

To:	Spring Lake Park City Council	From:	Lauren Walburg, Stantec
	City of Spring Lake Park		
File:	Take 5 Car Wash 8301 University Ave NE Applicant: Rebecca McAllister, Boing US Holdco, Inc. Owners: Muchtar and Fatima Sajady	Date:	June 6, 2022

**Re: Variance, Conditional Use Permit, Site Plan Review - Take 5 Car Wash, 8301 University Ave NE**

**INTRODUCTION**

Take 5 Car Wash proposes to build a new car wash facility at 8301 University Avenue NE, on the parcel now occupied Northtown Imports Auto Repair. The property address is University Avenue NE, but its access is from University Ave Frontage Road and 83<sup>rd</sup> Avenue NE.

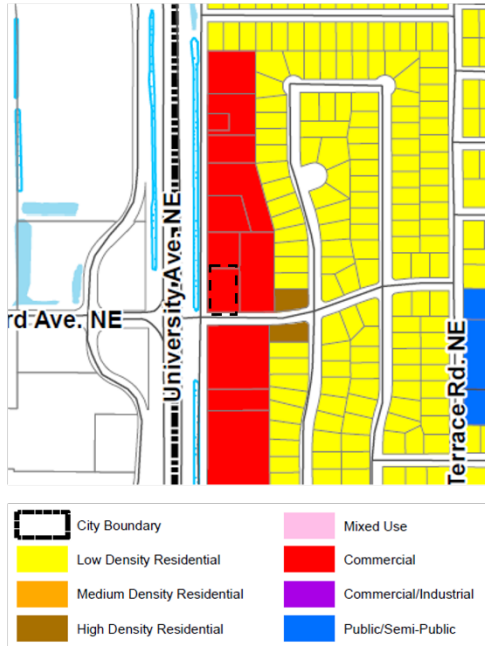
Surrounding uses are commercial fronting University Avenue NE both north and south of the site, with additional commercial east on 83<sup>rd</sup> Ave NE and single and multi-family residential beyond that further east. Across University Avenue NE to the west is a strip commercial development in Fridley.

The property is guided Commercial and zoned C-2 Neighborhood & Service Center Commercial, shown on the maps below. A car wash is a conditional use in the C-2 district, noted in the list of uses in the code as *“Auto and marine; service, parts, repair and wash”*. In the course of reviewing the Conditional Use Permit (CUP) within the 15-day review period we informed the applicant that the project would also require a variance to move forward as shown on their site plan, which the applicant has now applied for. The applicant requires a variance to allow the car wash facility to be constructed as shown on the proposed site plan. The applicant will require variances to the side parking setbacks on the north and south of the property and the rear yard building setback adjacent to Nelson Cheese and Deli. The Planning Commission heard this application at their May 23 meeting and recommended approval with the conditions contained in this memo.

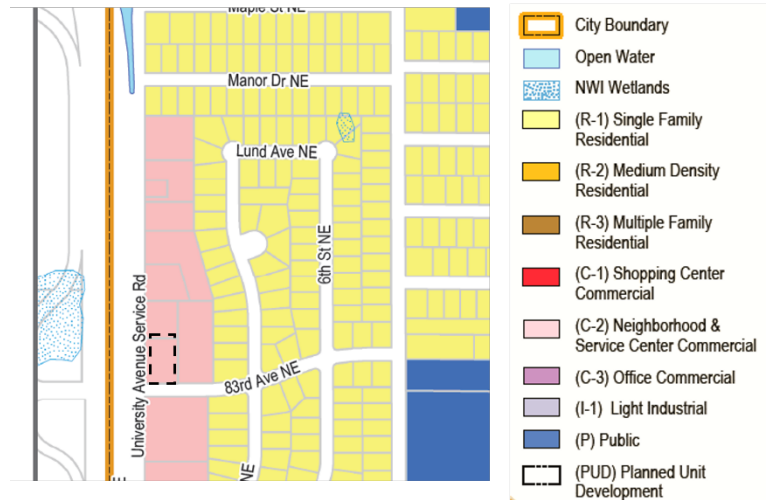


Re: **Conditional Use Permit, Site Plan Review Take 5 Car Wash, 8301 University Avenue NE**

2040 Land Use Plan



Zoning Map



**SITE ISSUES - CONDITIONAL USE PERMIT AND SITE PLAN REVIEW**

The Zoning Code allows the City to impose reasonable conditions on certain uses to address issues that may impact surrounding properties or public health, safety, and welfare. Conditional uses are considered *permitted uses to which reasonable conditions may be attached based on findings of fact*. The assumption is that the use is allowed and the City needs to articulate the conditions under which the use might be approved, rather than deny it because of potential conditions that do not yet exist. If it appears there is no reasonable way to accommodate the use in this location, the City can deny the use and must adopt findings of fact to support this decision.

The Zoning Code standards that apply to auto service uses are included at the end of this report, as are criteria for approval of a Conditional Use Permit and Variance. The pertinent issues are discussed below.

*Site Operation & Access*

The existing site, currently home to Northtown Imports Auto Repair has 3 full access points. This includes one access point on 83<sup>rd</sup> Avenue NE and two access points on University Ave Frontage Road. The proposed site access is similar, however, the full access closest to the intersection of 83<sup>rd</sup> and Frontage Road is proposed as exit-only, and the access point further north is proposed as entrance-only. The City Engineer and Public Works director have reviewed the proposed site plan and did not express concern with the location or number of access points. If approved, the applicant will be subject to a condition requiring the applicant to add signage should stacking on University Ave Frontage Road become an issue.

Another potential issue with car washes in the winter is dripping vehicles existing the site and causing unsafe road conditions in the winter. To that end, the City Engineer and Public Works director have included an additional condition

**Re: Conditional Use Permit, Site Plan Review Take 5 Car Wash, 8301 University Avenue NE**

that the applicant shall provide improvements to prevent the tracking of water on to the city street. One suggestion is that the applicant could consider adding heated concrete to the vehicle exit area. The applicant stated at the May 23 Planning Commission meeting that they are agreeable to this condition and that the design of the air door and blower system within the building is specifically designed to mitigate this issue in cold weather climates.

The proposed site plan shows car wash customers would enter off University Ave Frontage Road at the NW corner of the site, through two-lane automated pay stations, then turning into the long, enclosed car wash building. Exiting the car wash at the south end of the building, customers can either go straight out the south end of the site, back onto 83<sup>rd</sup> Ave NE, or turn left within the site and get back to the parking area in front of the building where there are vacuums at each parking space for customers. Exiting from the parking/vacuum area is one-way out onto University Ave Frontage Road.

While much of the car wash operation is automated, there are typically 2-3 employees on site during operating hours. Full architectural building plans were not submitted as part of the application, so operations within the building are unknown at this point. The pay station canopy is a separate structure apart from the main building. There are also vacuum 12 vacuum spaces referenced on the site plan, and a trash enclosure shown on the north side of the parking area. Architectural plans are referenced on the site plan and will need to be reviewed by the City Planner prior to building permit issuance.

#### *Traffic*

The applicant has submitted a traffic study as part of their application, as requested by City staff. The traffic analysis indicates that based on other Car Wash developments, the weekday peak hours are between 4-6PM and that these peak hours yield 78 trips for single tunnel car washes (39 in and 39 out). On Saturdays, the peak hour traffic generated 41 trips (19 in and 22 out). The proposed queuing on the site plan shows 12 spaces behind the pay station, and two spaces between the pay station and tunnel entrance for a total of 14 queuing spaces. The applicant estimates that the car wash cycles are under 1 minute for each car, and therefore the car wash can handle up to 60 cars per hour. The applicant also submitted a recent project traffic analysis, showing similar conclusions.

An issue with any drive-through type facility is adequate stacking and making sure that cars waiting in line don't interfere with cars on the adjacent street. The site plan submitted by the applicants shows 12 cars waiting in the pay station lines, and an additional 2 cars between the pay stations and the tunnel. This may be adequate, based on the submitted traffic study and analysis. Should traffic and queuing become an issue, there needs to be clear signage so that stacking onto the road is not allowed. The site plan currently shows stop signs at all exit points to ensure safe exiting of the site. If traffic and queuing becomes an issue, the City Engineer has included a condition that additional signage be installed to indicate queuing on University Ave Frontage road is prohibited.

#### *Parking*

There site plan shows 16 parking spaces in front of the building in the parking/vacuum area, including 3 standard parking spaces, 12 vacuum spaces and 1 handicap space. This would serve customers and staff for the facility. Spring Lake Park's parking standards require 10 spaces per lane in a commercial car wash. This facility may be different than what was imagined for a "commercial car wash" when the code was written. We recommend relying on the applicants' experience with their facilities to propose adequate parking.

**Re: Conditional Use Permit, Site Plan Review Take 5 Car Wash, 8301 University Avenue NE**

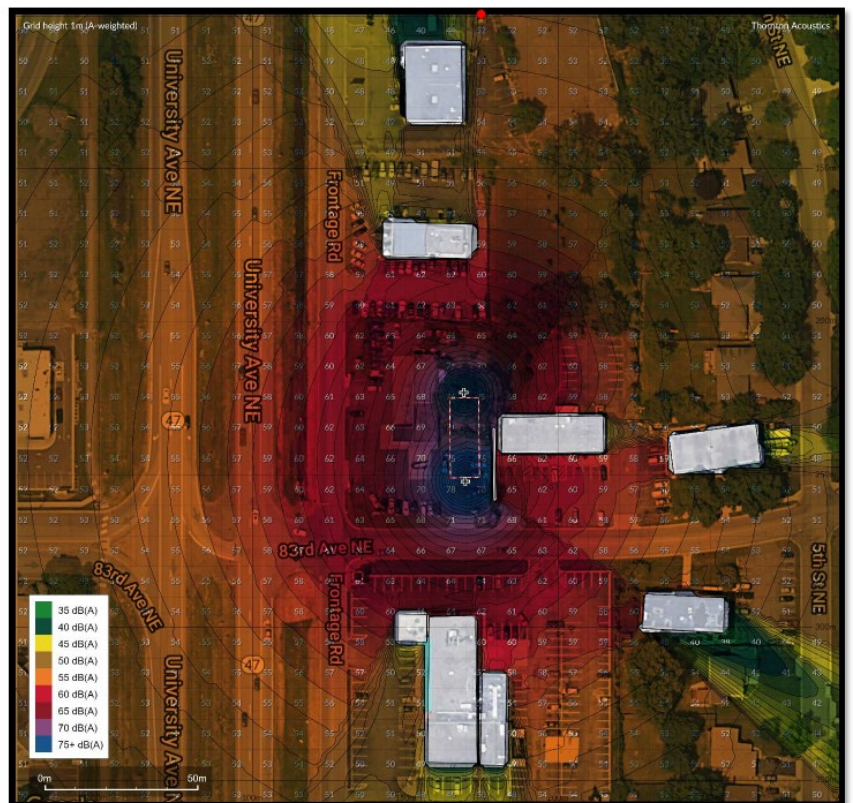
*Landscaping & Screening*

The landscape plan submitted as part of the application proposes large deciduous trees along University Ave Frontage Road and ornamental and a mix of ornamental and pine trees along 83<sup>rd</sup> Ave NE. The applicant is also proposing a 2-foot berm for screening along the edge of the parking lot facing University Ave Frontage Road. Along the rear of the car wash tunnel, there are ornamental and black hills spruce trees proposed, as well as two existing trees that will be removed and two existing trees that will remain. There is a generous and varied complement of shrubs and perennials around the site and building as well. The applicant meets zoning code requirements for landscaping and screening, and this site is not immediately adjacent to residential uses, so screening concerns are lessened.

*Noise*

Car wash operations are noisy, especially the blowers for drying, but they will be within the building and should be significantly muffled because of this. The vacuums can also be noisy, and to that end City staff requested that the applicant provide a sound study for the proposed car wash. The results of the sound study are summarized below.

The sound study conducted by the applicant modeled and attempted to predict sound emissions from the proposed car wash, as compared to applicable Minnesota noise regulations, to which the City of Spring Lake Park adheres. The sound diagram included in the study is shown, which demonstrates sound emissions and sources of sound with all doors open and all mechanical systems operating (presumably the loudest the car wash would ever be). As anticipated, the loudest part of the site is on the north and south end of the building, where the blowers for drying are located.



The sound study concludes that at maximum sound levels at the exterior of the car wash, noise levels would be at about 78 dBa, which will decrease with distance from the car wash. Noise levels in this location are already relatively high, due to the proximity to University Ave NE. The sound study finds that at the nearest business, sound levels would be relatively similar to current sound levels experienced due to proximity to the road. The nearest residential area would be roughly unchanged from current sound levels.

That being said, even if the site meets State standards a noise source can still be pretty annoying. The closest residences, and closest business are to the east of this site. While there is an existing wood fence, it appears to be older and not in very good shape. We recommend that the applicant enhance noise mitigating features on the east side of the site. This could include a sound buffer wall, fence or other sound mitigation measure.



**Re: Conditional Use Permit, Site Plan Review Take 5 Car Wash, 8301 University Avenue NE**

### *Lighting*

The applicant has not submitted specific information with regards to lighting. This will need to be reviewed by the City Planner prior to approval of a building permit. We suggest that all lights will be downcast fixtures which will not spill more than 0.5 footcandle beyond the property lines or onto the public street.

### *Hours*

The applicant has states that their hours of operation will be 8am to 6pm.

### *Signage*

Proposed signage includes a pylon sign on the SW corner of the site, as well as signage at the end of the tunnel and at exit points. Signage will need to meet the City's sign permit standards.

### *Building Materials*

The applicant submitted architectural elevation drawings on May 26, after the planning commission meeting. Staff has reviewed and requested additional details on the colors and materials to be used. The exterior building materials will be a combination of concrete block (gray and black), and aluminum metal panels (gray). Staff found an example building with similar building materials, which is shown in your packet. Staff finds that the building materials generally comply with the standards in place at the time of this application.

### *Setbacks*

As mentioned, the site plan as submitted does not meet all setback requirements in the C-2 zoning district, therefore requiring a variance which the applicant has applied for along with this CUP application. The setbacks that do not meet requirements are described below and shown circled in yellow in the diagram on the next page.

1. Corner side yard *parking setback* as shown is 15 feet, code requirement is 25 feet (south side of property adjacent to 83<sup>rd</sup> Ave NE)
2. Side yard *parking setback* as shown is about 3 feet, code requirement is 10 feet (north side of property)
3. Rear yard *building setback* as shown is 15 feet, code requirement is 30 feet (east side of property adjacent to Nelson Cheese and Deli).

The parking setbacks as proposed are a significant improvement to the existing parking lot setbacks, which encroach on the neighboring property to the north, and extend nearly to the property line at the south end of the property. While the application requires a variance to comply with the zoning code required setbacks, staff is in favor of granting this variance as an improvement to existing conditions.

The rear yard building setback also does not comply with code required setbacks, however, this is partially due to it being a corner lot, with frontage on two streets. The lot next to this one which is currently home to Nelson Cheese and Deli also fronts on 83<sup>rd</sup>, but the rear setback would be considered to be the north end of the site, not the east side. It should also be mentioned that in this case, if the building were required to comply with the zoning code setbacks, the stacking space would be lessened dramatically, potentially causing additional traffic and queuing issues. There are specific findings that the Planning Commission and City Council must review as part of approving a variance, which are discussed further in the next section of this report.



**Re: Conditional Use Permit, Site Plan Review Take 5 Car Wash, 8301 University Avenue NE**

### *Lot Coverage*

The proposed project as shown on the site plan will reduce the impervious surface on site by 1,201 SF. The calculations are shown below and meet zoning code requirements:

Code Requirement: Building cannot be more than 35% of site, impervious surface cannot be more than 75%.

- Existing Impervious Area: 21,301 S.F./ 0.49 acres/ 68%
- Proposed Impervious Area: 20,100 S.F./ 0.46 acres/ 65%
- Proposed Building: 4,247 S.F. / 0.10 acres/ 14%

### *Vehicles on Site; Odors, Gas and Fumes*

The following standards in Section 16.36.010 will be followed:

1. All vehicles waiting for repair or pick-up shall be stored within an enclosed building or in designated off-street parking spaces.
2. All work shall be performed within a completely enclosed building.
3. All vehicles parked or stored on site shall display a current license plate with a current license tab. Outside storage of automobile parts or storage of inoperable or salvage vehicles shall be prohibited.
4. The sale of vehicles shall be prohibited, unless permitted by this title or allowed by conditional use  
*Sale of vehicles is not requested or approved with this Conditional Use Permit*
5. The use shall employ best management practices regarding the venting of odors, gas and fumes. Such vents shall be located a minimum of ten feet above grade and shall be directed away from residential uses. All storage tanks shall be equipped with vapor tight fittings to eliminate the escape of gas vapors.

*No specific information on venting the facility has been provided. This will be reviewed and approved by the City Engineer and Building Official before a building permit is granted.*

## **VARIANCE REQUEST**

As mentioned, this applicant also requests a variance to construct the Car Wash as shown on their site plan. A variance is a way that cities may permit a departure from strict enforcement of their zoning ordinance, and in this case would allow the applicant relief from the setback requirements set forth in the zoning code. A City may grant a variance if enforcement of a zoning ordinance provision (in this case setbacks), as applied to this particular property would cause the landowner "practical difficulties." Section §153.224 of the City of Spring Lake Park's Zoning Code requires that practical difficulty be proven for the approval of a variance, according to the following criteria:

*(a) Is the variance in harmony with the purposes and intent of the Ordinance?*

The Zoning Code has setbacks to provide reasonable separation of uses. The separation provided by the requested variance is reasonable in this situation.

**Re: Conditional Use Permit, Site Plan Review Take 5 Car Wash, 8301 University Avenue NE**

*(b) Is the variance consistent with the comprehensive plan?*

The 2040 Comprehensive Plan includes the following Land Use Goal relevant to this proposal: Provide for a mix of commercial uses that provide goods and services to residents and that benefit from the city's proximity to major roads and highways. This goal supports the car wash use, which is a commercial use benefitting from the city's proximity to major roads. Because of its location as a corner lot fronting on two streets, it is reasonable to consider modified setbacks in this case.

*(c) Does the proposal put property to use in a reasonable manner?*

The use itself is reasonable – A Car Wash facility on a property zoned Commercial that allowed car washes as a conditional use. The proposed parking setbacks will be an improvement to the existing parking situation on site. The building setback is reasonable, given the need for additional stacking and queuing space for vehicles on site.

*(d) Are there circumstances unique to the property not created by the applicant? (physical characteristics of the property i.e. sloping topography or other natural features like wetlands or trees)?*

The circumstance unique to this property is that it is a corner lot, with frontage on two sides. The setbacks for corner lots, while in place to ensure views are not obstructed for vehicles, limit development that can happen on site. In this case, the modification to the parking and building setbacks will not impact the sightline of passing vehicles.

*(e) Will the variance maintain the essential character of the locality?*

The immediate neighborhood is mostly commercial in character, with a residential area beyond the commercial area to the east. Based on the City's 2040 Comprehensive Plan, the vision for this area is to remain commercial. A car wash could be an anticipated use with the location adjacent to University Ave NE.

## **RECOMMENDATION**

The Conditional Use Permit and variance are closely tied together in this application, since the variance is for a use that is only allowed by CUP, and a variance can have conditions attached like a CUP. We suggest that the CUP be acted upon first, since a CUP could be granted for the car wash use and conditions applied without approval of the setback variance. Then the variance request would follow, but only if the CUP is approved.

### *Conditional Use Permit*

We recommend that the Conditional Use Permit for the proposed Take 5 Car Wash at 8301 University Avenue NE be approved as submitted on plans from Carter Associates dated 3-7-2022 with following conditions:

- 1) The applicant will submit architectural elevations for review by the City Planner prior to building permit approval.
- 2) Hours of operation will be 8:00 am to 6:00 pm.
- 3) Given the proximity of the site to the nearest commercial use and residential uses to the east a solid fence or wall 8 feet in height will be installed on the east side of the site to block noise from the vacuum and parking area. The fence or wall will be of materials and colors compatible with the building, to be reviewed and approved by the City Administrator.



**Re: Conditional Use Permit, Site Plan Review Take 5 Car Wash, 8301 University Avenue NE**

- 4) Building materials will conform to Performance Standards as shown in Section 16.28.010 of the zoning code.
- 5) All lighting will be downcast cutoff type fixtures that allow no more than 0.5 footcandle of light spillage beyond the property lines or onto the public road rights-of-way.
- 6) Signage will be submitted for a sign permit before a building permit is issued.
- 7) All landscaping will be installed as indicated on the landscape plan and guaranteed for at least one year.

Engineering Conditions

- 8) Traffic. If car stacking on University Service Drive becomes a problem, applicant shall install signs indicating that no queuing in University Service Drive is permitted.
- 9) Traffic. We are concerned about washed vehicles tracking water on to 83<sup>rd</sup> Avenue and possible icing issues. The applicant shall provide improvements to prevent the tracking of water on to the city street. Consider adding heated concrete to the vehicle exit area.
- 10) Grading. Site plan shall be revised to create high points in all 3 driveways to prevent site drainage from draining directly on to 83<sup>rd</sup> Ave. NE or University Service Drive. Utilize proposed green space(s) for stormwater management.
- 11) Drainage. Review permitting requirements with Coon Creek Watershed District. All stormwater management facilities shall be considered private and shall be maintained by the property owner.
- 12) Drainage. Provide copies watershed district permit and stormwater facilities maintenance agreement to city.
- 13) Site. Coordinate all street and curb work with City Public Works Director. Discuss the need for sidewalk improvements on 83<sup>rd</sup> Ave NE
- 14) Sanitary Sewer. Show existing sanitary sewer service(s) on utility plan. Re-use an existing sewer line for site service (no new connection). Locate and plug any existing sewer service that is not to be used.
- 15) Water Works. Show existing water service(s) on utility plan. Locate and plug any existing water service that will not be reused (plug at the main).
- 16) Water Works. A separate water main connection for site irrigation is not permitted.
- 17) Water Works. A larger water service will likely be required for building fire suppression services. If a larger main is required for fire suppression, the domestic water service can come off of the larger main. Meter to be in the building.
- 18) General. Final site work construction plans to be approved by City Public Works Director prior to beginning site work.
- 19) General. A Preconstruction Conference, including the City Public Works Director, shall be held prior to beginning site work.

**Re: Conditional Use Permit, Site Plan Review Take 5 Car Wash, 8301 University Avenue NE**

*Finding of Fact for Approval of Conditional Use Permit*

- 1) The City has standards for review of conditional uses to review and regulate potential impacts to surrounding properties and public roadways.
- 2) The proposed car wash use may generate traffic that could impact area roadways. Limiting and regulating traffic on and around the site is a reasonable exercise of the City's authority.
- 3) The proposed car wash use may generate noise beyond an acceptable level given its location near existing residential uses. Requiring screening to block noise is a reasonable exercise of the City's authority.
- 4) The use as conditioned with this approval meets the criteria for approving a Conditional Use Permit in Section 16.56.030(E)(1) of the City Code.

*Variance*

We recommend that the Variance for the proposed Take 5 Car Wash at 8301 University Avenue NE be approved as submitted on plans from Carter Associates dated 3-7-2022 with following conditions:

- 1) That the variance is conditioned on the approval of the Conditional Use Permit for the site as described in this report and the applicant's supporting materials.
- 2) Landscaping and screening shall be provided site as stipulated in the Conditional Use Permit.
- 3) Lighting on the building shall be as approved in the Conditional Use Permit with downcast shielded fixtures allowing no more than 0.5 foot-candle beyond the property line.
- 4) The engineering issues raised in the Conditional Use Permit conditions will be reviewed and approved by the City Engineer before issuing a building permit.
- 5) Handling of odors, gas, and fumes will be reviewed and approved by the City Engineer and Building Official before a building permit is issued.

*Findings of Fact for Approval of Variance*

- 1) The construction of a car wash adjacent to University Ave NE on a property zoned commercial is a reasonable use of the property.
- 2) Regulation of setbacks, screening, noise and traffic for commercial uses is a reasonable and necessary part of the City's Zoning standards.
- 3) Proper design and shielding of lighting on commercial properties to prevent light spillage and glare to adjacent properties is a reasonable standard within the Zoning Code.
- 4) Limiting odors, gas, and fumes from commercial auto uses is a reasonable protection of health, safety and welfare.
- 5) The proposed car wash as modified with these conditions meets the criteria for approval of a variance in the City Zoning Code.

**Re: Conditional Use Permit, Site Plan Review Take 5 Car Wash, 8301 University Avenue NE**

## **OPTIONS**

The City Council should make separate motions on the CUP and variance. Options:

- 1) Approve the CUP and Variance with separate motions as presented with the recommended conditions and findings, or as modified by the City Council.
- 2) Deny the Variance and CUP, with findings for denial for each.
- 3) Continue one or both items to a future meeting to gather more information or more discussion.

## **60-DAY RULE**

State Statute 15.99 requires final action on zoning applications received within 60 days of receiving a completed application. The application was received on April 6, 2022 and was considered complete on May 6, 2022, with receipt of the required variance application. The 60-day deadline for final action by the City Council is July 6, 2022. This can be extended by the City for another 60 days if more time is needed to review the application.



**City of Spring Lake Park**  
1301 81<sup>st</sup> Avenue NE  
Spring Lake Park, MN 55432  
763-784-6491 (p) 763-792-7257 (f)  
[info@slpmn.org](mailto:info@slpmn.org)

For Office Use Only	
Case Number:	
Fee Paid:	
Received by:	RP
Date Filed:	3/31/22
Date Complete:	
Base Fee:	900
Escrow:	2500

## DEVELOPMENT APPLICATION

TYPE OF APPLICATION (Check All That Apply)		
<input type="checkbox"/> Appeal <input type="checkbox"/> Comprehensive Plan Amendment <input type="checkbox"/> Ordinance Amendment (Text) <input type="checkbox"/> Rezoning <input type="checkbox"/> Planned Unit Development	<input checked="" type="checkbox"/> Site Plan/Building Plan Review <input type="checkbox"/> Conceptual Plan Review <input checked="" type="checkbox"/> Conditional Use Permit <input type="checkbox"/> Variance <input type="checkbox"/> Street or Easement Vacation	<input type="checkbox"/> Minor Subdivision <input type="checkbox"/> Lot Combination <input type="checkbox"/> Preliminary Plat <input type="checkbox"/> Final Plat <input type="checkbox"/> Other _____
PROPERTY INFORMATION		
Street Address: 8301 UNIVERSITY AVE NE, SPRING LAKE PARK, MN		
Property Identification Number (PIN#): 023024210098		Current Zoning: C-2
Legal Description (Attach if necessary): <span style="font-size: 1.2em; font-weight: bold;">SEE WORD DOC ATTACHED.</span>		
APPLICANT INFORMATION		
Name: REBECCA MCALLISTER		Business Name: BOING US HOLDCO, INC.
Address: 8300 S. SYRACUSE WAY #205		
City: CENTENNIAL	State: CO	Zip Code: 80111
Telephone: 980-259-0701	Fax:	E-mail: REB
Contact: REBECCA MCALLISTER		Title: PROJECT MANAGER
OWNER INFORMATION (if different from applicant)		
Name: SAJADY, MUCHTAR & FATIMA		Business Name: N/A
Address: 10482 MISSISSIPPI BLVD		
City: COON RAPIDS	State: MN	Zip Code: 55433
Telephone:	Fax:	E-mail:
Contact:		Title:
DESCRIPTION OF REQUEST (attach additional information if needed)		
Existing Use of Property: <span style="font-size: 1.2em; font-weight: bold;">Auto Repair</span>		
Nature of Proposed Use: <span style="font-size: 1.2em; font-weight: bold;">Car wash (conveyor) &amp; self service vacuums</span>		
Reason(s) to Approve Request: Seeking approval of a proposed car wash use on the subject property. The existing use is auto repair and car wash is a like use servicing vehicles.		
PREVIOUS APPLICATIONS PERTAINING TO THE SUBJECT SITE		
Project Name: Take 5 Express Car Wash of Spring Lake Park		Date of Application: 03/07/22
Nature of Request: The request is to permit and construct the redevelopment of the subject property to a car wash business. Please refer to construction plans for details of the development.		
<p><b>NOTE:</b> Applications only accepted with ALL required support documents. See City Code</p>		



**APPLICATION FEES AND EXPENSES:**

The City of Spring Lake Park required all applicants to reimburse the City for any and all costs incurred by the City to review and act upon applications.

The application fee includes administrative costs which are necessary to process the application. The escrow fee will include all charges for staff time by the City Planner, City Engineer, City Attorney, and/or any other consultants as needed to process the application.

The City will track all consultant costs associated with the application. If these costs are projected to exceed the money initially deposited to your escrow account, you will be notified in the manner that you have identified below that additional monies are required in order for your application process to continue. If you choose to terminate the application (notice must be in writing), you will be responsible for all costs incurred to that point. If you choose to continue the process you will be billed for the additional monies and an explanation of expenses will be furnished. Remittance of these additional fees will be due within thirty (30) days from the date the invoice is mailed. If payment is not received as required by this agreement, the City may approve a special assessment for which the property owner specifically agrees to be to be assessed for 100 percent per annum and waives any and all appeals under Minnesota Statutes Section 429.081 as amended. **All fees and expenses are due whether the application is approved or denied.**

With my signature below, I hereby acknowledge that I have read this agreement in its entirety and understand the terms herein. **I agree to pay to the City all costs incurred during the review process as set forth in this Agreement.** This includes any and all expenses that exceed the initial Escrow Deposit to be paid within 30 days of billing notification. I further understand that the application process will be terminated if payment is not made and application may be denied for failure to reimburse City for costs. I further understand that the City may approve a special assessment against my property for any unpaid escrows and that I specifically waive any and all appeals under Minnesota Statutes 429.081, as amended.

I wish to be notified of additional costs in the following manner (select one):

E-mail msmith@cor3design.com       Fax \_\_\_\_\_       USPS – Certified Mail

I, the undersigned, hereby apply for the considerations described above and declare that the information and materials submitted in support of this application are in compliance with adopted City policy and ordinance requirements are complete to the best of my knowledge.

I acknowledge that I have read the statement entitled "Application Fees and Expenses" as listed above.

I understand that this application will be processed in accordance with established City review procedures and Minnesota Statutes Section 15.99 as amended, at such time as it is determined to be complete. Pursuant to Minnesota Statutes Section 15.99, the City will notify the applicant within fifteen (15) business days from the filing date of any incomplete or other information necessary to complete the application. Failure on my part to supply all necessary information as requested by the City may be cause for denying this application.

Applicant: Rebecca McAllister      Date: 3/30/2022

Owner:       Date: 3-30-22

**NOTE: Applications only accepted with ALL required support documents.  
See City Code**

SCHEDULE A DESCRIPTION  
8301 UNIVERSITY PARK AVE NE  
SPRING LAKE PARK, MN

Real property in the City of Spring Lake Park, County of Anoka, State of Minnesota,  
described as follows:

Outlot Nine (9), Terrace Manor 4th, County of Anoka, State of Minnesota.

The property described above and shown hereon is the same as that described in  
title commitment issued by First American Title Insurance Company, title  
commitment number NCS-1094213-CHAR with an effective date of October 07,2021 at 7:30 a.m.

## City of Spring Lake Park Conditional Use Permit Worksheet

A conditional use permit cannot be approved unless the Planning Commission and the City Council make certain findings and recommendations. Please provide a response on how/why your project meets the below stated criteria. Use additional sheets if necessary. If some items are not applicable for your project, write N/A. Contact the Zoning Administrator with any questions.

1. That the proposed use at the particular location requested is necessary or desirable to provide a service or a facility which is in the interest of public convenience and will contribute to the general welfare of the neighborhood or community. The proposed car wash use provides a quick, convenient way for the community to wash their vehicles and with vacuum stalls can clean the interior of their vehicles at their leisure.
  
2. That the proposed use will not be detrimental to the health, safety, morals, or general welfare of persons residing or working in the vicinity of the use or injurious to property values/ improvements within the vicinity of the use. The proposed use and development will be constructed and operated complying with state and federal laws. Sidewalks and pathways will be ADA compliant. The proposed development will be maintained and clear of debris.
  
3. That the proposed use will comply with the regulations specified in Chapter 16 of the City Code. After review of Chapter 16 of the City Code, it appears the proposed use and site plan is in compliance specifically setbacks, buffers and parking. Performance standards are in compliance, alcohol licenses are n/a, PUD is n/a, nonconfirming structures, lots and uses are also n/a.
  
4. That the proposed use shall not have a detrimental effect on the use and enjoyment of other property in the immediate vicinity. The proposed use is within a commercial zoning. Adjacent properties are commercial not directly abutting residential. Sound study submitted to show that noise will be in compliance with state of Minnesota noise rules.

5. That the proposed use will not lower property values or impact scenic views in the surrounding area. The proposed development does not impact any scenic views. The proposed use will be accompanied with new pavement and landscaping which will improve the appearance of the site. The building has an updated design - all of these factors will increase property value not decrease it.
  
6. That existing utilities, streets, highways and proposed access roads will be adequate to accommodate anticipated traffic. Existing utilities and proposed access is adequate for anticipated traffic. The southern access drive was removed making the site safer as it was very close to the intersection. Traffic Statement is provided as well. Car Wash typically needs 2" meter not uncommon for commercial developments. Reclaim system with up to 80% reclaim provided.
7. Sufficient off-street parking and loading space is available to serve the proposed use. The use requires 2-3 employees on-site. Employee parking is adequate. Developer is particular on # of vac spaces which meets the requirements.
  
8. That the proposed use includes adequate protection for the natural drainage system and natural topography. There is a net decrease in impervious area which will decrease the site's runoff therefore improving the drainage for the site.
  
9. That the proposed use includes adequate measures to prevent or control offensive odor, fumes, dust, noise or vibration so that none of these will constitute a nuisance. The car wash use cleans vehicles. Car wash tunnel encapsulates the cleaning services, so no offensive odor, fumes or dust. Noise and vibration is in compliance with state of Minnesota noise rules.
  
10. That the proposed use will not stimulate growth incompatible with prevailing density standards. The proposed use is suitable for the area's existing density. It will not have much impact on increasing density based on the proposed use. Unlike a subdivision or mall where people would move to be there or move to be close by.





**City of Spring Lake Park**  
 1301 81<sup>st</sup> Avenue NE  
 Spring Lake Park, MN 55432  
 763-784-6491 (p) 763-792-7257 (f)  
[info@slpmn.org](mailto:info@slpmn.org)

For Office Use Only	
Case Number:	
Fee Paid:	
Received by:	
Date Filed:	
Date Complete:	
Base Fee: _____	Escrow: _____

## DEVELOPMENT APPLICATION

<b>TYPE OF APPLICATION</b> (Check All That Apply)		
<input type="checkbox"/> Appeal <input type="checkbox"/> Comprehensive Plan Amendment <input type="checkbox"/> Ordinance Amendment (Text) <input type="checkbox"/> Rezoning <input type="checkbox"/> Planned Unit Development	<input type="checkbox"/> Site Plan/Building Plan Review <input type="checkbox"/> Conceptual Plan Review <input type="checkbox"/> Conditional Use Permit <input checked="" type="checkbox"/> Variance <input type="checkbox"/> Street or Easement Vacation	<input type="checkbox"/> Minor Subdivision <input type="checkbox"/> Lot Combination <input type="checkbox"/> Preliminary Plat <input type="checkbox"/> Final Plat <input type="checkbox"/> Other _____
<b>PROPERTY INFORMATION</b>		
Street Address: 8301 UNIVERSITY AVE NE, SPRING LAKE PARK, MN		
Property Identification Number (PIN#): 023024210098		Current Zoning: C-2
Legal Description (Attach if necessary): <b>SEE WORD DOC ATTACHED.</b>		
<b>APPLICANT INFORMATION</b>		
Name: REBECCA MCALLISTER		Business Name: BOING US HOLDCO, INC.
Address: 6300 S. SYRACUSE WAY #205		
City: CENTENNIAL	State: CO	Zip Code: 80111
Telephone: 980-259-0701	Fax:	E-mail: REB
Contact: REBECCA MCALLISTER		Title: PROJECT MANAGER
<b>OWNER INFORMATION</b> (if different from applicant)		
Name: SAJADY, MUCHTAR & FATIMA		Business Name: N/A
Address: 10482 MISSISSIPPI BLVD		
City: COON RAPIDS	State: MN	Zip Code: 55433
Telephone:	Fax:	E-mail:
Contact:		Title:
<b>DESCRIPTION OF REQUEST</b> (attach additional information if needed)		
Existing Use of Property: <b>Auto Repair</b>		
Nature of Proposed Use: <b>Car wash (conveyor) &amp; self service vacuums</b>		
Reason(s) to Approve Request: Seeking approval of a proposed car wash use on the subject property. The existing use is auto repair and car wash is a like use servicing vehicles.		
<b>PREVIOUS APPLICATIONS PERTAINING TO THE SUBJECT SITE</b>		
Project Name: Take 5 Express Car Wash of Spring Lake Park		Date of Application: 04/29/22
Nature of Request: Variance requests from Zoning Code section 16.64.050 Appendix E part B. Please see Variance Supplement document for more information.		
<b>NOTE:</b> Applications only accepted with ALL required support documents. See City Code		

**APPLICATION FEES AND EXPENSES:**

The City of Spring Lake Park required all applicants to reimburse the City for any and all costs incurred by the City to review and act upon applications.

The application fee includes administrative costs which are necessary to process the application. The escrow fee will include all charges for staff time by the City Planner, City Engineer, City Attorney, and/or any other consultants as needed to process the application.

The City will track all consultant costs associated with the application. If these costs are projected to exceed the money initially deposited to your escrow account, you will be notified in the manner that you have identified below that additional monies are required in order for your application process to continue. If you choose to terminate the application (notice must be in writing), you will be responsible for all costs incurred to that point. If you choose to continue the process you will be billed for the additional monies and an explanation of expenses will be furnished. Remittance of these additional fees will be due within thirty (30) days from the date the invoice is mailed. If payment is not received as required by this agreement, the City may approve a special assessment for which the property owner specifically agrees to be to be assessed for 100 percent per annum and waives any and all appeals under Minnesota Statutes Section 429.081 as amended. **All fees and expenses are due whether the application is approved or denied.**

With my signature below, I hereby acknowledge that I have read this agreement in its entirety and understand the terms herein. **I agree to pay to the City all costs incurred during the review process as set forth in this Agreement.** This includes any and all expenses that exceed the initial Escrow Deposit to be paid within 30 days of billing notification. I further understand that the application process will be terminated if payment is not made and application may be denied for failure to reimburse City for costs. I further understand that the City may approve a special assessment against my property for any unpaid escrows and that I specifically waive any and all appeals under Minnesota Statutes 429.081, as amended.

I wish to be notified of additional costs in the following manner (select one):

- E-mail msmith@cor3design.com       Fax \_\_\_\_\_       USPS – Certified Mail

I, the undersigned, hereby apply for the considerations described above and declare that the information and materials submitted in support of this application are in compliance with adopted City policy and ordinance requirements are complete to the best of my knowledge.

I acknowledge that I have read the statement entitled "Application Fees and Expenses" as listed above.

I understand that this application will be processed in accordance with established City review procedures and Minnesota Statutes Section 15.99 as amended, at such time as it is determined to be complete. Pursuant to Minnesota Statutes Section 15.99, the City will notify the applicant within fifteen (15) business days from the filing date of any incomplete or other information necessary to complete the application. Failure on my part to supply all necessary information as requested by the City may be cause for denying this application.

Applicant: \_\_\_\_\_ Date: \_\_\_\_\_

Owner:   Date: 5-3-22

**NOTE:** Applications only accepted with ALL required support documents.  
See City Code

**City of Spring Lake Park  
Variance Supplemental Application**

A variance cannot be approved unless the Planning Commission and City Council find that the "practical difficulties" standard has been met. Please provide a response as to how/why your project will meet the following criteria. Use additional sheets if necessary and consult with the Zoning Administrator if you need clarification on the intent of any of the standards set below.

1. Applicant Information:

Name: BOING US HOLDCO, INC.

Telephone: 980-259-0701

Address: 6300 S. Syracuse Way #205

Cell Phone: \_\_\_\_\_

City/State/Zip: Centennial, CO 80111

E-mail: Rebecca.McAllister@drivenbrands.com

2. Property Owner Information (if different from above):

Name: Sajady, Muchtar & Fatima

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

Address: 10482 Mississippi Blvd

Cell Phone: \_\_\_\_\_

City/State/Zip: Coon Rapids, MN 55433

E-mail: \_\_\_\_\_

3. Project Location (Address and Legal Description): 8301 University Ave NE, Spring Lake Park, MN

4. Present Use of Property: Auto Repair

5. Description of Project: Redevelopment of existing auto repair facility to a new car wash business.

6. Specify Section of the Ordinance from which variance is sought: \_\_\_\_\_

Zoning Code section 16.64.050 Appendix E part B.

7. Explain how you wish to vary from the applicable provisions of this Ordinance: \_\_\_\_\_

1. Corner Side Yard Parking Setback 15' (25' Req./South) 2. Side Yard Parking Setback 3' (10' Req./North) 3. Rear Yard Building Setback 15' (Req. 30'/East)

8. Please attach a site plan or accurate survey as may be required by Ordinance.

9. **Practical Difficulties Test:** Please answer the following questions as they relate to your specific variance request.

a. In your opinion, is the variance in harmony with the purposes and intent of the Ordinance?

Yes  No Why or why not?

Yes, the intent is to provide buffers and separations from ROW and adjacent properties

which we are doing our best to meet. 1. Existing development has 0' parking setback to south, so this would be a great improvement. 2. North property has encroachments existing, same owner, fencing could be proposed to help buffer the property. 3. Building setback proposed is 15' on east side which would be in compliance with side setback. Adjacent property would have a 15' requirement on that property line, so it is believed to be harmonious.

b. In your opinion, is the variance consistent with the Comprehensive Plan?

Yes  No Why or why not?

The requested variances do not have an impact on the comprehensive plan. Land use is  
consistent. Lot coverage and impervious surface coverage is in compliance.

c. In your opinion, does the proposal put property to use in a reasonable manner?

Yes  No Why or why not?

Yes the current development is auto repair and car wash use is similar in that it services  
vehicles. The variances will allow for this development and will ultimately improve  
the site as it is not in conformance in its current state.

d. In your opinion, are there circumstances unique to the property? (physical characteristics of the property – i.e. sloping topography or other natural features like wetlands or trees)?

Yes  No Why or why not?

The unique circumstance here is that this is a corner lot. Corner lots have two frontages  
which makes site more difficult to develop. After applying 25' parking setbacks adding  
24' two way drive aisle, 20' parking and 5' sidewalks in conjunction with building setbacks  
leaves little room to develop for the site and this is the hardship we are trying to work past.

e. In your opinion, will the variance maintain the essential character of the locality?

Yes  No Why or why not?

Yes, there are requests for slight reductions on the north and south parking setbacks which  
will still improve the existing site's non-conformance. The east side property line meets 15'  
if viewed as side setback which would be the adjacent property's criteria, so we believe this  
meets the essential character of the locality.

The Planning Commission must make an affirmative finding on all of the five criteria listed above in order to grant a variance. The applicant for a variance has the burden of proof to show that all of the criteria listed above have been satisfied.

The undersigned certifies that they are familiar with application fees and other associated costs and also with the procedural requirements of the City Code and other applicable ordinances.

Applicant Signature:

Rebecca McAllister

Date:

04/29/2022

Fee Owner's (Property Owner) Signature:

Arthur Smiley

[Signature]

Date:

5-3-22



## 16.60.040 Variances

- A. *Purpose.* The City Council may grant a variance from the strict application of this title and impose conditions and safeguards on the variance so granted only in instances where their strict enforcement would cause practical difficulties in complying with the official control because of circumstances unique to the individual property under consideration, and may grant a variance only when it is demonstrated that such actions will be in harmony with the general purposes and intent of this title and when the variances are consistent with the Comprehensive Plan. "Practical difficulties" as used in connection with the granting of a variance means that the property owner proposes to use the property in a reasonable manner not permitted by an official control, the plight of the landowner is due to circumstances unique to the property not created by the landowner, and the variance, if granted, will not alter the essential character of the locality. Economic considerations alone do not constitute practical difficulties. Practical difficulties also includes, but is not limited to, direct sunlight for solar energy systems. A variance shall not be granted to allow a use that is not allowed in the zoning district involved.
- B. The City Council may impose conditions in the granting of variances. A condition must be directly related to and must bear a rough proportionality to the impact created by the variance.
- C. *Application.* An application for a variance shall be filed with the Zoning Administrator and shall state the unique circumstances claimed as a basis for the variance. The application shall contain at least the following information:
1. The signature of each owner of affected property or his agent.
  2. The legal description of the property and the common address.
  3. A description of the variance requested and a statement demonstrating that the variance would conform to the requirements necessary for approval.
  4. The present use.
  5. Any maps, drawings and plans that the Zoning Administrator considers to be of value in considering the application.
- D. *Referral to Planning Commission.* The application shall be referred to the Planning Commission for study concerning the effect of the proposed variance upon the Comprehensive Plan, and upon the character and development of the surrounding neighborhood. The Planning Commission shall make a recommendation to the City Council to grant or deny the variance, and may recommend imposing conditions in the granting of the variance. The conditions may include considerations such as location, character and other features of the proposed building.
- E. *Approval; denial.* Variances require the approval of a majority vote of the City Council. Variances may be denied by motion of the City Council and such motion shall constitute a determination that the findings required for approval do not exist. No application for a variance which has been denied in whole or in part shall be resubmitted within six months of the date of the order of denial, except upon grounds of new evidence or upon proof of change of conditions. The City Council may impose conditions upon the granting of a variance. The conditions may include considerations such as location, aesthetics and other features of the proposed buildings. A condition must be directly related to and must bear a rough proportionality to the impact created by the variance.
- F. *Decision period.* All applications shall be reviewed consistent with M.S. § 15.99.
- G. *Revocation.* A violation of any condition attached to the approval of a variance shall constitute a violation of this title and shall constitute sufficient cause for the termination of the variance by the

City Council.

H. *Expiration.* If the development does not proceed within one year of the date on which the variance was granted, such variance shall become void, except that, on application, the City Council may extend the variance for such additional period as it deems appropriate.







# GENERAL CONSTRUCTION NOTES

1. STANDARDS AND SPECIFICATIONS: ALL MATERIALS, CONSTRUCTION METHODS, WORKMANSHIP, EQUIPMENT, SERVICES AND TESTING FOR ALL PUBLIC IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' ORDINANCES, REGULATIONS, REQUIREMENTS, STATUTES, SPECIFICATIONS AND DETAILS, LATEST PRINTING AND AMENDMENTS THERETO. THE GOVERNING AUTHORITIES' PUBLIC WORKS AND WATER DEPARTMENT REQUIREMENTS, PLUMBING CODES, AND FIRE DEPARTMENT REGULATIONS SHALL TAKE PRECEDENT FOR ALL PRIVATE IMPROVEMENTS WHERE APPLICABLE.
2. EXAMINATION OF SITE: THE CONTRACTOR ACKNOWLEDGES THAT HE HAS INVESTIGATED AND SATISFIED HIMSELF AS TO THE CONDITIONS AFFECTING THE WORK, INCLUDING BUT NOT RESTRICTED TO THOSE BEARING UPON TRANSPORTATION, DISPOSAL, HANDLING AND STORAGE OF MATERIALS, AVAILABILITY OF LABOR, WATER, ELECTRIC POWER, ROADS AND UNCERTAINTIES OF WEATHER, OR SIMILAR PHYSICAL CONDITIONS AT THE SITE, CONDITIONS OF THE GROUND, THE CHARACTER OF EQUIPMENT AND FACILITIES NEEDED PRELIMINARY TO AND DURING PERFORMANCE OF THE WORK. THE CONTRACTOR ACKNOWLEDGES THAT HE HAS INSPECTED THE SITE OF THE WORK AND IS FAMILIAR WITH THE SOIL CONDITIONS TO BE ENCOUNTERED. ANY FAILURE BY THE CONTRACTOR TO ACQUAINT HIMSELF WITH THE AVAILABLE INFORMATION WILL NOT RELIEVE HIM FROM RESPONSIBILITY FOR ESTIMATING PROPERLY THE DIFFICULTY OR COST OF SUCCESSFULLY PERFORMING THE WORK. THE DEVELOPER ASSUMES NO RESPONSIBILITY FOR ANY CONCLUSIONS OR INTERPRETATIONS MADE BY THE CONTRACTOR ON THE BASIS OF THE INFORMATION MADE AVAILABLE BY THE DEVELOPER.
3. SUBSURFACE INVESTIGATION: SUBSURFACE EXPLORATION TO ASCERTAIN THE NATURE OF SOILS, INCLUDING THE AMOUNT OF ROCK, IF ANY, IS THE RESPONSIBILITY OF THE CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE SUCH SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO DETERMINE THE NATURE OF THE MATERIAL TO BE ENCOUNTERED. SOME SUBSURFACE EXPLORATION HAS BEEN PERFORMED BY THE GEOTECHNICAL ENGINEER OF RECORD ON THE PROJECT AND IS PROVIDED FOR INFORMATIONAL PURPOSES. THE DEVELOPER AND ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY, TRUE LOCATION AND EXTENT OF THE SOILS INFORMATION THAT HAS BEEN PREPARED BY OTHERS. THEY FURTHER DISCLAIM RESPONSIBILITY FOR INTERPRETATION OF THAT DATA BY THE CONTRACTOR, AS IN PROJECTING SOIL BEARING VALUES, ROCK PROFILES, SOILS STABILITY AND THE PRESENCE, LEVEL AND EXTENT OF UNDERGROUND WATER.
4. TOPOGRAPHIC SURVEY: TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THE PLANS IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE INFORMATION SHOWN IS CORRECT AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY ERRORS, DISCREPANCIES OR OMISSIONS TO THE SURVEY INFORMATION PROVIDED. ANY COSTS INCURRED AS THE RESULT OF NOT CONFIRMING THE ACTUAL SURVEY SHALL BE BORNE BY THE CONTRACTOR.
5. COMPLIANCE WITH LAWS: THE CONTRACTOR SHALL FULLY COMPLY WITH ALL LOCAL, STATE AND FEDERAL LAWS, INCLUDING ALL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS CONTRACT AND THE WORK TO BE DONE THEREUNDER, WHICH EXIST OR MAY BE ENACTED LATER BY GOVERNMENTAL BODIES HAVING JURISDICTION OR AUTHORITY FOR SUCH ENACTMENT. ALL WORK REQUIRED UNDER THIS CONTRACT SHALL COMPLY WITH ALL REQUIREMENTS OF LAW, REGULATION, PERMIT OR LICENSE. IF THE CONTRACTOR FINDS THAT THERE IS A VARIANCE, HE SHALL IMMEDIATELY REPORT THIS TO THE DEVELOPER FOR RESOLUTION.
6. PUBLIC CONVENIENCE AND SAFETY: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.  
  
MATERIALS STORED ON THE WORK SITE SHALL BE SO PLACED, AND THE WORK SHALL AT ALL TIMES BE SO CONDUCTED, AS TO CAUSE NO GREATER OBSTRUCTION TO THE TRAVELING PUBLIC THAN IS CONSIDERED ACCEPTABLE BY THE GOVERNING AUTHORITIES AND THE DEVELOPER. THE MATERIALS EXCAVATED SHALL BE PLACED SO AS NOT TO ENDANGER THE WORK OR PREVENT FREE ACCESS TO ALL FIRE HYDRANTS, WATER VALVES, GAS VALVES, MANHOLES, AND FIRE ALARM OR POLICE CALL BOXES IN THE VICINITY.  
  
THE DEVELOPER RESERVES THE RIGHT TO REMEDY ANY NEGLIGENCE ON THE PART OF THE CONTRACTOR WITH REGARDS TO THE PUBLIC CONVENIENCE AND SAFETY WHICH MAY COME TO THE DEVELOPER'S ATTENTION, AFTER 24 HOURS NOTICE IN WRITING TO THE CONTRACTOR, SAVE IN CASES OF EMERGENCY, WHEN THE DEVELOPER SHALL HAVE THE RIGHT TO REMEDY ANY NEGLIGENCE WITHOUT NOTICE; AND, IN EITHER CASE, THE COST OF SUCH WORK DONE BY THE DEVELOPER SHALL BE DEDUCTED FROM THE MONIES DUE OR TO BECOME DUE TO THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE DEVELOPER AND THE GOVERNING AUTHORITIES WHEN ANY STREET IS TO BE CLOSED OR OBSTRUCTED. THE CONTRACTOR SHALL KEEP ANY STREET OR STREETS IN CONDITION FOR UNOBSTRUCTED USE BY EMERGENCY SERVICES. WHERE THE CONTRACTOR IS REQUIRED TO CONSTRUCT TEMPORARY BRIDGES OR TO MAKE OTHER ARRANGEMENTS FOR CROSSING OVER DITCHES OR STREAMS, HIS RESPONSIBILITY FOR ACCIDENTS SHALL INCLUDE THE ROADWAY APPROACHES AS WELL AS THE STRUCTURES OF SUCH CROSSINGS.
7. STORM WATER POLLUTION PREVENTION PLAN (SWP3): THE CONTRACTOR SHALL COMPLY WITH THE CONDITIONS OF THE SWP3 WHILE CONDUCTING HIS ACTIVITIES ON THE PROJECT. IN ADDITION TO CONSTRUCTING THOSE ITEMS INDICATED ON THE PLAN SHEETS, COMPLIANCE WITH THE SWP3 INCLUDES CONFORMANCE TO CERTAIN PRACTICES AND PROCEDURES (IDENTIFIED IN THE SWP3) DURING PROJECT CONSTRUCTION.
8. PERMITS AND LICENSES: THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND LICENSES NECESSARY FOR THE EXECUTION OF THE WORK AND SHALL FULLY COMPLY WITH ALL THEIR TERMS AND CONDITIONS. WHENEVER THE WORK UNDER THIS CONTRACT REQUIRES THE OBTAINING OF PERMITS FROM THE GOVERNING AUTHORITIES, THE CONTRACTOR SHALL FURNISH DUPLICATE COPIES OF SUCH PERMITS TO THE DEVELOPER BEFORE THE WORK COVERED THEREBY IS STARTED. NO WORK WILL BE ALLOWED TO PROCEED BEFORE SUCH PERMITS ARE OBTAINED.
9. IMPACT FEES: THE DEVELOPER WILL PAY ALL IMPACT FEES APPLICABLE TO THE PROJECT.
10. BONDS: PERFORMANCE, PAYMENT AND MAINTENANCE BONDS WILL BE REQUIRED FROM THE CONTRACTOR FOR ALL WORK CONSIDERED TO BE "PUBLIC" IMPROVEMENTS. BONDS SHALL BE IN THE FORM AND IN THE AMOUNTS AS REQUIRED BY THE GOVERNING AUTHORITIES.
11. VENDOR'S CERTIFICATION: ALL MATERIALS USED IN CONSTRUCTION SHALL HAVE A VENDOR'S CERTIFIED TEST REPORT. TEST REPORTS SHALL BE DELIVERED TO THE ENGINEER BEFORE PERMISSION WILL BE GRANTED FOR USE OF THE MATERIAL. ALL VENDOR'S TEST REPORTS SHALL BE SUBJECT TO REVIEW BY THE ENGINEER AND SHALL BE SUBJECT TO VERIFICATION BY TESTING FROM SAMPLES OF MATERIALS AS RECEIVED FOR USE ON THE PROJECT. IN THE EVENT ADDITIONAL TESTS ARE REQUIRED, THEY SHALL BE PERFORMED BY AN APPROVED INDEPENDENT TESTING LABORATORY AND SHALL BE PAID FOR BY THE CONTRACTOR.
12. TESTING: THE TESTING AND CONTROL OF ALL MATERIALS USED IN THE WORK SHALL BE DONE BY AN INDEPENDENT TESTING LABORATORY, EMPLOYED AND PAID DIRECTLY BY THE DEVELOPER. IN THE EVENT THE RESULTS OF INITIAL TESTING DO NOT COMPLY WITH THE PLANS AND SPECIFICATIONS, SUBSEQUENT TESTS NECESSARY TO DETERMINE THE ACCEPTABILITY OF MATERIALS OR CONSTRUCTION SHALL BE FURNISHED AND PAID BY THE CONTRACTOR AS DIRECTED BY THE DEVELOPER. PAYMENT WILL BE MADE BY DEDUCTION FROM PAYMENT DUE THE CONTRACTOR.
13. INSPECTION: INSPECTION OF THE PROPOSED CONSTRUCTION WILL BE PROVIDED BY THE GOVERNING AUTHORITIES AND/OR THE DEVELOPER. COSTS FOR INSPECTION SERVICES WILL BE PAID BY THE DEVELOPER. THE CONTRACTOR SHALL PROVIDE ASSISTANCE BY PROVIDING EXCAVATION, TRENCH SAFETY, OR OTHER WORK NECESSARY TO FACILITATE INSPECTION ACTIVITIES, AND SHALL GIVE SUFFICIENT NOTICE WELL IN ADVANCE OF PENDING CONSTRUCTION ACTIVITIES TO THE GOVERNING AUTHORITIES AND/OR DEVELOPER OR SCHEDULING OF INSPECTION SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DETERMINATION OF ANY REQUIRED INSPECTIONS, THE SCHEDULING, CONTROL OF INSPECTIONS AND THE ACCEPTANCE OF ALL PUBLIC AND/OR PRIVATE UTILITIES BY THE APPROPRIATE GOVERNING AUTHORITY PRIOR TO TRENCH BACKFILLING.
14. SHOP DRAWINGS: THE CONTRACTOR SHALL PROVIDE, REVIEW, APPROVE AND SUBMIT ALL SHOP DRAWINGS, PRODUCT DATA AND SAMPLES REQUIRED BY THE GOVERNING AUTHORITIES.

15. SURVEYING: ALL SURVEYING REQUIRED FOR CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE DEVELOPER SHALL PROVIDE THE PROPERTY CORNERS AND TWO BENCHMARKS FOR USE AS HORIZONTAL AND VERTICAL. THE CONTRACTOR SHALL EMPLOY A REGISTERED PROFESSIONAL LAND SURVEYOR TO PERFORM ALL ADDITIONAL SURVEY, LAYOUT AND MEASUREMENT WORK NECESSARY FOR THE COMPLETION OF THE PROJECT.
16. PROTECTION OF PROPERTY CORNERS AND BENCHMARKS: THE CONTRACTOR SHALL PROTECT ALL PROPERTY CORNER MARKERS AND BENCHMARKS, AND WHEN ANY SUCH MARKERS OR MONUMENTS ARE IN DANGER OF BEING DISTURBED, THEY SHALL BE PROPERLY REFERENCED AND IF DISTURBED SHALL BE RESET BY A REGISTERED PUBLIC SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
17. EXISTING STRUCTURES: THE PLANS SHOW THE LOCATION OF ALL KNOWN SURFACE AND SUBSURFACE STRUCTURES; HOWEVER, THE DEVELOPER AND ENGINEER ASSUME NO RESPONSIBILITY FOR FAILURE TO SHOW ANY OR ALL OF THESE STRUCTURES ON THE PLANS, OR TO SHOW THEM IN THEIR EXACT LOCATION. SUCH FAILURE SHALL NOT BE CONSIDERED SUFFICIENT BASIS FOR CLAIMS FOR ADDITIONAL COMPENSATION FOR EXTRA WORK OR FOR INCREASING THE PAY QUANTITIES IN ANY MANNER WHATSOEVER, UNLESS THE OBSTRUCTION ENCOUNTERED IS SUCH AS TO REQUIRE CHANGES IN THE LINES OR GRADES, OR REQUIRE THE CONSTRUCTION OF SPECIAL WORK, FOR WHICH PROVISIONS ARE NOT MADE IN THE PLANS.
18. PROTECTION OF EXISTING UTILITIES: NOTIFY GOPHER STATE ONE CALL (1-800-252-1166) AT LEAST 2 WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION. PRIOR TO ANY EXCAVATION OPERATIONS BEING PERFORMED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT DIGGERS HOTLINE, INC. THE LOCATION AND DIMENSIONS SHOWN ON THE PLANS RELATIVE TO EXISTING UTILITIES ARE BASED ON THE BEST RECORDS AND/OR FIELD INFORMATION AVAILABLE AND ARE NOT GUARANTEED BY THE DEVELOPER OR ENGINEER TO BE ACCURATE AS TO LOCATION AND DEPTH. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF HIS ACTIVITIES IN ORDER THAT HE MAY NEGOTIATE SUCH LOCAL ADJUSTMENTS AS NECESSARY IN THE CONSTRUCTION PROCESS TO PROVIDE ADEQUATE CLEARANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL EXISTING UTILITIES, SERVICES AND STRUCTURES ENCOUNTERED, WHETHER OR NOT THEY ARE INDICATED ON THE PLANS. ANY DAMAGE TO UTILITIES RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT HIS EXPENSE. TO AVOID UNNECESSARY INTERFERENCES OR DELAYS, THE CONTRACTOR SHALL COORDINATE ALL UTILITY REMOVALS, REPLACEMENTS AND CONSTRUCTION WITH THE APPROPRIATE GOVERNING AUTHORITIES, THEN REQUEST WRITTEN AUTHORIZATION FROM THE ENGINEER. THE DEVELOPER WILL NOT BE LIABLE FOR DAMAGES DUE TO DELAY AS A RESULT OF THE ABOVE.
19. DAMAGE TO EXISTING FACILITIES: ALL UTILITIES, PAVEMENT, SIDEWALKS, WALLS, FENCES, ETC. NOT DESIGNATED TO BE REMOVED BUT THAT ARE DAMAGED DURING CONSTRUCTION ACTIVITIES SHALL BE REPLACED TO A CONDITION AS GOOD AS OR BETTER THAN THE CONDITIONS PRIOR TO STARTING THE WORK, SOLELY AT THE EXPENSE OF THE CONTRACTOR.
20. FIRE AND LIFE SAFETY SYSTEMS: CONTRACTOR SHALL NOT REMOVE, DISABLE OR DISRUPT EXISTING FIRE OR LIFE SAFETY SYSTEMS WITHOUT WRITTEN PERMISSION FROM THE GOVERNING AUTHORITY.
21. TRENCH SAFETY: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND MAINTAIN A VIABLE TRENCH SAFETY SYSTEM AT ALL TIMES DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR IS DIRECTED TO BECOME KNOWLEDGEABLE AND FAMILIAR WITH THE STANDARDS AS SET BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. THE CONTRACTOR SHALL PROVIDE TRENCH SAFETY SYSTEM PLANS, PREPARED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WISCONSIN, FOR THE IMPLEMENTATION OF SAFETY CONTROL MEASURES MEETING THE REQUIREMENTS OF THE GOVERNING AUTHORITIES THAT WILL BE IN EFFECT DURING THE PERIOD OF CONSTRUCTION OF THE PROJECT.
22. SAFETY RESTRICTIONS - WORK NEAR HIGH VOLTAGE LINES: THE FOLLOWING PROCEDURES WILL BE FOLLOWED REGARDING THE SUBJECT ITEM ON THIS CONTRACT:
  - A. A WARNING SIGN NOT LESS THAN FIVE INCHES PAINTED YELLOW WITH BLACK LETTERS THAT ARE LEGIBLE AT 12 FEET SHALL BE PLACED INSIDE AND OUTSIDE VEHICLES SUCH AS CRANES, DERRICKS, POWER SHOVELS, DRILLING RIGS, PILE DRIVER, HOISTING EQUIPMENT OR SIMILAR APPARATUS. THE WARNING SIGN SHALL READ AS FOLLOWS: "WARNINGS - UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN SIX FEET OF HIGH VOLTAGE LINES."
  - B. EQUIPMENT THAT MAY BE OPERATED WITHIN TEN FEET OF HIGH VOLTAGE LINES SHALL HAVE AN INSULATING CAGE-TYPE OF GUARD ABOUT THE BOOM OR ARM, EXCEPT BACKHOES OR DIPPERS, AND INSULATOR LINKS ON THE LIFT HOOK CONNECTIONS.
  - C. WHEN NECESSARY TO WORK WITHIN SIX FEET OF HIGH VOLTAGE ELECTRIC LINES, NOTIFY THE POWER COMPANY WHO WILL ERECT TEMPORARY MECHANICAL BARRIERS, DE-ENERGIZE THE LINE OR RAISE OR LOWER THE LINE. THE WORK DONE BY THE POWER COMPANY SHALL BE AT THE EXPENSE OF THE CONTRACTOR. THE NOTIFYING DEPARTMENT SHALL MAINTAIN AN ACCURATE LOG OF ALL SUCH CALLS TO THE POWER COMPANY AND SHALL RECORD ACTION TAKEN IN EACH CASE.
  - D. THE CONTRACTOR IS REQUIRED TO MAKE ARRANGEMENTS WITH THE POWER COMPANY FOR THE TEMPORARY RELOCATION OR RAISING OF HIGH VOLTAGE LINES AT THE CONTRACTOR'S SOLE COST AND EXPENSE.
  - E. NO PERSON SHALL WORK WITHIN SIX FEET OF A HIGH VOLTAGE LINE WITHOUT PROTECTION HAVING BEEN TAKEN AS OUTLINED IN PARAGRAPH C. ABOVE.
23. TRAFFIC CONTROL: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP AND SUBMIT FOR APPROVAL BY THE GOVERNING AUTHORITIES, A TRAFFIC CONTROL PLAN, PREPARED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WISCONSIN, OUTLINING TRAFFIC MANAGEMENT PROCEDURES TO BE PROVIDED DURING CONSTRUCTION. TRAFFIC CONTROL MEASURES SHALL BE PROVIDED IN ACCORDANCE WITH THE FOLLOWING ADDITIONAL REQUIREMENTS:
  - A. CONSTRUCTION OF SIGNING AND BARRICADES SHALL CONFORM WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARDS, CURRENT EDITION.
  - B. THE CONTRACTOR SHALL BE REQUIRED TO FURNISH BARRICADES, FLARES, FLAGMEN, ETC., FOR THE PROTECTION OF THE PUBLIC, EMPLOYEES AND THE WORK.
  - C. THE CONTRACTOR SHALL PERFORM THEIR WORK IN SUCH A MANNER AS TO CREATE A MINIMUM OF INTERRUPTION TO TRAFFIC ALONG ADJACENT ROADWAYS. TWO WAY TRAFFIC MUST BE MAINTAINED ON ALL ROADWAYS AT ALL TIMES THROUGHOUT CONSTRUCTION UNLESS WRITTEN PERMISSION IS GRANTED BY THE GOVERNING AUTHORITIES.
  - D. ALL SIGNAGE, MARKINGS, LIGHTING, BARRICADES, FLAGMEN AND OTHER DEVICES AND PERSONNEL REQUIRED FOR TRAFFIC CONTROL DURING CONSTRUCTION OF THE PROJECT WILL BE INCLUDED IN THE CONTRACT AMOUNT.
  - E. ALL TRAFFIC CONTROL DEVICES USED DURING NIGHTTIME SHALL BE REFLECTORIZED, ILLUMINATED FROM WITHIN OR EXTERNALLY ILLUMINATED.
  - F. THE CONTRACTOR SHALL NOT REMOVE ANY REGULATORY SIGN, INSTRUCTIONAL SIGN, WARNING SIGN, STREET NAME SIGN OR ANY SIGNAL WHICH CURRENTLY EXISTS WITHOUT THE CONSENT OF THE GOVERNING AUTHORITIES.
  - G. THE CONTRACTOR SHALL MAINTAIN AND REPLACE, WHERE NECESSARY, ALL SIGNS, LIGHTS, MARKINGS AND TEMPORARY PAVEMENT THROUGHOUT THE CONSTRUCTION PERIOD.
  - H. THE CONTRACTOR SHALL REMOVE ALL TRAFFIC CONTROL MEASURES AT THE END OF CONSTRUCTION AND RESTORE UNIMPROVED PAVEMENT AND OTHER DISTURBED AREAS TO THEIR ORIGINAL CONDITION.
24. ACCESS TO ADJACENT PROPERTIES: ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE DIRECTED BY THE GOVERNING AUTHORITIES AND/OR DEVELOPER.
25. ACCESS ROUTES, STAGING AREAS AND STORAGE AREAS: ALL PRIVATE HAUL ROADS, ACCESS ROUTES, STAGING AND STORAGE AREAS SHALL BE SUBJECT TO THE APPROVAL OF THE DEVELOPER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND REPAIRING ALL ROADS AND OTHER FACILITIES USED DURING CONSTRUCTION. UPON COMPLETION OF THE PROJECT, ALL HAUL ROADS, ACCESS ROADS, STAGING AND STORAGE AREAS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THAT AT THE TIME THE CONTRACTOR COMMENCED WORK ON THE PROJECT.

26. PARKING OF CONSTRUCTION EQUIPMENT: AT NIGHT AND DURING ALL OTHER PERIODS OF TIME WHEN EQUIPMENT IS NOT BEING ACTIVELY USED FOR THE CONSTRUCTION WORK, THE CONTRACTOR SHALL PARK THE EQUIPMENT AT LOCATIONS APPROVED BY THE DEVELOPER. DURING THE CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL COMPLY WITH THE PRESENT ZONING REQUIREMENTS OF THE GOVERNING AUTHORITIES IN THE USE OF VACANT PROPERTY FOR STORAGE PURPOSES. THE CONTRACTOR SHALL ALSO PROVIDE ADEQUATE BARRICADES, MARKERS AND LIGHTS TO PROTECT THE DEVELOPER, THE GOVERNING AUTHORITIES, THE PUBLIC, ALL BARRICADES, LIGHTS, AND MARKERS MUST MEET THE REQUIREMENTS OF THE GOVERNING AUTHORITIES' REGULATIONS.
27. WATER FOR CONSTRUCTION: THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR PURCHASING WATER FROM THE GOVERNING AUTHORITY FOR HIS USE ON THE PROJECT SITE. COSTS ASSOCIATED WITH THIS SERVICE SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
28. TEMPORARY ELECTRIC AND COMMUNICATIONS FOR CONSTRUCTION: THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR INSTALLATION AND PURCHASING OF TEMPORARY ELECTRIC AND COMMUNICATIONS SERVICES FROM THE GOVERNING AUTHORITIES FOR HIS USE ON THE PROJECT SITE. COSTS ASSOCIATED WITH THESE SERVICES SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
29. FENCES: ALL FENCES ENCOUNTERED AND REMOVED DURING CONSTRUCTION, EXCEPT THOSE DESIGNATED TO BE REMOVED OR RELOCATED, SHALL BE RESTORED TO THE ORIGINAL OR BETTER THAN CONDITION UPON COMPLETION OF THE PROJECT. WHERE WIRE FENCING, EITHER WIRE MESH OR BARBED WIRE, IS TO BE CROSSED, THE CONTRACTOR SHALL SET CROSS-BRACED POSTS ON EITHER SIDE OF THE CROSSING. TEMPORARY FENCING SHALL BE ERECTED IN PLACE OF THE FENCING REMOVED WHENEVER THE WORK IS NOT IN PROGRESS, AND WHEN THE SITE IS VACATED OVERNIGHT AND/OR AT ALL TIMES TO PREVENT PERSONS AND/OR LIVESTOCK FROM ENTERING THE CONSTRUCTION AREA. THE COST OF FENCE REMOVAL, TEMPORARY CLOSURES AND REPLACEMENT SHALL BE INCLUDED IN THE CONTRACT.
30. DRAINAGE CHANNELS: WHERE EXISTING DRAINAGE CHANNELS ARE TEMPORARILY DISTURBED OR BLOCKED DURING CONSTRUCTION, IT SHALL BE RESTORED TO THE ORIGINAL CONDITION, GRADE AND CROSS SECTION AFTER CONSTRUCTION IS COMPLETED.
31. COORDINATION WITH OTHERS: IN THE EVENT THAT OTHER CONTRACTORS ARE DOING WORK IN THE SAME AREA SIMULTANEOUSLY WITH THE PROJECT, THE CONTRACTOR SHALL COORDINATE HIS PROPOSED CONSTRUCTION WITH THAT OF THE OTHER CONTRACTORS.
32. CONDITION OF SITE DURING CONSTRUCTION: DURING CONSTRUCTION OF THE WORK, THE CONTRACTOR SHALL, AT ALL TIMES, KEEP THE SITE OF THE WORK AND ADJACENT PREMISES AS FREE FROM MATERIAL, DEBRIS AND RUBBISH AS IS PRACTICABLE AND SHALL REMOVE SAME FROM ANY PORTION OF THE SITE IF, IN THE OPINION OF THE DEVELOPER, SUCH MATERIAL, DEBRIS OR RUBBISH CONSTITUTES A NUISANCE OR IS OBJECTIONABLE. IN CASE OF FAILURE ON THE PART OF THE CONTRACTOR UNDER HIS CONTRACT, OR WHERE SUFFICIENT CONTRACT FUNDS ARE UNAVAILABLE FOR THIS PURPOSE, THE CONTRACTOR OR HIS SURETY SHALL REIMBURSE THE DEVELOPER FOR ALL SUCH COSTS.
33. EXISTING ROADWAYS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CLEANLINESS OF EXISTING PAVED ALL COSTS ASSOCIATED WITH MAINTAINING THE CLEANLINESS OF EXISTING ROADS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
34. DUST CONTROL: THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO CONTROL DUST ON THE PROJECT SITE BY SPRINKLING OF WATER, OR ANY OTHER METHODS APPROVED BY THE GOVERNING AUTHORITIES, AND SHALL PROVIDE ALL EQUIPMENT AND PERSONNEL REQUIRED TO PREVENT DUST FROM BECOMING A NUISANCE TO THE ADJACENT PROPERTIES.
35. CLEAN-UP FOR FINAL ACCEPTANCE: THE CONTRACTOR SHALL MAKE A FINAL CLEAN UP OF ALL PARTS OF THE WORK BEFORE ACCEPTANCE BY THE DEVELOPER. THIS CLEAN UP SHALL INCLUDE REMOVAL OF ALL OBJECTIONABLE MATERIALS AND, IN GENERAL, PREPARING THE SITE OF THE WORK IN AN ORDERLY MANNER OF APPEARANCE.
36. REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK: ALL WORK WHICH HAS BEEN REJECTED OR CONDEMNED SHALL BE REPAIRED, OR IF IT CANNOT BE REPAIRED SATISFACTORILY, IT SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. DEFECTIVE MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE WORK SITE. WORK DONE BEYOND THE LINE OR NOT IN CONFORMITY WITH THE GRADES SHOWN ON THE DRAWINGS OR AS PROVIDED, WORK DONE WITHOUT REQUIRED INSPECTION, OR ANY EXTRA OR UNCLASSIFIED WORK DONE WITHOUT WRITTEN AUTHORITY AND PRIOR AGREEMENT IN WRITING AS TO PRICES, SHALL BE AT THE CONTRACTOR'S RISK, AND WILL BE CONSIDERED UNAUTHORIZED, AND AT THE OPTION OF THE DEVELOPER MAY NOT BE MEASURED AND PAID FOR AND MAY BE ORDERED REMOVED AT THE CONTRACTOR'S EXPENSE. UPON FAILURE OF THE CONTRACTOR TO REPAIR SATISFACTORILY OR TO REMOVE AND REPLACE, IF SO DIRECTED, REJECTED, UNAUTHORIZED OR CONDEMNED WORK OR MATERIALS IMMEDIATELY AFTER RECEIVING NOTICE FROM THE DEVELOPER, THE DEVELOPER WILL, AFTER GIVING WRITTEN NOTICE TO THE CONTRACTOR, HAVE THE AUTHORITY TO CAUSE DEFECTIVE WORK TO BE REMEDIED OR REMOVED AND REPLACED, OR TO CAUSE UNAUTHORIZED WORK TO BE REMOVED AND TO DEDUCT THE COST THEREOF FROM ANY MONIES DUE OR TO BECOME DUE TO THE CONTRACTOR.
37. DISPOSITION AND DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS: ALL MATERIALS TO BE REMOVED FROM THE SITE INCLUDING BUT NOT LIMITED TO EXCESS MATERIAL AND UNSUITABLE MATERIALS SUCH AS CONCRETE, ASPHALT, LARGE ROCKS, REFUSE, AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE PROJECT AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL ALSO COMPLY WITH ALL APPLICABLE LAWS GOVERNING SPILLAGE OF DEBRIS WHILE TRANSPORTING TO A DISPOSAL SITE.
38. SEEDING: THE CONTRACTOR SHALL PROVIDE SEEDING, WATERING, FERTILIZING AND REQUIRED MAINTENANCE FOR THE GRASSING OF ALL UNPAVED AREAS OF DEDICATED RIGHT-OF-WAY, EASEMENTS, AND ALL OTHER DISTURBED AREAS OF CONSTRUCTION NOT COVERED BY THE LANDSCAPE PLAN FOR THE PROJECT. SEEDING SHALL ALSO BE PROVIDED IN CONFORMANCE WITH THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN IN ORDER TO ESTABLISH A GRASS COVER ON DISTURBED AREAS SUBJECT TO THE EROSION OF THE SOIL SURFACE.
39. RECORD DRAWINGS: THE CONTRACTOR SHALL MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF ALL MATERIALS AND SYSTEMS COVERED BY THE PROJECT CONTRACT DOCUMENTS. THESE RECORD PRINTS WILL BE REVIEWED BY THE DEVELOPER EACH MONTH PRIOR TO THE PRELIMINARY REVIEW OF CONTRACTOR'S REQUEST FOR PAYMENT. IF THE DRAWINGS ARE NOT COMPLETE, ACCURATE AND UP-TO DATE, THE DEVELOPER WILL NOT ACCEPT THE PAYMENT REQUEST. THE COMPLETED SET OF "RECORD" DRAWINGS MUST BE DELIVERED TO THE DEVELOPER BEFORE REQUESTING FINAL PAYMENT.

**CAI**  
 CARTER ASSOCIATES, INC.  
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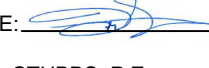
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**BOING US HOLDCO, INC.**  
 dba "TAKE 5 EXPRESS CAR WASH"  
 6300 S SYRACUSE WAY #205  
 CENTENNIAL, CO  
 EMAIL: [INTHE@BOINGUS.COM](mailto:INTHE@BOINGUS.COM)  
 TEL: (888) 259-0701

NO.	REVISION	DATE
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**TAKE 5 EXPRESS CAR WASH**  
 OF SPRING LAKE PARK, MN  
 8301 UNIVERSITY AVE NE  
 SPRING LAKE PARK, MN

**PROFESSIONAL ENGINEER**  
 I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE:   
 TREVOR G. STUBBS, P.E.  
 DATE: 05/17/22

LICENSE NUMBER: 60001

ISSUED DATE: 03-07-22  
 PROJ. # : 21-429E  
 DRAWN BY: KB  
 DATUM : SEE SURVEY  
 REF # : SEE SURVEY  
 F.B. & PG. : SEE SURVEY

SHEET TITLE:  
**CONSTRUCTION NOTES**

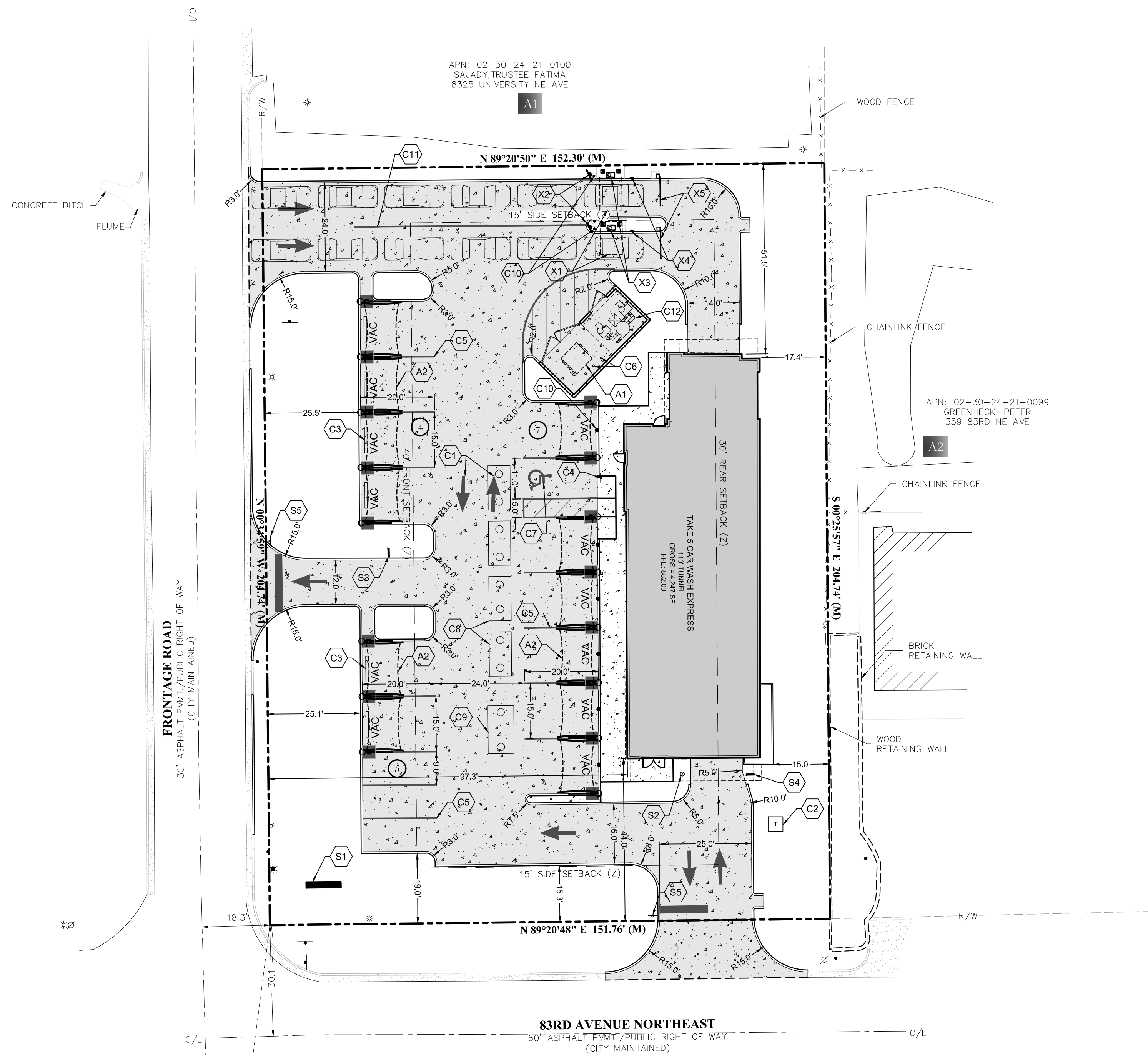
SHEET  
**C-1**

DWG. NO.







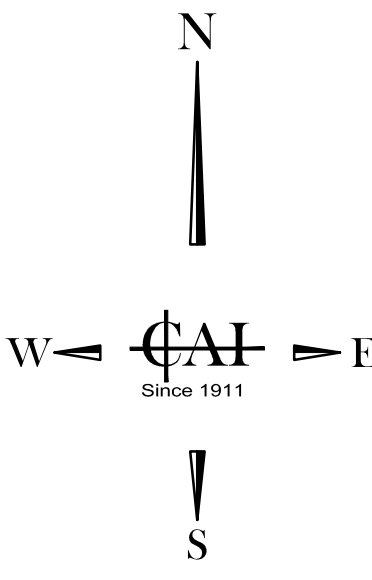
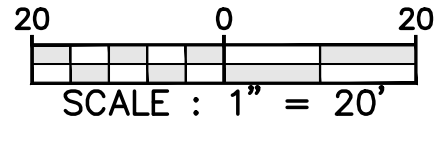


### SITE DATA

**PROJECT NAME:** TAKE 5 EXPRESS CAR WASH OF SPRING LAKE PARK, MN  
**SITE ADDRESS:** 8301 UNIVERSITY AVE NE SPRING LAKE PARK, MN 5572 AC  
**TOTAL PARCEL AREA:** VILLAGE OF SPRING LAKE PARK C-2 - NEIGHBORHOOD & SERVICE CENTER COMM.  
**JURISDICTION:** 023024210098  
**TAX PARCEL NO.:** CAR WASH (CONDITIONAL)  
**INTENDED USE:** AUTO REPAIR  
**EXISTING USE:** ZONE X  
**FLOOD ZONE:** FIRM 27003C0382E DATED DECEMBER 16, 2015

**SETBACKS:** **REQUIRED**  
 FRONT TBD  
 REAR TBD  
 SIDE TBD

**PARKING CALCULATIONS**  
**PARKING REQUIRED:** 10 SPACE PER LANE  
 TOTAL REQUIRED: 10 SPACES  
**PARKING PROVIDED:** 3 SPACES (9'x20') + 12 VAC SPACES  
 1 HANDICAP



### SITE PLAN LEGEND

- PROPOSED CONCRETE PAVEMENT (SEE PAVING PLAN)
- PROPOSED CONCRETE SIDEWALK (SEE PAVING PLAN)
- PARKING SPACE COUNTER
- PROPERTY LINE
- SAWCUT & MATCH
- BUILDING SETBACK

### SIGN KEYNOTES

- PROPOSED PYLON SIGN REFER TO SIGN PACKAGE
- TUNNEL EXIT LIGHT
- "COME BACK SOON" SIGN
- "FREE VACUUM" SIGN
- STOP SIGN

NOTE: SIGN PACKAGE BY OTHERS. SIGN PERMITTED UNDER SEPARATE PERMIT.

### SITE FEATURES KEYNOTES

- CMU DUMPSTER ENCLOSURE. REFERENCE ARCH PLANS FOR DETAILS.
- VACUUM CANOPY. REFERENCE ARCH SITE DETAILS.
- PAVEMENT MARKINGS. REFERENCE SHEET C-7 FOR DETAILS.
- PAD MOUNTED TRANSFORMER. REFERENCE SHEET C-5 FOR DETAILS.
- WHEEL STOP. REFERENCE SHEET C-7 FOR DETAILS.
- ACCESSIBLE SIGN IN BOLLARD. REFERENCE SHEET C-7 FOR DETAILS.
- 4" WHITE STRIPING. REFERENCE SHEET C-7 FOR DETAILS.
- BOLLARD TYPE I. REFERENCE SHEET C-7 FOR DETAILS.
- ACCESSIBLE PARKING. REFERENCE SHEET C-7 FOR DETAILS.
- WATER RECLAMATION SUMP. REFERENCE MEP DETAILS.
- SAND AND OIL INTERCEPTOR. REFERENCE MEP DETAILS.
- BOLLARD TYPE II. REFERENCE SHEET C-7 FOR DETAILS.
- 4" SOLID WHITE LANE STRIPE.
- VACUUM EQUIPMENT ROOM.

### PAY KIOSK KEYNOTES

- PAY STATION CANOPY. REFERENCE ARCH PLANS FOR DETAILS.
- XPT MENU BOARD. REFERENCE ARCH PLANS FOR DETAILS.
- KIOSK. REFERENCE ARCH PLANS FOR DETAILS.
- FAST PASS READER. REFERENCE ARCH PLANS FOR DETAILS.
- GATE. REFERENCE ARCH PLANS FOR DETAILS.

### SITE PLAN NOTES

- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING IMPROVEMENTS AND TREES AND OTHER DEBRIS WITHIN THE LIMITS OF THE WORK FROM THE SITE. THE BURIAL OF TREES AND OTHER DEBRIS ON-SITE WILL NOT BE ALLOWED.
- ALL CONSTRUCTION ACTIVITIES/WORK SHALL COMPLY WITH ALL GOVERNING JURISDICTIONS, STATE OF MINNESOTA, AND FEDERAL CODES AND ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE UNLESS PREVIOUSLY OBTAINED BY THE OWNER.
- ALL WORK SHALL BE PERFORMED IN A FINISHED AND WORKMANLIKE MANNER TO THE ENTIRE SATISFACTION OF THE OWNER, AND IN ACCORDANCE WITH THE BEST RECOGNIZED TRADE PRACTICES.
- ALL MATERIALS SHALL BE NEW UNLESS USED OR SALVAGED MATERIALS ARE AUTHORIZED BY THE OWNER PRIOR TO USE.
- ALL WORK PERFORMED ON CITY, COUNTY, AND/OR STATE OR FEDERAL RIGHT-OF-WAY SHALL BE IN STRICT CONFORMANCE WITH APPLICABLE STANDARDS AND SPECIFICATIONS OF THE APPROPRIATE GOVERNING AGENCIES.
- PRIOR TO COMMENCEMENT OF CONSTRUCTION BUILDING DIMENSIONS SHALL BE COORDINATED AND CHECKED WITH THE ARCHITECTURAL PLANS.
- ALL DISTURBED AREAS WITHIN SIDEWALK/ CURB AND GUTTER/ ROAD PAVEMENT SHALL BE RESTORED TO ITS ORIGINAL OR BETTER CONDITIONS.
- ALL DIMENSIONS ARE TO THE FACE OF CURB, UNLESS OTHERWISE NOTED.
- ALL SIDEWALKS SHALL HAVE A WIDTH OF 5 FEET, UNLESS OTHERWISE NOTED.

## CAI

CARTER ASSOCIATES, INC.  
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 1708 21ST STREET  
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**BOING US HOLDCO, INC.**  
 dba "TAKE 5 EXPRESS CAR WASH"  
 6300 S SYRACUSE WAY #205  
 CENTENNIAL, CO  
 TEL: (980) 256-0701  
 EMAIL: TREVOR@BOINGUS.COM

REVISION	DATE

**TAKE 5 EXPRESS CAR WASH  
 OF SPRING LAKE PARK, MN**  
 8301 UNIVERSITY AVE NE  
 SPRING LAKE PARK, MN

**PROFESSIONAL ENGINEER**  
 I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 SIGNATURE:   
 TREVOR G. STUBBS, P.E.  
 DATE: 05/07/22  
 LICENSE NUMBER: 60001

ISSUED DATE: 03-07-22  
 PROJ. # : 21-429E  
 DRAWN BY: KB  
 DATUM : SEE SURVEY  
 REF. # : SEE SURVEY  
 F.B. & PG. : SEE SURVEY

SHEET TITLE:  
**SITE PLAN**


SHEET  
**C-3**

DWG. NO.:



NO.	REVISION	DATE

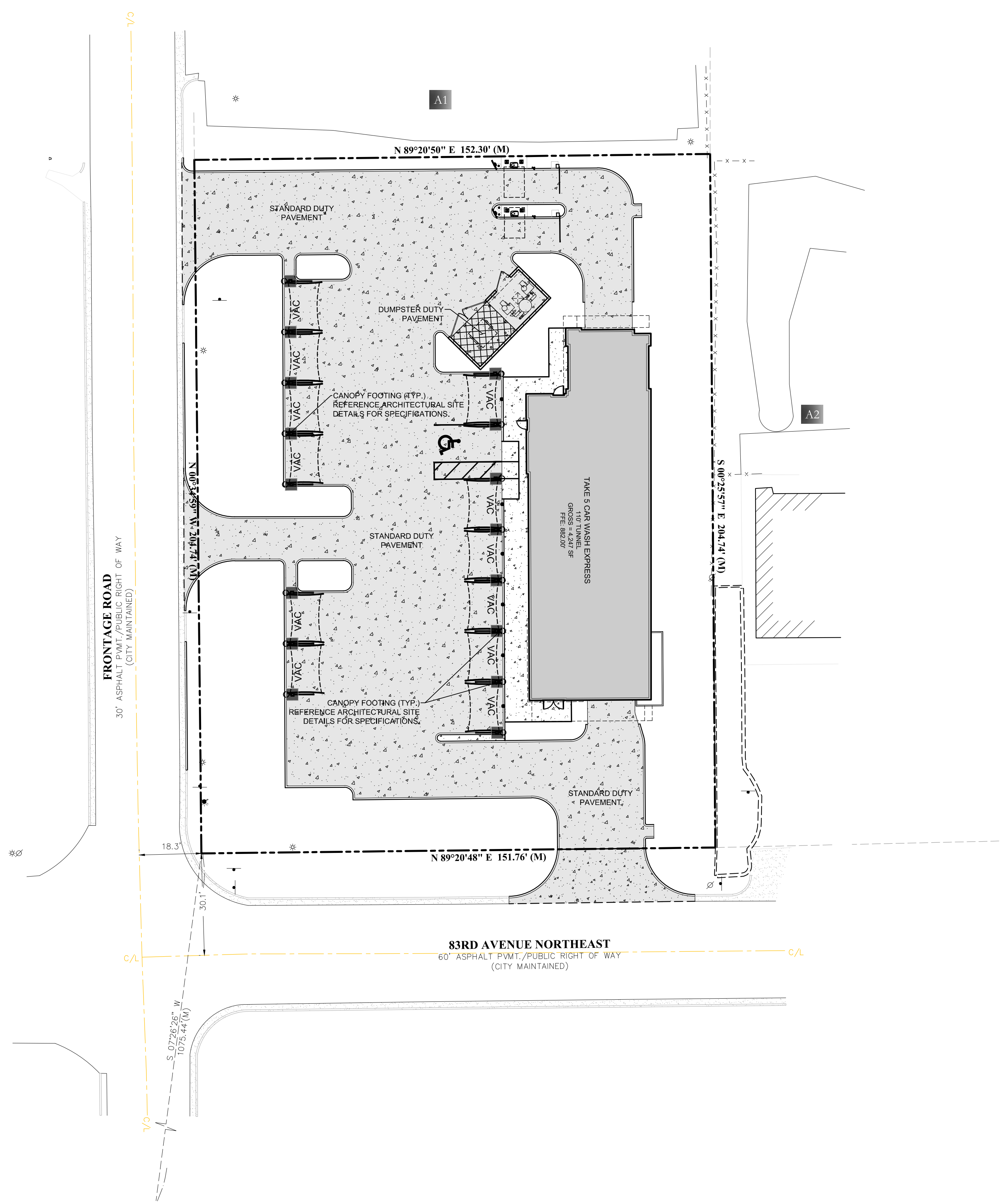
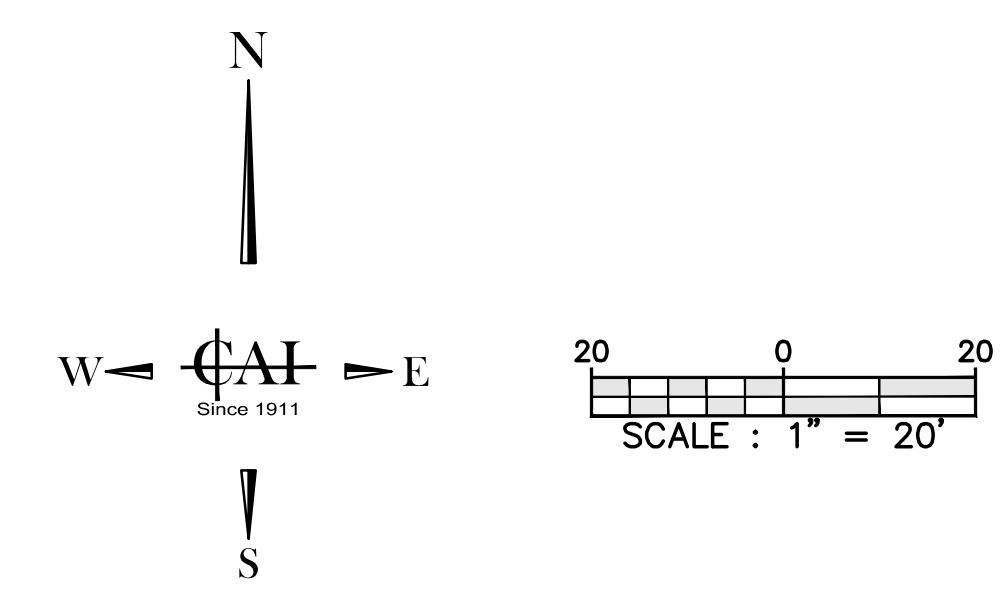
**TAKE 5 EXPRESS CAR WASH  
 OF SPRING LAKE PARK, MN**  
 8301 UNIVERSITY AVE NE  
 SPRING LAKE PARK, MN

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 TREVOR G. STUBBS, P.E.  
 DATE: 05/07/22  
 LICENSE NUMBER: 60001

ISSUED DATE: 03-07-22  
 PROJ. # : 21-4296  
 DRAWN BY: KB  
 DATUM : SEE SURVEY  
 REF. # : SEE SURVEY  
 F.B. & PG. : SEE SURVEY

SHEET TITLE:  
**PAVING PLAN**

SHEET  
**C-4**  
 DWG. NO.



### PAVING LEGEND

- STANDARD DUTY PAVEMENT**  
 6" 4,000 PSI PORTLAND CEMENT CONCRETE PAVEMENT W/ #3 BARS @ 15" O.C.E.W. ON 6" AGGREGATE BASE ON 12" SELECT FILL SUBGRADE (MIN. CBR 8) AT A MINIMUM OF 95% MAXIMUM STANDARD PROCTOR DRY DENSITY (ASTM D-698) WITHIN 2% BELOW TO 3% ABOVE OPTIMUM MOISTURE CONTENT.
- SIDEWALK & FLATWORK**  
 4" REINFORCED CONCRETE SIDEWALK FLATWORK (3,500 PSI AT 28 DAYS) W/ #3 BARS @ 18" O.C.E.W. ON COMPACTED SUBGRADE TO 95% OF THE MAXIMUM DRY DENSITY WITHIN 2 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT.
- DUMPSTER DUTY PAVEMENT**  
 7" 4,000 PSI PORTLAND CEMENT CONCRETE PAVEMENT W/ #4 BARS @ 15" O.C.E.W. ON 6" AGGREGATE BASE ON 12" SELECT FILL SUBGRADE (MIN. CBR 8) AT A MINIMUM OF 95% MAXIMUM STANDARD PROCTOR DRY DENSITY (ASTM D-698) WITHIN 2% BELOW TO 3% ABOVE OPTIMUM MOISTURE CONTENT.
- CANOPY FOUNDATION**  
 PROPOSED CANOPY FOUNDATION. REFER TO ARCHITECTURAL SITE DETAILS FOR SIZING AND SPECS.

### PAVEMENT JOINT NOTES

- PAVEMENT JOINT LAYOUT:** CONTROL JOINTS SHALL BE INSTALLED AT A MAXIMUM SPACING OF 12 FEET O.C.E.W. EXPANSION JOINTS SHALL BE INSTALLED AT A MAXIMUM SPACING OF 60 FEET. LEVEL UP SAND COURSE WILL NOT BE ALLOWED. IF A PROPOSED PAVEMENT JOINT LAYOUT PLAN HAS BEEN PROVIDED BY THE ENGINEER, THE CONTRACTOR SHALL IMPLEMENT THAT PLAN OR PROVIDE AN ALTERNATE JOINT LAYOUT TO THE ENGINEER FOR REVIEW. IF A PAVEMENT JOINT LAYOUT PLAN HAS NOT BEEN PROVIDED, THE CONTRACTOR WILL BE RESPONSIBLE FOR PREPARATION OF THE PLAN AND SUBMITTAL TO THE ENGINEER FOR REVIEW. THE CONTRACTOR'S JOINT LAYOUT PLAN SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW A MINIMUM OF 2 WEEKS PRIOR TO BEGINNING PAVING CONSTRUCTION.
- SAW CUTTING:** SAW CUTTING SHALL BE DONE WITHIN EIGHT HOURS OF POUR OR AS SOON AS CONCRETE CAN SUPPORT WEIGHT. THE CONTRACTOR SHALL MARK JOINT LOCATIONS AT THE CENTERLINE OF THE DOWEL LENGTH DURING HIS PAVING OPERATIONS. ALL SAWED JOINTS ARE TO BE TRUE IN ALIGNMENT AND SHALL CONTINUE THROUGH THE CURB. RADIAL JOINTS SHALL BE NO SHORTER THAN 18 INCHES.
- JOINT SEALING:** ALL CONSTRUCTION & CONTROL JOINTS SHALL BE SAWN, CLEANED OF DEBRIS, DIRT, DUST, SCALE, CURING COMPOUND AND CONCRETE, BLOWN DRY AND IMMEDIATELY SEALED. JOINT SEALING MATERIAL SHALL BE HOT POURED RUBBER SEALANT OR AN APPROVED EQUAL. SPECIFICATIONS TO BE SUBMITTED TO ENGINEER PRIOR TO PLACEMENT.
- ODD SHAPED PANELS:** ODD SHAPED PANELS SHALL BE REINFORCED WITH #3 BARS AT 18 INCHES O.C.E.W. AN ODD SHAPED PANEL IS CONSIDERED TO BE ONE IN WHICH THE SLAB TAPERS TO A SHARP ANGLE WHEN THE LENGTH TO WIDTH RATIO EXCEEDS 3 TO 1 OR WHEN A SLAB IS NEITHER SQUARE NOR RECTANGULAR.
- EXPANSION JOINTS:** THE CONTRACTOR SHALL PROVIDE AN EXPANSION JOINT AROUND THE PERIMETER OF ANY BLOCKOUT IN THE CONCRETE PAVING.

### GENERAL PAVING NOTES

- GENERAL CONSTRUCTION NOTES:** REFER TO SHEET C-1 "GENERAL CONSTRUCTION NOTES" FOR THE GENERAL CONSTRUCTION NOTES FOR THE PROJECT.
- PAVEMENT DESIGN:** ALL ON SITE CONCRETE PAVING SHALL BE OF THE THICKNESS AND STRENGTH SHOWN ON THE PLAN. CONCRETE SHALL BE THE DESIRED STRENGTH AT 28 DAYS AND REINFORCED WITH #3 BARS @ 18 INCHES O.C.E.W.
- REINFORCING BARS:** ALL REINFORCING BARS SHALL BE GRADE 40 KSI DEFORMED REINFORCING STEEL. REINFORCING SHALL BE SUPPORTED BY CHAIRS AND SPACED AT 18 SF MAX. INTERVALS. REFERENCE LEGEND FOR REINFORCEMENT SIZE AND SPACING.
- BAR CHAIRS:** ALL REINFORCING STEEL AND DOWEL BARS IN PAVEMENT SHALL BE SUPPORTED AND MAINTAINED AT THE CORRECT CLEARANCES BY THE USE OF BAR CHAIRS OR OTHER APPROVED SUPPORT.
- TEMPERATURE CONDITIONS FOR CONCRETE PLACEMENT:** CONCRETE SHALL NOT BE PLACED WHEN THE TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT AND FALLING, BUT MAY BE PLACED WHEN TEMPERATURE IS ABOVE 35 DEGREES FAHRENHEIT AND RISING. THE TEMPERATURE READING SHALL BE TAKEN IN THE SHADE AND AWAY FROM ARTIFICIAL HEAT.
- SUBGRADE PREPARATION:** SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF 6 INCHES AND SHALL BE RECOMPACTED TO A (MIN.) OF 95% OF THE STANDARD PROCTOR (ASTM D-698) MAXIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN 2% BELOW TO 3% ABOVE OPTIMUM MOISTURE CONTENT. REFER TO GEOTECHNICAL REPORT AND SUPPLEMENTS BY TERRACON CONSULTANTS, INC. REPORT DATED 11-30-21.
- PREPARATION OF SUBGRADE UNDER PAVED AREAS SHALL BE PERFORMED IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' SPECIFICATIONS OR THE GEOTECHNICAL REPORT. THE MORE RESTRICTIVE REQUIREMENTS SHALL APPLY.**
- PREPARATION OF THE SUBGRADE FOR PAVING WITHIN RIGHT-OF-WAY, ACCESS EASEMENTS AND/OR FIRE LANES SHALL NOT BE INITIATED UNTIL ALL TESTING OF UNDERGROUND UTILITIES HAS BEEN COMPLETED AND VERIFIED TO MEET THE GOVERNING AUTHORITIES' SPECIFICATIONS AND AUTHORIZATION TO PROCEED HAS BEEN RECEIVED FROM THE INSPECTOR.**
- PAVEMENT SUBGRADE SHALL NOT BE ALLOWED TO RETAIN WATER. WET MATERIAL SHALL BE REMOVED TO DRY, SOUND MATERIAL AND APPROPRIATE DENSITY ACHIEVED PRIOR TO PAVING OPERATIONS.**
- PROOF-ROLL SUBGRADE:** THE SUBGRADE SHALL BE PROOF-ROLLED WITH HEAVY PNEUMATIC EQUIPMENT. ANY SOFT OR PUMPING AREAS SHALL BE EXCAVATED TO FIRM SUBGRADE AND BACKFILLED AND RE-COMPACTED IN CONFORMANCE WITH THE GEOTECHNICAL REPORT.
- SELECT FILL SUBGRADE:** PER THE GEOTECHNICAL REPORT
- SAND CUSHION PROHIBITED:** THE USE OF "LEVEL UP" SAND CUSHION UNDER PAVEMENT, INCLUDING SIDEWALKS, IS STRICTLY PROHIBITED.
- PAVEMENT REMOVAL:** BREAKOUTS FOR REMOVAL OF EXISTING PAVEMENT AND CURBS SHALL BE MADE BY A FULL-DEPTH SAWCUT WHEN ADJACENT TO PROPOSED PAVING AND/OR CURBS.
- CONNECTION TO EXISTING PAVEMENT:** IN ALL INSTANCES WHERE THE CONTRACTOR CONNECTS PROPOSED CONCRETE PAVEMENT TO EXISTING CONCRETE PAVEMENT, AT LEAST 15-INCHES OF REINFORCING STEEL SHALL BE EXPOSED FROM THE EXISTING CONCRETE PAVEMENT, OR THE CONTRACTOR SHALL PROVIDE HORIZONTAL DOWEL BARS PER THE DETAILS. PROPOSED CONCRETE CURBS SHALL MATCH ELEVATIONS OF EXISTING CURB.
- TESTING:** SAMPLES FOR STRENGTH TESTS OF THE CONCRETE PAVEMENT WILL BE TAKEN BY THE GEOTECHNICAL ENGINEER TO VERIFY DESIGN STRENGTH. PAVEMENT AREAS FOUND TO BE DEFICIENT IN STRENGTH SHALL BE REMOVED AND REPLACED SOLELY AT THE EXPENSE OF THE CONTRACTOR. THE GEOTECHNICAL ENGINEER SHALL ALSO RANDOMLY CORE THE PAVEMENT TO VERIFY THE THICKNESS OF CONCRETE. ANY AREA FOUND TO BE DEFICIENT IN THICKNESS SHALL BE REMOVED AND REPLACED SOLELY AT THE EXPENSE OF THE CONTRACTOR.
- SIDEWALKS AND RAMPS:** CONSTRUCTION OF SIDEWALKS, WHEELCHAIR RAMPS AND ACCESSIBLE ROUTES SHALL BE IN ACCORDANCE WITH THE AMERICANS DISABILITY ACT (ADA).
- SLOPED SIDEWALKS ADJACENT TO BUILDING SHALL NOT HAVE SLOPES GREATER THAN 5% OR 1:20 ALONG THE TRAVEL PATH AND A MAX 2% CROSS FALL. NO RAMPS SHALL BE USED ADJACENT TO BUILDING.**
- IRRIGATION CONDUIT:** ALL IRRIGATION CONDUIT AND SLEEVES SHALL BE TWO 4-INCH SCHEDULE 40 PVC, INSTALLED WITH A MINIMUM OF 24-INCHES OF COVER. REFERENCE THE PAVING PLAN AND/OR LANDSCAPE PLANS FOR NUMBER OF CONDUITS, SIZE AND LOCATIONS OF PROPOSED IRRIGATION CONDUITS AND SLEEVES.
- PAVEMENT WARRANTY:** CONTRACTOR WILL PROVIDE A 2-YEAR UNCONDITIONAL MAINTENANCE FREE WARRANTY ON ALL PAVEMENT SURFACES.

**MISC. NOTES:**  
 REFERENCE SHEET C-8 FOR PAVING DETAILS

**!CAUTION!**  
 CONTRACTOR TO CONTACT THE GOPHER STATE ONE CALL (1-800-252-1166) AT LEAST 2 WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION. CARTER ASSOCIATES INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES IN THE PROJECT AREA. IF FIELD CONDITIONS DIFFER SIGNIFICANTLY FROM THE LOCATION SHOWN ON THE PLANS THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.



NO.	REVISION	DATE

**GRADING NOTES**

- GENERAL CONSTRUCTION NOTES:** REFER TO SHEET C-1 - GENERAL CONSTRUCTION NOTES FOR THE GENERAL CONSTRUCTION NOTES FOR THE PROJECT.
- UNDISTURBED AREAS:** PRIOR TO GRADING, BRUSH REMOVAL, OR SITE CONSTRUCTION, THE CONTRACTOR SHALL MEET WITH THE DEVELOPER AND/OR ENGINEER AT THE SITE TO ASCERTAIN THE AREAS OF THE PROJECT SITE THAT ARE TO BE PROTECTED AND PRESERVED. REFER TO THE "GENERAL TREE PROTECTION NOTES" FOR ALL CONSTRUCTION IN THE VICINITY OF EXISTING TREES.
- TESTING:** ALL EARTHWORK OPERATIONS SHALL BE OBSERVED AND TESTED ON A CONTINUING BASIS BY THE GEOTECHNICAL ENGINEER FOR CONFORMANCE WITH THE REQUIREMENTS SET FORTH IN THE GEOTECHNICAL STUDY PREPARED BY TERRACON CONSULTANTS, INC., DATED 11-30-2021, WHICH IS MADE A PART OF THESE CONSTRUCTION DOCUMENTS.
- STRIPPING AND DEBRIS REMOVAL:** THE BUILDING PAD SITES, AREAS TO BE PAVED, AND ALL AREAS THAT ARE TO RECEIVE FILL MATERIAL SHALL BE STRIPPED OF VEGETATION, TREES, ROOTS, STUMPS, DEBRIS, AND OTHER ORGANIC MATERIAL. THE DEPTH OF STRIPPING IS ESTIMATED TO BE ON THE ORDER OF 6 INCHES IN ORDER TO REMOVE THE SURFACE SOIL CONTAINING ORGANIC MATERIAL. THE ACTUAL STRIPPING DEPTH SHALL BE BASED ON FIELD OBSERVATIONS. STRIPPED TOPSOIL SHALL BE STOCKPILED IN A LOCATION ON-SITE APPROVED BY THE DEVELOPER. ALL TREES, INCLUDING STUMPS AND ROOT SYSTEMS, VEGETATION, DEBRIS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OFF-SITE. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS GOVERNING SPILLAGE OF DEBRIS WHILE TRANSPORTING TO A DISPOSAL SITE. ALL COSTS ASSOCIATED WITH DISPOSAL OF MATERIAL SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- BURNING:** BURNING SHALL NOT BE PERMITTED ON THE PROJECT SITE UNLESS APPROVED IN WRITING BY THE GOVERNING AUTHORITIES AND THE DEVELOPER.
- PROOF ROLLING:** UPON COMPLETION OF STRIPPING OPERATIONS, AND PRIOR TO PLACEMENT OF ANY FILL MATERIALS, THE STRIPPED AREAS SHOULD BE OBSERVED TO DETERMINE IF ADDITIONAL EXCAVATION IS REQUIRED TO REMOVE WEAK OR OTHERWISE OBJECTIONABLE MATERIALS THAT WOULD ADVERSELY AFFECT THE FILL PLACEMENT. THE SUBGRADE SHOULD BE FIRM AND ABLE TO SUPPORT CONSTRUCTION EQUIPMENT WITHOUT DISPLACEMENT. SOFT OR YIELDING SUBGRADE SHOULD BE CORRECTED AND MADE STABLE BEFORE CONSTRUCTION PROCEEDS. PROOF ROLLING SHOULD BE PERFORMED USING A HEAVY PNEUMATIC TIRE ROLLER LOADED ON A TRUCK, OR SIMILAR PIECE OF EQUIPMENT WEIGHING 25 TONS. THE PROOF ROLLING OPERATIONS SHOULD BE OBSERVED BY THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE.
- UNSTABLE MATERIAL:** WHEN CLAY OR OTHER UNSTABLE MATERIAL IS PRESENT IN AREAS OF PROPOSED BUILDING PADS OR PAVED AREAS, THE GEOTECHNICAL ENGINEER SHALL OBSERVE THE STABILITY OF ANY EXISTING CLAY OR WEATHERED MATERIAL THAT IS PRESENT IN THE SUB-BASE AND SHALL DETERMINE WHETHER ADDITIONAL EXCAVATION OF THESE MATERIALS WILL BE REQUIRED. IF THIS MATERIAL IS DEEMED SUITABLE FOR SUB-BASE MATERIAL, THE SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF SIX INCHES. ITS MOISTURE CONTENT ADJUSTED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER, AND THEN RE-COMPACTED TO AT LEAST 85% OF THE OPTIMUM DENSITY DETERMINED BY THE STANDARD PROCTOR TEST, ASTM D - 698 PRIOR TO PLACEMENT OF FILL MATERIALS.
- CONTROLLED FILL:** ALL SOILS USED FOR CONTROLLED FILL SHOULD BE FREE OF ROOTS, VEGETATION, AND OTHER DELETERIOUS OR UNDESIRABLE MATTER, ROCKS LESS THAN 4 INCHES IN LARGEST DIMENSION WITHIN 15 INCHES OF PROPOSED SUBGRADE ELEVATION, LESS THAN 6 INCHES IN SIZE FROM 15 INCHES TO 36 INCHES OF PROPOSED SUBGRADE ELEVATION, LESS THAN 12 INCHES IN SIZE FROM 36 INCHES TO 72 INCHES OF PROPOSED SUB GRADE ELEVATION, AND LESS THAN 18 INCHES IN LARGEST DIMENSION FOR FILLS IN EXCESS OF 72 INCHES FROM SUBGRADE ELEVATION. WILL BE ALLOWED AS ACCEPTABLE FILL MATERIAL. ROCK FILLS SHOULD BE SUPPLEMENTED WITH A SUFFICIENT AMOUNT OF FINE MATERIAL TO PREVENT VOIDS. SOILS IMPORTED FROM OFF-SITE FOR USE AS FILL SHOULD BE APPROVED BY THE GEOTECHNICAL ENGINEER. THE FILL MATERIAL SHOULD BE PLACED IN LEVEL, UNIFORM LIFTS, WITH EACH LIFT COMPACTED TO THE MINIMUM DRY DENSITY WITHIN THE COMPACTED SOIL MOISTURE RANGES RECOMMENDED. THE LOOSE LIFT THICKNESS SHOULD NOT EXCEED 8 INCHES. EACH LAYER SHOULD BE PROPERLY PLACED, MIXED, SPREAD, AND COMPACTED TO BETWEEN 95% AND 100% OF STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D 698.
- PROPOSED GRADES:** THE PROPOSED CONTOURS INDICATED ON THE GRADING PLAN ARE FINISHED GRADES AND ARE SHOWN AT ONE-FOOT INTERVALS. SPOT ELEVATIONS SHOWN IN PAVED AREAS ARE TOP OF PAVEMENT, UNLESS NOTED OTHERWISE.
- BUILDING ENTRANCE GRADES:** REFER TO THE BUILDING PLANS FOR DETAILED SPOT GRADING AT THE BUILDING ENTRANCE AREAS. THE CONTRACTOR SHALL COMPLY WITH ALL ADA AND LOCAL STATE GOVERNING AUTHORITY STANDARDS FOR REQUIREMENTS REGARDING MAXIMUM SLOPES FOR HANDICAP PARKING AREAS, SIDEWALKS, ACCESS RAMPS AND ACCESSIBLE ROUTES.
- LANDSCAPE AREAS:** ALL LANDSCAPE AREAS AND OTHER DISTURBED AREAS WITHIN THE LIMITS OF THE PROPERTY NOT DESIGNATED TO BE PAVED SHALL RECEIVE 6 INCHES OF TOPSOIL. REFER TO THE LANDSCAPE PLANS FOR LIMITS OF TOPSOIL PLACEMENT.
- UNCLASSIFIED EXCAVATION:** ALL UNCLASSIFIED EXCAVATION, INCLUDING, BUT NOT LIMITED TO, CUT & FILL HAUL IN, HAUL OFF ASSOCIATED WITH CONSTRUCTION OF PAVEMENT TO FINAL GRADE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**EXISTING PERVIOUS/IMPERVIOUS**

PERVIOUS	9,859 S.F. / 0.23 AC / 32%
OPEN SPACE	9,859 S.F. / 0.23 AC / 32%
TOTAL PERVIOUS AREA:	9,859 S.F. / 0.23 AC / 32%
IMPERVIOUS	21,301 S.F. / 0.49 AC / 68%
ASPHALT/BUILDING/SIDEWALK AREA	21,301 S.F. / 0.49 AC / 68%
TOTAL IMPERVIOUS AREA:	21,301 S.F. / 0.49 AC / 68%

**PROPOSED PERVIOUS/IMPERVIOUS**

PERVIOUS	11,060 S.F. / 0.25 AC / 35%
BUFFER LANDSCAPE AREA	11,060 S.F. / 0.25 AC / 35%
TOTAL PERVIOUS AREA:	11,060 S.F. / 0.25 AC / 35%
IMPERVIOUS	4,247 S.F. / 0.10 AC / 14%
BUILDING AREA:	4,247 S.F. / 0.10 AC / 14%
PARKING LOT & SIDEWALK AREA:	15,853 S.F. / 0.36 AC / 51%
TOTAL IMPERVIOUS AREA:	20,100 S.F. / 0.46 AC / 65%

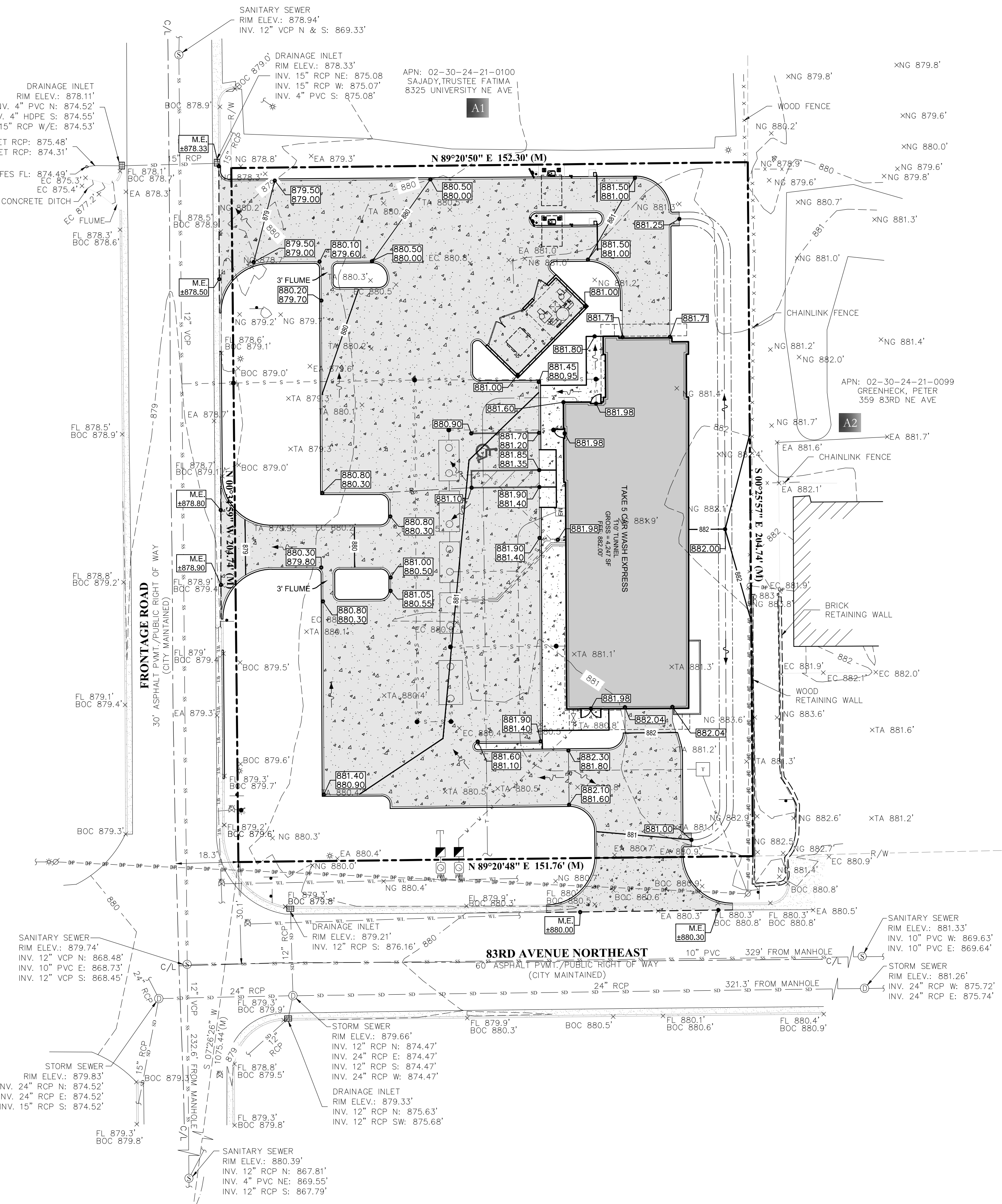
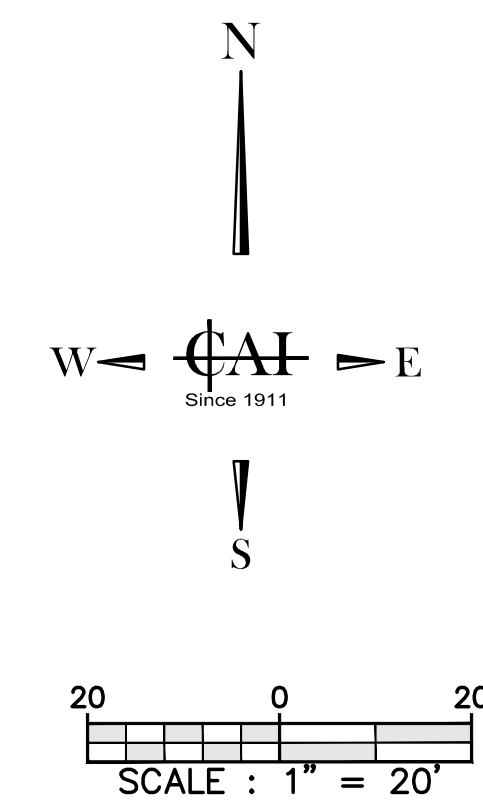
NOTE: THE PROPOSED PROJECT HAS A NET 1,201 SF DECREASE OF IMPERVIOUS AREA.

**NOTES:**

- CONTRACTOR SHALL MATCH EXISTING ELEVATION AT ALL SAWCUT LIMITS LANDSCAPE GRADE SHALL NOT EXCEED A 3:1 SLOPE
- ALL NEW SIDEWALKS (INCLUDING SIDEWALKS TO BE REMOVED & REPLACED) SHALL NOT EXCEED 2% CROSS SLOPE & 5% RUNNING SLOPE. FOR SIDEWALKS CONTAINED WITHIN THE PUBLIC ROW AND WHEN ADJACENT STREET GRADES EXCEED 5% THEN THE SIDEWALK GRADE RUNNING SLOPE MAY MATCH STREET GRADES
- ALL ADA ACCESS ROUTES SHALL HAVE A MAXIMUM 5% LONGITUDINAL SLOPE AND A 2% MAXIMUM CROSS SLOPE
- ALL ADA PARKING SPACES AND ROUTING FROM PARKING LOT SHALL MAINTAIN 2% MAXIMUM SLOPE IN ALL DIRECTIONS

**CAUTION!**

CONTRACTOR TO CONTACT THE GOPHER STATE ONE CALL (1-800-252-1166) AT LEAST 2 WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION. CARTER ASSOCIATES INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES IN THE PROJECT AREA. IF FIELD CONDITIONS DIFFER SIGNIFICANTLY FROM THE LOCATION SHOWN ON THE PLANS THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.



**GRADING LEGEND**

	PROPOSED CONTOUR
	EXISTING CONTOUR
	FLOW DIRECTION
	RIDGE LINE
	PROPOSED SPOT ELEVATION
	EXISTING SPOT ELEVATION











NO.	REVISION	DATE

**TAKE 5 EXPRESS CAR WASH  
 OF SPRING LAKE PARK, MN**  
 8301 UNIVERSITY AVE NE  
 SPRING LAKE PARK, MN

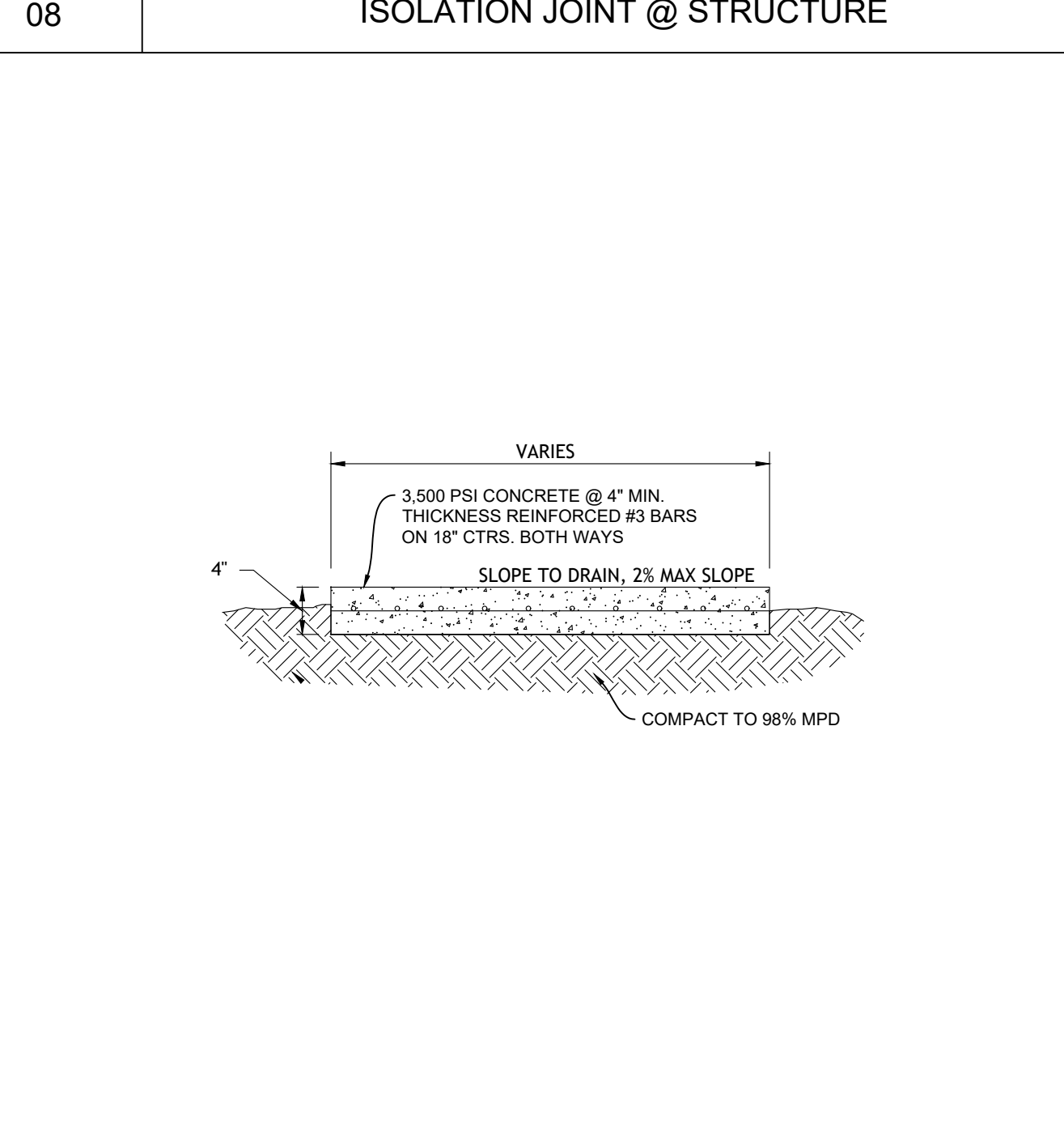
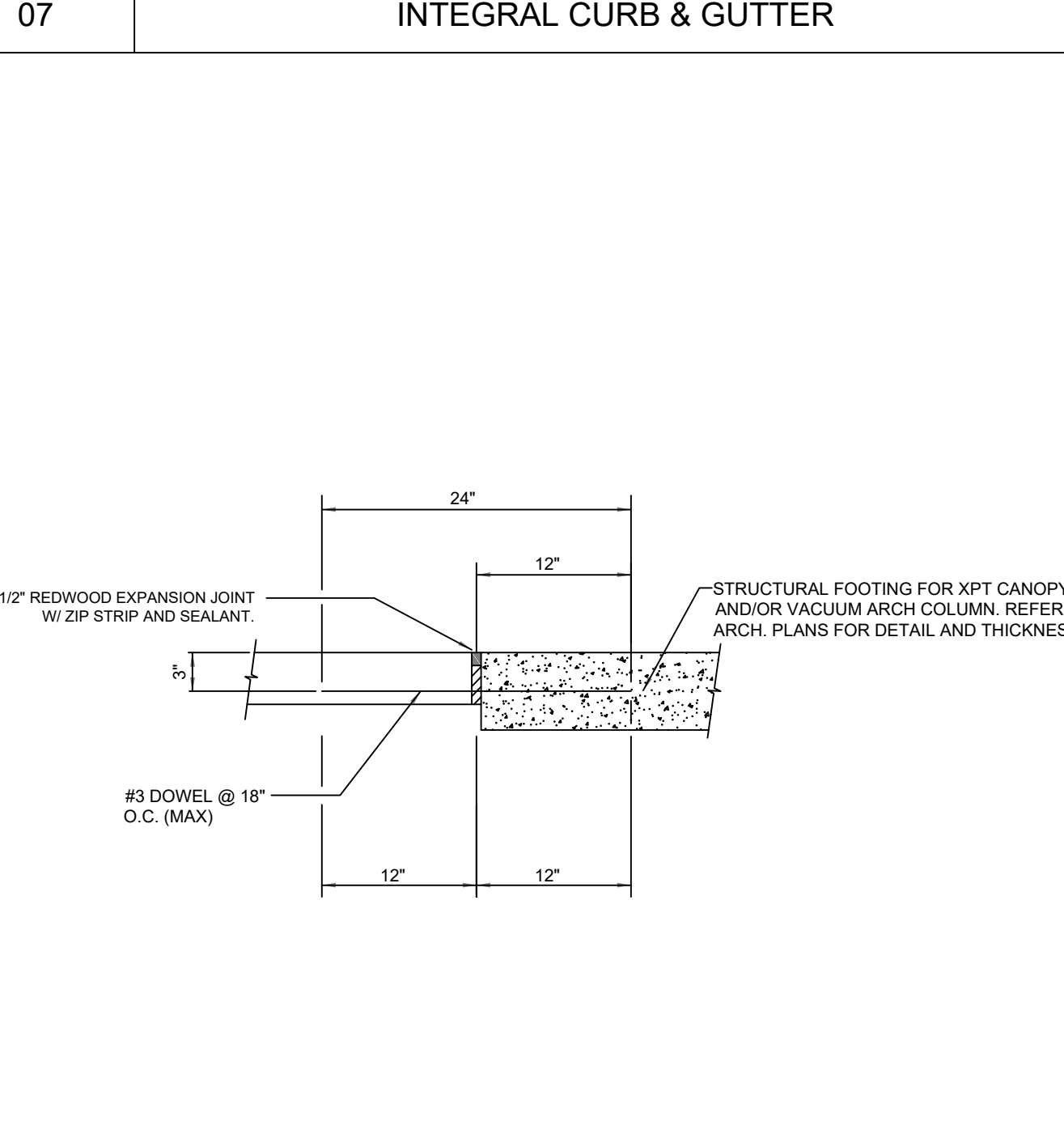
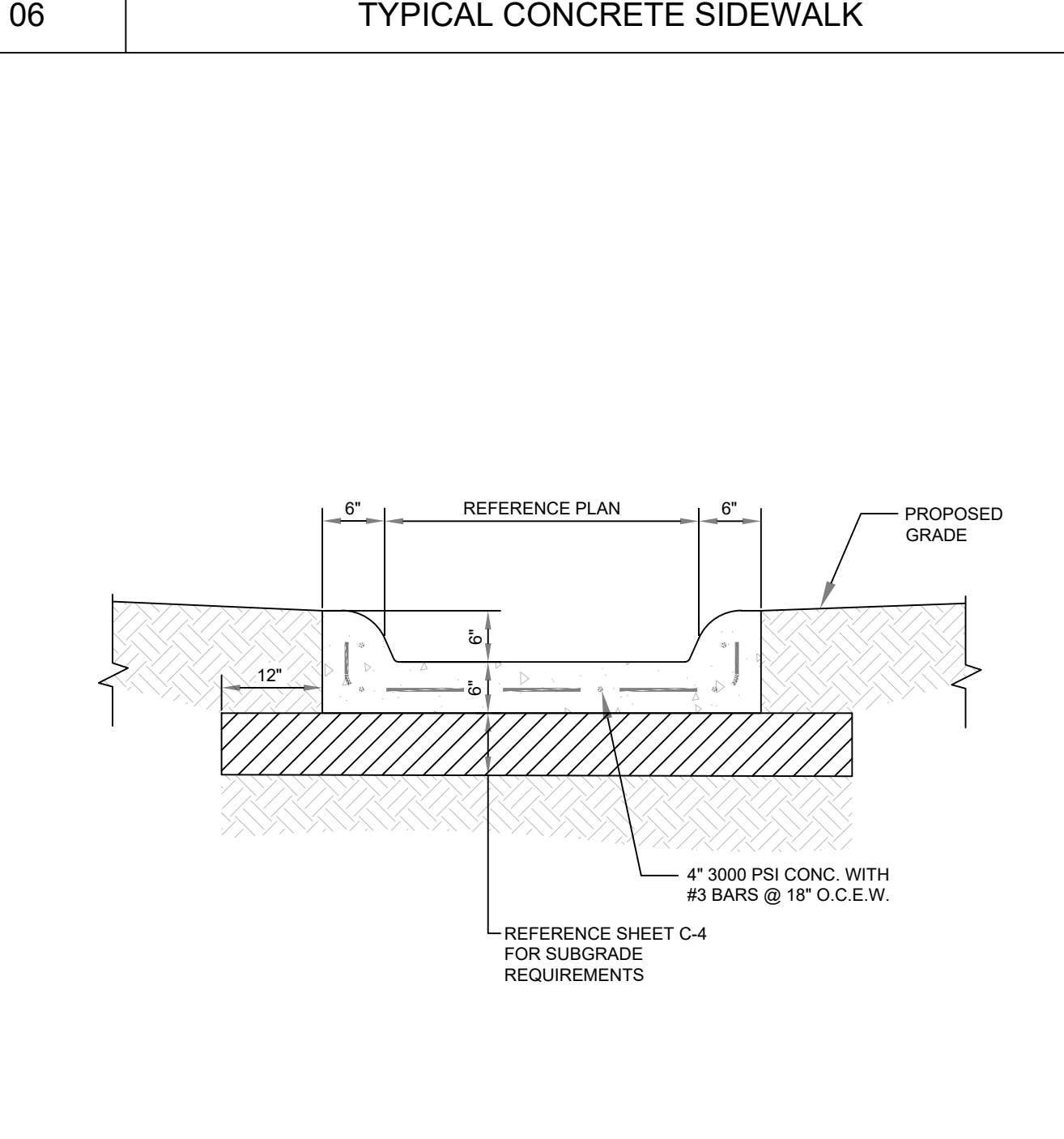
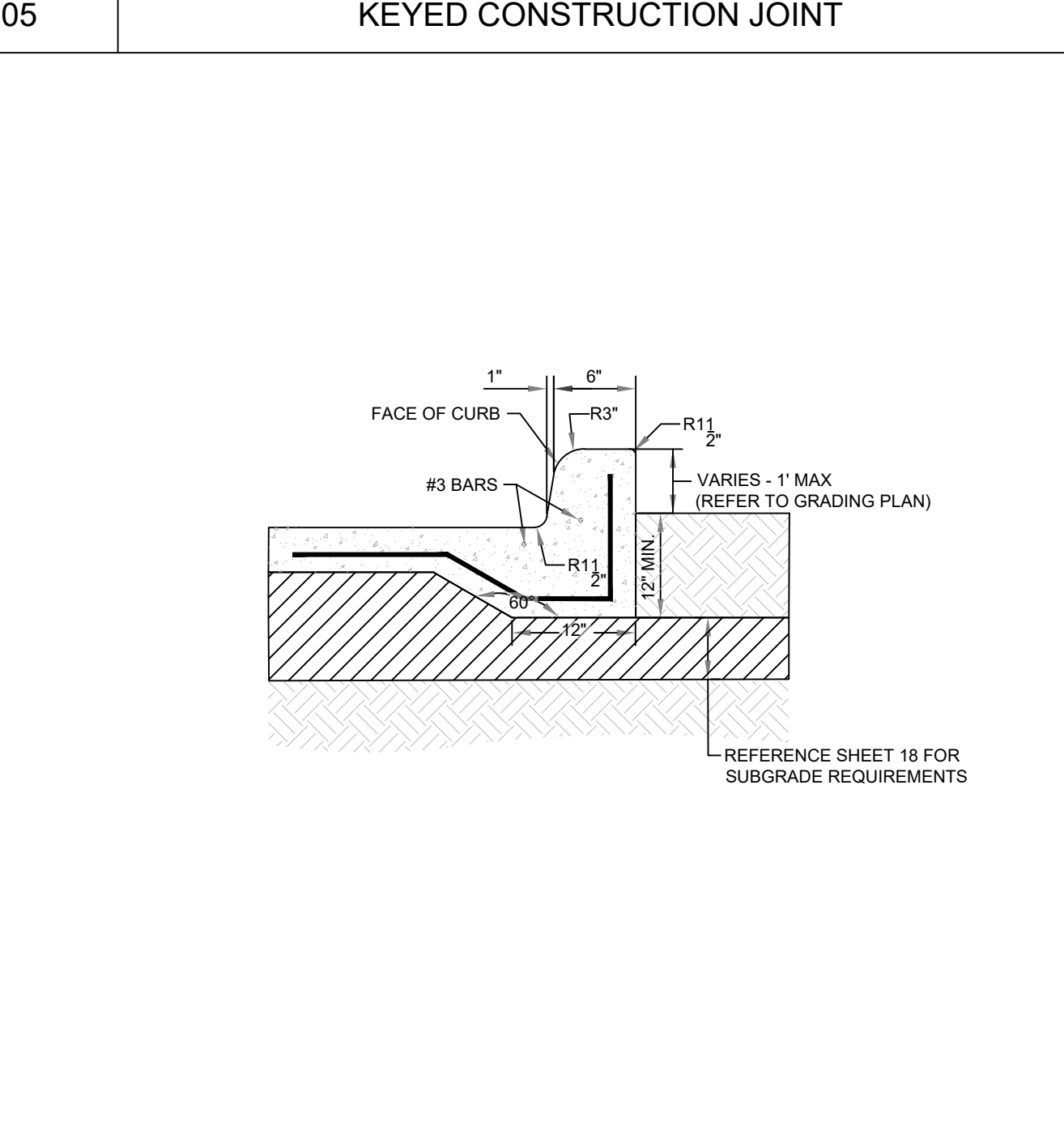
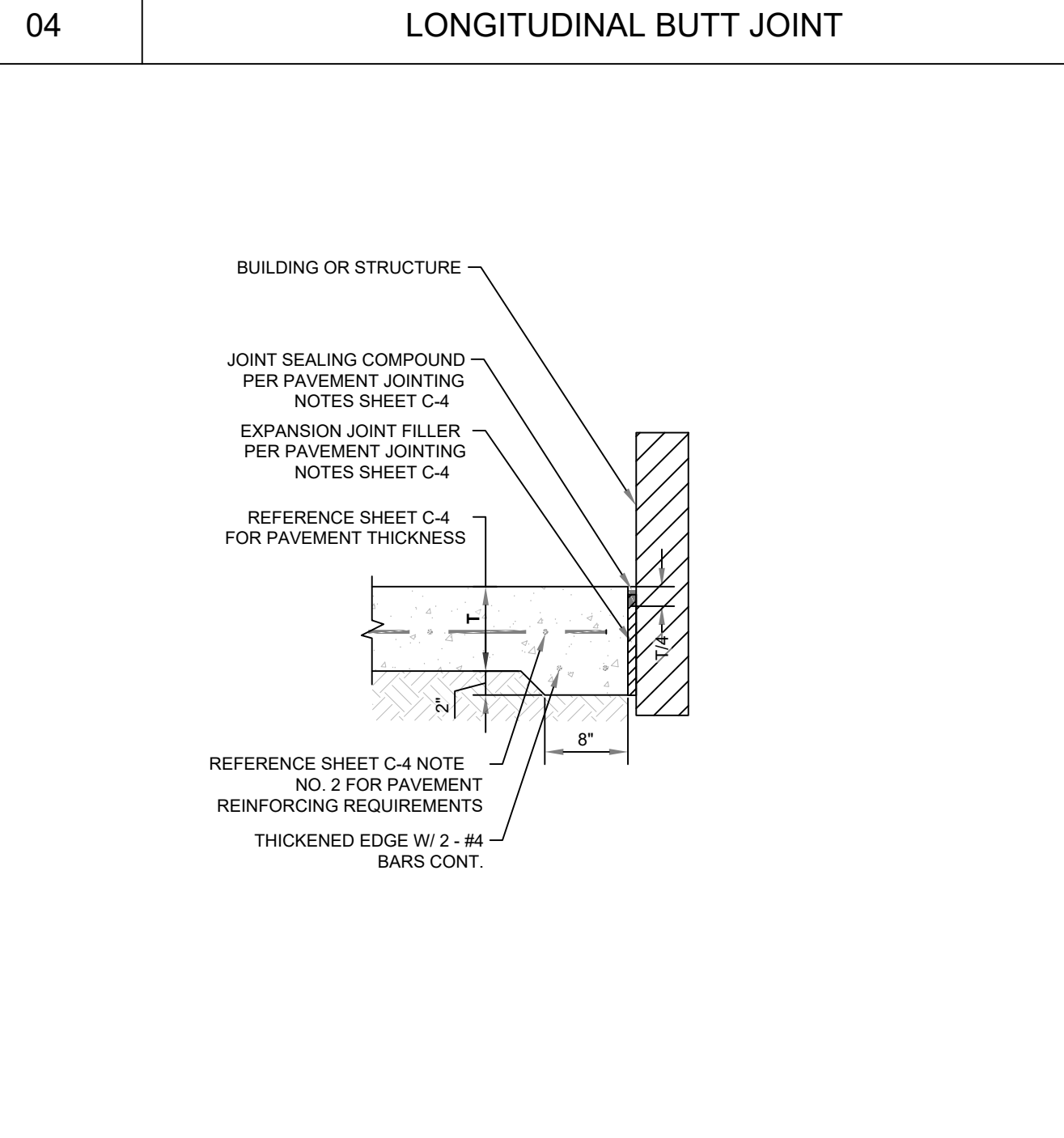
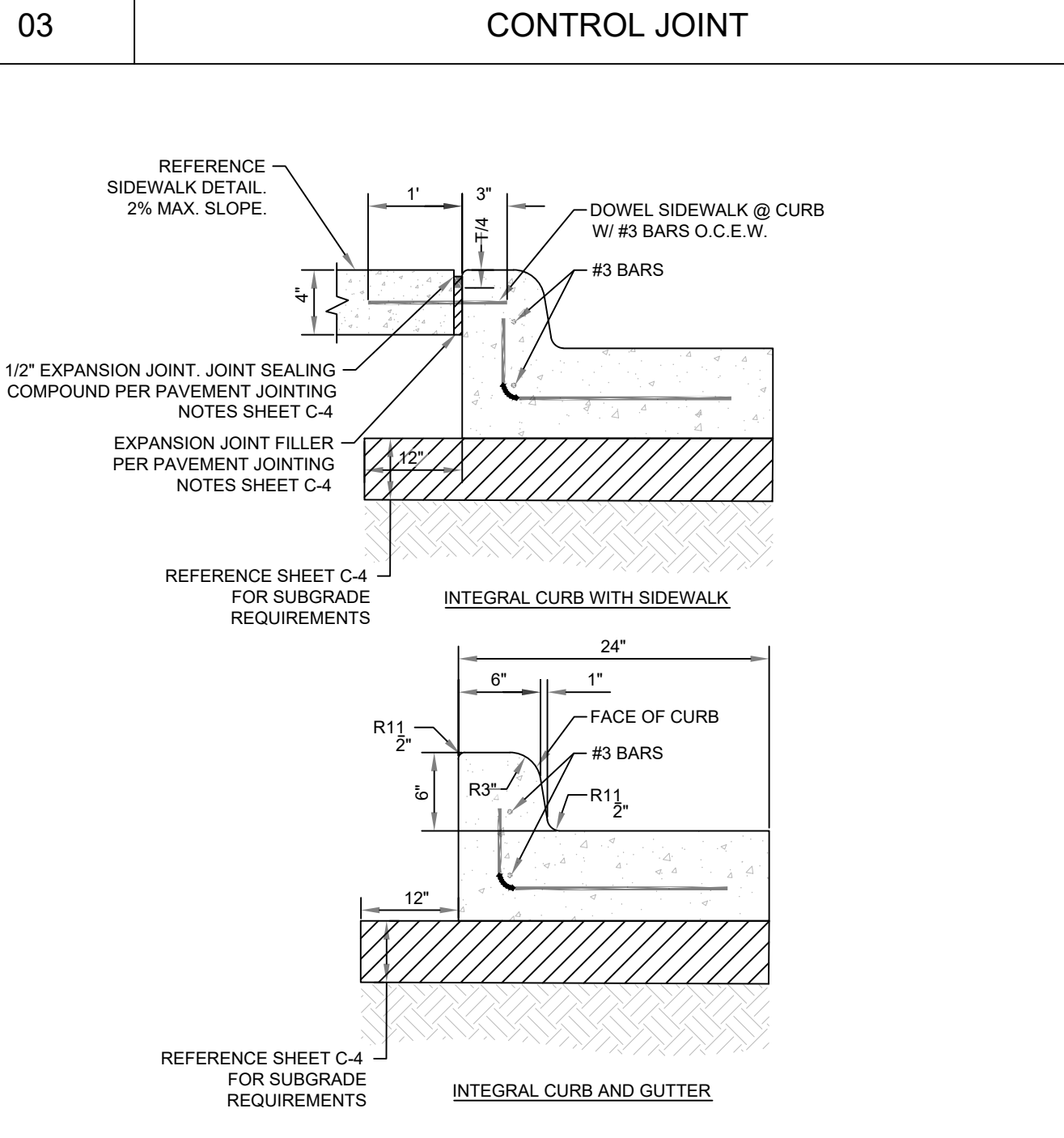
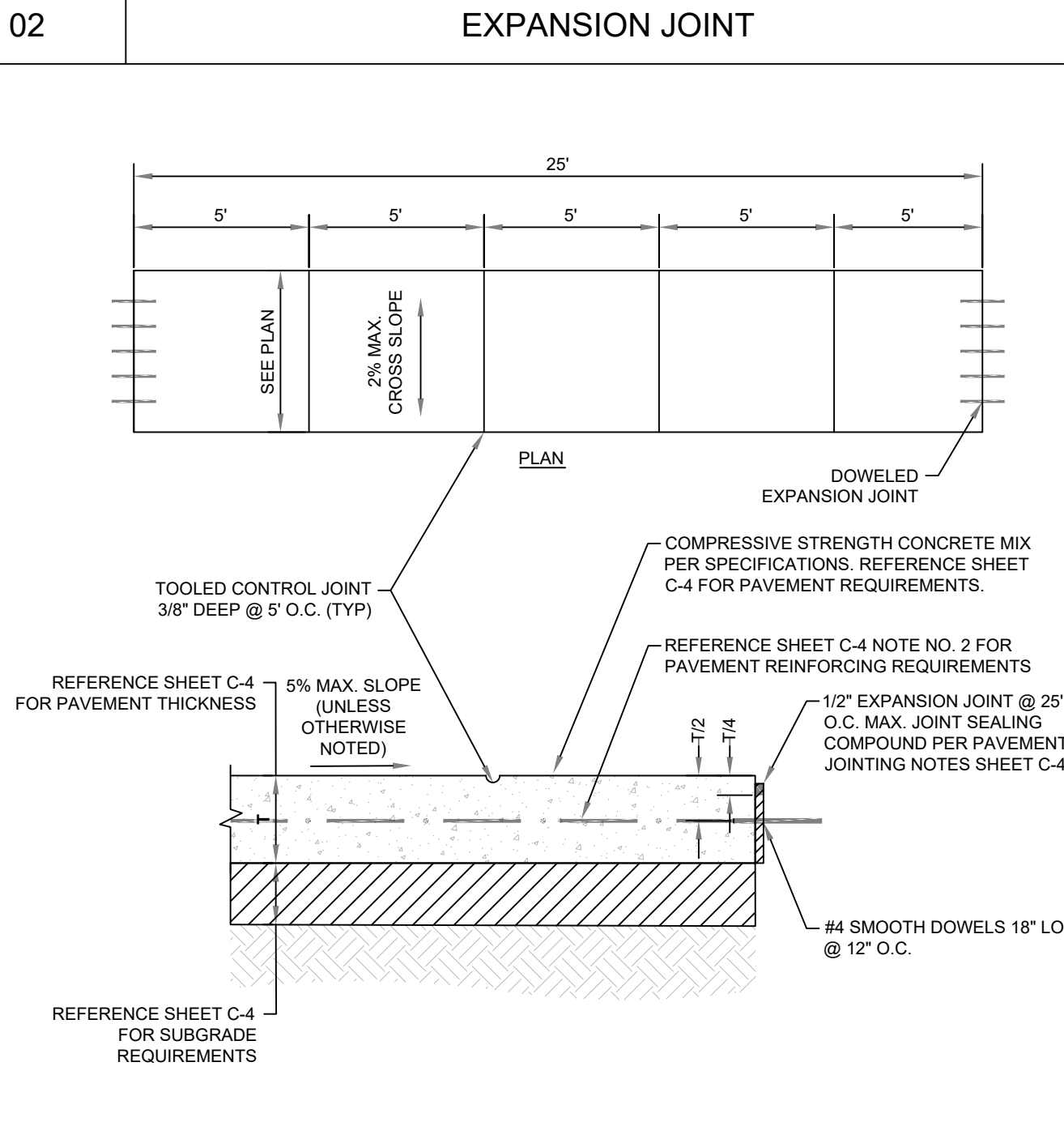
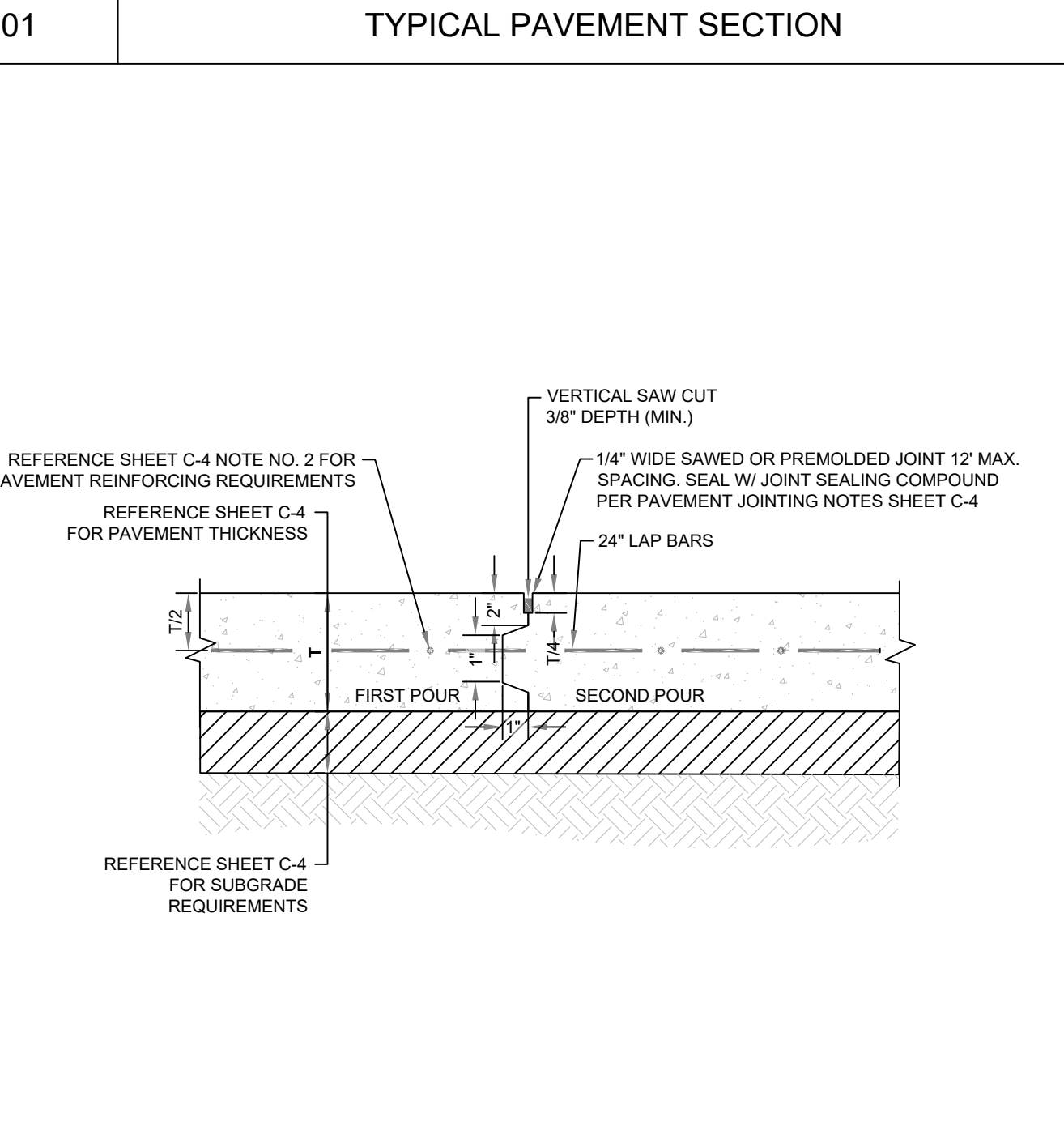
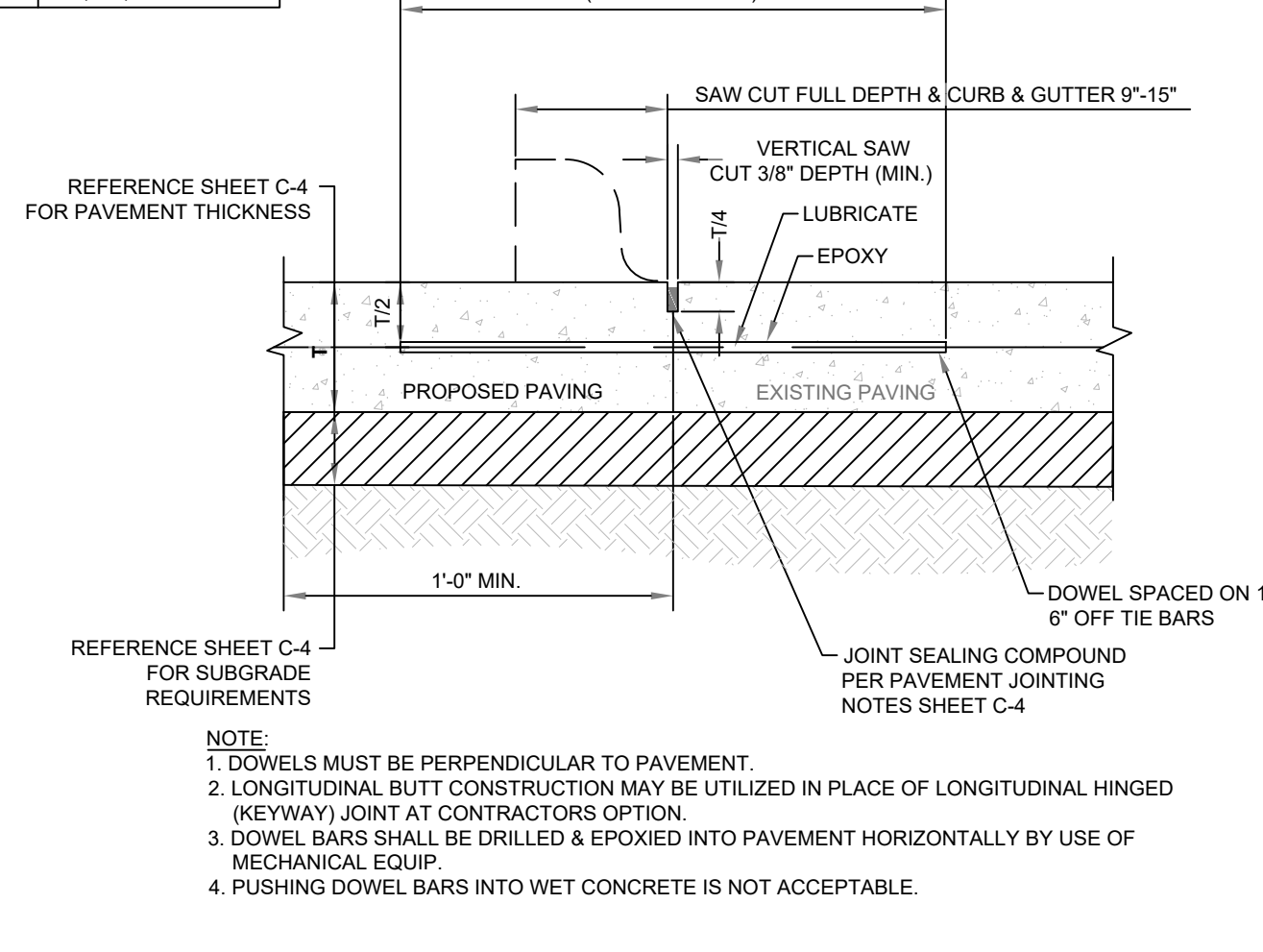
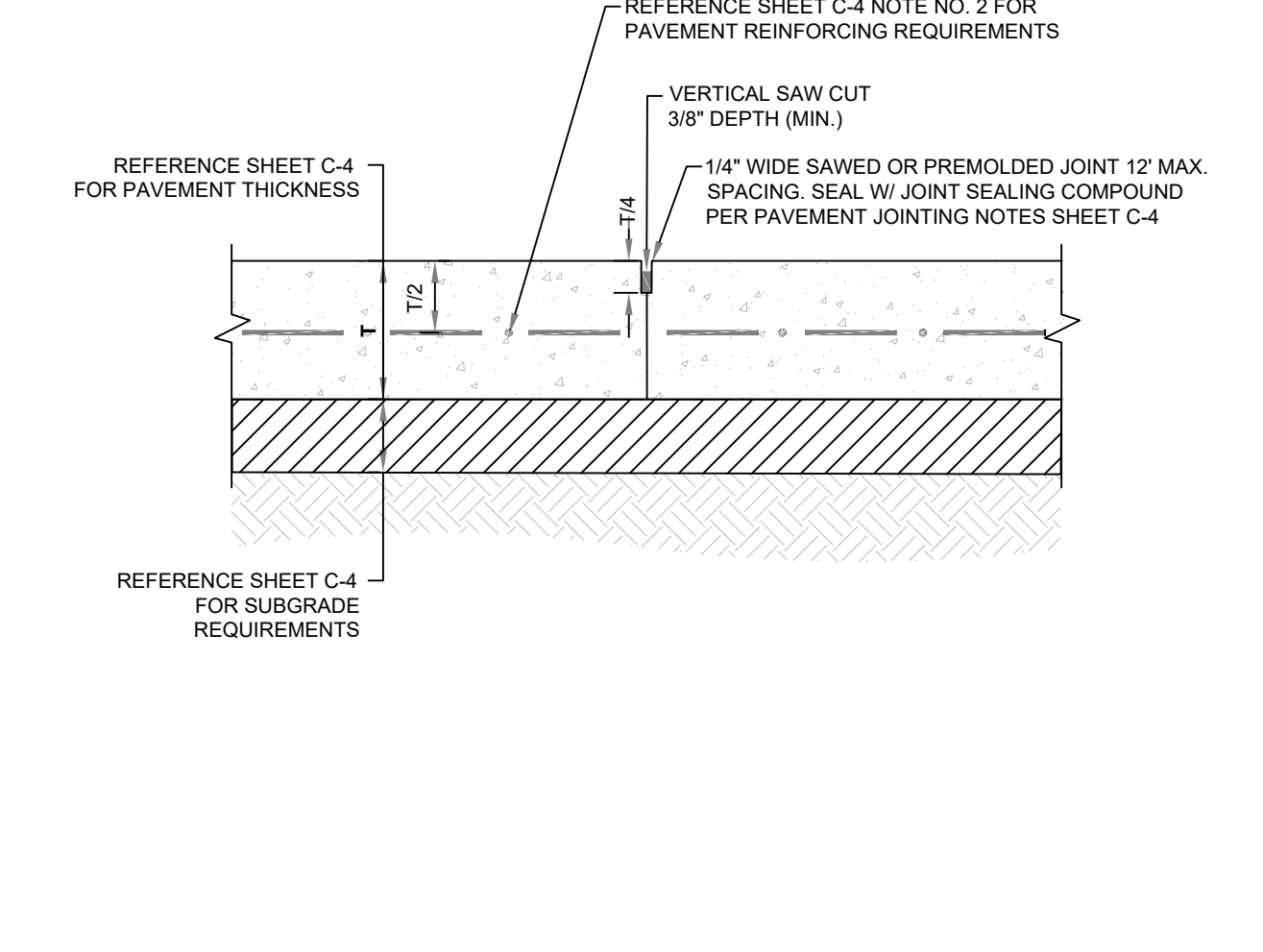
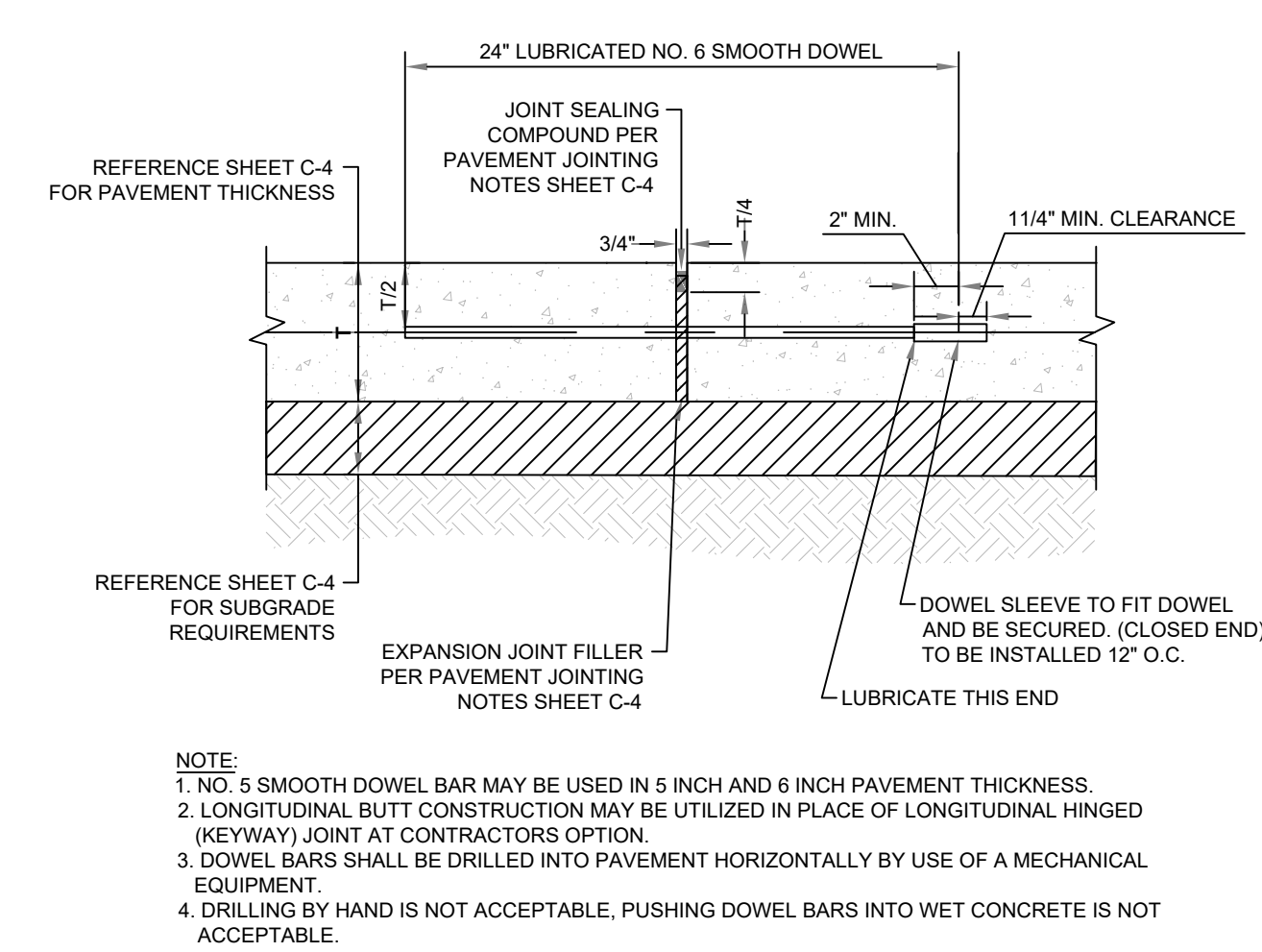
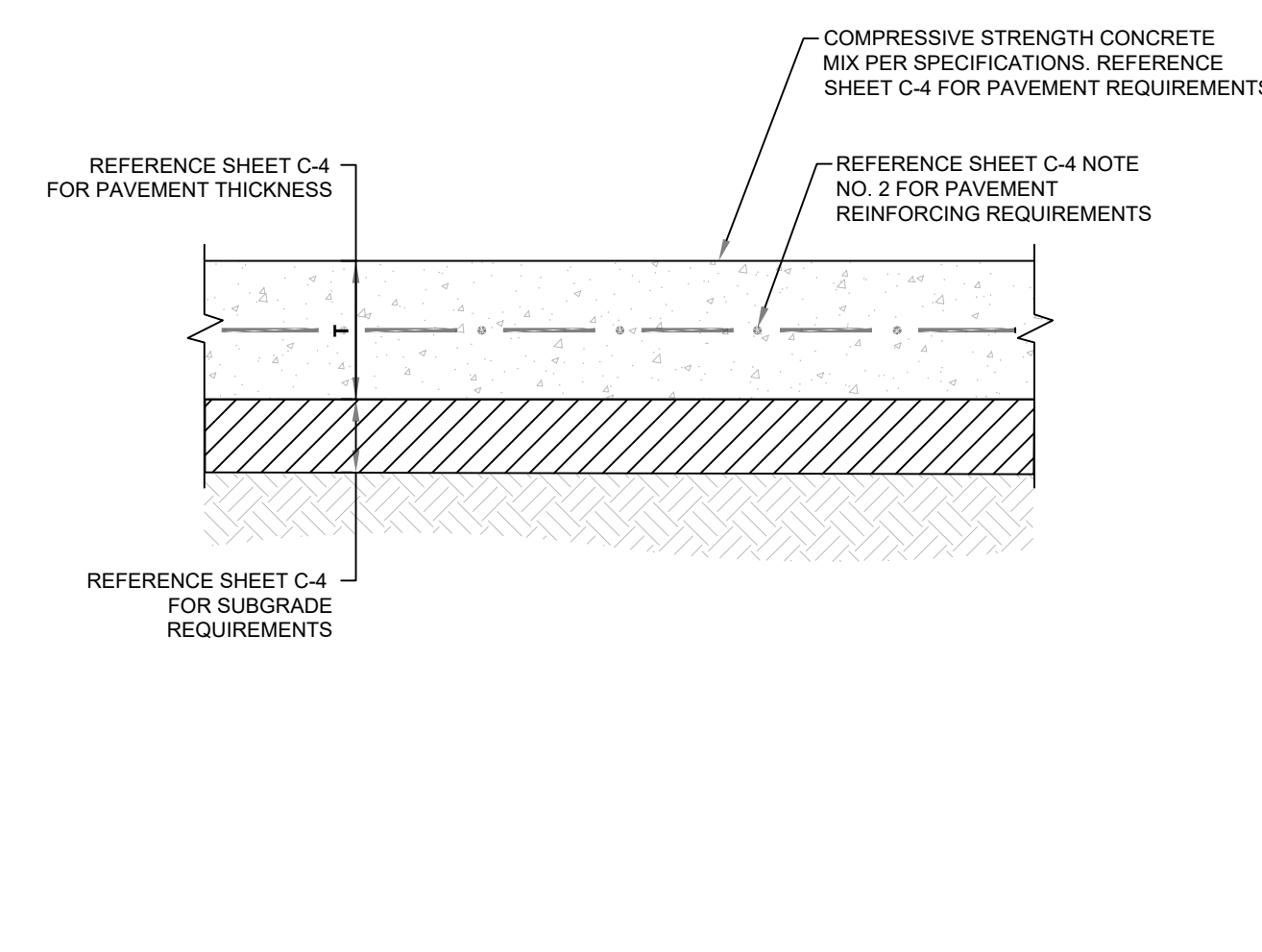
**PROFESSIONAL ENGINEER**  
 I HEREBY CERTIFY THAT THIS  
 PLAN, SPECIFICATION, OR REPORT  
 WAS PREPARED BY ME OR UNDER  
 MY DIRECT SUPERVISION AND  
 THAT I AM A DULY LICENSED  
 PROFESSIONAL ENGINEER UNDER  
 THE LAWS OF THE STATE OF  
 MINNESOTA.  
 SIGNATURE:   
 TREVOR G. STUBBS, P.E.  
 DATE: 05/17/22  
 LICENSE NUMBER: 60001

ISSUED DATE: 03-07-22  
 PROJ. # : 21-429E  
 DRAWN BY: KB  
 DATUM : SEE SURVEY  
 REF. # : SEE SURVEY  
 F.B. & PG. : SEE SURVEY

SHEET TITLE:  
**PAVING DETAILS**

SHEET  
**C-8**  
 DWG. NO.

T	DOWEL DIAMETER
5"	#3 (3/8")
6"	#4 (1/2")
7"	#5 (5/8")
8"	#6 (3/4")



09 DROP CURB & GUTTER

10 CONCRETE FLUME

11 STRUCTURAL FOOTING PAVEMENT LEAVE OUT

12 REINFORCED SIDEWALK SECTION

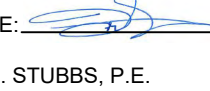






NO.	REVISION	DATE

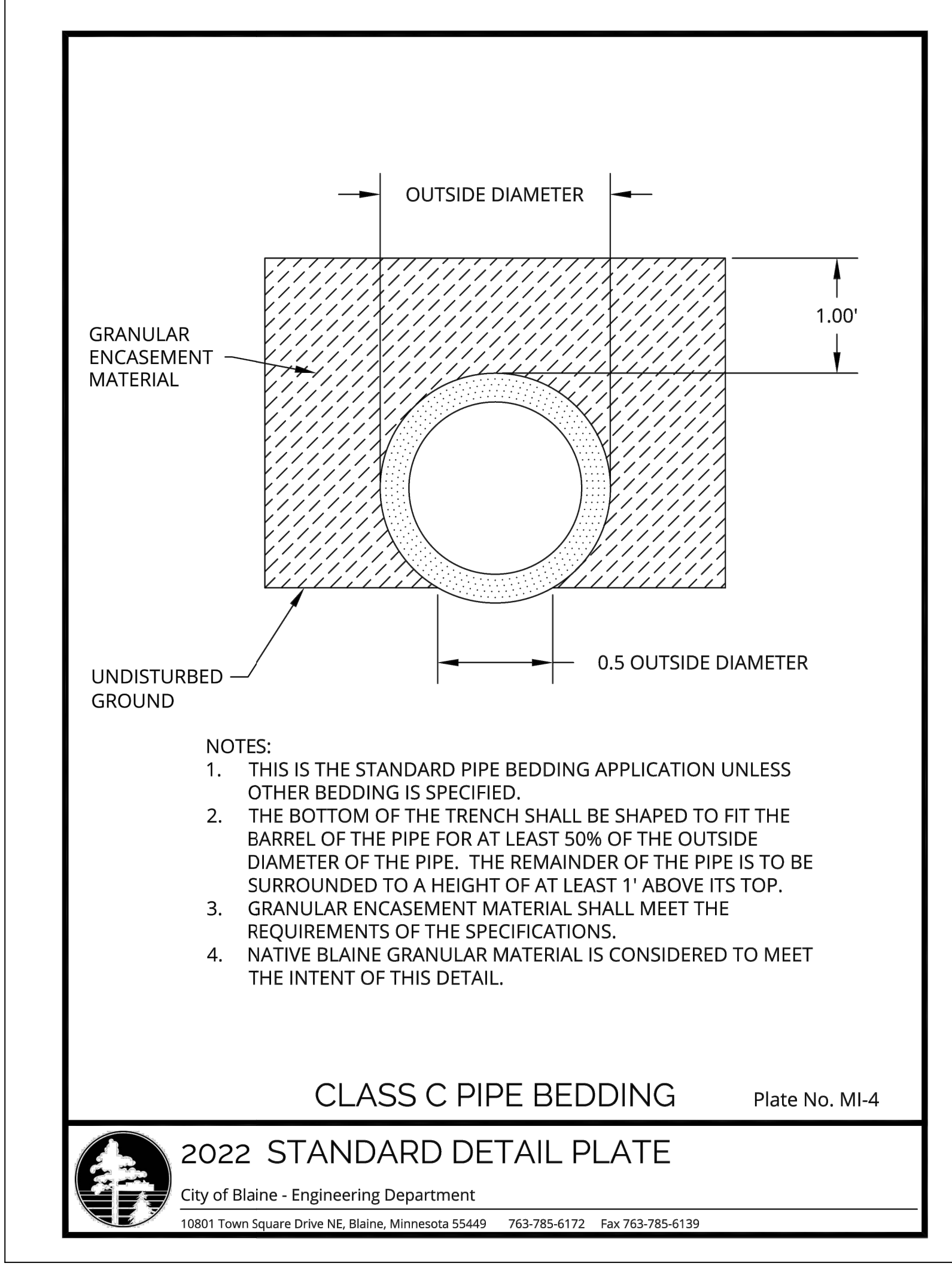
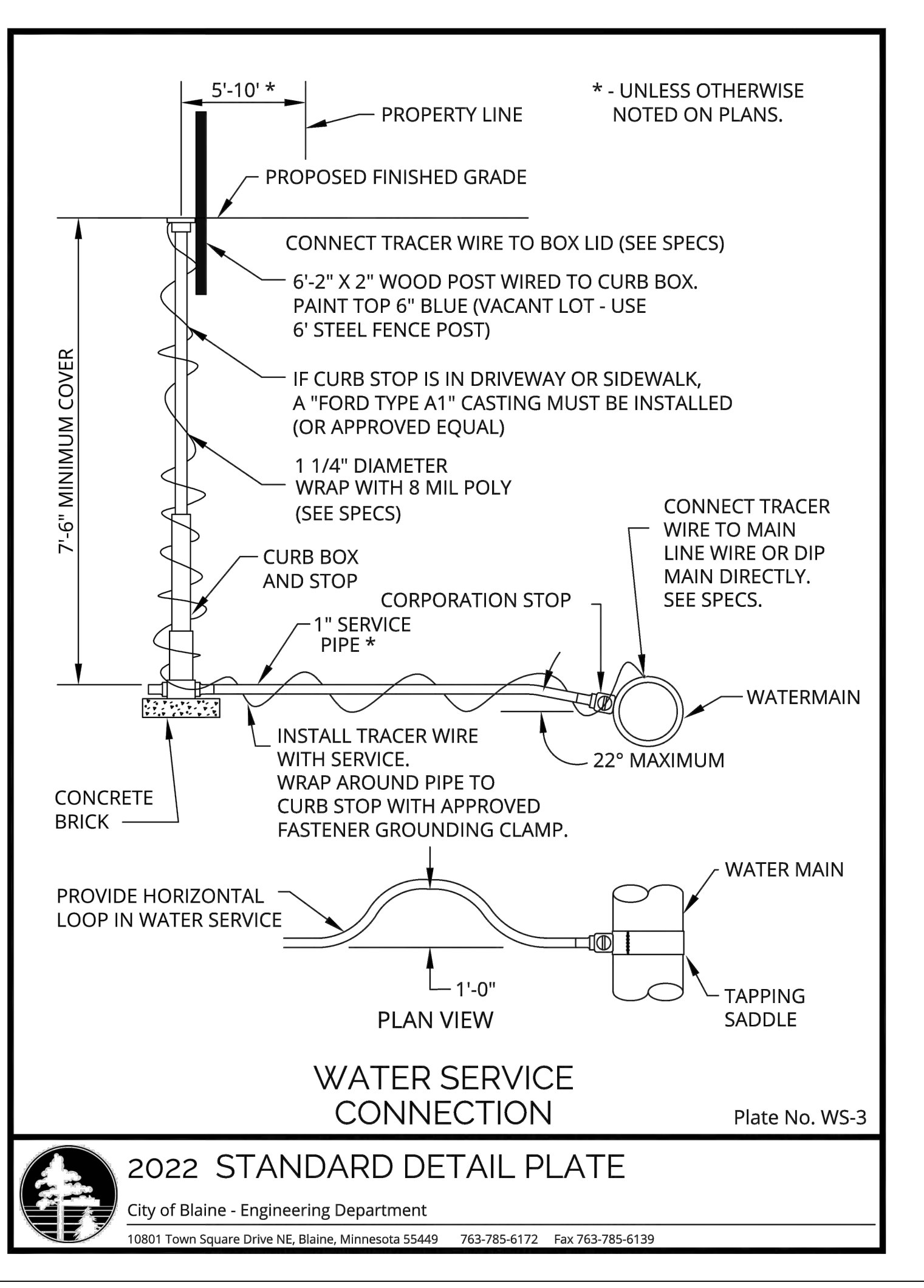
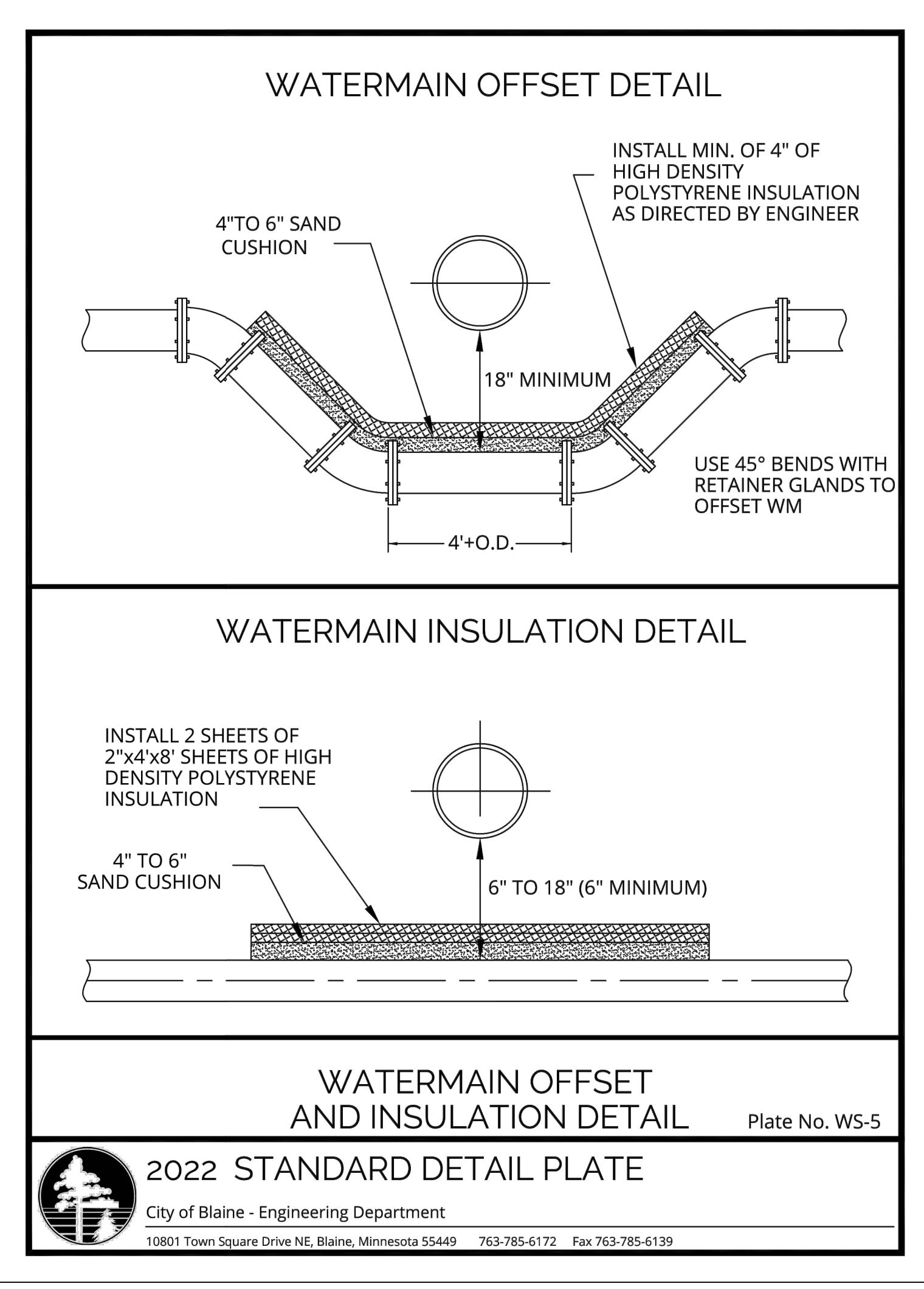
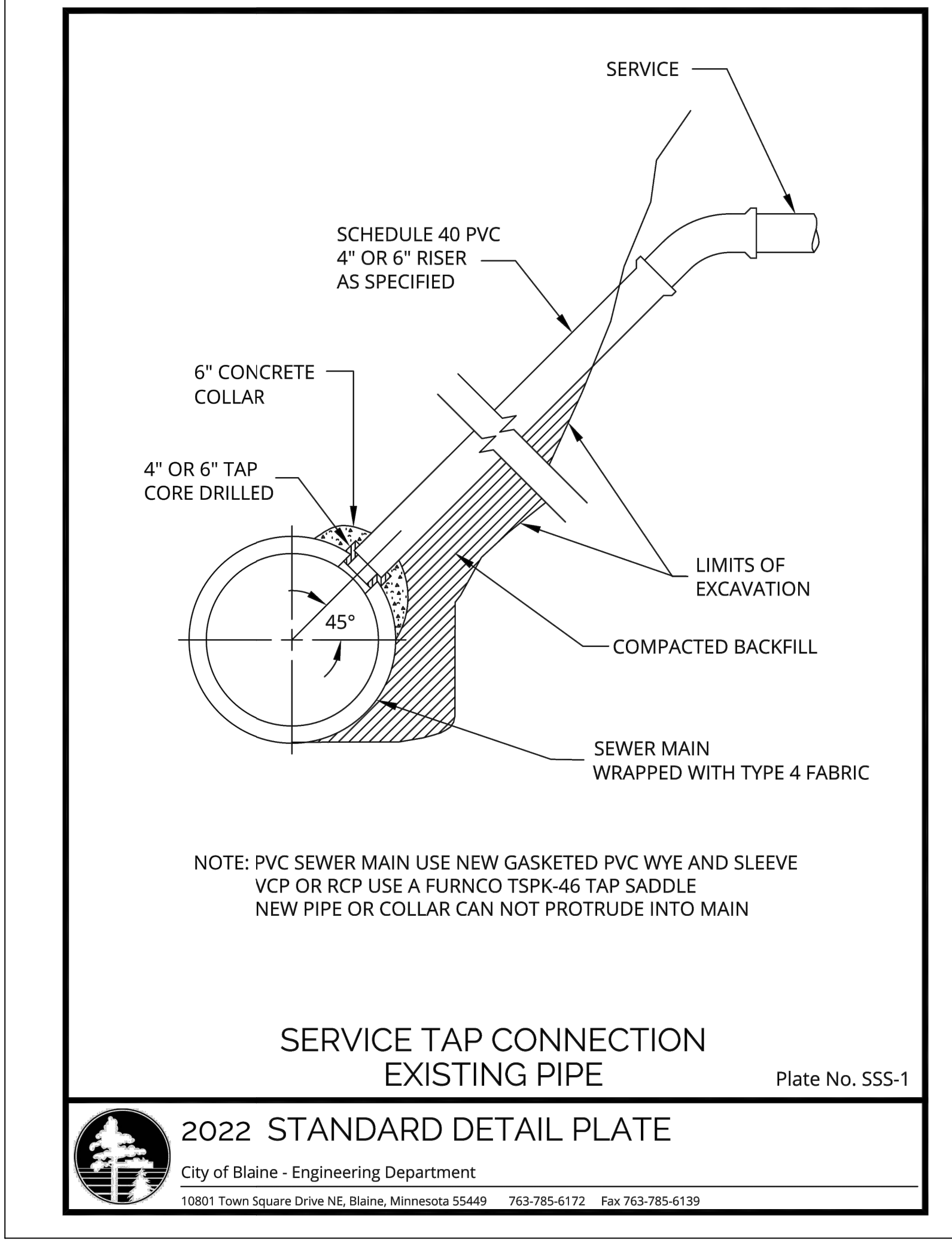
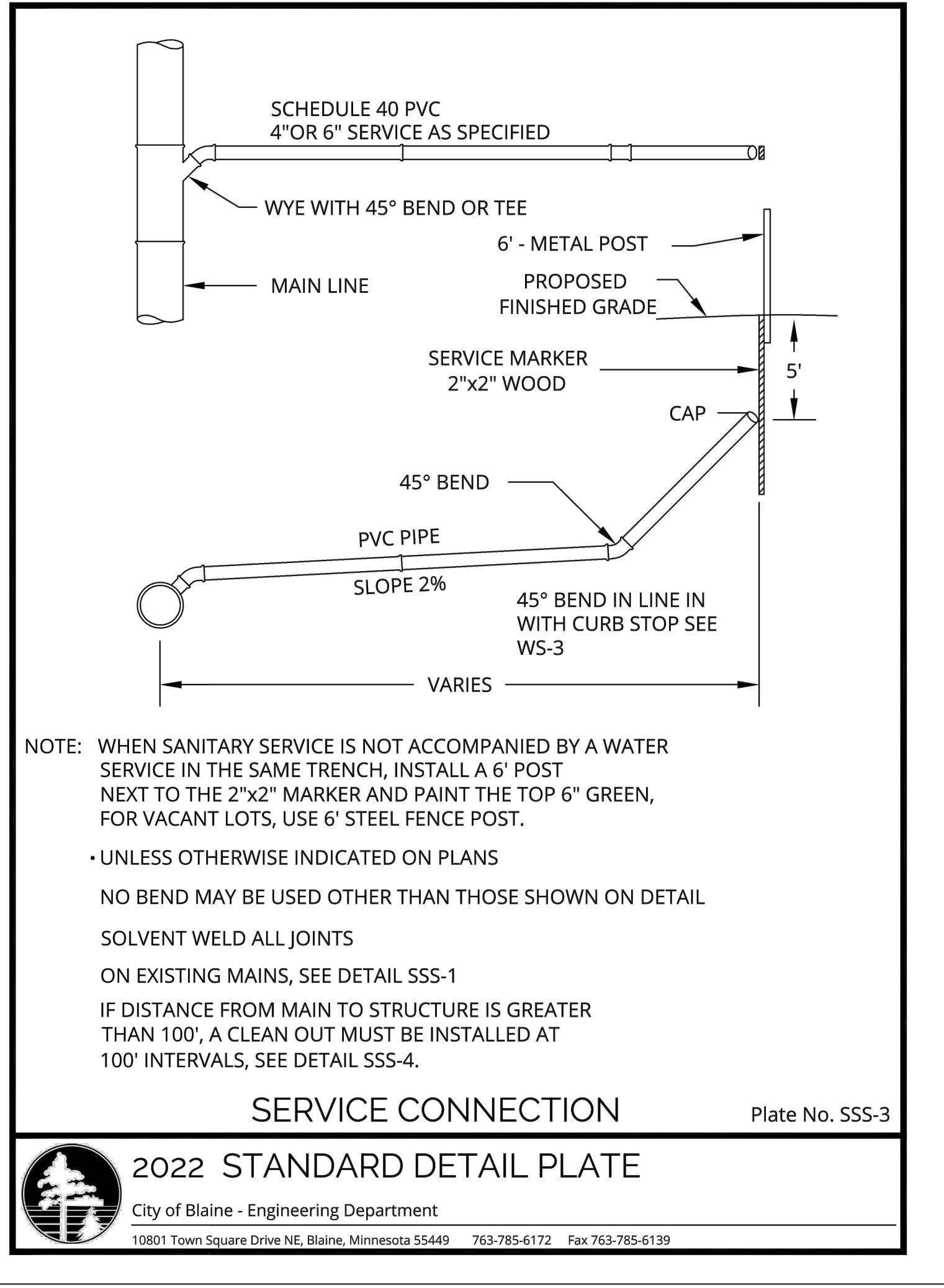
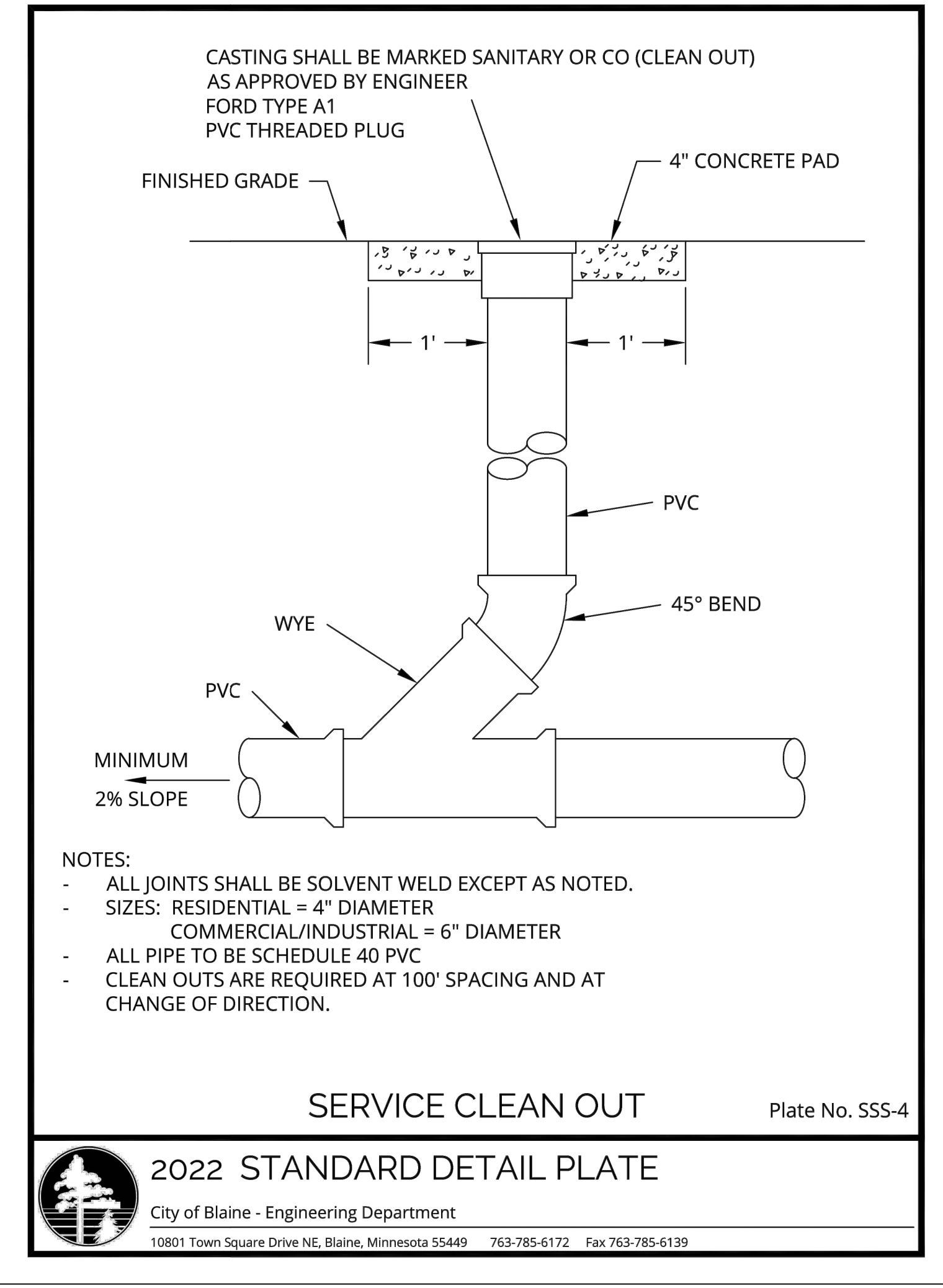
**TAKE 5 EXPRESS CAR WASH  
 OF SPRING LAKE PARK, MN**  
 8301 UNIVERSITY AVE NE  
 SPRING LAKE PARK, MN

**PROFESSIONAL ENGINEER**  
 I HEREBY CERTIFY THAT THIS  
 PLAN, SPECIFICATION, OR REPORT  
 WAS PREPARED BY ME OR UNDER  
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 THAT I AM A DULY LICENSED  
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 SIGNATURE:   
 TREVOR G. STUBBS, P.E.  
 DATE: 05/17/22  
 LICENSE NUMBER: 60001

ISSUED DATE: 03-07-22  
 PROJ. #: 21-4296  
 DRAWN BY: KB  
 DATUM: SEE SURVEY  
 REF. #: SEE SURVEY  
 F.B. & PG.: SEE SURVEY

SHEET TITLE:  
**UTILITY DETAILS**

SHEET  
**C-10**  
 DWG. NO.









**PLANTING SPECIFICATIONS**

**GENERAL**

- A. QUALIFICATIONS OF LANDSCAPE CONTRACTOR
  - 1. ALL LANDSCAPE WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE FIRM SPECIALIZING IN LANDSCAPE PLANTING
  - 2. A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE REQUESTED BY THE OWNER FOR FURTHER QUALIFICATION PURPOSES.
  - 3. THE LANDSCAPE CONTRACTOR SHALL HOLD A VALID CONTRACTOR'S LICENSE ISSUED BY THE APPROPRIATE LOCAL JURISDICTION.
- B. SCOPE OF WORK
  - 1. WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE EXECUTION, INSTALLATION AND COMPLETION OF ALL WORK SPECIFIED HEREIN AND /OR SHOWN ON THE LANDSCAPE PLANS, NOTES, AND DETAILS.
  - 2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES TO SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS.
  - 3. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK.

**PRODUCTS**

- A. ALL MANUFACTURED PRODUCTS SHALL BE NEW.
- B. CONTAINER AND BALLED-AND-BURLAPPED PLANTS:
  - 1. FURNISH NURSERY-GROWN PLANTS COMPLYING WITH ANS Z60.1-2014. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. ALL PLANTS WITHIN A SPECIES SHALL HAVE SIMILAR SIZE, AND SHALL BE OF A TYPICAL FORM FOR THE SPECIES. ALL TREES SHALL BE OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE, AND WITH SIMILAR CLIMATIC CONDITIONS.
  - 2. ROOT SYSTEMS SHALL BE HEALTHY, DENSELY BRANCHED ROOT SYSTEMS, NOT-POT-BOUND, FREE FROM ENCIRCLING AND/OR GIRDLING ROOTS, AND FREE FROM ANY OTHER ROOT DEFECTS (SUCH AS J-SHAPED ROOTS).
  - 3. TREES MAY BE PLANTED FROM CONTAINERS OR BALLED-AND-BURLAPPED (B&B), UNLESS SPECIFIED ON THE PLANTING LEGEND. BARE-ROOT TREES ARE NOT ACCEPTABLE.
  - 4. ANY PLANT DEEMED UNACCEPTABLE BY THE LANDSCAPE ARCHITECT OR OWNER SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND SHALL BE REPLACED WITH AN ACCEPTABLE PLANT OF THE SAME SPECIES AND SIZE AT THE CONTRACTOR'S OWN EXPENSE. ANY PLANTS APPEARING TO BE UNHEALTHY, OR DETERMINED TO STILL BE ALIVE, SHALL NOT BE ACCEPTED. THE LANDSCAPE ARCHITECT AND OWNER SHALL BE THE SOLE JUDGES AS TO THE ACCEPTABILITY OF PLANT MATERIAL.
  - 5. ALL TREES SHALL BE STANDARD IN FORM, UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADERS IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING.
  - 6. CALIPER MEASUREMENTS FOR STANDARD (SINGLE TRUNK) TREES SHALL BE AS FOLLOWS: SIX INCHES ABOVE THE ROOT FLARE FOR TREES UP TO AND INCLUDING FOUR INCHES IN CALIPER, AND TWELVE INCHES ABOVE THE ROOT FLARE FOR TREES EXCEEDING FOUR INCHES IN CALIPER.
  - 7. MULTI-TRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT, MEASURED FROM THE TOP OF THE ROOT BALL, WHERE CALIPER MEASUREMENTS ARE USED, THE CALIPER SHALL BE CALCULATED AS ONE-HALF OF THE SUM OF THE CALIPER OF THE THREE LARGEST TRUNKS.
  - 8. ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY COVERED, SHALL BE REJECTED.
- C. SOD: PROVIDE WELL-ROOTED SOD OF THE VARIETY NOTED ON THE PLANS. SOD SHALL BE CUT FROM HEALTHY, MATURE TURF WITH SOIL THICKNESS OF 3/4" TO 1". EACH PALLET OF SOD SHALL BE ACCOMPANIED BY A CERTIFICATE FROM SUPPLIER STATING THE COMPOSITION OF THE SOD.
- D. TOPSOIL: SANDY TO CLAY LOAM TOPSOIL, FREE OF STONES LARGER THAN 1/2" INCH, FOREIGN MATTER, PLANTS, ROOTS, AND SEEDS. COMPOST: WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, pH RANGE OF 5.5 TO 8.0; MOISTURE CONTENT 35 TO 55 PERCENT BY WEIGHT; 100 PERCENT PASSING THROUGH 3/4-INCH SIEVE; SOLUBLE SALT CONTENT OF 5 TO 10 DECISEMIMS/CM; NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS. NO MANURE OR ANIMAL-BASED PRODUCTS SHALL BE USED.
- F. FERTILIZER: GRANULAR FERTILIZER CONSISTING OF NITROGEN, PHOSPHORUS, POTASSIUM, AND OTHER NUTRIENTS IN PROPORTIONS, AMOUNTS, AND RELEASE RATES RECOMMENDED BY A SOIL REPORT FROM A QUALIFIED SOIL TESTING AGENCY (SEE BELOW).
- G. MULCH: SIZE AND TYPE AS INDICATED ON PLANS, FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS.
- H. TREE STAKING AND GUYING
  - 1. STAKES: 6' LONG GREEN METAL T-POSTS.
  - 2. GUY AND THE WIRE: ASTM A 641, CLASS 1, GALVANIZED-STEEL WIRE, 2-STRAND, TWISTED, 0.106 INCH DIAMETER.
  - 3. STRAP CHAIRING GUARD: REINFORCED NYLON OR CANVAS AT LEAST 1-1/2 INCH WIDE, WITH GROMMETS TO PROTECT TREE TRUNKS FROM DAMAGE.
- I. STEEL EDGING: PROFESSIONAL STEEL EDGING, 1/4 GAUGE THICK X 4 INCHES WIDE, FACTORY PAINTED DARK GREEN. ACCEPTABLE MANUFACTURERS INCLUDE COL-MET OR APPROVED EQUAL.
- J. PRE-EMERGENT HERBICIDES: ANY GRANULAR, NON-STAINING PRE-EMERGENT HERBICIDE THAT IS LABELED FOR THE SPECIFIC ORNAMENTALS OR TURF ON WHICH IT WILL BE UTILIZED. PRE-EMERGENT HERBICIDES SHALL BE APPLIED PER THE MANUFACTURER'S LABELED RATES.

**METHODS**

- A. SOIL PREPARATION
  - 1. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE GRADE OF ALL LANDSCAPE AREAS ARE WITHIN +0.0' OF FINISH GRADE. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY SHOULD ANY DISCREPANCIES EXIST.
  - 2. SOIL TESTING:
    - a. AFTER FINISH GRADES HAVE BEEN ESTABLISHED, CONTRACTOR SHALL HAVE SOIL SAMPLES FROM THE PROJECT'S LANDSCAPE AREAS TESTED BY AN ESTABLISHED SOIL TESTING LABORATORY. EACH SAMPLE SUBMITTED TO THE LAB SHALL CONTAIN NO LESS THAN ONE QUART OF SOIL, TAKEN FROM BETWEEN THE SOIL SURFACE AND 6" DEPTH. IF NO SAMPLE LOCATIONS ARE INDICATED ON THE PLANS, THE CONTRACTOR SHALL TAKE A MINIMUM OF THREE SAMPLES FROM VARIOUS REPRESENTATIVE LOCATIONS FOR TESTING.
    - b. THE CONTRACTOR SHALL HAVE THE SOIL TESTING LABORATORY PROVIDE RESULTS FOR THE FOLLOWING: SOIL TEXTURAL CLASS, GENERAL SOIL FERTILITY, pH, ORGANIC MATTER CONTENT, SALT (CEC), LIME, SODIUM ADSORPTION RATIO (SAR) AND BORON CONTENT.
    - c. THE CONTRACTOR SHALL ALSO SUBMIT THE PROJECT'S PLANT LIST TO THE LABORATORY ALONG WITH THE SOIL SAMPLES.
    - d. THE SOIL REPORT PRODUCED BY THE LABORATORY SHALL CONTAIN RECOMMENDATIONS FOR THE FOLLOWING (AS APPROPRIATE): SEPARATE SOIL PREPARATION AND BACKFILL MIX RECOMMENDATIONS FOR GENERAL ORNAMENTAL PLANTS, XERIC PLANTS, TURF, AND NATIVE SEED, AS WELL AS PRE-PLANT FERTILIZER APPLICATIONS AND RECOMMENDATIONS FOR ANY OTHER SOIL RELATED ISSUES. THE REPORT SHALL ALSO PROVIDE A FERTILIZER PROGRAM FOR THE ESTABLISHMENT PERIOD AND FOR LONG-TERM MAINTENANCE.
  - 3. THE CONTRACTOR SHALL INSTALL SOIL AMENDMENTS AND FERTILIZERS PER THE SOILS REPORT RECOMMENDATIONS. ANY CHANGE IN COST DUE TO THE SOIL REPORT RECOMMENDATIONS, EITHER INCREASE OR DECREASE, SHALL BE SUBMITTED TO THE OWNER WITH THE REPORT.
  - 4. FOR BIDDING PURPOSES ONLY, THE SOIL PREPARATION SHALL CONSIST OF THE FOLLOWING:
    - a. TURF: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING:
      - i. NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F.
      - ii. PREPLANT TURF FERTILIZER (10-20-10 OR SIMILAR, SLOW RELEASE, ORGANIC) - 15 LBS PER 1,000 S.F.
      - iii. "CLAY BUSTER" OR EQUAL - USE MANUFACTURER'S RECOMMENDED RATE.
    - b. TREES, SHRUBS, AND PERENNIALS: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING:
      - i. NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F.
      - ii. 12-12-12 FERTILIZER (OR SIMILAR, ORGANIC, SLOW RELEASE) - 10 LBS. PER CU. YD.
      - iii. "CLAY BUSTER" OR EQUAL - USE MANUFACTURER'S RECOMMENDED RATE.
      - iv. IRON SULPHATE - 2 LBS. PER CU. YD.
  - 5. IN THE CONTEXT OF THESE PLANS, NOTES, AND SPECIFICATIONS, "FINISH GRADE" REFERS TO THE FINAL ELEVATION OF THE SOIL SURFACE (NOT TOP OF MULCH) AS INDICATED ON THE GRADING PLANS.
    - a. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE ROUGH GRADES OF ALL LANDSCAPE AREAS ARE WITHIN +0.0' OF FINISH GRADE. SEE SPECIFICATIONS FOR MORE DETAILED INSTRUCTION ON TURF AREA AND PLANTING BED PREPARATION.
    - b. CONSTRUCT AND MAINTAIN FINISH GRADES AS SHOWN ON GRADING PLANS, AND CONSTRUCT AND MAINTAIN SLOPES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT AND ON THE GRADING PLANS, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING POTENTIAL.
    - c. THE LANDSCAPE CONTRACTOR SHALL DETERMINE WHETHER OR NOT THE EXPORT OF ANY SOIL WILL BE NEEDED, TAKING INTO ACCOUNT THE ROUGH GRADE PROVIDED. THE AMOUNT OF SOIL AMENDMENTS TO BE ADDED (BASED ON A SOIL TEST, PER SPECIFICATIONS), AND THE FINISH GRADE TO BE ESTABLISHED.
    - d. ENSURE THAT THE FINISH GRADE IN SHRUB AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 3" BELOW THE ADJACENT FINISH SURFACE, IN ORDER TO ALLOW FOR PROPER MULCH DEPTH. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.
    - e. ENSURE THAT THE FINISH GRADE IN TURF AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 1" BELOW THE FINISH SURFACE OF THE WALKS. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.
    - f. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GRADING PLANS, GEOTECHNICAL REPORT, THESE NOTES AND PLANS, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, GENERAL CONTRACTOR, AND OWNER.
  - 6. ONCE SOIL PREPARATION IS COMPLETE, THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT THERE ARE NO DEBRIS, TRASH, OR STONES LARGER THAN 1" REMAINING IN THE TOP 6" OF SOIL.

**SUBMITTALS**

- 1. THE CONTRACTOR SHALL PROVIDE SUBMITTALS AND SAMPLES, IF REQUIRED, TO THE LANDSCAPE ARCHITECT, AND RECEIVE APPROVAL IN WRITING FOR SUCH SUBMITTALS BEFORE WORK COMMENCES.
- 2. SUBMITTALS SHALL INCLUDE PHOTOS OF PLANTS WITH A RULER OR MEASURING STICK FOR SCALE, PHOTOS OR SAMPLES OF ANY REQUIRED MULCHES, AND SOIL TEST RESULTS AND PREPARATION RECOMMENDATIONS FROM THE TESTING LAB (INCLUDING COMPOST AND FERTILIZER RATES AND TYPES, AND OTHER AMENDMENTS FOR TREE/SHRUB AND TIES, EDGING, AND LANDSCAPE FABRICS (IF ANY)).
- 3. SUBMITTALS SHALL ALSO INCLUDE MANUFACTURER CUT SHEETS FOR PLANTING ACCESSORIES SUCH AS TREE STAKES AND TIES, EDGING, AND LANDSCAPE FABRICS (IF ANY).
- 4. WHERE ALL ITEMS ARE SHOWN ON A PAGE, THE CONTRACTOR SHALL CLEARLY INDICATE THE ITEM BEING CONSIDERED.

**GENERAL PLANTING**

- 1. REMOVE ALL NURSERY TAGS AND STAKES FROM PLANTS.
- 2. EXCEPT IN AREAS TO BE PLANTED WITH ORNAMENTAL GRASSES, APPLY PRE-EMERGENT HERBICIDES AT THE MANUFACTURER'S RECOMMENDED RATE.
- 3. TRENCING NEAR EXISTING TREES:
  - a. CONTRACTOR SHALL NOT DISTURB ROOTS 1-1/2" AND LARGER IN DIAMETER WITHIN THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES, AND SHALL EXERCISE ALL POSSIBLE CARE AND PRECAUTIONS TO AVOID INJURY TO TREE ROOTS, TRUNKS, AND BRANCHES. THE CRZ IS DEFINED AS A CIRCULAR AREA EXTENDING OUTWARD FROM THE TREE TRUNK, WITH A RADIUS EQUAL TO 1" FOR EVERY 1" OF TRUNK DIAMETER-AT-BREAST-HIGHT (4.5' ABOVE THE AVERAGE GRADE AT THE TRUNK).
  - b. ALL EXCAVATION WITHIN THE CRZ SHALL BE PERFORMED USING HAND TOOLS. NO MACHINE EXCAVATION OR TRENCHING OF ANY KIND SHALL BE ALLOWED WITHIN THE CRZ.
  - c. ALTER ALIGNMENT OF PIPE TO AVOID TREE ROOTS 1-1/2" AND LARGER IN DIAMETER. WHERE TREE ROOTS 1-1/2" AND LARGER IN DIAMETER ARE ENCOUNTERED IN THE FIELD, TUNNEL UNDER SUCH ROOTS. WRAP EXPOSED ROOTS WITH SEVERAL LAYERS OF BURLAP AND KEEP MOIST. CLOSE ALL TRENCHES WITHIN THE CANOPY DRIP LINES WITHIN 24 HOURS.
  - d. ALL SEVERED ROOTS SHALL BE HAND PRUNED WITH SHARP TOOLS AND ALLOWED TO AIR-DRY. DO NOT USE ANY SORT OF SEALERS OR WOUND PAINTS.

**D. TREE PLANTING**

- 1. TREE PLANTING HOLES SHALL BE EXCAVATED TO MINIMUM WIDTH OF TWO TIMES THE WIDTH OF THE ROOTBALL, AND TO A DEPTH EQUAL TO THE DEPTH OF THE ROOTBALL LESS TWO TO FOUR INCHES.
- 2. SCARIFY THE SIDES AND BOTTOM OF THE PLANTING HOLE PRIOR TO THE PLACEMENT OF THE TREE. REMOVE ANY GLAZING THAT MAY HAVE BEEN CAUSED DURING THE EXCAVATION OF THE HOLE.
- 3. FOR CONTAINER AND BOX TREES, TO REMOVE ANY POTENTIALLY GIRDLING ROOTS AND OTHER ROOT DEFECTS, THE CONTRACTOR SHALL SHAVE A 1" LAYER OFF OF THE SIDES AND BOTTOM OF THE ROOTBALL OF ALL TREES JUST BEFORE PLACING INTO THE PLANTING PIT. DO NOT "TEASE" ROOTS OUT FROM THE ROOTBALL.
- 4. ALL TREES SHALL BE PLANTED ON UNDISTURBED SUBGRADE SO THAT THE TOP OF THE ROOTBALL IS TWO TO FOUR INCHES ABOVE THE SURROUNDING GRADE.
- 5. BACKFILL THE TREE HOLE UTILIZING THE EXISTING TOPSOIL FROM ON-SITE. ROCKS LARGER THAN 1" DIA. AND ALL OTHER DEBRIS SHALL BE REMOVED FROM THE SOIL PRIOR TO THE BACKFILL. SHOULD ADDITIONAL SOIL BE REQUIRED TO ACCOMPLISH THIS TASK, USE STORED TOPSOIL FROM ON-SITE OR IMPORT ADDITIONAL TOPSOIL FROM OFF-SITE AT NO ADDITIONAL COST TO THE OWNER. IMPORTED TOPSOIL SHALL BE OF SIMILAR TEXTURAL CLASS AND COMPOSITION IN THE ON-SITE SOIL.
- 6. TREES SHALL NOT BE STAKED UNLESS LOCAL CONDITIONS (SUCH AS HEAVY WINDS OR SLOPES) REQUIRE STAKES TO KEEP TREES UPRIGHT. SHOULD STAKING BE REQUIRED, THE TOTAL NUMBER OF TREE STAKES (BEYOND THE MINIMUM LISTED BELOW) WILL BE LEFT TO THE LANDSCAPE CONTRACTOR'S DISCRETION. SHOULD ANY TREES FALL OR LEAN, THE LANDSCAPE CONTRACTOR SHALL STRAIGHTEN THE TREE, OR REPLACE IT SHOULD IT BECOME DAMAGED. TREE STAKING SHALL ADHERE TO THE FOLLOWING GUIDELINES:
  - a. 1-1/2" TREES: THREE STAKES PER TREE
  - b. 2-1/2" - 4" TREES: THREE STAKES PER TREE
  - c. TREES OVER 4" CALIPER: GUY AS NEEDED
  - d. MULTI-TRUNK TREES: THREE STAKES PER TREE MINIMUM. QUANTITY AND POSITIONS AS NEEDED TO STABILIZE THE TREE

**E. SHRUB, PERENNIAL AND GROUND COVER PLANTING**

- 1. DIG THE PLANTING HOLES TWICE AS WIDE AND 2" DEEP DEEPER THAN EACH PLANTS ROOTBALL. INSTALL THE PLANT IN THE HOLE. BACKFILL AROUND THE PLANT WITH SOIL AMENDED PER SOIL TEST RECOMMENDATIONS.
- 2. WHEN PLANTING IS COMPLETE, INSTALL MULCH (TYPE AND DEPTH PER PLANS) OVER ALL PLANTING BEDS, COVERING THE ENTIRE PLANTING AREA.

**F. SODDING**

- 1. SOD VARIETY TO BE AS SPECIFIED ON THE LANDSCAPE PLAN.
- 2. LAY SOD WITHIN 24 HOURS FROM THE TIME OF STRIPPING. DO NOT LAY IF THE GROUND IS FROZEN.
- 3. LAY THE SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. BUTT ENDS AND SIDES OF SOD STRIPS - DO NOT OVERLAP. STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES.
- 4. ROLL THE SOD TO ENSURE GOOD CONTACT OF THE SOD'S ROOT SYSTEM WITH THE SOIL UNDERNEATH.
- 5. WATER THE SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING TO OBTAIN AT LEAST SIX INCHES OF PENETRATION INTO THE SOIL BELOW THE SOD.

**G. MULCH**

- 1. INSTALL MULCH TOPDRESSING, TYPE AND DEPTH PER MULCH NOTE, IN ALL PLANTING AREAS AND TREE RINGS. DO NOT INSTALL MULCH WITHIN 6" OF TREE ROOT FLARE AND WITHIN 24" OF HABITABLE STRUCTURES, EXCEPT AS MAY BE NOTED ON THESE PLANS. MULCH COVER WITHIN 6" OF CONCRETE WALKS AND CURBS SHALL NOT PROTRUDE ABOVE THE FINISH SURFACE OF THE WALKS AND CURBS. MULCH COVER WITHIN 12" OF WALLS SHALL BE AT LEAST 3" LOWER THAN THE TOP OF THE FINISH GRADE.

**H. CLEAN UP**

- 1. DURING LANDSCAPE PREPARATION AND PLANTING, KEEP ALL PAVEMENT CLEAN AND ALL WORK AREAS IN A NEAT, ORDERLY CONDITION.
- 2. DISPOSED LEGALLY OF ALL EXCAVATED MATERIALS OFF THE PROJECT SITE.

**I. INSPECTION AND ACCEPTANCE**

- 1. UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE SITE CLEAN, FREE OF DEBRIS AND TRASH, AND SUITABLE FOR USE AS INTENDED. THE LANDSCAPE CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY.
- 2. WHEN THE INSPECTED PLANTING WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE LANDSCAPE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S SATISFACTION WITHIN 24 HOURS.
- 3. THE LANDSCAPE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE LANDSCAPE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME, A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE.

**J. LANDSCAPE MAINTENANCE**

- 1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK SHOWN ON THESE PLANS FOR 90 DAYS BEYOND FINAL ACCEPTANCE OF ALL LANDSCAPE WORK BY THE OWNER. LANDSCAPE MAINTENANCE SHALL INCLUDE WEEKLY SITE VISITS FOR THE FOLLOWING ACTIONS (AS APPROPRIATE): PROPER PRUNING, RESTAKING OF TREES, RESETTING OF PLANTS THAT HAVE SETTLED, MOWING AND AERATION OF LAWNS, WEEDING, RESEEDING AREAS WHICH HAVE NOT GERMINATED WELL, TREATING FOR INSECTS AND DISEASES, REPLACEMENT OF MULCH, REMOVAL OF LITTER, REPAIRS TO THE IRRIGATION SYSTEM DUE TO FAULTY PARTS AND/OR WORKMANSHIP, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN PROPER WORKING ORDER, WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION.
- 2. SHOULD SEEDED AND/OR SODDED AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL, HEALTHY STAND OF PLANTS AT NO ADDITIONAL COST TO THE OWNER.
- 3. TO ACHIEVE FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD, ALL OF THE FOLLOWING CONDITIONS MUST OCCUR:
  - a. THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH EXCEPTIONS MADE FOR SEASONAL DORMANCY) PRIOR TO FINAL ACCEPTANCE.
  - b. ALL PLANTS NOT MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY HEALTHY PLANT MATERIAL.
  - c. ALL HARDSCAPE SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE.
  - d. SODDED AREAS MUST BE ACTIVELY GROWING AND MUST REACH A MINIMUM HEIGHT OF 1 1/2" INCHES BEFORE FIRST MOWING. HYDROMULCHED AREAS SHALL SHOW ACTIVE, HEALTHY GROWTH. BARE AREAS LARGER THAN TWELVE SQUARE INCHES MUST BE RESEDED OR RESEEDED (AS APPROPRIATE) PRIOR TO FINAL ACCEPTANCE. ALL SODDED TURF SHALL BE NEATLY MOWED.

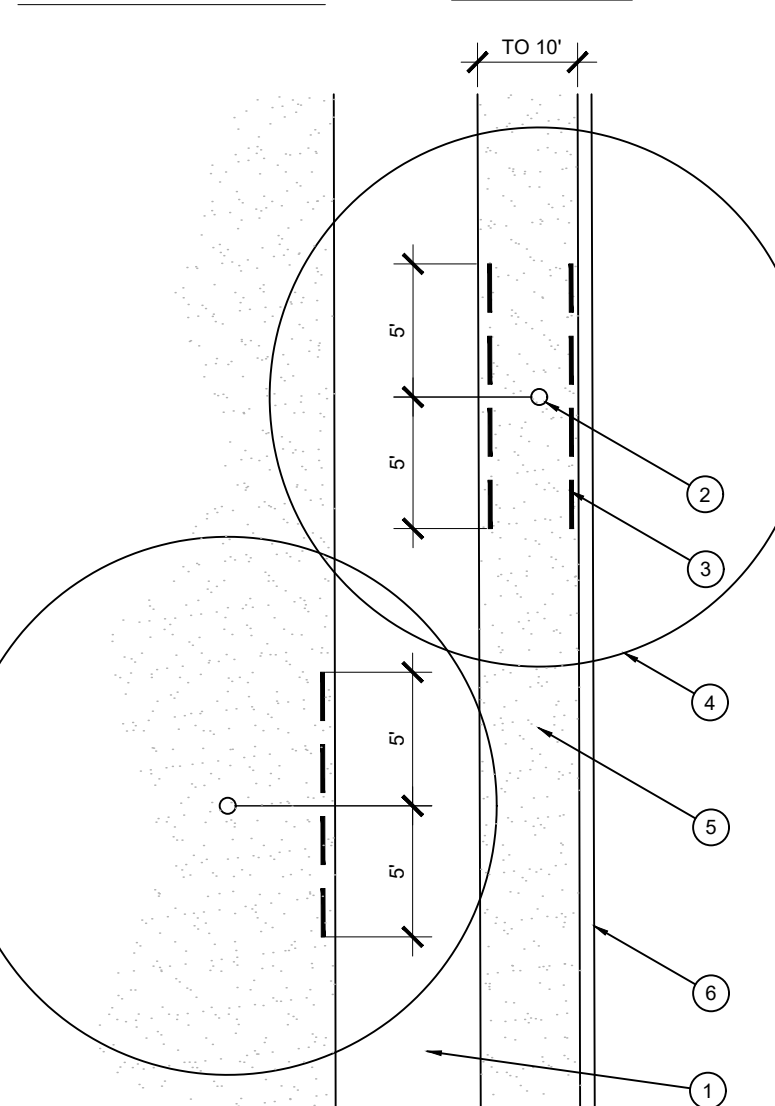
**K. WARRANTY PERIOD, PLANT GUARANTEE AND REPLACEMENTS**

- 1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS, PERENNIALS, SOD, SEEDED/HYDROMULCHED AREAS, AND IRRIGATION SYSTEMS FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S FINAL ACCEPTANCE (90 DAYS FOR ANNUAL PLANTS). THE CONTRACTOR SHALL REPLACE, AT HIS OWN EXPENSE AND TO THE SATISFACTION OF THE OWNER, ANY PLANTS WHICH DIE IN THAT TIME, OR REPAIR ANY PORTIONS OF THE IRRIGATION SYSTEM WHICH OPERATE IMPROPERLY.
- 2. AFTER THE INITIAL MAINTENANCE PERIOD AND DURING THE GUARANTEE PERIOD, THE LANDSCAPE CONTRACTOR SHALL ONLY BE RESPONSIBLE FOR REPLACEMENT OF PLANTS WHEN PLANT DEATH CANNOT BE ATTRIBUTED DIRECTLY TO OVERWATERING OR OTHER DAMAGE BY HUMAN ACTIONS.

**L. RECORD DRAWINGS**

- 1. PROVIDE A MINIMUM OF (2) COPIES OF RECORD DRAWINGS TO THE OWNER UPON COMPLETION OF WORK. A RECORD DRAWING IS A RECORD OF ALL CHANGES THAT OCCURRED IN THE FIELD AND THAT ARE DOCUMENTED THROUGH CHANGE ORDERS, ADDENDA, OR CONTRACTOR/CONSULTANT DRAWING MARKUPS.

**OPEN LANDSCAPE PARKWAY OR ISLAND**

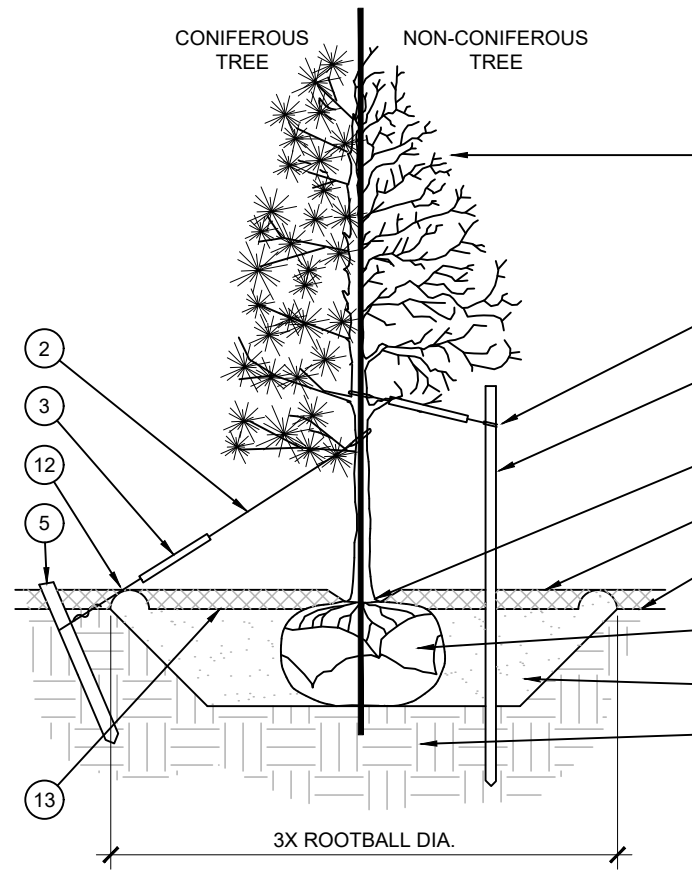


**D. ROOT BARRIER - PLAN VIEW**  
SCALE: NOT TO SCALE

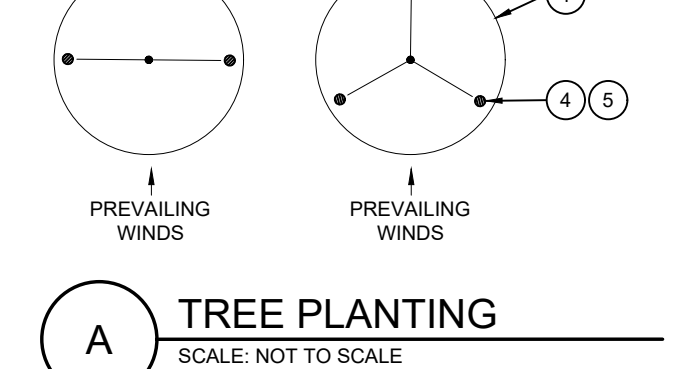
- 1 TYPICAL WALKWAY OR PAVING
- 2 TREE TRUNK
- 3 LINEAR ROOT BARRIER MATERIAL. SEE PLANTING NOTES FOR TYPE AND MANUFACTURER. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
- 4 TREE CANOPY
- 5 TYPICAL PLANTING AREA
- 6 TYPICAL CURB AND GUTTER

**NOTES:**

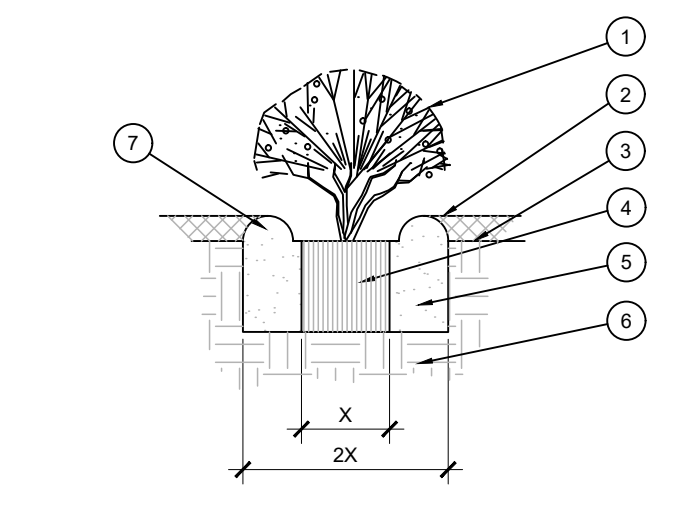
- 1) INSTALL ROOT BARRIERS NEAR ALL NEWLY-PLANTED TREES THAT ARE LOCATED WITHIN FIVE (5) FEET OF PAVING OR CURBS.
- 2) FOR CONTAINER AND BOX TREES, TO REMOVE ANY POTENTIALLY GIRDLING ROOTS AND OTHER ROOT DEFECTS, THE CONTRACTOR SHALL SHAVE A 1" LAYER OFF OF THE SIDES AND BOTTOM OF THE ROOTBALL OF ALL TREES JUST BEFORE PLACING INTO THE PLANTING PIT. DO NOT "TEASE" ROOTS OUT FROM THE ROOTBALL.



**A. TREE PLANTING**  
SCALE: NOT TO SCALE



**B. SHRUB AND PERENNIAL PLANTING**  
SCALE: NTS



**C. STEEL EDGING**  
SCALE: NOT TO SCALE

- 1) ROLLED-TOP STEEL EDGING PER PLANS.
- 2) TAPERED STEEL STAKES.
- 3) MULCH, TYPE AND DEPTH PER PLANS.
- 4) FINISH GRADE.

**NOTES:**

- 1) INSTALL EDGING SO THAT STAKES WILL BE ON INSIDE OF PLANTING BED.
- 2) BOTTOM OF EDGING SHALL BE BURIED A MINIMUM OF 1" BELOW FINISH GRADE.
- 3) TOP OF MULCH SHALL BE 1" LOWER THAN TOP OF EDGING.

**CAI**  
CARTER ASSOCIATES, INC.  
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CONSULTING ENGINEERS  
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EMAIL: Trevor@CarterAssoc.com

**BOING US HOLDCO, INC.**  
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6300 S SYRACUSE WAY #205  
CENTENNIAL, CO  
TEL: (800) 259-0701

NO.	REVISION	DATE

**TAKE 5 EXPRESS CAR WASH**  
OF SPRING LAKE PARK, MN  
8301 UNIVERSITY AVE NE  
SPRING LAKE PARK, MN

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE:   
NAME: ERIC M. SHEPLEY  
DATE: 03/07/2022  
LICENSE NUMBER: 59933

ISSUED DATE: 02-24-22  
PROJ. # : 21-429E  
DRAWN BY:  
DATUM : SEE SURVEY  
REF. # : SEE SURVEY  
F.B. & PG. : SEE SURVEY

SHEET TITLE:  
**PLANTING DETAILS AND SPECIFICATIONS**

**SHEET**  
**LP-2**  
DWG. NO:

**EVERGREEN**  
DESIGN GROUP  
800) 680-6630  
4625 Lindell Blvd, Ste 200  
St Louis, MO 63101  
www.EvergreenDesignGroup.com

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**GS&C**  
GOPHER STATE ONE CALL



# ALTA/NSPS Land Title Survey

## Title Information

First American Title Insurance Company  
Title Commitment #NCS-1094213-CHAR  
Date: October 07, 2021

## Schedule A Description

Real property in the City of Spring Lake Park, County of Anoka, State of Minnesota, described as follows:

Outlot Nine (9), Terrace Manor 4th, County of Anoka, State of Minnesota.

The property described above and shown herein is the same as that described in title commitment issued by First American Title Insurance Company, title commitment number NCS-1094213-CHAR with an effective date of October 07, 2021 at 7:30 a.m.

## Schedule B - Section II

9. Easements for drainage and utility purposes as shown on the recorded plat of Terrace Manor 4th, recorded December 29, 1966, as Document No. 294160. (Drainage and utility easements do not affect the subject property)

10. All of the terms and provisions set forth and contained in that certain Skelly Oil Company Lease Agreement dated November 29, 1977, between Thomas E. Cooper, Lessor, and Skelly Oil Company, Lessee, recorded January 5, 1978, as Document No. 487160. (Affects, contains no plottable items)

## Significant Observations

- SO 1 - Power line passes through Northern boundary line to building.
- SO 2 - Fence passes through Northern boundary line in two areas and the Eastern boundary line.
- SO 3 - Power line passes through South boundary line near Southeast corner of the subject property.

## Reference Documents

1. N 1/2 Sec. 2, T. 30, R. 24, City of Fridley, City of Spring Lake Park/Plat - revised 12/9/2020
2. Terrace Manor 4th, Village of Spring Lake Park/Plat - filed 12/29/1966 as Document No. 294160 under Book 2, Page 13

## Elevation Benchmarks

Site Benchmark(SBM)1	Site Benchmark(SBM)2
Type Mag Nail	Type Mag Nail
Northing 1101383.19	Northing 1101543.44
Easting 2814907.34	Easting 2814922.52
Elevation 880.26'	Elevation 880.32'

Benchmarks Northing & Eastings are applied with scale factor

## Tree Table

Tree ID	Trunk Diameter	Type
T1	36"	Deciduous
T2	24"	Deciduous
T3	24"	Deciduous
T4	12"	Deciduous
T5	12"	Deciduous

## Sign Table

Sign	Description
S1	No Parking
S2	Northtown Imports
S3	No Parking
S4	Speed Limit
S5	83rd/University Ave
S6	Stop Sign
S7	Nelson Cheese & Deli
S8	Stop Sign Ahead

## Zoning Information

ITEM	REQUIRED	Zoning Notes:
PERMITTED USE	Commercial	Because there may be a need for interpretation of the applicable zoning codes, we refer you to Spring Lake Park for zoning laws and applicable codes.
MIN. LOT AREA	N/A	
MIN. LOT WIDTH	100 Ft	
MAX. BLDG COVERAGE	35%	
MIN. SETBACKS FRONT	40 Ft	
MIN. SETBACKS SIDE	15 Ft	
MIN. SETBACKS REAR	30 Ft	
MAX. BUILDING HEIGHT	35 Ft or 2 stories	
PARKING REGULAR	10 spaces per lane	
PARKING HANDICAP	10 spaces per lane	
PARKING TOTAL	10 spaces per lane	

Blew & Associates makes no warranty to the exact regulations or ordinances represented on the drawing herein. The user of the survey should consult an attorney or title insurer to verify the zoning classification of the property as well as the applicable restrictions and requirements associated with such zoning classification. Property was confirmed to exist within the city limits of Spring Lake Park per phone conversation dated 11/9/2021 with Kristine Pearson - Permit Technician. Per same conversation they verified the Property to exist within Zone C-2. Specific zoning information as shown herein is as interpreted by the surveyor per Spring Lake Park Municipal Code and should be confirmed by a licensed Minnesota attorney or zoning professional in the controlling jurisdiction.

## Flood Note

By graphic plotting only, this property is in Zone "X Unshaded" of the Flood Insurance Rate Map, Community Flood No. 270060082L, which bears an effective date of 12/16/2013 and is not in a Special Flood Hazard Area.

Zone Definitions According to the FEMA website.

Zone "X Unshaded" - Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood.

## Miscellaneous Notes

1. Completed field work was 11/1/2021.
2. The Basis of Bearing for this survey is Grid North per GPS coordinate observations Minnesota State Plane, South Zone NAD83. Longitude = 93°15'46.74316" Convergence Angle = 0°30'59.7415" Distances shown on plan are ground. Combined scale factor (ground to grid) = 0.999998067
3. Some features on this plan may be shown out of scale for clarity.
4. Dimensions on this plan are expressed in feet and decimal parts thereof unless otherwise noted. Bearings are referred to an assumed meridian and are used to denote angles only. Measurements were found at points where indicated.
5. Any servitudes and restrictions shown on this survey are limited to those set forth in the description furnished to surveyor, and there is no representation that all applicable servitudes and restrictions are shown herein.
6. Names and addresses of adjoining property owners were taken from Anoka County tax cards and deeds.
7. The nearest fire hydrant is as shown on survey.
8. No surveyor or any other person other than a licensed Minnesota attorney may provide legal advice concerning the status of Title to the property described in this survey ("the subject property"). The purpose of this survey, and the comments related to the Schedule B-11 exceptions, is only to show the location of boundaries and physical objections in relation thereto. To the extent that the survey indicates that the legal instrument "affects" the subject property, such statement is only intended to indicate that property boundaries included in such instrument include some or all of the subject property. The surveyor does not purport to describe how such instrument affects the subject property or the enforceability or legal consequences of such instrument.
9. All bearings and distances shown herein are measured dimensions unless otherwise noted herein. Record dimensions, if differing from measured dimensions, will be followed by the surveyor. Record dimensions, if differing from measured dimensions, will be followed by the surveyor. Record dimensions, if differing from measured dimensions, will be followed by the surveyor.
10. Contour Interval = 1 foot. Elevations established with GPS static observations with originating benchmark QQ00499, vertical datum based upon North American Vertical Datum (NAVD88) in US survey feet. Published elevation: 877.07'
11. No parking spaces observed.
12. Surveyor notes that the property abuts the right-of-ways of University Avenue NE: Frontage Road and 83rd Avenue NE. Access to the right-of-way may be subject to other agreements or proper governmental approvals.
13. There was no observable evidence of earth moving work, building construction or building additions within recent months.
14. At the time of the survey, there was no observable evidence of site use as a cemetery, isolated grave site or burial ground within the subject property.
15. The nearest intersecting street is the intersection of 83rd Ave NE and University Avenue NE Frontage Rd, which is at the Southwest corner of the subject property.
16. Surveyor did not receive current deeds for adjoining properties from the title insurer. Surveyor obtained the deed information reflected on this survey on their own. The user of this survey should consult an attorney or title insurer to verify the current deed descriptions for adjoining properties.
17. Reference documents noted herein were obtained by the surveyor and any all representations based thereon should be reviewed by a licensed attorney or title insurer for verification.
18. Surveyor did not receive any information from the title insurer regarding the current zoning classification of the property or any requirements related to the applicable zoning classification. Surveyor obtained the zoning information reflected on this survey on their own. The user of this survey should consult an attorney or title insurer to verify the zoning classification of the property as well as the applicable restrictions and requirements associated with such zoning classification.

## Utility Notes

The utilities shown on this drawing have been located by field measurements, utility map drawings, and one-call utility locate request. Blew & Associates makes no warranty to the exact location of any underground utilities shown or not shown on this drawing. It is the responsibility of the contractor to verify any and all utilities prior to construction. Call Minnesota one-call at 1-800-252-1166 for field locations (request for ground markings) of underground utility lines before digging. Dig ticket number: 213021951

- Companies to Contact per One-Call Ticket:
- COMCAST
  - CITY OF FRIDLEY
  - CITY OF SPRING LAKE PARK
  - CENTURYLINK - CTOL
  - CONNEXUS ENERGY
  - MCI
  - METROPOLITAN COUNCIL (MCS)
  - CENTER POINT ENERGY
  - MINDOT
  - NORTHERN NATURAL GAS
  - LEVEL 3 IS NOW CENTURYLINK
  - XCEL ENERGY
  - ZAYO BANDWIDTH

1. Per Dig Ticket response the following companies are clear of the site and have no conflict: City of Fridley, Connexus Energy, Metropolitan Council (MCS), Northern Natural Gas, Level 3 is now Centurylink.
2. Per Dig Ticket response the following companies have marked the area & provided maps: City of Spring Lake Park
3. Per Dig Ticket response the company Zayo Bandwidth was listed as no response, however they did provide maps for Fiber per conversation with Patrick Lausermann from Zayo.
4. Per Dig Ticket response, Comcast, Centurylink, MCI, Center Point Energy, and Xcel Energy were listed as no response, and did not provide maps.
5. Per Dig Ticket response, MINDOT was listed as Maps Provided, and did provide maps. Water lines south of subject property are based off of city water maps and locations are approximate.

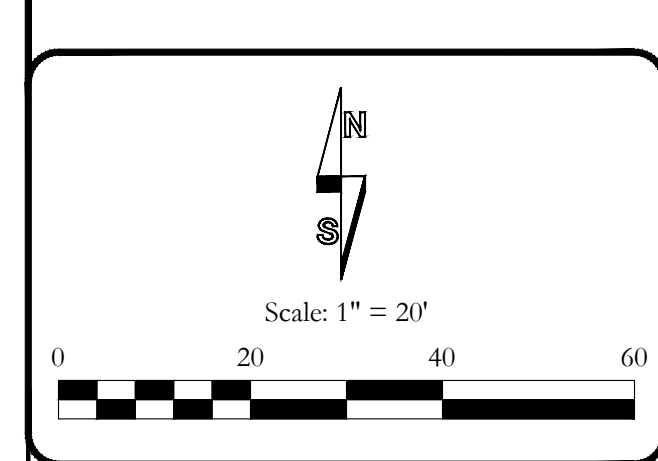
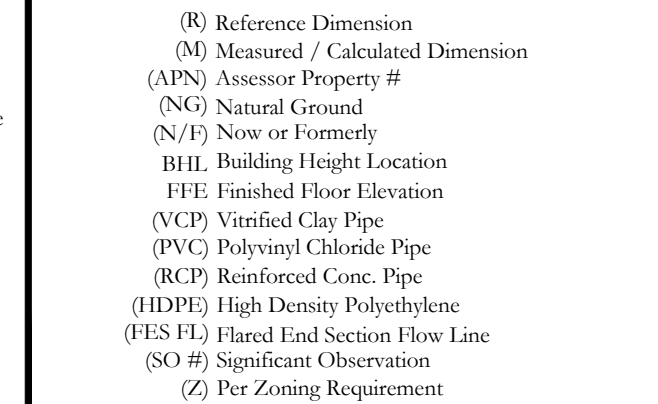
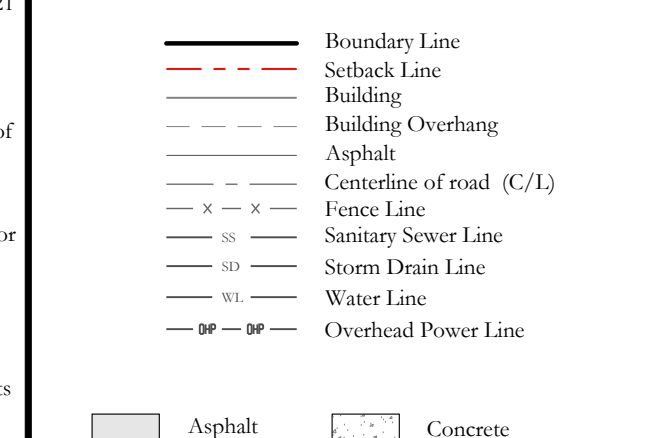
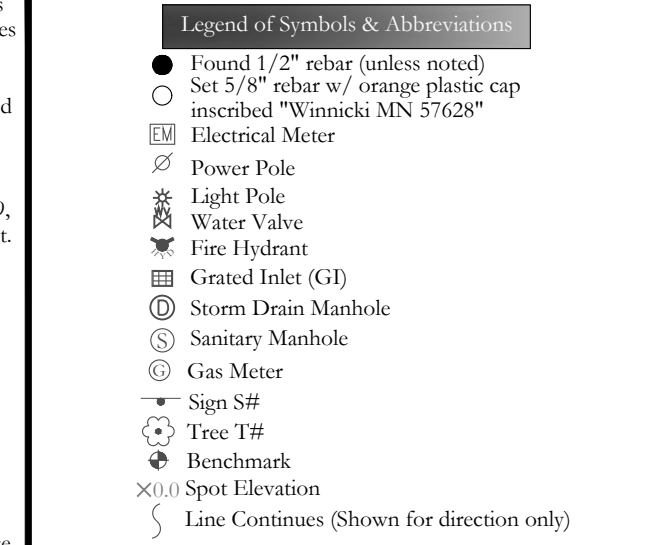
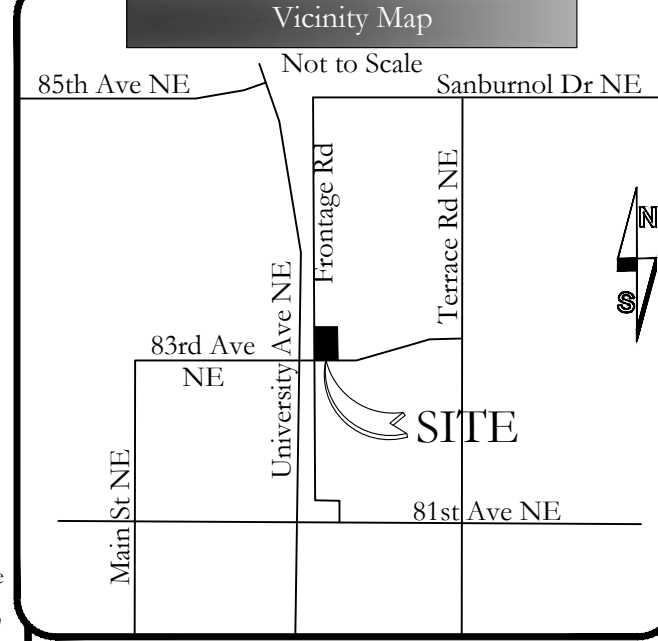
## Utility Contacts

FIBER	WATER/SEWER
Zayo Bandwidth Patrick Lausermann (612) 747-0023 1805 29th St, Ste 2050 Boulder, CO 80301	City of Spring Lake Park Terry Randall (763) 360-4973 1301 81st Ave. N.E. Spring Lake Park, MN 55432
TRAFFIC	
MINDOT Cami McKenzie (651) 366-3751 6000 Minnehaha Ave MS 740 St Paul MN 55111	

## Land Owners (N/I)

1	A1
APN: 02-30-24-21-0098 Sisaly, Mchitar & Fatima Street Address: 8301 University NE Ave, 55432 Mailing Address: 10482 Mississippi Blvd, Coon Rapids MN 55433	APN: 02-30-24-21-0100 Sisaly, Trustee Fatima Street Address: 8321 University NE Ave, 55432 Mailing Address: 10482 Mississippi Blvd, Coon Rapids MN 55433
APN: 02-30-24-21-0099 Greenbeck, Peter Street Address: 339 83rd NE Ave, 55432 Mailing Address: 1846 Fairmont Ave, St Paul MN 55105	

DATE	REVISION	BY



## Surveyor's Certification

TO: Carter Associates, Inc.

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 minimum standard detail requirements for ALTA/NSPS land title surveys, jointly established and adopted by ALTA and NSPS, and includes items 1-5, 6(a), 7(a), 7(b), 8, 9, 10(a), 13-14, 16-17, 19, & 20 of table A thereof. The field work was completed on 11/1/2021.

DATE OF PLAT OR MAP: 11/23/2021

# Preliminary

Robert Winnicki DATE: 11/23/2021  
Surveyor License No. 57628  
in the State of Minnesota

**BLEW & ASSOCIATES, PA**  
CIVIL ENGINEERS & LAND SURVEYORS  
3825 N. SHILOH DRIVE  
FAYETTEVILLE, ARKANSAS 72703  
OFFICE: 479.443.4506  
FAX: 479.582.1883  
www.BLEWINC.com

DRAWN BY & DATE	REVIEWED BY	SURVEYED BY
MB, 11/23/2021	TS	RW
COUNTY & STATE	JOB NUMBER	
Anoka & Minnesota	21-9417	
LOCATION	8301 University Ave NE, Spring Lake Park, Minnesota	

FOR THE USE AND BENEFIT OF:  
**Carter Associates, Inc.**  
(Take 5) Spring Lake Park, MN



# CARTER ASSOCIATES, INC.

## CONSULTING ENGINEERS AND LAND SURVEYORS

1708 21st STREET • VERO BEACH, FLORIDA 32960-3472 • 772-562-4191 • 772-562-7180 (FAX)

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DAVID E. LUETHJE, P.S.M., PRINCIPAL  
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TREVOR G. STUBBS, P.E.

City of Spring Lake Park, MN  
1301 81<sup>st</sup> Avenue NE  
Spring Lake Park, MN 55432

Re: Take 5 Express Car Wash Traffic & Queuing Analysis

Dear City of Spring Lake Park Reviewers:

The proposed car wash development is located at 8301 University Avenue NE Spring Lake Park, MN within the City of Spring Lake Park's jurisdiction. The existing site has 3 full access points. One access point on 83<sup>rd</sup> Avenue NE and two access points on Frontage Road. The proposed development is very similar except the full access closest to the intersection of Frontage Road and 83<sup>rd</sup> Avenue will be removed. The distance to the intersection would not be safe. Based on a car wash development with 1 tunnel, The peak hour weekday yields 78 trips (39 in / 39 out) and the peak hour Saturday yields 41 trips (19 in / 22 out) The queuing provided on site is 12 spaces behind the pay station and 2 spaces between pay station and tunnel entrance. The car wash cycles are under 1 minute each therefore there is adequate stacking on site allowing for up to 60 cars in an hour. See attached trip generation information from ITE 10<sup>th</sup> Edition. In addition to this analysis a recent project shows a similar site analysis that the trip generation is less than the ITE projections. With this analysis it is believed that the site's access and queuing is adequate for the proposed development.

Thank you,



Trevor Stubbs, P.E.  
Project Manager





# Automated Car Wash (948)

**Vehicle Trip Ends vs: Car Wash Tunnels**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**

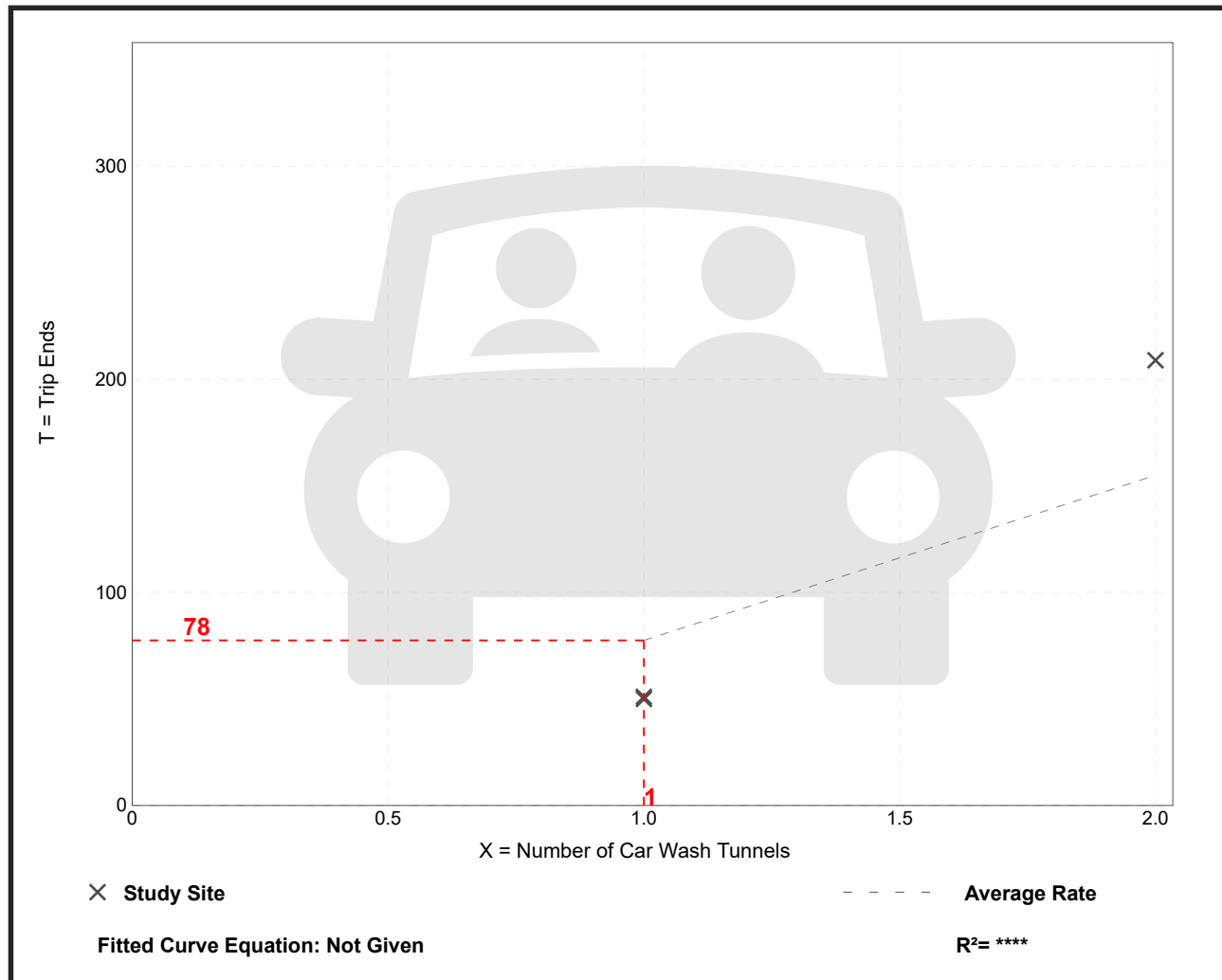
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 3  
 Avg. Num. of Car Wash Tunnels: 1  
 Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Car Wash Tunnel

Average Rate	Range of Rates	Standard Deviation
77.50	50.00 - 104.50	33.07

## Data Plot and Equation

*Caution – Small Sample Size*



## **MEMORANDUM**

**TO:** Lisa M Simpson, PE – Chief Engineer – Transportation  
City of Newport News – Dept. of Engineering

**FROM:** Douglas Kennedy, PE - Pennoni

**DATE:** March 4, 2022

**SUBJECT:** Take 5 Car Wash Property  
Warwick Boulevard  
Traffic Impact Study Scoping Outline  
Newport News, Virginia  
Pennoni file DRVBR21024

---

### Project Description:

Driven Brands, the contract purchaser and conditional use permit applicant, proposes to construct an automatic car wash at 10911 Warwick Boulevard, at the intersection of Warwick Boulevard and Cedar Lane.

The project site is 1.34 acres and is currently zoned C1 (Retail Commercial). The site currently consists of an existing vacant convenience store and associated parking lot as shown in Figure 1. The project includes the construction of a 3,885 square foot automatic car wash tunnel, asphalt parking and drive aisles, landscaping, and associated site improvements, as shown on the Concept Site Plan (Figure 2).

The hours of operation are from 7:00 AM to 7:00 PM, Monday through Saturday, and 10:00 AM to 4:00 PM on Sunday, with four employees during hours of operation. The proposed use requires a conditional use approval by the City. Pennoni is providing transportation support services to the purchaser. The team has met virtually with the City staff on December 16, 2021 to review the proposed concept and has received feedback, previous traffic studies, and Warwick Boulevard signal operation files.

The traffic study is required to support the proposed application.

The following outline reflects the technical elements envisioned and is provided for review and approval by the City Engineering staff. The scope is based on previous work by Pennoni in the Warwick Boulevard corridor, review of other studies in the vicinity, and the general VDOT 527 traffic study Impact study guidelines. Please note that the VDOT requirements are for information since the subject site access as proposed is not maintained by VDOT in the City and the proposed site trips are below the VDOT land use approval traffic thresholds.

The traffic study outline is provided in advance for City review to verify the technical analysis assumptions. Please return the scoping document with comments, and the correspondence will be included in the Appendix of the traffic study.

The following information provides the basic data required for an assessment of the daily, AM and PM peak hour trip impacts required to address traffic operations concerns.

Level of TIA:

The project has approximately 155 average daily trips weekdays (both in and out). Per the VDOT 527 requirements, a traffic study is required with over 5,000 VPD. For the City of Newport News, a traffic study is required for a conditional land use application.

#### Site Location Map:

The attached Figure 1 shows the location of the proposed development, with the Cedar Lane and Elm Avenue aerials below the vicinity map.

The proposed study area includes the two proposed access connections to the existing public streets and the following public street junctions where site traffic may impact/change existing turns to include:

- Warwick Boulevard (US Route 60) at Cedar Lane Signal, and
- Warwick Boulevard (US Route 60) at Elm Avenue.

#### Concept Plan:

The attached Figure 2 shows the proposed development and access to Warwick Boulevard and Elm Avenue.

The Warwick Boulevard entrance is shown as right in/out at the existing driveway location to the northwest of the existing Shell gas station entrance. The existing driveway to Cedar Lane to the north of the site will be removed with the proposed redevelopment, if approved. One driveway proposed to Warwick Boulevard to consolidate the existing 3 entrances.

## Introduction and Summary

Include in TIA with description of Access Plan

## Existing Conditions

#### Existing Intersections within the study area:

See Study description above. To account for current traffic conditions, Pennoni will collect AM and PM peak hour data at the two existing Warwick Boulevard median crossovers – collected in January 2022 - for 3 hours in the AM (6:00-9:00 AM) and 3 hours in the PM peak (4:00-7:00 PM) weekdays. The calculated peak hour volumes will be used for the existing/future analyses.

Cedar Lane (City count station 330, Street #6450) is a two-lane Major Collector with no ADT reported in 2019 (mean 2015-2019 at 1,379 VPD). Elm Avenue (street #12450) is a local street with no ADT reported by the City. Warwick Boulevard (Station #320) is a 4 lane-divided Principal Arterial and has 25,531 VPD in 2019 (28,547 VPD mean between 2015 and 2019) between Main Street and Harpersville Road.

## Future Conditions without Development

#### Proposed Growth Rate:

Per the City of Norfolk traffic trends for Warwick Boulevard (through 2019), an effective -2.7% annual growth over the last 5 years of published with an effective 2 percent growth rate maximum between 2015 and 2017. The most current published year had -2.86% annual growth. Pennoni will default to a 0.5 to 1 annual percent growth rate and review effective peak hour volume trends between the previous traffic counts from 2019. Growth will be applied to the Warwick Boulevard through volumes only.

For this site plan, the Design Year is suggested as 2025 to account for land use approvals, site plan processing and construction. Site should be opened in 2024.

Other Development Densities:

Include the initial phase (2023) of the Hilton Commons redevelopment per the ATCS report “Traffic Impact Analysis, Hilton Commons” revised July 19,2021 for uses northeast of the subject site to include 58 DU detached residential, 115 DU multi-family residential, and 22,000 gsf commercial. Use peak hour, internal trips and pass-by from the other traffic study without trip generation updates for the approved uses. Include back-ups of assignments in the TIA appendix.

Other Improvements:

For the study area, no programmed improvements expected for the subject site build-out.

## Site Trips

ITE 11th Edition Trip Generation:

The Institute of Transportation Engineers (ITE) Trip Generation (11<sup>th</sup> Edition) Land Use Code (LUC) 948 for Automated Car Wash has limited data, but the proposed trips are not expected as significant in relation to existing Warwick Boulevard volumes. For example, the trips per wash tunnel average rates note 3 samples but only 2 are plotted in the data set and the average curve varies between 1 and 2 tunnels.

Based on applicant sales data and experience, on average, Driven Brands expects roughly 50 customers per day in this location, or a max of 400 visits per week. For the weekday, that would equate to approximately 250 average trips and 150 trips over the weekend. Subject to the season, the site is expected to serve 4 to 8 washes per hour. Using the peak hour activities at 8 vehicles on average, and hourly activities occurring from 7 AM to 8 PM, this Take 5 car wash could average 5.5 vehicle per hour, or 72 customers per day. This would equate to 144 trips per day (in + out). Adding the employee traffic at 5-6 staff would result in Daily trips at 156 trips per day in and out. While the derivation is higher than the applicant’s data, it provides a range of trips to compare for site ingress.

**Proposed Take 5 Car Wash Trips**

Land Use						Distribution		Trips		Int Cap	Pass By (4)	Net Trips
Description	ITE	Period	ITE Eq./Rate Used	Var.	Trips	Enter	Exit	In	Out			
Take Car Wash	949	Daily	156.20 <sup>(1)</sup>	stall	156	50	50	73	73	0	78	78
Take 5 Car Wash	949	AM	8.6 <sup>(2)</sup>	stall	9	63	37	6	3	0	4	5
Take 5 Car Wash	949	PM	16.4 <sup>(3)</sup>	Stall	16	51	49	8	8	0	8	8

Trip variable used: per stall No equations provided in ITE.

- (1) Derived based on applicant usage data. Rounded up from 100 average trips per day. K Factor of peak to Daily at ap. 0.10. calculated as ratio from LUC 949 PM trip rate per stall/Daily Trip rate per stall = 0.087, rounded down.
- (2) AM rate not revised for in/out split. Employees included.
- (3) PM peak used at peak hour of generator, as peak hour of roadway at 13.6 trips per stall.
- (4) Pass-by defaults to 50% per ITE for auto related commercial uses (ITE 11<sup>th</sup> Edition worksheets) for LUC 944 (gas station only) for AM, and midday and LUC 945 (conv. store with gas 2-8 pumps) for PM (63,49,56%)

Based on this estimate, Pennoni reviewed the ITE data base for similar traffic features and noted that the trips mostly correlate with the ITE Land Use Code LUC 949 car wash and Detail Center per stall. While this use is slightly different that the primarily automated service proposed at the Take 5 site, the availability for on-site parking for detailing and vacuuming is comparable.

Site trips will be compared to the previous approval for a convenience market with gas station, as approved by the City, but not constructed.

The site trip variables were reviewed based on the multiple trip variables – aisles/tunnels, square footage, and even derived with LUC 949 “Car Wash and Detail Center” to calculate the range of trips and Daily site trip generation. The trip rates for LUC 947 “Self Service Car Wash” were also reviewed, but not used since the trip frequency was less than the automatic or car wash/detail trip sets. The ITE data sets for cars washes are summarized as attached with resources used for this site highlighted in yellow. Note that self Service car wash (LUC 937) data are not included. No data for AM and Daily data is published in ITE for LUC 948, so the derivation noted above was applied. The ITE data has a limited size and study samples, so the Applicant ‘s experience is utilized for the trip generation derivation.

Pass-by rates are not specified for the Land Use, but Pennoni defaulted to the auto-related commercial equivalent at 50 percent to reflect fast food, gas station, and convenience store with gas averages in the ITE 11<sup>th</sup> Edition workbooks. For these auto-oriented uses, pass-by trips range between 31 and 75% of the total driveway volumes. For the subject site, no new trips are envisioned, as the site is expected to capture existing trips from the Warwick Boulevard through trips. However, the new trips are shown to conservatively assess impacts, and verify turn lane requirements.

The 156 VPD trips two-way, would equate to approximately 350 washes per month, for a typical 30-day monthly average.

Trip Distribution:

Trip distribution will be estimated based on prevailing adjacent traffic streams and the location of interacting developments. Since the site activities are primarily secondary trips, the site activities will include a pass-by discount of 50 percent for new trips on US Route 60. The site assignments will include all site turns for new trip and pass-by trips.

The previous distribution used for a previous proposed auto-oriented redevelopment will be utilized and compared to the 2022 field counts. The distributions from the Timmons Study “Warwick Boulevard Convenience Store Traffic Impact Analysis, dated September 18,2020 are shown below.

Direction/Road	Distribution
US Route 60 North (northwest of Site)	50%
US Route 60 South (Southeast of the site)	50%
Total Site Distribution	100%

## Future Conditions with Development

Intersection Operations:

Review Synchro files and include the following capacity outputs in Synchro 11 for the following scenarios:

- Existing Conditions 2022
- Background Condition (2025) without the site
- Total Conditions (2025) with the site
- Include any mitigation proposed if deterioration in operations is identified with site trips.

LOS standards:

Summarize AM and PM peak hour operation at the 2 existing streets and at the proposed site entrances. Tabulate overall LOS delay and back of queues and document change in operations in Tables. For clarity Warwick Boulevard shown as east-west orientation in the tables.

Site Impacts:

- Include review of changes in traffic volumes,
- Show Site ADT at driveway locations, and
- Include calculations for turn lane review.

Other project/access issues:

None anticipated from project impacts. Will reference R-O-W dedication on Warwick Boulevard as requested by the City staff in the preliminary plan review. Right turn analyses will be provided for the proposed Warwick Boulevard entrance based on both the LOS review and the VDOT Road Design Manual criteria for right turn lane on 4 lane divide facilities. For the Elm Avenue access, use the link volumes on Elm Avenue as throughs from the traffic counts at the proposed entrance without reductions for turns to the existing shell station, to be conservative.

Report Submission:

Provide an electronic copy of the Traffic report as a PDF with technical appendix to include count resources, other development, and Synchro outputs. We will provide an electronic version to the City of the synchro files as modified for this analysis.

Attachments: Figure 1: Project Location  
Figure 2: Concept Development Plan

U:\Accounts\DRVBR\DRVBR21024 - Take 5 Car Wash-Newport News\DOC PREP\SCOPING\Pennoni\_WarwickBlvd\_CarWash\_TIA Scoping Methodology\_20220304.docx

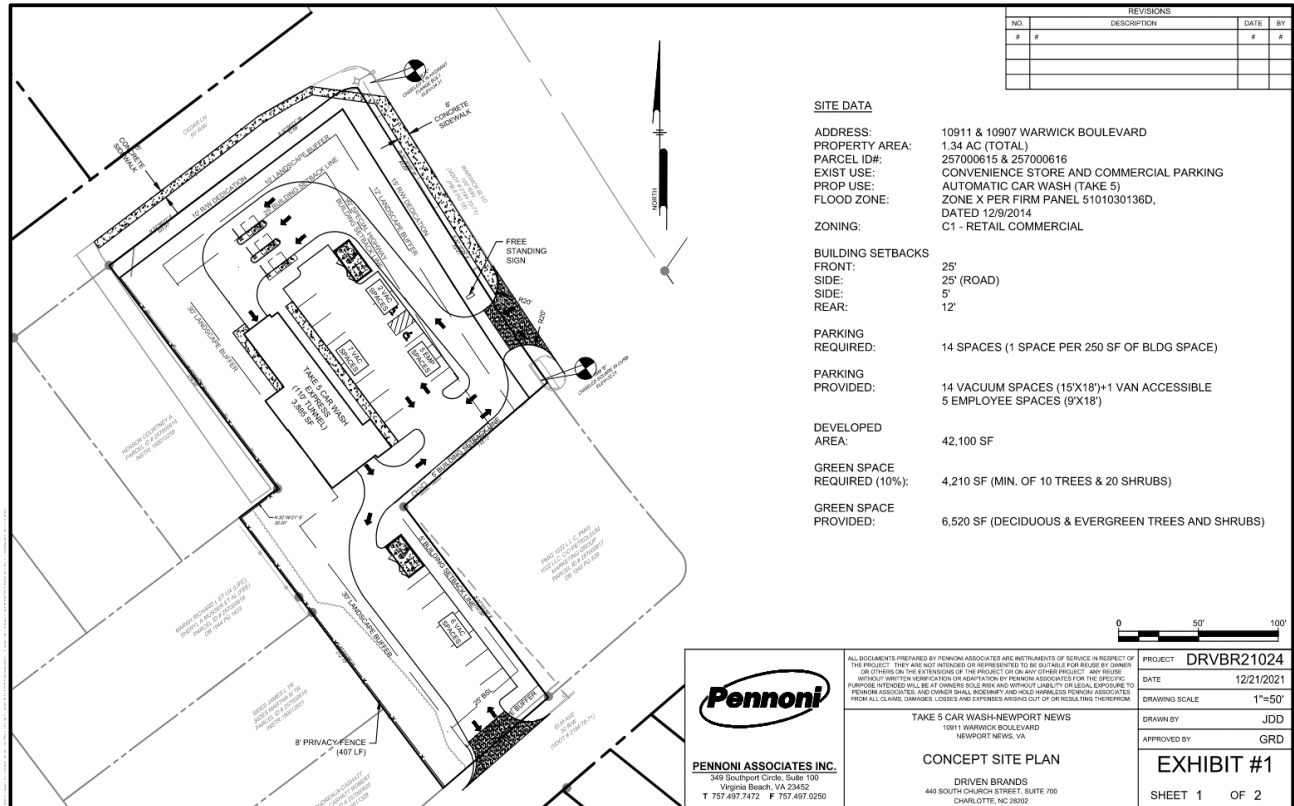
Cc: Katherine Chamberlain - City of Newport News  
Jonathan Dozier – Pennoni  
Rebecca McAllister – Driven Brands



**Figure 1: Project Location**



**Figure 2: Concept Site Plan  
 (To be revised)**



**LUC 948 Automatic Car Wash ITE Data Summary**

Land Use							Distr.		Trip Rates		S.D.	R <sup>2</sup>
Description	LUC	Period	ITE Eq. Rate	Var.	#	Size	Ent	Exit	Ave.	Range		
Automated Car Wash	948	Daily										
Automated Car Wash	948	AM Peak										
Automated Car Wash	948	PM Peak	N/A	tunnel	3	1	50	50	77.50	50-104.50	33.07	N/A
Automated Car Wash	948	Sat Peak	N/A	tunnel	1	1	46	54	41.00	41-41	N/A	N/A
Automated Car Wash	948	PM Peak	N/A	1000 gfa	1	2	50	50	14.20	14.2-14.2	N/A	N/A
Automated Car Wash	948	PM Peak Gen.	N/A	1000 gfa	2	5	50	50	11.66	8.35-16.63	N/A	N/A
Automated Car Wash	948	Sat. Peak	N/A	1000 gfa	3	4	50	50	30.40	14.20-37.75	9.63	N/A

Source: ITE Trip Generation Manual (11<sup>th</sup> Edition) 2021. Formatted by Pennoni

LUC = ITE Land Use Code

Var. = trip variable

# = number of studies; Size = average size of trip variable

Dist. – trip distribution % ; S.D. = standard Deviation R<sup>2</sup> = coefficient used by VDOT to determine if ITE equations should be used for land use code

**LUC 949 Car Wash & Detail Center ITE Data Summary**

Land Use							Distr.		Trip Rates		S.D.	R <sup>2</sup>
Description	ITE	Period	ITE Eq. Rate	Var.	#	Size	Ent	Exit	Ave.	Range		
Car Wash & Detail Ctr	949	Daily	N/A	Stalls	1	5	50	50	156.20	156.2-156.2	N/A	N/A
Car Wash & Detail Ctr	949	AM Peak	N/A	Stalls	1	5	63	37	8.6	8.6-8.6	N/A	N/A
Car Wash & Detail Ctr	949	PM Peak	N/A	Stalls	1	5	49	51	13.60	13.6-13.6	N/A	N/A
Car Wash & Detail Ctr	949	AM Peak Gen.	N/A	Stalls	1	5	54	46	15.20	15.2-15.2	N/A	N/A
Car Wash & Detail Ctr	949	PM Peak Gen.	N/A	Stalls	1	5	51	49	16.40	16.4-16.4	N/A	N/A

Source: ITE Trip Generation Manual (11<sup>th</sup> Edition) 2021. Formatted by Pennoni

LUC = ITE Land Use Code

Var. = trip variable

# = number of studies; Size = average size of trip variable

Dist. – trip distribution % ; S.D. = standard Deviation R<sup>2</sup> = coefficient used by VDOT to determine if ITE equations should be used for land use code



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[www.pennoni.com](http://www.pennoni.com)

TAKE 5 EXPRESS CAR WASH  
SPRING LAKE PARK MN  
SITE SOUND STUDY

April 14, 2022

Prepared for:

Trevor Stubbs, P.E.  
Carter Associates, Inc.  
1708 21st Street  
Vero Beach, FL 32960

Submitted by:

Thornton Acoustics  
521 Clay Run Rd.  
Mill Run, PA 15464

*CONTENTS*

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1	Introduction .....	2
2	Methodology.....	4
3	Results.....	4
4	Conclusions .....	7



# 1 INTRODUCTION

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Thornton Acoustics & Vibrations (TAV) performed a site sound study in support of the development of a Take 5 Express Car Wash to be located at 8301 University Avenue NE, Spring Lake Park, MN. The proposed Site Plan is shown in Figure 1.

The purpose of the study was to model and predict the sound emissions from the proposed development and to compare these to applicable Minnesota noise regulations.

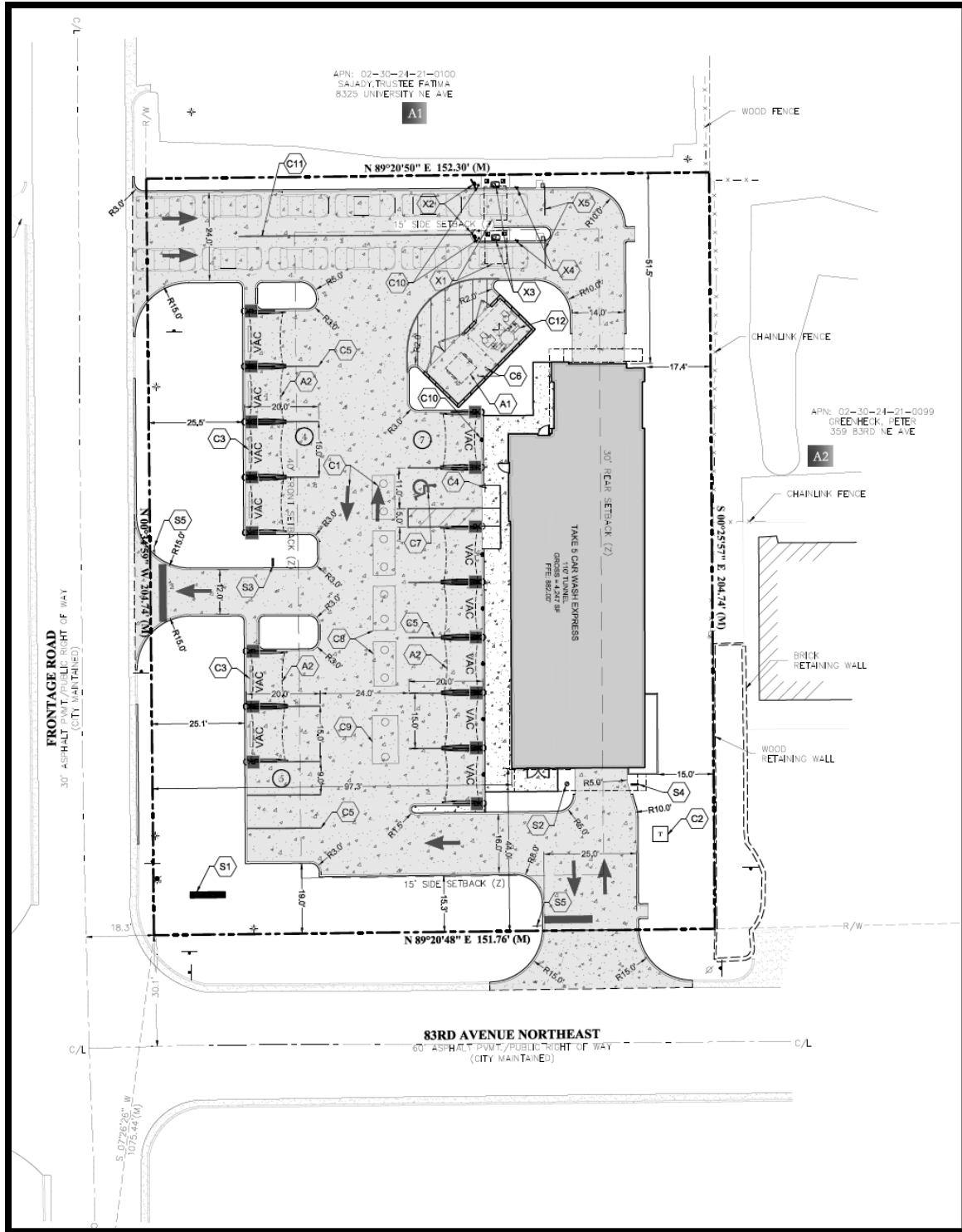


Figure 1 Take 5 Express Site Plan

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## 2 METHODOLOGY

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TAV modeled the sound emissions from the proposed car wash and predicted the emitted sound levels over the land surrounding the car wash. A noise model of the site and the Car Wash was developed based upon ISO 9613 methodology.

The sound power that will be emitted by the Car Wash was estimated based upon sound studies of existing car washes provided by the manufacturer.

The sound levels that will be emitted by the Car Wash were compared to the applicable State of Minnesota Noise Rules. Note that TAV is unaware of any local or County noise ordinances and based upon our review and research, only the state regulations apply to this site.

## 3 RESULTS

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The predicted maximum sound field that will be emitted by the proposed Car Wash, with the doors Open and all mechanical systems operating, is shown in Figure 2. Note that when the Car wash operates with the doors closed, the sound levels will be significantly reduced, but as no manufacturer sound data with the doors closed was available, the exact reduction cannot be accurately predicted. A reduction of 6-10 dBA is a reasonable estimate.

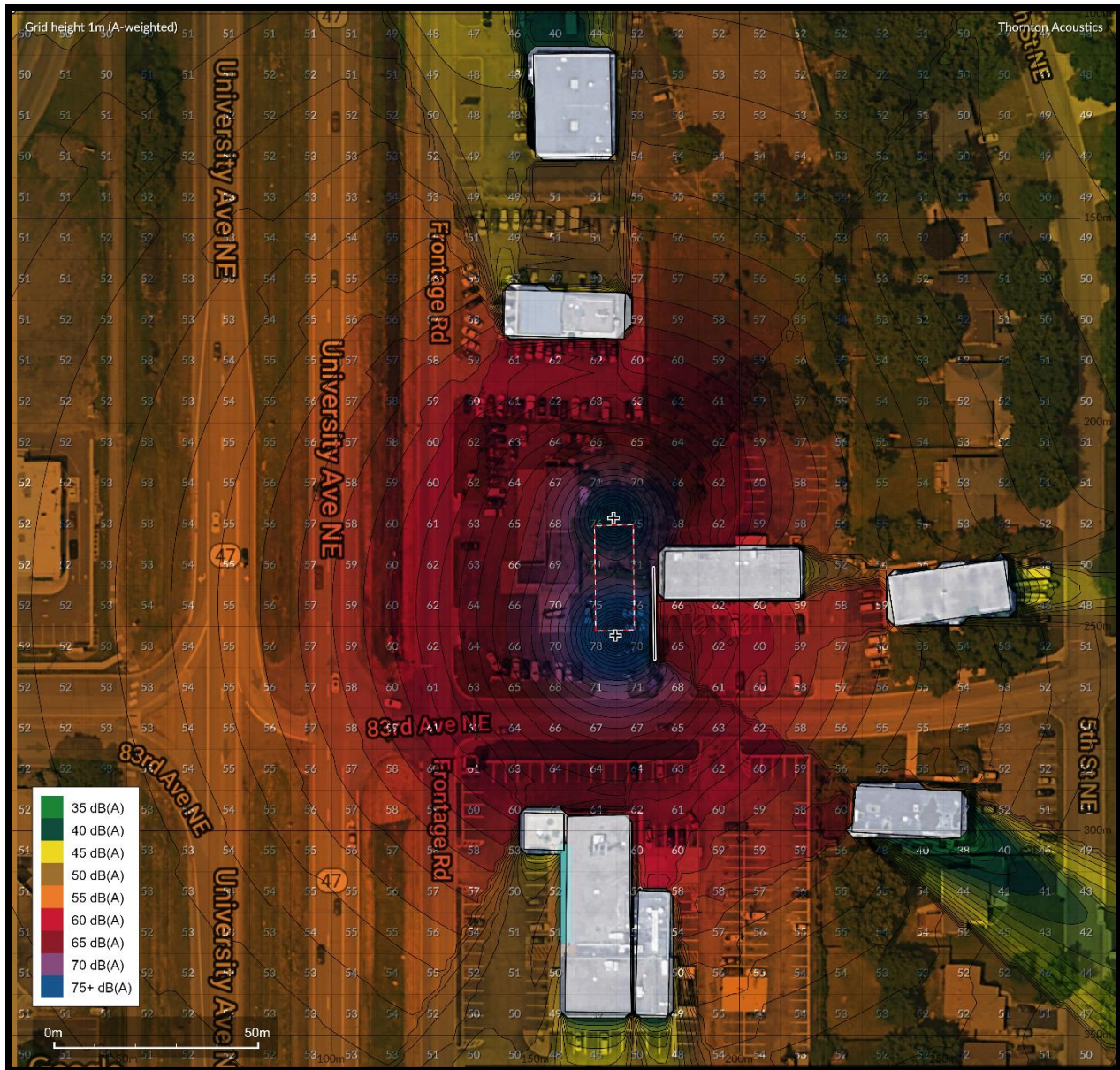


Figure 2 Car Wash predicted sound level emissions contours. The Car Wash building is indicated by the red/white dashed box.

The State of Minnesota has established “Noise Rules” which are summarized in the excerpt shown in Figure 3.

# 1. Noise rules in Minnesota

## 1.1 The basics

Minnesota's noise pollution rules are based on statistical calculations that quantify noise levels over a one-hour monitoring period. The  $L_{10}$  calculation is the noise level that is exceeded for 10 percent, or six minutes, of the hour, and the  $L_{50}$  calculation is the noise level exceeded for 50 percent, or 30 minutes, of the hour. There is not a limit on maximum noise.

The statutory limits for a residential location are  $L_{10} = 65$  dBA and  $L_{50} = 60$  dBA during the daytime (7:00 a.m. – 10:00 p.m.) and  $L_{10} = 55$  dBA and  $L_{50} = 50$  dBA during the nighttime (10:00 p.m. – 7:00 a.m.) ([Minn. R. 7030.0040](#)). This means that during the one-hour period of monitoring, daytime noise levels cannot exceed 65 dBA for more than 10 percent of the time or 60 dBA more than 50 percent of the time.

The basic noise rules for other noise area classifications are:

Noise Area Classification	Daytime		Nighttime	
	$L_{10}$	$L_{50}$	$L_{10}$	$L_{50}$
1	65	60	55	50
2	70	65	70	65
3	80	75	80	75

## 1.2 Noise area classifications

Noise area classifications (NAC) are based on the land use at the location of the person who hears the noise, which does not always correspond with the zoning of an area. Therefore, noise from an industrial facility near a residential area is held to the NAC 1 standards if it can be heard on a residential property.

Some common land uses associated with the NACs include:

NAC 1: Residential housing, religious activities, camping and picnicking areas, health services, hotels, educational services

NAC 2: Retail, business and government services, recreational activities, transit passenger terminals

NAC 3: Manufacturing, fairgrounds and amusement parks, agricultural and forestry activities

NAC 4: Undeveloped and unused land

Note that, although there is a NAC 4, there are no noise standards for these areas. The full list of NAC land uses can be found starting on [page 21](#) of this guide or in Minnesota Rule [7030.0050](#).

Figure 3 State of Minnesota Noise Rule excerpt



The Car Wash sound levels were compared to the Noise Rule limits. The Car Wash will have operating hours from 7AM until 8 PM, hence only the Daytime limits will apply. Note that the Car wash sound varies over the duty cycle and the sound contours show the maximum levels throughout a duty cycle. The State Noise Rules are based upon statistical limits and comparing the Maximum Car Wash levels to these statistical limits is highly conservative in that the actual L<sub>10</sub> and L<sub>50</sub> levels (the State metrics) emitted by the Car Wash will be lower than the maximum levels.

## 4 CONCLUSIONS

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The car wash will emit maximum sound levels, at the exterior of the car wash, of 78 dBA and that will decrease with distance from the Car Wash. The maximum level at the nearest Retail/Commercial business will be less than 65 dBA and will be reduced to 56 dBA or less at the nearest Residential receivers. The sound levels that will be emitted by the car wash are below the permissible limits established in the State Rules and the proposed Car Wash complies with, and is consistent and compatible with the requirements of the State Rules.

The estimated existing ambient sound levels (in the absence of the Car Wash) at this site will be on the order of 50-65 dB(A) (depending on distance from the roadways). These levels are typical of a suburban commercial setting located near high-volume roadways. The Car Wash sound emissions are also consistent with the existing Community ambient sound levels

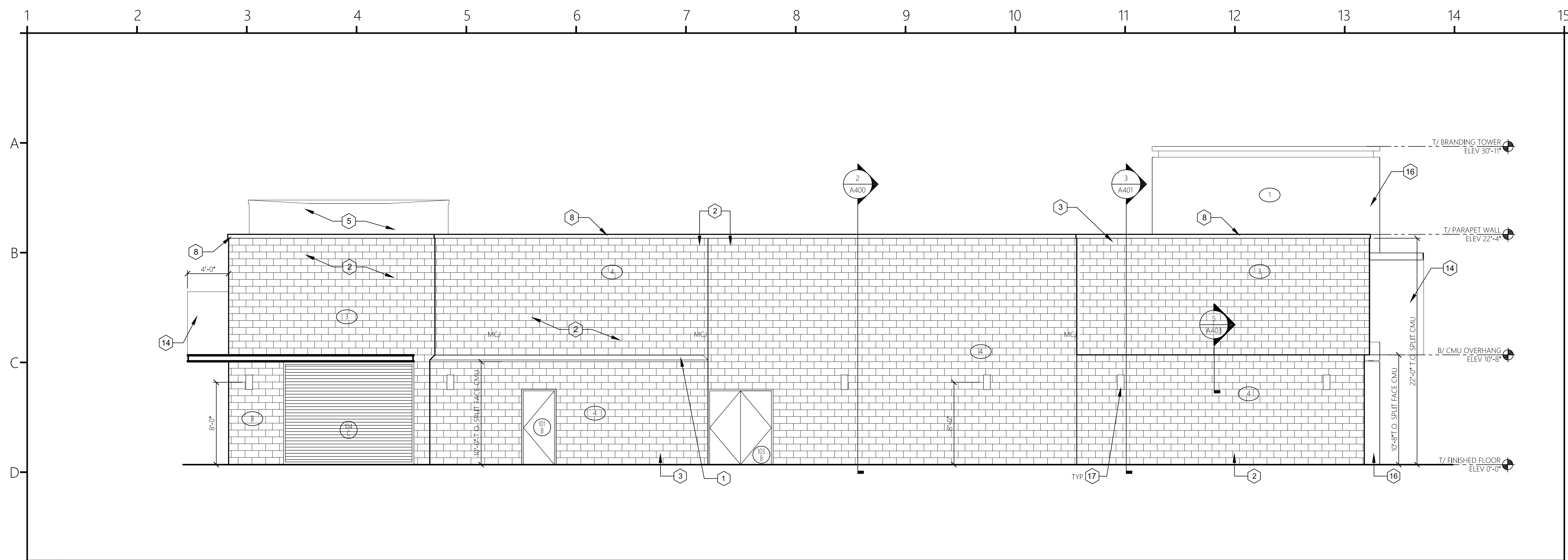
Please contact me with any questions that you may have regarding this study.

Best Regards,

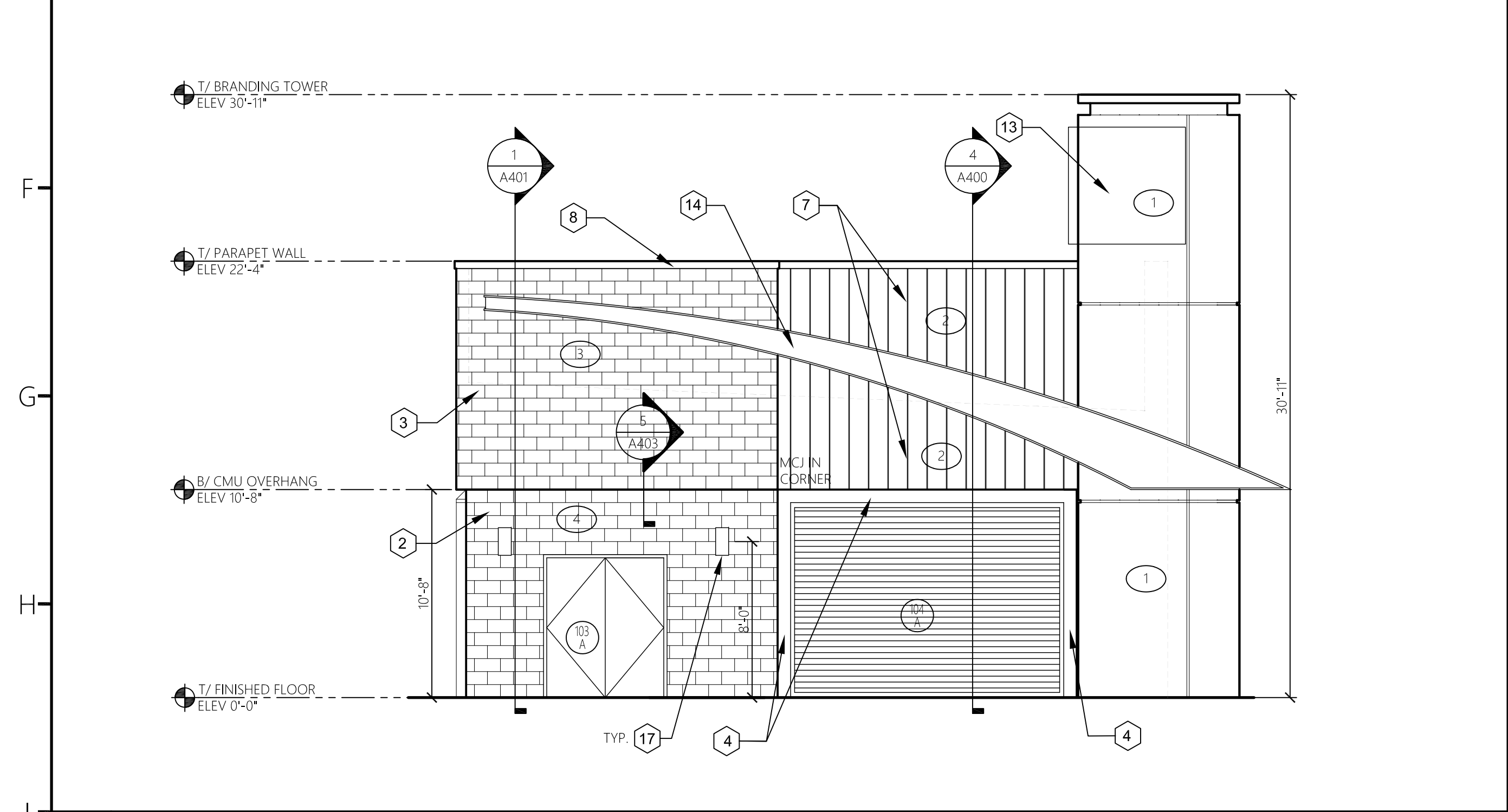


William Thornton

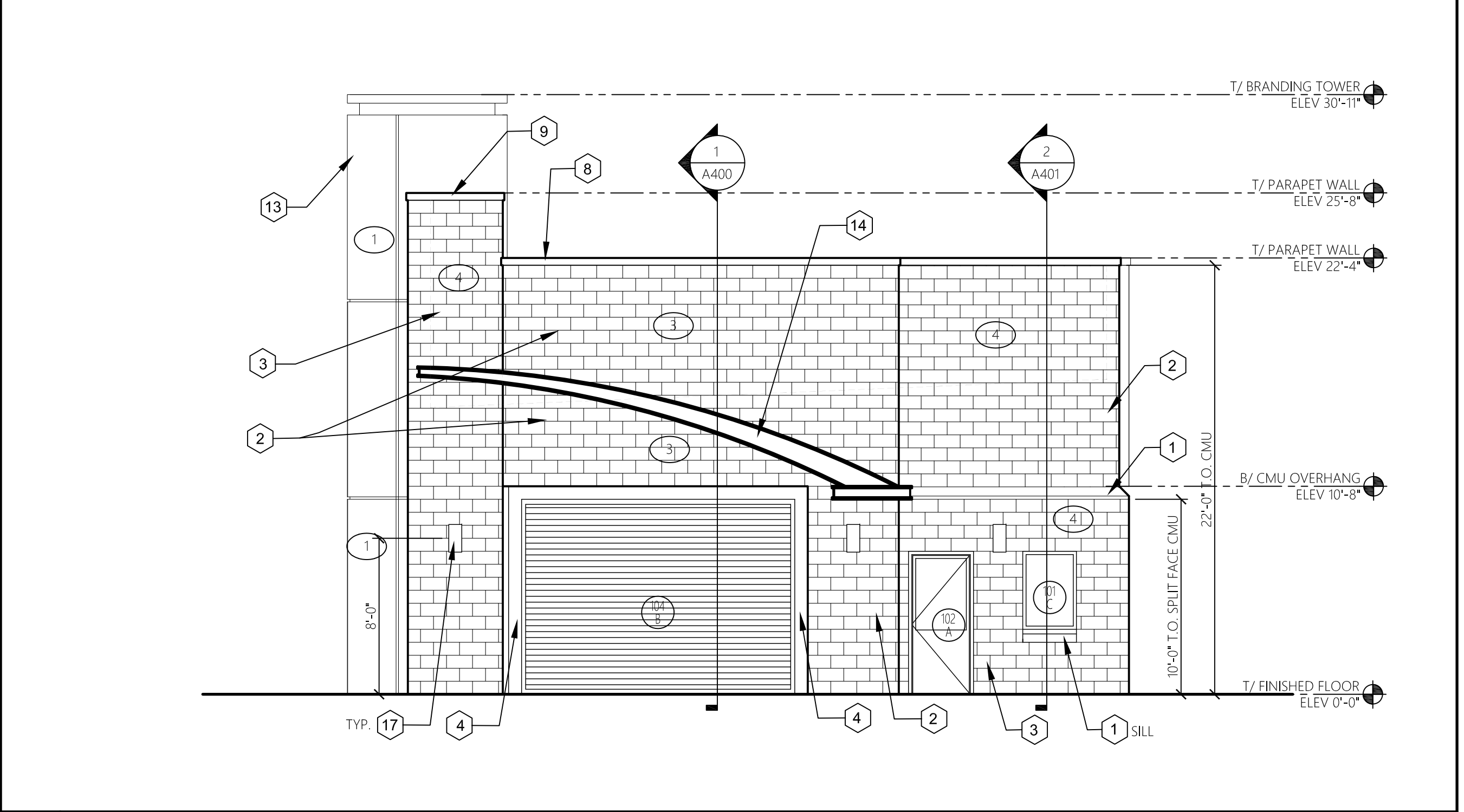




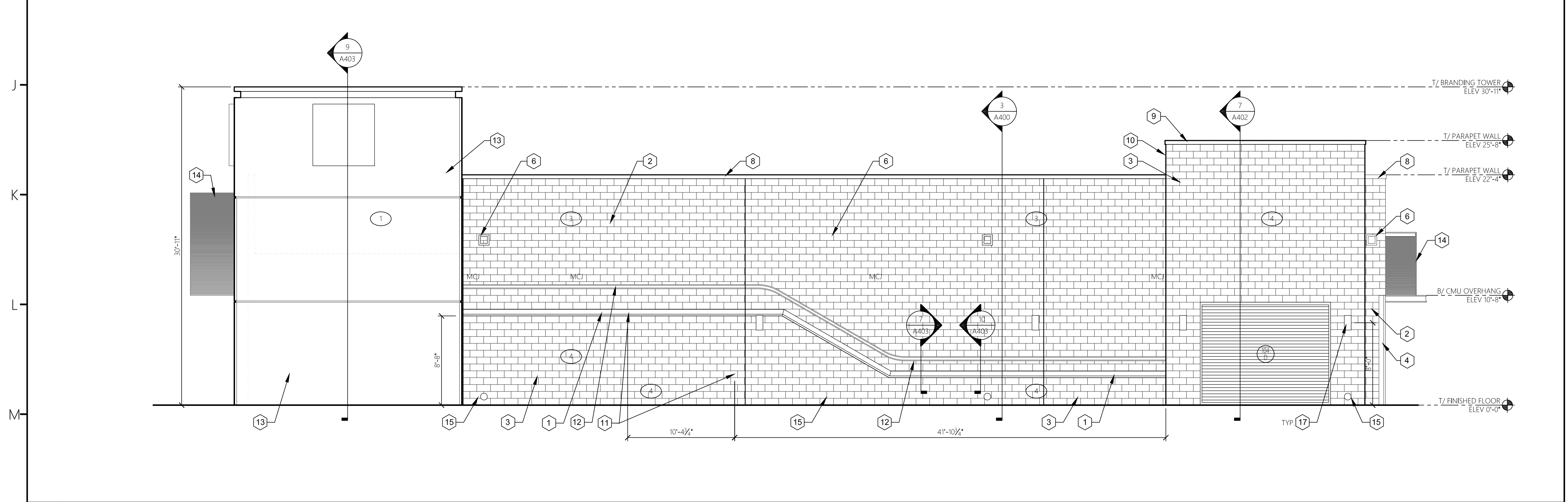
1 ELEVATION 3/16" = 1'-0"



2 ELEVATION 3/16" = 1'-0"



3 ELEVATION 3/16" = 1'-0"



4 ELEVATION 3/16" = 1'-0"

**ELEVATION KEYNOTES**

- 1 PRECAST CONC WATERTABLE
- 2 SMOOTH FACE CMU
- 3 SPLIT FACE CMU VENEER
- 4 STEEL TUBE FRAME AT OVERHEAD DOORS, PAINT TO MATCH SW 7020 BLACK FOX
- 5 TPO MEMBRANE ROOF SYSTEM, REFER TO ROOF PLAN A104
- 6 .050 X 8"W X 8"H PARAPET OPENING WITH PRE-FINISHED ALUM METAL COLLAR (2" W X 1" PROJ) BRONZE ANODIZED FINISH
- 7 CENTRIA (OR EQUIVALENT) PRE-FINISHED ALUMINUM CONCEALED FASTENER SIDING COMPLETE W/ DRIP FLASHING AND CLOSURES
- 8 PREFORMED PRE-FINISHED ALUM. COPING WITH CONT. HOLD DOWN CLIPS ON BOTH SIDES OF THE PARAPET, FINISH: DARK BRONZE; REFER TO SPECIFICATIONS 07 54 00 FOR MORE INFORMATION
- 9 PREFORMED PRE-FINISHED ALUM. GRAVEL STOP WITH BAKED ENAMEL FINISH AND CONT. HOLD DOWN CLIPS ON FRONT SIDE OF PARAPET
- 10 EXPOSED SIDEWALL AT TOWER TO RECEIVE JAMES HARDIE FIBER CEMENT ARTISAN V GROOVE SIDING, 8.25" X12" PRIMED, PAINT TO MATCH 4 X 8 H X 16 SPLIT FACE CMU VENEER W/ DRYBLOC ADDITIVE, DARK GRAY COLOR. SEALANT BETWEEN CMU AND SIDING
- 11 MITER CUT PRECAST CONC WATERTABLE TO FIT SLOPE
- 12 SIDEWALL GRAPHIC STRIP FURNISHED BY OWNER INSTALLED BY CONTR
- 13 ACM PANEL FINISH ON HDO BACKING SYSTEM; REFER TO SHEET A403 FOR ADDITIONAL DETAILS; FINISH BY MANUF.
- 14 CANOPY BY SIGNAGE VENDOR
- 15 6" DIA PVC DOWNSPOUT, RELEASE MIN 6" ABOVE GRADE (VERIFY WITH CIVIL)
- 16 TOWER BEYOND
- 17 WALL SCENCE; REF. FIXTURE SCHEDULE

**GENERAL NOTES**

- A. CONTRACTOR TO COORDINATE WITH FIRE MARSHALL FOR REQUIREMENTS OF ADDRESS NUMBER.
- B. BUILDING SIGNAGE UNDER SEPARATE PERMIT. CONTRACTOR TO OBTAIN FINAL SIGNAGE DRAWINGS FOR BUILDING SIGNAGE UNDER SEPARATE PERMIT. CONTRACTOR TO OBTAIN FINAL SIGNAGE DRAWINGS FOR CONFIRMATION OF ELECTRICAL ROUGH-IN PRIOR TO THE COMMENCEMENT OF WORK. SEE ELECTRICAL.
- C. REFER TO LOW VOLTAGE PLAN FOR SECURITY PLAN, COORDINATE FINAL LOCATIONS OF CAMERAS WITH THE OWNER PRIOR TO THE COMMENCEMENT OF WORK.
- G. UNLESS NOTED OTHERWISE, MASONRY CONTROL JOINTS SHALL BE LOCATED SUCH THAT NO STRAIGHT RUN OF MASONRY EXCEEDS 24'-0". REFER TO GENERAL STRUCTURAL NOTES ON S0.01.
- F. REFER TO DOOR AND WINDOW SCHEDULE ON A500 FOR DOOR AND FRAME FINISHES AND WINDOW GLASS TYPE AND FRAME FINISHES.

**EXTERIOR FINISH SCHEDULE**

NO.	AREA	COLOR
1	TOWER	BY MANUF. MATCH SW 6169, SEDATE GRAY
2	METAL PANELS	BY MANUF. 1760 LIMESTONE
3	ACCENT CMU	MATCH SW COLOR #6169, SEDATE GRAY
4	DARK CMU	MATCH SW COLOR # 7020, BLACK FOX

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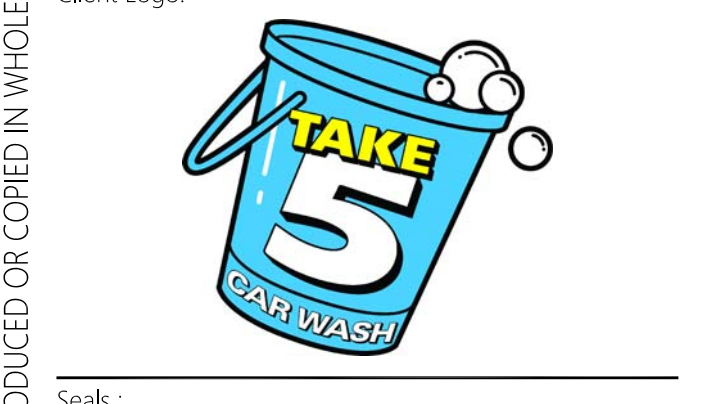
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Project Title:  
**TAKE 5 CAR WASH**  
SPRING LAKE PARK  
MN  
8301 UNIVERSITY AVE NE  
SPRING LAKE PARK, MN



Revisions:  
03.04.2022 Issue for Permit

Project Number:  
21110  
Phase:  
CD  
Date:  
03.04.2022  
Drawn By:

Checked By:  
Sheet Number:  
**A200**  
Sheet Title:  
ELEVATIONS

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