

**GENOA CHARTER TOWNSHIP  
PLANNING COMMISSION  
SPECIAL MEETING AND PUBLIC HEARING  
FEBRUARY 13, 2024  
TUESDAY  
6:30 P.M.  
AGENDA**

**CALL TO ORDER:**

**PLEDGE OF ALLEGIANCE:**

**APPROVAL OF AGENDA:**

**DECLARATION OF CONFLICT OF INTEREST:**

**CALL TO THE PUBLIC: *(Note: The Board reserves the right to not begin new business after 10:00 p.m.)***

**OLD BUSINESS:**

**OPEN PUBLIC HEARING #1**...Consideration of a site plan application, environmental impact assessment and site plan for a proposed car wash with 2 automatic bays, 4 self-service bays and 5 vacuum stations located within the existing Genoa Outlots PUD. The property is located on a vacant 1.39 acre site (parcel#4711-09-200-028), southwest corner of Grand River Avenue and Lawson Drive. The request is petitioned by Springborn Properties.

- A. Recommendation of Environmental Impact Assessment (1-23-24)
- B. Recommendation of Site Plan (1-23-24)

**NEW BUSINESS:**

**OPEN PUBLIC HEARING #2**...Consideration of a sketch plan for a facade updates to the existing Discount Tire building located at 3480 E. Grand River Avenue, located on the northeast corner of Grand River Avenue and Grand Oaks Drive. The request is petitioned by Isaac Nagel.

- A. Disposition of Sketch Plan (11-21-23)

**OPEN PUBLIC HEARING #3**...Consideration of a site plan application, environmental impact assessment and site plan for the reconstruction of the Faulkwood Shores Clubhouse building located at 300 S. Hughes Road, west side of S. Hughes Road, north of Arrow Drive. The request is petitioned by Singh Development, LLC.

- A. Recommendation of Environmental Impact Assessment (11-29-23)
- B. Disposition of Site Plan (1-22-24)

**ADMINISTRATIVE BUSINESS:**

- Staff Report
- Member discussion
- Adjournment

\*Citizen's Comments- In addition to providing the public with an opportunity to address the Township Board at the beginning of the meeting, opportunity to comment on individual agenda items may be offered by the Chairman as they are presented. Anyone speaking on an agenda item will be limited to 2 minutes.



GENOA CHARTER TOWNSHIP
Application for Site Plan Review

TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: Springborn Properties
If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: Russ Springborn

SITE ADDRESS: 3535 High Hillcrest Dr PARCEL #(s): 4711-09-200-028

APPLICANT PHONE: 313 350-3358 OWNER PHONE: 313 350-3358

OWNER EMAIL: russ@soringbornproperties.com

LOCATION AND BRIEF DESCRIPTION OF SITE: Lot 4 of 'Genoa Outlots LLC' PUD
deveopment - Kohl's Anchor. 1.54 acre lot front Grand River Avenue.
Access by Lawson Drive private road. Site is vacant, mowed lawn
Site is served by municipal water & sanitary sewer & regional stornn basin,

BRIEF STATEMENT OF PROPOSED USE: Proposed for carwash including
4 self-serve wash bays and 2 wash automatic bays & vacuum stations

THE FOLLOWING BUILDINGS ARE PROPOSED: 1 carwash building encompassing
All bays and mechanical room spaces

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE
PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY
KNOWLEDGE AND BELIEF.

BY: [Signature]

ADDRESS: 3535 High Hillcrest Drive Howell, MI 48843



**Contact Information** - Review Letters and Correspondence shall be forwarded to the following:

1.) Patrick Cleary of Boss Engineering at patrickc@bosseng.com  
Name Business Affiliation E-mail Address

**FEE EXCEEDANCE AGREEMENT**

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

SIGNATURE: Russell Springborn DATE: 10/17/23  
PRINT NAME: Russell Springborn PHONE: 313-350-3350  
ADDRESS: 3535 High Hillcrest Dr Howell, MI 48843

There was a discussion regarding the drive thru stacking. Mr. Crawford advised there are issues sometimes, but the cars needing to back out of a space wait for the drive thru car to move forward.

Commissioner Dhaenens agrees with Vice-Chairman Rauch's idea of the land swap. He would like the Township to be involved in the conversation between the petitioner and the land owner. Mr. Crawford stated he needs to meet the spring 2024 deadline from Arby's corporate.

Commissioner McCreary also agrees with Vice-Chairman Rauch's idea. It is a forward thinking idea and could be a positive for the applicant, the property owner, and the township.

Vice-Chairman Rauch asked the commissioners their opinions on the current issues with the existing site, such as the parking, drive thru stacking, etc. Mr. Borden stated it is always the desire to improve sites; however, the parking issues are minor and if they do not pose problems at this time, he recommends allowing them to remain. All commissioners agreed to allow the existing angled parking, but the parallel parking must be removed.

The call to the public was made at 7:33 pm with no response.

Ms. Ball stated that she will comply with all the requirements in Mr. Borden's review letter.

After a discussion regarding the outstanding issues, the commission and the applicant decided to table the item this evening.

**Moved** by Commissioner Dhaenens, supported by Commissioner Chouinard, to table the review of an expansion, remodel and exterior site improvements for the existing Arby's Restaurant located at 3639 E. Grand River Avenue to allow the applicant to address the feedback this evening regarding the amount of EIFS, the drive-thru stacking, the possibility of a shared parking agreement, plantings, and to contact staff to facilitate a discussion between the applicant, the township, and the property owner. **The motion carried unanimously.**

**OPEN PUBLIC HEARING #3...** Consideration of a site plan application, environmental impact assessment and site plan for a proposed car wash with 2 automatic bays, 4 self-service bays and 5 vacuum stations located within the existing Genoa Outlots PUD. The property is located on a vacant 1.39 acre site (parcel#4711-09-200-028), southwest corner of Grand River Avenue and Lawson Drive. The request is petitioned by Springborn Properties.

- A. Recommendation of Environmental Impact Assessment (10-31-23)
- B. Recommendation of Site Plan (12-18-23)

Mr. Patrick Cleary of Boss Engineering, Mr. Russ Springborn, the owner, and Mr. Dave Richardson of Lindhout & Associates, the architect, were present.

Mr. Cleary provided a review of the project. They would like to develop a car wash, which is a permitted use in this PUD. He showed the site plan and photos of an existing facility in the City of Howell.

Mr. Borden reviewed his letter dated January 2, 2023.

1. Use Conditions (Section 7.02.02(l)). Three of the five conditions are not applicable or have been met. There are two outstanding.
  - a. The self-service wash bays are not within a completely enclosed building. He suggested having bay doors installed. Mr. Cleary stated having overhead doors creates challenges and they would prefer not to have them. Mr. Springborn stated having doors is a safety issue.
  - b. The two automatic wash bays do not provide the required 15 stacking spaces required. One provides 12 spaces and the other provides 8. Mr. Cleary stated that if 15 cars are stacked at a bay, the last car would be waiting for 1 ½ hours. On average, there are six cars in line. The seventh customer would leave and not wait. The data from the existing Soapy Bucket car wash in Howell, which has been in business for four years, shows that there has never been more than eight cars stacked at one time.
2. Site Plan Review:
  - a. Building materials and color scheme are subject to approval by the Planning Commission. He noted that the colors and building materials are high quality; however, the vacuum stations are bright blue. Mr. Richardson showed sample materials of the blue for the vacuums and the bollards. They are located along Lawson Drive and cannot be seen from Grand River.
  - b. The sidewalk easement is subject to review by the Township's engineering consultant, and we suggest the easement be extended to cover the entire sidewalk.
  - c. The slight driveway offset along Lawson Drive may disrupt traffic flow.
  - d. A traffic impact assessment is required based on the trip generation that was provided in the impact assessment, but the Planning Commission can waive this requirement. The applicant will provide this if required. Ms. Byrne stated this assessment would only provide data for Lawson Drive and not Grand River.
  - e. The easterly greenbelt is deficient in width and two trees, while the southerly greenbelt is deficient in two trees; however, both areas provide excess shrubs plantings to help offset the trees.

Ms. Byrne reviewed her letter dated January 3, 2024.

1. The proposed catch basins are labeled, but actual structures are not shown at the pipe junctions. This may be a plotting error.
2. The site plan proposes exterior trench drains that connect to the sanitary sewer outside of the car wash in the area where vehicles will stack to get into the car wash. Any trench drains connected to the sanitary sewer should be within the carwash or covered areas and should not receive site storm drainage from outside the carwash. Genoa-Oceola Sewer and Water Authority design standards do not allow for storm sewer facilities to be connected to their sanitary sewer. The eight exterior trench drains shown connecting to the sanitary sewer will

not be allowed and shall be removed from the site plan. If the existing building layout does not allow for effective containment and collection of vehicle runoff within the carwash, then the carwash will need to be modified so that no runoff from within the carwash is going into the on-site storm sewer. The applicant agreed to remove all the exterior trench drains.

The Brighton Area Fire Authority Fire Marshal's letter dated December 22, 2023 stated the applicant has addressed all of his concerns.

The call to the public was made at 8:41 pm.

Mr. Steve Samona, who represents Genoa Outlots, stated they only became aware of this recently. They are concerned with the traffic flow and the stacking onto Lawson Drive. The existing traffic study is over 20 years old. They have not been contacted about the cross access. This site shares a detention pond with the entire development and it discharges into Lake Chemung across Grand River. They want to ensure that runoff from the car wash does not end up in the lake. He also has not had time to review all of the PUD documents to ensure that all of the approvals have been obtained and all use restrictions are met.

Mr. Harvey Weiss with Genoa Outlots reiterated Mr. Samoa's concerns. He is concerned with the site circulation and stacking onto Lawson Drive.

The call to the public was closed at 8:53 pm.

Mr. Springborn stated that he purchased the property because it is specifically approved for a car wash. They can remove the driveway that would require the cross access easement, and there is sufficient containment for the car wash run off.

Commissioner McBain feels the building is too large for the site. There are a lot of safety issues with the traffic flow.

Commissioner Dhaenens is in favor of the material and the business, but he is also concerned with the traffic stacking. He suggested reorienting the building to address that issue. Mr. Cleary noted that the waiting cars and the vacuums would be more visible from Grand River if the building was moved. Vice-Chairman Rauch agrees, but suggested the view can be mitigated with landscape screening.

Commissioner Chouinard is in favor of the proposed building design and materials. It is a beautiful building. However, he would like to have the blue removed. The other commissioners agree.

**Moved** by Commissioner McCreary, supported by Commissioner Rassel, to table the review for a proposed car wash with two automatic bays, four self-service bays and five vacuum stations located within the existing Genoa Outlots PUD to allow the applicant to address the colors, engineer's report, planner's review, stacking, building orientation, and other items discussed this evening. **The motion carried unanimously.**



32820 Woodward Avenue, Suite 240  
Royal Oak, MI 48073  
(248) 565-8582

January 8, 2024

Genoa Township  
Attn: Kelly VanMartar  
2911 Dorr Road  
Brighton, MI 48116

**Re: 1415 Lawson Drive, Genoa Twp, MI  
Site Plan**

Dear Kelly,

It has come to our attention that the above referenced property is seeking site plan approval for a car wash facility (“Car Wash”). The Car Wash would be part of the Genoa Square Shopping Center (“GSSC”), and share roads, access, detention and other facilities with the development. I am writing this letter on behalf of Genoa Square, LLC who owns the shopping center at 1251 Lawson Drive and Genoa Outlots, LLC who owns the two vacant adjacent outlots to the Car Wash. The principals behind those entities are also the original developers of the GSSC.

While we do not object to development of the property and are excited to see more activity in the GSSC, we are concerned with what is being proposed. The Car Wash property was sold initially in 2005, after being site plan approved for a Tutor Time. Unfortunately, the property has sat undeveloped since. On December 19, 2023, we first become aware of the new owner of the property and the proposed Car Wash. Based on the materials we have seen, it looks like this has been in process since summer of 2023. At no point had anyone notified or involved us. Since we became aware of the matter, we have done our best to gather our responses here with the limited time and information we have. We have concerns regarding the impact this could have on the community, our properties, the shared common areas and the development as whole. We feel that there should have been dialogue with us and other property owners in the development here to make sure the Car Wash is developed in a proper manner.

One of our concerns is the potential environmental impact the Car Wash could have on our property and the community. We anticipate the car wash to use a large volume of chemicals and wastewater. The use could potentially result in environmental contamination of our properties if this were to migrate through the ground or water. Further, the entire development shares a detention pond with the Car Wash. This same detention pond discharges water into Lake Chemung across Grand River. There are houses there and people using the lake. It is unclear if

wastewater from the Car Wash is designed to go into the storm water facilities, or what is being done to prevent chemicals from entering them, if not designed that way. If contamination from the Car Wash makes its way into the storm water facilities, it would discharge the same chemicals into our detention pond and make its way into Lake Chemung. This would be a major public health and safety issue. There is no discussion on design or safeguards to avoid environmental contamination. We need to ensure proper measures are in place to prevent a threat to the community, as well as the properties, tenants, customers and employees of the GSSC.

We are also concerned with the potential traffic impacts and safety risks to drivers and pedestrians. The Car Wash is only accessible through Lawson Drive, a ring road on the property used by all the tenants in the GSSC. We are in charge of managing this road. The Car Wash is proposing one curb cut on Lawson Drive. It appears users of the automated carwash enter and turning right on the property, while users of a self-serve car wash are supposed to bypass them and head straight. Meanwhile, cars exit from that same curb cut. This seems like a recipe for confusion and congestion, as well as a major safety hazard. Per the notes provided to us, the Car Wash also does not have the required stacking by code. This will lead to traffic spilling over and stacking into Lawson Drive. This is a safety hazard for drivers and the customers, tenants and employees for the rest of the development. At a minimum, a traffic study would need to be done to evaluate the situation fully. Yet, no traffic study was provided despite being required by the township. Proposing site plan approval here without a traffic study seems premature. We would need a proper traffic study and involvement from our consultants to ensure there is no adverse impact. We are sure the other tenants and owners in the GSSC would want the same opportunity.

We also object to the proposed “cross-access” of the property with the property we own. This is not something we had agreed to or discussed. The current site plan proposes that customers exiting the self-serve and automated car wash could enter our property to the west immediately afterward. This would divert a great deal of their exit traffic onto our property, and have them use our property as a primary exit. The property to the west has not been developed. Doing this now would severely limit our ability to develop and design the property in the future. Furthermore, this would further migration of potential environmental contamination onto our site, put further wear and tear and traffic on our site, and could result in potential traffic hazards in the future. We are disappointed the Car Wash applicant proposes to use our property without our involvement. Consenting to cross access at this stage, based on what is proposed and the uncertainty of the future development of the site, could severely limit potential development in the future. Cross-access is certainly something we would like to investigate in the future when the neighboring property is developed, but not something we think makes sense at this phase.

We further do not like the appearance of the self-serve car wash facility, especially one visible to the road. The design with all cars exiting the car wash along the entry of the development is something we are not in favor of. This does not fit with the goal of a first-class appearance for the development or meet the standards of the community as a whole.

What is also unclear is the impact this would have on the various development documents and whether this the Car Wash development is permitted under them. The property is bound by a Reciprocal Easement Agreement, PUD and other agreements that govern and restrict the usage and development of the property and require consent and approvals from various parties. We do not know if the property owner has provided the proper consents and approvals necessary under those various documents. To the extent our approval or consent is required, it has not been requested or provided.

We thank you for your consideration in allowing us to voice our concerns on the matter. We would be happy to discuss this further if needed.

Very Truly Yours,

Steven S. Samona

SSS

February 6, 2024

Planning Commission  
 Genoa Township  
 2911 Dorr Road  
 Brighton, Michigan 48116

<b>Attention:</b>	Amy Ruthig, Planning Director
<b>Subject:</b>	Soapy Bucket Car Wash – Site Plan Review #3
<b>Location:</b>	1415 Lawson Drive – southwest corner of Grand River Avenue and Lawson Drive
<b>Zoning:</b>	NRPUD Non-Residential Planned Unit Development

Dear Commissioners:

At the Township’s request, we have reviewed the revised submittal from Springborn Properties for development of a car wash at 1415 Latson Road (plans dated 1/23/24).

**A. Summary**

**1. Use Conditions (Section 7.02.02(I)):**

- a. The self-service wash bays are not within a completely enclosed building.

**2. Site Plan Review:**

- a. The applicant must identify the proposed color for the vacuum stations.
- b. Building materials and color scheme are subject to approval by the Planning Commission.
- c. A traffic impact assessment is required, though the Commission may waive or modify this requirement.
- d. The schedule of light fixtures notes 12 wall mounted fixtures, though the plan depicts only 11.
- e. The easterly greenbelt is partially deficient in width.
- f. The landscape plan is deficient by 4 trees, though there are 87 excess shrubs provided above Ordinance requirements.

**B. Proposal/Process**

The applicant proposes development of a car wash with 2 automatic bays and 4 self-service bays on the vacant 1.39 acre site. The project includes 6,877 square feet of building area, as well as 5 vacuum stations.

Exhibit C of the Genoa 24 Grand PUD Agreement allows automobile washes (automatic or self-serve) as principal permitted uses within the PUD. The proposed development is subject to GCD dimensional standards, as well as the use conditions of Section 7.02.02(I).

Procedurally, the Planning Commission is to review the site plan and Environmental Impact Assessment.

The Commission has approval authority over the site plan, but is to put forth a recommendation to the Township Board on the Environmental Impact Assessment.





*Aerial view of site and surroundings (looking north)*

### C. Use Conditions

Automobile washes are subject to the use requirements of Section 7.02.02(1), as follows:

**1. Only one (1) ingress/egress driveway shall be permitted on any single street.**

The site plan depicts 1 ingress/egress driveway to/from Lawson Drive on the south side of the site.

**2. Where adjoining a residential district, a solid fence or wall six (6) feet in height shall be erected along any common lot line. Such fence or wall shall be continuously maintained in good condition. The Planning Commission may require landscaping, including a berm, as an alternative.**

The subject site does not adjoin a residential district.

**3. All washing facilities shall be within a completely enclosed building.**

The automatic wash portion of the building is enclosed, with automatic overhead doors on both sides.

The self-service bays have open ends, though the revised building orientation will help to screen views of the open wash bays from Grand River.

**4. Vacuuming and drying may be located outside the building, but shall not be in the required front yard and shall be set back at least fifty (50) feet from any residential district.**

These conditions are met.

**5. All cars required to wait for access to the facilities shall be provided stacking spaces fully off the street right-of-way which does not conflict with vehicle maneuvering areas to access gasoline pumps or vacuums, and as required Article 14, Parking and Loading-Unloading Standards.**

Section 14.04 requires 15 stacking spaces per automatic bay and 2 stacking spaces per self-service bay.

The revised building orientation provides compliant stacking for each wash bay (automatic and self-service).

**D. Site Plan Review**

- 1. Dimensional Requirements.** As shown in the table below, the proposal complies with the dimensional requirements for development in the Genoa 24 Grand PUD:

	Min. Lot Req.		Minimum Yard Setbacks (feet)				Max. Lot Coverage (%)	Max. Height
	Area (acres)	Width (feet)	Front Yard	Side Yard	Rear Yard	Parking Lot		
<b>GCD</b>	1	150	35	15	50	20 front 10 side/rear	35% building 75% impervious	35' 2 stories
<b>Proposal</b>	1.39	226	58 (N)	80 (E) 40 (W)	150 (S)	35 front 10 side	11.4% building 58.4% impervious	31.5' 1 story

It is worth noting that the PUD Agreement specifically identifies the easterly property line as a side lot line and the southerly lot line as a rear lot line (though they are along a roadway).

- 2. Building Design and Materials.** The building is primarily brick with a stone base, and utilizes earth-tone colors, which is consistent with the requirements of the PUD Agreement.

The previous submittal included blue vacuum stations. The cover letter included with the revised submittal notes that the blue color has been changed, though there is no indication of the newly proposed color.

Building materials and colors are subject to review and approval by the Planning Commission.

- 3. Pedestrian Circulation.** The site plan proposes an 8-foot wide concrete sidewalk along Grand River, as required.
- 4. Vehicular Circulation.** The site plan proposes 1 curb cut for a full turning movement driveway along Lawson Drive.

The proposed driveway is spaced as far as practical from the 90-degree turn in Lawson Drive, though it is only slightly offset from the driveway across Lawson to the south.

The revised building orientation mitigates the stacking deficiency of previous submittals, which will help to prevent back-ups into Lawson Drive.

As noted in previous reviews, a traffic impact assessment is required, per Section 18.07.09. However, the Commission may waive this requirement or modify the required contents.

The applicant must also address any comments provided by the Township Engineer and/or the Brighton Area Fire Authority with respect to vehicular circulation.

- 5. Parking.** Based on information contained in the submittal, the project requires 3 parking spaces. The site plan provides 6 parking spaces (5 of which double as vacuum stations), including the required barrier-free space.

The dimensions and design of parking spaces and drive aisles comply with Ordinance standards.

- 6. Exterior Lighting.** The lighting plan identifies 9 light poles and 11 wall mounted fixtures (the notes indicate 12, but only 11 are depicted).

Additionally, the ornamental lighting required by the PUD Agreement is provided along Grand River (4 poles/fixtures).

Based on the detail sheets, the proposed fixtures are downward direct LED (aside from the ornamental lighting).

Pole heights and photometric readings comply with Ordinance standards.

The current submittal does not include ornamental lighting along Grand River, as required by Section 7.5 of the PUD Agreement, as was noted in the previous submittal.

- 7. Landscaping.** The landscape plan has been reviewed for compliance with the standards of Section 12.02, as follows:

Standard	Required	Proposed	Notes
Front yard greenbelt (N)	20' width 6 canopy trees	35' width 6 canopy trees	In compliance
Front yard greenbelt (E)	20' width 8 canopy trees	12' to 20'+ width 6 canopy trees 30 shrubs	Partially deficient in width and tree plantings
Front yard greenbelt (S)	20' width 5 canopy trees	25' width 3 canopy trees 37 shrubs	Deficient in tree plantings
Buffer Zone C (W)	10' width 18 canopy trees OR 18 evergreen trees OR 70 shrubs	10' width 90 shrubs	In compliance

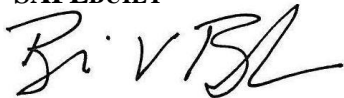
Though the landscape plan is deficient by 4 trees, there are 87 excess shrubs provided along the perimeter of the property.

- 8. Waste Receptacle.** The proposed waste receptacle has been reviewed for compliance with the standards of Section 12.04, as follows:

	Requirement	Proposed	Comments
Location	Rear yard or non-required side yard	Rear yard	Requirement met
Access	Clear access w/ out damaging buildings/vehicles	Turning template demonstrates sufficient maneuvering area	Requirement met
Base design	9' x 15' concrete pad	14' x 23' concrete pad	Requirement met
Enclosure	3-sided enclosure w/ gate Masonry walls 6' height/taller than receptacle	3 sides w/ gate across 4 <sup>th</sup> Brick to match building 6'-8" height	Requirements met

Should you have any questions concerning this matter, please do not hesitate to contact our office.

Respectfully,  
**SAFE BUILT**



Brian V. Borden, AICP  
 Michigan Planning Manager



February 6, 2024

Ms. Amy Ruthig  
Genoa Township  
2911 Dorr Road  
Brighton, MI 48116

**Re: Soapy Bucket Car Wash  
Site Plan Review No. 3**

Dear Ms. Ruthig:

Tetra Tech conducted a third review of the proposed Soapy Bucket Car Wash site plan last dated January 23, 2024. The plan was prepared by Boss Engineering on behalf of Springborn Properties. The development is located in Lot 4 of Genoa Outlots LLC (Genoa Square), which is on the south side of Grand River Avenue off Lawson Drive. The Petitioner is proposing a 6,877 square foot carwash that includes 4 self-serve wash bays and 2 automatic wash bays. Site improvements include parking lot improvements and storm drainage improvements that would connect to the existing storm system at Genoa Square.

Since the previous submittal, the proposed building orientation has been revised to allow for better site circulation and increased carwash stacking space. The revised plans also addressed our previous comment regarding exterior trench drains connecting to the public sanitary sewer. Since all previous comments have been addressed, we have no further engineering related concern with the proposed site plan. Please call or email if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads 'Shelby Byrne'.

Shelby Byrne, P.E.  
Project Engineer



# BRIGHTON AREA FIRE AUTHORITY

615 W. Grand River Ave.  
Brighton, MI 48116  
o: 810-229-6640 f: 810-229-1619

February 2, 2024

Amy Ruthig  
Genoa Township  
2911 Dorr Road  
Brighton, MI 48116

RE: Soapy Bucket Carwash  
1415 Lawson Drive  
Genoa Twp., MI

Dear Amy,

The Brighton Area Fire Department has reviewed the above-mentioned site plan. The plans were received for review on January 23, 2024 and the drawings are dated October 31, 2023 with latest revisions dated January 23, 2024. The project is based on the proposed development of a currently vacant 1.54-acre parcel into a new manual and automatic car wash. The building has been rotated 90-degrees however it does not affect previous access. The plan review is based on the requirements of the International Fire Code (IFC) 2021 edition.

**All previously cited concerns and code requirements related to site access, water supply and fire safety have been addressed.**

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department.

If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially,

A handwritten signature in black ink, appearing to read "R. Boisvert".

Rick Boisvert, CFPS  
Fire Marshal

cc: Amy Ruthig [amy@genoa.org](mailto:amy@genoa.org)

**GENOA TOWNSHIP IMPACT ASSESSMENT  
Soapy Bucket Car Wash**

Prepared for:

**Property Owner:  
Springborn Properties  
Russ Springborn**

Applicant:

**Springborn Properties  
Russ Springborn**

Prepared by:

**Patrick Cleary, PLA**



3121 E. Grand River Howell, MI 48843  
517.546.4836 fax 517.548.1670  
www.bosseng.com

**January 23, 2024**

## DISCUSSION ITEMS

- A. Name(s) and address(es) of person(s) responsible for preparation of the Impact Assessment and a brief statement of their qualifications.

Prepared by:

Patrick Cleary, PLA  
Professional Landscape Architect/Senior Project Manager  
Boss Engineering  
3121 E Grand River  
Howell, MI 48843

Prepared for:

Owner and Applicant:  
Springborn Properties – Russ Springborn  
3535 High Hillcrest Drive  
Howell, MI 48343

- B. Description of the site, including existing structures, man-made facilities, and natural features, all-inclusive to within 10' of the property boundary.***

The project site is on parcel # 4711-09-200-028 in Section 9, Genoa Township, Livingston County, MI. It is Outlot #4 of the 'Genoa Outlots LLC' PUD development anchored by Kohl's Department Store.

The subject site is bordered:

- On the north by Grand River Avenue. Midway Party Store is directly across the street.
- On the east by Lawson Drive, a private road and one of the main entrances to the development. Directly across Lawson is a commercial retail building that is part of the overall development that is zoned NR PUD. On this property are approximately 5, 8-10" DBH Little Leaf Linden deciduous trees.
- On the south by Lawson Drive. Directly across the road is the parking lot for Kohl's with approximately 6, 6-10" DBH deciduous trees.
- On the west by vacant Outlot #3 of the overall 'Genoa Outlots LLC' development, zoned NR PUD. This site is all mowed lawn with no trees or shrubs, similar to the subject parcel.

The overall 21.84 +- acre development is bordered by Interstate 96 on the south with on and off ramps to the east, and Grand River Avenue to the north. On the west side is an 8.79 +- acre parcel, zoned Industrial (IND) and occupied by Reuland Electric Motor Company – electric motor manufacturer.

MHOG sanitary runs along the east lot line in Lawson Drive. MHOG water runs along the south lot line also in Lawson Drive. See the Existing Conditions Plan for specific locations.

The subject site is a vacant lot of land consisting of mowed lawn grasses and no trees or shrubs. The site will be accessed from the south from Lawson Drive, a private road.

**C. Impact on natural features: A written description of the environmental characteristics of the site prior to development, i.e., topography, soils, vegetative cover, drainage, streams, creeks or ponds.**

These currently vacant parcels are relatively flat (1-4% slopes) and covered by grasses.

The soils are NRCS / SCS designated Miami Loam. The site drains via surface flow primarily from south to north to the Grand River Avenue storm sewer system. There is a narrow rudimentary rip-rapped channel to the street. No wetlands/streams/creeks or other water bodies are located on site.

**D. Impact on storm water management: description of soil erosion control measures during construction.**

Site storm water will be directed through catch basins to the development's storm sewer system in Lawson Drive at the south end of the site. This system discharges to the development's overall stormwater basin that was designed for the entire development. Although the amount of impervious surfaces is proposed to be higher than originally anticipated in the original development calculations it has been confirmed by Township staff that the existing basin is 'over-sized' and able to accommodate the difference. Detailed construction plans for the lot will be reviewed by the Township Engineer and the Soil Erosion Control plans will be reviewed and permit issued by the Livingston County Drain Commissioners office prior to construction commencing. Ongoing/periodic soil erosion on-site inspections will occur per County requirements to ensure soil erosion is managed proactively.

**E. Impact on surrounding land use: Description of proposed usage and other man-made facilities; how it conforms to existing and potential development patterns. Effects of added lighting, noise or air pollution which could negatively impact adjacent properties.**

The proposed use on this Non-Residential Planned Unit Development (NR PUD) site includes automatic and self-serve car wash bays with supporting vacuum cleaning stations behind the building from Grand River Avenue. The proposed uses were part of the originally approved development scenarios in the PUD, conforming to existing and potential development patterns. It will not negatively impact adjacent properties with added lighting, noise or air pollution. The site development will comply with Township Ordinances for lighting levels as well as noise levels. The uses proposed do not impact adjacent properties with noise, light or air pollution.

**F. Impact on public facilities and services: Description of number of residents, employees, patrons, and impact on general services, i.e., schools, police, fire.**

The proposed car wash does not add additional burden on the fire and police services as the site is surrounded by similar development that already receives coverage. The uses do not add population that impacts schools. The car wash will add to Township tax revenue as the site currently sits vacant. The car wash will add 1-2 jobs which has a positive impact on the community.



**G. Impact on public utilities: description of public utilities serving the project, i.e., water, sanitary sewer, and storm drainage system. Expected flows projected in residential units.**

Site storm water will be directed through catch basins to the development's storm sewer system in Lawson Drive at the south end of the site. This system discharges to the development's overall stormwater basin that was designed for the entire development. Although the amount of impervious surfaces is proposed to be higher than originally anticipated in the original development calculations it has been confirmed by Township staff that the existing basin is 'over-sized' and able to accommodate the difference. Detailed construction plans for the lot will be reviewed by the Township Engineer and the Soil Erosion Control plans will be reviewed and permit issued by the Livingston County Drain Commissioners office.

MHOG sanitary sewer runs along the east lot line in Lawson Drive and the development is expected to connect to it. The development will connect to MHOG water along the south lot line also in Lawson Drive.

The proposed car wash use will utilize 'automatic, no conveyer' type (2) and 'self-service' type (4) car wash system per the Township REU Factor Table. This calculates to a total of 31.2 REU's. The MHOG public water is anticipated to accommodate the use.

**H. Storage or handling of any hazardous materials: Description of any hazardous materials used, stored, or disposed of on-site.**

No storing or handling of quantities of hazardous materials is expected for this development.

**I. Impact on traffic and pedestrians: Description of traffic volumes to be generated and their effect on the area.**

The site will be accessed from the south of the lot off the development's internal private road primary circulation system, Lawson Drive. There will be no direct access to Grand River, utilizing two existing development entrances. The west entrance to the development is signalized. Potential traffic volumes with the proposed use were anticipated with the original development and accommodated through the current entrances and signalization. In addition, an 8-foot wide public sidewalk will be extended along Grand River Avenue for the entire width of the lot.

**J. Special provisions: Deed restrictions, protective covenants, etc.**

Site is subject to the provisions of the 'Genoa Outlots LLC' PUD agreement.

**K. Description of all sources:**

- Genoa Township Zoning Ordinance
- "Soil Survey of Livingston County Michigan" Soil Conservation Services, USDA
- Livingston County parcel viewer

# SITE PLAN FOR SOAPY BUCKET CARWASH - LAWSON DR. 1415 LAWSON DRIVE GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

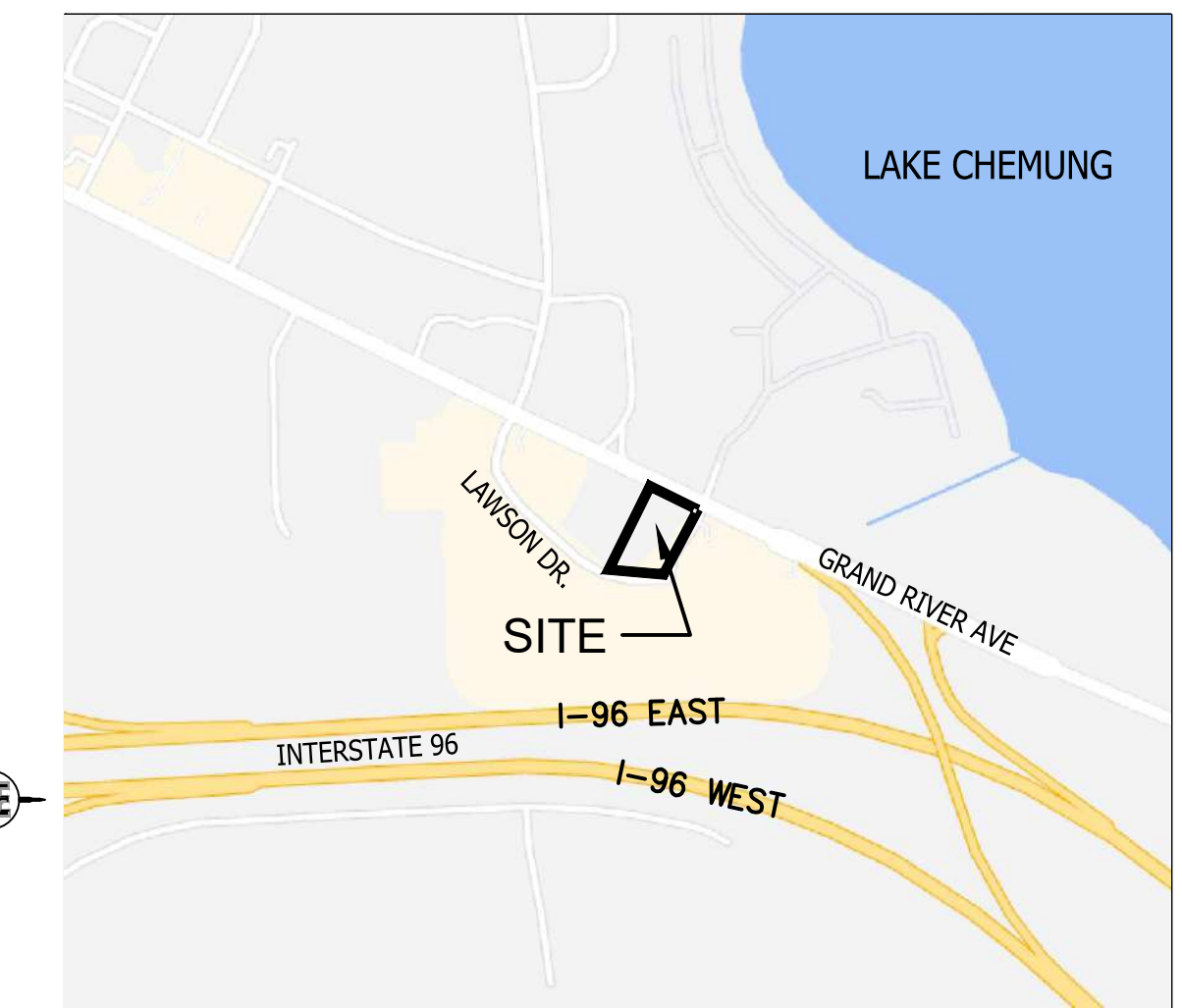
**PROPERTY DESCRIPTION:**

**GENERAL INFORMATION:**

PARCEL NO.: 4711-09-200-028 (LOT 4)  
ZONING: NR PUD (NON-RESIDENTIAL PLANNED UNIT DEVELOPMENT)  
LOT AREA: 1.54 ACRES+

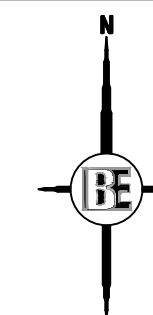
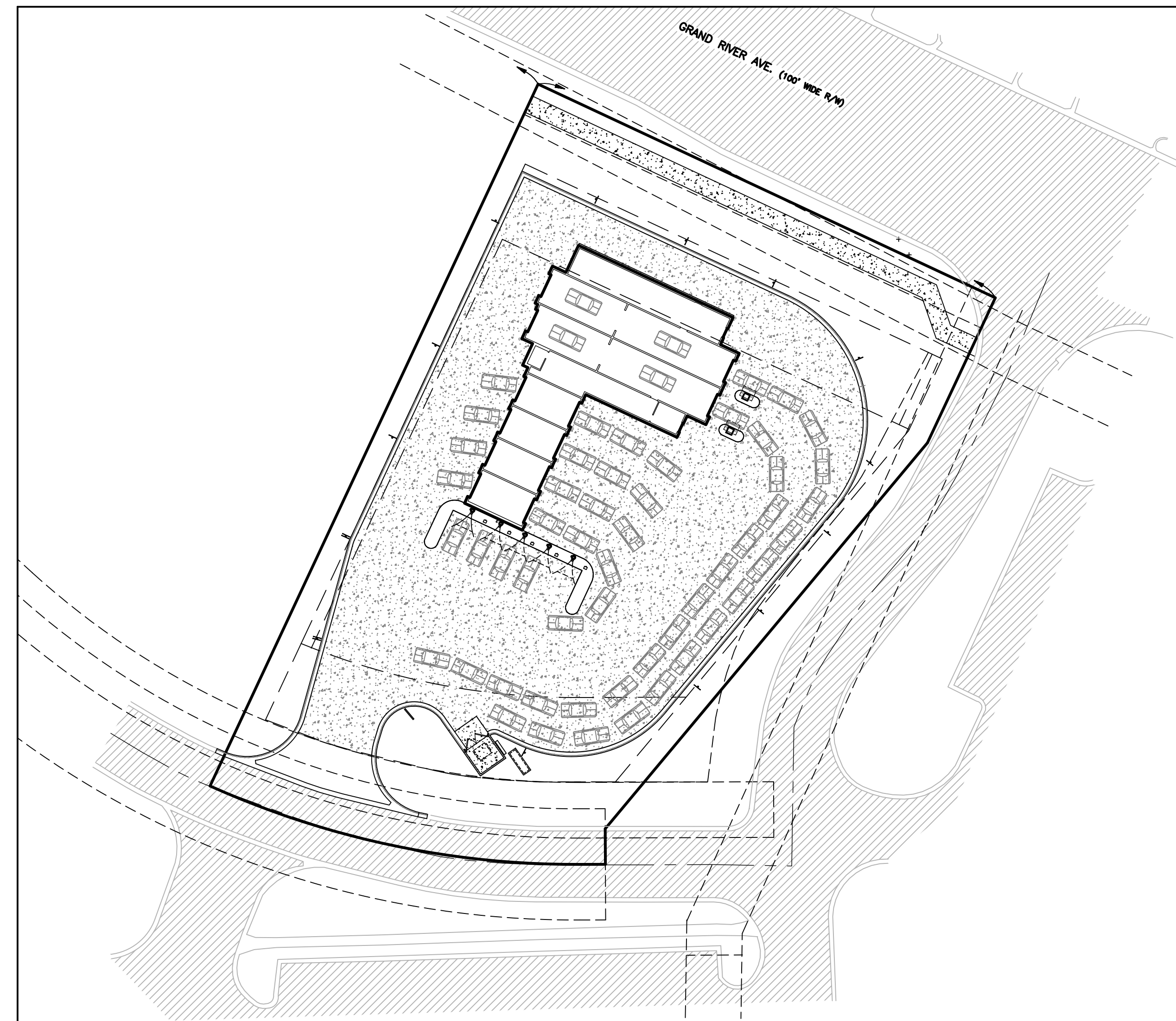
**LEGAL DESCRIPTION:**

A part of the Northeast 1/4 of Section 9, T2N-R5E, Genoa Township, Livingston County, Michigan, being more particularly described as: Commencing at the North 1/4 corner of said Section 9; thence S 01°30'57" E 921.86 feet along the N011h and South 1/4 line of said Section 9, to the South line of Grand River Avenue; thence S 63°53'30" E 725.82 feet along the South line of said Grand River Avenue; thence S 64°41'00" E 378.41 feet along the South line of said Grand River Avenue, to a point of beginning; thence S 64°41'00" E 226.83 feet along the South line of said Grand River Avenue; thence S 25°19'00" W 71.98 feet; thence S 40°07'33" W 226.01 feet; thence South 15.97 feet; thence N 89°56'16" W 11.60 feet; thence 171.09 feet along the arc of a curve to the right, said curve having a radius of 400.00 feet and a chord bearing and distance of N 77°44'37" W 169.78 feet; thence N 25°19'00" E 348.40 feet to the point of beginning. All of the above containing 1.54 acres. All of the above along with and being subject to a 50' wide Private road Access Easement, the centerline of said easement being more particularly described as: Commencing at the North 1/4 corner of said Section 9; thence S 01°03'05" E 921.86 feet along the North and South 1/4 line of said Section 9, to the South line of Grand River Avenue; thence S 63°53'30" E 552.94 feet along the South line of said Grand River Avenue; to a point of beginning; thence S 26°06'30" W 47.03 feet; thence 251.05 feet along the arc of a curve to the left, said curve having a radius of 202.87 feet and a chord bearing and distance of S 09°25'46" E 235.33 feet; thence S 47°14'03" E 308.04 feet; thence 296.81 feet along the arc of a curve to the left, said curve having a radius of 400.00 feet and a chord bearing and distance of S 68°44'20" E 290.05 feet; thence S 89°56'16" E 11.60 feet to a point of ending. The above easement containing 1.05 acres. All of the above being subject to easements, restrictions and right-of-ways of record.



**LOCATION MAP**

SCALE: +-1"=1,000'



**OVERALL SITE MAP**

SCALE: 1" = 40'

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES & LEGEND
3	EXISTING CONDITIONS & DEMOLITION PLAN
4	NATURAL FEATURES
5	SITE PLAN
6	CIRCULATION PLAN
7	GRADING & DRAINAGE PLAN
8	SOIL EROSION & SEDIMENTATION CONTROL PLAN
9	UTILITY PLAN
10	LANDSCAPE PLAN
11A	LIGHTING PLAN ON-SITE (PREPARED BY GASSER BUSH)
11B	LIGHTING PLAN OFF-SITE GRAND RIVER AVE.
12	CONSTRUCTION DETAILS-1
13	CONSTRUCTION DETAILS-2
14	CONSTRUCTION DETAILS-3
<b>PLANS BY OTHERS</b>	
A1	FLOOR PLAN
A4	EXTERIOR ELEVATIONS

**PREPARED FOR:**

RUSS SPRINGBORN  
3535 HIGH HILLCREST DR  
HOWELL, MI 48843  
PHONE: 313.350.3358  
EMAIL: RUSS@SPRINGBORNPROPERTIES.COM

**GENERAL CONTRACTOR:**

SCHAFFER CONSTRUCTION, INC.  
102 E. GRAND RIVER, BRIGHTON, MI 48116  
CONTACT: JOE CHIDESTER, PROJ MGR - OFFICE  
EMAIL: JCHIDESTER@SCHAFFERCONSTRUCTION.NET  
PHONE: (810) 923-8540

**LIGHTING PREPARED BY:**

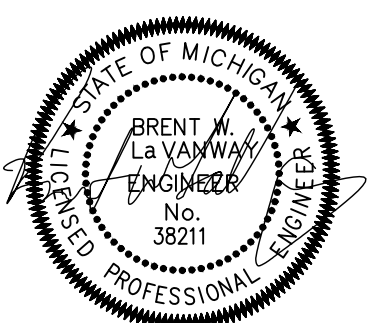
GASSER BUSH ASSOCIATES  
30984 INDUSTRIAL RD, LIVONIA, MI 48150  
QUOTES@GASSERBUSH.COM  
PHONE: 734-266-6705

**ARCHITECT:**

LINDHOUT ASSOCIATES ARCHITECTS, AIA, PC  
10465 CITATION DRIVE BRIGHTON, MI 48116  
CONTACT: DAVE RICHARDSON  
EMAIL: DAR@LINDHOUT.COM  
PHONE: (810) 227-5668

**PREPARED BY:**

**BEBOSS**  
*Engineering*  
Engineers Surveyors Planners Landscape Architects  
3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
517.546.4836 FAX 517.548.1670  
CONTACT: PATRICK CLEARY  
EMAIL: PATRICKC@BOSSENG.COM



**INDEMNIFICATION STATEMENT**

THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.

**REQUIRED PERMITS & APPROVALS**

AGENCY	DATE SUBMITTED	DATE APPROVED
• TOWNSHIP ENGINEERING APPROVAL	1/23/24	-
• TOWNSHIP PLANNING APPROVAL	1/23/24	-
• BRIGHTON AREA FIRE AUTHORITY	1/23/24	-
• LCDC SESC	TBD	-

FOR SITE PLAN APPROVAL ONLY!  
NOT FOR CONSTRUCTION

2	PC	REVIEW COMMENTS	1/23/24	<b>1</b>	
1	PC	REVIEW COMMENTS	12/18/23		
NO	BY	CK	REVISION		DATE



**GENERAL NOTES**

- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED TOWNSHIP, COUNTY, AND STATE OF MICHIGAN PERMITS.
- A GRADING PERMIT FOR SOIL EROSION-SEDIMENTATION CONTROL SHALL BE OBTAINED FROM THE GOVERNING AGENCY PRIOR TO THE START OF CONSTRUCTION.
- IF DUST PROBLEM OCCURS DURING CONSTRUCTION, CONTROL WILL BE PROVIDED BY AN APPLICATION OF WATER, EITHER BY SPRINKLER OR TANK TRUCK.
- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS AND SPECIFICATIONS.
- PAVED SURFACES, WALKWAYS, SIGNS, LIGHTING AND OTHER STRUCTURES SHALL BE MAINTAINED IN A SAFE, ATTRACTIVE CONDITION AS ORIGINALLY DESIGNED AND CONSTRUCTED.
- ALL BARRIER-FREE FEATURES SHALL BE CONSTRUCTED TO MEET ALL LOCAL, STATE AND A.D.A. REQUIREMENTS. WHERE EXISTING CONDITIONS AND/OR THE REQUIREMENTS OF THE PLANS WILL RESULT IN FINISHED CONDITIONS THAT DO NOT MEET ADA REQUIREMENTS, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER PRIOR TO WORK COMMENCING.
- ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND RIGHT-OF-WAY, PUBLIC OR PRIVATE, PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE WITH ALL OWNERS TO DETERMINE THE LOCATION OF EXISTING LANDSCAPING, IRRIGATION LINES & PRIVATE UTILITY LINES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING LANDSCAPING, IRRIGATION LINES, AND PRIVATE UTILITY LINES.
- THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT.
- THE CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
- THE CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
- THE CONTRACTOR SHALL CALL MISS DIG A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- ALL PAVEMENT REPLACEMENT AND OTHER WORKS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWNSHIP, INCLUDING THE LATEST MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES.
- NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR ANY DELAY OR INCONVENIENCE DUE TO THE MATERIAL SHORTAGES OR RESPONSIBLE DELAYS DUE TO THE OPERATIONS OF SUCH OTHER PARTIES DOING WORK INDICATED OR SHOWN ON THE PLANS OR IN THE SPECIFICATION OR FOR ANY REASONABLE DELAYS IN CONSTRUCTION DUE TO THE ENCOUNTERING OR EXISTING UTILITIES THAT MAY OR MAY NOT BE SHOWN ON THE PLANS.
- DURING THE CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL NOT PERFORM WORK BY PRIVATE AGREEMENT WITH PROPERTY OWNERS ADJACENT TO THE PROJECT.
- IF WORK EXTENDS BEYOND NOVEMBER 15, NO COMPENSATION WILL BE DUE TO THE CONTRACTOR FOR ANY WINTER PROTECTION MEASURES THAT MAY BE REQUIRED BY THE ENGINEER.
- NO TREES ARE TO BE REMOVED UNTIL MARKED IN THE FIELD BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PROPERTY BEYOND THE CONSTRUCTION LIMITS INCLUDING BUT NOT LIMITED TO EXISTING FENCE, LAWN, TREES AND SHRUBBERY.
- TRAFFIC SHALL BE MAINTAINED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SIGNS AND TRAFFIC CONTROL DEVICES. FLAG PERSONS SHALL BE PROVIDED BY THE CONTRACTOR IF DETERMINED NECESSARY BY THE ENGINEER. ALL SIGNS SHALL CONFORM TO THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AT NO COST TO THE TOWNSHIP. NO WORK SHALL BE DONE UNLESS THE APPROPRIATE TRAFFIC CONTROL DEVICES ARE IN PLACE.
- ALL DEMOLISHED MATERIALS AND SOIL SPOILS SHALL BE REMOVED FROM THE SITE AT NO ADDITIONAL COST, AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
- ANY EXISTING APPURTENANCES SUCH AS MANHOLES, GATE VALVES, ETC. SHALL BE ADJUSTED TO THE PROPOSED GRADE AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- ALL PERMANENT SIGNS AND PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF THE MICHIGAN MUTCD MANUAL AND SHALL BE INCIDENTAL TO THE CONTRACT.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL ITEMS REQUIRED FOR CONSTRUCTION OF THE PROJECT ARE INCLUDED IN THE CONTRACT. ANY ITEMS NOT SPECIFICALLY DESIGNATED IN THE PLANS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- THE CONTRACTOR IS RESPONSIBLE FOR HAVING A SET OF APPROVED CONSTRUCTION PLANS, WITH THE LATEST REVISION DATE, ON SITE PRIOR TO THE START OF CONSTRUCTION. IN THE EVENT OF ANY QUESTIONS PERTAINING TO THE INTENT OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER FOR A FINAL DETERMINATION FROM THE DESIGN ENGINEER.
- THE CONTRACTOR, NOT THE OWNER OR THE ENGINEER, ARE RESPONSIBLE FOR THE MEANS, METHODS, AND SEQUENCE OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR SAFE EXECUTION OF THE PROJECT SCOPE IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS.
- THE CONTRACTOR IS RESPONSIBLE FOR PRESERVING CONSTRUCTION STAKING AS NECESSARY. CONTRACTOR TO NOTIFY CONSTRUCTION SURVEYOR OF REPLACEMENT STAKES NEEDED WHICH SHALL BE AT THE CONTRACTORS EXPENSE.
- THE OWNER AND/OR CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING FRANCHISE UTILITY SERVICES (CABLE, ELECTRIC, GAS, ETC.) OWNER AND/OR CONTRACTOR SHALL WORK WITH UTILITY COMPANIES ON FURNISHING SITE UTILITY LAYOUTS AND PROVIDING CONDUIT CROSSINGS AS REQUIRED.
- DAMAGE TO ANY EXISTING UTILITIES OR INFRASTRUCTURE (INCLUDING PAVEMENT, CURB, SIDEWALK, ETC.) SHALL PROMPTLY BE REPLACED IN KIND AND SHALL BE AT THE CONTRACTORS EXPENSE.
- COORDINATION OF TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND PER ALL CITY/TOWNSHIP/COUNTY REQUIREMENTS. COPIES OF ALL TEST REPORTS SHALL BE FURNISHED TO THE DESIGN ENGINEER.
- PRIOR TO THE START OF CONSTRUCTION, PROTECTION FENCING SHALL BE ERCTED AROUND THE TREE DRIPLINE OF ANY TREES INDICATED TO BE SAVED WITHIN THE LIMITS OF DISTURBANCE.
- THE CONTRACTOR SHALL MAINTAIN DRAINAGE OF THE PROJECT AREA AND ADJACENT AREAS. WHERE EXISTING DRAINAGE FACILITIES ARE IMPACTED/DISTURBED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ANY NECESSARY TEMPORARY DRAINAGE PROVISIONS.
- SOIL BORING LOGS ARE REPRESENTATIVE OF SPECIFIC POINTS ON THE PROJECT SITE, AND IF PROVIDED TO THE CONTRACTOR ARE FOR INFORMATIONAL PURPOSES ONLY.
- WHERE CITY/TOWNSHIP STANDARD CONSTRUCTION DETAILS/SPECIFICATIONS ARE PROVIDED AND ARE IN CONFLICT WITH NOTES AND SPECIFICATIONS HEREIN, THE CITY/TOWNSHIP STANDARD SHALL GOVERN.

**INDEMNIFICATION STATEMENT**

THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE, AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.

**GENERAL GRADING & SESC NOTES**

- THE CONTRACTOR SHALL HAVE IN PLACE ALL REQUIRED EROSION CONTROL METHODS AS INDICATED ON THE CONSTRUCTION PLANS AND AS REQUIRED BY GENERAL PRACTICE. SPECIFIC MEANS, METHODS AND SEQUENCES OF CONSTRUCTION MAY DICTATE ADDITIONAL SOIL EROSION CONTROL MEASURES BE NEEDED. THE CONTRACTOR SHALL COORDINATE WITH THE DESIGN ENGINEER ON THESE ANTICIPATED METHODS. ADDITIONAL SOIL EROSION CONTROL METHODS SHALL BE INCIDENTAL TO THE SCOPE OF WORK.
- ACTUAL FIELD CONDITIONS MAY DICTATE ADDITIONAL OR ALTERNATE SOIL EROSION CONTROL MEASURES BE UTILIZED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DEFICIENCIES OR FIELD CONDITIONS THAT WARRANT ADDITIONAL AND/OR ALTERNATIVE SESC MEASURES BE UTILIZED.
- AT THE CLOSE OF EACH DAY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL CONSTRUCTION OPERATIONS, MATERIALS, DEBRIS, ETC ARE CONTAINED ON-SITE.
- AT THE CLOSE OF EACH WORKING DAY, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS AT THE FLOW LINE.
- ALL SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE PER MDEGLE REGULATIONS AND BEST PRACTICES, ALL SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR.
- THE SOIL EROSION CONTROL MEASURES SHALL BE KEPT IN PLACE UNTIL SUCH A TIME THAT THE SITE IS DETERMINED TO BE ESTABLISHED WITH ACCEPTABLE AMOUNT OF VEGETATIVE GROUND COVER.
- ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE NORMAL CONSTRUCTION LIMITS OF THE PROJECT SHALL BE SOODED OR SEEDED AS SPECIFIED OR DIRECTED BY THE ENGINEER.
- AFTER REMOVAL OF TOPSOIL, THE SUBGRADE SHALL BE COMPACTED TO 95% OF ITS UNIT WEIGHT.
- ALL GRADING IN THE PLANS SHALL BE DONE AS PART OF THIS CONTRACT. ALL DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE SUBGRADE PRIOR TO COMPACTING.
- ALL ROOTS, STUMPS AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED AND THE HOLE BACKFILLED WITH SUITABLE MATERIAL. WHERE GRADE CORRECTION IS REQUIRED, THE SUBGRADE SHALL BE CUT TO CONFORM TO THE CROSS-SECTION AS SHOWN IN THE PLANS.
- ALL EXCAVATION UNDER OR WITHIN 3 FEET OF PUBLIC PAVEMENT, EXISTING OR PROPOSED SHALL BE BACKFILLED AND COMPACTED WITH SAND (MDOOT CLASS II).

**GENERAL LANDSCAPE NOTES**

- ALL PLANT MATERIAL SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE GOVERNING MUNICIPALITY. ALL STOCK SHALL BE NURSERY GROWN, CONFORMING TO ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK", AND IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE. STOCK SHALL EXHIBIT NORMAL GROWTH HABIT AND BE FREE OF DISEASE, INSECTS, EGGS, LARVAE, & DEFECTS SUCH AS KNOTS, SUN-SCALD, INJURIES, ABRASIONS, OR DISFIGUREMENT. ALL PLANT MATERIAL SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
  - ALL PLANT MATERIALS SHALL BE BALLED AND BURLAPPED OR CONTAINER STOCK. NO BARE ROOT STOCK IS PERMITTED. ALL PLANT BALLS SHALL BE FIRM, INTACT, AND SECURELY WRAPPED AND BOUND.
  - ALL PLANT BED MATERIALS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS, OTHER EXTRANEIOUS OBJECTS, AND POOR SOILS TO A MINIMUM DEPTH OF 12-INCHES AND BACKFILLED TO GRADE WITH SPECIFIED PLANTING MIX (SEE BELOW).
  - PLANTING MIXTURE SHALL CONSIST OF 5 PARTS TOPSOIL FROM ON-SITE (AS APPROVED), 4 PARTS COARSE SAND, 1 PART SPHAGNUM PEAT MOSS (OR APPROVED COMPOST), AND 5 LBS OF SUPERPHOSPHATE FERTILIZER PER CU. YD. OF MIX. INGREDIENTS SHALL BE THOROUGHLY BLENDED FOR UNIFORM CONSISTENCY.
  - ALL PLANT BEDS AND INDIVIDUAL PLANTS, NOT OTHERWISE NOTED SHALL BE MULCHED WITH A 4-INCH LAYER OF SHREDDED BARK MULCH. EDGE OF MULCH BEDS AS SHOWN. DECIDUOUS TREES IN LAWN AREAS SHALL RECEIVE A 5-FEET DIAMETER CIRCLE OF MULCH AND CONIFER TREES 8-FT (PLANTED CROWN OF TREE) UNLESS OTHERWISE NOTED.
  - LANDSCAPE STONE SHALL BE INSTALLED WHERE NOTED OR INDICATED (HATCHED). STONE SHALL BE 3/4"-1-1/4" WASHED RIVER GRAVEL OR AS SELECTED AND SHALL BE INSTALLED TO A MINIMUM DEPTH OF 3-INCHES.
  - ALL LANDSCAPE BEDS, UNLESS OTHERWISE NOTED SHALL BE INSTALLED OVER WEED BARRIER FABRIC - WATER PERMEABLE FILTRATION FABRIC OF NON-WOVEN POLYPROPYLENE OR POLYESTER FABRIC. FABRIC SHALL BE OF SUITABLE THICKNESS FOR APPLICATION.
  - ALL PLANTS AND PLANT BEDS SHALL BE THOROUGHLY WATERED UPON COMPLETION OF PLANTING AND STAKING OPERATIONS.
  - THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR A PERIOD OF 1 YEAR FROM THE DATE THE WORK IS ACCEPTED, IN WRITING, BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE, WITHOUT COST TO THE OWNER, WITHIN A SPECIFIED PERIOD OF TIME, ALL DEAD PLANTS, AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION, AS DETERMINED BY THE LANDSCAPE ARCHITECT, DURING AND AT THE END OF THE GUARANTEE PERIOD. REPLACEMENT STOCK SHALL CONFORM TO THE ORIGINAL SPECIFICATIONS.
  - EDGING SHALL BE PROVIDED FOR ALL LANDSCAPE BEDS NOT ADJACENT TO CONCRETE PAVEMENT. EDGING SHALL BE BLACK ALUMINUM EDGING, 3/16-INCH X 4-INCH. INSTALL PER MANUFACTURER'S INSTRUCTIONS. ALL EDGING SHALL BE INSTALLED IN STRAIGHT LINES OR SMOOTH CURVES WITHOUT IRREGULARITIES.
  - SOD SHALL BE DENSE, WELL ROOTED TURF, FREE OF WEEDS. IT SHALL BE COMPRISED OF A BLEND OF AT LEAST TWO KENTUCKY BLUE GRASSES AND ONE FESCUE. IT SHALL HAVE A UNIFORM THICKNESS OF 3/4-INCH AT TIME OF PLANTING, AND CUT IN UNIFORM STRIPS NOT LESS THAN 10-INCHES BY 18-INCHES. SOD SHALL BE KEPT MOIST AND LAID WITHIN 36-HOURS AFTER CUTTING.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ALL SOODED AREAS THAT BROWN-OUT OR HAVE NOT FIRMLY KNITTED TO THE SOIL BASE WITHIN A PERIOD OF 1 MONTH SHALL BE REPLACED BY THE CONTRACTOR, AT NO COST TO THE OWNER.
- ALL AREAS OF THE SITE THAT BECOME DISTURBED DURING CONSTRUCTION AND ARE NOT TO BE PAVED, STONED, LANDSCAPED, OR SOODED SHALL BE SEEDED AND MULCHED.
- SEED MIXTURE SHALL BE AS FOLLOWS:
- |  |     |
|--|-----|
| KENTUCKY BLUEGRASS (CHOOSE 3 VARIETIES - ADELPHI, RUGBY, CLADE, OR PARADE) | 30% |
| RUBY RED OR DAWSON RED FINE FESCUE   | 30% |
| ATLANTA RED FESCUE   | 20% |
| PENNFINE PERENNIAL RYE   | 20% |
- THE ABOVE SEED MIXTURE SHALL BE SOWN AT A RATE OF 250 LBS PER ACRE. PRIOR TO SEEDING, THE TOPSOIL SHALL BE FERTILIZED WITH A COMMERCIAL FERTILIZER WITH A 10-0-10 ANALYSIS:
- 10% NITROGEN - MIN 25% FROM A UREA FORMALDEHYDE SOURCE  
 0.5% PHOSPHATE  
 10% POTASH - SOURCE POTASSIUM SULFATE OR POTASSIUM NITRATE
- THE FIRST FERTILIZER APPLICATION SHALL BE AT A RATE OF 10 LBS PER 1000 SQ FT OF BULK FERTILIZER.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ANY PART OF THE AREA THAT FAILS TO SHOW A UNIFORM GERMINATION SHALL BE RE-SEEDED AND SUCH RE-SEEDED SHALL CONTINUE UNTIL A DENSE LAWN IS ESTABLISHED. DAMAGE TO SEEDED AREAS RESULTING FROM EROSION SHALL BE REPAIRED BY THE CONTRACTOR.
- ALL AREAS OF THE SITE SCHEDULED FOR SEEDING OR SODDING SHALL FIRST RECEIVE A 6-INCH LAYER OF CLEAN, FRIABLE TOPSOIL. THE SOIL SHALL BE DISCED AND SHALL BE GRADED IN CONFORMANCE WITH THE GRADING PLAN.
  - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES AND TO INFORM THE LANDSCAPE ARCHITECT OF ANY CONFLICTS PRIOR TO COMMENCING LANDSCAPING.

**GENERAL UTILITY NOTES**

- BEDDING SHALL EXTEND A MINIMUM OF 4" BELOW THE PIPE, UNLESS OTHERWISE NOTED ON THE PLANS. BEDDING SHALL BE OF UNIFORM GRADATION MDOOT 6AA STONE OR MDOOT CLASS II GRANULAR MATERIAL FOR SANITARY AND STORM PIPE AND MDOOT CLASS II GRANULAR MATERIAL ONLY FOR WATERMAIN.
- WHERE UNSTABLE GROUND CONDITIONS ARE ENCOUNTERED, STONE BEDDING SHALL BE USED AS DIRECTED BY THE ENGINEER.
- BACKFILL SHALL BE OF A SUITABLE MATERIAL AND SHALL BE FREE OF ANY ORGANIC MATERIALS AND ROCKS.
- BACKFILL ABOVE THE PIPE SHALL BE OF GRANULAR MATERIAL MDOOT CLASS II TO A POINT 12" ABOVE THE TOP OF THE PIPE. WHERE THE TRENCH IS NOT WITHIN THE INFLUENCE OF THE ROAD, SUITABLE SITE MATERIAL MAY BE COMPACTED AND UTILIZED FROM A POINT 12" ABOVE THE PIPE TO GRADE. WHERE THE TRENCH IS WITHIN A 1:1 INFLUENCE OF THE ROAD, GRANULAR MATERIAL, MDOOT CLASS II OR III, IS TO BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 12" IN THICKNESS. COMPACTION SHALL BE 95% AS DETERMINED BY AASHTO T99.
- 18" MINIMUM VERTICAL SEPARATION AND 10' HORIZONTAL SEPARATION IS TO BE MAINTAINED BETWEEN WATERMAIN AND SANITARY/STORM SEWER TO THE MAXIMUM EXTENT POSSIBLE.

**GENERAL STORM NOTES**

- ALL STORM PIPE LENGTHS ARE SHOWN FROM C/L TO C/L OF STRUCTURE OR FROM C/L OF STRUCTURE TO DISCHARGE END OF FLARED END SECTION.
- STORM PIPE MATERIALS SHALL BE AS FOLLOWS:  
 2.1. RCP(REINFORCED CONCRETE PIPE): SHALL MEET THE REQUIREMENTS OF ASTM C76 WITH MODIFIED GROOVED TONGUE AND RUBBER GASKETS MEETING THE REQUIREMENTS OF ASTM C443. RCP TO BE EITHER CLASS IV OR V AS CALLED OUT ON THE PLANS.
- STORM PIPE JOINTS SHALL MEET THE REQUIREMENTS OF ASTM D3212. HDPE AND PP PIPE GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477.
- ALL STORM PIPE TO HAVE WATERTIGHT PREMIUM JOINTS, UNLESS OTHERWISE NOTED ON THE PLANS.
- STORM DRAINAGE STRUCTURES SHALL BE FURNISHED WITH STEPS WHICH SHALL BE STEEL ENCASED WITH POLYPROPYLENE PLASTIC OR EQUIVALENT. STEPS SHALL BE SET AT 16" CENTER TO CENTER.
- ALL FLARED END SECTIONS 15" AND LARGER SHALL BE FURNISHED WITH AN ANIMAL GRATE.
- FLARED END SECTIONS DISCHARGING STORM WATER SHALL RECEIVE A MINIMUM OF 10 SQ YDS OF PLAIN COBBLESTONE RIP RAP WITH A MINIMUM STONE SIZE OF 6" AND SHALL BE PLACED ON A GEOTEXTILE FABRIC WRAP.
- ALL CATCH BASINS WITHIN THE ROADWAY SHALL INCLUDE INSTALLATION OF 6" DIAMETER PERFORATED PIPE SUBDRAIN.
- STORM DRAINAGE STRUCTURE COVERS SHALL BE OF THE FOLLOWING (OR APPROVED EQUAL):  
 COVER USE FRAME GRADE/BACK  
 'MH' ALL 1040 SANITARY-SOLID SELF-SEALING STORM-VENTED  
 'CB' TYPE A CURB 7000-T1-M1 FLAT GRATE WITH VERT. OPEN BACK  
 'CB' TYPE B CURB 7065-T1-M1 FLAT GRATE WITH ROLL BACK  
 'CB' PAVEMENT/SHOULDER 1020-M1 FLAT GRATE  
 'CB' OPEN AREA 1020-01 BEEHIVE GRATE 4" HIGH  
 'CB' GUTTER 5100 CONCAVE INLET

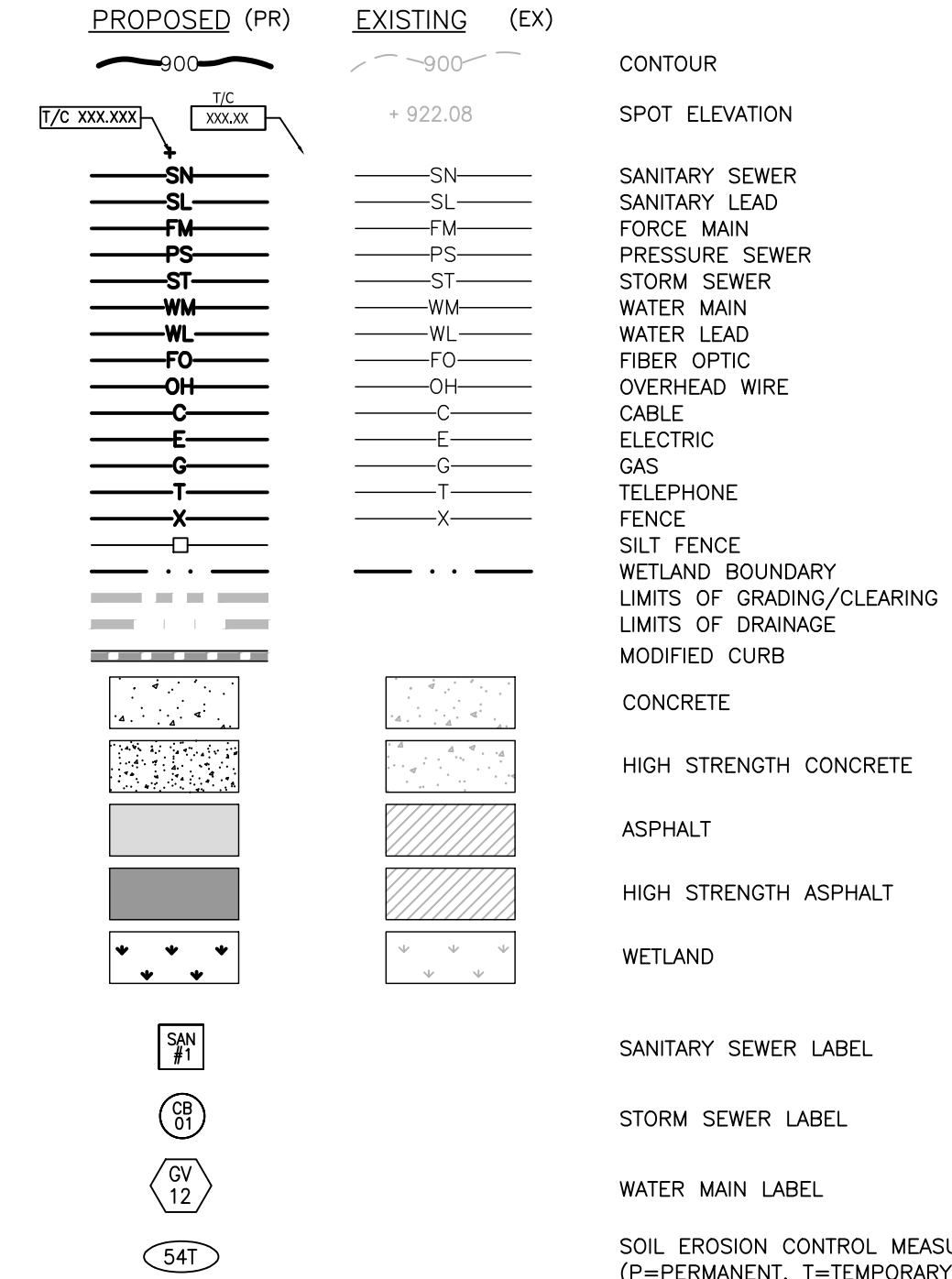
**GENERAL SANITARY NOTES**

- ALL SANITARY PIPE LENGTHS ARE SHOWN FROM C/L OF STRUCTURE TO C/L OF STRUCTURE.
- SANITARY PIPE MATERIALS SHALL BE AS FOLLOWS:  
 2.1. PVC SDR-23.5 (SANITARY LEADS)  
 ALL PVC SDR SANITARY SEWER PIPE SHALL MEET THE REQUIREMENTS OF ASTM D3034 AND D2241. PVC SDR 40 PIPE SHALL MEET THE REQUIREMENTS OF ASTM D1785. GASKET JOINTS FOR SANITARY PIPE SHALL MEET THE REQUIREMENTS OF ASTM D3139 AND D3312.
- SANITARY STRUCTURES SHALL BE FURNISHED WITH STEPS WHICH SHALL BE STEEL ENCASED WITH POLYPROPYLENE PLASTIC OR EQUIVALENT. STEPS SHALL BE SET AT 16" CENTER TO CENTER.
- ALL NEW MANHOLES SHALL BE MINIMUM 4' DIAMETER. PRECAST MANHOLE SECTIONS AND AN ECCENTRIC CONE. PRECAST MANHOLE JOINTS SHALL BE INSTALLED WITH BUTYL ROPE MEETING THE REQUIREMENTS OF ASTM C390.
- MANHOLES SHALL BE CONSTRUCTED WITH FLOW CHANNEL WALLS THAT ARE FORMER, AT A MINIMUM, TO THE SPRINGLINE OF THE PIPE.
- ALL NEW MANHOLES SHALL HAVE AN APPROVED FLEXIBLE, WATERTIGHT SEALS WHERE PIPES PASS THROUGH MANHOLE WALLS.
- WHEREVER AN EXISTING MANHOLE IS TO BE TAPPED, THE STRUCTURE SHALL BE CORED AND A KOR-N-SEAL BOOT UTILIZED FOR THE PIPE CONNECTION.
- ALL MANHOLES SHALL BE PROVIDED WITH WATERTIGHT COVERS. COVERS TO BE EJCO 1040 TYPE 'A' SOLID COVER.
- A MAXIMUM OF 12" OF GRADE ADJUSTMENT RINGS SHALL BE USED TO ADJUST THE FRAME ELEVATION. BUTYL ROPE SHALL BE USED BETWEEN EACH ADJUSTMENT RING.
- SANITARY SEWER LATERALS SHALL HAVE A MINIMUM SLOPE OF 1.0%.
- CLEANOUTS SHALL BE INSTALLED EVERY 100', AT ALL BENDS AND STUBS.
- PUBLIC SANITARY SEWER SHALL BE CENTERED WITHIN A 20 FOOT WIDE SANITARY SEWER EASEMENT.

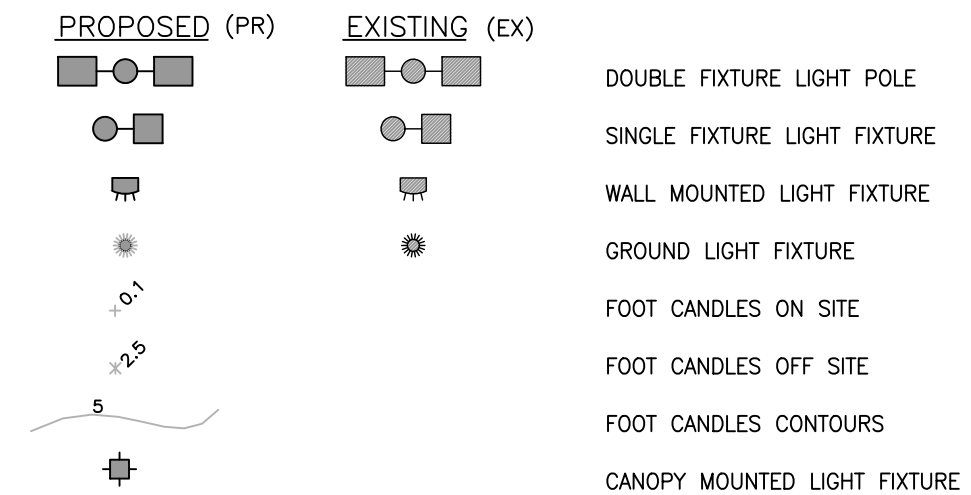
**GENERAL WATERMAIN NOTES**

- WATERMAIN PIPE MATERIALS SHALL BE AS FOLLOWS:  
 1.1. D.I.P. CL52 (WATERMAIN)
- WATERMAIN FITTINGS SHALL BE OF DUCTILE IRON WITH CEMENT MORTAR LINING AND MECHANICAL JOINTS CONFORMING TO AWWA C110.
- WATERMANS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651. BAC-T SAMPLES SHALL BE TAKEN IN ACCORDANCE WITH 8235.11110 OF THE ADMINISTRATIVE RULES PROMULGATED UNDER MICHIGAN SAFE DRINKING WATER ACT, 1976 PA 399, AS AMENDED.
- ALLOWABLE LEAKAGE OR HYDROSTATIC PRESSURE TESTING SHALL BE IN ACCORDANCE WITH AWWA C600 AND C605.
- MAXIMUM DEFLECTION AT PIPE JOINTS SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURERS CURRENT RECOMMENDATIONS AND AWWA SPECIFICATIONS.
- A FULL STICK OF PIPE SHALL BE LAID CENTERED AT A PIPE CROSSING IN ORDER TO MAINTAIN THE MAXIMUM SEPARATION OF WATERMAIN JOINT TO THE CROSSING PIPE.
- WATERMAIN SHALL BE INSTALLED WITH A MINIMUM OF 5.5' OF COVER FROM FINISHED GRADE TO TOP OF PIPE AND NO MORE THAN 8' OF COVER, UNLESS SPECIAL CONDITIONS WARRANT.
- WATERMAIN VALVES SHALL BE IRON BODY RESILIENT WEDGE GATE VALVES, NON-RISING STEMS, COUNTERCLOCKWISE OPEN, AWWA C509.
- FIRE HYDRANTS SHALL BE INSTALLED WITH AN AUXILIARY VALVE WITH CAST IRON VALVE BOX. THE HYDRANT PUMPER HOSE CONNECTION SHALL FACE THE ROADWAY.
- THE BREAKAWAY FLANGE AND ALL BELOW GRADE FITTINGS SHALL HAVE STAINLESS STEEL NUTS AND BOLTS.
- PUBLIC WATERMAIN SHALL BE CENTERED WITHIN A 25 FOOT WIDE WATERMAIN EASEMENT.

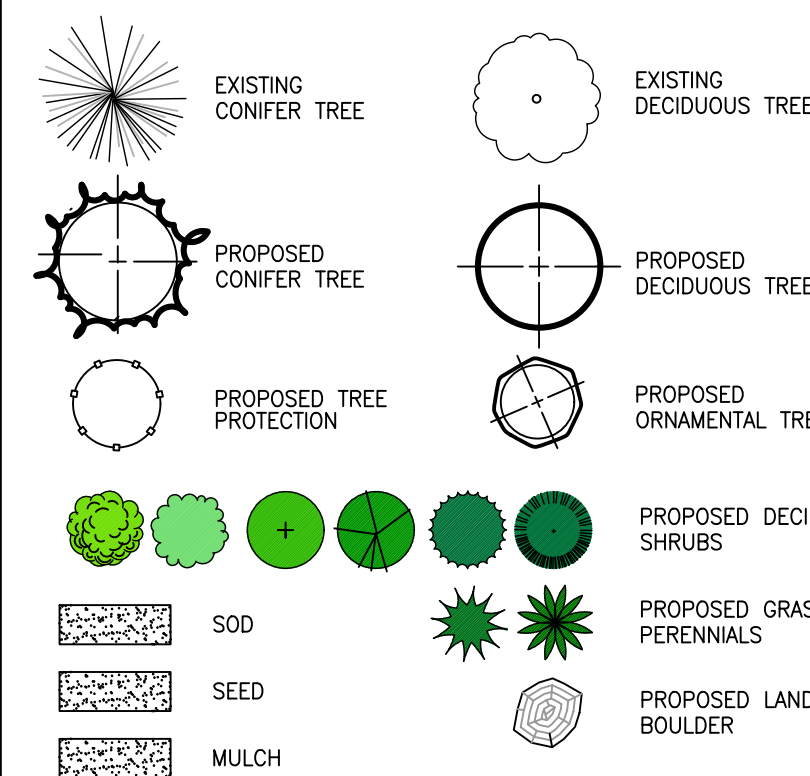
**LINES & HATCHES LEGEND**



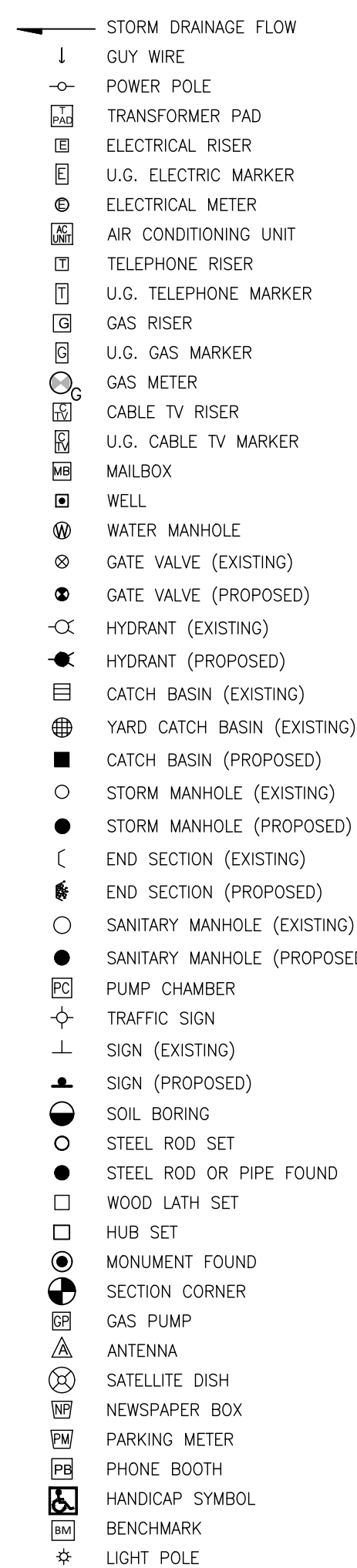
**LIGHTING LEGEND**



**LANDSCAPE LEGEND**



**SYMBOL LEGEND**



FOR SITE PLAN APPROVAL ONLY!  
NOT FOR CONSTRUCTION

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**BEBOSS Engineering**  
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 517.546.4836 FAX 517.548.1670

PROJECT: **SOAPY BUCKET CARWASH - LAWSON DR.**  
 PREPARED FOR: **SPRINGBORN PROPERTIES**  
 3332 HIGH HILLCREST DRIVE  
 HOWELL, MI. 48843  
 313.350.3388

TITLE: **GENERAL NOTES**

NO.	REVISION	DATE
1	PC	1/23/24
2	PC	12/18/23
1	PC	
NO	BY	

DESIGNED BY: ST  
 DRAWN BY: DH  
 CHECKED BY:  
 SCALE: NO SCALE  
 JOB NO: 23-134  
 DATE: 10/31/23  
 SHEET NO. **2**

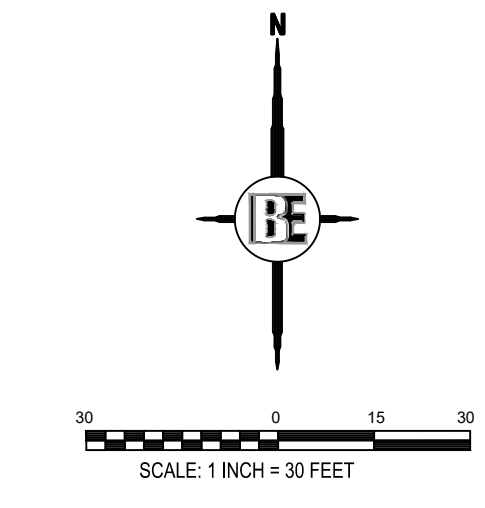
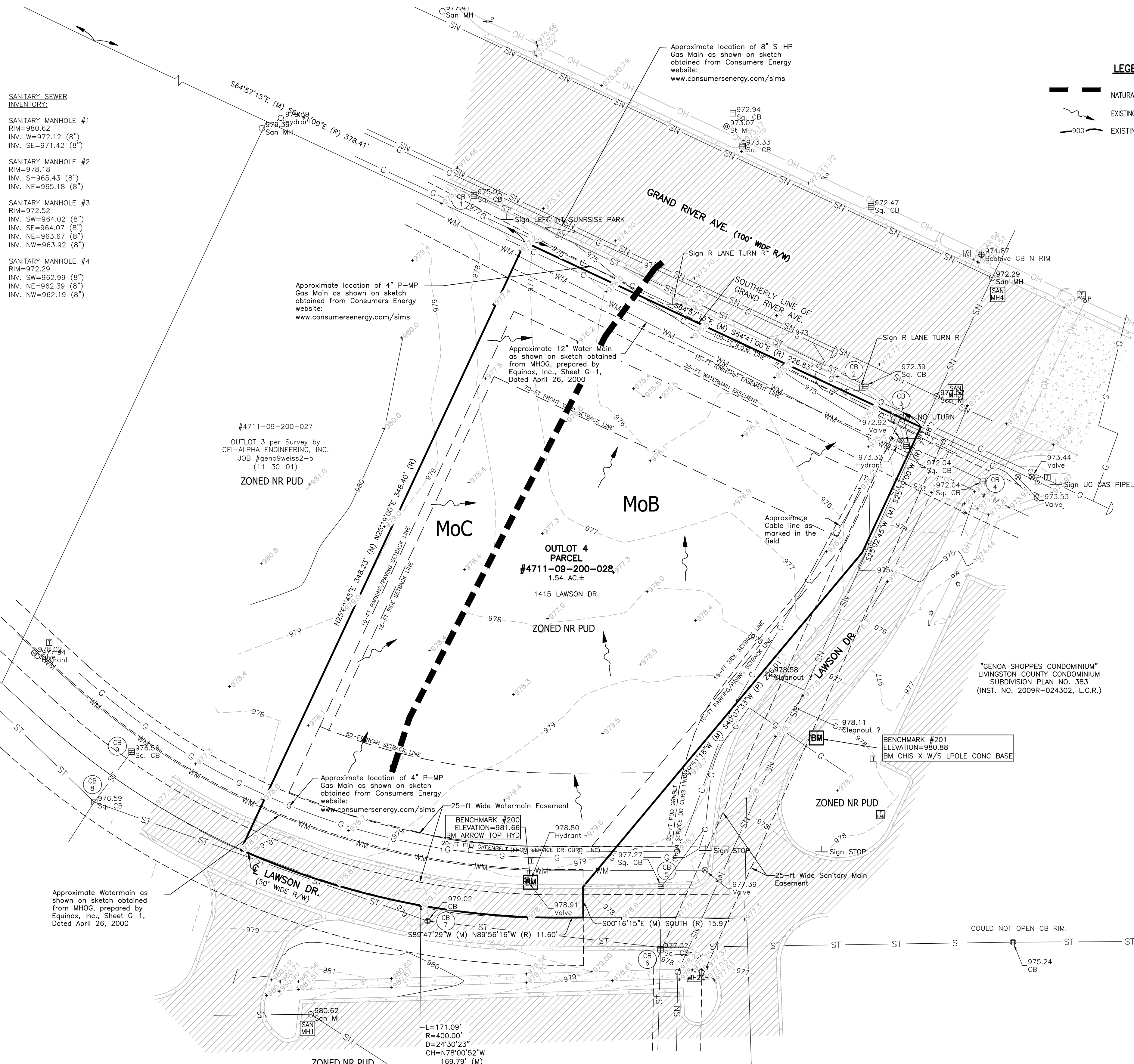
**BEBOSS Engineering**







STORM SEWER INVENTORY:	SANITARY SEWER INVENTORY:
STORM CB #1 RIM=975.91 INV. NW=970.21 (24" CONC.) INV. SE=970.11 (24" CONC.)	SANITARY MANHOLE #1 RIM=980.62 INV. W=972.12 (8") INV. SE=971.42 (8")
STORM CB #2 RIM=972.39 INV. NW=966.99 (24" CONC.)	SANITARY MANHOLE #2 RIM=978.18 INV. S=965.43 (8") INV. NE=965.18 (8")
STORM CB #3 RIM=972.04 INV. SE=968.59 (12" CONC.)	SANITARY MANHOLE #3 RIM=972.52 INV. SW=964.02 (8") INV. SE=964.07 (8") INV. NE=963.67 (8") INV. NW=963.92 (8")
STORM CB #4 RIM=972.04 INV. NW=968.54 (12" CONC.) INV. S=968.54 (12" CONC.) (FULL OF WATER)	SANITARY MANHOLE #4 RIM=972.29 INV. SW=962.99 (8") INV. NE=962.39 (8") INV. NW=962.19 (8")
STORM CB #5 RIM=977.32 INV. N=967.82 (15" CONC.) INV. E=967.02 (36" CONC.) INV. S=968.97 (24" CONC.) INV. W=968.12 (36" CONC.)	
STORM CB #6 RIM=977.32 INV. N=967.82 (15" CONC.) INV. E=967.02 (36" CONC.) INV. S=968.97 (24" CONC.) INV. W=968.12 (36" CONC.)	
STORM CB #7 RIM=979.02 INV. E=968.92 (36" CONC.) INV. NW=968.42 (36" CONC.)	
STORM CB #8 RIM=976.59 INV. SE=969.69 (36" CONC.) INV. NE=970.39 (24" CONC.) INV. NW=970.49 (24" CONC.) INV. SW=971.79 (24" CONC.)	
STORM CB #9 RIM=976.56 INV. SW=970.56 (24" CONC.) INV. NE=970.66 (6" CONC.)	



SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

**NATURAL FEATURES NARRATIVE:**  
NATURAL FEATURES WERE IDENTIFIED DURING AN ON-SITE VISIT TO THE PROPERTY ON SEPTEMBER 1, 2023. SITE IS A VACANT OUTLOT OF AN OVERALL PLANNED UNIT DEVELOPMENT (PUD). IT CONSISTS ENTIRELY OF MOWED LAWN. THERE ARE NO TREES OR SHRUBS ON SITE. THERE IS A SMALL RIPPER-DRAINED SWALE AREA NEAR THE NORTHEAST CORNER OF THE SITE PRESUMABLY TO FACILITATE DRAINAGE OFF THE SITE.

THE ENTIRE SITE IS RELATIVELY FLAT WITH SLOPES RANGING FROM 1 -4% TOWARD GRAND RIVER ROAD. SOILS ARE ALSO UNIFORM PER USDA NRCS SOILS DATA CONSISTING OF MIAMI LOAM, HOWEVER THE STEEPER INDICATED SLOPES ALONG THE WEST SIDE ACTUALLY CONTINUE TO FALL INTO THE MoB 2-6% RANGE (SEE PLAN)

**NRCS EXISTING SOILS DATA:**  
MoB MIAMI LOAM, 2-6% SLOPES  
MoC MIAMI LOAM, 6-12% SLOPES

ADDITIONAL SOIL INFORMATION IS ALSO CONTAINED IN GEOTECHNICAL INVESTIGATION REPORT BY G2 CONSULTING GROUP, DATED 11-20-2023



Approximate Watermain as shown on sketch obtained from MHO, prepared by Equinox, Inc., Sheet G-1, Dated April 26, 2000

Approximate location of 4" P-MP Gas Main as shown on sketch obtained from Consumers Energy website: www.consumersenergy.com/sims

Approximate location of 8" S-HP Gas Main as shown on sketch obtained from Consumers Energy website: www.consumersenergy.com/sims

Approximate 12" Water Main as shown on sketch obtained from MHO, prepared by Equinox, Inc., Sheet G-1, Dated April 26, 2000

Approximate Cable line as marked in the field

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PROJECT: SOAPY BUCKET CARWASH - LAWSON DR.  
PREPARED FOR: SPRINGBORN PROPERTIES  
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313.350.3398

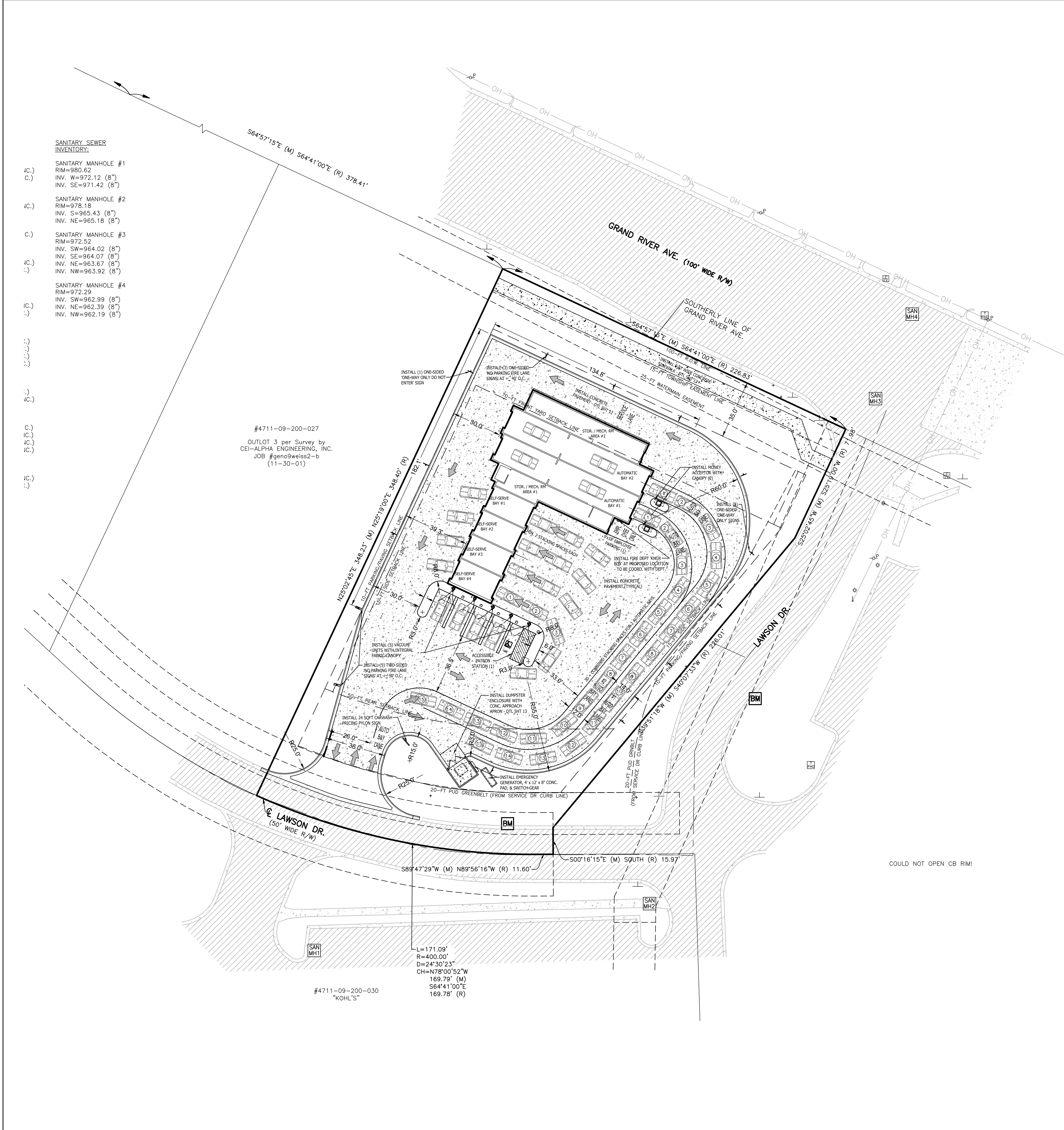
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NO.	BY	DATE	REVISION PER	COMMENTS
1	PC	12/18/23		REVISED PER
2	PC	1/23/24		REVISED PER

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DESIGNED BY: PC  
DRAWN BY: JS  
CHECKED BY:  
SCALE: 1" = 30'  
JOB NO: 23-134  
DATE: 10/31/23  
SHEET NO. 4





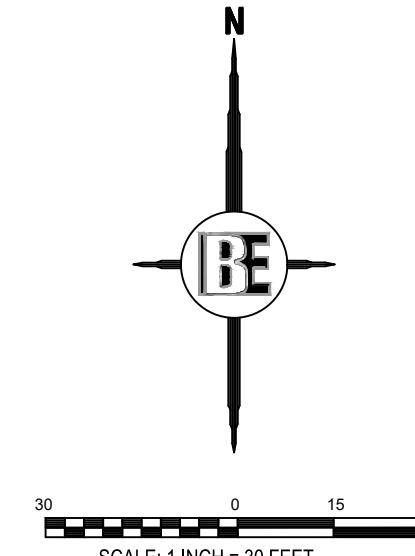
**SANITARY SEWER INVENTORY:**

(C.)	SANITARY MANHOLE #1	RIM=980.62
(C.)	INV. W=972.12 (8")	INV. SE=971.42 (8")
(C.)	SANITARY MANHOLE #2	RIM=978.18
(C.)	INV. S=965.43 (8")	INV. NE=965.18 (8")
(C.)	SANITARY MANHOLE #3	RIM=972.52
(C.)	INV. SW=964.02 (8")	INV. SE=964.07 (8")
(C.)	INV. NE=963.67 (8")	INV. NW=963.92 (8")
(C.)	SANITARY MANHOLE #4	RIM=972.29
(C.)	INV. SW=962.99 (8")	INV. NE=962.39 (8")
(C.)	INV. NW=962.19 (8")	

#4711-09-200-027  
 OUTLOT 3 per Survey by  
 CEI-ALPHA ENGINEERING, INC.  
 JOB #geno9weiss2-b  
 (11-30-01)

#4711-09-200-030  
 "Kohl's"

L=171.09'  
 R=400.00'  
 D=24°30'23"  
 CH=N78°00'52"W  
 169.79' (M)  
 S64°41'00"E  
 169.78' (R)



SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

**SITE STATISTICAL DATA:**  
 ZONED: 'NR PUD' - PER PUD AGREEMENT SETBACKS TO FOLLOW GCD ZONING  
 DEVELOPMENT TYPE/USE PROPOSED: CARWASH  
 ADJACENT ZONING: NR PUD

MIN LOT: 1.0 AC SIZE; MIN LOT WIDTH 150 FT; MAX DEPTH/WIDTH RATIO 4:1  
 MAX BLDG. HGT: 35-FT (2-STORIES) (TO 'BEAM HEIGHT' PER ORDINANCE)  
 MAX LOT COVERAGES: BUILDING 35%; IMPERVIOUS SURFACES 75%

GROSS SITE AREA: ±1.52 AC (NET 1.39 AC [60,550 SQFT.] EXCL. OF R.O.W.)  
 MIN. LOT WIDTH ALONG GRAND RIVER AVE: 226.81-FT  
 DEPTH-WIDTH RATIO: 1.54:1  
 PROPOSED BUILDING HEIGHT: 31.5-FT  
 BUILDING COVERAGE (FOOTPRINT): 6,877 SQFT (11.4%)  
 IMPERVIOUS SURFACE (EXCL. OF BLDG.): 35,360 SQFT (0.81 AC) (58.4%)  
 PERVIOUS SURFACE: 18,313 SQFT. (0.42 AC) (30.2%)  
 TOTAL LOT COVERAGE (BLDG + IMPERVIOUS): 42,237 / 60,550 = 69.8%

**MIN. SETBACKS REQUIRED AT PROPOSED BUILDING (NO ADJACENT RESIDENTIAL):**

FRONT - NORTH:	35-FT (SERVICE DR ONLY)	58-FT
REAR - SOUTH:	50-FT (FROM R.O.W.)	125.4-FT (VARIES, MIN)
SIDE - EAST:	15-FT (FROM R.O.W.)	87.6-FT (VARIES, MIN)
SIDE - WEST:	15-FT	36.5-FT (VARIES, MIN)

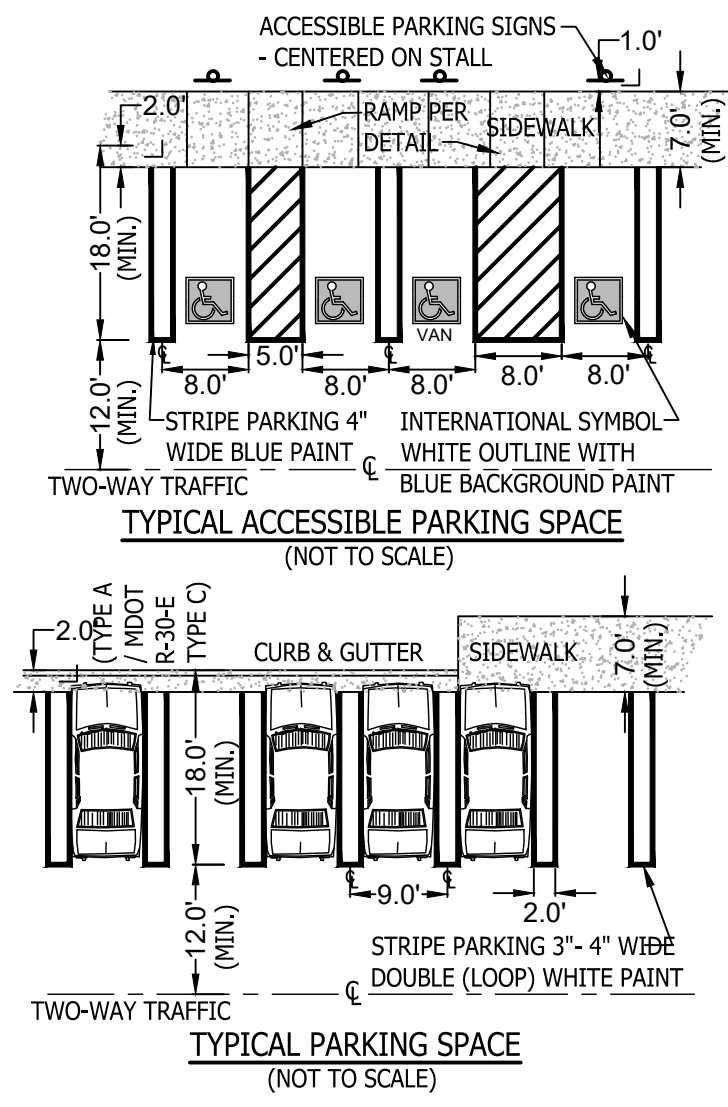
**PARKING CALCULATIONS:**  
 CARWASH = 2 SPACES + 1 SPACE / EMPLOYEE PEAK SHIFT = 3 SPACES  
 INCLUDING MIN 1 VAN ACCESSIBLE BARRIER-FREE SPACE  
 STACKING SPACES: MIN 15 PER EACH AUTOMATIC BAY  
 MIN 2 EACH PER SELF-SERVE BAY  
 LOADING SPACE: MIN 1, 10-FT x 50-FT x 14-FT CLEAR, REQUIRED

PROVIDED PARKING: 5 VACUUM STATIONS + 1 EMPLOYEE = 6 TOTAL SPACES  
 (INCLUDING 1 VAN ACCESSIBLE BARRIER-FREE SPACE)  
 PROVIDED STACKING SPACES: 20 COMBINED FOR AUTOMATIC BAYS  
 (SPLIT LANES) + 4 IN BAYS  
 MIN. 2+ EACH FOR 4 SELF-SERVE BAYS  
 [IN-BAY-TYPE SYSTEM ONLY]

PROVIDED LOADING = N/A

**GENERAL NOTES**

- ALL OUTDOOR LIGHTS SHALL BE SHIELDED TO REDUCE GLARE AND SHALL BE ARRANGED TO NOT INTERFERE WITH THE VISION OF PERSONS ON ADJACENT ROADWAYS OR ADJACENT PROPERTY.
- ALL SIGNS SHALL BE BUILDING MOUNTED AND SHALL MEET DEVELOPMENT'S PUD AND TOWNSHIP SIGN ORDINANCE REQUIREMENTS.
- THE BUILDING ADDRESS SHALL BE A MINIMUM 6" HIGH LETTERS OF CONTRASTING COLORS AND BE CLEARLY VISIBLE FROM THE STREET. THE LOCATION AND SIZE SHALL BE VERIFIED PRIOR TO INSTALLATION.
- A KEY BOX/KNOX BOX SHALL BE LOCATED NEAR THE FRONT ENTRY (FINAL LOCATION TO BE DETERMINED BETWEEN THE OWNER & FIRE MARSHALL).
- ONE SIDE OF THE SITE CIRCULATION ROUTE SHALL BE MARKED AS A FIRE LANE AND SHALL HAVE APPROPRIATE SIGNAGE.
- SITE CIRCULATION ROUTE SHALL BE CONSTRUCTED TO BE CAPABLE OF SUPPORTING THE IMPOSED LOAD OF FIRE APPARATUS WEIGHING AT LEAST 84,000 LBS.
- A MINIMUM VERTICAL CLEARANCE OF 13.5 FEET SHALL BE MAINTAINED THROUGHOUT THE SITE. THIS INCLUDES ENCROACHMENTS FROM LARGE TREE CANOPIES, LIGHTING, ETC.
- DURING THE CONSTRUCTION PROCESS, THE BUILDING WILL BE EVALUATED FOR EMERGENCY RESPONDER RADIO SIGNAL STRENGTH. IF COVERAGE IS FOUND TO BE QUESTIONABLE OR INADEQUATE; AN APPROVED CONTRACTOR SHALL BE HIRED TO PERFORM A GRID TEST OF THE FACILITY. IF THE SIGNAL STRENGTH COVERAGE IS FOUND TO BE NON-COMPLIANT, AN APPROVED EMERGENCY RESPONDER RADIO COVERAGE SYSTEM SHALL BE PROVIDED IN THE BUILDING.
- SITE LIGHTING SHALL BE PLACED ON TIMERS TO BE OFF DURING NON-USE HOURS TO THE EXTENT POSSIBLE WHILE MAINTAINING SITE SAFETY. SITE LIGHTING SHALL BE PROGRAMMED TO TURN OFF AT NIGHT WHEN ACTIVITIES ARE NO LONGER OCCURRING ON THE PROPERTY.



**TRIP GENERATION SUMMARY**

LAND USE DESCRIPTION*	ITE CAT.	SIZE	UNIT	AVG DAILY TRAFFIC (vpd)	WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR			
					TOTAL	IN	OUT	TOTAL	IN	OUT	
CARWASH SELF-SERVICE	947	4	WASH STALLS	432	32	16	16	32	16	16	
ENTERING (%) / EXITING (%)					100%	50%	50%	100%	50%	50%	
CARWASH AUTOMATIC (NON-TURN-REL TYPE)	948	3.26	TH-GFA**	***	46	23	23	38	19	19	
ENTERING (%) / EXITING (%)					100%	50%	50%	100%	50%	50%	
<b>TOTALS</b>					-	78	39	39	70	35	35
GENOA TOWNSHIP THRESHOLD FOR TIS						100	100	100	100	100	100
<b>TIS REQUIRED</b>						<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	

\* TRIP DATA PER INSTITUTE OF TRAFFIC ENGINEERS (ITE) TRIP GENERATION MANUAL 10TH EDITION - VOLUME 2: PART 3  
 \*\* PER THOUSAND SQUARE FEET OF GROSS FLOOR AREA  
 \*\*\* TOTAL DAILY TRAFFIC NOT LISTED; AM PEAK HOUR IS MAX WEEKDAY PEAK HOUR OF ADJ. TRAFFIC IN PM

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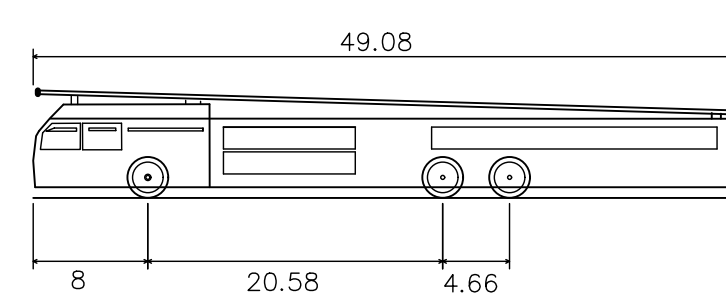
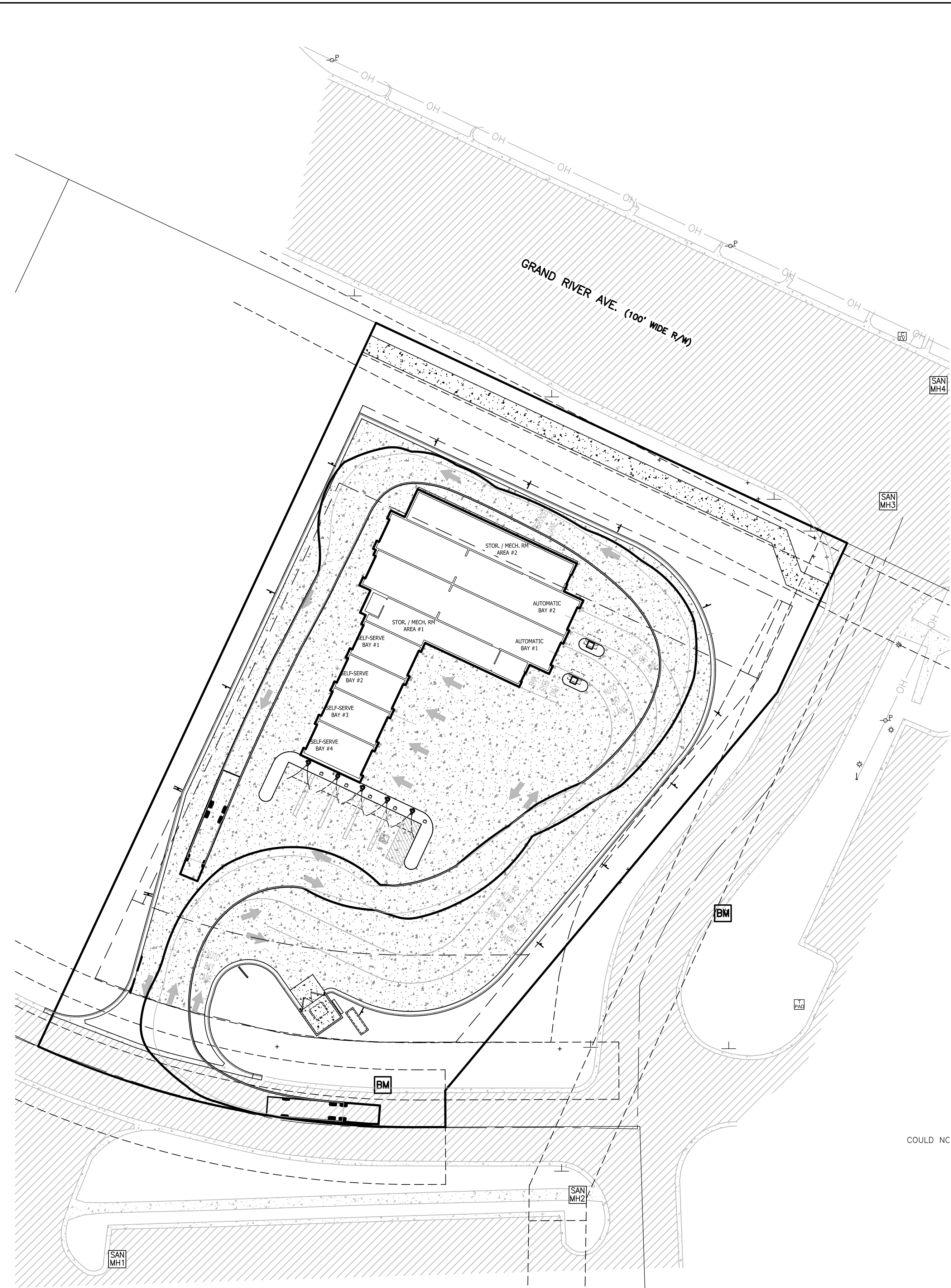
PROJECT: SOAPY BUCKET CARWASH - LAWSON DR.  
 PREPARED FOR: SPRINGBORN PROPERTIES  
 3332 HIGH HILLCREST DRIVE  
 HOWELL, MI. 48843  
 313.350.3388

TITLE: SITE PLAN

DESIGNED BY:	PC
DRAWN BY:	DH
CHECKED BY:	
SCALE:	1" = 30'
JOB NO:	23-134
DATE:	10/31/23
SHEET NO.	5

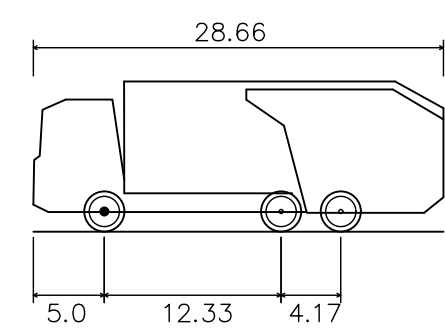
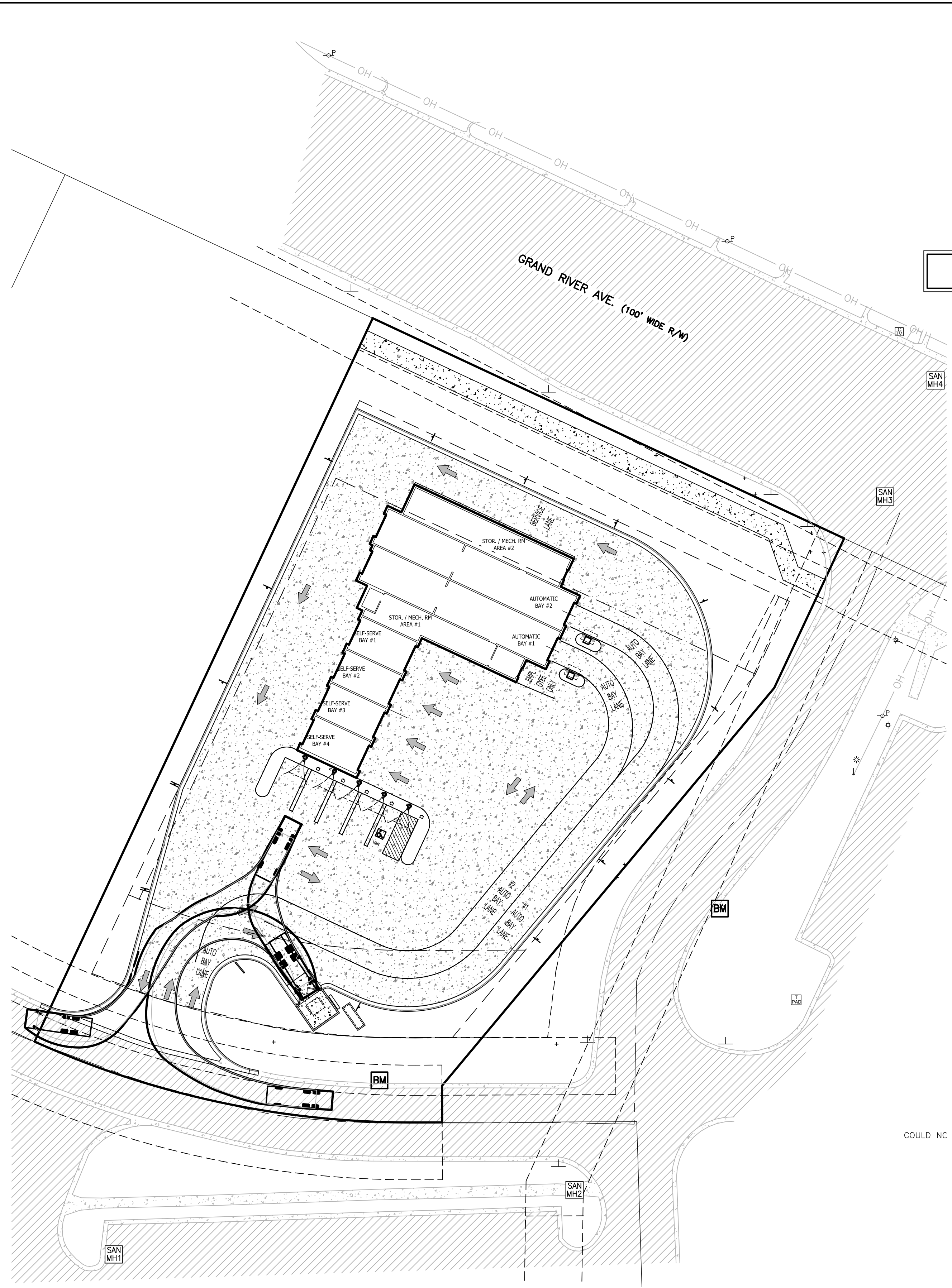
REVIEW COMMENTS: 1/23/24  
 REVIEW COMMENTS: 12/18/23  
 REVISION PER: NO BY





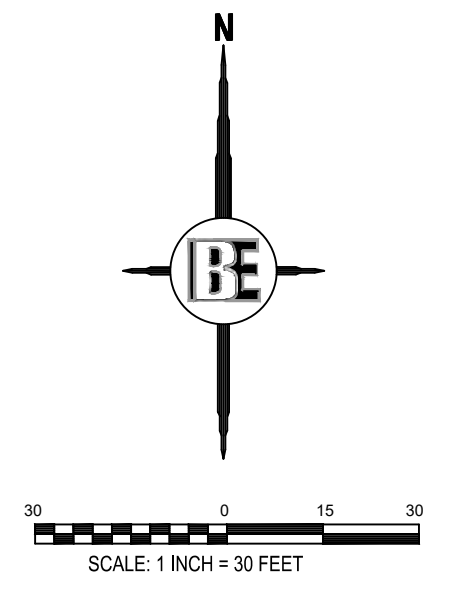
**FIRE LADDER TRUCK  
VEHICLE TRACKING PLAN**

Brighton Area Fire Authority  
 Overall Length 49.083ft  
 Overall Width 8.167ft  
 Overall Body Height 7.500ft  
 Min Body Ground Clearance 0.750ft  
 Track Width 8.167ft  
 Lock-to-lock time 5.00s  
 Max Steering Angle (Virtual) 45.00°



**WASTE HAULING TRUCK  
VEHICLE TRACKING PLAN**

Mack TerraPro Cabover 6x4 MRU613 + Wayne Curbtender 31cu yd  
 Overall Length 28.6ft  
 Overall Width 8.0ft  
 Overall Body Height 10.5ft  
 Min Body Ground Clearance 1.3ft  
 Track Width 8.0ft  
 Lock-to-lock time 6.0s  
 Curb to Curb Turning Radius 33.5ft



SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

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 517.546.4836 FAX 517.548.1670

PROJECT: **SOAPY BUCKET CARWASH - LAWSON DR.**  
 PREPARED FOR: **SPRINGBORN PROPERTIES**  
 3332 HIGH HILLCREST DRIVE  
 HOWELL, MI. 48843  
 313.350.3388

NO	BY	DATE	REVISION PER	REVIEW COMMENTS
2	PC	1/23/24		REVIEW COMMENTS
1	PC	12/18/23		REVIEW COMMENTS
NO	BY			

DESIGNED BY: PC  
 DRAWN BY: DH  
 CHECKED BY:  
 SCALE: 1" = 30'  
 JOB NO: 23-134  
 DATE: 10/31/23  
 SHEET NO. **6**

FOR SITE PLAN APPROVAL ONLY!  
 NOT FOR CONSTRUCTION





THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO GUARANTEE IS MADE AS TO THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES. THEREFORE, THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS BEFORE THE LOCATION OR DEPTH OFFSETS SIGNIFICANTLY FROM THE PLANS.

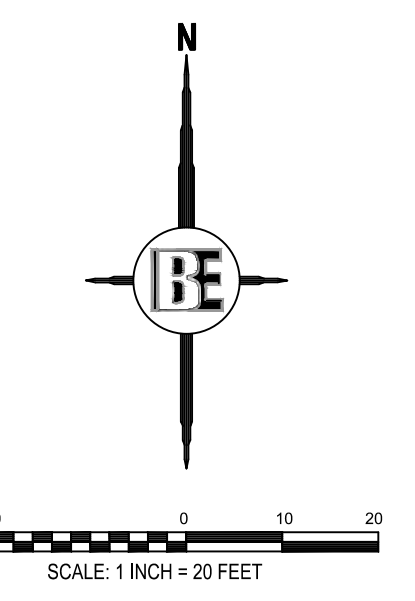


**BEBOSS**  
**Engineering**  
 Engineers Surveyors Planners Landscape Architects  
 3121 E. GRAND RIVER AVE.  
 HOWELL, MI. 48843  
 517.546.4836 FAX 517.548.1670

PROJECT: **SOAPY BUCKET CARWASH - LAWSON DR.**  
 PREPARED FOR: **SPRINGBORN PROPERTIES**  
 3335 HIGH HILLCREST DRIVE  
 HOWELL, MI. 48843  
 313.350.3388

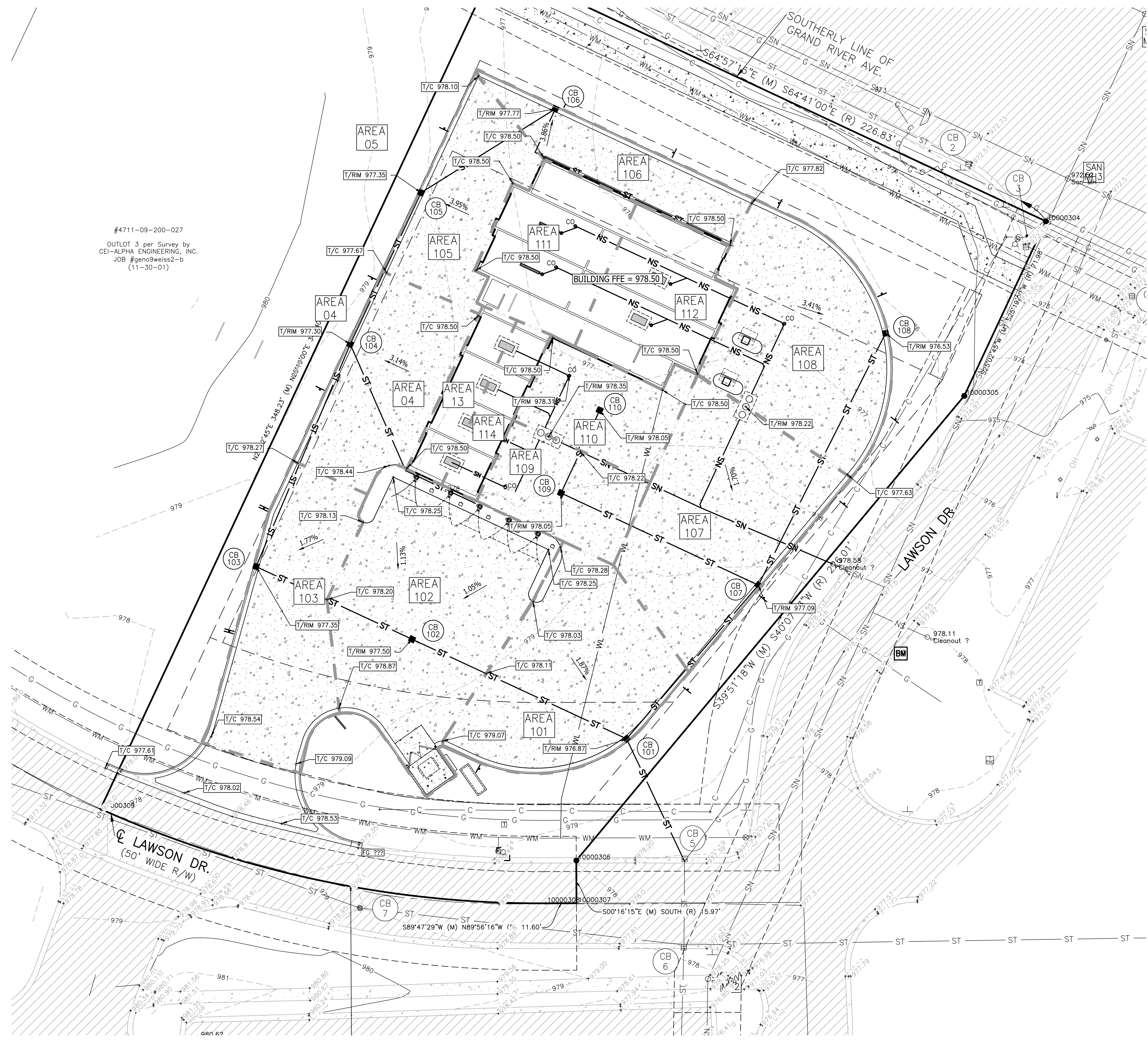
NO.	DATE	REVISION PER	BY
2	1/23/24	REVIEW COMMENTS	ST
1	12/18/23	REVIEW COMMENTS	PC
NO		REVISION PER	BY

DESIGNED BY: ST  
 DRAWN BY: DH  
 CHECKED BY:  
 SCALE: 1" = 20'  
 JOB NO: 23-134  
 DATE: 10/31/23  
 SHEET NO. **7**



SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

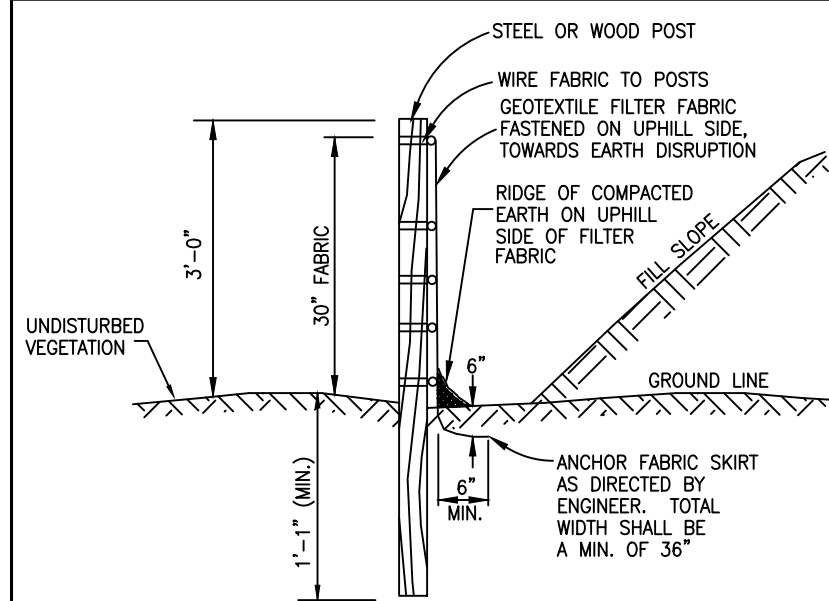
DRAINAGE AREA TABLE				
DRAINAGE AREA	TOTAL AREA (AC)	IMP. AREA (AC)	C VALUE	A'C
101	0.10	0.10	0.90	0.09
102	0.14	0.14	0.90	0.13
103	0.09	0.09	0.90	0.08
104	0.07	0.07	0.90	0.06
105	0.06	0.06	0.90	0.05
106	0.04	0.04	0.90	0.04
107	0.11	0.11	0.90	0.10
108	0.11	0.11	0.90	0.10
109	0.04	0.04	0.90	0.04
110	0.05	0.05	0.90	0.04
111	0.06	0.06	0.90	0.05
112	0.06	0.06	0.90	0.05
113	0.02	0.02	0.90	0.02
114	0.02	0.02	0.90	0.02
TOTALS	0.97	0.97	0.90	0.87



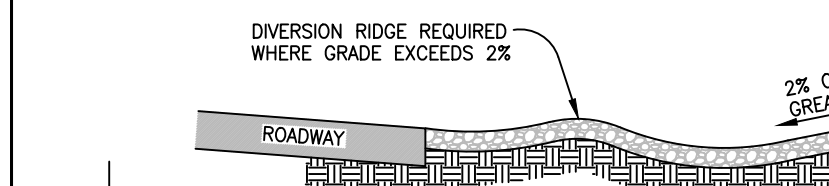
#4711-09-200-027  
 OUTLOT 3 per Survey by  
 CEI-ALPHA ENGINEERING, INC.  
 JOB #geno9weiss2-b  
 (11-30-01)

FOR SITE PLAN APPROVAL ONLY!  
 NOT FOR CONSTRUCTION

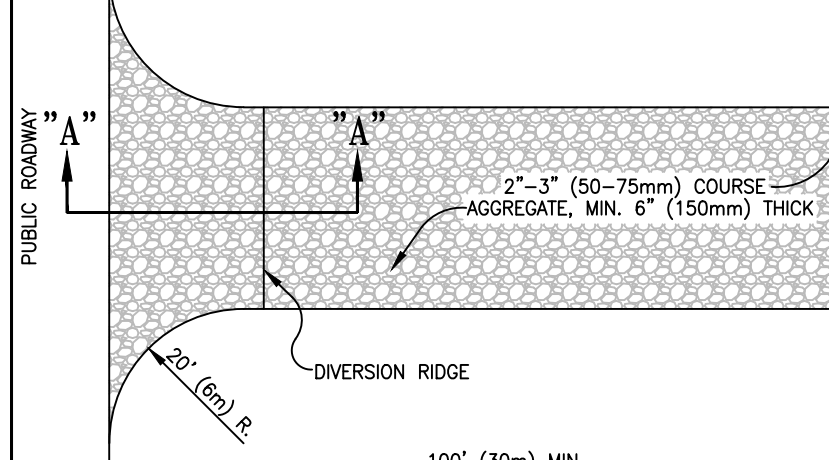




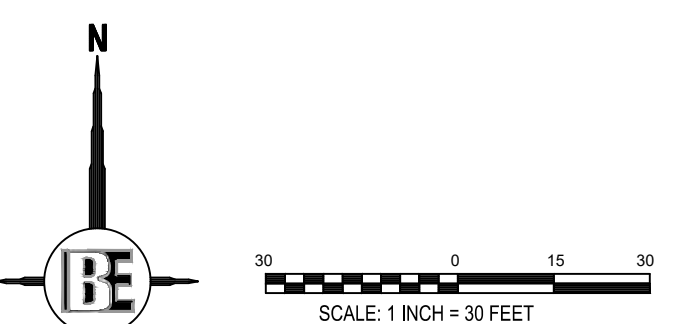
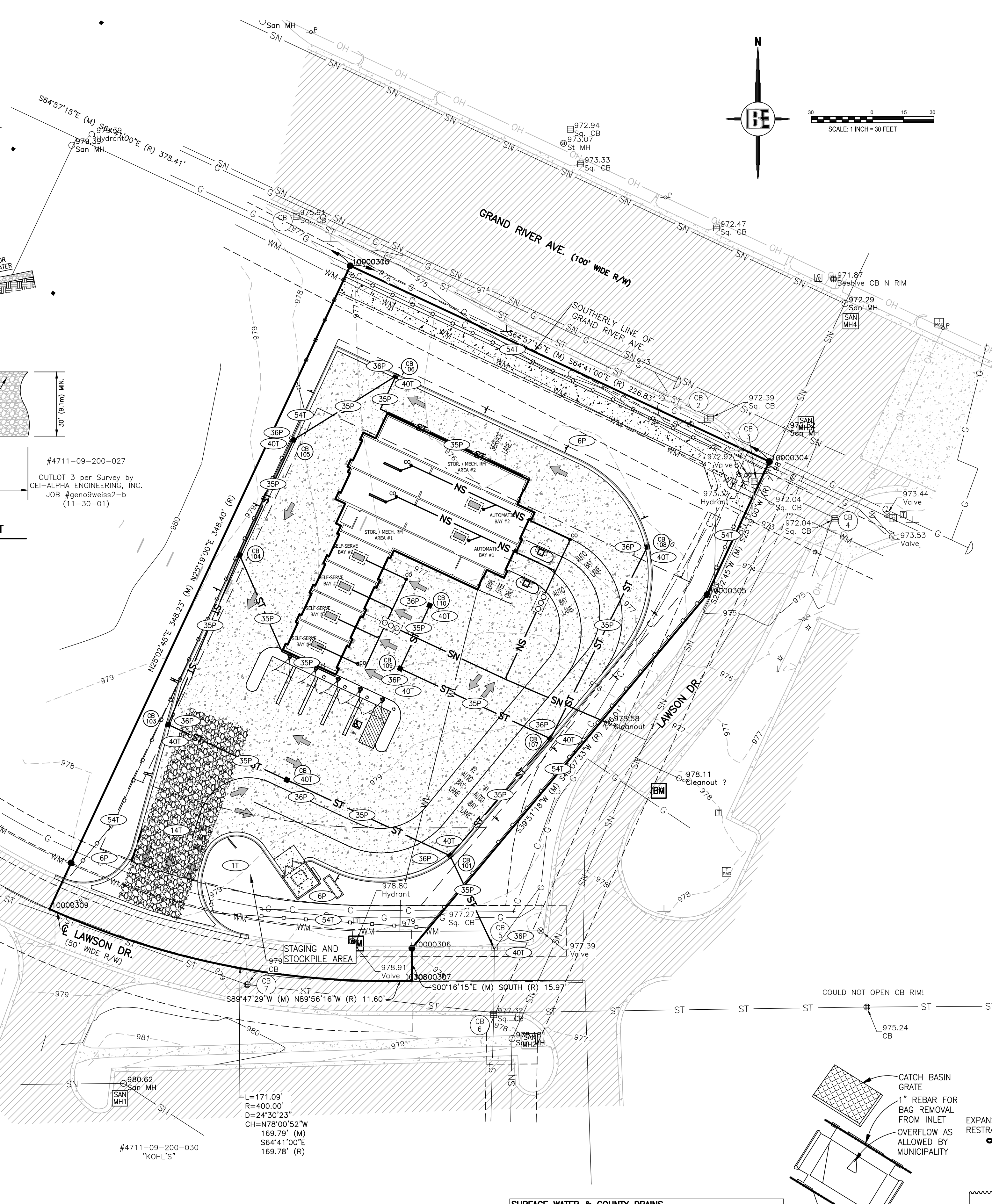
**SILT FENCE DETAIL**  
NO SCALE



**SECTION "A"-A"**



**TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT**  
NO SCALE



SEE SHEET 2 FOR GENERAL NOTES AND LEGEND  
FOR SITE PLAN APPROVAL ONLY!  
NOT FOR CONSTRUCTION

**LIVINGSTON COUNTY SOIL EROSION PERMIT TEMPLATE**  
**TEMPORARY CONTROLS AND SEQUENCE**

- NOTIFY LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE 24 HOURS PRIOR TO START OF GRADE WORK.
- IN ACCORDANCE WITH PUBLIC ACT NO. 53, OF 1974 THE PERMIT HOLDER SHALL CALL MISS DIG FOR STAKING AND LOCATING OF UTILITIES, AT LEAST 72 HOURS IN ADVANCE OF THE START OF ANY WORK.
- (IMPORTANT NOTICE) RETENTION/DETENTION PONDS SHALL BE EXCAVATED, TOPSOILED, SEED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. INGRESS/EGRESS MUST HAVE LARGE CRUSHED ROCK TO REDUCE THE TRACKING OF SOIL ONTO THE PUBLIC TRAFFIC AREAS. SEE DETAIL ITEMS BELOW.
- 36" M.D.O.T SPECIFICATION TYPE SILT FABRIC FENCE AS SHOWN ON PLANS SHALL BE PLACED AND MAINTAINED ALONG PERIMETER ON ALL LOW LYING AREAS OF THE CONSTRUCTION SITE TO FILTER RUNOFF BEFORE LEAVING PROJECT SITE.
- ALL TEMPORARY EROSION CONTROL DEVICES AS NOTED ON PLANS SHALL BE INSTALLED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION.
- PLAN DOES DENOTE A DETAILED EROSION CONTROL DEVICE TO RESTRICT TRACKING OF MATERIAL ONTO THE HIGHWAY. STONE DIAPERS SHALL BE INSTALLED AT ALL INGRESS/EGRESS AREAS OF THE SITE PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. DIAPERS SHALL BE OF CRUSHED STONE AND SHALL HAVE A MINIMUM LENGTH OF 100' LINEAL FEET.
- RETENTION PONDS
- RETENTION/DETENTION/SEDIMENTATION PONDS SHALL BE EXCAVATED, TOPSOILED, SEED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION.
- DETENTION POND OUTLETS SHALL BE OF THE STANDPIPE AND STONE FILTER SYSTEM, WITH TRASH SCREEN. OUTLET FLOW SHALL NOT EXCEED 0.20 CUBIC FEET OF WATER PER SECOND/PER ACRE. POND DIKES SHALL HAVE A MINIMUM OF ONE (1) FOOT OF FREEBOARD. AN EMERGENCY SPILLWAY SHALL BE CONSTRUCTED WITHIN THE FREEBOARD LEVEL.
- THE EMERGENCY SPILLWAY FROM THE DETENTION POND SHALL BE SODDED AND PEGGED, OR RIP RAPPED, 15 FEET PAST THE TOE OF THE SLOPE OF THE BERM.
- DIKES AND BERMS SHALL BE FREE OF ALL ORGANIC MATTER.
- RETENTION/DETENTION PONDS SHALL BE FENCED WITH A 4" CHAIN LINK FENCE, INCLUDING A 12" ACCESS GATE FOR MAINTENANCE UNLESS MINIMUM 5 FT. HORIZONTAL TO 1 FT. VERTICAL SIDE SLOPES ARE PROVIDED. THE FENCE SHALL BE INSTALLED AT THE OUTER PORTION OF THE BERM, TO ALLOW FOR MAINTENANCE WORK TO BE DONE INSIDE THE FENCE.
- ALL UNIMPROVED DISTURBED AREAS SHALL BE STRIPPED OF TOPSOIL WHICH WILL BE STORED ONSITE DURING THE EXCAVATING STAGE. TOPSOIL PILES SHALL BE SEED, MULCHED, OR MATTED WITH STRAW IN THE NON-GROWING SEASON, IMMEDIATELY AFTER THE STRIPPING PROCESS IS COMPLETED, TO PREVENT WIND AND WATER EROSION.
- SOIL EROSION CONTROLS SHALL BE MONITORED DAILY BY THE ON-SITE ENGINEER, OR CONTRACTOR, WHICHEVER CASE APPLIES.

- SLOPES AND DITCHES**
- ON SITE DITCHES SHALL BE OF THE FLAT BOTTOM TYPE MINIMUM WIDTH OF 2' WITH A MINIMUM OF 3 HORIZONTAL TO 1 VERTICAL SIDE SLOPES, 3:1.
  - DITCHES WITH STEEP SLOPES WILL NEED FLOW CHECKS TO PREVENT SCOURING OF THE DITCH BOTTOM. THESE SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER OR INSPECTOR.
  - SLOPES IN EXCESS OF 3 HORIZONTAL TO 1 VERTICAL SHALL NOT BE USED EXCEPT WITH A MECHANICAL DEVICE SUCH AS A RETAINING WALL, TERRACING, OR OTHER PRIOR APPROVED DEVICE.
- STORM DRAINS**
- ALL STORM WATER STRUCTURES, CATCH BASINS AND/OR MANHOLES, IF CASTING, SHALL BE PLASTERED ON BOTH THE INSIDE AND OUTSIDE OF THE STRUCTURES. GROUTING AND POINTING WILL BE NECESSARY AT THE CASTING AND STRUCTURE JOINT TO PREVENT LEAKAGE AND THE RESULTING SOIL MOVEMENT, AROUND THE STRUCTURE.
  - STORM WATER INLETS SHALL HAVE AS A TEMPORARY CONTROL A STRAW BALE BARRIER AND STONE FILTER INSTALLED ALONG THE INLET DURING CONSTRUCTION. AS AN ALTERNATIVE TO THE STRAW BALE BARRIER, A BURLAP AND PEA STONE FILTER MAY BE USED. THREE LAYERS OF BURLAP FIBER AND A FILTER OF PEA STONE MINIMUM 1 FT. IN DEPTH CAN BE USED. DUE TO THE POROSITY OF THE BURLAP FILTER THE MINIMUM OF 1 FT. OF STONE IS VERY IMPORTANT. THE CONTROL SHALL BE INSTALLED AS SOON AS THE STRUCTURE IS BUILT AND INSPECTED DAILY.
  - BURLAP AND PEA STONE FILTERS WILL NEED TO BE CHANGED AFTER EACH RAINFALL.
  - COUNTY CODE REQUIRES A MINIMUM PIPE SIZE OF 12" IN DIAMETER. IF SMALLER PIPE IS NEEDED FOR OUTLET PURPOSES THE 12" CAN BE BAFFLED TO THE CORRECT SIZE. ALL PIPE SHALL MEET THE 12" DIAMETER CODE SIZE.
  - ALL STORM DRAIN OUTLETS 15" IN DIAMETER OR LARGER SHALL HAVE ANIMAL GUARDS INSTALLED TO PREVENT ENTRANCE TO THE SYSTEM.

- ALL STORM DRAINAGE PIPE 30" IN DIAMETER OR LARGER SHALL BE PLACED AT THE JOINTS ON THE INSIDE WITH MORTAR, AFTER BACKFILLING.
  - ALL STORM DRAIN OUTLETS THAT DO NOT EMPTY INTO THE RETENTION/DETENTION POND SHALL HAVE A TEMPORARY 5'X10'X3' SUMP INSTALLED AT THE TERMINATION OF THE STORM SEWER. UPON COMPLETION OF THE STABILIZATION WORK THE SUMP AREA SHALL BE FILLED AND RIP RAPPED WITH STONE. SILT TRAPS SHALL BE INSPECTED AFTER EACH STORM.
  - STORM WATER OUTLETS DO DENOTE RIP RAP. ALL OUTLETS SHALL BE RIP RAPPED OVER KECKED FILTER FABRIC WITH A MINIMUM OF 15 SQ. YARDS OF 6" OR LARGER STONE.
  - RIP RAP SHALL BE OF STONE, 6" IN DIAMETER OR LARGER. GROUTING MAY BE NECESSARY, AND SHALL BE A MINIMUM OF 6" IN DEPTH WITH THE STONE SET IN THE CEMENT SLURRY.
  - STORM WATER OUTLET IS IN NEED OF A SPLASH BLOCK WHICH IS NOT NOTED ON THE PLAN. INSTALL SPLASH BLOCK IF SLOPE OF THE PIPE IS 4% OR GREATER.
  - IT WILL BE NECESSARY FOR THE DEVELOPER TO HAVE THE STORM DRAINAGE LINES CLEANED PRIOR TO FINAL INSPECTION BY THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE. IF REQUIRED, THIS WORK SHALL BE DONE BY A PROFESSIONAL SEWER CLEANING FIRM AND CERTIFIED IN WRITING BY THE PROJECT ENGINEER. ALL SUMPS AND TEMPORARY SILT TRAPS SHALL ALSO BE CLEANED AT THIS TIME.
- STABILIZATION**
- ALL UNIMPROVED DISTURBED AREAS SHALL BE RE-TOP SOILED, WITH A MINIMUM OF 3" OF MATERIAL, SEED, MULCHED AND TACKED WITHIN 15 DAYS OF THE COMPLETION OF THE MASSIVE EARTH DISRUPTION. IN THE NON-GROWING SEASON STRAW MATTING WILL SURFACE. HYDROSEEDING WILL BE AN ACCEPTABLE ALTERNATE FOR MULCHING. EXTREME CARE SHOULD BE EXERCISED IN SPRING AND FALL PERIODS AS A FROST WILL BREAK THE BIND OF THE HYDROSEEDING, WHICH WILL AFFECT THE EFFECTIVENESS OF THIS PROCEDURE.
  - IN THE NON-GROWING SEASON, TEMPORARY STABILIZATION OF MASSIVELY EXPOSED AREAS FOR WINTER STABILIZATION SHALL BE DONE WITH STRAW MATTING.
  - PERIODIC INSPECTIONS WILL BE MADE THROUGHOUT THE COURSE OF THE PROJECT. IT WILL BE THE RESPONSIBILITY OF THE MANAGERS OF THE PROJECT TO CONTACT THIS OFFICE FOR THE FINAL INSPECTION AT THE END OF THE PROJECT.
  - THIS COMMERCIAL PERMIT IS VALID FOR THE MASS EARTH MOVEMENT, THE INSTALLATION OF ROADS, DRAINS, AND UTILITIES ONLY. THE PERMIT IS NOT FOR INDIVIDUAL BUILDING UNITS. IT IS REQUIRED THAT THE TEMPORARY STABILIZATION OF THE ENTIRE SITE BE COMPLETED AND APPROVAL FROM THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE MUST BE OBTAINED PRIOR TO THE ISSUANCE OF PERMITS FOR INDIVIDUAL BUILDING UNITS.
  - THE ISSUING BUILDING DEPARTMENT SHALL NOT ISSUE THE CERTIFICATE OF OCCUPANCY UNTIL THE FINAL INSPECTION LETTER FROM THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE HAS BEEN OBTAINED.
  - PER THE LIVINGSTON COUNTY DRAIN COMMISSIONER THE SEEDING, FERTILIZER AND MULCH MINIMUM QUANTITIES SHALL BE AS FOLLOWS:  
TOP-SOIL 3" IN DEPTH  
GRASS SEED 218 LBS. PER ACRE  
FERTILIZER 150 LBS. PER ACRE  
STRAW MULCH 3" IN DEPTH 1.5 TO 2 TONS PER ACRE (ALL MULCHING MUST HAVE A 4" DOWN, SUCH AS TACKIFIER, NET BINDING, ETC.)
  - HYDRO-SEEDING IS NOT ACCEPTABLE FOR SLOPES EXCEEDING 1% IN SUCH CASES STABILIZATION SHALL BE DONE WITH SEED AND STRAW MULCH WITH A TACKIFIER.

- MAINTENANCE SCHEDULE FOR SOIL EROSION CONTROLS**
- SILT FENCE SHALL BE INSPECTED WEEKLY AND AFTER EACH MAJOR STORM EVENT. MAINTENANCE SHALL INCLUDE REMOVAL OF ACCUMULATED SILT AND REPLACEMENT OF TORN SECTIONS. SILT FENCE SHALL BE REMOVED WHEN ALL CONTRIBUTING AREAS HAVE BEEN STABILIZED.
  - TRACKING PAD SHALL BE INSPECTED MONTHLY FOR ACCUMULATED DIRT. TRACKING PAD SHALL BE REPLACED WHEN THE STONES ARE CHOKED WITH DIRT. TRACKING PAD SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FIRST COURSE OF ASPHALT BEING LAID.
  - DETENTION/RETENTION POND SHALL BE INSPECTED QUARTERLY ON A PERMANENT BASIS. MAINTENANCE SHALL INCLUDE SEDIMENT REMOVAL, EMBANKMENT STABILIZATION AND MAINTAINING THE OUTLET STRUCTURE IN GOOD CONDITION. NO TREES SHALL BE ALLOWED TO GROW ON THE EMBANKMENT.
  - CATCH BASINS SHALL BE INSPECTED ANNUALLY FOR ACCUMULATION OF SEDIMENT. ALL SEDIMENT MUST BE REMOVED AND DISPOSED OF PROPERLY WHEN THE SUMP IS FULL.
  - COMMON AREAS SHALL BE STABILIZED NO LATER THAN 15 DAYS AFTER GRADE WORK, PURSUANT TO RULE 1709 (5).

**NRCS EXISTING SOILS DATA:**  
MoB MIAMI MIAMI, 2-6% SLOPES  
Moc MIAMI LOAM, 6-12% SLOPES

ADDITIONAL SOIL INFORMATION IS ALSO CONTAINED IN GEOTECHNICAL INVESTIGATION REPORT BY G2 CONSULTING GROUP, DATED 11-20-2023

**CONSTRUCTION SEQUENCE**

THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT EROSION IS MINIMIZED AND THAT COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, REGULATIONS, AND ORDINANCES IS MAINTAINED THROUGHOUT LOCALIZATION OF THIS PROJECT.

1 DAY	1. INSTALL SILT FENCE AS SHOWN ON PLANS.
5 DAYS	2. ROUGH GRADE AND INSTALL STORM DRAINAGE.
1 DAY	3. INSTALL INLET PROTECTION ON STORM INLETS.
180 DAY	4. START BLDG. CONSTRUCTION
4 DAYS	5. INSTALL PAVEMENT
4 DAYS	6. FINE GRADE AROUND BUILDING, SPREAD TOPSOIL, SEED OR SOD AS APPLICABLE.
1 DAY	7. REMOVE ALL EROSION CONTROL STRUCTURES
1 DAY	8. REMOVE ACCUMULATED SILT FROM ALL EXISTING DRAINAGE.

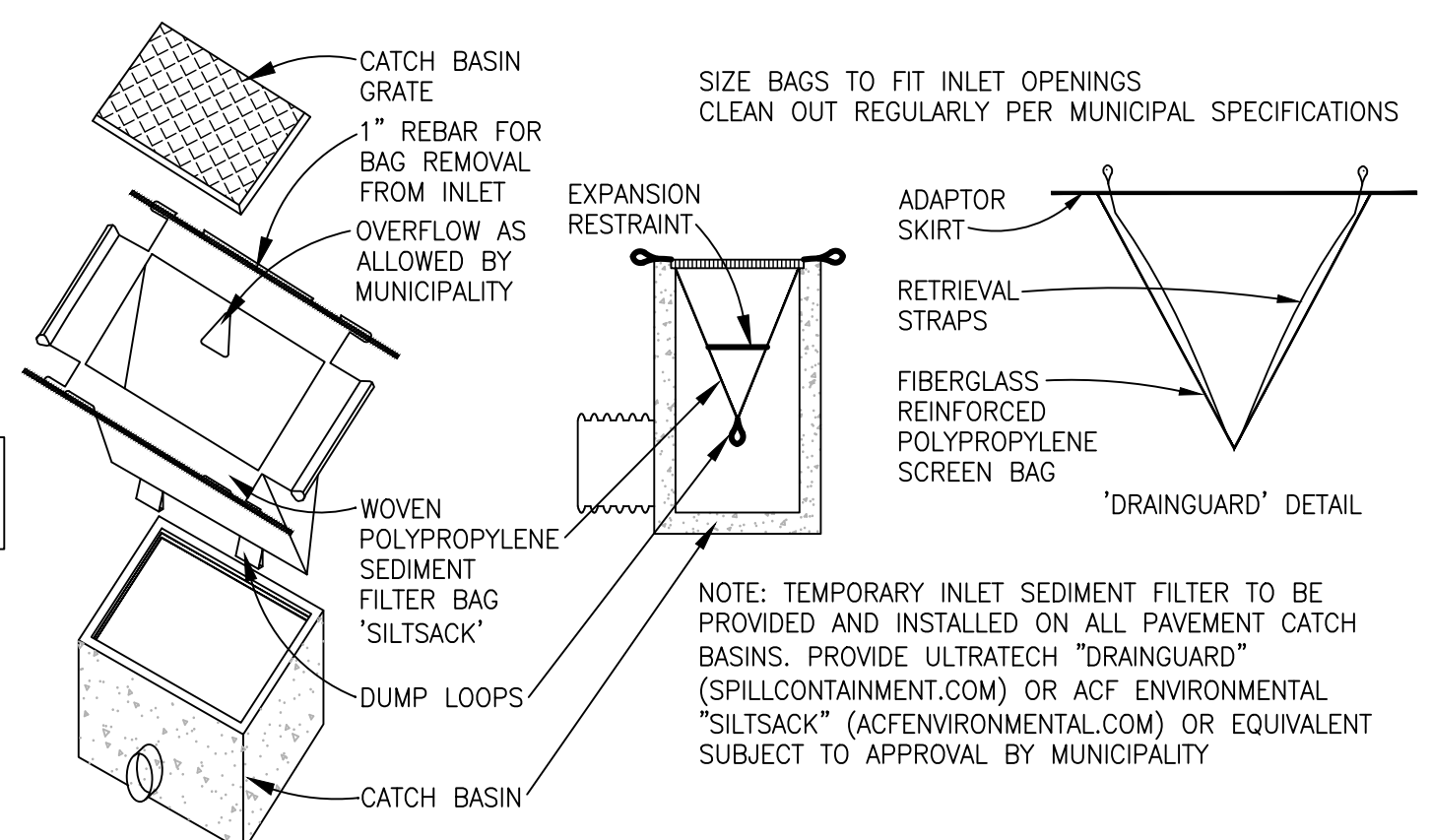
**CONTROLS & MEASURES NARRATIVE**

ACTIVITY	DESCRIPTION
MAINTAIN LANDSCAPING, REPLACE MULCH	COLLECT GRASS, TREE, AND SHRUB CLIPPINGS, DISPOSE IN APPROVED CONTAINER, REPLACE DEAD SOD, TREES AND SHRUBS
CLEAN INLETS	REMOVE LITTER, SEDIMENT, AND DEBRIS, DISPOSE OF IN APPROVED LANDFILL.
COLLECT LITTER	DISPOSE OF WITH INLET DEBRIS.
SWEEP PARKING LOT	REMOVE MUD, DIRT, GREASE AND OIL WITH PERIODIC SWEEPING
DUST CONTROL	SPRINKLE WATER AS NEEDED

**PROPOSED CONST. SCHEDULE FOR THE YEAR 2024**

ACTIVITY	MAY	JUNE	JULY	AUG	SEPT	OCT
DEMO & CLEAR						
MASS GRADING						
UNDERGROUND UTILITY						
FINAL GRADING						
SEED & MULCH						

**SURFACE WATER & COUNTY DRAINS**  
WETLAND - ON SITE  
LAKES - APPROXIMATELY 1300 FT NORTH EAST TO LAKE CHEMUNG



**TEMPORARY INLET SEDIMENT FILTER DETAIL**  
(NO SCALE)

NO.	DESCRIPTION	DATE	REVISION
1	STRIPPING & STOCKPILING TOPSOIL	1/23/24	1
6	SEEDING WITH MULCH AND/OR MATTING	12/18/23	1
15	PAVING		
16	CURBS & GUTTER		
35	STORM SEWER		
36	CATCH BASIN DRAIN NET		
40	INLET SEDIMENT FILTER		
54	SILT FENCE		

T = TEMPORARY, P = PERMANENT  
TOTAL DISTURBED AREA = 1.38 AC.

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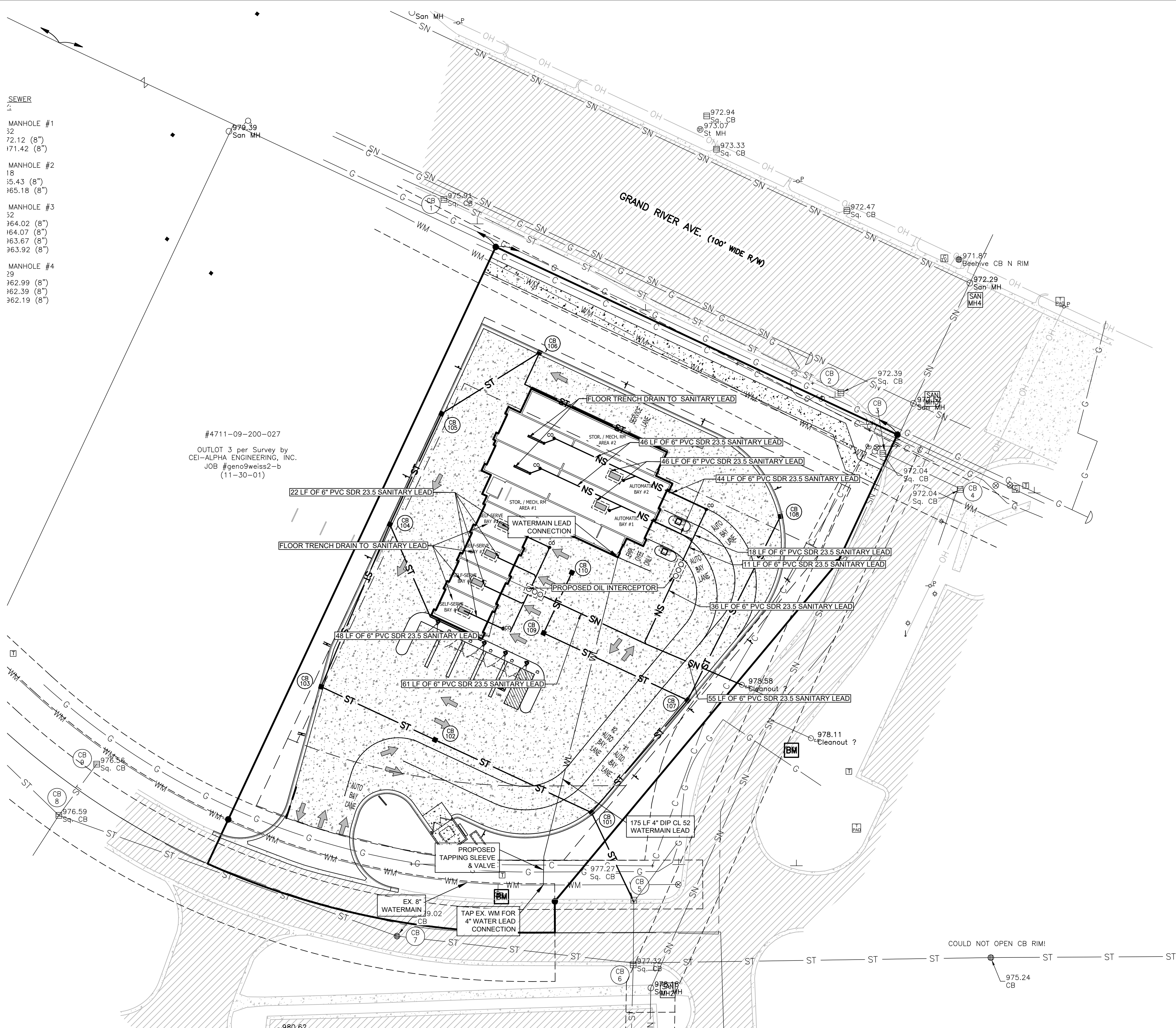
**SOOPY BUCKET CARWASH - LAWSON DR.**

**SPRINGBORN PROPERTIES**  
3332 HIGH HILLCREST DRIVE  
HOWELL, MI. 48843  
313.350.3388

**SOIL EROSION & SEDIMENTATION CONTROL PLAN**

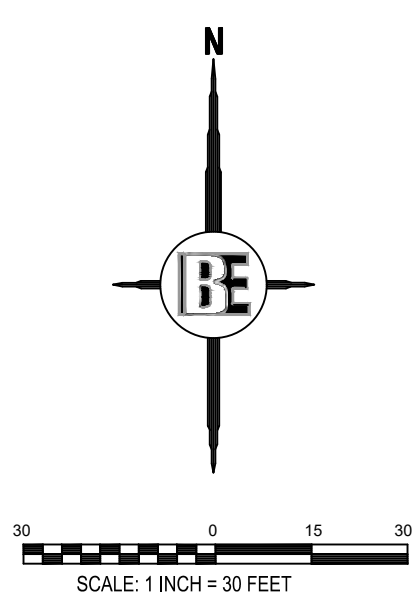
DESIGNED BY:	ST
DRAWN BY:	DH
CHECKED BY:	
SCALE:	1" = 30'
JOB NO:	23-134
DATE:	10/31/23
SHEET NO.	8





- SEWER
- MANHOLE #1  
32  
72.12 (8")  
171.42 (8")
  - MANHOLE #2  
18  
15.43 (8")  
165.18 (8")
  - MANHOLE #3  
32  
364.02 (8")  
164.07 (8")  
163.67 (8")  
363.92 (8")
  - MANHOLE #4  
29  
362.99 (8")  
162.39 (8")  
362.19 (8")

#4711-09-200-027  
 OUTLOT 3 per Survey by  
 CEI-ALPHA ENGINEERING, INC.  
 JOB #gen9weiss2-b  
 (11-30-01)



SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

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BE ENGINEERING, INC.  
 CALL MESS DIG  
 1-800-462-7171  
 www.be-engineering.com

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 PREPARED FOR: **SPRINGBORN PROPERTIES**  
 3335 HIGH HILLCREST DRIVE  
 HOWELL, MI. 48843  
 313.350.3388

TITLE: **UTILITY PLAN**

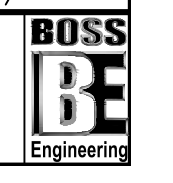
FROM	TO	DRAIN AREA	ACRES A	RUNOFF COEFF C	EQUIV. AREA A * C	INTEN-SITY I	TIME OF CONC. Tc	ADDL RUNOFF Q	RUNOFF (CFS) Q	PIPE LENGTH (LF)	PIPE DIA. (IN)	VELOCITY FLOWING FULL (FPS)	HYDRAULIC GRADIENT SLOPE %	ACTUAL SLOPE USED	MANNING COEFFICIENT	MANNING FLOW CAPACITY	MANNING'S VELOCITY (FT/SEC)	TIME (MIN)	HG ELEV UPPER END	HG ELEV LOWER END	RIM ELEV UPPER END	RIM ELEV LOWER END	INVERT UPPER END	INVERT LOWER END
106	105	106	0.04	0.90	0.04	4.38	15.00	0.17	59	12	1.50	0.11%	0.50%	0.013	2.53	3.22	0.31	972.87	972.58	977.77	977.35	972.07	971.78	
105	104	105	0.06	0.90	0.05	4.34	15.31	0.39	62	12	1.93	0.18%	0.50%	0.013	2.53	3.22	0.32	972.58	972.27	977.35	977.30	971.78	971.47	
104	103	104	0.07	0.90	0.06	4.31	15.63	0.66	90	12	2.25	0.24%	0.50%	0.013	2.53	3.22	0.47	972.27	971.82	977.30	977.35	971.47	971.02	
103	102	103	0.09	0.90	0.08	4.26	16.10	1.00	60	12	2.57	0.32%	0.50%	0.013	2.53	3.22	0.31	971.82	971.52	977.35	977.50	971.02	970.72	
102	101	102	0.14	0.90	0.13	4.23	16.41	1.53	93	12	2.93	0.41%	0.50%	0.013	2.53	3.22	0.48	971.52	971.05	977.50	976.87	970.72	970.25	
101	EX	101	0.10	0.90	0.09	4.18	16.89	1.92	51	12	3.14	0.48%	0.50%	0.013	2.53	3.22	0.26	971.05	970.80	976.87	-	970.25	970.00	
108	107	108	0.11	0.90	0.10	4.38	15.00	0.42	105	12	1.93	0.18%	0.50%	0.013	2.53	3.22	0.55	971.96	971.43	976.53	977.09	971.16	970.63	
107	101	107	0.11	0.90	0.10	4.32	15.55	0.86	76	12	2.49	0.30%	0.50%	0.013	2.53	3.22	0.39	971.43	971.05	977.09	976.87	970.63	970.25	
110	109	110	0.05	0.90	0.04	4.38	15.00	0.18	34	12	1.50	0.11%	0.50%	0.013	2.53	3.22	0.18	972.01	971.84	978.05	978.05	971.21	971.04	
109	107	109	0.04	0.90	0.04	4.36	15.18	0.35	81	12	1.93	0.18%	0.50%	0.013	2.53	3.22	0.42	971.84	971.43	978.05	977.09	971.04	970.63	
112	111	112	0.06	0.90	0.05	4.38	15.00	0.23	77	6	2.29	0.64%	1.00%	0.013	0.56	2.87	0.45	973.94	973.45	978.50	978.50	973.42	972.65	
111	106	111	0.06	0.90	0.05	4.33	15.45	0.46	18	6	2.84	0.98%	1.00%	0.013	0.56	2.87	0.10	973.45	973.27	978.50	-	972.65	972.47	
114	113	114	0.02	0.90	0.02	4.38	15.00	0.09	29	6	1.72	0.36%	1.00%	0.013	0.56	2.87	0.17	973.07	972.96	978.50	978.50	972.67	972.38	
113	104	113	0.02	0.90	0.02	4.36	15.17	0.17	52	6	2.15	0.56%	1.00%	0.013	0.56	2.87	0.30	972.96	972.67	978.50	977.30	972.38	971.87	

STRUCTURE	DIAMETER (FT)
CB 101	4
CB 102	4
CB 103	4
CB 104	4
CB 105	4
CB 106	2
CB 107	4
CB 108	2
CB 109	4
CB 110	2

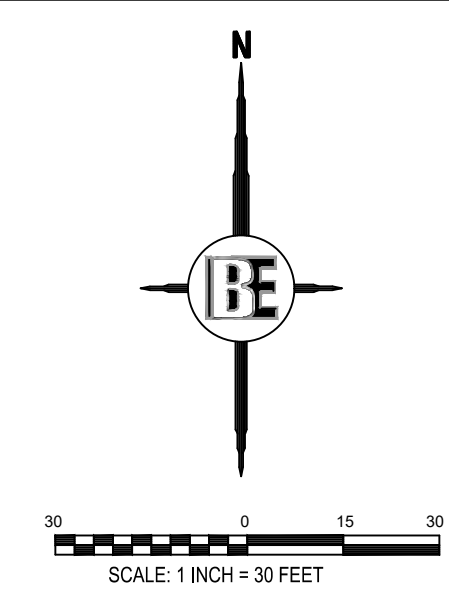
FOR SITE PLAN APPROVAL ONLY!  
 NOT FOR CONSTRUCTION

NO	DATE	REVISION PER	BY
1	1/23/24	REVIEW COMMENTS	ST
2	12/18/23	REVIEW COMMENTS	DH

DESIGNED BY: ST  
 DRAWN BY: DH  
 CHECKED BY: CB 109  
 SCALE: 1" = 30'  
 JOB NO: 23-134  
 DATE: 10/31/23  
 SHEET NO. **9**







SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

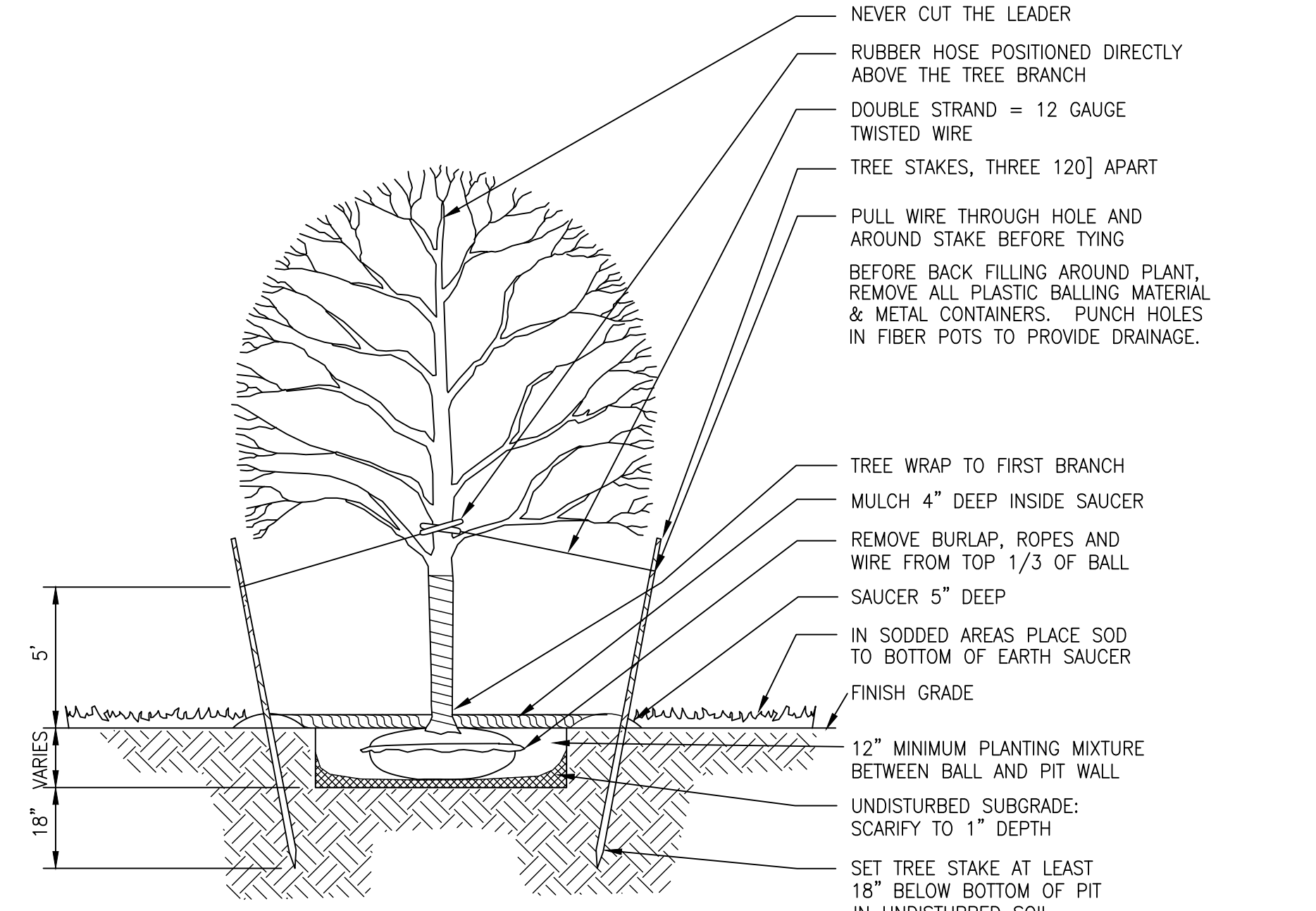
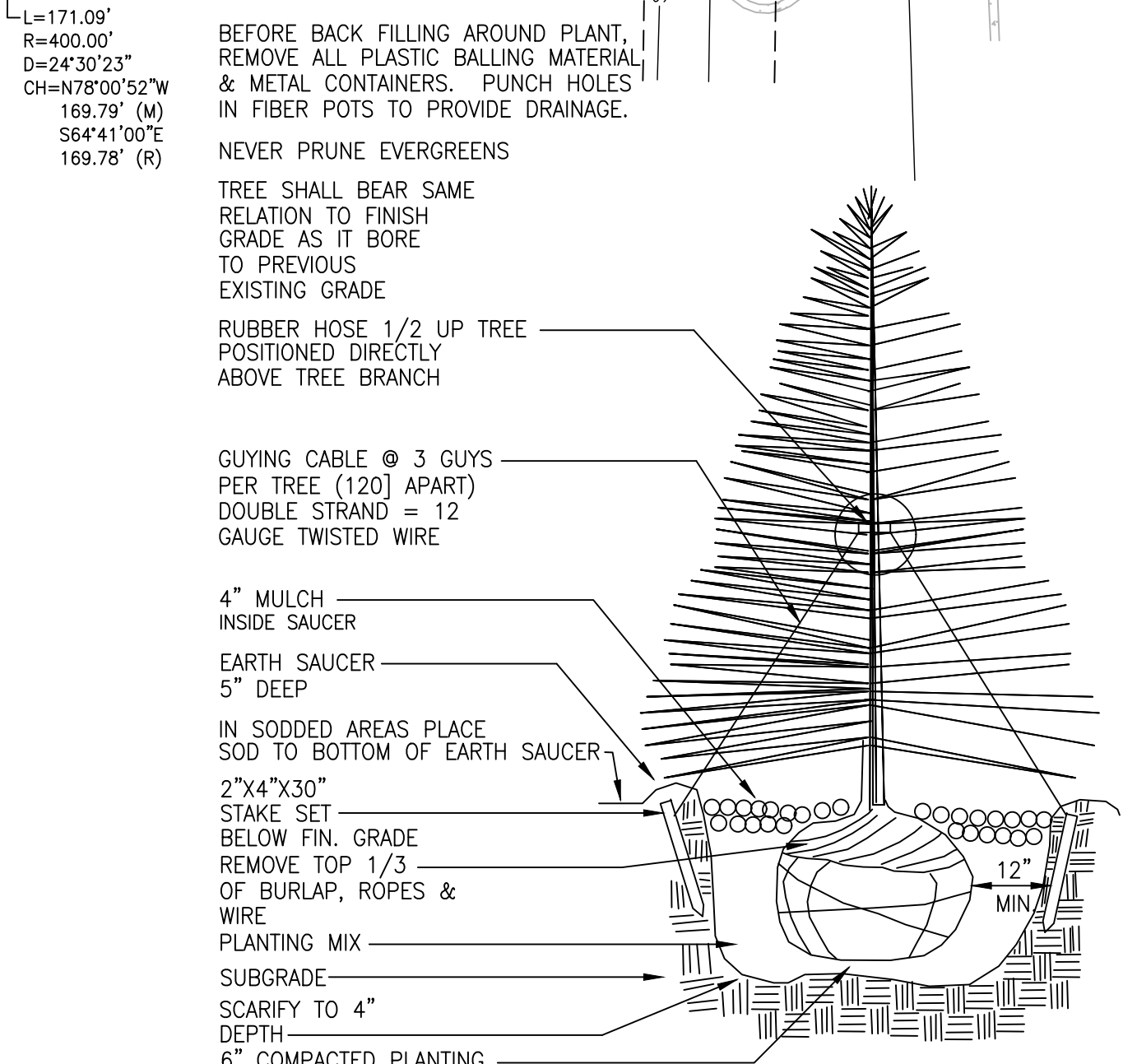
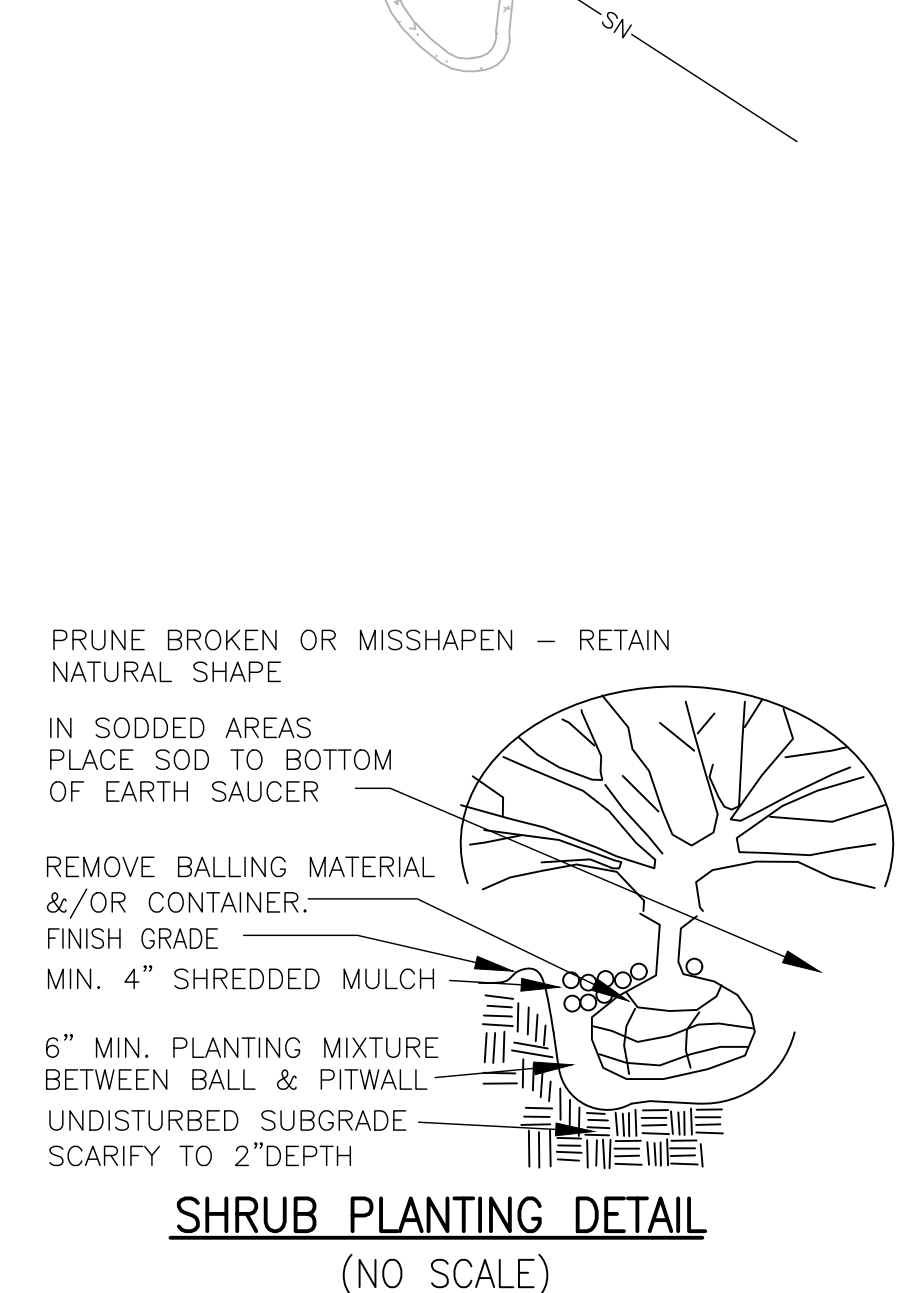
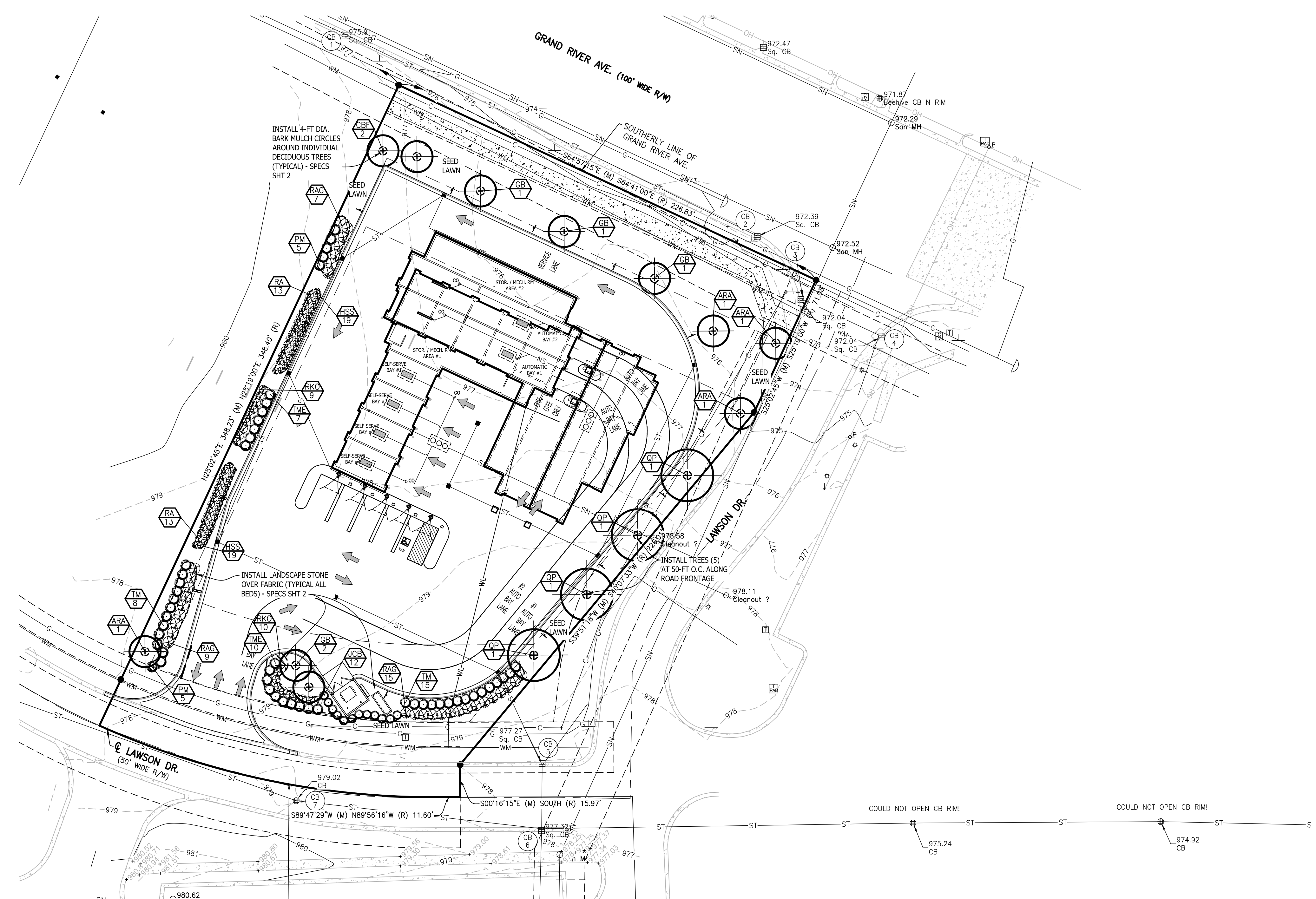
LANDSCAPE CALCULATIONS 'NR PUD' ZONING (FOLLOWING SECTION 12.02):

REQUIRED: GREENBELT - PUBLIC R.O.W.'S - GRAND RIVER AVE: (LAWSON DR. PRIVATE RD.)	1 CANOPY TREE / 40 LFT FRONTAGE, MIN 20 FT WIDTH
BUFFER - WEST ADJ. TO COMMERCIAL - TYPE C:	1 CANOPY OR CONIFER TREE OR 4 SHRUBS / 20 LFT MIN. 10 FT WIDTH
PARKING AREA (<10 SPACES):	N/A - 3 USE CALCULATED / PROVIDED SPACES BELOW MIN.
DETENTION / RETENTION BASIN:	N/A - TO CONNECT TO OVERALL DEVELOPMENT SYSTEM
ACCESSORY STRUCTURES (DUMPSTER ENCLOSURE):	SCREENED WITH SHRUBS IF IN 'VISIBLE LOCATION'
PROVIDED: GREENBELT - PUBLIC R.O.W. - GRAND RIVER AVE:	226.83 LFT FRONTAGE / 40 = 6 CANOPY TREES REQ'D & PROVIDED
ALONG EAST PROP. LINE - LAWSON DRIVE:	226.01 LFT / 40 = 6 DECIDUOUS TREES PROVIDED
ALONG SOUTH PROP. LINE - LAWSON DRIVE:	181.38 LFT / 40 = 5 DECIDUOUS TREES REQ'D AS BUFFER PROPOSE 2 DECID. TREES + 26 CONIFER SHRUBS + 26 DECID. SHRUBS SHRUBS BEING EQUIVALENT TO OVER 17 SHRUBS / TREE
BUFFER - WEST PROP. LINE ADJ. TO COMMERCIAL - TYPE C:	348.40 LFT / 20 = 18 TREES OR 72 SHRUBS OR COMBINATION 1 DECID. TREE + 25 CONIFER SHRUBS + 89 DECID. SHRUBS PROVIDED

PLANT LIST

KEY	QUAN.	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
<b>DECIDUOUS TREES</b>					
CBF	2	Carpinus betulus 'Frans Fontaine'	Frans Fontaine European Hornbeam	2-1/2" cal.	B-B
ARA	4	Acer rubrum 'Jfs KW 78'	Armstrong Gold Red Maple	2-1/2" cal.	B-B
GB	5	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Columnar Ginkgo	2-1/2" cal.	B-B
QP	4	Quercus palustris	Northern Pin Oak	2-1/2" cal.	B-B
<b>CONIFER SHRUBS</b>					
JCB	12	Juniperus chinensis 'Blue Point'	Blue Point Juniper	48" ht./#5	Cont.
PM	10	Pinus mugo 'Mops'	Mops Mugo Pine shrub	24" ht./#3	Cont.
TM	23	Taxus X Media 'Densiformis'	Densiformis Yew	36" ht./#5	Cont.
TME	17	Taxus X Media 'Everlow'	Everlow Yew	36" ht./#5	Cont.
<b>DECIDUOUS SHRUBS</b>					
HSS	38	Hydrangea serrata 'Smmmakts'	Mountain Tuff Stuff Red Hydrangea	18" ht./#3	Cont.
RA	26	Ribes alpinum 'Greenmound'	Greenmound Currant	18" ht./#3	Cont.
RKO	19	Rosa x 'Knock Out Red'	Knock Out Red Shrub Rose	24" ht./#3	Cont.
RAG	31	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	24" ht./#3	Cont.

SUPPLEMENTAL LANDSCAPE NOTES  
1. ANY SUBSTITUTIONS OF PLANT MATERIAL FROM THE APPROVED SITE PLAN WILL BE APPROVED BY THE TOWNSHIP PRIOR TO INSTALLATION.



DUMPSTER ENCLOSURE:

**BEBOSS**  
Engineering  
Engineers Surveyors Planners Landscape Architects  
3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
517.546.4836 FAX 517.548.1670

PROJECT: SOAPOY BUCKET CARWASH  
PREPARED FOR: SPRINGBORN PROPERTIES  
3535 HIGH HILLOREST DR  
HOWELL, MI 48843  
313.350.3358  
TITLE: LANDSCAPE PLAN

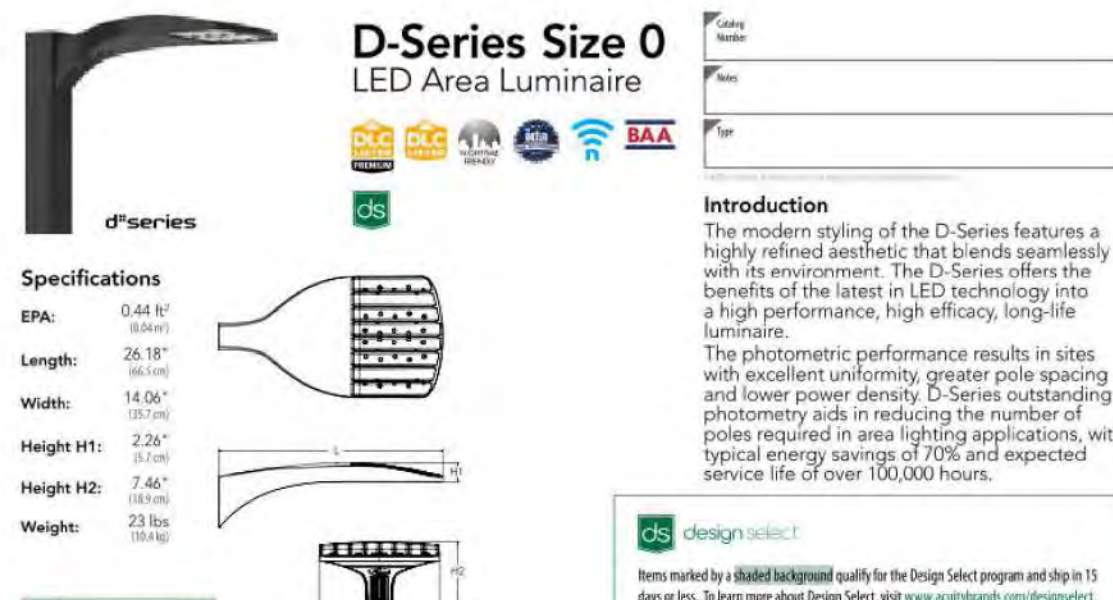
DESIGNED BY:	PC
DRAWN BY:	PC
CHECKED BY:	
SCALE:	1" = 30'
JOB NO:	23-134
DATE:	10/31/23
SHEET NO.	10

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### D-Series Size 0 LED Area Luminaire



**Specifications**

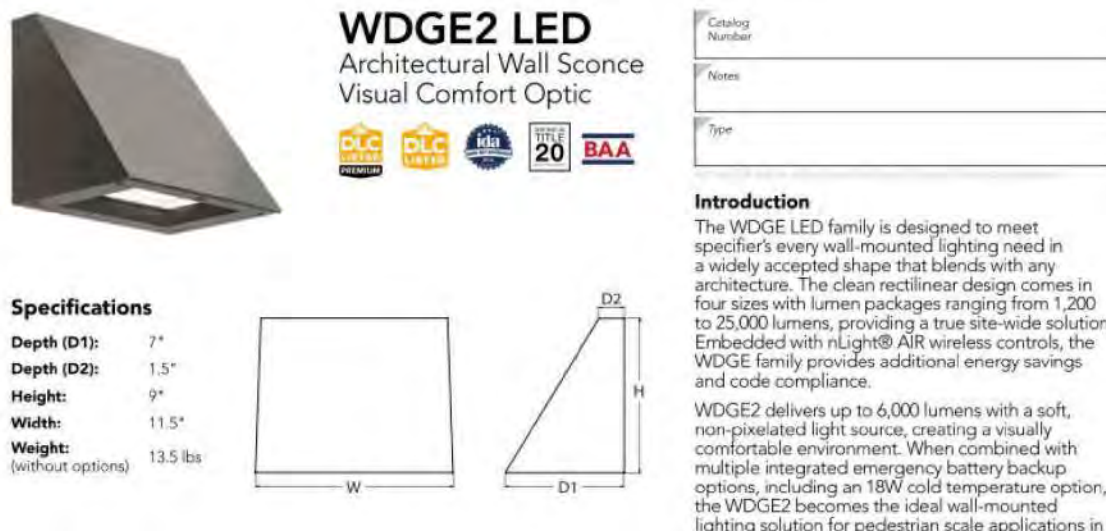
- EPA: 0.48 ft (0.14 m)
- Length: 28.18" (0.71 m)
- Width: 14.06" (0.36 m)
- Height H1: 2.24" (0.06 m)
- Height H2: 7.64" (0.19 m)
- Weight: 2.16 lbs (0.98 kg)

**Introduction**

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications, with typical energy savings of 70% and expected service life of over 100,000 hours.

### WDGE2 LED Architectural Wall Sconce Visual Comfort Optic



**Specifications**

- Depth (D1): 7"
- Depth (D2): 1.5"
- Height: 1.5"
- Width: 11.5"
- Weight: 13.5 lbs

**Introduction**

The WDGE2 family is designed to meet specific every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean, rectangular design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing a true site-wide solution. Embedded with nLight® AR wireless controls, the WDGE2 family provides additional energy savings and code compliance.

WDGE2 delivers up to 6,000 lumens with a soft, non-polluted light source, creating a visually comfortable environment. When combined with multiple integrated emergency battery backup options, including an 18W cold temperature option, the WDGE2 becomes the ideal wall-mounted lighting solution for pedestrian scale applications in any environment.

**Ordering Information**

EXAMPLE: DSXO LED P6 40K 70CRI TMV TMMO SPA NLTAR2 PIRHN DBXK

Item	LED	Color Temperature	Color Rendering Index	Beam Spread	Mounting	Notes
DSXO LED	P6	4000K	70CRI	AR	TMV	Standard
DSXO LED	P6	4000K	70CRI	AR	TMMO	Medium Throw
DSXO LED	P6	4000K	70CRI	AR	SPA	Spotlight
DSXO LED	P6	4000K	70CRI	AR	NLTAR2	Non-Linear
DSXO LED	P6	4000K	70CRI	AR	PIRHN	PIR Sensor
DSXO LED	P6	4000K	70CRI	AR	DBXK	Dark Box

**WDGE2 LED Family Overview**

Item	LED	Color Temperature	Color Rendering Index	Beam Spread	Mounting	Notes
WDGE2 LED	P1	4000K	70CRI	AR	TMV	Standard
WDGE2 LED	P1	4000K	70CRI	AR	TMMO	Medium Throw
WDGE2 LED	P1	4000K	70CRI	AR	SPA	Spotlight
WDGE2 LED	P1	4000K	70CRI	AR	NLTAR2	Non-Linear
WDGE2 LED	P1	4000K	70CRI	AR	PIRHN	PIR Sensor
WDGE2 LED	P1	4000K	70CRI	AR	DBXK	Dark Box

**Ordering Information**

EXAMPLE: WDGE2 LED P3 40K 80CRI VF VMV SRM LDDXK

Item	LED	Color Temperature	Color Rendering Index	Beam Spread	Mounting	Notes
WDGE2 LED	P3	4000K	80CRI	VF	VMV	Medium Throw
WDGE2 LED	P3	4000K	80CRI	VF	SRM	Spotlight
WDGE2 LED	P3	4000K	80CRI	VF	LDDXK	Dark Box

**General Note**

1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.

2. SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.

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

**General Note**

1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.

2. SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.

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

**Schedule**

Symbol	Label	Image	QTY	Manufacturer	Catalog	Description	Lamp Output	LLF	Input Power
A			7	Lithonia Lighting	DSXO LED P3 40K 80CRI BLCC	D-Series Size 0 Area Luminaire P3 Performance Package 4000K CCT 80 CRI Type 3 Extreme Backlight Control	5870	0.9	68.95
B			1	Lithonia Lighting	DSXO LED P3 40K 80CRI TTFM	D-Series Size 0 Area Luminaire P3 Performance Package 4000K CCT 80 CRI Forward Throw	8247	0.9	68.95
C			1	Lithonia Lighting	DSXO LED P3 40K 80CRI RCCO	D-Series Size 0 Area Luminaire P3 Performance Package 4000K CCT 80 CRI Right Corner Cutoff Extreme Backlight Control	5923	0.9	68.95
D			9	Lithonia Lighting	WDGE2 LED P3 40K 80CRI TTFM	WDGE2 LED WITH P3 - PERFORMANCE PACKAGE, 4000K, 80CRI, TYPE FORWARD THROW MEDIUM OPTIC	3166	0.9	32.1375
E			3	Lithonia Lighting	WDGE2 LED P3 40K 80CRI T1S	WDGE2 LED WITH P3 - PERFORMANCE PACKAGE, 4000K, 80CRI, TYPE 1 SHORT OPTIC	3089	0.9	32.1375

**Statistics**

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Overall	+	0.8 fc	4.6 fc	0.0 fc	N/A	N/A
Property Line	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
Drive Lanes	X	1.6 fc	4.6 fc	0.3 fc	15.3:1	5.3:1

**General Note**

1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.

2. SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.

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

**General Note**

1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.

2. SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.

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

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

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

UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIREMENTS DEFINED IN ASHRAE 90.1 2013. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT ASG@GASSERBUSH.COM OR 734-266-6705.

UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIREMENTS DEFINED IN ASHRAE 90.1 2013. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT ASG@GASSERBUSH.COM OR 734-266-6705.

**Alternates Note**

THE USE OF FIXTURE ALTERNATES MUST BE RESUBMITTED TO THE CITY FOR APPROVAL.

**Ordering Note**

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

**Drawing Note**

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

**Mounting Height Note**

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



Plan View  
Scale - 1" = 25ft



SOAPY BUCKET GENCOA TOWNSHIP  
PHOTOMETRIC SITE PLAN  
GASSER BUSH ASSOCIATES  
WWW.GASSERBUSH.COM

Designer  
BK  
Date  
01/23/2024  
Scale  
Not to Scale  
Drawing No.  
#23-19570 V2



## D650-VCOB BOULEVARD SERIES LED

EPA 1.04 (FT) WEIGHT 29 LBS	7 YEAR WARRANTY	LUMEN RANGE 4,115 to 8,050	LIFE SPAN MINIMUM 100,000 HOURS	UL LISTED	CLICK FOR FAQ'S	JOB NAME
<p>FIXTURE TYPE</p> <p>MEMO</p>						

### BUILD A PART NUMBER

ORDERING EXAMPLE: **PT-D650-5P-VCOB-4L40TS-MDL03-A-PEC-FHD/4212FP4-188/DIKT**

Mounting Config.	Fixture	Filter	LED	CCT	Type	Driver	Lens	Option Control	Option Fitter	Option Decorative Ring	Option GFI	Option Block	Option House Side Sheet	Arm	Pole	Finish
------------------	---------	--------	-----	-----	------	--------	------	----------------	---------------	------------------------	------------	--------------	-------------------------	-----	------	--------

#### Mounting Configuration

W-Wall Mount, IP-Post Top, A-Arm Mount, AM-Arm Mid Mount, PS-Post Base

#### Fixture Data

D650SR

#### Filter

991, 992, 993, 994, 995, 996, 997, 998, 999

#### LED

VCOB-4L

#### CCT - Color Temperature (K)

2700, 3000, 3500, 4000, 5000

#### Type

TS (Symmetric), TA (Asymmetric)

#### Driver

MDO1 (120V-277V, 250mA), MDO2 (120V-277V, 350mA), MDL03 (120V-277V, 500mA), MDH02 (347V-480V, 250mA), MDH03 (347V-480V, 350mA), MDH05 (347V-480V, 500mA)

#### Lens

A (Textured Acrylic), P (Textured Poly), WP (White Textured Poly)

#### Options

R-3 Pin control receptacle only, R-5 Pin control receptacle only, R-7 Pin control receptacle only, PE Twist-Lock Photocontrol (120V-277V)

#### Specifications

##### Photocontrols

PE3 Twist-Lock Photocontrol (347V), PE4 Twist-Lock Photocontrol (480V), PEC Electronic Button Photocontrol (120V-277V), PEC Electronic Button Photocontrol (200V-277V), PECDR Double Pole and Holder, CDR Cast Decorative Ring, CDRCL Cast Decorative Ring with Custom Logo, PRDR Perfected Brass Decorative Ring, CFI 15A Duplex GFI for Utility Fitter, TP Terminal Block, HSP 120 House Side Shield

##### Fitter - Standard

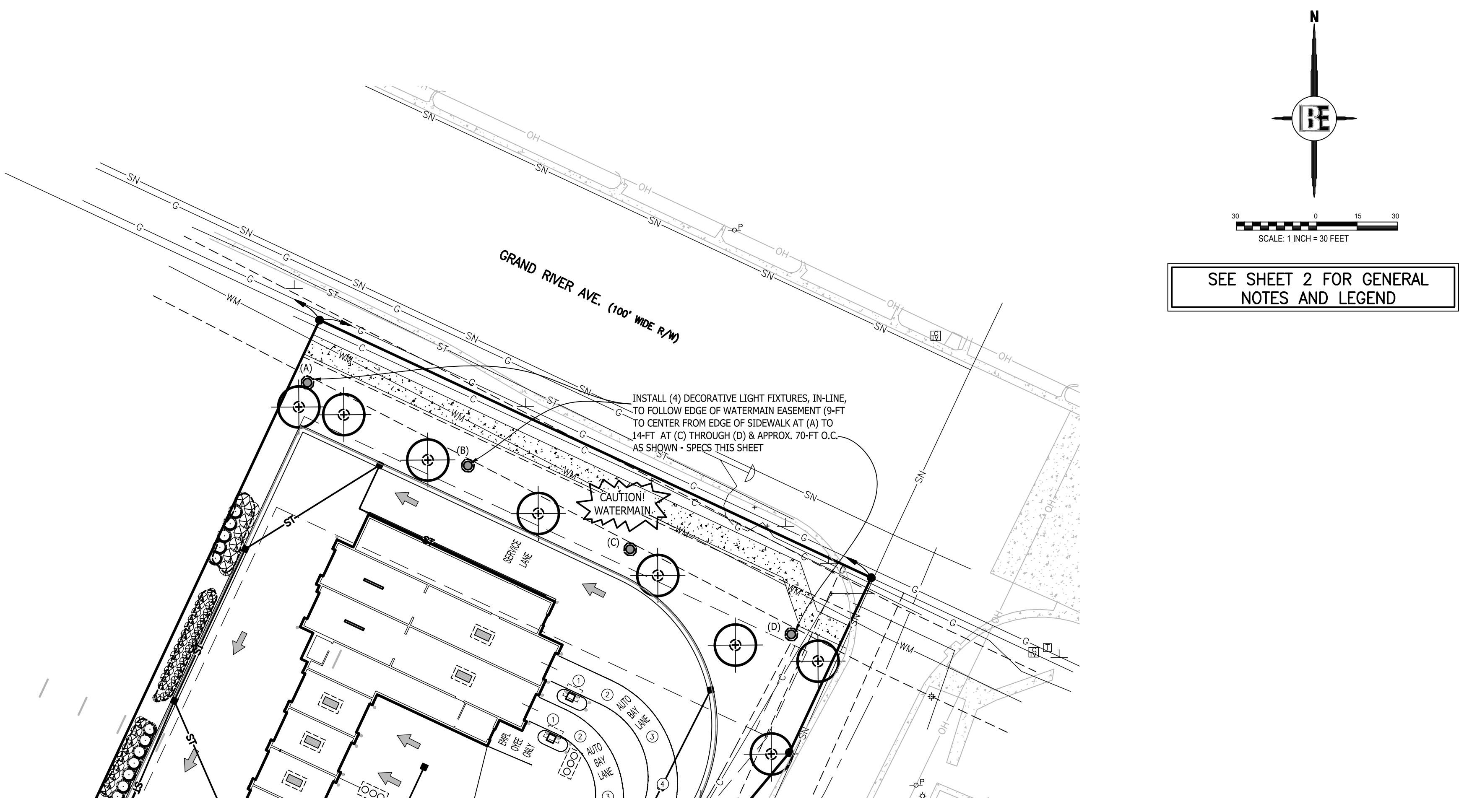
The fitter shall be heavy wall cast aluminum, 356 alloy for high tensile strength. It shall have an 8-1/2" inside diameter opening to attach to the 8" neck of the acorn globe. When ordered with a Sternberg aluminum pole, the fitter shall be welded to the pole top or tenon for safety and to ensure the fixture will be plumb, secure and level over life of the installation. The fitter shall have a one-piece ring bug gasket to resist insect penetration into lamp assembly.

##### 900 Series Utility Fitter Option

The fitter shall be heavy wall cast aluminum, 360 die cast alloy for high tensile strength. It shall have a 9-1/4" inside diameter opening to attach to the 8" neck of the acorn globe. It shall have a hinged, tool-less entry door that provides open access to all of the components. The 990 shall have an optional terminal block for ease of wiring, an optional Twist-Lock Photocontrol receptacle, an optional single GFI outlet for auxiliary power needs. The top mounted driver mounting plate shall be cast aluminum and provide tool-less removal from the housing using 2 finger latches. When ordered with a Sternberg aluminum pole, the fitter shall be set screwed to the pole top or tenon. The fitter shall have a one-piece ring bug gasket to resist insect penetration into lamp assembly. When supplied with GFI receptacle a hole will be provided for cord and plug installation with the access door closed. When cord and plug is not in use a fitter plug will be provided and

**SternbergLighting**  
ESTABLISHED 1923 / EMPLOYEE OWNED

800-821-3376  
555 Lawrence Ave., Roselle, IL 60172  
info@sternberglighting.com  
www.sternberglighting.com



## D650-VCOB BOULEVARD SERIES LED

shall be tethered to the fitter for easy recovery and installation.

#### Twist-Lock Fitter (Optional)

The TL (Twist-Lock) fitter shall have an aluminum die cast twist lock mechanism. The lockless 1/4 turn action allows for easy globe removal and replacement. A die cast ring assembly is mechanically attached to the globe and is removable if the globe is broken or replaced.

#### LED's

The luminaire shall use high output, high brightness LED's, consisting of a two piece assembly complete with Chip On Board (COB) LED component and COB holder frame mounted to vertical heat sinks. The LED's and printed circuit boards shall be 100% recyclable; they shall also be protected from moisture and corrosion by a conformal coating. They shall not contain lead, mercury or any other hazardous substances and shall be RoHS compliant. The LED life rating data shall be determined in accordance with IESNA LM-80. The High Performance white LED's will have a life expectancy of approximately 100,000 hours with not less than 70% of original brightness (lumen maintenance), rated at 25°C. The High Brightness, High Output LED's shall be 4000K (2700K, 3000K, 3500K or 5000K optional) color temperature with a minimum CRI of 70. Consult factory for custom color CCT. The luminaire shall have a minimum \_\_\_\_\_ (see table) delivered initial lumen rating when operated at steady state with an average ambient temperature of 25°C (77°F).

#### Optics

The luminaire shall be provided with individual, molded silicone refractor type optics applied to each COB (Chip On Board) LED assembly. The optic shall be at least 92% efficient while providing superior thermal, UV and impact resistance for the COB assembly. The optic helps efficiently shape and distribute the light while minimizing up-light. The luminaire shall provide symmetric and asymmetric light distribution. Testing shall be done in accordance with IESNA LM-79.

#### Electronic Drivers

The LED driver shall be UL Recognized. It shall be securely mounted inside the fixture, for optimized performance and longevity. It shall be supplied with a quick disconnect electrical connector on the power supply, providing easy power connections and fixture installation. It shall have overload, overheat and short circuit protection, and have a DC voltage output, constant current design, 50/60Hz. It shall be supplied with line-ground, line-neutral and neutral ground electrical surge protection in accordance with IEEE/ANSI C62.41.2 guidelines. It shall be a high efficiency driver with a THD less than 20% and a high power factor greater than 9. It shall be dimming capable using a 0-10v signal; consult factory for more information.

#### Photocontrols

Button Style: The photocontrol shall be mounted on the fixture and pre-wired to driver. The electronic button type photocontrol is instant on with a 3-10 second turn off, and shall turn on at 15 footcandles with a turn off at 2-3 footcandles. Photocontrol is 120-277 volt and warranted for 6 years. See pole spec sheet for pole mounted version.

Twist-Lock Style: The photocontrol shall be mounted in the utility fitter and pre-wired to driver. The twist lock type photocontrol is instant on with a 3-5 second turn off, and shall turn on at 15 footcandles with a turn off at 2-3 footcandles. Photocontrol is 120-277 volt and warranted for 6 years.

#### Warranty

Seven-year limited warranty. See product and finish warranty guide for details.

#### Finish

Refer to website for details.

#### Performance

LIGHT SOURCE	TI LUMENS	EFFICIENCY (LPW)	A LUMENS	EFFICIENCY (LPW)	WARRANTY
4L401-480L05	806	107.2	806	107.2	7Y
4L281-480L05	776	102.8	776	102.8	7Y
4L271-480L05	709	94.5	709	94.5	7Y
4L401-480L03	943	114.8	943	112.6	5Y
4L391-480L03	929	111.3	929	108.4	5Y
4L271-480L03	560	101.1	567	99.5	5Y
4L401-480L02	116	118.6	115	118.6	5Y
4L391-480L02	489	114.8	493	112.2	4Y
4L271-480L02	410	104.5	413	102.6	5Y

**SternbergLighting**  
ESTABLISHED 1923 / EMPLOYEE OWNED

800-821-3376  
555 Lawrence Ave., Roselle, IL 60172  
info@sternberglighting.com  
www.sternberglighting.com

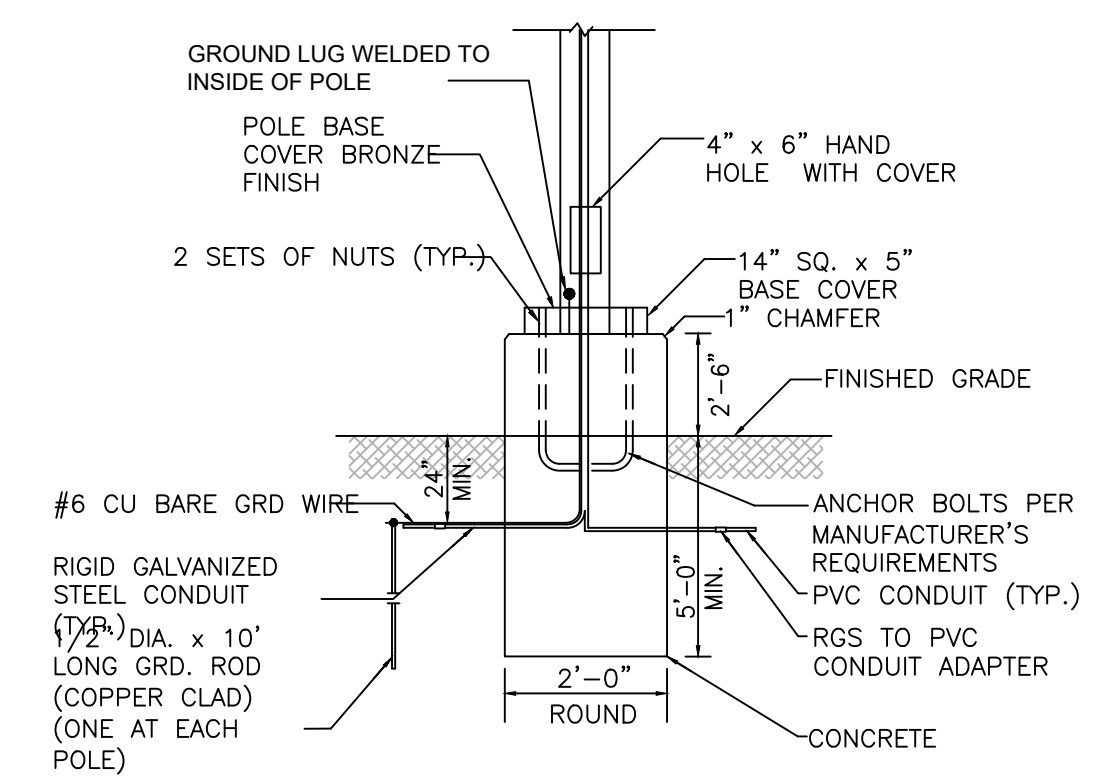
## D650-VCOB BOULEVARD SERIES LED

#### Fixtures

#### Fitters



REPRESENTATIVE LIGHT FIXTURE & FITTER IMAGE



DECORATIVE LIGHT POLE BASE DETAIL (NO SCALE)

**SternbergLighting**  
ESTABLISHED 1923 / EMPLOYEE OWNED

800-821-3376  
555 Lawrence Ave., Roselle, IL 60172  
info@sternberglighting.com  
www.sternberglighting.com

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACTED UTILITY CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION. THE APPEARANCE OF THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLANS.

**BEBOSS Engineering**  
Engineers Surveyors Planners Landscape Architects  
3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
517.546.4836 FAX 517.548.1670

PROJECT: SOAPOY BUCKET CARWASH

PREPARED FOR: SPRINGBORN PROPERTIES  
3035 HIGH HOLLOW DR  
HOWELL, MI. 48843  
313.350.3388

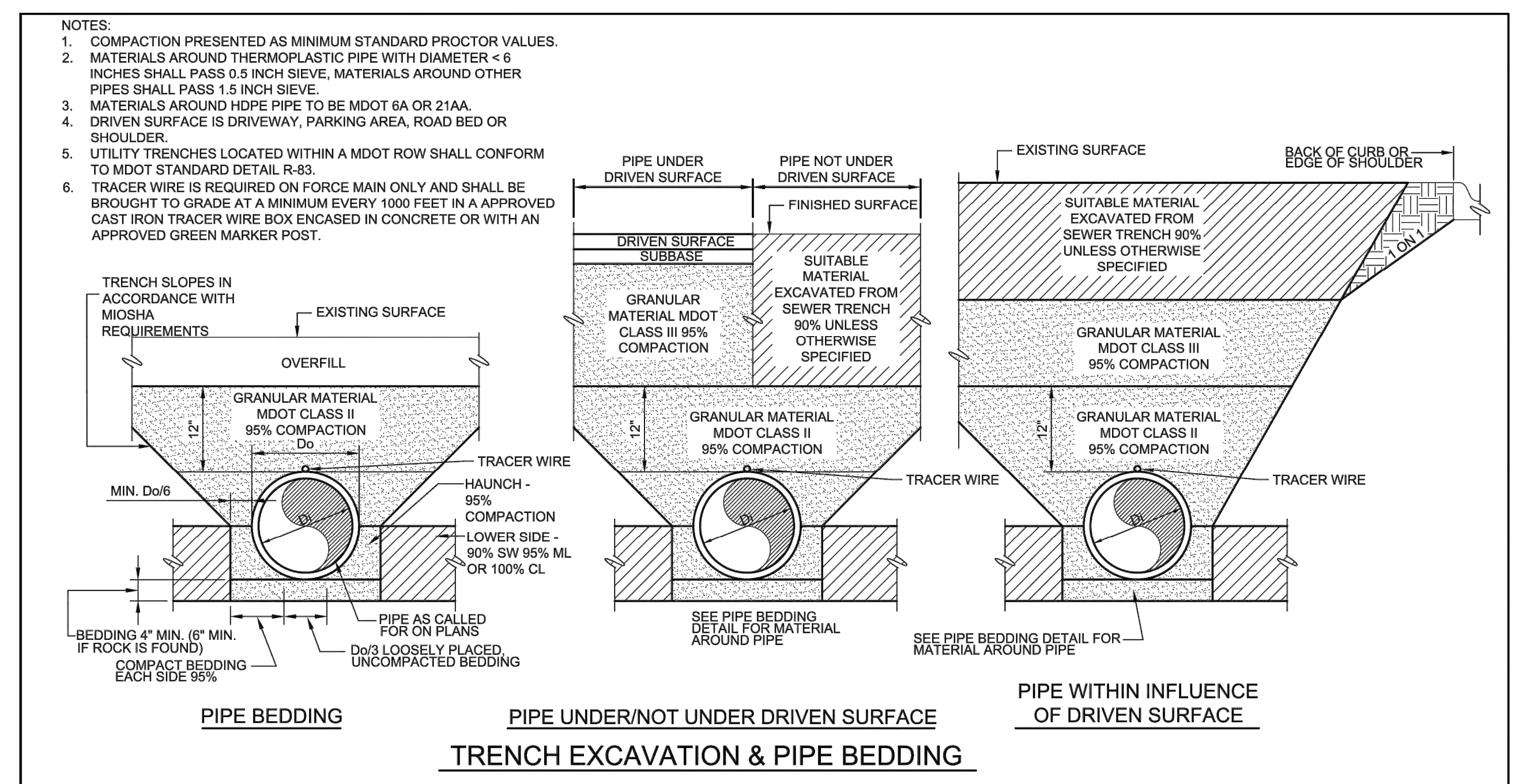
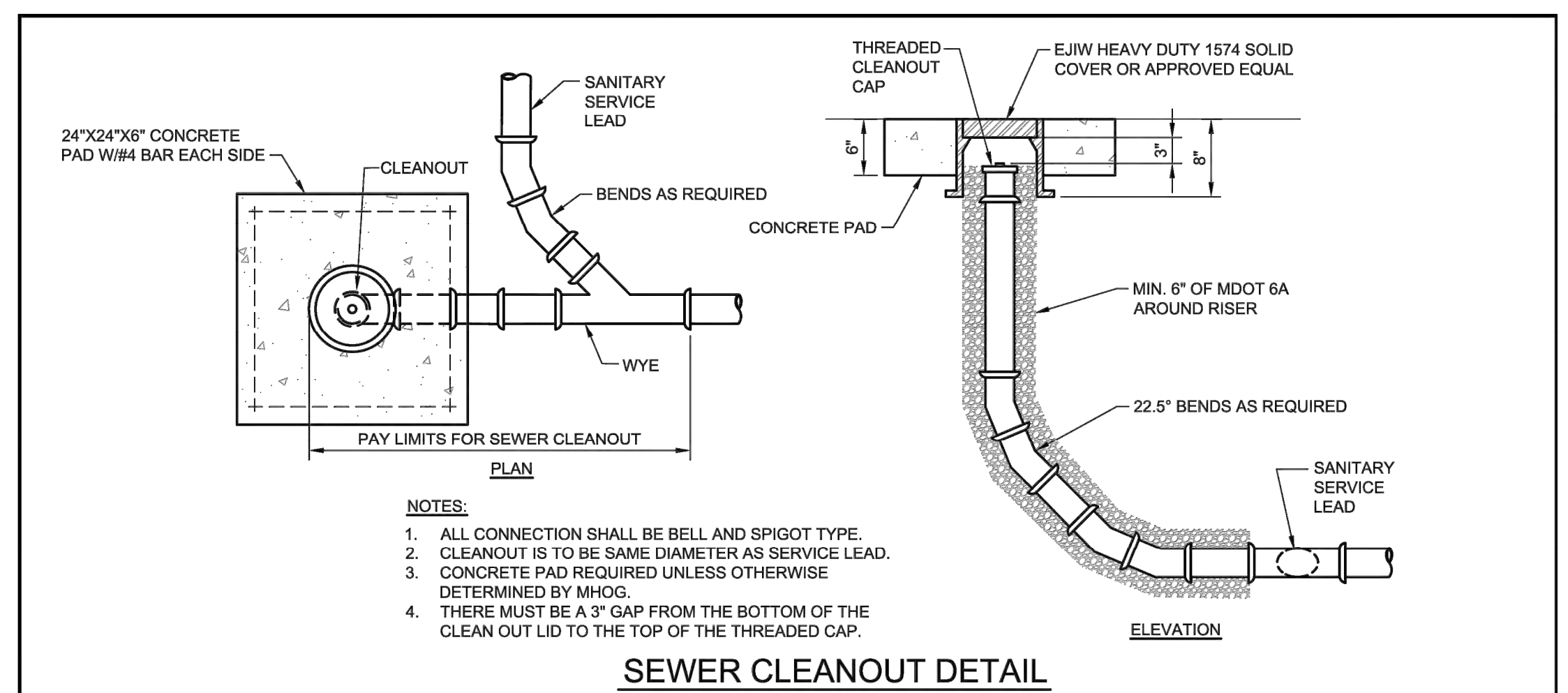
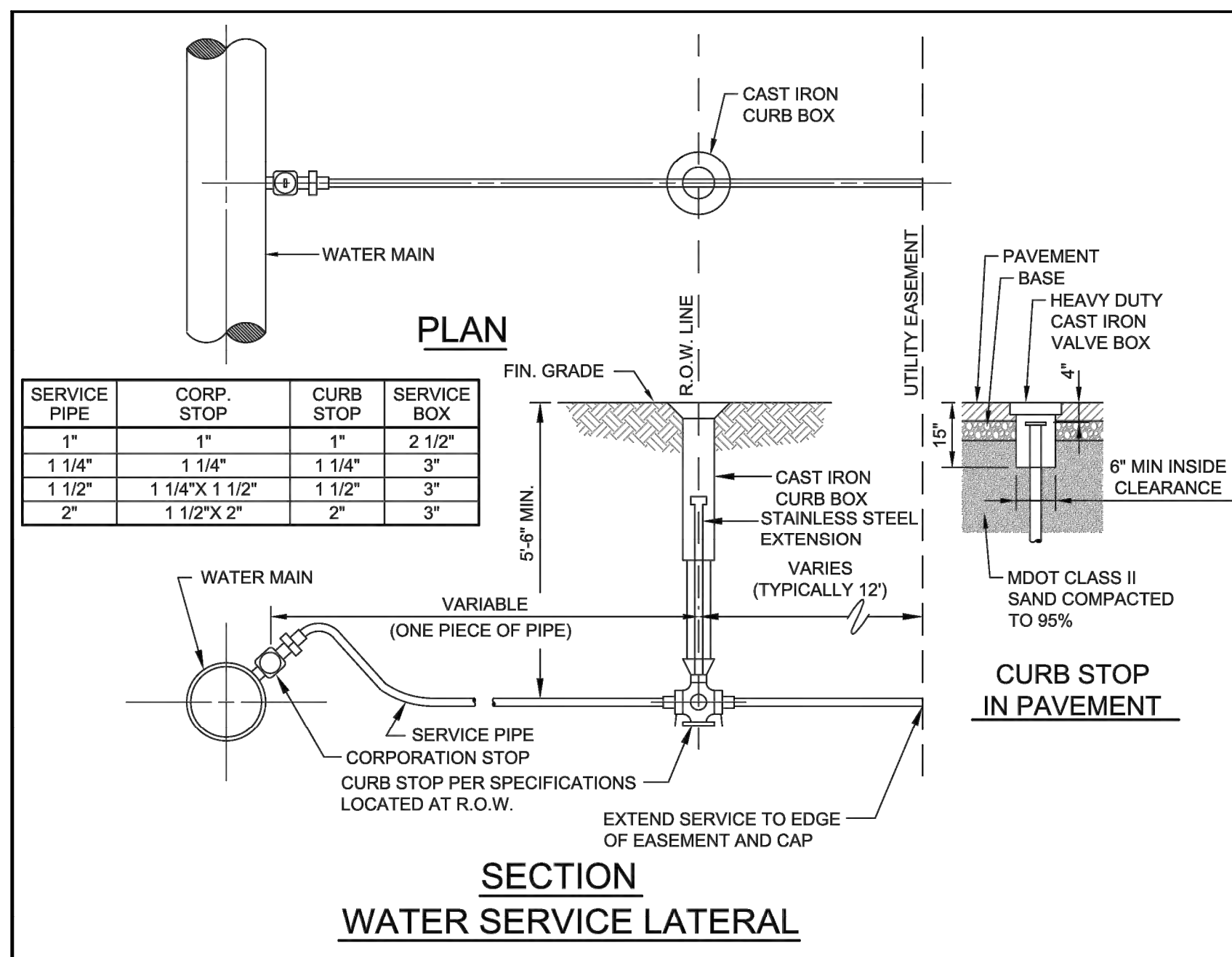
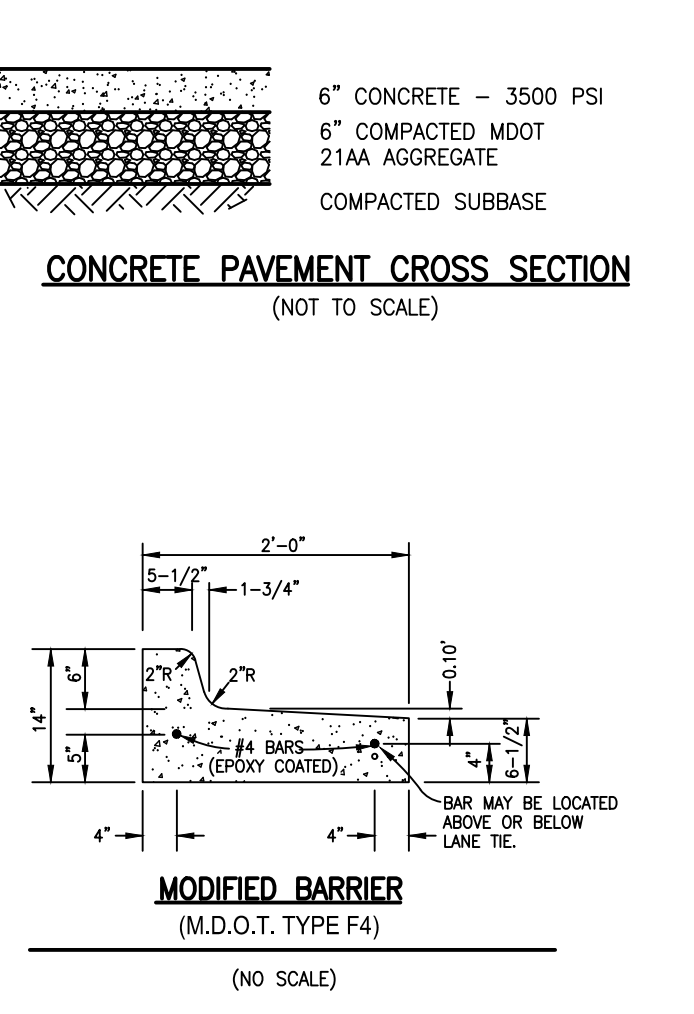
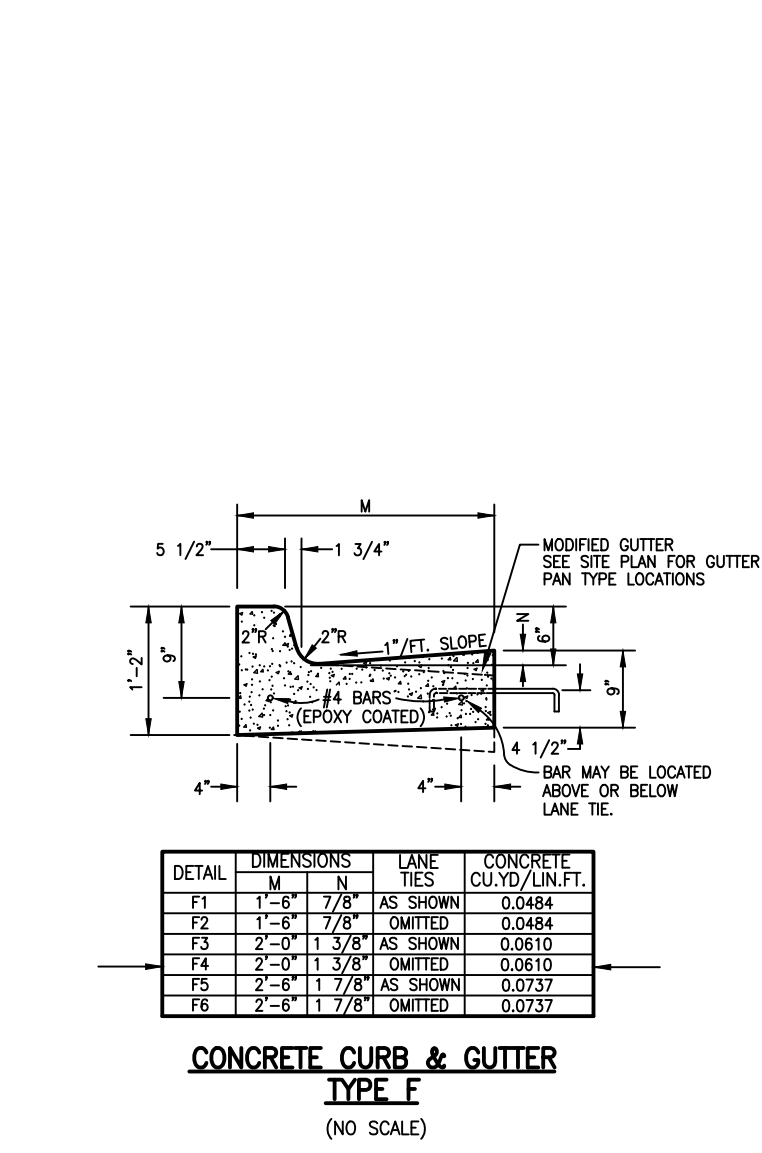
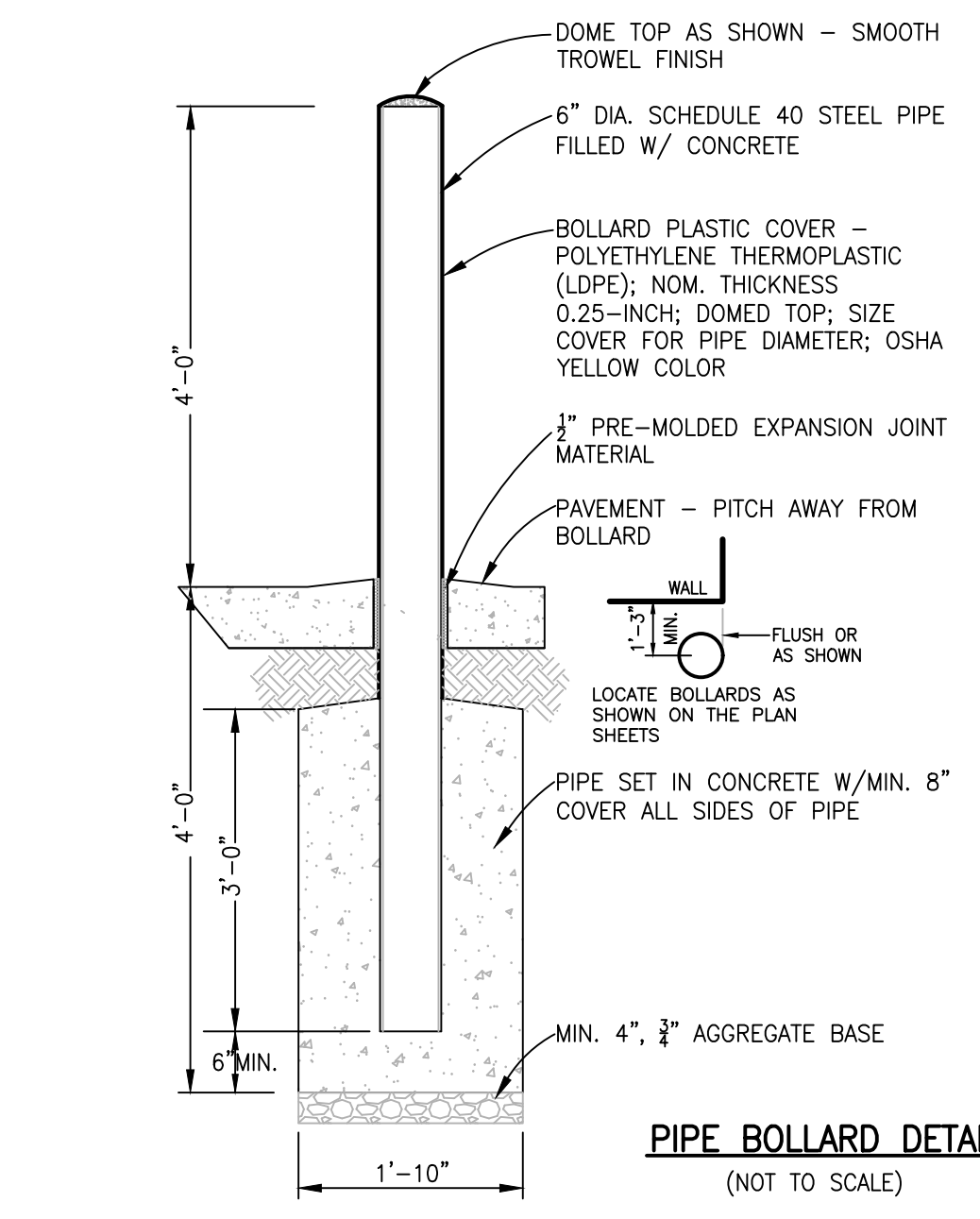
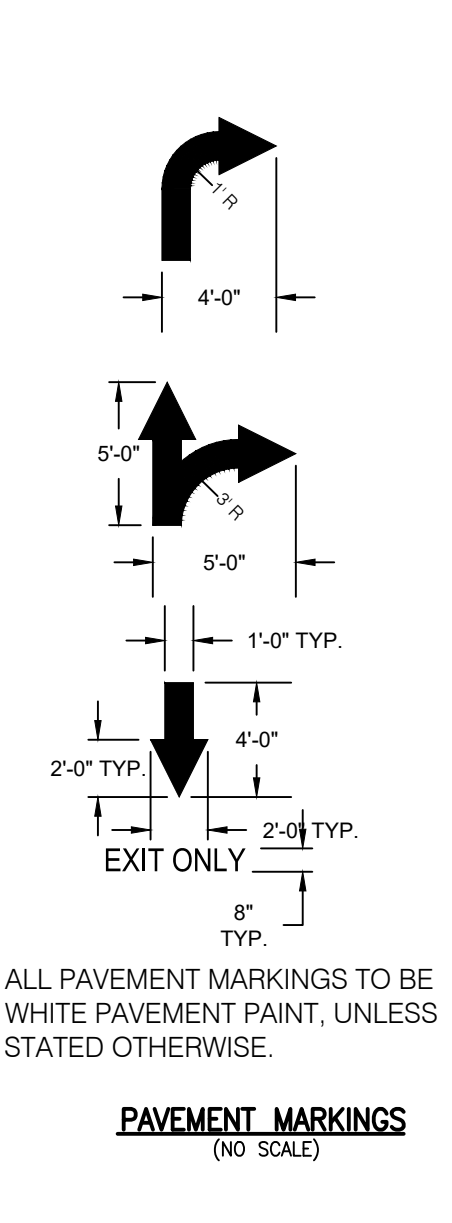
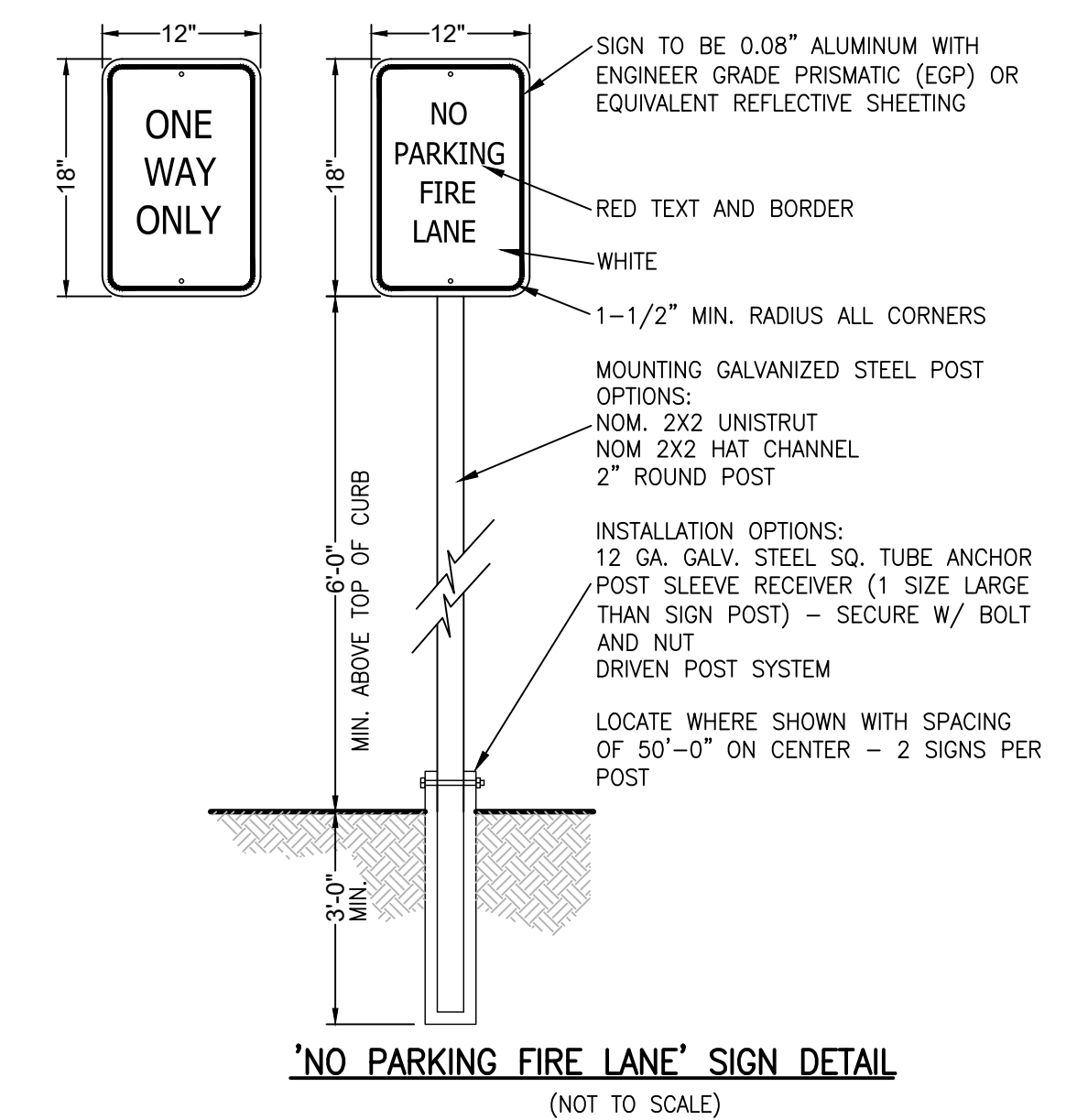
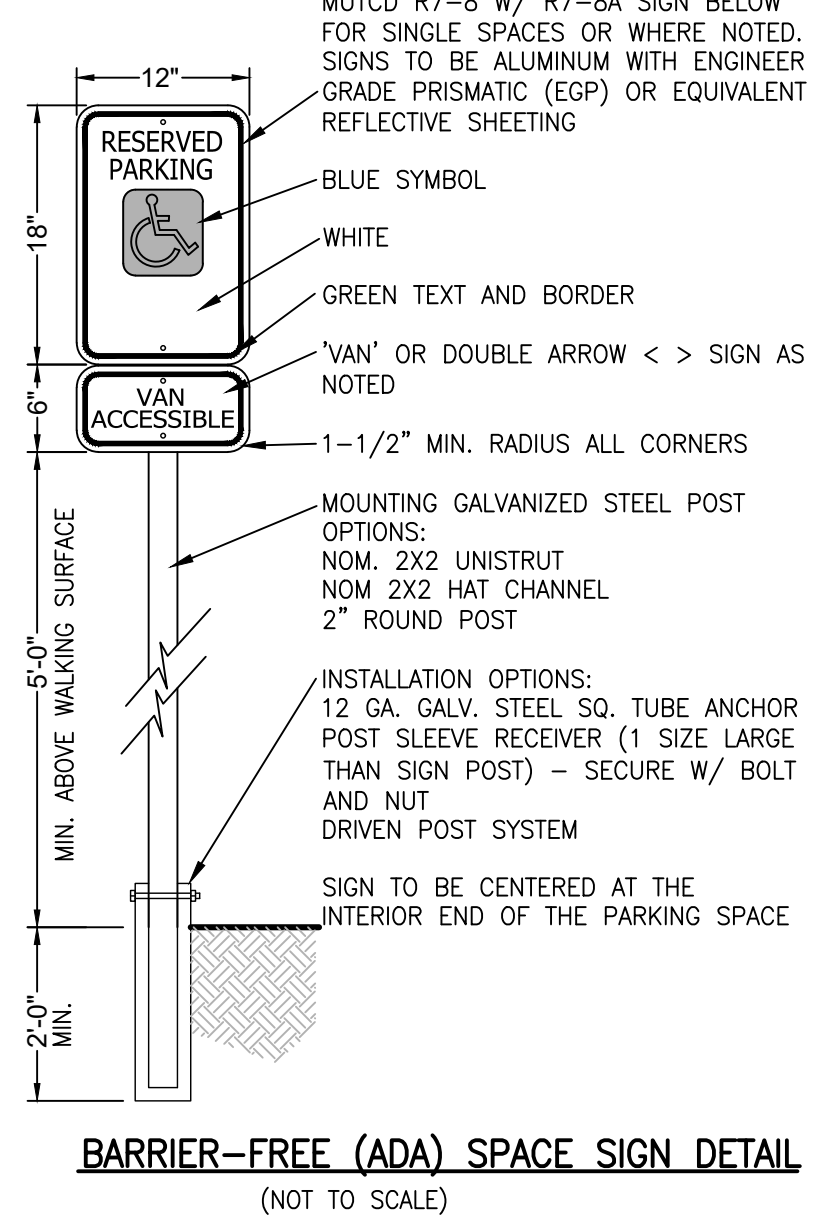
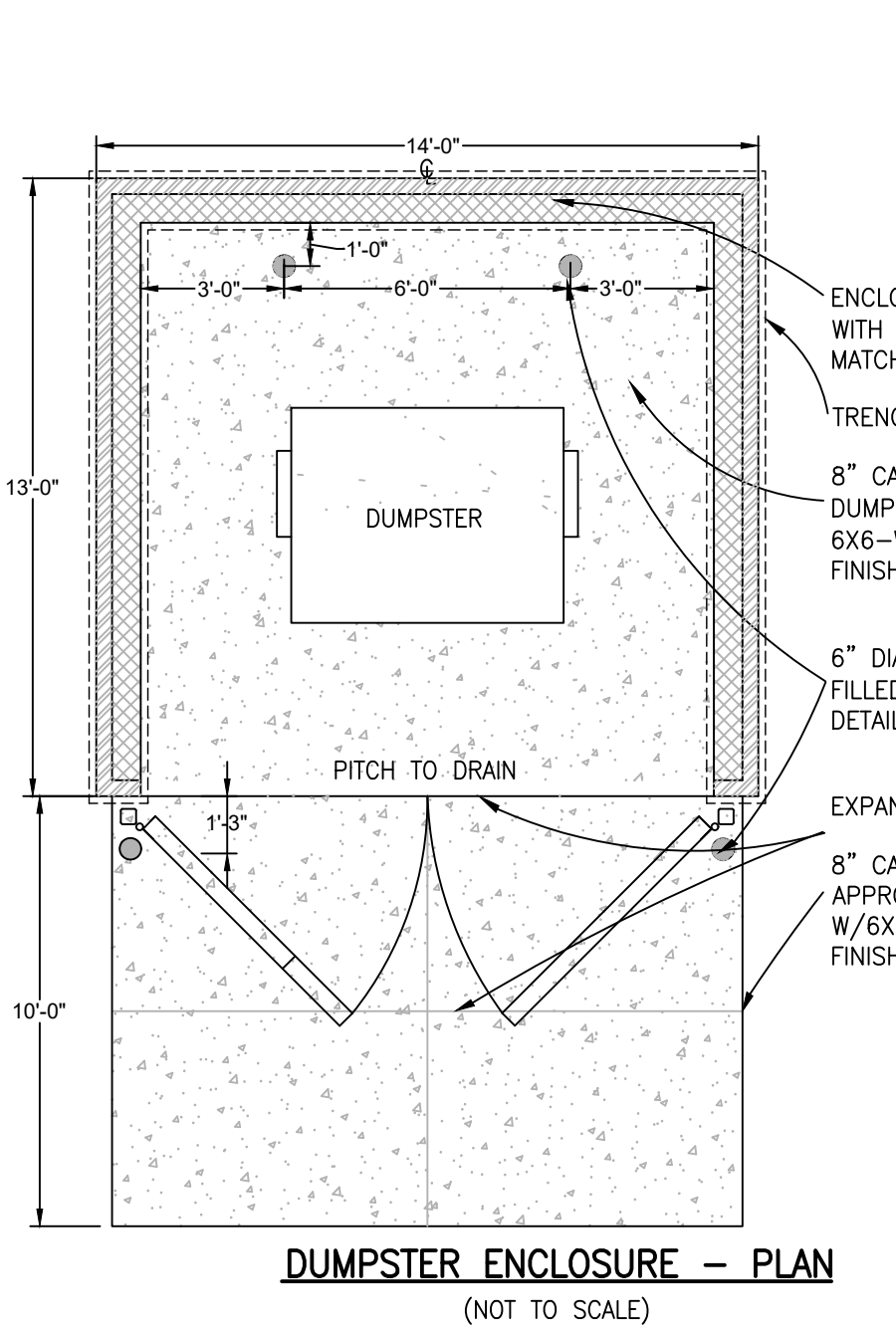
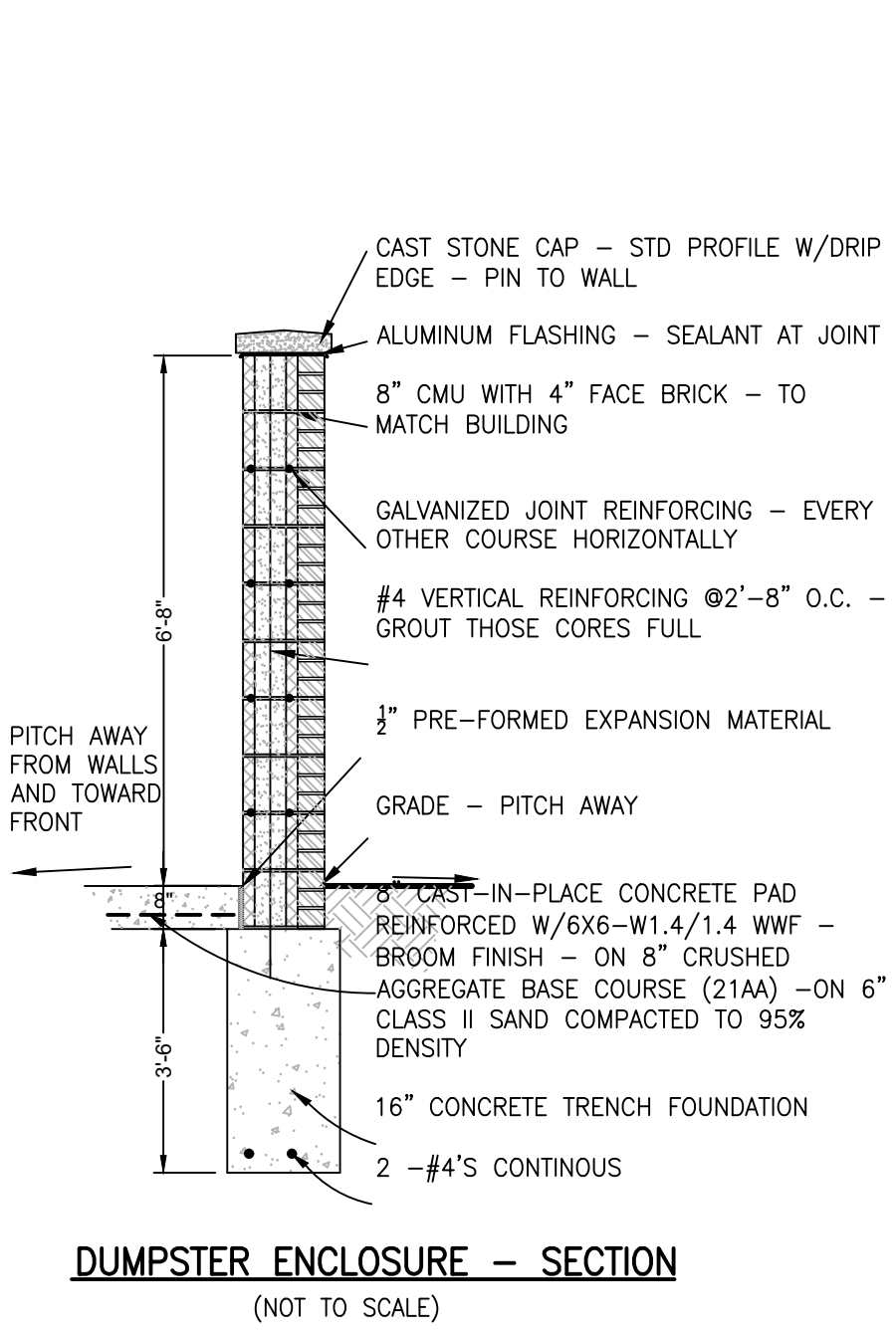
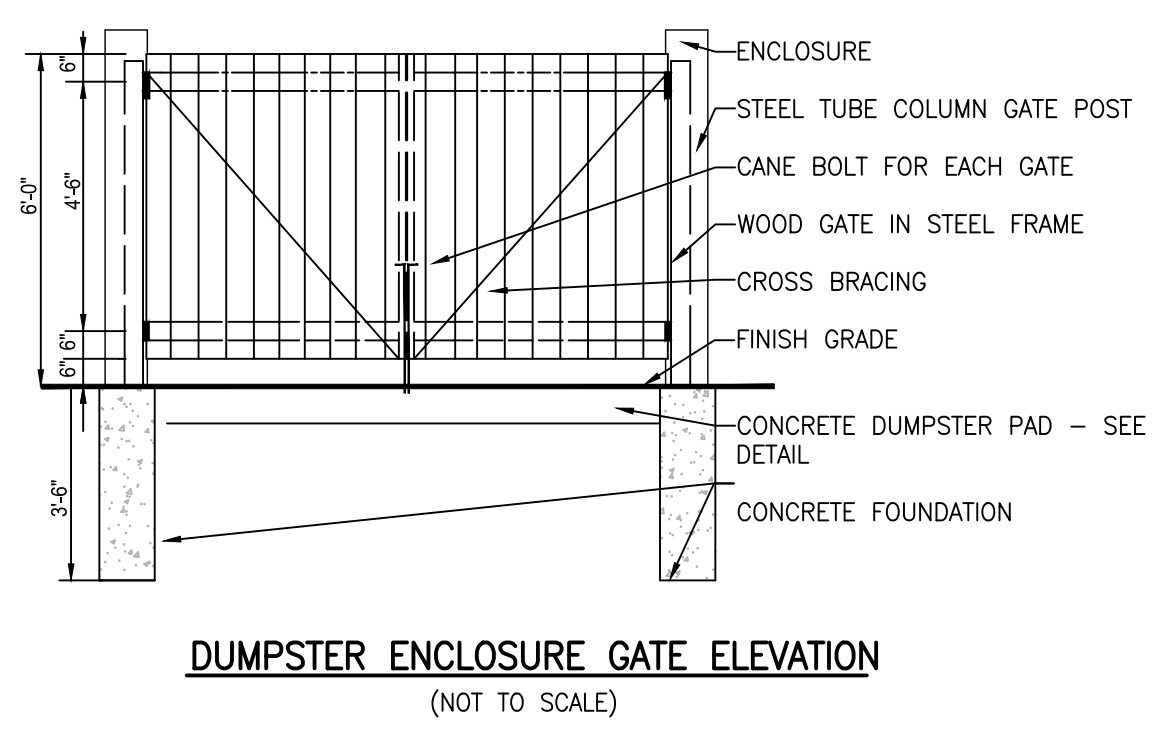
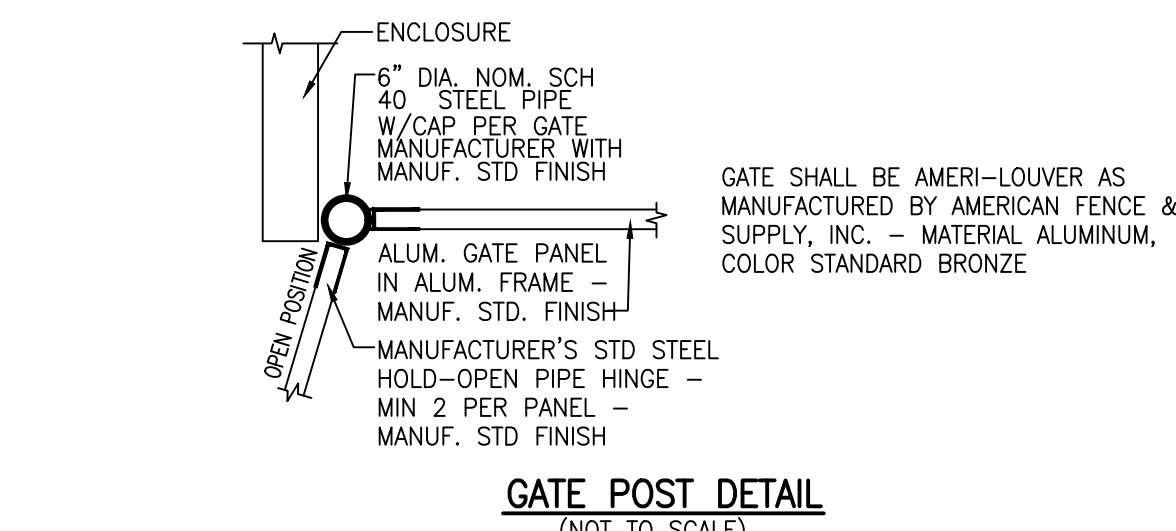
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NO	BY	DATE	REVISION PER
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2	PC	1/23/24	TOWNSHIP REVIEW COMMENTS

DESIGNED BY: PC  
DRAWN BY: PC  
CHECKED BY:  
SCALE: 1" = 30'  
JOB NO: 23-134  
DATE: 10/31/23  
SHEET NO. 11B

FOR SITE PLAN APPROVAL ONLY!  
NOT FOR CONSTRUCTION





SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

FOR SITE PLAN APPROVAL ONLY!  
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Engineers Surveyors Planners Landscape Architects  
3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
517.546.4836 FAX 517.548.1670

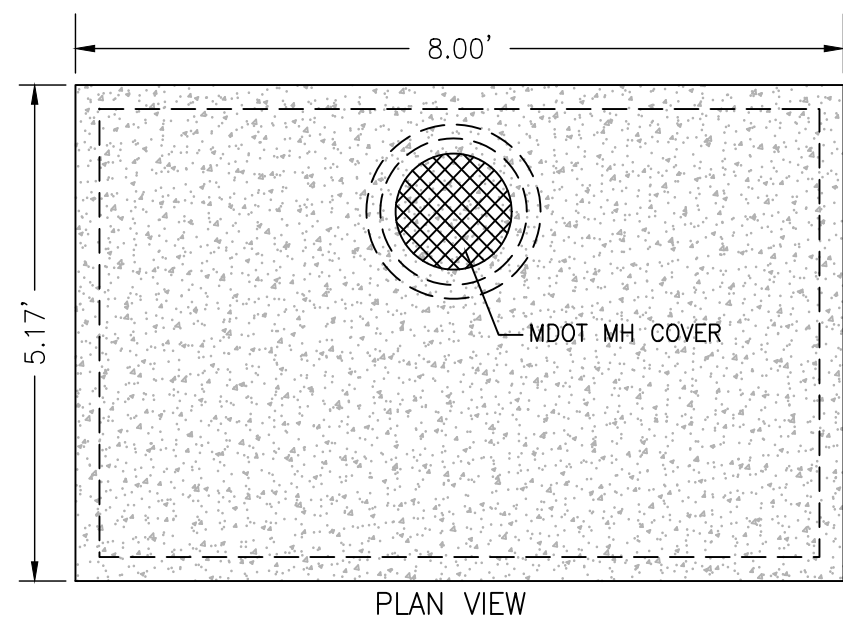
PROJECT: SOAPY BUCKET CARWASH - LAWSON DR.  
PREPARED FOR: SPRINGBORN PROPERTIES  
3332 HIGH HILLCREST DRIVE  
HOWELL, MI. 48843  
313.350.3388

TITLE: CONSTRUCTION DETAILS-1

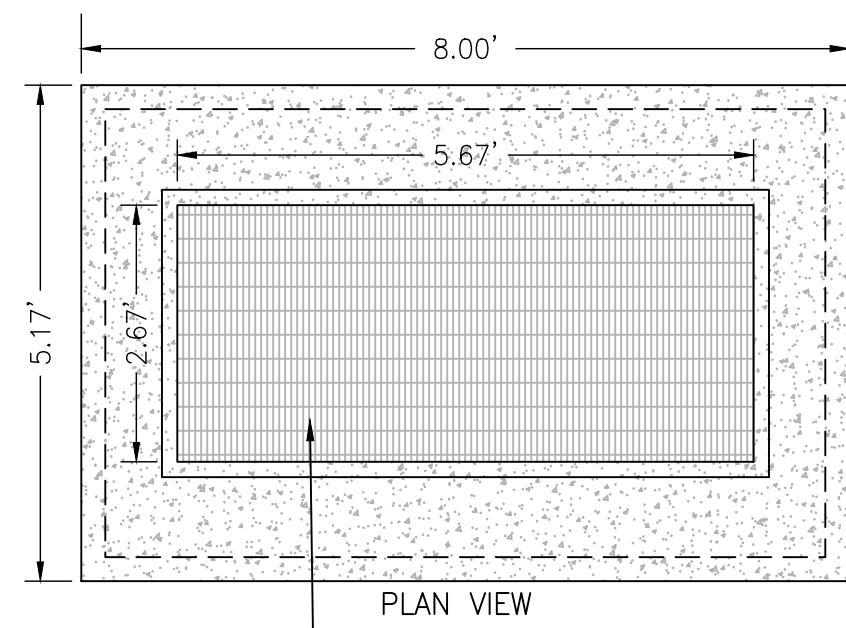
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3	10/31/23	1	PC	ST
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5				
6				
7				
8				
9				
10				

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CHECKED BY:  
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JOB NO: 23-134  
DATE: 10/31/23  
SHEET NO. 12

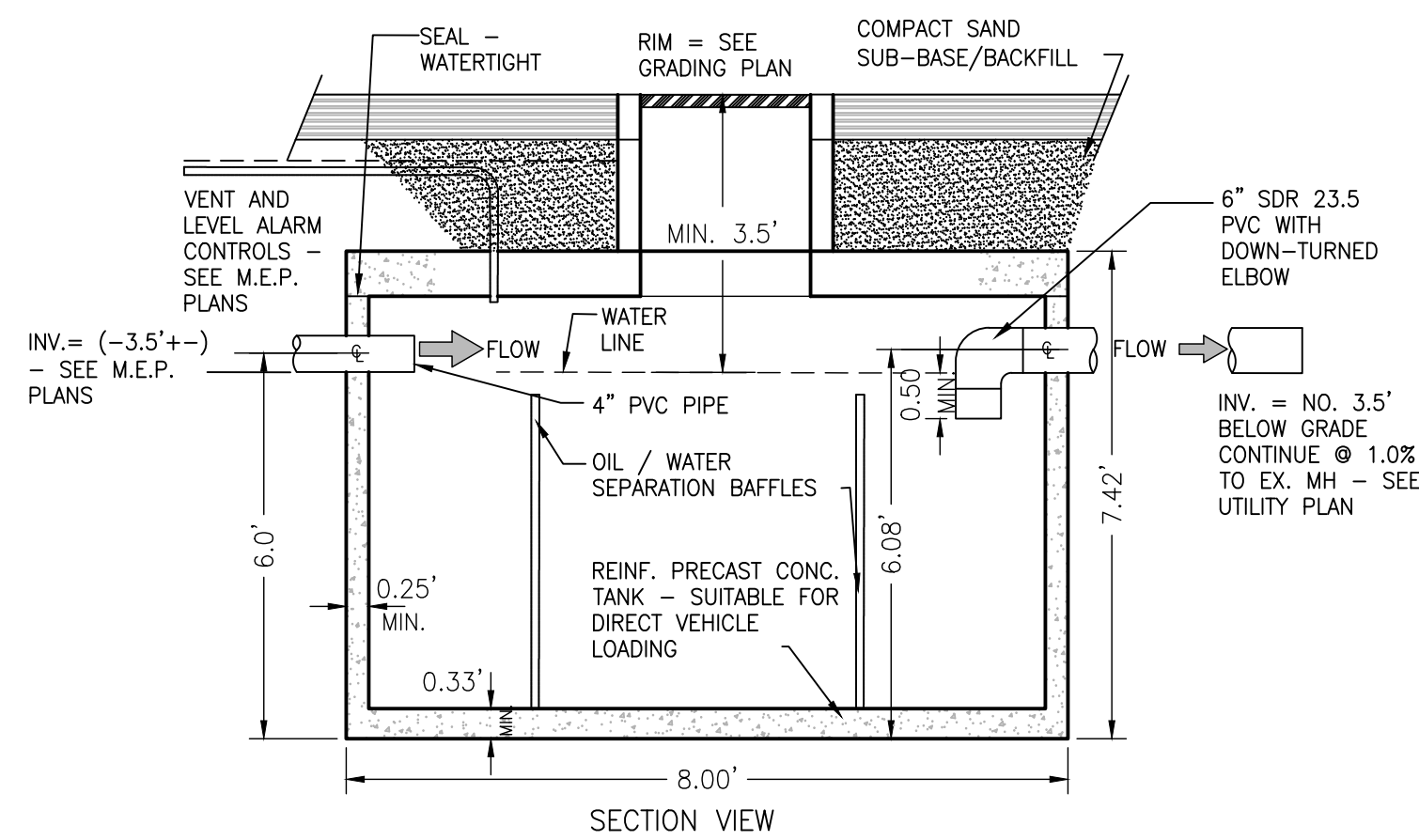




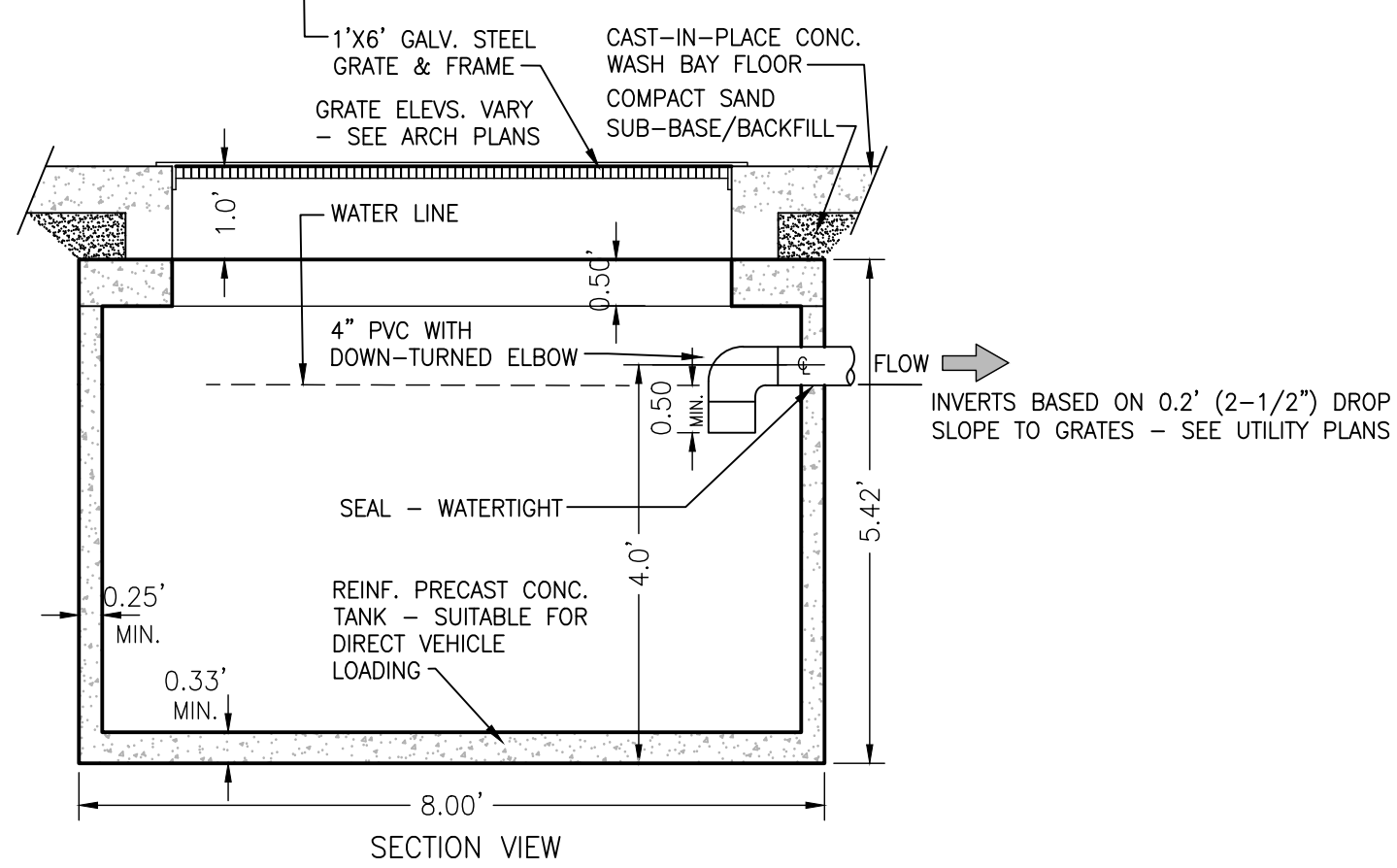
PLAN VIEW



PLAN VIEW

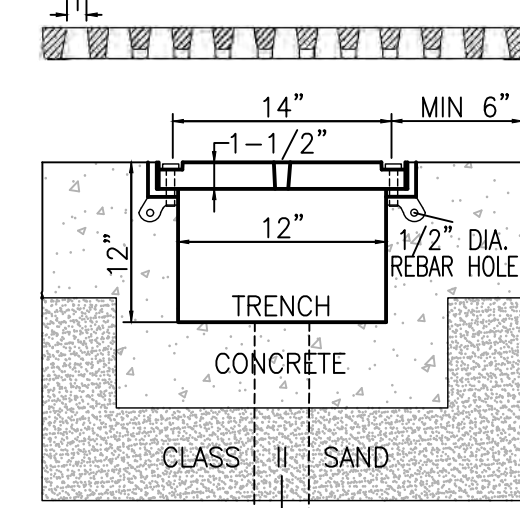
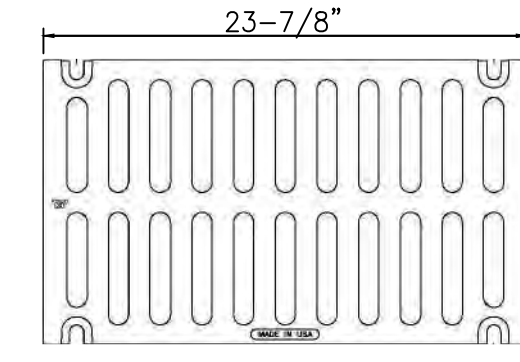


SECTION VIEW



SECTION VIEW

EJ 6954 GRATE (WITH CORED SLOTS FOR BOLTING)



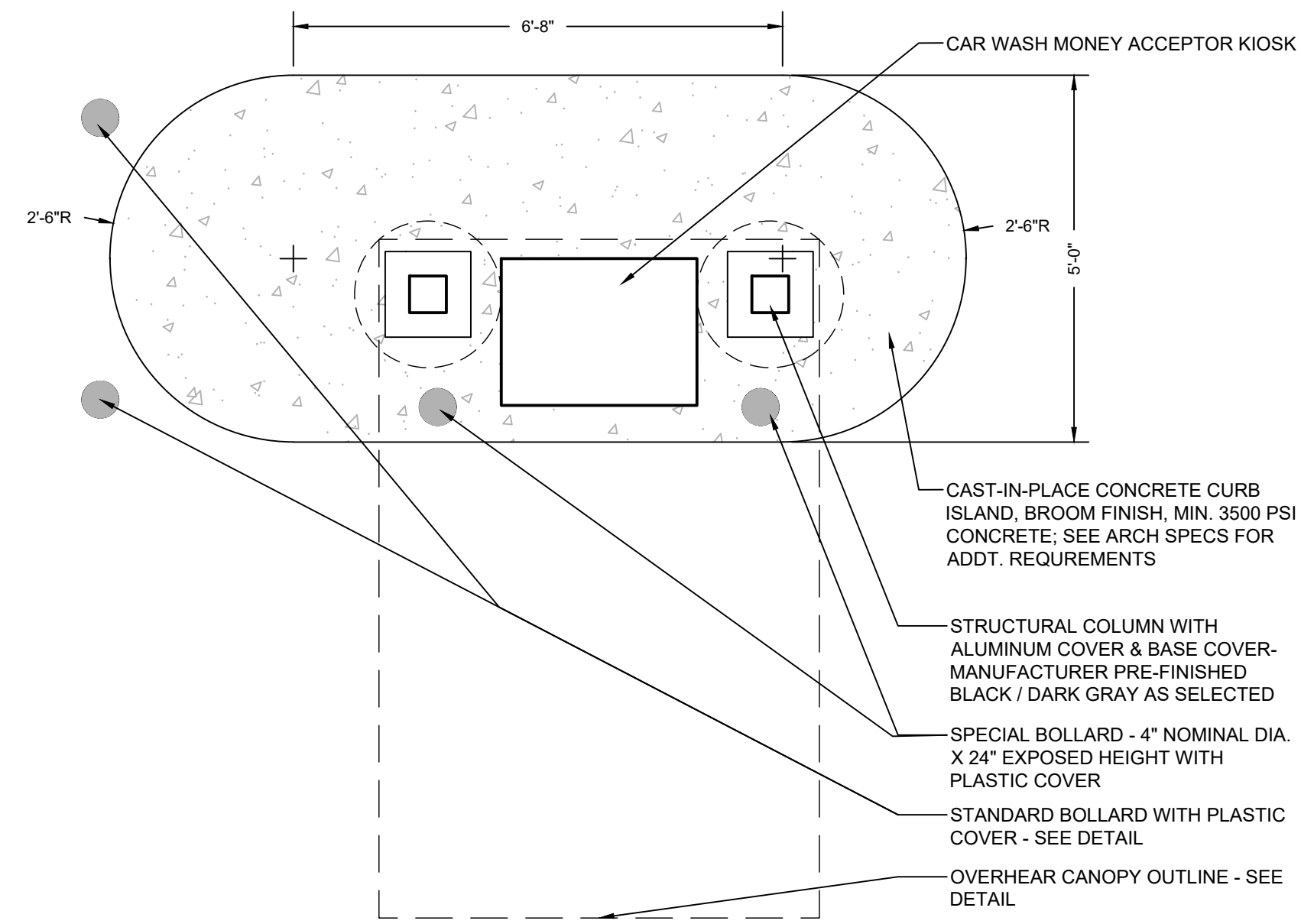
TRENCH GRATE WITH SIDE FRAME (BOLTED SECTIONS - SEE PLANS FOR TOTAL LENGTH) NOT TO SCALE

NOTES:  
1. DIMENSIONS SHOWN FOR 1,000 GAL. NOMINAL TANK - SEE UTILITY PLAN

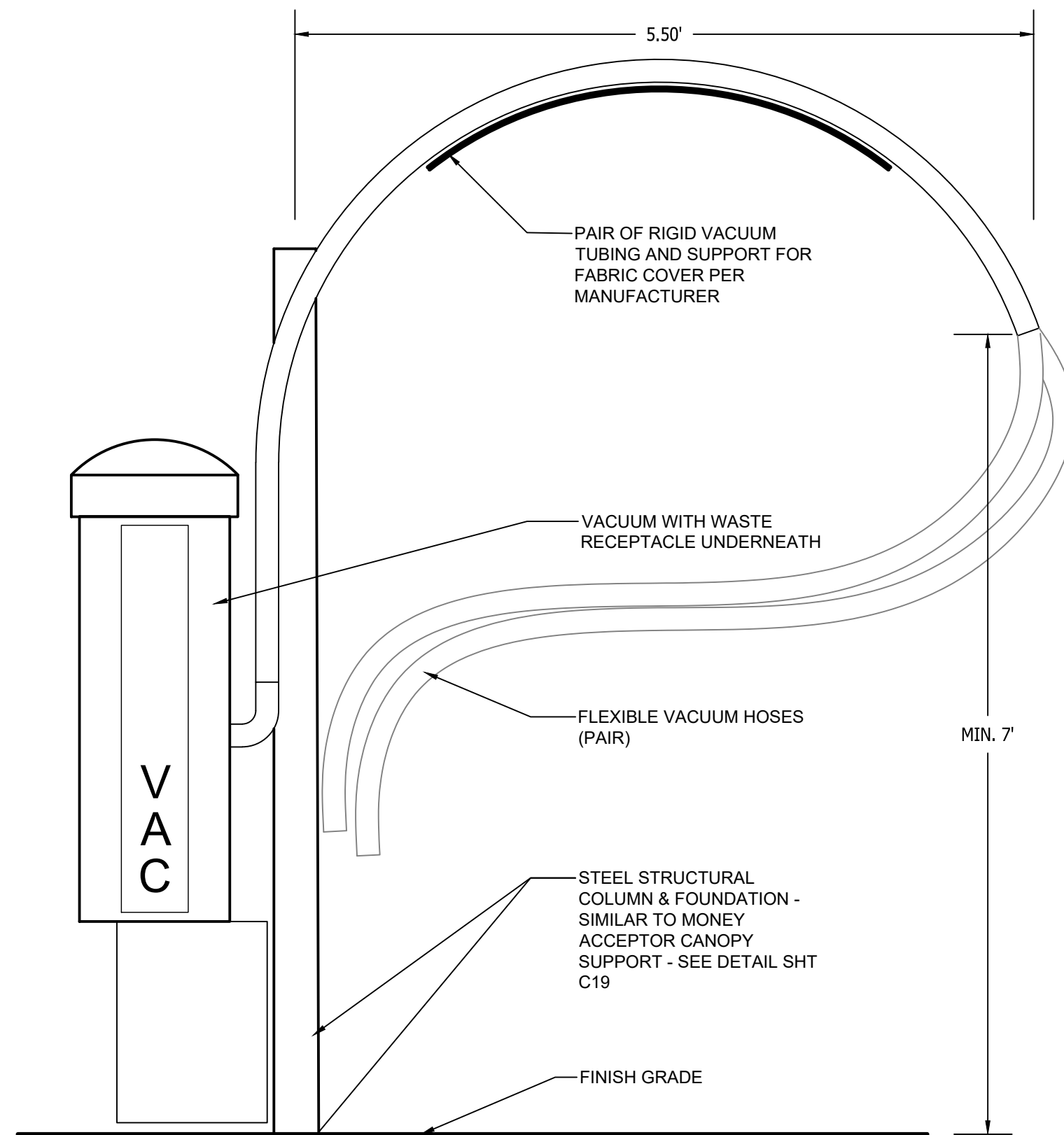
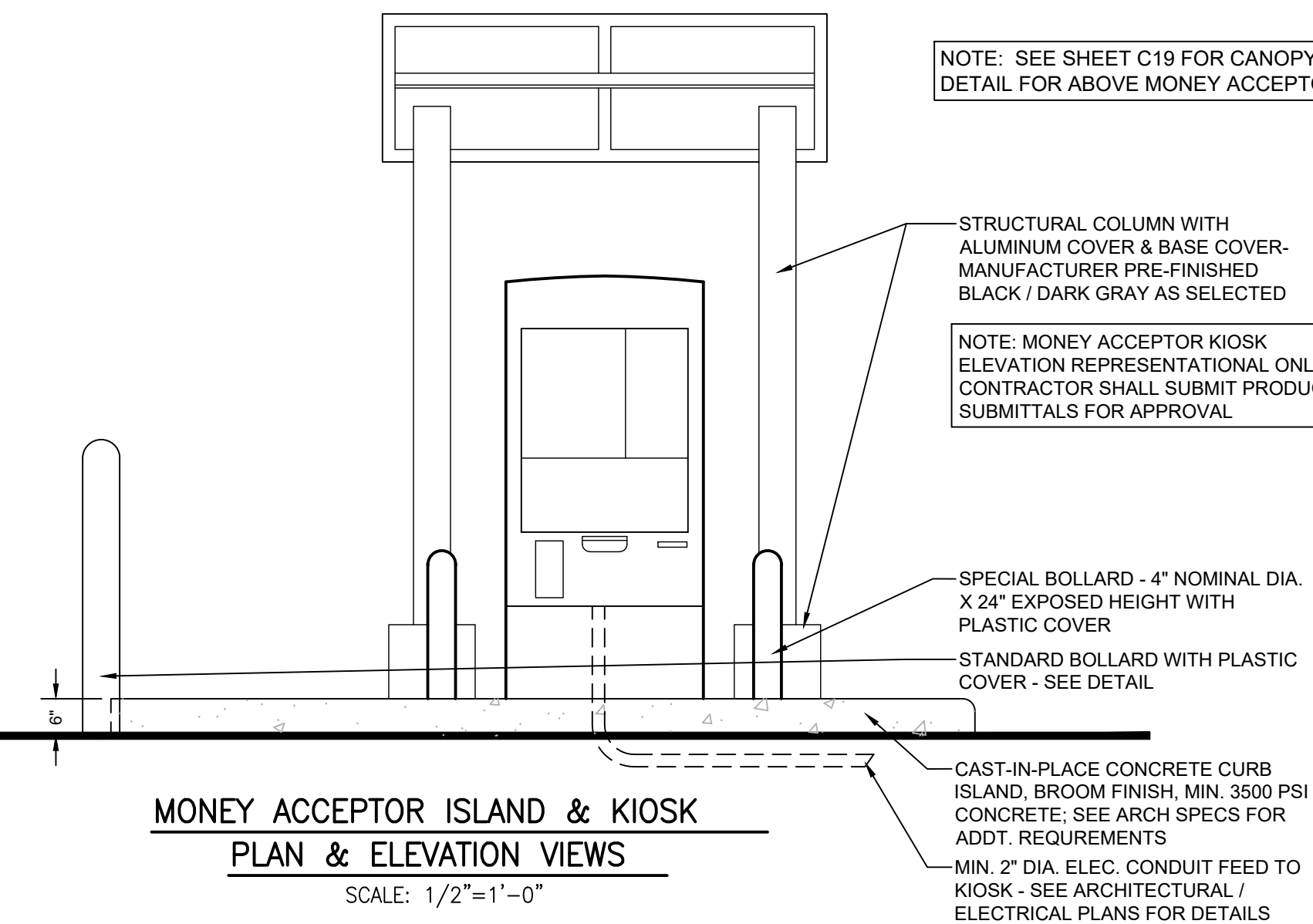
CARWASH MONITORING & OIL INTERCEPTOR TANK DTL (TYPICAL) NOT TO SCALE

NOTE:  
REFER TO ARCHITECTURAL BUILDING MECH., ELEC., & PLUMBING (M.E.P.) PLANS FOR ADDITIONAL INFORMATION INCLUDING SPECIFIC PIPING CONFIGURATIONS, SLOPES, AND ELEVATIONS

CARWASH SEDIMENTATION CONTROL TANK DETAIL NOT TO SCALE



MONEY ACCEPTOR ISLAND & KIOSK PLAN & ELEVATION VIEWS SCALE: 1/2\"/>



VACUUM STATION ELEVATION NOT TO SCALE

SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

FOR SITE PLAN APPROVAL ONLY! NOT FOR CONSTRUCTION

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**BEBOSS** Engineering  
Engineers Surveyors Planners Landscape Architects  
3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
517.546.4836 FAX 517.548.1670

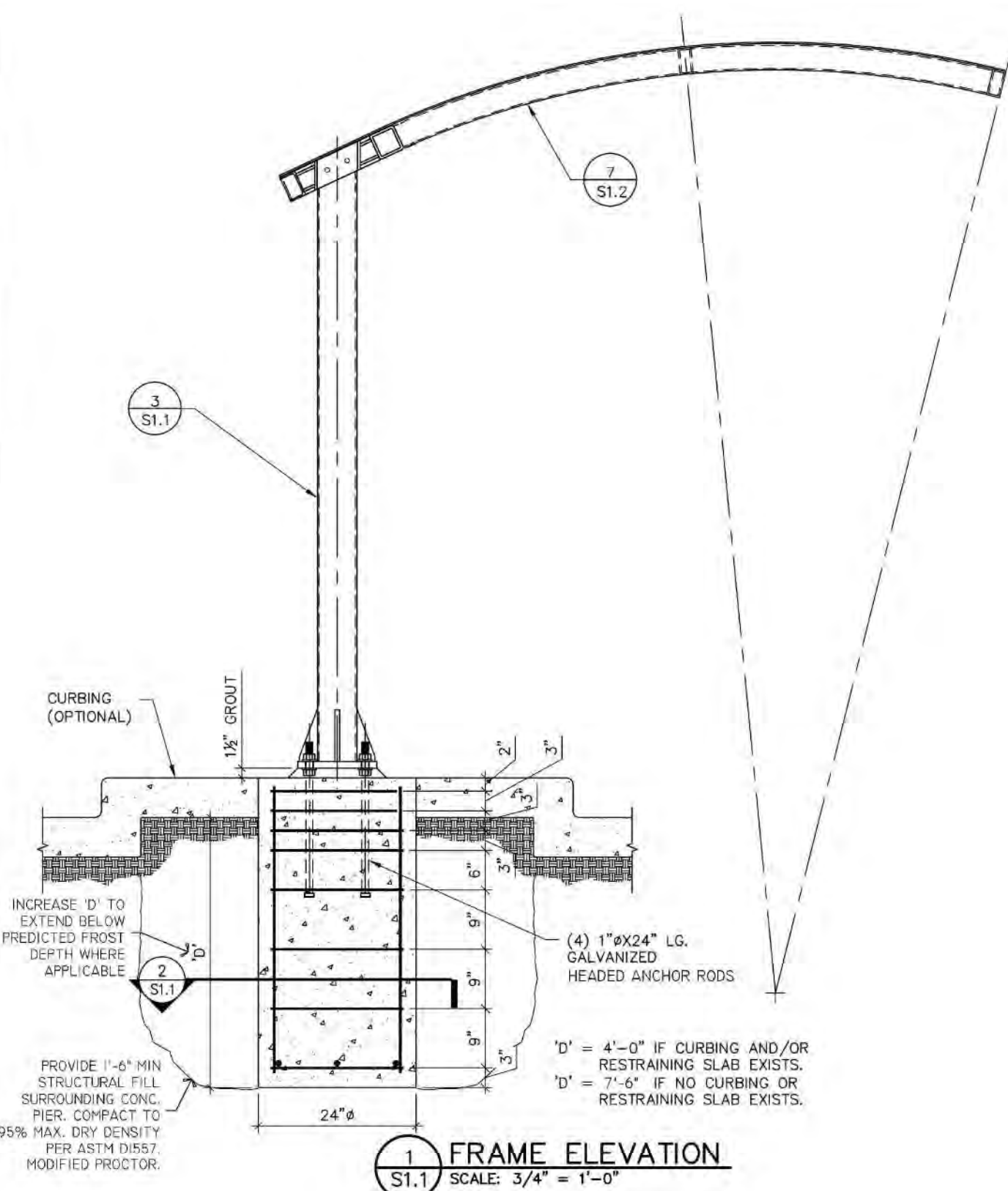
PROJECT: SOAPY BUCKET CARWASH - LAWSON DR.  
PREPARED FOR: SPRINGBORN PROPERTIES  
3332 HIGH HILLCREST DRIVE  
HOWELL, MI 48843  
313.350.3388

NO	BY	DATE	REVISION PER	COMMENTS
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2	PC	1/23/24		

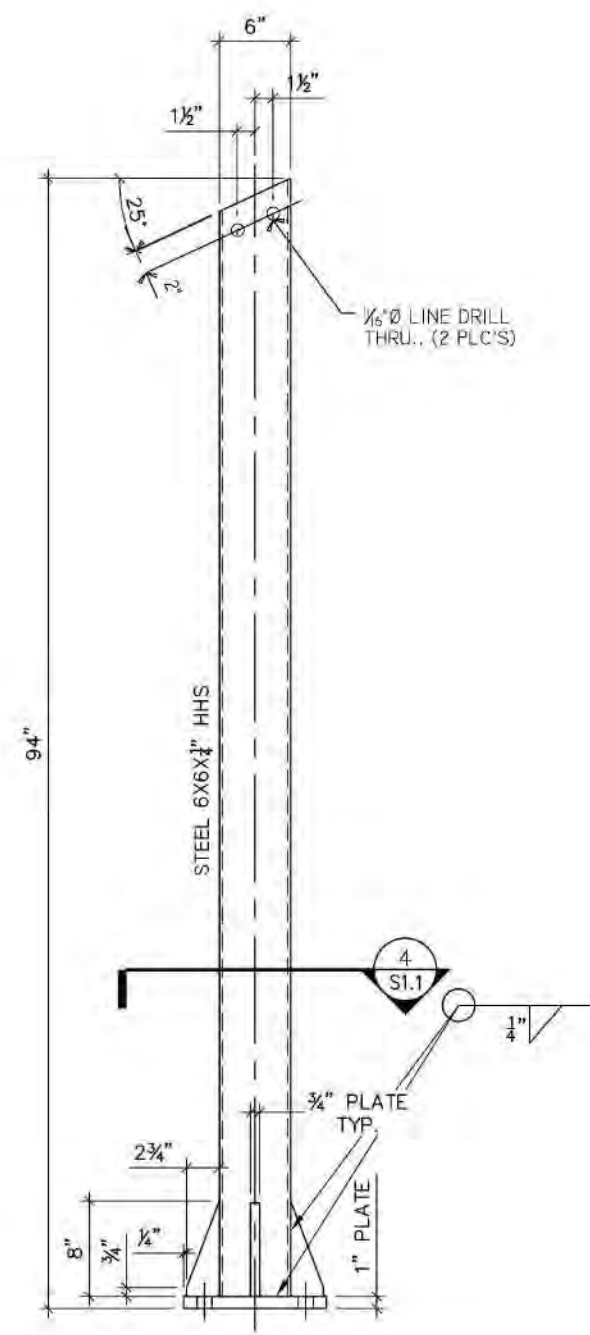
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CHECKED BY:  
SCALE: NO SCALE  
JOB NO: 23-134  
DATE: 10/31/23  
SHEET NO. 13







1 FRAME ELEVATION  
SCALE: 3/4" = 1'-0"



3 POST DETAIL  
SCALE: 1" = 1'-0"

**STRUCTURAL STEEL NOTES**

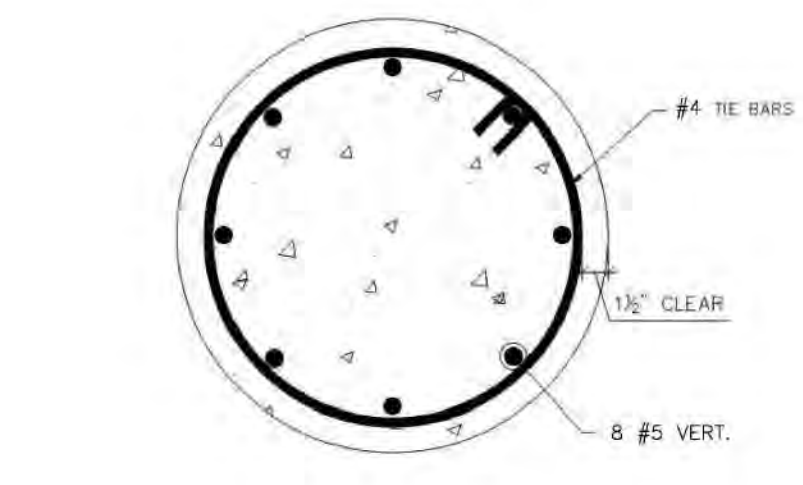
- COMPLY WITH AISC'S "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS--ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN," RCSC'S "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A 325 OR A 490 BOLTS," AND AWS D1.1 "STRUCTURAL WELDING CODE--STEEL."
- HOLLOW STEEL SECTIONS: ASTM A500, GRADE B, F<sub>y</sub> = 46 KSI.
- PLATES, BARS & OTHER SHAPES: ASTM A36
- ANCHOR BOLTS & NUTS: ASTM F1554, GR. 36, HEADED RODS, AND ASTM A36 NUTS. INSURE THAT RODS ARE FREE OF OIL AND DEBRIS PRIOR TO PLACEMENT.
- GROUT: ASTM C 1107, NONMETALLIC, SHRINKAGE RESISTANT, PREMIXED.
- FABRICATE STRUCTURAL STEEL ACCORDING TO AISC SPECIFICATIONS AND TOLERANCE LIMITS OF AISC'S "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" FOR STRUCTURAL STEEL.
- SHOP PRIMER: ONE COAT OF RED OXIDE, MIN. (2) MILS THICK. TOUCH-UP ANY DAMAGED SURFACES AFTER ERECTION.
- ERECT STRUCTURAL STEEL ACCORDING TO AISC SPECIFICATIONS AND WITHIN ERECTION TOLERANCES OF AISC'S "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES."
- SET BASE AND BEARING PLATES ON WEDGES, SHIMS, OR SETTING NUTS. TIGHTEN ANCHOR BOLTS, CUT OFF WEDGES OR SHIMS FLUSH WITH EDGE OF PLATE, AND PACK GROUT SOLIDLY BETWEEN BEARING SURFACES AND PLATES.
- ALL WELDING SHALL BE DONE IN ACCORDANCE WITH AWS BY CERTIFIED WELDERS. WELD FILLER ALLOY SHALL BE ONE OF THE FOLLOWING: 5183, 5356, 5554, OR 5556.
- BREAK ALL SHARP EDGES.
- ALL ALUMINUM SHALL BE 6061 ALLOY.
- THE STRUCTURE IS DESIGNED FOR LOADS IN ACCORDANCE WITH THE 2009 EDITION OF THE INTERNATIONAL BUILDING CODE AND THE 2005 EDITION OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS PUBLICATION "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES", ASCE7-05.

**CAST-IN-PLACE CONCRETE**

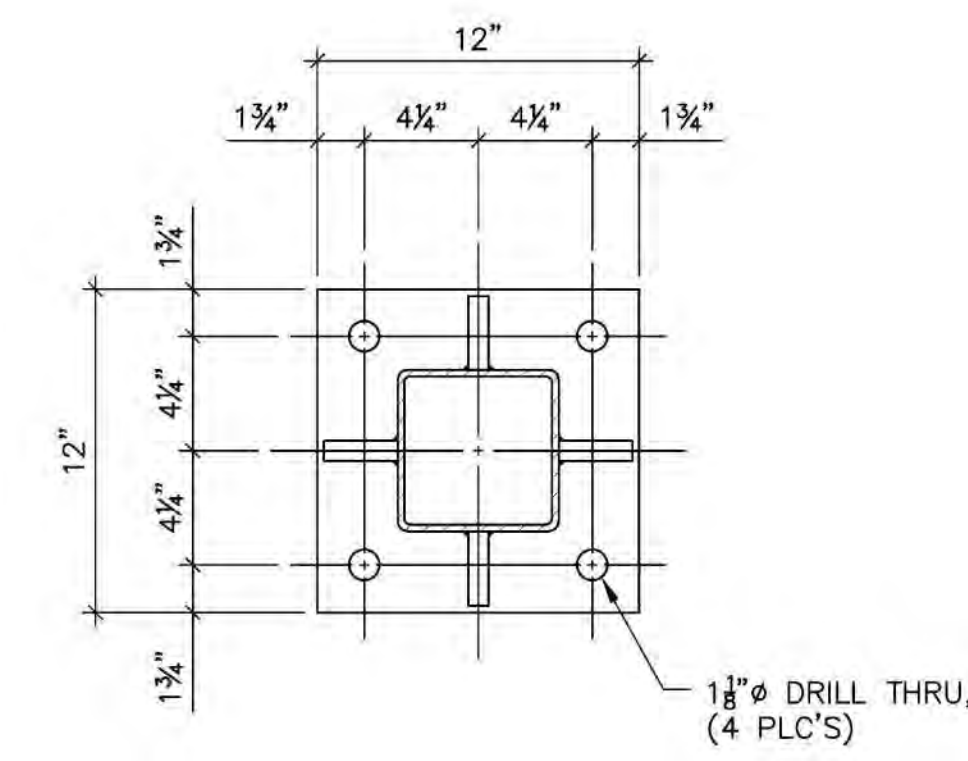
- COMPLY WITH ASTM C94; ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"; ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"; AND CRSI'S "MANUAL OF STANDARD PRACTICE."
- CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4500 PSI. CONCRETE THAT WILL NOT BE EXPOSED TO FREEZE-THAW CYCLES SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.
- REINFORCING BARS SHALL NOT BE SPLICED.
- DEFORMED REINFORCING BARS: ASTM A615, GRADE 60.
- PORTLAND CEMENT: ASTM C150, TYPE 1.
- FLY ASH: ASTM C618, TYPE F (LIMITED TO 15 PERCENT OF TOTAL CEMENT CONTENT).
- PROPORTION NORMAL-WEIGHT CONCRETE MIXES TO PROVIDE THE FOLLOWING PROPERTIES:  
A. COMPRESSIVE STRENGTH: 3000 PSI AT 28 DAYS FOR BUILDING FOUNDATIONS AND FOOTINGS.
- DO NOT ADD WATER TO CONCRETE DURING DELIVERY, AT PROJECT SITE, OR DURING PLACEMENT, UNLESS APPROVED BY ENGINEER.
- PROTECT CONCRETE FROM PHYSICAL DAMAGE OR REDUCED STRENGTH DUE TO WEATHER EXTREMES DURING MIXING, PLACING, AND CURING. REPAIR SURFACE DEFECTS AS REQ'D.
- STRUCTURAL FILL SHALL BE CLEAN, NON-FROST SUSCEPTIBLE SAND AND GRAVEL MEETING THE GRADATION REQUIREMENTS GIVEN BELOW:

STRUCTURAL FILL	
SIEVE SIZE	PERCENT FINER BY WEIGHT
4 INCH	100
3 INCH	90 TO 100
3/4 INCH	25 TO 90
#40	0 TO 30
#200	0 TO 5

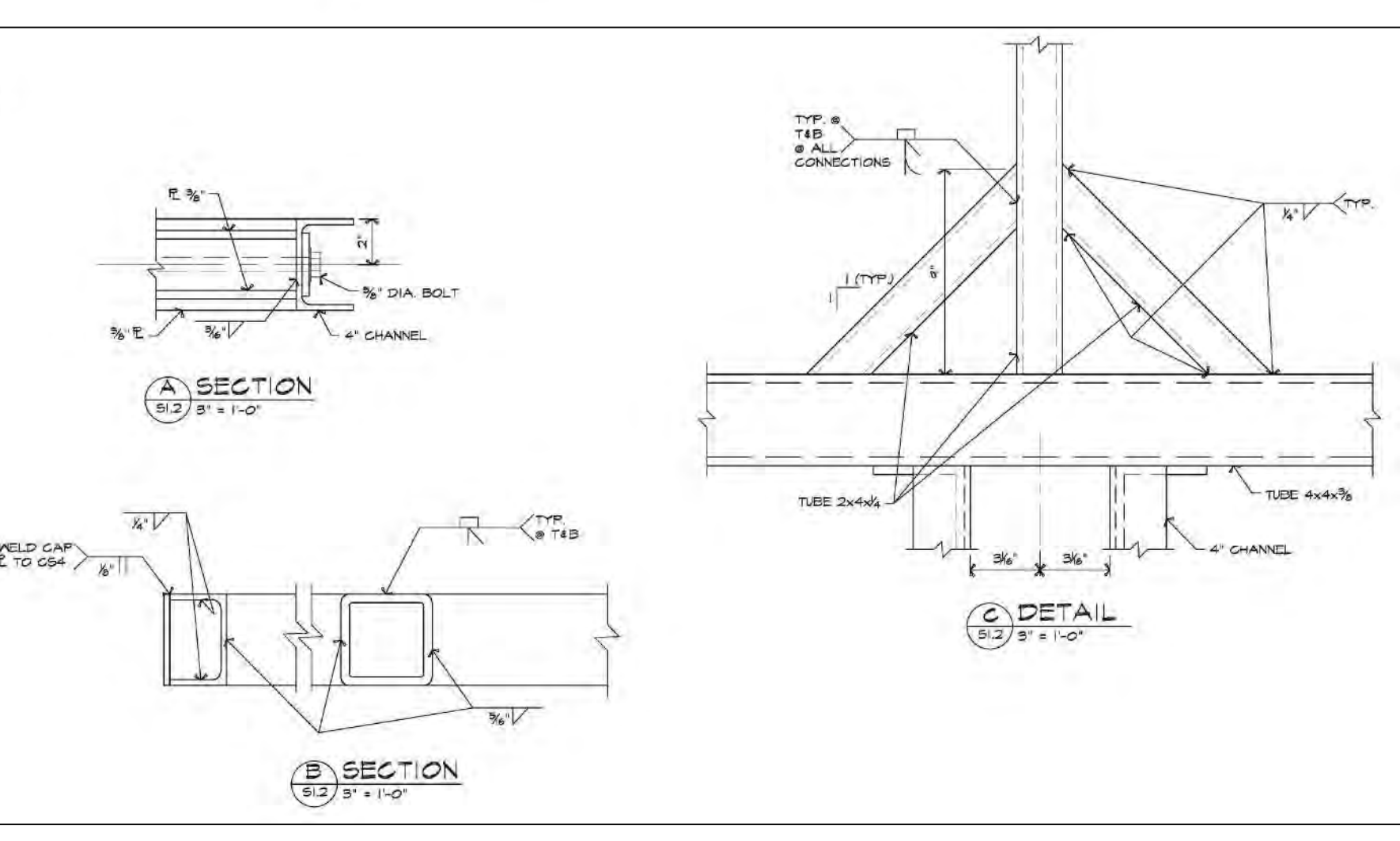
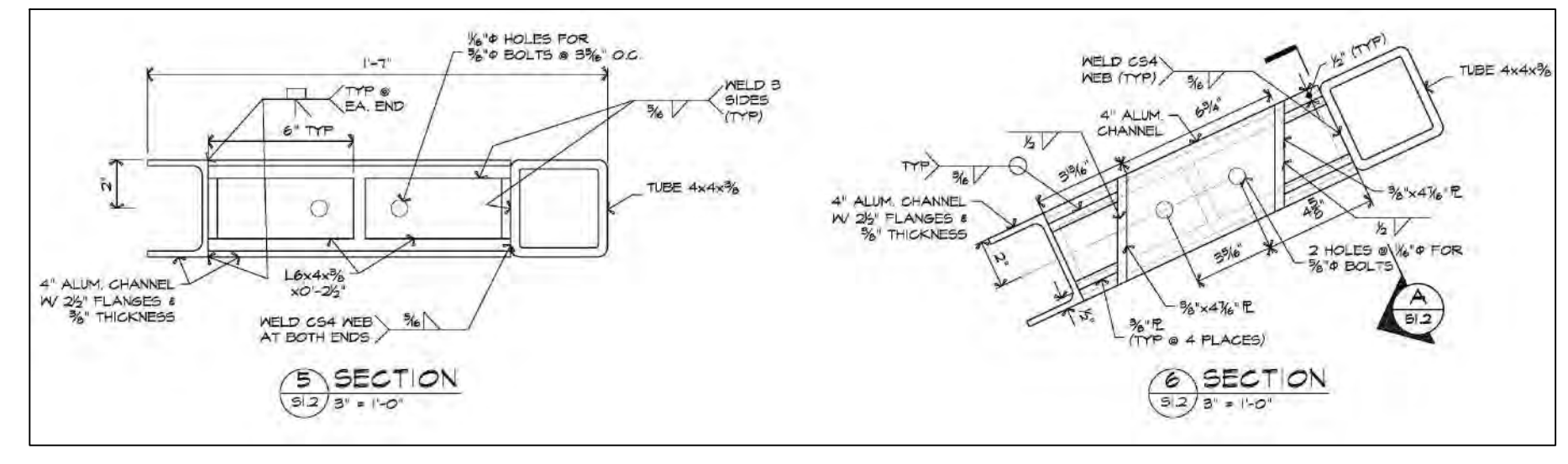
- ROOF LIVE LOAD: 25 PSF
- WIND LOAD:  
(1) BASIC WIND SPEED V = 120 MPH  
(2) WIND IMPORTANCE FACTOR I = 1  
(3) OCCUPANCY CATEGORY II  
(4) WIND EXPOSURE EXPOSURE B  
(5) INTERNAL PRESSURE COEFFICIENT GCPI = 0.0
- FOUNDATIONS ARE DESIGNED FOR A PRESUMPTIVE ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF.



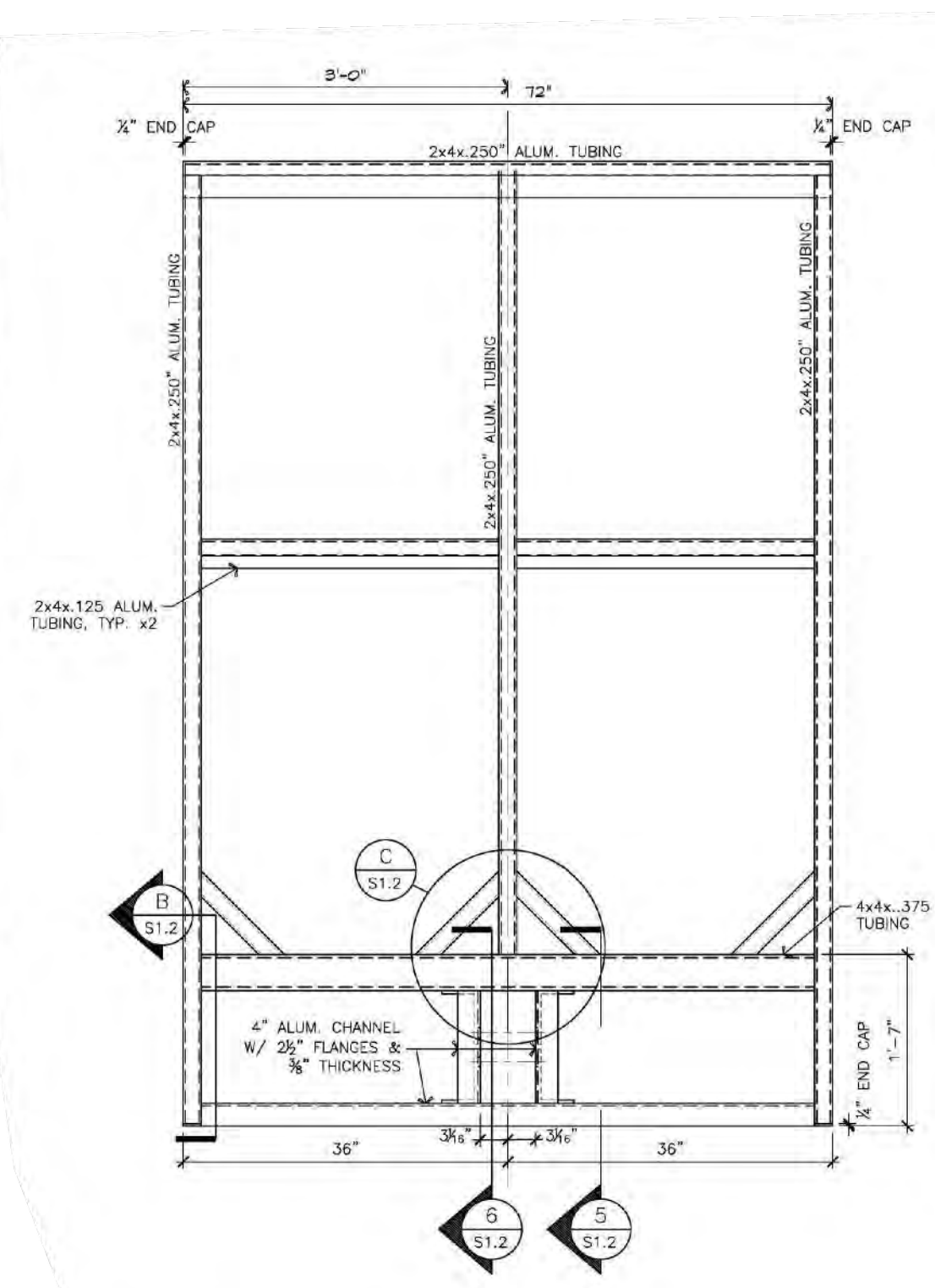
2 SECTION THRU FOUNDATION  
SCALE: 1 1/2" = 1'-0"



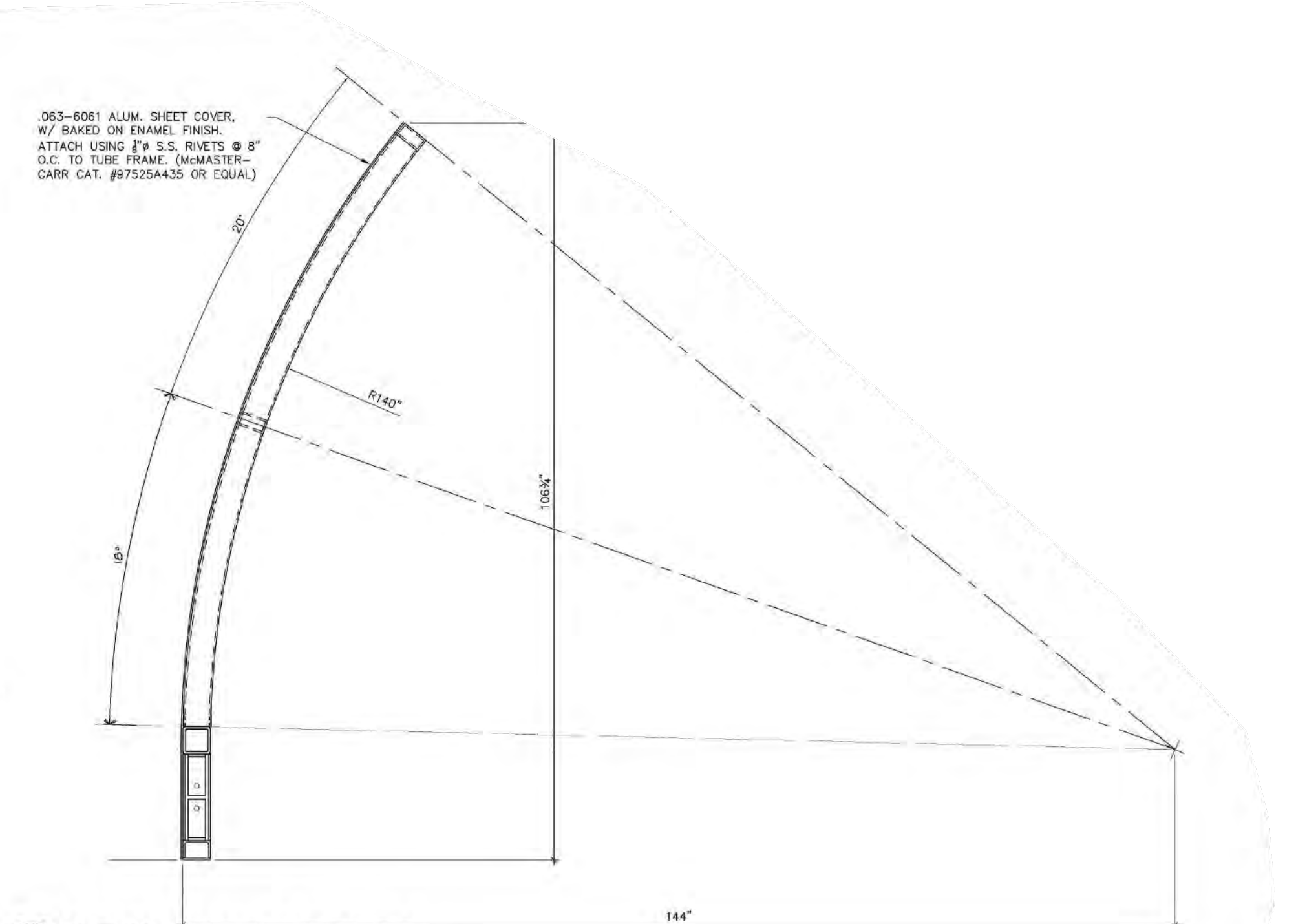
4 SECTION - BASE PLATE  
SCALE: 1 1/2" = 1'-0"



**MONEY ACCEPTOR CANOPY DETAILS**  
SCALES AS NOTED



6 SECTION  
SCALE: 1" = 1'-0"



7 CURVED CANOPY TOP FRAME  
SCALE: 1" = 1'-0"

SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

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**BEBOSS** Engineering  
Engineers Surveyors Planners Landscape Architects  
3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
517.546.4836 FAX 517.548.1670

PROJECT: SOAPY BUCKET CARWASH - LAWSON DR.  
PREPARED FOR: SPRINGBORN PROPERTIES  
3335 HIGH HILLCREST DRIVE  
HOWELL, MI. 48843  
313.350.3388

TITLE: CONSTRUCTION DETAILS-3

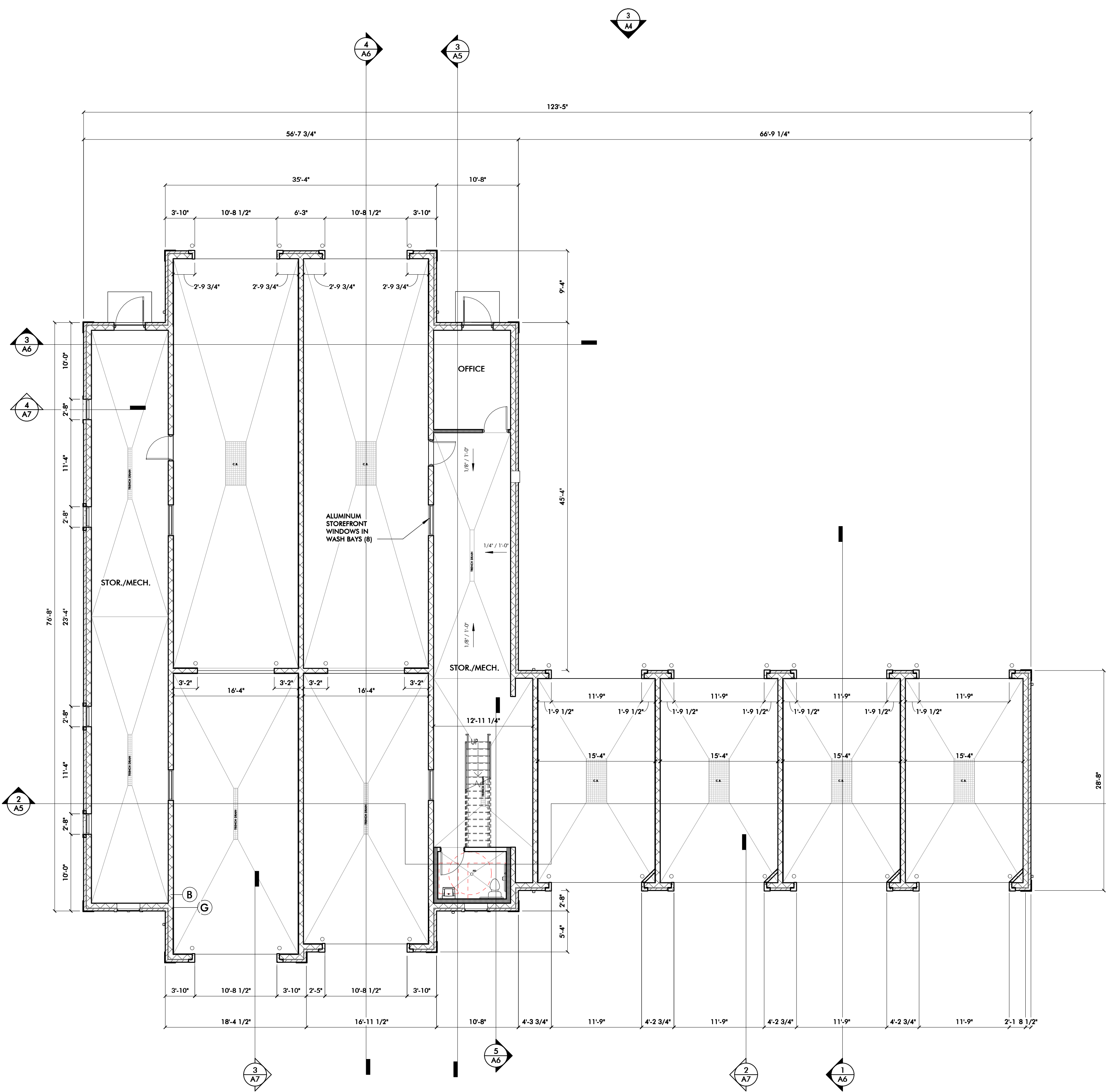
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1	PC	12/18/23	REVIEW COMMENTS
2	PC	1/23/24	REVIEW COMMENTS

DESIGNED BY: PC  
DRAWN BY: PC  
CHECKED BY:  
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JOB NO: 23-134  
DATE: 10/31/23  
SHEET NO. 14

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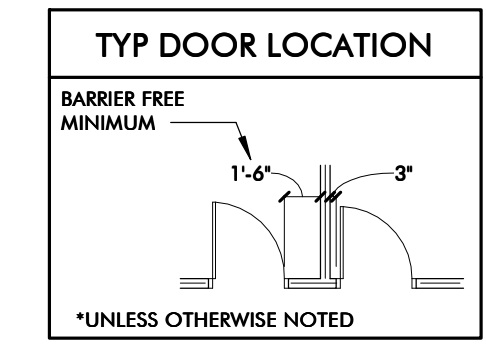


PL: 8400\WORKING\Soapy Bucket Genoa Twp Kohls23035 Soapy Bucket Genoa Kohls.txd  
 FILE LOCATION: 10/20/2023 4:45:44  
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GROSS FOOTPRINT: 6,800 sf

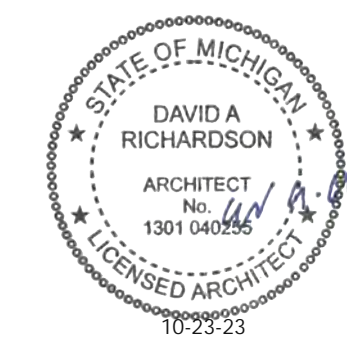
WALL TYPES	
	8" CMU 1" AIR GAP 4" FACE BRICK
	8" CMU
	5/8" TYPE X GYP. BD. 2" MINERAL WOOL INSULATION BOARD 2x4 WOOD STUD FRAMING 5/8" TYPE X GYP. BD.
	5/8" TYPE X GYP. BD. 2" MINERAL WOOL INSULATION BOARD 2x4 WOOD STUD FRAMING
	5/8" TYPE X GYP. BD. 2x4 WOOD STUD FRAMING w/ BATT INSUL. 5/8" TYPE X GYP. BD.
	5/8" TYPE X GYP. BD. 2x6 WOOD STUD FRAMING w/ BATT INSUL.
	WALL LINER PANELS, TYP. OF ALL WASH BAYS



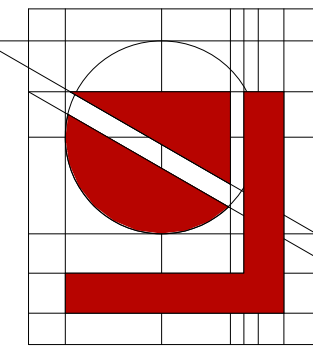
**NOTES**

- ASSUMED F.F.E. = 100'-0"

LINE LEGEND	
	NEW CONSTRUCTION
	EXISTING TO REMAIN
	HIDDEN WORK
	EXISTING TO BE REMOVED



1  
A4  
**FLOOR PLAN**  
1/8" = 1'-0"



**Lindhout Associates**  
architects aia pc  
Brighton, Michigan 48116-9510  
10465 Citation Drive, Brighton, Michigan 48116-9510  
www.lindhout.com (810) 227-5668 fax: (810) 227-5855

CONSULTANT

DATE	ISSUED FOR
10-23-23	SITE PLAN REVIEW

NEW BUILDING for:  
**SOAPY BUCKET CAR WASH**  
HOWELL, MI  
**FLOOR PLAN**

A1  
23035



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 PL: 8400\WORKING\Soapy Bucket Genoa Twp Kohls\23035 Soapy Bucket Genoa Kohls.rvt FILE LOCATION: DATE PLOTTED: 10/20/2023 4:46:53 PM



**SOUTH ELEVATION**  
1/8" = 1'-0"

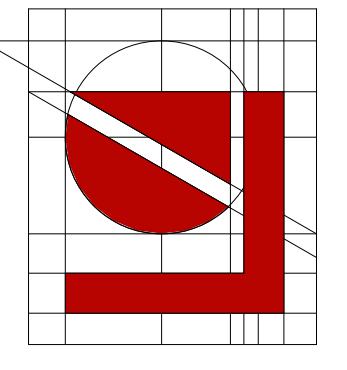


**NORTH ELEVATION**  
1/8" = 1'-0"



**WEST ELEVATION**  
1/8" = 1'-0"

**EAST ELEVATION**  
1/8" = 1'-0"



**Lindhout Associates**  
**architects aia pc**  
 10465 Citation Drive, Brighton, Michigan 48116-9510  
 www.lindhout.com (810) 227-5668 fax: (810) 227-5855

CONSULTANT

DATE:	10-23-23	ISSUED FOR:	SITE PLAN REVIEW
DRAWN:	TWJ	CHECKED:	DMK
APP'D:			

NEW BUILDING FOR:  
**SOAPY BUCKET CAR WASH**  
 HOWELL, MI  
**EXTERIOR ELEVATIONS**

**A4**  
**23035**





**GENOA CHARTER TOWNSHIP**  
**Application for Site Plan Review**

**TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:**

APPLICANT NAME & ADDRESS: Isaac Nagel - 319 Elaines Court, Dodgeville, WI 53533  
*If applicant is not the owner, a letter of Authorization from Property Owner is needed.*

OWNER'S NAME & ADDRESS: Halle Properties LLC, 20225 N Scottsdale Road, Scottsdale, AZ 85255

SITE ADDRESS: 3480 E Grand River Ave PARCEL #(s): 4711-05-300-024

APPLICANT PHONE: ( 608 ) 407-9088 OWNER PHONE: ( 480 ) 909-6811

OWNER EMAIL: kayla.henson@discounttire.com

LOCATION AND BRIEF DESCRIPTION OF SITE: Discount Tire located at 3480 E Grand River Ave

BRIEF STATEMENT OF PROPOSED USE: Discount Tire service location

THE FOLLOWING BUILDINGS ARE PROPOSED: N/A no new buildings

**I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.**

BY: Isaac Nagel

ADDRESS: 319 Elaines Court, Dodgeville, WI 53533

**Contact Information** - Review Letters and Correspondence shall be forwarded to the following:

1.) Isaac Nagel of State Permits, Inc at isaac@permit.com  
Name Business Affiliation E-mail Address

**FEE EXCEEDANCE AGREEMENT**

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

SIGNATURE: *Isaac Nagel* DATE: 12/13/2023  
PRINT NAME: Isaac Nagel PHONE: 608-407-9088  
ADDRESS: 319 Elaines Court, Dodgeville, WI 53533

February 8, 2024

Planning Commission  
Genoa Township  
2911 Dorr Road  
Brighton, Michigan 48116

<b>Attention:</b>	Amy Ruthig, Planning Director
<b>Subject:</b>	Discount Tire – Site Plan Review #1
<b>Location:</b>	3480 Grand River Avenue – southwest corner of Grand River and Grand Oaks
<b>Zoning:</b>	RCD Regional Commercial District

Dear Commissioners:

At the Township’s request, we have reviewed the site plan submittal proposing exterior building and site improvements for the existing Discount Tire business located at 3480 Grand River Avenue (plans dated 11/21/23).

**A. Summary**

1. The east building elevation appears to exceed the maximum allowance of composite and metal siding; however, the Commission has the discretion to modify these requirements. The applicant should provide material samples for the Commission’s consideration.
2. We request the applicant provide a color rendering and/or color samples for the Commission’s consideration.
3. Any landscaping in poor condition should be replaced as part of this project. Additionally, any landscaping on the original approved site plan that has been removed should also be replaced as part of this project.
4. The Commission may wish to require a truck turning template demonstrating satisfactory access to/from the new waste receptacles.
5. We encourage the applicant to remove the nonconforming pole sign and replace it with a conforming monument sign.
6. A 2<sup>nd</sup> wall sign is allowed for corner lots.
7. The applicant must obtain a sign permit from the Township prior to installation of any new signage.

**B. Proposal/Process**

The applicant proposes improvements to the exterior of the existing building and a new waste receptacle/enclosure for the existing Discount Tire business.

Table 7.02 allows minor auto repair establishments as special land uses in the RCD; however, given the limited scope of the project, it is deemed a minor amendment and does not require a new special land use review.

Procedurally, the Planning Commission has review and approval authority over the site plan.



*Aerial view of site and surroundings (looking south)*

**C. Site Plan Review**

- 1. Building Design and Materials.** Save for openings (overhead doors, doors and windows), the north, south and west elevations are predominantly, if not entirely, faced with brick.

The east elevation includes a mix of composite and metal siding that appear to exceed the 25% maximum allowance of Section 12.01. The Commission has the discretion to modify these requirements, though the applicant should provide material samples for their consideration.

Additionally, the applicant should provide a color rendering and/or color samples for the Commission’s consideration.

- 2. Landscaping.** Any existing site landscaping found to be in poor condition should be replaced as part of this project. Furthermore, any landscaping depicted on the original approved site plan that has been removed should be replanted as part of this project.

- 3. Waste Receptacle.** The proposed waste receptacle has been reviewed for compliance with the standards of Section 12.04, as follows:

	<b>Requirement</b>	<b>Proposed</b>	<b>Comments</b>
Location	Rear yard or non-required side yard AND not less than 20’ from residential	Rear yard	Requirements met
Access	Clear access w/ out damaging buildings/vehicles	Access to the westerly receptacle may be difficult	PC may request turning template demonstrating compliance
Base design	Reinforced concrete base pad w/ 6’ extension	Reinforced concrete base pad w/ 10’ extension	Requirements met
Enclosure	3-sided enclosure w/ gate Masonry walls 6’ height/taller than receptacle	3 sides w/ gate across 4 <sup>th</sup> Masonry walls 6’ height	Requirements met

- 4. Signage.** The site has a nonconforming pole sign in the northeast corner. We encourage the applicant to remove this sign and replace it with a conforming monument sign.

Two wall signs are allowed for corner lots; however, the applicant must obtain a sign permit from the Township prior to installation of any new signage.

Genoa Township Planning Commission

**Discount Tire**

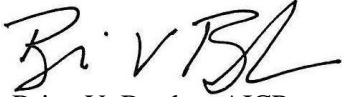
Site Plan Review #1

Page 3

Should you have any questions concerning this matter, please do not hesitate to contact our office.

Respectfully,

**SAFEBUILT**

A handwritten signature in black ink, appearing to read "B. V. Borden". The signature is stylized and written in a cursive-like font.

Brian V. Borden, AICP

Michigan Planning Manager



ABBREVIATIONS	
AB	ANCHOR BOLT
ABC	AGGREGATE BASE COURSE
ACC.	ACCESSIBLE
A.C.T	ACOUSTIC CEILING TILE
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISH FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
ALUM	ALUMINUM
BLDG	BUILDING
B.O.	BOTTOM OF
C.I.P.	CAST-IN-PLACE
CJ	CONTROL JOINT
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CT	CERAMIC TILE
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CONTR	CONTRACTOR
CPT	CARPET
DET	DETAIL
DIA	DIAMETER
DR	DOOR
DTC	DISCOUNT TIRE COMPANY
EDF	ELECTRIC DRINKING FOUNTAIN
EIFS	EXT. INSULATION & FINISH SYSTEM
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
EQUIP.	EQUIPMENT
EXIST.	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FBO	FURNISHED BY OWNER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FFE	FURNITURE, FIXTURES & EQUIPMENT
FIN.	FINISH
F.I.M.	FACE OF MASONRY
FRP	FIBERGLASS-REINFORCED PLASTIC
FRT	FIRE RETARDANT-TREATED
GA	GAUGE
GALV.	GALVANIZED
G.A.	GENERAL CONTRACTOR
GL	GLASS
G.S.A	GENERAL STRUCTURAL NOTES
GYP BD	GYPSUM BOARD
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HOUR
I.A.W	IN ACCORDANCE WITH
I.C.B.O.	INTERNATIONAL COUNCIL BUILDING OFFICIALS
I.B.O.	INSTALLED BY OWNER
INT	INTERIOR
JST BRG	JOIST BEARING
JT	JOINT
LAM.	LAMINATE
MCJ	MASONRY CONTROL JOINT
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
M.E.A.	MECH./ELECT./PLUMB.
M.O.	MASONRY OPENING
MTL	METAL
M.P.T.	MECHANICAL PIPE THREADS
N.I.C	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.F.	OWNER FURNISHED
O.F.O.	OVERFLOW OUTLET
O.H.	OVERHEAD
OPN	OPENING
P.M.	PROJECT MANUAL
PNL	PANEL
PRFS	PRE-FABRICATED TIRE RACK SYSTEM
PVC	POLYVINYL CHLORIDE
R.D.	ROOF DRAIN
RDO	ROOF DRAIN OUTLET
REINF	REINFORCING
RM	ROOM
RTU	ROOF TOP UNIT
RUB.	RUBBER
SECT.	SECTION
SES	SERVICE ELECTRICAL SECTION
SHT.	SHEET
SHT MTL	SHEET METAL
SIM	SIMILAR
STL	STEEL
STR	STRUCTURAL
SUSP	SUSPENDED
SW	SHERWIN-WILLIAMS
T&G	TONGUE AND GROOVE
T.O.	TOP OF
T.O.B.	TOP OF BEAM
T.O.C.	TOP OF CONCRETE
T.O.D.	TOP OF DECK
T.O.J.	TOP OF JOIST
T.O.M.	TOP OF MASONRY
T.O.R.D.	TOP OF ROOF DECK
T.O.W	TOP OF WINDOW
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VB	VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
V.I.F.	VERIFY IN FIELD
VAR.	VARIES
VERT	VERTICAL
V.J.	VENEER PILASTERS
WD	WOOD
W.F.B.	WIDE FLANGE BEAM
W.P.J.	WEAKEN PLANE JOINT (SAW CUT)

PROJECT TEAM		
<b>OWNER</b> HALLE PROPERTIES, LLC DISCOUNT TIRE - CONSTRUCTION DEPARTMENT 20225 N. SCOTTSDALE ROAD SCOTTSDALE, ARIZONA 85255  CONTACT: KAYLA HENSON PHONE: 480-909-8811 EMAIL: KAYLA.HENSON@DISCOUNTTIRE.COM	<b>CONSTRUCTION MANAGER</b> JLL 3344 PEACHTREE RD NE, SUITE 1000 ATLANTA, GA 30326  CONTACT: CHAZ DAUGHERTY PHONE: 731-234-7429 EMAIL: CHAZ.DAUGHERTY@AM.JLL.COM	
<b>ARCHITECT</b> DESIGN FORUM ARCHITECTS 2056 BYERS RD MIAMISBURG, OH 45342 PHONE: 844-804-7700  CONTACT: ALLYSON CROOKE (PM) EMAIL: DTARCHTEAM@CHANGEUPINC.COM  CONTACT: PETER CHEETHAM (CA) EMAIL: DTCATEAM@CHANGEUPINC.COM	<b>DESIGN CONSULTANT</b> CHANGEUP, INC. 2056 BYERS RD MIAMISBURG, OH 45342 PHONE: 844-804-7700  CONTACT: SARAH MODERBACHER THOMAS EMAIL: SARAH.MODERBACHER@CHANGEUPINC.COM	
<b>STRUCTURAL ENGINEER</b> WHS ENGINEERING, INC. 2012 WEST 25TH ST, SUITE 200 CLEVELAND, OH 44113 PHONE: 216-227-8505  CONTACT: NEIL UNGER EMAIL: NEIL@WHS-ENG.COM	<b>MECHANICAL / PLUMBING / ELECTRICAL</b> WHS ENGINEERING, INC. 2012 WEST 25TH ST, SUITE 200 CLEVELAND, OH 44113 PHONE: 216-227-8505  CONTACT: JEFF ZUNT EMAIL: JEFF@WHS-ENG.COM	

SHOP DRAWINGS & SAMPLE REQUIREMENTS			
ITEM	SPECIFIED BY	REVIEWED BY	COMMENTS
STOREFRONT GLAZING SYSTEM	ARCHITECT	ARCHITECT	SHOP DRAWINGS & FINISH SAMPLES
STOREFRONT PANELS	ARCHITECT	ARCHITECT	SHOP DRAWINGS & FINISH SAMPLES
SIGNAGE	OWNER	OWNER	SHOP DRAWINGS
DOOR / DOOR HARDWARE	ARCHITECT	ARCHITECT	CUT SHEETS
METAL CANOPY	ARCHITECT	ARCHITECT	SHOP DRAWINGS
HOSPITALITY VIEWING COUNTER	ARCHITECT	ARCHITECT	SHOP DRAWINGS
STRUCTURAL STEEL	STRUCTURAL	STRUCTURAL	SHOP DRAWINGS
HVAC	MEP	MEP	CUT SHEETS
PLUMB. FIXTURES & ACCESSORIES	ARCHITECT / MEP	ARCHITECT / MEP	CUT SHEETS

**NOTE:** SUBMITTALS MUST BE ISSUED IN A TIMELY & PROFESSIONAL MANNER, ELECTRONICALLY, TO THE CONSTRUCTION MANAGER. SUBMITTALS WILL THEN BE ISSUED BY THE CM TO THE RESPONSIBLE PARTY LISTED ABOVE. STRUCTURAL & MEP SUBMITTALS TO BE ROUTED VIA ARCHITECT.

**NOTE:** SUBMIT (4) COPIES OF PHYSICAL FINISH SAMPLES ONLY IF AN ALTERNATE SPEC IS BEING PROPOSED. DO NOT SUBMIT FINISH SAMPLES FOR REVIEW PER SPEC.

**NOTE:** ANY SUBMITTALS ISSUED TO THE RESPONSIBLE PARTY BY THE CONSTRUCTION MANAGER MUST INCLUDE REVIEW & APPROVAL STAMPS FROM BOTH GENERAL CONTRACTOR AND CONSTRUCTION MANAGER. FAILURE TO DO SO WILL RESULT IN THE SUBMITTAL BEING RETURNED INCOMPLETE AND NOT REVIEWED. SUBMITTALS ISSUED BY GENERAL CONTRACTOR DIRECTLY TO THE ARCHITECT, OR RESPONSIBLE PARTY, WILL BE CONSIDERED INVALID AND IGNORED.

**RFI REQUIREMENTS**

**NOTE:** RFIs MUST BE ISSUED IN A TIMELY & PROFESSIONAL MANNER, ELECTRONICALLY, TO THE CONSTRUCTION MANAGER. RFIs ARE TO BE REVIEWED BY THE CONSTRUCTION MANAGER FOR RESPONSE AND ONLY ISSUED TO THE RESPONSIBLE PARTY LISTED ABOVE, AS REQUIRED. STRUCTURAL & MEP RFIs ARE TO BE ROUTED VIA THE ARCHITECT.

**NOTE:** ANY RFI ISSUED BY THE CONTRACTOR DIRECTLY TO THE ARCHITECT, OR RESPONSIBLE PARTY, WILL BE CONSIDERED INVALID AND IGNORED.

**NOTE TO BIDDERS**

**NOTE:** IT IS THE POLICY OF DISCOUNT TIRE TO MAINTAIN STRICT CONFIDENTIALITY DURING THE BIDDING PROCESS. A BID LIST WILL NOT BE DISCLOSED TO GENERAL CONTRACTORS, SUB-CONTRACTORS, OR VENDORS.

**NOTE:** PLANS OR INFORMATION CONCERNING THE PROJECT SHALL NOT BE DISTRIBUTED TO ANY CONTRACTORS' INFORMATION SERVICES, SUCH AS DODGE REPORTS, PLAN ROOMS, OR ANY PARTY NOT SPECIFICALLY INVITED TO PARTICIPATE IN THE PROJECT.

**NOTE:** ANY BID SPECIFIC QUESTIONS ARE TO BE DIRECTED TO THE CONSTRUCTION MANAGER ONLY.

**NOTE:** DO NOT CONTACT THE ARCHITECT OF RECORD FOR ANY BID QUESTIONS. ANY CORRESPONDENCE RECEIVED BY THE ARCHITECT WILL BE IGNORED.

**SCOPE OF WORK**

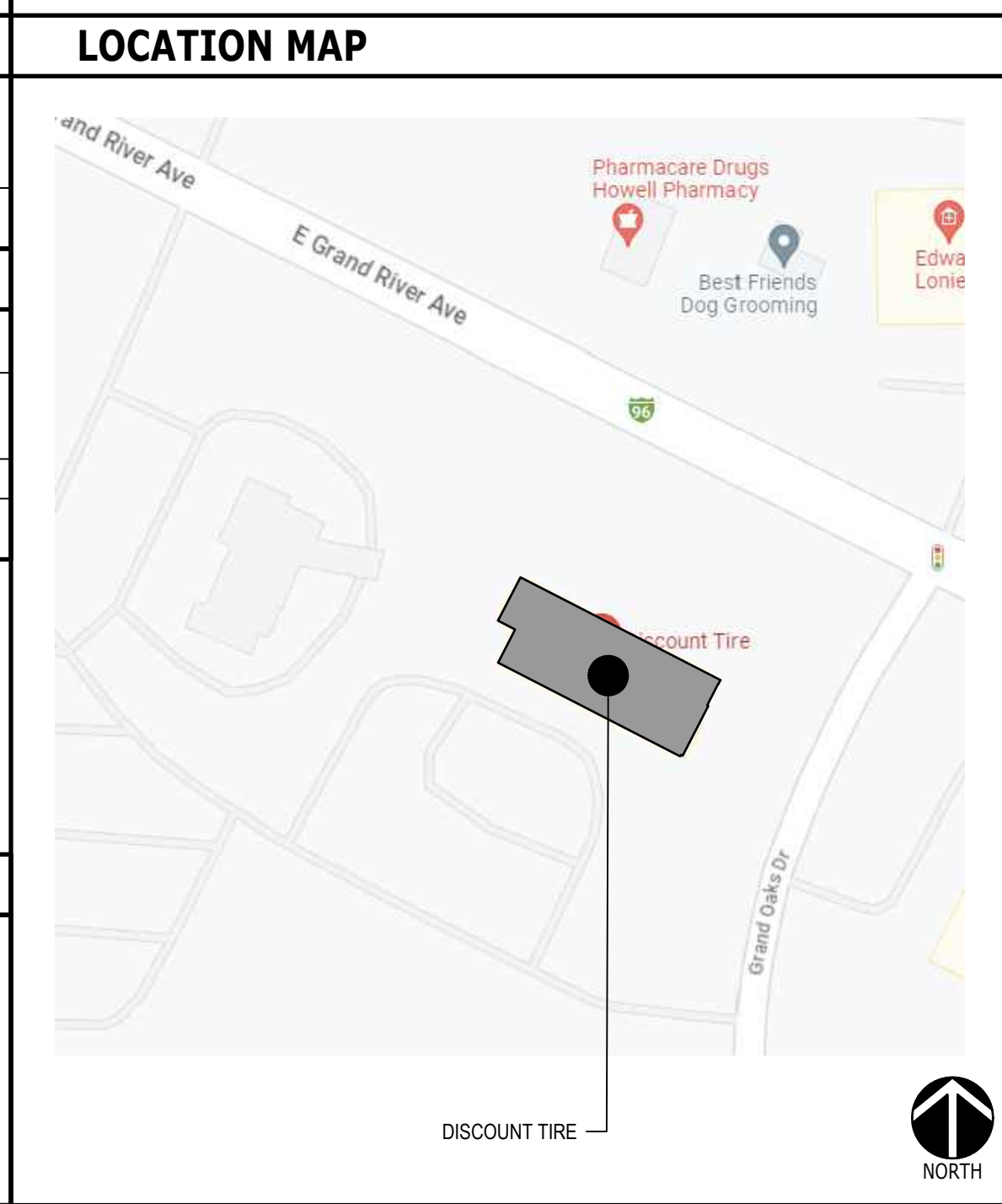
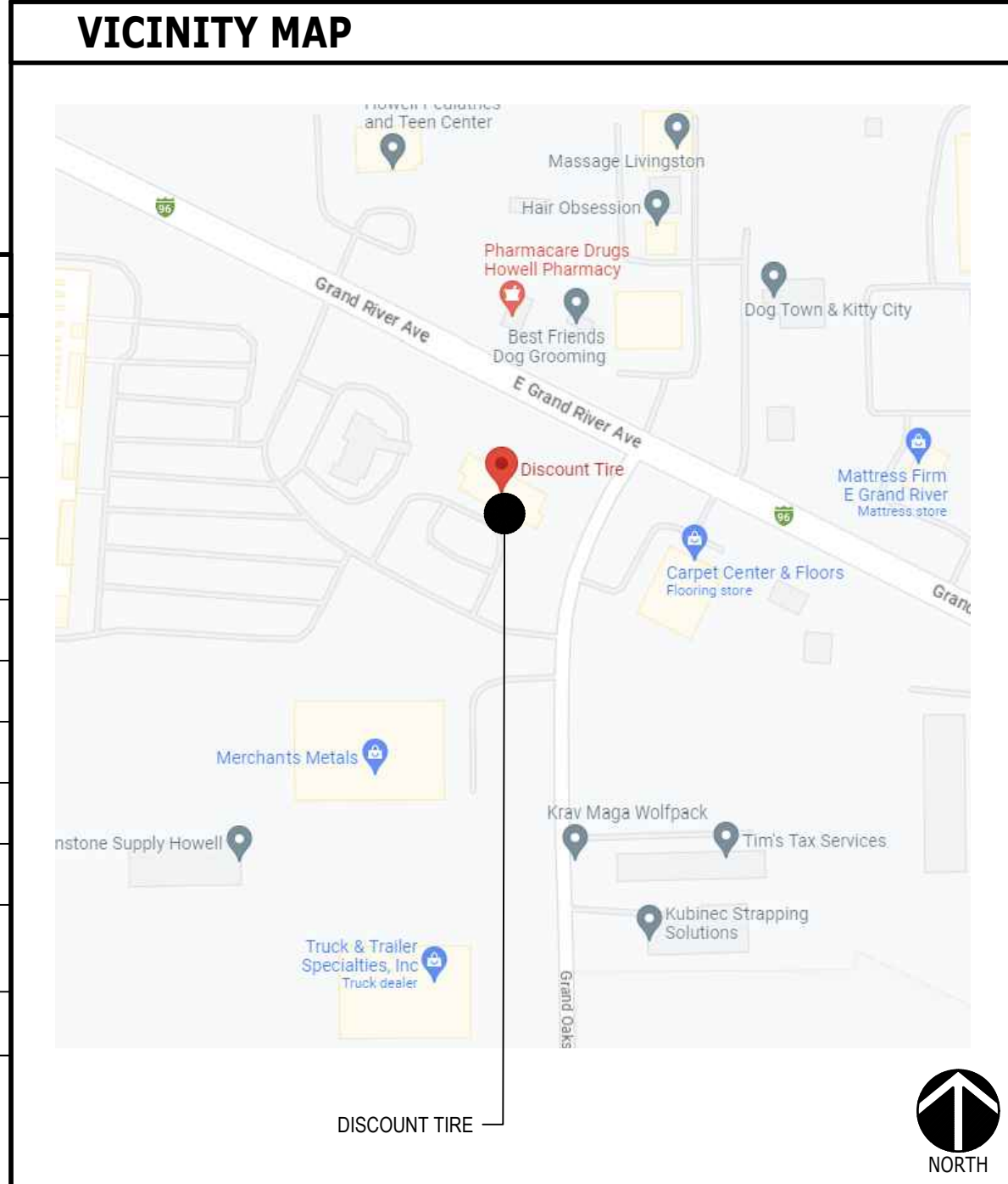
PROJECT IS A PROPOSED INTERIOR AND EXTERIOR RENOVATION / REFRESH OF AN EXISTING DISCOUNT TIRE LOCATION. SCOPE OF WORK INCLUDES, BUT IS NOT LIMITED TO:

DEMOLITION OF STOREFRONT GLAZING, INTERIOR PARTITIONS, INTERIOR FINISHES, FIXTURES, FURNITURE, NEW STOREFRONT GLAZING, MATERIALS, AND FINISHES. NEW INTERIOR PARTITIONS, DOORS, LIGHTING, PLUMBING FIXTURES & ACCESSORIES, AND FINISHES. MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL SCOPE (REFER TO ENGINEERED DRAWINGS). REPLACEMENT SIGNAGE (UNDER SEPARATE COVER OR DEFERRED SUBMITTAL).

**NOTE:** SERVICE AREA AND STORAGE MEZZANINE ARE NOT INCLUDED WITHIN THIS PROPOSED SCOPE. THESE AREAS ARE EXISTING TO REMAIN AND SHALL REMAIN AS-IS.

# DISCOUNT TIRE®

**MIH 27**  
**3480 E GRAND RIVER AVE.**  
**HOWELL, MI 48843**



PROJECT INFORMATION			
<b>DESIGN OCCUPANCY LOAD</b>			
USE	TOTAL SF (GROSS)	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
SALES AREA:	1,591	60	27
BUSINESS AREA:	203	100	3
SERVICE AREA:	3,219	200	17
STORAGE AREA:	2,567	300	9
MEZZANINE:	565	300	2
CATWALK:	1,169	300	4
		<b>TOTAL:</b>	<b>62</b>
<b>APPLICABLE CODES</b>			
BUILDING	2015 MICHIGAN BUILDING CODE		
EXISTING BUILDING	2015 MICHIGAN REHABILITATION CODE FOR EXISTING BUILDINGS		
MECHANICAL	2015 MICHIGAN MECHANICAL CODE		
PLUMBING	2018 MICHIGAN PLUMBING CODE		
ELECTRICAL	MICHIGAN ELECTRICAL CODE BASED ON THE 2017 NEC WITH PART 8 STATE AMENDMENTS		
FIRE	2015 INTERNATIONAL FIRE CODE		
ENERGY	2015 INTERNATIONAL ENERGY CONSERVATION CODE PART 10 WITH ANSI / ASHRE / LESNA STANDARD 90.1-2013		
ACCESSIBILITY	ICC / ANSI A117.1 - 2009 & MICHIGAN BARRIER FREE DESIGN LAW OF PUBLIC ACT 1 OF 1966 AS AMENDED.		
<b>BUILDING INFO</b>			
CONSTRUCTION TYPE:	II-B		
OCCUPANCY GROUP:	M / S-1 NON-SEPARATED (NOTE: THE WORK PERFORMED IS LIMITED TO REPAIR & INSTALLATION OF TIRES & WHEELS. THE USE OF OPEN FLAME OR WELDING IS NOT REQUIRED.)		
SPRINKLER SYSTEM:	NON-SPRINKLERED		
FIRE ALARM:	NO		
EXISTING BUILDING SF:	9,314 SF		
PROPOSED WORK AREA SF:	1,794 SF		
<b>EGRESS CALCULATION</b>			
EXIT WIDTH REQUIRED: (62 OCCUPANTS X 0.2)	12.4 IN.		
EXIT WIDTH PROVIDED:	99 IN.		
EXITS:	33 IN. PRIMARY EXIT, 33 IN. SECONDARY EXIT, 33 IN. REAR SERVICE EXIT		
EXITS REQUIRED:	1 FOR MERCANTILE, 2 FOR S-1 = 3 TOTAL MINIMUM		
EXITS PROVIDED:	2 FOR MERCANTILE, 1 FOR S-1 (EXISTING) = 3 TOTAL MINIMUM		
MAX. ALLOWED TRAVEL DISTANCE:	200' NON-SPRINKLERED		
MAX. PROVIDED TRAVEL DISTANCE:	114 FT. 9 IN.		
MINIMUM EXIT SEPARATION:	67 FT. 7 1/2 IN. / 2 = 18 FT 3 1/2 IN (EXISTING)		
PROVIDED EXIT SEPARATION:	54 FT. 3 IN.		
<b>PLUMBING CALCULATION</b>			
PLUMBING OCCUPANT LOAD (1/200)	N/A		
MOP SINK	1 REQUIRED   1 PROVIDED		
DRINKING FOUNTAIN	1 REQUIRED   1 PROVIDED		
	HIGH / LOW FIXTURE W/ BOTTLE FILLER & CANE DETECTION APRON AS REQ.		
	2 REQUIRED   3 PROVIDED		
PUBLIC TOILET FACILITIES	THIRD SINGLE-USE RESTROOM IS PROVIDED FOR EMPLOYEE CONVENIENCE ONLY. ALL EMPLOYEES WILL HAVE ACCESS TO THE TWO ACCESSIBLE SINGLE-USE RESTROOMS.		
<b>DEFERRED SUBMITTALS</b>			
SIGNAGE	SPRINKLER SYSTEM (AS APPLICABLE)		
	FIRE ALARM (AS APPLICABLE)		

SHEET INDEX		100% CD SET 11/21/23									
<b>ARCHITECTURAL</b>											
G0.1	COVER SHEET	●									
G0.2	ABBREVIATED GENERAL CONDITIONS & NOTES	●									
G0.3	RESPONSIBILITY SCHEDULE	●									
G0.4	ACCESSIBILITY COMPLIANCE & STANDARDS	●									
G1.0	LIFE SAFETY PLAN	●									
D1.0	DEMOLITION FLOOR PLAN	●									
D1.1	DEMOLITION REFLECTED CEILING PLAN	●									
D2.0	DEMOLITION EXTERIOR ELEVATIONS	●									
A0.1	ARCHITECTURAL SITE PLAN	●									
A0.2	ARCHITECTURAL SITE DETAILS	●									
A1.0	CONSTRUCTION FLOOR PLAN	●									
A1.0A	DOOR / HARDWARE SCHEDULES & GLAZING ELEVATIONS	●									
A1.1	REFLECTED CEILING PLAN	●									
A2.0	EXTERIOR ELEVATIONS	●									
A2.1	EXTERIOR WALL SECTIONS	●									
A2.1A	EXTERIOR WALL SECTION	●									
A2.2	EXTERIOR WALL DETAILS	●									
A5.0	WALL DETAILS	●									
A5.1	CEILING DETAILS	●									
A5.2	MISC. DETAILS	●									
A5.3	MISC. DETAILS	●									
<b>INTERIOR</b>											
I1.0	FURNITURE, FIXTURE & FINISH PLAN	●									
I2.0	INTERIOR ELEVATIONS	●									
I2.1	ENLARGED RESTROOM PLAN & INTERIOR ELEVATIONS	●									
<b>STRUCTURAL</b>											
S0.1	STRUCTURAL GENERAL NOTES	●									
S1.0	SPECIAL INSPECTIONS, STRUCTURAL PLANS	●									
S1.1	FRAMING PLANS, SECTIONS, AND DETAILS	●									
S1.2	SECTIONS & DETAILS	●									
<b>ELECTRICAL</b>											
ED.1	ELECTRICAL DEMOLITION PLAN	●									
E1.0	ELECTRICAL SPECIFICATIONS	●									
E1.1	ELECTRICAL SPECIFICATIONS & SYMBOL LEGEND	●									
E1.2	EXISTING ELECTRICAL POWER RISER DIAGRAM & PANEL SCHEDULES	●									
E2.0	LIGHTING PLAN	●									
E2.1	POWER & COMMUNICATION PLAN	●									
<b>MECHANICAL</b>											
M0.0	MECHANICAL SPECIFICATIONS	●									
M1.0	MECHANICAL DEMOLITION PLANS	●									
M2.0	MECHANICAL PLAN	●									
M3.0	MECHANICAL DETAILS & SCHEDULES	●									
<b>PLUMBING</b>											
P0.0	PLUMBING SPECIFICATIONS	●									
P1.0	PLUMBING DEMOLITION PLANS	●									
P2.0	PLUMBING PLAN	●									

**Design Forum Architects Inc.**

2056 BYERS RD  
MIAMISBURG, OH 45342  
Tel. (844) 804-7700

Donald J. Rothman  
Architect In Charge  
License: 1301043653

MIH 27  
3480 E GRAND RIVER AVE.  
HOWELL, MI 48843

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No.	Description	Date

PROJECT NUMBER: DT10407  
DATE: 11/21/2023  
DRAWN BY: ATS / KH  
CHECKED BY: ARC / DJR

SHEET NAME: **COVER SHEET**

SHEET #: **G0.1**



# Design Forum Architects Inc.

2056 BYERS RD  
Mansfield, OH 44842  
Tel: (844) 804-7700

Donald J. Rathman  
Architect In Charge  
License: 1301043653

# DISCOUNT TIRE

MIH 27  
3480 E GRAND RIVER AVE.  
HOWELL, MI 48843



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No.	Description	Date

PROJECT NUMBER	DT10407
DATE	11/21/2023
DRAWN BY	ATS / KH
CHECKED BY	ARC / DJR

SHEET NAME  
**LIFE SAFETY PLAN**

SHEET #  
**G1.0**

## GENERAL NOTES

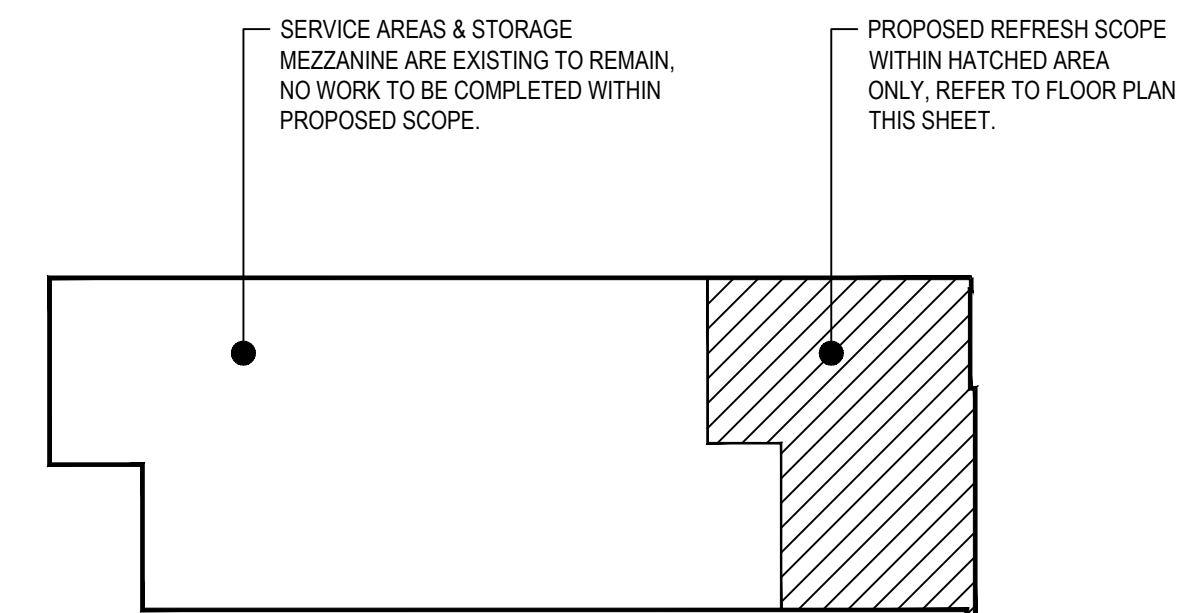
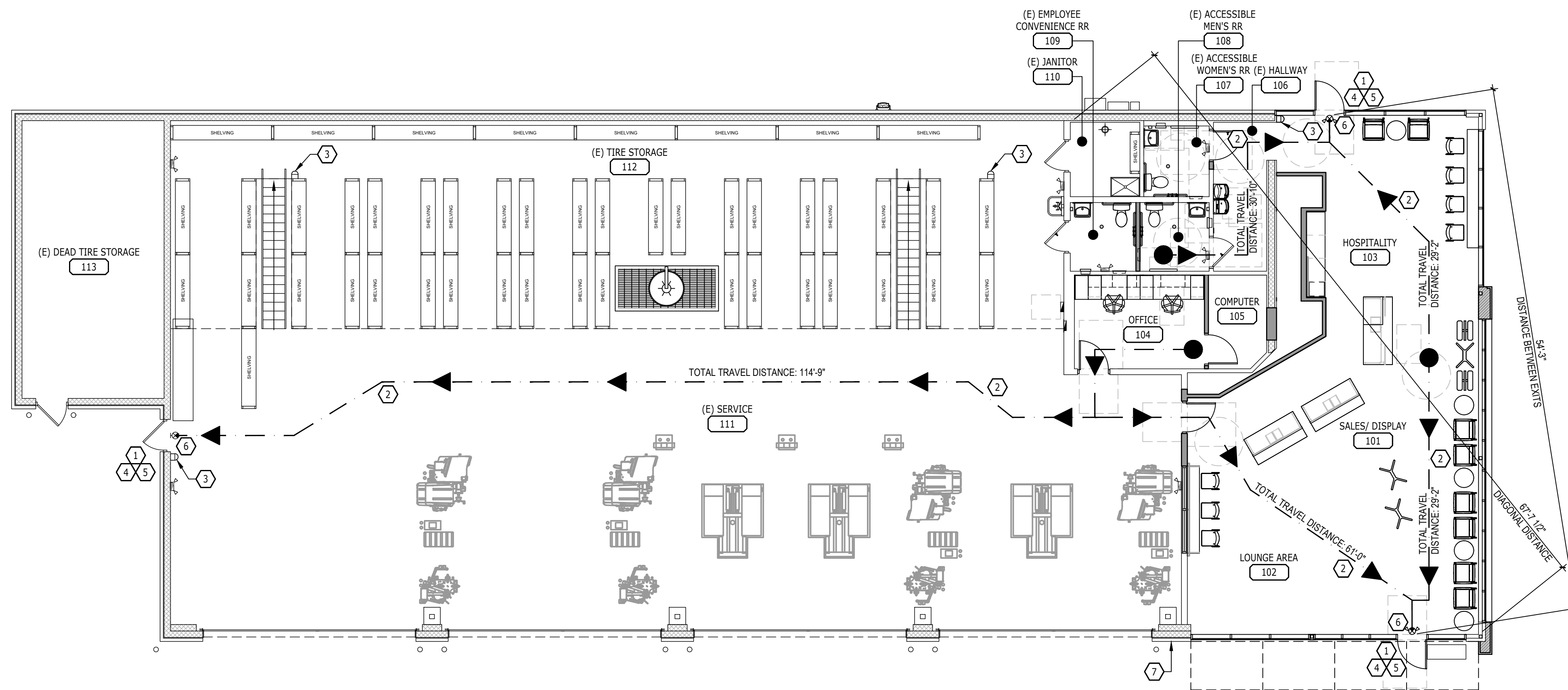
- REFER TO SHEET G0.1 FOR APPLICABLE OCCUPANCY AND EGRESS CALCULATIONS.
- EGRESS SHALL NOT PASS THROUGH KITCHENS, STORAGE ROOMS, CLOSETS OR SIMILAR SPACES.
- PANIC AND FIRE EXIT HARDWARE, WHERE INSTALLED ON DOORS IN THIS BUILDING SHALL SATISFY THE FOLLOWING:
  - THE ACTUATION PORTION OF THE RELEASING DEVICE SHALL EXTEND AT LEAST ONE-HALF OF THE DOOR LEAF WIDTH.
  - THE MAXIMUM UNLATCHING FORCE DOES NOT EXCEED 15 POUNDS.
  - PANIC HARDWARE LISTED IN ACCORDANCE WITH UL 305.
  - FIRE EXIT HARDWARE LISTED IN ACCORDANCE WITH UL 10C AND UL 305.
- STRUCTURAL ELEMENTS, FIXTURES OR FURNISHINGS SHALL NOT PROJECT HORIZONTALLY FROM EITHER SIDE MORE THAN 4 INCHES OVER ANY WALKING SURFACE BETWEEN 27 INCHES AND 80 INCHES ABOVE THE WALKING SURFACE. **EXCEPTION:** HANDRAILS SERVING STAIRS AND RAMPS ARE PERMITTED TO PROTRUDE 4 1/2 INCHES FROM THE WALL.
- THE PATH OF EGRESS TRAVEL EXITS AND WITHIN EXITS IN THIS BUILDING SHALL BE IDENTIFIED BY EXIT SIGNS CONFORMING TO THE REQUIREMENTS OF SECTION 1013 AND AS NOTED BELOW:
  - EXIT SIGNS SHALL BE READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL.
  - EXIT SIGNS SHALL BE LOCATED AS NECESSARY TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL.
  - NO POINT IN A CORRIDOR SHALL BE MORE THAN 100 FT OR THE LISTED VIEWING DISTANCE FOR THE SIGN, WHICHEVER IS LESS, FROM THE NEAREST VISIBLE EXIT SIGN.
- WHERE KEY OPERATED LOCKING DEVICES ARE USED, POST A SIGN ON OR ADJACENT TO THE REQUIRED MAIN EXIT DOOR WITH 1 INCH LETTERING STATING "THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED".
- EGRESS DOORS OR GATES SHALL BE OPERABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE OR EFFORT. DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES SHALL BE INSTALLED 34 INCHES TO 48 INCHES ABOVE FINISHED FLOOR. MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS ARE NOT PERMITTED. THE UNLATCHING OF ANY DOOR OR LEAF SHALL NOT REQUIRE MORE THAN ONE OPERATION.
- LANDINGS SHALL BE PROVIDED ON EACH SIDE OF DOORS AND SUCH LANDING SHALL BE AT THE SAME ELEVATION ON EACH SIDE OF THE DOOR. LANDINGS SHALL HAVE A WIDTH NOT LESS THAN THE WIDTH OF THE DOOR AND LENGTH MEASURED IN THE DIRECTION OF TRAVEL OF NOT LESS THAN 44 INCHES.

## SHEET NOTES

- THRESHOLDS TO BE BARRIER FREE COMPLIANT PER ALL APPLICABLE CODES.
- BARRIER-FREE PATH OF TRAVEL.
- FIRE EXTINGUISHER. NEW EXTINGUISHERS TO BE TYPE 2A10BC. COORDINATE FINAL LOCATIONS AND QUANTITIES WITH LOCAL FIRE MARSHAL.
- PROVIDE INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN.
- PROVIDE TACTILE "EXIT" SIGN.
- ILLUMINATED EXIT SIGN.
- KNOX BOX. IF NOT EXISTING, PROVIDE BOX PER LOCAL REQUIREMENTS, COORDINATE TYPE AND LOCATION WITH LOCAL FIRE MARSHAL.

## LIFE SAFETY LEGEND

- EGRESS PATH OF TRAVEL
- EGRESS PATH DIRECTION OF TRAVEL
- FIRE EXTINGUISHER
- ILLUMINATED EXIT SIGN
- ILLUMINATED EXIT SIGN W/ EMERGENCY LIGHT
- EMERGENCY LIGHT WALL PACK



**1** FIRST FLOOR LIFE SAFETY & EGRESS PLAN  
1/8" = 1'-0"

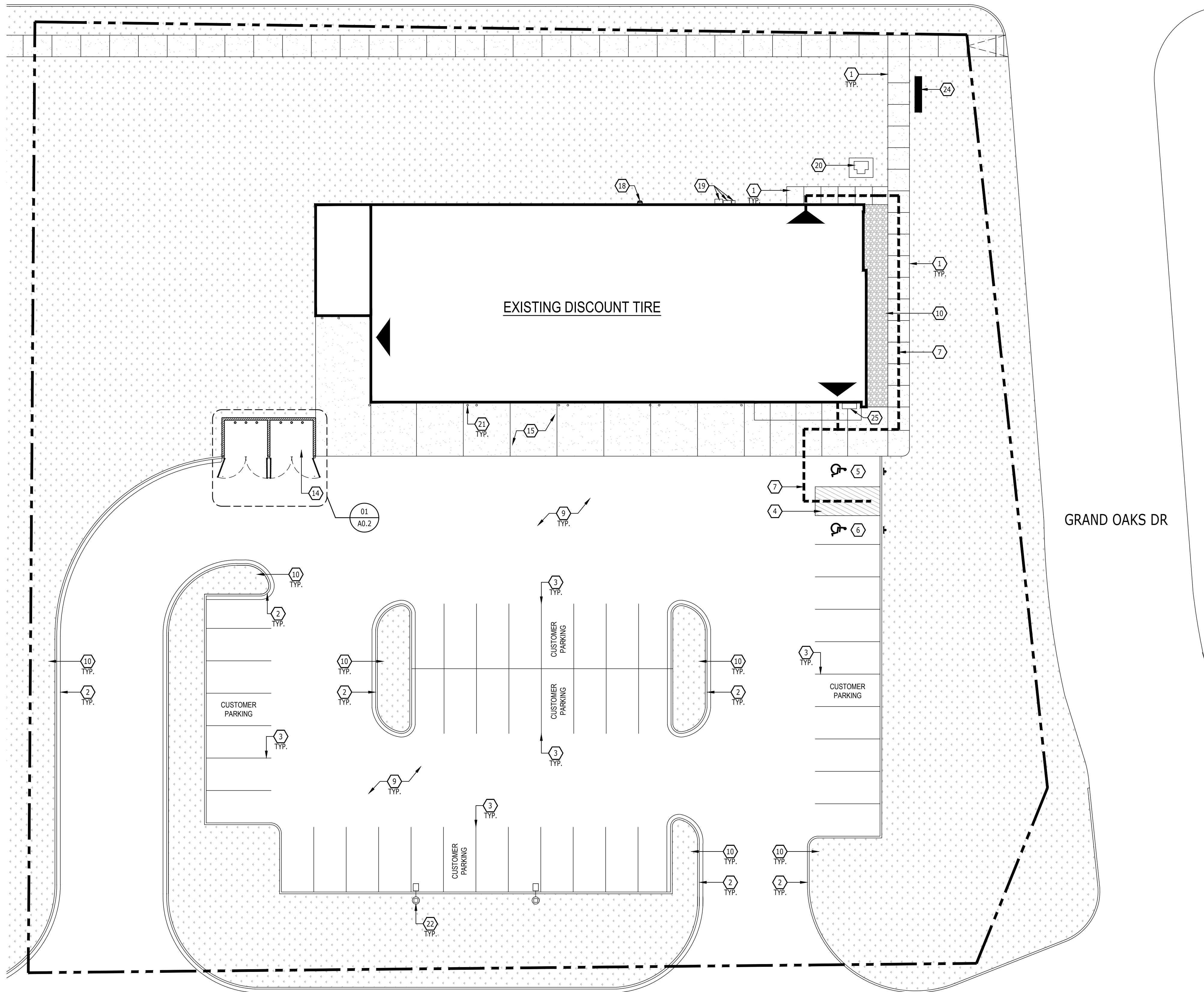


**1** KEY PLAN  
N.T.S.





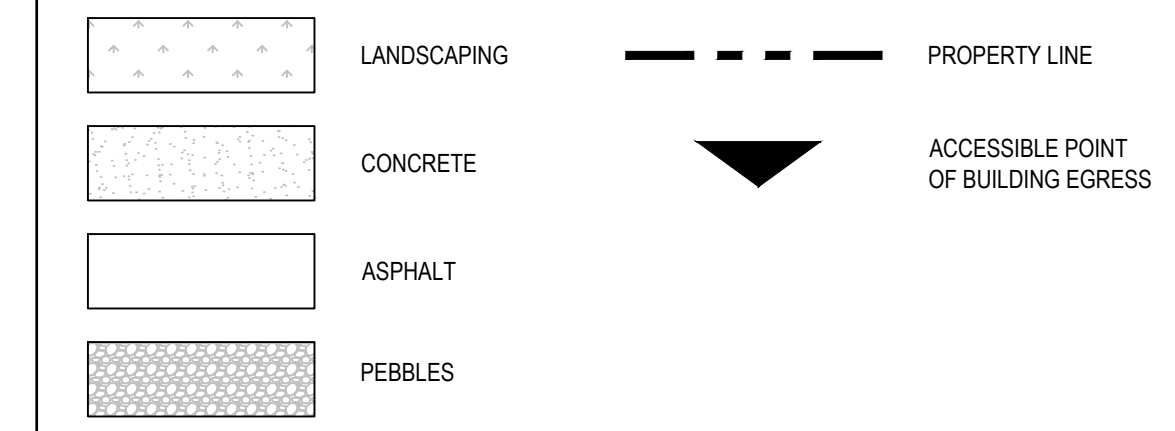
E GRAND RIVER AVE



**SHEET NOTES**

1. EXISTING CONCRETE SIDEWALK.
2. EXISTING CONCRETE CURB.
3. EXISTING PARKING STALL.
4. EXISTING HANDICAP CROSSWALK STRIPING.
5. EXISTING VAN ACCESSIBLE HANDICAP PARKING STALL WITH VAN ACCESSIBLE SIGN.
6. EXISTING HANDICAP PARKING SPACE WITH ACCESSIBLE SIGN.
7. ACCESSIBLE PATH OF TRAVEL FROM BUILDING TO EXISTING HANDICAP PARKING.
8. EXISTING ASPHALT PAVEMENT. GO TO SEAL CRACKS AND PROVIDE SEAL COAT OVER ENTIRE PARKING AREA. RE-STRIP PARKING STALLS PER EXISTING CONFIGURATION.
9. EXISTING ASPHALT PAVEMENT W/ STRIPING.
10. EXISTING LANDSCAPE ISLAND / AREA.
11. EXISTING TRAFFIC ARROWS.
12. EXISTING TRASH ENCLOSURE.
13. REPLACE EXISTING TRASH ENCLOSURE HINGES W/ NEW HEAVY DUTY STAINLESS STEEL HINGES. REPAIR GATE TO LIKE NEW CONDITION.
14. NEW TRASH ENCLOSURE, REFER TO A0.2 AND STRUCTURAL.
15. EXISTING CONCRETE PAVEMENT.
16. EXISTING CONCRETE PAVEMENT. GO TO REPAIR ANY CRACKS OR FAILURES IN CONCRETE AS REQUIRED.
17. EXISTING GREASE INTERCEPTOR.
18. EXISTING GAS METER.
19. EXISTING ELECTRICAL METER / SWITCH GEAR.
20. EXISTING CONCRETE PAD MOUNTED TRANSFORMER.
21. EXISTING BOLLARD.
22. EXISTING LIGHT POLE.
23. EXISTING DISCOUNT TIRE MONUMENT SIGN.
24. EXISTING DISCOUNT TIRE PYLON SIGN.
25. EXISTING EXTERIOR BENCH.

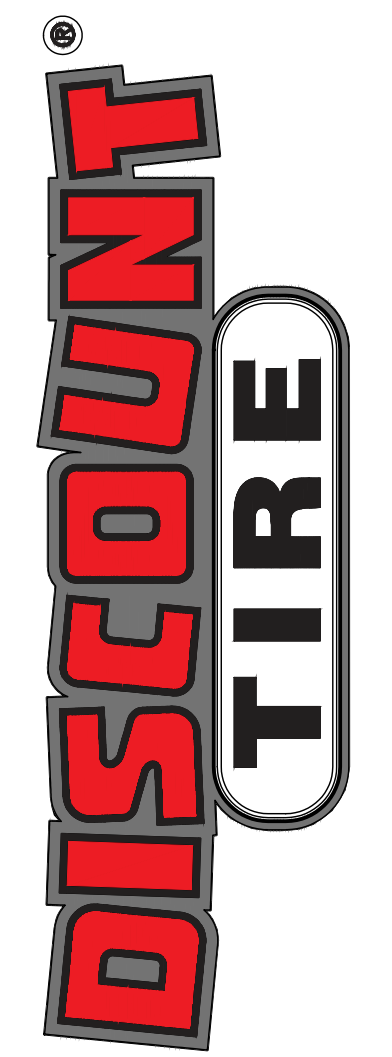
**SITE LEGEND**



GRAND OAKS DR

**Design Forum Architects Inc.**  
 2056 BYERS RD  
 Mansfield, OH 45342  
 Tel: (844) 804-7700

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No.	Description	Date

PROJECT NUMBER	DT10407
DATE	11/21/2023
DRAWN BY	ATS / KH
CHECKED BY	ARC / DJR

SHEET NAME  
**ARCHITECTURAL SITE PLAN**

SHEET #  
**A0.1**

**1** ARCHITECTURAL SITE PLAN  
 1/16" = 1'-0"





**DISCOUNT TIRE**

MIH 27  
3480 E GRAND RIVER AVE.  
HOWELL, MI 48843



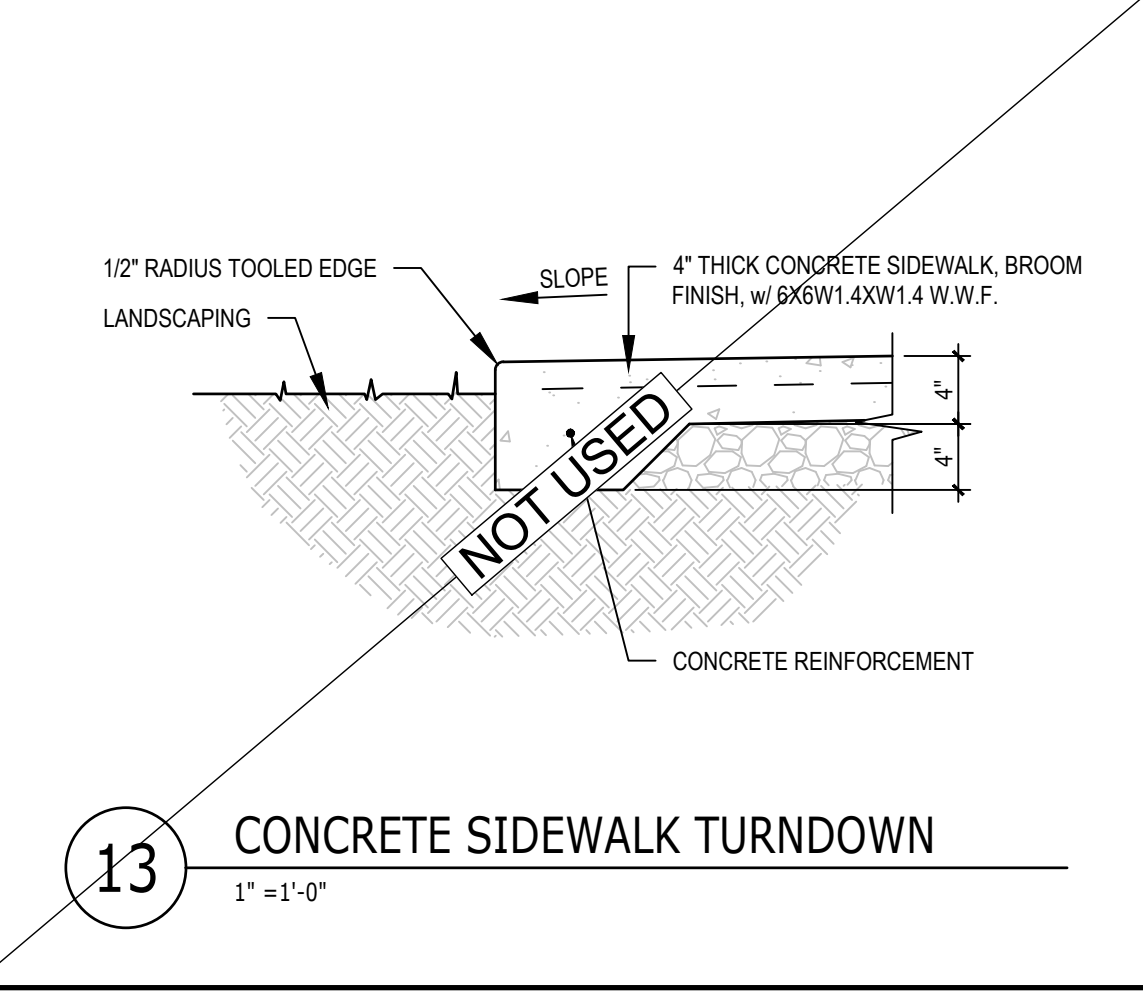
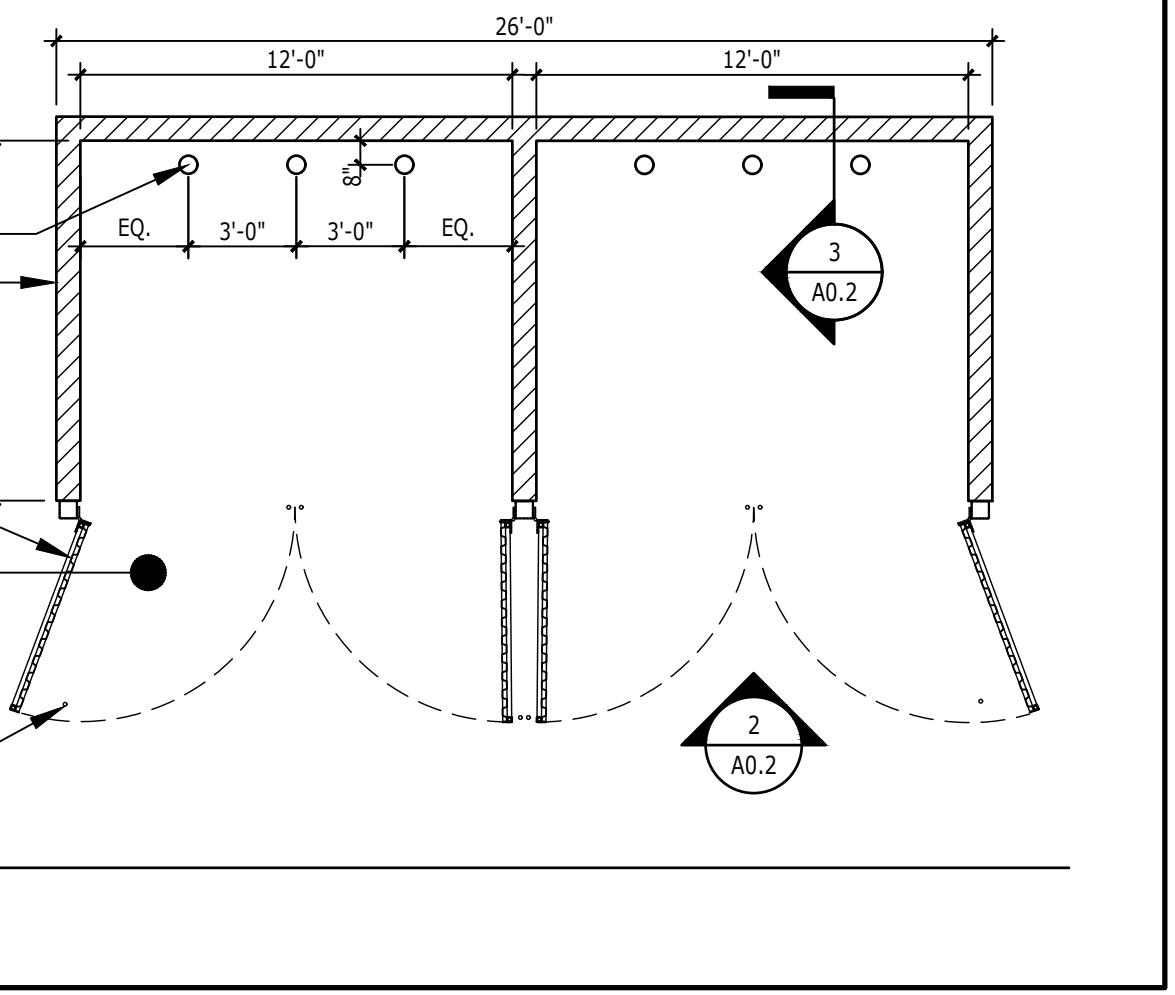
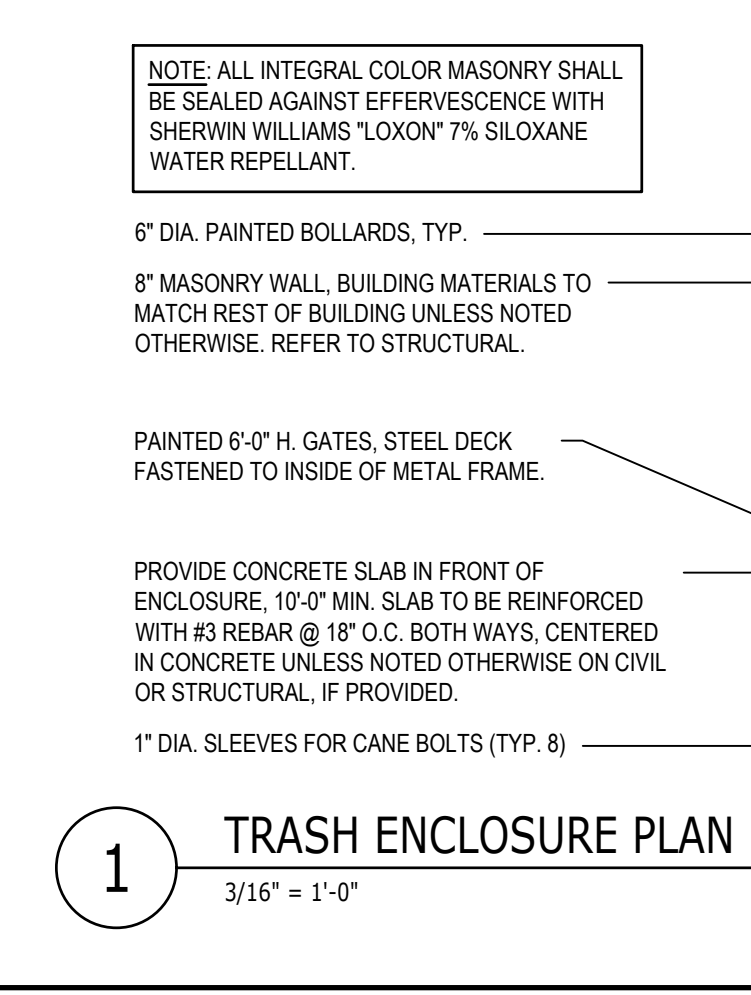
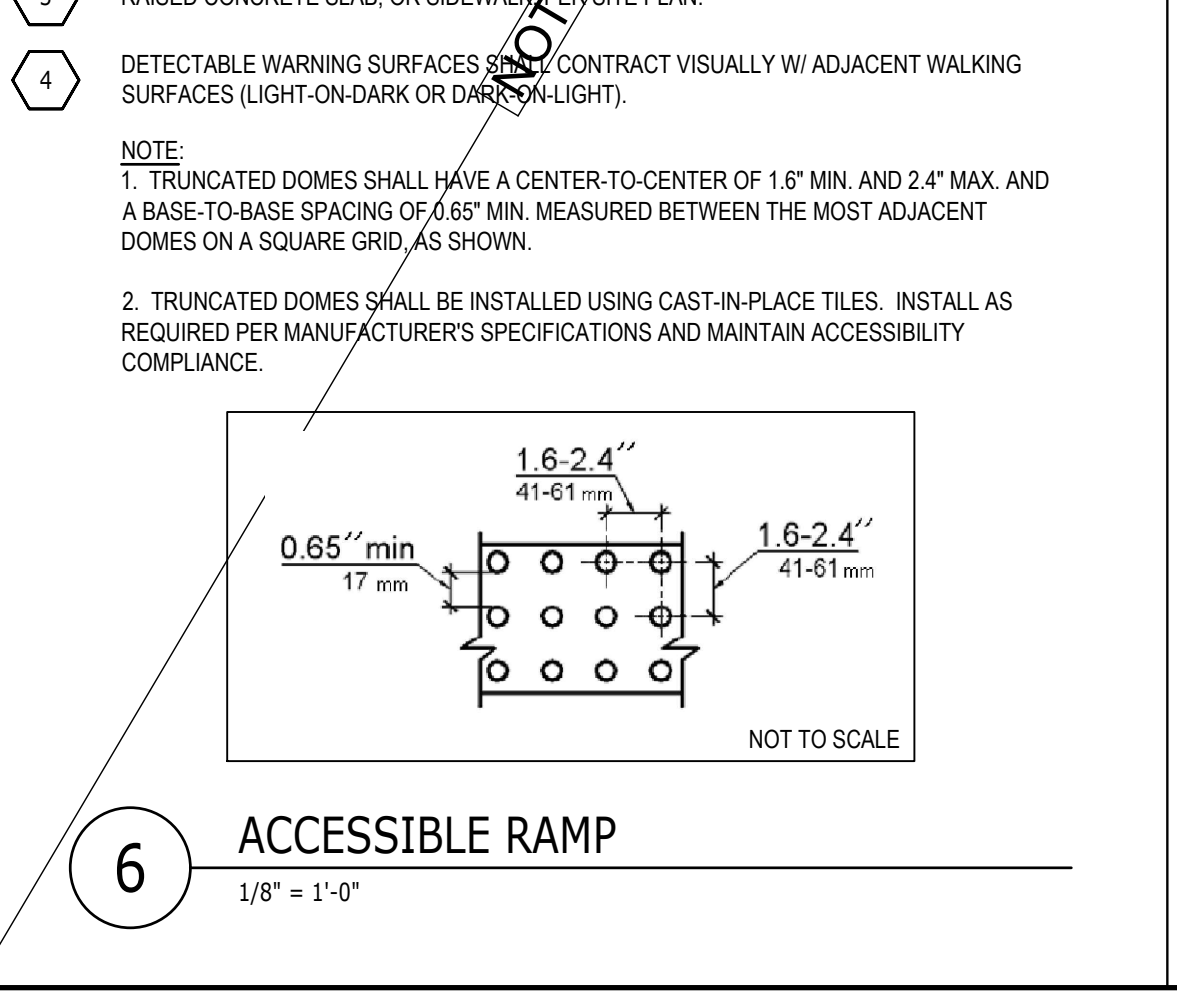
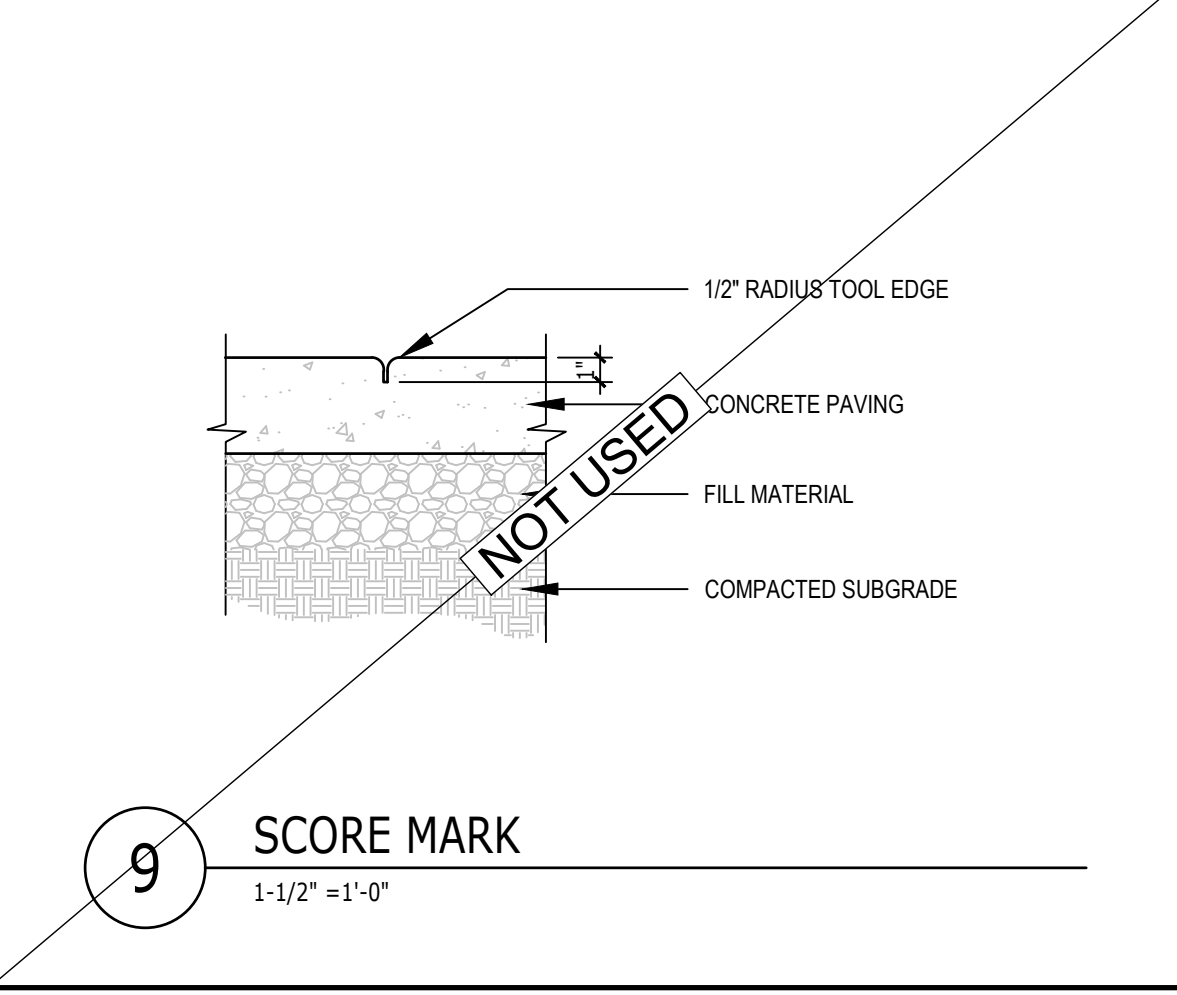
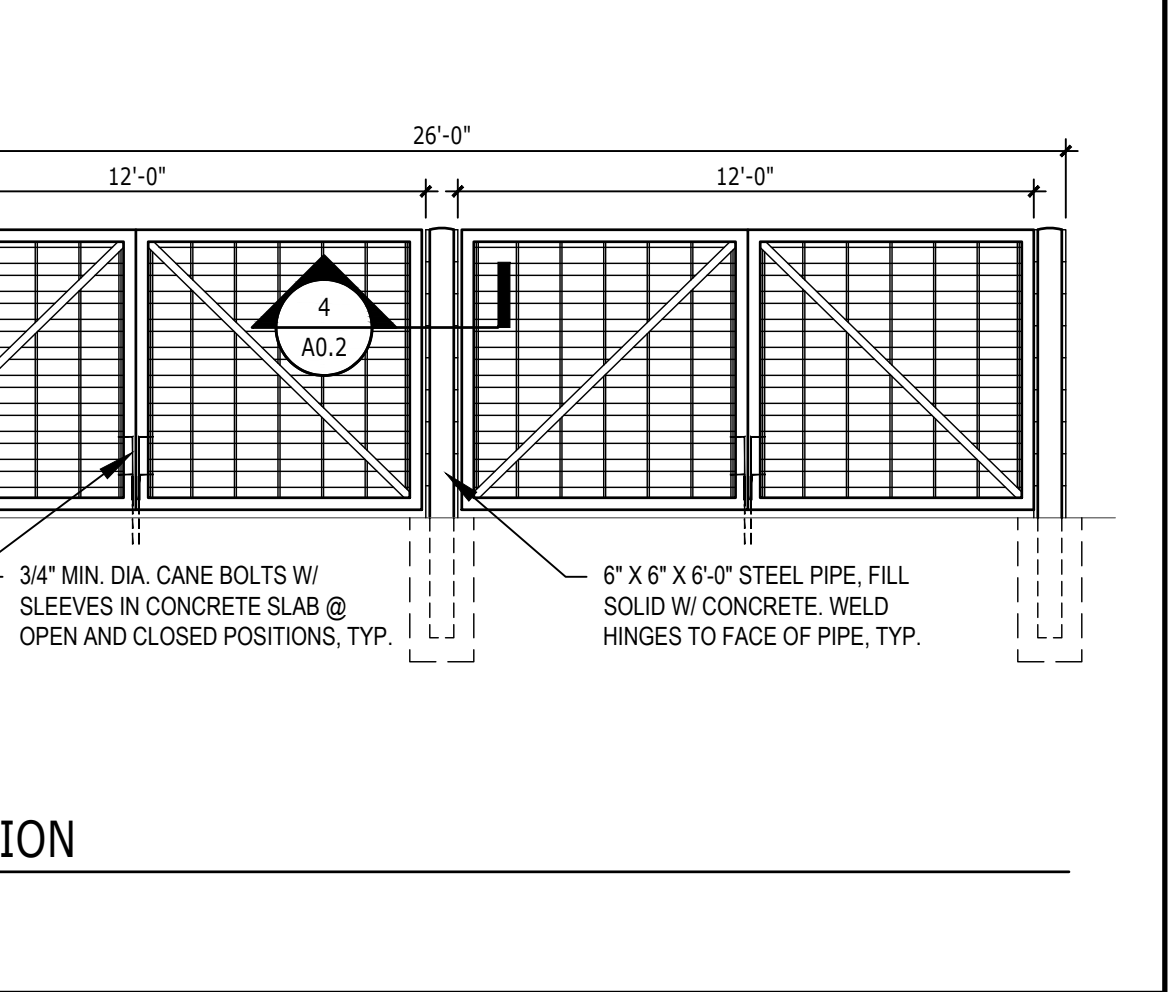
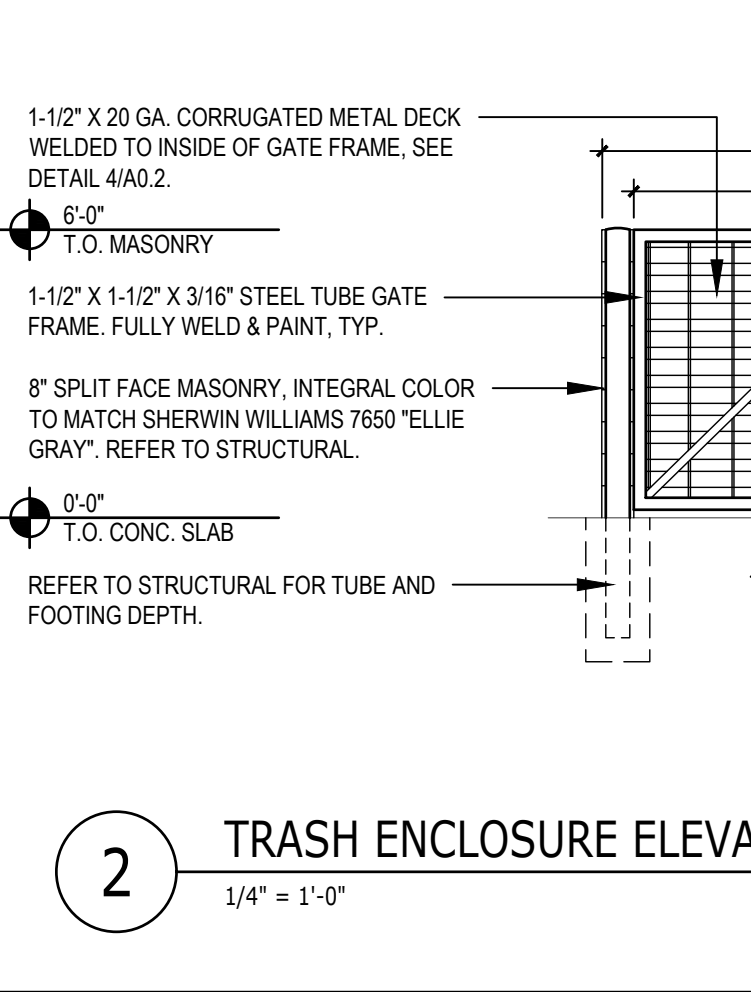
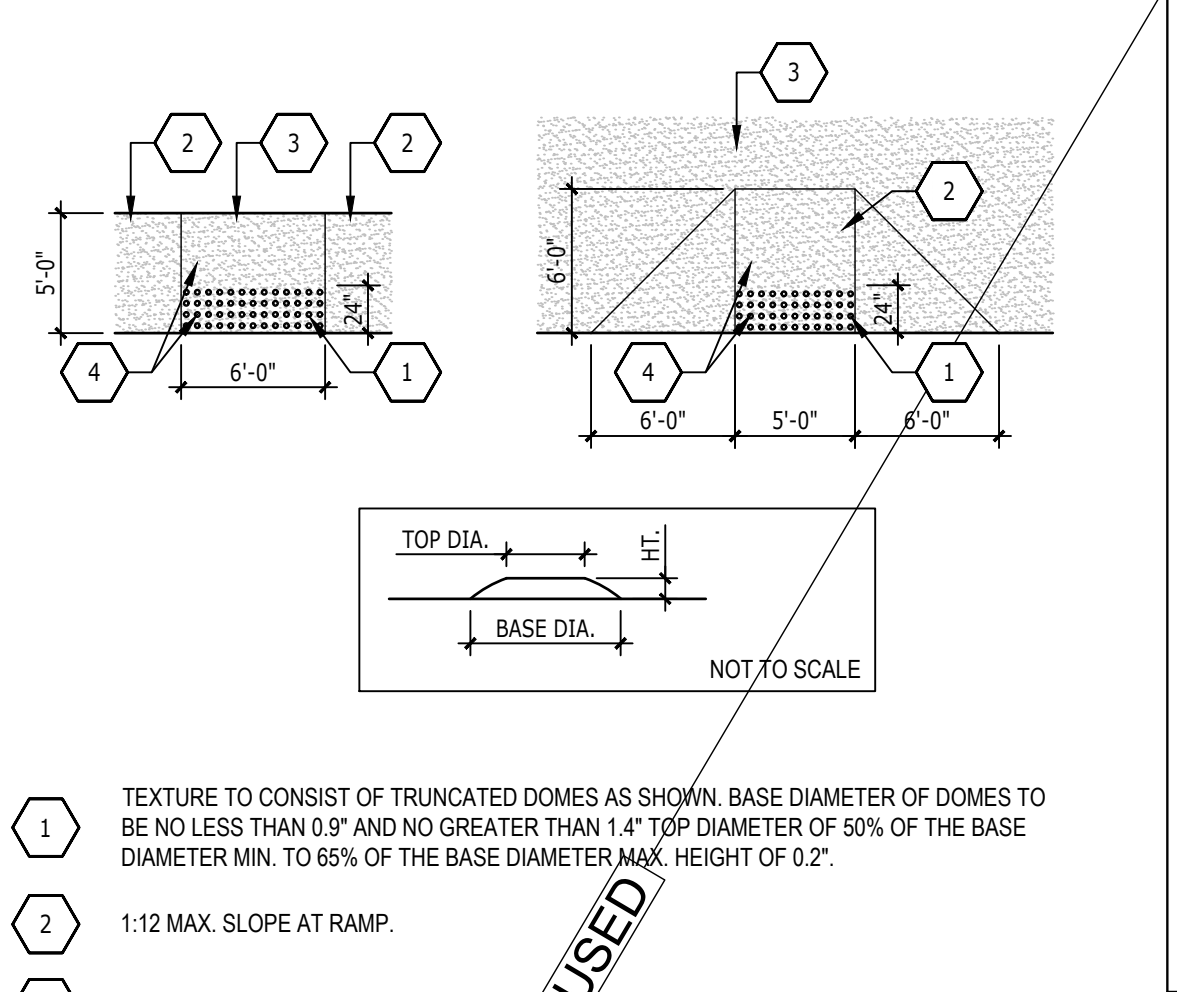
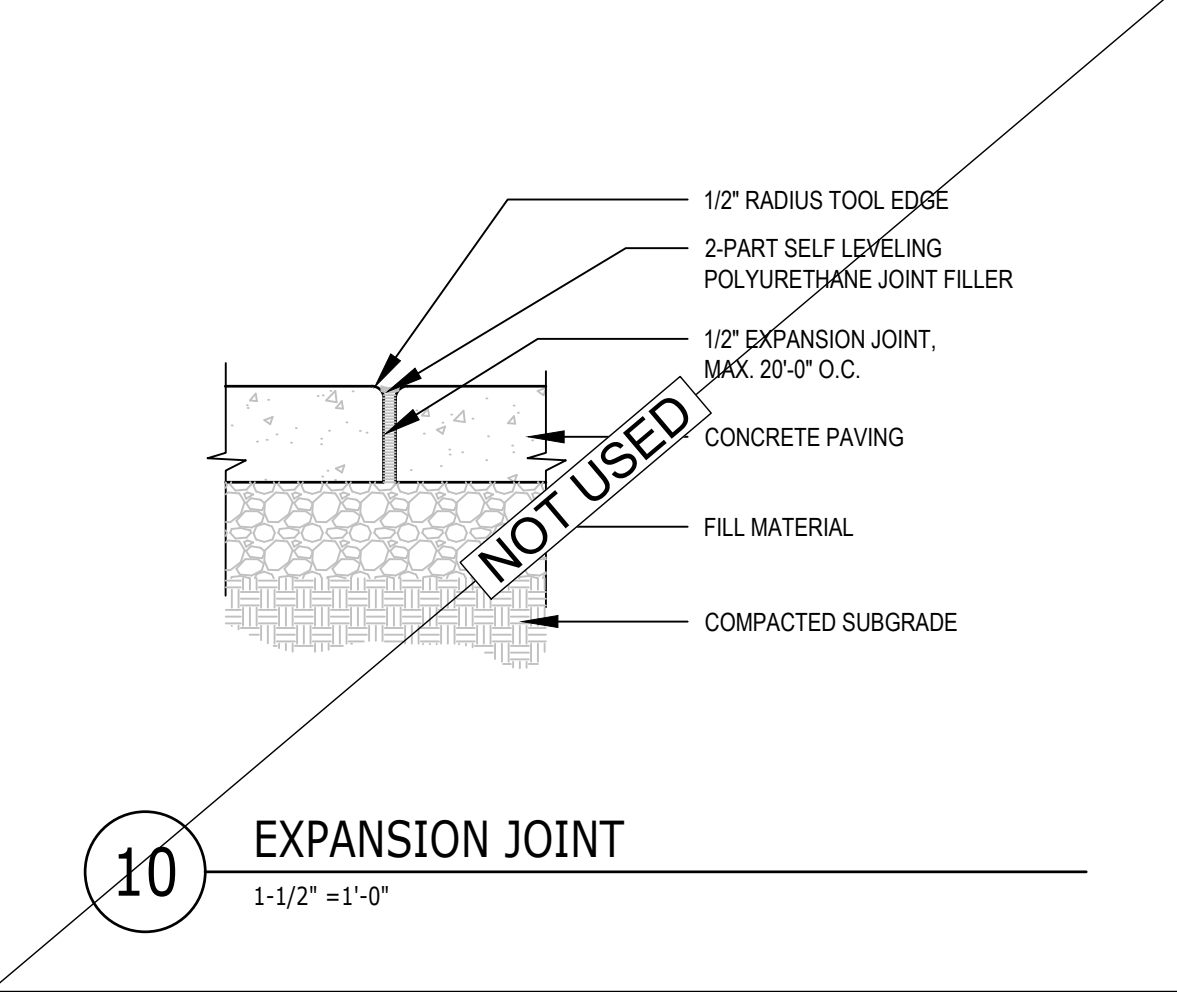
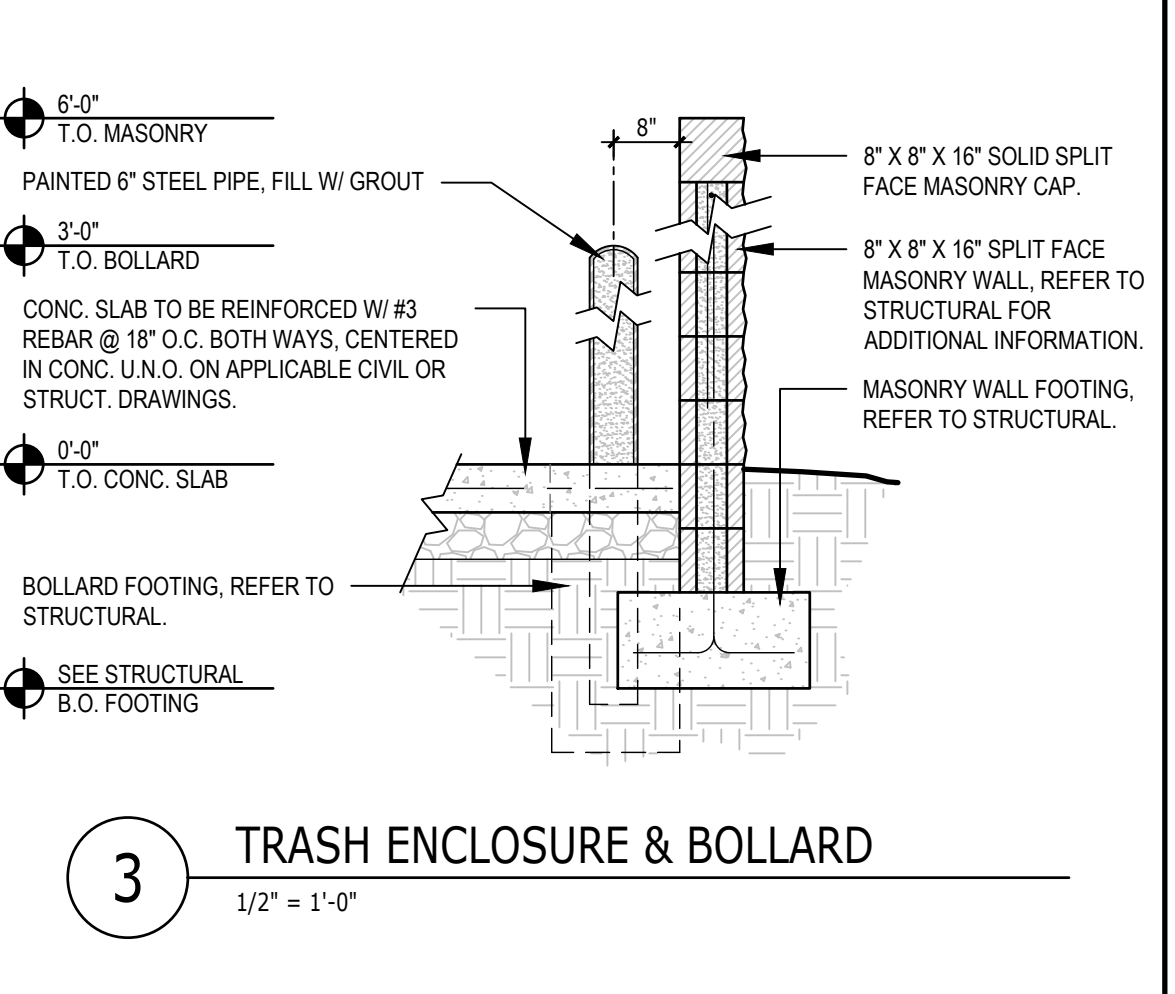
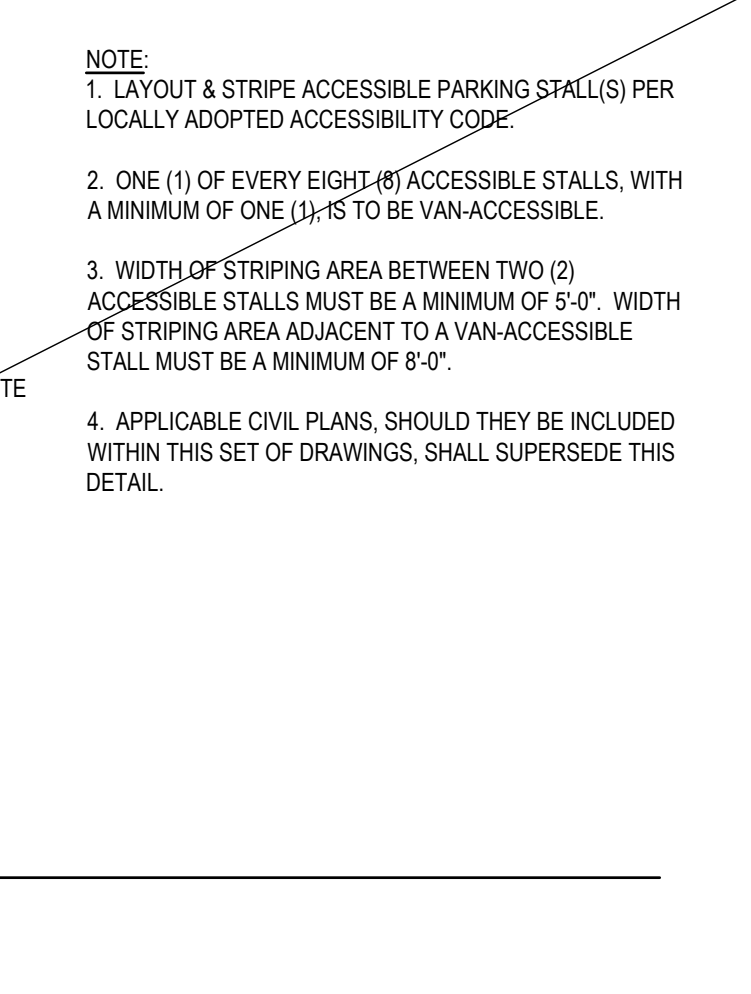
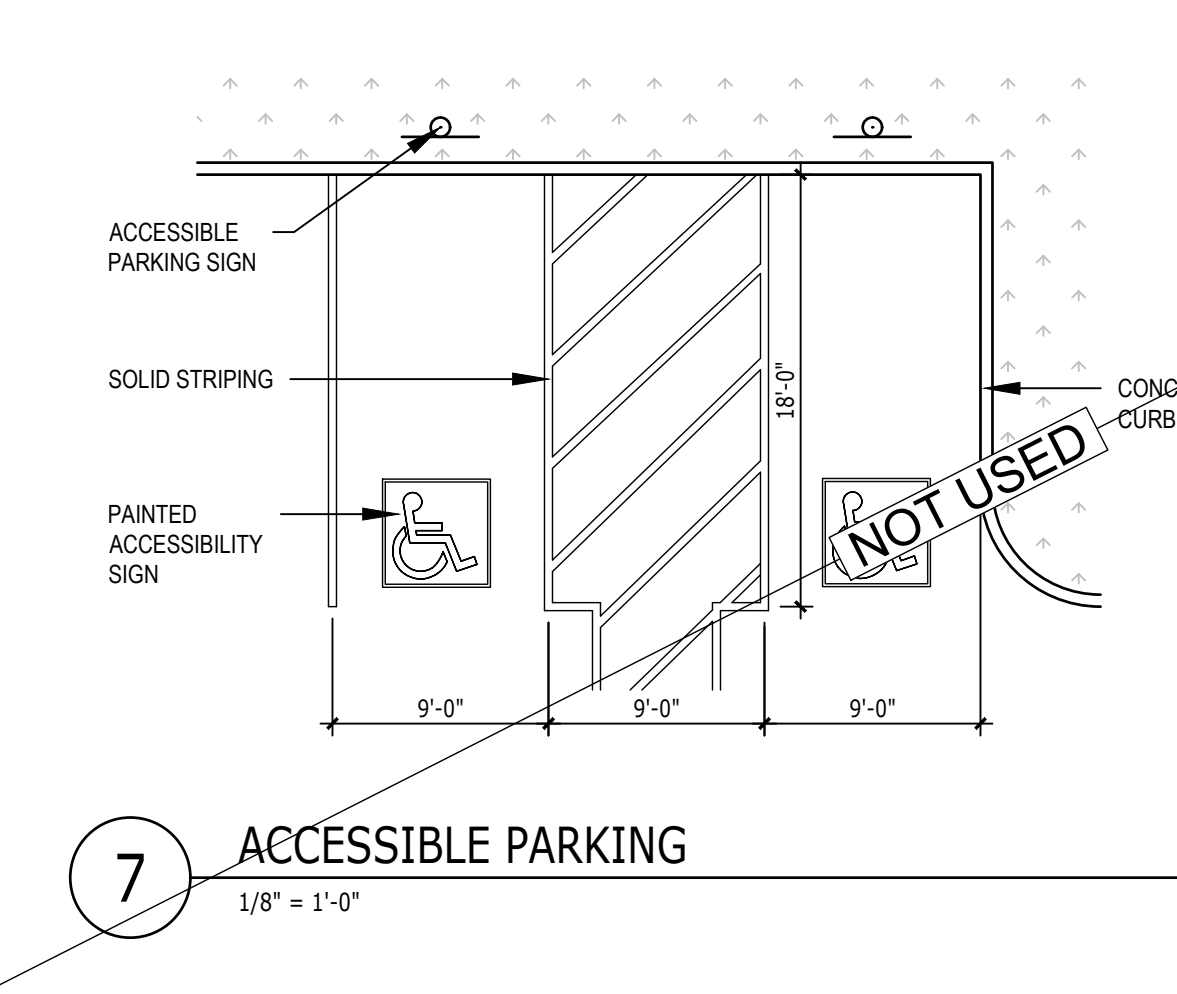
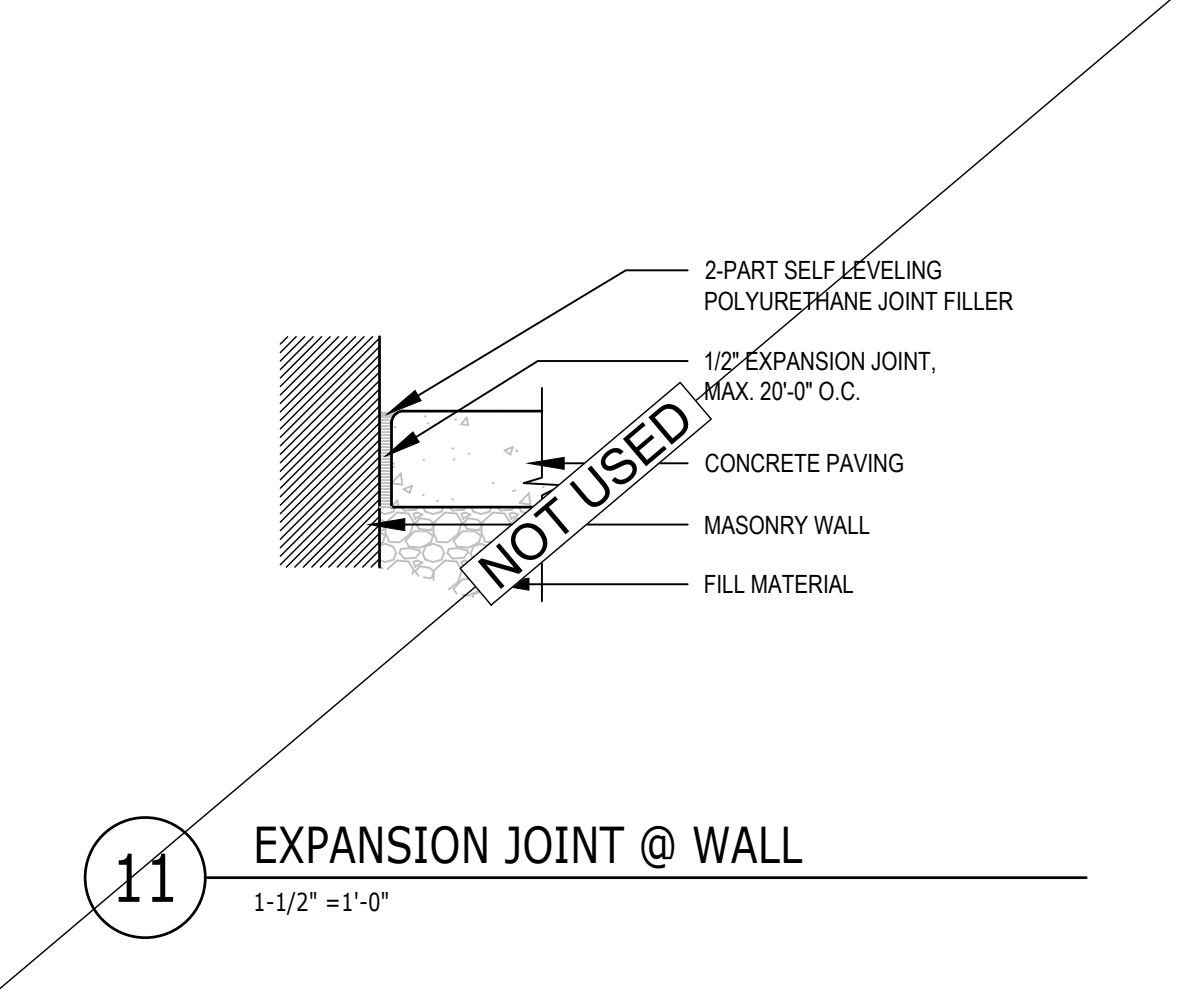
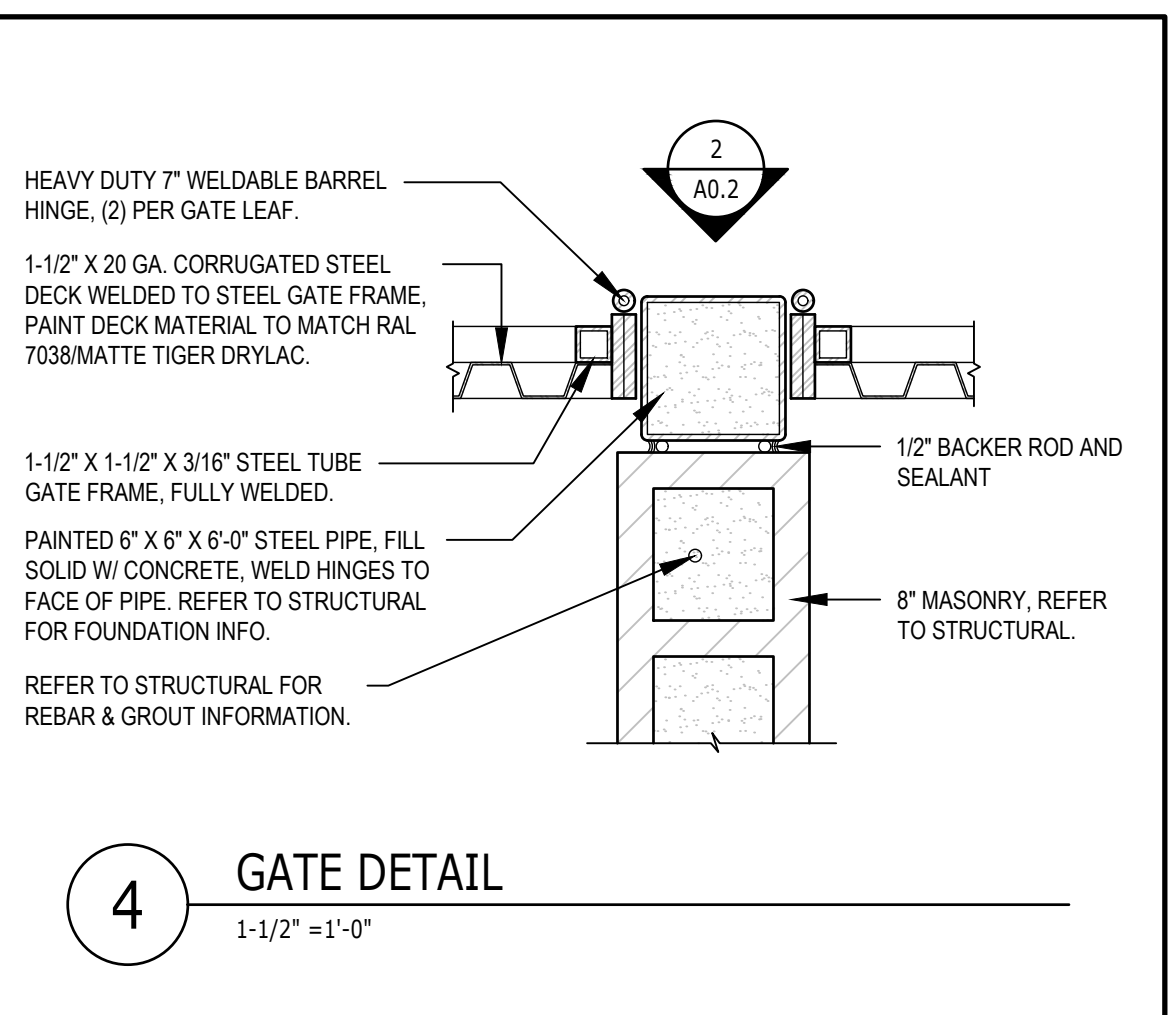
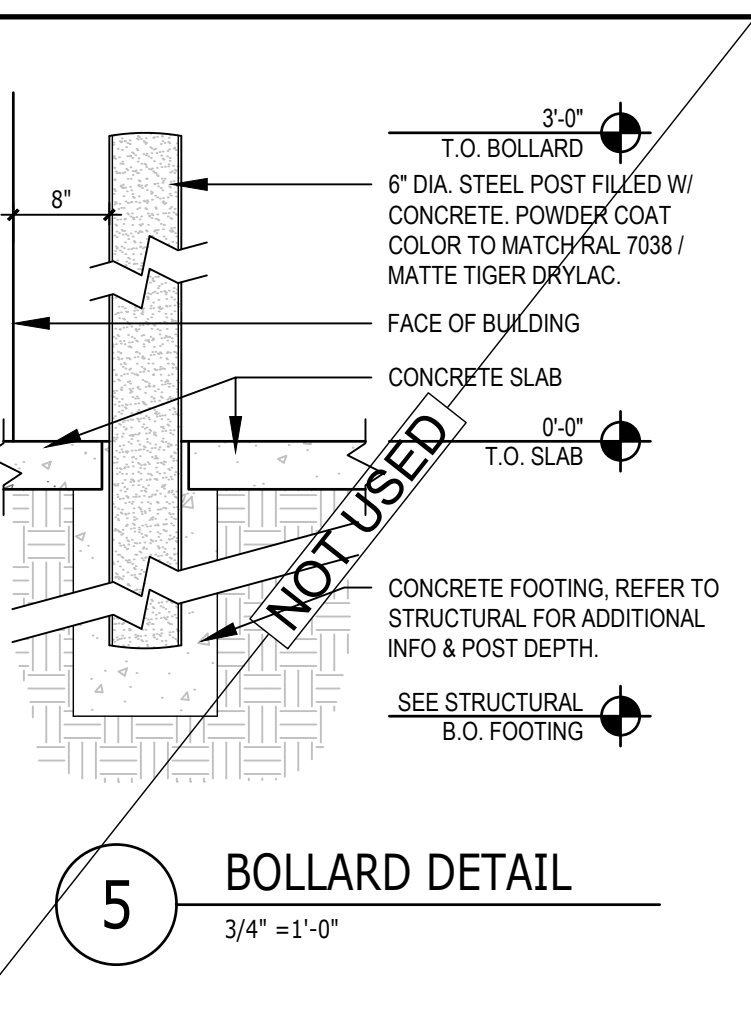
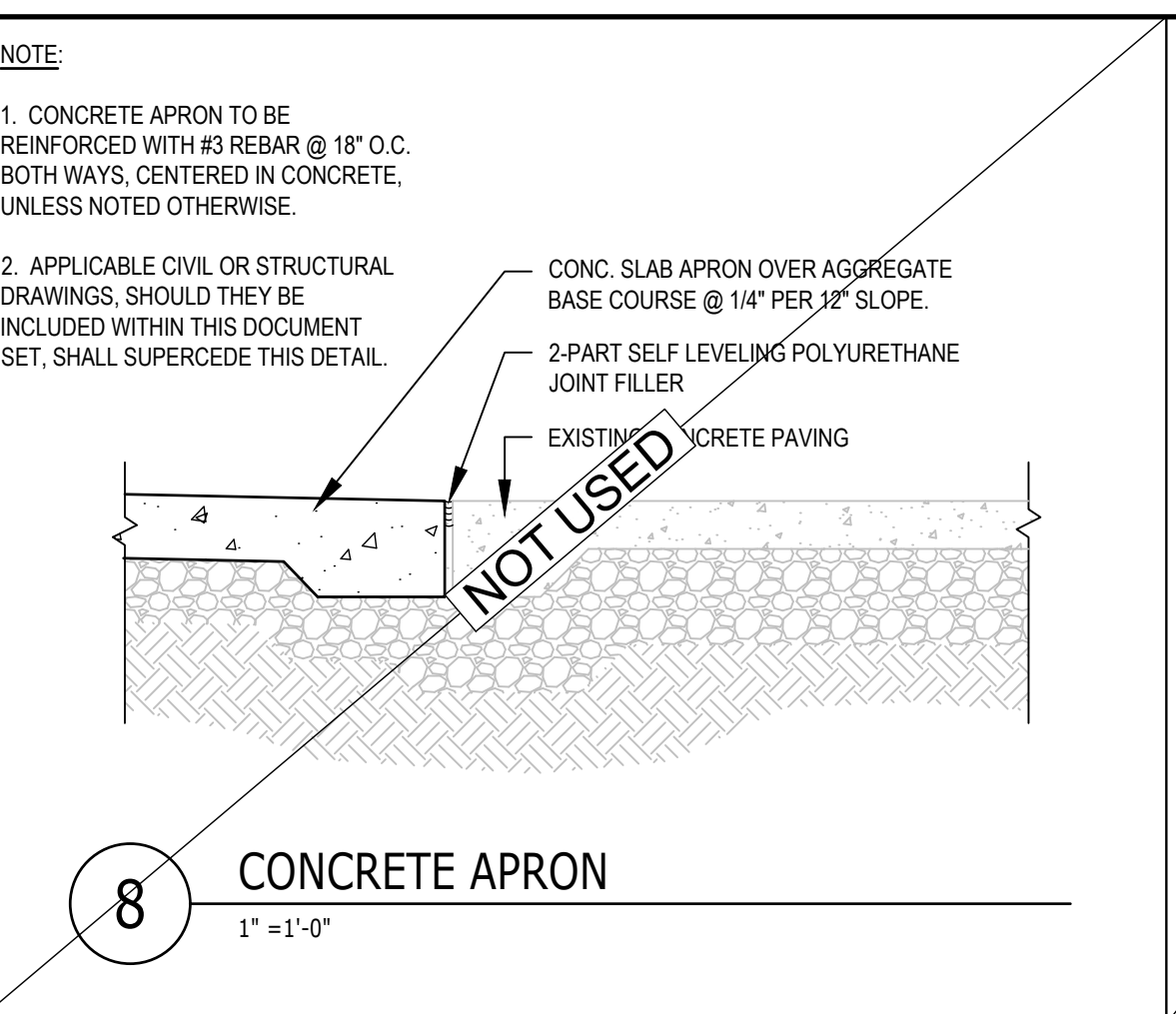
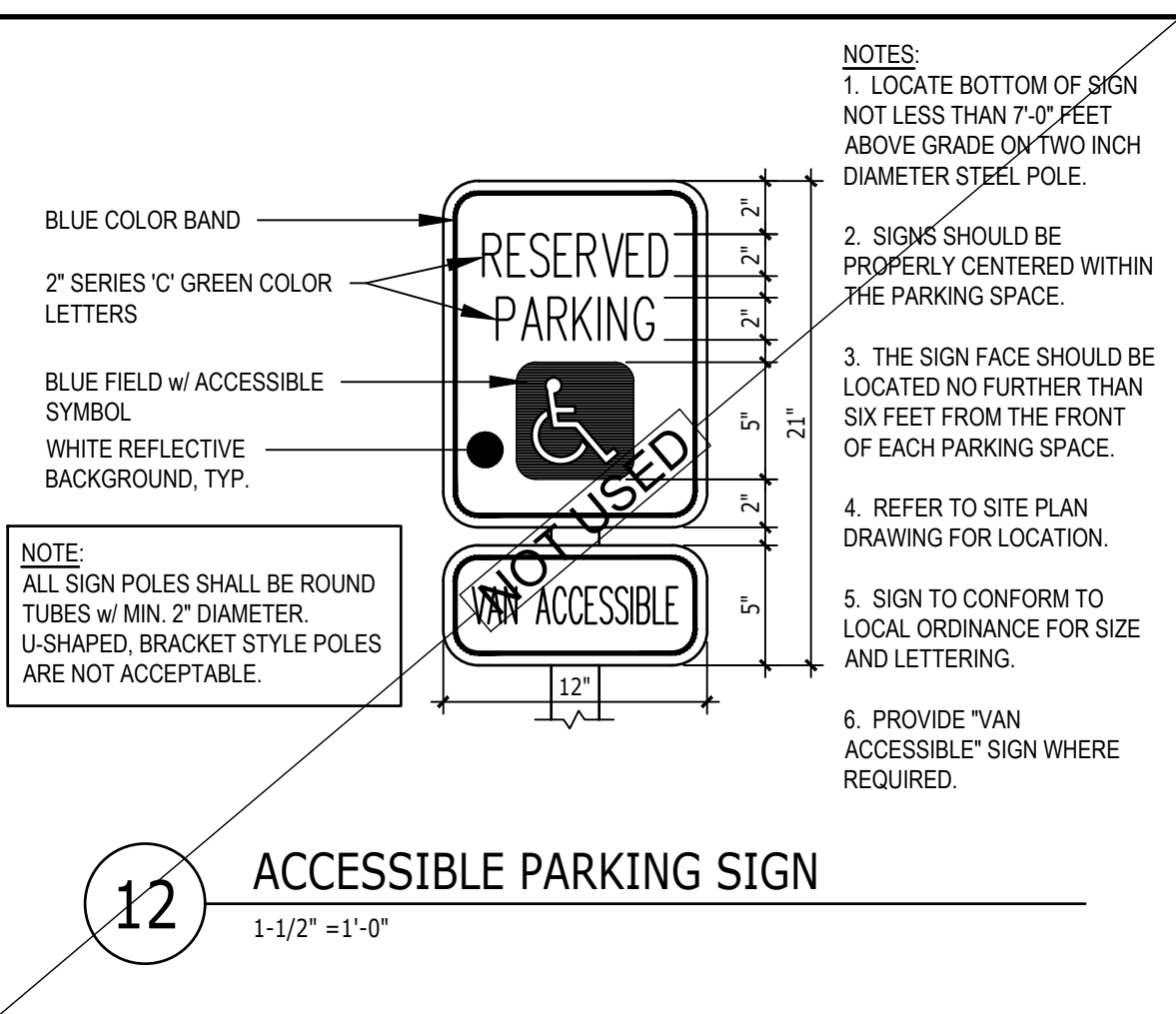
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No.	Description	Date

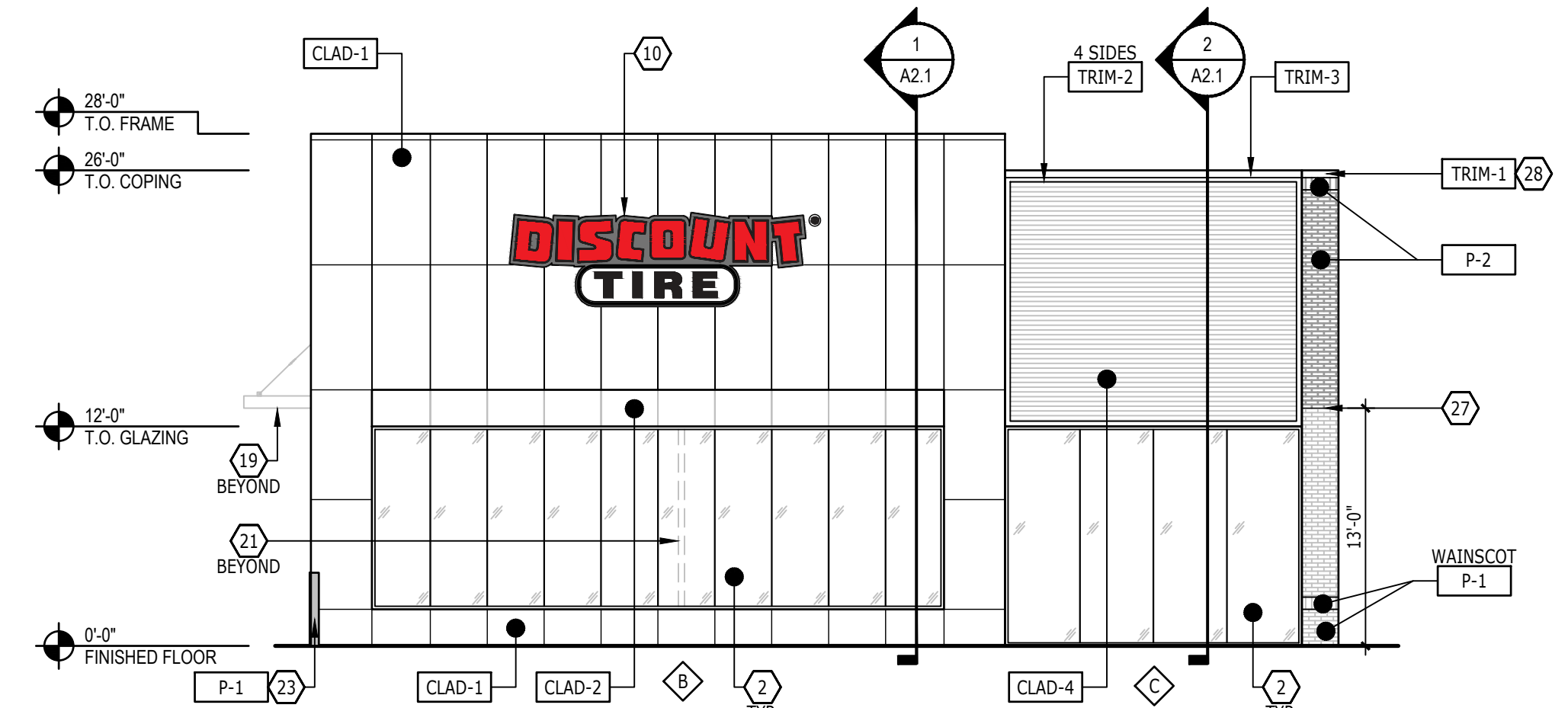
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DATE	11/21/2023
DRAWN BY	ATS / KH
CHECKED BY	ARC / DJR

SHEET NAME  
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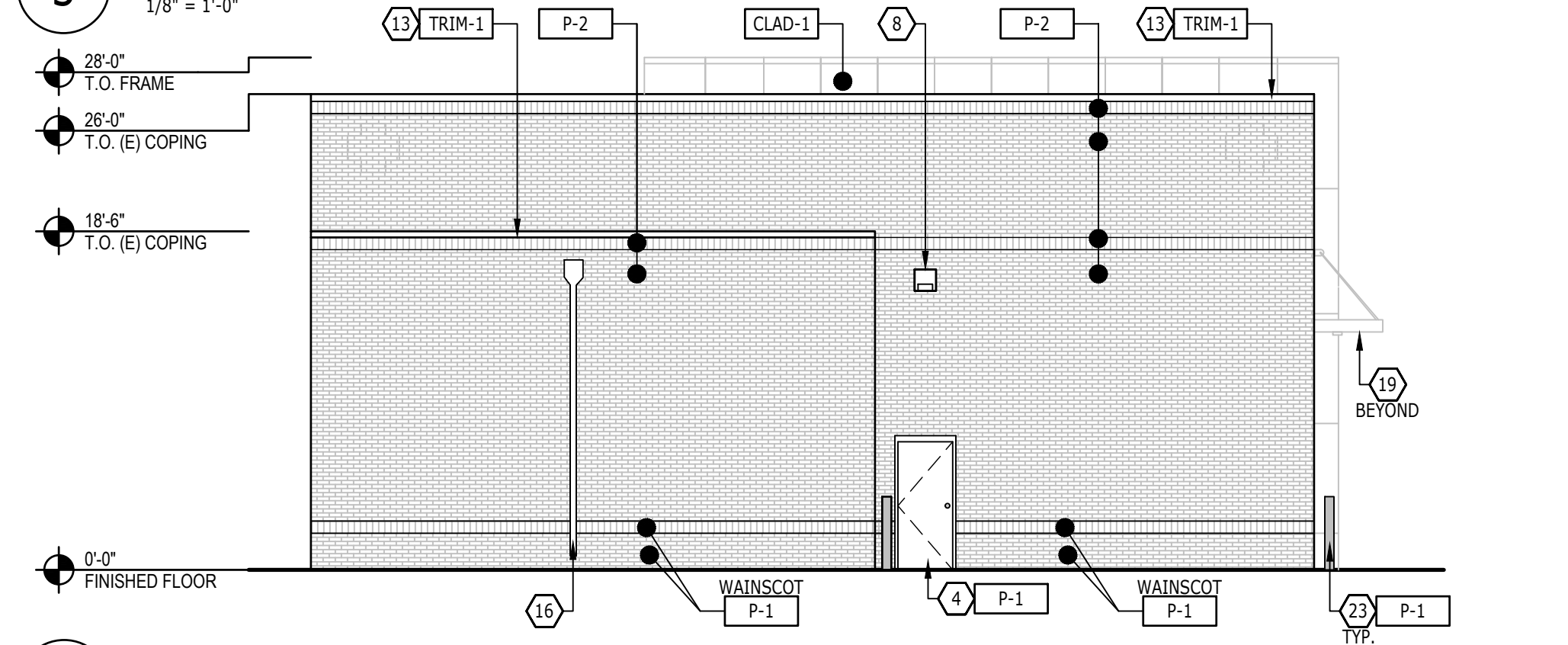
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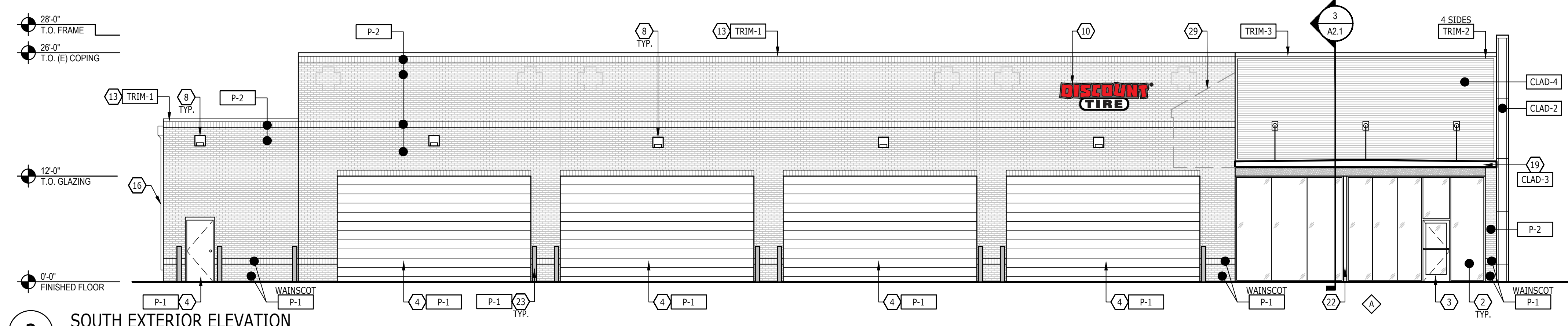




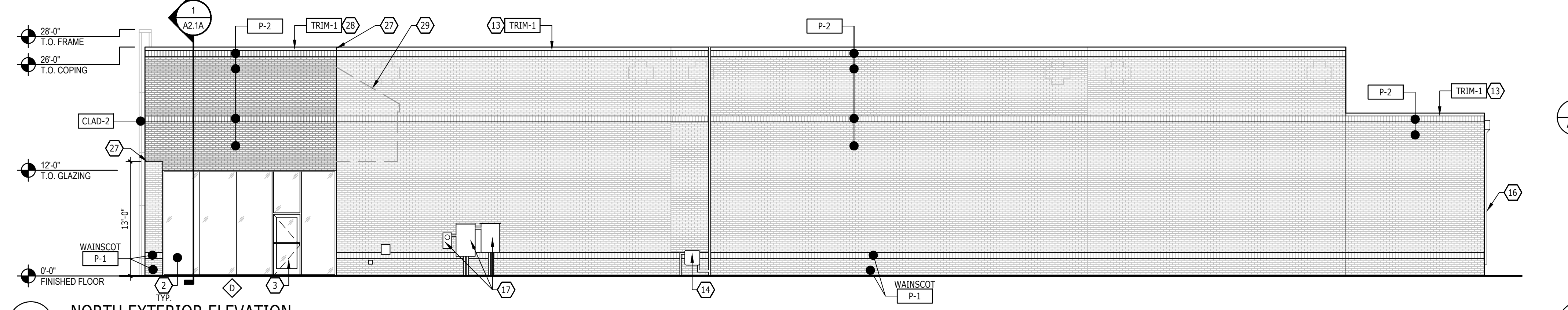
**5 EAST EXTERIOR ELEVATION**  
1/8" = 1'-0"



**4 WEST EXTERIOR ELEVATION**  
1/8" = 1'-0"



**3 SOUTH EXTERIOR ELEVATION**  
1/8" = 1'-0"



**2 NORTH EXTERIOR ELEVATION**  
1/8" = 1'-0"

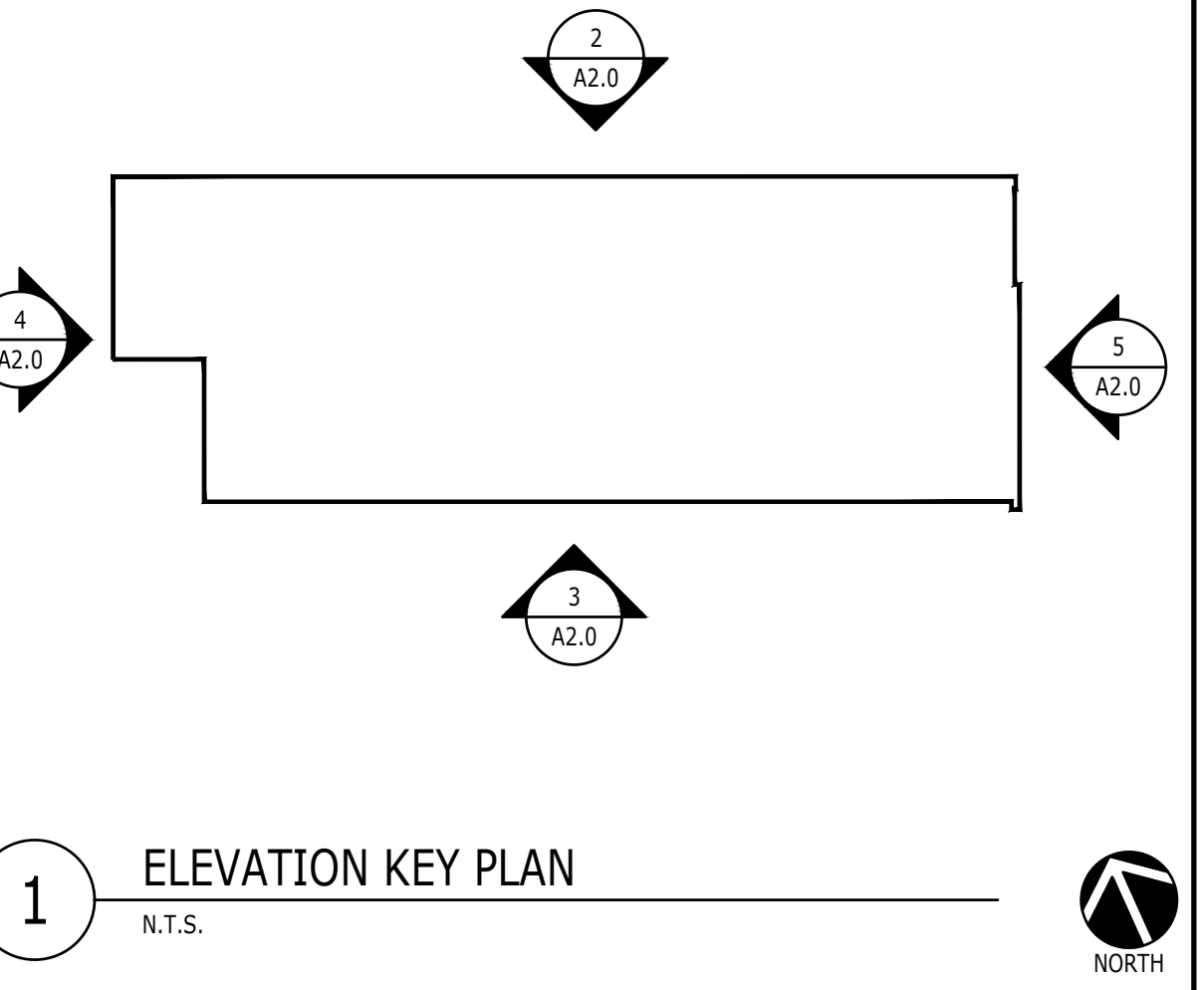
**EXTERIOR FINISH SCHEDULE**

CODE	MATERIAL	MANUFACTURER	PRODUCT / COLOR	LOCATION	REMARKS	CONTACT
CLAD-1	ACM	3A COMPOSITES	ALUCOBOND PLUS; MATTE BONE WHITE	EXTERIOR - FRAME		LES.TRAEGER@3ACOMPOSITES.COM
CLAD-1A	ACM	3A COMPOSITES	ALUCOBOND PLUS; MATTE OYSTER (ALTERNATE)	EXTERIOR - FRAME		LES.TRAEGER@3ACOMPOSITES.COM
CLAD-2	ACM	3A COMPOSITES	ALUCOBOND PLUS; MATTE PATRIOT RED	EXTERIOR - FRAME		LES.TRAEGER@3ACOMPOSITES.COM
CLAD-3	ACM	3A COMPOSITES	ALUCOBOND PLUS; MATTE BRUSHED STAINLESS	EXTERIOR - CANOPY		LES.TRAEGER@3ACOMPOSITES.COM
CLAD-4	CORRUGATED METAL	ATLAS INTERNATIONAL	CORRUGATED PANEL; 0.40 ALUMINUM; BLACK (02)	EXTERIOR		EDWARD.WEBB@ATLAS.COM
P-1	PAINT	SHERWIN WILLIAMS	PAINT / SW 7650 ELLIE GRAY; EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS.	EXTERIOR	PREPARE ALL SURFACES AS REQUIRED PER PAINT SPECS.	ANGIE.JULIAN@317-714-5610
P-2	PAINT	SHERWIN WILLIAMS	PAINT / SW 7104 COTTON WHITE; EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS.	EXTERIOR	PREPARE ALL SURFACES AS REQUIRED PER PAINT SPECS.	ANGIE.JULIAN@317-714-5610
P-2A	PAINT	SHERWIN WILLIAMS	PAINT / SW 7669 NEUTRAL GROUND (LVR 70); EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS (ALTERNATE)	EXTERIOR	PREPARE ALL SURFACES AS REQUIRED PER PAINT SPECS.	ANGIE.JULIAN@317-714-5610
P-3	PAINT	SHERWIN WILLIAMS	PAINT / SW 6258 TRICORN BLACK; EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS.	EXTERIOR	PREPARE ALL SURFACES AS REQUIRED PER PAINT SPECS.	ANGIE.JULIAN@317-714-5610
P-3A	PAINT	SHERWIN WILLIAMS	PAINT / SW 7069 IRON ORE; EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS (ALTERNATE)	EXTERIOR	PREPARE ALL SURFACES AS REQUIRED PER PAINT SPECS.	ANGIE.JULIAN@317-714-5610
TRIM-1	METAL CAP	ATLAS INTERNATIONAL	METAL PARAPET CAP; MATCH SW 7104 COTTON WHITE, OR ALTERNATE COLOR OF MASONRY BELOW.	EXTERIOR - PARAPET CAP		EDWARD.WEBB@ATLAS.COM
TRIM-2	CORRUGATED METAL TRIM	ATLAS INTERNATIONAL	ELITE TRIM SERIES; BLACK (02)	EXTERIOR	PRE-FINISHED METAL TRIM, PART OF CLAD-4 PANEL SYSTEM	EDWARD.WEBB@ATLAS.COM
TRIM-3	METAL CAP	ATLAS INTERNATIONAL	METAL PARAPET CAP; BLACK (02)	EXTERIOR - PARAPET CAP		EDWARD.WEBB@ATLAS.COM
TRIM-4	METAL TRIM	LONGBOARD PRODUCTS	8" LINK & LOCK SERIES; SLATE GREY	EXTERIOR - WALL TRIM	COLOR MAY BE MODIFIED AS NEEDED PER JURISDICTION	SHAYNE.UNGER@800-694-0243 SUNGER@LONGBOARDPRODUCTS.COM

NOTE: ALL SURFACES SHALL BE PREPARED FOR NEW PAINT FINISHES AS REQUIRED PER PAINT MANUFACTURER'S RECOMMENDATIONS.

**SHEET NOTES**

- EXISTING STOREFRONT GLAZING SYSTEM. GO TO CLEAN AND/OR REPAIR AS REQUIRED TO BRING TO "LIKE NEW" CONDITION.
- STOREFRONT GLAZING SYSTEM. REFER TO SHEET A1.0A.
- STOREFRONT ENTRY DOOR. REFER TO SHEET A1.0 & A1.0A.
- EXISTING EXTERIOR DOOR, PAINT DOOR AND FRAME AS INDICATED.
- EXTERIOR DOOR, PAINT DOOR AND FRAME AS INDICATED.
- EXISTING EIFS FINISH PATCH / REPAIR AS REQUIRED. COLOR AS INDICATED.
- INSTALL NEW EIFS, MATCHING ADJACENT EXISTING, AS REQUIRED WHERE PREVIOUS CORNICE DETAIL WAS REMOVED. COLOR AS INDICATED.
- EXISTING WALL MOUNTED LIGHT FIXTURE.
- WALL MOUNTED LIGHT FIXTURE. REFER TO RCP AND ELECTRICAL DRAWINGS.
- WALL MOUNTED ILLUMINATED SIGNAGE. GC TO SCHEDULE AND COORDINATE INSTALLATION. ALL SIGNAGE REQUIRED DOCUMENTATION IS TO BE SUBMITTED TO THE AUTHORITY HAVING JURISDICTION VIA DEFERRED SUBMITTAL OR SEPARATE COVER, AS REQUIRED.
- ADDRESS LETTERS. REFER TO SIGNAGE PACKAGE, SUBMITTED VIA DEFERRED SUBMITTAL OR SEPARATE COVER. GO TO COORDINATE SCHEDULE & INSTALL.
- EXISTING ADDRESS LETTERS.
- EXISTING MOLDING / COPING, PAINT AS INDICATED.
- EXISTING GAS METER.
- GAS METER. REFER TO PLUMBING DRAWINGS.
- EXISTING SCUPPER AND DOWNSPOUT.
- EXISTING ELECTRIC METER / EQUIPMENT.
- ELECTRIC METER / EQUIPMENT. REFER TO ELECTRICAL DRAWINGS.
- ALUMINUM COMPOSITE CANOPY. REFER TO SECTIONS & DETAILS.
- EXISTING CANOPY. PAINT FINISH AS INDICATED.
- EXISTING BASE BUILDING COLUMN.
- EXISTING BASE BUILDING COLUMN, WRAPPED TO MATCH ADJACENT STOREFRONT FINISH, REFER TO DETAILS.
- EXISTING BOLLARD, PAINT AS INDICATED.
- EXISTING TRASH ENCLOSURE, PAINT AS INDICATED.
- EXPOSED BASE BUILDING STEEL LINTEL, PAINT AS INDICATED.
- EXPOSED BASE BUILDING STEEL LINTEL W/ BREAK METAL GOVERNING. REFER TO SECTIONS AND DETAILS.
- PAINT LINE.
- METAL TRIM.
- DASHED LINE REPRESENTS TRANSITION FROM EXISTING TO NEW CONSTRUCTION MATERIALS. REFER TO PLANS, SECTIONS, AND ENGINEERING DRAWINGS FOR ADDITIONAL INFORMATION.



**1 ELEVATION KEY PLAN**  
N.T.S.

**Design Forum Architects Inc.**  
2056 BYERS RD  
Mansfield, OH 44842  
Tel. (844) 804-7700

Donald J. Rathman  
Architect In Charge  
License: 1301043653

**DISCOUNT TIRE**

MIH 27  
3480 E GRAND RIVER AVE.  
HOWELL, MI 48843

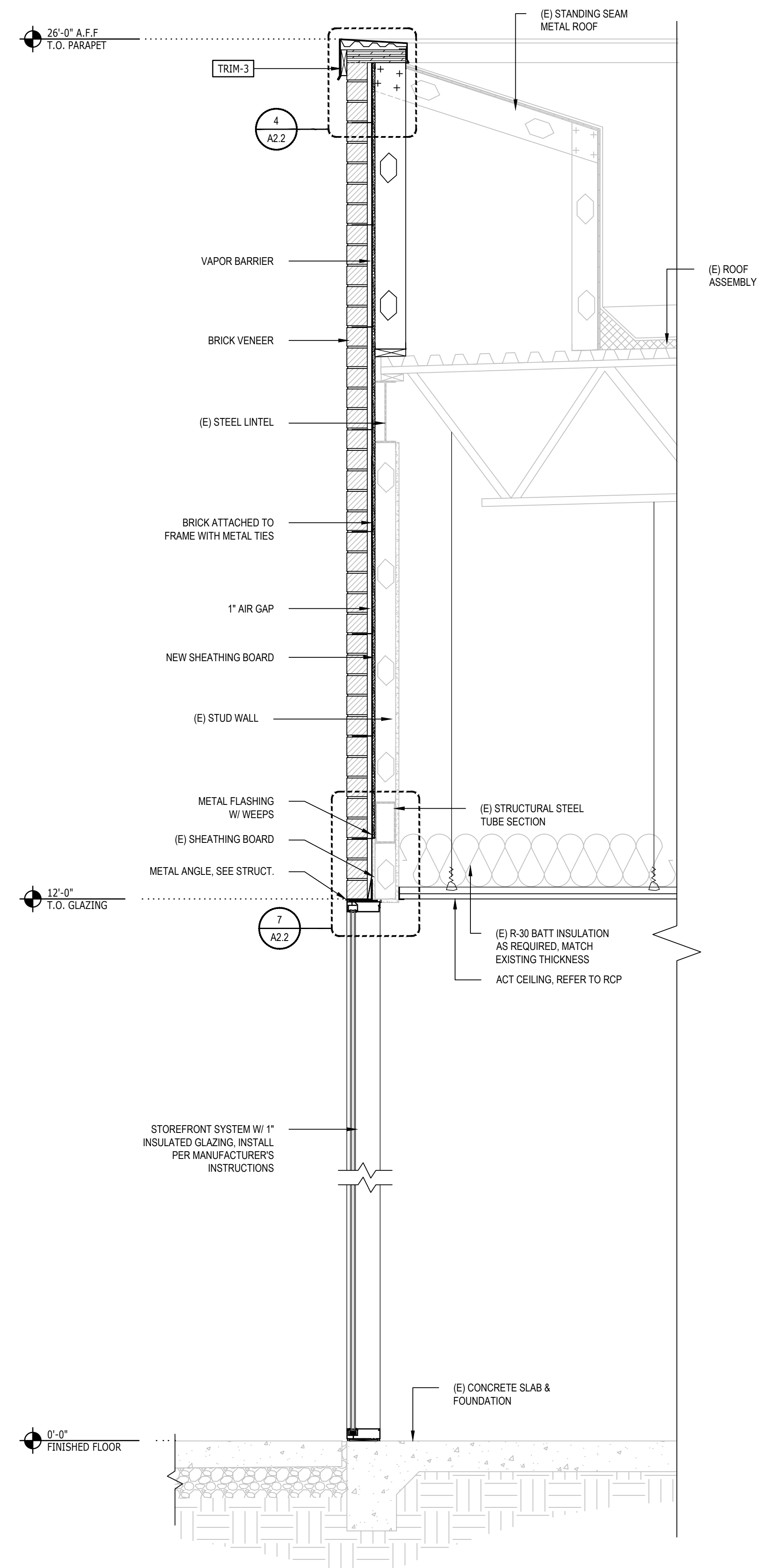
STATE OF MICHIGAN  
DONALD J. RATHMAN  
ARCHITECT  
NO. 1301043653  
LICENSED ARCHITECT  
12/04/2023

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No.	Description	Date
PROJECT NUMBER	DT10407	
DATE	11/21/2023	
DRAWN BY	ATS / KH	
CHECKED BY	ARC / DJR	
SHEET NAME	EXTERIOR ELEVATIONS	
SHEET #	A2.0	







**1** WALL SECTION @ FRAME ELEMENT  
 3/4" = 1'-0"

**Design Forum Architects Inc.**  
 2056 BYERS RD  
 Miamisburg, OH 45342  
 Tel: (844) 804-7700  
 Donald J. Rathman  
 Architect In Charge  
 License: 1301043653

**DISCOUNT TIRE**  
 MIH 27  
 3480 E GRAND RIVER AVE.  
 HOWELL, MI 48843



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No.	Description	Date

PROJECT NUMBER	DT10407
DATE	11/21/2023
DRAWN BY	ATS / KH
CHECKED BY	ARC / DJR

SHEET NAME  
**EXTERIOR WALL SECTION**

SHEET #  
**A2.1A**









**GENOA CHARTER TOWNSHIP**  
**Application for Site Plan Review**

**GENOA TOWNSHIP**  
**NOV 29 2023**  
**RECEIVED**

**TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:**

APPLICANT NAME & ADDRESS: Matt DeLapp  
*If applicant is not the owner, a letter of Authorization from Property Owner is needed.*

OWNER'S NAME & ADDRESS: Faulkwood Shores Singh LLC / 7125 Orchard Lake Road Suite 200 West Bloomfield, MI 48325

SITE ADDRESS: 300 S Hughes Rd PARCEL #(s): 4711-04-200-018

APPLICANT PHONE: ( 248 ) 986-6875 OWNER PHONE: (      ) N/A

OWNER EMAIL: N/A

LOCATION AND BRIEF DESCRIPTION OF SITE: West of South Hughes Road  
between Grand River and Golf Club Road.

BRIEF STATEMENT OF PROPOSED USE: No change in use is proposed.

THE FOLLOWING BUILDINGS ARE PROPOSED: Reconstruction of the Clubhouse

**I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.**

BY: Matt DeLapp

ADDRESS: 7125 Orchard Lake Road Suite 200 West Bloomfield, MI 48325



**Contact Information** - Review Letters and Correspondence shall be forwarded to the following:

I.) Matt DeLapp of Singh Development at matt.delapp@singhmail.com  
Name Business Affiliation E-mail Address

**FEE EXCEEDANCE AGREEMENT**

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

SIGNATURE: Matt DeLapp Digitally signed by Matt DeLapp  
DN: cn=Matt DeLapp, o=Singh Homes, ou=emaia-Matt DeLapp@singhmail.com, c=US  
Date: 2023.11.29 14:30:45 -0500 DATE: 11/29/2023  
PRINT NAME: Matt DeLapp PHONE: (248) 986-6875  
ADDRESS: 7125 Orchard Lake Rd West Bloomfield Township, MI 48322

February 1, 2024

Planning Commission  
 Genoa Township  
 2911 Dorr Road  
 Brighton, Michigan 48116

<b>Attention:</b>	Amy Ruthig, Planning Director
<b>Subject:</b>	Faulkwood Shores Clubhouse – Site Plan Review #2
<b>Location:</b>	300 S. Hughes Road – west side of S. Hughes Road, north of Arrow Drive
<b>Zoning:</b>	PRF Public and Recreational Facilities District

Dear Commissioners:

At the Township’s request, we have reviewed the revised submittal from Singh Development for reconstruction of the Faulkwood Shores clubhouse building at 300 Hughes Road (site plan dated 1/19/24).

**A. Summary**

**1. Use Conditions (Section 6.02.02(d)):**

- a. A variance was granted allowing encroachment into the required front yard setback.

**2. Site Plan Review:**

- a. The amount of fiber cement siding exceeds Ordinance limitations; however, Planning Commission has the discretion to modify this requirement.
- b. Building materials and color scheme are subject to approval by the Planning Commission.
- c. The Commission may wish to require improvement to the overflow parking lot.
- d. When completed, the lighting plan will be subject to review/approval based on current Ordinance standards.
- e. The applicant must provide the landscape plan with the revised plan set.
- f. The applicant must address any comments provided by the Township Engineer and/or the Brighton Area Fire Authority.

**B. Proposal/Process**

The applicant proposes construction of a new clubhouse building for Faulkwood Shores (the previous building was destroyed by fire in 2022). The location of the original clubhouse building was nonconforming due to a deficient front yard setback.

At their September 2023 meeting, the ZBA granted a variance allowing the new clubhouse building to be constructed with a 34-foot front yard setback (75-foot minimum required) similar to the original building.

Table 6.02 of the Township Zoning Ordinance lists golf courses as a special land use. Since the project entails construction of the clubhouse building and site improvements (parking, landscaping, etc.), and not an expansion of the actual use, Section 19.06 deems it a minor amendment.

As such, site plan review is required, but a new special land use review/approval is not. The proposal is also subject to the use conditions of Section 6.02.02(d).

Procedurally, the Planning Commission is to review the site plan and Environmental Impact Assessment. The Commission has approval authority over the site plan, but is to put forth a recommendation to the Township Board on the Environmental Impact Assessment.





*Aerial view of site and surroundings (looking north; prior to demolition)*

### **C. Use Conditions**

Golf courses (and related buildings) are subject to the use requirements of Section 6.02.02(d), as follows:

- 1. The principal and accessory buildings, including maintenance sheds, shall be set back at least seventy five (75) feet from all property and street lines.**

The applicant obtained a variance from the ZBA for the proposed 34-foot front yard setback. The clubhouse building complies with this requirement from the remaining property lines.

- 2. Accessory buildings, structures and storage areas shall be screened on all sides from adjacent residential areas and public street rights-of-way.**

The proposed project does not alter accessory buildings, structures or storage areas.

- 3. Operational hours for maintenance vehicles, course maintenance and/or irrigation may be restricted by the Planning Commission to protect nearby residential.**

The proposed project does not alter the operational standards/conditions of the golf course.

### **D. Site Plan Review**

- 1. Dimensional Requirements.** As previously noted, the ZBA granted a variance allowing the front yard setback encroachment. The proposed building complies with the remaining dimensional requirements of the PRF District.

The existing parking lot is nonconforming due to its deficient setback from the Hughes Road right-of-way; however, this condition is not altered by the proposed project.

- 2. Building Design and Materials.** The building has a stone base and board and batten vertical siding, with an asphalt shingled roof.

The covered porch (front elevation) and window dormers (north and south side elevations) each have a standing seam metal roof.

Colors include white (siding), light gray (stone), dark gray (shingled roof) and black (metal roof).



The revised submittal includes building material calculations noting that the amount of fiber cement siding exceeds the ratio allowed by Section 12.01.

In response to this deficiency, the applicant states that “the design of the clubhouse elevation is inspired by an arts and crafts style of architecture which typically includes little to no masonry.”

Building materials and colors are subject to review and approval by the Planning Commission, which includes discretion to modify materials.

3. **Pedestrian Circulation.** Section 12.05 does not require a public sidewalk or pathway; however, the site plan includes internal sidewalks between the parking lot and building entrances.
4. **Vehicular Circulation.** The site currently has vehicular access to/from Hughes Road and no changes are proposed.

Internally, the parking lot contains a mix of one-way and two-way travel, with appropriate drive aisle widths.

The applicant must also address any comments provided by the Township Engineer and/or the Brighton Area Fire Authority with respect to vehicular circulation.

5. **Parking.** Based on information contained in the submittal, the project requires 120 parking spaces. The site plan provides 108 spaces in the lot south of the clubhouse building, with another 20 spaces available for overflow parking north of the clubhouse building.


The overflow parking is noted as having been used “historically,” though it does not appear to be an improved parking lot. As such, the Commission may wish to require improvement to this parking lot, in accordance with current Ordinance standards.

Parking space dimensions and design comply with current Ordinance standards.

6. **Exterior Lighting.** A lighting plan has not yet been provided, though the applicant notes they are currently working on one. The applicant further states that existing parking lot lighting will be removed and replaced with fixtures that meet current Ordinance standards.
7. **Landscaping.** The revised submittal does not include the landscape plan provided with the initial submittal. That plan demonstrated compliance with the applicable Ordinance requirements; however, it must be included with the current plan set.
8. **Waste Receptacle.** The site plan does not identify a waste receptacle/enclosure; however, a note indicates that there is an existing dumpster across Hughes Road to the east.

Should you have any questions concerning this matter, please do not hesitate to contact our office.

Respectfully,  
**SAFEBUILT**

  
Brian V. Borden, AICP  
Michigan Planning Manager





February 6, 2024

Ms. Amy Ruthig  
Genoa Township  
2911 Dorr Road  
Brighton, MI 48116

**Re: Faulkwood Shores Clubhouse  
Site Plan Review No. 2**

Dear Ms. Ruthig:

Tetra Tech conducted a second review of the proposed Faulkwood Shores Clubhouse site plan last dated January 19, 2024. The plan was prepared by The ULMOR Group on behalf of Singh Development. The development is located on the west side of South Hughes Road to the north of Fairview Drive. The Petitioner is proposing a new 4,575 square foot clubhouse building. The site plan also includes improvements to the existing parking lot and sidewalks.

We offer the following comments for your consideration:

**GENERAL**

1. The paved parking area does not have the required amount of parking spaces shown in the proposed parking calculations. An existing overflow parking area is being used to account for the remaining parking requirements.
2. The proposed parking lot does not include concrete curb and gutter as required by Genoa Township's Zoning Ordinance. The Township may wish to require the addition of curb and gutter as part of this project.
3. The Petitioner has submitted plans to the Livingston County Road Commission (LCRC) for approval of the proposed golf cart crossings and said approval should be provided to the Township for their records.

**DRAINAGE AND GRADING**

1. The existing parking lot drains to an existing storm sewer that outlets directly to the Lake Chemung Outlet Drain without any detention or pretreatment. As part of this project, pretreatment should be provided for any additional impervious surface being added to the site. Rain gardens sized for the additional impervious surface have been added to the plans, but it appears that the entire parking lot drains away from the rain gardens and they would not provide any pretreatment of storm flow from the parking lot. A portion of the rain gardens should be graded towards the rain gardens, or the rain gardens should be relocated.
2. If rain gardens will be used as stormwater pretreatment, rip rap will be required at the inlet to trap sediment and prevent erosion. The rain gardens should also include some type of outlet to direct flow towards the County Drain. It may be a better option to remove a portion of the existing culvert and add a sedimentation basin before outletting to the County Drain.

We recommend the petitioner address the above comments and resubmit for additional review. Please call or email if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads 'Shelby Byrne'.

Shelby Byrne, P.E.  
Project Engineer





# BRIGHTON AREA FIRE AUTHORITY

615 W. Grand River Ave.  
Brighton, MI 48116  
o: 810-229-6640 f: 810-229-1619

---

February 2, 2204

Amy Ruthig  
Genoa Township  
2911 Dorr Road  
Brighton, MI 48116

RE: Faulkwood Shores Club Rebuild  
300 S. Hughes Rd.  
Genoa Twp., MI

Dear Amy,

The Brighton Area Fire Department has reviewed the above-mentioned site plan. The plans were received for review on January 23, 2024 and the drawings are dated November 28, 2023 with latest revisions dated January 19, 2024. The project is based on the proposed new construction of an A-2 occupancy with accessory B-use. The plan review is based on the requirements of the International Fire Code (IFC) 2021 edition.

**All previously cited concerns and code requirements related to site access, water supply and fire safety have been addressed.**

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department.

If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially,

A handwritten signature in black ink, appearing to read "R. Boisvert".

Rick Boisvert, CFPS  
Fire Marshal

cc: Amy Ruthig [amy@genoa.org](mailto:amy@genoa.org)



**Environmental Impact Assessment**  
November 2023

1. **Name(s) and address(es) of person(s) responsible for preparation**

This environmental impact assessment was prepared by Matt DeLapp of Singh Development which is located at 7125 Orchard Lake Rd #200, West Bloomfield Township, MI 48322.

2. **Map(s) and Written Description/Analysis of the Project Site**

Faulkwood Shores Golf Club consists of two parcels of land containing 174.7 Acres in total. The proposed clubhouse is located on the west parcel which contains 74.2 acres.

The property is located on both the east and west side of South Hughes Road between Grand River and Golf Club Road. The property is zoned PRF – Public and Recreations Facilities District.

The surrounding land uses for the west parcel of the property where the proposed clubhouse is located are as follows:

**North:** Single Family Residential, zoned RR

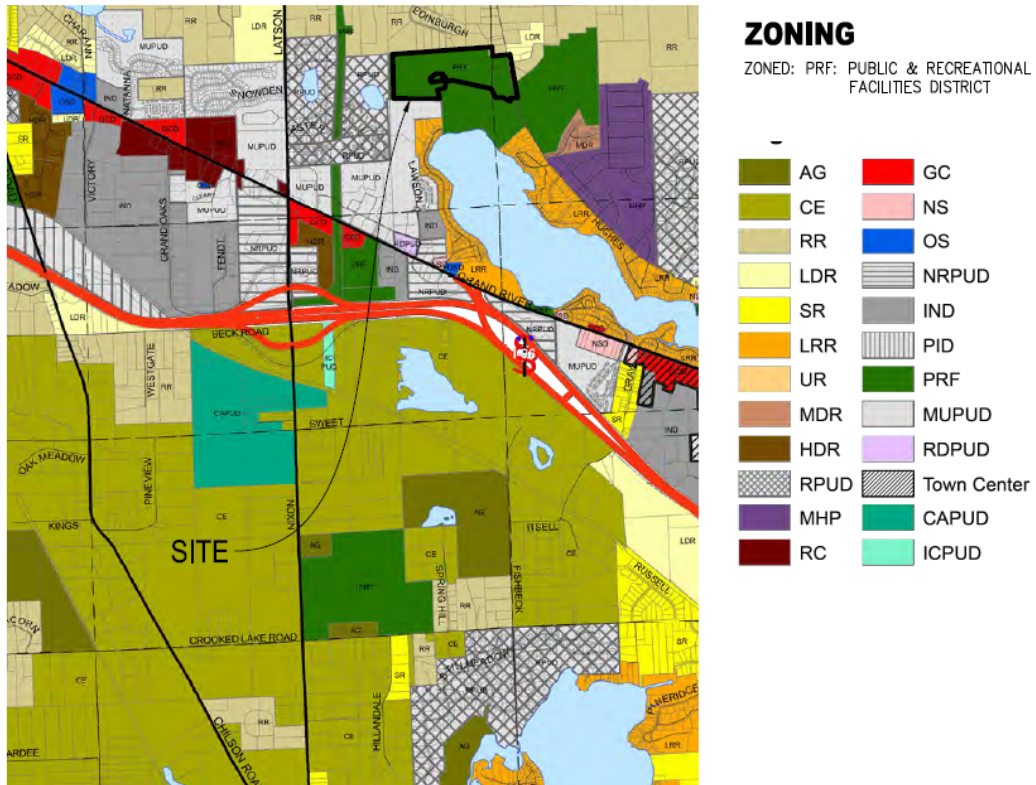
**South:** Lake Chemung Outdoor Resort, zoned PRF

**East:** Single Family Residential, zoned RR and LDR

**West:** Single Family Residential, zoned RPUD



**Figure 1 - Genoa Township Zoning Map**  
**GENOA TOWNSHIP ZONING MAP & LEGEND**



The proposed clubhouse is located on the west side of South Hughes Road in the same relative location of the original clubhouse which burned down in 2022 and was subsequently demolished.

The original clubhouse was initially a farmhouse estimated to have been built in the late 1800s or early 1900s and then converted to a clubhouse when the golf course first opened. It is the intention of the applicant to reconstruct a new clubhouse in the same relative location, thereby maintaining the character of the area while avoiding any adverse impact.

The original clubhouse had a nonconforming front yard setback. As it is our intention to build the new clubhouse in the same location, a variance was sought and granted by the zoning board of appeals in September.

The golf course comprises 18 holes, with 8 of them featuring water elements. The front 9 holes are situated to the west of South Hughes Road, while the back 9 holes are on the east side of South Hughes Road alongside a driving range.

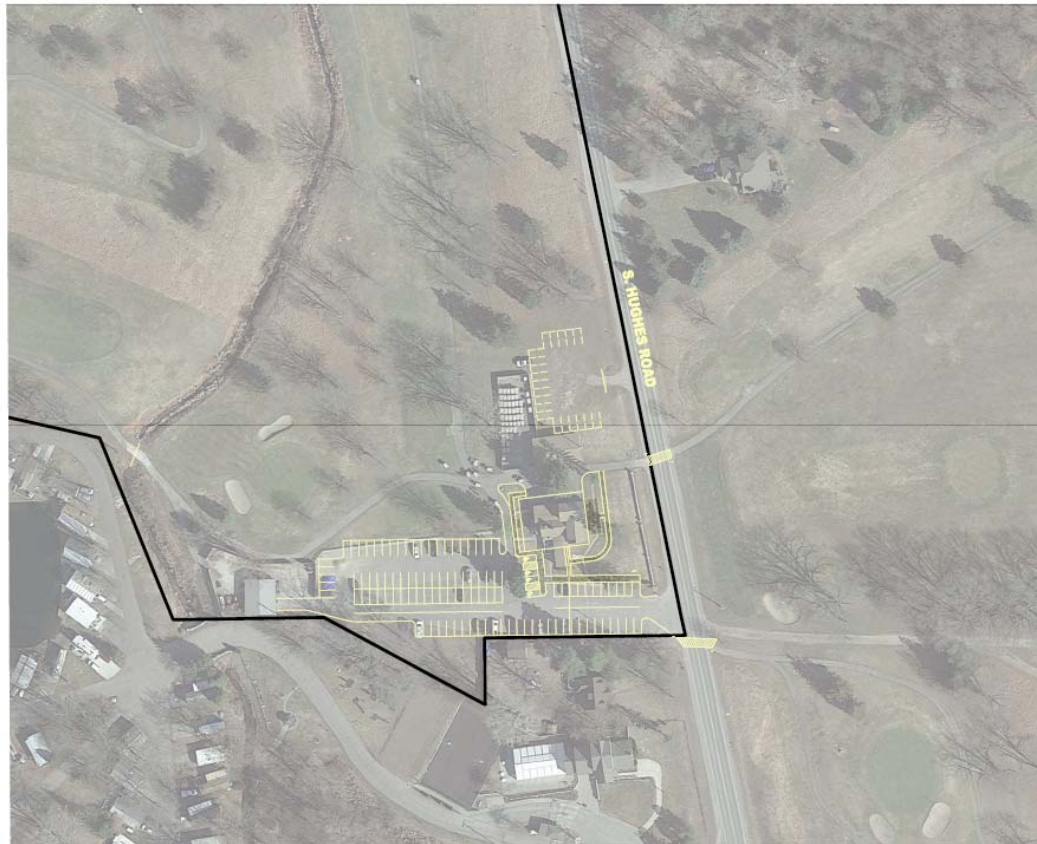
Besides the course, the Golf Club includes two storage and maintenance buildings; one situated directly north of the original clubhouse and the other at the western end of the parking lot.

The scope of this project encompasses the construction of a new clubhouse complete with landscaping. The project also aims to ensure that adequate

parking is provided. To that end, we are proposing an expansion of the existing parking lot and restricting access to an unpaved area to the north of the original clubhouse that has been historically used as an auxiliary parking area. Our proposal involves installing a gate to restrict access to this area, ensuring that it is solely used for overflow parking and maintenance vehicle access.

Finally, our proposal seeks to enhance safety for golfers crossing South Hughes Road to reach the driving range and the back 9 holes. We intend to request approval to install striping in two distinct areas where the cart path intersects the road, along with adding more prominent signage along the road approaching the course to alert drivers.

**Figure 2 - Site Map**



**SITE MAP**  
SCALE: 1" = 100'

### **3. Impact on natural features**

The proposed reconstruction is designed to have minimal impact on the natural features of the property. By rebuilding the clubhouse in the same relative location as it was before, we are ensuring a seamless integration with the existing landscape.

There are no wetlands or woodlands that will be impacted by this proposal.

The soil conditions on the property include colwood fine sandy loam, oakville find sand, and spinks-oakville loamy sands. Locations of each soil type are labeled on the topography survey which is included with the site plan on page C3.



The new clubhouse is designed to align with the existing topography of the area, thereby reducing the necessity for extensive grading and minimizing overall disturbance. The topography of the lot before and after construction are included with the site plan on page C3 and C5 respectively.

To accommodate the parking lot expansion and the clubhouse reconstruction, which has a slightly larger footprint and different design compared to the original clubhouse, we are proposing to remove 5 existing trees which are detailed on the tree inventory list.

**Figure 3 - Tree Inventory List**

TREE INVENTORY LIST						
TAG NUMBER	Size	1win	Height	DBH & COMMON NAME	Condition	SAVL/REMOVE
1801	13	13"/12"	25	ALABAMA PINE	GOOD	REMOVE
1802	13		20	SPRUCE	GOOD	REMOVE
1803	24		35	CEDAR	GOOD	SAVL
1804	16		35	SPRUCE	GOOD	REMOVE
1805	20		40	SPRUCE	GOOD	SAVF
1806	22		40	SPRUCE	GOOD	SAVF
1807	16		25	SPRUCE	GOOD	REMOVE
1808	27		30	SPRUCE	GOOD	REMOVE
1809	28			MAPLE	GOOD	SAVL
1810	30			COTTONWOOD	GOOD	SAVF
1811	24		30	CEDAR	GOOD	SAVF
1812	16		30	CEDAR	GOOD	SAVF
1813	18		25	CEDAR	GOOD	SAVF
1814	12		20	CEDAR	GOOD	SAVF
1815	28			RED OAK	GOOD	SAVL
1816	20			RED OAK	GOOD	SAVF
1817	30			RED OAK	GOOD	SAVF
1818	14			MAPLE	GOOD	SAVF
1819	24			MAPLE	GOOD	SAVF
1820	12	12"/15"		RED OAK	GOOD	SAVF
1821	28			RED OAK	GOOD	SAVL

**4. Impact on stormwater management**

Our construction process will comply with Livingston County soil regulations and will incorporate best practices in storm water management to prevent any adverse effects on the surrounding environment.

Implementation of modern control measures such as installing silt fencing to prevent soil particles suspended in water from leaving the construction site, and installing a coarse aggregate tracking mat to prevent vehicles from carrying mud from the work site onto the roadway will be employed to minimize any potential impact on water quality or natural habitats.

**5. Impact on surrounding land used:**

The project is focused on restoring the clubhouse to its previous state, thereby maintaining the established land use patterns. No changes to land use are anticipated, and the new clubhouse will seamlessly blend with the existing surroundings, contributing positively to the overall aesthetics of the golf course.

The reconstructed clubhouse will continue to serve its original purpose as a community gathering space and recreational facility. This not only upholds the intended function of the property but can also contribute positively to property values and the overall neighborhood ambiance.

Rebuilding an integral community asset can enhance the attractiveness of the neighborhood to potential buyers and residents. This could have a positive impact on property values rather than discouraging appropriate development or use.

**6. Impact on public facilities and services**

The reconstruction of the golf course clubhouse will not have an adverse impact on public facilities and services such as police and fire. As we are essentially restoring what was previously there, the rebuilding process does not introduce any new elements that would necessitate additional demands on emergency services. The function of the clubhouse will mirror its predecessor, ensuring that the infrastructure remains consistent with existing safety protocols and regulations.

Given that the new clubhouse will replicate the former structure, emergency response procedures and access routes for police and fire services will remain unchanged.

This continuity guarantees that the rebuilding efforts will not impose any new requirements or strain on the resources of these essential services. Therefore, the reconstruction will not affect or alter the established protocols and support provided by police and fire departments, maintaining a seamless transition from the previous clubhouse to the restored facility.

**7. Impact on public utilities**

The original clubhouse was connected to a well and septic system. The new clubhouse will integrate with the existing septic system. However, a new well is necessary to provide water to the clubhouse because the existing well is situated in the area designated for the proposed parking expansion.

**8. Storage and handling of any hazardous materials**

There are no known above or underground storage tanks of any kind. No hazardous or toxic chemicals will be stored on-site except for household cleaners, pesticides, and fertilizers used for lawn and plant care.



**9. Impact on Traffic and Pedestrians**

A trip generation analysis was conducted by Fleis & Vandenbrink. A memorandum summarizing their findings is included with this submission. The number of peak hour daily vehicle trips that would be generated by the proposed development are below the Township’s threshold for additional traffic analyses and the proposed development is expected to have a minimal impact on the existing road network.

**Figure 4 - Trip Generation Summary**

Trip Type	Land Use	Amount	Units	Daily Trip Generation (Max)		
				In	Out	Total
Vehicle Trips	Special Event Space	160	Seats	80	80	160
Genoa Township TIS Threshold				100	100	
TIS Required?				No	No	

**10. Special Provisions**

There are no deed restrictions, protective covenants, master deed or association bylaws that would restrict our proposal in any way.

ENGINEER/SURVEYOR



LAND DEVELOPMENT SERVICES

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DEVELOPER/APPLICANT



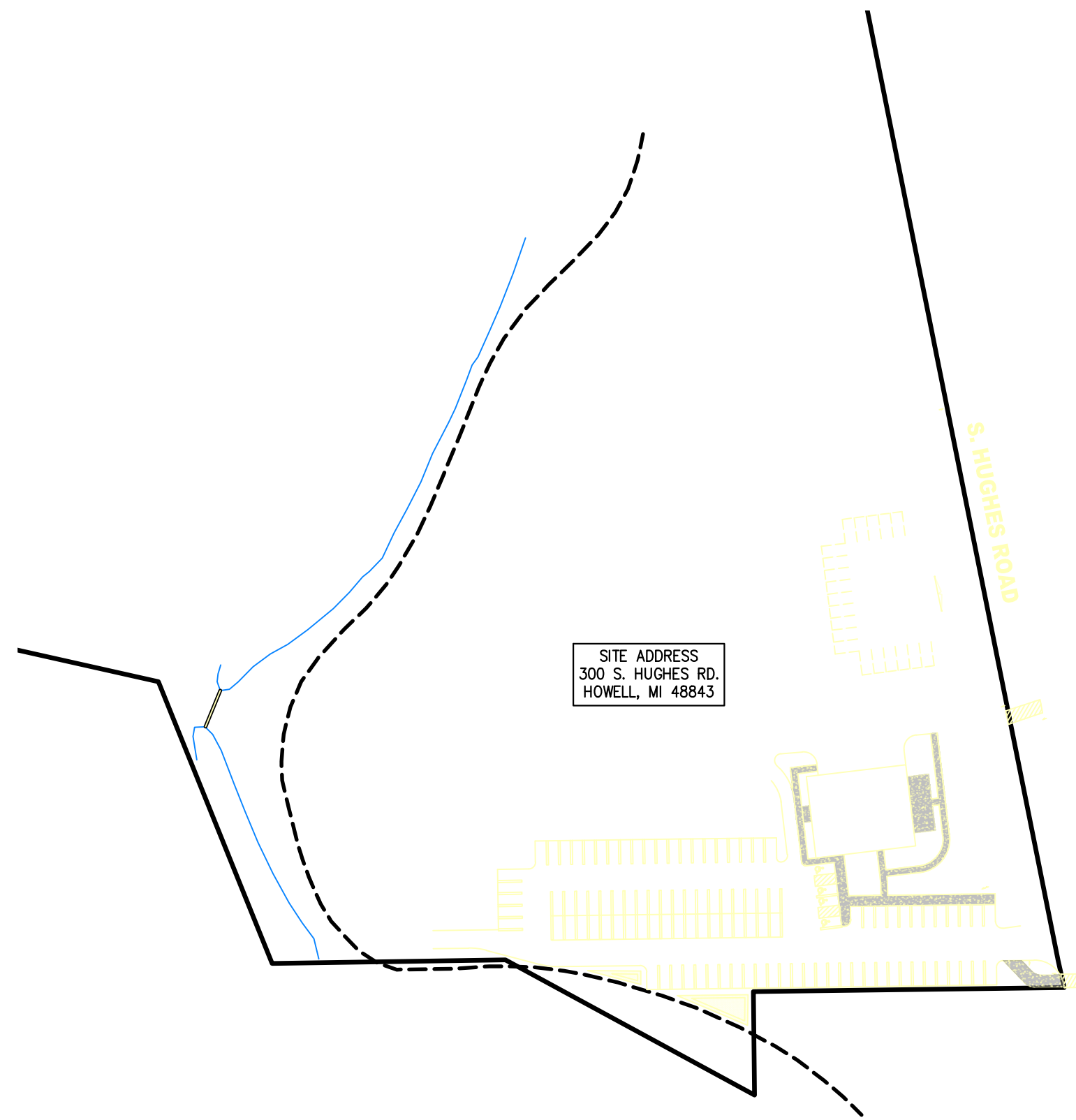
SINGH DEVELOPMENT  
7125 ORCHARD LAKE RD, SUITE 200  
WEST BLOOMFIELD, MI 48322  
PHONE: (248) 785-3964

REQUIRED APPLICATIONS/PERMITS

GENOA TOWNSHIP SITE PLAN APPLICATION

# SITE PLAN FAULKWOOD SHORES CLUBHOUSE

SECTION 3, TOWN 2 NORTH, RANGE 5 EAST  
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN



SITE MAP

SCALE: 1" = 100'



VICINITY MAP

SCALE: 1" = 2,000' ±

### SHEET INDEX

SHEET NUMBER	SHEET TITLE
C1	COVER
C2	BOUNDARY SURVEY
C3	TOPOGRAPHICAL SURVEY & DEMOLITION PLAN
C4	SITE PLAN
C5	GRADING & DRAINAGE PLAN

### REFERENCE

- 1 OF 2 BOSS ALTA
- 2 OF 2 BOSS ALTA

### LEGAL DESCRIPTION - PER BOSS ALTA DATED 12/18/2017

LEGAL DESCRIPTION PER FIRST AMERICAN TITLE INSURANCE COMPANY, COMMITMENT NO: 727707, REVISION D, WITH AN EFFECTIVE DATE OF AUGUST 15, 2017 AT 8:00 A.M.:

Land situated in the County of Livingston, Township of Genoa, State of Michigan, described as follows:

#### WEST PARCEL:

Beginning at the Northwest corner of Section 3, Town 2 North, Range 5 East, thence North 89 degrees 37 minutes East 104.3 feet to the centerline of Hughes Road, thence South 10 degrees 17 minutes 30 seconds East 2691.00 feet, thence South 11 degrees 42 minutes East 113.34 feet to the Point of Beginning of land to be described, thence South 83 degrees 18 minutes 27 seconds West 188.79 feet, thence North 00 degrees 29 minutes 11 seconds West 288.73 feet, thence South 89 degrees 40 minutes 40 seconds West 173.84 feet, thence North 21 degrees 03 minutes 54 seconds West 328.09 feet, thence North 75 degrees 15 minutes 32 seconds West 338.21 feet, thence North 74 degrees 54 minutes 56 seconds West 378.79 feet, thence South 76 degrees 48 minutes 44 seconds West 784.35 feet, thence South 15 degrees 20 minutes 50 seconds East 230.25 feet, thence North 88 degrees 46 minutes 26 seconds West 1177.83 feet to the centerline of Section 4, Town 2 North, Range 5 East, thence North 00 degrees 25 minutes West 1144.3 feet, thence North 86 degrees 10 minutes East 2825.83 feet to the centerline of said Hughes Road, thence South 10 degrees 17 minutes 30 seconds East 1340 feet, thence South 11 degrees 42 minutes East 113.34 feet to the point of beginning, EXCEPTING THEREFROM 1.35 acres from the Northeast corner of said parcel described as: Commencing at the Northwest corner of Section 3, Town 2 North, Range 5 East, thence North 89 degrees 37 minutes East 104.3 feet along the centerline of Golf Club Road, thence South 10 degrees 17 minutes East 1341 feet along the centerline of Hughes Road to the point of beginning of the land to be described, thence South 89 degrees 19 minutes West 418.8 feet to the centerline of County drain, thence South along the centerline of County drain to a point 216.47 feet South of the North line of subject property, thence North 89 degrees 19 minutes East and parallel to said North line to the centerline of Hughes Road, thence North 10 degrees 17 minutes West 230.00 feet along said centerline to the Point of Beginning, ALSO EXCEPTING THEREFROM a part of the Southwest 1/4 of Section 3, Town 2 North, Range 5 East, described as follows: Commencing at the Northwest corner of said Section 3, thence North 89 degrees 37 minutes 00 seconds East along the North line of said Section, 106.30 feet to the Southwest corner of Section 34, Town 3 North, Range 5 East, thence South 10 degrees 17 minutes 00 seconds East 2691.75 feet (recorded as 2691.0 feet), thence South 11 degrees 42 minutes 00 seconds East along the centerline of Hughes Road, (as monumented) 20.50 feet to the point of beginning of the parcel to be described, thence continuing South 11 degrees 42 minutes 00 seconds East along said centerline 62.84 feet, thence South 83 degrees 18 minutes 27 seconds West 188.79 feet, thence North 00 degrees 29 minutes 11 seconds West 78.30 feet, thence North 00 degrees 18 minutes 00 seconds East 76.80 feet, thence South 86 degrees 42 minutes 00 seconds East 231.82 feet to the Point of Beginning. FURTHER EXCEPTING THEREFROM land in part of Section 4, Town 2 North, Range 5 East, more particularly described as commencing in the intersection of Golf Club Road and Hughes Road at the Southwest corner of Section 34, Town 3 North, Range 5 East, as recorded in Liber 283, page 612, Livingston County Records, thence South 10 degrees 17 minutes 30 seconds East 2693.08 feet along the centerline of Hughes Road, said centerline being at an angle of 60 degrees 04 minutes 54 seconds obtuse from the South line of said Section 34, Town 3 North, Range 5 East, thence continuing along said centerline South 11 degrees 42 minutes 00 seconds East 113.34 feet, thence South 83 degrees 18 minutes 27 seconds West 188.79 feet, thence North 00 degrees 29 minutes 11 seconds West 286.73 feet, thence South 89 degrees 40 minutes 40 seconds West 173.84 feet, thence North 21 degrees 03 minutes 54 seconds West 228.09 feet, thence North 10 degrees 17 minutes 30 seconds West 338.21 feet, thence North 74 degrees 54 minutes 56 seconds West 378.79 feet to the point of beginning of the land herein described, thence from said point of beginning South 76 degrees 48 minutes 44 seconds West 496.43 feet, thence North 04 degrees 14 minutes 42 seconds East 141.82 feet, thence North 75 degrees 41 minutes 38 seconds East 188.19 feet, thence South 75 degrees 48 minutes 00 seconds East 301.80 feet to the Point of Beginning.

#### EAST PARCEL: PARCEL 1:

A part of the Northwest 1/4 and a part of the Southwest 1/4 of Section 3, Town 2 North, Range 5 East, described as follows: Commencing at the Northwest corner of said Section, thence North 89 degrees 37 minutes 00 seconds East 106.30 feet to the Southwest corner of Section 34, Town 3 North, Range 5 East, thence South 10 degrees 17 minutes 00 seconds East along the centerline of Hughes Road, 2697.02 feet to the point of beginning of the parcel to be described, thence due East, 620.31 feet, thence South 40 degrees 05 minutes 20 seconds East 410.00 feet, thence North 83 degrees 09 minutes 02 seconds East 348.17 feet, thence North 37 degrees 58 minutes 02 seconds East 258.71 feet, thence North 02 degrees 48 minutes 09 seconds West 251.40 feet, thence South 89 degrees 40 minutes 13 seconds East 458.39 feet, thence North 12 degrees 40 minutes 46 seconds East 170.59 feet, thence South 89 degrees 38 minutes 26 seconds East 213.78 feet, thence due North 18 seconds West 128.78 feet, thence due East 282.08 feet, (said point being South 00 degrees 30 minutes 00 seconds East 1070.58 feet from the North 1/4 corner of said Section 3), thence South 00 degrees 30 minutes 00 seconds East 284.91 feet, thence South 00 degrees 07 minutes 57 seconds East 1046.33 feet to the Northwest corner of "RED OAKS OF CHEMUNG NO. 7", a subdivision as recorded in Liber 20 of Plat, page 36, 37 and 38, Livingston County Records, thence South 00 degrees 04 minutes 30 seconds West 400 feet (recorded as South 02 degrees 01 minutes 57 seconds West 400.00 feet) to the Northwest corner of "RED OAKS OF CHEMUNG NO. 6, a subdivision as recorded in Liber 16 of Plat, page 19, Livingston County Records, thence continuing South 00 degrees 04 minutes 30 seconds West (recorded as South 02 degrees 01 minutes 57 seconds West) along the West line of said Plat, 651.71 feet, thence South 88 degrees 54 minutes 54 seconds West 233.36 feet, thence North 22 degrees 38 minutes 57 seconds West 467.32 feet, thence South 34 degrees 32 minutes 30 seconds West 792.32 feet, thence South 19 degrees 40 minutes 45 seconds West 424.69 feet, thence South 81 degrees 37 minutes 30 seconds West 338.38 feet to the centerline of Hughes Road, thence along said centerline of Hughes Road on the following (5) courses: North 29 degrees 51 minutes 00 seconds West 112.08 feet and North 29 degrees 29 minutes 00 seconds West 234.00 feet and North 30 degrees 07 minutes 00 seconds West 675.20 feet and North 11 degrees 42 minutes 00 seconds West 625.79 feet and North 10 degrees 17 minutes 00 seconds West 331.80 feet to the Point of Beginning.

#### EXCEPTING THEREFROM:

A part of the Northwest 1/4 and a part of the Southwest 1/4 of Section 3, Town 2 North, Range 5 East, Genoa Township, Livingston County, Michigan, described as follows: Commencing at the Northwest corner of said Section, thence North 89 degrees 37 minutes 00 seconds East 106.30 feet to the Southwest corner of Section 34, Town 3 North, Range 5 East, thence South 10 degrees 17 minutes 00 seconds East along the centerline of Hughes Road, 2697.02 feet to the point of beginning of the parcel to be described, thence due East, 620.31 feet, thence South 40 degrees 05 minutes 20 seconds East 410.00 feet, thence North 83 degrees 09 minutes 02 seconds East 348.17 feet, thence North 37 degrees 58 minutes 02 seconds East 258.71 feet, thence North 02 degrees 48 minutes 09 seconds West 251.44 feet, thence South 02 degrees 11 minutes 17 seconds West 612.02 feet, thence North 32 degrees 43 minutes 47 seconds West 322.10 feet, thence South 33 degrees 59 minutes 24 seconds West 761.76 feet, thence South 29 degrees 28 minutes 04 seconds West 621.08 feet, thence North 87 degrees 03 minutes 30 seconds West 62.38 feet, thence North 33 degrees 29 minutes 00 seconds West 471.44 feet, thence North 17 degrees 33 minutes 00 seconds West 618.86 feet, thence due West 317.52 feet to the centerline of Hughes Road, thence North 11 degrees 42 minutes 00 seconds West 80.23 feet along said centerline, thence North 10 degrees 17 minutes 00 seconds West along said centerline 34.73 feet to the Point of Beginning.

#### EAST PARCEL: PARCEL 2:

A part of the Northwest 1/4 and a part of the Southwest 1/4 of Section 3, Town 2 North, Range 5 East, Genoa Township, Livingston County, Michigan, described as follows: Commencing at the Northwest corner of said Section, thence North 89 degrees 37 minutes 00 seconds East 106.30 feet to the Southwest corner of Section 34, Town 3 North, Range 5 East, thence South 10 degrees 17 minutes 00 seconds East along the centerline of Hughes Road, 2697.02 feet to the point of beginning of the parcel to be described, thence due East, 620.31 feet, thence South 40 degrees 05 minutes 20 seconds East 410.00 feet, thence North 83 degrees 09 minutes 02 seconds East 348.17 feet, thence North 37 degrees 58 minutes 02 seconds East 258.71 feet, thence North 02 degrees 48 minutes 09 seconds West 251.44 feet, thence South 02 degrees 11 minutes 17 seconds West 612.02 feet, thence North 32 degrees 43 minutes 47 seconds West 322.10 feet, thence South 33 degrees 59 minutes 24 seconds West 761.76 feet, thence South 29 degrees 28 minutes 04 seconds West 621.08 feet, thence North 87 degrees 03 minutes 30 seconds West 62.38 feet, thence North 33 degrees 29 minutes 00 seconds West 471.44 feet, thence North 17 degrees 33 minutes 00 seconds West 618.86 feet, thence due West 317.52 feet to the centerline of Hughes Road, thence North 11 degrees 42 minutes 00 seconds West 80.23 feet along said centerline, thence North 10 degrees 17 minutes 00 seconds West along said centerline 34.73 feet to the Point of Beginning.

### SITE BENCHMARK:

(NAVD 88 DATUM)

BM 4853

BENCHMARK IN N/FACE  
OF UTILITY POLE  
ELEVATION = 966.23



THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



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10927 WEST ROAD WIXOM, MI 48393  
TEL: 248-773-7656 - FAX: 866-690-4307

SECTION 3
TOWN 2 NORTH, RANGE 5 EAST
GENOA TOWNSHIP
LIVINGSTON COUNTY, MI

DATE: 11/28/23

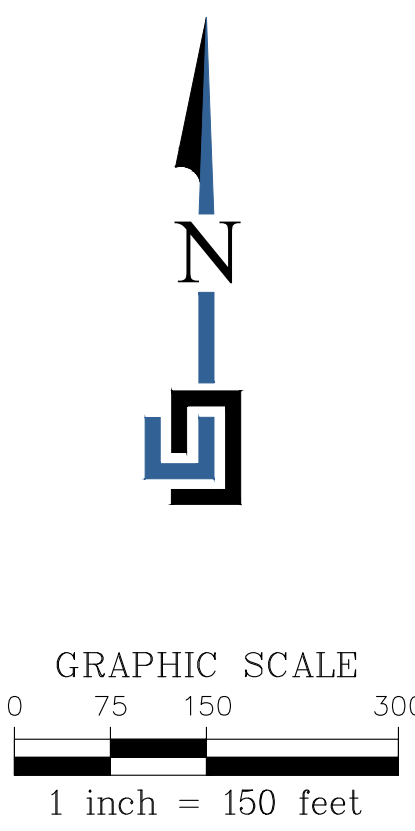
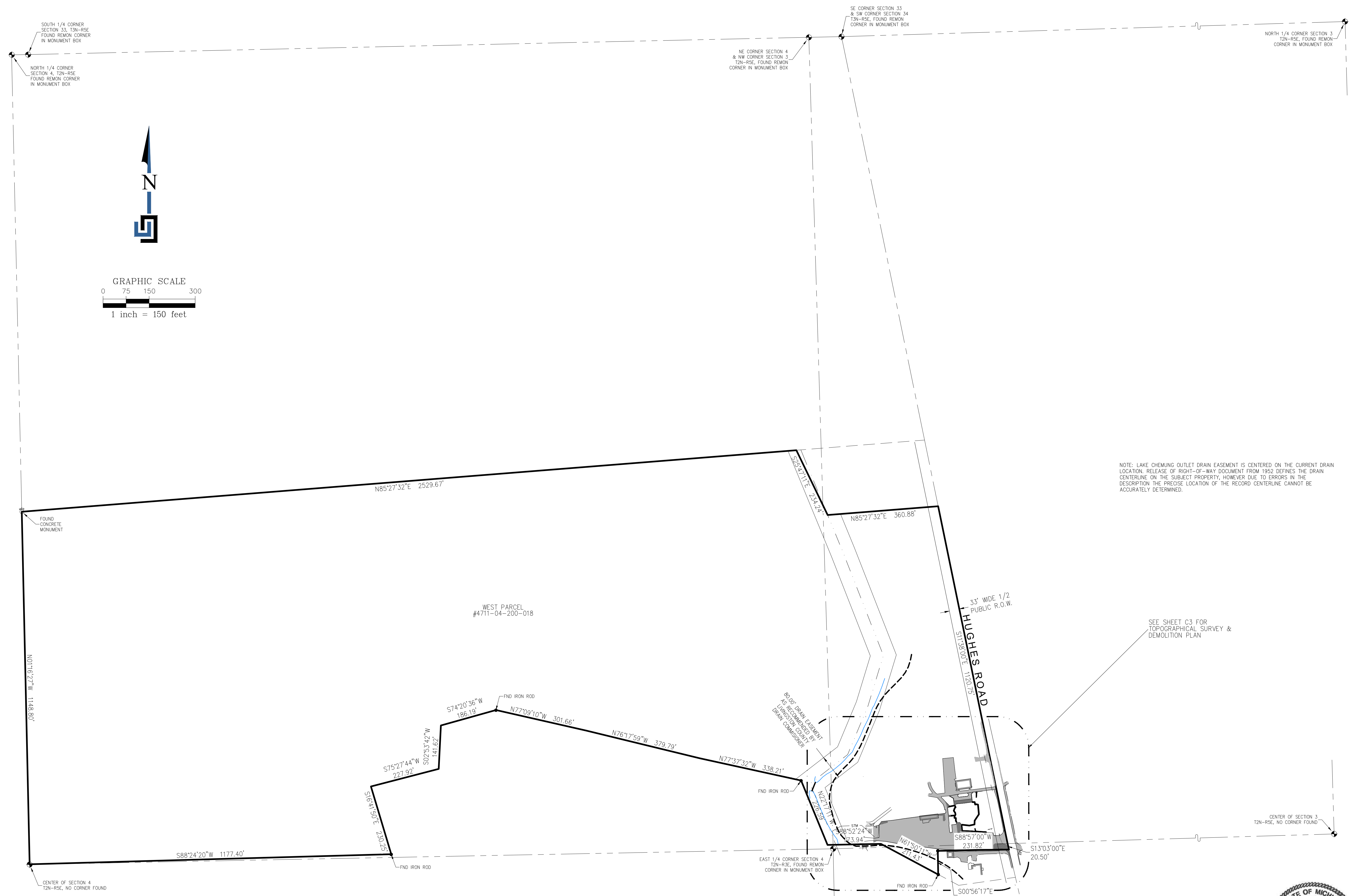
REVISIONS

1/19/24 PER TWP

FAULKWOOD SHORES CLUBHOUSE  
CLIENT: SINGH DEVELOPMENT  
7125 ORCHARD LAKE ROAD, SUITE 200  
WEST BLOOMFIELD, MI 48322

DR BY: SF  
CK BY: JF  
P.M. SA  
SCALE: 0 50 100  
1" = 100 FEET  
JOB NO.: 220915  
SHEET NO.: C1  
SHEET C1 OF 5





NOTE: LAKE CHEMUNG OUTLET DRAIN EASEMENT IS CENTERED ON THE CURRENT DRAIN LOCATION. RELEASE OF RIGHT-OF-WAY DOCUMENT FROM 1952 DEFINES THE DRAIN CENTERLINE ON THE SUBJECT PROPERTY, HOWEVER DUE TO ERRORS IN THE DESCRIPTION THE PRECISE LOCATION OF THE RECORD CENTERLINE CANNOT BE ACCURATELY DETERMINED.

SEE SHEET C3 FOR TOPOGRAPHICAL SURVEY & DEMOLITION PLAN



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SECTION 3
TOWN 2 NORTH, RANGE 5 EAST
GENOA TOWNSHIP
LIVINGSTON COUNTY, MI

DATE: 11/28/23

REVISIONS

1/19/24 PER TWP


CLIENT:

FAULKWOOD SHORES CLUBHOUSE
SINGH DEVELOPMENT
7125 ORCHARD LAKE ROAD, SUITE 200
WEST BLOOMFIELD, MI 48322

DR BY: SF

CK BY: JF

P.M. SA

SCALE 0 75 150

1" = 150 FEET

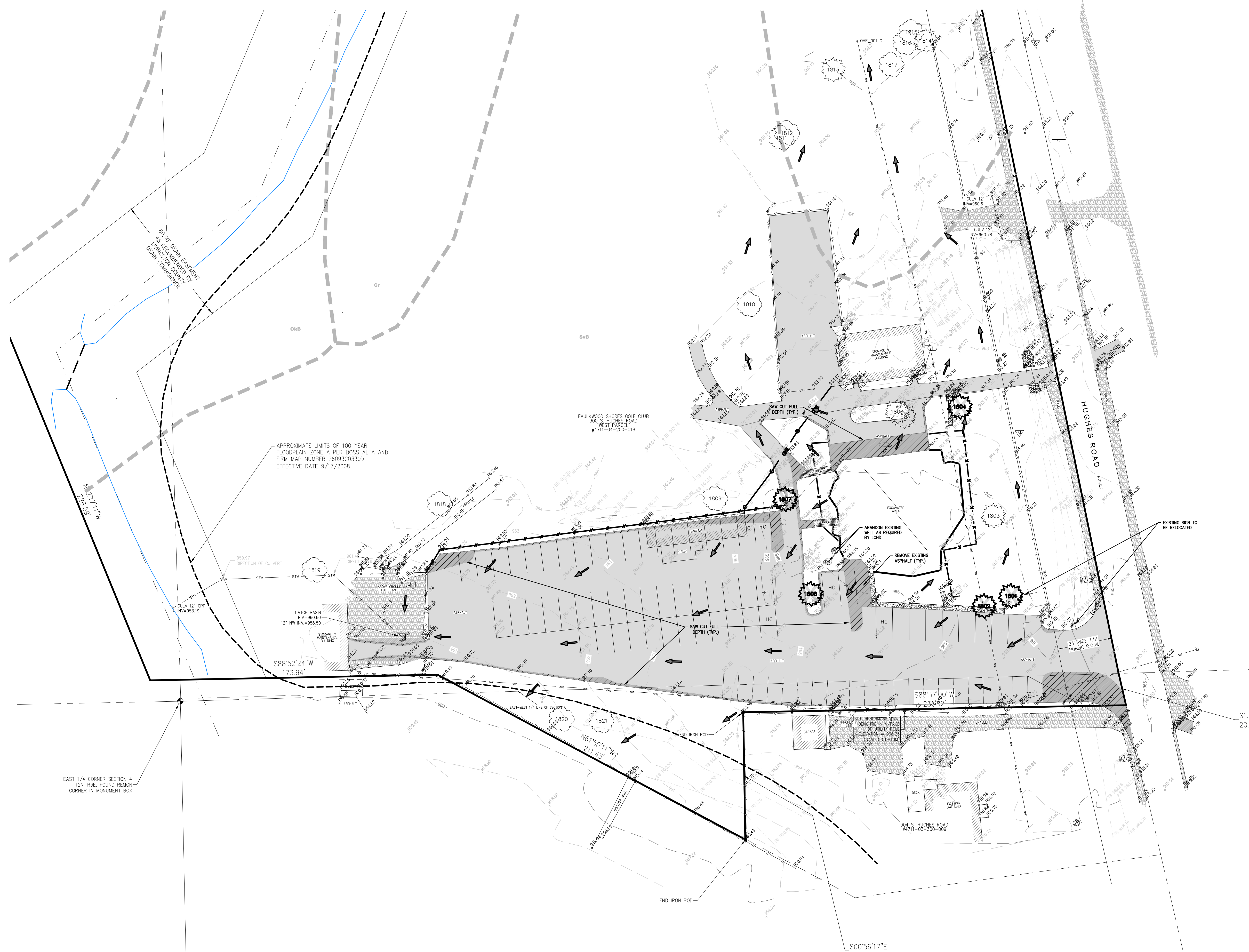
JOB NO. 220915

SHEET NO. C2

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LEGEND	
SYMBOL	DESCRIPTION
	SECTION CORNER
	WELL HEAD
	SECTION LINE
	BOUNDARY LINE
	UTILITY POLE & O.H. WIRES
	FENCE LINE
	SILT FENCE
	EXISTING TREE
	EXISTING DRAINAGE FLOW ARROW
	EXISTING GRAVEL

REMOVALS LEGEND	
SYMBOL	DESCRIPTION
	ASPHALT TO BE REMOVED
	CONCRETE TO BE REMOVED
	BRICK TO BE REMOVED
	GRAVEL TO BE REMOVED
	OVERHEAD ELECTRIC TO BE REMOVED
	LANDSCAPE FENCE TO BE REMOVED
	SILT FENCE TO BE REMOVED
	EXISTING TREE TO BE REMOVED

TREE INVENTORY LIST						
TAG NUMBER	Size	Twin	Height	DBH & COMMON NAME	Condition	SAVE/REMOVE
1801	13	13"/13"	25'	AUSTRIAN PINE	GOOD	REMOVE
1802	13		20'	SPRUCE	GOOD	REMOVE
1803	24		35'	CEDAR	GOOD	SAVE
1804	16		35'	SPRUCE	GOOD	REMOVE
1805	20		40'	SPRUCE	GOOD	SAVE
1806	22		40'	SPRUCE	GOOD	SAVE
1807	16		25'	SPRUCE	GOOD	REMOVE
1808	32		30'	SPRUCE	GOOD	REMOVE
1809	28			MAPLE	GOOD	SAVE
1810	36			COTTONWOOD	GOOD	SAVE
1811	24		30'	CEDAR	GOOD	SAVE
1812	16		30'	CEDAR	GOOD	SAVE
1813	18		25'	CEDAR	GOOD	SAVE
1814	12		20'	CEDAR	GOOD	SAVE
1815	28			RED OAK	GOOD	SAVE
1816	20			RED OAK	GOOD	SAVE
1817	36			RED OAK	GOOD	SAVE
1818	14			MAPLE	GOOD	SAVE
1819	24			MAPLE	GOOD	SAVE
1820	12		12"/18"	RED OAK	GOOD	SAVE
1821	28			REDOAK	GOOD	SAVE

**SITE BENCHMARK:**  
 (NAVD 88 DATUM)  
 BM #553  
 BENCHMARK IN N/FACE OF UTILITY POLE  
 ELEVATION = 966.23

**SOILS MAP LEGEND:**

Map Unit Symbol	Map Unit Name
Cr	Colwood fine sandy loam
ONB	Oakville fine sand, loamy substratum, 0 to 6 percent slopes
SVB	Spinks-Oakville loamy sands, 0 to 6 percent slopes



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**811**  
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SECTION 3  
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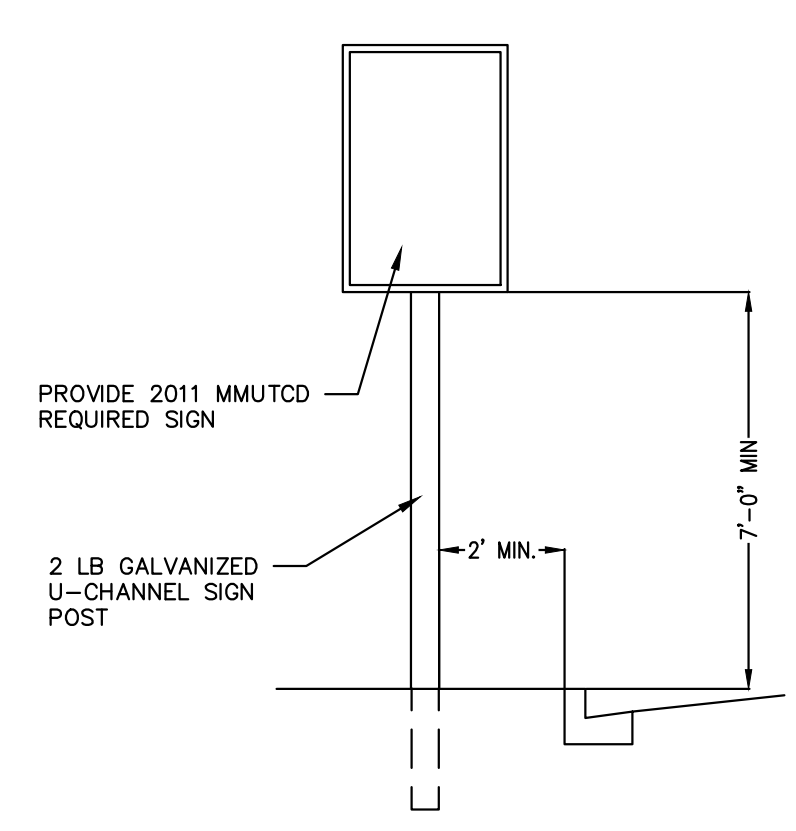
DATE: 11/28/23  
 REVISIONS  
 1/19/24 PER TWP

FAULKWOOD SHORES CLUBHOUSE  
 SINGH DEVELOPMENT  
 7125 ORCHARD LAKE ROAD, SUITE 200  
 WEST BLOOMFIELD, MI 48322

**TOPOGRAPHICAL SURVEY & DEMOLITION PLAN**

DR BY: SF  
 CK BY: JF  
 P.M. SA  
 SCALE 0 15 30  
 1" = 30 FEET  
 JOB NO. 220915  
 SHEET NO. **C3**  
 SHEET C3 OF 5

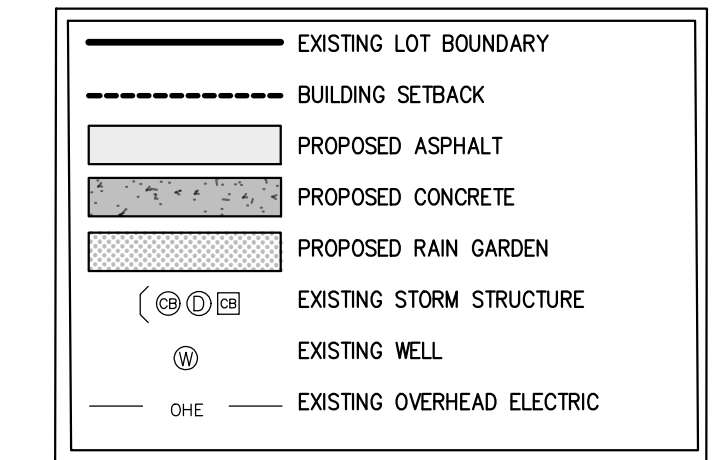




**SIGN DETAIL**  
NO SCALE

SIGN #	SIGN TYPE	REQUIRED
1	W11-11 30x30	6
2	M6-02AL 21x15	4
3	R3-17AP 24x8	2

- SIGN NOTES:**
- ALL SIGNS WILL COMPLY WITH CURRENT 2011 MMUTCD STANDARDS
  - ALL TRAFFIC CONTROL SIGNS WILL COMPLY WITH FHWA STANDARD ALPHABET SERIES.
  - ALL TRAFFIC CONTROL SIGNS WILL USE HIGH INTENSITY PRISMATIC (HIP) SHEETING TO MEET FHWA RETRO-REFLECTIVITY REQUIREMENTS.
  - MULTIPLE SIGNS AND/OR SIGNS WITH NOMINAL DIMS GREATER THAN 12"X 18" SHALL BE MOUNTED ON GALVANIZED 3 LB. OR GREATER U-CHANNEL POSTS.



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**811**  
Know what's below.  
Call before you dig.

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ZONING: PRF - PUBLIC & RECREATIONAL FACILITIES DISTRICT

TOTAL SITE AREA	74.2 AC
SITE IMPROVEMENTS CLUB HOUSE	4,575 S.F.

**BUILDING SETBACKS:**

FRONT SETBACK HUGHES ROAD	MIN. REQUIRED	VARIANCE	PROPOSED
	75 FT	50 FT	50 FT
SIDE YARD SETBACK	75 FT		99 FT

**PARKING:**

REQUIRED: (9'x18' SPACES)

18 HOLE GOLF COURSE	6 SPACES / HOLE
DRIVING RANGE	2 SPACES / 3 TEES
BANQUET HALL/LOUNGES	0.5 SPACE / SEAT LESS REQUIRED COURSE

PROPOSED:

PORTION OF PROPOSED BUILDING AREA USED FOR PARKING CALCULATION	QUANTITY	SPACES/UNIT	REQ'D
18 HOLE GOLF COURSE	18 HOLES	6/HOLE	108
DRIVING RANGE	18 TEES	2/3 TEES	12
SUBTOTAL			120
BANQUET HALL/LOUNGE	120 SEATS	0.5/SEAT	60
PATIO	40 SEATS	0.5/SEAT	20
LESS REQUIRED GOLF COURSE SPACES			-108
SUBTOTAL			0
TOTAL SPACES REQUIRED			120
TOTAL PAVED SPACES PROVIDED			108
TOTAL OVERFLOW SPACES PROVIDED			20
TOTAL SPACES PROVIDED			128

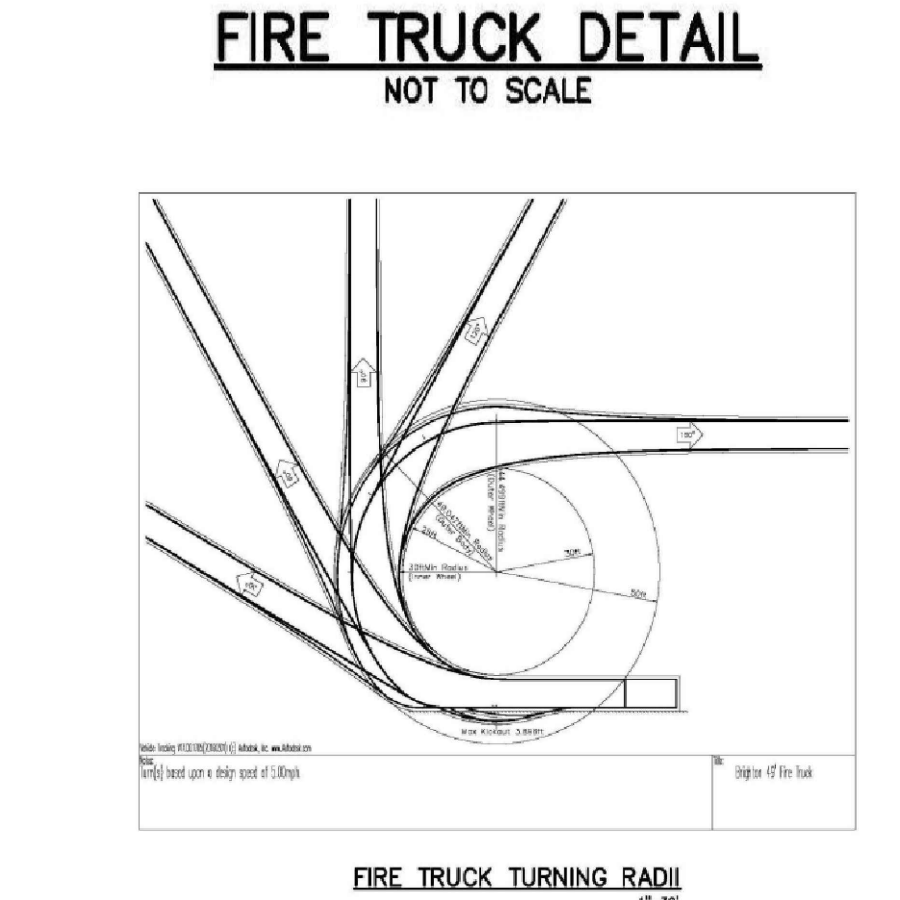
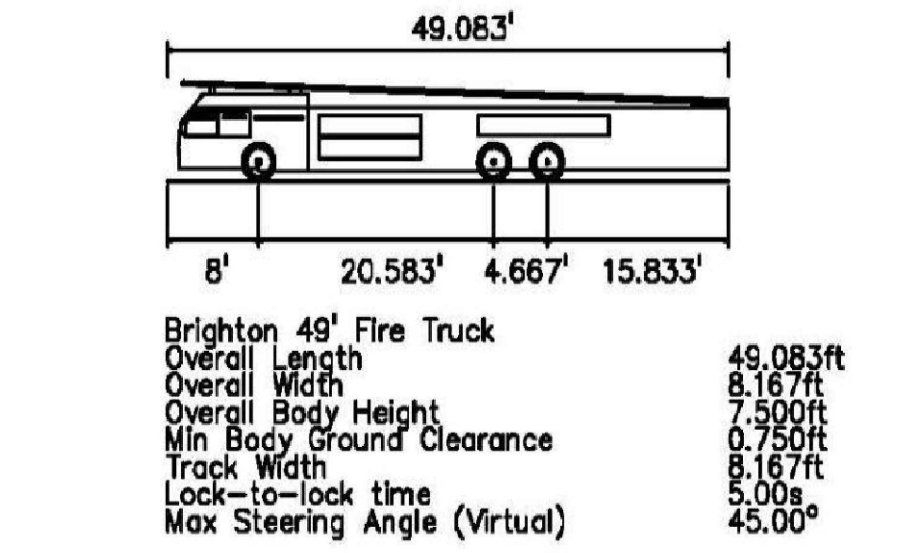
**IMPERVIOUS SURFACE AREA**

REMOVAL	3,523 SF
ADDITIONAL	8,180 SF
INCREASE	4,657 SF

**IMPERVIOUS SURFACE AREA**

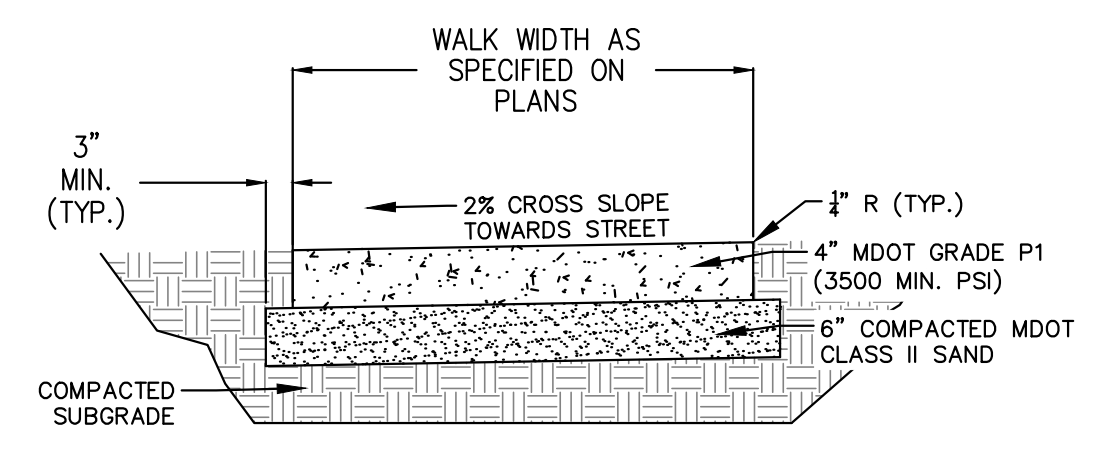
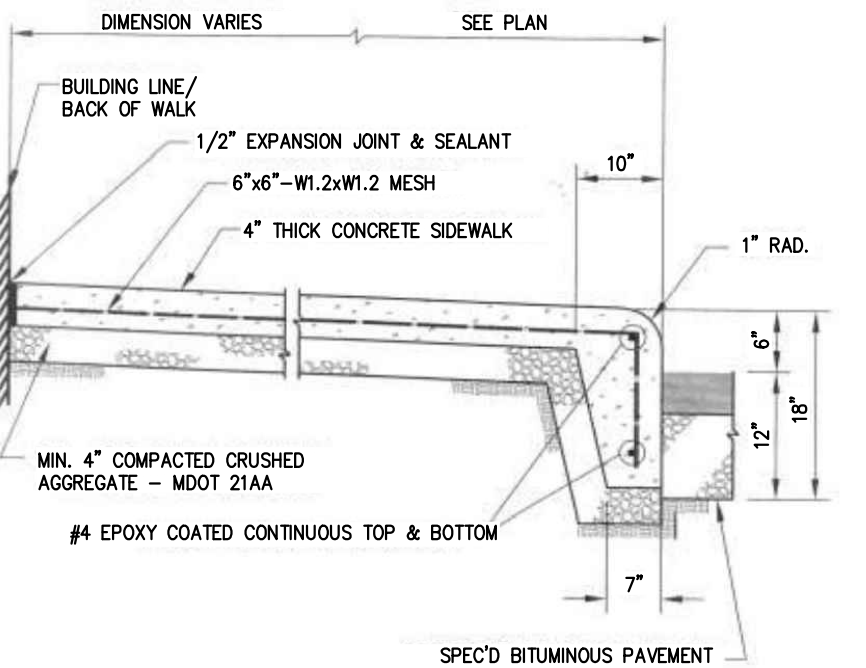
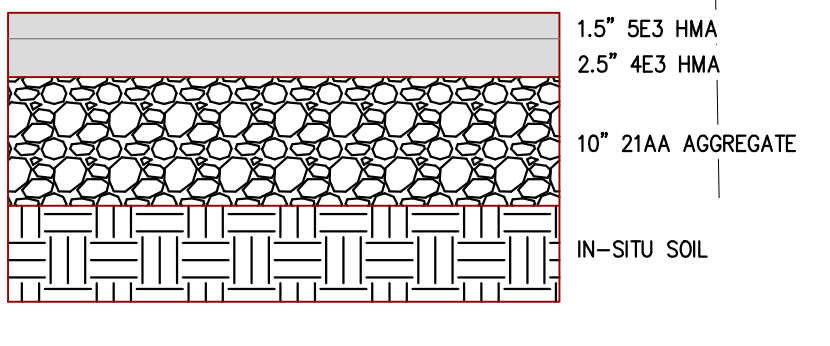
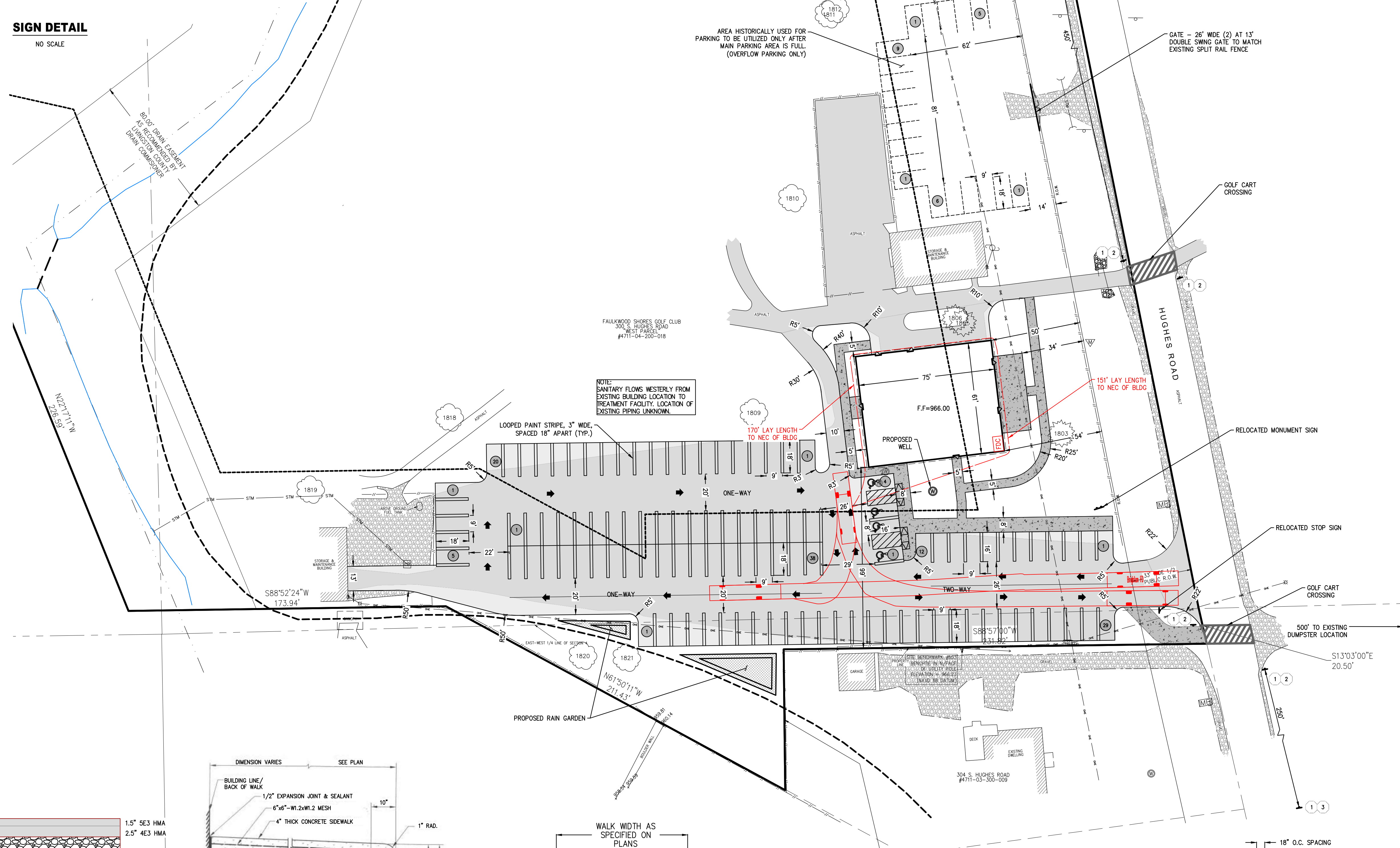
REMOVAL	3,523 SF
ADDITIONAL	8,180 SF
INCREASE	4,657 SF

- FIRE DEPARTMENT NOTES:**
- BUILDING IS FIRE SUPPRESSED
  - THE PROPOSED FIRE DEPARTMENT CONNECTION (FDC) IS CURRENTLY SHOWN AT THE SOUTH EAST CORNER OF THE BUILDING. FINAL LOCATION TO BE COORDINATED BY SPRINKLER DESIGN AND APPROVED BY THE FIRE MARSHAL.
  - A DEDICATED WELL, TANK, OR COMBINATION OF WILL BE PROVIDED AS REQUIRED FOR FIRE PROTECTION TO BE APPROVED BY THE FIRE MARSHAL.



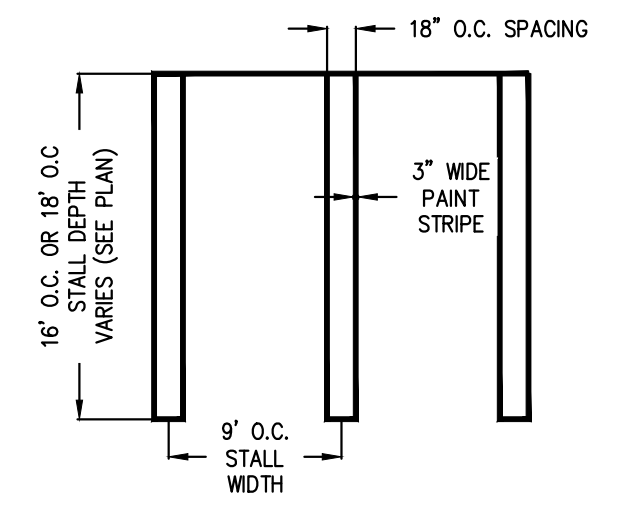
**SITE BENCHMARK:**

(NAVD 88 DATUM)  
BM #853  
BENCHMARK IN N/ACE OF UTILITY POLE  
ELEVATION = 966.23



**NOTE**

EXISTING LIGHTING IN PARKING AREA WILL BE REMOVED. PROPOSED LIGHTING WILL BE PROVIDED AS REQUIRED BY ORDINANCE. WORKING WITH GASSER BUSH TO PROVIDE PHOTOMETRIC PLAN.



**The UMLOR Group**  
LAND DEVELOPMENT SERVICES

10927 WEST ROAD WIXOM, MI 48193  
TEL: 248-778-7736 • FAX: 866-690-4307

SECTION 3  
TOWN 2 NORTH, RANGE 5 EAST  
GENOA TOWNSHIP  
LIVINGSTON COUNTY, MI

DATE: 11/28/23

REVISIONS

1/19/24 PER TWP



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**The UMLOR Group**  
LAND DEVELOPMENT SERVICES  
10927 WEST ROAD WIXOM, MI 48193  
TEL: 248.778.7636 - FAX: 866.690.4907

SECTION 3  
TOWN 2 NORTH, RANGE 5 EAST  
GENOA TOWNSHIP  
LIVINGSTON COUNTY, MI

DATE: 11/28/23

REVISIONS  
1/19/24 PER TWP

**FAULKWOOD SHORES CLUBHOUSE**  
SINGH DEVELOPMENT  
7125 ORCHARD LAKE ROAD, SUITE 200  
WEST BLOOMFIELD, MI 48322

CLIENT:  
DR BY: SF  
CK BY: JF  
P.M. SA  
SCALE: 0 10 20  
1" = 20 FEET  
JOB NO. 220915  
SHEET NO. **C5**  
SHEET C5 OF 5

**GRADING & DRAINAGE PLAN**

**LEGEND**

- PROPOSED LOT BOUNDARY
- ▨ PROPOSED ASPHALT
- ▨ PROPOSED CONCRETE
- PROPOSED STORM STRUCTURE
- PROPOSED STORM CLEANOUT
- PROPOSED STORM SEWER
- ⊗ PROPOSED HYDRANT
- ⊙ PROPOSED WATER VALVE
- ⊙ PROPOSED SANITARY CLEANOUT
- ⊙ PROPOSED SANITARY MANHOLE
- ⊙ EXISTING STORM STRUCTURE
- STM EXISTING STORM SEWER
- ⊗ EXISTING HYDRANT
- ⊙ EXISTING WATER VALVE
- ⊙ EXISTING SANITARY MANHOLE
- ▨ EXISTING ASPHALT
- ▨ PROPOSED RAIN GARDEN
- PROPOSED CONTOURS
- - - EXISTING CONTOURS
- TREE FENCE
- DRAINAGE FLOW ARROW

**RAIN GARDEN CALCULATIONS**

IMPERVIOUS SURFACE AREA  
REMOVAL 3,523 SF  
ADDITIONAL 8,180 SF  
INCREASE 4,657 SF

REQUIRED RAIN GARDEN VOLUME  
4,657 SF X 1 INCH DEPTH X 1 FT<sup>1/2</sup> INCH = 388 CF

PROVIDED RAIN GARDEN VOLUME  
(100 SF X 0.75 FT) + (450 SF X 0.75 FT) =  
75 CF + 337.5 CF = 412.5 CF

**SITE BENCHMARK:**

(NAVD 88 DATUM)  
BM #853  
BENCHMARK IN N/ACE  
OF UTILITY POLE  
ELEVATION = 966.23



EAST 1/4 CORNER SECTION 4  
TOWNSHIP 2 NORTH, RANGE 5 EAST  
CORNER IN MONUMENT BOX

100 SF RAIN GARDEN  
AVG DEPTH = 9"  
75 CF  
(PROVIDE SALT  
RESISTANT PLANTING)

450 SF RAIN GARDEN  
AVG DEPTH = 9"  
337.5 CF  
(PROVIDE SALT  
RESISTANT PLANTING)



















East Elevation

Scale: N.T.S.



M-1: Exterior Siding  
 Manuf: James Hardie  
 Type: Board and Batten Vertical Siding  
 Color/Finish: Arctic White



M-4: Standing Seam Metal Roof  
 Manuf: Pac-Clad  
 Color/Finish: Matte Black



M-2: Stone Masonry Skirt  
 Manuf: Shouldice  
 Model: Estate Stone  
 Color/Finish: Wiarton



M-5: Vinyl Window Frames  
 Manuf: Andersen  
 Color/Finish: Black



North Elevation

Scale: N.T.S.



M-3: Asphalt Shingles  
 Manuf: GAF Timberline  
 Color/Finish: Charcoal







