



PLAN COMMISSION / ZONING BOARD OF APPEALS AGENDA

Thursday, October 26, 2023
6:30 P.M.

Frankfort Village Hall
432 W. Nebraska Street (Board Room)

1. Call to Order
2. Roll Call
3. Approval of Minutes of October 12, 2023
4. **Public Hearing: 165 Industry Avenue, Unit C (Unit 3 on Plat of Survey) – CNC Lawncare (Ref#107)**
Requests: (1) Special Use Permit for a Landscape Business; and (2) Special Use Permit for Outdoor Storage of uncontained bulk materials in the I-2 General Industrial District (PINs: 19-09-34-103-009-1001, 19-09-34-902-000-0000, 19-09-34-100-071-0000).
5. **Public Hearing: 21420 S. Harlem Avenue – Thrift Home & Restoration (The Bridge Teen Center) (Ref#108)**
Requests: (1) Special Use Permit for a Planned Unit Development including certain zoning exceptions; and (2) Special Use Permit for indoor retail sales of goods, between 5,000 and 10,000 square feet, in the B-4 Office District, (3) Preliminary/Final PUD Development Plan, and (4) Preliminary and Final Plat of Resubdivision (PIN 19-09-24-401-022-0000).
6. **Public Hearing: 601 Prestwick Drive – Prestwick Country Club Cart Barn (Ref#109)**
Requests: Four (4) Zoning Ordinance variations which pertain to exceeding the maximum size of an accessory structure, exceeding the maximum height of an accessory structure, location of an accessory structure in a location other than a side or rear yard, and location of an accessory structure in front of the front façade of the primary structure, to construct a new accessory building (cart barn for the storage of golf carts) for the property located at 601 Prestwick Drive, Frankfort, IL 60423 (PIN: 19-09-25-102-009-0000).
7. **Workshop: Village of Frankfort Zoning Ordinance Text Amendment – Accessory Structures**
Future Public Hearing Request: Consideration of proposed revisions to the Village of Frankfort Zoning Ordinance regarding accessory structures (Article 5, Section D).
8. Public Comments
9. Village Board & Committee Updates
10. Other Business
11. Attendance Confirmation (November 9, 2023)
12. Adjournment

All applicants are advised to be present when the meeting is called to order. Agenda items are generally reviewed in the order shown on the agenda, however, the Plan Commission/Zoning Board of Appeals reserves the right to amend the agenda and consider items in a different order. The Commission may adjourn its meeting to another day prior to consideration of all agenda items. All persons interested in providing public testimony are encouraged to do so. If you wish to provide public testimony, please come forward to the podium and state your name for the record and address your comments and questions to the Chairperson.



MINUTES

MEETING OF VILLAGE OF FRANKFORT PLAN COMMISSION / ZONING BOARD OF APPEALS

October 12, 2023 –VILLAGE ADMINISTRATION BUILDING

432 W. NEBRASKA STREET

Call to Order: Chair Schaeffer called the meeting to order at 6:30 PM

Commissioners Present: Nichole Schaeffer (Chair), Will Markunas, Dan Knieriem, Brian James, Jessica Jakubowski, David Hogan, Johnny Morris

Commissioners Absent: None

Staff Present: Planning & Economic Development Director Mike Schwarz, Senior Planner Christopher Gruba, Planner Amanda Martinez

Elected Officials Present: None

A. Approval of the Minutes from September 7th, 2023

Chair Schaeffer asked for questions or comments regarding the minutes. There were none.

Motion (#1): To approve the minutes from September 7th, 2023, as presented.

Motion by: James

Seconded by: Morris

Approved: (4-0, commissioners Hogan, Knieriem and Markunas abstained)

B. Approval of the Minutes from September 28th, 2023

Chair Schaeffer asked for questions or comments regarding the minutes. There were none.

Motion (#2): To approve the minutes from September 28th, 2023, as amended.

Motion by: Jakubowski

Seconded by: Markunas

Approved: (7-0)

C. Public Hearing: 9115 Roma Court – Roma Sports Building Addition & Outdoor Recreation

Christopher Gruba presented the staff report.

The applicant, Steve Rotondi, signed in at the podium. He noted that the plans before the Commission had incorporated comments made at the workshop.

Commissioner Schaeffer asked if there were any members of the public that wished to speak. Bruce Warner signed in at the podium. He said that he owns the adjacent property to the east and that he does not have any objections to the project. He did note that there is a row of trees between his property and the applicants and that this tree row is technically located on his property and not on Roma's property. He noted that the property lines shown on the aerial photograph are slightly incorrect and that he wants the trees to remain unaffected by any development.

Chair Schaeffer said that staff had received a letter from adjacent property owner, Jeff Graefen, that she read into the record. Mr. Graefen's letter said that he did not object to the proposed development.

Chair Schaeffer asked if any other members of the public wished to speak. There were none.

Motion (#3): To close the public hearing.

Motion by: Markunas

Seconded by: Jakubowski

Chair Schaeffer asked the Commission for comments regarding the Special Use Permit for indoor recreation. There were none. She asked the Commission for comments regarding the Special Use Permit for outdoor recreation. There were none.

Chair Schaeffer asked the Commission for comments regarding the variation to permit three points of vehicular access to Roma Court, whereas only two are permitted. She added that staff had spoken to the Public Works Department regarding this request and they had no objection. Commissioner Markunas said that he thought that three points of vehicle access to Roma Court seemed appropriate given the length of the property itself, including the length of the parking lot.

Chair Schaeffer asked the Commission for comments regarding the variation to permit a front yard landscape setback of 15.2', whereas 20' is required. Commissioner Knieriem asked the applicant why he chose to not move the smaller soccer field closer to the larger soccer field. Mr. Rotondi said that they were moved further away from the street for safety reasons and because he intended to use as much of the "crown" of the existing playfields as before, meaning he would have to move less dirt. He also said that there were existing

stormwater facilities in place that he didn't want to disturb. Commissioner Knieriem said that it looked like there was potential to expand the parking lot even further without impacting the smaller soccer field. Mr. Rotondi replied that the project has already gone over budget and expanding the parking lot even further would make it even more over budget. Commissioner Knieriem asked the applicant if gates were proposed in the new 8' tall black, vinyl coated chain link fencing, in case balls needed to be retrieved. Mr. Rotondi replied that there would be a pedestrian gate every 100' in the fencing.

Commissioner Markunas said that the proposed landscaping looked good, but asked if the landscaping could be extended to the rest of the property. Mr. Rotondi replied that there are existing bushes and river rock along the building and that all parking lot islands have trees. He said that the proposed street trees meet the requirement of 1 every 35' along Roma Court.

Chair Schaeffer asked staff to elaborate on the loading zone as illustrated on the plans. Chris Gruba said that the loading area that was originally approved for the building was removed and restriped with customer parking and that it should be reverted back to a striped loading zone as part of the proposed site improvements. He noted that the Geometric Plan (Sheet C-2) included a note stating "existing loading area to remain, loading area to be re-striped and existing parking stall striping in front of loading area to be removed".

Chair Schaeffer asked staff if a trash enclosure was included on the plans. Chris Gruba replied that Sheet C-2 stated that a trash enclosure, meeting code, would be installed. However, staff has not received any detail drawings of the proposed trash enclosure to-date. Mr. Rotondi and his architect, Robin Ersfeldt, said that they had submitted a dumpster enclosure detail drawing to staff. Chris Gruba responded that it may have been missed and not included but could not confirm that it had been received. Regardless, he'd either locate the dumpster detail or request it from the applicant and ensure that it would be included with the Village Board's packet.

Commissioner James said that he appreciated that the applicant had added more parking since the workshop, which would help lessen the need to shuttle people in from other locations.

Chair Schaeffer asked for comments regarding the Plat of Resubdivision. There were none.

Motion (#4): Recommend to the Village Board to approve the Special Use Permit for indoor recreation on Lot 1 of the Roma 2 Resubdivision to include the building addition, in accordance with the reviewed plans, findings of fact, and public testimony, conditioned on final engineering approval.

Motion by: Jakubowski

Seconded by: Hogan

Approved: (7-0)

Motion (#5): Recommend to the Village Board to approve the Special Use Permit for outdoor recreation greater than 1 acre on Lot 1 of the Roma 2 Resubdivision for the outdoor playing fields, in accordance with the reviewed plans, findings of fact, and public testimony, conditioned on final engineering approval.

Motion by: James

Seconded by: Morris

Approved: (7-0)

Motion (#6): Recommend to the Village Board to approve the Variation to permit at 15.2' front landscape setback whereas 20' is required per Article 6, Section C, Part 1, in accordance with the reviewed plans, findings of fact, and public testimony, conditioned on final engineering approval.

Motion by: James

Seconded by: Hogan

Approved: (7-0)

Motion (#7): Recommend to the Village Board to approve the Variation to permit three points of vehicular access to Roma Court, whereas a maximum of two are permitted per Article 6, Section C, Part 2 (n)(3), in accordance with the reviewed plans, findings of fact, and public testimony, conditioned on final engineering approval.

Motion by: Markunas

Seconded by: Jakubowski

Approved: (7-0)

Motion (#8): Recommend approval of a Plat of Resubdivision to consolidate Lot 1 of Roma Resubdivision with Lots 16-18 of East Point Park Subdivision, to create a single Lot 1 of Roma 2 Resubdivision, subject to staff approval of any technical revisions prior to recording.

Motion by: Morris

Seconded by: Markunas

Approved: (7-0)

D. Workshop: Dunkin' Donuts

Mike Schwarz presented the staff report and noted that the presentation slides show newly submitted plans.

The applicant, Krupa Shah, and the applicant's architect, Eric Carlson, approached the podium. Eric Carlson added the following points for discussion:

- The grade difference between the north and south sides of the property is very significant.
- The engineers working on the project tried to minimize the amount of retaining walls, so they put them in places that are least visible from the public right-of-way; there is a berm from Route 45 to the parking lot.
- The proposed CMU color for the wainscot of the building will closely match the Vineyards development.
- The applicant, Ms. Shah, had to buy 6 acres and ended up only with 3 acres of buildable land for this project.
- Dunkin has a need for visibility along Route 45. The applicant would like to have space on the monument sign for all four proposed tenant spaces.
- As suggested by staff, the applicant is willing to add a horizontal banding feature on the elevations of the building.
- The applicant would like feedback on the proposed orange, white and pink colors for the Dunkin' signage since it relates to branding.

Chair Schaeffer stated that there may be an error in the staff report pertaining to the hours of operation and asked the applicant for clarification.

The applicant responded that business would open from 4:00 a.m. to 8:00 p.m. Monday through Saturday and 5:00 a.m. to 8:00 p.m. on Sunday. These are the same hours of operation as the existing location.

Chair Schaeffer stated that all the special use requests seem reasonable and asked Commissioners if they have any initial questions on the special use requests.

Commissioner Markunas asked if the furnishings and fencing for the proposed outdoor seating will be submitted to staff.

Eric Carlson responded that they will submit those details after the workshop and that they usually try to keep the fence away from vehicular traffic.

Commissioner Markunas asked staff to assist in guiding the applicant to match other approved outdoor seating locations in the Village of Frankfort.

Mike Schwarz responded that the applicant is not at the point of submitting such details, but he will guide them to be consistent with other locations and that he will ensure that staff receives the details.

Commissioner Morris asked about the Dunkin' Green program.

Eric Carlson responded that the program has not been discussed for a while since the Covid-19 Pandemic.

Commissioner Hogan asked about the proposed retaining wall and if there are any other alternatives that can be discussed by the engineers.

Eric Carlson responded that the project engineers tried a lot of options and had concluded on still having retaining walls but minimizing the amount of retaining wall as much as possible. The entrance along Route 45 becomes steep, so the only people who will see the wall will be the people who visit the subject site.

Commissioner Hogan asked how well the wall will hold up over time.

Eric Carlson responded that the retaining wall is proposed outside of the flood zone so that there won't be any water pushing up against that wall.

Chair Schaeffer stated that there is not much to do with the existing slope on the subject site and it is almost a necessity to have retaining walls to have a flat parking lot. She advised staff and the applicant to make sure there is a structural engineer to ensure the wall will have structural integrity over time.

Commissioner Jakubowski stated that she is fine with the proposed retaining wall because it is not very visible from adjacent properties.

Commissioner James stated that the proposed retaining wall is not a variation request, and the intent of the Code may be more for residential property.

Commissioner Markunas asked if there is any way to have the retaining wall color blend in with the landscaping on the subject site.

Commissioner Jakubowski added that the proposed Abbey Woods North retaining wall has a stone look which may be a good comparison material.

Eric Carlson responded that they could provide more landscaping to make the wall less visible.

Chair Schaeffer asked if there are any native plantings proposed for the wet bottom detention basin.

Eric Carlson responded that they don't know the answer right now on what type of detention will be required, so they are not sure if landscaping will be at the bottom.

Chair Schaeffer asked if the parking lot island will have landscaping.

Mike Schwarz responded that the parking lot islands are required to have landscaping. He also notes that the applicant provided foundation landscaping even though it is not required.

Commissioner Markunas stated that the applicant will need to provide details on the drive-through overhead bars.

Chair Schaeffer asked if there will be any signage to identify where the one-way circulation in the parking lot starts.

Eric Carlson responded that the newly submitted plans point out such signage.

Commissioner Markunas asked if the applicant knows who the other tenants will be and what their respective hours of operations will be.

The applicant responded that she has started conversations but wanted to hear the feedback from the workshop meeting first.

Commissioner Morris stated that he likes the second drive-through lane being dedicated for mobile orders only. He asked if any parking spaces will be specifically dedicated for carry outs. He asked if there is any data as it relates to parking demand.

The applicant responded that a dedicated carry out space will not be provided on the subject site. She did not have information on parking demand but stated that the business is not really sought as a destination; rather it is more sought after for its drive-through service where it typically takes 88 seconds to get through the drive-through lane.

There was some discussion about the proposed access point along Route 45. Commissioners agreed to discuss the access point after IDOT approval and recommendations are received.

Chair Schaeffer asked about how the transition between two-way and one-way provides circulation.

Eric Carlson responded that the intent is to keep the circulation aligned with the flow of the drive-through lanes to avoid conflicts. Additionally, customers of the other tenants have a choice to get out via the two-way circulation. The parking spaces at the south end of the property will be mostly employee parking.

There was general agreement from Commissioners that the flow around the building was okay with them.

Commissioner Markunas stated that the applicant should move the pavement signage further east and that there should be a one-way sign placed on the south end of the site prior to drivers getting behind the building.

Chair Schaeffer stated that the applicant will need to provide trash enclosure details.

Commissioner Markunas stated that there is not a current need for a multi-use path along La Grange Road because a path is nowhere near the subject site and there are already sidewalks constructed along Lagrange Road.

Commissioner Morris asked staff if the transportation plan speaks to improvements planned for Route 45.

Mike Schwarz responded that the Comprehensive Plan calls for a future path along Route 45 but there is no such path located in the immediate area.

Eric Carlson asked the Commissioners how they would feel if the applicant were to remove the outer landscape island proposed by the drive-through lane on the east side of the property for better circulation.

Commissioner Jakubowski stated that she does not have an issue with removing that landscape island because it helps customers who want to get out of the drivethrough lane sooner.

Commissioner Markunas asked staff if removing the landscape island would add a variation request.

Mike Schwarz responded yes.

Commissioner Markunas advised the applicant not to add a variance request. The landscape island prevents people from backing out of a parking space and hitting a person in the drive through lane.

Chair Schaeffer added that the applicant should keep the landscape island in the plans unless it is a necessity to remove it.

Commissioner Knieriem asked if the calculations done for tree preservation were done before or after the property owners cleared the site.

Mike Schwarz stated that the tagging was done after the site was cleared.

The applicant added that the site was cleared before she purchased the land.

Commissioner Knieriem asked if the applicant had already purchased the site.

The applicant responded that she purchased the site June 2023 and plans to continue operation of Dunkin' in one of the tenant spaces and lease the other tenant spaces.

Commissioner Jakubowski stated that she prefers all tenant spaces to have a similar roof pediment type.

Commissioner Hogan added that he is fine with the shape of the roof pediment but would like the Dunkin' sign to be centered over the door.

Eric Carlson responded that he could not center the Dunkin' sign due to the structure of the roof behind the sign.

Commissioner Markunas stated that the submitted plans show a brick veneer instead of full brick. He suggests putting natural stone on the building.

Eric Carlson passed around samples of the proposed material.

Commissioner James added that there are other restaurant buildings along Lagrange Road that have similar architecture and material to what the applicant is proposing.

Eric Carlson stated that visibility of Dunkin' wall sign is a concern. He asked if they can continue with the square look for the Dunkin' sign since newer built Dunkin's are aiming toward that style.

Chair Schaeffer stated that buildings around the property have gables and that a uniform gable look is preferred.

There was some discussion about adding a band on the elevation to be consistent with other commercial buildings in the Village of Frankfort.

Commissioner James stated that the Dunkin' located at Wolf and 187th is a good comparable for architectural purposes.

The applicant asked the Commissioners how Dunkin', as the anchor of the proposed multi-tenant building, could stand out more.

Commissioner Markunas stated that a taller roof at the corner unit is typically a way that anchor tenants in the Village of Frankfort stand out.

There was some discussion about comparable anchor tenants that provided a prominent architectural feature such as Dollar Tree or Senso Sushi.

Commissioner Jakubowski stated that she prefers the monument sign to be full brick with the letters for the tenant names attached right onto the brick.

Commissioner Knieriem stated that since the applicant may be willing to change the signage on the building that was specific to their branding, Dunkin' could potentially have their branding colors on the monument sign while all other tenants have white lettering on the monument sign.

Commissioner Knieriem stated that he would be open to compromise on the size of the sign if the applicant agrees to not propose a backlit sign.

Eric Carlson stated that with a larger sign, there is flexibility for the number of tenant signs which was originally a concern of the applicant. He added that Dunkin' appreciates a white background for their signs. He asked how they could implement a white background.

Commissioner Knieriem responded that they could put cultured stone as the light background to put the Dunkin' sign on.

There was a consensus among the Commissioners that the request to vary from the 30-foot required landscaped front yard setback is reasonable because it will help with the concern for visibility and the applicant is willing to make accommodations.

Commissioner Knieriem asked why the applicant is planning on moving from the existing location.

The applicant responded that she is seeking to relocate the business because she would like to own the tenant space rather than lease it. Additionally, the flow of traffic at the existing location is not great and there is no space at the existing location for amenities like outdoor seating.

There was some discussion about lighting around the monument sign.

The applicant asked if another drivethrough or pick-up window would be allowed at the subject site.

Commissioner Knieriem asked how a pick-up window is different from a drive-through window.

The applicant stated that a pick-up window would provide service to people who place an order online and walk to the window to pick-up their online order.

There was consensus among the Commissioners that an additional drivethrough or pick-up window service would negatively impact the operation of the anchor tenant, Dunkin'.

E. Public Comments

There were no public comments.

F. Village Board & Committee Updates

Mike Schwarz stated that Sparks Coffee and 108 Walnut Street received approval at the Village Board level and the applicants will be working with the Building Department on applying for building permits. He added that the Committee of the Whole held a discussion at its October 9th meeting about a new procedure where any split vote from the Plan Commission will go to a COW meeting before going to a Village Board meeting.

Mike mentioned he will be emailing the Commissioners a draft of the 2024 meeting schedule that was discussed by the Village Board.

G. Other Business

There was no other business discussed.

H. Attendance Confirmation (October 26th, 2023)

Chair Schaeffer asked Commissioners to please let staff know if someone cannot attend the next meeting.

Motion (#9): Adjournment 9:38 P.M.

Motion by: Jakubowski

Seconded by: Markunas

The motion was unanimously approved by voice vote (7-0).

Approved October 26th, 2023

As Presented _____ As Amended _____

_____/s/ Nicole Schaeffer, Chair

_____/s/ Secretary

Project: CNC Lawncare, Inc.
Meeting Type: Public Hearing
Request: 2 Special Use Permits (Landscape Company and Outdoor Storage of uncontained bulk materials)
Location: 165 Industry Avenue, Unit C (Unit 3 on Plat of Survey)
Subdivision: 165 Industry Avenue Condos
Applicant: Chad Uthe, President of CNC Lawncare, Inc.
Prop. Owner: AJ Inter Estate, LLC
Representative: Same as applicant
Report by: Michael J. Schwarz, AICP

Site Details

Lot Size: 2.52 acres
PIN: 19-09-34-103-009-1001 (Condo Unit),
 19-09-34-902-000-0000 (Common Area),
 19-09-34-100-071-0000 (Storage Area)
Existing Zoning: I-2, General Industrial
Proposed Zoning: I-2 with a Special Use for a Landscape Company
 and a Special Use for Outdoor Storage of
 uncontained bulk materials
Buildings: 1 building, 2 parcels
Total Sq. Ft.: 6,500 square feet +/- (tenant space)

Adjacent Land Use Summary:

	Land Use	Comp. Plan	Zoning
Subject Property	Industrial	Business Park	I-2
North	Undeveloped/Industrial	Business Park	I-2
South	Industrial	Business Park	I-2
East	Industrial	Business Park	I-2
West	Industrial	Business Park	I-2

Figure 1. Location Map



Project Summary

The applicant proposes to operate a landscape company with accessory outdoor storage of uncontained bulk materials at 165 Industry Avenue. The property at 165 Industry Avenue is subdivided into three different condominium units within the principal structure and includes a common area around the principal structure. The applicant would locate his operations in Unit C (Unit 3 on the Plat of Survey) and would have access to the common area around the building. The applicant is proposing outdoor storage on a separate parcel of land immediately adjacent to the north, which is under the same ownership. The PC/ZBA discussed this application at a workshop on April 20, 2023 (see attached minutes).

Attachments

1. 2022 Aerial Photo from Will County GIS
2. Plat of Survey of all subject parcels, dated 8.21.14, received 1.12.23

3. Topographic Survey of all subject parcels, dated 6.1.21, received 1.19.23
4. Site Plan ("Yard Sketch") for all subject parcels, dated 9.27.23, received 9.27.23
5. Mesh Screening Image submitted by applicant, received 7.19.23
6. Special Use Findings of Fact prepared by applicant
7. Site photos taken on 04.20.23
8. Approved Minutes of the 4.27.23 PC/ZBA Meeting
9. Special Use Findings of Fact Commissioner Evaluation Form

Analysis

In consideration of the request, staff offers the following points of discussion:

Proposed Uses

1. Landscape companies and outdoor storage of uncontained bulk materials are both permitted as special uses in the I-2, General Industrial District.
2. Per the Zoning Ordinance, all outdoor storage facilities must comply with the setback requirements and bulk regulations of the I-2 District. All outdoor storage areas shall also be located on a paved surface unless the storage area is located in the rear yard and behind the rear façade of the primary structure and is enclosed by a fence. There is currently no fencing around the uncontained bulk materials located on site.
3. Based on early conversations with the applicant, staff was informed that the proposed outdoor storage will be located on the north side of the property on a separate parcel, behind the front façade of the building at 165 Industry Avenue. According to the submitted Plat of Survey and Site Plan ("Yard Sketch"), the outdoor storage is located on the northmost portion of Parcel 1.
4. During the initial site visit that staff conducted on April 20, 2023, staff observed a CNC Lawncare sign applied to the inside of a window in Unit C. A CNC Lawncare pickup truck was also parked on the site. Subsequent site visits have confirmed that the business is currently operating from the site. Finally, staff notes that the CNC Lawncare website reflects a business address of 165 Industry Avenue, Unit C. Although a Business License was applied for, it has not yet been issued pending the outcome of the subject Special Use Permits application.

Parcel Layout, the Zoning Ordinance, and the Subdivision Ordinance

1. The Special Use Permit requests involve two parcels of land (Parcel 1, which includes Units 1, 2 and 3 in 165 Industry Avenue Condominium, on Lot 3 in Empire's Subdivision; and Parcel 2 which is an unsubdivided property that may at one time have been part of the property located at 1000 and 1018 Lambrecht Road to the east. Staff researched and discovered that the PIN for this parcel was assigned in October 1992. The underlying land was annexed into the Village of Frankfort prior to 1974, which means that the land would have been subject to the 1976 Subdivision Regulations. Parcels 1 and 2 are currently under the same ownership but are separate tax parcels.
2. The proposed landscape business would operate out of Unit C (Unit 3 on the Plat of Survey) which is a condominium unit (the PIN ending 009-1001 on Parcel 1) and is considered the principal use of that unit on the property. Meanwhile, the proposed outdoor storage would be located on the northern portion of Parcel 1 (PIN 19-09-34-902-000-0000) which is the common area of the overall subject property and would be accessory to the landscape company use. Per the Zoning Ordinance, accessory uses and structures must be "in connection with" a principal use which is permitted within such district.
3. The applicant has permission from the property owner to use both the condominium unit and the northern plot of land to operate his business. However, if a strict interpretation of the Zoning Ordinance was

applied, the proposed outdoor storage would not be permitted on the northern parcel, as it is not associated with a principal use on that same northern parcel. Article 5, Section D, Part 1(d) of the Zoning Ordinance states, *"Accessory uses and structures must be in connection with a principal use which is permitted within such district."* However, one could interpret the phrase "in connection with" in a different way, such that the accessory use is physically adjacent to the principal use.

4. Article 5, Section D, Part 1(b) of the Zoning Ordinance states, *"Accessory uses and structures, as defined in Article 12, in the B-1, B-2, B-3, B-4, O-R, I-1, I-2 and H-1 when the property is not used for single-family residential, must be approved during the site plan review process (as described in Article 3, Section H)."*
5. The parcel to the north also does not meet the requirements of the Subdivision Regulations (Ord. 921). Section 9.5-5 states that *"[e]very lot shall front on or abut a public street. Lots with access only to private drives or streets shall be permitted only with the approval of the Planning Commission."* Today, the only way to access the parcel to the north is by driving through the common area of the condominiums to the south. However, since the two parcels of land are separate tax parcels, it is possible that they may be held by different property owners at some point in the future. In that case, any potential future owner of the parcel to the north would not have frontage for direct access onto a public street.
6. Staff has identified several options for the Plan Commission to consider to rectify the above situation.
 - One option (preferable) is for the property owner to consolidate both Parcels 1 and 2 via a Plat of Resubdivision, and amend the condominium documents, so that the northern parcel is brought into compliance with the Subdivision Ordinance. This option would also address the provision stated in the Zoning Ordinance relating to principal and accessory uses being in connection with one another.
 - Another option may be to require the recording of a cross access easement, in which the owner of the condominium property (Parcel 1) grants the owner of parcel to the north (Parcel 2) access to Industry Avenue. This option would require the approval of the Plan Commission per Section 9.5-5 of the Subdivision Regulations which states *"Every lot shall front on or abut a public street. Lots with access only to private drives or streets shall be permitted only with the approval of the Planning Commission."* However, this option would not resolve the Zoning Ordinance issue. There is also some uncertainty regarding the legality of granting an easement to oneself.
7. Staff previously communicated with the property owner and his attorney about these options. At the time of writing, the property owner has not indicated how he wishes to proceed in addressing the situation in order for the proposed landscape company to proceed through the Special Use process. Staff is suggesting that the Plan Commission/Zoning Board of Appeals should address this issue with a condition that would stipulate that the property owner shall consolidate the parcels within one year of Village Board approval of the Special Use Permit for a Landscape Business.
8. Based on available aerial photographs, it appears that there is a driveway on the north end of 1000 and 1018 Lambrecht Road that runs westward to Parcel 2. The subject property owner has suggested that the proposed tenant (CNC Lawncare, Inc.) could use that driveway to access the proposed outdoor storage area. Staff has confirmed that there is an existing recorded ingress and egress easement located in the northeastern corner of the northern parcel which was recorded in 1998 as depicted on the submitted Plat of Survey. The eastern half of the driveway which is located within that easement (the half which directly connects to Lambrecht Road and runs along 1018 Lambrecht) is paved, while the western half (which

connects to Parcel 2) is gravel. As seen on the aerial photo and the site photos, the driveway narrows to a single travel lane over a culvert as it crosses onto the subject property.

Standards for Special Uses

No special use shall be recommended by the Plan Commission, unless such Commission shall find:

- a. That the establishment, maintenance or operation of the special use will not be detrimental to, or endanger, the public health, safety, morals, comfort or general welfare.
- b. That the special use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood.
- c. That the establishment of the special use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.
- d. That the exterior architectural appeal and functional plan of any proposed structure will not be so at variance with either the exterior architectural appeal and functional plan of the structures already constructed, or in the course of construction in the immediate neighborhood or the character of the applicable district, as to cause a substantial depreciation in the property values within the neighborhood.
- e. That the adequate utilities, access roads, drainage and/or necessary facilities have been or are being provided.
- f. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.
- g. That the special use shall, in all other respects, conform to the applicable regulations of the district in which it is located, except as such regulations may, in each instance, be modified by the Village Board, pursuant to the recommendations of the Plan Commission.

Findings for Consideration

The Plan Commission/Zoning Board of Appeals finds:

1. That the establishment, maintenance or operation of the special use(s) (for a Landscape Business and for the outdoor storage of uncontained bulk materials) will not be detrimental to, or endanger, the public health, safety, morals, comfort or general welfare.
2. That the special use(s) (for a Landscape Business and for the outdoor storage of uncontained bulk materials) will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood.
3. That the establishment of the special use(s) (for a Landscape Business and for the outdoor storage of uncontained bulk materials) will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.
4. That the exterior architectural appeal and functional plan of any proposed structure will not be so at variance with either the exterior architectural appeal and functional plan of the structures already constructed, or in the course of construction in the immediate neighborhood or the character of the applicable district, as to cause a substantial depreciation in the property values within the neighborhood.

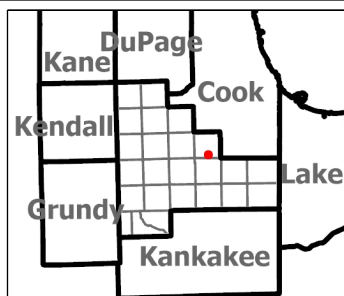
5. That the adequate utilities, access roads, drainage and/or necessary facilities have been or are being provided.
6. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.
7. That the special use(s) (for a Landscape Business and for the outdoor storage of uncontained bulk materials) shall, in all other respects, conform to the applicable regulations of the district in which it is located, except as such regulations may, in each instance, be modified by the Village Board, pursuant to the recommendations of the Plan Commission.

Affirmative Motions

For the Commission's consideration, staff provides the following potential affirmative motions:

1. Recommend that the Village Board approve the request for a Special Use Permit for a Landscape Business for the property located at 165 Industry Avenue, Unit 3 (PINs: 19-09-34-103-009-1001, 19-09-34-902-000-0000, 19-09-34-100-071-0000), in accordance with the submitted plans, public testimony, and Findings of Fact, subject to the following condition(s):
 1. Within one year of the date of Village Board approval of a Special Use Permit for a Landscape Business, the property owner shall record a Plat of Resubdivision to consolidate Parcels 1 and 2, and shall amend the existing condominium documents and record amended condominium documents as may be legally necessary, so that the northern parcel is brought into compliance with the Subdivision Ordinance (by achieving frontage on a public right-of-way) and the proposed accessory use for outdoor storage of uncontained bulk materials is thereby brought into compliance with the Zoning Ordinance (by achieving a location on the same parcel and in connection with the principal use of a landscape business); Non-compliance with this condition may result in fees and penalties pursuant to Article 11, Section A of the Zoning Ordinance; and
 2. Any and all vehicles associated with the landscape business, including customer vehicles, employee personal vehicles, trucks, and trailers shall be parked on an approved paved surface; and
 3. Semi-trailers, shipping containers or other similar storage containers are prohibited for storage; and
 4. Any and all dirt and other debris on the paved surfaces of Parcels 1 and 2 and/or on any portion of the public street, shall be swept clean on a daily basis; and
 5. Any and all existing outdoor storage materials, equipment, and vehicles on Parcel 2 (PIN 19-09-34-100-071-0000) that are not in accordance with the submitted Site Plan ("Yard Plan" dated September 27, 2023) shall be removed from said parcel within 60 days of the date of Village Board approval of a Special Use Permit for a Landscape Business; and
 6. The property owner or owner of the landscape business shall submit a Grading Plan for Parcel 2 (PIN 19-09-34-100-071-0000), within 60 days of the date of Village Board approval of a Special Use Permit for a Landscape Business, with said Grading Plan to be reviewed by the Village Engineer; Following approval of the Grading Plan, all dirt ground surfaces shall be planted with grass seed or installed with sod within 6 months of the date of Village Board approval of a Special Use Permit for a Landscape Business.

2. Recommend that the Village Board approve the request for a Special Use Permit for Outdoor Storage of uncontained bulk materials, in the I-2 General Industrial District, for the property located at 165 Industry Avenue, Unit 3 (PINs: 19-09-34-103-009-1001, 19-09-34-902-000-0000, 19-09-34-100-071-0000), in accordance with the submitted plans, public testimony, and Findings of Fact, subject to the following condition(s):
 1. If and when the property owner desires to transfer ownership of Parcel 2 (PIN 19-09-34-100-071-0000), if such transfer is done prior to any consolidation of Parcels 1 and 2, the Special Use Permit for outdoor storage of uncontained bulk materials shall become null and void on any portion of Parcel 2 (PIN 19-09-34-100-071-0000); and
 2. Bulk materials stored on site may not exceed the fence height and/or shall be completely screened from the public right-of-way and adjacent properties; and
 3. Semi-trailers, shipping containers or other similar storage containers are prohibited for storage; and
 4. Any and all dirt and other debris on the paved surfaces of Parcels 1 and 2 and/or on any portion of the public street, shall be swept clean on a daily basis; and
 5. Any and all existing outdoor storage materials, equipment, and vehicles on Parcel 2 (PIN 19-09-34-100-071-0000) that are not in accordance with the submitted Site Plan ("Yard Plan" dated September 27, 2023) shall be removed from said parcel within 60 days of the date of Village Board approval of a Special Use Permit for Outdoor Storage of uncontained bulk materials; and
 6. The property owner or owner of the landscape business shall submit a Grading Plan for Parcel 2 (PIN 19-09-34-100-071-0000), within 60 days of the date of Village Board approval of a Special Use Permit for a Landscape Business, with said Grading Plan to be reviewed by the Village Engineer; Following approval of the Grading Plan, any and all dirt ground surfaces shall be planted with grass seed or installed with sod within 6 months of the date of Village Board approval of a Special Use Permit for Outdoor Storage of uncontained bulk materials.



Legend

- Address Points
 Roadways
 Federal
 State
 County
 Local and Private
 Parcels
 Townships

Notes

Date: 10/18/2023

1: 2,257



0

0.04

0.07 Miles



Projection

WGS_1984_Web_Mercator_Auxiliary_Sphere

Disclaimer of Warranties and Accuracy of Data: Although the data developed by Will County for its maps, websites, and Geographic Information System has been produced and processed from sources believed to be reliable, no warranty, expressed or implied, is made regarding accuracy, adequacy, completeness, legality, reliability or usefulness of any information. This disclaimer applies to both isolated and aggregate uses of the information. The County and elected officials provide this information on an "as is" basis. All warranties of any kind, express or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, freedom from contamination by computer viruses or hackers and non-infringement of proprietary rights are disclaimed. Changes may be periodically made to the information herein; these changes may or may not be incorporated in any new version of the publication. If you have obtained information from any of the County web pages from a source other than the County pages, be aware that electronic data can be altered subsequent to original distribution. Data can also quickly become out of date. It is recommended that careful attention be paid to the contents of any data, and that the originator of the data or information be contacted with any questions regarding appropriate use. Please direct any questions or issues via email to gis@willcountvillinois.com.

PLAT OF SURVEY

RECEIVED

By aduffin at 10:56 am, Jan 12, 2023

LEGAL DESCRIPTION

PARCEL 1:

UNITS 1, 2 AND 3, IN 165 INDUSTRY AVENUE CONDOMINIUM AS DELINEATED ON A SURVEY ON THE FOLLOWING DESCRIBED PARCEL OF REAL ESTATE: LOT 3 IN EMPIRE'S SUBDIVISION, OF THE NORTH 363 FEET OF THE SOUTH 1332.20 FEET OF THE EAST 720.00 FEET OF THE WEST 1320 FEET OF THE NORTHWEST QUARTER OF SECTION 34, TOWNSHIP 35 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED NOVEMBER 21, 1975, AS DOCUMENT NO. R75-32245, IN WILL COUNTY, ILLINOIS, WHICH SURVEY IS ATTACHED AS EXHIBIT "A" TO THE DECLARATION OF CONDOMINIUM RECORDED MAY 13, 1985 AS DOCUMENT NO. R85-14444, TOGETHER WITH ITS UNDIVIDED PERCENTAGE INTEREST IN THE COMMON ELEMENTS.

PARCEL 2:

THE WEST 253 FEET OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PROPERTY: THE EAST 660 FEET OF THE WEST 1320 FEET OF THE NORTH 330 FEET OF THE SOUTH 1662.20 FEET OF THE NORTHWEST QUARTER OF SECTION 34, TOWNSHIP 35 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN WILL COUNTY, ILLINOIS.

(165 INDUSTRY AVENUE, FRANKFORT, ILLINOIS)

NOTES:

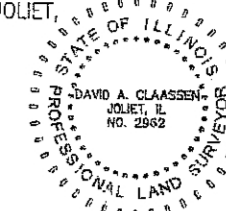
DOC. NO. 528109, BOOK 869 PG. 111 AND DOC. NO. 434189 BOOK 390 PG. 349 BLANKET PIPELINE EASEMENTS. NOT SHOWN.

PIN: 19-09-34-103-009-1001; 19-09-34-103-009-1002; 19-09-34-103-009-1003; 19-09-34-100-071-0000;

STATE OF ILLINOIS
COUNTY OF WILL

THIS IS TO CERTIFY THAT I, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, HAVE SURVEYED THE PROPERTY DESCRIBED IN THE ABOVE CAPTION AS SHOWN BY THE ANNEXED PLAT WHICH IS A TRUE AND CORRECT REPRESENTATION OF SAID SURVEY.

GIVEN UNDER MY HAND AND SEAL AT JOLIET, ILLINOIS, THIS 21st DAY OF AUGUST, 2014.



DAVID A. CLAASSEN, ILLINOIS LAND SURVEYOR NO. 2962
LICENSE EXPIRES 11-30-14

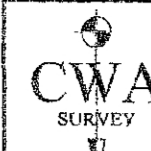
NOTE: REFER TO TITLE POLICY FOR BUILDING AND EASEMENT RESTRICTIONS.

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

○ 5/8" x 30" FOUND IRON
(123.45') REBAR PLACED
123.45' RECORDED DATA
123.45'(COMP) MEASURED DIMENSION
COMPUTED DIMENSION

H:\6100-6199\6163\DWG\6163.DWG

JOB #6163



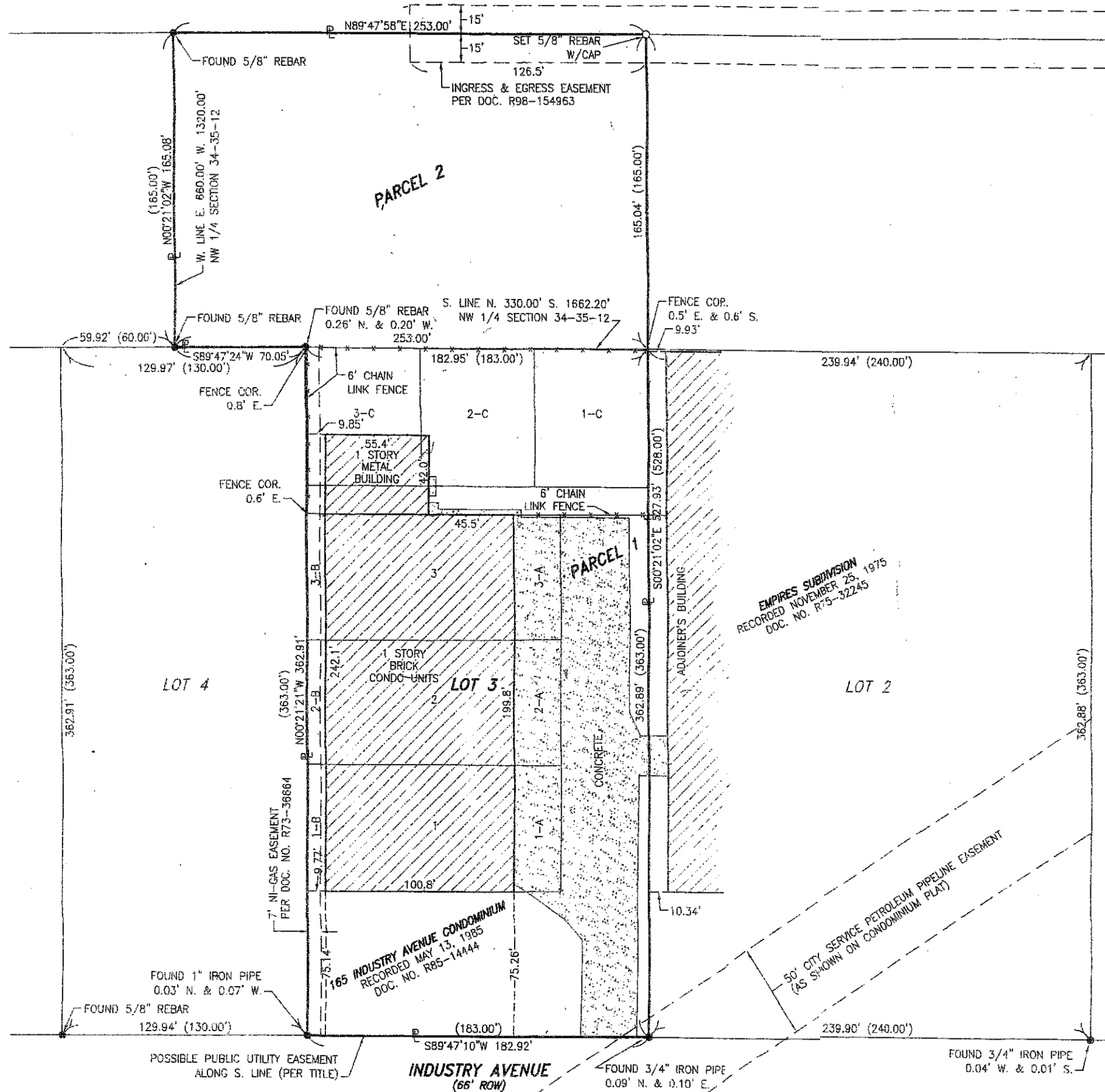
CLAASSEN, WHITE & ASSOCIATES, P.C.
LAND SURVEYORS

121 AIRPORT DRIVE, UNIT 1, JOLIET, ILLINOIS 60431
(815) 744-3720 clausenwhite@cwasurvey.com

RICHARD A. CHISHOLM
9700 W. 131st STREET
PALOS PARK, ILLINOIS 60464

SCALE: 1"=40'
DATE: 08/21/14

40 60 80 100
SCALE: 1" = 40'



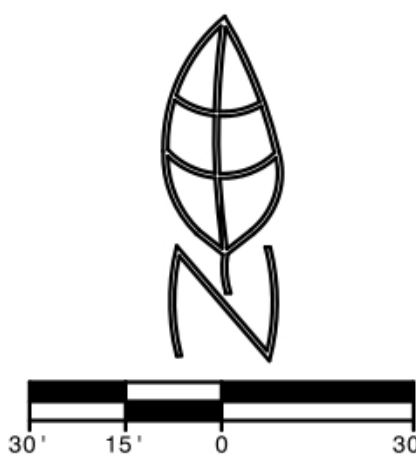
TOPOGRAPHIC SURVEY

OF

PARCEL ONE: UNITS 1, 2 & 3 IN 165 INDUSTRY AVENUE CONDOMINIUM AS DELINEATED ON A SURVEY ON THE FOLLOWING DESCRIBED PARCEL OF REAL ESTATE: LOT 3 IN EMPIRES SUBDIVISION OF THE NORTH 363 FEET OF THE SOUTH 1332.20 FEET OF THE WEST 720.00 FEET OF THE WEST 1320 FEET OF THE NORTHWEST QUARTER OF SECTION 34, TOWNSHIP 35 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED NOVEMBER 21, 1975 AS DOCUMENT NO. R75-32245, IN WILL COUNTY, ILLINOIS, WHICH SURVEY IS ATTACHED AS EXHIBIT "A" TO THE DECLARATION OF CONDOMINIUM RECORDED MAY 13, 1985 AS DOCUMENT NO. R85-14444, TOGETHER WITH ITS UNDIVIDED PERCENTAGE INTEREST IN THE COMMON ELEMENTS.

PARCEL 2: THE WEST 253 FEET OF THE SOUTH HALF OF THE FOLLOWING DESCRIBED PROPERTY: THE EAST 660 FEET OF THE WEST 1320 FEET OF THE NORTH 330 FEET OF THE SOUTH 1662.20 FEET OF THE NORTHWEST QUARTER OF SECTION 34, TOWNSHIP 35 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN WILL COUNTY, ILLINOIS.

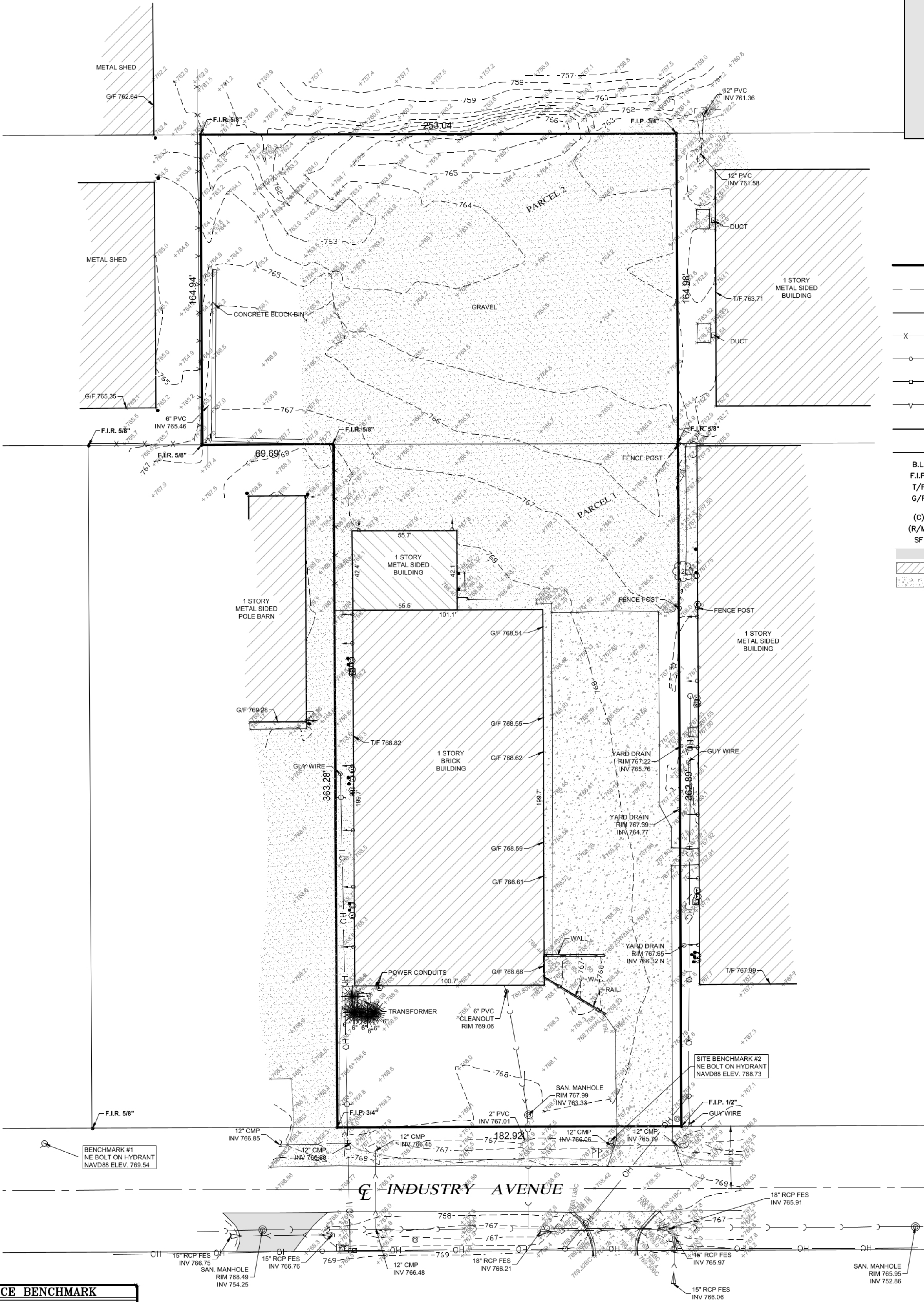
LAND AREA = 108,194 SF
OR 2.48 ACRES MORE OR LESS



LOCATION MAP

LEGEND

—	EXISTING BOUNDARY	⊙	MANHOLE
- - -	EXISTING EASEMENT	○	EXIST. CURB INLET
- - -	EXISTING SETBACK	□	STORM SEWER
— x —	EXISTING CHAIN LINK FENCE	—>	SANITARY SEWER
— o —	EXISTING WOOD FENCE	—>—>	COMBINED SEWER
— □ —	EXISTING METAL FENCE	⊗	WATER VALVE
— ▽ —	EXISTING VINYL FENCE	⊗	BUFFALO BOX (B-BOX)
—	EXISTING BUILDING	⊗	WATER VALVE & VAULT
B.L.	CENTER LINE	⊗	FIRE HYDRANT
F.I.P.	BUILDING LINE	⊗	WATER METER
T/F	FOUND IRON PIPE	—W—	WATER LINE
G/F	TOP OF FOUNDATION	⊗	GAS METER
(C)	GARAGE FLOOR ELEVATION	⊗	ELECTRIC METER
(R/M)	CALCULATED	⊗	ELECTRIC PEDESTAL
SF	RECORD/MEASURED	⊗	HANDHOLE
	SQUARE FEET	—CH—	OVERHEAD WIRES
	ASPHALT SURFACE	—UE—	UNDERGROUND ELECTRIC
	BUILDING/STRUCTURE	⊗	UTILITY POLE
	CONCRETE SURFACE	⊗	PHONE PEDESTAL
		⊗	PHONE MANHOLE
		⊗	CABLE TV PEDESTAL
		⊗	LIGHT POST
		⊗	STREET SIGN
		⊗	DOWNSPOUT
		⊗	BOLLARD
		⊗	DECIDUOUS TREE
		⊗	CONIFEROUS TREE



SOURCE BENCHMARK	
DESIGNATION	WILL COUNTY GPS 934
PID	AZ2581
STATE/COUNTY	IL/WILL
USGS QUAD	FRANKFORT (2018)
DESCRIPTION: FROM INTERSECTION OF US ROUTE 45 AND STEGER ROAD, EAST ON STEGER ROAD, EAST TO PAVED CROSSROAD, STATION IN NORTHEAST QUADRANT STATION IS FLUSH WITH SURFACE AND IS STAINLESS ROD WITH SLEEVE WITH CAST CAP AND LID	
NAVD88 ELEVATION: 785.05	
SITE BENCHMARK #1	
NORTHEAST FLANGE BOLT ON FIRE HYDRANT ON NORTH SIDE OF INDUSTRY AVENUE APPROXIMATELY 156 FEET WEST OF THE SOUTHWEST PROPERTY CORNER.	
ELEVATION = 769.54	
SITE BENCHMARK #2	
NORTHEAST FLANGE BOLT ON FIRE HYDRANT ON NORTH SIDE OF INDUSTRY AVENUE APPROXIMATELY 38 FEET WEST OF THE SOUTHWEST PROPERTY CORNER.	
ELEVATION = 768.73	

FOR BOUNDARY INFORMATION REFER TO SURVEY PREPARED BY MORRIS ENGINEERING, INC. 1820 RIDGE RD SUITE 202, HOMERIDGE, IL 60430 PROJECT NO. 20212

STATE OF ILLINOIS
COUNTY OF DUPAGE

I, THE UNDERSIGNED, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A TOPOGRAPHIC SURVEY, AND THAT THE PLAT HEREON DRAWN IS A CORRECT REPRESENTATION OF SAID SURVEY.

FIELD WORK WAS COMPLETED ON 5/29/2021

DATED, THIS 2ND DAY OF JUNE, A.D., 2021, AT LISLE, ILLINOIS.

Thomas J. Casal
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-2205
MY LICENSE EXPIRES NOVEMBER 30, 2022.
ILLINOIS PROFESSIONAL DESIGN FIRM PROFESSIONAL
ENGINEERING CORPORATION NO. 184-001245

CLIENT: JONAS BUDREIKA



DATE	
1	
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4	
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6	



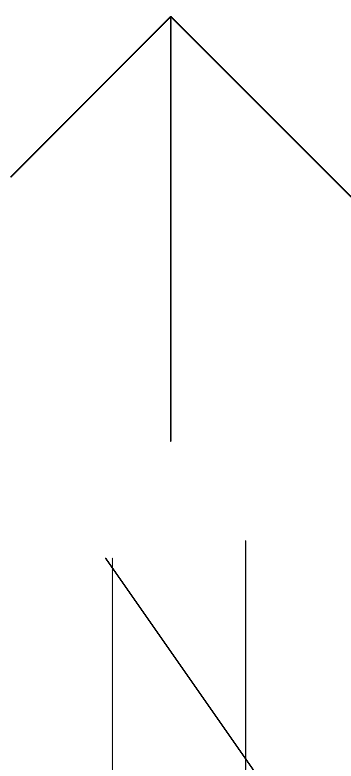
Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

BOUNDARY AND TOPOGRAPHIC SURVEY
165 INDUSTRY AVENUE
FRANKFURT, ILLINOIS

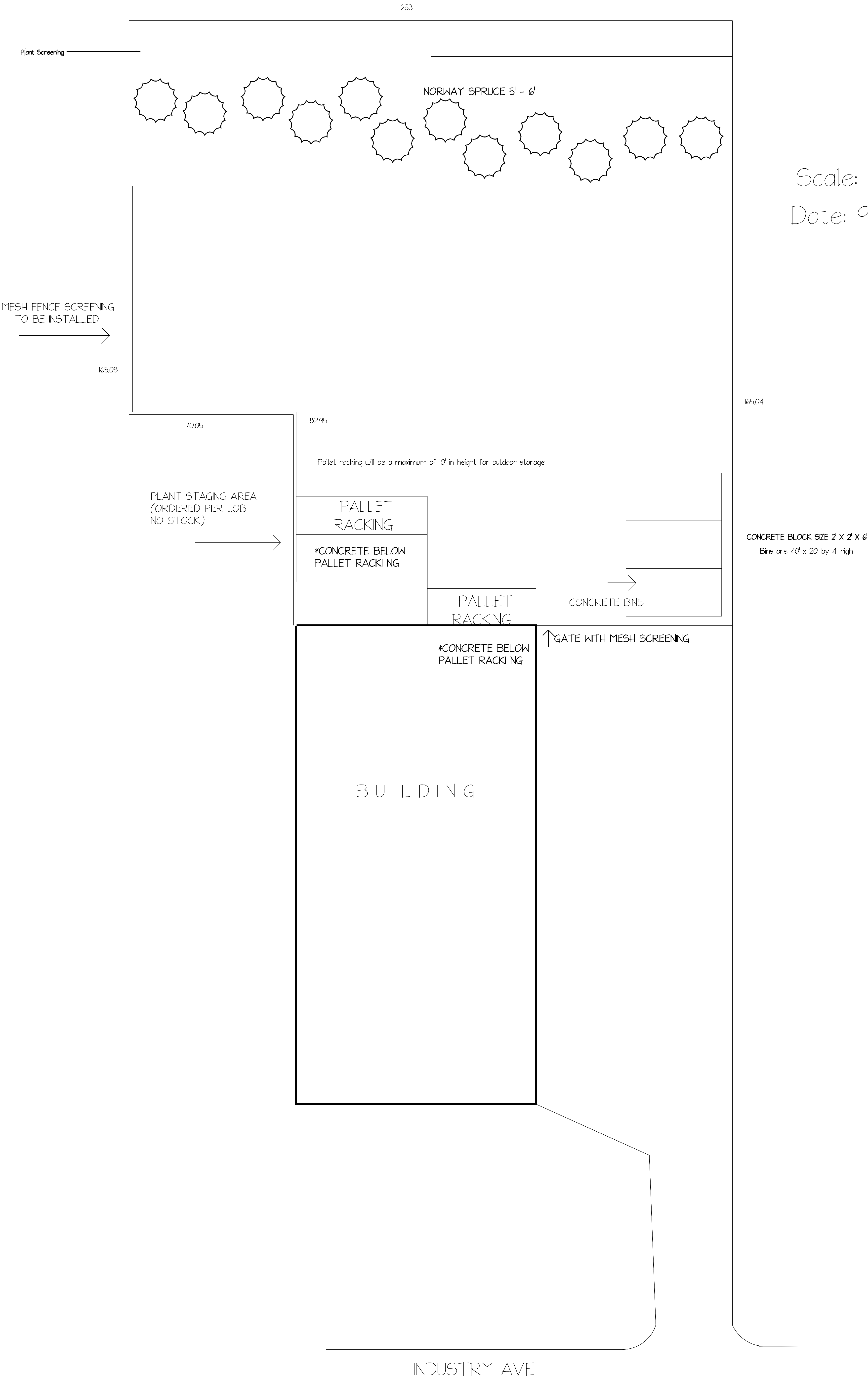
FIELD CREW:	PW
DRAWN BY:	CJS
CHECKED BY:	TC
APPROVED BY:	TC
DATE:	6/01/2021
SCALE:	HORIZ 1"=30' VERT NONE

SHEET	1
OF 1 SHEETS	
PROJ #	21-05-2002

YARD SKETCH



Scale: 1/8" = 1' 0"
Date: 9/27/2023



SITE PLAN

RECEIVED

By aduffin at 8:15 am, Apr 03, 2023

VILLAGE OF
FRANKFORT
INC • 1879

Application for Plan Commission / Zoning Board of Appeals Review
Special Use Permit Findings of Fact

Article 3, Section E, Part 6 of the Village of Frankfort Zoning Ordinance lists “findings” or “standards” that the Plan Commission must use to evaluate every special use permit request. The Plan Commission must make the following seven findings based upon the evidence provided. To assist the Plan Commission in their review of the special use permit request(s), please provide responses to the following “Findings of Fact.” Please attach additional pages as necessary.

1. That the establishment, maintenance or operation of the special use will not be detrimental to, or endanger, the public health, safety, morals, comfort or general welfare.
Our outdoor storage of construction materials and trucks and trailers will not endanger anyone's welfare. Storage will be done to standard practice.
2. That the special use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood.
All outdoor storage will be kept in a neat orderly fashion.
3. That the establishment of the special use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.
All outdoor storage will be kept in a neat orderly fashion.
4. That the exterior architectural appeal and functional plan of any proposed structure will not be so at variance with either the exterior architectural appeal and functional plan of the structures already constructed, or in the course of construction in the immediate neighborhood or the character of the applicable district, as to cause a substantial depreciation in the property values within the neighborhood.
No structures are being proposed.

5. That the adequate utilities, access roads, drainage and/or necessary facilities have been or are being provided.

There are no changes to the items listed.

6. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

There will no be any change to the current traffic flow.

7. That the special use shall, in all other respects, conform to the applicable regulations of the district in which it is located, except as such regulations may, in each instance, be modified by the Village Board, pursuant to the recommendations of the Plan Commission.

The special use will conform to the applicable regulations.



Unit 3 of 165 Industry Avenue Condominiums



The north end of Parcel 1 and all of Parcel 2



Northwest Corner of Parcel 1



Driveway from 1000 and 1018 Lambrecht Road to Parcel 2



North end of Parcel 2, facing west



West side of Parcel 2 and NWC of Parcel 1



North end of Parcel 2, facing south



Units 1 and 2

Motion by: James

Seconded by: Schaeffer

Approved: (6-0)

Chair Rigoni said that this case would be brought to the Village Board on May 1st.

D. Workshop: 20500 S. La Grange Road – Sage Salon

Drew Duffin presented the staff report.

The applicant, Talitha Henison, approached the stand. She said that the salon would have no more than three stylists. She planned to use the office to manage the administrative needs of the business. Her salon offered hair cutting services, nothing out of the ordinary.

Commission Knieriem stated that he had no comments, and that the application seemed straight forward to him.

Commissioner Markunas said that he had spoken with another business owner who operated in the same building. They had observed that the parking lot could get busy there on Fridays and on weekends. He believed that it was a result of spillover parking from the restaurant to the south. He asked if the applicant owned any other businesses.

The applicant said that she did, a salon in Mokena and another in Tinley Park. They operated under the same name.

Commissioner Markunas asked when the salon would open.

The applicant said she would open as soon as she was allowed.

Commissioner James asked who the previous occupant of the tenant space was.

Drew Duffin said he was not sure.

The applicant stated she was also unsure.

Chair Rigoni said she had no questions.

Commissioner James stated that it was common for dental offices to skew the parking requirements for a site. He noted that the subject property never seemed to have a lot of cars. He suggested that it might be worth looking at the code requirement and possibly reducing it in the future.

E. Workshop: 165 Industry Avenue, Unit 3 – CNC Lawncare

Drew Duffin presented the staff report.

The applicant, Chad Uthe, approached the stand. He explained that his business Provided landscaping services for Homeowner's Associations, as well as full landscape architecture and construction services.

Commissioner Markunas asked how long the applicant had been in business.

The applicant stated that it was their 24th season.

Commissioner Markunas asked if the business was currently operating in the unit under consideration.

The applicant said that they were.

Commissioner Markunas asked if the applicant was currently using the other parcel for storing material.

The applicant said that he was. He added that the properties were owned by a different landlord when he had first moved in. They were using the northern portion of the property now for outdoor storage. Specifically, they used it to store miscellaneous materials which would come and go frequently.

Commissioner Markunas asked the applicant if he accessed the site off of Industry Avenue.

The applicant said that he did, and that employees would park on east side of the property.

Commissioner Markunas asked if the applicant ever used the driveway on the northeast corner of the subject property.

The applicant said that they do, but only rarely.

Commissioner James said that the proposed use was consistent with other businesses in the area. One of the subject parcels was currently an island, and he thought that a Plat of Resubdivision would make the most sense in order to connect the two subject properties together.

Commissioner Schaeffer asked the applicant to give more detail about what materials were stored in the rear of the property.

The applicant explained that they stored miscellaneous aggregates, brick, stone, and palletized materials on the northern end of the property.

Commissioner Schaeffer asked if he meant bulk gravel when he mentioned aggregates.

The applicant said that he did not, and that those materials were stored on the southern end of the property.

Commissioner Schaeffer asked if they stored any chemicals on site.

The applicant said they did not store chemicals.

Commissioner Jakubowski said that the property owner should combine the lots, and that she had no other comments.

Commissioner Knieriem asked if the applicant would plant any trees or live material on the property.

The applicant explained that they ordered plant material as they need it. Nothing was stored for more than a week. There would be no trees planted or small plant nursery.

Commissioner Knieriem asked the applicant if he was the property owner.

The applicant said he was not, but that the property owner was in the audience. The applicant had been at this location for two years. The previous occupant was a lawn and irrigation company, who had made the set up in the back with storage.

Chair Rigoni asked if the applicant was currently operating at the subject property now and was only asking for the Special Use Permits at this time.

Drew Duffin said that that was the case.

Chair Rigoni asked if the applicant was operating illegally as a result.

Drew Duffin said yes.

Chair Rigoni asked if the applicant had a Business License.

Drew Duffin said that he was not aware of an issued Business License.

Chair Rigoni asked if the applicant was already operating their business with outdoor storage.

Drew Duffin said that was correct.

The applicant explained that he moved into the current space during COVID, and that it was a chaotic time. He said that it should have been taken care of then.

Chair Rigoni asked if there was material being stored on the north side of the property.

Drew Duffin said there was.

Chair Rigoni said that she had gone out to the site, and that the improvements that were there were not typical of what one would see in Frankfort. It looked as though there was a lot of dumping going on the back. Moving forward, she wanted to know what material would be stored on-site, and where.

Commissioner Schaeffer noted that, with respect to outdoor storage, fencing was usually required. She asked if this was the same in this case.

Mike Schwarz said that outdoor storage had to be screened, even in the I-2 district. Storing uncontained bulk materials would require a Special Use Permit.

Chair Rigoni asked what Special Use Permits were required for the current case.

Mike Schwarz stated that there were two issues. One issue was that there was some bulk material being stored where the building sat. The other issue was that there were two separate parcels, one with a principal use and one with an accessory use. The accessory use was technically not in connection with the main parcel. Staff believed that the property owner was unwilling to consolidate the two parcels.

Chair Rigoni said that, in terms of screening, the current proposal could get out of hand, since there was no defined area showing where material would be stored. Designating a fenced-in storage area would work to contain the stored material. She asked how big the northern parcel was. She said that she was hesitant to approve a blanket Special Use Permit for the entire parcel, and suggested that maybe the storage area should be specified on a plan. She added that there was a clause in the Village of Frankfort Zoning Ordinance which talked about adjacent non-conforming lots. She wanted to make sure that the Special Use Permit for Uncontained Bulk Materials was clear about where material would be stored.

Commissioner Markunas asked the applicant if he had applied for business license.

The applicant said that he had.

Commissioner Markunas asked if that was what prompted the workshop.

The applicant said that it was.

Chair Rigoni asked if there were any other businesses on the southern lot storing materials.

The applicant said that there were none.

Mike Schwarz noted that if the applicant was storing uncontained bulk material, then a Special Use Permit would be required.

Chair Rigoni asked how much extra room would be needed on the northern parcel for outdoor storage. She asked if there was a plan that showed the storage area.

Drew Duffin said that he had received no such plan.

Commissioner Schaeffer asked if the applicant could screen every side of the storage area that needed to be screened other than where the area would be accessed from.

Commissioner Markunas noted that it was hard to see the storage area from the south, east, and west.

Commissioner Knieriem said that he believed the Plan Commission would be overburdening the applicant if they required him to put a fence up against the building. He also asked if the large pile of material shown in the site photos was compost.

The applicant said that it was, and that that material came and went.

Commissioner Knieriem added that it looked as though there was a berm on the north end of the property. He asked the applicant if they were taking material off the property.

The applicant said that they would not be chancing the grading of property.

Chair Rigoni said that her concerns were not so much related to the use, but more about defining where storage would be and how it would be contained.

Commissioner Knieriem observed that the property to the north of the subject property was a retention area and therefore non-buildable.

Commissioner Schaeffer asked if there was a concern with stormwater and drainage in the storage area.

Mike Schwarz noted that the storage area would need to be paved.

The applicant noted that he would prefer to move the pallets rather than pave the outdoor storage area.

Commissioner Markunas asked that the applicant please define where the outdoor storage area would be located for next time.

Commissioner Schaeffer said the applicant should work with staff to make sure the storage area met code and the parameters of the Special Use Permit.

Chair Rigoni also suggested that a condition be added to a future motion that no chemicals or fertilizers were to be stored on-site.

Mike Schwarz said that staff was looking for direction on how to address the situation of the two separate parcels. Staff recommended consolidating the properties, but the property owner was not willing to consolidate. He added that it would take time to get Plat of Consolidation drafted and approved.

Chair Rigoni said that consolidation would be the best path forward, and suggested that the Plat of Consolidation be completed and approved within some amount of time after the Special Use Permits were approved.

F. Workshop: 10043 W. Lincoln Highway – Action Behavior Centers

Drew Duffin gave the staff report.

The applicant, Jacquelyn Fara, approached the stand. She explained that Action Behavior Centers offered intensive, one-on-one therapy, as well as testing and assessment for children with autism. They wanted to provide an outdoor space that was also a safe environment for their clients where they could work on gross motor skills, such as kicking balls. Their goal as an organization was to get all kids back into the school setting.

Commissioner Knieriem asked staff to clarify which parking spaces the applicant was proposing to remove. He asked if the proposed outdoor space would be used in the winter.

The applicant explained that the temperature would need to be to be over 50 degrees for the children to go outdoors. The reason they were planning to cover all five parking spaces was to prevent someone from parking alongside the play space, which would pose a safety risk. The applicant added that they were proposing a faux wrought iron fence to match what was used by KinderCare. They could also do a privacy fence if that was preferable.

Commissioner Knieriem asked if the proposed fence would be mounted into the ground.

The applicant said that it would be.

Commissioner Knieriem asked if Action Behavior Centers owned the building.

The applicant said they did not.

Commissioner Knieriem observed that the exterior of the building had quite a bit of damage.

The applicant said they were working with the landlord to resolve that.

Project: Thrift Home & Restoration (The Bridge Teen Center)

Meeting Type: Public Hearing

Requests: (1) Special Use Permit for a Planned Unit Development with certain Village ordinance modifications/exceptions; (2) Special Use Permit for indoor retail sales of goods, between 5,000 and 10,000 square feet in the B-4 Office District; (3) Preliminary/Final PUD Development Plan; and (4) Preliminary and Final Plat of Resubdivision

Location: 21420 S. Harlem Avenue

Applicants: Rob and Priscilla Steinmetz, representing The Bridge Teen Center, a 501c3 non-profit corp.

Prop. Owner: Bridge Thrift Center Not-for-Profit

Consultants: Patrick McCarty, Jr., PWM Architecture, LLC

Report By: Michael J. Schwarz, AICP

Site Details

Parcel/Lot Size: 5.3 acres

PIN(s): 19-09-24-401-021-0000
19-09-24-401-022-0000
19-09-24-401-019-0000
19-09-24-401-020-0000

Existing Zoning: B-4 Office District

Prop. Zoning: B-4 Office District with a Special Use Permit for a PUD, and a Special Use Permit for indoor retail sales of goods, between 5,000 and 10,000 square feet

Building(s) / Lot(s): 1 proposed building / 2 proposed lots

Adjacent Land Use Summary:

	Land Use	Comp. Plan	Zoning
Subject Property	Office (Vacant)	General Commercial	B-4
North	Undeveloped	General Commercial	B-2
South	SF Detached Residential	SF Detached Residential	R-2
East	Agriculture	General Commercial	Cook County
West	SF Detached Residential	SF Detached Residential	R-2

Figure 1: Location Map



Project Summary

The applicants, Rob and Priscilla Steinmetz, representing The Bridge Teen Center, a 501c3 non-profit corporation, have filed an application requesting a Special Use Permit for a Planned Unit Development and a Special Use Permit for indoor retail sales of goods, between 5,000 and 10,000 square feet in the B-4 Office District for the 5.3-acre property located on the west side of Harlem Avenue, south of Route 30/Lincoln Highway, commonly known as 21420 S. Harlem Avenue.

According to the Fact Sheet provided by the applicants, the proposed “Thrift Home & Restoration” would sell used furniture, home goods, antiques and collectibles, crafts and creations from local artisans, small potted plants,

salvaged architectural elements, repurposed and “upcycled” items, jewelry, and accessories and select designer apparel. The profits from the business would be used to support the mission of The Bridge Teen Center which is located at 15555 71st Court in Orland Park. The retail operation which is proposed within the existing vacant building (proposed Lot 1) would also provide employment and retail training opportunities for area students as well as provide volunteer opportunities for teen and adult individuals and groups. Future development proposals for the use of the undeveloped portion of the property (proposed Lot 2) would require an application for a Major Change to the Planned Unit Development, which would require a future public hearing and review by the Plan Commission and Village Board.

The overall subject property includes Lots 5 and 6 in the Georgetown Square Subdivision (recorded in 1987) and Lots 97 and 98 in the Georgetown Subdivision 1st Addition (recorded in 1989). In conjunction with the Special Use, the applicants will also need to request approval of a Final Plat of Resubdivision to adjust the existing lot lines so that the existing parking lot is located entirely on the same lot as the existing building. Currently, portions of the unfinished parking lot encroach onto the adjacent lots.

Project Background

The Plan Commission/Zoning Board of Appeals held an initial workshop on this project on July 14, 2022 (refer to attached meeting minutes). At that time, the discussion primarily focused on the proposed changes to the existing building elevations. The Plan Commission subsequently held a second workshop on September 7, 2023, where various aspects of the project were discussed (refer to attached meeting minutes).

Property Background

The Georgetown professional building located at 21420 Harlem Avenue is a 9,196 square-foot office building that was constructed in 1992 and never occupied. The interior space was never completed. The building has a gravel floor, and the interior wall framing remains unfinished. The roofing shingles are in poor condition. It is currently not known when the property was annexed into the Village of Frankfort. The property was rezoned to the B-4 Office District in 2002.

Attachments

1. 2020 Aerial Photograph from Will County GIS
2. Site Photographs taken 7.8.22
3. Profile and Prospectus for The Bridge, received 3.22.22
4. Fact Sheet for Thrift Home & Restoration, received 5.24.22
5. Plats of Survey of four individual lots dated 4.29.08, received 5.24.22
6. Plat of Survey of overall property dated 4.19.23, received 7.18.23
7. Topographic Survey of overall property dated 4.19.23, received 7.18.23
8. Preliminary and Final Plat of The Bridge Re-Subdivision dated 7.12.23, revised 9.5.23, received 9.20.23
9. Master Site Plan dated 5.27.22, revised 9.22.23, received 10.18.23
10. Architectural Site Plan dated 5.27.22, revised 9.22.23, received 10.18.23
11. AutoTURN® Exhibit for Fire and Garbage Truck Circulation dated 9.18.23, received 9.20.23
12. Floor Plan / Building Elevations dated 4.10.22, revised 9.22.23, received 10.18.23
13. 3D Rendering view from North from overhead angle, file dated 9.22.23, received 10.18.23
14. 3D Rendering view from Northeast from overhead angle, file dated 9.22.23, received 10.18.23
15. 3D Rendering view from Southeast from overhead angle, file dated 9.22.23, received 10.18.23
16. 3D Rendering view from West from overhead angle, file dated 9.22.23, received 10.18.23
17. 3D Rendering view from South from overhead angle, file dated 9.22.23, received 10.18.23
18. Steeple Cupola Specifications, received 10.18.23
19. Keim® Mineral Masonry Paint Information, received 7.18.23
20. Timberline® UHD Shingles Information, received 7.18.23

21. Wall Sign Specifications, dated 3.22.23, received 7.18.23
22. Monument Sign Specifications, dated 3.22.23, received 7.18.23
23. Directional Sign Specifications, dated 3.22.23, received 7.18.23
24. Tree Preservation Plan dated 6.2.23, received 10.18.23
25. Landscape Plan last revised 6.29.23, received 10.18.23
26. Landscape Notes last revised 6.29.23, received 10.18.23
27. Lighting/Photometric Plan dated 4.16.23, received 7.18.23
28. Parking Lot Light Fixture Specifications, received 7.18.23
29. Building Light Fixture Specifications, received 7.18.23
30. Final Engineering Plans dated 9.18.23, received 9.20.23
31. PC/ZBA Meeting Minutes of 7.14.22
32. PC/ZBA Meeting Minutes of 9.7.23
33. Applicant Responses to Findings of Fact for PUD Standards
34. PC/ZBA Commissioner Evaluation Form for Special Use Permit Standards
35. PC/ZBA Commissioner Evaluation Form for Planned Unit Development Standards

Analysis

In consideration of the request, staff offers the following points of discussion:

Summary of Plan Revisions Since the Workshop on September 7th, 2023

1. The potential future accessory retail building and greenhouse building which were depicted on the previous Master Site Plan are not being proposed at this time and have been removed from the Master Site Plan.
2. One handicap accessible parking space that was located near the northeast corner of the building has been relocated across the drive-aisle to the east end of the row of parking spaces opposite the trash enclosure.
3. At the request of the Frankfort Fire Protection District, an existing curbed landscape island at the northeast corner of the building has been removed from the Site Plan, and has been replaced with asphalt, to improve fire truck circulation through the north parking lot.
4. Three prefabricated ornamental “steeple” cupolas have been added along the ridgeline of the roof. The existing six dormers (three on each side of the roof) would be removed. The existing three chimneys would be removed.
5. Two wood awnings have been added on the east elevation just above the existing windows.

Land Use/Comprehensive Plan

The applicant has desires to establish and operate a retail thrift store within an existing unfinished office building. The applicant proposes to rehabilitate and renovate the existing 9,196 square-foot, brick, one-story unfinished office building and to re-pave and expand the associated unfinished parking lots. The applicant has provided a Fact Sheet which describes the proposed business (see attached). The Future Land Use Map within the 2040 Comprehensive Plan designates the subject property as “General Commercial”. The proposed retail use is consistent with the Future Land Use Map.

Hours of Operation

The applicant has indicated that the proposed business hours of operation are:

- 10:00 a.m. to 7:00 p.m. Tuesday through Thursday
- 10:00 a.m. to 5:00 p.m. Monday, Wednesday, Friday, Saturday
- Closed Sunday and Monday

The proposed hours are within the Village’s normal hours of operation, which are 7:00 a.m. to 11:00 p.m. per Article 6, Part 2(q) of the Zoning Ordinance.

Employees

The applicant previously indicated that on a given day, he would estimate a rotating schedule of 2-3 employees and 4-5 volunteers.

Zoning and Special Uses

1. The subject property is zoned B-4 Office District.
2. The Zoning Ordinance does not contain specific use standards for the B-4 Office District.
3. The applicant is requesting a Special Use Permit for a Planned Unit Development (PUD), which is an allowable Special Use in the B-4 Office District. The purpose of the PUD is to allow a phased approach to the planned improvements to the building and property, as well as regulate the potential future development of a vacant lot to the south of the existing building. A PUD would allow some flexibility in the phasing of certain improvements such as landscaping, as well as allow for certain Village ordinance modifications/exceptions as may be necessary because the existing partial development of the property predates the current Zoning Ordinance.
4. A Special Use Permit for indoor retail sales of goods, between 5,000 and 10,000 square feet, is required in the B-4 Office District. The Table of Permitted and Special Uses in the Zoning Ordinance limits retail sales area in the B-4 Office District to a total of 10,000 square feet. The existing building is 9,196 square feet, and therefore complies with this requirement.

Planned Unit Development

Article 3, Section F of the Zoning Ordinance is the chapter pertaining to Planned Unit Developments. Part 10 of this section outlines the requirements for the "Preliminary Development Plan". Part 11 of this section outlines the requirements for the "Final Development Plan." In this case, it is staff's understanding that due to the relatively small land area (5.3 acres) that would comprise the proposed Planned Unit Development, as well as the limited scope of the near-term and proposed future development activity, the applicant desires to seek concurrent approval of both the Preliminary Development Plan and Final Development Plan.

The application submittal requirements for the Preliminary Development Plan are summarized as follows (with the status as noted):

Preliminary Development Plan – Application Submittal Requirement	Submittal Status
Ownership (entire site under single ownership)	Compliant
Boundary Survey and Legal Description	Compliant
Site Location Map	Compliant
Topographical Survey	Compliant
Existing Zoning and Land Use Map	Compliant (available via Village GIS)
Concept Plan	Compliant
Statement of Character	Compliant via the uses labeled on the Master Site Plan and the Fact Sheet submitted by the applicant
Drawings <ol style="list-style-type: none"> Existing and proposed roads (NA) Existing and proposed easements Gross and Net Density of residential uses (NA) Schematic street lighting and public area lighting (NA) Landscape Plan per Village ordinances Engineering plans for stormwater and floodplain management per Village ordinances 	Compliant
Traffic Study <ol style="list-style-type: none"> General description of existing roads on and adjacent to the development with proposed road improvements Circulation diagram indicating movement of vehicles, goods and pedestrians Any special engineering features and traffic control devices needed to facility traffic safety 	A Traffic Study has not been requested at this time. The Plan Commission may recommend waiving this requirement.
Village Ordinance Report	Staff has noted various modifications, exceptions and variations from the Zoning Ordinance as found in this report.
Market Study (if deemed necessary by the Code Official)	A Market Study has not been requested by Village staff for the proposed project.
Environmental Study	An Environmental Study has not been requested at this time given that the property is already partially developed for commercial use.

Construction Schedule	The applicant has not yet stated the anticipated construction date, the stages in which the project will be built, or the approximate date that each stage will be completed.
Covenants	Not applicable. At this time, there are no proposed agreements, provisions or covenants and by-laws which will govern the use, maintenance, and continued protection of the Planned Unit Development.
Titles and Certificates	Compliant
Open Space and Recreation Areas and Facilities	Not applicable
Architectural Renderings	Compliant
Notices (Names and addresses of persons to whom public hearing notices will be sent)	Village staff will provide this prior to the public hearing.

The application submittal requirements for the Final Development Plan are summarized as follows (with the status as noted):

Final Development Plan – Application Submittal Requirement	Submittal Status
Final Plat of Subdivision	Compliant
Final Site Plan	Compliant via the submitted Master Site Plan and all other related plans
Final Covenants (if any)	Not applicable
Deeds or Easement Agreement (if any) conveying ownership interest in any parcel subject to public ownership	Not applicable
Article of Incorporation (if any) for homeowners, merchants or business or property owners' association	Not applicable
Engineering drawings and specifications for: a) Sanitary and storm sewer systems b) Water supply system c) Street lighting and public area lighting systems d) Sidewalks, trails, and paths e) Storm water management f) Floodplain management g) Erosion control plan h) Other such engineering drawings as may be required	Compliant
Estimate of the cost of installation of all proposed public improvements	Required as part of the engineering review process
Plan or report regarding the impact of the proposed development on the natural environment	Not applicable
Final architectural renderings and facades	Compliant
Certificate from the County Collector that no taxes or special assessments are owed	Not yet submitted
Certificates and signature blocks as required by Illinois Statutes and the Plat Act (and the Village Land Subdivision Ordinance)	Required as part of the plat review process

Existing Site-Related Non-Conformities

Given that the subject property was partially developed prior to the current Zoning Ordinance, there are various existing site related non-conformities which are summarized as follows:

- Minimum front yard setback from the centerline of the right-of-way a major highway (excluding Route 30 and Laraway Road)
 - Article 6, Section C, Part 1 of the Zoning Ordinance requires a 125-foot minimum setback.
 - The existing building is approximately 113 feet from the centerline of Harlem Avenue.
- Minimum front yard setback
 - Article 6, Section C, Part 1 of the Zoning Ordinance requires a minimum 50-foot front setback.
 - The existing building is 49 feet from the east property line per the civil engineering plans.
- Minimum rear yard setback
 - Article 6, Section C, Part 1 of the Zoning Ordinance requires a minimum 30-foot rear yard setback.
 - The existing building is 29.9 feet from the west property line per the civil engineering plans.
- Sidewalk width adjacent to the south side of the building

- Village Design Standards require 7 feet minimum sidewalk width when a row of parking is located adjacent to the sidewalk to allow for 2 feet of vehicle overhang, thereby maintaining a minimum 5' wide walkway.
- The existing sidewalk is approximately 3 feet wide; Wheel stops have been requested along this row of parking spaces to prevent vehicles from overhanging the sidewalk, and to maintain compliance with the Americans with Disabilities Act, Illinois Accessibility Code and Village minimum sidewalk width requirements.
- Width of parking lot landscape islands (planting beds)
 - The Village Landscaping Regulations require a minimum dimension of 9 feet (width) for planting beds.
 - The existing north parking lot island is 7.15 feet wide; Existing south parking lot island is 7.10 feet wide.
- Height of parking lot light poles
 - The Zoning Ordinance allows parking lot light poles to be a maximum of 20 feet in the B-4 Office District.
 - The four (4) existing parking lot light poles have a height of 25 feet.

Proposed Ordinance Modifications/Exceptions as part of the PUD

Staff has noted various modifications/exceptions from Village ordinances that the applicant is seeking or may need to seek as part of the proposed Planned Unit Development:

1. Continuation of the existing site-related non-conformities as noted in the preceding section.
2. Reduction of the required minimum setback of a freestanding sign from 25 feet to 10 feet [Municipal Code Section 151.041(B)(1)(b)].
3. Increase of the required maximum area of a freestanding sign for a single-tenant commercial building which has a total building size of 0 to 9,999 square feet, from 15 square feet to 18 square feet [Municipal Code Section 151.041(h)].
4. An exception to allow a waiver of the required multi-use bike path along the frontage of the property along Harlem Avenue as generally depicted on Figure 3.2 (Frankfort Trail Inventory Map) in the *Your Frankfort Your Future 2040 Comprehensive Plan* [Article 3, Section F, Part 6(c) of the Zoning Ordinance, and Section 7.2-4 of the Land Subdivision Regulations].
5. An exception to allow continuation of the non-conforming parking lot light fixture height (increase from 20 feet to 25 feet).
6. A modification to waive or delay installation of the required transition yard landscaping along the west and south property lines adjacent to those residential lots that have extensive rear yard landscaping that serves as an effective visual screen.

Site Plan

1. The Architectural Site Plan depicts the existing building and proposed expanded parking lots.
2. The Master Site Plan (PUD Development Plan) depicts the existing building and the proposed parking lots. The Master Site Plan no longer reflects the future one-story, 5,400 square-foot (60' x 90') accessory retail building, and a proposed future 1,800 square-foot (30' x 60') glass greenhouse, which were previously shown on the same lot as the existing building, immediately to the south of the yet-to-be-completed south parking lot.
3. The Zoning Ordinance specifies a parking ratio of one (1) space per two hundred fifty (250) square feet of gross floor area plus one (1) space per employee for the work shift with the largest number of Employees. The existing 9,196 square-foot building therefore requires 37 parking spaces (including 2 handicap accessible spaces) for the building square footage, and another 5 spaces for the estimated number of employees and volunteers during any given shift, for a total of 42 parking spaces. A total of 62 spaces, including 3 handicap accessible spaces, are provided on the proposed Site Plan. Of that total, 14 spaces are designated for employees. The proposed 62 total spaces complies with the Zoning Ordinance requirements for off-street parking.
4. The Zoning Ordinance requires one off-street loading berth which shall be at least twelve (12) feet in width by at least fifty (50) feet in length, exclusive of aisle and maneuvering space, and shall have vehicle clearance

of at least fourteen (14) feet. The Site Plan reflects a diagonally-striped no parking area along the north side of the building, which effectively serves as the required off-street loading berth area. This loading zone area is approximately 100 feet long and 11.29 feet wide. The negligible difference of 8.52 inches which is required to comply with the width requirement can easily be met with a minor revision to the striping dimension on the Site Plan and Civil Engineering Plans and still will allow the drive aisle between the pavement striping and the trash enclosure to comply with the minimum 26-foot drive-aisle width requirement per the Village's Engineering Design Standards.

5. The Architectural Site Plan depicts the required trash enclosure which is located at the west end of the existing row of parking spaces on the north side of the existing building. The Zoning Ordinance requires that trash enclosures be constructed of materials to match the exterior of the building (in this case brick). An elevation detail for the proposed trash enclosure has not been provided at this time. The proposed trash enclosure is 24 feet wide and 22 feet deep, for a total of 528 square feet.
6. The Project Architect previously indicated that the existing decorative brick walls on either side of the driveway entrance would likely be removed due to their deteriorating condition. In a recent conversation with staff, the project architect indicated that the applicant would like to try to repair the existing decorative brick walls (refer to attached site photos).
7. Neither the Architectural Site Plan nor the Master Site Plan depict the existing stormwater detention basin which is located off-site to the north. The existing basin is depicted on the Final Engineering Plans. The Village Engineer has reviewed the applicant's proposed completion and expansion of the existing parking lots, to confirm that the existing basin has adequate capacity to serve the existing building and paved areas.
8. The B-4 Office District requires a maximum impervious surface lot coverage of 70%. According to the Impervious Area Table on Sheet 5 of the Final Engineering Plans (attached) the existing building, expanded parking lots, existing and proposed curb and gutter, and existing and proposed sidewalks add up to 58,703 square feet (1.35 acres), which is approximately 25.44% impervious surface lot coverage. The proposed new Lot 1 would easily remain in compliance with the maximum allowable impervious surface coverage. The proposed new Lot 2 would not be developed at this time. Any future development of Lot 2 would require an application for a Major Change to the Planned Unit Development, which would require future review by the Plan Commission/Zoning Board of Appeals and the Village Board.

Tree Preservation Plan/Landscape Plan

1. The applicant has submitted a Tree Preservation Plan which depicts the existing trees to be preserved. A total of 29 existing trees are labeled as being preserved. A total of 27 trees are noted as being in good condition. Two trees are noted as being in poor condition. Except for one existing 8-inch ornamental pear tree located along the west property line, several houses to the south of the existing building, all other trees to be preserved are located along or just inside the east property line.
2. The applicant has submitted a Landscape Plan which depicts the proposed new trees and other plantings.
3. No new plantings are proposed around the perimeter of the naturalized stormwater detention basin. This area currently is planted with cattails and other water tolerant vegetation.
4. Given that the adjacent homes to the west and to the south of the subject property, the Landscape Ordinance requires a "Transition Yard" as a buffer between the proposed commercial and existing residential land uses. Per the Village's Landscaping Regulations, the required landscaping in transitional yards shall be comprised of a combination of overstory trees, evergreen trees, ornamental trees, and large shrubs. If shrubs are used, they shall be installed at a minimum height of five feet. Additional small shrubs may be used but shall not count towards meeting the landscape requirements. Also, a minimum of a 25-foot-wide landscaped screen consisting of a minimum of 125 plant units per 100 linear feet of frontage measured along the length of a common boundary between two units. Forty percent of the plant material (by unit count) must be evergreen. The landscape plan shall include a landscape berm of no less than 3 feet in height to be located in a landscape easement. The regulations state that exceptions will be considered if the berm is determined to conflict with the natural or proposed drainage ways. In this case, the applicant is seeking to install the required plant material but not provide a berm, which could potentially impede the existing and proposed drainage conditions.
5. The Landscape Plan depicts 8 distinct "areas" along the back of each of the adjacent lots that have a full rear lot line shared with the subject property. The Landscape Plan Notes sheet contains a series of data boxes (refer to "West Property Line Screening Areas" boxes) that indicate how closely each of these

individual areas will come to meeting the minimum required plant materials. Some areas indicate more than the required plant units, other areas indicate slightly less.

6. It should be noted that the Landscape Plan does not indicate any buffer landscaping along the south property line where two existing homes have significant landscape screening on their property. A modification/exception to the required landscaping is requested.
7. The Landscape Plan depicts the “parking lot screening areas”. The Landscape Plan Notes sheet contains a series of data boxes (refer to “Parking lot Screening Areas” boxes) that indicate how closely each of these individual areas will come to meeting the minimum required plant materials. Some areas indicate more than the required plant units, other areas indicate slightly less.
8. Foundation plantings (shrubs) are proposed around all four sides of the existing building.
9. The existing parking lot islands on the north and south sides of the building will be planted with two trees at each end and one tree in the center, as well as numerous small shrubs throughout.
10. Staff notes that an additional revision to the Landscape Plan is necessary to add landscaping around the perimeter of the parking lots pursuant to the Landscape Ordinance.

Engineering Plans

1. The applicant has submitted Engineering Plans which have been reviewed by the Village’s Consulting Engineer. At least two (2) rounds of engineering review have been completed at this time.
2. One of the notable comments in the engineering review letter dated August 18, 2023, pertains to the planned bike path along Harlem Avenue at this location. The right-of-way adjacent to this property is identified as a “Priority Gap” in trails in the Village’s Comprehensive Plan (Figure 6.10). Village staff is noting the applicant/developer obligation for a 10-foot-wide asphalt shared use path along Harlem Avenue (935.29 feet of frontage), which is considered a public improvement. As part of the proposed Planned Unit Development, the applicant is requesting a waiver of this requirement due to both financial and engineering/topographic constraints.

Architecture

1. Building Elevations and color 3D renderings have been provided.
2. The applicant intends to paint the existing red brick facades with Keim Mineral Masonry Paint in “Classic White” color.
3. The existing roof would be completely reconstructed and covered with GAF Timberline UHD shingles in “Charcoal” color.
4. A covered dock enclosure would be added to the northwest corner of the building to provide a screened area for donation drop-offs. The dock enclosure wall material would be brick to match the building. The new gabled roof over the dock enclosure would include asphalt roofing shingles to match the main roof.
5. The rear windows on the west elevation and the two westernmost windows on the south elevation would be darkened with spandrel glass. The applicant desires to add this material to retain the current fenestration pattern, yet conceal these window openings, since they will be blocked by shelving on the interior.
6. The three (3) small pediments above the doors on the south elevation, two (2) small pediments above the doors on the north elevation, and one (1) large pediment above the drop-off area on the north elevation, would each consist of stained wood siding.
7. Three (3) prefabricated ornamental “steeple” cupolas are depicted along the ridgeline of the roof. The existing six (6) dormers (three on each side of the roof) would be removed. The existing three (3) chimneys would be removed.
8. Two (2) wood awnings are depicted on the east elevation just above the existing windows.

Photometrics Plan

1. The applicant has submitted a Photometrics Plan, along with the proposed building and parking lot light fixtures and light pole specifications. The Photometrics Plan complies with the maximum allowable light level of 0.5 footcandles along all outer property lines.
2. Twelve (12) wall-mounted “gooseneck” style light fixtures are proposed around the building – three (3) light fixtures per facade. These would be mounted at 12 feet above the ground and would aim light downward and toward the exterior walls. The specified shade diameter is 10 inches.
3. The color will be black the goose neck building light fixtures and dark bronze for the parking lot light fixtures to match the existing light poles.
4. The maximum light pole height in the B-4 Office District is 20 feet. Given that the applicant is proposing to re-use the four (4) existing parking lot light poles which each have a 25-foot height, and which pre-date the current Zoning Ordinance, a modification of the allowable fixture height (increase from 20 feet to 25 feet) is requested as part of the PUD.
5. The Village’s Municipal Code requires decorative bases for all parking lot light poles. The four (4) existing parking lot light poles each have a modest metal base which is located atop a small concrete pedestal. These light poles are located within the parking lot islands and would be mostly concealed by landscaping.

Signage

1. The submitted building elevations and building renderings reflect a one wall sign on the east elevation facing Harlem Avenue.
2. One new freestanding monument sign is proposed. The monument sign complies with the height and area regulations of the Sign Regulations, but the proposed 10-foot setback from the east property line would require a modification from the 25-foot setback requirement. The applicant has indicated that the monument sign will be lit with ground-mounted light fixtures.
3. The applicants desire to remove the existing monument sign which includes white text indicating “Georgetown”. According to the Project Architect, the existing text would be removed and donated to the adjacent Georgetown Homeowner’s Association to be used in the repair/replacement of one of their existing subdivision ground signs.
4. A small directional sign is proposed. The directional sign complies with the Sign Ordinance.

Preliminary and Final Plat of Subdivision

In conjunction with the Special Uses, the applicants are also requesting approval of a Preliminary and Final Plat of Resubdivision to adjust the existing lot lines so that the existing parking lot is located entirely on the same lot as the existing building. The proposed Plat of Resubdivision would consolidate the northern two lots – Lots 5 and 6 in Georgetown Square Subdivision – into one new lot and would consolidate the southern two lots – Lots 97 and 98 in Georgetown Subdivision First Addition – into one new lot. As reflected on the plat, new perimeter public utility and drainage easements will be provided. The existing public utility and drainage easement that runs east-west along the south side of the building will remain in place. The plat reflects a 26-foot-wide ingress/egress cross-access easement on the southern portion of Lot 1 for the benefit of Lot 2. This ingress/egress easement will allow any future development on Lot 2 to avoid the need to provide a new driveway access onto Harlem Avenue. The plat has been reviewed by the Village Engineer and some minor technical revisions may be necessary prior to recording.

Standards for Special Uses

For reference during the public hearing, Article 3, Section B, Part 6 of the Village of Frankfort Zoning Ordinance lists “findings” or “standards” that the Plan Commission must use to evaluate every special use request.

The Plan Commission shall make written findings of fact and shall refer to any exhibits containing plans and specifications for the proposed special use, which shall remain a part of the permanent record of the Plan Commission. The Plan Commission shall submit same, together with its recommendation to the Village Board for final action. No special use shall be recommended by the Plan Commission, unless such Commission shall find:

- a. That the establishment, maintenance or operation of the special use will not be detrimental to, or endanger, the public health, safety, morals, comfort or general welfare.
- b. That the special use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood.
- c. That the establishment of the special use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.
- d. That the exterior architectural appeal and functional plan of any proposed structure will not be so at variance with either the exterior architectural appeal and functional plan of the structures already constructed, or in the course of construction in the immediate neighborhood or the character of the applicable district, as to cause a substantial depreciation in the property values within the neighborhood.
- e. That the adequate utilities, access roads, drainage and/or necessary facilities have been or are being provided.
- f. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.
- g. That the special use shall, in all other respects, conform to the applicable regulations of the district in which it is located, except as such regulations may, in each instance, be modified by the Village Board, pursuant to the recommendations of the Plan Commission.

Standards for Planned Unit Developments

For reference during the public hearing, Article 3, Section F of the Village of Frankfort Zoning Ordinance refers to Planned Unit Developments (refer to complete Article 3 attached). Part 4 of said Section F refers to the review standards the must be considered.

In granting or withholding approval of Preliminary PUD Plans and Final PUD Plans (in this case, the applicant is seeking concurrent approval of a Preliminary and Final PUD Plan), the Plan Commission and the Village Board shall consider the extent to which the application fulfills the requirements of this Ordinance and the following standards:

- a. The plan is designed to protect the public health, welfare and safety.
- b. The proposed development does not cause substantial injury to the value of other property in the immediate area.
- c. The plan provides for protection of the aesthetic and function of the natural environment, which shall include, but not be limited to, flood plains, streams, creeks, lakes, ponds, wetlands, soil and geologic characteristics, air quality, vegetation, woodlands, and steep slopes.
- d. The plan provides for and ensures the preservation of adequate recreational amenities and common open spaces.
- e. Residential use areas may provide a variety of housing types to achieve a balanced neighborhood.
- f. The planned unit development provides land area to accommodate cultural, educational, recreational and other public and quasi-public activities to serve the needs of the residents thereof.
- g. The proposed development provide for the orderly and creative arrangement of all land uses with respect to each other and to the entire Village.

Findings for Consideration

The Plan Commission/Zoning Board of Appeals finds:

1. That the establishment, maintenance or operation of the special use(s) will not be detrimental to, or endanger, the public health, safety, morals, comfort or general welfare.
2. That the special use(s) will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood.
3. That the establishment of the special use(s) will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.
4. That the exterior architectural appeal and functional plan of any proposed structure will not be so at variance with either the exterior architectural appeal and functional plan of the structures already constructed, or in the course of construction in the immediate neighborhood or the character of the applicable district, as to cause a substantial depreciation in the property values within the neighborhood.
5. That the adequate utilities, access roads, drainage and/or necessary facilities have been or are being provided.
6. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.
7. That the special use(s) shall, in all other respects, conform to the applicable regulations of the district in which it is located, except as such regulations may, in each instance, be modified by the Village Board, pursuant to the recommendations of the Plan Commission.

Affirmative Motions

For the Commission's consideration, staff provides the following potential affirmative motions:

1. Recommend to the Village Board approval of a Special Use Permit for indoor retail sales of goods, between 5,000 and 10,000 square feet in the B-4 Office District, for the subject property located at 21420 S. Harlem Avenue, in accordance with the reviewed plans, public testimony, and Findings of Fact, conditioned on final engineering approval, and additionally subject to the following conditions:
 1. The donation drop-off area shall be cleaned at the end of business each day so that no items are stored overnight or when the retail store is closed.
 2. Parking lot lights shall be connected to a shutoff timer which automatically turns off the lights no later than one hour after the close of business each night.
2. Recommend to the Village Board approval of a Special Use Permit for a Planned Unit Development in the B-4 Office District, for the subject property located at 21420 S. Harlem Avenue, with the following Village ordinance modifications/exceptions:
 1. Continuation of the existing site-related non-conformities as noted in this staff report.
 2. Reduction of the required minimum setback of a freestanding sign from 25 feet to 10 feet [Municipal Code Section 151.041(B)(1)(b)].
 3. Increase of the required maximum area of a freestanding sign for a single-tenant commercial building which has a total building size of 0 to 9,999 square feet, from 15 square feet to 18 square feet [Municipal Code Section 151.041(h)].
 4. An exception to allow a waiver of the required multi-use bike path along the frontage of the property along Harlem Avenue as generally depicted on Figure 3.2 (Frankfort Trail Inventory Map) in the *Your Frankfort Your Future 2040 Comprehensive Plan* [Article 3, Section F, Part 6(c) of the Zoning Ordinance, and Section

7.2-4 of the Land Subdivision Regulations]. Staff is suggesting a condition that would delay the construction or cash-in-lieu payment for the path until such time that within one year of the adjacent undeveloped property to the north being developed and issued a Certificate of Occupancy, that the path or sidewalk shall be installed along the frontage of the subject property.

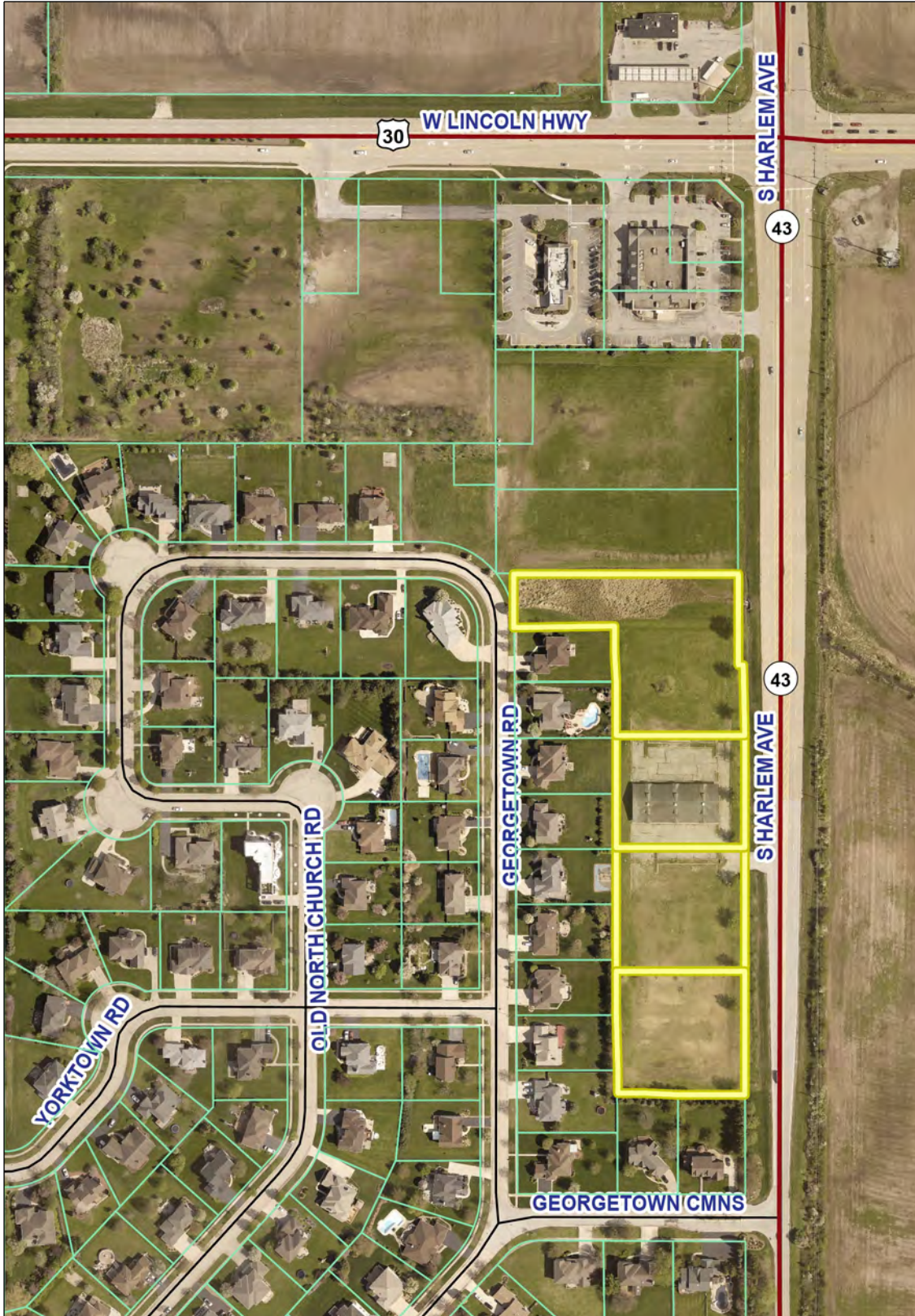
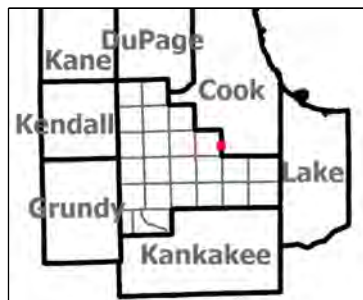
5. An exception to allow continuation of the non-conforming parking lot light fixture height (increase from 20 feet to 25 feet).
6. A modification to allow delayed installation of the required transition yard landscaping along the west and south property lines adjacent to those residential lots which have extensive rear yard landscaping that currently provide a visual screen, said delay would be for a period of three years from the date of Village Board approval of this Special Use Permit or within one year of Village approval of future development on the proposed Lot 2, whichever occurs first;

in accordance with the reviewed plans, public testimony, and Findings of Fact, conditioned on final engineering approval, and additionally subject to the following conditions:

1. Construction or a cash-in-lieu payment to the Village for the required multi-use bike path along the frontage of the property along Harlem Avenue as generally depicted on Figure 3.2 (Frankfort Trail Inventory Map) in the *Your Frankfort Your Future 2040 Comprehensive Plan*, shall be the responsibility of the property owner at such time that within one year of the adjacent undeveloped property to the north (PINs 19-09-24-401-004-0000 and 19-09-24-401-029-0000) being developed and issued a Certificate of Occupancy, that the path or sidewalk shall be installed along the frontage of the subject property.
 2. The Landscape Plan shall be revised to comply with the required parking lot screening prior to Village Board consideration of this Special Use Permit.
 3. An elevation detail for the proposed trash enclosure shall be provided prior to Village Board consideration of this Special Use Permit.
3. Recommend to the Village Board approval of the Preliminary and Final PUD Development Plan for the subject property located at 21420 S. Harlem Avenue, in accordance with the reviewed plans, public testimony, and Findings of Fact, conditioned on final engineering approval; and additionally subject to the following conditions:
1. Construction or a cash-in-lieu payment to the Village for the required multi-use bike path along the frontage of the property along Harlem Avenue as generally depicted on Figure 3.2 (Frankfort Trail Inventory Map) in the *Your Frankfort Your Future 2040 Comprehensive Plan*, shall be the responsibility of the property owner at such time that within one year of the adjacent undeveloped property to the north (PINs 19-09-24-401-004-0000 and 19-09-24-401-029-0000) being developed and issued a Certificate of Occupancy, that the path or sidewalk shall be installed along the frontage of the subject property.
 2. The Landscape Plan shall be revised to comply with the required parking lot screening prior to Village Board consideration of this Special Use Permit.
 3. An elevation detail for the proposed trash enclosure shall be provided prior to Village Board consideration of this Special Use Permit.
4. Recommend to the Village Board approval of the Preliminary and Plat of Resubdivision for "The Bridge Resubdivision", for the subject property located at 21420 S. Harlem Avenue, subject to any necessary technical revisions prior to recording.



Thrift Home & Restoration - 21420 S. Harlem Avenue



Legend

Roadways

- Federal
- State
- County
- Local and Private

Parcels LY

- Townships

Notes

Date: 6/29/2022

1: 4,514

0 0.07 0.14 Miles

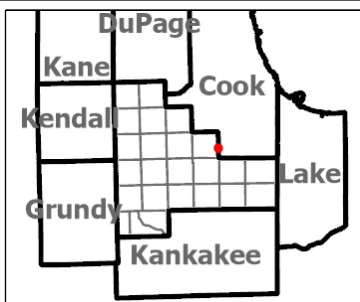
Projection

WGS_1984_Web_Mercator_Auxiliary_Sphere

Disclaimer of Warranties and Accuracy of Data: Although the data developed by Will County for its maps, websites, and Geographic Information System has been produced and processed from sources believed to be reliable, no warranty, expressed or implied, is made regarding accuracy, adequacy, completeness, legality, reliability or usefulness of any information. This disclaimer applies to both isolated and aggregate uses of the information. The County and elected officials provide this information on an "as is" basis. All warranties of any kind, express or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, freedom from contamination by computer viruses or hackers and non-infringement of proprietary rights are disclaimed. Changes may be periodically made to the information herein; these changes may or may not be incorporated in any new version of the publication. If you have obtained information from any of the County web pages from a source other than the County pages, be aware that electronic data can be altered subsequent to original distribution. Data can also quickly become out of date. It is recommended that careful attention be paid to the contents of any data, and that the originator of the data or information be contacted with any questions regarding appropriate use. Please direct any questions or issues via email to gis@willcountyillinois.com.



21420 S. Harlem Avenue



Legend

- Address Points
- Roadways
 - Federal
 - State
 - County
 - Local and Private
- Parcels LY
- Townships
- Wetlands
 - Lacustrine
 - Palustrine
 - Riverine
 - Upland

Notes

Date: 4/5/2022

1: 2,257



0 0.04 0.07 Miles

Projection

WGS_1984_Web_Mercator_Auxiliary_Sphere

Disclaimer of Warranties and Accuracy of Data: Although the data developed by Will County for its maps, websites, and Geographic Information System has been produced and processed from sources believed to be reliable, no warranty, expressed or implied, is made regarding accuracy, adequacy, completeness, legality, reliability or usefulness of any information. This disclaimer applies to both isolated and aggregate uses of the information. The County and elected officials provide this information on an "as is" basis. All warranties of any kind, express or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, freedom from contamination by computer viruses or hackers and non-infringement of proprietary rights are disclaimed. Changes may be periodically made to the information herein; these changes may or may not be incorporated in any new version of the publication. If you have obtained information from any of the County web pages from a source other than the County pages, be aware that electronic data can be altered subsequent to original distribution. Data can also quickly become out of date. It is recommended that careful attention be paid to the contents of any data, and that the originator of the data or information be contacted with any questions regarding appropriate use. Please direct any questions or issues via email to gis@willcountyillinois.com.

Site Photos – 21420 S. Harlem Avenue (July 8, 2022)



Figure 1: 21420 S. Harlem Avenue, viewed looking northwest from the driveway entrance to the site.



Figure 2: Decorative brick wall on south side of driveway entrance from Harlem Avenue.



Figure 3: Back (west) side of decorative brick wall on north side of driveway entrance from Harlem Avenue.



Figure 4: Cross-access drive-aisle on east side of building, viewed looking north.



Figure 5: East and North Building Elevations, viewed looking southwest.



Figure 6: North parking lot, viewed looking west. Homes in Georgetown Subdivision visible in background.



Figure 7: South parking lot, viewed looking west. Homes in Georgetown Subdivision visible in background.



Figure 8: West transitional yard, viewed looking north. Homes in adjacent Georgetown visible at left.



Figure 9: West transitional yard, viewed looking south. Homes in adjacent Georgetown visible at right.



Figure 10: South main entrance to building.



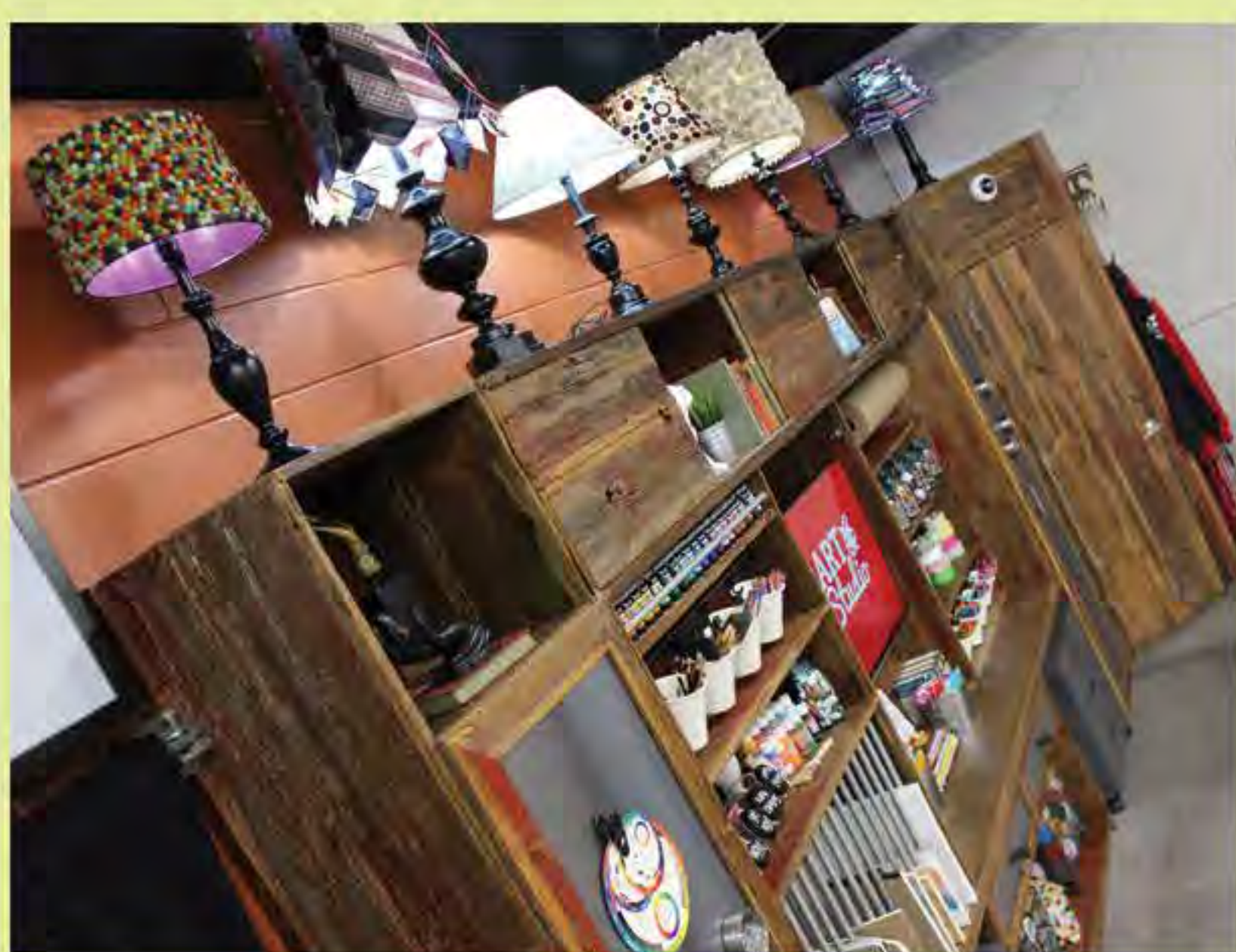
Figure 11: Undeveloped property adjacent to south, viewed looking south from south parking lot.



PROFILE & PROSPECTUS



ABOUT THE BRIDGE



The Bridge Teen Center is an innovative 501(c)(3) nonprofit organization that provides FREE holistically-designed afterschool programs for students in 7th-12th grade. Our programs are unique in that they are offered exclusively for teens, are designed around the interests and needs of teens in the suburbs, are facilitated almost exclusively by adult volunteers from the community, and are offered to students **free of charge**.

Our free programs are divided into five different “buckets” which include: Everyday Life, Educational Support, Mind/Body, Community Connections and Expressive Arts. From trades programs to culinary demos to art programs and job readiness training, 350+ programs are offered annually.

We are a place for students not just to BE, but to BECOME.

In our changed world, teens face many challenges – including mental health, suicidal tendencies, self-deception as a result of social media, anxiety, and more. We proactively address these issues by providing a positive, supportive, and safe environment where teens can **CONNECT** with peers and positive adult mentors, **ENGAGE** in life changing programs and events, and be **EMPOWERED** to challenge themselves to grow in ways they never dreamt possible.

Our programs have been recognized at the local, state, and national level by many well-known organizations over the years, including the Afterschool Alliance, Illinois Afterschool Network, US Conference of Mayors, John Maxwell, and more. Over the last 12 years, The Bridge has emerged as a national trendsetter in teen afterschool programming and is contacted for guidance from groups and organizations all over the country on a regular basis.

TEEN CENTER TIMELINE

JUNE 2010

The first 2,400 square foot “temporary” location opens in Orland Park.



JULY 2013

The Bridge purchases the entire 24,000 sq. foot building they had been renting since 2010.



DECEMBER 2015

The Bridge completes another expansion project to double their space for a second time.



NOVEMBER 2017

The Bridge Teen Center wins Chick-fil-A's True Inspiration Award.



AUGUST 2019

A new single-night attendance record is set on Friday, August 23rd with 214 students.



APRIL 2020

Despite the COVID-19 shelter-in mandate, we provided 'Bridge @ Home' kits and 'Bridge @ Zoom' programming to students.



JULY 2020

Resumed in-person programs with COVID-19 safety guidelines for students, volunteers and staff.



NOVEMBER 2021

November is officially declared 'Empowering Teens Month' in Illinois by the governor in honor of The Bridge Teen Center's free holistic programs.



MAY 2011

The first expansion is completed to double The Bridge's square footage.



JULY 2015

The Bridge's anti-bullying initiatives earn Orland Park a national Livability Award from the U.S. Conference of Mayors.



JANUARY 2016

The Bridge Thrift Store is launched to raise funds and provide new job-readiness programs & service opportunities for students.



MARCH 2018

The Bridge becomes the sole host of the long-running Chef's Auction fundraiser, and raises a record \$149,310 in the first year.



MARCH 2020

The Bridge Thrift Store awarded "Best Thrift Store" Southwest Choice Award.



JUNE 2020

The Bridge Thrift Store reopens to the public with COVID-19 safety guidelines.



OCTOBER 2020

The Bridge serves their 10,000th unique student since opening in 2010.



REDEFINING THRIFT



The Bridge Thrift Store is not your typical charitable resale shop.

Founded in 2016, our brand has been built around quality, cleanliness, organization, and stylish merchandising. Not only is the store known for high quality merchandise at great prices, but as evidenced by the reviews shared here, it is known for exceptional guest services and a commitment to supporting local teens and families.

From the moment you walk in, it is evident that this is not like other stores in its category. Department store style sections feature clean and organized merchandise. Unique and unexpected additions include a 360 degree jewelry counter in the heart of the store, an award-winning "Antiques & Cool Junk" section, and creative signage that rivals the largest national retailers. **It is a store our students are proud to be part of.**

Not only does the store generate significant revenue and feet on the street, but it provides **meaningful opportunities for suburban teens.** From short-term community service opportunities to group service projects to participating in the innovative "Thriftastic" job readiness program, valuable skills are being shared with young people that will be carried with them throughout life. The store is amazing, but it can be argued that the impact on the community is even more impressive.

The Bridge Thrift Store is seeking a second location in the Frankfort area. The purpose of this expansion is to increase sustainable revenue for The Bridge Teen Center, provide more convenient service and job readiness programming for students in the Lincoln-Way area, and to provide a destination for individuals looking to give their gently used merchandise to a **LOCAL cause that supports LOCAL families** (instead of national organizations with unknown beneficiaries).

THRIFTASTIC PROGRAM



Encouraging, Affirming and Preparing for the Future...

As the job market continues to rapidly evolve, programs that equip young people for future positions are more crucial than ever before. The Bridge Teen Center and The Bridge Thrift Store are responding to this need in a profound way. Our "Thriftastic" job readiness programming is intentionally designed to challenge students to discover new talents, develop as leaders, and learn to function as part of a thriving team.

The Thriftastic program is designed to help introduce students to the concept of serving others while gaining hard and soft skills, maintaining a committed schedule, and serving as part of a team. There are four progressive program tiers, where students set specific goals and measure their outcomes (with staff). A booklet is used throughout the program to track benchmarks and facilitate meaningful discussions as students build their professional and leadership skills.

Over the last year, this program has grown exponentially - tripling projections. We also saw major growth in overall volunteerism, with a 140% increase over the prior year (600+ students). Students consistently refer to their roles as their 'jobs' and have a sense of ownership over their specific areas. They have a purpose and are valued for their service. Many are even counting down the days until they can earn paid positions at the store.

This program consistently provides students with an invaluable opportunity to learn and grow in a safe and nurturing (yet challenging) environment. We are privileged to speak into their lives and encourage and affirm them in their daily tasks. We are also building relationships with them and helping them to gain confidence. **We are preparing them for more than just a job - we are preparing them to become hard-working, well-rounded young adults that contribute to their community.**

BY THE NUMBERS



92%

% of Donations Directed to Program

10,800+

Different Students Served Since 2010

128

Local Communities Served Since 2010

350+

Free Programs Offered Per year

\$0

Ongoing Government Funding Received

500-800

New Students Welcomed Per Year



115-170

Transactions Per Day

1,000,000+

Transactions Since 2016

\$45,000+

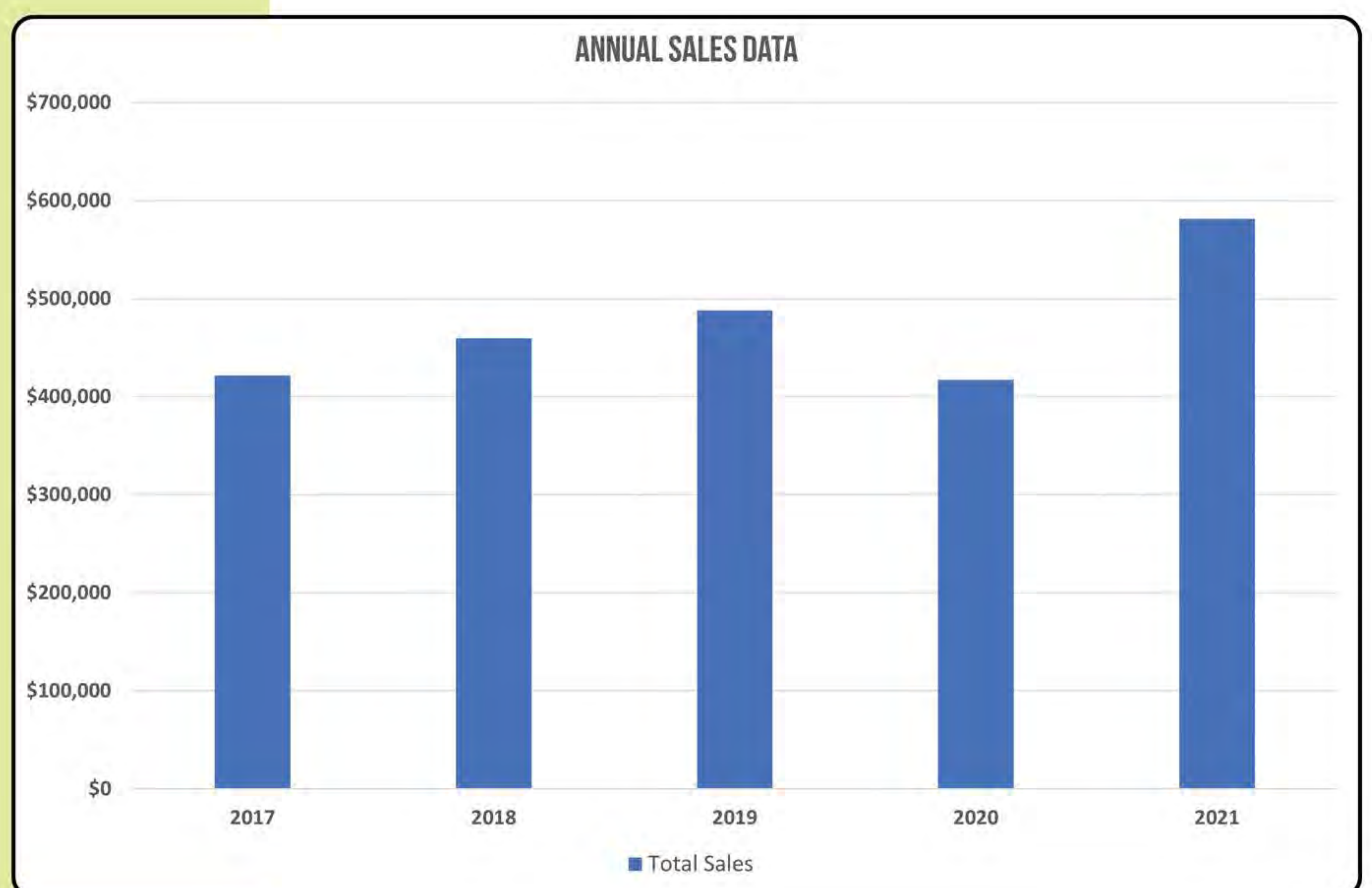
Average Monthly Revenue

\$2,000,000+

Donated Since 2016

600+

Student Volunteers Per Year



STORE FEEDBACK

AWARDS:

2019 WINNER
BEST THRIFT STORE

22ND
Century
MEDIA

2020 WINNER
BEST THRIFT STORE

SOUTHWEST
CHOICE
AWARDS
PRESENTED BY 22ND CENTURY MEDIA

2020 WINNER
BEST ANTIQUES

SOUTHWEST
CHOICE
AWARDS
PRESENTED BY 22ND CENTURY MEDIA

Reviews ★★★★★

**“Not your typical
Thrift Store...”**

**“...this place is so clean
and organized.”**

**“...a treasure of a
thrift store...”**

**“...the store always
blows my mind.”**

**“...wonderful nice
inviting people
work there...”**

“Such a cute store!”

**“I love this store
and everything
it stands for.”**

**“...very clean, organized
and stylish....”**

WHAT'S NEXT: OUR VISION



Showroom style/specialty thrift store, focusing on higher end home goods (includes furniture, decor, antiques and collectibles).



Curated retail space for unique offerings such as house plants, vintage items, and dedicated space for "pop-up" shops that feature the work of local artisans.



Second operation provides more opportunity/closer proximity for current and new Lincoln-Way area students to engage in our job readiness programming.



Outdoor green space with meadow and quiet space to promote emotional and mental health in a welcoming and safe environment for students.

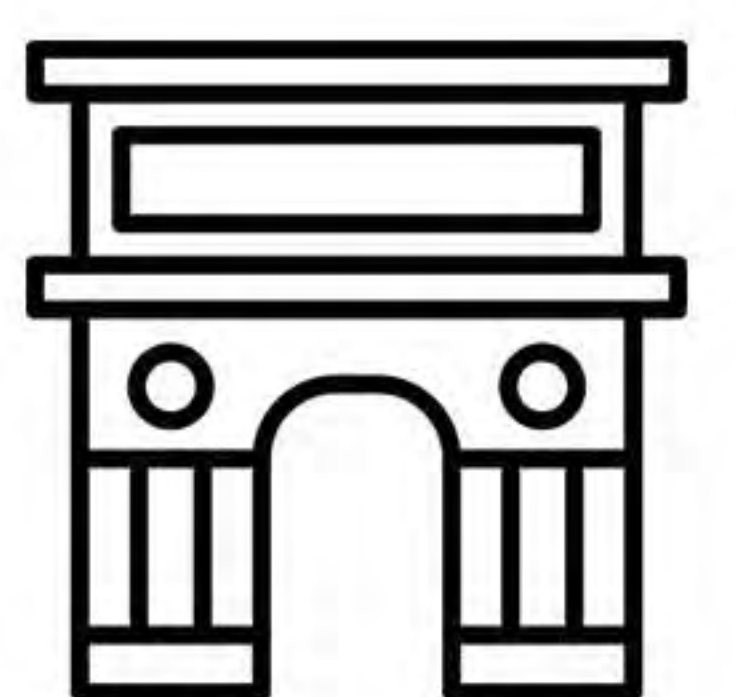


Additional space will be added in time to include:

Extension of The Bridge Teen Center's gardening programming, to include a year-round educational greenhouse and space for additional STEM programs.



Additional retail space for repurposing and architectural salvage inventory - further distinguishing our brand as unique in our sector.



REAL IMPACT



SUSTAINABILITY

Revenue from a second Thrift Store location will provide an additional 20-30% of The Bridge Teen Center's operating budget, making the organization less reliant on unstable donations and event fundraising.



BUILDING FUTURES

The ability to expand our thriving "Thriftastic" job readiness programming means we will have the opportunity to impact many more young lives in communities surrounding Frankfort. This will be especially important as the job market remains competitive for employers who seek qualified, experienced workers.



NEXT GENERATION

Contributing now to building out a second store location will represent a direct investment in our local teens and families - making sure The Bridge is available to them for many years to come in communities we have yet to consistently reach.



LOCAL IMPACT

Additional space that provides amenities our existing facility cannot will open up new opportunities for thousands of local teens - not only through expanded job readiness programming but also through a broader base of outdoor programs that focus on STEM and gardening.



RALLYING COMMUNITY

The Bridge is built on the support of the local community in virtually every way. A second store location will allow us to expand opportunities for community members, local clubs, churches and other groups to serve locally in support of teens and families in their own backyard.

CONTACT INFO



STORE LOCATION:

15605 S. Harlem
Orland Park, IL 60462



EMAIL:

priscilla@thebridgeteencenter.org



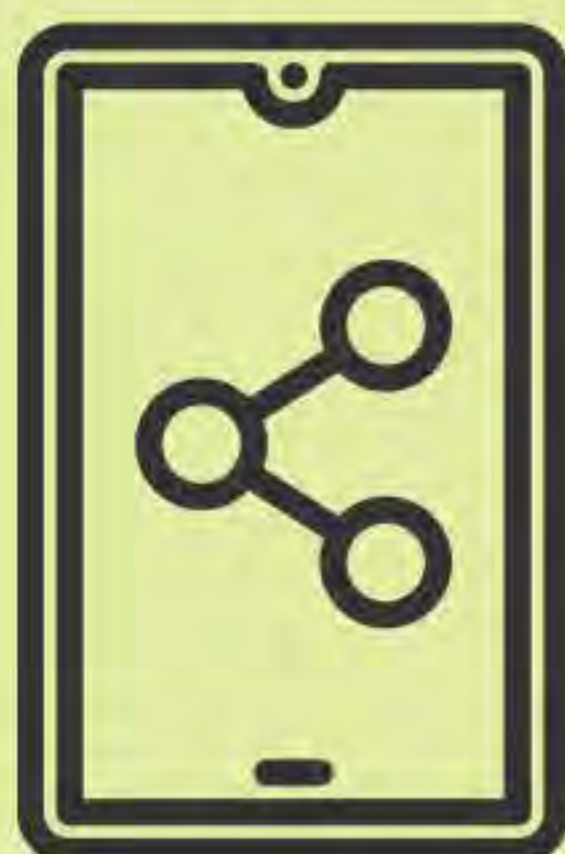
MAIN PHONE:

708.532.0500



ORGANIZATION WEBSITE:

THEBRIDGETEENCENTER.ORG



SOCIAL MEDIA:

[FB.COM/BRIDGETHRIFT](https://www.facebook.com/BRIDGETHRIFT)
[FB.COM/BRIDGETC](https://www.facebook.com/BRIDGETC)
INSTAGRAM: BRIDGETHRIFT
INSTAGRAM: THEBRIDGETC

RECEIVED

By Mike Schwarz at 2:55 pm, May 24, 2022



RETAIL SALES OF DONATED GOODS:

- Furniture
- Home Goods
- Antiques & Collectibles
- Crafts & Creations from Local Artisans
- Small Potted Plants
- Salvaged Architectural Elements
- Repurposed & Upcycled Items
- Jewelry
- Accessories & Select Designer Apparel

JOB READINESS TRAINING & VOLUNTEERISM:

- Retail Training Area for Students
- Ongoing Teen Volunteerism (Individuals & Groups)
- Volunteer Opportunities for Adults (Individuals & Groups)

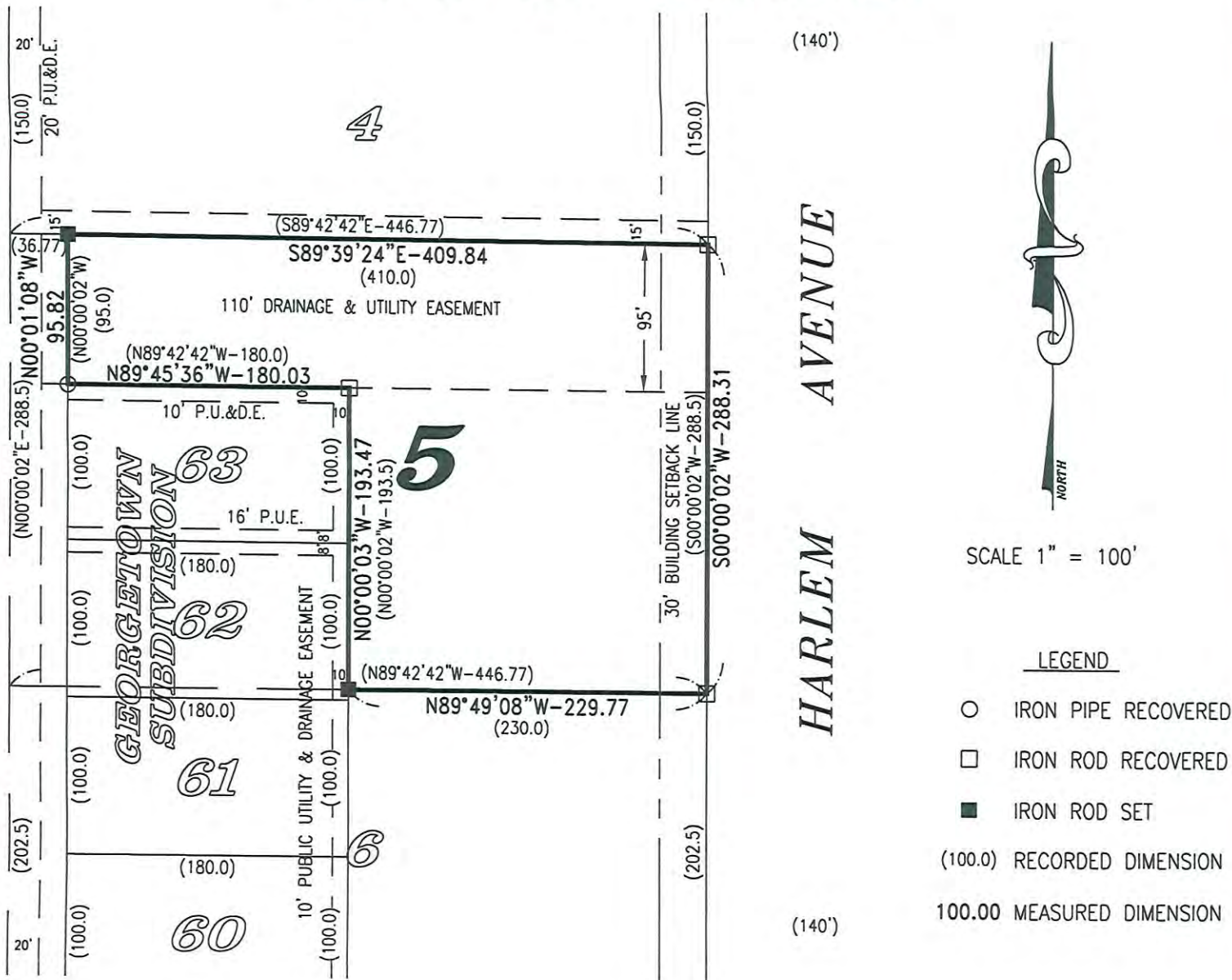
CONNECTIVITY TO THE BRIDGE TEEN CENTER:

- Although there is a clear affiliation with The Bridge Teen Center, this location is NOT a Teen Center.
- The building is being purchased by The Bridge Thrift Store, NOT The Bridge Teen Center.
- The Bridge Teen Center is simply the beneficiary of proceeds from this establishment.
- Future proposals for use of the adjacent vacant parcels will be brought to the village for consideration.

STORE HOURS:

- Sunday/Monday: CLOSED
- Tuesday/Thursday: 10-7
- Monday/Wednesday/Friday/Saturday: 10-5

PLAT OF SURVEY




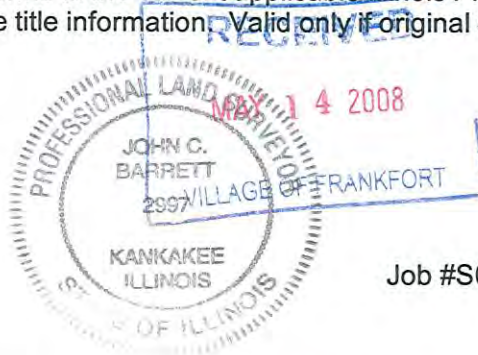
SUGGESTED LAND DESCRIPTION

A part of Lot 5, in Georgetown Square, being a Subdivision of part of the Southeast Quarter of Section 24, Township 35 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded January 13, 1987 as Document Number R87-1983, in Will County, Illinois described as follows: Beginning at an iron rod at the Northeast corner of said Lot 5; thence South 00°00'02" West a distance of 288.31 feet to an iron rod at the Southeast corner of said Lot 5; thence North 89°49'08" West along the South line of said Lot 5 a distance of 229.77 feet to an iron rod on the East line of Georgetown Subdivision, recorded as Document Number 89-25414; thence North 00°00'03" West a distance of 193.47 feet to an iron rod at the Northeast corner of Lot 63 in said Georgetown Subdivision; thence North 89°45'36" West a distance of 180.03 feet to an iron rod at the Northwest corner of said Lot 63; thence North 00°01'08" West along the East line of said Georgetown Subdivision a distance of 95.82 feet to an iron rod on the North line of said Lot 5; thence South 89°39'24" East a distance of 409.84 feet to the point of beginning, containing 1.918 acres more or less, SUBJECT TO rights of way for road, drainage and easement apparent or of record.

This is to certify that on April 16 and 24, 2008, at the request of GEORGE SARRIS, Agent, I, John C. Barrett, an Illinois Professional Land Surveyor, certify that this survey was made on the ground, that this plat correctly represents the facts found at the time of survey and that this professional service conforms to the current applicable Illinois Professional Land Surveyor Association Standards. This survey does not guarantee title information. Valid only if original Surveyor's Seal is affixed.

Given under my hand and seal this 29th day of April, 2008.


_____, I.P.L.S. #2997 Expires 11-30-08
John C. Barrett 367 South Schuyler Avenue
Tyson Engineering, Inc. Kankakee, IL 60901
Design Firm License #184-001136



Job #S08121

NOTES:

1. This professional service conforms to the current Illinois minimum standards for a boundary survey.
2. Please check Land Description with Deed and report any discrepancy immediately.
3. Compare all points before building by same and report any discrepancies at once.
4. Building lines, if any, shown hereon are building lines shown on the recorded subdivision plat.
5. Consult local authorities for building lines established by local ordinance.
6. No title or easement documentation was provided by the Agent. Property lines, easements and rights-of-way shown hereon are based solely on information furnished by the agent. The Land Surveyor did not do a title search to locate any other easements or agreements of record.

PLAT OF SURVEY




SUGGESTED LAND DESCRIPTION

A part of Lot 6, in Georgetown Square, being a Subdivision of part of the Southeast Quarter of Section 24, Township 35 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded January 13, 1987 as Document Number R87-1983, in Will County, Illinois described as follows: Beginning at an iron rod at the Northeast corner of said Lot 6; thence South 00°00'02" West a distance of 202.47 feet to an iron rod at the Southeast corner of said Lot 6; thence North 89°49'08" West along the South line of said Lot 6 a distance of 229.76 feet to an iron rod on the East line of Georgetown Subdivision recorded as Document Number 89-25414; thence North 00°00'03" West along said East line a distance of 202.47 feet to an iron rod on the North line of said Lot 6; thence South 89°49'08" East a distance of 229.77 feet to the point of beginning, containing 1.068 acres more or less, SUBJECT TO rights of way for road, drainage and easement apparent or of record.

This is to certify that on April 16, 2008, at the request of GEORGE SARRIS, Agent, I, John C. Barrett, an Illinois Professional Land Surveyor, certify that this survey was made on the ground, that this plat correctly represents the facts found at the time of survey and that this professional service conforms to the current applicable Illinois Professional Land Surveyor Association Standards. This survey does not guarantee title information. Valid only if original Surveyor's Seal is affixed.

Given under my hand and seal this 29th day of April, 2008.


John C. Barrett, I.P.L.S. #2997 Expires 11-30-08
367 South Schuyler Avenue
Tyson Engineering, Inc. Kankakee, IL 60901
Design Firm License #184-001136



RECEIVED

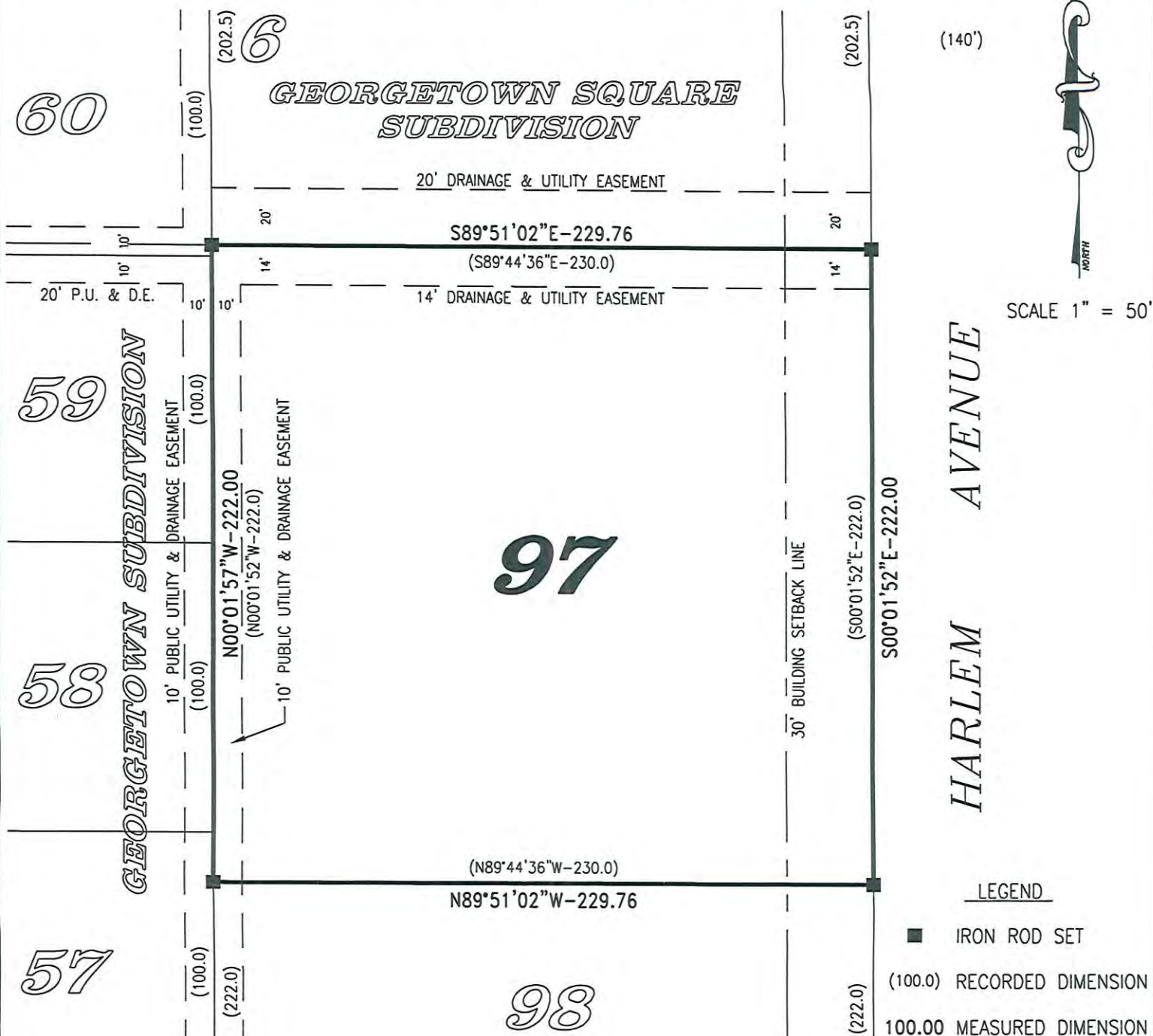
MAY 14 2008

Job #S08122
VILLAGE OF FRANKFORT

NOTES:

1. This professional service conforms to the current Illinois minimum standards for a boundary survey.
2. Please check Land Description with Deed and report any discrepancy immediately.
3. Compare all points before building by same and report any discrepancies at once.
4. Building lines, if any, shown hereon are building lines shown on the recorded subdivision plat.
5. Consult local authorities for building lines established by local ordinance.
6. No title or easement documentation was provided by the Agent. Property lines, easements and rights-of-way shown hereon are based solely on information furnished by the agent. The Land Surveyor did not do a title search to locate any other easements or agreements of record.

PLAT OF SURVEY



LEGAL DESCRIPTION

Lot 97 Georgetown Subdivision First Addition being a Subdivision of part of the Southeast Quarter of Section 24, Township 35 North, Range 12 East of the Third Principal Meridian in Will County, Illinois.

This is to certify that on April 16, 2008, at the request of GEORGE SARRIS, Agent, I, John C. Barrett, an Illinois Professional Land Surveyor, certify that this survey was made on the ground, that this plat correctly represents the facts found at the time of survey and that this professional service conforms to the current applicable Illinois Professional Land Surveyor Association Standards. This survey does not guarantee title information. Valid only if original Surveyor's Seal is affixed.

Given under my hand and seal this 25th day of April, 2008.

 I.P.L.S. #2997 Expires 11-30-08
John C. Barrett 367 South Schuyler Avenue
Tyson Engineering, Inc. Kankakee, IL 60901
Design Firm License #184-001136

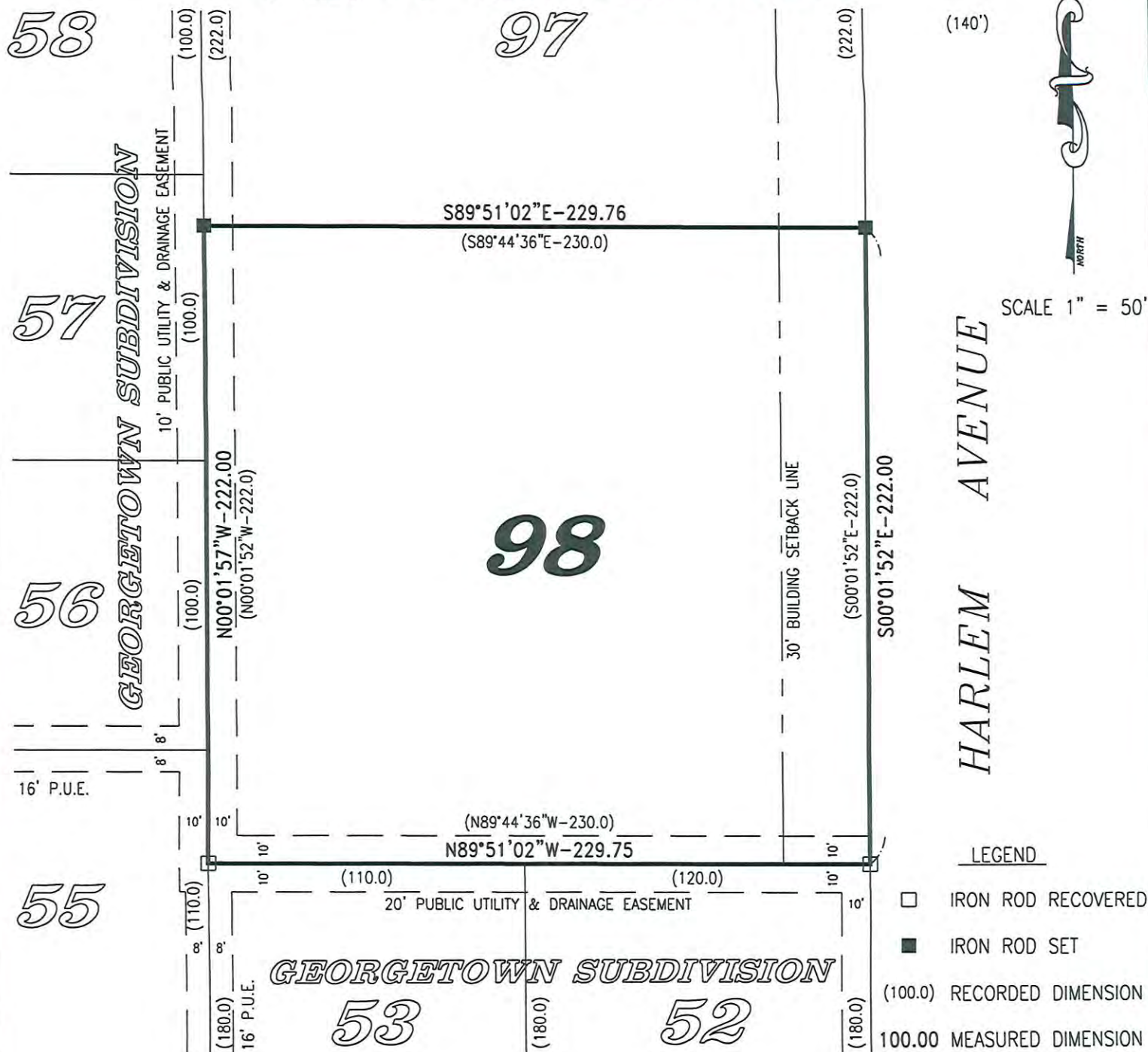


Job #S08123

NOTES:

1. This professional service conforms to the current Illinois minimum standards for a boundary survey.
2. Please check Land Description with Deed and report any discrepancy immediately.
3. Compare all points before building by same and report any discrepancies at once.
4. Building lines, if any, shown hereon are building lines shown on the recorded subdivision plat.
5. Consult local authorities for building lines established by local ordinance.
6. No title or easement documentation was provided by the Agent. Property lines, easements and rights-of-way shown hereon are based solely on information furnished by the agent. The Land Surveyor did not do a title search to locate any other easements or agreements of record.

PLAT OF SURVEY



LEGAL DESCRIPTION

Lot 98 Georgetown Subdivision First Addition being a Subdivision of part of the Southeast Quarter of Section 24, Township 35 North, Range 12 East of the Third Principal Meridian in Will County, Illinois.

This is to certify that on April 16, 2008, at the request of GEORGE SARRIS, Agent, I, John C. Barrett, an Illinois Professional Land Surveyor, certify that this survey was made on the ground, that this plat correctly represents the facts found at the time of survey and that this professional service conforms to the current applicable Illinois Professional Land Surveyor Association Standards. This survey does not guarantee title information. Valid only if original Surveyor's Seal is affixed.

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John C. Barrett, I.P.L.S. #2997 Expires 11-30-08
 John C. Barrett 367 South Schuyler Avenue
 Tyson Engineering, Inc. Kankakee, IL 60901
 Design Firm License #184-001136

RECEIVED

MAY 14 2008



Job #S08124

NOTES:

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3. Compare all points before building by same and report any discrepancies at once.
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6. No title or easement documentation was provided by the Agent. Property lines, easements and rights-of-way shown hereon are based solely on information furnished by the agent. The Land Surveyor did not do a title search to locate any other easements or agreements of record.

GRAPHIC SCALE

1 inch = 40 ft.

GROSS AREA:	230,589.57	SQ. FT.	OR	5,294	ACRES
PROPOSED LOT 1:	179,532.95	SQ. FT.	OR	4,122	ACRES
PROPOSED LOT 2:	51,056.62	SQ. FT.	OR	1,172	ACRES

GROSS AREA:	230,589.57	SQ. FT.	OR	5,294	ACRES
PROPOSED LOT 1:	179,532.95	SQ. FT.	OR	4,122	ACRES
PROPOSED LOT 2:	51,056.62	SQ. FT.	OR	1,172	ACRES

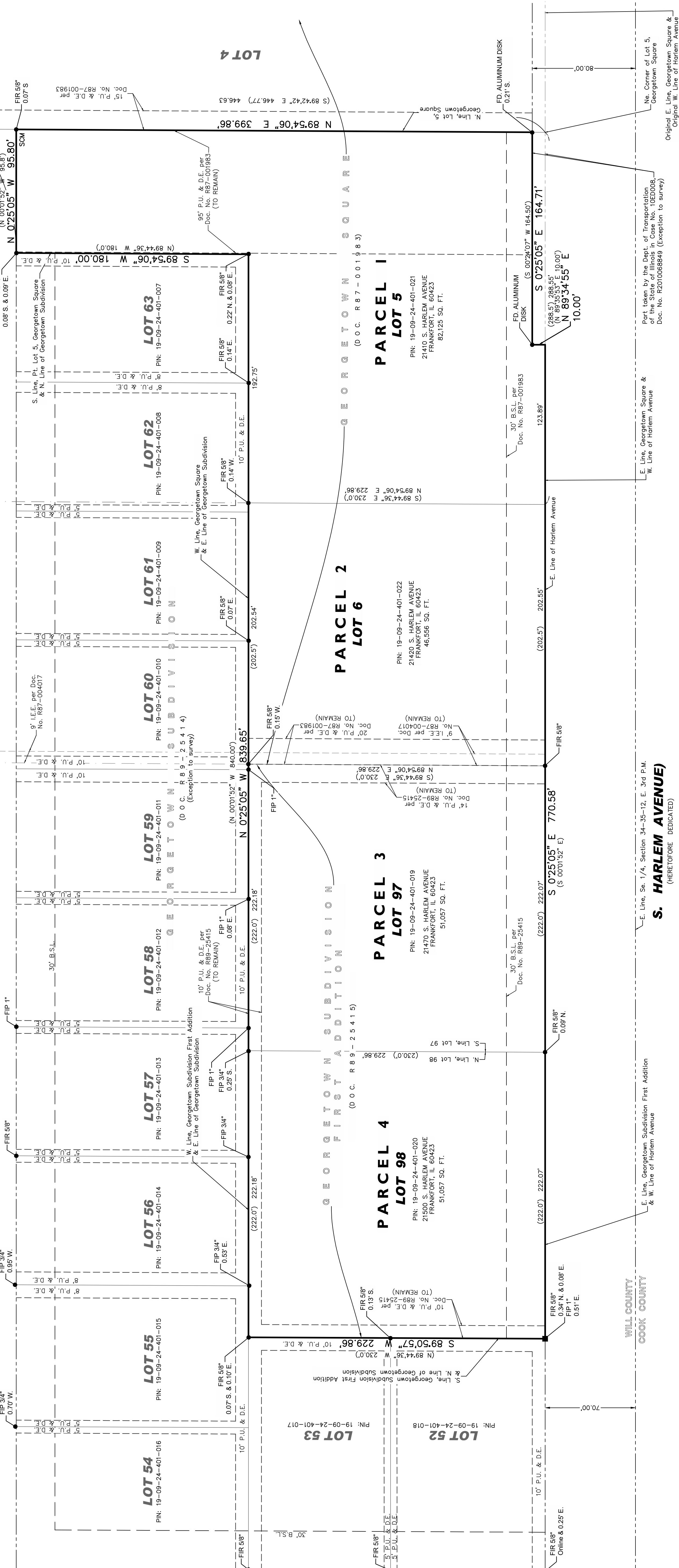
1: 19-09-24-401-021

1: 19-09-24-401-021
2: 19-09-24-401-022
3: 19-09-24-401-019
4: 19-09-24-401-020

21410, 21420, 21470 AND 21500

S. HARLEM AVENUE
FRANKFORT, ILLINOIS 60141

(HERETOFORE DEDICATED)



1. ALL AREAS ARE PLUS OR MINUS.
2. ALL DISTANCES ARE IN FEET AND DECIMAL PARTS THEREOF.
3. ALL EASEMENTS ARE HEREBY GRANTED TO THE VILLAGE OF FRANKFORT, ILLINOIS.
4. LOTS 1 AND 2 SHALL HAVE ONLY ONE ACCESS TO LOT ROUTE 43 (S. HARLEM AVENUE).
5. THERE SHALL BE NO ACCESS FROM THE STORMWATER DETENTION EASEMENT TO HARLEM AVENUE.
6. THE CURRENT OR SUBSEQUENT TITLE HOLDERS OF LOT 1 SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE STORMWATER DETENTION EASEMENT.

THIS PLAT IS BASED ON THE COMMITMENT FOR TITLE PREPARED BY CHICAGO TITLE INSURANCE COMPANY DATED JULY 13, 2022, ORDER NO. 2025A9584003C.

RECORD NUMBER ###	RECORD DIMENSION ###	MEASURED DIMENSION ###	FOUND IRON PIPE FIP	FOUND IRON ROD OR PIN FIR	PUBLIC UTILITY AND DRAINAGE EASEMENT BUILDING SETBACK LINE SQUARE FEET INGRESS-EGRESS EASEMENT	S E W	SOUTH EAST WEST
1	10.0	10.0					
2	10.0	10.0					
3	10.0	10.0					
4	10.0	10.0					
5	10.0	10.0					
6	10.0	10.0					
7	10.0	10.0					
8	10.0	10.0					
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64	10.0	10.0					
65	10.0	10.0					
66	10.0	10.0					

FIP
 ● FIR
 ○ SIP
 ■ SCM

FOUND IRON ROD/REBAR
 SET 5/8" x 24" IRON PIPE
 SET CONCRETE MONUMENT
 BOUNDARY LINE
 EXISTING RIGHT OF WAY LINE
 EXISTING EASEMENT LINE
 SECTIONAL LINE
 PROPOSED LOT LINE
 PROPOSED EASEMENT LINE

PWM ARCHITECTURE, LLC
3603 CHEESAPEAKE ROAD
T. CHARLES, ILLINOIS 60175

FINAL PLAT
FOR
THE BRIDGES RE-SUBDIVISION
FRANKFORD, ILLINOIS

DESIGNER ENGINEERING, INC.
CONSULTING, CIVIL ENGINEERING & LAND SURVEYING
9930 W. 190TH STREET, SUITE L
MOKENA, ILLINOIS 60448
(708) 326-4961
FAX: (708) 326-4692
IL PROF. LIC. NO.: 184-003740



PROJECT INFORMATION

ect No.: 23-0010

e: 1" = 40'

07/12/2023

Date: 04/10/2023

10

EXISTING CONDITIONS

SEE SHEET 2 OF 3 FOR PROPOSED CONDITIONS

FINAL PLAT

OF
THE BRIDGE RE-SUBDIVISION

BEING A RE-SUBDIVISION OF LOTS 5 & 6 IN GEORGETOWN SQUARE AND LOTS 97 & 98 IN GEORGETOWN SUBDIVISION FIRST ADDITION, BEING SUBDIVISIONS OF PART OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 35 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN WILL COUNTY, ILLINOIS.

SITE DATA

GROSS AREA: 230,589.57 SQ. FT. OR 5.294 ACRES
PROPOSED LOT 1: 179,532.95 SQ. FT. OR 4.122 ACRES
PROPOSED LOT 2: 51,056.62 SQ. FT. OR 1.172 ACRES

ADDRESS

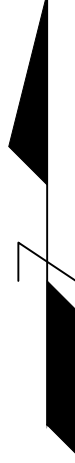
21410, 21420, 21470 AND 21500
S. HARLEM AVENUE
FRANKFORT, ILLINOIS 60423

BASIS OF BEARING

THE BASIS OF BEARINGS IS THE ILLINOIS STATE
PLANE SYSTEM - EAST ZONE 1201, NORTH AMERICAN
DATUM 1983 (NAD '83, 2011 ADJUSTMENT)

PARCEL IDENTIFICATION NUMBER

PARCEL 1: 19-09-24-401-021
PARCEL 2: 19-09-24-401-022
PARCEL 3: 19-09-24-401-023
PARCEL 4: 19-09-24-401-020



GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

RESERVED FOR THE WILL COUNTY RECORDER OF DEEDS

GEORGETOWN ROAD

(HERETOFORE DEDICATED)

PWM ARCHITECTURE, LLC
3603 CHESAPEAKE ROAD
ST. CHARLES, ILLINOIS 60175

FINAL PLAT
FOR
THE BRIDGES RE-SUBDIVISION
FRANKFORT, ILLINOIS

DESIGNTEK ENGINEERING, INC.
CONSULTING, CIVIL ENGINEERING & LAND SURVEYING
9930 W. 190TH STREET, SUITE L
MOKENA, ILLINOIS 60448
FAX: (708) 326-4692
IL PROF. LIC. NO.: 184-003740



PROJECT INFORMATION

Project No.: 23-0010

Scale: 1" = 40'

Date: 07/12/2023

Field Date: 04/10/2023

Drawn By: SJL

Checked By: MJF

2

OF

3

PROPOSED CONDITIONS

SEE SHEET 1 OF 3 FOR EXISTING CONDCTIONS

NOTES

1. ALL AREAS ARE PLUS OR MINUS.
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5. THERE SHALL BE NO ACCESS FROM THE STORMWATER DETENTION EASEMENT TO HARLEM AVENUE.
6. THE CURRENT OR SUBSEQUENT TITLE HOLDERS OF LOT 1 SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE STORMWATER DETENTION EASEMENT.
7. THIS PLAT IS BASED ON THE COMMITMENT FOR TITLE PREPARED BY CHICAGO TITLE INSURANCE COMPANY DATED JULY 13, 2022, ORDER NO. 205A9564003LPE.

ABBREVIATIONS

FD. FOUND
(###)### RECORD DIMENSION
MEASURED DIMENSION
FIP FOUND IRON PIPE
P.U. & D.E. PUBLIC UTILITY AND
B.S.L. BUILDING SETBACK LINE
S.Q. FT. SQUARE FEET
I.E.E. INGRESS-EGRESS EASEMENT

N NORTH
S SOUTH
E EAST
W WEST

LEGEND

FIP FOUND IRON PIPE
● FIP FOUND IRON ROD/REBAR
○ SIP SET 5/8" x 24" IRON PIPE
■ SCM SET CONCRETE MONUMENT
--- BOUNDARY LINE
--- EXISTING EASEMENT LINE
--- SECTIONAL LINE
--- PROPOSED LOT LINE
--- PROPOSED EASEMENT LINE

S. HARLEM AVENUE)
(HERETOFORE DEDICATED)

E. Line, Sec. 1/4, Section 34-35-12, E. 3rd P.M.

WILL COUNTY
COOK COUNTY


Port taken by the Dept. of Transportation
of the State of Illinois in Case No. 10ED008
Doc. No. R201008849 (Exception to survey)

NO.	DATE	DESCRIPTION	BY
1	09-05-23	VILLAGE COMMENTS DATED 07/12/2023	SJL

		04-22-23	FOR REVIEW
		06-27-23	FOR REVIEW
		01-04-23	FOR REVIEW
		12-18-22	FOR REVIEW
		05-27-22	FOR REVIEW
	NO.	DATE	ISSUE / REVISION

BRIDGE
21420 S Harlem Avenue
Frankfort, Illinois

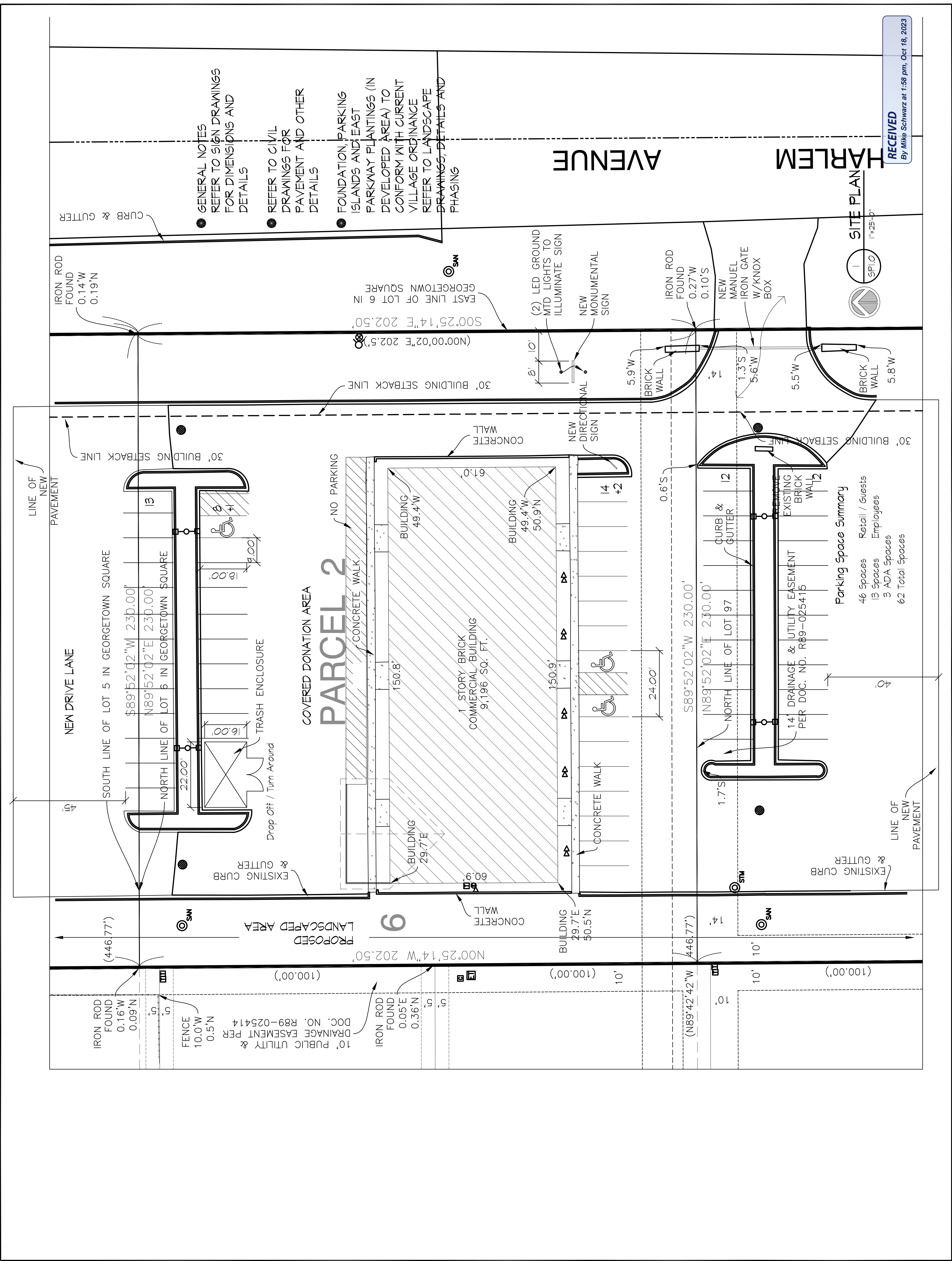
PROJECT NO.:	
DRAWN BY:	JJP
CHECKED BY:	PWM



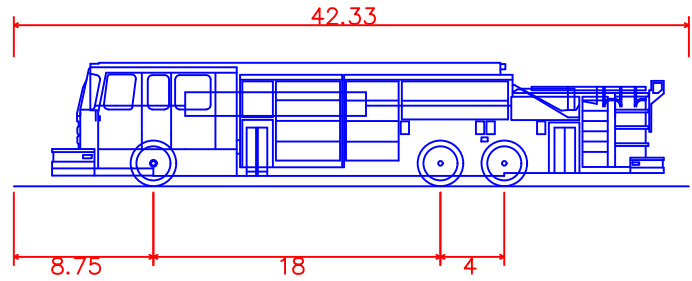
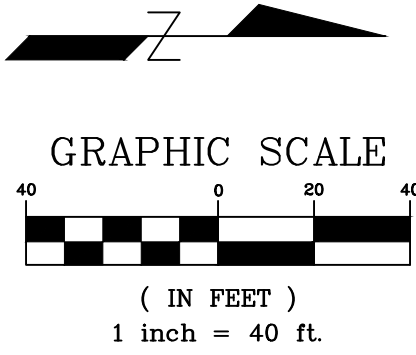
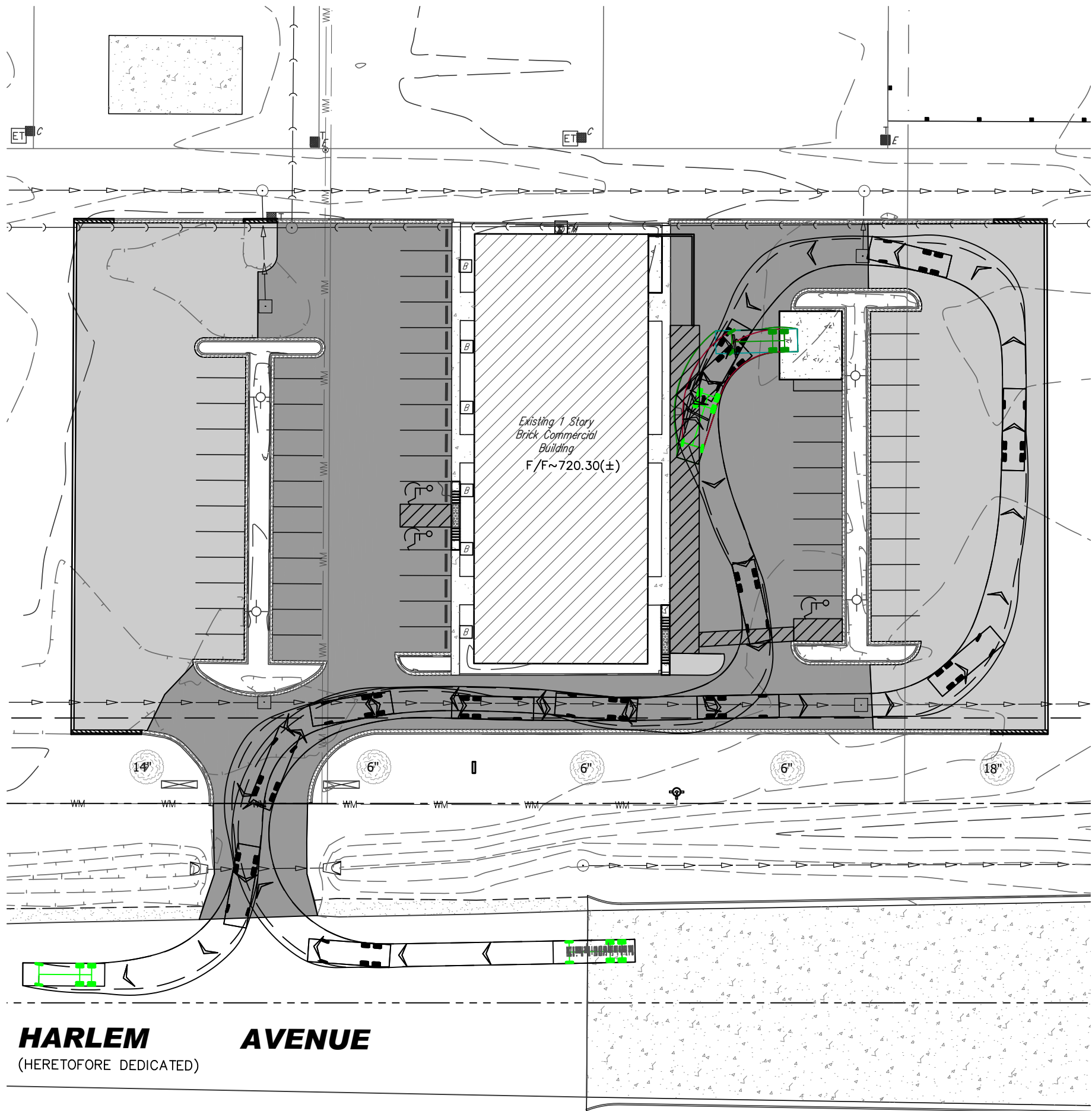
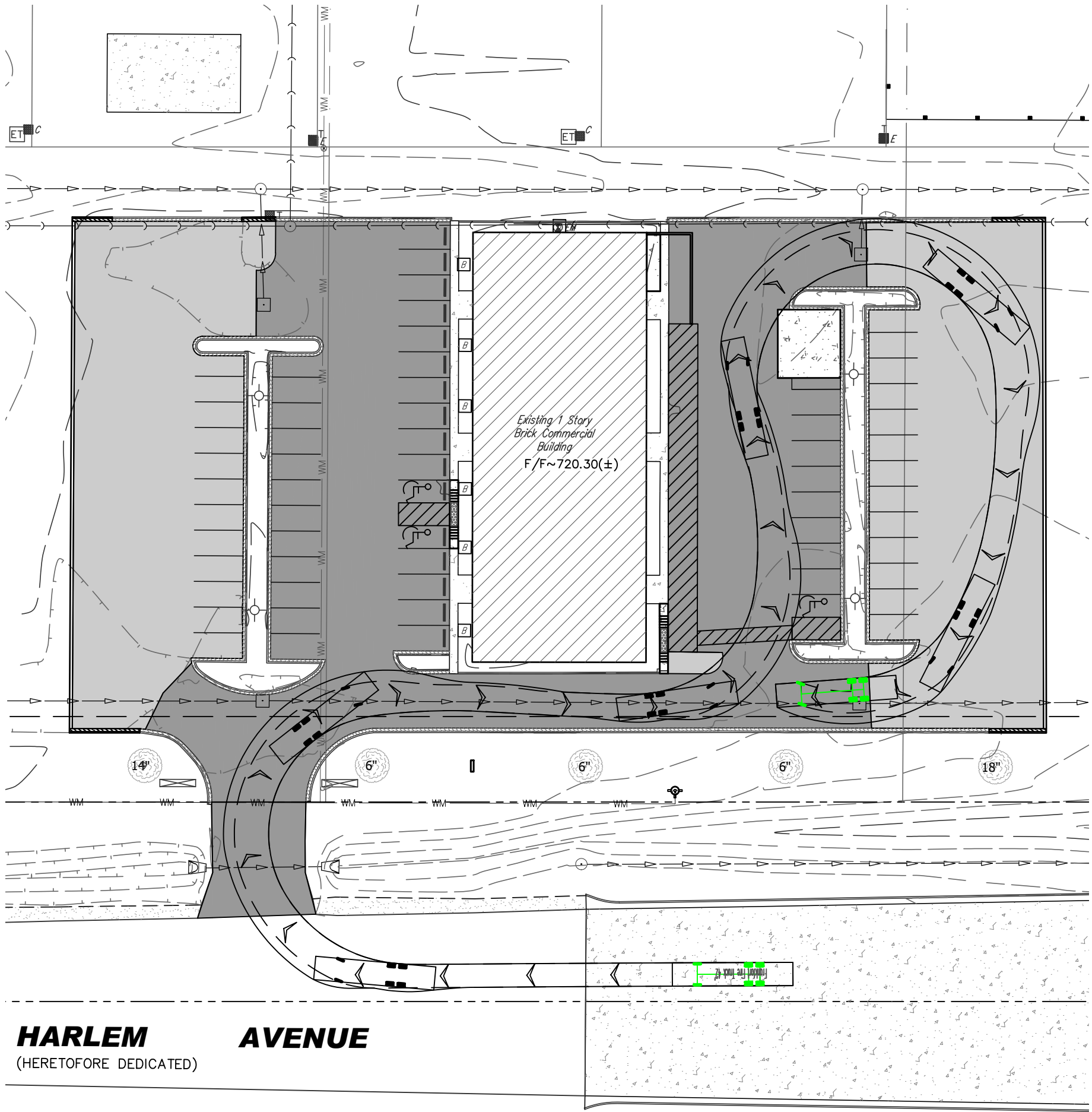
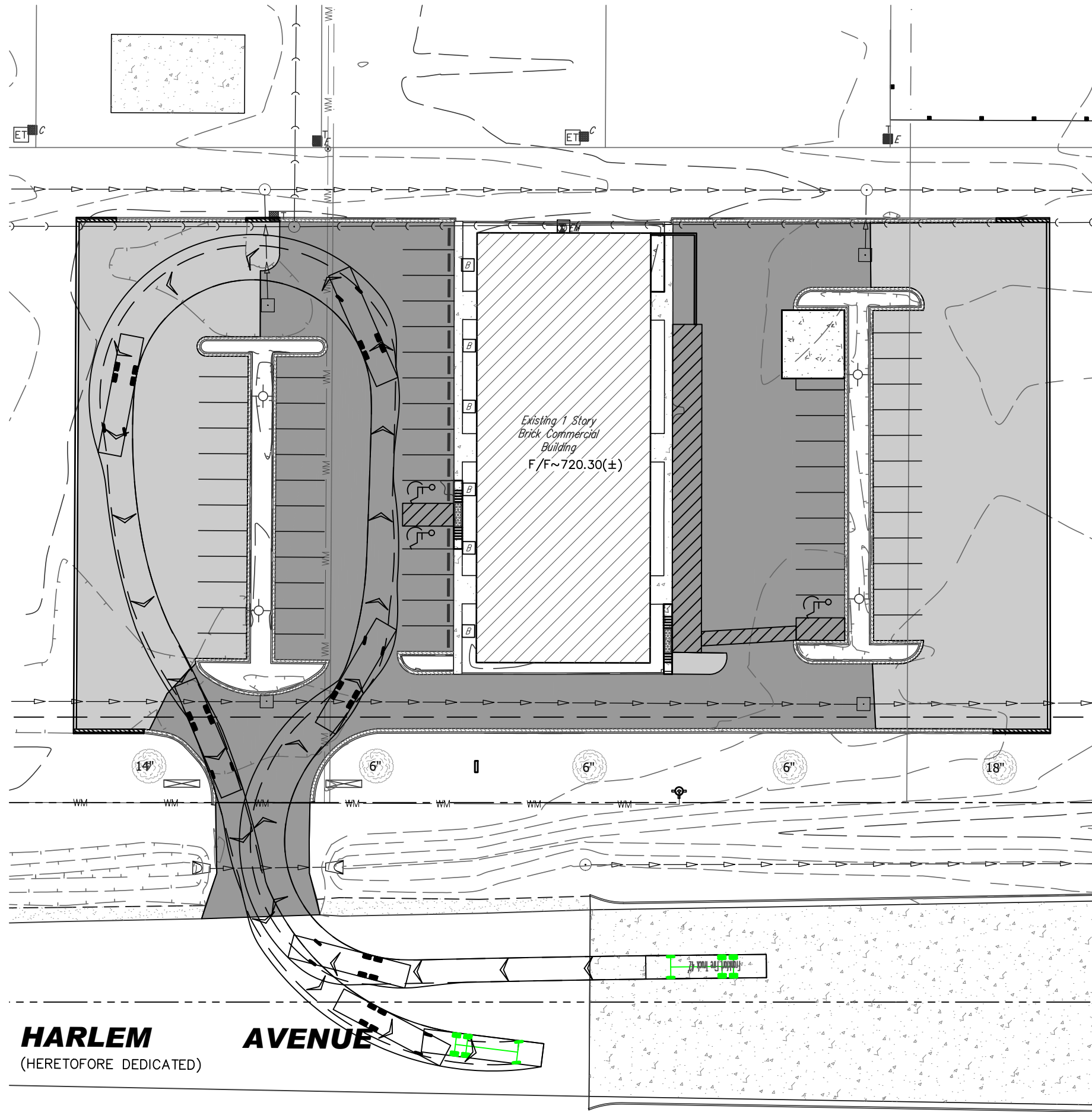
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ARCHITECTURAL SITE PLAN

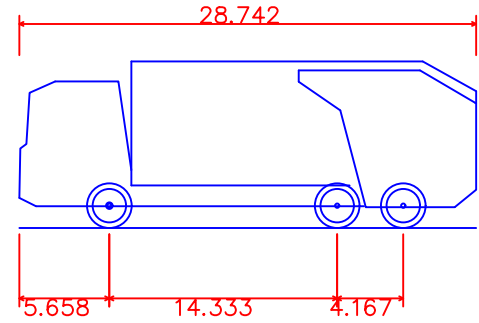
SHEET: SP1.0



AUTO-TURN EXHIBIT



Frankfort Fire Truck
Overall Length 42.330ft
Overall Width 8.167ft
Overall Body Height 7.745ft
Min Body Ground Clearance 0.656ft
Track Width 8.167ft
Lock-to-lock time 5.00s
Max Wheel Angle 25.50°



Garbage Truck
Overall Length 28.742ft
Overall Width 8.000ft
Overall Body Height 10.481ft
Min Body Ground Clearance 1.311ft
Track Width 8.000ft
Lock-to-lock time 6.00s
Curb to Curb Turning Radius 34.000ft

REVISIONS		NO.	DATE	DESCRIPTION	BY

PWM ARCHITECTURE, LLC
3603 CHESAPEAKE ROAD
ST. CHARLES, ILLINOIS 60175

FINAL ENGINEERING PLANS
FOR
THE BRIDGE THRIFT STORE
21410-21500 S. HARLEM AVENUE
FRANKFORT, ILLINOIS

DESIGNTEK ENGINEERING, INC.
CONSULTING, CIVIL ENGINEERING & LAND SURVEYING
9930 W. 190TH STREET, SUITE L
MOKENA, ILLINOIS 60448
(708) 326-4961
FAX: (708) 326-4962
IL PROF. LIC. NO.: 184-003740



PROJECT INFORMATION	
Project No.:	23-0010
Scale:	1"=40'
Date:	09-18-2023
Design By:	MJF
Drawn By:	DJB
Checked By:	MJF

	04-22-23	FOR REVIEW
	02-17-23	FOR REVIEW
	01-04-23	FOR REVIEW
	05-27-22	FOR REVIEW
	04-24-22	FOR REVIEW
	04-26-22	FOR REVIEW
	04-25-22	FOR REVIEW
	04-20-22	FOR REVIEW
NO.	04-10-22	FOR REVIEW
NO.	DATE	ISSUE / REVISION

BRIDGE

21420 S Harlem Avenue
Frankfort, Illinois

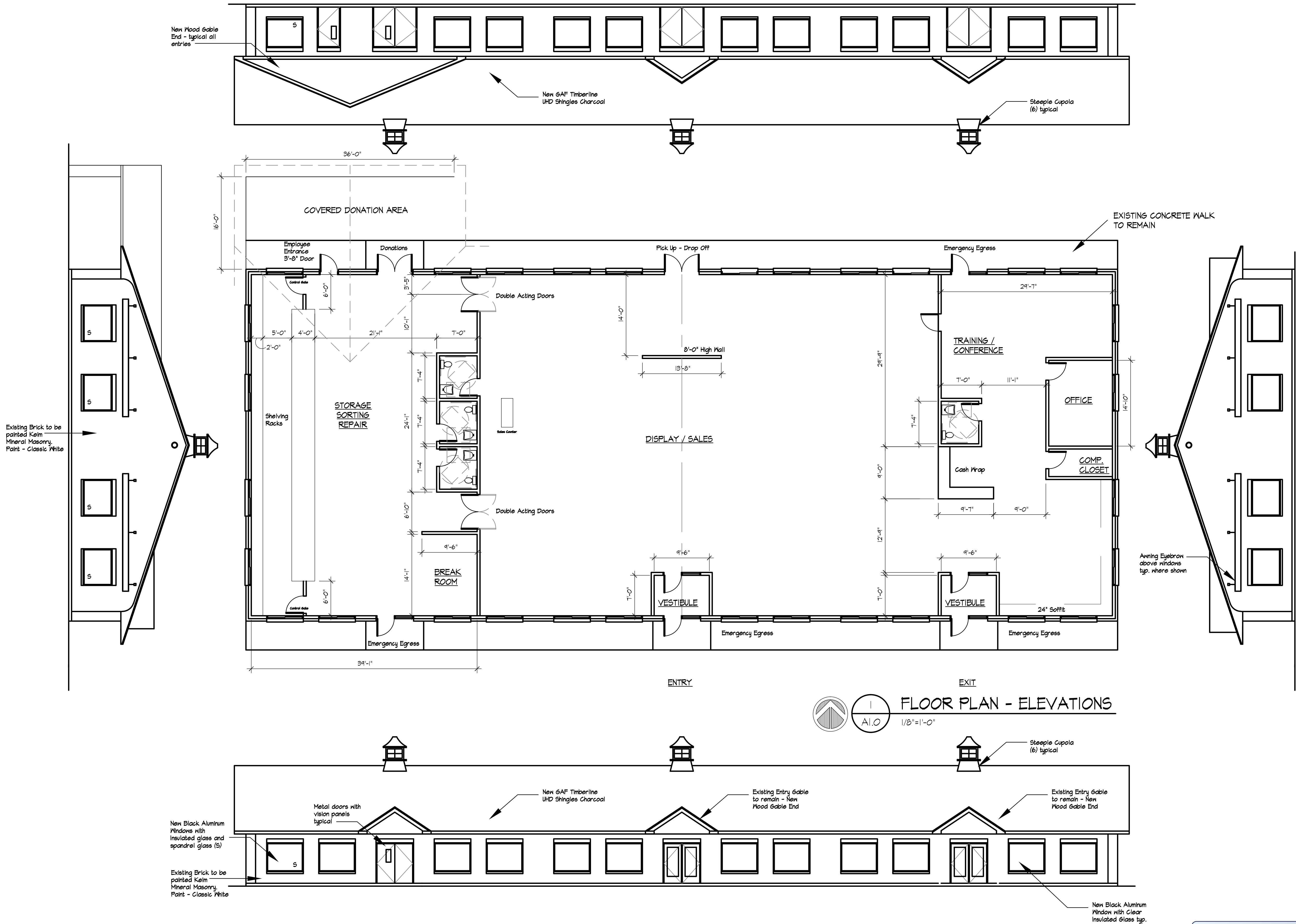
PROJECT NO.:	
DRAWN BY:	JJP
CHECKED BY:	PWM

SHEET TITLE:

FLOOR PLAN

SHEET:

A1.0



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By Mike Schwarz at 12:01 pm, Oct 18, 2023












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[YOUR CART \(HTTPS://CUPOLASDIRECT.COM/CHECKOUT/CART/\)](https://cupolasdirect.com/checkout/cart/)
[View Products](#)


Don't settle for a mass-produced, low quality cupola. Let our professional amish craftsmen hand-make your perfect, **HIGH-QUALITY, LOW-COST, MAINTENANCE-FREE CUPOLA**. Call now and let our 20 plus years of experience help you pick the perfect cupola for your project!

Price Match ([/customer-service-guarantees-returns-more/](#))

Sizing Guidelines ([/sizing-chart/](#))

Call Us:
(717) 808-5711
(tel:7178085711)

[HOME \(HTTPS://CUPOLASDIRECT.COM/\)](https://cupolasdirect.com/) » **STEEPLE CUPOLAS (MCC4CW-TP)**

PRICE MATCH GUARANTEE



STEEPLE CUPOLAS (MCC4CW-TP)

[Be the first to review this product](#)

(<https://cupolasdirect.com/steeple-cupolas-mcc4cw-tp.html#review-form>)

Item Code: MCC4CW-TP

Availability: **Built to order and ships within 3-5 weeks**

\$894.00

Size

Base: 26" Height: 39" ✓



Base Extension

Additional +\$45.00 ✓



Light Mount

Light Mount +\$38.00 ✓



QTY: 1



- OR -



- OR -



Pay Pal CREDIT

(<https://www.securecheckout.bllmclator.com/paycapture-content/fetch?hash=AUB26TU8>)

(<https://www.securecheckout.bllmclator.com/paycapture-content/fetch?hash=AUB26TU8>)

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(<https://www.securecheckout.bllmclator.com/paycapture-content/fetch?hash=AUB26TU8>)

Have a more urgent need? Check out our **Quick Ship Steeple Cupola** (<https://cupolasdirect.com/steeple-cupolas-mcc4cw-tp-quick-ship.html>), which ships within 3-5 days

Cupola Sizing Info

- Available in 8 sizes from 18" to 48" (measured at the base) – see detailed measurements available under the size selector
- Fits up to 8:12 roof pitch standard
- Base extension(s) available to fit steeper roof pitches (please contact us with your roof pitch)
- Compatible with most sheds, barns and buildings with a roofline up to 48' long
- Check out our [Sizing Chart](#) (<https://cupolasdirect.com/sizing-chart/>) & [Customer Photo](#) (<https://cupolasdirect.com/customer-photos/>) page for more information

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By Mike Schwarz at 12:01 pm, Oct 18, 2023

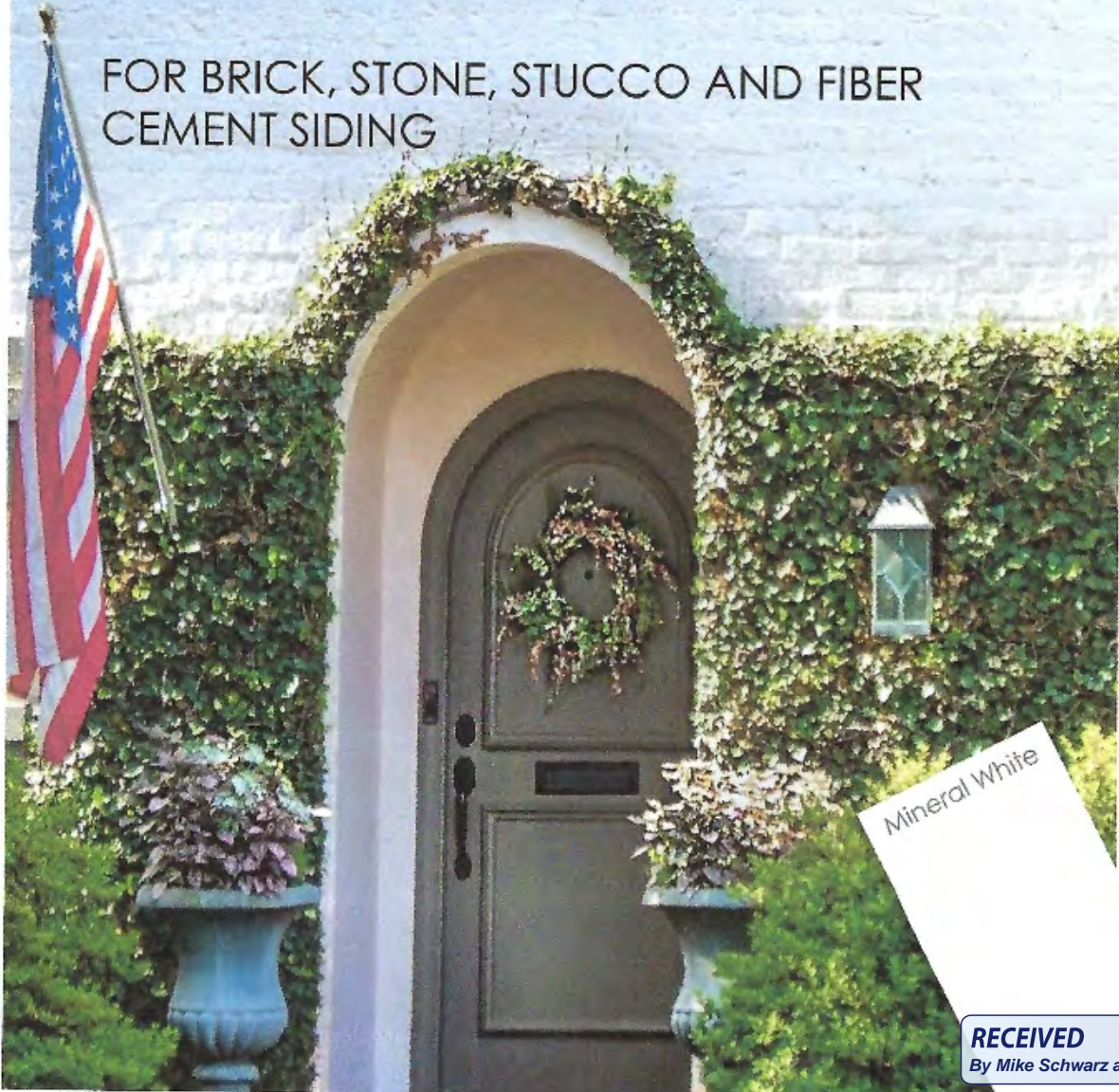
Check Out Our Cupola & Weathervane Combo Specials Here (<https://cupolasdirect.com/cupolas-with-weathervanes.html>)



MINERAL MASONRY PAINT

BREATHABLE AND EXTREMELY DURABLE
MINERAL PAINT FROM EUROPE

FOR BRICK, STONE, STUCCO AND FIBER
CEMENT SIDING



Mineral White

RECEIVED

By Mike Schwarz at 5:26 pm, Jul 18, 2023

KEIM® MINERAL MASONRY PAINT

THE PERFECT PAINT *for all* MASONRY

Today, Keim gives you a choice to paint the exterior of your brick, stone or stucco home without having to worry about future maintenance or peeling paint problems. Many home remodel experts have shied away from painting brick exteriors because water and moisture can cause problems and damage for ordinary acrylic and latex house paints. These paints are not breathable, and seal masonry so it can no longer breathe naturally. Mineral Masonry Paint never seals the brick and allows moisture to release without any damage to your beautiful paint finish and it keeps wind-driven rain out too!



Mineral Masonry Paint is made from naturally occurring materials including mineral silicate binder for a highly durable, long-lasting paint that won't peel or flake off. And because Granital uses only UV resistant pigments, colors are permanent and won't fade or change, no matter how harsh the environment. This mineral paint is also naturally hygienic due to its high pH and is resistant to mold and mildew growth, without the addition of pesticides or biocides. Your new paint finish will look cleaner and fresher for decades.



Mineral paint will never peel from brick. Here, ordinary acrylic latex paint is peeling due to moisture escaping from the masonry surface.

A VERY LOW MAINTENANCE PAINT *for* BRICK, STONE *and* MASONRY SURFACES

Granital is quite different from ordinary latex or acrylic house paints. The mineral molecular structure of Granital is very similar to brick and masonry, giving it a natural affinity. Granital literally penetrates and fuses with the masonry forming permanent chemical bonds. And this mineral silicate structure is highly vapor permeable with perm ratings of 77+ to ensure a breathable paint. This means moisture that can accumulate in your home's walls will diffuse outward without resistance, keeping walls dryer. Trapped moisture can cause structural damage over time and can contribute to mold growth.

COLOR *and* BEAUTY THAT LASTS DECADES

Mineral Masonry Paint is extremely resistant to harsh UV, which also extends the weather resistance of your home's finish. Both the paint's mineral silicate binder and the earthen mineral oxide colors are not affected by UV. These pigments, that occur in Nature, never fade and the entire paint finish is completely "inert" and cannot be degraded.

And mineral colors have a depth of beauty and radiance only found in Nature. Ordinary house paints cannot match the brilliance and true colors of Granital, nor can they match the extraordinary mineral matte finish, which some describe as "velvety".

Mineral Masonry Paint's penetration into the masonry, the chemical fusion that takes place and the UV stability of both silicate binder and mineral pigments are the fundamental reasons for the extraordinarily high lifetime of silicate paints. In Europe, some of Keim's first paint projects date back to 1881 and still look gorgeous today!



DURABLE *and* EASY TO RENEW

While the look and feel of Mineral Masonry Paint is stunning, it is easier to maintain and renew than ordinary house paints. It will never peel, bubble or blister, so you will never need to scrape surfaces of loose paint to ready it for another fresh coat. Simply wash aged surfaces to remove dirt, dust or bio-growth, then refresh with another coat. It's that simple. And adding layers of new paint never changes the breathability of the finish. Additional layers simply add more character to the finish and never locks in moisture.

RECEIVED

By Mike Schwarz at 5:25 pm, Jul 18, 2023

Timberline® UHD Shingles

Your best choice for an ultra-dimensional wood-shake look.

★★★★★ 4.8 (452) [WRITE A REVIEW](#)ALL COLORS ☒ BY YOUR AREA

Color/Finish: Charcoal

[FIND A CONTRACTOR \(/EN-US/ROOFING-CONTRACTORS/RESIDENTIAL\)](#)

ABOUT (<https://www.gaf.com/en-us/roofing-products/residential-roofing-products/shingles/timberline/architectural/timberline-uhd>)

SPECS (<https://www.gaf.com/en-us/roofing-products/residential-roofing-products/shingles/timberline/architectural/timberline-uhd/specifications>)

DOCS (<https://www.gaf.com/en-us/roofing-products/residential-roofing-products/shingles/timberline/architectural/timberline-uhd/documents>)

Why Timberline® UHD?

Timberline® UHD Shingles will cost you just pennies-a-day more than standard architectural shingles. In return, you will enjoy a thicker, ultra-dimensional wood-shake look for your roof—and can increase your home's resale value, too.

[eComedes](https://gaf.ecomedes.com/products/gaf/timberline-uhd-shingles) <https://gaf.ecomedes.com/products/gaf/timberline-uhd-shingles>

See how this product can help you meet your environmental goals. View sustainability information here. (<https://gaf.ecomedes.com/products/gaf/timberline-uhd-shingles>)

BEST INVESTMENT
May increase the resale value of your home.

ULTRA-DIMENSIONAL
Timberline UHD Shingles feature GAF's proprietary color blends and enhanced shadow effect for an ultra-dimensional woodshake look.

ADVANCED STAIN RESISTANCE
Protects against algae, mold, and lichen. Advanced Stain Release Algae-Fighting Technology fights ugly blue-green stains.

■ **Ultra-Dimensional Look:** Up to 53% thicker than standard architectural shingles. Timberline® UHD Shingles feature GAF's proprietary color blends and enhanced shadow effect for an ultra-dimensional woodshake look on your roof.

■ **Highest Roofing Fire Rating:** UL Class A, Listed to ANSI/UL 790.

■ **High Performance:** Designed with **Advanced Protection™ Shingle Technology** (<https://www.gaf.com/en-us/roofing-products/residential-roofing-products/shingles/timberline/architectural/timberline-uhd/specifications>), which reduces the use of natural materials and provides superior protection for your home.

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- **Stays in Place:** Dual Grip™ Adhesive seals each shingle tightly and reduces the risk of shingle blow-off. Shingles warranted to withstand winds up to 130 mph (209 km/h).¹
- **Perfect Finishing Touch:** Use Timberline® Premium Ridge-Cap Shingles or RidgeCap® Premium Ridge-Cap Shingles.²
- **Peace of Mind:** Lifetime 1st transferable warranty with Smart Choice® Protection (non-priced material and installation labor coverage) for the lifetime years.³
- **25-year StainGuard Plus™ Algae Protection Limited Warranty** against blue-green algae discoloration. Proprietary GAF Time-Release Algae-Fighting Technology. (<https://www.gaf.com/en-us/roofing/stainguard-plus>) helps protect your shingles from unsightly stains.⁴

¹Comparison refers to Timberline HD® Shingles. Thickness varies by shingle size and shingle for comparison.

²Your shingles will be covered up to the maximum wind speed where CM-1 is installed using 6 nails per shingle and GAF Starter Style Products installed at the eaves and rakes. Maximum Wind Speed Coverage is 180 mph with Special Installation or 110 mph without Special Installation. See GAF Shingle & Accessory Limited Warranty for complete details.

³See GAF Shingle & Accessory Limited Warranty for complete coverage and restrictions. The word "Lifetime" refers to the length of coverage provided by the GAF Shingle & Accessory Limited Warranty and means as long as the original individual owner(s) of a single-family detached residence for the second owner(s) in certain circumstances even the property where the shingles are installed. For uninsurable areas and meeting the above criteria, Lifetime coverage is not applicable.

⁴These products are not available in all areas. Visit Ridge-Cap Shingle Product Availability for details.

⁵25-year StainGuard Plus™ Algae Protection Limited Warranty against blue-green algae discoloration is available only on products and in packages bearing the StainGuard Plus™ logo. See GAF Shingle & Accessory Limited Warranty for complete coverage, restrictions, and qualifying products.

(Note: It is difficult to reproduce the color clarity and actual color blends of these products. Before selecting your color, please ask to see several full-size shingles.)

GAF factory-certified roofing companies near you

Please enter your zip code below to see recommended contractor in your area.

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Related products for Timberline® UHD



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Shingles

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Reviews

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Roofing Shingles

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5★	413
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At a Glance: Customer Ratings

Overall **★★★★★** [VIEW](#)

1-8 of 483 Reviews

Sort by: Most Recent [VIEW](#)

★★★★★ Delano Dizon [12 days ago](#)

Beautiful New GAF timberline Ultra HDZ Lifetime Roof System

The beautiful newly launched GAF timberline Ultra HDZ -Dual Shadow Lifetime Shingle Roof in Powder Gray completely transformed the aging appearance of our home. It is a timeless color with a definition that enhances the depth and high quality of this Roof System. We couldn't recommend it more highly!

Select a color: Powder Gray

Recommends this product [VIEW](#)

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NON-ILLUMINATED WALL SIGN
84" x 82" = 48 SQ. FT.

- FABRICATED ALUMINUM PAN SIGN - 2" RETURNS
- PVC DIMENSIONAL COPY
- WHITE VINYL LOGO AND LINES
- CONCEALED MOUNTING FRAME



3/16" SCALE

RECEIVED

By Mike Schwarz at 5:13 pm, Jul 18, 2023



13401 SOUTHWEST HWY.,
ORLAND PARK, ILLINOIS

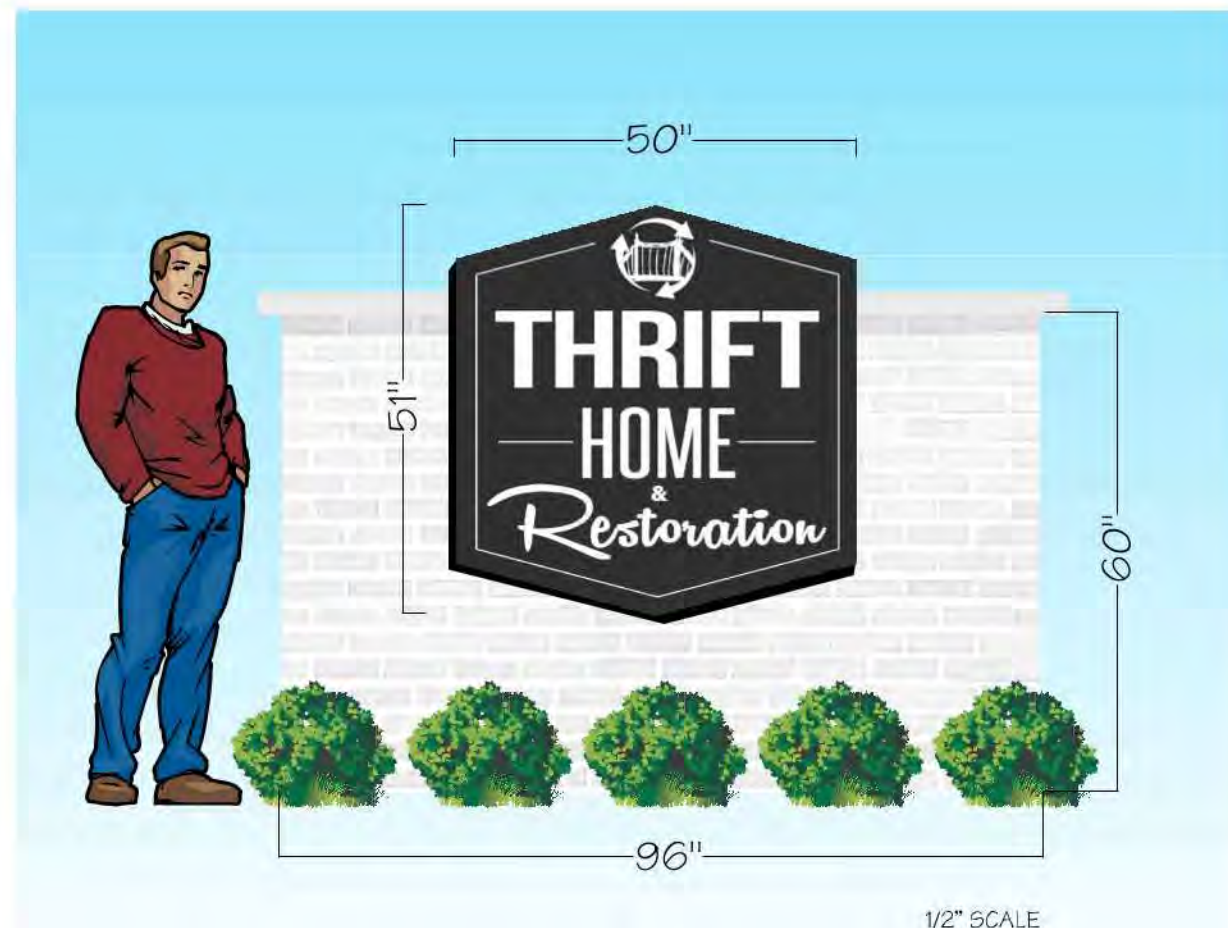
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Approved
Date

Scale	NOTED	Title	BRIDGE TEEN THRIFT CENTER				
Date	3-22-23	Description	NON-ILLUM ALUM SIGN				
Drawn By	ED	Revisions By	ED	ED	ED	ED	Drawing No. 23-065.1C
Date		Date	4-11-23	4-17-23	4-20-23	5-10-23	



D/F NON-ILLUMINATED MONUMENT SIGN
51" x 50" = 18 SQ. FT.

- FABRICATED ALUMINUM PAN SIGN - 2" RETURNS
- BRICK TO BE PAINTED TO MATCH BUILDING
- PVC DIMENSIONAL COPY - 3/4"
- WHITE VINYL LOGO AND LINES
- MOUNTED TO BRICK



1/4" SCALE

RECEIVED
By Mike Schwarz at 5:13 pm, Jul 18, 2023



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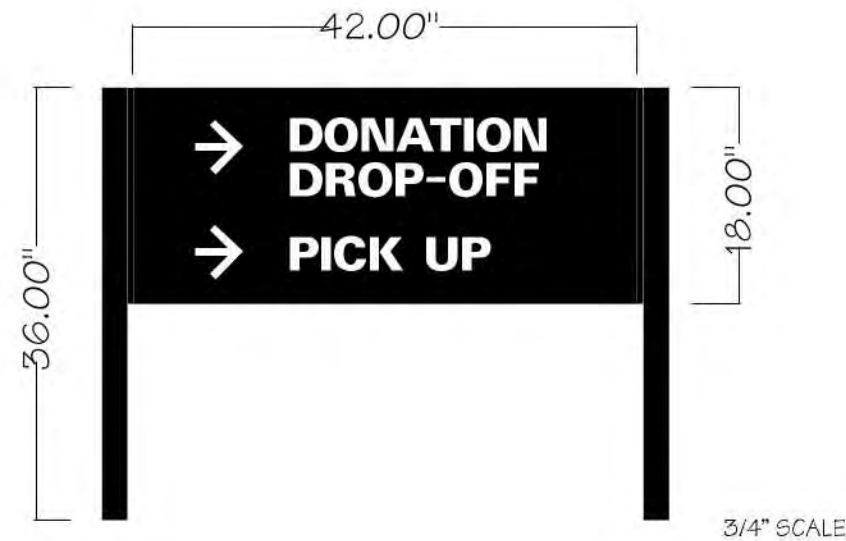
Since
1925

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Approved Date	Scale	NOTED	Title					BRIDGE TEEN THRIFT CENTER		
	Date	3-22-23	Description					NON-ILLUM MONUMENT SIGN		
	Drawn By	ED	Revisions By	ED	ED				Drawing No.	23-065.2C
			Date	4-11-23	5-22-23					



S/F NON-ILLUMINATED DIRECTIONAL SIGN
18" X 42" = 5.25 SQ. FT.

- FABRICATED ALUMINUM POST AND PAN SIGN - 2" POSTS
- DECORATED WITH WHITE VINYL COPY



3/8" SCALE

RECEIVED

By Mike Schwarz at 5:14 pm, Jul 18, 2023



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ORLAND PARK, ILLINOIS

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Approved Date	Scale	NOTED	Title				BRIDGE TEEN THRIFT CENTER			
	Date	3-22-23	Description				NON-ILLUM DIRECTIONAL SIGN			
	Drawn By	ED	Revisions By	ED					Drawing No.	23-065.3C
			Date	5-22-23						

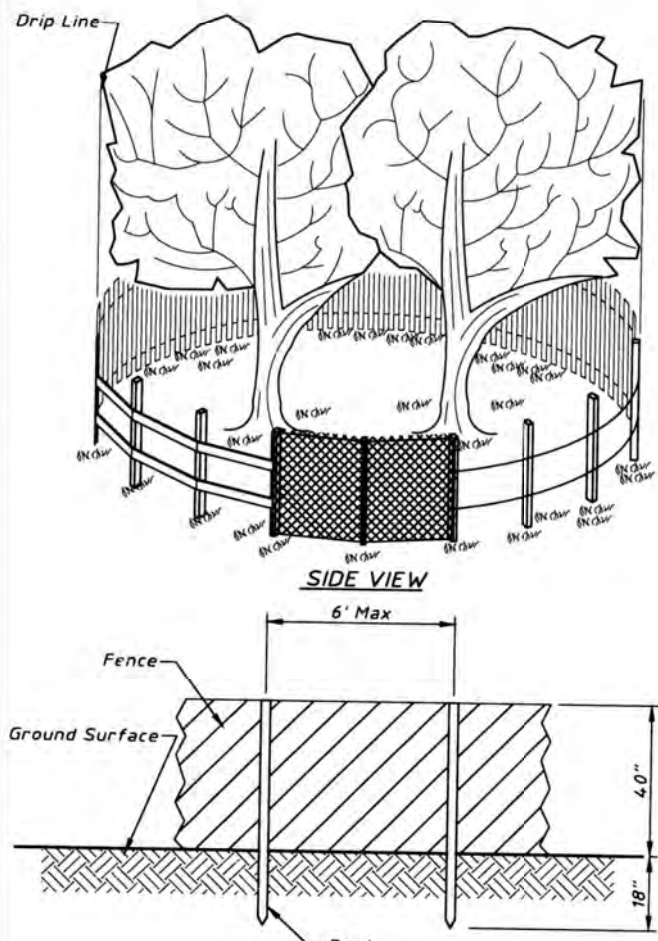
TREE PRESERVATION PLAN

GEORGETOWN ROAD
(HERE TOFORE DEDICATED)

S. HARLEM AVENUE
(HERE TOFORE DEDICATED)

GEORGETOWN COMMONS
(HERE TOFORE DEDICATED)

LABEL	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION
A	Celtis occidentalis	Hackberry	7"	Good
B	Acer saccharinum	Silver Maple	40'	Good
C	Celtis occidentalis	Hackberry	5"	Good
D	Celtis occidentalis	Hackberry	5"	Good
E	Celtis occidentalis	Hackberry	7"	Good
F	Celtis occidentalis	Hackberry	4"	Poor
G	Acer saccharinum	Silver Maple	40'	Good
H	Celtis occidentalis	Hackberry	6"	Good
I	Celtis occidentalis	Hackberry	7"	Good
J	Acer saccharinum	Silver Maple	12"	Good
K	Celtis occidentalis	Hackberry	7"	Good
L	Celtis occidentalis	Hackberry	7"	Good
M	Acer saccharinum	Silver Maple	40'	Good
N	Celtis occidentalis	Hackberry	7"	Good
O	Celtis occidentalis	Hackberry	7"	Good
P	Acer saccharinum	Silver Maple	15"	Good
Q	Acer saccharinum	Silver Maple	40'	Good
R	Acer x freemanii	Autumn Blaze Maple	6"	Good
S	Acer x freemanii	Autumn Blaze Maple	5"	Poor
T	Acer saccharinum	Silver Maple	40'	Good
U	Acer x freemanii	Autumn Blaze Maple	5"	Good
V	Acer x freemanii	Autumn Blaze Maple	6"	Good
W	Acer saccharinum	Silver Maple	40'	Good
X	Acer x freemanii	Autumn Blaze Maple	6"	Good
Y	Acer x freemanii	Autumn Blaze Maple	6"	Good
Z	Acer saccharinum	Silver Maple	18"	Good
AA	Acer saccharinum	Silver Maple	18"	Good
BB	Acer saccharinum	Silver Maple	24"	Good
CC	Pyrus species	Ornamental Pear	8"	Good



NOTES:

- Fence posts shall be either standard steel posts or wood posts with a minimum cross sectional area of 3.0 sq. in.
- The fence may be either 4'-0" high snow fence, 4'-0" plastic web fencing or any other material as approved by the engineer.

TREE PROTECTION - FENCING

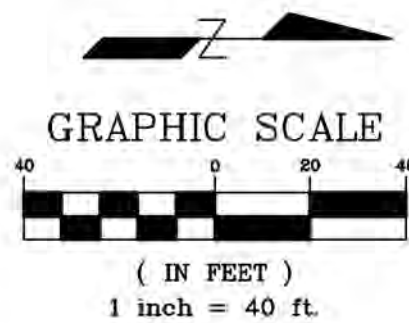
TREE PRESERVATION PLAN

- Brightly colored construction fence shall be installed at the periphery of the trees drip line or beyond. The barrier shall be a minimum of forty-eight (48") inches in height and must be securely anchored to fence posts a minimum distance of five (5') feet on center.
- Grading and construction equipment is prohibited from encroaching on the drip line of any tree to be preserved.
- Materials or vehicles shall not be stored, driven, or parked within the drip line of any trees.
- Crushed limestone, or any other material, which may be detrimental to trees, shall not be discarded or placed within the drip line of any tree nor shall material be located at any elevation, which would contribute runoff of such material toward the trees.
- Utility lines shall be augured to prevent damage to tree root systems when an underground utility line is to be located within (5') feet of the trunk of a tree designated for preservation.

PLEASE NOTE:

Trees to be preserved which have been subjected to activity within the drip line should be selectively pruned or thinned ten (10) percent by a certified arborist. All dead wood shall be removed.

SEE PAGE 3 FOR LANDSCAPE PLAN NOTES



BENCHMARKS

SITE BENCHMARK: THE NORTHWEST FLANGE BOLT ON FIRE HYDRANT LOCATED IN FRONT OF ADDRESS 21420 S. HARLEM AVENUE, SHOWN HEREON.
ELEVATION: 720.28 (NAVD 88)

RECEIVED

By Mike Schwarz at 5:18 pm, Oct 18, 2023

PWM ARCHITECTURE, LLC

LANDSCAPE PLAN FOR:
21420 S. HARLEM AVENUE
FRANKFORD, IL 60423



PROJECT INFORMATION
DATE: 6/22/2023

SHEET 1 OF 3

LANDSCAPE PLAN

GEORGETOWN ROAD
(HEREFORE DEDICATED)

S. HARLEM AVENUE
(HEREFORE DEDICATED)

GEORGETOWN COMMONS
(HEREFORE DEDICATED)

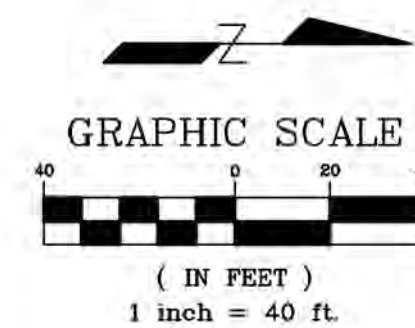
LEGEND	
	B-BOX
	BENCHMARK
	SIGN
	TRANSFORMER PAD
	CATCH BASIN
	STORM INLET
	FLARED END SECTION
	SANITARY CLEANOUT
	CLOSED LID MANHOLE
	WATER VALVE
	HYDRANT
	WINDOW WELL
	PARKING LOT LIGHT (1)
	CABLE TV PEDESTAL
	ELECTRIC PEDESTAL
	TELEPHONE PEDESTAL
	TEL., ELEC., CABLE PEDESTALS
	ELECTRIC METER
	GAS METER
	FOUND IRON REBAR
	FOUND IRON PIPE
	DECIDUOUS TREE
	W/ TRUNK SIZE
	CONIFEROUS TREE
	W/ TRUNK SIZE
	CONIFEROUS TREE
	LIGHT POLE W/MAST ARM

LINE TYPES	
	PROPERTY LINE
	EXISTING RIGHT-OF-WAY LINE
	ADJACENT LOT LINE
	EASEMENT LINE
	BUILDING SETBACK LINE
	SECTION/QUARTER LINE
	WROUGHT IRON FENCE
	WOOD FENCE
	WATER MAIN
	SANITARY SEWER
	STORM SEWER
	SUMP SERVICE
	BARRIER CURB
	DEPRESSED CURB
	CURB & GUTTER
	REVERSE PITCH CURB & GUTTER
	CONTOUR LINE

ABBREVIATIONS	
	EXIST. SPOT ELEVATION
	CMP
	CORRUGATED METAL PIPE
	D.E.
	DRAINAGE EASEMENT
	DIP
	DUCTILE IRON PIPE
	EXIST. EXISTING
	F.F.
	FINISHED FLOOR
	FES
	FLARED END SECTION
	FL.
	FLOW LINE
	INV
	INVERT
	MH
	MANHOLE
	P.U.E.
	PUBLIC UTILITY EASEMENT
	I.E.E.
	INGRESS-EGRESS EASEMENT
	RCP
	REINFORCED CONCRETE PIPE
	SAN
	SANITARY SEWER
	TC
	TOP OF CURB
	T/F
	TOP OF FOUNDATION
	W.O.
	WALK-OUT
	L.O.
	LOOK-OUT
	W.W.
	WINDOW WELL
	T/P
	TOP OF PIPE
	U.E.
	UTILITY EASEMENT
	N
	NORTH
	S
	SOUTH
	E
	EAST
	W
	WEST
	RECORD/DEED
	MEASURED

HATCHING	
	ASPHALT SURFACE
	BUILDING LIMITS
	CONCRETE SURFACE

SEE PAGE 3 FOR LANDSCAPE PLAN NOTES



BENCHMARKS

SITE BENCHMARK: THE NORTHWEST FLANGE BOLT ON FIRE HYDRANT LOCATED IN FRONT OF ADDRESS 21420 S. HARLEM AVENUE, SHOWN HEREON.
ELEVATION: 720.28 (NAVD 88)

RECEIVED

By Mike Schwarz at 5:14 pm, Oct 18, 2023

PWM ARCHITECTURE, LLC

LANDSCAPE PLAN FOR:
21420 S. HARLEM AVENUE
FRANKFORT, IL 60423



PROJECT INFORMATION
DATE: 8/2/2023
REVISED: 9/29/23
REVISED: 10/18/23

SHEET 2 OF 3

EXISTING CONDITIONS

REVISIONS	
NO.	DATE
1	8/2/23
2	7/6/23

LANDSCAPE NOTES

PARKING LOT SCREENING AREA 1					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
Existing	<i>Acer saccharinum</i>	Silver Maple	various	4	40
	<i>Picea glauca</i>	Black Hills Spruce	10'	3	24
	<i>Juniperus chinensis 'Sea Green'</i>	Seagreen Juniper	36"	31	62
	<i>Juniperus chinensis sargentii 'Viridis'</i>	Green Sargent Juniper	#3	5	5
	<i>Spiraea x bumalda 'Goldmound'</i>	Goldmound Spirea	#3	10	10
	<i>Euonymus alatus compacta</i>	Compact Burning Bush	3'	3	6
	<i>Hydrangea paniculata 'Limelight'</i>	Limelight Hydrangea	#5	3	6
	<i>Allium 'Millenium'</i>	Allium	#1	38	0
	<i>Pennisetum alopecuroides</i>	Fountain Grass	#1	8	0
Note: Picea glauca to be planted near north detention basin					
TOTAL UNITS					153
EVERGREEN UNITS					91
REQUIRED UNITS					150

PARKING LOT SCREENING AREA 2					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
Existing	<i>Acer saccharinum</i>	Silver Maple	various	4	40
	<i>Thuja plicata 'Green Giant'</i>	Green Giant Arborvitae	10'	3	24
	<i>Juniperus chinensis 'Sea Green'</i>	Seagreen Juniper	36"	40	80
	<i>Hydrangea paniculata 'Limelight'</i>	Limelight Hydrangea	#5	6	12
	<i>Allium 'Millenium'</i>	Allium	#1	2	0
TOTAL UNITS					156
EVERGREEN UNITS					104
REQUIRED UNITS					150

PARKING LOT SCREENING AREA 3					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
Existing	<i>Acer saccharinum</i>	Silver Maple	various	2	20
	<i>Thuja plicata 'Green Giant'</i>	Green Giant Arborvitae	10'	7	56
	<i>Juniperus chinensis 'Sea Green'</i>	Seagreen Juniper	36"	12	24
	<i>Hydrangea paniculata 'Limelight'</i>	Limelight Hydrangea	#5	6	12
TOTAL UNITS					112
EVERGREEN UNITS					80
REQUIRED UNITS					150

PARKING LOT SCREENING AREA 4					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
Existing	<i>Acer saccharinum</i>	Silver Maple	various	2	20
	<i>Thuja plicata 'Green Giant'</i>	Green Giant Arborvitae	10'	7	56
	<i>Hydrangea paniculata 'Limelight'</i>	Limelight Hydrangea	#5	5	10
TOTAL UNITS					86
EVERGREEN UNITS					56
REQUIRED UNITS					150

PARKING LOT SCREENING AREA 5					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
Existing	<i>Acer species</i>	Maple	various	2	20
Existing	<i>Celtis occidentalis</i>	Hackberry	various	2	20
	<i>Thuja plicata 'Green Giant'</i>	Green Giant Arborvitae	10'	3	24
	<i>Juniperus chinensis 'Sea Green'</i>	Seagreen Juniper	36"	31	62
	<i>Juniperus chinensis sargentii 'Viridis'</i>	Green Sargent Juniper	#3	5	5
	<i>Spiraea x bumalda 'Goldmound'</i>	Goldmound Spirea	#3	10	10
	<i>Euonymus alatus compacta</i>	Compact Burning Bush	3'	3	6
	<i>Hydrangea paniculata 'Limelight'</i>	Limelight Hydrangea	#5	3	6
	<i>Allium 'Millenium'</i>	Allium	#1	38	0
	<i>Pennisetum alopecuroides</i>	Fountain Grass	#1	8	0
TOTAL UNITS					153
EVERGREEN UNITS					91
REQUIRED UNITS					150

PARKING LOT SCREENING AREA 6					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
Existing	<i>Acer species</i>	Maple	various	1	10
Existing	<i>Celtis occidentalis</i>	Hackberry	various	3	30
	<i>Thuja plicata 'Green Giant'</i>	Green Giant Arborvitae	10'	3	24
	<i>Juniperus chinensis 'Sea Green'</i>	Seagreen Juniper	36"	40	80
	<i>Hydrangea paniculata 'Limelight'</i>	Limelight Hydrangea	#5	6	10
	<i>Allium 'Millenium'</i>	Allium	#1	2	0
TOTAL UNITS					154
EVERGREEN UNITS					104
REQUIRED UNITS					150

PARKING LOT SCREENING AREA 7					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
Existing	<i>Acer species</i>	Maple	various	1	10
Existing	<i>Celtis occidentalis</i>	Hackberry	various	3	30
	<i>Thuja plicata 'Green Giant'</i>	Green Giant Arborvitae	10'	7	56
	<i>Juniperus chinensis 'Sea Green'</i>	Seagreen Juniper	36"	20	40
TOTAL UNITS					136
EVERGREEN UNITS					96
REQUIRED UNITS					150

PARKING LOT SCREENING AREA 8					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
Existing	<i>Acer species</i>	Maple	various	1	10
Existing	<i>Celtis occidentalis</i>	Hackberry	various	3	30
	<i>Thuja plicata 'Green Giant'</i>	Green Giant Arborvitae	10'	7	56
	<i>Hydrangea paniculata 'Limelight'</i>	Limelight Hydrangea	#5	7	14
TOTAL UNITS					110
EVERGREEN UNITS					56
REQUIRED UNITS					150

NORTH PARKING LOT					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
	<i>Tilia americana 'Redmond'</i>	Redmond Linden	2.5"	5	50
	<i>Spiraea x bumalda 'Goldmound'</i>	Goldmound Spirea	#3	21	21
	<i>Hemerocallis Stella D'Oro</i>	Stella D'Oro Daylily	#1	62	
TOTAL UNITS					71

SOUTH PARKING LOT					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
	<i>Tilia americana 'Redmond'</i>	Redmond Liden	2.5"	3	30
	<i>Syringa reticulata 'Ivory Silk'</i>	Ivory Silk Lilac Tree	2.5"	2	20
	<i>Juniperus chinensis sargentii 'Viridis'</i>	Green Sargent Juniper	#3	18	18
	<i>Spiraea x bumalda 'Goldmound'</i>	Goldmound Spirea	#3	20	20
	<i>Hemerocallis Stella D'Oro</i>	Stella D'Oro Daylily	#1	44	
TOTAL					88

BUILDING FOUNDATION LANDSCAPE					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
	<i>Aronia melanocarpa 'Morton'</i>	Iroquois Beauty Chokeberry	#5	10	20
	<i>Spiraea x bumalda 'Goldmound'</i>	Goldmound Spirea	#3	22	22
	<i>Hydrangea paniculata 'LVOBO'</i>	Bobo Hydrangea	#5	19	38
	<i>Hemerocallis Stella D'Oro</i>	Stella D'Oro Daylily	#1	18	
	<i>Calamagrostis x acutiflora 'Karl Foerster'</i>	Karl Foerster Grass	#1	6	
TOTAL					80

WEST PROPERTY LINE SCREENING AREA 1					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
	<i>Betula nigra</i>	River Birch	12"	3	30
	<i>Thuja occidentalis 'Techny'</i>	Techny Arborvitae	6'	12	60
	<i>Forsythia 'Meadowlark'</i>	Meadowlark Forsythia	5'	17	34
TOTAL UNITS					124
EVERGREEN UNITS					60
REQUIRED UNITS					125

WEST PROPERTY LINE SCREENING AREA 2					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
	<i>Picea glauca</i>	Black Hills Spruce	7'	5	25
	<i>Thuja occidentalis 'Techny'</i>	Techny Arborvitae	6'	6	30
	<i>Betula nigra</i>	River Birch	12"	3	30
	<i>Platanus x acerifolia</i>	Exclamation London Planetree	2.5"	1	10
	<i>Forsythia 'Meadowlark'</i>	Meadowlark Forsythia	5'	17	34
	<i>Viburnum dentatum 'Chicago Lustre'</i>	Chicago Lustre Viburnum	5'	6	12
TOTAL UNITS					141
EVERGREEN UNITS					55
REQUIRED UNITS					125

WEST PROPERTY LINE SCREENING AREA 3					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
	<i>Picea glauca</i>	Black Hills Spruce	7'	3	15
	<i>Thuja occidentalis 'Techny'</i>	Techny Arborvitae	6'	7	35
	<i>Platanus x acerifolia</i>	Exclamation London Planetree	2.5"	2	20
	<i>Quercus bicolor</i>	Swamp White Oak	2.5"	1	10
	<i>Amelanchier grandiflora 'Autumn Brilliance'</i>	Autumn Brilliance Serviceberry	7'	2	10
	<i>Viburnum dentatum 'Chicago Lustre'</i>	Chicago Lustre Viburnum	5'	19	38
TOTAL UNITS					128
EVERGREEN UNITS					50
REQUIRED UNITS					125

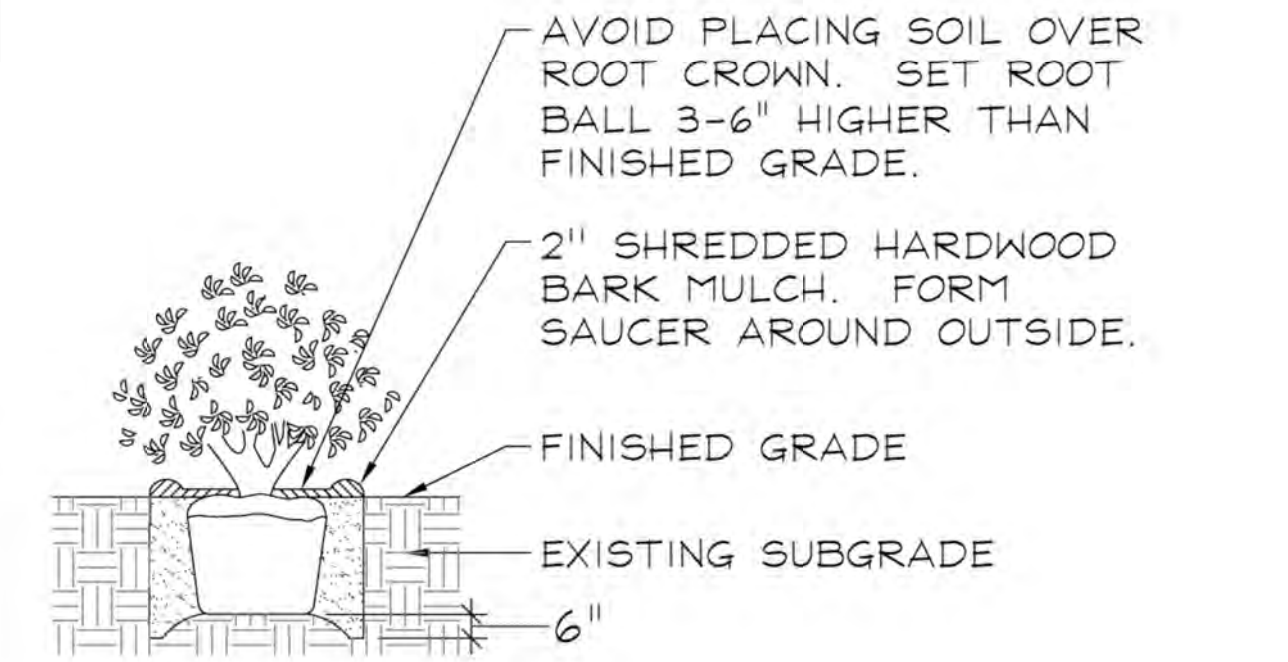
WEST PROPERTY LINE SCREENING AREA 4					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
	<i>Picea glauca</i>	Black Hills Spruce	7'	2	10
	<i>Thuja occidentalis 'Techny'</i>	Techny Arborvitae	6'	11	55
	<i>Platanus x acerifolia</i>	Exclamation London Planetree	2.5"	3	30
	<i>Quercus bicolor</i>	Swamp White Oak	2.5"	1	10
	<i>Amelanchier grandiflora 'Autumn Brilliance'</i>	Autumn Brilliance Serviceberry	7'	5	15
	<i>Viburnum dentatum 'Chicago Lustre'</i>	Chicago Lustre Viburnum	5'	5	10
TOTAL UNITS					130
EVERGREEN UNITS					45
REQUIRED UNITS					125

WEST PROPERTY LINE SCREENING AREA 5					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
	<i>Picea glauca</i>	Black Hills Spruce	7'	5	15
	<i>Thuja occidentalis 'Techny'</i>	Techny Arborvitae	6'	5	15
	<i>Platanus x acerifolia</i>	Exclamation London Planetree	2.5"	1	10
	<i>Quercus bicolor</i>	Swamp White Oak	2.5"	3	30
	<i>Amelanchier grandiflora 'Autumn Brilliance'</i>	Autumn Brilliance Serviceberry	7'	4	20
	<i>Viburnum dentatum 'Chicago Lustre'</i>	Chicago Lustre Viburnum	5'	15	30
TOTAL UNITS					120
EVERGREEN UNITS					30
REQUIRED UNITS					125

WEST PROPERTY LINE SCREENING AREA 6					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
	<i>Picea glauca</i>	Black Hills Spruce	7'	1	5
	<i>Thuja occidentalis 'Techny'</i>	Techny Arborvitae	6'	10	50
	<i>Tilia americana 'Redmond'</i>	Redmond Linden	2.5"	3	30
	<i>Forsythia 'Meadowlark'</i>	Meadowlark Forsythia	5'	16	32
TOTAL UNITS					117
EVERGREEN UNITS					55
REQUIRED UNITS					125

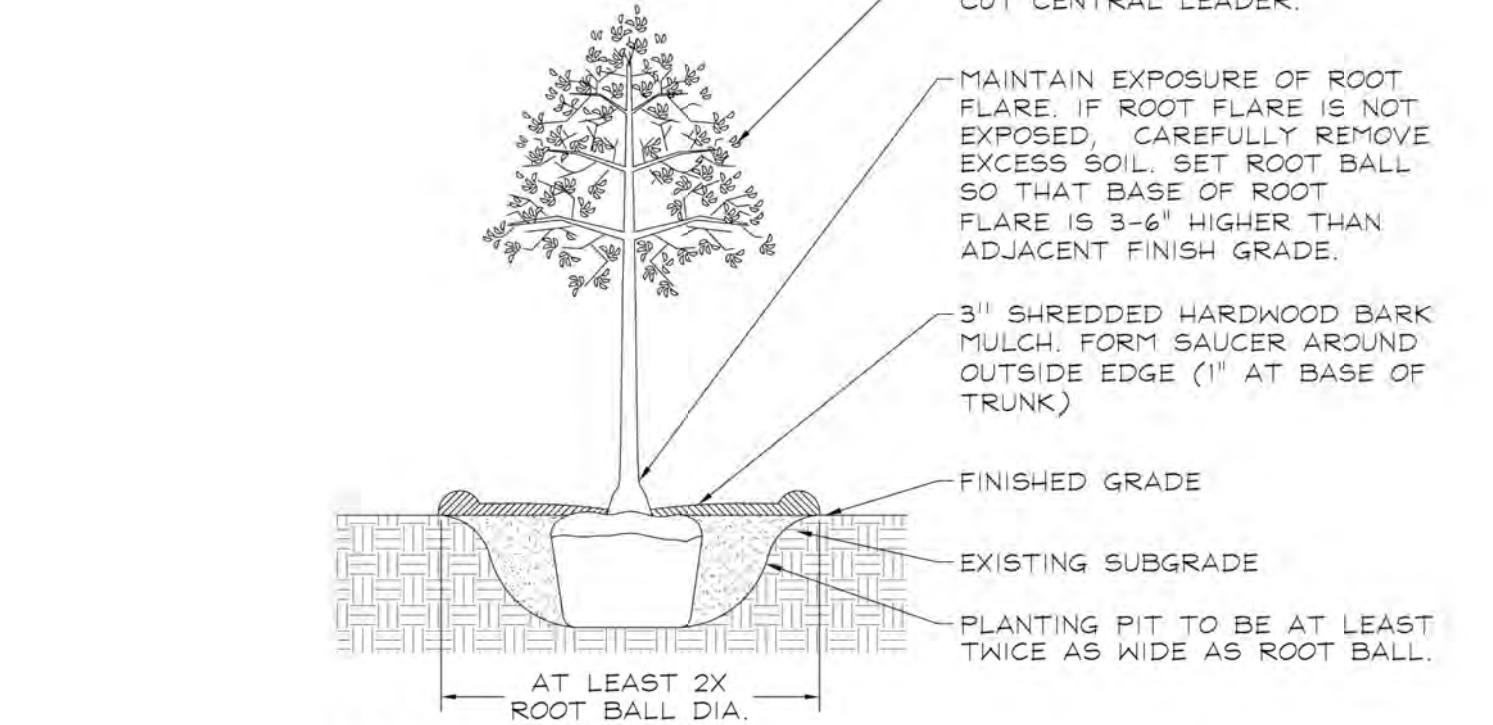
WEST PROPERTY LINE SCREENING AREA 7					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
	<i>Picea glauca</i>	Black Hills Spruce	7'	2	10
	<i>Thuja occidentalis 'Techny'</i>	Techny Arborvitae	6'	10	50
	<i>Tilia americana 'Redmond'</i>	Redmond Linden	2.5"	2	20
	<i>Amelanchier grandiflora 'Autumn Brilliance'</i>	Autumn Brilliance Serviceberry	7'	3	15
	<i>Forsythia 'Meadowlark'</i>	Meadowlark Forsythia	5'	17	34
TOTAL UNITS					129
EVERGREEN UNITS					60
REQUIRED UNITS					125

WEST PROPERTY LINE SCREENING AREA 8					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	UNITS
	<i>Thuja occidentalis 'Techny'</i>	Techny Arborvitae	6'	15	75
	<i>Tilia americana 'Redmond'</i>	Redmond Linden	2.5"	1	10
	<i>Betula nigra</i>	River Birch	12"	3	30
	<i>Forsythia 'Meadowlark'</i>	Meadowlark Forsythia	5'	23	46
TOTAL UNITS					161
EVERGREEN UNITS					75
REQUIRED UNITS					125



DECIDUOUS AND EVERGREEN SHRUBS
NOT TO SCALE

EVERGREEN TREES
NOT TO SCALE

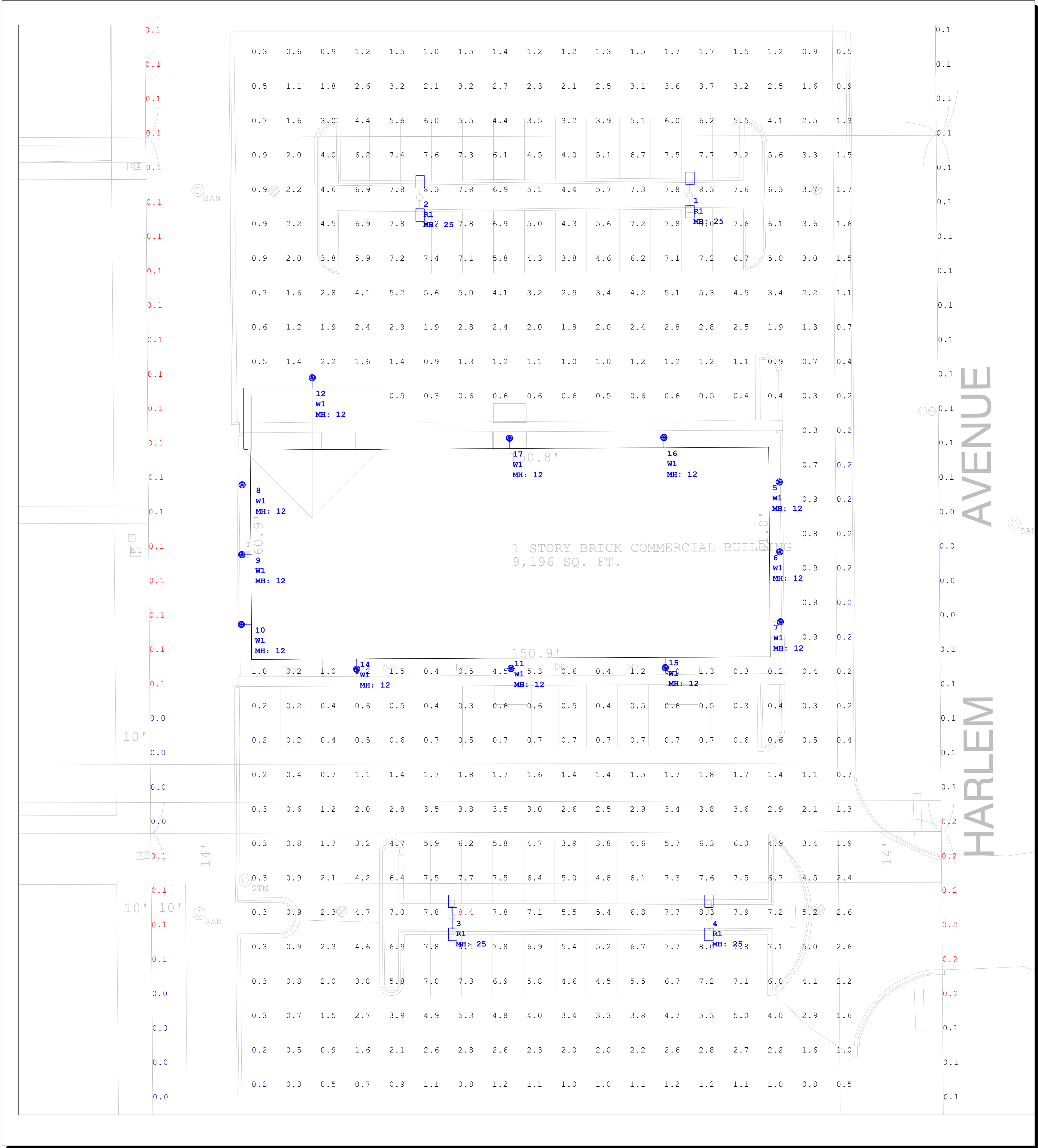


DECIDUOUS TREES
NOT TO SCALE

PLAN NOTES:

- The contractor shall provide and install all plant materials in quantities sufficient to complete the planting shown on the drawing, unless noted. All plants shall comply to the requirements of the current American Standard for Nursery Stock, published by the American Association of Nurseyman. Plants should meet size, genus, species, and variety, and be in good health; free of disease, insects, and defects. No "Park Grade" material shall be accepted. Plants can be substituted by the approval of the Landscape Architect or the Village.
- All plants shall be watered during the first 24 hour period after installation. Contractor is responsible for watering sod once. A schedule must be agreed upon with the owner, before sod is installed, of who, when, and how sod is being properly watered. The contractor is responsible for the site visits to ensure that proper watering is being done, in order for sod to be established and healthy.
- Plants shall be balled and burlapped or container grown specified. No root bound material shall be accepted and all wrapping material made of synthetics or plastics shall be removed at the time of plantings. It is the contractors option to roll back burlap from the top of the ball.
- All shrub beds and tree rings shall receive 4" depth of shredded hardwood mulch. All new tree rings shall be 5' in diameter. All perennials shall receive 2" depth of shredded hardwood mulch.
- All plants shall be set plumb. It is the contractors options to stake deciduous trees, but it is also his responsibility to assure plants remain plumb until the guarantee period.
- Prune, thin out, and shape new plants in accordance with standard horticultural practices to retain their natural character. Don't cut tree leader. Remove any injured, damaged, dead, or crossed branches from the plant at the time of insallation. All plant material shall be at the same relationship to finish grade as the plants original grade before digging.
- All ground cover and flower beds are to receive 5" depth organic compost and sand mix, which shall be rototilled into the existing topsoil. Trees and shrubs shall be backfilled with good existing topsoil.
- The contractor shall locate the existence of all underground utilities prior to starting. The contractor must also keep the pavement and work area in a neat and orderly condition throughout the construction process.
- Owner shall provide contractor with finish grade from the approved grading plan to a tenth of an inch, with sufficient quality topsoil. If imported topsoil or spreading existing topsoil is required it shall be done at the owners expense. All construction debris should be removed by the general contractor.
- Sod shall extend to all property lines, unless otherwise noted.
- All edging to be a spaded natural edging. No steel or plastic edging shall be used unless noted.
- Information contained in "Plan Notes" take precedence over other information.

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NOTES

PG-ENLIGHTEN IS NEITHER LICENSED NOR INSURED TO DETERMINE CODE COMPLIANCE. CODE COMPLIANCE REVIEW BY OTHERS.

ANY VARIANCE FROM REFLECTANCE VALUES, OBSTRUCTIONS, LIGHT LOSS FACTORS OR DIMENSIONAL DATA WILL AFFECT THE ACTUAL LIGHT LEVELS OBTAINED.

THIS ANALYSIS IS A MATHEMATICAL MODEL AND CAN BE ONLY AS ACCURATE AS IS PERMITTED BY THE THIRD-PARTY SOFTWARE AND THE IES STANDARDS USED.

FIXTURE TYPES AND QUANTITIES MAY CHANGE BASED ON UNKNOWN OBSTRUCTIONS OR FIELD CONDITIONS. THESE CHANGES MAY RESULT IN AN INCREASED QUANTITY OF FIXTURES.

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CALCULATION GRID VALUES 10'-0" O.C.

PARKING LOT DESIGN GUIDE	MAINTAINED HORIZONTAL		MAINTAINED VERTICAL		MAXIMUM	
APPLICATION AND TASK	AVERAGE (FC)	RANGE (FC)	AVERAGE (FC)	RANGE (FC)	AVG:MIN	MAX:MIN
PARKING (UNCOVERED) ZONE 3 (URBAN)	1.5	0.75 - 3	0.8	0.4 - 1.6	4:1	15:1
PARKING (UNCOVERED) ZONE 2 (SUBURBAN)	1	0.5 - 2	0.6	0.3 - 1.2	4:1	15:1
SAFETY (BUILDING EXTERIOR)	1	0.5 - 2	-	-	FOR SECURITY ISSUES, RAISE AVG. TO 3	
SIMPLIFIED RECOMMENDATIONS BASED ON IES "THE LIGHTING HANDBOOK" 10TH EDITION AND IES RP-20-14. INDIVIDUAL APPLICATIONS WILL DETERMINE SPECIFIC RECOMMENDATIONS. PLEASE REFER TO THE MOST RECENT HANDBOOK FOR A MORE DETAILED EVALUATION AND ADDITIONAL APPLICATIONS. THESE RECOMMENDATIONS DO NOT SUPERCEDE ANY APPLICABLE CODES.						

Luminaire Location Summary					
LumNo	Label	Mtg Ht	Orient	Tilt	
1	RZR-PLED-VSQ-N-80LED-525mA-40	25	270	0	
2	RZR-PLED-VSQ-N-80LED-525mA-40	25	270	0	
3	RZR-PLED-VSQ-N-80LED-525mA-40	25	270	0	
4	RZR-PLED-VSQ-N-80LED-525mA-40	25	270	0	
5	VCSLSA10LDD3030KFM-G21120606	12	180.426	0	
6	VCSLSA10LDD3030KFM-G21120606	12	180.426	0	
7	VCSLSA10LDD3030KFM-G21120606	12	180.426	0	
8	VCSLSA10LDD3030KFM-G21120606	12	359.737	0	
9	VCSLSA10LDD3030KFM-G21120606	12	359.737	0	
10	VCSLSA10LDD3030KFM-G21120606	12	359.737	0	
11	VCSLSA10LDD3030KFM-G21120606	12	90.573	0	
12	VCSLSA10LDD3030KFM-G21120606	12	270	0	
14	VCSLSA10LDD3030KFM-G21120606	12	90.573	0	
15	VCSLSA10LDD3030KFM-G21120606	12	90.573	0	
16	VCSLSA10LDD3030KFM-G21120606	12	270	0	
17	VCSLSA10LDD3030KFM-G21120606	12	270	0	

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Max/Min	Avg/Min	Description
EAST PROPERTY LINE	Illuminance	Fc	0.11	0.2	0.0	N.A.	N.A.	CALCULATIONS AT GRADE LEVEL
PARKING LOT_CALC	Illuminance	Fc	3.07	8.4	0.2	42.00	15.35	Calculations At Grade Level
WEST PROPERTY LINE	Illuminance	Fc	0.08	0.1	0.0	N.A.	N.A.	

Luminaire Schedule - Part numbers are provided by the manufacturer and are only intended to be used as a reference to output and optics used.									
Symbol	Qty	Tag	Arrangement	Luminaire Lumens	Arr. Lum. Lumens	Luminaire Watts	Arr. Watts	LLF	Description
	12	W1	Single	2972	2972	35.9	35.9	0.900	CT
	4	R1	Back-Back	19477	38954	129.4	258.8	0.900	U.S. ARCHITECTURAL LIGHTING
									VCSLSA10LDD3030KFM
									RZR-PLED-VSQ-N-80LED-525mA-40K

RECEIVED
By Mike Schwarz at 5:20 pm, Jul 18, 2023



PROJECT NAME:

BRIDGE - 21420 S HARLEM FRANKFORT, IL

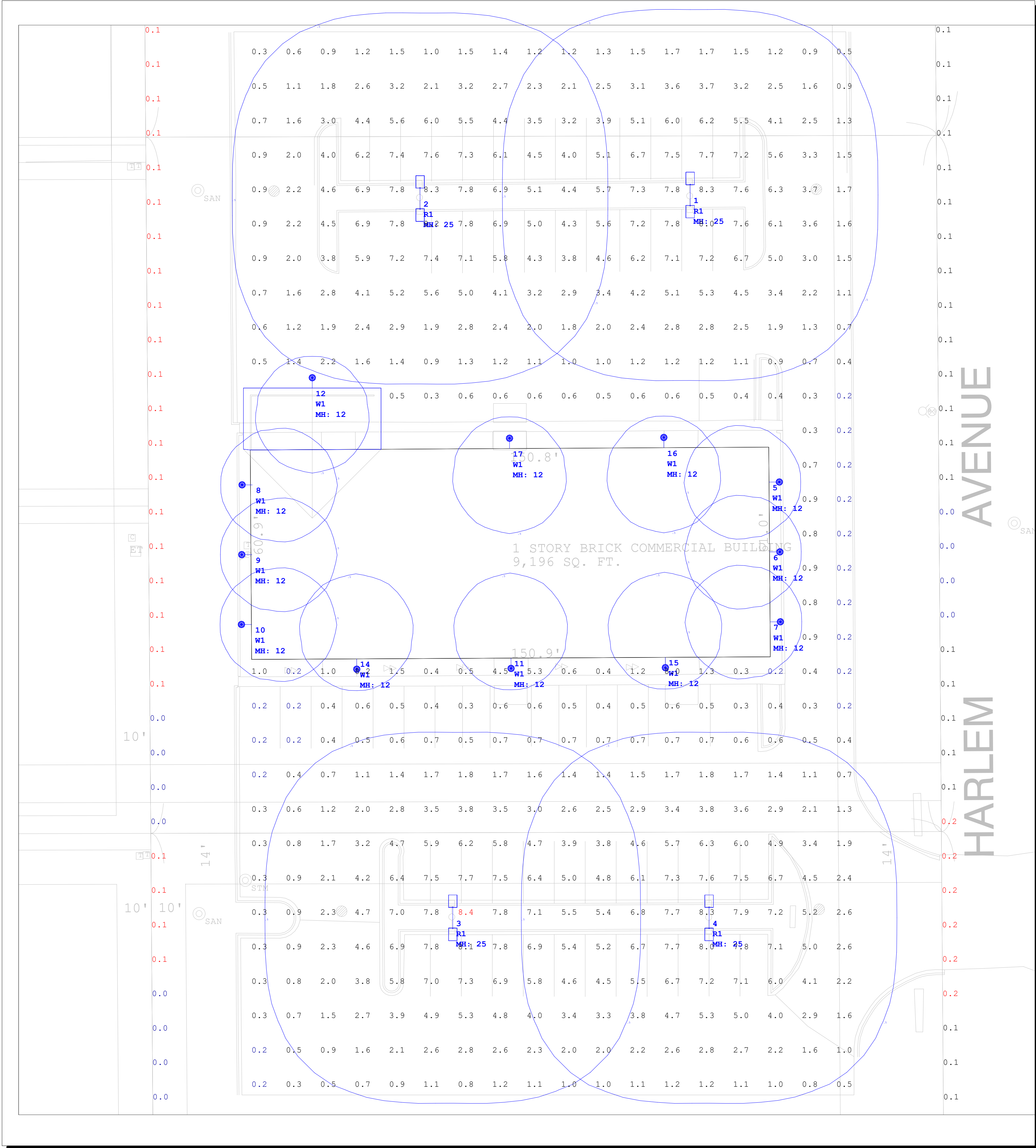
CLIENT NAME:

Patrick W. McCarty, Jr - PWM ARCHITECTURE LLC

DRAWN BY:
Josh Burge
josh.burge@pgenlighten.com
847.228.1197

PG CONTACT:
Jim Sychta
jim.sychta@pgenlighten.com
708.826.3600

1	2	3
REVISIONS		



NOTES

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12	VCSLSA10LDD3030KFM-G21120606	12	270	0
14	VCSLSA10LDD3030KFM-G21120606	12	90.573	0
15	VCSLSA10LDD3030KFM-G21120606	12	90.573	0
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Calculation Summary								
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PROJECT NAME:

BRIDGE - 21420 S HARLEM FRANKFORT, IL

CLIENT NAME:

Patrick W. McCarty, Jr - PWM ARCHITECTURE LLC

DRAWN BY:
Josh Burge
josh.burge@pgenlighten.com
847.228.1197

PG CONTACT:
Jim Sychta
jim.sychta@pgenlighten.com
708.826.3600

1 2 3
REVISIONS

EXPEDITED AVAILABILITY

QSR - PLED

SPECIFICATIONS

OPTICAL HOUSING

Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling fins. The Optical Panel mounting surface is milled flat (surface variance $\leq \pm .003"$) to facilitate thermal transfer of heat to housing and cooling fins. Solid barrier wall separates optical and electrical compartments. The optical and electrical compartments are integrated to create one assembly. Minimum wall thickness is .188".

ELECTRICAL HOUSING w/ INTEGRATED ARM

Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell receptacle. Solid barrier wall separates optical and electrical compartments. The optical compartment and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

PLED™ OPTICS

Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. In asymmetric distributions, a micro-reflector inside the refractor re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce standard site/area distributions. Panels are field replaceable and field rotatable in 90° increments. LED's are 3000K or 4000K CCT.

LED DRIVER(S)

Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F/-40°C. Driver(s) is/are UL and cUL recognized and mounted directly against the Electrical Housing to facilitate thermal transfer, held down by universal clamps to facilitate easy removal. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50,60Hz. (0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field accessible installation.)

FINISH

Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step media blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability.

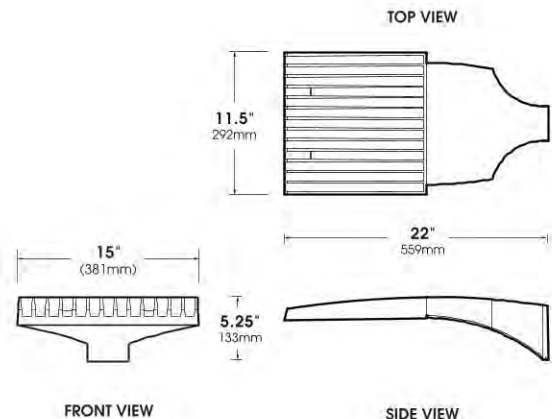
PROJECT NAME: _____

PROJECT TYPE: _____



QSR-LED

PATENT PENDING



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By Mike Schwarz at 5:26 pm, Jul 18, 2023

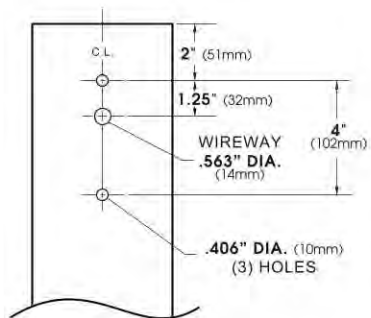


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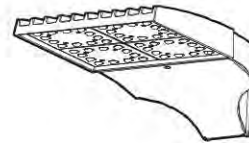


S P E C I F I C A T I O N S

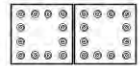
POLE DRILLING TEMPLATE



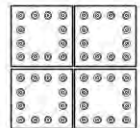
PLED™ MODULES



QSR-LED
E.P.A.= 0.45
Available in:
48 & 24LED Module



24 LED Array



48 LED Array

S P E C / O R D E R I N G I N F O R M A T I O N

CATALOG #	LED COUNT	VOLTAGE	WATTS	LUMENS	REPLACES HID	OPTIONS	
* = Specify Voltage							
<input type="checkbox"/> QSR/2480/PLED-III/(X)/(CX)/RAL-8019/DBZ	24	<input type="checkbox"/> 120	68	7548	150W	<input type="checkbox"/> HOUSE SIDE SHIELDHS-PLED SURGE PROTECTOR. . . .SP (Now included with luminaire for field installation)	
<input type="checkbox"/> QSR/2480/PLED-IV/(X)/(CX)/RAL-8019/DBZ	24	<input type="checkbox"/> 208	68	7480	150W		
<input type="checkbox"/> QSR/4850/PLED-III/(X)/(CX)/RAL-8019/DBZ	48	<input type="checkbox"/> 240	79	10349	250W		
<input type="checkbox"/> QSR/4850/PLED-IV/(X)/(CX)/RAL-8019/DBZ	48	<input type="checkbox"/> 277	79	10270	250W		
<input type="checkbox"/> QSR/4810/PLED-III/(X)/(CX)/RAL-8019/DBZ	48		160	18240	400W		
<input type="checkbox"/> QSR/4810/PLED-IV/(X)/(CX)/RAL-8019/DBZ	48		160	18040	400W		
* = Specify Voltage							
<input type="checkbox"/> QSR/2480/PLED-III/(X)/(CX)/RAL-8019/DBZ	24	<input type="checkbox"/> 347	68	7548	150W		
<input type="checkbox"/> QSR/2480/PLED-IV/(X)/(CX)/RAL-8019/DBZ	24	<input type="checkbox"/> 480	68	7480	150W		
<input type="checkbox"/> QSR/4850/PLED-III/(X)/(CX)/RAL-8019/DBZ	48		79	10349	250W		
<input type="checkbox"/> QSR/4850/PLED-IV/(X)/(CX)/RAL-8019/DBZ	48		79	10270	250W		
<input type="checkbox"/> QSR/4810/PLED-III/(X)/(CX)/RAL-8019/DBZ	48		160	18240	400W		
<input type="checkbox"/> QSR/4810/PLED-IV/(X)/(CX)/RAL-8019/DBZ	48		160	18040	400W		

NOTE:

(X) = indicate voltage (CX) = WW (3000K) or NW (4000K)

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EXPEDITED AVAILABILITY

QSR - PLED

W/ POLE RATED* FOR 100MPH (*AASHTO 2000)

SPECIFICATIONS

FIXTURE HOUSING

Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling fins. The Optical Panel mounting surface is milled flat (surface variance $\leq .003"$) to facilitate thermal transfer of heat to housing and cooling fins. Solid barrier wall separates optical and electrical compartments. The optical and electrical compartments are integrated to create one assembly. Minimum wall thickness is .188".

ARM MOUNTING

Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell receptacle. Solid barrier wall separates optical and electrical compartments. The optical compartment and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

PLED* OPTICS

Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. A micro-reflector inside the refractor re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce Type III and Type IV site/area distributions. Panels are field replaceable and field rotatable in 90° increments. LED's are 3000K or 4000K CCT.

LED DRIVERS

Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F. Driver(s) is/are UL and cUL recognized and mounted directly against the Electrical Housing to facilitate thermal transfer, held down by universal clamps to facilitate easy removal. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50/60Hz. (0-10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field accessible installation.)

POLE

SHAFT

4" square, fabricated from high grade structural steel tube. Shaft conforms to ASTM-A-501 - 68 specifications. Meets or exceeds minimum yield strength of 46,000 p.s.i. Wall thickness 11 Ga. (.120 wall). Reinforced hand hole is furnished with cover, shaft is furnished with ground lug located inside pole on wall opposite hand hole.

BASE PLATE

Fabricated from structural quality hot rolled steel. Meets or exceeds minimum yield strength of 36,000 p.s.i. base telescopes and is circumferentially welded to pole shaft. Slotted bolt holes provide 1" flexibility on either side of bolt circle centerline.

ANCHORAGE

(4) anchor bolts fabricated from hot rolled steel bar, minimum yield strength of 50,000 p.s.i. bolts have "L" bend on one end and are threaded on the other end. Bolts are fully galvanized and are furnished with two nuts and two washers.

BASE COVER

Fabricated from heavy gauge quality carbon steel. Two piece cover conceals base.

FINISH (Applies to Luminaire and Pole)

Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step sand blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability. Smooth finish is standard.

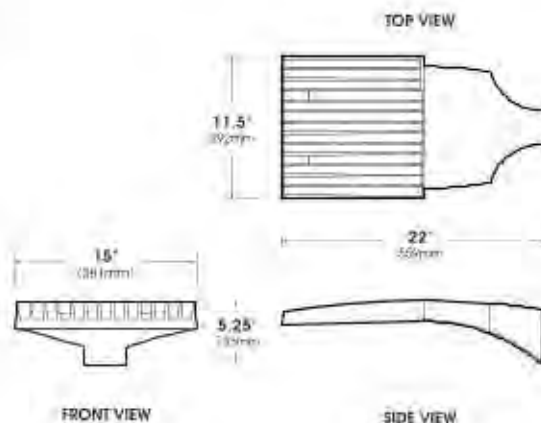
PROJECT NAME: _____

FIXTURE TYPE: _____



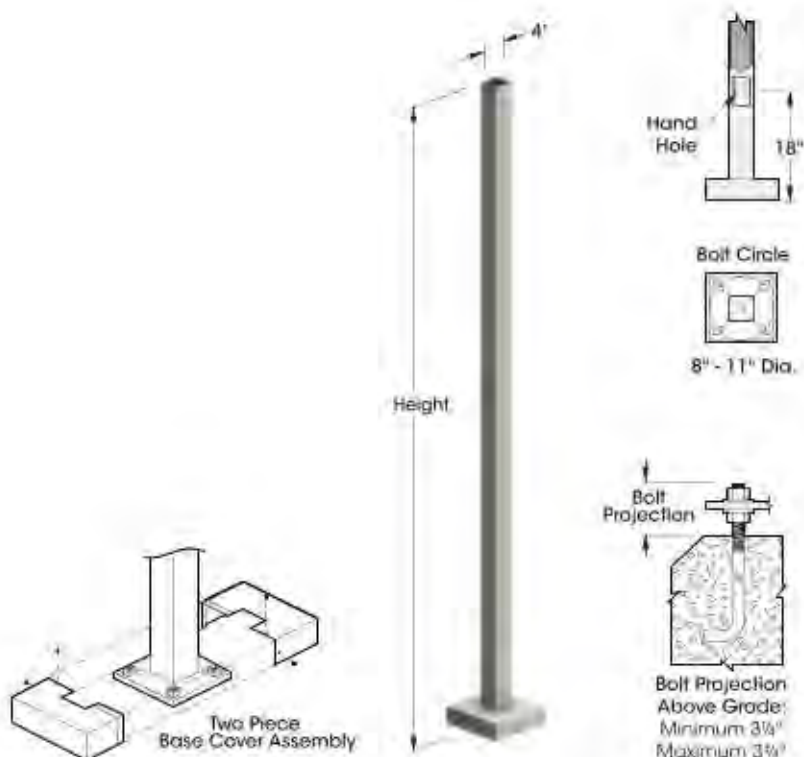
PATENT PENDING

QSR-LED

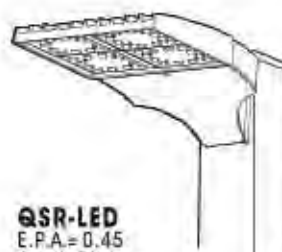


SPECIFICATIONS

POLE



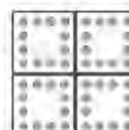
PLED™ MODULES



QSR-LED
E.P.A. = 0.45
Available in:
48 & 24LED Module



24 LED Array



48 LED Array

SPEC / ORDERING INFORMATION

POLE	CATALOG #	VOLTAGE	WATTS	LUMENS	REPLACES HID	LED COUNT	OPTIONS
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11/QSR/2480/PLED-III/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 120	68	7548	150W	24	<input type="checkbox"/> HOUSE SIDE SHIELD
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11/QSR/2480/PLED-IV/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 208	68	7480	150W	24	<input type="checkbox"/> HS-PLED
20'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-204-11/QSR/4850/PLED-III/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 240	79	10349	250W	48	<input type="checkbox"/> SURGE PROTECTOR
20'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-204-11/QSR/4850/PLED-IV/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 277	79	10270	250W	48	<input type="checkbox"/> SP
25'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-254-11/QSR/4810/PLED-III/(X)/(CX)/RAL-8019/DBZ		160	18240	400W	48	(Now included with a luminaire for field installation)
25'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-254-11/QSR/4810/PLED-IV/(X)/(CX)/RAL-8019/DBZ		160	18040	400W	48	
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11/QSR/2480/PLED-III/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 347	68	7548	150W	24	
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11/QSR/2480/PLED-IV/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 480	68	7480	150W	24	
20'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-204-11/QSR/4850/PLED-III/(X)/(CX)/RAL-8019/DBZ		79	10349	250W	48	
20'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-204-11/QSR/4850/PLED-IV/(X)/(CX)/RAL-8019/DBZ		79	10270	250W	48	
25'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-254-11/QSR/4810/PLED-III/(X)/(CX)/RAL-8019/DBZ		160	18240	400W	48	
25'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-254-11/QSR/4810/PLED-IV/(X)/(CX)/RAL-8019/DBZ		160	18040	400W	48	

* = Specify Voltage

NOTE:
(X) = indicate voltage (CX) = WW (3000K) or NW (4000K)

EXPEDITED AVAILABILITY

QSR-LED TWIN ASSEMBLY

W/ POLE RATED* FOR 100MPH (*AASHTO 2000)

SPECIFICATIONS

FIXTURE

HOUSING

Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling fins. The Optical Panel mounting surface is milled flat (surface variance $\leq .003"$) to facilitate thermal transfer of heat to housing and cooling fins. Solid barrier wall separates optical and electrical compartments. The optical and electrical compartments are integrated to create one assembly. Minimum wall thickness is .188".

ARM MOUNTING

Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell receptacle. Solid barrier wall separates optical and electrical compartments. The optical compartment and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

LED* OPTICS

Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. A micro-reflector inside the refractor re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce Type III and Type IV site/area distributions. Panels are field replaceable and field rotatable in 90° increments. LED's are 3000K or 4000K CCT.

LED DRIVERS

Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F. Driver(s) is/are UL and cUL recognized and mounted directly against the Electrical Housing to facilitate thermal transfer, held down by universal clamps to facilitate easy removal. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50, 60Hz. (0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field accessible installation.)

POLE

SHAFT

4" square, fabricated from high grade structural steel tube. Shaft conforms to ASTM-A-501 - 68 specifications. Meets or exceeds minimum yield strength of 46,000 p.s.i. Wall thickness 11 Ga. (.120 wall). Reinforced hand hole is furnished with cover, shaft is furnished with ground lug located inside pole on wall opposite hand hole.

BASE PLATE

Fabricated from structural quality hot rolled steel. Meets or exceeds minimum yield strength of 36,000 p.s.i. base telescopes and is circumferentially welded to pole shaft. Slotted bolt holes provide 1" flexibility on either side of bolt circle centerline.

ANCHORAGE

(4) anchor bolts fabricated from hot rolled steel bar, minimum yield strength of 50,000 p.s.i. bolts have "L" bend on one end and are threaded on the other end. Bolts are fully galvanized and are furnished with two nuts and two washers.

BASE COVER

Fabricated from heavy gauge quality carbon steel. Two piece cover conceals base.

FINISH (Applies to Luminaire and Pole)

Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step sand blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability. Smooth finish is standard.

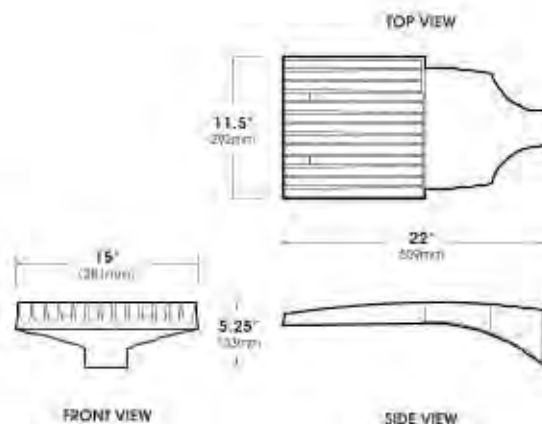
PROJECT NAME: _____

FIXTURE TYPE: _____



PATENT PENDING

QSR-LED

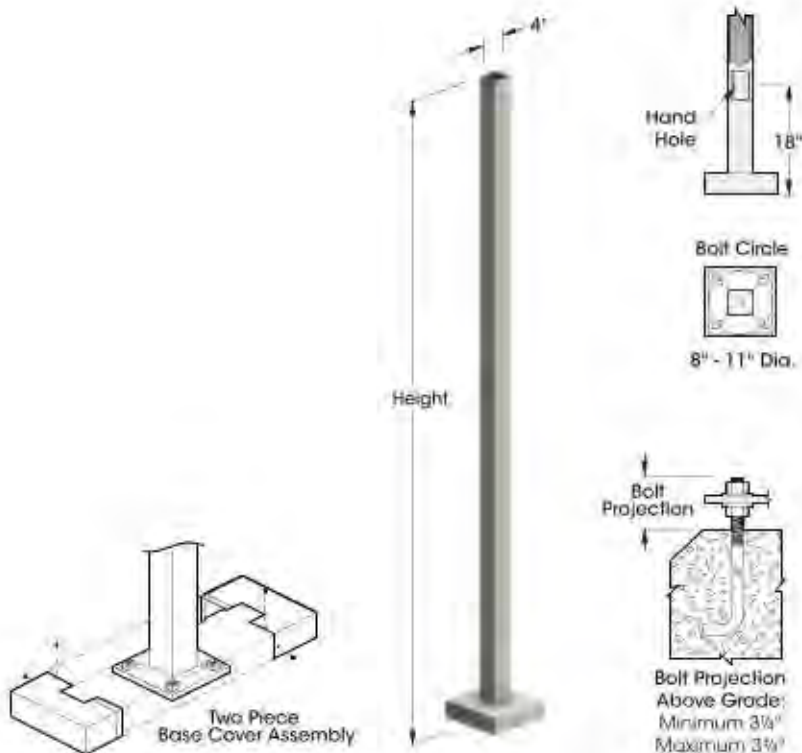


QSR - PLED TWIN ASSEMBLY

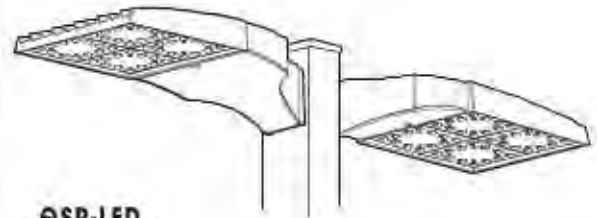
100 MPH PROMOTION

SPECIFICATIONS

POLE



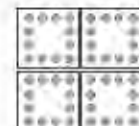
PLED™ MODULES



QSR-LED
E.P.A. = 0.45
Available in:
48 & 24 LED Module



24 LED Array



48 LED Array

SPEC / ORDERING INFORMATION

POLE	CATALOG #	VOLTAGE	WATTS	LUMENS	REPLACES HID	LED COUNT	OPTIONS
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11-2180/QSR/2480/PLED-III/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 120	68	7548	150W	24	<input type="checkbox"/> HOUSE SIDE SHIELD HS-PLED
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11-2180/QSR/2480/PLED-IV/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 208	68	7480	150W	24	<input type="checkbox"/> SURGE PROTECTOR SP (Now included with luminaires for field installation)
20'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-204-11-2180/QSR/4850/PLED-III/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 240	79	10349	250W	48	
20'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-204-11-2180/QSR/4850/PLED-IV/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 277	79	10270	250W	48	
25'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-254-11-2180/QSR/4810/PLED-III/(X)/(CX)/RAL-8019/DBZ		160	18240	400W	48	
25'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-254-11-2180/QSR/4810/PLED-IV/(X)/(CX)/RAL-8019/DBZ		160	18040	400W	48	
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11-2180/QSR/2480/PLED-III/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 347	68	7548	150W	24	
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11-2180/QSR/2480/PLED-IV/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 480	68	7480	150W	24	
20'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-204-11-2180/QSR/4850/PLED-III/(X)/(CX)/RAL-8019/DBZ		79	10349	250W	48	
20'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-204-11-2180/QSR/4850/PLED-IV/(X)/(CX)/RAL-8019/DBZ		79	10270	250W	48	
25'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-254-11-2180/QSR/4810/PLED-III/(X)/(CX)/RAL-8019/DBZ		160	18240	400W	48	
25'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-254-11-2180/QSR/4810/PLED-IV/(X)/(CX)/RAL-8019/DBZ		160	18040	400W	48	

NOTE:

(X) = indicate voltage (CX) = WW (3000K) or NW (4000K)



EXPEDITED AVAILABILITY

QSR - PLED

W/ POLE RATED* FOR 140MPH (*AASHTO 2000)

SPECIFICATIONS

FIXTURE

HOUSING

Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling fins. The Optical Panel mounting surface is milled flat (surface variance $\leq \pm .003"$) to facilitate thermal transfer of heat to housing and cooling fins. Solid barrier wall separates optical and electrical compartments. The optical and electrical compartments are integrated to create one assembly. Minimum wall thickness is .188".

ARM MOUNTING

Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell receptacle. Solid barrier wall separates optical and electrical compartments. The optical compartment and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

PLED* OPTICS

Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. A micro-reflector inside the refractor re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce Type III and Type IV site/area distributions. Panels are field replaceable and field rotatable in 90° increments. LED's are 3000K or 4000K CCT.

LED DRIVERS

Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F. Driver(s) is/are UL and cUL recognized and mounted directly against the Electrical Housing to facilitate thermal transfer, held down by universal clamps to facilitate easy removal. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50/60Hz. (0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field accessible installation.)

POLE

SHAFT

4" square, fabricated from high grade structural steel tube. Shaft conforms to ASTM-A-501 - 68 specifications. Meets or exceeds minimum yield strength of 46,000 p.s.i. Wall thickness for 15'0" is 11 Ga. (.120"). Wall thickness for 20'0" and 25'0" is 7 Ga. (.180"). Reinforced hand hole is furnished with cover, shaft is furnished with ground lug located inside pole on wall opposite hand hole.

BASE PLATE

Fabricated from structural quality hot rolled steel. Meets or exceeds minimum yield strength of 36,000 p.s.i. base telescopes and is circumferentially welded to pole shaft. Slotted bolt holes provide 1" flexibility on either side of bolt circle centerline.

ANCHORAGE

(4) anchor bolts fabricated from hot rolled steel bar, minimum yield strength of 50,000 p.s.i. bolts have "L" bend on one end and are threaded on the other end. Bolts are fully galvanized and are furnished with two nuts and two washers.

BASE COVER

Fabricated from heavy gauge quality carbon steel. Two piece cover conceals base.

FINISH (Applies to Luminaire and Pole)

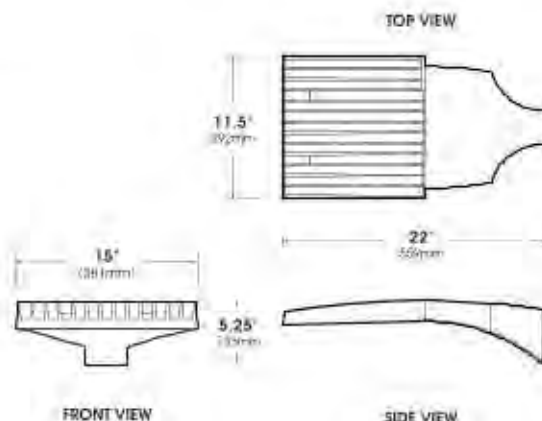
Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step sand blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability. Smooth finish is standard.

PROJECT NAME: _____

FIXTURE TYPE: _____



PATENT PENDING



2020174

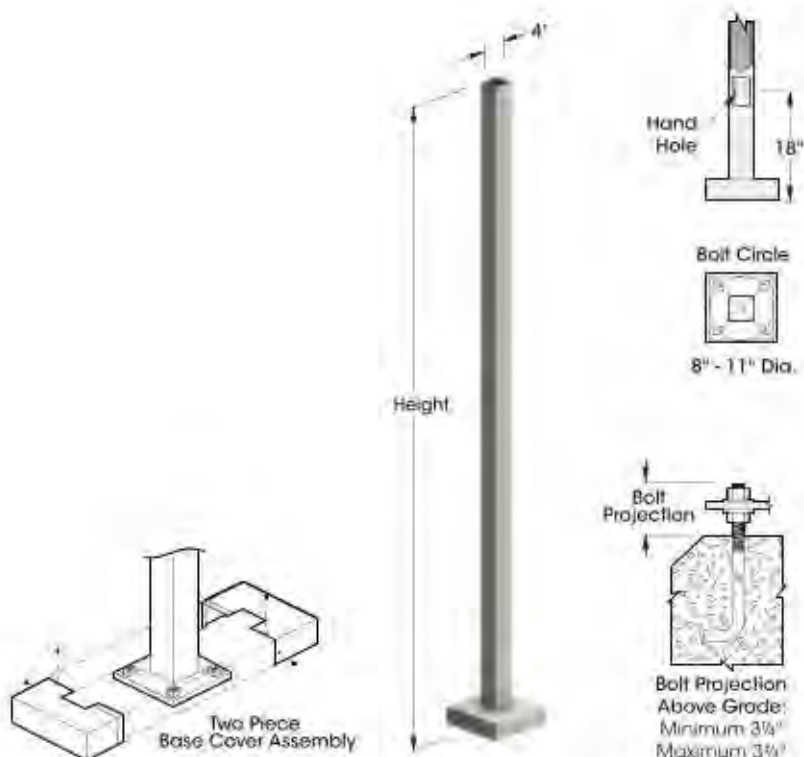
U.S. Architectural Lighting

605 West Wendle - C, Palm Springs, CA 92261
Phone (661) 235-2660 Fax (661) 234-2881
www.usalighting.com



SPECIFICATIONS

POLE



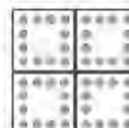
PLED™ MODULES



QSR-LED
E.P.A. = 0.45
Available in:
48 & 24LED Module



24 LED Array



48 LED Array

SPEC / ORDERING INFORMATION

POLE	CATALOG #	VOLTAGE	WATTS	LUMENS	REPLACES HID	LED COUNT	OPTIONS
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11/QSR/2480/PLED-III/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 120	68	7548	150W	24	<input type="checkbox"/> HOUSE SIDE SHIELD HS-PLED <input type="checkbox"/> SURGE PROTECTOR SP (Now included with a minimum for field installation)
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11/QSR/2480/PLED-IV/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 208	68	7480	150W	24	
20'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-204-7/QSR/4850/PLED-III/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 240	79	10349	250W	48	
20'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-204-7/QSR/4850/PLED-IV/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 277	79	10270	250W	48	
25'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-254-7/QSR/4810/PLED-III/(X)/(CX)/RAL-8019/DBZ		160	18240	400W	48	
25'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-254-7/QSR/4810/PLED-IV/(X)/(CX)/RAL-8019/DBZ		160	18040	400W	48	
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11/QSR/2480/PLED-III/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 347	68	7548	150W	24	
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11/QSR/2480/PLED-IV/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 480	68	7480	150W	24	
20'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-204-7/QSR/4850/PLED-III/(X)/(CX)/RAL-8019/DBZ		79	10349	250W	48	
20'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-204-7/QSR/4850/PLED-IV/(X)/(CX)/RAL-8019/DBZ		79	10270	250W	48	
25'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-254-7/QSR/4810/PLED-III/(X)/(CX)/RAL-8019/DBZ		160	18240	400W	48	
25'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-254-7/QSR/4810/PLED-IV/(X)/(CX)/RAL-8019/DBZ		160	18040	400W	48	

NOTE:

(X) = indicate voltage (CX) = WW (3000K) or HW (4000K)



EXPEDITED AVAILABILITY

QSR-LED TWIN ASSEMBLY

w/ POLE RATED* FOR 140MPH (*AASHTO 2000)

SPECIFICATIONS

FIXTURE

HOUSING

Heavy cast low copper aluminum (A356 alloy, <0.2% copper) assembly with integral cooling fins. The Optical Panel mounting surface is milled flat (surface variance $\leq \pm .003"$) to facilitate thermal transfer of heat to housing and cooling fins. Solid barrier wall separates optical and electrical compartments. The optical and electrical compartments are integrated to create one assembly. Minimum wall thickness is .188".

ARM MOUNTING

Heavy cast low copper aluminum (A356 alloy, <0.2% copper) assembly with integral cooling ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell receptacle. Solid barrier wall separates optical and electrical compartments. The optical compartment and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

PLED* OPTICS

Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. A micro-reflector inside the refractor re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded HT2 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce Type III and Type IV site/area distributions. Panels are field replaceable and field rotatable in 90° increments. LED's are 3000K or 4000K CCT.

LED DRIVERS

Constant current electronic with a power factor of > .90 and a minimum operating temperature of -40°F. Driver(s) is/are UL and cUL recognized and mounted directly against the Electrical Housing to facilitate thermal transfer, held down by universal clamps to facilitate easy removal. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50, 60Hz. (0-10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field accessible installation.)

POLE

SHAFT

4" square, fabricated from high grade structural steel tube. Shaft conforms to ASTM-A-501 - 68 specifications. Meets or exceeds minimum yield strength of 46,000 p.s.i. Wall thickness for 15'0" is 11Ga. (.120"). Wall thickness for 20'0" and 25'0" is 7Ga. (.180"). Reinforced hand hole is furnished with cover. Shaft is furnished with ground lug located inside pole on wall opposite hand hole.

BASE PLATE

Fabricated from structural quality hot rolled steel. Meets or exceeds minimum yield strength of 36,000 p.s.i. base telescopes and is circumferentially welded to pole shaft. Slotted bolt holes provide 1" flexibility on either side of bolt circle centerline.

ANCHORAGE

(4) anchor bolts fabricated from hot rolled steel bar; minimum yield strength of 50,000 p.s.i. bolts have "L" bend on one end and are threaded on the other end. Bolts are fully galvanized and are furnished with two nuts and two washers.

BASE COVER

Fabricated from heavy gauge quality carbon steel. Two piece cover conceals base.

FINISH (Applies to Luminaire and Pole)

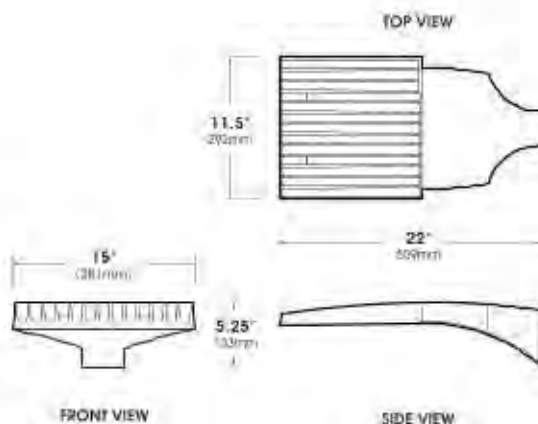
Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step sand blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability. Smooth finish is standard.

PROJECT NAME: _____

FIXTURE TYPE: _____



PATENT PENDING

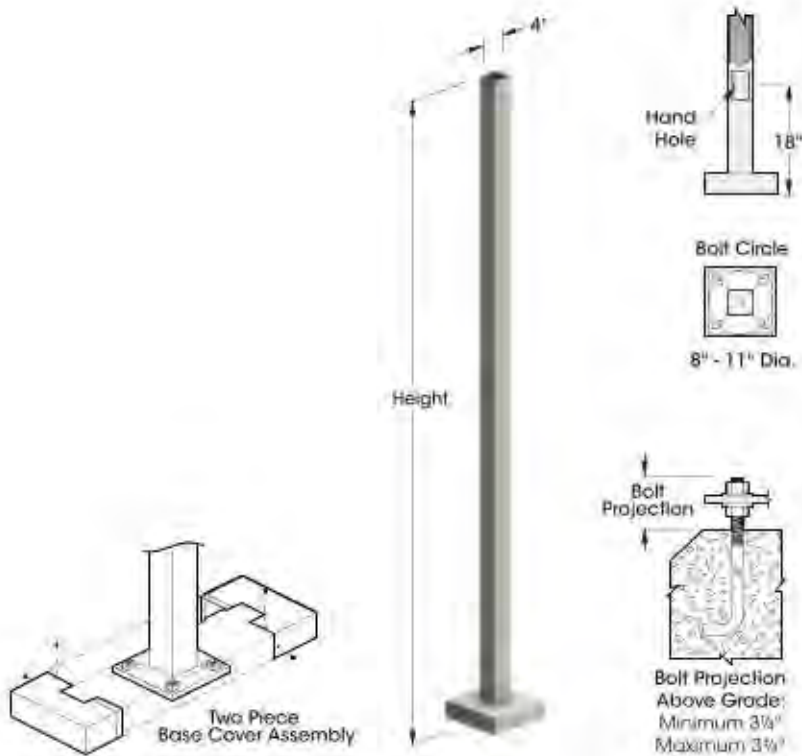


QSR - PLED TWIN ASSEMBLY

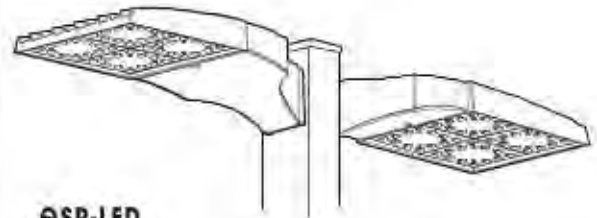
140 MPH PROMOTION

SPECIFICATIONS

POLE



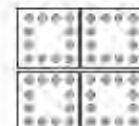
PLED™ MODULES



QSR-LED
E.P.A. = 0.45
Available in:
48 & 24 LED Module



24 LED Array



48 LED Array

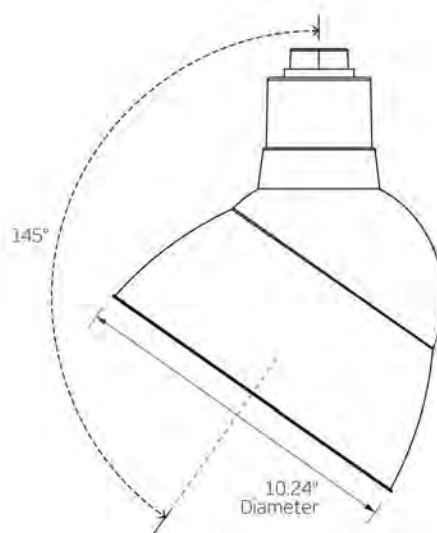
SPEC / ORDERING INFORMATION

POLE	CATALOG #	VOLTAGE	WATTS	LUMENS	REPLACES HID	LED COUNT	OPTIONS
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11-2180/QSR/2480/PLED-III/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 120	68	7548	150W	24	<input type="checkbox"/> HOUSE SIDE SHIELD HS-PLED
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11-2180/QSR/2480/PLED-IV/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 208	68	7480	150W	24	<input type="checkbox"/> SURGE PROTECTOR SP (Now included with a minimum for field installation)
20'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-204-7-2180/QSR/4850/PLED-III/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 240	79	10349	250W	48	
20'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-204-7-2180/QSR/4850/PLED-IV/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 277	79	10270	250W	48	
25'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-254-7-2180/QSR/4810/PLED-III/(X)/(CX)/RAL-8019/DBZ		160	18240	400W	48	
25'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-254-7-2180/QSR/4810/PLED-IV/(X)/(CX)/RAL-8019/DBZ		160	18040	400W	48	
* Specify Voltage							
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11-2180/QSR/2480/PLED-III/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 347	68	7548	150W	24	
15'0" - 4" Sq - 11Ga	<input type="checkbox"/> SNTS-154-11-2180/QSR/2480/PLED-IV/(X)/(CX)/RAL-8019/DBZ	<input type="checkbox"/> 480	68	7480	150W	24	
20'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-204-7-2180/QSR/4850/PLED-III/(X)/(CX)/RAL-8019/DBZ		79	10349	250W	48	
20'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-204-7-2180/QSR/4850/PLED-IV/(X)/(CX)/RAL-8019/DBZ		79	10270	250W	48	
25'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-254-7-2180/QSR/4810/PLED-III/(X)/(CX)/RAL-8019/DBZ		160	18240	400W	48	
25'0" - 4" Sq - 7Ga	<input type="checkbox"/> SNTS-254-7-2180/QSR/4810/PLED-IV/(X)/(CX)/RAL-8019/DBZ		160	18040	400W	48	






VC SERIES | LED Vintage RLM: Angled Sign Lighter

- Classic style RLM Luminaires inspired by vintage fixtures and redesigned with the latest technology and materials
- Multiple Mounting Options for a wide range of applications
- Durable weather resistant Polyester Powder Coat Finishes, Electrostatically applied and Thermo-Cured



SA10
10 Inch Angled Sign Lighter

WATTAGE	10W	14W	18W	22W	36W
LUMEN OUTPUT (3000K) ¹	950 Lm	1300 Lm	1650 Lm	2000 Lm	3000 Lm
COLOR TEMPERATURE	2700K / 3000K / 3500K / 4000K				
CRI	90+				
COLOR CONSISTENCY	3-Step MacAdam Ellipse Tolerance, 3 SDCM				
INPUT POWER	120-277VAC 60Hz				
DIMMING TYPE	0-10V Dimming				
AMBIENT OPERATING TEMP	-30°C (-22°F) to 45°C (113°F)				
   LISTINGS	cCSAus Listed to UL and CSA Standards; Suitable for Dry, Damp or Wet locations ² Can be used to comply with the 2019 Title 24 Part 6 JA8 High Efficacy LED Light Source Requirements Wet Location Pendants and Flush Mount Luminaires must be mounted under covered ceilings ²				
WARRANTY	Five (5) year replacement after date of purchase				
SYSTEM RATING	50,000 Hours @ 70% Lumen Maintenance				

¹ Approximate Lumen output based on 3000K performance; see photometric test results for additional information.
² Staged Ceiling Pendants (HSM) only suitable for Dry or Damp Locations.

DATE

PROJECT

TYPE

VC SERIES | LED Vintage RLM: Angled Sign Lighter

ORDERING INFORMATION

Example Order: VCSLSA10LDD1630KLG1 - S

VCSLSA10

1. Shade Size

VCSLSA10 - 10 In.

2. LED Series

LDD8 - 10W

LDD12 - 14W

LDD16 - 18W

LDD20 - 22W

LDD30 - 36W

Color Temp

27K - 2700K

30K - 3000K

35K - 3500K

40K - 4000K

3. Mounting

FM - Flush Mount

LSM6³ - 6 In. Stem Mount Pendant

LSM12³ - 12 In. Stem Mount Pendant

LSM24³ - 24 In. Stem Mount Pendant

LSM36³ - 36 In. Stem Mount Pendant

HSM6³ - 6 In. Stem Mount Pendant,
Sloped Ceiling Canopy

HSM12³ - 12 In. Stem Mount Pendant,
Sloped Ceiling Canopy

HSM24³ - 24 In. Stem Mount Pendant,
Sloped Ceiling Canopy

HSM36³ - 36 In. Stem Mount Pendant,
Sloped Ceiling Canopy

LGN1⁴ - Gooseneck Design 1

LGN2⁴ - Gooseneck Design 2

LGN3⁴ - Gooseneck Design 3

LGN4⁴ - Gooseneck Design 4

LGN5⁴ - Gooseneck Design 5

4. Finish⁵

B - Jet Black

G - Evergreen

P - Sky White

S - Vintage Steel

CXXXX⁶ - Custom Finish
Specify RAL Number

3. All Stems have 3/4-Inch NPT (National Pipe Taper) Threaded Ends.

4. See Page 4 for Gooseneck Design Options.

5. Finish Selection determines Shade and Mounting Hardware colors; Interior of all Shades is Sky White, except Vintage Steel.

Vintage Steel Shade will have the same finish on interior and exterior of Shade.

6. Custom Finish will require additional lead time and extra charge.

The following pages will walk through ordering details

DATE

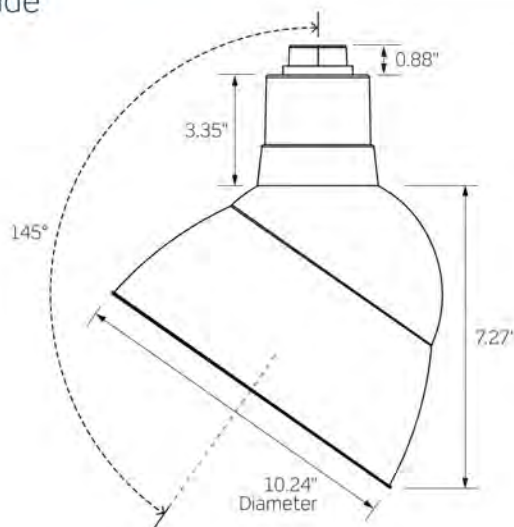
PROJECT

TYPE

VC SERIES | LED Vintage RLM: Angled Sign Lighter

ORDERING INFORMATION

STEP 1 | Select Shade



SA10
10 Inch Angled Sign Lighter

STEP 2 | Select LED Option

- 120 - 277 VAC Input
- 0 - 10V Dimming
- 2700K, 3000K, 3500K, 4000K
- 90 +CRI
- Color Consistency within a 3-Step MacAdam Ellipse Tolerance; 3 SDCM
- Frosted Domed Lens
- The following dimmers are compatible and provide dimming down to 1.1%:
Leviton IP710, Lutron Diva DVSTV-WH, Lutron Nova NTSTV-DV

LED

LED	LED Series	Color Temp
LDD - LED with Domed Frosted Lens	8 - 10W	27K - 2700K
	12 - 14W	30K - 3000K
	16 - 18W	35K - 3500K
	20 - 22W	40K - 4000K
	30 - 36W	

DELIVERED OUTPUT

3000K, 90CRI, Frosted Domed Lens, Sky White Interior Shade Finish

WATTAGE	10W		14W		18W		22W		36W	
	LUMENS*	LM/W	LUMENS*	LM/W	LUMENS*	LM/W	LUMENS*	LM/W	LUMENS*	LM/W
SL10	967	96	1326	96	1667	94	1988	91	2971	83

*For Vintage Steel shade finish, multiply delivered lumens by 0.62

DATE

PROJECT

TYPE

VC SERIES | LED Vintage RLM: Angled Sign Lighter

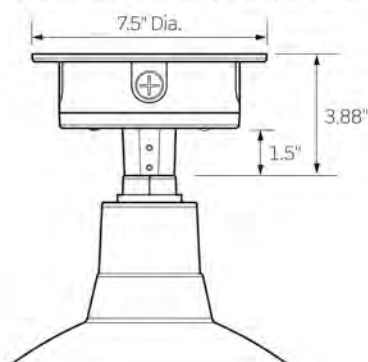
ORDERING INFORMATION

STEP 3 | Select Mounting Style

CANOPY OPTIONS

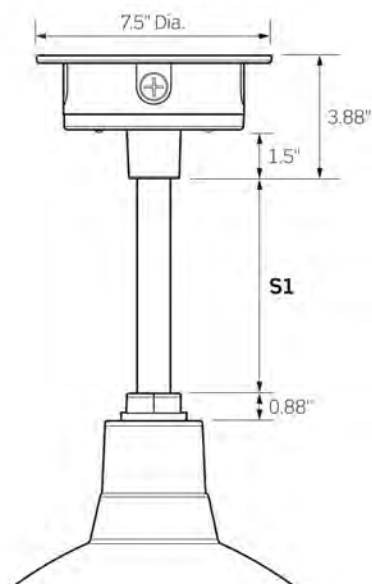
FM

Flush Mount with LED Driver Housing



LSM

Stem Mount

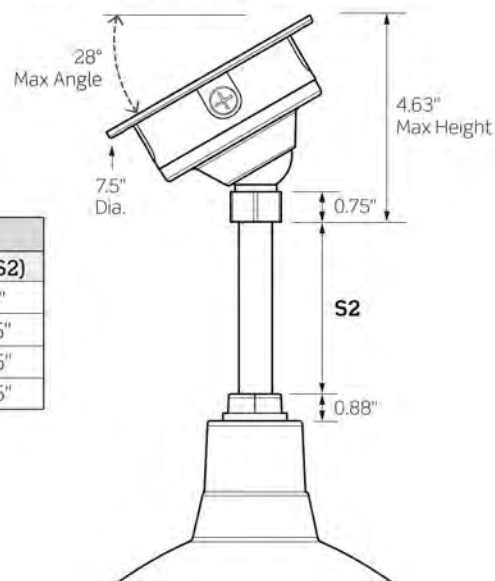


Standard Stem Lengths:
6, 12, 24 and 36 Inch

VISIBLE STEM LENGTHS		
Mount	LSM (S1)	HSM (S2)
6 In. Nominal	3.88"	4.25"
12 In. Nominal	9.88"	10.25"
24 In. Nominal	21.88"	22.25"
36 In. Nominal	33.88"	34.25"

HSM

Sloped Ceiling Canopy with Stem Mount



Gooseneck Options follow

DATE

PROJECT

TYPE

VC SERIES | LED Vintage RLM: Angled Sign Lighter

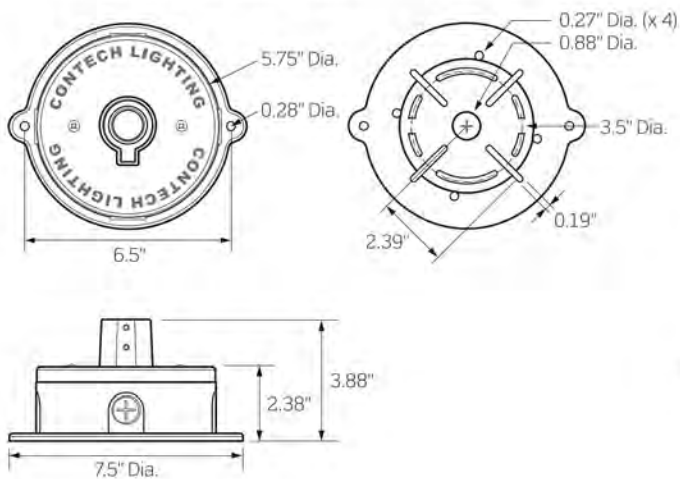
ORDERING INFORMATION

STEP 3 | Select Mount

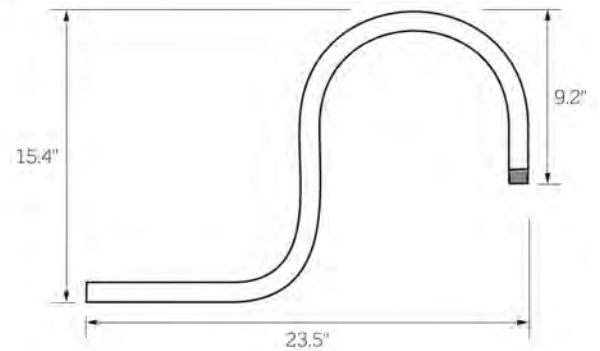
3/4-INCH NPT GOOSENECKS

Wall Flange & Driver Compartment

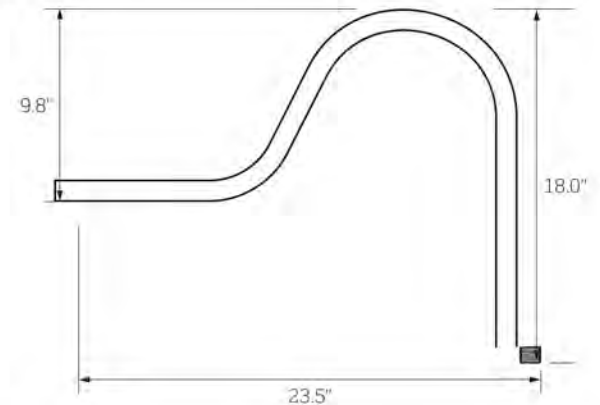
Included with Gooseneck



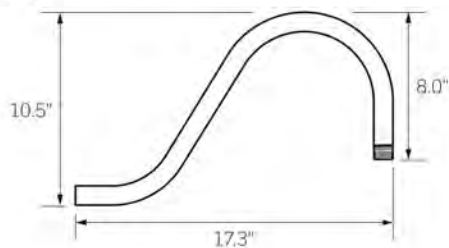
LGN3



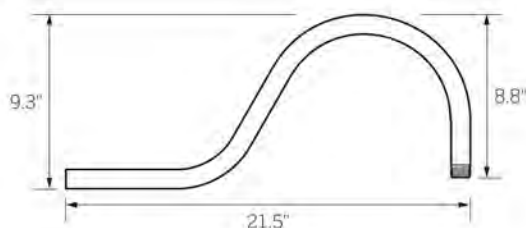
LGN4



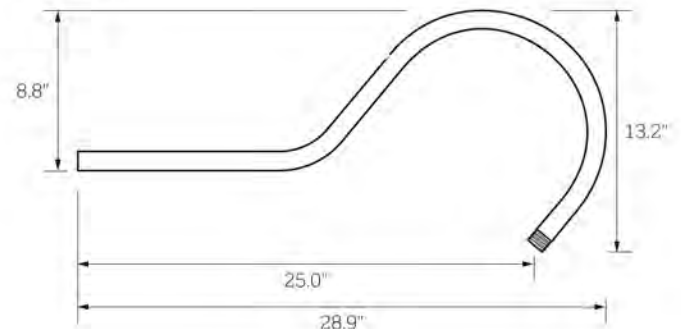
LGN1



LGN2



LGN5



DATE

PROJECT

TYPE

VC SERIES | LED Vintage RLM: Angled Sign Lighter

ORDERING INFORMATION

STEP 4 | Select Finish

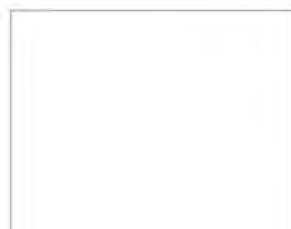
- Standard finishes are high gloss polyester powder coat with excellent corrosion resistance properties
- Finish selection determines Shade and Mounting Hardware colors
- Interior of all Shades is Sky White, except Vintage Steel. Vintage Steel Shade will have the same finish on interior and exterior of Shade
- Custom Finish will require additional lead time and extra charge



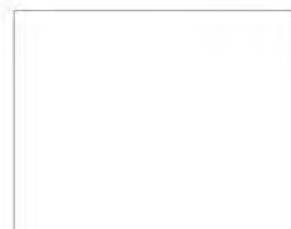
B - Jet Black



G - Evergreen



P - Sky White



S - Vintage Steel



CXXXX - Custom Finish
Specify RAL Number

For a list of 177 Custom Finish RAL numbers, see Vintage RLM RAL Colors data sheet

PRODUCT CONSTRUCTION

- **SHADES:** Powder Coated Spun Aluminum
- **ENCLOSURE and CONDUIT PLUGS:** Powder Coated Cast Aluminum
- **DOMED LENS:** Polycarbonate
- **WALL FLANGES, CANOPIES and SHADE NUTS:** Powder Coated Cast Aluminum
- **GOOSENECKS:** Powder Coated Schedule 40 Aluminum Pipe
- **STEMS:** Powder Coated Schedule 40 Carbon Steel Pipe
- **EXPOSED HARDWARE:** Stainless Steel

DATE

PROJECT

TYPE

VC SERIES | LED Vintage RLM: Angled Sign Lighter

PHOTOMETRICS

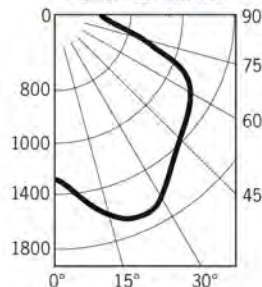
VCSLDSA10: 10-Inch Angled Sign Lighter, White Interior, 3000Lm, 3000K

Fixture Delivered Lumens: 2971.4
Total Watts@120V: 35.9
Lumens Per Watt: 82.8
Center Beam Candle Power: 1709.5
Beam Distribution: 85.2°
Spacing Criterion: 1.10
Color Rendering Index (CRI)¹: 90.8
Color Temperature (CCT)²: 3067K
Designed for 50,000 Hour Lamp Life³
LM-63 Test No. G21120606
LM-79 Test No. S21111101

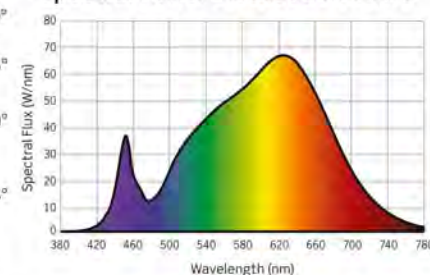
Intensity Distribution

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6 FT	35.5	18.4
8 FT	20.0	24.5
10 FT	12.8	30.6
12 FT	8.9	36.7
14 FT	6.5	42.9
16 FT	5.0	49.0

Candela Curve



Spectral Power Distribution Chart⁴



1. Accuracy of Rendering Colors 2. Color Appearance of Light Source 3. Dependent on Surrounding Temperatures 4. Colors Present within the Light Source

PHOTOMETRIC MULTIPLICATION FACTORS

Lumen output values fluctuate based on Color Temperature, Luminaire Wattage/Output and Shade Finish. To estimate lumen output of these various options, multiply 3000K results by the following:

CCT MULTIPLIERS			
CCT	STD CRI	CCT	STD CRI
2700K	0.96	3500K	1.05
3000K	N/A	4000K	1.08

VINTAGE STEEL FINISH MULTIPLIER
0.62

DATE

PROJECT

TYPE

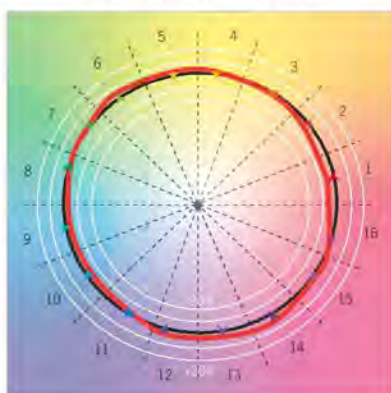
VC SERIES | LED Vintage RLM: Angled Sign Lighter

TM-30 DATA: VCSLSA10LDD3030K

10-Inch Angled Sign Lighter, White Interior, 3000Lm, 3000K

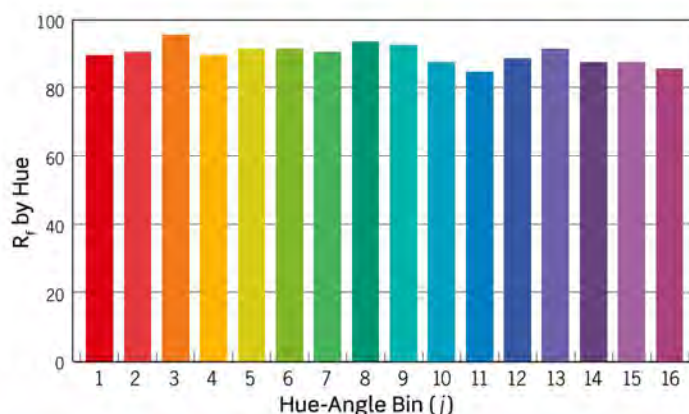
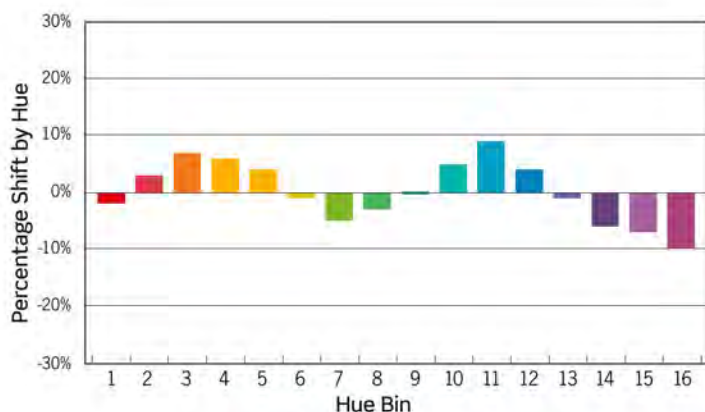
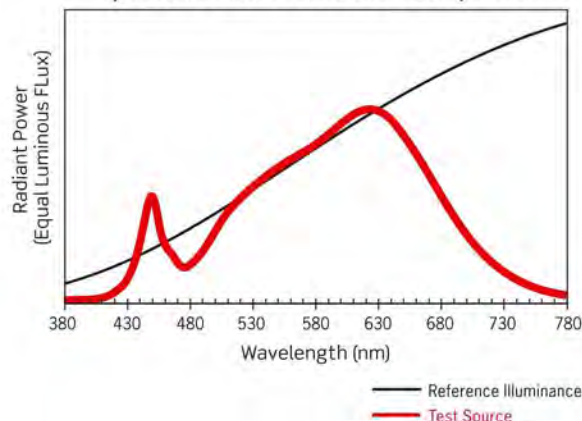
R_f	91
R_g	101
CCT(K)	3067K
D_{uv}	0.0015
u^I	0.2477
v^I	0.5221

Color Vector Graphic



— Reference Illuminance — Test Source

Spectral Power Distribution Comparison



HUE BIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
HUE SHIFT	-2%	3%	7%	6%	4%	-1%	-5%	-3%	0%	5%	9%	4%	-1%	-6%	-7%	-10%
R_f VALUE	91	92	87	91	93	93	92	95	94	89	86	90	93	89	89	87

ANSI/IES TM-30-18 Color Rendition Report Test No. S21111101
Colors are for visual orientation purposes only

L:\Projects\2023\23-0010\Engineering\DWG\Final\23-0010 FE.dwg Plot Date: 9/20/2023 1:48:53 PM By:mjrf

SURFACE WATER DRAINAGE CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF WILL)

TO THE BEST OF OUR KNOWLEDGE AND BELIEF THE DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY THE CONSTRUCTION OF THESE LOT IMPROVEMENTS OR ANY PART THEREOF, OR THAT IF SUCH SURFACE WATER DRAINAGE WILL BE CHANGED, REASONABLE PROVISIONS HAVE BEEN MADE FOR THE COLLECTION AND DIVERSION OF SUCH WATERS INTO PUBLIC AREAS OR DRAINS WHICH THE OWNER HAS A RIGHT TO USE, AND THAT SUCH SURFACE WATERS WILL BE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO REDUCE THE LIKELIHOOD OF DAMAGE TO THE ADJOINING PROPERTIES BECAUSE OF THE CONSTRUCTION OF THESE LOT IMPROVEMENTS.

DATED 18th DAY OF SEPTEMBER, 2023



Michael J. Ford
Expires 11/30/23

CLIENT:

PWM ARCHITECTURE, LLC
3603 CHESAPEAKE ROAD
ST. CHARLES, ILLINOIS 60175

ENGINEER:

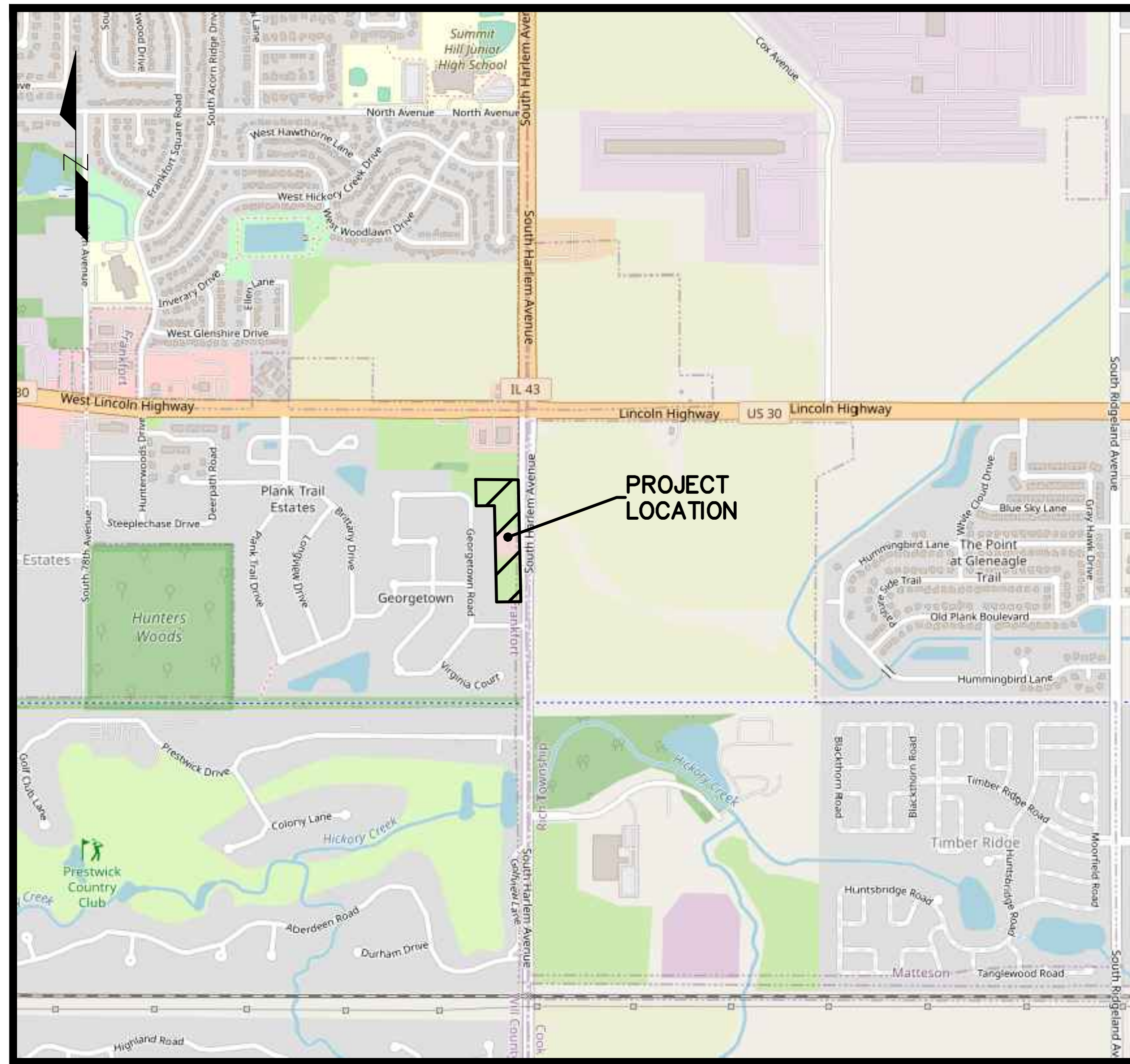
DESIGNTEK ENGINEERING, INC.
9930 W. 190TH STREET, SUITE L
MOKENA, ILLINOIS 60448
(708) 326-4961

SURVEYOR:

DESIGNTEK ENGINEERING, INC.
9930 W. 190TH STREET, SUITE L
MOKENA, ILLINOIS 60448
(708) 326-4961

NOTES:

- THE EXACT LOCATION OF UNDERGROUND UTILITIES SUCH AS GAS, TELEPHONE, FIBER OPTIC, ELECTRIC, CABLE TV AND PIPE LINES ARE UNKNOWN. THE CONTRACTOR SHALL CONTACT JULIE (1-800-892-0123 OR 811) AND ALL OTHER UTILITY OWNERS WHICH ARE IN THE PROJECT LIMITS BEFORE COMMENCING EXCAVATION.
- THE SUBSURFACE UTILITY QUALITY INFORMATION IN THIS PLAN IS LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI / ASCE 38-02 ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."



LOCATION MAP
NOT TO SCALE

LEGAL DESCRIPTION

PARCEL 1:

LOT 5 IN GEORGETOWN SQUARE (EXCEPT THAT PART TAKEN FOR GEORGETOWN SUBDIVISION RECORDED AS DOCUMENT NUMBER R89-25414) AND (EXCEPT THAT PART TAKEN BY THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF ILLINOIS IN CASE NUMBER 10ED008, RECORDED AS DOCUMENT NUMBER R2010068849), BEING A SUBDIVISION OF PART OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 35 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED JANUARY 13, 1987 AS DOCUMENT NO. R87-01983 AND CERTIFICATE OF CORRECTION RECORDED JANUARY 23, 1987 AS DOCUMENT R87-04017, IN WILL COUNTY, ILLINOIS.

PARCEL 2:

LOT 6 IN GEORGETOWN SQUARE (EXCEPT THAT PART TAKEN FOR GEORGETOWN SUBDIVISION RECORDED AS DOCUMENT NUMBER R89-25414), BEING A SUBDIVISION OF PART OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 35 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED JANUARY 13, 1987 AS DOCUMENT NO. R87-01983 AND CERTIFICATE OF CORRECTION RECORDED JANUARY 23, 1987 AS DOCUMENT R87-04017, IN WILL COUNTY, ILLINOIS.

PARCEL 3:

LOT 97 IN GEORGETOWN SUBDIVISION FIRST ADDITION, BEING A SUBDIVISION OF PART OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 35 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MAY 30, 1989 AS DOCUMENT NO. R89-25415, IN WILL COUNTY, ILLINOIS.

PARCEL 1:

LOT 98 IN GEORGETOWN SUBDIVISION FIRST ADDITION, BEING A SUBDIVISION OF PART OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 35 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MAY 30, 1989 AS DOCUMENT NO. R89-25415.

BASIS OF BEARING

THE BASIS OF BEARINGS IS THE ILLINOIS STATE PLANE SYSTEM — EAST ZONE

PARCEL IDENTIFICATION NUMBER

19-09-24-401-022

SITE DATA

AREA: 230,795 SQUARE FEET
OR 5.30 ACRES

BENCHMARKS

SITE BENCHMARK: THE NORTHWEST FLANGE BOLT ON FIRE HYDRANT LOCATED IN FRONT OF ADDRESS 21420 S. HARLEM AVENUE, SHOWN HEREON.
ELEVATION: 720.28 (NAVD 88)

INDEX OF PLAN SHEETS

- COVER SHEET
- GENERAL NOTES AND CONSTRUCTION DETAILS
- PROJECT SPECIFICATIONS
- EXISTING CONDITIONS & REMOVAL PLAN
- GEOMETRIC & PAVEMENT PLAN
- SOIL EROSION & SEDIMENT CONTROL
- GRADING PLAN
- UTILITY PLAN WITH EASEMENTS
- CONSTRUCTION DETAILS

EXHIBITS

- EX-1. EXISTING PLAT OF SURVEY
- EX-2. STORMWATER / DRAINAGE EXHIBIT

LEGEND	
EXISTING	PROPOSED
SANITARY SEWER	SANITARY SEWER
SANITARY SERVICE	SANITARY SERVICE
SANITARY MANHOLE	SANITARY MANHOLE
STORM SEWER	STORM SEWER
STORM SERVICE	STORM SERVICE
CATCH BASIN	CATCH BASIN
OPEN LID STORM MANHOLE	OPEN LID STORM MANHOLE
CLOSED LID STORM MANHOLE	CLOSED LID STORM MANHOLE
STORM INLET	STORM INLET
FLARED END SECTION	FLARED END SECTION
WATER MAIN	WATER MAIN
WATER SERVICE	WATER SERVICE
VALVE VAULT	VALVE VAULT
B-BOX	B-BOX
HYDRANT	HYDRANT
VALVE BOX	VALVE BOX
STREET LIGHT	STREET LIGHT
UTILITY POLE	UTILITY POLE
RETAINING WALL	RETAINING WALL
SILT FENCE	SILT FENCE
CONTOUR	CONTOUR
FORCE MAIN	FORCE MAIN
SPOT GRADES	SPOT GRADES
OVERFLOW ARROW	OVERFLOW ARROW
TOP OF FOUNDATION	TOP OF FOUNDATION
FINISH GRADE	FINISH GRADE
FINISH FLOOR	FINISH FLOOR
GARAGE FLOOR	GARAGE FLOOR



CALL 1-800-892-0123 or 811
AT LEAST 48 HOURS (2 WORKING
DAYS) BEFORE YOU DIG
WWW.ILLINOIS1CALL.COM

REVIEW SET
NOT FOR CONSTRUCTION

REVISIONS	
NO.	DATE
1	09-18-23
DESCRIPTION	
PER VILLAGE REVIEW	
BY	MJF

PWM ARCHITECTURE, LLC
3603 CHESAPEAKE ROAD
ST. CHARLES, ILLINOIS 60175

FINAL ENGINEERING PLANS
FOR
THE BRIDGE THRIFT STORE
21420 S. HARLEM AVENUE
FRANKFORT, ILLINOIS

DESIGNTEK ENGINEERING, INC.
CONSULTING, CIVIL ENGINEERING & LAND SURVEYING
9930 W. 190TH STREET, SUITE L
MOKENA, ILLINOIS 60448
(708) 326-4961
FAX: (708) 326-4962
ILL. PROF. LIC. NO.: 184-003740



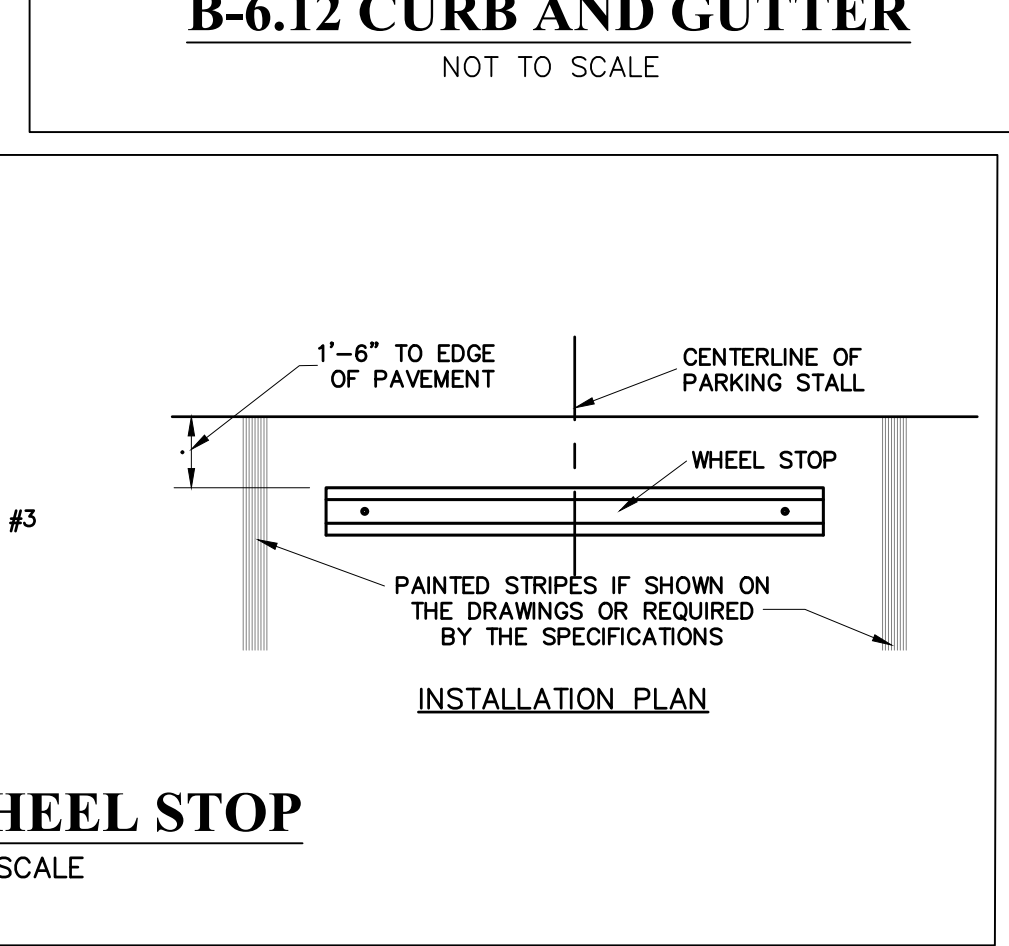
PROJECT INFORMATION

Project No.: 23-0010
Scale: AS NOTED
Date: 07-07-2023
Design By: MJF
Drawn By: DJB
Checked By: MJF

1
OF
8

COVER SHEET

- a. The CONTRACTOR is the individual, firm, partnership or corporation contracting with the OWNER for performance of the prescribed work.
- b. The OWNER is the individual, firm, partnership or corporation having the authority to award the contract for the prescribed work.
- c. The ENGINEER where specifically referred to in the Specifications shall be the OWNER's representative.
2. All CONTRACTORS shall be responsible for the following, which shall also be incidental to the cost of construction:
 - a. Examination of the Engineering Plans and Specifications and the existing site conditions prior to submitting a bid, and notifying the ENGINEER at once of any discrepancies.
 - b. The obtaining of any necessary permits not previously applied for by the OWNER, and posting of the necessary bonds.
 - c. The notification of the start of construction to the Village of Frankfort Public Services Dept. at (815) 469-2177, utility companies, and the ENGINEER at least two (2) working days prior to said start. All existing utilities must be staked prior to construction. All construction, including equipment startup, shall be between the hours of 7:00 a.m. to 8:00 p.m. weekdays, and 8:00 a.m. to 7:00 p.m. weekends and holidays.
 - d. Calling attention to the OWNER of any errors or discrepancies, which may be suspected in lines and grades, which are established by the OWNER. The CONTRACTOR shall not proceed with the work until the lines and grades which are to be constructed to be in error have been verified or corrected by the OWNER. Additional staking that may be required due to CONTRACTOR negligence shall be paid for by the CONTRACTOR.
 - e. The providing of safe and healthful working conditions throughout the prosecution of the construction. This shall include, but not be limited to: the removal of debris, the protecting of construction hazards with barricades and the keeping of public street pavements clean of construction dirt and debris.
 - f. The restoration to the original condition or better of any areas that are damaged by the CONTRACTOR during construction.
 - g. The testing of materials, if required by the OWNER and/or the jurisdictional agencies.
 - h. The guarantee of all materials and workmanship for a period of one (1) year upon final acceptance by the OWNER and other jurisdictional agencies.
 - i. Trees shall be installed a minimum of five (5) feet horizontally from sanitary sewers, sanitary services, watermain, and water services. Trees and light poles shall be installed a minimum of ten (10) feet horizontally from utility structures and enclosures, including but not limited to manholes, valve vaults, valve boxes and fire hydrants.
 - j. The contractor shall be responsible for implementation & maintenance of all soil erosion & sedimentation control measures throughout the entire project.
 - k. Contractors are required to obtain applicable permits from the Municipality.
3. The OWNER shall be responsible for the following:
 - a. Scheduling the necessary preconstruction meeting(s) with the jurisdictional agencies at least two (2) working days prior to the commencement of work.
 - b. Insurance certificates from all contractors, naming the Village of Frankfort as additional insured, prior to preconstruction meeting being set.
 - c. Providing the CONTRACTOR with one (1) set of control line and grade stakes (at offsets mutually agreed upon) for the proper prosecution and control of the work.
 - d. Applying for IEPA, IDOT, and all applicable County, Municipal and Sanitary District Permits. Other necessary permits shall be the responsibility of the CONTRACTOR.
4. The ENGINEER shall be responsible for the following:
 - a. To periodically visit the construction site in order to better carry out duties and responsibilities assigned by the OWNER and undertaken by the ENGINEER.
 - b. The ENGINEER shall not, during such visits or as a result of such observations of the CONTRACTOR(s)' work in progress, supervise, direct or have control over the CONTRACTOR(s)' work nor shall the ENGINEER have authority over or responsibility for the means, methods, techniques, sequences or procedures of construction selected by the CONTRACTOR(s), for safety precautions and programs incident to the work of the CONTRACTOR(s) or for any failure of the CONTRACTOR(s) to comply with laws, rules, regulations, ordinances, codes or orders applicable to the CONTRACTOR(s) furnishing and performing their work. Accordingly, the ENGINEER can neither guarantee the performance of the construction contracts by the CONTRACTOR(s) nor assume responsibility for the CONTRACTOR(s)' failure to furnish and perform their work in accordance with the Contract Documents.
5. Except where modified by the contract documents, all work proposed herein shall be in accordance with the following specifications, which are hereby made a part hereof:
 - a. "Standard Specifications for Road and Bridge Construction", and "Supplemental Specifications and Recurring Special Provisions", latest edition, prepared by the Illinois Department of Transportation (IDOT Standard Specifications).
 - b. Standard Specifications for Water and Sewer Main Construction in Illinois, latest edition, as adopted by the Illinois Society of Professional Engineers, et al.
 - c. Illinois Urban Manual, latest edition.
 - d. Village of Frankfort Codes and Ordinances, current edition when these plans were approved.
 - e. American With Disabilities Act, Standards for Accessible Design, latest ed.
6. In the event of a conflict between statements, which apply to the construction work, the OWNER should contact the Public Works Director for direction.

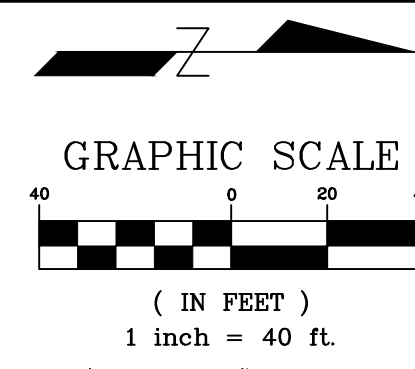


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OF
8

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EARTHWORK		UNDERGROUND UTILITIES - GENERAL		SANITARY SEWER		WATER MAIN		STORM SEWER	
<div>1. Topsoil Excavation Includes:<div>a. Excavation of topsoil and other structurally unsuitable materials within those areas that will require earth excavation or compacted earth fill material, in order to achieve the plan subgrade elevations. The amount of topsoil to be stripped shall be verified in the field by a soils engineer.</div><div>b. Placement of the excavated material in OWNER designated areas for future use within areas to be landscaped, and those areas not requiring structural fill material.</div><div>c. Compaction of the excavated material where placed in areas not requiring structural fill material, shall be moderate.</div><div>d. Excess materials, if not utilized as fill or if not stockpiled for future landscaping, shall be completely removed from the construction site and disposed of by the CONTRACTOR.</div></div> <div>2. Earth Excavation Includes:<div>a. Excavation of earth and other materials which are suitable for use as structural fill. The excavation shall be to within a tolerance of 0.3 feet (+) of the plan subgrade elevations. The (+) tolerance within pavement areas shall be such that the earth material shall "balance" as part of the fine grading operation.</div><div>b. Placement of the earth and other suitable materials shall be within those areas requiring structural fill in order to achieve the plan subgrade elevations to within a tolerance of 0.3 feet (+). The fill material shall be placed in loose lifts that shall not exceed eight (8) inches in thickness, and the water content shall be adjusted in order to achieve the required compaction. Earth material may be placed within those portions of the building site not requiring structural fill, to within four (4) inches of the plan finished grade elevation. In areas requiring structural fill, however, the earth material shall not be placed over topsoil or other unsuitable materials unless specifically directed by a Soils Engineer with the concurrence of the OWNER.</div><div>c. Compaction of the earth and other suitable materials, shall be to at least 95% of the maximum dry density as determined by the Modified Proctor Test, ASTM D1557 laboratory procedure within proposed pavement areas and building areas, on rear yards abutting to the proposed lakes. Moderate compaction is required elsewhere. All fill shall be placed in 8" lifts, loose measure.</div><div>d. Excess materials, if not utilized as fill, shall be completely removed from the construction site and disposed of by the CONTRACTOR.</div></div> <div>3. Unsuitable Material<div>a. Unsuitable material shall be considered as material which is not suitable for the support of pavement and building construction, and is encountered below normal topsoil depths and the proposed subgrade elevation. The decision to remove said material, and to what extent, shall be made by a Soils Engineer with the concurrence of the OWNER in writing.</div></div> <div>4. General<div>The Grading CONTRACTOR shall:<div>a. Maintain proper site drainage at all times during the course of construction, and prevent storm water from running into or standing in excavated areas.</div><div>b. Spread and compact uniformly to the degree specified all excess trench spoil after completion of the underground improvements.</div><div>c. Scarify and compact to the degree specified the upper twelve (12) inches of the suitable subgrade material, in all areas that may be soft due to excess moisture content. This applies to cut areas as well as fill areas.</div><div>d. Provide water to add to dry material in order to adjust the moisture content for the purpose of achieving the specified compaction.</div></div></div> <div>5. Testing and Final Acceptance<div>a. The CONTRACTOR shall provide as a minimum, a fully loaded tri-axle dumptruck or similar equipment for proof rolling the pavement subgrade prior to the placement of the curb and gutter and the base material. In addition, the pavement aggregate base course shall also be proof rolled. The Village Engineer shall be notified 48 hours in advance of any proof roll.</div><div>b. Specific compaction testing may be required by the OWNER in selected fill areas. The CONTRACTOR shall bear the cost of any compaction testing which does not meet specification as well as the responsibility and cost for the necessary correction(s).</div><div>c. Approval of the pavement subgrade by the OWNER shall be required prior to the placement of the pavement materials.</div><div>d. The subgrade soil shall be tested by a professional geotechnical engineer at the developer's expense and shall have a minimum designated Illinois Bearing Ratio (IBR equal to three (3)).</div><div>e. A soil investigation report shall be provided to the Village to verify the in situ IBR value. Pavement structures with subgrade soil having an IBR value less than three (3) shall have an increased pavement structure as necessary to carry the design traffic loading.</div></div> <div>6. Method of Measurement<div>a. As-built measurements of earthwork for the purpose of payment shall not apply, the quantities shown in the engineer's "quantity estimate" shall be utilized unless said quantities are adjusted by mutual consent of the owner and contractor prior to the signing and acceptance of a contract.</div><div>b. The quantities as shown in the engineer's "quantity estimate" are those estimated by the engineer and are provided solely for the convenience of the contractor. The contractor by choosing to utilize these quantities in the preparation of his "lump sum" bid, also accepts their accuracy. The contractor is therefore encouraged to make his own independent earthwork calculation, and to visit the site prior to the preparation of his bid.</div><div>c. Prior to the removal of unsuitable material, the contractor shall notify the owner for authorization to remove said material, upon authorization and removal, the contractor shall request that the unsuitable material shall be field measured by the engineer in place.</div></div> <div>7. Basis of payment<div>a. Payment for all earthwork shall be "lump sum", the contractor shall provide unit prices for earthwork for the purpose of contract adjustment, if required.</div><div>b. Payment for the removal of unsuitable material shall be based on the quantities as field measured by the engineer. The contractor shall provide as part of his bid a unit price per cubic yard for the removal of unsuitable material, said unit price shall include the complete removal of the material, replacement with a suitable material obtained by the contractor from a borrow source, and compaction to the required specification.</div></div>		<div>1. The Underground CONTRACTOR Shall:<div>a. Adhere to the criteria for the separation between water mains and sanitary sewers, storm sewers, combined sewers, sewer services and septic fields according to the requirements stated in the IEPA Rules for Public Water Supplies (the formal citation is Title 35, Subtitle F, Chapter II, Parts 651-654). All sewer water main separations shall be constructed per the "Standard Specifications for Water and Sewer Main Construction in Illinois".</div><div>b. Be responsible to place on grade, and coordinate with other CONTRACTORS, all underground utility structure frames such as manholes, catch basins, and inlets.</div><div>c. Be aware of potential conflicts with existing utilities. The CONTRACTOR shall excavate around the existing utilities to determine their exact location and elevation prior to the construction of the proposed utility improvements. Should unforeseen conflicts be found, the CONTRACTOR shall contact the ENGINEER prior to constructing the proposed improvements.</div><div>d. Adjust or reconstruct any existing utility structure to the satisfaction of the utility owner. Adjustments and/or reconstructions not called for on the plans shall be considered incidental to the contract. No more than two adjusting rings within a min. of four inches (4") and a max. of twelve inches (12") of adjusting rings.</div><div>e. Provide poured concrete fillets conforming to the shape of the pipe in all sanitary and storm manholes, and inlets.</div><div>f. Be responsible for maintaining the top of any utility trench at least three (3) feet away from any existing or proposed curb or pavement, in those instances where the trench runs parallel to said curb or pavement.</div><div>g. Be responsible for the dewatering of utility trenches during construction and providing the necessary trench bracing that may be required to assure safe working conditions.</div><div>h. Remove soft material that may be encountered at the pipe invert elevation to a depth of at least one (1) ft. below the bottom of the pipe, and backfill with compacted bedding material.</div><div>i. No damage to the road subgrade with excessive water saturation from hydrant flushing or from leaks in the water distribution system. The cost of repair for such damage shall be borne by the CONTRACTOR. Hoses should be used to direct the water from hydrant flushing into the storm sewer system (if available).</div><div>j. Repair any existing field drainage tile damaged during construction, and properly reroute and/or connect said tile to the nearest storm sewer outlet. All locations of encountered field drainage tile shall be properly indicated on the CONTRACTOR's record drawing.</div><div>k. Furnish one (1) set of Record drawings to the ENGINEER upon completion of the sanitary sewers and water mains. Drawings (or table of locations) shall indicate the location of all sanitary sewer wyes (measured from the nearest downstream manhole), sewer stubs, water service along main and b-boxes. The CONTRACTOR shall also furnish linear distance along water main from appurtenances to appurtenance (valve vault to tee, tee to bend, etc.).</div><div>l. Be responsible for implementation of the "Soil Erosion and Sedimentation Control Measures" as applicable.</div><div>m. Maintain erosion control measures (straw bales and filter fabric) until grass is established.</div></div> <div>2. Method of Measurement<div>a. All sanitary sewer, storm sewer, and water main pipe shall be measured in the field after its installation. Payment shall be based on these field measurements.</div><div>b. All appurtenances such as manholes, catchbasins, inlets, valves and valve vaults, valve boxes, and fire hydrants, shall be paid for on the basis of in-place quantities.</div><div>c. Trench backfill material shall be measured by multiplying the as-constructed length of pipe (where applicable) by the average depth of the pipe by the "Payment Quantities per foot of Conduit" listed in Table 1, pg. 138 and "Typical Detail of Conduit Installation", pg. 137 of the Standard Specification for Sewer and Water in Illinois. If requested, the CONTRACTOR shall provide load tickets to the ENGINEER for verification of the trench backfill material delivered to the construction site. Load tickets for bedding material shall be submitted separately.</div></div> <div>3. Basis of Payment<div>a. All sanitary sewer, water main, and storm sewer pipe shall be paid for at the contract unit price per LINEAL FOOT. The price shall include the necessary labor and material for a complete in-place installation, as well as all incidental construction, testing, bedding material, and connections to existing utilities.</div><div>b. All appurtenances for the underground improvements shall be paid for at the contract unit price EACH, said price to include the necessary labor and material for a complete in-place installation. The price for manholes, inlets, and catchbasins shall also include the frame and grate and all incidental construction. The price for fire hydrants shall also include a six (6) inch valve and box, and all incidental construction.</div><div>c. Trench backfill material shall be paid for at the contract unit price per CUBIC YARD. Compaction must be made by mechanical methods.</div></div> <div>4. As-Built Water & Sanitary Services<div>a. As-built locations shall be provided for all water and sanitary sewer stubs. They shall also be stamped on the curb.</div></div> <div>5. Structure Castings<div>a. Frames and lids (or grates) for sanitary, watermain and storm sewer structures shall be as indicated on the plans, and the cost of same shall be integrated into the representative structure costs.</div><div>b. Manhole castings shall be adjusted to finished grade using precast adjusting rings set on bitumastic material. All structures shall have no more than two adjusting rings w/ a min. of four inches (4") and a max. of twelve inches (12") of adjusting rings.</div><div>c. All frames shall be set on a mastic bed with all gaps tuck pointed.</div><div>d. All castings shall be made in the U.S.A. with U.S.A. materials.</div></div> <div>6. Trench Backfill<div>a. Bedding, haunching and the initial backfill shall consist of IDOT CA-7, CA-11 OR CA-19 aggregate. The initial backfill shall be placed to at least 12" above the pipe.</div><div>b. Final backfill of the trench shall be accomplished by careful replacement of the excavated material. Any pipe installed under or within a 45 degree angle of repose (1:1) from the top of pipe to the edge of pavement, driveway (when driveway location is known) or curb and gutter shall be backfilled to the top of the trench with compacted IDOT CA-7, CA-11 or CA-19 material.</div><div>c. Compaction shall be in achieved using 8" lifts (uncompacted) and mechanical compaction to 95% density. All costs for compaction and testing shall be paid for by the Developer or Contractor. Results shall be copied to the Village Engineer.</div></div>		<div>5. Wyes or Tees shall be provided on the new sanitary sewers for proposed building services. All connections to existing sanitary sewers not having wyes shall be made with a "sewer tap" for building services and with a manhole for sewer extensions. All taps shall include a properly installed hub wye saddle.</div> <div>6. "Bond Seal" or similar couplings shall be used when joining pipes of dissimilar materials.</div> <div>7. All sanitary structures shall have an external wrap, MAC or approved equal.</div> <div>8. Polyethylene encasement shall be provided for all DIP sanitary sewer in accordance with AWWA latest standards.</div> <div>9. Prior to pipe laying and jointing, the trench shall be sufficiently dewatered to maintain the water level in the trench at or below the base of the bedding. State / Federal permits, license agreements or other required approvals shall be obtained prior to dewatering.</div> <div>10. Where separation from water main cannot be maintained as required per Illinois specifications, the sanitary sewer shall be mechanical joint PVC pressure pipe meeting C-800 or C-905.</div> <div>11. Sewers shall be laid straight in both horizontal and vertical planes between manholes with a minimum cover of 4 feet.</div> <div>12. Sanitary sewers shall be located a minimum of 10 feetet from any building and meet separation requirements of the Standard Specifications for Water and Sewer Main Construction in Illinois.</div> <div>13. Services shall be a minimum 6 inches and extend to the property line or beyond any utility located in the front yard of a lot being served (single-family development), or to within five (5) feet from the face of a proposed building being served (multi-family and commercial development). The termination points shall be clearly located with a green-topped 4 inch x 4 inch stake extending a minimum 3 feet above final grade. The service lines shall be connected to the sewer using a wye at the 10:00 and 2:00 positions. Service lines not immediately connected to the building to be served shall be tightly plugged, using a plug provided by the pipe manufacturer for such use.</div> <div>14. Testing and Final Acceptance<div>a. Sanitary sewer mains and services shall be tested for exfiltration of air under pressure and deflection for flexible thermoplastic pipe in accordance with the Standard Specifications for Water and Sewer Construction in Illinois prior to their final acceptance. Allowable testing limits shall be as described in the "Standard Specifications" unless the local requirements are more restrictive. Service stubs must be properly plugged and sealed and clearly located at their termination points prior to testing. All sewer mains, service lines and manholes shall be clean and free of debris prior to their final acceptance. Sanitary Sewer shall be inspected and tested in accordance with the local jurisdictional requirements for television inspection and reviewed by the Village Engineer. Two copies of all test results shall be provided to the Municipality.</div><div>b. Sanitary Manhole structures shall be tested, prior to acceptance, for watertightness by either of the following methods in conformance with the requirements specified: ASTM C 969: "Standard Practice for Infiltration and Exfiltration Acceptance Testing of Installed Precast Concrete Pipe Sewer Lines." OR ASTM C 1244: "Standard Test Method for Concrete Sewer Manholes by the Negative Pressure (Vacuum) Test Method."</div><div>c. All public sanitary sewer extensions shall be internally video taped by remote camera. Tapes shall be in color using VHS or CD-ROM format and submitted with written reports to the Village Engineer for review and approval priot to acceptance of the sewer improvements by the Village.</div></div>		<div>12. Fire Hydrants<div>a. Fire Hydrants shall be EJW SCD250 with 5-1/4 inch valve opening and shall be painted red.</div><div>b. The hydrant shall be for a five foot (5') bury with mechanical joint shoe and have two 2-1/2 inch hose connections and one four and one-half inch (4-1/2") male pumper connection. Thread shall be National Standard.</div><div>c. The hydrant shall have a break-away traffic flange and connections.</div><div>d. All fire hydrants not in service shall be bagged.</div><div>e. Hydrants leads shall be six-inch (6") swivel anchoring coupling. Hydrant tees shall be used in lieu of swivel anchoring coupling pipe where required to meet plan locations.</div><div>f. The maximum distance between fire hydrants shall be 350 feet.</div><div>g. All fire hydrants shall be kept clear of obstructions within three (3) feet in all directions. This shall include posts, fences, vehicles, growth, trash, storage, and any other material or objects.</div><div>h. All fire hydrants to have a 10 pound anode bag attached to the hydrant.</div></div> <div>13. Pipe Cover and Separation<div>a. Cover over water pipes shall be a minimum of 5.5 feet.</div><div>b. Horizontal and vertical separation shall meet requirements of the "Standard Specifications for Water and Sewer Main Construction in Illinois." Locations requiring alternative materials are noted on the plans.</div></div> <div>14. Pipe Laying<div>a. The contractor shall keep the trench free from water while the water main is being placed and until the pipe joint has been sealed to the satisfaction of the Village Engineer.</div><div>b. Adequate provisions shall be made for the safety, storage, and protection of all water pipe prior to installation in the trench. Care shall be taken to prevent damage to the pipe castings, both inside and out. Provisions shall be made to keep the inside of the pipe clean throughout its storage period and to keep mud and/or other debris from being deposited therein. All pipe shall be thoroughly cleaned on the inside before laying of the pipe. Proper equipment shall be used for the safe handling, conveying, and laying of the pipe so as to prevent damage to water main materials and protective coatings and linings. Under no circumstances shall water main materials be dropped or dumped into the trench.</div><div>c. In making joints, all portions of the jointing materials and the socket and spigot ends of the joining pipe shall be wiped clean of all foreign materials. The actual assembly of the jointing shall be in accordance with the manufacturer's installation instructions. During construction, until jointing operations are complete, the open ends of all pipes shall at all times be protected and sealed with temporary watertight plugs.</div><div>d. During water main installation, to make a closure between two pipe ends, or between pipe end fittings, or between pipe end and valve, short lengths shall be used with proper connections or couplings. Repair sleeves shall not be used to make closures during new construction.</div><div>e. All pipe and trenching shall be viewed and approved by the Municipality prior to cover and backfill.</div><div>f. All bends of 22-1/2 degrees or greater, and all tees and plugs shall be thrust protected to prevent movement of the line under pressure. Thrust protection may also be attained by the use of a combination or retaining glands and threaded rods.</div></div> <div>15. Testing and Disinfection<div>a. Water main shall be tested in accordance with AWWA C-600 & the local jurisdictional requirements prior to it final acceptance. A 24 hour system pressure test needs to be performed as per the Standard Specifications. The pressure and leakage tests and disinfection of the mains shall be as described in the "Standard Specifications" unless the local requirements are more restrictive. All valve vaults shall be clean and free of debris and water, and individual service boxes shall be visible and clearly located prior to their final acceptance.</div><div>b. The preferred point of application of the chlorinating agent shall be at the beginning of the pipeline extension or any valved section of it and through a corporation stop in the top of the newly laid pipe. The injector for delivering the chlorine gas into the pipe should be supplied from a tap on the pressure side of the gate valve controlling the flow into the pipeline extension.</div><div>c. Water from the existing distribution system or any other source of supply shall be controlled so as to flow slowly into the newly laid pipeline during the application of chlorine-gas. The rate of chlorine mixture flow shall be in such proportion to the rate of water entering the pipe that the chlorine dose applied to the water entering the newly laid pipe shall be at least fifty parts-per-million (50ppm), or enough to meet the requirements during the retention period.</div><div>d. Valves shall be manipulated so that the strong chlorine solution in the line being treated shall not flow back into the line supplying the water. The pipe section being chlorinated shall be kept at a lower pressure than the water system pressure.</div><div>e. Treated water shall be retained in the pipe long enough to destroy all spore-forming bacteria. This retention period shall be at least twenty-four (24) hours. After the chlorine-treated water has been retained for the required time, the chlorine residual at the pipe extremities and at other representative points shall be at least twenty five parts-per-million (25ppm).</div><div>f. In the process of chlorinating newly laid pipe, all valves or other appurtenances shall be operated while the pipeline is filled with the chlorinating agent.</div><div>g. After all mains have been pressure tested, they shall be disinfected and tested according to the requirements of the Standards for Disinfecting Water Mains, AWWA C-601 and C-651, and as required by this Section. All disinfection, as required by this Section, shall be performed by an independent firm exhibiting experience in the methods and techniques of this operation, and shall be approved by the Village Public Works Department. The contractor shall obtain two samples of water from the main for bacteriological testing. A second series of samples shall be collected no less than 24 hours after the first set of samples has been collected. The contractor and the Village will be furnished with copies of the bacteriological report for their records.</div></div>		<div>1. All storm sewer shall conform to the requirements of The Standard Specifications for Water and Sewer Main Construction in Illinois</div> <div>2. Storm sewers shall be reinforced concrete pipe conforming to ASTM C76 minimum Class III with O-ring joints conforming to ASTM C443.</div> <div>3. Bedding shall be minimum of 6" of CA-7.</div> <div>4. Minimum size shall be twelve inches (12").</div> <div>5. Storm Structures<div>a. Rear yard catch basins are not allowed.</div><div>b. All storm structures shall be precast reinforced concrete only.</div><div>c. All storm structures shall be set on a six-inch (6") CA-7 cushion.</div><div>d. All storm structures shall have no more than two adjusting rings within a minimum of four inches (4") and a maximum of twelve inches (12") of adjusting rings.</div><div>e. All lifting holes, joints between precast reinforced concrete sections, gaps between pipes and structures shall be tuckpointed with hydraulic cement.</div><div>f. Bitumastic material shall be placed between precast reinforced concrete sections.</div><div>g. All steps shall be fiberglass or neoprene coated.</div><div>h. All structure connections shall be concrete sewer pipe, ASTM C14 for extra strength pipe</div></div> <div>6. Storm sewer and all storm structures shall be clean and free of debris prior to their final acceptance. Storm Sewer shall be inspected and tested in accordance with the local jurisdictional requirements including television inspection for review by the Village Engineer.</div> <div>7. Sump pump service connections shall be 4" PVC SDR 26 unless otherwise noted.</div> <div>8. All flared end sections less than 48" (effective diameter) require grates in accordance with IDOT specifications.</div> <div>9. All castings shall be made in the USA with USA materials. Closed covers shall be stamped per Exhibit 2B. Open covers shall have the grates as specified in the plans.</div>	
PAVING CURBS AND SIDEWALK									
<div>1. Fine Grading<div>a. Prior to the construction of the curb and gutter and the placement of the base material, the streets shall be fine graded to within 0.1 feet + of final subgrade elevation, to a point two (2) feet beyond the back of the proposed curb.</div></div> <div>2. Curb and Gutter<div>a. The curb and gutter shall be the type as detailed on the Engineering Plans.</div><div>b. The curbs shall be backfilled after their construction and prior to the placement of the base course.</div></div> <div>3. Pavement<div>a. The pavement materials shall be as detailed on the Engineering Plans. Thickness specified shall be considered to be the minimum compacted thickness.</div></div> <div>4. General. The Paving Contractor shall:<div>a. Repair any base course and binder course failures prior to the installation of the final bituminous concrete surface course.</div><div>b. Sweep clean the binder course prior to the installation of the final bituminous concrete surface course. Excessive cleaning of the binder course that may be required, and is not the fault of the Paving CONTRACTOR, shall be paid for on a time and material basis by prior agreement with the OWNER.</div><div>c. Permit the bituminous concrete binder course to weather one (1) winter season prior to the installation of the bituminous concrete surface course.</div><div>d. Street signs & Traffic signs.</div></div> <div>5. Testing and Final Acceptance<div>a. Prior to the placement of the base course, the subgrade must pass a proof roll test to be approved by the local jurisdictional authority. The Village shall be contacted at least 2 business days in advance of the proof roll. (See "Testing and Final Acceptance for Earthwork")</div><div>b. Prior to placement of the bituminous concrete surface course, the CONTRACTOR if requested by the OWNER, shall obtain specimens of the binder course with a core drill where directed by the ENGINEER, for the purpose of thickness verification. Coring shall be in accordance with the applicable provisions of ART.406.15 of the Standard Specification entitled "Standard Specifications for Road and Bridge Construction". The cost for obtaining cores, which meet or exceed the specification, shall be borne by the OWNER.</div><div>c. Deficiencies in the bituminous concrete binder course shall be adjusted for by increasing the plan thickness of the surface course with no additional cost to the OWNER.</div><div>d. A nuclear density test must be conducted on asphalt pavement in accordance with IDOT standards.</div><div>e. Final acceptance of the total pavement installation shall be subject to the testing and checking requirements cited above.</div></div> <div>6. Method of Measurement<div>a. Curb and Gutter, and base course shall be measured in the field by the CONTRACTOR. The quantities shall be submitted to the OWNER for verification.</div><div>b. When requested by the OWNER, documentation for the installed base course, bituminous concrete binder, and surface, shall be submitted to the ENGINEER for verification. Deficiencies in total bituminous concrete pavement thickness shall be adjusted for in accordance with the requirements of the jurisdictional authority.</div></div> <div>7. Basis of Payment<div>a. Curb and Gutter will be paid for at the contract unit price per LINEAL FOOT.</div><div>b. Prime Coat material will be paid for at the contract unit price per GALLON.</div><div>c. Base Course will be paid for at the contract unit price per SQUARE YARD.</div><div>d. Bituminous Concrete will be paid for at the contract unit price per SQUARE YARD.</div></div>									
FINAL ENGINEERING PLANS FOR									
DESIGNTEK ENGINEERING, INC. CONSULTING, CIVIL ENGINEERING & LAND SURVEYING 9930 W. 190TH STREET, SUITE L MOKENA, ILLINOIS 60448 (708) 326-4961 FAX: (708) 326-4962 IL Prof. Lic. No.: 184-003740									
PMM ARCHITECTURE, LLC 3603 CHESAPEAKE ROAD ST. CHARLES, ILLINOIS 60175									
THE BRIDGE THRIFT STORE 21420 S. HARLEM AVENUE FRANKFORD, ILLINOIS									
PROJECT SPECIFICATIONS									
PROJECT INFORMATION									
Project No.: 23-0010									
Scale: N/A									
Date: 07-07-2023									
Design By: MJF									
Drawn By: DJB									
Checked By: MJF									
3 OF 8									

REVIEW SET
NOT FOR CONSTRUCTION

[illegible]

PWM ARCHITECTURE, LLC
3603 CHESAPEAKE ROAD
ST. CHARLES, ILLINOIS 60175

**FINAL ENGINEERING PLANS
FOR
THE BRIDGE THRIFT STORE
21420 S. HARLEM AVENUE
FRANKFORD, ILLINOIS**

DESIGNTEK ENGINEERING, INC.
CONSULTING, CIVIL ENGINEERING & LAND SURVEYING
9930 W. 190TH STREET, SUITE L
MOKENA, ILLINOIS 60448
(708) 326-4961
FAX: (708) 326-4962
IL Prof. Lic. No.: 184-003740

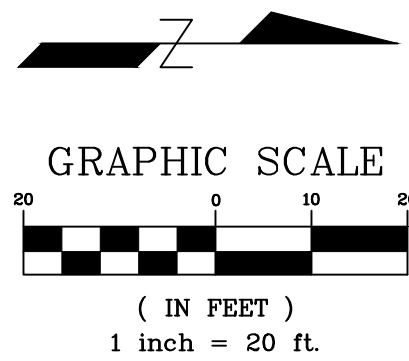
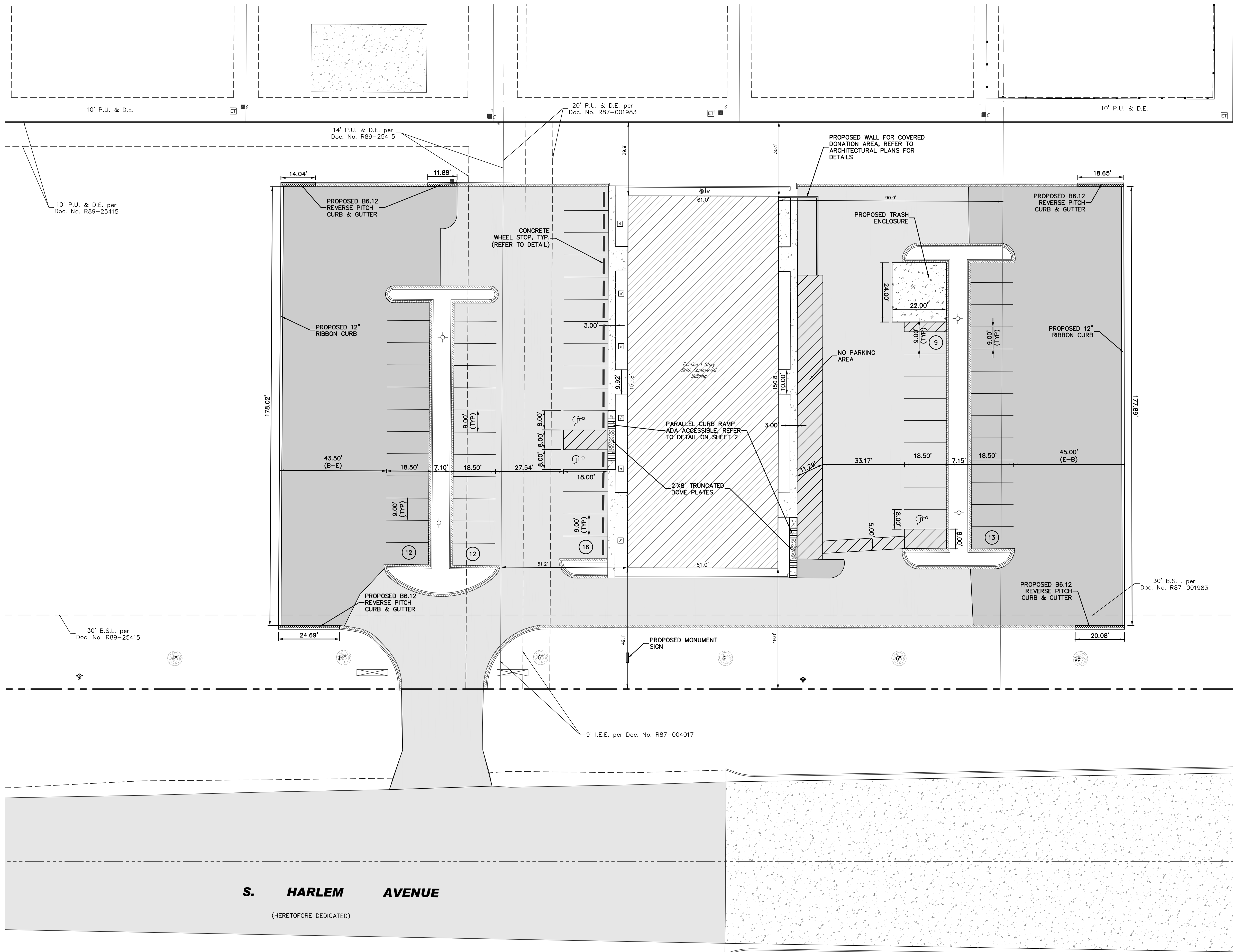


PROJECT INFORMATION
Project No.: 23-0010
Scale: 1" = 40'
Date: 07-07-2023
Design By: MJF
Drawn By: DJB
Checked By: MJF

4
OF
8

EXISTING CONDITIONS & REMOVAL PLAN

L:\Projects\2023\23-0010\Engineering\Drawings\23-0010 FE.dwg Plot Date: 9/20/2023 3:41:14 PM By: mtd



PARKING STALL COUNT	
REGULAR STALLS:	59
ADA HANDICAP STALLS:	3
TOTAL STALL COUNT:	62

PROJECT DATA	
GROSS AREA (TOTAL SITE):	230,795 SF / 5.30 AC.
PARCEL 1:	82,125 SF / 1.89 AC.
PARCEL 2:	46,556 SF / 1.07 AC.
PARCEL 3:	51,057 SF / 1.17 AC.
PARCEL 4:	51,057 SF / 1.17 AC.
(REFER TO PLAT OF SURVEY / EXHIBIT 1 FOR PARCEL BOUNDARIES AND OVERALL PARCEL LAYOUT)	

IMPERVIOUS AREA	
EXISTING BUILDING:	9,199 SF / 0.21 AC.
EXISTING ASPHALT (INCLUDES TRASH ENCLOSURE):	24,798 SF / 0.57 AC.
EXISTING CURB & GUTTER:	2,051 SF / 0.05 AC.
EXISTING & PROPOSED SIDEWALK:	1,310 SF / 0.03 AC.
PROPOSED ASPHALT & CURB:	21,345 SF / 0.49 AC.
TOTAL IMPERVIOUS AREA:	58,703 SF / 1.35 AC.

PAVEMENT LEGEND

(REFER TO DETAILS ON SHEET #2)

- FULL DEPTH ASPHALT PAVEMENT
- EXISTING ASPHALT
MILL EXISTING SURFACE WITH 2" HMA OVERLAY
- CONCRETE PAD (TRASH ENCLOSURE) OR
SIDEWALK, REFER TO DETAILS
- PARKING STALL COUNT
- EXISTING REVERSE PITCH CURB & GUTTER
- PROPOSED REVERSE PITCH CURB & GUTTER

REVISIONS	
NO.	DATE
1	08-18-23
DESCRIPTION	
PER VILLAGE REVIEW	
BY	MJF

PWM ARCHITECTURE, LCC
3603 CHESAPEAKE ROAD
ST. CHARLES, ILLINOIS 60175

FINAL ENGINEERING PLANS
FOR
THE BRIDGE THRIFT STORE
21420 S. HARLEM AVENUE
FRANKFORD, ILLINOIS

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(708) 326-4961
FAX: (708) 326-4962
IL PROF. LIC. NO.: 184-003740



PROJECT INFORMATION	
Project No.:	23-0010
Scale:	1" = 20'
Date:	07-07-2023
Design By:	MJF
Drawn By:	DJB
Checked By:	MJF

5
OF
8

GEOMETRIC & PAVEMENT PLAN

REVIEW SET
NOT FOR CONSTRUCTION

GEOMETRIC & PAVEMENT PLAN

EROSION CONTROL & SEDIMENTATION NOTES

1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL, LATEST EDITION, AND ALL OTHER AUTHORITIES HAVING JURISDICTION.
2. THE APPLICANT AND/OR CONTRACTOR IS RESPONSIBLE FOR INSURING THE OBTAINED PERMIT WITH THE COMPLETED SWPPP IS POSTED ON SITE IN A PROMINENT LOCATION BEFORE COMMENCEMENT OF ANY WORK ON SITE AND SHALL CONTACT THE VILLAGE AT LEAST 2 WORKING DAYS BEFORE THE START OF CONSTRUCTION, INSTALLATION OF SEDIMENT AND EROSION MEASURES AND COMPLETION OF FINAL LANDSCAPING.
3. THE VILLAGE SHALL BE PROVIDED WITH A COPY OF THE IEPA LETTER OF NOTIFICATION OF COVERAGE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
4. THE DEVELOPER IS RESPONSIBLE FOR HAVING THE SWPPP AND A STAMPED AND SIGNED COPY OF THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN ON SITE AT ALL TIMES AND BE PRESENTED WHEN REQUESTED BY ANY AUTHORIZED AGENCY.
5. THE DEVELOPER SHALL INSPECT THE SOIL EROSION AND SEDIMENT CONTROL PRACTICES EVERY SEVEN (7) DAYS AND AFTER 0.5" OR MORE RAINFALL. IMMEDIATE REPAIR SHALL BE MADE OF ANY DAMAGED EROSION CONTROL ELEMENTS THROUGHOUT THE CONSTRUCTION OF THE PROJECT.
6. ALL CONSTRUCTION TRAFFIC SHALL ENTER SITE ONLY AT PROPOSED STABILIZED CONSTRUCTION ENTRANCE(S) AS SHOWN ON PLANS.
7. ALL DIRT, MUD, OR DEBRIS THAT REACHES THE PUBLIC ROADS SHALL BE CLEANED IMMEDIATELY BY THE CONTRACTOR.
8. TECHNIQUES SHALL BE EMPLOYED TO PREVENT THE BLOWING OF DUST OR SEDIMENT FROM THE SITE.
9. SILT FENCE, SILT BASINS, AND STABILIZED CONSTRUCTION ENTRANCE(S) SHALL BE CONSTRUCTED AS DETAILED ON THE FINAL ENGINEERING PLANS PRIOR TO THE START OF CONSTRUCTION AND SHALL REMAIN IN PLAN UNTIL THE DISTURBED AREA IS STABILIZED. IN ADDITION, SILT FENCE SHALL BE PROVIDED FOR AREAS DRAINING 200' AND GREATER IN ACCORDANCE WITH NRCS CODE 920.
10. SCHEDULE OF CONTROL MEASURE IMPLEMENTATION:
A. CONSTRUCT THE APPLICABLE PORTIONS OF THE EROSION AND SEDIMENTATION CONTROLS PRIOR TO SITE CLEARING.
B. CONTROL SITE DEVELOPMENT IN ACCORDANCE WITH THE SPECIFICATIONS.
C. MAINTAIN INLET PROTECTION, CONSTRUCTION TRAFFIC SURFACES, CLEANING OF STORM STRUCTURES AND THE LIKE ON A REGULAR BASIS AFTER EACH HEAVY RAIN OR AS OTHERWISE REQUIRED.
11. THE ESTIMATED CONSTRUCTION SCHEDULE IS AS FOLLOWS:
ROADWAY (CURB & PAVEMENT) FALL 2023
BUILDING CONSTRUCTION FALL 2023
FINAL GRADING FALL 2023
FINAL LANDSCAPING SPRING 2024
THE ENTIRE SITE MUST BE STABILIZED, USING A HEAVY MULCH LAYER OR ANOTHER METHOD AT THE CLOSE OF THE CONSTRUCTION SEASON.
12. DISTURBED AREAS WITHIN ALL PUBLIC R.O.W.'S SHALL BE RESTORED W/ 6" MIN. TOPSOIL & SOD. RESTORATION SHALL OCCUR IMMEDIATELY AFTER COMPLETION OF CONSTRUCTION, WEATHER PERMITTING. ALL OTHER DISTURBED AREAS SHALL BE RESTORED WITH 4" TOPSOIL & SEED.
13. STRAW BALES ARE NOT PERMITTED IN AREAS OF CONCENTRATED FLOW. ROCK CHECK DAMS SHALL BE USED IN THESE AREAS. TECHNIQUES THAT DIVERT UPLAND RUNOFF PAST DISTURBED SLOPES SHALL BE EMPLOYED.
14. THE PROTECTION OF THE OPEN LID DRAINAGE STRUCTURES SHALL BE CONSTRUCTED AS SPECIFIED IN DETAILS. ALL OPEN LID DRAINAGE STRUCTURES LOCATED IN YARD AREAS AND THE SEDIMENTATION BASIN MUST BE PROTECTED PER INLET PROTECTION DETAILS UNTIL SUCH A TIME THAT THE LANDSCAPING IS IN PLACE AND EFFECTIVELY PREVENTING POTENTIAL SILTATION OF THESE STRUCTURES. ALL OPEN LID DRAINAGE STRUCTURES IN PAVED AREAS SHALL HAVE FILTER BASKETS INSTALLED UNDER THE LIDS. IN THE EVENT THE GRAVEL BASE IS NOT IN PLACE UPON INSTALLATION, INLET PROTECTION SHALL BE PROVIDED AS INDICATED PER INLET PROTECTION DETAIL.
15. EROSION CONTROL BLANKET (ECB) SHALL BE INSTALLED TO ALL DISTURBED AREAS WITH SLOPES EQUAL TO OR STEEPER THAN 5H:1V AND IN CRITICAL AREAS (EX: DETENTION BASIN PERIMETERS, STREAMBANKS, BERMS, ETC.) IMMEDIATELY UPON FINAL GRADING. S175 NORTH AMERICAN GREEN (OR SIMILAR) ECB SHALL BE USED. ECB WITH GREEN DYE IS NOT ACCEPTABLE.
16. SOIL STOCKPILES SHALL BE STABILIZED OR COVERED AT THE END OF EACH WORKDAY. STOCKPILES TO REMAIN IN PLACE FOR 14 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING.
17. DURING DEWATER OPERATIONS, WATER WILL BE PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING DIRECTLY INTO FIELD TILES OR STORMWATER STRUCTURES IS PROHIBITED.
18. AN INCIDENT OF NON-COMPLIANCE (ION) MUST BE COMPLETED AND SUBMITTED BY THE OWNER TO THE IEPA AND COPIED TO THE VILLAGE IF, AT ANY TIME, AN EROSION OR SEDIMENT CONTROL DEVICE FAILS.
19. A NOTICE OF TERMINATION (NOT) SHALL BE COMPLETED BY THE OWNER IN COMPLIANCE WITH THE NPDES PHASE II REQUIREMENTS WHEN ALL PERMANENT EROSION CONTROL MEASURES ARE IN PLACE WITH A 70% ESTABLISHED RATE OF VEGETATION. THE NOTICE OF TERMINATION SHALL BE SENT TO THE IEPA AND THE VILLAGE.
20. THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO CONTROL WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE AT THE CONSTRUCTION SITE THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY.

STABILIZATION TYPE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PERMANENT SEEDING			A			*	*					
DORMANT SEEDING	B										B	
TEMPORARY SEEDING			C			* D*						
SODDING			E**									
MULCHING	F											

A. KENTUCKY BLUEGRASS
90 LBS/AC MIXED WITH
PERENNIAL RYEGRASS 30
LBS/AC

C. SPRING OATS 100 LBS/AC
D. WHEAT OR CEREAL RYE 150
LBS/AC

B. KENTUCKY BLUEGRASS
135 LBS/AC MIXED WITH
PERENNIAL RYEGRASS 45
LBS/AC + 2 TONS
STRAW MULCH/AC

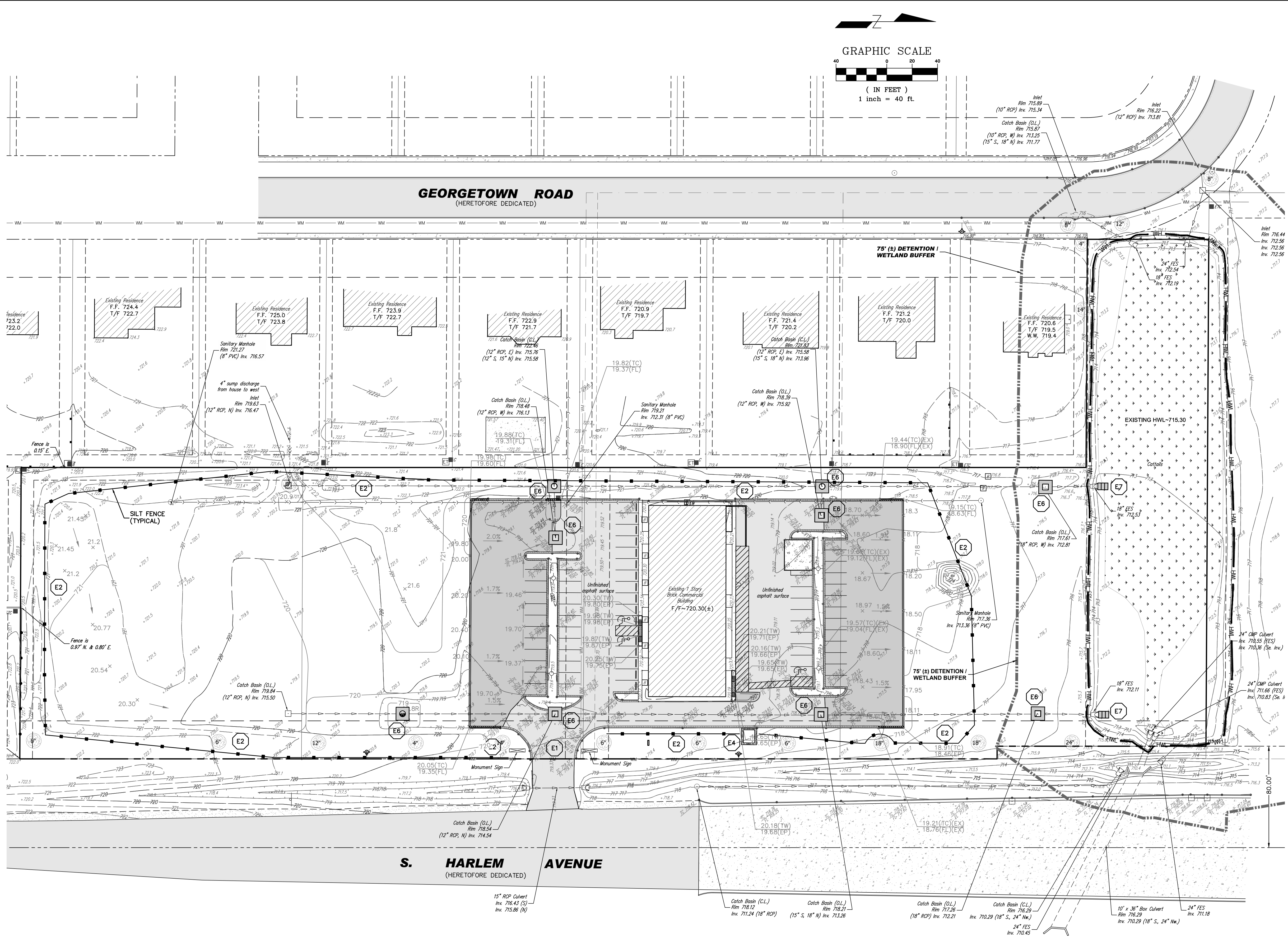
E. SOD

F. STRAW MULCH 2 TONS/AC

* IRRIGATION NEEDED DURING JUNE AND JULY

** IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD

SOIL EROSION & SEDIMENTATION CONTROL PLAN



- NOTES:
- 1) STABILIZATION WILL BE REQUIRED WITHIN 14 DAYS OF DISTURBANCE.
 - 2) NO PERMANENT LONG TERM STOCKPILES ARE PERMITTED ON SITE.
 - 3) THE EXISTING STORM SEWER WILL NEED TO BE CLEARED OF SEDIMENT & DEBRIS PRIOR TO CONSTRUCTION. ONCE CLEARED, ALL INLETS ARE TO BE PROVIDED INLET PROTECTION PER EROSION CONTROL PLANS.
 - 4) THE EXISTING SANITARY SEWER WILL NEED TO BE CLEARED OF SEDIMENT AND DEBRIS. ALL CLEANOUTS ARE TO BE CAPPED.

- EROSION CONTROL LEGEND
- E1 CONSTRUCTION ENTRANCE PER NRCS SPECIFICATIONS
 - E2 SILT FENCE PER NRCS SPECIFICATIONS
 - E4 CONCRETE WASHOUT AREA
 - E6 INLET PROTECTION PER OR EQUIVALENT TO NRCS SPECIFICATIONS
 - E7 CULVERT / FES PROTECTION PER OR EQUIVALENT TO NRCS SPECIFICATIONS AND STANDARD DRAWING NO. IL-5085F

REVISIONS

NO.	DATE	DESCRIPTION
1	09-18-23	PER VILLAGE REVIEW

PWM ARCHITECTURE, LLC

3603 CHESAPEAKE ROAD

ST. CHARLES, ILLINOIS 60175

FINAL ENGINEERING PLANS

FOR

THE BRIDGE THRIFT STORE

21410-21500 S. HARLEM AVENUE

FRANKFORD, ILLINOIS

DESIGNTEK ENGINEERING, INC.

CONSULTING CIVIL ENGINEERING & LAND SURVEYING

9930 W. 190TH STREET, SUITE L

MOKENA, ILLINOIS 60448

(708) 326-4961

FAX: (708) 326-4962

IL PROF. Lic. No.: 184-003740

PROJECT INFORMATION

Project No.: 23-0010

Scale: 1" = 40'

Date: 07-07-2023

Design By: MJF

Drawn By: DJB

Checked By: MJF

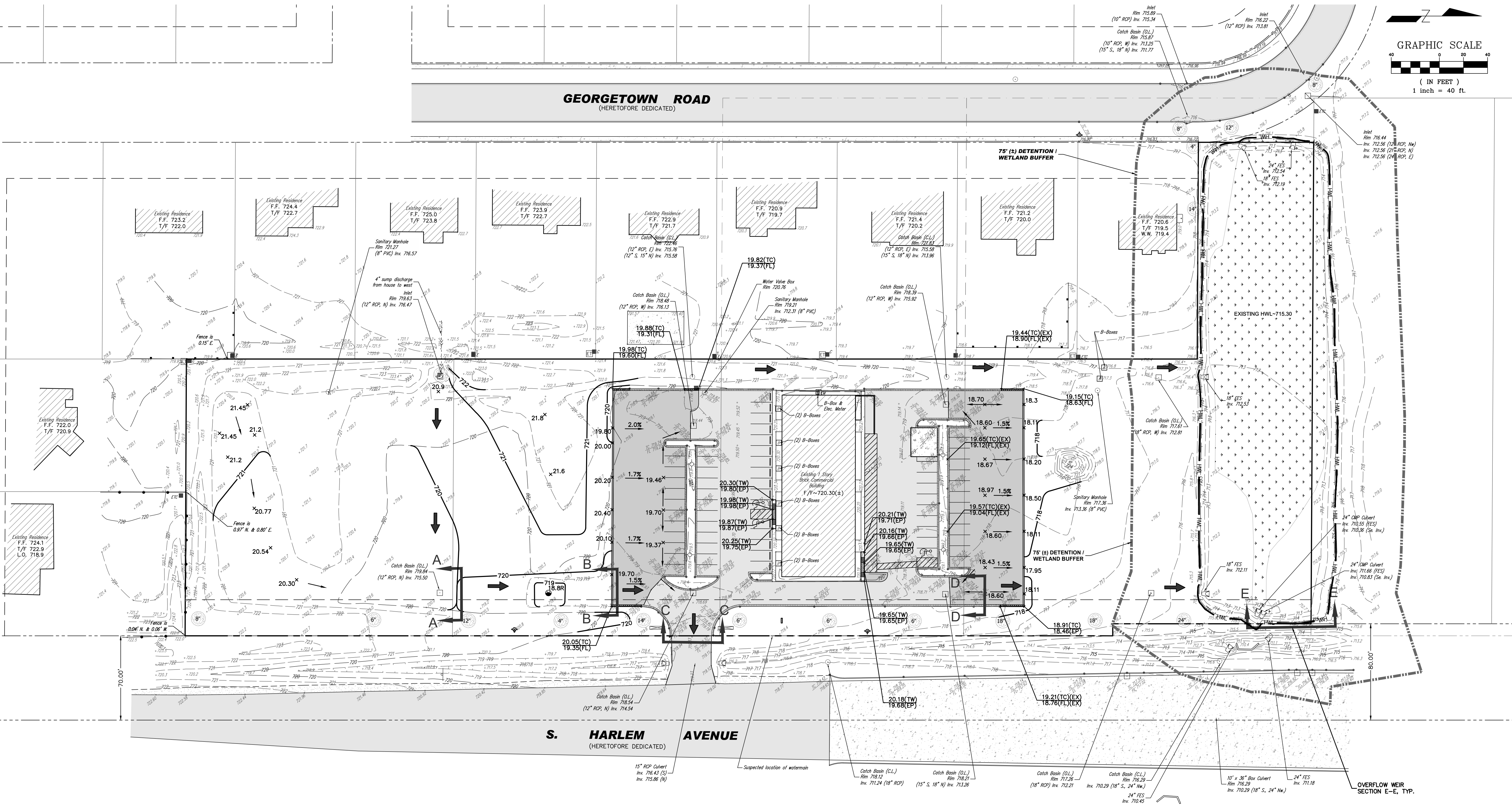
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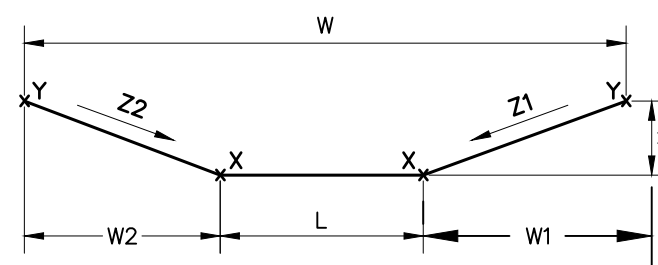
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GRADING PLAN



SECTION	L (FT.)	H (FT.)	W (FT.)	W1 (FT.)	W2 (FT.)	X	Y	Z1	Z2
A-A	25	0.2	25.8	0.4	0.4	720.00	720.20	25.0%	25.0%
B-B	10	0.41	26.6	15	1.6	719.35	719.76	2.7%	25.0%
C-C	EXISTING ACCESS DRIVE								
D-D	5	0.5	68	31.5	31.5	718.43	718.93	0.8%	0.8%



OVERFLOW CROSS-SECTION DETAIL

GRADING LEGEND

- XXXXXX x EXISTING SPOT ELEVATION
- XXX TOP OF CURB ELEVATION
- XXX EDGE OF PAVEMENT ELEVATION
- x123.45 PROPOSED SPOT ELEVATION
- FLOW ARROW
- OVERLAND FLOOD ROUTE
- M.E. MATCH EXISTING
- TC TOP OF CURB
- TDC TOP OF DEPRESSED CURB
- HP HIGH POINT
- BL BRICK LEDGE

REVIEW SET
NOT FOR CONSTRUCTION

REVISIONS			NO.	DATE	DESCRIPTION	BY
PER VILLAGE REVIEW			1	08-18-23		MJB

PWM ARCHITECTURE, LLC
3603 CHESAPEAKE ROAD
ST. CHARLES, ILLINOIS 60175

FINAL ENGINEERING PLANS
FOR
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21410-21500 S. HARLEM AVENUE
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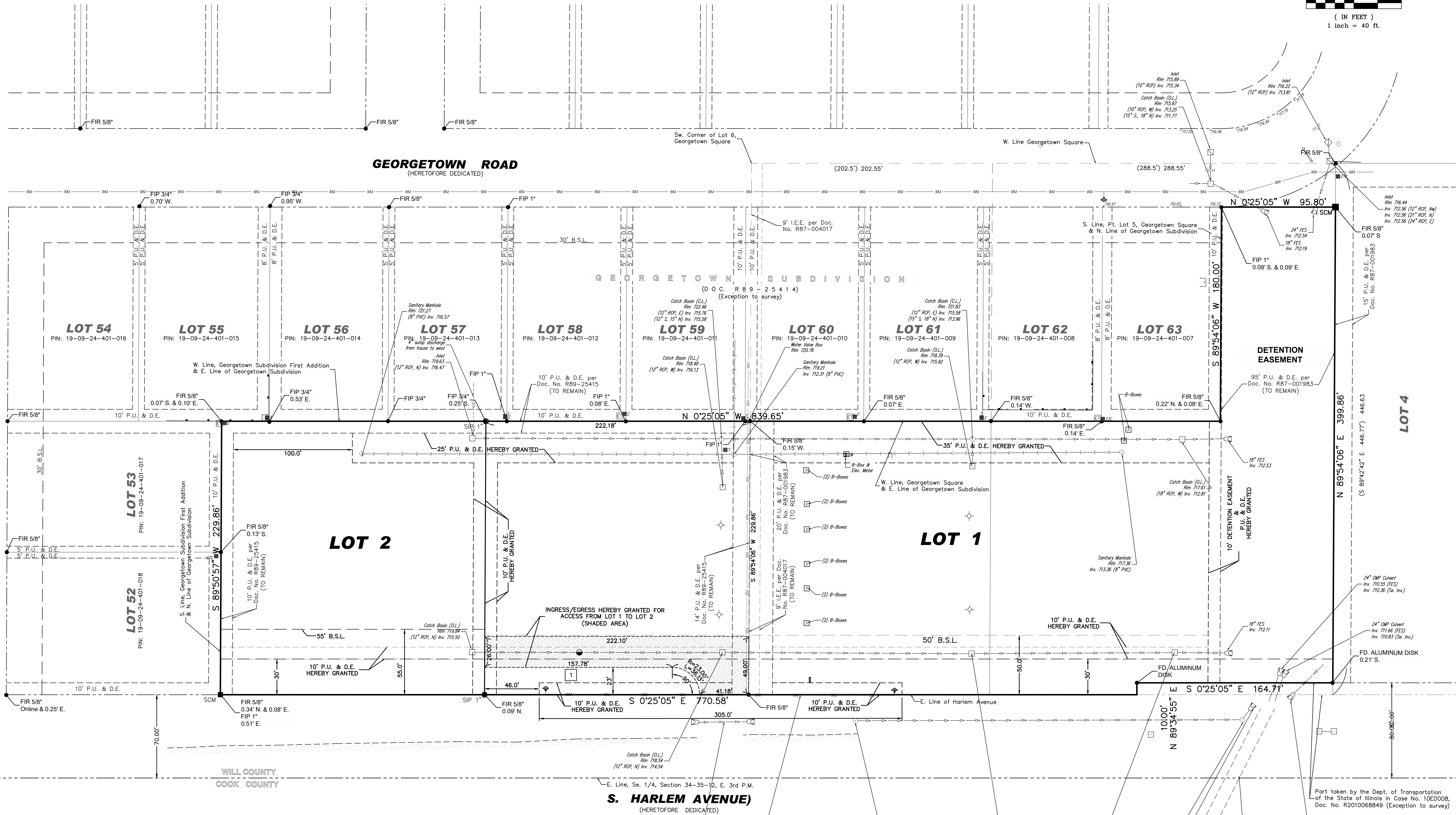
PROJECT INFORMATION
Project No.: 23-0010
Scale: 1" = 40'
Date: 07-07-2023
Design By: MJB
Drawn By: DJB
Checked By: MJB

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GRADING PLAN

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GEORGETOWN COMMONS
(HERETOFORE DEDICATED)



STORM SEWER STRUCTURES

- 1 48" DIA. M.H., O.L.
RIM 718.60
INV 715.10
GRATE: EJV 1050, TYPE M1 GRATE

UTILITY PLAN WITH EASEMENTS

REVIEW SET
NOT FOR CONSTRUCTION

NO.	DATE	DESCRIPTION	BY
1	08-18-23	PER VILLAGE REVIEW	MJF

PWM ARCHITECTURE, LLC
3603 CHESAPEAKE ROAD
ST. CHARLES, ILLINOIS 60175

FINAL ENGINEERING PLANS
FOR
THE BRIDGE THRIFT STORE
21410-21500 S. HARLEM AVENUE
FRANKFORD, ILLINOIS

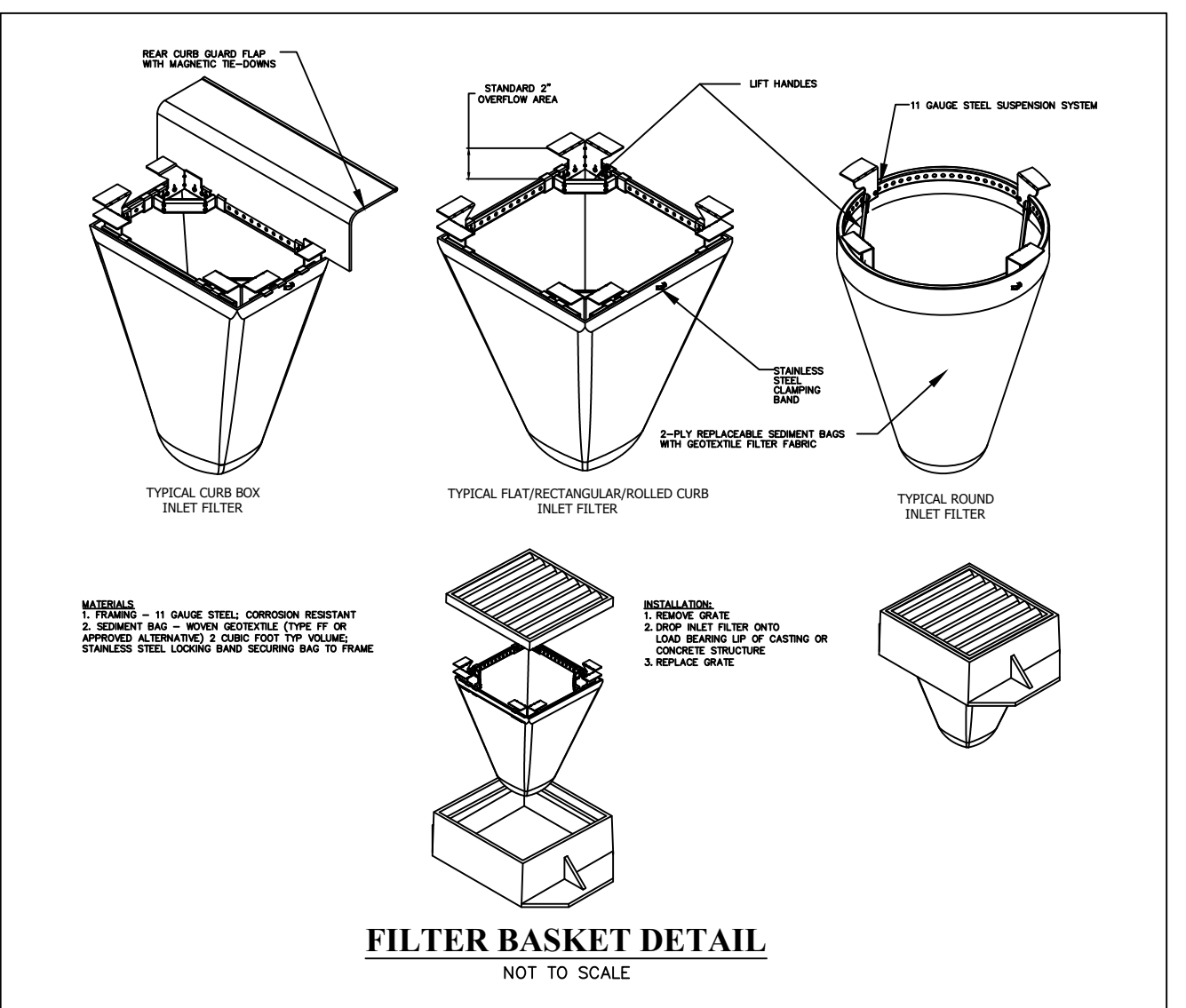
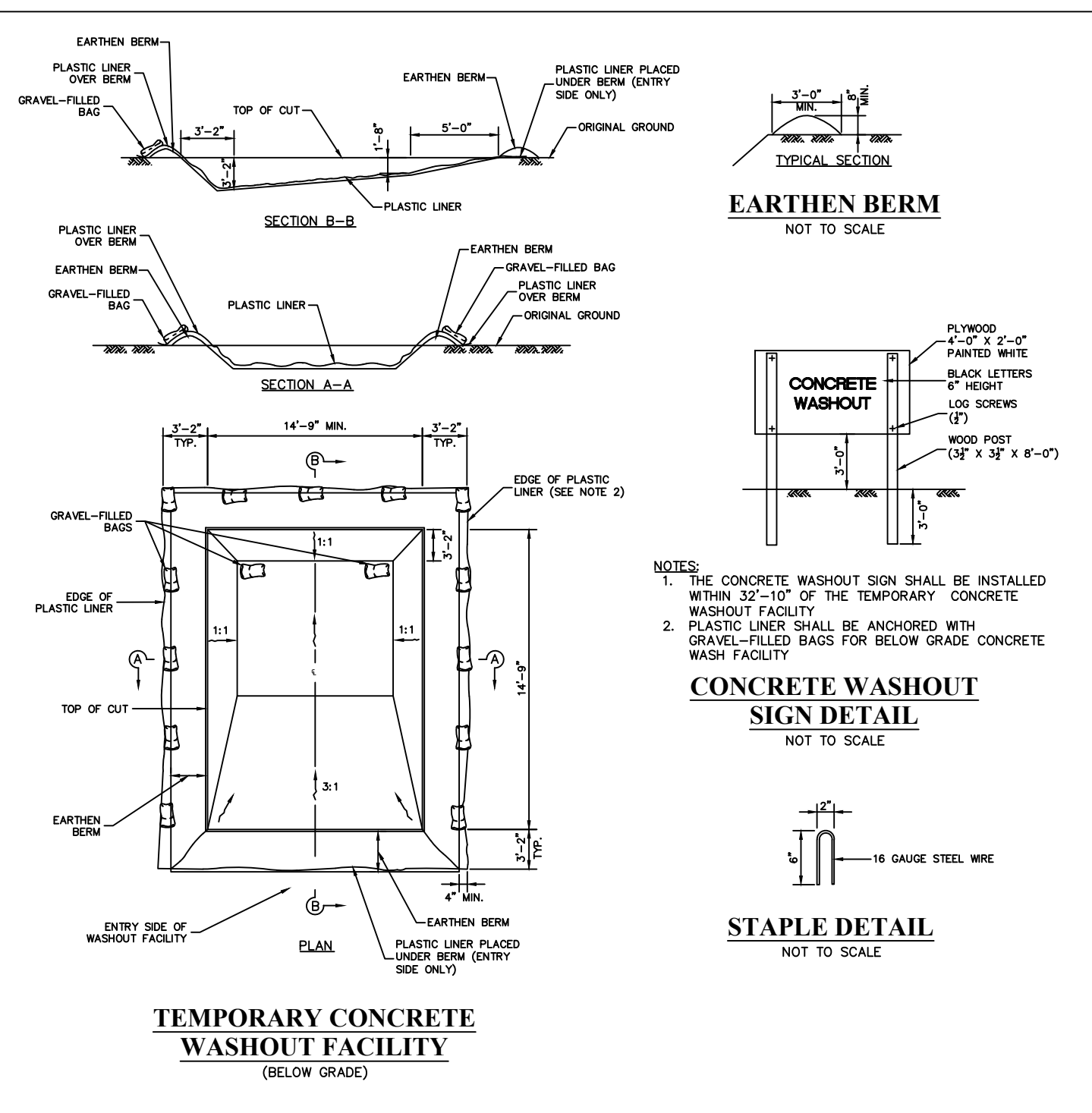
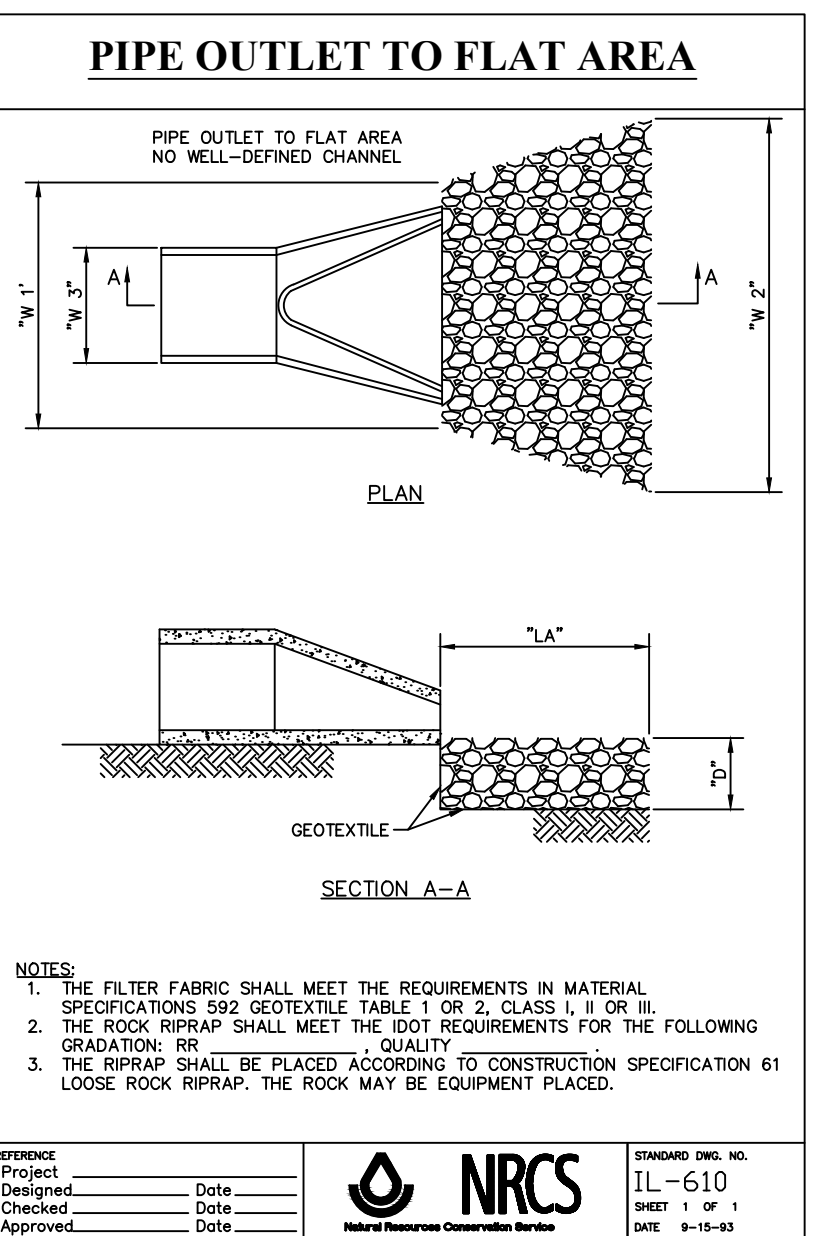
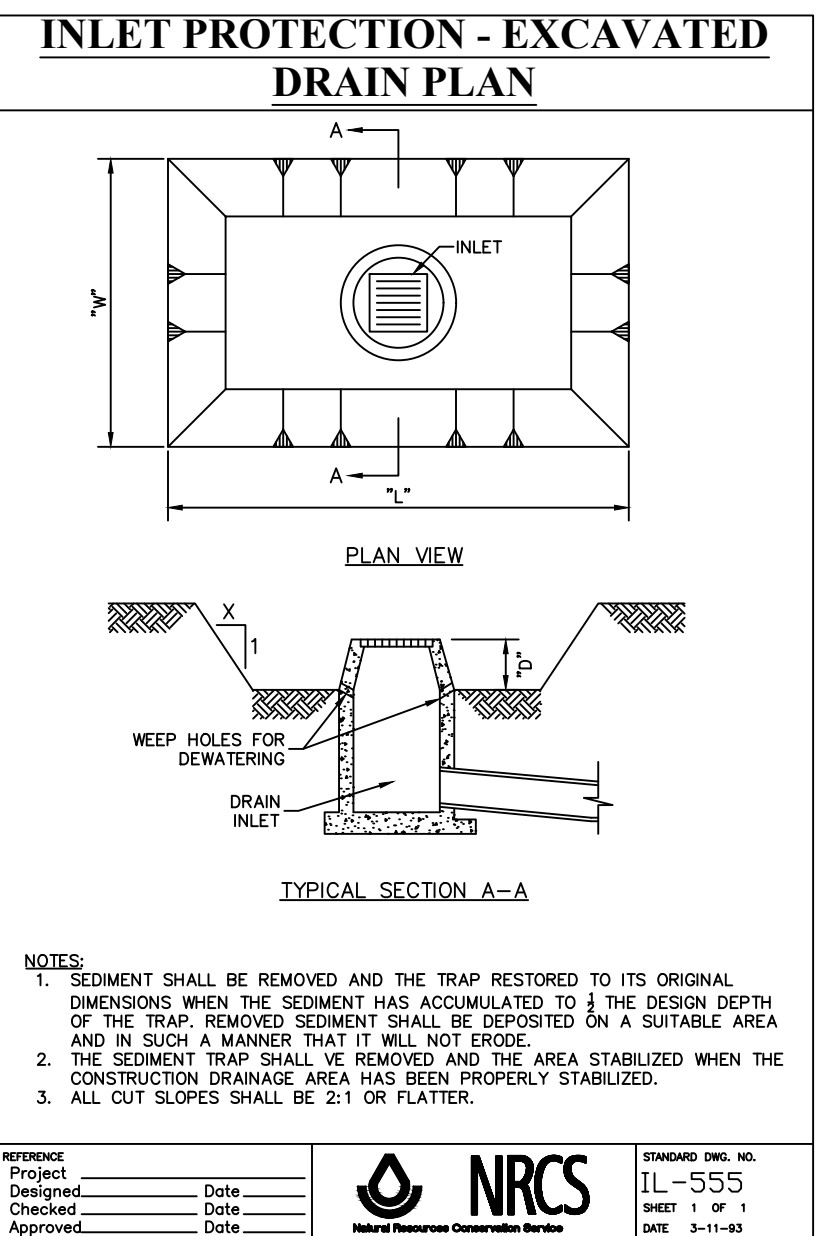
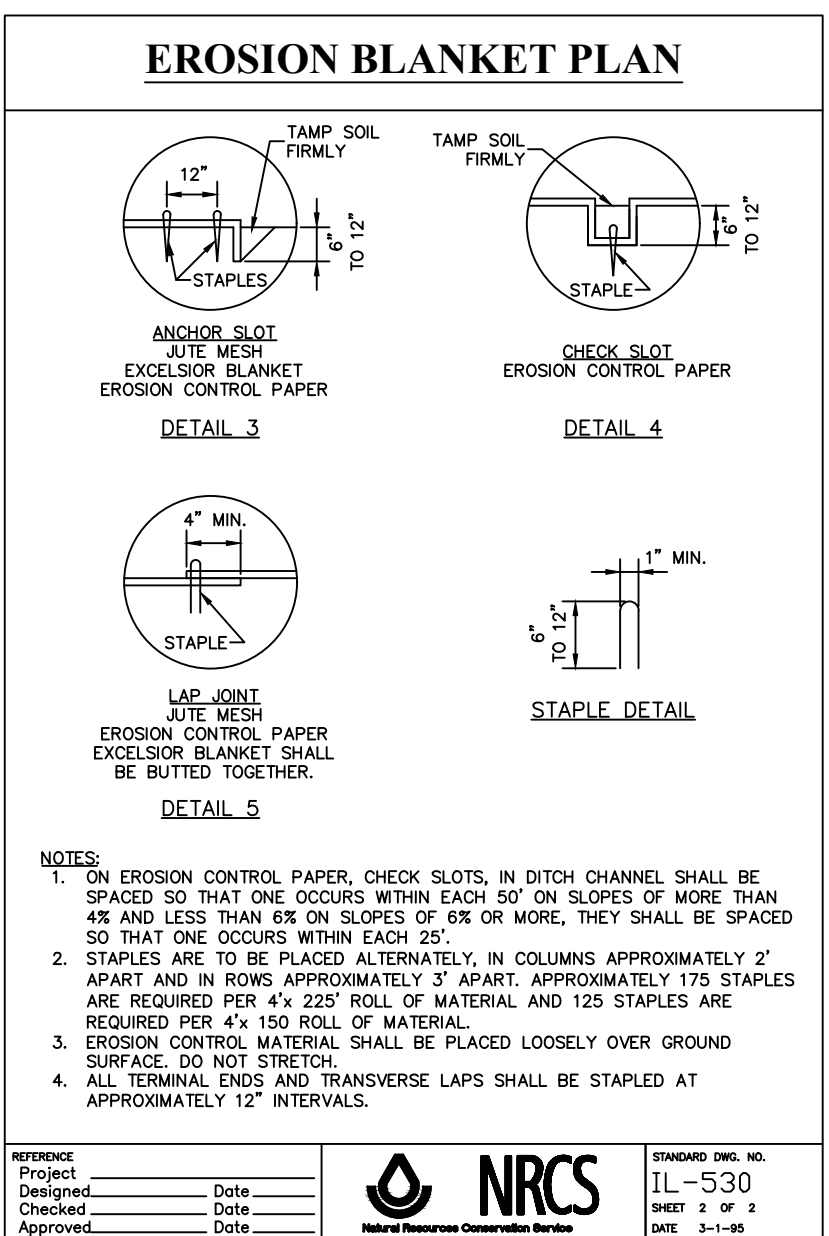
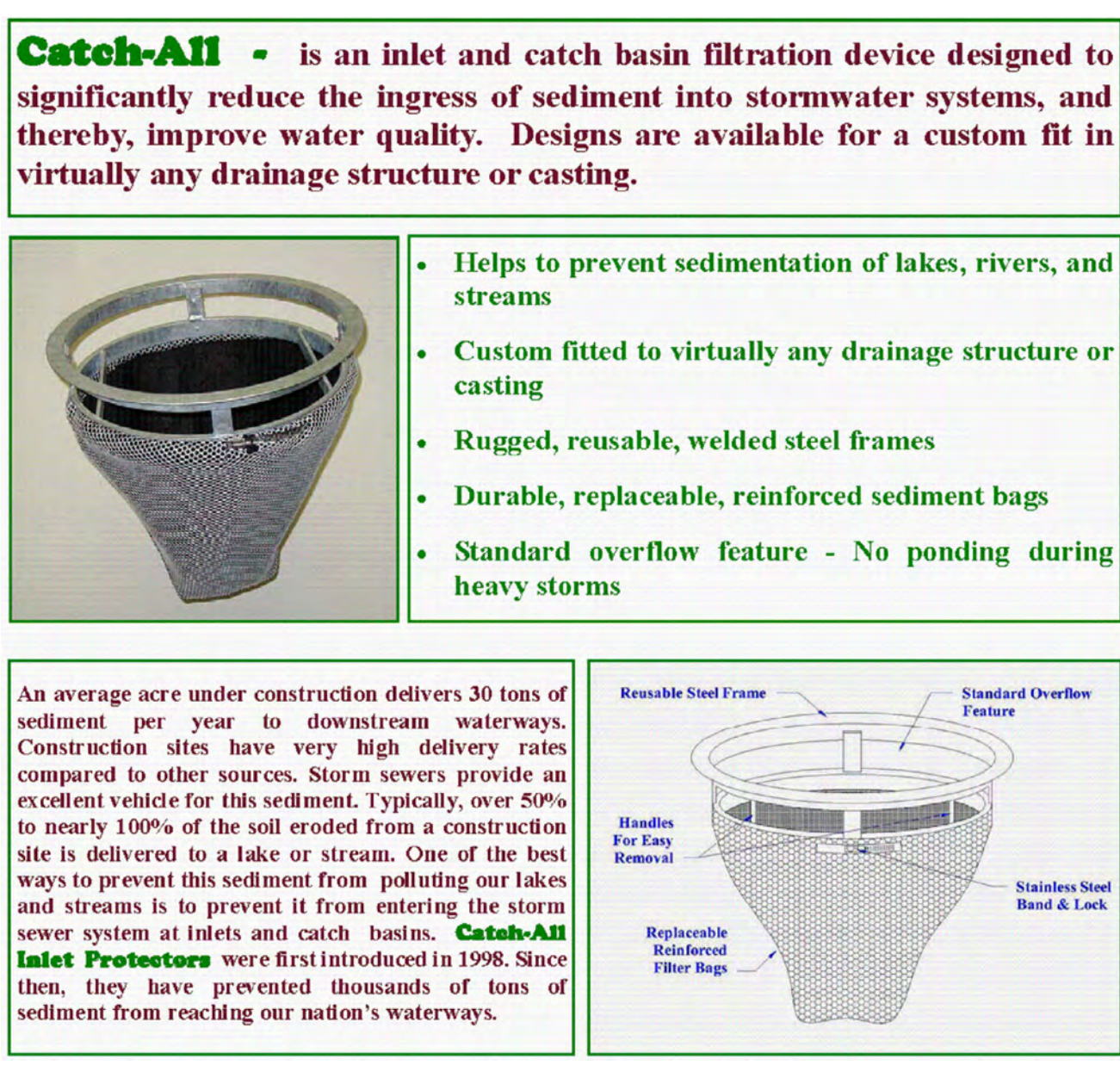
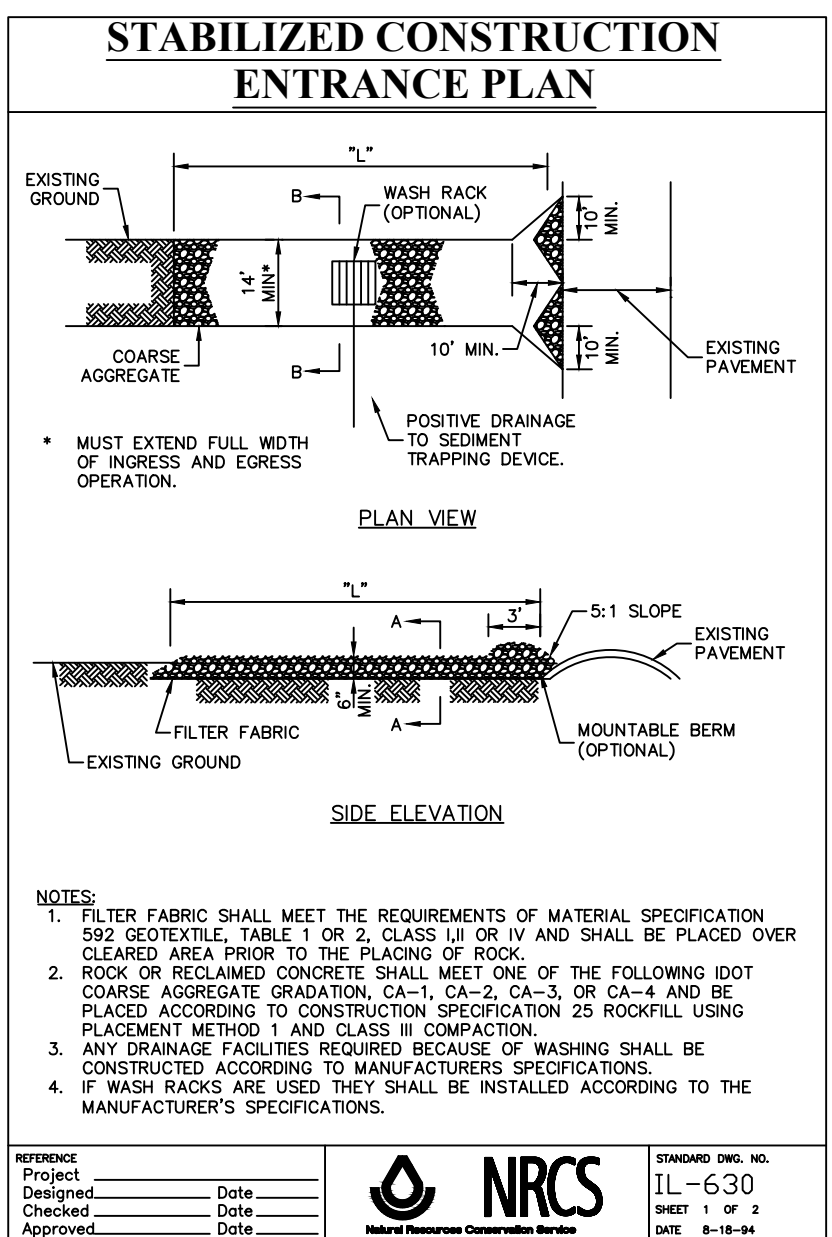
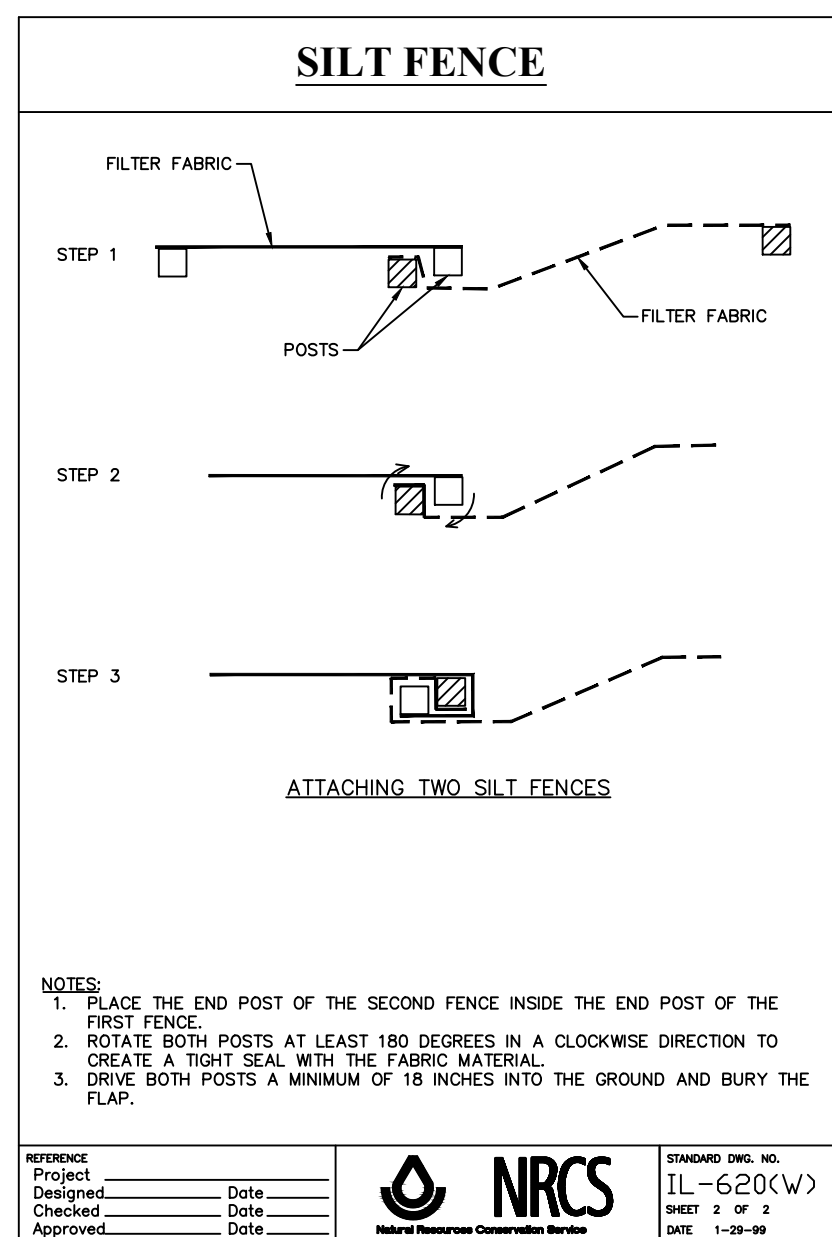
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MOKENA, ILLINOIS 60448
(708) 326-4961
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IL PROF. LIC. NO.: 184-003740



PROJECT INFORMATION
Project No.: 23-0010
Scale: 1" = 40'
Date: 07-07-2023
Design By: MJF
Drawn By: DJB
Checked By: MJF

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OF
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UTILITY PLAN WITH EASEMENTS



FOR
THE BRIDGE THRIFT STORE
21410-21500 S. HARLEM AVENUE
FRANKFORD, ILLINOIS

DESIGN TEK ENGINEERING, INC.
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(708) 326 - 4961

FAX: (708) 326-4962

IL PROF. LIC. No.: 184 - 003740

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PROJECT INFORMATION

Subject No.: 23-0010

Example: SCAI F

07-07-2023

Design By M.I.F.

own By: DIB

Checked By: MJE

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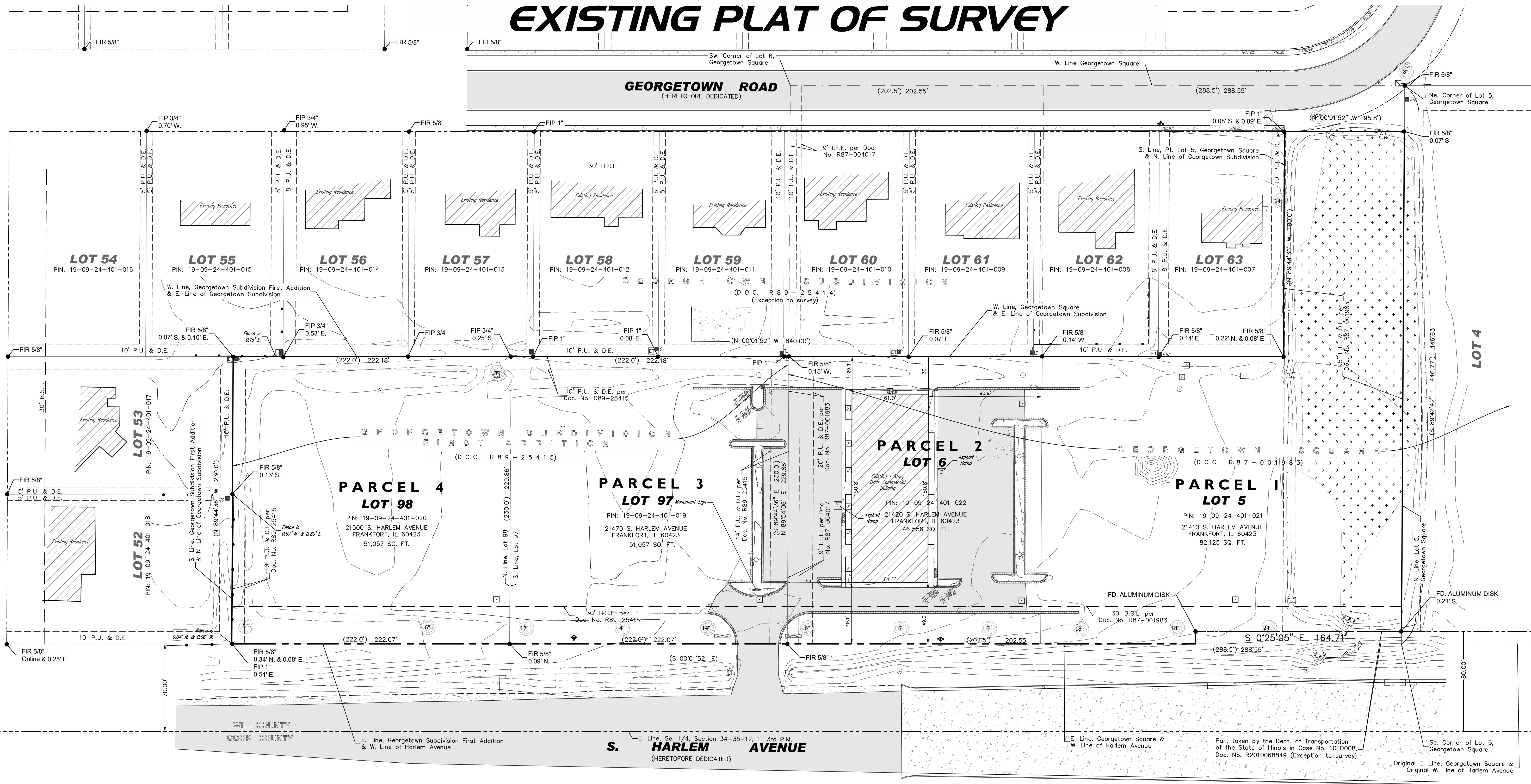
OF

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REVIEW SET
NOT FOR CONSTRUCTION

EXISTING PLAT OF SURVEY

GEORGETOWN COMMONS
(HEREINAFTER DEDICATED)



GENERAL NOTES

COMPARE THIS PLAT, LEGAL DESCRIPTION AND ALL SURVEY POINTS AND MONUMENTS BEFORE ANY CONSTRUCTION, AND IMMEDIATELY REPORT ANY DISCREPANCIES TO SURVEYOR.

DO NOT SCALE DIMENSIONS FROM THIS PLAT.

THE LOCATION OF THE PROPERTY LINES SHOWN ON THE FACE OF THIS PLAT ARE BASED UPON THE DESCRIPTION AND INFORMATION FURNISHED BY THE CLIENT. THE PARCEL WHICH IS DEFINED MAY NOT REFLECT ACTUAL OWNERSHIP, BUT REFLECTS WHAT WAS SURVEYED. FOR OWNERSHIP, CONSULT YOUR TITLE COMPANY.

A CURRENT TITLE COMMITMENT WAS NOT PROVIDED FOR SURVEYORS USE AT THE TIME OF PREPARATION OF THIS SURVEY.

MANHOLES, INLETS AND OTHER UTILITY RIMS OR GRATES SHOWN HEREON ARE FROM FIELD LOCATION OF SUCH, AND ONLY REPRESENT SUCH UTILITY IMPROVEMENTS WHICH ARE VISIBLE FROM ABOVE GROUND AT TIME OF SURVEY, THROUGH A NORMAL SEARCH AND WALK THROUGH OF THE SITE. THE LABELING OF THESE MANHOLES (SANITARY, WATER, ETC.) IS BASED SOLELY ON THE "STAMPED" MARKINGS OF THE RIM. NO UNDERGROUND OBSERVATIONS HAVE BEEN MADE TO VERIFY THE ACTUAL USE OR EXISTENCE OF UNDERGROUND UTILITIES.

NO UNDERGROUND UTILITIES, OR DRAIN TILES, IF ANY EXIST, SHOWN HEREON.

THIS SURVEY MAY NOT REFLECT ALL UTILITIES OR IMPROVEMENTS IF SUCH ITEMS ARE HIDDEN BY LANDSCAPING OR ARE COVERED BY SUCH ITEMS AS DUMPSTERS, TRAILERS, CARS, DIRT, PAVING OR SNOW. AT THE TIME OF THIS SURVEY, SNOW DID NOT COVER THE SITE. LAWN SPRINKLER SYSTEMS, IF ANY, ARE NOT SHOWN ON THIS SURVEY.

OTHER THAN VISIBLE OBSERVATIONS NOTED HEREON, THIS SURVEY MAKES NO STATEMENT REGARDING THE ACTUAL PRESENCE OR ABSENCE OF ANY SERVICE.

CALL J.U.L.L.E. AT 1-800-892-0123 FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO ANY DIGGING OR CONSTRUCTION.

PUBLIC AND/OR PRIVATE RECORDS HAVE NOT BEEN SEARCHED TO PROVIDE ADDITIONAL INFORMATION. OVERHEAD WIRES AND POLES (IF ANY EXIST) ARE SHOWN HEREON, HOWEVER THEIR FUNCTION AND DIMENSIONS HAVE NOT BEEN SHOWN.

UNLESS OTHERWISE NOTED, ALL EASEMENT AND SETBACK LINES SHOWN HEREON ARE PER THE RECORDED PLATS OF GEORGETOWN SUBDIVISION, GEORGETOWN SUBDIVISION FIRST ADDITIONS AND GEORGETOWN SQUARE.

OBLITERATED PROPERTY CORNER MONUMENTS, IF ANY, WERE NOT RESET AS PART OF THIS SURVEY.

BASIS OF BEARING

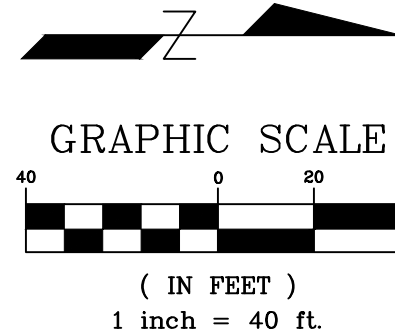
THE BASIS OF BEARINGS IS THE ILLINOIS STATE PLANE SYSTEM - EAST ZONE

SITE DATA

SEE DRAWING

PARCEL IDENTIFICATION NUMBER

SEE DRAWING



SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS }
COUNTY OF WILL }

THIS IS TO CERTIFY THAT I, STEVEN J. LAUB, AN ILLINOIS LICENSED PROFESSIONAL LAND SURVEYOR, HAVE SURVEYED THE PROPERTY DESCRIBED IN THE CAPTION TO THE PLAT HEREON DRAWN, AND THE SAID PLAT IS A TRUE AND CORRECT REPRESENTATION THEREOF.

ALL DIMENSIONS SHOWN ARE IN FEET AND DECIMAL PARTS THEREOF AND ARE CORRECTED TO A TEMPERATURE OF 68 DEGREES FAHRENHEIT.

DATE : APRIL 19, 2023
STEVEN J. LAUB
ILLINOIS LICENSED PROFESSIONAL LAND SURVEYOR NO. 35-3160
MY CURRENT LICENSE RENEWS NOV. 30, 2024



LEGAL DESCRIPTION

PARCEL 1:

LOT 5 IN GEORGETOWN SQUARE (EXCEPT THAT PART TAKEN FOR GEORGETOWN SUBDIVISION RECORDED AS DOCUMENT NUMBER R89-25414) AND (EXCEPT THAT PART TAKEN BY THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF ILLINOIS IN CASE NUMBER 10ED008, RECORDED AS DOCUMENT NUMBER R2010068849), BEING A SUBDIVISION OF PART OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 35 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED JANUARY 13, 1987 AS DOCUMENT NO. R87-01983 AND CERTIFICATE OF CORRECTION RECORDED JANUARY 23, 1987 AS DOCUMENT R87-04017, IN WILL COUNTY, ILLINOIS.

PARCEL 2:

LOT 6 IN GEORGETOWN SQUARE (EXCEPT THAT PART TAKEN FOR GEORGETOWN SUBDIVISION RECORDED AS DOCUMENT NUMBER R89-25414), BEING A SUBDIVISION OF PART OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 35 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED JANUARY 13, 1987 AS DOCUMENT NO. R87-01983 AND CERTIFICATE OF CORRECTION RECORDED JANUARY 23, 1987 AS DOCUMENT R87-04017, IN WILL COUNTY, ILLINOIS.

PARCEL 3:

LOT 97 IN GEORGETOWN SUBDIVISION FIRST ADDITION, BEING A SUBDIVISION OF PART OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 35 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MAY 30, 1989 AS DOCUMENT NO. R89-25415, IN WILL COUNTY, ILLINOIS.

PARCEL 4:

LOT 98 IN GEORGETOWN SUBDIVISION FIRST ADDITION, BEING A SUBDIVISION OF PART OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 35 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MAY 30, 1989 AS DOCUMENT NO. R89-25415.

REVISIONS		
NO.	DATE	DESCRIPTION
1	08-18-23	PER VILLAGE REVIEW

PWM ARCHITECTURE, LLC
3603 CHESAPEAKE ROAD
ST. CHARLES, ILLINOIS 60175

FINAL ENGINEERING PLANS
FOR
THE BRIDGE THRIFT STORE
21410-21500 S. HARLEM AVENUE
FRANKFORD, ILLINOIS

DESIGNTEK ENGINEERING, INC.
CONSULTING, CIVIL ENGINEERING & LAND SURVEYING
9930 W. 190TH STREET, SUITE L
MOKENA, ILLINOIS 60448
(708) 326-4961
FAX: (708) 326-4962
ILL. PROF. LIC. NO.: 184-003740



PROJECT INFORMATION

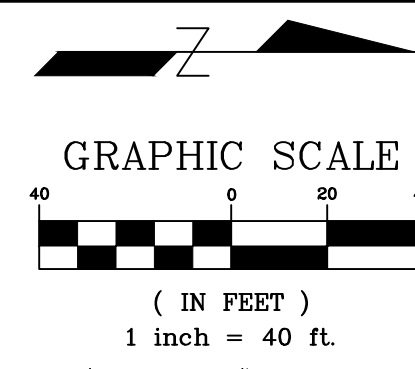
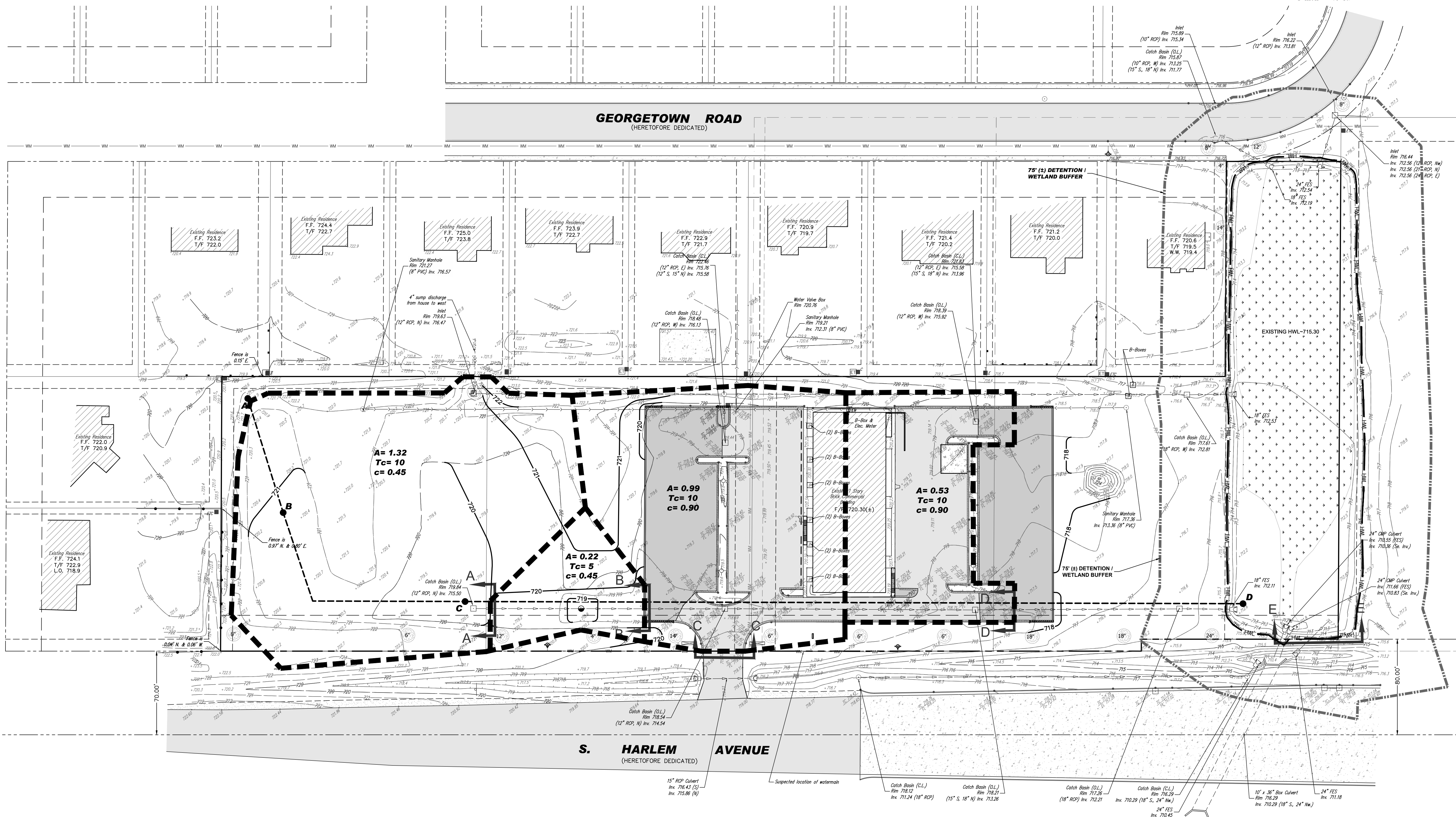
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Scale: 1" = 40'
Date: 04-19-2023
Design By: MJF
Drawn By: SJL
Checked By: MJF

EX1
OF
EX1

EXISTING PLAT OF SURVEY

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GEORGETOWN COMMONS
(HERETOFORE DEDICATED)



GEORGETOWN ROAD
(HERETOFORE DEDICATED)

S. HARLEM AVENUE
(HERETOFORE DEDICATED)

- NOTES:**
1. A = AREA (ACRES)
 2. Tc = TIME OF CONCENTRATION (MINUTES)
 3. c = RUNOFF COEFFICIENT (C-VALUE)

LEGEND

----- TIME OF CONCENTRATION PATH

REVISIONS		
NO.	DATE	DESCRIPTION
1	08-18-23	PER VILLAGE REVIEW

PWM ARCHITECTURE, LLC
3603 CHESAPEAKE ROAD
ST. CHARLES, ILLINOIS 60175

FINAL ENGINEERING PLANS
FOR
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FRANKFORD, ILLINOIS

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PROJECT INFORMATION	
Project No.:	23-0010
Scale:	1" = 40'
Date:	07-07-2023
Design By:	MJF
Drawn By:	DJB
Checked By:	MJF

EX2
OF
EX2

STORMWATER / DRAINAGE EXHIBIT

REVIEW SET
NOT FOR CONSTRUCTION

STORMWATER / DRAINAGE EXHIBIT

Approved Meeting Minutes Excerpt - 7/14/22 PC/ZBA Meeting

There were none.

Motion (#2): Motion to close the public hearing.

Motion by: Hogan

Seconded by: Jakubowski

Approved: (4-0)

Chair Rigoni asked if the Commission had any other comments or questions.

There were none.

Motion (#3): Recommend that the Village Board approve the request for a variation from Article 6, Section B, Part 2(g)(2) of the Village of Frankfort Zoning Ordinance to permit the use of non-masonry siding on the first floor of an existing home in conjunction with proposed first floor addition and exterior remodeling in the R-2 Single-Family Residential District located at 324 Center Road, in accordance with the submitted plans, public testimony, and Findings of Fact.

Motion by: Jakubowski

Seconded by: Hogan

Approved: (4-0)

Motion (#4): Recommend that the Village Board approve the request for a variation from Article 6, Section B, Part 2(l) of the Village of Frankfort Zoning Ordinance to reduce the requirement that a basement be equal to 80% of the ground floor area of the first story to 60.55% in the R-2 Single-Family Residential District located at 324 Center Road, in accordance with the submitted plans, public testimony, and Findings of Fact.

Motion by: James

Seconded by: Hogan

Approved: (4-0)

Chair Rigoni asked the applicant to contact staff with questions about the next steps for the project.

C. **Workshop: 21420 S. Harlem Avenue – Thrift Home and Restoration (The Bridge Teen Center)**

Schwarz summarized the staff report.

Chair Rigoni asked the applicant to step forward, and asked if she had anything to add.

Priscilla Steinmetz, the applicant, and Patrick McCarty, the architect, approached the podium.

The architect thanked staff for their help compiling information on the subject property. He explained that he had an engineer out to assess the integrity of the building, who reported that the “shell” was intact. Work would need to be done on the roof, which need

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replacing. Additionally, the applicant wants to remove the existing dormers on the building to achieve a more modern-looking building. The applicant also desires to change the windows to be more modern, in particular the windows toward the back of the building, which would have shelving and storage covering them on the interior. The proposal would update the shell of the building and then create interior office, storage, and retail space. The interior would have an open concept on the sales floor. The east side would have the point-of-sale machine, while the west side would be left for offices and storage space, with the sales floor in between. For the exterior layout, the south side of the building would be considered the front. This would leave the north side for drop-off donations, logistics, and employee parking. He stated that the applicant and he were looking to comply with all relevant zoning regulations and to avoid the need for any variations. The applicant wanted to join the center two of the four lots in question into one lot, which would address parking needs for the building. It would also leave the northernmost and southernmost lots for other uses and future development. Finally, the architect stated that he was waiting for information on the status of existing utilities, namely water and sewer, to be sure that they had no issues. He was happy to answer any questions in relation to engineering or architecture, and that the applicant could speak more to the operations and use of the property.

The applicant stated she was grateful for the guidance of staff and the Plan Commission while they strive to make a difference in the community. She explained that the Bridge Teen Center operates out of Orland Park and that the organization has helped over 11,000 Lincoln-Way students over the years. The current location operates a thrift store, and the applicant is now looking to open a second location. The teen center has a job readiness program and the second location would help expand that as well. The center has served many families in Frankfort, so moving to the Village seemed like a logical next step. The job readiness program has helped students from 7th to 12th grade develop job, leadership, and professional skills. Since starting the program, current membership tripled the initial size. Emphasis with the program was placed on helping students who did not feel they had a place they belonged, and giving them a space to be themselves, while growing and learning. The teen center also offers jobs to certain teens, currently 15 teens are employed. The applicant stated that the teen center also has ongoing community service work, which is especially helpful for local high school students who struggle to find places to earn service hours which also promoted individual growth opportunities. The teen center serves 128 communities across the Chicagoland area, and the National Honor Society often connects students with the center for volunteer opportunities. Families also volunteer, not just individual teens. Needless to say, The Bridge Teen Center is flourishing at its current location, and it even serves as a model for teen programming nationwide.

The applicant continued by explaining how they wanted the proposed thrift store to not just feel like a thrift store, but instead to be an aspirational place where students could learn in an environment which felt modern. She stated they were looking to emulate Chip and Joanna Gaines, and Crate and Barrel in the design of the thrift shop. The applicant expressed her intention to promote a clean space that did not feel like a thrift store inside or out. Cameras would be installed to monitor donations. The existing thrift store uses a trailer to store and organize incoming donations and workers regularly organize the donations received and keep the space looking clean. The new location would also serve as a place to run job readiness training events, since the current location was too small.

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All profits from the thrift store would be to support The Bridge. The existing store provides the center with approximately 30% of its operating budget, and a second store would allow the non-profit to become more self-sufficient, especially given the state of the economy. The proposed thrift store would store and sell donated items such as furniture and other home goods, to supplement the sale of clothing and antiques at the first location. Plants would also be sold from the thrift store.

Chair Rigoni asked the Commissioners to focus on the big picture of the proposal since the current item was a workshop.

Commissioner Jakubowski asked how donation drop-off would work, and whether it would be open to the public.

The applicant responded that donations would be accepted during retail hours.

Commissioner Jakubowski asked what intake would look like from an operational point of view.

The architect responded that there was only one entrance to the site off of Harlem Avenue. The parking lot to the north of the building would be dedicated to employee parking and donation drop-off. Donations would enter the building from the area on the plans marked as a dock enclosure and from there enter straight into the building. All logistical work would be done on the north side of the building, and the public-facing operations, including parking and entrances, would be on the south side.

Commissioner Jakubowski asked if donations would be accepted during all open hours.

The applicant responded that they would, and that someone would be on duty to bring them inside, to prevent any donations from being damaged. Customers were not supposed to see the back-of-house work being done.

Commissioner Jakubowski asked if sales and donations would happen simultaneously.

The applicant said that they would, but that weather would be a factor in whether donations would be accepted or not. The current location accepts roughly 30 donations per day, but traffic varies depending on the time of day, different seasons, weather conditions. Some donations would be turned away, if they were deemed not sellable, such as unsold items from garage sales. Information on the items the thrift store would not accept is clearly posted and publicly available, and most people abide by those rules. This proposed new location would have twice the space for donations as the current one.

The architect added that the drop-off space could be closed and locked.

The applicant explained that donations would not be accepted in bad weather.

Chair Rigoni asked if there were any comments regarding the retail component of the Special Use.

Commissioner James stated that given what was shown by the Future Land Use Map from the Frankfort Comprehensive Plan, as well as what development exists in the area currently, opening the property to a commercial use is reasonable. Ideally the building's

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main entrance would face to the east towards Harlem Avenue, rather than south, but that was not feasible. He wondered if future buildings would be built to match the orientation of the existing building or to face towards Harlem Avenue.

The architect agreed that the orientation of the building was not ideal, and that if the building did not already exist they would build a structure which faced Harlem Avenue, but the applicant had no intention to demolish what was there and rebuild.

Commissioner James noted that the existing shell was originally intended for an office use, which would explain the orientation of the building. He expressed that an important consideration for the future should be whether later developments were built to look consistent with the existing building or in a way appropriate for their use, which would make the existing building stand out.

Chair Rigoni asked whether the site was developed as a Planned Unit Development.

Staff responded it was not.

The architect noted that there were originally plans for four buildings, all oriented the same way. The applicant intended to combine the middle two lots for their thrift store.

Commissioner Hogan asked if the applicant planned to purchase all four lots.

The architect stated that all four lots were being sold together. The applicant wanted to hold on to the other lots for later use or to sell to others in the future.

Staff noted that much of the northernmost lot was a mapped floodplain, which could not be built on.

The architect asked if an unfinished drive aisle at the Walgreens to the north of the property was intended to connect to the proposed thrift store.

Staff responded it was not.

Commissioner Hogan stated that the use was appropriate for the space. It did not seem like there was going to be much development nearby anytime soon, and he was glad that someone was taking an interest in the site. He noted that there were some complexities from a use perspective, but he had no real issue with the proposed use.

Chair Rigoni wondered whether other commercial developments would go that far south along Harlem Avenue. Perhaps the office use should remain across all lots, or blend the retail use with the existing zoning around it. She noted that vehicle access was challenging for the location, and that retail may not be as successful as a result. Therefore, a blend of retail with office uses may be an ideal mix. She noted it was important that there was a clear understanding of the whole development. The proposed thrift store was not like traditional commercial uses, but she wanted to keep the integrity of the office use for the other lots. She stated that she struggled with the proposal since there were still many unanswered questions in regard to the site plan. She wanted to meet the needs of the applicant while also blending with the potential future fabric of the surrounding spaces.

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Commissioner Jakubowski noted that the area around the development was largely residential. Turning on or off this road anywhere but an intersection was often a challenge for drivers due to the amount of traffic at peak hours.

The applicant agreed that traffic there was rough.

Chair Rigoni stated that there was not much concern with what was there at the moment, and that she understood the applicant would improve the existing property. She wanted to know how allowing retail in that location would impact the local fabric of the community. She did not know what the intention was behind the initial B-4 Office zoning was, but was happy to see interest in the property regardless.

The architect asked if there was any support for allowing the special use on only the middle lots.

Chair Rigoni asked in response if the applicant wanted the Special Use permit for all four properties.

Staff clarified that per the application, all four parcels were under consideration for the Special Use Permit. However, that could be changed and the lot or lots granted the permit could be made clearer after a resubdivision.

Chair Rigoni stated that her understanding was that the Special Use Permit was for the lot with the existing building, not all four lots. She did not want a Special Use Permit granted for undeveloped land without knowing what would go there in the future. She then asked about how much activity was anticipated at the loading dock marked on the plans.

The architect clarified that it was a three-sided enclosure, not a loading dock, which would provide protection from the elements for items entering and leaving the store.

Commissioner Hogan asked if the proposed dock was similar to one at another location in Orland Park.

The applicant responded she was unsure. There would not be any large trucks entering the site; the space was intended for cars to pull up and load or unload items.

Commissioner James asked what kind of truck would deliver larger items such as furniture.

The architect said a box truck would deliver those items, no large vehicles.

Chair Rigoni asked if the drop-off space was intended for any sort of outdoor storage.

The architect responded it was not.

Chair Rigoni explained she did not want anything to be left outside after being dropped off.

Commissioner Hogan asked if there had been any traffic studies conducted for the site.

Chair Rigoni noted that Cook County has jurisdiction over Harlem Avenue.

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The architect responded that no traffic study had been done.

Commissioner Hogan encouraged the applicant to have a traffic study done to get a sense of what kind of infrastructure would be needed and what was there already. He reiterated that granting a Special Use Permit to fewer lots was more agreeable than for all four lots. It is possible that another party may come along and look to also have a non-traditional retail space, but the main concern is with how operations would work, how traffic would flow, whether the use and design match the character of the neighborhood, and whether the space would benefit the operation of a thrift store. He also stated she would like to see landscaping in the area where the screening fence was proposed.

Chair Rigoni added that the Plan Commission typically looks for landscaping in areas like the one under consideration, and that fences were usually reserved for areas with more intense uses.

The architect responded that he had not put much work into the landscaping just yet. The limiting factor for landscape screening was the utility easement located near the rear property line.

Chair Rigoni stated that there was space for landscaping.

The architect agreed that there was space for landscaping and clarified he was just trying to manage expectations.

Commissioner Jakubowski suggested a wrought iron-style aluminum fencing in lieu of the proposed white, opaque PVC fencing.

Commissioner Hogan asked if the applicant had spoken with the neighbors about the proposal.

The architect responded that the sale of the property was not finalized yet.

The applicant added that The Bridge was trying to be fiscally smart, and would not buy the property if they would not be granted the Special Use Permit they applied for.

Chair Rigoni asked about the intention behind installing the fence along the rear property line.

The architect responded that the main intention for the fence was for screening to give the neighbors more privacy.

Chair Rigoni expressed that she would like to see more passive screening, such as landscaping, rather than just a fence.

The applicant asked whether the Plan Commission was seeking old trees and mature landscaping to screen the property.

Chair Rigoni responded that the Village had experience using landscaping to screen properties effectively, and that landscaping was preferable to a fence.

The applicant asked whether other properties incorporated both fencing and landscaping.

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Chair Rigoni responded that other properties had installed both landscaping and fencing, and stated that the fencing was commonly faux wrought iron.

Commissioner Jakubowski stated that the Homeowner's Association of the nearby neighborhood may have some concerns.

Chair Rigoni asked whether the width of drive aisle on the west side of the building was currently 15 feet or would be reduced to 15 feet.

The architect stated that the drive aisle was currently 15 feet, but it would not be used to allow traffic to flow from the south to the north side of the building, or vice versa.

Chair Rigoni asked about the width of the drive aisles on the south side of the building.

The architect responded that the drive aisles were 20 feet.

Chair Rigoni remarked that typically 24 feet were required for the Fire Department.

Staff clarified that 24 feet is required for drive-aisles with parking on both sides, but 20 feet is sufficient for access and movement.

Chair Rigoni asked whether the pavement for the parking lot would just stop without a curb at its end.

The architect said that it would and that the decision to design it that way was largely a cost consideration. He noted there was enough space for vehicles to turn around via a three-point-turn, but no drive aisles would be designated for continuous flow.

Chair Rigoni stated that the applicant would need to consider how the proposed trash enclosure would impact vehicle flow on the north side of the property.

Staff mentioned that there was not a lot of buildable area available on the north side of the property.

Chair Rigoni agreed, and noted that the Plan Commission would need clarity on vehicle flow through the site to help them understand how the paved area would be laid out and allow for access to the building and space to maneuver. She then moved the discussion to the proposed architectural changes, and asked the applicant if they were going to keep the existing color of the brick.

The architect said they were not looking to keep that color, and instead change the existing red brick façade's color to an off-white.

Commissioner Jakubowski asked if there would be any technical issues with changing the color of the façade.

The architect responded there would not be, and that the applicant was intending to update the building for a more modern look.

Chair Rigoni asked what changes would be made to the roof material.

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The architect said they would use darker shingles to contrast with the lighter-colored walls. In addition, the windows would be single-pane with no muntins.

Chair Rigoni stated that the proposed design did not match with the architecture of the nearby houses, which was a concern.

Commissioner Jakubowski noted that nearby commercial developments were designed to look more traditional and less modern, which was also true for the abutting residential neighborhood. The current structure matches better with the local fabric than the proposed design, which made deviation a concern. Another concern was with the covered windows on the west side of the proposed design. The renderings looked like the windows were just boarded up. She requested more detail on the design of the window covers.

Commissioner James noted that there were examples of buildings with similar designs appearing in the downtown area. He was unsure whether future nearby B-4 developments would want to match the proposed style.

The applicant noted that the proposed designs drew inspiration from Downtown Frankfort.

Chair Rigoni said that while she understood wanting to draw inspiration from local buildings, the look and feel of Downtown Frankfort was unique. Additionally, the proposed building was not in or near downtown, so nearby architecture was more important to consider and draw inspiration from. By changing the building from office use to retail use, the Plan Commission and the applicant would be changing the dynamic of the area around the property. She wondered if such a change would set a pattern for future development, and was not sure. She noted that while the proposed thrift shop was a form of retail, it was different from more traditional retail uses.

Commissioner Hogan stated that, on the other hand, denying a Special Use Permit may result in leaving the property vacant for the foreseeable future, similar to the past 30 years.

Chair Rigoni agreed, and stated she was unsure about what to do.

Staff noted that the existing structure was built in the Federalist style. Staff also noted that with the floodplain on the northern end of the property, there might only be one or two additional buildings on the property, so the number of future buildings that would have to either match or deviate from the current proposal was small.

Discussion continued about how the floodplain would impact the future development of the site.

Chair Rigoni said she wanted to make sure the design of the proposed building matched the fabric of the nearby neighborhood. It was also important to know what buildable area would be left over after the lots were resubdivided. Lastly, to make sure that the Special Use Permit, if granted, would only apply to the existing building, and not to the undeveloped lots as well.

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Staff explained that the next steps for the project would include a resubdivision, which would allow for the Special Use Permit to be more specifically applied to the building and not include the adjacent undeveloped lots.

Commissioner Hogan also noted that additional detail from the applicant regarding the building renderings and proposed landscaping would also be beneficial to the Plan Commission. He suggested the applicant consider different designs for the covered windows.

Staff suggested using tinted panes to allow future uses to modify the windows in case they wished to use them as windows.

Chair Rigoni said she appreciated the design considerations which were present in the submitted materials. The Plan Commission was looking for clarity now to avoid confusion on design elements later.

Staff asked if the members of the Plan Commission were alright with the proposed modifications to the roof.

The architect explained that dormers and other decorative elements of the roof were being taken out because they had deteriorated since construction.

Staff asked the applicant if they felt that they had enough clarity on the Plan Commission's concerns with visuals and aesthetics.

The architect stated that they wanted to change the roof to look cleaner. What existed currently was a combination of non-essential utility and decorative elements which were never completed.

Chair Rigoni asked where the mechanical units would be located if the rooftop utility elements were removed.

The architect responded that those parts were not designed yet, but were planned to be located on the ground in the rear of the building.

Chair Rigoni noted that may be a future concern for the Plan Commission as well, depending on what the next round of drawings showed. The Plan Commission wanted to avoid an industrial look.

Commissioner Jakubowski asked that the applicant have more detailed renderings for the next time, since what was submitted currently had a big box store look. She said she would like some design changes so the building better matched the architecture of the nearby homes.

The applicant asked for the Plan Commission to clarify whether they wanted the brick to remain or if they were okay with the brick being painted over.

Chair Rigoni stated she was looking for a balance between nearby architecture and what the applicant was looking to do.

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Staff added that the Federalist style of architecture was characterized by red brick, dark shingles, and roof dormers. Staff then asked the Plan Commission if they were alright with moving away from that design somewhat.

Chair Rigoni responded that she was, depending on what the next set of submitted designs showed.

Commissioner Hogan said the ground-level elevations showed a long, empty roofline, and that he would like to see changes to it to make it less boring.

D. Workshop: 10235 W. Lincoln Highway – Opa! Addition

Gruba summarized the case.

Chair Rigoni asked the applicant to approach the podium.

Steve Francis, the architect for the project, approached the podium. He stated that they were looking to enclose the patio so they could provide additional seating during the winter or other periods of inclement weather. The addition would match with the existing materials. The existing wall sign would move forward and remain in relatively the same location: on the gable facing Lincoln Highway. There would also be some minor changes to the exterior brickwork to accommodate the larger changes.

Chair Rigoni asked the members of the Plan Commission if they had any questions or comments about the act of enclosing the patio space.

Commissioner Hogan agreed that the restaurant needed more seating and asked if more seats would be added within the existing outdoor patio footprint.

The architect responded that the reason for the addition was to keep existing space available despite weather conditions, and that the overall amount of seating within the patio footprint would not increase beyond what it is today.

Commissioner James agreed that the addition made sense. He saw no problem with the use.

Commissioner Hogan asked if there would be any changes to square footage or if the existing exterior wall would be removed.

The architect responded there would be no change to square footage and the current exterior wall would remain.

Commissioner Jakubowski asked whether there would be four additional tables on the proposed outdoor deck area.

The architect said there would be four new tables.

Chair Rigoni asked if the proposed enclosure met the setback requirements from Route 30.

Staff responded they were unsure, but believed they did.

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Lincoln Highway, in accordance with the reviewed plans, public testimony, and Findings of Fact, conditioned on final engineering approval;

Motion by: Jakubowski

Seconded by: Morris

Approved: (4-0)

Motion (#22): Recommend to the Village Board approval of a Variation to allow an increase of the required maximum area of a freestanding fuel station sign from 30 square feet to 48 square feet [Municipal Code Section 151.060(B)(1)(h)], for the subject property located at 7654 W. Lincoln Highway, in accordance with the reviewed plans, public testimony, and Findings of Fact, conditioned on final engineering approval;

Motion by: James

Seconded by: Jakubowski

Approved: (4-0)

Motion (#23): Recommend to the Village Board approval of the Preliminary and Final Plat of Circle K Frankfort Subdivision, subject to any necessary technical revisions prior to recording.

Motion by: Morris

Seconded by: Jakubowski

Approved: (4-0)

E. Workshop: 21420 S. Harlem Avenue – Thrift Home & Restoration (The Bridge Teen Center)

Mike Schwarz presented the staff report and noted that the curbs shown at the northeast corner and southwest corner of the building on the Site Plan have been requested to be removed per the Frankfort Fire Protection District.

The applicant, Rob Steinmetz, representing The Bridge Teen Center, a 501c3 non-profit corporation, along with the Project Architect, Patrick McCarty, Jr., approached the podium. Rob Steinmetz stated that they have purchased the property now and that they are requesting a PUD because of all of the existing conditions of the site. The original development was supposed to include four separate office buildings that match each other and that they are now just requesting one building on one lot. Their intent is to reuse the building, get the building functional, and occupy the building. The applicant has had conversations with the Village Engineer, Frankfort Fire Protection District, and nearby homeowners. The homeowners did not want to see a fence or a berm along the shared property line. They prefer natural landscaping for screening. The existing windows and doors on the building are in bad shape. They are seeking to make it look like more of a commercial building rather than the existing 30-year-old office building.

Priscilla Steinmetz approached the podium and stated that she was the founder of the organization. The proposed thrift store would support the teen center located in Orland Park. The existing location has helped around 12,000 students. The teen center helps provide free programs for the students. She passed out a flyer for the programs that are offered.

Chair Schaeffer asked the other Commission members if they had any initial questions for the applicant. There were none.

Chair Schaeffer suggested that the commission go through the staff report headings topic by topic. On the topic of land use, there was consensus from the Commissioners regarding the proposed retail use.

Chair Schaeffer asked the applicant if the employees would be adults.

Priscilla Steinmetz responded that the leadership employees will be adults, but both adults and students can and would be volunteers.

Chair Schaeffer asked staff if there is a proposed rezoning or if the proposed retail use could be done through the proposed PUD.

Mike Schwarz replied that the existing B-4 Office District zoning has been in place on the property for many years and the applicant is not requesting to rezone. Rather, the proposed retail use is allowable as a Special Use in the B-4 Office District.

Chair Schaeffer asked staff if the proposed PUD would set a precedent for any future buildings that might later be proposed on the property.

Mike Schwarz replied that the Commissioners can discuss whether or not to include as a condition of the PUD that any future buildings that are not depicted or detailed at this time must be considered a Major Change to the PUD, which require future review of each building by staff, the Commission and the Village Board.

Patrick McCarty, Jr. stated that they wouldn't be able to build anything north of Parcel 1 as shown on the Plat of Survey. They could expand the parking lot, but there would be no buildings north of the existing building. The site drains from south to north. They potentially could only expand and build additional buildings to the south of the existing building. He noted that a utility easement for water and sanitary sewer runs right through the middle of the entire property from east to west. There is space to potentially add a future retail building and a greenhouse to the south of the existing building.

Commissioner Morris asked if the future retail building would look like a barn type building as depicted like to the submitted concept image.

Patrick McCarty, Jr. replied that the applicants are looking for an “old barn house” look if a future accessory retail building is approved. He added that the main goal is to get the proposed retail use operational, and then if it is profitable, they would consider future expansion. There is barely enough funding in their budget to get the existing building brought up to Code and up and running.

Chair Schaeffer stated that she agrees that any future change to the proposed Site Plan to add the future accessory retail building and greenhouse that are currently noted, would be deemed to be a Major Change to the PUD.

Priscilla Steinmetz stated that as a non-profit they need to consider what the community needs, so any future decisions would be based on the needs of community at that time. She added that things could change in the future.

Commissioner James stated that aspects of this project remind him of the Navarro Farm, which he sees has turned into a community asset.

Commissioner Jakubowski asked about the style of the proposed replacement windows on the existing building. She added that she would want the existing building and any potential future accessory retail building to match more in terms of architectural style than just in terms of color. She asked why they are proposing to remove the muntins from the windowpanes.

Patrick McCarty, Jr. replied that the proposed replacement windows will be aluminum in a black or bronze finish. The muntins on the existing windows would not be replaced as they are going for more of a commercial look.

Commissioner Jakubowski asked for clarification on the white vertical elements along the ridgeline of the existing roof that are shown on the building photos.

Patrick McCarty, Jr. replied that the existing roof includes three chimneys that enclose stacked vents. They do not need them anymore. A roofer will repair the existing dormers on each side of the roof, but the three chimneys would be removed.

Commissioner Schaeffer asked where the rooftop vents would go if these chimneys are removed.

Patrick McCarty, Jr. replied that a rooftop vent will only be needed on the west side of the building due to the interior floor plan. That rooftop vent currently is not shown on plans because there are no mechanical or plumbing plans yet.

Commissioner James stated that in terms of the proposed painting of the red brick, you can see that other homes in the neighborhood to the west have a lighter color brick than what is on the subject property’s brick. He noted that when this project goes before the

Village Board, there might be comments that there is a big contrast from the nearby Walgreens and McDonalds which have darker brick colors.

Commissioner Jakubowski stated that she appreciates the applicants trying to make the building look different from its current appearance. She noted that this building is right next to a residential neighborhood.

Chair Schaeffer stated that she is starting to see variations in brick color from the nearby Walgreens and McDonalds buildings and she thinks that this is a good architectural change for the building.

Commissioner Jakubowski asked if the main entrance into the building on the south side is distinguished enough.

Patrick McCarty, Jr. responded that the south primary entrance will be clearly identified to visitors. On the north side of the building there will be deliveries under the canopy. There are two doors on the north side for easy flow for customers to get in and out.

Chair Schaeffer stated that she agrees that the delivery entrance makes sense to be covered. She asked staff with respect to signage what is the quantity allowed. Can there be a sign at the main entrance?

Mike Schwarz replied that as a proposed PUD the Commission and Village Board have the ability to allow flexibility related to signage. Per the Sign Regulations, wall signs are only allowed on facades that face a street or a major access aisle.

Chair Schaeffer asked if the main entrance door is a residential style door currently.

Patrick McCarty, Jr. replied yes, each of the existing doors are residential style doors and they would be replaced with commercial grade doors.

Commissioner Jakubowski asked for further information on the color and style of the new doors.

Patrick McCarty, Jr. replied that each new door would be a commercial door that matches the window frame casings and will have glazed glass with sidelights.

Commissioner Morris asked how many ADA handicap accessible spaces would be provided.

Patrick McCarty, Jr. replied that there would be a total of three handicap accessible spaces. Two would be for clients and one would be for employees. The existing parking lots include a total of 42 spaces. The proposed parking lots would provide a total of 59 spaces. He added that even with a potential future accessory retail building, the provided parking would comply with the minimum required by the Zoning Ordinance.

Chair Schaeffer asked what material is proposed on the exterior of the trash enclosure.

Patrick McCarty Jr. replied that it will be brick to match the building.

Commissioner Jakubowski stated that she will want more detail on the proposed roof material of the potential future accessory retail building. She would like to see consistency within the project in terms of architecture. It looks like we're shifting from one style of building to another. She would like to see more detail in the millwork such as the windowpanes, shutters, etc.

Chair Schaeffer stated that a small section of metal roofing or awnings might be good to consider for an architectural feature on the existing building, especially on the east side.

Commissioner James stated that he agrees to adding some architectural detail above the windows on the east side of the existing building facing Harlem Avenue.

Commissioner Morris asked if the proposed monument sign on the east side of the building would be illuminated.

Patrick McCarty, Jr. replied yes, there would be uplighting from the ground, but the sign would not be internally illuminated. Currently, there is no electrical service on the site of the proposed monument sign.

Commissioner Morris noted that the proposed Landscape Plan would be done in phases, and asked when the anticipated completion date would be.

Patrick McCarty, Jr. replied that there are basically two options. They could either provide landscaping along the west property line in areas that are missing landscaping completely, since the south property line has existing landscaping on the residential properties, or they could provide some amount of landscaping along the entire length of the abutting residential properties, and then fill in any gaps later wherever they might be a gap in the required continuous screening.

Chair Schaeffer asked the other Commissioners if they were okay with the applicant's proposed approach to phase the required landscaping along the abutting residential properties since some of the homes are already heavily landscaped. She asked staff when the second phase of landscaping would be triggered.

Patrick McCarty, Jr. replied that the final required perimeter screening for the abutting residential properties could be triggered when any future buildings are constructed.

Mike Schwarz noted that the applicant should choose plantings wisely where there are existing or proposed utility easements.

Commissioner James emphasized the importance of perimeter screening on the west side and is glad to see that there is no fence or berm along the shared property lines with the homes.

Mike Schwarz asked the Commissioners if there were any concerns about the applicant's proposal to initially not provide the required landscape screening for the two homes on the south.

Chair Schaeffer suggested that the applicant work with what is already there, but the Commission could add a condition regarding the timing of installation of the second phase of plantings.

Commissioner Jakubowski stated that she does not see the aforementioned phasing idea being managed well.

Mike Schwarz stated that there could be a potential condition that any required landscape screening along the south property line must be provided if and when any future buildings are reviewed. Any such landscaping could be reviewed at that time.

Chair Schaeffer asked the applicant and staff if they felt like there was adequate direction and feedback.

Mike Schwarz mentioned that the Comprehensive Plan calls for a bike path along the west side of Harlem Avenue. This segment is noted as part of a "Priority Gap" in the trails system on Figure 6.10 in the Comprehensive Plan. He added that at a minimum the Subdivision Ordinance requires a sidewalk which was never installed as part of the original office development.

Some discussion ensued regarding the idea of a potential cost-sharing arrangement between the applicant and the Village for a future bike path project subject to Village Administration and Village Board review and approval.

Patrick McCarty, Jr. stated that there is a drainage ditch along the west side of Harlem Avenue that would impact the ability to construct a potential bike path or sidewalk within the public right-of-way. There is also more than 900 feet of property frontage along Harlem Avenue. If either a bike path or sidewalk is required, the applicants would need to provide a public access easement on their property, which would likely require the removal of existing trees. He would like more input from their design engineer before discussing this topic. He added that the applicant is strongly opposed to constructing or paying for any such bike path or sidewalk as they simply cannot afford such a project in their current budget.

Chair Schaeffer stated that the Commission can table further bike path or sidewalk discussion so that the Village Administration, staff, and the applicant can have further discussion.

Commissioner James asked the Project Architect if he has sketched out what a future accessory retail building might look like on the Site Plan. He would like to ensure that it will be usable.

Patrick McCarty, Jr. replied that the proposed lot to the south of the existing building is a little over one acre in size. It should be sufficient to accommodate any potential future accessory retail building or greenhouse.

Chair Schaeffer suggests that the applicant not show the potential future accessory retail building and greenhouse on the Site Plan given that there are some unknowns related to the architecture and an additional use approval would be needed for exceeding the amount of retail space that is permitted in the B-4 Office District.

The applicant, Rob Steinmetz, and the Project Architect, Patrick McCarty, Jr., agreed that they would were just showing these potential future buildings to share their possible longer-term plans, but would be fine with removing them from the Site Plan, knowing that they would need to return at some point in the future requesting a Major Change to the PUD if they eventually want to propose such buildings.

A question was posed by one of the Commissioners regarding what might happen if the current owner sold the proposed undeveloped lot to the south of the existing building to another party.

Mike Schwarz noted that stated that since a PUD is being requested, any future buildings on the currently vacant proposed lot would require a Major Change to the PUD, so even if the applicant was to sell the proposed lot to another party, that other party would need to go through a future review process and public hearing.

F. Public Comments

There were no public comments.

G. Village Board & Committee Updates

There were no Village Board & Committee updates.

H. Other Business

Mike Shwarz mentioned that he will be registering any Commissioners who would like to attend the Plan Commission Training Sessions at the APA-IL State Conference by the end of the week.

I. Attendance Confirmation (September 14th, 2023)

Commissioner Morris mentioned that he will be out of the country and will not be able to attend the September 14th meeting, but he plans to be back for the September 28th meeting.

Motion (#24): Adjournment 10:05 P.M.

Motion by: Jakubowski

Seconded by: James

The motion was unanimously approved by voice vote (4-0).

Approved October 12th, 2023

As Presented X As Amended

Nichie Schaeffer /s/ Nichie Schaeffer, Chair

Christophe Dube /s/ Secretary



Findings of Fact Commissioner Evaluation Form - Special Use Permit

Article 3, Section E, Part 6 of the Village of Frankfort Zoning Ordinance lists “findings” or “standards” that the Plan Commission must use to evaluate every special use permit request. No special use shall be recommended by the Plan Commission unless all the following findings are made.

	STANDARD	NOTES	MEETS	
a.	That the establishment, maintenance or operation of the special use will not be detrimental to, or endanger, the public health, safety, morals, comfort or general welfare.		YES	NO
b.	That the special use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood.		YES	NO
c.	That the establishment of the special use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.		YES	NO
d.	That the exterior architectural appeal and functional plan of any proposed structure will not be so at variance with either the exterior architectural appeal and functional plan of the structures already constructed, or in the course of construction in the immediate neighborhood or the character of the applicable district, as to cause a substantial depreciation in the property values within the neighborhood.		YES	NO

e.	That the adequate utilities, access roads, drainage and/or necessary facilities have been or are being provided.		YES	NO
f.	That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.		YES	NO
g.	That the special use shall, in all other respects, conform to the applicable regulations of the district in which it is located, except as such regulations may, in each instance, be modified by the Village Board, pursuant to the recommendations of the Plan Commission.		YES	NO



Review Standards Commissioner Evaluation Form - Planned Unit Development (PUD)

Article 3, Section F, Part 4 of the Village of Frankfort Zoning Ordinance lists “findings” or “standards” that the Plan Commission must use to evaluate every PUD Preliminary Plan and Final Plan. The Plan Commission shall consider the extent to which the proposal fulfills the following standards.

	STANDARD	NOTES	MEETS	
a.	The plan is designed to protect the public health, welfare and safety.		YES	NO
b.	The proposed development does not cause substantial injury to the value of other property in the immediate area.		YES	NO
c.	The plan provides for protection of the aesthetic and function of the natural environment, which shall include, but not be limited to, flood plains, streams, creeks, lakes, ponds, wetlands, soil and geologic characteristics, air quality, vegetation, woodlands, and steep slopes.		YES	NO
d.	The plan provides for and ensures the preservation of adequate recreational amenities and common open spaces.		YES	NO
e.	Residential use areas may provide a variety of housing types to achieve a balanced neighborhood.		YES	NO

f.	The planned unit development provides land area to accommodate cultural, educational, recreational and other public and quasi-public activities to serve the needs of the residents thereof.		YES	NO
g.	The proposed development provide for the orderly and creative arrangement of all land uses with respect to each other and to the entire Village.		YES	NO

Article 3, Section F, Part 5, letter 'd' of the Village of Frankfort Zoning Ordinance lists two additional "findings" or "standards" related specifically to residential or mixed-use PUDs to permit uses that are otherwise not permitted in the underlying zoning district. For these specific types of proposals, the Plan Commission must also find the following.

	STANDARD	NOTES	MEETS	
d1.	That the uses permitted by such exceptions are necessary or desirable and are appropriate with respect to the primary purpose of the planned unit development;		YES	NO
d2.	That the uses permitted by such exception are not of such a nature or so located as to exercise a detrimental influence on the surrounding neighborhood;		YES	NO

Project: Prestwick Country Club – Golf Cart Barn Replacement & Site Improvements
Meeting Type: Public Hearing
Requests: 4 Zoning Variations
Location: 601 Prestwick Drive
Applicant: Ed Tindall
Prop. Owner: Prestwick Country Club
Representative: Steve Weiss
Staff Reviewer: Christopher Gruba, Senior Planner

Site Details

Lot Size: 64.23 acres (approximately)
PIN: 19-09-25-102-009-0000
Existing Zoning: E-R
Proposed Zoning: N/A
Future Land Use: Parks/Open Space
Buildings: 1 (golf cart building)
Total Sq. Ft.: 4,320 SF (proposed)
Adjacent Land Use Summary:

	Land Use	Comp. Plan	Zoning
Subject Property	Golf Course	Parks/Open Space	E-R
North	Natural gas pipeline	Old Plank Road Trail	E-R
South	Golf Course	Parks/Open Space	E-R
East	Golf Course	Parks/Open Space	E-R
West	Single-Family	Parks/Open Space	E-R

Figure 1. Location Map



Project Summary

The applicant is proposing to construct a 4,320 square foot golf cart barn to replace the existing barn in approximately the same location. The replacement barn would be only slightly larger than the existing building. This structure is classified as an accessory building in the Zoning Ordinance. Due to the size, height and placement of the golf cart barn, the project will require four (4) variations from the Zoning Ordinance as listed below. In addition to the golf cart barn replacement, the applicant is proposing minor site work including a new 9' wide asphalt path for the golf carts to enter/exit the building and a new 6" water service line would be installed from the barn to the main along Prestwick Drive. The applicant has indicated to staff that they intend to renovate and expand the existing clubhouse in the near future, but this would be part of a different review process.

The project will require the following four (4) variations:

1. Variation for accessory structure size: 144 square feet permitted; 4,320 square feet proposed.
2. Variation for accessory structure height: 15' permitted to the roof peak; 21' proposed.
3. Variation to permit an accessory structure in the front yard, whereas side and rear yards are permitted.
4. Variation to permit an accessory structure in front of the primary structure.

Attachments

1. Aerial image (1:2000 scale) – VOF GIS
2. Findings of Fact (Variation), applicant responses
3. Photographs of subject property (staff, October 16, 2023)
4. Manufacturer Specifications (lighting)
5. 3D renderings of cart barn, received October 6, 2023
6. Building Elevations of cart barn in color, received October 6, 2023
7. Submittal, including Site Plan, Floor Plan, Existing Conditions, Demolition Plan, Geometric Plan, Utility Plan, received October 6, 2023

Analysis (updated since the workshop)

Zoning

The subject property is zoned E-R, Estate Residential. The existing zoning or use of the property will not be changed.

Site Design

1. The proposed golf cart barn would be reconstructed in almost exactly the same location as the existing barn. It would not be moved any closer to the side property line to the west. It would be moved marginally closer toward Prestwick Drive (approximately 1' or less).
2. The proposed accessory building would measure 21' tall to the peak of the gabled roof. The existing golf cart barn is approximately 10' to the top of the roof, which has a sloped roof typical of sheds.
3. The Fire District has reviewed the proposed site plan and does not have any additional comments currently.
4. A 9' wide asphalt golf cart path is proposed to the south of the proposed cart barn that wraps around the existing putting green. The putting green would be reconfigured slightly.
5. A new 6" water service line is proposed connecting the cart barn to the water main along Prestwick Drive.
6. All other work illustrated on the plans, including the clubhouse addition, concrete walkway, relocated catch basin and new 6" sanitary sewer line are proposed for the future and are **not** part of this project.

Floorplan

The floorplan for the proposed 4,320 square foot cart barn illustrates room for 69 golf carts, golf bag storage, a separate storage room, a mechanical room and a unisex bathroom. Although the building would have a vaulted ceiling, no second floor or attic space is proposed. The cart barn would be sprinklered for fire suppression.

Parking & Loading

Parking and loading would not be affected by the proposed golf cart barn or site improvements.

Architectural Style and Building Materials

1. The Zoning Ordinance does not contain any specific provisions for the architecture of this type of accessory building. However, it has been past practice that the accessory structure's architecture should

be compatible with the primary structure, in this case the clubhouse. The sides of the clubhouse are made of brick, with a Dutch gable roof comprised of wood shingles or wood composite shingles. Parts of the clubhouse's roof have dormer windows. The proposed golf cart barn would employ fiberboard lap siding and board and batten fiberboard, which are wood composites. The roof would be comprised of composite shingle shakes, also a wood composite. Three dormer windows are proposed on the side of the roof facing toward the clubhouse. The opposite side of the roof facing west would not have dormer windows. The proposed golf cart barn would not have a second floor or attic space.

2. The proposed golf cart barn would not have any ground-mounted or rooftop-mounted mechanical units. The only mechanical equipment in the barn would be two ventilation fans placed within the gables on each end, screened with louvers.

Stormwater & Drainage

Although there are extensive floodplains and wetlands within Prestwick Country Club, there are no wetlands or floodplains in the area of the golf cart barn. Stormwater and drainage is not anticipated to be greatly impacted by the proposed site improvements.

Landscaping

There are no specific landscaping requirements for the proposed work as it relates to this type of accessory building. The scope of work would involve the removal of several trees between the proposed golf cart barn and the single-family home to the west. Although the Demolition Plan indicates that two mulberry trees would be removed, during a site inspection by staff on October 16, 2023, it was noticed that 5 trees had recently been removed. Staff recommends discussing landscaping during the public hearing. Additional landscaping may be considered by the PC/ZBA as part of any conditions of approval of the variations.

Lighting

The building would be illuminated with interior lights as well as wall sconce lights on the exterior of the cart barn. No new light poles are proposed. There would be a total of 10 wall sconce lights, in the form of two different types. The manufacturer specifications have been provided for each type of exterior wall sconce light.

Variation Requests

The following findings of fact are used to judge the merit of a variation request. The applicant has provided responses to these findings of fact in a separate attachment.

Findings of Fact:

No variation shall be recommended by the Plan Commission, unless such Commission shall find that all three of the following criteria are met:

1. That the property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone;
2. That the plight of the owner is due to unique circumstances; and
3. That the variation, if granted, will not alter the essential character of the locality.

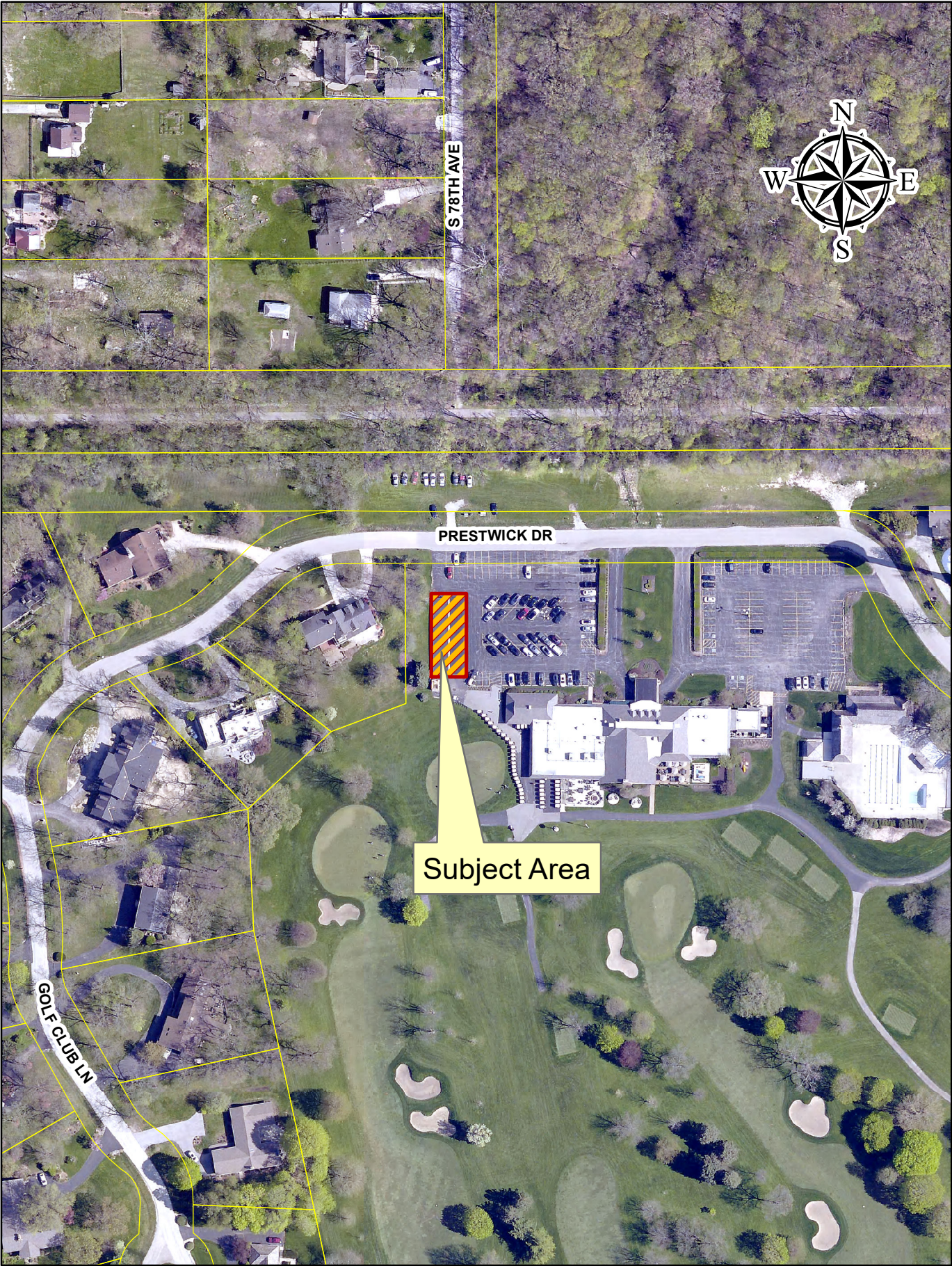
In addition to the above 3 required criteria, the Plan Commission shall also take into consideration the following 7 criteria:

1. That the particular physical surroundings, shape or topographical conditions of the specific property involved will bring a particular hardship upon the owner, as distinguished from a mere inconvenience, if the strict letter of the regulations was carried out;
2. That the conditions upon which the petition for variation is based would not be applicable, generally, to other property within the same zoning classification;
3. That the purpose of the variation is not based exclusively upon a desire to make more money out of the property;
4. That the alleged difficulty or hardship has not been created by any person presently having an interest in the property;
5. That the granting of the variation will not be detrimental to the public welfare or unduly injurious to other property or improvements in the neighborhood in which the property is located;
6. That the exterior architectural appeal and functional plan of any proposed structure will not be so at variance with either the exterior architectural appeal and functional plan of the structures already constructed, or in the course of construction in the immediate neighborhood or the character of the applicable district, as to cause a substantial depreciation in the property values within the neighborhood;
7. That the proposed variation will not impair an adequate supply of air to adjacent property, substantially increase the danger of fire, otherwise endanger the public safety or substantially diminish or impair property values within the neighborhood.

Affirmative Motions

1. Recommend to the Village Board to approve a variation request for size from the permitted 144 square feet to 4,320 square feet per Article 5, Section D, Part 2(b) of the Zoning Ordinance, in accordance with the reviewed plans, findings of fact, and public testimony, conditioned on final engineering approval.
2. Recommend to the Village Board to approve a variation request for height from the permitted 15' to 21' per Article 5, Section D, Part 2(c) of the Zoning Ordinance, in accordance with the reviewed plans, findings of fact, and public testimony, conditioned on final engineering approval.
3. Recommend to the Village Board to approve a variation request to permit an accessory structure within a front yard, whereas only sides and rear yards are permitted per Article 5, Section D, Part 2(a) of the Zoning Ordinance, in accordance with the reviewed plans, findings of fact, and public testimony, conditioned on final engineering approval.
4. Recommend to the Village Board to approve a variation request to permit an accessory structure in front of the primary structure Article 5, Section D, Part 2(a) of the Zoning Ordinance, in accordance with the reviewed plans, findings of fact, and public testimony, conditioned on final engineering approval.

Prestwick Country Club - Cart Barn (variations)



5 0 125 250 500 Feet



Application for Plan Commission / Zoning Board of Appeals Review
Standards of Variation

Article 3, Section B, Part 3 of the Village of Frankfort Zoning Ordinance lists “findings” or “standards” that the Zoning Board of Appeals must use to evaluate every variation request. The Zoning Board of Appeals must answer the following three findings favorable to the applicant based upon the evidence provided. To assist the Zoning Board of Appeals in their review of the variation request(s), please provide responses to the following “Standards of Variation.” Please attach additional pages as necessary.

1. That the property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone;

A variation is sought to allow for an existing golf cart storage building to be replaced essentially in its current location in the Prestwick Country Club property. The current cart storage building is located in front of the current clubhouse, which is the primary building. No changes to the side yard setback nor the front yard setback are being requested. This building is essential to the use of the property and, due to the layout

2. That the plight of the owner is due to unique circumstances; and

The Prestwick Country Club is a unique property; it would not be able to function without the golf cart storage building.

3. That the variation, if granted, will not alter the essential character of the locality.

This variance seeks to replace an aging building with a new one of similar character and scale. The new building will be closer to the character of the existing club buildings and will be in substantially better condition.

For the purpose of supplementing the above standards, the Zoning Board of Appeals also determines if the following seven facts, favorable to the applicant, have been established by the evidence. Please provide responses to the following additional “Standards of Variation.”

1. That the particular physical surroundings, shape or topographical conditions of the specific property involved will bring a particular hardship upon the owner, as distinguished from a mere inconvenience, if the strict letter of the regulations was carried out;

Due to current flood plain restrictions, there is no other suitable location for the golf cart storage building. Even if other locations could be utilized, the location of the building is part of the functional plan of the golf course in relation to the clubhouse, locker rooms and golf course circulation scheme.

2. That the conditions upon which the petition for variation is based would not be applicable, generally, to other property within the same zoning classification;

The Prestwick Country Club is a unique property and the location of the golf cart storage building was determined well before the Village annexed the development. The reconstruction of the cart storage building in its current location is a completely unique condition.

3. That the purpose of the variation is not based exclusively upon a desire to make more money out of the property;

This variance has no financial goal other than replacing an existing aging building with a new one.

4. That the alleged difficulty or hardship has not been created by any person presently having an interest in the property;

This variance petition has no relationship to any person having an interest in the property other than the membership of the country club.

5. That the granting of the variation will not be detrimental to the public welfare or unduly injurious to other property or improvements in the neighborhood in which the property is located;

As a replacement to the current golf cart storage building, granting of this variance will not be detrimental to the public welfare or unduly injurious to other properties in the neighborhood.

6. That the exterior architectural appeal and functional plan of any proposed structure will not be so at variance with either the exterior architectural appeal and functional plan of the structures already constructed, or in the course of construction in the immediate neighborhood or the character of the applicable district, as to cause a substantial depreciation in the property values within the neighborhood; or

The exterior architectural design and functional character of the replacement golf cart storage building will be in general conformance with the other existing structures of the Prestwick Country Club.

7. That the proposed variation will not impair an adequate supply of air to adjacent property, substantially increase the danger of fire, otherwise endanger the public safety or substantially diminish or impair property values within the neighborhood.

The replacement golf cart storage building will not impair air supply to adjacent properties nor substantially increase the danger of fire nor otherwise endanger the public safety or property values in the neighborhood.











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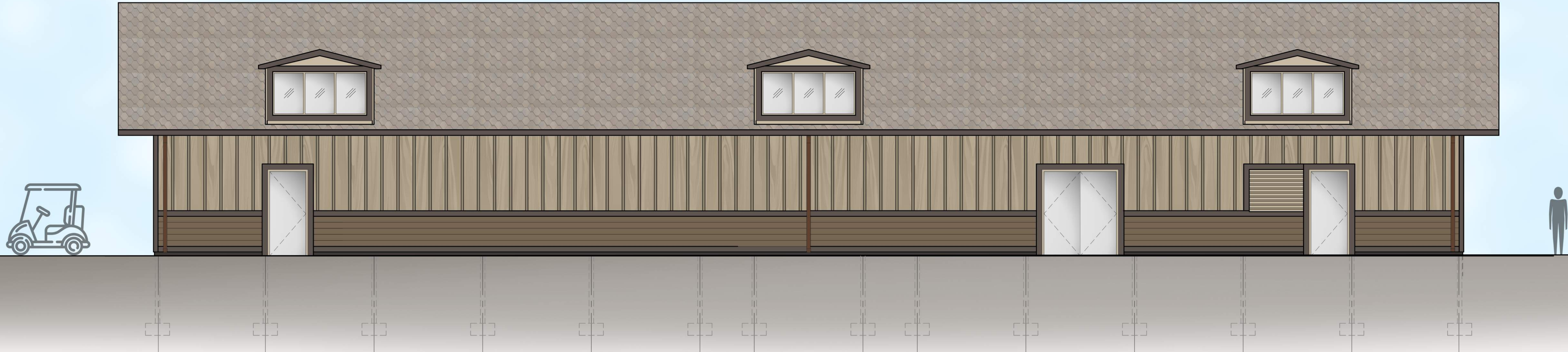
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3 EAST ELEVATION
1/4"=1'-0"

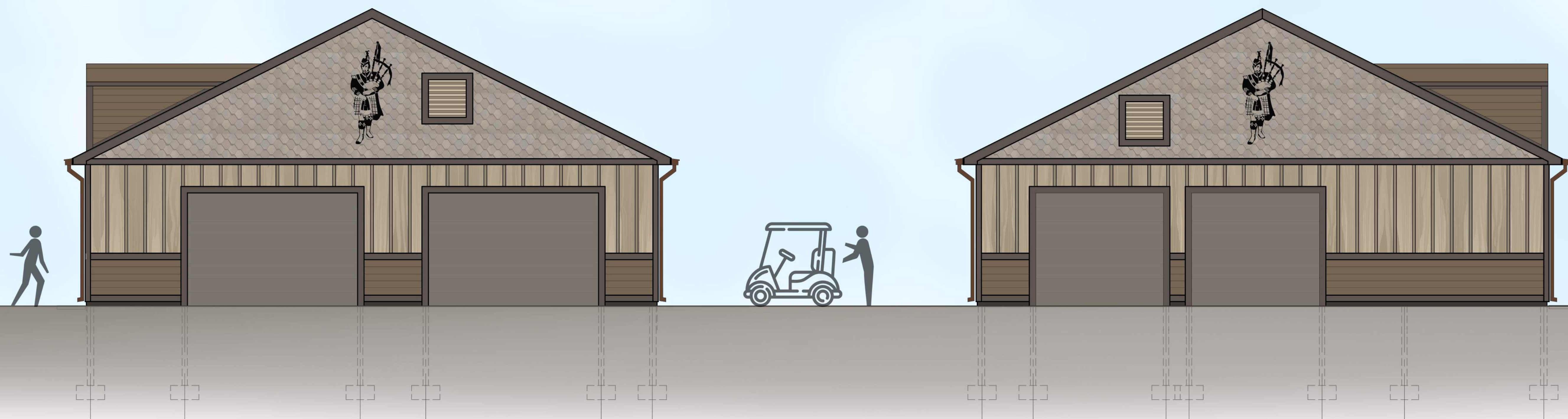


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1 NORTH ELEVATION
1/4"=1'-0"

2 SOUTH ELEVATION
1/4"=1'-0"

Prestwick Country Club

Frankfort, Illinois



PRESTWICK COUNTRY CLUB

REPLACEMENT CART BARN

601 PRESTWICK DRIVE
FRANKFORT, IL 60423



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REPLACEMENT CART BARN



**PRESTWICK
COUNTRY
CLUB**

601 PRESTWICK DR. FRANKFURT, IL 60423

RENDERINGS

Scale:
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Project:
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Sheet

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Abbreviations

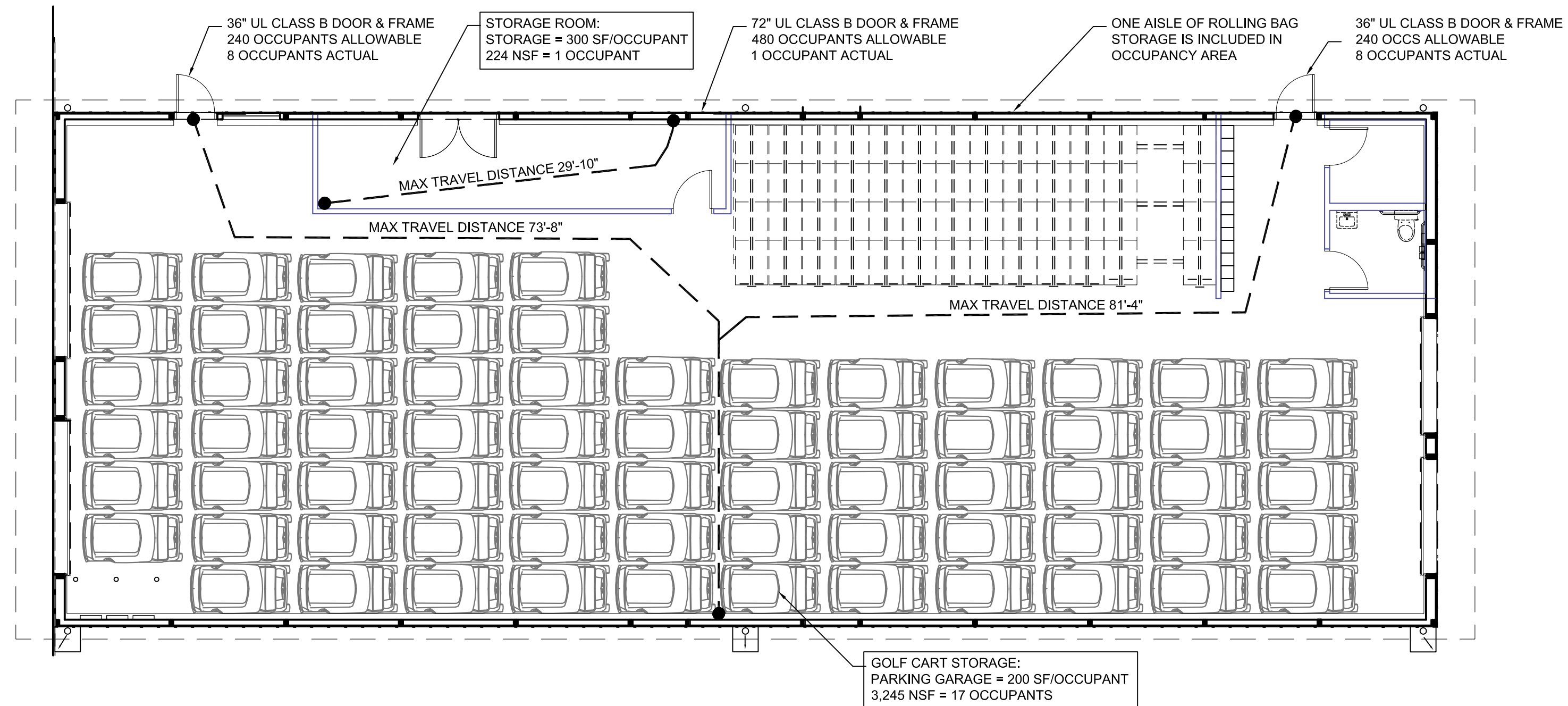
ABV	above	LAM	laminated
ABT	above finished floor	LAV	lavatory
AP	access panel	LF	left hand
AC	acoustical	LT	length
ADD	addendum	LWC	lightweight concrete
ADJ	adjacent	LW	light
A/C	air conditioning	LP	low point
ALT	alternate	MB	machine bolt
AL	aluminum	MBS	manhole
ASPH	asphalt	MFR	manufacturer
BRO	bearing	MAS	masonry
BM	benchmark	MO	masonry opening
BLKG	blocking	MAX	maximum
BOT	bottom	MECH	mechanical
B/	bottom of	MEMB	membrane
BLDG	building	MIN	minimum
CPT	carpet	MISC	miscellaneous
CI	cast iron	MT	mutilation
CIRC	cast in place concrete	MULL	mullion
CB	catch basin	NAT	natural
C.O.	corner guard	NAT	natural
CLG	ceiling	NFC	nominal
CLC	ceiling (ceiling)	NFSC	not freezing sill cock
CLF	ceiling	N	north
CONC	concrete	NC	not in contact
CMU	concrete masonry unit	NTS	not to scale
CONST	construction	OC	on center
CONT	continuous or continue	OPC	opening
CONTR	contractor	OPP	opposite
CRS	course(s)	OD	outside diameter
CTT	cubic foot	OA	overall
CYD	cubic yard	PLAM	plastic laminate
DTL	detail	PL	plate
DWG	drawing	PWD	plywood
DIAG	diagonal	PT	point
DIAM	diameter	PTN	prefinished
DM	dimension	PRF	preformed
DV	division	PRL	property line
DS	door	PNT	panel
DWG	drawing	PNL	panel
DF	drinking fountain	PRD	particle board
EQ	elevation	PTN	partition
EQ	equal	REF	reference
EXH	exhaust	REFR	refrigerator
EXP	existing	REG	register
EXP	exposed	REV	revision
EXT	exterior	RN	right hand
FF	factory finish	ROW	right of way
EL	elevation	RD	room
EQ	equal	RF	roofing
EXH	exhaust	RM	rough opening
EXG	existing	RO	rough opening
EXT	exterior	SCH	schedule
EXT	exterior	SECT	section
FIN	finish	SM	similar
FE	fire extinguisher	SC	solid core
FH	fire hose station	S	south
FF	factory finish	SPEC	specification
FHMS	flathead machine screw	SQ	square
FHWS	flathead wood screw	SS	stainless steel
FLR	flooring	STL	steel
FD	floor drain	STR	storage
FL	flue	STR	structural
GA	gauge, gauge	SYM	symmetrical
GALV	galvanized	SYS	system
GC	general contract	TEL	telephone
GL	glass, glazing	THK	thick
CPDW	gypsum drywall	T	top of
HDR	hardware	TP	tread
HDR	header	TY	typical
HTG	heating	UC	undercut
HVAC	heating/ventilating/	UNF	unfinished
HD	heavy duty	VB	vapor barrier
HT	height	VIN	vinyl
HP	high point	VCT	vinyl composition tile
HC	hollow core	VB	vinyl base
HM	hollow metal	WC	water closet
HDR	horizontal	WF	waterproofing
HR	hour	WR	water repellent
HB	hose bib	W	west, wide, width
NCL	include	WN	window
ID	inside diameter	WO	without
INT	interior	W	wood
INV	invert	WP	work point
JC	junior's closet		
LBL	label		

Material Designations	
	Earth/Fill
	Cast-in-Place Concrete
	Brick
	Aluminum
	Finish
	Ply'd-Lrg Scale
	Ply'd-Sml Scale
	Spray/Foam
	Gypsum Wallboard
	Basaltic Flooring/Basic Laminate
	Brass/Bronze
	Part'l Bd-Large Scale
	Part'l Bd-Small Scale
	Rigid Insulation
	Ceramic Tile
	Large Scale Finishes
	Granular Fill
	Sand/Mortar/Grout

Architectural Symbols	
	COLUMN GRID & BUBBLES
	BUILDING SECTION
	WALL SECTION
	DETAIL SECTION
	INTERIOR ELEVATIONS
	ROOM REFERENCE
	ROOM TYPE
	DOOR TAGS
	PARTITION DETAIL
	BUILDING ELEVATION
	BUILDING SPOT ELEVATION
	EXIST. CURB/OUTER ELEV.
	CURB DATUM ELEV.
	CEILING ELEVATION
	MATCH LINE
	REVISION BUBBLE & TAG
	EXTERIOR ELEVATION
	INTERIOR ELEVATIONS
	ROOM REFERENCE
	ROOM TYPE
	DOOR TAGS
	PARTITION DETAIL
	BUILDING ELEVATION
	BUILDING SPOT ELEVATION
	EXIST. CURB/OUTER ELEV.
	CURB DATUM ELEV.
	CEILING ELEVATION

- ### General Notes
- THESE GENERAL NOTES APPLY TO ALL WORK OF THIS PROJECT FOR THE GENERAL CONTRACTOR, ALL SUBCONTRACTORS, TRADES, AND SUPPLIERS OF ALL TIERS. SEE NOTES AND REQUIREMENTS ON DRAWINGS OF OTHER DISCIPLINES.
 - ALL WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. NO SUBSTITUTIONS THEREFROM WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE ARCHITECT.
 - ALL WORK SHALL BE EXECUTED IN CONFORMANCE WITH ALL CODES, ORDINANCES, REGULATIONS, RULES, ETC OF MUNICIPAL, STATE OR FEDERAL AUTHORITIES HAVING JURISDICTION OVER THE PROJECT. NO WORK IS TO BE EXECUTED WITHOUT FIRST HAVING OBTAINED ALL NECESSARY PERMITS AND APPROVALS.
 - EXERCISE CARE TO AVOID DAMAGE TO EXISTING BUILDINGS AND SURFACES, INCLUDING ADJACENT PROPERTIES AND ROUTE-OF-TRAVEL SPACES FOR DELIVERIES. PROVIDE PROTECTION AS NECESSARY / CLEAN UP AS WORK IS COMPLETED.
 - COLLECT RUBBISH AND DEBRIS IN LOCATIONS AS APPROPRIATE AND REMOVE FROM SITE AS REQUIRED TO AVOID ACCUMULATION. USE APPROPRIATE TRASH CONTAINERS TO COLLECT RUBBISH AND DEBRIS FOR REMOVAL.
 - GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL MEANS, METHODS, TECHNIQUES AND SEQUENCES OF CONSTRUCTION. PROVIDE ADEQUATE CONSTRUCTION SAFEGUARDS TO PROTECT PERSONS AND PROPERTY. PROVIDE ENGINEERED SHORING AND BRACING ADEQUATE TO SUPPORT ALL TEMPORARY AND PERMANENT LOADS IMPOSED ON STRUCTURE DUE TO CUTTING OF SLABS, STRUCTURAL MEMBERS, WALLS AND OTHER ELEMENTS.
 - DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE COMPLEMENTARY. WORK INDICATED IN EITHER IS TO BE COMPLETED AS IF SHOWN IN BOTH.
 - VERIFY IN FIELD ALL CONDITIONS PRIOR TO THE START OF WORK INCLUDING OFF-SITE FABRICATION. VERIFY ALL CONDITIONS OF WORK THAT PRECEDES SUBSEQUENT WORK. VERIFICATION BY EACH SUBCONTRACTOR OR TRADE WILL BE ASSUMED BY THE COMMENCEMENT OF THAT SUBCONTRACTOR OR TRADE TO SHOP FABRICATE OR COMMENCE WORK. NO CLAIM FOR EXTRA COST OR TIME WILL BE ALLOWED FOR FAILURE TO ADEQUATELY AND COMPLETELY VERIFY FIELD CONDITIONS AFFECTING WORK. NOTIFY THE ARCHITECT OF ANY DISCOVERED UNEXPECTED FIELD CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
 - DO NOT SCALE THE DRAWINGS. USE CALCULATED DIMENSIONS ONLY. IF A DIMENSION IS REQUIRED BUT NOT INDICATED TO ACCOMPLISH THE WORK, NOTIFY THE ARCHITECT FOR CLARIFICATION. IN THE CASE OF A DISCREPANCY BETWEEN DIMENSIONS, CONTACT THE ARCHITECT FOR CLARIFICATION. DIMENSIONS ARE GENERALLY GIVEN TO THE CENTERLINES OF COLUMNS AND TO THE FINISHED FACE OF WALLS. DOOR JAMB DIMENSIONS ARE TO THE FINISHED FRAME SURFACE UNLESS INDICATED OTHERWISE. FLOOR ELEVATION DIMENSIONS ARE TO THE SLAB SURFACE UNLESS INDICATED OTHERWISE. FINISHED CEILING ELEVATIONS ARE FROM THE TOP-OF-SLAB TO THE SURFACE OF CEILING FINISH.
 - "ALIGN" WHEN USED ON THE DRAWINGS MEANS TO LINE UP THE FINISH SURFACES OF THE WALLS OR COLUMNS OR CASEWORK INDICATED. IT DOESN'T MEAN "GET IT CLOSE"; IT MEANS ALIGN IT.
 - ALL PENETRATIONS THROUGH RATED WALLS OR FLOORS SHALL BE SEALED WITH APPROVED FIRE STOP MATERIAL TO PROVIDE FIRE, SMOKE AND ACOUSTICAL ISOLATION OF SPACES AS REQUIRED BY RATINGS INDICATED. ALL PLUMBING PENETRATIONS WHEREVER LOCATED AND OTHER PENETRATIONS LOCATED WITHIN CHASES OR SHIFTS THROUGH FLOORS SHALL BE SEALED WATER TIGHT.
 - PROVIDE FINISHED WALLS BEHIND EQUIPMENT AND CASEWORK. FOR PAINTED DRYWALL SURFACES, WHITE FINISH PAINT IN CONCEALED AREAS MAY BE SUBSTITUTED FOR FINISH COLORS IF EQUIPMENT OR CASEWORK IS INSTALLED PRIOR TO FINISH PAINTING OF THE SPACE.
 - PROVIDE BLOCKING WITHIN ALL PARTITIONS ADEQUATE TO SUPPORT WEIGHT AND WORKING LOADS OF EQUIPMENT AND CASEWORK HUNG THEREFROM. DECREASE STUD SPACING IF REQUIRED TO SUPPORT ITEMS AND LOADS ANTICIPATED.
 - PROVIDE FLUSH, KEY OPERATED ACCESS PANELS IN WALLS AND CEILINGS AS REQUIRED FOR ACCESS TO CONCEALED EQUIPMENT AND ACCESSORIES. REVIEW SIZE AND LAYOUT OF ACCESS PANELS WITH ARCHITECT PRIOR TO FRAMING OPENINGS.
 - PROVIDE ADDITIONAL SUPPORT OR FRAMING AS REQUIRED WHERE MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ITEMS PENETRATE OR PASS THROUGH WALLS AND CEILINGS.
 - THERE ARE TO BE NO BACK-TO-BACK OPENINGS IN WALLS, EVEN IF GRAPHICALLY INDICATED ON DRAWINGS. IN NON-RATED PARTITIONS, OFFSET RECEPTACLES, SWITCHES, CONTROLS AND LINE DEVICES BY 6". AT RATED WALLS, OFFSET BY 24" MINIMUM AND SAFE IN ACCORDANCE WITH RATING REQUIREMENTS.
 - ALL GLAZED DOORS AND ANY GLAZED PANEL MORE THAN 18" IN WIDTH ADJACENT TO ANY DOOR WHEREIN THE SILL OF SUCH GLAZED PANEL IS LESS THAN 24" ABOVE THE FLOOR SHALL BE CONSIDERED A HAZARDOUS LOCATION AND SHALL BE GLAZED WITH SAFETY GLAZING MATERIALS.
 - ALL EXIT DOORS SHALL BE OPERABLE IN DIRECTION OF EXIT TRAVEL WITHOUT A KEY OR SPECIAL KNOWLEDGE.
 - STARTRAY AND BALCONY GUARDRAILS SHALL COMPLY WITH THE STRUCTURAL LOADING REQUIREMENTS SET FORTH IN IBC "THRUST ON HANDRAILS".
 - REQUIREMENTS FOR INTERIOR WALL AND CEILING FINISHES AND INTERIOR TRIM:
a. CLASS 1.
b. CLASS A.

Life Safety



1 CART BARN OCCUPANCY & EXITING DIAGRAM (BUILDING IS FULLY SPRINKLERED)

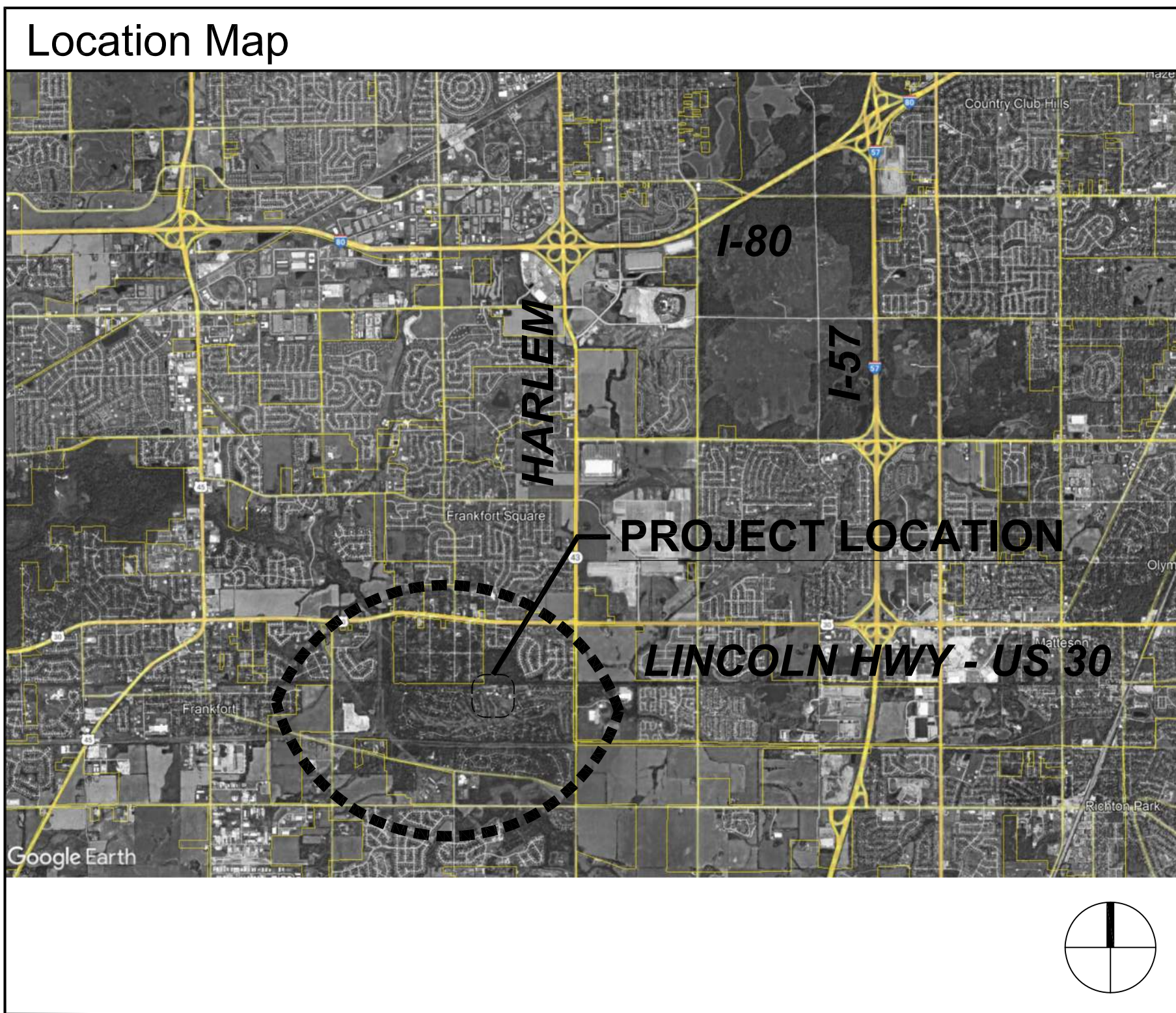
Building Data	
PROJECT SCOPE:	REPLACEMENT OF EXISTING GOLF CART STORAGE BARN.
WORK UNDER THIS PERMIT INCLUDES DEMOLITION OF EXISTING CART BARN AND NEW CONSTRUCTION OF SPACES AND FINISHES, MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT AND SYSTEMS.	
APPLICABLE CODES:	VILLAGE OF FRANKFORT ZONING ORDINANCE INTERNATIONAL BUILDING CODE - 2012 ADDITION WITH VILLAGE OF FRANKFORT AMENDMENTS 2014 ILLINOIS STATE PLUMBING CODE WITH VILLAGE OF FRANKFORT AMENDMENTS 2015 INTERNATIONAL MECHANICAL CODE WITH VILLAGE OF FRANKFORT AMENDMENTS 2015 INTERNATIONAL ENERGY CONSERVATION CODE WITH VILLAGE OF FRANKFORT AMENDMENTS 2015 INTERNATIONAL FIRE CODE WITH VILLAGE OF FRANKFORT AMENDMENTS 2011 NATIONAL ELECTRICAL CODE WITH VILLAGE OF FRANKFORT AMENDMENTS 2015 FUEL GAS CODE WITH VILLAGE OF FRANKFORT AMENDMENTS 2018 ILLINOIS ACCESSIBILITY CODE AMERICANS WITH DISABILITIES ACT - ADA; 2010 GUIDELINES (ADA)

Index of Drawings	
SHEET NUMBER	SHEET NAME
A0.0	COVER
A0.1	DRAWING INDEX, SYMBOLS, LIFE SAFETY PLANS, CODES & NOTES
A0.2	GENERAL REQUIREMENTS
A0.3	ARCHITECTURAL SPECIFICATIONS
A0.4	ARCHITECTURAL SPECIFICATIONS
A0.5	ARCHITECTURAL SPECIFICATIONS
A1.1	OVERALL SITE PLAN
A10.1	CART BARN SITE PLAN & ROOF PLAN
A10.2	CART BARN FLOOR PLANS & ELEVATIONS
A10.3	CART BARN SECTIONS & DETAILS
A10.4	CART BARN DETAILS
C1	CIVIL COVER SHEET
C2	EXISTING CONDITIONS
C3	DEMOLITION PLAN
C4	GEOMETRIC PLAN
C5	GRAVING / UTILITY PLAN
C6	CONSTRUCTION DETAILS
C7	DETAILS
M0.1	MECHANICAL SYMBOLS, ABBREVIATIONS AND NOTES
M1.1	MECHANICAL NEW WORK PLAN
P0.1	PLUMBING SYMBOLS, ABBREVIATIONS AND NOTES
P1.1	PLUMBING NEW WORK PLAN - CART BARN
P3.1	PLUMBING DETAILS
P4.1	PLUMBING SPECIFICATIONS
FP0.1	FIRE PROTECTION SYMBOLS, ABBREVIATIONS AND NOTES
FP1.1	FIRE PROTECTION NEW WORK PLAN - CART BARN
FP2.1	FIRE PROTECTION DETAILS
FP3.1	FIRE PROTECTION SPECIFICATIONS
E0.1	ELECTRICAL SYMBOLS, ABBREVIATIONS AND NOTES
E1.1	ELECTRICAL NEW WORK PLAN - CART BARN
E2.1	ELECTRICAL LIGHTING PLANS

THESE DRAWINGS HAVE BEEN PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL AND, TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, COMPLY WITH THE REQUIREMENTS OF THE BUILDING CODES AND ORDINANCES ADOPTED BY THE VILLAGE OF FRANKFORT, ILLINOIS.

STEVEN F. WEISS
ILLINOIS REGISTERED ARCHITECT #01-008425
LICENSE EXPIRES NOVEMBER 15, 2024

Building Code Data	
Use Group Classification	
Occupancy Classifications:	Group S-2 Golf Cart Storage Barn
Special Requirements Based on Use and Occupancy	
Automatic Sprinkler System required for Cart Barn per IFC 903.2.10 (Frankfort Amendment per Ord. 245).	
Fire Alarm System is required in Addition and in Cart Barn, manual fire alarm, monitored by Frankfort Fire Protection District or UL 627 approved and NFPA 72 compliant central station alarm monitoring center, per IFC 907.2 (Frankfort Amendment per Ord. 245 and Appendix N).	
Building Area Summary	
Existing Cart Barn	3,813 SF
Replacement Cart Barn	4,320 SF
Construction Type	
Existing Cart Barn	Type V-B
Replacement Cart Barn	Type V-B
Required fire resistance ratings	0 hours
Building Height	
Cart Barn Allowable	60 ft./ 3 stories (Fully sprinklered)
Cart Barn Actual	21'-6"/ 1 story
Floor Area Per Floor	
Cart Barn Allowable (S-2, V-B)	54,000 SF (Fully sprinklered)
Cart Barn Actual	4,320 SF



WEISS

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email@weissarch.com

REPLACEMENT CART BARN



PRESTWICK
COUNTRY
CLUB

601 PRESTWICK DR. FRANKFURT, IL 60423

THESE DRAWINGS ISSUED FOR
BIDDING AND PERMIT ONLY.
NOT FOR
CONSTRUCTION

10-6-2023 ISSUED FOR BID & PERMIT
3-17-2023 SCHEMATIC DESIGN

INDEX, CODES,
NOTES, LOCATION

Scale:

NOT TO SCALE

Drawn by:

Project:

2222

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Sheet

A0.1

\\ws2\data\Projects\Current\222-PRSTWICK COUNTRY CLUB\RFI\222-CD\Arch\222 RCB A02 GEN RQS.dwg, A02 RCB GENL REQ, 10/5/2023 11:28:54 AM, SWeiss, DWG to PDF.pc3, ARCH full bleed E (36.00 x 48.00 inches), 1:1

SECTION 007200 - GENERAL CONDITIONS

- PART 1 - GENERAL**
- 1.1 DESCRIPTION
- A. The General Conditions of the Contract for Construction - AIA Document A201-2017, as modified for this project, are a part of this project and are incorporated herein as if appearing in full.
- B. ADDITIONAL INSURED: In accordance with the requirements of the General Conditions and prior to commencement of work covered under this contract, Contractor shall submit Certificates of Insurance indicating compliance with the requirements of this contract and naming the following entities as Additional Insureds:
- PRESTWICK COUNTRY CLUB
 - WEISS ARCHITECTS, LLC
 - K ENG LLC
 - ELARA ENGINEERING
 - JOSEPH A SCHUDT & ASSOCIATES

The coverage afforded the additional insureds shall be primary insurance for the insured or additional insured in respect to clearing/filling of operations performed by or on behalf of the named insured. If the additional insureds have other insurance which is applicable to the loss, each other insurance shall be treated as excess or contingent coverage. The extent of the insured's liability under this insurance policy shall not be reduced by the existence of such other insurance.

C. INDEMNIFICATION: To the fullest extent permitted by law, the General Contractor and all contractors and subcontractors of any tier shall waive any right of contribution and, with respect to the Indemnified Parties, any limitation of liability under Worker Compensation laws, and shall indemnify and hold harmless the Owner and Owners, the Architect and their agents and employees and consultants (the Indemnified Parties) from and against all claims, damages, losses and expenses ("Claims"), including but not limited to attorneys' fees and economic or consequential damages, arising out of, resulting from or in connection with the performance of the Work, provided that any such Claim, is caused in whole or in part by any negligent act or omission of the General Contractor, any Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by an Indemnified Party. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Agreement.

In any and all Claims against any Indemnified Party by any employee of the General Contractor, any Contractor or any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the General Contractor, any Contractor or any Subcontractor under worker compensation acts, disability benefit acts or other employee benefits acts.

The term "Claim" as used in this Paragraph shall be construed to include, but not be limited to (1) injury or damage consequent upon the failure of or use or misuse by the General Contractor, any Contractor, its Subcontractors, agents, servants or employees, of any kind of form of equipment, whether or not the same be owned, furnished or loaned by Owner, General Contractor, or any Contractor; (2) all attorneys' fees and costs incurred in bringing an action to enforce the provisions of this indemnity or any other indemnity contained in the Contract Documents; and (3) time expended by the Indemnified Party and its employees, at its usual rates plus costs of travel, long distance telephone and reproduction of documents.

D. Only to the extent necessary to prevent this provision from being void under 740 ILCS 30/1, et seq., entitled "Indemnification of person from person's own negligence", this indemnity agreement shall not require the Contractor to indemnify any Indemnified Party against that party's own negligence.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 007200

SECTION 011000 - SUPPLY

PART 1 - GENERAL

- 1.1 PROJECT INFORMATION
- A. Project Identification: DEMOLITION OF EXISTING GOLF CART STORAGE BUILDING AND CONSTRUCTION OF NEW REPLACEMENT BUILDING, INCLUDING ASSOCIATED SITE WORK, MECHANICAL, PLUMBING, FIRE PROTECTION, AND ELECTRICAL WORK.
- B. Owner: PRESTWICK COUNTRY CLUB
- C. Architect: Weiss Architects, LLC, 222 West Ontario Street, Suite 330, Chicago, Illinois 60654, 312/686-1160.
- D. Structural Consultant for Cart Barn: K+Eng LLC, 1017 W. Washington Blvd., Chicago, Illinois 60607; 312/238-9968
- E. Structural Engineer of Record for Cart Barn: Lester Buildings, LLC, 1111 2nd Avenue South, Lester Prairie, Minnesota 55354; 320/395-2531.
- F. MEP/FP Engineer: Elara Engineering, Chicago, Illinois; 708/236-0300.
- G. Civil Engineer: Joseph A Schudt & Associates, 9455 Enterprise Drive, Mokena, Illinois 60448, 708/729-1000

1.2 WORK RESTRICTIONS

A. Contractor's Use of Premises: During construction, Contractor will have use of site, subject to work rules and restrictions of the Owner, the Village of Frankfort and others having jurisdiction.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

SECTION 012000 - PRICE AND PAYMENT PROCEDURES

PART 1 - GENERAL

- 1.1 ALLOWANCES
- A. Advise Architect of the date when selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- C. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight and delivery to Project site.
- 1.2 ALTERNATES
- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.
- B. Coordination: Review or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated.
- C. Notification: Immediately following award of the Contract, notify each party involved, in writing, whether alternates have been accepted, rejected, or deferred for later consideration.

1.4 PAYMENT PROCEDURES

- A. Submit a Schedule of Values in accordance with the Contract. Application for Payment. Break down the Contract Sum into at least one line item for each Specification Section in the Project Manual table of contents.
1. Arrange schedule of values consistent with format of AIA Document G703.
2. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
3. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
4. Provide separate line items in the schedule of values for initial cost of materials and for total installed value of that part of the Work.
5. Provide a separate line item in the schedule of values for each allowance.
- B. Application for Payment Forms: Use AIA Document G702 and AIA Document G703.
- C. Submit three copies of each application for payment according to the schedule established in Owner/Contractor Agreement.
1. Notice and execute by a person authorized to sign legal documents on behalf of Contractor.
2. With each Application for Payment, submit waivers of mechanic's liens from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.
3. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

- 1.1 SCHEDULE OF ALLOWANCES
- A. To Be Determined
- ALL OTHER MATERIALS, ITEMS AND EQUIPMENT ARE TO BE FURNISHED AND INSTALLED WITHIN THE CONTRACT SUM.

1.2 SCHEDULE OF ALTERNATES

- A. To Be Determined

SECTION 012600 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

- 1.1 SUBSTITUTION PROCEDURES
- A. Substitutions include changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
- B. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and title.
1. Substitution Request Form: Use CSI Form 13.1A.
2. Submit requests within 30 days after the Notice of Award.
3. Identify product to be replaced and show compliance with requirements for substitutions. Include a detailed comparison of significant qualities of proposed substitutions with those of the Work specified, a list of changes needed to other parts of the Work required to accommodate proposed substitution, and any proposed changes in the Contract Sum or the Contract Time should the substitution be accepted.
- C. Architect will review proposed substitutions and notify Contractor of their acceptance or rejection. If necessary, Architect will request additional information or documentation for evaluation.
1. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- D. Do not submit unapproved substitutions on Shop Drawings or other submittals.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

- 1.1 CONTRACT MODIFICATION PROCEDURES
- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710.

"Architect's Supplemental Instructions".

- B. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work.
1. Proposal Requests are not instructions either to stop work in progress or to execute the proposed change.
2. Within time specified in Proposal Request or 20 days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and anticipated schedule impacts to the Architect.
- C. Contractor-Initiated Proposals: If at least or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
- D. On Owner's approval of a Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701, for all changes to the Contract Sum or the Contract Time.
- E. Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
2. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive. After completion of change, submit a itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

SECTION 013000 - ADMINISTRATIVE REQUIREMENTS

PART 1 - GENERAL

1.1 PROJECT MANAGEMENT AND COORDINATION

- A. Subcontract List: Submit a written summary identifying individuals or firms proposed for each portion of the Work.
- B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project Meetings. List e-mail addresses and telephone numbers.
- C. Coordinate construction operations included in Different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work.
- D. Requests for Information (RFIs): On discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI. Use AIA Document G719 or similar form.
- E. Schedule and conduct progress meetings at Project site at weekly intervals. Notify Owner and Architect of meeting dates and times. Require attendance of each subcontractor or other entity concerned with current progress or involved in planning, coordination, or performance of future activities.
1. Record minutes and distribute to everyone concerned, including Owner and Architect.

1.2 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Upon specific request for each individual use, Electronic digital data files of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals.
1. Architect will furnish Contractor one set of digital data drawing files of the Contract Drawings for use in preparing Shop Drawings and Project record drawings of the Contract.
- a. Architect makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
- b. Contractor shall execute a data licensing agreement in the form of AIA Document C106, Digital Data Licensing Agreement.
- B. Coordinate each submittal with fabrication, purchasing, testing, delivery, other materials, and related activities that require sequential activity.
1. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
2. All submittals are to be submitted as electronic documents, in PDF format. Each submittal must include, either within the pages of the submittal or on cover sheet,
- a. Project name.
- b. Date.
- c. Name and address of Contractor.
- d. Name and address of subcontractor or supplier.
- e. Number and title of appropriate Specification Section.

C. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:

1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form.
2. Name file with unique identifier, including project identifier, Specification Section number, and revision identifier.
3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.

D. Identify options requiring selection by Architect.

E. Identify deviations from the Contract Documents on submittals.

F. Contractor's Construction Schedule Submittal Procedure:

1. Submit required submittals in the following format:
- a. PDF electronic file.
2. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
3. Coordinate Contractor's construction schedule with the schedule of values, submittal schedule, progress reports, payment requests, and other required schedules and reports.

PART 2 - PRODUCTS

1.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections.
1. Post electronic submittals as PDF electronic files directly to Architect's FTP site specifically established for Project or, upon mutual agreement, via email or other document management method.
- a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.

2. ACTION SUBMITTALS

- A. Product Data: Mark each submittal to show applicable products and options. Include the following:
1. Manufacturer's written recommendations, product specifications, and installation instructions.
2. Wiring diagrams showing factory-installed wiring.
3. Printed performance curves and operational range diagrams.
4. Testing by recognized testing agency.
5. Compliance with specified standards and requirements.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data. Include the following:
1. Dimensions and identification of products.
2. Fabrication and installation drawings and roughing-in and setting diagrams.
3. Wiring diagrams showing field-installed wiring.
4. Notation of coordination requirements.
5. Notation of dimensions established by field measurement.
- C. Samples: Submit Samples for review of kind, color, pattern, and texture and for a comparison of these characteristics between submittal and actual component as delivered and installed. Include name of manufacturer and product name or label.
1. If variation is inherent in material or product, submit at least three sets of paired units that show variations.

2.3 INFORMATIONAL SUBMITTALS

- A. Qualification Data: Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- B. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

2.4 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type schedule within 5 days of date established for the Notice of Award.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
- C. Recovery Schedule: When period update indicates the Work is 5 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and indicate date by which recovery will be accomplished.

PART 3 - EXECUTION

1.1 SUBMITTAL REVIEW

- A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Architect will review each action submittal, make marks to indicate corrections or modifications required, will stamp each submittal with an action stamp, and will mark stamp appropriately to indicate action.
- C. Informational Submittals: Architect will review each submittal and will not return it, will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- D. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

3.2 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule before each regularly scheduled progress meeting.
- B. Distribute copies of approved schedule to Owner, Architect, subcontractors, testing and inspecting agencies, and parties identified by Contractor with a need-to-know schedule responsibility. When revisions are made, distribute updated schedules to the same parties.

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
- B. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements, comply with the most stringent requirement. Refer uncertainties to Architect for a decision.
- C. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum. The actual installation may exceed the minimum within reasonable limits. Indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision.
- D. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections.
- E. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, notices, receipts for fee payments, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.
- F. Professional Engineer Qualifications: A professional engineer who is legally qualified to

practice in the State of Illinois and who is experienced in providing engineering services of the kind indicated.

- G. Testing Agency Qualifications: An independent agency with the experience and capability to conduct testing and inspection indicated; and where required by authorities having jurisdiction, that is acceptable to authorities.
- H. Retesting/Respecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and respecting, for construction that retested or inspected that failed (punch list), the value of items on the list, and reasons why the Work is not complete.
- I. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Architect and Contractor of irregularities or deficiencies in the Work observed during performance of its services.
2. Do not release, revoke, alter, or increase requirements of the Contract Documents or approve or accept any portion of the Work.
3. Do not perform any duties of Contractor.
- J. Associated Services: Cooperate with testing agencies and provide reasonable auxiliary services as requested. Provide the following:
1. Access to the Work.
2. Industrial labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
4. Facilities for storage and field curing of test samples.
5. Security and protection for samples and for testing and inspecting equipment.
- K. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

- 1.1 SECTION REQUIREMENTS
- A. Use Charges: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated.
- B. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

PART 2 - PRODUCTS

- 2.1 TEMPORARY FACILITIES
- A. Provide field offices, storage and fabrication sheds, and other support facilities as necessary for construction operations. Store combustible materials apart from building.

2.2 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated, with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

1.1 TEMPORARY UTILITY INSTALLATION

- A. Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.

3.2 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Provide protection, temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, wastewater, and subsol contamination or pollution or other undesirable effects.
- B. Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to erosion and sedimentation-control Drawings.
- C. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control measures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.
- D. Furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
- E. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- F. Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weatheright enclosure for building exterior.
- G. Install and maintain temporary fire-protection facilities. Comply with NFPA 241.

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
- B. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced.
1. Show compliance with requirements for comparable product requests.
2. Architect will review the proposed product and notify Contractor of its acceptance or rejection.
- C. Basis-of-Design Product Specification Submittal: Show compliance with requirements.
- D. Compatibility of Options: If Contractor is given option of selecting between two or more products, select product compatible with products previously selected.
- E. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Deliver products to Project site in manufacturer's original sealed container or packaging, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
3. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
4. Store materials in a manner that will not endanger Project structure.
5. Store products that are subject to damage by the elements, under cover in a weatheright enclosure above ground, with ventilation adequate to prevent condensation.
- F. Warranties specified in other Sections shall be in addition to, and run concurrent with, any other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. Provide products that comply with the Contract Documents, are undamaged, and, unless otherwise indicated, are new at the time of installation.
1. Provide products complete with accessories, trim, finish, and other devices and components needed for a complete installation and the intended use and effect.
2. Where products are accompanied by the term "as selected," provide a product that complies with requirements or a comparable product.
3. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
- B. Where the following headings are used to list products or manufacturers, the Contractor's options for product selection are as follows:
1. Products:
- a. Where requirements include "one of the following," provide one of the products listed that complies with requirements.
- b. Where requirements do not include "one of the following," provide one of the products listed that complies with requirements or a comparable product.
2. Manufacturers:
- a. Where requirements include "one of the following," provide a product that complies with requirements by one of the listed manufacturers.
- b. Where requirements do not include "one of the following," provide a product that complies with requirements by one of the listed manufacturers or another manufacturer.
- C. Basis-of-Design Product: Provide the product named, or indicated on the Drawings, or a comparable product by one of the listed manufacturers.
- D. Where Specifications require "match Architect's sample," provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
- E. Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

PART 3 - EXECUTION

2.2 COMPARABLE PRODUCTS

- A. Architect will consider Contractor's request for comparable product when the following conditions are satisfied:
1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
2. Detailed comparison of significant qualities of proposed product with those named in the Specifications.
3. List of similar installations for completed projects, if requested.
4. Samples, if requested.

PART 3 - EXECUTION (Not Used)

SECTION 017000 - EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.1 EXECUTION REQUIREMENTS

- A. Cutting and Patching:
1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and award directions from Architect before proceeding. Shore, brace, and support structural elements during cutting and patching.
2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
3. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities.
- C. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

1.2 CLOSEOUT SUBMITTALS

- A. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- B. Certified List of Incomplete Items: Final submittal at Final Completion.

C. Operation and Maintenance Data: Submit three copies of manual.

1. PDF Electronic File: Assemble manual into a composite electronically indexed file.

Submit on digital media.

D. Record Drawings:

1. Record Digital Data Files: Submit data file and one set(s) of plots.
- E. Record Product Data: Submit annotated PDF electronic files and directories of each submittal.

1.3 SUBSTANTIAL COMPLETION PROCEDURES

- A. Prepare a list of items to be completed and inspected (punch list), the value of items on the list, and reasons why the Work is not complete.
- B. Submittals Prior to Substantial Completion: Before requesting Substantial Completion inspection, complete the following:
1. Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
2. Submit closeout submittals specified in other sections, including project record documents, operation and maintenance manuals, property surveys, similar final record information, warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
3. Submit maintenance material submittals specified in other sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect.
4. Submit test/adjust/balance records.
5. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Before requesting Substantial Completion inspection, complete the following:
1. Advise Owner of pending insurance changeover requirements.
2. Make final changeover of permanent locks and deliver keys to Owner.
3. Complete startup and testing of systems and equipment.
4. Perform preventive maintenance on equipment used prior to Substantial Completion.
5. Advise Owner of changeover in heat and other utilities.
6. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
7. Remove temporary facilities and controls.
8. Complete final cleaning requirements, including touchup painting.
9. Touch up and otherwise repair and restore mamed exposed finishes to eliminate visual defects.

D. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will proceed with inspection or advise Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will advise Contractor of items that must be completed or corrected before certificate will be issued.

1.4 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting inspection for determining final completion, complete the following:
1. Submit a final Application for Payment.
2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or that might damage finished surfaces.
3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. Submit pest-control final inspection report.
- B. Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare final Certificate for Payment after inspection or will advise Contractor of items that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. In-Place Materials: Use materials for visually identical in-place materials. For exposed surfaces, use materials that matching identical in-place adjacent surfaces to the fullest extent possible.
- B. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

2.2 OPERATION AND MAINTENANCE DOCUMENTATION

- A. Directory: Prepare a single, comprehensive directory of emergency, operation, and maintenance data and materials, listing items and their location to facilitate ready access to desired information.
- B. Organization: Unless otherwise indicated, organize manual into separate sections for each system and subsystem, and separate sections for each piece of equipment not part of a system.
- C. Organize data into three-ring binders with identification on front and spine of each binder, and envelopes for folded drawings. Include the following:
1. Manufacturer's operation and maintenance documentation.
2. Maintenance and service schedules.
3. Maintenance service contracts. Include name and telephone number of service agent.
4. Emergency instructions.
5. Spare parts list and local sources of maintenance materials.
6. Wiring diagrams.
7. Copies of warranties. Include procedures to follow and required notifications for warranty claims.

2.3 RECORD DRAWINGS

- A. Record Prints: Maintain a set of prints of the Contract Drawings and Shop Drawings, including new and revised drawings as modifications are issued. Mark each sheet to actual installation where installation varies from that shown originally. Accurately record information in an acceptable drawing technique.
1. Identify and date each record Drawing, include the designation "PROJECT RECORD DRAWING" in a prominent location.
- B. Record Digital Data Files: Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Architect. When authorized, prepare a full set of corrected digital data files of the Contract Drawings.
1. Format: Annotated PDF electronic file.

PART 3 - EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed.

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SECTION 024116 - STRUCTURE DEMOLITION

PART 1 - GENERAL

- 1.1 SUMMARY
- A. Section Includes:
- Demolition and removal of buildings and site improvements.
 - Removing below-grade construction.
 - Disconnecting, capping or sealing, and abandoning in-place site utilities.
 - Salvaging items for reuse by Owner.
- 1.2 MATERIALS OWNERSHIP
- A. Unless otherwise indicated, demolition waste becomes property of Contractor.
- 1.3 FIELD CONDITIONS
- A. Buildings to be demolished will be vacated and their use discontinued before start of the Work.
- B. Buildings immediately adjacent to demolition area will be occupied. Conduct building demolition so operations of occupied buildings will not be disrupted.
- C. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- E. On-site storage or sale of removed items or materials is not permitted.
- F. Arrange demolition schedule so as not to interfere with Owner's on-site operations or operations of adjacent occupied buildings.

PART 2 - PRODUCTS

1. PERFORMANCE REQUIREMENTS
- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASPP A10.6 and NFPA 241.
2. SOIL MATERIALS
- A. Satisfactory Soils: Comply with requirements in Section 312000 "Earth Moving."

PART 3 - EXECUTION

- 3.1 EXAMINATION
- A. Verify that utilities have been disconnected and capped before starting demolition operations.
- B. Perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during building demolition operations.
- C. Inventory and record the condition of items to be removed and salvaged.
- 3.2 PREPARATION
- 3.3 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS
- A. Existing Utilities to Be Disconnected: Locate, identify, disconnect, and seal or cap off utilities serving buildings and structures to be demolished.
- Arrange to shut off utilities with utility companies.
 - If removal, relocation, or abandonment of utility services will affect to adjacent occupied buildings, then provide temporary utilities that bypass buildings and structures to be demolished and that maintain continuity of service to other buildings and structures.
 - Cut off pipe or conduit a minimum of 24 inches below grade. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing according to requirements of authorities having jurisdiction.
 - Do not start demolition work until utility disconnecting and sealing have been completed and verified in writing.

- 3.4 PROTECTION
- A. Existing Facilities: Protect adjacent walkways, loading docks, building entries, and other building facilities during demolition operations. Maintain eaves from existing buildings.
- B. Temporary Shoring: Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent unexpected movement or collapse of construction being demolished.
- C. Existing Utilities to Remain: Maintain utility services to remain and protect from damage during demolition operations. Do not interrupt existing utilities serving adjacent occupied or operating facilities unless authorized in writing by Owner and authorities having jurisdiction.
- D. Temporary Protection: Erect temporary protection, such as walls, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction and as indicated. Comply with requirements in Section 015000 "Temporary Facilities and Controls."

1. Protect adjacent buildings and facilities from damage due to demolition activities.
2. Protect existing site improvements, appurtenances, and landscaping to remain.
3. Erect a plainly visible fence around drip line of individual trees or around perimeter drip line of groups of trees to remain.
4. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
5. Provide protection to ensure safe passage of people around building demolition area and to and from occupied portions of adjacent buildings and structures.
6. Protect walls, windows, roofs, and other adjacent exterior construction that are to remain and that are exposed to building demolition operations.
7. Erect and maintain dustproof partitions and temporary enclosures to limit dust, noise, and dirt migration to avoid portions of adjacent buildings.
- E. Remove temporary barriers and protections where hazards no longer exist. Where open excavations or other hazardous conditions remain, leave temporary barriers and protections in place.

3.5 DEMOLITION

- A. General: Demolish indicated buildings and site improvements completely. Use methods required to complete the Work within limitations of governing regulations and as follows:
- Locate building demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - Site Access and Temporary Controls: Conduct building demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed thoroughfares if required by authorities having jurisdiction.
 - Use water mist and other suitable methods to limit spread of dust and dirt. Comply with governing environmental protection regulations.
 - Explosives: Use of explosives is not permitted.
 - Proceed with demolition of structural framing members systematically, from higher to lower level.
 - Demolish foundation walls and other below-grade construction that are within footprint of new construction and extending 5 feet outside footprint indicated for new construction.
 - Existing Utilities: Abandon existing utilities and below-grade utility structures that are within 5 feet outside footprint indicated for new construction. Abandon utilities outside this area.
 - Below-Grade Areas: Completely fill below-grade areas and voids resulting from building demolition operations with satisfactory soil materials according to backfill requirements in Section 312000 "Earth Moving."
 - Site Grading: Uniformly rough grade area of demolished construction to a smooth surface, free from irregular surface changes. Provide a smooth transition between adjacent existing grades and new grades.
 - Promptly repair damage to adjacent buildings caused by demolition operations.

3.6 CLEANING

- A. Remove and legally dispose demolition waste materials from Project site
- B. Do not burn demolished materials.
- C. Clean adjacent structures and improvements of dust, dirt, and debris caused by building demolition operations. Return adjacent areas to condition existing before building demolition operations began.

END OF SECTION 024116

SECTION 033000 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

- 1.1 SUMMARY
- A. Section Includes:
- Concrete standards.
 - Concrete materials.
 - Admixtures.
 - Vapor retarders.
 - Curing materials.
 - Accessories.
 - Repair materials.
 - Concrete mixture materials.
 - Concrete mixture class types.
 - Concrete mixing.
- B. Related Requirements:
- Section 312000 "Earth Moving" for drainage fill under slabs-on-ground.
 - Section 321313 "Concrete Paving" for concrete pavement and walks.

1.2 ACTION SUBMITTALS

- A. Product data.
- B. Design Mixtures: For each concrete mixture, include the following:
- Mixture identification.
 - Compressive strength at 28 days or other age as specified.
 - Maximum w/cm ratio.
 - Slump or slump flow limit.
 - Air content.
 - Nominal maximum aggregate size.
 - Submit adjustments to design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant changes.

PART 2 - PRODUCTS

- 2.1 CONCRETE STANDARDS
- A. ACI Publications: Comply with ACI 301 unless modified by requirements in the Contract Documents.

2.2 CONCRETE MATERIALS

- A. Cementitious Materials:
- Portland Cement: ASTM C150/C150M, Type I, gray.
 - Pozzolans: ASTM C618, Class C, F, or N.
 - Slag Cement: ASTM C898/C898M, Grade 100 or 120.
 - Ground Glass Pozzolan: ASTM C1866/C1866M, Type GS or GE.
- B. Normal-Weight Aggregates:
- Coarse Aggregate: ASTM C39/C39M.
 - Maximum Coarse-Aggregate Size: 1-1/2 inches nominal.
 - Fine Aggregate: ASTM C33/C33M.
- 2.3 ADMIXTURES
- A. Air-Entraining Admixture: ASTM C260/C260M.
- B. Chemical Admixtures: Do not use calcium chloride or admixtures containing calcium chloride.
- Water-Reducing Admixture: ASTM C494/C494M, Type A.
 - Retarding Admixture: ASTM C494/C494M, Type B.
 - Water-Reducing and -Retarding Admixture: ASTM C494/C494M, Type D.
 - High-Range, Water-Reducing Admixture: ASTM C494/C494M, Type F.
 - High-Range, Water-Reducing and -Retarding Admixture: ASTM C494/C494M, Type G.
 - Admixtures with special properties, with documentation of claimed performance enhancement, ASTM C494/C494M, Type S.

- C. Mixing Water: For Concrete Mixtures and Water Used to Make Ice: ASTM C1602/C1602M. Include documentation of compliance with limits for alkalis, sulfates, chlorides, or solids content of mixing water from Table 2 in ASTM C1602/C1602M.
- 2.4 VAPOR RETARDERS
- A. Sheet Vapor Retarder, Class A: ASTM E1745, Class A. Include manufacturer's recommended thickness and adhesive or pressure-sensitive tape.
- 2.5 CURING MATERIALS
- A. Water: Potable water that does not cause staining of the surface.
- B. Clear, Waterborne, Membrane-Forming, Dissipating Curing Compound: ASTM C309, Type 1, Class B.

2.6 ACCESSORIES

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D1751, asphalt-saturated cellulose fiber or ASTM D1752, cork or self-expanding cork.
- 2.7 CONCRETE MIXTURE MATERIALS

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, in accordance with ACI 301.
- Use a qualified testing agency for preparing and reporting proposed mixture designs, based on laboratory trial mixtures.
 - Admixtures: Use admixtures in accordance with manufacturer's written instructions.
- 2.8 CONCRETE MIXTURE CLASS TYPES
- A. Class A: Normal-weight concrete used for footings, foundation walls, and grade beams.
- Exposure Class: ACI 318 Class F1 Class S1 Class W1.
 - Minimum Compressive Strength: 4000 psi at 28 days.
 - Maximum w/cm Ratio: 0.55.
 - Air Content:
 - Class C: Normal-weight concrete used for interior slabs-on-ground.
 - Exposure Class: ACI 318 Class F1 Class S1 Class W1 Class C1.
 - Minimum Compressive Strength: 4000 psi at 28 days.
 - Maximum w/cm Ratio: 0.55.
 - Air Content:
 - a. Do not use an air-entraining admixture or allow total air content to exceed 3 percent for concrete used in trowel-finished floors.

2.9 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete in accordance with ASTM C94/C94M and furnish delivery ticket.

PART 3 - EXECUTION

- 3.1 EXAMINATION
- A. Before placing concrete, verify that installation of concrete forms, accessories, reinforcement, and embedded items is complete and that required inspections have been performed.
- B. Do not proceed until unsatisfactory conditions have been corrected.
- 3.2 TOLERANCES
- A. Comply with ACI 117.
- 3.3 INSTALLATION OF EMBEDDED ITEMS
- A. Place and secure anchorage devices and other embedded items required for adjoining Work that is attached to or supported by cast-in-place concrete.
- B. Notify Architect and testing and inspection agencies 24 hours prior to commencement of concrete placement.
- C. Water addition in transit or at the Project site must be in accordance with ASTM C94/C94M and must not exceed the permitted amount indicated on the concrete delivery ticket.
- D. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete is placed on concrete that has hardened enough to cause seams or planes of weakness.
- E. Deposit and consolidate concrete for floors and slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.

3.4 INSTALLATION OF JOINTS

- A. Construct joints true to line, with faces perpendicular to surface plane of concrete.
- B. Control Joints in Slabs-on-Ground: Form weakened-plane control joints, sectioning concrete into areas as indicated. Construct control joints for a depth equal to at least one-fourth of concrete thickness as follows:
- Grooved Joints: Form control joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch. Repeat grooving of control joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
 - Sawed Joints: Form control joints with power saws equipped with shatterproof abrasive or diamond-forming blades. Cut 1/8-inch wide joints into concrete when cutting action does not tear, abrade, or otherwise damage surface and before concrete develops random cracks.
 - Isolation Joints in Slabs-on-Ground: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
 1. Extend joint-filler strips full width and depth of joint, terminating flush with finished concrete surface unless otherwise indicated on drawings.
 2. Install joint-filler strips in lengths as long as practicable. Where more than one length is required, leave a clip or splice sections together.

D. Doweled Joints:

1. Install dowel bars and support assemblies at joints where indicated on Drawings.
 2. Lubricate or asphalt coat one-half of dowel bar length to prevent concrete bonding to one side of joint.
3. APPLICATION OF FINISHING FLOORS AND SLABS
- A. Float Finish:

1. When bleedwater sheen has disappeared and concrete surface has stiffened sufficiently to permit operation of specific float apparatus, consolidate concrete with surface with power-driven floats or by hand floating if area is small or inaccessible to power-driven floats.
 2. Repeat float passes and straightening until surface is left with a uniform, smooth, granular texture and complies with ACI 117 tolerances for conventional concrete.
- B. Trowel Finish:

1. After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel.
2. Continue troweling passes and straighten until surface is free of trowel marks and uniform in texture and appearance.
3. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
4. Do not add water to concrete surface. Use of an approved finishing aid is acceptable.
5. Do not apply troweled finish to concrete, which has a total air content greater than 3 percent.
6. Finish surfaces to the following tolerances, in accordance with ASTM E1155, for a randomly trafficked floor surface:
- a. Slabs on Ground:
 - 1) In all areas of floors except as indicated below, specified overall values of flatness, F_{c} 25; and of levelness, F_{L} 20, with minimum local values of flatness, F_{c} 17; and of levelness, F_{L} 15.
 - 2) In area of rolling golf bag storage system, specified overall values of flatness, F_{c} 45; and of levelness, F_{L} 35; with minimum local values of flatness, F_{c} 30; and of levelness, F_{L} 24.
- b. Trowel and Fine-Broom Finish: First apply a trowel broom to surfaces. While concrete is still plastic, slightly scarify surface with a trowel broom perpendicular to main traffic route.
1. Coordinate required final finish with Architect before application.
2. Comply with flatness and levelness tolerances for trowel-finished floor surfaces.

3.8 APPLICATION OF CONCRETE CURING

- A. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
1. Comply with ACI 301 for cold weather protection during curing.
 2. Comply with ACI 301 and ACI 305.1 for hot-weather protection during curing.
- B. Curing Unformed Surfaces: Comply with ACI 308.1 as follows:
1. Begin curing after finishing concrete.
 2. Interior Concrete Floors:
 - a. Floors To Receive Curing Compound:
 - 1) Apply uniformly in continuous operation by power spray or roller in accordance with manufacturer's written instructions.
 - 2) Recall areas subjected to heavy rainfall within three hours after initial application.
 - b. Maintain continuity of coating, and repair damage during curing period.

3.9 INSTALLATION OF CONCRETE SURFACE REPAIRS

- A. Defective Concrete:
1. Repair and patch defective areas when approved by Architect.
 2. Remove and replace concrete that cannot be repaired and patched to meet specification requirements.
- B. Repairing Unformed Surfaces:
1. Test unformed surfaces, such as floors and slabs, for finish, and verify surface tolerances specified for each surface.
 - a. Correct low and high areas.
 - b. Test surfaces sloped to drain for trueeness of slope and smoothness; use a sloped template.
 2. Repair finished surfaces containing surface defects, including spalls, popouts, honeycombs, rock pockets, crazing, and cracks in excess of 0.01 inch wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width.
 3. After concrete has cured at least 14 days, correct high areas by grinding.
 4. Correct localized low areas during, or immediately after, completing surface-finishing operations by blending patching mortar.
 - a. Finish repaired areas to blend into adjacent concrete.
 5. Repair materials and installation not specified above may be used, subject to Architect's approval.

3.10 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a special inspector to perform field tests and inspections and prepare testing and inspection reports.
- B. Testing Agency: Owner will engage a qualified testing and inspecting agency to perform tests and inspections and to submit reports.
1. Testing agency to be responsible for providing curing facility for initial curing of strength test specimens on-site and verifying that test specimens are cured in accordance with standard curing requirements in ASTM C31/C31M.
 2. Testing agency to immediately report to Architect, Contractor, and concrete manufacturer any failure of Work to comply with Contract Documents.
 3. Testing agency to report results of tests and inspections, in writing, to Owner, Architect, Contractor, and concrete manufacturer within 48 hours of inspections and tests.
 4. Delivery Tickets: Comply with ASTM C94/C94M.
 5. Concrete Tests: Testing of composite samples of fresh concrete obtained in accordance with ASTM C 172/C 172M to be performed in accordance with the following requirements:
 1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd., but less than 25 cu. yd., plus one set for each additional 50 cu. yd. or fraction thereof.
 - a. When frequency of testing provides fewer than five compressive-strength tests for each concrete mixture, testing is to be conducted from at least five randomly selected batches from each batch if fewer than five are used.
 2. Slump: ASTM C143/C143M.
 - a. One test at point of delivery for each composite sample, but not less than one test for each day's pour of each concrete mixture.
 - b. Perform additional tests as needed.
 3. Air Content: ASTM C231/C231M pressure method, for normal-weight concrete.
 - a. One test for each composite sample when strength test specimens are cast, but not less than one test for each day's pour of each concrete mixture.
 4. Concrete Temperature: ASTM C1064/C1064M.
 - a. One test hourly when air temperature is 40 deg F and below or 80 deg F and above, and one test for each composite sample when strength test specimens are cast.
 5. Concrete Density: ASTM C138/C138M.
 - a. One test for each composite sample when strength test specimens are cast.
 6. Compression Test Specimens: ASTM C31/C31M.
 - a. Cast and standard cure two sets of three 6 inches by 12 inches or 4-inch by 8-inch cylindrical specimens for each composite sample.
 7. Compressive-Strength Tests: ASTM C39/C39M.
 - a. Test one set of three standard cure specimens at seven days and one set of two specimens at 28 days.
 - b. A compressive-strength test to be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.
 8. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests of standard cured cylinders equals or exceeds specified compressive strength, and no compressive-strength test value falls below specified compressive strength by more than 500 psi if specified compressive strength is 5000 psi, or no compressive strength test value is less than 10 percent of specified compressive strength if specified compressive strength is greater than 5000 psi.
 9. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
 10. Additional testing and inspecting, at Contractor's expense, will be performed to determine completion of replaced or additional work with specified requirements.

11. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.
- 3.11 PROTECTION
- A. Protect concrete surfaces.
- B. Protect from petroleum stains.
- C. Prohibit vehicles from interior concrete slabs.
- D. Prohibit placement of steel items on concrete surfaces.

END OF SECTION 033000

SECTION 055000 - METAL FABRICATIONS

PART 1 - GENERAL

- 1.1 SUMMARY
- A. Section Includes:
- Miscellaneous framing and supports.
 - Metal bollards.
 - Golf cart charger shelf supports.
- 1.2 ACTION SUBMITTALS
- A. Product Data: For the following:
- Shrinkage-resisting grout.
 - Slotted channel framing.
 - Metal bollards.

4. Measure floor and slab flatness and levelness in accordance with ASTM E1155 within 48 hours of completion of floor finishing and promptly report test results to Architect.
- 3.12 PROTECTION
- A. Protect concrete surfaces.
- B. Protect from petroleum stains.
- C. Prohibit vehicles from interior concrete slabs.
- D. Prohibit placement of steel items on concrete surfaces.

END OF SECTION 055000

SECTION 055000 - METAL FABRICATIONS

PART 1 - GENERAL

- 1.1 SUMMARY
- A. Section Includes:
- Miscellaneous framing and supports.
 - Metal bollards.
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- 1.2 ACTION SUBMITTALS
- A. Product Data: For the following:
- Shrinkage-resisting grout.
 - Slotted channel framing.
 - Metal bollards.

PART 2 - PRODUCTS

2.1 METALS

- A. Metal Surfaces, General: Provide materials with smooth, flat surfaces unless otherwise indicated. For metal fabrications exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes.
- B. Steel Plates, Shapes, and Bars: ASTM A36/A36M.
- C. Steel Tubing: ASTM A500/A500M, cold-formed steel tubing.
- D. Steel Pipe: ASTM A53/A53M, Standard Weight (Schedule 40) unless otherwise indicated.
- E. Slotted Channel Framing: Cold-formed metal box channels (studs) complying with MFMA-4.
1. Size of Channels: As indicated.
 2. Material: Galvanized steel, ASTM A653/A653M, commercial steel, Type B, with G90 coating; 0.108-inch nominal thickness.
- 2.2 FASTENERS
- A. General: Unless otherwise indicated, provide Type 304 stainless steel fasteners for exterior use and zinc-plated fasteners with coating complying with ASTM B633 or ASTM F194/F194M, Class Fe/Zn 5, with exterior washers. Select fasteners for type, grade, and class required.
- B. Post-Installed Anchors: .
1. Material for Interior Anchors: Carbon-steel components zinc plated to comply with ASTM B633 or ASTM F194/F194M, Class Fe/Zn 5, unless otherwise indicated.
 2. Material for Exterior Locations and Where Stainless Steel is Indicated: Alloy Group 1 stainless steel bolts, ASTM F593, and nuts, ASTM F594.

- 2.3 MISCELLANEOUS MATERIALS
- A. Universal Shop Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79 and compatible with topcoat.
1. Use primer that contains pigments that make it easily distinguishable from zinc-rich primer.
- B. Shrinkage-Resistant Grout: Factory-packaged, nonmetallic, nonstaining, noncorrosive, nongaseous grout complying with ASTM C1107/C1107M. Provide grout specifically recommended by manufacturer for interior and exterior applications.
- C. Concrete: Comply with requirements in Section 033000 "Cast-In-Place Concrete" for normal-weight, air-entrained concrete with a minimum 28-day compressive strength of 3000 psi.

2.4 FABRICATION, GENERAL

- A. Shop Assembly: Preassemble items in the shop to greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.
- B. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- C. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.
- D. Form exposed work with accurate angles and surfaces and straight edges.
- E. Weld corners and seams continuously to comply with the following:
1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 2. Obtain fusion without undercut or overlap.
 3. Remove welded flux immediately.
 4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing.
- F. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners or welds where possible. Where exposed fasteners are required, use Phillips flat-head (countersunk) fasteners unless otherwise indicated. Locate joints where least conspicuous.

- G. Fabricate seams and other connections that are exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.
- 2.5 MISCELLANEOUS FRAMING AND SUPPORTS
- A. General: Provide steel framing and supports not specified in other Sections as needed to complete the Work.
- B. Fabricate units from steel shapes, plates, and bars of welded construction unless otherwise indicated. Fabricate to sizes, shapes, and profiles indicated and as necessary to receive adjacent construction.
- 2.6 MISCELLANEOUS STEEL TRIM
- A. Unless otherwise indicated, fabricate units from steel shapes, plates, and bars of profiles shown with continuously welded joints and smooth exposed edges. Miller corners and use concealed field splices where possible.
- B. Provide cutouts, fittings, and anchorages as needed to coordinate assembly and installation with other work.
1. Provide with integrally welded steel strap anchors for embedding in concrete or masonry construction.
- C. Galvanize exterior miscellaneous steel trim.
- D. Prime miscellaneous steel trim with zinc-rich primer.
- 2.7 METAL BOLLARDS
- A. Fabricate metal bollards from Schedule 80 steel pipe.
- B. Prime steel bollards with zinc-rich primer.
- 2.8 GENERAL FINISH REQUIREMENTS
- A. Finish metal fabrications after assembly.
- 2.9 STEEL AND IRON FINISHES
- A. Galvanizing: Hot-dip galvanize items as indicated to comply with ASTM A153/A153M for steel and iron hardware and with ASTM A123/A123M for other steel and iron products.
- B. Shop prime iron and steel items not indicated to be galvanized unless they are to be embedded in concrete, sprayed-on fireproofing, or masonry, or unless otherwise indicated.
- C. Shop priming: Apply shop primer to comply with SSPC-PA 1, "Primer Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting.

PART 3 - EXECUTION

- 3.1 INSTALLATION, GENERAL
- A. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation, with edges and surfaces level, plumb, true, and free of rack, and measured from established lines and levels.
- B. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.
- C. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction. Provide threaded fasteners for use with concrete and masonry inserts, toggle bolts, through bolts, lag screws, wood screws, and other connectors.
- D. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.
- 3.2 INSTALLATION OF MISCELLANEOUS FRAMING AND SUPPORTS
- A. Install framing and supports to comply with requirements of items being supported, including manufacturers' written instructions and requirements indicated on Shop Drawings.
- B. Anchor supports for security to, and rigidly brace from, building structure.
- 3.3 INSTALLATION OF METAL BOLLARDS
- A. Anchor bollards in concrete in formed or core-drilled holes not less than 42 inches deep and 3/4 inch larger than OD of bollard. Fill annular space around bollard solidly with shrinkage-resistant grout, mixed and placed to comply with golf manufacturer's written instructions. Slope ground up approximately 1/8 inch toward bollard.
- B. Fill bollards solidly with concrete, mounding top surface to shed water.

- 3.4 REPAIRS
- A. Touchup Painting:
1. Immediately after erection, clean field welds, bolted connections, and abraded areas. Paint uncoated and abraded areas with same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
 2. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A780/A780M.

END OF SECTION 055000

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

- 1.1 SUMMARY
- A. Section Includes:
- Framing with dimension lumber.
 - Wood blocking and nailers.
 - Plywood backing panels.
- 1.2 ACTION SUBMITTALS
- A. Product Data:
1. For each type of process and factory-fabricated product.
 2. For preservative-treated wood products.

PART 2 - PRODUCTS

- 2.1 WOOD PRODUCTS, GENERAL
- A. Lumber: Comply with DCS PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, comply with the applicable rules of any rules-writing agency certified by the ALC Board of Review. Grade lumber by an agency certified by the ALC Board of Review to inspect and grade lumber under the rules indicated.
1. Dress lumber, S4S, unless otherwise indicated.
 2. Maximum Moisture Content:
 - a. Boards: 15 percent.
 - b. Dimension Lumber: 19 percent unless otherwise indicated.
- 2.2 PRESERVATIVE TREATMENT
- A. Preservative Treatment by Pressure Process: AWPA U1; Use Category U2C for interior construction not in contact with ground; Use Category UC3b for exterior construction not in contact with ground; Use Category UC4a for items in contact with ground.
1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or that does not comply with requirements for untreated material.
- C. Mark lumber with treatment quality mark of an inspection agency approved by the ALC Board of Review.
- D. Application: Treat items indicated on Drawings, and the following:
1. Wood carnts, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
 2. Wood sills, sleepers, blocking, and similar concealed members in contact with masonry or concrete.
 3. Wood floor plates that are installed over concrete slabs-on-grade.

2.3 FIRE-RETARDANT TREATMENT

- A. General: Where fire-retardant-treated materials are indicated, materials are to comply with requirements in this article, that are acceptable to authorities having jurisdiction, and with the fire-test-response characteristics specified as determined by testing identical products per test method indicated by a qualified testing agency.
- B. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame-spread index of 25 or less when tested according to ASTM E84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet beyond the centerline of the burners at any time during the test.
1. Exterior Type: Treated materials are to comply with requirements specified above for fire-retardant-treated lumber and plywood by pressure process after being subjected to accelerated weathering according to ASTM D2698. Use for exterior locations and where indicated.
 2. Interior Type A: Treated materials are to have a moisture content of 28 percent or less when tested according to ASTM D3201/D3201M at 92 percent relative humidity. Use where exterior type is not indicated.
 3. Kiln-dry lumber after treatment to maximum moisture content of 19 percent. Kiln-dry plywood after treatment to maximum moisture content of 15 percent.
- D. Identify fire-retardant-treated wood with appropriate classification marking of qualified testing agency.
- E. Application: Treat items indicated on Drawings, and the following:
1. Roof construction.
 2. Plywood backing panels.

2.4 DIMENSION LUMBER FRAMING

- A. All interior framing and lumber: Construction or No. 2 grade.
1. Application: All interior partitions.
 2. Species:
 - a. Southern pine or mixed southern pine; SPB.
 - b. Northern species; NLGA.
 - c. Eastern softwoods; NeLMA.
 - d. Western woods; WCLB or WWPA.
- 2.5 PLYWOOD BACKING PANELS
- A. Equipment Backing Panels: Plywood, DCC PS 1, Exterior, A-C, fire-retardant treated, in thickness indicated or, if not indicated, not less than 3/4-inch nominal thickness.
- 2.6 PLYWOOD CART CHARGER SHELVING
- A. Shelves on steel channel supports: Plywood, DCC PS 1, Exterior, A-C, fire-retardant treated, in thickness indicated or, if not indicated, not less than 3/4-inch nominal thickness. "A" face on bottom, facing down.
- 2.7 FASTENERS
- A. General: Fasteners are to be of size and type indicated and comply with requirements specified in this article for material and manufacture. Provide nails or screws, in sufficient length, to penetrate not less than 1-1/2 inches into wood substrate.
1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners of Type 304 stainless steel.
- B. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.
- C. Post-Installed Anchors: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC01, ICC-ES AC58, ICC-ES AC193,

- or ICC-ES AC308 as appropriate for the substrate.

2.8 METAL FRAMING ANCHORS

- A. Galvanized-Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A653/A653M, G60 coating designation.
1. Use for interior locations unless otherwise indicated.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- B. Framing with Engineered Wood Products: Install engineered wood products to comply with manufacturers' written instructions.
- C. Set work to required levels and lines, with members plumb, true to line, cut, and fitted

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SECTION 071100 - ROOF SPECIALTIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Roof-edge drainage systems.

1.2 ACTION SUBMITTALS

A. Product data.

B. Shop drawings and material samples.

1. Plans, expansion-joint locations, keyed details, and attachments to other work.

Distinguish between pattern pre-manufactured- and field-assembled installation.

2. Material profile and factory of seams and layout of fasteners, clips, clips, and other attachments.

3. Details of termination points and assemblies, including fixed points.

C. Samples: For each type of roof specialty indicated by factory-applied color finishes.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General Performance: Roof system to withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacturing, fabrication, installation, or other defects in construction.

B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, hole elongation, oversteering of components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid stress as a result of thermal movements. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime sky heat loss.

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.2 ROOF-EDGE DRAINAGE SYSTEMS

Gutters: Manufacture in uniform section lengths not exceeding 12 ft., with matching corner units, ends, outlet tubes, and other accessories. Elevate back edge at least 1 inch above front edge. Furnish flat-stock gutter straps, gutter brackets, expansion joints, and expansion-joint covers fabricated from same metal as gutters.

A. Metallic-Coated Steel Sheet: Minimum 0.034-inch thickness.

2. Gutter Profile: Style in accordance with SMACNA's "Architectural Steel Metal Manual".

3. Connects: Factory mitered and mechanically joined and sealed watertight.

4. Gutter Supports: Manufacturer's standard supports as selected by Architect with finish matching the gutters.

5. Gutter Accessories: Wire ball downspout strainer. Flat ends.

B. Downspouts: Corrugated rectangular complete with smooth-curve elbows, manufactured from the following exposed metal. Furnish with metal hangers, from same material as downspouts, and anchors.

1. Metallic-Coated Steel Sheet: Minimum 0.034-inch thickness.

2. Size: As indicated on Drawings.

C. FINISHES

1. Metallic-Coated Steel: Two-coat fluoropolymer.

a. Color: As selected by Architect from manufacturer's full range.

2.3 SHEET METAL MATERIALS

A. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel sheet complying with minimum ASTM A653/A653M, G90 coating designation, or aluminum-zinc alloy-coated steel sheet complying with minimum ASTM A792/A792M, Class A250 coating designation, structural steel grade.

1. Exposed Cold-Formed Steel: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturer's written instructions.

a. Two-Coat Fluoropolymer Finish: AIAA 2605, System consisting of primer and fluoropolymer color topcoat containing not less than 70 percent PVDF resin by weight in color coat.

2. Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester-caster finish consisting of prime coat and wash coat, with a minimum final dry film thickness of 0.5 mil.

2.4 MISCELLANEOUS MATERIALS

A. Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items required by manufacturer for a complete installation.

B. Fasteners: Roof specialty manufacturer's recommended fasteners, designed to meet performance requirements, suitable for application and metals being fastened. Match finish of exposed fasteners with finish of material being fastened. Provide nonremovable fastener heads to exterior exposed fasteners. Furnish the following unless otherwise indicated:

1. Fasteners for Metallic-Coated Steel Sheet: Series 300 stainless steel hot-dip zinc-coated steel in accordance with ASTM A153/A153M or ASTM F2329/F2329M.

C. Elastomeric Sealant: ASTM C920, elastomeric polyurethane sealant of type, grade, class, and use classifications required by roofing-specialty manufacturer for each application.

2.5 GENERAL FINISH REQUIREMENTS

A. Comply with NAIMM/NOMMA AMP 500, "Metal Finishes Manual for Architectural and Metal Products," for recommendations for applying and designing finishes.

B. Protect mechanical and painted finishes on exposed surfaces from damage by applying a suitable, temporary protective covering before shipping.

C. Appearance of Finished Work: Noticeable variations in same place are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Installation in accordance with manufacturer's written instructions. Anchor roof specialties securely in place, with provisions for thermal and structural movement. Use fasteners, protective coatings, sealants, underlayment, sealants, and other miscellaneous items as required to complete roof-specialty systems.

1. Install roof specialties level, plumb, true to line and elevation, with limited oil-canning and without warping, jogs in alignment, buckling, or tool marks.

2. Provide uniform, neat seams with minimum exposure of sealant to exterior.

3. Install roof specialties to fit substrates and to result in weathertight performance.

4. Verify shapes and dimensions of surfaces to be covered before manufacture.

5. Tool cutting of roof specialties is not permitted.

6. Do not use graphite pencils to mark metal surfaces.

B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer's written installation instructions.

1. Coat concealed side of uncoated aluminum roof specialties with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.

2. Bed flashings in thick coat of asphalt roofing cement where required by manufacturers of roof specialties for waterproof performance.

C. Expansion Provisions: Allow for thermal expansion of exposed roof specialties.

1. Space movement joints at a maximum of 12 ft. with no joints within 18 inches of corners or intersections unless otherwise indicated on Drawings.

2. When ambient temperature at time of installation is between 40 and 70 deg F, set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures.

D. Fastener Sizes: Use fasteners of sizes that penetrate wood blocking or sheathing not less than 1-1/4 inches for nails and not less than 3/4 inch for wood screws.

E. Seal joints as required for weathertight construction. Place sealant to be completely continuous in joint. Do not install sealant at temperatures below 40 deg F.

3.2 INSTALLATION OF ROOF-EDGE DRAINAGE SYSTEMS

A. Install components to produce a complete roof-edge drainage system in accordance with manufacturer's written instructions. Coordinate installation of roof perimeter flashing with installation of roof-edge drainage system.

B. Gutters: Join and seal gutter lengths. Allow for thermal expansion. Attach gutters to firmly anchored gutter supports spaced not more than 30 inches apart. Attach ends with rivets and seal with sealant to make watertight. Slope to downspouts.

1. Install gutter with expansion joints at locations indicated but not exceeding 50 ft. apart. Install expansion-joint caps.

C. Downspouts: Join sections with manufacturer's standard telescoping joints. Provide hangers with fasteners designed to hold downspouts securely to walls and 1 inch away from walls; locate fasteners at top and bottom and at approximately 60 inches c/c.

1. Provide elbows at base of downspouts at grade to direct water away from building.

3.3 CLEANING AND PROTECTION

A. Remove temporary protective coverings and stripable films as roof specialties are installed. Complete installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain roof specialties in a clean condition during construction.

B. Replace roof specialties that have been damaged or that cannot be successfully repaired by finish touch-up or similar minor repair procedures as determined by Architect.

END OF SECTION 071100

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Submittals: Product data and color Samples.

B. Environmental Limitations: Do not proceed with installation of joint sealants when ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F.

PART 2 - PRODUCTS

2.1 JOINT SEALANTS

A. Compatibility: Provide joint sealants, joint fillers, and other related materials that are compatible with one another and with joint substrates under service and application conditions.

B. Sealant for Use in Exterior Building Joints:

1. Single-component, neutral-curing silicone sealant, ASTM C 920, Type S; Grade NS.

a. Dow Corning Corporation, 795, color selected by Architect from manufacturer's standard colors.

C. Sealant for Exterior Traffic-Bearing Joints, Where Slope Allows Use of Pourable Sealant:

1. Class 25; for Use 1.

a. Tremco Incorporated, Vulkan 45.

D. Sealant for Use in Interior Joints in Ceramic Tile and Other Hard Surfaces in Kitchen and Bathrooms and Around Plumbing Fixtures:

1. Single-component, mildew-resistant silicone sealant, ASTM C 920, Type S; Grade NS; Class 25; for Use NT; formulated with fungicide.

a. Dow Corning Corporation, 796 Mildew Resistant.

E. Sealant for Interior Use at Perimeters of Door and Window Frames:

1. Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP; Grade NF.

a. BASF Building Systems, Selenolac or Tremco Incorporated, Tremflex 834.

2.2 MISCELLANEOUS MATERIALS

A. Provide sealant backings of material that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

B. Cylindrical Sealant Backings: ASTM C 1330, of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.

C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.

D. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Comply with ASTM C 1193.

B. Install sealant backings to support sealants during application that allow optimum sealant movement capability.

C. Install bond-breaker tape behind sealants where sealant backings are not used.

END OF SECTION 079200

SECTION 081110 - HOLLOW METAL DOORS AND FRAMES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Interior standard steel doors and frames.

2. Exterior standard steel doors and frames.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Product Schedule: For hollow-metal doors and frames, prepared by or under the supervision of supplier, using same reference numbers for details and openings as shown on Drawings. Coordinate with final door hardware schedule.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Rated Door Assemblies: Hollow-metal assemblies complying with NFPA 80 that are tested and labeled by a qualified testing agency acceptable to authorities having jurisdiction for fire-protection ratings indicated on Drawings, based on testing at positive pressure in accordance with NFPA 252 and NFPA 108.

2.2 INTERIOR STANDARD STEEL DOORS AND FRAMES

A. Construct hollow-metal doors and frames to comply with standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.

B. Heavy-Duty Doors and Frames: ANSII/A250.8, Level 2; ANSII/A250.4, Level B.

1. Doors:

a. Type: As indicated in the Door and Frame Schedule on Drawings.

b. Thickness: 1-3/4 inches.

c. Face: Metallic-coated steel sheet, minimum thickness of 0.042 inch.

d. Edge Construction: Model 1, Full Flush.

e. Core: Manufacturer's standard.

f. Fire-Rated Core: Manufacturer's standard vertical steel stiffener core for fire-rated doors.

A. Materials: Metallic-coated steel sheet, minimum thickness of 0.053 inch.

B. Construction: Face welded.

2.3 EXTERIOR STANDARD STEEL DOORS AND FRAMES

A. Construct hollow-metal doors and frames to comply with standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.

B. Heavy-Duty Doors and Frames: ANSII/A250.8, Level 2; ANSII/A250.4, Level B.

1. Doors:

a. Type: As indicated in the Door and Frame Schedule on Drawings.

b. Thickness: 1-3/4 inches.

c. Face: Metallic-coated steel sheet, minimum thickness of 0.042 inch, with edge bevel.

d. Edge Construction: Model 1, Full Flush.

e. Edge Bevel: Bevel lock edge 1/8 inch in 2 inches.

f. Top Edge Closure: Flush with face of door; with flush closures of same material as face sheets. Seal joints against water penetration.

g. Bottom Edges: Close bottom edges of door with end closures or channels of same material as face sheets. Seal joints against water penetration.

h. Core: Manufacturer's standard.

i. Fire-Rated Core: Manufacturer's standard vertical steel stiffener with insulation core for fire-rated doors.

A. Materials: Metallic-coated steel sheet, minimum thickness of 0.053 inch, with minimum A60 coating.

B. Construction: Face welded.

2.4 FRAME ANCHORS

A. Frame Anchors:

1. Type: Anchors of minimum size and type required by applicable door and frame standard, and suitable for performance level indicated.

2. Quantity: Minimum of three anchors per jamb, with one additional anchor for frames with no floor anchor. Provide one additional anchor for each 24 inches of frame height above 7 feet.

3. Postinstalled Expansion Anchor: Minimum 3/8-inch-diameter bolts with expansion shields or inserts, with manufacturer's standard pipe mullion.

B. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor.

C. Material: ASTM A479/A479M, Commercial Steel (CS), Q42 coating designation, mild phosphatized.

1. For anchor bolts used into exterior walls, steel sheet complying with ASTM A1008/A1008M or ASTM A1011/A1011M, hot-dip galvanized in accordance with ASTM A153/A153M, Class B.

2.5 MATERIALS

A. Cold-Rolled Steel Sheet: ASTM A1008/A1008M, Commercial Steel (CS), Type B, suitable for exposed applications.

B. Hot-Rolled Steel Sheet: ASTM A1011/A1011M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.

C. Metallic-Coated Steel Sheet: ASTM A653/A653M, Commercial Steel (CS), Type B.

D. Inserts, Bolts, and Fasteners: Hot-dip galvanized in accordance with ASTM A153/A153M.

E. Power-Actuated Fasteners in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching hollow-metal frames of type indicated.

2.6 FABRICATION

A. Hollow-Metal Frames: Fabricate in one piece except where handling and shipping limitations require multiple sections. Where frames are fabricated in sections, provide additional joints or angles at each joint, fabricated of metal of same or greater thickness as frames.

1. Frames: Provide closed tubular members with no visible face seams or joints, fabricated from same material as door and frame members at crossings and to jambs by welding, or by rigid mechanical members.

2. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.

3. Provide uniform, neat seams with minimum exposure of sealant to exterior.

4. Verify shapes and dimensions of surfaces to be covered before manufacture.

5. Tool cutting of roof specialties is not permitted.

6. Do not use graphite pencils to mark metal surfaces.

B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer's written installation instructions.

1. Coat concealed side of uncoated aluminum roof specialties with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.

2. Bed flashings in thick coat of asphalt roofing cement where required by manufacturers of roof specialties for waterproof performance.

C. Expansion Provisions: Allow for thermal expansion of exposed roof specialties.

1. Space movement joints at a maximum of 12 ft. with no joints within 18 inches of corners or intersections unless otherwise indicated on Drawings.

2. When ambient temperature at time of installation is between 40 and 70 deg F, set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures.

D. Fastener Sizes: Use fasteners of sizes that penetrate wood blocking or sheathing not less than 1-1/4 inches for nails and not less than 3/4 inch for wood screws.

E. Seal joints as required for weathertight construction. Place sealant to be completely continuous in joint. Do not install sealant at temperatures below 40 deg F.

3.2 INSTALLATION OF ROOF-EDGE DRAINAGE SYSTEMS

A. Install components to produce a complete roof-edge drainage system in accordance with manufacturer's written instructions. Coordinate installation of roof perimeter flashing with installation of roof-edge drainage system.

B. Gutters: Join and seal gutter lengths. Allow for thermal expansion. Attach gutters to firmly anchored gutter supports spaced not more than 30 inches apart. Attach ends with rivets and seal with sealant to make watertight. Slope to downspouts.

1. Install gutter with expansion joints at locations indicated but not exceeding 50 ft. apart. Install expansion-joint caps.

C. Downspouts: Join sections with manufacturer's standard telescoping joints. Provide hangers with fasteners designed to hold downspouts securely to walls and 1 inch away from walls; locate fasteners at top and bottom and at approximately 60 inches c/c.

1. Provide elbows at base of downspouts at grade to direct water away from building.

3.3 CLEANING AND PROTECTION

A. Remove temporary protective coverings and stripable films as roof specialties are installed. Complete installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain roof specialties in a clean condition during construction.

B. Replace roof specialties that have been damaged or that cannot be successfully repaired by finish touch-up or similar minor repair procedures as determined by Architect.

END OF SECTION 081110

SECTION 083613 - SECTIONAL DOORS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Sectional door assemblies.

1.2 ACTION SUBMITTALS

A. Product Data: For each type and size of sectional door and accessory.

B. Shop Drawings: For each installation and for components not dimensioned or detailed in manufacturer's product data.

C. Samples: For each exposed product and for each color and texture specified.

1.3 CLOSEOUT SUBMITTALS

A. Manufacturer's Warranty.

1. Manufacturer's Warranty: Manufacturer agrees to repair or replace components of sectional doors that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Five years from date of Substantial Completion.

B. Finish Warranty: Manufacturer agrees to repair or replace components that show evidence of deterioration within specified warranty period.

1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General Performance: Provide sectional doors that comply with performance requirements specified without failure from defective manufacturing, fabrication, installation, or other defects in construction and without requiring temporary installation of reinforcing components.

B. Structural Performance, Exterior Doors: Capable of withstanding the design wind loads.

1. Design Wind Load: Uniform pressure (velocity pressure) of 30 lb/sq ft., acting

inward and outward.

2.2 SECTIONAL-DOOR ASSEMBLY

A. Steel Sectional Door: Provide sectional door formed with hinged sections and fabricated so that finished door assembly is rigid and aligned with tight headline joints, free of warp, twist, and deformation, and complies with requirements in DASMA 102.

B. Operation Cycles: Door components and operators capable of operating for not less than 50,000 operation cycles. One operation cycle is complete when door is opened and returned to closed position.

C. Steel Door Sections: ASTM A653/A653M, zinc-coated (galvanized), cold-rolled, commercial steel sheet with 1-3/4 zinc coating.

1. Door Section: Coordinate with final door hardware schedule.

2. Sectional Faces:

a. Exterior Face: Fabricated from single sheets, weather not more than 24 inches high; free of horizontal mechanical fasteners, including rivets, bolts, and screws.

b. Interior Face: Fabricated from single sheets, weather not more than 24 inches high; free of horizontal mechanical fasteners, including rivets, bolts, and screws.

c. Surface: Manufacturer's standard, flat.

d. Interior Face: Enclose insulation completely within exterior facing and interior facing material, with no exposed insulation. Provide the following interior-facing insulation, and as specified:

1. Zinc-Coated (Galvanized) Steel Sheet: With minimum nominal coated thickness of 0.019 inch.

2. End Stiff: Enclose open ends of sections with channel end stiffers formed from galvanized-steel sheet not less than 0.040-inch nominal coated thickness and welded to door section.

3. Section Reinforcing: Horizontal and diagonal reinforcement as required to stiffen door and for wind loading. Provide galvanized-steel bars, struts, trusses, or strip steel, formed to depth and bolted or welded in place.

4. Edge Construction: Model 1, Full Flush.

5. Fire-Rated Core: Manufacturer's standard vertical steel stiffener core for fire-rated doors.

A. Materials: Metallic-coated steel sheet, minimum thickness of 0.053 inch.

B. Construction: Face welded.

2.3 EXTERIOR STANDARD STEEL DOORS AND FRAMES

A. Construct hollow-metal doors and frames to comply with standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.

B. Heavy-Duty Doors and Frames: ANSII/A250.8, Level 2; ANSII/A250.4, Level B.

1. Doors:

a. Type: As indicated in the Door and Frame Schedule on Drawings.

b. Thickness: 1-3/4 inches.

c. Face: Metallic-coated steel sheet, minimum thickness of 0.042 inch, with edge bevel.

d. Edge Construction: Model 1, Full Flush.

e. Edge Bevel: Bevel lock edge 1/8

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SECTION 105626 - MOBILE STORAGE SHELING

- PART 1 - GENERAL**
- 1.1 **SUMMARY**
- A. Section Includes:
- Mechanically assisted systems.
 - System capable of storing 624 (minimum) golf club bags.
- 1.2 **ACTION SUBMITTALS**
- A. Product Data: For each type of product.
- B. Shop Drawings: Show shelving layout, location and extent of rail system and clear-aisle widths from face of carriages.
- Detail fabrication and installation of mobile shelving systems including methods of anchoring shelves to carriages and rails to building structure.
 - Samples: For each exposed product and for each color and texture specified.
- 1.3 **CLOSEOUT SUBMITTALS**
- A. Maintenance data.
- 1.4 **MAINTENANCE MATERIAL SUBMITTALS**
- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
- Shift units and accessories.
- 1.5 **WARRANTY**
- A. Special Warranty: Manufacturer agrees to repair or replace components of mobile shelving systems that fail in materials or workmanship within specified warranty period.
- Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SYSTEMS AND COMPONENTS

- A. General: Provide manufacturer's standard mobile storage shelving systems and components. Where components are not otherwise indicated, provide manufacturer's standard components as required for a complete system.
- B. Inserts: 3/8 inch rigid concrete inserts and similar anchorage devices for installing track system, and furnish other components of work where installation of devices is specified in another Section.
- C. Flooring: Underlayment thickness required to bring aisle floor finish flush with rail tops.
- Ramps: Manufacturer's standard metallic-coated, cold-rolled steel ramp not steeper than 1:12, with non-slip finish.
 - Floor Finish: Manufacturer's standard 12-inch-square vinyl tile, color as selected by Architect from manufacturer's full range.
 - Tracks: Steel rails with tops machined to mate with guide wheels and with ends designed to provide smooth, secure continuity between sections without field welding. Provide mounting brackets, anchorage devices, adjustable leveling devices, and stops at terminations of rails to prevent carriages from running off track ends.
 - Mounting: Surface mounted.
 - Carriages: Rigid frames consisting of C-shaped cold-formed steel beams and cross beams, designed to allow secure anchorage of shelving units.
 - Carriage Width: 30 inches.
 - Carriage Length: 144 inches.
 - Wheels: Manufacturer's standard number of bearing-mounted, steel wheels, precision ground to mate with tracks.
 - Bumpers: Provide two rubber bumpers with minimum depth of 1/2 inch each side.
 - Carriage End Panels: Full depth and height of shelving units. Provide at both ends of each range.
 - Material: Cold-rolled steel sheet, 0.048 inch thick, manufacturer's standard.
- 2.2 **MECHANICALLY ASSISTED SYSTEMS**
- A. Basis-of-Design Product: Subject to compliance with requirements, provide "Spacesaver Mechanical Assist High-Density Mobile System" or comparable product by one of the following:
- Spacesaver Corporation.
 - Drive Shaft: Continuous tubular or solid steel shaft, capable of transmitting torque from drive system without distortion.
- 2.3 **STEEL FOUR-POST SHELIVING**
- A. Steel Four-Post Shelving: Shelving consisting of four angle-iron uprights per section, with adjustable shelves resting on shelf supports hung on uprights. Configure units for mounting on mobile carriages.
- B. Shelving Units:
- Type: Self-supporting unit.
 - Configuration: Open with center dividers.
 - Width: 36 inches.
 - Height: 112 inches.
 - Shelf Depth: 15 inches nominal.

2.4 MATERIALS

- 2.5 **STEEL FINISHES**
- A. Baked-Enamel or Powder-Coat Finish: Manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat to achieve a minimum dry film thickness of 2 mils.
- Color and Gloss: As selected by Architect from manufacturer's full range.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Level and plumb tracks to a tolerance of 0.09 inch in 120 inches with no more than 0.05-inch variation between adjacent rails. Use permanent shims or non-shrink grout as indicated by manufacturer.
- B. Surface-Mounted Track Systems: Install underlayment, ramps, and finish flooring according to manufacturer's written instructions and flush with track surfaces. Do not extend ramps beyond ends of carriages.
- C. Carriage Installation: Mount mobile carriages on track system and adjust for smooth operation. Provide non-moving carriages securely fixed to rails where indicated.
- D. Attach shelving units to carriages according to manufacturer's written instructions and as required to prevent vibration during movement.
- Level and plumb shelving units to a tolerance of 1/8 inch in 96 inches.

END OF SECTION 105626

SECTION 133400 - PRE-ENGINEERED BUILDING SYSTEM

PART 1 - GENERAL

- 1.1 **SECTION INCLUDES**
- A. Provide pre-engineered building system, including but not limited to primary and secondary structural framing systems, wall and roof sheathing, dormer framing and sheathing, and accessories. Basis of design is the following system by Lester Building Systems:
- Uni-Frame I, clear span truss and embedded columns.
- 1.2 **RELATED SECTIONS**
- A. Section 31 20 00 - Earth Moving.
- B. Section 03 30 00 - Cast-in-Place Concrete.
- C. Section 07 31 36 - Synthetic Shake Shingles (ALTERNATE ROOFING SYSTEM)
- D. Section 07 46 06 - Fiberglass Reinforced Plastic (FRP) Panels
- E. Section 08 1113 - Hollow Metal Doors & Frames
- F. Section 08 3613 - Sectional Doors
- G. Section 08 4313 - Aluminum Storefront
- H. Section 08 71 00 - Hardware

1.3 REFERENCES

- A. ASTM International (ASTM):
- ASTM A153 - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
 - ASTM A653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 - ASTM D523 - Standard Test Method for Specular Gloss.
 - ASTM D3363 - Standard Test Method for Film Hardness by Pencil Test.
 - ASTM D4145 - Standard Test Method for Coating Flexibility of Prepared Painted Sheet.
 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
 - ASTM E85 - Standard Test Methods for Water Vapor Transmission of Materials.

1.4 SYSTEM DESCRIPTION

- A. Structural Frame Design:
- Design shall be based on the building framing and enclosure as manufactured by Lester Building Systems.
 - a. Type: Clear span roof truss framing.
 - b. Columns: Embedded in ground.
 - c. Purlins: Recessed between trusses in galvanized steel joist hangers.
- B. Dimensions:
- Width: 43 feet ±1/2 inches, outside to outside of primary or secondary wall framing.
 - Length: 108 feet 3 inches, outside to outside of primary or secondary wall framing.
 - Height: 10 feet 0 inches, clearance from top of slab-on-grade to bearing point of underside of roof trusses.
 - Roof Slope: 6:12 (units of rise per 12 units of run)
 - Ceiling Slope: 3:12 (units of rise per 12 units of run)
- C. Structural Requirements:
- Building Codes: International building Code (IBC) 2012 Edition, and ASCE-7-10, as adopted by the Village of Frankfort, Illinois.
 - Design Loads:
 - Building Risk Category II.
 - Ground Snow Load: 30 psf
 - Ground Exposure Factor: C
 - Roof Load, Live load: 20 psf (Snow design shall be based on unheated building, Cl+1.2).
 - Roof Dead Load: 7 psf
 - Ceiling Dead Load: 10 psf
 - Wind Load: Wind speed (3 sec gust): 115 mph
 - Wind Exposure: Maximum Considered Earthquake 0.2 Second Spectral Response Acceleration. - Maximum Considered Earthquake 1.0 Second Spectral Response Acceleration.
 - Collateral Loads: Additional loads imposed by contract documents other than weight of building systems specified in this section.
 - Consider loads of cart charger shelves hanging from trusses.
 - Combination Loads: Comply with Building Code. - Structural Design:
 - Perform calculations using diaphragm and/or frame analysis. Incorporate bracing as required.
 - Comply with AF&PA "National Design Specification for Wood Construction (NDS)".
 - Trusses:
 - Limit deflection for live or snow loads to L/240 for trusses supporting steel ceilings and to L/180 for overhangs and trusses not supporting ceilings.
 - Comply with appropriate NDS and Truss Plate Institute (TPI) standards. - Metal Wall and Roof Panels:
 - Design in accordance with AISI "Specifications for the Design of Light-Gauge, Cold-Formed Steel Structural Members" and in accordance with sound engineering methods and practices. - Plywood or Oriented Strand Board Sheathing: Comply with APA "Plywood Design Specification."
 - Expansion/Contraction Provisions: Design roof attachment system to allow for expansion and contraction of metal roofing, due to seasonal temperature variations, without detrimental effect to the roof panels.
 - Spread footing allowable bearing and required bearing depth to be per Geotechnical Report. Lester Building to provide specifications regarding required backfill and soil compaction around and under footings to maintain required ground lateral resistance support per Lester's designs.

- Storage and handling requirements and recommendations.
- C. Shop Drawings: Showing roof framing, cross sections, roof and wall covering and trim details and accessory and component details clearly indicating proper assembly.
- D. For permit submittal to authorities having jurisdiction, signed and sealed structural drawings (framing and foundations), structural calculations and Structural Engineer Certification. All documents to be signed and sealed by a Structural Engineer, registered in practice in Illinois, verify compliance with all specified Structural Requirements. Letter shall reference specific dead loads, live loads, wind loads, tributary area load reductions (if applicable) collateral loads, seismic loads, end use categories, and governing building code including section and load applications.
- E. Detail Fabrication and Installation of mobile shelving systems including methods of anchoring shelves to carriages and rails to building structure.
- F. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
- 1.6 **QUALITY ASSURANCE**
- A. Manufacturer Qualifications: Minimum ten years experience in producing pre-engineered wood buildings of the type specified.
- B. Installer Qualifications: Installer Qualifications: Minimum three years experience in erection of pre-engineered wood buildings of the type specified.
- C. Structural Engineer's Qualifications: Minimum of five years designing post frame structures; registered in the jurisdiction of the project.
- 1.7 **DELIVERY, STORAGE, AND HANDLING**
- A. Store products in manufacturer's unopened packaging until ready for installation. Follow manufacturer's recommended storage procedures. Do not allow steel siding and roofing to contact the ground.
- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of authorities having jurisdiction.
- 1.8 **PROJECT CONDITIONS**
- A. Anticipate environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.9 WARRANTY

- A. Structural Design - Lifetime: Manufacturer warrants that the building designed by Lester will not experience an occurrence of structural failure or an occurrence of structural damage due to improper structural design (excepting ventilation systems) on account of weather conditions, such as wind, ice, and snow, as indicated on the Lester Sales Agreement, "Building Description Section". The foregoing warranty is limited to 50 years with respect to any Owner which is not an individual.
- B. Preservative Treated Materials: 50 years. Preservative treated lumber, including structural columns, are warranted by the original materials manufacturer against failures due to fungal decay, wood rot due to water infiltration (below grade embedment conditions), and termite infestation.
- C. Roofing and Siding Finish, steel panel: Warranted by the original materials manufacturer for 40 years from the date of shipment. Refer to Warranty document for complete details.
- D. Individual Building Products: Manufacturer's standard warranty.
- E. Installation Warranty: One year general installation warranty, five years against roof leaks.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Lester Building Systems, which is located at: 1111 2nd Ave. S., Lester Prairie, MN 55354; Toll Free Tel: 800-828-4439; Tel: 320-335-2331; Fax: 320-395-2969; Email: request info (marketingdept@lesterbuildings.com); Web: www.lesterbuildings.com
- B. Substitutions: Not permitted.

2.2 STRUCTURAL FRAMING

- A. Footings:
- Embedded Column Footings:
 - Precast or cast-in-place concrete footing of 4000 psi (minimum) concrete of size and thickness specified in the shop drawings.
 - Footing design to be based on Geotechnical Report prepared for the project.
- B. Primary Framing:
- Columns:
 - Treated Lumber Section:
 - Lumber: No. 1 or Better Southern Yellow Pine, pressure treated with Chromated Copper Arsenate, Type III, to a retention of 0.6 pct (9.6 kg/m³) and kiln dried after treating to 19 percent maximum moisture content.
 - Fabrication: Laminate individual pieces using ring shank feed nails per manufacturer's engineered nailing pattern. Fasteners shall have ASTM A153 galvanizing. - Untreated Lumber Section:
 - Lumber: Lumber: No. 1 or Better Southern Yellow Pine or Douglas Fir-Larch or other equivalent NDS approved species/grade kiln dried to 19 percent maximum moisture content.
 - Fabrication: Laminate individual pieces using ring shank feed nails per manufacturer's engineered nailing pattern. - Grade and size shall be selected to support imposed loads within deflection limits. - End Joint Connection of Treated and Untreated Sections: Factory fabricated finger joint.
 - Configuration:
 - Sidewall and Endwall Columns: 3 ply or 4 ply combining 2x4, 2x6, 2x8, or 2x10 (50x150, 50x200, 50x250 mm) dimension lumber as required by "Structural Design" requirements specified herein.
 - Corner Columns: 2 ply or 3 ply 2x4, 2x6 or 2x8 (50x150, 50x200 mm) dimension lumber as required by "Structural Design" requirements specified herein. - Embedded Column Anchorage:
 - Concrete column pinned to column base with steel reinforcing rods.
 - Provide screw in or cast-in-place anchors per shop drawings.
- Trusses: Comply with "Structural Design" and "Quality Assurance" requirements as specified herein.
- Comply with TPI "Design Specification for Metal Plate Connected Wood Trusses" and "Quality Standard for Metal Plate Connected Wood Trusses."
 - Manufacturer shall have a third party inspection program to verify compliance with requirements of TPI.
 - Stamp trusses with inspection agency identification.
- Secondary Framing:
- Purlins and Girts:
 - Lumber: No. 2 or Better dimension lumber kiln dried to 19 percent maximum moisture content.
 - Configuration: 2x4 or 2x6 or 2x8 (50x100, 50x150, 50x200 mm) as required by "Structural Design" requirements specified herein.
 - Girts: Size, grade and spacing to meet wind and deflection criterion.
 - Precision cut to fit between columns. Flush to exterior and interior faces.
 - Purlins: Precision cut to fit between studs with top of chord. - Provide 20 gauge galvanized purlin saddle hangers. - Spacing: As required by "Structural Design" requirements specified herein.
- Spishplank:
- Lumber: No. 2 or Better Southern Yellow Pine, preservative treated, to a retention of 0.14 pct (2.2 kg/m³) of micronized copper azole.
 - Configuration: 2x6 or 2x8 (50x 150 or 50x200 mm) dimension lumber. Milled S4S for single row and milled T&G for multiple rows.
- Sill Plate:
- Lumber: No. 2 or Better Southern Yellow Pine, preservative treated, to a retention of 0.17 pct (B203) borate (0.25 pct disodium octaborate (B203) borate DOT) and kiln dried after treating to 19 percent maximum moisture content.
 - Configuration:
 - 2x4 or 2x6 (50x100, 50x150 mm) as required by "Structural Design" requirements specified herein.
- Bracing, Wall and Lateral Truss Type (where required by "Structural Design"):
- Lumber: No. 2 or Better dimension lumber.
 - Configuration:
 - 2x4 or 2x6 (50x100, 50x150 mm) as required by "Structural Design" requirements specified herein.

2.3 EXPOSED FASTENER: LAP-SEAM METAL ROOF PANELS

- A. Basis of Design: Eclipse panel as manufactured by Lester Building Systems. Metal roof panels with side edges lapping adjacent panels. Secured to supports using fasteners through the major ribs.
- Configuration:
 - Roll-formed: 36 inch (915 mm) coverage width. Provide panels covering up to 35 foot (10.7 m) length in single pieces.
 - Three major corrugations, 7/8 inch (25 mm) high, spaced 18 inches (457 mm) on center with 3 minor corrugations, 1/8 inch (3mm) high, spaced 3 inches (76 mm) on center between each major corrugation.
 - Form one outboard corrugation as underneath corrugation with full return leg to support side lap and a continuous anti-siphon drain channel.
 - Factory cut to required length. - Material and Finish: 26 gauge steel, ASTM A 792 Class A250 Galvalume, coated both sides, 0.0167 inches (.474 mm) thick.
 - Exterior Surface Finish: Bonderize and provide baked-on primer and factory applied baked-on 70 percent Kynar 500 or Hylar 5000 PVDF fluoropolymer resin based paint coating manufactured by Valpar, with a minimum dry film thickness of 0.7 - 0.8 mil.
 - Color: As selected by Architect from full range of Manufacturer's colors.
 - Fasteners: DS2000 coated No. 14 piercing screws with 3/8 inch (9.5 mm) hex head pre-assembled to 1/2 inch (13 mm) O.D. dome seal or bond seal galvanized steel and EPDM washers.

2.4 SHINGLE ROOFING (ALTERNATE ROOFING SYSTEM)

- A. Deck Materials: APA rated sheathing, thickness and span rating as required by "Structural Design" requirements specified herein.
- B. Underlayment: Mechanically attached, coated woven synthetic roofing underlayment for steep slopes, TITANIUM UDL-30 as manufactured by Interwrap.
- C. Shingles: Refer to SECTION 073136 - SYNTHETIC SHAKE SHINGLES.
- D. Fasteners:
- Deck Material to Structural Framing: Nail type, size and spacing as required by "Structural Design" requirements specified herein.
- 2.5 **ROOFING ACCESSORIES**
- A. Steel Ridge Cap:
- The cap materials and construction shall match the roof steel materials and construction.
- B. Eave Overhang Fascia Flashing:
- Size: as indicated.
- C. Fascia Flashing Color: As selected by Architect from full range of Manufacturer's colors.
- D. Fascia Flashing Color: As selected by Architect from full range of Manufacturer's colors.
- E. End Overhang Fascia Flashing:
- Size: as indicated.
 - Flashing Color: As selected by Architect from full range of Manufacturer's colors.
- F. Vented Soffit Color: As selected by Architect from full range of Manufacturer's colors.
- G. Gutters and Downspouts: Provide manufacturer's standard gutters and downspouts as shown on Drawings.
- H. Closure Strips: Closed cell, 2 pc density polyethylene foam, premoled to match configuration of panels.

2.6 SIDING

- A. Siding: Fiber cement siding; refer to SECTION 0746-6 - FIBER-CEMENT SIDING
- 2.7 **PERSONNEL DOORS**
- A. Hollow Metal Doors and Frames: refer to SECTION 081113 - HOLLOW METAL DOORS & FRAMES
- 2.8 **OVERHEAD DOORS**
- A. Sectional Overhead Doors: refer to SECTION 083613 - SECTIONAL DOORS
- 2.9 **WINDOWS**
- A. Dormer windows: refer to SECTION 084313 - ALUMINUM STOREFRONT
- 3.10 **JOINT SEALANT MATERIAL**
- A. Sealant: Manus 75-A for applications that will be painted, contains no solvents or isocyanates, non-yellowing.
- B. Sealant: Manus 75-AM for applications that will be painted, contains no solvents or isocyanates, non-yellowing.
- Color: Use white or bronze color for nearest match to adjacent substrate.
- C. Tape Sealant: Manus-Bond 54-A Polysulf Grip Tape

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that site conditions are acceptable for erection/installation of pre-engineered wood building system.
- B. Coordinate with responsible entity to perform corrective work on unsatisfactory pre-engineered wood buildings of the type specified.
- C. Commencement of work by erector/installer is acceptance of site conditions.
- 3.2 **ERECTION- STRUCTURAL FRAMING**
- A. Erect in accordance with manufacturer's instructions and approved shop drawings.
- B. Provide temporary erection and wind load bracing to maintain structure plumb and in alignment until installation of permanent bracing and/or roofing and wall coverings are completed.
- C. Do not field cut or alter structural members without approval of Architect and manufacturer.
- 3.3 **INSTALLATION**
- A. Erect building per manufacturer's instructions and sequencing.
- B. Metal Roofing:
- General: Install in accordance with manufacturer's instructions. Secure to framing aligned parallel, level and plumb. Space fasteners as shown on Erection Drawings.
 - Sidelap: Minimum one full corrugation.
 - Endlap: 8 inches (200 mm) for slopes 4 in 12 to 5 in 12. Secure together over and to structural members.
 - Endlap: 12 inches (300 mm) for slopes 2 in 12 to 4 in 12. Secure together over and to structural members.
 - Endlap: 6 inches (150 mm) for slopes greater than 5 in 12. Secure together over and to structural members.
 - Special detailing is required for slopes less than 12 in 12. Refer to construction documents.
 - Accessories: Install as shown on Erection Drawings.
- C. Deck at Shingle Roofing: Comply with applicable recommendations "APA Design/Construction Guide - Residential & Commercial" using specified fasteners.

END OF SECTION 133400

SECTION 312000 - EARTH MOVING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

- Excavating and filling for rough grading the Site.
 - Preparing subgrade for slab-on-grade and pavements.
 - Excavating and backfilling for buildings and structures.
 - Drainage course for concrete slabs-on-grade.
 - Subbase course for concrete pavements.
 - Subbase course and base course for asphalt paving.
 - Excavating and backfilling trenches for utilities and pits for buried utility structures.
- 1.2 **DEFINITIONS**
- A. Backfill: Soil material used to fill an excavation.
- Initial Backfill: Backfill placed beside and over pile in a trench, including backfill to support trench walls.
 - Final Backfill: Backfill placed beyond initial backfill to fill a trench.
- B. Base Course: Aggregate layer placed between the subbase course and hot-mix asphalt paving.
- C. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.
- D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.
- E. Drainage Course: Aggregate layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.
- F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
- Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Architect. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
 - Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Architect. Unauthorized excavation, as well as remedial work directed by Architect, will be without additional compensation.
- G. Fill: Soil materials used to raise existing grades.
- H. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other fabricated structural features constructed above or below the ground surface.
- I. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement, or aggregate layer placed between the subgrade and a cement concrete pavement or cement concrete or hot-mix asphalt walk.
- J. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.
- K. Utilities: On-site electrical pipes, conduits, ducts, and cables as well as underground services within buildings.

1.3 INFORMATIONAL SUBMITTALS

A. Material test reports.

1.4 FIELD CONDITIONS

- A. Utility Locator Service: Notify utility locator service for areas where Project is located before beginning earth-moving operations.
- PART 2 - PRODUCTS**
- 2.1 **SOIL MATERIALS**
- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: Soil Classification Groups GP, GM, GW, SW, SP, and SM according to ASTM D2487, or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension; debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OH, CH, MH, OH, and PT according to ASTM D2487, or a combination of these groups.
- Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M, with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
- E. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M, with at least 95 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.
- F. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M, with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
- G. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M, with at least 90 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.
- H. Drainage Course: Narrowly graded mixture of washed crushed stone, or crushed or uncashed gravel; ASTM D4469, coarse aggregate grading Size 57, with 100 percent passing a 1-1/2-inch sieve and zero to 5 percent passing a No. 8 sieve.

2.2 ACCESSORIES

- A. Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility, colored to comply with local practice or requirements of authorities having jurisdiction.
- B. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility, with reflective color enclosed in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep, colored to comply with local practice or requirements of authorities having jurisdiction.
- PART 3 - EXECUTION**
- 3.1 **PREPARATION**
- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral soil movement, undermining, washout, and other hazards created by earth-moving operations.
- B. Protect and maintain erosion and sedimentation controls during earth-moving operations.
- C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.
- 3.2 **EXCAVATION, GENERAL**
- A. Undisclosed Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.
- Excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.
- 3.3 **EXCAVATION FOR STRUCTURES**
- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch, if applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
- 3.4 **EXCAVATION FOR WALKS AND PAVEMENTS**
- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.
- 3.5 **EXCAVATION FOR UTILITY TRENCHES**
- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
- B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit unless otherwise indicated.
- Clearance: 12 inches each side of pipe or conduit.
- C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and bow-joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.
- Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

3.6 SUBGRADE INSPECTION

- A. Proof-roll subgrade below the building slabs and pavements with a pneumatic-tired dump truck to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
- B. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Architect, without additional compensation.

3.7 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or fill footings by extending bottom elevation of concrete foundation to footing to excavation bottom, without altering top

elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi, may be used when approved by Architect.

- Fill unauthorized excavations under other construction, pipe, or conduit as directed by Architect.

3.8 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without regrading. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
- Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.9 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
- Construction below finish grade.
 - Surveying locations of underground utilities for Record Documents.
 - Testing and inspecting underground utilities.
 - Removing concrete formwork.
 - Removing trash and debris.
 - Removing temporary shoring, bracing, and sheeting.
- B. Place backfill on subgrade free of mud, frost, snow, or ice.
- C. Trenches under Footings: Backfill trenches excavated under footings and within 18 inches of bottom of footings with satisfactory soil; fill with concrete to elevation of bottom of footings. Concrete is specified in Section 033000 "Cast-in-Place Concrete."
- D. Trenches under Roadways: Provide 4-inch-thick, concrete-base slab support for piping or conduit less than 30 inches below surface of roadways. After installing and testing, completely encase piping or conduit in a minimum of 4 inches of concrete before backfilling or placing roadway subbase course. Concrete is specified in Section 033000 "Cast-in-Place Concrete."
- E. Initial Backfill: Place and compact initial backfill of subbase material, free of particles larger than 1 inch in any dimension, to a height of 12 inches over the pipe or conduit. Do not still under manholes and compact evenly up to both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.
- F. Final Backfill: Place and compact final backfill of satisfactory soil to final subgrade elevation.
- G. Warning Tape: Install warning tape directly above utilities, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.

3.11 SOIL FILL

- A. Flow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing materials.
- B. Place and compact fill material in layers to required elevations as follows:
- Under grass and planted areas, use satisfactory soil material.
 - Under walks and pavements, use satisfactory soil material.
 - Under steps and ramps, use engineered fill.
 - Under building slabs, use engineered fill.
 - Under footings and foundations, use engineered fill.

3.12 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
- Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
 - Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture by 2 percent and is too wet to compact to specified dry unit weight.

3.13 COMPACTION OF SOIL, BACKFILLS AND FILLS

- A. Place backfill and fill soil materials to a depth not more than 8 inches in loose depth for material compacted by heavy compaction equipment and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill soil materials evenly on all sides of structures to required elevations and uniformly along the full length of each structure.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D1557:
- Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 95 percent.
 - Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 92 percent.
 - Under turf or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 85 percent.
 - For utility trenches, compact each layer of initial and final backfill soil material at 85 percent.

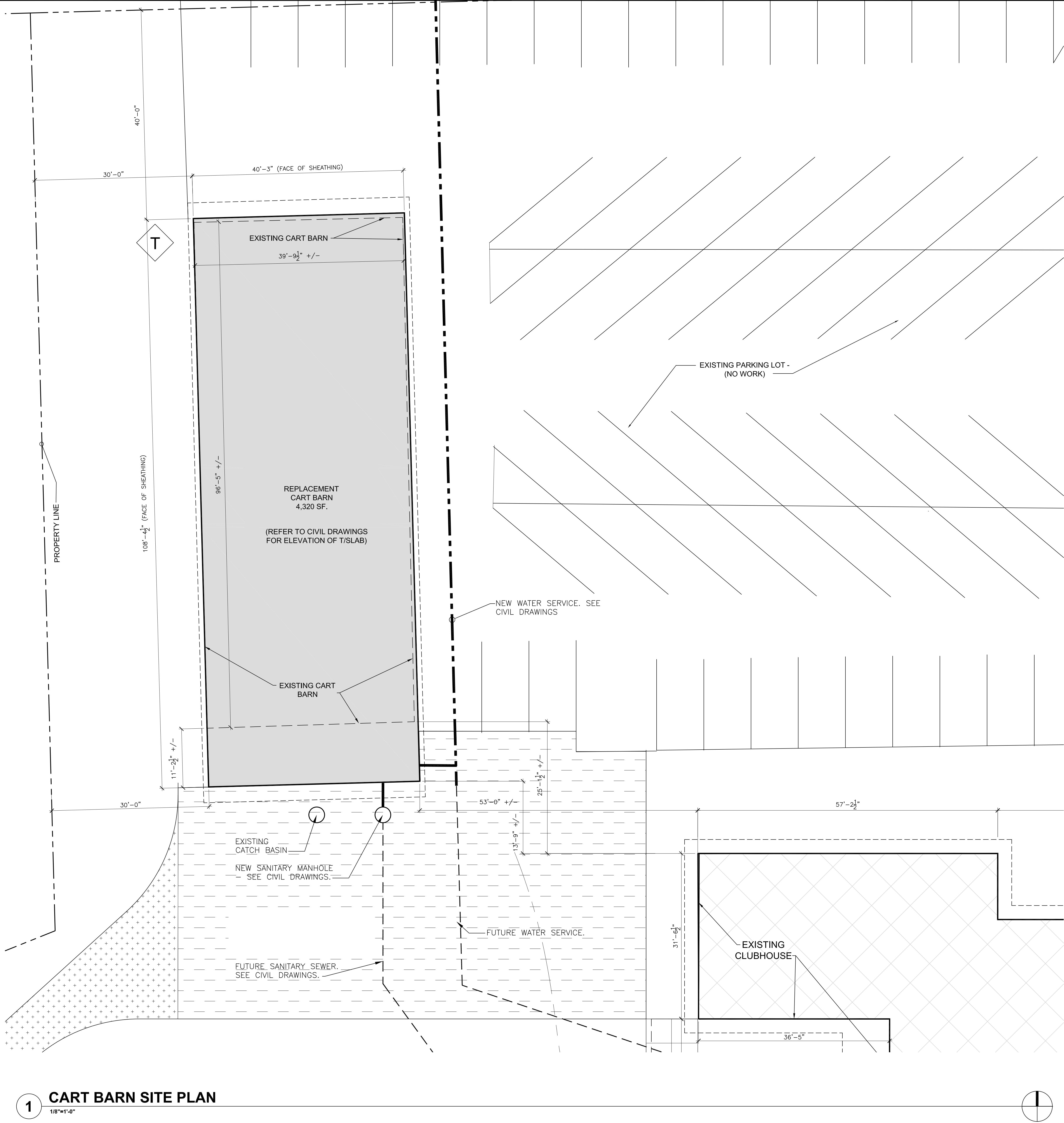
3.14 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and finish elevations indicated.
- B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to elevations required to achieve indicated finish elevations, within the following subgrade tolerances:
- Turf or Unpaved Areas: Plus or minus 1 inch.
 - Walks: Plus or minus 1/4 inch.
 - Pavements: Plus or minus 1/2 inch.
- C. Grading Inside Building Lines: Finish subgrade to a tolerance of 1/2 inch when tested with a 10-foot straightedge.

3.15 SUBBASE AND BASE COURSES UNDER PAVEMENTS AND WALKS

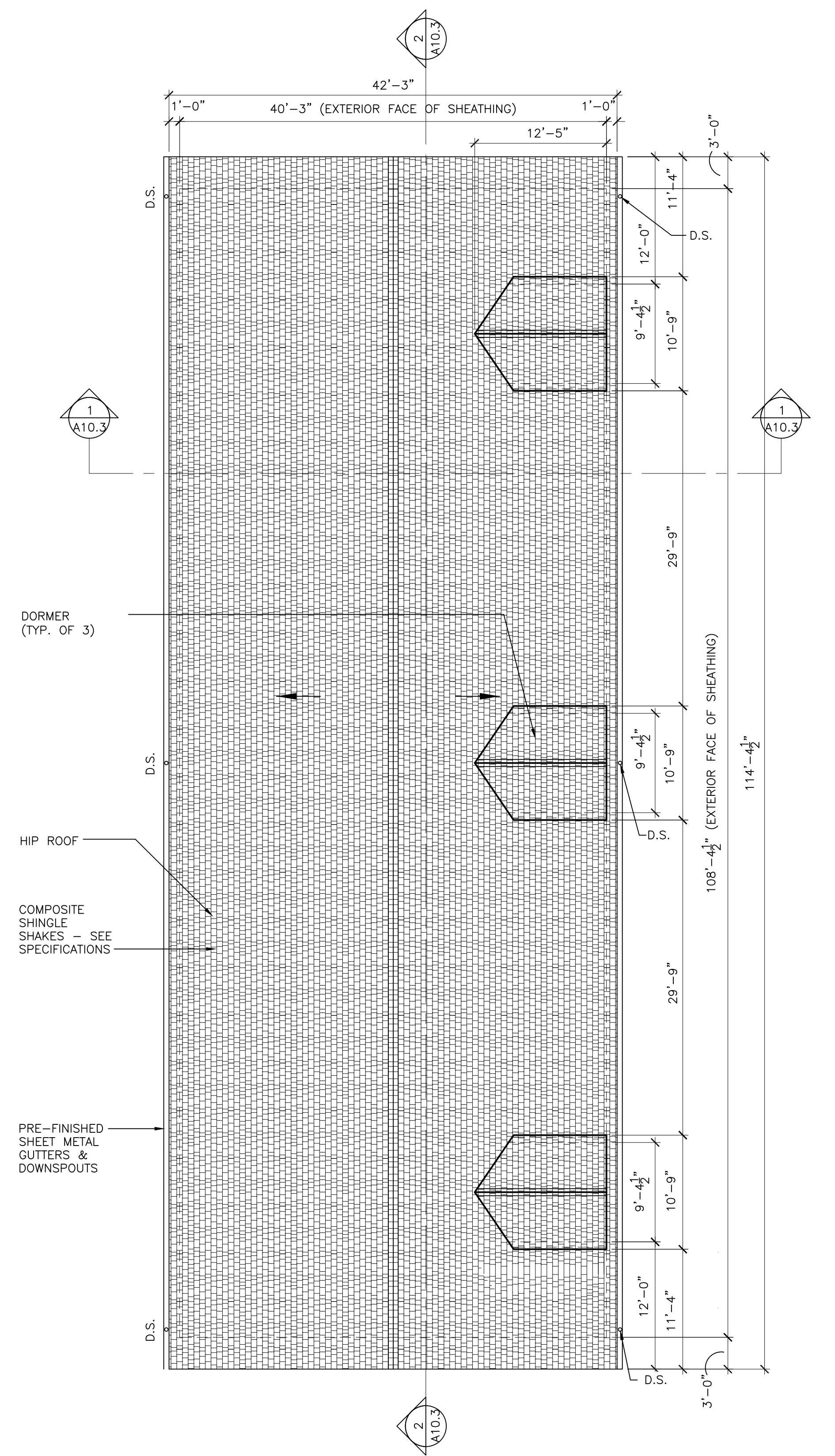
- A. Place subbase course and base course free of mud, frost, snow, or ice.
- B. On prepared subgrade, place subbase course and base course under pavements and walks as follows:
- Shape subbase course and base course that required crown elevations and cross-slope grades.
 - Place subbase course and base course that exceeds 8 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.
 - Compact subbase course and base course at optimum moisture content to not available from excavations.
 - Place subbase course and base course at optimum moisture content to not less than 95 percent of maximum dry unit weight according to ASTM D155

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1 CART BARN SITE PLAN
1/8"=1'-0"

SITE PLAN NOTES	DEMOLITION NOTES
<ol style="list-style-type: none">REFER TO CIVIL ENGINEERING DRAWINGS FOR ALL GRADING, PAVEMENTS AND UTILITIES.REFER TO CIVIL ENGINEERING DRAWINGS FOR LOCATION OF REPLACEMENT CART BARN. LOCATION ON THIS ARCHITECTURAL SITE PLAN IS APPROXIMATE.REFER TO CIVIL ENGINEERING DRAWINGS FOR ELEVATIONS OF ALL SLABS, PIPING, APPURTENANCES, ETC.REFER TO ELECTRICAL ENGINEERING DRAWINGS FOR LOCATION AND DETAILS OF ELECTRICAL SERVICES FOR REPLACEMENT CART BARN.	<ol style="list-style-type: none">REMOVE AND DISPOSE EXISTING CART BARN, INCLUDING STRUCTURE, SLAB, FOOTINGS & FOUNDATIONS, ETC.BACKFILL EXCAVATIONS FROM FOUNDATION REMOVAL WITH GRANULAR FILL, PLACED ON LIFTS NOT EXCEEDING 9" AND COMPACTED TO 90% DENSITY (ASTM D-1557)ELECTRICAL DEMOLITION:<ol style="list-style-type: none">REMOVE ALL EXISTING ELECTRICAL DEVICES, RECEPTACLES, LIGHTING FIXTURES, LIGHTING CONTROLS, CONDUITS, WIRING AND FEEDERS UP TO EXISTING UTILITY TRANSFORMER.<ul style="list-style-type: none">EXISTING PAD-MOUNTED TRANSFORMER TO REMAIN. CONTRACTOR SHALL PROTECT EXISTING TRANSFORMER DURING DEMOLITION AND NEW CONSTRUCTION.EXISTING C/T METER CABINET AND METER SHALL BE DISCONNECTED, REMOVED, STORED AND PROTECTED FOR FUTURE INSTALLATION.EXISTING WIRING FEEDING EXISTING PANEL PP-3 TO BE REMOVED BACK TO SOURCE DISTRIBUTION PANEL D LOCATED IN THE EXISTING CLUBHOUSE BASEMENT.REMOVE ALL EXISTING FIRE ALARM SYSTEM AND ASSOCIATED DEVICES UP TO THE EXISTING CONDUIT AND WIRING FED FROM THE EXISTING CLUBHOUSE FIRE ALARM SYSTEM. RETAIN AND PROTECT THE CONDUIT AND WIRING DURING DEMOLITION AND NEW CONSTRUCTION.DISCONNECT, REMOVE, PROTECT AND STORE EXISTING SECURITY SYSTEM, CAMERAS AND ANY ASSOCIATED DEVICES FOR FUTURE INSTALLATION. RETAIN AND PROTECT EXISTING SECURITY SYSTEM CONDUIT AND WIRING BEING FED FROM THE EXISTING CLUBHOUSE SECURITY SYSTEM DURING DEMOLITION AND NEW CONSTRUCTION.



2 CART BARN ROOF PLAN
1/8"=1'-0"

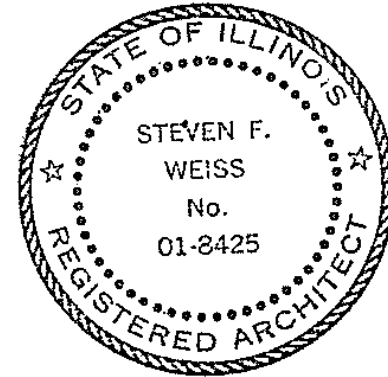
ROOF PLAN NOTES
<ol style="list-style-type: none">ROOFING SYSTEM IS COMPOSITE SHINGLE SHAKES SYSTEM (DAVINCI ROOFSCAPES) ON 3/4" PLYWOOD SHEATHING FASTENED TO ROOF GIRTS. SEE DETAILS ON SHEET A10.4.PRE-FINISHED GUTTERS & DOWNSPOUTS - SEE DETAILS ON SHEET A10.4

DOOR SCHEDULE													
Abbreviations													
AL	Aluminum Anodized	FL	FL	GL	GL	HT	HT	HT	HT	HT	HT	HT	HT
ST	Steel	HC	HC	HC	HC	HT	HT	HT	HT	HT	HT	HT	HT
FF	Factory Finish	HM	HM	HM	HM	HT	HT	HT	HT	HT	HT	HT	HT
DOOR SCHEDULE													
FLR	DOOR MARK	DOOR	WIDTH	HEIGHT	THICKNESS	TYPE	MATERIAL	FINISH	FRAME	DETAILS	LABEL	HDWR SET	REMARKS
1	1	3'-0"	7'-0"	1 1/2"	SWING	HM	PNT	HM	PNT			1	
2	2	2(3'-0")	7'-0"	1 1/2"	SWING	HM	PNT	HM	PNT			2	PAIR
3	3	3'-0"	7'-0"	1 1/2"	SWING	HM	PNT	HM	PNT			1	
4	4	12'-0"(RO)	8'-0"	1 1/2"	OVHD	STL	PNT	-	-			3	SECTIONAL OVERHEAD INSULATED GARAGE DOOR
5	5	12'-0"(RO)	8'-0"	1 1/2"	OVHD	STL	PNT	-	-			3	SECTIONAL OVERHEAD INSULATED GARAGE DOOR
6	6	9'-0"(RO)	8'-0"	1 1/2"	OVHD	STL	PNT	-	-			3	SECTIONAL OVERHEAD INSULATED GARAGE DOOR
7	7	9'-0"(RO)	8'-0"	1 1/2"	OVHD	STL	PNT	-	-			3	SECTIONAL OVERHEAD INSULATED GARAGE DOOR
8	8	3'-0"	7'-0"	1 1/2"	SWING	HM	PNT	HM	PNT			4	
9	9	3'-0"	7'-0"	1 1/2"	SWING	HM	PNT	HM	PNT			5	
10	10	3'-0"	7'-0"	1 1/2"	SWING	HM	PNT	HM	PNT			5	
DOOR SCHEDULE NOTES:													
1. ALL DOOR FRAMES TO BE U.L. LISTED & LABELED TO MATCH DOORS													
2. NO GLASS LITES IN RATED DOORS IN THIS PROJECT.													
3. NO ELECTRONIC OR ELECTRO-MECHANICAL LOCKING DEVICES SHALL BE INSTALLED WITHOUT PRIOR APPROVAL OF FIRE PREVENTION BUREAU.													
4. ALL DOORS AND DOOR HARDWARE SHALL COMPLY WITH ICC/ANSI 117.1-2003 FOR OPERATING FORCE AND LEVER DESIGN.													
5. ALL DOORS TO HAVE LEVER HANDLES.													
6. ALL DOORS LEADING TO MECHANICAL, ELECTRICAL OR GARAGE SPACES TO HAVE KNULED IDENTIFICATION DEVICES ON LEVER HANDLES.													
7. ALL THRESHOLDS TO BE 3/4" MAXIMUM HEIGHT AND BEVELED IN ACCORDANCE WITH ICC/ANSI 117.12003, PARAGRAPH 303.													
8. ALL DOOR HARDWARE TO BE KEYLESS IN DIRECTION OF EGRESS.													
9. *PROVIDE APPROVED SELF-CLOSING DEVICE WHERE INDICATED.													
HARDWARE SCHEDULE													
HARDWARE SET #1													
1 1/2 PAIR 4" X 4" BALL BEARING BUTT HINGES US26D													
1 LOCKSET - SCHLAGE ND73PD - RHO - 626													
1 WALL STOP - HOOK													
1 COMPRESSION WEATHERSTRIP (AT JAMBS & HEAD)													
1 THRESHOLD & DOOR SWEEP STRIP													
1 KNOX BOX (AT DOOR #1 ONLY)													
HARDWARE SET #2													
3 PAIR 4" X 4" BALL BEARING BUTT HINGES US26D													
1 LOCKSET - SCHLAGE ND73PD - RHO - 626													
1 PAIR FLUSH BOLTS													
1 SET BULB WEATHERSTRIP (AT JAMBS & HEAD)													
1 THRESHOLD & 2 DOOR SWEEP STRIPS													
HARDWARE SET #3													
ALL HARDWARE BY DOOR MANUFACTURER													
HARDWARE SET #4													
1 PAIR BALL BEARING BUTT HINGES US26D													
1 PRIVACY LATCHSET - SCHLAGE MD40S - RHO - 626													
1 WALL STOP													
3 SILENCERS													
HARDWARE SET #5													
1 PAIR BALL BEARING BUTT HINGES US26D													
1 LOCKSET - SCHLAGE ND73PD - RHO - 626 (AT DOOR #5 KEYPED TO DOOR #1)													
1 WALL STOP													
3 SILENCERS													

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Steven F. Weiss

REPLACEMENT CART BARN



**PRESTWICK
COUNTRY
CLUB**

601 PRESTWICK DR. FRANKFURT, IL 60423

10-6-2023 ISSUED FOR BID & PERMIT

8-28-2023 DESIGN DEVELOPMENT V.E.

3-17-2023 SCHEMATIC DESIGN

2-2-2023 CONCEPTUAL DESIGN

**CART BARN SITE PLAN,
ROOF PLAN**

Scale:

NOTED

Drawn by:

SFW

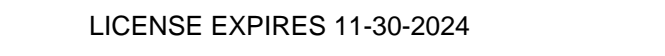
Project:

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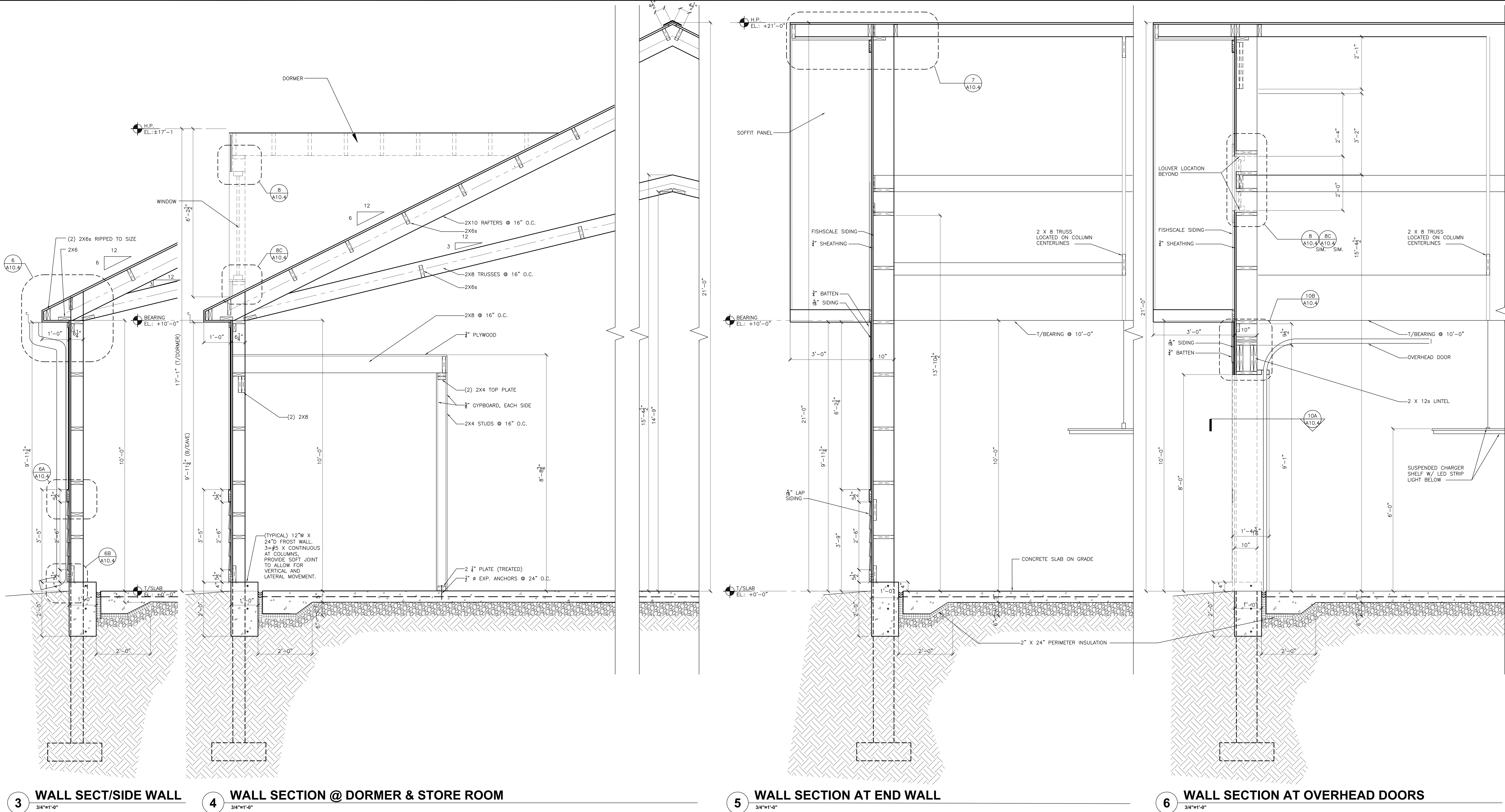


EPLACEMENT CART BARN



11 PRESTWICK DR. FRANKFURT, IL 60423

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CART BARN SLAB-ON-GRADE:

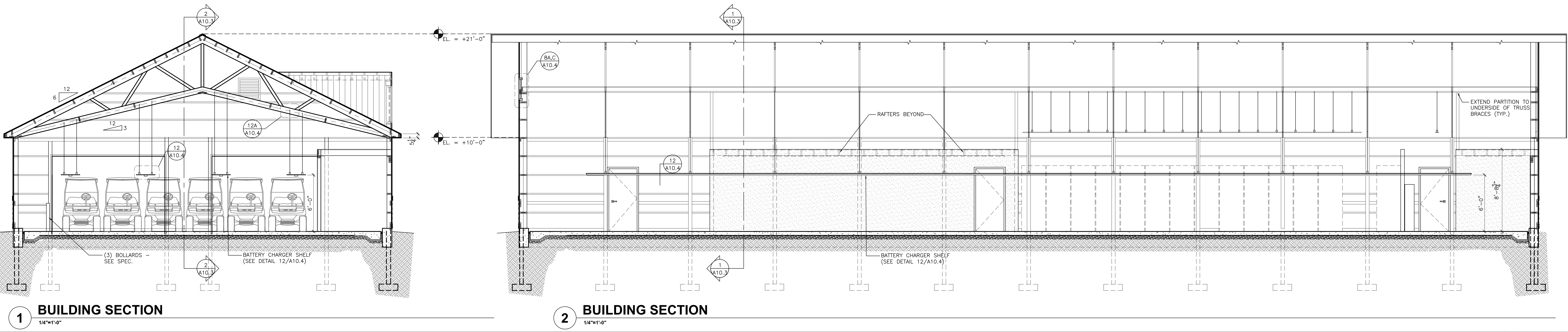
1. REFER TO DEMOLITION, EARTHWORK, AND CONCRETE SPECIFICATIONS.
2. PROVIDE 6" COMPACTED SAND OR GRAVEL BASE.
3. PROVIDE 6" THICK SLAB-ON-GRADE, $F_c=4,500$ PSI, $w/c=0.40$ MAX., 65-75% AIR ENTRAINMENT.
4. PROVIDE 6 X 8 W2.9 X W2.9 WWF @ MID-DEPTH OF SLAB.
5. SAWCUT CONTROL JOINTS @ 15'-0" O.C. (MAX.).
6. REFER TO INTERIOR PAINTING SPECIFICATION FOR SLAB SEALER.
7. SEE NOT ABOVE FOR CONTINUOUS FROST WALL.

CART BARN WALL ASSEMBLY:

1. UPPER: HARDIE "PANEL" SHEETS, CEDARMILL PATTERN, 48"W x FULL HEIGHT; 5/8" THK; WITH HARDIE BATTEN BOARDS (3/4" X 2-1/2").
LOWER: HARDIE "PLANK", SMOOTH PATTERN) 5/8" x 7 1/2" (6" EXPOSURE) HORIZONTALS, SHIP LAP PATTERN.
TRIM: HARDIE "TRIM", SMOOTH PATTERN) 1" x 5 1/2" HORIZONTALS AT BASE AND BELT; 3/4" x 2 1/2" UNDER EAVE, VERTICAL AT CORNERS AND JAMBS, SIMILAR.
2. COMMERCIAL HOUSE WRAP.
3. 1" THK EXTERIOR GRADE PLYWOOD SHEATHING.
5. STRUCTURAL FRAMING AND GIRTS BY POLE BUILDING MANUFACTURER.

CART BARN ROOF ASSEMBLY:

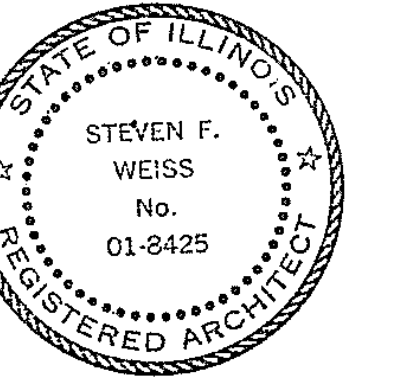
1. COMPOSITE POLYMER "CEDAR" MULTI-WIDTH SHAKES W/ 1 PIECE HIP & RIDGE SHAKES. (DAVINCI OR EQ.)
2. STAINLESS STEEL FLASHINGS & VALLEY FLASHINGS.
3. FELT UNDERLAYMENT.
4. CONTINUOUS ICE & WATER SHIELD UNDERLAYMENT @ BOTTOM 36" OF ROOF, ALL AROUND.
5. 3/4" EXTERIOR GRADE PLYWOOD SHEATHING.
6. WOOD LUMBER PRE-FAB TRUSSES AND PURLINS BY POLE BUILDING MANUFACTURER.



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LICENSE EXPIRES 11-30-2024

Steven F. Weiss

REPLACEMENT CART BARN



**PRESTWICK
COUNTRY
CLUB**

601 PRESTWICK DR. FRANKFURT, IL 60423

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3-17-2023 SCHEMATIC DESIGN

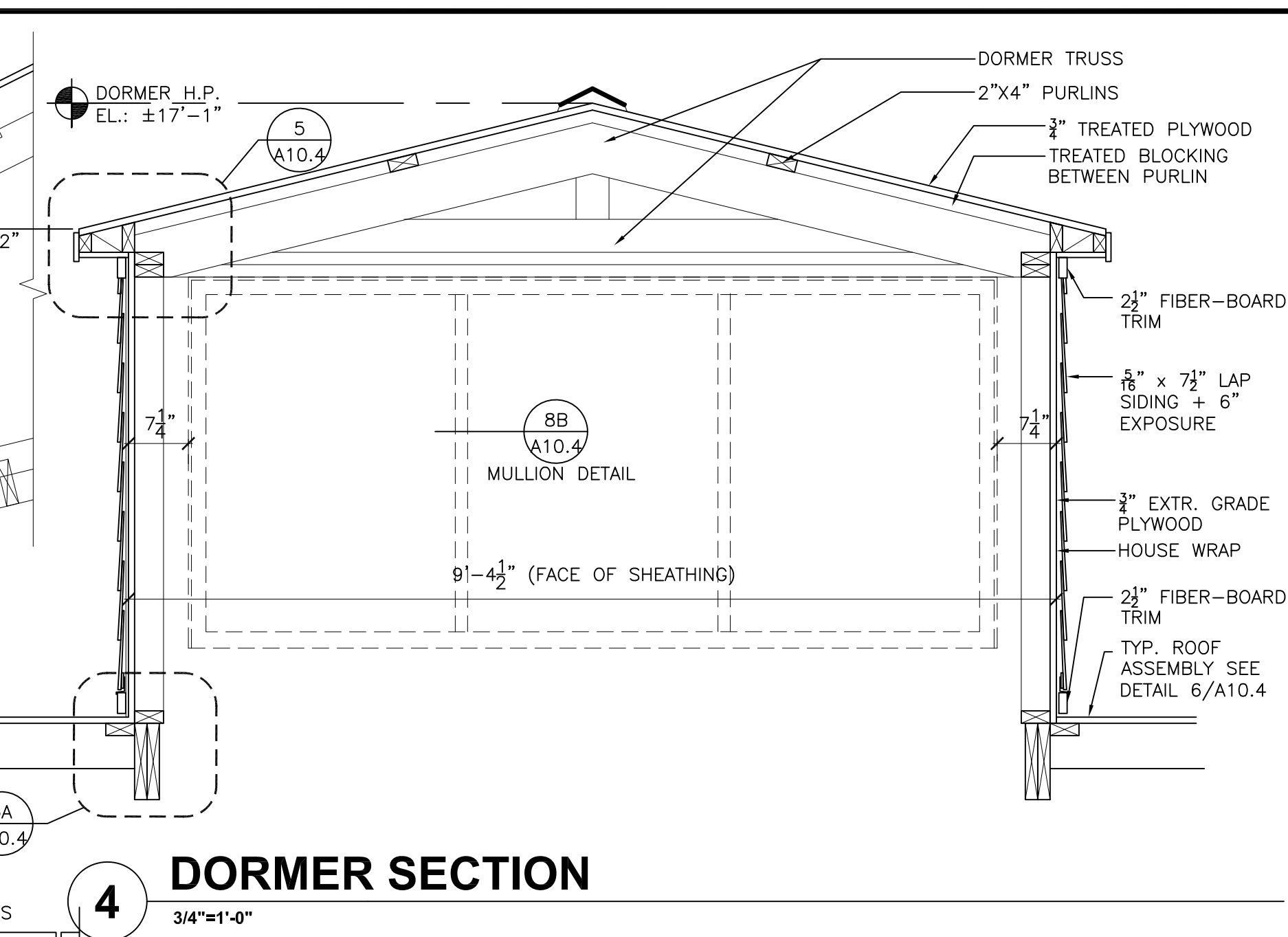
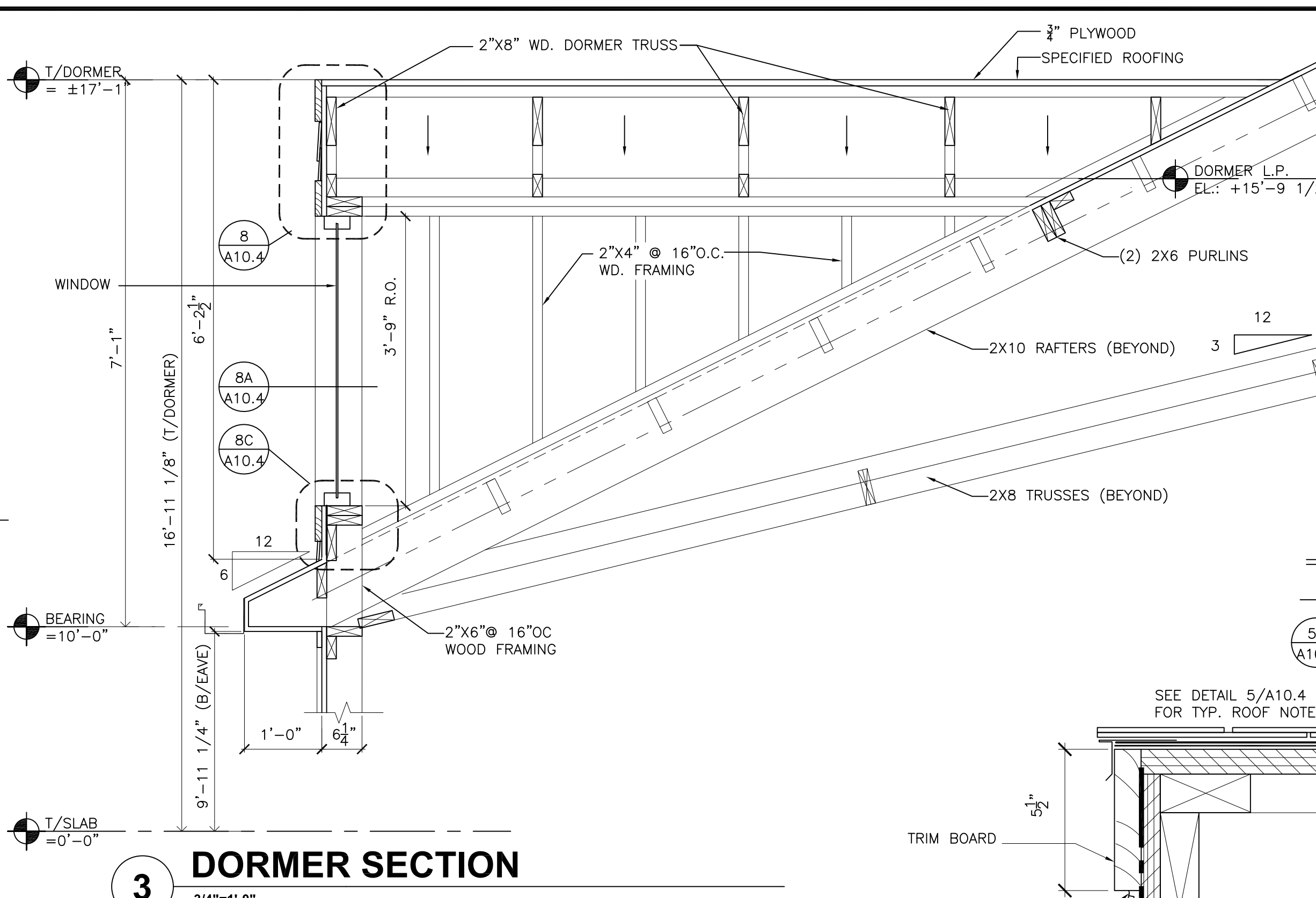
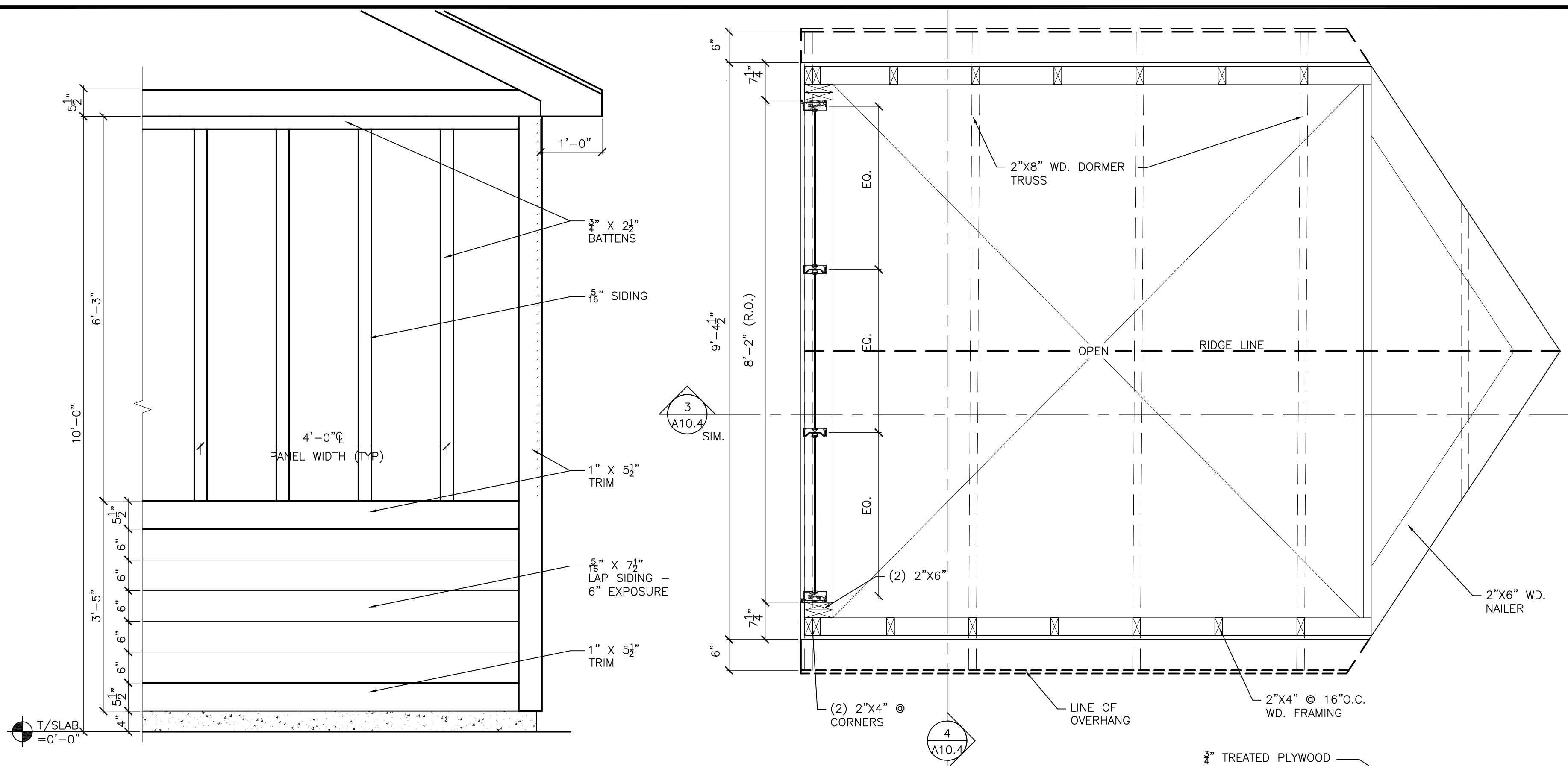
CART BARN SECTIONS

NOTED
Drawn by
BLS
Project
2222

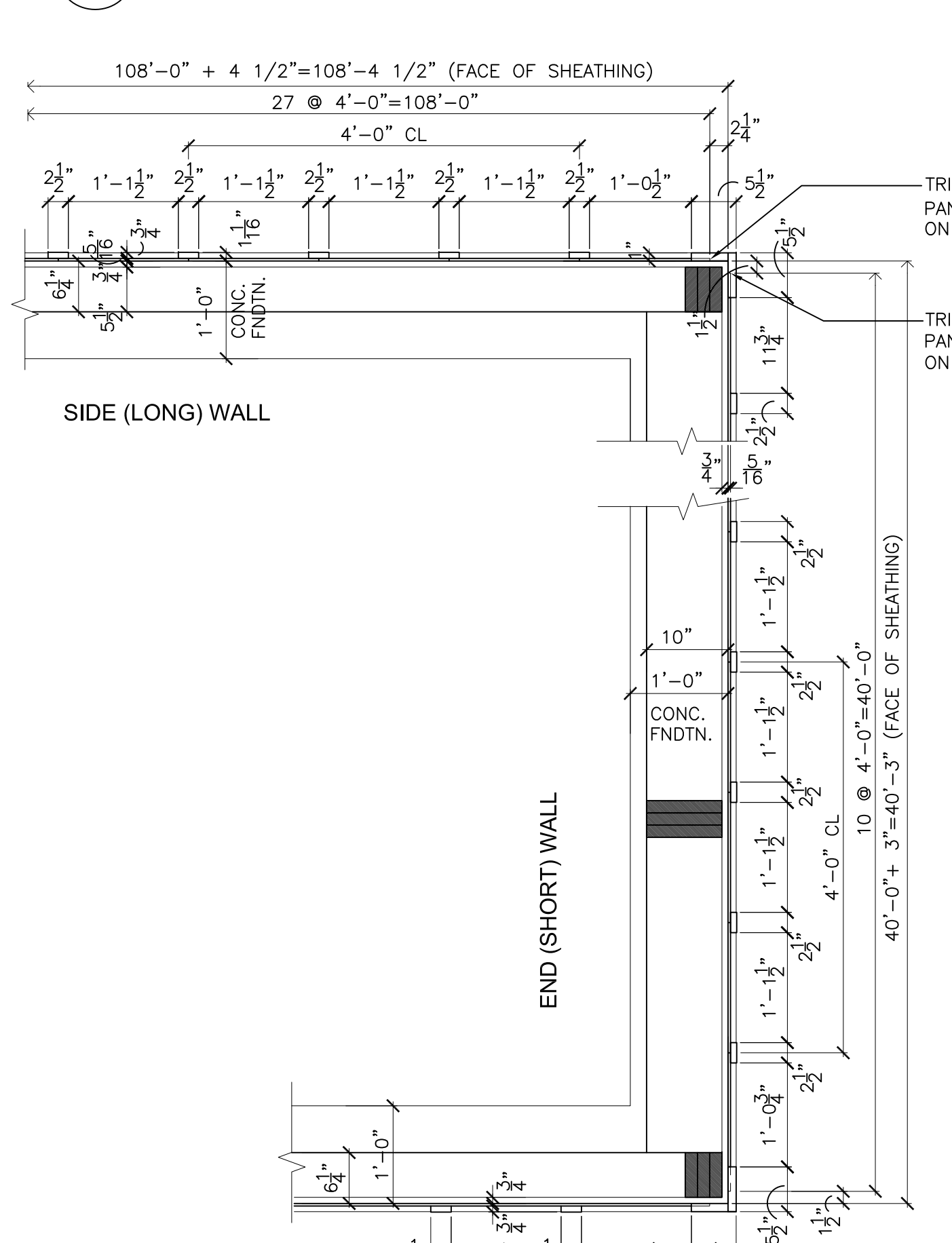
Sheet

A10.3

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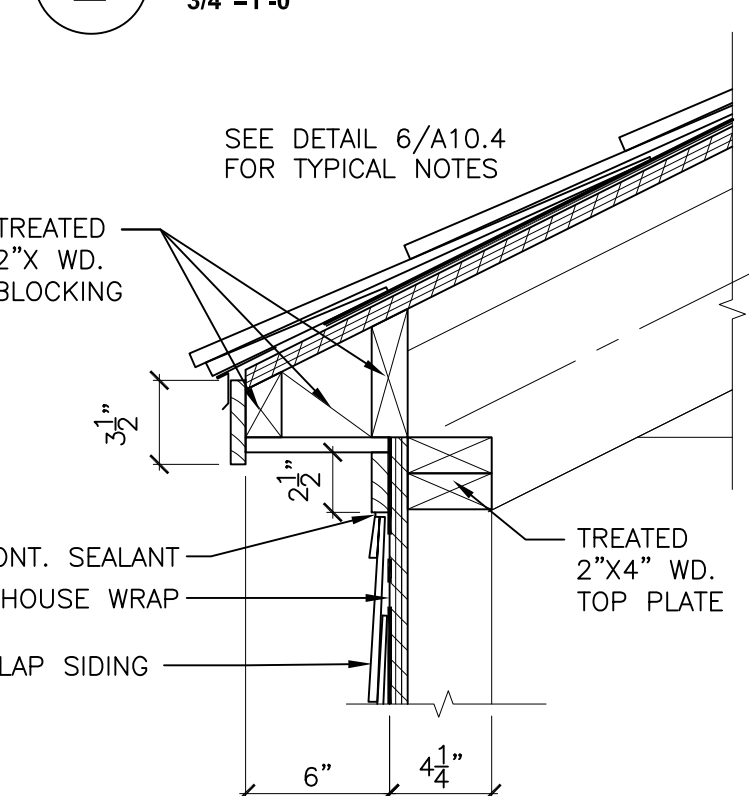


1 PARTIAL ELEVATION
3/4"x1'-0"

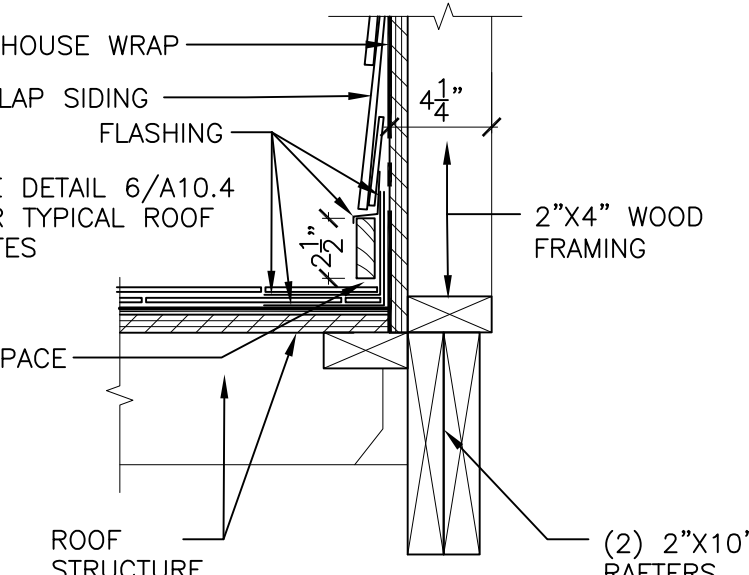


1A PARTIAL PLAN:
FIBER CEMENT & TRIM
3/4"x1'-0"

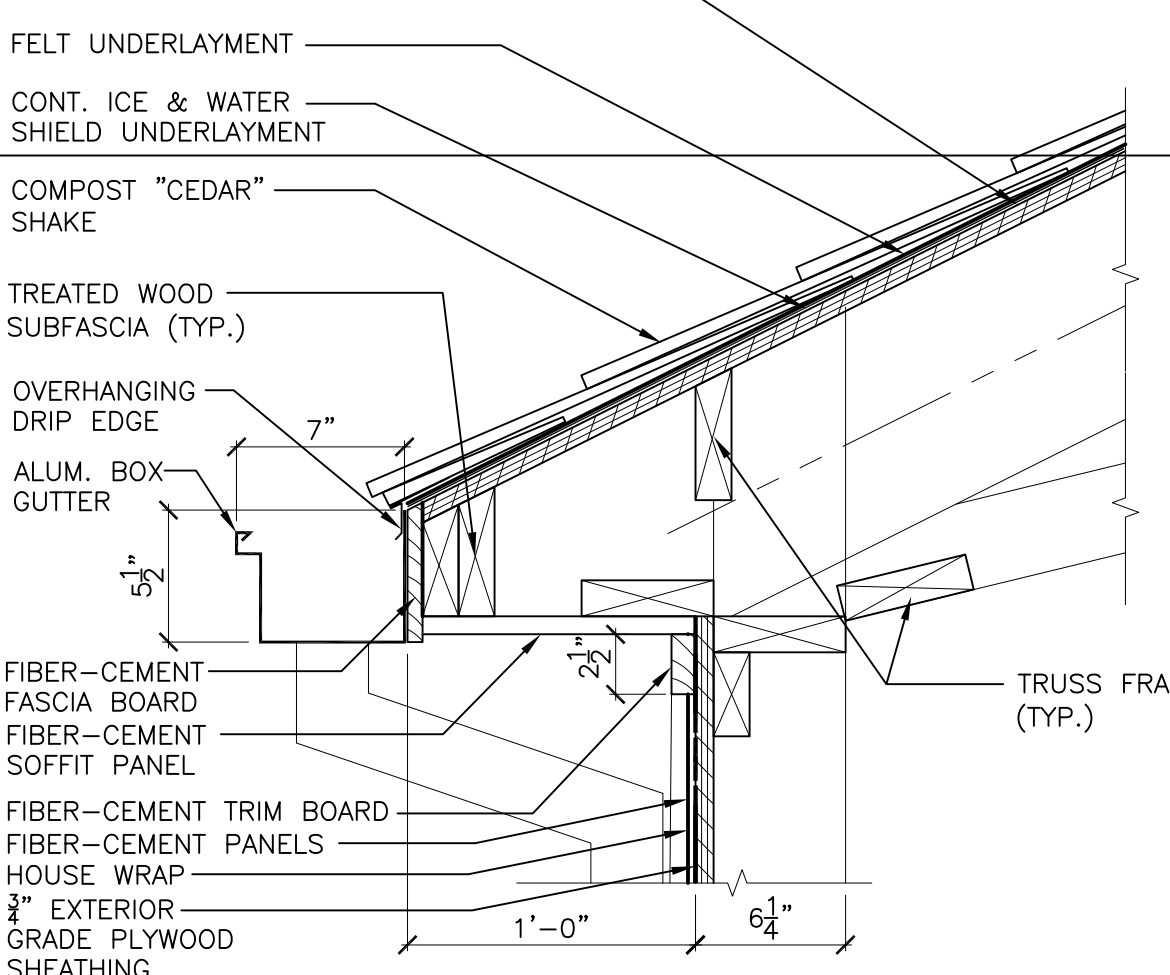
2 DORMER PLAN
3/4"x1'-0"



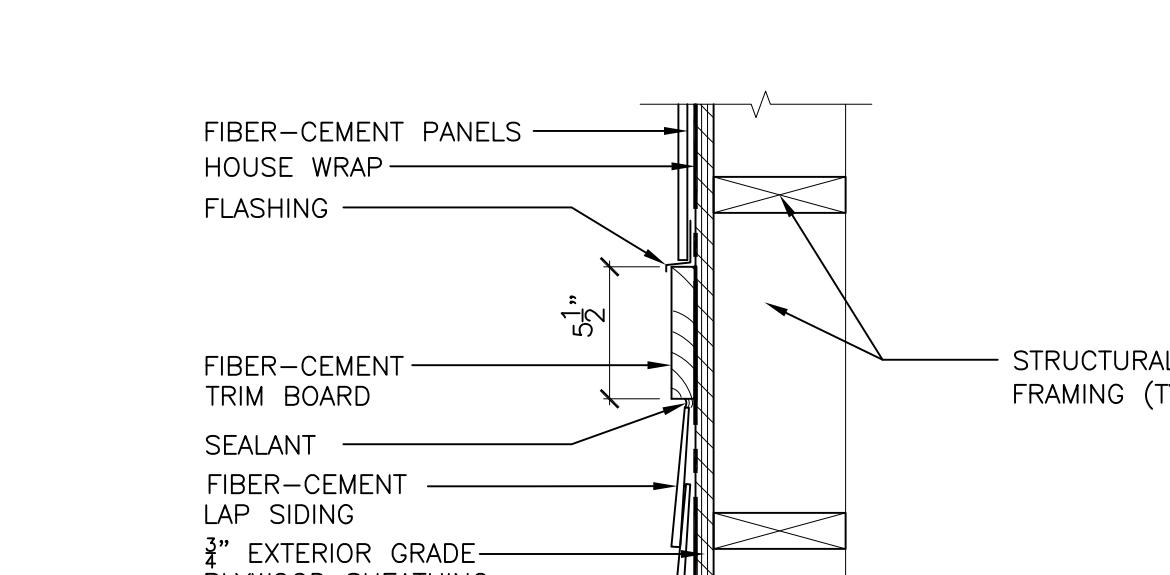
5 DORMER EAVE DETAIL
1 1/2"x1'-0"



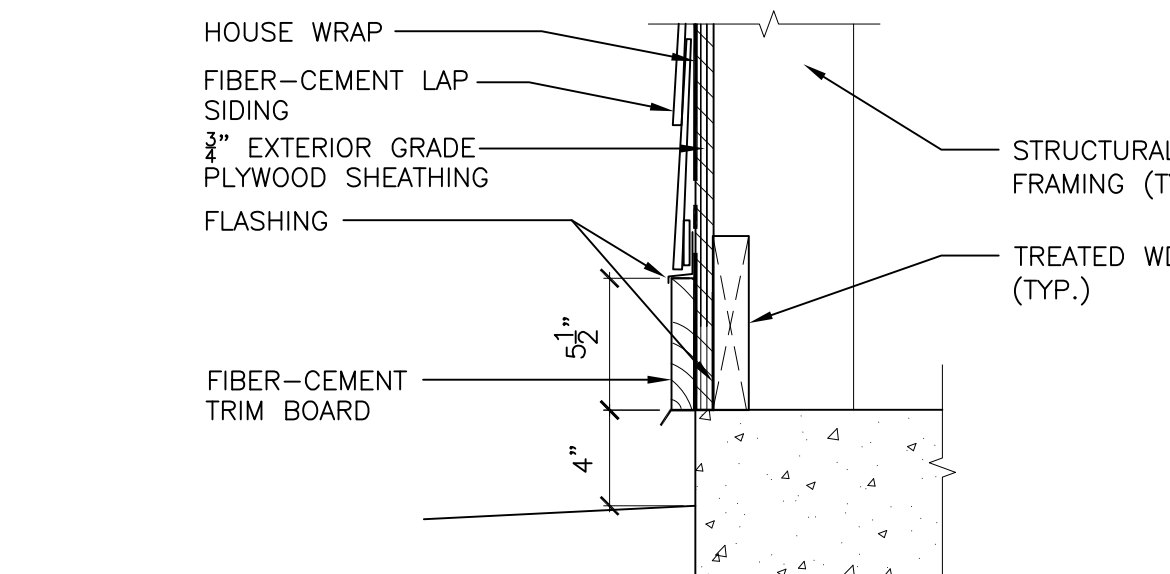
5A DORMER
SIDEWALL DETAIL
1 1/2"x1'-0"



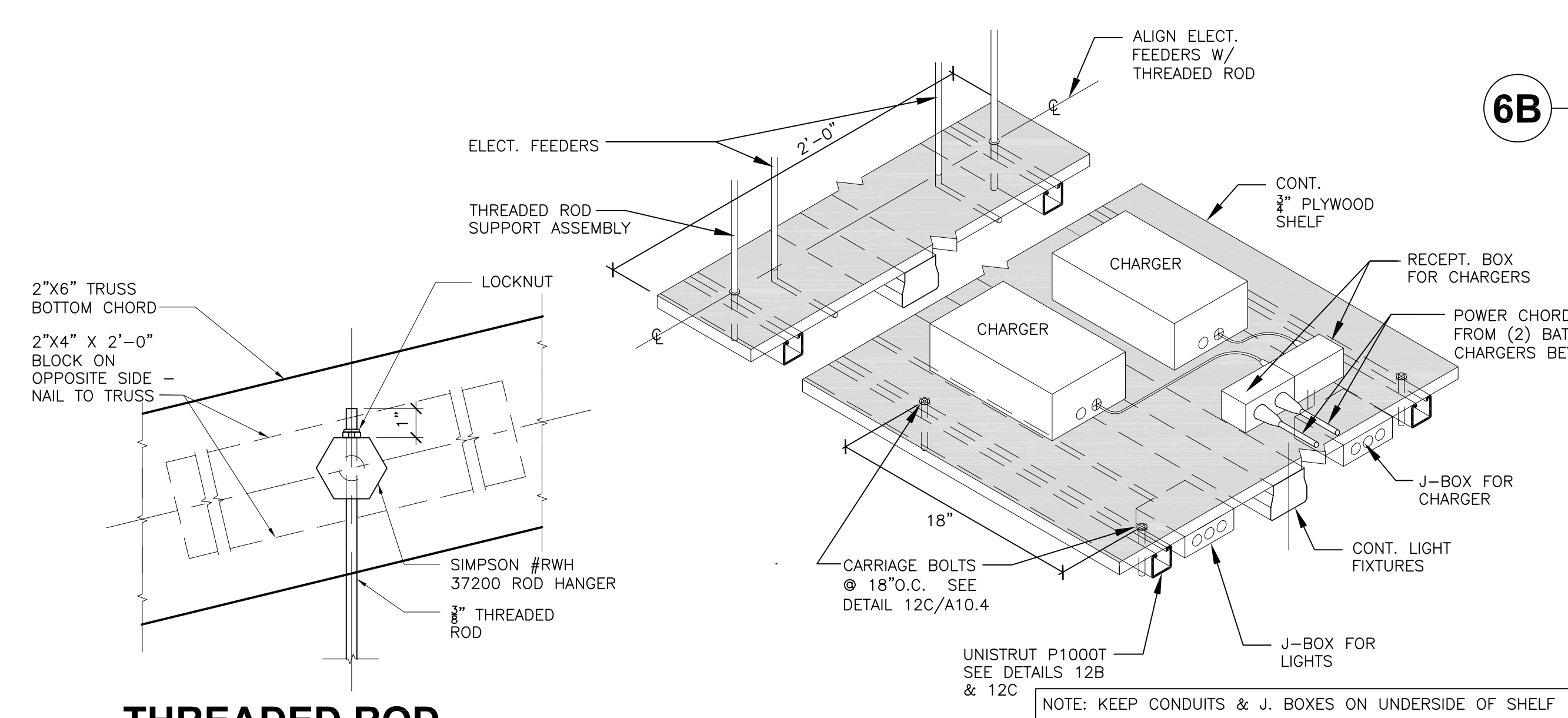
6 TYPICAL EAVE ON SIDES
1 1/2"x1'-0"



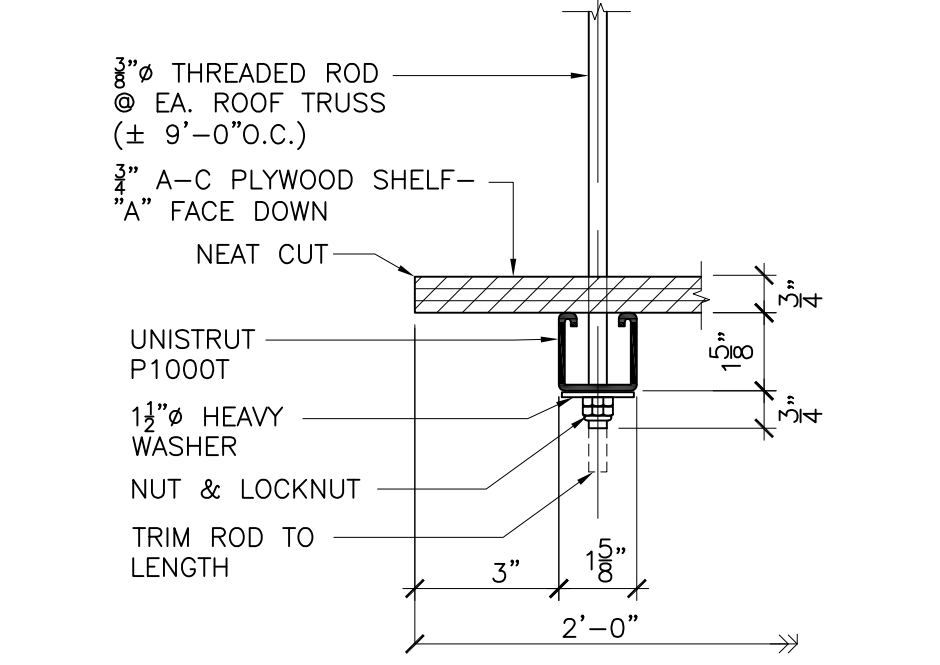
6A TYPICAL TRIM DETAIL
1 1/2"x1'-0"



6B TYP. TRIM DETAIL @ BASE
1 1/2"x1'-0"

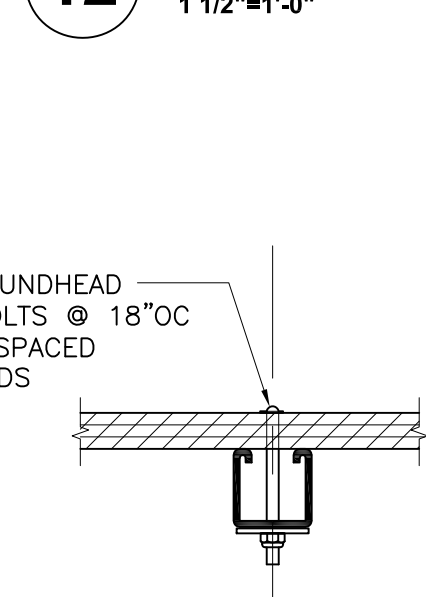


12A THREADED ROD
@ ROOF TRUSS (TYP.)
3"x1'-0"

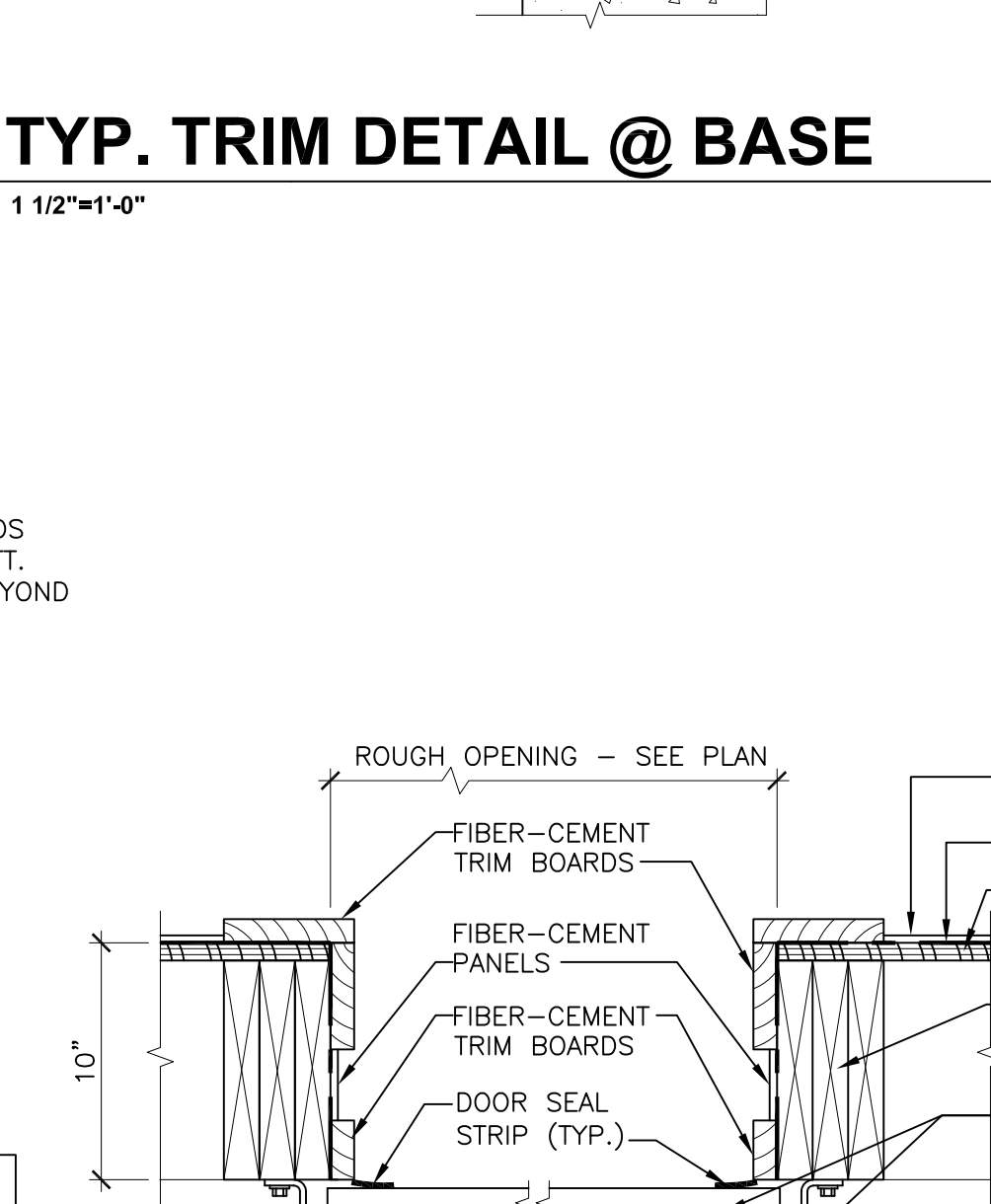


12B THREADED ROD
@ SHELF DETAIL (TYP.)
3"x1'-0"

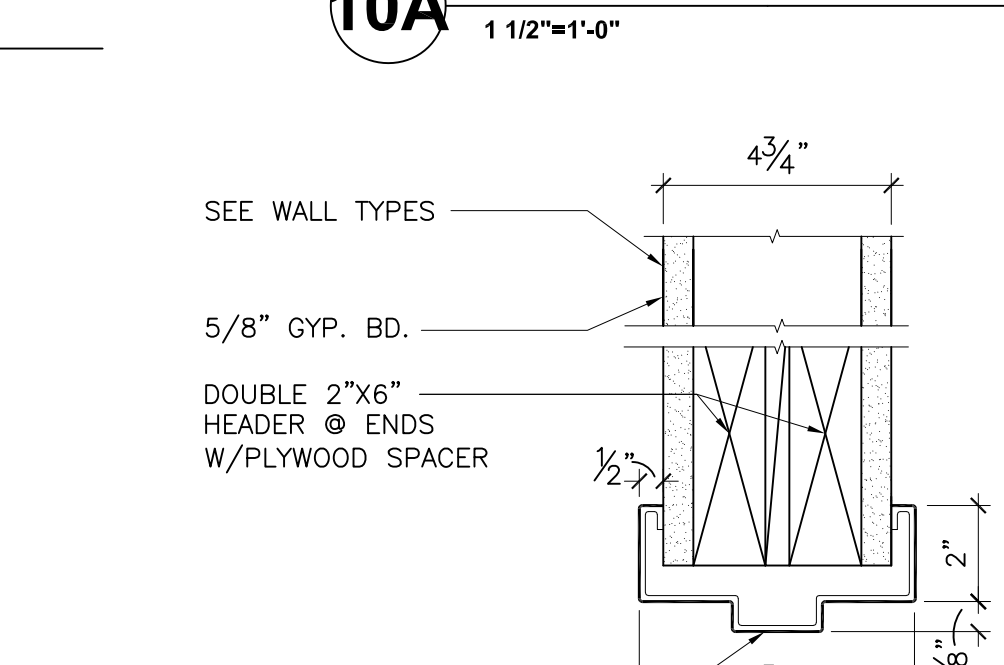
12 PARTIAL AXONOMETRIC VIEW
@ BATT. CHARGER SHELVES
1 1/2"x1'-0"



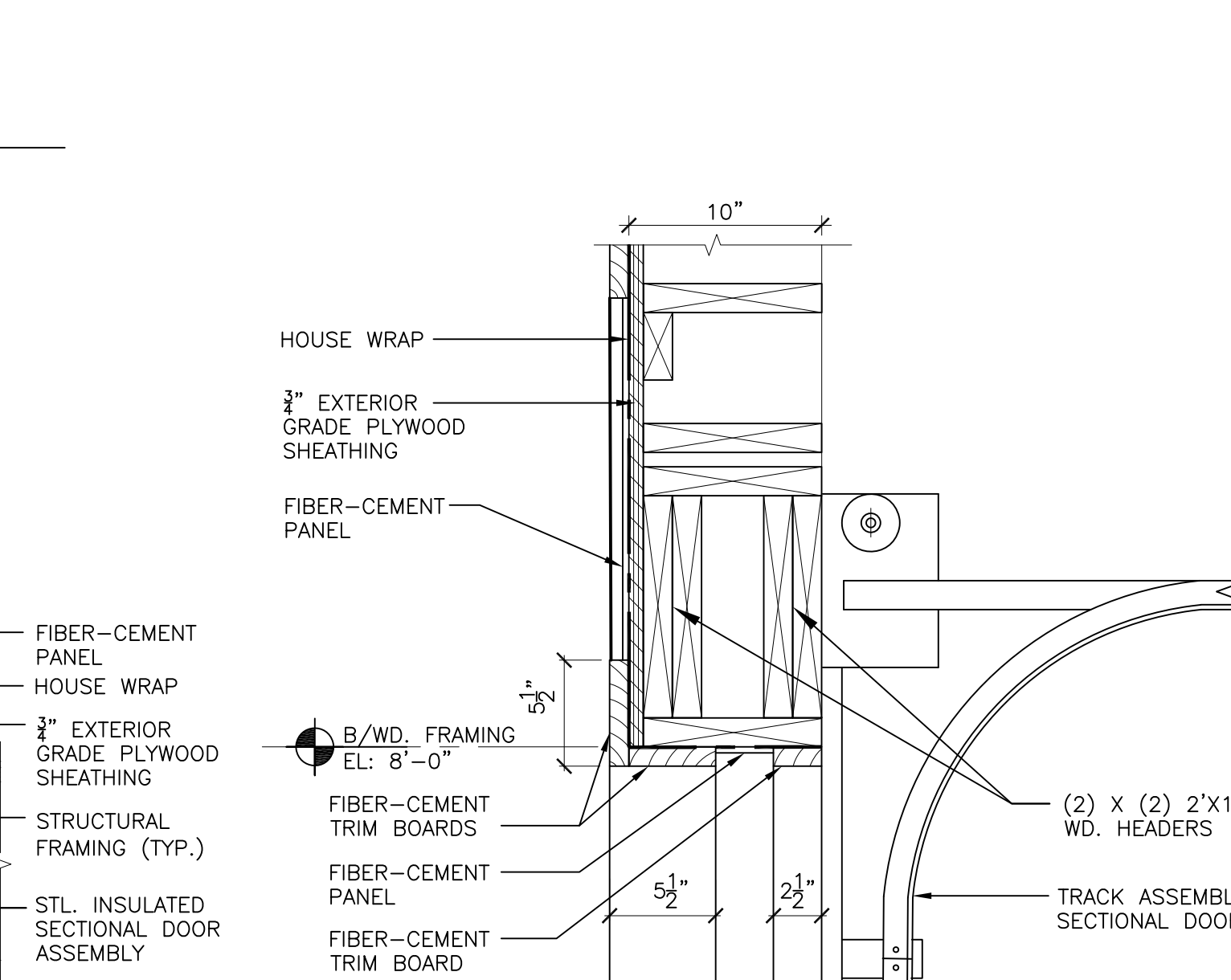
12C SHELF DETAIL (TYP.)
3"x1'-0"



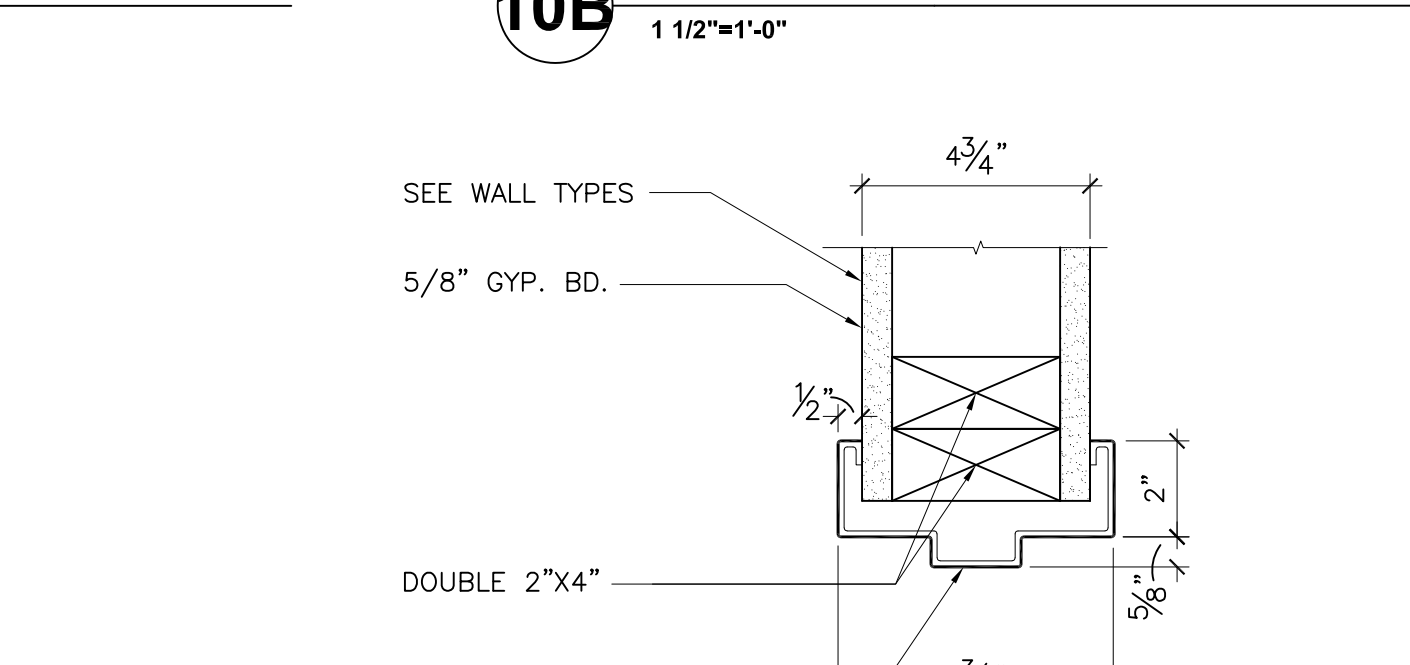
10A TYP. OVERHEAD DOOR
1 1/2"x1'-0"



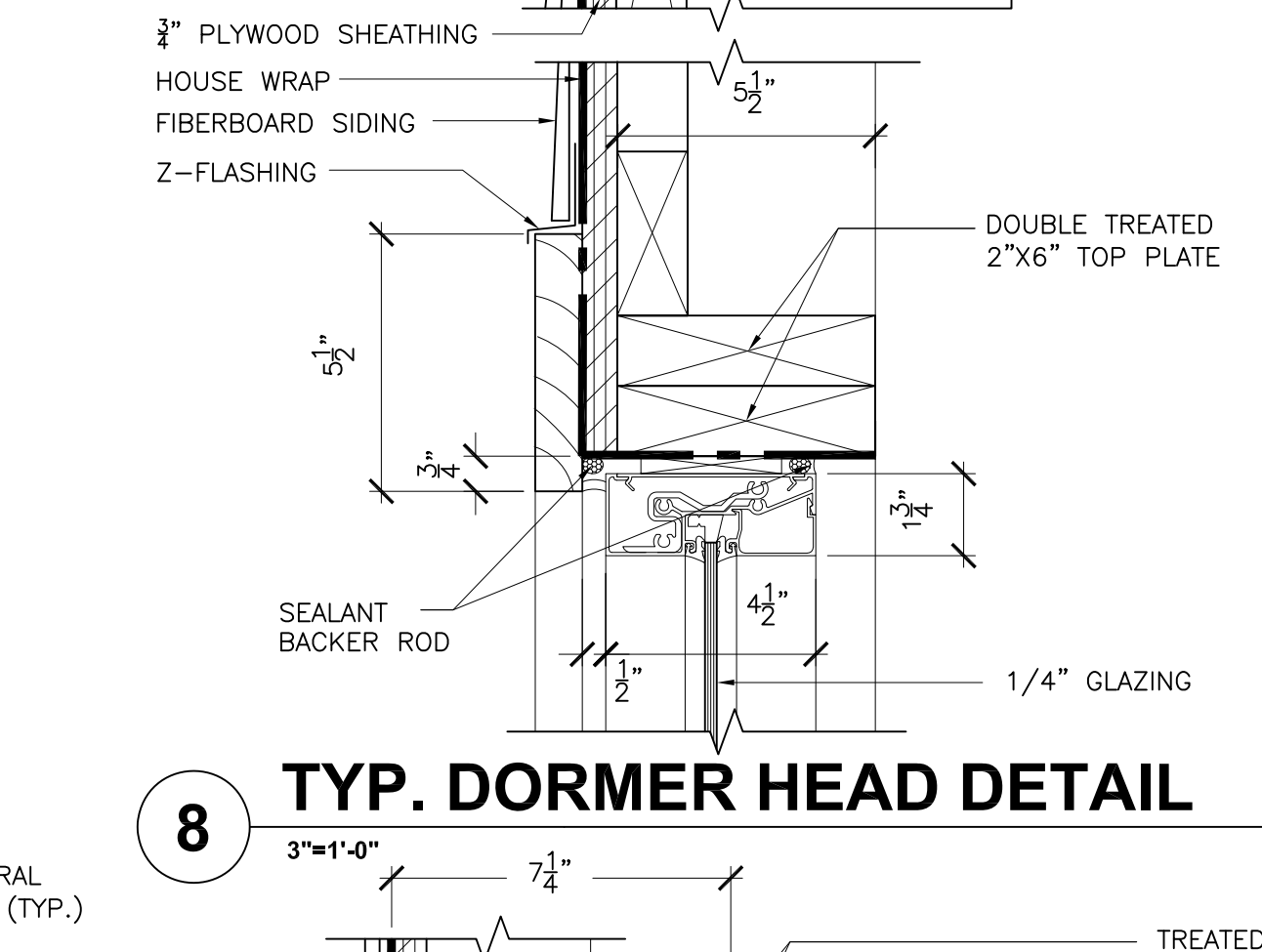
11A INTERIOR DOOR
H.M. HEAD DETAIL
3"x1'-0"



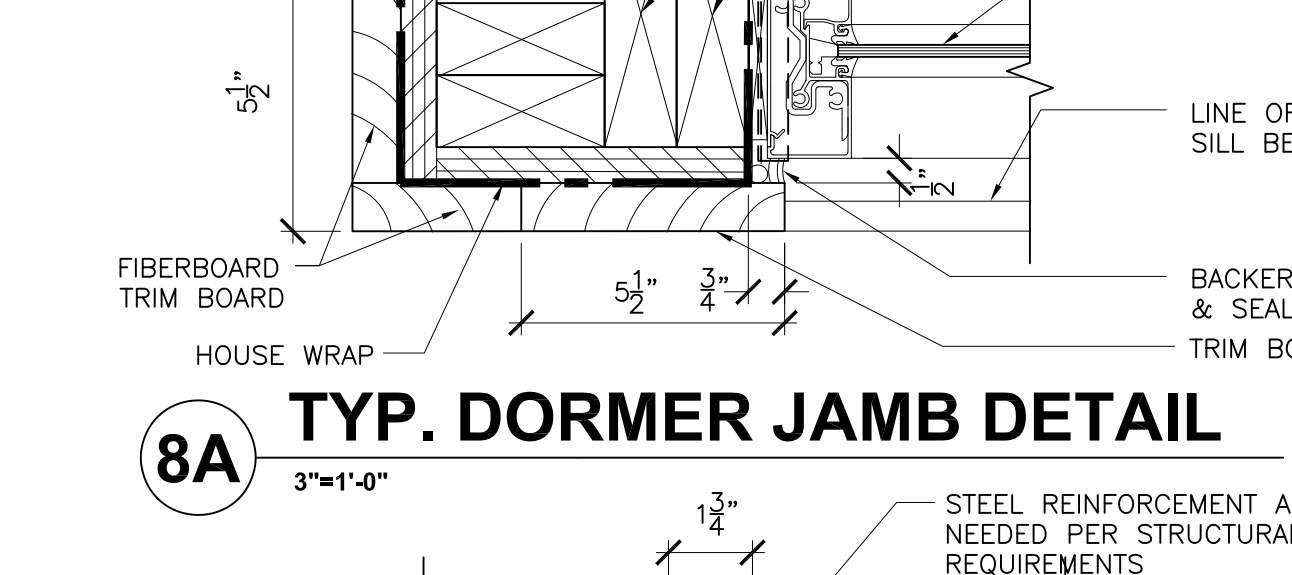
10B TYP. OVERHEAD DOOR
1 1/2"x1'-0"



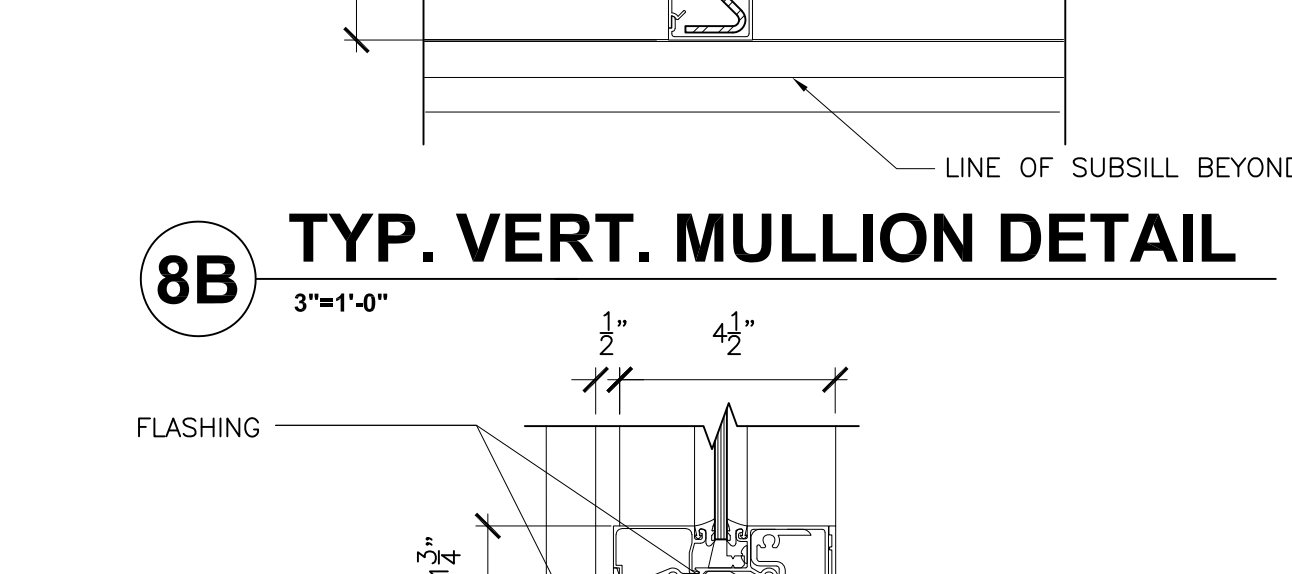
11B INTERIOR DOOR
H.M. JAMB DETAIL
3"x1'-0"



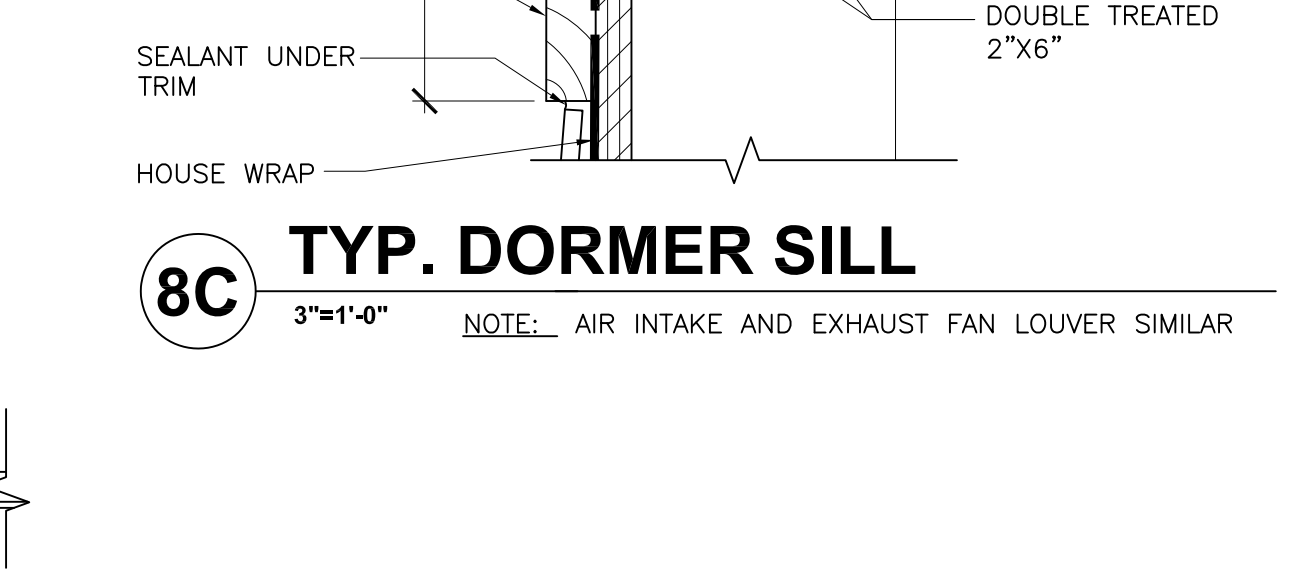
8 TYP. DORMER HEAD DETAIL
3"x1'-0"



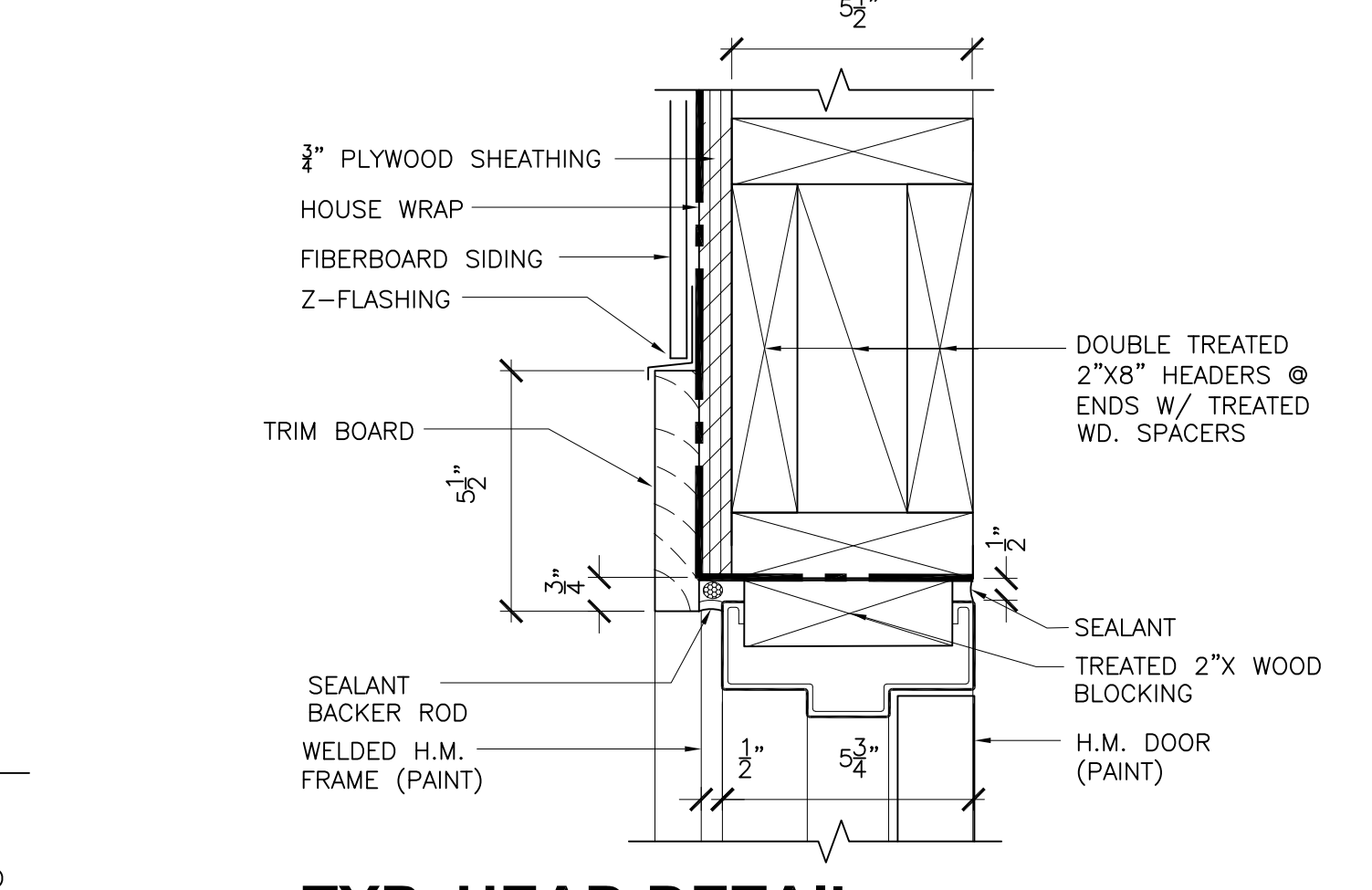
8A TYP. DORMER JAMB DETAIL
3"x1'-0"



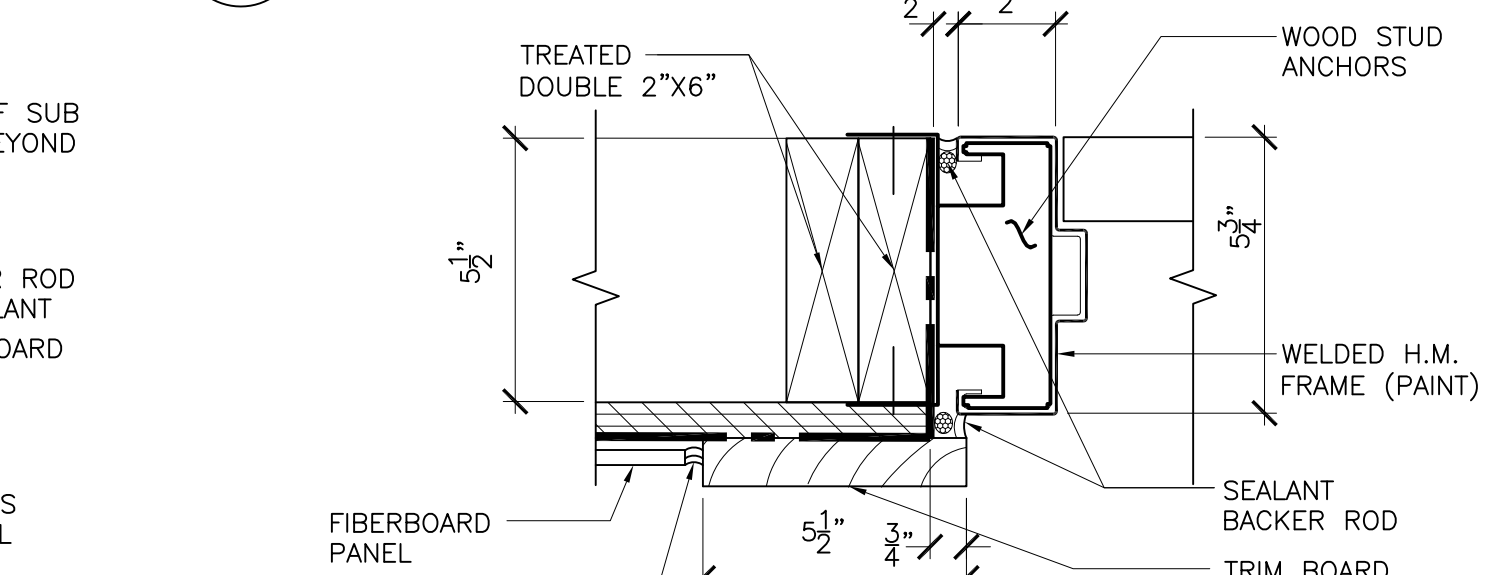
8B TYP. VERT. MULLION DETAIL
3"x1'-0"



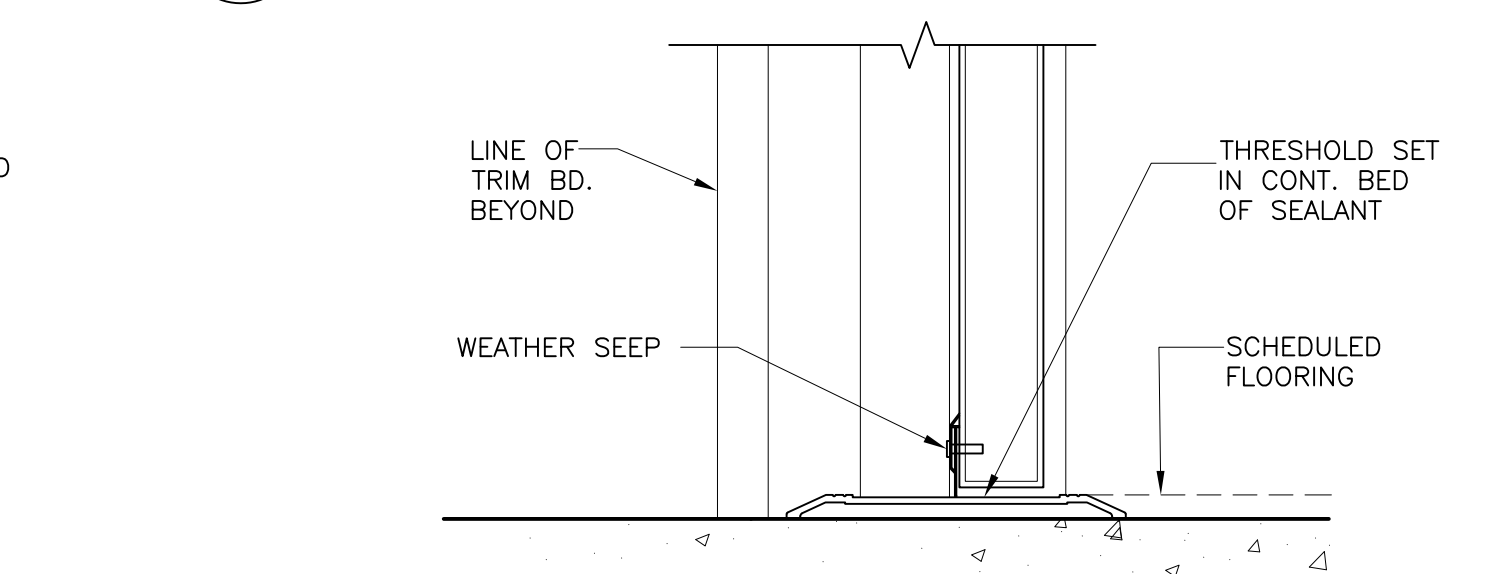
8C TYP. DORMER SILL
3"x1'-0"



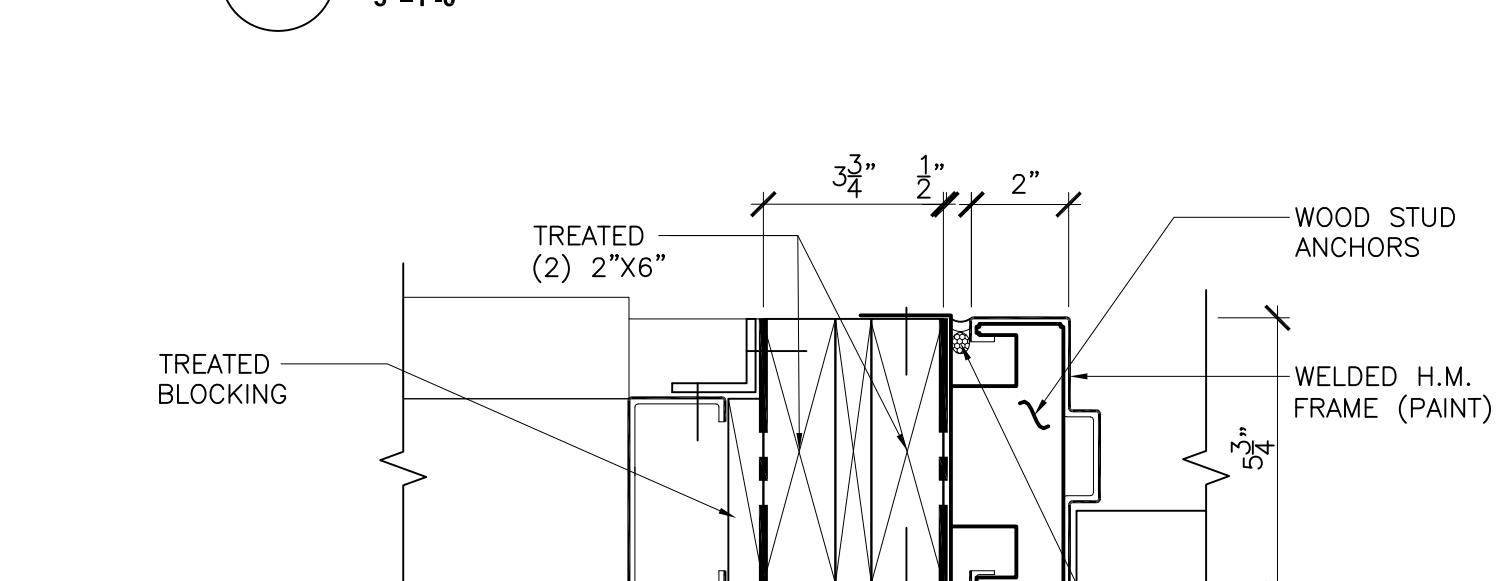
9 TYP. HEAD DETAIL -
HOLLOW METAL DOOR
3"x1'-0"



9A TYP. JAMB DETAIL -
HOLLOW METAL DOOR
3"x1'-0"



9B DOOR SILL AT
EXTERIOR WALL (TYP.)
3"x1'-0"

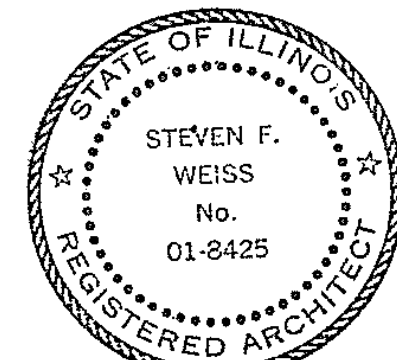


9C TYP. JAMB DETAIL -
H.M. DOOR / LOUVER
3"x1'-0"

WEISS

Architecture • Planning • Design

222 West Ontario Street, Suite 330
Chicago, Illinois 60654
312 • 966 • 1160
312 • 966 • 1161 (fax)
email@weissarch.com



REPLACEMENT CART BARN



PRESTWICK
COUNTRY
CLUB

601 PRESTWICK DR. FRANKFURT, IL 60423

10-6-2023 ISSUED FOR BID & PERMIT

CART BARN
SECTIONS & DETAILS

Scale:
NOTED
Drawn by:
BLS
Project:
2222
Sheet:
A10.4
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GENERAL NOTES

- The Village of Frankfort, Department of Public Works, and Department of Engineering (Telephone 1-815-489-2177), Baker & Woodman (Telephone 1-708-475-2030), and Joseph A. Schudt & Associates (Telephone 1-708-720-1000), must be notified (2) working days prior to commencement of work.
- Elevation is USGS Datum (NAVD 88).
- All floor drains shall discharge to the sanitary sewer.
- All downspouts and footing drains shall discharge to the storm sewer or upon the pavement.
- "Band Seal" or similar flexible-type couplings shall be used for the connection of sewer pipe of dissimilar materials.
- When connecting to an existing sewer main by means other than an existing wye, tee, or an existing manhole, one of the following methods shall be used:
 - Circular saw-cut of sewer main by proper tools ("Sewer Tap" machine or similar) and proper installation of hub-wye saddle or hub-tee saddle.
 - Remove an entire section of pipe (breaking only the top of the bell) and replace with a wye or tee branch section.
 - With pipe cutter, neatly and accurately cut out desired length of pipe for insertion of proper fitting, using "Band-Seal" or similar couplings to hold it firmly in place.
- Whenever a sewer crosses under a watermain, the minimum vertical distance from the top of the sewer to the watermain shall be 18 inches. Furthermore, a minimum horizontal distance of 10 feet between sanitary and watermains shall be maintained unless the sewer is laid in a separate trench, keeping a minimum 18 inch vertical separation, or the sewer is laid in the same trench with the watermain located at the opposite side on a bench of undisturbed earth, keeping a minimum 18 inch vertical separation. If either the vertical or horizontal distances described above cannot be maintained, or the sewer crosses above the watermain, then, for a distance of 10 feet on either side of the watermain, the sewer pipe shall be PVC pressure pipe material or the watermain shall be constructed in a watertight casing.
- Contractor shall bend watermain pipe uniformly under sewers without using fittings providing that joint deflection does not exceed 5 degrees per joint for pipe under 14 inches in size and 3 degrees per joint for pipe 14 inches and over in size. All crossing (including services) shall have a minimum of 18 inches of clearance and should extend 10 feet each side of the center of the crossing.
- All manholes shall have a minimum inside diameter of 48 inches and shall have steps a min. 12" wide copolymer, propylene plastic w/continuous 1/2" steel reinforcement as manufactured by M.A. Industries.
- All sanitary sewer, storm sewer and water system construction shall conform to the "Standard Specifications for Water and Sewer Main Construction in Illinois" latest Edition.
- All paving and related improvements shall be constructed in accordance with the Illinois Department of Transportation, "Standard Specifications for Road and Bridge Construction in Illinois" latest Edition. Binder course shall be installed to the top of the gutter flag edge milling (6" wide) will be one before surface is installed.
- All trenches caused by the construction of sewers, watermains, water service pipes, and in excavation around catch basins, manholes, inlets, and other appurtenances which occur within the limits of or within 2 feet of existing or proposed pavements, sidewalks, and curbs and gutters shall be backfilled with trench backfill. Trench backfill shall be CA-7 material.
- 12", 16" & 20" diameter sanitary sewer pipe and fittings and 6" diam. sanitary sewer services and fittings shall be PVC pipe, SDR 26 (ASTM D-3034) with flexible elastomeric (O-ring) gaskets (ASTM D-3212). Bedding material shall be CA-11, have a minimum thickness of four inches and extend to 12-inches over the top of pipe. Bedding shall be in accordance with ASTM D-2321 Class 1A. Where 6" diameter sanitary service crosses below watermain with less than 18 inches of separation, 6" service shall be PVC pipe 1120 SDR26 (ASTM D2241) pressure pipe. Sanitary sewers shall be air tested, mandril tested, and televised, in accordance with Section 31-1.11 of the Standard Specifications. Sanitary sewer manholes shall be provided with internal chimney seats (Cotex or equal). Manholes in Road right-of-way shall be provided with mac wrap or barrel section joints. Manholes shall be tested in accordance with ASTM C-680 or ASTM C-1244. All sanitary manholes be constructed with Mac-Wrap. Watermains shall be PVC (AWWA C-900), joints shall be bell and gasket with elastomeric ring (ASTM F-477). All watermain shall be installed with a No. 10 AWG, single strand single conductor, insulated copper conductor wire on top of PVC mains and fittings with the wire connected through the valves. Watermain shall be pressure tested at 125 psi for one hour with no pressure loss. A distribution test shall be completed using an initial chlorine concentration of 50 mg/l and a minimum residual concentration of 25 mg/l after 24 hours. Two consecutive samples must pass the bacterial tests. Duratlon Sac-Nuts shall be utilized on all fittings and all fittings shall be epoxy coated. Restrained joints shall be specified within three pipe lengths of a fittings, Mog-a-Lug, or equal. Bedding material shall be CA-11, have a minimum thickness of four inches and extend to 12-inches over the top of pipe.

- Watermains and lot services shall be a minimum of 5.5 feet below finished ground surface. All water services shall consist of a stainless steel Type 24 tapped repair clamp or equal, Mueller Model H-15028 corporation stop, and Mueller B-25155 curb stop. Service pipes shall be Type K, 1-inch minimum diameter. Precast concrete blocks shall be installed under service boxes. Valve stem stabilizers should be included on all B-boxes and valves. No fittings are permitted on watermain services, no-boxes shall be placed in drowneys or sidewalks.
- All storm sewer must be reinforced concrete pipe (rcc) (ASTM C-76). Frames and lids for manholes shall be EJIW 1050, inlets and catch basins in grass shall be EJIW 6527.
- All sump pump discharge piping shall be PVC pipe, SDR 35 material. Where storm sewers cross over the tops of watermains and are designated as "LHP" type, they shall be reinforced concrete low head pressure pipe (ASTM C-361-70). Alternately, proper watermain protection per note (8), shall be provided.
- All bends in the watermain of 10 degrees or greater and all tees shall be thrust protected.
- All watermain valves shall be resilient wedge valve type, complying with AWWA C500. All water valve boxes shall be Tyler Boxes, type 6645. All valves shall be installed with valve box stabilizers.
- All rips and insets of existing sanitary and storm sewer shall be field verified prior to the start of construction, and any discrepancies between the plan and existing elevations shall be reported to the Engineer immediately.
- All coordinates refer to back of curb; centerline of manhole, pipe or structure; or as shown.
- All curb radii refer to back of curb. Lane dimensions refer to face of curb or edge of pavement.
- The Contractor shall subscribe to all governing regulations and shall obtain all necessary public agency permits.
- Field check all dimensions, coordinates, and elevations before proceeding with new work. Notify the Engineer of any discrepancies immediately.
- The Contractor shall provide for the safe and orderly passage of traffic and pedestrians where his operations shut public thoroughfares and adjacent property.
- Construction access points to the site shall be protected in such a way as to prevent backing of mud or soil onto public thoroughfares. At the end of each day, the Contractor shall clean up all mud or soil which has been tracked onto public streets or as required by the Village of Frankfort.
- Street paving and curbs to remain shall be protected from damage and, if damaged, shall be replaced promptly to meet Village of Frankfort Standard Specifications in materials and workmanship.
- Prior to new work, the Contractor shall verify the location and elevation of existing utility lines and structures to be connected to proposed work. Discrepancies shall be reported to the Engineer immediately.
- All sediment will be prevented from entering any existing storm drainage systems by the use of hay bales, interceptor dikes or other approved functional methods. The Contractor shall be responsible for removing sediment resulting from this project from storm sewers and drainage structures.
- All utility connections to existing lines shall be constructed in accordance with the regulations of the utility owner and to the satisfaction of the utility owner.
- Any area outside the property line used by the General or Sub-Contractors shall be returned to the state it was found prior to new construction, except where new work is shown.
- New watermain valves, including pressure tap valves, adjacent to an existing watermain, and existing watermain valves shall only be operated by the Village of Frankfort, Department of Public Works personnel with a 48-hour notice (Monday-Friday).
- Any existing utility structures requiring adjustment are to be adjusted up to 6" total adjustment allowed with a maximum of 2 precast concrete rings or reconstructed by the contractor to the utility owner's satisfaction. Adjustments or reconstructions not called for on the plans shall be considered incidental to the contract. A total of no more than 8 and no less than 4 inches of adjusting rings shall be provided at all utility structures. Adjusting rings shall be set in a bed of preformed non-hardening masic (RUB-R-NEK or approved equal).
- All connections to existing manholes shall be made by coring the existing manhole using a diamond or carbide tip cutter and installing a press seal PSX or CORE-N-SEAL tool in the cored opening.
- All storm sewer hand and sections for pipe greater than 12 inch diameter shall be provided with grates per IDOT standards. Reproducible "Record" drawings shall be provided by the contractor to the Village of Frankfort following completion of improvements. Structure castings shall be Neenah R-1712 and stamped "FRANKFORT" with "SANITARY", "STORM", or "WATER" for appropriate utilities. Fire hydrants shall be Mueller A-421 with an epoxy shoe with two, 2 1/2 inch nozzles and one, four inch punper nozzle. Surface course of pavement shall be delayed until 1 year following installation of binder course. Sanitary and Water stubs shall be marked with 4"x4" wood posts. (Blue for Water and Green for Sanitary). All specifications shall be in compliance with Village of Frankfort Subdivision Ordinance, latest Edition. Sidewalk handhole ramps shall utilize cast non detectable warning plates (EJIW or Equal).

PRESTWICK COUNTRY CLUB CART BARN SITE IMPROVEMENT PLANS

ARCHITECT
STEVE WEISS
WEISS ARCHITECTURE
222 W. ONTARIO
CHICAGO, ILLINOIS 60654
PHONE: (312) 986-1160 312-986-1161 (FAX)
EMAIL@WEISSARCH.COM (general)

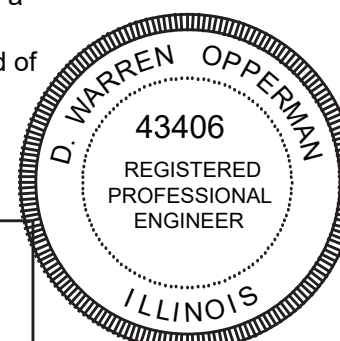
CLIENT
EDWARD S. TINDALL
GENERAL MANAGER/ COO
PRESTWICK COUNTRY CLUB
EMAIL@ETINDALL@PRESTWICKCC.COM

DRAINAGE STATEMENT

State of Illinois } ss.
County of Will

The undersigned hereby state that to the best of their knowledge and belief, the drainage of surface waters will not be changed by the construction of such subdivision or any part thereof, or, that if such surface water drainage will be changed, reasonable provision has been made for collection and diversion of such surface waters into public areas, or drains which the subdivider has a right to use, and that such surface waters will be planned for in accordance with generally accepted engineering practices so as to reduce the likelihood of damage to the adjoining property because of the subdivision.

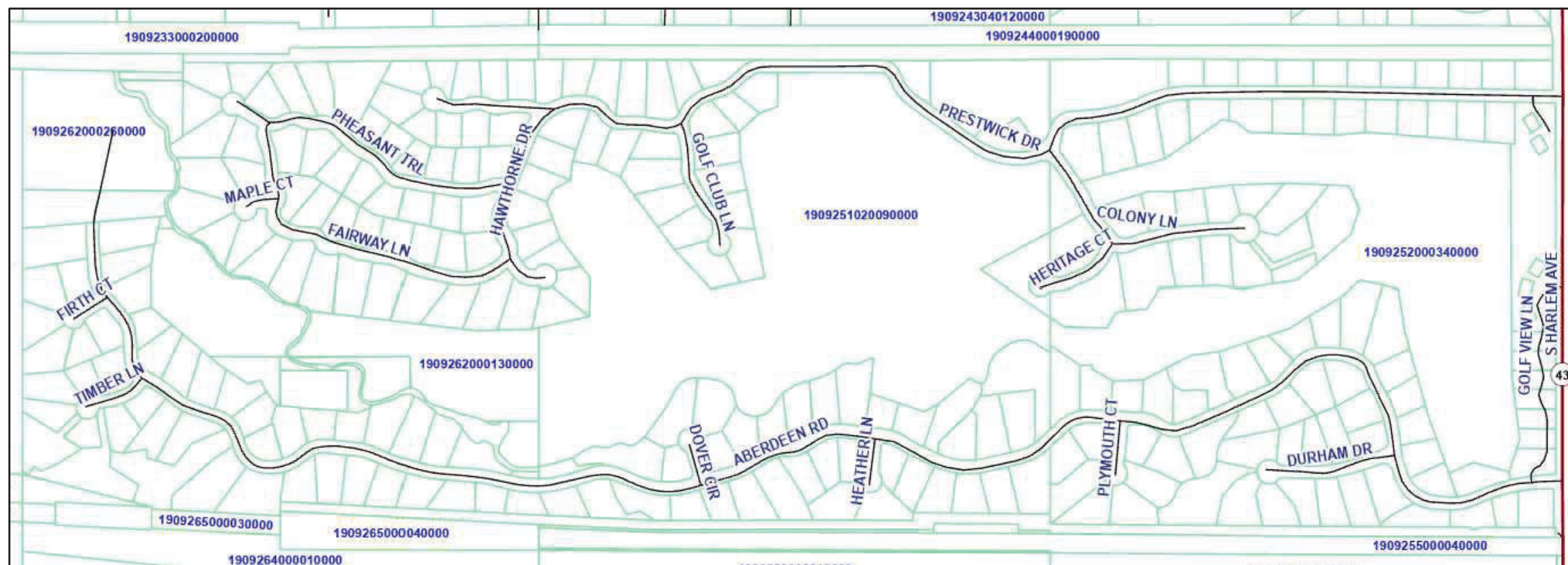
OWNER _____
ENGINEER *[Signature]* REGISTRATION No. 43406



DUTY TO INDEMNIFY

The Contractor shall defend, indemnify, keep and save harmless the Village, Owner, and Engineer, and their respective board members, representatives, agents, and employees, in both individual and official capacities, against all suits, claims, damages, losses and expenses, including attorney's fees, caused by, growing out of, or incident to, the performance of the work under the Contract by the Contractor or its subcontractors to the full extent as allowed by the laws of the State of Illinois and not beyond any extent which would render these provisions void or unenforceable. This obligation includes but is not limited to: The Illinois laws regarding structural work (Ill. Rev. Stat. Ch. 48, par. 40 et seq.) And regarding the protection of adjacent landowners (Ill. Rev. Stat. Ch. 17, 102 par. 21 et seq.). In the event of any such injury (including death) or loss or damage, or claims therefore, the Contractor shall give prompt notice to the owner.

ATT FIBER OPTIC CABLE - Phone 1-800-252-1133



VICINITY MAP

(NOT TO SCALE)

INDICATES SITE LOCATION



Joseph A. Schudt & Associates

9455 ENTERPRISE DRIVE, MOKENA, ILLINOIS
PHONE: 708-720-1000 FAX: 708-720-1065
e-mail: survey@jaseng.com http://www.jaseng.com

CIVIL ENGINEERING LAND SURVEYING ENVIRONMENTAL LAND PLANNING GPS SERVICES

CONTACT JULIE AT 811 OR 800-892-0123
WITH THE FOLLOWING INFORMATION
COUNTY-NAME WILL
CITY/TOWNSHIP WASHINGTON
SEC & 1/4 SEC No. SEC 10, T2N 33, R 14
Know what you are doing 48 HOURS (2 working days) BEFORE YOU DIG
Call before you dig.

Prepared at _____ under the direction of: *[Signature]*
Illinois Registered Professional Engineer No. 43406
SIGNED: 10-06-2023
LIC. EXP.: 11-30-23

43406
REGISTERED
PROFESSIONAL
ENGINEER
ILLINOIS

ISSUED FOR
PERMIT / BID

No.	Date	By	Description
REVISIONS			
1			

Date: 10-06-2023
Design: DWO
Drawn: DWO
Approved: DWO

SHEET 1 OF 7

Project No. 94-053

LEGEND

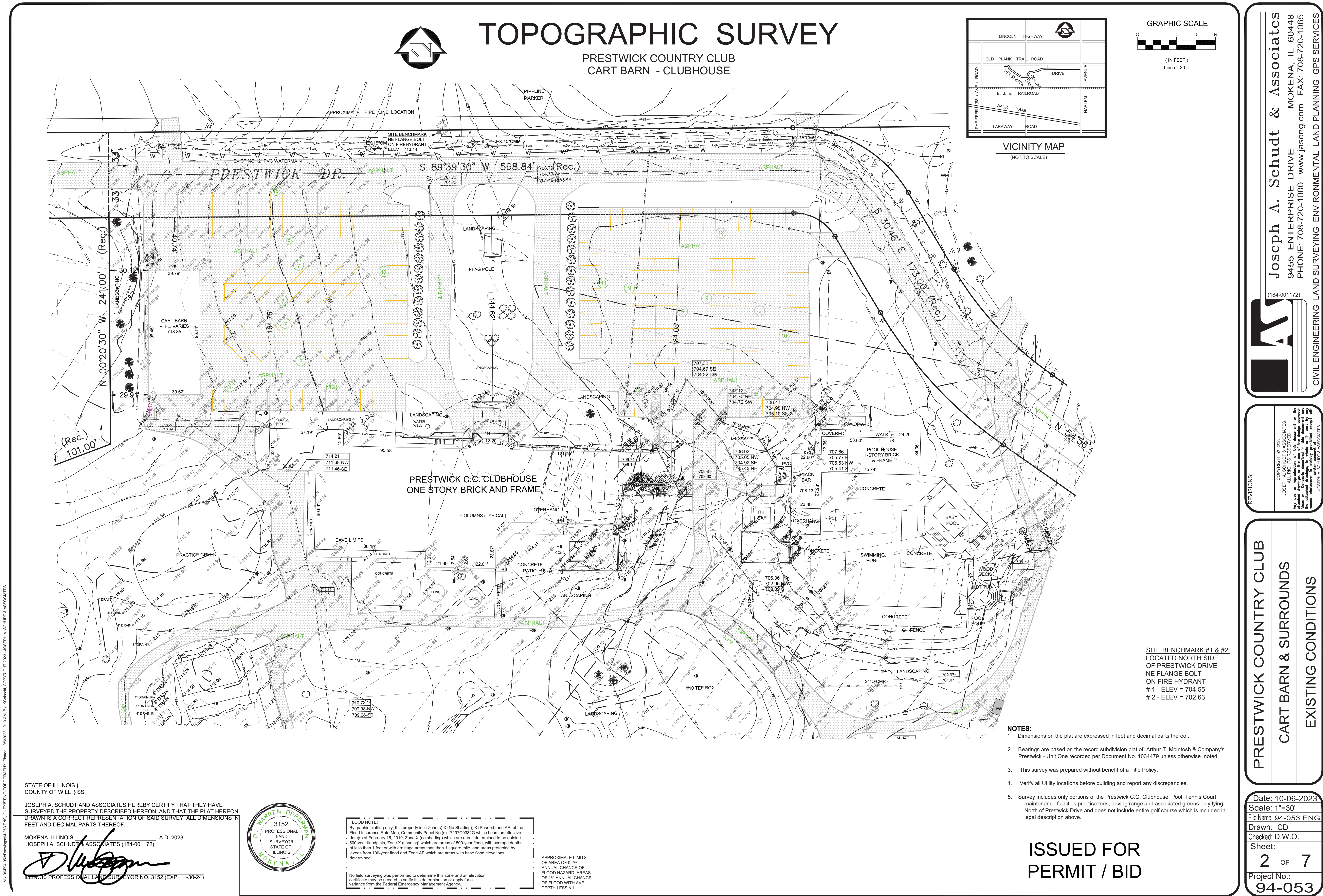
EXISTING SANITARY MANHOLE	TRANSFORMER
PROPOSED SANITARY MANHOLE	EXISTING ELECTRIC MANHOLE
SAN— EXISTING SANITARY SEWER	EXISTING ELECTRIC CABLE
PROPOSED SANITARY SEWER	TRAFFIC SIGNAL
EXISTING VALVE IN VAULT	HAND HOLE
EXISTING VALVE	ILLINOIS BELL TELEPHONE (BT)
PROPOSED VALVE	EXISTING TELEPHONE MANHOLE
EXISTING REDUCER	GAS VALVE
PROPOSED REDUCER	EXISTING GAS MAIN
EXISTING HYDRANT	EXISTING CABLE T.V.
PROPOSED HYDRANT	BORING LOCATION
EXISTING WATERMAIN	EXISTING CONTOUR LINE
PROPOSED WATERMAIN	PROPOSED CONTOUR LINE
EXISTING RILEY	EXISTING CULVERT
PROPOSED TYPE "A" INLET	PROPOSED CULVERT
PROPOSED CIRCULAR INLET	EXISTING CURB LINE
EXISTING CATCH BASIN	EXISTING CURB TO BE REMOVED
PROPOSED CATCH BASIN	PROPOSED CURB
EXISTING STORM MANHOLE	PROPOSED HUNG CURB
PROPOSED STORM MANHOLE	SIGN
EXISTING STORM SEWER	FENCE LINE
PROPOSED STORM SEWER	DECIDUOUS TREE
EXISTING LIGHT	EVERGREEN
PROPOSED LIGHT	BUSH/HEDGE
POWER POLE	WETLAND

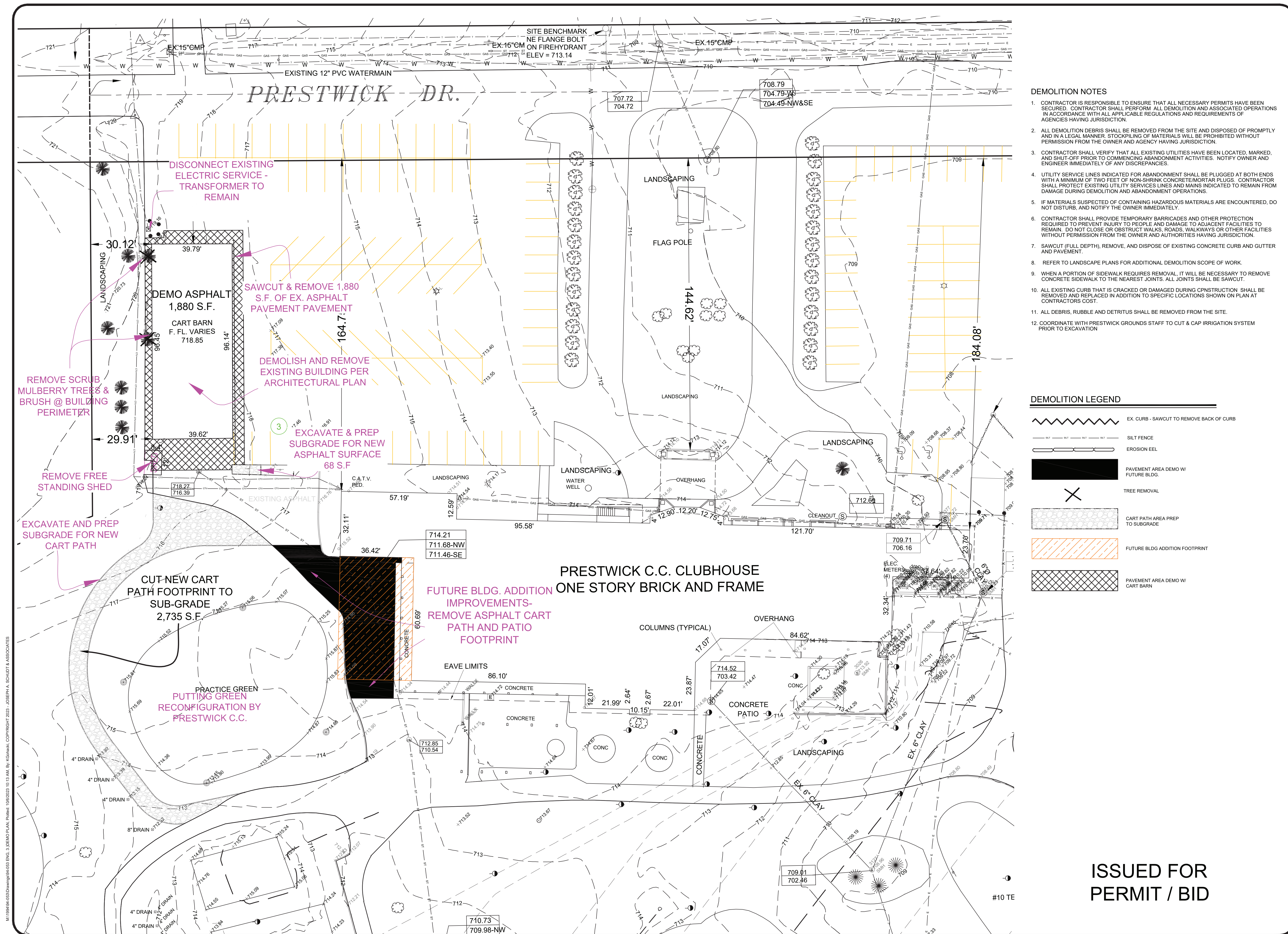
SHEET INDEX

- COVER SHEET
- OVERALL TOPOGRAPHY PLAN
- DEMOLITION PLAN
- SITE GEOMETRICS PLAN
- SITE GRADING PLAN
- CONSTRUCTION DETAILS
- DETAILS

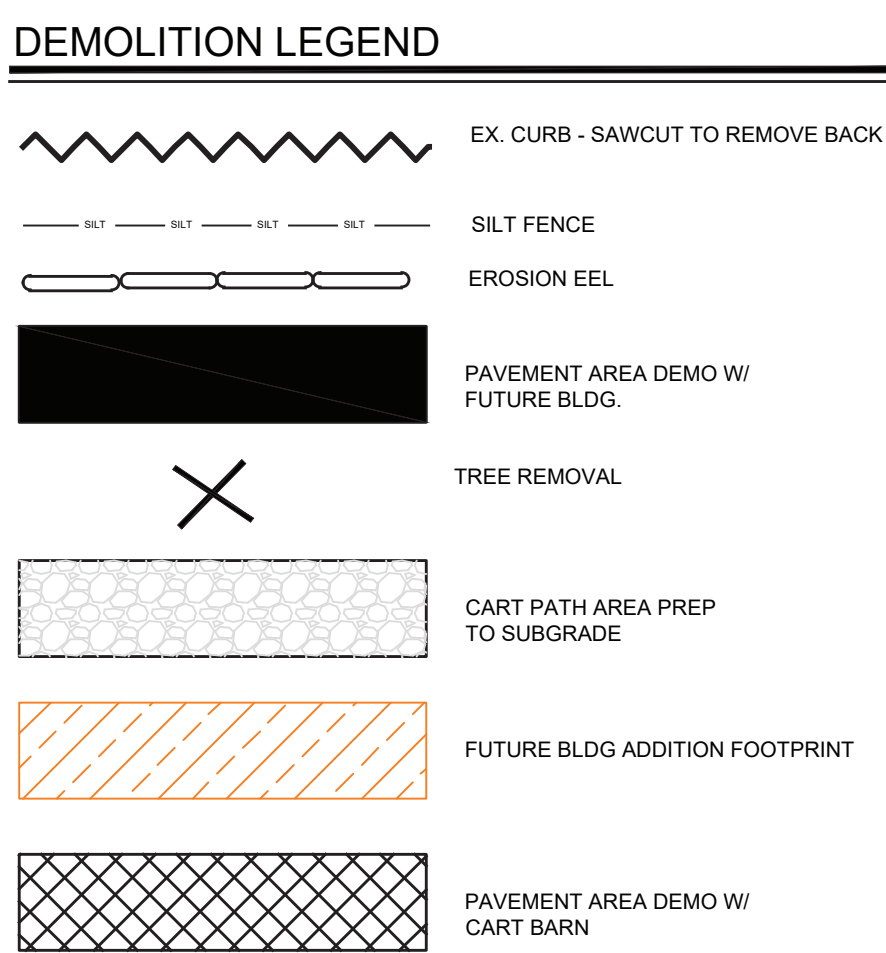
BENCHMARK

SITE BENCHMARK
NE FLANGE BOLT ON FIRE HYDRANT NORTH SIDE OF
PRESTWICK DRIVE OPPOSITE PARKING LOT
ELEV = 713.14





- DEMOLITION NOTES**
1. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL NECESSARY PERMITS HAVE BEEN SECURED. CONTRACTOR SHALL PERFORM ALL DEMOLITION AND ASSOCIATED OPERATIONS IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND REQUIREMENTS OF AGENCIES HAVING JURISDICTION.
 2. ALL DEMOLITION DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROMPTLY AND IN A LEGAL MANNER. STOCKPILING OF MATERIALS WILL BE PROHIBITED WITHOUT PERMISSION FROM THE OWNER AND AGENCY HAVING JURISDICTION.
 3. CONTRACTOR SHALL VERIFY THAT ALL EXISTING UTILITIES HAVE BEEN LOCATED, MARKED, AND SHUT-OFF PRIOR TO COMMENCING ABANDONMENT ACTIVITIES. NOTIFY OWNER AND ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
 4. UTILITY SERVICE LINES INDICATED FOR ABANDONMENT SHALL BE PLUGGED AT BOTH ENDS WITH A MINIMUM OF TWO FEET OF NON-SHRINK CONCRETE/MORTAR PLUGS. CONTRACTOR SHALL PROTECT EXISTING UTILITY SERVICES LINES AND MAINS INDICATED TO REMAIN FROM DAMAGE DURING DEMOLITION AND ABANDONMENT OPERATIONS.
 5. IF MATERIALS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB AND NOTIFY THE OWNER IMMEDIATELY.
 6. CONTRACTOR SHALL PROVIDE TEMPORARY BARRICADES AND OTHER PROTECTION REQUIRED TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT FACILITIES TO REMAIN. DO NOT CLOSE OR OBSTRUCT WALKS, ROADS, WALKWAYS OR OTHER FACILITIES WITHOUT PERMISSION FROM THE OWNER AND AUTHORITIES HAVING JURISDICTION.
 7. SAWCUT (FULL DEPTH), REMOVE, AND DISPOSE OF EXISTING CONCRETE CURB AND GUTTER AND PAVEMENT.
 8. REFER TO LANDSCAPE PLANS FOR ADDITIONAL DEMOLITION SCOPE OF WORK.
 9. WHEN A PORTION OF SIDEWALK REQUIRES REMOVAL, IT WILL BE NECESSARY TO REMOVE CONCRETE SIDEWALK TO THE NEAREST JOINTS. ALL JOINTS SHALL BE SAWCUT.
 10. ALL EXISTING CURB THAT IS CRACKED OR DAMAGED DURING CONSTRUCTION, SHALL BE REMOVED AND REPLACED IN ADDITION TO SPECIFIC LOCATIONS SHOWN ON PLAN AT CONTRACTORS COST.
 11. ALL DEBRIS, RUBBLE AND DETRITUS SHALL BE REMOVED FROM THE SITE.
 12. COORDINATE WITH PRESTWICK GROUNDS STAFF TO CUT & CAP IRRIGATION SYSTEM PRIOR TO EXCAVATION.



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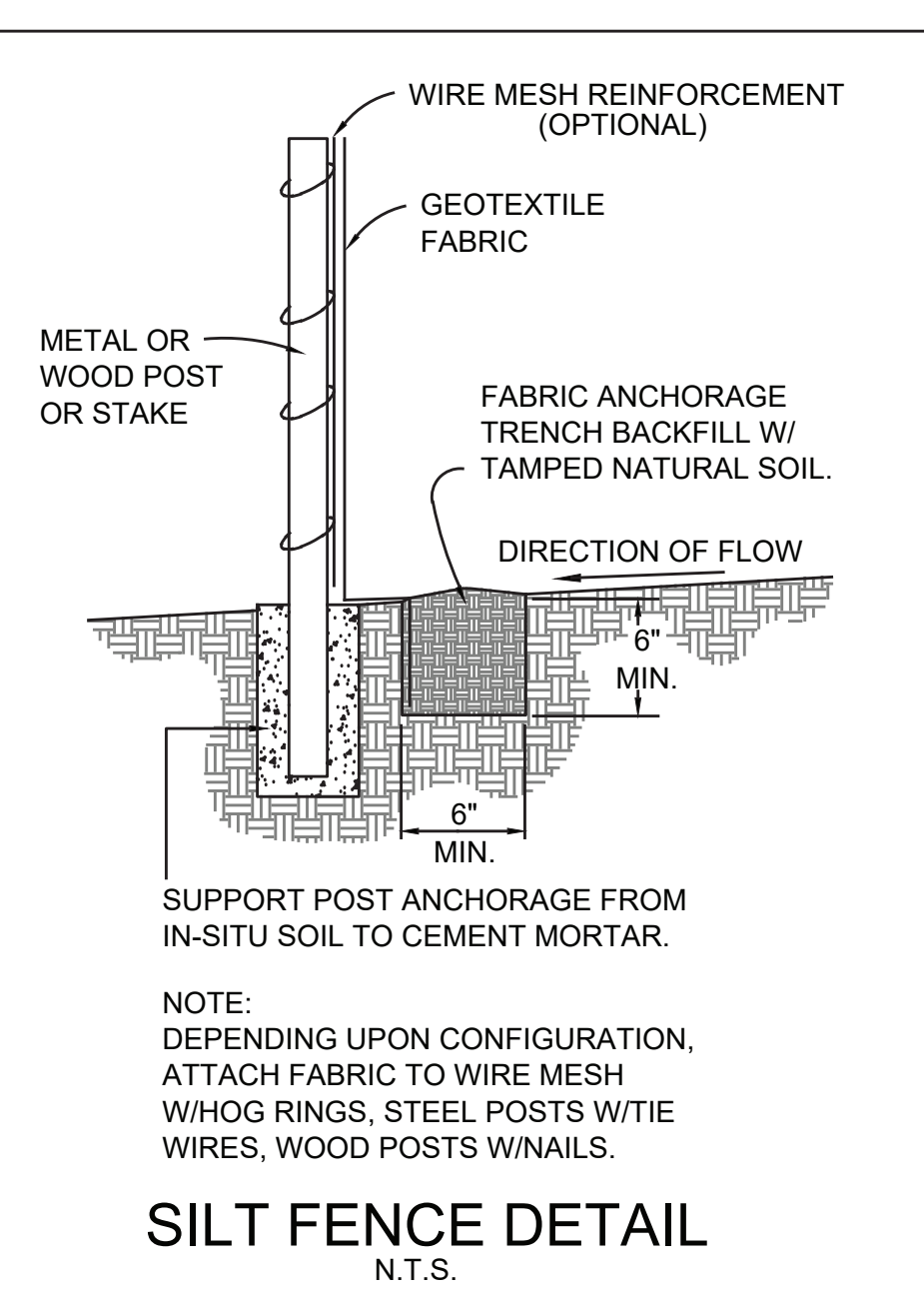
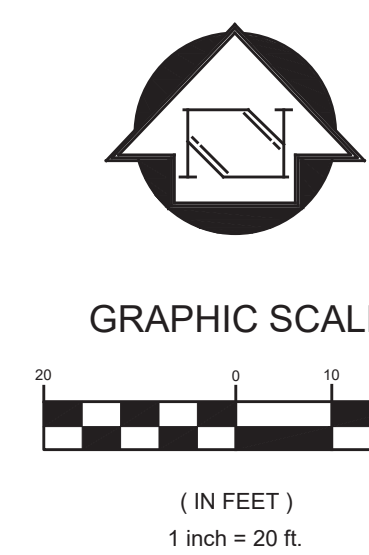
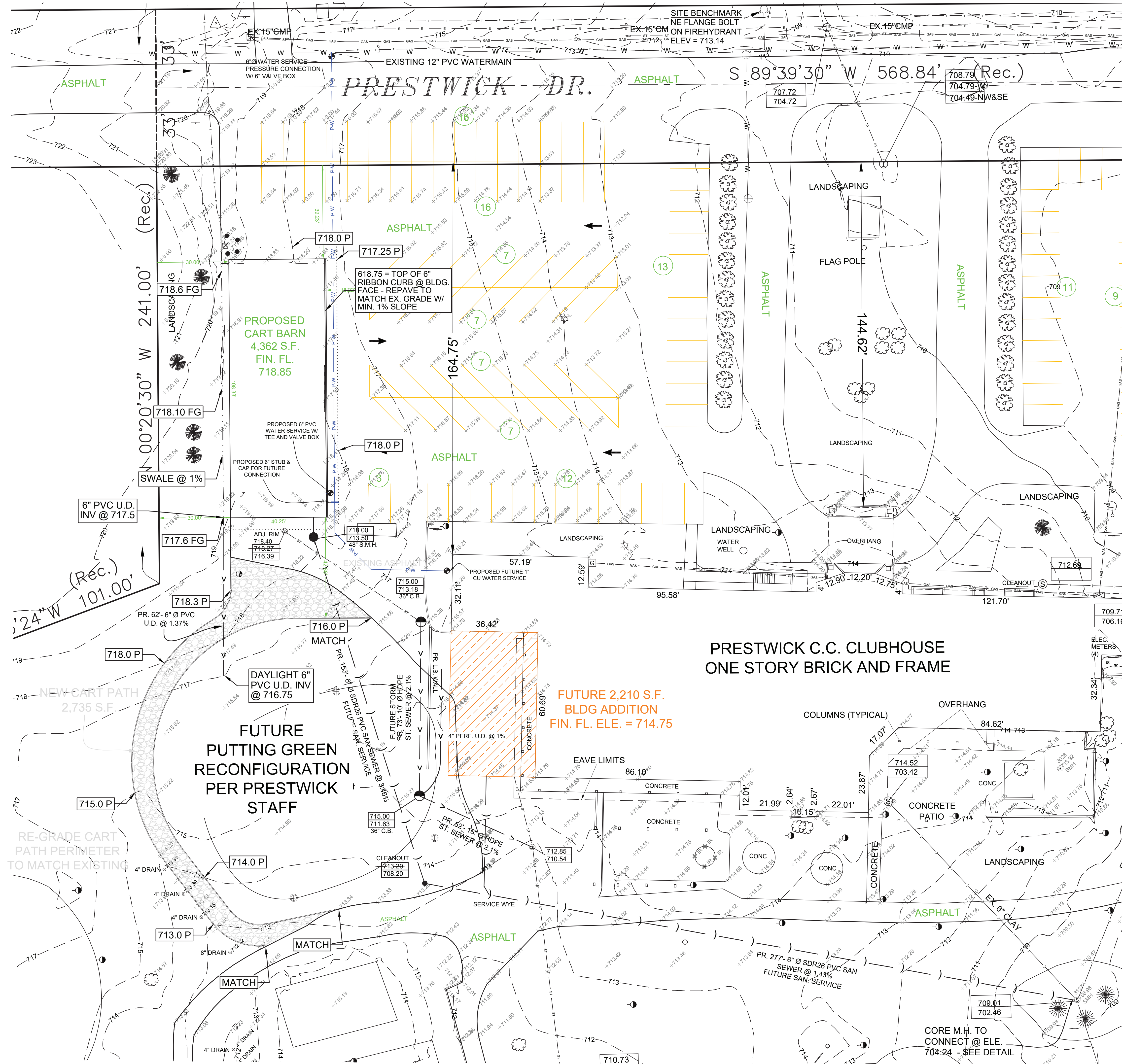
Joseph A. Schudt & Associates
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(184.001172)

REVISIONS

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT / BID	10-06-2023

PRESTWICK COUNTRY CLUB
CART BARN
DEMOLITION PLAN

Date: 10-06-2023
Scale: 1"=20'
File Name: 94-053 ENG
Drawn: CD/KG
Checked: D.W.O.
Sheet:
3 OF 7
Project No.:
94-053

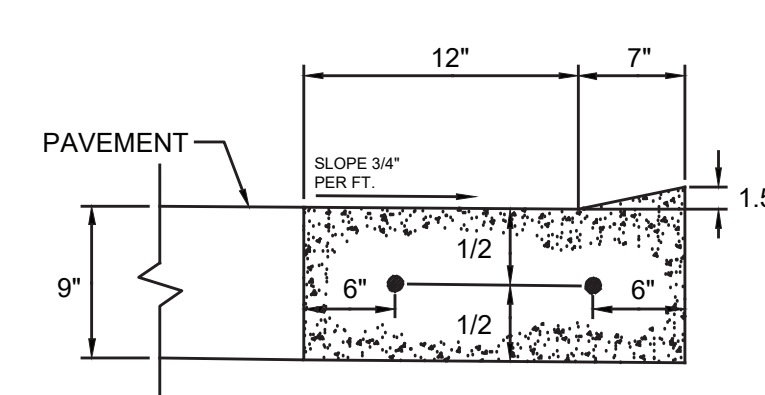
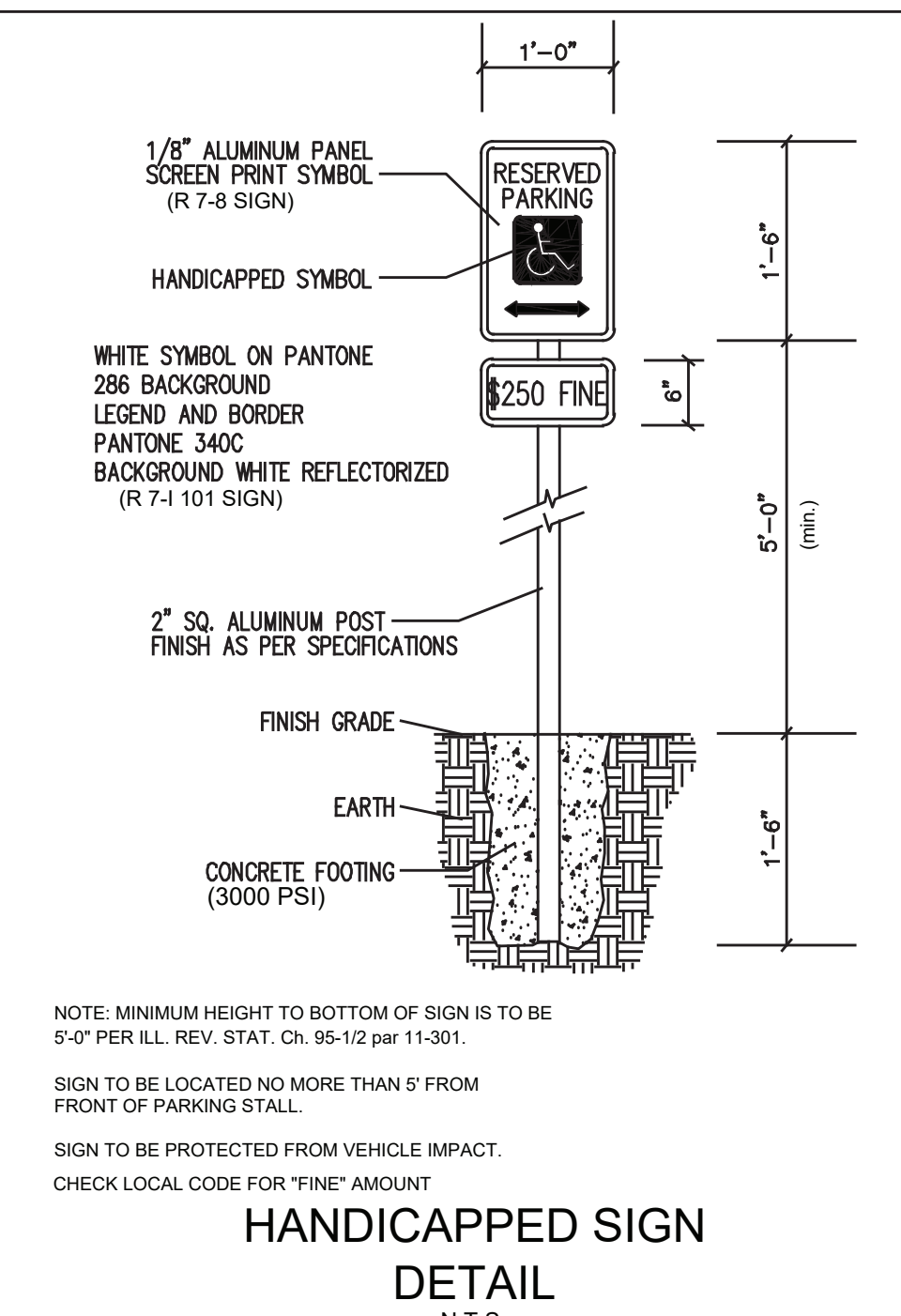
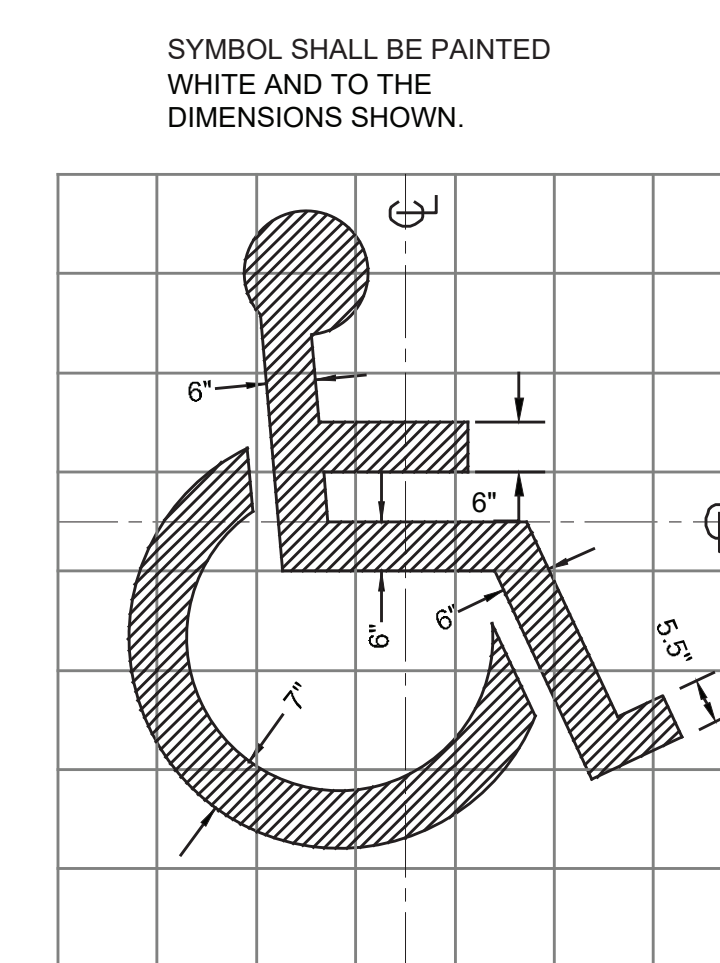
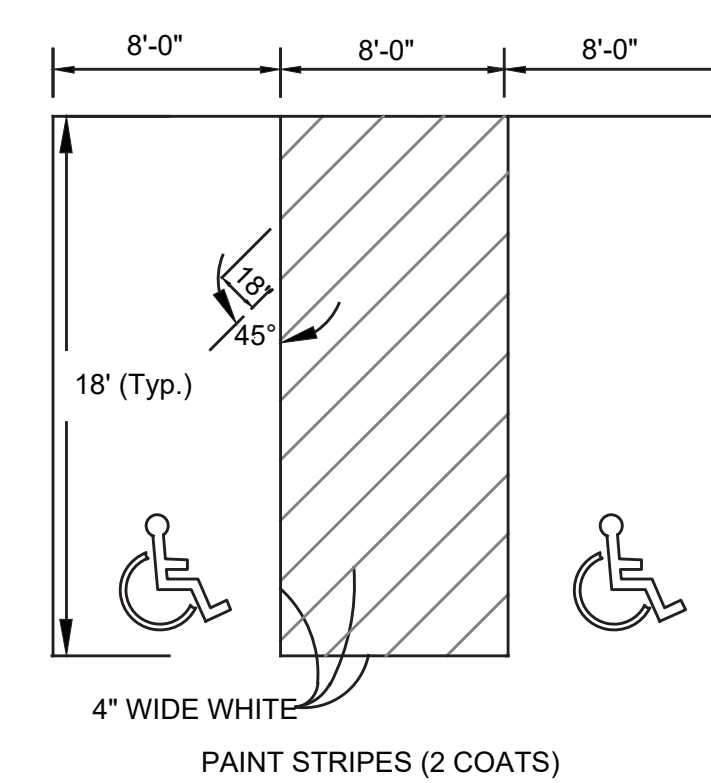
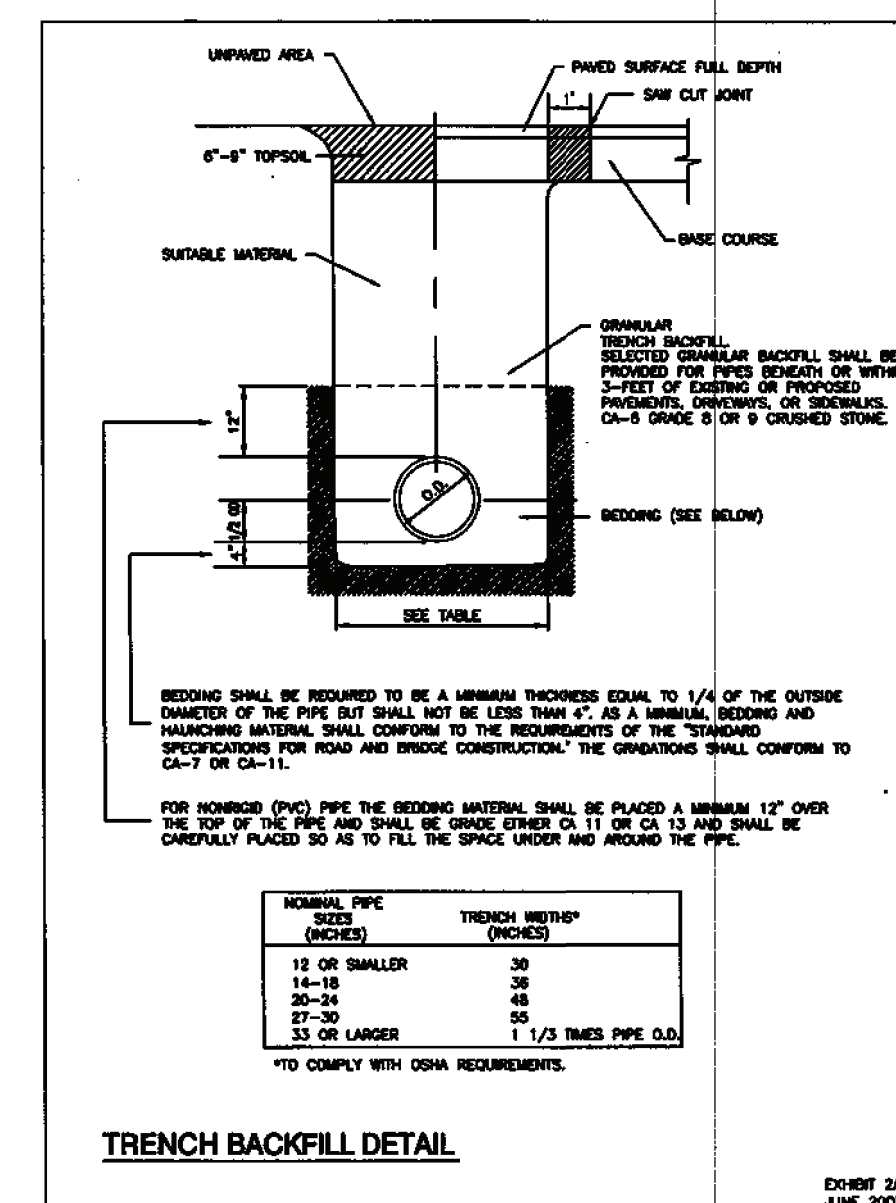
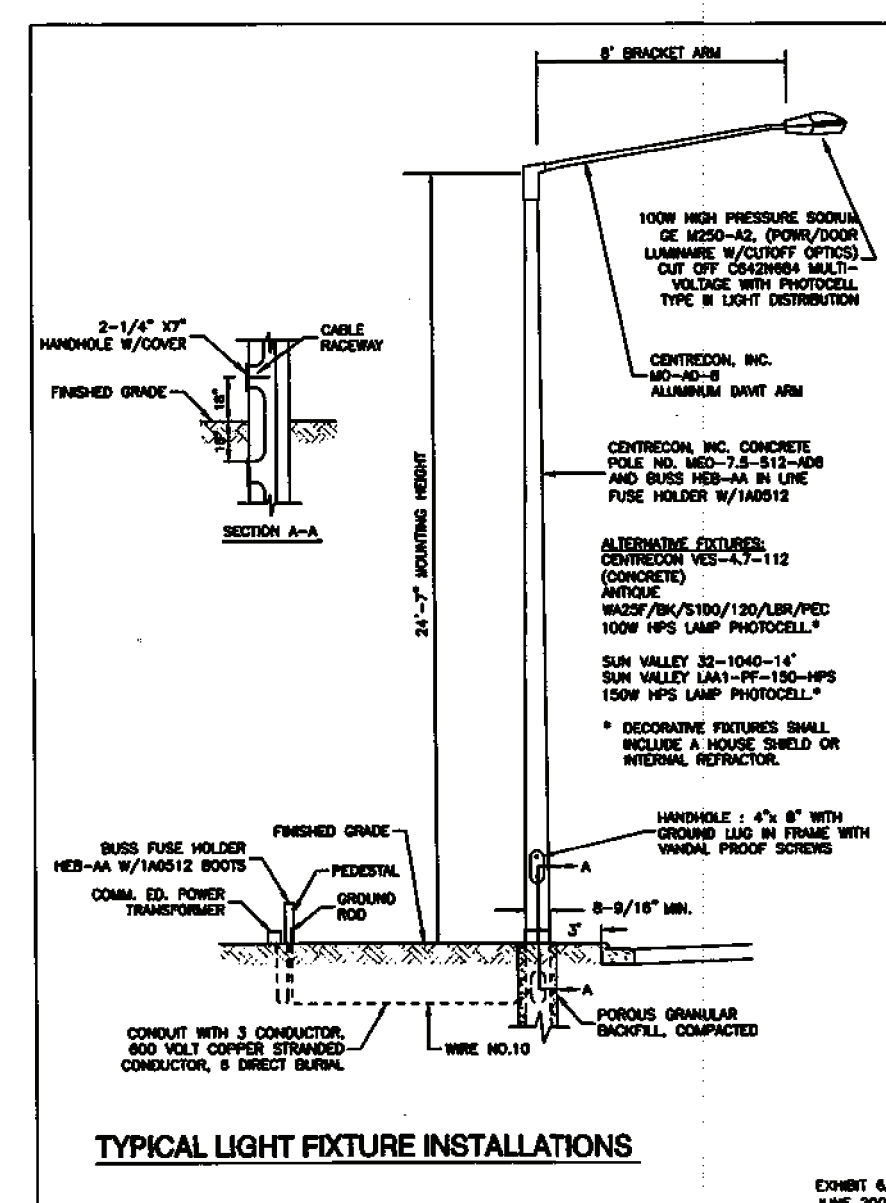


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 CIVIL ENGINEERING LAND SURVEYING ENVIRONMENTAL LAND PLANNING GPS SERVICES

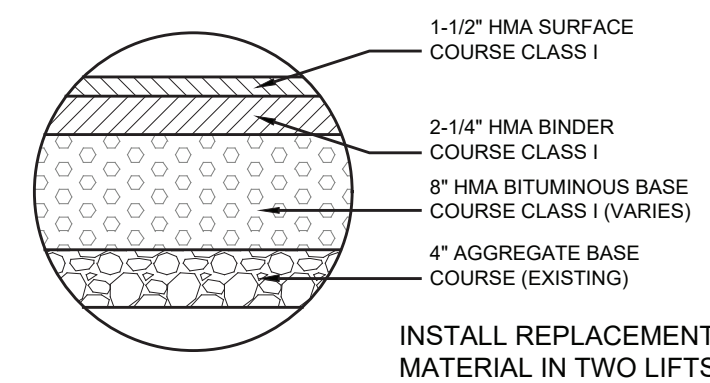
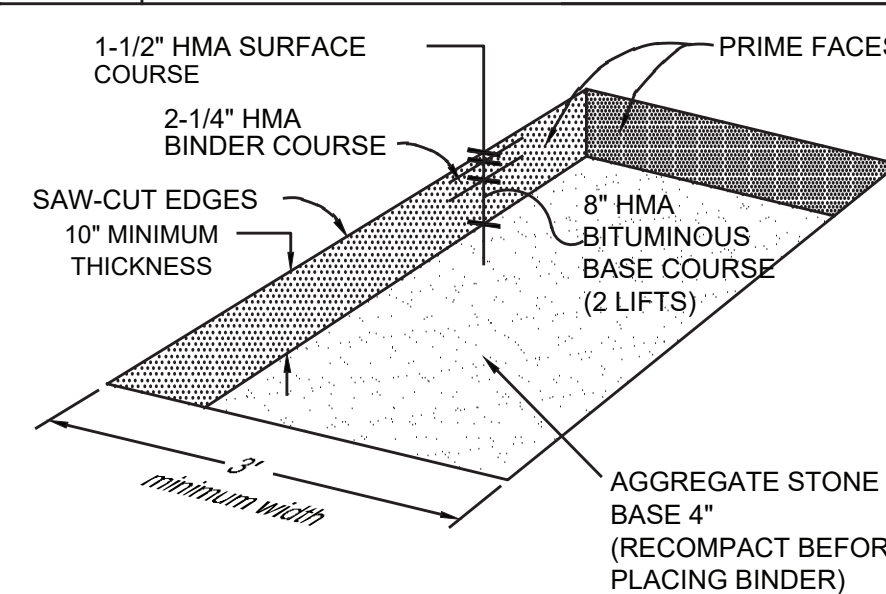
PRESTWICK COUNTRY CLUB
CART BARN
GRADING / UTILITY PLAN

Date: 10-06-2023
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 File Name: 94-053 ENG
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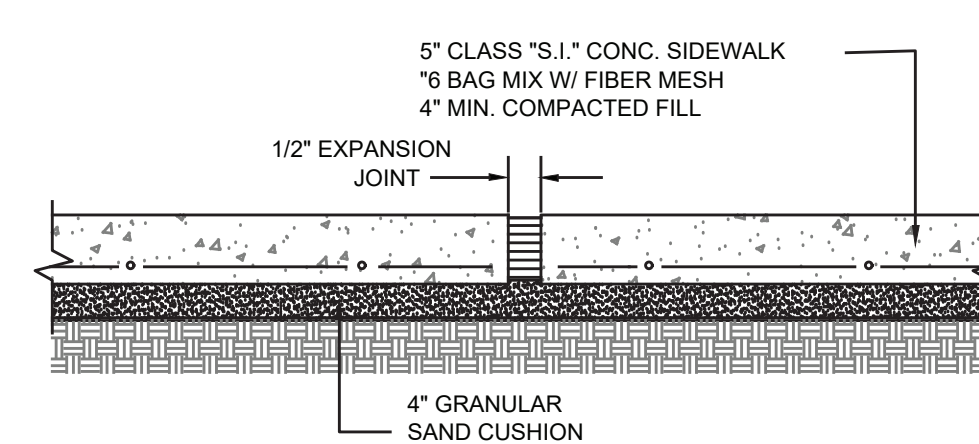
CURB CONSTRUCTION NOTES

1. At all joints and radii points, provide and install 2-#6 dowel bars 30" long with 5" long 1" dia. dowel caps, bars to be greased. Maximum joint spacing not to exceed 40'.
2. All curb shall be built on a minimum 2" thick granular cushion.
3. Any curb section built over a trench crossing shall be reinforced with two 8' long #5 bars centered over the trench.

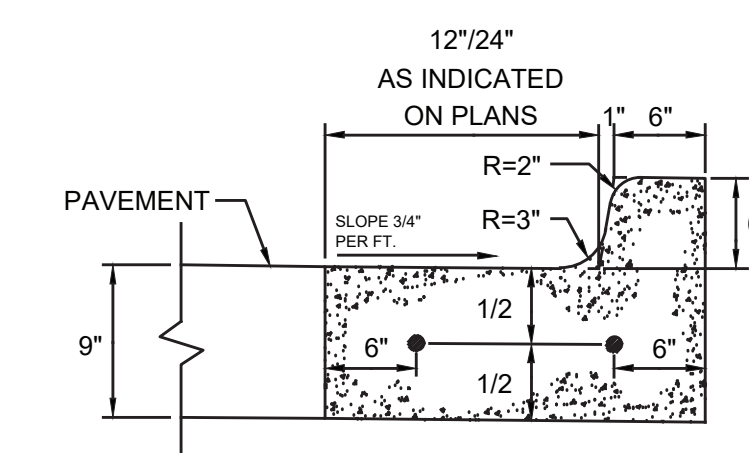


TO BE PAID FOR AT CONTRACT UNIT PRICE FOR
PAVEMENT PATCHING CLASS D, TYPE I, II, III

TYPICAL BITUMINOUS CONCRETE
PAVEMENT PATCHING
CLASS D, TYPE I, II & III
N.T.S.

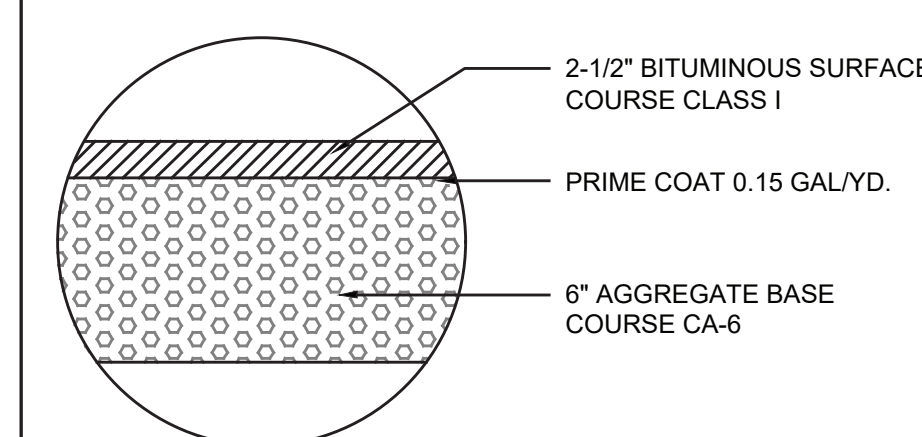
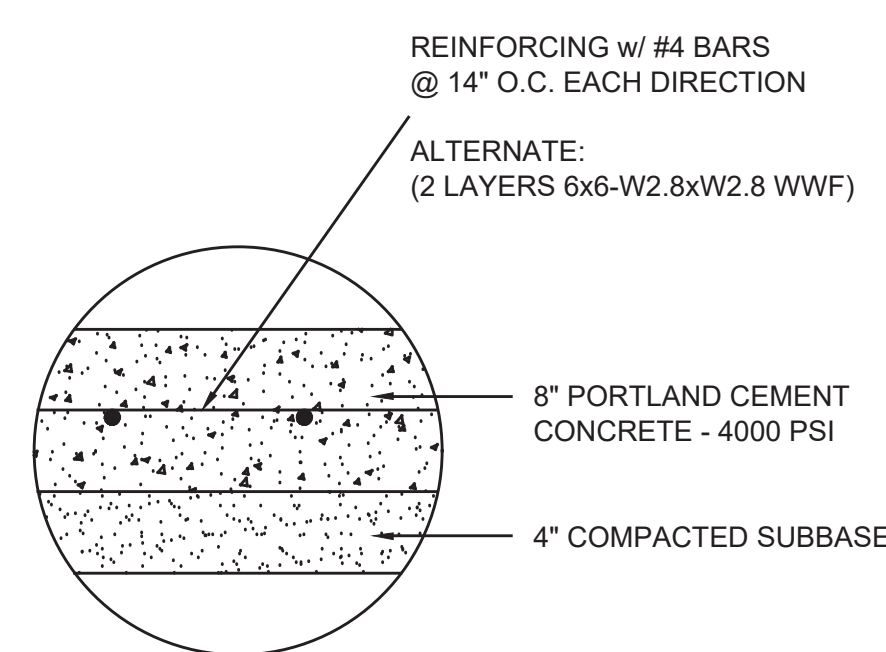


NOTE:
Place 3-#5 reinforcing bars 8 ft. long at all trench crossings. A bar shall be placed at center of walk and 1 ft. on either side.

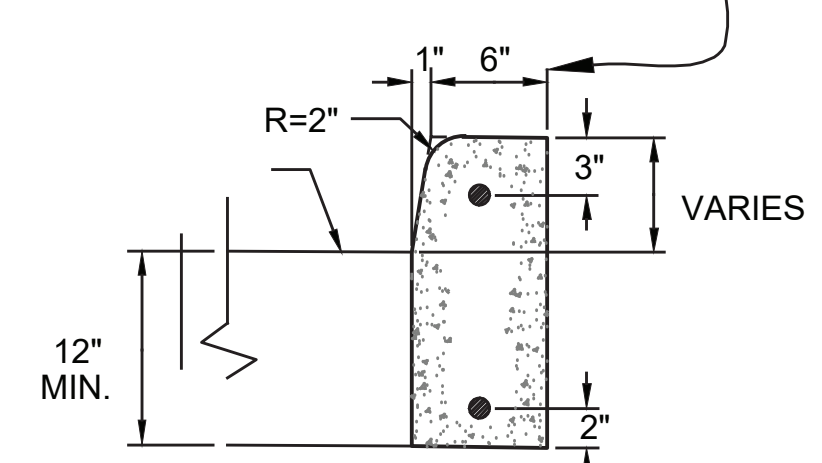


CURB CONSTRUCTION NOTES:

1. At all joints and radii points, provide and install 2-#6 dowel bars 30" long with 5" long 1" dia. dowel caps, bars to be greased. Maximum joint spacing not to exceed 40'.
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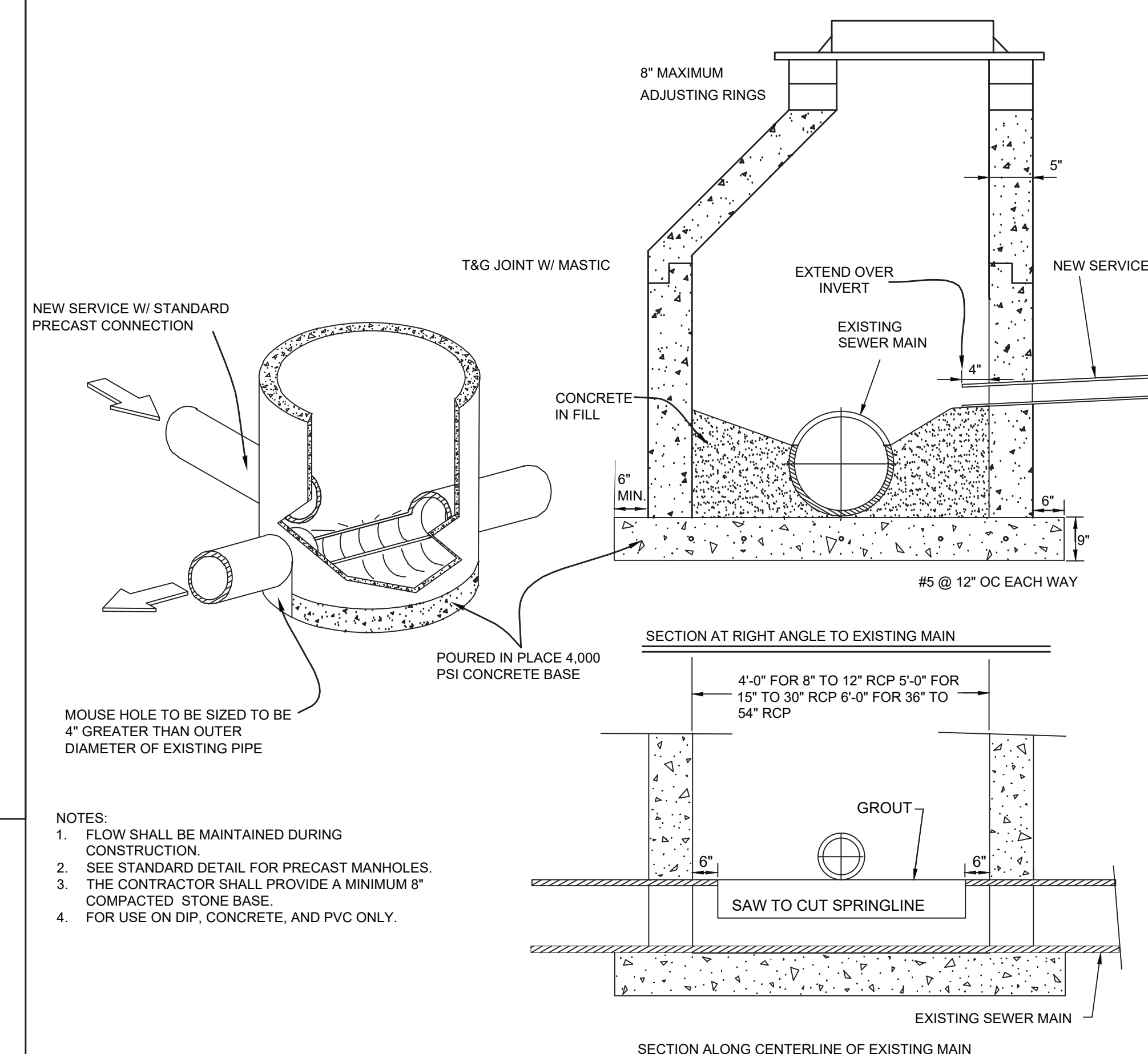
ALONG NEW CART BARN
REINSTALL PAVEMENT TO MATCH
EXISTING AT SAWCUT LINE -
CURB HEIGHT / EXPOSURE
ALONG BLDG. WILL VARY



CURB CONSTRUCTION NOTES:

1. At all joints and radii points, provide and install 2-#6 dowel bars 30" long with 5" long 1" diam. dowel caps, bars to be greased. Maximum joint spacing not to exceed 40'.
2. All curb shall be built on a minimum 2" thick granular cushion.
3. Any curb section built over a trench crossing shall be reinforced with two 8" long #5 bars centered over the trench.

TYPICAL TYPE "B" RIBBON CURB
N.T.S.



NOTES:

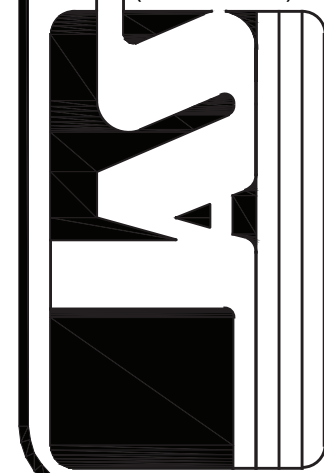
1. FLOW SHALL BE MAINTAINED DURING CONSTRUCTION.
2. SEE STANDARD DETAIL FOR PRECAST MANHOLES.
3. THE CONTRACTOR SHALL PROVIDE A MINIMUM 8" COMPACTED STONE BASE.
4. FOR USE ON DIP, CONCRETE, AND PVC ONLY.

STANDARD MANHOLE INSTALLATION OVER EXISTING SEWER MAIN

ISSUED FOR
PERMIT / BID

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PRESTWICK COUNTRY CLUB

Date: 10-06-2023
 Scale: 1"=20'
 File Name: 94-053 ENG
 Drawn: CD/KG
 Checked: D.W.O.
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6 OF **7**
 Project No.:
94-053

EDWINT SA
JUNE 2007



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CARDIA



Date: 10-06-2023
 Scale: 1"=20'
 File Name: 94-053 ENG
 Drawn: CD/KG
 Checked: D.W.O.
 Sheet:
 7 OF 7
 Project No.:
 94-053

ISSUED FOR
PERMIT / BID

I. GENERAL NOTES

- A. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE IN CONFORMANCE WITH ALL GOVERNING NATIONAL, STATE, AND LOCAL CODES HAVING JURISDICTION.
- B. ALL EQUIPMENT FURNISHED, AND ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE IN STRICT COMPLIANCE WITH CURRENT APPLICABLE STANDARDS AS SET FORTH BY THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), UNDERWRITERS LABORATORIES (UL), THE AMERICAN GAS ASSOCIATION (AGA), THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME), THE AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR-CONDITIONING ENGINEERS (ASHRAE), SHEET METAL AND AIR-CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMACNA), AND OTHER NATIONAL STANDARDS WHERE APPLICABLE.
- C. CONTRACTOR SHALL REVIEW THE ENTIRE SET OF CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS, AS WELL AS ALL SPECIFICATIONS AND INSTRUCTIONS TO BIDDERS. THIS CONTRACTOR SHALL VISIT THE SITE AND MAKE A DETAILED INSPECTION OF THE SPECIFIED WORK TO DEVELOP KNOWLEDGE OF ALL CONDITIONS PERTINENT TO THE COMPLETION OF HIS WORK. THIS CONTRACTOR SHALL FULLY COORDINATE HIS WORK WITH THE WORK PERFORMED BY OTHER TRADES AND/OR CONTRACTORS, AND SHALL MAKE SUCH FIELD ADJUSTMENTS AS ARE REQUIRED TO ACCOMMODATE FIELD CONDITIONS.
- D. SHOULD CONTRACTOR FIND DISCREPANCIES IN, OR OMISSIONS FROM, THE DRAWINGS, SPECIFICATIONS, OR OTHER CONTRACT DOCUMENTS, OR DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THOSE REPRESENTED IN THE DRAWINGS, OR CONFLICTS BETWEEN HIS WORK AND THAT OF OTHER TRADES, OR BE IN DOUBT AS TO THE MEANINGS OF ANY CONTRACT DOCUMENTS, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND THE ENGINEER IN WRITING AND SHALL OBTAIN CLARIFICATION PRIOR TO SUBMITTING ANY BID. LACK OF SUCH NOTIFICATION SHALL BE CONSIDERED AS CONTRACTORS REPRESENTATION THAT NO DISCREPANCIES OR CONFLICTS EXIST. ADDITIONAL COMPENSATION WILL NOT BE GRANTED AFTER AWARD OF CONTRACT FOR ANY WORK REQUIRED TO COMPLY WITH THIS REQUIREMENT.
- E. THE DRAWINGS INDICATE DIAGRAMMATICALLY THE INTENT, REQUIREMENTS FOR, AND LOCATION OF THE WORK INCLUDED UNDER THIS CONTRACT. ALL WORK REQUIRED TO AFFECT THE INDICATED DESIGN, INCLUDING DETAILS NOT SHOWN BUT WHOSE INCLUSION WOULD BE DEEMED A REQUIREMENT BY A KNOWLEDGEABLE TRADESMAN, BUILDING ENGINEER, OR TECHNICIAN, SHALL BE PROVIDED.
- F. IT IS THE INTENT OF THESE DOCUMENTS THAT THE CONTRACTOR PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, AND TOOLS FOR THE COMPLETE INSTALLATION OF ALL WORK SHOWN ON THE PLANS AND/OR DESCRIBED HEREIN, INCLUDING ALL DEVICES, CONTROLS, AND APPURTEANANCES REQUIRED TO SET THE NEW SYSTEMS INTO OPERATION, UNLESS OTHERWISE NOTED.
- G. CONTRACTOR SHALL VERIFY ALL MOUNTING, ARRANGEMENTS, HEIGHTS, AND LOCATIONS PRIOR TO ROUGH-IN. ANY MENTION OF A SPECIFIC MOUNTING ARRANGEMENT, WEIGHT, OR LOCATION SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO VERIFY SPECIFIC REQUIREMENTS AND BASE HIS WORK ON THEM. THE SAME CARE SHALL BE TAKEN WITH RESPECT TO INFORMATION FURNISHED BY THIS CONTRACTOR TO HIS SUBCONTRACTORS OR TO OTHER CONTRACTORS ON THIS PROJECT. THIS CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE FOR ANY CHANGE ORDERS NECESSITATED BY INACCURATE OR INCORRECT INFORMATION FURNISHED TO OTHER CONTRACTORS. NO ADDITIONS TO THE CONTRACT AMOUNT WILL BE PERMITTED FOR ITEMS INSTALLED IN WRONG LOCATIONS OR IN CONFLICT WITH OTHER WORK.
- H. CONTRACTOR SHALL ESTABLISH SAFE WORKING PROCEDURES FOR THE PROTECTION OF THE WORKMEN IN ALL PHASES OF WORK AND SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY LAWS, INCLUDING THE REQUIREMENTS OF OSHA. HE SHALL ALSO PROVIDE ALL NECESSARY SIGNS, LIGHTS, AND BARRICADES REQUIRED FOR THE SAFETY OF ALL OTHER PERSONS WHO MIGHT COME IN CONTACT WITH THE CONSTRUCTION BEING PERFORMED UNDER THIS CONTRACT.
- I. ALL PUBLIC AND PRIVATE PROPERTY DAMAGED AS A RESULT OF WORK PERFORMED UNDER THIS CONTRACT SHALL BE REPAIRED AND/OR REPLACED TO MATCH EXISTING CONSTRUCTION BY THIS CONTRACTOR AND TO THE SATISFACTION OF THE ARCHITECT.
- J. CONTRACTOR SHALL MAKE ALL ARRANGEMENTS WITH THE BUILDING OWNER'S REPRESENTATIVE REGARDING WORKSITE ACCESS, BUILDING RULES, AND REGULATIONS, INCLUDING WORKING HOURS, REFUSE DISPOSAL, DUMPSTER LOCATION, SECURITY, INTERRUPTIONS OF BUILDING UTILITIES OR FUNCTIONS, OWNERSHIP OF SALVAGED MATERIALS, PARKING, AND ANY OTHER ITEMS DEEMED TO BE OF MUTUAL INTEREST.
- K. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO STORE AND PROTECT FROM DAMAGE ALL EQUIPMENT AND MATERIALS IN A MANNER THAT WILL MAINTAIN AN ORDERLY, CLEAN APPEARANCE. DAMAGED EQUIPMENT AND MATERIAL IS SUBJECT TO REJECTION. REPLACEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- L. PROVIDE ALL HOLES, SLEEVES, CUTTING, PATCHING, AND SEALING FOR INSTALLATION OF THIS WORK. SEALING SHALL CONFORM TO THE FIRE RATINGS OF ALL BUILDING ASSEMBLIES. ALL EXTERIOR PENETRATIONS SHALL BE MADE WEATHER TIGHT.
- M. CONTRACTOR SHALL NOT MODIFY OR REMOVE ANYTHING FOUND TO BE IN THE PATH OF NEW SYSTEMS TO BE INSTALLED WITHOUT PRIOR APPROVAL BY THE ENGINEER.
- N. THE CONTRACTOR IS RESPONSIBLE FOR THE CONTINUOUS CLEANING OF ALL DUST AND DEBRIS RESULTING FROM THEIR WORK.
- O. CONTRACTOR SHALL BE PROPERLY LICENSED, BONDED, AND INSURED AND CAPABLE OF PERFORMING QUALITY WORKMANSHIP ON THIS PROJECT.
- P. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, AND SAFETY.
- Q. CONTRACTOR SHALL COORDINATE DELIVERIES WITH THE OWNER.
- R. MAINTAIN ALL MANUFACTURER RECOMMENDED AND CODE REQUIRED CLEARANCES.
- S. CONTRACTOR SHALL PROVIDE TRAINING TO THE OPERATING STAFF FOR NEW SYSTEMS AND EQUIPMENT. REFER TO OWNER TRAINING SPECIFICATION SECTION FOR ADDITIONAL INFORMATION.

II. GENERAL DEMOLITION NOTES

- A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER. CARE SHALL BE EXERCISED TO MINIMIZE ANY INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE GOLF CLUB FACILITY WHICH ARE TO REMAIN IN OPERATION.
- B. ALL DEMOLITION AS CALLED FOR ON THE DEMOLITION DRAWINGS SHALL BE UNDER THE CONTRACTORS WORK. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS FOR REQUIRED DEMOLITION SCOPE.
- C. THE INTENT OF THE DEMOLITION IS TO REMOVE THE ITEMS IN THEIR ENTIRETY. THIS INCLUDES ALL ASSOCIATED SUPPORT BASES, ANCHORAGE, HANGERS, CONTROLS INCLUDING WIRING AND CONDUIT EXPOSED IN MECHANICAL ROOMS, PIPES, ETC. CAP EXISTING SYSTEMS TO REMAIN AT MAINS OR OTHER ACTIVE BRANCH LINES. MINIMIZE DEAD END LENGTHS.
- D. BEFORE STARTING ANY DEMOLITION WORK ON EQUIPMENT WHICH HAS AN ELECTRICAL CONNECTION, THE ELECTRICAL CONTRACTOR SHALL DISCONNECT THE POWER AND REMOVE CONDUIT, WIRING, DISCONNECT SWITCHES, AND STARTERS UNDER THIS CONTRACT.
- E. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUOUS CLEANUP THROUGHOUT THE COURSE OF THE DEMOLITION WORK.
- F. ALL EQUIPMENT, MATERIAL, ETC. THAT IS DEMOLISHED SHALL BE REMOVED FROM THE BUILDING SITE BY THIS CONTRACTOR IN A PROPER AND LEGAL MANNER. NO ITEM WHICH IS DEMOLISHED MAY BE REUSED UNLESS SPECIFICALLY NOTED.

III. SHOP DRAWINGS, SUBMITTALS, AND AS-BUILTS

- A. CONTRACTOR SHALL SUBMIT TO THE ENGINEER COORDINATED SHOP DRAWINGS. SHOP DRAWINGS SHALL BE 1/4" SCALE AND SHALL INDICATE LAYOUT OF ALL EQUIPMENT, DUCTS, GRILLES, THERMOSTATS, SENSORS, OPERATING SEQUENCES, CONTROL DEVICES WITH SETTINGS OR ADJUSTABLE RANGES, ETC. SHOP DRAWINGS SHALL INCLUDE ALL DUCT SIZES, CAPACITIES, ELEVATIONS, ETC. CONTRACTOR SHALL PROCEED WITH SITE WORK ONLY AFTER RECEIVING SHOP DRAWINGS MARKED REVIEWED.
- B. SHOULD CONDITIONS NECESSITATE ANY REARRANGEMENTS, CONTRACTOR SHALL SUBMIT TO THE ENGINEER SHOP DRAWINGS SHOWING SUCH CHANGES. CONTRACTOR SHALL PROCEED WITH SITE WORK ONLY AFTER RECEIVING SHOP DRAWINGS MARKED REVIEWED.
- C. CONTRACTOR SHALL SUBMIT TO THE ENGINEER MANUFACTURERS' SUBMITTALS FOR ALL EQUIPMENT AND ACCESSORIES. CONTRACTOR SHALL PROCEED WITH PROCUREMENT ONLY AFTER RECEIVING SUBMITTALS MARKED REVIEWED.
- D. CONTRACTOR SHALL SUBMIT TO THE ENGINEER AN ELECTRONIC FILE OF THE AS-BUILT DRAWINGS, RECORD LOCATIONS OF CONTROL COMPONENTS, INCLUDING CONTROL UNITS, THERMOSTATS, AND SENSORS. REVISE SHOP DRAWINGS TO REFLECT ACTUAL INSTALLATION AND OPERATING SEQUENCES.
- E. CONTRACTOR SHALL SUBMIT TO THE ENGINEER AN ELECTRONIC FILE OF ALL EQUIPMENT INFORMATION, INCLUDE OPERATIONAL AND MAINTENANCE INSTRUCTIONS, PARTS LISTS, SUBMITTALS, AND DESCRIPTIVE LITERATURE.

IV. MATERIALS AND EQUIPMENT

- A. ALL MATERIALS AND EQUIPMENT INSTALLED UNDER THIS CONTRACT SHALL BE NEW.
- B. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS.
- C. CONTRACTOR IS REQUIRED TO REVIEW ALL DRAWINGS. MATERIALS AND EQUIPMENT SHOWN ON THE SCHEDULES AND DETAILS SHALL BE INCLUDED IN BASE BID. NO MATERIAL OR EQUIPMENT SUBSTITUTIONS WILL BE CONSIDERED AFTER THE AWARD OF CONTRACT.
- D. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING THE PURCHASE, DELIVERY, RECEIVING, UNLOADING, UNCRATING, STORING, SETTING IN PLACE, AND PROTECTING OF ALL NEW EQUIPMENT FURNISHED BY THE CONTRACTOR, AND SHALL SECURE SUCH EQUIPMENT FROM DAMAGE UNTIL TIME OF FINAL ACCEPTANCE.
- E. CONTRACTOR SHALL FURNISH AND INSTALL ALL STRUCTURE, SLEEVES, SHIMS, ETC. REQUIRED TO LEVEL AND SUPPORT EQUIPMENT AND MATERIALS.
- F. CONTRACTOR SHALL VERIFY ALL PHYSICAL, ELECTRICAL, INGRESS, ETC. REQUIREMENTS FOR ALL EQUIPMENT PRIOR TO ORDERING.
- G. EQUIPMENT DATA, LABELS, AND OTHER IDENTIFICATION SHALL NOT BE OBSTRUCTED.

V. WARRANTY

- A. CONTRACTOR SHALL WARRANTY THEIR WORK FOR ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION. REFER TO BID DOCUMENTS FOR ADDITIONAL INFORMATION.

VI. OWNER TRAINING

- A. THE CONTRACTOR SHALL PROVIDE DEMONSTRATION AND TRAINING TO OWNER'S PERSONNEL FOR NEW SYSTEMS AND EQUIPMENT. THE COSTS ASSOCIATED WITH THIS SHALL BE INCLUDED AS PART OF THE BASE BID.
- B. ALL EQUIPMENT MANUALLS, INSTALLATION OPERATION AND MAINTENANCE MANUALS, ETC. SHALL BE TURNED OVER TO THE OWNER PRIOR TO COMMENCING OWNER DEMONSTRATION AND TRAINING. REFER TO PROJECT CLOSEOUT DOCUMENT REQUIREMENTS FOR ADDITIONAL INFORMATION.
- C. CONTRACTOR SHALL PROVIDE A MINIMUM OF 2 HOURS OF TRAINING OVER 1 VISIT ON SITE FOR OWNER PERSONNEL.
- D. OWNER TRAINING SHALL BE CONDUCTED AFTER FUNCTIONAL TESTING IS COMPLETE AS APPROVED BY THE ENGINEER.
- E. COORDINATE TRAINING WITH OWNER, ARCHITECT, AND ENGINEER.

VII. DUCTWORK

- A. GENERAL
- IN GENERAL, THE COMPLETE SHEET METAL DUCTWORK SYSTEMS FURNISHED UNDER THIS CONTRACT, SHALL BE CONSTRUCTED AND INSTALLED IN STRICT CONFORMANCE WITH THE STANDARDS AS SET FORTH IN THE DUCT MANUAL AND SHEET METAL CONSTRUCTION FOR VENTILATING AND AIR-CONDITIONING SYSTEMS" AS PUBLISHED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMACNA).
 - ELBOWS SHALL BE CONSTRUCTED WITH THE INSIDE RADIUS NOT LESS THAN 10 THE DUCT WIDTH IN THE SAME PLANE. WHERE STANDARD RADIIUS ELBOWS CANNOT BE INSTALLED DUE TO SPACE CONSTRAINTS, SQUARE ELBOWS WITH DOUBLE THICKNESS TURNING VANES MAY BE INSTALLED WHEREAS APPROVED BY ENGINEER. CROSS-BRAKE OR BEND SURFACES WIDER THAN 18" FOR RIGIDITY.
 - TRANSFORM DUCT SIZES GRADUALLY, NOT EXCEEDING 15 DEGREES DIVERGENCE AND 30 DEGREES CONVERGENCE.
 - ALL DUCT SIZES SHOWN ON PLANS SHALL BE INSIDE CLEAR DIMENSIONS.
 - UPON COMPLETION OF THE INSTALLATION OF DUCTWORK CLEAN ENTIRE SYSTEM OF DEBRIS.
 - PROTECT DUCTWORK FROM THE ELEMENTS AND FOREIGN MATERIAL AND COMPLY WITH INTERMEDIATE DUCT CLEANLINESS LEVEL IN ACCORDANCE WITH SMACNA'S "DUCT CLEANLINESS FOR NEW CONSTRUCTION GUIDELINES"
 - DUCTWORK MATERIAL
 - NON-COMBUSTIBLE OR CONFORMING TO REQUIREMENTS FOR CLASS 1 AIR DUCT MATERIALS OR UL 181
 - ALL DUCTWORK SHALL BE ALUMINUM MATERIAL.
 - REINFORCEMENT PLATES AND SHAPES: ASTM A36 / A30M, STEEL PLATES, SHAPES, AND BARS; BLACK AND GALVANIZED.
 - THE RODS: GALVANIZED STEEL, 1/4" MINIMUM DIAMETER FOR LENGTHS 36" OR LESS; 3/8" MINIMUM DIAMETER FOR LENGTHS LONGER THAN 36".
 - SHEET METAL MATERIALS AND SUPPORTS SHALL COMPLY WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS" FOR APPLICABLE MATERIALS, MATERIAL THICKNESSES, AND DUCT CONSTRUCTION METHODS BASED ON APPLICABLE PRESSURE CLASSES. SHEET METAL MATERIALS SHALL BE FREE OF PITTING, SCALE MARKS, ROLLER MARKS, STAINS, DISCOLORATIONS, AND OTHER IMPERFECTIONS. - SEALANTS AND GASKETS
 - SEAL DUCTS FOR DUCT STATIC-PRESSURE, SEAL GLASSES, AND LEAKAGE CLASS SPECIFIED IN "DUCT SCHEDULE" ARTICLE 4 ACCORDING TO SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS". ALL JOINTS AND SEAMS SHALL BE SEALED TO SEAL CLASS A.
 - SURFACE BURNING CHARACTERISTICS FOR SEALANTS AND GASKETS SHALL BE A MAXIMUM FLAME SPREAD INDEX OF 25 AND A MAXIMUM SMOKE-DEVELOPED INDEX OF 50 WHEN TESTED ACCORDING TO UL-723, CERTIFIED BY AN INTEL. - DUCTWORK SUPPORTS AND CONNECTIONS
 - COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS" FOR HANGERS AND SUPPORTS AND HANGER SPACING.
 - HANGERS EXPOSED TO VIEW SHALL BE THREADED ROD AND ANGLE OR CHANNEL SUPPORTS.
 - HANGER RODS FOR NON-CORROSIVE ENVIRONMENTS SHALL BE CADMIUM PLATED STEEL RODS AND NUTS.
 - STEEL CABLES FOR DUCTS SHALL BE GALVANIZED STEEL COMPLYING WITH ASTM A403.
 - STEEL CABLE END CONNECTIONS SHALL BE CADMIUM PLATED STEEL ASSEMBLIES WITH BRACKETS, SWIVEL, AND BOLTS DESIGNED FOR DUCT HANGER SERVICE; WITH AN AUTOMATIC LOCKING AND CLAMPING DEVICE. - DUCTWORK ACCESSORIES
 - ALL EXHAUST GRILLES SHALL BE OF MODELS INDICATED, OR APPROVED EQUIVALENT UNITS.
 - PROVIDE GRAVITY BACKDRAFT DAMPER ON ALL EXHAUST DUCT MAINS AFTER THE EXHAUST FAN BUT PRIOR TO LOUVER CONNECTION.

VIII. SYSTEM START-UP, TESTING, ADJUSTING AND BALANCING (TAB)

- A. UPON SUBSTANTIAL COMPLETION OF SYSTEMS INSTALLATION, AND PRIOR TO ACCEPTANCE BY THE ENGINEER AND OWNER, THIS CONTRACTOR SHALL SUBCONTRACT A TAB CONTRACTOR WHO'S TECHNICIANS ARE NEBB OR AABC CERTIFIED. TAB SUBCONTRACTOR SHALL NOT BE AFFILIATED WITH THE CONTRACTOR.
- B. TEST PROCEDURES SHALL BE PER LATEST EDITIONS OF NEBB, AABC, OR TESTING, ADJUSTING, AND BALANCING CHAPTER OF ASHRAE APPLICATIONS HANDBOOK.
- C. PRIOR TO TAB PROCEDURES PROCEEDING, SYSTEMS INSTALLATION, STARTUP, AND OPERATION SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND PER THE MINIMUM REQUIREMENTS OF NEBB, AABC, OR ASHRAE. IF DEFICIENCIES ARE FOUND WHICH PREVENT PROPER TAB PROCEDURES AND REPEATABLE RESULTS, THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RESULTING COSTS.
- D. THE ENGINEER SHALL BE NOTIFIED WHEN TAB SCOPE WILL BEGIN ON SITE, AUTHORIZED REPRESENTATIVE OF THE OWNER MAY BE IN ATTENDANCE IF DEEMED NECESSARY.
- E. THIS CONTRACTOR TO ASSIST THE TAB CONTRACTOR AS REQUIRED TO ENSURE REPEATABLE RESULTS. THIS CONTRACTOR SHALL PROVIDE THE TAB CONTRACTOR WITH ALL REQUIRED DOCUMENTATION TO SUPPORT TAB SCOPE.
- F. TAB CONTRACTOR SCOPE SHALL INCLUDE ALL NEW SYSTEMS AND EQUIPMENT (EF-1 AND EF-2).
- G. TAB CONTRACTOR SCOPE SHALL INCLUDE EXISTING SYSTEMS AS IDENTIFIED IN THE DOCUMENTS OR AS REQUIRED FOR A FULLY FUNCTIONAL AND FULLY BALANCED SYSTEM.
- H. TAB CONTRACTOR SHALL PROVIDE REPORT IN ACCORDANCE WITH UTILIZED STANDARD ALONG WITH AN EXECUTIVE SUMMARY STATING THE EXTENT OF SYSTEM COMPLIANCE, SYSTEM DEFICIENCIES, AND RECOMMENDED CHANGES. THIS REPORT SHALL BE SUBMITTED WITHIN THIRTY (30) DAYS OF COMPLETION OF THIS SCOPE OF WORK.
- J. TAB CONTRACTOR SHALL COORDINATE WITH THE MC AS REQUIRED TO PERFORM SCOPE OF WORK, DETERMINE CONTROL SETPOINTS, ETC. FOR PROPER OPERATION OF THE SYSTEM.
- K. ALL BALANCING PROCEDURES SHALL BE PERFORMED TO MINIMIZE ENERGY USAGE.

IX. AUTOMATIC CONTROL SYSTEM

- A. GENERAL
- CONTRACTOR SHALL FURNISH AND INSTALL ALL COMPONENTS REQUIRED FOR A COMPLETE AND FUNCTIONAL CONTROL SYSTEM TO CONTROL DEVICES, EQUIPMENT AND SYSTEMS.
 - FURNISH AND INSTALL CONTROL WIRING IN CONDUIT. THE CONTRACTOR SHALL INSTALL ANY 120 VOLT AND 24 VOLT WIRING AND CONDUIT REQUIRED FOR ALL CONTROL DEVICES AND CONTROL PANELS FROM THE DESIGNATED DISTRIBUTION PANEL.
 - MONITOR THE COMBUSTIBLE VAPORS THAT OFF GASES DURING BATTERY CHARGING OPERATIONS INDOORS WITH A HYDROGEN GAS DETECTION SYSTEM.
- B. GENERAL REQUIREMENTS FOR STAND ALONE CONTROL SYSTEMS
- CONTROL OF THE EQUIPMENT OR SYSTEMS IN THE CART BARN SHALL OPERATE BASED ON ITS STAND ALONE LOCAL CONTROLLER INDEPENDENT OF THE CLUBHOUSE BUILDING AUTOMATION SYSTEM.
 - CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED CONDUIT, CONTROL WIRING, DAISY CHAIN NETWORK WIRING, CABLES, DEVICES, INTERLOCKS, SAFETIES, PROGRAMMING, ETC TO OPERATE THE EQUIPMENT OR SYSTEMS.
- C. GENERAL REQUIREMENTS FOR HYDROGEN GAS DETECTION SYSTEM
- PROVIDE VENTILATION PER INTERNATIONAL MECHANICAL CODE 2012 SECTION 502.3: BATTERY CHARGING AREAS FOR POWERED INDUSTRIAL TRUCKS AND EQUIPMENT.
 - PROVIDE A GAS DETECTION SYSTEM APPROPRIATE FOR AN ELECTRIC GOLF CART STORAGE BUILDING, SENSING AND MONITORING FOR FLAMMABLE HYDROGEN GASES OMITTED BY THE BATTERY CHARGING STATIONS.
 - PROVIDE A MODEL TOX-4ANA CONTROLLER OR EQUAL BY TOXALERT INTERNATIONAL, INC. TO MONITOR THE HYDROGEN SENSORS.
 - WHEN A HYDROGEN SENSOR INDICATES A GAS CONCENTRATION OF 25% LEL OR HIGHER:
 - THE ASSOCIATED EXHAUST FANS (EF-1 AND EF-2) SHALL START PER THE SCHEDULE ON THE DRAWINGS.
 - THE ASSOCIATED INTAKE DAMPER ACTUATOR AT WALL LOUVER (WL-1) SHALL ENERGIZE TO OPEN POSITION TO ALLOW FOR MAKEUP AIR.
 - THE LED ON THE CONTROLLER SHALL INDICATE "WARNING LEVEL" (EXHAUST FAN ON) OPERATION.
 - WHEN A SENSOR INDICATES A GAS CONCENTRATION OF 50% LEL OR HIGHER:
 - AN ALARM SET OF CONTACTS SHALL CLOSE WHICH SHALL INDICATE ALARM CONDITION AND LIGHT AN ALARM LED AND GAS DETECTION ALARM SOUND.
 - EXHAUST FAN OPERATION SHALL CONTINUE TO RUN PER THE SCHEDULE ON THE DRAWINGS.
 - PROVIDE TEMPERATURE SENSOR, INTERLOCK TO GAS DETECTION PANEL TO OPERATE EXHAUST FANS (EF-1 AND EF-2) AND OPEN INTAKE DAMPER WHEN INDOOR SPACE TEMPERATURE IS GREATER THAN 80 DEGREES (ADJ.).
 - THE CONTROLLER SHALL HAVE INTERNAL LEADS TO INDICATE "WARNING LEVEL" AND "ALARM LEVEL" FOR EACH SENSOR INPUT.
 - PROVIDE WITH PANEL AUDIBLE ALARM LABELED WITH PUSH BUTTON SILENCE SWITCH.
 - PROVIDE PANEL FRONT MOUNTED LEADS FOR EACH SENSOR TO INDICATE WARNING AND ALARM LEVELS.
 - PROVIDE DIGITAL DISPLAY (SENSOR VALUE) FOR EACH SENSOR INPUT. DISPLAY MOUNTED ON PANEL FRONT.
 - PROVIDE SENSOR FAILURE ALARM.
 - HYDROGEN SENSORS SHALL BE BY SAME MANUFACTURER AS GAS DETECTION CONTROLLER.
 - FOR THE HYDROGEN SENSOR, PROVIDE TOXALERT INTERNATIONAL MODEL TOX-COMB / ANA COMBUSTIBLE TRANSMITTER / SENSOR MODULE OR EQUAL PER DRAWINGS.
 - CATALYTICALLY AIDED PLATINUM BEAD SENSOR
 - 100% LEL RANGE
 - POISON RESISTANT SENSOR STANDARD
 - WATER REPELLENT PATENTED SENSOR COATING
 - LINEAR 4-20MA OUTPUT
 - 1/4 LEL READOUT PROVIDED DURING CALIBRATION USING ANY VOLT METER
 - INDOOR USE
 - EXPLOSION PROOF CONSTRUCTION
 - ONE YEAR MANUFACTURER WARRANTY.
 - A FUNCTIONAL TEST OF GAS DETECTION SYSTEM ENSURING CORRECT VENTILATION INTERLOCK AND ALARM ANNUNCIATION USING PROPER COMBUSTIBLE TRACE GAS PPM SHALL BE CONDUCTED BY EQUIPMENT SPECIAL REPRESENTATIVE AT COMPLETION OF INSTALL.

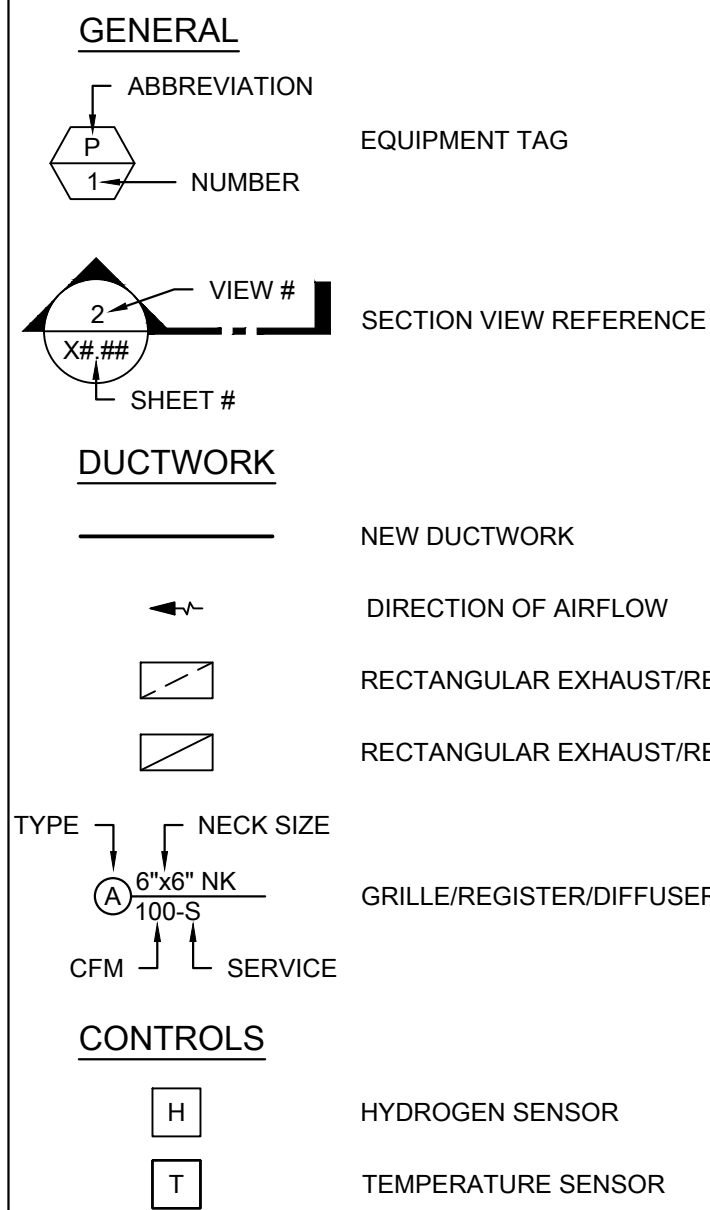
C. TRAINING SHALL INCLUDE:

- BASIC THEORY ON THE INSTALLED SYSTEMS. THE REVIEW SHALL COVER EACH MAJOR SYSTEM AND SHALL COVER A SAMPLING OF EACH UNIQUE TERMINAL EQUIPMENT CONFIGURATION.
- REVIEWING AND ACKNOWLEDGING ALARMS.
- LOCATIONS OF AND HOW TO RESET EQUIPMENT SAFETIES.
- ADJUSTING EQUIPMENT SCHEDULES, DEMONSTRATE PERMANENT CHANGES TO WEEKLY SCHEDULES AND ALSO SPECIAL EVENT AND HOLIDAY SCHEDULING.
- ADJUSTING SETPOINTS AND SETPOINT RESETS. THE OWNER SHALL BE ABLE TO ADJUST THE OPERATION WITHOUT MANUAL OVERRIDES.
- ANSWERING OWNERS STAFF QUESTIONS.
- ADJUSTMENT OF SEQUENCE OF OPERATIONS AS REQUESTED BY THE OWNER DURING TRAINING. PRIOR TO ENACTING ANY CHANGES, APPROVAL SHALL BE OBTAINED FROM THE ENGINEER.

XVII. FUNCTIONAL TESTING

- A. GENERAL
1. ELARA WILL BE WITNESSING FUNCTIONAL TESTING FOR THIS PROJECT.
2. CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL LABOR AND MATERIALS REQUIRED TO PERFORM FUNCTIONAL TESTING ON THIS PROJECT.
- B. PRIME CONTRACTOR DOCUMENTATION:
- THE FOLLOWING SHALL BE COMPLETED BY THE PRIME CONTRACTOR AND REPORTS SHALL BE SUBMITTED TO ENGINEER PRIOR TO THE START OF FUNCTIONAL TESTING. OWNER AND ENGINEER RESERVE THE RIGHT TO DELAY FUNCTIONAL TESTING DUE TO THE INCOMPLETENESS OF ANY OF THE FOLLOWING ITEMS:
 - TAB REPORT.
 - MEGGER TESTING.
 - THERMAL SCANS OF ELECTRICAL EQUIPMENT.
 - STARTUP REPORTS.
 - DRAFT OF O&MS.
 - CONTROL PANELS AND WIRING ARE LABELED.
 - POINT TO POINT CHECKOUT COMPLETED WITH LIST OF OUTSTANDING DEFICIENCIES.
 - REMOTE ALARMING HAS BEEN CONFIGURED. PROVIDE PROOF ALARMS ARE FUNCTIONAL.
 - TRENDING HAS BEEN FULLY CONFIGURED. PROVIDE PROOF ALL TRENDING IS IN PLACE INCLUDING ALL HARD-WIRED POINTS AND KEY SETPOINTS.
 - EQUIPMENT IS OPERATING IN FULL AUTOMATIC OPERATION PER THE SEQUENCES OF OPERATION. CONTRACTOR SHALL PROVIDE WRITTEN CONFIRMATION TO THE ENGINEER. PROVIDE WRITTEN EXPLANATION FOR DEVIATIONS FROM THE DESIGNED SEQUENCES OF OPERATION.
- C. FUNCTIONAL TESTING ACTIVITIES:
- FUNCTIONAL PERFORMANCE TESTING SHALL DEMONSTRATE THE INSTALLATION AND OPERATION OF COMPONENTS, SYSTEMS, AND SYSTEM-TO-SYSTEM INTERFACING RELATIONSHIPS IN ACCORDANCE WITH PLANS AND SPECIFICATIONS SUCH AS OPERATION, FUNCTION, AND MAINTENANCE SERVICEABILITY. TESTING SHALL INCLUDE:
 - ALL MODES AS DESCRIBED IN THE SEQUENCE OF OPERATION
 - FULL LOAD AND PART-LOAD CONDITIONS
 - SEASONAL CONDITIONS
 - REDUNDANT OR AUTOMATIC BACKUP MODES
 - PERFORMANCE OF ALARMS
 - MODE OF OPERATION UPON A LOSS OF POWER AND RESTORATION OF POWER
 - CONTRACTOR TO INCLUDE TIME AS REQUIRED TO MODIFY THE SEQUENCE OF OPERATIONS AS DETERMINED DURING FUNCTIONAL TESTING TO OPTIMIZE ENERGY AND/OR OPERATION OF SYSTEMS.
 - FUNCTIONAL TEST OF GAS DETECTION SYSTEM UPON COMPLETED INSTALLATION SHALL BE BY EQUIPMENT REPRESENTATIVE.

MECHANICAL SYMBOLS



ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
APF	AIR PRESSURE DROP
BHP	BRAKE HORSEPOWER
BOD	BOTTOM OF DUCT
BTU/H	BRITISH THERMAL UNIT PER HOUR
CFM	CUBIC FEET PER MINUTE
CUH	CABINET UNIT HEATER
E	EXHAUST
EA	EXHAUST AIR
EC	ELECTRICAL CONTRACTOR
ESP	EXTERNAL STATIC PRESSURE
F	FARRENHEIT
FC	FLEXIBLE CONNECTOR (OR CONNECTION)
FLA	FULL LOAD AMPS
FBS	FLAT ON BOTTOM
FOT	FLAT ON TOP
FPM	FEET PER MINUTE
GA	GAUGE
HP	HORSEPOWER
HZ	HERTZ
MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPACITY
MOC	MAXIMUM OVER-CURRENT PROTECTION
NK	NOT TO SCALE
PD	PRESSURE DROP
RPM	REVOLUTIONS PER MINUTE
SP	STAT. PRESSURE
SP	THERMISTAT
TYP	TYPICAL
TSP	TOTAL STATIC PRESSURE
WL	WALL LOUVER

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REPLACEMENT CART BARN



PRESTWICK
COUNTRY
CLUB

601 PRESTWICK DR. FRANKFURT, IL 60423



GRILLES, REGISTERS, AND DIFFUSERS

EQUIP. TAG	MFR	MODEL	TYPE	MATERIAL	SIZE	MAX. INK.	NOTES
A	TITUS	360PL	LOUVERED RETURN GRILLE, 3/4" BLADE SPACING, 30 DEGREE DEFLECTION	ALUMINUM	REFER TO PLANS	30	SEE BELOW
NOTES:							
1. COLOR WHITE.							
2. SURFACE MOUNTED FLANGED FRAME WITH SCREW FASTENING IN STORE ROOM.							
3. ADDITIONAL ACCEPTABLE MANUFACTURERS INCLUDE: PRICE, NALOR							

WALL LOUVERS (WL)

GENERAL							PERFORMANCE						NOTES
ABB.	NO.	SERVICE	LOCATION	MFR	MODEL	FRAME TYPE	WIDTH (IN)	HEIGHT (IN)	AIRFLOW (CFM)	FREE AREA (SF)	MAX. FACE VELOCITY (FPM)	MAX. ACP (IN/IN)	
WL	1	EXHAUST	NORTH	RUSKN	ELF437DX	4" EXTRUDED ALUMINUM DRAINABLE STATIONARY LOUVER	32	32	2150	3.50	615	0.07	SEE BELOW
WL	2	EXHAUST	SOUTH	RUSKN	ELF437DX	4" EXTRUDED ALUMINUM DRAINABLE STATIONARY LOUVER	32	32	2150	3.50	615	0.07	SEE BELOW
WL	3	INTAKE	EAST	RUSKN	ELC44D	4" EXTRUDED ALUMINUM DRAINABLE COMBINATION LOUVER	54	42	4300	6.35	660	0.06	SEE BELOW
NOTES:													
1. CONTRACTOR TO CONFIRM COMPATIBILITY WITH BUILDING CONSTRUCTION PRIOR TO ORDERING.													
2. FOR IN-TAKE LOUVER, ELECTRIC ACTUATOR TO BE FURNISHED AND INSTALLED ON DAMPER BY MANUFACTURER PRIOR TO SHIPPING. ACTUATOR VOLTAGE AT 120V. CONFIRM COMPATIBILITY WITH GAS DETECTION PANEL.													
3. ALUMINUM BRIDGES/EN.													
4. MEDIUM BRONZE ANODIZED FINISHED. ARCHITECT TO APPROVE BEFORE ORDERING.													
5. ADDITIONAL ACCEPTABLE MANUFACTURERS: CONSTRUCTION SPECIALTIES, GREENE/OK													

CABINET UNIT HEATERS (CUH)

GENERAL													PERFORMANCE				ELECTRICAL			NOTES
ABB.	TAG	LOCATION	MFR	MODEL	OPER. WEIGHT (LBS)	MOUNTING TYPE	ARRANGEMENT	LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)	KW	MBH	AIRFLOW (CFM)	TEMP RES. (°F)	VOLTS	HZ	PHASE			
CUH	1	SPRINKLER 03	QWARK	QWQH10F	25	WALL	RECESSED	15.75	5	19.25	1.8	6.2	100	57	120	60	1	SEE BELOW		
CUH	2	TOILET 04	QWARK	QWQH10F	25	WALL	RECESSED	15.75	5	19.25	1.8	6.2	100	57	120	60	1	SEE BELOW		
NOTES:																				
1. LOCAL DISCONNECT PROVIDED BY MANUFACTURER.																				
2. INSTALL AND MOUNT 8"-12" ABOVE FLOOR LINE.																				
3. UNIT MOUNTED THERMOSTAT BY MANUFACTURER.																				
4. PROVIDE MANUFACTURER RECESSED TRIM KIT FOR SEMI-RECESSED APPLICATION. COORDINATE WITH ARCHITECTURAL DRAWINGS.																				
5. COLOR APPROVED BY ARCHITECT.																				

EXHAUST FANS (EF)

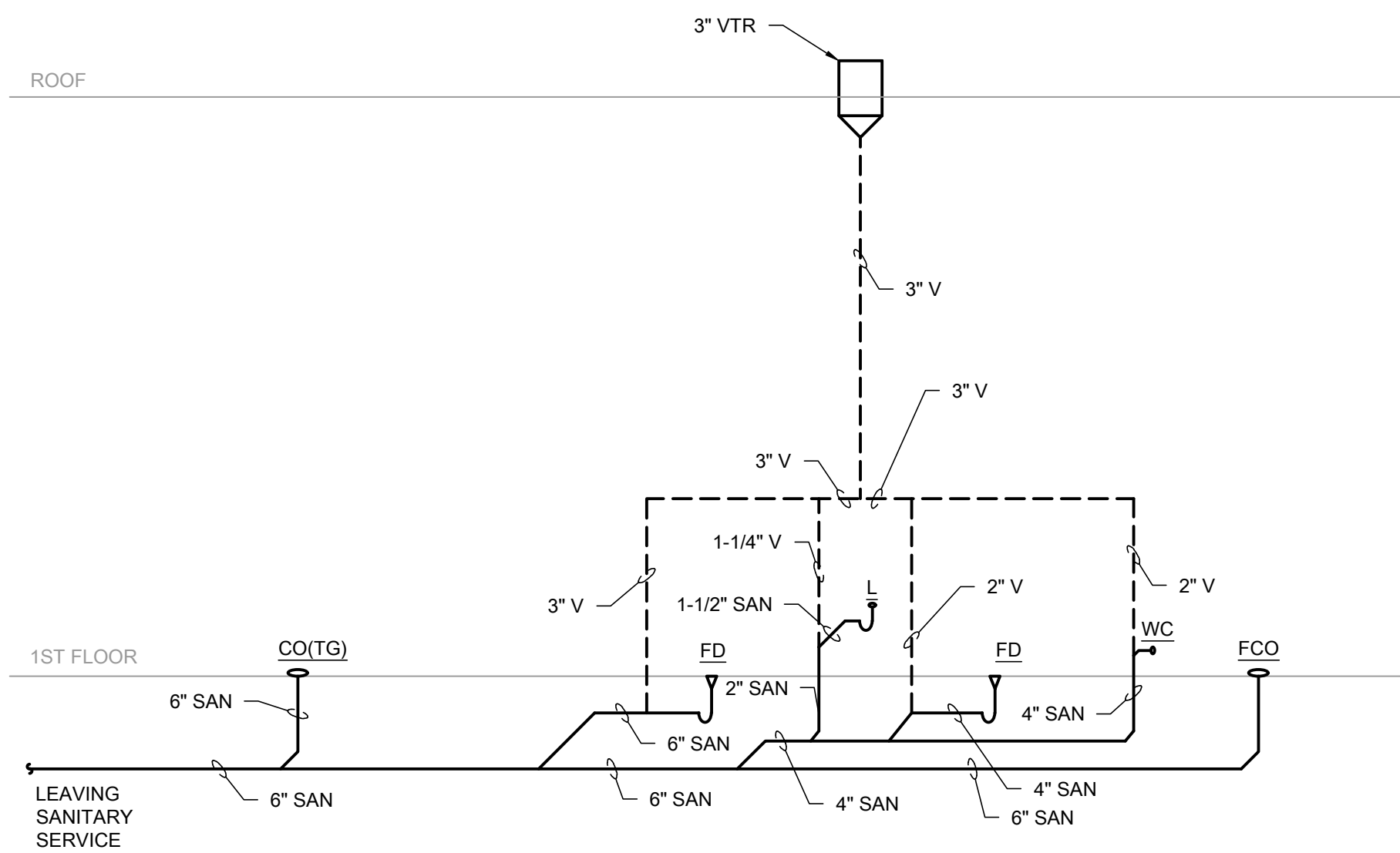
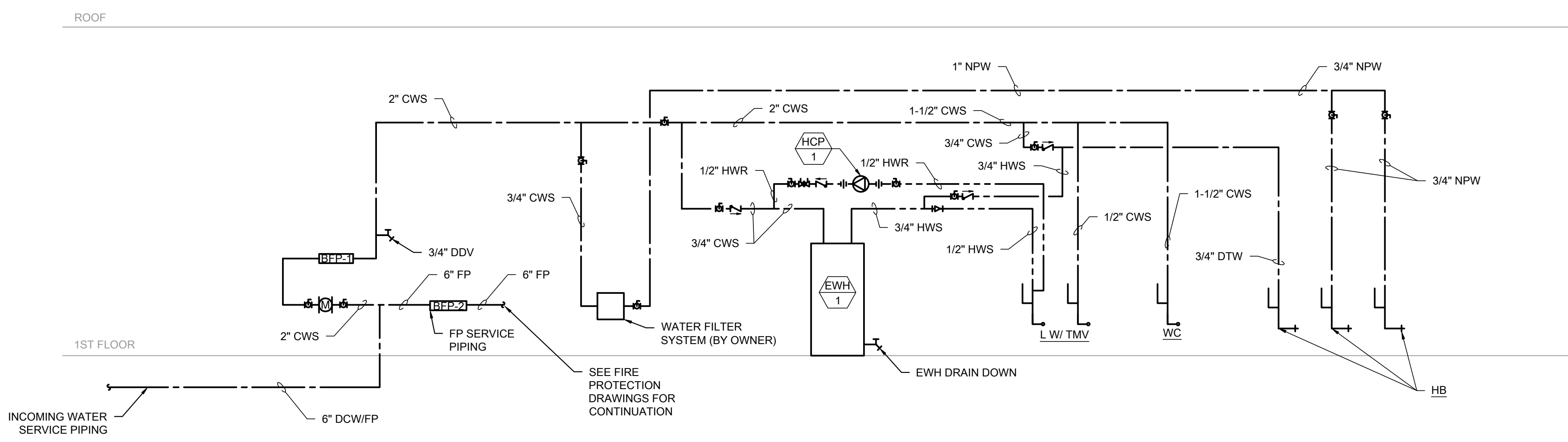
EQUIP. TAG			GENERAL				FAN				NOTES
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REPLACEMENT CART BARN

PRESTWICK
COUNTRY
CLUB

601 PRESTWICK DR. FRANKFURT, IL 60423

1 SANITARY/VENT NEW WORK RISER DIAGRAM
SCALE: NO SCALE2 DOMESTIC WATER NEW WORK RISER DIAGRAM
SCALE: NO SCALE

ABBREVIATIONS

ACW	AUTOMATIC CLOTHES WASHER	KS	KITCHEN STACK
AD	AREA DRAIN	KEC	KITCHEN EQUIPMENT CONTRACTOR
AF	ABOVE FINISHED FLOOR	KED	KITCHEN EQUIPMENT DESIGNER
AMP	AMPERE	KW	KITCHEN WASTE OR KLOWATT
ANB	ACID NEUTRALIZING BASIN	LS	LAB SINK
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	LT	LAUNDRY TUB
AP	ACCESS PANEL	MB	MOP BASIN
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	MC	MECHANICAL CONTRACTOR
ASSE	AMERICAN SOCIETY OF SAFETY ENGINEERS	MSS	MANUFACTURERS STANDARDIZATION SOCIETY
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	NO	NORMALLY OPEN
AV	ACID/CHEMICAL VENT	NSF	NATIONAL SANITATION FOUNDATION
AVTR	ACID/CHEMICAL VENT THRU ROOF	NTS	NOT TO SCALE
AW	ACID/CHEMICAL WASTE	NPS	NOMINAL PIPE SIZE
BAC	BUILDING AUTOMATION SYSTEMS CONTRACTOR	NPW	NON POTABLE WATER
BFP	BACKFLOW PREVENTER	NO	NORMALLY OPEN
BOP	BOTTOM OF PIPE	NSF	NATIONAL SANITATION FOUNDATION
BT	BATH TUB	NTS	NOT TO SCALE
CA	COMPRESSED AIR	OD	OVERFLOW DRAIN
CI	CAST IRON	OSD	OPEN SITE DRAIN
CIPSI	CAST IRON PIPE INSTITUTE	P	PUMP
CLG	CLEANOUT	PA	PIPE ANCHOR
CONN	CONNECTION	PC	PLUMBING CONTRACTOR
CO(T)	CLEANOUT TO GRADE	PD	PUMP DISCHARGE
DCW	DOMESTIC COLD WATER	PDI	PLUMBING & DRAINAGE INSTITUTE
DDV	DRAIN DOWN VALVE	PE	PROFESSIONAL ENGINEER
DHW	DOMESTIC HOT WATER	PH	PHASE
DHWR	DOMESTIC HOT WATER RETURN	PIV	POST INDICATOR VALVE
DTW	DOMESTIC TEMPERED WATER	PPM	PARTS PER MILLION
DBC	DOUBLE CHECK VALVE	PRV	PRESSURE REDUCING VALVE
DOV	DUAL CHECK VALVE	PS	PLUMBING STACK
DDCA	DOUBLE CHECK DETECTOR ASSEMBLY	PSI	POUNDS PER SQUARE INCH
DDCV	DOUBLE CHECK DETECTOR CHECK VALVE	ORD	OVERFLOW ROOF DRAIN
DF	DRINKING FOUNTAIN	RCP	RECIRCULATION PUMP
DIA	DRAINAGE FIXTURE UNIT	RD	ROOF DRAIN
DN	DOWN	RH	ROOF HYDRANT
DS	DOWNSPOUT	ROB	ROD OUT BASIN
DSN	DOWNSPOUT NOZZLE	RPD	REDUCED PRESSURE DETECTOR ASSEMBLY
DT	DRAIN TILE	RPM	REVOLUTIONS PER MINUTE
DW	DISHWASHER	RPZ	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
DWH	DOMESTIC WATER HEATER	S / SAN	SANITARY WASTE
DWS	DOMESTIC WATER SOFTENER	SC	SITE UTILITY CONTRACTOR
EC	ELECTRICAL CONTRACTOR	SE	SEWAGE EJECTOR
EEV	EMERGENCY EYE AND FACE WASH	SH	SHOWER
EPDM	ETHYLENE PROPYLENE DIENE MONOMER	SI	SOLIDS INTERCEPTOR
ET	EXPANSION TANK	SK	SINK
ESH	EMERGENCY SHOWER	SP	SUMP PUMP
ESP	ELEVATOR SUMP PUMP	SQ	SQUARE FEET
ETR	EXISTING TO REMAIN	SS	SERVICE SINK
EWC	ELECTRIC WATER COOLER	S.S.	STAINLESS STEEL
EW	ELECTRIC WATER HEATER	ST	STORM
FCO	FLOOR CLEANOUT	SST	SECONDARY STORM (OVERFLOW)
FD	FLOOR DRAIN	TB	THRUST BLOCK
FOG	FATS, OILS AND GREASE	TD	TRENCH DRAIN
FP	FIRE PROTECTION	TMV	THERMOSTATIC MIXING VALVE
FFS	FEET PER SECOND	TPRV	TEMPERATURE AND PRESSURE REDUCING VALVE
FS	FLOOR SINK	TYP	TYPICAL
FT	FEET	UR	URINAL
G	NATURAL GAS	V	VENT
GC	GENERAL CONTRACTOR	VB	VACUUM BREAKER
GCO	GROUND CLEANOUT	VTR	VENT THRU ROOF
GI	GREASE INTERCEPTOR	W	WASTE
GPD	GALLONS PER DAY	WC	WATER CLOSET
GPH	GALLONS PER HOUR	WCO	WALL CLEANOUT
GPM	GALLONS PER MINUTE	WF	WASH FOUNTAIN
GT	GREASE TRAP	WH	WALL HYDRANT
GW	GARAGE WASTE	WHA	WATER HAMMER ARRESTOR
HB	HOSE BIBB	WSB	WALL SUPPLY BOX
HD	HEAD	WSFU	WATER SUPPLY FIXTURE UNITS
HP	HORSEPOWER	YCO	YARD CLEANOUT
HX	HEAT EXCHANGER	YH	YARD HYDRANT
IE	INVERT ELEVATION		
IWB	ICE MACHINE/REFRIGERATOR WALL BOX		

NOTE: NOT ALL ABBREVIATIONS LISTED ABOVE MAY BE USED OR APPEAR IN THESE DRAWINGS.

PLUMBING SYMBOLS

GENERAL				PLUMBING			
⊗	⊠	FLOOR DRAIN	—+—	—	—	—	PIPE REDUCER/INCREASER
⊙	⊡	FLOOR SINK	—+—	—	—	—	PIPE TEE, DOWN
⊙	⊡	FLOOR CLEANOUT	—+—	—	—	—	PIPE TEE, 45° HORIZONTAL
⊙	⊡	ROOF DRAIN	—+—	—	—	—	PIPE TEE, UP
⊙	⊡	EMERGENCY SHUTOFF	—+—	—	—	—	PIPE UNION
⊙	⊡	POINT OF CONNECTION OF NEW TO EXISTING WORK	—+—	—	—	—	THREADED HOSE CONNECTION
⊙	⊡	POINT OF DEMOLITION TO EXISTING WORK	—+—	—	—	—	BALL VALVE
⊙	⊡	ABBREVIATION	—+—	—	—	—	BUTTERFLY VALVE
⊙	⊡	EQUIPMENT TAG	—+—	—	—	—	CHECK VALVE
⊙	⊡	RISER TAG	—+—	—	—	—	GAS COCK
⊙	⊡	MATCH LINE	—+—	—	—	—	GATE VALVE
⊙	⊡	VIEW #	—+—	—	—	—	GLOBE VALVE
⊙	⊡	SECTION VIEW REFERENCE	—+—	—	—	—	MANUAL BALANCING VALVE
⊙	⊡	KITCHEN EQUIPMENT TAG	—+—	—	—	—	NEEDLE VALVE
⊙	⊡	NEW PIPING	—+—	—	—	—	OS&Y GATE VALVE
⊙	⊡	EXISTING PIPING TO REMAIN	—+—	—	—	—	PRESSURE REDUCING/REGULATING VALVE
⊙	⊡	EXISTING PIPING TO BE DEMOLISHED	—+—	—	—	—	PRESSURE/SAFETY RELIEF VALVE
⊙	⊡	NEW PIPE CONNECTION	—+—	—	—	—	STRAINER
⊙	⊡	DIRECTION OF FLOW	—+—	—	—	—	STRAINER WITH BLOWDOWN VALVE
⊙	⊡	DIRECTION OF PIPE PITCH, DOWN	—+—	—	—	—	THERMOSTATIC MIXING VALVE
⊙	⊡	PIPE CONTINUATION	—+—	—	—	—	BACKFLOW PREVENTER
⊙	⊡	DOMESTIC COLD WATER PIPING	—+—	—	—	—	FLEXIBLE PIPE CONNECTOR (OR CONNECTION)
⊙	⊡	DOMESTIC HOT WATER SUPPLY PIPING	—+—	—	—	—	HOSE BIBB
⊙	⊡	DOMESTIC HOT WATER RETURN PIPING	—+—	—	—	—	METER
⊙	⊡	DRAIN TILE PIPING	—+—	—	—	—	P-TRAP
⊙	⊡	VENT PIPING	—+—	—	—	—	PIPE ALIGNMENT GUIDE
⊙	⊡	CLEANOUT	—+—	—	—	—	PIPE ANCHOR
⊙	⊡	ECCENTRIC PIPE REDUCER	—+—	—	—	—	PIPE SLEEVE
⊙	⊡	ORIFICE PIPE UNION	—+—	—	—	—	PIPE WELL
⊙	⊡	PIPE CAP	—+—	—	—	—	PRESSURE GAUGE
⊙	⊡	PIPE ELBOW, 30° HORIZONTAL	—+—	—	—	—	PRV STATION
⊙	⊡	PIPE ELBOW, 45° HORIZONTAL	—+—	—	—	—	PUMP
⊙	⊡	PIPE ELBOW, 90° HORIZONTAL	—+—	—	—	—	SHOWER
⊙	⊡	PIPE ELBOW, TURNED DOWN	—+—	—	—	—	TEST PLUG
⊙	⊡	PIPE ELBOW, TURNED UP	—+—	—	—	—	THERMOMETER

NOTE: NOT ALL SYMBOLS LISTED ABOVE MAY BE USED OR APPEAR IN THESE DRAWINGS.

PLUMBING FIXTURE SCHEDULE													
EL. NO.	COLOR/MATERIAL	TRAP	CARRIER	MOUNTING HEIGHT		SUPPLY FITTING		STOP VALVE		NOTES			
MILNNIUM 3352.101 ETRCLEAN	WHITE	INTEGRAL	SMITH SERIES 200	TOP OF TOILET SEAT AT 18" AFF		SLOAN G2 OPTIMA PLUS 8111-1.6		INTEGRAL		1, 2, 3, 8			
0355.012	BY ARCHITECT	MCQUIRE 9800CF	SMITH SERIES 700	RIM AT MAXIMUM OF 34 IN. AFF		SLOAN EBF-650-BAT-0.5GPM-IR		MCQUIRE H2167CCLK		2, 4, 5, 6, 7, 9			
65	BRASS FINISH/FINAL APPROVAL BY ARCHITECT	N/A	N/A	MINIMUM OF 36 IN. AFF		INTEGRAL		INTEGRAL		10, 11			
65	BRASS FINISH/FINAL APPROVAL BY ARCHITECT	N/A	N/A	MINIMUM OF 36 IN. AFF		INTEGRAL		INTEGRAL		10			

EXPANSION TANK SCHEDULE									
ABB. NO.	SERVICE	LOCATION	MANUFACTURER	MODEL NO.	CAPACITY (GAL.)	WORKING PRESSURE (PSI)	SIZE (APPROX.)	MAX CAPACITY WEIGHT (LBS)	NOTES
ET	1	WATER HEATER	AMTROL	BT-SC-00	2.0	150	8" DIA X 14" H	30	1,2,3
NOTES: 1. THE PLUMBING CONTRACTOR SHALL PROPERLY CHARGE EXPANSION TANK PRIOR TO INSTALLATION PER MANUFACTURER GUIDELINES. 2. PROVIDE 4" CONCRETE PAD FOR FLOOR MOUNTED EQUIPMENT. 3. THERMAL EXPANSION TANK SHALL BE CONNECTED TO THE COLD WATER SUPPLY TO THE WATER HEATER WITH NO VALVES OR OTHER DEVICES LOCATED BETWEEN THE EXPANSION TANK AND THE WATER HEATER.									

DRAIN SCHEDULE								
EQUIP. TAG			TYPE	SIZE	MANUFACTURER	MODEL NO.	TOP FINISH	NOTES
ABB.	NO.							
FD	1		FLOOR DRAIN (PUBLIC AREAS)	4"	SMTH	2010-A	NICKEL BRONZE	1
FD	2		FLOOR DRAIN (MECHANICAL AREAS)	6"	SMTH	2010-A	STANDARD	1
FCO	2		FLOOR CLEANOUT (MECHANICAL AREAS)	6"	SMTH	4031	STANDARD	--
COIT(G)	1		CLEANOUT (TO GRADE)	6"	SMTH	4250	STANDARD	--
NOTES: 1. PROVIDE WITH ROUND HEEL-PROOF GRATE.								

BACKFLOW PREVENTER SCHEDULE						
EQUIP. TAG		MANUFACTURER	MODEL NO.	SERVICE	SIZE	NOTES
ABB.	NO.					
BFP	1	WATTS	1789	DOMESTIC WATER SERVICE	2"	1, 2, 3, 4, 5
BFP	2	ZURN	350ADA-BF	FIRE PROTECTION SERVICE	6"	1, 2, 3, 4, 5, 6, 7, 8, 9
NOTES:						
1. PROPERLY INSTALL AND SUPPORT PER MANUFACTURER'S INSTRUCTIONS.						
2. PROVIDE APPROPRIATE CLEARANCES IN FRONT AND BACK.						
3. ROUTE DISCHARGE TO APPROPRIATE SANITARY RECEPTOR WITH CODE COMPLIANT AIR GAP.						
4. INCLUDE INTEGRAL FLOOD SENSOR AND REQUIRED CONNECTION KIT TO ALLOW SENSOR TO COMMUNICATE WITH DEVICES THAT RECEIVE AND DELIVER ALARM MESSAGES.						
5. VERIFY ACCEPTANCE OF MODEL WITH AHJ.						
6. VERIFY ACCEPTANCE WITH PREVENTION BUREAU.						
7. ADDITIONAL ACCEPTABLE MANUFACTURERS: WILKINS, CONBRACO.						
8. FIRE PROTECTION CONTRACTOR TO FURNISH FIRE PROTECTION BACKFLOW DEVICE. PLUMBING CONTRACTOR TO INSTALL.						
9. UNIT TO BE FURNISHED WITH BUTTERFLY VALVES WITH INTEGRAL SUPERVISORY SWITCHES.						

ELECTRIC WATER HEATER SCHEDULE														
EQUIP TAG	ABB. NO.	LOCATION	TYPE	MANUFACTURER	MODEL NO.	CAPACITY (GALLONS)	COL. KW RATING	KW OUTPUT	BTU/H OUTPUT	ELECTRICAL VPH	AMPS	GPH RECOVERY AT 100°F RISE	OPERATIONAL WEIGHT (LBS.)	NOTES
EW	1	WATER SERVICE ROOM	ELECTRIC	A O SMITH	DRE-52	50	12.3	12.3	41,880	240V/1PH	51	50	710	1, 2, 3, 4
NOTES: 1. PROVIDE 4" CONCRETE PAD TO MOUNT WATER HEATER ON. 2. PROVIDE CODE COMPLIANT SAFETY DEVICES, VALVE LOCATION, AND DISCHARGE PIPING OF ANY SAFETY DEVICE SHALL BE IN PROXIMITY TO REQUIRED FLOOR DRAIN OR APPROVED RECEPTOR. 3. PROVIDE THERMAL EXPANSION TANK IN THE COLD WATER SUPPLY FOR WATER HEATER PLANT WITH NO VALVES OR OTHER DEVICES LOCATED BETWEEN THE EXPANSION TANK AND THE HEATER. SEE EXPANSION TANK SCHEDULE. 4. PROVIDE WITH STANDARD WARRANTY.														

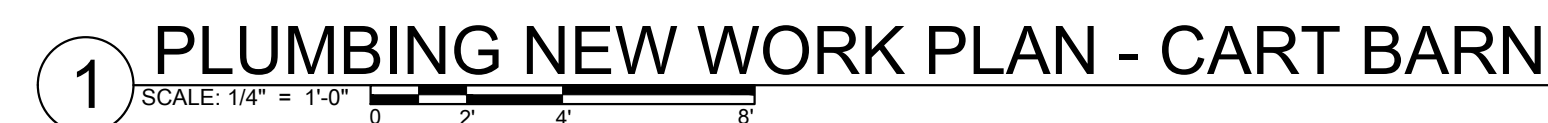
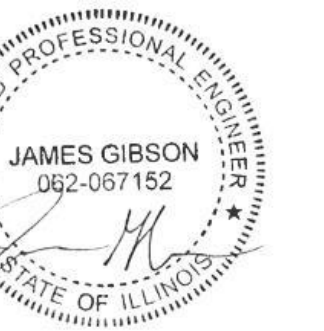
PUMP (HCP)														
EQUIP. TAG			GENERAL			PERFORMANCE			ELECTRICAL				NOTES	
ABB.	NO.	SERVICE	LOCATION	MFR	MODEL	TYPE	GPM	HEAD FT. (W.G.)	RPM	F.L. AMPS	VOLTS	PHASE		RPM
HCP	1	HOT WATER RETURN	LOCATION ROOM	BELL & GOSSETT	NBF-25	INLINE	3	10	2,890	1.10	120	1	2,890	1,2,3,4
NOTES: 1. PUMP SHALL BE LEAD-FREE BRONZE CIRCULATOR FOR POTABLE WATER SYSTEMS. 2. PROVIDE AQUA-STAT CONTROL. 3. CONTRACTOR TO INCLUDE TIMER CONTROL. 4. COORDINATE ELECTRICAL POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR.														

THERMOSTATIC MIXING VALVE SCHEDULE						
ABB.	NO.	MANUFACTURER	MODEL NO.	MINIMUM FLOW	FLOW AT 10 PSI	DESCRIPTION
TMV	1	SYMONS	8-210-CK	0.25 GPM	2.05 GPM	MIXING VALVE WITH INTEGRAL CHECKS (ASSE 10701017 AND A112.18.1 CERTIFIED); PROVIDE THERMOSTATIC MIXING VALVE FOR EACH FIXTURE AS INDICATED ON PLANS AND/OR RISER DIAGRAM. PROVIDE ACCESS TO DEVICE.

10-06-2023 ISSUED FOR BID AND PERMIT

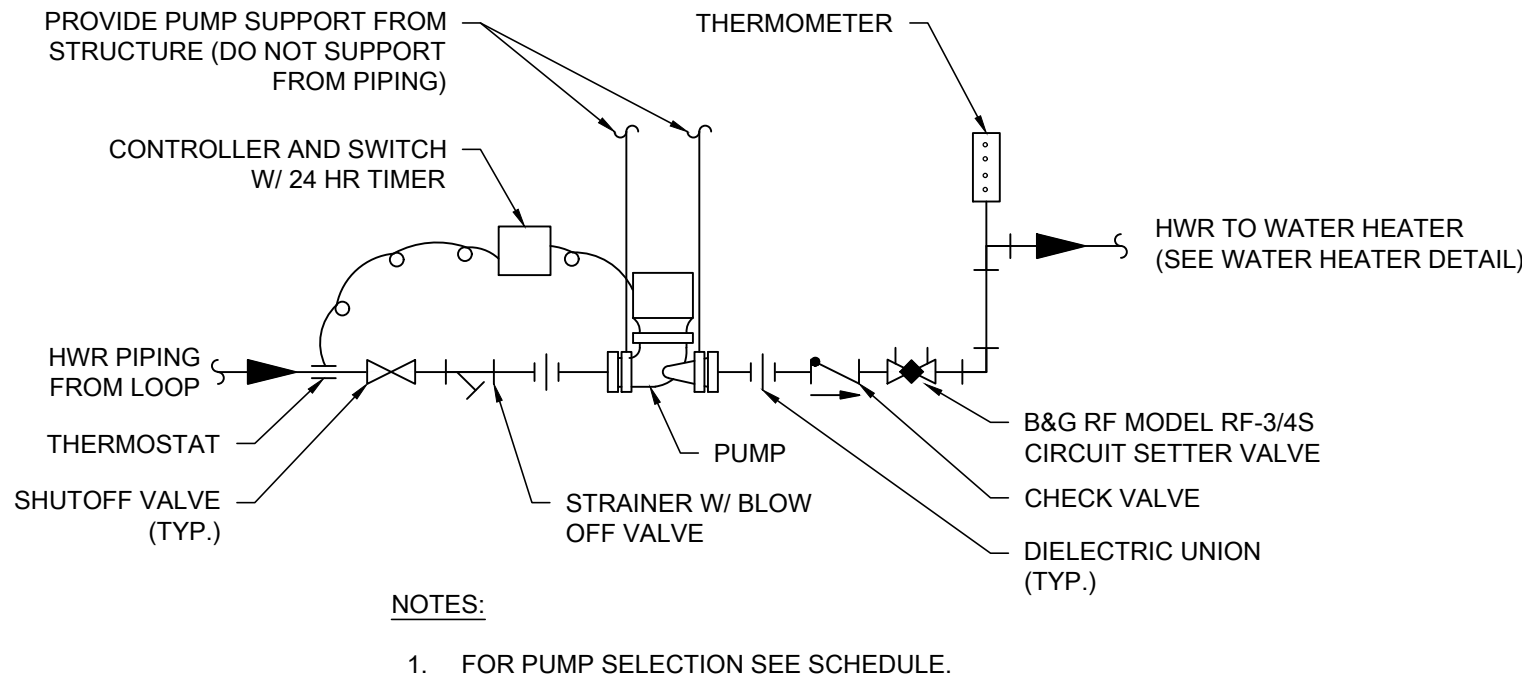
PLUMBING SYMBOLS,
ABBREVIATIONS, AND
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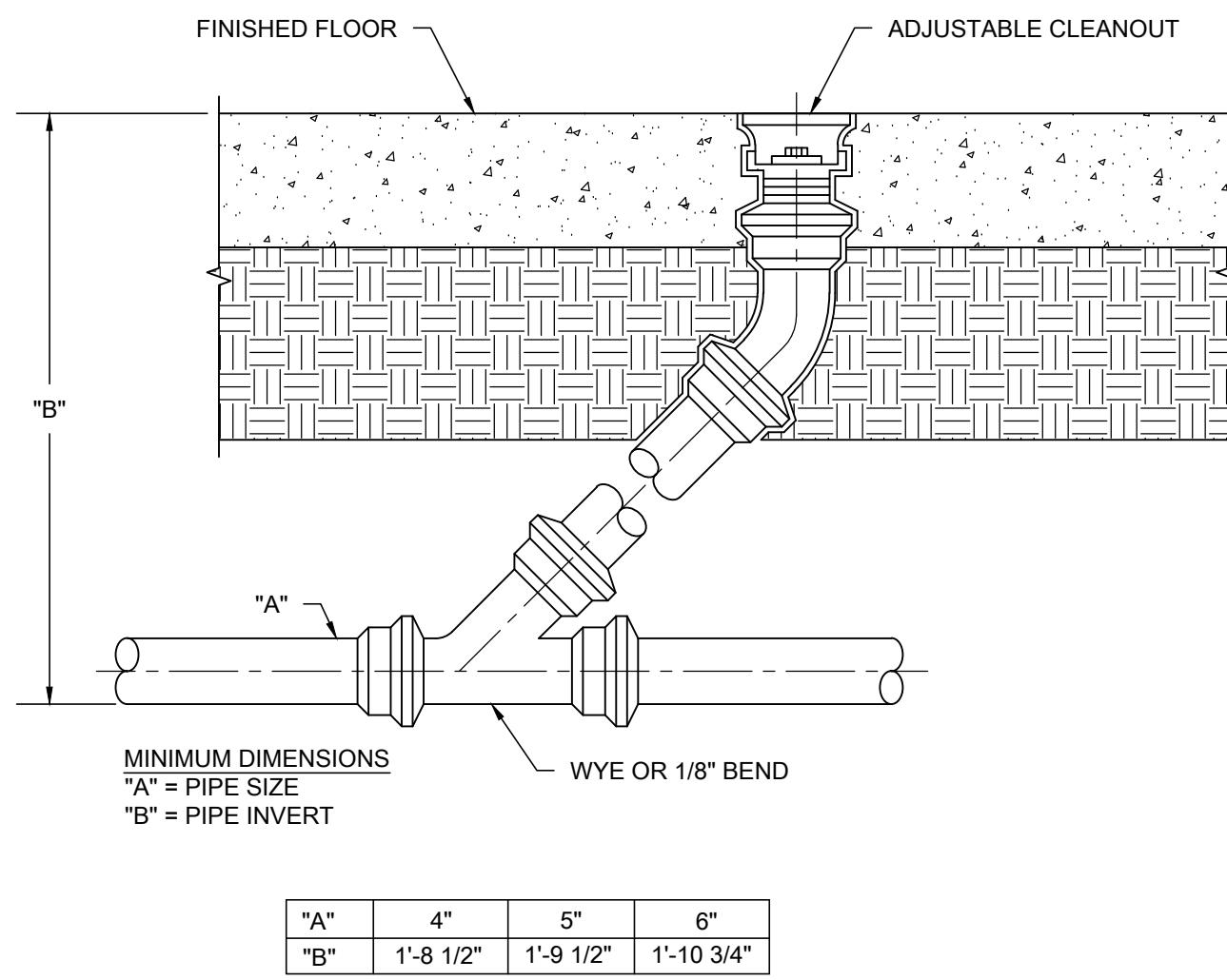
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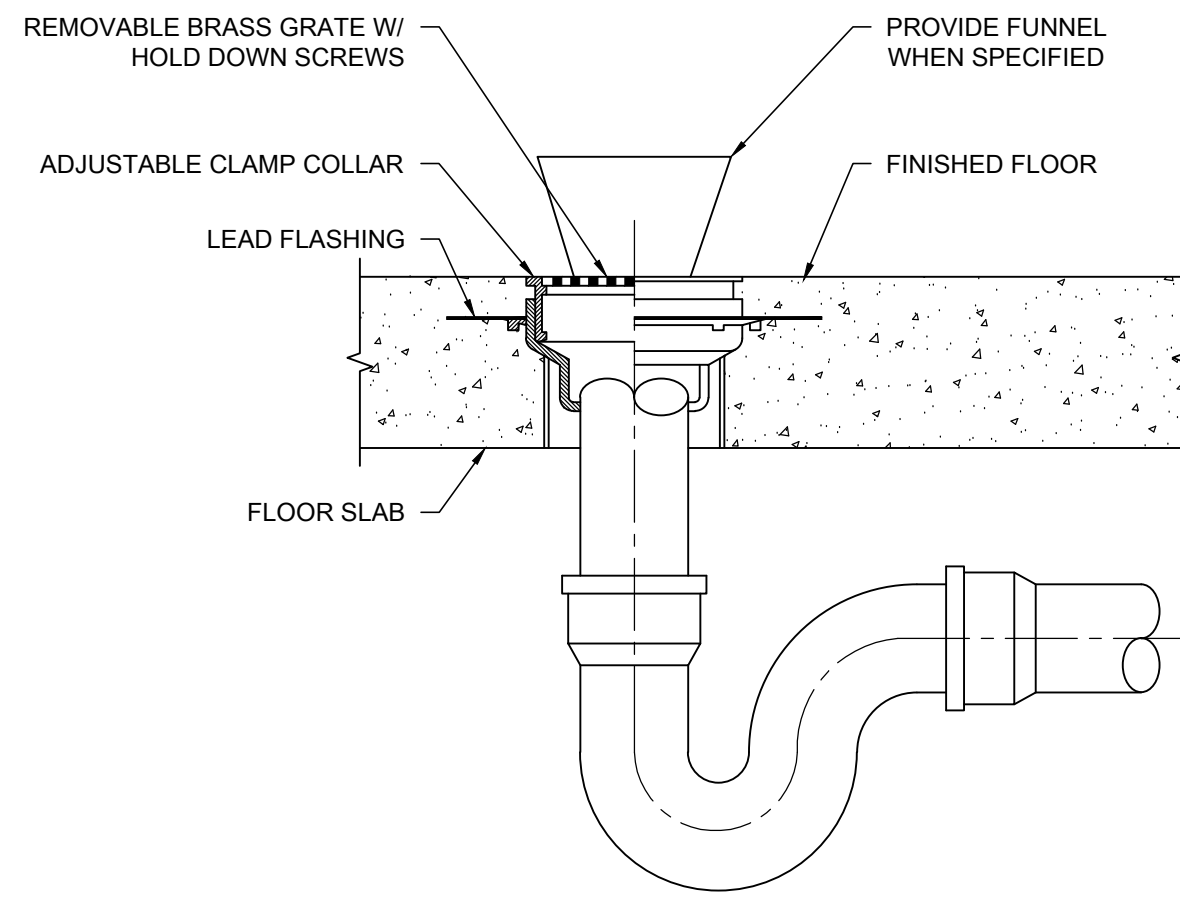
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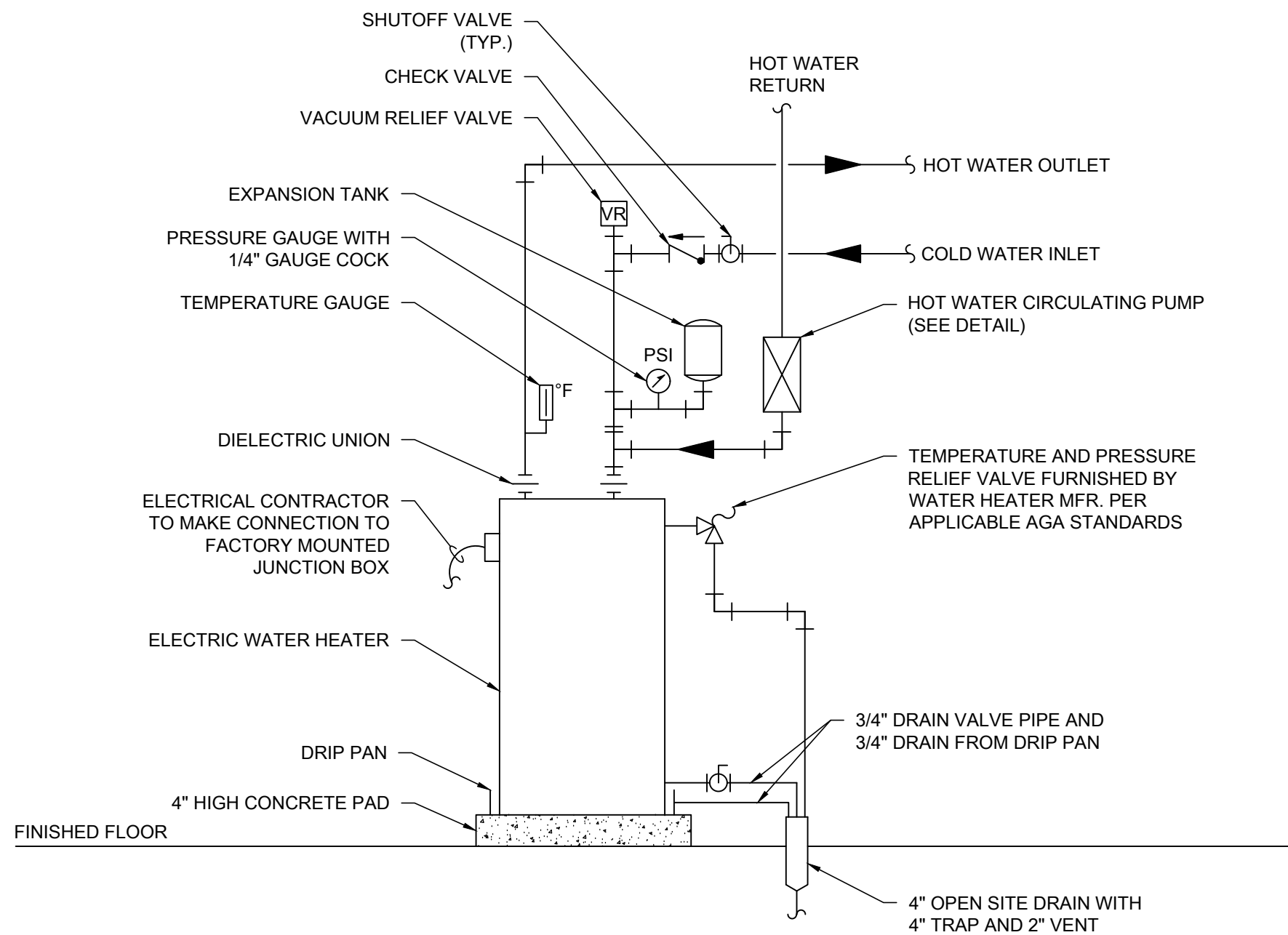
1 HOT WATER RECIRCULATING PUMP DETAIL
SCALE: NO SCALE



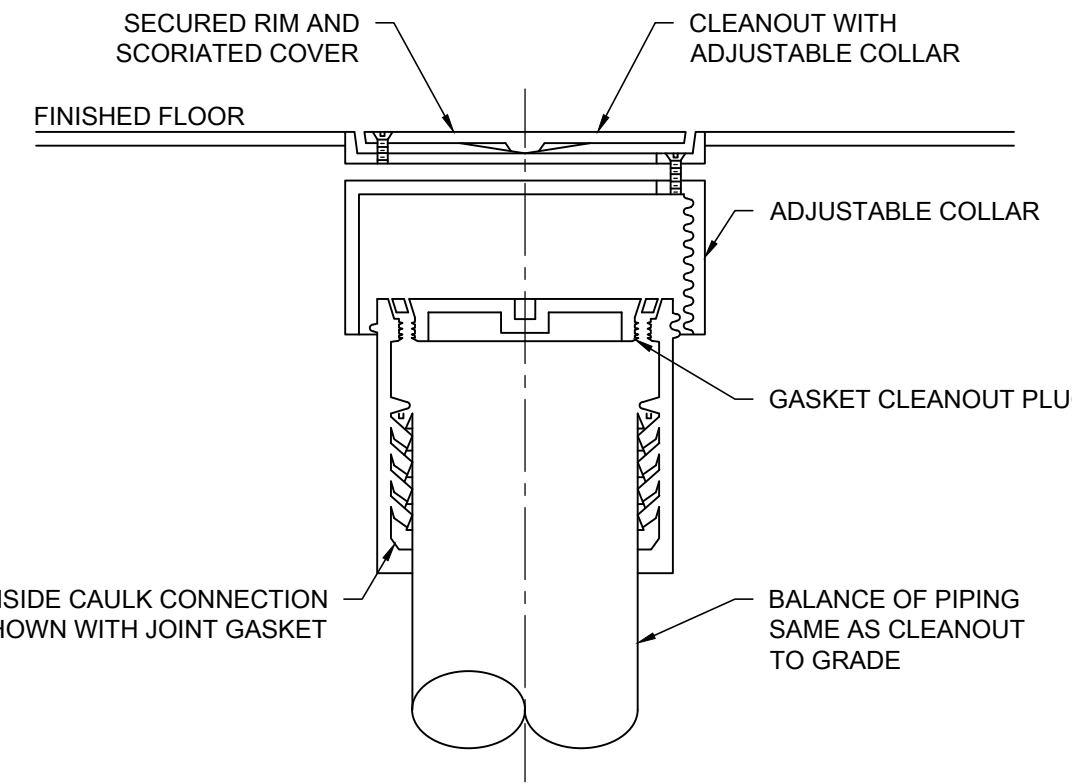
2 CLEANOUT TO FINISHED FLOOR DETAIL
SCALE: NO SCALE



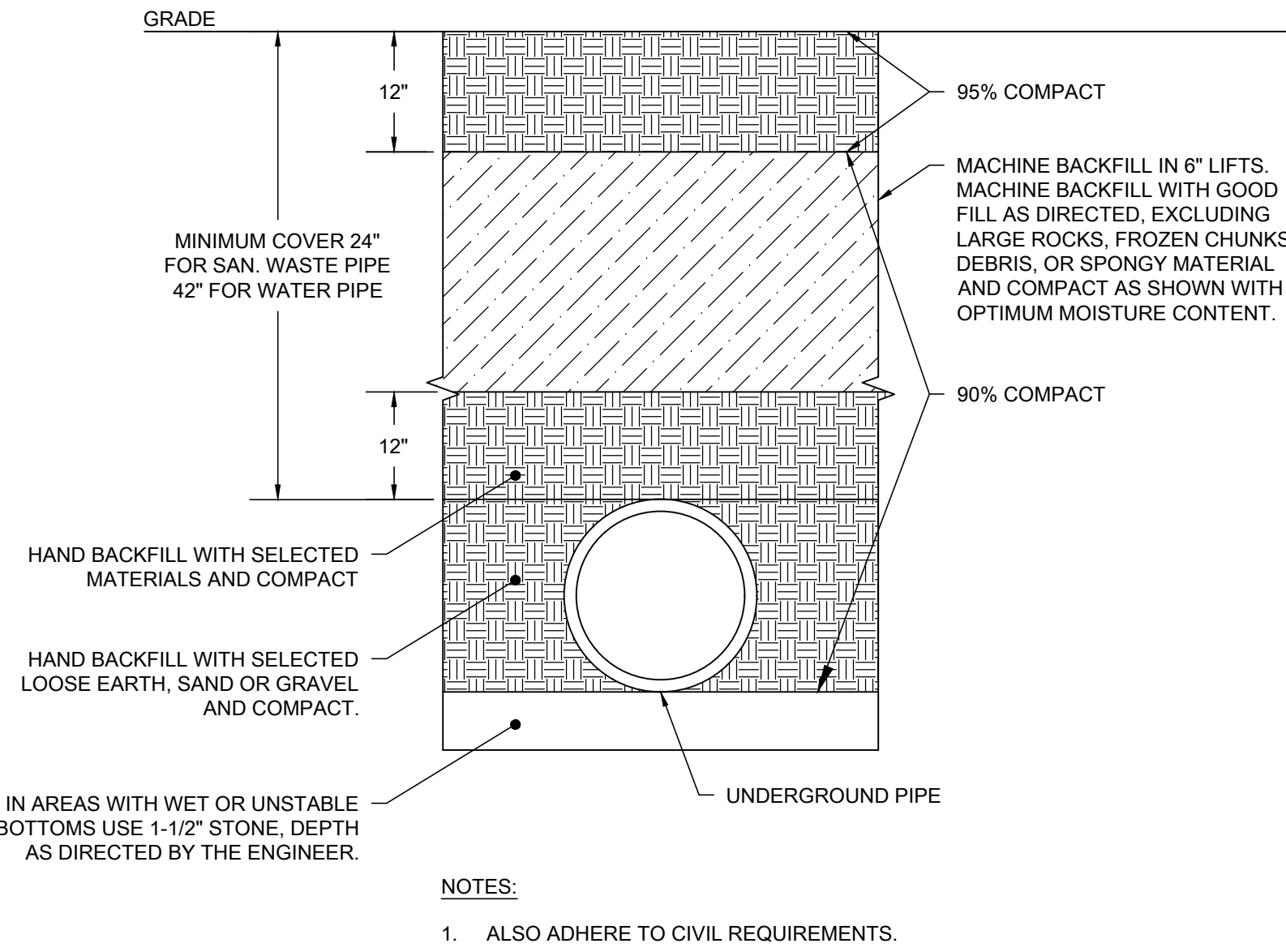
3 FLOOR DRAIN DETAIL
SCALE: NO SCALE



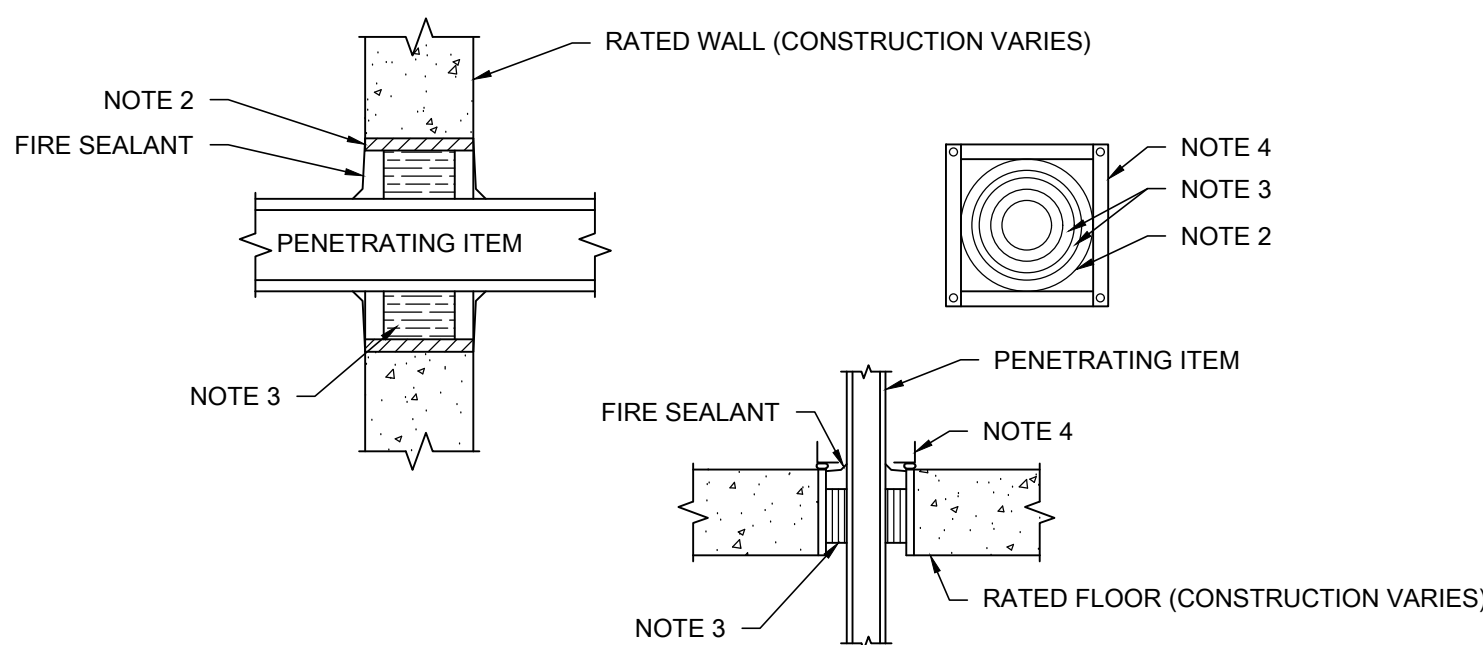
4 ELECTRIC WATER HEATER DETAIL
SCALE: NO SCALE



5 FLOOR CLEANOUT DETAIL
SCALE: NO SCALE

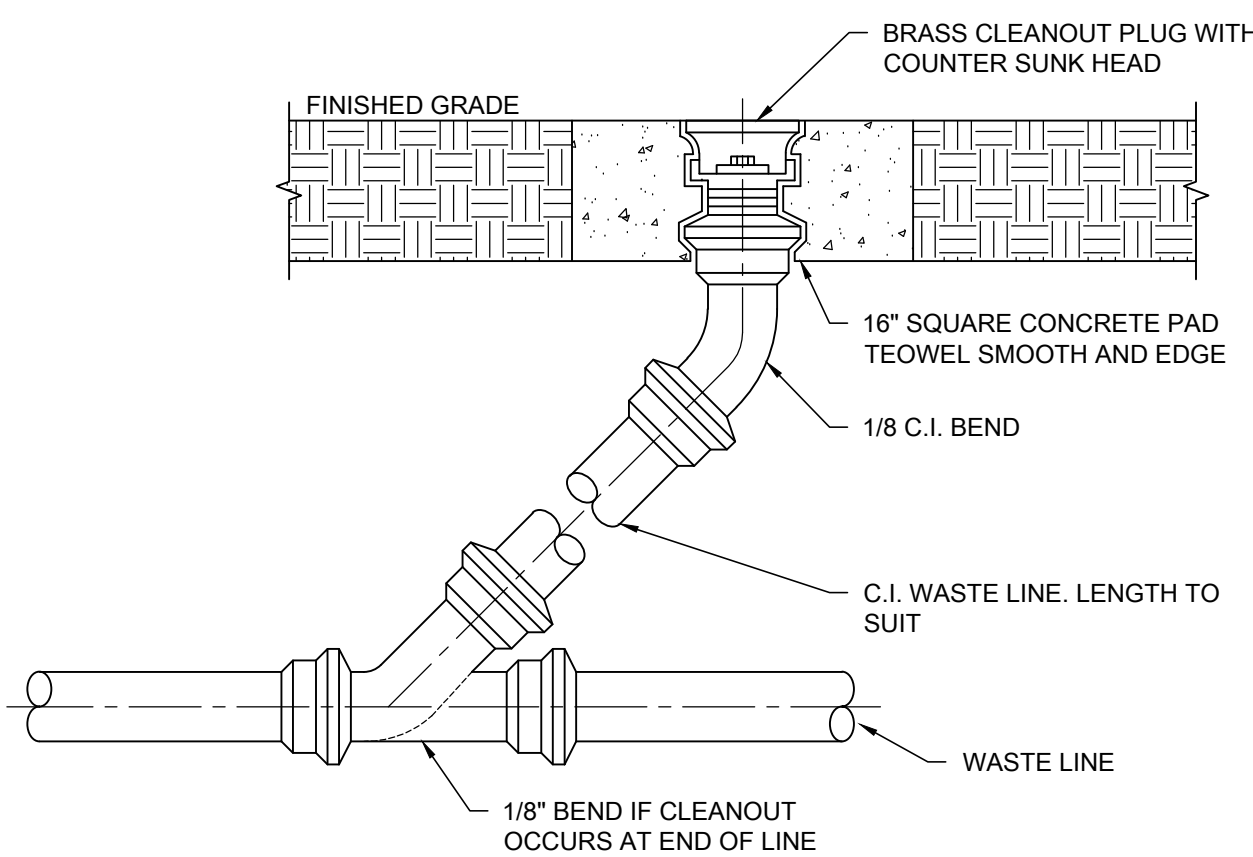


6 PIPE TRENCH DETAIL
SCALE: NO SCALE

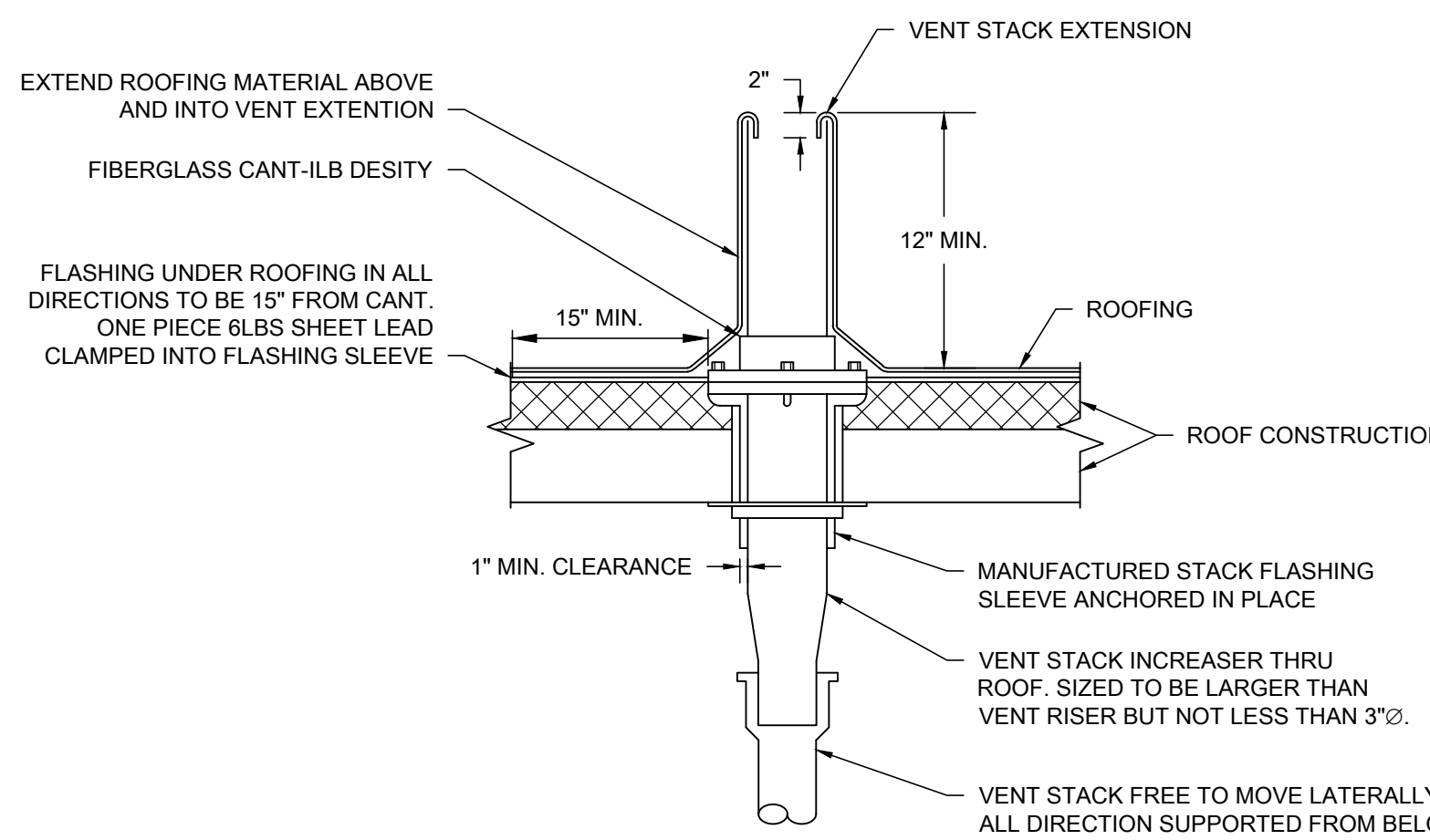


- NOTES:
- THIS DETAIL APPLIES TO ALL ITEMS PENETRATING WALLS OR FLOORS. THE INTENT IS TO MAINTAIN THE FIRE RATING AND TO ALLOW LONGITUDINAL MOVEMENT.
 - SCHEDULE 5 PIPE SLEEVE EMBEDDED IN WALL OR FLOOR, OR SMOOTH CORE DRILL. EACH CONTRACTOR FURNISHES SLEEVE, COORDINATES SLEEVE LOCATIONS AND DEBURS SLEEVE. THE GENERAL CONTRACTOR (GC) SHALL INSTALL SLEEVE. SLEEVE SIZE SHALL ALLOW ANNULAR SPACE REQUIRED BY THE SELECTED FIRESTOP SYSTEM.
 - INSTALL BACKING MATERIAL SUCH AS MINERAL WOOL SAFING, AS REQUIRED FOR FIRESTOP SYSTEM. INSTALL IN ACCORDANCE WITH FIRESTOP SYSTEM APPLICATION LISTING. SECURE TO WALL OR FLOOR TO ALLOW LONGITUDINAL MOVEMENT OF PENETRATING ITEM WITHOUT MOVEMENT OF FIRE BARRIER.
 - WATER-TIGHT WELDED 1"x1" 20 GAUGE MINIMUM GALVANIZED SHEET METAL ANGLE FRAME, BY CONTRACTOR IN EQUIPMENT ROOMS FOR WATER STOP. PLACE A BEAD OF WATERPROOF SEALANT BETWEEN FLOOR AND BOTTOM OF ANGLE FRAME. SECURE TO FLOOR WITH MASONRY ANCHORS IN CORNERS AND ON 12" MAXIMUM CENTERS. MULTIPLE PENETRATING ITEMS MAY BE ENCLOSED IN ONE FRAME.
 - RESULTANT ASSEMBLY TO MAINTAIN APPLICABLE UL RATING.

7 PIPE PENETRATION DETAIL
SCALE: NO SCALE

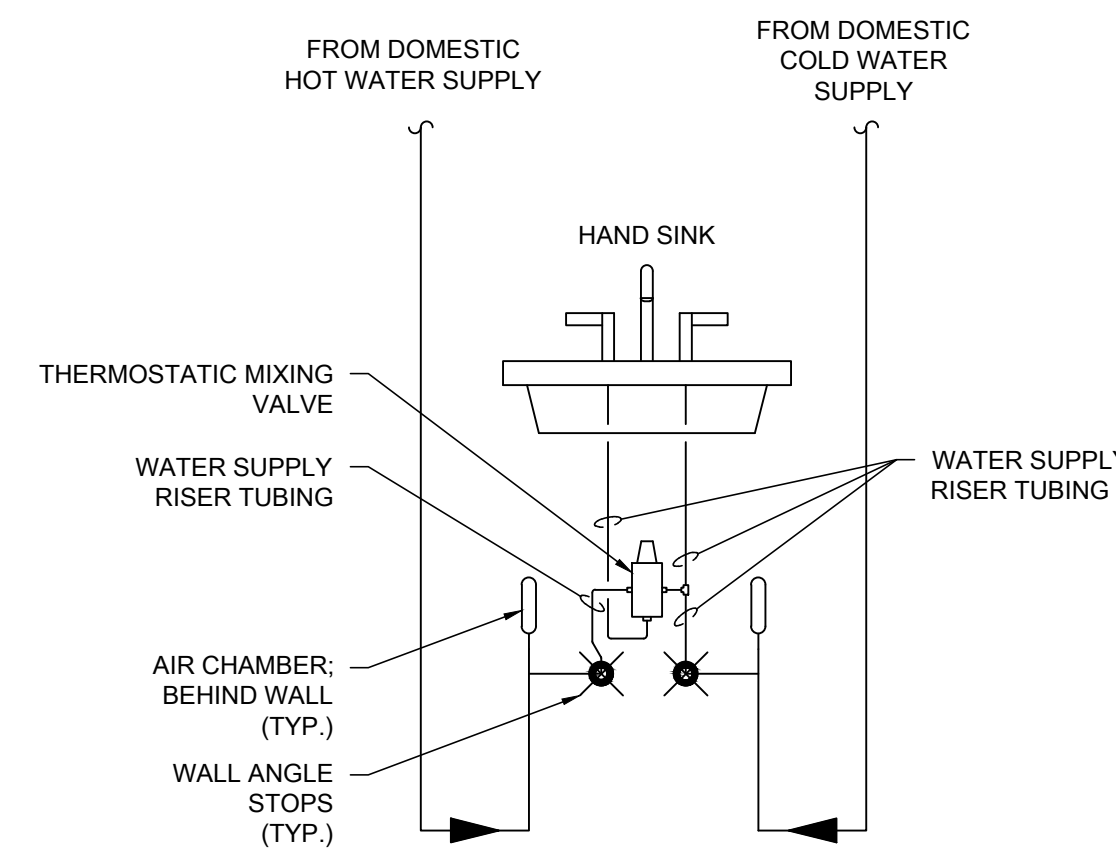


8 CLEANOUT TO GRADE DETAIL
SCALE: NO SCALE



- NOTES:
- VENT STACK OUTLET TO BE 10 FT. (MIN.) FROM ANY WALL OR STRUCTURE OR 3 FT. ABOVE STRUCTURE

9 VENT THRU ROOF DETAIL
SCALE: NO SCALE



10 THERMOSTATIC MIXING VALVE DETAIL
SCALE: NO SCALE

REPLACEMENT CART BARN



PRESTWICK
COUNTRY
CLUB

601 PRESTWICK DR. FRANKFURT, IL 60423



I. GENERAL NOTES

- A. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE IN CONFORMANCE WITH ALL GOVERNING NATIONAL, STATE, AND LOCAL CODES HAVING JURISDICTION.
- B. CONTRACTOR SHALL REVIEW THE ENTIRE SET OF CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL ARCHITECTURAL, CIVIL, SITE, LANDSCAPING, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS, AS WELL AS ALL SPECIFICATIONS AND INSTRUCTIONS TO BIDDERS. THIS CONTRACTOR SHALL VISIT THE SITE AND MAKE A DETAILED INSPECTION OF THE SPECIFIED WORK TO DEVELOP KNOWLEDGE OF ALL CONDITIONS PERTINENT TO THE COMPLETION OF HIS WORK. THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK PERFORMED BY OTHER TRADES AND/OR CONTRACTORS, AND SHALL MAKE SUCH FIELD ADJUSTMENTS AS ARE REQUIRED TO ACCOMMODATE SUCH WORK. THE ABOVE SHALL BE INCLUDED IN THE SCOPE OF WORK AT NO ADDITIONAL COST TO OWNER.
- C. SHOULD CONTRACTOR FIND DISCREPANCIES IN, OR OMISSIONS FROM, THE DRAWINGS, SPECIFICATIONS, OR OTHER CONTRACT DOCUMENTS, OR DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THOSE INDICATED FOR VIEWING DISTANCES UP TO 72 INCHES, AND PROPORTIONATELY LARGER WORK, AND THAT OF OTHER TRADES, OR BE IN DOUBT AS TO THE MEANING OF ANY CONTRACT DOCUMENTS, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND THE ENGINEER IN WRITING AND SHALL OBTAIN CLARIFICATION PRIOR TO SUBMITTING ANY BID. LACK OF SUCH NOTIFICATION SHALL BE CONSTRUED AS CONTRACTOR'S REPRESENTATION THAT NO DISCREPANCIES OR CONFLICTS EXIST. ADDITIONAL COMPENSATION SHALL NOT BE GRANTED AFTER AWARD OF CONTRACT FOR ANY WORK REQUIRED TO COMPLY WITH THIS REQUIREMENT.

- D. THE DRAWINGS INDICATE DIAGRAMMATICALLY THE INTENT, REQUIREMENTS FOR, AND LOCATION OF THE WORK INCLUDED UNDER THIS CONTRACT. ALL WORK REQUIRED TO AFFECT THE INDICATED DESIGN, INCLUDING DETAILS NOT SHOWN BUT WHICH ARE NECESSARY TO COMPLY WITH A REQUIREMENT BY A KNOWLEDGEABLE TRADESMAN, BUILDING ENGINEER, OR TECHNICIAN, SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

- E. IT IS THE INTENT OF THESE DOCUMENTS THAT THE CONTRACTOR PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, AND TOOLS FOR THE COMPLETE INSTALLATION OF ALL WORK SHOWN ON THE PLANS AND/OR DESCRIBED HEREIN, INCLUDING ALL DEVICES, CONTROLS, AND APPURTENANCES REQUIRED TO SET, DRAIN PANS OR DISCHARGE SLABS, UNLESS OTHERWISE NOTED.
- F. CONTRACTOR SHALL VERIFY ALL MOUNTING, ARRANGEMENTS, HEIGHTS, AND LOCATIONS PRIOR TO ROUGH-IN. ANY MENTION OF A SPECIFIC MOUNTING ARRANGEMENT, WEIGHT, OR LOCATION SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO VERIFY SPECIFIC REQUIREMENTS AND BASE HIS WORK ON THEM. THE SAME WORK SHALL BE SUBJECT TO INFORMATION TO INFORMATION FURNISHED BY THIS CONTRACTOR TO HIS SUBCONTRACTORS OR TO OTHER CONTRACTORS EMPLOYED BY THE OWNER ON THIS PROJECT. THIS CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE FOR ANY CHANGE ORDERS NECESSITATED BY INACCURATE OR INCORRECT INFORMATION FURNISHED TO OTHER CONTRACTORS. NO ADDITIONS TO THE CONTRACT AMOUNT WILL BE PERMITTED FOR ITEMS INSTALLED IN WRONG LOCATIONS OR IN CONFLICT WITH OTHER WORK.

- G. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING FOR AND OBTAINING ALL APPLICABLE PERMITS. THIS CONTRACTOR SHALL PAY ALL PERMIT FEES, PLAN REVIEW FEES, LICENSE FEES, AND INSPECTIONS APPLICABLE TO HIS WORK, AND ALL COSTS INCURRED IN HIS BID. UNLESS OTHERWISE NOTED, THIS CONTRACTOR SHALL ALSO INCLUDE IN HIS BID ALL FEES ASSOCIATED WITH THE SERVICES OF A PERMIT EXPEDITER AS MAY BE REQUIRED TO MEET THE PROJECT SCHEDULE.
- H. CONTRACTOR SHALL ESTABLISH SAFE WORKING PROCEDURES FOR THE PROTECTION OF THE WORKMEN IN ALL PHASES OF WORK AND SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY LAWS, INCLUDING THE REQUIREMENTS OF OSHA. HE SHALL ALSO PROVIDE ALL NECESSARY SIGNS, LIGHTS, AND BARRICADES REQUIRED FOR THE SAFETY OF ALL OTHER PERSONS WHO MIGHT COME IN CONTACT WITH THE CONSTRUCTION BEING PERFORMED UNDER THIS CONTRACT.

- I. ALL PUBLIC AND PRIVATE PROPERTY DAMAGED AS A RESULT OF WORK PERFORMED UNDER THIS CONTRACT SHALL BE REPAIRED AND/OR REPLACED TO MATCH EXISTING CONSTRUCTION BY THIS CONTRACTOR AND TO THE SATISFACTION OF THE OWNER AND AUTHORITIES HAVING JURISDICTION.

- J. CONTRACTOR SHALL MAKE ALL ARRANGEMENTS WITH THE BUILDING OWNERS REPRESENTATIVE REGARDING WORKSITES ACCESS, BUILDING RULES, AND REGULATIONS, INCLUDING WORKING HOURS, REFUSE DISPOSAL, DUMPSTER LOCATION, SECURITY, INTERRUPTIONS OF BUILDING UTILITIES OR FUNCTIONS, OWNERSHIP OF SALVAGED MATERIALS, PARKING, AND ANY OTHER ITEMS DEEMED TO BE OF MUTUAL INTEREST.

- K. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO STORE AND PROTECT FROM DAMAGE ALL EQUIPMENT AND MATERIALS IN A MANNER THAT WILL MAINTAIN AN ORDERLY, CLEAN APPEARANCE. DAMAGED EQUIPMENT AND MATERIALS ARE SUBJECT TO REJECTION BY THE OWNERS REPRESENTATIVE. REPLACEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

- L. PROVIDE ALL HOLES, SLEEVES, CUTTING, PATCHING, AND SEALING FOR INSTALLATION OF THIS WORK. SEALING SHALL CONFORM TO THE FIRE RATING OF ALL BUILDING ASSEMBLIES. ALL EXTERIOR PENETRATIONS SHALL BE MADE WEATHER TIGHT.

- M. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND SCANNING OBSTRUCTIONS/REINFORCEMENTS WHERE PENETRATIONS ARE TO BE MADE. ANY DAMAGE RESULTING FROM REINFORCEMENTS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER.

- N. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATING ACTIVITIES OR UNDERGROUND WORK. RECORD LOCATIONS OF CONTROL COMPONENTS, CONTROL FOR EXCAVATION OF THE AREA ACCORDING TO ALL AUTHORITIES HAVING JURISDICTION.

- O. CONTRACTOR SHALL NOT MODIFY OR REMOVE ANYTHING FOUND TO BE IN THE PATH OF NEW SYSTEMS TO BE INSTALLED WITHOUT PRIOR APPROVAL BY THE ENGINEER.
- P. ALL ROOFING WORK SHALL BE BY OWNER APPROVED ROOFING CONTRACTOR(S) TO MAINTAIN ROOF WARRANTIES. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE ROOFING CONTRACTOR(S) TO ENSURE WEATHER TIGHT CONSTRUCTION AND TIMELY COMPLETION OF ALL WORK.

- Q. THE CONTRACTOR IS RESPONSIBLE FOR THE CONTINUOUS CLEANING OF ALL DUST AND DEBRIS RESULTING FROM THEIR WORK.

- R. CONTRACTOR TO DETERMINE REQUIRED SYSTEM SHUTDOWNS. MAXIMUM DURATION OF SYSTEM SHUTDOWN SHALL BE AT THE DISCRETION OF THE OWNER'S REPRESENTATIVE. SHUTDOWN SHALL BE COORDINATED ON THE JOB SITE WITH THE OWNERS REPRESENTATIVE. CONTRACTOR SHALL PROVIDE A MINIMUM OF ONE (1) WEEK ADVANCE NOTICE OF SYSTEM SHUTDOWNS.

- S. CONTRACTOR AND SUB-CONTRACTORS SHALL BE PROPERLY LICENSED, BONDED, AND INSURED AND CAPABLE OF PERFORMING QUALITY WORKMANSHIP OF THEIR TRADE ON THIS PROJECT.
- T. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, AND SAFETY.

- U. REMOVAL AND RESTORATION OF FINISHED SURFACES AS REQUIRED TO COMPLETE THIS SCOPE OF WORK IS THE RESPONSIBILITY OF THIS CONTRACTOR.

- V. CONTRACTOR SHALL COORDINATE USE OF THE BUILDING ELEVATOR(S) AND DELIVERIES WITH THE OWNER.

- W. MAINTAIN ALL MANUFACTURER RECOMMENDED AND CODE REQUIRED CLEARANCES.

- X. CONTRACTOR SHALL PROVIDE TRAINING TO THE OPERATING STAFF FOR NEW SYSTEMS AND EQUIPMENT. REFER TO OWNER TRAINING SPECIFICATION SECTION FOR ADDITIONAL INFORMATION.

II. GENERAL DEMOLITION NOTES

- A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER. CARE SHALL BE EXERCISED TO MINIMIZE ANY INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION.
- B. ALL DEMOLITION AS CALLED FOR ON THE DEMOLITION DRAWINGS SHALL BE UNDER THIS CONTRACTOR'S WORK.
- C. CONTRACTOR SHALL VISIT THE BUILDING, BEFORE SUBMITTING HIS BID, TO VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS WHICH MAY AFFECT HIS WORK, NOT ALL EXISTING DUCTWORK, PIPING, EQUIPMENT, ETC. MAY BE INDICATED ON DOCUMENTS.
- D. THE INTENT OF THE DEMOLITION IS TO REMOVE THE ITEMS IN THEIR ENTIRETY. THIS INCLUDES ALL ASSOCIATED SUPPORT BASES, ANCHORAGE, HANGERS, CONTROLS INCLUDING WIRING AND CONDUIT EXPOSED IN MECHANICAL ROOMS, PIPING, DUCTWORK, WIRING, ETC. CAP EXISTING SYSTEMS TO REMAIN AT ACTIVE MAINS OR OTHER ACTIVE BRANCH LINES. DEAD END LENGTHS SHALL BE CODE COMPLIANT. LABEL ABANDONED CONTROLS CONDUIT AND WIRE.

- E. BEFORE STARTING ANY DEMOLITION WORK ON EQUIPMENT WHICH HAS AN ELECTRICAL CONNECTION, THE ELECTRICAL CONTRACTOR SHALL DISCONNECT THE POWER AND REMOVE CONDUIT, WIRING, DISCONNECT SWITCHES, AND STARTERS UNDER THIS CONTRACT.
- F. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUOUS CLEANUP THROUGHOUT THE COURSE OF THE DEMOLITION WORK.

- G. ALL EQUIPMENT, MATERIAL, ETC. THAT IS DEMOLISHED SHALL BE REMOVED FROM THE BUILDING SITE BY THIS CONTRACTOR IN A PROPER AND LEGAL MANNER. NO ITEM WHICH IS DEMOLISHED MAY BE REUSED UNLESS SPECIFICALLY NOTED.
- H. ANY CONTROLS HARDWARE OR PROGRAMMING NO LONGER NECESSARY TO ACCOMPLISH THE SEQUENCE OF OPERATIONS SHALL BE DECOMMISSIONED.

- I. ALL DEMOLITION WORK OF THE EXISTING CONTROLS FOR EQUIPMENT SHOWN ON THE DRAWINGS TO BE DEMOLISHED SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. THIS CONTRACTOR SHALL MODIFY THE EXISTING CONTROLS AS REQUIRED TO ENSURE OPERATION OF EXISTING EQUIPMENT TO REMAIN. ALL EXISTING CONTROLS SHOWN TO BE DEMOLISHED SHALL BE REMOVED AND TURNED OVER TO THE OWNER.

- J. SHOULD CONDITIONS NECESSITATE ANY REARRANGEMENTS, CONTRACTOR SHALL SUBMIT TO THE ENGINEER SHOP DRAWINGS SHOWING SUCH CHANGES. CONTRACTOR SHALL PROCEED WITH SITE WORK ONLY AFTER RECEIVING SHOP DRAWINGS MARKED REVIEWED.
- K. CONTRACTOR SHALL SUBMIT TO THE ENGINEER MANUFACTURERS' SUBMITTALS FOR ALL EQUIPMENT AND ACCESSORIES. CONTRACTOR SHALL PROCEED WITH PROCUREMENT ONLY AFTER RECEIVING SUBMITTALS MARKED REVIEWED.

- L. CONTRACTOR SHALL SUBMIT TO THE ENGINEER ONE (1) FULL SIZE PAPER COPY AND AN ELECTRONIC FILE OF THE AS-BUILT DRAWINGS. RECORD LOCATIONS OF CONTROL COMPONENTS, INCLUDING CONTROL UNITS, GAUGES, AND SENSORS. REVISE SHOP DRAWINGS TO REFLECT ACTUAL INSTALLATION AND OPERATING SEQUENCES.
- M. CONTRACTOR SHALL SUBMIT TO THE ENGINEER ONE (1) PAPER COPY AND AN ELECTRONIC FILE OF ALL EQUIPMENT INFORMATION, INCLUDING OPERATIONAL AND MAINTENANCE INSTRUCTIONS, PARTS LISTS, SUBMITTALS, AND DESCRIPTIVE LITERATURE.

III. SHOP DRAWINGS, SUBMITTALS, AND AS-BUILTS

- A. CONTRACTOR SHALL SUBMIT TO THE ENGINEER COORDINATED SHOP DRAWINGS. SHOP DRAWINGS SHALL BE 1/4" SCALE AND SHALL INDICATE LAYOUT OF ALL EQUIPMENT, PIPING, GAUGES, SENSORS, GRAPHICS, CONTROLS NETWORK ARCHITECTURE, CONTROL POINTS LIST, OPERATING SEQUENCES, CONTROL DEVICES WITH SETTINGS OR ADJUSTABLE RANGES, ETC. SHOP DRAWINGS SHALL INCLUDE ALL PIPE SIZES, PIPE SLOPES, CAPACITIES, ELEVATIONS, CLEANOUT LOCATIONS, VALVE LOCATIONS, DRAIN DOWN LOCATIONS, ACCESS PANEL LOCATIONS, FIXTURES, DRAINS, UNDERGROUND COMPONENTS, ETC. CONTRACTOR SHALL PROCEED WITH SITE WORK ONLY AFTER RECEIVING SHOP DRAWINGS MARKED REVIEWED.
- B. SHOULD CONDITIONS NECESSITATE ANY REARRANGEMENTS, CONTRACTOR SHALL SUBMIT TO THE ENGINEER SHOP DRAWINGS SHOWING SUCH CHANGES. CONTRACTOR SHALL PROCEED WITH SITE WORK ONLY AFTER RECEIVING SHOP DRAWINGS MARKED REVIEWED.
- C. CONTRACTOR SHALL SUBMIT TO THE ENGINEER MANUFACTURERS' SUBMITTALS FOR ALL EQUIPMENT AND ACCESSORIES. CONTRACTOR SHALL PROCEED WITH PROCUREMENT ONLY AFTER RECEIVING SUBMITTALS MARKED REVIEWED.
- D. CONTRACTOR SHALL SUBMIT TO THE ENGINEER ONE (1) FULL SIZE PAPER COPY AND AN ELECTRONIC FILE OF THE AS-BUILT DRAWINGS. RECORD LOCATIONS OF CONTROL COMPONENTS, INCLUDING CONTROL UNITS, GAUGES, AND SENSORS. REVISE SHOP DRAWINGS TO REFLECT ACTUAL INSTALLATION AND OPERATING SEQUENCES.
- E. CONTRACTOR SHALL SUBMIT TO THE ENGINEER ONE (1) PAPER COPY AND AN ELECTRONIC FILE OF ALL EQUIPMENT INFORMATION, INCLUDING OPERATIONAL AND MAINTENANCE INSTRUCTIONS, PARTS LISTS, SUBMITTALS, AND DESCRIPTIVE LITERATURE.

IV. MATERIALS AND EQUIPMENT

- A. ALL MATERIALS AND EQUIPMENT INSTALLED UNDER THIS CONTRACT SHALL BE NEW, UNLESS OTHERWISE STATED IN THESE CONTRACT DOCUMENTS, AND FREE FROM DEFECTS.
- B. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS.
- C. CONTRACTOR IS REQUIRED TO REVIEW ALL DRAWINGS, MATERIALS AND EQUIPMENT SHOWN ON THE SCHEDULES AND DETAILS SHALL BE INCLUDED IN BASE BID. NO MATERIAL OR EQUIPMENT SUBSTITUTIONS WILL BE CONSIDERED AFTER THE AWARD OF CONTRACT. IF CONTRACTOR DESIRES TO SUBSTITUTE MATERIAL OR EQUIPMENT, CONTRACTOR MUST SUBMIT AS ALTERNATE WITH HIS BASE BID A LIST OF SUCH ITEMS INDICATING ITEM, MANUFACTURER, MODEL NUMBER, AND AMOUNT TO BE ADDED TO OR DEDUCTED FROM THE BASE BID. EACH SUCH MATERIAL OR EQUIPMENT SUBSTITUTION ITEM SHALL BE LISTED SEPARATELY.
- D. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING THE PURCHASE, DELIVERY, RECEIVING, UNLOADING, UNCRATING, STORING, SETTING IN PLACE, AND PROTECTING OF ALL NEW EQUIPMENT FURNISHED BY THE CONTRACTOR OR PROVIDED BY THE OWNER, AND SHALL SECURE SUCH EQUIPMENT FROM DAMAGE UNTIL TIME OF FINAL ACCEPTANCE BY THE OWNER.
- E. CONTRACTOR SHALL FURNISH AND INSTALL ALL STRUCTURE, SLEEVES, SHIMS, ETC. REQUIRED TO LEVEL AND SUPPORT EQUIPMENT AND MATERIALS. INSTALL NONMETALLIC NON-SHRINK GROUT FOR LEVELING EQUIPMENT BASES.

- F. CONTRACTOR SHALL VERIFY ALL PHYSICAL, ELECTRICAL, INGRESS, ETC. REQUIREMENTS FOR ALL EQUIPMENT PRIOR TO ORDERING.

- G. CONTRACTOR SHALL SUBMIT TO OWNER THE PROPOSED LABELS/IDENTIFICATION PRODUCT FOR EACH PIECE OF EQUIPMENT PRIOR TO ORDERING. EQUIPMENT LABELS/IDENTIFICATION SHALL CONFORM TO THE FOLLOWING:

1. MATERIAL AND THICKNESS: MULTILAYER, MULTICOLOR, PLASTIC LABELS FOR MECHANICAL ENGRAVING, 1/8 INCH THICK, AND HAVING PREDRIILLED HOLES FOR ATTACHMENT HARDWARE.
2. LETTER COLOR: WHITE.
3. BACKGROUND COLOR: BLUE.
4. MAXIMUM TEMPERATURE: ABLE TO WITHSTAND TEMPERATURES UP TO 160 DEG F.
5. MINIMUM LABEL SIZE: LENGTH AND WIDTH VARY FOR REQUIRED LABEL CONTENT, BUT NOT LESS THAN 2-1/2 BY 3/4 INCH.
6. MINIMUM LETTER SIZE: 1/4 INCH FOR NAME OF UNITS. IF VIEWING DISTANCE IS LESS THAN 24 INCHES, MINIMUM LETTER SIZE SHALL BE 1/8 INCH. EQUIPMENT SHALL BE IDENTIFIED BY EITHER IDENTIFICATION LETTERING FOR GREATER VIEWING DISTANCE OR IDENTIFICATION SECONDARY LETTERING TWO-THIRDS TO THREE-FOURTHS THE SIZE OF PRINCIPAL LETTERING.
7. FASTENERS: STAINLESS-STEEL RIVETS OR SELF-TAPPING SCREWS.
8. ADHESIVE: CONTACT-TYPE PERMANENT ADHESIVE, COMPATIBLE WITH LABEL AND WITH SUBSTRATE.

- H. EQUIPMENT DATA, LABELS, AND OTHER IDENTIFICATION SHALL NOT BE OBSTRUCTED.

- I. CONTRACTOR SHALL PROVIDE FILTERS, STRAINER SCREENS, ETC. FOR ALL NEW EQUIPMENT DURING CONSTRUCTION. REPLACE FILTERS, STRAINER SCREENS, ETC. WITH FINAL FILTERS, STRAINER SCREENS, ETC. AT COMPLETION OF PROJECT AND PRIOR TO TEST AND BALANCE.

- J. ALL EQUIPMENT INCLUDING BUT NOT LIMITED TO WATER HEATERS, PUMPS, PRESSURE REDUCING VALVES, ETC. LOCATED ABOVE FINISHED CEILINGS TO BE PROVIDED WITH A REMOVABLE DRAIN PAN. DRAIN PAN DISCHARGE SHALL BE THROUGH AN INDIRECT WASTE PIPE BY MEANS OF AN AIR GAP OR WITH UL508 OVERFLOW SWITCH AND ALARM WHEN MEANS OF WASTE PIPE IS NOT POSSIBLE.

- K. PROVIDE UNIONS OR FLANGES AT ALL PIPING CONNECTIONS TO EQUIPMENT, CONTROL VALVES, PRESSURE REDUCING VALVES, BACK FLOW PREVENTION, ETC. ARRANGE CONNECTIONS SO THAT EQUIPMENT SERVED MAY BE REMOVED WITHOUT DISTURBING PIPING OR VALVES.

V. OWNER TRAINING

- A. THE CONTRACTOR SHALL PROVIDE DEMONSTRATION AND TRAINING TO OWNER'S PERSONNEL FOR NEW SYSTEMS AND EQUIPMENT. THE COSTS ASSOCIATED WITH THIS SHALL BE INCLUDED AS PART OF THE BASE BID UNLESS OTHERWISE NOTED.
- B. ALL EQUIPMENT MANUALS, INSTALLATION OPERATION AND MAINTENANCE MANUALS, ETC. SHALL BE TURNED OVER TO THE OWNER PRIOR TO COMMENCING OWNER DEMONSTRATION AND TRAINING. REFER TO PROJECT CLOSEOUT DOCUMENT REQUIREMENTS FOR ADDITIONAL INFORMATION.
- C. CONTRACTOR SHALL PROVIDE A MINIMUM OF 4 HOURS OF TRAINING OVER 1 SEPARATE VISITS ON SITE FOR OWNER PERSONNEL.
- D. OWNER TRAINING SHALL BE CONDUCTED AFTER FUNCTIONAL TESTING IS COMPLETE AS APPROVED BY THE ENGINEER AND WHERE APPLICABLE COMMISSIONING AUTHORITY.
- E. COORDINATE TRAINING WITH OWNER, ENGINEER & COMMISSIONING AUTHORITY.

VI. PIPING - POTABLE

A. GENERAL

1. COMPLY WITH PROVISIONS OF COPPER DEVELOPMENT ASSOCIATIONS' COPPER TUBE HANDBOOK. ALL POTABLE WATER PIPING AND SYSTEM COMPONENTS SHALL COMPLY WITH NSF/ANSI 61 AND NSF/ANSI 372.
2. SYSTEM COMPONENTS WHICH REQUIRE OBSERVATION, OPERATION, OR MAINTENANCE, SUCH AS VALVES, GAUGES, STRAINER SCREENS, UNIONS, ETC. SHALL BE READILY ACCESSIBLE. THEY SHALL NOT BE CONCEALED IN CHASES OR ABOVE CEILINGS WITHOUT PROVISION FOR ACCESS. VALVES WHICH ARE NOT ACCESSIBLE FROM NORMAL WORKING LEVEL SHALL BE INSTALLED WITH CHAIN WHEELS OR EXTENSIONS.
3. INSTALL PIPING TO PERMIT COMPLETE SYSTEM DRAINING.
4. INSTALL INTERIOR AND EXTERIOR PIPING AT RIGHT ANGLES OR PARALLEL TO BUILDING WALLS. DIAGONAL RUNS ARE PROHIBITED, EXCEPT WHERE INDICATED OR APPROVED PRIOR TO INSTALLATION. RUN PIPING IN WALL CHASES, PIPE SHAFTS, HUNG CEILINGS, RECESSES, ETC. SHALL BE ACCESSIBLE. DO NOT RUN SERVICE PIPING IN FLOOR SLABS UNLESS SPECIFICALLY NOTED ON DRAWINGS. PIPING SHALL NOT BE COVERED OR CLOSED UNTIL TESTING IS COMPLETED.
5. INSTALL PIPING TO ALLOW APPLICATION OF INSULATION PLUS 1-INCH CLEARANCE AROUND INSULATION.
6. MECHANICAL FITTINGS WILL NOT BE ALLOWED. MECHANICAL FITTINGS MAY BE BID AS AN ALTERNATE WHERE EXPOSED AND ACCESSIBLE IN MECHANICAL ROOMS.

B. UNDERGROUND PIPING

1. 2 INCH NPS AND SMALLER: TYPE "K" PRE-INSULATED SOFT COPPER TUBING, NO JOINTS, ENCLOSED IN PVC SLEEVE WHICH ALLOWS FOR A MINIMUM OF 1" AIR GAP AROUND THE COPPER TUBE AND CONFORMING TO ASTM A 674.
2. 2 INCH NPS AND SMALLER: COPPER PIPING, TYPE K, WROUGHT COPPER, SOLDER JOINT PRESSURE FITTINGS, AND SOLDERED JOINTS.
3. 3 INCH NPS (DNB) AND LARGER: CLASS B CEMENT LINED DUCTILE IRON, MECHANICAL JOINT, DUCTILE-IRON FITTINGS, AND RESTRAINED, GASKETED JOINTS.

C. ABOVE GROUND PIPING

1. ALL PIPE SIZES: ALL PIPING SHALL BE TYPE 1, HARD COPPER PIPING WITH 95% SOLDER JOINT FITTINGS.

D. INSULATION

1. FURNISH AND INSTALL ALL NEW PIPING, VALVES, FITTINGS, ETC. AND EXISTING PIPING AS INDICATED ON THE DOCUMENTS AND THE FOLLOWING: FIBERGLASS MOLDED PIPE INSULATION APPLIED WITH AN ALL-SERVICE VAPOR BARRIER JACKET, STAPLED, WITH THE SEAMS, JOINTS, AND STAPLES PAINTED WITH VAPOR-PROOF MASTIC. ALL INSULATION MATERIALS SHALL COMPLY WITH CODE REQUIRED FLAME SPREAD RATINGS.
2. ALL DAMAGED INSULATION RESULTING FROM IMPLEMENTATION OF THIS PROJECT ON EXISTING PIPING TO REMAIN SHALL BE REPLACED.
3. MINIMUM INSULATION THICKNESS SHALL BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE AND ALL APPLICABLE CODES:
 - a. DOMESTIC COLD WATER PIPING: 1"
 - b. DOMESTIC HOT WATER PIPING (1.25 NPS AND SMALLER): 1"
 - c. DOMESTIC HOT WATER PIPING (1.5 NPS AND LARGER): 1-1/2"
 - d. TEPU WATER PIPING: 1"
4. VAPOR BARRIER JACKET SHALL HAVE FACTORY APPLIED VAPOR RETARDER COMPOSED OF A WHITE MATT FACING REINFORCED WITH GLASS FIBER YARN AND BONDED TO ALUMINIZED FILM. LAP ADHESIVE SHALL BE COMPATIBLE WITH INSULATION.
5. FURNISH AND INSTALL PVC COVERS FOR ALL VALVES AND ALL PIPE FITTINGS.
6. FURNISH AND INSTALL ALL EXTERIOR INSULATED PIPING WITH 3M VENTUREGLAD PLUS 1579 SERIES' MULTI-LAYERED ALUMINUM LAMINATE, SELF ADHESIVE, JACKETING SYSTEM. PROVIDE WITH EMBOSSED FINISH AND COLOR SELECTED BY OWNER.
7. ALL INSULATION SHALL BE APPLIED AFTER SUCCESSFUL PRESSURE TESTING OF PIPE.

E. VALVES

1. VALVES SHALL BE INSTALLED AS A MEANS OF ISOLATION FOR ALL EQUIPMENT, INDIVIDUAL FIXTURES, GROUPING OF FIXTURES, SEPARATE ROOMS, GROUPING OF ROOMS, PORTIONS OF THE SYSTEM AND RISERS. EACH INDIVIDUAL BATHROOM AND KITCHEN SHALL HAVE VALVES AS A MEANS OF ISOLATION. ALL REQUIRED VALVES ARE NOT SHOWN ON FLOOR PLANS OR RISER DIAGRAMS.
2. LOCATIONS WHERE NEW PIPING IS CONNECTED TO EXISTING SHALL BE PROVIDED WITH A NEW VALVE. PIPING THAT IS UNAFFECTED BY THIS PROJECT SHALL BE EXEMPT.
3. MAKE PROVISIONS FOR DRAINING ALL LOW POINTS OF ALL PIPING SYSTEMS WHETHER INDICATED ON THE DRAWINGS OR NOT, USING A BALL VALVE AND THREADED HOSE CONNECTION WITH CAP. DRAINS SHALL NOT BE LESS THAN 1/4".
4. INSTALL ALL VALVES WITH STEMS IN EITHER AN UPRIGHT (PREFERRED) OR HORIZONTAL POSITION. CONTROL VALVES SHALL BE INSTALLED WITH ACTUATOR UPWARD UNLESS NOTED OTHERWISE. OPEN VALVE HANDLE POSITION SHALL BE IN THE DIRECTION OF FLOW.
5. PROVIDE PRESSURE REDUCING VALVES TO NOT EXCEED THE MANUFACTURER RECOMMENDED PRESSURE RATINGS OF EQUIPMENT OR FIXTURE.
6. ISOLATION VALVES SHALL BE MSS SP-61, RATED FOR ZERO LEAKAGE.
7. BALL VALVES (4 NPS AND SMALLER):
 - a. MSS SP-110
 - b. 2 PIECE LEAD-FREE BRASS BODY 6000 WOG RATED, FULL PORT
 - c. LEAD-FREE FORCED BRASS BALL
 - d. MINIMUM 2-1/4" VALVE EXTENSION OR GREATER TO ALLOW OPERATION OF VALVES WITHOUT BREAKING VAPOR SEALS OR DISTURBING INSULATION
 - e. PTFE SEAT AND PACKING
 - f. LEVER HANDLE
 - g. THREADED ENDS
 - h. ACCEPTABLE MANUFACTURERS:
 - APOLLO, NIBCO, MILWAUKEE, NIBCO

8. SWING CHECK VALVE (2 NPS AND SMALLER)
 - a. MSS SP-40
 - b. BRONZE BODY, BRONZE TRIM
 - c. COMPOSITION SWING DISC
 - d. THREADED ENDS
 - e. ACCEPTABLE MANUFACTURERS:
 - APOLLO, NIBCO, MILWAUKEE

12. BALANCING VALVES (3 NPS AND SMALLER)
 - a. BRASS BODY ASTM B864-844, BRASS BALL ASTM B16 C3800
 - b. GLASS AND CARBON FILLED TFE SEAT RINGS
 - c. BRASS WITH EPDM CHECK VALVES FOR READOUT VALVES
 - d. EPDM STEM O-RING
 - e. SHALL BE DESIGNED TO PRESET BALANCE POINTS FOR PROPORTIONAL SYSTEM BALANCE PRIOR TO SYSTEM START UP. VALVES TO HAVE MEMORY STOP FEATURE TO ALLOW VALVE TO BE CLOSED FOR SERVICE AND THEN RE-OPENED TO SET POINT WITHOUT DISTURBING THE BALANCE POSITION.
 - f. THREADED CONNECTION
 - g. MAXIMUM WORKING PRESSURE OF 300 PSIG
 - h. ACCEPTABLE MANUFACTURERS:
 - BELL AND GOSSETT OR EQUAL

F. ACCESSORIES

1. STRAINERS (UP TO AND INCLUDING 3")
 - a. THREADED BRASS BODY
 - b. PATTERN WITH 20 MESH STAINLESS STEEL PERFORATED SCREEN
 - c. ACCEPTABLE MANUFACTURERS:
 - KECKLEY, WATTS, APOLLO, NIBCO

2. THERMOMETERS

- a. SELECT INSTRUMENT RANGE SO THE ORDINARY OPERATING CONDITION IS IN THE MIDDLE AREA OF THE INSTRUMENT SCALE
 - b. STRAIGHT STEM TYPE IN SEPARABLE WELLS
 - c. SWIVEL MOUNTING SET WITH POSITIVE LOCKING DEVICE, TO BE EASILY READ FROM THE FLOOR
 - d. SIZE: 1/2" SCALE
 - e. ACCEPTABLE MANUFACTURERS:
 - WATTS, WEISS
6. AIR VENTS
- a. MANUAL TYPE: 6" OR LESS SHORT VERTICAL SECTIONS OF PIPE WITH ISOLATING BALL VALVE TOP/IRON AIR CHAMBER, WITH 1/8" BRASS NEEDLE VALVE AT TOP OF CHAMBER
 - b. FLOAT TYPE: CAST IRON BODY, CAST IRON COVER, STAINLESS STEEL SEAT AND FLOAT, SUITABLE FOR SYSTEM OPERATING TEMPERATURE AND PRESSURE, WITH ISOLATING BALL VALVE
 - c. ACCEPTABLE MANUFACTURERS:
 - METRAFLUX OR EQUAL

7. REDUCERS

- a. IF A REDUCTION IS REQUIRED AT EQUIPMENT OR PIPING ACCESSORY, THE REDUCER SHALL BE INSTALLED ABUTTING THE INLET AND/OR OUTLET OF THE DEVICE
- b. USE ECCENTRIC REDUCING FITTINGS OR ECCENTRIC REDUCING COUPLINGS WHERE REQUIRED TO PREVENT POCKETING OF AIR AND LIQUID
- c. WHERE ECCENTRIC REDUCERS ARE USED, THE STRAIGHT SIDE SHOULD BE INSTALLED ON TOP FOR PUMP SUCTION AND ON THE BOTTOM FOR ALL OTHER LINES

8. AIR CHAMBERS

- a. PROVIDE MINIMUM 12" LONG AIR CHAMBERS FOR HOT AND COLD WATER CONNECTIONS TO ALL SUPPLY FIXTURES
- b. PROVIDE MINIMUM 24" LONG AIR CHAMBERS AT THE TOP OF ALL HOT AND COLD WATER RISERS

9. WATER HAMMER ARRESTORS

- a. MAINTENANCE FREE PISTON STYLE
- b. NPT SOLID HEX BRASS ADAPTOR CONNECTION
- c. LISTED: PDI W401
- d. ASSE 1010 APPROVED
- e. FACTORY PRE-CHARGED WITH AIR AND PERMANENTLY SEALED
- f. COPPER BODY, POLYPROPYLENE PISTON, EPDM O-RINGS
- g. PROVIDE ACCESS FOR FUTURE REPLACEMENT

10. INSTALL AIR VENTS AT HIGH POINTS IN ALL PIPING AND AS REQUIRED FOR SYSTEM VENTING, AND/OR THE EXPANSION OF THE PIPE REQUIRE. FIXED PIPE SUPPORTS THAT DO NOT ALLOW FOR THE NATURAL MOVEMENT OF PIPES DUE TO EXPANSION ARE NOT ALLOWED UNLESS OTHERWISE NOTED.

11. INSTALL DRAIN VALVES AT LOW POINTS IN PIPING AND AS REQUIRED FOR SYSTEM DRAINAGE. DRAINS SHALL NOT BE LESS THAN 3/4".

12. RELIEF VALVES SHALL BE OF ASME CODE CONSTRUCTION AND MEET OR EXCEED LOCAL CODES AND ORDINANCES.

13. INSTALL UNIONS IN PIPING ADJACENT TO EACH PIECE OF EQUIPMENT HAVING A 4-INCH OR SMALLER PIPE CONNECTION.

14. INSTALL FLANGES IN PIPING ADJACENT TO EACH PIECE OF EQUIPMENT HAVING A 5-INCH OR LARGER PIPE CONNECTION.

15. INSTALL DI-ELECTRIC FITTINGS TO CONNECT PIPING MATERIALS OF DISSIMILAR METALS.

G. PIPE LABELING

1. STENCIL TYPE MARKERS WILL NOT BE PERMITTED. ONLY FACTORY MANUFACTURED MARKERS AS FOLLOWS WILL BE ACCEPTABLE:
 - a. FOR INDOOR USE, UTILIZE ADHESIVE PIPE MARKERS - LARGEST SIZE POSSIBLE GIVEN THE PIPE OR INSULATION OUTER DIAMETER, WITH BOTH ENDS SECURED WITH ARROW TAPE OF MATCHING SIZE AND COLOR SCHEME
 - b. FOR OUTDOOR USE, UTILIZE "STRAP AROUND" TYPE SECURED WITH HEAVY DUTY ZIP TIES.
2. IDENTIFICATION MARKERS SHALL BE PLACED ON ALL EXPOSED AND CONCEALED PIPES AT 20'-0" INTERVALS, AT ALL VALVES AND BRANCHES, AND ON BOTH SIDES OF WALLS WHERE PIPES PASS THROUGH. ARROWS OF SAME COLOR AS IDENTIFICATION MARKERS SHALL ALSO BE PLACED ON PIPES POINTING AWAY FROM MARKER INDICATING DIRECTION OF FLOW.
3. COORDINATE COLOR SCHEME WITH EXISTING PIPING AND SUBMIT TO ENGINEER PRIOR TO ORDERING.
4. VALVE IDENTIFICATION
1. FURNISH AND INSTALL TAGS FOR ALL NEW VALVES.
2. VALVE TAGS SHALL HAVE UNIQUE NUMBERS AND SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO ORDERING.
3. VALVE TAGS SHALL BE BRASS MATERIAL AND SHALL BE FASTENED WITH A STUDY DRAIN.
4. VALVE TAG NUMBERS SHALL BE INDICATED ON THE AS-BUILT DRAWINGS. AS-BUILT DRAWINGS SHALL INCLUDE VALVE SCHEDULE TO BE DISPLAYED WITHIN THE BUILDING.

VII. PIPING - WASTE AND VENT

A. GENERAL

1. COMPLY WITH PROVISIONS OF CAST IRON SOIL PIPE INSTITUTE (CISPI) HANDBOOK, COPPER DEVELOPMENT ASSOCIATIONS' COPPER TUBE HANDBOOK, AND AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM).
2. SYSTEM COMPONENTS WHICH REQUIRE OBSERVATION, OPERATION, OR MAINTENANCE, SUCH AS VALVES, CLEANOUTS, DRAINS, EQUIPMENT, CONTROLS, UNIONS, ETC. SHALL BE READILY ACCESSIBLE. THEY SHALL NOT BE CONCEALED IN CHASES OR ABOVE CEILINGS WITHOUT PROVISION FOR ACCESS.
3. INSTALL PIPING WITH SLOPE TO ALLOW FOR PROPER FUNCTIONALITY. PIPING SHALL BE INSTALLED WITH THE MINIMUM FOLLOWING SLOPES OR AS DICTATED ON THE DRAWINGS:
 - a. SANITARY, WASTE, AND VENT PIPING
 - 3" AND SMALLER: 1/4" PER FOOT
 - 4" AND LARGER: 1/8" PER FOOT
 - b. STORM PIPING
 - ALL SIZES: 1/8" PER FOOT
 - KITCHEN WASTE PIPING
 - ALL SIZES: 1/4" PER FOOT
4. INSTALL INTERIOR AND EXTERIOR PIPING AT RIGHT ANGLES OR PARALLEL TO BUILDING WALLS. DIAGONAL RUNS ARE PROHIBITED, EXCEPT WHERE INDICATED OR APPROVED PRIOR TO INSTALLATION. RUN PIPING IN WALL CHASES, PIPE SHAFTS, HUNG CEILINGS, RECESSES, ETC. AS APPLICABLE. DO NOT RUN SERVICE PIPING IN FLOOR SLABS UNLESS SPECIFICALLY NOTED ON DRAWINGS. PIPING SHALL NOT BE COVERED OR CLOSED UNTIL TESTING IS COMPLETED.
5. PROVIDE WASTE AND STORM CLEANOUTS AT THE BASE OF RISERS, ENDS OF HORIZONTAL MAINS, CHANGES IN DIRECTION, CODE SPECIFIED INTERVALS OR AS SPECIFIED IN DOCUMENTS. INTENT IS TO ALLOW ALL WASTE AND STORM PIPING TO BE RODDED AFTER INSTALLATION.
6. FOR VENTS PENETRATING ROOFS, PROVIDE 24 INCH SQUARE FLASHING AND TURN VENT FLASHING DOWN INTO VENT PIPE.
7. INSTALL PIPING TO ALLOW APPLICATION OF INSULATION PLUS 1-INCH CLEARANCE AROUND INSULATION.

B. UNDERGROUND PIPING

1. ALL PIPE SIZES: SCHEDULE 40 SOLID-WALL PVC PIPING ASTM D 2665 WITH SCHEDULE 40 PVC SOCKET FITTINGS ASTM D 2665, MADE TO ASTM D 3311, ADHESIVE PRIMER ASTM F 666, AND SOLVENT CEMENT ASTM D 2564. PIPING TO COMPLY WITH NSF 14, INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER" FOR PLASTIC SEWER PIPING.
2. ALL PIPE SIZES: SCHEDULE 40 SOLID-WALL PVC PIPING ASTM D 2665 WITH SCHEDULE 40 PVC SOCKET FITTINGS ASTM D 2665, MADE TO ASTM D 3311, ADHESIVE PRIMER ASTM F 666, AND SOLVENT CEMENT ASTM D 2564. PIPING TO COMPLY WITH NSF 14, INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER" FOR PLASTIC SEWER PIPING. PVC NOT ALLOWED IN FLENUMS.

C. ABOVE GROUND PIPING

1. ALL PIPE SIZES: SCHEDULE 40 SOLID-WALL PVC PIPING ASTM D 2665 WITH SCHEDULE 40 PVC SOCKET FITTINGS ASTM D 2665, MADE TO ASTM D 3311, ADHESIVE PRIMER ASTM F 666, AND SOLVENT CEMENT ASTM D 2564. PIPING TO COMPLY WITH NSF 14, INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER" FOR PLASTIC SEWER PIPING. PVC NOT ALLOWED IN FLENUMS.
2. IDENTIFICATION MARKERS SHALL BE PLACED ON ALL EXPOSED AND CONCEALED PIPES AT 20'-0" INTERVALS, AT ALL VALVES AND BRANCHES, AND ON BOTH SIDES OF WALLS WHERE PIPES PASS THROUGH. ARROWS OF SAME COLOR AS IDENTIFICATION MARKERS SHALL ALSO BE PLACED ON PIPES POINTING AWAY FROM MARKER INDICATING DIRECTION OF FLOW.
3. COORDINATE COLOR SCHEME WITH EXISTING PIPING AND SUBMIT TO ENGINEER PRIOR TO ORDERING.

- a. FOR INDOOR USE, UTILIZE ADHESIVE PIPE MARKERS - LARGEST SIZE POSSIBLE GIVEN THE PIPE OR INSULATION OUTER DIAMETER, WITH BOTH ENDS SECURED WITH ARROW TAPE OF MATCHING SIZE AND COLOR SCHEME

3. IDENTIFICATION MARKERS SHALL BE PLACED ON ALL EXPOSED AND CONCEALED PIPES AT 20'-0" INTERVALS, AT ALL VALVES AND BRANCHES, AND ON BOTH SIDES OF WALLS WHERE PIPES PASS THROUGH. ARROWS OF SAME COLOR AS IDENTIFICATION MARKERS SHALL ALSO BE PLACED ON PIPES POINTING AWAY FROM MARKER INDICATING DIRECTION OF FLOW.

4. COORDINATE COLOR SCHEME WITH EXISTING PIPING AND SUBMIT TO ENGINEER PRIOR TO ORDERING.

- a. FOR INDOOR USE, UTILIZE ADHESIVE PIPE MARKERS - LARGEST SIZE POSSIBLE GIVEN THE PIPE OR INSULATION OUTER DIAMETER, WITH BOTH ENDS SECURED WITH ARROW TAPE OF MATCHING SIZE AND COLOR SCHEME

3. IDENTIFICATION MARKERS SHALL BE PLACED ON ALL EXPOSED AND CONCEALED PIPES AT 20'-0" INTERVALS, AT ALL VALVES AND BRANCHES, AND ON BOTH SIDES OF WALLS WHERE PIPES PASS THROUGH. ARROWS OF SAME COLOR AS IDENTIFICATION MARKERS SHALL ALSO BE PLACED ON PIPES POINTING AWAY FROM MARKER INDICATING DIRECTION OF FLOW.



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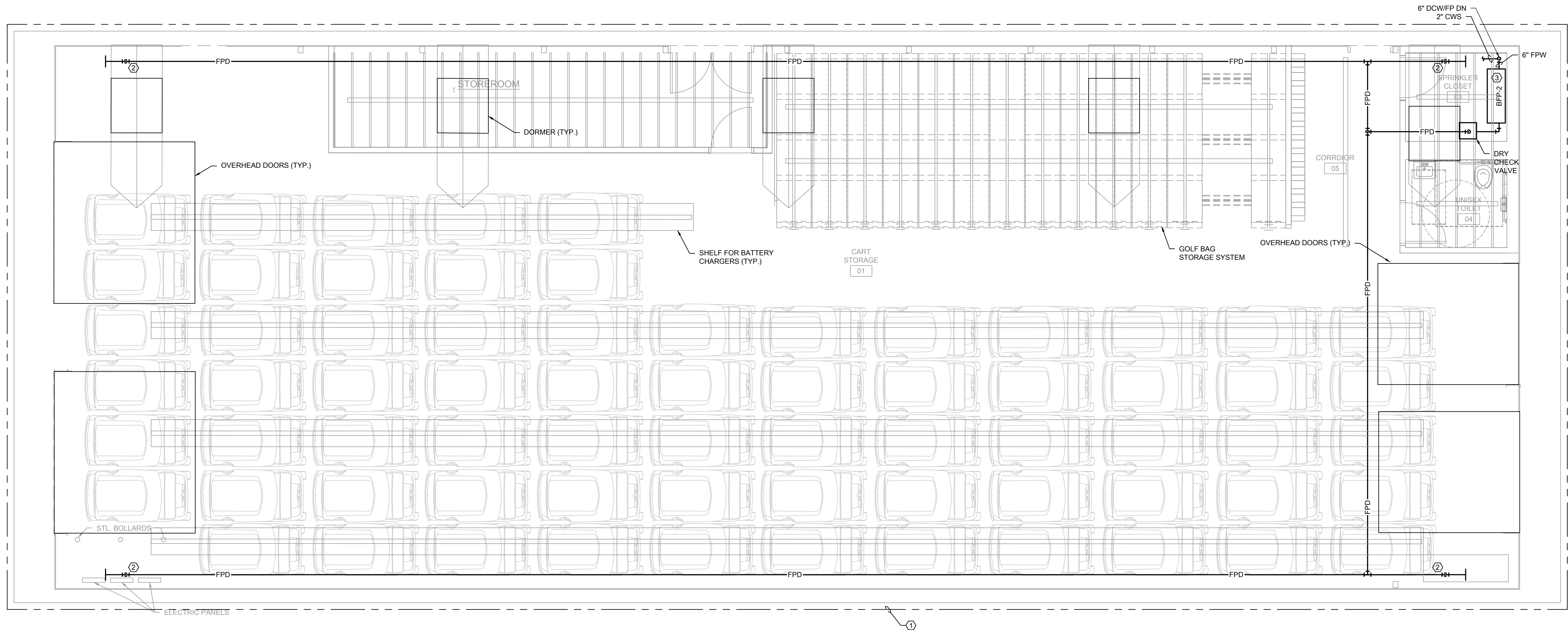
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NOTE: NOT ALL ABBREVIATIONS LISTED ABOVE MAY BE USED OR APPEAR IN THESE DRAWINGS

GENERAL

NOTE: NOT ALL SYMBOLS LISTED ABOVE MAY BE USED OR APPEAR IN THESE DRAWINGS



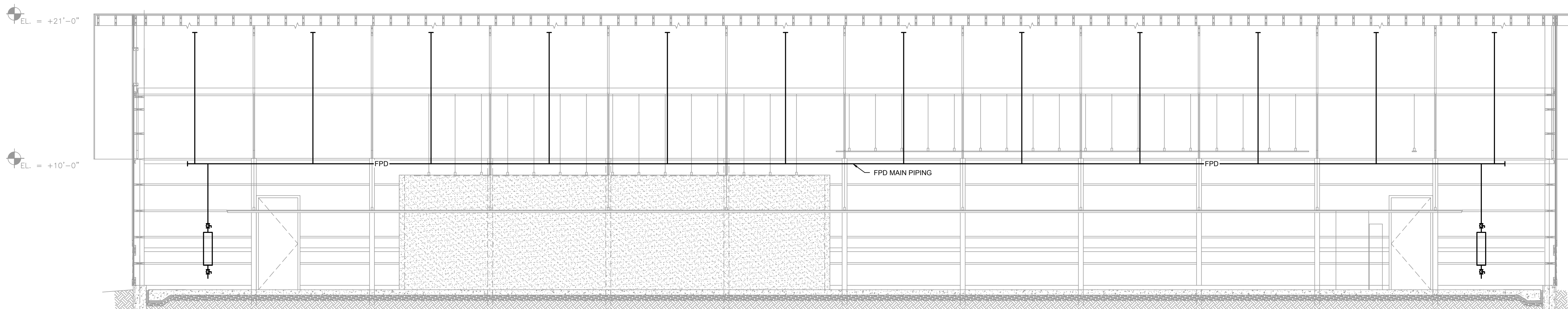
1 FIRE PROTECTION NEW WORK PLAN - CART BARN
SCALE: 1/4" = 1'-0"

GENERAL FIRE PROTECTION SHEET NOTES

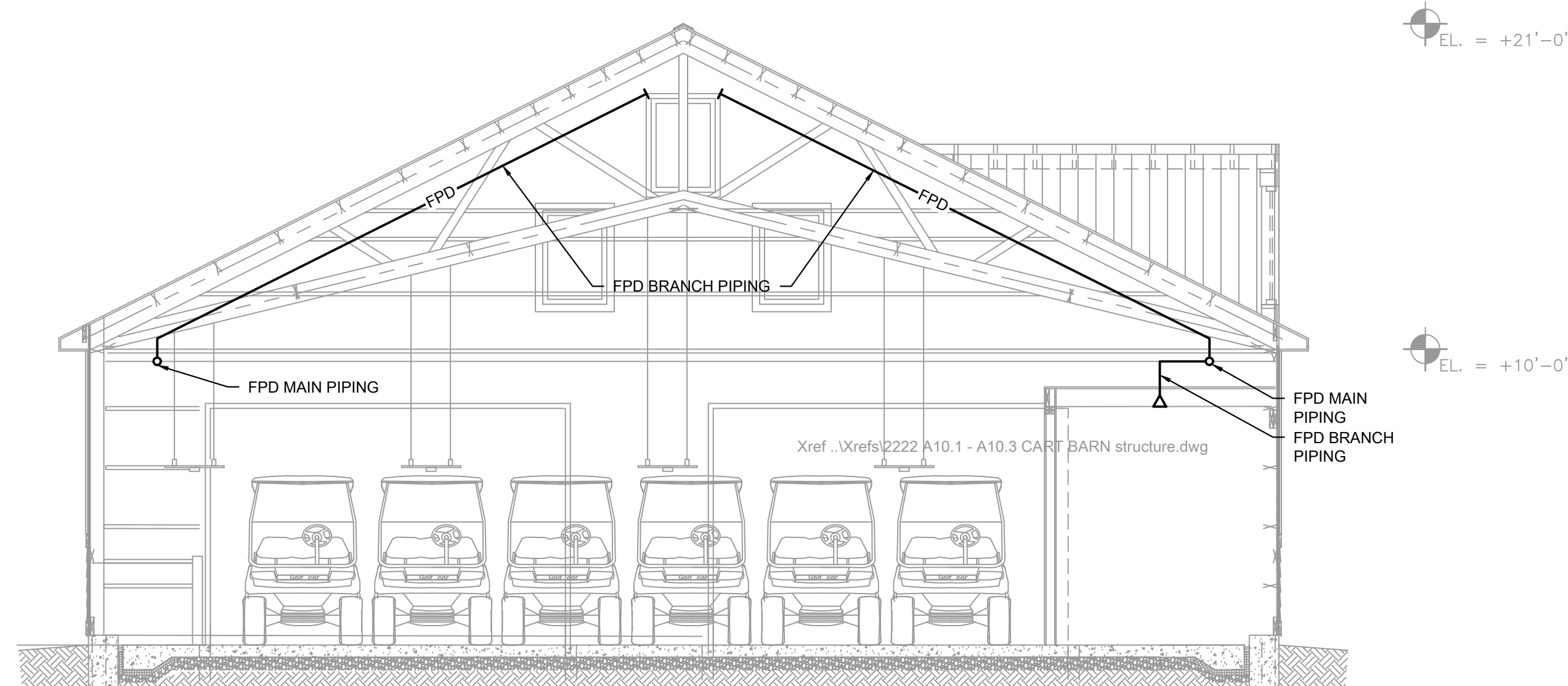
- SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

KEYED FIRE PROTECTION NEW WORK SHEET NOTES

- PROVIDE DRY FIRE PROTECTION SPRINKLER COVERAGE THROUGHOUT. COVERAGE SHALL COMPLY WITH ORDINARY HAZARD GROUP II PER NFPA 13. COORDINATE WITH ALL OBSTRUCTIONS OF THE BUILDING CONSTRUCTION AND EQUIPMENT, DUCTWORK, CONDUITS, FIXTURES, DEVICES, COMPONENTS, ETC. OF THE BUILDINGS MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS.
- DRY SPRINKLER SYSTEM AUXILIARY DRAINS SHALL BE INSTALLED AT LOW POINTS. DIAGRAMMATIC LOCATIONS ARE SHOWN. ALL NECESSARY LOCATIONS SHALL BE DETERMINED AS PART OF FIRE PROTECTION CONTRACTOR'S SCOPE.
- FIRE PROTECTION BACKFLOW PREVENTER IS FURNISHED BY THE FIRE PROTECTION CONTRACTOR AND INSTALLED BY THE PLUMBING CONTRACTOR.



2 BUILDING SECTION
SCALE: 1/4" = 1'-0"



3 BUILDING SECTION
SCALE: 1/4" = 1'-0"

FIRE PROTECTION BACKFLOW PREVENTER SCHEDULE					
EQUIP. TAG	MANUFACTURER	MODEL NO.	SERVICE	SIZE	NOTES
ABB. NO.					
BFP 2	ZURN	350ADA-BF	FIRE PROTECTION SERVICE	6"	1, 2, 3, 4, 5, 6, 7, 8, 9

NOTES:

- PROPERLY INSTALL AND SUPPORT PER MANUFACTURER'S INSTRUCTIONS.
- PROVIDE APPROPRIATE CLEARANCES IN FRONT AND BACK.
- ROUTE DISCHARGE TO APPROPRIATE SANITARY RECEPTOR WITH CODE COMPLIANT AIR GAP.
- INCLUDE INTEGRAL FLOOD SENSOR AND REQUIRED CONNECTION KIT TO ALLOW SENSOR TO COMMUNICATE WITH DEVICES THAT RECEIVE AND DELIVER ALARM MESSAGES.
- VERIFY ACCEPTANCE OF MODEL WITH AHJ.
- VERIFY ACCEPTANCE WITH PREVENTION BUREAU.
- ADDITIONAL ACCEPTABLE MANUFACTURERS: WILKINS, COMBRACO.
- FIRE PROTECTION CONTRACTOR TO FURNISH FIRE PROTECTION BACKFLOW DEVICE; PLUMBING CONTRACTOR TO INSTALL.
- UNIT TO BE FURNISHED WITH BUTTERFLY VALVES WITH INTEGRAL SUPERVISORY SWITCHES.

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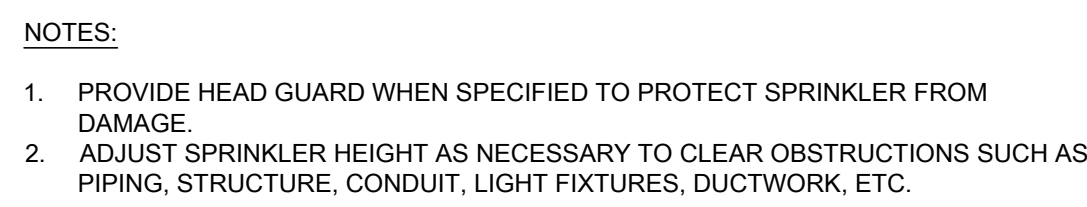
FIRE PROTECTION NEW
WORK PLAN - CART BARN

Scale
1/4" = 1'-0"
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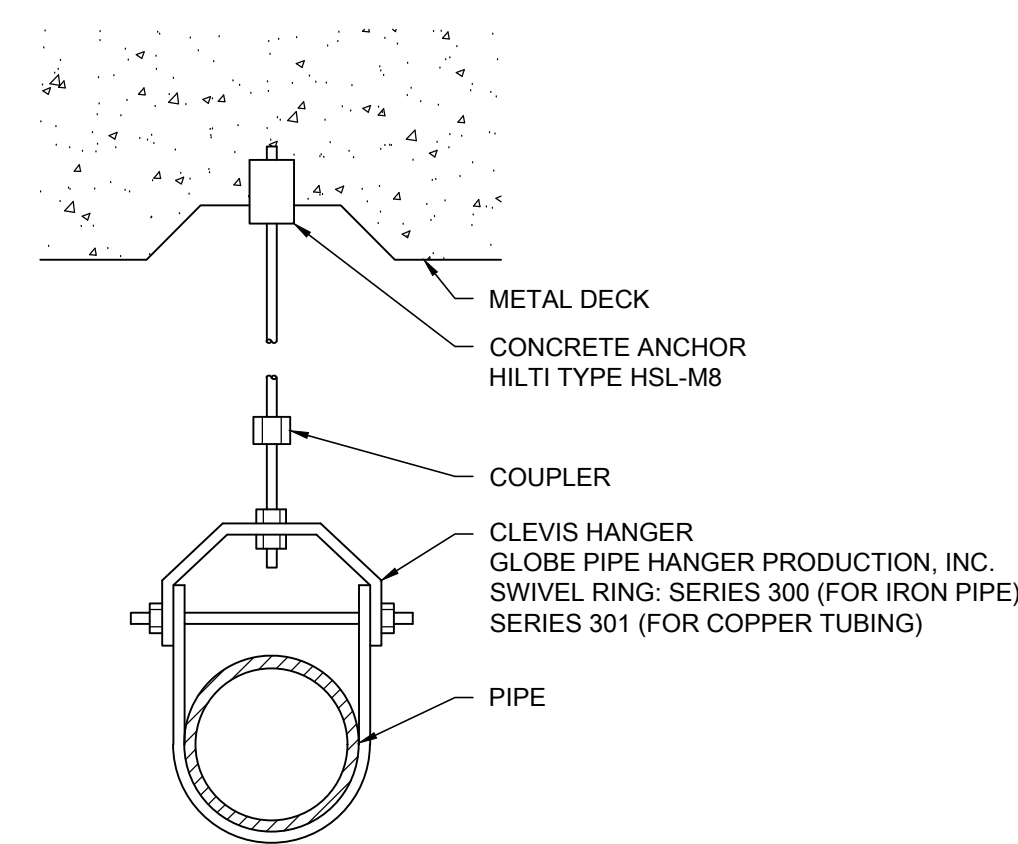
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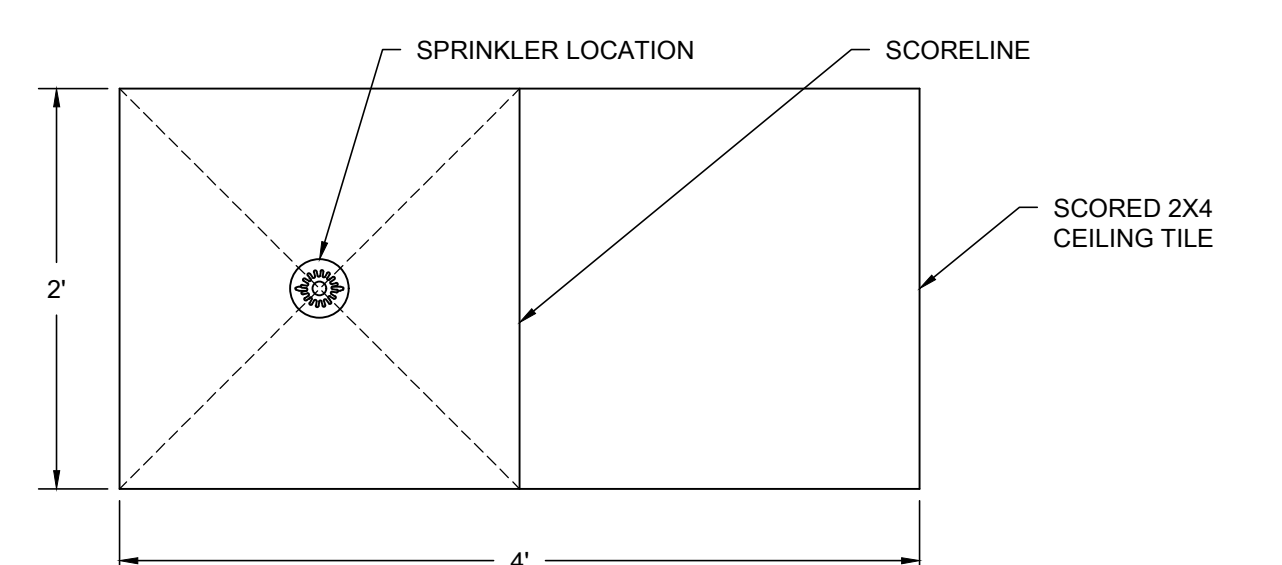
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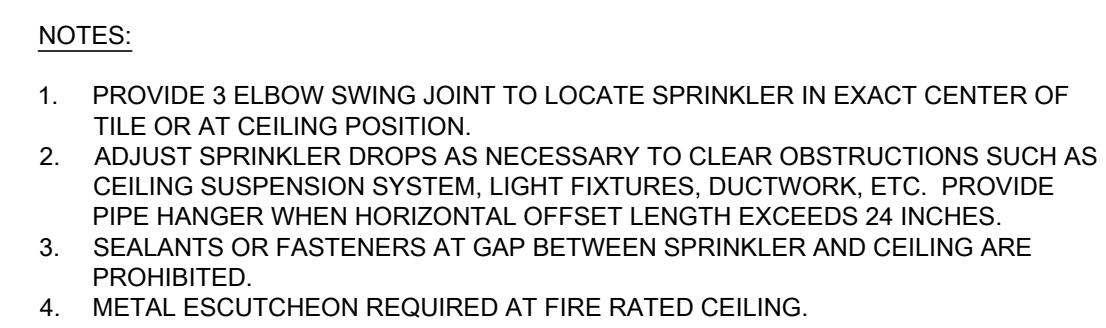
1 UPRIGHT SPRINKLER DETAIL



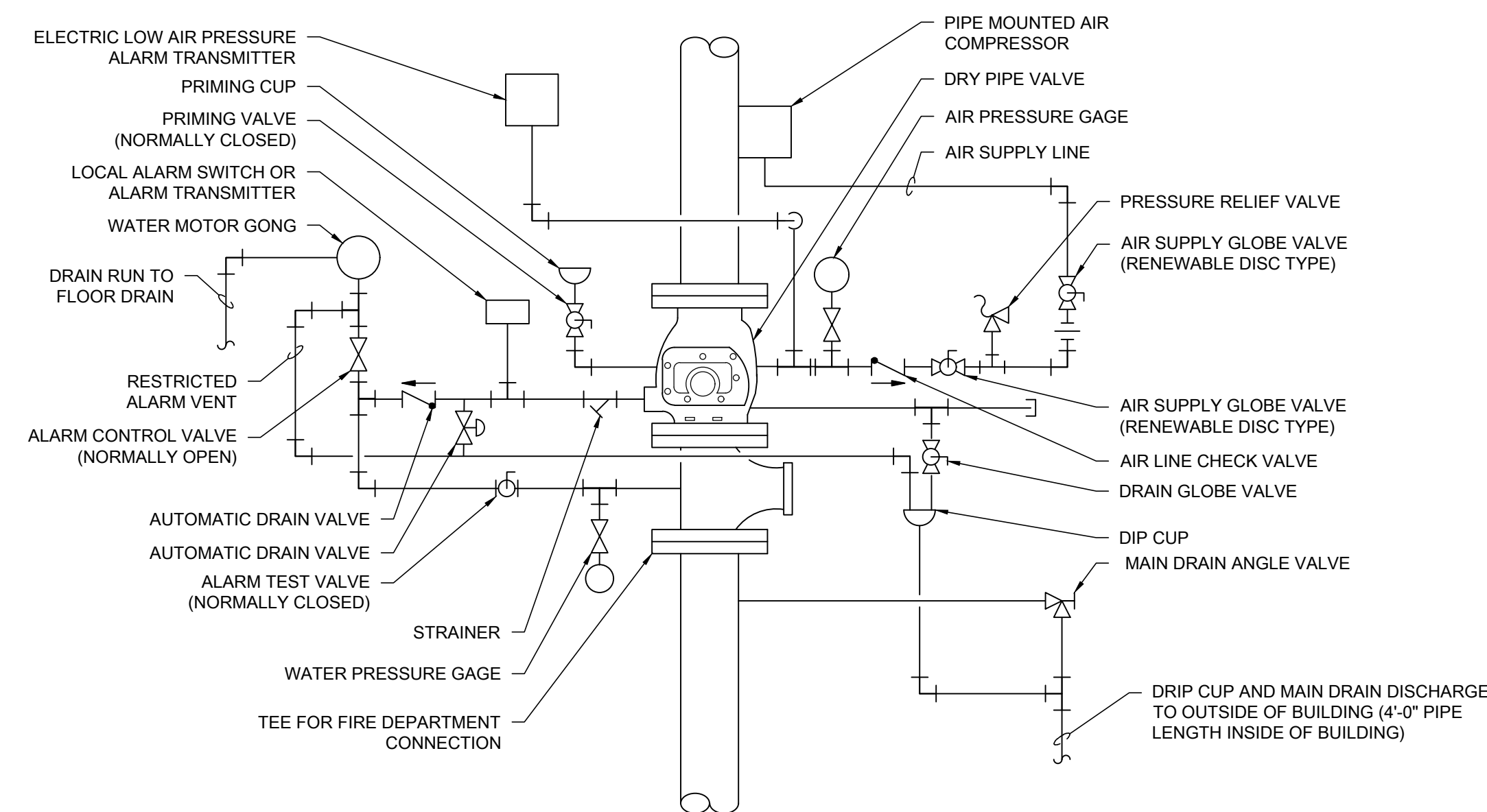
2 FIRE PROTECTION PIPE HANGERS DETAIL (2)
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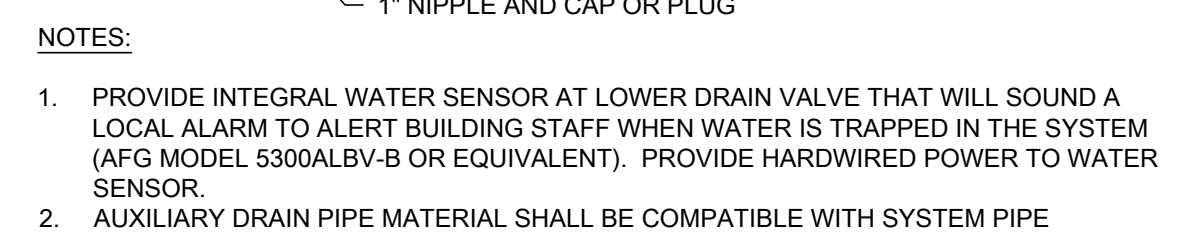
3 SPRINKLER LOCATION IN CEILING DETAIL



4 CONCEALED SPRINKLER DETAIL



5 DRY PIPE SPRINKLER VALVE DETAIL

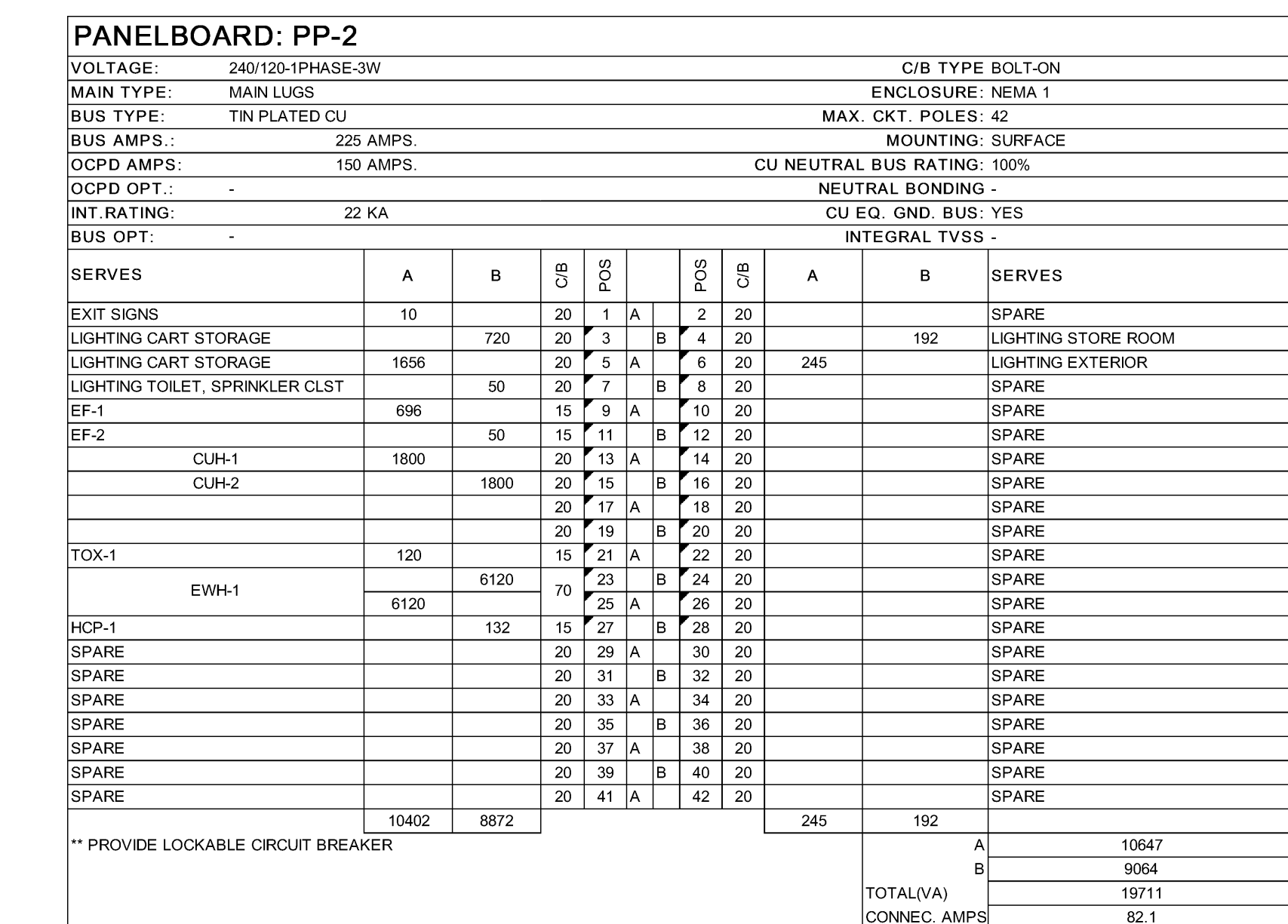
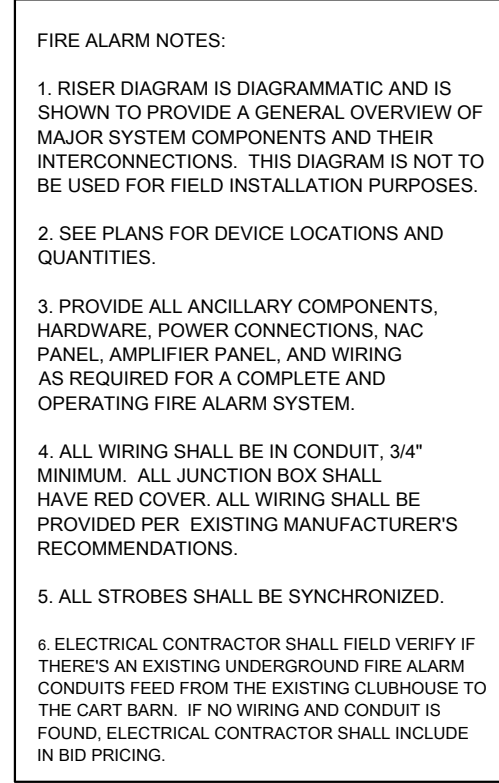


6 DRY SPRINKLER SYSTEM AUXILIARY DRAIN DETAIL
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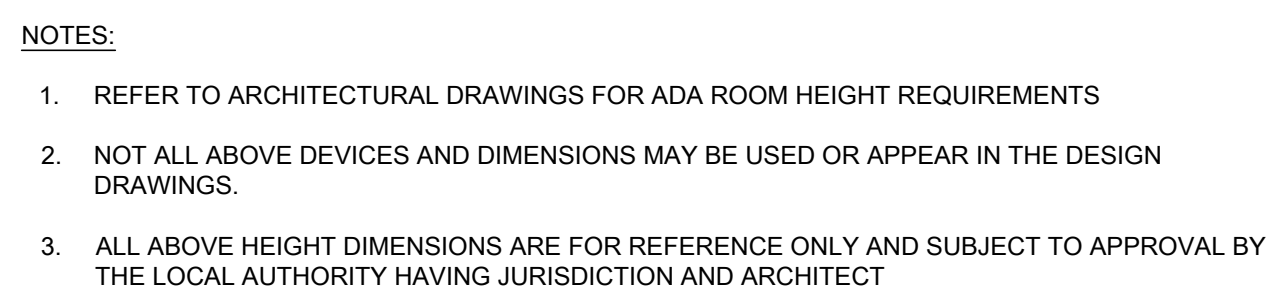
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GENERAL NOTES:				
1	E.C. SHALL REVIEW THE ARCHITECTURAL, MECHANICAL, PLUMBING, AND FIRE PROTECTION CONTRACT DOCUMENTS, AND SHOP DRAWINGS FOR FINAL EQUIPMENT LOCATION, ELEVATION, AND POWER REQUIREMENTS PRIOR TO INSTALLING CONDUITS.	FB: PROVIDED BY (FURNISH AND INSTALL) FIB: FURNISHED BY FIB: INSTALLED BY	NOTE #1	E.C. SHALL PROVIDE MOUNTING/BRACKETS FOR STARTER TYPES (FVNR, FVR, PRMS, 2SP1W, & 2SP2W)
2	E.C. SHALL REVIEW THE LOAD REQUIREMENTS WITH THE OEM PRIOR TO INSTALLING CONDUIT.	ENCL: NEMA ENCLOSURE HWC: HARD WIRE CONNECTION FLEX: FLEXIBLE WIRE CONNECTION	NOTE #2	E.C. SHALL PROVIDE THERMAL OVERLOADS FOR STARTERS PER OEM/FIELD VERIFICATION E.C. SHALL PROVIDE TWO SETS OF FORM "C" ALX COILS FOR ALL STARTER TYPES E.C. SHALL PROVIDE 120vac CONTROL COIL FOR STARTERS TYPES (FVNR, FVR, 2SP1W, & 2SP2W)
3	VERIFY IN THE FIELD THE THERMAL OVERLOAD REQUIREMENTS WITH THE OEM PRIOR TO INSTALLING CONDUIT. COPD RATINGS ARE DERIVED FROM THE OEM'S SPECIFICATIONS.	CPC: CORD AND PLUG CONNECTION FVR: FULL VOLTAGE NON-REVERSING MAGNETIC STARTER FVNR: FULL VOLTAGE NON-REVERSING FREQUENCY CONTROLLER		E.C. SHALL PROVIDE MOUNTING/BRACKETS FOR VARIOUS FREQUENCY MOTOR TYPES E.C. SHALL CALIBRATE STATE OF CHARGE OVERLOADS PER OEM/FIELD VERIFICATION RESULTS
4	E.C. SHALL VERIFY IN THE FIELD THE CONTACTOR STARTER VFD/PRMS/OEM CONTROLLER/DISCONNECT RATINGS WITH THE OEM PRIOR TO INSTALLING CONDUIT.	TS: TOGGLE SWITCH FUSE: FUSE DISCONNECT SWITCH NON-FUSE: NON-FUSED DISCONNECT SWITCH	NOTE #3	E.C. SHALL PROVIDE FOUR SETS OF FORM "C" ALX CONTACTS WITH THE VFD ENCLOSURE E.C. SHALL PROVIDE OEM START-UP AND COMMISSIONING OF VFD PRIOR TO FINAL PUNCHLIST E.C. SHALL PROVIDE MOUNTING/BRACKETS FOR DISCONNECT SWITCHES
5	E.C. SHALL VERIFY IN THE FIELD THE THERMAL OVERLOAD RATINGS WITH THE OEM PROVIDE OVERLOADS PER OEM RECOMMENDATIONS.		NOTE #4	ALL DISCONNECT SWITCHES SHALL BE WITHIN THE SIGHT OF THE MOTOREQUIPMENT AND SHALL NOT EXCEED A MAXIMUM DISTANCE OF 6 FEET FROM THE MOTOREQUIPMENT MAXIMUM HEIGHT AFF OF DISCONNECT SWITCH HANDLE SHALL NOT EXCEED 6'-3"
6	E.C. SHALL LOCATE THE DISCONNECT SWITCH WITHIN SFT AND WITHIN SIGHT OF THE EQUIPMENT.			E.C. SHALL VERIFY MOTOR ROTATION AND OPERATION WITH THE OEM REPRESENTATIVE PRIOR TO ENERGIZING MOTOR/S EQUIPMENT
7	E.C. SHALL PROVIDE CONNECTIONS TO MOTORLISTED EQUIPMENT. PROVIDE A GROUNDING POINT FROM THE DISCONNECT SWITCH TO THE MOTORLISTED EQUIPMENT CONNECTION POINT/JUNCTION BOX.		NOTE #5	E.C. SHALL PROVIDE GROUNDING AND BONDING PER THE OEM SPECIFICATIONS EQUIPMENT FLEX WHIPS SHALL NOT EXCEED 72" MAXIMUM LENGTH VERIFY ALL CPC NEMA CONNECTIONS WITH THE OEM PRIOR TO INSTALLATION
			NOTE #6	E.C. SHALL PROVIDE USER TOGGLEKEY SWITCH @ 46" AFF DISCONNECT IS INTEGRAL WITH EQUIPMENT CONTROLLER



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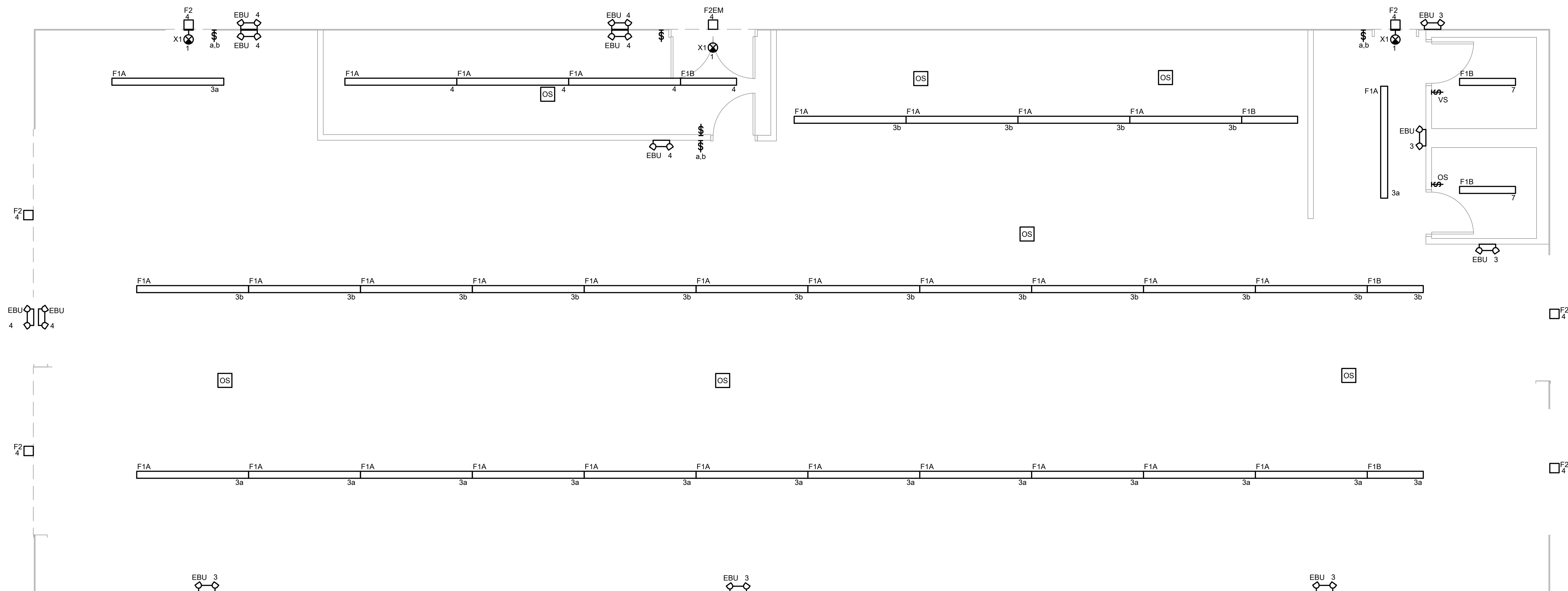
E1 1

023 Weiss Architects, LLC

REPLACEMENT CART BARN

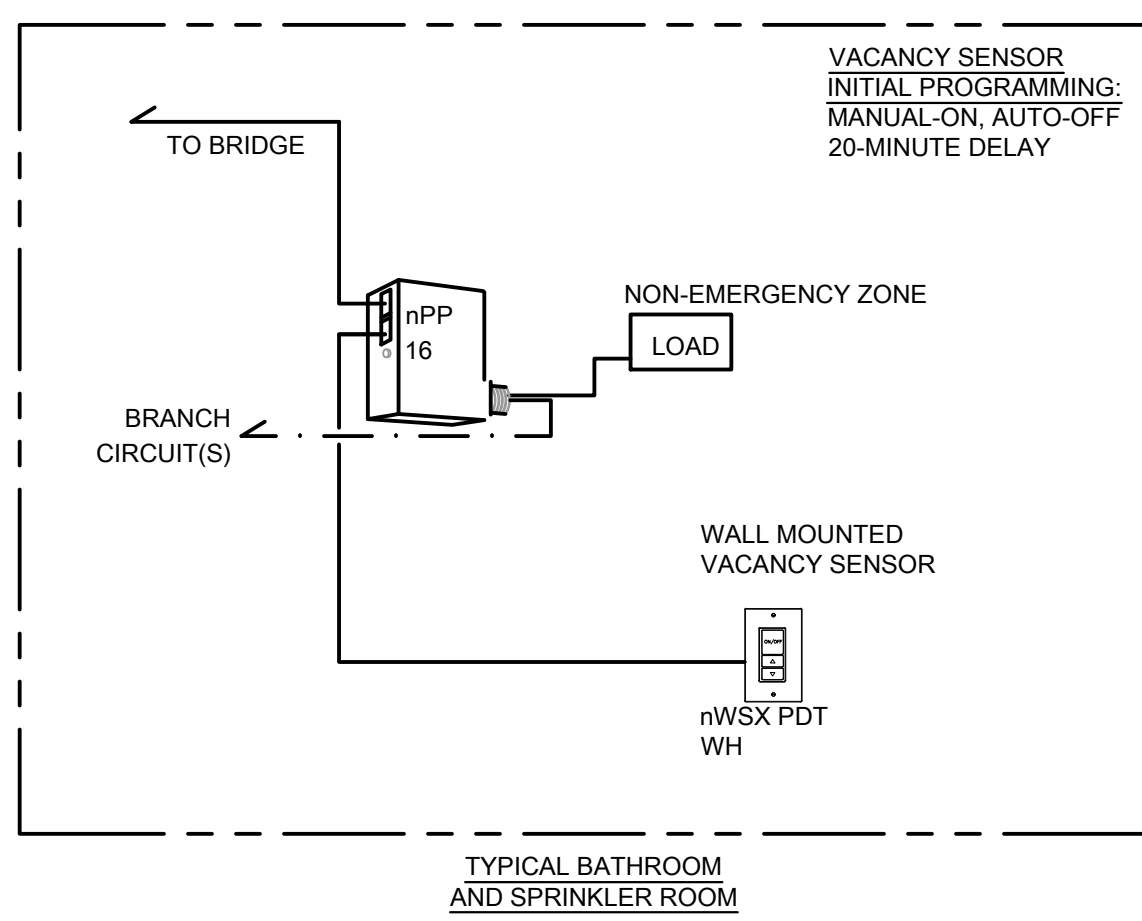
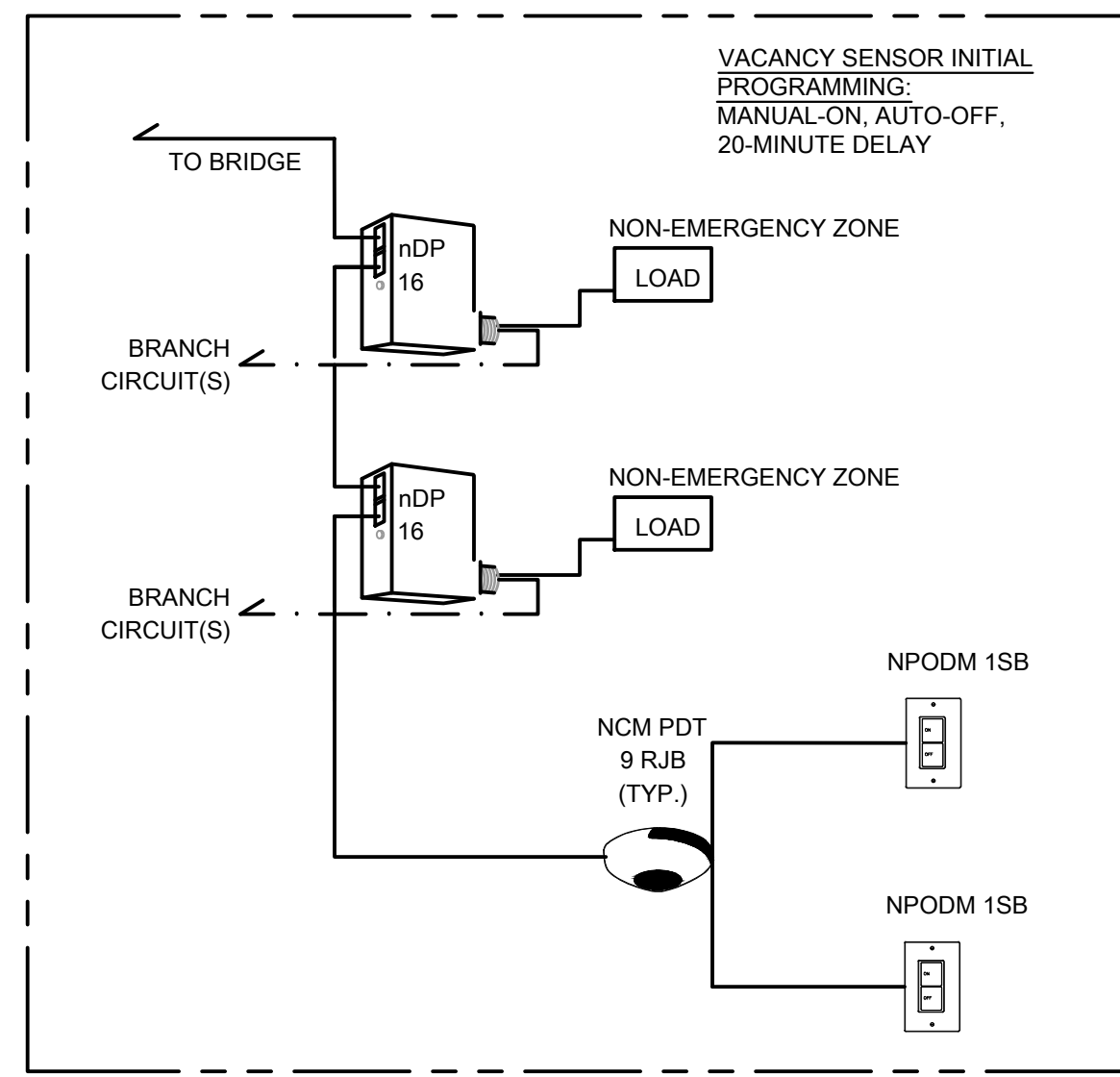
PRESTWICK
COUNTRY
CLUB

601 PRESTWICK DR. FRANKFURT, IL 60423

1 ELECTRICAL NEW LIGHTING WORK PLAN - CART BARN
SCALE: 1/4" = 1'-0"

GENERAL ELECTRICAL NEW WORK SHEET NOTES	
A.	ALL NEW LIGHTING FIXTURES, EXIT SIGNS AND EMERGENCY BATTERY UNITS (EBU) SHALL BE CONNECTED TO NEW POWER PANEL PP-2 WITH 2 #12 & 1 #12 GRD., IN 3/4" CONDUIT, UNLESS NOTED OTHERWISE.
B.	ALL EMERGENCY AND EXIT WIRING SHALL BE INSTALLED IN A DEDICATED CONDUIT, DO NOT COMBINE WITH THE NORMAL POWER CIRCUIT.
C.	ELECTRICAL CONTRACTOR SHALL VERIFY ALL LIGHTING FIXTURE MOUNTING HEIGHTS AND EXACT MOUNTING LOCATIONS WITH ARCHITECT AND OWNERSHIP PRIOR TO ANY ROUGH-INS.

LIGHTING FIXTURE SCHEDULE											
TAG	MANUFACTURER	MODEL	LAMP SOURCE & DRIVER	DIMMING	COLOR TEMP	CRI (MIN.)	LUMENS	WATTS	VOLTAGE	MOUNTING	NOTES
F1A	COLUMBIA LIGHTING	MPSB-35WV-CW-E	LED	-	3500K	80	5000	36	UNV	SURFACE	1,2,3,5,6,7
F1B	COLUMBIA LIGHTING	MPS4-35WV-CW-E	LED	-	3500K	80	2500	18	UNV	SURFACE	1,2,3,5,6,7
F2	EXO LIGHTING	UNC2-48L-45-4KT-4W-UNV-PC	LED	-	4000K	70	5500	45	UNV	SURFACE	1,2,3,7
X1	PARAFLEX	PPX5504-1-R-W	LED	NA	RED	NA	NA	3.72	UNV	RECESSED	9,10
EBU1	COOPER LIGHTING	SEL0WTA	LED	NA	-	-	-	5	UNV	SURFACE	10
NOTES:											
1	COORDINATE WITH ARCHITECT'S DRAWINGS FOR MOUNTING AND CEILING HEIGHT. PROVIDE MOUNTING ACCESSORIES AS REQUIRED.										
2	COORDINATE FINISHES WITH ARCHITECT. REFER TO ARCHITECTURAL ROP FOR FIXTURE LENGTH DIMENSIONS AND INSTALLATION FINISHES PER INSTANCE WITH ARCHITECT.										
3	FURNISH WITH INTEGRAL FUSE (BY MANUFACTURER) OR IN-LINE FUSE (BY ELECTRICAL CONTRACTOR). FUSE AMPACITY RATING SHALL BE 125% OF FULL LOAD AMPS OF LIGHT FIXTURE OR NEXT STANDARD SIZE.										
4	FURNISH RECESSED MOUNT WHERE EXIT SIGN IS MOUNT ON CEILING, UNLESS NOTED OTHERWISE ON DRAWINGS.										
5	FURNISH DRIVER FOR EACH 4FT LENGTH OF LIGHT FIXTURE.										
6	SEE ARCHITECTURAL DRAWINGS FOR FIXTURE LENGTHS.										
7	PROVIDE LIGHT FIXTURE MANUFACTURER AND MODEL NUMBER AS NOTED, OR SUBMIT EQUAL FOR APPROVAL. ELECTRICAL CONTRACTOR MUST PROVIDE EQUALITY BY SUBMITTING PHOTOMETRICS SPECIFIC TO PROJECT AND MATCH THE FOLLOWING: LUMENS, WATTAGE, VOLTAGE, MOUNTING, LAMP COLOR SOURCE TEMPERATURE, STYLE, 0-10V DIMMING, AND RETL LISTINGS. STYLE MUST INCLUDE HOUSING MATERIAL, DIMENSIONAL SIZES, AND FINISHES.										
8	EMERGENCY UNIT BATTERIES INTENDED FOR OUTDOOR USE MUST HAVE BATTERIES MOUNTED INDOOR WHERE TEMPERATURES DO NOT DROP BELOW MANUFACTURER'S RECOMMENDATIONS. PROVIDE DUAL REMOTE HEADS AT EXTERIOR LOCATION.										
9	FURNISH RECESSED MOUNT WHERE EXIT SIGN IS MOUNT ON CEILING, UNLESS NOTED OTHERWISE ON DRAWINGS.										
10	PROVIDE LIGHT FIXTURE WITH 90MINUTE BATTERY BACKUP, TEST SWITCH, AND PILOT LIGHT.										

TYPICAL BATHROOM
AND SPRINKLER ROOM

CART BARN

WWSX PDT WH	WALLPDT: PUSH BUTTON ON/OFF 1-POLE LOW VOLTAGE, WITH OCCUPANCY SENSOR #LIGHT #WWSX PDT WH
NPDOM 1SB	WALLPDT: 2 ZONE PUSH BUTTON ON/OFF LOW VOLTAGE #LIGHT #NPDOM WH
NCM PDT 9 RUB	CEILING MOUNTED, DUAL-TECH, LOW VOLTAGE OCCUPANT SENSOR WITH REAR PORT CONNECTION, SMALL MOTION (12'-0" RADIUS), #LIGHT #NCM PDT 9 RUB WITH AUX CONTACT
NOTES:	
1. CONTROL DEVICE QUANTITIES SHOWN IN THIS DIAGRAM ARE FOR REFERENCE ONLY. CONTRACTOR SHALL REFER TO LIGHTING PLAN FOR FINAL QUANTITIES.	
2. COORDINATE WITH MANUFACTURER FOR DEVICES MODEL # AND QUANTITIES.	
3. FURNISH AND INSTALL CABLES PER MANUFACTURER REQUIREMENTS.	
WIRE LEGEND	
- 120V LINE VOLTAGE	
- CATSE CABLE: PLENUM RATED OR INSTALLED IN COMPLETELY ENCLOSED CONDUIT	

- LIGHTING CONTROL GENERAL NOTES:
- OCCUPANT SENSOR, AND SWITCH QUANTITIES. PROVIDE QUANTITIES OF NOTED DEVICES AS SHOWN ON FLOOR PLANS, BUT NO LESS THAN ONE OF EACH DEVICE INDICATED ON THE WIRING DIAGRAMS. LIGHTING CONTROLS VENDOR MUST PROVIDE ALL ADDITIONAL APPARATUSSES AND DEVICES REQUIRED FOR A FULLY FUNCTIONAL SYSTEM AS NOTED ON THIS SHEET, ON THE DRAWING SET, AND AS REQUIRED IN THE PROJECT SPECIFICATION BOOK.
 - LIGHTING VENDOR TO CONFIRM QUANTITIES AND TYPE OF RELAY POWER PACKS REQUIRED MEET PROJECT SPECIFICATIONS AND DESIGN DRAWINGS. ALL LAYOUTS SHOW MINIMUM NUMBER OF DEVICES AND MUST BE EXPANDED TO APPLY TO EACH SPACE WITHIN PROJECT.
 - PROVIDE CAT-5 INTERCONNECTION ACROSS MULTIPLE SPACES FOR ALL NIGHT CONTROL SYSTEMS TO PROVIDE FLEXIBILITY FOR FUTURE NETWORKING.

2 ELECTRICAL LIGHTING DETAILS
SCALE: NO SCALEELECTRICAL LIGHTING
PLANS

Scale 1/4" = 1'-0"	Sheet
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Memo

To: Plan Commission/Zoning Board of Appeals
From: Christopher Gruba, Senior Planner
Date: October 26, 2023
Re: Text Amendment - Accessory Structures, Revisited (sliding scale)

At the Village Board meeting on July 24, 2023, a resident raised the topic of accessory structure size and some discussion by the Board followed. In particular, it was noted that the current maximum size of 250 square feet for certain accessory structures (including pool cabanas but not including sheds) may be too restrictive. A “sliding scale” was discussed that could permit certain accessory structures to exceed 250 square feet, based on lot size. In other words, larger residential properties could be permitted to have larger pool cabanas, gazebos and pergolas.

This topic was also previously raised at the Committee of the Whole meeting on July 12th, which provided staff with direction:

“There was general discussion regarding the Village's current zoning regulations for pergolas and pool cabanas which allows accessory structures, including arbors, trellises, pergolas, gazebos, and pool cabanas, up to 250 square feet in size. Members felt a sliding scale based on lot size or a ratio determined by the area of a lot may be more appropriate. Staff was asked to review regulations of accessory structures further and present at a future Committee of the Whole meeting.”

The Village Board last adopted a text amendment to the Zoning Ordinance regarding accessory structures on March 7, 2022. Since that time, staff has noticed a few minor errors within the recently adopted language and would like to take this opportunity to fix these errors. These errors are noted on Attachment item #1.

During the PC/ZBA workshop held on September 28, 2023, the Commission offered the following comments, which staff has summarized:

1. The text amendment would only apply to pool cabanas, gazebos, pergolas, arbors and trellises (the last three are used somewhat interchangeably, but all five have at least one open side).
2. It would be better to limit the size of these types of structures to 1.7% of the total area of the lot, instead of 2%. This would permit a typical R-2 zoned 15,000 square foot lot to have a 255 square foot accessory structure of this type, which is closer to the existing regulation of a 250 square foot maximum.
3. The Commission requested data on previously approved pool cabanas, gazebos and pergolas. In response, staff has provided a list of all properties that requested variations for size from October 2020 until the present (four properties total). Staff has also

provided a list of all gazebos and pergolas that were permitted in the year 2023 (no pool cabanas were issued permits this year).

4. The Commission did not want to set a limit on the number of accessory structures per lot. Rather, the number of accessory structures would be limited by other factors including lot coverage, impervious lot coverage, setbacks for accessory structures and minimum separation distances between accessory structures.

The following bullet points summarize the proposed text amendment, which has been revised since the PC/ZBA workshop:

- The sliding scale would only apply to pool cabanas, gazebos, pergolas, arbors and trellises, (as illustrated on page 183 of the Zoning Ordinance).
- For all residential lots, these accessory structures may be at least 250 square feet. This does not negate the need for any other variations that may be needed for lot coverage, impervious lot coverage, setbacks, etc.
- For larger residential lots, these accessory structures may be up to 1.7% of the total lot area, but in no instance shall such a structure exceed 1,000 square feet. This does not negate the need for any other variations that may be needed for lot coverage, impervious lot coverage, setbacks, etc.

As a further point of reference, a typical new house in Frankfort is approximately 3,500 square feet in gross livable area, according to the Building Department.

Attachments

1. Draft changes to pages 104-109 of the Zoning Ordinance, including a strikeout version and a “clean” version.
2. Table of all variation requests for pool cabanas and pergolas since October 2020. This table notes the original size request of the variation, if it was granted and its percentage of lot coverage. The table also notes the maximum size of this type of structure if the sliding scale of 1.7% of lot area were implemented.
3. Table of all building permits issued in 2023 for gazebos and pergolas. This table notes the size of each accessory structure and its percentage of lot coverage. The table also notes the maximum size of this type of structure if the sliding scale of 1.7% of lot area were implemented.
4. A table illustrating five (5) specific residential lots within the Village and how the proposed text amendment would affect them. These examples were chosen because they range in size from very small lots to very large lots.

Section D: Accessory Uses and Structures

Part 1: General Requirements

- a. Accessory uses and structures, as defined in Article 12, are permitted in the E-R, R-1, R-2, R-3, R-4, H-R and A-G districts. Accessory uses and structures, as defined in Article 12, are permitted in the H-1 zone district when the property is used for single-family residential.
- b. Accessory uses and structures, as defined in Article 12, in the B-1, B-2, B-3, B-4, O-R, I-1, I-2 and H-1 when the property is not used for single-family residential, must be approved during the site plan review process (as described in Article 3, Section H).
- c. Residential accessory uses and structures shall not involve the conduct of any business, trade, or industry.
- d. Accessory uses and structures must be in connection with a principal use which is permitted within such district.
- e. Each accessory structure and use shall comply with the use limitations applicable in the zoning district in which it is located.
- f. No accessory structure shall be constructed or occupied on any lot prior to the completion of the principal structure to which it is an accessory.
- g. Pole barns, silos and other accessory farm structures shall be permitted only within the A-G zone district.
- h. Any structure with a roof and attached to the primary structure shall be considered part of the primary structure and shall abide by the requirements for primary structures in that zone district.
- h.i. Any exterior wall of an accessory structure shall not exceed 35' of uninterrupted wall length. For the purposes of this section an interruption shall be defined as an offset in a wall plane and underlying foundation measuring a minimum of one (1) foot.

Formatted: List Paragraph

Part 2: Bulk Regulations

- a. Location:
 - 1. Accessory structures shall only be permitted within side and rear yards, except within the A-G zone district.
 - 2. Accessory structures shall be located behind the front of the primary structure along a front yard or corner side yard, except within the A-G zone district.

3. Accessory structures shall be set back at least ten (10) feet from any lot line, except for the A-G zone district, in which they must meet the required front, side and rear setbacks for the primary structure.

4. Accessory structures, ~~except for open patios, open terraces, open decks and similar structures at or near grade without a roof,~~ shall maintain a separation minimum distance of ten (10) feet between other accessory structures and from the primary structure.

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5. ~~Accessory structures, including open patios, open terraces, open decks and similar structures at or near grade without a roof, shall not have any separation requirement from other accessory structures or the primary structure, except for raised decks which must be attached to the primary structure or separated from it by at least ten (10) feet.~~

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6. ~~Swimming pools shall be set back at least ten (10) feet from the primary structure. A minimum separation is not required from a swimming pool to an open patio, open terrace, open deck or similar structures without a roof.~~

b. Size:

1. Accessory structures, ~~only~~ including arbors, trellises, pergolas, gazebos and pool cabanas ~~may be two hundred fifty (250) square feet or 1.7% of the area of the parcel, whichever is greater, but in no instance shall they exceed one thousand (1,000) square feet. shall not exceed two hundred fifty (250) square feet in size.~~

2. Accessory structures, including sheds, child playhouses, permanently affixed outdoor fireplaces and stoves, greenhouses, laundry drying equipment and trash enclosures shall not exceed one hundred forty-four (144) square feet in size. Sheds within manufactured home parks shall not exceed two hundred twenty-five (225) square feet in size.

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3. ~~There shall be no size limitation for swimming pools, open patios, open terraces, or open decks except as restricted by the other regulations of this Ordinance.~~

~~2.4.~~ Detached garages in manufactured home parks shall not exceed six hundred (600) square feet.

5. Detached garages not located in manufactured home parks shall not exceed the area of the footprint of the primary structure, except within the A-G zone district.

Formatted: List Paragraph, No bullets or numbering

~~3.6.~~ ~~There shall be no size limitation for farm structures, except as restricted by other regulations of this Ordinance.~~

~~4.7.~~ All other accessory structures not specifically listed within this subsection shall not exceed one hundred forty-four (144) square feet in size.

~~5.8.~~ Each accessory structure and use shall otherwise comply with the bulk regulations applicable in the district in which it is located, including maximum lot coverage, maximum impervious coverage and maximum rear yard coverage (Article 6, Section B, Part 1).

- c. Height:
 - 1. All accessory structures, except farming structures including pole barns, silos and similar structures, shall not exceed fifteen (15) feet in height.
 - 2. Accessory farming structures shall not exceed thirty-five (35) feet in height.
- d. Measurement of area:
 - 1. For structures that have walls, measurement shall be made from the exterior walls.
 - 2. For structures that have posts but no walls, measurement shall be made from the exterior edges of the posts.

Part 3: Garage Provisions

- a. A maximum of one (1) detached garage per zoning lot is permitted.
- b. All garages greater than three-cars in size must be side-loaded in orientation and driveways shall have a minimum 26' turning radius.
- c. Architecture of garages shall be similar and compatible to the primary structure, including building materials and the roof pitch.
- d. All garages must be constructed as enclosed buildings.
- e. All garages must be constructed on a concrete pad.

Part 4: Recreational Equipment/Vehicle and/or Construction/Commercial Equipment Provisions

- a. Outdoor parking of recreational equipment/vehicle and/or construction/commercial related vehicles, provided that:
 - 1. If the owner is actively involved in maintenance, loading or unloading the equipment, it may be parked on a residential driveway, however duration does not exceed forty-eight (48) hours;
 - 2. The Code Official may issue a Special Permit for out-of-town visitor parking for Recreational Vehicles parked on a driveway for a period not to exceed fifteen (15) days. Not more than six (6) such permits may be issued in any calendar year;

3. Equipment/vehicle is parked on an approved paved surface;
4. No part of storage area for vehicles is located in any required front, side, or rear setback, as defined by the provisions of this Code;
5. The front of the vehicle does not extend in front of the front façade of the primary structure;
6. Construction or commercial vehicles or equipment are not loaded or containing product or material, unless wholly enclosed or actively involved in a project within the lot;
7. Vehicle does not exceed an empty weight of four (4) tons or height in excess of ninety (90) inches;
8. Equipment/vehicle is screened from view from the public street by a fence or landscaping.

Part 5: Swimming Pool Provisions

- a. Fencing. Every outdoor swimming pool, whether above ground or level with the ground, having a maximum depth of over two (2) feet, shall be completely surrounded by a fence not less than four (4) feet, nor more than five (5) feet in height. A building, existing wall, or pool wall may be used as part of such enclosure as long as the barrier requirements are met as required by the building code. Such required fence shall comply with all requirements of other Village ordinances pertaining to fences, and the provisions of this Section shall not be construed to require or permit any fence heights greater than permitted by such other ordinances. (Am. Ord. 1887, passed 04.15.02) (Am. Ord. 2230, passed 10.17.05)
- b. Gates or Doors. All gates or doors opening through the required fence shall be designed for security, in accordance with the Building Code of the Village of Frankfort.
- c. Screening. If the fencing provided is anything other than solid fencing, the pool shall be effectively screened from view from outside the lot by densely-planted compact trees or hedges, providing at least fifty percent opacity when viewed between two (2) feet and five (5) feet above ground.
- d. Setback Requirements. All outdoor swimming pools are considered accessory structures, and shall meet minimum setback requirements, in addition thereto, shall be set back an additional two (2) feet for each one (1) foot of structure height exceeding five (5) feet. For the purpose of this section, the words "structure height" shall include any railings or other projections above the pool surface.
- e. Water Discharge. The water discharged from a swimming pool shall be drained into the sanitary sewer or storm water system, as approved by the Village.

Part 6: Other Provisions

- a. One parabolic satellite dish-type antenna per zoning lot, which is not more than two (2) feet in diameter. All roof-mounted antenna shall not exceed the maximum building height permitted in that zoning district. All satellite antenna facilities shall be located away from the street right-of-way, or otherwise screened from view from any street by an opaque fence, wall, or hedge of a minimum of 6 feet in height. (Am. Ord. 1887, passed 04.15.02) All ground-mounted antenna shall abide by the regulations for a typical accessory structure.
- b. Storage of wood or any other combustible material which could be used in fireplaces, stoves or any other equipment for heating are not to exceed five (5) cords per zoning lot, one (1) cord being a cubic area of 128 cubic feet (4' x 4' x 8'). Firewood shall be used exclusively by dwelling occupants and stored in the rear yard. Material must be stacked in rear yard in cord measurements and must be a minimum of four (4) inches off the ground. No storage is permitted within the 100-year flood zone as defined by FEMA Maps.

Part 7: Prohibited Accessory Uses or Structures (Am Ord #2312, passed 8.21.06)

None of the following shall be permitted accessory uses or structures:

- a. Outdoor storage or overnight parking of trucks with an empty weight in excess of four (4) tons, or height in excess of ninety (90) inches in residential district; construction or commercial vehicles or equipment, loaded or containing product or material, unless wholly enclosed, unless actively involved in a project within the lot; or buses designed for more than eleven (11) passengers during normal school year vacation periods in a residence district;
- b. Any other outdoor storage, except as specifically permitted elsewhere in this Ordinance;
- c. Manufactured homes;
- d. Windmill towers, in excess of twelve (12) feet in height;
- e. Cargo Containers, as defined by Article 12 of this ordinance shall be considered a form of outdoor storage that is strictly prohibited in all zones, except where as:
 1. Existing cargo containers located on properties with an approved special use for outdoor storage are a legal non-conforming use during an amortization period of one (1) year, after which the containers are considered illegal non-conforming and must be removed. No additional containers shall be added to the property during the amortization period, or;
 2. A temporary permit is issued by the Village for the purpose of moving or relocating, either permanently or temporarily, personal or business property, subject to the following conditions:

- a. In the E-R, R-1, R-2, R-3, R-4 and HR Districts, there shall be a fifteen dollar (\$15) temporary permit fee. No more than one (1) temporary cargo container shall be permitted, and said container must be removed from the premises within thirty (30) days;
 - b. In the B-2, B-3, B-4, H-1, O-R, I-1, and I-2 Districts, there shall be a ninety dollar (\$90) temporary permit fee. No more than three (3) temporary cargo containers shall be permitted, and said containers(s) must be removed from the premises within ninety (90) days;
 - c. One (1) extension period equal to the corresponding time restriction in 2.a) or 2.b) may be permitted if extenuating circumstances are determined by the Code Official.
 - d. No more than two (2) temporary permits may be granted for the same property during a calendar year. If an extension is granted during a calendar year, the extension period shall constitute a second temporary permit.
- Or:
- e. The cargo container is used for the purpose of a construction project duly proceeding toward completion. Upon completion of the construction activity that the container supports, the container must be promptly removed from the site.
- And;
- f. At all times, any and all cargo containers must be maintained in a like-new condition.
- f. Stand-alone Automated Teller Machines (ATM) not associated with a permitted drive-up facility. (Am. Ord. 2495, passed 08.04.08)
 - g. Outdoor vending machines. (Am. Ord. 2495, passed 08.04.08)

Section E: Temporary Uses

The following uses of land are permitted in Commercial, Office, or Industrial districts (unless specifically restricted to a particular zoning district), subject to the specific regulations and time limits as described herein and to the other applicable regulations of the district or districts in which they are located. Such uses must be approved by the Code Official through issuance of a permit. The temporary use permit shall specify the location of the building, yard, or use, and the area of the permitted operation. Temporary uses must satisfy the applicable conditions as follows:

Section D: Accessory Uses and Structures

Part 1: General Requirements

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- b. Accessory uses and structures, as defined in Article 12, in the B-1, B-2, B-3, B-4, O-R, I-1, I-2 and H-1 when the property is not used for single-family residential, must be approved during the site plan review process (as described in Article 3, Section H).
- c. Residential accessory uses and structures shall not involve the conduct of any business, trade, or industry.
- d. Accessory uses and structures must be in connection with a principal use which is permitted within such district.
- e. Each accessory structure and use shall comply with the use limitations applicable in the zoning district in which it is located.
- f. No accessory structure shall be constructed or occupied on any lot prior to the completion of the principal structure to which it is an accessory.
- g. Pole barns, silos and other accessory farm structures shall be permitted only within the A-G zone district.
- h. Any structure with a roof and attached to the primary structure shall be considered part of the primary structure and shall abide by the requirements for primary structures in that zone district.
- i. Any exterior wall of an accessory structure shall not exceed 35' of uninterrupted wall length. For the purposes of this section an interruption shall be defined as an offset in a wall plane and underlying foundation measuring a minimum of one (1) foot.

Part 2: Bulk Regulations

- a. Location:
 - 1. Accessory structures shall only be permitted within side and rear yards, except within the A-G zone district.
 - 2. Accessory structures shall be located behind the front of the primary structure along a front yard or corner side yard, except within the A-G zone district.

3. Accessory structures shall be set back at least ten (10) feet from any lot line, except for the A-G zone district, in which they must meet the required front, side and rear setbacks for the primary structure.
 4. Accessory structures, except for open patios, open terraces, open decks and similar structures at or near grade without a roof, shall maintain a separation minimum distance of ten (10) feet between other accessory structures and from the primary structure.
 5. Accessory structures, including open patios, open terraces, open decks and similar structures at or near grade without a roof, shall not have any separation requirement from other accessory structures or the primary structure, except for raised decks which must be attached to the primary structure or separated from it by at least ten (10) feet.
 6. Swimming pools shall be set back at least ten (10) feet from the primary structure. A minimum separation is not required from a swimming pool to an open patio, open terrace, open deck or similar structures without a roof.
- b. Size:
1. Accessory structures, only including arbors, trellises, pergolas, gazebos and pool cabanas may be two hundred fifty (250) square feet or 1.7% of the area of the parcel, whichever is greater, but in no instance shall they exceed one thousand (1,000) square feet.
 2. Accessory structures, including sheds, child playhouses, permanently affixed outdoor fireplaces and stoves, greenhouses, laundry drying equipment and trash enclosures shall not exceed one hundred forty-four (144) square feet in size. Sheds within manufactured home parks shall not exceed two hundred twenty-five (225) square feet in size.
 3. There shall be no size limitation for swimming pools, open patios, open terraces, or open decks except as restricted by the other regulations of this Ordinance.
 4. Detached garages in manufactured home parks shall not exceed six hundred (600) square feet.
 5. Detached garages not located in manufactured home parks shall not exceed the area of the footprint of the primary structure, except within the A-G zone district.
 6. There shall be no size limitation for farm structures, except as restricted by other regulations of this Ordinance.
 7. All other accessory structures not specifically listed within this subsection shall not exceed one hundred forty-four (144) square feet in size.

8. Each accessory structure and use shall otherwise comply with the bulk regulations applicable in the district in which it is located, including maximum lot coverage, maximum impervious coverage and maximum rear yard coverage (Article 6, Section B, Part 1).
- c. Height:
 1. All accessory structures, except farming structures including pole barns, silos and similar structures, shall not exceed fifteen (15) feet in height.
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 1. For structures that have walls, measurement shall be made from the exterior walls.
 2. For structures that have posts but no walls, measurement shall be made from the exterior edges of the posts.

Part 3: Garage Provisions

- a. A maximum of one (1) detached garage per zoning lot is permitted.
- b. All garages greater than three-cars in size must be side-loaded in orientation and driveways shall have a minimum 26' turning radius.
- c. Architecture of garages shall be similar and compatible to the primary structure, including building materials and the roof pitch.
- d. All garages must be constructed as enclosed buildings.
- e. All garages must be constructed on a concrete pad.

Part 4: Recreational Equipment/Vehicle and/or Construction/Commercial Equipment Provisions

- a. Outdoor parking of recreational equipment/vehicle and/or construction/commercial related vehicles, provided that:
 1. If the owner is actively involved in maintenance, loading or unloading the equipment, it may be parked on a residential driveway, however duration does not exceed forty-eight (48) hours;
 2. The Code Official may issue a Special Permit for out-of-town visitor parking for Recreational Vehicles parked on a driveway for a period not to exceed fifteen (15) days. Not more than six (6) such permits may be issued in any calendar year;

3. Equipment/vehicle is parked on an approved paved surface;
4. No part of storage area for vehicles is located in any required front, side, or rear setback, as defined by the provisions of this Code;
5. The front of the vehicle does not extend in front of the front façade of the primary structure;
6. Construction or commercial vehicles or equipment are not loaded or containing product or material, unless wholly enclosed or actively involved in a project within the lot;
7. Vehicle does not exceed an empty weight of four (4) tons or height in excess of ninety (90) inches;
8. Equipment/vehicle is screened from view from the public street by a fence or landscaping.

Part 5: Swimming Pool Provisions

- a. Fencing. Every outdoor swimming pool, whether above ground or level with the ground, having a maximum depth of over two (2) feet, shall be completely surrounded by a fence not less than four (4) feet, nor more than five (5) feet in height. A building, existing wall, or pool wall may be used as part of such enclosure as long as the barrier requirements are met as required by the building code. Such required fence shall comply with all requirements of other Village ordinances pertaining to fences, and the provisions of this Section shall not be construed to require or permit any fence heights greater than permitted by such other ordinances. (Am. Ord. 1887, passed 04.15.02) (Am. Ord. 2230, passed 10.17.05)
- b. Gates or Doors. All gates or doors opening through the required fence shall be designed for security, in accordance with the Building Code of the Village of Frankfort.
- c. Screening. If the fencing provided is anything other than solid fencing, the pool shall be effectively screened from view from outside the lot by densely-planted compact trees or hedges, providing at least fifty percent opacity when viewed between two (2) feet and five (5) feet above ground.
- d. Setback Requirements. All outdoor swimming pools are considered accessory structures, and shall meet minimum setback requirements, in addition thereto, shall be set back an additional two (2) feet for each one (1) foot of structure height exceeding five (5) feet. For the purpose of this section, the words “structure height” shall include any railings or other projections above the pool surface.
- e. Water Discharge. The water discharged from a swimming pool shall be drained into the sanitary sewer or storm water system, as approved by the Village.

Part 6: Other Provisions

- a. One parabolic satellite dish-type antenna per zoning lot, which is not more than two (2) feet in diameter. All roof-mounted antenna shall not exceed the maximum building height permitted in that zoning district. All satellite antenna facilities shall be located away from the street right-of-way, or otherwise screened from view from any street by an opaque fence, wall, or hedge of a minimum of 6 feet in height. (Am. Ord. 1887, passed 04.15.02) All ground-mounted antenna shall abide by the regulations for a typical accessory structure.
- b. Storage of wood or any other combustible material which could be used in fireplaces, stoves or any other equipment for heating are not to exceed five (5) cords per zoning lot, one (1) cord being a cubic area of 128 cubic feet (4' x 4' x 8'). Firewood shall be used exclusively by dwelling occupants and stored in the rear yard. Material must be stacked in rear yard in cord measurements and must be a minimum of four (4) inches off the ground. No storage is permitted within the 100-year flood zone as defined by FEMA Maps.

Part 7: Prohibited Accessory Uses or Structures (Am Ord #2312, passed 8.21.06)

None of the following shall be permitted accessory uses or structures:

- a. Outdoor storage or overnight parking of trucks with an empty weight in excess of four (4) tons, or height in excess of ninety (90) inches in residential district; construction or commercial vehicles or equipment, loaded or containing product or material, unless wholly enclosed, unless actively involved in a project within the lot; or buses designed for more than eleven (11) passengers during normal school year vacation periods in a residence district;
- b. Any other outdoor storage, except as specifically permitted elsewhere in this Ordinance;
- c. Manufactured homes;
- d. Windmill towers, in excess of twelve (12) feet in height;
- e. Cargo Containers, as defined by Article 12 of this ordinance shall be considered a form of outdoor storage that is strictly prohibited in all zones, except whereas:
 - 1. Existing cargo containers located on properties with an approved special use for outdoor storage are a legal non-conforming use during an amortization period of one (1) year, after which the containers are considered illegal non-conforming and must be removed. No additional containers shall be added to the property during the amortization period, or;
 - 2. A temporary permit is issued by the Village for the purpose of moving or relocating, either permanently or temporarily, personal or business property, subject to the following conditions:

- a. In the E-R, R-1, R-2, R-3, R-4 and HR Districts, there shall be a fifteen dollar (\$15) temporary permit fee. No more than one (1) temporary cargo container shall be permitted, and said container must be removed from the premises within thirty (30) days;
 - b. In the B-2, B-3, B-4, H-1, O-R, I-1, and I-2 Districts, there shall be a ninety dollar (\$90) temporary permit fee. No more than three (3) temporary cargo containers shall be permitted, and said containers(s) must be removed from the premises within ninety (90) days;
 - c. One (1) extension period equal to the corresponding time restriction in 2.a) or 2.b) may be permitted if extenuating circumstances are determined by the Code Official.
 - d. No more than two (2) temporary permits may be granted for the same property during a calendar year. If an extension is granted during a calendar year, the extension period shall constitute a second temporary permit.
- Or:
- e. The cargo container is used for the purpose of a construction project duly proceeding toward completion. Upon completion of the construction activity that the container supports, the container must be promptly removed from the site.
- And;
- f. At all times, any and all cargo containers must be maintained in a like-new condition.
- f. Stand-alone Automated Teller Machines (ATM) not associated with a permitted drive-up facility. (Am. Ord. 2495, passed 08.04.08)
- g. Outdoor vending machines. (Am. Ord. 2495, passed 08.04.08)

Section E: Temporary Uses

The following uses of land are permitted in Commercial, Office, or Industrial districts (unless specifically restricted to a particular zoning district), subject to the specific regulations and time limits as described herein and to the other applicable regulations of the district or districts in which they are located. Such uses must be approved by the Code Official through issuance of a permit. The temporary use permit shall specify the location of the building, yard, or use, and the area of the permitted operation. Temporary uses must satisfy the applicable conditions as follows:

Variation Requests since 2020									
Address	Name	Category	PC Date	Action	Structure Size Requested (SF)	Lot Size	% of Lot	Max size per ordinance at the time	If it were 1.7%
10650 Yankee Ridge	Murphy	Pool Cabana	6/24/21	tabled	288	24,343	1.18%	144	414
10650 Yankee Ridge	Murphy	Pool Cabana	7/22/21	tabled	288	24,343	1.18%	144	
10650 Yankee Ridge	Murphy	Pool Cabana	8/12/21	approved	255	24,343	1.05%	144	
10677 Yankee Ridge	Morgan	Pergola	4/14/22	tabled	288	20,024	1.44%	250	340
10677 Yankee Ridge	Morgan	Pergola	6/22/23	denied	288	20,024	1.44%	250	
11258 York	Wagner	Pool Cabana	6/24/21	tabled	360	18,034	2.00%	144	307
11258 York	Wagner	Pool Cabana	8/12/21	approved	240	18,034	1.33%	144	
11195 Siena	Hampton	Pergola	10/14/21	approved	215	21,792	0.99%	144	370

Pergolas & Gazebos approved in 2023							
Address	Permit #	Category	Structure Size Approved	Lot Size	% of Lot	Max size per ordinance at the time (SF)	If it were 1.7%
22402 Hughes	PGP23-0001	Gazebo	171	21,455	0.80%	250	365
21203 N. Old Church	PGP23-0004	Pergola	256	17,811	1.44%	250	303
8795 Chilton	PGP23-0005	Pergola	192	24,970	0.77%	250	424
11835 Jennifer	PGP23-0006	Gazebo	192	15,000	1.28%	250	255
22661 Frontier	PGP23-0007	Gazebo	140	16,172	0.87%	250	275
22516 Parkview	PGP23-0008	Pergola	252	15,008	1.68%	250	255
8595 High Stone	PGP23-0009	Pergola	130	22,004	0.59%	250	374
22460 Blarney	PGP23-0010	Pergola	225	23,304	0.97%	250	396
10580 Lexington	PGP23-0016	Gazebo	240	15,932	1.51%	250	271
21399 Ginger	PGP23-0018	Pergola	256	15,469	1.65%	250	263
21420 Breton	PGP23-0011	Pergola (attached)	546	13,817	3.95%	250	235
482 Pleasant Hill	PGP23-0012	Pergola (attached)	323	17,219	1.88%	250	293
22385 Misty Falls	PGP23-0015	Gazebo (attached)	441	16,972	2.60%	250	289
22013 Coriander	PGP23-0017	Gazebo (attached)	319	15,488	2.06%	250	263

Small-Large Lot Comparison					
	Address	Subdivision	Lot area (SF)	Pool cabana size if 1.7% scale implemented (SF)	Notes
Very Small	143 Kansas	Original Village of Frankfort	4,902	250	Not possible without variations for lot coverage, setbacks, etc.
Small	170 Vail	Creekview	14,410	250	Possible without variations
Typical Size	22398 Jeanette	Misty Falls	15,000	255	Possible without variations
Large	22985 Landcaster	Crystal Brook	35,065	596	Possible without variations
Very Large	23359 Sunburst	Five Oaks	65,877	1,000	1.7% of lot area is 1,120 SF, but the cap of 1,000 SF supersedes