CHARTER TOWNSHIP OF VAN BUREN PLANNING COMMISSION AGENDA

Wednesday, August 24th, 2022 - 5:30 PM Van Buren Township Hall 46425 Tyler Road

Per guidance provided by the Wayne County Local Public Health Department for meetings of governmental bodies held under public act 228 of 2020, effective January 1, 2022, the following Zoom link is provided to enable remote participation in a meeting of the public body by the general public:

Topic: August 24, 2022 Van Buren Township Planning Commission Meeting

Please click the link below to join the webinar: https://us06web.zoom.us/j/87275941687 Or One tap mobile:

US: +16469313860,,87275941687# or +19294362866,,87275941687# Webinar ID: 872 7594 1687

See the Van Buren Charter Township website for additional information regarding how to participate in a Zoom public meeting.

CALL TO ORDER:		
ROLL CALL:		
APPROVAL OF AGENDA:		
MINUTES:	Approval of minutes from the regular meeting of August 10 th , 2022	
CORRESPONDENCE:		
PUBLIC HEARING:		
OLD BUSINESS:		
NEW BUSINESS:		
ITEM # 1	Case 21-021- General Development Company, LLC – Final Site Plar	

TITLE:

The request is for truck sales and repair by Kenworth / CSM Companies, Inc. Applicant General Development Company, LLC on behalf of owner Belleville North Marsh Ventures, LLC and Livonia Property LLC seeks to construct a +/-62,750 sq. ft. building with related site improvements for outdoor vehicle sales and vehicle showroom uses with accessory vehicle repair and service. The site is

zoned C-2 (Extensive Highway Business District).

LOCATION: The +/- 20.01-acre site is located at 44660 North Interstate 94 Service Drive

(parcel ID 83 060 99 0001 701), on the north side I- 94 North Service Drive,

between Dewitt and Morton Taylor Roads.

ACTION ITEMS: A. Presentation by the Township staff.

B. Presentation by the applicant.

C. Public comment.

D. Planning Commission discussion.

E. Planning Commission considers final site plan approval.

ITEM #2: Case 22-044 – Zippy Auto Wash - Review and comment on proposed variance in

association with site plan

TITLE: The applicant, David Brewer of Vanston/O'Brien, Inc. on behalf of owner Night

Hawk Properties, LLC, is requesting review and comment on a requested variance for relief from minimum glass requirements on a front building façade per Sec. 6.309.C.3.c of the Van Buren Township Zoning Ordinance, in association with a preliminary site plan and special land use permit application for a car wash in the

Belleville Road Overlay District (BROD).

LOCATION: 11650 Belleville Road (parcel ID number 83 081 99 0004 709). The property is

located on the west side of Belleville Road between Sunrise Road and Venetian

Road. The property is zoned C-2 – Extensive Highway Business District.

ACTION ITEMS: A. Presentation by Township staff.

B. Planning Commission discussion.

ITEM #3 Zoning Ordinance Discussion: Side entry garage and building separation

requirements for residential developments

TITLE: The Planning Commission is requested to discuss zoning requirements for

minimum percentage of side entry garages and building separation in residential

developments.

ACTION ITEMS: A. Presentation from Staff

B. Planning Commission discussion

C. Public Comment

D. Planning Commission considers continuation of research and discussion or

scheduling of public hearing

ITEM # 4 Discussion. Case 22-008 / Van Buren Township Community Center addition:

Pond design update

TITLE: Staff will provide updated information regarding the proposed design of the

expanded Van Buren Township stormwater detention basin located at 46425

Tyler Road (parcel ID number 83 061 99 0006 000).

GENERAL DISCUSSION AND UPDATES

ADJOURNMENT:

CHARTER TOWNSHIP OF VAN BUREN PLANNING COMMISSION August 10, 2022 MINUTES - DRAFT

Vice-Chairperson Jahr called the meeting to order at 5:30 p.m.

ROLL CALL:

Present: Cullin, Atchinson, Budd and Jahr.

Excused: Barr and Kelley.

Staff: Director Power and Secretary Harman.

Planning Representatives: McKenna Associate, Vidya Krishnan and Fishbeck Associate, David

Potter.

Applicant(s) in Attendance: None.

Audience: Five (5).

APPROVAL OF AGENDA:

Motion Cullin, Atchinson second to approve the revised agenda of August 10, 2022 as presented.

Motion Carried.

APPROVAL OF MINUTES:

Motion Budd, Cullin second to approve the regular meeting minutes of July 27, 2022 as presented. **Motion Carried.**

PUBLIC HEARING:

ITEM #1: 22-012 – CHAHAL SEMI TRUCK REPAIR FACILITY SPECIAL LAND USE.

TITLE: JOE DAVENPORT, ON BEHALF OF OWNER SUKHDEV SINGH, HAS APPLIED TO

CONSTRUCT AN 8,320 SQUARE FOOT TRUCK AND TRAILER REPAIR BUILDING WITH TRUCK WELL AND SITE IMPROVMENTS. THE PROPERTY IS ZONED M-2, GENERAL INDUSTRIAL DISTRICT. TRUCK REPAIR IS A PRINCIPAL USE AND REQUIRES SPECIAL LAND USE APPROVAL UNDER SECTION 3.104 OF THE VAN BUREN TOWNSHIP ZONING ORDINANCE, WHICH IDENTIFIES TRUCK REPAIR AND MAINTENANCE FACILITY, MINOR AND MAJOR REPAIR AS SPECIAL LAND USES

UNDER ARTICLE 12, CHAPTER 3 OF THE ZONING ORDINANCE.

LOCATION: 6100 SCHOONER DRIVE (PARCEL ID NUMBER V-125-83-017-99-0014-714),

LOCATED SOUTH OF MICHIGAN AVENUE EXTENDING BETWEEN SCHOONER

DRIVE (WEST) AND SCHOONER DRIVE (EAST).

Motion Budd, Atchinson second to open the public hearing. Motion Carried.

Director Power informed the audience that the public hearing is an opportunity for members of the public and neighboring property owners to speak.

No questions or comments from the audience.

Motion Budd, Cullin second to close the public hearing. Motion Carried.

NEW BUSINESS:

ITEM #1: 22-012 – CHAHAL SEMI TRUCK REPAIR FACILITY SPECIAL LAND USE.

TITLE: JOE DAVENPORT, ON BEHALF OF OWNER SUKHDEV SINGH, HAS APPLIED TO

CONSTRUCT AN 8,320 SQUARE FOOT TRUCK AND TRAILER REPAIR BUILDING WITH TRUCK WELL AND SITE IMPROVMENTS. THE PROPERTY IS ZONED M-2, GENERAL INDUSTRIAL DISTRICT. TRUCK REPAIR AS A PRINCIPAL USE REQUIRES SPECIAL LAND USE APPROVAL UNDER SECTION 3.104 OF THE VAN BUREN TOWNSHIP ZONING ORDINANCE, WHICH IDENTIFIES TRUCK REPAIR AND MAINTENANCE FACILITY, MINOR AND MAJOR REPAIR AS SPECIAL LAND USES IN

THE M-2 ZONING DISTRICT.

LOCATION: 6100 SCHOONER DRIVE (PARCEL ID NUMBER V-125-83-017-99-0014-714),

LOCATED SOUTH OF MICHIGAN AVENUE EXTENDING BETWEEN SCHOONER

DRIVE (WEST) AND SCHOONER DRIVE (EAST).

Director Power provided a brief presentation. The site is located on 6 acres that had recently been split and is zoned M-2, General Industrial District. Truck repair, minor and major is a special land use in the M-2 District. Director Power deferred to Vidya Krishnan of McKenna Associates for her presentation.

Vidya Krishnan of McKenna Associates presented her special land use review letter dated 7-19-22. The proposed use meets the general standards for consideration of special land use approval as well as the specific criteria for vehicle service uses. Therefore, McKenna Associates recommends the Planning Commission recommend approval of the special land use for Chahal Transport to the Township Board of Trustees, subject to full site plan approval.

No questions or comments from the Commission or the audience.

Motion Atchinson, Budd second to recommend to the Township Board of Trustees special land use approval for case number 22-012, Chahal Semi Truck Repair, located at 6100 Schooner Drive, parcel ID number V-125-83-017-99-0014-714 subject to the findings in the McKenna Associates review letter dated 7-19-22.

Roll Call:

Yeas: Cullin, Atchinson, Budd and Jahr.

Nays: None.

Excused: Barr and Kelley.

Motion Carried.

ITEM #2: 22-012 – CHAHAL SEMI TRUCK REPAIR FACILITY PRELIMINARY SITE PLAN.

TITLE: JOE DAVENPORT, ON BEHALF OF OWNER SUKHDEV SINGH, HAS APPLIED TO

CONSTRUCT AN 8,320 SQUARE FOOT TRUCK AND TRAILER REPAIR BUILDING

WITH TRUCK WELL AND SITE IMPROVMENTS. THE PROPERTY IS ZONED M-2, GENERAL INDUSTRIAL DISTRICT.

LOCATION: 6100 SCHOONER DRIVE (PARCEL ID NUMBER V-125-83-017-99-0014-714), LOCATED SOUTH OF MICHIGAN AVENUE EXTENDING BETWEEN SCHOONER DRIVE (WEST) AND SCHOONER DRIVE (EAST).

Director Power gave a brief presentation referencing the detailed site plan review including planning, engineering and fire reviews. Some of the plans in the packet have been revised but not reviewed yet. The applicant has provided color renderings of the building. Director Power displayed the site plan.

Vidya Krishnan of McKenna Associates presenter her site plan review letter dated 7-19-22. The revised site plan addresses most of the concerns from previous reviews, including parking standards, architectural standards and access and circulation standards. The items remaining to be addressed can be included for review with the final site plan submission. Therefore, McKenna Associates recommends the Planning Commission grant preliminary site plan approval for Chahal Transport to be located at 6100 Schooner Drive, subject to the following conditions:

- 1. Provision of barrier free access ramp to building.
- 2. Submission of a tree survey with replacement trees, as noted.
- 3. Notation that dumpster enclosure masonry color will match the building color.
- 4. Detention pond approval by Wayne County and the Township Engineer.

David Potter of Fishbeck Associates presented the preliminary site plan review letter dated 7-21-22. Fishbeck offers no objection and recommends the Planning Commission grant preliminary site plan approval to the Chahal Semi Truck/Trailer Repair Facility, based on the preliminary site plans submitted to the Township on June 30, 2022. Prior to the next submittal for final site plan and engineering approval, the applicant shall review and amend any of the plan comments listed in the letter, begin or continue conversations with Wayne County regarding storm water management and pavement design and include all information as required in the Van Buren Township Engineering Standards Manual with the next submittal.

Director Power presented the Fire Department review letter dated 7-13-22. The third review of the project was completed on 7-12-22 and all Fire Department concerns have been addressed. Deputy Fire Chief/Fire Marshal Lenaghan's letter had the following comments:

- NFPA 1 2018 is the adopted fire code for the Charter Township of Van Buren, all future submittals will need to comply with this code.
- If a security gate is to be installed at the entrance to the complex, an approved access control device or Knox padlock for manual gates will be required. The padlock shall only be obtained from www.knoxbox.com.
- Per the site plan (2nd page) under site "specific notes" #7 to avoid confusion, the Fire Department requires a Knox Padlock for the manual gate. The Fire Department does not supply the lock.

Lance Warden of Chahal Trucking gave a brief presentation and displayed a color rendering of the building. The building is approximately 8,300 square feet, a modern design that will blend

into the neighborhood. The exterior is wood grain composite vinyl siding and vinyl modular panels and has a painted metal awning. The landscape plan is very detailed. The lighting is LED, a photometric grid was displayed and light is not spilling over onto the adjacent properties. The site provides ample parking. Mr. Warden was available to answer any questions.

Commissioners had the following questions and comments:

- Commissioner inquired if the applicant is planning on signage in the future or does this type of client typically not have signage. Lance Warden informed that he has not heard from the client on signage, if they have signage it would be minimal. Vidya Krishnan informed the applicant that any signage will be presented to staff for approval.
- Commissioner asked for clarification of the location of the light pole at the entrance to Schooner Drive, the applicant confirmed its location.
- Commissioner inquired about the comment in the engineering letter for the applicant to show how the existing storm water system operates. Lance Warden informed that his project engineer is diligently working on that requirement.

No comments from the audience.

Motion Atchinson, Cullin second to grant preliminary site plan approval of the Chahal Semi Truck Repair Facility to applicant Joe Davenport, on behalf of owner Sukhdev Singh to construct a 8,320 square foot truck and trailer repair building with truck well and site improvements, located at 6100 Schooner Drive, parcel ID number V-125-83-019-99-0014-714, based on the facts and findings in the McKenna Associates review letter dated 7-19-22, Fishbeck Associates review letter dated 7-21-22 and the Fire Department review letter dated 7-13-22.

Roll Call:

Yeas: Budd, Atchinson, Cullin and Jahr.

Nays: None.

Excused: Barr and Kelley.

Motion Carried.

ITEM #3: ZONING ORDINANCE DISCUSSION: SIDE ENTRY GARAGE AND BUILDING SEPARATION REQUIREMENTS FOR RESIDENTIAL DEVELOPMENTS.

THE PLANNING COMMISSION IS REQUESTED TO DISCUSS ZONING REQUIREMENTS FOR MINIMUM PERCENTAGE OF SIDE ENTRY GARAGES AND BUILDING SEPARATION IN RESIDENTIAL DEVELOPMENTS.

Director Power gave a brief presentation. This is continued discussion from the 7-27-22 Planning Commission meeting, recognizing the need to look at options for different ways to meet the 30% side entry garage requirement and building separation requirements for future development. Commissioners were asked to discuss other means to meet these requirements, including architectural enhancements.

Vidya Krishan of McKenna Associates gave a brief presentation. Some the existing planned residential developments (PRD's) have never been completed, changes may provide an opportunity to get the homes built. Home building and residential development patterns have gone through various market driven changes. As a result, some of the current regulations make proposed new attainable housing projects located on smaller lots unattainable. Mrs. Krishnan reviewed zoning ordinances in other municipalities to see what regulations are in place regarding side entry garages and building separation standards. In all of the ordinances compared, side entry garages were a desirable option but not mandated. Building separation requirements varied significantly, with a majority having a separation requirement of only 10 feet or allowing for Planning Commission and Board of Trustees to reduce that distance based on preservation of natural features and other factors. Based on the feedback received at the 7-27-22 Planning Commission meeting, a draft text amendment was prepared with changes to Section 6.207 of the PRD Ordinance's design requirements which include building separation standards and changes to Section 5.115 addressing garage orientation.

The meeting was opened for discussion, Commissioners had the following questions and comments:

Side Entry Garage Discussion

- Commissioner went house shopping in Cherry Hill Village years ago, commented on how
 close the houses are together. At that time, the development was a new concept to bring
 the community together, with small yards and large common areas for people to gather.
 This seems like this is a popular community, if we can build like this, people may want to
 buy. The common areas are necessary if not having a yard. Vidya Krishnan informed that
 Cherry Hill Village has an Overlay District with specific design requirements.
- At the last meeting, discussed garage doors having a deviation of 3 feet behind the face. Do not want to see all garage doors along the frontage.
- The previously provided garage door examples all took up less than 50% of the frontage. They should not take up any more than 50% of the frontage. Vidya Krishnan will add to language.
- Director Power mentioned excluding garages that extend past a certain point. Vidya Krishnan mentioned maybe limiting the number of garages that can project. Commissioners agreed there can be some garages projecting, just not all of them. Having the garage pushed back is visually less impactful. Vidya Krishnan mentioned adding language that garages are no more than 50% of the front façade and no more than 50% of the depth of the garage can project, that way the garage doesn't stick out all the way to the front.
- Have construction methods that we allow the developer to utilize instead of the 30% side entry garages. Vidya Krishnan commented that if a developer has larger lots, we still want the side entry garages. May need to put more language in to define.
- Director Power informed that the way the language is written right now, we need to consider there may be a developer with 50-60 foot lots. Vidya Krishnan commented that if we have a PRD, it is based on the zoning district. A concern is the changing of zoning districts from R-1B to R-1C, need to make sure we don't encourage to build 50 foot lots. Director Power informed that there is still a good portion with 70 foot lots to have side

- entry garages. Vidya Krishnan and Director Power will discuss language to make sure that attainable housing is not discouraged.
- Commissioner likes point #6, however, if an applicant was to use the garage door option
 as a significant criteria, it looks like they also get the previous two points, the significantly
 different location and doors and windows. Maybe add text to include the garage door
 issue shall be considered separately in point 6. Director Power and Vidya Krishnan will
 take a further look into the language.

Relaxation of Building Separation Discussion

- What is the definition of a fence, what if a row of evergreens was planted? Vidya Krishnan informed that evergreens would be considered a live fence. Commissioner inquired if a row of boxwood would be considered a live fence? Mrs. Krishnan would need to look at the Zoning Ordinance. Vidya Krishnan will look into fence definitions further, rephrase language as all structures including but not limited to fences landscaping, trees, not above a certain height.
- Commissioner likes that this is being considered, if other communities have the opportunity, would like to have it here too.
- Commissioner is not in favor of reducing. The way the ordinance is written, it gives the
 Planning Commission and Township Board the ability to be flexible. These are specific
 conditions, with language for both single family detached and single family attached.
 Would be in favor of the attached, they are already sharing walls. Concerned with single
 family detached, that it will lead to developers making the smallest possible lots. The
 attached are already a higher density.
- Vidya Krishnan inquired if there was a separation distance that the Commission would like to consider? Commissioner mentioned 10 feet on one side and 20 feet on the other side.
- Director Power mentioned the Townsend Park project, half of the lots are 50 feet wide. To have a buildable unit, by default those have to shrink to having 10 foot separation.
- Commissioner likes reducing the separation. What we've been building, everything is going upward. The community is getting older, there is need for single-story options without going upward. Builders may be looking to build here, if we are forcing them to go upward, they may not come here. Vidya Krishnan will provide pictures from other communities, she has examples of ranch style developments that are being built. Mrs. Krishnan will also look at the examples and get lot sizes of the full ranch style units. Commissioners agreed they would like to see the examples.
- Director Power and Vidya Krishnan will bring back language and examples to a future meeting.

ITEM #4: DISCUSSION: 22-008 – VAN BUREN TOWNSHIP COMMUNITY CENTER ADDITION: POND DESIGN UPDATE.

STAFF WILL PROVIDE UPDATED INFORMATION REGARDING THE PROPOSED DESIGN OF THE EXPANDED VAN BUREN TOWNSHIP STORMWATER DETENTION BASIN LOCATED AT 46425 TYLER ROAD (PARCEL ID NUMBER 83-061-99-0006-000).

PC Minutes 8-10-22 Page **7** of **7**

Director Power provided a brief pond design update. Following the approval of the Community Center, the applicant was asked to bring back more information on the pond design. Spalding DeDecker provided a descriptive letter as to how the pond works, what kind of maintenance is required and what the maximum depth of standing water is likely to be after a 100 year rain event and for how long it will be present. Township Engineer, Paul Kammer, was unable to attend the meeting, he will provide more information on the letter at a future meeting.

Commissioner commented that the Township Board discussed concern with the pond and thought that it should be fenced. Commissioners agreed to wait to hear more information from Paul Kammer.

No comments from the audience.

GENERAL DISCUSSION:

Commissioner did not see the plans for the Community Center and inquired if anything had been decided on the fencing around the Police Department. Director Power informed that the fencing was approved and there is also a proposed second access drive outside of the gated area for when the Community Center and/or Township have large events.

ADJOURNMENT:

Motion Budd, Atchinson second to adjourn the meeting at 7:02 p.m. Motion Carried.

Respectfully submitted,

Christina Harman Recording Secretary

PLANNING & ZONING APPLICATION 3T 21-021 July 29, 2021

APPLICANT INFOR	MATION
Applicant General Development Commun	TELOBA HITINDS
Address Two Towns & Solie 850Fa	
C million and dome	,4801U
Email teresab agender.com co	ell Phone Number 248 231 3615
	one 248 988 8100
(if different than applicant) Verties C,	LLC 210 1071 0000
Sulfe 110 Farm. Hills, MI Zin	^
Taraca D - an	one 248 23 3 4 15
Address To Town Some Suite 850 Fax	7/// 4-41544
City, State SouthField MI Zip	10 pers
SITE/PROJECT INFOR	MATION
Name of Project Kenworth Sales Facili	And the state of t
Parcel Id No. V125-83- O 60-99-0002-001 Proj	ject Address
Attach Legal Description of Pr	343 1 - 7 - 4 - 24 1 4 1 5 1 5 1 5 4 4 5 4 5 4 5 4 5 4 5
Property Location: On the Side of 1-94 Service	Road; Between Belleville R
and Morton Toylor Road. Dr S	ize of Lot Width 700-8 Depth 1244.
Acreage of Site 20 Total Acres of Site to Review 20	Current Zoning of Site C-2
- 1 (1) (1) (1) (1) (1) (1) (1) (1) (1) (piect for Konworth
~ 63,000 baft facility.	
	NAVAS EL MANA
Is a re-zoning of this parcel being requested? NO	WES CO.
당한다는 본화로의 발전되고 보고 보고 보고 있는데 ### ### ###########################	YES (if yes complete next line) (NO
Current Zoning of Site C 2	Requested Zoning
SPECIAL PERMIT INFO	RMATION
Does the Proposed Use Require Special Approval?	YES (if yes complete next line) NO
Section of Zoning Ordinance for which you are applying 5.133	
그 사람들은 경찰을 가지 않는 것이 되었다.	
Is there an official Woodland within parcel? No	Woodland acreage
List total number of regulated trees outside the Woodland area?	Total number of trees
	nown trees required
to be removed an site.	
	A STANLEY AND A
If applicable application MUST be accompanied with a Tree Survey or	r statement of no trees, which incorporates all the
requirements listed in Section 4.45 of Zoning Ordinance 6-2-92, as ame	
OWNER'S AFFIDAY	
Relievable North Marsh Verlines, LLC	
Pellealle North Marsh Verlies, LiC	hair ly
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	-an ihr
Authornal Agel	7-77-720
·	122 606
Signature of Property Owner	Date
STATE OF MICHIGAN, , , ()	
TATE OF MICHIGAN COUNTY OF WAYNE CONTAC	
he undersigned, being duly sworn, deposes and says that the foregoing statements and answers he	rein contained and accompanied information and date are in all
espects true and correct. ubscribed and sworn before me this \$2 day of July 2021.	_
ubscribed and sworn before me this 32 day of July 20 <u>11</u> . And Flizaboth Span Notary Public, Oakland County, Michigan	My Commission expires 9-27, 20,2
	Rev 1/32
ine Elizabeth Lees	



MEMO

TO: Van Buren Township Planning Commission

FROM: Dan Power– Director of Planning and Economic Development RE: Case 21-021: General Development Company, LLC / Kenworth

/ CSM Companies, Inc. - Final Site Plan Review

DATE: August 18, 2022

Applicant General Development Company, LLC on behalf of Kenworth / CSM Companies, Inc. and owners Belleville North Marsh Ventures, LLC and Livonia Property LLC seeks final site plan review to construct a +/- 62,750 sq. ft. building with related site improvements for outdoor vehicle sales and vehicle showroom uses with accessory truck repair and service. The site is zoned C-2 (Extensive Highway Business District). The +/- 20.01-acre site is located at 44660 North Interstate 94 Service Drive (parcel ID 83 060 99 0001 701), on the north side I- 94 North Service Drive, between Dewitt and Morton Taylor Roads.

The Planning Commission conditionally approved the preliminary site plan and recommended special land use approval to the Van Buren Township Board of Trustees on October 13, 2021. Following this meeting, the Van Buren Township Board of Trustees approved the project's special land use on November 2, 2021. Following this approval, minor building changes were which were consistent with the approved preliminary site plan in terms of building location and architecture and site circulation were proposed. These included an increase from 19 to 20 service bays, an increase from 20 to 22 overhead doors, and the addition of a wash bay in the building, and the increase of the building gross floor area from 59,820 to 62,750 square feet.

The applicant then completed detailed engineering plans for the project. Engineering review has been provided by the Wayne County Department of Public Services and the Van Buren Township Engineer. Associated with these reviews, the proposed water main layout and the sidewalk were reviewed in greater detail, following a deferral on decisions about their design at the preliminary site plan stage. The stormwater detention pond design was also reviewed in depth during this phase. Relevant Township staff and the applicant agreed to the following terms on these items:

- **Sidewalk.** Staff supports a gradual approach to constructing sidewalk over the portion of the site's frontage that crosses the Quirk Drain on its west end. In lieu of completing all sidewalk prior to occupancy, sidewalk must be constructed along the property's frontage up to roughly 130' east of the property's west lot line, with construction deposit and completion targets as clarified in the recommended conditions at the end of this letter.
- Water main. Township staff also support foregoing construction of water main across the Quirk Drain at this time. This is due to recognition of water main construction benefits that are proportional to the impact of the project. These include the constructing over 600 feet of 12" water main across frontage to the east of Kenworth's frontage along the North I-94

Service Drive, along with a northward extension of 8" water main to serve a future north-south street. Additionally, the plans include water main easements across the site's entire east-west frontage and its conceptual north-south frontage along the future street.

- **Stormwater detention pond.** In the course of final engineering design, the applicant proposed a pond design which does not meet the Township's engineering standards which require a 4-foot deep permanent pool of water. Variances from the Township's engineering standards such as this require approval of the Van Buren Township Board of Trustees, subject to findings that certain criteria for a variance are met. Included with this packet, the applicant's stormwater detention pond variance request narrative is attached.

I support final site plan approval for this project, subject to the following conditions being met through any necessary agreements being made with the Township Board of Trustees and staff:

- The applicant must submit a deposit of \$28,225 subject to final approval by the Township and the DDA, which is an estimated cost to account for the installation of approximately 130' of sidewalk, grading, and right-of-way safety improvements over the Quirk Drain along the site's westernmost frontage. Sidewalk construction must be completed along the property's entire frontage within three (3) years of occupancy, subject to approval by Wayne County.
- Placement of an easement and reserving for a future capital project or construction by another entity must be accepted by the Township in lieu of the completion of 12" water main over Quirk Drain.
- The requested variance for the stormwater pond design must be obtained or the pond must be redesigned with a 4-foot permanent pool depth and approved by the Township Engineer.

To assist in the Planning Commission's review, this packet includes reports by the Township's Planning Consultant, Township Engineer, and Fire Marshal, excerpts from a set of combined civil and architectural plan submittals, dated August 1, 2022, sidewalk gap cost estimate and design documents from the applicant, a stormwater variance narrative from the applicant, and minutes from the October 21, 2021 Planning Commission meeting.

I look forward to assisting with this review. Thank you for your consideration.

Sincerely,

Dan Power, AICP

Planning and Economic Development Director

Public Services Department Charter Township of Van Buren

CC: Bruce Brickman and Teresa Bruce, applicants – General Development Company, LLC Jeff Minter, applicant – CSM Companies, Inc.

MCKENNA



August 3, 2022

Planning Commission Charter Township of Van Buren 46425 Tyler Road Belleville, Michigan 48111

Subject: VBT-21-021; SPR/SLU, Kenworth / CMS / I-94 N. Service Dr.; Site Plan Review #4

(FINAL); Revised Site Plans Dated July 14, 2022.

Dear Commissioners:

The applicant, General Development Company, proposes to construct a new 59,820 square foot Kenworth facility for truck sales and repair. The site is located on the north side I- 94 North Service Drive, between Dewitt and Morton Taylor Roads and has a development area of approximately 20 acres. The applicant received preliminary site plan approval from the Planning Commission on October 13th, 2021, subject to several conditions. The plan received special land use approval from the Township Board of Trustees on November 2, 2021.

We have reviewed the revised plan for compliance with the conditions of approval and offer the following comments (items requiring changes or additional information are underlined):

COMMENTS

- 1. Notation of any Township, County or State Permits. This condition has been met. The revised site plan includes all the information required per Section 12.203 of the Zoning Ordinance.
- 2. Approval of a lot split to create the 20-acre subject site from a larger 68 acre parcel. This condition has been met. It is our understanding the applicant has completed the lot split request.
- 3. Clarification regarding pavement stub shown on north side of site and future connection to the east. This condition has been met. Sheet SP-3 shows a stub ending on the north end of the site; the applicant has clarified that this is for truck maneuvering, rather than cross access. The applicant has shown a possible future access drive connection along the east side of the property, to connect to the future roadway, and with appropriate parking lot islands to facilitate traffic flow. This is compliant with Ordinance requirements.
- 4. Construction of a sidewalk across the entire frontage or contribution into the Township sidewalk fund, to be determined based on feasibility at the time of full engineering review. This condition has been met. The approved site plan shows a public sidewalk along the site's entire service drive frontage with the exception of a short stretch on the southwest corner which would require a crossing over Quirk Drain. Due to the significant amount of engineering required for the sidewalk which the applicant did not want to invest in at this time, the applicant had been in negotiations with the Township to determine the pathway forward on the sidewalk issue. At this time, it is our understanding that the applicant has had discussions with the Township and has requested to defer construction of the sidewalk until a later date when the National RV site is required to build their sidewalk. As part of the agreement the applicant will pay \$28,225 into the Township's sidewalk fund to be used towards construction of the sidewalk at a future date.

- **5.** Striping of crosswalks to the employee patio and along the front of the building. This condition has been met. Crosswalk connections to the patio and from the front parking lot to the building entrance have been included. Location of barrier free ramps have also been labeled.
- 6. Planning Commission approval of proposed substitution of landscaping along the frontage i.e., ornamental grasses and perennials in lieu of shrubs. This condition has been met. At its preliminary plan hearing, the Planning Commission approved a hedge of ornamental grasses and perennials instead of shrubs to maintain visibility for the display vehicles.
- 7. Expanding of landscape islands to meet the minimum size requirement. This condition has been met. The Zoning Ordinance requires all parking lot landscaping islands to meet minimum of 360 sq. ft. the revised plan includes notation of the area of all landscape islands, and they all appear to comply.
- 8. Incorporation of triangular projections of landscape area along the front yard display, similar to the east side of the site. This condition has been met. The revised plan includes triangular projections of the landscape area into the east side and south side display areas, providing some relief from the long row of parked trailers.
- **9. Detention pond approval by Wayne County and Township Engineer.** This condition <u>can be met</u>, Per the applicant's response letter, Wayne County approval has been obtained and the pond is designed to meet Township standards too. Copy of the County approval must be provided to the Township Engineer and the plan reviewed and approved by the Township Engineer.
- 10. Submission of detailed photometric plan and manufacturer's details of light fixtures. This condition has been met. A photometric plan and manufacturer cut sheets have been provided in the most recent submittal. The cut sheets detail downward-facing LED luminaires. The plan notes 40 wall-mounted fixtures and 42 pole-mounted fixtures throughout the site. The photometric plan has been revised to comply with the limits established in Section 8.105. The sales and display areas are well illuminated; however, the illumination intensities at the property line meet the ordinance requirements and do not allow for light spillover.
- **11. Planning Commission approval of proposed building materials and colors.** This condition has been met. The Planning Commission approved the proposed architecture and building materials and colors with preliminary plan approval.
- 12. Revision of monument sign design to include 24" tall masonry base as required by Ordinance.

 This condition can be met. A detail of the sign has been provided on Sheet C-2a; however, the detail does not identify the monument base material, only colors. Further it appears the base is only 18" with a 6" narrower pedestal on top which does not meet the ordinance's definition. The monument sign is defined by the ordinance as having a solid supporting base equal to or greater than the width of the sign face constructed of a decorative and durable material (e.g., masonry), and shall have no separations between the sign face and the base. The supporting base shall have a minimum 24-inch vertical height and shall be constructed of masonry to match the building.



13. Additional Changes. With the final site plan submittal, the applicant has proposed a 6' tall security gate at the entrance which was not included on the preliminary plans. The gate is shown on sheets C-2a and sheet C-2b. The Zoning Ordinance does not permit fencing or gates in the front yard that exceed a height of 2.5 feet. The gate height must be reduced based on the limits of Section 7.205(B)(1)(b) of the Zoning Ordinance.

Subsequent to preliminary site plan approval the applicant included an approximately 3,000 square foot addition to the rear of the building to include a wash bay. The addition does not alter the layout or circulation plan on the site. The square footage of the building on the site plan sheets must however be updated to indicate the marginally increased square footage.

RECOMMENDATION

Most of the conditions of preliminary plan approval have been addressed at this time, with the exception of the sign base and fence/gate height. Therefore, we recommend that the Planning Commission grant final site plan approval for the proposed Kenworth facility to be located on I-94 North Service Drive, <u>subject to:</u>

- 1. Reduction in the height of the gate in the front yard to no more than 2.5 feet.
- 2. Correction to the notation of the building square footage.
- 3. Township Engineer approval.
- 4. Administrative approval of a full 24" masonry sign base to match the primary building material.

Respectfully, McKENNA

Vidys

Vidya Krishnan Senior Principal Planner

Gage Belko

Assistant Planner

cc: Dan Power, Van Buren Township Director of Planning & Economic Development Paul Kammer, FTCH, Township Engineer

Andrew Leneghan, Township Fire Marshal





August 5, 2022 Fishbeck Project No. 210811

Kevin Lawrence Director of Water & Sewer Van Buren Township 46425 Tyler Road Van Buren Township, MI 48311

Kenworth Site Plan Engineering and Final Site Plan Review

Dear Director Lawrence:

At the request of Van Buren Township (Township), Fishbeck has reviewed the Final Site Plan dated July 14, 2022, submitted to the Township for the Engineering and Final Site Plan Review for the proposed Kenworth Sales Facility located along the I-94 Service Drive between Belleville Road and Morton Taylor Road. The applicant had previously submitted for Engineering and Final Site Plan approval in June 2022, but was not granted approval due to some concerns with the engineering elements shown on the plans. The applicant has since responded to the comments from Fishbeck's June 16, 2022 letter. Any responses from the applicant to specific review comments has been listed below in this most recent review.

The proposed project entails the construction of a 59,820 square foot sales and service building on the north side of I-94 Service Drive. Proposed improvements include: a 121 space paved parking lot with curb; a water system loop around the proposed building; a sanitary sewer lead connection; a storm drain system including storm drain pipes, catch basins, and a detention basin; construction of one driveway with access to I-94 Service Drive; and other various landscaping and site plan improvements. It should be noted that the applicant has had multiple discussions with the Township and Township staff since the previous Engineering and Final Site Plan submittal regarding the many aspects of the project that will be discussed in this letter.

Our review comments are as follows:

General

The following items are general requirements established as part of the Engineering Standards Manual, Charter Township of Van Buren (April 2014). The applicant must include the following items as part of the construction plans:

- 1. Applicant must indicate overland flow route of the entire site. Pre and post drainage patterns must be determined and verified that all water flowing through the site is accounted for. Existing drainage paths must be maintained and upon flooding, where is the ultimate outlet for the site. Verify that flooding does not encroach on or in the building.
- 2. The Van Buren Township GIS records indicate that there are two parcels that make up the proposed property, parcel no. 83 060 99 0001 001 and 83 060 99 0002 001. The plans also indicate this a portion of the parcel as an "exception deeded from MDOT". The applicant's response letter clarifies that the exception piece fronting the service drive will need to be combined with the larger overall parcel prior to the overall lot split. Once the combination is completed, the proposed larger 20 acre lot will need to be split. Applicant to work with the Township and notify them of changes/combination of the parcels as they occur.

Response: The parcel split was previously applied for and approved. No drawing changes to address.

Additional Comment: With an approved property split, it will be the responsibility of the applicant to work out the requirement for a 12 foot water main easement along the frontage of the eastern property.

- 3. General Plan Comments;
 - a. Several notes throughout the plan set overlaps linework and can be difficult to read.
 - b. All utility crossings shall be shown in profile views and include utility type and size with top of pipe and bottom of pipe elevations at each crossing.

Water Main

Existing: The Township's Geographic Information System (GIS) records indicates there are no public water mains adjacent to or within the area of development. The existing 12-inch public watermain running east-west on the north side of I-94 Service Drive ends approximately 500 feet west of the west proposed property line and is also stubbed out at the east property line.

Future: The Township water distribution system master plan indicates the water main along I-94 Service Drive is recommended to be connected with a 12-inch main between the stubbed ends to improve overall reliability and redundancy of the system. Additional development master plans indicate the potential for a roadway extending along the east side of the property for future development and utility extension.

Proposed: The applicant has worked with the Township and Township staff to propose a layout that will allow for future expansion without disruption to the operations on the Kenworth site. The applicant plans to tap into the existing water main that runs along the I-94 Service Drive in front of the Camping World property. A proposed water main extension of approximately 600 feet will bring the existing main to the eastern property line where the proposed loop is proposed. The proposed layout shows an 8-inch public water main loop around the proposed building with a connection to a new proposed watermain along the east property line. The loop includes six (6) fire hydrants. Two water service connections to the proposed building are located on the proposed water main along the southern property line. The two water services include a proposed 8-inch ductile iron fire suppression line and a proposed 2-inch type "K" water service. The eastern leg of the watermain loop is proposed along the proposed lot line for future development. The plans propose three stub outs for future connection; at the west end of the water loop near the road, just east of the proposed parcel split lot line, and near the north end of the development.

Comments:

- 1. Locations of all bends, fittings, manholes, etc must be called out on the plans. Please include location callouts for the vertical bends on the plans.
- 2. Depth of bury shall be indicated on the profile plans. The Township standards require a minimum of 6 feet of cover above water main, unless within the influence of the roadway, where it shall be 7 feet minimum cover. All depth of bury minimal cover must be indicated on the profiles.
- 3. Please add a 12" gate valve on the 12" watermain along the I-94 Service Dr. at the very south-east corner of the site, just west of the 12"x12"x8" tee to allow for isolation between loop ends.
- 4. Add the required Township watermain connection note per Township Standards Ch. II.C.42.a.
- 5. Revise the 6" water lead for Hydrant 4 to 8 inches. Per Township standards, all hydrant leads over 40 feet in length shall be 8 inches.
- 6. Water main profile design shall be done in such a manner to eliminate unnecessary high points/peaks to every extent possible.
 - a. "Profile View of WM HYD 4 TEE EAST TAP" Sta 4+15 to Sta 4+75: Flatten and extend directly to gate valve.
 - b. "Profile View of WM EAST TAP LOOP" Sta 0+00 to Sta 0+75: Flatten and extend directly from gate valve.
- 7. The applicant has changed the water main material from CL 54 Ductile Iron pipe to PVC AWWA C900 plastic water main. PVC pipe is allowable as an alternative, as long as approved by the Township. The

Township may prefer the use of PVC AWWA C909 over the C900. Final approval must be confirmed with the Township prior to issuing the Final Plan Set and Ordering Material.

- a. UPDATE (8/5/22): After further discussions with the Water & Sewer Director and Superintendent, the Township prefers to use PVC AWWA C909, instead of C900. The applicant shall change material to C909 for all plastic Water Main.
- 8. The following comment is for information only: The Van Buren Township Engineering Standards Manual indicates that new developments shall be installed from boundary to boundary and that water main stubs must be provided to property lines at locations designated by the township engineer for future extension. The Township requires that all water mains be terminated at the property lines with a hydrant, followed by a gate valve in a well. The Township Master Plan recommends that the water main gap along this stretch of road be connected and would help with the reliability and redundancy of the system, however, this would also require approximately 500 feet of additional water main to be constructed on the National RV Property to the west and a trenchless extension under the Quirk Drain.
 - a. It is our understanding that an agreement between the Township and the applicant has been reached to waive this full water main extension requirement because the applicant is accepting to install all the new water main from the east. The remaining portion of the water main loop to the west and under the Quirk Drain will be done by the Township at a later date.
 - b. In lieu of extending the water main to the property limits, the applicant has agreed, as shown on the plans, to dedicate water main easements for future extension to the west and north.
- 9. The applicant shall work with the Fire Marshal on hydrant layout. Final say will be approved by the Township Fire Marshal.
 - a. No part of any building or structure shall be more than 250 feet from a hydrant unless the Fire Department approval is given to do otherwise. The distance shall be measured along the shortest feasible exterior route for laying fire hose. Plan sheet C-6a shows a portion of building that is not within fire hydrant coverage.
 - b. An additional fire hydrant shall be added along the I-94 service drive, approximately 500 feet west of the Camping World hydrant. A detail shall be added to include a 10 foot maintenance/access drive to the hydrant from the roadway. A 20 feet long CMP culvert shall be placed to accommodate access.
- 10. The proposed water main layout provides an 8-inch N/S extension for future expansion of the Township water main system. No further extension will needed by the applicant nor no upsizing of water main at this time.

Sanitary Sewer

Existing: The applicant's plan indicates a public 21-inch Reinforced Concrete Pipe sanitary sewer running east and west along the north side of I-94 Service Drive.

Proposed: The applicant's plan indicates a unsized sanitary sewer lead feeding into the existing 21-inch sanitary sewer along I-94 Service Drive.

Comments:

1. No further comments.

Storm Sewer

Existing: The applicant's plan indicates that the existing undeveloped property has no existing stormwater system and runoff from the site surface flows into the roadside ditches along the north side of I-94 Service Drive and into the Quirk Drain along the west side of the property.

Proposed: The applicant's plan is proposing to capture stormwater runoff via a system of inlets, catch basins, and storm sewers. A detention basin with sedimentation forebay is proposed in the northwest quadrant of the property with an outlet into the adjacent Quirk Drain.

Comments:

- 1. The Township will require Wayne County approval for the storm water system prior to moving on to the PreConstruction Phase of the project. It should be noted that if changes are made to a previously approved site due to requirements from the County storm water review, the applicant may be subject to resubmitting for Final Site Plan approval.
 - a. What is the current status of the Wayne County review? Please provide the most recent correspondence.
- 2. Detention basins must be designed to have a permanent pool with a minimum depth of four feet.

Response: The applicant is in the process of requesting a variance from the Township to eliminate the 4 ft permanent pond [Pool].

Comment: If approved, the applicant will be responsible for adjusting the storm water management design for the site. This includes but is not limited to the adjustment of the design calculations and grading of the overall basin. Dry ponds require more of a directed flow to the outlet utilizing a sloped pond bottom with cross slopes. The slope shall direct flow to maximize the amount of time within the pond. The applicant shall work with the Township to determine the requirements of the dry pond.

- 3. Drainage areas shown on the drawings shall include the individual "C-values" for each inlet area.
- 4. The hydraulic grade line shall be shown on all Storm Sewer profiles.
- 5. See comment 3.b under "General" for requirements on utility crossings.

Paving and Grading

- 1. In general, when sidewalk is constructed along the frontage of a development the limits should extend to the development property line. Due to the location of the Quirk Drain, a standard sidewalk is not applicable. Discussions between the applicant, the Township, and the County are ongoing and it is noted that a payment to the Van Buren Township sidewalk fund has been accepted in lieu of constructing sidewalk.
- 2. A permanent "Sidewalk Ends" sign shall be added at the end of the sidewalk to the west. Upon the Township completing the sidewalk, the sign will be removed.
- 3. ADA Ramps shall be included in the path towards the employee patio. Grades indicate that the crosswalk has a curb step down towards the 2 western cross walks.
- 4. What is the status of the Wayne County permit, as it relates to the driveway entrance and maintenance of traffic plans? Maintenance of traffic plans indicate that a traffic regulator/flagger will be used to maneuver traffic around the work zone. Is this correct? What is the anticipated amount of time for 1 lane traffic movements?

Soil Erosion and Sedimentation Control

1. A Wayne County Soil Erosion Permit has been issued for Soil Erosion and Sedimentation Control. The permit is dated 7/1/2022 [Permit No. 22-150].

Recommendation

Fishbeck recommends the Planning Commission grant the Kenworth Sales Facility Project Engineering and Final Site Plan approval, subject to the comments listed in the above letter and the pending Wayne County review and approval. If changes occur due to the requirements from the County, the Township reserves the right to require the applicant to resubmit and reapply for review of the site. Prior to the project continuing to the PreConstruction Phase, the applicant will be required to address all the comments in an Issued for Construction Plan set and submit for approval. If you have any questions regarding this project, please contact Paul Kammer at 248.324.2137 or pkammer@fishbeck.com.

Sincerely,

Paul J. Kammer, PE

Senior Civil Engineer

By email

Copy: Dan Power – Township

Po-Ko-

Brittney Williams - Township Vidya Krishnan – McKenna Dave Potter – Fishbeck Andrew Lenaghan Deputy Fire Chief/Fire Marshal O: 734-699-8900 Ext 9416 C: 734-294-7132 Van Buren Fire Department 46425 Tyler Rd Van Buren Twp., MI 48111



July 21, 2022

Director of Building and Planning 46425 Tyler Road Van Buren Township, MI 48111

Kenworth Sales Facility North I-94 Service Dr. Van Buren Township, Michigan 48111

The (revised) site plan for the Kenworth Sales Facility was reviewed for compliance with the Van Buren Township adopted fire code NFPA 1 2018. Fire Department access and water supply were the focus of this review. The plans as submitted are approved with the following exceptions: (In Red)

Water Supply

The maximum distance between fire hydrants shall not exceed 500 feet. NFPA 1 2018 18.5.3 (2)

The hydrant on the island north of the entrance needs to be moved west, to the southeast corner of the building (Sheet C-6a). Closer to the FDC.

The distance from the hydrants on the North West and North East corners is over 500 feet to the northern most parking area. A fire hydrant needs to be added in the north parking lot. (Sheet SP-5)

A Fire Suppression system will be required for the occupancy. A fire hydrant will need to be placed within 100 feet of the fire department connection.

Our Mission: The members of the Van Buren Fire Department shall work together in a professional and caring way to protect life and property from the adverse effects of fire, trauma, illness and dangerous conditions. Our services will be provided in a fair, honest, and ethical manner with the highest respect and dignity to all.

Fire Department Access

No parking fire lane signs are still needed on the Northern most parking lot Island, west side Island Easements, (Sheet C-2) and Southwest side of building (Sheet C-2a)

If an electric security gate is to be installed at the entrance to the complex, and approved access control device will be required. A manual gate will be required to have a Knox padlock.

The approved access control device is a Knox Box model 3200 box (<u>www.knoxbox.com</u>) mounted on outside of the gate (with a micro switch located inside of the Knox box and wired to the gate operator for emergency access) This needs to backed up by the building emergency power.

The plans show the Knox gate switch on the inside of the fence. The switch needs to be on the OUTSIDE of the fence.

The required width of a fire department access road shall not be obstructed in any manner, including by the parking of vehicles.

If you have any questions regarding this review please contact me at alenaghan@vanburen-mi.org or (734)699-8900 ext. 9416.

Andrew Lenaghan Deputy Fire Chief/Fire Marshal Van Buren Township

CHARTER TOWNSHIP OF VAN BUREN PLANNING COMMISSION - VIRTUAL MEETING ON ZOOM October 13, 2021 MINUTES

Prior to the start of the meeting, the public was given instructions on how to take part in the meeting.

Chairperson Thompson called the meeting to order at 7:32 p.m.

ROLL CALL:

Present: Jahr, Kelley, Cullin, Barr, Atchinson, Budd and Thompson.

Excused: None.

Staff: Director Power, Director Best and Secretary Harman.

Planning Representatives: McKenna Associate, Vidya Krishnan and Fishbeck Associate, Paul

Kammer.

Applicant(s) in Attendance: Jeff Minter, Teresa Bruce and Bruce Brickman for the General Development Company, Wendy Baker, Chris Bluton and Uli Branstetter for Inter Plan, LLC and Craig Atchinson for Atchinson Ford.

Audience: Eight (8).

APPROVAL OF AGENDA:

Motion Kelley, Jahr second to approve the revised agenda of October 13, 2021, noting the correction of the action items listed under new Business Item #3.

Roll Call:

Yeas: Jahr, Kelley, Barr, Atchinson, Cullin, Budd and Thompson.

Nays: None. Absent: None. Motion Carried.

APPROVAL OF MINUTES:

Motion Jahr, Cullin second to approve the regular meeting minutes of September 8, 2021 as presented.

Roll Call:

Yeas: Atchinson, Cullin, Budd, Barr, Kelley, Jahr and Thompson.

Nays: None. Absent: None. Motion Carried.

PUBLIC HEARING:

ITEM #1: 21-021 - GENERAL DEVELOPMENT COMPANY, LLC - SPECIAL LAND USE

REQUEST.

THE REQUEST IS FOR TRUCK SALES AND REPAIR BY KENWORTH/CMS COMPANIES, INC. APPLICANT, GENERAL DEVELOPMENT COMPANY, LLC ON BEHALF OF OWNER BELLEVILLE NORTH MARSH VENTURES, LLC SEEKS TO CONSTRUCT A +/- 59,820 SQ. FT. BUILDING WITH RELATED SITE IMPROVEMENTS FOR OUTDOOR VEHICLE SALES AND VEHICLE SHOWROOM USES WITH ACCESSORY VEHICLE REPAIR AND SERVICE. THE SITE IS ZONED C-2 (EXTENSIVE HIGHWAY BUSINESS DISTRICT). OUTDOOR VEHICLE SALES AND VEHICLE SERVICE (MINOR) IS A SPECIAL LAND USE IN THE C-2 ZONING DISTRICT.

LOCATION:

THE +/- 20.01-ACRE SITE IS PROPOSED TO BE A COMBINATION OF LAND FROM TWO EXISTING PARCELS LOCATED AT TAX PARCEL NUMBERS 83-060-99-0002-001 AND 83-060-99-0001-001, ON THE NORTH SIDE OF I-94 NORTH SERVICE DRIVE BETWEEN DEWITT AND MORTON TAYLOR ROADS.

Commissioner Budd asked to be recused from the Public Hearing and New Business Item numbers 1 and 2.

Motion Kelley, Jahr second to recuse Commissioner Budd from the public hearing and new business item numbers 1 and 2.

Roll Call:

Yeas: Jahr, Kelley, Barr, Atchinson, Cullin, Budd and Thompson.

Nays: None.
Absent: None.
Motion Carried.

Motion Atchinson, Kelley second to open the public hearing.

Roll Call:

Yeas: Cullin, Atchinson, Barr, Kelley, Jahr and Thompson.

Nays: None. Recused: Budd. Motion Carried.

Director Power gave a brief presentation and informed that this is an opportunity for members of the audience to ask questions or submit comments for the special land use request. There were no questions or comments from the audience.

Motion Kelley, Atchinson to close the public hearing.

Roll Call:

Yeas: Jahr, Kelley, Barr, Atchinson, Cullin and Thompson.

Nays: None. Recused: Budd. Motion Carried.

NEW BUSINESS:

ITEM #1: 21-021 - GENERAL DEVELOPMENT COMPANY, LLC - SPECIAL LAND USE REQUEST.

THE REQUEST IS FOR TRUCK SALES AND REPAIR BY KENWORTH/CMS COMPANIES, INC. APPLICANT, GENERAL DEVELOPMENT COMPANY, LLC ON BEHALF OF OWNER BELLEVILLE NORTH MARSH VENTURES, LLC SEEKS TO CONSTRUCT A +/- 59,820 SQ. FT. BUILDING WITH RELATED SITE IMPROVEMENTS FOR OUTDOOR VEHICLE SALES AND VEHICLE SHOWROOM USES WITH ACCESSORY VEHICLE REPAIR AND SERVICE. THE SITE IS ZONED C-2 (EXTENSIVE HIGHWAY BUSINESS DISTRICT). OUTDOOR VEHICLE SALES AND VEHICLE SERVICE (MINOR) IS A SPECIAL LAND USE IN THE C-2 ZONING DISTRICT.

LOCATION: THE +/- 20.01-ACRE SITE IS PROPOSED TO BE A COMBINATION OF LAND FROM TWO EXISTING PARCELS LOCATED AT TAX PARCEL NUMBERS 83-060-99-0002-001 AND 83-060-99-0001-001, ON THE NORTH SIDE OF I-94 NORTH SERVICE DRIVE BETWEEN DEWITT AND MORTON TAYLOR ROADS.

Director Power deferred the discussion to Principal Planner, Vidya Krishnan.

Vidya Krishnan of McKenna Associates presented her special land use review letter dated 9-22-21. The proposed use meets the general standards for consideration of special land use approval and most of the specific standards related to outdoor vehicle sales. Therefore, McKenna Associates recommends that the Planning Commission recommend approval of the proposed special land use to the Township Board of Trustees, subject to the following conditions:

- 1. Correction of the notation regarding inoperable vehicles are in the outdoor sales lot.
- 2. Verification that no large vehicles will be displayed in the front yard unless the vehicle is new.
- 3. Site plan approval.

Director Power noted that this is a unique business, truck sales and accessory repairs and there's a need to demonstrate the prominence of the commercial aspect of the use. This is predominantly a sales based use, primarily for the sale of new trucks and the accessory portion of the site is for truck repair. Director Power recommend the following conditions of approval to be met prior to the Van Buren Township Board of Trustee's consideration of special land use:

- Via either notes on the site plan or a letter in CSM/Kenworth letterhead, the applicant shall submit a description of revenue splits for new truck sales, new truck parts sales and truck service sales. This data may either be gathered from a comparable facility or as an estimate for the subject site. This information has been supplied by the applicant.
- The applicant shall submit an addendum to the site plan which shows trucks parked for service as being limited to areas to the north of the proposed building or west of the building adjacent to its service bays.
- The applicant shall note that at no time will trucks parked on the site for service purposes exceed 50% of truck parking spaces.
- The applicant shall note that no dismantled truck parts will be stored outdoors.

The applicant has addressed these items as requested prior to sending to the Township Board of Trustees for approval.

Bruce Brickman of General Development Companies, LLC on behalf of Kenworth/CMS Companies displayed a picture of what Kenworth wants to build, it's like an automobile dealership showroom except with Kenworth tractors as opposed to cars. Kenworth/CMS is the largest Kenworth dealership in the country.

No comments from the audience.

Commissioners commented that it's a nice looking facility and inquired about the following:

- In regard to parking, is there a distinction between tractors and components of the tractor trailer versus what a truck is in our ordinance? The parking of trucks under service in the back of the site, does that include any trailers? Bruce Brickman informed it is mostly just tractors, it is possible that a driver comes in with a service problem and does have a trailer attached. The site plan was displayed which depicts a handful of spaces in the back that are sized for trailer parking. Commissioner would like that clarified on the site plan.
- If an owner/operator comes in with a problem with a truck and a trailer, what provisions are there for them to stay overnight in tractors on the property? The applicant does not allow owners/operators to stay in tractors, prefer to not have them in the tractors for security reasons and will make arrangements with their companies for a local hotel.
- For overnight storage up to 48 hours with a trailer, does the applicant have any control of materials that can be stored (ex. hazmat)? Nothing specific in writing, hazmat materials are the responsibility of the load bearing company.
- Why has Kenworth decided to come to Van Buren Township? Mainly the location, a lot
 of customers are in the Detroit area and the visibility along the freeway in the greater
 Detroit area was desirable. The applicant also found the large parcel of land and heard
 the community was relatively easy to work with.
- Commissioner would like a better understanding of what the parts sales are. Are
 owner/operators coming to this location to pick up parts to take elsewhere or to have
 serviced on site? Bruce Brickman informed that it is a combination of both. The larger
 fleets that parts are sold to have their own service centers and some tractors will be
 serviced on site.

Motion Kelley, Jahr second to recommend the Township Board of Trustees grant special land use approval to the applicant, General Development Company, LLC for outdoor vehicle sales and associated uses for the properties located at parcel tax I.D. numbers 83-060-99-0002-001 and 83-060-99-0001-001, on the north side of I-94 North Service Drive, based on the analysis and subject to the conditions in the McKenna Associates review letter dated 9-22-21 and Director Power staff review letter dated 10-6-21.

Roll Call:

Yeas: Barr, Atchinson, Cullin, Kelley, Jahr and Thompson.

Nays: None. Recused: Budd.

Motion Carried. (Letters Attached)

ITEM #2: 21-021 – GENERAL DEVELOPMENT COMPANY, LLC – PRELIMINARY SITE PLAN.

THE REQUEST IS FOR TRUCK SALES AND REPAIR BY KENWORTH/CMS COMPANIES, INC. APPLICANT, GENERAL DEVELOPMENT COMPANY, LLC ON BEHALF OF OWNER BELLEVILLE NORTH MARSH VENTURES, LLC SEEKS TO CONSTRUCT A +/- 59,820 SQ. FT. BUILDING WITH RELATED SITE IMPROVEMENTS FOR OUTDOOR VEHICLE SALES AND VEHICLE SHOWROOM USES WITH ACCESSORY VEHICLE REPAIR AND SERVICE. THE SITE IS ZONED C-2 (EXTENSIVE HIGHWAY BUSINESS DISTRICT).

LOCATION:

THE +/- 20.01-ACRE SITE IS PROPOSED TO BE A COMBINATION OF LAND FROM TWO EXISTING PARCELS LOCATED AT TAX PARCEL NUMBERS 83-060-99-0002-001 AND 83-060-99-0001-001, ON THE NORTH SIDE OF I-94 NORTH SERVICE DRIVE BETWEEN DEWITT AND MORTON TAYLOR ROADS.

Director Power deferred the discussion to Principal Planner, Township Engineer and Fire Marshal reviews.

Vidya Krishnan of McKenna Associates presented her preliminary site plan review letter dated 9-22-21. The site plan includes most of the details required by the Zoning Ordinance. The items remaining to be addressed can be included for review with the final site plan submission. Therefore, McKenna Associates recommends that the Planning Commission grant preliminary site plan approval for the Kenworth dealership to be located at the above site, subject to the following conditions:

- 1. Notation of any required Township, County or State permits.
- 2. Approval of the proposed lot split.
- 3. Clarification regarding pavement stub shown at the north end of the parcel.
- 4. Incorporation of area for future access drive to the east.
- 5. Construction of a sidewalk across the entire frontage or contribution into the Township sidewalk fund, to be determined based on feasibility at the time of full engineering review.
- 6. Striping of crosswalks to the employee patio and along the front of the building.
- 7. Planning Commission approval of proposed substitution of landscaping along the frontage, i.e., ornamental grasses and perennials in lieu of shrubs.
- 8. Expanding of landscape islands to meet the minimum size requirement.
- 9. Incorporation of triangular projections of landscape area along the front yard display, similar to the east side of the site.
- 10. Detention pond approval by Wayne County and Township Engineer.
- 11. Submission of detailed photometric plan and manufacturer's details of light fixtures.
- 12. Planning Commission approval of proposed building materials and colors.
- 13. Revision of monument sign to include 24" tall masonry base as required by Ordinance.

Paul Kammer of Fishbeck Associates presented his review letter dated 9-21-21, recommending the Planning Commission grant preliminary site plan approval for engineering feasibility, subject to the comments listed in the review and in accordance with the Township's Engineering and Standards manual for the engineering review submittal. It is also recommended that the

applicant begin discussions with Wayne County, if they haven't already to determine their requirements for storm water management.

Director Power summarized Fire Marshal Lenaghan's review letter.

Bruce Brickman of General Development Companies, LLC informed that the consultants have covered all aspects and he has nothing further to add at this time. Teresa Bruce of General Development Companies, LLC discussed the building materials and displayed photos of sample materials to the Commission. The materials included a clear anodized ACM look shown on the rendering at the front of the building, brown split face block, insulated metal panel likely to be silver or brown and clear anodized look for the windows. Jeff Minter of General Development Companies, LLC informed that the goal for the company is for the building is to look like a high end car dealership and like to maintain that image on their properties.

Commissions had the follow questions and comments:

- Is the applicant having outdoor storage of anything other than new vehicles, such as the storage of parts? No, the applicant does not store anything outside. Anything that is stored outside is either for sale or coming in for service.
- Is there a plan for an onsite truck wash inside the bays? Generally there will be one bay labeled as a wash bay, where a pressure washer is used to degrease engines and for cleanup. There is not an automated truck wash.
- Is there any special engineering review required for the waste water handling of the truck wash? Township Engineer, Paul Kammer informed that will depend on degreasing and the oil water separation. This will be discussed further during the final engineering review prior to final site plan approval.
- Does the Quirk drain handle the water from the residents on Dewitt? The Township Engineer does not know off hand what goes into the Quirk drain. The stormwater management will be metered per township standards. Many County drains have not been maintained by the County, however have not seen any major issues along this stretch.
- Commissioner suggested to modify the ornamental grasses and hedges as the applicant will be displaying vehicles and is fine with modifying the landscape. Commissioners agreed with the landscape modification requested by the applicant.
- Sidewalk, is the applicant putting in the sidewalk along most of the frontage and considering putting into the sidewalk fund for the crossing over the drain? The applicant will extend the sidewalk as far west as they can go without getting into the slopes of the drain. The sidewalk fund will be used for the area of the connection over the drain for a later date when they are able to connect the sidewalk with National RV.

No comments from the audience.

Motion Jahr, Cullin second to grant the applicant, General Development Companies, LLC on behalf of owner Belleville North Marsh Ventures, LLC, preliminary site plan approval for the construction of a 59,820 square foot building with related site improvements for outdoor vehicle sales and vehicle showroom uses with accessory vehicle repair and service, located on the proposed 20.01 acre site, combination of tax parcel ID numbers 83-060-99-0002-001 and

83-060-99-0001-001, on the north side of the north I-94 Service Drive, between Dewitt and Morton Taylor Roads, based on the analysis and subject to the conditions detailed in the staff review letter dated 10-6-21, in McKenna Associates review letter dated 9-22-21 noting condition # 5 the contribution into the Township sidewalk fund, Fishbeck Associates review letter dated 9-21-21, undated Fire Marshal review letter.

Roll Call:

Yeas: Atchinson, Cullin, Barr, Kelley, Jahr and Thompson.

Nays: None. Recused: Budd.

Motion Carried. (Letters Attached)

ITEM #3: 21-019 – BURGER KING DRIVE-THRU – PRELIMINARY SITE PLAN.

THE APPLICANT, INTER PLAN, LLC ON BEHALF OF OWNER BRAUVIN NET INVESTMENTS, LLC SEEKS PRELIMINARY SITE PLAN APPROVAL TO CONSTRUCT A SECONDARY DRIVE-THRU LANE ALONG WITH LANDSCAPING AND ARCHITECTURAL IMPROVEMENTS ASSOCIATED WITH THE REMODEL OF A BURGER KING RESTAURANT.

LOCATION:

11550 BELLEVILLE ROAD, TAX PARCEL 83-081-99-0004-002. ON THE WEST SIDE OF BELLEVILLE ROAD BETWEEN SOUTH I-94 SERVICE DRIVE AND VENETIAN AVENUE.

Director Power deferred to the Principal Planner, Township Engineer and Fire Marshal reviews.

Vidya Krishnan of McKenna Associates presented her preliminary site plan review letter dated 9-21-21. The applicant has revised the plans to address several of the previous outstanding concerns; however, a few other changes remain to be made. Therefore, McKenna Associates recommends the Planning Commission grant preliminary site plan approval to the Burger King project located at 11550 Belleville Road, subject to the following conditions:

- Accommodating an RV/Semi parking space along the north side of the site and eliminating the space proposed on the southeast corner of the site or Planning Commission waiver of required RV parking spaces.
- 2. Truck maneuvering plan to show that the loading space is accessible.
- 3. Revised outdoor furniture design in compliance with BROD design requirements.
- Installation of decorative BROD style light poles at the two access drives to the site.
- 5. Wayne County and Township Engineer approval of stormwater detention for the site.
- 6. Elimination of LED band from the building façade.
- 7. Submission of a revised sign packet with accurate calculations in compliance with the ordinance.

Paul Kammer of Fishbeck Associates presented his preliminary site plan review letter dated 9-21-21, recommending the Planning Commission grant the Burger King parking lot reconstruction preliminary site plan approval for engineering feasibility, subject to the comments in the review letter and in accordance with the Township's Engineering Standards manual.



July 13, 2022

Mr. Dan Power Van Buren Township

Re: Kenworth Project

Dan,

We are requesting a variance to engineering standards for the 4' of permanent water in the Kenworth detention pond. Although the 4' permanent water, below the required storage volume, is an engineering standard, things have changed since this standard went into effect years ago. Below is our explanation in seeking this variance.

- 1. Wayne County changed their standards in 2021 and no longer mandate any permanent pool of water in a detention basin.
- 2. Wayne County standards allow for: *Dry detention basins, which are designed to completely drain after a storm event, do not have a permanent pool and are sloped along the bottom to provide positive drainage towards the outlet.*
- 3. From a practical point having 4' of permanent water in a detention pond makes it impossible to see if sedimentation is forming in the pond, as you simply can't see it with 4' deep water (which is typically murky in a detention pond). The proposed detention pond as designed meets all storage volume requirements per Wayne County and Van Buren Township requirements.
- 4. Wayne County has approved the plans WITHOUT THE 4' DEEP PERMANENT WATER POOL. Pursuant to the townships requirements to grant a variance we quote herein (2) requirements to be met (the township only needs (1) condition to be met to grant a variance).
 - a. "That an alternative proposed by the applicant shall be adequate for the intended use and shall not substantially deviate from the performance that would be obtained by strict enforcement of the standards"
 - b. "That the granting of the variance will not be detrimental to the public welfare or injurious to other property in the area in which such property is situation."
- 5. The sedimentation forebay requirement is 45,359 CF. The current sedimentation forebay is designed to hold 70,076 CF (154% of required). The overall detention requirement is 184,821 CF. Current design holds 224,751 CF (122% of required).
- 6. The site is 20 acres and completely flat. When we have a site with more grade, we can strategically place the pond to place it in a low point. With this site, there isn't really a point significantly lower that allows for that. While the permanent pool is allowed to count toward the storage volume, because the site is so flat, we would need a wet storm system (water would be sitting in pipes). This causes a possible settling issue of sand/debris within the pipe, not allowing to maintain "self-cleaning velocities".
- 7. This is a unique site as it has a significant amount of parking as would be true for any car or truck dealership. Having a 4' permanent water basin will attract ducks, waterfowl, birds, etc. which will wreak havoc (droppings everywhere) on all the new trucks.

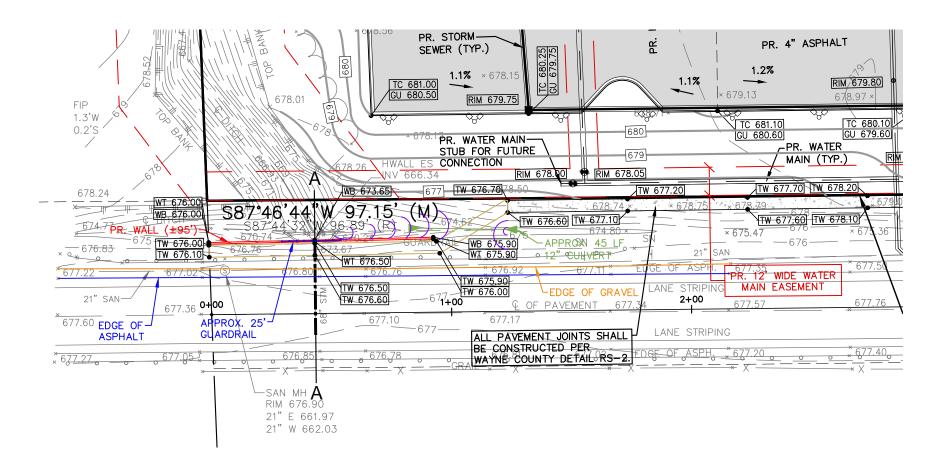
As to 4(a), the detention pond as designed will perform as required with or without a 4' permanent water pool below the required storage volume already provided. Digging an additional 4' of earth out to create



the permanent 4' deep water pool will require significant additional earth movement and trucking to remove the dirt from the site.

As to 4(b), there is no harm, damage or negative result eliminating the 4' deep permanent water pool but eliminating the requirement will be beneficial in being able to maintain the pond in a superior fashion, by being able to visually see any sediment build up which is very difficult to see when there is a 4' deep permanent pool of water.

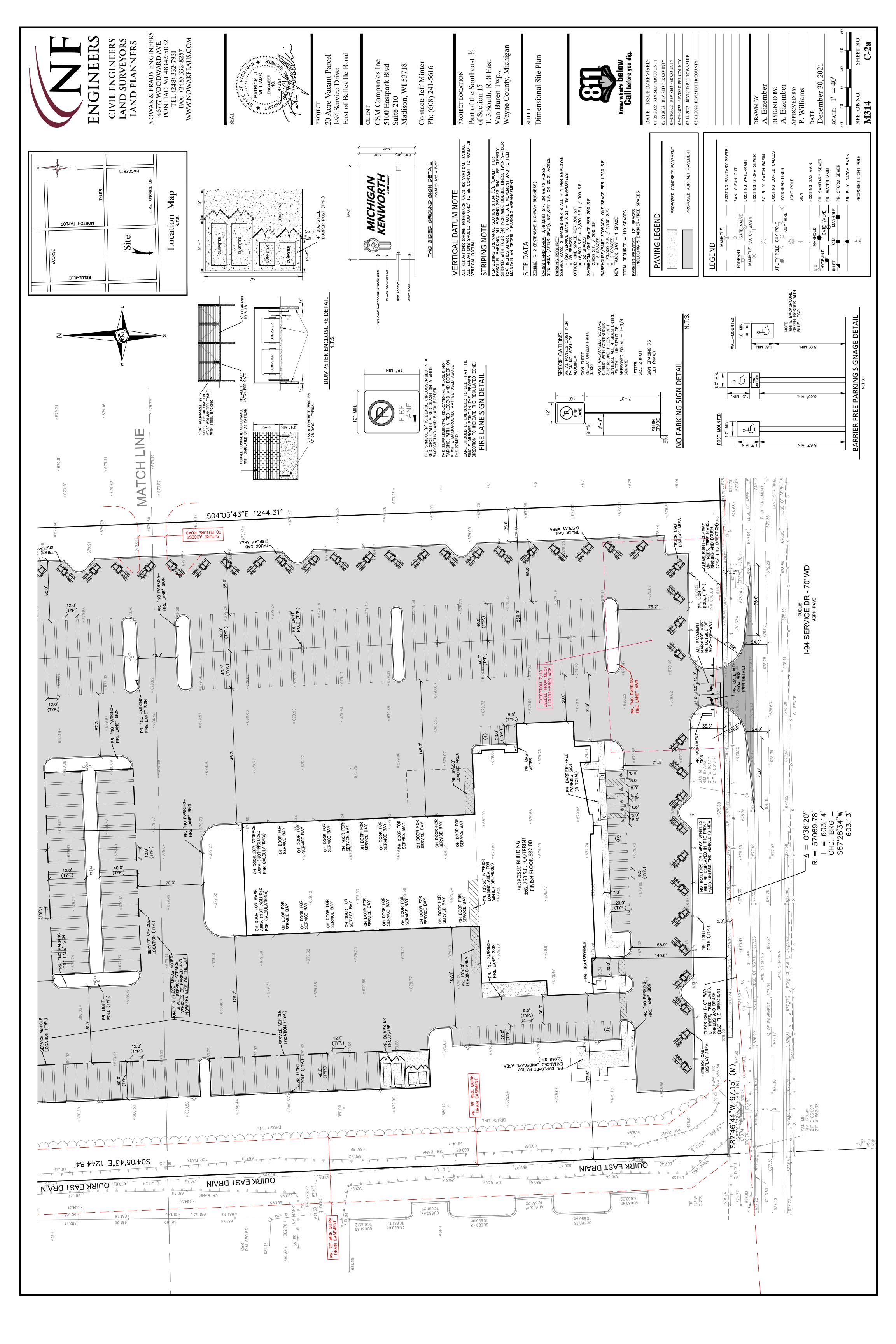
The Van Buren Township general website makes a specific comment about not having stagnant water present for disease purposes specifically with the outbreak of the West Nile virus and other pathogens. Having a large body of stagnant water is not desirable from a health and safety standpoint.





Engineer's Construction Estimate Kenworth - I-94 Service Drive Van Buren Twp., Wayne County, Michigan

ltem	Quantity	Unit Price	Amount
Storm Sewer			
12" C-76, Class IV, Sewer Pipe	45 L. F.	\$75.00	\$3,375.00
12" End Section w/ Bar Screen	2 EA.	\$2,500.00	\$5,000.00
		Total =	\$8,375.00
Paving/Misc.			
4" Concrete Sidewalk	650 S.F.	\$5.00	\$3,250.00
Retaining Wall	180 S.F.	\$45.00	\$8,100.00
Guard Rail	1 L.S.	\$1,500.00	\$1,500.00
Mass Grading	1 L.S.	\$5,000.00	\$5,000.00
Restoration	1 L.S.	\$2,000.00	\$2,000.00
		Total =	\$19,850.00
		Total Estimate =	\$28,225.00



WAYNE COUNTY DPS GENERAL NOTES:

1. ALL WORK WITHIN THE WAYNE COUNTY ROAD RIGHT-OF-WAY (ROW) AND DRAIN EASEMENT SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND GENERAL SPECIFICATIONS INCLUDING SOIL EROSION AND SEDIMENTATION CONTROL OF THE WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES, AND MDOT SPECIFICATIONS FOR CONSTRUCTION.

2. THESE PLANS ARE NOT VALID WITHOUT ATTACHMENT OF THE WAYNE COUNTY PERMIT SPECIFICATIONS FOR CONSTRUCTION WITHIN THE ROAD ROW, PARKS, DRAIN EASEMENT OR SANITARY SEWER UNDER JURISDICTION OF THE WAYNE COUNTY (07/01/93)

3. CONTRACTOR SHALL CONTACT MISS DIG AT 811 TO IDENTIFY AND FLAG/MARK THE LOCATIONS OF ALL UNDERGROUND UTILITIES AT THE PROPOSED CONSTRUCTION AREAS PRIOR TO START OF CONSTRUCTION, AND SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS AND ELEVATIONS OF ALL UNDERGROUND UTILITIES, AND RESOLVE ANY CONFLICT BETWEEN THE PROPOSED WORK AND THE EXISTING UNDERGROUND OR ABOVEGROUND UTILITIES.

4. CONTRACTOR SHALL MAINTAIN 18" MINIMUM VERTICAL CLEARANCE AND 3 FEET MINIMUM HORIZONTAL CLEARANCE BETWEEN THE PROPOSED AND EXISTING UTILITIES. ANY PROPOSED UTILITY PERMITTED TO CROSS UNDER THE ROAD OR DRAIN, MUST BE PLACED A MINIMUM OF 7 FEET BELOW THE LOWEST POINT OF THE ROAD, OR 6 FEET BELOW THE DRAIN BOTTOM. OVERHEAD WIRES/CABLES MUST BE INSTALLED 18 FEET MINIMUM ABOVE THE ROAD CENTERLINE. TO RELOCATE ANY UTILITY WITHIN THE ROAD ROW, THE CONTRACTOR SHALL COORDINATE THE RELOCATION WITH THE UTILITY COMPANY AND AS DIRECTED BY THE WAYNE COUNTY ENGINEER.

5. ALL SURVEY MONUMENTS / CORNERS, AND BENCH MARKS LOCATED WITHIN THE CONSTRUCTION AREA MUST BE PRESERVED IN ACCORDANCE WITH PUBLIC ACT 74 AS AMENDED (INCLUDING ACT 34, P.A.20DO) AND AS PER WAYNE COUNTY PERMIT RULE 1.5. THE PERMIT HOLDER AND CONTRACTOR SHALL COORDINATE THE WORK WITH A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF MICHIGAN DURING CONSTRUCTION ACTIVITIES FOR THE PURPOSE OF WITNESSING, PRESERVING OR REPLACING SURVEY MONUMENTS AND

6. EXPOSURE OF ANY UTILITIES UNDER THE PAVEMENT WILL NOT BE PERMITTED, UNLESS APPROVED BY THE WAYNE COUNTY ENGINEER. PAVEMENT REMOVAL AND REPLACEMENT SHALL BE PERFORMED PER APPLICABLE WAYNE COUNTY STANDARD DETAILS AND AS DIRECTED BY THE WAYNE COUNTY ENGINEER.

7. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS WITHIN THE WAYNE COUNTY ROAD ROW AND DRAIN EASEMENT WITH 3" TOPSOIL, THM SEED MIX AND MULCH. SLOPES STEEPER THAN 1 ON 3 SHALL BE RESTORED BY PLACING SOD ON 2" TOPSOIL.

8. ALL BACKFILLS UNDER OR WITHIN 3 FEET OF THE PROPOSED OR EXISTING PAVEMENT, CURB OR SIDEWALK SHALL CONFORM TO THE WAYNE COUNTY TRENCH "B" BACKFILL REQUIREMENTS. TRENCH "A" BACKFILL MAY BE USED WITHIN THE ROAD ROW AREAS UNDER CONDITIONS OTHER THAN THOSE SPECIFIED FOR TRENCH "B".

9. CONTRACTOR IS RESPONSIBLE FOR RESTORING OR REPLACING ALL DISTURBED LANDSCAPED AREAS, SPRINKLER SYSTEMS, FENCES, SIGNS, MAIL BOXES, ETC. WITHIN THE WAYNE COUNTY ROAD ROW AND / OR AS DIRECTED BY THE COUNTY ENGINEER.

10. CONTRACTOR SHALL MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES. OTHERWISE, DETOURING TRAFFIC MUST BE PER APPROVED PLANS. ALL SIGNING AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF M.M.U.T.C.D.

11. MAINTAIN A SAFE AND ADEQUATE TRAVEL ROUTE FOR PEDESTRIANS AT ALL TIMES THROUGHOUT THE PROJECT DURATION.

12. TUNNELING, BORING AND JACKING OPERATIONS SHALL BE IN ACCORDANCE WITH THE WAYNE COUNTY SPECIFICATIONS AND DETAILS. BORE PITS SHALL BE PLACED AT MINIMUM 10 FEET FROM THE BACK OF CURB OR EDGE OF PAVEMENT. 13. REMOVE ALL ABANDONED CONDUITS FROM THE COUNTY ROADS ROW OR AS DIRECTED BY THE WAYNE COUNTY ENGINEER

14. CONTRACTOR SHALL PROVIDE COLD WEATHER PROTECTION FOR ALL PROPOSED CONCRETE WORK, (PAVEMENTS, SIDEWALKS, DRIVE APPROACHES, ETC.) AS DIRECTED BY THE WAYNE COUNTY ENGINEER.

15. OVERNIGHT VEHICLE PARKING AND STORAGE OF CONSTRUCTION MATERIALS AND EQUIPMENTS ARE NOT PERMITTED WITHIN THE

16. CONTRACTOR SHOULD OBTAIN A SOIL EROSION AND SEDIMENTATION CONTROL PERMIT FROM THE WAYNE COUNTY DPS. CONTACT THE WAYNE COUNTY SOIL EROSION OFFICE AT (734) 326-5565, OR THE COMMUNITY HAVING JURISDICTION OVER THE SOIL EROSION PERMIT.

17. CONTRACTOR SHALL NOTIFY THE WAYNE COUNTY TRAFFIC SIGNAL SHOP AT (734) 955-2154 AT LEAST 72 HOURS PRIOR TO START OF WORK AT OR NEAR ANY SIGNALIZED INTERSECTIONS.

18. CONTRACTOR SHALL NOTIFY WAYNE COUNTY 72 HOURS PRIOR TO START OF CONSTRUCTION. CONTACT THE PERMIT OFFICE AT (734)

Van Buren Township, Wayne County, Michigan CONSTRUCTION DOCUMENTS

PART OF THE SW 1/4 OF SECTION 15, TOWN 3 SOUTH, RANGE 8 EAST



Project Name

Kenworth Sales Facility

LAND IN THE TOWNSHIP OF VAN BUREN, WAYNE COUNTY, MI, DESCRIBED AS

LEGAL DESCRIPTION - PER TITLE COMMITMENT

FOLLOWS:

LAND IN THE TOWNSHIP OF VAN BUREN, COUNTY OF WAYNE, STATE OF MICHIGAN, DESCRIBED AS: A PARCEL OF LAND BEING A PART OF THE SOUTHEAST $\frac{1}{4}$ OF SECTION 15, TOWN 3 SOUTH, RANGE 8 EAST, VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS:

BEGINNING AT THE INTERSECTION OF THE NORTH AND SOUTH $\frac{1}{4}$ LINE OF SAID SECTION 15, TOWN 3 SOUTH, RANGE 8 EAST, WITH THE NORTH LINE OF THE NORTH SERVICE DRIVE OF INTERSTATE HIGHWAY 94, SAID POINT BEING NORTH 04 DEGREES 05 MINUTES 43 SECONDS WEST, 407.84 FEET FROM THE SOUTH $\frac{1}{4}$ CORNER OF SAID SECTION 15; THENCE NORTH 04 DEGREES 05 MINUTES 43 SECONDS WEST, 2250.04 FEET TO THE CENTER $\frac{1}{4}$ CORNER OF SAID SECTION 15; THENCE NORTH 85 DEGREES 31 MINUTES 38 SECONDS EAST, 1331.71 FEET ALONG THE EAST AND WEST 1/4 LINE OF SAID SECTION; THENCE SOUTH 03 DEGREES 45 MINUTES 05 SECONDS EAST, 2288.05 FEET TO A POINT ON A CURVE ON THE NORTH LINE OF SAID NORTH SERVICE DRIVE OF INTERSTATE HIGHWAY 94; THENCE WESTERLY ALONG SAID NORTH LINE ON A CURVE TO THE RIGHT 1221.41 FEET MEASURED ALONG THE ARC OF SAID CURVE TO A POINT OF TANGENT, SAID CURVE HAVING A RADIUS OF 57,069.78 FEET AND A CENTRAL ANGLE OF 01 DEGREE 13 MINUTES 34.5 SECONDS, THE CHORD OF SAID CURVE BEARS SOUTH 87 DEGREES 07 MINUTES 45 SECONDS WEST AND HAS A LENGTH OF 1221.39 FEET THENCE SOUTH 87 DEGREES 44 MINUTES 32 SECONDS WEST, 96.89 FEET ALONG SAID NORTH LINE TO THE POINT OF BEGINNING.

DEVELOPER

GENERAL DEVELOPMENT COMPANY Two Towne Square Suite 850 Southfield, MI 48076

Contact: Bruce Brickman Ph: (248) 357-3777

CIVIL ENGINEER NOWAK & FRAUS ENGINEERS 46777 Woodward Ave.

Contact: Patrick Williams, P.E. Ph: (248) 332-7931 Fax: (248) 332-8257

Pontiac. MI 48342-5032

ARCHITECT

GAV ASSOCIATES, INC. 24001 Orchard Lake Rd. #180A Farmington, MI 48336

Ph: (248) 985-9101

LANDSCAPE ARCHITECT

NOWAK & FRAUS ENGINEERS 46777 Woodward Ave. Pontiac, MI 48342-5032

Contact: George Ostrowski, RLA, LEED AP Ph: (248) 332-7931 Fax: (248) 332-8257

OWNER

CSM COMPANIES, INC. 5100 Eastpark Blvd. Suite 210 Madison, WI 53718

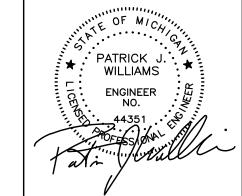
Contact: Jeff Minter Ph: (608) 241-1921

REVISIONS:

12-29-21 ISSUED FOR CD REVIEW 04-25-22 REVISED PER COUNTY

05-23-22 REVISED PER COUNTY 06-01-22 REVISED PER COUNTY 06-09-22 REVISED PER COUNTY 07-14-22 REVISED PER TOWNSHIP





N & F JOB #M314

Land Use Summary				
Characteristic	Existing Conditions	Proposed Conditions		
Total Development Area (ac):	20.01	20.01		
Impervious Area (ac):	0	11.27		
Pervious Area (ac):	20.01	8.74		
Pervious Area Breakdown Cover Type				
Meadow/fallow/natural areas (non-cultivated)	19.01	0.00		
Predominent NRCS Soil Type	D	N/A		
Improved areas (turf grass, landscape, row crops) (ac):	0.00	7.74		
Predominent NRCS Soil Type	N/A	D		
Wooded Areas	1.00	1.00		
Predominent NRCS Soil Type	D	D		
Calcul	ated CPVC Volume (C.F.)	45,359		
CPVC Volume Provided (C.F.)		45,359		
CPRC Volume Provided (C.F.)		86,182		
NOTE: Total storage (sediment foreba	y and detention pond) is	224,571 C.F.		
The CPVC and CPRC volumes referened above	are included within the t	otal storage volume		

REQUIRED APPROVALS/PERMITS

- TOWNSHIP SITE PLAN APPROVAL
- TOWNSHIP CONSTRUCTION/ENGINEERING APPROVAL
- TOWNSHIP BUILDING PERMIT
- WAYNE COUNTY RIGHT-OF-WAY PERMIT - WAYNE COUNTY STORM DETENTION PERMIT
- WAYNE COUNTY SOIL EROSION PERMIT
- EGLE WATER MAIN PERMIT

NOTES

A CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS, SPECIFICATIONS, AND GENERAL CONDITIONS OF THE TOWNSHIP.

THE OWNER IS RESPONSIBLE FOR RESOLVING ANY DRAINAGE PROBLEMS ON ADJACENT PROPERTIES WHICH ARE THE RESULT OF THE OWNER'S ACTIONS.

SHEET INDEX		
C-0	Cover Sheet	
C-1	Overall Site Survey	
C-1a	Boundary / Topographic Survey	
C-1b	Boundary / Topographic Survey	
C-1c	Soil Boring Reports	
C-2	Dimensional Site Plan	
C-2a	Dimensional Site Plan	
C-2b	Gate Details	
C-3	Truck Maneuvering Plan	
C-3a	Truck Maneuvering Plan	
C-4	Paving and Grading Plan	
C-4a	Paving and Grading Plan	
C-4b	Wayne County Paving Details	
C-4c	Wayne County Paving Details	
C-4d	MDOT Lane Closure Typical Details	
C-5	Utility Plan	
C-5a	Utility Plan	
C-5b	Storm Water Management Exhibits	
C-6	Fire Hydrant Coverage Plan	
C-6a	Fire Hydrant Coverage Plan	
C-7	Storm Sewer Profiles	
C-7a	Storm Sewer Profiles	
C-7b	Storm Sewer Profiles	
C-7c	Storm Sewer Profiles	
C-7d	Water Main Profiles	
C-7e	Water Main Profiles	
C-7f	Water Main Profiles	
C-7g	Water Main Profiles	
C-8	Utility Calculations / Details	
C-8a	Pump Details	
C-9	Soil Erosion Control / Drainage Area Plan	
C-9a	Soil Erosion Control / Drainage Area Plan	
L1	Landscape Plan	

Landscape Plan

Photometric Plan

Van Buren Twp. Standard Details

Main Level Floor Plan A102 **Enlarged Floor Plan** A103 Enlarged Floor Plan Upper Level Floor Plan

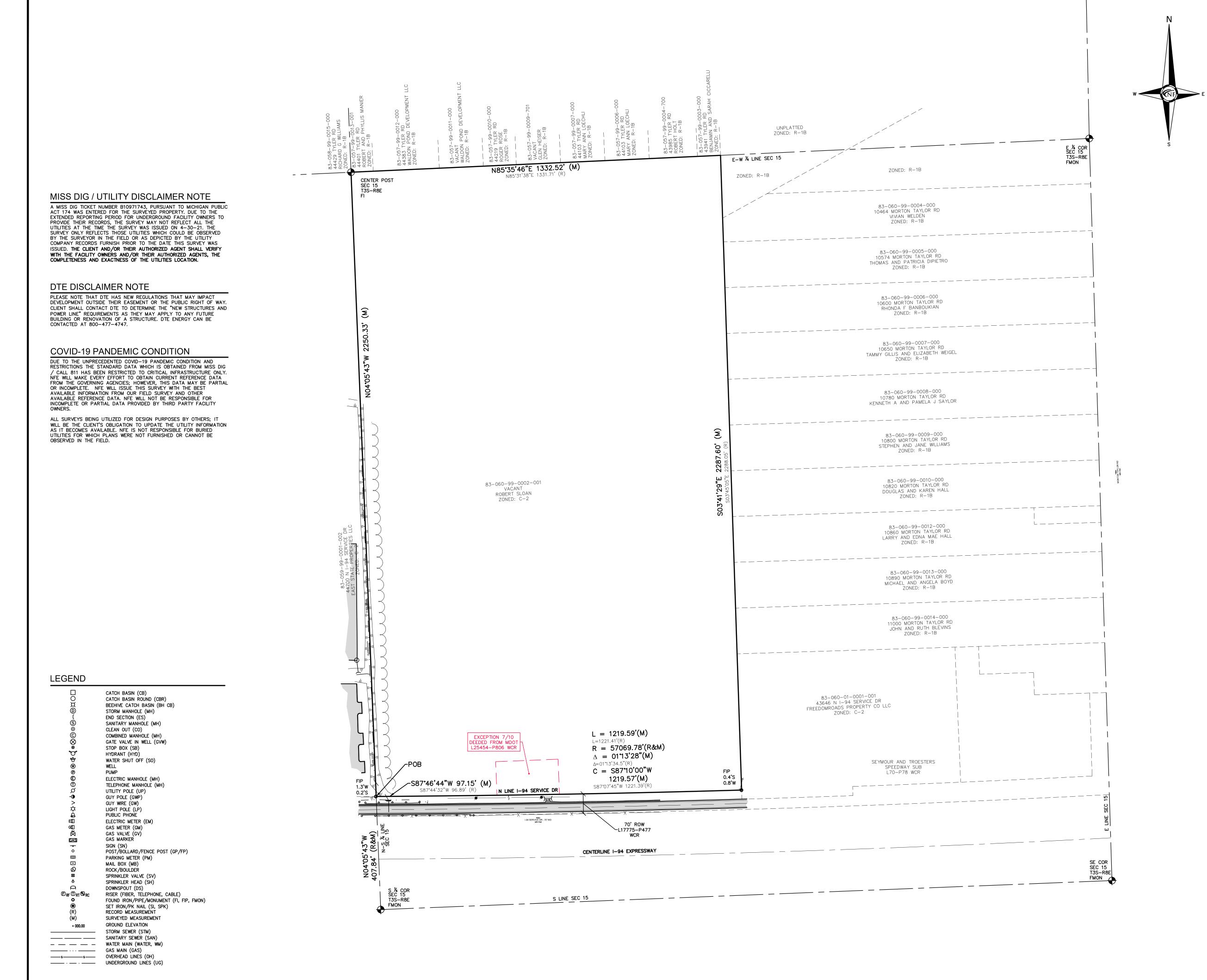
Elevations

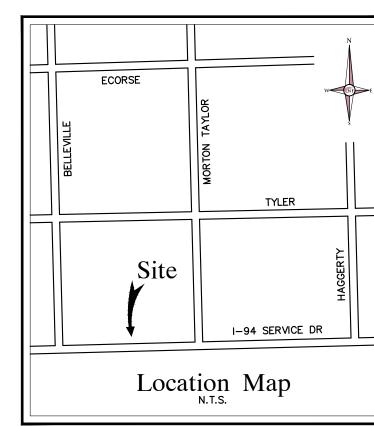
A201

CIVIL ENGINEERS LAND SURVEYORS

LAND PLANNERS **NOWAK & FRAUS ENGINEERS**

46777 WOODWARD AVE. PONTIAC, MI 48342-5032 TEL. (248) 332-7931 FAX. (248) 332-8257 WWW.NOWAKFRAUS.COM







LAND SURVEYORS LAND PLANNERS

NOWAK & FRAUS ENGINEERS 46777 WOODWARD AVE. PONTIAC, MI 48342-5032 TEL. (248) 332-7931 FAX. (248) 332-8257 WWW.NOWAKFRAUS.COM

TITLE POLICY NOTES

ALL EXCEPTIONS SHOWN OR NOTED ON THIS SURVEY WERE OBTAINED FROM TITLE COMMITMENT NO. 924509, ISSUED BY FIRST AMERICAN TITLE INSURANCE COMPANY, WITH A COMMITMENT DATE OF DECEMBER 29,

- 7. INTEREST OF RICHARD SLOAN, AS DISCLOSED BY DEED OF MICHIGAN DEPARTMENT OF TRANSPORTATION RECORDED IN LIBER 25454, PAGE 806, AS TO A 62.5% INTEREST IN A PORTION OF THE LAND. [SAID DEEDED LAND IS PLOTTED HEREON]
- 8. COVENANTS, CONDITIONS, RESTRICTIONS AND OTHER PROVISIONS BUT OMITTING RESTRICTIONS, IF ANY, BASED ON RACE, COLOR, RELIGION, SEX, HANDICAP, FAMILIAL STATUS OR NATIONAL ORIGIN AS CONTAINED IN INSTRUMENT RECORDED IN LIBER 14010, PAGE 613, REGISTER NO. E446537. [SUBJECT PROPERTY IS PART OF THE LAND DESCRIBED WITHIN SAID DOCUMENT. BUILDING LINE LIES WITHIN I-94 R.O.W. NOT PLOTTED HEREON. EASEMENT FOR PUBLIC UTILITIES SIZE AND LOCATION IS NOT DESCRIBED AND ITS LOCATION IS UNKNOWN AND NOT PLOTTED HEREON. SAID R.O.W. IS ADJACENT TO SUBJECT PROPERTY AND IS PLOTTED HEREON]
- TERMS AND CONDITIONS CONTAINED IN DECLARATION OF TAKING AS DISCLOSED BY INSTRUMENT RECORDED IN LIBER 17775, PAGE 477, REGISTER NO. F616378. [SAID R.O.W. IS ADJACENT TO SUBJECT PROPERTY AND IS PLOTTED HEREON]
- 10. TERMS AND CONDITIONS CONTAINED IN DEED AS DISCLOSED BY INSTRUMENT RECORDED IN LIBER 25454, PAGE 806. [SAID DEEDED LAND IS PLOTTED HEREON]

LEGAL DESCRIPTION

LAND IN THE TOWNSHIP OF VAN BUREN, WAYNE COUNTY, MI, DESCRIBED

LAND IN THE TOWNSHIP OF VAN BUREN, COUNTY OF WAYNE, STATE OF MICHIGAN, DESCRIBED AS: A PARCEL OF LAND BEING A PART OF THE SOUTHEAST % OF SECTION 15, TOWN 3 SOUTH, RANGE 8 EAST, VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN, MORE PARTICULARLY

BEGINNING AT THE INTERSECTION OF THE NORTH AND SOUTH 1/4 LINE OF SAID SECTION 15, TOWN 3 SOUTH, RANGE 8 EAST, WITH THE NORTH LINE OF THE NORTH SERVICE DRIVE OF INTERSTATE HIGHWAY 94, SAID POINT BEING NORTH 04 DEGREES 05 MINUTES 43 SECONDS WEST, 407.84 FEET FROM THE SOUTH 1/2 CORNER OF SAID SECTION 15: THENCE NORTH 04 DEGREES 05 MINUTES 43 SECONDS WEST, 2250.04 FEET TO THE CENTER 1/4 CORNER OF SAID SECTION 15: THENCE NORTH 85 DEGREES 31 MINUTES 38 SECONDS EAST, 1331.71 FEET ALONG THE EAST AND WEST 1/4 LINE OF SAID SECTION; THENCE SOUTH 03 DEGREES 45 MINUTES 05 SECONDS EAST, 2288.05 FEET TO A POINT ON A CURVE ON THE NORTH LINE OF SAID NORTH SERVICE DRIVE OF INTERSTATE HIGHWAY 94; THENCE WESTERLY ALONG SAID NORTH LINE ON A CURVE TO THE RIGHT 1221.41 FEET MEASURED ALONG THE ARC OF SAID CURVE TO A POINT OF TANGENT, SAID CURVE HAVING A RADIUS OF 57,069.78 FEET AND A CENTRAL ANGLE OF 01 DEGREE 13 MINUTES 34.5 SECONDS, THE CHORD OF SAID CURVE BEARS SOUTH 87 DEGREES 07 MINUTES 45 SECONDS WEST AND HAS A LENGTH OF 1221.39 FEET THENCE SOUTH 87 DEGREES 44 MINUTES 32 SECONDS WEST, 96.89 FEET ALONG SAID NORTH LINE TO THE POINT OF

SURVEY NOTES

THERE WAS NO OBSERVABLE EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS WITHIN RECENT

THERE ARE NO CHANGES IN STREET RIGHT-OF-WAY LINES EITHER COMPLETED OR PROPOSED, AND AVAILABLE FROM THE CONTROLLING

THERE WAS NO OBSERVABLE EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.

THERE WAS NO OBSERVABLE EVIDENCE OF SITE USE AS A SOLID WASTE

SITE DATA

83-060-69-0002-001

DUMP, SUMP OR SANITARY LANDFILL.

2,980,563 SQUARE FEET 68.424 ACRES GROSS LAND AREA

ZONING CLASSIFICATION, BUILDING HEIGHT AND FLOOR SPACE AREA RESTRICTIONS, SETBACK AND PARKING REQUIREMENTS CAN ONLY BE SHOWN ONCE THE CLIENT PROVIDES A ZONING REPORT OR LETTER PURSUANT TO 2016 ALTA/NSPS LAND TITLE SURVEY REQUIREMENTS

FLOOD HAZARD NOTE

THIS PROPERTY IS NOT LOCATED WITHIN A FLOOD HAZARD AREA INDICATED BY FLOOD INSURANCE RATE MAP (FIRM) NO. 26163C0351E, EFFECTIVE DATE: FEBRUARY 2, 2012.

SURVEYOR'S CERTIFICATION

CERTIFIED TO:

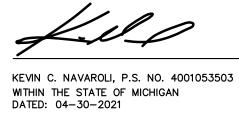
LIVONIA PROPERTY, LLC, A MICHIGAN LIMITED LIABILITY COMPANY

BELLEVILLE NORTH MARSH VENTURE, LLC, A MICHIGAN LIMITED LIABILITY COMPANY

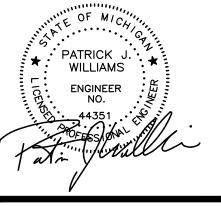
FIRST AMERICAN TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDE ITEMS 2, 3, 4, 7(a), 7(b)(1), 7(c), 8, 9, 11, 13, 16 AND 17 OF TABLE A THEREOF.

THE FIELD WORK WAS COMPLETED ON APRIL 24, 2021







PROJECT 20 Acre Vacant Parcel I-94 Service Drive East of Belleville Road

CLIENT

SEAL

CSM Companies Inc 5100 Eastpark Blvd Suite 210 Madison, WI 53718

Contact: Jeff Minter Ph: (608) 241-5616

PROJECT LOCATION

Part of the Southeast $\frac{1}{4}$ of Section 15 T. 3 South, R. 8 East Van Buren Twp., Wayne County, Michigan

SHEET

Boundary / Topographic / **ALTA/NSPS** Land Title Survey



DATE ISSUED/REVISED 04-25-2022 REVISED PER COUNTY 05-23-2022 REVISED PER COUNTY 06-01-2022 REVISED PER COUNTY 06-09-2022 REVISED PER COUNTY

07-14-2022 REVISED PER TOWNSHIP

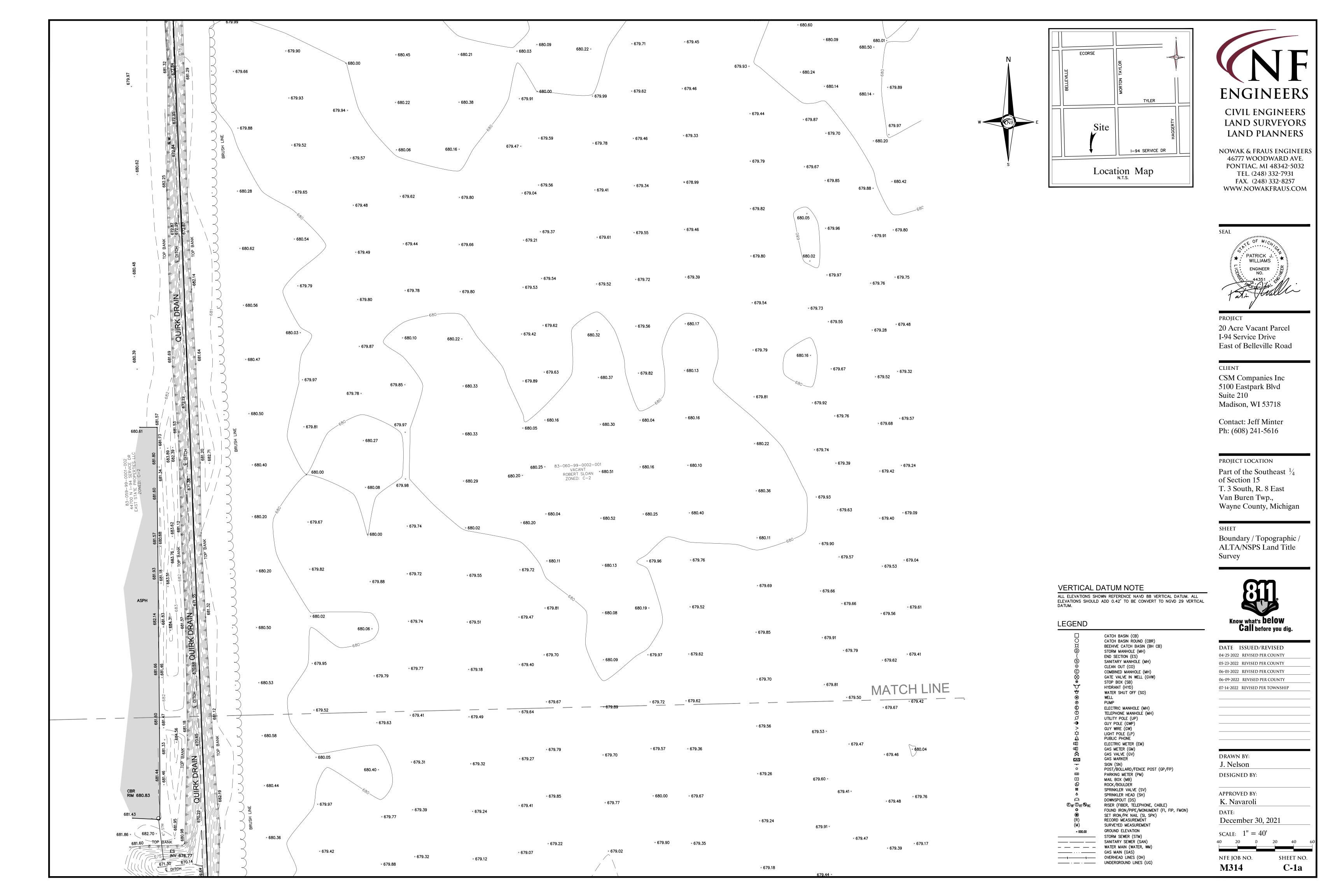
DRAWN BY: J. Nelson **DESIGNED BY:**

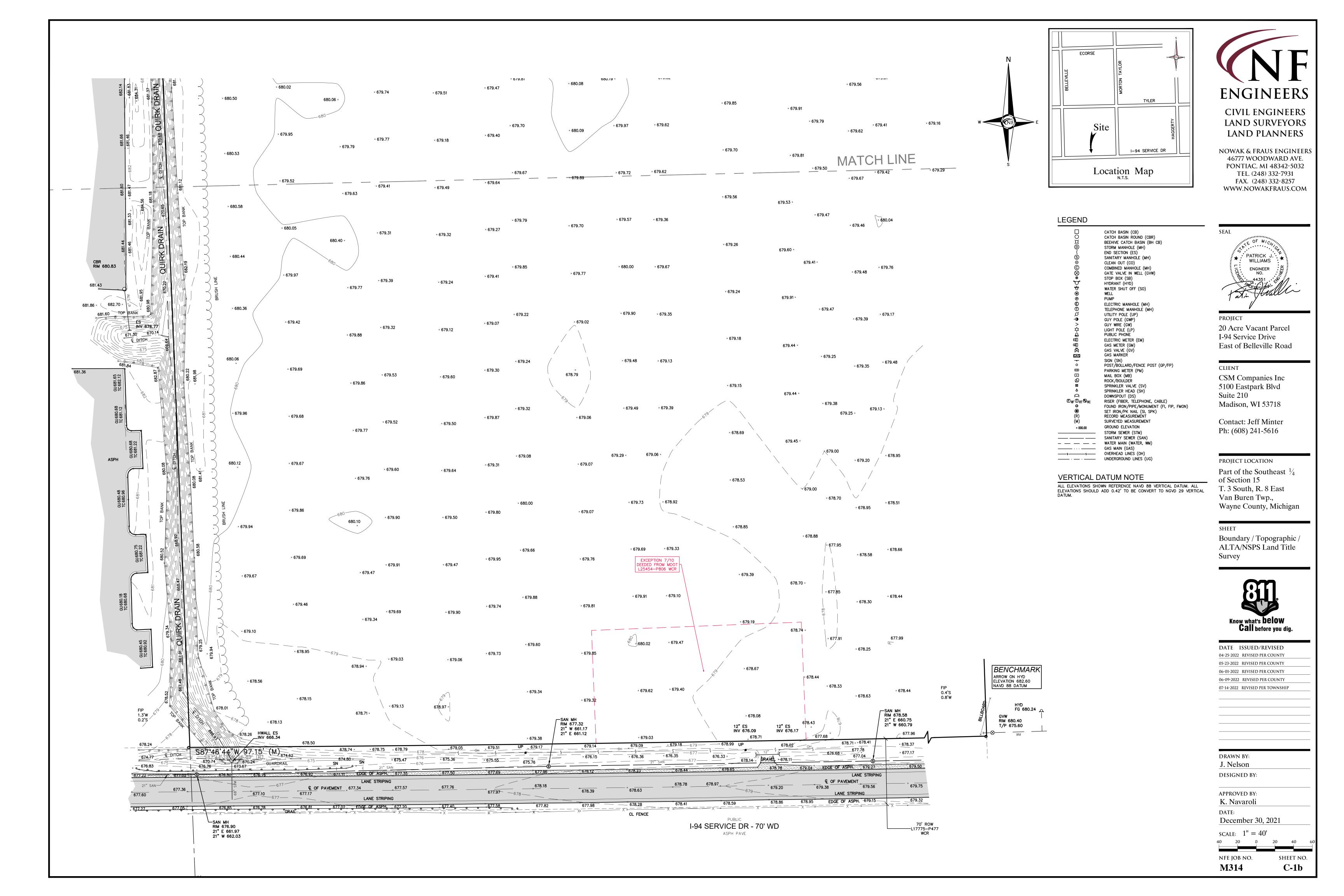
APPROVED BY: K. Navaroli

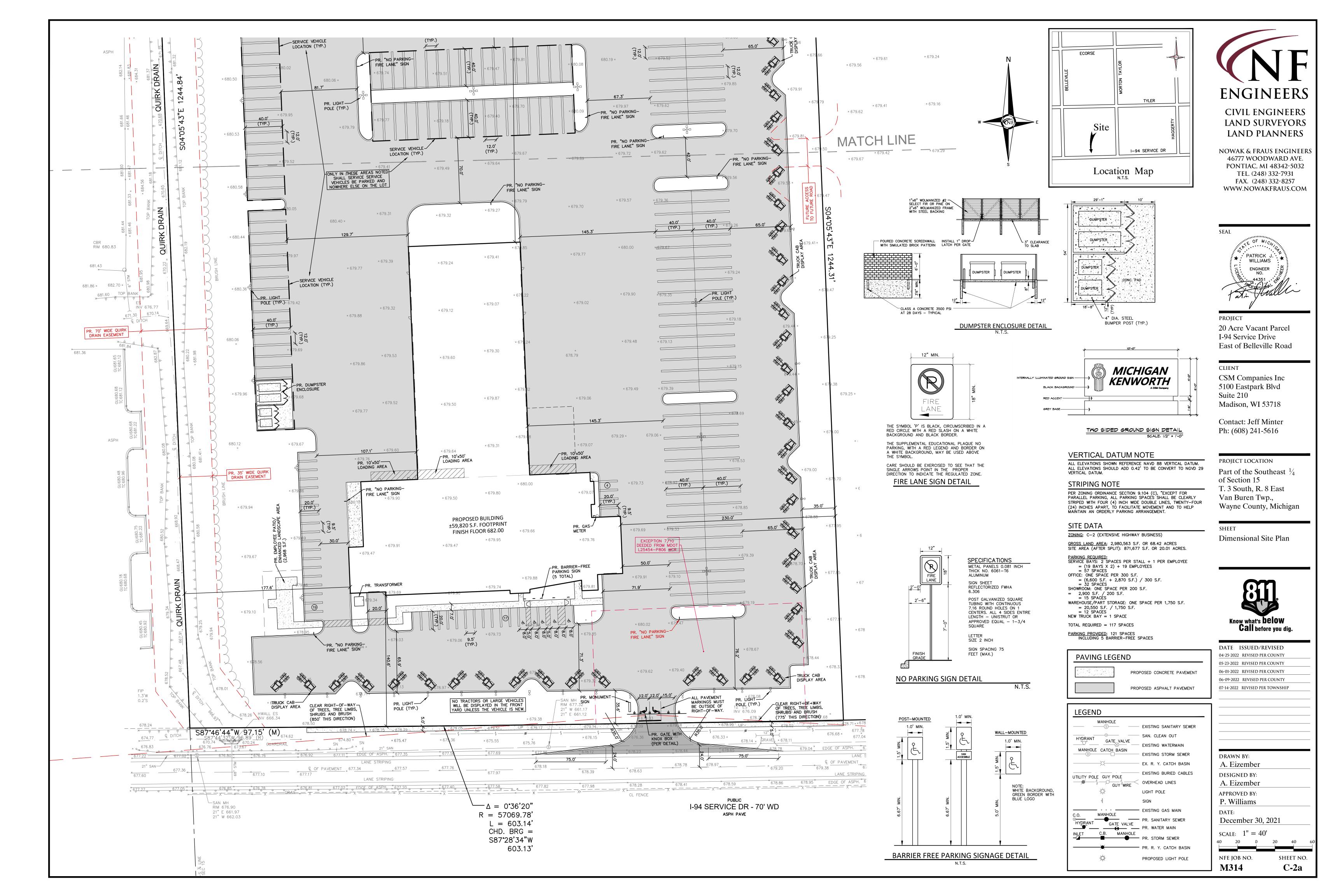
DATE: December 30, 2021

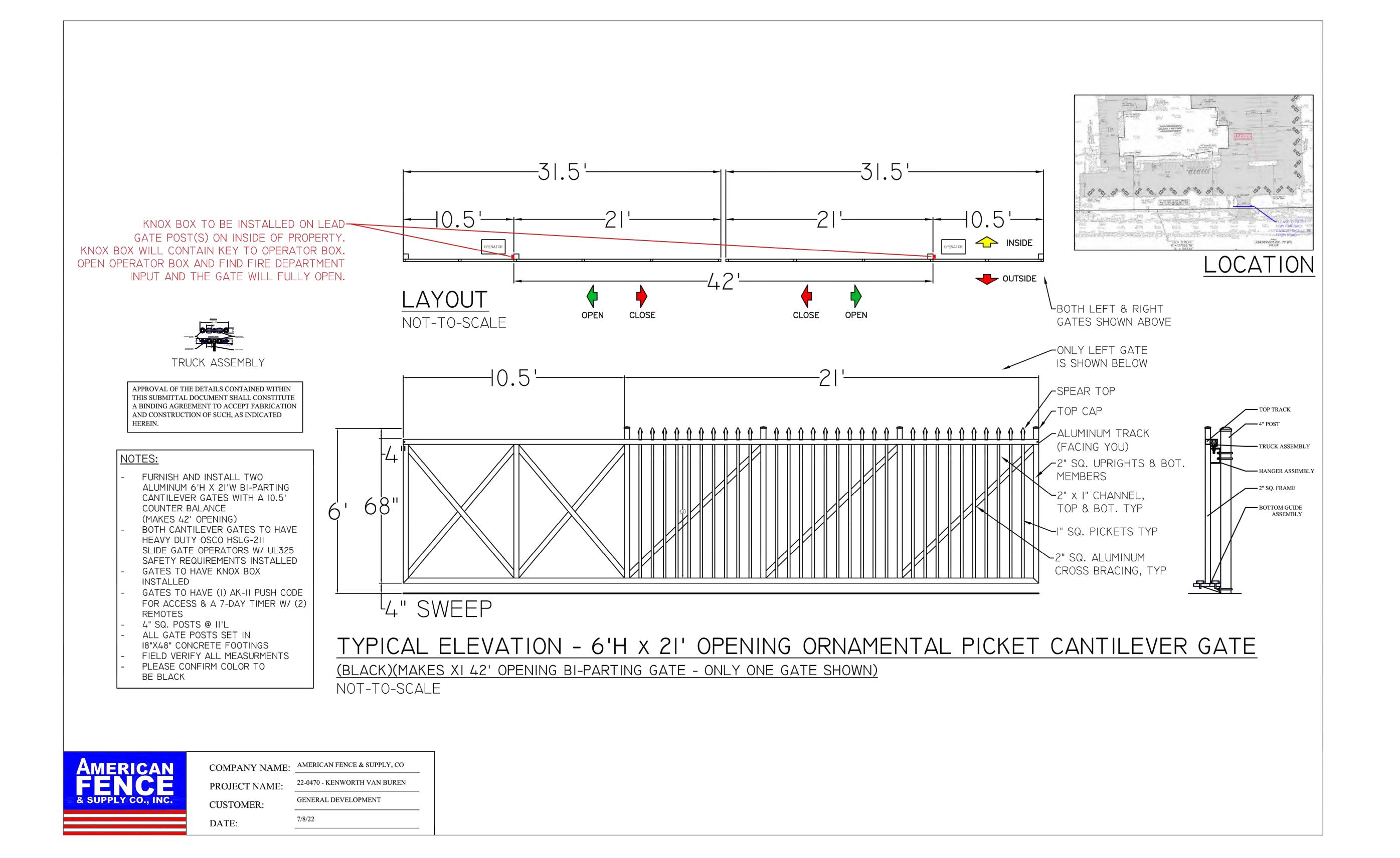
NFE JOB NO. **M314**

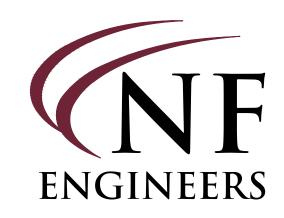
SHEET NO. **C-1**











CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS

NOWAK & FRAUS ENGINEERS 46777 WOODWARD AVE. PONTIAC, MI 48342-5032 TEL. (248) 332-7931 FAX. (248) 332-8257 WWW.NOWAKFRAUS.COM



PROJECT 20 Acre Vacant Parcel I-94 Service Drive East of Belleville Road

CLIENT

CSM Companies Inc 5100 Eastpark Blvd Suite 210 Madison, WI 53718

Contact: Jeff Minter Ph: (608) 241-5616

PROJECT LOCATION

Part of the Southeast $\frac{1}{4}$ of Section 15 T. 3 South, R. 8 East Van Buren Twp., Wayne County, Michigan

Entry Gate Details



DATE ISSUED/REVISED 04-25-2022 REVISED PER COUNTY 05-23-2022 REVISED PER COUNTY 06-01-2022 REVISED PER COUNTY 07-14-2022 REVISED PER TOWNSHIP

DRAWN BY: A. Eizember **DESIGNED BY:**

A. Eizember APPROVED BY:

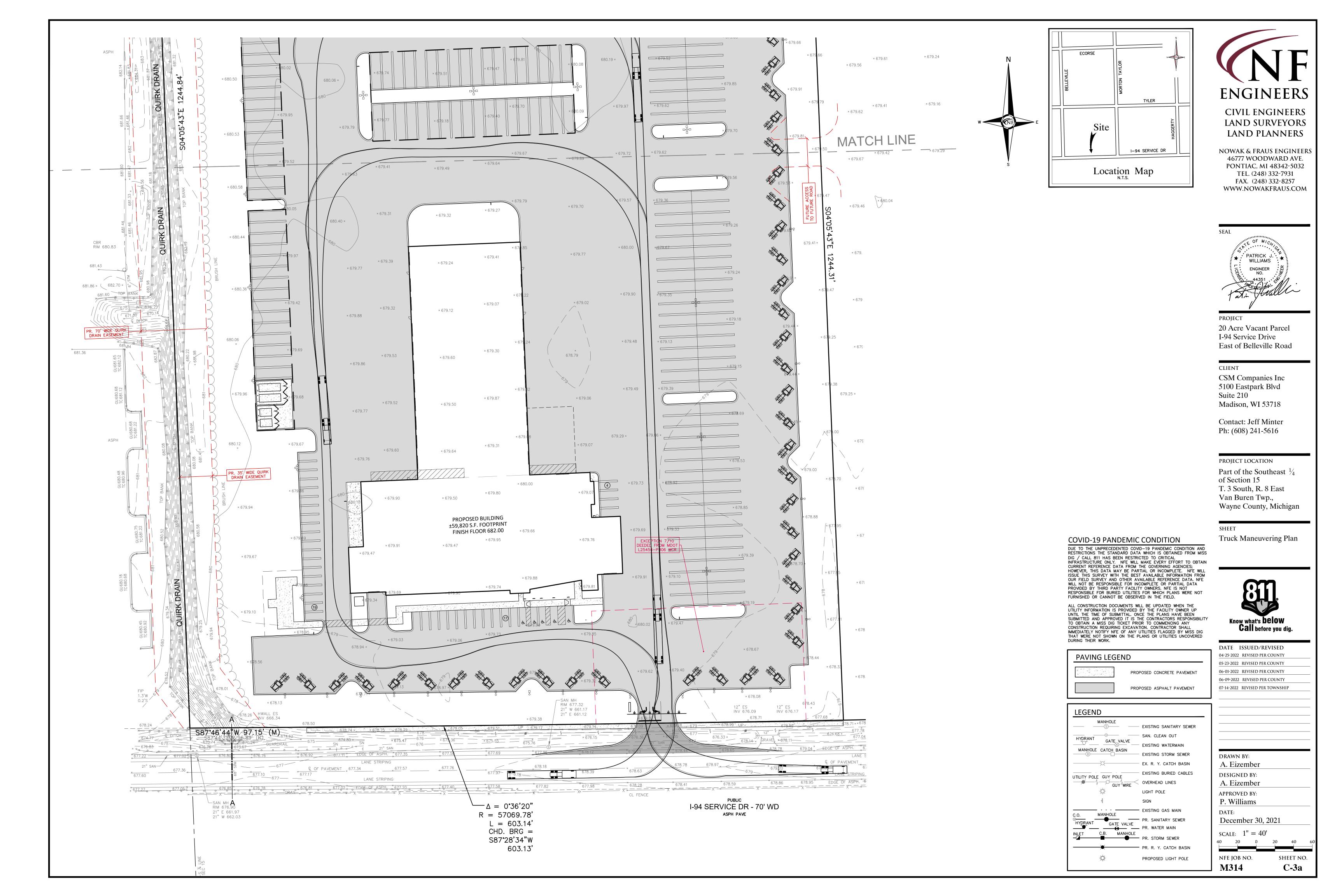
P. Williams

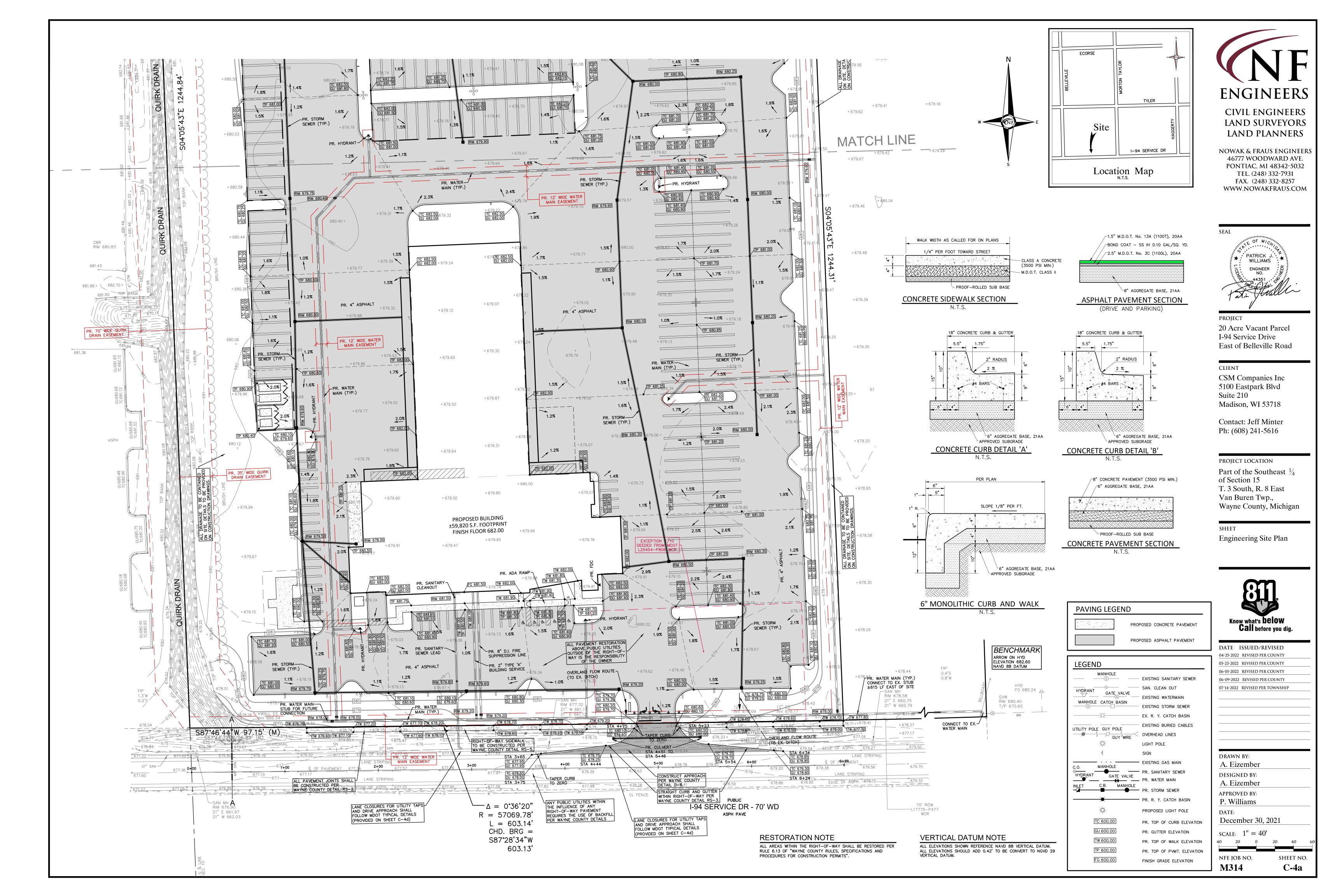
December 30, 2021

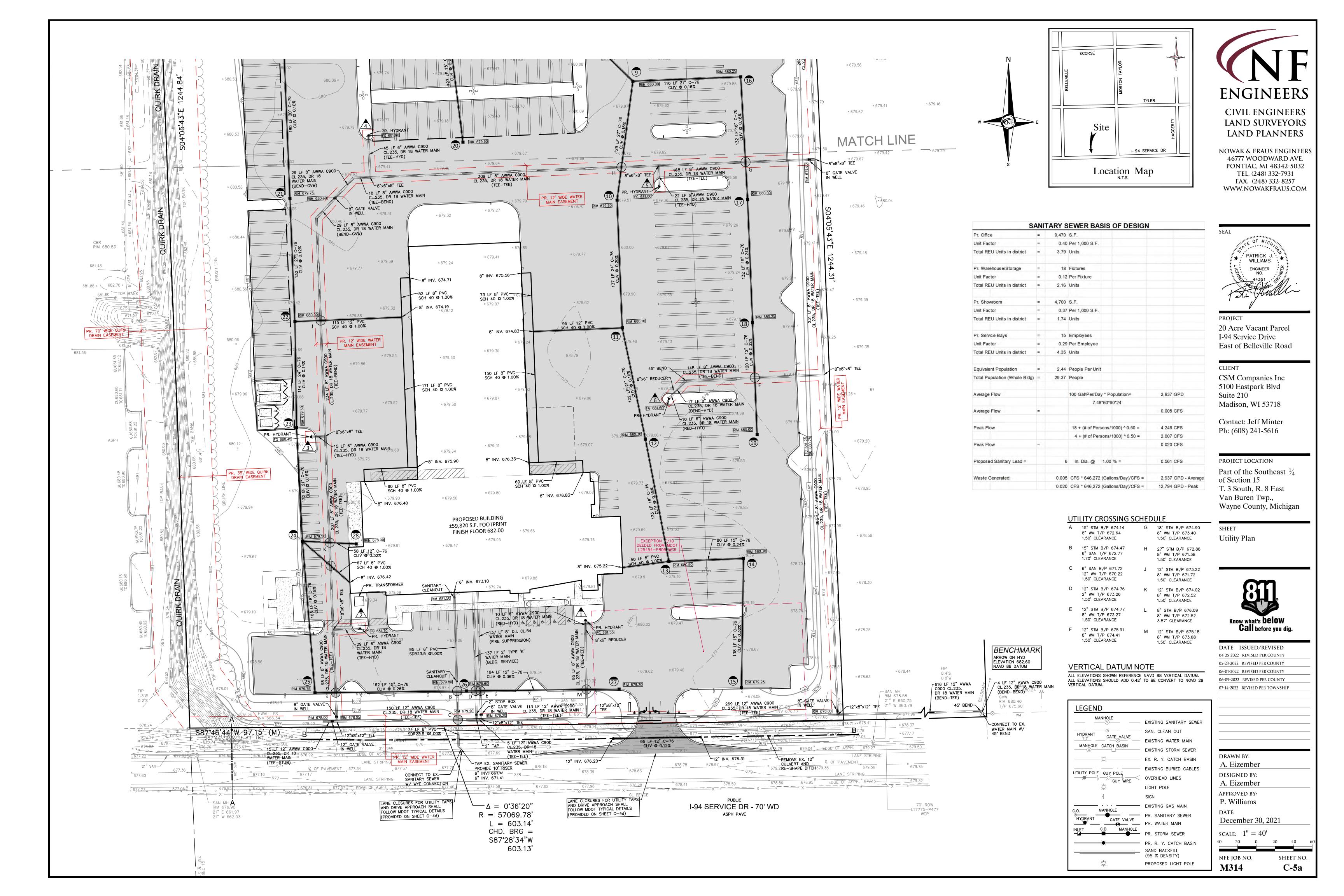
SCALE: N.T.S.

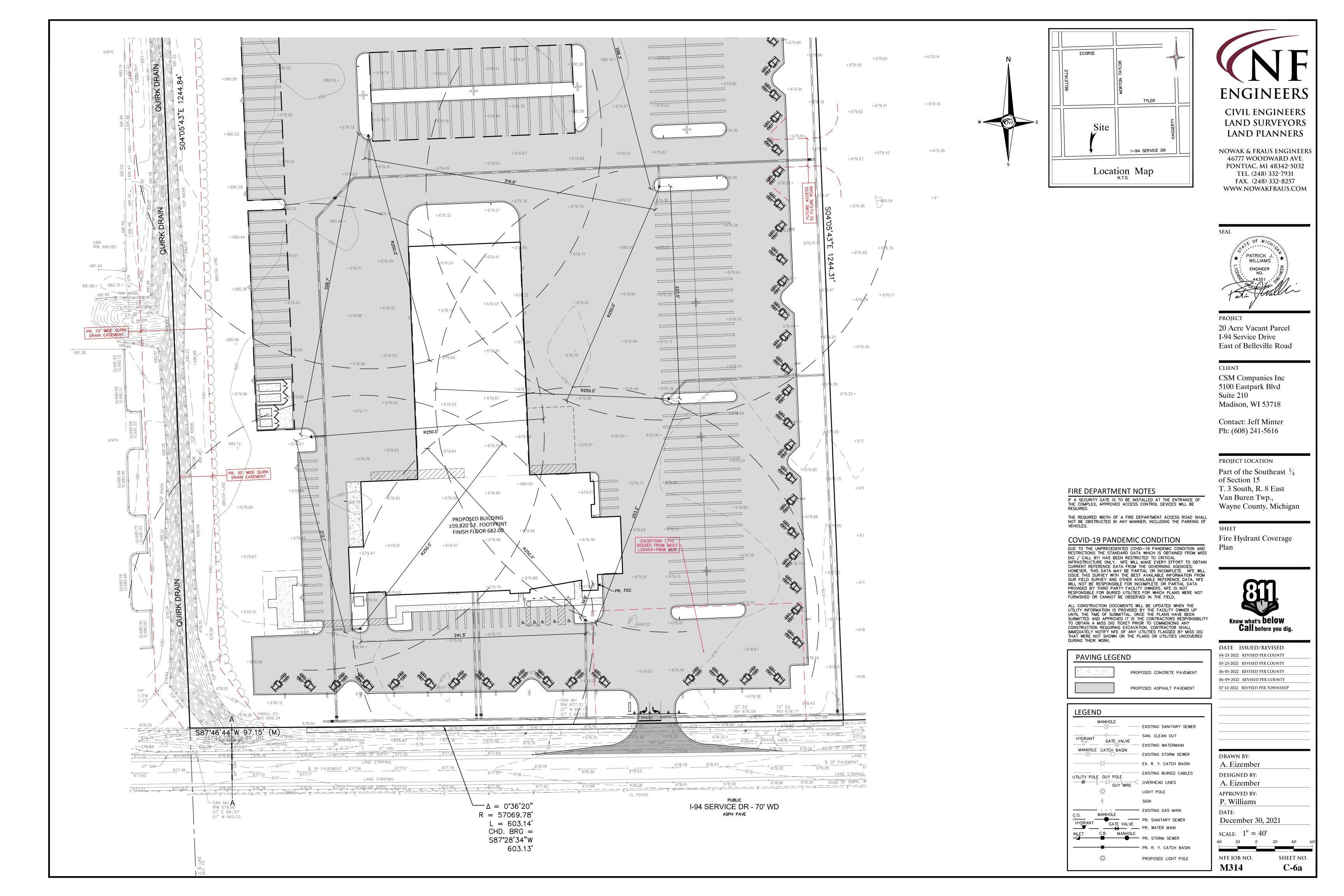
NFE JOB NO. **M314**

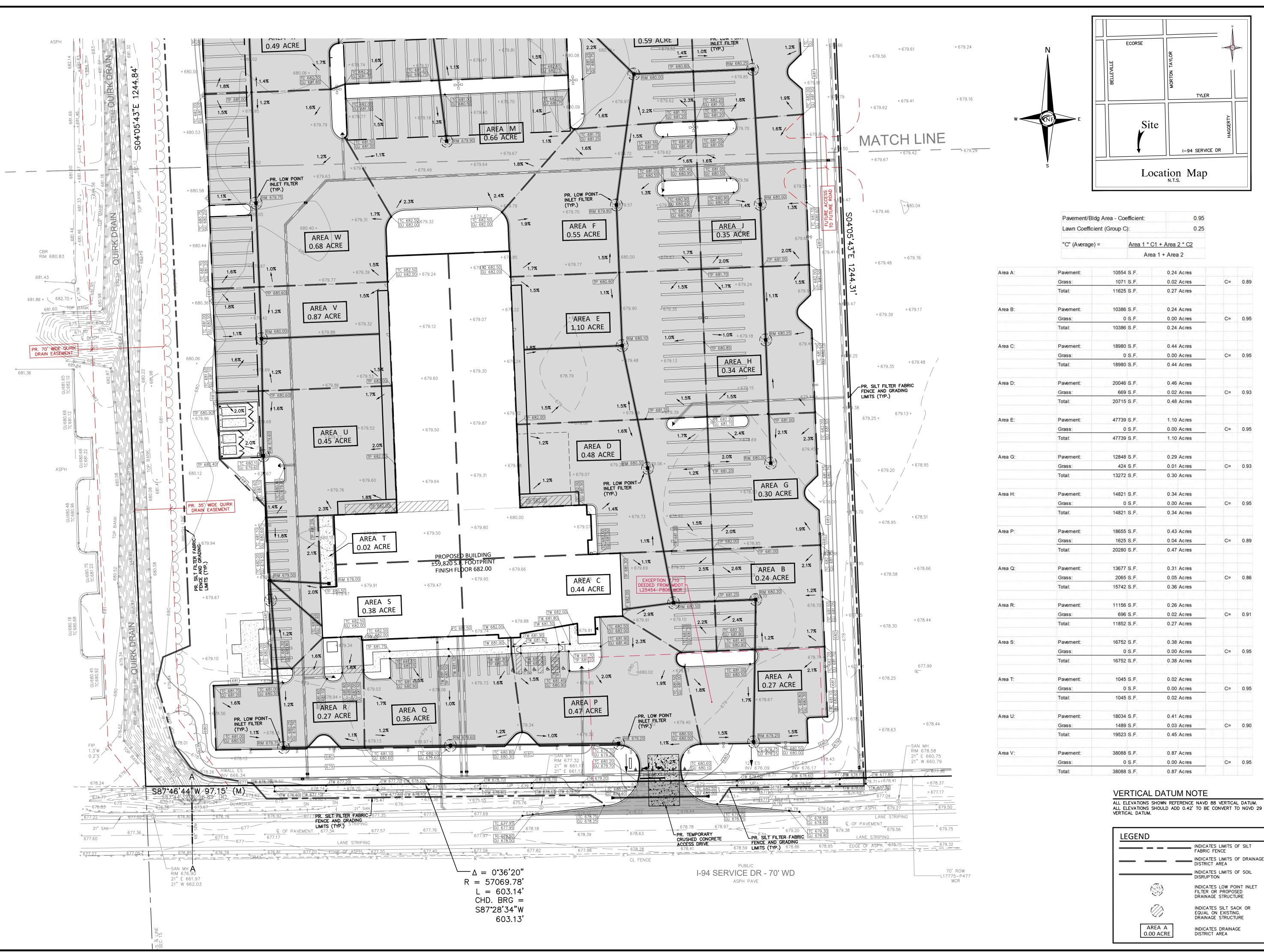
SHEET NO. **C-2b**

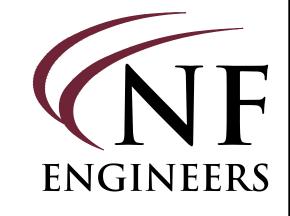












CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS

NOWAK & FRAUS ENGINEERS 46777 WOODWARD AVE. PONTIAC, MI 48342-5032 TEL. (248) 332-7931 FAX. (248) 332-8257 WWW.NOWAKFRAUS.COM

SEAL PATRICK J. WILLIAMS ENGINEER NO.

PROJECT 20 Acre Vacant Parcel I-94 Service Drive East of Belleville Road

CLIENT

CSM Companies Inc 5100 Eastpark Blvd Suite 210 Madison, WI 53718

Contact: Jeff Minter Ph: (608) 241-5616

PROJECT LOCATION

Part of the Southeast $\frac{1}{4}$ of Section 15 T. 3 South, R. 8 East Van Buren Twp., Wayne County, Michigan

SHEET

Soil Erosion Control / Drainage Area Plan



DATE ISSUED/REVISED 04-25-2022 REVISED PER COUNTY 05-23-2022 REVISED PER COUNTY 06-01-2022 REVISED PER COUNTY 06-09-2022 REVISED PER COUNTY 07-14-2022 REVISED PER TOWNSHIP

LEGEND	
	INDICATES LIMITS OF SILT FABRIC FENCE
	INDICATES LIMITS OF DRAINA DISTRICT AREA
	INDICATES LIMITS OF SOIL DISRUPTION
	INDICATES LOW POINT INLET FILTER OR PROPOSED DRAINAGE STRUCTURE
	INDICATES SILT SACK OR EQUAL ON EXISTING. DRAINAGE STRUCTURE
AREA A 0.00 ACRE	INDICATES DRAINAGE DISTRICT AREA

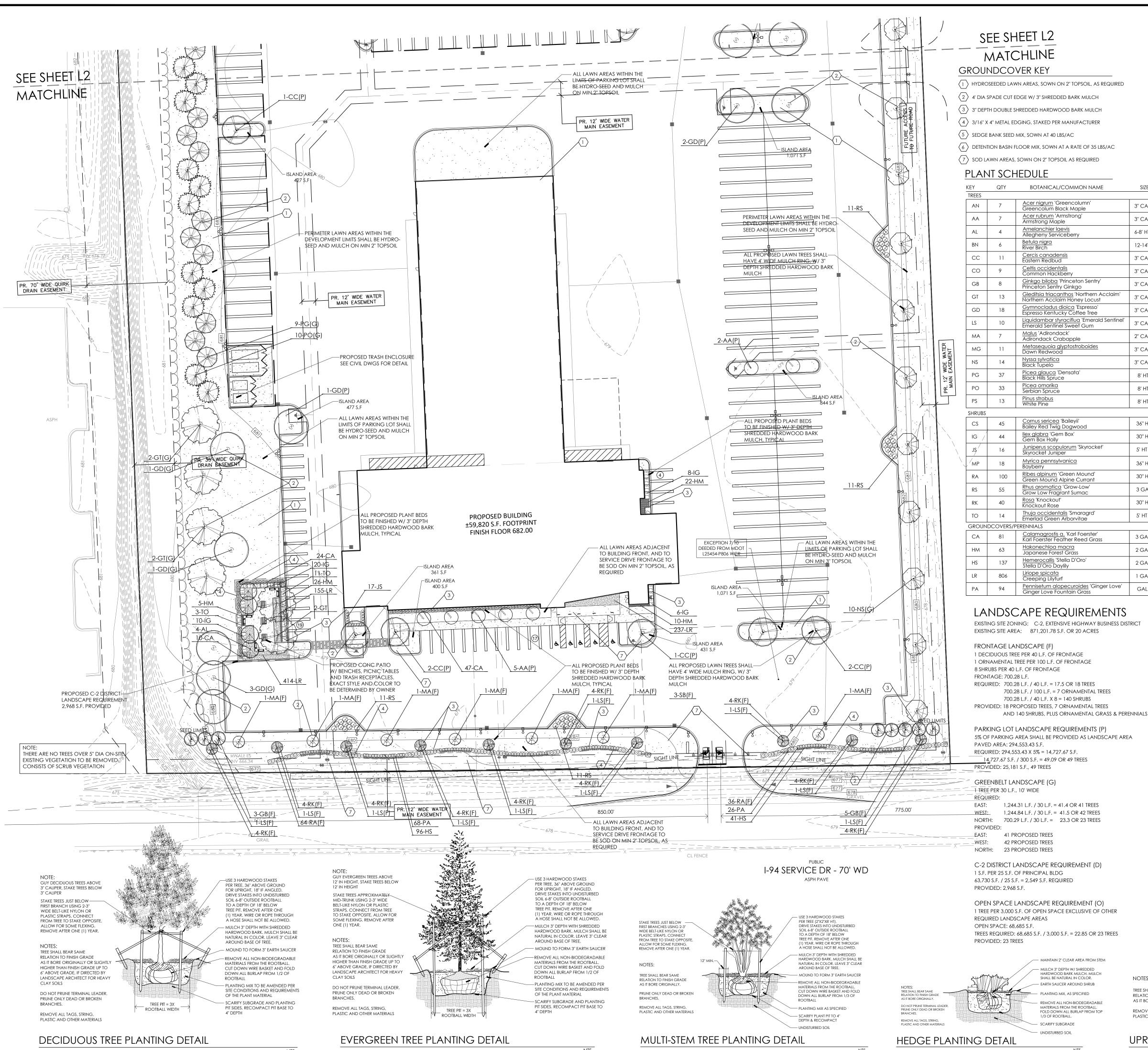
DRAWN BY:
A. Eizember
DESIGNED BY:
A. Eizember
APPROVED BY:
P. Williams
DATE:
December 30, 2021
SCALE: $1'' = 40'$
SCALE: $1'' = 40'$
40 20 0 20

SHEET NO.

C-9a

NFE JOB NO.

M314



SEE SHEET L2

1 HYDROSEEDED LAWN AREAS, SOWN ON 2" TOPSOIL, AS REQUIRED

 $\langle 2 \rangle$ 4' DIA SPADE CUT EDGE W/ 3" SHREDDED BARK MULCH

3 3" DEPTH DOUBLE SHREDDED HARDWOOD BARK MULCH

KEY	QTY	BOTANICAL/COMMON NAME	SIZE	SPACING	ROOT	COMMENT LOCATION M.
TREES						N.T.S.
AN	7	Acer nigrum 'Greencolumn' Greencolum Black Maple	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
AA	7	Acer rubrum 'Armstrong' Armstrong Maple	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
AL	4	Amelanchier laevis Allegheny Serviceberry	6-8' HT	SEE PLAN	B&B	CLUMP FORM
BN	6	Betula nigra River Birch	12-14' HT	SEE PLAN	B&B	CLUMP FORM
CC	11	Cercis canadensis Eastern Redbud	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
CO	9	Celtis occidentalis Common Hackberry	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
GB	8	Ginkgo biloba 'Princeton Sentry' Princeton Sentry Ginkgo	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
GT	13	Gleditsia triacanthos 'Northern Acclaim' Northern Acclaim Honey Locust	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
GD	18	Gymnocladus dioica 'Espresso' Espresso Kentucky Coffee Tree	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
LS	10	<u>Liquidambar styraciflua</u> 'Emerald Sentinel' Emerald Sentinel Sweet Gum	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
MA	7	Malus 'Adirondack' Adirondack Crabapple	2" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
MG	11	Metasequoia glyptostroboides Dawn Redwood	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
NS	14	Nyssa sylvatica Black Tupelo	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
PG	37	<u>Picea glauca</u> 'Densata' <u>Black Hills Spruce</u>	8' HT	SEE PLAN	B&B	FULL TO GROUND
РО	33	Picea omorika Serbian Spruce	8' HT	SEE PLAN	B&B	FULL TO GROUND
PS	13	Pinus strobus White Pine	8' HT	SEE PLAN	B&B	FULL TO GROUND
SHRUBS						
CS	45	Cornus sericea 'Baileyii' Bailey Red Twig Dogwood	36" HT	3' OC	B&B	
G \	44	<u>llex glabra</u> 'Gem Box'	30" HT	30" OC	B&B	MAINTAIN AS HEDGE

ECORSE

TYLER

1-94 SERVICE DR

31111003						
CS	45	Cornus sericea 'Baileyii' Bailey Red Twig Dogwood	36" HT	3' OC	B&B	
IG /	44	<u>llex glabra</u> 'Gem Box' Gem Box Holly	30" HT	30" OC	B&B	MAINTAIN AS HEDGE
JS	16	Juniperus scopulorum 'Skyrocket' Skyrocket Juniper	5' HT	30" OC	B&B	
MP	18	Myrica pennsylvanica Bayberry	36" HT	9' OC	B&B	
RA	100	Ribes alpinum 'Green Mound' Green Mound Alpine Currant	30" HT	30" OC	B&B	
RS	55	Rhus aromatica 'Grow-Low' Grow Low Fragrant Sumac	3 GAL	4' OC	CONT	
RK	40	Rosa 'Knockout' Knockout Rose	30" HT	30" OC	CONT	
TO	14	<u>Thuja occidentalis</u> 'Smaragrd' Emerlad Green Arborvitae	5' HT	30" OC	B&B	
GROUN	DCOVERS/F	PERENNIALS				
СА	81	<u>Calamagrostis a.</u> 'Karl Foerster' Karl Foerster Feather Reed Grass	3 GAL	30" OC	CONT	
НМ	63	Hakonechloa macra Japanese Forest Grass	2 GAL	24" OC	CONT	
HS	137	Hemerocallis 'Stella D'Oro'	2 GAI	24" OC	CONT	

GAL

15" OC

30" OC

CONT

CONT

PERENNIAL PLANTING DETAIL

ORNAMENTAL GRASS PLANTING DETAIL

LANDSCAPE REQUIREMENTS

EXISTING SITE ZONING: C-2, EXTENSIVE HIGHWAY BUSINESS DISTRICT EXISTING SITE AREA: 871,201.78 S.F. OR 20 ACRES

FRONTAGE LANDSCAPE (F) 1 DECIDUOUS TREE PER 40 L.F. OF FRONTAGE

1 ORNAMENTAL TREE PER 100 L.F. OF FRONTAGE 8 SHRUBS PER 40 L.F. OF FRONTAGE

REQUIRED: 700.28 L.F. / 40 L.F. = 17.5 OR 18 TREES 700.28 L.F. / 100 L.F. = 7 ORNAMENTAL TREES 700.28 L.F. / 40 L.F. X 8 = 140 SHRUBS PROVIDED: 18 PROPOSED TREES, 7 ORNAMENTAL TREES

PARKING LOT LANDSCAPE REQUIREMENTS (P) 5% OF PARKING AREA SHALL BE PROVIDED AS LANDSCAPE AREA

GREENBELT LANDSCAPE (G)

1 TREE PER 30 L.F., 10' WIDE

1,244.31 L.F. / 30 L.F. = 41.4 OR 41 TREES 1,244.84 L.F. / 30 L.F. = 41.5 OR 42 TREES 700.29 L.F. / 30 L.F. = 23.3 OR 23 TREES

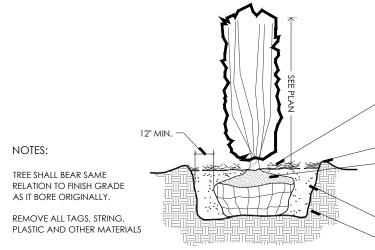
42 PROPOSED TREES 23 PROPOSED TREES

C-2 DISTRICT LANDSCAPE REQUIREMENT (D) 1 S.F. PER 25 S.F. OF PRINCIPAL BLDG 63,730 S.F. / 25 S.F. = 2,549 S.F. REQUIRED

OPEN SPACE LANDSCAPE REQUIREMENT (O) 1 TREE PER 3,000 S.F. OF OPEN SPACE EXCLUSIVE OF OTHER REQUIRED LANDSCAPE AREAS TREES REQUIRED: 68,685 S.F. / 3,000 S.F. = 22.85 OR 23 TREES

> MAINTAIN 2" CLEAR AREA FROM STEM MULCH 3" DEPTH W/ SHREDDED SHALL BE NATURAL IN COLOR. - EARTH SAUCER AROUND SHRUB PLANTING MIX, AS SPECIFIED REMOVE ALL NON-BIODEGRADABLE MATERIALS FROM THE ROOTBAL OLD DOWN ALL BURLAP FROM TOP 1/3 OF ROOTBALL.

SCARIFY SUBGRADE



Part of the Southeast $\frac{1}{2}$ of Section 15 T. 3 South, R. 8 East Van Buren Twp., Wayne County, Michigan

SHALL BE NATURAL IN COLOR.

UNDISTURBED SUBGRADI

ACCORDING TO PLANTING PLAN

HARDWOOD BARK MULCH. MULCH SHALL BE NATURAL IN COLOR.

MULCH 3" DEPTH WITH SHREDDED

AROUND BASE OF TREE.

HARDWOOD BARK. MULCH SHALL BE NATURAL IN COLOR. LEAVE 3" CLEAR

- MOUND TO FORM 3" EARTH SAUCER

- REMOVE ALL NON-BIODEGRADABLE

CUT DOWN WIRE BASKET AND FOLD

DOWN ALL BURLAP FROM 1/3 OF

MATERIALS FROM THE ROOTBALL.

- MULCH 2" DEPTH W/ SHREDDED

AS SPECIFIED

UNDISTURBED SUBGRADE

PROJECT

CLIENT

Suite 210

20 Acre Vacant Parcel

East of Belleville Road

I-94 Service Drive

CSM Companies Inc 5100 Eastpark Blvd

Madison, WI 53718

Contact: Jeff Minter Ph: (608) 241-5616

PROJECT LOCATION

SHEET Landscape Plan

ENGINEERS

CIVIL ENGINEERS

LAND SURVEYORS

LAND PLANNERS

NOWAK & FRAUS ENGINEERS

46777 WOODWARD AVE

PONTIAC, MI 48342-5032 TEL. (248) 332-7931 FAX. (248) 332-8257 WWW.NOWAKFRAUS.COM



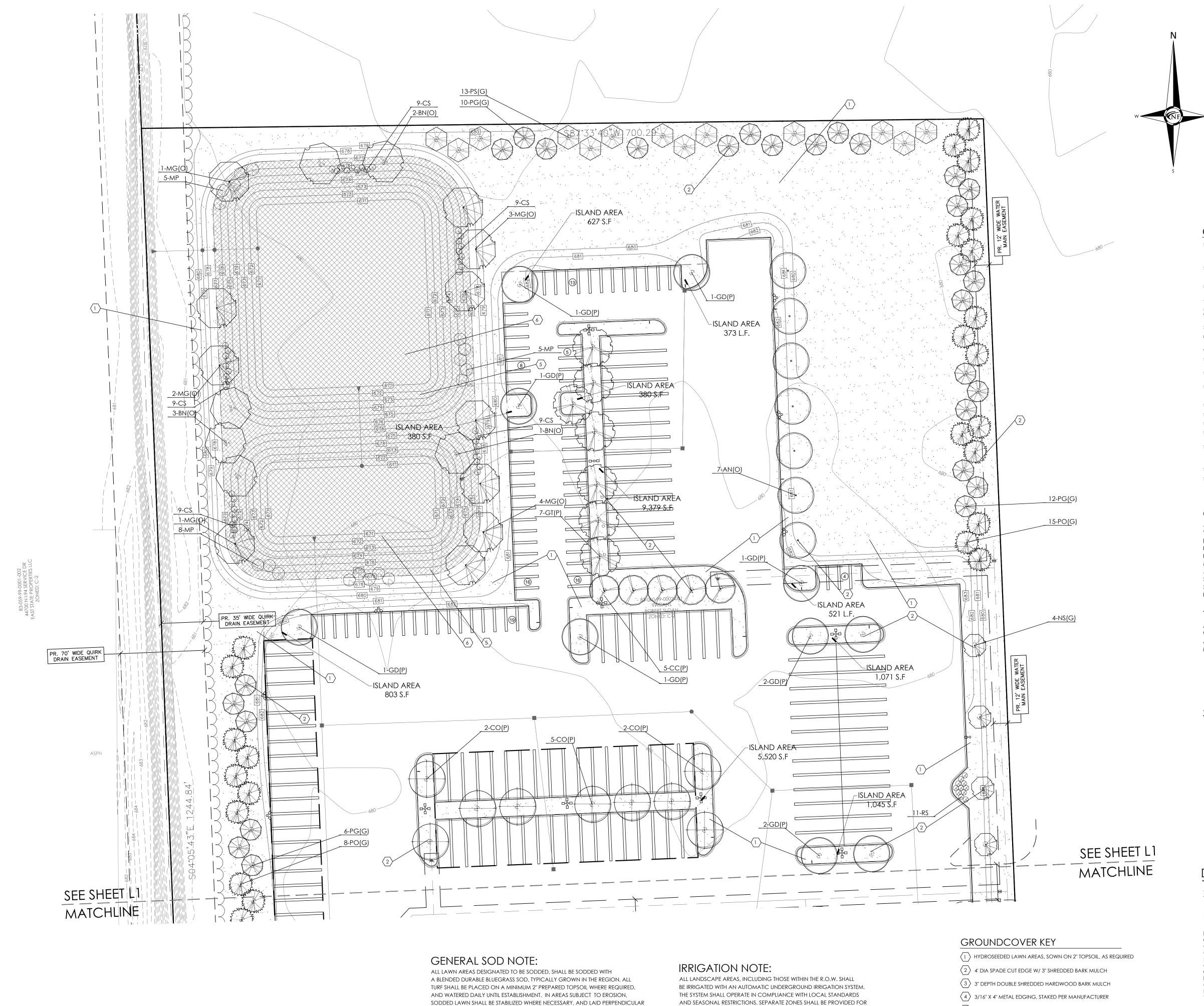
DATE ISSUED/REVISED 08/26/21 REVISED PER TWP REVIEW 10/18/21 REVISED PER TWP REVIEW 04/25/22 REVISED PER WAYNE COUNTY 06/09/22 REVISED PER WAYNE COUNTY 07/13/22 REVISED PER TWP

DRAWN BY: G. Ostrowski **DESIGNED BY:** G. Ostrowski APPROVED BY: G. Ostrowski

DATE: May 21, 2021 SCALE: 1'' = 40'

NFE JOB NO. SHEET NO. **M314**

UPRIGHT EVERGREEN SHRUB PLANTING DETAIL



TO SLOPES. SOD INSTALLATION SHALL OCCUR ONLY:

SPRING: APRIL1 TO JUNE1

FALL: AUGUST 15 TO OCTOBER 15



GENERAL LANDSCAPE NOTES

LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING CONDITION AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, THE PLAN SHALL GOVERN QUANTITIES. CONTACT THE LANDSCAPE ARCHITECT WITH ANY

- THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON-SITE UTILITIES
 PRIOR TO BEGINNING CONSTRUCTION ON HIS/HER PHASE OF WORK, ANY
 DAMAGE OR INTERUPTION OF SERVICES SHALL BE THE RESPONSIBILITY
- DAMAGE OR INTERUPIION OF SERVICES SHALL BE THE RESPONSIBILITY
 OF THE CONTRACTOR.

 3. THE CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH
 OTHER TRADES, AND SHALL REPORT ANY UNACCEPTACBLE SITE CONDITIONS
 TO THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT.

 4. PLANTS SHALL BE FULL, WELL-BRANCHED, AND IN HEALTHY VIGOROUS
 GROWING CONDITION.

 5. PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE.

 4. TREES WAITS BE STAYED SEPTILITED AND MILL CHED, AND SHALL BE

- PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE.
 ALL TREES MUST BE STAKED, FERTILIZED AND MULCHED AND SHALL BE
 GUARANTEED TO EXHIBIT A NORMAL GROWTH CYCLE FOR AT LEAST ONE (1)
 YEAR FOLLOWING PLANTING.
 ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST
 RECENT EDITION OF THE "AMERICAN STANDARDS FOR NURSERY STOCK".
 CONTRACTOR WILL SUPPLY FINISHED GRADE AND EXCAVATE AS NECESSARY TO
 SUPPLY PLANT MIX DEPTH IN ALL PLANTING BEDS AS INDICATED IN PLANT DETAILS
 AND A DEPTH OF 2", WHERE REQUIRED, IN ALL LAWN AREAS.
 PROVIDE CLEAN BACKFILL SOIL, USING MATERIAL STOCKPILED ON-SITE. SOIL
 SHALL BE SCREENED AND FREE OF DEBRIS, FOREIGN MATERIAL, AND STONE.
 LOW-REI FAST FERTILIZER SHALL IS FADDED TO THE PLANT PITS BEFORE
- 10. SLOW-RELEASE FERTILIZER SHALL BE ADDED TO THE PLANT PITS BEFORE BEING BACKFILLED. APPLICATION SHALL BE AT THE MANUFACTURERS RECOMMENDED

- BEING BACKFILLED. APPLICATION SHALL BE AT THE MANUFACTURERS RECOMMENDED RATES.

 11. AMENDED PLANT MIX (PREPARED TOPSOIL) SHALL CONSIST OF 1/3 SCREENED TOPSOIL, 1/3 SAND, AND 1/3 "DAIRY DOO" COMPOST, MIXED WELL AND SPREAD TO A DEPTH AS INDICATED IN PLANTING DETAILS.

 12. ALL PLANTINGS SHALL BE MULCHED WITH SHREDDED HARDWOOD BARK, SPREAD TO A DEPTH OF 3" FOR TREES AND SHRUBS, AND 2" ON ANNUALS, PERENNIALS, AND GROUNDCOVER PLANTINGS. MULCH SHALL BE FREE FROM DEBRIS AND FOREIGN MATERIAL, AND PIECES ON INCONSISTENT SIZE.

 13. NO SUBSTITUTIONS OR CHANGES OF LOCATION, OR PLANT TYPE SHALL BE MADE WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE.

 14. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS PRIOR TO INSTALLATION.

 15. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANT MATERIAL IN A VERTICAL CONDITION THROUGHOUT THE GUARANTEED PERIOD.

 16. THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIAL THAT DOES NOT MEET THE REQUIREMENTS OF THE PLANS AND/OR SPECIFICATIONS.

 17. THE LANDSCAPE CONTRACTOR SHALL SEED AND MULCH OR SOD (AS INDICATED ON PLANS) ALL AREAS DESIGNATED AS SUCH ON THE PLANS, THROUGHOUT THE CONTRACT LIMITS, FURTHER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING AREAS DISTURBED DURING CONSTRUCTION, NOT IN THE CONTRACT LIMITS, TO EQUAL OR GREATER CONDITION.
- 18. ALL LANDSCAPE AREAS SHALL HAVE PROPER DRAINAGE THAT PREVENTS EXCESSIVE WATER FROM PONDING ON LAWN AREAS OR AROUND TREES AND SHRUBS.

 19. ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND

GENERAL SEED NOTE:

ALL LAWN AREAS DESIGNATED TO BE SEEDED, SHALL BE HYDRO-SEEDED WITH SPECIFIED BLENDS, AND STABILIZED WITH WOOD CELLULOSE FIBER MULCH (2,000 LBS PER ACRE) . IN AREAS SUBJECT TO EROSION, SEEDED LAWN SHALL BE FURTHER STABILIZED WHERE NECESSARY WITH BIODEGRADABLE EROSION BLANKET AND STAKED UNTIL ESTABLISHED. ALL SEED SHALL BE APPLIED OVER A MINIMUM 2" PREPARED TOPSOIL WHERE REQUIRED, AND SHALL BE KEPT MOIST AND WATERED DAILY UNTIL ESTABLISHED. SEEDING INSTALLATION SHALL OCCUR ONLY: SPRING: APRIL1 TO JUNE1 FALL: AUGUST 15 TO OCTOBER 15

TYPICAL SEEDED LAWN MIX:

ALL LAWN AREAS DESIGNATED TO BE SEEDED, SHALL BE HYDROSEEDED WITH TYPICAL DROUGHT TOLERANT, DURABLE BLENDED SEED MIX, AT A RATE OF 220 LBS PER ACRE MIX IS COMPRISED OF

30% NITE HAWK PERENNIAL RYE 30% KENTUCKY BLUEGRASS 20% CREEPING RED FESCUE 10% MERIT KENTUCKY BLUEGRASS 10% NEWPORT KENTUCKY BLUEGRASS

SEDGE BANK SEED MIX

*CONTAINS 10 NATIVE GRASSES AND 2 TEMPORARY GRASSES 70% TEMPORARY GRASSES 30% NATIVE GRASSES COSMOS SEDGE SEED OATS AMERICAN SLOUGH GRASS FRINGED SEDGE LRID SEDGE ANNUAL RYE FOX SEDGE CREEPING SPIKE RUSH FOWL MANNA GRASS COMMON RUSH HARDSTEM BULRUSH GREEN BULRUSH **WOOL GRASS** SOFT-STEM BULRUSH GIANT BUR REED

RECOMMENDED SEEDING RATE: SEED MIX AVAILABLE: NATIVESCAPE, LLC PO BOX 122

MANCHESTER, MI 48158 T 517.456.9696

DETENTION BASIN FLOOR MIX

WILDFLOWERS NEW ENGLAND ASTER PALE INDIAN PLANTAIN JOE PYE WEED BONESET OX EYE SUNFLOWER DENSE BLAZINGSTAR GREAT BLUE LOBELIA CARDINAL FLOWER GREEN-HEADED CONEFLOWER BLACK-EYED SUSAN OHIO GOLDENROD

PRAIRIE CORD GRASS WETLAND SEDGES TEMPORARY GRASSES SEED OATS ANNUAL RYE WINTER WHEAT

AMERICAN SLOUGH GRASS

NATIVE GRASSES

CANADA WILD RYE

DARK GREEN BULRUSH

BIG BLUSTEM

INDIAN GRASS

BLUE VERVAIN CULVER'S ROOT IRONWEED YELLOW CONEFLOWER

5 SEDGE BANK SEED MIX, SOWN AT 40 LBS/AC

6 DETENTION BASIN FLOOR MIX, SOWN AT A RATE OF 35 LBS/AC

7 SOD LAWN AREAS, SOWN ON 2" TOPSOIL AS REQUIRED

LAWN AREAS AND PLANTING BEDS. IRRIGATION SHALL BE DESIGNED IN THE

THE MOST EFFICIENT MANNER NECESSARY TO FULLY IRRIGATE ALL PLANTING AREAS.

RECOMMENDED SEEDING RATE: 35-40 LBS/ACRE SEED MIX AVAILABLE: NATIVESCAPE, LLC PO BOX 122 MANCHESTER, MI 48158 T 517.456.9696

ENGINEERS CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS

NOWAK & FRAUS ENGINEERS 46777 WOODWARD AVE. PONTIAC, MI 48342-5032 TEL. (248) 332-7931 FAX. (248) 332-8257 WWW.NOWAKFRAUS.COM



PROJECT

20 Acre Vacant Parcel I-94 Service Drive East of Belleville Road

CLIENT

CSM Companies Inc 5100 Eastpark Blvd Suite 210 Madison, WI 53718

Contact: Jeff Minter Ph: (608) 241-5616

PROJECT LOCATION

Part of the Southeast $\frac{1}{4}$ of Section 15 T. 3 South, R. 8 East Van Buren Twp., Wayne County, Michigan

SHEET

Landscape Plan



DATE ISSUED/REVISED 08/26/21 REVISED PER TWP REVIEW 10/18/21 REVISED PER TWP REVIEW 04/25/22 REVISED PER WAYNE COUNTY 06/09/22 REVISED PER WAYNE COUNTY 07/13/22 REVISED PER TWP

DRAWN BY:

G. Ostrowski **DESIGNED BY:** G. Ostrowski

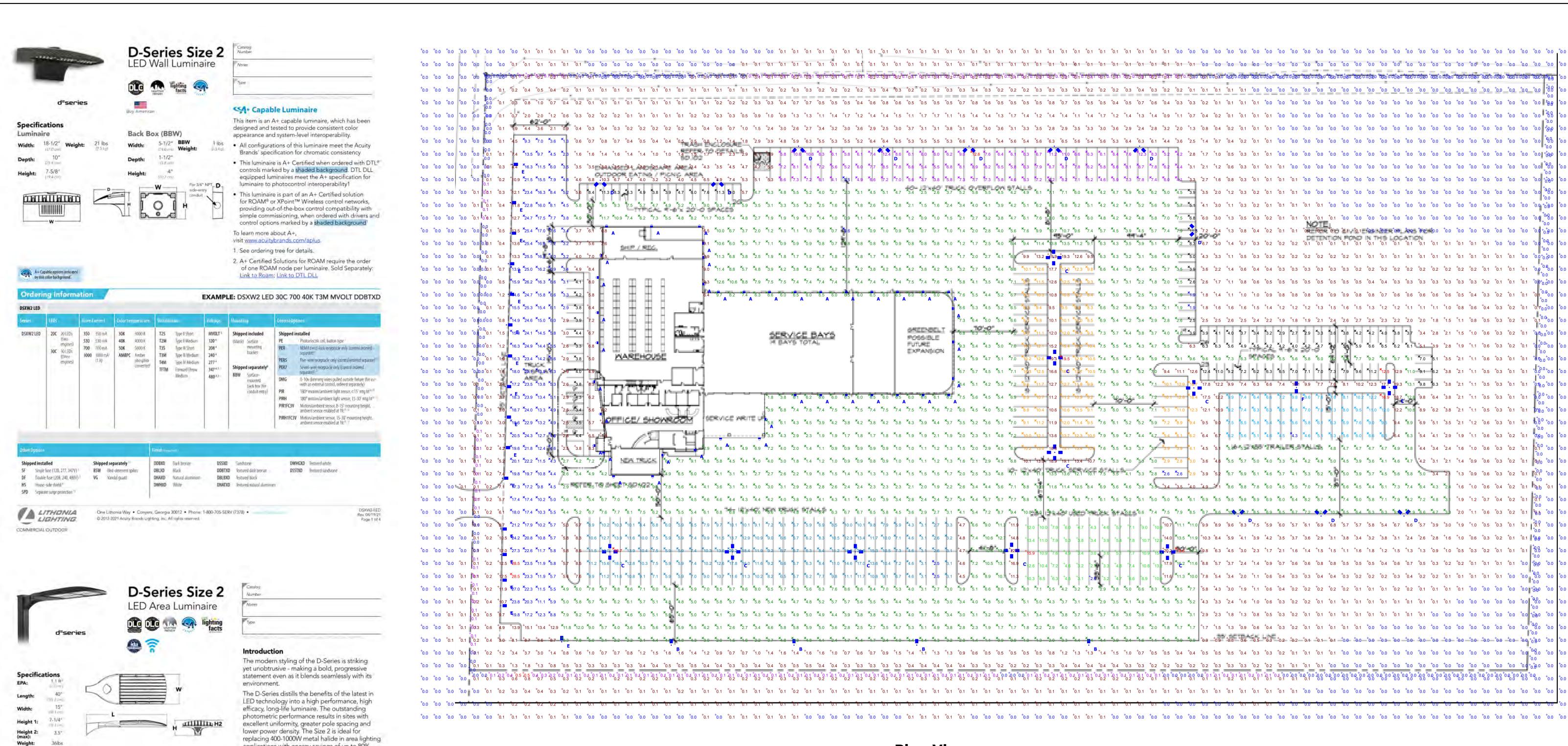
APPROVED BY: G. Ostrowski

DATE: May 21, 2021

SCALE: 1'' = 40'

NFE JOB NO. **M314**

SHEET NO.



General Note

1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.

2. CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: 0' - 0"

3. LIGHTING ALTERNATES REQUIRE NEW PHOTOMETRIC CALCULATION AND RESUBMISSION TO CITY FOR APPROVAL.

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIRMENTS DEFINED IN ASHRAE 90.1 2013. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT ASG@GASSERBUSH.COM OR 734-266-

FOR ORDERING INQUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734-266-6705.

THIS DRAWING WAS GENERATED FROM AN ELECTRONIC IMAGE FOR ESTIMATION PURPOSE ONLY. LAYOUT TO BE VERIFIED IN FIELD BY OTHERS.

MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.

Plan View
Scale - 1'' = 55ft

Schedul	е			_	_			
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lumens Per Lamp	Wattage	MOUNTING HEIGHT
	A	41	Lithonia Lighting	DSXW2 LED 30C 1000 40K TFTM MVOLT	DSXW2 LED	11120	109	14'-0"
	В	4	Lithonia Lighting	DSX2 LED P1 40K BLC MVOLT	DSX2 LED	15538	140	25'-0"
	С	10	Lithonia Lighting	DSX2 LED P8 40K T5W MVOLT	DSX2 LED	50729	1724	25'-0"
• 🗆	D	11	Lithonia Lighting	DSX2 LED P4 40K TFTM MVOLT	DSX2 LED	33388	540	25'-0"
	Е	16	Lithonia Lighting	DSX2 LED P8 40K BLC MVOLT	DSX2 LED P8 40K BLC MVOLT	40324	431	25'-0"
	F	1	Lithonia Lighting	DSX2 LED P8 40K T5W MVOLT	DSX2 LED	50729	862	25'-0"

Statistics								
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max	
9'-6" X 20' AUTOMOBILE SPACES	ж	5.6 fc	12.5 fc	1.9 fc	6.6:1	2.9:1	0.4:1	
55' TRAILER STALLS	Ж	7.3 fc	16.9 fc	4.3 fc	3.9:1	1.7:1	0.4:1	
NEW TRUCK STALLS	Ж	9.0 fc	20.7 fc	2.5 fc	8.3:1	3.6:1	0.4:1	
PARKING LOT CIRCULATION	Ж	5.1 fc	18.6 fc	0.6 fc	31.0:1	8.5:1	0.3:1	
PL	+	0.0 fc	0.5 fc	0.0 fc	N/A	N/A	0.0:1	
SITE	+	3.4 fc	28.5 fc	0.0 fc	N/A	N/A	0.1:1	
TRUCK DISPLAY AREA	Ж	13.8 fc	28.5 fc	1.3 fc	21.9:1	10.6:1	0.5:1	
TRUCK OVERFLOW STALLS	Ж	6.9 fc	12.6 fc	3.5 fc	3.6:1	2.0:1	0.5:1	
TRUCK SERVICE STALLS	Ж	10.3 fc	19.5 fc	2.6 fc	7.5:1	4.0:1	0.5:1	
USED TRUCK STALLS	+	7.4 fc	15.9 fc	2.6 fc	6.1:1	2.8:1	0.5:1	

Designer TD/KB Date 06/22/2021 rev. 10/18/2021 rev. 4/27/2022 rev. 5/9/2022 rev. 7/1/2022 Scale Not to Scale Drawing No. #21-63642 V7

1 of 1

A+ Capable options indicated by this color background.

Ordering Information EXAMPLE: DSX2 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD DSX2 LED DSX2 LED Forward optics 30K 3000 K T15 Type | Short ISVS Type V Very Short MVOLT Shipped included 40K 4000K T2S Type if Short TSS Type V Short Square pole mounting

50K 5000K T2M Type II Medium T5M Type V Medium P3 P7 T3S Type III Short TSW Type Y Wide 240 * WBA Wall bracket P4 P8 T3M Type III Medium BLC Backlight control 277 SPUMBA Square pole universal mounting adaptor Rotated optics' T4M Type IV Medium LCCO Left corner:cutoff 1 RPUMBA Round pole universal mounting addition P10 P13 TETM Forward Throw RCCO Right corner cutoff 480 1 Shipped separately P11 P14 KMA8 DDBXD U Mast arm mounting bracket adaptor (specify firesh) Shipped installed Shipped installed DDBXD Dark bronze

PIRH 8-level, motion/ambient sensor, 15-30 incunting height, ambient sensor enable at 5fr NLTAIR2 InLight AIR generation 2 enabled DBLXD Black HS House side shield " PIRHN (fittwork, Bi-Level motiom/amtrient sensor) SF Single fuse (120, 277, 347V) DNAXD Natural aluminum FAO Field Adjustable Gutour " PER I/EMA twist-dock receptode-only (no controls) DF Double firse (208, 240, 480V) * DWHXD White DOBTXD Textured dark bronzy PERS Five-ware receptable only (no controls) *** 190 Left (conted oppies) R90. Right rotated optics DBLBXD Tentured black PER7 Seyon-with receptacle andy (moderable) DMG D-10V diraming extend out back of housing for external control indicontrols)* Shipped separately DNATXD - Textured natural aluminum DWHGXD Textured white BS Bird spikes" DS: Diral switching EGS External grane shield

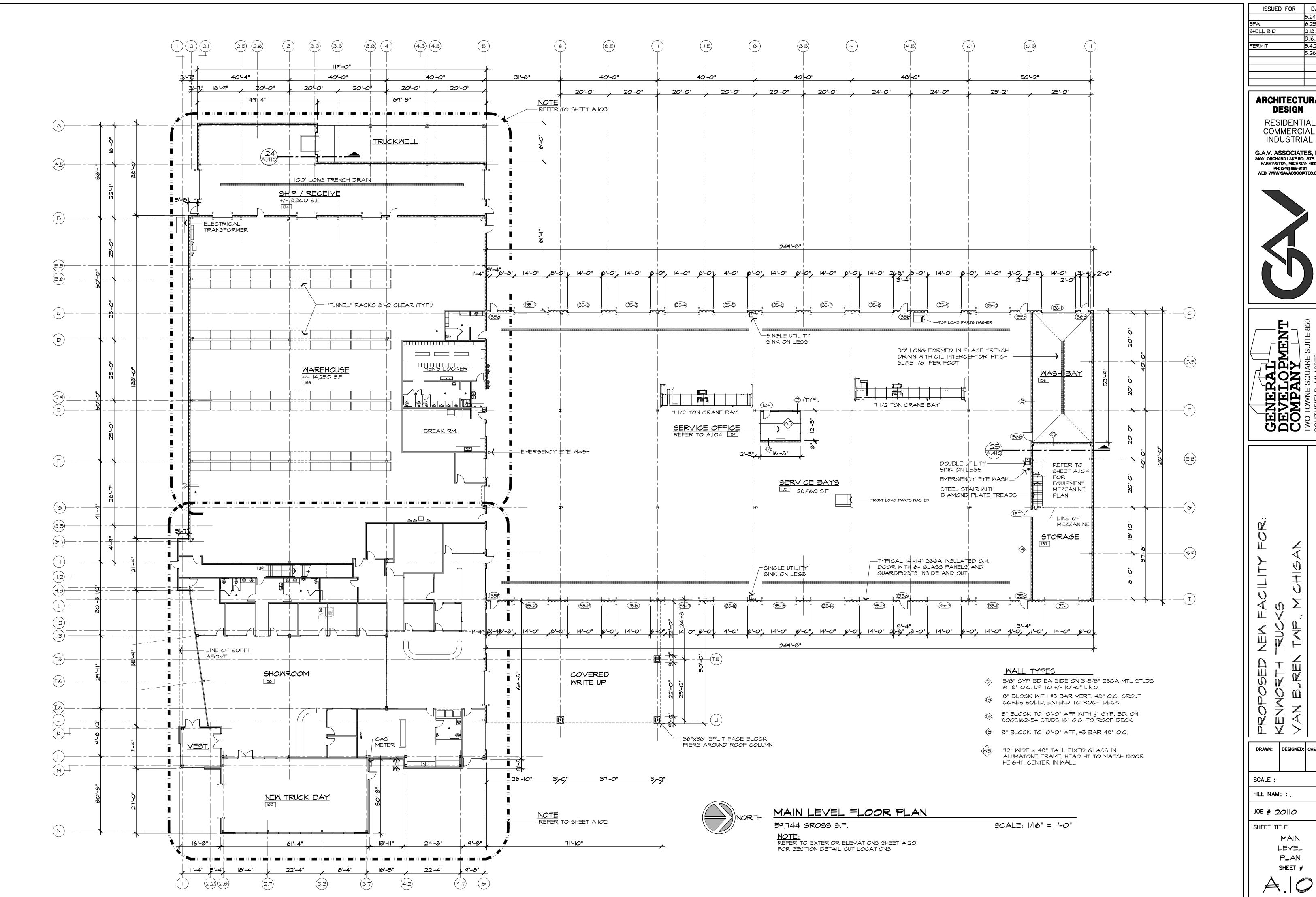
A LITHONIA LIGHTING COMMERCIAL OUTDOON

One Lithonia Way . Conyers, Georgia 30012 . Phone: 800-705-SERV (7378) . © 2011-2019 Acuity Brands Lighting. Inc. All rights reserved.

DSX2-LED Rev 09/12/19 Page 1 of 8

replacing 400-1000W metal halide in area lighting

applications with energy savings of up to 80% and expected service life of over 100,000 hours.



ISSUED FOR DATE 5.24.21 6.23.21 SHELL BID 2.18.22 3.16.22 5.4.22 5.26.22

ARCHITECTURAL DESIGN

> COMMERCIAL INDUSTRIAL

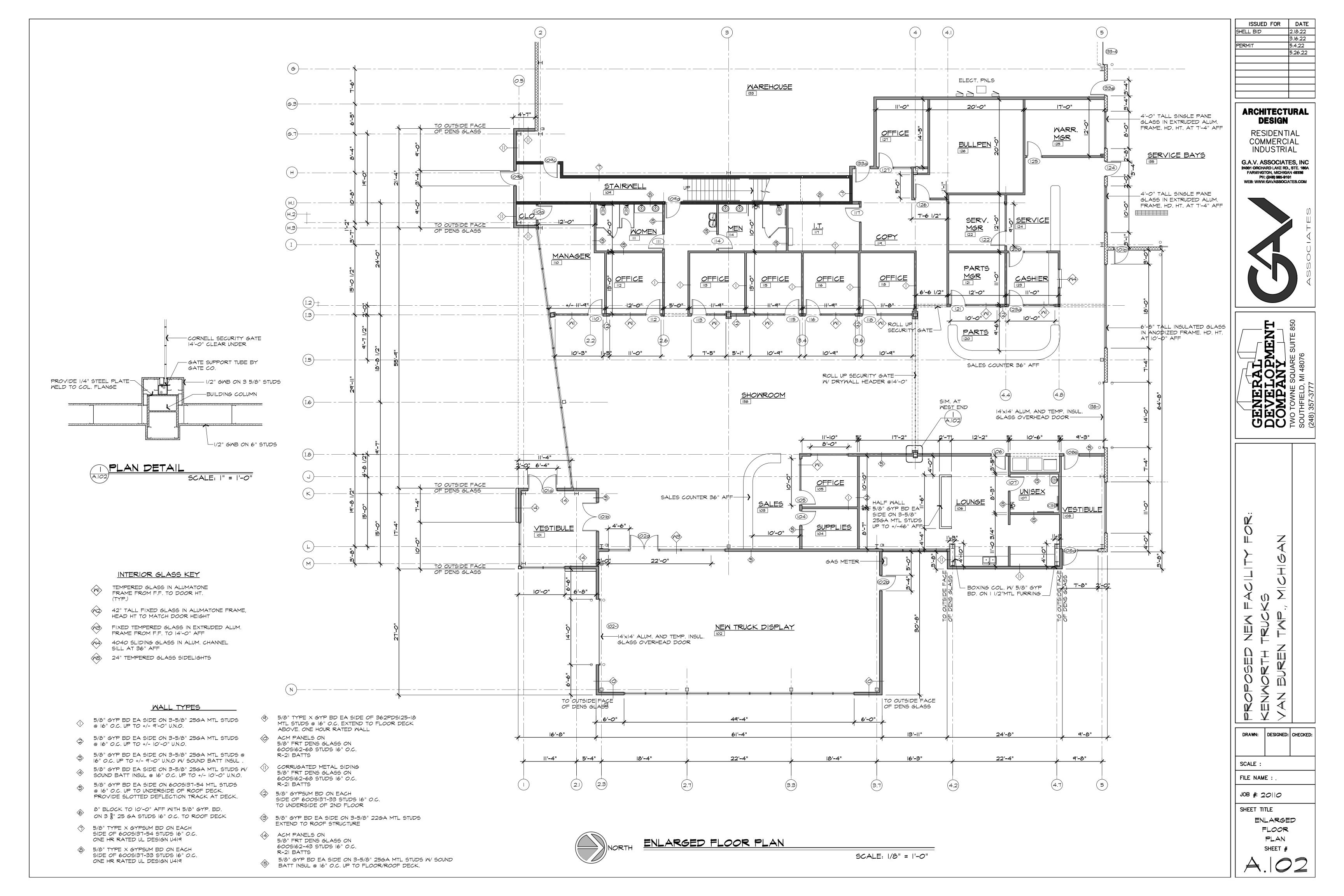
G.A.V. ASSOCIATES, INC 24001 ORCHARD LAKE RD., STE. 180A FARMINGTON, MICHIGAN 48336 PH: (248) 985-9101 WEB: WWW.GAVASSOCIATES.COM

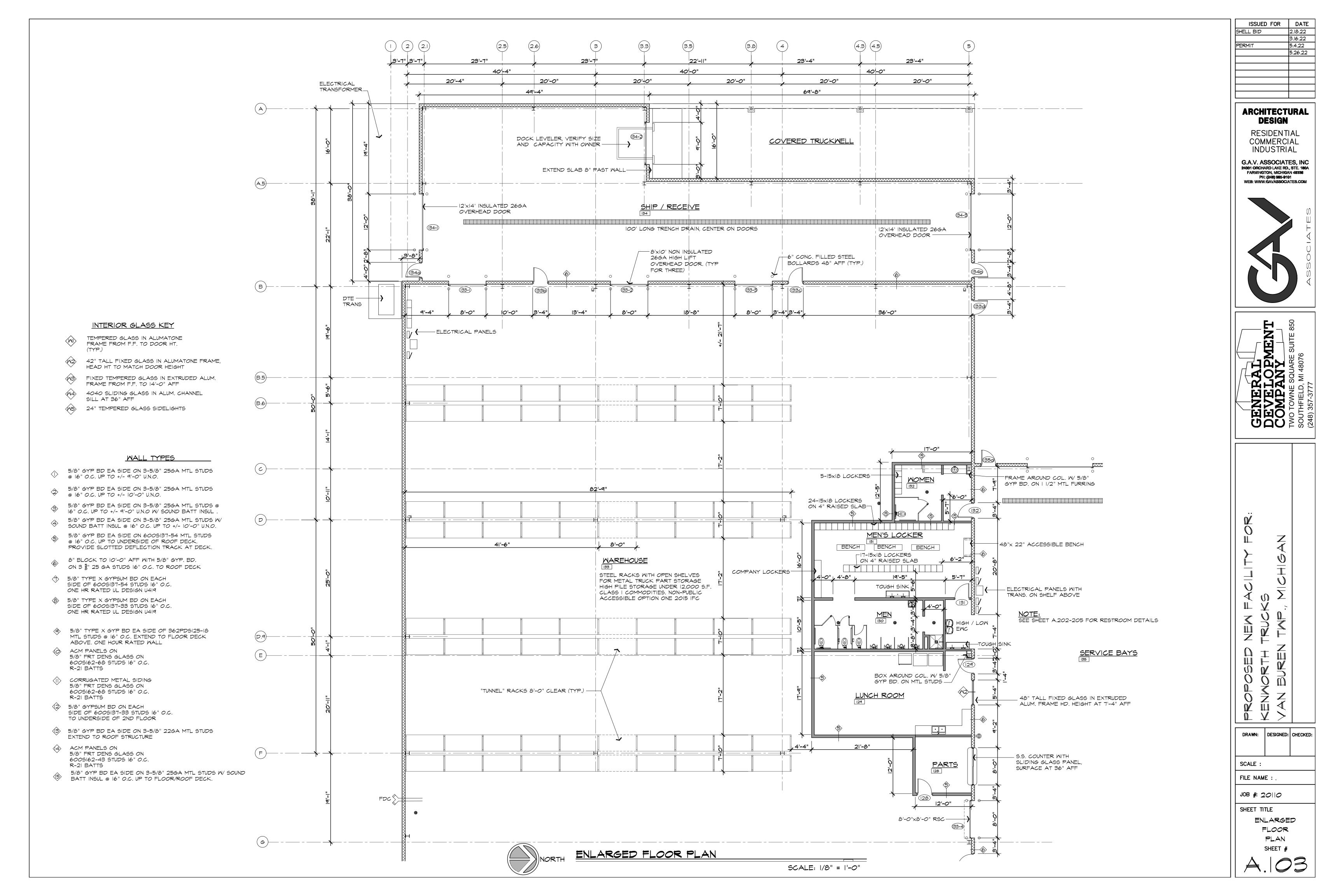
GENERAL
DEVELOPMENT
COMPANY
TWO TOWNE SQUARE SUITE 850
SOUTHFIELD, MI 48076

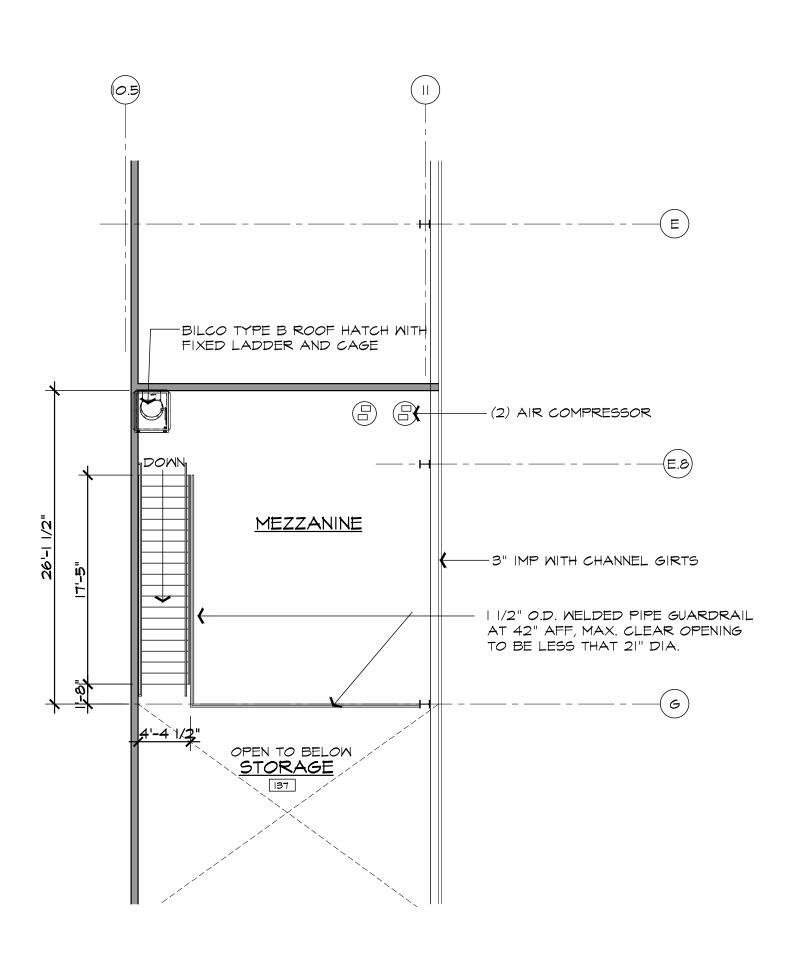
DRAWN: DESIGNED: CHECKED:

JOB #: 20110

MAIN LEVEL SHEET #









EQUIPMENT MEZZANINE

+/- 550 S.F.

SCALE: 1/8" = 1'-0"

INTERIOR GLASS KEY

- TEMPERED GLASS IN ALUMATONE FRAME FROM F.F. TO DOOR HT.
- 42" TALL FIXED GLASS IN ALUMATONE FRAME, HEAD HT TO MATCH DOOR HEIGHT
- 72" WIDE x 48" TALL FIXED GLASS IN ALUMATONE FRAME, HEAD HT TO MATCH DOOR HEIGHT. CENTER IN WALL
- 4040 SLIDING GLASS IN ALUM. CHANNEL SILL AT 36" AFF
- W5 24" TEMPERED GLASS SIDELIGHTS

WALL TYPES

- 5/8" GYP BD EA SIDE ON 3-5/8" 25GA MTL STUDS
 @ 16" O.C. UP TO +/- 10'-0" U.N.O.
- | 16" O.C. UP TO +/- 9'-0" U.N.O W/ SOUND BATT INSUL . | 5/8" GYP BD EA SIDE ON 3-5/8" 25GA MTL STUDS W/ SOUND BATT INSUL @ 16" O.C. UP TO +/- 10'-0" U.N.O.

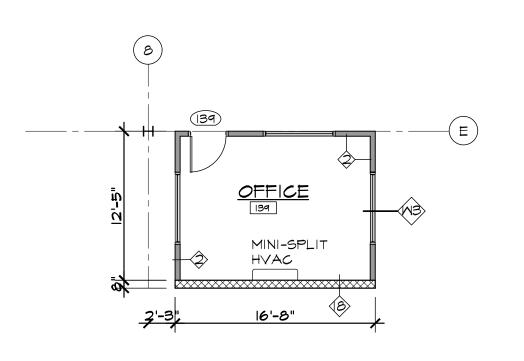
5/8" GYP BD EA SIDE ON 3-5/8" 25GA MTL STUDS @

- 5/8" GYP BD EA SIDE ON 600SI37-54 MTL STUDS

 © 16" O.C. UP TO UNDERSIDE OF ROOF DECK.

 PROVIDE SLOTTED DEFLECTION TRACK AT DECK.
- 8" BLOCK TO 10'-0" AFF WITH 5/8" GYP. BD.
 ON 3 \$" 25 GA STUDS 16" O.C. TO ROOF DECK
- 5/8" TYPE X GYPSUM BD ON EACH SIDE OF 600S137-54 STUDS 16" O.C. ONE HR RATED UL DESIGN U419
- 5/8" TYPE X GYPSUM BD ON EACH SIDE OF 600S137-33 STUDS 16" O.C. ONE HR RATED UL DESIGN U419

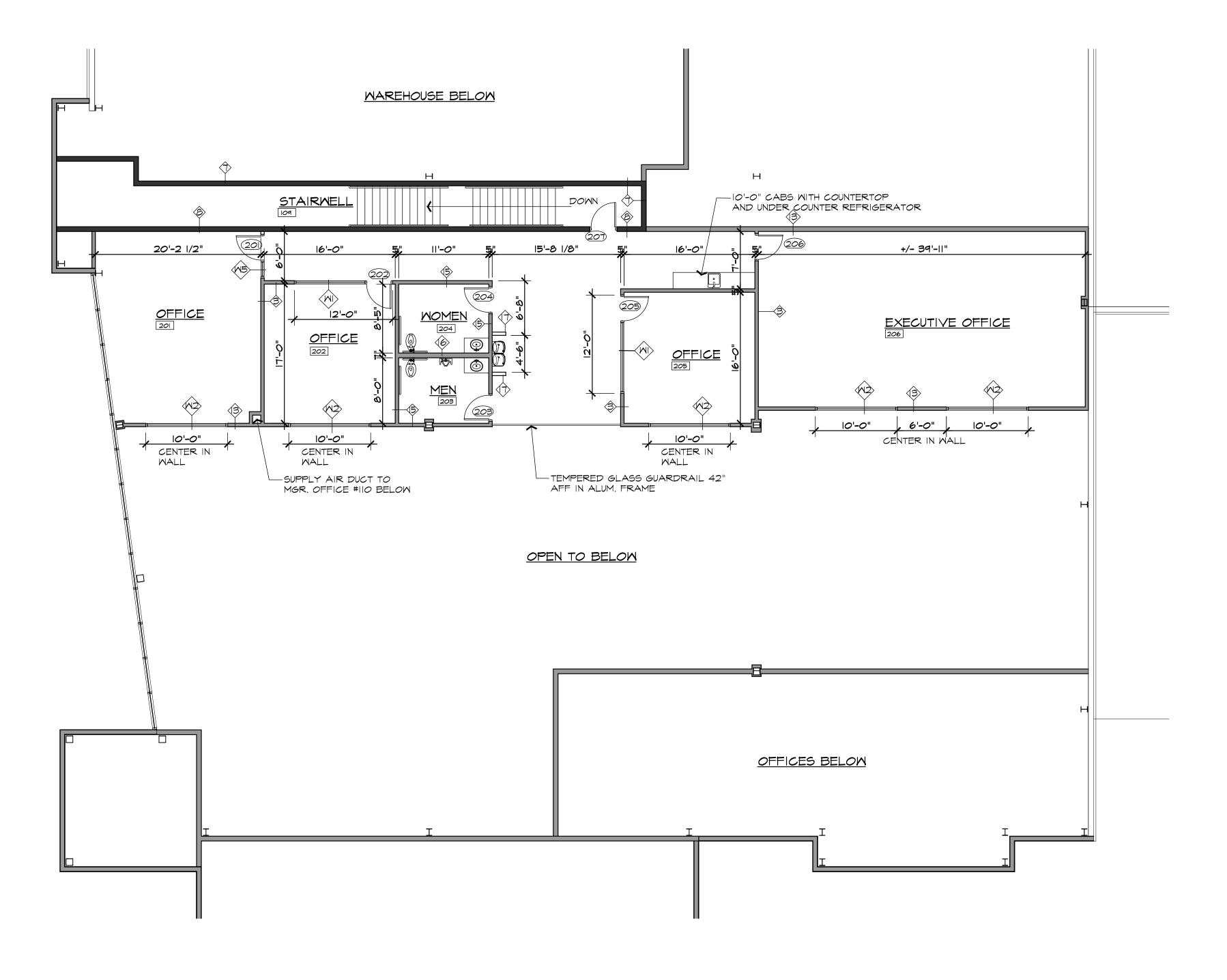
- 9 5/8" TYPE X GYP BD EA SIDE OF 362PDSI25-18 MTL STUDS @ 16" O.C. EXTEND TO FLOOR DECK ABOVE. ONE HOUR RATED WALL
- ACM PANELS ON 5/8" FRT DENS GLASS ON 600S162-68 STUDS 16" O.C. R-21 BATTS
- CORRUGATED METAL SIDING 5/8" FRT DENS GLASS ON 600S162-68 STUDS 16" O.C. R-21 BATTS
- 5/8" GYPSUM BD ON EACH
 SIDE OF 600SI37-33 STUDS 16" O.C.
 TO UNDERSIDE OF 2ND FLOOR
- (3) 5/8" GYP BD EA SIDE ON 3-5/8" 22GA MTL STUDS EXTEND TO ROOF STRUCTURE
- ACM PANELS ON
 5/8" FRT DENS GLASS ON
 6005162-43 STUDS 16" O.C.
 R-21 BATTS
- 5/8" GYP BD EA SIDE ON 3-5/8" 25GA MTL STUDS W/ SOUND BATT INSUL @ 16" O.C. UP TO FLOOR/ROOF DECK.
- 5/8" GYP BD EA SIDE ON 6" 22GA MTL STUDS W/ SOUND BATT INSUL @ 16" O.C. UP TO FLOOR/ROOF DECK. (WET WALL)
- 5/8" GYP BD EA SIDE ON 3 5/8" 25GA MTL @ 16" O.C.
 UP TO 48" AFF
- 8" BLOCK TO 10'-0" AFF, #5 BAR 48" O.C.





SERVICE BAY OFFICE

SCALE: 1/8" = 1'-0"





UPPER LEVEL FLOOR PLAN

SCALE: 1/8" = 1'-0"

ARCHITECTURAL DESIGN

RESIDENTIAL COMMERCIAL INDUSTRIAL

G.A.V. ASSOCIATES, INC 24001 ORCHARD LAKE RD., STE. 180A FARMINGTON, MICHIGAN 48336 PH: (248) 985-9101 WEB: WWW.GAVASSOCIATES.COM



GENERAL
DEVELOPMENT
COMPANY
TWO TOWNE SQUARE SUITE 850
SOUTHFIELD, MI 48076

PROPOSED NEM FACILITY FOR: Kenmorth trucks Van buren tmp., michigan

DRAWN: DESIGNED: CHECKED:

SCALE:

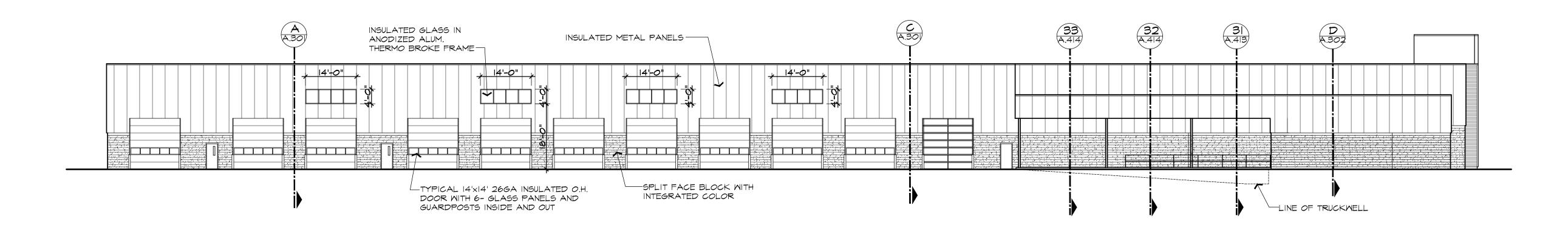
FILE NAME :

JOB #: 20110

SHEET TITLE

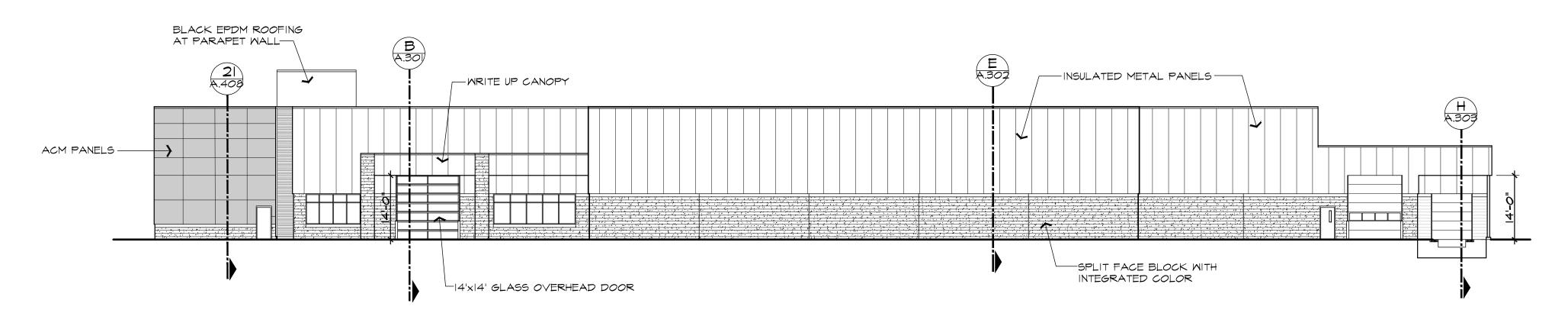
ENLARGED
FLOOR
PLAN
SHEET #





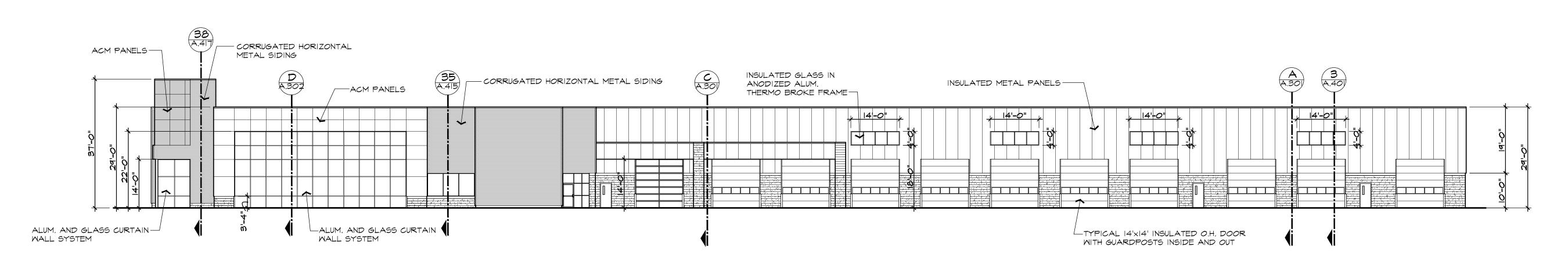
MEST ELEVATION

SCALE: 1/16" = 1'-0"



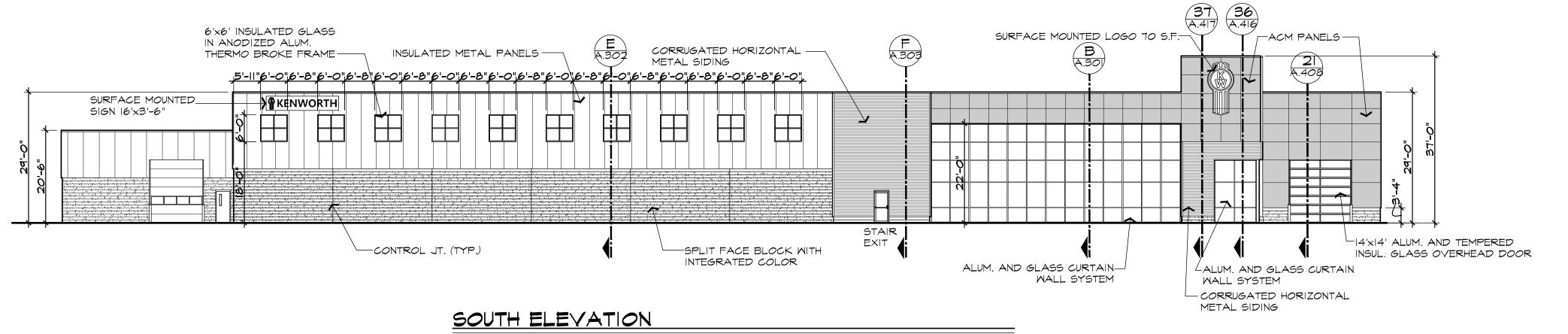
NORTH ELEVATION

SCALE: 1/16" = 1'-0"



EAST ELEVATION

SCALE: 1/16" = 1'-0"



SCALE: 1/16" = 1'-0"

ARCHITECTURAL DESIGN

RESIDENTIAL COMMERCIAL INDUSTRIAL

G.A.V. ASSOCIATES, INC 24001 ORCHARD LAKE RD., STE. 180A FARMINGTON, MICHIGAN 48336 PH: (248) 985-9101 WEB: WWW.GAVASSOCIATES.COM

ASSOCIATES

GENERAL
DEVELOPMENT
COMPANY
TWO TOWNE SQUARE SUITE 850
SOUTHFIELD, MI 48076
(248) 357-3777

PROPOSED NEW FACILITY FOR:
KENMORTH TRUCKS
VAN BUREN TMP., MICHIGAN

DRAWN: DESIGNED: CHECKED:

SCALE :

SHEET TITLE

EXTERIOR ELEVATIONS

SHEET #



MEMO

TO: Van Buren Township Planning Commission

FROM: Dan Power– Director of Planning and Economic Development RE: Case 22-044 – Zippy Auto Wash preliminary variance

discussion

DATE: August 18, 2022

Applicant David Brewer of Vanston/O'Brien, Inc. on behalf of owner Night Hawk Properties, LLC, is requesting review and comment on a requested variance for relief from minimum glass requirements on a front building façade per Sec. 6.309.C.3.c of the Van Buren Township Zoning Ordinance, in association with a preliminary site plan and special land use permit application for a car wash in the Belleville Road Overlay District (BROD). The subject property is located at 11650 Belleville Road (parcel ID number 83 081 99 0004 709) and is zoned C-2 – Extensive Highway Business District. It is customary for the Planning Commission to provide informal review and discussion regarding pending cases to the Board of Zoning Appeals that relate to an application for site plan review to the Planning Commission. To assist in the Planning Commission's discussion, please see several materials included with this packet, including:

- A completed BZA application form;
- A Variance Request Explanation narrative, received on August 12, 2022; and
- Excerpts of the relevant site and architectural plan set dated August 17, 2022.

I look forward to assisting with this review.

Thank you,

Dan Power, AICP

Planning and Economic Development Director

Public Services Department

Charter Township of Van Buren



DEPARTMENT OF PLANNING & ECONOMIC DEVELOPMENT

46425 TYLER ROAD, VAN BUREN TOWNSHIP, MI 48111 PHONE (734) 699-8913 FAX (734) 699-8958

BOARD OF ZO APPLICANT INFORMATION	ONING A	APPEALS AP	PLICATION
NAME: David Brewer - Vanston/O'Brien	, Inc.	PHONE: 734-42	4-0661
ADDRESS: 8150 Jackson Rd.		CELL PHONE: 734-26	60-9320
CITY, STATE & ZIP Ann Arbor, MI 48103		FAX: 734-424-	
EMAIL: dave.brewer@vanston.com		 	
PROPERTY OWNER INFORMATION (IF	different than the ap	oplicant)	
NAME: Night Hawk Properties, LLC		PHONE:	
ADDRESS: 8717 Edgewood Park Drive		CELL PHONE:	
CITY, STATE & ZIP Commerce Twp., MI 4838	2	FAX:	
EMAIL:			
SITE INFORMATION			
PROJECT ADDRESS: 11650 Belleville Rd			
PROPERTY LOCATION: On the Side of _B	elleville R	oad; Between <u>Sunris</u>	e Road and <u>Venetian</u> Road.
SIZE OF LOT WIDTH: 275	OF LOT DEPTH:	261	ACREAGE OF SITE: 1.65
DATE PROPERTY ACQUIRED:		TYPE OF OWNERSHIP O	F PROPERTY:
STATE ALL DEED, SUBDIVISION IMPROVEMENT AND PRO	PPERTY RESTRICTIO	NS IN EFFECT AT THIS TIM	E, TOGETHER WITH DATES OF EXPIRATION:
VARIANCE REQUEST			
VARIANCE TO ZONING ORDINANCE SECTION(S): 6.	309.C.3c		
EXPLANATION OF THE PRACTICAL DIFFICULTY OF THE PRADMINISTRATIVE REVIEW): See Attached	OPERTY AS DEFIN	ED IN SECTION 19.07 (OF	R EXPLANATION OF REQUEST FOR
APPLICANT MUST ALSO SUBMIT PHOTOGRAPHS OF THE SHOWING THE DIMENSIONS OF THE LOT AND THE EXI			S WELL AS SKETCH PLAN OR PLOT PLAN
OWNER'S AFFIDAVIT			
Charles P. Gotberg	001	11/27/	08/12/2022
PRINT PROPERTY OWNER'S NAME	SIGNATURE OF P	PROPERTY OWNER	DATE
STATE OF MICHIGAN COUNTY OF WAYNE	V		BETH A. FOURNIER NOTARY PUBLIC, STATE OF MICHIGAN
The undersigned, being duly sworn, deposes and says that the foregotrue and correct.	4		companied information in The Train From Kill AND ects My Commission Expires 04-23-2028
Subscribed and sworn before me this 12 day of	lugust	2022	Acting in the County of Ackland

Oaldand County, Michigan

My Commission expires 4 April 20 22.

Variance Request Explanation

Zippy Auto Wash has been in business for over a decade, owning and operating 4 entirely new sites in the Ann Arbor / Saline / Ypsi area, plus 4 new sites under contract & in site planning.

We've earned the reputation as one of the area's highest quality auto washes, and are proud to be one of the area's most environmentally responsible and philanthropic small businesses.

We're looking forward to serving Van Buren Township with high quality auto wash services, and believe this is an ideal location for us to provide these services with an aesthetically-pleasing, community-friendly site.

Section 6.309.C.3c of the zoning ordinance requires the first floor facade to be 50% glass when facing a public street within the BROD district.

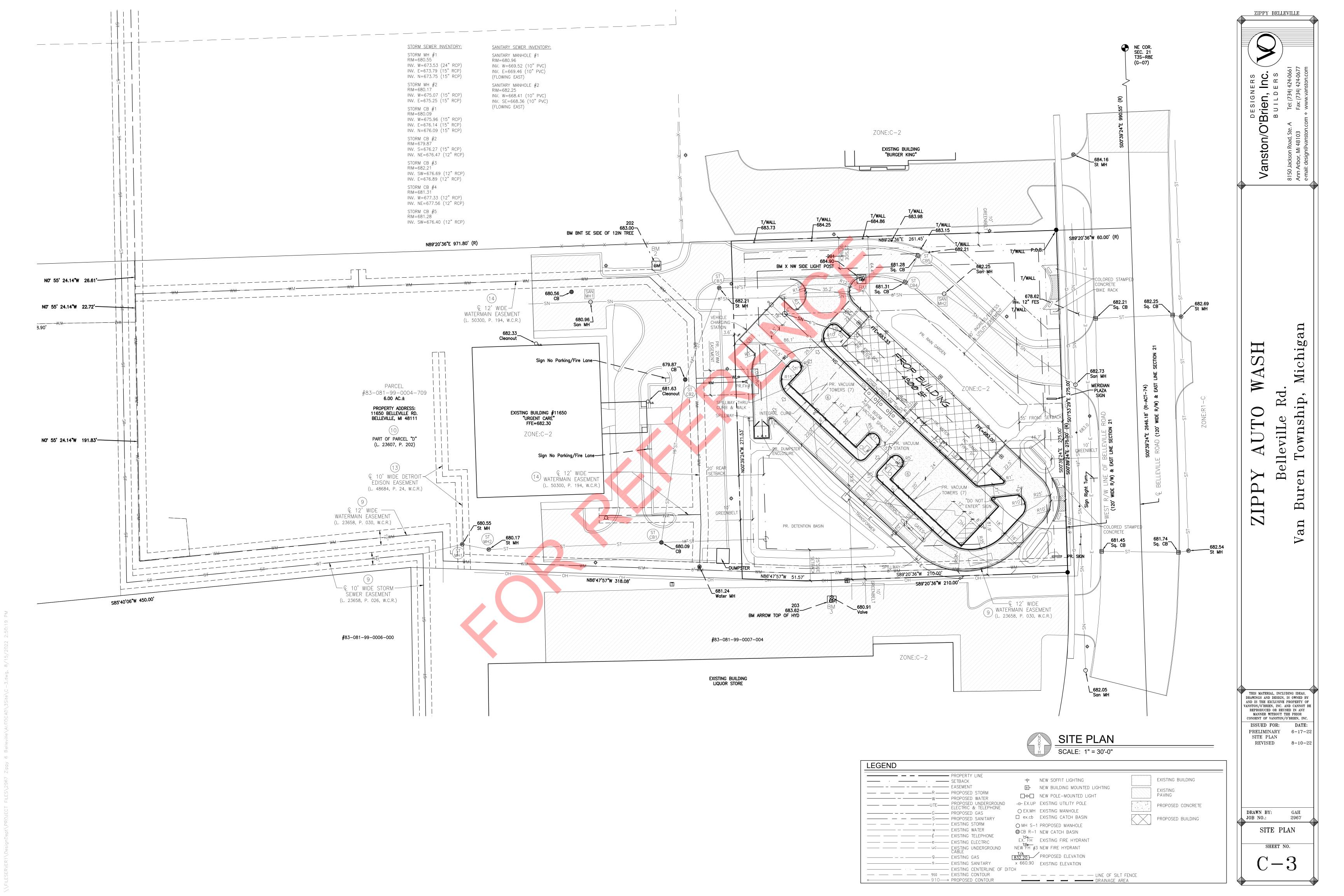
We are seeking a variance to reduce the requirement from 50% glass to 23% glass, with the balance being premium masonry materials enhanced with a diversity of architectural features. We seek to meet the intent of the ordinance, while providing the best curb-side appearance from the outside, and the best customer experience from the inside.

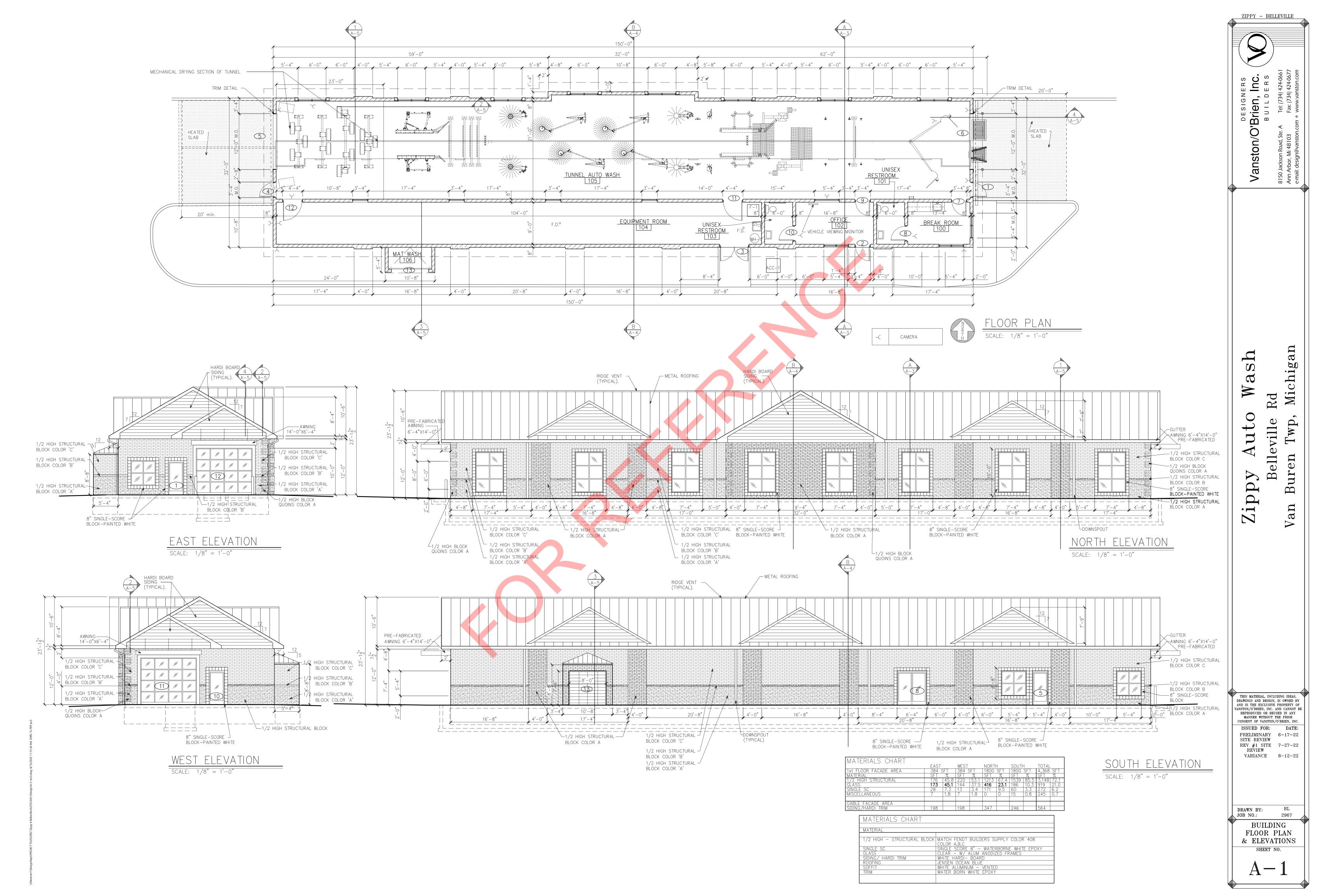
In contrast to traditional buildings, such as office and retail, the building is not occupied by customers and products, but rather by vehicles and equipment. Additionally, in contrast to traditional buildings, the height of the 1st floor is not 8 - 10', but rather 12' (for equipment clearances); this requires significantly more glass than traditional buildings to meet the requirement.

In an aim to meet the requirement, we have modified the conventional design of the building to significantly increase the glass area. Additionally, we have upgraded to premium masonry materials enhanced with a diversity of architectural features, including structural brick with complimentary accents & colors, as well as architectural awnings, dormers, pilasters, & corner quoins.

Experience has shown that we are at the maximum window width which can be supported by a pre-cast concrete lintel; larger widths require steel lintels, which inevitably corrode (due to the nature of the business), and result in rust staining on both the outside and inside of the building, a highly undesirable look for any building.

Thus, the proposed glass ratio provides an optimal balance of curb-side appearance, natural lighting, customer experience, wash process visibility, and equipment screening, while ensuring the long term aesthetically-pleasing appearance of the site.







SOUTH EAST ABOVE

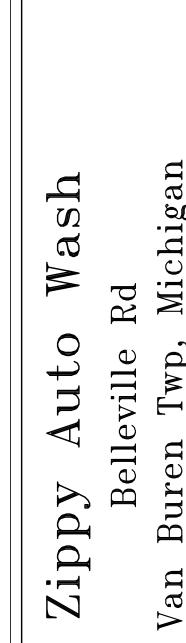




BELLEVILLE ROAD



BELLEVILLE ROAD NO STREET TREES



THIS MATERIAL, INCLUDING IDEAS, DRAWINGS AND DESIGN, IS OWNED BY AND IS THE EXCLUSIVE PROPERTY OF VANSTON/O'BRIEN, INC. AND CANNOT BE REPRODUCED OR REUSED IN ANY MANNER WITHOUT THE PRIOR CONSENT OF VANSTON/O'BRIEN, INC.

ISSUED FOR: DATE:
PRELIMINARY 06-15-22 SITE REVIEW
REVISED SITE 08-15-22 REVIEW

DRAWN BY: RL
JOB NO.: 2967

CONCEPTUAL RENDERINGS

A-2



MEMO

TO: Van Buren Township Planning Commission

FROM: Dan Power– Director of Planning and Economic Development RE: Side Entry Garage Door Orientation and Residential Building

Separation discussion

DATE: August 18, 2022

The Planning Commission and staff have begun to develop a set of Zoning Ordinance amendments to increase flexibility in residential zoning requirements. These draft amendments include adjustments to a minimum 30% side entry garage door orientation requirement in residential subdivisions and site condominiums and minimum residential building separation requirements in Planned Residential Developments (PRD's). The Planning Commission held two discussions on these topics. At their last regular meeting on August 10th, the Planning Commission requested staff to further explore the following:

- Adding (1) a cap on garage door surface area-to-front façade surface area and (2) limits on garages extending further than 50% of their total length in front of a principal dwelling;
- Include landscaping (in addition to fences, other structures, etc.) in the exclusions between buildings that are less than 20 feet apart.

The Planning Commission additionally requested examples of projects that have detached single family units that are less than 20 feet apart. A series of photos have been provided by the Planning Commission and a copy of the most recent set of proposed Zoning Ordinance text amendments is attached to this packet, to aid with further discussion on this topic.

Sincerely,

Dan Power, AICP

Planning and Economic Development Director

Public Services Department Charter Township of Van Buren

Images of single-family dwellings with 10 foot building separation













Dwelling with front-entry garage lined up with front porch



Unintended consequence of side entry/rear garage – non-existent yard space





MCKENNA



August 4 2022

Planning Commission Charter Township of Van Buren 46425 Tyler Road Belleville, Michigan 48111

Subject: Building Separations Standards and Side Entry Garages

Dear Commissioners:

The Planning Commission at its meeting held on July 27, 2022 discussed the issue relating to building separation requirements in the PRD Ordinances and side entry garage requirements mandated for single family detached dwellings in the Township.

The issue has come up in recent discussions with prospective developers regarding completion of long-incomplete residential PRD's and new proposals. The Township's PRD Ordinance was written a long time ago and no PRD projects have been reviewed in the past decade. Home building and residential development patterns have gone through various market driven changes in this duration. As a result, some of the current regulations make proposed new attainable housing projects located on smaller lots

We reviewed zoning ordinances in other municipalities to see what regulations are in place with regard to these two requirements. We looked in the Ordinances of Canton Township, Ypsilanti Township, Lyon Township, Plymouth Township, Pittsfield Township and the City of Novi. In all the Ordinances we compared, side entry garages were a desirable option but not a mandate. Ypsilanti Township ordinance offered a creative alternative of side entry or recessed garage placement. Building separation requirements varied significantly, with a majority have a separation requirement of only 10 feet or allowing for Planning Commission and Board of Trustees to reduce that distance based on preservation of natural features or other factors.

Based on the feedback received from the Planning Commission we have prepared a draft text amendment of the changes to Section 6.207. of the PRD Ordinance's Design requirements which include building separation standards, and also changes to Section 5.115 addressing garage orientation. The item is on the Planning Commission's agenda for discussion at this time and scheduling of a public hearing if the PC is comfortable with the changes proposed. We will be present at the Planning Commission meeting to answer any questions and concerns.

Respectfully, **McKENNA**

Vidya Krishnan

Senior Principal Planner

Cc: Dan Power, Director of Planning and Economic Development

Section 6.207. Design

A PRD shall comply with the following standards:

- (B) **Building Setbacks**. Buildings in a PRD shall comply with the following building setback requirements:
 - (3) Notwithstanding Section 6.207(B)(1) and Section 6.207(B)(2) above, the minimum side and rear yards for all buildings in a PRD shall be the same as in the zoning district in which the PRD is located. The Township Board, upon recommendation from the Planning Commission, may modify the minimum side and rear yard setback requirements based on sound planning and design principles, taking into account the degree of compatibility between adjoining uses, sensitivity to the characteristics of the site, the need for free access for emergency vehicles, the need for adequate amounts of light and air between buildings and the need for proper amounts of open space for the exclusive use of residents of the PRD. However, the minimum building separation requirements of Section 6.207(C) may not be modified.
- (C) **Building Separation**. Buildings in a PRD shall comply with the following building separation requirements:
 - (1) Any detached single-family principal or accessory structure in a PRD shall be located at least five (5) feet from any side lot line. and Any detached single-family principal or accessory structure in a PRD shall be located at least twenty (20) feet from any other detached single-family principal or accessory structure, except that The Township Board, upon recommendation from the Planning Commission, may modify the this requirement based on sound planning and design principles, taking into account the degree of compatibility between adjoining uses, sensitivity to the characteristics of the site, the need for free access for emergency vehicles, the need for adequate amounts of light and air between buildings, and securing the following commitments as part of the PRD Agreement and PRD Plan approval:
 - (a) All structures including fences will be prohibited between two single-family principal structures that are separated by less than twenty (20) feet and there will be no less than ten (10) feet of unobstructed access (including permitted projections) adjacent to a principal structure or between two single-family principal structures.
 - (b) Between two single-family principal structures separated by less than twenty (20) feet, a swale must be constructed along the property line and positive drainage to the front or rear yard toward a designated stormwater drain or drainage course must be established, and all grading must be performed consistent with the Township's most current adopted Engineering Standards. Grading between two such buildings separated by less than twenty (20) feet must be validated by the submittal of a final grading certification prior to building occupancy.
 - (c) Prior to any construction in side or rear yards of two separately owned single-family principal structures which are separated by less than twenty (20) feet, a construction easement which contains terms for complete site restoration must be executed between the affected property owners.

- (2) Any building in a PRD containing more than one (1) dwelling unit (i.e., apartments, townhouses, attached dwellings) shall be located at least ten (10) feet from any side lot line and at least twenty (20) feet from any other similar structure, as well as at least thirty (30) feet from any detached single-family principal or accessory structure, except that The Township Board, upon recommendation from the Planning Commission, may modify the this requirement based on sound planning and design principles, taking into account the degree of compatibility between adjoining uses, sensitivity to the characteristics of the site, the need for free access for emergency vehicles, the need for adequate amounts of light and air between buildings, and securing the following commitments as part of the PRD Agreement and PRD Plan approval:
 - (a) All structures including fences will be prohibited between two buildings containing more than one (1) dwelling unit that are separated by less than twenty (20) feet and there will be no less than ten (10) feet of unobstructed access (including permitted projections) adjacent to one such building or between two such buildings.
 - (b) Between two buildings containing more than one (1) dwelling unit separated by less than twenty (20) feet, a swale must be constructed along the property line and positive drainage to the front or rear yard toward a designated stormwater drain or drainage course must be established between two such buildings, and all grading must be performed consistent with the Township's most current adopted Engineering Standards. Grading between two such buildings separated by less than twenty (20) feet must be validated by the submittal of a final grading certification prior to building occupancy.
 - (c) Prior to any construction in side or rear yards of two separately owned buildings containing more than one (1) dwelling unit which are separated by less than twenty (20) feet, a construction easement which contains terms for complete site restoration must be executed between the affected property owners.

Section 5.115 Dwelling, Single-Family Residential (All Site Condominiums and Subdivisions)

- (B) Application of standards.
 - (6) **Definitions.**
 - (b) "Substantially different" means that a structure, when compared to another structure, differs from that structure as measured by three (3) four (4) or more of the following five (5) six (6) criteria:
 - (i) Roof style. Roof style is determined by location and orientation of the principal ridge line and adjacent sloping sections. Different roof styles include but are not limited to gable, reverse gable, Cape Cod, gambrel, hip, mansard and flat, etc.
 - (ii) Roof pitch. Roof pitch is determined by measuring the ratio of vertical to horizontal units in the sloping segments of the principal section of the roof of a structure. Different roof pitches are three (3) or more vertical units in twelve (12) from each other including, for example, 6:12 and 9:12 or 8:12 and 11:12, etc.
 - (iii) Exterior Material. Exterior material describes the material present area of structure. Different exterior materials include but are not limited to horizontal siding, vertical siding, shingles/shakes, brick, stone and stucco, etc.

- (iv) Location of Major Design Features Relative to Main Mass. Major design features include but are not limited to attached garages, porches, porticos, breeze-ways, gables, dormers and/or similar major features. Different locations of major design features relative to the main mass of a structure include but are not limited to in front of, beside, on top of, and/or in some other location relative to the main mass of the structure.
- (v) Location of Windows Doors Relative to Main Mass. Windows and doors on a structure can take on various configurations. Different location of windows and doors relative to the main mass of a structure include but are not limited to center door, off-center door and no door, with windows on either or both sides of and/or above the door.
- (vi) Garage door orientation. The garage door on a principal dwelling which is oriented toward the side, rear, or front of the lot, in contrast to the garage door's orientation on the neighboring property.
- (8) **Garage Door Orientation.** In addition to the requirement that a structure be found to be substantially different as defined herein, at least thirty percent (30%) of all structures within a proposed residential plat or site condominium project shall have the garage door oriented other than to the front of the lot (i.e., oriented to the side or rear of the lot). A deviation from the 30% requirement can be granted by the Board upon recommendation from the Planning Commission if the negative impacts of front garage door orientation are offset by recessing the garage door a minimum of five (5) feet from the front face of the dwelling, use of architectural enhanced garage doors, expanded brick on the front façade, or other enhancements deemed acceptable by the Planning Commission.

Engineering & Surveying Excellence since 1954

August 3rd, 2022

Mr. Dan Power Director of Planning and Economic Development Van Buren Township 46425 Tyler Road Van Buren Township, MI 48311

Re: Van Buren Township Community Center Addition and Renovation Site Plan Proposed Stormwater Management

Dear Mr. Power:

In response to your request for "a descriptive letter from SDA describing how the pond works, what kind of maintenance is required, and what the maximum depth of standing water is likely to be after a 100 year rain event and for how long it will be present" on July 22nd, 2022, for the proposed construction at the Van Buren Township Community Center, we offering the following response:

Stormwater Narrative

The existing stormwater system uses a variation of catch basins, culverts, and swales that collects most of the properties drainage from the east and south of the community center building that ultimately flows to an existing storm pump station. Currently the exact capacity and functionality are unknown of the pump station and the interaction it has with the existing open detention system. Furthermore, the existing storm sewer system is deeper than the bottom of the existing detention system because of the high-water table (water table found to be at an elevation of 693) for the area of which this property is located. With the current system in place and uncertainty of the relationship of the existing storm pump station and open detention, as heavy rainfall events occur, drainage often does not flow back up into the basin, but into the existing parking lot.

The proposed stormwater system looks to eliminate the current concerns and issues the existing stormwater system presents.

The proposed stormwater system will capture and retain drainage for the same area using a variation of catch basins, closed conduit, stormwater treatment, and outlet control structures with expanding the existing open detention system. The existing detention will be deepened to the height of the water table to maximum depth and expanded further to the east to allow for capacity of a 100-year rainfall event. The proposed stormwater system will flow to the west where it will connect into an existing manhole and combine with the remainder of the drainage for this system. At this point all drainage from existing and proposed systems will flow west through a stormwater treatment chamber that will capture and filter the drainage. Once filtered through the stormwater treatment chamber, the drainage will continue flowing west where it will reach a restrictor manhole. Here the drainage will be released at an allowable flow rate calculated for the maximum 100-year volume of the open detention system. With heavier rainfall events, drainage will back up at this restrictor manhole to the south into the open detention system. The open detention system is sized to hold drainage for a 100-year rainfall event, which would be at an elevation of 696.60 and if full



would hold 3.60 feet of water. At maximum capacity and with the restricted flow rate the volume of drainage would take just over 13 hours to dissipate. If the open detention system reaches capacity at the elevation of 696.60 and continues to fill up, the new overflow standpipe will allow bypass for the drainage.

Long-Term Maintenance Plan

A. Physical Limits of the Storm Water Management System

The Storm Water Management System (SWMS) subject to this long-term maintenance plan (LTMP) is depicted on the civil construction plan set for the project "Van Buren Charter Township Community Center Addition and Renovation" and includes without limitation the storm sewers, manholes, catch basins, underdrains, open detention basin and outlet control structures that convey flow from the open detention basin to an existing pump station before outletting to a county storm structure in the R.O.W.

For purposes of this SWMS, this Storm Water Management System and all of its components as shown on the civil construction plan set is referred to as the "System".

B. <u>Time Frame for Long-Term Maintenance Responsibility</u>

The proprietor is responsible for maintaining the system, including complying with applicable requirements of Van Buren Charter Township. Long-term maintenance responsibility for the system commences when defined by the maintenance permit issued by the Township. Long-term maintenance continues in perpetuity.

The operation of the SWMS shall be monitored to verify that the system is performing as intended and will be repaired or modified as required to ensure that the system operates as intended and as required. All jetted sediment is to be vactored and removed from the on-site system prior to entry into the Township's storm system.

Maintenance of storm water collection system consists of the following items, which are to be done at least twice per year as follows:

- 1. Clean the cover of all catch basins and inlets.
- 2. Check the depth of accumulated sediment in each storm structure. Remove the sediment if it is 12 or more inches deep.
- 3. If while checking the sediment in the storm structures, it becomes apparent that the sediment has entered the connecting pipes, the pipes shall be jetted to remove the sediment.
- 4. If any settling around the storm structures or along the route of the pipes is evident, the structures and the pipes shall be checked for open joints and cracks which, if found, shall be repaired.



Maintenance of the open detention basin, outlet control structures and outlet pipes must be performed at least twice per year as follows:

- 1. The open detention basin is to be inspected and cleaned of any accumulated debris and sediment when sediment depth reaches 6 inches.
- 2. The open detention basin must be cleaned if its volume is reduced by more than 10% due to the accumulation of silt and sediment.
- 3. The outlet control structures, and outlet pipes shall be maintained in accordance with maintenance schedule for the collection system as mentioned above.

C. Long-Term Maintenance Plan and Schedule

Table 1 identifies the maintenance activities to be performed, organized by category (monitoring/inspections, preventative maintenance, and remedial sections). Table 1 also identifies site-specific work needed to ensure that the storm water management system functions properly as designed.

D. <u>Stormwater Pre-Treatment Devices</u>

1. KSI Series 2500 HDPE Chamber: Refer to the attached maintenance guideline from the manufacturer for all inspection and maintenance requirements for the pre-treatment structure.

Attachments

- Table 1 Stormwater Management System Long-Term Maintenance Schedule System Component
- 2. KSI Series 2500 HDPE Chamber Manufacture Maintenance Guide

Should you have any questions or need additional information please don't hesitate to contact me at (248) 844-5400.

Sincerely,

SPALDING DEDECKER

Thomas Sovel, PE/ Senior Project Manager

STORM WATER MANAGEMENT SYSTEM LONG-TERM MAINTENANCE SCHEDULE SYSTEM COMPONENT TABLE 1

한 子 Frequency		Annually	Annually and after major events	Annually	Annually		As needed	As needed	X 2 times per year					As needed	As needed	As needed
nierdrain		×	×	×	×		×	×						×	×	×
Inlets to Detention/retention		×	×	×	×			×						×	×	×
Catch Basins, Inlets & Storm Sewers		×	×	×	×		×	×						×	×	×
Flow Restrictors, Overflow Structures & Outlet Pipes		×	×	×	×		×			×					×	×
Manufactured Treatment System		×	×	×	×		×	×				×			×	×
Open Detention System		X	×	×	×		X	X			×			X	X	×
Maintenance Activities	Monitoring/Inspection	Inspect for sediment accumulation**/clogging of stone filter	Inspect for floatables, dead vegetation and debris	Inspect all components during wet weather and compare to as-built plans	Ensure means of access for maintenance remain clear/open	Preventative Maintenance	Remove accumulated sediment	Remove floatables, dead vegetation and debris	Sweeping of paved surfaces (streets and parking lots)	Provide increase inspection frequency and additional cleaning	Mow	Other - (Recommended By Manufacture)	Remedial Actions	Repair/stabilize areas of erosion	Structural repairs	Make adjustments/repairs to ensure proper functioning

^{*}Manufactured treatment system to be cleaned according to manufacture recommendations: at a minimum, whenever sediment accumulates to a depth of 6-12 inches or if sediment resuspension is observed.

NOTE: CHEMICALS SHALL NOT BE APPLIED TO DETENTION AREA , BUFFER STRIPS AND VEGETATED SWALES OR WATERCOURSES.

STORM WATER TREATMENT CHAMBER INSTALLATION AND MAINTENANCE GUIDELINES

INSTALLATION GUIDELINES

- 1. EXCAVATE AREA FOR KSI SWTC AND PREPARE TRENCH BOTTOM PER ASTM D2321, SECTIONS 6 & 7.
- 2. THE KSI SWTC SHALL BE INSTALLED ON A BED OF NO LESS THAN 12" MDOT 6A CRUSHED STONE MATERIALS COMPACTED TO 95% PROCTOR DENSITY. COMPACTED TO 95% (90% MIN. FOR MDOT 6A CRUSHED STONE MATERIAL) OF THE BACKFILL MATERIAL'S MAXIMUM WEIGHT AT A MOISTURE CONTENT NOT GREATER THAN THE OPTIMUM.
- 3. INSTALL KSI SWTC UNIT, HIGH FLOW BYPASS LINE (IF APPLICABLE), DIVERSION STRUCTURE AND EXITING STRUCTURE AT ELEVATIONS INDICATED ON SITE PLAN. COUPLE INLET AND OUTLET HDPE SPLIT COUPLERS TO CONVEYANCE PIPE.
- 4. BACKFILL UNIT WITH MDOT 6A CRUSHED STONE MATERIALS PER ASTM D2321. BACKFILL SHALL BE COMPACTED TO 95% PROCTOR DENSITY.
- 5. THE HDPE ACCESS RISERS SHALL BE FIELD CUT TO FINISH GRADE BY THE CONTRACTOR. SEE RISER INSTALLATION OPTIONS PAGE.
- 6. KSI RECOMMENDS FILLING THE UNIT WITH WATER UPON COMPLETION OF INSTALLATION UP TO THE BAFFLE HEIGHT.
- 7. ONCE THE UNIT IS INSTALLED, PLACE A ORANGE SAFETY FENCE 4-5 FT HIGH WITH TEE POST, AROUND THE SYSTEM. PLACE FENCE 5 FT BEYOND GRID FOOTPRINT. ANY DAMAGE TO THE SYSTEM AS A RESULT OF NOT FOLLOWING THESE INSTRUCTIONS AND THE BLUEPRINT DETAILS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR THE SYSTEM TO KSI'S SATISFACTION. IF GIVEN IN WRITING, A 3-4 DAY LEAD TIME, KSI WILL HAVE A REPRESENTATIVE AVAILABLE ON SITE DURING THE INSTALLATION.

MAINTENANCE GUIDELINES

- 1. ALL STORM WATER TREATMENT CHAMBERS WILL REQUIRE PERIODIC MAINTENANCE DEPENDING ON SPECIFIC SITE CONDITIONS.
- 2. KSI RECOMMENDS CLEANING THE SWTC QUARTERLY AND AFTER HEAVY RAIN STORMS. SEDIMENT IS EASIER TO REMOVE WHEN IT IS REMOVED ON A REGULAR BASIS.
- 3. DISPOSAL OF MATERIAL FROM THE KSI SWTC ARE SIMILAR TO THAT OF ANY OTHER BEST MANAGEMENT PRACTICES (BMP). LOCAL GUIDELINES SHOULD BE CONSULTED PRIOR TO DISPOSAL OF THE SWTC CONTENTS. PETROLEUM WASTE PRODUCTS SHOULD BE REMOVED BY A LICENSED WASTE MANAGEMENT COMPANY.
- 4. IF A HYDROCARBON REMOVAL SYSTEM WAS INSTALLED REPLACE IT WHEN IT TURNS BLACK. UNIT CAN BE DISPOSED OF VIA NORMAL REFUSE REMOVAL. SPENT UNIT DOES NOT LEACH CAPTURED CONTAMINATES.

WHITE = NEW
GRAY = WORKING
BLACK = SPENT - NEEDS REPLACEMENT - CONTACT KSI FOR REPLACEMENT PARTS

5. AFTER CLEANING THE UNIT - KSI RECOMMENDS REFILLING THE UNIT WITH WATER.

DESIGN BY: AG / RK

REV: 4-1-22
DATE: 10-10-08

MANUF. APPROVAL BY: . SCALE: NTS

DRAWING NO. SWTC INSTALL & MAINT.



KENNEDY SOLUTIONS, INC. 2111 Sage Lake Road Prescott, MI 48756 Ph: 800-699-4046