a motion by Mr. Cummings to approve *the budget amendment in the amount of \$12,522.08 to be moved from Fund 590-000-890-000 to Fund 591-000-974.000 (Capital Improvement/Outlay).*

ALL YEAS:

MOTION CARRIED

**Lift Station No. 4 Pump Repair Request Placeholder** – Mr. Wusterbarth supported a motion by Mr. Palmer to postpone *the Lift Station No. 4 pump repair request until an estimated cost can be provided.*

ALL YEAS:

MOTION CARRIED

**Rowe Invoice No. 107402** – Mr. Cummings supported a motion by Ms. McGuire to approve *the payment for losco Exploration Trail in the amount of \$10,588.75 to be paid from 101-751-880.572.*

ALL YEAS:

MOTION CARRIED

**Rowe Invoice No.107605** – Mr. Spencer supported a motion by Mr. Wusterbarth to approve paying for *Water System Improvements 2022 I the amount of \$1,215.00 to be paid from C2R2 (After Reimbursement is Available).*

ALL YEAS:

MOTION CARRIED

**Rowe Invoice No. 107610** – Mr. Sutton supported a motion by Mr. Spencer to approve the payment for *Wastewater Pump Station Improvements in the amount of \$3,328.35 from CWSRF (After Reimbursement is Available).*

ALL YEAS:

MOTION CARRIED

### **RESOLUTIONS**

**Ordinance Amendment 6.34 Food Trucks/Mobile Vending Units** – Mr. Sutton supported a motion by Mr. Cummings to approve *Ordinance Amendment for 6.34 Food Trucks/Mobile Vending Units as presented.*

ALL YEAS:

MOTION CARRIED

**Ordinance Amendment Article VIII Zoning Board of Appeals Section 8.3.3** – Ms. McGuire supported a motion by Mr. Wusterbarth to approve *Ordinance Amendment for Article VIII Zoning Board of Appeals Section 8.3.3 as presented.*

ALL YEAS:

MOTION CARRIED

**Ordinance Amendment Code of Ordinance Chap. 10 Article VII Recreational Marijuana Establishments Prohibited** – Mr. Palmer supported a motion by Ms. McGuire to approve *Ordinance Amendment for Code of Ordinance Chap. 10 Article VII Recreational Marijuana Establishments Prohibited as presented.*

ALL YEAS:

MOTION CARRIED

**Ordinance Amendment Code of Ordinances Chap. 26 Article III Installation, Maintenance, and/or Repair of Sidewalks** – Mr. Cummings supported a motion by Mr. Wusterbarth to approve *Ordinance Amendment for Code of Ordinances Chap. 26 Article III Installation, Maintenance, and/or Repair of Sidewalks as presented.*

ALL YEAS:

MOTION CARRIED

**Resolution No. 2023-04: Resolution to Classify Furtaw Field as Non-Disposable** – Mr. Sutton supported a motion by Mr. Spencer to approve *Resolution No. 2023-04: Resolution to Classify Furtaw Field as Non-Disposable as presented.*

YEAS: Ms. McGuire, Mr. Spencer, Mr. Cummings, Mr. Sutton, Mr. Palmer.

NAYS: Mr. Wusterbarth

MOTION CARRIED

**Resolution No. 2023-05: Resolution MDNR Recreation Passport Grant Program Warrior Pavilion/Restroom/Bathhouse Facilities Project** – Mr. Wusterbarth supported a motion by Mr. Spencer to approve *Resolution No. 2023-05: Resolution MDNR Recreation Passport Grant Program Warrior Pavilion/Restroom/Bathhouse Facilities Project as presented.*

ALL YEAS:

MOTION CARRIED

**Resolution No. 2023-06: Professional Engineering Services to Provide 2024 CWSRF/DWRF Project Plans/Applications for Funding** – Ms. McGuire supported a motion by Mr. Spencer to approve *Resolution No. 2023-06: Professional Engineering Services to Provide 2024 CWSRF/DWRF Project Plans/Applications for Funding as presented.*

ALL YEAS:

MOTION CARRIED

### **OTHER**

**Board and Subcommittee Appointments** – Mr. Sutton supported a motion by Mr. Wusterbarth to approve *Mr. Palmer as representative to the Airport Authority.*

ALL YEAS:

MOTION CARRIED

**911 Subcommittee Appointment** – Mr. Palmer supported a motion by Mr. Sutton to approve Mr. Spencer as chair and *Mr. Palmer as alternate to the 911 Board.*

ALL YEAS:

MOTION CARRIED

**Contract Negotiaion Subcommittee Appointment** – Mr. Sutton supported a motion by Mr. Spencer to approve *Mr. Wusterbarth as representative to the Contract Negotiation Subcommittee Appointment.*

ALL YEAS:

MOTION CARRIED

**Bill Payment Authorization** – Mr. Spencer supported a motion by Mr. Palmer to approve *the payment of bills until our next regular meeting on April 24, 2023.*

ALL YEAS:

MOTION CARRIED

**Lot Split – O64-L10-000-046-00 Lot 46 of Assessor Plat of Lake Huron Sand Beach Sub** – Mr. Spencer supported a motion by Mr. Wusterbarth to approve *Lot Split – O64-L10-000-046-00 Lot 46 of Assessor Plat of Lake Huron Sand Beach Sub as presented.*

ALL YEAS:

MOTION CARRIED

**Oscoda/Ausable Chamber of Commerce Letter of Support Request** – Mr. Sutton supported a motion by Mr. Spencer to approve *a letter of support to Develop losco for The Community Improvement Grant for electrical updates at the Oscoda Beach Park.*

ALL YEAS:

MOTION CARRIED

**Discussion with the Board on potentially adding a permanent Finance Director Position for Oscoda Township**

**Field Trip to White Lake** – Mr. Spencer supported a motion by Mr. Wusterbarth to approve *getting dates from the board members for before the end of May to see how it works in White Lake with a financial director.*

ALL YEAS:

MOTION CARRIED

**Discussion regarding hiring Mark Miller as the part time Finance Director reporting to the Superintendent** – Mr. Palmer supported a motion by Mr. Sutton to approve *hiring Mark Miller as the part time Finance Director reporting to the Superintendent.*

YEAS: Mr. Sutton, Mr. Spencer, Mr. Wusterbarth, Mr. Palmer

NAYS: Ms. McGuire, Mr. Cummings

MOTION CARRIED

**Proposed Special Meeting for Board of Trustee Appointment - April 17, 2023** – Mr. Palmer supported a motion by Mr. Sutton to approve *the Special Meeting on April 17, 2023 at 10:00am to review applications for trustee vacancy.*

ALL YEAS:

MOTION CARRIED

**State Land Bank Authority Blight Elimination** – Mr. Sutton informed the board that we have been awarded \$21,500.00 from the State Land Bank Authority Blight Elimination Grant that was a collaboration at the county level brining in a total of \$79,407.00 in funds for blight elimination.

**Accounts Payable Discussion** – Mr. Palmer led the discussion. Talked about working together to ensure we are doing better for our citizens.

**INFORMATIONAL:**

1. ACC Talks – March 2023
2. ACC Non-Credit Computer Class
3. PFAS Monthly Update
4. February Water Loss Report

March 27, 2023

Oscoda Township Regular Board Meeting Minutes

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### **Public Comment –**

**Brenda Godfrey** - I'd like to clear up some information I spoke on at the last meeting after leaving a negative impression on an officer. Officer Heath was a great officer for Oscoda Township who left not because of the frivolous complaint but because he wanted better, he found a job that offered him better benefits better paying better for him. I apologize to Von. Voiced concerns with Clerk and Account Payables.

**Kevin Kubik** - Comments regarding his separation from Oscoda Township.

**Brooke F.** – Informed the board as to the terrible and unsafe condition of Merton Rd. off Bissonette in Oscoda. The road is so bad that the bus will no longer drive it to pick up kids and you can only go about 2 mph. I would like our township to resolve this matter with the county road commission so we can use our road again.

**Ryan Bolen** – Logging trucks are causing damage to our road and have made it so bad that everyone must drive their kids to the end of the road that is on a curve and unsafe as the bus can not be seen until you come around the corner on Bissonette.

**Kelly Brown** - April 1st and 2nd is kick off for the river canoe marathon season. Thank you to Trustee Spencer for following up and answering my questions about the website. Question on why we had a Resolution for Furtaw to be Un-Disposable? Maybe that can be clarified at the next meeting. There was no mention of pay or credentials for the Financial Director.

**Clayton Jolly** – Why do we have police officers at these meetings and not the ones at the library? I've never seen a committee or board or anything else that had less communication or leadership. Come on people get it together, what we saw on the last couple of these meetings you need to do better, better representation in government.

**Robert Tasior** - I just wanted to say that a couple weeks ago I went to a Michigan association training, it was about boards working together. I thought it was an excellent course, it is something that's really needed here, and I would really like us to bring that training here to oscoda and have all our board members take that course.

**Dave Carmona** - I urge the board to consider greatly and take time and consideration of the scope. I saw tonight a lot of personality stuff mixed up with the issues, focus on the issues not each other. Why aren't the line items locked out in your BSA system so they can't be changed?

### **Board and Staff Comments –**

**Mr. Wusterbarth**- Have Ms. Kline call Bruce Bolen to get the road maintained. Happy Easter to everyone, there is a job description in the packet.

**Mr. Cummings**- Concern on the way the Façade grants are being handled and would like to have a meeting to review and approve by the township board. Also would like updates from the EIC to the board.

I'm being told that the FOIA process has been changed by people requesting them. Why did this change and when? Do we need to adopt a formal change for the FOIA policy?

**Mr. Spencer-** I know the process can be hard but we did it on Hull Island where I live as one gentleman went to every house with the petition to sign so we could get our roads redone.

**Mr. Palmer-** I'm happy I made it through this first meeting. I am hoping we can all start working together to be better for the township.

**Ms. McGuire-** Nothing.

**Mr. Sutton-** Happy Easter to Everyone!

**Adjourn** – Mr. Palmer made a motion to adjourn at 09:48 p.m.

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William Palmer  
Supervisor  
Charter Township of Oscoda

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Joshua Sutton  
Clerk  
Charter Township of Oscoda

**Disclaimer of the Township Board of Trustees:**

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## Special Meeting Minutes April 3, 2023

**Call to Order** – Mr. Palmer called the meeting to order at 09:00 a.m. The meeting was held at Robert J. Parks Library 6010 N. Skeel Ave. Oscoda, MI 48750.

**Roll Call** – Board Members Present: Mr. Sutton, Mr. Palmer, Mr. Wusterbarth, Mr. Cummings, Ms. McGuire  
Board Members Absent: Mr. Spencer,  
Others Present: Ms. Kline, Mr. Iler

### **PUBLIC COMMENT:**

**Mr Iler** – We approved all six at 86% to beautify our downtown.

**Mr. Palmer** – Would like to see proof of taxes paid when submitted for reimbursement.

**Ms. McGuire** – What are we here to do today?

**Mr. Cummings** – Financial approval needed for grants from the board. Meeting to review recommendations and decide on approved projects.

**Agenda Additions** – Mr. Wusterbarth supported a motion by Mr. Cummings to approve the addition of Closing the 2023 Façade Grant.

ALL YEAS

MOTION CARRIED

### **NEW BUSSINESS:**

**Façade Grant Awards**– Mr. Cummings supported a motion by Mr. Wusterbarth to approve a Façade Grant for 117 E. Dwight St. (Lake Theater) in the amount of \$8600.00.

ALL YEAS

MOTION CARRIED

**Façade Grant Awards**– Mr. Wusterbarth supported a motion by Ms. McGuire to approve a Façade Grant for 118 E. River Rd. (Multi-use facility) in the amount of \$8600.00.

ALL YEAS

MOTION CARRIED

**Façade Grant Awards**– Mr. Wusterbarth supported a motion by Mr. Cummings to approve a Façade Grant for 113 & 115 N. State St. (Ausable Hardware & Barber Shop) in the amount of \$6800.00.

ALL YEAS

MOTION CARRIED

**Façade Grant Awards**– Mr. Cummings supported a motion by Ms. McGuire to approve a Façade Grant for 100 W. Michigan Ave. (Life's a Stitch) in the amount of \$8600.00.

ALL YEAS

MOTION CARRIED

**Façade Grant Awards**– Mr. Wusterbarth supported a motion by Mr. Palmer to approve a Façade Grant for 200 W. Michigan Ave. (Oscoda Home Center) in the amount of \$8600.00.

ALL YEAS

MOTION CARRIED

**Façade Grant Awards**– Mr. Sutton supported a motion by Mr. Cummings to approve a Façade Grant for 106 E. Dwight St. (Parkside Dairy) in the amount of \$8600.00.

ALL YEAS

MOTION CARRIED

**2023 Façade Grant**– Mr. Palmer supported a motion by Mr. Cummings to approve closing out the 2023 Façade Grant to future applicants.

ALL YEAS

MOTION CARRIED

**Board Comment:**

**Mr. Palmer** – I would like to see this continue.

**Mr. Cummings** – I am glad that we were able to have this meeting today and get these approved and I look forward to a smoother process in the future.

**Mr. Wusterbarth** – Thank you to the EIC Members and the business owners for all their work on their business's downtown.

**Adjourn** – Mr. Palmer made a motion to adjourn at 09:30 a.m.

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William Palmer  
Supervisor  
Charter Township of Oscoda

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Joshua Sutton  
Clerk  
Charter Township of Oscoda

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## Special Meeting Minutes April 17, 2023

**Call to Order** – Ms. Richards called the meeting to order at 10:00 a.m. The meeting was held at Robert J. Parks Library 6010 N. Skeel Ave. Oscoda, MI 48750.

**Roll Call** – Board Members Present: Ms. McGuire, Mr. Sutton, Mr. Cummings, Mr. Spencer, Mr. Wusterbarth, Mr. Palmer  
Board Members Absent:  
Others Present: Ms. Kline, Mr. Apsitis

**Agenda Additions.** – None.

**Public Comment** –

**Mary Ed Teuton** – I would like to recommend Jeffrey Linderman as trustee.

**Brenda Godfrey** – Comparing the trustee requirements to the previous, you added more and I would like to know why? I feel the board has already made up their mind as to who the trustee will be.

**Kelly Brown** – What position is being hired for at the park and at what pay? Is it in the budget? Also, my husband is Jeff Linderman and I hope you show him favor in light of his service to the community today.

**NEW BUSSINESS:**

**New Hire Request – OOP Administrative Assistant**– Mr. Palmer supported a motion by Mr. Wusterbarth to approve hiring Elaina Painter at step 3, \$16.24 an hour to fill the Administrative Assistant position.

YEAS: Mr. Wusterbarth, Mr. Sutton, Mr. Spenser, Mr. Cummings  
NAYS: Ms. McGuire

MOTION CARRIED

**EIC Website Contract**– Mr. Spencer supported a motion by Mr. Cummings to approve a month-to-month contract with Digital 55 at \$250.00 a month with a 60-day notice for cancellation of service for 4 months up to \$1000.00.

ALL YEAS

MOTION CARRIED

**Letter of Support Request – PKL Homes (Placeholder)**– Mr. Cummings supported a motion by Mr. Spencer to approve a letter of support for PKL Cares to MSHDA Grant for project in Oscoda and authorize the superintendent to execute.

ALL YEAS

MOTION CARRIED

**Oscoda Township Trustee Appointment**– Mr. Palmer supported a motion by Mr. Wusterbarth to approve Robert Tasior as appointed Trustee to serve until November 20, 2024, at noon.

YEAS: Mr. Wusterbarth, Mr. Sutton, Mr. Spenser, Mr. Cummings

NAYS: Ms. McGuire

MOTION CARRIED

**Adjourn** – Mr. Palmer made a motion to adjourn at 11:02 a.m.

---

William Palmer  
Supervisor  
Charter Township of Oscoda

---

Joshua Sutton  
Clerk  
Charter Township of Oscoda

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04/19/2023 04:12 PM  
User: JOSHUASUTTONCI  
DB: Oscoda

INVOICE GL DISTRIBUTION REPORT FOR OSCODA TOWNSHIP  
POST DATES 12/31/2022 - 04/25/2023  
BOTH JOURNALIZED AND UNJOURNALIZED  
OPEN

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GL Number	Inv. Line Desc	Vendor	Invoice Desc.	Invoice	Chk Date	Amountcheck #
Fund 101 GENERAL/UNALLOCATED						
Dept 253 TREASURER						
101-253-960.000	2023 ADVANCED INSTITUTE MM	MICHIGAN MUNICIPAL TRE	2023 ADVANCED INSTITUTE J HACKBORN	7818		379.00
Total For Dept 253 TREASURER						379.00
Dept 257 ASSESSOR						
101-257-801.000	ASSESING SYSTEM - ANNUAL	BS&A SOFTWARE	ASSESING SYSTEM - ANNUAL SERVICE	147022		2,352.00
101-257-801.100	ASSESSING SEVICES	BERG ASSESSING & CONSU	ASSESSING SEVICES FOR APRIL	230001040		12,062.70
Total For Dept 257 ASSESSOR						14,414.70
Dept 265 TOWNSHIP HALL & GROUNDS						
101-265-726.000	SHOP SUPPLIES	FASTENAL COMPANY	SHOP SUPPLIES INVOICE #MITAW40145	MITAW40145		109.53
101-265-726.000	SHOP SUPPLIES	FASTENAL COMPANY	SHOP SUPPLIES INVOICE #MITAW40164	MITAW40164		33.60
101-265-726.000	SHOP RAGS	UNIFIRST CORPORATION	SHOP SUPPLIES INVOICE #16100058810	6100058810		26.05
101-265-775.000	SHOP SUPPLIES BRAKE FULID	JOHNSON AUTO SUPPLY, I	SHOP SUPPLIES INVOICE #910605	910605		27.99
101-265-775.000	CLEANING SUPPLIES	KSS ENTERPRISES	CLEANING SUPPLIWS INVOICE #1470358	1470358		194.89
101-265-930.000	WATER HEATER AND GAS PIPE	DESIGN INDUSTRIAL	REPLACE WATER HEATER TWP HALL	104102023		2,962.00
101-265-931.000	EQUIPMENT PARTS	LINCOLN OUTDOOR CENTER	EQUIPMENT REPAIR PARTS DPW INVOICE	34905		340.02
101-265-931.000	GENERATOR PARTS	NORTHERN TRUCK REPAIR	BLOCK HEATER FOR DPW GENERATOR INVO	21812		593.56
101-265-933.000	TWP CAR REPAIRS	NORTHERN TRUCK REPAIR	OXYGEN SENSER TWP CAR INVOICE #2189	21890		314.17
Total For Dept 265 TOWNSHIP HALL & GROUNDS						4,601.81
Dept 276 CEMETERY						
101-276-931.000	MOWER PARTS	LINCOLN OUTDOOR CENTER	MOWER REPAIR PARTS INVOICE #34433	34433		332.46
Total For Dept 276 CEMETERY						332.46
Dept 299 UNALLOCATED						
101-299-826.000	LEGAL SERVICES INV 1079173	ROSATI, SCHULTZ, JOPPI	LEGAL SERVICES INV 1079173	1079173		255.00
101-299-826.000	LEGAL SERVICES INV 1079172	ROSATI, SCHULTZ, JOPPI	LEGAL SERVICES INV 1079172	1079172		3,199.50
101-299-880.000	LABOR	SPONBERG, SANDRA	PAINTING OF PAUL BUNYAN INV 7747995	77479953		3,645.00
Total For Dept 299 UNALLOCATED						7,099.50
Dept 336 FIRE DEPARTMENT						
101-336-933.000	AIR FILTER FOR BRUSH TRUC	AMAZON CAPITAL SERVICE	AIR FILTER FOR BRUSH TRUCKS INV 1FX	1FX7-X19G-1DHV		25.77
101-336-933.000	FUEL FILTER	JOHNSON AUTO SUPPLY, I	VEHICLE MAINT INV 910968	910968		759.13
101-336-933.000	OIL FILTER	JOHNSON AUTO SUPPLY, I	VEHICLE MAINT INV 911349	911349		28.28
101-336-933.000	OIL FILTER	JOHNSON AUTO SUPPLY, I	VEHICLE MAINT INV 911352	911352		77.62
Total For Dept 336 FIRE DEPARTMENT						890.80
Dept 722 ZONING & PLANNING						
101-722-826.000	LEGAL SERVICES INV 1079172	ROSATI, SCHULTZ, JOPPI	LEGAL SERVICES INV 1079172	1079172		102.00
Total For Dept 722 ZONING & PLANNING						102.00
Dept 751 PARKS & RECREATION						
101-751-726.000	GAS CANS	AMAZON CAPITAL SERVICE	GAS CAN FOR DPW INVOICE #16G4-M41T-	16G4-M41T-7NQL		83.80
101-751-726.000	FUEL CAN	JOHNSON AUTO SUPPLY, I	PARKS INVOICE #911400	911400		29.59
101-751-726.100	LUMBER FOR TABLES	MCGUIRE LUMBER	PICKNIC TABLE MATERIAL #1716506	1716506		208.00
101-751-775.000	CLEANING SUPPLIES	KSS ENTERPRISES	CLEANING SUPPLIES INVOICE #140363	140363		300.18
101-751-930.000	SUPPLIES PAINTING PAUL BUN	JOHNSON AUTO SUPPLY, I	SUPPLIES FOR PAUL BUNYAN INVOICE #9	909218		159.98
101-751-931.000	EQUIPMENT REPAIR	AMAZON CAPITAL SERVICE	EQUIPMENT REPAIR INVOICE # 1P9N-R	1P9N-R37W-7M1M		588.11
101-751-931.000	BATTERIES	INTERSTATE BATTERIES	BATTERIES FOR PARKS INVOICE 3 23432	3 23432082		206.00
101-751-931.000	EQUIPMENT PARTS FILTERS	LINCOLN OUTDOOR CENTER	MOWER PARTS INVOICE #34907	34907		301.68
Total For Dept 751 PARKS & RECREATION						1,877.34
Total For Fund 101 GENERAL/UNALLOCATED						29,697.61



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Fund 207 POLICE FUND							
Dept 000							
207-000-726.000	GUN CLEANING PATCHES	AMAZON CAPITAL SERVICE	EVIDENCE / FIREARMS CLEANING SUPPLI	1CVT-LHQQ-1476		30.13	
207-000-761.000	POLICE UNIFORM CLEANING (M	TAWAS BAY DRY CLEANERS	POLICE UNIFORM CLEANING	03312023		271.00	
207-000-933.000	BRAKE PARTS FOR VEHICLES	AUTO VALUE OSCODA	VEHICLE PARTS	2811432166		1,713.76	
207-000-933.000	AIR FILTERS FOR VEHICLES	AUTO VALUE OSCODA	VEHICLE PARTS	2811432215		151.28	
207-000-933.000	REAR REFLECTOR FOR TAHOE	AMAZON CAPITAL SERVICE	VEHICLE PARTS / EQUIPMENT / INVOICE	13J1-NMHD-7FP1		695.42	
207-000-933.000	POLICE CAR WASH	SEVAN K,INC	POLICE CAR WASH	120203312022		222.00	
207-000-960.000	POLICE TRAINING (HART) IN	KIRTLAND COMMUNITY COL	KIRKLAND CRIMINAL JUSTICE IN-SERVIC	04062023KHKLE		400.00	
207-000-960.000	POLICE TRAINING (ALEXANDE	KIRTLAND COMMUNITY COL	KIRKLAND CRIMINAL JUSTICE IN-SERVIC	04062023GAKLE		400.00	
207-000-980.000	FIREARMS RANGE TRAINING T	AMAZON CAPITAL SERVICE	VEHICLE PARTS / EQUIPMENT / INVOICE	13J1-NMHD-7FP1		200.59	
207-000-980.000	AMAZON TV	AMAZON CAPITAL SERVICE	REPLACEMENT SECURITY CAMERA TV / IN	1CVT-LHQQ-6HX1		309.98	
Total For Dept 000						4,394.16	
Total For Fund 207 POLICE FUND						4,394.16	
Fund 211 POLICE STAFFING FUND							
Dept 000							
211-000-761.000	POLICE UNIFORMS MCNICHOL	AMAZON CAPITAL SERVICE	POLICE UNIFORMS (MCNICHOL) 114-8742	114-87422-866104		31.95	
211-000-761.000	POLICE UNIFORMS MCNICHOL	AMAZON CAPITAL SERVICE	POLICE UNIFORMS (MCNICHOL) 114-1847	114-1847723-1463		81.99	
211-000-761.000	POLICE UNIFORMS MCNICHOL	AMAZON CAPITAL SERVICE	POLICE UNIFORMS (MCNICHOL) 114-2451	114-2451129-7996		28.99	
Total For Dept 000						142.93	
Total For Fund 211 POLICE STAFFING FUND						142.93	
Fund 236 PROP OPER & MNTNCE							
Dept 266 PROPERTY O & M MAINTENANCE							
236-266-826.000	ATTORNEY FEES	O'REILLY RANCILIO P.C.	ATTORNEY FEES	245484		4,643.06	
236-266-826.000	LEGAL SERVICES INV 107917	ROSATI, SCHULTZ, JOPPI	LEGAL SERVICES INV 1079172	1079172		697.00	
Total For Dept 266 PROPERTY O & M MAINTENANCE						5,340.06	
Total For Fund 236 PROP OPER & MNTNCE						5,340.06	
Fund 509 OLD ORCHARD PARK							
Dept 000							
509-000-726.000	OFFICE SUPPLIES	QUILL CORPORATION	OFFICE SUPPLIES INV 29433422	29433422		186.28	
509-000-726.000	SUPPLIES INV 30600043	QUILL CORPORATION	SUPPLIES INV 30600043	30600043		79.02	
509-000-726.000	SUPPLIES INV 30602118	QUILL CORPORATION	SUPPLIES INV 30602118	30602118		22.36	
509-000-775.000	MAINT SUPPLIES	HOME DEPOT CREDIT SERV	MAINT SUPPLIES	27605248612		134.83	
509-000-775.000	MAINT SUPPLIES INV S10049	ALPENA SUPPLY COMPANY	MAINT SUPPLIES INV S100499680.001	S100499680.001		188.64	
509-000-775.000	MAINT SUPPLIES INV S10049	ALPENA SUPPLY COMPANY	MAINT SUPPLIES INV S100498729.001	S100498729.001		89.91	
509-000-803.000	ENVIRO HEALTH OPERATING FE	DISTRICT HEALTH DEPART	ENVIROMENTAL HEALTTH OPERATING FEES	11043		800.00	
509-000-922.000	PROPANE CABIN 3 INV 34377	GARY OIL COMPANY	PROPANE CABIN 3 INV 343772	343772		105.42	
509-000-922.000	PROPANE CABIN 1 INV 34377	GARY OIL COMPANY	PROPANE CABIN 1 INV 343770	343770		170.73	
509-000-922.000	PROPANE MAINT BARN INV 34	GARY OIL COMPANY	PROPANE MAINT BARN INV 343777	343777		157.77	
509-000-922.000	PROPANE OFFICE INV 34377	GARY OIL COMPANY	PROPANE OFFICE INV 343773	343773		307.63	
509-000-922.000	PROPANE SHOWER 1 INV 3437	GARY OIL COMPANY	PROPANE SHOWER 1 INV 343774	343774		169.11	
509-000-922.000	PROPANE CABIN 2 INV 34377	GARY OIL COMPANY	PROPANE CABIN 2 INV 343771	343771		180.80	
509-000-922.000	PROPANE SHOWER 3 INV 3437	GARY OIL COMPANY	PROPANE SHOWER 3 INV 343776	343776		201.67	
509-000-922.000	PROPANE STORE INV 343778	GARY OIL COMPANY	PROPANE STORE INV 343778	343778		61.35	
509-000-931.000	MAINT SUPPLIES	HOME DEPOT CREDIT SERV	MAINT SUPPLIES	27605248604		383.84	
509-000-933.000	VEHICLE MAINT	AUTO VALUE OSCODA	VEHICLE MAINT INV 281-1428678	2811428678		187.07	
509-000-933.000	VEHICLE MAINT	AUTO VALUE OSCODA	VEHICLE MAINT INV 281-1428679	2811428679		36.48	
509-000-964.000	SEASONAL SITE REFUND 2023	TODD DICKERSON	SEASONAL SITE REFUND 2023	04062023		500.00	
Total For Dept 000						3,962.91	

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Fund 509 OLD ORCHARD PARK							
			Total For Fund 509 OLD ORCHARD PARK			3,962.91	
Fund 590 SEWER							
Dept 000							
590-000-826.000	LEGAL SERVICES INV 1079172	ROSATI, SCHULTZ, JOPPI	LEGAL SERVICES INV 1079172	1079172		34.00	
			Total For Dept 000			34.00	
			Total For Fund 590 SEWER			34.00	
Fund 591 WATER							
Dept 000							
591-000-826.000	LEGAL SERVICES INV 1079172	ROSATI, SCHULTZ, JOPPI	LEGAL SERVICES INV 1079172	1079172		323.00	
			Total For Dept 000			323.00	
			Total For Fund 591 WATER			323.00	

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			Fund Totals:				
			Fund 101 GENERAL/UNALLOCATED			29,697.61	
			Fund 207 POLICE FUND			4,394.16	
			Fund 211 POLICE STAFFING FUND			142.93	
			Fund 236 PROP OPER & MNTNCE			5,340.06	
			Fund 509 OLD ORCHARD PARK			3,962.91	
			Fund 590 SEWER			34.00	
			Fund 591 WATER			323.00	
			Total For All Funds:			43,894.67	

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Fund 509 OLD ORCHARD PARK							
Dept 000							
509-000-004.000	PETTY CASH/CHANGE BANK	OLD ORCHARD PARK	OPERATING FUNDS FOR OOP	03302023		2,000.00	
509-000-931.000	FIREWOOD PROCESSOR	JACK'S FIREWOOD	FIREWOOD PROCESSOR	8		1,800.00	
Total For Dept 000						3,800.00	
Total For Fund 509 OLD ORCHARD PARK						3,800.00	

GL Number	Inv. Line Desc	Vendor	Invoice Desc.	Invoice	Chk Date	Amount	check #
Fund Totals:			Fund 509 OLD ORCHARD PARK			3,800.00	
			Total For All Funds:			<u>3,800.00</u>	

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Fund 101 GENERAL/UNALLOCATED							
Dept 172 SUPERINTENDENT							
101-172-830.000	DUES & SUBSCRIPTIONS - REN	VISA	VISA SUPERINTENDENT	044603102023		3.02	
Total For Dept 172 SUPERINTENDENT						3.02	
Dept 215 CLERK							
101-215-900.000	POSTAGE FOR MAIL	VISA	VISA CLERK	017203102023		28.75	
101-215-960.000	LUNCH - IOSCO RECYCLING EN	VISA	VISA CLERK	017203102023		16.95	
Total For Dept 215 CLERK						45.70	
Dept 253 TREASURER							
101-253-960.000	MIAPA- MAKING GOOD DECISI	VISA	VISA TREASURER	897803102023		150.00	
Total For Dept 253 TREASURER						150.00	
Dept 265 TOWNSHIP HALL & GROUNDS							
101-265-761.000	CLOTHING CARE & ALLOWANCE	VISA	DPW VISA	977803102023		148.40	
101-265-775.000	DG - AIRFRESH	VISA	DPW VISA	977803102023		6.00	
Total For Dept 265 TOWNSHIP HALL & GROUNDS						154.40	
Dept 276 CEMETERY							
101-276-930.000	GRAVE MARKERS	VISA	DPW VISA	977803102023		179.18	
Total For Dept 276 CEMETERY						179.18	
Dept 751 PARKS & RECREATION							
101-751-761.000	CLOTHING ALLOWANCE - JUSTI	VISA	DPW VISA	977803102023		84.79	
Total For Dept 751 PARKS & RECREATION						84.79	
Total For Fund 101 GENERAL/UNALLOCATED						617.09	
Fund 207 POLICE FUND							
Dept 000							
207-000-801.200	MICROSOFT 365 SUBSCRIPTION	VISA	VISA POLICE DEPT 1	021503102023		74.19	
207-000-960.000	CONFERENCE/EDUCATION/TRAIN	VISA	VISA POLICE DEPT 1	021503102023		97.56	
207-000-960.000	CONFERENCE/EDUCATION/TRAIN	VISA	VISA POLICE DEPT 2	008103102023		655.01	
Total For Dept 000						826.76	
Total For Fund 207 POLICE FUND						826.76	

GL Number	Inv. Line Desc	Vendor	Invoice Desc.	Invoice	Chk Date	Amount	check #
Fund Totals:							
			Fund 101 GENERAL/UNALLOCATED			617.09	
			Fund 207 POLICE FUND			826.76	
			Total For All Funds:			1,443.85	

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Fund 236 PROP OPER & MNTNCE							
Dept 266 PROPERTY O & M MAINTENANCE							
236-266-801.000	EID MARCH 2023 SERVICES	BLACK SWAMP LOCATION S	EID SERVICES MARCH - MAY 2023	0142		32,188.53	
			Total For Dept 266 PROPERTY O & M MAINTENANCE			32,188.53	
			Total For Fund 236 PROP OPER & MNTNCE			32,188.53	



GL Number	Inv. Line Desc	Vendor	Invoice Desc.	Invoice	Chk Date	Amount	check #
Fund Totals:			Fund 236 PROP OPER & MNTNCE			32,188.53	
			Total For All Funds:			<div></div> 32,188.53	

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Fund 101 GENERAL/UNALLOCATED						
Dept 172 SUPERINTENDENT						
101-172-716.000	COBRA; DENTAL ONLY; APRIL MESSA		MESSA COBRA COVERAGE; APRIL 2023	2304-C43726		51.68
101-172-726.000	COPIER PRINT CHARGES-SUPEF IMAGE BUSINESS SOLUTIO		COPIER PRINT CHARGES	239876		2.26
101-172-980.000	WEB CAM INV 1V1K-DYKY-67HW	AMAZON CAPITAL SERVICE	WEB CAM INV 1V1K-DYKY-67HW	1V1K-DYKY-67HW		59.98
Total For Dept 172 SUPERINTENDENT						113.92
Dept 215 CLERK						
101-215-726.000	COPIER PRINT CHARGES-CLERK IMAGE BUSINESS SOLUTIO		COPIER PRINT CHARGES	239876		36.74
Total For Dept 215 CLERK						36.74
Dept 253 TREASURER						
101-253-726.000	COPIER PRINT CHARGES-TREAS IMAGE BUSINESS SOLUTIO		COPIER PRINT CHARGES	239876		18.30
Total For Dept 253 TREASURER						18.30
Dept 265 TOWNSHIP HALL & GROUNDS						
101-265-726.000	SHOP SUPPLIES	JOHNSON AUTO SUPPLY, I	SHOP SUPPLIES INVOICE #910077	910077		26.37
101-265-726.000	SHOP SUPPLIES	JOHNSON AUTO SUPPLY, I	SHOP SUPPLIES INVOICE # 909818	909818		167.88
101-265-931.000	SHOP SUPPLIES	JOHNSON AUTO SUPPLY, I	SHOP SUPPLIES INVOICE #909598	909598		92.94
101-265-931.000	OIL DRY	JOHNSON AUTO SUPPLY, I	SHOP SUPPLIES INVOICE #910069	910069		95.92
101-265-931.000	GASKET FOR VACTOR	WIELAND TRUCKS	VACTOR TRUCK PARTS INVOICE#2951136S	295136S		16.76
Total For Dept 265 TOWNSHIP HALL & GROUNDS						399.87
Dept 299 UNALLOCATED						
101-299-726.200	COPIER PRINT CHARGES-MAIN IMAGE BUSINESS SOLUTIO		COPIER PRINT CHARGES	239876		95.04
101-299-801.000	ENGINEERING 2-23-2023-3-22	RICK A FREEMAN, P.E.	ENGINEERING 2-23-2023-3-22-2023	1011		2,268.75
101-299-818.000	WASTE DISPOSAL -TWP HALL	WASTE MANAGEMENT	WASTE DISPOSAL INV 7751512-1734-3	775151217343		113.68
101-299-880.000	COMMUNITY PROFILE 2023 REM	HARBOR HOUSE PUBLISHER	COMMUNITY PROFILE - 2023 REMAINING	18026		1,900.00
101-299-890.000	DEDUCTIBLE ON COUNT	ECLAIM TOKIO MARINE HCC	DEDUCTIBLE ON COUNT	ECLAIM HMTP-1122	HMTP-112224RW	1,000.00
101-299-956.000	CONNECT RED FL INK CTG PRI	PITNEY BOWES GLOBAL FI	CONNECT RED FL INK CTG PRD CG333A #	1022757038		531.18
Total For Dept 299 UNALLOCATED						5,908.65
Dept 336 FIRE DEPARTMENT						
101-336-931.000	JET SKI BATTERIES INV 9104	JOHNSON AUTO SUPPLY, I	JET SKI BATTERIES INV 910410	910410		353.98
101-336-931.000	JET SKI BATTERY MAINTAIN	EJOHNSON AUTO SUPPLY, I	JET SKI BATTERY MAINTAINER INV 9104	910441		32.69
Total For Dept 336 FIRE DEPARTMENT						386.67
Dept 722 ZONING & PLANNING						
101-722-726.000	COPIER PRINT CHARGES-ZONIN	IMAGE BUSINESS SOLUTIO	COPIER PRINT CHARGES	239876		1.81
Total For Dept 722 ZONING & PLANNING						1.81
Dept 751 PARKS & RECREATION						
101-751-775.000	PARKS SUPP[LIES	KSS ENTERPRISES	PARKS SUPPLIES INVOICE #1462641	1462641-1		46.94
101-751-818.000	WASTE DISPOSAL -DPW	WASTE MANAGEMENT	WASTE DISPOSAL INV 7751512-1734-3	775151217343		609.31
101-751-880.572	IRON BELLE TRAIL SCHOOL T	IOSCO COUNTY ROAD COMM	IRON BELLE TRAIL SCHOOL TO OLD ORCH.	300385		1,610.19
101-751-880.572	ENGINEERING 2-23-2023-3-22	RICK A FREEMAN, P.E.	ENGINEERING 2-23-2023-3-22-2023	1011		1,842.50
101-751-880.572	IOSCO EXPLORATION TRAIL	ROWE PROFESSIONAL SERV	IOSCO EXPLORATION TRAIL	107402		10,588.75
101-751-931.000	EQUIPT MAINT.	JOHNSON AUTO SUPPLY, I	EQUIPT MAINTANANCE INVOICE #909600	909600		13.80
101-751-931.000	MOWER AND TRIMMER PARTS	JOHNSON AUTO SUPPLY, I	PARKS SUPPLIES INVOICE #910011	910011		251.50
Total For Dept 751 PARKS & RECREATION						14,962.99
Total For Fund 101 GENERAL/UNALLOCATED						21,828.95
Fund 207 POLICE FUND						
Dept 000						
207-000-726.000	COPIER PRINT CHARGES-POLIC	IMAGE BUSINESS SOLUTIO	COPIER PRINT CHARGES	239876		49.67

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Fund 207 POLICE FUND						
Dept 000						
207-000-815.100	WATCHGUARD SERVER REPAIR	MOTOROLA	SERVER REPAIR	8330240651		365.00
207-000-933.000	SERVICE REPAIR FOR VEHICLE	FALCONA MOTORS, INC	VEHICLE REPAIR	67007		478.43
207-000-933.000	POLICE VEHICLE OIL INV. #1	JOHNSON AUTO SUPPLY, I	POLICE VEHICLE OIL	910064		203.94
Total For Dept 000						1,097.04
Total For Fund 207 POLICE FUND						1,097.04
Fund 236 PROP OPER & MNTNCE						
Dept 266 PROPERTY O & M MAINTENANCE						
236-266-801.000	ENGINEERING 2-23-2023-3-22	RICK A FREEMAN, P.E.	ENGINEERING 2-23-2023-3-22-2023	1011		1,223.75
236-266-890.000	SALT FEBRUARY 2023	IOSCO COUNTY ROAD COMM	SAND SALT OSCODA	200202		233.73
236-266-890.000	SALT JANUARY 2023	IOSCO COUNTY ROAD COMM	SAND SALT OSCODA	200201		95.10
Total For Dept 266 PROPERTY O & M MAINTENANCE						1,552.58
Total For Fund 236 PROP OPER & MNTNCE						1,552.58
Fund 271 LIBRARY						
Dept 000						
271-000-802.000	WASTE DISPOSAL - LIBRARY	WASTE MANAGEMENT	WASTE DISPOSAL INV 7751512-1734-3	775151217343		24.72
Total For Dept 000						24.72
Total For Fund 271 LIBRARY						24.72
Fund 509 OLD ORCHARD PARK						
Dept 000						
509-000-726.000	COPIER PRINT CHARGES - OOI	IMAGE BUSINESS SOLUTIO	COPIER PRINT CHARGES	239876		0.08
509-000-803.000	OLD ORCHARD WATER SAMPLES	HSRUA	OLD ORCHARD WATER SAMPLES MARCH 202	20230329		22.00
509-000-922.000	PROPANE MAINT BARN INV 342	GARY OIL COMPANY	PROPANE MAINT BARN INV 342207	342207		249.16
509-000-933.000	FILTERS INV 71881	DON'S TRACTOR & EQUIPM	FILTERS INV 71881	71881		206.26
509-000-933.000	OIL AND FILTERS INV 71880	DON'S TRACTOR & EQUIPM	OIL AND FILTERS INV 71880	71880		243.10
Total For Dept 000						720.60
Total For Fund 509 OLD ORCHARD PARK						720.60
Fund 590 SEWER						
Dept 000						
590-000-821.000	ENGINEERING 2-23-2023-3-22	RICK A FREEMAN, P.E.	ENGINEERING 2-23-2023-3-22-2023	1011		515.63
Total For Dept 000						515.63
Total For Fund 590 SEWER						515.63
Fund 591 WATER						
Dept 000						
591-000-726.000	COPIER PRINT CHARGES-WATE	IMAGE BUSINESS SOLUTIO	COPIER PRINT CHARGES	239876		8.18
591-000-821.000	ENGINEERING 2-23-2023-3-22	RICK A FREEMAN, P.E.	ENGINEERING 2-23-2023-3-22-2023	1011		515.62
Total For Dept 000						523.80
Total For Fund 591 WATER						523.80

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			Fund Totals:				
			Fund 101 GENERAL/UNALLOCATED			21,828.95	
			Fund 207 POLICE FUND			1,097.04	
			Fund 236 PROP OPER & MNTNCE			1,552.58	
			Fund 271 LIBRARY			24.72	
			Fund 509 OLD ORCHARD PARK			720.60	
			Fund 590 SEWER			515.63	
			Fund 591 WATER			523.80	
			Total For All Funds:			26,263.32	

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Fund 101 GENERAL/UNALLOCATED						
Dept 172 SUPERINTENDENT						
101-172-726.000	MXB450P-ADMIN PRINTER	WELLS FARGO VENDOR	FIN COPIER/PRINTER LEASE PAYMENTS	524363465		22.50
Total For Dept 172 SUPERINTENDENT						22.50
Dept 215 CLERK						
101-215-726.000	MX B450P-CLERKS PRINTER	WELLS FARGO VENDOR	FIN COPIER/PRINTER LEASE PAYMENTS	524363465		22.50
Total For Dept 215 CLERK						22.50
Dept 253 TREASURER						
101-253-726.000	MX 3071-TREASURERS COPIER	WELLS FARGO VENDOR	FIN COPIER/PRINTER LEASE PAYMENTS	524363465		159.45
Total For Dept 253 TREASURER						159.45
Dept 257 ASSESSOR						
101-257-726.000	MX-3071-ASSESSOR COPIER	WELLS FARGO VENDOR	FIN COPIER/PRINTER LEASE PAYMENTS	524363465		178.47
Total For Dept 257 ASSESSOR						178.47
Dept 265 TOWNSHIP HALL & GROUNDS						
101-265-726.000	SUPPLIES	AUSABLE HARDWARE & SUR	PAINT SUPPLIES	275722		43.76
101-265-726.000	SUPPLIES	AUSABLE HARDWARE & SUR	KEY CUTTING	278011		1.89
101-265-726.000	SUPPLIES	AUSABLE HARDWARE & SUR	WEATHERSTRIP/ 5 GAL PLATINUM B&C	279777		114.39
101-265-775.000	REPAIR & MAINTENANCE SUPPL	AUSABLE HARDWARE & SUR	HEAVY DUTY HOSE COUPLING	277252		6.52
101-265-853.000	TELEPHONE & INTERNET	SPECTRUM BUSINESS	4466 MCNICHOL AVE	0074994031723		163.85
101-265-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	110 S STATE ST	204300538838		1,256.52
101-265-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	6703 N PERIMETER RD	201096937053		81.52
101-265-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	415 N LAKE ST	205368384346		28.81
101-265-922.000	UTILITIES - GAS	DTE ENERGY	110 S STATE ST	91002076578000961		960.19
101-265-923.000	UTILITIES - WATER	OSCODA WATER & SEWER	4468 MCNICHOL AVE DPW GARAGE	0100565000040120:		87.36
101-265-923.000	UTILITIES - WATER	OSCODA WATER & SEWER	4466 MCNICHOL AVE 2	0100575200040120:		140.29
101-265-923.000	UTILITIES - WATER	OSCODA WATER & SEWER	110 S STATE ST	01208150000040121		166.05
101-265-930.000	REPAIRS & MAINTENANCE	AUSABLE HARDWARE & SUR	5 OZ ULTRA CLEAR FLX SLNT	276271		7.62
101-265-930.000	REPAIRS & MAINTENANCE	AUSABLE HARDWARE & SUR	PAINT BRUSHES/ CERAMIC BELT	277320		41.30
Total For Dept 265 TOWNSHIP HALL & GROUNDS						3,100.07
Dept 276 CEMETERY						
101-276-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	1356 ADAMS RD	203766568902		28.81
101-276-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	1361 ADAMS RD	20376656890.		42.08
Total For Dept 276 CEMETERY						70.89
Dept 299 UNALLOCATED						
101-299-726.200	MX 6071-MAIN COPIER	WELLS FARGO VENDOR	FIN COPIER/PRINTER LEASE PAYMENTS	524363465		291.26
101-299-880.000	COMMUNITY PROMOTION	CONSUMERS ENERGY	104 W DWIGHT ST	205813298008		29.50
101-299-880.000	COMMUNITY PROMOTION	CONSUMERS ENERGY	6840 N HURON RD	203677607652		28.81
101-299-926.000	STREET LIGHTS	CONSUMERS ENERGY	103 E DWIGHT ST	204923461751		49.55
101-299-926.000	STREET LIGHTS	CONSUMERS ENERGY	112 E RIVER RD	204300538835		40.71
101-299-926.000	STREET LIGHTS	CONSUMERS ENERGY	101 E DIVISON AVE	205813299999		91.87
101-299-926.000	STREET LIGHTS	CONSUMERS ENERGY	210 W RIVER RD	205279382698		36.01
101-299-926.000	STREET LIGHTS	CONSUMERS ENERGY	109 E RIVER RD	201630787061		37.79
101-299-926.000	STREET LIGHTS	CONSUMERS ENERGY	105 N LAKE ST	205101408074		39.61
101-299-926.000	STREET LIGHTS	CONSUMERS ENERGY	106 N STATE ST	206613967297		29.50
101-299-926.000	STREET LIGHTS	CONSUMERS ENERGY	300 STATE ST SW #2	206613967299		90.64
101-299-926.000	STREET LIGHTS	CONSUMERS ENERGY	102 EVERGREEN AVE	205279378930		30.87
101-299-926.000	STREET LIGHTS	CONSUMERS ENERGY	112 W RIVER RD	204300535513		14.04
101-299-926.000	STREET LIGHTS	CONSUMERS ENERGY	100 PACK ST	201897764080		76.20
101-299-926.000	STREET LIGHTS	CONSUMERS ENERGY	5230 N US HIGHWAY 23	201897764079		66.05

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Fund 101 GENERAL/UNALLOCATED							
Dept 299 UNALLOCATED							
101-299-926.000	STREET LIGHTS	CONSUMERS ENERGY	48750 LED LIGHT RD	204745479417		281.46	
101-299-926.000	STREET LIGHTS	CONSUMERS ENERGY	STREET LIGHTS	204211547793		152.18	
101-299-956.000	MISCELLANEOUS	DTE ENERGY	4051 ARROW ST	91002076598800051		50.06	
101-299-956.000	WATER	OSCODA WATER & SEWER	4003 SKEEL AVE	0140583800040120:		14.96	
Total For Dept 299 UNALLOCATED						1,451.07	
Dept 722 ZONING & PLANNING							
101-722-726.000	MX B450P-ZONING PRINTER	WELLS FARGO VENDOR FIN	COPIER/PRINTER LEASE PAYMENTS	524363465		45.00	
Total For Dept 722 ZONING & PLANNING						45.00	
Dept 751 PARKS & RECREATION							
101-751-726.000	SUPPLIES	AUSABLE HARDWARE & SUR	LAG SCREWS	275820		25.77	
101-751-726.000	SUPPLIES	AUSABLE HARDWARE & SUR	HUNTER GREEN ENAMEL	276068		16.12	
101-751-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	304 W RIVER RD	204300538842		34.06	
101-751-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	304 E RIVER RD BATH HOUSE	205279382699		95.48	
101-751-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	212 CANADA ST	204300539014		28.81	
101-751-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	3921 E PERIMETER RD	201096937051		28.81	
101-751-922.000	UTILITIES - GAS	DTE ENERGY	300 W RIVER RD	92000320212300051		50.06	
101-751-923.000	UTILITIES - WATER	OSCODA WATER & SEWER	OSCODA SPLASH PARK	0120247500040120:		25.43	
101-751-923.000	UTILITIES - WATER	OSCODA WATER & SEWER	CENTER DIAMOND - PERIMETER	0140758500040120:		25.43	
101-751-923.000	UTILITIES - WATER	OSCODA WATER & SEWER	FAR DIAMOND PERIMETER	0140758700040120:		25.43	
101-751-923.000	UTILITIES - WATER	OSCODA WATER & SEWER	BASEBALL FIELD PERIMETER	0140758000040320:		69.23	
101-751-923.000	UTILITIES - WATER	OSCODA WATER & SEWER	BMX TRACK	0140611500040120:		14.96	
101-751-923.000	UTILITIES - WATER	OSCODA WATER & SEWER	OSCODA BEACH PARK	0120240000040120:		69.23	
101-751-930.000	REPAIRS & MAINTENANCE	AUSABLE HARDWARE & SUR	WIRE ROPE CLIP/ CTD CABLE	276920		44.78	
Total For Dept 751 PARKS & RECREATION						553.60	
Dept 753 FOOTE SITE PARK							
101-753-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	1695 E RIVER RD	205902321896		37.53	
Total For Dept 753 FOOTE SITE PARK						37.53	
Dept 754 KEN RATLIFF PARK							
101-754-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	6330 F 41	204923455624		39.56	
101-754-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	6288 F 41	204923455625		28.81	
101-754-923.000	UTILITIES - WATER	OSCODA WATER & SEWER	6341 F 41	0090166900040120:		25.43	
101-754-923.000	UTILITIES - WATER	OSCODA WATER & SEWER	6330 F 41	009016700040120:		50.43	
Total For Dept 754 KEN RATLIFF PARK						144.23	
Total For Fund 101 GENERAL/UNALLOCATED						5,785.31	
Fund 207 POLICE FUND							
Dept 000							
207-000-726.000	MX B450P-SQUAD ROOM PRINTF	WELLS FARGO VENDOR FIN	COPIER/PRINTER LEASE PAYMENTS	524363465		22.50	
Total For Dept 000						22.50	
Total For Fund 207 POLICE FUND						22.50	
Fund 211 POLICE STAFFING FUND							
Dept 000							
211-000-726.000	MX B450P-SEARGENTS PRINTF	WELLS FARGO VENDOR FIN	COPIER/PRINTER LEASE PAYMENTS	524363465		22.50	
Total For Dept 000						22.50	
Total For Fund 211 POLICE STAFFING FUND						22.50	

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Fund 236 PROP OPER & MNTNCE						
Dept 269						
236-269-926.000	STREET LIGHT CONTRACT	CONSUMERS ENERGY	4000 SKEEL AVE	201096937056		189.96
236-269-926.000	STREET LIGHT CONTRACT	CONSUMERS ENERGY	STREET LIGHTS	204211547804		217.94
Total For Dept 269						407.90
Total For Fund 236 PROP OPER & MNTNCE						407.90
Fund 271 LIBRARY						
Dept 000						
271-000-853.000	LIBRARY PHONE	CHARTER COMMUNICATIONS	6010 N SKEEL AVE	0075793032923		49.99
271-000-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	6010 N SKEEL AVE	201096937058		426.54
271-000-922.000	UTILITIES - GAS	DTE ENERGY	6010 N SKEEL AVE BLDG 418	91002076566500471		470.24
271-000-923.000	UTILITIES - WATER/SEWER	OSCODA WATER & SEWER	6010 SKEEL AVE 418 BLD ROBERT J PAR	0140593500040120:		88.26
Total For Dept 000						1,035.03
Total For Fund 271 LIBRARY						1,035.03
Fund 509 OLD ORCHARD PARK						
Dept 000						
509-000-726.000	SHARP PRINTER OOP	WELLS FARGO VENDOR FIN	SHARP PRINTER INV	5024363466		35.00
509-000-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	743 E RIVER RD	201185910767		135.66
509-000-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	745 E RIVER RD	202787669266		73.01
509-000-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	837 E RIVER RD	205902321892		77.16
509-000-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	883 E RIVER RD	205902321893		54.53
509-000-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	889 E RIVER RD	205902321894		280.54
509-000-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	635 W RIVER RD	205991267499		113.89
509-000-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	791 E RIVER RD	205991267500		80.35
509-000-921.000	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	1001 E RIVER RD	205902321895		73.01
509-000-930.000	REPAIRS & MAINTENANCE	AUSABLE HARDWARE & SUR	LUMBER/PLUBMING/PAINTING SUPLIES	275025		149.18
509-000-930.000	REPAIRS & MAINTENANCE	AUSABLE HARDWARE & SUR	LED LIGHTS	275193		35.62
509-000-930.000	REPAIRS & MAINTENANCE	AUSABLE HARDWARE & SUR	KEY CUTTING- 2	276062		11.86
509-000-930.000	REPAIRS & MAINTENANCE	AUSABLE HARDWARE & SUR	GALV PIPE/CONDUIT/ COUPLING	277008		51.18
Total For Dept 000						1,170.99
Total For Fund 509 OLD ORCHARD PARK						1,170.99
Fund 590 SEWER						
Dept 000						
590-000-726.000	MX B450P-WATER DEPT PRINT	WELLS FARGO VENDOR FIN	COPIER/PRINTER LEASE PAYMENTS	524363465		11.25
590-000-853.000	CONTROL ACCOUNT 110 S STA	SPECTRUM BUSINESS	CONTROL ACCOUNT 110 S STATE ST	0028271040123		99.98
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	3563 E RIVER RD	202253763541		28.81
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	202 E DWIGHT ST #2	205813300005		49.55
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	421 W MICHIGAN AVE	21185905799		56.05
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	719 W RIVER RD #7	201630787063		57.17
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	4107 E RIVER RD #6	25279381046		43.48
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	2998 HUNT	207058487980		3,955.65
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	5176 HAMILTON ST #4	207058487981		613.23
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	4221 PERIMETER RD	207058487982		1,460.66
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	4877 ERIE ST #9	202965639213		38.58
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	4466 MCNICHOL AVE	207147047514		94.93
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	4367 BUDZIAK RD UNIT 8	206880759276		63.94
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	4181 FOREST RD	21096937038		62.14
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	6197 N HOBEY CT	201096937042		37.53
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	3525 E HUNT DR	201096937043		31.85

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Fund 590 SEWER						
Dept 000						
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	5861 N MISSION ST	201096937048		76.39
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	3930 E PERIMETER RD	201096937052		204.06
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	6250 N PRIDE RD	201096937055		40.97
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	4451 F 41 #5	204834462681		60.75
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	3941 BISSONETTE RD BLDG 9012	203944563154		285.11
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	4781 N COLORADO ST	205813296346		341.55
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	5621 N IDAHO ST	204567498911		55.51
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	210 OTTAWA CT #3	203410634694		45.96
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	4499 MCNICHOL AVE	205368384347		400.14
590-000-921.100	UTILITIES - ELECTRICITY	CONSUMERS ENERGY	3782 CREW ST	2010008215754		33.10
590-000-922.100	UTILITIES - GAS	DTE ENERGY	4466 MCNICHOL AVE	91002076553300531		530.97
Total For Dept 000						8,779.31
Total For Fund 590 SEWER						8,779.31
Fund 591 WATER						
Dept 000						
591-000-726.000	MX B450P - WATER DEPT PRIN	WELLS FARGO VENDOR FIN	COPIER/PRINTER LEASE PAYMENTS	524363465		11.25
591-000-921.000	UTILITIES - ELECTRIC	CONSUMERS ENERGY	3820 E RIVER RD	205190726514		248.19
591-000-921.000	UTILITIES - ELECTRIC	CONSUMERS ENERGY	6591 F 41	202075758030		28.81
Total For Dept 000						288.25
Total For Fund 591 WATER						288.25



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			Fund Totals:				
			Fund 101 GENERAL/UNALLOCATED			5,785.31	
			Fund 207 POLICE FUND			22.50	
			Fund 211 POLICE STAFFING FUND			22.50	
			Fund 236 PROP OPER & MNTNCE			407.90	
			Fund 271 LIBRARY			1,035.03	
			Fund 509 OLD ORCHARD PARK			1,170.99	
			Fund 590 SEWER			8,779.31	
			Fund 591 WATER			288.25	
			Total For All Funds:			17,511.79	

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Fund 101 GENERAL/UNALLOCATED						
Dept 101 TOWNSHIP BOARD						
101-101-956.000	TRUSTEE AD 303877191	IOSCO NEWS PRESS PUB C	TRUSTEE AD 303877191	303877191		83.52
101-101-956.000	TRUSTEE AD 303877410	IOSCO NEWS PRESS PUB C	TRUSTEE AD 303877410	303877410		83.52
Total For Dept 101 TOWNSHIP BOARD						167.04
Dept 172 SUPERINTENDENT						
101-172-853.000	KLINE PHONE	AT&T MOBILITY	MARCH BILL	2873113787460319:		49.20
101-172-900.000	PRINTING BUSINESS CARDS	IOSCO NEWS PRESS PUB C	PRINTING BUSINESS CARDS INV 3038774	303877442		88.00
Total For Dept 172 SUPERINTENDENT						137.20
Dept 215 CLERK						
101-215-860.000	IOSCO COUNTY - ELECTIONS	JOSHUA SUTTON	IOSCO COUNTY - ELECTIONS DROP OFF/P	03202023		40.00
Total For Dept 215 CLERK						40.00
Dept 257 ASSESSOR						
101-257-801.100	CONSULTING - LAND DIVISION	NORTHERN ASSESSING CON	ASSESSING SEVICES CONSULTING COMB/S	9053115		120.00
101-257-890.000	BOARD OF REVIEW INV 30387	IOSCO NEWS PRESS PUB C	BOARD OF REVIEW INV 303870423	303870423		80.50
101-257-890.000	BOARD OF REVIEW INV 30387	IOSCO NEWS PRESS PUB C	BOARD OF REVIEW INV 303870247	303870247		80.50
Total For Dept 257 ASSESSOR						281.00
Dept 265 TOWNSHIP HALL & GROUNDS						
101-265-801.000	CUSTODIAN WANT AD INV 3038	IOSCO NEWS PRESS PUB C	CUSTODIAN WANT AD INV 303870282	303870282		57.50
101-265-801.000	CUSTODIAN WANT AD INV 3038	IOSCO NEWS PRESS PUB C	CUSTODIAN WANT AD INV 303870438	303870438		57.50
101-265-801.000	CUSTODIAN WANT AD INV 3038	IOSCO NEWS PRESS PUB C	CUSTODIAN WANT AD INV 303870610	303870610		57.50
101-265-853.000	BILL PHONE	AT&T MOBILITY	MARCH BILL	2873113787460319:		49.20
101-265-853.000	TELEPHONE	SPECTRUM BUSINESS	4221 PERIMETER RD	0073897040623		38.54
Total For Dept 265 TOWNSHIP HALL & GROUNDS						260.24
Dept 336 FIRE DEPARTMENT						
101-336-890.000	FIREFIGHTER JOB POSTING	IOSCO NEWS PRESS PUB C	FIREFIGHTER JOB POSTING INV 3038702	303870232		34.50
101-336-890.000	FIREFIGHTER JOB POSTING	IOSCO NEWS PRESS PUB C	FIREFIGHTER JOB POSTING INV 3038704	303870416		34.50
101-336-980.000	CAPTAIN JIM HOODS INV 2975	WEST SHORE FIRE	CAPTAIN JIM HOODS INV 29759	29759		1,481.69
Total For Dept 336 FIRE DEPARTMENT						1,550.69
Dept 722 ZONING & PLANNING						
101-722-860.000	MILEAGE FOR TRAINING	CHRISTINE BECKNER	MILEAGE TO AND FROM FRANKENMUTH	03162023		142.79
101-722-860.000	MILEAGE TO TRAINING	ROBERT TASIOR	MILEAGE TO AND FROM FRANKEMUTH	03162023		142.50
101-722-900.000	PUBLIC NOTICE INVOICE 0095	IOSCO NEWS PRESS PUB C	PUBLIC NOTICE 303877175	303877175		167.05
101-722-900.000	PUBLIC NOTICE INVOICE 0095	IOSCO NEWS PRESS PUB C	PUBLIC NOTICE 303870456	303870456		83.52
101-722-900.000	PUBLIC NOTICE INVOICE 0095	IOSCO NEWS PRESS PUB C	PUBLIC NOTICE 303870276	303870276		154.20
101-722-900.000	PUBLIC NOTICE INVOICE 0095	IOSCO NEWS PRESS PUB C	PUBLIC NOTICE 303870277	303870277		179.90
Total For Dept 722 ZONING & PLANNING						869.96
Total For Fund 101 GENERAL/UNALLOCATED						3,306.13
Fund 207 POLICE FUND						
Dept 000						
207-000-761.000	POLICE UNIFORM (CHIEF) #02	GALLS INCORPORATED	POLICE UNIFORM (CHIEF)	024019112		35.17
207-000-761.000	POLICE UNIFORM (KYLE) INV.	GALLS INCORPORATED	POLICE UNIFORM/EQUIPMENT	023930683		53.73
207-000-761.000	POLICE UNIFORM (SIMMONS) IN	GALLS INCORPORATED	POLICE UNIFORM/EQUIPMENT	023914422		222.57
207-000-801.200	USER FEES	LEXIS NEXIS RISK SOLUT	USER FEES	1593757-20233031		241.90
207-000-853.000	BIRCHMEIER PHONE	AT&T MOBILITY	MARCH BILL	2873113787460319:		910.88
207-000-960.000	MEAL REIMBURSEMENT (TRAINI	ROB CLINK	MILEAGE / MEALS REIMBURSEMENT FOR T	03272023		117.00
207-000-980.000	FLASHLIGHT BATTERIES INVOI	GALLS INCORPORATED	POLICE UNIFORM/EQUIPMENT	023942161-239421:		93.49

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Fund 207 POLICE FUND						
Dept 000			Total For Dept 000			1,674.74
			Total For Fund 207 POLICE FUND			1,674.74
Fund 211 POLICE STAFFING FUND						
Dept 000						
211-000-761.000	POLICE UNFIORM (GALLAHAR)	GALLS INCORPORATED	POLICE UNIFORM/EQUIPMENT	023942122		70.93
211-000-853.000	MCNICHOL PHONE	AT&T MOBILITY	MARCH BILL	2873113787460319:		44.17
			Total For Dept 000			115.10
			Total For Fund 211 POLICE STAFFING FUND			115.10
Fund 236 PROP OPER & MNTNCE						
Dept 266 PROPERTY O & M MAINTENANCE						
236-266-801.000	HOT SPOT	AT&T MOBILITY	MARCH BILL	2873113787460319:		38.23
			Total For Dept 266 PROPERTY O & M MAINTENANCE			38.23
Dept 271 PROPERTY O & M AUNE						
236-271-802.000	AUNE JANITORIAL SERVICES	MALPENA MARC LLC	AUNE JANITORIAL SERVICES MARCH 2023	2872		4,379.99
			Total For Dept 271 PROPERTY O & M AUNE			4,379.99
			Total For Fund 236 PROP OPER & MNTNCE			4,418.22
Fund 271 LIBRARY						
Dept 000						
271-000-801.000	LIBRARY SECURITY MAY,JUNE,MCD SECURITY INC		LIBRARY SECURITY MAY,JUNE,JULY INV	2554		78.00
			Total For Dept 000			78.00
			Total For Fund 271 LIBRARY			78.00
Fund 509 OLD ORCHARD PARK						
Dept 000						
509-000-803.000	LICENSE	MICHIGAN DEPARTMENT OF FOOD ESTABLISHMENT	LICENSE APPLICAT	11979		186.00
509-000-818.000	BATHHOUSE 1	OSCODA SEPTIC TANK SER	BATHHOUSE 2 INV 4723	4723		800.00
			Total For Dept 000			986.00
			Total For Fund 509 OLD ORCHARD PARK			986.00
Fund 590 SEWER						
Dept 000						
590-000-800.100	FVOP O&M	F&V OPERATIONS	FVOP O&M APRIL 2023 INV 5824	5824		27,353.00
590-000-853.000	SEWER I PAD	AT&T MOBILITY	MARCH BILL	2873113787460319:		38.23
590-000-900.000	RFQ INV 303877433	IOSCO NEWS PRESS PUB C	RFQ INV 303877433	303877433		154.20
590-000-900.000	RFQ INV 303870253	IOSCO NEWS PRESS PUB C	RFQ INV 303870253	303870253		192.75
590-000-900.000	RFQ INV 303877206	IOSCO NEWS PRESS PUB C	RFQ INV 303877206	303877206		160.20
			Total For Dept 000			27,898.38
			Total For Fund 590 SEWER			27,898.38
Fund 591 WATER						
Dept 000						
591-000-800.100	FVOP O&M	F&V OPERATIONS	FVOP O&M APRIL 2023 INV 5824	5824		27,353.00
591-000-853.000	WATER I PAD	AT&T MOBILITY	MARCH BILL	2873113787460319:		82.40
591-000-900.000	RFQ INV 303877433	IOSCO NEWS PRESS PUB C	RFQ INV 303877433	303877433		154.20
591-000-900.000	RFQ INV 303870253	IOSCO NEWS PRESS PUB C	RFQ INV 303870253	303870253		192.75

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INVOICE GL DISTRIBUTION REPORT FOR OSCODA TOWNSHIP  
POST DATES 12/31/2022 - 04/18/2023  
BOTH JOURNALIZED AND UNJOURNALIZED  
OPEN

GL Number	Inv. Line Desc	Vendor	Invoice Desc.	Invoice	Chk Date	Amountcheck #
Fund 591 WATER Dept 000 591-000-900.000	RFQ INV 303877206	IOSCO NEWS PRESS PUB C	RFQ INV 303877206	303877206		160.20
			Total For Dept 000			27,942.55
			Total For Fund 591 WATER			27,942.55

Page: 4 / 4

GL Number	Inv. Line Desc	Vendor	Invoice Desc.	Invoice	Chk Date	Amount	check #
			Fund Totals:				
			Fund 101 GENERAL/UNALLOCATED			3,306.13	
			Fund 207 POLICE FUND			1,674.74	
			Fund 211 POLICE STAFFING FUND			115.10	
			Fund 236 PROP OPER & MNTNCE			4,418.22	
			Fund 271 LIBRARY			78.00	
			Fund 509 OLD ORCHARD PARK			986.00	
			Fund 590 SEWER			27,898.38	
			Fund 591 WATER			27,942.55	
			Total For All Funds:			66,419.12	

Post Date	Journal	Description	GL Number	GL Description	DR Amount	CR Amount
04/04/2023	CD	CAPITALONE PUBLIC FUNDING, LLC	Check: S B&I 12(E)			
AP Trx #: 86534		PO BOX 2400 HICKSVILLIE NY 11802				
		SEWER B & I	590-000-010.001	SEWER B & I		105,751.10
		2011 REFUNDING BOND-LT	590-000-310.000	2011 REFUNDING BOND-LT	100,000.00	
		BOND INTEREST EXPENSE	590-000-995.000	BOND INTEREST EXPENSE	5,751.10	
					<hr/>	<hr/>
					105,751.10	105,751.10
					<hr/>	<hr/>
					105,751.10	105,751.10
TOTALS:		SEWER B & I	590-000-010.001			105,751.10
		2011 REFUNDING BOND-LT	590-000-310.000		100,000.00	
		BOND INTEREST EXPENSE	590-000-995.000		5,751.10	
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					105,751.10	105,751.10
GRAND TOTAL:					<hr/>	<hr/>

Post Date	Journal	Description	GL Number	GL Description	DR Amount	CR Amount
04/04/2023	CD	U.S. BANK	Check: WWTLD 15 (E)			
AP Trx #: 86535		CM-9690 PO BOX 70870 ST PAUL MN 55170-9690				
		CASH - WWTL DEBT RETIREMENT	590-000-010.003	CASH - WWTL DEBT RETIREM		2,485.00
		WWTL BOND INTEREST 2015 IMPRV	590-000-995.400	WWTL BOND INTEREST 2015	2,485.00	
					<hr/>	<hr/>
					2,485.00	2,485.00
					<hr/>	<hr/>
					2,485.00	2,485.00
TOTALS:		CASH - WWTL DEBT RETIREMENT	590-000-010.003			2,485.00
		WWTL BOND INTEREST 2015 IMPRV	590-000-995.400		2,485.00	
					<hr/>	<hr/>
					2,485.00	2,485.00
GRAND TOTAL:					<hr/>	<hr/>

Post Date	Journal	Description	GL Number	GL Description	DR Amount	CR Amount
04/12/2023	CD	WILSON, DIANNE	Check: TAX 3141			
AP Trx #: 86619		6041 WEST SHORE DR OSCODA MI 48750				
		OVERPAY WINTER 2022 7383 F41	703-000-001.100	CASH - TAX AUTOSWEEP		242.19
		OVERPAY WINTER 2022 7383 F41	703-000-275.000	OVERPAYMENTS OF TAX BIL	242.19	
					<hr/>	<hr/>
					242.19	242.19
					<hr/>	<hr/>
					242.19	242.19
TOTALS:		CASH - TAX AUTOSWEEP	703-000-001.100			242.19
		OVERPAYMENTS OF TAX BILLS	703-000-275.000		242.19	
					<hr/>	<hr/>
					242.19	242.19
GRAND TOTAL:					<hr/>	<hr/>



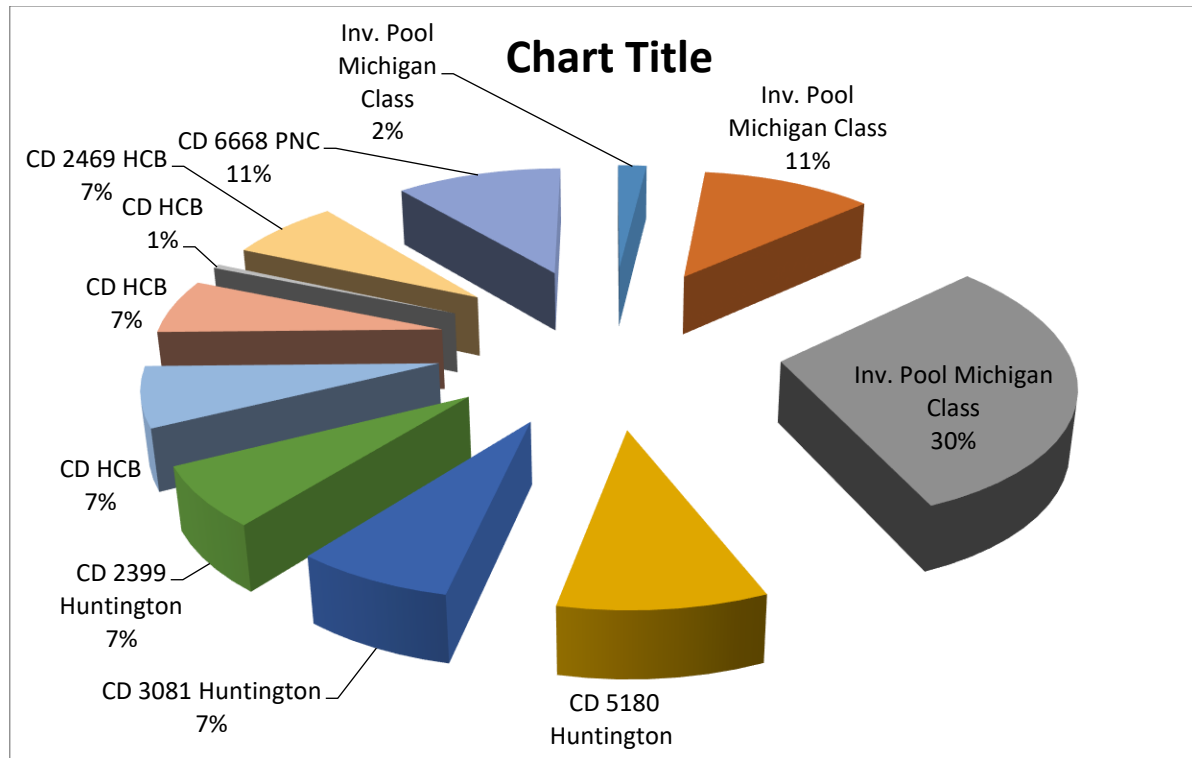
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## Investment Portfolio Holdings

March 31, 2023

Investment							
Type	Instituion	Value	% Portfolio	Purchase Date	Maturity Date	Days	CURRENT RATE
Inv. Pool	Michigan Class	\$109,541.45	2%	N/A	N/A	N/A	4.85%
Inv. Pool	Michigan Class	\$660,145.00	11%	N/A	N/A	N/A	4.85%
Inv. Pool	Michigan Class	\$1,752,454.02	30%	N/A	N/A	N/A	4.85%
CD 5180	Huntington	\$557,675.51	10%	2/1/2022	8/1/2023	546	0.01%
CD 3081	Huntington	\$425,763.25	7%	7/12/2022	7/11/2023	364	1.00%
CD 2399	Huntington	\$402,932.49	7%	12/20/2022	6/20/2024	548	4.00%
CD	HCB	\$405,665.95	7%	8/29/2022	6/1/2023	276	0.74%
CD	HCB	\$372,445.56	6%	8/29/2022	6/1/2023	276	0.74%
CD	HCB	\$29,047.95	1%	8/8/2020	9/8/2023	1126	0.55%
CD 2469	HCB	\$423,525.76	7%	10/17/2022	11/17/2023	396	2.10%
CD 6668	PNC	\$637,492.66	11%	2/6/2023	8/6/2023	180	4.05%
Total		<u><u>\$5,776,689.60</u></u>					

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Post Date	Journal	Description	GL Number	GL Description	DR Amount	CR Amount
04/11/2023	CD	WEX BANK	Check: GEN 328 (E)			
AP Trx #: 86617		PO BOX 6293 CAROL STREAM IL 60197				
		DPW FUEL TJ	101-000-003.005	MUN. MUTUAL INV - SAVIN		2,356.63
		DPW FUEL AC	101-265-751.000	GASOLINE & OIL	360.17	
		DPW FUEL BH	101-276-751.000	GASOLINE & OIL	249.89	
		FINANCE CHARGES WEX MARCH 2023	101-299-801.000	PROFESSIONAL FEES	814.22	
		OTFD FUEL	101-336-751.000	GASOLINE & OIL	248.32	
		MILEAGE ALLOW/TRANSPORTATION	101-722-860.000	MILEAGE ALLOW/TRANSPORT	34.01	
		DPW FUEL TJ	101-751-751.000	GASOLINE & OIL	404.84	
		DPW FUEL KK	101-754-751.000	GASOLINE & OIL	245.18	
		OTPD FUEL	207-000-003.005	MUN. MUTUAL INV. - SA		5,470.47
		OTPD FUEL	207-000-751.000	GASOLINE & OIL	5,470.47	
		OOP FUEL	509-000-003.005	MUN MUTUAL INV SAV OLD		315.94
		OOP FUEL	509-000-751.000	GASOLINE & OIL	315.94	
					<u>8,143.04</u>	<u>8,143.04</u>
					8,143.04	8,143.04
TOTALS:		MUN. MUTUAL INV - SAVINGS	101-000-003.005			2,356.63
		GASOLINE & OIL	101-265-751.000		360.17	
		GASOLINE & OIL	101-276-751.000		249.89	
		PROFESSIONAL FEES	101-299-801.000		814.22	
		GASOLINE & OIL	101-336-751.000		248.32	
		MILEAGE ALLOW/TRANSPORTATION	101-722-860.000		34.01	
		GASOLINE & OIL	101-751-751.000		404.84	
		GASOLINE & OIL	101-754-751.000		245.18	
		MUN. MUTUAL INV. - SAVINGS	207-000-003.005			5,470.47
		GASOLINE & OIL	207-000-751.000		5,470.47	
		MUN MUTUAL INV SAV OLD ORCH PK	509-000-003.005			315.94
		GASOLINE & OIL	509-000-751.000		315.94	
GRAND TOTAL:					<u>8,143.04</u>	<u>8,143.04</u>

Post Date	Journal	Description	GL Number	GL Description	DR Amount	CR Amount
03/28/2023	CD	ROWE PROFESSIONAL SERVICES COMPANY	Check: C2R2 1016			
AP Trx #: 86470		540 S SAGINAW ST SUITE 200 FLINT MI 48502				
		C2R2 ROWE INV. 0107605	591-000-003.011	C2R2 MUN. WATER SAVINGS		1,215.00
		C2R2 ROWE INV. 0107605	591-000-300.100	C2R2 LONG TERM BONDS PA	1,215.00	
					<u>1,215.00</u>	<u>1,215.00</u>
					<u>1,215.00</u>	<u>1,215.00</u>
TOTALS:		C2R2 MUN. WATER SAVINGS	591-000-003.011			1,215.00
		C2R2 LONG TERM BONDS PAYABLE	591-000-300.100		1,215.00	
			GRAND TOTAL:		<u>1,215.00</u>	<u>1,215.00</u>

Post Date	Journal	Description	GL Number	GL Description	DR Amount	CR Amount
03/28/2023	CD	ROWE PROFESSIONAL SERVICES COMPANY	Check: CWSRF 1045 (E)			
AP Trx #: 86471		540 S SAGINAW ST SUITE 200 FLINT MI 48502				
		CWSRF ROWE INV. 0107610	590-000-010.004	CWSRF - CASH		3,328.35
		CWSRF ROWE INV. 0107610	590-000-310.400	CWSRF - BOND PAYABLE	3,328.35	
					<hr/>	<hr/>
					3,328.35	3,328.35
					<hr/>	<hr/>
					3,328.35	3,328.35
TOTALS:		CWSRF - CASH	590-000-010.004			3,328.35
		CWSRF - BOND PAYABLE	590-000-310.400		3,328.35	
					<hr/>	<hr/>
					3,328.35	3,328.35

Post Date	Journal	Description	GL Number	GL Description	DR Amount	CR Amount
03/31/2023	CD	US BANK	Check: CWSRD 0 (E)			
AP Trx #: 86515		60 LIVINGSTON AVE ST. PAUL MN 55170				
		2021 REFUNDING BOND INT 3/27/23	590-000-006.000	CWSRD DEBT PAYMENTS		43,300.22
		2021 REFUNDING BOND INT 3/27/23	590-000-995.450	2021 REFUNDING BOND INT	43,300.22	
					<u>43,300.22</u>	<u>43,300.22</u>
					<u>43,300.22</u>	<u>43,300.22</u>
TOTALS:		CWSRD DEBT PAYMENTS	590-000-006.000			43,300.22
		2021 REFUNDING BOND INTEREST	590-000-995.450		43,300.22	
					<u>43,300.22</u>	<u>43,300.22</u>
					<u>43,300.22</u>	<u>43,300.22</u>
GRAND TOTAL:					<u>43,300.22</u>	<u>43,300.22</u>

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Post Date	Journal	Description	GL Number	GL Description	DR Amount	CR Amount
03/20/2023	CD	US BANK				
AP Trx #: 86255		60 LIVINGSTON AVE ST. PAUL MN 55170				
		CWSRF CASH	590-000-004.000	CWSRF CASH		96,814.79
		CAPITAL IMPROVEMENTS BONDS 2015A -	590-000-310.100	CAPITAL IMPROVEMENTS BO	80,000.00	
		SRF INTEREST 2015 IMP.	590-000-995.300	SRF INTEREST 2015 IMP.	16,814.79	
					<u>96,814.79</u>	<u>96,814.79</u>
					96,814.79	96,814.79
TOTALS:						
		CWSRF CASH	590-000-004.000			96,814.79
		CAPITAL IMPROVEMENTS BONDS 2015A -	590-000-310.100		80,000.00	
		SRF INTEREST 2015 IMP.	590-000-995.300		16,814.79	
					<u>96,814.79</u>	<u>96,814.79</u>
		GRAND TOTAL:			96,814.79	96,814.79

Post Date	Journal	Description	GL Number	GL Description	DR Amount	CR Amount
03/30/2023	CD	US BANK				
AP Trx #: 86514		60 LIVINGSTON AVE ST. PAUL MN 55170				
		DWRF BOND INTEREST 3/27/23	591-000-003.008	BONDS PAYABLE - #1 EXTE		12,547.73
		DWRF BOND INTEREST 3/27/23	591-000-995.000	BOND INTEREST EXPENSE	12,547.73	
					<u>12,547.73</u>	<u>12,547.73</u>
					12,547.73	12,547.73
TOTALS:					<u>12,547.73</u>	<u>12,547.73</u>
		BONDS PAYABLE - #1 EXTENSION	591-000-003.008			12,547.73
		BOND INTEREST EXPENSE	591-000-995.000		12,547.73	
					<u>12,547.73</u>	<u>12,547.73</u>
		GRAND TOTAL:			<u>12,547.73</u>	<u>12,547.73</u>



**CHARTER TOWNSHIP OF OSCODA  
TOWNSHIP ENGINEERING PROGRESS REPORT**

**April 2023**

**Coordinating with Rowe Professional Services Company**

- **Water Main Projects:** C2R2 funding has been approved at \$9,691,200. Grant period is from 3/3/2021 to 10/1/2025. Monthly reporting and disbursement requests being processed as needed.
  1. **Phase IV (B, G, and F-41 portion of H): Construction is 100% complete.**
    - Officially closed out \$1,485,000 2021 DWRF Loan Project
  2. **Phase III (Woodland, A, and F): Katterman Trucking, Inc.**
    - Construction has been suspended for the winter due to supply chain issues.
    - Pit meters have been delivered.
    - Meter pits are tentatively scheduled for delivery by end of May.
    - C2R2 Reimbursement Request #3 has been submitted.
  3. **Phase V (C, D, and E): Elmer's Crane and Dozer, Inc.**
    - Construction has been suspended for the winter.
    - Pit meters have been delivered.
    - Meter pits are tentatively scheduled for delivery by end of May.
    - C2R2 Reimbursement Request #3 has been submitted.
  4. **Phase VI (H/Colbath): Fall 2022 bid opening.**
    - Final design/construction documents are under review by Township Engineer.
    - Additional right-of-way needed...working with Twp Attorney on acquisition.
    - Construction is planned for Summer/Fall of 2023.
  5. **Township Wide Service Line Project.**
    - Design is being finalized.
    - Construction is planned for Summer/Fall of 2023.
- **Sanitary Sewer System Improvements (CWSRF Program)**
  1. Contractor is completing miscellaneous and punch list items.
  2. Odor control option being reviewed with EGLE.
  3. Reviewing overall remaining budget with Rowe Professional Services Company in preparation for project closeout.
- **2024 CWSRF/DWRF Project Plans:**
  1. Draft 2024 CWSRF Project Plan under public/Township review
  2. 2024 CWSRF Project Plan due to EGLE May 1, 2023.
  3. Work on draft 2024 DWRF Project Plan underway.
- **Phase 3 Trail Project:**
  1. The following steps are underway: Project awarded to Katterman Trucking, Inc.
    - Contractor is nearing completion on earth excavation.
    - Starting trail cross-section base.
    - Progress meeting scheduled for 4/25/23.

#### Coordinating with F & V Operations

1. Coordination on several issues (PFAS, Wastewater System Treatment System, CIP's, Existing Service Line inspections, water loss investigations, etc.)

#### Coordinating with WTA

1. Coordinating with WTA next steps in Facilities Improvement/Consolidation plan.
2. WTA reviewing existing plans and utility information prior to scheduling next on-site visit.

#### TOWNSHIP ENGINEER ACTIVITIES

- Mission Street slip lining project bid/contract documents being reviewed by Township Attorney.
- Old Orchard Campground Projects (restrooms, utility dump station relocation, fishing pier improvements)
- Canada Street – reviewing options for future improvements.
- ORV-xing of River Road – initial contact with ICRC.
- ORV access to local roads – initial contact with ICRC/reviewing ordinances.
- Specific Funding Opportunities/Follow up:
  - Congressional Appropriations – Gary Peters – 2023 APPROVED – working with EPA on upfront process. Looking into opportunities for 2024.
  - MDNR Passport Grant – application submitted for Ken Ratliff Park (Warrior Pavilion & Restrooms)
  - MDNR SPARKS Grant – 1<sup>st</sup> round declined; 2 other opportunities later in 2023.
  - Safe-Routes-to-School (SRTS) – working on next steps with MDOT (2024 funding)
  - USDA- RD Broadband Grant – applications due 6/20/23. Reviewing options.
  - MEDC RAP – applications due 6/30/23. Webinar 4/25.
  - Consumers Energy Planet Grant – declined; other opportunities being explored (parks, trails, shoreline, infrastructure, etc.)
  - Coastal Grant Application (parks, shorelines, etc.)
  - Roadway funding applications (spare tire grants for 2024/SRTS/Act 51, etc.)
  - EDA funding opportunities announced.
  - Forestry Service Grants – reviewing opportunities.

- **Holiday Inn Express Development Site.**
  - 1. Initial contact with site development engineer on revisions to the proposed water connection.
  - 2. Working on receiving up to date permits and site inspection reports from Iosco County Building Dept for review and Township file.
- **Lakewood Shores area**
  - 1. Completing feasibility study for providing water and sewer.
  - 2. Assisting Township/Land Bank in identifying funding/development sources.
- **Falcon (Shelton) Development**
  - 1. Initial investigations for water and sewer services.
  - 2. Assisting Township/Airport Authority in pursuing EDA and MEDC funding sources.
- **Miscellaneous**
  - 1. Reviewing safety practices by Township, consultants, contractors, etc.

# OSCODA CHARTER TOWNSHIP

## EGLE CWSRF Project Plan

May 2023

18C0068

# DRAFT

*Prepared By:*



ROWE PROFESSIONAL  
SERVICES COMPANY

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**ACRONYMS**

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AMP	Asset Management Plan
APE	Area of Potential Effects
CSO	Combined Sewer Overflow
EGLE	Michigan Department of Environment, Great Lakes, and Energy
FVOP	Fleis & VanDenbrink Operations & Resource Management
gpcd	gallons per capita per day
gpd	gallons per day
GPR	Green Project Reserve
I/I	infiltration and inflow
IPP	Industrial Pretreatment Program
MGD	millions of gallons per day
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
OWA	Oscoda Wurtsmith Airport
PFAS	Per- and Polyfluoroalkyl substances
SCADA	Supervisory Control and Data Acquisition
SRF	State Revolving Fund
SSO	sanitary sewer overflow
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VFD	variable frequency drive
WAFB	Wurtsmith Air Force Base
WWTP	wastewater treatment plant

## I. INTRODUCTION AND BACKGROUND

### A. General

Oscoda Charter Township, located in Iosco County, owns and maintains their own sanitary sewer system. This system includes approximately 167,000 feet of gravity sewer, 57,000 feet of force main, 650 manholes, 23 pump stations, and a wastewater lagoon system for treatment according to the 2018 Wastewater Asset Management Plan (AMP). This study has helped to identify the age, lengths, and material of the wastewater system components along with the overall condition of the system. This project involves improvements to a pump stations, manholes, and sewer main rehabilitation along with treating the wastewater stream for **emerging contaminant, PFAS**. The manhole and pipe repairs are intended to reduce the amount of I/I in the system along with help to reduce the **PFAS** in the wastewater lagoons. Some pump stations need upgrades to the pumps and piping while others need to be replaced or rehabilitated and some still need to be fitted with a Supervisory Control and Data Acquisition (SCADA) system.

#### 1. Delineation of the Study Area

As mentioned above, the entire system was reviewed during the AMP. This analysis includes 23 pump stations, 13 of which will be modified and 1 eliminated as a part of the selected alternative for this project plan along with several location of pipe and manhole improvements and improvements to the wastewater lagoon system. For the purposes of this report, these 13 facilities will be collectively referred to as “the pump stations” and the sewer main and manhole improvement locations as “the sewer main improvements,” and the wastewater lagoon system will be referred to as the “wastewater lagoons.” The AMP identified these lift stations as the assets within the system that are in a condition that will require control panel upgrades and/or repair or replacement within the near future. Therefore, the study area as defined within this project plan, will be the impact area around each of the 13 lift stations owned and operated by the Township. The project impacts are in Township 24 N, Range 9 E, Sections 19, 20, 21, 27, 28, 29, 30, 33, 34 and Township 23 N and Range 9 E, Section 3.

Appendix A includes an overall location map of the pump stations, sewer mains, manholes, and wastewater treatment facility improvements throughout the township.

### B. Environmental

The environmental study for this project includes everything within the road rights-of-way and any surrounding areas that may be impacted by the construction of the pump station and sewer main improvements. There are 13 pump station, wastewater lagoon system, and several sewer main locations that are proposed for improvements and all anticipated improvements are to be constructed within the right-of-way or existing township-owned land designated for each pump station. Impacts of this construction would include the land disturbance caused by excavation, the construction work at each location, and the restoration of the disturbed areas adjacent to each improvement.

Appendix A includes aerial photos showing the approximate impact areas around each of the project locations.

## 1. Cultural Resources

A review of the Michigan Historic Sites database does not indicate any known historic properties in the Area of Potential Effects (APE). A visual review of the project area was also conducted, and it was observed that no historical buildings or trees over 10 inches in diameter will be affected by this project. The proposed project will be constructed within publicly owned property, easements, and existing road rights-of-way. There are no anticipated cultural resources in the project areas and no historic properties are expected to be impacted, but we have not yet confirmation through official correspondence with Michigan State Historic Preservation Office (SHPO) or through correspondence with the tribes. Once this project has been approved by EGLE correspondence will be sent out in accordance with SRF guidelines, but it is anticipated that no historic properties will be affected.

## 2. The Natural Environment

### a. Air Quality

The proposed project improvements are limited to the roads identified on the attached maps and the roads' right-of-way or county-owned lands. Any air quality impacts would be the temporary emissions and dust created by the construction equipment. There are no long-term air quality issues associated with this project.

### b. Wetlands

Based upon review of the soil's maps, it appears that there are no hydric soils in the project areas. According to the attached Wetlands Inventory Maps, there are no wetlands in the project areas. However, there are a few pump stations that have wetland areas, such as lakes, in close proximity. If required, the permitting process through EGLE will ensure that any impacts are permitted and completed in accordance with EGLE's wetland regulations. The soils and wetland maps have been included in Appendix B.

### c. Coastal Zones

Although Oscoda Charter Township is located on Lake Huron, the project is not located in or near coastal zone management areas.

### d. Floodplains

All areas of the proposed project for construction will be constructed within publicly owned property, easements, and existing road rights-of-way and will be restored to existing grades. Much of the project area is not within known 100-year floodplains; however, it should be acknowledged that some of the project locations near the Zone AE of Lake Van Etten, the AuSable River, or Lake Huron, is an area inundated by 1 percent annual chance flooding, for which a Base Flood Elevation has been determined. Appendix B includes the maps showing the floodplain data. A state floodplain permit will not be required.

### e. Natural or Wild and Scenic Rivers

Some of the proposed project locations are located in the vicinity of Van Etten Lake and the AuSable River. However, no construction is anticipated to impact the lake or river itself. The project will have no negative impact on the rivers.

f. Major Surface Waters

The township's closest major body of water is Lake Huron. The project does involve a few proposed locations in the vicinity of the lake but will have no direct impact on it. There will be a positive impact to major surface waters as part of this project.

g. Recreational Facilities

Oscoda Charter Township has several developed parks and recreational areas. They range from township owner, township leased to U.S. National Forest areas. The Parks and Recreation Master Plan describing all the recreational areas and their locations is included in Appendix H.

h. Topography and Geology

The township's elevation does not vary more than approximately 50 feet. Based on the United States Geological Survey (USGS) topographic map, the elevation near the wastewater treatment plant (WWTP) and Wurtsmith Air Force Base (WAFB) is approximately 625 feet. The Lake Huron shoreline has an approximate elevation of 578 feet. Geological maps show the common bedrock in the Oscoda area to be Coldwater Shale.

The AuSable River is one of the major topographic features that has helped shape the terrain and also impact the sewer collection system layout. A copy of the Foote Site Village and Oscoda Quadrangles USGS maps are found in Appendix B.

i. Soils

A soil survey was completed of the overall area encompassing all of the pump stations and sewer mains with proposed improvements. This survey was completed using the United States Department of Agriculture (USDA) Soil Conservation Service. Based on a review of the soil's information, there are many types of soils present within the project limits. Some of the more widely found soils include Udipsamments-Urban land complex, Deer Park Sand, and Grayling Sand. Based on this review, there are no areas where the soil conditions are going to be adversely affected.

j. Agricultural Resources

There is no farmland or formally classified lands in the project area. All lands in the project area have been converted to non-farm use, and there are no prime rangelands or forestlands in the project area. All areas of ground disturbing activities for this project are in existing roadways, easements, and public rights-of-way where utilities are already present and will have no impact to these soils.

k. Fauna and Flora

The proposed wastewater improvements project will be constructed within publicly owned property, easements, and existing road right-of-way. An IPaC review was conducted, the report from which is included in Appendix B. It identified several known endangered or threatened species within the project scope. These include the endangered species of the Piping plover and the threatened species of the Northern long-eared bat, Red knot, Pitcher's thistle, and the Eastern Massasauga snake. The report also indicated that there are no critical habitats within the project area under the United States Fish and Wildlife Service (USFWS)'s jurisdiction.

The Piping plover nests on beaches along the shorelines of the Great Lakes, whose habitat is shrinking due to waterfront development. This project is not in proximity of the Lake Huron shoreline and does not exhibit any features similar to the habitat of the plover.

The Northern long-eared bat hibernates in caves and mines, swarming in surrounded wooded areas in autumn. They roost and forage in upland forests in spring and summer. The project area does not demonstrate any features conducive to habitat for the long-eared bat.

The Red knot is a shoreline bird with one of the longest migration distances of any animal. Restrictions are only during its migratory pattern of May 1<sup>st</sup> through September 30<sup>th</sup>. However, this project is not located on the Great Lakes shoreline and will not affect the Red knot.

Pitcher's thistle is a native thistle that grows on the beaches and grassland dunes along the shorelines of Lakes Michigan, Superior, and Huron. The project is in already developed areas and not near the Lake Huron shoreline and will not affect the plant.

The Eastern Massasauga rattlesnakes live in wet areas including wet prairies, marshes, and low areas along rivers and lakes. This project is in already developed areas and not conducive environment for the Massasauga.

The documents included in Appendix B also identified a few migratory birds that can be found within a 10-kilometer radius. This project will not affect these migratory birds as all work is being conducted in existing roadways and rights-of-way and proposed improvements will not require tree removal. As such, the project vicinity does not contain habitat conducive to these birds.

### 3. Land Use in Study Area

When evaluating the land use at each of the pump station locations, wastewater lagoons, and sewer main improvements, there was a variation of uses. Land use in these areas include residential, and commercial/residential. The upgrades to the sewer system will occur in the same location, or in close proximity, to the existing pump stations and sewer mains. Both are located within the road right-of-way or township-owned property, therefore not impacting any of the existing land uses.

## C. Population

1. The existing population of Oscoda Charter Township, as of the 2020 census, is 7,152.
2. The service area for the township's sewer system includes approximately 2,153 existing customers.
3. This project involves improving existing pump stations and sewer main to help better serve the users and help alleviate some of the financial burden of the Operations and Maintenance (O&M) cost of the current system. The project also entails improving the quality of the wastewater stream discharged to ground through the treatment at the WWTF and rehabilitating sanitary sewers and manholes.

4. Oscoda Charter Township had a significant drop in population in the 1990s due to the closure of the WAFB. In recent years there has been a slight increase in population. For the purpose of this project plan, it is anticipated there will be a slight gain in the population in the coming years. Iosco County, as a whole had seen a change in population in the 1990's also. They however have not seen as much of a rebound in population as Oscoda Township has. Previous population figures were taken from the U.S. Census and the American Community Survey.

**Table I-1: Population Projections**

Year	Oscoda Charter Township	Iosco County
1940	731	8,560
1950	843	10,906
1960	4,202	16,505
1970	11,585	24,905
1980	11,386	28,349
1990	11,958	30,281
2000	7,248	27,327
2010	6,997	25,834
2015	6,867	25,333
2020	7,152	25,369

## D. Economic Characteristics

### 1. Economic Structure and Major Employers

There are two branches of the economic structure within Oscoda Charter Township to be considered: the residents and the employers. The residential population of Oscoda Charter Township, according to U.S. Census data from 2020 is 7,152. For the purpose of this project plan, it is anticipated there will continue to be a slight gain in the population in the coming years.

A mix of jobs are available in the township primarily consisting of positions in education, health care, service and manufacturing industries. Table I-2 represents data obtained from the U.S. Census Bureau's 2015 American Community Survey 5-Year Estimates. The largest employers in the Township are Kalitta Air, LLC; CruseCom; Phoenix Composites; and P&L Development and Manufacturing.

**Table I-2: Employment by Industry**

Industry	Oscoda Charter Township	Iosco County
Education, Health Care, Social Assistance	18.5%	22.3%
Manufacturing	17.2%	16.1%
Arts, Entertainment, Recreation, Food Services	14.6%	9.7%
Retail Trade	14.0%	15.4%
Public Administration	1.4%	3.4%
Other Services	4.8%	4.5%

Professional, Management, Administrative, Waste Services	8.9%	5.8%
Finance, Insurance, Real Estate	5.2%	5.3%
Information	1.0%	0.8%
Transportation, Warehousing, Utilities	7.5%	7.3%
Wholesale Trade	0.7%	0.9%
Construction	4.6%	6.2%
Agriculture, Forestry, Mining, Fishing and Hunting	1.5%	2.3%

2. The Median Household Income

The median household income for Oscoda Township is reported from the U.S. Census Bureau, American Community Survey as \$42,271 for the year 2022.

3. Major Economic Characteristics Affecting Growth

The 2020 U.S. Census estimates the population of Oscoda Township as 7,152 with approximately 72 percent of the homes in the township occupied. The racial makeup of the district was 90.3 percent White, 0.8 percent African American, 1.1 percent Asian, 1.0 percent Native American or Alaskan Native, 4.6 percent Hispanic/Latino, and 2.3 percent two or more races. The median household income according to the 2022 estimates was \$42,271 and a taxable value per capita of \$43,760.

The planned improvements of this project will benefit all users within the district equally. The cost of the project will be distributed across all users. No segment of the population will be treated differently than any other, and discrimination is prohibited. The proposed project will be kept as affordable as possible for this community by maximizing grant funds and/or low interest loans for the project.

## E. Existing Facilities

1. Method of Wastewater Treatment

The township method for treatment and disposal of wastewater is through a rapid infiltration basin and a lagoon located at the far southwest side of the former WAFB. In 1993 when the WAFB closed, the township assumed ownership of the lagoon when the base became a part of the township. In 2004, the lagoon became the choice treatment option for the township as the aging treatment facility was no longer operating at a beneficial level. Prior to the township switching to the lagoon as their primary sewage treatment, the lagoon was lined to meet current regulatory standards and an aeration system was installed. and cleared the surface vegetation around the basins. The lagoon consists of three aerated cells, an influent/effluent structure for directing flow, two interconnecting structures connected by pipes and valves to transfer water. Additional upgrades performed in 2016 included sludge removal, replacement of the aeration system and blowers, addition of effluent flow metering and ferric chloride mixing, reconfiguration of the piping and valves in the rapid infiltration basins and clearing of vegetation around the rapid infiltration basins. To date, there is no known contamination of public or private water wells associated with the discharge of effluent from the wastewater treatment system.



2. Method of Sludge Removal and Status of Residual Management Program

This does not apply to the township's wastewater treatment process. The township relies on an aerated lagoon system for treatment and the lagoons will be dredged as necessary to remove biosolids.

3. Type, Condition, and Location of Transmission Facilities

A summary of the sewer main assets is listed in the tables below:

**Table I-3: Age of Pipe Asset Summary**

<b>Approximate Age of Installation</b>	<b>Length (LFT)</b>
2000-2009	125
1990-1999	289
1980-1989	0
1970-1979	122,862
1960-1969	13,444
1950-1959	737
1940-1949	27,178
Unknown	2,183
<b>TOTAL</b>	<b>166,818</b>

**Table I-4: Sewer Main Sizing Breakdown**

<b>Pipe Diameter</b>	<b>Length (LFT)</b>
4"	737
6"	6,828
8"	122,271
10"	5,533
12"	13,724
15"	5,735
18"	1,890
21"	10,071
24"	29
<b>TOTAL</b>	<b>166,818</b>

**Table I-5: Sewer Main Material Breakdown**

<b>Pipe Material</b>	<b>Length (LFT)</b>
VCP	73,551
Plastic Truss Pipe	66,283
Asbestos Cement	16,750
Concrete Pipe	6,366
Polyvinyl Chloride Pipe (PVC)	3,354



Ductile Iron or Cast Iron	495
ABS Plastic	19
<b>TOTAL</b>	<b>166,818</b>

As seen in Table I-5, a large portion of the system piping consists of VCP or Plastic Truss Pipe. The expected service life of both piping types is long. The network of pipes has been televised as part of the AMP and it was noted that 5 percent of the pipes fell into a category of need for repair. The other pipes were moderate to low concern. While there are pipes and manholes that the township intends to repair as part of this project, the pump stations and wastewater lagoons remain a higher priority. The rated condition is the level of concern for the asset. The higher the number, the higher the consequence of failure.

**Table I-6: Condition Ratings of Pump Stations**

\* - Denotes work completed in previous project

Pump Station Number	Overall Rated Condition	Pumps	Piping and Valves	Wet Well Structure	Dry Can Structure	Electric and Controls
1	2.53	3	2	2	2.6	*1
2	2.47	4	2	2	2.6	*1
3	2.41	3	2	2	2.6	*1
4	2.65	2	2.25	3	3.6	*1
*5	1	1	1	1	1	1
*6	1	1	1	1	1	1
*7	1	1	1	1	1	1
8	2.73	2/4	5	4	3	*1
9	2.82	5/4	3	3	2	*1
13	3.25	4	2	1	2	3
14	3.30	*1	*2	3	2	*1
15	N/A – Inactive	5	5	2	2	2
16	2.41	4/5	3	3	2	*1
17	3.33	3	4	2	4	4
18	0.00	*1	*1	2	*1	*1
19	0.00	*1	*1	3	*1	*1
20	*1.50	*1	*1	2	*1	*1
21	1	*1	*1	*1	*1	*1
22	3.10	4	3	3	3	4
23	2.60	3	3	3	2	*1
24	2.13	1/3	2	3	3	*1
25	2.40	*1	3	2	3	*1
28	1.83	2	2	2	2	2

**Table I-7: Condition Ratings/System Assets**

Asset Type	Rated Condition			
	High (5)	Medium (3-4)	Low (1-2)	No Rating Available
Manholes	7	234	272	49
Pipe Segments	33	167	267	199

As can be seen in Table I-, the manholes and pipe segments are typically in medium to low level of concern condition overall, with only a small percentage in the high priority condition overall. The lift stations, however, have components that are in worse condition as seen in Table I-6 and continue to be a priority, but this project will start to address pipe and manhole rehabilitation.

4. **Location of Treatment Plants, Sludge Management and Pretreatment Facilities, Pumping Stations, and Collection System**

The wastewater lagoon is located on the far southwest corner of the former WAFB located within the township limits. Please reference Appendix A for detailed maps showing the location of the pump stations and wastewater treatments lagoon.

5. **Design Capacity, Existing Flows, and Waste Characteristics**

Design capacities for each of the lift stations will be completed within the basis of design document as part of the preliminary design of the site. For the purposes of this report, it is expected that existing lift station characteristics will be matched.

The basis of design of the sewer mains and manholes will be completed as part of the preliminary design phase of planning. The current operations of the main will be taken into account when designing this improvement.

6. **Septage Receiving Facilities, Septage Acceptance Capabilities, and Septage Treatment Loadings**

The Township does not have any septage receiving facilities therefore this section does not apply.

7. **Major Industrial Discharges**

According to the groundwater discharge permit, the township is authorized to discharge a maximum flow of 625,000 gpd and a total of 228,125,000 gallons per year total. It was noted that commercial and industrial users, results in approximately 54 gallons per capita per day (gpcd) of the daily flow. Currently, there are no major industrial discharges to the township's system that require additional treatment prior to discharge into the system. Any new developments or additions to the system will be evaluated for any potential concerns and the need for pretreatment.

8. **Average Peak Wet/Dry Weather Flow**

As the licensed operator of the facility, F&V Operations and Resource Management monitors the daily flows at the lagoon. There is an electronic flow meter on Lift Station 25, which is where the township and OWA property wastewater is combined and then pumped into the lagoon. The monthly flows monitored at this location are fairly

consistent outside of the seasonal impacts. They observe higher flows in the summer versus winter months. Historical data provided (2007-2013) show that the annual average daily wastewater flow is 0.245 MGD. High groundwater condition, which is reviewed during non-precipitation days in March, April, May, September, October, and November, resulted in calculations yielding 80 gpcd during the maximum flow conditions and 52 gpcd during a normal highwater months. This was an average taken over a 2-year period. These values are significantly below the requirements of the SRF values to warrant and investigation into excessive flows into the collection system.

**9. I/I Problems in Facility**

Throughout the history of the WWTP and now the lagoon system, current and past operators have noted that the daily influent wastewater flows received at the treatment facility do not show signs of significant increase during wet weather conditions. This monitoring would include during precipitation events and/or during normal periods of seasonal high groundwater. Previously completed flow monitoring as part of the 2018 Wastewater AMP indicates there is little to no change in the infiltration and inflow (I/I) rate during wet weather conditions.

**10. Combined Sewers**

The township has no combined sewers in the system.

**11. Location of all System Bypasses, including SSO, with their frequency, duration, and cause**

The township's pumping stations have provisions to be able to bypass pump as necessary around existing pumps to complete maintenance on the pumping station equipment. Oscoda Township does not have a sanitary sewer overflow.

**12. Location of CSO, their frequency, duration, and cause**

The township does not have a combined sewer, so this is not applicable.

**13. Pump Station Capacities**

Existing pump station capacities are shown in Table I-:

**Table I-8: Pump Station Capacities**

<b>Pump Station Number</b>	<b>Type</b>	<b>Wet Well Diameter (Ft)</b>	<b>GPM</b>	<b>Total Dynamic Head (Ft)</b>	<b>Horsepower</b>	<b>Voltage/Phase</b>
1	Duplex, Dry Well	4	100	38	5	240/3
2	Duplex, Dry Well	4	100	15	1.5	240/3
3	Duplex, Dry Well	4	100	17	1.5	240/3
4	Duplex, Dry Well	12x16	1600	100	60	480/3

Pump Station Number	Type	Wet Well Diameter (Ft)	GPM	Total Dynamic Head (Ft)	Horsepower	Voltage/Phase
5	Duplex, Submersible	6	506	50	12	240/3
6	Duplex, Submersible	6	352	27	5	240/3
7	Duplex, Submersible	6	400	40	7.5	240/3
8	Duplex, Submersible	6	400	28	10	240/3
9	Duplex, Submersible	6	200	57	10	240/3
13	Duplex, Submersible	3	N/A	N/A	N/A	N/A
14	Duplex, Submersible	5.5	48	55	3	240/3
15	Duplex, Dry Well	11x5	220/280	30/38	10	-
16	Duplex, Dry Well	4x9	350	18	5	240/3
17	Duplex, Submersible	8x6	250	16	5	240/3
18	Duplex, Dry Well	15x4	537	58	14	208/3
19	Duplex, Dry Well	12x4	328	23	3.5	240/3
20	Duplex, Dry Well	12x4	84	22	2.3	208/3
21	Duplex, Dry Well	8	438	52	15	240/3
22	Duplex, Submersible	5	Unknown	Unknown	Unknown	200-230/1
23	Duplex, Submersible	6	Unknown	Unknown	10	460/3
24	Duplex, Submersible	3	Unknown	Unknown	0.5	240/1
25	Duplex, Dry Well	12	1560	120	70	480/3
28	Can Grinder Station, Simplex	2.5	-	-	2	230/1

#### 14. Pump Station Adequacy

During review of the system, the design flow rates of the pump stations were determined to be adequate for both existing demand as well as future growth in demand. It is not anticipated that pump station capacities will need to change.

However, because of the age of the equipment, cost of operation, maintenance, and licensing, and the growing potential for failure of the equipment, the lift stations are scheduled to be replaced. In addition, the technology to allow for monitoring of system conditions is non-existent in the current stations, and SCADA will allow for efficiencies in future management of these assets.

#### 15. O&M Known Issues

The following O&M issues are present at the existing lift stations, forcemains and sewer mains:

- a. Aging lift stations require more frequent preventative maintenance and emergency repairs.
- b. Two staff members are required for entry into the dry well lift stations (11 stations). This doubles the operational labor cost.
- c. Certain sewer lines are degraded and require constant monitoring and/or cleaning.
- d. The 14" forcemain from Pump Station 25 that pumps to wastewater to the wastewater lagoon is aging has been experiencing breaks recently requiring the DPW to perform necessary repairs.

#### 16. Climate Resiliency

The sanitary system, for the most part, will be safe from typical climate change issues. The one concern that will need to be evaluated will be the elevation of those stations that are near the floodplain. With climate change adjusting storm patterns, it is important to review the potential effects of flood events. If necessary, the top of the pump station can be raised to prevent floodwaters from covering the top of the pump station.

## F. Fiscal Sustainability Plan

#### 1. Inventory of Assets and Conditions

The inventory of assets and conditions, provided in the previous section, was based on the Wastewater AMP completed by the township in November 2018 and recent observations by DPW staff. The Wastewater AMP plan summarized both the construction costs and total project costs estimated to correct identified deficiencies of all system assets in kind. Some of the pump station deficiencies have been addressed with a previous project.

**Table I-9: Estimated System Costs**

<b>Asset Type</b>	<b>Construction Estimate</b>	<b>Total Project Cost</b>
Sanitary Pipes	\$18,530,000	\$25,016,000
Sanitary Manholes	\$2,869,000	\$3,872,000
Pump Stations	\$10,492,000	\$14,164,000

Wastewater Treatment Lagoon	\$3,677,000	\$4,963,000
Total	\$35,568,000	\$48,015,000

Based on discussions with the Township and FVOP, the useful life of the remaining pump stations (including PS 25 forcemain) is the lowest of the wastewater system components. This will likely mean the improvements to the pump stations (including PS 25 forcemain) will have the highest annualized cost of the improvements summarized in Table I-. With this project completed, the township should be able to move forward with a reasonable annual maintenance plan which will provide a properly funded and maintained system in the future.

## 2. Evaluation of Condition and Performance

Based on the evaluation done on the system during the AMP, found in Appendix F, emerging requirements for **PFAS** monitoring/treatment in wastewater and the recent capital improvement project, the main priorities of the system is to continue improvements to the pump stations, sewer line/manhole rehabilitation, and treatment of the wastewater stream for **PFAS** contamination. These improvements will allow the system to operate more efficiently saving on energy costs and protecting the environment from continued contamination from the **PFAS** in the wastewater stream.

## 3. Water and Energy Conservation Efforts

Upgrades to the lift stations will reduce power requirements in multiple ways. The installation of new pumps and controls will allow for better efficiency and operation of the stations themselves. It is anticipated that pump stations will utilize variable frequency drives to recognize energy efficiencies. A SCADA system will allow for remote viewing of the stations' operation, reducing fuel and manpower requirements for individual inspections.

## 4. Maintenance Plan

The continued integration of the SCADA system will allow for continuous monitoring of pump operations. A review of pump operations and trends will allow for maintenance of a pump when efficiency begins to lag. This will provide for more efficiency and lower cost maintenance rather than emergency maintenance on failed system components.

The township will still perform visual inspections of the pumping system. The installation of prefabricated, above-ground lift stations will allow for easier, safer, and more thorough inspection of the system components than the prior dry well stations. The existing dry well stations require two people to make a confined space entry for inspections to remain OSHA compliant.

Maintenance problems will also be reduced in that the township will be installing stations of similar make and design. By standardizing the station type within the service area, repairs to the pumps and controls will be the same across multiple platforms, so that both knowledge and parts can be shared, if necessary. In addition, having a standardized station throughout the township itself will allow for better asset

management by having parts on hand that can be used at any of the stations as required.

The township will maintain the pump stations, along with their corresponding parts and equipment, in line with manufacturer's recommendations, as well as in accordance with their existing operation and maintenance plan.

The rehabilitation of the PS 25 forcemain and the addition of inspection manholes will reduce the maintenance efforts needed from the continued breaks of the forcemain. The inspection manholes will the staff to provide maintenance on certain segments of the main, instead of the entire length.

## G. Need for the Project

### 1. Compliance Status

The Groundwater Discharge Permit is obtained by the township but is executed by F&V Operations & Resource Management. The township has a limitation on phosphorus due to the wastewater being discharged to groundwater that will ultimately end up in the AuSable River. If they were to discharge to a surface water, they would not have this additional limitation on their permit. These limitations result in water quality sampling and monitoring along with limitations on the daily maximum discharge which is noted in the Groundwater Discharge Permit included in **Error! Reference source not found..** They are currently in compliance with their NPDES permit, but are currently undergoing a **PFAS** source investigation for the sanitary sewer and lagoon; the last report submitted to EGLE is under review.

### 2. Orders

There are currently no orders in effect for the wastewater system in Oscoda Charter Township.

### 3. Water Quality Problems

There are no major point sources or non-point sources of pollution identified from the on-site systems, storm water runoff, industries, or agriculture within the service area.

### 4. Projected Needs for the Next 20 Years

The population is expected to change very little within the township's service area over the next 20 years. The township's WWTP receives an annual average daily wastewater flow of approximately 0.25 MGD. This is approximately 25 percent of the treatment design capacity from the 2003 wastewater relocation project when the township began treating their wastewater with the former WAFB lagoon which was modified during the project and abandoned their mechanical package treatment plant.

The anticipated project will be sufficient to meet the township's desired level of service for wastewater customers for the next 20 years.

### 5. Future Environment without the Proposed Project

The future environment without the system improvements will see continued increases in the high costs of maintenance as the age of the lift stations increase. In addition, the dearth of valuable information that SCADA systems provide will lead to a higher likelihood of failure, as sequential degradation in performance would not be noted prior



to pump failure. Eventually, it is likely that the systems would fail in a manner that would require a project to be performed in an emergency. This would require that the township either sink more costs as a band-aid fix, or to replace the stations at premium pricing.

Also, without the proposed project, the issue of **emerging contaminants, PFAS** in the wastewater stream will continue to deposit PFAS into the ground, which is seeping into the area aquifers and the AuSable River and its tributaries.

## II. ANALYSIS OF ALTERNATIVES

### A. Identification of Potential Alternatives

The township has identified and evaluated multiple alternatives to the selected project. One alternative would be to complete the rehabilitation/replacement of the pump stations, line the PS 25 forcemain to the wastewater lagoons, rehabilitate/replace sewer lines and manholes, install a system to treat the wastewater stream, and remove the sludge from the lagoons. Another would be to only complete the rehabilitation/replacement of pump stations, replace the PS 25 forcemain, reconstruct sewer lines and manholes, install a system to treat the wastewater stream, remove the sludge from the lagoons and replace the rapid infiltration sand beds. The final alternative considered was to do nothing and leave the system as is.

#### 1. No Action

The no action alternative is compared in the long-term cost sections. The advantage to the no action alternative is that it would require no immediate capital investment. The disadvantages to this alternative include the following: The maintenance of the pump stations will become increasingly costly to the township, and not performing maintenance or rehabilitation on pipes and manholes will cause the infrastructure to continue to fail and require complete reconstruction in the future. Also, continued no action on the **PFAS** in the wastewater stream will cause continued impairment to the environment and potential governmental fines.

#### 2. Rehab/Replace Pump Stations, Rehab Sewers and Manholes, **PFAS Treatment of Wastewater**

The improvement or replacement of the remaining pump stations, the rehabilitation of PS 25 forcemain, rehabilitation of sewer lines and manholes, and install treatment for **emerging contaminants (PFAS)** at the wastewater lagoons. This option would address the remaining repairs to the pump stations identified in the SAW report and from staff and start to address ongoing maintenance issues with sewer lines and manholes. This option also addresses the issue of **emerging contaminants (PFAS)** in the wastewater stream to address **environmental concerns**. It will also lower existing O&M cost. See appendix H for additional information on the treatment of **emerging contaminants** in the wastewater discharge.

#### 3. Rehab/Replace Pump Stations, Replace Sewers and Manholes, **PFAS Treatment of Wastewater**



The improvement or replacement of the remaining pump stations, the replacement of PS 25 forcemain, replacement of sewer lines and manholes, and install treatment for **emerging contaminants (PFAS)** at the wastewater lagoons. This option would address the remaining repairs to the pump stations identified in the SAW report and from staff and start to address ongoing maintenance issues with sewer lines and manholes. This option also addresses the issue of **emerging contaminants (PFAS)** in the wastewater stream to address **environmental concerns**. It will also lower existing O&M cost. See appendix H for additional information on the treatment of **emerging contaminants** in the wastewater discharge.

## B. Analysis of The Principal Alternatives

In addition to the no action alternative, two other alternatives were evaluated in depth. Other similar alternatives include rehabilitation/replacement of pump stations along with rehabilitation of sewer lines and manholes and treatment of the wastewater stream for **PFAS** or rehabilitation/replacement of pump stations, complete replacement sewer lines and manholes and other treatment methods for **PFAS** contamination were analyzed.

### 1. The Monetary Evaluation

#### a. Sunk Costs

The township's wastewater system sunk costs include the existing system, existing debt on the sewer fund for past improvements, and the cost to prepare the following studies:

- Wastewater AMP
- Sewer Fund Rate Study
- SRF Project Plan

As sunk costs, these are not considered in the monetary evaluation of the four alternatives.

#### b. Present Worth

Table II-1 shows the results of the present worth calculations for the three alternatives reviewed in-depth. While the selected alternative (Alternate 2) presents the second largest initial capital cost, the amount of money saved in maintenance, as well as the salvage value at the 30-year mark, make it the lowest long-term cost alternative. While Alternative 1 has the lowest total present worth of the considered alternatives, it does not address environmental issues such as reducing the opportunity for sewage spills and the treatment of **emerging contaminants (PFAS)** in the wastewater discharge.

Detailed calculations of the long-term costs of each alternative are included in Appendix D.

#### c. Salvage Value

The planning period for the monetary evaluation is 30 years. Some items planned as part of this project will still hold a salvage value after 30 years determined by straight line depreciation. The present worth of the salvage value is computed

using the federal real discount rate. The useful life for our analysis utilized the following periods:

- Wastewater sewers and force main – 50 years
- Process equipment – 20 years
- Pumps – 20 years
- Electrical, Controls, Alarms, SCADA – 20 years
- Structures – 50 years

d. Escalation

Does not apply to this project.

e. Interest During Construction

It is assumed that interest charged during construction would have no effect on the monetary evaluation of the alternates considered for this project. The present worth results verify the large monetary differences between alternates analyzed and thus interest during construction was not included in the analysis.

f. Mitigation Cost

At this time, there are no mitigation costs anticipated as a result of selected Alternative.

g. User Cost

The township has water meters and bills sewer customers per Section 3-211 of the Oscoda Township Utility Ordinance 2019-65 per the amount of water supplied to the premises as shown on the water meter. The township's ordinance 2011-241 also defines usage rates and connection fees. The township has 2,153 sewer customers and there are no additional users that will be added to the system as a result of this project.

**Table II-1: Present Worth Analysis**

<b>Alt 1: No Action</b>		<b>Alt 2: Rehab/Replace Stations, Rehab/Replace Sewer Lines/Manholes and PFAS Treatment</b>		<b>Alt 3: Rehab/Replace Stations, Replace Sewer lines/Manholes and PFAS Treatment</b>	
Initial Capital Costs		Initial Capital Costs		Initial Capital Costs	
=	\$0	=	\$16,428,000	=	\$23,589,000
Annual Operations & Maintenance Costs		Annual Operations & Maintenance Costs		Annual Operations & Maintenance Costs	
=	\$370,000	=	\$168,389	=	\$194,430
Future Salvage Value =	\$0	Future Salvage Value =	\$0	Future Salvage Value =	\$0
Present Worth of 30 years of O & M =	\$8,008,772	Present Worth of 30 years of O & M =	\$3,644,835	Present Worth of 30 years of O & M =	\$4,208,501
PW = Annual OM	$\frac{*(1+i)^n-1}{i*(1+i)^n}$	PW = Annual OM	$\frac{*(1+i)^n-1}{i*(1+i)^n}$	PW = Annual OM	$\frac{*(1+i)^n-1}{i*(1+i)^n}$
Present Worth of 30 yr Salvage Value =	\$0	Present Worth of 30 yr Salvage Value =	\$0	Present Worth of 30 yr Salvage Value =	\$0
PW =	$FSV* \frac{1}{(1+i)^n}$	PW =	$FSV* \frac{1}{(1+i)^n}$	PW =	$FSV* \frac{1}{(1+i)^n}$
Alternate 1 Total Present Worth =	\$8,008,772	Alternative 2 Total Present Worth =	\$20,072,835	Alternative 3 Total Present Worth =	\$27,794,501

The total cost of the project is estimated at \$16,428,000. This means, that over the life span of the loan, this project will cost each sewer customer approximately \$21.20 per month. It should be noted that this is a representative value for public understanding and does not include salvage value of the project after the loan period, nor interest payments over that time frame.

The township's current rate structure results in typical monthly charges to a residential sewer customer of approximately \$48.45. Analysis of the sewer budget was performed in 2018 Wastewater Asset Management Plan. The budget below incorporates the current sewer fund budget plus the anticipated annual debt retirement required for the total project loan. This budget was developed for planning purposes only and the township should consult with a financial advisor to evaluate actual user rate impacts associated with the planned project.

**Table II-2: Draft Sewer Fund Budget**

<b>Expenses</b>	<b>30-Year Loan</b>
Supplies	\$8,000
Repair and Maintenance Supplies	\$100
Contracted Services	\$1,300
Contracted Services - FVOP	\$325,421
Professional Fees	\$20,000
Computer Program Fees	\$1,400
Audit Fees	\$5,000
Bank Fees	\$200
Computer Maintenance	\$250
Engineering Fees	\$30,000
Legal Fees	\$5,500
Regulatory Fees	\$4,000
Telephone	\$1,500
Sewer Contingency	\$20,000
Printing and Publishing	\$1,500
Insurance and Bonds	\$10,000
Insurance - Vehicle	\$3,200
Utilities- Electric	\$75,000
Utilities – Elect DPW Building	\$3,000
Utilities - Gas	\$4,000
Utilities – Water DPW Building	\$900
Repairs and Maintenance	\$8,000
Equipment Maintenance	\$6,500
Maintenance - Vehicle	\$2,500
Miscellaneous	\$100
Paying Agent Fees	\$500
Refunds and Rebates	\$500
Amortization Exp-Bond Discount	\$2,600
Capital improvement/Outlay	\$118,000
Equipment	\$6,000
Bond Interest Expense	\$40,000
SRF Interest 2015 Imp.	\$113,000
WWTL Bond Interest 2015 Imprv	\$61,000
Contribution to General Fund	\$45,000
<i>Total Expenses</i>	<i>\$(923,971)</i>
<b>Revenues</b>	
Charges for Other Services	\$575,000
Charges for Sewer Services	\$400,000
Interest Earnings	\$3,000
Delinquent Bill Penalty	\$15,000
<i>Total Revenues</i>	<i>\$993,000</i>

<b>BUDGET SURPLUS/(DEFICIT)</b>	<b>\$69,029</b>
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As can be seen in Table II-2, the current budget for the system allows for both the retirement of debt, as well as the continued depreciation of the existing system. A small user rate adjustment may be necessary as a result of this project. The township should contract directly with a financial advisor to determine the final user rate impact. A copy of the township's current sewer budget can be found in Appendix G.

h. CMAR, PDB, or FPDB Delivery Method

The project anticipates utilizing a traditional design-bid-build delivery method; therefore, this section does not apply to the project.

2. Partitioning the Project

The township has evaluated the positives and negatives of partitioning the project. The case for performing the project all at once includes the following: a single project requires less administrative oversight than multiple projects; lower costs for mobilization of the contractor; the availability and consistency of materials between lift stations is easier to manage; and performing the project allows the work to be completed sooner, allowing the township a better system as well as better management tools to monitor that system. In addition to these concerns, the township would prefer to perform this project all under one bond, so as to have a full scope of the costs that they will need to recover through their user rates in the years after the project is completed.

3. The Environmental Evaluation

The environmental evaluation for the do-nothing option is relatively simple. If no work is done on the existing lift stations, eventually there will be a failure of the system in some manner which is likely to have an environmental impact. A failure of the system would first result in backups to the gravity sewer. The most likely scenario would be that of sewage backing up laterals into residents' homes, creating an immediate health risk. An alternate possibility would be the discharge of sewer to the surface, damaging the surrounding environment where the discharge occurs, this would include potential leaching of material into the surrounding bodies of water. Also, the do-nothing scenario does not address the **emerging contaminants (PFAS)** in the wastewater discharge.

The rehabilitation option for the sewer lines and manholes would require less excavation to complete the improvement. Any environmental impacts would be similar to impacts that would have been experienced at the time construction of the systems. This limits the impact to just areas previously impacted and does not expand into any land previously untouched. Excavation would be limited to what is necessary to make services connections and the addition of the wastewater treatment system at the lagoons.

4. Implementability and Public Participation

The township will hold a public hearing to review this project plan on April 24, 2023. The hearing will review all alternatives, including the recommended alternative, and open the floor for public comment. The township has discussed this potential project

in multiple public meetings in the past, including its intent to complete the project. To date, no objections have been raised by the public at any of these events or in separate communication.

## 5. Technical and Other Considerations

### a. I/I Removal

Using the service area population and the daily flow data provided by the township in combination with flow monitoring performed as part of the 2018 Wastewater AMP, it was determined that the wet weather infiltration flows were approximately 82 gpcd and the normally high groundwater months had a infiltration flow of approximately 52 gpcd. These results are far below the respective SRF criteria (120 gpcd) that would warrant additional investigation into excessive I/I into the collection system. Therefore, the removal of I/I is not a primary objective of this wastewater system improvement project, but any removal of I/I with the planned improvements will assist with the control of the **PFAS** in the wastewater.

### b. Structural Integrity

The results of the AMP show that 4 percent of the sanitary pipes have a high rating (5) when it comes to structural defects. This means there are very few runs of pipe that have significant structural damage and 13 percent in the medium range (3-4). This means 83 percent of the system is in excellent structural shape therefore making the issues with the pump stations a higher priority than the network of pipes that make up the wastewater collection system.

### c. Sludge and Residuals

The biological treatment process in the aerated lagoon generates residuals that will settle into the treatment cells. Due to the improvements done as part of the 2014 SRF, there is now a good system for sludge disposal. As part of the 2014 project, the existing sludge buildup was also removed.

### d. Industrial Pretreatment

Currently, there is no Industrial Pretreatment Program (IPP) as a part of the township's treatment process. Based on user information, there are no significant industrial users in the system and a formal Michigan IPP regulated by EGLE is not required. Any users with a wastewater discharge amount larger than that of a domestic user is addressed through the existing Sewer Use Ordinance.

### e. Growth Capacity

The selected alternative will be designed to meet the current and proposed 20-year wastewater treatment needs. The growth rate for Oscoda Charter Township was estimated based on data collected from the U.S. Census data. As previously mentioned, the 20-year project growth is anticipated to be minimal for the township, resulting in minimal impact to the wastewater treatment needs as well.

### f. Areas Currently without Sewers

There are select areas of the township that do not have sewer. The township has expressed no desire at this time to expand the sanitary system.

### g. Reliability

Each alternative was evaluated and included improvements that would provide similar levels of reliability to the system. However, alternate 2 is the most cost effective and therefore the chosen alternative.

h. Alternative Sites and Routing

There is some sewer main that is being proposed for replacement and there is only one route that is of benefit to the township, therefore determining the location of the main. All other work performed will be replaced in location or directly next to the existing structures, this will avoid any need for new property or any disruptions for longer than necessary. Keeping them in place or near the existing pump stations will also help limit the time of disruption to the system.

i. Combined Sewer Overflows (CSO)

There are no combined sewers in the township.

j. Contamination at the Project Site

The work near the lagoon, which is located on the former WAFB, has the potential to encounter subsurface contamination. It is not likely that any contamination concerns will impact the improvements near the lagoon (**emerging contaminant treatment**). During the detailed design process, when the construction plans and specifications are created, it will outline the proper process necessary for dealing with this potential contamination and minimizing the potential environmental impact if the contaminated soils and/or groundwater is encountered.

k. Green Project Reserve (GPR)

The township is not intending to apply for the GPR funding at this time. There are several aspects of the project plan that would qualify the township if they desired to apply. These include upgrades to the electrical and controls, installation of a SCADA system, and upgraded pumps with variable frequency drives (VFDs).

### III. SELECTED ALTERNATIVE

#### A. Selected Alternative

1. Relevant Design Parameters

All 13 of the pump stations will be improved based on need with one addition station being removed from service and demolished. Table III-1 shows each pump station and what improvements are necessary based on the AMP project descriptions and further recommendations from FVOP. Design will be performed using data from the existing lift stations, as well as modeling of flows for future demands.

**Table III-1: Proposed Improvements**

Pump Station Number	Proposed Improvements
1	Pump Replacement
2	Pump Replacement

Pump Station Number	Proposed Improvements
3	Pump Replacement
4	Pump and Variable Frequency Drive Replacement
8	Install new pumps and bypass pump connection, replace all piping and valves, replace the valve vault, and rehabilitate wet well for infiltration
9	Install new pumps and bypass pump connection, replace all piping and valves, replace the valve vault, and rehabilitate wet well for infiltration, installing a new wet well and valve vault hatch
13	Pump Electrical and control upgrades, installation of new package pump station
15	Demolish existing pump station
16	Replace pump, mechanical piping and valves
17	Reconstruct pump station complete with electrical and control upgrades
22	Remove existing station and install new grinder can pump station complete with electrical and control upgrades and forcemain
23	Replace pumps, wet well top section and hatch, and air release valve and install bypass pumping connection
24	Remove existing station and install new grinder can station complete with electrical and control upgrades and forcemain
28	Replace pumps
PS 25 Forcemain	Line existing forcemain with 10" HDPE and install maintenance manholes.
Sewer Line Rehab	Repair various sanitary sewer line segments with lining
Manhole Rehab	Repair various manholes by lining, raising rims, and chemical grout defective taps
Wastewater Treatment (PFAS)	Installation of a Foam Fractionation with Granulated Activated Carbon system to treat <b>PFAS</b> in the wastewater (See Appendix H)
Wastewater Sludge Treatment	Remove existing <b>PFAS contaminated sludge</b> and dispose of at a permitted disposal site (See Appendix H)

In addition to the pump station improvements, sewer main and manhole improvements will take place as well as the addition of a treatment system to remove the **emerging contaminant PFAS** from the treated wastewater stream (See Appendix H).

## 2. Project Maps

Project Maps are included in Appendix A.

## 3. Controlling Factors

Controlling factors will include location of the existing lift stations. Where applicable, the new stations will share the same general location as the existing stations yet will



be installed separately so that bypass pumping can be minimized as much as possible. In all alternatives, keeping the new stations close to the old ones minimizes the amount of required excavation and reduces construction costs to the township.

Also, a controlling factor will be the existing sewer mains. Design considerations will determine whether the sewer mains are properly sized for their proposed applications. Sizing calculations will be performed based on Ten States' Standards for Wastewater Design, as well as from operational data from the existing lift stations.

4. Special Assessment District Projects

Does not apply to this project plan.

5. Sensitive Features

The selected alternative will have little to no impact on any nearby streams, lakes, floodplain or wetland areas. As previously mentioned, all work performed on the pump stations and sewer mains will take place on township-owned land, within the road right-of-way, or in an existing utility easement.

6. Schedule for Design and Construction

Design is anticipated to begin in Fall of 2023, with bid documents available in winter 2024. The project goal would be to close on the loan in the fourth quarter of 2024, so that construction could begin in the spring 2025.

7. Cost Summary

The cost of the project is estimated at \$16,428,000. This cost includes the construction, as well as administration, engineering, and legal fees required to satisfy the EGLE's SRF program requirements.

## **B. Authority to Implement the Selected Alternative**

Oscoda Charter Township has full authority to approve and finance any necessary improvements to the wastewater system as a public utility in accordance with the provisions of Act 94 of the Public Acts of 1933 of the State of Michigan, as amended. Although the system is owned by the township, its operations are contracted to F&V Operations & Resource Management, who has the ability to make recommendations to the Board of Trustees for work that would help improve the wastewater system.

## **C. User Costs**

The township funds their wastewater collection and treatment system through user fees that are based on usage. The sewer fund revenues are generated through a ready to serve charge and commodity charges based on usage. This fee structure covers the necessary operations, maintenance and existing debt on the wastewater system. The current ready to serve charge is \$25.27 for ¾-inch water meters, which includes the majority of the sewer customers. The current commodity charge is \$5.15 per 1,000 gallons of consumption.

The total cost of the project is estimated at \$16,428,000. This means, that over the life span of the loan, this project will cost each sewer customer approximately \$21.20 per month. It should be noted that this is a representative value for public understanding and

does not include salvage value of the project after the loan period, replacement costs for short lived assets, higher rates for commercial customers or interest payments over that time frame.

The township has 2,153 sewer customers. Assuming each customer uses approximately 4,500 gallons per month, the revenue for service charges is approximately \$1,251,625 per year. Analysis of the sewer budget was performed in the 2018 Wastewater AMP, to include anticipated loan payments for a capital improvement project of this approximate size.

As can be seen in Table II-2, the current sewer fund budget for the system at the current rates allows for both the retirement of debt, as well as the continued depreciation of the existing system. The other services and charges category is mainly the cost of the township's contract with FVOP to operate the wastewater system. A small user rate adjustment may be necessary as a result of this project.

#### **D. Overburdened Community**

Oscoda Charter Township does meet overburden community status for the Sanitary Sewer project.

#### **E. Useful Life**

Components of the project will have varied periods of anticipated useful life. The pumps will have the shortest useful life expectancy, at 15 to 20 years. The new structures housing the lift stations have projected useful lives of 50 years or more. Detailed useful life and salvage value calculations for all considered alternatives are included in Appendix D. Where components show useful lives less than the 30-year loan term, depreciation costs have taken into account replacement of those components within the life of the loan.

## **IV. EVALUATION OF ENVIRONMENTAL IMPACTS**

### **A. Analysis of The Impacts**

#### **1. Direct Impacts**

Direct impacts refer to the collective environmental impacts that directly contribute to the construction of the project along with the operations of the project. The following environmental factors have been evaluated for potential impacts whether negative or positive in nature.

##### **a. Construction Impacts**

It is anticipated that there will only be minor traffic impacts to the local traffic during construction of this project. Each site will be short-term work; however, the overall project will take some time to complete. The level of work that will be completed at each pump station or sewer main will determine the equipment used at each location. The biggest impacts from construction include; increase in noise and dust from the heavy equipment and minor traffic impacts due to workers and delivery trucks bringing the equipment or materials to the site. Due to the dust and

emissions of the equipment, there will also be short-term air quality impacts, but this will end once construction is complete.

b. Operational Impacts

Since the improvements will be taking place at facilities that are currently in operation, there needs to be careful planning to determine the work can be complete safely and effectively while still operating to support the community. The construction sequence and phasing will be developed as part of the detailed engineering and design phase of the project.

c. Social Impacts

No residents will need to relocate temporarily nor permanently as a part of this project. The nature of this project should cause very minimal impact on the residents as the work will take place at the sewer main or pump stations, on existing property, or within the right-of-way. Along with the limited impact to the residents, there will also be limited impacts on the traffic, neighboring residential areas, industrial buildings, commercial buildings, and other local businesses. It is possible that a local contractor be chosen to do this work which in turn may result in local residents' employment. This project would likely result in a positive social and/or economic impact on the community. However, there is a chance of increased sewer rates to cover the project improvements which can be a difficult to provide the proper knowledge to the customers for the need of this project.

2. Indirect Impacts

As the function of the pump stations are not being changed by this project, there are no adverse indirect impacts expected from this project. There is no significant impact expected for development, land use, cultural, human, and ecological resources, as discussed in sections above.

3. Cumulative impacts

There are no anticipated cumulative impacts, nor any anticipated new infrastructure proposed as part of this project plan.

## V. MITIGATION

### A. Short-Term Construction Related Mitigation

The short-term impacts of construction to be mitigated will be done according to the associated permits and regulations governing construction in these areas. All impacts will be minimized during the design and permitting process as well.

1. General Construction

General construction impacts are expected to be minimal. Each of the areas will be small in area and construction will be contained to areas immediately surrounding the existing and proposed pump stations and sewer main. Equipment needs will be minimal in comparison to most utility projects, because of the small disturbance area of each site. It is expected that contractors will only perform the bulk of work on one site at a time, minimizing the amount of disturbance to residents at a time. Noise

factors, dust control, cleaning, and debris removal will be controlled via technical specifications and township ordinance requirements.

## **B. Mitigation of Long-Term Impacts**

### **1. Siting Decisions**

The sites for the improvements to the sewer main will be done within the same right-of-way of the existing sewer main and the improvements to the lift stations will be in the same locations or directly next to the existing pump stations. By placing the stations here, the least amount of connection piping will have to be run, minimizing the amount of excavation required to connect to the system, and minimizing the impact of the overall project.

### **2. Operational Impacts**

Operational impacts include the upgrade to the controls and electrical components, valves and piping, rehabilitation of PS 25 forcemain and the repair of sewer lines and manholes. This should reduce the amount of on-site maintenance required, as well as reduce the chance of full failure of the stations and sewage spills from defective pipes and manholes.

The lagoon treatment site is located west of the downtown area at the southern end of the former OWA. It is removed from highly populated areas which helps with odor and aesthetics. This lagoon has been in operation for several decades even prior to the existing use by the township. It was previously owned and operated by the WAFB. It is not anticipated that it will result in any negative long-term impact on the community or any nearby natural resources.

## **C. Mitigation of Indirect Impacts**

As mentioned, the indirect impacts of this project should be minimal, as the overall purpose of the installations does not change from rehabilitation/replacement of old pump stations with new ones. The addition of the wastewater treatment facility is located at the wastewater lagoon and will not affect any additional land outside of that area. As this project is not intended to facilitate expansion or create new facilities, the master plan, zoning, and ordinances of the township will not conflict with any of the project intentions.

The lands where the project will occur have been previously disturbed from the prior pump station installation and would not be identified as having historical significance or prime farmland.

Construction will be staged to allow for the completion of the new station while the existing station remains operable when possible. If this is not possible, there will be a bypass pumping connection to allow for the proper improvements to be completed. Temporary bypass pumping to manage sewage flows during construction activities will be minimized to the greatest extent possible. The goals for the project design will be to minimize disturbance time, as well as decrease the costs of bypass pumping. When the new station is ready to connect to the existing collection system, the pipes will be excavated and relocated.

## VI. PUBLIC PARTICIPATION

### A. Public Meetings on Project Alternatives

Oscoda Charter Township has discussed various phases of this project in its conceptual stages at multiple regular Board meetings. Discussion has also been had on how best to fund the project, as well as who the design engineer should be.

At their March 20, 2023, Board meeting, the Board voted to proceed with an application for the EGLE SRF money, and to contract with ROWE Professional Services Company to complete the funding application.

### B. Formal Public Hearing

Oscoda Charter Township held a public hearing April 24, 2023, at 6:30 p.m. at the Shoreline Players located at 6000 Skeel Avenue, Oscoda, MI. A Notice of Public Hearing was advertised 15 days prior to the meeting in the local newspaper and on the townships website. Appendix C includes a copy of the notice of publication and list of those in attendance of that public hearing.

#### 1. Public Hearing Advertisement

The Public Hearing advertisement was placed in the Iosco County News-Harold and on the township website on April 8, 2023. A copy of the plan is available for review in the Oscoda Charter Township office, along with instructions on how to submit comments. Affidavit of Publication is included in Appendix C.

#### 2. Public Hearing Transcript

A summary of the public hearing including a list of attendees is included in appendix C.

#### 3. Public Hearing Contents

The Public Hearing will include a presentation of the project details by Dave Richmond, P.E., of ROWE Professional Services Company. Mr. Richmond will discuss the project need, the impact of the project on the community and environment, all alternatives considered during this process, financing options, and the alternative that is being recommended.

#### 4. Comments Received and Answered

It is anticipated no written comments will be received by the township in advance of the public hearing held April 24, 2023, nor during the public hearing.

It is anticipated there will be no opposition to the planned project from the public. As a result, no revisions to the project plan will be required as a result of the public participation process.

### C. Adoption of the Project Plan

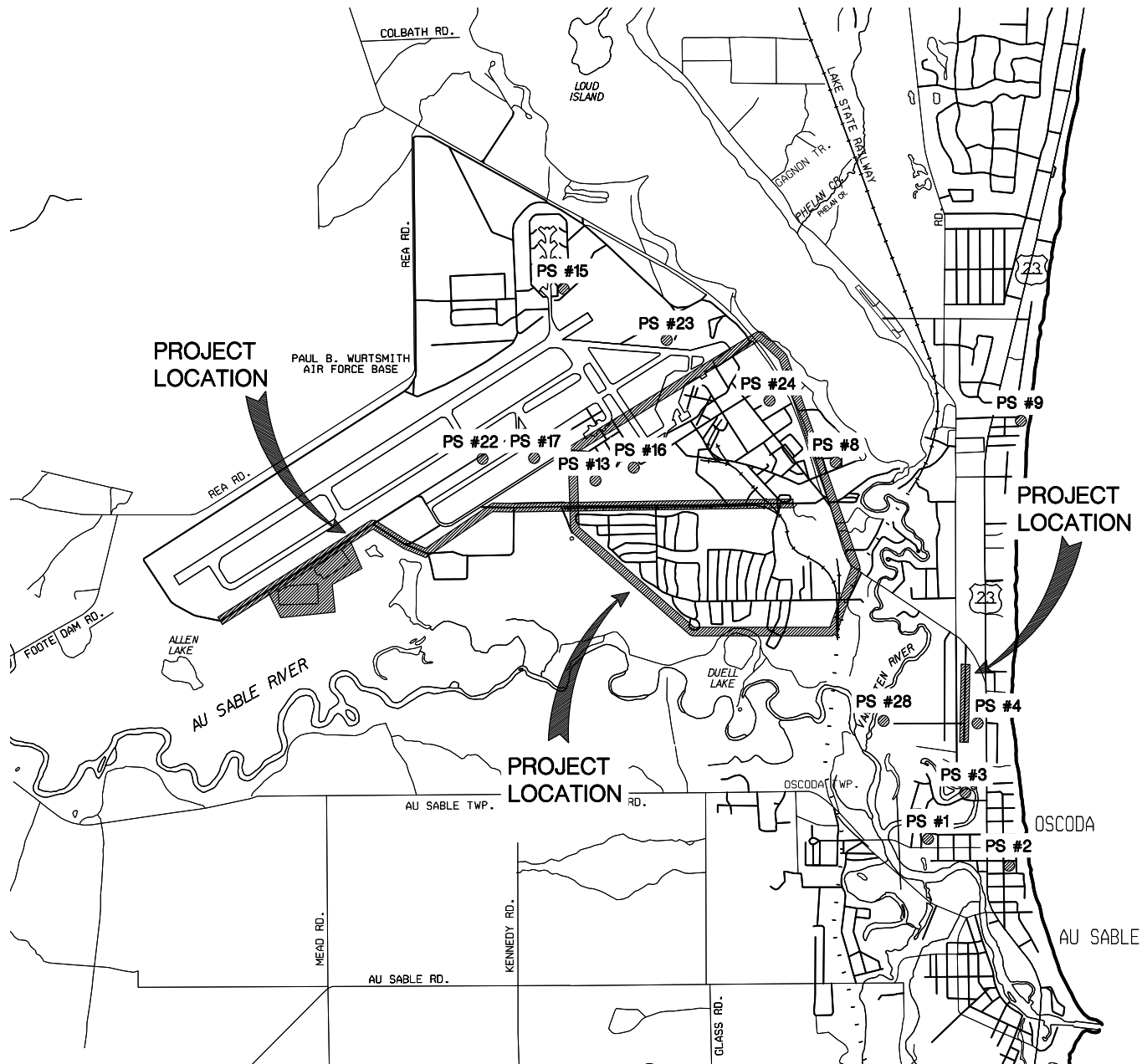
After the public hearing on April 24, 2023, it is anticipated the Oscoda Charter Township Board will pass a resolution adopting the Project Plan. A copy of the signed resolution will be included in Appendix C.

R:\Projects\18C0068\Docs\Funding Applications\SRF\18C0068 Oscoda Charter Twp SRF Project Plan.docx

## Appendix A: Project Maps

# OSCODA CHARTER TOWNSHIP CLEAN WATER STATE REVOLVING FUND

T24N – R9E, SECTIONS 20, 21, 28, 39, 30, 32, 33, AND 34  
T24N – 8E, SECTION 25  
IOSCO COUNTY, MICHIGAN



LOCATION MAP



**ROWE PROFESSIONAL  
SERVICES COMPANY**

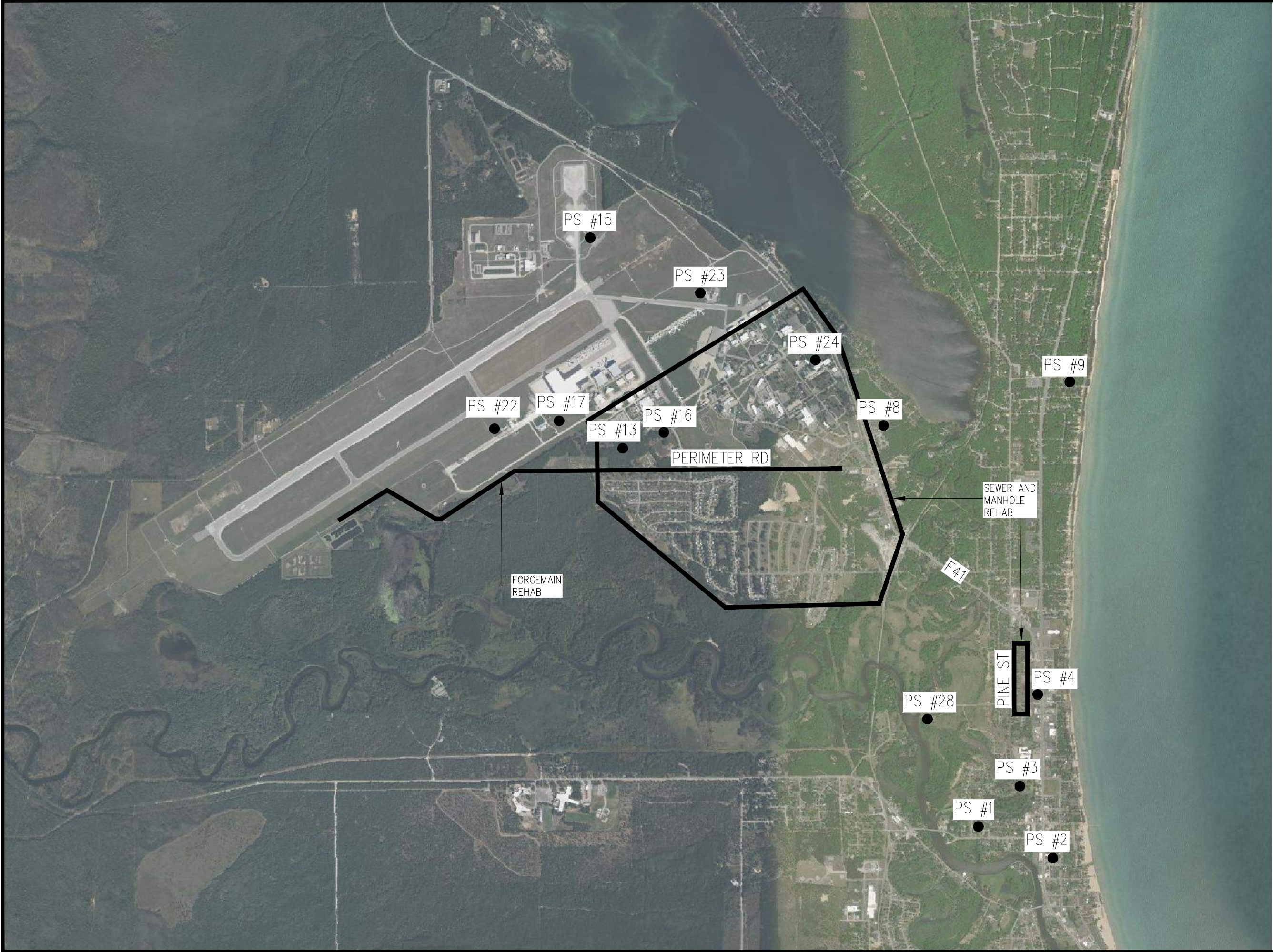
The Rowe Building  
540 S. Saginaw St., Suite 200  
Flint, MI 48502

O: (810) 341-7500  
F: (810) 341-7573  
www.rowepsc.com

PREPARED FOR:  
**OSCODA CHARTER TOWNSHIP**  
CLEAN WATER STATE REVOLVING FUND  
LOCATION MAP

PLAN NO.	18C0068
DATE:	MAY 2023
PROJECT MGR:	DER
REVIEWER:	DER
SCALE:	NONE
SHEET NO:	1






PREPARED FOR:

OSCODA CHARTER TOWNSHIP  
CLEAN WATER STATE REVOLVING FUND  
LOCATION MAP

ROWE PROFESSIONAL  
SERVICES COMPANY



The Rowe Building  
540 S. Saginaw St., Suite 200  
Flint, MI 48502

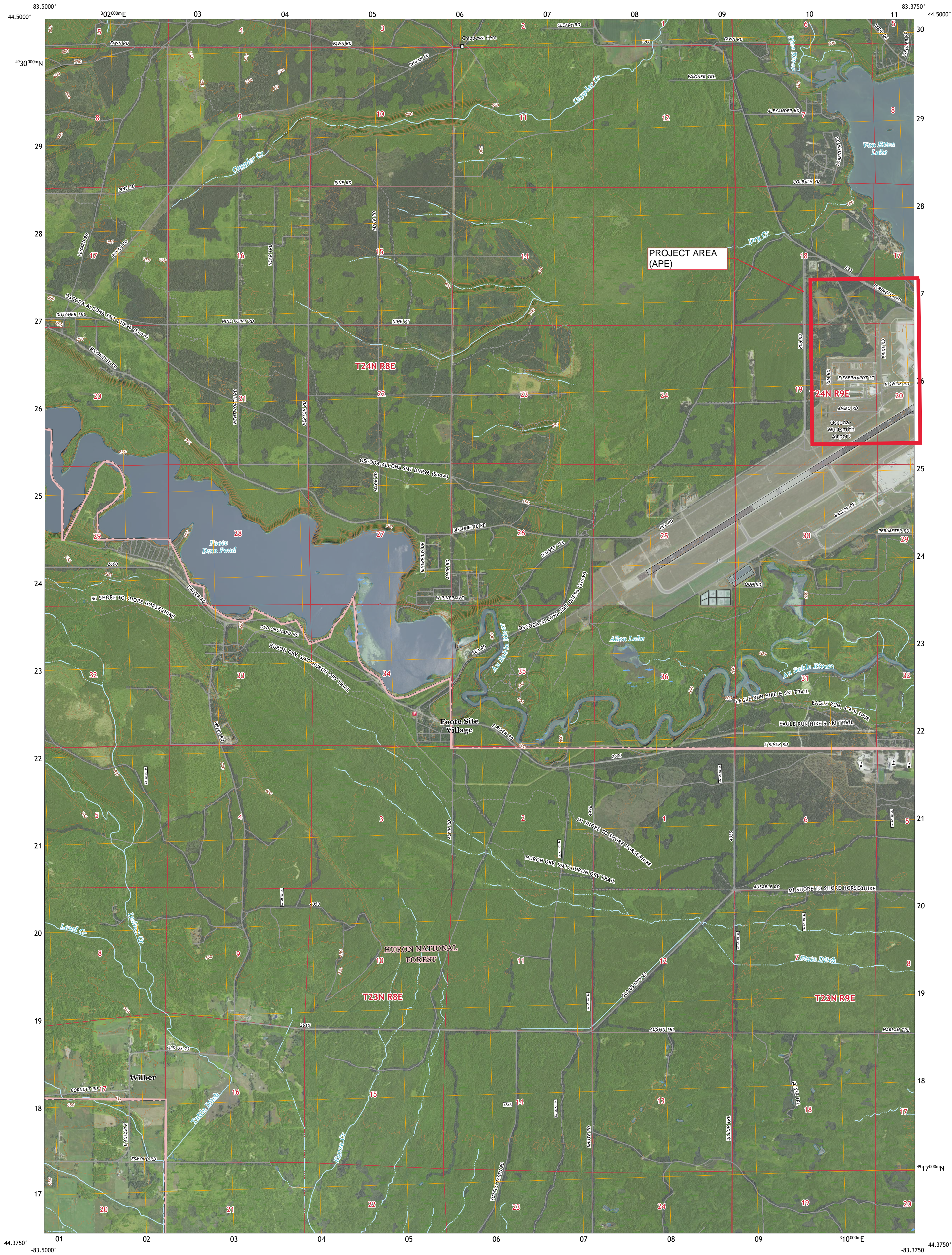
O: (810) 341-7500  
F: (810) 341-7573  
www.rowepsc.com

DATE:	MAY 2023
PROJECT MGR:	DER
REVIEWER:	DER
SCALE:	N.T.S.



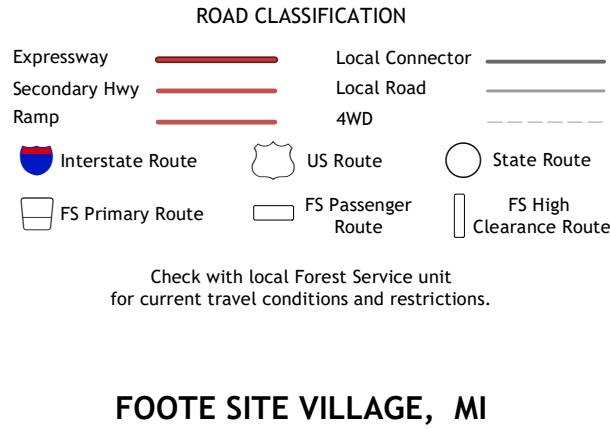
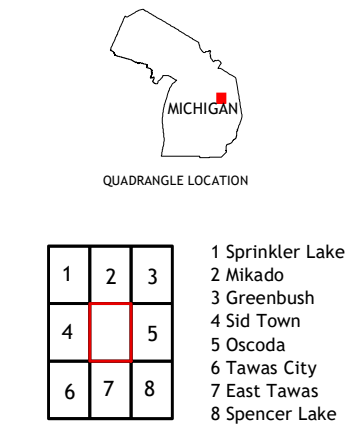
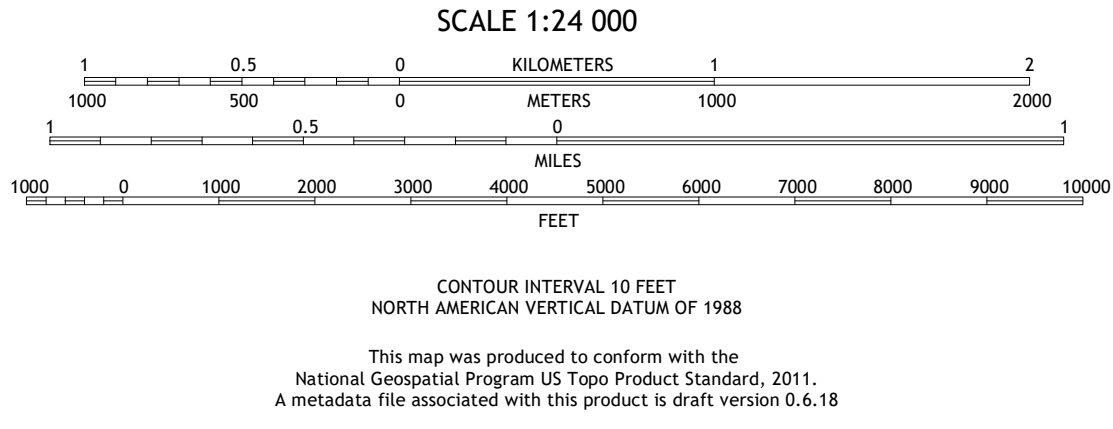
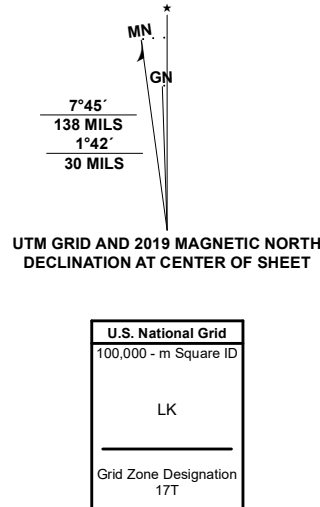
## Appendix B: Environmental and Informational Maps





Produced by the United States Geological Survey  
North American Datum of 1983 (NAD83)  
World Geodetic System of 1984 (WGS84). Projection and  
1 000-meter grid: Universal Transverse Mercator, Zone 17T  
This map is not a legal document. Boundaries may be  
generalized for this map scale. Private lands within government  
reservations may not be shown. Obtain permission before  
entering private lands.

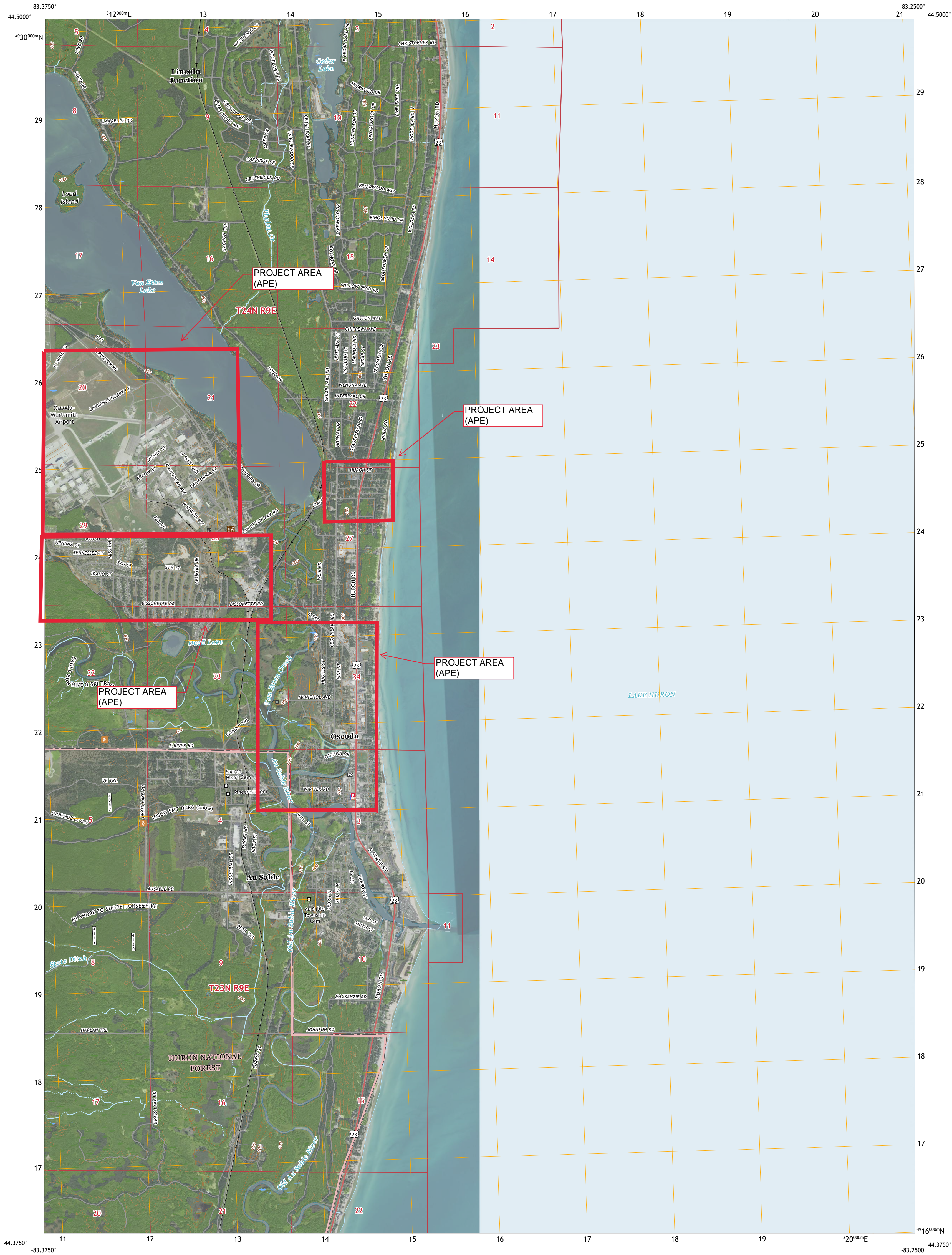
Imagery.....N.A.P., August 2016 - October 2016  
Roads.....U.S. Census Bureau, 2016  
Roads within US Forest Service Lands.....FS Topo  
Data with limited Forest Service updates, 2014 - 2016  
Names.....GHS, 1980 - 2016  
Hydrography.....National Hydrography Dataset, 2002 - 2019  
Contours.....National Elevation Dataset, 2004 - 2019  
Boundaries.....Multiple sources: see metadata file 2017 - 2018  
Public Land Survey System.....BLM, 2018  
Wetlands.....FWS National Wetlands Inventory, 2005



FOOTE SITE VILLAGE, MI  
2019

\*7643016371006\*  
NSN 7643016371006  
NSA REF. NO. USGSX24K70090





Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)  
World Geodetic System of 1984 (WGS84). Projection and  
1 000-meter grid: Universal Transverse Mercator, Zone 17T  
This map is not a legal document. Boundaries may be  
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entering private lands.

Imagery.....N.A.P., August 2016 - October 2016  
Roads.....U.S. Census Bureau, 2016  
Roads within US Forest Service Lands.....FSTopo Data  
with limited Forest Service updates, 2016  
Names.....GNS, 1980 - 2019  
Hydrography.....National Hydrography Dataset, 2002 - 2019  
Contours.....National Elevation Dataset, 1998 - 2019  
Boundaries.....Multiple sources: see metadata file 2017 - 2018  
Public Land Survey System.....BLM, 2018  
Wetlands.....FWS National Wetlands Inventory, 2005

UTM GRID AND 2019 MAGNETIC NORTH  
DECLINATION AT CENTER OF SHEET

U.S. National Grid  
100,000-m Square ID  
LK  
Grid Zone Designation  
17T

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET  
NORTH AMERICAN VERTICAL DATUM OF 1988  
This map was produced to conform with the  
National Geospatial Program US Topo Product Standard, 2011.  
A metadata file associated with this product is draft version 0.6.18



ADJOINING QUADRANGLES

1 Mikado  
2 Greenbush  
3 Foote Site Village  
4 East Tawas  
5 Spencer Lake

ROAD CLASSIFICATION

Expressway  
Secondary Hwy  
Ramp  
FS Primary Route  
Local Connector  
Local Road  
4WD  
US Route  
FS Passenger Route  
State Route  
FS High Clearance Route

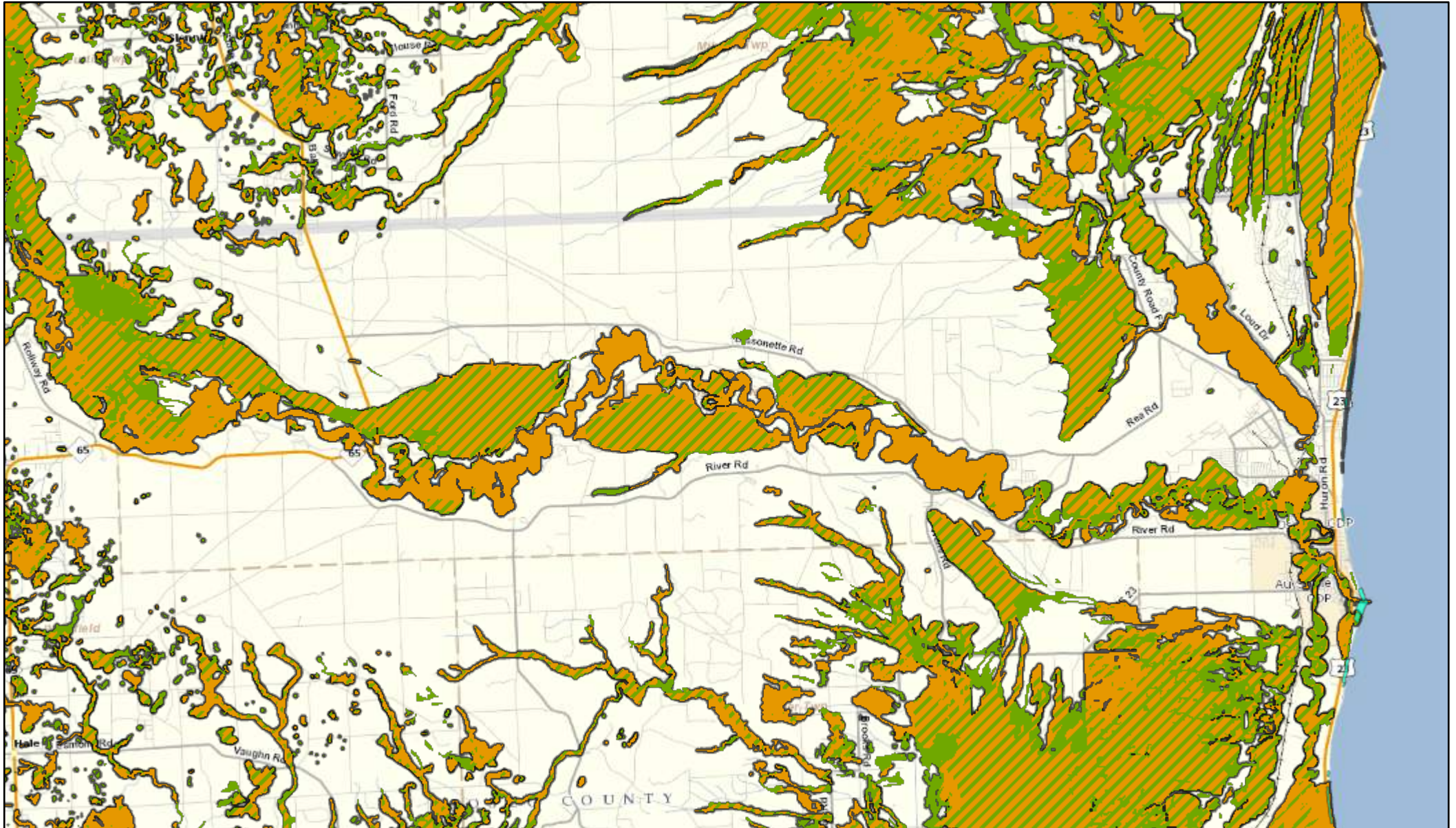
Check with local Forest Service unit  
for current travel conditions and restrictions.

OSCODA, MI  
2019

\*7643016371491  
NSN 7643016371491  
NSA REF. NO. USGSX24K33532



:HWODQGV 0DS 9LHZHU



\$SULO

+LJK 5LVN (URVLRQ =RQH V :HWODQGV DV LGHQWLILHG RQ 1:, DQG 0,5,6 PDSV DQG VRLO DUHDV ZKLFK LQFOXGH ZHWODQG VRLO  
3DUW )LQDO :HWODQGV ,QYHQWU\ :HWODQG +\GULF 6RLOV  
:HWODQGV DV LGHQWLILHG RQ 1: DQG 0,5,6 PDSV  
6RLO DUHDV ZKLFK LQFOXGH ZHWODQG VRLOV

6RXUFHV, (VUL +(5( \*DUPLQ 86\*6 ,QWHUPDS ,1&5  
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'LVFODPHU, 7KLV PDS LV QRW LQWHQGHG WR EH

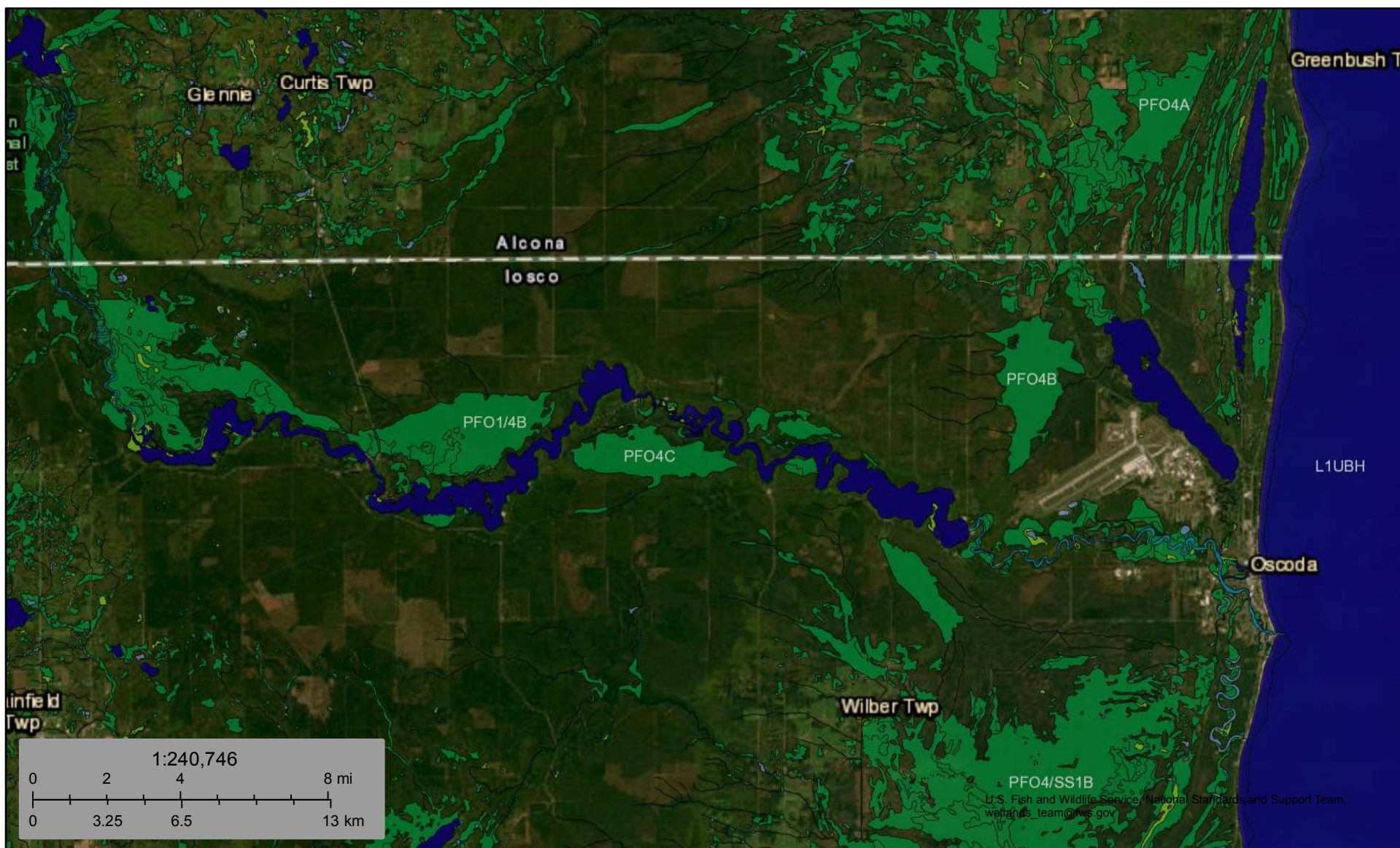




U.S. Fish and Wildlife Service

# National Wetlands Inventory

oscoda



April 5, 2023

## Wetlands

	Estuarine and Marine Deepwater		Freshwater Emergent Wetland		Lake
	Estuarine and Marine Wetland		Freshwater Forested/Shrub Wetland		Other
			Freshwater Pond		Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Michigan State Plane Central Zone (FIPS zone 2112). The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or state plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NOAA, N/NGS12  
National Geodetic Survey  
SSMC-3, #9202  
1315 East-West Highway  
Silver Spring, Maryland 20910-3282  
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

**Base map** information shown on this FIRM was derived from the Michigan Center for Geographic Information at a scale of 1:40,000 from photography dated 2005 or later.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

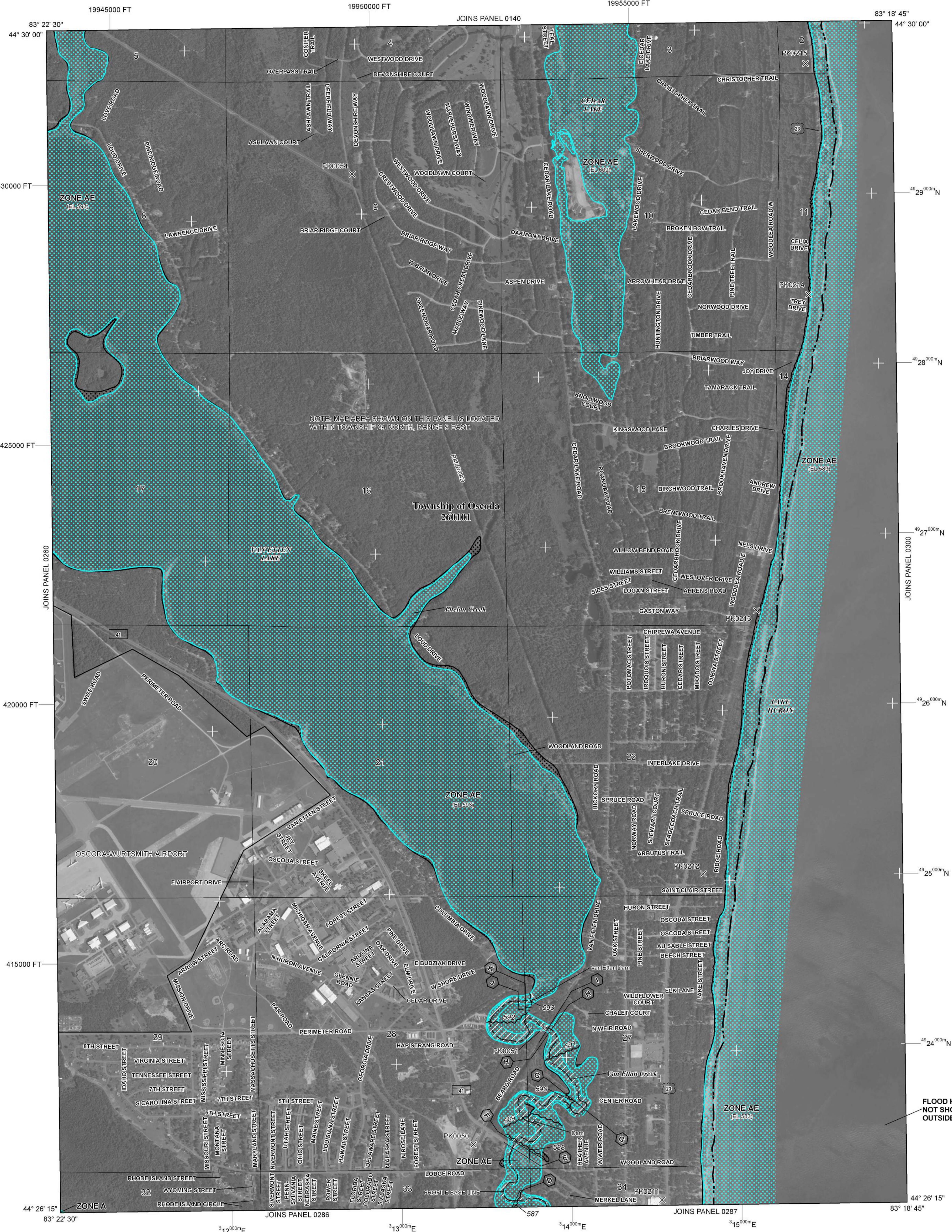
Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations** and **floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

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LEGEND

**SPECIAL FLOOD HAZARD AREAS (SFHAS) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**  
The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equalled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood. Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE A99** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**

**ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

**OTHER AREAS**

**ZONE D** Areas determined to be outside the 0.2% annual chance floodplain.

**ZONE E** Areas in which flood hazards are undetermined, but possible.

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**

**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

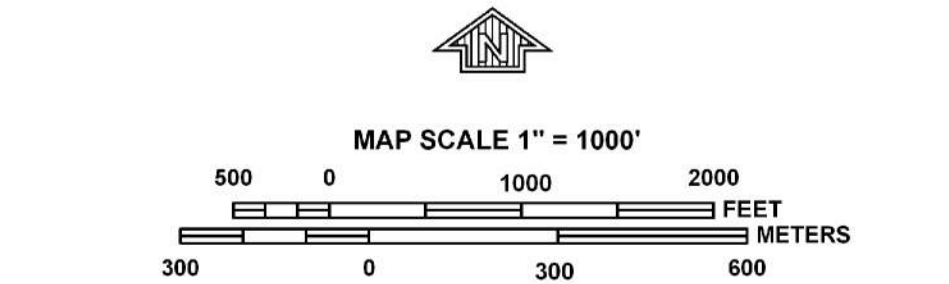
- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\*Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- Culvert
- Bridge
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
- 3100000 FT
- 5000-foot ticks: Michigan State Plane Central Zone (FIPS Zone 2112), Lambert Conformal Conic projection
- 1000-meter Universal Transverse Mercator grid values, zone 17
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile
- MAP REPOSITORIES
- Refer to Map Repositories list on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
- January 6, 2012
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0280E

**FIRM**  
FLOOD INSURANCE RATE MAP  
IOSCO COUNTY,  
MICHIGAN  
(ALL JURISDICTIONS)

**PANEL 280 OF 575**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
OSCODA TOWNSHIP OF	280101	0280	E

NOTICE TO USER:  
Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
26069C0280E  
**EFFECTIVE DATE**  
JANUARY 6, 2012  
**Federal Emergency Management Agency**

FLOOD HAZARD INFORMATION IS NOT SHOWN ON THIS MAP IN AREAS OUTSIDE OF IOSCO COUNTY



## NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

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NOAA, N/NGS12  
National Geodetic Survey  
SSMC-3, #9202  
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(301) 713-3242

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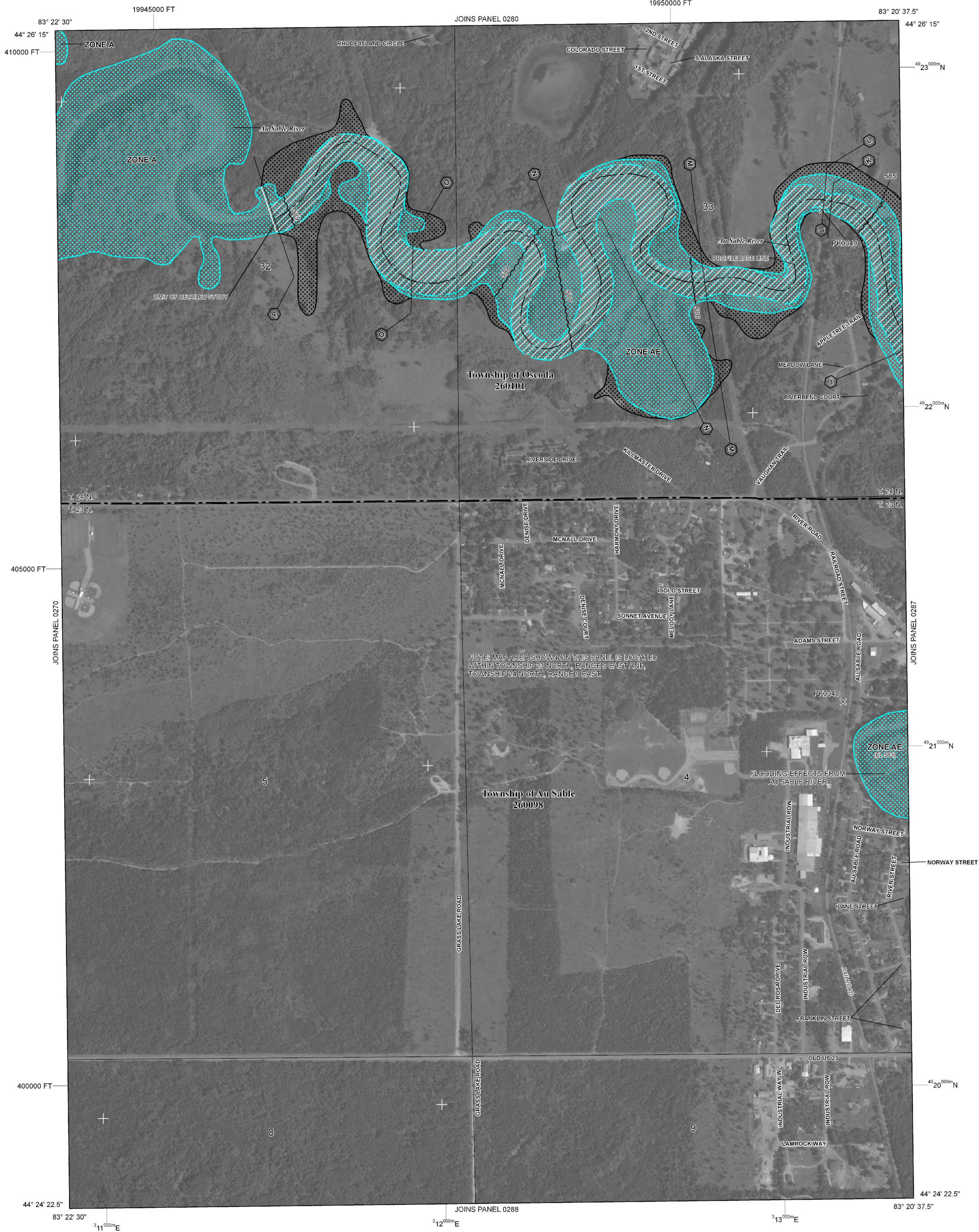
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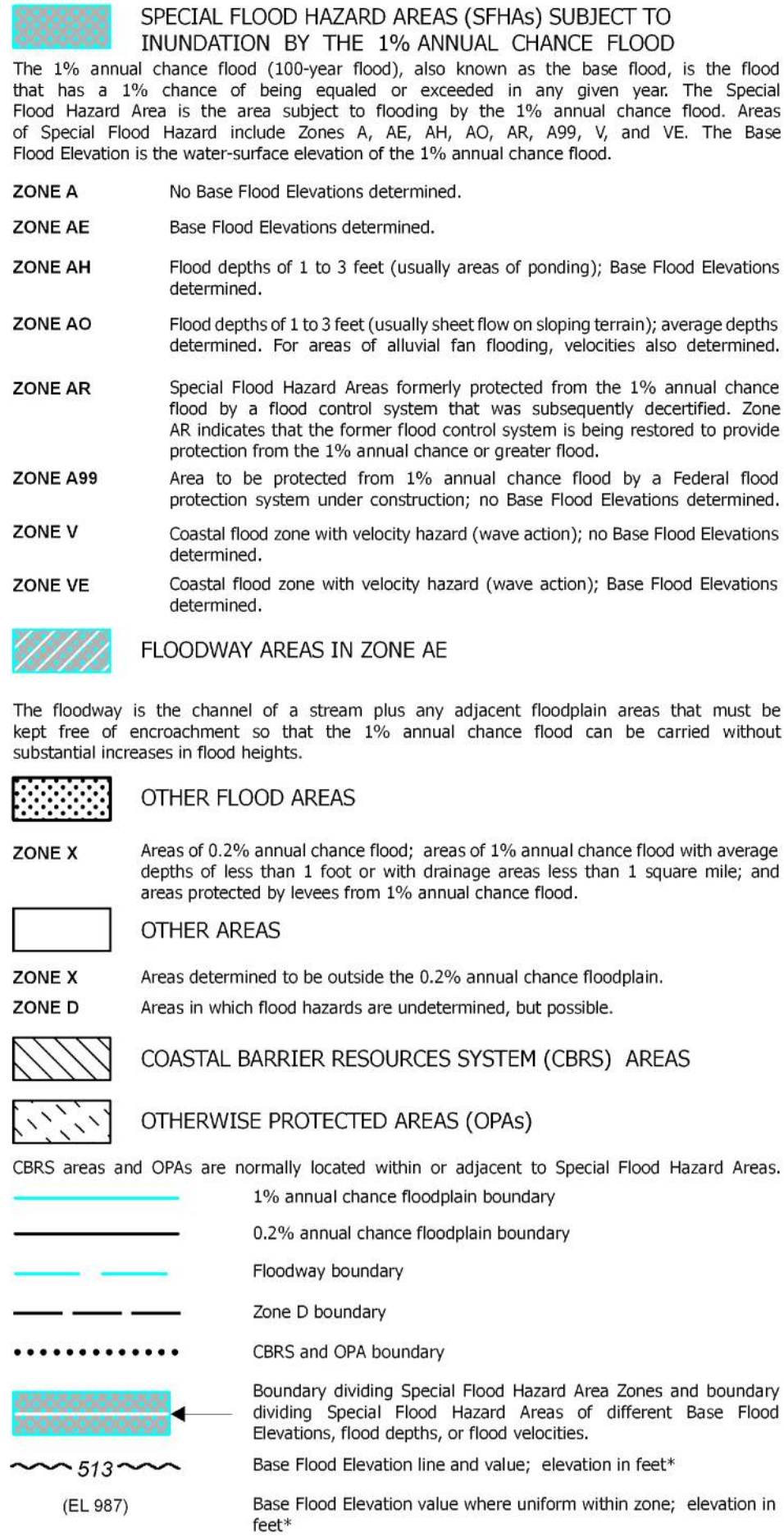
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**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

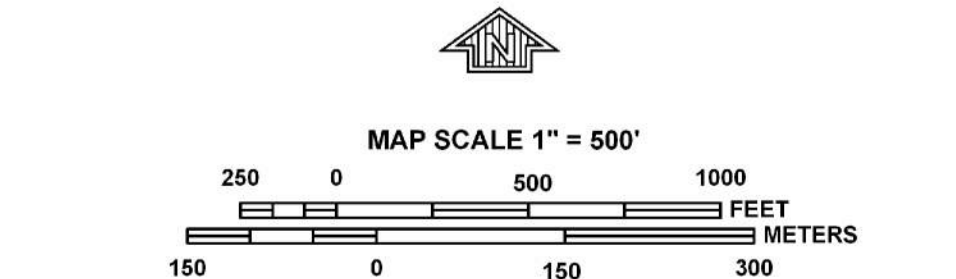
 FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER AREAS	
ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.


 1% annual chance floodplain boundary  
 0.2% annual chance floodplain boundary  
 Floodway boundary  
 Zone D boundary  
 CBRS and OPA boundary  
 Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.  
 Base Flood Elevation line and value; elevation in feet\*  
 Base Flood Elevation value where uniform within zone; elevation in feet\*

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0287E

FIRM

FLOOD INSURANCE RATE MAP


IOSCO COUNTY,  
MICHIGAN  
(ALL JURISDICTIONS)

**PANEL 287 OF 575**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

**CONTAINS:**

<u>COMMUNITY</u>	<u>NUMBER</u>	<u>PANEL</u>	<u>SUFFIX</u>
AU SABLE TOWNSHIP OF OSCODA, TOWNSHIP OF	280059  280101	0287  0287	E  E

**NOTICE TO USER:**  
Notice to User: The **Map Number** shown below should be used when placing map orders: the **Community Number** shown above should be used on insurance applications for the subject community.



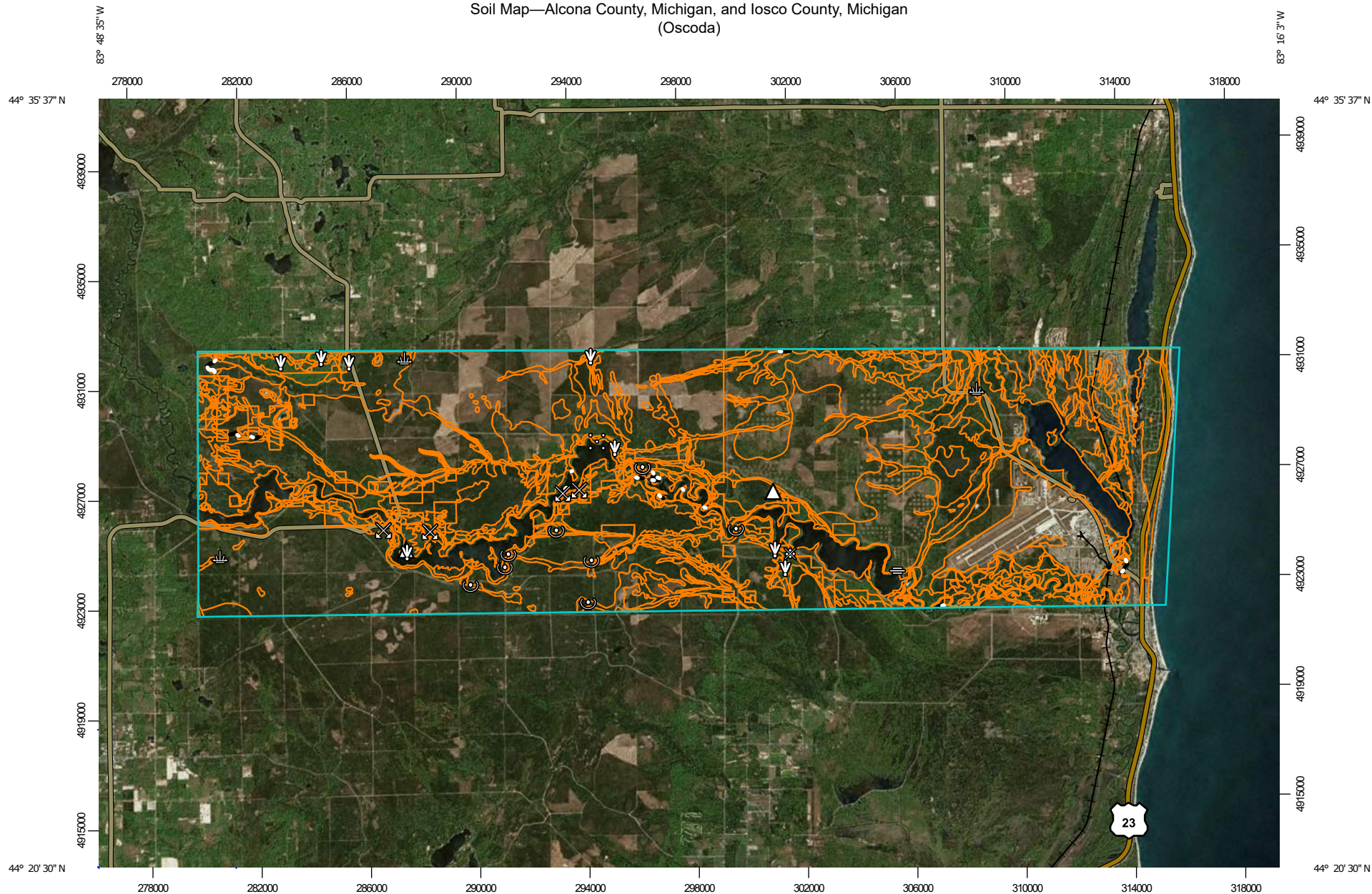
**MAP NUMBER**  
**26069C0287E**

**EFFECTIVE DATE**  
**JANUARY 6, 2012**

**Federal Emergency Management Agency**



# Soil Map—Alcona County, Michigan, and Iosco County, Michigan (Oscoda)



Map Scale: 1:197,000 if printed on A landscape (11" x 8.5") sheet.

0 2500 5000 10000 15000 Meters

0 5000 10000 20000 30000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84



**Natural Resources  
Conservation Service**

Web Soil Survey  
National Cooperative Soil Survey

4/5/2023  
Page 1 of 9

# Soil Map—Alcona County, Michigan, and Iosco County, Michigan (Oscoda)

## MAP LEGEND

### Area of Interest (AOI)

Area of Interest (AOI)

### Soils



Soil Map Unit Polygons



Soil Map Unit Lines



Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:15,800 to 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Alcona County, Michigan

Survey Area Data: Version 22, Aug 24, 2022

Soil Survey Area: Iosco County, Michigan

Survey Area Data: Version 17, Aug 26, 2022

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 1, 1999—Dec 31, 2003

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
12B	Tawas-Au Gres complex, 0 to 4 percent slopes	7.2	0.0%
16B	Graycalm sand, 0 to 6 percent slopes	1.9	0.0%
16D	Graycalm sand, 6 to 18 percent slopes	0.2	0.0%
18A	Au Gres sand, 0 to 3 percent slopes	16.4	0.0%
19	Leafriver muck	3.8	0.0%
26B	Cublake sand, 0 to 6 percent slopes	0.6	0.0%
27A	Tacoda sand, 0 to 3 percent slopes	0.9	0.0%
28B	East Lake sand, 0 to 6 percent slopes	5.7	0.0%
37A	Richter loamy fine sand, 0 to 3 percent slopes	8.7	0.0%
39B	Glennie loamy sand, 0 to 6 percent slopes	4.4	0.0%
39C	Glennie loamy sand, 6 to 12 percent slopes	4.8	0.0%
40A	Sprinkler sandy loam, 0 to 3 percent slopes	13.3	0.0%
43	Wakeley mucky sand	0.8	0.0%
44B	Ossineke fine sandy loam, 0 to 6 percent slopes	4.8	0.0%
53B	Negwegon silt loam, 2 to 6 percent slopes	0.1	0.0%
54A	Algonquin silt loam, 0 to 3 percent slopes	0.8	0.0%
55	Springport clay loam	1.9	0.0%
56C	Nester loam, 6 to 12 percent slopes	1.0	0.0%
59B	Algonquin-Springport complex, 0 to 6 percent slopes	1.0	0.0%
62A	Allendale loamy sand, 0 to 3 percent slopes	5.4	0.0%
71	Tawas muck	1.4	0.0%
77	Rollaway muck, frequently flooded	0.3	0.0%
81B	Grayling sand, 0 to 6 percent slopes	20.9	0.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
83B	Udipsamments, nearly level and undulating	1.1	0.0%
84B	Zimmerman loamy fine sand, 0 to 6 percent slopes	1.1	0.0%
86	Histosols and Aquepts, ponded	4.3	0.0%
93B	Tacoda-Wakeley complex, 0 to 4 percent slopes	1.4	0.0%
209B	Grayling sand, calcareous substratum, nearly level and undulating	23.3	0.0%
210C	Grayling sand, rolling	0.7	0.0%
212B	Grayling sand, very deep water table, nearly level and undulating	2.5	0.0%
222B	Typic Udipsamments, very deep water table, nearly level and undulating	7.5	0.0%
223B	Graycalm-Grayling sands, nearly level and undulating	6.3	0.0%
224B	Croswell sand, nearly level and undulating	1.1	0.0%
235C	Alfic Haplorthods, sandy over loamy-Alfic Haplorthods, sandy complex, rolling	3.2	0.0%
263A	Argic Endoaquods, nearly level	6.2	0.0%
426B	Coppler loamy sand, 0 to 6 percent slopes	2.9	0.0%
CswaaA	Croswell sand, 0 to 6 percent slopes	2.9	0.0%
LupabA	Lupton muck, 0 to 1 percent slopes	2.6	0.0%
W	Water	6.8	0.0%
<b>Subtotals for Soil Survey Area</b>		<b>180.1</b>	<b>0.2%</b>
<b>Totals for Area of Interest</b>		<b>84,064.9</b>	<b>100.0%</b>

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
12B	Tawas-Au Gres complex, 0 to 4 percent slopes	54.8	0.1%
13	Tawas and Lupton mucks, 0 to 1 percent slopes	2,964.7	3.5%
16B	Graycalm sand, 0 to 6 percent slopes	5,842.6	7.0%
18A	Au Gres sand, 0 to 3 percent slopes	1,036.9	1.2%
19	Leafriver muck	158.1	0.2%



Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
26B	Cublake sand, 0 to 6 percent slopes	315.3	0.4%
27A	Tacoda sand, 0 to 3 percent slopes	6.5	0.0%
28B	East Lake sand, 0 to 6 percent slopes	194.3	0.2%
39B	Glennie loamy sand, 0 to 6 percent slopes	42.8	0.1%
39C	Glennie loamy sand, 6 to 12 percent slopes	154.6	0.2%
40A	Sprinkler sandy loam, 0 to 3 percent slopes	95.9	0.1%
47D	Graycalm sand, 6 to 18 percent slopes	811.3	1.0%
47F	Graycalm sand, 18 to 45 percent slopes	93.9	0.1%
53B	Negwegon silt loam, 2 to 6 percent slopes	38.5	0.0%
54A	Algonquin silt loam, 0 to 3 percent slopes	194.5	0.2%
55	Springport clay loam	103.9	0.1%
56C	Nester loam, 6 to 12 percent slopes	16.1	0.0%
59B	Algonquin-Springport complex, 0 to 6 percent slopes	16.3	0.0%
62A	Allendale sand, 0 to 3 percent slopes	439.6	0.5%
71	Tawas muck	30.8	0.0%
75B	Rubicon sand, 0 to 6 percent slopes	78.5	0.1%
75D	Rubicon sand, 6 to 18 percent slopes	84.5	0.1%
75E	Rubicon sand, 18 to 35 percent slopes	174.3	0.2%
75F	Rubicon sand, 35 to 70 percent slopes	121.4	0.1%
77	Rollaway muck	5.0	0.0%
78	Pits, borrow	4.3	0.0%
81B	Grayling sand, 0 to 6 percent slopes	7,593.7	9.0%
81D	Grayling sand, 6 to 18 percent slopes	628.4	0.7%
81E	Grayling sand, 18 to 35 percent slopes	311.7	0.4%
82C	Udorthents, loamy, nearly level to gently rolling	18.4	0.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
83B	Udipsamments, nearly level and undulating	493.3	0.6%
84B	Zimmerman loamy fine sand, 0 to 6 percent slopes	10.0	0.0%
86	Histosols and Aquepts, ponded	102.3	0.1%
93B	Tacoda-Wakeley complex, 0 to 4 percent slopes	200.7	0.2%
97	Colonville very fine sandy loam, occasionally flooded	407.8	0.5%
100D	Curtisville sandy loam, 12 to 18 percent slopes	11.6	0.0%
103B	Nester sandy loam, 1 to 6 percent slopes	68.7	0.1%
103C	Nester sandy loam, 6 to 12 percent slopes	10.0	0.0%
114A	Ingalls sand, 0 to 3 percent slopes	146.0	0.2%
128	Dawson peat	283.3	0.3%
197A	Gladwin loamy sand, 0 to 3 percent slopes	319.4	0.4%
209B	Grayling sand, calcareous substratum, nearly level and undulating	23,865.7	28.4%
209C	Grayling sand, calcareous substratum, rolling	2,048.0	2.4%
209D	Grayling sand, calcareous substratum, hilly	594.6	0.7%
210B	Grayling sand, nearly level and undulating	197.7	0.2%
210C	Grayling sand, rolling	18.7	0.0%
210D	Grayling sand, hilly	0.0	0.0%
210E	Grayling sand, steep	39.6	0.0%
211B	Grayling sand, banded substratum, nearly level and undulating	881.5	1.0%
212B	Grayling sand, very deep water table, nearly level and undulating	1,848.9	2.2%
213B	Graycalm sand, nearly level and undulating	113.5	0.1%
214B	Typic Udipsamments, deep water table, nearly level and undulating	47.2	0.1%
215B	Typic Udipsamments, loamy substratum, nearly level and undulating	114.7	0.1%
220B	Typic Udipsamments, nearly level and undulating	126.1	0.2%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
220D	Typic Udipsamments, hilly	180.8	0.2%
220E	Typic Udipsamments, steep	556.6	0.7%
221B	Typic Udipsamments, banded substratum, nearly level and undulating	610.7	0.7%
221C	Typic Udipsamments, banded substratum, rolling	200.1	0.2%
221D	Typic Udipsamments, banded substratum, hilly	154.6	0.2%
221E	Typic Udipsamments, banded substratum, steep	132.5	0.2%
222B	Typic Udipsamments, very deep water table, nearly level and undulating	287.8	0.3%
223B	Graycalm-Grayling sands, nearly level and undulating	638.1	0.8%
223C	Graycalm-Grayling sands, rolling	83.3	0.1%
223D	Graycalm-Grayling sands, hilly	56.2	0.1%
223E	Graycalm-Grayling sands, steep	120.3	0.1%
224B	Croswell sand, nearly level and undulating	840.9	1.0%
225B	Entic Haplorthods, sandy, loamy substratum, nearly level and undulating	25.4	0.0%
225C	Entic Haplorthods, sandy, loamy substratum, rolling	40.0	0.0%
231D	Entic Haplorthods, sandy, banded substratum-Alfic Haplorthods, sandy complex, hilly	104.6	0.1%
231E	Entic Haplorthods, sandy, banded substratum-Alfic Haplorthods, sandy complex, steep	174.4	0.2%
232B	Entic Haplorthods, sandy-Alfic Haplorthods, sandy complex, very deep water table, nearly level and undulating	101.8	0.1%
235B	Alfic Haplorthods, sandy over loamy-Alfic Haplorthods, sandy complex, nearly level and undulating	145.5	0.2%
235C	Alfic Haplorthods, sandy over loamy-Alfic Haplorthods, sandy complex, rolling	262.1	0.3%
236B	Arenic Eutroboralfs, loamy, nearly level and undulating	157.2	0.2%



Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
237B	Eutroboralfs, nearly level and undulating	31.7	0.0%
237D	Eutroboralfs, hilly	15.1	0.0%
254A	Borosaprists, euic-Fluvaquents-Aquic Udipsammments complex, nearly level	1,744.8	2.1%
262A	Au Gres sand, nearly level	237.8	0.3%
263A	Argic Endoaquods, nearly level	889.0	1.1%
264A	Allendale loamy sand, nearly level	408.6	0.5%
272	Endoaquods-Fluvaquents complex	3.3	0.0%
273	Leafriver-Wakeley complex	171.5	0.2%
274	Typic Endoaquods	136.8	0.2%
280	Aquents and Histosols, ponded	191.7	0.2%
281	Borosaprists, dysic	21.3	0.0%
282	Borosaprists, euic	4,689.9	5.6%
356E	Aquepts-Histosols-Fluvaquents complex, nearly level to very steep	8.9	0.0%
357B	Udipsammments-Urban land complex, 0 to 8 percent slopes	2,941.4	3.5%
360	Wakeley muck	271.0	0.3%
367A	Whittemore-Springport complex, 0 to 3 percent slopes	79.0	0.1%
368A	Au Gres-Deford complex, 0 to 3 percent slopes	191.0	0.2%
369	Deford muck	551.2	0.7%
370A	Mcivor sand, 0 to 3 percent slopes	32.2	0.0%
375	Kanotin muck	11.0	0.0%
381A	Mcivor-Wakeley complex, 0 to 3 percent slopes	207.9	0.2%
383B	Wurtsmith sand, 0 to 6 percent slopes	1,075.6	1.3%
404A	Manary silty clay loam, 0 to 3 percent slopes	83.3	0.1%
406A	Winterfield loamy sand, 0 to 2 percent slopes	92.0	0.1%
411A	Meehan sand, 0 to 3 percent slopes	401.8	0.5%
426B	Coppler loamy sand, 0 to 6 percent slopes	52.8	0.1%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
432B	Wurtsmith-Meehan sands, 0 to 6 percent slopes	609.5	0.7%
438C	Meehan-Tawas-Wurtsmith complex, 0 to 12 percent slopes	161.5	0.2%
439D	Deer Park sand, 4 to 18 percent slopes	895.4	1.1%
448A	Meehan-Tawas complex, 0 to 3 percent slopes	652.0	0.8%
CswaaA	Croswell sand, 0 to 6 percent slopes	960.4	1.1%
LupabA	Lupton muck, 0 to 1 percent slopes	55.1	0.1%
W	Water	6,338.4	7.5%
<b>Subtotals for Soil Survey Area</b>		<b>82,666.9</b>	<b>98.3%</b>
<b>Totals for Area of Interest</b>		<b>84,064.9</b>	<b>100.0%</b>

# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

## Location

Alcona and Iosco counties, Michigan



## Local office

Michigan Ecological Services Field Office

☎ (517) 351-2555

📅 (517) 351-1443

2651 Coolidge Road Suite 101

East Lansing, MI 48823-6360

NOT FOR CONSULTATION

# Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

- 
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

## Mammals

NAME	STATUS
<p><b>Northern Long-eared Bat</b> <i>Myotis septentrionalis</i></p> <p>Wherever found</p> <p>No critical habitat has been designated for this species.  <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a></p>	Endangered
<p><b>Tricolored Bat</b> <i>Perimyotis subflavus</i></p> <p>Wherever found</p> <p>No critical habitat has been designated for this species.  <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a></p>	Proposed Endangered

## Birds

NAME	STATUS
<p><b>Piping Plover</b> <i>Charadrius melodus</i></p> <p>There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat.  <a href="https://ecos.fws.gov/ecp/species/6039">https://ecos.fws.gov/ecp/species/6039</a></p>	Endangered
<p><b>Red Knot</b> <i>Calidris canutus rufa</i></p> <p>Wherever found</p> <p>This species only needs to be considered if the following condition applies:</p> <ul style="list-style-type: none"> <li>Only actions that occur along coastal areas during the Red Knot migratory window of MAY 1 - SEPTEMBER 30.</li> </ul> <p>There is <b>proposed</b> critical habitat for this species.  <a href="https://ecos.fws.gov/ecp/species/1864">https://ecos.fws.gov/ecp/species/1864</a></p>	Threatened

## Reptiles

NAME	STATUS
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## Eastern Massasauga (=rattlesnake) *Sistrurus catenatus* Threatened

Wherever found

This species only needs to be considered if any of the following conditions apply:

- For all Projects: Project is within Tier1 Habitat
- For all projects: Project is within Tier2 Habitat
- For all Projects: Project is within EMR Range

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/2202>

## Insects

NAME

STATUS

### Hine's Emerald Dragonfly *Somatochlora hineana*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/7877>

### Monarch Butterfly *Danaus plexippus*

Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

## Flowering Plants

NAME

STATUS

### Pitcher's Thistle *Cirsium pitcheri*

Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/8153>

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

# Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds  
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds  
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON



<b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Dec 1 to Aug 31
<b>Black Tern</b> <i>Chlidonias niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3093">https://ecos.fws.gov/ecp/species/3093</a>	Breeds May 15 to Aug 20
<b>Black-billed Cuckoo</b> <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9399">https://ecos.fws.gov/ecp/species/9399</a>	Breeds May 15 to Oct 10
<b>Bobolink</b> <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
<b>Canada Warbler</b> <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
<b>Cerulean Warbler</b> <i>Dendroica cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/2974">https://ecos.fws.gov/ecp/species/2974</a>	Breeds Apr 20 to Jul 20
<b>Chimney Swift</b> <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
<b>Common Tern</b> <i>Sterna hirundo hirundo</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Aug 31
<b>Connecticut Warbler</b> <i>Oporornis agilis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 15 to Aug 10

<b>Eastern Whip-poor-will</b> <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
<b>Evening Grosbeak</b> <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
<b>Golden Eagle</b> <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a>	Breeds Jan 1 to Aug 31
<b>Golden-winged Warbler</b> <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8745">https://ecos.fws.gov/ecp/species/8745</a>	Breeds May 1 to Jul 20
<b>Kirtland's Warbler</b> <i>Setophaga kirtlandii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8078">https://ecos.fws.gov/ecp/species/8078</a>	Breeds May 25 to Jul 31
<b>Lesser Yellowlegs</b> <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere
<b>Long-eared Owl</b> <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3631">https://ecos.fws.gov/ecp/species/3631</a>	Breeds Mar 1 to Jul 15
<b>Olive-sided Flycatcher</b> <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3914">https://ecos.fws.gov/ecp/species/3914</a>	Breeds May 20 to Aug 31

**Ruddy Turnstone** *Arenaria interpres morinella*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular  
Bird Conservation Regions (BCRs) in the continental USA

**Wood Thrush** *Hylocichla mustelina*

Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its  
range in the continental USA and Alaska.

## Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

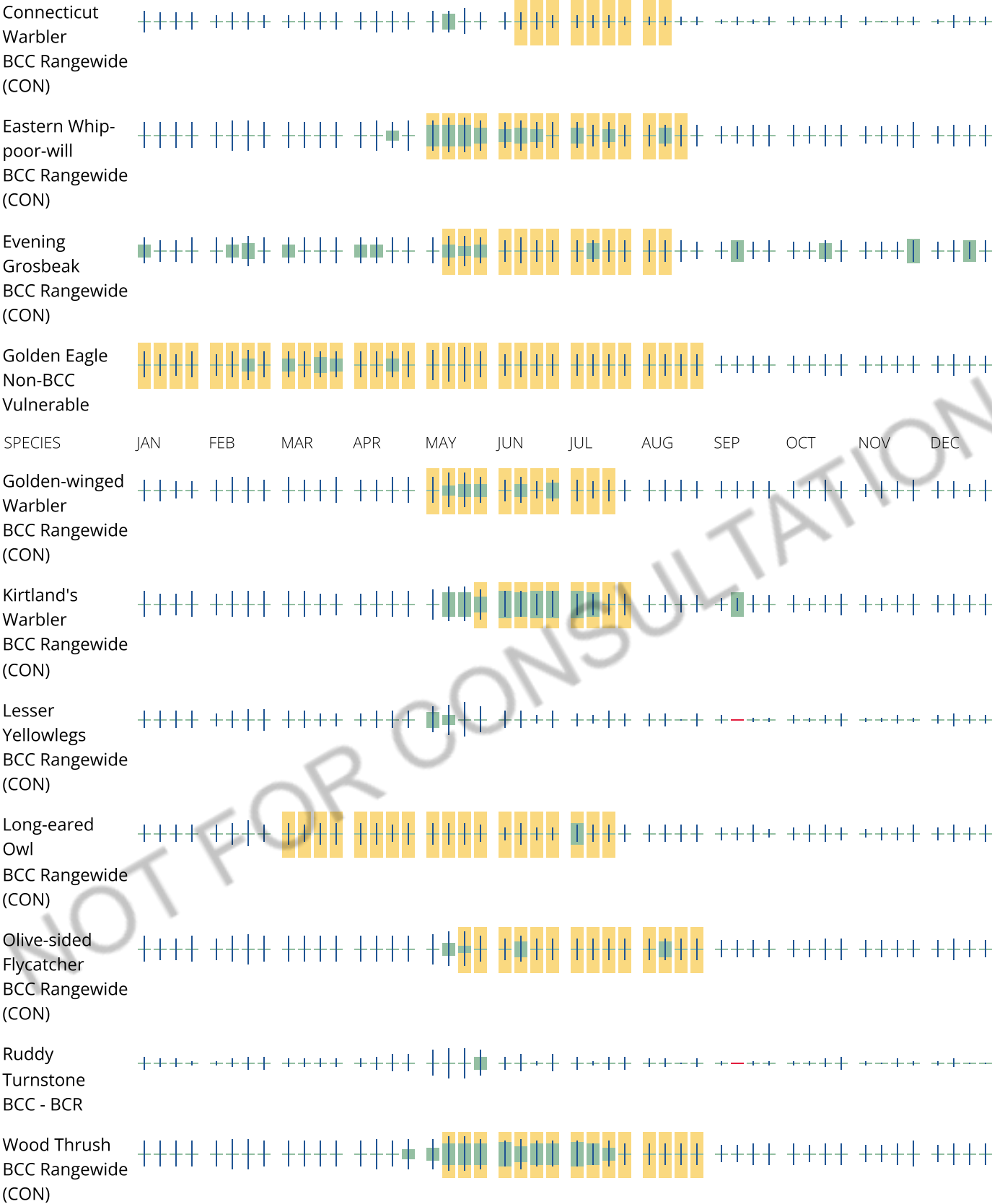
### No Data (-)

A week is marked as having no data if there were no survey events for that week.

### Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the

locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

### **What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

### **What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### **How do I know if a bird is breeding, wintering or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and



3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

# Facilities

## National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

## Fish hatcheries

There are no fish hatcheries at this location.

## Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEM1C](#)

[PEM1B](#)

[PEM1Ch](#)

[PEM1F](#)

[PEM2/ABF](#)

[PEM1A](#)



## FRESHWATER FORESTED/SHRUB WETLAND

[PFO4B](#)[PFO4C](#)[PFO1/4B](#)[PFO4/SS1C](#)[PSS1/EM1C](#)[PFO1C](#)[PSS1C](#)[PFO4/SS4B](#)[PSS1/4C](#)[PFO1/SS1C](#)[PFO1/4C](#)[PFO4/SS1B](#)[PFO1/SS1A](#)[PSS4C](#)[PFO4/SS1A](#)[PFO4/SS4C](#)[PFO4A](#)[PSS1/EM1A](#)[PSS4/EM1C](#)[PSS1B](#)[PSS4/EM1B](#)[PFO1/SS1B](#)[PSS3B](#)[PFO4/EM1C](#)[PSS1/EM1F](#)[PSS1/4A](#)[PSS4B](#)

## FRESHWATER POND

[PUBG](#)[PUBGx](#)[PABG](#)[PUBK](#)

## LAKE

[L1UBH](#)[L2UBH](#)[L1UBHh](#)[L2ABGh](#)[L2EM2G](#)[L2ABHh](#)[L2ABH](#)[L2ABG](#)

RIVERINE

[R2UBH](#)[R4SBC](#)[R5UBH](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

**NOTE:** This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

## Appendix C: Public Hearing Documents

## Appendix D: Project Estimates and Present Worth



# ROWE PROFESSIONAL SERVICES COMPANY

Large Firm Resources. Personal Attention. <sup>SM</sup>

OSCODA TOWNSHIP  
SANITARY SYSTEM IMPROVEMENTS  
SRF PROJECT PLAN  
ROWE PROJECT NO. 18C0068  
PRELIMINARY OPINION OF COST

Federal "Real" Discount Rate for Water Resources Planning (Interest Rate)  $i =$  0.0225  
Number of Years,  $n =$  30

## Alternative No. 1 - No Action

DESCRIPTION		Service Life	Salvage Value at 2054	Annual OM&R	Present Worth of OM&R	Present Worth of 30 Yr Salvage Value
<b><u>Pump Station 1 - No Action</u></b>						
Not Applicable		1	\$ -	\$ 15,000	\$ 324,680	\$ -
		1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>			\$ -	\$ 15,000	\$ 325,000	\$ -
<b><u>Pump Station 2 - No Action</u></b>						
Not Applicable		1	\$ -	\$ 15,000	\$ 324,680	\$ -
		1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>			\$ -	\$ 15,000	\$ 325,000	\$ -
<b><u>Pump Station 3 - No Action</u></b>						
Not Applicable		1	\$ -	\$ 15,000	\$ 324,680	\$ -
		1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>			\$ -	\$ 15,000	\$ 325,000	\$ -
<b><u>Pump Station 4 - No Action</u></b>						
Not Applicable		1	\$ -	\$ 35,000	\$ 757,587	\$ -
		1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>			\$ -	\$ 35,000	\$ 758,000	\$ -
<b><u>Pump Station 8 - No Action</u></b>						
Not Applicable		1	\$ -	\$ 30,000	\$ 649,360	\$ -
		1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>			\$ -	\$ 30,000	\$ 649,000	\$ -
<b><u>Pump Station 9 - No Action</u></b>						
Not Applicable		1	\$ -	\$ 15,000	\$ 324,680	\$ -
		1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>			\$ -	\$ 15,000	\$ 325,000	\$ -
<b><u>Pump Station 13 - No Action</u></b>						
Not Applicable		1	\$ -	\$ 20,000	\$ 432,907	\$ -
		1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>			\$ -	\$ 20,000	\$ 433,000	\$ -
<b><u>Pump Station 15 - No Action</u></b>						
Not Applicable		1	\$ -	\$ 15,000	\$ 324,680	\$ -
		1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>			\$ -	\$ 15,000	\$ 325,000	\$ -
<b><u>Pump Station 16 - No Action</u></b>						
Not Applicable		1	\$ -	\$ 15,000	\$ 324,680	\$ -
		1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>			\$ -	\$ 15,000	\$ 325,000	\$ -



# ROWE PROFESSIONAL SERVICES COMPANY

Large Firm Resources. Personal Attention.

## Alternative No. 1 - No Action

DESCRIPTION	Service	Salvage Value	Annual	Present Worth	Present Worth of 30 Yr Salvage
<b><u>Pump Station 17 - No Action</u></b>					
Not Applicable	1	\$ -	\$ 20,000	\$ 432,907	\$ -
	1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>		<b>\$ -</b>	<b>\$ 20,000</b>	<b>\$ 433,000</b>	<b>\$ -</b>
<b><u>Pump Station 22 - No Action</u></b>					
Not Applicable	1	\$ -	\$ 15,000	\$ 324,680	\$ -
	1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>		<b>\$ -</b>	<b>\$ 15,000</b>	<b>\$ 325,000</b>	<b>\$ -</b>
<b><u>Pump Station 23 - No Action</u></b>					
Not Applicable	1	\$ -	\$ 15,000	\$ 324,680	\$ -
	1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>		<b>\$ -</b>	<b>\$ 15,000</b>	<b>\$ 325,000</b>	<b>\$ -</b>
<b><u>Pump Station 24 - No Action</u></b>					
Not Applicable	1	\$ -	\$ 15,000	\$ 324,680	\$ -
	1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>		<b>\$ -</b>	<b>\$ 15,000</b>	<b>\$ 325,000</b>	<b>\$ -</b>
<b><u>Pump Station 28 - No Action</u></b>					
Not Applicable	1	\$ -	\$ 15,000	\$ 324,680	\$ -
	1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>		<b>\$ -</b>	<b>\$ 15,000</b>	<b>\$ 325,000</b>	<b>\$ -</b>
<b><u>PS 25 Forcemain</u></b>					
Not Applicable	1	\$ -	\$ 25,000	\$ 541,133	\$ -
	1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>		<b>\$ -</b>	<b>\$ 25,000</b>	<b>\$ 541,000</b>	<b>\$ -</b>
<b><u>Sewer Line Reahbilitation</u></b>					
Not Applicable	1	\$ -	\$ 10,000	\$ 216,453	\$ -
	1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>		<b>\$ -</b>	<b>\$ 10,000</b>	<b>\$ 216,000</b>	<b>\$ -</b>
<b><u>Manhole Rehabilitation</u></b>					
Not Applicable	1	\$ -	\$ 10,000	\$ 216,453	\$ -
	1	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>		<b>\$ -</b>	<b>\$ 10,000</b>	<b>\$ 216,000</b>	<b>\$ -</b>

**OSCODA TOWNSHIP  
SANITARY SYSTEM IMPROVEMENTS  
SRF PROJECT PLAN  
ROWE PROJECT NO. 18C0068  
PRELIMINARY OPINION OF COST**

Federal "Real" Discount Rate for Water Resources Planning (Interest Rate)  $i =$  0.0225  
Number of Years,  $n =$  30

**Alternative No. 2 - Rehab/Replace Stations and Rehab Sewer Lines/Manholes**

DESCRIPTION	UNIT	QTY	PRICE	AMOUNT	Service Life	Salvage Value at 2054	Annual OM&R	Present Worth of OM&R	Present Worth of 30 Yr Salvage Value
<b>Pump Station 1</b>									
Mobilization	LS	1	\$ 3,000.00	\$ 3,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	2	\$ 12,500.00	\$ 25,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Temporary Pump and Haul	LS	1	\$ 2,000.00	\$ 2,000.00	30	\$ -	\$ -	\$ -	\$ -
				<b>Subtotal</b>		<b>\$ -</b>	<b>\$ 750</b>	<b>\$ 16,234</b>	<b>\$ -</b>
<b>Pump Station 2</b>									
Mobilization	LS	1	\$ 3,000.00	\$ 3,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	2	\$ 12,500.00	\$ 25,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Temporary Pump and Haul	LS	1	\$ 2,000.00	\$ 2,000.00	30	\$ -	\$ -	\$ -	\$ -
				<b>Subtotal</b>		<b>\$ -</b>	<b>\$ 750</b>	<b>\$ 16,234</b>	<b>\$ -</b>
<b>Pump Station 3</b>									
Mobilization	LS	1	\$ 2,000.00	\$ 2,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	1	\$ 12,500.00	\$ 12,500.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Temporary Pump and Haul	LS	1	\$ 2,000.00	\$ 2,000.00	30	\$ -	\$ -	\$ -	\$ -
Electric/Control Panel Allowance	LS	1	\$ 2,000.00	\$ 2,000.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
				<b>Subtotal</b>		<b>\$ -</b>	<b>\$ 1,250</b>	<b>\$ 27,057</b>	<b>\$ -</b>
<b>Pump Station 4</b>									
Mobilization	LS	1	\$ 12,000.00	\$ 12,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	2	\$ 40,000.00	\$ 80,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Replace Variable Frequency Drives	Ea	2	\$ 15,000.00	\$ 30,000.00	20	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Temporary Bypass Pumping	LS	1	\$ 10,000.00	\$ 10,000.00	30	\$ -	\$ -	\$ -	\$ -
				<b>Subtotal</b>		<b>\$ -</b>	<b>\$ 1,250</b>	<b>\$ 27,057</b>	<b>\$ -</b>
<b>Pump Station 8</b>									
Mobilization	LS	1	\$ 27,000.00	\$ 27,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	2	\$ 25,000.00	\$ 50,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Valves and Piping	LS	1	\$ 80,000.00	\$ 80,000.00	20	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Valve Vault - Complete	LS	1	\$ 60,000.00	\$ 60,000.00	20	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Wet Well Infiltration Rehabilitation	LS	1	\$ 25,000.00	\$ 25,000.00	20	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Bypass Pumping Connection	LS	1	\$ 20,000.00	\$ 20,000.00	30	\$ -	\$ -	\$ -	\$ -
Temporary Bypass Pumping	LS	1	\$ 25,000.00	\$ 25,000.00	30	\$ -	\$ -	\$ -	\$ -
Utility Allowance	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Soil Erosion and Sedimentation Control	LS	1	\$ 2,500.00	\$ 2,500.00	30	\$ -	\$ -	\$ -	\$ -
Cleanup and Seeding	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
				<b>Subtotal</b>		<b>\$ -</b>	<b>\$ 2,250</b>	<b>\$ 48,702</b>	<b>\$ -</b>
<b>Pump Station 9</b>									
Mobilization	LS	1	\$ 14,000.00	\$ 14,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	2	\$ 25,000.00	\$ 50,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Mechanical and Piping, Incl. Valve Replacement	LS	1	\$ 35,000.00	\$ 35,000.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Wet Well and Valve Vault Hatch Replacement	LS	1	\$ 25,000.00	\$ 25,000.00	30	\$ -	\$ 50.00	\$ 1,082.27	\$ -
Wet Well Infiltration Rehabilitation	LS	1	\$ 15,000.00	\$ 15,000.00	30	\$ -	\$ -	\$ -	\$ -
Temporary Bypass Pumping	LS	1	\$ 10,000.00	\$ 10,000.00	30	\$ -	\$ -	\$ -	\$ -
Utility Allowance	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Cleanup and Seeding	LS	1	\$ 1,000.00	\$ 1,000.00	30	\$ -	\$ -	\$ -	\$ -
				<b>Subtotal</b>		<b>\$ -</b>	<b>\$ 1,300</b>	<b>\$ 28,139</b>	<b>\$ -</b>



Alternative No. 2 - Rehab/Replace Stations and Rehab Sewer Lines/Manholes

DESCRIPTION	UNIT	QTY	PRICE	AMOUNT	Service	Salvage Value	Annual	Present Worth	Present Worth of 30 Yr Salvage
<b>Pump Station 13</b>									
Mobilization	LS	1	\$ 37,000.00	\$ 37,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Station Reconstruction - Complete	LS	1	\$ 350,000.00	\$ 350,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Temporary Bypass Pumping	Ea	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
Utility Allowance	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
Cleanup and Restoration	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Subtotal				\$ 402,000.00		\$ -	\$ 750	\$ 16,234	\$ -
<b>Pump Station 15</b>									
Mobilization	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Remove Contents and Demolish Drywell	LS	1	\$ 5,000.00	\$ 25,000.00	20	\$ -	\$ -	\$ -	\$ -
Remove Contents and Demolish Wetwell	LS	1	\$ 1,000.00	\$ 15,000.00	30	\$ -	\$ -	\$ -	\$ -
Cut and Cap Exist Force Main	LS	1	\$ 20,000.00	\$ 3,500.00	30	\$ -	\$ -	\$ -	\$ -
Utility Allowance	LS	1	\$ 5,000.00	\$ 3,000.00	30	\$ -	\$ -	\$ -	\$ -
Cleanup and Restoration	LS	1	\$ 72,000.00	\$ 4,000.00	20	\$ -	\$ -	\$ -	\$ -
Subtotal				\$ 56,000.00		\$ -	\$ -	\$ -	\$ -
<b>Pump Station 16</b>									
Mobilization	LS	1	\$ 11,000.00	\$ 11,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	2	\$ 25,000.00	\$ 50,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Mechanical Piping and Valve Replacement	LS	1	\$ 50,000.00	\$ 50,000.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Temporary Bypass Pumping	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
Cleanup and Restoration	LS	1	\$ 3,000.00	\$ 3,000.00	20	\$ -	\$ -	\$ -	\$ -
Subtotal				\$ 119,000.00		\$ -	\$ 1,250	\$ 27,057	\$ -
<b>Pump Station 17</b>									
Mobilization	LS	1	\$ 42,000.00	\$ 42,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Station Reconstruction - Complete	LS	1	\$ 400,000.00	\$ 400,000.00	30	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Temporary Bypass Pumping	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Utility Allowance	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Cleanup and Restoration	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Subtotal				\$ 457,000.00		\$ -	\$ 750	\$ 16,234	\$ -
<b>Pump Station 22</b>									
Mobilization	LS	1	\$ 8,000.00	\$ 8,000.00	30	\$ -	\$ -	\$ -	\$ -
Grinder Can Station - Complete	LS	1	\$ 35,000.00	\$ 35,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
1 1/4" HDPE Forcemain	LFT	300	\$ 45.00	\$ 13,500.00	20	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Connect Force Main to Exist MH	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
Temporary Pump and Haul	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Abandon Existing Can Station	LS	1	\$ 15,000.00	\$ 15,000.00	30	\$ -	\$ -	\$ -	\$ -
Utility Allowance	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Cleanup and Restoration	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Subtotal				\$ 92,000.00		\$ -	\$ 1,250	\$ 27,057	\$ -
<b>Pump Station 23</b>									
Mobilization	LS	1	\$ 10,000.00	\$ 10,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	2	\$ 20,000.00	\$ 40,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Remove/Replace Wet Well Top Section and hatch/vent	LS	1	\$ 20,000.00	\$ 20,000.00	30	\$ -	\$ 50.00	\$ 1,082.27	\$ -
Bypass Pumping Connection	LS	1	\$ 15,000.00	\$ 15,000.00	20	\$ -	\$ -	\$ -	\$ -
Remove and Replace Air Release Valve	LS	1	\$ 10,000.00	\$ 10,000.00	20	\$ -	\$ 100.00	\$ 2,164.53	\$ -
Temporary Bypass Pumping	LS	1	\$ 8,000.00	\$ 8,000.00	30	\$ -	\$ -	\$ -	\$ -
Cleanup and Seeding	LS	1	\$ 3,000.00	\$ 3,000.00	20	\$ -	\$ -	\$ -	\$ -
Subtotal				\$ 106,000.00		\$ -	\$ 900	\$ 19,481	\$ -





Alternative No. 2 - Rehab/Replace Stations and Rehab Sewer Lines/Manholes

DESCRIPTION	UNIT	QTY	PRICE	AMOUNT	Service	Salvage Value	Annual	Present Worth	Present Worth of 30 Yr Salvage
<b>Pump Station 24</b>									
Mobilization	LS	1	\$ 7,000.00	\$ 7,000.00	30	\$ -	\$ -	\$ -	\$ -
Grinder Can Station - Complete	LS	1	\$ 35,000.00	\$ 35,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
1 1/4" HDPE Forcemain	LFT	100	\$ 45.00	\$ 4,500.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Connect Force Main to Exist MH	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
Temporary Pump and Haul	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
Abandon Existing Can Station	LS	1	\$ 15,000.00	\$ 15,000.00	20	\$ -	\$ -	\$ -	\$ -
Utility Allowance	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
Cleanup and Restoration	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Subtotal				\$ 82,000.00		\$ -	\$ 1,250	\$ 27,057	\$ -
<b>Pump Station 28</b>									
Mobilization	LS	1	\$ 1,000.00	\$ 1,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	EA	2	\$ 15,000.00	\$ 30,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Electric/Control Panel Allowance	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Temporary Bypass Pumping	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
Subtotal				\$ 41,000.00		\$ -	\$ 1,250	\$ 27,057	\$ -
<b>PS 25 Forcemain</b>									
Mobilization	LS	1	\$ 84,000.00	\$ 84,000.00	30	\$ -	\$ -	\$ -	\$ -
Line Existing 14" forcemain w/10" HDPE	LFT	14000	\$ 50.00	\$ 700,000.00	50	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Maintenance Structures	Ea	15	\$ 5,000.00	\$ 75,000.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Cleanup and Restoration	LS	1	\$ 20,000.00	\$ 20,000.00	20	\$ -	\$ -	\$ -	\$ -
Temporary Bypass Pumping	LS	1	\$ 40,000.00	\$ 40,000.00	30	\$ -	\$ -	\$ -	\$ -
Subtotal				\$ 919,000.00		\$ -	\$ 1,250	\$ 27,057	\$ -
<b>Sewer Line Reahbilitation</b>									
8" Point Repair	Ea	13	\$ 2,000.00	\$ 26,000.00	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
10" Point Repair	Ea	0	\$ 2,000.00	\$ -	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
12" Point Repair	Ea	3	\$ 2,500.00	\$ 7,500.00	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
15" Point Repair	Ea	0	\$ 2,500.00	\$ -	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
18" Point Repair	Ea	0	\$ 3,000.00	\$ -	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
21" Point Repair	Ea	0	\$ 3,000.00	\$ -	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
8" CIPP Lining	LFT	1862	\$ 65.00	\$ 121,030.00	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
10" CIPP Lining	LFT	266	\$ 70.00	\$ 18,620.00	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
12" CIPP Lining	LFT	1169	\$ 75.00	\$ 87,675.00	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
15" CIPP Lining	LFT	414	\$ 80.00	\$ 33,120.00	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
18" CIPP Lining	LFT	565	\$ 80.00	\$ 45,200.00	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
21" CIPP Lining	LFT	1890	\$ 100.00	\$ 189,000.00	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
8" Full Reconstruct	LFT	512	\$ 175.00	\$ 89,600.00	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
10" Full Reconstruct	LFT	0	\$ 185.00	\$ -	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
12" Full Reconstruct	LFT	101	\$ 200.00	\$ 20,200.00	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
15" Full Reconstruct	LFT	0	\$ 225.00	\$ -	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
18" Full Reconstruct	LFT	0	\$ 250.00	\$ -	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
21" Full Reconstruct	LFT	0	\$ 300.00	\$ -	30	\$ -	\$ 200.00	\$ 4,329.07	\$ -
Miscellaneous	LS	1	\$ 32,000.00	\$ 32,000.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Mobilization	LS	1	\$ 64,000.00	\$ 64,000.00	20	\$ -	\$ -	\$ -	\$ -
Subtotal				\$ 734,000.00		\$ -	\$ 4,100	\$ 88,746	\$ -
<b>Manhole Rehabilitation</b>									
Mobilization	LS	1	\$ 20,000.00	\$ 20,000.00	30	\$ -	\$ -	\$ -	\$ -
Raise Rim to Grade	EA	20	\$ 3,500.00	\$ 70,000.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
CIPM Structure	EA	20	\$ 5,500.00	\$ 110,000.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Chemical Grout/Hydraulic Cement for defective Tap	EA	5	\$ 3,500.00	\$ 17,500.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Subtotal				\$ 218,000.00		\$ -	\$ 1,500	\$ 32,468	\$ -

**OSCODA TOWNSHIP  
SANITARY SYSTEM IMPROVEMENTS  
SRF PROJECT PLAN  
ROWE PROJECT NO. 18C0068  
PRELIMINARY OPINION OF COST**

Federal "Real" Discount Rate for Water Resources Planning (Interest Rate) i = 0.0225  
Number of Years, n = 30

**Alternative No. 3 - Rehab/Replace Stations and Rehab/Replace Sewer Lines/Manholes**

DESCRIPTION	UNIT	QTY	PRICE	AMOUNT	Service Life	Salvage Value at 2051	Annual OM&R	Present Worth of OM&R	Present Worth of 30 Yr Salvage Value
<b>Pump Station 1</b>									
Mobilization	LS	1	\$ 3,000.00	\$ 3,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	2	\$ 12,500.00	\$ 25,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Temporary Pump and Haul	LS	1	\$ 2,000.00	\$ 2,000.00	20	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>				<b>\$ 30,000.00</b>		<b>\$ -</b>	<b>\$ 750</b>	<b>\$ 16,234</b>	<b>\$ -</b>
<b>Pump Station 2</b>									
Mobilization	LS	1	\$ 3,000.00	\$ 3,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	2	\$ 12,500.00	\$ 25,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Temporary Pump and Haul	LS	1	\$ 2,000.00	\$ 2,000.00	30	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>				<b>\$ 30,000.00</b>		<b>\$ -</b>	<b>\$ 750</b>	<b>\$ 16,234</b>	<b>\$ -</b>
<b>Pump Station 3</b>									
Mobilization	LS	1	\$ 2,000.00	\$ 2,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	1	\$ 12,500.00	\$ 12,500.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Temporary Pump and Haul	LS	1	\$ 2,000.00	\$ 2,000.00	30	\$ -	\$ -	\$ -	\$ -
Electric/Control Panel Allowance	LS	1	\$ 2,000.00	\$ 2,000.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
<b>Subtotal</b>				<b>\$ 19,000.00</b>		<b>\$ -</b>	<b>\$ 1,250</b>	<b>\$ 27,057</b>	<b>\$ -</b>
<b>Pump Station 4</b>									
Mobilization	LS	1	\$ 12,000.00	\$ 12,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	2	\$ 40,000.00	\$ 80,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Replace Variable Frequency Drives	Ea	2	\$ 15,000.00	\$ 30,000.00	20	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Temporary Bypass Pumping	LS	1	\$ 10,000.00	\$ 10,000.00	30	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>				<b>\$ 132,000.00</b>		<b>\$ -</b>	<b>\$ 1,250</b>	<b>\$ 27,057</b>	<b>\$ -</b>
<b>Pump Station 8</b>									
Mobilization	LS	1	\$ 27,000.00	\$ 27,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	2	\$ 25,000.00	\$ 50,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Valves and Piping	LS	1	\$ 80,000.00	\$ 80,000.00	20	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Valve Vault - Complete	LS	1	\$ 60,000.00	\$ 60,000.00	20	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Wet Well Infiltration Rehabilitation	LS	1	\$ 25,000.00	\$ 25,000.00	20	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Bypass Pumping Connection	LS	1	\$ 20,000.00	\$ 20,000.00	30	\$ -	\$ -	\$ -	\$ -
Temporary Bypass Pumping	LS	1	\$ 25,000.00	\$ 25,000.00	30	\$ -	\$ -	\$ -	\$ -
Utility Allowance	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Soil Erosion and Sedimentation Control	LS	1	\$ 2,500.00	\$ 2,500.00	30	\$ -	\$ -	\$ -	\$ -
Cleanup and Seeding	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>				<b>\$ 300,000.00</b>		<b>\$ -</b>	<b>\$ 2,250</b>	<b>\$ 48,702</b>	<b>\$ -</b>
<b>Pump Station 9</b>									
Mobilization	LS	1	\$ 14,000.00	\$ 14,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	2	\$ 25,000.00	\$ 50,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Mechanical and Piping, Incl. Valve Replacement	LS	1	\$ 35,000.00	\$ 35,000.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Wet Well and Valve Vault Hatch Replacement	LS	1	\$ 25,000.00	\$ 25,000.00	30	\$ -	\$ 50.00	\$ 1,082.27	\$ -
Wet Well Infiltration Rehabilitation	LS	1	\$ 15,000.00	\$ 15,000.00	30	\$ -	\$ -	\$ -	\$ -
Temporary Bypass Pumping	LS	1	\$ 10,000.00	\$ 10,000.00	30	\$ -	\$ -	\$ -	\$ -
Utility Allowance	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Cleanup and Seeding	LS	1	\$ 1,000.00	\$ 1,000.00	30	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>				<b>\$ 155,000.00</b>		<b>\$ -</b>	<b>\$ 1,300</b>	<b>\$ 28,139</b>	<b>\$ -</b>



Alternative No. 3 - Rehab/Replace Stations and Rehab/Replace Sewer Lines/Manholes

DESCRIPTION	UNIT	QTY	PRICE	AMOUNT	Service	Salvage Value	Annual	Present Worth	Present Worth of 30 Yr Salvage
<b>Pump Station 13</b>									
Mobilization	LS	1	\$ 37,000.00	\$ 37,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Station Reconstruction - Complete	LS	1	\$ 350,000.00	\$ 350,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Temporary Bypass Pumping	Ea	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
Utility Allowance	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
Cleanup and Restoration	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
			<b>Subtotal</b>	<b>\$ 402,000.00</b>		<b>\$ -</b>	<b>\$ 750</b>	<b>\$ 16,234</b>	<b>\$ -</b>
<b>Pump Station 15</b>									
Mobilization	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Remove Contents and Demolish Drywell	LS	1	\$ 5,000.00	\$ 25,000.00	20	\$ -	\$ -	\$ -	\$ -
Remove Contents and Demolish Wetwell	LS	1	\$ 1,000.00	\$ 15,000.00	30	\$ -	\$ -	\$ -	\$ -
Cut and Cap Exist Force Main	LS	1	\$ 20,000.00	\$ 3,500.00	30	\$ -	\$ -	\$ -	\$ -
Utility Allowance	LS	1	\$ 5,000.00	\$ 3,000.00	30	\$ -	\$ -	\$ -	\$ -
Cleanup and Restoration	LS	1	\$ 72,000.00	\$ 4,000.00	20	\$ -	\$ -	\$ -	\$ -
			<b>Subtotal</b>	<b>\$ 56,000.00</b>		<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Pump Station 16</b>									
Mobilization	LS	1	\$ 11,000.00	\$ 11,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	2	\$ 25,000.00	\$ 50,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Mechanical Piping and Valve Replacement	LS	1	\$ 50,000.00	\$ 50,000.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Temporary Bypass Pumping	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
Cleanup and Restoration	LS	1	\$ 3,000.00	\$ 3,000.00	20	\$ -	\$ -	\$ -	\$ -
			<b>Subtotal</b>	<b>\$ 119,000.00</b>		<b>\$ -</b>	<b>\$ 1,250</b>	<b>\$ 27,057</b>	<b>\$ -</b>
<b>Pump Station 17</b>									
Mobilization	LS	1	\$ 42,000.00	\$ 42,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Station Reconstruction - Complete	LS	1	\$ 400,000.00	\$ 400,000.00	30	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Temporary Bypass Pumping	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Utility Allowance	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Cleanup and Restoration	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
			<b>Subtotal</b>	<b>\$ 457,000.00</b>		<b>\$ -</b>	<b>\$ 750</b>	<b>\$ 16,234</b>	<b>\$ -</b>
<b>Pump Station 22</b>									
Mobilization	LS	1	\$ 8,000.00	\$ 8,000.00	30	\$ -	\$ -	\$ -	\$ -
Grinder Can Station - Complete	LS	1	\$ 35,000.00	\$ 35,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
1 1/4" HDPE Forcemain	LFT	300	\$ 45.00	\$ 13,500.00	20	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Connect Force Main to Exist MH	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
Temporary Pump and Haul	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Abandon Existing Can Station	LS	1	\$ 15,000.00	\$ 15,000.00	30	\$ -	\$ -	\$ -	\$ -
Utility Allowance	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
Cleanup and Restoration	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
			<b>Subtotal</b>	<b>\$ 92,000.00</b>		<b>\$ -</b>	<b>\$ 1,250</b>	<b>\$ 27,057</b>	<b>\$ -</b>
<b>Pump Station 23</b>									
Mobilization	LS	1	\$ 10,000.00	\$ 10,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	Ea	2	\$ 20,000.00	\$ 40,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Remove/Replace Wet Well Top Section and hatch/vent	LS	1	\$ 20,000.00	\$ 20,000.00	30	\$ -	\$ 50.00	\$ 1,082.27	\$ -
Bypass Pumping Connection	LS	1	\$ 15,000.00	\$ 15,000.00	20	\$ -	\$ -	\$ -	\$ -
Remove and Replace Air Release Valve	LS	1	\$ 10,000.00	\$ 10,000.00	20	\$ -	\$ 100.00	\$ 2,164.53	\$ -
Temporary Bypass Pumping	LS	1	\$ 8,000.00	\$ 8,000.00	30	\$ -	\$ -	\$ -	\$ -
Cleanup and Seeding	LS	1	\$ 3,000.00	\$ 3,000.00	20	\$ -	\$ -	\$ -	\$ -
			<b>Subtotal</b>	<b>\$ 106,000.00</b>		<b>\$ -</b>	<b>\$ 900</b>	<b>\$ 19,481</b>	<b>\$ -</b>



Alternative No. 3 - Rehab/Replace Stations and Rehab/Replace Sewer Lines/Manholes

DESCRIPTION	UNIT	QTY	PRICE	AMOUNT	Service	Salvage Value	Annual	Present Worth	Present Worth of 30 Yr Salvage
<b>Pump Station 24</b>									
Mobilization	LS	1	\$ 7,000.00	\$ 7,000.00	30	\$ -	\$ -	\$ -	\$ -
Grinder Can Station - Complete	LS	1	\$ 35,000.00	\$ 35,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
1 1/4" HDPE Forcemain	LFT	100	\$ 45.00	\$ 4,500.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Connect Force Main to Exist MH	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
Temporary Pump and Haul	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
Abandon Existing Can Station	LS	1	\$ 15,000.00	\$ 15,000.00	20	\$ -	\$ -	\$ -	\$ -
Utility Allowance	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
Cleanup and Restoration	LS	1	\$ 5,000.00	\$ 5,000.00	30	\$ -	\$ -	\$ -	\$ -
				<b>Subtotal</b>		\$ -	\$ 1,250	\$ 27,057	\$ -
<b>Pump Station 28</b>									
Mobilization	LS	1	\$ 1,000.00	\$ 1,000.00	30	\$ -	\$ -	\$ -	\$ -
Pump Replacement	EA	2	\$ 15,000.00	\$ 30,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Electric/Control Panel Allowance	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Temporary Bypass Pumping	LS	1	\$ 5,000.00	\$ 5,000.00	20	\$ -	\$ -	\$ -	\$ -
				<b>Subtotal</b>		\$ -	\$ 1,250	\$ 27,057	\$ -
<b>PS 25 Forcemain</b>									
Mobilization	LS	1	\$ 154,000.00	\$ 154,000.00	30	\$ -	\$ -	\$ -	\$ -
10" HDPE Forcemain	LFT	14000	\$ 100.00	\$ 1,400,000.00	20	\$ -	\$ 750.00	\$ 16,234.00	\$ -
Maintenance Structures	Ea	15	\$ 5,000.00	\$ 75,000.00	20	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Cleanup and Restoration	LS	1	\$ 20,000.00	\$ 20,000.00	20	\$ -	\$ -	\$ -	\$ -
Temporary Bypass Pumping	LS	1	\$ 40,000.00	\$ 40,000.00	30	\$ -	\$ -	\$ -	\$ -
				<b>Subtotal</b>		\$ -	\$ 1,250	\$ 27,057	\$ -
<b>Sewer Line Reahbilitation</b>									
8" Full Reconstruct	LFT	2374	\$ 175.00	\$ 415,450.00	50	\$ -	\$ 600.00	\$ 12,987.20	\$ -
10" Full Reconstruct	LFT	266	\$ 185.00	\$ 49,210.00	50	\$ -	\$ 600.00	\$ 12,987.20	\$ -
12" Full Reconstruct	LFT	367	\$ 200.00	\$ 73,400.00	50	\$ -	\$ 600.00	\$ 12,987.20	\$ -
15" Full Reconstruct	LFT	1169	\$ 225.00	\$ 263,025.00	50	\$ -	\$ 600.00	\$ 12,987.20	\$ -
18" Full Reconstruct	LFT	414	\$ 250.00	\$ 103,500.00	50	\$ -	\$ 600.00	\$ 12,987.20	\$ -
21" Full Reconstruct	LFT	565	\$ 300.00	\$ 169,500.00	50	\$ -	\$ 600.00	\$ 12,987.20	\$ -
Miscellaneous	LS	1	\$ 54,000.00	\$ 54,000.00	50	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Mobilization	LS	1	\$ 107,000.00	\$ 107,000.00	20	\$ -	\$ -	\$ -	\$ -
				<b>Subtotal</b>		\$ -	\$ 4,100	\$ 88,746	\$ -
<b>Manhole Rehabilitation</b>									
Mobilization	LS	1	\$ 25,000.00	\$ 25,000.00	30	\$ -	\$ -	\$ -	\$ -
Raise Rim to Grade	Ea	20	\$ 4,500.00	\$ 90,000.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Full Structure Reconstruct	Ea	20	\$ 7,000.00	\$ 140,000.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
Chemical Grout/Hydraulic Cement for defective Tap	Ea	5	\$ 3,500.00	\$ 17,500.00	30	\$ -	\$ 500.00	\$ 10,822.66	\$ -
				<b>Subtotal</b>		\$ -	\$ 1,500	\$ 32,468	\$ -



**OSCODA TOWNSHIP  
SANITARY SYSTEM IMPROVEMENTS  
SRF PROJECT PLAN  
ROWE PROJECT NO. 18C0068  
PRELIMINARY OPINION OF COST**

<b>Capital Cost Item</b>	<b>Alternative No. 1</b>	<b>Alternative No. 2</b>	<b>Alternative No. 3</b>
Pump Station 1	\$ -	\$ 30,000	\$ 30,000
Pump Station 2	\$ -	\$ 30,000	\$ 30,000
Pump Station 3	\$ -	\$ 19,000	\$ 19,000
Pump Station 4	\$ -	\$ 132,000	\$ 132,000
Pump Station 8	\$ -	\$ 300,000	\$ 300,000
Pump Station 9	\$ -	\$ 155,000	\$ 155,000
Pump Station 13	\$ -	\$ 402,000	\$ 402,000
Pump Station 15	\$ -	\$ 56,000	\$ 56,000
Pump Station 16	\$ -	\$ 119,000	\$ 119,000
Pump Station 17	\$ -	\$ 457,000	\$ 457,000
Pump Station 22	\$ -	\$ 92,000	\$ 92,000
Pump Station 23	\$ -	\$ 106,000	\$ 106,000
Pump Station 24	\$ -	\$ 82,000	\$ 82,000
Pump Station 28	\$ -	\$ 41,000	\$ 41,000
PS 25 Forcemain	\$ -	\$ 919,000	\$ 1,689,000
Sewer Line Rehabilitation	\$ -	\$ 734,000	\$ 1,235,000
Manhole Rehabilitation	\$ -	\$ 218,000	\$ 273,000
Wastewater Treatment (PFAS)	\$ -	\$ 6,548,000	\$ 7,152,000
Wastewater Sludge Treatment	\$ -	\$ 690,000	\$ 3,610,000
<b>Subtotal</b>	<b>\$ -</b>	<b>\$ 11,130,000</b>	<b>\$ 15,980,000</b>
<b>20% Contingency</b>	<b>\$ -</b>	<b>\$ 2,226,000</b>	<b>\$ 3,196,000</b>
<b>Total Construction</b>	<b>\$ -</b>	<b>\$ 13,356,000</b>	<b>\$ 19,176,000</b>
<b>Engineering, Legal, Bond Counsel, Administrative</b>	<b>\$ -</b>	<b>\$ 3,072,000</b>	<b>\$ 4,410,000</b>
<b>Total Project Capital Cost</b>	<b>\$ -</b>	<b>\$ 16,428,000</b>	<b>\$ 23,586,000</b>

<b>Annual O&amp;M Costs</b>	<b>Alternative No. 1</b>	<b>Alternative No. 2</b>	<b>Alternative No. 3</b>
Pump Station 1	\$ 15,000	\$ 750	\$ 750
Pump Station 2	\$ 15,000	\$ 750	\$ 750
Pump Station 3	\$ 15,000	\$ 1,250	\$ 1,250
Pump Station 4	\$ 35,000	\$ 1,250	\$ 1,250
Pump Station 8	\$ 30,000	\$ 2,250	\$ 2,250
Pump Station 9	\$ 15,000	\$ 1,300	\$ 1,300
Pump Station 13	\$ 20,000	\$ 750	\$ 750
Pump Station 15	\$ 15,000	\$ -	\$ -
Pump Station 16	\$ 15,000	\$ 1,250	\$ 1,250
Pump Station 17	\$ 20,000	\$ 750	\$ 750
Pump Station 22	\$ 15,000	\$ 1,250	\$ 1,250
Pump Station 23	\$ 15,000	\$ 900	\$ 900
Pump Station 24	\$ 15,000	\$ 1,250	\$ 1,250
Pump Station 28	\$ 15,000	\$ 1,250	\$ 1,250
PS 25 Forcemain	\$ 25,000	\$ 1,250	\$ 1,250
Sewer Line Rehabilitation	\$ 10,000	\$ 4,100	\$ 4,100
Manhole Rehabilitation	\$ 10,000	\$ 1,500	\$ 1,500
Wastewater Treatment (PFAS)	\$ 20,000	\$ 146,589	\$ 172,630
Wastewater Sludge Treatment	\$ 50,000	\$ -	\$ -
<b>Total Annual O&amp;M Costs</b>	<b>\$ 370,000</b>	<b>\$ 168,389</b>	<b>\$ 194,430</b>



<b>Future (2054) Salvage Value</b>	<b>Alternative No. 1</b>	<b>Alternative No. 2</b>	<b>Alternative No. 3</b>
Pump Station 1	\$ -	\$ -	\$ -
Pump Station 2	\$ -	\$ -	\$ -
Pump Station 3	\$ -	\$ -	\$ -
Pump Station 4	\$ -	\$ -	\$ -
Pump Station 8	\$ -	\$ -	\$ -
Pump Station 9	\$ -	\$ -	\$ -
Pump Station 13	\$ -	\$ -	\$ -
Pump Station 15	\$ -	\$ -	\$ -
Pump Station 16	\$ -	\$ -	\$ -
Pump Station 17	\$ -	\$ -	\$ -
Pump Station 22	\$ -	\$ -	\$ -
Pump Station 23	\$ -	\$ -	\$ -
Pump Station 24	\$ -	\$ -	\$ -
Pump Station 28	\$ -	\$ -	\$ -
PS 25 Forcemain	\$ -	\$ -	\$ -
Sewer Line Rehabilitation	\$ -	\$ -	\$ -
Manhole Rehabilitation	\$ -	\$ -	\$ -
Wastewater Treatment (PFAS)	\$ -	\$ -	\$ -
Wastewater Sludge Treatment	\$ -	\$ -	\$ -
<b>Total Future (2054) Salvage Value</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Present Worth Analysis

**Community Name:** Oscoda Township

**Federal Discount Rate for Water Resources Planning (Interest Rate) i =** 0.0225  
**Number of Years, n =** 30 years

Alt 1: No Action	Alt 2: Rehab/Replace Stations & Rehab Sewer lines/Manholes	Alt 3: Rehab/Replace Stations & Rehab/Replace Sewer Lines/Manholes
Initial Capital Costs = \$0	Initial Capital Costs = \$16,428,000	Initial Capital Costs = \$23,586,000
Annual Operations & Maintenance Costs = \$370,000	Annual Operations & Maintenance Costs = \$168,389	Annual Operations & Maintenance Costs = \$194,430
Future Salvage Value = \$0	Future Salvage Value = \$0	Future Salvage Value = \$0
Present Worth of 30 years of O & M = \$8,008,772	Present Worth of 30 years of O & M = \$3,644,835	Present Worth of 30 years of O & M = \$4,208,501
$PW = \text{Annual OM} \frac{(1+i)^n - 1}{i(1+i)^n}$	$PW = \text{Annual OM} \frac{(1+i)^n - 1}{i(1+i)^n}$	$PW = \text{Annual OM} \frac{(1+i)^n - 1}{i(1+i)^n}$
Present Worth of 30 yr Salvage Value = \$0	Present Worth of 30 yr Salvage Value = \$0	Present Worth of 30 yr Salvage Value = \$0
$PW = \text{FSV} \frac{1}{(1+i)^n}$	$PW = \text{FSV} \frac{1}{(1+i)^n}$	$PW = \text{FSV} \frac{1}{(1+i)^n}$
Alternate 1 Total Present Worth = \$8,008,772	Alternative 3 Total Present Worth = \$20,072,835	Alternative 3 Total Present Worth = \$27,794,501

## Appendix E: Sewer Budget



509-000-725.000	FEES & PER DIEM (NON FICA)	0.00	0.00	0.00	0.00
509-000-726.000	SUPPLIES	6,220.95	7,855.99	10,000.00	10,000.00
509-000-728.000	RESALE PURCHASES	43,953.20	45,154.51	45,000.00	47,000.00
509-000-729.000	RESALE PURCHASES-TAXABLE	42,693.03	41,149.80	43,000.00	45,000.00
509-000-730.000	SIGNS	107.71	0.00	400.00	400.00
509-000-741.000	TOOLS	650.00	939.60	1,200.00	1,200.00
509-000-751.000	GASOLINE & OIL	9,890.77	9,812.57	9,600.00	10,500.00
509-000-761.000	CLOTHING ALLOWANCE	0.00	0.00	0.00	500.00
509-000-762.000	SEASONAL UNIFORMS	600.00	485.73	600.00	600.00
509-000-775.000	REPAIR & MAINTENANCE SUPPLIES	4,800.00	2,259.18	9,500.00	8,700.00
509-000-780.000	RECREATION SUPPLIES	1,200.00	209.98	2,500.00	1,500.00
509-000-801.000	PROFESSIONAL FEES	0.00	2,667.99	3,000.00	3,000.00
509-000-802.000	AUDIT FEES	1,642.40	924.14	1,850.00	1,000.00
509-000-803.000	LICENSE & PERMITS	8,553.20	5,909.39	8,000.00	8,500.00
509-000-804.000	BANK FEES	14,863.37	16,896.17	13,000.00	15,000.00
509-000-818.000	SOLID WASTE DISPOSAL	16,616.32	17,349.93	15,000.00	16,500.00
509-000-826.000	LEGAL FEES	481.00	204.00	500.00	500.00
509-000-853.000	TELEPHONE	3,973.68	793.32	1,000.00	850.00
509-000-860.000	MILEAGE ALLOWANCE	0.00	0.00	250.00	250.00
509-000-880.567	GRANT/RECREATION	0.00	0.00	0.00	0.00
509-000-890.000	CONTINGENCY - OLD ORCHARD PARK	77,731.60	5,699.32	10,000.00	10,000.00
509-000-900.000	PRINTING & PUBLISHING	1,220.95	896.53	2,500.00	1,600.00
509-000-910.000	INSURANCE & BONDS	7,900.00	7,622.35	8,000.00	8,000.00
509-000-910.200	INSURANCE - VEHICLES	0.00	0.00	0.00	0.00
509-000-921.000	UTILITIES - ELECTRICITY	71,510.10	53,926.26	54,000.00	60,000.00
509-000-922.000	UTILITIES - HEAT	6,500.00	7,587.32	6,000.00	6,200.00
509-000-930.000	REPAIRS & MAINTENANCE	8,406.29	11,474.84	12,500.00	12,500.00
509-000-931.000	REPAIRS/MAINTENANCE-EQUIPMENT	5,300.00	5,395.10	11,000.00	10,000.00
509-000-933.000	REPAIRS/MAINTENANCE-VEHICLE	5,000.00	5,159.41	6,500.00	4,000.00
509-000-940.000	RENTALS	500.00	58.18	500.00	600.00
509-000-941.000	LEASE FEES	1,419.48	0.00	2,700.00	2,500.00
509-000-956.000	MISCELLANEOUS	11,446.65	1,268.98	1,500.00	2,000.00
509-000-960.000	CONFERENCE/EDUCATION/TRAINING	500.00	0.00	500.00	500.00
509-000-964.000	REFUNDS AND REBATES	713.96	0.00	800.00	500.00
509-000-968.000	DEPRECIATION EXP	22,000.00	0.00	26,000.00	23,000.00
509-000-970.000	CAPITAL IMPROVEMENTS	0.00	0.00	0.00	0.00
509-000-979.000	EQUIPMENT	2,632.06	2,571.90	6,000.00	5,000.00
509-000-999.101	CONTRIBUTION TO GENERAL FUND	150,000.00	30,000.00	30,000.00	30,000.00
509-000-999.218	CONTRIB TO OOP CAP IMP FUND	60,000.00	140,000.00	140,000.00	154,300.00
509-000-999.508	CONTRIBUTION TO OCC	0.00	0.00	0.00	0.00
509-000-999.999	ENDING FUND BALANCE	0.00	0.00	0.00	0.00
Totals for dept 000 -		991,776.00	824,227.27	934,656.00	922,190.00
TOTAL APPROPRIATIONS		991,776.00	824,227.27	934,656.00	922,190.00
NET OF REVENUES/APPROPRIATIONS - FUND 509		(158,826.00)	69,517.47	594.00	160.00
BEGINNING FUND BALANCE		653,387.66	850,662.25	850,662.25	920,179.72
FUND BALANCE ADJUSTMENTS		(20.77)	0.00	0.00	0.00
ENDING FUND BALANCE		494,540.89	920,179.72	851,256.25	920,339.72

Fund 590 - SEWER

ESTIMATED REVENUES

Dept 000

590-000-513.000	EDA GRANT	0.00	0.00	0.00	0.00
590-000-514.000	EPA CAPITAL IMPROVEMENT LOAN FORGIVE	0.00	0.00	0.00	0.00
590-000-539.100	STATE GRANT - SAW	0.00	0.00	0.00	0.00
590-000-627.000	CHARGES FOR OTHER SERVICES	500,000.00	562,609.60	575,000.00	575,000.00
590-000-629.000	WURTSMITH STORM SEWER FEE	16,940.00	0.00	16,900.00	0.00
590-000-642.000	CHARGES FOR SEWER SERVICE	400,000.00	380,612.62	504,000.00	400,000.00
590-000-642.100	SEWER TAP FEES	3,000.00	0.00	1,000.00	0.00
590-000-642.200	SEPTIC TANK SERVICES	0.00	0.00	0.00	0.00
590-000-665.100	INTEREST EARNINGS	3,000.00	3,496.80	3,000.00	3,000.00
590-000-665.200	DELIQUENT BILL PENALTY	12,000.00	17,626.28	9,000.00	15,000.00
590-000-665.400	INTEREST EARNINGS-SEWER BOND	0.00	0.00	0.00	0.00
590-000-673.000	SALE OF FIXED ASSETS	0.00	0.00	0.00	0.00

590-000-687.000	REIMBURSEMENTS	0.00	40,761.25	0.00	0.00
590-000-688.000	MISCELLANEOUS REVENUES	0.00	0.00	0.00	0.00
590-000-697.000	LOAN PROCEEDS	0.00	0.00	0.00	0.00
590-000-698.000	BOND PROCEEDS	4,870,000.00	0.00	6,760,000.00	0.00
590-000-699.101	CONTRIBUTION FROM GENERAL FUND	0.00	0.00	0.00	0.00
590-000-699.701	TRF IN FROM T&A	0.00	0.00	0.00	0.00
590-000-999.699	BEGINNING RETAINED EARNINGS	0.00	0.00	0.00	0.00
Totals for dept 000 -		5,804,940.00	1,005,106.55	7,868,900.00	993,000.00

TOTAL ESTIMATED REVENUES		5,804,940.00	1,005,106.55	7,868,900.00	993,000.00
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#### APPROPRIATIONS

Dept 000

590-000-000.000		0.00	0.00	0.00	0.00
590-000-706.000	WAGES-SEWER	0.00	0.00	0.00	0.00
590-000-706.100	WAGES	0.00	0.00	0.00	0.00
590-000-706.200	WAGES - CLERICAL	0.00	0.00	0.00	0.00
590-000-707.000	PART TIME	0.00	0.00	0.00	0.00
590-000-709.000	OVERTIME	0.00	0.00	0.00	0.00
590-000-709.300	OVERTIME-	0.00	0.00	0.00	0.00
590-000-710.000	OVERTIME - DOUBLE	0.00	0.00	0.00	0.00
590-000-715.000	SOCIAL SECURITY	0.00	0.00	0.00	0.00
590-000-716.000	HOSPITALIZATION INS	0.00	0.00	0.00	0.00
590-000-718.000	RETIREMENT FUND CONTRIBUTION	0.00	0.00	0.00	0.00
590-000-722.000	WORKMANS COMP	0.00	0.00	0.00	0.00
590-000-726.000	SUPPLIES	9,528.14	7,552.97	6,000.00	8,000.00
590-000-726.100	SUPPLIES - COMPUTER	0.00	0.00	0.00	0.00
590-000-751.000	GASOLINE & OIL	200.00	0.00	0.00	0.00
590-000-775.000	REPAIR & MAINTENANCE SUPPLIES	54.99	28.99	100.00	100.00
590-000-800.000	CONTRACTED SERVICES	1,399.51	0.00	1,500.00	1,300.00
590-000-800.100	CONTRACTED SERVICES-FVOP	321,152.01	331,267.56	316,234.00	325,421.00
590-000-800.200	CONTRACTED SERVICES - TAPS	0.00	0.00	0.00	0.00
590-000-801.000	PROFESSIONAL FEES	49,065.41	19,418.00	1,200.00	20,000.00
590-000-801.001	CONTRACTOR FEES/CWSRF 2021	0.00	0.00	0.00	0.00
590-000-801.002	CONTRACTOR FEES / BOND	0.00	0.00	0.00	0.00
590-000-801.100	COMPUTER PROGRAM FEES	1,200.00	780.50	1,400.00	1,400.00
590-000-802.000	AUDIT FEES	8,200.43	4,614.13	8,500.00	5,000.00
590-000-804.000	BANK FEES	200.00	60.00	250.00	200.00
590-000-815.000	COMPUTER MAINTENANCE	200.00	0.00	250.00	250.00
590-000-815.100	COPIER MAINTENANCE	0.00	0.00	0.00	0.00
590-000-818.000	SOLID WASTE DISPOSAL	0.00	0.00	0.00	0.00
590-000-821.000	ENGINEERING FEES	284,419.63	0.00	869,600.00	30,000.00
590-000-826.000	LEGAL FEES	9,153.36	0.00	5,500.00	5,500.00
590-000-827.000	REGULATORY FEES	4,000.00	3,650.00	4,000.00	4,000.00
590-000-853.000	TELEPHONE	1,917.85	1,289.86	2,000.00	1,500.00
590-000-860.000	MILEAGE ALLOW/TRANSPORT	0.00	0.00	0.00	0.00
590-000-890.000	SEWER CONTINGENCY	0.00	0.00	0.00	20,000.00
590-000-900.000	PRINTING & PUBLISHING	911.08	1,811.81	1,100.00	1,500.00
590-000-910.100	INSURANCE & BONDS	15,812.50	8,583.19	16,000.00	10,000.00
590-000-910.200	INSURANCE - VEHICLE	3,200.00	2,755.40	3,200.00	3,200.00
590-000-921.100	UTILITIES - ELECTRICITY	75,746.13	68,439.50	75,000.00	75,000.00
590-000-921.200	UTILITIES - ELECT DPW BUILDING	3,681.64	2,116.56	3,600.00	3,000.00
590-000-922.100	UTILITIES - GAS	4,000.00	3,977.82	4,000.00	4,000.00
590-000-923.100	UTILITIES-WATER/SEWER	0.00	0.00	0.00	0.00
590-000-923.200	UTILITIES - WATER DPW BUILDING	838.43	541.31	900.00	900.00
590-000-930.000	REPAIRS & MAINTENANCE	12,878.51	2,415.35	9,000.00	8,000.00
590-000-931.000	EQUIPMENT MAINTENANCE	6,791.36	343.89	7,000.00	6,500.00
590-000-933.000	MAINTENANCE - VEHICLE	2,500.00	842.17	2,500.00	2,500.00
590-000-941.000	LEASE FEES	0.00	0.00	0.00	0.00
590-000-956.000	MISCELLANEOUS	100.00	1.00	100.00	100.00
590-000-956.001	BAD DEBTS	0.00	0.00	0.00	0.00
590-000-956.002	SEPTAGE PROCESSING & DISPOSAL	0.00	0.00	0.00	0.00
590-000-960.000	CONFERENCE/EDUCATION/TRAINING	0.00	0.00	0.00	0.00
590-000-961.000	PAYING AGENT FEES	500.00	500.00	500.00	500.00
590-000-963.000	BOND ISSUANCE COSTS	0.00	0.00	0.00	0.00

590-000-964.000	REFUNDS AND REBATES	1,000.00	38.37	0.00	500.00
590-000-968.000	BOND PRINCIPAL EXPENSE	290,000.00	0.00	0.00	0.00
590-000-969.000	AMORTIZATION EXP-BOND DISCOUNT	2,600.00	0.00	0.00	2,600.00
590-000-974.000	CAPITAL IMPROVEMENT/OUTLAY	2,830,254.02	236,564.00	6,362,400.00	118,000.00
590-000-980.000	EQUIPMENT	6,500.00	3,831.23	6,500.00	6,000.00
590-000-980.001	EQUIPMENT & VEHICLE	0.00	0.00	0.00	0.00
590-000-995.000	BOND INTEREST EXPENSE	32,800.00	22,058.53	250,000.00	40,000.00
590-000-995.300	SRF INTEREST 2015 IMP.	41,800.00	34,629.58	34,630.00	113,000.00
590-000-995.400	WWTL BOND INTEREST 2015 IMPRV	9,200.00	6,235.00	6,235.00	61,000.00
590-000-995.450	2021 REFUNDING BOND INTEREST	0.00	4,299.69	0.00	0.00
590-000-996.000	CAPITAL LEASE INTEREST EXPENSE	0.00	0.00	0.00	0.00
590-000-999.101	CONTRIBUTION TO GENERAL FUND	45,000.00	45,000.00	45,000.00	45,000.00
590-000-999.245	CONTRIB TO PUB IMPROVEMENT	0.00	0.00	0.00	0.00
590-000-999.999	ENDING RETAINED EARNINGS	0.00	0.00	0.00	0.00
Totals for dept 000 -		4,076,805.00	813,646.41	8,044,199.00	923,971.00

TOTAL APPROPRIATIONS	4,076,805.00	813,646.41	8,044,199.00	923,971.00
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NET OF REVENUES/APPROPRIATIONS - FUND 590	1,728,135.00	191,460.14	(175,299.00)	69,029.00
BEGINNING FUND BALANCE	3,091,974.22	3,395,567.75	3,395,567.75	3,587,027.89
FUND BALANCE ADJUSTMENTS	(3,317.66)	0.00	0.00	0.00
ENDING FUND BALANCE	4,816,791.56	3,587,027.89	3,220,268.75	3,656,056.89

Fund 591 - WATER

ESTIMATED REVENUES

Dept 000

591-000-540.000	STATE GRANT - WELLHEAD PROTECTION GR/	0.00	0.00	0.00	0.00
591-000-543.000	FEDERAL GRANT-USDA RD	1,500,000.00	0.00	0.00	9,691,200.00
591-000-627.000	CHARGES FOR OTHER SERVICES	520,000.00	606,724.27	518,000.00	520,000.00
591-000-642.000	CHARGES FOR WATER SERVICE	610,000.00	499,937.18	628,000.00	610,000.00
591-000-642.001	CHARGES FOR DEBT SERV-AUSABLE	0.00	0.00	0.00	0.00
591-000-642.002	CHARGES-WATER WAFB	0.00	0.00	0.00	0.00
591-000-642.100	CHARGES FOR WATER TAP	15,000.00	13,600.00	15,000.00	15,000.00
591-000-650.000	CHARGES FOR SERVICES - SALES	0.00	25.02	0.00	0.00
591-000-665.100	INTEREST EARNINGS	15,000.00	3,257.12	15,000.00	15,000.00
591-000-665.200	DELINQUENT BILL PENALTY	12,000.00	24,027.39	12,000.00	15,000.00
591-000-667.200	HYDRANT RENTAL	0.00	0.00	0.00	0.00
591-000-673.000	SALE OF FIXED ASSETS	0.00	0.00	0.00	0.00
591-000-674.200	CAPITAL CONTRIBUTION	0.00	0.00	0.00	0.00
591-000-676.000	REIMB-CARETAKER	0.00	0.00	0.00	0.00
591-000-687.000	BOND DISCOUNT-REV	0.00	0.00	0.00	0.00
591-000-688.000	MISCELLANEOUS REVENUES	0.00	0.00	1,485,000.00	0.00
591-000-688.001	REIMBURSEMENTS - OTHER	0.00	0.00	0.00	0.00
591-000-699.701	TRF IN FROM T&A	0.00	0.00	0.00	0.00
591-000-999.699	BEGINNING FUND BALANCE/RETAINED EARN	0.00	0.00	0.00	0.00
Totals for dept 000 -		2,672,000.00	1,147,570.98	2,673,000.00	10,866,200.00

TOTAL ESTIMATED REVENUES	2,672,000.00	1,147,570.98	2,673,000.00	10,866,200.00
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APPROPRIATIONS

Dept 000

591-000-706.200	WAGES - CLERICAL	0.00	0.00	0.00	0.00
591-000-707.000	PART TIME	0.00	0.00	0.00	0.00
591-000-709.000	OVERTIME	0.00	0.00	0.00	0.00
591-000-715.000	SOCIAL SECURITY	0.00	0.00	0.00	0.00
591-000-716.000	HOSPITALIZATION INS	0.00	0.00	0.00	0.00
591-000-718.000	RETIREMENT FUND CONTRIBUTION	0.00	0.00	0.00	0.00
591-000-722.000	WORKMANS COMP	0.00	0.00	0.00	0.00
591-000-726.000	SUPPLIES	7,830.04	7,936.00	7,000.00	7,000.00
591-000-726.100	SUPPLIES - COMPUTER	0.00	0.00	0.00	0.00
591-000-741.000	TOOLS	0.00	0.00	0.00	0.00
591-000-751.000	GASOLINE & OIL	0.00	0.00	0.00	0.00
591-000-775.000	REPAIR & MAINTENANCE SUPPLIES	1,254.99	10,293.73	1,300.00	1,500.00
591-000-800.100	CONTRACTED SERVICES-FVOP	318,655.00	299,393.83	316,234.00	325,421.00

## Appendix G: Groundwater Discharge Permit



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING



DAN WYANT  
DIRECTOR

RECEIVED  
OCT 30 2012

BY: \_\_\_\_\_

October 29, 2012

Mr. Robert Stalker  
Oscoda Township Wastewater Treatment Plant  
110 State Street  
Oscoda, Michigan 48750

Dear Mr. Stalker:

Enclosed is the modified Authorization to Discharge, GW1810213, originally issued by the Department of Environmental Quality (DEQ) on July 6, 2010.

The following modifications have been made:

- An additional sampling parameter (pH) has been added to the effluent monitoring.
- The Land Application parameters have been changed to reflect stations RI-1 through RI-8 (representing the eight separate infiltration basins).
- A new set of groundwater monitoring wells is now required for sampling (referenced in Part I – Sections 2 and 3 and in the site map on page 23 of the permit).
- New Schedules of Compliance (SOC) have been added in Part I – Section 4 of the permit (old SOC's no longer applicable have been removed).
- One new permit General Condition (e) has been added to Part I – Section 9 of the permit.
- Minor modifications of "units" in the groundwater monitoring well sampling requirements have been made in Part I – Sections 2 and 3 of the permit.

The issuance of this permit does not authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits, including any other Department of Environmental Quality permits, or approvals from other units of government as may be required by law.

Please review carefully the conditions of the Authorization. In particular, please notice that any change in the discharge will require a new Authorization by the DEQ.

Questions concerning this Authorization can be directed to the Groundwater Permits Unit, Permits Section, Water Resources Division, DEQ, telephone: 517-373-8148, or the Water Resources Division, Saginaw Bay District Office, telephone: 989-894-6280.

Sincerely,

  
Rick D. Ruzs, Chief  
Groundwater Permits Unit  
Permits Section, Water Resources Division

Enclosure

cc: Iosco County Health Department  
Mr. Brian Rudolph, Saginaw Bay

PERMIT NO. GW1810213



## GROUNDWATER DISCHARGE PERMIT

In compliance with the provisions of Michigan's Natural Resources and Environmental Protection Act, 1994 P.A. 451, as amended (NREPA), Part 31, Water Resources Protection, and Part 41, Sewerage Systems,

### Oscoda Township Wastewater Treatment Plant

110 State Street  
Oscoda, Michigan 48750

is authorized to discharge 625,000 gallons per day, 228,125,000 gallons per year of treated municipal wastewater from the **Oscoda Township WWTP** located at

Wurtsmith Airforce Base Lagoon Site  
Oscoda, Michigan 48750

designated as **Oscoda Township WWTP**

to the groundwater of the State of Michigan in accordance with effluent limitations, monitoring requirements and other conditions set forth in this permit.

<b>Rule Authorization:</b>	<b>2218</b>
<b>Wastewater Type:</b>	<b>Municipal Sanitary Sewage</b>
<b>Wastewater Treatment Method:</b>	<b>Aerated Lagoons</b>
<b>Wastewater Disposal Method:</b>	<b>Rapid Infiltration</b>

The issuance of this permit does not authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits, including any other Michigan Department of Environmental Quality (Department) permits, or approvals from other units of government as may be required by law.

This permit is based on a complete application submitted on July 11, 2007.

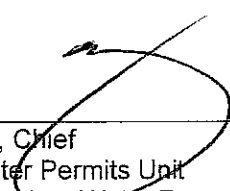
This permit takes effect on August 1, 2010. The provisions of this permit are severable. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term in accordance with applicable laws and rules.

This permit and the authorization to discharge shall expire at midnight, July 1, 2016. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit an application which contains such information, forms, and fees as are required by the Department by February 2, 2014.

**Issued** July 6, 2010.

**Modified** June 16, 2011.

**Modified** October 29, 2012.

  
Rick Rusz, Chief  
Groundwater Permits Unit  
Permits Section, Water Resources Division

## PERMIT FEE REQUIREMENTS

In accordance with Section 324.3122 of the NREPA, the permittee shall make payment of an annual permit fee to the Department for each December 15<sup>th</sup> the permit is in effect regardless of occurrence of discharge. The permittee shall submit the fee in response to the Department's annual notice. The fee shall be postmarked by March 1<sup>st</sup> for notices mailed by January 15<sup>th</sup>. The fee is due no later than 45 days after receiving the notice for notices mailed after January 15<sup>th</sup>.

In accordance with Section 324.3132 of the NREPA, the permittee shall make payment of an annual biosolids land application fee to the Department. In response to the Department's annual notice, the permittee shall submit the fee, which shall be postmarked no later than January 31<sup>st</sup> of each year.

## CONTACT INFORMATION

Unless specified otherwise, all contact with the Michigan Department of Environmental Quality (Department) required by this permit shall be made to the Saginaw Bay District Supervisor of the Water Resources Division. The Saginaw Bay District Office is located at 401 Ketchum Street, Bay City, Michigan 48708, Telephone: 989-894-6280, Fax: 989-891-9237.

## CONTESTED CASE INFORMATION

Any person who is aggrieved by this permit may file a sworn petition with the Office of Administrative Hearings of the Michigan Department of Licensing and Regulatory Affairs, setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Department of Licensing and Regulatory Affairs may reject any petition filed more than 60 days after issuance as being untimely.

## SPECIAL INSTRUCTIONS/NOTIFICATIONS

This permit does not authorize or approve the construction or modification of any wastewater treatment system, physical structures or facilities. Approval for such construction must be as follows:

1. For a publicly owned treatment work (POTW), or a private system that is servicing the public, approval must be by permit issued under Part 41 of the NREPA.

## PART I

### 1. Effluent Limitations

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge a maximum of 625,000 gallons per day, 228,125,000 gallons per year, of treated municipal wastewater from the monitoring points listed below to the groundwater in Oscoda Township, Iosco County, Michigan. The discharge shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Daily Limit</u>	<u>Units</u>	<u>Frequency of Analysis</u>	<u>Sample Type</u>
<b>EFFLUENT</b>				
<b>Monitoring Point EQ-1</b>				
Flow	625,000	GPD	Daily	Report Total
Flow	228,125,000	GPY	Annually	Calculation
Total Inorganic Nitrogen	(report)	mg/l	Weekly	Calculation
Ammonia Nitrogen	(report)	mg/l	Weekly	Grab
Nitrate Nitrogen	(report)	mg/l	Weekly	Grab
Nitrite Nitrogen	(report)	mg/l	Weekly	Grab
pH	(report)	S.U.	Weekly	Grab
Chloride	(report)	mg/l	Monthly	Grab
Carbonaceous Biological Oxygen Demand (CBOD)	(report)	mg/l	Monthly	Grab
Dissolved Oxygen (Minimum)	(report)	mg/l	Monthly	Grab
Sodium	(report)	mg/l	Monthly	Grab
Total Phosphorus	1.0	mg/l	Monthly	Grab

### **LAND APPLICATION (Rapid Infiltration Basins)**

#### **Monitoring Points (RI-1 through RI-8)**

Application Rate (Daily)	(report)	gallons/ft <sup>2</sup>	Daily	Calculation
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a) **Total Inorganic Nitrogen**

The daily maximum value for total inorganic nitrogen shall be reported as the sum of the daily maximum values for ammonia nitrogen, nitrate nitrogen, and nitrite nitrogen.

b) **Sampling Locations**

Influent flow, effluent flow, and land application rate shall be measured in accordance with the approved sampling plan. The location and method of collecting and analyzing effluent quality and soil samples shall be in accordance with the approved sampling plan. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative.



**PART I****2. Groundwater Monitoring and Limitations (Upgradient)**

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall sample the groundwater from the hydraulically upgradient groundwater monitor wells MW-1 and MW-5 as described below:

<u>Parameter</u>	<u>Limit</u>	<u>Units</u>	<u>Frequency of Analysis</u>	<u>Sample Type</u>
Static Water Elevation	(report)	USGS-Ft	Quarterly	Measured
pH	(report)	S.U.	Quarterly	Grab
Specific Conductance	(report)	umhos/cm	Quarterly	Grab
Total Inorganic Nitrogen	(report)	mg/l	Quarterly	Calculation
Ammonia Nitrogen	(report)	mg/l	Quarterly	Grab
Nitrate Nitrogen	(report)	mg/l	Quarterly	Grab
Nitrite Nitrogen	(report)	mg/l	Quarterly	Grab
Chloride	(report)	mg/l	Quarterly	Grab
Sodium	(report)	mg/l	Quarterly	Grab
Total Phosphorus	(report)	mg/l	Quarterly	Grab
Arsenic	(report)	mg/l	Annually	Grab
Calcium	(report)	mg/l	Annually	Grab
Iron	(report)	µg/l	Annually	Grab
Magnesium	(report)	mg/l	Annually	Grab
Manganese	(report)	µg/l	Annually	Grab
Potassium	(report)	mg/l	Annually	Grab
Dissolved Oxygen	(report)	mg/l	Annually	Grab
Bicarbonate	(report)	mg/l	Annually	Grab
Sulfate	(report)	mg/l	Annually	Grab

## a) Sampling Locations

Unless an alternative monitoring schedule is approved in the Sampling and Analysis Plan, quarterly sampling shall be in the months of February, May, August and November. Annual sampling shall be in August. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative.

## b) Total Inorganic Nitrogen at Groundwater Monitoring Points

The value for total inorganic nitrogen shall be reported as the sum of the values for ammonia nitrogen, nitrate nitrogen, and nitrite nitrogen.

## PART I

### 3. Groundwater Monitoring and Limitations (Downgradient)

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall sample the groundwater from hydraulically downgradient groundwater monitor wells. The discharge of treated wastewater shall not cause the groundwater in monitoring wells MW-7, MW-11, and MW-12 to exceed the limitations below.

<u>Parameter</u>	<u>Maximum Daily Limit</u>	<u>Units</u>	<u>Frequency of Analysis</u>	<u>Sample Type</u>
Static Water Elevation	(report)	USGS-Ft	Quarterly	Measured
pH	(report)	S.U.	Quarterly	Grab
Specific Conductance	(report)	umhos/cm	Quarterly	Grab
Total Inorganic Nitrogen	(report)	mg/l	Quarterly	Calculation
Ammonia Nitrogen	(report)	mg/l	Quarterly	Grab
Nitrate Nitrogen	(report)	mg/l	Quarterly	Grab
Nitrite Nitrogen	(report)	mg/l	Quarterly	Grab
Chloride	(report)	mg/l	Quarterly	Grab
Sodium	(report)	mg/l	Quarterly	Grab
Total Phosphorus	(report)	mg/l	Quarterly	Grab
Arsenic	(report)	mg/l	Annually	Grab
Calcium	(report)	mg/l	Annually	Grab
Iron	(report)	µg/l	Annually	Grab
Magnesium	(report)	mg/l	Annually	Grab
Manganese	(report)	µg/l	Annually	Grab
Potassium	(report)	mg/l	Annually	Grab
Dissolved Oxygen	(report)	mg/l	Annually	Grab
Bicarbonate	(report)	mg/l	Annually	Grab
Sulfate	(report)	mg/l	Annually	Grab

a) Sampling Locations

Unless an alternative monitoring schedule is approved in the Sampling and Analysis Plan, quarterly sampling shall be in the months of February, May, August and November. Annual sampling shall be in August. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative.

b) Total Inorganic Nitrogen at Groundwater Monitoring Points

The daily maximum value for total inorganic nitrogen shall be reported as the sum of the daily maximum values for ammonia nitrogen, nitrate nitrogen, and nitrite nitrogen.

## PART I

### 4. Schedule of Compliance

The permittee shall comply with the following schedule. Submittals shall comply with Rule 323.2218 which may be obtained via the internet at <http://www.deq.state.mi.us/documents/deq-wmd-gwp-part22.pdf>. All submittals shall be to the Department.

- a) On or before 90 days prior to the completion of the WWTP upgrades, the permittee shall submit for review and approval an updated Discharge Management Plan pursuant to Rules 2218(2)(c)(iii) and 2233-2236.
- b) On or before 90 days prior to the completion of the WWTP upgrades, the permittee shall submit an updated Operations and Maintenance Manual pursuant to Rule 2218(4)(b).
- c) On or before 90 days after the issuance of this permit, the permittee shall submit for review and approval the updated Sampling and Analysis Plan that includes both effluent and groundwater sampling requirements pursuant to Rule 2223.
- d) On or before 90 days after the issuance of this permit, the permittee shall submit for review and approval a proposed implementation schedule for the planned WWTP improvements as proposed in the approved Facility Improvement Workplan originally submitted to the Department on December 12, 2011.

### 5. Operation and Maintenance Manual

The permittee is required to develop an Operation and Maintenance Manual. A guidance document is available via the Internet at: <http://www.deq.state.mi.us/documents/deq-wmd-gwp-Part22GuidshtVI.pdf>.

### 6. Operator Certification

The permittee shall have the waste treatment facilities under direct supervision of an operator certified at the appropriate level for the facility certification by the Department, as required by Sections 3110 and 4104 of the NREPA.

### 7. Submittal Requirements for Self-Monitoring Data

Part 31 of Act 451 of 1994, as amended, specifically Section 324.3110(3) and Rule 323.2155(2) of Part 21 allows the department to specify the forms to be utilized for reporting the required self-monitoring data. Unless instructed on the effluent limitations page to conduct "Retained Self Monitoring" the permittee shall submit self-monitoring data via the Department's Electronic Environmental Discharge Monitoring Reporting (e2-DMR) system.

The permittee shall utilize the information provided on the e2-Reporting website @ <https://secure1.state.mi.us/e2rs/> to access and submit the electronic forms. Both monthly summary and daily data shall be submitted to the department no later than the **20<sup>th</sup> day of the month** following each month of the authorized discharge period(s). The permittee may be allowed to submit the electronic forms after this date if the Department has granted an extension to the submittal date.

### 8. Facility Operation and Maintenance

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall comply with the inspection, operation and maintenance program requirements specified below.

<u>Location</u>	<u>Condition</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Lagoon	Freeboard -2 foot minimum	Weekly	Visual Observation
	Control Structures	Weekly	Visual Observation
	Dike Integrity	Weekly	Visual Observation
	Vegetation Control	Weekly	Visual Observation
	Nuisance Animals	Weekly	Visual Observation
	Odors	Weekly	Olfactory Observation
Rapid Infiltration Beds	Vegetation Control	Weekly	Visual Observation

## PART I

### a) Lagoon Inspection

These inspections shall include:

- (1) the lagoon dikes for vegetative growth, erosion, slumping, animal burrowing or breakthrough;
- (2) the lagoon for growth of aquatic plants, offensive odors, insect infestations, scum, floating sludge, and septic conditions;
- (3) the depth of the water in each cell and the freeboard with a minimum two (2) feet of freeboard being maintained at all times;
- (4) the control structures and pump stations to assure that valves, gates and alarms are set correctly and properly functioning;
- (5) the lagoon security fence and warning signs.

### b) Facility Maintenance

The permittee shall implement a Facility Maintenance Program that incorporates the following management practices unless otherwise authorized by the Department.

- (1) Vegetation shall be maintained at a height not more than six (6) inches above the ground on lagoon dikes.
- (2) Not more than 10 percent of the water surface shall be covered by floating vegetation and not more than 10 percent of the water perimeter may have emergent rooted aquatic plants.
- (3) Dike damage caused by erosion, slumping or animal burrowing shall be corrected immediately and steps taken to prevent occurrences in the future.
- (4) The integrity of the lagoon liner shall be protected. Liner damages shall be corrected immediately and steps taken to prevent future occurrences.
- (5) The occurrence of scum, floating sludge, offensive odors, insect infestations, and septic conditions shall be minimized.
- (6) A schedule for the inspection and maintenance of the collection system, lift stations, mechanical and electrical systems, transfer stations, and control structures shall be developed and implemented.

### c) Lagoon Drawdown Conditions

The permittee shall observe the following conditions when drawing down a cell for transfer or discharge unless otherwise authorized by the Department.

- (1) Water discharged shall be removed from the surface two feet of the cell at a rate of less than one foot per day.
- (2) The permittee shall maintain a minimum of two feet of freeboard in all cells at all times. Upon written notification, the Department may require a minimum of three feet of freeboard for larger systems.
- (3) The permittee shall maintain a minimum of two feet of water in all cells at all times.

## 9. General Conditions

- a) The discharge shall not be, or not be likely to become, injurious to the protected uses of the waters of the state.
- b) The discharge shall not cause runoff to, ponding on, or flooding of adjacent property, shall not cause erosion, and shall not cause nuisance conditions.
- c) The point of discharge shall be located not less than 100 feet inside the boundary of the property where the discharge occurs, unless a lesser distance is specifically authorized in writing by the Department.
- d) The discharge shall not create a facility as defined in Part 201, Environmental Response, of the NREPA.
- e) **The permittee shall complete the wastewater treatment plant upgrades per the Department approved schedule of implementation [as required in Part I – Section 4(d) of this permit]. All improvements shall be completed as proposed in the Department approved workplan for treatment plant improvements (December 14, 2011, updated 9/28/2012) per the approved Part 41 plans.**

## 10. Other Conditions

- a) **Basis of Design** - The discharge shall be treated in accordance with the approved basis of design pursuant to Rule 2218(2).

## PART I

- b) **Wastewater Characterization** - The wastewater being treated shall be of the same chemical, biological, and physical characteristics as described in the characterization required pursuant to Rule 2220.
- c) **Land Application, Rapid Infiltration:**
  - (1) The system shall consist of two (2) or more cells or absorption areas that can be alternately loaded and rested or consist of one (1) cell or absorption area preceded by an effluent storage or stabilization pond system. If only one (1) cell or absorption area is provided, then the storage or stabilization pond shall be operated on a fill and draw basis and have sufficient capacity to allow intermittent loading of the cell or absorption area.
  - (2) For a system that has more than one (1) cell or absorption area, an individual cell or absorption area of the system shall be capable of being taken out of service without disrupting application to other cells or absorption areas of the system.
  - (3) An appropriate hydraulic loading cycle shall be developed and implemented to maximize long-term infiltration rates and allow for periodic maintenance.

### 11. Discharge Management Plan (DMP)

- a) A land treatment system shall be designed, constructed, and operated as follows:
  - (1) The system shall be designed and constructed to prevent surface runoff from either entering or exiting the system.
  - (2) The system shall be designed and constructed to provide even distribution of wastewater during application. A header ditch, where used, shall be designed and constructed to allow for complete drainage after each wastewater loading or shall be lined to prevent seepage.
  - (3) If vegetative cover is utilized and is considered part of the overall treatment system, then the design and construction of the system shall allow for the mechanical harvesting of vegetative cover.
  - (4) The system shall be designed, constructed, and operated to allow an appropriate loading cycle. An appropriate loading cycle allows time between loadings for all of the following:
    - (a) Soil organisms to biologically decompose organic constituents in the wastewater.
    - (b) Organic solids on the soil surface to decompose.
    - (c) The soil to become aerated.
    - (d) Vegetative cover to utilize available nutrients provided through the application of the wastewater.
    - (e) Soil conditions to become unsaturated and aerobic.
    - (f) Harvesting operations to occur at appropriate times.
- b) The design hydraulic loading or application rate, whether daily, monthly, or annual, shall not be more than one of the following:
  - (1) Three percent of the permeability of the most restrictive soil layer within the solum over the area of the discharge when determined by either the cylinder infiltration method or air entry permeameter test method.
  - (2) Seven percent of the permeability of the most restrictive soil layer within the solum over the area of the discharge as determined by the saturated hydraulic conductivity method.
  - (3) Twelve percent of the permeability of the most restrictive soil layer within the solum over the area of the discharge as determined by the basin infiltration method.
  - (4) If published information is utilized, the discharger shall determine the methodology used to measure the reported hydraulic conductivity. If the hydraulic conductivity is given as a range of expected values, then a discharger shall use the minimum value given the most restrictive soil layer within the solum when calculating the hydraulic loading or application rate.
- c) The system shall be designed, constructed, and operated so as to prevent the development of sodic conditions within the solum of the discharge area. Sodic conditions are considered to exist in the solum when the exchangeable sodium percentage, which is the percentage of the cation exchange capacity of a soil occupied by sodium, is more than 15 percent.
- d) If phosphorus adsorption within the solum or unsaturated soil column is part of the overall treatment process, then the system shall be designed as follows:
  - (1) The available phosphorus adsorptive capacity of the solum or unsaturated soil column from within the discharge area shall be sufficient to provide the necessary treatment to ensure that the applicable limit established in the permit is not exceeded for the duration of the permit.

## PART I

- (2) The loading cycle shall be designed so as to provide the necessary contact time within the solum or unsaturated soil column required for phosphorus to be removed from the applied wastewater through adsorption processes.
- (3) The available phosphorus adsorptive capacity of the discharge area shall be determined through either of the following methods:
  - (a) By subtracting phosphorus levels of the unsaturated soil column, determined through on-site Bray-P1 analysis, from published phosphorus adsorption capacity data for the solum found within the discharge area.
  - (b) By subtracting phosphorus levels of the unsaturated soil column, as determined through on-site Bray-P1 analysis, from the phosphorus adsorption maximum as determined through Langmuir isotherm analysis of on site soils, after adjustments for the concentration of phosphorus in the effluent and fraction of utilization within the solum are made.
- e) All of the following operation and maintenance requirements shall be met:
  - (1) Portions of the wastewater distribution system shall be capable of being taken out of service for maintenance and other operational activities and to provide rest to portions of the irrigation area without disrupting applications to other areas of the system.
  - (2) All areas within a system shall be accessible for maintenance equipment.
  - (3) For slow rate and overland flow treatment systems, the pH of the plow layer within the discharge area shall be maintained between 6.0 and 7.5 standard units.
- f) The discharge to a land treatment system shall be limited so that the discharge volume combined with the precipitation from a 10-year frequency, 24-hour duration rainfall event does not overflow the designed discharge area.
- g) If any modifications are made to the management practices or specifications for the land application of wastewater, including but not limited to changes in crops grown, yield goal for those crops, or supplemental fertilization provided by the permittee or a third party, the permittee shall submit a revised DMP on or before November 30 of the year prior to making the proposed change. Based on this submittal, the Department may modify this permit in accordance with applicable rules and laws.

## 12. Compliance Requirements

Compliance with all applicable requirements set forth in Parts 31 and 41 of the NREPA, and related regulations and rules is required. All instances of noncompliance with concentration limitations of effluent or groundwater shall be reported as follows.

- a) Within seven (7) days from the time the permittee becomes aware of the noncompliance, the permittee shall report, in writing, all instances of noncompliance. Written reporting shall include all of the following:
  - 1) the name of the substance(s) for which a limit was exceeded;
  - 2) the concentration at which the substance was found; and
  - 3) the location(s) at which the limit was exceeded.
- b) Within 14 days from the time the permittee becomes aware of the noncompliance, the permittee shall resample the monitoring point at which the limit was exceeded for the substance for which a limit was exceeded.
- c) Within 60 days from the time the permittee becomes aware of the noncompliance, the permittee shall submit a written report that shall include all of the following:
  - 1) the results of the confirmation sampling;
  - 2) an evaluation of the cause for the limit being exceeded and the impact of that event to the groundwater; and
  - 3) a proposal detailing steps taken or to be taken to prevent recurrence.
- d) In accordance with applicable rules, the Department may require additional activities including, but not limited, to the following:
  - (1) Change the monitoring program, including increasing the frequency of effluent monitoring or groundwater sampling, or both.
  - (2) Develop and implement a groundwater monitoring program if one is not in place.
  - (3) If the discharge is in a designated wellhead protection area, assess the affects of the discharge on the public water supply system.
  - (4) Review the operational or treatment procedures, or both, at the facility.

**PART I**

- (5) Define the extent to which groundwater quality exceeds the applicable criteria that would designate the site as a facility under Part 201.
  - (6) Revise the operational procedures at the facility.
  - (7) Change the design or construction of the wastewater operations at the facility.
  - (8) Initiate an alternative method of waste treatment or disposal.
  - (9) Remediate contamination to comply with the terms of Part 201, if applicable.
- e) If the Department determines there is a change in groundwater quality from a normal operating baseline that indicates the concentration of a substance in groundwater may exceed an applicable limit, then the discharger shall take the following actions if required by the Department:
- (1) Change the monitoring program, including increasing the frequency of effluent sampling or groundwater sampling, or both.
  - (2) Review the operational or treatment procedures, or both, at the facility.

**13. Request for Discharge of Water Treatment Additives**

In the event a permittee proposes to discharge water treatment additives (WTAs) to groundwater, the permittee shall submit a request to discharge WTAs to the Department for approval. Such requests shall be sent to the Surface Water Assessment Section, Water Resources Division, Department of Environmental Quality, P.O. Box 30458, Lansing, Michigan 48909, with a copy to the Department contact listed on the cover page of this permit. Instructions to submit a request electronically may be obtained via the Internet (<http://www.michigan.gov/deq> and on the left side of the screen click on Water, Water Quality Monitoring, and Assessment of Michigan Waters; then click on the Water Treatment Additive List which is under the Information banner). Written approval from the Department to discharge such WTAs at specified levels shall be obtained prior to discharge by the permittee. Failure to obtain approval prior to discharging any WTA is a violation of this permit. Additional monitoring and reporting may be required as a condition for the approval to discharge the WTA. WTAs include such chemicals as herbicides used to kill weeds and grasses as part of lagoon maintenance.

A request to discharge WTAs to groundwater shall include all of the following:

- a) product information:
  - (1) name of the product;
  - (2) Material Safety Data Sheet;
  - (3) product function (i.e. microbiocide, flocculants, etc.);
  - (4) specific gravity if the product is a liquid; and
  - (5) annual product use rate (liquids in gallons per year and solids in pounds per year);
- b) ingredient information:
  - (1) name of each ingredient;
  - (2) CAS number for each ingredient; and
  - (3) fractional content by weight for each product;
- c) the monitoring point from which the WTA is to be discharged;
- d) the proposed WTA discharge concentration;
- e) the discharge frequency (i.e., number of hours per day and number of days per year);
- f) the type of removal treatment, if any, that the WTA receives prior to discharge;
- g) relevant mammalian toxicity studies for the product or all of its constituents (if product toxicity data are submitted, the applicant shall provide information showing that the product tested has the same composition as the product listed under Item "a" above. Preferred studies are subchronic or chronic in duration, use the oral route of exposure, examine a wide array of endpoints and identify a no-observable-adverse-effect-level. Applicants are strongly encouraged to provide the preferred data. If preferred data are not available, then the minimum information needed is an oral rat LD50 study. In addition, an environmental fate analysis that predicts the mobility of the product/ingredients and their potential to migrate to groundwater may be provided.

## PART I

- h) If the discharge of the WTA to groundwater is within 1,000 feet of a surface water body, the following information shall also be provided:
- (1) a 48-hour LC50 or EC50 for a North American freshwater planktonic crustacean (either *Ceriodaphnia* sp., *Daphnia* sp., or *Simocephalus* sp.); and
  - (2) the results of a toxicity test for one other North American freshwater aquatic species (other than a planktonic crustacean) that meets a minimum requirement of Rule 323.1057(2) of the Water Quality Standards.

Prior to submitting the request, the permittee may contact the Surface Water Assessment Section by telephone at 517-335-1180 or via the Internet at the address given above to determine if the Department has the product toxicity data required by Item "g" above. If the Department has the data, the permittee will not need to submit product toxicity data.

### 14. Residuals Management Program (RMP) for Land Application of Biosolids

The permittee is authorized to land apply bulk biosolids or prepare bulk biosolids for land application in accordance with the requirements established in R323.2401 through R323.2418 of the Michigan Administrative Code (Part 24 Rules). The permittee shall develop and implement an RMP to assure land applied bulk biosolids comply with the requirements of the Part 24 Rules. Incineration, landfilling and other residual disposal activities shall be conducted in accordance with the appropriate statutory requirements.

- a) **Program Development**  
On or before 180 days prior to the land application of biosolids the permittee shall develop an RMP and submit the information required for implementation to the Department for approval. At a minimum, the program submittal shall include:
  - (1) a description of the type and size of facility generating the biosolids;
  - (2) a description of the biosolids treatment processes including the volume of biosolids generated from each process;
  - (3) storage volume provided, if applicable;
  - (4) transportation methods and spill prevention plan;
  - (5) a description of the land application method;
  - (6) a listing of the required information on all land application sites, information on initial application notifications required by R323.2408 and class B biosolids site restriction notifications, if applicable, as specified in R323.2414(3)(f);
  - (7) a land application plan which shows compliance with the applicable management requirements identified in R323.2410 and the loading rates and limitations as specified in R323.2408, R323.2409 and R323.2417;
  - (8) a description of the pathogen reduction method used to comply with R323.2411, R323.2414 and R323.2418;
  - (9) a description of the vector attraction reduction method used to comply with R323.2415; and
  - (10) information on monitoring program, monitoring frequencies pursuant to R323.2412, and one year of records representing the volume and concentrations of pollutants in the biosolids.
- b) **RMP Implementation**  
The permittee shall implement the approved RMP immediately upon written approval from the Department. Upon RMP approval, the permittee may land apply bulk biosolids, and the approved RMP becomes an enforceable requirement of this permit.
- c) **Modifications to the Approved RMP**  
The permittee shall submit proposed modifications to its RMP to the Department for approval. The approved modification shall become effective upon the date of approval. Upon written notification, the Department may impose additional requirements and/or limitations to the approved RMP as necessary to protect public health and the environment from any adverse effect of a pollutant in the biosolids.
- d) **Recordkeeping**  
Records required by R323.2413 shall be kept for a minimum of five years. However, the records documenting cumulative loading for sites subject to cumulative pollutant loading rates shall be kept as long as the site receives biosolids.



**PART I****e) Annual Report**

The permittee shall report the number of dry tons of biosolids generated that were applied to the land in the State of Michigan in the state fiscal year (October 1 through September 30). The annual report shall include information required in R323.2413(2)(h) and R323.2413 (3) to (8), except R323.2413 (6)(b), (7)(b), and (8)(b). The report shall be submitted to the Department on or before October 30 of each year.

## PART II

### Definitions

This list of definitions may include terms not applicable to this permit.

**Annual frequency of analysis** refers to a calendar year beginning on January 1 and ending on December 31. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

**Biosolids** are the solid, semisolid, or liquid residues generated during the treatment of sanitary sewage or domestic sewage in a treatment works. This includes, but is not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment processes and a derivative of the removed scum or solids.

**Bulk biosolids** means biosolids that are not sold or given away in a bag or other container for application to a lawn or home garden.

**By-Pass** means any diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions of this permit.

**Class B Biosolids** refers to material that has met the Class B pathogen reduction requirements or equivalent treatment by a Process to Significantly Reduce Pathogens (PSRP) in accordance with the Part 24 Rules. Processes include aerobic digestion, composting, anaerobic digestion, lime stabilization and air drying.

**Daily concentration** is the sum of the concentrations of the individual samples of a parameter divided by the number of samples taken during any calendar day. If the parameter concentration in any sample is less than the quantification limit, regard that value as zero when calculating the daily concentration. For pH, report the maximum value of any individual sample taken during the month and the minimum value of any individual sample taken during the month.

**Department** means the Michigan Department of Environmental Quality.

**Detection Level** means the lowest concentration or amount of the target analyte that can be determined to be different from zero by a single measurement at a stated level of probability.

**Flow Proportioned sample** is a composite sample with the sample volume proportional to the effluent flow.

**Furrow stream** is the volume, in gallons per unit time, usually per minute, of wastewater discharged into the furrow.

**GPD** means gallons per day.

**GPY** means gallons per year.

**Grab sample** is a single sample taken at neither a set time nor flow.

**MGD** means million gallons per day.

**Mg/l** is a unit of measurement and means milligrams per liter.

**Monthly frequency of analysis** refers to a calendar month. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

**POTW** is a publicly owned treatment works.

**Quantification level** means the measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calculated at a specified concentration above the detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant.

## PART II

**Quarterly frequency of analysis** refers to a three month period, defined as January through March, April through June, July through September, and October through December. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

**Report** means there is no limit associated with the individual substance for the medium that is being sampled, that the permittee must only report the result of the laboratory analysis.

**Weekly frequency of analysis** refers to a calendar week which begins on Sunday and ends on Saturday. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

**24-Hour Composite** sample is a flow proportioned composite sample consisting of hourly or more frequent portions that are taken over a 24-hour period.

## PART II

### 1. Start-up Notification

If the permittee will not discharge during the first 60 days following the effective date of this permit, the permittee shall notify the Department within 14 days following the effective date of this permit, and then 60 days prior to the commencement of the discharge.

### 2. Compliance Dates Notification

Within 14 days of every compliance date specified in this permit, the permittee shall submit a written notification to the Department indicating whether or not the particular requirement was accomplished. If the requirement was not accomplished, the notification shall include an explanation of the failure to accomplish the requirement, actions taken or planned by the permittee to correct the situation, and an estimate of when the requirement will be accomplished. If a written report is required to be submitted by a specified date and the permittee accomplishes this, a separate written notification is not required.

### 3. Notification of Changes in Discharge, Treatment or Facility Operations

If proposing to modify the quantity or effluent characteristics of the discharge or the treatment process for the discharge, the permittee shall notify the Department of the proposed modification prior to its occurrence. Significant modifications require the permittee to submit an application. A permit modification shall be processed in accordance with applicable rules and laws prior to implementation of the modification.

### 4. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the permittee shall submit to the Department 30 days prior to the actual transfer of ownership or control a written agreement between the current permittee and the new permittee containing: 1) the legal name and address of the new owner; 2) a specific date for the effective transfer of permit responsibility, coverage and liability; and 3) a certification of the continuity of or any changes in operations, wastewater discharge, or wastewater treatment.

If the new permittee is proposing changes in operations, wastewater discharge, or wastewater treatment, the Department may propose modification of this permit in accordance with applicable laws and rules.

### 5. Representative Samples

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. Guidance on how to collect representative samples is contained in Guidesheet III, "Characterization of Wastewater", which is available via the Internet at <http://www.deq.state.mi.us/documents/deq-wmd-gwp-P22GuidshtIII.pdf>.

### 6. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations promulgated pursuant to either SW-846, 3rd edition, September 1986, "Test Methods for the Evaluation of Solid Waste, Physical-Chemical Methods", or Section 304(h) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq), 40 CFR Part 136 - Guidelines Establishing Test Procedures for the Analysis of Pollutants, unless specified otherwise in this permit. Requests to use test procedures not defined here shall be submitted to the Department for review and approval. The permittee shall periodically calibrate and perform maintenance procedures on all analytical instrumentation at intervals to ensure accuracy of measurements. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Control/Quality Assurance program.

### 7. Instrumentation

The permittee shall periodically calibrate and perform maintenance procedures on all monitoring instrumentation at intervals to ensure accuracy of measurements.

## PART II

### 8. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information: 1) the exact place, date, and time of measurement or sampling; 2) the person(s) who performed the measurement or sample collection; 3) the dates the analyses were performed; 4) the person(s) who performed the analyses; 5) the analytical techniques or methods used; 6) the date of and person responsible for equipment calibration; and 7) the results of all required analyses.

### 9. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Department.

### 10. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

Monitoring required pursuant to Part 41 of the NREPA or Rule 35 of the Mobile Home Park Commission Act (1987 PA 96) for assurance of proper facility operation shall be submitted as required by the Department.

### 11. Permit Monitoring Requirements

Pursuant to Rule 2223(1), the Department may modify the effluent or groundwater monitoring parameters or frequency requirements of this permit. The permittee may request a modification of the parameters or frequency of monitoring of this permit with adequate supporting documentation.

### 12. Spill Notification

The permittee shall immediately report any release of any polluting material which occurs to the surface waters or groundwater of the state, unless the permittee has determined that the release is not in excess of the threshold reporting quantities specified in the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code), by calling the Department at the number indicated on the first page of this permit, or if the notice is provided after regular working hours call the Department's 24-hour Pollution Emergency Alerting System telephone number, 1-800-292-4706 (calls from out-of-state dial 1-517-373-7660).

Within ten (10) days of the release, the permittee shall submit to the Department a full written explanation as to the cause of the release, the discovery of the release, response (clean-up and/or recovery) measures taken, and preventative measures taken or a schedule for completion of measures to be taken to prevent reoccurrence of similar releases.

### 13. Upset Noncompliance Notification

If a process "upset" (defined as an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee) has occurred, the permittee who wishes to establish the affirmative defense of upset, shall notify the Department by telephone within 24-hours of becoming aware of such conditions; and within five (5) days, provide in writing, the following information:

- a) that an upset occurred and that the permittee can identify the specific cause(s) of the upset;
- b) that the permitted wastewater treatment facility was, at the time, being properly operated; and
- c) that the permittee has specified and taken action on all responsible steps to minimize or correct any adverse impact in the environment resulting from noncompliance with this permit.

In any enforcement proceedings, the permittee, seeking to establish the occurrence of an upset, has the burden of proof.

## PART II

### 14. Bypass Prohibition and Notification

- a) Bypass Prohibition - Bypass is prohibited unless:
  - (1) bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  - (2) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass; and
  - (3) the permittee submitted notices as required under 14.b) or 14.c) below.
- b) Notice of Anticipated Bypass - If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least ten (10) days before the date of the bypass, and provide information about the anticipated bypass as required by the Department. The Department may approve an anticipated bypass, after considering its adverse effects, if it will meet the three (3) conditions listed in 14.a) above.
- c) Notice of Unanticipated Bypass - The permittee shall submit notice to the Department of an unanticipated bypass by calling the Department at the number indicated on the first page of this permit (if the notice is provided after regular working hours, use the following number: 1-800-292-4706) as soon as possible, but no later than 24 hours from the time the permittee becomes aware of the circumstances.
- d) Written Report of Bypass - A written submission shall be provided within five (5) working days of commencing any bypass to the Department, and at additional times as directed by the Department. The written submission shall contain a description of the bypass and its cause; the period of bypass, including exact dates and times; and if the bypass has not been corrected, the anticipated time it is expected to continue; steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass; and other information as required by the Department.
- e) Bypass Not Exceeding Limitations - The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of 14.a), 14.b), 14.c), and 14.d), above. This provision does not relieve the permittee of any notification responsibilities under Part II, Section 12 of this permit.
- f) Definitions
  - (1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
  - (2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

### 15. Facilities Operation

The permittee shall, at all times, properly operate and maintain all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures.

### 16. Power Failures

In order to maintain compliance with the effluent limitations of this permit and prevent unauthorized discharges, the permittee shall either:

- a) provide an alternative power source sufficient to operate facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit; or
- b) upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit, the permittee shall halt, reduce or otherwise control production and/or all discharge in order to maintain compliance with the effluent limitations and conditions of this permit.

## PART II

### 17. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of polluting materials in accordance with the requirements of the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code). For a Publicly Owned Treatment Work (POTW), these facilities shall be approved under Part 41 of the NREPA.

### 18. Waste Treatment Residues

Residuals (i.e. solids, sludges, biosolids, filter backwash, scrubber water, ash, grit or other pollutants) removed from or resulting from treatment or control of wastewaters, shall be disposed of in an environmentally compatible manner and according to applicable laws and rules. These laws may include, but are not limited to, the NREPA, Part 31, Water Resources Protection; Part 55, Air Pollution Control; Part 111, Hazardous Waste Management; Part 115, Solid Waste Management; Part 121, Liquid Industrial Wastes; Part 301, Inland Lakes and Streams; and Part 303, Wetland Protection. Such disposal shall not result in any unlawful pollution of the air, surface waters or groundwater of the state.

### 19. Treatment System Closure

- a) In the event that discharges from a treatment system are planned to be eliminated, the permittee shall do the following:
  - (1) Eliminate all physical threats associated with discharge related facilities not later than five (5) days after use of the facility has ceased.
  - (2) Not less than 75 days before cessation of discharge related activities, characterize any wastewater, sediments and sludges related to the discharge, pursuant to Rule 2226(4)(a)(i-iii).
- b) Within 30 days of completing the characterization, the discharger shall submit a closure plan to the Department for review and approval that describes how the wastewater, sediments and sludges associated with the discharge will be handled in accordance with Part 31, Part 115, Part 111, or Part 201, as appropriate.
- c) Closure activities must be initiated within 30 days of Department approval of the Closure Plan, and must be completed within one (1) year of approval of the Closure Plan.
- d) If the groundwater exceeds a standard established by the Department that would result in the site qualifying as a facility under Part 201, then the discharger shall comply with the requirements of Part 201.
- e) The Department may require post closure monitoring activities to evaluate the effectiveness of the closure activities. Any wastewater or residual disposal inconsistent with the approved plan shall be considered a violation of this permit. After proper closure of the treatment system, this permit may be terminated.
- f) The discharger must certify completion of the approved closure plan. Certification shall be by a qualified person described as follows:
  - (1) An engineer licensed under Act No. 299 of the Public Acts of 1980, as amended, being §339.101 et seq. Of the Michigan Compiled Laws, and known as the occupational code.
  - (2) A professional geologist certified by the American Institute of Professional Geologists, 7828 Vance Drive, Suite 103, Arvada, Colorado 80003.
  - (3) A professional hydrologist certified by the American Institute of Hydrology, 2499 Rice Street, Suite 135, St. Paul, Minnesota 55113.
  - (4) A groundwater professional certified by the National Ground Water Association, Association of Groundwater Scientists and Engineers Division, 601 Dempsey Road, Westerville, Ohio 43081.
  - (5) Another groundwater professional certified by an organization approved by the Department.

### 20. Right of Entry

The permittee shall allow the Department or any agent appointed by the Department, upon the presentation of credentials:

- a) to enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and



## PART II

- b) at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect process facilities, treatment works, monitoring methods and equipment regulated or required under this permit; and to sample any effluent discharge, discharge of pollutants, and groundwater monitoring wells and soils associated with the discharge.

### 21. Untreated or Partially Treated Sewage Discharge Requirements

In accordance with Section 324.3112a of the Michigan Act, if untreated sewage, including sanitary sewer overflows (SSO) and combined sewer overflows (CSO), or partially treated sewage is directly or indirectly discharged from a sewer system onto land or into the waters of the state, the entity responsible for the sewer system shall immediately, but not more than 24 hours after the discharge begins, notify, by telephone, the Department, local health departments, a daily newspaper of general circulation in the county in which the permittee is located, and a daily newspaper of general circulation in the county or counties in which the municipalities whose waters may be affected by the discharge are located that the discharge is occurring.

At the conclusion of the discharge, written notification shall be submitted in accordance with and on the "CSO/SSO Reporting Form" available via the internet at: [http://www.michigan.gov/deq/0,1607,7-135-3313\\_3682\\_3715---00.html](http://www.michigan.gov/deq/0,1607,7-135-3313_3682_3715---00.html), or, alternatively for combined sewer overflow discharges, in accordance with notification procedures approved by the Department.

In addition, in accordance with Section 324.3112a of the Michigan Act, each time a discharge of untreated sewage or partially treated sewage occurs, the permittee shall test the affected waters for *Escherichia coli* to assess the risk to the public health as a result of the discharge and shall provide the test results to the affected local county health departments and to the Department. The testing shall be done at locations specified by each affected local county health department but shall not exceed 10 tests for each separate discharge event. The affected local county health department may waive this testing requirement, if it determines that such testing is not needed to assess the risk to the public health as a result of the discharge event. The results of this testing shall be submitted with the written notification required above, or, if the results are not yet available, submit them as soon as they become available. This testing is not required, if the testing has been waived by the local health department, or if the discharge(s) did not affect surface waters.

Permittees accepting sanitary or municipal sewage from other sewage collection systems are encouraged to notify the owners of those systems of the above reporting and testing requirements.

### 22. Availability of Reports

Except for data determined to be confidential under Rule 323.2128 of the Michigan Administrative Code, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Sections 3112, 3115, 4106 and 4110 of the NREPA.

### 23. Construction Certification

On or before 30 days following completion of construction of any new wastewater treatment facilities after issuance of this permit, pursuant to Rule 2218(4)(a), the permittee shall submit a certification that a quality control and quality assurance program was utilized and the facilities constructed were built consistent with standard construction practices to comply with the permit and the NREPA. This certification shall be by an engineer licensed under Act 299 of the Public Acts of 1980.

## PART III

### 1. Discharge to the Surface Waters

This permit does not authorize any discharge to the surface waters. The permittee is responsible for obtaining any permits required by federal or state laws or local ordinances.

### 2. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation.

### 3. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits or approvals as may be required by law.

### 4. Duty to Comply

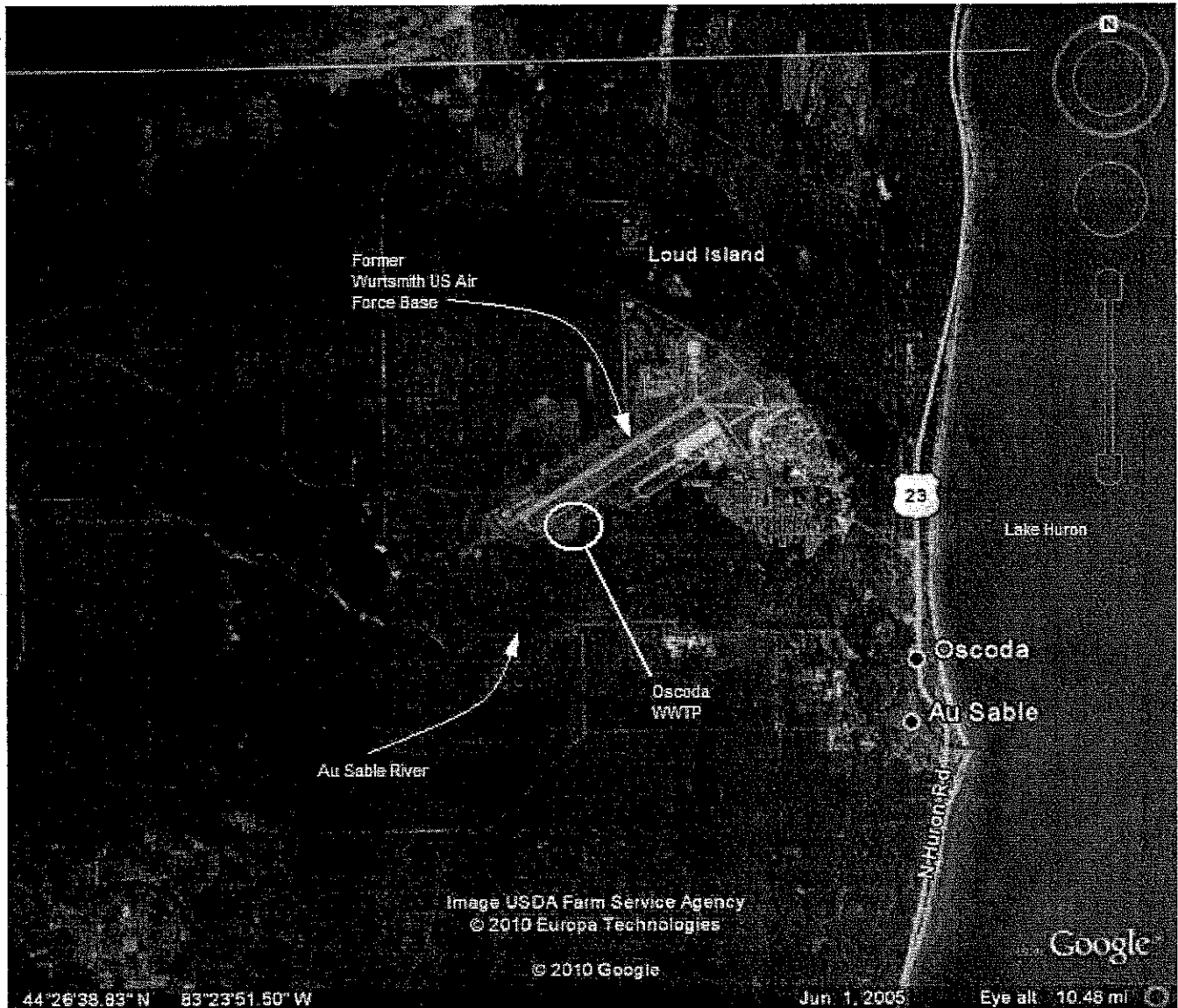
All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

It is the duty of the permittee to comply with all the terms and conditions of this permit. Any noncompliance with the Effluent Limitations, Conditions, or terms of this permit constitutes a violation of the NREPA and constitutes grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of an application for permit renewal.

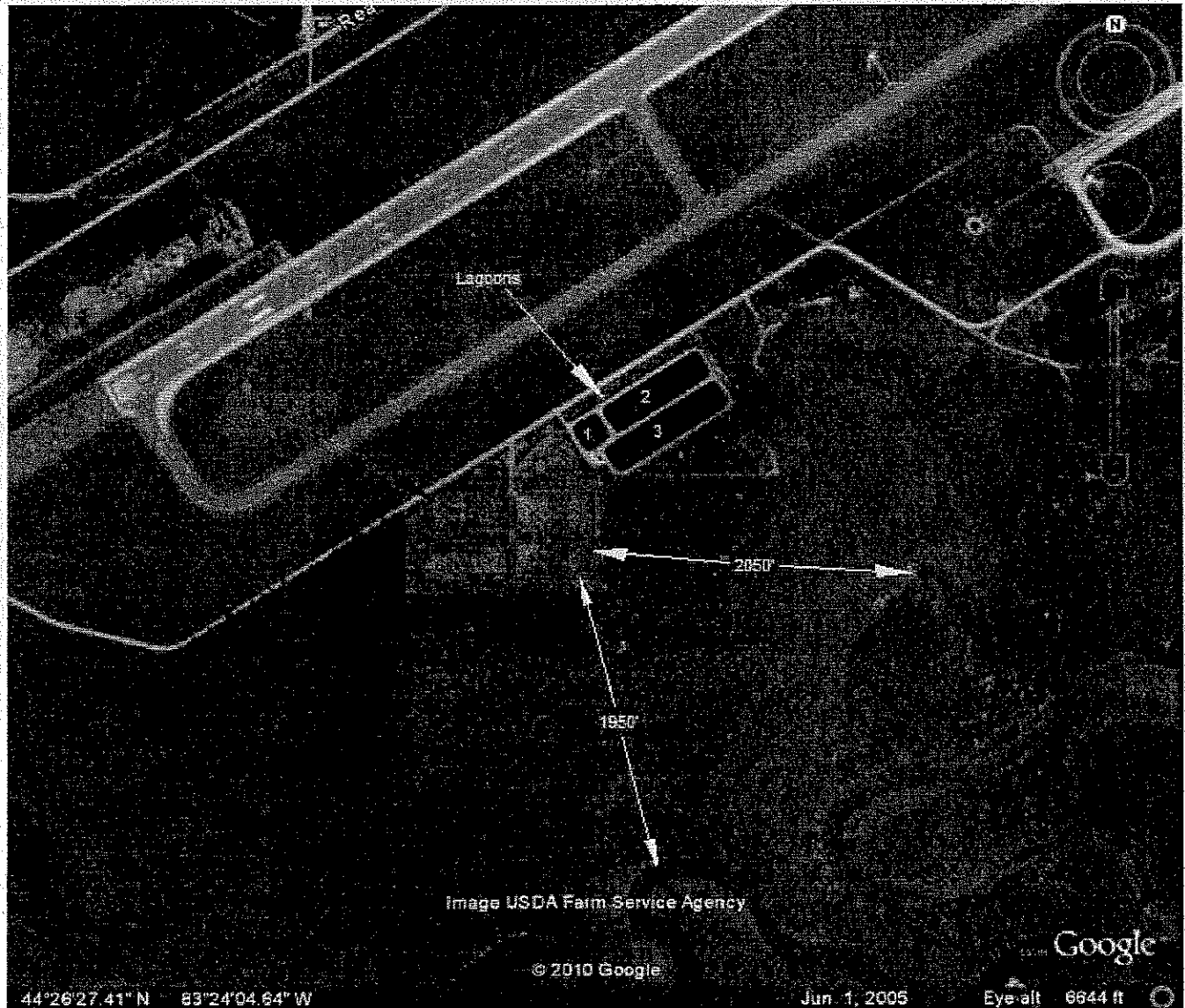
### 5. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond the permittee's control, such as accidents, equipment breakdowns, or labor disputes.

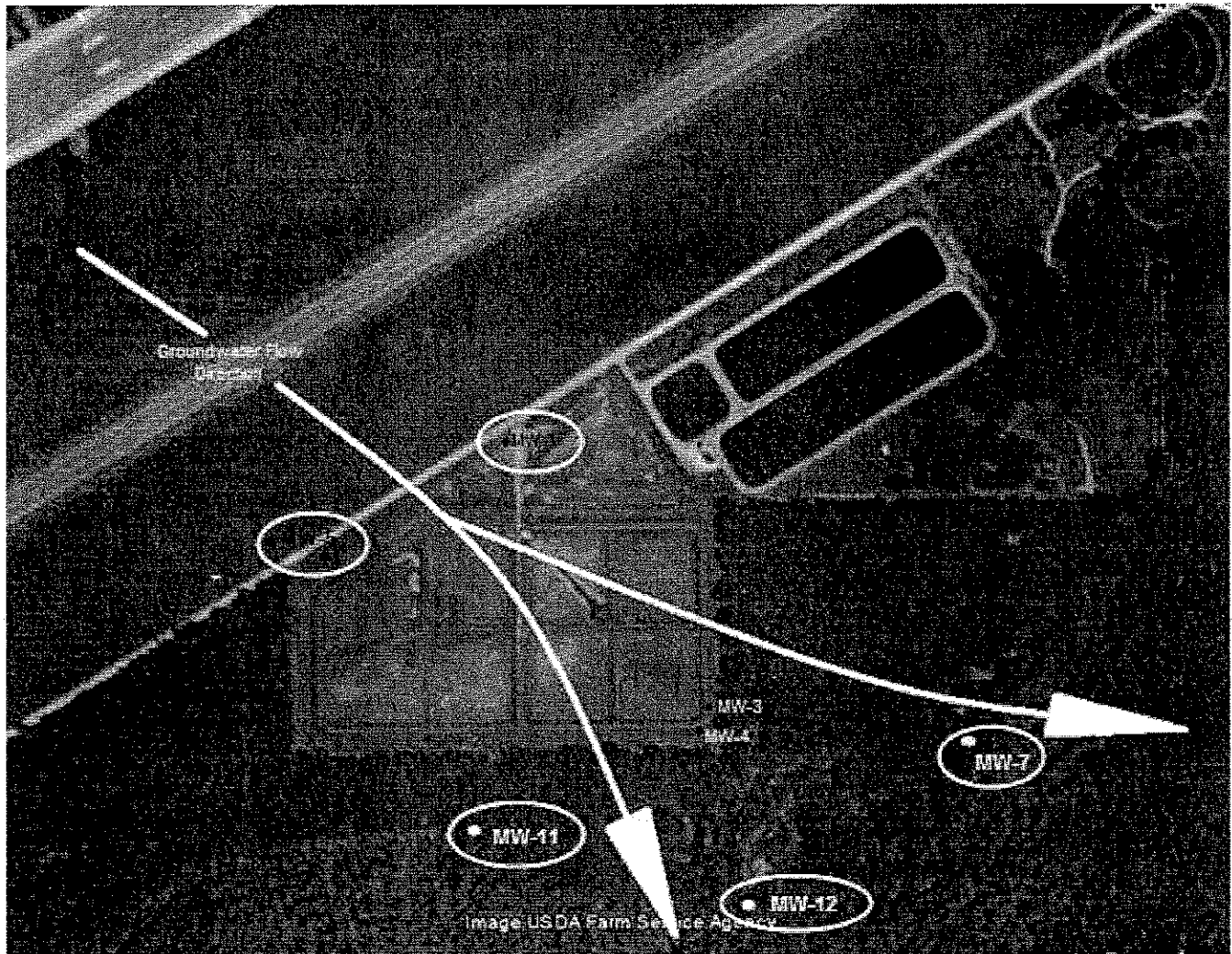
# ATTACHMENT I



## ATTACHMENT II



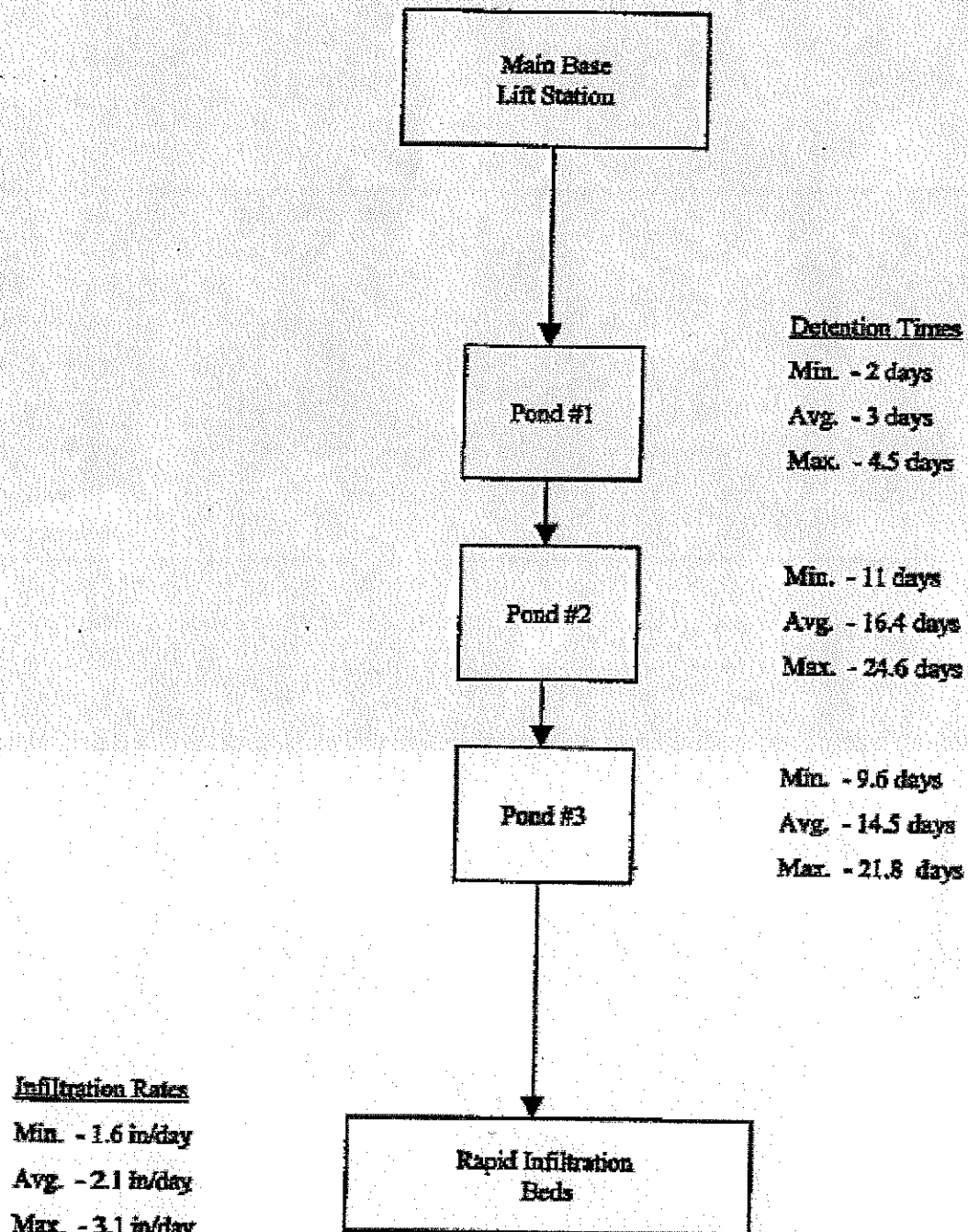
### ATTACHMENT III



# ATTACHMENT IV

## WATER USAGE DIAGRAM

### Oscoda Wastewater Treatment Plant



## Appendix H: M&B PFAS Treatment Project Description





City of Oscoda

SRF Project Plan

April 7, 2023

DRAFT



Consulting Engineers

Engineering Clean Water 

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## LIST OF EXHIBITS

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Exhibit A – Site Plan Overview	
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## LIST OF ABBREVIATIONS

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AEC – Aqueous Electrostatic Concentrator
AF – Absorption Filter
GAC – Granular Activated Carbon
MGD – Million Gallons per Day
RO – Reverse Osmosis
RIBs – Rapid Infiltration Basins
SCWO – Supercritical Water Oxidation
WWTP – Waste Water Treatment Plant

## 1.0 ANALYSIS OF ALTERNATIVES

### 1.1 Identification of Potential Alternatives

Identification of the current process and opportunities will be identified in this section, with a focus on three areas:

1. Sludge Treatment;
2. Liquid PFAS Treatment; and
3. RIB Soil Decontamination.

Each has alternatives to consider and the general areas can be seen in **Figure 1**.

### 1.2 Map



*Figure 1 – Alternative Zones*

### 1.3 Alternative No. 1.1 – Sludge Removal

#### 1.3.1 Description

Alternative No. 1.1 is purely the removal of sludge from the lagoons. Removing sludge from a lagoon typically involves dredging, which is the process of excavating or removing sediment, debris, and other unwanted material from the bottom of a water body. Dredging equipment, such as an excavator or suction dredge, is used to break up and remove the sludge from the lagoon. The sludge is



then placed in geotextile dewatering bags to remove the water from the sludge. The sludge is then transported to a site to be safely disposed of in a landfill due to its contaminants. Dredging can be a complex and time-consuming process, as it requires careful planning and management to minimize the impact on the environment and surrounding communities. The estimated cost of dewatering and disposal of the current volume of sludge is around \$690,000.

## **1.4 Alternative No. 1.2 – Supercritical Water Oxidation and Destruction**

### **1.4.1 Description**

Supercritical water oxidation (SCWO) is a high-pressure and high-temperature process that involves the oxidation of organic compounds in water above its critical point. Water becomes supercritical when it is heated to a temperature above 374 degrees Celsius (705 degrees Fahrenheit) and its pressure is above 22.1 megapascals (3,200 psi), which is its critical point.

### **1.4.2 Environmental Impacts**

The primary environmental concerns associated with SCWO are related to the energy requirements of the process and the emissions it generates. The high temperatures and pressures required for SCWO mean that large amounts of energy are needed to operate the process. This energy demand can lead to increased greenhouse gas emissions if fossil fuels are used to generate the energy. Additionally, the SCWO process itself can generate emissions, including carbon dioxide and nitrogen oxides. These emissions must be carefully managed to minimize their impact on the environment. Overall, while SCWO has the potential to be a valuable tool for environmental protection, its environmental impacts must be carefully considered and managed to ensure that it does not cause unintended harm to the environment.

### **1.4.3 Land Requirements**

The implementation of SCWO as a waste treatment technology may require the construction of dedicated facilities to house the necessary equipment and support infrastructure. These facilities may need to be located near the source of the waste, which could have implications for land use planning and zoning. Additionally, the disposal of any residual materials generated by the SCWO process, such as solid wastes or sludge, may require dedicated storage or disposal areas. Overall, while the land requirements of SCWO itself are relatively small, the implementation of the technology as a waste treatment option may have implications for land use planning and management.

### **1.4.4 Potential Construction Problems**

There may be construction issues with supercritical water oxidation when taking sludge from a lagoon. Dredging or excavation may be required to remove the sludge, and the transport of the sludge to the SCWO facility may require new or modified infrastructure. The sludge may also require pretreatment before it can be fed into the SCWO reactor vessel, and the disposal of any residual materials generated by the SCWO process may require dedicated storage or disposal areas.

#### **1.4.5 Sustainability Considerations**

Supercritical water oxidation has some sustainability concerns due to its high energy demand, water usage, and potential to create “end-of-pipe” solutions. The process can result in increased greenhouse gas emissions if the energy used is generated from fossil fuels.

#### **1.4.6 Cost Estimate**

The typical capital cost of a SCWO system may range anywhere from a few hundred thousand to well over 10 million dollars. The cost range we are looking at in this project is in the range of \$1 million to \$4 million. Currently, the cost very much depends on how quickly we wish to be treating the sludge, as we could possibly need multiple SCWO products. For our case, the cost of destruction of the sludge is estimated to be \$3.6 million.

### **1.5 Alternative No. 2.1 – Foam Fractionation**

#### **1.5.1 Description**

Foam fractionation is a separation technique used to isolate and purify proteins, enzymes, and other biomolecules from a solution. In this method, the solution is first mixed with a surfactant to produce a stable foam, which is then allowed to rise and collect in a foam column. As the foam rises, biomolecules with a high affinity for the surfactant will accumulate at the interface of the foam and the liquid, and will be carried to the top of the column. The foam can then be collected treated. A Granular Activated Carbon (GAC) and Ion exchange is then used to bind the molecules for disposal.

#### **1.5.2 Environmental Impacts**

Foam fractionation is a relatively eco-friendly separation technique, but it can have negative environmental impacts. The surfactants used can harm aquatic organisms if not disposed of correctly. The energy used to generate foam can contribute to greenhouse gas emissions. Industrial applications can produce waste products that need proper management.

#### **1.5.3 Land Requirements**

Foam fractionation does not typically have significant land requirements, as it is usually carried out in column or reactor vessels that can be placed in a laboratory or industrial setting. However, some larger-scale industrial applications of foam fractionation may require dedicated space for equipment and infrastructure, such as pumps and generators. Additionally, the production of large quantities of foam may require adequate ventilation and space to prevent overcrowding in the laboratory or production facility.

#### **1.5.4 Potential Construction Problems**

There may be construction problems with foam fractionation in larger-scale industrial applications. The design and construction of the foam column and associated equipment must be carefully considered for effective and reliable operation. Pumps, mixers, and other components must withstand the corrosive

effects of the surfactants used. The production of large quantities of foam can generate gas and heat that need to be managed to ensure safety and effectiveness.

### **1.5.5 Sustainability Considerations**

Foam fractionation is considered a relatively sustainable separation technique but still has some sustainability concerns. The surfactants used can harm the environment if not disposed of properly, and the production of large amounts of foam can contribute to greenhouse gas emissions. The sourcing of raw materials and generation of waste products are also sustainability concerns that need careful management.

### **1.5.6 Cost Estimate**

The cost of a foam fractionation system can vary greatly based on the scale and complexity of the application. A basic laboratory setup can range from a few hundred to a few thousand dollars. Industrial applications may require more advanced equipment and infrastructure, leading to significantly higher costs. A capital cost of \$6.5 million is anticipated, along with an annual O&M cost of near \$150,000. A 20-year present worth of the foam fractionation process sits around \$7.8 million.

## **1.6 Alternative No. 2.2 – Absorption Filter (Granular Activated Carbon)**

### **1.6.1 Description**

The Absorption Filter (AF) or also known as Granular Activated Carbon (GAC) process is a common method used to remove impurities from water and air. The process involves passing contaminated water or air through a bed of activated carbon granules, which are made from organic materials such as coconut shells, wood, or coal. The porous structure of the granules provides a large surface area for adsorption of the impurities. As the water or air passes through the bed of the AF, the impurities are adsorbed onto the surface of the carbon granules, thereby removing them from the water or air. The AF process is effective in removing a wide range of contaminants, including organic and inorganic compounds, and is commonly used in municipal water treatment plants, industrial processes, and air purification systems. The activated carbon granules can be regenerated and reused multiple times, making the AF process a cost-effective and sustainable method for water and air treatment.

Tertiary filtration is needed to remove the other impurities to maintain the absorption process for the PFAS type molecules.

### **1.6.2 Environmental Impacts**

The use of AF can result in greenhouse gas emissions and waste generation during production. GAC can also impact aquatic ecosystems by removing natural organic matter and dissolved minerals from water. Proper disposal of the adsorbed impurities is necessary to avoid environmental contamination. Despite potential impacts, the use of AF can benefit the environment by reducing the release of pollutants into water and air resources.

### **1.6.3 Land Requirements**

The land requirements of an AF system depend on the scale of the treatment process. Small-scale systems can be installed in a relatively small area, while larger municipal systems may require extensive land area. Additionally, AF systems may require pretreatment processes such as sedimentation or filtration, which can increase land requirements. Finally, the spent carbon generated from the AF process must be disposed of properly, which may require additional land for waste management.

### **1.6.4 Potential Construction Problems**

Potential construction problems with an AF process include settling of activated carbon granules, development of biofilms, and improper design and construction. Settling of granules can cause uneven flow distribution and channeling, while biofilms can reduce the effectiveness of the process. To prevent these issues, careful filling and compacting of the AF bed, appropriate pretreatment measures, and proper design and construction are necessary. Overall, careful planning and execution can ensure successful installation and operation of a GAC process.

### **1.6.5 Sustainability Considerations**

Sustainability considerations for the use of AF include resource use, waste generation, and environmental impact. Production of AF granules requires energy and resources, but they can be regenerated and reused, reducing environmental impact. Spent carbon can be reused in other applications, and the use of AF can improve environmental quality while appropriate pretreatment measures must be taken to ensure optimal performance.

### **1.6.6 Cost Estimate**

The cost of a Granular Activated Carbon system varies depending on factors such as size and flow rate, but they are generally considered a low-cost option for water and air treatment. However, initial capital costs for larger systems can still be significant, and ongoing costs such as maintenance and replacement of spent carbon must also be considered. After calculating a capital and O&M cost of \$6.7 million and \$190,000, respectively, an estimated \$8.2 million is valued at a 20-year present worth.

## **1.7 Alternative No. 2.3 – Aqueous Electrostatic Concentrator**

### **1.7.1 Description**

Aqueous Electrostatic Concentrator (AEC) is a solution that uses the charge of the PFAS type molecules to bind them on to a membrane that is charged, converting them to a mineral form. Typically, Reverse Osmosis (RO) is used to concentrate the waste stream so that the AEC unit can be smaller and more efficient. RO is a water treatment process that uses a semipermeable membrane to remove contaminants, including PFAS, from water. In this process, water is forced through the membrane under high pressure, which allows only water molecules to pass through while trapping contaminants, such as PFAS, on the other side of the membrane.



### **1.7.2 Environmental Impacts**

While RO systems can be effective at producing high-quality drinking water, they can also have negative environmental impacts. One major issue is the production of brine, which is what will be run into the AEC. However, it will also concentrate other contaminants that may be in the waste stream. Additionally, RO systems require significant amounts of energy to operate, which contributes to greenhouse gas emissions and other forms of air pollution.

The AEC system will require the membranes to be disposed of once they have used up their surface space. This is usually a small volume and likely can be landfilled.

### **1.7.3 Land Requirement**

The land requirements for installing an AEC system depend on various factors, such as the size of the system, the water source, and the treatment capacity. Typically, an AEC system requires a space for the treatment plant, storage tanks, and other equipment, as well as access to a reliable power supply and a water source. The size of the land needed can vary widely, from a small footprint for a residential RO system to several acres for a large commercial or industrial system.

### **1.7.4 Potential Construction Problems**

The potential construction problems when installing an AEC system include site selection, permits and approvals, equipment selection and installation, maintenance and operation, and environmental impacts. These issues can lead to reduced efficiency, increased maintenance costs, and system failure if not properly addressed.

### **1.7.5 Sustainability Considerations**

AEC systems have sustainability concerns due to their significant energy consumption during the water pressurization process, leading to increased carbon emissions. However, technological advancements and improved management practices can help mitigate some of these concerns, such as the use of energy-efficient pumps and developing brine management strategies.

### **1.7.6 Cost Estimate**

The cost of an AEC system varies depending on size, water quality, and treatment capacity. The capital cost of the AEC system is near \$7.2 million. Upon taking into account the annual O&M costs of near \$170,000, a 20-year present worth is estimated to be \$8.6 million.

## **1.8 Alternative Nos. 3.1 & 3.2 – Decontamination of Rapid Infiltration Basins**

### **1.8.1 Description**

Rapid Infiltration Basins (RIBs) are structures used for treating wastewater by allowing it to percolate through layers of sand and gravel. Over time, the sand in RIBs can become clogged with accumulated organic matter and contaminants that

do not get treated in the current system, reducing the system's effectiveness. To remove sand from RIBs, the sand can be excavated and replaced with fresh sand, or a specialized vacuum or dredging system can be used to remove the accumulated material.

### **1.8.2 Environmental Impacts**

Contaminated soil can be washed and reused. This will be considered if disposal and replacement proves to be too costly.

### **1.8.3 Land Requirement**

The environmental impacts of removing and cleaning sand from Rapid Infiltration Basins can vary depending on the method used and the specific site conditions. Excavating and replacing sand can disturb the surrounding ecosystem and habitats, and the transportation of large amounts of sand can contribute to air pollution and greenhouse gas emissions. The use of vacuum or dredging systems can also potentially impact aquatic and terrestrial species, and the disposal of the removed material may require proper handling and management to prevent contamination of nearby water sources.

### **1.8.4 Potential Construction Problems**

The removal of sand from Rapid Infiltration Basins can potentially lead to construction problems. Excavating and replacing sand can result in soil erosion, slope instability, and compaction issues, which may impact the structural integrity of the RIBs. In addition, the removal of sand can alter the hydrological and hydraulic properties of the soil, potentially affecting the system's performance and functionality.

### **1.8.5 Sustainability Considerations**

The sustainability of removing sand from Rapid Infiltration Basins depends on various factors, such as the volume of sand removed, the method used, and the impact on the local ecosystem. While removing sand is necessary to maintain the effectiveness of RIBs, excessive removal can lead to soil erosion, habitat destruction, and depletion of natural resources. Moreover, the transportation and disposal of sand can contribute to greenhouse gas emissions and air pollution.

### **1.8.6 Cost Estimate**

Creating a cost estimate for the removal of a large amount of sand can be tricky. For this case, we are assuming a removal and replacement cost of \$15 each per cubic yard. With the massive volume of sand removal, it is important to note the depth of removal for each RIB. When excavating 5 feet past the highest static water level (15-foot depth), the estimated cost is near \$18.2 million. When taking into account the lowest static water level (15 feet), and excavating a depth of 10 feet past it, the project is estimated to cost in the ballpark of \$30 million.

## **1.9 Monetary Evaluation**

For the alternatives explored in this project, **Table 1** shows a summary of the total capital and O&M costs over a 20-year period. It is important to note that this is in reference to the

information that was available at the time of writing this report, so these values are subject to change.

**Table 1 – Overall Capital Costs**

	Option 1	Option 2	Option 3	Selected
	Dewatering and Disposal	Supercritical Destruction		
<i>Sludge Treatment</i>	\$690,000	\$3,610,000		\$690,000
	Foam Fractionation + GAC	GAC System	AEC System	
<i>PFAS Treatment</i>	\$6,548,000	\$6,689,000	\$7,152,000	\$6,548,000
	25' Depth	15' Depth		
<b>Total</b>				<b>\$ 7,238,000</b>

It is important to note that in **Table 1**, the greater decontamination route was chosen over the lower-cost option.

**Table 2 – Section 2 Alternatives' Present Worth Analysis**

	2.1 Foam Fractionation	2.2 GAC System	2.3 AEC System
<i>Capital</i>	\$6,548,000	\$6,689,000	\$7,152,000
<i>O&amp;M</i>	\$146,589	\$183,315	\$172,630
<i>Total @ 20y</i>	\$7,752,124	\$8,194,801	\$8,570,031

Each of the three possible processes were evaluated individually. This alternative analysis will compare all alternatives to its counterparts.

After comparing the various types of PFAS treatment, it is evident that their capital and O&M costs factor in selecting an alternative.

Both Sludge Treatment and RIM Replacement O&M costs were not considered as they are one-time expenses.

## 1.10 Environmental Evaluation

Each has a major environmental concern. The treatment of PFAS-containing wastewater can potentially release these chemicals into the environment, leading to further contamination. Therefore, when considering PFAS treatment, it is essential to take into account the environmental impact of the treatment method and ensure that the treatment process does not further exacerbate the PFAS contamination problem.

### 1.10.1 Footprint

Out of the PFAS treatment alternatives, all of them have a similar footprint.

#### **1.10.2 Floodplain**

No floodplain information.

#### **1.10.3 Wetlands**

No wetland information.

#### **1.10.4 Lakes and Streams**

No lake or stream information.

#### **1.10.5 Customer Impacts**

No customer information.

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## 2.0 SELECTED ALTERNATIVE

### 2.1 Selection Process

This section outlines the selection process for the design parameters addressed for the WWTP Improvements Project.

#### 2.1.1 Relevant Design Parameters

##### 2.1.1.1 Sludge Treatment

Currently, if disposal of the sludge is able to be brought to a landfill, this is the most cost-effective method of disposal.

#### 2.1.2 Project Maps

A preliminary project process map and layout can be found in **Exhibit A**.

#### 2.1.3 Controlling Factors

The determined design flow for the facility is 0.5 MGD, with a concentration of PFAS of 10 ng/L and PFOS of 122 ng/L.

#### 2.1.4 Special Assessment District Projects

There are no expected special assessment requirements for the WWTP project.

#### 2.1.5 Sensitive Features

Currently there is no sensitive future near the WWTP that is being considered.

### 2.2 Useful Life

The useful life used to calculate the user costs is 30 years. This was calculated by assigning each major asset a useful life based on industry standards and manufacturer recommendations. These useful life values were multiplied by their associated costs to implement. These products were summed and then divided by the total sum of the costs for these assets. This resulted in a weighted average useful life value of 33 years. To be conservative, 30 years was used because that is a standard time period for SRF loans.

### 2.3 Water and Energy Efficiency

The currently selected alternative of Foam Fractionation uses the lowest level of electricity and water of the alternatives.

### 2.4 Schedule for Design and Construction

An anticipated design and construction schedule will be developed as part of a larger Project Plan.

## 2.5 Cost Summary

The total estimated SRF cost associated with the infrastructure improvement project is \$7,238,000

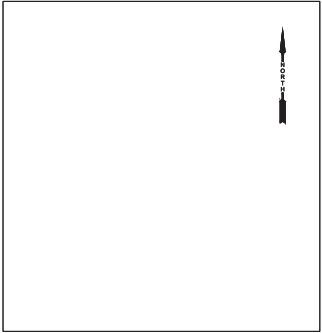
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## EXHIBIT A

DRAFT

P:\230159.01 OSCODA Lagoon PFAS Treatment-SRF Plan (with Rows)\CAD\DWG\230159\_Process SHEETS.dwg\_ 4/7/2023 9:58:44 AM\_LATE CHRISTIANS




LOCATION MAP  
NO SCALE:



PLAN SCALE: 1" = 40'

PLAN REVISIONS		BY
#	DATE	DESCRIPTION
1	01-14-20	
2		
3		
4		
5		
6		
7		
8		
9		
10		



**Moore+Bruggink**  
Consulting Engineers  
2020 Monroe Ave.  
Grand Rapids, MI 49505  
(616) 363-9801 mailbox@mbce.com

**OSCODA PFAS TREATMENT**  
FOR THE  
OSCODA  
CITY OF OSCODA, COUNTY, MICHIGAN

**PROCESS LAYOUT**

FIELD SURVEY / DATE	M+B
PROJECT NO.:	230159.01
DESIGN DRAWN BY:	TMC
DESIGNED BY:	ALD
CHECKED BY:	ALD
PLAN DATE:	4-15-2023
SHEET DESCRIPTION:	<b>P-01</b>
SHEET NUMBER:	1 OF 1



**CHARTER TOWNSHIP OF OSCODA**  
**Superintendent's Report**  
**April 24, 2023**

**ACTION ITEMS**

**DROP OFF REFUSE DATES –**

Your packet contains the Drop Off Refuse flyer for 2023 and the current contract for disposal with Travis Sanitation which is valid until April 30, 2024. After a discussion with the Township's vendor, the dates agreed upon for summer and fall are June 10, 2023, and September 9, 2023.

*Action: Consider approval of the two above listed dates, June 10, 2023, and September 9, 2023, for the community Drop Off Refuse event.*

**TOWNSHIP ENGINEER CONTRACT RENEWAL –**

Your packet contains a contract renewal proposal for Township Engineer Services from Mr. Rick Freeman. The Township currently has ongoing water and sewer projects, the Iosco Exploration Trail project through 2023, Parks projects and quite a bit of funding research and applications that Mr. Freeman has already started and is very familiar with. The contract renewal remains on a part-time basis with flexibility of being onsite or remote work and his fee remains set at \$55.00 per hour.

*Action: Consider approving the contract renewal proposal submitted by Mr. Freeman for Township Engineer Services and have the Superintendent execute the contract.*

**PUMP STATION #4 REPLACEMENT PARTS PURCHASE –**

At the previous meeting on March 27<sup>th</sup>, Ms. Winn from Fleis and Vanderbrink discussed the current issues with pump station #4 located centrally downtown. We have received the price quote for repair parts in the amount of \$12,033.71 versus total pump replacement cost in excess of \$30,000.00. As noted in Ms. Winn's memo, Pump Station #4 is planned for a complete rehab in the upcoming CWSRF project plan.

*Action: Consider approving the replacement parts purchase request in the amount of \$12,033.71 to be paid from Fund 591-000-890.000. (Contingency as this was not a budgeted repair cost)*

**DUST CONTROL BID AWARD –**

Your packet contains the bid tabulation and the response received from the annual dust control RFP previously approved by the Township Board. Historically, the Township's 13 – 14 miles worth of dust control takes approximately 3 loads of 9,000 gallons per load: or a minimum of 27,000 gallons total per application of Liquidow. The Township has seen better results with Liquidow than the 26% brine solution, but the more effective Liquidow is also more expensive to apply. If the historical trend continues for the 2023, a minimum total of 27,000 gallons would translate into at least \$17,496.00 per application of Liquidow. Last year, a total of \$24,169.32 was paid to Liquid Calcium Chloride Sales coded to the Road Improvement Fund 203 (to be paid out of line 203-000-969-.000 Street and Road Maintenance). All applications of dust control are supervised by the DPW Personnel. This requires Township Board approval.

*Action: Consider approving the application of Liquidow for Liquid Calcium Chloride.*

### **FIRE HYDRANT PURCHASE REQUEST –**

Your packet contains a memo from Ms. Winn of F&V Operations regarding the purchase of 5 fire hydrants. This item is budgeted in the amount of \$40,000.00 every year in the capital improvement plan.

*Action: Consider approving the purchase of 5 fire hydrants from EJ USA, Inc. in the amount of \$15,801.40 to be paid from Fund 591-000-974.000. (Capital Improvement/Outlay)*

### **STING INVOICE AND REPORT –**

Your packet contains a 2022 invoice from the Strike Team Investigation Narcotics Group (STING) for \$9,795.80. The Township Board has approved the exact same amount to be paid to STING for the last several years. This invoice should be paid from the Police Fund 207 due to the nature of the services provided by STING (specifically, Line 207-000-801.000 Professional Fees). It has also been confirmed that AuSable Township pays an annual \$2,865.80 to STING and this expenditure should not be incorporated as a “Shared Cost” when calculating the annual charge-back for the contracted Police Department services.

*Action: Consider approving the STING Invoice of \$9,795.80 to be paid from the Police Fund 207-000-801.000.*

### **ROWE INVOICES –**

Your packet contains the following listed invoices from Rowe Engineering for services rendered. These invoices require Township Board approval:

**Invoice No. 107853:** Iosco Exploration Trail - **\$26,985.00** – 101-751-880.572

**Invoice No. 107959:** Water System Improvements 2022 - **\$5,865.00** - C2R2 (After Reimbursement is Available)

**Invoice No. 107966:** Wastewater Pump Station Improvements - **\$1,162.50** – CWSRF (After Reimbursement is Available)

**Invoice No. 107971:** As Needed Services - **\$4,347.50** – 101-299-821.000

**Invoice No. 108062:** Lakewood Shores Mapping - **\$9,161.00** – 236-266-801.000

**Invoice No. 107949:** Old Orchard Park Campground Mapping - **\$1,791.00** – 218-000-984.000

**Invoice No. 108105:** Water System Improvement Project 2023 - **\$12,600.00** - C2R2 (After Reimbursement is Available)

### **OWAA BUILDING LEASE – FIRE DEPARTMENT -**

Your packet contains a proposed lease application for a training facility for our Fire Department from Oscoda Wurtsmith Airport Authority in the amount of \$1.00 annually for five years with a possible renewal after that. This building will provide a great opportunity for our Fire Department members to train in realistic scenarios and situations.

*Action: Consider allowing the Superintendent to execute the lease contract with the OWAA for the Oscoda Township Fire Department in the amount of \$1.00 per year.*

### **FIRE DEPARTMENT VENTILATION FAN PURCHASE REQUEST –**

Your packet contains a memo from Chief MacGregor for a ventilation fan replacement. The current fan is over 10 plus years old and has been malfunctioning. As a crucial part of almost every fire situation, this unit needs replacing. A recommendation has been made by the Fire Chief to purchase the unit from Municipal Emergency Services in the amount of \$4,450.00.

*Action: Consider purchasing the ventilation fan from Municipal Emergency Services in the amount of \$4,450.00 to be paid from Fund 206-000-981.000. (Fire Equip. Replacement)*

### **CURED-IN-PLACE LINING AT MISSION DRIVE RFP –**

At the November 14, 2022 Township Board meeting, the Board granted permission to have an RFP for the Cured-In-Place Slip Lining of Mission Drive storm sewer created. In your packet you will find a completed RFP from Rowe Engineering for your review and approval. This document has been reviewed by the Township's attorney as well.

*Action: Consider approving the Superintendent to go out for bids for the Cured-In-Place lining of Mission Drive storm sewer.*

Respectfully Submitted,



Tammy Kline



**Daily Permit Fee**  
**\$10.00**

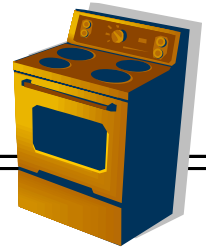
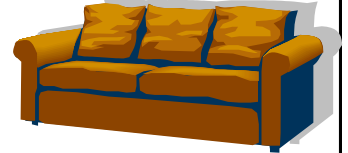
**Hours**  
**8 AM - 2 PM**

**Location**  
**3522 Kings Corner Rd.**

**2023 Schedule**  
**June 10th**

**PROGRAM RULES**

- Please be prepared to assist with unloading—its faster for everyone!
- Photo identification and proof of permit will be required at the site.
- Service is for Oscoda Township residents and seasonal home owners only.
- The Township and contractor reserve the right to refuse any items.
- Permits are **NOT** available on site, so please plan ahead.
- Use of dumpsters is on a first come - first served basis.
- Up to 4 tires of 20" or less diameter are allowed for each permit.
- Household garbage is **NOT** accepted.
- **No** commercial dumping of any kind is allowed.
- **No** items containing Freon unless proof of professional removal is shown (refrigerators, air conditioners etc.).
- We do **NOT** accept propane tanks or building materials of any kind.
- No glass of any type unless they are empty.
- No oil or paint cans unless they are empty.
- No aerosol cans or liquids of any kind.



**Large Items Dumpster**

Examples of accepted items:

- Carpet/Padding (must be cut & rolled in 4' x 8' sections)
- Furniture / Mattresses
- Computers
- Large items not a part of normal household refuse

**Metal Dumpster**

Examples of accepted items:

- Stoves / Microwave Ovens
- Bed Springs
- Aluminum siding
- Aluminum & tin including flattened cans & tin jar lids

**OSCODA TOWNSHIP DROP OFF REFUSE PROGRAM PERMIT APPLICATION FOR JUNE 10, 2023**

Permits will be issued to Oscoda Township residents and/or season homeowners only. Please read and complete the form.  
Detach at dotted line and submit with the \$10 permit fee. Please make checks payable to: Charter Township of Oscoda.

Name of Oscoda Township Resident/Seasonal Home Owner: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

I have received a copy of Oscoda Township's Drop Off Refuse Program schedule for the 2023 calendar year. I acknowledge that the permit is **NOT** transferable. Further, I understand property to be disposed of must be associated with the property address named above. There will be no refunds issued, full or partial, for any reason. I have also read the rules above governing use of the service, agree to comply with them and understand that my permit can be revoked for failure to do so.

Signature \_\_\_\_\_

Date \_\_\_\_\_

☐ Cash

☐ Check # \_\_\_\_\_

Initials: \_\_\_\_\_



## CONTRACT

This is a Contract (the "CONTRACT"), by and between the CHARTER TOWNSHIP OF OSCODA, a Michigan municipal corporation, whose mailing address is 110 South State Street, Oscoda, Michigan 48750, hereinafter referred to as "TOWNSHIP", and TRAVIS SANITATION., whose address is 3522 Kings Corner Rd., Oscoda, Michigan 48750-0518, hereinafter referred to as "CONTRACTOR".

## CONSIDERATION

CONTRACTOR shall receive from TOWNSHIP as consideration for the services as contemplated in this Contract, the following amounts:

1. CONTRACTOR shall provide up to five (5), thirty (30) yard roll-offs for Four Hundred Ninety Dollars and 00/100 (~~\$490.00~~) each, and with each being suitable for household items. *590.<sup>00</sup> HT*
2. Two (2), thirty (30) yard roll-offs, suitable for metal items, at One Hundred Dollars and 00/100 (\$100.00) each.
3. Any additional thirty (30) yard roll-offs for household and metal items as needed to satisfy this contract's scope of work.
4. An additional roll-off, suitable for tires, of twenty (20) inches diameter or less, in the amount of Six Hundred Dollars and 00/100 (\$600.00), if requested by TOWNSHIP.
5. To provide for appropriately trained staff, and one supervisor, to accomplish the scope of work as contained herein, as well as scope of work as identified and set forth in Attachment A.

Therefore, the total contract amount is to be in the amount of Three Thousand Two Hundred Fifty Dollars and 00/100 (\$3,250.00) per event, per year unless otherwise mutually agreed by the parties to this contract.

## SCOPE OF WORK

The scope of work to be performed as set forth within this Agreement is for the purpose of establishing a drop-off refuse collection program undertaken by the Oscoda Township Board

of Trustees. CONTRACTOR, at the times designated by the parties, will collect those household and other items not normally disposed of in the residential waste collection process. Examples include but are not limited to: Carpeting, furniture, bed springs, stoves, aluminum siding, and the like. The CONTRACTOR is to provide all necessary roll-offs for collection of large household items per collection event at the place as set forth by the parties. These roll-offs shall include the ability to accept metal items, as well as tires, along with providing an appropriate staff to support said collection, at all times, with a minimum of at least two (2) persons. The drop-off refuse collection program location will be 3522 Kings Corner Road, Oscoda, Michigan 48750. CONTRACTOR shall also be responsible for clean-up of the collection site to the condition in which it was previous to the collection event. The TOWNSHIP may modify the scope of services set forth herein at TOWNSHIPS' sole and exclusive discretion.

#### CONTRACT DOCUMENTS

The documents which form the basis for this contractual understanding between TOWNSHIP and CONTRACTOR are as follows:

- A. This contract agreement.
- B. Attachment A

#### TERM OF CONTRACT

This term of this Contract shall be for up to three (3) years, beginning May 1, 2021 and ending no later than April 30, 2024, as extended annually at the sole and exclusive discretion of TOWNSHIP with the anticipated annual event to take place in the spring of every year.

CONTRACTOR shall undertake and complete the scope of services, as set forth in this Contract, and any services authorized by any written change order, and with CONTRACTOR to perform all duties in conformance with all applicable

rules, regulations, and requirements as required by local state or federal law.

### STANDARD OF PERFORMANCE

CONTRACTOR does hereby agree to engage in the work as described herein and perform same in a manner to be commonly expected of contractors performing similar work under similar circumstances. All warranties as set forth shall be transferred to TOWNSHIP for the TOWNSHIP'S benefit thereof including but not limited to any warranties.

### INSURANCE

CONTRACTOR is agreeing to assume the responsibility for the job as described above and herein, and CONTRACTOR and/or any partners, and/or any subcontractors shall maintain at a minimum the following insurance coverage:

A. Professional and General Liability Insurance with a minimum combined single limit of \$1,000,000.00 and an aggregate limit of \$2,000,000.00. (Such insurance shall include evidence <sup>2,000,000.00</sup> that CONTRACTOR'S general liability insurance policy will cover <sup>4,000,000.00</sup> CONTRACTOR'S liability, as it relates to damages to the environment, may be substituted in lieu of a separate and dedicated environmental liability insurance policy.)

B. Workman's Compensation Insurance in compliance with the statutes of the State of Michigan or the state that has jurisdiction over CONTRACTOR'S employees with a minimum limit of \$500,000.00.

C. Automobile Liability Insurance (owned, non-owned, or hired units) with a minimum combined single coverage limit of \$1,000,000.00.



D. All and any insurance policies, must be provided by CONTRACTOR, to TOWNSHIP, at the time in which this contract is entered into, showing the policy periods for which said insurance policy is to be in effect. Said insurance policies shall be such so that they will provide coverage for the applicable period of time in which CONTRACTOR remains responsible to TOWNSHIP, for any relevant statute of limitations. Said insurance policies shall also name TOWNSHIP as an additionally insured party, and shall contain an endorsement to the affect that any cancellation or material change, cannot be made by the underlying insurance company, until thirty (30) days' notice has been provided by the insurer, in writing, to TOWNSHIP.

#### GENERAL TERMS AND CONDITIONS

Indemnification by the CONTRACTOR: The CONTRACTOR shall indemnify, protect and hold TOWNSHIP, its employees and agents harmless from and against all liability, claims, demands, losses, damages, costs, or expenses (including attorney fees) or other liability or loss, including, accidents, injury, death, or damages to any person or property, related in any way to the performance of this Contract that result from accidental acts, negligent acts, errors or omissions, or the willful misconduct of CONTRACTOR'S personnel or equipment. This provision shall survive the termination of this Contract.

Modifications. Any modifications to this Contract or additional obligations assumed by either party in connection with this Contract, shall be binding only if evidenced in writing, and signed by each party or an authorized representative of each party.

Authority to Contract. Each party warrants and represents that it has authority to enter into this Contract.

Binding Parties. The statements herein shall bind all heirs, successors, and assigns of both parties.



Survival. These conditions shall survive the completion of CONTRACTOR'S services on this project and the termination of services for any cause.

Governing Law. The services provided by this Contract will be performed and the Contract shall be deemed to have been made in Iosco County, Michigan. It is acknowledged that this Contract as entered into and services are to be provided in Iosco County by both parties hereto, CONTRACTOR conducts business activities in Iosco County, and has responded to perform this work, in Iosco County. Based upon this, and to the extent possible, both parties consent to the jurisdiction of Iosco County, State of Michigan.

Severability. If any provision of this Contract is deemed to be invalid, it shall not effect the other remaining valid provisions hereof.

Notices. Any notices to be sent to either party are to be sent to those addresses as set forth in the first paragraph of this Contract.

Incorporation of Agreements. This document is to be a total incorporation of all agreements and representations of and between each party hereto to the exclusion of any prior verbal representations.

Assignability. Any rights provided for in this Contract, to any party hereto, are not assignable.

Conflict of Documents. The terms of this Contract shall prevail over any other documents.

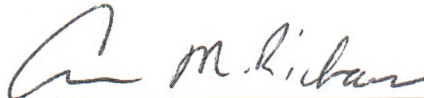
Anti-Discrimination. The CONTRACTOR shall comply with all state and federal Anti-discrimination laws and shall use the leased premises in a nondiscriminatory manner to the end that no person, on the ground of race, color, religion, sex, age, handicap, disability, or national origin, shall be excluded from using the facilities or obtaining the services provided thereon, or otherwise be subjected to discrimination under any program or activities provided thereon.

No Joint Venture. Nothing contained in the contract documents will make, or will be construed to make, the parties hereto partners or joint venturers with each other. Neither will anything in these contract documents render, or be construed to render, either of the parties hereto liable to any third party for the debts or obligations of the other party hereto.

Failure of TOWNSHIP to Insist on Compliance. The failure of TOWNSHIP to insist, in any one or more instances, upon strict performance of any of the terms, covenants, or conditions of the contract documents, shall not be construed as a waiver or relinquishment of the rights of TOWNSHIP to insist on the future performance of any such terms covenants, or conditions, but the obligations of the CONTRACTOR with respect to such future performance shall continue in full force and effect.

CHARTER TOWNSHIP OF OSCODA

Dated:

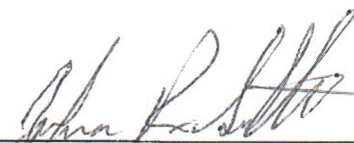


By: Ann M. Richards

Its: Supervisor

Dated:

5-25-2021

  
By: Joshua R. Sutton  
Its: Clerk

Travis Sanitation

Dated:



By: Herb Travis  
Its: President

## **Attachment A**

- The Contractor will remove all refuse which is collected to a state approved disposal site.
- The program will focus on collection of large household and metal items not normally disposed of in the residential waste collection process. Examples include carpeting and furniture in terms of large household items and stoves, bedsprings, and aluminum siding in terms of metal items. It is anticipated that appliances with Freon, glass, oil, paint, aerosol cans, and hazardous waste, amongst other things, will not be accepted.
- In addition, commercial waste and household garbage will not be accepted. The Township will refine and the drop-off collection program limitations and conditions in cooperation and consultation with the Contractor.
- All roll-offs will be placed on the designated site by contractor prior to collection event and removed within two (2) days of the event's conclusion unless otherwise notified.
- Contractor shall provide the name and location of landfill(s) or transfer sites to be utilized.



April 4, 2023

Ms. Tammy Kline – Superintendent  
Oscoda Charter Township  
110 State Street  
Oscoda, Michigan 48750

**RE: 2023 Township Engineer Proposal**

Ms. Kline:

As you are aware, my current contract with Oscoda Charter Township expires at the beginning of May 2023.

The following proposal is for Oscoda Charter Township's consideration for me to continue to be the Township Engineer on a part-time basis for 2023.

The following is a list (but not limited to) of duties and responsibilities that I believe that I can provide in this position for the Township.

**Current and Future Water and Sewer Projects (2023 – 2026)**

- Coordination assistance with property owner water service hookups.
- C2R2 Grant project(s) administration oversight.
- 2021 CWSRF project administration oversight (reimbursement requests, documentation, audit assistance, etc.)
- 2024 - 2026 DWRP project administrative oversight (reimbursement requests, documentation, audit assistance, etc.)
- 2024 - 2026 CWSRF project administration oversight (reimbursement requests, documentation, audit assistance, etc.)

**IBT Phase 3 Trail Project (2023 - 2024)**

- Construction oversight on behalf of the Township.
- Administration of the secured grants for the Township's local match.
- Coordination with various stakeholders throughout construction (Old Orchard Campground, Iosco County Road Commission, U.S. Forestry Service, U. S. Fisheries and Wildlife, Consumers Energy, IBT Trail Committee, property, and business owners)

**Parks Projects (2022 - ????)**

- Oscoda Beach Park Rehabilitation and Improvement Projects Administration/Oversight/Grant Funding.
- Ken Ratliff Park Improvements
- Non-motorized Trail Plan Project

**Funding research and applications for a variety of sources and projects**

- U.S. Senator Peter's/EPA 2023 Congressionally Directed Spending allotment.
- USDA-RD ECWAG Grant Coordination/follow up.
- Township Facilities
- Broadband
- Safe-Routes- to- School
- Recycling
- Sidewalk and roadway improvements
- Special Assessment Projects
- Various miscellaneous opportunities

**Capital Improvement Planning**

- Assisting various departments in planning for future projects.
- Assisting various committees as directed.

**Current and Future Site Plan Reviews**

- Private development projects
- Township initiatives (signage, wayfinding, etc.)

**Safety**

- Assist in developing safety procedures and provide training for Township personnel in the field on operations, maintenance, and construction sites.

**Miscellaneous**

- Assist in coordination and oversight of various Township consultants (F&V Operations, Rowe, Beckett & Raeder, WTA, future opportunities)
- Assist in oversight of various Township construction projects coordination/facilitation.
- Coordination with various agencies (U.S. Air Force, ICRC, MDOT, EGLE, MEDC, CBDG, Oscoda-Wurtsmith Airport Authority, etc.)

Any other assistance as needed and determined by the Township Superintendent.

I have estimated that these duties and responsibilities can be accomplished within a budget of 1560 hours per year (part-time/24-30 hours per week on average).

I would be willing to be available on site at least one day a week, with working two days per week on a schedule of your approval. I have the capability of working remotely, I do not need any benefits and would ask for an hourly rate of \$55.00/hour.

Please let me know if this meets your expectations or if not adjust it as you see fit.

Thank you for consideration of this proposal.

Respectfully submitted

A handwritten signature in blue ink that reads "Rick A. Freeman, P.E." The signature is written in a cursive, flowing style.

Rick A. Freeman, P.E.

# **CHARTER TOWNSHIP OF OSCODA AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES**

This Agreement is effective this \_\_\_\_ day of \_\_\_\_\_, 2023, and is between the **Charter Township of Oscoda, 110 State Street, Oscoda Township, Michigan 48750** (hereafter "Township") and **Rick A. Freeman, P.E., 6121 E. M-71, Corunna, Michigan 48817** (hereafter "Consultant").

## **RECITALS:**

The Township desires to engage the professional services of the Consultant to provide general civil engineering services, professional consulting services, design and construction engineering services, parks & recreation engineering services, site development engineering services, construction administration/observation/materials testing services, community planning/zoning services, and project funding facilitation/coordination for and on behalf of the Township.

The Consultant desires to provide such services, as set forth below and in the attached and incorporated Exhibit, under the terms and conditions hereof.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties agree that the Township board retains and designates Consultant, on a non-exclusive basis, as the Township's Engineer to provide services generally described herein on an hourly basis as set forth on Exhibit A, subject to the following terms and conditions:

### **1. General Scope of Services and Term of Agreement:**

- a. For and in consideration of payment by the Township as provided in this Agreement, Consultant shall perform the services described herein, including the services generally described in Exhibit A— *Township Engineer Proposal*, if and when such services are assigned by the Township to Consultant by execution and receipt of a Purchase Order, in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances, and in compliance with all terms and conditions of this Agreement.
- b. For design and construction engineering services for individual projects, if and when assigned to Consultant, including roadway construction and rehabilitation work, sidewalk and pathway construction, water main construction, sanitary sewer/storm sewer construction, underground utility rehabilitation, and traffic signal construction, consultant shall submit an individual work plan and schedule for each project assigned to Consultant by the Township based upon the scope of the particular project. The approved work plan, schedule, and scope of the project (the "Work Plan, Schedule, Project Scope"), shall be assigned to Consultant by approval by the Township of a Purchase Order. A Purchase Order shall be prepared for each individual project assigned to the Consultant. Consultant shall comply with the work description, insurance requirements, and other terms applicable to each individual project as set forth in the Work Plan, Schedule and Project Scope.



- c. Quality of Services under this Agreement shall be of the level of professional quality performed by experts regularly rendering this type of service. Determination of acceptable quality shall be made solely by the Township.
- d. The term of this Agreement shall be for one (1) year from the date set forth above, which term shall automatically renew for subsequent one (1) terms unless either party terminates this Agreement as provided herein. Either party may terminate this Agreement for any reason upon sixty (60) days' written notice to the other party. This Agreement may be terminated by either party upon 7 days' prior written notice to the other party in the event of substantial failure by the other party to fulfill its obligations under this agreement through no fault of the terminating party.
- e. This Agreement is based on the ordinances, policies, procedures, or requirements in effect on the date of the Agreement. Any additional office or field services required as a direct and apparent result of the change of such ordinances, policies, procedures, or requirements shall be negotiated to the mutual consent of the Township and Consultant.
- f. Township agrees that the plans, drawings, or other contracted services are primarily for the use of the Township. All documents prepared by the engineer, including tracings, drawings, estimates, specifications, field notes, investigations, studies, reports, computer files, field data, notes, etc., in connection with the performance of its duties under this Agreement shall become the property of the Township upon completion of the services and payment in full of all monies due to the Consultant with respect to the preparation of such document. Reuse of any such materials by Township on any extension of any project or any other project without the written authorization of Consultant shall be at Township's sole risk. Consultant shall have the right to retain copies of all such materials.
- g. The parties to this Agreement intend that the relationship between them created by this Agreement is that of service provider and service purchaser. It is expressly agreed, understood and intended that no employee-employer relationship shall exist or be established, and that Consultant is an independent contractor who has been retained to render services to the Township to achieve specific results in exchange for specified recompense. As an independent contractor, Consultant expressly agrees that: (a) In the performance of this Agreement, the relationship of Consultant to the Township shall be that of an independent contractor and not that of an employee or agent of the Township, and neither Consultant, nor any agent, employee or permitted subcontractor of Consultant, shall be or may be deemed to be the employee or agent of, or a servant to, the Township; (b) Consultant will be solely responsible for payment of salaries, wages, and other compensation for its employees and agents; (c) Neither the Consultant nor any officer, agent, employee or subcontractor of the Consultant shall be eligible for coverage under or eligible to receive the benefits of the Township's Workers' compensation, unemployment or health insurance, pension plans or other benefit plans; (d) Consultant is and shall perform under this Agreement as an independent contractor, and no liability or responsibility with respect to benefits of any kind, including without limitation, medical/health benefits,

Worker's compensation, pension rights, or other rights or liabilities arising out of or related to a contract for hire or employer/employee relationship shall arise or accrue to either party as a result of the performance of this Agreement; and (e) Consultant, as an independent contractor, is not authorized to enter into or sign any agreements on behalf of the Township.

- h. Approval of a Work Plan, Schedule, Project Scope by the Township shall not constitute nor be deemed release of the responsibility and liability of Consultant, its employees, associates, agents and subconsultants for the accuracy and competency of their designs, working drawings, and specifications, or other documents and services; nor shall that approval be deemed to be an assumption of that responsibility by the Township for any defect in the designs, working drawings and specifications or other documents prepared by Consultant, its employees, subconsultants, and agents. After acceptance of final plan and special provisions by the Township, Consultant agrees, prior to and during the construction of this project, to perform those engineering services as may be required by Township to correct errors or omissions on the original plans prepared by Consultant and to change the original design as required.

## **2. Payment for Services:**

- a. Consultant shall invoice Township monthly on account of Consultant's services. Township shall pay Consultant within thirty (30) calendar days of the time of receipt of invoice from Consultant on account. Subject to sub-paragraph 2(b) below, the Township shall pay the undisputed portions of each progress invoice within thirty (30) days of the date of the invoice. If payment is not maintained on a thirty (30) day current basis, Consultant may suspend further performance until payments are current. All expenses required to complete the scope of services described herein, including but not limited to costs related to mileage, vehicles, reproduction, computer use, etc., shall be included in the basic fee and shall not be paid separately. However, as compensation for expenses that are not included in the standard scope of services, when incurred in direct connection with the project, and approved by the Township, the Township shall pay the Consultant its actual cost times a factor of 1.15.
- b. Township agrees that the periodic billing from Consultant to Township are presumed to be correct, conclusive with regard to the services provided, and binding on Township unless Township, within thirty (30) calendar days from the date of receipt of such billing, notifies Consultant in writing of alleged disagreements with regard to the billing. Errors or discrepancies in a billing recognized after 30 calendar days but not more than 180 calendar days after receipt of invoice from Consultant shall be resolved to the mutual satisfaction of both parties. After 180 calendar days after receipt of invoice from Consultant, the professional services provided by Consultant shall be viewed as acceptable and closed. Final billing under this Agreement shall be submitted in a timely manner but not later than three (3) months after completion of the services. Billings for work submitted later than three (3) months after completion of services will not be paid. Final payment will be made upon completion of audit by the Township.

- c. All fees and/or costs associated with or due to any governmental or review agencies arising from the services are the sole responsibility of the Township.
- d. For individual projects assigned to Consultant in accordance with Section 1(b) above, a more specific procedure for submission and approval of billing statements may be set forth in the Work Plan, Schedule and Project Scope for each project. The Township shall confirm the correctness of any progress estimates made for billing purposes. Monthly statements for services shall be accompanied by such properly completed reporting forms and such other evidence of progress as may be required by the Township.
- e. In the event of termination for a substantial failure by the Consultant to fulfill its obligations under this Agreement through no fault of the Township, Consultant shall be paid as compensation in full for services performed to that date an amount calculated in accordance with the Work Plan, Schedule and Project Scope for that particular project. Such amount shall be paid by the Township upon Consultant's delivering or otherwise making available to the Township all data, drawings, specifications, reports, estimates, summaries, and such other information and materials as may have been prepared and/or accumulated by Consultant in performing the services up to the date of termination.

### **3. Indemnification and Liability:**

- a. The Consultant agrees to indemnify and hold harmless the Township, its elected and appointed officials and employees, and agents from and against any and all claims, demands, suits, losses and settlements, including actual attorney fees incurred and all costs connected therewith, for any damages which may be asserted, claimed or recovered against the Township by reason of personal injury, death and/or property damages to the extent such injury, death or property damages arises out of or is connected or associated with the actions or inactions of the Consultant in performing or failing to perform the work. The Consultant agrees that it is its responsibility and not the responsibility of the Township to safeguard the property and materials used in performing this Agreement. Further, this Consultant agrees to hold the Township harmless for any loss of such property and materials used pursuant to the Consultant's performance under this Agreement.
- b. The Township and Consultant acknowledge that the Consultant's Scope of Services does not include any services related to the presence of any hazardous or toxic materials. In the event the Consultant or any other party encounters any hazardous or toxic materials, or should it become known to the Consultant that such materials may be present on or about the jobsite or any adjacent areas that may affect the performance of the Consultant's services, the Consultant may, at its option and without liability for consequential damages, suspend performance of its services under this Agreement until such time as the Township retains appropriate Consultants or contractors to identify and abate or remove the hazardous or toxic

materials and warrants that the jobsite is in full compliance with all applicable laws and regulations.

- c. Consultant makes no representations concerning site conditions, and Consultant is not responsible for any liability that may arise out of the making or failure to make site surveys, or subsurface tests, or general testing; provided, however, that if the provision of such surveys and testing is required in order for Consultant to provide the particular service being rendered by Consultant under this Agreement, in accordance with the professional standard of care set forth in Paragraph 1.a. above, the making of such representations or the provision of such surveys and testing shall be required.
- d. In providing opinions of probable construction costs, it is recognized that neither the Township nor the Consultant has control over the costs of labor, equipment, materials, contractor safety practices, or over a contractor's methods of determining prices or bidding. An opinion of probable construction costs shall be based on a reasonable professional judgment and experience, but shall not constitute a warranty, express or implied, that the contractor's bids or the negotiated price of the work will not vary from the Township's budget or from any opinion of probable cost prepared by the Consultant.
- e. Consultant shall not be liable for damages resulting from the actions or inactions of any governmental agencies, including, but not limited to, plan processing; provided, however, that this provision shall not relieve Consultant of its obligations under this Agreement, including all Exhibits hereto, with respect to its securing, or assisting the Township in securing, various governmental permits and appraisals in a manner consistent with the standard of care set forth in Paragraph 1.a., above.
- f. Except as specifically set forth in the Work Description Exhibit, attached hereto as Exhibit A, the Township acknowledges that Consultant is not responsible for the performance or work by third parties, including, but not limited to, construction contractors or their subcontractors.

#### **4. Insurance:**

- a. During the term of this Agreement, Consultant shall obtain and maintain in full force, at its own expense, the following insurance coverage in not less than the following amounts:
  - a. Worker's Compensation insurance relative to all Personnel engaged in performing services pursuant to this Agreement, with coverage not less than that required by applicable law,
  - ii. Comprehensive General Liability Public Liability, for occurrences while engaged in performing services pursuant to this Agreement, with coverage not less than the amount of \$1,000,000 per occurrence;



- iii. Professional Liability (Including Errors and Omissions) Insurance in the amount of \$1,000,000 per claim;
  - iv. Automotive Insurance covering all owned, hired, and non-owned vehicles with insurance to comply with the Michigan No-Fault Insurance Law, including Regional Liability Insurance with minimum bodily injury limits of \$1,000,000 each occurrence and minimum property damage of \$1,000,000 per occurrence.
- b. Consultant shall be responsible for all deductibles contained in any insurance required hereunder.
  - c. If during the term of this Agreement changed conditions or other pertinent factors should in the reasonable judgment of the Township render inadequate existing insurance limits, the Consultant will furnish on demand such additional coverage as may reasonably be required under the circumstances. The cost of insurance for individual projects shall be factored into the established fee for each particular type of project.
  - d. All policies shall name the Consultant as the insured and shall be accompanied by an endorsement from the insurer that such policies shall not be canceled or reduced without at least thirty (30) days prior notice to the Township.
  - e. With the exception of Professional Liability, all insurance policies shall name the Township of Oscoda, its officers, agents, and employees as additional insured, pursuant to endorsement. Certificates of Insurance and required endorsements evidencing such coverage shall be submitted to the Superintendent, Charter Township of Oscoda, 110 State Street, Oscoda Township, Michigan 48750, prior to the commencement of performance under this Agreement and at least fifteen (15) days prior to the expiration dates of expiring policies.
  - f. If any service is sublet in connection with this Agreement, the Consultant shall require each subcontractor to effect and maintain at least the same types and limits of insurance as fixed for the Consultant.
  - g. The provisions requiring the Consultant to carry said insurance shall not be construed in any manner as waiving or restricting the liability of the Consultant under this Agreement.
  - h. Coverage under the general and auto liability policies shall be considered to be the primary coverage rather than any policies and insurance or self-insurance retention owned or maintained by the Charter Township of Oscoda. This coverage shall be primary to the Additional Insureds, and not contributing with any other insurance or similar protection available to the Additional Insureds, whether other available coverage is primary, contributing or excess.

## **5. Entire Agreement**

- a. This Agreement, in conjunction with each applicable Purchase Order and corresponding Work Plan, Schedule and Project Scope which are incorporated herein contains the entire agreement between the Township and Consultant relating to services to be provided by Consultant to the Township. Any prior agreements, promises, negotiations, and representations not expressly set forth in this Agreement are of no force or effect. Subsequent modifications to this Agreement shall be in writing and signed by both Township and Consultant.
- b. With respect to any direct conflict between the terms of this Agreement, Work Plan, Schedule and Project Scope as defined in Section 1(b) above, the terms of the Work Plan, Schedule and Project Scope shall control with respect to that individual project set forth in the particular the Work Plan, Schedule and Project Scope only. Notwithstanding this subsection, insurance, indemnification and liability requirements, shall be additional to those indemnity and hold harmless provisions set forth in any Work Plan, Schedule and Project Scope, except that Section 3(c) of this Agreement shall not apply to individual design and/or construction management projects.

## **6. Applicable Law.**

This Agreement shall be governed by and construed in accordance with the laws of the State of Michigan.

## **7. Jurisdiction and Venue of Contract.**

This Agreement shall be considered for all purposes, including the establishment of jurisdiction and venue in any court action between the parties, as having been entered into and consummated in the Charter Township of Oscoda, Iosco County, Michigan.

## **8. Assignment:**

Neither Township nor Consultant shall assign this Agreement without the prior written consent of the other.

## **9. Severability:**

Waiver of any term, condition, or covenant, or breach of any term, condition, or covenant, shall not constitute the waiver of any other term, condition, or covenant, or the breach of any other term, condition, or covenant. If any term, condition, or covenant of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions of this Agreement shall be valid and binding on Township and Consultant, unless the court's action or holding has the effect of frustrating the purpose of this Agreement.

## **10. Delays:**

It is expected that the Consultant will perform the work in a timely fashion in accordance with the schedule that is agreed upon at the commencement of each project. The Township shall provide requested items within ten (10) working days of the request. Deliverables

(review sets, bid documents, approval letters, rejection letters, sign-offs, punch lists, inspection reports, Inspector's Daily Reports or IDR's, etc.) shall be submitted to appropriate Township staff no later than ten (10) working days after the work is performed.

Consultant is not responsible for delay caused by activities or factors beyond the Consultant's reasonable control, including but not limited to, delays by reason of strikes, lockouts, service slowdowns or stoppages, accidents, acts of God, failure of Client to furnish timely information or approve or disapprove of Consultant's services or product promptly, faulty performance by the Township or the Township's other contractors or government agencies. When such delays beyond the Consultant's reasonable control occur, Township agrees Consultant is not responsible for damages nor shall Consultant be deemed to be in default of this Agreement.

No charges or claims for damages shall be made by the Consultant for delays or hindrances from any cause whatsoever during the progress of any portions of the services specified in this Agreement, except as hereinafter provided.

In case of a substantial delay on the part of the Township in providing to the Consultant either the necessary information or approval to proceed with the service resulting through no fault of the Consultant, in delays of such extent as to require the Consultant to perform its services under changed conditions not contemplated by the parties, the Township will be responsible for supplemental compensation limited to increased costs incurred as a direct result of such delays. Any claim for supplemental compensation must be in writing and accompanied by substantiating data.

When delays are caused by circumstances or conditions beyond the control of the Consultant as determined by the Township, the Consultant shall be granted an extension of time for such reasonable period as may be mutually agreed upon between the parties, it being understood, however, that the permitting of the Consultant to proceed to complete the services, or any part of them, after the date to which the time of completion may have been extended, shall in no way operate as a waiver on the part of the Township of any of its rights herein set forth.

#### **11. Disclosure:**

Consultant affirms that it has not made or agreed to make any valuable gift whether in the form of service, loan, thing, or promise to any person or any of the person's immediate family, having the duty to recommend, the right to vote upon, or any other direct influence on the selection of consultants to provide professional design services to the Township within the two years preceding the execution of this Agreement. A campaign contribution, as defined by Michigan law shall not be considered as a valuable gift for the purposes of this Agreement.

#### **12. Nondiscrimination:**

The Consultant shall not discriminate against any employee, or applicant for employment because of race, color, sex, age or handicap, religion, ancestry, marital status, national origin, place of birth, or sexual preference. The Consultant further covenants that it will

comply with the Civil Rights Act of 1973, as amended; and the Michigan Civil Rights Act of 1976 (78 Stat. 252 and 1976 PA 4563) and will require a similar covenant on the part of the consultant or subcontractor employed in the performance of this Agreement.

### **13. Approval; No Release:**

Approval of the Township shall not constitute nor be deemed release of the responsibility and liability of Consultant, its employees, associates, agents and consultants for the accuracy and competency of their designs, drawings, and specifications, or other documents and services; nor shall that approval be deemed to be an assumption of that responsibility by the Township for any defect in the designs, drawings and specifications or other documents prepared by Consultant, its employees, subcontractor, agents and consultants.

### **14. Compliance With Laws:**

This Agreement and all of the Consultant's Professional Services and practices shall be subject to all applicable state, federal and local laws, rules or regulations, including without limitation, those which apply because the Township is a public governmental agency or body. Consultant represents that it is in compliance with all such laws and eligible and qualified to enter into this Agreement.

### **15. Notices:**

Written notices under this Agreement shall be given to the parties at their addresses on page one by personal or registered mail delivery to the attention of the following persons:

**Township of Oscoda:                      Tammy Kline, Township Superintendent**  
**110 State Street, Oscoda Township, Michigan 48750**

**Consultant:                                  Rick A. Freeman, P.E**  
**6121 E. M-71, Corunna, MI 48817**

### **Section 16. Inspections, Notices, and Remedies Regarding Work:**

During the performance of the professional services by Consultant, Township shall have the right to inspect the services and its progress to assure that it complies with this Agreement. If such inspections reveal a defect in the work performed or other default in this Agreement, Township shall provide Consultant with written notice to correct the defect or default within a specified number of days of the notice. Upon receiving such a notice, Consultant shall correct the specified defects or defaults within the time specified. Upon a failure to do so, the Township may terminate this Agreement by written notice and finish the work through whatever method it deems appropriate, with the cost in doing so being a valid claim and charge against Consultant; or, the Township may preserve the claims of defects or defaults without termination by written notice to Consultant.

All questions which may arise as to the quality and acceptability of work, the manner of performance and rate of progress of the work, and the interpretation of plans and specifications shall



be decided by the Township. All questions as to the satisfactory and acceptable fulfillment of the terms of this agreement shall be decided by the Township.

**Section 17. Dispute Resolution:**

The parties agree to try to resolve any disputes as to professional engineering services or otherwise in good faith. In the event that the parties cannot resolve any reasonable dispute, the parties agree to seek alternative dispute resolution methods agreeable to both parties and which are legally permissive at the time of the dispute. The parties agree to use their best efforts to resolve any good faith dispute within 90 (ninety) days notice to the other party. In the event the parties cannot resolve that dispute as set forth above, they may seek such remedies as may be permitted by law.

**CHARTER TOWNSHIP OF OSCODA**

By: \_\_\_\_\_

Its: \_\_\_\_\_

By: \_\_\_\_\_

Its: \_\_\_\_\_

**CONSULTANT**

By: \_\_\_\_\_

Rick A. Freeman, P.E.

**Exhibit A**  
Consultant's Proposal  
(attached)


 Po Box 2356  
 Bloomington IL 61702-2356
**Named Insured**
 AT1 000251 0046 A-04-7301-FC04 L F  
 FREEMAN, RICK  
 6121 E M 71  
 CORUNNA MI 48817-9513
**DECLARATIONS PAGE**
**Policy Number** 22-ES-E030-7

Policy Period	Effective Date	Expiration Date
12 Months	JUL 8 2022	JUL 8 2023

The policy period begins and ends at 12:01 am standard time at the named insured's address.

**Your policy is amended JAN 18 2023**
 NUMBER OF AUTOS CHANGED  
 NUMBER OF DRIVERS CHANGED  
 UNDERAGE DRIVERS DELETED
**PERSONAL LIABILITY UMBRELLA POLICY**

**Automatic Renewal** - If the **policy period** is shown as **12 months**, this policy will be renewed automatically subject to the premiums, rules and forms in effect for each succeeding policy period. If this policy is terminated, we will give you written notice in compliance with the policy provisions or as required by law.

**Coverage(s)**
 Coverage L - Personal Liability  
 Self-Insured Retention
**Limit of Liability**
 \$ 1,000,000  
 \$ 500
**Required Underlying Insurance**

(Terms in bold in this section are defined in the policy)

**Minimum Underlying Limits**

Type of Policy	Combined Limits (Bodily Injury and Property Damage)	or	Split Limits
<b>Automobile Liability</b>	\$ 500,000	Bodily Injury -	\$250,000 Per Person \$500,000 Per Accident Property Damage - \$100,000 Per Accident
<b>Recreational Motor Vehicle Liability</b> Including Passenger Bodily Injury	\$ 500,000	Bodily Injury -	\$250,000 Per Person \$500,000 Per Accident Property Damage - \$100,000 Per Accident
<b>Personal Residential Liability</b>	\$ 100,000		
<b>Watercraft Liability</b>	\$ 100,000		

**Forms & Endorsements**
 Personal Liability Umbrella  
 Fuel Oil Exclusion  
 Notice in Event of Liab Claim

 FP-7950.2  
 FE-5837  
 FE-5499
**Endorsement Premium**

Decrease \$ 80.96

Other limits and exclusions may apply - refer to your policy

FP-7052.3C

0509 251 I

N Prepared FEB 22 2023

**BART HARRIS**  
 989-288-4328



THE HARTFORD  
BUSINESS SERVICE CENTER  
3600 WISEMAN BLVD  
SAN ANTONIO TX 78251

April 3, 2023

Township of Oscoda, it's officers,  
agents, and employees  
110 S STATE ST  
OSCODA MI 48750

## Account Information:

<b>Policy Holder Details :</b>	<b>Rick A Freeman, P.E.</b>
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## Contact Us

### Need Help?

Chat online or call us at

(866) 467-8730.

We're here Monday - Friday.

Enclosed please find a Certificate Of Insurance for the above referenced Policyholder. Please contact us if you have any questions or concerns.

Sincerely,

Your Hartford Service Team





# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
04/03/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> PROFESSIONAL CONCEPTS INS AGCY INC 35355031 1127 OLD US HIGHWAY 23 BRIGHTON MI 48114	<b>CONTACT NAME:</b>	
	<b>PHONE</b> (800) 969-4041 (A/C, No, Ext):	<b>FAX</b> (A/C, No):
	<b>E-MAIL ADDRESS:</b>	
	<b>INSURER(S) AFFORDING COVERAGE</b>	
	<b>INSURER A:</b> Hartford Underwriters Insurance Company	
<b>INSURED</b> RICK A FREEMAN, P.E. 6121 E M 71 CORUNNA MI 48817-9513	<b>NAIC#</b> 30104	
	<b>INSURER B:</b>	
	<b>INSURER C:</b>	
	<b>INSURER D:</b>	
	<b>INSURER E:</b>	
	<b>INSURER F:</b>	

## COVERAGES

## CERTIFICATE NUMBER:

## REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/Y YY)	LIMITS		
A	COMMERCIAL GENERAL LIABILITY	X		35 SBU AS30L7	05/02/2023	05/02/2024	EACH OCCURRENCE	\$1,000,000	
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$1,000,000	
	<input checked="" type="checkbox"/> General Liability						MED EXP (Any one person)	\$10,000	
							PERSONAL & ADV INJURY	\$1,000,000	
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	\$2,000,000	
	<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						PRODUCTS - COMP/OP AGG	\$2,000,000	
	OTHER:								
	<b>AUTOMOBILE LIABILITY</b>						COMBINED SINGLE LIMIT (Ea accident)		
	ANY AUTO						BODILY INJURY (Per person)		
	ALL OWNED AUTOS						BODILY INJURY (Per accident)		
	HIRE AUTOS						PROPERTY DAMAGE (Per accident)		
	SCHEDULED AUTOS NON-OWNED AUTOS								
	<b>UMBRELLA LIAB EXCESS LIAB</b>						EACH OCCURRENCE		
	<input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE						AGGREGATE		
	DED RETENTION \$								
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b>	Y/N	N/A				PER STATUTE	OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)						E.L. EACH ACCIDENT		
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE -EA EMPLOYEE		
							E.L. DISEASE - POLICY LIMIT		
A	Employment Practices Liability Insurance			35 SBU AS30L7	05/02/2023	05/02/2024	Each Claim Limit	\$25,000	
							Annual Aggregate Limit	\$25,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Those usual to the Insured's Operations. Certificate holder is an additional insured per the Business Liability Coverage Form SL3032 attached to this policy.

## CERTIFICATE HOLDER

Township of Oscoda, it's officers, agents, and employees  
110 S STATE ST  
OSCODA MI 48750

## CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

*Susan L. Castaneda*

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# MEMO



**To: Tamara Kline, Oscoda Township Superintendent**

**From: Catherine Winn, Regional Manager**

**Date: April 13, 2023**

**Re: Pump Station #4 Pump Repair Parts**

In March 2023, F&V Operations and Resource Management (FVOP) staff disassembled one of the pumps at PS #4 in order to replace the mechanical seal, which had started leaking. Upon disassembling the pump, we found that the pump shaft and impeller were badly worn.

We contacted Detroit Pump regarding costs for repair or replacement of the existing pump, as well as Rowe PSC regarding costs to install a new pump that would be consistent with the ongoing pump station upgrades.

Based on our conversations with Detroit Pump and Rowe PSC, this is our synopsis of the current situation at PS #4 and the recommended course of action.

1. The cost to replace the existing Yeoman's Pump with a new pump is not a budgeted item, and would be in excess of \$30,000 for a direct replacement pump.
2. All of the new pumps that were installed as part of the 2022 pump station project were Flygt brand pumps, with the goal of minimizing the number of different pumps in the system, and also the spare parts inventory.
3. To install a Flygt pump in PS #4 now would require piping modifications, a Part 41 permit, and specifications from Rowe PSC, increasing the cost and lead time for an unbudgeted item.
4. A complete rehab of PS #4 will be part of the CWSRF project plan currently in development, at which time both pumps will be replaced.

Therefore, we recommend ordering replacement parts for the current Yeoman's pump for \$12,033.71 as shown in the attached quote from Detroit Pump, with F&V Operations to install the new parts when received.



Division of Detroit Pump

**Quote # C032223R2**

March 30, 2023

F&V Operations & Resource Management Inc.  
247 S. Baldwin Resort Rd.  
East Tawas, MI. 48730  
ATTN: Catherine Winn  
(989) 362-0050

RE: Oscoda – Yeomans Pump

**LEAD TIME: SEE BELOW**  
**FREIGHT INCLUDED**

**Quote is Valid Thru:** April 30, 2023

We are pleased to quote the following Parts for the Oscoda Yeomans Model 6312-3D Dry Pit Pump. S/N 9808830.  
This quote is for parts only. It includes a New Shaft, New Impeller, and all the parts in the Bearing Rebuild Kit

**1- Shaft – 3D, 3Dx 23-1/2” 1141STL- Total Due - \$ 2,615.71**

P/N 92528166

**LEAD TIME: 7 Weeks**

**2- Impeller Assy, 6312-3D LH, NOWR – Total Due - \$ 5,366.29**

(Old P/N 97858686 New # to be Created)

**LED TIME: 12Weeks**

**3- Bearing Rebuild Kit - Total Due - \$4,051.71**

P/N 97807914

**LEAD TIME: 9 Weeks**

**Total Amount Due on the Parts Above - \$ 12,033.71**

**NOTE:** I know you have previously purchased Mechanical Seals for the pump. It will be more cost effective to buy the parts in the rebuild kit in the kit form. Which includes the Mechanical Seals you had previously purchased. All the above equipment is Non-Returnable, Non-Refundable, and Non-Cancelable. Per Manufactures.



Charter Township of Oscoda  
110 South State Street  
Oscoda, Michigan 48750  
Office of Supervisor: (989)739-3211  
Office of Clerk: (989)739-4971  
Office of Treasurer: (989)739-7471  
Office of Superintendent: (989)739-8299  
Fax: (989)739-3344

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**April 14, 2023**

**2023 Road Dust Control Application**  
**Bid Tabulation**

<b>Liquid Calcium Chloride Sales</b>	
26% Brine	\$0.36
35% Liquid Calcium Chloride	\$0.648



## PROPOSAL

### Oscoda Township - 2023 Road Dust Control Application

(If bidding more than one product please use one sheet per product)

TO: Charter Township of Oscoda, Michigan

We the undersigned, having familiarized ourselves with the specifications regarding the Township's needs hereby propose the following:

\$ <u>0.648</u>	per gallon , 9000 GALLON LOADS
\$ <u>1296.00</u>	estimated cost per mile & proposed
\$ <u>0.696</u>	application rate 2,000 GALLONS PER MILE
\$ <u>1392.00</u>	cost per half load 4500 GALLONS $\frac{1}{2}$ LOAD
	(\$/gallons per mile)

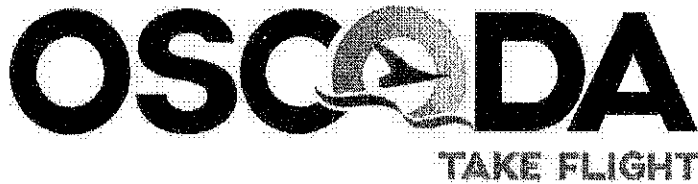
Description of Product: 35% LIQUID CALCIUM CHLORIDE  
2,000 GALLONS PER MILE APPLICATION  
PRICE BASED ON 9,000 GALLON LOADS

In submitting this proposal, it is understood the right is reserved by the Charter Township of Oscoda to accept or reject any and all bids or any part thereof, to waive any and all bid irregularities, and to award the bid that is in the best interest of the Charter Township of Oscoda. Bidders are hereby notified that the Charter Township of Oscoda's Purchasing Policy provides for the granting of local preference in purchasing of five percent (5%) or seven-hundred fifty dollars (\$750), whichever is less.

This proposal is to remain firm for thirty (30) days.

Dated and signed this 4TH day of APRIL, 2023.

Name of Bidder: LIQUID CALCIUM CHLORIDE SALES  
By: Rodney Gerard RODNEY GERARD  
Title: OPERATIONS MANAGER  
Signature: Rodney Gerard RODNEY GERARD  
Business Address: 2715 S. HURON ROAD  
KAWKAWLIN, MICHIGAN 48631  
989-684-5860



Charter Township of Oscoda  
110 South State Street  
Oscoda, Michigan 48750  
Office of Supervisor: (989)739-3211  
Office of Clerk: (989)739-4971  
Office of Treasurer: (989)739-7471  
Office of Superintendent: (989)739-8299  
Fax: (989)739-3344

March 14, 2023

**INVITATION TO BID**  
**OSCODA TOWNSHIP – 2023 ROAD DUST CONTROL**

The Charter Township of Oscoda is now accepting bids for the purchase and application of dust control on Oscoda Township unpaved roads. The following specifications have been identified as most appropriate for meeting our needs.

All vendors are required to submit the information requested and use the attached proposal sheets in submitting bids. Failure to do so may result in disqualification.

**Minimum Specifications/Scope of Work:**

The required scope of work for this solicitation includes provision of all equipment, personnel and materials required to implement the annual Oscoda Township dust control program in May and July of 2023. The specified seasonally early application schedule is intended to encourage price discounts as each vendor may offer. The program constitutes application of dust control near residential structures on all unpaved roads throughout the Township. This program is implemented under direction of a representative from the Township Building and Grounds Department and takes approximately three full business days to complete. The Township is seeking bids on the charge per gallon of application for liquid calcium chloride, 26% processed brine and/or liquid. Past experience indicates an annual purchase of approximately 80,000 gallons of processed brine is required to meet dust control needs.

The Township would also like to request the cost per gallon on half loads to be listed out on the price quotes as well as the cost per full load.

The Township may also opt, at its' sole discretion, to add a third application to the program in late August or September. The bid amount(s) quoted shall be applicable if the program is expanded to include a third treatment event.

**Additional Information:**

The Contractor, prior to acceptance of any proposal, shall file with the Township copies of completed certificates of insurance, as evidence that the contractor carries adequate insurance. At a minimum there shall be a general liability coverage of at least one million dollars (\$1,000,000.00), automobile liability of one million dollars (\$1,000,000.00) and workman's compensation liability of five hundred thousand dollars (\$500,000.00). The Township shall be afforded protection against claims for damages to public or private property and injuries or death to persons arising out of and during the performance of the contract.

Proposed application rate for each product bid shall be specified on a per mile basis.

**General Directions:**

All bids must be sealed in envelopes plainly marked "DUST CONTROL". The Charter Township of Oscoda reserves the right to accept or reject any and all bids or any part thereof, to waive any and all bid irregularities, and to award the purchase which is in the best interest of the Charter Township of Oscoda. Bidders are hereby notified that the Charter Township of Oscoda's Purchasing Policy provides for the granting of local preference in purchasing of five percent (5%) or seven-hundred fifty dollars (\$750), whichever is less.

In submitting this bid it is understood that the Charter Township of Oscoda may require a successful proponent to enter into a contract document which must be approved and authorized by the Township Board of Trustees. Any contract would be developed based in part on the information in the invitation to bid, which would be incorporated into the contract by reference. It is anticipated that award of a bid will be considered by the Township Board of Trustees at the April 24, 2023 meeting.

Proposals are to remain firm for ninety (90) days.

Sealed proposals will be received by the Charter Township of Oscoda addressed to Tammy Kline, Township Superintendent, 110 South State Street Unit 1, Oscoda, Michigan 48750, until 12:00 p.m. on **Friday, April 14, 2023**. Proposals will be opened and read publicly at that time. Separate proposal sheets should be utilized for each product to be bid by each vendor.

Your efforts in responding to this invitation to bid will be greatly appreciated.

Tammy Kline  
Township Superintendent

trk

## PROPOSAL

### Oscoda Township - 2023 Road Dust Control Application (If bidding more than one product please use one sheet per product)

TO: Charter Township of Oscoda, Michigan

We the undersigned, having familiarized ourselves with the specifications regarding the Township's needs hereby propose the following:

\$ <u>.36</u>	per gallon, 9000 GALLON LOADS
\$ <u>720.00</u>	estimated cost per mile & proposed
<u>.414</u>	application rate, 2000 GALLONS PER MILE
\$ <u>828.00</u>	cost per half load 4500 GALLONS
	(\$/gallons per mile)

Description of Product: 26% MINERAL WELL BRINE  
2,000 GALLONS PER MILE APPLICATION

In submitting this proposal, it is understood the right is reserved by the Charter Township of Oscoda to accept or reject any and all bids or any part thereof, to waive any and all bid irregularities, and to award the bid that is in the best interest of the Charter Township of Oscoda. Bidders are hereby notified that the Charter Township of Oscoda's Purchasing Policy provides for the granting of local preference in purchasing of five percent (5%) or seven-hundred fifty dollars (\$750), whichever is less.

This proposal is to remain firm for thirty (30) days.

Dated and signed this 4th day of APRIL, 2023.

Name of Bidder: LIQUID, CALCIUM CHLORIDE SALES  
By: Rodney Gerard RODNEY GERARD Rodney Gerard  
Title: OPERATIONS MANAGER  
Signature: Rodney Gerard RODNEY GERARD  
Business Address: 2715 S. HURON ROAD  
KAWKAWLIN, MICHIGAN 48631  
989-684-5860



# LIQUIDOW™ Calcium Chloride

The High-Value Solution for Better Roads



## Application

LIQUIDOW™ Calcium Chloride is a highly versatile solution used primarily in deicing, dust control and concrete acceleration applications. Other applications include tire weighting, brine refrigeration, wastewater treatment and chemical processing. LIQUIDOW™ is available in a range of concentrations to effectively meet specific application requirements.

When used as a prewetting agent for granular deicers, 32% concentration LIQUIDOW™ reduces overall application rate, which is good for the environment. It also increases melting speed and improves cold weather performance, which helps make roads safe faster.

LIQUIDOW™ – typically in a concentration of 35% or 38% – controls dust on gravel roads by attracting moisture from the air to keep the surface damp, even in hot, dry conditions. This moisture film binds fines and gravel together, resulting in a hard, low-dust surface. Not only does this help improve safety for road users and decrease local residents' exposure to dust particles, it reduces maintenance costs associated with gravel replacement and blading requirements.

Calcium chloride has been used in concrete acceleration applications for more than 100 years. LIQUIDOW™ can reduce set time by as much as two-thirds, even in cold weather. It also improves workability and reduces bleeding, allowing earlier final finishing. Concrete acceleration with LIQUIDOW™ facilitates a quick and economical completion of jobs.

## Description

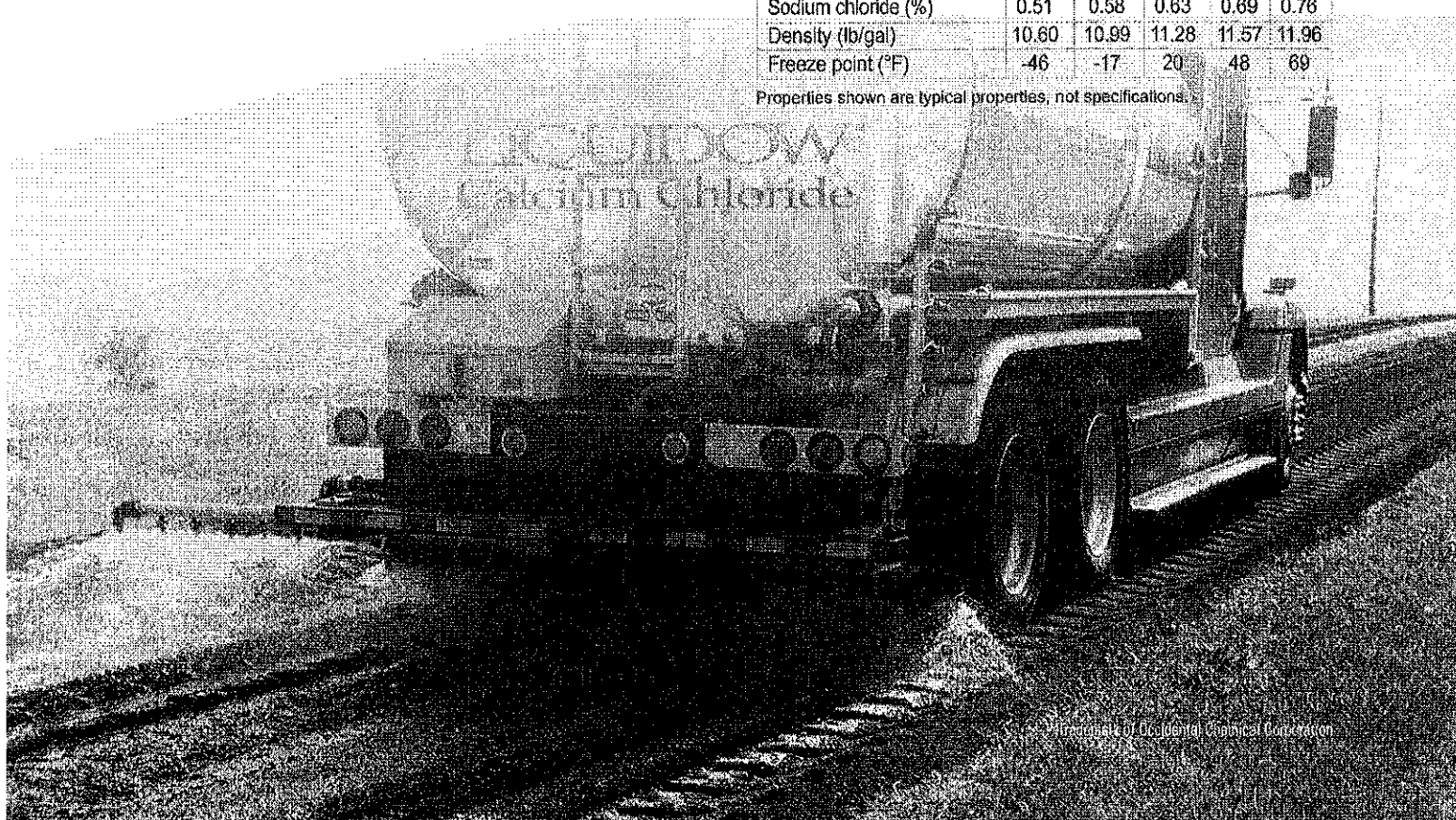
LIQUIDOW™ is a purified inorganic salt solution produced by removing water from a naturally occurring brine solution. Unlike other processes used to produce calcium chloride, the brine process does not involve reactions with toxic chemicals such as hydrochloric acid or ammonia. The National Organic Standards Board noted this distinction when it classified the brine process as "non-synthetic."

LIQUIDOW™ meets or exceeds ASTM D98 and AASHTO M144 requirements for calcium chloride purity. ASTM classification for LIQUIDOW™ is Type L.

## Typical Properties of Common Concentrations

Calcium chloride (%)	28.0	32.0	35.0	38.0	42.0
Potassium chloride (%)	0.75	0.86	0.94	1.02	1.12
Sodium chloride (%)	0.51	0.58	0.63	0.69	0.76
Density (lb/gal)	10.60	10.99	11.28	11.57	11.96
Freeze point (°F)	-46	-17	20	48	69

Properties shown are typical properties, not specifications.



# MEMO



**To:** Tamara Kline, Oscoda Township Superintendent

**From:** Catherine Winn, Regional Manager

**Date:** April 13, 2023

**Re:** Fire Hydrant Purchase Request

Please find attached a quote from EJ USA, Inc. (previously East Jordan Ironworks) for the purchase of five (5) fire hydrants.

Oscoda Township has selected EJ hydrants as the standard for new and replacement installation; this is a sole source vendor and there are no competitive quotes.

The hydrants are for stock to be used for emergency or scheduled replacements.

Please note that the water fund CIP includes \$40,000 each year for hydrant replacement, which also is intended to cover installation costs, if needed.

**We recommend approving the proposal from EJ USA, Inc. for a total of \$15,801.40.**



# Quotation

[ejco.com](http://ejco.com)

800 626 4653

Account Name    Oscoda Township Water/Sewer  
Ship to            110 S State St, Oscoda, MI, US, 48750  
Bill to            110 S State St, Oscoda, MI, US, 48750  
Full Name  
Business Phone  
Email  
Business Fax  
Close Date       4/28/2023

Quote Number    00583981  
Quote Name       2023 Hydrants - F&V / Huron Shores  
Created Date     4/12/2023  
Expiration Date   5/12/2023  
Prepared by      Peter Staley  
Email              peter.staley@ejco.com  
Phone  
Fax

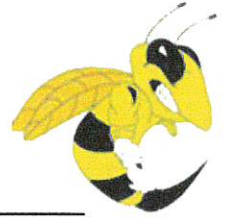
Quantity	Product N°	Description	Notes	Line Charge	Sales Price (USD)	Total Price (USD)
5	54558D	5BR250 Hydrant 5'6" MJ 2DTP 1 1/2" Pent 2-4 2 1/2" NST 1-5 4 1/2" NST Red 24" Barrel OL			3160.28	15801.40

Subtotal            15801.40 USD  
Grand Total        15801.40 USD

Notes and Comments

# Strike Team Investigative Narcotics Group

## STING



2021 Fox Run – West Branch, MI 48661 – P 989.345.2304 – F 989.345.5666 – [www.stingnarcotics.com](http://www.stingnarcotics.com)

April 03, 2023

To All County, City, and Township Boards,

This letter is being mailed to you on behalf of the STING Executive Board regarding the funding for the Fiscal Year (2023). STING has been successful in obtaining Federal Byrne Grant money for continued support of the Team. The Byrne award was decreased to the funding level of \$56,800. The award amounts were lowered for everyone and is not a reflection of the hard work being done by STING. The award does not cover our expenses. Our 2022 budget had expenses exceeding \$70,000.00.

In these unprecedented times, we are persistently working to keep drugs out of your community. The team has a total of eight (8) sworn law enforcement members to the task force and we cover six counties. During the COVID-19 pandemic, my officers have continued to fight to keep drugs off our streets. We have seen a dramatic increase in the use and delivery of methamphetamine within our coverage area. The United States had a record number of overdoses this past year. We are doing our part to save lives. **This year our seizures for narcotics had a street value more than \$331,000.00 and we took 51 firearms off the streets.**

STING is respectfully asking for your contribution to provide continued support and commitment to keeping STING operational. This contribution funding assists in the operational needs of STING to be successful tackling the illegal drug sources in our communities while working cooperatively with our local law enforcement partners to provide the necessary investigative services and assistance.

I thank you for your continued support and if you would like any additional information or have any questions, please feel free to contact me by phone (989)345-2304 or at my email address listed below. We all want to live in a violence free, drug free community. Stay healthy and safe.

Kind regards,

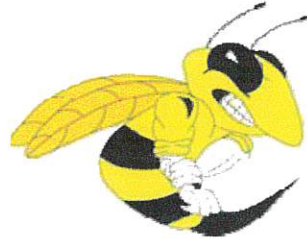
*Matthew Jordan*

D/Lt. Matthew Jordan  
STING Unit Commander  
[Jordanm6@michigan.gov](mailto:Jordanm6@michigan.gov)



# Strike Team Investigative Narcotics Group STING

2021 Fox Run  
West Branch, MI 48661  
P 989.345.2304 | F 989.345.5666  
www.stingnarcotics.com



## INVOICE # 125

Date: 04.03.23

### BILL TO:

Oscoda Township  
110 S. State St.  
Oscoda, MI 48750

DESCRIPTION	AMOUNT
NARCOTICS LAW ENFORCEMENT SERVICES - FY 2023	\$ 9,795.80
Subtotal	\$ 9,795.80
<b>TOTAL COST</b>	<b>\$ 9,795.80</b>

Make all checks payable to STING Narcotics

If you have any questions concerning this invoice, please contact:

D/Lt. Matthew Jordan  
STING Unit Commander  
[Jordanm6@michigan.gov](mailto:Jordanm6@michigan.gov)

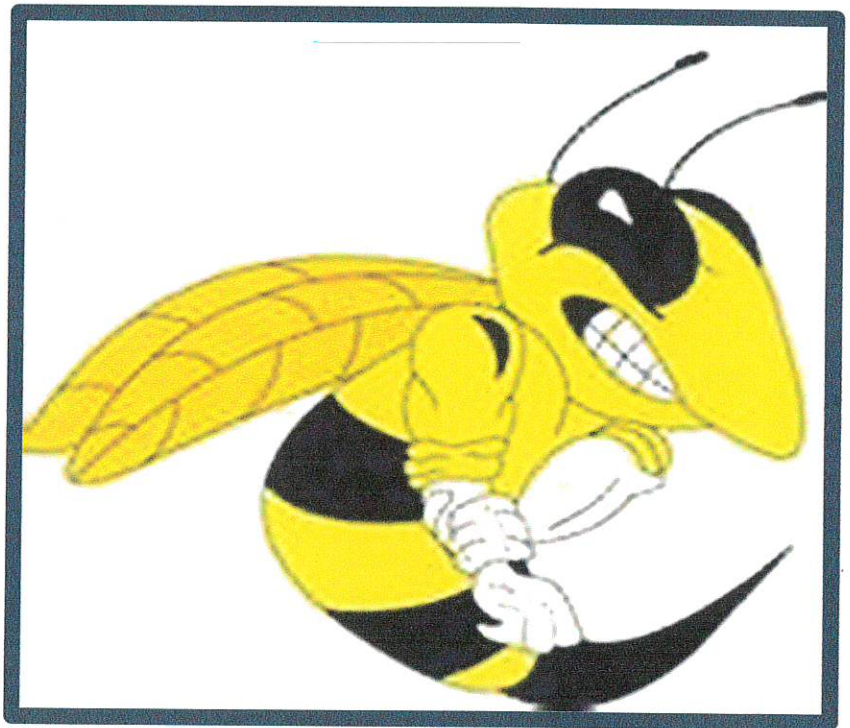
**THANK YOU FOR YOUR SUPPORT!**



# Strike Team Investigative Narcotics Group

S.T.I.N.G.

## 2022 Annual Report



# Table of Contents

## 2022 Annual Report

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# PARTICIPATING AGENCIES

## 2022 Annual Report

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- County of Crawford
- County of Oscoda
- County of Roscommon
- Michigan State Police



# BOARD OF DIRECTORS

## 2022 Annual Report

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### **BOARD OFFICERS**

(Elected January 2022)

- **Board Chair:** Sheriff Ed Stern, Roscommon County
- **Co-Chair:** Chief Ken Walters, West Branch Police Department

### **BOARD VOTING MEMBERS**

- County of Crawford
- County of Oscoda
- County of Roscommon
- Michigan State Police

# BUSINESS

## CONDUCTED IN 2022

### 2022 Annual Report

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#### UNDERCOVER VEHICLE POLICY CHANGE

Per the Attorney General's Office, all non-state employees are forbidden to drive a state-owned vehicle.

STING's officers at the time of the policy change are driving their departmental undercover vehicles not a state vehicle.

#### EQUITABLE SHARING AGREEMENT UPDATE

The Roscommon/STING Equitable Sharing account has been created as of the January 2022 Board meeting minutes.

#### STAFFING UPDATES

Per the May 12<sup>th</sup> board meeting minutes; D/Sgt. Veltman retired after 28 years with the Michigan State Police.

D/Sgt. Ray Rollet from MNET will be joining STING on June 13<sup>th</sup>.

STING will receive a new trooper position from the 7<sup>th</sup> district.

#### STAFFING UPDATES

Per the November 2<sup>nd</sup> board meeting minutes; Det. Jeanie Brown from the Crawford County Sheriff's Department; joined STING in September 2022.

During the 4<sup>th</sup> quarter; D/Tpr. David Duncan joined STING. He is from the Houghton Lake post.

In December STING gained Det. Adrian Anderson from the Oscoda County Sheriff's Department.

# SIGNIFICANT ACTIVITIES DURING 2022

## 2022 Annual Report

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### CASE NUMBERS - STG-21-22 & STG-22-22 – CRAWFORD COUNTY:

On 02-09-22 a quarter pound of methamphetamine was purchased from the suspect. Prior to this purchase, STING detectives, using a confidential source, conducted several controlled purchases, over a 3-month period, from this suspect who is a known drug dealer in the Grayling area.

Based on the controlled purchases, surveillance, tracker data, and pole camera surveillance, detectives served search warrants on two residences involved with the investigation. Total seized in the investigation was 179.10 Grams of Crystal Methamphetamine, 2.7 Grams of Heroin/Fentanyl and 24 Unknown pills. Detectives also seized 7 Long Guns and 2 Pistols.

The main suspect was lodged in the Crawford County Jail on several felony charges. The investigation continues as we try to identify downstate suppliers.

STING detectives were assisted by the Crawford County Sheriff's Department, Grayling City Police Department, HUNT, BAYANET, ATF, Third District Violent Crime Task Force, Third District and Seventh District TSU, 7th District ES Team, K-9#70 and K-9#32. The cooperation from all involved made this a successful investigation.



# SIGNIFICANT ACTIVITIES DURING 2022

## 2022 Annual Report

---

### CASE NUMBER - STG-91-22 – OGEMAW COUNTY:

In August, STING developed a confidential informant and the CI stated he could purchase large amounts of Crystal Methamphetamine from a subject in Saginaw.

On 08-15-22, STING detectives, using the confidential informant, purchased 57 Grams of Crystal Methamphetamine from the suspect who agreed to drive to Standish from Saginaw.

On 08-17-22, STING detectives, using the same confidential informant, purchased 3.99 Ounces of Crystal Methamphetamine from the suspect and a friend of the suspect, who arrived in a rental vehicle.

Once the deal was completed, uniform troopers and detectives took both individuals into custody without incident. Detectives seized 225 Clonazepam Pills from the vehicle. The driver was lodged on felony PWID charges. STING was assisted by the ES Team and uniform personnel from the West Branch Post.

### CASE NUMBER - STG-112-22 – IOSCO COUNTY:

On 10-06-22, A Search Warrant was executed in South Branch. Detectives seized 3 Grams of Cocaine, 57 Hydrocodone Pills, 30 Xanax Pills, and 100 Grams of Mushrooms. Also seized was a Rifle and \$1,607.00 in U.S. Currency.

The suspect, a convicted felon was lodged in custody.

### CASE NUMBER - STG-117-22 – OGEMAW COUNTY:

In late September, troopers from the Michigan State Police, West Branch Post were able to obtain methamphetamine from suspects on a complaint and convince them to cooperate with STING.

Utilizing one of the suspects as a confidential source, STING was able to conduct two controlled purchases of methamphetamine from an Ogemaw County residence. Intelligence was developed on the residence which revealed security cameras, firearms, dogs, and multiple outbuildings converted to living quarters.

On 10-13-22 an early morning search warrant was conducted, and 24.6 Grams of Crystal Methamphetamine was seized along with evidence of sales, 5 long guns, 1 pistol, and \$1,831.00 in cash.

This case is another great example of the troops and drug teams working side by side. STING was assisted by MSP West Branch, the ES Team, and K9-32.



# SIGNIFICANT ACTIVITIES DURING 2022

## 2022 Annual Report

---

### CASE NUMBER – STG-119-22 – OSCODA COUNTY:

A Search Warrant of a fifth wheel trailer was executed in Oscoda Township for meth sales. Detectives seized 5.4 Grams of Crystal Meth, 14.4 Grams of Ecstasy, 46.6 Grams of Fentanyl and 1 Dosage Unit of LSD.

2 subjects lodged in custody for PWID meth and fentanyl.

### CASE NUMBER – STG-124-22 – KENT COUNTY: (Operation Beaver Dam)

A group trafficking large amounts of Crystal Methamphetamine and Fentanyl was identified out of Muskegon. It is believed this group supplies most of the Crystal Meth coming up the 131 corridor, to include Crawford, Roscommon, and the greater Traverse City area. STING undercover officers have been introduced to this group as prospecting bikers who are high level meth dealers.

To date (as of December 2022) almost 2 pounds of Crystal Methamphetamine and Fentanyl has been purchased and several additional targets have been identified.

The goal of this case is to shut down the 131 corridor to northern Michigan. STING is coordinating and working with several agencies including ATF, DEA, and other MSP concept teams. This investigation is on-going.



# SIGNIFICANT ACTIVITIES DURING 2022

## 2022 Annual Report

---

### CASE NUMBER - STG-131-22 ROSCOMMON COUNTY:

After a Cocaine Purchase, a search warrant was executed at a residence in Houghton Lake. Detectives seized 2 Grams of Crystal Meth, Ammo, a Scale, and \$763.00 in U.S. Currency.

Six (6) suspects were detained, and One (1) suspect was lodged for PWID Cocaine and PWID Meth.

### CASE NUMBER - STG-137-22 OGEMAW COUNTY:

STING Detectives working with the Ogemaw County Sheriff's Department executed a search warrant in West Branch for meth sales.

Seized at the residence was 1.9 Grams of Crystal Methamphetamine, 28 Unknown Pills, 2.6 Grams Heroin, a scale and \$380.00 U.S. Currency.

Two (2) suspects were lodged – one on a fresh felony warrant from Ogemaw County. A two-year-old child was in the residence. CPS was notified and conducted an emergency child removal where the child was relocated with relatives.



# DRUGS SEIZED FY 2022

## 2022 Annual Report

DRUGS SEIZED	UNIT	QUANTITY	VALUE
ALPRAZOLAM - XANAX	26	DOSAGE UNITS	\$ 52.00
AMPHETAMINE - ADDERALL	1	DOSAGE UNITS	15.00
BUPRENORPHINE - SUBOXONE	107	DOSAGE UNITS	1,605.00
CARISOPRODOL - SOMA	1	DOSAGE UNITS	5.00
CLONAZEPAM - KLOPIN	225	DOSAGE UNITS	450.00
COCAINE	45.4	GRAMS	5,448.00
CRACK COCAINE	13.8	GRAMS	1,656.00
CRYSTAL METHAMPHETAMINE	1	DOSAGE UNITS	15.00
CRYSTAL METHAMPHETAMINE	2178.09	GRAMS	152,466.30
ECSTASY	15.7	GRAMS	31.40
FENTANYL	2	DOSAGE UNITS	40.00
FENTANYL	325.8	GRAMS	32,580.00
HEROIN	57.6	GRAMS	5,760.00
HEROIN + FENTANYL	1225.62	GRAMS	122,562.00
HYDROCODONE	116	DOSAGE UNITS	1,740.00
LSD	1	DOSAGE UNITS	3.00
MORPHINE	53	DOSAGE UNITS	795.00
OTHER DRUG	31	DOSAGE UNITS	31.00
PERCOCET	26	DOSAGE UNITS	390.00
OXYCODONE	3	DOSAGE UNITS	90.00
PSILOCYBIN	99.6	GRAMS	5,976.00
UNKNOWN	91	DOSAGE UNITS	91.00
UNKNOWN	27.3	GRAMS	-

TOTAL MONETARY VALUE OF DRUGS SEIZED FOR 2022: \$ 331,801.70

# STING ACTIVITIES FY 2022

## 2022 Annual Report

---

### *New Cases*

STING documented 149 new cases during 2022.

### *Search Warrants*

During 2022 STING conducted 28 search warrants and 1 consent search.

- 11 Hard Entry Search Warrants
- 14 Soft Entry Search Warrants
- 1 Cell Phone Download
- 2 GPS Tracker Search Warrants

### *Firearms Confiscated*

A total of 51 firearms were seized during 2022, which included 17 Pistols and 34 Long guns.



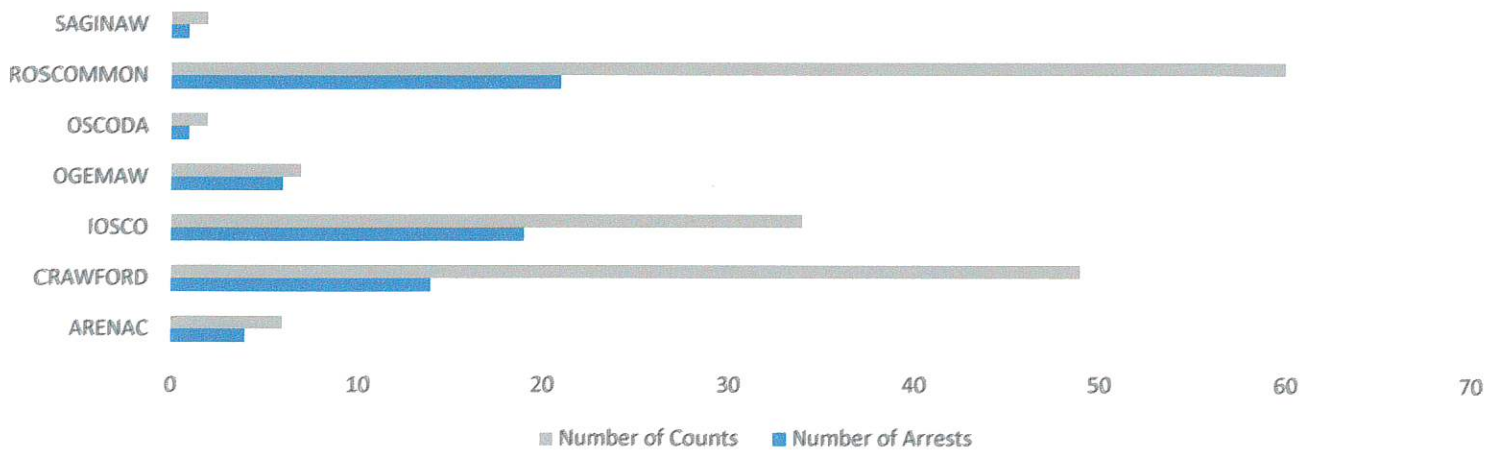
# STING ARRESTS & COUNTS FY 2022

## Arrest Details

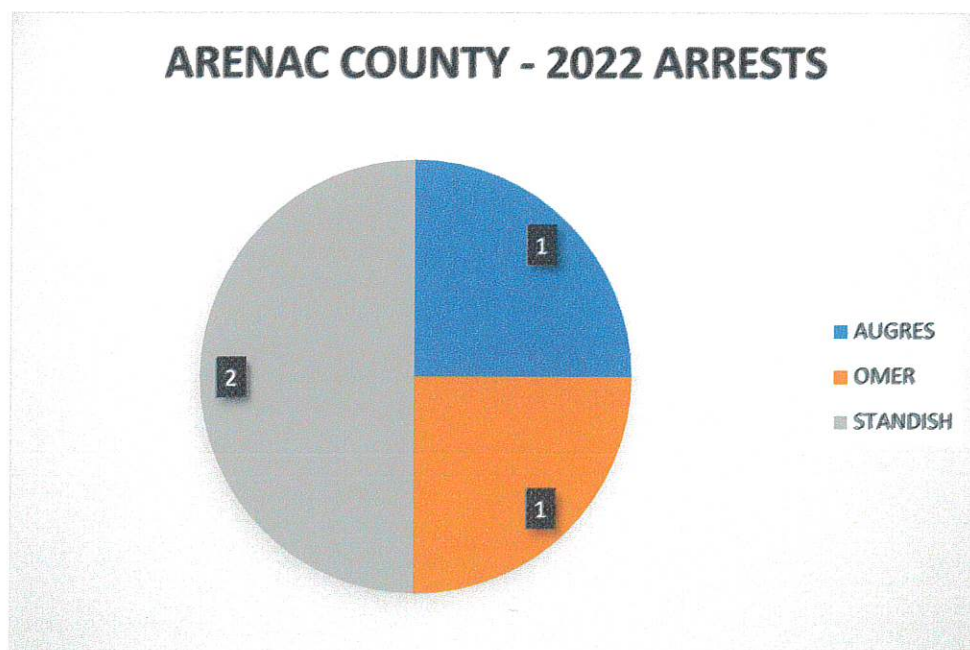
STING made 66 arrests during 2022. Most of the arrests occurred in Roscommon, Crawford, and Iosco Counties. There were 160 counts related to the 2022 arrests.

*Saginaw County: 1 Arrest with 1 Count*

### ARRESTS & COUNTS BY COUNTY

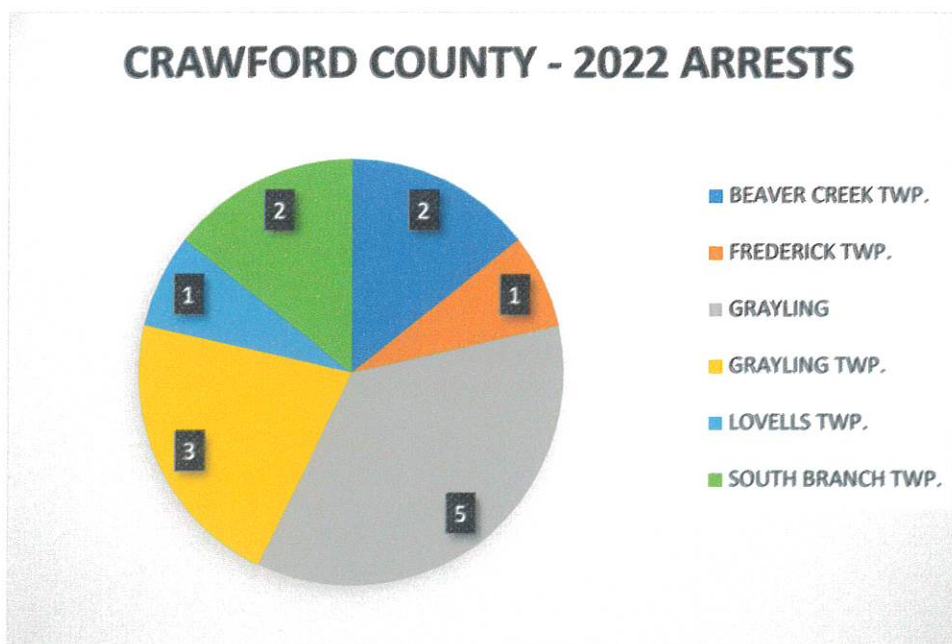


*Arenac County: 4 Arrests with 6 Counts*

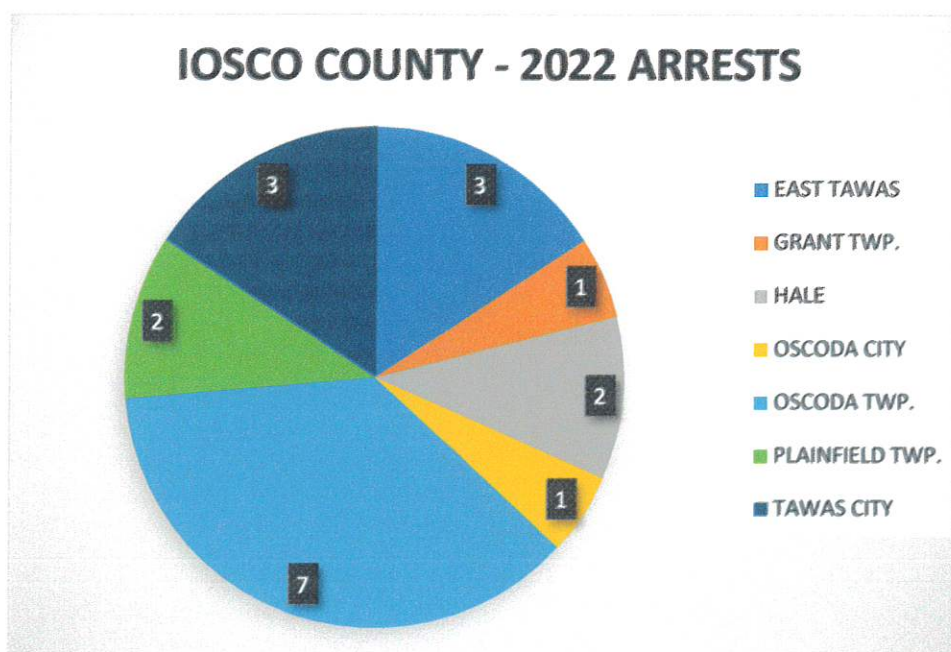


# STING ARRESTS & COUNTS FY 2022

*Crawford County: 14 Arrests with 49 Counts*



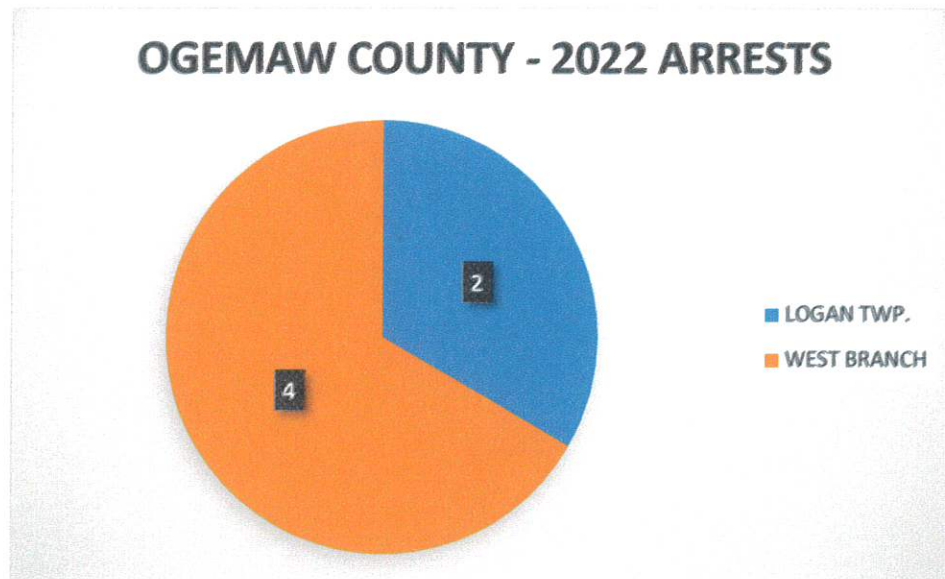
*Iosco County: 19 Arrests with 34 Counts*



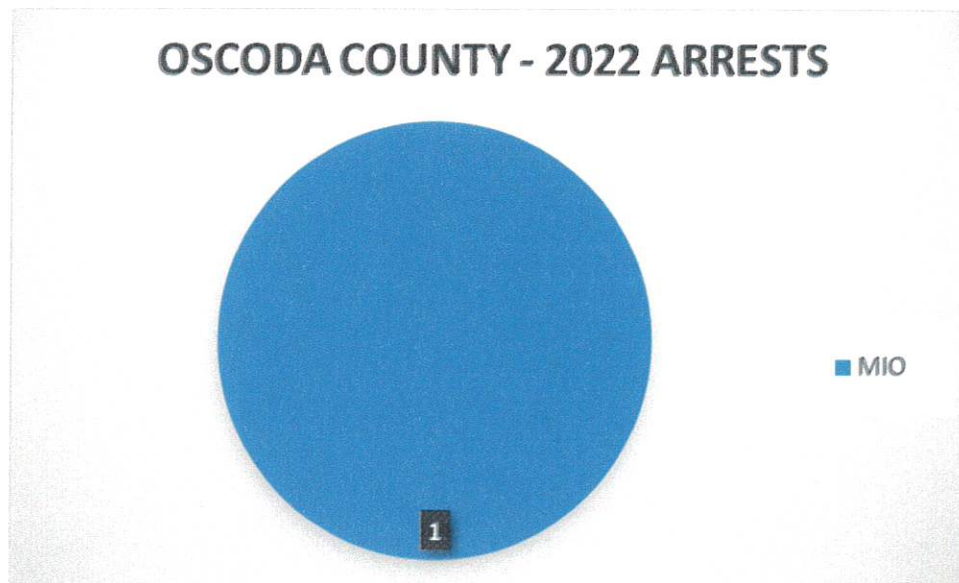
# STING ARRESTS & COUNTS FY 2022

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*Ogemaw County: 6 Arrests with 7 Counts*



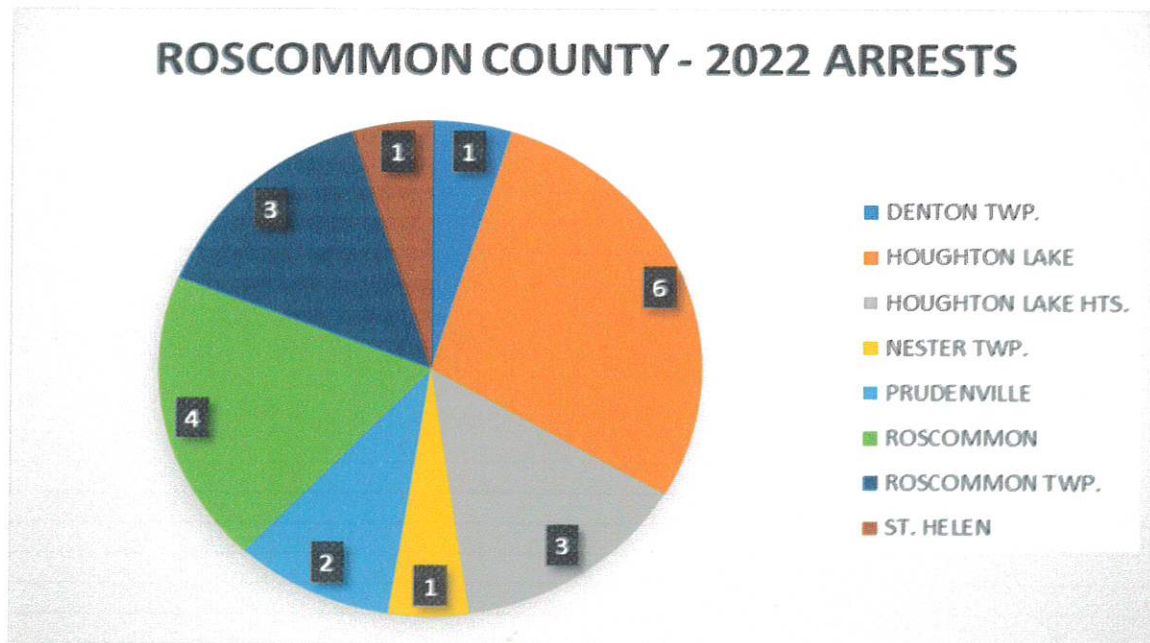
*Oscoda County: 1 Arrest in MIO with 2 Counts*





# STING ARRESTS & COUNTS FY 2022

*Roscommon County: 21 Arrests with 60 Counts*





# STING FINANCIALS FY 2022

## 2022 Annual Report

2022 FINANCIAL SNAPSHOT	
Office Expenses	\$ 68,044.70
Payroll Expenses	\$ 6,292.40
<b>TOTAL EXPENSES</b>	<b>\$ 74,337.10</b>
<b>TOTAL INCOME</b>	<b>\$ 116,502.55</b>
<b>Net Income for Quarter</b>	<b>\$ 42,165.45</b>

Received from Restitution	
Arenac County	\$ 13.70
Crawford County	595.50
Iosco County	1,961.57
Ogemaw County	529.25
Oscoda County	20.00
Roscommon County	314.88
<b>Total - Restitution Received</b>	<b>\$ 3,434.90</b>

FORFEITURES/SEIZURES			
TYPE	# SEIZED (ITEMS)	# FORFEITED (ITEMS)	VALUE
AMMUNITION	6	6	\$ 154.00
CELL PHONES	5	5	450.00
COMPUTER HARDWARE/SOFTWARE	3	3	250.00
DRUG/NARCOTIC PARAPHERNALIA (SCALES, GRINDERS)	5	5	101.00
FIREARM ACCESSORIES (GUN PARTS, MAGAZINES, AMMO CA)	18	18	902.00
PISTOLS	17	7	1,054.00
RIFLES	26	17	2,607.00
SHOTGUNS	8	4	700.00
U.S. CURRENCY	17	17	15,471.00
VEHICLES	2	2	4,000.00
<b>TOTALS</b>	<b>88</b>	<b>65</b>	<b>\$ 25,689.00</b>

NOTE: Most of the forfeitures listed in this spreadsheet are still pending court and have not been adjudicated to STING.



# Strike Team Investigative Narcotics Group S.T.I.N.G.

## MISSION STATEMENT

1. To suppress the importation, manufacture, and distribution of illegal drugs in the state of Michigan. (Specifically, Arenac, Iosco, Ogemaw, Oscoda, Roscommon, and Crawford Counties)
2. To suppress the illegal diversion of legal drugs.
3. To detect, investigate, arrest, and prosecute those persons responsible for the illegal distribution of controlled substances.
4. To assist or provide specialized services for those agencies or jurisdictions that do not possess the expertise or resources to combat drug distribution and assist with other high-profile crimes within their geographical areas.
5. Seize illegal contraband, funds and vehicles involved in controlled substance transactions.
6. To gather and pass on to proper authorities' information relating to other crimes.
7. To identify the trends in drug abuse and distribution.

## Contact Us

D/Lt. Matthew Jordan  
Unit Commander  
2021 Fox Run  
West Branch, MI 48661  
Office: 989-345-2035  
Mobile: 989-745-2035  
Email: Jordanm6@michigan.gov



**S.T.I.N.G. is a multi-agency cooperative entity that allows for the pooling of resources and works closely with our law enforcement partners to take narcotics and violent offenders off the streets.**

### Services Include:

- Undercover investigation and disruption of drug traffickers in the community
- Fugitive apprehension for local partners
- Undercover investigation and disruption of firearms traffickers
- Undercover investigation and disruption of human trafficking, exploitation, and prostitution in the community (Area Hotels / Motels)
- Investigation of, or Investigative support for Major Case / Conspiracy Crimes:
  - ❖ Violent crimes/Community response
  - ❖ Murder for hire
  - ❖ Conspiracy fraud
  - ❖ Counterfeiting
  - ❖ Public corruption
  - ❖ Money laundering
  - ❖ Illegal gaming
  - ❖ Auto theft
  - ❖ B&E rings
- Surveillance
- Parole/Probation Sweeps to ensure compliance of those living in your community
- General Investigative Support and Assistance
- Undercover and protective intelligence teams for major community events, demonstrations, and protests
- Technical support/force multiplier assets available to local partners to include pole cameras, trackers, surveillance van, raid van, density meter, TruNarc, command center with smartboard, meeting facilities
- Methamphetamine and Level A (Fentanyl) response and clean-up
- Specialized knowledge and skill in undercover operations and investigations
- Ability to deploy/response to critical incidents in local communities with up to 10 detectives on short notice. This includes direct access to all other MSP resources (Aviation, Lab, Cyber, Dive team, Canine, Scene reconstructionist)
- Temporary secure storage facilities (Pods/impound lot)
- Unique training opportunity to gain experience and training for assigned officers from the local partners in the latest investigative and policing techniques at no additional cost to their department
- Drug programs and awareness programs for participating agencies and their communities
- Centralized location for community members to contact personnel with expert knowledge to answer drug related questions and field drug trafficking tips.



# ROWE PROFESSIONAL SERVICES COMPANY

540 S. Saginaw St., Ste 200  
Flint, Michigan 48502

Phone: (810) 341-7500

Fax: (810) 341-7573

www.rowepsc.com

Oscoda Charter Township  
Township Superintendent  
110 South State Street  
Oscoda, MI 48750

April 10, 2023

Project No: 19C0114

Invoice No: 107853

Project Mgr Doug Schultz

Project 19C0114 Iosco Exploration Trail  
Construction engineering for Phase 3, 6.2 mile trail along River Road, Oscoda Township

**Professional Services from March 1, 2023 to March 31, 2023**

Task 3000 Project Mgmt

**Professional Personnel**

	Hours	Rate	Amount	
Senior Project Manager				
Schultz, Doug	3.00	155.00	465.00	
Totals	3.00		465.00	
<b>Total Labor</b>				<b>465.00</b>
<b>Total this Task</b>				<b>\$465.00</b>

Task 3005 Office Tech

**Professional Personnel**

	Hours	Rate	Amount	
Project Engineer				
Grygorcewicz, Deborah	12.00	125.00	1,500.00	
Totals	12.00		1,500.00	
<b>Total Labor</b>				<b>1,500.00</b>
<b>Total this Task</b>				<b>\$1,500.00</b>

Task 3010 Observation

**Professional Personnel**

	Hours	Rate	Amount	
Graduate Engineer				
Meeder, Ian	25.00	110.00	2,750.00	
Senior Engineering Technician				
Ludwick, Steven	22.50	115.00	2,587.50	
Engineering Technician III				
Bork, Cortney	123.50	105.00	12,967.50	
Totals	171.00		18,305.00	
<b>Total Labor</b>				<b>18,305.00</b>
<b>Total this Task</b>				<b>\$18,305.00</b>

Task 4105 Staking



ROWE Professional Services Company is pleased to accept ACH payments. Please email [accounting@rowepsc.com](mailto:accounting@rowepsc.com) for more information.

**Professional Personnel**

	Hours	Rate	Amount	
Senior Project Manager				
Rauser, John	1.00	155.00	155.00	
Project Surveyor				
Morton, Eric	2.00	130.00	260.00	
Assistant Project Surveyor				
Grenat, Forrest	4.00	110.00	440.00	
Survey Technician/ Office Technician II				
Grenat, Forrest	1.00	85.00	85.00	
Two Person Crew (Include Crew Chief)				
Grenat, Forrest	22.00	175.00	3,850.00	
Stein, Zachary	11.00	175.00	1,925.00	
Crew Member				
Grenat, Forrest	11.00		0.00	
Morton, Eric	22.00		0.00	
Totals	74.00		6,715.00	
<b>Total Labor</b>				<b>6,715.00</b>
		<b>Total this Task</b>		<b>\$6,715.00</b>
		<b>Total Amount Due</b>		<b>\$26,985.00</b>



ROWE Professional Services Company is pleased to accept ACH payments. Please email [accounting@rowepsc.com](mailto:accounting@rowepsc.com) for more information.





# ROWE PROFESSIONAL SERVICES COMPANY

540 S. Saginaw St., Ste 200  
Flint, Michigan 48502  
Phone: (810) 341-7500  
Fax: (810) 341-7573  
[www.rowepsc.com](http://www.rowepsc.com)

Oscoda Charter Township  
Township Superintendent  
110 South State Street  
Oscoda, MI 48750

April 13, 2023

Project No: 21C0153

Invoice No: 0107959

Project Mgr David Richmond

Project 21C0153 Water System Improvements 2022

Phase V water main project construction engineering services for the construction of 8,500 feet of new water main.

Project includes Norway St., Interlake Dr., Ridge Rd., Beech St., Elk Lane, Lake Rd., Hickory Rd., and Spruce Rd.

The proposed project will use C2R2 funding.

## Professional Services from March 1, 2023 to March 31, 2023

Task 3100 Administration

### Professional Personnel

	Hours	Rate	Amount	
Senior Project Manager				
Richmond, David	2.00	155.00	310.00	
Totals	2.00		310.00	
<b>Total Labor</b>				<b>310.00</b>
			<b>Total this Task</b>	<b>\$310.00</b>

Task 3200 Observation

### Professional Personnel

	Hours	Rate	Amount	
Graduate Engineer				
Meeder, Ian	50.50	110.00	5,555.00	
Totals	50.50		5,555.00	
<b>Total Labor</b>				<b>5,555.00</b>
			<b>Total this Task</b>	<b>\$5,555.00</b>

### Billing Limits

	Current	Prior	To-Date	
Total Billings	5,865.00	230,751.00	236,616.00	
Limit			313,820.00	
Remaining			77,204.00	
		<b>Total Amount Due</b>		<b>\$5,865.00</b>



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Oscoda Charter Township  
Township Superintendent  
110 South State Street  
Oscoda, MI 48750

April 19, 2023

Project No: 20C0175

Invoice No: 0107966

Project Mgr David Richmond

Project 20C0175 Wastewater Pump Station Improvements

Provide design and construction engineering services for refurbishment of wastewater pump stations by updating controls on 18 stations and by converting dry can stations into submersible pump stations, replacement of entire the entire pump station.

**Professional Services from March 1, 2023 to March 31, 2023**

Task 3002 Construction Administration

**Professional Personnel**

	Hours	Rate	Amount	
Senior Project Manager				
Richmond, David	7.50	155.00	1,162.50	
Totals	7.50		1,162.50	
<b>Total Labor</b>				<b>1,162.50</b>
<b>Billing Limits</b>	<b>Current</b>	<b>Prior</b>	<b>To-Date</b>	
Total Billings	1,162.50	85,000.00	86,162.50	
Limit			110,000.00	
Remaining			23,837.50	
		<b>Total this Task</b>		<b>\$1,162.50</b>
		<b>Total Amount Due</b>		<b>\$1,162.50</b>



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# Billing Backup

Wednesday, April 19, 2023

Rowe Professional Services Company

Invoice 0107966 Dated 4/19/2023

8:14:54 AM

Project	20C0175	Wastewater Pump Station Improvements
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Task	3002	Construction Administration
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## Professional Personnel

			Hours	Rate	Amount	
	Senior Project Manager					
Richmond, David	3/8/2023		.50	155.00	77.50	
Richmond, David	3/9/2023		.50	155.00	77.50	
Richmond, David	3/13/2023		.50	155.00	77.50	
Richmond, David	3/14/2023		.50	155.00	77.50	
Richmond, David	3/16/2023		.50	155.00	77.50	
Richmond, David	3/20/2023		1.00	155.00	155.00	
Richmond, David	3/21/2023		.50	155.00	77.50	
Richmond, David	3/23/2023		.50	155.00	77.50	
Richmond, David	3/24/2023		1.00	155.00	155.00	
Richmond, David	3/27/2023		1.00	155.00	155.00	
Richmond, David	3/28/2023		.50	155.00	77.50	
Richmond, David	3/29/2023		.50	155.00	77.50	
	Totals		7.50		1,162.50	
	<b>Total Labor</b>					<b>1,162.50</b>
				<b>Total this Task</b>		<b>\$1,162.50</b>
				<b>Total this Phase</b>		<b>\$1,162.50</b>
				<b>Total this Project</b>		<b>\$1,162.50</b>
				<b>Total this Report</b>		<b>\$1,162.50</b>



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# ROWE PROFESSIONAL SERVICES COMPANY

540 S. Saginaw St., Ste 200  
Flint, Michigan 48502  
Phone: (810) 341-7500  
Fax: (810) 341-7573  
[www.rowepsc.com](http://www.rowepsc.com)

Oscoda Charter Township  
Township Superintendent  
110 South State Street  
Oscoda, MI 48750

April 18, 2023

Project No: 18C0068

Invoice No: 0107971

Project Mgr David Richmond

Project 18C0068 Oscoda Charter Township As-needed Services  
As-needed surveying, design and construction engineering, planning, landscape architecture

**Professional Services from March 1, 2023 to March 31, 2023**

Task 2001 As-needed Requests

**Professional Personnel**

	Hours	Rate	Amount	
Senior Project Manager				
Richmond, David	19.50	155.00	3,022.50	
Schultz, Doug	.50	155.00	77.50	
Project Engineer				
Cook, Taylor	2.00	125.00	250.00	
Assistant Project Engineer				
Hoover, Samantha	8.00	115.00	920.00	
Totals	30.00		4,270.00	
<b>Total Labor</b>				<b>4,270.00</b>
		<b>Total this Task</b>		<b>\$4,270.00</b>

Task 4005 Survey Office

**Professional Personnel**

	Hours	Rate	Amount	
Senior Project Manager				
Rauser, John	.50	155.00	77.50	
Totals	.50		77.50	
<b>Total Labor</b>				<b>77.50</b>
		<b>Total this Task</b>		<b>\$77.50</b>

**Total Amount Due \$4,347.50**



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email [accounting@rowepsc.com](mailto:accounting@rowepsc.com) for more information.



# Billing Backup

Tuesday, April 18, 2023

Rowe Professional Services Company

Invoice 0107971 Dated 4/18/2023

9:43:16 AM

Project	18C0068	Oscoda Charter Township As-needed Services
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Task	2001	As-needed Requests
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## Professional Personnel

			Hours	Rate	Amount
Senior Project Manager					
848	4 - Richmond, David	2/1/2023	.50	155.00	77.50
848	4 - Richmond, David	2/21/2023	.50	155.00	77.50
848	4 - Richmond, David	3/2/2023	1.00	155.00	155.00
848	4 - Richmond, David	3/3/2023	.50	155.00	77.50
848	4 - Richmond, David	3/20/2023	1.00	155.00	155.00
848	4 - Richmond, David	3/21/2023	2.00	155.00	310.00
848	4 - Richmond, David	3/22/2023	.50	155.00	77.50
848	4 - Richmond, David	3/23/2023	1.00	155.00	155.00
848	4 - Richmond, David	3/24/2023	1.00	155.00	155.00
848	4 - Richmond, David	3/27/2023	.50	155.00	77.50
848	4 - Richmond, David	3/28/2023	2.00	155.00	310.00
848	4 - Richmond, David	3/29/2023	3.00	155.00	465.00
848	4 - Richmond, David	3/30/2023	3.00	155.00	465.00
848	4 - Richmond, David	3/31/2023	3.00	155.00	465.00
433	4 - Schultz, Doug	3/7/2023	.50	155.00	77.50
Project Engineer					
751	11 - Cook, Taylor	3/14/2023	2.00	125.00	250.00
Assistant Project Engineer					
581	14 - Hoover, Samantha	3/30/2023	1.50	115.00	172.50
581	14 - Hoover, Samantha	3/30/2023	3.50	115.00	402.50
581	14 - Hoover, Samantha	3/31/2023	3.00	115.00	345.00
Totals			30.00		4,270.00
<b>Total Labor</b>					<b>4,270.00</b>
<b>Total this Task</b>					<b>\$4,270.00</b>

Task	4005	Survey Office
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## Professional Personnel

			Hours	Rate	Amount
Senior Project Manager					
115	4 - Rauser, John	3/28/2023	.50	155.00	77.50
Totals			.50		77.50
<b>Total Labor</b>					<b>77.50</b>

**Total this Task** **\$77.50**

**Total this Phase** **\$4,347.50**

**Total this Project** **\$4,347.50**

**Total this Report** **\$4,347.50**



ROWE Professional Services Company is pleased to accept ACH payments. Please email [accounting@rowepsc.com](mailto:accounting@rowepsc.com) for more information.

**Billing Backup for Invoice #107971**

*Oscoda Charter Township As-needed Services*

*Rowe Job #18C0068*

*Professional Services through March 31, 2023*

<b>DATE</b>			<b>Employee</b>	<b>Hours</b>	<b>Billing Rate</b>	<b>Total</b>
2/1/2023	-	3/31/2023	Cook, Taylor	2	\$125.00	\$250.00
2/1/2023	-	3/31/2023	Schultz, Doug	0.5	\$155.00	\$77.50
2/1/2023	-	3/31/2023	Richmond, David	2.5	\$155.00	\$387.50
<b>Task 2001</b>			<b>As-Needed Design Services</b>			
			- Prepare Overall Map of Water Main Projects			
			- Prepare Cost Estimates for Utility Extensions			
			- Meeting regarding Shelton Prop Utilities			
			- Funding Application Information			
<b>Sub-total Tasks 2001</b>						
						<b>\$715.00</b>
2/1/2023	-	3/31/2023	Richmond, David	17	\$155.00	\$2,635.00
2/1/2023	-	3/31/2023	Hoover, Samantha	8	\$115.00	\$920.00
<b>Task 2001</b>			<b>As-Needed Design Services</b>			
			- CWSRF Project Plan			
<b>Sub-total Tasks 2001</b>						
						<b>\$3,555.00</b>
2/1/2023	-	3/31/2023	Rauser, John	0.5	\$155.00	\$77.50
<b>Task 4005</b>			<b>As-Needed Survey Services</b>			
			- Prepare Easement Map of Water Meter			
<b>Sub-total Tasks 4005</b>						
						<b>\$77.50</b>
<b>Total Invoice #107112</b>						
						<b>\$4,347.50</b>



# ROWE PROFESSIONAL SERVICES COMPANY

540 S. Saginaw St., Ste 200  
Flint, Michigan 48502

Phone: (810) 341-7500

Fax: (810) 341-7573

[www.rowepsc.com](http://www.rowepsc.com)

Oscoda Charter Township  
Township Superintendent  
110 South State Street  
Oscoda, MI 48750

April 18, 2023

Project No: 2300049

Invoice No: 0108062

Due Date: May 18, 2023

Project Mgr: David Richmond

Project 2300049 Oscoda Twp - Lakewood Shores Map

Prepare aerial topo map of the Lakewood Shores Development for Oscoda Township.

**Professional Services from January 1, 2023 to February 28, 2023**

**Fee 9,161.00**

<b>Billing Limits</b>	<b>Current</b>	<b>Prior</b>	<b>To-Date</b>	
Total Billings	9,161.00	0.00	9,161.00	
Limit			10,840.00	
Remaining			1,679.00	
		<b>Total Amount Due</b>		<b>\$9,161.00</b>



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email [accounting@rowepsc.com](mailto:accounting@rowepsc.com) for more information.



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Oscoda Charter Township  
Township Superintendent  
110 South State Street  
Oscoda, MI 48750

April 12, 2023  
Project No: 2300217  
Invoice No: 0107949  
Due Date: May 12, 2023  
Project Mgr: David Richmond

Project 2300217 Oscoda Twp - Old Orchard Campground Map

Prepare a map of the roads and structures of Old Orchard Campground in Oscoda Township using aerial survey.

**Professional Services from March 1, 2023 to March 31, 2023**

**Fee** **1,791.00**

Billing Limits	Current	Prior	To-Date
Total Billings	1,791.00	0.00	1,791.00
Limit			6,900.00
Remaining			5,109.00
		<b>Total Amount Due</b>	<b>\$1,791.00</b>



ROWE Professional Services Company is pleased to accept ACH payments. Please email [accounting@rowepsc.com](mailto:accounting@rowepsc.com) for more information.



# Billing Backup

Rowe Professional Services Company

Invoice 0107949 Dated 4/12/2023

Wednesday, April 19, 2023

6:44:50 AM

Project	2300217	Oscoda Twp - Old Orchard Campground Map
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## Fee

			Hours	Rate	Amount	
	Survey Project Manager					
	Lemke, Gregory	3/28/2023	1.00	145.00	145.00	
	Lemke, Gregory	3/30/2023	2.00	145.00	290.00	
	Cartographer					
	Kuchar, Brian	3/31/2023	6.00	102.00	612.00	
	Kuchar, Brian	3/31/2023	2.00	102.00	204.00	
	One person Crew (non- PS)					
	Grenat, Forrest	3/30/2023	4.50	120.00	540.00	
	Totals		15.50		1,791.00	
	<b>Total Labor</b>					<b>1,791.00</b>

<b>Total this Project</b>	<b>\$1,791.00</b>
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<b>Total this Report</b>	<b>\$1,791.00</b>
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[www.rowepsc.com](http://www.rowepsc.com)

Oscoda Charter Township  
Township Superintendent  
110 South State Street  
Oscoda, MI 48750

April 19, 2023

Project No: 21C0158

Invoice No: 0108105

Project Mgr David Richmond

Project 21C0158 Water System Improvement Project 2023

Design and construction engineering services for construction of 10,500 feet of new water main. The project includes Colbath Rd., Lakeview Dr., Mohawk Dr., Chippewa Dr., and Indian Trail. The project is funded through the C2R2 grant.

**Professional Services from March 1, 2023 to March 31, 2023**

Task 3001 Design Phases F&H

**Professional Personnel**

	Hours	Rate	Amount	
Senior Project Manager				
Richmond, David	1.00	155.00	155.00	
CAD Operator/ Office Technician I				
Morton, Eric	7.50	80.00	600.00	
Senior Project Engineer				
Bair, Ryan	6.00	130.00	780.00	
Assistant Project Engineer				
Motz, Matthew	35.50	115.00	4,082.50	
Totals	50.00		5,617.50	
<b>Total Labor</b>				<b>5,617.50</b>
		<b>Total this Task</b>		<b>\$5,617.50</b>

Task 4001 Topographical Survey

**Professional Personnel**

	Hours	Rate	Amount	
Senior Project Manager				
Rauser, John	6.50	155.00	1,007.50	
Project Surveyor				
Morton, Eric	5.50	130.00	715.00	
CAD Operator/ Office Technician I				
Grenat, Forrest	2.50	80.00	200.00	
Morton, Eric	37.00	80.00	2,960.00	
Two Person Crew (Include Crew Chief)				
Humpula, James	6.00	175.00	1,050.00	
Stein, Zachary	6.00	175.00	1,050.00	
Crew Member				
Morton, Eric	6.00		0.00	
Richards, Danny	6.00		0.00	
Totals	75.50		6,982.50	
<b>Total Labor</b>				<b>6,982.50</b>



ROWE Professional Services Company is pleased to accept ACH payments. Please email [accounting@rowepsc.com](mailto:accounting@rowepsc.com) for more information.

Project	21C0158	Water System Improvement Project 2023	Invoice	0108105
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<b>Total this Task</b>	<b>\$6,982.50</b>
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<b>Billing Limits</b>	<b>Current</b>	<b>Prior</b>	<b>To-Date</b>	
Total Billings	12,600.00	124,106.00	136,706.00	
Limit			136,706.00	
		<b>Total Amount Due</b>		<b>\$12,600.00</b>



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# Billing Backup

Wednesday, April 19, 2023

Rowe Professional Services Company

Invoice 0108105 Dated 4/19/2023

9:42:11 AM

Project	21C0158	Water System Improvement Project 2023
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Task	3001	Design Phases F&H
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## Professional Personnel

			Hours	Rate	Amount
Senior Project Manager					
Richmond, David	3/3/2023		.50	155.00	77.50
Richmond, David	3/8/2023		.50	155.00	77.50
CAD Operator/ Office Technician I					
Morton, Eric	12/12/2022		4.50	80.00	360.00
Morton, Eric	12/15/2022		3.00	80.00	240.00
Senior Project Engineer					
Bair, Ryan	11/18/2022		.50	130.00	65.00
Bair, Ryan	1/9/2023		2.00	130.00	260.00
Bair, Ryan	1/18/2023		2.50	130.00	325.00
Bair, Ryan	1/19/2023		1.00	130.00	130.00
Assistant Project Engineer					
Motz, Matthew	11/1/2022		7.75	115.00	891.25
Motz, Matthew	11/2/2022		2.25	115.00	258.75
Motz, Matthew	11/14/2022		2.50	115.00	287.50
Motz, Matthew	11/15/2022		3.00	115.00	345.00
Motz, Matthew	11/16/2022		2.75	115.00	316.25
Motz, Matthew	11/22/2022		1.50	115.00	172.50
Motz, Matthew	12/7/2022		.25	115.00	28.75
Motz, Matthew	1/11/2023		3.00	115.00	345.00
Motz, Matthew	1/12/2023		7.00	115.00	805.00
Motz, Matthew	1/13/2023		5.50	115.00	632.50
Totals			50.00		5,617.50
<b>Total Labor</b>					<b>5,617.50</b>
<b>Total this Task</b>					<b>\$5,617.50</b>

Task	4001	Topographical Survey
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## Professional Personnel

			Hours	Rate	Amount
Senior Project Manager					
Rauser, John	12/7/2022		1.00	155.00	155.00
Rauser, John	12/12/2022		1.00	155.00	155.00
Rauser, John	1/5/2023		.50	155.00	77.50
Rauser, John	1/9/2023		.50	155.00	77.50
Rauser, John	1/30/2023		.50	155.00	77.50
Rauser, John	2/6/2023		1.00	155.00	155.00
Rauser, John	2/9/2023		.50	155.00	77.50
Rauser, John	2/9/2023		1.00	155.00	155.00
Rauser, John	2/24/2023		.25	155.00	38.75
Rauser, John	3/10/2023		.25	155.00	38.75
Project Surveyor					
Morton, Eric	3/9/2023		1.50	130.00	195.00
Morton, Eric	3/10/2023		1.00	130.00	130.00



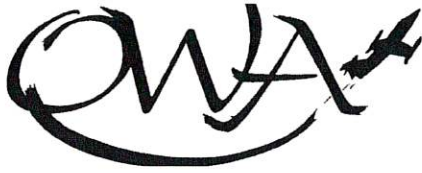
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Project	21C0158	Water System Improvement Project 2023			Invoice	0108105
Morton, Eric		3/10/2023	3.00	130.00	390.00	
CAD Operator/ Office Technician I						
Grenat, Forrest		2/9/2023	2.50	80.00	200.00	
Morton, Eric		12/7/2022	2.50	80.00	200.00	
Morton, Eric		12/7/2022	3.00	80.00	240.00	
Morton, Eric		12/9/2022	1.00	80.00	80.00	
Morton, Eric		12/27/2022	2.00	80.00	160.00	
Morton, Eric		1/5/2023	1.50	80.00	120.00	
Morton, Eric		1/9/2023	6.50	80.00	520.00	
Morton, Eric		1/10/2023	2.00	80.00	160.00	
Morton, Eric		1/11/2023	3.50	80.00	280.00	
Morton, Eric		1/25/2023	1.50	80.00	120.00	
Morton, Eric		1/27/2023	2.50	80.00	200.00	
Morton, Eric		1/30/2023	2.00	80.00	160.00	
Morton, Eric		2/14/2023	1.00	80.00	80.00	
Morton, Eric		2/27/2023	3.00	80.00	240.00	
Morton, Eric		2/28/2023	5.00	80.00	400.00	
Two Person Crew (Include Crew Chief)						
Humpula, James		12/14/2022	6.00	175.00	1,050.00	
Stein, Zachary		12/9/2022	6.00	175.00	1,050.00	
Crew Member						
Morton, Eric		12/9/2022	6.00		0.00	
Richards, Danny		12/14/2022	6.00		0.00	
Totals			75.50		6,982.50	
<b>Total Labor</b>						<b>6,982.50</b>
<b>Total this Task</b>						<b>\$6,982.50</b>
<b>Total this Phase</b>						<b>\$12,600.00</b>
<b>Total this Project</b>						<b>\$12,600.00</b>
<b>Total this Report</b>						<b>\$12,600.00</b>



ROWE Professional Services Company is pleased to accept ACH payments. Please email [accounting@rowepsc.com](mailto:accounting@rowepsc.com) for more information.



**OSCODA-WURTSMITH AIRPORT**  
3961 East Airport Drive, Oscoda, MI 48750  
Phone: 989-739-1111 ♦ Fax: 989-739-0207

## **INSTRUCTIONS AND INFORMATION FOR LEASE APPLICATIONS**

The Authority reserves the right to return incomplete applications or request additional information. Lease applicants are encouraged to review the Airport's Zoning Ordinance at <http://www.oscairport.com/facilities.html> for help in understanding the requirements that govern the Airport's lease application review process with regard to zoning issues.

### **Please complete the application according to the following instructions:**

1. & 2. Applicant Information: For commercial applicants, the name in Item 2 must match the business license, corporation, or other certificate name.
3. Description of Property and Term Requested: Describe the property requested and the desired lease term length. The term length for leases is approved by the Oscoda-Wurtsmith Airport Authority (OWAA) Board.
4. Business Information: Check only one box and attach copies of your business license, corporate or LLC certificate, Articles of Organization or Incorporation (with latest meeting minutes showing officers, current signatory authority), and/or partnership agreement (can be for private or commercial and must show who has signatory authority for the partnership). Businesses need to be registered with the State of Michigan in order to enter into a lease or permit. This requirement is not necessary for existing tenants of the OWAA.
5. Requested use(s) of the property: List all intended uses. Be sure to check appropriate fuel boxes and describe all tanks, including mobile fuelers. If hazardous materials are to be stored or used on the Premises, applicant must state so on the application and provide a plan for storage of all such materials with the application. If petroleum products are proposed to be stored or dispensed on the Premises, you will be required to submit a spill prevention and response plan prior to commencing operations.
6. Existing Lessee Information: Check "Term Extension" only if you are a current lessee under a lease with the OWAA.
7. Improvements: Check the appropriate box and complete as indicated. Improvement completion deadlines are specified in each lease, if any. *Failure by the applicant to complete the proposed permanent improvements by the deadline specified in the agreement constitutes grounds for cancellation of the lease.*
8. Aircraft and Commercial Aviation Information: List all aircraft to be based at the Premises.
9. Name and Signature: Sign your application and print your name, company name, title and the date.
10. Application Checklist: Check attachments to be sure all required items are submitted:
  - a. Sign and date the application.
  - b. Are all sections completed?
  - c. Method of financing proposed improvements, if any.
  - d. Business License or other requested business documentation, unless an existing OWAA tenant.

\*\*\*\*\*

**OTHER:** Leases may include a percentage of gross business sales charge or be competitively offered.

**INSURANCE:** In most cases, the lessee is required to carry adequate insurance to protect both the lessee and the OWAA against comprehensive public liability and property damage. The terms and limits of the insurance requirements will be based on the risks relative to the lessee's operations. This may include:

- ◆ Comprehensive automobile coverage which covers all owned, hired, and non-owned motor vehicles. This policy shall contain a waiver of subrogation clause precluding the insurance carrier(s) from seeking compensation from the OWAA.
- ◆ Comprehensive general liability, including premises, all operations, property damage, products (if applicable), and personal injury and death, broad-form contractual. This policy shall name the OWAA as additional insured.
- ◆ Hangar Keeper's legal liability in an amount not less than the most valuable aircraft in the Lessee's care custody or control on the premises. This policy shall name the OWAA as additional insured.
- ◆ Aircraft/aviation, including passenger liability. This policy shall name the OWAA as additional insured.

(It is suggested that the applicant investigate the cost of such coverage prior to making application for lease.)

\*\*\*\*\*

# OSCODA-WURTSMIT AIRPORT AUTHORITY

3961 East Airport Drive, Oscoda, MI 48750

Phone: 989-739-1111 Fax: 989-739-0207

## LEASE APPLICATION

<b>1. Name and Mailing Address of Applicant:</b>  Name: _____ Address: _____ _____ _____  Phone: (     ) _____ FAX: (     ) _____ E-mail: _____ Name of Contact Person: _____	<b>2. Name to Appear on Lease:</b>  Name: _____ Address: _____ _____ _____  Phone: (     ) _____ FAX: (     ) _____ E-mail: _____						
<b>3. Description of Property and Term Requested:</b>  Lot(s) _____ Block(s) _____ Other* _____ Term Requested: _____ Starting Date: _____  *Attach location map.	<b>4. If Applicant is a business, indicate which type below and provide documentation as required in the instructions.</b>  <table style="width: 100%;"><tr><td><input type="checkbox"/> Individual</td><td><input type="checkbox"/> Partnership</td></tr><tr><td><input type="checkbox"/> Corporation</td><td><input type="checkbox"/> Limited Liability Company (LLC)</td></tr><tr><td><input type="checkbox"/> Government</td><td><input type="checkbox"/> Other _____</td></tr></table> <i>Are you registered to do business in the State of Michigan?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Individual	<input type="checkbox"/> Partnership	<input type="checkbox"/> Corporation	<input type="checkbox"/> Limited Liability Company (LLC)	<input type="checkbox"/> Government	<input type="checkbox"/> Other _____
<input type="checkbox"/> Individual	<input type="checkbox"/> Partnership						
<input type="checkbox"/> Corporation	<input type="checkbox"/> Limited Liability Company (LLC)						
<input type="checkbox"/> Government	<input type="checkbox"/> Other _____						
<b>5. List all activities or business functions proposed (attach additional pages as needed):</b>  _____ _____ _____ _____ _____ _____ _____ _____ _____ _____  <table style="width: 100%;"><tr><td>Do you plan to store/dispense or handle fuel?:</td><td><input type="checkbox"/> Yes</td><td><input type="checkbox"/> No</td></tr><tr><td>Do you plan to sell fuel (commercial use only)?</td><td><input type="checkbox"/> Yes</td><td><input type="checkbox"/> No</td></tr></table> <b>For right-of-way application, attach a drawing that shows the proposed route and describe the right-of-way type below:</b> <input type="checkbox"/> A road or taxiway: Driving surface width: _____ Surface type: <input type="checkbox"/> Gravel <input type="checkbox"/> Asphalt Paved <input type="checkbox"/> Other type right-of-way (describe): _____		Do you plan to store/dispense or handle fuel?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Do you plan to sell fuel (commercial use only)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Do you plan to store/dispense or handle fuel?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No					
Do you plan to sell fuel (commercial use only)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No					



6. Are you requesting: a ☐ Term Extension; OR a ☐ New lease (check one)

If a Term Extension, please provide the following: Lease Number (if any) or Date: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Justification: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. Do you plan to construct or place improvements on the Premises?: ☐ Yes ☐ No (if Yes, please complete the following items)

Estimated total value of proposed improvements when completed: \$ \_\_\_\_\_

How do you propose to finance the improvements? \_\_\_\_\_

Anticipated start date: \_\_\_\_\_ Anticipated completion date: \_\_\_\_\_

Describe proposed improvements and type(s) of construction: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Attach a site plan showing all dimensions (refer to example on reverse side of Application Instructions.)

8. Type and number of aircraft which will be operated from the terminal in conjunction with use of the area:

	Under 6,500#	6,500-12,500#	12,500-25,000#	25,000-200,000#	200,000# & over
Fixed Wing Aircraft:					
Rotary Wing Aircraft:					

9. Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Company Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

11. BEFORE SUBMITTING YOUR APPLICATION, HAVE YOU:

- Completed and signed the application?
- Attached required drawings and documents?
- Provided the proposed method of financing improvements?
- Provided Business License or other requested business documentation?

**UNSIGNED OR INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED**

April 17, 2023

To: Tammy Kline, Superintendent  
From: Allan MacGregor, Fire Chief  
Re: New Ventilation Fan Acquisition

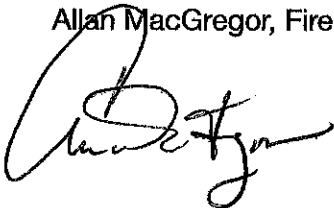
Ms. Kline,

We have spoke in the past regarding our aging gas powered ventilation van which is well over 10 years old and malfunctioning on almost every fire situation its used in. The unit is key in many facets of what we do in fighting structure fires. It's used to clear smoke out of a building, and vital in controlling the spread of an out of control fire. We have solicited two vendors of reputable brands to demonstrate the new battery operated units now on the market. Westshore fire and MES supplied us with quotes on their products. After the demos and obtaining the quotes, it would be my recommendation to purchase the unit from MES at the quoted prices of \$4,450.00.

Thank you for all your help and consideration in this matter.

Respectfully Submitted,

Allan MacGregor, Fire Chief

A handwritten signature in black ink, appearing to read 'Allan MacGregor', written in a cursive style.



MUNICIPAL EMERGENCY SERVICES

(877) 637-3473

## Quote

**Quote #** QT1687296  
**Date** 04/05/2023  
**Expires** 04/20/2023  
**Sales Rep** Breternitz, Melissa  
**PO #** Blow Hard Quickie Fan  
**Shipping Method** FedEx Ground  
**Customer** Oscoda Twp Fire Dept (MI)  
**Customer #** C243047

**Bill To**

c/o Oscoda Township Hall  
Oscoda Twp Fire Dept (MI)  
110 State Street  
Oscoda MI 48750  
United States

**Ship To**

c/o Oscoda Township Hall  
Oscoda Twp Fire Dept (MI)  
110 State Street  
Oscoda MI 48750  
United States

Item	Alt. Item #	Units	Description	QTY	Unit Price	Amount
BLOWHARD CO			Custom THE BLOWHARD COMPANY 20" High Flow Jet PPV Fan	1	\$4,300.00	\$4,300.00

**Subtotal** \$4,300.00  
**Shipping Cost** \$150.00  
**Tax Total** \$0.00  
**Total** \$4,450.00

This Quotation is subject to any applicable sales tax and shipping & handling charges that may apply. Tax and shipping charges are considered estimated and will be recalculated at the time of shipment to ensure they take into account the most current information.

All returns must be processed within 30 days of receipt and require a return authorization number and are subject to a restocking fee.

Custom orders are not returnable. Effective tax rate will be applicable at the time of invoice.



QT1687296

# WEST SHORE FIRE



6620 Lake Michigan Drive  
P.O. Box 188  
Allendale, MI 49401  
(616) 895-4347

WHERE SALES SERVICE COME TOGETHER

**West Shore Fire Inc.**  
6620 Lake Michigan Dr.  
PO Box 188  
Allendale MI 49401  
Phone: 616-895-4347  
Watts: 800-632-6184  
Fax: 616-895-7158



**Office of:**  
Eric Johnson  
[ejohnson@westshorefire.com](mailto:ejohnson@westshorefire.com)

**Home Office of:**  
Larry Jones  
[LJones@westshorefire.com](mailto:LJones@westshorefire.com)

Cell: 616-201-6208

## QUOTATION

\*\*\*\*\*

<b>Bill to Address</b>	OSCODA FIRE DEPARTMENT 110 SOUTH STATE ST OSCODA MI 48750		<b>PO #</b>	
<b>Ship to Address</b>	OSCODA FIRE DEPARTMENT 110 SOUTH STATE ST OSCODA MI 48750		<b>Ship Via</b>	Best Way
<b>Name</b> <b>Phone #</b> <b>Fax #</b> <b>E-mail</b>			<b>Date:</b>	3/31/2023
			<b>County:</b>	Iosco
<b>QUOTE VALID FOR 30 DAYS</b>				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL PRICE
1	V18-BL-12-AC-SP: SuperVac 18" PPV, 2x 12 Ah Milwaukee Batteries.,2x AC Chargers, Shore Power	5,240.00	\$5,240.00

Due To Market Volatility, Pricing is Subject to Change Without Notice. Pricing Will Be Based on Market Value at Time of Shipping. Also Please Note Raw Material Shortages are Causing Longer Than Normal Lead Times on Most Items

	Subtotal	\$5,240.00
	<b>FREIGHT</b>	\$56.94
	Tax (If Applicable)	
15% RESTOCKING FEE		
NO RETURNS ON SPECIAL ORDERS		
	<b>TOTAL QUOTE</b>	<b>\$5,296.94</b>



PROJECT MANUAL  
FOR  
2023 CURED-IN-PLACE LINING AT MISSION DRIVE  
CHARTER TOWNSHIP OF OSCODA

OWNER: CHARTER TOWNSHIP OF OSCODA  
110 SOUTH STATE STREET  
OSCODA, MI 48750

ENGINEER:



ROWE PROFESSIONAL  
SERVICES COMPANY  
540 S. Saginaw Street, Ste 200, Flint, MI 48502

PROJECT NUMBER: 18C0068

DATE: Month 2023



PROJECT MANUAL FOR  
CONSTRUCTION OF 2023 CURED-IN-PLACE LINING AT MISSION DRIVE

PROJECT NUMBER 18C0068

The specifications and other contract documents have been prepared under the direction of the following design professional licensed by the State of Michigan.

---

David E. Richmond, PE  
Professional Engineer No. 6201045009

[Seal]

The plans, specifications and contract documents have been reviewed by \_\_\_\_\_ and  
final copies released on \_\_\_\_\_.





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C-430	Bid Bond
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C-520	Agreement
C-550	Notice to Proceed
C-610	Performance Bond
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C-625	Certificate of Substantial Completion
C-700	Standard General Conditions
C-800	Supplementary Conditions
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**ADVERTISEMENT FOR BIDS**  
**CHARTER TOWNSHIP OF OSCODA**  
**OSCODA, MI**  
**2023 CURED-IN-PLACE LINING AT MISSION DRIVE**

**General Notice**

Charter Township of Oscoda (Owner) is requesting Bids for the construction of the following Project:  
**2023 Cured-in-Place Lining at Mission Drive**  
**18C0068**

Sealed Bids for the construction of the Project will be received at **110 South State Street, Oscoda, MI 48750** until **[Bid Opening Date]** at **[Bid Opening Time]** local time. At that time, the Bids received will be publicly opened and read.

The Project includes the following Work:

Provide all labor, equipment, materials, incidentals, etc. required to complete the tasks as described in the principal items of work at the Oscoda Township Storm Sewer System in the vicinity of Mission Drive and 8th Street, Oscoda, MI.

Principal items of work include but are not limited to:

120	LF	12" RCP Baseline and Post-Lining video inspections and cleaning
340	LF	15" RCP Baseline and Post-Lining video inspections and cleaning
170	LF	18" RCP Baseline and Post-Lining video inspections and cleaning
4	Ea	12" x 3' CIPP Repairs
3	Ea	15" x 3' CIPP Repairs
1	Ea	170 Ft 18" CIPP using photosetting resin in RCP

Bids will be received for a single prime Contract: **2023 Cured-in-Place Lining at Mission Drive, 18C0068**

The Issuing Office for the Bidding Documents is:

ROWE Professional Services Company  
540 S. Saginaw St., Suite 200, Flint, MI 48502

**Obtaining the Bidding Documents**

Prospective Bidders may examine the Bidding Documents at the Issuing Office on Monday through Friday 8 a.m. to 5 p.m. and may obtain copies of the Bidding Documents from the Issuing Office as described below.

Bidding Documents also may be examined at **Construct Connect; the Builders Exchange of Lansing, Grand Rapids, and Northwest MI**; the office of the **Charter Township of Oscoda, 110 South State Street, Oscoda, MI 48750**, on Monday through Friday during regular business hours; and the office of the Engineer, 540 S. Saginaw Street, Ste 200, Flint, MI 48502 on Monday through Friday during regular business hours.

Drawings, Specifications, and other Contract documents for submitting a bid must be obtained upon application at the office of ROWE Professional Services Company, upon the payment of \$40 per set for prints, or \$30 for portable document format (PDF) files which can be obtained after completing the Request Bid Package form found at [rowepsc.com/visitor-resources/plan-holder](http://rowepsc.com/visitor-resources/plan-holder). There is a 3 percent convenience fee on all credit card fees effective September 1, 2021. The website will be updated periodically with addenda, lists of registered plan holders, and other information relevant to submitting a Bid for the Project. Prints and PDF files may be purchased together for \$60.

Partial sets of Bidding Documents will not be available from the Issuing Office. Plans and specifications will not be mailed/**e-mailed** until payment is received. The non-refundable fee shall be by credit card (Visa, Mastercard, American Express or Discover accepted) or in check form and shall be drawn payable to ROWE Professional Services Company. The Engineer's address is ROWE Professional Services Company, 540 S. Saginaw Street, Ste 200, Flint, MI 48502 and the telephone number is (810) 341-7500. Bidding documents must be purchased from the Engineer. Bids submitted on forms obtained anywhere besides the office of ROWE Professional Services Company will not be accepted. Neither Owner nor Engineer will be responsible for full or partial sets of Bidding Documents, including Addenda if any, obtained from sources other than the Issuing Office.

### **Instructions to Bidders**

Bid security shall be furnished in accordance with the Instructions to Bidders.

**Charter Township of Oscoda**, hereinafter called the Owner, reserves the right to reject any or all Proposals and to waive any formality or technicality in any Proposal in the interest of the Owner.

Owner: **Charter Township of Oscoda**

Date: **Month 2023**

+ + END OF ADVERTISEMENT FOR BIDS + +



# INSTRUCTIONS TO BIDDERS

## ARTICLE 1—DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
- A. *Issuing Office* – The office from which the Bidding Documents are to be issued, and which registers plan holders.

## ARTICLE 2—BIDDING DOCUMENTS

- 2.01 Bidder shall obtain a complete set of Bidding Requirements and proposed Contract Documents (together, the Bidding Documents). See the Agreement for a list of the Contract Documents. It is the Bidder's responsibility to determine that it is using a complete set of documents in the preparation of a Bid. Bidder assumes sole responsibility for errors or misinterpretations resulting from the use of incomplete documents, by Bidder itself or by its prospective Subcontractors and Suppliers.
- 2.02 Bidding Documents are made available for the sole purpose of obtaining Bids for completion of the Project and permission to download or distribution of the Bidding Documents does not confer a license or grant permission or authorization for any other use.
- 2.03 Bidder may register as a plan holder and obtain complete sets of Bidding Documents, in the number and format stated in the Advertisement or invitation to bid, from the Issuing Office. Bidders may rely that sets of Bidding Documents obtained from the Issuing Office are complete, unless an omission is blatant. Registered plan holders will receive Addenda issued by Owner.
- 2.04 Owner is not responsible for omissions in Bidding Documents or other documents obtained from plan rooms, or for a Bidder's failure to obtain Addenda from a plan room.
- 2.05 *Electronic Documents*
- A. When the Bidding Requirements indicate that electronic (digital) copies of the Bidding Documents are available, such documents will be made available to the Bidders as Electronic Documents in the manner specified.
1. Bidding Documents will be provided in Adobe PDF (Portable Document Format) (.pdf) that is readable by Adobe Acrobat Reader. It is the intent of the Engineer and Owner that such Electronic Documents are to be exactly representative of the paper copies of the documents. However, because the Owner and Engineer cannot totally control the transmission and receipt of Electronic Documents nor the Contractor's means of reproduction of such documents, the Owner and Engineer cannot and do not guarantee that Electronic Documents and reproductions prepared from those versions are identical in every manner to the paper copies.
- B. Unless otherwise stated in the Bidding Documents, the Bidder may use and rely upon complete sets of Electronic Documents of the Bidding Documents, described in Paragraph 2.05.A above. However, Bidder assumes all risks associated with differences arising from transmission/receipt of Electronic Documents versions of Bidding Documents and reproductions prepared from those versions and, further, assumes all risks, costs, and responsibility associated with use of the Electronic Documents versions to derive information

that is not explicitly contained in printed paper versions of the documents, and for Bidder's reliance upon such derived information.

### **ARTICLE 3—QUALIFICATIONS OF BIDDERS**

- 3.01 Bidder is to submit the following information with its Bid to demonstrate Bidder's qualifications to perform the Work:
- A. Written evidence establishing its qualifications such as financial data, previous experience, and present commitments.
  - B. Bidder's state or other contractor license number, if applicable.

### **ARTICLE 4—PRE-BID CONFERENCE**

4.01 A pre-bid conference will not be conducted for this Project.

### **ARTICLE 5—SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE**

#### **5.01 *Site and Other Areas***

- A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

#### **5.02 *Existing Site Conditions***

- A. Subsurface and Physical Conditions; Hazardous Environmental Conditions
  1. The Supplementary Conditions identify the following regarding existing conditions at or adjacent to the Site:
    - a. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data.
    - b. Those drawings known to Owner of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data.
    - c. Reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.
    - d. Technical Data contained in such reports and drawings.
  2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.
  3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05 of the General Conditions, and not in the drawings referred to in Paragraph 5.02.A of these Instructions to Bidders. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

### 5.03 *Other Site-related Documents*

- A. *No other Site-related documents are available.*

### 5.04 *Site Visit and Testing by Bidders*

- A. Bidder is required to visit the Site and shall conduct a thorough visual examination of the Site and adjacent areas. During the visit the Bidder must not disturb any ongoing operations at the Site.
- B. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- C. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder general access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site. Bidder is responsible for establishing access needed to reach specific selected test sites.
- D. Bidder must comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- E. Bidder must fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

### 5.05 *Owner's Safety Program*

- A. Site visits and work at the Site may be governed by an Owner safety program. If an Owner safety program exists, it will be noted in the Supplementary Conditions.

### 5.06 *Other Work at the Site*

- A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

## **ARTICLE 6—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS**

### 6.01 *Express Representations and Certifications in Bid Form, Agreement*

- A. The Bid Form that each Bidder will submit contains express representations regarding the Bidder's examination of Project documentation, Site visit, and preparation of the Bid, and certifications regarding lack of collusion or fraud in connection with the Bid. Bidder should

review these representations and certifications, and assure that Bidder can make the representations and certifications in good faith, before executing and submitting its Bid.

- B. If Bidder is awarded the Contract, Bidder (as Contractor) will make similar express representations and certifications when it executes the Agreement.

## **ARTICLE 7—INTERPRETATIONS AND ADDENDA**

- 7.01 Owner on its own initiative may issue Addenda to clarify, correct, supplement, or change the Bidding Documents.
- 7.02 Bidder shall submit all questions about the meaning or intent of the Bidding Documents to Engineer in writing. Contact information and submittal procedures for such questions are as follows:
- A. Email Dave Richmond at [drichmond@rowepsc.com](mailto:drichmond@rowepsc.com).
- 7.03 Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all registered plan holders. Questions received less than seven days prior to the date for opening of Bids may not be answered.
- 7.04 Only responses set forth in an Addendum will be binding. Oral and other interpretations or clarifications will be without legal effect. Responses to questions are not part of the Contract Documents unless set forth in an Addendum that expressly modifies or supplements the Contract Documents.

## **ARTICLE 8—BID SECURITY**

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a Bid bond issued by a surety meeting the requirements of Paragraphs 6.01 of the General Conditions. Such Bid bond will be issued in the form included in the Bidding Documents.
- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract, furnished the required Contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract and furnish the required Contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited, in whole in the case of a penal sum bid bond, and to the extent of Owner's damages in the case of a damages-form bond. Such forfeiture will be Owner's exclusive remedy if Bidder defaults.
- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the Contract or 91 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.
- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within 7 days after the Bid opening.

## **ARTICLE 9—CONTRACT TIMES**

- 9.01 The number of days within which, or the dates by which, the Work is to be (a) substantially completed and (b) ready for final payment, and (c) Milestones (if any) are to be achieved, are set forth in the Agreement.



- 9.02 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

#### **ARTICLE 10—SUBSTITUTE AND “OR-EQUAL” ITEMS**

- 10.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or “or-equal” items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or “or-equal” item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.
- 10.02 All prices that Bidder sets forth in its Bid will be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of “or-equal” or substitution requests are made at Bidder’s sole risk.

#### **ARTICLE 11—SUBCONTRACTORS, SUPPLIERS, AND OTHERS**

- 11.01 A Bidder must be prepared to retain specific Subcontractors and Suppliers for the performance of the Work if required to do so by the Bidding Documents (or in the Specifications). If a prospective Bidder objects to retaining any such Subcontractor or Supplier, and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.
- 11.02 If requested by Owner, such list must be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor or Supplier. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor or Supplier, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder will submit a substitute, Bidder’s Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.
- 11.03 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors and Suppliers. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor or Supplier, so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.07 of the General Conditions.

#### **ARTICLE 12—PREPARATION OF BID**

- 12.01 The Bid Form is included with the Bidding Documents.
- A. All blanks on the Bid Form must be completed in ink and the Bid Form signed in ink. Erasures or alterations must be initialed in ink by the person signing the Bid Form. A Bid price must be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
  - B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words “No Bid” or “Not Applicable.”

- 12.02 If Bidder has obtained the Bidding Documents as Electronic Documents, then Bidder shall prepare its Bid on a paper copy of the Bid Form printed from the Electronic Documents version of the Bidding Documents. The printed copy of the Bid Form must be clearly legible, printed on 8½ inch by 11-inch paper and as closely identical in appearance to the Electronic Document version of the Bid Form as may be practical. The Owner reserves the right to accept Bid Forms which nominally vary in appearance from the original paper version of the Bid Form, providing that all required information and submittals are included with the Bid.
- 12.03 A Bid by a corporation must be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation must be shown.
- 12.04 A Bid by a partnership must be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership must be shown.
- 12.05 A Bid by a limited liability company must be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown.
- 12.06 A Bid by an individual must show the Bidder's name and official address.
- 12.07 A Bid by a joint venture must be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture must have been formally established prior to submittal of a Bid, and the official address of the joint venture must be shown.
- 12.08 All names must be printed in ink below the signatures.
- 12.09 The Bid must contain an acknowledgment of receipt of all Addenda, the numbers of which must be filled in on the Bid Form.
- 12.10 Postal and e-mail addresses and telephone number for communications regarding the Bid must be shown.
- 12.11 The Bid must contain evidence of Bidder's authority to do business in the state where the Project is located, or Bidder must certify in writing that it will obtain such authority within the time for acceptance of Bids and attach such certification to the Bid.
- 12.12 If Bidder is required to be licensed to submit a Bid or perform the Work in the state where the Project is located, the Bid must contain evidence of Bidder's licensure, or Bidder must certify in writing that it will obtain such licensure within the time for acceptance of Bids and attach such certification to the Bid. Bidder's state contractor license number, if any, must also be shown on the Bid Form.

## **ARTICLE 13—BASIS OF BID**

### **13.01 Unit Price**

- A. Bidders must submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.
- B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity", which Owner or its representative has set forth in the Bid Form, for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.

- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

#### 13.02 Allowances

- A. For cash allowances the Bid price must include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the General Conditions.

### ARTICLE 14—SUBMITTAL OF BID

- 14.01 The Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 2 of the Bid Form.
- 14.02 A Bid must be received no later than the date and time prescribed and at the place indicated in the Advertisement or invitation to bid and must be enclosed in a plainly marked package with the Project title, and, if applicable, the designated portion of the Project for which the Bid is submitted, the name and address of Bidder, and must be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid must be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid must be addressed to the location designated in the Advertisement.
- 14.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

### ARTICLE 15—MODIFICATION AND WITHDRAWAL OF BID

- 15.01 An unopened Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 15.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 15.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 15.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, the Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, the Bidder will be disqualified from further bidding on the Work.

### ARTICLE 16—OPENING OF BIDS

- 16.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

## ARTICLE 17—BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 17.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

## ARTICLE 18—EVALUATION OF BIDS AND AWARD OF CONTRACT

- 18.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner also reserves the right to waive all minor Bid informalities not involving price, time, or changes in the Work.
- 18.02 Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible.
- 18.03 If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, whether in the Bid itself or in a separate communication to Owner or Engineer, then Owner will reject the Bid as nonresponsive.
- 18.04 If Owner awards the contract for the Work, such award will be to the responsible Bidder submitting the lowest responsive Bid.
- 18.05 *Evaluation of Bids*
- A. In evaluating Bids, Owner will consider whether the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.
  - B. For the determination of the apparent low Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.
- 18.06 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- 18.07 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

## ARTICLE 19—BONDS AND INSURANCE

- 19.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds, other required bonds (if any), and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by required bonds and insurance documentation.
- 19.02 Article 8, Bid Security, of these Instructions, addresses any requirements for providing bid bonds as part of the bidding process.

## ARTICLE 20—SIGNING OF AGREEMENT

- 20.01 When Owner issues a Notice of Award to the Successful Bidder, it will be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder must execute and



deliver the required number of counterparts of the Agreement and any bonds and insurance documentation required to be delivered by the Contract Documents to Owner. Within 10 days thereafter, Owner will deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.



## BID FORM FOR CONSTRUCTION CONTRACT

### 2023 Cured-in-Place Lining at Mission Drive, Charter Township of Oscoda

18C0068

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

#### ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to:

Charter Township of Oscoda

110 South State Street

Oscoda, MI 48750

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

#### ARTICLE 2—ATTACHMENTS TO THIS BID

2.01 The following documents are submitted with and made a condition of this Bid:

- A. Required Bid security;
- B. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids; and
- C. List of Project References.

#### ARTICLE 3—BASIS OF BID

3.01 Unit Price Bids

A. Bidder will perform the following Work at the indicated unit prices:

Description	Unit	Estimated Quantity	Bid Unit Price	Bid Amount
Maintaining Traffic	1	LSUM	\$	\$
Mobilization, Max 5%	1	LSUM	\$	\$
Pre-CIPP Cleaning	1	LSUM	\$	\$
Video Inspection, Pre and Post Lining	1	LSUM	\$	\$
12" x 3' CIPP Point Repairs	4	Ea	\$	\$
15" x 3' CIPP Point Repairs	3	Ea	\$	\$
18" CIPP Lining - Photo-setting	170	Lft	\$	\$
Total of All Unit Price Bid Items			\$	

**B. Bidder acknowledges that**

1. each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and
2. estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

**ARTICLE 4—TIME OF COMPLETION**

- 4.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 4.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

**ARTICLE 5—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA**

**5.01 Bid Acceptance Period**

- A. This Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

**5.02 Instructions to Bidders**

- A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

**5.03 Receipt of Addenda**

- A. Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date

**ARTICLE 6—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS**

**6.01 Bidder's Representations**

- A. In submitting this Bid, Bidder represents the following :
1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
  2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
  4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, if any, with respect to the Technical Data in such reports and drawings.



5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on a) the cost, progress, and performance of the Work; b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and c) Bidder's (Contractor's) safety precautions and programs.
7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
8. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

#### 6.02 *Bidder's Certifications*

A. The Bidder certifies the following:

1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
3. Bidder has not solicited or induced any individual or entity to refrain from bidding.
4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:
  - a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process
  - b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.

- c. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.
- d. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

BIDDER hereby submits this Bid as set forth above:

Bidder:

\_\_\_\_\_  
(typed or printed name of organization)

By:

\_\_\_\_\_  
(individual's signature)

Name:

\_\_\_\_\_  
(typed or printed)

Title:

\_\_\_\_\_  
(typed or printed)

Date:

\_\_\_\_\_  
(typed or printed)

*If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.*

Attest:

\_\_\_\_\_  
(individual's signature)

Name:

\_\_\_\_\_  
(typed or printed)

Title:

\_\_\_\_\_  
(typed or printed)

Date:

\_\_\_\_\_  
(typed or printed)

Address for giving notices:

\_\_\_\_\_  
\_\_\_\_\_

Bidder's Contact:

Name:

\_\_\_\_\_  
(typed or printed)

Title:

\_\_\_\_\_  
(typed or printed)

Phone:

Email:

Address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Bidder's Contractor License No.: (if applicable)

\_\_\_\_\_





## BID BOND (PENAL SUM FORM)

<b>Bidder</b> Name: [Full formal name of Bidder] Address (principal place of business): [Address of Bidder's principal place of business]	<b>Surety</b> Name: [Full formal name of Surety] Address (principal place of business): [Address of Surety's principal place of business]
<b>Owner</b> Name: Charter Township of Oscoda Address (principal place of business): 110 South State Street Oscoda, MI 48750	<b>Bid</b> Project (name and location): 2023 Cured-in-Place Lining at Mission Drive, Oscoda, MI  Bid Due Date: [Enter date bid is due]
<b>Bond</b> Penal Sum: [Amount] Date of Bond: [Date]	
Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.	
Bidder	Surety
(Full formal name of Bidder)	(Full formal name of Surety) (corporate seal)
By: _____ (Signature)	By: _____ (Signature) (Attach Power of Attorney)
Name: _____ (Printed or typed)	Name: _____ (Printed or typed)
Title: _____	Title: _____
Attest: _____ (Signature)	Attest: _____ (Signature)
Name: _____ (Printed or typed)	Name: _____ (Printed or typed)
Title: _____	Title: _____
Notes: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.	

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond will be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder occurs upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation will be null and void if:
  - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
  - 3.2 All Bids are rejected by Owner, or
  - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions does not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action will be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond will be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder must be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Postal Service registered or certified mail, return receipt requested, postage pre-paid, and will be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond will be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute governs and the remainder of this Bond that is not in conflict therewith continues in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

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**NOTICE OF AWARD**

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Date of Issuance:

Owner: **Charter Township of Oscoda**

Owner's Contract No.:

Engineer: ROWE Professional Services Company

Engineer's Project No.: **18C0068**

Project: **2023 Cured-in-Place Lining at Mission Drive**

Contract Name: **2023 Cured-in-Place Lining at Mission Drive**

Bidder:

Bidder's Address:

**TO BIDDER:**

You are notified that Owner has accepted your Bid dated [ ] for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

*[Describe Work, alternates, or sections of Work awarded]* .

The Contract Price of the awarded Contract is: \$ [ ] [Contract Price is subject to adjustment based on the provisions of the Contract, including but not limited to those governing changes, Unit Price Work, and Work performed on a cost-plus-fee basis, as applicable.]

☐ unexecuted counterparts of the Agreement accompany this Notice of Award, and **one** copy of the Contract Documents accompanies this Notice of Award, or has been transmitted **or made available to Bidder electronically**. *[Revise if multiple copies accompany the Notice of Award]*

☐ Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

1. Deliver to Owner [ ] counterparts of the Agreement, signed by Bidder (as Contractor).
2. Deliver with the signed Agreement(s) the Contract security (such as required performance and payment bonds) and insurance documentation, as specified in the Instructions to Bidders and in the General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any): *None*

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within 10 days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner: \_\_\_\_\_

By (signature): \_\_\_\_\_

Name (printed): \_\_\_\_\_

Title: \_\_\_\_\_

Copy: Engineer





# AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

THIS AGREEMENT is by and between Charter Township of Oscoda ("Owner") and \_\_\_\_\_ ("Contractor").

Terms used in this Agreement have the meanings stated in the General Conditions and the Supplementary Conditions.

Owner and Contractor hereby agree as follows:

## ARTICLE 1 – WORK

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Provide all labor, equipment, materials, incidentals, etc. required to complete the tasks as described in the principal items of work at the Oscoda Township Storm Sewer System in the vicinity of Mission Drive and 8th Street, Oscoda, MI.

## ARTICLE 2 – THE PROJECT

- 2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows:

2023 Cured-in-Place Lining at Mission Drive

## ARTICLE 3 – ENGINEER

- 3.01 The Owner has retained Mr. Rick Freeman, PE, Oscoda Township Engineer to act as Owner's representative, assume all duties and responsibilities of Engineer, and have the rights and authority assigned to Engineer in the Contract. ROWE Professional Services Company will be responsible for construction observation.
- 3.02 The part of the Project that pertains to the Work has been designed by ROWE Professional Services Company

## ARTICLE 4 – CONTRACT TIMES

### 4.01 *Time is of the Essence*

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

### 4.02 *Contract Times: Days*

- A. The Work will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 30 days after the date when the Contract Times commence to run.

### 4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the Contract Times, as duly modified. The parties also

recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner **\$500** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for Substantial Completion until the Work is substantially complete.
  2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner **\$500** for each day that expires after such time until the Work is completed and ready for final payment.
  3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.
- B. If Owner recovers liquidated damages for a delay in completion by Contractor, then such liquidated damages are Owner's sole and exclusive remedy for such delay, and Owner is precluded from recovering any other damages, whether actual, direct, excess, or consequential, for such delay, except for special damages (if any) specified in this Agreement.

## **ARTICLE 5 – CONTRACT PRICE**

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

- A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

## **ARTICLE 6 – PAYMENT PROCEDURES**

### **6.01 Submittal and Processing of Payments**

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

### **6.02 Progress Payments; Retainage**

- A. Owner shall make progress payments on the basis of Contractor's Applications for Payment at **monthly intervals** during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.

- a. **90 percent of the value of the Work completed (with the balance being retainage).**

- 1) If 50 percent or more of the Work has been completed, as determined by Engineer, and if the character and progress of the Work have been satisfactory

to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage.

- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 200 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

#### 6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work, Owner shall pay the remainder of the Contract Price in accordance with Paragraph 15.06 of the General Conditions.

#### 6.04 *Consent of Surety*

- A. Owner will not make final payment, or return or release retainage at Substantial Completion or any other time, unless Contractor submits written consent of the surety to such payment, return, or release.

#### 6.05 *Interest*

- A. All amounts not paid when due will bear interest at the rate of 2 percent per annum.

### **ARTICLE 7 – CONTRACT DOCUMENTS**

#### 7.01 *Contents*

- A. The Contract Documents consist of all of the following:
  - 1. This Agreement.
  - 2. Bonds:
    - a. Performance bond (together with power of attorney ).
    - b. Payment bond (together with power of attorney ).
    - c. \_\_\_ (together with power of attorney).
  - 3. General Conditions.
  - 4. Supplementary Conditions.
  - 5. Specifications as listed in the table of contents of the project manual (copy of list attached).
  - 6. Drawings (not attached but incorporated by reference) consisting of \_\_\_ sheets with each sheet bearing the following general title: \_\_\_ **[or]** the Drawings listed on the attached sheet index.
  - 7. Addenda (numbers \_\_\_ to \_\_, inclusive).
  - 8. Exhibits to this Agreement (enumerated as follows):
    - a. Contractor's Bid.
  - 9. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
    - a. Notice to Proceed.

- b. Work Change Directives.
  - c. Change Orders.
  - d. Field Orders.
  - e. Warranty Bond, if any.
- B. The documents listed in Paragraph 7.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 7.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

## **ARTICLE 8 – REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS**

### **8.01 Contractor's Representations**

- A. In order to induce Owner to enter into this Contract, Contractor makes the following representations:
  - 1. Contractor has examined and carefully studied the Contract Documents.
  - 2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  - 3. Contractor is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
  - 4. Contractor has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, if any, with respect to Technical Data in such reports and drawings.
  - 5. Contractor has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
  - 6. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Technical Data identified in the Supplementary Conditions or by definition, if any, with respect to the effect of such information, observations, and Technical Data on a) the cost, progress, and performance of the Work; b) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and c) Contractor's safety precautions and programs.
  - 7. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.



8. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

#### 8.02 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 8.02:
  1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
  2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
  4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

#### 8.03 *Standard General Conditions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are EJCDC® C-700, Standard General Conditions for the Construction Contract (2018), published by the Engineers Joint Contract Documents Committee, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on \_\_\_\_\_ (which is the Effective Date of the Contract).

Owner:

Charter Township of Oscoda

*(typed or printed name of organization)*

By:

*(individual's signature)*

Date:

*(date signed)*

Name:

*(typed or printed)*

Title:

*(typed or printed)*

Attest:

*(individual's signature)*

Title:

*(typed or printed)*

Name:

*(typed or printed)*

Title:

*(typed or printed)*

Address for giving notices:

110 South State Street

Oscoda, MI 48750

Phone:

Email:

*(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)*

Contractor:

*(typed or printed name of organization)*

By:

*(individual's signature)*

Date:

*(date signed)*

Name:

*(typed or printed)*

Title:

*(typed or printed)*

*(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)*

Attest:

*(individual's signature)*

Title:

*(typed or printed)*

Name:

*(typed or printed)*

Title:

*(typed or printed)*

Address for giving notices:

Phone:

Email:

License No.:

*(where applicable)*

State:

*NOTE TO USER: Use in those states or other jurisdictions where applicable or required.*



## NOTICE TO PROCEED

Owner: Charter Township of Oscoda Owner's Project No.: \_\_\_\_\_  
Engineer: ROWE Professional Services Company Engineer's Project No.: 18C0068  
Contractor: \_\_\_\_\_ Contractor's Project No.: \_\_\_\_\_  
Project: 2023 Cured-in-Place Lining at Mission Drive  
Contract Name: 2023 Cured-in-Place Lining at Mission Drive  
Effective Date of Contract: \_\_\_\_\_

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on \_\_\_\_\_, 20\_\_ pursuant to Paragraph 4.01 of the General Conditions.

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work will be done at the Site prior to such date.

In accordance with the Agreement:

[the number of days to achieve Substantial Completion is [number of days, from Agreement] from the date stated above for the commencement of the Contract Times, resulting in a date for Substantial Completion of [date, calculated from commencement date above], and the number of days to achieve readiness for final payment is [number of days, from Agreement] from the commencement date of the Contract Times, resulting in a date for readiness for final payment of [date, calculated from commencement date above].

Before starting any Work at the Site, Contractor must comply with the following:

Provide a minimum of 72 hours' notice prior to beginning work.

Owner: \_\_\_\_\_  
By (signature): \_\_\_\_\_  
Name (printed): \_\_\_\_\_  
Title: \_\_\_\_\_  
Date Issued: \_\_\_\_\_  
Copy: Engineer



## PERFORMANCE BOND

<b>Contractor</b> Name: [Full formal name of Contractor] Address <i>(principal place of business)</i> : [Address of Contractor's principal place of business]	<b>Surety</b> Name: [Full formal name of Surety] Address <i>(principal place of business)</i> : [Address of Surety's principal place of business]
<b>Owner</b> Name: <b>Charter Township of Oscoda</b> Mailing address <i>(principal place of business)</i> : <b>110 South State Street</b> <b>Oscoda, MI 48750</b>	<b>Contract</b> Description <i>(name and location)</i> : <b>2023 Cured-in-Place Lining at Mission Drive, Oscoda, MI</b>  Contract Price: [Amount from Contract] Effective Date of Contract: [Date from Contract]
<b>Bond</b> Bond Amount: [Amount] Date of Bond: [Date] <i>(Date of Bond cannot be earlier than Effective Date of Contract):</i> Modifications to this Bond Form: <input type="checkbox"/> None <input type="checkbox"/> See Paragraph 16	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
<i>(Full formal name of Contractor)</i>	<i>(Full formal name of Surety) (Corporate seal)</i>
By: _____ <i>(Signature)</i>	By: _____ <i>(Signature)(Attach Power of Attorney)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
Attest: _____ <i>(Signature)</i>	Attest: _____ <i>(Signature)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.</i>	



1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:
  - 3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;
  - 3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
  - 3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.
4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.
5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
  - 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;
  - 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;
  - 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or
  - 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

- 5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
  - 5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.
- 6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.
- 7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:
  - 7.1 The responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
  - 7.2 Additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and
  - 7.3 Liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
- 8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.
- 9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
- 10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
- 11. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.
- 12. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.
- 13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such

statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

14. Definitions

- 14.1 Balance of the Contract Price- The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
  - 14.2 Construction Contract- The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.
  - 14.3 Contractor Default- Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.
  - 14.4 Owner Default- Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
  - 14.5 Contract Documents- All the documents that comprise the agreement between the Owner and Contractor.
15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
16. Modifications to this Bond are as follows: **None.**

## WARRANTY BOND

<b>Contractor</b> Name: <span style="color: #A52A2A;">[Full formal name of Contractor]</span> Address <i>(principal place of business)</i> : [Address of Contractor's principal place of business]	<b>Surety</b> Name:    [Full formal name of Surety] Address <i>(principal place of business)</i> : [Insert address of Surety's principal place of business]
<b>Owner</b> Name: <span style="color: #A52A2A;">Charter Township of Oscoda</span> Address <i>(principal place of business)</i> : <span style="color: #A52A2A;">110 South State Street</span> <span style="color: #A52A2A;">Oscoda, MI 48750</span>	<b>Construction Contract</b> Description <i>(name and location)</i> : <span style="color: #A52A2A;">2023 Cured-in-Place Lining at Mission Drive, Oscoda, MI</span>  Contract Price:    [Amount from Contract] Effective Date of Contract:    [Date from Contract]  Contract's Date of Substantial Completion:    [Date from Contract]
<b>Bond</b> Bond Amount:    [Amount] _____ Date of Bond:    [Date] _____  Modifications to this Bond form: <input type="checkbox"/> None <input type="checkbox"/> See Paragraph 9	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth herein, do each cause this Warranty Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
_____ <i>(Full formal name of Contractor)</i>	_____ <i>(Full formal name of Surety) (corporate seal)</i>
By: _____ <div style="text-align: center;"><i>(Signature)</i></div>	By: _____ <div style="text-align: center;"><i>(Signature) (Attach Power of Attorney)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
Title: _____	Title: _____
Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>	Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
Title: _____	Title: _____
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i>	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract's Correction Period Obligations. The Construction Contract is incorporated herein by reference.
2. If the Contractor performs the Correction Period Obligations, the Surety and the Contractor shall have no obligation under this Warranty Bond.
3. If Owner gives written notice to Contractor and Surety during the Bond Period of Contractor's obligation under the Correction Period Obligations, and Contractor does not fulfill such obligation, then Surety shall be responsible for fulfillment of such Correction Period Obligations. Surety shall either fulfill the Correction Period Obligations itself, through its agents or contractors, or, in the alternative, Surety may waive the right to fulfill the Correction Period Obligations itself, and reimburse the Owner for all resulting costs incurred by Owner in performing Contractor's Correction Period Obligations, including but not limited to correction, removal, replacement, and repair costs.
4. The Surety's liability is limited to the amount of this Warranty Bond. Renewal or continuation of the Warranty Bond will not modify such amount, unless expressly agreed to by Surety in writing.
5. The Surety shall have no liability under this Warranty Bond for obligations of the Contractor that are unrelated to the Construction Contract. No right of action will accrue on this Warranty Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
6. Any proceeding, legal or equitable, under this Warranty Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and must be instituted within **two** years after the Surety refuses or fails to perform its obligations under this Warranty Bond.
7. Written notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown in this Warranty Bond.
8. Definitions
  - 8.1. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page of this Warranty Bond, including all Contract Documents and changes made to the agreement and the Contract Documents.
  - 8.2. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
  - 8.3. *Correction Period Obligations*—The duties, responsibilities, commitments, and obligations of the Contractor with respect to correction or replacement of defective Work, as set forth in the Construction Contract's Correction Period clause, EJCDC® C-700, Standard General Conditions of the Construction Contract (2018), Paragraph 15.08, as duly modified.
  - 8.4. *Substantial Completion*—As defined in the Construction Contract.
  - 8.5. *Work*—As defined in the Construction Contract.
9. Modifications to this Bond are as follows: None



## PAYMENT BOND

<b>Contractor</b> Name: [Full formal name of Contractor] Address (principal place of business): [Address of Contractor's principal place of business]	<b>Surety</b> Name: [Full formal name of Surety] Address (principal place of business): [Address of Surety's principal place of business]
<b>Owner:</b> Name: <b>Charter Township of Oscoda</b> Mailing address (principal place of business): <b>110 South State Street</b> <b>Oscoda, MI 48750</b>	<b>Contract</b> Description (name and location): <b>2023 Cured-in-Place Lining at Mission Drive, Oscoda, MI</b>  Contract Price: [Amount, from Contract] Effective Date of Contract: [Date, from Contract]
<b>Bond</b> Bond Amount: [Amount] Date of Bond: [Date] <i>(Date of Bond cannot earlier than Effective Date of Contract)</i> Modifications to this Bond Form: <input type="checkbox"/> None <input type="checkbox"/> See Paragraph 18	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.	
<b>Contractor as Principal</b>	<b>Surety</b>
<i>(Full formal name of Contractor)</i>	<i>(Full formal name of Surety) (corporate seal)</i>
By: _____ <div style="text-align: center;"><i>(Signature)</i></div>	By: _____ <div style="text-align: center;"><i>(Signature)(Attach Power of Attorney)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
Title: _____	Title: _____
Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>	Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
Title: _____	Title: _____
Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond will arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond will arise after the following:
  - 5.1 Claimants who do not have a direct contract with the Contractor
    - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
    - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
  - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
  - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
  - 7.2 Pay or arrange for payment of any undisputed amounts.
  - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 will not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond will be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. Definitions
  - 16.1 *Claim*- A written statement by the Claimant including at a minimum:
    - 16.1.1. The name of the Claimant;
    - 16.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;
    - 16.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
    - 16.1.4. A brief description of the labor, materials, or equipment furnished;

- 16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
  - 16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
  - 16.1.7. The total amount of previous payments received by the Claimant; and
  - 16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.
- 16.2 *Claimant*- An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 16.3 *Construction Contract*- The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
- 16.4 *Owner Default*- Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 16.5 *Contract Documents*- All the documents that comprise the agreement between the Owner and Contractor.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
18. Modifications to this Bond are as follows: **None.**

**Contractor's Application for Payment**

<b>Owner:</b> _____ <b>Engineer:</b> _____ <b>Contractor:</b> _____ <b>Project:</b> _____ <b>Contract:</b> _____	<b>Owner's Project No.:</b> _____ <b>Engineer's Project No.:</b> _____ <b>Contractor's Project No.:</b> _____
<b>Application No.:</b> _____ <b>Application Date:</b> _____	
<b>Application Period:</b> From _____ to _____	

1. Original Contract Price	\$	-
2. Net change by Change Orders	\$	-
3. Current Contract Price (Line 1 + Line 2)	\$	-
4. Total Work completed and materials stored to date (Sum of Column G Lump Sum Total and Column J Unit Price Total)	\$	-
5. Retainage		
a. _____ X \$ _____ Work Completed =	\$	-
b. _____ X \$ _____ Stored Materials =	\$	-
c. Total Retainage (Line 5.a + Line 5.b)	\$	-
6. Amount eligible to date (Line 4 - Line 5.c)	\$	-
7. Less previous payments (Line 6 from prior application)		
8. Amount due this application	\$	-
9. Balance to finish, including retainage (Line 3 - Line 4 + Line 5.c)	\$	-

**Contractor's Certification**

The undersigned Contractor certifies, to the best of its knowledge, the following:

- (1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;
- (2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such liens, security interest, or encumbrances); and
- (3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

**Contractor:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Recommended by Engineer**

**By:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Approved by Funding Agency**

**By:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Approved by Owner**

**By:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Date:** \_\_\_\_\_





## CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner:

Owner's Project No.:

Engineer:

Engineer's Project No.:

Contractor:

Contractor's Project No.:

Project:

Contract Name:

---

This ☐ Preliminary ☐ Final Certificate of Substantial Completion applies to:

☐ All Work ☐ The following specified portions of the Work:

[Describe the portion of the work for which Certificate of Substantial Completion is issued]

Date of Substantial Completion: [Enter date, as determined by Engineer]

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work must be as provided in the Contract, except as amended as follows:

Amendments to Owner's responsibilities: ☐ None ☐ As follows

[List amendments to Owner's Responsibilities]

Amendments to Contractor's responsibilities: ☐ None ☐ As follows:

[List amendments to Contractor's Responsibilities]

The following documents are attached to and made a part of this Certificate:

[List attachments such as punch list; other documents]

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Engineer

By (signature): \_\_\_\_\_

Name (printed): \_\_\_\_\_

Title: \_\_\_\_\_



This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

## STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared By



Endorsed By



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# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

## ARTICLE 1—DEFINITIONS AND TERMINOLOGY

### 1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
  2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
  3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
  4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  5. *Bidder*—An individual or entity that submits a Bid to Owner.
  6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
  7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
  8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
  9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
  10. *Claim*
    - a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the

- requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.
- b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
  - c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
  - d. A demand for money or services by a third party is not a Claim.
11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the

recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

- 22. *Engineer*—The individual or entity named as such in the Agreement.
- 23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
- 24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
  - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
  - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
  - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
- 25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
- 26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
- 27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
- 28. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
- 29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
- 30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
- 31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.
- 32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals.
36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
42. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion of such Work.



43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
46. *Technical Data*
- a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
  - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
  - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. *Unit Price Work*—Work to be paid for on the basis of unit prices.
49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

## 1.02 Terminology

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:* The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:* The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:* The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
  - 1. does not conform to the Contract Documents;
  - 2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
  - 3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).
- E. *Furnish, Install, Perform, Provide*
  - 1. The word “furnish,” when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
  - 2. The word “install,” when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
  - 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.
  - 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## **ARTICLE 2—PRELIMINARY MATTERS**

### **2.01 *Delivery of Performance and Payment Bonds; Evidence of Insurance***

- A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. *Evidence of Owner’s Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

### **2.02 *Copies of Documents***

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

### **2.03 *Before Starting Construction***

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:
  - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
  - 2. a preliminary Schedule of Submittals; and
  - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work

into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.
  - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
  - 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
  - 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.
  - 4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

## ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

### 3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- G. Nothing in the Contract Documents creates:
  - 1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
  - 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

### 3.02 *Reference Standards*

- A. *Standards Specifications, Codes, Laws and Regulations*
  - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
  - 2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility



inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

### 3.03 *Reporting and Resolving Discrepancies*

#### A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

#### B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
  - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
  - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

### 3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

### 3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
  - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
  - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

## **ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK**

### 4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

### 4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

### 4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the

established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

#### 4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
  - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
  - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

#### 4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
  - 1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
  - 2. Abnormal weather conditions;
  - 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
  - 4. Acts of war or terrorism.

- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
  2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
  3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
1. The circumstances that form the basis for the requested adjustment;
  2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
  3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
  4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
  5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.
- Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.
- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

## **ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS**

### **5.01 *Availability of Lands***

- A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

## 5.02 *Use of Site and Other Areas*

### A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
  2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.
  - C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment



and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

### 5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
3. Technical Data contained in such reports and drawings.

- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

- C. *Reliance by Contractor on Technical Data:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

- D. *Limitations of Other Data and Documents:* Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
  1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
  2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
  3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
  4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

#### 5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
  2. is of such a nature as to require a change in the Drawings or Specifications;
  3. differs materially from that shown or indicated in the Contract Documents; or
  4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- E. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in

Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
  - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
  - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
    - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
    - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
    - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
  3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
  4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions:* Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

#### 5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
  2. complying with applicable state and local utility damage prevention Laws and Regulations;

3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
  4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
  5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
  2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
  3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
  4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- F. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
  - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
  - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
  3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
  4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

#### 5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures



- of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
  3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

## **ARTICLE 6—BONDS AND INSURANCE**

### **6.01 *Performance, Payment, and Other Bonds***

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or

Regulations, and must be issued and signed by a surety named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner’s termination rights under Article 16.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

#### 6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Alternative forms of insurance coverage, including but not limited to self-insurance and “Occupational Accident and Excess Employer’s Indemnity Policies,” are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by

Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.

- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
- F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
- H. Contractor shall require:
  - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
  - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
- K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 *Contractor's Insurance*

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
  - 1. include at least the specific coverages required;
  - 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
  - 3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
  - 4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
  - 5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
  - 1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
  - 2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
  - 3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);



4. not seek contribution from insurance maintained by the additional insured; and
5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
  2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

**ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES**

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.

- B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.
- C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

#### 7.04 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

#### 7.05 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
  - 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
    - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
      - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
  - 3) has a proven record of performance and availability of responsive service; and
  - 4) is not objectionable to Owner.
- b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
    - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
    - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

#### 7.06 Substitutes

- A. *Contractor's Request; Governing Criteria*: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
  2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.



3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
  - a. will certify that the proposed substitute item will:
    - 1) perform adequately the functions and achieve the results called for by the general design;
    - 2) be similar in substance to the item specified; and
    - 3) be suited to the same use as the item specified.
  - b. will state:
    - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
    - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
    - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
  - c. will identify:
    - 1) all variations of the proposed substitute item from the item specified; and
    - 2) available engineering, sales, maintenance, repair, and replacement services.
  - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

**7.08**    *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

#### 7.09 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

#### 7.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

#### 7.11 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

#### 7.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

### 7.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
  - 1. all persons on the Site or who may be affected by the Work;
  - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.



- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

- 1. Before submitting a Shop Drawing or Sample, Contractor shall:
  - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
  - b. determine and verify:
    - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
    - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
    - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
  - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
- 2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
1. *Shop Drawings*
    - a. Contractor shall submit the number of copies required in the Specifications.
    - b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.
  2. *Samples*
    - a. Contractor shall submit the number of Samples required in the Specifications.
    - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.
  3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Engineer's Review of Shop Drawings and Samples*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
  2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
  3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
  4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will

document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

*D. Resubmittal Procedures for Shop Drawings and Samples*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

*E. Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs*

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
  - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
  - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
  - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

- d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
- 2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.
- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

**7.17 Contractor's General Warranty and Guarantee**

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
  - 1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
  - 2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
  - 1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
  - 2. normal wear and tear under normal usage.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
  - 1. Observations by Engineer;
  - 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
  - 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
  - 4. Use or occupancy of the Work or any part thereof by Owner;
  - 5. Any review and approval of a Shop Drawing or Sample submittal;
  - 6. The issuance of a notice of acceptability by Engineer;
  - 7. The end of the correction period established in Paragraph 15.08;
  - 8. Any inspection, test, or approval by others; or

9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

**7.18 Indemnification**

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

**7.19 Delegation of Professional Design Services**

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.



- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
  - 1. Checking for conformance with the requirements of this Paragraph 7.19;
  - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
  - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

## **ARTICLE 8—OTHER WORK AT THE SITE**

### **8.01 *Other Work***

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

#### 8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
  - 1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
  - 2. An itemization of the specific matters to be covered by such authority and responsibility; and
  - 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

#### 8.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
  - 1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
  - 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

## **ARTICLE 9—OWNER'S RESPONSIBILITIES**

### **9.01    *Communications to Contractor***

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

### **9.02    *Replacement of Engineer***

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

### **9.03    *Furnish Data***

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

### **9.04    *Pay When Due***

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

## ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

### 10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

### 10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

### 10.03 *Resident Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.
- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

### 10.04 *Engineer's Authority*

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.



E. Engineer's authority as to Applications for Payment is set forth in Article 15.

**10.05 *Determinations for Unit Price Work***

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

**10.06 *Decisions on Requirements of Contract Documents and Acceptability of Work***

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

**10.07 *Limitations on Engineer's Authority and Responsibilities***

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

**10.08 *Compliance with Safety Program***

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

## **ARTICLE 11—CHANGES TO THE CONTRACT**

### **11.01 *Amending and Supplementing the Contract***

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

### **11.02 *Change Orders***

- A. Owner and Contractor shall execute appropriate Change Orders covering:
  - 1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
  - 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
  - 3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
  - 4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

### **11.03 *Work Change Directives***

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

- B. If Owner has issued a Work Change Directive and:
  - 1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
  - 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

#### 11.04 *Field Orders*

- A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.
- B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

#### 11.05 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

#### 11.06 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

#### 11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:

1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
  2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
  3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee:* When applicable, the Contractor's fee for overhead and profit will be determined as follows:
1. A mutually acceptable fixed fee; or
  2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
    - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
    - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;
    - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
    - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
    - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
    - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

#### 11.08 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

#### 11.09 *Change Proposals*

- A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.
- B. *Change Proposal Procedures*
  - 1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
  - 2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
    - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
    - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

- 3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
- 4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change



Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. *Binding Decision*: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

#### 11.10 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

### ARTICLE 12—CLAIMS

#### 12.01 *Claims*

- A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
  1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
  2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
  3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
  4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge

and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

- C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
  - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
  - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
  - 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

## **ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

### **13.01 *Cost of the Work***

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
  - 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.
  2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.
  3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
  4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
  5. Other costs consisting of the following:
    - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
    - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are

consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

- 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

- 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
  - 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
  - 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.
- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
  - h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
  - i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.
- C. *Costs Excluded:* The term Cost of the Work does not include any of the following items:
  - 1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
  - 2. The cost of purchasing, renting, or furnishing small tools and hand tools.
  - 3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
  - 4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
  - 5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
  - 6. Expenses incurred in preparing and advancing Claims.
  - 7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.
- D. *Contractor's Fee*
  - 1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
    - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
    - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
      - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
      - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
  - 2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change



Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

- E. *Documentation and Audit:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

### 13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:* Contractor agrees that:
1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
  2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.
- C. *Owner's Contingency Allowance:* Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

### 13.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision

thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
  - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
  - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

**ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK**

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
  2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
  3. by manufacturers of equipment furnished under the Contract Documents;
  4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
  5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

#### 14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,

losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

#### 14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

#### 14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
  - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
  - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

#### 14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work,

or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

**14.07 Owner May Correct Defective Work**

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

**ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD**

**15.01 Progress Payments**

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments*
  - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
  - 2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation



establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

*C. Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
  - a. the Work has progressed to the point indicated;
  - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
  - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
  - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
  - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
  - a. to supervise, direct, or control the Work;
  - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
  - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
  - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
  - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
  - a. the Work is defective, requiring correction or replacement;
  - b. the Contract Price has been reduced by Change Orders;
  - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
  - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
  - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

**D. *Payment Becomes Due***

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

**E. *Reductions in Payment by Owner***

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
  - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

- b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
  - c. Contractor has failed to provide and maintain required bonds or insurance;
  - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
  - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
  - f. The Work is defective, requiring correction or replacement;
  - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
  - h. The Contract Price has been reduced by Change Orders;
  - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
  - j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
  - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
  - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
  3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

#### 15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

#### 15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

#### 15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without

significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.
2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

#### 15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

#### 15.06 *Final Payment*

##### A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
  - a. all documentation called for in the Contract Documents;
  - b. consent of the surety, if any, to final payment;
  - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.



- d. a list of all duly pending Change Proposals and Claims; and
  - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
- 3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.
- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

#### 15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

#### 15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
  - 1. correct the defective repairs to the Site or such adjacent areas;
  - 2. correct such defective Work;
  - 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
  - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

## **ARTICLE 16—SUSPENSION OF WORK AND TERMINATION**

### **16.01 *Owner May Suspend Work***

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

### **16.02 *Owner May Terminate for Cause***

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
  2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
  3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
  4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
  2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,

attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

#### 16.03 *Owner May Terminate for Convenience*

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
  - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
  - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
  - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

#### 16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The

provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

## **ARTICLE 17—FINAL RESOLUTION OF DISPUTES**

### **17.01 *Methods and Procedures***

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this article:
  - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
  - 2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this article, Owner or Contractor may:
  - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
  - 2. agree with the other party to submit the dispute to another dispute resolution process; or
  - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

## **ARTICLE 18—MISCELLANEOUS**

### **18.01 *Giving Notice***

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
  - 1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
  - 2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
  - 3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

### **18.02 *Computation of Times***

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.



18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.09 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

18.10 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

## Supplementary Conditions

These Supplementary Conditions amend or supplement EJCDC® C 700 Standard General Conditions of the Construction Contract, (2018). The General Conditions remain in full force and effect except as amended.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added—for example, "Paragraph SC 4.05."

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## ARTICLE 1—DEFINITIONS AND TERMINOLOGY

No suggested Supplementary Conditions in this Article.

## ARTICLE 2—PRELIMINARY MATTERS

### 2.06 *Electronic Transmittals*

SC-2.06 Supplement Paragraph 2.06 of the General Conditions by adding the following paragraph:

D. *Requests by Contractor for Electronic Documents in Other Formats*

1. Release of any Electronic Document versions of the Project documents in formats other than those identified in the Electronic Documents Protocol (if any) or elsewhere in the Contract will be at the sole discretion of the Owner.
2. To extent determined by Owner, in its sole discretion, to be prudent and necessary, release of Electronic Documents versions of Project documents and other Project information requested by Contractor ("Request") in formats other than those identified in the Electronic Documents Protocol (if any) or elsewhere in the Contract will be subject to the provisions of the Owner's response to the Request, and to the following conditions to which Contractor agrees:
  - a. The content included in the Electronic Documents created by Engineer and covered by the Request was prepared by Engineer as an internal working document for Engineer's purposes solely, and is being provided to Contractor on an "AS IS" basis without any warranties of any kind, including, but not limited to any implied warranties of fitness for any purpose. As such, Contractor is advised and acknowledges that the content may not be suitable for Contractor's application, or may require substantial modification and independent verification by Contractor. The content may include limited resolution of models, not-to-scale schematic representations and symbols, use of notes to convey design concepts in lieu of accurate graphics, approximations, graphical simplifications, undocumented intermediate revisions, and other devices that may affect subsequent reuse.
  - b. Electronic Documents containing text, graphics, metadata, or other types of data that are provided by Engineer to Contractor under the request are only for convenience of Contractor. Any conclusion or information obtained or derived

from such data will be at the Contractor's sole risk and the Contractor waives any claims against Engineer or Owner arising from use of data in Electronic Documents covered by the Request.

- c. Contractor shall indemnify and hold harmless Owner and Engineer and their subconsultants from all claims, damages, losses, and expenses, including attorneys' fees and defense costs arising out of or resulting from Contractor's use, adaptation, or distribution of any Electronic Documents provided under the Request.
- d. Contractor agrees not to sell, copy, transfer, forward, give away or otherwise distribute this information (in source or modified file format) to any third party without the direct written authorization of Engineer, unless to Contractor's subcontractors. Contractor warrants that subsequent use by Contractor's subcontractors complies with all terms of the Contract Documents and Owner's response to Request.

### **ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE**

#### **3.01 Intent**

SC-3.01 Delete Paragraph 3.01.C in its entirety.

#### **SC-3.03 Reporting and Resolving Discrepancies**

SC-3.03.B Add the following paragraph immediately after Paragraph 3.03.B.1.b

- c. In the event of a conflict between two or more sections of the Contract Documents prepared by the Engineer, the contract requirements will be defined by the provisions of these sections in the following order of precedence:
  - Addenda (in descending order)
  - Drawings
  - Specifications.

### **ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK**

No suggested Supplementary Conditions in this Article.

### **ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS**

#### **SC-5.03 Subsurface and Physical Conditions**

SC-5.03 Add the following new paragraphs immediately after Paragraph 5.03.D:

- E. The following table lists the reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data, and specifically identifies the Technical Data in the report upon which the Contractor may rely:

Report Title	Date of Report	Technical Data
N/A	N/A	None

- F. The following table lists the drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data, and specifically identifies the Technical Data upon which Contractor may rely:

Drawings Title	Date of Drawings	Technical Data
N/A	N/A	None

SC-5.06 *Hazardous Environmental Conditions at Site*

SC-5.06 Add the following new paragraphs immediately after 5.06.A.3:

4. The following table lists the reports known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and the Technical Data (if any) upon which Contractor may rely:

Report Title	Date of Report	Technical Data
N/A	N/A	None

5. The following table lists the drawings known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and Technical Data (if any) contained in such Drawings upon which Contractor may rely:

Drawings Title	Date of Drawings	Technical Data
N/A	N/A	None

**ARTICLE 6—BONDS AND INSURANCE**

SC-6.01 *Performance, Payment, and Other Bonds*

SC-6.01 Add the following paragraphs immediately after Paragraph 6.01.A:

1. *Required Performance Bond Form:* The performance bond that Contractor furnishes will be in the form of EJCDC® C-610, Performance Bond (2010, 2013, or 2018 edition).
2. *Required Payment Bond Form:* The payment bond that Contractor furnishes will be in the form of EJCDC® C-615, Payment Bond (2010, 2013, or 2018 edition).

SC-6.01 Add the following paragraphs immediately after Paragraph 6.01.B:

1. After Substantial Completion, Contractor shall furnish a warranty bond issued in the form of EJCDC® C-612, Warranty Bond (2018). The warranty bond must be in a bond amount of **the total as-bid** Contract Price. The warranty bond period will extend to a date **1** years after Substantial Completion of the Work. Contractor shall deliver the fully executed warranty bond to Owner prior to or with the final application for payment, and in any event no later than 11 months after Substantial Completion.
2. The warranty bond must be issued by the same surety that issues the performance bond required under Paragraph 6.01.A of the General Conditions.

SC-6.02 *Insurance—General Provisions*

SC-6.02 Add the following paragraph immediately after Paragraph 6.02.B:

1. Contractor may obtain worker's compensation insurance from an insurance company that has not been rated by A.M. Best, provided that such company (a) is domiciled in

the state in which the project is located, (b) is certified or authorized as a worker's compensation insurance provider by the appropriate state agency, and (c) has been accepted to provide worker's compensation insurance for similar projects by the state within the last 12 months.

**SC-6.03 Contractor's Insurance**

**SC-6.03** Supplement Paragraph 6.03 with the following provisions after Paragraph 6.03.C:

- D. *Other Additional Insureds:* As a supplement to the provisions of Paragraph 6.03.C of the General Conditions, the commercial general liability, automobile liability, umbrella or excess, pollution liability, and/or unmanned aerial vehicle liability policies must include as additional insureds (in addition to Owner and Engineer) the following: **The Contractor's liability policy and the State of Michigan, Michigan Transportation Commission, Iosco County Road Commission, and governmental bodies performing permit activities under a maintenance contract, and all officers, agents and employees of all the above, for claims arising out of, under, or by reason of operations covered by the permit issued to the permittee.**
- E. *Workers' Compensation and Employer's Liability:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance, including, as applicable, United States Longshoreman and Harbor Workers' Compensation Act, Jones Act, stop-gap employer's liability coverage for monopolistic states, and foreign voluntary workers' compensation (from available sources, notwithstanding the jurisdictional requirement of Paragraph 6.02.B of the General Conditions).

<b>Workers' Compensation and Related Policies</b>	<b>Policy limits of not less than:</b>
<b>Workers' Compensation</b>	
State	Statutory
Applicable Federal (e.g., Longshoreman's)	Statutory
Foreign voluntary workers' compensation (employer's responsibility coverage), if applicable	Statutory
<b>Jones Act (if applicable)</b>	
Bodily injury by accident—each accident	\$1,000,000
Bodily injury by disease—aggregate	\$1,000,000
<b>Employer's Liability</b>	
Each accident	\$1,000,000
Each employee	\$1,000,000
Policy limit	\$1,000,000
<b>Stop-gap Liability Coverage</b>	
For work performed in monopolistic states, stop-gap liability coverage must be endorsed to either the worker's compensation or commercial general liability policy with a minimum limit of:	\$1,000,000

- F. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:
1. damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees,

2. damages insured by reasonably available personal injury liability coverage, and
  3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- G. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage.
    - a. Such insurance must be maintained for three years after final payment.
    - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
  2. Blanket contractual liability coverage, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
  3. Severability of interests and no insured-versus-insured or cross-liability exclusions.
  4. Underground, explosion, and collapse coverage.
  5. Personal injury coverage.
  6. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.
  7. For design professional additional insureds, ISO Endorsement CG 20 32 07 04 "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- H. *Commercial General Liability—Excluded Content:* The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, must not include any of the following:
1. Any modification of the standard definition of "insured contract" (except to delete the railroad protective liability exclusion if Contractor is required to indemnify a railroad or others with respect to Work within 50 feet of railroad property).
  2. Any exclusion for water intrusion or water damage.
  3. Any provisions resulting in the erosion of insurance limits by defense costs other than those already incorporated in ISO form CG 00 01.
  4. Any exclusion of coverage relating to earth subsidence or movement.
  5. Any exclusion for the insured's vicarious liability, strict liability, or statutory liability (other than worker's compensation).
  6. Any limitation or exclusion based on the nature of Contractor's work.



7. Any professional liability exclusion broader in effect than the most recent edition of ISO form CG 22 79.

I. *Commercial General Liability—Minimum Policy Limits*

<b>Commercial General Liability</b>	<b>Policy limits of not less than:</b>
General Aggregate	\$2,000,000
Products—Completed Operations Aggregate	\$2,000,000
Personal and Advertising Injury	\$1,000,000
Bodily Injury and Property Damage—Each Occurrence	\$1,000,000

- J. *Automobile Liability:* Contractor shall purchase and maintain automobile liability insurance for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy must be written on an occurrence basis.

<b>Automobile Liability</b>	<b>Policy limits of not less than:</b>
<b>Bodily Injury</b>	
Each Person	\$500,000
Each Accident	\$500,000
<b>Property Damage</b>	
Each Accident	\$250,000
<b>[or]</b>	
<b>Combined Single Limit</b>	
Combined Single Limit (Bodily Injury and Property Damage)	\$1,000,000

- K. *Umbrella or Excess Liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the Paragraphs above. The coverage afforded must be at least as broad as that of each and every one of the underlying policies.

<b>Excess or Umbrella Liability</b>	<b>Policy limits of not less than:</b>
Each Occurrence	\$5,000,000
General Aggregate	\$5,000,000

- L. *Using Umbrella or Excess Liability Insurance to Meet CGL and Other Policy Limit Requirements:* Contractor may meet the policy limits specified for employer's liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policy's policy limits and partial attribution of the policy limits of an umbrella or excess liability policy that is at least as broad in coverage as that of the underlying policy, as specified herein. If such umbrella or excess liability policy was required under this Contract, at a specified minimum policy limit, such umbrella or excess policy must retain a minimum limit of \$5,000,000 after accounting for partial attribution of its limits to underlying policies, as allowed above.

- M. *Contractor's Pollution Liability Insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage, including cleanup costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance must be maintained for no less than three years after final completion.

<b>Contractor's Pollution Liability</b>	<b>Policy limits of not less than:</b>
Each Occurrence/Claim	\$2,000,000
General Aggregate	\$4,000,000

- N. *Contractor's Professional Liability Insurance:* If Contractor will provide or furnish professional services under this *Contract*, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance must cover negligent acts, errors, or omissions in the performance of professional design or related services by the insured or others for whom the insured is legally liable. The insurance must be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. The retroactive date on the policy must pre-date the commencement of furnishing services on the Project.

<b>Contractor's Professional Liability</b>	<b>Policy limits of not less than:</b>
Each Claim	\$2,000,000
Annual Aggregate	\$4,000,000

#### 6.04 *Builder's Risk and Other Property Insurance*

SC-6.04 Delete Paragraph 6.04.A in its entirety.

### ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

SC-7.03 *Labor; Working Hours*

SC-7.03 Delete Paragraph 7.03.C in its entirety, and insert the following:

- B. In the absence of any Laws or Regulations to the contrary, Contractor may perform the Work between 7:00 A.M. and 7:00 P.M. any day other than Sunday or the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Eve and Christmas Day. Work is not permitted on Sundays or the listed holidays.

### ARTICLE 8—OTHER WORK AT THE SITE

No suggested Supplementary Conditions in this Article.

## ARTICLE 9 – OWNER’S RESPONSIBILITIES

### SC-9.13 *Owner’s Site Representative*

SC-9.13 Add the following new paragraph immediately after Paragraph 9.12 of the General Conditions:

- A. Owner will furnish an “Owner’s Site Representative” to represent Owner at the Site and assist Owner in observing the progress and quality of the Work. The Owner’s Site Representative is not Engineer’s consultant, agent, or employee. Owner’s Site Representative will be Mr. Rick Freeman, PE, Oscoda Township Engineer. The authority and responsibilities of Owner’s Site Representative follow: *make decisions regarding the project, as needed.*

## ARTICLE 10 – ENGINEER’S STATUS DURING CONSTRUCTION

### SC-10.03 *Resident Project Representative*

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.B:

- C. The Resident Project Representative (RPR) will be Engineer's representative at the Site. RPR's dealings in matters pertaining to the Work in general will be with Engineer and Contractor. RPR's dealings with Subcontractors will only be through or with the full knowledge or approval of Contractor. The RPR will:
  1. RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.
  2. Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.
  3. Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings (but not including Contractor’s safety meetings), and as appropriate prepare and circulate copies of minutes thereof.
  4. Safety Compliance: Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR’s own personal safety while at the Site.
  5. Liaison
    - a. Serve as Engineer’s liaison with Contractor. Working principally through Contractor’s authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
    - b. Assist Engineer in serving as Owner’s liaison with Contractor when Contractor’s operations affect Owner’s on-Site operations.
    - c. Assist in obtaining from Owner additional details or information, when required for Contractor’s proper execution of the Work.

6. Review of Work; Defective Work
  - a. Conduct on-Site observations of the work to assist Engineer in determining, to the extent set forth in Paragraph 10.02, if the Work is in general proceeding in accordance with the Contract Documents.
  - b. Observe whether any Work in place appears to be defective.
  - c. Observe whether any Work in place should be uncovered for observation, or requires special testing, inspection or approval.
7. Interpretation of Contract Documents: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
8. Inspections, Tests, and System Start-ups:
  - a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
  - b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.
9. Shop Drawings and Samples:
  - a. Record date of receipt of Samples and Contractor-approved Shop Drawings.
  - b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
  - c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.
10. Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, if any, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.
11. Payment Requests: Review Applications for Payment with Contractor.
12. Records:
  - a. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.
  - b. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
  - c. Maintain records for use in preparing Project documentation.

13. Reports:

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the Progress Schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, force majeure or delay events, damage to property by fire or other causes, or the discovery of any Constituent of Concern or Hazardous Environmental Condition.

14. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

15. Completion

- a. Participate in Engineer's visits regarding Substantial Completion.
- b. Assist in the preparation of a punch list of items to be completed or corrected.
- c. Participate in Engineer's visit to the Site in the company of Owner and Contractor regarding completion of the Work, and prepare a final punch list of items to be completed or corrected by Contractor.
- d. Observe whether items on the final punch list have been completed or corrected.

D. The RPR will not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction.
5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Authorize Owner to occupy the Project in whole or in part.

## ARTICLE 11 – CHANGES TO THE CONTRACT

No suggested Supplementary Conditions in this Article.

## ARTICLE 12 – CLAIMS

No suggested Supplementary Conditions in this Article.

## ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

### SC-13.01 *Cost of the Work*

SC 13.01 Supplement Paragraph 13.01.B.5.c.(2) by adding the following sentence:

The equipment rental rate book that governs the included costs for the rental of machinery and equipment owned by Contractor (or a related entity) under the Cost of the Work provisions of this Contract is the most current edition of “*Rental Rate Blue Book for Construction Equipment, Volumes 1, 2, and 3*” by Equipment Watch, Inc.

SC 13.01 Supplement Paragraph 13.01.C.2 by adding the following definition of small tools and hand tools:

- a. For purposes of this paragraph, “small tools and hand tools” means any tool or equipment whose current price if it were purchased new at retail would be less than \$500.

### SC-13.03 *Unit Price Work*

SC 13.03.E Delete Paragraph 13.03.E in its entirety and insert the following in its place:

#### E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
  - a. the extended price of a particular item of Unit Price Work amounts to 10 percent or more of the Contract Price (based on estimated quantities at the time of Contract formation) and the variation in the quantity of that particular item of Unit Price Work actually furnished or performed by Contractor differs by more than 25 percent from the estimated quantity of such item indicated in the Agreement; and
  - b. Contractor’s unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor’s costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

## ARTICLE 14 –TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

No suggested Supplementary Conditions in this Article.



## **ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD**

### **SC-15.01**    *Progress Payments*

SC 15.01.D Delete Section 15.01.D and replace with the following:

- D. The amount recommended for payment to the Contractor is due 30 days after approval by the Owner, except where the Owner is receiving funds from a federal or state funding program. Where funds for payment are provided by a federal or state funding program, the recommended payment to the Contractor is due 30 days after approval by the Owner or ten days following receipt of funds from the federal or state funding program, whichever is later. Where only a portion of the funding is provided by federal or state funding programs, the Owner is not required to make a partial payment to the Contractor in advance of receipt of funds from the federal or state program.

SC-15.01 Add the following new Paragraph 15.01.E:

- F. For contracts in which the Contract Price is based on the Cost of Work, if Owner determines that progress payments made to date substantially exceed the actual progress of the Work (as measured by reference to the Schedule of Values), or present a potential conflict with the Guaranteed Maximum Price, then Owner may require that Contractor prepare and submit a plan for the remaining anticipated Applications for Payment that will bring payments and progress into closer alignment and take into account the Guaranteed Maximum Price (if any), through reductions in billings, increases in retainage, or other equitable measures. Owner will review the plan, discuss any necessary modifications, and implement the plan as modified for all remaining Applications for Payment.

### **SC-15.03**    *Substantial Completion*

SC 15.03 Add the following new subparagraph to Paragraph 15.03.B:

- 1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, will be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under this Article 15.

## **ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION**

No suggested Supplementary Conditions in this Article.

## **ARTICLE 17 – FINAL RESOLUTION OF DISPUTES**

### **SC-17.02**    *Arbitration*

SC-17.02 Add the following new paragraphs immediately after Paragraph 17.01.

### **SC-17.02**    *Arbitration*

- A. All matters subject to final resolution under this Article will be settled by arbitration administered by the American Arbitration Association in accordance with its Construction

Industry Arbitration Rules (subject to the conditions and limitations of this Paragraph SC 17.02). Any controversy or claim in the amount of \$100,000 or less will be settled in accordance with the American Arbitration Association's supplemental rules for Fixed Time and Cost Construction Arbitration. This agreement to arbitrate will be specifically enforceable under the prevailing law of any court having jurisdiction.

- B. The demand for arbitration will be filed in writing with the other party to the Contract and with the selected arbitration administrator, and a copy will be sent to Engineer for information. The demand for arbitration will be made within the specific time required in Article 17, or if no specified time is applicable within a reasonable time after the matter in question has arisen, and in no event will any such demand be made after the date when institution of legal or equitable proceedings based on such matter in question would be barred by the applicable statute of limitations.
- C. The arbitrator(s) must be licensed engineers, contractors, attorneys, or construction managers. Hearings will take place pursuant to the standard procedures of the Construction Arbitration Rules that contemplate in-person hearings. The arbitrators will have no authority to award punitive or other damages not measured by the prevailing party's actual damages, except as may be required by statute or the Contract. Any award in an arbitration initiated under this clause will be limited to monetary damages and include no injunction or direction to any party other than the direction to pay a monetary amount.
- D. The Arbitrators will have the authority to allocate the costs of the arbitration process among the parties, but will only have the authority to allocate attorneys' fees if a specific Law or Regulation or this Contract permits them to do so.
- E. The award of the arbitrators must be accompanied by a reasoned written opinion and a concise breakdown of the award. The written opinion will cite the Contract provisions deemed applicable and relied on in making the award.
- F. The parties agree that failure or refusal of a party to pay its required share of the deposits for arbitrator compensation or administrative charges will constitute a waiver by that party to present evidence or cross-examine witness. In such event, the other party shall be required to present evidence and legal argument as the arbitrator(s) may require for the making of an award. Such waiver will not allow for a default judgment against the non-paying party in the absence of evidence presented as provided for above.
- G. No arbitration arising out of or relating to the Contract will include by consolidation, joinder, or in any other manner any other individual or entity (including Engineer, and Engineer's consultants and the officers, directors, partners, agents, employees or consultants of any of them) who is not a party to this Contract unless:
  - 1. the inclusion of such other individual or entity will allow complete relief to be afforded among those who are already parties to the arbitration;
  - 2. such other individual or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings;
  - 3. such other individual or entity is subject to arbitration under a contract with either Owner or Contractor, or consents to being joined in the arbitration; and

4. the consolidation or joinder is in compliance with the arbitration administrator's procedural rules.
- H. The award will be final. Judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal, subject to provisions of the Laws and Regulations relating to vacating or modifying an arbitral award.
- I. Except as may be required by Laws or Regulations, neither party nor an arbitrator may disclose the existence, content, or results of any arbitration hereunder without the prior written consent of both parties, with the exception of any disclosure required by Laws and Regulations or the Contract. To the extent any disclosure is allowed pursuant to the exception, the disclosure must be strictly and narrowly limited to maintain confidentiality to the extent possible.

*SC-17.03 Attorneys' Fees*

SC-17.03 Add the following new paragraph immediately after Paragraph 17.02.

*SC-17.03 Attorneys' Fees:*

- A. For any matter subject to final resolution under this Article, the prevailing party shall be entitled to an award of its attorneys' fees incurred in the final resolution proceedings, in an equitable amount to be determined in the discretion of the court, arbitrator, arbitration panel, or other arbiter of the matter subject to final resolution, taking into account the parties' initial demand or defense positions in comparison with the final result.

## **ARTICLE 18 – MISCELLANEOUS**

No suggested Supplementary Conditions in this Article.

**WORK CHANGE DIRECTIVE NO.:** *[Number of Work Change Directive]*

Owner:

Owner's Project No.:

Engineer:

Engineer's Project No.:

Contractor:

Contractor's Project No.:

Project:

Contract Name:

Date Issued:

Effective Date of Work Change Directive:

Contractor is directed to proceed promptly with the following change(s):

Description:

*[Description of the change to the Work]*

Attachments:

*[List documents related to the change to the Work]*

Purpose for Work Change Directive:

*[Describe the purpose of the change to the Work]*

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

*[check one or both of the following]*

☐ Non-agreement on pricing of proposed change. ☐ Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price \$ [increase] [decrease] [not yet estimated].

Contract Time days [increase] [decrease] [not yet estimated].

Basis of estimated change in Contract Price:

☐ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

Recommended by Engineer:

Authorized by Owner:

By:

By:

Title:

Title:

Date:

Date:



**CHANGE ORDER NO.:** *[Number of Change Order]*

Owner:

Owner's Project No.:

Engineer:

Engineer's Project No.:

Contractor:

Contractor's Project No.:

Project:

Contract Name:

Date Issued:

Effective Date of Change Order:

The Contract is modified as follows upon execution of this Change Order:

Description:

*[Description of the change]*

Attachments:

*[List documents related to the change]*

<b>Change In Contract Price</b>	<b>Change In Contract Times</b> <i>[State Contract Times as either a specific date or a number of days]</i>
Original Contract Price: \$ _____	Original Contract Times: Substantial Completion: _____ Ready for Final Payment: _____
<i>[Increase] [Decrease]</i> from previously approved Change Orders No. ____ to No. ____: \$ _____	<i>[Increase] [Decrease]</i> from previously approved Change Orders No. ____ to No. ____: Substantial Completion: _____ Ready for Final Payment: _____
Contract Price prior to this Change Order: \$ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for Final Payment: _____
<i>[Increase] [Decrease]</i> of this Change Order: \$ _____	<i>[Increase] [Decrease]</i> of this Change Order: Substantial Completion: _____ Ready for Final Payment: _____
Contract Price incorporating this Change Order: \$ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for Final Payment: _____

Recommended by Engineer (if required):

Accepted by Contractor:

By: \_\_\_\_\_

\_\_\_\_\_

Title: \_\_\_\_\_

\_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_

Authorized by Owner

Approved by Funding Agency (if applicable)

By: \_\_\_\_\_

\_\_\_\_\_

Title: \_\_\_\_\_

\_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_





**FIELD ORDER NO.:** *[Number of Field Order]*

Owner:

Owner's Contract No.:

Engineer:

Engineer's Project No.:

Contractor:

Contractor's Project No.:

Project:

Contract Name:

Date Issued:

Effective Date of Field Order:

Contractor is hereby directed to promptly perform the Work described in this Field Order, issued in accordance with Paragraph 11.04 of the General Conditions, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

**Reference:**

Specification(s):

Drawing(s) / Detail(s):

**Description:**

*[Description of the change to the Work]*

**Attachments:**

*[List documents supporting change]*

**Issued by Engineer**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

SECTION 01 25 00  
MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.01 Work Included

Unless specifically indicated otherwise on the plans or in the contract documents, all materials and equipment shall be new and undamaged.

A. Materials and Equipment

1. Materials and equipment incorporated into the work shall conform to applicable specifications and standards. Materials and equipment shall comply with size, make, type, and quality specified or as specifically approved by the Engineer.
2. Manufactured and fabricated products shall be designed, fabricated, and assembled in accordance with the best engineering and shop practices. Like parts of duplicate units are to be manufactured to standard sizes and gauges to be interchangeable. Two or more items of the same kind shall be identical and manufactured by the same manufacturer. Products shall be suitable for the service conditions. Equipment capacities, sizes, and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing. Materials or equipment shall not be used for any purpose other than that for which it is designed or specified.

1.02 Substitutions

- A. Where specific materials and equipment items are identified in the specifications by manufacturer's name or model number, bids shall be based on the products of one of the manufacturers so named or added thereto by addendum during the bidding period.
- B. During the bidding period, all requests for substitutions will be given full consideration by the Engineer; and if approved, an addendum will be issued to incorporate the approved material or equipment into the contract documents.
- C. Requests for substitutions must be received by the Engineer in ample time, not later than ten days before the bid due date, so that any necessary addendum will be received by all prospective bidders before submission of the bids.
- D. After award of the contract, requests for substitutions will be considered only for one of the following reasons:
  1. Increased value to the Owner
  2. Decreased cost to the Owner
  3. Specified items not procurable
- E. Requests for substitutions after award of the contract shall be accompanied by manufacturer's data or other detailed descriptions of the proposed material or equipment.
- F. A request for a substitution constitutes a representation that the Contractor has investigated and determined the proposed product is equal to or superior in all respects to that specified.

- G. The Contractor shall coordinate the installation of an accepted substitution into the project to provide a complete and operable system. Modifications or re-work of other parts of the project resulting because of substitutes will be at the Contractor's expense.
- H. The Engineer shall be the judge of the acceptability of the proposed substitutions.

#### 1.03 Manufacturer's Instructions

- A. When contract documents require that installation of work shall comply with the manufacturer's printed instructions, the Contractor shall obtain and distribute copies of such instructions to the parties involved in the installation, including two sets to the Engineer. The instructions shall be provided in advance of installation. The Contractor shall notify the Engineer in the event job conditions or the requirements of the plans or specifications conflict with the manufacturer's instructions.
- B. The Contractor shall handle, install, connect, clean, condition, and adjust products in accordance with such instructions and in conformity with the specified requirements.
- C. The Contractor shall perform work in accordance with manufacturer's instructions. No preparatory step or installation procedures shall be omitted unless specifically modified or exempted by contract documents.

### PART 2 - PRODUCTS

Not Applicable

### PART 3 - EXECUTION

#### 3.01 Transportation and Handling

- A. The Contractor shall arrange deliveries of products in accordance with construction schedules and coordinate them to avoid conflict with work and conditions at the site.
  - 1. Products shall be delivered in undamaged condition, in the manufacturer's original containers or packaging with identifying labels intact and legible.
  - 2. Immediately upon delivery, the Contractor shall inspect shipments to assure compliance with requirements of contract documents and approved submittals and that products are properly protected and undamaged.
- B. The Contractor shall provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.

#### 3.02 Storage and Protection

- A. Products shall be stored in accordance with the manufacturer's instructions, with seals and labels intact and legible.
  - 1. Products subject to damage by the elements shall be stored in weather tight enclosures.
  - 2. Temperature and humidity shall be maintained within the ranges required by manufacturer's instructions.

- B. The Contractor shall arrange storage in a manner to provide easy access for inspection and make periodic inspections to assure that products are maintained under specified conditions and free from damage or deterioration.
- C. For products specified by naming one or more products or manufacturers and "or equal", the Contractor must submit a request for substitutions for any product or manufacturer not specifically named.

\*\*\*END OF SECTION\*\*\*

SECTION 01 33 00  
SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 Work Included

- A. This section includes procedures for preparing and transmitting submittals required by specification sections for a product, material, or construction method. Submittals shall include the following:
  - 1. Shop drawings
  - 2. Product data
  - 3. Manufacturer's certificates
  - 4. Design data and calculations
  - 5. Manufacturer's instructions
  - 6. Manufacturer's field service reports
  - 7. Samples
  - 8. Operation and maintenance manuals (timing, quantity, content, and form)
- B. It is the responsibility of the General Contractor to convey the requirements of this section to their sub-contractors and their suppliers and vendors.

1.02 Submittals

- A. Schedule submittals to expedite work. Unless otherwise indicated in this section, submittals shall be submitted within 30 days of date of Notice to Proceed.
- B. Preparation
  - 1. Provide separate submittals for each specification section requiring submittals. Where multiple sections relate to the same system or element and are being provided from the same source, a single combined submittal is acceptable.
  - 2. Coordinate submission of related items. Group submittals of related products in a single transmission.
  - 3. Include all submittal material requested for that section.
  - 4. Identify variations from requirements of contract documents. State product and system limitations which may adversely affect work.
  - 5. Mark or show dimensions and values in same units as specified.
- C. Contractor Responsibilities
  - 1. Review submittals prior to transmittal. Verify compatibility with field conditions and dimensions, product selections and designations, quantities, and conformance of



submittal with requirements of contract documents. Return non-conforming submittals to preparer for revision, rather than submitting for review.

2. Coordinate submittals to avoid conflicts between various items of work.

3. Submittal Transmittal Form

a. Include with each submittal a transmittal form. A sample copy of an acceptable form is included in Attachment A. The Contractor's standard submittal form may be used, provided it contains essentially the same information as the sample.

b. Identify project, Contractor, subcontractor, supplier, manufacturer, pertinent drawing sheet and detail numbers, and associated specification section numbers.

c. Sequentially number transmittal forms. Re-submittals shall have original number with a suffix. Acceptable form of number is SS SS SS-NN-T where:

i. SS SS SS indicates specification section number;

ii. NN indicates different submittals for that specification section; and

iii. T indicates the number of times that submittal has been made.

4. Failure of the Contractor to review submittals, prior to transmittal for review, shall be cause for rejection.

5. Incomplete, improperly packaged, and submittals from sources other than the Contractor will not be accepted.

D. Transmittal

Where possible, transmit all submittals electronically. Where electronic submittal is not possible, submit four paper copies for the Engineer's retention, plus as many copies as the Contractor desires returned after review. Samples shall be submitted as described elsewhere in this specification.

E. Review

The Engineer will review and return submittals with comments.

F. Do not fabricate products or begin work which requires submittals until return of reviewed submittal with A/E or SNL SE acceptance.

G. On return, promptly distribute reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

H. Resubmission

1. Revise and resubmit submittals, as required, within 15 days of return from initial review.

2. Make re-submittals under procedures specified for initial submittals.

3. Identify all changes made since previous submittal.

### 1.03 Quality Assurance and Quality Control

#### A. Where required by specification sections, provide quality assurance submittals:

##### 1. Qualification Data

Contractor shall submit written information demonstrating capabilities and experience of firm or person. Include lists of complete projects with names and contact information for references.

##### 2. Manufacturer's Certificates

Submit reference data, affidavits, and certifications on manufacturer's letterhead certifying that products conform to or exceed specified requirements. Certificates may be based on recent or previous test results supplied by manufacturer and accepted by the Engineer.

##### 3. Installer Approval

Certification on manufacturer's letterhead that installer complies with requirements and is approved for installing manufacturer's products.

##### 4. Welding Certificates

Written certification that welding procedures and personnel comply with requirements. Submit record of Welding Procedure Specifications (WPS) and Procedure Qualification Record (PQR) on American Welding Society (AWS) forms. Include names of firms and personnel certified.

##### 5. Field Test Reports

Written reports from qualified testing agency indicating and interpreting results of field tests performed either during or after installation for compliance with specified requirements.

### 1.04 Submittal Review

A. The Engineer will review submittals for the sole purpose of verifying general conformance with design intent and general compliance with contract documents. Approval of submittal by the Engineer does not relieve the Contractor of responsibility for correcting errors which may exist in submittal, or from meeting requirements of contract documents.

#### B. Review Time

Initial review will be performed within 14 days of receipt. Reviewer reserves the right to withhold action on a submittal requiring review of related submittals, until related submittal is received. Additional time will be required if processing must be delayed to permit review of related subsequent submittals. The Engineer will review re-submittals within 14 days.

#### C. Review Actions

After review, submittals will be returned and marked as follows to indicate action taken:

##### 1. Reviewed, No Comments

Part of work covered by submittal may proceed, provided it complies with requirements of contract documents. Final acceptance will depend upon that compliance.

2. Reviewed, With Comments

Part of work covered by submittal may proceed, provided it complies with notations and corrections on submittal and requirements of contract documents. Final acceptance will depend upon that compliance.

3. Revise and Resubmit

Do not proceed with part of work covered by submittal including purchasing, fabricating, and delivering. Revise or prepare new submittal in accordance with notations and resubmit.

1.05 Drawings

A. Where required by specifications or otherwise needed, prepare drawings illustrating portion of work for use in fabricating, interfacing with other work, and installing products. Contract drawings shall not be reproduced and submitted as shop drawings.

B. When construction is complete, prepare and submit red-lined copies of the contract drawings showing clearly how construction deviated from the design, along with the authority for the deviation or change.

C. Electronic Format

1. Size printable to: 8½ inches by 11 inches minimum and 24 inches by 36 inches maximum.
2. Present in a clear and thorough manner. Title each drawing with project name. Identify each element of drawing with reference number.
3. Plans, elevations, sections, and detail shop drawings shall be to scale, with scale indicated.
4. Indicate field verified dimensions. Show relationship of products to adjacent work. Note coordination requirements.
5. Schematics and diagrams shall be logically arranged and presented in a clear, understandable manner with all items labeled.
6. Internal wiring diagrams: Provide internal wiring and elementary ladder diagrams for factory pre-wired equipment.
7. Control diagrams: Show relative positions of each component as a system diagram.

1.06 Product Data

A. Provide product data such as manufacturer's brochures, catalog pages, illustrations, diagrams, tables, performance charts, and other material which describe appearance, size, attributes, code and standard compliance, ratings, and other product characteristics.

B. Form

1. Provide all critical information such as reference standards, performance characteristics, capacities, power requirements, wiring and piping diagrams, controls, component parts, finishes, dimensions, and required clearances.
2. Submit only data which are pertinent. Mark each copy of manufacturer's standard printed data to identify products, models, options, and other data pertinent to project.

3. Modify manufacturer's standard schematic drawings and diagrams and supplement standard data to provide specific information applicable to project. Delete information not applicable.
4. Colors and Patterns: Unless color and pattern is specified for product, submit accurate color and pattern charts or samples illustrating manufacturer's full range for selection by the Engineer. Submit two hard copies only.

#### 1.07 Design Data and Calculations

- A. Where required by specification sections, provide basic calculations, analyses, and data to support design decisions and demonstrate compliance with specified requirements. State assumptions and define parameters. Give general formulas and references. Provide sketches, as required, to illustrate design method and application.
- B. Arrange calculations and data in a logical manner, with suitable text to explain procedures and order.
- C. Indicate name, title, and telephone number of individual performing design and include professional seal of designer where applicable or required.

#### 1.08 Manufacturer's Instructions

- A. Where required by specification sections, provide manufacturer's instructions for activities such as delivery, storage, assembly, installation, wiring, start-up, adjusting, and finishing.
- B. Indicate pertinent portions and identify conflicts between manufacturer's instructions and contract documents.
- C. Where appropriate, include preparation procedures; service connection requirements; critical ambient conditions; foundation requirements; special precautions; adjustment requirements; alignment procedures; leveling; purging; charging; lubrication; and cleaning prior to operation and/or Owner's acceptance.
- D. Installation (e.g., assembly, mounting, or wiring) and start-up instructions shall be submitted and available for review in the field prior to scheduled material or equipment installation.

#### 1.09 Samples

- A. Submit samples to illustrate functional and aesthetic characteristics of products with all integral parts and attachment devices. Include full range of manufacturer's standard finishes, indicating colors, textures, and patterns for Engineer selection.
- B. Submission  
Submit the number of samples specified in individual specification sections. One sample will be retained by the Engineer.
- C. Label with identification related to submittal transmittal form.

#### 1.10 Manufacturer's Field Service Reports

- A. When an individual specification section requires services of manufacturer's field representative, submit report of observations, site decisions, and instructions given to installers.
- B. Form
  - 1. Present complete information in clear concise manner.
  - 2. Bind with titled cover in folder or binder.
- C. Report shall include:
  - 1. Time, location, conditions, and duration of activity;
  - 2. Names of persons performing and witnessing activity;
  - 3. Equipment used;
  - 4. Description of activity, data recorded, and results;
  - 5. Deficiencies found, corrective measures, and results of retesting; and
  - 6. Other pertinent data.
- D. Submit report within 30 days of construction site service visit.

#### 1.11 Operation and Maintenance Data

- A. Where required by specification sections, provide operation and maintenance manuals.

#### PART 2 - PRODUCTS

Not Applicable

#### PART 3 - EXECUTION

Not Applicable

\*\*\*END OF SECTION\*\*\*

#### ATTACHMENT A - SAMPLE SUBMITTAL TRANSMITTAL FORM

Attachment A

SAMPLE SUBMITTAL TRANSMITTAL FORM

PROJECT: \_\_\_\_\_  
CONTRACT NUMBER: \_\_\_\_\_  
SUBMITTAL NUMBER: \_\_\_\_\_ RESUBMITTAL: YES NO  
DATE: \_\_\_\_\_ NUMBER OF COPIES SUBMITTED: \_\_\_\_\_  
SUBMITTAL DESCRIPTION: \_\_\_\_\_

RELATED DESIGN DISCIPLINE (circle):  
Civil Landscape Architectural Structural  
Mechanical Electrical Telecommunications Security  
Fire Protection Controls Other: \_\_\_\_\_

ASSOCIATED SPECIFICATION SECTION NO: \_\_\_\_\_  
REFERENCED DRAWING SHEET NO: \_\_\_\_\_  
SUBCONTRACTOR/SUPPLIER/MANUFACTURER PROVIDING SUBMITTAL DATA:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_

CONTRACTOR:  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_

CONTRACTOR'S CERTIFICATION:

The undersigned, as representative of the Contractor for the above project, submits the following and certifies that:

1. Submittal has been reviewed and it is complete and conforms to requirements of contract documents, except as noted.
2. Required dimensions have been field verified and are acceptable for installation of proposed products and construction of proposed work.
3. Required quantities for products and materials covered by this submittal have been verified as correct.
4. Fabrication processes and construction methods proposed in this submittal are acceptable for this project and will result in a complete, functional installation.
5. Submittal has been coordinated with other submittals and work and proposed products and construction will properly interface with other construction.

NAME OF CONTRACTOR REVIEWER: \_\_\_\_\_  
SIGNATURE OF CONTRACTOR REVIEWER: \_\_\_\_\_  
DATE: \_\_\_\_\_



SECTION 01 41 26  
PERMIT REQUIREMENTS

**PART 1 - GENERAL**

**1.01 Work Included**

The Contractor shall complete work in accordance with all applicable regulations, laws, and ordinances. Work shall be completed in accordance with permits issued by regulatory agencies.

The Contractor shall obtain permits, including the paying of fees, posting bonds, and providing insurance coverage, to secure permits which have not been obtained by the Owner.

Where permits have been obtained by the Owner, the Contractor shall conduct work and operations consistent with the requirements of the permits.

Where changed conditions or other issues arise such that the conditions of a permit which has been issued cannot be met, the Contractor shall promptly notify the Owner and the permitting agency. The Contractor shall provide such additional information as may be necessary to secure a modification to the original permit to allow the planned work to continue.

**1.02 Permits Obtained by the Owner**

The Owner has obtained the following permits to allow for constructing the proposed project. Copies of these permits are included in the project manual.

<b>Permit Agency</b>	<b>Permit No.</b>	<b>Permitted Activity</b>
Not Applicable	Not Applicable	Not Applicable

**PART 2 - PRODUCTS**

Not Applicable

**PART 3 - EXECUTION**

**3.01 Permits to be Obtained by Contractor**

**A. Permit Applications Completed by the Owner**

The Owner has submitted information and reviewed the proposed work with the following agencies. Final permits have not yet been issued. The Contractor is required to obtain the permits for the proposed project including the paying of fees, posting bonds, and providing insurance coverage to secure permits.

<b>Permit Agency</b>	<b>Permit Type</b>	<b>Requirements</b>
Iosco County Road Commission	Right-of-Way	Submit required information to ICRC

B. Other Permits to be Obtained by the Contractor

The Contractor is responsible to obtain all permits necessary to complete the proposed work, which have not been obtained by the Owner.

PART 4 - MEASUREMENT AND PAYMENT

Obtaining permits, including the paying of fees, posting bonds, and providing insurance coverage to secure permits, is considered included in other items of work and will not be paid for separately.

\*\*\*END OF SECTION\*\*\*

SECTION 01 55 26  
MAINTAINING TRAFFIC

PART 1 - GENERAL

1.01 Work Included

The Contractor shall execute the work in a manner such that traffic is maintained and access is provided to all residences, businesses, and commercial establishments.

1.02 References

- A. Michigan Department of Transportation 2020 Standard Specifications for Construction
- B. Michigan Manual on Uniform Traffic Control Devices

PART 2 - PRODUCTS

2.01 Signing

Signing and barricading shall be provided by the Contractor in accordance with the details on the plans, the Michigan Manual on Uniform Traffic Control Devices, the Michigan Department of Transportation Maintaining Traffic Typical, and the requirements of the road agency. Barricades left in place after dark shall be lighted.

The Contractor shall submit a plan of the proposed traffic control to the Engineer for review.

PART 3 - EXECUTION

3.01 Maintain Access to all Properties

It shall be the Contractor's responsibility to notify residents or occupants of property along the project of temporary closures of driveways or roads, in writing, a minimum of 24 hours in advance of closure. Contractor shall submit draft notice to Engineer for review and approval two days prior to issuing it. Sufficient advance warning shall be provided to allow notification of all affected parties. A copy of the written notification shall be provided to the Engineer.

The duration of any closure shall be limited to the minimum length of time necessary to complete the particular task requiring the closure. In no case shall a closure extend overnight, unless approved by the Engineer or Owner.

Upon completion of pipe installation or other work requiring a closure of a driveway, road, or sidewalk, the area shall be backfilled and regraded to meet adjacent grades. A temporary gravel surface shall be provided and maintained by the Contractor. The gravel shall meet the requirements of 23A series aggregate, as specified in the Michigan Department of Transportation 2020 Standard Specifications for Construction. Recycled HMA may also be utilized after approval of material by the Engineer. The gravel shall be placed to a depth of at least 8 inches.

### 3.02 Protection of Hazardous Areas

Excavation and hazardous areas shall be protected by barricades or snow fence. Barricades left in place at night shall be lighted.

### 3.03 Corrective Action

If in the Engineer's or Owner's opinion inadequate protection or maintenance of traffic is provided, the Engineer or Owner will attempt to contact the Contractor and notify them of the deficiency. If the Contractor cannot be notified or fails to make prompt corrections, the Owner or Engineer may authorize that said deficiencies be corrected by others. The cost of making such corrections will be charged to the Contractor.

## PART 4 - MEASUREMENT AND PAYMENT

### 4.01 Pay Items

The work of Maintaining Traffic will be paid for at the contract unit price for the following pay item(s), which are specifically listed on the proposal.

<u>Pay Item</u>	<u>Pay Unit</u>
Maintaining Traffic	Lump Sum

### 4.02 Measurement

#### A. Maintaining Traffic

All signs, barricades, flaggers, cones, and similar items and the labor necessary to install, maintain them in service, and remove them are included in the work of Maintaining Traffic. This work also includes providing notices to residents, businesses, and property owners in the project area.

\*\*\*END OF SECTION\*\*\*

SECTION 01 71 13  
MOBILIZATION

PART 1 - GENERAL

1.01 Work Included

Mobilization consists of preparatory work and operations, including but not limited to the following:

- A. The movement of people, equipment, and materials to the project site;
- B. The establishment of the Contractor's facilities to work on the project (offices, storage yards, borrow and disposal sites, etc.);
- C. Expenses incurred prior to beginning work on specific contract pay items;
- D. Pre-construction costs (not bidding costs) which are direct costs to the project, rather than direct costs to specific pay items.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

3.01 Mobilization

Following Notice of Award, the Contractor shall expeditiously prosecute such work necessary for execution of the contract.

Following Notice to Proceed, the Contractor shall commence such work necessary to prepare for the beginning work on the project.

PART 4 - MEASUREMENT AND PAYMENT

The work of Mobilization will be paid for at the contract unit price for the following pay item(s), which are specifically listed on the proposal.

Pay Item

Mobilization

Pay Unit

Lump Sum

Unless otherwise provided, the contract amount for Mobilization shall not exceed 10 percent of the total project amount.

If the amount bid for Mobilization exceeds the maximum amount established, the Contractor's bid price for Mobilization will be adjusted to the maximum amount, and the total bid price and contract amount will be based upon the revised price. The failure of a bidder to accept this adjustment will result in the forfeiture of their bid bond, if the bidder is selected by the Owner for award of a contract.

The total amount paid for Mobilization will not exceed the contract amount for Mobilization, regardless of whether the Contractor shuts down the work before its completion, hauls away equipment and materials, and returns equipment to the project site. The amount of Mobilization will not be adjusted if additional work is added to the project.

Mobilization will be paid for by partial payments of the contract lump sum amount, in accordance with the following:

<b>Percent of Original Contract Earned</b>	<b>Percent of Contract Price for Mobilization Allowed</b>
5	50
10	75
25	100

\*\*\*END OF SECTION\*\*\*



SECTION 01 74 50  
CLEANUP AND RESTORATION

PART 1 - GENERAL

1.01 Work Included

The Contractor shall restore areas disturbed by construction activities to a condition reasonably close to their condition before the project, unless shown otherwise on the plans. Restoration work should be performed as soon as possible after construction work is completed in a particular area.

Upon the completion of work in an area, all excess materials, debris, equipment, and similar items shall be removed from the project area by the Contractor and disposed of properly.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

3.01 Restoration

Unless otherwise provided, aggregate surfaces, HMA pavements, and concrete pavements shall be restored by construction of similar replacement surfaces. All replacement surfaces shall match existing conditions.

Mailboxes, fences, signs, ornaments, and similar items shall be replaced at the completion of construction. Posts shall be installed plumb. Items that are lost or stolen shall be repaired or replaced at the Contractor's expense. Repairs or replacements shall meet the Owner's approval.

3.02 Temporary Restoration of Driving Surfaces

Where a pavement or gravel surface is removed as a result of construction activities, a temporary surface shall be provided and maintained by the Contractor until the permanent surface is provided. Unless otherwise directed, the temporary surface shall be 8 inches of aggregate graded to meet the adjacent, remaining surfaces. Aggregate shall meet the requirements of Series 23A as described in the Michigan Department of Transportation 2020 Standard Specifications for Construction. Recycled HMA may also be utilized after approval of material by the Engineer.

The Contractor shall regrade the temporary surface and add additional aggregate periodically, as necessary, to maintain them in a relatively smooth condition.

PART 4 - MEASUREMENT AND PAYMENT

The work of cleanup and restoration will be paid for at the contract price for the pay item(s) listed on the proposal.

Work not specifically listed as a pay item is included in the other pay items that are listed and will not be paid for separately.

\*\*\*END OF SECTION\*\*\*

SECTION 33 01 31  
SEWER LINE CLEANING

PART 1 - GENERAL

1.01 Work Included

This work includes cleaning of sewers in preparation for internal video inspection.

This work includes providing such traffic control measures and barricades, as necessary, to provide for the safety and flow of traffic and pedestrians.

1.02 Related Work

- A. Section 01 55 26 – Maintaining Traffic
- B. Section 33 01 32 – Video Inspection of Sewer Mains
- C. Section 33 01 33 – Temporary Bypass Pumping Systems

1.03 Submittals

The Contractor shall provide the Engineer with a specific plan for completing the proposed cleaning and inspection work. The plan shall include a schedule and a summary of the equipment and procedures which will be used in completing the work.

1.04 Coordination with Others

- A. The Contractor shall schedule work in advance with the Owner.
- B. The Contractor shall conduct his work so that sewer service is maintained to all customers.
- C. Vehicular and pedestrian traffic shall be maintained.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

3.01 Equipment

A. Hydraulically Propelled Equipment

The equipment used shall be of a movable dam type, and be constructed in such a way that a portion of the dam may be collapsed at any time during the cleaning operation to protect against flooding of the sewer. The movable dam shall be equal in diameter to the pipe being cleaned and shall provide a flexible scraper around the outer periphery to ensure removal of grease. If sewer cleaning balls or other equipment which cannot be collapsed is used, special precautions to prevent flooding of the sewers and public or private property shall be taken.

B. High-Velocity Jet (Hydrocleaning) Equipment

All high-velocity sewer cleaning equipment shall be constructed for ease and safety of operation. The equipment shall have a selection of two or more high-velocity nozzles. The nozzles shall be capable of producing a scouring action from 15 degrees to 45 degrees in all size lines designated to be cleaned. Equipment shall also include a high-velocity gun for washing and scouring manhole walls and floor. The gun shall be capable of producing flows from a fine spray to a solid stream. The equipment shall carry its own water tank, auxiliary engines, pumps, and hydraulically driven hose reel.

C. Mechanically Powered Equipment

Bucket machines shall be in pairs, with sufficient power to perform the work in an efficient manner. Machines shall be belt operated or have an overload device. Machines with direct drive that could cause damage to the pipe will not be allowed. A power rodding machine shall be either a sectional or continuous rod type, capable of holding a minimum of 750 feet of rod. The rod shall be specifically heat treated steel. To ensure safe operation, the machine shall be fully enclosed and have an automatic safety clutch or relief valve.

3.02 Precautions

A. Cleaning Precautions

During sewer cleaning operations, satisfactory precautions shall be taken in the use of cleaning equipment. When hydraulically propelled cleaning tools (which depend upon water pressure to provide their cleaning force) or tools which retard the flow in the sewer line are used, precautions shall be taken to ensure that the water pressure created does not damage or cause flooding of public or private property being served by the sewer. When possible, the flow of sewage in the sewer shall be utilized to provide the necessary pressure for hydraulic cleaning devices. When additional water from fire hydrants is necessary to avoid delay in normal work procedures, the water shall be conserved and not used unnecessarily. No fire hydrant shall be obstructed in case of a fire in the area served by the hydrant.

3.03 Cleaning Procedures

A. Sewer Cleaning

The designated sewer manhole sections shall be cleaned using hydraulically propelled, high-velocity jet, or mechanically powered equipment. Selection of the equipment used shall be based on the conditions of lines at the time the work commences. The equipment and methods selected shall be satisfactory to the Owner's representative. The equipment shall be capable of removing dirt, grease, rocks, sand, and other materials and obstructions from the sewer lines and manholes. If cleaning of an entire section cannot be successfully performed from one manhole, the equipment shall be set up on the other manhole and cleaning attempted again. If again, successful cleaning cannot be performed or the equipment fails to traverse the entire manhole section, it will be assumed that a major blockage exists and the cleaning effort shall be abandoned.

B. Root Removal

Roots shall be removed in the designated sections where root intrusion is a problem. Special attention should be used during the cleaning operation to assure almost complete removal of roots from the joints. Procedures may include the use of mechanical equipment, such as

rodding machines, bucket machines and winches using root cutters and porcupines, and equipment such as high-velocity jet cleaners.

C. Chemical Root Treatment

To aid in the removal of roots and at the option of the Contractor, manhole sections that have root intrusion may be treated with an approved herbicide. The application of the herbicide to the roots shall be done in accordance with the manufacturer's recommendations and specifications in such a manner to preclude damage to surrounding vegetation. Any damaged vegetation, so designated by the Engineer, shall be replaced by the Contractor at no additional cost to the Owner. All safety precautions, as recommended by the manufacturer, shall be adhered to concerning handling and application of the herbicide.

3.04 Performance Requirements

- A. Foreign materials shall be removed from the lines sufficiently to restore the sewer to a minimum of 95 percent of the original carrying capacity.
- B. It is recognized that there are some conditions, such as broken pipe and major blockages, that prevent cleaning from being accomplished or where additional damage would result if cleaning were attempted or continued. Should such conditions be encountered, the Contractor will not be required to clean those specific manhole sections. The Contractor shall notify the Owner of all impassable areas. If, in the course of normal cleaning operations, damage does result from preexisting and unforeseen conditions such as broken pipe, the Contractor will not be held responsible.

PART 4 - MEASUREMENT AND PAYMENT

4.01 Pay Items

The sewer line cleaning will be paid for at the contract unit price for the following pay item(s), which are included on the proposal. Work not specifically listed as a pay item on the proposal is included in the pay item(s) listed and will not be paid for separately.

<u>Pay Item</u>	<u>Pay Unit</u>
Pre CIPP Cleaning	Lump Sum

4.02 Measurement and Work Included

A. Pre CIPP Cleaning

The work of Pre CIPP Cleaning shall include all labor, materials, equipment, and all other items required to complete this work.

\*\*\*END OF SECTION\*\*\*

SECTION 33 01 32  
VIDEO INSPECTION OF SEWER MAINS

PART 1 - GENERAL

1.01 Work Included

After cleaning, the piping and manhole sections shall be visually inspected by means of closed-circuit television. The inspection will be done one section at a time, and the flow in the section being inspected will be suitably controlled.

1.02 Related Work

- A. Section 01 55 26 – Maintaining Traffic
- B. Section 33 01 31 – Sewer Line Cleaning
- C. Section 33 01 33 – Temporary Bypass Pumping Systems

1.03 Submittals

- A. Documentation of the television results shall be as follows:

- 1. Video Inspection Logs

- Printed location records shall be kept by the Contractor and will clearly show the location, in relation to an adjacent manhole, of each infiltration point observed during inspection. In addition, other points of significance, such as locations of building sewers, unusual conditions, roots, storm sewer connections, broken pipe, presence of scale and corrosion, and other discernible features will be recorded and a copy of such records will be supplied to the Owner.

- 2. Photographs

- Digital photographs of the video picture of problems shall be taken by the Contractor, upon request of the Owner's representative, as long as such photographing does not interfere with the Contractor's operations.

- 3. Video Recordings

- Extent of sewer recording shall be as is delineated by record drawings and at the direction of the Owner. The purpose of digital video recording shall be to locate and supply a visual and audio record of problem areas of the lines that may be replayed. Digital recording playback shall be at the same speed at which it was recorded. Slow motion or stop-motion playback features may be supplied at the option of the Contractor. Title to the recordings shall be with the Owner. The Contractor shall have all recordings and necessary playback equipment readily accessible for review by the Owner during the project. Recordings shall:

- a. Be supplied to the Owner on compact disc;
    - b. Be in .mpg format;



- c. Be in color; and
- d. Display the following information:
  - i. Date and time;
  - ii. Footage counter;
  - iii. Upstream manhole number;
  - iv. Downstream manhole number; and
  - v. Pipe number.

#### 1.04 Quality Assurance and Quality Control

##### A. Measurement

Measurement for location of defects shall be above ground, by means of a meter device. Marking on the cable or the like, which would require interpolation for depth of manhole, will not be allowed. Accuracy of the distance meter shall be checked by use of a walking meter, roll-a-tape, or other suitable device, and the accuracy shall be satisfactory to the Owner's representative.

### PART 2 - PRODUCTS

Not Applicable

### PART 3 - EXECUTION

#### 3.01 Equipment

##### A. Radial View Camera

1. The camera shall be one specifically designed and constructed for such inspection.
2. The camera shall be capable of viewing the complete circumference of the pipe.
3. Cameras incorporating mirrors for viewing sides or cameras using exposed rotating heads are not acceptable.
4. The camera lens shall be an auto-iris type with remote controlled manual override.
5. The camera lighthouse shall include a high-intensity side viewing lighting system to allow illumination of internal sections of lateral sewer connections.
6. The camera shall be operative in 100 percent humidity conditions.

#### 3.02 Preparation

##### A. Cleaning

The Contractor shall clean the line immediately prior to video inspection. Cleaning shall be done in accordance with Section 33 01 31 – Sewer Line Cleaning.

B. Bypass Pumping

Bypass pumping shall be performed in accordance with Section 33 01 33 – Temporary Bypass Pumping Systems.

3.03 Video Inspection

- A. The camera shall be moved through the line in either direction at a moderate rate, stopping when necessary to permit proper documentation of the sewer's condition. In no case shall the camera be pulled at a speed greater than 30 feet per minute. Manual winches, power winches, video cable, and powered rewinds, or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions, shall be used to move the camera through the sewer line.
- B. If, during the inspection operation, the camera will not pass through the entire manhole section, the Contractor shall set up his equipment so that the inspection can be performed from the opposite manhole. If, again, the camera fails to pass through the entire manhole section, the inspection shall be considered complete and no additional inspection will be required.
- C. When manually operated winches are used to pull the camera through the line, telephones or other suitable means of communication shall be set up between the two manholes of the section being inspected to ensure good communications between members of the crew.

3.04 Performance Requirements

The camera, video monitor, and other components of the video system shall be capable of producing picture quality to the satisfaction of the Owner's representative. If unsatisfactory, equipment shall be removed and no payment will be made for an unsatisfactory inspection.

PART 4 - MEASUREMENT AND PAYMENT

4.01 Pay Items

The work of video inspection of sewer mains will be paid for at the contract unit price for the following pay item(s), which are included on the proposal. Work not specifically listed as a pay item on the proposal is included in the pay item(s) listed and will not be paid for separately.

<u>Pay Item</u>	<u>Pay Unit</u>
Video Inspection, Pre and Post CIPP Lining	Lump Sum

4.02 Measurement and Work Included

A. Video Inspection, Pre and Post CIPP Lining

The work of Video Inspection, Pre and Post CIPP Lining shall include all labor, materials, equipment, and all other items required to complete this work.

\*\*\*END OF SECTION\*\*\*

SECTION 33 01 33  
TEMPORARY BYPASS PUMPING SYSTEMS

PART 1 - GENERAL

1.01 Work Included

The Contractor shall furnish all materials, labor, equipment, power, maintenance, etc. to implement a temporary pumping system for the purpose of diverting the existing flow around the work area, when necessary, for the duration of the project. The design, installation, and operation of the temporary pumping system shall be the Contractor's responsibility. The Contractor shall employ the services of a vendor who can demonstrate to the Engineer that they specialize in the design and operation of temporary bypass pumping systems.

1.02 Related Work

A. Section 01 55 26 – Maintaining Traffic

1.03 Submittals

Prior to beginning the work, the Contractor shall prepare and submit to the Engineer specific plans and descriptions of the proposed pumping system(s). No construction shall begin until the Engineer's comments have been addressed. Provisions and precautions to be taken by the Contractor for managing existing wastewater flows shall be included. The plan shall include, but not be limited to, details of the following:

- A. Staging areas for pumps;
- B. Sewer plugging method and types of plugs;
- C. Number, size, material, location, and method of installation of suction piping;
- D. Number, size, material, method of installation, and location of installation of discharge piping;
- E. Bypass pump sizes, capacity, number of each size to be on site, and power requirements;
- F. Calculations of static lift, friction losses, and flow velocity (pump curves showing pump operating range shall be submitted);
- G. Standby power generator size and location;
- H. Downstream discharge plan;
- I. Method of protecting discharge manholes or structures from erosion and damage;
- J. Thrust and restraint block sizes and locations;
- K. Sections showing suction and discharge pipe depth, embedment, select fill, and special backfill;
- L. Method of noise control for each pump and/or generator;
- M. Any temporary pipe supports and anchoring required;

- N. Design plans and computation for access to bypass pumping locations indicated on the drawings;
- O. Calculations for selection of bypass pumping pipe size;
- P. Schedule for installation of and maintenance of bypass pumping lines; and
- Q. Plan indicating selection location of bypass pumping line locations.

#### 1.04 Quality Assurance and Quality Control

##### A. Test

The Contractor shall perform leakage and pressure tests of the bypass pumping discharge piping, using clean water, prior to actual operation. The Engineer will be given 24 hours' notice prior to testing.

##### B. Inspection

The Contractor shall inspect bypass pumping system periodically or as directed by the Engineer to ensure that the system is working correctly.

##### C. Maintenance Service

The Contractor shall ensure that the temporary pumping system is properly maintained and a responsible operator shall be on hand at all times when pumps are operating.

##### D. Extra Materials

1. Spare parts for pumps and piping shall be kept on site as required.
2. Adequate hoisting equipment for each pump and accessories shall be maintained on the site.

#### 1.05 Codes

The temporary bypass pumping system shall meet applicable codes and regulations.

### PART 2 - PRODUCTS

#### 2.01 Equipment

##### A. Pumps

1. All pumps used shall be fully automatic, self-priming units that do not require the use of foot valves or vacuum pumps in the priming system.
2. The pumps may be electric, gasoline, or diesel powered.
3. All pumps must be capable of running for long periods of time.
4. The Contractor shall provide the necessary stop/start controls for each pump.
5. The Contractor shall include one stand-by pump of each size to be maintained on site.
6. Back-up pumps shall be on-line and isolated from the primary system by a valve.

## 2.02 Materials

### A. Discharge Piping

In order to prevent the accidental spillage of flows, all discharge systems shall be temporarily constructed of rigid pipe with positive, restrained joints. Discharge hose will only be allowed in short sections and by specific permission from the Engineer.

## 2.03 System Description

### A. Design Requirements

1. The Contractor shall provide all pipeline plugs, pumps of adequate size to handle peak flow, and temporary discharge piping to ensure that the total flow of the main can be safely diverted around the section to be repaired. Bypass pumping system will be required to be capable of operating 24 hours per day.
2. If pumping is required on a 24-hour basis, engines shall be equipped in a manner to keep noise to a minimum.
3. The bypass system shall be of sufficient capacity to handle existing peak flows anticipated during the work period.
4. The Contractor shall have adequate standby equipment available and ready for immediate operation and use in the event of an emergency or breakdown.
5. Bypass pumping system shall be capable of bypassing the flow around the work area and not releasing any amount of flow back into the work area, as necessary, for satisfactory performances of work.
6. The Contractor shall make all arrangements for bypass pumping during the time when the main is shut down for any reason.

## PART 3 - EXECUTION

### 3.01 Preparation

The Contractor shall locate bypass pipelines to minimize any disturbance to traffic or existing utilities where the piping is above ground.

### 3.02 Installation

- A. The Contractor shall remove manhole sections or make connections to the existing sewer and construct temporary bypass pumping structures at the access location(s) indicated on the drawings or approved by the Engineer.
- B. Plugging or blocking of sewage flows shall incorporate a primary and secondary plugging device. A sewer line plug shall be inserted into the line upstream of the section being worked. The plug shall be so designed that all or any portion of the sewage can be released. Flow shall be reduced to within the limits appropriate for satisfactory performance of the work during video inspection, testing, and sealing operations. When plugging or blocking is no longer needed for performance and acceptance of work, flow shall be restored to normal. Plugs shall

be removed in a manner that permits the sewage flow to slowly return to normal, without surge to prevent pipe damage, surcharging, or causing other major disturbances downstream.

- C. Precautions must be taken to ensure that sewer flow control operations do not cause flooding or damage to public or private property being served by the sewers involved.
- D. The Contractor shall comply with OSHA requirements and exercise caution when working in the presence of sewer gases, combustible or oxygen-deficient atmospheres, and confined spaces.
- E. The temporary bypass pipeline must be located off streets and sidewalks, when possible. When the bypass pipeline crosses local streets and private driveways, the Contractor must place the bypass pipelines in trenches and cover with temporary pavement, or with approval from the Engineer, temporary protection of bypass pipelines at grade may be allowed. Upon completion of the bypass pumping operations, the Contractor shall remove all the piping and restore all property to its pre-construction condition. The Contractor is responsible for obtaining any approvals for placement of the temporary pipeline within public ways from the Owner.

### 3.03 Performance Requirements

- A. There shall be no interruption in the flow of sewage throughout the duration of the project. The Contractor shall provide, maintain, and operate all temporary facilities such as dams, plugs, pumping equipment (both primary and back-up units as required), conduits, all necessary power, and all other labor and equipment necessary to intercept the sewage flow before it reaches the point where it would interfere with the work, carry it past the work area, and return it to the existing sewer downstream of the work area.
- B. The design, installation, and operation of the temporary pumping system shall be the Contractor's responsibility. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.
- C. The Contractor shall provide all necessary means to safely convey the sewage past the work area. The Contractor will not be permitted to stop or impede the main flows under any circumstances.
- D. The Contractor shall maintain sewer flow around the work area in a manner that will not cause surcharging of sewers, damage to sewers, and that will protect public and private property from damage and flooding.
- E. The Contractor shall protect water resources, wetlands, and other natural resources.
- F. The Contractor shall be responsible for determining when bypass pumping is necessary.

## PART 4 - MEASUREMENT AND PAYMENT

The work of temporary bypass pumping is considered included in the other pay item(s) that are listed and will not be paid for separately.

\*\*\*END OF SECTION\*\*\*



SECTION 33 33 00  
CURED-IN-PLACE PIPE (CIPP)

PART 1 - GENERAL

1.01 Work Included

This specification includes the minimum requirements for the rehabilitation of sanitary and storm sewer pipelines by the installation of Cured-In-Place Pipe (CIPP) within the existing, deteriorated pipe as shown on the plans included as part of these contract documents.

The rehabilitation of pipelines shall be done by the installation of a resin-impregnated flexible tube which, when cured, shall be continuous and tight-fitting throughout the entire length of the repair section. The CIPP shall extend the full length of the repair section and provide a structurally sound, jointless and water-tight new pipe-within-a-pipe. The Contractor is responsible for proper, accurate, and complete installation of the CIPP using the system selected by the Contractor meeting the Owner's requirements.

Neither the CIPP product, system, nor its installation, shall cause adverse effects to any of the Owner's processes or facilities. The installation pressure for the product shall not damage the system in any way, and the use of the product shall not result in the formation or production of any detrimental compounds or by-products at the wastewater treatment plant. The Contractor shall notify the Owner and identify any by-products produced as a result of the installation operations, test and monitor the levels, and comply with any and all local waste discharge requirements. The Contractor shall cleanup, restore existing surface conditions and structures, and repair any of the CIPP system determined to be defective. The Contractor shall conduct installation operations and schedule cleanup in a manner to cause the least possible obstruction and inconvenience to traffic, pedestrians, businesses, and property owners or tenants.

The Contractor shall provide all materials, labor, equipment, and services necessary for traffic control, bypass pumping and/or diversion of flows, cleaning and television inspection of sewers to be rehabilitated, liner installation, reconnection of service connections, all quality controls, provide samples for performance of required material tests, final television inspection, testing of the rehabilitated pipe system, warranty work and other work, all as specified herein.

1.02 References

- A. ASTM D543 – Standard and Practice for Evaluating the Resistance of Plastics to Chemical Reagents
- B. ASTM D638 – Standard Test Method for Tensile Properties of Plastics
- C. ASTM D790 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
- D. ASTM D792 – Standard Test Methods for Density and Specific Gravity of Plastics by Displacement
- E. ASTM D2122 – Standard Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings

- F. ASTM D2990 – Standard Test Methods for Tensile, Compressive, and Flexural Creep and Creep-Rupture of Plastics
- G. ASTM D3567 – Standard Practice for Determining Dimensions of Fiberglass (Glass- Fiber-Reinforced Thermosetting Resin) Pipe and Fittings
- H. ASTM D3681 – Standard Test Method for Chemical Resistance of “Fiberglass (Glass Fiber Reinforced Thermosetting Resin) Pipe in a Deflected Condition
- I. ASTM D5813 – Standard Specification for Cured-in Place Thermosetting Resin Sewer Pipe
- J. ASTM F1216 – Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube
- K. ASTM F1743 – Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Pull in and Inflate and Curing of a Resin-Impregnated Tube
- L. ASTM F2019 – Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Pulled in Place Installation of Glass Reinforced Plastic (GRP) Cured-in-Place Thermosetting Resin Pipe (CIPP)
- M. ASTM F2561 – Standard Practice for Rehabilitation of a Sewer Service Lateral and Its Connection to the Main Using a One Piece Main and Lateral Cured-in-Place Liner

Where materials or methods of construction are listed as being in conformance with a standard specification, it shall refer to the latest edition of the standard specification or any interim revision.

#### 1.03 Related Work

- A. Section 01 55 26 – Maintaining Traffic
- B. Section 01 74 50 – Cleanup and Restoration

#### 1.04 Submittals

The product furnished shall be a complete CIPP system including specific materials, applicable equipment, and installation procedures. The CIPP system manufacturer may submit, a minimum of 14 calendar days in advance of the bid date, required information to the Owner to obtain pre-approval status. Those CIPP systems that have been pre-approved will not be required to furnish information as required in the submittal section of this specification unless specifically requested to do so by the Owner or if any of the CIPP system components have changed from those pre-approved by the Owner. All other CIPP systems or multi-component products will be required to meet the submittal requirements as contained herein.

##### A. Performance Work Statement

- 1. The Contractor shall submit to the Owner a Performance Work Statement (PWS) which clearly defines the CIPP product delivery in conformance with the requirements of these contract documents. Unless otherwise directed by the Owner, the PWS shall at a minimum contain the following:

- a. Clearly indicate that the CIPP will conform to the project requirements as outlined in the description of work and as delineated in this specification.
- b. Where the scope of work is specifically delineated in the contract documents, a detailed installation plan describing all preparation work, cleaning operations, pre-CCTV inspections, bypass pumping, traffic control, installation procedure, method of curing, service reconnection, quality control, testing to be performed, final CCTV inspection, warranties furnished, and all else necessary and appropriate for a complete liner installation. A detailed installation schedule shall be prepared, submitted, and conform to the requirements of this contract.
- c. Contractor's description of the proposed CIPP technology, including a detailed plan for identifying all active service connections maintaining service, during mainline installation, to each home connected to the section of pipe being lined, including temporary service for commercial, industrial and apartment complexes, if required by the contract.
- d. A description of the CIPP materials to be furnished for the project. Materials shall be fully detailed in the submittals and conform to this specification and/or shall conform to the pre-approved product submission.
- e. A statement of the Contractor's experience. The Contractor shall have a minimum of three (3) years of continuous experience installing CIPP in pipe of a similar size, length, and configuration as contained in this contract. A minimum of 150,000 linear feet of shop wet-out liner installation is required and minimum of six (6) onsite wet-out installations are required as specifically applicable to this contract. The lead personnel including the superintendent, the foreman, and the lead crew personnel for the CCTV inspection, resin wet-out, the liner installation, liner curing, and the robotic service reconnections each must have a minimum of three (3) years of total experience with the CIPP technology proposed for this contract and must have demonstrated competency and experience to perform the scope of work contained in this contract. The name and experience of each lead individual performing work on this contract shall be submitted with the PWS. Personnel replaced by the Contractor, on this contract, shall have similar, verifiable experience as the personnel originally submitted for the project.
- f. Engineering design calculations, in accordance with the Appendix of ASTM F1216, for each length of liner to be installed including the thickness of each proposed CIPP. It will be acceptable for the Contractor to submit a design for the most severe line condition and apply that design to all the line sections. These calculations shall be performed and certified by a qualified, Professional Engineer. All calculations shall include data that conforms to the requirements of this specification or has been pre-approved by the Owner.
- g. Proposed manufacturer's technology data shall be submitted for all CIPP products and all associated technologies to be furnished.
- h. Submittals shall include information on the cured-in-place pipe intended for installation and all tools and equipment required for a complete installation. The PWS shall identify which tools and equipment will be redundant on the job site in the event of equipment breakdown. All equipment to be furnished for the project, including

proposed back-up equipment, shall be clearly described. The Contractor shall outline the mitigation procedure to be implemented in the event of key equipment failure during the installation process.

- i. A detailed description of the Contractor's proposed procedures for removal of any existing blockages in the pipeline that may be encountered during the cleaning process.
- j. A detailed public notification plan shall be prepared and submitted including detailed staged notification to residences affected by the CIPP installation.
- k. An odor control plan shall be submitted, by the Contractor, that will ensure that project specific odors will be minimized at the project site and surrounding area.

B. Fabric Tube

The Contractor shall provide the Engineer with the manufacturer and description of product components such as felts and reinforcing materials.

C. Flexible Membrane (Coating) Material

The Contractor shall provide the Engineer with the materials specific to the proposed curing method and recommended repair (patching) procedure if applicable.

D. Raw Resin Data

The Contractor shall provide the Engineer with the manufacturer and description of product components including the Spectroscopic Wavelength diagram for the resin being furnished.

E. Manufacturer's shipping, storage, and handling recommendations for all components of the CIPP system.

F. All safety data sheets (SDS) for all materials to be furnished for the project.

G. Tube wet-out and cure method including:

- 1. A complete description of the proposed wet-out procedure for the proposed technology.
- 2. The manufacturer's recommended cure method for each diameter and thickness of liner to be installed. The PWS shall contain a detailed curing procedure outlining the curing medium, the method of application, and how the curing temperatures will be monitored.

H. The Contractor shall submit a detail of the bypass pumping plan and design to the Owner before proceeding with any CIPP installation.

1.05 Safety

The Contractor is responsible for conducting operations in a safe and orderly manner and in conformance with MIOSHA P.A. 154.

The Contractor shall conform to all work safety requirements of pertinent regulatory agencies and shall secure the site for the working conditions in compliance with the same. The Contractor shall erect such signs and other devices as are necessary for the safety of the work site.

The Contractor shall perform all the work in accordance with applicable OSHA standards.

Emphasis shall be placed upon the requirements for entering confined spaces and with the equipment being utilized for pipe renewal.

The Contractor shall submit a proposed Safety Plan to the Owner, prior to beginning any work, identifying all competent persons. The plan shall include a description of a daily safety program for the job site and all emergency procedures to be implemented in the event of a safety incident. All work shall be conducted in accordance with the Contractor's submitted Safety Plan.

#### 1.06 Quality Assurance and Quality Control

A detailed quality control plan (QCP) shall be submitted to the Owner that fully represents and conforms to the requirements of this specification. At a minimum the QCP shall include the following:

- A. A detailed discussion of the proposed quality controls to be performed by the Contractor.
- B. Defined responsibilities, of the Contractor's personnel, for assuring that all quality requirements for this contract are met. These shall be assigned, by the Contractor, to specific personnel.
- C. Proposed procedures for quality control, product sampling, and testing shall be defined and submitted as part of the plan.
- D. Proposed methods for product performance controls, including method of and frequency of product sampling and testing both in raw material form and cured product form.
- E. Scheduled performance and product test result reviews between the Contractor and the Owner at a regularly scheduled job meeting.
- F. Inspection forms and guidelines for quality control inspections shall be prepared in accordance with the standards specified in this contract and submitted with the QCP.

#### 1.07 Notifications

The Contractor shall notify MISS DIG (800-482-7171) at least 72 hours before excavation.

#### 1.08 As-Built Drawings/Records

- A. As-built drawings/records, pre- and post-inspection videotapes, CDs, or other electronic media shall be submitted to the Owner, by the Contractor, within two (2) weeks of final acceptance of said work or as specified by the Owner. As-built drawings/records will include the identification of the work completed by the Contractor and shall be prepared on one set of Contract Drawings/Records provided to the Contractor at the onset of the project.
- B. As-built drawings/records shall be kept on the project site at all times, shall include all necessary information as outlined in the PWS or as agreed to by the Owner and the Contractor at the start of the Contract, shall be updated as the work is being completed and shall be clearly legible.

#### 1.09 Warranty

- A. The materials used for the project shall be certified by the manufacturer for the specified

purpose. The Contractor shall warrant the CIPP material and installation in accordance with the contract documents. During the Contractor warranty period, any defect which may materially affect the integrity, strength, function and/or operation of the pipe, shall be repaired at the Contractor's expense in accordance with procedures included in Section 3.09 CIPP Repair/Replacement and as recommended by the manufacturer.

- B. On any work completed by the Contractor that is defective and/or has been repaired, the Contractor shall warrant this work for (1) year in addition to the warrantee required by the contract.
- C. After a pipe section has been rehabilitated and for a period up to two (2) years following completion of the project, the Owner may inspect all or portions of the rehabilitated system. The specific locations will be selected at random by the Owner's inspector and should include all sizes of CIPP from this project. If it is found that any of the CIPP has developed abnormalities since the time of "Post Construction Television Inspection," the abnormalities shall be repaired and/or replaced as defined in Section 3.09 CIPP Repair/Replacement and as recommended by the manufacturer. If, after inspection of a portion of the rehabilitated system under the contract, problems are found, the Owner may televise all the CIPP installed on the contract. All verified defects shall be repaired and/or replaced by the Contractor and shall be performed in accordance with Section 3.09 CIPP Repair/Replacement and per the original specifications, all at no additional cost to the Owner.

## PART 2 - PRODUCTS

### 2.01 Materials

The CIPP product must meet the chemical resistance requirements specified as referenced in ASTM F1216 and ASTM D5813. The tested product should be of the same type tube and resin used on the project. Chemical resistance testing is a qualification test that is typically completed by the resin manufacturer who then certifies that the product meets the specified requirement. This certification, which can be accompanied by the test report, is submitted by the Contractor prior to the start of the project.

All materials shipped to the project site shall be accompanied by test reports certifying that the material conforms to the ASTM standards listed herein. Materials shall be shipped, stored, and handled in a manner consistent with written recommendations of the CIPP system manufacturer to avoid damage. Damage includes, but is not limited to, gouging, abrasion, flattening, cutting, puncturing or ultra-violet (UV) degradation. On site storage locations shall be approved by the Owner. All damaged materials shall be promptly removed from the project site at the Contractor's expense and disposed of in accordance with all current applicable agency regulations.

#### A. Fabric Tube

1. The fabric tube shall consist of one or more layers of absorbent non-woven felt fabric, felt/fiberglass, felt/carbon fiber, carbon fiber or fiberglass and meet the requirements of ASTM F1216, ASTM F1743, or ASTM F2019 and ASTM D5813. The fabric tube shall be capable of absorbing and carrying resins, constructed to withstand installation pressures and curing temperatures and have sufficient strength to bridge missing pipe segments, and stretch to fit irregular pipe sections. The Contractor shall submit certified information



from the felt manufacturer on the nominal void volume in the felt fabric that will be filled with resin.

2. The wet-out fabric tube shall have a uniform thickness and excess resin distribution that when compressed at installation pressures will meet or exceed the design thickness after cure.
3. The fabric tube shall be manufactured to a size and length that when installed will tightly fit the internal circumference, meeting applicable ASTM standards or better, of the original pipe. Allowance shall be made for circumferential stretching during installation. The tube shall be properly sized to the diameter of the existing pipe and the length to be rehabilitated and be able to stretch to fit irregular pipe sections and negotiate bends. The Contractor shall determine the minimum tube length necessary to effectively span the designated run between manholes. The Contractor shall verify the lengths in the field prior to ordering and prior to impregnation of the tube with resin to ensure that the tube will have sufficient length to extend the entire length of the run. The Contractor shall also measure the inside diameter of the existing pipelines in the field prior to ordering liner so that the liner can be installed in a tight-fitted condition.
4. The outside and/or inside layer of the fabric tube (before inversion/pull-in, as applicable) shall be coated with an impermeable, flexible membrane that will contain the resin and facilitate, if applicable, vacuum impregnation and monitoring of the resin saturation during the resin impregnation (wet-out) procedure.
5. No material shall be included in the fabric tube that may cause delamination in the CIPP. No dry or unsaturated layers shall be acceptable upon visual inspection as evident by color contrast between the tube fabric and the activated resin containing a colorant.
6. The wall color of the interior pipe surface of CIPP after installation shall be a light reflective color so that a clear detailed examination with closed circuit television inspection equipment may be made. The hue of the color shall be dark enough to distinguish a contrast between the fully resin saturated felt fabric and dry or resin lean areas.
7. Seams in the fabric tube, if applicable, shall meet the requirements of ASTM D5813.
8. The outside of the fabric tube shall be marked a maximum of every 5 feet with the name of the manufacturer or CIPP system, manufacturing lot and production footage.
9. The minimum length of the fabric tube shall be that deemed necessary by the installer to effectively span the distance from the starting manhole to the terminating manhole or access point, plus that amount required to run-in and run-out for the installation process.
10. The nominal fabric tube wall thickness shall be constructed, as a minimum, to the nearest 0.5 mm increment, rounded up from the design thickness for that section of installed CIPP. Wall thickness transitions, in 0.5 mm increments or greater as appropriate, may be fabricated into the fabric tube between installation entrance and exit access points. The quantity of resin used in the impregnation shall be sufficient to fill all the felt voids for the nominal felt thickness.

B. Resin

1. The resin shall be a corrosion resistant polyester or vinyl ester resin and catalyst system or epoxy and hardener system that, when properly cured within the tube composite, meets the requirements of ASTM F1216, ASTM F1743 or F2019, and ASTM D5813, the physical properties herein, and those which are to be utilized in the design of the CIPP for this project. The resin, specified for the specific application defined in the contract documents, shall produce CIPP which will comply with or exceed the structural and chemical resistance requirements of this specification.
2. The resin to tube ratio, by volume, shall be furnished as recommended by the manufacturer.

C. Structural Requirements

1. The physical properties and characteristics of the finished CIPP will vary considerably, depending on the types and mixing proportions of the materials used and the degree of cure executed. It shall be the responsibility of the Contractor to control these variables and to provide a CIPP system which meets or exceeds the minimum properties specified herein.
2. The CIPP shall be designed as per ASTM F1216 Appendixes. The CIPP design shall assume no bonding to the original pipe wall.
3. The design Engineer shall set the long-term (50 year extrapolated) Creep Retention Factor at 50 percent of the initial design flexural modulus as determined by ASTM D790 test method. This value shall be used unless the Contractor submits long-term test data (ASTM D2990) to substantiate a higher retention factor.
4. The cured pipe material shall, at a minimum, meet or exceed the structural properties, as listed below.

Property	Test Method	Cured Composite Per ASTM F1216	Cured Composite Per Design
Flexural Modulus of Elasticity (Short-Term) Felt Tubes. Felt/Fiberglass, Fiberglass as recommended by the Manufacturer	ASTM D790	250,000 psi	Contractor Value
Flexural Strength (Short-Term) Felt Tubes. Felt/Fiberglass, Fiberglass as recommended by the Manufacturer	ASTM D790	4,500 psi	Contractor Value

5. The required structural CIPP wall thickness shall be based, as a minimum, on the physical properties of the cured composite and per the design of the Professional Engineer (see section 1.04.A.1.f) and in accordance with the Design Equations contained in the appendix of ASTM F1216, and the following design parameters:

Design Safety Factor	2.0 (1.5 for pipes 36" or larger, if applicable)
Creep Retention Factor	50%
Ovality	2% or as measured by field inspection
Constrained Soil Modulus	Per AASHTO LRFD Section 12 and AWWA Manual M45
Groundwater Depth	As specified or indicated on the Plans
Soil Depth (above the crown)	As specified or indicated on the Plans
Live Load	Highway, railroad, or airport as applicable
Soil Load (assumed)	120 lb./cu. ft.
Minimum Service Life	50 years

6. The Contractor shall submit, prior to installation of the lining materials, certification of compliance with this specification and/or the requirements of the pre-approved CIPP system. Certified material test results shall be included that confirm that all materials conform to this specification and/or the pre-approved system. Materials not complying with these requirements will be rejected.
7. The design soil modulus may be adjusted based on data, determined from detailed project soil testing results, as provided by the Owner in the contract documents.

### PART 3 - EXECUTION

The CIPP shall be continuous and jointless from the start of the repair to the end of the repair and shall be free of all defects that will affect the long-term life and operation of the pipe.

The CIPP shall fit sufficiently tight within the existing pipe to not leak at the manholes, at the service connections or through the wall of the installed pipe. If leakage occurs at the manholes or the service connections, the Contractor shall seal these areas to stop all leakage using a material compatible with the CIPP as directed by the Owner at the price bid in the contract. If leakage occurs through the wall of the pipe, the CIPP shall be repaired or removed as recommended by the CIPP manufacturer. Final approval of the CIPP will be based on a leak tight pipe.

The CIPP shall be designed for a life of 50 years or greater and an equal service life unless specifically specified otherwise by the Owner.

The CIPP may be designed to resist external groundwater pressures only or as a fully structural stand-alone pipe-within-a-pipe. If the design is for groundwater, only the design groundwater level is required for external loads. If specified in the contract documents, the installed CIPP shall be a structurally designed pipe-within-a-pipe, meet or exceed all contract specified physical properties, fitting tightly within the existing pipe all within the tolerances specified. The installed CIPP shall withstand all applicable surcharge loads (soil overburden, live loads, etc.) and external hydrostatic (groundwater) pressure, if present, for each specific installation location.

The installed CIPP shall have a long-term (50 year) corrosion resistance to the typical chemicals found in domestic sewage and defined in the referenced and applicable ASTM standards.

All existing and confirmed active service connections and any other service laterals to be reinstated, as directed by the Owner, shall be re-opened robotically or by hand in the case of man-entry size piping, to their original shape and to 90 to 95 percent of their original area. All over-cut or under-cut service connections will be properly repaired to meet the requirements of this specification.

All materials furnished, as part of this contract shall be marked with detailed product information, stored in a manner specified by the manufacturer, and tested to the requirement of this contract.

Testing and warranty inspections shall be executed by the Owner. Any defects found shall be repaired or replaced by the Contractor.

The Contractor shall furnish, from the project installation, all samples for product testing at the request of the Owner. The Owner shall take possession of the samples for testing and shall maintain the chain of custody, deliver the samples to an approved laboratory, and pay for all material and product testing performed under this contract.

### 3.01 Construction Requirements

#### A. Preparation, Cleaning, Inspection, Flow Bypassing, and Public Notification.

The Contractor shall clean the interior of the existing host pipe prior to installation of the liner. All debris and obstructions that will affect the installation and the final CIPP product delivery to the Owner shall be removed and disposed of.

#### B. The liner shall be constructed of materials and methods that, when installed, shall provide a jointless and continuous structurally sound CIPP able to withstand all imposed static, and dynamic loads on a long-term basis.

#### C. The Contractor may, under the direction of the Owner, utilize any of the existing manholes in the project area as installation access points. If a street must be closed to traffic because of the location of the sewer, the Contractor shall furnish a detailed traffic control plan and all labor and equipment necessary. The plan shall be in conformance with the requirements of the local agency having jurisdiction over traffic control.

#### D. Cleaning of Pipelines

Before ordering liner materials for the project, the Contractor shall remove all internal debris from the pipeline that will interfere with the installation and the final product delivery of the CIPP, as required in this specification, and accurately measure and document the exact size of the existing pipeline to be rehabilitated. Solid debris and deposits shall be removed from the system and disposed of properly by the Contractor. Moving material from manhole section to manhole section shall not be allowed. As applicable, the Contractor shall either plug or install a flow bypass pumping system to properly clean the pipelines. Precaution shall be taken by the Contractor in the use of cleaning equipment to avoid damage to the existing pipe. The repair of any damage, caused by the cleaning equipment, shall be the responsibility of the Contractor. The Owner will designate a site for the disposal of all debris removed from the Owner's sewer system as a direct result of the cleaning operation. Unless otherwise specified by the Owner, the Contractor shall dispose of all debris at no charge. Should any dumping fees apply, the Contractor shall be compensated at the respective unit price bid in the contract for cleaning.

E. Bypassing Existing Flows

The Contractor shall provide for the flow of existing mainline and service connection effluent around the section or sections of pipe designated for CIPP installation. With most small diameter pipelines, particularly on terminal sewers, plugging will be adequate but must be monitored on a regular basis to prevent backup of sewage into adjacent homes. Service connection effluent may be plugged only after proper notification to the affected residence and may not remain plugged overnight. Installation of the liner shall not begin until the Contractor has installed the required plugs, or a sewage bypass system, and all pumping facilities have been installed and tested under full operating conditions including the bypass of mainline and side sewer flows. Once the installation has begun, existing flows shall be maintained, until the resin/tube composite is fully cured, cooled down, full televised and the CIPP ends finished. The Contractor shall coordinate sewer bypass and flow interruptions with the Owner at least 14 days in advance and with the property owners and businesses at least 1 business day in advance. The pump and bypass lines shall be of adequate capacity and size to handle peak flows.

F. Contractor shall perform post-cleaning video inspections of the pipelines. Only PACP certified personnel trained in locating breaks, obstacles and service connections by closed circuit television shall perform the inspection. The Contractor shall provide the Owner a copy of the pre-cleaning and post-cleaning video and suitable log, and/or in digital format, for review prior to installation of the CIPP and for later reference by the Owner.

G. Line Obstructions

It shall be the responsibility of the Contractor to clear the line of obstructions that will interfere with the installation and long-term performance of the CIPP. If pre-installation inspection reveals an obstruction, misalignment, broken or collapsed section or sag that was not identified as part of the original scope of work and will prohibit proper installation of the CIPP, the Contractor may be directed by the Owner to correct the problem(s) prior to installation by utilizing open cut repair methods.

H. The Contractor shall be responsible for confirming the locations of all branch service connections prior to installing the CIPP. In the event the status of a service connection cannot be adequately defined, the Owner will make the final decision, prior to installation of the liner, as to the status. Typically, only service connections deemed "active" shall be reopened by the Contractor.

I. The Contractor shall be allowed to use water from an Owner-approved fire hydrant in the project vicinity. Use of an approved double check backflow assembly shall be required. Contractor shall provide his own approved assembly.

3.02 Installation of Liner

- A. The liner shall be installed and cured in the host pipe per the manufacturer's specifications as described and submitted in the PWS.
- B. CIPP installation shall be in accordance with the applicable ASTM standards and as modified in this section.
- C. If significant groundwater infiltration is present in the existing sewer such as heavy runners and gushers, the Contractor shall install a pre-liner tube or perform chemical grouting to

control resin loss and contamination, maintain CIPP thickness, prevent physical property reduction, and prevent inadequate curing of the liner resulting from water or other contamination of the resin during installation. The pre-liner tube shall be a reinforced plastic tube to fit the existing pipeline and shall be continuous from manhole (access) to manhole (access).

- D. The wet-out tube shall be positioned in the pipeline using the method specified by the manufacturer. Care should be exercised not to damage the tube as a result of installation. The liner should be pulled-in or inverted through an existing manhole or approved access point and fully extend to the next designated manhole or termination point.
- E. Prior to installation and as recommended by the manufacturer, remote temperature gauges or sensors shall be placed inside the host pipe to monitor the temperatures during the cure cycle. Liner and/or host pipe interface temperature shall be monitored and logged during curing of the liner.
- F. To monitor the temperature of the liner wall and to verify correct curing, where specified by the contract documents, temperature monitors can be placed between the host pipe and the liner in the bottom of the host pipe (invert) at manholes or access points and/or throughout its entire length (continuous) to monitor the temperature on the outside of the liner during the curing process. For continuous temperature monitoring, a fiber optic cable is installed in the pipe invert prior to the liner installation. The fiber optic cable is monitored by a computer that is capable of recording temperatures at the interface of the liner and the host pipe continuously in time and location throughout the entire pipeline being rehabilitated.
- G. Curing shall be accomplished by utilizing the appropriate medium or ultraviolet light in accordance with the manufacturer's recommended cure procedure and/or schedule. The curing source or in and output temperatures shall be monitored and logged during the cure cycles, if applicable. The manufacturer's recommended cure method and schedule shall be used for each line segment installed, and the liner wall thickness and the existing ground conditions regarding temperature, moisture level, and thermal conductivity of soil, per ASTM as applicable, shall be considered by the Contractor.
- H. For heat cured liners, if any temperature sensor, or continuous sensor location does not reach the temperature as specified by the manufacturer to achieve proper curing or cooling, the installer can make necessary adjustments to comply with the manufacturer's recommendations. For continuous temperature monitoring, the system computer should have an output report that specifically identifies stations along the length of pipe, indicates the maximum temperature achieved and the sustained temperature time at the stations. At each station along the length of the pipe, the computer should record both the maximum temperature and the minimum cool down temperature and comply with the manufacturer's recommendations.
- I. For UV Cured Liners, all light train sensor readings, recorded by the tamper proof computer, shall provide output documenting the cure along the entire length of the installed liner. The cure procedure shall be in accordance with the manufacturer's recommendation as included in the PWS submission by the Contractor.



### 3.03 Cool Down

- A. The Contractor shall cool the CIPP in accordance with the approved CIPP manufacturer's recommendations as described and outlined in the PWS.
- B. Temperatures and curing data shall be monitored and recorded, by the Contractor, throughout the installation process to ensure that each phase of the process is achieved as approved in accordance with the CIPP System manufacturer's recommendations.

### 3.04 Finish

- A. The installed CIPP shall be continuous over the entire length of a sewer line section and be free from visual defects such as foreign inclusions, dry spots, pinholes, major wrinkles, and delamination. The CIPP shall be impervious and free of any leakage through the CIPP wall.
- B. Any defect which will or could affect the structural integrity or strength of the CIPP shall be repaired at the Contractor's expense in accordance with the procedures submitted under Section 3.09 CIPP Repair/Replacement.
- C. The beginning and end of the CIPP shall be sealed to the existing host pipe. The sealing material shall be compatible with the pipe end and shall provide a watertight seal.
- D. If any of the service connections leak water between the host pipe and the installed CIPP, the connection mainline interface shall be sealed to provide a watertight connection.
- E. If the wall of the CIPP leaks, it shall be repaired or removed and replaced with a watertight pipe as recommended by the manufacture of the CIPP system.

### 3.05 Flowable Fill of Void Areas

Where required by the Owner, the Contractor shall backfill voids that remain after installation of CIPP. The material shall be of the flowable fill type and shall be injected into the void while removing all trapped air from the void. The Contractor shall submit the proposed method of placing the flowable fill, including pressures that will not collapse the CIPP and air release method to be employed, to the Owner for review before any material is installed.

### 3.06 Manhole Connections and Reconnections of Existing Services

- A. A seal, consisting of a resin mixture or hydrophilic seal compatible with the installed CIPP, shall be applied at manhole/wall interface in accordance with the CIPP System manufacturer's recommendations.
- B. Existing services shall be internally or externally reconnected unless indicated otherwise in the contract documents
- C. Reconnections of existing services shall be made after the CIPP has been installed, fully cured, and cooled down. It is the Contractor's responsibility to make sure that all active service connections are reconnected.
- D. External reconnections are to be made with a tee fitting in accordance with CIPP System manufacturer's recommendations. Saddle connections shall be seated and sealed to the new CIPP using grout or resin compatible with the CIPP.

- E. A CCTV camera and remote cutting tool shall be used for internal reconnections. The machined opening shall be at least 90 percent of the service connection opening area and the bottom of both openings must match. The opening shall not be more than 100 percent of the service connection opening. The edges of the opening shall not have pipe fragments or CIPP fragments which may obstruct flow or snag debris. In all cases the invert of the sewer connection shall be cut flush with the invert entering the mainline.
- F. If service reinstatements result in openings that are greater than 100 percent of the service connection opening, the Contractor shall install a CIPP type repair, sufficiently in size to completely cover the over-cut service connection. No additional compensation will be paid for the repair of over-cut service connections.
- G. Coupons of pipe material resulting from service tap cutting shall be collected at the next manhole downstream of the pipe rehabilitation operation prior to leaving the site. Coupons may not be allowed to pass through the system.

### 3.07 Testing of Installed CIPP

- A. The physical properties of the installed CIPP shall be verified through field sampling and laboratory testing. All materials for testing shall be furnished by the Contractor to the Owner for testing. All materials testing shall be performed at the Owner's expense by an independent third-party laboratory selected by the Owner as recommended by the CIPP manufacturer. All tests shall be in accordance with applicable ASTM test methods to confirm compliance with the requirements specified in these contract documents.
- B. The Contractor shall provide samples for testing to the Owner from the actual installed CIPP. Samples shall be provided from each section of CIPP installed or as required by the Owner. The sample shall be cut from a section of cured CIPP that has been inverted or pulled through a like diameter pipe which has been held in place by a suitable heat sink, such as sandbags. All curing, cutting and identification of samples will be witnessed by the Owner and transmitted by the Owner's representative as specified, to the testing laboratory. On pipelines greater than 18 inches in diameter, the Owner may, at its discretion, require plate samples cured with the CIPP or designate a location in the newly installed CIPP where the Contractor shall take a sample. The Opening produced from the sample shall be repaired in accordance with manufacturer's recommended procedures.
- C. The laboratory results shall identify the test sample location as referenced to the nearest manhole and station. Final payment for the project shall be withheld pending receipt and approval of the test results. If properties tested do not meet the minimum physical and thickness requirements, the CIPP shall be repaired or replaced by the Contractor unless the actual physical properties and the thickness of the sample tested meet the design requirements as required in the contract.
- D. Chemical Resistance  
The CIPP system installed shall meet the chemical resistance requirements of ASTM F1216 and ASTM D5813. CIPP samples tested shall be of the fabric tube and the specific resin proposed for actual construction. It is required that CIPP samples without plastic coating meet these chemical testing requirements. A certification may be submitted, by the Contractor, from the manufacturer verifying that the chemical resistance of the CIPP meets the contract requirements.

E. Hydraulic Capacity

Overall, the hydraulic capacity shall be maintained as large as possible. The installed CIPP shall, at a minimum, be equal to the full flow capacity of the original pipe before rehabilitation. In those cases where full capacity cannot be achieved after CIPP installation, the Contractor shall submit a request to waive this requirement together with the reasons for the waiver request. Calculated capacities may be derived using a commonly accepted roughness coefficient for the existing pipe material taking into consideration its age and condition.

- F. The installed CIPP thickness shall be measured for each line section installed as per the ASTM requirements specified. If the CIPP thickness does not meet that specified in the contract and submitted as the approved design by the Contractor, then the CIPP shall be repaired or removed unless the tested physical properties and the thickness of the sample tested meet the design requirements as required in the contract. The CIPP thickness shall have tolerance of minus 5 percent to plus 10 percent. In worker-entry size piping, the Contractor shall remove a minimum of one sample every line section of installed CIPP to be used to check the CIPP thickness. The samples shall be taken by core drilling 2-inch diameter test plugs at random locations selected by the Owner. The openings produced from the samples shall be repaired in accordance with manufacturer's recommended procedures.

3.08 Final Acceptance

- A. All CIPP sample testing and repairs to the installed CIPP, as applicable, shall be completed before final acceptance, meeting the requirements of this specification, and documented in written form.
- B. The Contractor shall perform a detailed closed-circuit television inspection, in accordance with ASTM standards, in the presence of the Owner after installation of the CIPP and reconnection of the side sewers. A radial view (pan and tilt) TV camera shall be used. The finished CIPP shall be continuous over the entire length of the installation and shall be free of significant visual defects, damage, deflection, holes, leaks, and other defects. Unedited digital documentation of the inspection shall be provided to the Owner within ten (10) working days of the CIPP installation. The data shall note the inspection date, location of all reconnected side sewers, debris, as well as any defects in the CIPP, including, but not limited to, gouges, cracks, bumps, or bulges. If post installation inspection documentation is not submitted within ten (10) working days of the CIPP installation, the Owner may at its discretion suspend any further installation of CIPP until the post-installation documentation is submitted. As a result of this suspension, no additional working days will be added to the contract, nor will any adjustment be made for increase in cost. Immediately prior to conducting the closed-circuit television inspection, the Contractor shall thoroughly clean the newly installed CIPP removing all debris and build-up that may have accumulated at no additional cost to the Owner.

Final CCTV inspection should be performed using high pressure water to eliminate standing water in sags and bellies while the line is being televised.

- C. Bypass pumping or plugging from the upstream manhole shall be utilized to minimize sewage from entering the line during the inspection. In the case of bellies in the line, the pipe shall be cleared of any standing water to provide continuous visibility during the inspection.

- D. Where leakage is observed through the wall of the pipe, the Contractor shall institute additional testing including, but not limited to, air testing, hydrostatic (exfiltration) testing, localized testing (such as a grout packer) or any other testing that will verify that the leakage rate of the installed CIPP does not exceed acceptable tolerances specified in the contract. As an alternative to further leakage testing, the Contractor may choose to repair any observed leaks.

#### 3.09 CIPP Repair/Replacement

- A. Occasionally installations will result in the need to repair or replace a defective CIPP. The Contractor shall outline specific repair or replacement procedures for potential defects that may occur in the installed CIPP. Repair/replacement procedures shall be as recommended by the CIPP system manufacturer and shall be submitted as part of the PWS.
- B. Defects in the installed CIPP that will not affect the operation and long-term life of the product shall be identified and defined.
- C. Repairable defects that may occur in the installed CIPP shall be specifically defined by the Contractor based on manufacturer's recommendations, including a detailed step-by-step repair procedure, resulting in a finished product meeting the requirements of these contract specifications.
- D. Unrepairable defects that may occur to the CIPP shall be clearly defined by the Contractor based on the manufacturer's recommendations, including a recommended procedure for the removal and replacement of the CIPP.

### PART 4 - MEASUREMENT AND PAYMENT

#### 4.01 Pay Items

When cured-in-place pipe (CIPP) is specifically listed as a pay item on the contract, payment will be at the contract unit price for the following pay item(s).

<u>Pay Item</u>	<u>Pay Unit</u>
Sanitary Sewer, _ inch, CIPP Lining	Foot

#### 4.02 Measurement

Payment for the work of Sanitary Sewer, \_ inch, CIPP Lining will be measured from center of manhole to center manhole, or start of sewer lining to end of sewer lining if termination points are not at manholes, for the pipe to be lined with CIPP, in units of feet.

#### 4.03 Work Included

The prices submitted by the Contractor, shall include all costs of permits, labor, equipment, and materials for the various bid items necessary for furnishing and installing, complete in place, CIPP in accordance with this specification. All items of work not specifically mentioned herein which are required, by the Contractor, to make the product perform as intended and deliver the final product as specified herein shall be included in this work.

- A. Compensation for all work required for the submittal of the PWS shall be included in the pipelining items contained in the contract.
- B. Pre-installation CCTV inspection includes pre-cleaning and post cleaning CCTV for Owner review. All inspections will be performed by PACP trained and certified personnel. This work will be included in the Video Inspection, Pre and Post Lining item contained in the contract.
- C. Dye testing of service connections includes dye testing and documentation of existing service connection on each pipe length to be lined. This work will be included in the pipelining items contained in the contract.
- D. Standard pipe cleaning including all labor, equipment, materials, and cost of material disposal. This work will be included in the Pre-CIPP Cleaning item contained in the contract.
- E. Heavy pipe cleaning including all labor, equipment, materials, and cost of material disposal. This work will be included in the Pre-CIPP Cleaning item contained in the contract.
- F. Pre-liner installation includes all labor, equipment, and materials required. This work will be included in the pipelining items contained in the contract.
- G. Reinforced pre-liner installation includes all labor, equipment, and materials required. This work will be included in the pipelining items contained in the contract.
- H. Liner installation of CIPP will be paid per linear foot for each pipe size category and includes all labor, equipment, and materials required for the complete installation of a CIPP. Compensation shall be at the actual length of cured-in-place pipe installed. The length shall be measured from center of manhole to center of manhole.
- I. Flowable fill including all labor, equipment, and materials required for the complete backfilling of soil voids will be included in the pipelining items contained in the contract.
- J. Sewage bypass includes all labor, equipment, and materials required to implement a flow bypass plan for the entire project, including the cost of all sub-contracted flow bypass specialists. Compensation for bypass pumping and all associated plans and approvals shall be included in the pay items listed in the contract and not paid for separately.
- K. Service reconnections includes reconnecting existing live sewer service connections to the installed CIPP. Owner shall review and verify those connections that are not live and will be left unopened. This work will be included in the pipelining items contained in the contract.
- L. Service connection sealing includes sealing the interface between the installed CIPP and the host pipe at the location of the service connection. This work will be included in the pipelining items contained in the contract.
- M. Manhole/wall interface sealing includes sealing the interface between the installed CIPP and the manhole wall. This work will be included in the pipelining items contained in the contract.
- N. Post-construction CCTV inspection includes post lining CCTV for submission to the Owner. All inspections will be performed by PACP trained and certified personnel.
- O. All costs to the Contractor associated with providing cured CIPP samples for testing shall be included in the pay items listed in the contract and not paid for separately. Payment for all testing by a laboratory will be paid for by the Owner directly to the laboratory.

- P. Compensation for all work required for the submittal and approval of as-built drawings/records shall be included in the pipelining items contained in the contract.

\*\*\*END OF SECTION\*\*\*



STATE OF MICHIGAN  
COUNTY OF IOSCO  
CHARTER TOWNSHIP OF OSCODA  
2006-233

An ordinance to amend Chapter 14, Article VIII of the Charter Township of Oscoda, entitled "Public Safety and Fire Emergency Response Cost Recovery" to provide for

**THE CHARTER TOWNSHIP OF OSCODA ORDAINS:**

**PART I. Ordinance Amendment.**

Chapter 14, Article VII, Section 14-21 is hereby amended to read as follows:

**Sec. 14-21. Purpose.**

The purpose of this article is to authorize the ~~Charter Township of Oscoda~~ to recover costs incurred by it in responding to certain public safety or fire emergency incidents, and to provide for the procedure by which such recovery shall occur.

**PART II. Ordinance Amendment.**

Chapter 14, Article VII, Section 14-22 is hereby amended to read as follows:

**Sec. 14-22. Definitions.**

For purposes of this article, the following terms shall have the meanings supplied, unless the context clearly indicates otherwise:

*Assessable costs* means and/or refers to those **actual** costs for all services incurred by the ~~Charter Township of Oscoda~~ in connection with a response to a public safety or fire emergency incident based on, but not limited to, the actual labor and material costs of the ~~Charter Township of Oscoda~~ (including, without limitation, employee wages, fringe benefits, administrative overhead, costs of equipment, costs of equipment operation, costs of materials, costs of transportation, costs of material disposal; service charges and interest; attorneys' fees, litigation costs and any costs, charges, fines, or penalties to the ~~Charter Township of Oscoda~~ imposed by any court or state or federal governmental entities.

~~Department or~~ **Fire** department shall mean and refer to the Charter Township of Oscoda's Fire Department.

**Emergency response shall mean the dispatch, provision, response, and/or utilization of police, fire, emergency medical, rescue services, and/or other emergency services by the township, or by any other governmental or intergovernmental entity providing any such services at the request or direction of the township's fire or police departments, in response**

**to a call for assistance from any person, property owner, government agency, emergency service provider, or other entity.**

*Hazardous materials*, waste or materials means and/or refers to those elements, substances, wastes or by-products, including, but not limited to, combustible liquid, flammable gas, explosives, flammables, poisons, organic peroxides, oxidizers, pyrophorics, unstable reactive matter, water reactive matter, petroleum products, anti-freeze, polychlorinated biphenyls and asbestos, which are or are potentially harmful to the environment or human or animal life, or which pose an unreasonable or imminent risk to life, health, or safety of persons or property, or to the ecological balance of the environment as determined by the Fire Chief or the senior Fire Official of the Charter Township of Oscoda in charge at the scene. The "hazardous materials, wastes, or materials," referred to above, shall include any such materials and/or waste, as may be defined by State and/or Federal rule, regulation, and/or statute, or as otherwise defined by law.

**Incident shall mean a fire, accident, utility emergency, hazardous material incident, investigation, or clean-up, arson including but not limited to incendiary-type fires, response to and investigation of on-going code or statutory violations, technical rescue, medical rescue, and/or other emergency situation.**

**Police Department shall mean the Charter Township of Oscoda's Police Department.**

*Release* means and/or refers to any actual or threatened spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, leaching, dumping or disposing into the environment, including, but not limited to, the air, soil, groundwater and surface water.

**Responsible person shall mean any individual, firm, corporation, association, partnership, commercial entity, consortium, joint venture, or other entity that creates the need for a response, or who owns, operates, maintains, occupies, or controls any building, premises, or property in a manner that causes a response incident to arise. The phrase "creates the need for a response" is intended to include only those persons whose intentional or negligent actions caused the need for the emergency response.**

### **PART III. Ordinance Amendment.**

Chapter 14, Article VII, Section 14-23 is hereby amended to read as follows:

#### **Sec. 14-23. Fire protection area.**

The ~~Oscoda~~ Fire Department provides public safety and/or fire emergency services within the ~~Charter Township of Oscoda~~; and has entered into a fire protection contract to provide these services to other areas. At present, these other areas include the Township of AuSable, and 39 sections of the Township of Wilber, all in Iosco County, and wherever there is a mutual aid agreement in effect involving the ~~Charter Township of Oscoda~~, all within the State of Michigan. It is intended that the rights and procedures provided herein shall extend and apply to the entire protection area, and that the same are an inseparable aspect of the services provided by the ~~Charter Township of Oscoda~~ and its fire department both within the ~~Charter Township of Oscoda~~ limits and elsewhere under and pursuant to such fire protection contracts.

## **PART IV. Ordinance Amendment.**

Chapter 14, Article VII, Section 14-24 is hereby amended to read as follows:

### **Sec. 14-24. Cost recovery authorization and procedure.**

(a) Upon receipt of the fire department chiefs report pertaining to a public safety or fire emergency, the ~~Charter Township of Oscoda~~ may recover from any or all responsible ~~parties~~ **persons**, individually, jointly and/or severally, all assessable and/or reasonable costs in connection with such emergency. Additionally, if in fact there is a response to such a motor vehicle accident that requires the utilization of the Jaws of Life, and/or where there is a large amount of personnel needed to save life, then these costs shall be passed onto any and all **responsible persons** ~~parties~~ involved in said accident. These costs shall also include any of same incurred as a result of any utility line failure, **including downed power lines**, gas leaks, or any other damages that require fire and/or police department to either standby and/or assist, or be actively engaged, and the cost of same shall be passed onto for purposes of collection to any potential insurance company. Inclusive of these costs, shall be reimbursement for the necessary clean-up/remediation, and all costs and fees associated therewith, as a result of said clean-up including hazardous materials, and/or waste, as defined in section 14-22.

(b) The ~~Charter Township of Oscoda~~ Superintendent or his or her designee shall determine the total assessable costs and shall, in consultation with other ~~Charter Township of Oscoda~~ personnel involved in responding to a public safety or fire emergency incident, to assess any, all, or part of such costs against any of the responsible ~~parties~~ **persons**. Upon request of the ~~particular party involved~~ **responsible person**, an appeal of the determination of the ~~Charter Township of Oscoda~~ Superintendent ~~in this matter~~, may be made to the ~~Charter Township of~~ Oscoda Board of Trustees, whereupon they shall make a determination as to whether or not any costs should be recovered, and if so, if the amount requested, is reasonable.

(c) In making a determination of costs, the following shall be considered:

- (1) The total assessable costs;
- (2) The risk the public safety or fire emergency incident imposed on the ~~Charter Township of Oscoda~~ and/or its response area, its residents and their property;
- (3) Whether there was any injury or damage to a person or property;
- (4) Whether the public safety or fire emergency incident required evacuation;
- (5) The extent to which the public safety or fire emergency incident required an unusual or extraordinary use of ~~Charter Township of Oscoda~~ personnel and equipment;
- (6) Whether there was any damage to the environment;

- (7) The existence and extent of negligence or fault on the part of the responsible party; and
- (8) Whether the public safety or fire emergency incident involved, or the assessable costs were incurred for the benefit of a resident of the ~~Charter Township of Oseoda~~.

(d) After consideration of the factors in subsection (c) immediately above, the ~~Charter Township of Oseoda~~ Superintendent may allocate assessable costs among and between multiple responsible ~~parties~~ **persons**, as he/she may see fit.

#### **PART V. Ordinance Amendment.**

Chapter 14, Article VII, Section 14-25 is hereby amended to read as follows:

##### **Sec. 14-25. Billing and collection of assessable costs.**

**A schedule of costs shall be established by resolution of the Township Board. The cost of an emergency response shall be a charge against the responsible person(s). Such charge constitutes a debt of that person or persons.**

After determining to assess and recover the costs as contemplated in this article, the ~~Charter Township of Oseoda~~ Superintendent shall invoice **by first class mail or personal service to** relevant parties with same to be due and payable within 30 days of the date of same, and for failure to do so, set **said** amount shall ~~bare~~ **bear** late ~~payment fees~~ equal to one percent per month, and/or to the legal maximum allowed by law. Any assessed party shall be able to appeal such determination to the township board within 30 days of the date of said invoice ~~as~~ referred to immediately above.

#### **PART VI. Ordinance Amendment.**

Chapter 14, Article VII, Section 14-26 is hereby amended to read as follows:

##### **Sec. 14-26. Assessable costs a lien upon property.**

Assessable costs assessed against a responsible party not paid when due, including late payment fees, shall constitute a lien upon any real property owned or in which an interest is held by a responsible party within the ~~Charter Township of Oseoda~~ or response area, and from, upon or pertaining to which property the public safety or fire emergency incident occurred. Such lien shall be of the same character and effect as the lien created by Township Charter for real property taxes and shall include accrued interest and penalties. The ~~Charter Township of Oseoda~~ Treasurer shall prior to March 1 of each year certify to the **Township** assessor of the ~~Charter Township of Oseoda~~ or the ~~Charter~~ **Township** of Oseoda in which the subject property is situated the fact that such assessable costs are delinquent and unpaid. The ~~Charter Township of Oseoda~~ or ~~Charter Township of Oseoda~~ Assessor shall then enter the delinquent amount on the next general ad valorem tax roll as a charge against the affected property, and the lien thereon

shall be enforced in the same manner as provided and allowed by law for delinquent and unpaid real property taxes.

## **PART VII. Ordinance Amendment.**

Chapter 14, Article VII, Section 14-27 is hereby amended to read as follows:

### **Sec. 14-27. Other remedies.**

In addition to those rights and remedies set forth in this article, the ~~Charter Township of Oscoda~~ shall be entitled to pursue any other remedy or may institute any appropriate action or proceeding in a court of competent jurisdiction as permitted by law to collect assessable costs from a responsible ~~party~~person, including, but not limited to the filing of a civil action to recover the invoiced expenses of an emergency response, plus the township's attorney fees, court costs, litigation expenses and all other costs allowed by law. The township shall also have any other remedy available to the township by law, including but not limited to requesting the township attorney to file a civil action for the recovery of costs.

**PART VIII. Severability.** Should any division, section, subsection, clause, or phrase of this ordinance be declared by the courts to be invalid, the validity of the Ordinance as a whole, or in part, shall not be affected other than the part invalidated.

**PART IX. Savings Clause.** Nothing in this Ordinance shall be construed to affect any suit or proceeding pending in any court or any rights acquired or any liability incurred, or any cause or causes of action acquired or existing, under any act or ordinance hereby repealed as cited in Article IV of this Ordinance; nor shall any just or legal right or remedy of any character be lost, impaired, or affected by this Ordinance.

**PART X. Repealer.** All other Ordinances or parts of Ordinances in conflict herewith are hereby repealed only to the extent necessary to give this Ordinance full force and effect.

**PART XI. Effective Date; Publication.** . This Ordinance is hereby declared to have been adopted by the Township Board of the Charter Township of Oscoda at a meeting duly called and held on \_\_\_\_\_, 2023, and ordered to be given publication in the manner prescribed by law.

Made, passed and adopted by the Oscoda Township Board on this \_\_\_\_ day of \_\_\_\_\_, 2023.

### **Certificate of Adoption**

I hereby certify that the foregoing is a true and complete copy of the ordinance adopted at the regular meeting of the Oscoda Township Board held on the \_\_\_\_ day of \_\_\_\_\_, 2023.

---

Joshua Sutton, Clerk

Adopted:  
Published:  
Effective:





Charter Township of Oscoda  
110 South State Street  
Oscoda, Michigan 48750  
Office of Supervisor: (989)739-3211  
Office of Clerk: (989)739-4971  
Office of Treasurer: (989)739-7471  
Office of Superintendent: (989)739-8299  
Fax: (989)739-3344

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**CHARTER TOWNSHIP OF OSCODA  
RESOLUTION NO. 2023-07**

**AGREEMENT BETWEEN  
IOSCO COUNTY AND \_\_\_\_\_  
FOR HOUSING COMMISSION SERVICES**

This Agreement is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 202\_\_, between Iosco County, a municipal corporation and political subdivision of the State of Michigan (hereinafter referred to as the "County"), and \_\_\_\_\_ (hereinafter referred to as the "Municipality").

**WHEREAS**, on \_\_\_\_\_, under the authority of Public Act 18 of 1933, as amended, being MCL 125.651 *et seq*, the County adopted an ordinance establishing the Iosco County Housing Commission (hereinafter referred to as the "Commission"); and

**WHEREAS**, the Commission was established to assist in establishing low income housing opportunities to residents of Iosco County, and specifically to take advantage of federal and/or state vouchers, grants or other funding that may become available to Iosco County residents through a housing commission; and

**WHEREAS**, pursuant to MCL 125.653(d), in incorporated areas of the County, the Commission shall have only the functions, rights, powers, and duties as provided by a contractual agreement between the County and the incorporated area; and

**WHEREAS**, the parties desire for the Commission to have power and authority to provide services to the residents of the Municipality.

**NOW, THEREFORE**, the parties hereto agree as follows:

A. The parties agree that the Commission shall have all of the functions, rights, powers, and duties to provide low income housing services in the Municipality, as set forth in the Iosco County Housing Commission Ordinance, a copy of which is attached as Exhibit A to the Agreement.

B. The parties agree that qualified residents of the Municipality are eligible to receive housing assistance as authorized by grants received by the Commission, including funding for home improvement projects for low income families and individuals in the form of either deferred loans or grants in accordance with the grant eligibility requirements.

C. The parties agree that the Commission will have complete authority to determine whether an individual or a home improvement project meets the requirements for grant funding.

D. The Municipality agrees to provide assistance to the Commission as needed to identify qualified residents in need of low income housing related grant funding including, but not limited to, posting links to Commission programs on its website, making program handouts available to residents in municipal buildings and otherwise helping to connect those in need with the Commission.

E. The Municipality agrees to assist the Commission when needed with the application for and/or the distribution of grant funding. This includes providing any information needed for the application process and providing assistance with identifying eligible recipients for grant funds.

F. The County agrees to provide the Municipality with a copy of the annual report of the Commission's activities as prepared by the Commission for the County.

G. Modifications, amendments, or waivers of any provision of this Agreement may be made only by the written mutual consent of the authorized representatives of both the County and the Municipality.

H. If a court of competent jurisdiction declares any part, portion, or provision of this Agreement invalid, unconstitutional or unenforceable, the remaining parts, portions and provisions of the Agreement shall remain in full force and effect.

I. This Agreement constitutes the entire Agreement between the Parties with respect to the subject matter identified in the Agreement, and no modification or revision to the Agreement shall have any force and effect unless it complies with the provisions of Paragraph heading G. The failure of any Party to insist on the strict performance of any condition, promise, agreement, or undertaking set forth herein shall not be construed as a waiver or relinquishment of the right to insist upon strict performance of the same condition, promise, agreement or undertaking at a future time.

J. Any Notice/Communication required, or permitted, under this Agreement from one party to another, shall be deemed effective if the party sending the Notice/Communication hand delivers, e-mails or first class mails the Notice/Communication to the other party or if the party sends the Notice/Communication through first class mail or email to the other party. The parties agree that Notices and Communications should be sent to the parties at the following addresses:

**MUNICIPALITY**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**COUNTY**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

K. This Agreement may be terminated by either party by providing a thirty (30) day written notice to the other party.

L. The individual or officer signing this Agreement certifies by his or her signature that he or she is authorized to sign this Agreement on behalf of the responsible governing board, official or agency.

**IN WITNESS WHEREOF**, the parties hereto, acting through their duly authorized officers, have executed this Agreement as of the date written below.

\_\_\_\_\_

By: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Its: \_\_\_\_\_

**IOSCO COUNTY**

By: \_\_\_\_\_

Date: \_\_\_\_\_

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# Iosco County Board of Commissioners

2

COURT HOUSE  
Tawas City, Michigan 48763

## RESOLUTION

DATE: October 19, 2022

THE HONORABLE BOARD OF COMMISSIONERS:

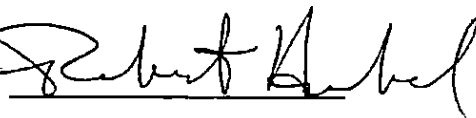
WHEREAS, the Committee of the Whole received a request from Jamie Carruthers-Soboleski, County Controller/Finance Director, to approve establishing the Iosco County Housing Commission via the attached Ordinance of October 19, 2022; and

NOW THEREFORE BE IT RESOLVED, the full board approves the ordinance as presented and authorizes Board Chairman, Donald J. O'Farrell, to sign and execute on behalf of Iosco County.

Move:



Support:



Roll Call: Ayes 5

Nays 0

Absent 0

# **AN ORDINANCE ESTABLISHING AN IOSCO COUNTY HOUSING COMMISSION**

**Adopted by Iosco County Board of Commissioners on ~~July 19~~ July 19, 2022.**

**Ordinance No. \_\_\_\_\_**

**Whereas**, the Iosco County Board of Commissioners' meeting minutes confirm that the Iosco County Board of Commissioners previously created a Housing Commission through a Resolution adopted August 27, 1980, to implement a housing program under Public Act 18 of the Extra Session of 1933, as amended, being MCL 125.651 *et seq*; and

**Whereas**, the Iosco County Housing Commission, without a formal repeal of the Resolution, ceased operation in June of 2021; and

**Whereas**, the Iosco County Board of Commissioners now seeks to reestablish the Housing Commission, and

**Whereas**, Public Act 18 of the Extra Session of 1933, as amended, being MCL 125.651 *et seq*, provides that a County Housing Commission must be established by Ordinance and not by resolution, the Iosco County Board of Commissioners adopts the following Ordinance establishing the Iosco County Housing Commission in accordance with statutory requirements.

## **NOW THEREFORE, THE COUNTY OF IOSCO, MICHIGAN, ORDAINS:**

### **Section 1. Authority and Purpose.**

- 1.01. Authority.** The Iosco County Board of Commissioners adopts this Ordinance pursuant to the provisions of Act No. 18, of the Executive Session of the Public Acts of 1933, as amended, MCL 125.651 *et seq*, for the purpose of creating the Iosco County Housing Commission; establishing the powers, duties, rights and responsibilities of the Housing Commission; establishing the selection and composition of the Board of Directors of the Housing Commission and establishing the effective date for this Ordinance.

**1.02 Purpose.** The County of losco, acting through its County Board of Commissioners, finds the lack affordable housing within the County for persons of low income detrimental to the County's public health, safety, and welfare. The County of losco, acting through its Board of Commissioners, adopts this Ordinance to create the losco County Housing Commission which will assist in establishing low income housing opportunities and assistance to residents of losco County. The purpose of the Housing Commission is to take advantage of federal and/or state vouchers, grants or other funding that may become available to losco County residents through a created housing commission. The Housing Commission shall have the powers conferred by federal and/or state statute and in accordance with this Ordinance.

## **Section 2. Definitions**

**2.01 Commission.** "Commission" means the losco County Housing Commission.

**2.02 Incorporated Areas of the County.** "Incorporated Areas of the County" means all cities, villages, and charter townships located within losco Township.

**2.03 "Unincorporated Areas of the County.** "Unincorporated Areas of the County" mean all general law townships located within the County except for any village located within the territorial boundaries of a general law township.

## **Section 3. Powers, Duties and Jurisdiction.**

**3.01 Powers and Duties.** The Commission is specifically authorized and directed to determine in what areas of the County it is necessary to provide assistance to ensure affordable housing for families of low income, and for the elimination of housing conditions which are detrimental to the public health, safety, or welfare.

**3.01.1.** The Commission is specifically authorized and directed to recommend to the losco County Board of Commissioners the purchase, lease, sale, exchange, transfer, assignment, financing for rehabilitation and mortgaging of any property, real or personal, or any interest therein upon a determination by the Commission that the purchase, lease, sale, exchange, transfer, assignment, financing for rehabilitation and mortgaging of any property, real or personal, or any interest therein will help ensure the availability of affordable housing for families of low income.



**3.01.2.** The Commission shall have no authority to acquire any interest in real estate, whether by lease, fee or other contract, without the formal approval of the losco County Board of Commissioners. All deeds, mortgages, contracts, leases, purchases, or other agreements regarding real property, including agreements to acquire or dispose of real property, shall be approved and executed in the name of losco County after approval by the losco County Board of Commissioners.

**3.01.3** Contracts for the purchase of necessary materials and contracts related to the powers and duties of the Commission are to be approved and executed by the Commission.

**3.01.4** The Commission has authority to issue RFPs and enter into contracts for design, construction, reconstruction, alteration, improvement, extension or repair for any grant funded housing projects.

**3.01.5** The Commission has authority to provide housing assistance to low income families as authorized by grants received. This authority includes providing funding for home improvement projects to low income families and individuals in the form of either deferred loans or grants in accordance with the grant eligibility requirements. The Commission will determine whether a home improvement project meets the eligibility requirements for grant funding..

**3.02 Jurisdiction.** The Commission, when acting within any unincorporated area of the County shall have all of the functions, rights, powers, duties and liabilities provided to the Commission in Section 3.01 and Section 4.05 of this Ordinance. The Commission, when acting within the incorporated areas of the County, shall have the functions, rights, powers, duties and liabilities as may be provided by contractual agreement between the incorporated area and the losco County Board of Commissioners.

**3.03. Debt and Bonds.** The Commission shall have no authority to assume debt or issue bonds or notes in its name or the name of losco County, without the formal approval of the losco County Board of Commissioners for each specific debt instrument, In no event may the Commission incur any liability for the general or other funds of losco County.

**3.04. Termination.** The losco County Board of Commissioners may terminate this Ordinance and the Housing Commission at any time.

#### **Section 4. Commission; Membership; Removal; Vacancies; Powers**

**4.01. Membership.** Subject to Section 4.02 of this Ordinance, the Commission shall consist of five (5) members. The Iosco County Board of Commissioners shall designate by Resolution the officer or official responsible for appointing the Commission members. The term of office of Commission members shall be five (5) years. Members of the first Commission shall be appointed for terms of 1 year, 2 years, 3 years, 4 years and 5 years respectively and annually thereafter 1 member shall be appointed for the term of 5 years.

The Iosco County Board of Commissioners may also appoint one Commissioner to serve on the Commission in an advisory capacity only. The appointed Commissioner shall serve as a liaison between the Commission and the Iosco County Board of Commissioners and shall not have the authority to vote on any matters before the Commission.

**4.02. Membership requirement.** Pursuant to MCL 125.654(2), if the Commission manages public or subsidized housing, one member of the Commission shall be a tenant of the public or subsidized housing.

**4.03. Removal.** The Iosco County Board of Commissioners may, upon recommendation from the officer or official responsible for appointing the Commission members, remove a Commission member prior to the expiration of that member's term of office. Subject to the provisions of Section 4.02, a vacancy in office shall be filled by the appointing authority for the remainder of the unexpired term.

**4.04. Compensation.** Members of the Commission may receive compensation for actual expenses incurred as a member of the Commission, in an amount determined by resolutions adopted by the Iosco County Board of Commissioners.

**4.05. Powers.** The Commission shall be a public body corporate, and, in addition to the Powers and Duties set forth in Section 3.01, may do all of the following:

**4.05.1.** Sue and be sued in any court of this state.

**4.05.2.** With approval from the Iosco County Board of Commissioners, form, or incorporate nonprofit corporations under the laws of this state for any purpose not inconsistent with the purposes for which the Commission was formed.

**4.05.3.** Serve as a shareholder or member of a qualified nonprofit corporation organized under the laws of this state.

**4.05.4.** Authorize, approve, execute and file with the Michigan Department of Commerce those documents that are appropriate to form and continue 1 or more nonprofit corporations.

**4.05.5.** With approval from the Iosco County Board of Commissioners, form or incorporate for-profit corporations, partnerships and companies under the laws of this state for any purpose not inconsistent with the purposes for which the Commission was formed.

**4.06. Bylaws.** The Commission may approve bylaws, but such bylaws must be approved by the Iosco County Board of Commissioners and shall not be inconsistent in any way with the terms and conditions of this Ordinance. In the face of any inconsistency between the bylaws and this Ordinance, this Ordinance shall control.

**Section 5. Public Meetings; Notice; Rules; Record; Quorum; Writings; Officers; Compensation; Duties.**

**5.01. Meetings of the Commission.** The business that the Commission may perform shall be conducted at a public meeting of the Commission held in compliance with the Open Meetings Act, Act. No. 267 of the Public Acts of 1976, as amended, being sections MCL 15.261 to 15.275. Public notice shall be given in the manner required by Act No. 267 of the Public Acts of 1976, as amended. The Commission shall meet at regular intervals. It shall adopt its own rules of procedure and shall keep a record of the proceedings. Three members shall constitute a quorum for the transaction of business.

**5.02. Records.** A writing prepared, owned, used, in the possession of, or retained by the Commission in the performance of an official function shall be made available to the public in compliance with the Freedom of Information Act, Act. No. 442 of the Public Acts of 1976, being sections MCL 15.231 to 15.246.

**5.03. Officers and Employees.** A president and vice-president and other officers designated by the Commission shall be elected by the Commission. The Commission may employ and fix the compensation of a director who may serve as a secretary and other employees as necessary. The Iosco County Board of Commissioners may adopt a resolution which conditions the establishment of any compensation of the director upon the approval of the Iosco County Board of Commissioners or which establishes compensation ranges and classifications which the Commission must use in fixing the compensation of its director. The Commission shall prescribe the duties of its officers and director, and shall transfer to its officers and director those functions and that authority which the Commission has prescribed. The Commission may employ engineers, architects, attorneys, accountants and other professional consultants when necessary.

**5.03.1.** The director is the only employee that the Commission may hire. The Commission shall have no authority to employ any additional personnel or to contract for personnel services, but instead must use losco County employees for all staff services under the direction and control of the losco County Controller.

## **Section 6. Funds for Operation; Loans or Grants.**

**6.01. Funds from the losco County Board of Commissioners.** The losco County Board of Commissioners may loan or grant funds to the Commission for its operating costs.

**6.02. Grants.** The Commission may solicit, accept, and enter into agreements relating to grants from any public or private source, including the state or federal government or any agency of the state or federal government, and may carry out any federal or state program related to the purposes for which the Commission is created.

**6.03. Authority for Grants.** The losco County Board of Commissioners must approve all grants before the Commission may accept or enter into the agreements described in Section 6.02 of this Ordinance.

## **Section 7. Interest of Members in Contracts; Reports to losco County Board of Commissioners.**

**7.01. Conflicts of Interest.** No member of the Commission or any of its officers or employees shall have any interest directly or indirectly in any contract for property, materials or services to be acquired by the Commission.

**7.02. Reports.** The Commission shall provide the losco County Board of Commissioners with an annual report of the Commission's activities. The Commission shall also prepare and submit any other reports which the losco County Board of Commissioners may request.

**7.03. Expense.** The losco County Board of Commissioners, by Resolution, may request that the Commission prepare and submit a report which contains an itemization of actual expenses paid to members, officers, directors, and employees of the Commission as provided in Section 5.03 of this Ordinance.

**7.04. Grants.** The Commission shall also report any action it takes under 6.02 of this Ordinance in a manner sufficient to allow the losco County Board of Commissioners to exercise its supervisory responsibilities over the Commission.

## **Section 8. Rules; Adoption; Promulgation; Publication.**

**8.01.** To the extent not inconsistent with federal law or regulation, state law or local Ordinance, the Commission shall adopt and promulgate reasonable rules which establish:

**8.01.1.** Eligibility requirements for admission to any housing program operated or administered by the Commission.

**8.01.2.** Obligations of housing program clients.

**8.01.3.** Just cause for the termination of the clients' participation in a housing program.

**8.02.** The Commission may adopt such other rules which are necessary to the just and effective administration of the housing programs administered by the Commission.

**8.03.** All rules shall be published in a conspicuous place in the administrative offices of the Commission.

## **Section 9. General Provisions**

**9.01 Validity.** Iosco County declares that the requirements and the various chapters, parts, sections and clauses of this Ordinance are severable. If a court of competent jurisdiction determines that any chapter, part, sentence, paragraph, section or clause is unconstitutional or invalid, the remaining chapters, parts, portions and provisions of this ordinance shall remain in full force and effect.

**9.02 Conflict with Criminal Laws.** Nothing in this Ordinance shall be construed to conflict, contravene, enlarge, or reduce any criminal liability or responsibility, including fines imposed by a judge for any criminal offense under Michigan law.

**9.03 Effective Date.** The Ordinance shall take effect sixteen (16) days after it has been published in a newspaper of general circulation within the County and posted within three (3) public places within the County.

**9.04 Repealer Clause.** All Ordinances and Resolutions, or parts of Ordinances and Resolutions, in conflict herewith are hereby repealed to the extent necessary to give this Ordinance full force and effect.

This Ordinance shall take effect on the 19 day of October, 2022.

D. Jay O'Faneese

Chairman  
County Board of Commissioners

Nancy J. Huebel

Nancy J. Huebel, County Clerk

I hereby certify that the foregoing constitutes a true and complete copy of Ordinance No. \_\_\_\_ adopted by the County Board of Commissioners of the County of Losco at a regular meeting held on October 19, 2022.

Nancy J. Huebel

Nancy J. Huebel, County Clerk



**CHARTER TOWNSHIP OF  
OSCODA**

**Zoning Department**

## **Memo**

**To: Board of Trustees**

**From: Nichole Vallette, Planning and Zoning Director**

**Date: April 19, 2023**

**Re: Marihuana Renewal Permits**

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Board of Trustees,

Attached are three different applications for Marihuana Permit Renewals. Per Ordinance 2021-270, the Board of Trustees are to approve renewals based upon the recommendation of the Planning & Zoning Director. Section 1.6 Permit Renewal from Ordinance 2021-270 is below:

### **SECTION 1.6 PERMIT RENEWAL**

**A Commercial Recreational Marihuana facility permit shall be valid for one year, expiring on the facility's final permit approval date, unless revoked as provided by law. Failure to obtain all other permits and approvals required by all other applicable ordinances and regulation of the Township, County, and State of Michigan within that time shall render the facility ineligible for renewal and the permit shall be available to another applicant.**

A. A valid Commercial Recreational Marihuana Facility Permit may be renewed on an annual basis, following review by the Charter Township of Oscoda Board of Trustees upon recommendation of the Planning & Zoning Director that all terms and conditions of the Ordinance and permits remain satisfied, by submitting a renewal application form provided by Charter Township of Oscoda and payment of the annual local permit fee. Renewal applications must be filed at least 60 days prior to the expiration of the facility's permit or 90 days prior for changes of location. Charter Township of Oscoda will not accept any renewal application, and permit forfeiture will result, unless such renewal application is submitted within the timeframe(s) provided herein.

Attached are the three applications that need approval for renewal (personal information has been removed). All other required documentation is in their files in the Zoning Office.

-Case 901-2023 Cozmo Partners LLC has submitted a renewal application for a Commercial (Recreational) Retail Marihuana Facility at 4705 F-41.

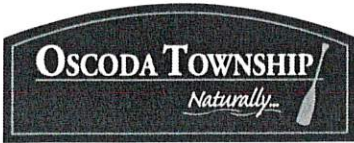
-Case 902-2023 Perimeter Lot Holdings LLC has submitted a renewal application for a Commercial (Recreational) Marihuana Processor Facility at 4115 Perimeter Rd.

-Case 903-2023 HMG21 INC has submitted a renewal application for a Commercial (Recreational) Class B Grower Facility (500 Plants) at 4365 F-41.

I have reviewed all applications and find that all terms and conditions of the Ordinance and permits remain satisfied and am recommending approval of all three renewal applications.

Thank you,

Nichole Vallette



## Charter Township of Oscoda

110 S. State St. Oscoda, MI 48750  
Phone: (989) 569-6580 Fax: (989) 739-3344

Application Date: 3-8-2023

(good for 90 days)

Application #: 901-2023

State approval Rec'd: \_\_\_\_\_

State Permit # \_\_\_\_\_

### Commercial Recreational Marihuana Facilities Licensing Permit Application

#### FOR ADMINISTRATIVE USE ONLY

SPECIAL LAND USE CASE # 901-2023

☐ NEW

☒ RENEWAL

☒ Processing Fee \$1000.00

Receipt Number: 100098876

(Processing and Application Fees are non-refundable)

☒ Permit Fee \$4000.00 due upon receipt of approval by the Planning Commission.

State License Applicant's name and contact info: Cozmo Partners, LLC

The information provided by the applicant on this form will be distributed to the Charter Township of Oscoda Planning Commission for review. Please read Ordinance 2021-270, (attached) in its entirety prior to completing this application. If you have any questions regarding the information requested on this application, please contact the Oscoda Township Planning and Zoning Director.

Zoning@oscodatownshipmi.gov, phone: (989) 739-3211 Ext. 250

#### Processing and Application Fees are non-refundable

Applicant must submit the original, completed application and all required materials to the Oscoda Township Planning & Zoning Director.

#### Application for (check one):

☐ New permit for Commercial (Recreational) Marihuana Facility

☒ Renewal permit for Commercial (Recreational) Marihuana Facility

**Applicant(s) Information**

☐ Individual

☒ Corporation

**State License Applicant**

Name: Cozmo Partners, LLC

Address: 4705 F-41, Oscoda, MI 48750

Phone: \_\_\_\_\_ E-Mail: \_\_\_\_\_

☒ Copy of Government issued photo ID attached.

Legal Interest In Subject Property: Lease

☒ DBA (Business Name) Inspire Oscoda Copy of DBA Attached

☐ Copy of Insurance policy attached. (property, liability, and casualty)

**Subject Property Owner**

Name: 4705 F-41, LLC

Address: 1221 Bowers, #2194 Birmingham, MI 48012

Phone: \_\_\_\_\_ E-Mail: \_\_\_\_\_

Address of Subject Property:

4705 F-41, Oscoda, MI 48750

Parcel Identification Number: 064-W70-000-051-00

**Type of Commercial (Recreational) Marihuana Facility Applied**

**for: (Note: a separate application is required for each facility**

**type)**

☐ Grower Facility, Class A (100 Plants) ☐ Safety Compliance Facility

☐ Grower Facility, Class B (500 Plants) ☐ Secure Transporter Facility

☐ Grower Facility, Class C (2000 Plants) ☐ Processor Facility

☒ Recreational Retailer

**Proposed Commercial (Recreational) Marihuana Facility will operate within (check one)**

☒ A structure or structures pre-existing on the Subject Property

☐ A structure or structures to be erected pending site plan approval

☐ A combination of structures pre-existing on the Subject Property and structures to be erected pending site plan approval.

**Before the Township will consider the Application for a Commercial (Recreational) Marihuana Facilities Permit, the Applicant(s) must complete this application form, pay all fees and attach ALL of the following documentation.**

Copies of a valid, unexpired driver's license or state issued ID for all owners, directors, officers and managers of the proposed Facility.

Non-refundable Application Fee

Business and Operations Plan showing in detail the Commercial (Recreational) Marihuana Facility proposed plan of operation including without limitation the following: **Included in Initial Application**

1. A security plan meeting the requirements of the State of Michigan.
2. A description of the type of Facility proposed and the anticipated or actual number of employees.
3. A description by category of all products to be sold.
4. A list of Material Safety Data Sheets for all nutrients, pesticides, and other chemicals proposed for use in the Commercial (Recreational) Marihuana Facility, including a plan for storage and disposal. (A copy will be forwarded to the Oscoda Township Fire Department)
5. A description of the odor control plan as mandated by the State of Michigan.

A site plan and interior floor plan of the permitted premises and the permitted property.

***All applications must include a Site Plan drawing, which includes the information required per Section 10.2 of the Charter Township of Oscoda Ordinance 165. (see attached)*** **Included in Initial Application**

**Applicant(s) and Owner(s) Certification:**

Applicant(s) and Owner(s) certify that the information submitted in and attached to this application is true and correct to the best of their knowledge. Applicant(s) and Owner(s) acknowledge and agree that: (1) they are required to supplement the information submitted in and attached to this application when required. (2) it is their sole responsibility to comply with the requirements of any applicable Oscoda Township Ordinance, and (3) the end resulting permit does not give the Applicant(s) and Owner(s) any vested rights to any permit or to any renewal.

Permission is granted to the Oscoda Township Staff and/or any appropriate Township Official to access this property to review the accuracy of the information submitted, and to better understand the site of the proposed Commercial (Recreational) Marihuana Facility.

Signature (Applicant)  Date: 3/7/23

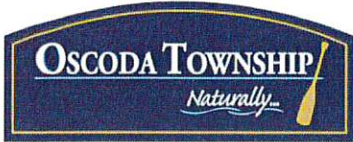
Print Name Louis W Meeks II Date: 3/7/23

Signature (Applicant) \_\_\_\_\_ Date: \_\_\_\_\_

Print Name \_\_\_\_\_ Date: \_\_\_\_\_

Signature (Owner) \_\_\_\_\_ Date: \_\_\_\_\_

Print Name \_\_\_\_\_ Date: \_\_\_\_\_



## Charter Township of Oscoda

110 S. State St. Oscoda, MI 48750  
Phone: (989) 569-6580 Fax: (989) 739-3344

Application Date: 4/1/2023  
(good for 90 days)  
Application #: 902-2023  
State approval Rec'd: \_\_\_\_\_  
State Permit # \_\_\_\_\_

### Commercial Recreational Marihuana Facilities Licensing Permit Application

#### FOR ADMINISTRATIVE USE ONLY

SPECIAL LAND USE CASE # 902-2023 ☐ NEW ☒ RENEWAL

☒ Processing Fee \$1000.00

Receipt Number: \_\_\_\_\_

(Processing and Application Fees are non-refundable)

☒ Permit Fee \$4000.00 due upon receipt of approval by the Planning Commission.

State License Applicant's name and contact info: \_\_\_\_\_

The information provided by the applicant on this form will be distributed to the Charter Township of Oscoda Planning Commission for review. Please read Ordinance 2021-270, (attached) in its entirety prior to completing this application. If you have any questions regarding the information requested on this application, please contact the Oscoda Township Planning and Zoning Director.

[Zoning@oscodatownshipmi.gov](mailto:Zoning@oscodatownshipmi.gov), phone: (989) 739-3211 Ext. 250

#### Processing and Application Fees are non-refundable

Applicant must submit the original, completed application and all required materials to the Oscoda Township Planning & Zoning Director.

#### Application for (check one):

☐ New permit for Commercial (Recreational) Marihuana Facility

☒ Renewal permit for Commercial (Recreational) Marihuana Facility



**Applicant(s) Information**

☒ Individual  
☐ Corporation

**State License Applicant**

Name: Perimeter Lot Holdings LLC

Address: 4115 PERIMETER RD OSCODA MICHIGAN 48750

Phone: - E-Mail: -

☒ Copy of Government issued photo ID attached.

Legal Interest in Subject Property: Owner

☒ DBA (Business Name) Rachel's Dope Co Copy of DBA Attached

☒ Copy of Insurance policy attached. (property, liability, and casualty)

**Subject Property Owner**

Name: Rachel Hight

Address: PO BOX 489 BARTON CITY MICHIGAN 48750

Phone: - E-Mail: -

Address of Subject Property:

Parcel Identification Number: 06602820003800

**Type of Commercial (Recreational) Marihuana Facility Applied**

**for: (Note: a separate application is required for each facility**

**type)**

☐ Grower Facility, Class A (100 Plants) ☐ Safety Compliance Facility

☐ Grower Facility, Class B (500 Plants) ☐ Secure Transporter Facility

☐ Grower Facility, Class C (2000 Plants) ☒ Processor Facility

☐ Recreational Retailer

**Proposed Commercial (Recreational) Marihuana Facility will operate within (check one)**

☒ A structure or structures pre-existing on the Subject Property

☐ A structure or structures to be erected pending site plan approval

- ☐ A combination of structures pre-existing on the Subject Property and structures to be erected pending site plan approval.

**Before the Township will consider the Application for a Commercial (Recreational) Marihuana Facilities Permit, the Applicant(s) must complete this application form, pay all fees and attach ALL of the following documentation.**

Copies of a valid, unexpired driver's license or state issued ID for all owners, directors, officers and managers of the proposed Facility.

Non-refundable Application Fee

Business and Operations Plan showing in detail the Commercial (Recreational) Marihuana Facility proposed plan of operation including without limitation the following:

1. A security plan meeting the requirements of the State of Michigan.
2. A description of the type of Facility proposed and the anticipated or actual number of employees.
3. A description by category of all products to be sold.
4. A list of Material Safety Data Sheets for all nutrients, pesticides, and other chemicals proposed for use in the Commercial (Recreational) Marihuana Facility, including a plan for storage and disposal. (A copy will be forwarded to the Oscoda Township Fire Department)
5. A description of the odor control plan as mandated by the State of Michigan.

A site plan and interior floor plan of the permitted premises and the permitted property.

***All applications must include a Site Plan drawing, which includes the information required per Section 10.2 of the Charter Township of Oscoda Ordinance 165. (see attached)***

**Applicant(s) and Owner(s) Certification:**

Applicant(s) and Owner(s) certify that the information submitted in and attached to this application is true and correct to the best of their knowledge. Applicant(s) and Owner(s) acknowledge and agree that: (1) they are required to supplement the information submitted in and attached to this application when required. (2) It is their sole responsibility to comply with the requirements of any applicable Oscoda Township Ordinance, and (3) the end resulting permit does not give the Applicant(s) and Owner(s) any vested rights to any permit or to any renewal.

Permission is granted to the Oscoda Township Staff and/or any appropriate Township Official to access this property to review the accuracy of the information submitted, and to better understand the site of the proposed Commercial (Recreational) Marihuana Facility.

Signature (Applicant)  Date: 04/01/2023

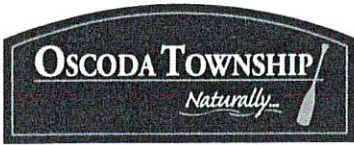
Print Name Rachel Hight Date: 04/01/2023

Signature (Applicant) \_\_\_\_\_ Date: \_\_\_\_\_

Print Name \_\_\_\_\_ Date: \_\_\_\_\_

Signature (Owner) \_\_\_\_\_ Date: \_\_\_\_\_

Print Name \_\_\_\_\_ Date: \_\_\_\_\_



Application Date: 4/6/2023  
(good for 90 days)  
Application #: 903-2023  
State approval Rec'd: \_\_\_\_\_  
State Permit # \_\_\_\_\_

## Charter Township of Oscoda

110 S. State St. Oscoda, MI 48750  
Phone: (989) 569-6580 Fax: (989) 739-3344

### Commercial Recreational Marihuana Facilities Licensing Permit Application

#### FOR ADMINISTRATIVE USE ONLY

SPECIAL LAND USE CASE # 903-2023 ☐ NEW ☒ RENEWAL

☒ Processing Fee \$1000.00

Receipt Number: 100098956

(Processing and Application Fees are non-refundable)

☐ Permit Fee \$4000.00 due upon receipt of approval by the Planning Commission.

State License Applicant's name and contact info: Hmg21 Inc T. M. Gilbert  
989-920-5595

The information provided by the applicant on this form will be distributed to the Charter Township of Oscoda Planning Commission for review. Please read Ordinance 2021-270, (attached) in its entirety prior to completing this application. If you have any questions regarding the information requested on this application, please contact the Oscoda Township Planning and Zoning Director.

Zoning@oscodatownshipmi.gov, phone: (989) 739-3211 Ext. 250

#### Processing and Application Fees are non-refundable

Applicant must submit the original, completed application and all required materials to the Oscoda Township Planning & Zoning Director.

#### Application for (check one):

☐ New permit for Commercial (Recreational) Marihuana Facility

☒ Renewal permit for Commercial (Recreational) Marihuana Facility

**Applicant(s) Information**

☐ Individual

☒ Corporation

**State License Applicant**

Name: Hmg 21 Inc

Address: 4365 F 41

Phone: \_\_\_\_\_ Mail: you can find me

☒ Copy of Government issued photo ID attached.

Legal Interest in Subject Property: Owner

☐ DBA (Business Name) \_\_\_\_\_ Copy of DBA Attached

☒ Copy of Insurance policy attached. (property, liability, and casualty)

**Subject Property Owner**

Name: Tim Gellon

Address: 115 First St

Phone: 7 \_\_\_\_\_ E-Mail: \_\_\_\_\_

Address of Subject Property: \_\_\_\_\_

Parcel Identification Number: 064-A35-000-067-00

**Type of Commercial (Recreational) Marihuana Facility Applied**

**for: (Note: a separate application is required for each facility**

**type)**

☐ Grower Facility, Class A (100 Plants) \_\_\_\_\_ Safety Compliance Facility

☒ Grower Facility, Class B (500 Plants) \_\_\_\_\_ Secure Transporter Facility

☐ Grower Facility, Class C (2000 Plants) \_\_\_\_\_ Processor Facility

☐ Recreational Retailer

**Proposed Commercial (Recreational) Marihuana Facility will operate within (check one)**

☒ A structure or structures pre-existing on the Subject Property

☐ A structure or structures to be erected pending site plan approval

- ☐ A combination of structures pre-existing on the Subject Property and structures to be erected pending site plan approval.

**Before the Township will consider the Application for a Commercial (Recreational) Marihuana Facilities Permit, the Applicant(s) must complete this application form, pay all fees and attach ALL of the following documentation.**

Copies of a valid, unexpired driver's license or state issued ID for all owners, directors, officers and managers of the proposed Facility.

Non-refundable Application Fee

Business and Operations Plan showing in detail the Commercial (Recreational) Marihuana Facility proposed plan of operation including without limitation the following:

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4. A list of Material Safety Data Sheets for all nutrients, pesticides, and other chemicals proposed for use in the Commercial (Recreational) Marihuana Facility, including a plan for storage and disposal. (A copy will be forwarded to the Oscoda Township Fire Department)
5. A description of the odor control plan as mandated by the State of Michigan.

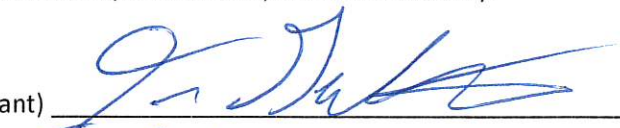
A site plan and interior floor plan of the permitted premises and the permitted property.

***All applications must include a Site Plan drawing, which includes the information required per Section 10.2 of the Charter Township of Oscoda Ordinance 165. (see attached)***

**Applicant(s) and Owner(s) Certification:**

Applicant(s) and Owner(s) certify that the information submitted in and attached to this application is true and correct to the best of their knowledge. Applicant(s) and Owner(s) acknowledge and agree that: (1) they are required to supplement the information submitted in and attached to this application when required. (2) it is their sole responsibility to comply with the requirements of any applicable Oscoda Township Ordinance, and (3) the end resulting permit does not give the Applicant(s) and Owner(s) any vested rights to any permit or to any renewal.

Permission is granted to the Oscoda Township Staff and/or any appropriate Township Official to access this property to review the accuracy of the information submitted, and to better understand the site of the proposed Commercial (Recreational) Marihuana Facility.

Signature (Applicant)  Date: 4-6-23  
Print Name Tim Gallen Date: 4-6-23  
Signature (Applicant) \_\_\_\_\_ Date: \_\_\_\_\_  
Print Name \_\_\_\_\_ Date: \_\_\_\_\_  
Signature (Owner) \_\_\_\_\_ Date: \_\_\_\_\_  
Print Name \_\_\_\_\_ Date: \_\_\_\_\_

**Adult-Use Marijuana Payments**  
**Based on Marijuana Revenues Collected in Fiscal Year 2022**  
**February 2023**

**Amount Available Per Marijuana Retail Store/Microbusiness** **\$ 51,841.21**

<b>Municipality</b>	<b>Municipality</b>	<b>Municipality</b>		<b>Number of</b>	<b>City, Village,</b>	<b>County</b>
<b>Number</b>	<b>Name</b>	<b>Type</b>	<b>County</b>	<b>Licenses <sup>(1)</sup></b>	<b>Distributions <sup>(2)</sup></b>	<b>Distributions <sup>(2)</sup></b>
46-3010	Addison	Village	Lenawee	1	51,841.21	
46-2010	Adrian	City	Lenawee	11	570,253.31	
01-0000	Alcona	County	Alcona	1		51,841.21
02-0000	Alger	County	Alger	3		155,523.63
03-0000	Allegan	County	Allegan	8		414,729.68
03-2010	Allegan	City	Allegan	3	155,523.63	
80-1010	Almena	Township	Van Buren	1	51,841.21	
04-0000	Alpena	County	Alpena	3		155,523.63
04-2010	Alpena	City	Alpena	2	103,682.42	
81-2010	Ann Arbor	City	Washtenaw	27	1,399,712.67	
05-0000	Antrim	County	Antrim	3		155,523.63
29-1010	Arcada	Township	Gratiot	1	51,841.21	
06-0000	Arenac	County	Arenac	3		155,523.63
06-1030	Au Gres	Township	Arenac	2	103,682.42	
35-1020	Ausable	Township	Iosco	1	51,841.21	
35-1030	Baldwin	Township	Iosco	4	207,364.84	
08-1020	Baltimore	Township	Barry	1	51,841.21	
09-1010	Bangor	Township	Bay	12	622,094.52	
80-2010	Bangor	City	Van Buren	2	103,682.42	
08-0000	Barry	County	Barry	1		51,841.21
13-2020	Battle Creek	City	Calhoun	10	518,412.10	
09-0000	Bay	County	Bay	27		1,399,712.67
09-2020	Bay City	City	Bay	13	673,935.73	
13-1040	Bedford	Township	Calhoun	2	103,682.42	
82-2020	Belleville	City	Wayne	1	51,841.21	
11-2010	Benton Harbor	City	Berrien	3	155,523.63	
10-0000	Benzie	County	Benzie	4		207,364.84
10-1020	Benzonia	Township	Benzie	4	207,364.84	
11-0000	Berrien	County	Berrien	15		777,618.15
68-1010	Big Creek	Township	Oscoda	1	51,841.21	
54-2010	Big Rapids	City	Mecosta	17	881,300.57	
12-0000	Branch	County	Branch	10		518,412.10
80-3020	Breedsville	Village	Van Buren	1	51,841.21	
11-2030	Buchanan	City	Berrien	5	259,206.05	
73-1070	Buena Vista	Township	Saginaw	1	51,841.21	
75-3010	Burr Oak	Village	St Joseph	1	51,841.21	
25-2005	Burton	City	Genesee	10	518,412.10	
83-2010	Cadillac	City	Wexford	2	103,682.42	
13-0000	Calhoun	County	Calhoun	26		1,347,871.46
30-3020	Camden	Village	Hillsdale	4	207,364.84	
79-2005	Caro	City	Tuscola	2	103,682.42	
14-0000	Cass	County	Cass	6		311,047.26
14-3010	Cassopolis	Village	Cass	2	103,682.42	
41-2010	Cedar Springs	City	Kent	5	259,206.05	



**Adult-Use Marijuana Payments**  
**Based on Marijuana Revenues Collected in Fiscal Year 2022**  
**February 2023**

**Amount Available Per Marijuana Retail Store/Microbusiness** **\$ 51,841.21**

<b>Municipality</b>	<b>Municipality</b>	<b>Municipality</b>		<b>Number of</b>	<b>City, Village,</b>	<b>County</b>
<b>Number</b>	<b>Name</b>	<b>Type</b>	<b>County</b>	<b>Licenses</b> <sup>(1)</sup>	<b>Distributions</b> <sup>(2)</sup>	<b>Distributions</b> <sup>(2)</sup>
50-2010	Center Line	City	Macomb	8	414,729.68	
05-3020	Central Lake	Village	Antrim	1	51,841.21	
16-0000	Cheboygan	County	Cheboygan	4		207,364.84
16-2010	Cheboygan	City	Cheboygan	4	207,364.84	
73-3020	Chesaning	Village	Saginaw	2	103,682.42	
17-0000	Chippewa	County	Chippewa	6		311,047.26
12-2020	Coldwater	City	Branch	8	414,729.68	
56-2010	Coleman	City	Midland	1	51,841.21	
75-3040	Constantine	Village	St Joseph	4	207,364.84	
78-2010	Corunna	City	Shiawassee	2	103,682.42	
20-0000	Crawford	County	Crawford	2		103,682.42
70-1040	Crockery	Township	Ottawa	2	103,682.42	
59-1050	Crystal	Township	Montcalm	2	103,682.42	
36-2020	Crystal Falls	City	Iron	2	103,682.42	
61-1040	Dalton	Township	Muskegon	1	51,841.21	
80-3030	Decatur	Village	Van Buren	2	103,682.42	
21-0000	Delta	County	Delta	1		51,841.21
72-1030	Denton	Township	Roscommon	2	103,682.42	
17-3010	Detour	Village	Chippewa	1	51,841.21	
22-0000	Dickinson	County	Dickinson	2		103,682.42
03-2015	Douglas Village	City	Allegan	2	103,682.42	
33-2010	East Lansing	City	Ingham	4	207,364.84	
34-1050	Easton	Township	Ionia	1	51,841.21	
59-3010	Edmore	Village	Montcalm	2	103,682.42	
14-3020	Edwardsburg	Village	Cass	2	103,682.42	
13-1100	Emmett	Township	Calhoun	12	622,094.52	
67-2010	Evart	City	Osceola	1	51,841.21	
03-2020	Fennville	City	Allegan	1	51,841.21	
63-2060	Ferndale	City	Oakland	5	259,206.05	
28-1040	Fife Lake	Township	Grand Traverse	1	51,841.21	
25-2040	Flint	City	Genesee	8	414,729.68	
52-1050	Forsyth	Township	Marquette	1	51,841.21	
20-1020	Frederic	Township	Crawford	2	103,682.42	
69-2010	Gaylord	City	Otsego	6	311,047.26	
25-0000	Genesee	County	Genesee	28		1,451,553.88
26-0000	Gladwin	County	Gladwin	1		51,841.21
27-0000	Gogebic	County	Gogebic	2		103,682.42
70-2030	Grand Haven	City	Ottawa	1	51,841.21	
41-2030	Grand Rapids	City	Kent	17	881,300.57	
28-0000	Grand Traverse	County	Grand Traverse	1		51,841.21
62-2015	Grant	City	Newaygo	1	51,841.21	
29-0000	Gratiot	County	Gratiot	1		51,841.21
82-2140	Hamtramck	City	Wayne	4	207,364.84	
01-2010	Harrisville	City	Alcona	1	51,841.21	

**Adult-Use Marijuana Payments**  
**Based on Marijuana Revenues Collected in Fiscal Year 2022**  
**February 2023**

**Amount Available Per Marijuana Retail Store/Microbusiness** **\$ 51,841.21**

<b>Municipality</b>	<b>Municipality</b>	<b>Municipality</b>		<b>Number of</b>	<b>City, Village,</b>	<b>County</b>
<b>Number</b>	<b>Name</b>	<b>Type</b>	<b>County</b>	<b>Licenses</b> <sup>(1)</sup>	<b>Distributions</b> <sup>(2)</sup>	<b>Distributions</b> <sup>(2)</sup>
80-2030	Hartford	City	Van Buren	2	103,682.42	
26-1110	Hay	Township	Gladwin	1	51,841.21	
63-2070	Hazel Park	City	Oakland	8	414,729.68	
30-0000	Hillsdale	County	Hillsdale	8		414,729.68
31-0000	Houghton	County	Houghton	4		207,364.84
31-2020	Houghton	City	Houghton	3	155,523.63	
33-0000	Ingham	County	Ingham	26		1,347,871.46
82-2170	Inkster	City	Wayne	3	155,523.63	
34-0000	Ionia	County	Ionia	4		207,364.84
34-2020	Ionia	City	Ionia	2	103,682.42	
35-0000	Iosco	County	Iosco	7		362,888.47
36-0000	Iron	County	Iron	4		207,364.84
22-2010	Iron Mountain	City	Dickinson	2	103,682.42	
36-2040	Iron River	City	Iron	1	51,841.21	
27-2020	Ironwood	City	Gogebic	2	103,682.42	
37-0000	Isabella	County	Isabella	5		259,206.05
38-0000	Jackson	County	Jackson	13		673,935.73
38-2010	Jackson	City	Jackson	1	51,841.21	
30-1080	Jefferson	Township	Hillsdale	1	51,841.21	
39-0000	Kalamazoo	County	Kalamazoo	30		1,555,236.30
39-1070	Kalamazoo	Township	Kalamazoo	4	207,364.84	
39-2020	Kalamazoo	City	Kalamazoo	17	881,300.57	
40-0000	Kalkaska	County	Kalkaska	8		414,729.68
40-3010	Kalkaska	Village	Kalkaska	8	414,729.68	
41-0000	Kent	County	Kent	30		1,555,236.30
78-2030	Laingsburg	City	Shiawassee	1	51,841.21	
43-0000	Lake	County	Lake	3		155,523.63
63-3070	Lake Orion	Village	Oakland	1	51,841.21	
33-2020	Lansing	City	Ingham	21	1,088,665.41	
44-0000	Lapeer	County	Lapeer	6		311,047.26
44-2020	Lapeer	City	Lapeer	6	311,047.26	
80-3040	Lawrence	Village	Van Buren	2	103,682.42	
45-0000	Leelanau	County	Leelanau	1		51,841.21
46-0000	Lenawee	County	Lenawee	17		881,300.57
38-1070	Leoni	Township	Jackson	10	518,412.10	
82-2180	Lincoln Park	City	Wayne	2	103,682.42	
41-2060	Lowell	City	Kent	7	362,888.47	
58-2010	Luna Pier	City	Monroe	1	51,841.21	
50-0000	Macomb	County	Macomb	14		725,776.94
63-2110	Madison Heights	City	Oakland	2	103,682.42	
05-3050	Mancelona	Village	Antrim	2	103,682.42	
51-0000	Manistee	County	Manistee	6		311,047.26
51-2010	Manistee	City	Manistee	5	259,206.05	
14-1050	Marcellus	Township	Cass	1	51,841.21	

**Adult-Use Marijuana Payments**  
**Based on Marijuana Revenues Collected in Fiscal Year 2022**  
**February 2023**

**Amount Available Per Marijuana Retail Store/Microbusiness**

**\$ 51,841.21**

<b>Municipality</b>	<b>Municipality</b>	<b>Municipality</b>		<b>Number of</b>	<b>City, Village,</b>	<b>County</b>
<b><u>Number</u></b>	<b><u>Name</u></b>	<b><u>Type</u></b>	<b><u>County</u></b>	<b><u>Licenses</u> <sup>(1)</sup></b>	<b><u>Distributions</u> <sup>(2)</sup></b>	<b><u>Distributions</u> <sup>(2)</sup></b>
14-3030	Marcellus	Village	Cass	1	51,841.21	
51-1090	Marilla	Township	Manistee	1	51,841.21	
52-0000	Marquette	County	Marquette	12		622,094.52
52-1080	Marquette	Township	Marquette	2	103,682.42	
52-2020	Marquette	City	Marquette	4	207,364.84	
36-1060	Mastodon	Township	Iron	1	51,841.21	
54-0000	Mecosta	County	Mecosta	17		881,300.57
74-2040	Memphis	City	St Clair	1	51,841.21	
56-0000	Midland	County	Midland	1		51,841.21
58-0000	Monroe	County	Monroe	13		673,935.73
58-1120	Monroe	Township	Monroe	11	570,253.31	
59-0000	Montcalm	County	Montcalm	6		311,047.26
46-2030	Morenci	City	Lenawee	5	259,206.05	
37-2010	Mount Pleasant	City	Isabella	4	207,364.84	
25-1140	Mt Morris	Township	Genesee	3	155,523.63	
25-2070	Mt Morris	City	Genesee	1	51,841.21	
77-1060	Mueller	Township	Schoolcraft	1	51,841.21	
02-2010	Munising	City	Alger	3	155,523.63	
61-0000	Muskegon	County	Muskegon	22		1,140,506.62
61-1120	Muskegon	Township	Muskegon	6	311,047.26	
61-2020	Muskegon	City	Muskegon	12	622,094.52	
61-2030	Muskegon Heights	City	Muskegon	2	103,682.42	
21-1130	Nahma	Township	Delta	1	51,841.21	
52-1100	Negaunee	Township	Marquette	2	103,682.42	
50-2060	New Baltimore	City	Macomb	3	155,523.63	
62-0000	Newaygo	County	Newaygo	3		155,523.63
11-2060	Niles	City	Berrien	4	207,364.84	
81-1100	Northfield	Township	Washtenaw	3	155,523.63	
45-3020	Northport	Village	Leelanau	1	51,841.21	
63-0000	Oakland	County	Oakland	22		1,140,506.62
71-2010	Onaway	City	Presque Isle	1	51,841.21	
67-0000	Osceola	County	Osceola	1		51,841.21
35-1060	Oscoda	Township	Iosco	2	103,682.42	
68-0000	Oscoda	County	Oscoda	1		51,841.21
69-0000	Otsego	County	Otsego	6		311,047.26
70-0000	Ottawa	County	Ottawa	3		155,523.63
78-2040	Owosso	City	Shiawassee	4	207,364.84	
63-3110	Oxford	Village	Oakland	2	103,682.42	
38-1110	Parma	Township	Jackson	1	51,841.21	
80-1140	Paw Paw	Township	Van Buren	3	155,523.63	
58-2040	Petersburg	City	Monroe	1	51,841.21	
09-1120	Pinconning	Township	Bay	2	103,682.42	
43-1110	Pleasant Plains	Township	Lake	3	155,523.63	
63-2160	Pleasant Ridge	City	Oakland	1	51,841.21	

**Adult-Use Marijuana Payments**  
**Based on Marijuana Revenues Collected in Fiscal Year 2022**  
**February 2023**

**Amount Available Per Marijuana Retail Store/Microbusiness** **\$ 51,841.21**

<b>Municipality</b>	<b>Municipality</b>	<b>Municipality</b>		<b>Number of</b>	<b>City, Village,</b>	<b>County</b>
<b>Number</b>	<b>Name</b>	<b>Type</b>	<b>County</b>	<b>Licenses</b> <sup>(1)</sup>	<b>Distributions</b> <sup>(2)</sup>	<b>Distributions</b> <sup>(2)</sup>
31-1100	Portage	Township	Houghton	1	51,841.21	
39-2040	Portage	City	Kalamazoo	9	466,570.89	
71-0000	Presque Isle	County	Presque Isle	2		103,682.42
38-1120	Pulaski	Township	Jackson	1	51,841.21	
12-3010	Quincy	Village	Branch	2	103,682.42	
30-2030	Reading	City	Hillsdale	3	155,523.63	
52-1120	Republic	Township	Marquette	1	51,841.21	
82-2230	River Rouge	City	Wayne	6	311,047.26	
71-1140	Rogers	Township	Presque Isle	1	51,841.21	
50-3040	Romeo	Village	Macomb	1	51,841.21	
72-0000	Roscommon	County	Roscommon	2		103,682.42
73-0000	Saginaw	County	Saginaw	10		518,412.10
73-2020	Saginaw	City	Saginaw	6	311,047.26	
04-1060	Sanborn	Township	Alpena	1	51,841.21	
41-3040	Sand Lake	Village	Kent	1	51,841.21	
52-1140	Sands	Township	Marquette	2	103,682.42	
34-3070	Saranac	Village	Ionia	1	51,841.21	
03-1200	Saugatuck	Township	Allegan	2	103,682.42	
17-2010	Sault Ste Marie	City	Chippewa	5	259,206.05	
77-0000	Schoolcraft	County	Schoolcraft	1		51,841.21
78-0000	Shiawassee	County	Shiawassee	7		362,888.47
73-1220	Spaulding	Township	Saginaw	1	51,841.21	
13-2040	Springfield	City	Calhoun	1	51,841.21	
74-0000	St Clair	County	St Clair	1		51,841.21
75-0000	St Joseph	County	St Joseph	17		881,300.57
59-2030	Stanton	City	Montcalm	2	103,682.42	
75-2010	Sturgis	City	St Joseph	8	414,729.68	
13-3040	Tekonsha	Village	Calhoun	1	51,841.21	
25-1170	Thetford	Township	Genesee	6	311,047.26	
11-3090	Three Oaks	Village	Berrien	1	51,841.21	
75-2020	Three Rivers	City	St Joseph	4	207,364.84	
06-1110	Turner	Township	Arenac	1	51,841.21	
79-0000	Tuscola	County	Tuscola	8		414,729.68
50-2110	Utica	City	Macomb	2	103,682.42	
80-0000	Van Buren	County	Van Buren	13		673,935.73
79-1200	Vassar	Township	Tuscola	2	103,682.42	
79-2010	Vassar	City	Tuscola	4	207,364.84	
63-2240	Walled Lake	City	Oakland	3	155,523.63	
81-0000	Washtenaw	County	Washtenaw	40		2,073,648.40
11-1210	Watervliet	Township	Berrien	2	103,682.42	
82-0000	Wayne	County	Wayne	20		1,036,824.20
82-2300	Wayne	City	Wayne	4	207,364.84	
33-3030	Webberville	Village	Ingham	1	51,841.21	
83-0000	Wexford	County	Wexford	2		103,682.42

**Adult-Use Marijuana Payments**  
**Based on Marijuana Revenues Collected in Fiscal Year 2022**  
**February 2023**

**Amount Available Per Marijuana Retail Store/Microbusiness** **\$ 51,841.21**

<b>Municipality Number</b>	<b>Municipality Name</b>	<b>Municipality Type</b>	<b>County</b>	<b>Number of Licenses<sup>(1)</sup></b>	<b>City, Village, Township Distributions<sup>(2)</sup></b>	<b>County Distributions<sup>(2)</sup></b>
62-2030	White Cloud	City	Newaygo	2	103,682.42	
61-2070	Whitehall	City	Muskegon	1	51,841.21	
37-1160	Wise	Township	Isabella	1	51,841.21	
81-2040	Ypsilanti	City	Washtenaw	10	518,412.10	
				<b>Total</b>	<b>\$ 29,756,854.54</b>	<b>\$ 29,756,854.54</b>

**Totals by Municipality Type**

<b>Municipality Type</b>	<b>Number of Municipalities</b>	<b>Number of Licenses</b>	<b>Total Amount Paid</b>
City	81	391	\$ 20,269,913.11
Village	26	48	2,488,378.08
Township	53	135	6,998,563.35
Total Cities, Villages and Townships			29,756,854.54
County	64	574	29,756,854.54
<b>Total Adult Use Marijuana Distributions</b>			<b>\$ 59,513,709.08</b>

<sup>(1)</sup> Number of Marijuana Retail Stores or Marijuana Microbusinesses located and licensed in the municipality as of 9/30/2022. Tribal Governments do not qualify for distributions under MCL 333.27964.

<sup>(2)</sup> Payments based on Michigan Regulation and Taxation of Marihuana Act, Section 14 (3)(a) and (3)(b) (MCL 333.27964).

VIA EMAIL AND U.S. MAIL

Gregory G. Gangnuss, GS-15, DAF  
AFCEC  
Chief, BRAC Program Management Division  
Installations Directorate  
2261 Hughes Avenue, Suite 155  
JBSA Lackland, Texas 78236-9853

SUBJECT: Request for Early and Interim Remedial Actions to Remove Per- and Polyfluoroalkyl Substances (PFAS) at the Former Wurtsmith Air Force Base (WAFB), Oscoda, Iosco County, Michigan, Site ID No. 35000058

Dear Mr. Gangnuss:

We write today on behalf of the people, veterans, and families negatively affected by widespread PFAS contamination at the former Wurtsmith Air Force Base in Oscoda, Michigan to ask you to implement actions that will help to stop the continuous, imminent, and substantial exposures to PFAS chemicals that are harming human health and the environment. We request you implement additional Interim Remedial Actions (or IRAs) in four distinct contaminated areas as identified in the February 15, 2023, attached letter by the Remediation and Redevelopment Division of the Department of Environment, Great Lakes and Energy.

Given the imminent and substantial threats to human health and the environment caused by the contamination, and to maximize the effectiveness of the ongoing cleanup process, it is critical that the Department of Defense immediately implement four additional Interim Remedial Actions at the following locations: (1) Wastewater Lagoons and Seepage Beds (WWTP) near Clark's Marsh, (2) Three Pipes Drain, (3) the area designated as "DRMO," and (4) Landfills 30 and 31. A map showing the "Current Groundwater Extraction Systems and EGLE proposed Interim Remedial Action" is in the EGLE letter.

The threat from PFAS contamination at Wurtsmith is well documented and there is strong community support (inside and outside of Oscoda) for the four additional Interim Remedial Actions. State and local health departments have issued five, separate public health warnings for PFAS due to the Wurtsmith contamination, ranging from drinking water in the "zone of concern" ... to Do Not Eat warnings for fish, small game, and venison ... to an "Avoid Contact" warning with contaminated foam on Van Etten Lake and elsewhere. Unsafe fish and game pose a huge burden for low-income families that rely on hunting and fishing for their next meal. In addition, the contamination at two sites – DRMO and Landfills 30/31 – present an imminent and substantial threat to the youth camp owned and operated by the YMCA of Metropolitan Detroit. Action to address these plumes is consistent with the Biden Administration's commitment to tackling environmental injustices in underserved and overburdened communities.

Despite compelling evidence showing immediate Interim Remedial Actions are warranted (and long overdue) in these four areas, the DOD has refused to pursue the requested Interim Remedial Actions. Overall, we are very concerned that DOD continues to deny, delay, and downplay its responsibility to protect human health and the environment at Wurtsmith. It took strong, repeated, sustained intervention from Michigan Congressional Delegation Members for the DOD to launch two existing Interim Remedial Actions at Wurtsmith.



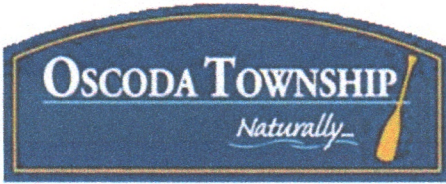
We respectfully request that the USAF and DOD to reconsider and implement additional Interim Remedial Actions in those four identified locations in order to halt the continued spread and exposure of toxic PFAS contamination.

Thank you for considering this request and for working to stop further migration and exposure of this harmful and dangerous contamination.

Sincerely,

Attachments

cc/att: Governor Gretchen Whitmer  
Senator Debbie Stabenow  
Senator Gary Peters  
Congressman Jack Bergman  
Congressman Dan Kildee  
Congresswoman Debbie Dingell  
Congresswoman Elissa Slotkin  
Congresswoman Haley Stevens  
Honorable Nancy J. Balkus, Deputy Assistant Secretary of the Air Force  
Dan Medina, Air Force  
Steve Willis, Air Force  
Bryan Lynch, Air Force  
Mike Neller, EGLE  
Beth Place, EGLE  
Mark Henry, RAB Community Co-Chair  
Cathy Wusterbarth, Need Our Water



**Oscoda Township Police Department**  
**110 S. State Street**  
**Oscoda, MI 48750**

**Phone (989) 739-9113 Fax (989) 739-1891**

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April 20, 2023

To:

Superintendent Tammy Kline  
Honorable Board Members

Re: Patrol Vehicle Sales and Revenue

The vehicles listed on the Surplus Property Request Forms are no longer needed by the Oscoda Township Police Department or DPW. (See attached forms). The listed vehicles will be sold via the MiBid auction site.

As discussed previously, I am asking that the board authorize the funds obtained from the sale of the 3 Police Explorers be returned to the Police Department equipment line item (207-000-933-000) to help offset the cost of upfitting new patrol vehicles.

Respectfully submitted,

Mark David  
Chief of Police

# SURPLUS PROPERTY DISPOSAL REQUEST FORM

Date:	4/18/2023	Department:	Police
Submitted By:			
Item to Dispose:	Estimated Value: 2000 <sup>00</sup>		
1FM5K8AR8KGB 23692	Minimum Bid: 1000 <sup>00</sup>		
Disposal Reason:  147,481 miles			

Attached Photograph / Upon Approval an Electronic Photograph will be Required

Value Estimate Documentation: (attach photographs or listings of comparable items for sale if available)

Superintendent Approval to Dispose		
<input type="checkbox"/> Approved	<input type="checkbox"/> Denied	<input type="checkbox"/> Additional Information Required
Denial Reason:		
Additional Information:		

# SURPLUS PROPERTY DISPOSAL REQUEST FORM

Date: 4/18/2023	Department: DPW
Submitted By: [Signature]	
Item to Dispose:	Estimated Value:
1987 Dodge Plu 1B7FD14H4HS346749	580 <sup>00</sup>
	Minimum Bid: 200 <sup>00</sup>
Disposal Reason:	
Vehicle worn out. Former AFB Truck	

Attached Photograph / Upon Approval an Electronic Photograph will be Required

Value Estimate Documentation: (attach photographs or listings of comparable items for sale if available)

Superintendent Approval to Dispose		
<input type="checkbox"/> Approved	<input type="checkbox"/> Denied	<input type="checkbox"/> Additional Information Required
Denial Reason:		
Additional Information:		

# SURPLUS PROPERTY DISPOSAL REQUEST FORM

Date: 4/18/2023	Department: DPW
-----------------	-----------------

Submitted By: KD

Item to Dispose:

Estimated Value:

3500.00

Minimum Bid:

1000.00

01 TAHOE 1GNEK13V41J199456

Disposal Reason:

Former 1st Responden Vehicle Numerous Holes from lights

Attached Photograph / Upon Approval an Electronic Photograph will be Required

Value Estimate Documentation: (attach photographs or listings of comparable items for sale if available)

Superintendent Approval to Dispose

☐ Approved

☐ Denied

☐ Additional Information Required

Denial Reason:

Additional Information:



# SURPLUS PROPERTY DISPOSAL REQUEST FORM

Date: 4/18/2023	Department: Police
Submitted By: [Signature]	
Item to Dispose: 2015 Ford Police Explorer 1FM5KBAR5FGB 51536	Estimated Value: 2000 <sup>00</sup> Minimum Bid: 1000 <sup>00</sup>
Disposal Reason: 146,595 miles	

Attached Photograph / Upon Approval an Electronic Photograph will be Required

Value Estimate Documentation: (attach photographs or listings of comparable items for sale if available)

Superintendent Approval to Dispose		
<input type="checkbox"/> Approved	<input type="checkbox"/> Denied	<input type="checkbox"/> Additional Information Required
Denial Reason:		
Additional Information:		



# SURPLUS PROPERTY DISPOSAL REQUEST FORM

Date: <u>4-18/2023</u>	Department: <u>Police</u>
Submitted By: <u>[Signature]</u>	
Item to Dispose: <u>2016 Ford Explorer Police</u>  <u>1FMSK8AR6GGD31756</u>	Estimated Value: <u>2000<sup>00</sup></u> <hr/> Minimum Bid: <u>1000<sup>00</sup></u>
Disposal Reason:  <u>138,041 miles</u>	

Attached Photograph / Upon Approval an Electronic Photograph will be Required

Value Estimate Documentation: (attach photographs or listings of comparable items for sale if available)

Superintendent Approval to Dispose		
<input type="checkbox"/> Approved	<input type="checkbox"/> Denied	<input type="checkbox"/> Additional Information Required
Denial Reason:		
Additional Information:		

# SURPLUS PROPERTY DISPOSAL REQUEST FORM

Date: 04/20/2023	Department: DPW
Submitted By: ID	
Item to Dispose: FORMER BMX TRACK BOOTH 12'4" X 12'4" Building	Estimated Value: 7
	Minimum Bid: 100 <sup>00</sup>
Disposal Reason: Building is 11'6" TALL / Will Probably Need PERMIT TO MOVE.	

Attached Photograph / Upon Approval an Electronic Photograph will be Required

Value Estimate Documentation: (attach photographs or listings of comparable items for sale if available)

Superintendent Approval to Dispose		
<input type="checkbox"/> Approved	<input type="checkbox"/> Denied	<input type="checkbox"/> Additional Information Required
Denial Reason:		
Additional Information:		



Say hello to easy.

April 20, 2023

Dear Munetrix Customers,

As your subscription approaches renewal, we want to thank you for partnering with Munetrix. We appreciate everything you do to help your community succeed! We are updating our prices as of April 1, 2023 which will allow us to continue developing solutions to make it easy for you to do more with less. **Munetrix pricing will increase by 4%** but for additional savings, consider switching to a multi-year contract.

Over the past few years, Munetrix had added several enhancements, new functionality, and tools to the Munetrix System. And we continue to regularly add new features based on customer feedback. Some of the most impactful features include:

- Enhanced Munetrix Homepage Charts/Graphs
- Upgraded Peer Group Interface
- Enhanced CVTRS Reporting Wizard
- Updated Capital Improvement Manager
- New! Wage and Benefits Explorer
- New! Project Tracker Platform Coming Soon
- New! Neighborhood Intelligence Mapping Coming Soon
- Dedicated Implementation Managers assigned to every account
- New! Help Desk, Live Chat, 24/7 on demand Knowledge Center, and Professional Services Offerings

We will continue to strive to keep Munetrix as affordable as possible, giving you the insights you need to “measure what you treasure” and make better-informed decisions based on data.

Please contact Pete Solar ([psolar@munetrix.com](mailto:psolar@munetrix.com)) with any questions regarding your new rate or to discuss a multi-year contract.

Thank you,

A handwritten signature in black ink, appearing to read "Ginny Norton", with a long horizontal flourish extending to the right.

Ginny Norton, CEO  
Munetrix, LLC

**FROM**

Munetrix, LLC  
43000 W. 9 Mile Rd STE 109 #156  
Novi, MI 48375

**BILL TO**

Oscoda Township  
Dave Schaeffer  
110 State St.  
Oscoda Township, MI 48750

**INVOICE NUMBER** 10937

**CONTRACT NUMBER** 612

**DATE** 04/01/2023

**TERMS** Net 60

**DUE DATE** 05/31/2023

**AMOUNT DUE (USD)** **\$ 2,958.00**

ITEM / DESCRIPTION	RATE	AMOUNT
Municipal Transparency Edition License Municipal License Fee	\$ 2,958.00	\$2,958.00
	<b>AMOUNT DUE (USD)</b>	<b>\$ 2,958.00</b>

Please Remit Payment to:  
Munetrix, LLC - Accounts Payable  
43000 W. 9 Mile Rd. Ste 109 #  
Novi, MI 48375

**ACH Information:**

Routing: 072000805  
Acct: 375022465031

Please note that any unpaid balances are subject to a 1.25% compounded late fee.

Payment of this invoice acknowledges agreement to pricing and Terms of Use which is available at [www.munetrix.com](http://www.munetrix.com)

Munetrix Terms state that subscription cancellation requests must be received at least 30 days in advance of your anniversary date. Please contact us directly at 248-499-8355 if you have any concerns regarding your subscription.

**OPERATING AGREEMENT**  
**American Youth Soccer Organization Region 957**

This **OPERATING AGREEMENT** is entered into between the **CHARTER TOWNSHIP OF OSCODA** (herein the “Township”), 110 South State Street, Oscoda, Michigan 48750, and **AMERICAN YOUTH SOCCER ORGANIZATION REGION 957**, (hereafter known as “AYSO”), whose address is P.O. 682, Oscoda, Michigan 48750.

1. The Township owns and operates the Sports Complex, located at \_\_\_\_\_, Oscoda Township, Michigan (herein the “Sports Complex”).
2. AYSO desires to utilize the five (5) soccer fields at the Sport Complex for the purpose of operating a youth soccer program that will be available to the general public (herein the “Fields”).
3. In exchange for running a community-based soccer program on behalf of the Township, AYSO shall have priority in the use of the Fields for its program(s) in accordance with the terms and conditions of this Agreement. AYSO shall submit to the Township a schedule of dates and times for use of the Fields, which shall be attached to this Agreement as Schedule A. The Township shall be free to allow use of the Fields by other groups at times not reserved for AYSO’s use.
4. Management and use of the Fields during the periods of time reserved in accordance with this Agreement shall be within the sole control of AYSO. All activities resulting from AYSO’s programs will be carried out for the welfare and benefit of the public, including its recreational and/or health interest.
5. The term of this Agreement is from March 2023 through December 31, 2023 for the purpose of providing recreational activities to the public in the form of soccer fields.
6. During the term of this Agreement, AYSO shall perform the following with respect to the Fields:
  - A. Mow the grass once per week.
  - B. Fertilize once a year.
  - C. Place bleachers at each field for spectator use.
7. During the term of this Agreement, AYSO shall:
  - A. Paint goal posts white.
  - B. Provide two porta-pots during season.
  - C. Mark and line all fields as needed.

- D. Maintain safe and clean soccer fields and surrounding area.
  - E. Replace all worn or unsafe field equipment (i.e. nets, flags).
  - F. Notify Oscoda Township of any hazardous or potentially harmful field conditions for immediate repair.
  - G. Provide, coordinate and run a safe and fun soccer program for all children in the community.
8. AYSO shall procure and maintain proof of commercial general liability insurance with limits of liability not less than \$1,000,000.00 per occurrence and aggregate. The liability policy shall include an endorsement stating the following shall be ***Additional Insureds***: The Charter Township of Oscoda, all elected and appointed officials, all employees and volunteers, agents, all boards, commissions, and/or authorities and board members, including employees and volunteers thereof. It is understood and agreed by naming the Member as additional insured, coverage afforded is considered to be primary and any other insurance the Member may have in effect shall be considered secondary and/or excess. The policy described above shall also be endorsed to state the following: It is understood and agreed Thirty (30) days, Ten (10) days for non-payment of premium, Advance Written Notice of Cancellation, Non-Renewal, Reduction, and/or Material Change shall be sent to: Charter Township of Oscoda, ATTN: \_\_\_\_\_.
9. AYSO shall indemnify and hold harmless the Township, its elected and appointed officials, all employees and volunteers, agents, all boards, commissions, and/or authorities and board members, including employees and volunteers thereof and each of them from and against any and all liabilities, claims, damages, losses, demands, lawsuits, costs, and expenses, including but not limited to attorney fees, arising out of or related to this Agreement.
10. There is no ownership interest in the Sports Complex or the Fields transferring from the Township to AYSO as a result of this Agreement.
11. AYSO agrees to keep the fields in a clean and playable condition, and shall only use the fields in compliance with all local, State and Federal Laws governing not only the condition of the premises but the operation of any activity thereon and as generally allowed by this operating agreement.
12. AYSO shall be solely responsible for the operation of the soccer program at the Fields, including but not limited to staffing, funding, provision of materials, and etc. Any plans or any improvements to the property to further the purpose for which this agreement is being entered into, must be approved, pre-construction, by the Township.
13. AYSO shall not be permitted to engage in any commercial use of the property without



prior approval of Township, nor shall there be any subletting of any concessions or any other services to be provided without pre-approval by the Township.

14. Any modifications to this Agreement shall be binding only if evidenced in writing, signed by each party.
15. This Agreement shall be deemed to have been made in Iosco County, Michigan. Both parties consent to the jurisdiction and venue of the courts in Iosco County, State of Michigan. This Agreement shall be interpreted in accordance with the laws of the state of Michigan.
16. Each party warrants and represents that it has authority to enter into this agreement.
17. The statements herein bind all heirs, successors, and assigns of both parties.
18. If any provision of this contract is deemed to be invalid, it shall not affect the other remaining valid provisions hereof.
19. This document is to be a total incorporation of all agreements and representations of and between each party hereto to the exclusion of any prior verbal representations.

#### CHARTER TOWNSHIP OF OSCODA

Dated: \_\_\_\_\_

By: \_\_\_\_\_  
Its: Supervisor

Dated: \_\_\_\_\_

By: Josh Sutton  
Its: Clerk

SUBSCRIBED AND SWORN to before me, a Notary Public,

this \_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public  
Iosco County, Michigan  
My Comm. Expires: \_\_\_\_\_

Dated: \_\_\_\_\_

By: \_\_\_\_\_ AYSO Regional Commissioner

SUBSCRIBED AND SWORN to before me, a Notary Public,

this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public

Iosco County, Michigan

My Comm. Expires: \_\_\_\_\_

**OPERATING AGREEMENT**  
**Oscoda Youth Softball and Baseball**

The **OPERATING AGREEMENT** is entered into between the **CHARTER TOWNSHIP OF OSCODA**, (herein the “TOWNSHIP”), whose address is 110 South State Street, Oscoda, Michigan 48750, and **OSCODA YOUTH SOFTBALL AND BASEBALL** (herein “OYSB”), whose address is P.O. Box 189, East Tawas, Michigan 48730.

1. The Township owns and operates the Sports Complex, located at \_\_\_\_\_, Oscoda Township, Michigan (herein the “Sports Complex”).
2. OYSB desires to utilize the six (6) baseball fields at the Sport Complex for the purpose of operating a youth softball and baseball program that will be available to the general public (herein the “Fields”).
3. In exchange for running a community-based soccer program on behalf of the Township, OYSB shall have priority in the use of the Fields for its program(s) in accordance with the terms and conditions of this Agreement. OYSB shall submit to the Township a schedule of dates and times for use of the Fields, which shall be attached to this Agreement as Schedule A. The Township shall be free to allow use of the Fields by other groups at times not reserved for OYSB’s use.
4. Management and use of the Fields during the periods of time reserved in accordance with this Agreement shall be within the sole control of OYSB. All activities resulting from OYSB’s programs will be carried out for the welfare and benefit of the public, including its recreational and/or health interest.
5. The term of this Agreement is from April 1, 2023 through December 31, 2023, for the purpose of providing recreational activities to the public in the form of ball fields. .
6. During the term of this Agreement, the TOWNSHIP shall at its sole and exclusive discretion:
  - a. Mow the grass.
  - b. Spray the fields for weed control.
  - c. Provide the Cushman cart.
7. During the term of this Agreement the OSCODA YOUTH SOFTBALL AND BASEBALL shall:
  - a. Drag and line the fields.
  - b. Keep the concession area clean and orderly at all times and ensure compliance with Health Department and other applicable regulatory requirements.

**Commented [KK1]:** Are there more than 6 fields at the complex? If so, should we attached a diagram designating the specific fields?

**Commented [TK2R1]:** No, only six

**Commented [KK3]:** Are they using a concession stand?

**Commented [TK4R3]:** Yes, there is one on site.

8. AYSO shall procure and maintain proof of commercial general liability insurance with limits of liability not less than \$1,000,000.00 per occurrence and aggregate. The liability policy shall include an endorsement stating the following shall be ***Additional Insureds***: The Charter Township of Oscoda, all elected and appointed officials, all employees and volunteers, agents, all boards, commissions, and/or authorities and board members, including employees and volunteers thereof. It is understood and agreed by naming the Member as additional insured, coverage afforded is considered to be primary and any other insurance the Member may have in effect shall be considered secondary and/or excess. The policy described above shall also be endorsed to state the following: It is understood and agreed Thirty (30) days, Ten (10) days for non-payment of premium, Advance Written Notice of Cancellation, Non-Renewal, Reduction, and/or Material Change shall be sent to: Charter Township of Oscoda, ATTN: \_\_\_\_\_.
9. OSCODA YOUTH SOFTBALL AND BASEBALL shall provide workmen's compensation insurance in accordance with all applicable statutes of the state of Michigan for any employees within its employ during the period of this Agreement.
10. AYSO shall indemnify and hold harmless the Township, its elected and appointed officials, all employees and volunteers, agents, all boards, commissions, and/or authorities and board members, including employees and volunteers thereof and each of them from and against any and all liabilities, claims, damages, losses, demands, lawsuits, costs, and expenses, including but not limited to attorney fees, arising out of or related to this Agreement. \_\_\_\_\_
11. There is no ownership interest in the Sports Complex or the Fields transferring from the TOWNSHIP to OSCODA YOUTH SOFTBALL AND BASEBALL as a result of this Agreement.
12. OSCODA YOUTH SOFTBALL AND BASEBALL agrees to keep the Fields in a clean and playable condition and shall only use the Fields in compliance with all local, state and federal laws governing not only the condition of the premises, but the operation of any activity thereon and as generally allowed by this Operating Agreement.
13. OYSB shall be solely responsible for the operation of the softball and baseball program at the Fields, including but not limited to staffing, funding, provision of materials, and etc. Any plans or any improvements to the property to further the purpose of which this Agreement is being entered into, must be approved, pre-construction, by the TOWNSHIP.
14. OYSB shall not be permitted to engage in any commercial use of the property being offered by the TOWNSHIP shall be allowed without prior approval of TOWNSHIP nor shall there be any **subletting** of any concessions or any other services to be provided without pre-approval by the TOWNSHIP. OYSB shall be responsible for the provision of any licensure needed for the operation of any concession stand and shall be solely

Commented [KK5]: Was OYSB created by the Township?

Commented [TK6R5]: No

Commented [KK7]: Same question about "subletting" the concessions.

Commented [TK8R7]: I think this was to ensure they wouldn't have anyone except the organization using concessions.

Commented [KK9R7]: If you are comfortable with the language, no need to tweak.

responsible for any liability as a result of having such a concession stand and indemnify TOWNSHIP for any claims or damages resulting from the operation of said concession stand.

15. From time to time TOWNSHIP policies may be enacted and/or modified such so as to affect the provisions of this Agreement, and when same occurs, this Agreement shall be subject to those policies, and this Agreement hereby and as a result therefrom, shall be amended to accommodate such enactment and/or change.
16. Said TOWNSHIP'S participation in any facet of OSCODA YOUTH SOFTBALL AND BASEBALL'S involvement and exercise of rights and obligations as set forth herein, shall be strictly on a non-profit basis in order to assist said association to maintain the general welfare purpose of this Agreement, for the recreational interest of the public.
17. Any modifications to this Agreement or additional obligations assumed by either party in connection with this Agreement shall be binding only if evidenced in writing, signed by each party or an authorized representative of each party.
18. This Agreement shall be deemed to have been made in Iosco County, Michigan. Both parties consent to the jurisdiction and venue of the courts in Iosco County, State of Michigan. This Agreement shall be interpreted in accordance with the laws of the state of Michigan
19. Each party warrants and represents that it has authority to enter into this Agreement.
20. The agreements herein bind all heirs, successors, and assigns of both parties. Further, any rights granted to OYSB by TOWNSHIP in this Agreement are not assignable.
21. If any provision of this Contract is deemed to be invalid, it shall not affect the other remaining valid provisions hereof.
22. This document is to be a total incorporation of all agreements and representations of and between each party hereto, to the exclusion of any prior verbal representations.

CHARTER TOWNSHIP OF OSCODA

Dated:

\_\_\_\_\_  
By:  
Its: Supervisor

Dated:

\_\_\_\_\_  
By: Joshua Sutton  
Its: Clerk

SUBSCRIBED AND SWORN to before me, a Notary Public, this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_, Notary Public  
Iosco County, Michigan  
My Comm. Expires:

Dated:

\_\_\_\_\_  
Oscoda Youth Softball and Baseball  
By:  
Its: President

Dated:

\_\_\_\_\_  
Oscoda Youth Softball and Baseball  
By:  
Its: Secretary

SUBSCRIBED AND SWORN to before me, a Notary Public, this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_, Notary Public  
Iosco County, Michigan  
My Comm. Expires:



April 20, 2023  
Oscoda Township Offices –  
110 S. State St. Oscoda, MI 48750

Oscoda Township Board of Trustees,

Jessica Bravata, Bravata's Restorations, is requesting permission to host the NE Michigan Touch A Truck fundraiser event at Furtaw Field on June 10, 2023. Hours of operation will be 9am-12 midnight Friday June 9th for set up and 7am-12 midnight Saturday June 10 for Touch A Truck event and tear down and clean up. Designated quiet hours from sirens and horns on Saturday June 10 from 8am-10am.

Per the Charter Township Oscoda Special Event Policy:

1. Reference Policy 5-a. a. We will be providing porta potties, with two being designated handicap accessible and including maintenance and replenishing of supplies for the same, for the date June 10th 2023.

We will be providing multiple trash containers and removal of trash during and after the event.

2. Reference Policy 5-b. a. Electricity is required for limited use.

3. Reference Policy 5-c a. Water is required for limited use.

4. Reference Policy 5-d. a. Permission to display the event on the electronic billboard!!

5. Reference Policy 5-e. a. The request for placement of banners and signs will be submitted for approval.

6. Reference Policy 5-f. a. We will be offering food vending under the food vending unit ordinance 165.

7. Reference Policy 5-g. a. Parking, as with past events, is available around Furtaw Field area ...we may request usage of other properties for shuttle services.

8. Regular patrolling of the event grounds by the O.T.P.D. is appreciated both during the overnight hours and during the fundraiser event.

9. Reference Policy I & m. a. Provision and installation of snow fencing around Furtaw Field, which is required collection of an admission wristband for fundraising for the 501(c)3 non profit.

10. Insurance policies required for general liability will be provided prior to the event.

11. Snow-fencing will be the same as previous years for other events, enclosing the field grounds. With this event, as well as all the others, Oscoda Township's support is key to success and greatly appreciated.

12. We request a waiver of fees for Furtaw Field, due to the benefit this event will bring to the community including but not limited to raising funds for The Thin Gold Line Foundation which is a 501c3 non-profit. Bringing people from outside our community to Oscoda will benefit our local businesses and promote Oscoda Township in a positive way, possibly making Oscoda Township a destination community for years to come.

13. For services provided by the Oscoda DPW we are willing to offer Oscoda Township at no cost our highest sponsorship level "Big Rig" valued at a "minimum" of \$1000, which will include Oscoda Twp. logo on our locally made event t-shirts, event flyers, and brochures, Oscoda Twp. on the Event Social media sites, we will also mention Oscoda Township as a major supporter during the event several times by our announcers. We believe this package will compensate Oscoda Township for these services.

Appreciate everything,  
Jessica Bravata, Touch A Truck event coordinator  
Kathy & Jason Lott, The Thin Gold Line Foundation

# ***MEMO***

To: Tammy Kline

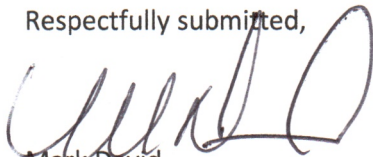
From: Mark David, Chief of Police

Date: 04/17/2023

Re: Change in employment status

On 4/12/2023 Officer Danny Gallahar was promoted to the position of Patrol Sergeant with an effective start date of 4/15/2023. This decision was based on the promotional interview process as stipulated in the bargaining unit contract.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Mark David', written over the typed name.

Mark David  
Chief of Police

# ***MEMO***

To: Tammy Kline

From: Mark David, Chief of Police

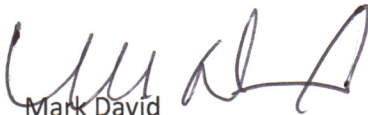
Date: 4/17/2023

Re: Change in employment status

I am recommending that Officer Ethan Brandt be transferred from probationary employment to seniority status effective 4/11/2023.

4/11/2023 was the 1 year anniversary date for Officer Brandt.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Mark David', written in a cursive style.

Mark David  
Chief of Police



# Memo

To: Ms. McGuire, Mr. Cummings, Mr. Spencer, Mr. Wusterbarth, Mr. Palmer  
From: Mr. Sutton  
cc: Ms. Kline  
Date: April 19, 2023  
Re: Fixtures for Banners on light poles

---

I am requesting to purchase 145 double mount brackets for our light poles to have the availability to hang two banners on each pole allowing us to display, holiday banners, graduation banners, veteran banners, and more through out the year to celebrate our community.

I am asking for up to \$28,000.00 of the ARPA funds to purchase 145 double mount brackets at an estimated cost of \$180.00 each.

This is an investment in our community that will be utilized for many years.

Thank you,

*Joshua Sutton*

Oscoda Township Clerk

**From:** [kevin kubik](#)  
**To:** [Tammy Kline](#); [Joshua Sutton](#)  
**Subject:** Board meeting/Agenda  
**Date:** Thursday, April 13, 2023 4:34:12 PM

---

Mr. Sutton,

I am requesting to be placed on the agenda at the board meeting to discuss some chain of command issues, questions, concerns, and clarifications. I look forward to hearing a response back from you or Superintendent Ms. Kline.

Thank you very much for your time.

Kevin Kubik

[Sent from Yahoo Mail for iPhone](#)



## **8.09 Quorum, Attendance, Call of the Township Board**

### *A. Quorum*

Four Township Board members shall be necessary in order to call a meeting. A majority of those in attendance shall be the required vote in order to move an item forward and/or to effect policy.

### *B. Absence of Township Clerk / Treasurer*

Upon the absence of the Township Clerk and/or Township Treasurer, their respectively named deputies may act in the place of the respective elected officials for the purpose of reporting and receiving information. The deputies may not be included for the purpose of constituting a quorum and may not vote in the place of the officeholder, by proxy or otherwise.

### *C. Attendance*

Regular attendance is expected and each board member is expected to notify the Clerk or Supervisor whenever absence is anticipated in a timely manner.

## **8.10 Placing Items on the Agenda**

### *A. Township Board*

A Board member may request an item be added to a future draft agenda either by making an oral request at a Township Board meeting or submitting the request in writing to the Township Supervisor or Township Superintendent at least seven (7) working days prior to the meeting for which the item is requested to be placed on the agenda. Staff professional opinions may be written to accompany the item for discussion and a vote on the matter. Supporting documents need to be provided by the Requestor to aide in the decision making process. The agenda is not final until approved or revised by vote of the Board during each meeting.

### *B. Members of the Public*

A member of the public **may** request an item be placed on a future agenda while addressing the Township Board during a regular meeting and/or by submitting the request in writing to the Township Board, through the Township Clerk's office, who will then immediately forward the request to the Township Board and Township Superintendent. In order to allow sufficient time for Board to review and staff to research the matter, the request should be submitted at least 10 working days prior to the meeting for which the item is requested to be placed on the agenda. Once the issue has been placed on the agenda, the Township Clerk will notify the requester so that he or she may plan to attend the meeting, who will forward request to board and Superintendent.

### *C. Emergency Items*

Emergency items may be added to an agenda as necessary. Emergency items are only those matters immediately affecting the public health, safety and welfare of the community, such as widespread civil disorder, disasters, and other severe emergencies. The reason(s) for adding an emergency item to the agenda shall be announced publicly at the meeting, and the issue shall be included in the minutes of the meeting.

# JUST JOBS WEEK

A Customized/Open House/Job Shopping  
Experience!!

- On-the-Spot Interviews w/Multiple Employers
- Employers can pick their days.
- Contact us to reserve your free space.

Everyone under one roof at ACC Oscoda  
Campus 5800 Skeel Avenue Oscoda, MI  
will maximize candidate interviewing

May 15-17  
9-11 a.m.

## ALPENA

COMMUNITY COLLEGE  
OSCODA CAMPUS

Co-Sponsored By:

MICHIGAN  
**WORKS!**  
REGION 7B



989-358-7295



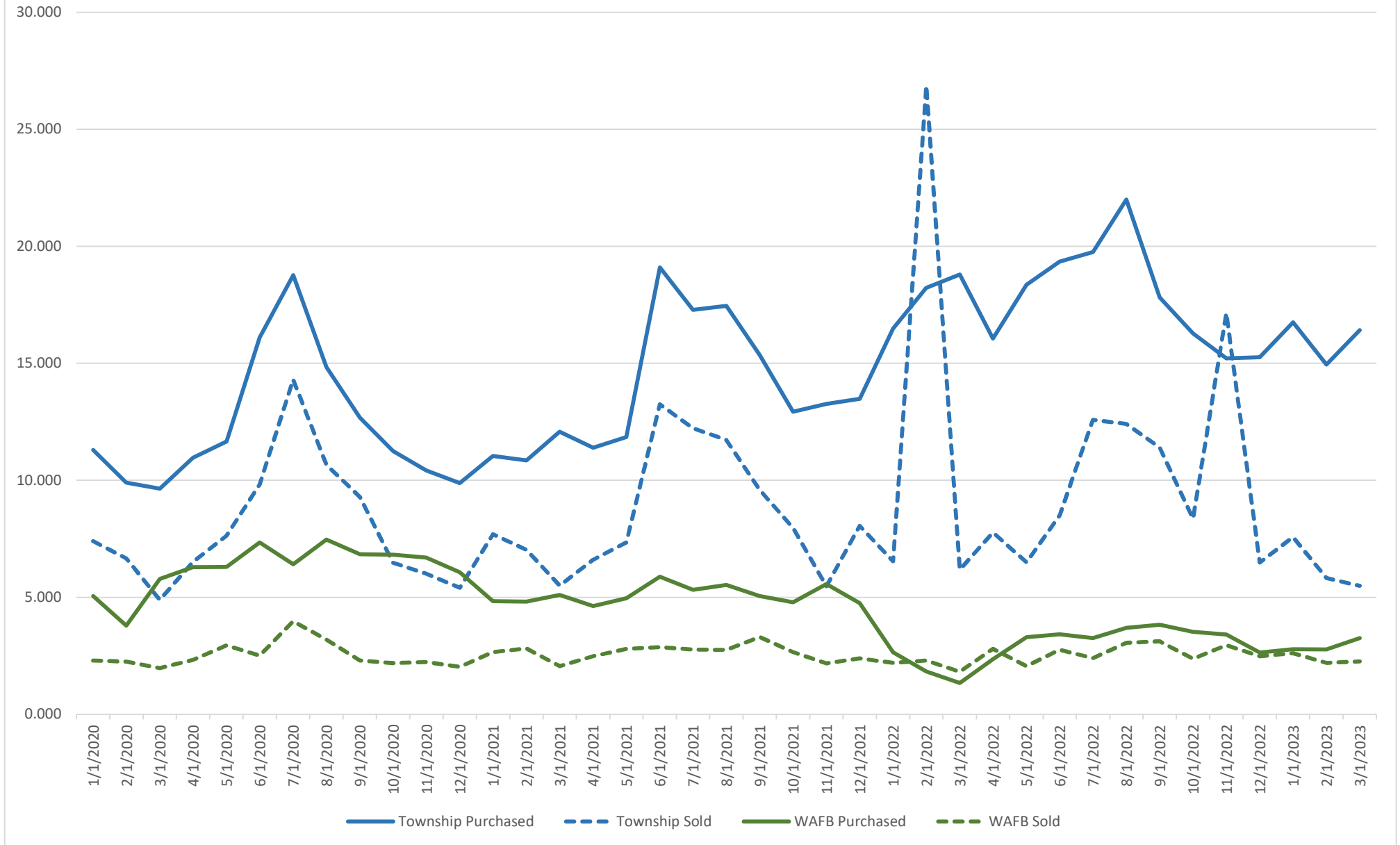
pichlam@alpenacc.edu  
dykesc@alpenacc.edu



# OSCODA TOWNSHIP WATER PURCHASED / SOLD 2020 - 2023

		2020			2021			2022			2023		
		BOUGHT	SOLD	% LOSS	BOUGHT	SOLD	% LOSS	BOUGHT	SOLD	% LOSS	BOUGHT	SOLD	% LOSS
JANUARY	Base	5,062,311	2,300,580	55%	4,834,006	2,663,370	45%	2,653,000	2,200,940	17%	2,784,000	2,611,490	6%
	Town	11,304,502	7,405,530	34%	11,048,297	7,696,800	30%	16,489,210	6,548,610	60%	16,750,510	7,573,090	55%
FEBRUARY	Base	3,797,221	2,257,300	41%	4,816,003	2,820,780	41%	1,833,000	2,304,830	-26%	2,775,000	2,198,280	21%
	Town	9,897,831	6,661,830	33%	10,846,514	7,034,210	35%	18,225,475	26,866,660	-47%	14,948,258	5,828,280	61%
MARCH	Base	5,792,061	1,981,900	66%	5,110,024	2,065,640	60%	1,340,000	1,823,660	-36%	3,260,000	2,263,180	31%
	Town	9,643,474	4,896,830	49%	12,078,429	5,500,400	54%	18,787,459	6,189,050	67%	16,421,645	5,489,420	67%
APRIL	Base	6,294,110	2,327,900	63%	4,630,063	2,486,380	46%	2,355,000	2,797,710	-19%			
	Town	10,969,976	6,514,500	41%	11,396,258	6,610,420	42%	16,063,799	7,769,500	52%			
MAY	Base	6,309,107	2,951,200	53%	4,961,099	2,804,330	43%	3,303,000	2,059,510	38%			
	Town	11,665,158	7,628,580	35%	11,846,006	7,351,230	38%	18,356,260	6,498,550	65%			
JUNE	Base	7,347,514	2,517,700	66%	5,877,000	2,876,300	51%	3,423,000	2,759,160	19%			
	Town	16,110,357	9,823,500	39%	19,092,730	13,249,880	31%	19,345,589	8,507,430	56%			
JULY	Base	6,419,039	3,980,800	38%	5,328,000	2,775,160	48%	3,257,000	2,401,760	26%			
	Town	18,766,354	14,310,490	24%	17,291,234	12,222,840	29%	19,748,512	12,582,870	36%			
AUGUST	Base	7,468,793	3,194,900	57%	5,527,000	2,758,190	50%	3,696,000	3,062,160	17%			
	Town	14,841,751	10,663,480	28%	17,451,762	11,729,950	33%	21,996,894	12,406,720	44%			
SEPTEMBER	Base	6,837,028	2,301,560	66%	5,058,000	3,306,930	35%	3,830,000	3,119,350	19%			
	Town	12,674,009	9,296,320	27%	15,355,565	9,590,960	38%	17,809,203	11,408,070	36%			
OCTOBER	Base	6,820,220	2,194,350	68%	4,795,000	2,660,160	45%	3,525,000	2,378,430	33%			
	Town	11,243,299	6,482,420	42%	12,931,782	7,972,980	38%	16,271,559	8,359,520	49%			
NOVEMBER	Base	6,702,038	2,238,800	67%	5,563,000	2,186,050	61%	3,410,000	2,960,710	13%			
	Town	10,430,758	6,011,650	42%	13,266,465	5,470,880	59%	15,210,903	17,149,720	-13%			
DECEMBER	Base	6,077,003	2,032,840	67%	4,755,000	2,395,710	50%	2,646,000	2,486,510	6%			
	Town	9,887,147	5,408,520	45%	13,477,522	8,060,810	40%	15,255,487	6,489,000	57%			
TOTALS	Base	74,926,445.00	30279830	60%	61,254,195.00	31799000	48%	35,271,000.00	30,354,730.00	14%	8,819,000.00	7,072,950.00	20%
	Town	147,434,616.00	95103650	35%	166,082,564.00	102491360	38%	213,560,350.00	130,775,700.00	39%	48,120,413.00	18,890,790.00	61%
	Total	222,361,061.00	125383480	44%	227,336,759.00	134290360	41%	248,831,350.00	161,130,430.00	35%	56,939,413	25,963,740	54%

Oscoda Township Water Purchased / Sold in Million Gallons  
2020 - 2023



Submitted to

*Oscoda Charter Township*



Operating Report for  
January – March 2023





April 19, 2023

Ms. Tamara Kline, Superintendent  
Charter Township of Oscoda  
110 South State Street  
Oscoda, MI 48750

**SUBJECT: Oscoda Township O&M Report for First Quarter of 2023**

Dear Ms. Kline:

F&V Operations and Resource Management, Inc. is pleased to submit a summary of our operations in Oscoda Township for January – March 2023. If you have any questions or comments regarding the information in this report, please feel free to contact us.

**F&V OPERATIONS AND RESOURCE MANAGEMENT, INC.**

A handwritten signature in blue ink that reads "Catherine A. Winn".

Catherine A. Winn  
Regional Manager | Associate

Enclosures:

- Operations & Maintenance Summary
- Work Order Totals
- Maintenance Cap Expenditures
- Lagoon Discharge Data

4466 McNichol Avenue  
Oscoda, MI 48750  
P: 989.739.8152  
F: 989.739.0800  
[www.fv-operations.com](http://www.fv-operations.com)



## **EXECUTIVE SUMMARY**

The 1<sup>st</sup> Quarter (January – March 2023) operation and maintenance summary report for the Oscoda Township water and wastewater operations is provided for your review. All NPDES permit required testing and monitoring was performed at the wastewater lagoon during this period. A copy of the Final Effluent data from the January – March 2023 Discharge Monitoring Reports (DMR) is provided for the Board's review in [Attachment C](#).

Maintenance Allowance expenditures for the contract year May 2022 – April 2023 total \$23,793.34 through March 2023. A copy of the Maintenance Allowance report is included in [Attachment B](#).

A tabulation of all water and sewer Work Orders completed through March 2023 is provided in [Attachment A](#).

## **January 2023**

January 3 – FVOP repaired the fire hydrant at 6288 F-41. The breakaway flange was replaced, and the hydrant was returned to service.

January 4 – FVOP responded to a call from the homeowner at 5679 Cedar Lake Road regarding a possible main break. The reported low water pressure and water coming up from the ground out by the road. Investigation revealed an active 1/8 inch leak on the service line. The service was partially replaced from the curb stop to the main, which is under the pavement on Cedar Lake Road.

January 4 - FVOP responded to a call from a contractor regarding a water service cut and cap at 7718 N US-23. It was verified that the cut and cap was done after the curb stop and not at the water main, so ready to serve fees still apply.

January 4 – FVOP responded to possible main break on 5188 Bachman Road. Investigation revealed water coming up from the meter pit. The water service was shut off as the residence was vacant and a Miss Dig was called in.

January 6 – FVOP replaced a bent curb box / curb stop at 6328 N US-23.

January 6 – FVOP replaced a bent curb box / curb stop at 6366 N US-23.

January 6 – FVOP staff installed a water meter and AMR at 7580 Cedar Lake Road for a new 1-inch water service.

January 10 – FVOP staff removed accumulated grease, wipes, and debris from the wetwell at Lift Station #25, the main base lift station.

January 11 – FVOP staff investigated high water usage at 5364 N US-23. The facility maintenance personnel were shown where the water meter was located, and the meter reading verified that the bill was correct. No leaks were observed at the meter. Maintenance personnel were advised to check for a possible plumbing leak or running toilet.

January 11 – FVOP staff verified that a water service was installed at 5134 Vaughan Trail. This is a vacant lot, but the main had been tapped and a meter pit installed. Ready to serve fees apply to the property.

January 11 – FVOP observed water coming up from the ground along Perimeter Road west of Mission Drive. Investigation indicated a sewer force main break in an area where a previous break had occurred. John Henry Excavating was contacted to perform an emergency repair due to the depth and size of the pipe (14-inch AC pipe). Fittings to perform the repair had to be obtained from out of state. FVOP and DPW staff coordinated with the excavator to shut down Lift Station #25, vector out the incoming flow at the lift station, and capture any leakage from the pipe when it was cut.



*Perimeter Road force main repair*

January 12 – FVOP staff responded to a possible sewer backup at 10616 Bissonette Drive. The vector truck was used to jet the main, which was full of accumulated debris. The main cleared and normal flow was restored.

January 12 – FVOP staff replaced the meter pit and reconnected the service at 5188 Bachman Road. The private side of the water service line after the meter pit, which would have been installed by the builder or their subcontractor, had been backfilled with chunks of concrete and asphalt which damaged the connector on the meter pit.



*Backfill material next to meter pit at 5188 Bachman Rd*

January 18 – FVOP responded to an alarm at Lift Station #4 on Hamilton Street. FVOP removed wipes and other debris that had caught on the low level shut-off float, causing it to signal a false alarm. The pump station was cycled to confirm normal operation.

January 19 – FVOP staff responded to a call from homeowner at 4747 Interlake Drive regarding a missing bolt or cover on the curb stop. A temporary repair was performed. A complete repair will be scheduled for the spring.

January 19 – FVOP responded to a power outage at the wastewater treatment lagoon due to a vehicle hitting a telephone pole which took out the power. The aeration blower was reset, and water was bled out of the air distribution piping.

January 19 – FVOP responded to power outage at Lift Stations #18 & #19 due to vehicle hitting a telephone pole and taking out the power. Power was restored at 3:45 pm. Both pumps were cycled at each lift station to verify they were functioning normally.

January 23 – FVOP staff responded to a possible sewer backup at 10104 Virginia Street. The upstream and downstream manholes were checked, and the sewer was flowing normally. The homeowner was notified that the issue was in their sewer lead and advised to contact a plumber.

January 24 – FVOP staff responded to a call from the homeowner at 5679 Cedar Lake Road that they were experiencing low water pressure and the ditch out by the road was full of water. A partial service line replacement had been performed on January 4<sup>th</sup>. FVOP staff dug up the service and found an additional hole in the service line. A completely new service line was run from the main to the curb stop, which necessitated cutting the pavement on Cedar Lake Road.



*Hole in service line at 5679 Cedar Lake Road*

January 25 – FVOP staff performed an emergency turn off at 7733 Cedar Lane. The high water usage billing report indicated the property used 352,000 gallons in one month. The property owner was contacted and stated they would get a plumber to the site as soon as possible.

January 25 – FVOP staff responded to a possible sewer backup at 9303 Maryland Street Unit B. The vacor truck was used to clear the sewer main of debris and normal flow was restored. The Villages of Oscoda were called and notified that the problem was corrected.

January 27 – FVOP staff replaced an existing water meter pit at 5493 North US-23 with a used meter pit that had been removed from another site and repaired. The existing meter pit had been installed in the distant past and was in such poor condition the meter could not be accessed.

January 27 – FVOP staff responded to a possible sewer backup at 5483 Weir Road. The upstream and downstream manholes were checked, and the sewer was flowing normally. The homeowner was notified the issue was in their sewer lead and advised to contact a plumber.

January 31 – FVOP staff cleaned out the curb box at 212 East Dwight Avenue as they had been unable to get a curb stop key on the valve to shut it off.

### **February 2023**

February 2 – FVOP staff investigated an AMR issue at 407 West River Road. All new wiring was installed for the AMR.

February 5 – FVOP staff responded to an after hour emergency shut off request for 6062 West Shore Drive due to an internal plumbing leak.

February 6 – FVOP staff performed non-pay water shutoffs.

February 7 – FVOP received a phone call from the property owner at 5147 Cedar Lake Road. The homeowner stated there was a substantial puddle out at the road by the curb stop. Staff investigated and found the curb stop was leaking. The curb stop was dug up and replaced the same day.

February 8 – FVOP staff jetted the sewer main between F-41 and Woodland Drive due to a due to a sewer backup.

February 12 – 13 FVOP staff responded to an after-hours alarm at Lift Station #8 (Budziak). The wetwell was pumped down with the bypass pump. Troubleshooting revealed that a loose wire in the control panel had prevented the one working pump from running. The wire in the panel was hooked back up and tightened into place.

February 14 – FVOP staff performed quarterly monitoring well sampling at the rapid infiltration basins that receive discharge from the wastewater treatment lagoon.

February 14 – FVOP staff responded to a water leak at 5622 Georgia Drive. This is the second time staff has responded to this address for the same issue. We explained to the homeowner that the building has a leak in the pipe at the shut off valve that needs to be repaired by a plumber. FVOP went into the crawlspace and took a video of the leak and showed this to the homeowner, who was informed that the water would remain off until the leak was fixed.



*Leak at 5622 Georgia Drive*

February 14 – FVOP staff received a call from 7110 Woodlea Road stating their water was very cloudy and had an odor. FVOP staff did not find any water service line issues that could have caused the problem. The homeowner was advised that it was probably an issue with their water heater or interior plumbing.



February 15 – FVOP staff was informed by the Oscoda Police Department that a fire hydrant on the 7800 block of Cedar Lake Road had been hit by a vehicle. Excavation revealed that roots from a nearby tree were entwined around curb stop and fire hydrant. FVOP removed the tree and were able to replace the curb box. The fire hydrant was temporarily removed and will be replaced in the spring.



*Hydrant and curb box on Cedar Lake Road*

February 21 – FVOP staff responded to a possible sewer backup at 8034 South 1<sup>st</sup> Street units C & D. The upstream and downstream manholes were checked, and the sewer was flowing normally. FVOP contacted the Villages of Oscoda to let them know the problem was in the homeowner's sewer lead.

February 21 – FVOP staff responded to a possible sewer backup at 5148 Bachman Road. The upstream and downstream manholes were checked, and the sewer was flowing normally. The plumber was notified that the issue was in the homeowner's sewer lead.

February 21 – FVOP staff responded to a possible water leak at 5650 Cedar Lake Road. The curb stop and the curb stop box were replaced.



*5650 Cedar Lake Road curb stop*

February 23 – FVOP staff responded to a possible sewer backup at 8207 Florida Street unit C. The upstream and downstream manholes were checked, and the sewer was flowing normally. FVOP contacted the Villages of Oscoda to let them know the problem was in the homeowner's sewer lead.

February 23 – FVOP staff performed an emergency shut off at 5519 Sunset Court. The monthly meter read indicated the property had used over 156,000 gallons the previous month. This is a seasonal property, and currently vacant. The homeowner was notified.

### **March 2023**

March 1 – FVOP staff responded to a possible sewer backup at 8002 North Alaska Drive unit B. The upstream and downstream manholes were checked, and the sewer was flowing normally. FVOP contacted the Villages of Oscoda and let them know the issue was in the homeowner's sewer lead.

March 1 – FVOP staff adjusted the transducer height and low level float at Lift Station #16 (Mission and Arrow) due to recurring issues with the pumps becoming air bound.

March 7 – FVOP staff responded to a possible sewer backup at 9908 Mississippi Street unit B. The upstream and downstream manholes were checked, and the sewer was flowing normally. FVOP contacted the Villages of Oscoda and let them know the issue was in the homeowner's sewer lead.

March 7 – FVOP staff disassembled a pump at Lift Station #4 in order to replace a leaking mechanical seal. The tear down revealed that the pump shaft was worn, and the impeller was in poor condition. FVOP began obtaining quotes and information regarding repair or replacement of the pump for submittal to the Township.



*Lift Station #4 Pump Shaft and Impeller*

March 7 – FVOP staff responded to a possible sewer backup at 121 East Michigan Avenue. The upstream and downstream manholes were checked, and the sewer was flowing normally. The homeowner was notified that the issue was in their sewer lead and advised to contact a plumber.

March 13 - FVOP staff shut off the water service at 6400 Potomac due to non-payment and a curb stop lock was installed due to issues with the homeowner operating the curb stop in violation of the Township ordinance.

March 13 – FVOP staff responded to a possible sewer backup at 8819 South Vermont Street unit B. The upstream and downstream manholes were checked, and the sewer was flowing normally. FVOP contacted the Villages of Oscoda and let them know the issue was in the homeowner's sewer lead.

March 13 – FVOP staff consulted with plumber on location of curb stop for property at 5763 Elk Lane.

March 15 – FVOP staff responded to a possible sewer backup at 9009 Bissonette Drive A & B. The upstream and downstream manholes were checked, and the sewer was flowing normally. FVOP contacted the Villages of Oscoda and let them know the issue was in the homeowner's sewer lead.

March 15 – FVOP staff responded to possible sewer backup at 9724 Massachusetts Street unit B. Investigation revealed the sewer was partially blocked. The sewer was jetted with the vector and the blockage cleared.

March 15 – FVOP staff performed a service call at 318 Ottawa Drive due to the homeowner reporting they could hear water whooshing in the house when no faucets were running. The curb stop was cycled numerous times to ensure it was fully open and whooshing sound stopped.

March 16 – FVOP staff responded to a possible sewer backup at 5559 Melanie Lane. The upstream and downstream manholes were checked, and the sewer was flowing normally. The homeowner was advised to contact a plumber.

March 17 – FVOP staff performed further investigation of the sewer backup at 9724 Massachusetts due to recurring issues at this site. The sewer camera was used to inspect 200 feet of main and there were multiple areas with a large amount of root buildup. Additional jetting was performed to clear the sewer main.

March 17 – FVOP performed preventive sewer main jetting on Montana Street.

March 22 – FVOP staff consulted with a plumber regarding a new water service at 7263 North US-23.

March 23 – FVOP staff responded to high wetwell alarm at Lift Station #23. The pumps were reset, and operation returned to normal.

March 23 – FVOP responded to a pump fault alarm at Lift Station #18. The pump was removed and cleared of debris. When the pump was cycled, it still would not pump. Further investigation was scheduled.



*Piece of 2 x 4 board removed from pump at PS #18*

March 24 – FVOP responded to an emergency turn off at 301 West River Road. The water was shut off for the plumber to fix a leak. FVOP turned the water back on later that day following the repair.

March 26 – FVOP staff responded to an afterhours low wet well alarm at Lift Station #28.

March 27 – FVOP staff responded to a possible sewer backup at 9723 Massachusetts Street unit A. The sewer was jetted, and flow was restored to normal. FVOP contacted the Villages of Oscoda to notify them that this issue was caused by roots from a nearby tree.

March 27 – FVOP staff responded to low water pressure at 7235 Woodlea Road. Investigation revealed that the gate valve before the water meter was stuck halfway open and would not open any further. The water service was shut off for repairs to be performed and then turned back on later the same day.

March 27 – FVOP staff responded to a PLC driver error alarm at Lift Station #6. Upon arrival at the station, power was restored, and it was operating normally.



Attachment A

# Work Order Summary

[illegible]

Attachment B

# **Maintenance Allowance Updates**

# Oscoda Township - Water & Wastewater O&M

## MAINTENANCE ALLOWANCE SPENDING 2022-2023

Contract year 2022-2023	\$ 20,000.00
Remaining Fund From 2021-2022	\$ -
Beginning Total	\$ 20,000.00
Total Spent 2022-2023	\$ 23,793.34
Remaining Fund	\$ (3,793.34)

		Expense	Contract Year Running Total
<b>May-22</b>			
<b>Etna Supply Company</b>	Fire hydrant break-away flanges	826.80	
<b>Professional Pump</b>	Lagoon blower replacement seal kits	758.79	
<b>Total May</b>		<b>\$ 1,585.59</b>	
			<b>\$ 1,585.59</b>
<b>June-22</b>			
<b>AuSable Hardware</b>	Couplings, cut off wheels to repair PS #1 bubbler system	20.12	
<b>AuSable Hardware</b>	Couplings curb stop repair 5227 US-23 North	13.77	
<b>AuSable Hardware</b>	Landscaping seed for site restoration	58.29	
<b>Total June</b>		<b>\$ 92.18</b>	
			<b>\$ 1,677.77</b>
<b>July-22</b>			
<b>Alpena Supply</b>	8-inch fubber flange gaskets (12)	111.24	
<b>Valve Depot</b>	Kunkle safety pressure relief valve for lagoon turbo blower	336.85	
<b>Total July</b>		<b>\$ 448.09</b>	
			<b>\$ 2,125.86</b>
<b>August-22</b>			
<b>Allied Electronics, Inc.</b>	Voltage regulator lift station #8 (Budziak)	171.14	
<b>Total August</b>		<b>\$ 171.14</b>	
			<b>\$ 2,297.00</b>
<b>September-22</b>			
<b>W.W. Grainger</b>	Panel indicator lamps lift station #25	39.56	
<b>Air Components, Inc.</b>	Kaeser Omega turbo blower oil	179.67	
<b>Alpena Supply</b>	4-inch rubber flange gaskets (2)	5.76	
<b>Total September</b>		<b>\$ 224.99</b>	
			<b>\$ 2,521.99</b>
<b>October-22</b>			
<b>HD Supply Facilities</b>	Replacement tubing cutter	44.58	
<b>HD Supply Facilities</b>	Hydrant marking flags, curb stop wrenches	1,525.48	
<b>Professional Pump</b>	Replacement V-belt for lagoon blower #1	303.73	
<b>Graham Electric Motor</b>	Annual preventive maintenance on four (4) generators	1,672.70	
<b>Oudbier Instrument Co.</b>	Annual calibration lagoon effluent flow meter	322.50	
<b>Total October</b>		<b>\$ 3,868.99</b>	
			<b>\$ 6,390.98</b>
<b>November-22</b>			
<b>Standard Electric</b>	Replacement pump contactor LS 13	142.24	
<b>Standard Electric</b>	Replacement wiring lagoon ferric building unit heater	257.94	
<b>Standard Electric</b>	Replacement overloads LS 13	130.06	
<b>H&amp;P Technologies</b>	Replacement mechanical seals LS 4	1,445.68	
<b>USA Bluebook</b>	Curb box locks (3)	362.90	
<b>Print N Go</b>	Hazardous Atmosphere sign for lagoon headworks building	37.10	
<b>Bisbee Infrared</b>	Annual Infrared inspection PS 4 and lagoon blowers	275.00	
<b>Total November</b>		<b>\$ 2,650.92</b>	
			<b>\$ 9,041.90</b>

# Oscoda Township - Water & Wastewater O&M

## MAINTENANCE ALLOWANCE SPENDING 2022-2023

Contract year 2022-2023	\$ 20,000.00
Remaining Fund From 2021-2022	\$ -
Beginning Total	\$ 20,000.00
Total Spent 2022-2023	\$ 23,793.34
Remaining Fund	\$ (3,793.34)

		Expense	Contract Year Running Total
<b>December-22</b>			
USA Bluebook	Repair kit for hydrant at Ken Ratliff Park (hit by vehicle)	124.27	
Michigan Pipe & Valve	Sewer plug for Hangar 7 line from old AFFF pond	51.94	
Professional Pump	Replacement V-belt for lagoon blower #2	312.36	
USA Bluebook	Hydrant out of service reflective rings	227.41	
Ferguson Enterprises	Replacement water main tapping bit set	794.55	
Valve Depot	Spare Kunkle safety pressure relief valve for lagoon blower #2	336.85	
<b>Total December</b>		<b>\$ 1,847.38</b>	
			<b>\$ 10,889.28</b>
<b>January-23</b>			
John Henry Excavating	Repair couplers for 14-inch force main (spares for future use)	3,500.00	
<b>Total January</b>		<b>\$ 3,500.00</b>	
			<b>\$ 14,389.28</b>
<b>February-23</b>			
UIS SCADA	Service call to address Lagoon phase monitor alarms	1,505.00	
Peterson & Matz	Replacement ferric chloride pump & rebuild kit for 2nd pump	6,323.37	
Graham Electric Motor	Generator block heater replacement PS #4	680.16	
<b>Total February</b>		<b>\$ 8,508.53</b>	
			<b>\$ 22,897.81</b>
<b>March-23</b>			
Camlock Direct	Camlocks for bypass pump	176.63	
Galloup Company	Generator louver operator for PS #25	718.90	
<b>Total March</b>		<b>\$ 895.53</b>	
			<b>\$ 23,793.34</b>

Attachment C

# **Monitoring & Reporting**

[illegible]





[illegible]



March 28, 2023

*Via MiEnviro Portal submission*

Mr. Matthew Siler, Environmental Quality Analyst  
Michigan Department of Environment, Great Lakes, and Energy  
Water Resources Division  
Bay City District Office  
401 Ketchum Street, Suite B  
Bay City, Michigan 48708

**RE: Oscoda Township WWTP  
Non-IPP PFAS Status Report – March 2023**

Dear Mr. Siler:

The purpose of this letter report is to summarize the activities undertaken by the Township to identify and reduce sources of PFAS since the last report, dated December 2023.

## Monthly WWTP Sampling

As required, the Township has been collecting monthly influent and effluent samples beginning in May 2019. Results have been submitted in via the MiWaters/MiEnviro Portal Effluent reporting forms.

## Collection System Sampling

As part of the PFAS source identification process, the collection system was divided into five distinct districts, with a sample collected at the downstream end of each district in January 2020 and January 2021. These results have previously been submitted to EGLE and are included in this report as Figure 1 and Figure 2, for reference. Every district sample but one (the PS 7 and PS 4 districts, respectively) had levels of PFOS that exceeded the Water Quality Standards (WQS) of 12 ppt for each round of sampling. Very high levels of PFOS and other PFAS compounds were observed in samples collected in the PS 16 district which serves the former Wurtsmith Air Force Base (WAFB).

As requested in compliance communication no. CC-003383 from EGLE, dated July 23, 2021, additional collection system wastewater samples were collected in September and October 2021 to help determine sources of PFAS in the Oscoda Township wastewater system.

The analytical results from samples collected September 29, 2021, at critical locations at the former WAFB, were submitted to EGLE in the November 2021 report.

Samples were collected in the sampling districts outside of the WAFB, upstream of previous sampling locations on October 12, 2021, to help pinpoint potential sources of PFAS outside of the WAFB. These results were presented in the January 2022 status report.

2960 Lucerne Drive SE  
Grand Rapids, MI 49546  
P: 616.977.1000  
F: 616.977.1005  
www.fveng.com

Sampling results to date have not identified new sources of PFHxS, PFOA, or PFOS; but appear to be related to the groundwater contamination located throughout the Oscoda Township area.

Active sources of PFAS (specifically PFOA, PFOS, and PFHxS) to the wastewater system at the former WAFB site appear to be related to legacy contamination of the piping system between Hangar 7 and the former AFFF retention pond and contaminated groundwater.

In general, wastewater sample results closely align with known PFAS groundwater contamination results from either the former WAFB plume, including the Whispering Pines area, or other MPART sites in the Oscoda area, including the Oscoda Area Schools or the Au Sable Township Smith Street Area.

Samples collected at the Former WAFB site and within the associated groundwater contamination plume exhibit relatively high levels of PFOS and PFHxS. As discussed in the November 2021 and January 2022 reports, the wastewater samples collected at MH B and MH D, which are located between the discharge from Hangar 7 and the former AFFF pond, exhibit the highest levels of PFAS, with similar concentrations to pure legacy AFFF. PFAS concentrations downstream appear to be diluted by sanitary sewage as the flow moves from MH D and MH B into the sanitary sewer along Flight Street.

The Township worked with the Cherokee Federal, CTI, and Oscoda Airport Authority which currently owns the property and private sewer between Hangar 7 and the public sewer on Flight Street to disconnect the former AFFF retention pond piping from the Township wastewater collection system.

## Source Reduction – Hangar 7 / Former AFFF Piping

As discussed at our virtual meeting on December 2, 2022, the Airport Authority completed repairs to the former AFFF pond liner near Hangar 7 in early December. Once repairs were made, the control valve in MH C was positioned to route flow from Hangar 7 to the former AFFF pond so that wastewater from Hangar 7 (floor drains that collect airplane wash water) is no longer flowing through the PFAS contaminated private sewer that connects to the public sewer on Flight Street. The Airport Authority is periodically pumping out the stored wastewater for disposal offsite.

To ensure flow from this line was not able to discharge into the public sewer along Flight Street, the Township DPW installed a mechanical plug on December 21, 2022.

Samples were collected in late February 2023 to determine whether preventing flow from Hangar 7 through contaminated MH B and MH D sludge to the public sewer on Flight Street reduced PFAS loading to the WWTP. Results indicate that preventing flow from Hangar 7 to the public sewer along Flight Street has resulted in significantly lower PFOS concentrations at sampling locations along Flight Street, including MH 16.014, MH 16.009, and MH 16.001. The following table summarizes these results.

Sample Date	MH 16.014	MH 16.009	MH16.001
9/29/2021	2150 ng/L	1230 ng/L	130 ng/L
2/28/2023	341 ng/L	110 ng/L	55.1 ng/L

Figures 1 through 3 summarizes sampling results from April 2021, September 2021, and February 2023 in the Hangar 7 area.

The Township and Airport Authority continue to work with the Department of Defense regarding a more permanent solution to ensure flow from Hangar 7 is not flowing through the contaminated private sewer to the public sewer at Flight Street.

If you have any questions regarding the wastewater PFAS investigation, please call me at 616.446.9669 or Catherine Winn at 517.304.3513.

Sincerely,

**FLEIS & VANDENBRINK**

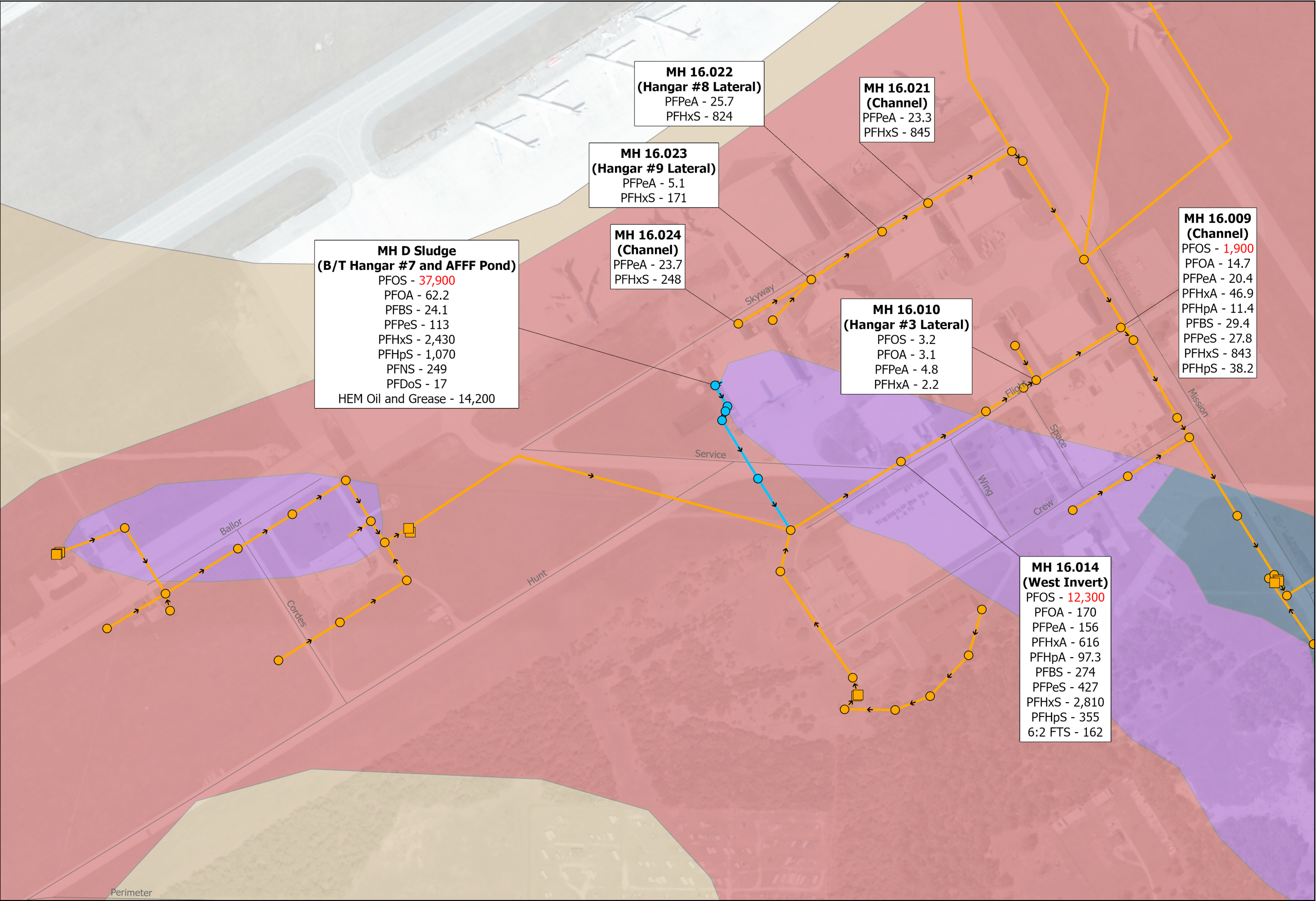


Elaine J. Venema, PE  
Project Manager

Enclosures:     Figure 1 – April 2021 Kalitta Air / Former WAFB Sampling Results Map  
                      Figure 2 – September 2021 Kalitta Air / Former WAFB Sampling Results Map  
                      Figure 3 – February 2023 Kalitta Air / Former WAFB Sampling Results Map  
                      Figure 4 – Hangar 7/Former AFFF Pond Site Piping Record Drawing (with notes)  
                      February 2023 Lab Report

Cc/enc:            Tammy Kline, Oscoda Charter Township  
                      Catherine Winn, FVOP  
                      Carla Davidson, EGLE WRD





**MH D Sludge  
(B/T Hangar #7 and AFFF Pond)**  
PFOS - 37,900  
PFOA - 62.2  
PFBS - 24.1  
PFPeS - 113  
PFHxS - 2,430  
PFHpS - 1,070  
PFNS - 249  
PFDoS - 17  
HEM Oil and Grease - 14,200

**MH 16.023  
(Hangar #9 Lateral)**  
PFPeA - 5.1  
PFHxS - 171

**MH 16.022  
(Hangar #8 Lateral)**  
PFPeA - 25.7  
PFHxS - 824


**MH 16.024  
(Channel)**  
PFPeA - 23.7  
PFHxS - 248

**MH 16.010  
(Hangar #3 Lateral)**  
PFOS - 3.2  
PFOA - 3.1  
PFPeA - 4.8  
PFHxA - 2.2

**MH 16.021  
(Channel)**  
PFPeA - 23.3  
PFHxS - 845

**MH 16.009  
(Channel)**  
PFOS - 1,900  
PFOA - 14.7  
PFPeA - 20.4  
PFHxA - 46.9  
PFHpA - 11.4  
PFBS - 29.4  
PFPeS - 27.8  
PFHxS - 843  
PFHpS - 38.2

**MH 16.014  
(West Invert)**  
PFOS - 12,300  
PFOA - 170  
PFPeA - 156  
PFHxA - 616  
PFHpA - 97.3  
PFBS - 274  
PFPeS - 427  
PFHxS - 2,810  
PFHpS - 355  
6:2 FTS - 162



DESIGN. BUILD. OPERATE.

Total PFAS Groundwater Plume Concentration (ng/L)

Concentration Range (ng/L)	Color
10 - <70	Light Blue
70 - <1,000	Medium Blue
1,000 - <5,000	Dark Blue
>5,000	Black

All units in ng/L  
Only analyses with detections shown  
#:# - Exceeds Rule 57 WQS

Sanitary System

- Manhole
- Pipe
- Former WAFB Assets

**Kalitta PFAS Sampling Results**


Samples Collected 4/2/21

Oscoda Township, Iosco County, Michigan

DRAWN BY	DATE
saml	10/29/2021
PROJECT NO.	SCALE
852100	1:5,200

FILE LOCATION  
S:\Client Info\Michigan\Iosco County\Oscoda Township\GIS Data\MapInfo\852100\_KalittaPFAS\_April2021Results.pdf

SOURCES  
FWS, MGD, Oscoda Township, Spicer Group, ERI, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

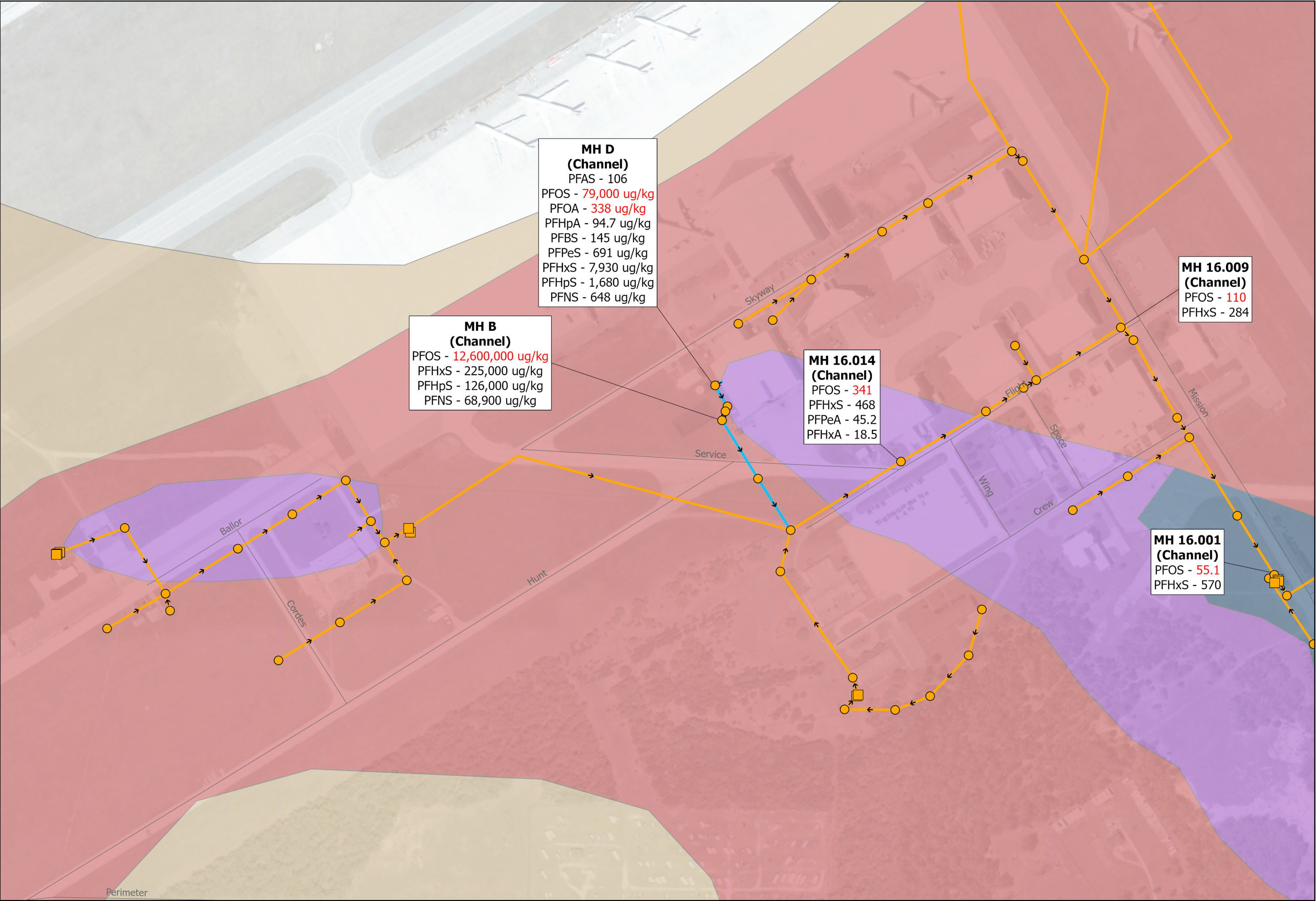


0 200 400  
SCALE IN FEET

PAGE

Figure 3





**MH D  
(Channel)**  
PFAS - 106  
PFOS - 79,000 ug/kg  
PFOA - 338 ug/kg  
PFHpA - 94.7 ug/kg  
PFBS - 145 ug/kg  
PFPeS - 691 ug/kg  
PFHxS - 7,930 ug/kg  
PFHpS - 1,680 ug/kg  
PFNS - 648 ug/kg

**MH B  
(Channel)**  
PFOS - 12,600,000 ug/kg  
PFHxS - 225,000 ug/kg  
PFHpS - 126,000 ug/kg  
PFNS - 68,900 ug/kg

**MH 16.014  
(Channel)**  
PFOS - 341  
PFHxS - 468  
PFPeA - 45.2  
PFHxA - 18.5

**MH 16.009  
(Channel)**  
PFOS - 110  
PFHxS - 284

**MH 16.001  
(Channel)**  
PFOS - 55.1  
PFHxS - 570

Total PFAS Groundwater Plume Concentration (ng/L)

Concentration Range (ng/L)	Color
10 - <70	Light Green
70 - <1,000	Green
1,000 - <5,000	Yellow
>5,000	Red

Sanitary System

- Manhole (Yellow circle)
- Pipe (Yellow line)
- Former WARE Assets (Blue circle)

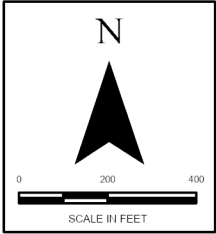
Unless specified, all units in ng/L  
Only analyses with detections shown  
#:# - Exceeds Rule 57 WQS

**Kalitta PFAS Sampling Results**

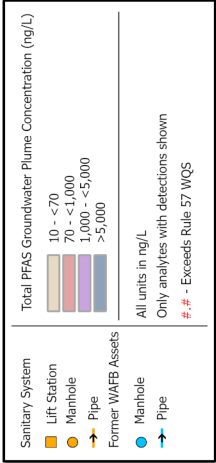
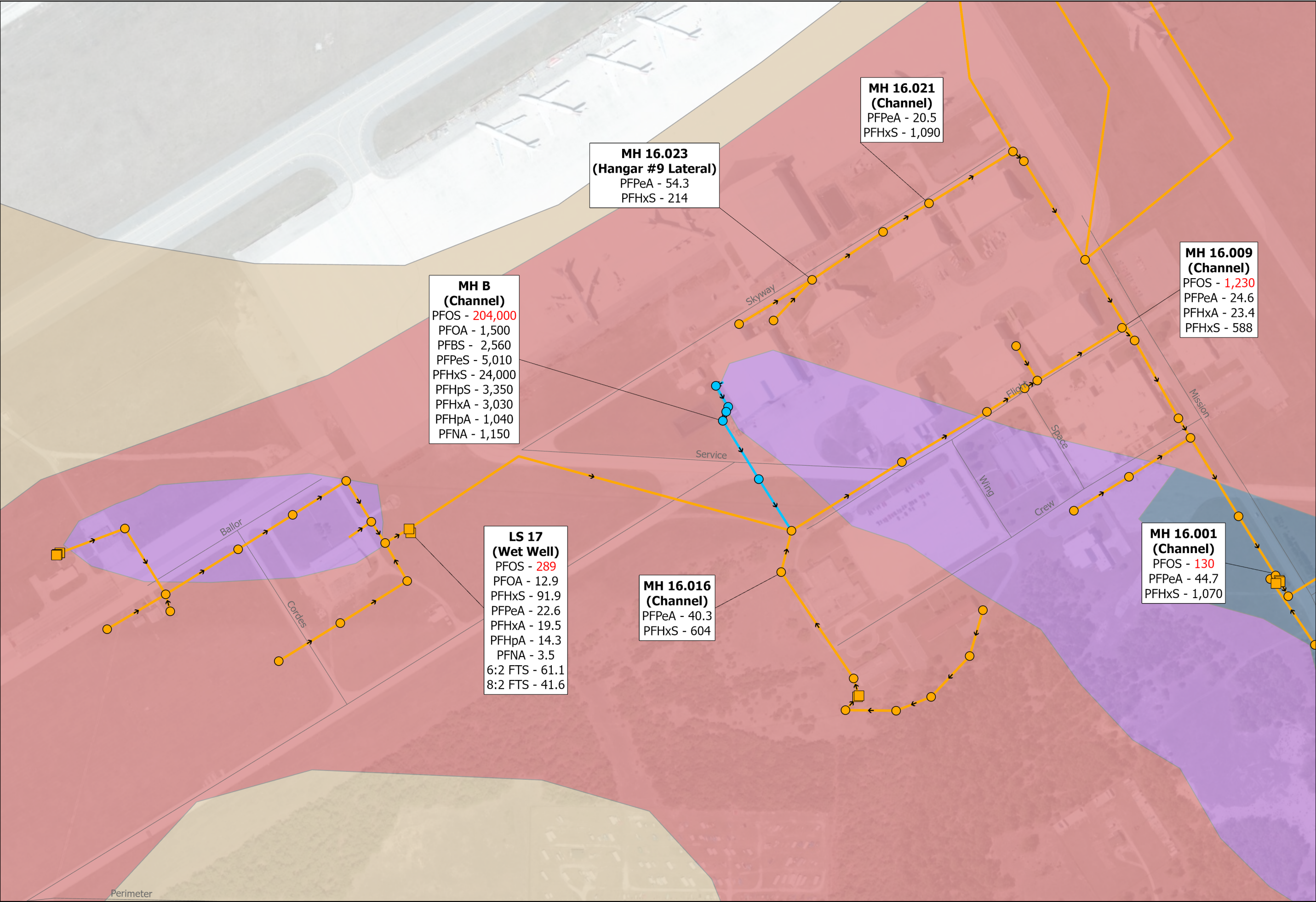
Samples Collected 2/28/23

Oscoda Township, Iosco County, Michigan

DRAWN BY	DATE
saml	3/28/2023
PROJECT NO.	SCALE
852100	1:5,200
FILE LOCATION	
S:\Client Info\Michigan\Iosco County\Oscoda Township\GIS Data\Map\Map\852100_KalittaPFAS_February2023Results.pdf	
SOURCES	
FWS, MGDOL, Oscoda Township, Spicer Group, Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community	

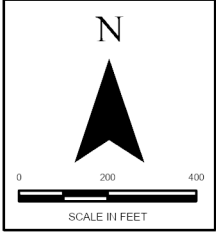






Kalitta PFAS Sampling Results	
Samples Collected 9/29/21	
Oscoda Township, Iosco County, Michigan	

DRAWN BY	DATE
saml	10/29/2021
PROJECT NO.	SCALE
852100	1:5,200
FILE LOCATION S:\Client Info\Michigan\Iosco County\Oscoda Township\GIS Data\Map\852100_KalittaPFAS_September2021Results.pdf	
SOURCES FWS, MGDL, Oscoda Township, Spicer Group, Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community	





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## Report of Analysis

Client Sample ID:	MH D	Date Sampled:	02/28/23
Lab Sample ID:	FC3051-1A	Date Received:	03/01/23
Matrix:	SO - Soil	Percent Solids:	21.2
Method:	EPA 537M BY ID IN HOUSE		
Project:	Oscoda WWTP; 4466 McNichol Ave, Oscoda, MI		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3Q73685.D	10	03/07/23 02:37	JL	03/03/23 08:00	OP95710	S3Q1010
Run #2	3Q73686.D	250	03/07/23 02:53	JL	03/03/23 08:00	OP95710	S3Q1010

Run #	Initial Weight	Final Volume
Run #1	0.510 g	1.0 ml
Run #2	0.510 g	1.0 ml

CAS No.	Compound	Result	RL	Units	Q
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## PERFLUOROALKYLCARBOXYLIC ACIDS

375-22-4	Perfluorobutanoic acid	ND	180	ug/kg	
2706-90-3	Perfluoropentanoic acid	ND	92	ug/kg	
307-24-4	Perfluorohexanoic acid	ND	92	ug/kg	
375-85-9	Perfluoroheptanoic acid	94.7	92	ug/kg	
335-67-1	Perfluorooctanoic acid	338	92	ug/kg	
375-95-1	Perfluorononanoic acid	ND	92	ug/kg	
335-76-2	Perfluorodecanoic acid	ND	92	ug/kg	
2058-94-8	Perfluoroundecanoic acid	ND	92	ug/kg	
307-55-1	Perfluorododecanoic acid	ND	92	ug/kg	
72629-94-8	Perfluorotridecanoic acid	ND	92	ug/kg	
376-06-7	Perfluorotetradecanoic acid	ND	92	ug/kg	

## PERFLUOROALKYLSULFONIC ACIDS

375-73-5	Perfluorobutanesulfonic acid	145	92	ug/kg	
2706-91-4	Perfluoropentanesulfonic acid	691	92	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	7930	92	ug/kg	
375-92-8	Perfluoroheptanesulfonic acid	1680	92	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	79000 <sup>a</sup>	2300	ug/kg	
68259-12-1	Perfluorononanesulfonic acid	648	92	ug/kg	
335-77-3	Perfluorodecanesulfonic acid	106	92	ug/kg	

## PERFLUOROCTANESULFONAMIDES

754-91-6	PFOSA	ND	92	ug/kg	
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## PERFLUOROCTANESULFONAMIDOACETIC ACIDS

2355-31-9	MeFOSAA	ND	180	ug/kg	
2991-50-6	EtFOSAA	ND	180	ug/kg	

## FLUOROTELOMER SULFONATES

757124-72-4	4:2 Fluorotelomer sulfonate	ND	180	ug/kg	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	180	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	MH D	Date Sampled:	02/28/23
Lab Sample ID:	FC3051-1A	Date Received:	03/01/23
Matrix:	SO - Soil	Percent Solids:	21.2
Method:	EPA 537M BY ID IN HOUSE		
Project:	Oscoda WWTP; 4466 McNichol Ave, Oscoda, MI		

CAS No.	Compound	Result	RL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	ND	180	ug/kg	

## NEXT GENERATION PFAS ANALYTES

13252-13-6	HFPO-DA (GenX)	ND	180	ug/kg	
919005-14-4	ADONA	ND	92	ug/kg	
756426-58-1	9CI-PF3ONS (F-53B Major)	ND	92	ug/kg	
763051-92-9	11CI-PF3OUdS (F-53B Minor)	ND	92	ug/kg	

## ADDITIONAL PER and POLYFLUORINATED ANALYTES

646-83-3	4-PFecHS	2680	92	ug/kg	
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CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	73%	92%	40-140%
	13C5-PFPeA	73%	94%	50-150%
	13C5-PFHxA	74%	94%	50-150%
	13C4-PFHpA	74%	97%	50-150%
	13C8-PFOA	73%	98%	50-150%
	13C9-PFNA	67%	95%	50-150%
	13C6-PFDA	77%	100%	50-150%
	13C7-PFUnDA	77%	104%	40-140%
	13C2-PFDoDA	76%	103%	40-140%
	13C2-PFTeDA	64%	89%	30-130%
	13C3-PFBS	72%	94%	50-150%
	13C3-PFHxS	70%	94%	50-150%
	13C8-PFOS	64%	94%	50-150%
	13C8-FOSA	65%	99%	30-130%
	d3-MeFOSAA	112%	118%	40-140%
	d5-EtFOSAA	127%	107%	40-140%
	13C2-4:2FTS	71%	90%	50-150%
	13C2-6:2FTS	72%	92%	50-150%
	13C2-8:2FTS	92%	95%	50-150%
	13C3-HFPO-DA	76%	93%	50-150%

(a) Result is from Run# 2

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	MH B	Date Sampled:	02/28/23
Lab Sample ID:	FC3051-2A	Date Received:	03/01/23
Matrix:	SO - Soil	Percent Solids:	0.2
Method:	EPA 537M BY ID IN HOUSE		
Project:	Oscoda WWTP; 4466 McNichol Ave, Oscoda, MI		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3Q73689.D	25	03/07/23 03:40	JL	03/03/23 08:00	OP95710	S3Q1010
Run #2	3Q73690.D	250	03/07/23 03:55	JL	03/03/23 08:00	OP95710	S3Q1010

Run #	Initial Weight	Final Volume
Run #1	0.540 g	1.0 ml
Run #2	0.540 g	1.0 ml

CAS No.	Compound	Result	RL	Units	Q
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## PERFLUOROALKYLCARBOXYLIC ACIDS

375-22-4	Perfluorobutanoic acid	ND	46000	ug/kg	
2706-90-3	Perfluoropentanoic acid	ND	23000	ug/kg	
307-24-4	Perfluorohexanoic acid	ND	23000	ug/kg	
375-85-9	Perfluoroheptanoic acid	ND	23000	ug/kg	
335-67-1	Perfluorooctanoic acid	ND	23000	ug/kg	
375-95-1	Perfluorononanoic acid	ND	23000	ug/kg	
335-76-2	Perfluorodecanoic acid	ND	23000	ug/kg	
2058-94-8	Perfluoroundecanoic acid	ND	23000	ug/kg	
307-55-1	Perfluorododecanoic acid	ND	23000	ug/kg	
72629-94-8	Perfluorotridecanoic acid	ND	23000	ug/kg	
376-06-7	Perfluorotetradecanoic acid	ND	23000	ug/kg	

## PERFLUOROALKYLSULFONIC ACIDS

375-73-5	Perfluorobutanesulfonic acid	ND	23000	ug/kg	
2706-91-4	Perfluoropentanesulfonic acid	ND	23000	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	225000	23000	ug/kg	
375-92-8	Perfluoroheptanesulfonic acid	126000	23000	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	12600000 <sup>a</sup>	230000	ug/kg	
68259-12-1	Perfluorononanesulfonic acid	68900	23000	ug/kg	
335-77-3	Perfluorodecanesulfonic acid	ND	23000	ug/kg	

## PERFLUOROOCETANESULFONAMIDES

754-91-6	PFOSA	ND	23000	ug/kg	
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## PERFLUOROOCETANESULFONAMIDOACETIC ACIDS

2355-31-9	MeFOSAA	ND	46000	ug/kg	
2991-50-6	EtFOSAA	ND <sup>a</sup>	460000	ug/kg	

## FLUOROTELOMER SULFONATES

757124-72-4	4:2 Fluorotelomer sulfonate	ND	46000	ug/kg	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	46000	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	MH B	Date Sampled:	02/28/23
Lab Sample ID:	FC3051-2A	Date Received:	03/01/23
Matrix:	SO - Soil	Percent Solids:	0.2
Method:	EPA 537M BY ID IN HOUSE		
Project:	Oscoda WWTP; 4466 McNichol Ave, Oscoda, MI		

CAS No.	Compound	Result	RL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	ND	46000	ug/kg	

## NEXT GENERATION PFAS ANALYTES

13252-13-6	HFPO-DA (GenX)	ND	46000	ug/kg	
919005-14-4	ADONA	ND	23000	ug/kg	
756426-58-1	9CI-PF3ONS (F-53B Major)	ND	23000	ug/kg	
763051-92-9	11CI-PF3OUdS (F-53B Minor)	ND	23000	ug/kg	

## ADDITIONAL PER and POLYFLUORINATED ANALYTES

646-83-3	4-PFecHS	1400000	23000	ug/kg	
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CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	82%	91%	40-140%
	13C5-PFPeA	83%	92%	50-150%
	13C5-PFHxA	85%	94%	50-150%
	13C4-PFHpA	84%	96%	50-150%
	13C8-PFOA	88%	97%	50-150%
	13C9-PFNA	79%	90%	50-150%
	13C6-PFDA	91%	99%	50-150%
	13C7-PFUnDA	91%	104%	40-140%
	13C2-PFDoDA	84%	102%	40-140%
	13C2-PFTeDA	78%	87%	30-130%
	13C3-PFBS	84%	93%	50-150%
	13C3-PFHxS	94%	94%	50-150%
	13C8-PFOS	84%	92%	50-150%
	13C8-FOSA	88%	97%	30-130%
	d3-MeFOSAA	113%	115%	40-140%
	d5-EtFOSAA	141% <sup>b</sup>	110%	40-140%
	13C2-4:2FTS	83%	88%	50-150%
	13C2-6:2FTS	81%	91%	50-150%
	13C2-8:2FTS	104%	95%	50-150%
	13C3-HFPO-DA	91%	93%	50-150%

(a) Result is from Run# 2

(b) Outside control limits.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	EQUIPMENT BLANK	Date Sampled:	02/28/23
Lab Sample ID:	FC3051-3	Date Received:	03/01/23
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Method:	EPA 537M BY ID EPA 537 MOD		
Project:	Oscoda WWTP; 4466 McNichol Ave, Oscoda, MI		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3Q73662.D	1	03/06/23 20:39	JL	03/02/23 09:37	OP95701	S3Q1010
Run #2							

Run #	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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## PERFLUOROALKYLCARBOXYLIC ACIDS

375-22-4	Perfluorobutanoic acid	ND	3.6	ng/l	
2706-90-3	Perfluoropentanoic acid	ND	1.8	ng/l	
307-24-4	Perfluorohexanoic acid	ND	1.8	ng/l	
375-85-9	Perfluoroheptanoic acid	ND	1.8	ng/l	
335-67-1	Perfluorooctanoic acid	ND	1.8	ng/l	
375-95-1	Perfluorononanoic acid	ND	1.8	ng/l	
335-76-2	Perfluorodecanoic acid	ND	1.8	ng/l	
2058-94-8	Perfluoroundecanoic acid	ND	1.8	ng/l	
307-55-1	Perfluorododecanoic acid	ND	1.8	ng/l	
72629-94-8	Perfluorotridecanoic acid	ND	1.8	ng/l	
376-06-7	Perfluorotetradecanoic acid	ND	1.8	ng/l	

## PERFLUOROALKYLSULFONIC ACIDS

375-73-5	Perfluorobutanesulfonic acid	ND	1.8	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	1.8	ng/l	
355-46-4	Perfluorohexanesulfonic acid	ND	1.8	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	1.8	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	1.8	ng/l	B
68259-12-1	Perfluorononanesulfonic acid	ND	1.8	ng/l	
335-77-3	Perfluorodecanesulfonic acid	ND	1.8	ng/l	

## PERFLUOROCTANESULFONAMIDES

754-91-6	PFOSA	ND	3.6	ng/l	
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## PERFLUOROCTANESULFONAMIDOACETIC ACIDS

2355-31-9	MeFOSAA	ND	3.6	ng/l	
2991-50-6	EtFOSAA	ND	3.6	ng/l	

## FLUOROTELOMER SULFONATES

757124-72-4	4:2 Fluorotelomer sulfonate	ND	7.1	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	7.1	ng/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID:	EQUIPMENT BLANK	Date Sampled:	02/28/23
Lab Sample ID:	FC3051-3	Date Received:	03/01/23
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Method:	EPA 537M BY ID EPA 537 MOD		
Project:	Oscoda WWTP; 4466 McNichol Ave, Oscoda, MI		

CAS No.	Compound	Result	RL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	ND	7.1	ng/l	

## NEXT GENERATION PFAS ANALYTES

13252-13-6	HFPO-DA (GenX)	ND	3.6	ng/l	
919005-14-4	ADONA	ND	7.1	ng/l	
756426-58-1	9CI-PF3ONS (F-53B Major)	ND	7.1	ng/l	
763051-92-9	11CI-PF3OUdS (F-53B Minor)	ND	7.1	ng/l	

## ADDITIONAL PER and POLYFLUORINATED ANALYTES

646-83-3	4-PFecHS	ND	7.1	ng/l	
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CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	73%		35-135%
	13C5-PFPeA	74%		50-150%
	13C5-PFHxA	76%		50-150%
	13C4-PFHpA	78%		50-150%
	13C8-PFOA	78%		50-150%
	13C9-PFNA	75%		50-150%
	13C6-PFDA	78%		50-150%
	13C7-PFUnDA	60%		40-140%
	13C2-PFDoDA	61%		40-140%
	13C2-PFTeDA	44%		30-130%
	13C3-PFBS	76%		50-150%
	13C3-PFHxS	75%		50-150%
	13C8-PFOS	76%		50-150%
	13C8-FOSA	60%		30-130%
	d3-MeFOSAA	76%		40-140%
	d5-EtFOSAA	62%		40-140%
	13C2-4:2FTS	72%		50-150%
	13C2-6:2FTS	74%		50-150%
	13C2-8:2FTS	76%		50-150%
	13C3-HFPO-DA	76%		50-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	MH 16.014	Date Sampled:	02/28/23
Lab Sample ID:	FC3051-4	Date Received:	03/01/23
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 537M BY ID EPA 537 MOD		
Project:	Oscoda WWTP; 4466 McNichol Ave, Oscoda, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	3Q73674.D	5.2	03/06/23 23:46	JL	03/02/23 09:37	OP95701	S3Q1010
Run #2 <sup>b</sup>	3Q73810.D	10.5	03/08/23 23:57	JL	03/02/23 09:37	OP95701	S3Q1012
Run #3 <sup>b</sup>	3Q73675.D	26.2	03/07/23 00:02	JL	03/02/23 09:37	OP95701	S3Q1010

	Initial Volume	Final Volume
Run #1	205 ml	1.0 ml
Run #2	205 ml	1.0 ml
Run #3	205 ml	1.0 ml

CAS No.	Compound	Result	RL	Units	Q
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## PERFLUOROALKYLCARBOXYLIC ACIDS

375-22-4	Perfluorobutanoic acid	ND	25	ng/l	
2706-90-3	Perfluoropentanoic acid	45.2	13	ng/l	
307-24-4	Perfluorohexanoic acid	18.5	13	ng/l	
375-85-9	Perfluoroheptanoic acid	ND	13	ng/l	
335-67-1	Perfluorooctanoic acid	ND	13	ng/l	
375-95-1	Perfluorononanoic acid	ND	13	ng/l	
335-76-2	Perfluorodecanoic acid	ND	13	ng/l	
2058-94-8	Perfluoroundecanoic acid <sup>c</sup>	ND	13	ng/l	
2058-94-8	Perfluoroundecanoic acid <sup>c</sup>	ND <sup>d</sup>	26	ng/l	
72629-94-8	Perfluorotridecanoic acid <sup>c</sup>	ND <sup>e</sup>	64	ng/l	
376-06-7	Perfluorotetradecanoic acid <sup>c</sup>	ND <sup>e</sup>	64	ng/l	

## PERFLUOROALKYLSULFONIC ACIDS

375-73-5	Perfluorobutanesulfonic acid	ND	13	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	13	ng/l	
355-46-4	Perfluorohexanesulfonic acid	468	13	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	13	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	341	13	ng/l	
68259-12-1	Perfluorononanesulfonic acid	ND	13	ng/l	
335-77-3	Perfluorodecanesulfonic acid <sup>c</sup>	ND <sup>d</sup>	26	ng/l	

## PERFLUOROOCTANESULFONAMIDES

754-91-6	PFOSA <sup>c</sup>	ND	25	ng/l	
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## PERFLUOROOCTANESULFONAMIDOACETIC ACIDS

2355-31-9	MeFOSAA <sup>c</sup>	ND	25	ng/l	
2991-50-6	EtFOSAA	ND	25	ng/l	

## FLUOROTELOMER SULFONATES

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	MH 16.014	Date Sampled:	02/28/23
Lab Sample ID:	FC3051-4	Date Received:	03/01/23
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 537M BY ID EPA 537 MOD		
Project:	Oscoda WWTP; 4466 McNichol Ave, Oscoda, MI		

CAS No.	Compound	Result	RL	Units	Q
757124-72-4	4:2 Fluorotelomer sulfonate	ND	51	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	51	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	51	ng/l	

## NEXT GENERATION PFAS ANALYTES

13252-13-6	HFPO-DA (GenX)	ND	25	ng/l	
919005-14-4	ADONA	ND	51	ng/l	
756426-58-1	9CI-PF3ONS (F-53B Major)	ND	51	ng/l	
763051-92-9	11CI-PF3OUdS (F-53B Mino <sup>c</sup> )	ND	51	ng/l	

## ADDITIONAL PER and POLYFLUORINATED ANALYTES

646-83-3	4-PFecHS	ND	51	ng/l	
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CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Run# 3	Limits
	13C4-PFBA	35%	45%	42%	35-135%
	13C5-PFPeA	56%	77%	69%	50-150%
	13C5-PFHxS	53%	79%	72%	50-150%
	13C4-PFHpA	54%	80%	71%	50-150%
	13C8-PFOA	53%	81%	65%	50-150%
	13C9-PFNA	59%	86%	67%	50-150%
	13C6-PFDA	50%	65%	58%	50-150%
	13C7-PFUnDA	27% <sup>f</sup>	39% <sup>f</sup>	37% <sup>f</sup>	40-140%
	13C2-PFDoDA	12% <sup>f</sup>	15% <sup>f</sup>	16% <sup>f</sup>	40-140%
	13C2-PFTeDA	5% <sup>f</sup>	8% <sup>f</sup>	7% <sup>f</sup>	30-130%
	13C3-PFBS	58%	81%	71%	50-150%
	13C3-PFHxS	60%	82%	74%	50-150%
	13C8-PFOS	53%	74%	84%	50-150%
	13C8-FOSA	22% <sup>f</sup>	36%	38%	30-130%
	d3-MeFOSAA	32% <sup>f</sup>	55%	59%	40-140%
	d5-EtFOSAA	44%	58%	52%	40-140%
	13C2-4:2FTS	57%	82%	72%	50-150%
	13C2-6:2FTS	63%	90%	72%	50-150%
	13C2-8:2FTS	65%	79%	72%	50-150%
	13C3-HFPO-DA	67%	98%	90%	50-150%

(a) Dilution due to sample clogging SPE cartridge, only partial volume was extracted.

(b) Dilution required (ID recovery standard failure).

(c) Associated ID Standard outside control limits.

(d) Result is from Run# 2

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	MH 16.014	<b>Date Sampled:</b>	02/28/23
<b>Lab Sample ID:</b>	FC3051-4	<b>Date Received:</b>	03/01/23
<b>Matrix:</b>	AQ - Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 537M BY ID EPA 537 MOD		
<b>Project:</b>	Oscoda WWTP; 4466 McNichol Ave, Oscoda, MI		

CAS No.	Compound	Result	RL	Units	Q
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(e) Result is from Run# 3

(f) Outside control limits.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	MH 16.009	Date Sampled:	02/28/23
Lab Sample ID:	FC3051-5	Date Received:	03/01/23
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 537M BY ID EPA 537 MOD		
Project:	Oscoda WWTP; 4466 McNichol Ave, Oscoda, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	3Q73676.D	5	03/07/23 00:17	JL	03/02/23 09:37	OP95701	S3Q1010
Run #2	3Q73811.D	10	03/09/23 00:13	JL	03/02/23 09:37	OP95701	S3Q1012
Run #3	3Q73677.D	25	03/07/23 00:33	JL	03/02/23 09:37	OP95701	S3Q1010

	Initial Volume	Final Volume
Run #1	240 ml	1.0 ml
Run #2	240 ml	1.0 ml
Run #3	240 ml	1.0 ml

CAS No.	Compound	Result	RL	Units	Q
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## PERFLUOROALKYLCARBOXYLIC ACIDS

375-22-4	Perfluorobutanoic acid	ND	21	ng/l	
2706-90-3	Perfluoropentanoic acid	ND	10	ng/l	
307-24-4	Perfluorohexanoic acid	ND	10	ng/l	
375-85-9	Perfluoroheptanoic acid	ND	10	ng/l	
335-67-1	Perfluorooctanoic acid	ND	10	ng/l	
375-95-1	Perfluorononanoic acid	ND	10	ng/l	
335-76-2	Perfluorodecanoic acid <sup>b</sup>	ND	10	ng/l	
2058-94-8	Perfluoroundecanoic acid <sup>b</sup>	ND <sup>c</sup>	21	ng/l	
307-55-1	Perfluorododecanoic acid <sup>b</sup>	ND <sup>d</sup>	52	ng/l	
72629-94-8	Perfluorotridecanoic acid <sup>b</sup>	ND <sup>d</sup>	52	ng/l	
376-06-7	Perfluorotetradecanoic acid <sup>b</sup>	ND <sup>d</sup>	52	ng/l	

## PERFLUOROALKYLSULFONIC ACIDS

375-73-5	Perfluorobutanesulfonic acid	ND	10	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	10	ng/l	
355-46-4	Perfluorohexanesulfonic acid	284	10	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	10	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	110	10	ng/l	
68259-12-1	Perfluorononanesulfonic acid	ND	10	ng/l	
335-77-3	Perfluorodecanesulfonic acid <sup>b</sup>	ND <sup>c</sup>	21	ng/l	

## PERFLUOROOCTANESULFONAMIDES

754-91-6	PFOSA	ND <sup>c</sup>	42	ng/l	
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## PERFLUOROOCTANESULFONAMIDOACETIC ACIDS

2355-31-9	MeFOSAA <sup>b</sup>	ND <sup>c</sup>	42	ng/l	
2991-50-6	EtFOSAA	ND <sup>c</sup>	42	ng/l	

## FLUOROTELOMER SULFONATES

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	MH 16.009	Date Sampled:	02/28/23
Lab Sample ID:	FC3051-5	Date Received:	03/01/23
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 537M BY ID EPA 537 MOD		
Project:	Oscoda WWTP; 4466 McNichol Ave, Oscoda, MI		

CAS No.	Compound	Result	RL	Units	Q
757124-72-4	4:2 Fluorotelomer sulfonate	ND	42	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	42	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate <sup>b</sup>	ND	42	ng/l	

## NEXT GENERATION PFAS ANALYTES

13252-13-6	HFPO-DA (GenX)	ND	21	ng/l	
919005-14-4	ADONA	ND	42	ng/l	
756426-58-1	9CI-PF3ONS (F-53B Major) <sup>b</sup>	ND	42	ng/l	
763051-92-9	11CI-PF3OUdS (F-53B Mino) <sup>b</sup>	ND <sup>d</sup>	210	ng/l	

## ADDITIONAL PER and POLYFLUORINATED ANALYTES

646-83-3	4-PFecHS	241	42	ng/l	
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CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Run# 3	Limits
	13C4-PFBA	42%	42%	44%	35-135%
	13C5-PFPeA	70%	66%	70%	50-150%
	13C5-PFHxS	69%	63%	72%	50-150%
	13C4-PFHpA	70%	65%	73%	50-150%
	13C8-PFOA	61%	63%	70%	50-150%
	13C9-PFNA	70%	64%	77%	50-150%
	13C6-PFDA	40% <sup>e</sup>	47% <sup>e</sup>	54%	50-150%
	13C7-PFUnDA	8% <sup>e</sup>	32% <sup>e</sup>	40%	40-140%
	13C2-PFDoDA	1% <sup>e</sup>	10% <sup>e</sup>	23% <sup>e</sup>	40-140%
	13C2-PFTeDA	12% <sup>e</sup>	14% <sup>e</sup>	13% <sup>e</sup>	30-130%
	13C3-PFBS	73%	68%	69%	50-150%
	13C3-PFHxS	79%	74%	71%	50-150%
	13C8-PFOS	76%	69%	81%	50-150%
	13C8-FOSA	19% <sup>e</sup>	42%	51%	30-130%
	d3-MeFOSAA	1% <sup>e</sup>	31% <sup>e</sup>	60%	40-140%
	d5-EtFOSAA	4% <sup>e</sup>	51%	67%	40-140%
	13C2-4:2FTS	70%	69%	73%	50-150%
	13C2-6:2FTS	70%	62%	75%	50-150%
	13C2-8:2FTS	49% <sup>e</sup>	58%	80%	50-150%
	13C3-HFPO-DA	79%	70%	75%	50-150%

(a) Dilution required (ID recovery standard failure).

(b) Associated ID Standard outside control limits.

(c) Result is from Run# 2

(d) Result is from Run# 3

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** MH 16.009**Lab Sample ID:** FC3051-5**Matrix:** AQ - Water**Method:** EPA 537M BY ID EPA 537 MOD**Project:** Oscoda WWTP; 4466 McNichol Ave, Oscoda, MI**Date Sampled:** 02/28/23**Date Received:** 03/01/23**Percent Solids:** n/a

CAS No.	Compound	Result	RL	Units	Q
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(e) Outside control limits.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID:	MH 16.001	Date Sampled:	02/28/23
Lab Sample ID:	FC3051-6	Date Received:	03/01/23
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 537M BY ID EPA 537 MOD		
Project:	Oscoda WWTP; 4466 McNichol Ave, Oscoda, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	3Q73678.D	10	03/07/23 00:48	JL	03/02/23 09:37	OP95701	S3Q1010
Run #2 <sup>a</sup>	3Q73813.D	25	03/09/23 00:45	JL	03/02/23 09:37	OP95701	S3Q1012
Run #3 <sup>a</sup>	3Q73679.D	50	03/07/23 01:04	JL	03/02/23 09:37	OP95701	S3Q1010

	Initial Volume	Final Volume
Run #1	250 ml	1.0 ml
Run #2	250 ml	1.0 ml
Run #3	250 ml	1.0 ml

CAS No.	Compound	Result	RL	Units	Q
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## PERFLUOROALKYLCARBOXYLIC ACIDS

375-22-4	Perfluorobutanoic acid <sup>b</sup>	ND <sup>c</sup>	100	ng/l	
2706-90-3	Perfluoropentanoic acid	ND	20	ng/l	
307-24-4	Perfluorohexanoic acid	ND	20	ng/l	
375-85-9	Perfluoroheptanoic acid	ND	20	ng/l	
335-67-1	Perfluorooctanoic acid	ND	20	ng/l	
375-95-1	Perfluorononanoic acid	ND	20	ng/l	
335-76-2	Perfluorodecanoic acid <sup>b</sup>	ND	20	ng/l	
2058-94-8	Perfluoroundecanoic acid	ND <sup>c</sup>	50	ng/l	
307-55-1	Perfluorododecanoic acid	ND <sup>d</sup>	100	ng/l	
72629-94-8	Perfluorotridecanoic acid	ND <sup>d</sup>	100	ng/l	
376-06-7	Perfluorotetradecanoic acid	ND <sup>d</sup>	100	ng/l	

## PERFLUOROALKYLSULFONIC ACIDS

375-73-5	Perfluorobutanesulfonic acid	ND	20	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	20	ng/l	
355-46-4	Perfluorohexanesulfonic acid	570	20	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	20	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	55.1	20	ng/l	
68259-12-1	Perfluorononanesulfonic acid	ND	20	ng/l	
335-77-3	Perfluorodecanesulfonic acid	ND <sup>c</sup>	50	ng/l	

## PERFLUOROOCTANESULFONAMIDES

754-91-6	PFOSA	ND	40	ng/l	
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## PERFLUOROOCTANESULFONAMIDOACETIC ACIDS

2355-31-9	MeFOSAA	ND	40	ng/l	
2991-50-6	EtFOSAA	ND	40	ng/l	

## FLUOROTELOMER SULFONATES

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	MH 16.001	Date Sampled:	02/28/23
Lab Sample ID:	FC3051-6	Date Received:	03/01/23
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 537M BY ID EPA 537 MOD		
Project:	Oscoda WWTP; 4466 McNichol Ave, Oscoda, MI		

CAS No.	Compound	Result	RL	Units	Q
757124-72-4	4:2 Fluorotelomer sulfonate	ND	80	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	80	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	80	ng/l	

## NEXT GENERATION PFAS ANALYTES

13252-13-6	HFPO-DA (GenX)	ND	40	ng/l	
919005-14-4	ADONA	ND	80	ng/l	
756426-58-1	9CI-PF3ONS (F-53B Major) <sup>b</sup>	ND	80	ng/l	
763051-92-9	11CI-PF3OUdS (F-53B Minor)	ND <sup>d</sup>	400	ng/l	

## ADDITIONAL PER and POLYFLUORINATED ANALYTES

646-83-3	4-PFecHS	86.7	80	ng/l	
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CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Run# 3	Limits
	13C4-PFBA	28% <sup>e</sup>	34% <sup>e</sup>	97%	35-135%
	13C5-PFPeA	55%	64%	99%	50-150%
	13C5-PFHxA	60%	69%	98%	50-150%
	13C4-PFHpA	61%	72%	100%	50-150%
	13C8-PFOA	59%	71%	98%	50-150%
	13C9-PFNA	68%	69%	102%	50-150%
	13C6-PFDA	46% <sup>e</sup>	63%	108%	50-150%
	13C7-PFUnDA	27% <sup>e</sup>	40%	95%	40-140%
	13C2-PFDoDA	11% <sup>e</sup>	20% <sup>e</sup>	91%	40-140%
	13C2-PFTeDA	12% <sup>e</sup>	16% <sup>e</sup>	93%	30-130%
	13C3-PFBS	60%	66%	96%	50-150%
	13C3-PFHxS	68%	83%	98%	50-150%
	13C8-PFOS	74%	83%	102%	50-150%
	13C8-FOSA	43%	53%	107%	30-130%
	d3-MeFOSAA	48%	54%	127%	40-140%
	d5-EtFOSAA	65%	67%	127%	40-140%
	13C2-4:2FTS	62%	70%	98%	50-150%
	13C2-6:2FTS	68%	72%	103%	50-150%
	13C2-8:2FTS	66%	76%	117%	50-150%
	13C3-HFPO-DA	66%	74%	98%	50-150%

(a) Dilution required (ID recovery standard failure).

(b) Associated ID Standard outside control limits.

(c) Result is from Run# 2

(d) Result is from Run# 3

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	MH 16.001	<b>Date Sampled:</b>	02/28/23
<b>Lab Sample ID:</b>	FC3051-6	<b>Date Received:</b>	03/01/23
<b>Matrix:</b>	AQ - Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 537M BY ID EPA 537 MOD		
<b>Project:</b>	Oscoda WWTP; 4466 McNichol Ave, Oscoda, MI		

CAS No.	Compound	Result	RL	Units	Q
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(e) Outside control limits.

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ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound