

Attachment B

EXPRESS CAR WASH BUILDING DEVELOPMENT

STAR EXPRESS CAR WASH

1911 E. PACIFIC COAST HWY.  
LONG BEACH, CA 90806  
APN : 7216-032-021

**OWNER** : SM WASH LLC,  
3055 WILSHIRE BLVD STE 405  
LOS ANGELES, CA 90010  
CONTACT - JOHN LEE  
TEL : 949 - 468 - 6069

**ARCHITECT** : GROUPARCH DEVELOPMENT, INC.  
3850 WILSHIRE BLVD., #208  
LOS ANGELES, CA 90010  
CONTACT - YONG K. PARK  
TEL : 213 - 383 - 2088

**CIVIL ENGINEER** : POINT ENGINEERING, INC.  
3470 WILSHIRE BLVD. SUITE 545  
LOS ANGELES, CA 90010  
CONTACT - ERIC KIM  
TEL: 213 - 258 - 8451

**SOILS ENGINEER** : DON SOILS ENGINEERING  
2225 S. LA BREA AVE.  
LOS ANGELES, CA 90016  
CONTACT - DON YIM  
TEL: 323 - 936 - 6763

**LANDSCAPE** : D S K LANDSCAPE ARCHITECTS  
3000 WEST 6TH STREET SUITE 300  
LOS ANGELES, CA 90010  
CONTACT - DAVID KIM  
TEL : 213 - 382 - 3113

**PROJECT ADDRESS** : 1911 E. PACIFIC COAST HWY.  
LONG BEACH, CA 90806

**LEGAL DESCRIPTION** : LOT CODE: 9-12  
TRACT: 1319

**APN** : 7216-032-021

**ZONING** : EXISTING - CHW, R-3-S  
PROPOSED - CCN

**LOT SIZE** : 24,083 SQ.FT.

**PROPOSED BLDG. USE** : EXPRESS CAR WASH

**PROPOSED BLDG. AREA** : WASH BLDG. - 3,278 SQ.FT.  
TRASH, VACUUM, TOILET BLDG. - 355 SQ.FT.  
MONITORING BLDG. - 127 SQ.FT.  
TOTAL - 3,760 SQ.FT.

**EXISTING LOT COVERAGE & FLOOR AREA RATIO** : 3,296 SQ.FT / 24,083 SQ.FT. (GROSS LOT) - 0.137 : 1.0

**PROPOSED LOT COVERAGE & FLOOR AREA RATIO** : 3,760 SQ.FT / 24,083 SQ.FT. (GROSS LOT) - 0.156 : 1.0  
3,760 SQ.FT / 22,460 SQ.FT. (NET LOT EXCLUDING DEDICATIONS) - 0.167 : 1.0

**PROPOSED NO. OF STORY** : 1-STORY

**PROPOSED BLDG. HT.** : WASH BLDG. - 28'-0"  
TRASH, VACUUM, TOILET BLDG. - 16'-6"  
MONITORING BLDG. - 13'-3"

**OCCUPANCY GROUP:** : B, S1

**REQUIRED PARKING** : FOR AUTOMATED CAR WASH - 2 SPACES / 18'-0" LENGTH OF WASH BAY  
BELT DRIVEN WASH TUNNEL LENGTH : 100'-0"  
100' / 18 = 5.5 5.5X2 = 11-SPACES REQUIRED.

**PROVIDED PARKING** : STANDARD PARKING (W/ VACUUM) : 17-SPACES  
ACCESSIBLE PARKING (W/ VACUUM) : 1-SPACE  
TOTAL 18 - PARKING SPACES (W/ VACUUM) PROVIDED

**PROJECT DESCRIPTION** : CONSTRUCTION OF AN AUTOMATED CARWASH ON A 24,083 SQUARE FOOT LOT.  
THE SITE WILL BE DEVELOPED WITH A 3,278 SF ONE-STORY CARWASH TUNNEL,  
AND TWO ONE-STORY ACCESSORY STRUCTURES, A 355 SF BUILDING FOR  
RESTROOMS AND STORAGE, AND A 127 SF MONITORING BOOTH.  
THE REMAINDER OF THE SITE WILL BE DEVELOPED WITH 18 PARKING SPACES  
EQUIPPED WITH SELF-SERVICE VACUUMS AND APPROX. 2,626 SF OF LANDSCAPE  
AREA.

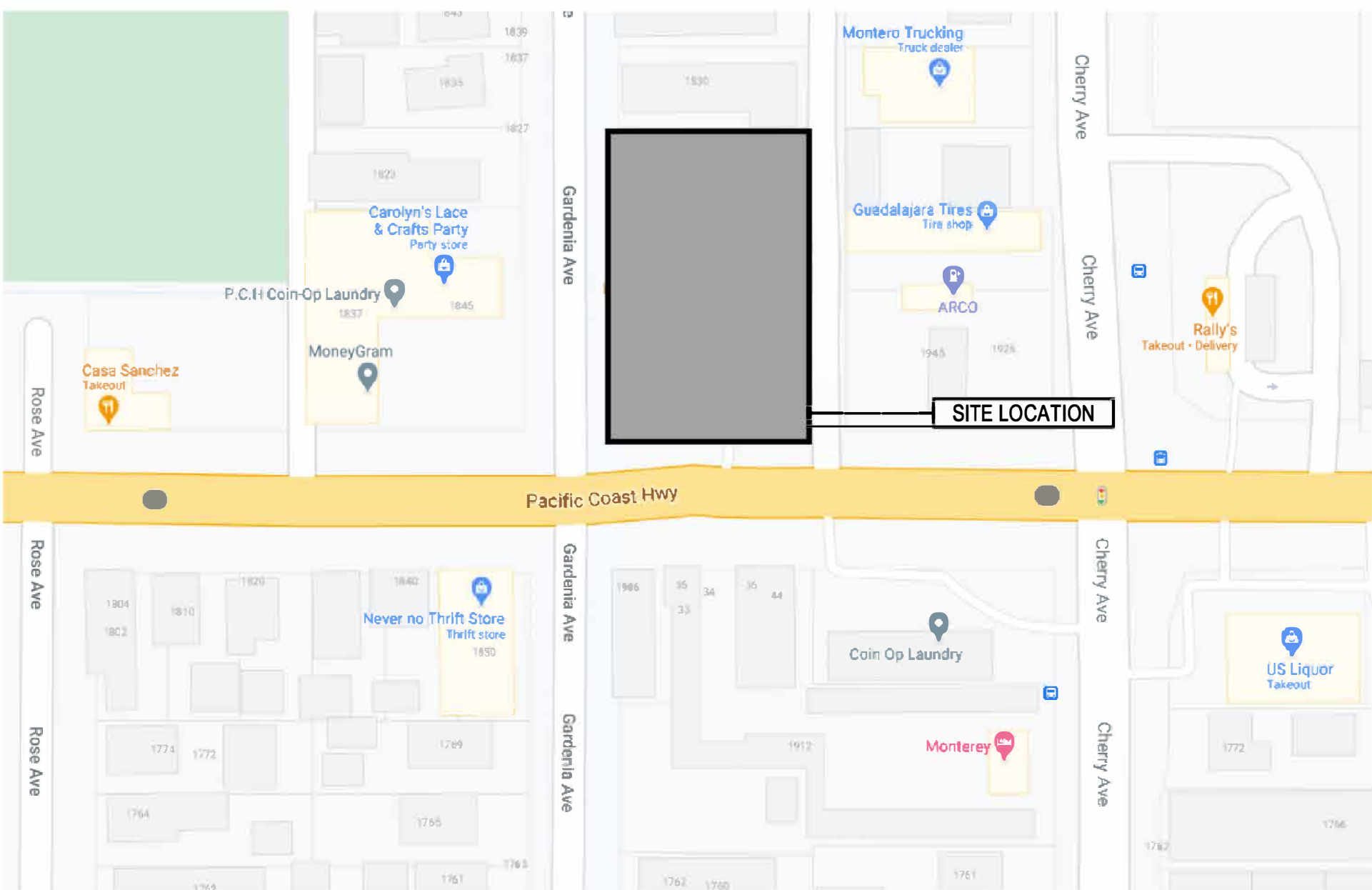
ARCHITECTURAL		
SEQ.	SHT.	TITLE
1	A-1.0	PROJECT INFORMATION
2		SITE SURVEY
3		EXISTING SITE PLAN
4	A-1.1	SITE PLAN
5	A-1.2	SITE PHOTOS
6	A-1.3	ADJACENT SITES AND BUILDINGS
7	A-1.4	SITE RENDERING
8	A-1.5	SITE RENDERINGS
9	A-2.0	FLOOR PLAN & ROOF PLAN
10	A-3.0	BLDG. ELEVATIONS - WASH TUNNEL BLDG.
11	A-3.1	BLDG. ELEVATIONS - TOILET, VACUUM ROOM BLDG. , MONITORING ROOM BLDG.
12	A-3.2	BLDG. ELEVATIONS W/ ADJACENT BUILDINGS
13	A-4.0	BLDG. SECTIONS
14	A-5.0	DOOR, WINDOW SCHEDULE
15	A-6.0	FINISH MATERIALS

GRADING		
1	C-1	TITLE / NOTES
2	C-2	GRADING / DRAINAGE PLAN
3	C-3	LID PLAN
4	C-4	DETAILS
5	C-5	DETAILS

LANDSCAPE		
1	L-1	PLANTING PLAN
2	L-2	IRRIGATION PLAN
3	L-3	IRRIGATION & PLANTING DETAILS

SIGNAGE		
1	SN-1	SIGN PLAN - SIGN LOCATION & DIMENSIONS
2	SN-2	SIGN PLAN - SIGN INSTALLATION DETAIL AND MONUMENT SIGN

CONTACT INFORMATION



VICINITY MAP

PROJECT INFORMATION

SHEET INDEX

G · R · O · U · P  
A · R · C · H

GROUPARCH. DEVELOPMENT, INC.  
ARCHITECTURE, PLANNING,  
INTERIORS, CONSULTANTS

3850 WILSHIRE BLVD, SUITE 208  
LOS ANGELES, CA 90010  
TEL : 213 - 383 - 2088  
FAX : 213 - 387 - 3867  
E-mail : GInfo@grouparch.net

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STAR EXPRESS CAR WASH

1911 E. PACIFIC COAST HWY.  
LONG BEACH, CA 90806

TITLE		
PROJECT INFORMATION		
-		
-		
NO	DATE	
1.28.2020	SUBMIT FOR PRE-APPLICATION	
3.3.2021	SUBMIT FOR AUP	
7.12.2021	SUBMIT FOR ODP (PROPOSED CON. ZONE)	
PRINT DATE 7/12/2021		
SCALE		
DRAWN BY		
CHECKED BY		
SHEET		

A-1.0

## LEGEND

- (180) EXISTING CONTOUR  
EXISTING BUILDING  
EXISTING CMU WALL  
EXISTING FENCE  
PROPERTY LINE  
(S) (S) SEWER LINE  
GAS GAS GAS LINE  
W WATER LINE  
TELEPHONE LINE

- BW BACK OF WALK  
EP EDGE OF PAVEMENT  
EW EDGE OF WALK  
CP CONTROL POINT  
FF FINISHED FLOOR  
FL FLOW LINE  
PAV PAVEMENT  
PCC PORTLAND CEMENT CONCRETE  
PP POWER POLE  
LP LIGHTING POLE  
WM WATER METER  
SMH SEWER MANHOLE  
TC TOP OF CURB  
TOS TOP OF STEP  
LWN LAWN  
DRT DIRT  
EG EDGE OF GUTTER  
TW TOP OF WALL  
DMH DRAINAGE MANHOLE  
AC ASPHALT CONCRETE PAVEMENT  
PAV PAVEMENT  
CL CENTERLINE  
WF WOOD FENCE  
PB PULL BOX  
MW MONITORING WELL  
TS TRAFFIC SIGN  
BD BOLLARD  
SD STORM DRAIN

## LEGAL DESCRIPTION

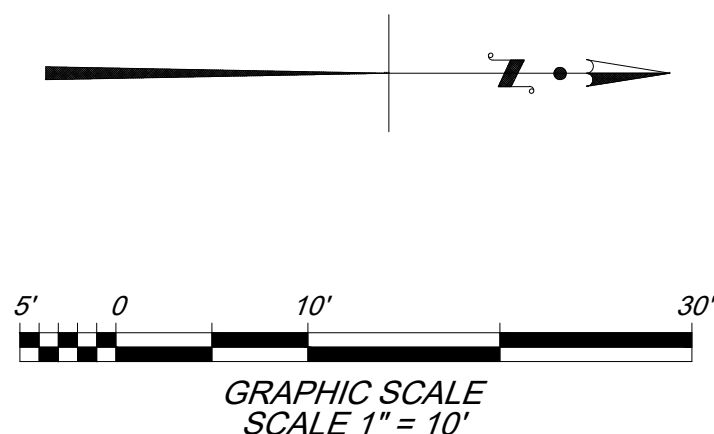
LOT 9, 10, 11, AND 12 OF TRACT 1319 IN CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA. AS PER MAP RECORDED IN THE BOOK 21, PAGES 137 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDED OF SAID COUNTY. APN. 7216-032-021

## LOT SIZE

LOT AREA IS 24,123 S.F., OR 0.554 ACRES, MORE OR LESS.

## NOTES

- ALL BOUNDARY INFORMATION SHOWN HEREON IS BASED UPON RECORD DATA.
- THE SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.



BENCH MARK  
BENCH MARK#: 364 (LONG BEACH)  
CHERRY AVE @ 20 TH ST  
BRASS CURB MARK @ 20 TH ST 47.086  
STAMPED "NAT'L GEODETIC SURVEY" 30.0' N / CURBLINE  
DATUM: NGVD 29 MSL, 1985  
ELEVATION: 47.086'

SHEET TITLE  
SITE SURVEY  
PROJECT TITLE  
PROJECT ADDRESS  
1911 E PACIFIC COAST HWY., LONG BEACH CA 90806

REVISIONS	DATE	BY
ISSUED FOR CLIENT REVIEW	08/09	TH

POINT ENGINEERING.

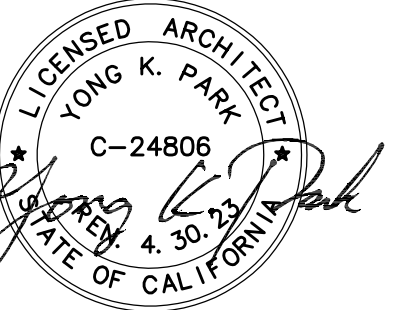
3470 WILSHIRE BLVD #545  
LOS ANGELES, CA 90010  
TEL. 213-258-8451

UFE

DATE OF FIELD SURVEY:  
FEB 14, 2020



ARRANGEMENT REPRESENTED THERE BY ARE  
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CLUSIVE EVIDENCE OF THESE RESTRICTIONS. WRITTEN  
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SCALE DIMENSIONS CONTRACTORS SHALL VERIFY, AND BE  
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IN THE DIMENSIONS AND CONDITIONS SHOWN BY THE  
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# EXPRESS CAR WASH DEVELOPMENT I FOR

**STAR EXPRESS CAR WASH**  
1911 E PACIFIC COAST HWY

LONG BEACH, CA 90806

LE

### EXISTING SITE PLAN

DATE

PRINT DATE 7/12/2021

SALE

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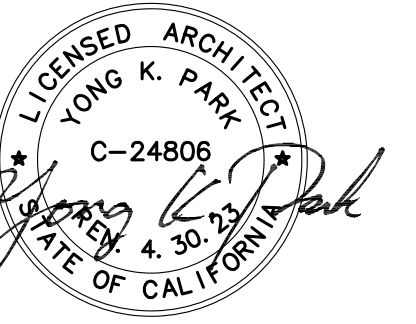
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EET







# EXPRESS CAR WASH DEVELOPMENT FOR

# STAR EXPRESS CAR WASH

1911 E. PACIFIC COAST HWY.  
LONG BEACH, CA 90806

LE

## TE PHOTOS

DATE

PRINT DATE 7/12/2021

SALE

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CROWN BY

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## A-1.2



D



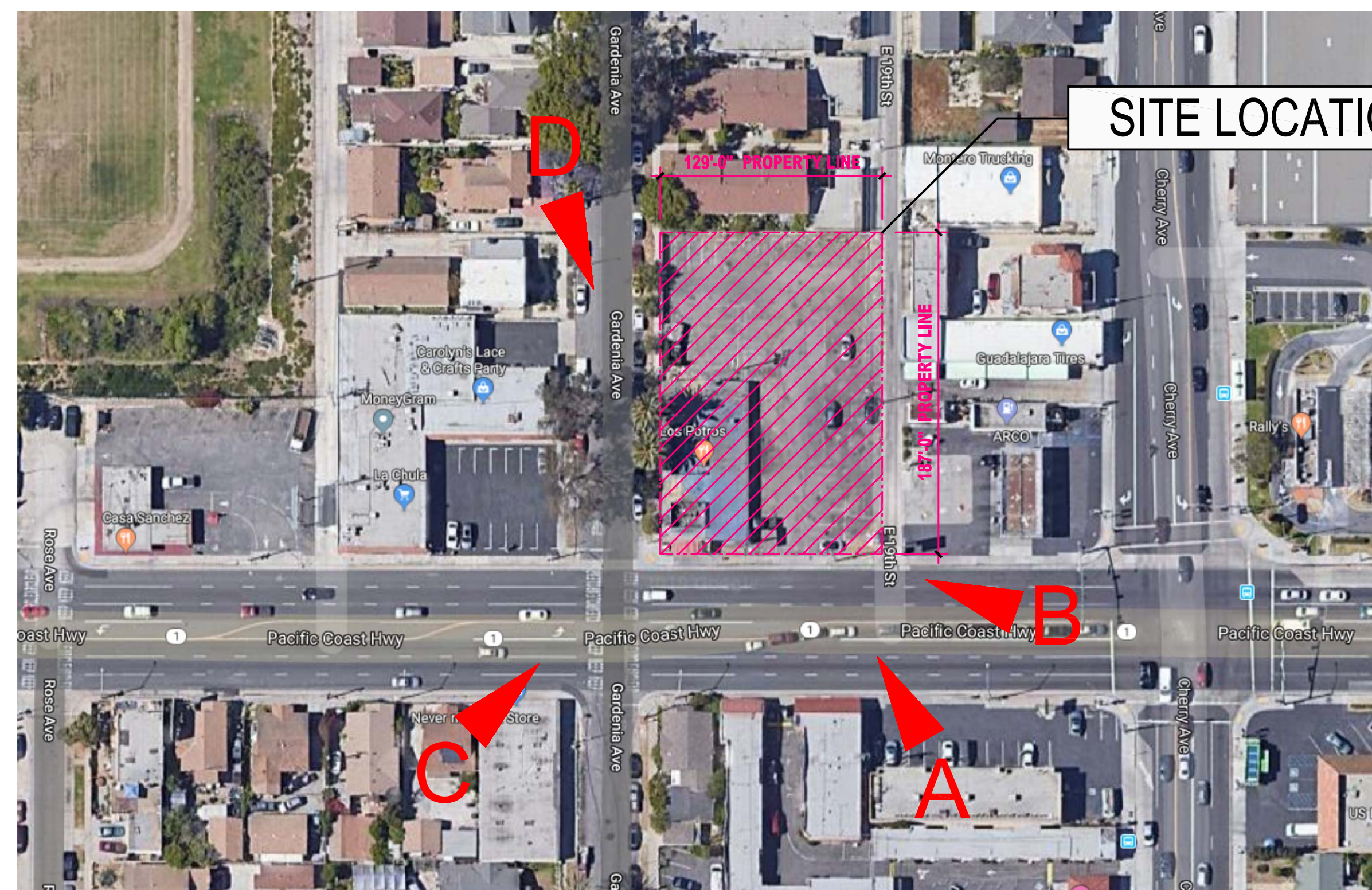
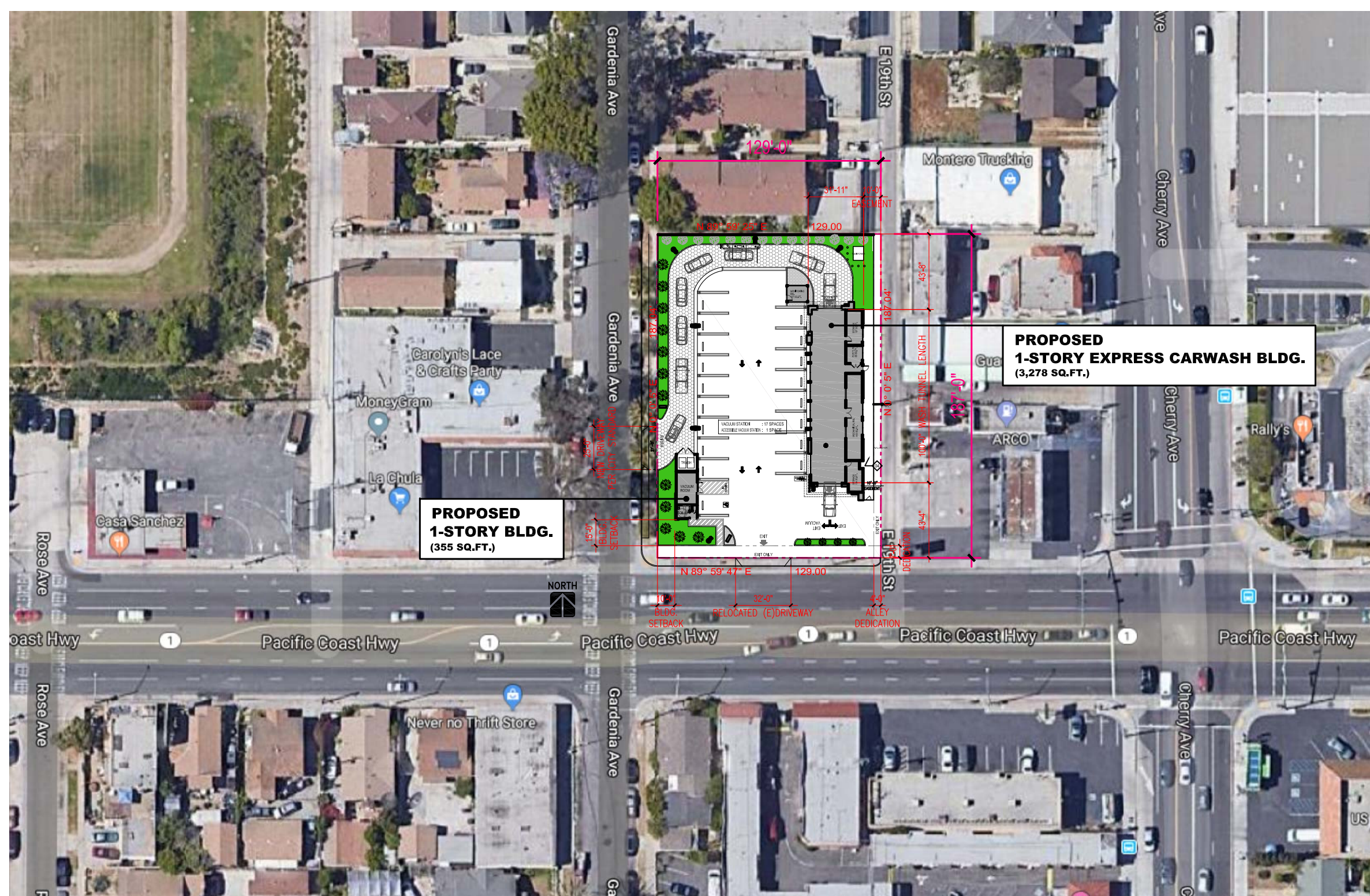
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C

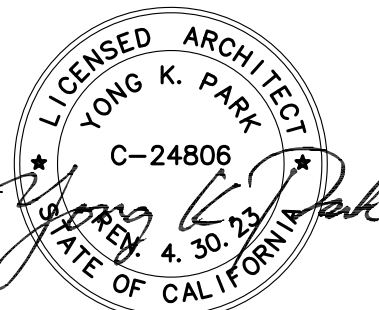


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EXPRESS CAR WASH DEVELOPMENT FOR

# STAR EXPRESS CAR WASH

1911 E. PACIFIC COAST HWY.  
LONG BEACH, CA 90806

TITLE

ADJACENT SITES AND BUILDINGS

NO. DATE

PRINT DATE 7/12/2021

SCALE

DRAWN BY

CHECKED BY

SHEET



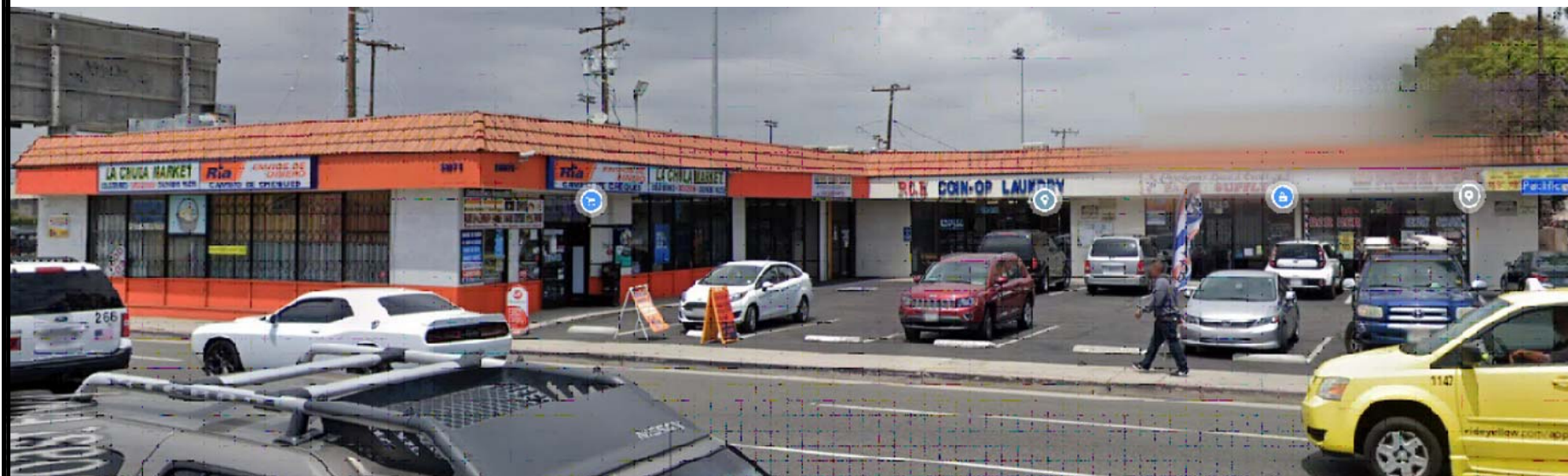
2-STORY BLDG.  
TOP OF ROOF : 25FT.



1-STORY BLDG.  
TOP OF ROOF : 15FT.



2-STORY BLDG.  
TOP OF ROOF : 24FT.



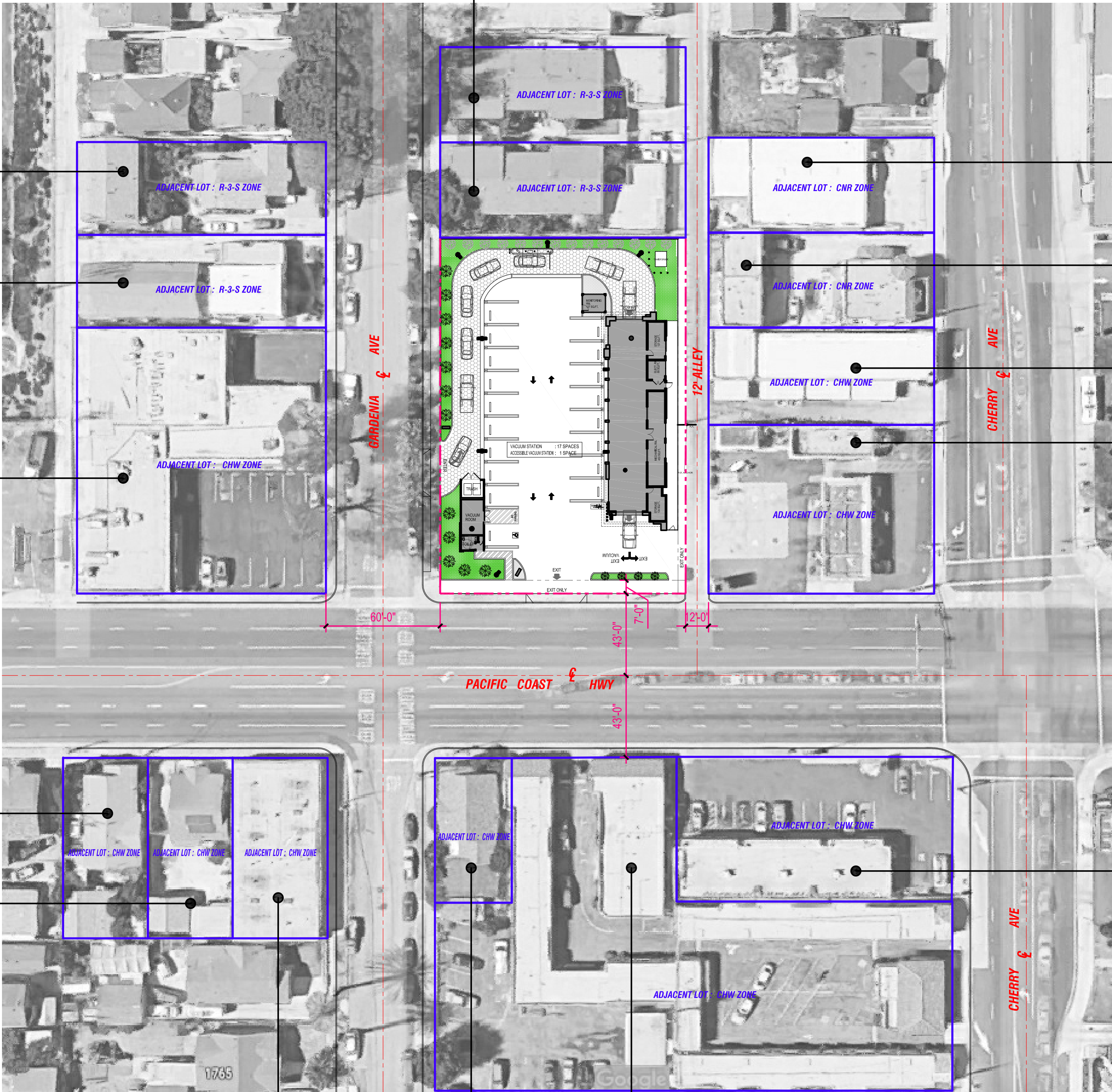
1-STORY BLDG.  
TOP OF ROOF : 17FT.



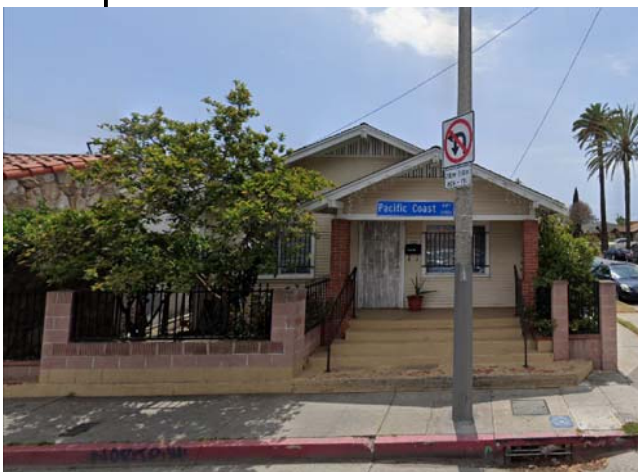
1-STORY BLDG.  
TOP OF ROOF : 19FT.



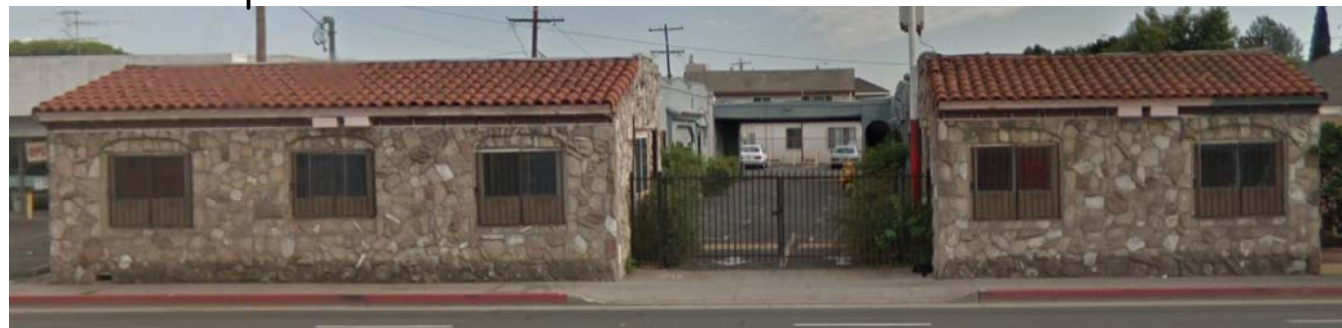
1-STORY BLDG.  
TOP OF ROOF : 19FT.



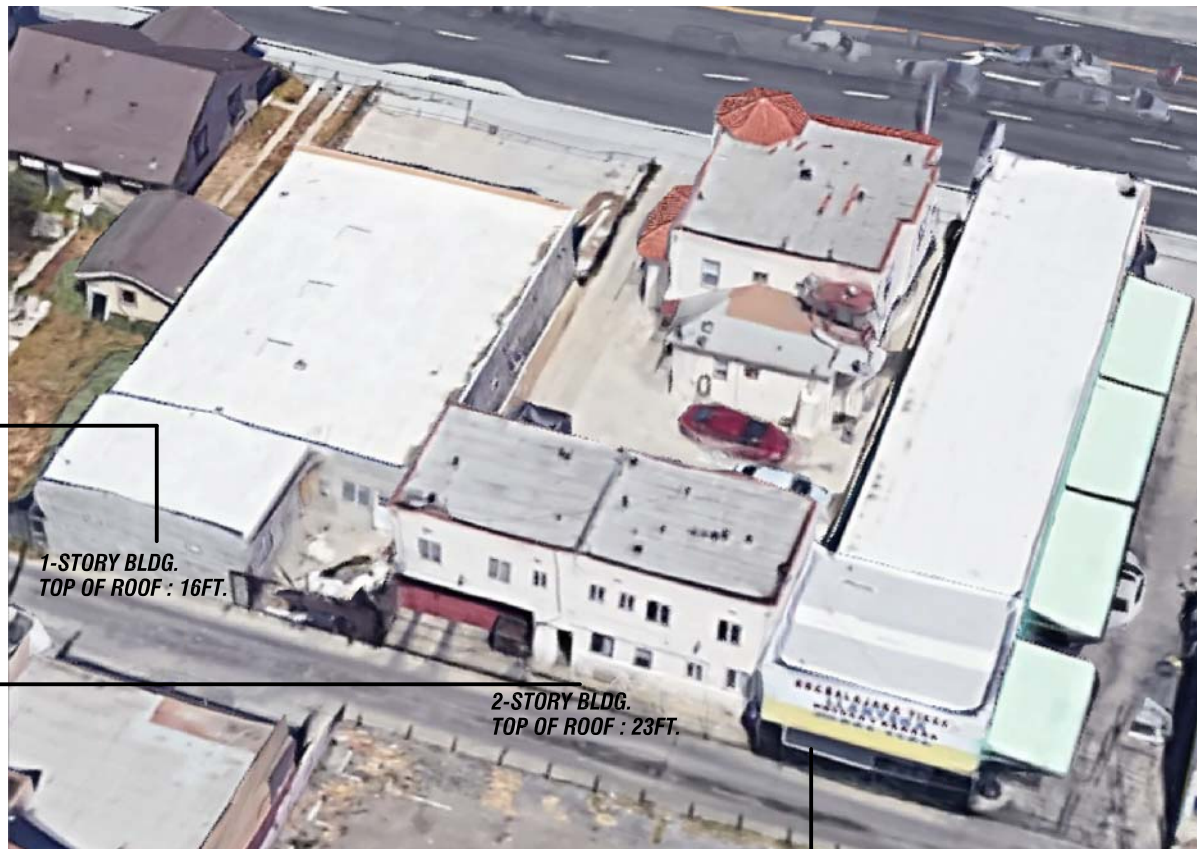
1-STORY BLDG.  
TOP OF ROOF : 14FT.



1-STORY BLDG.  
TOP OF ROOF : 19FT.



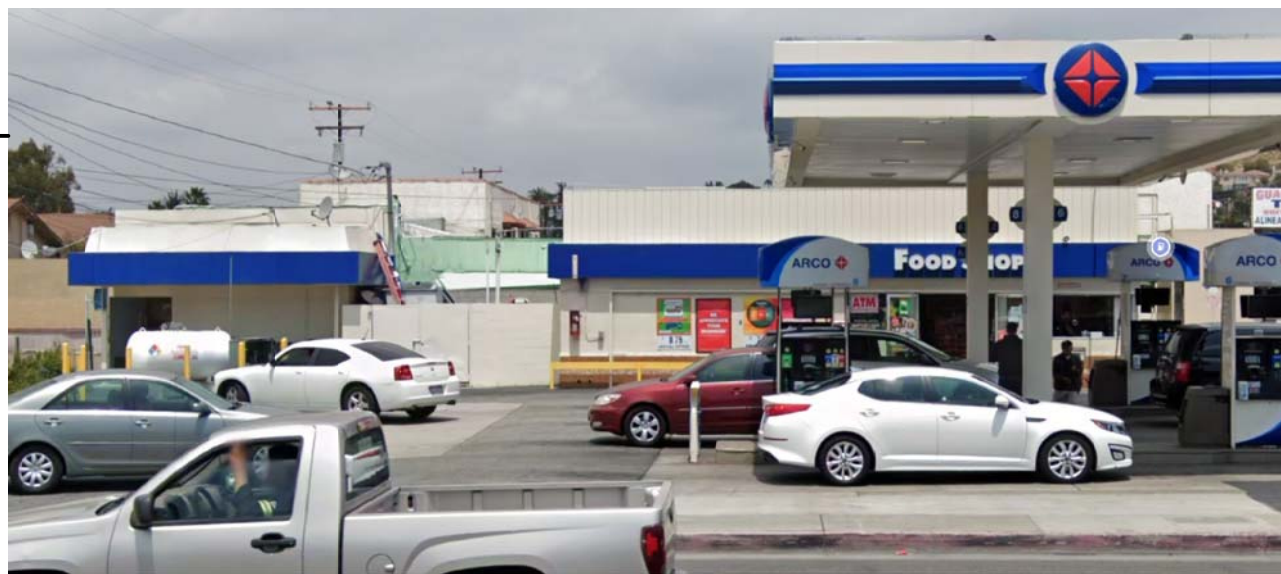
1-STORY BLDG.  
TOP OF ROOF : 18FT.



1-STORY BLDG.  
TOP OF ROOF : 16FT.

2-STORY BLDG.  
TOP OF ROOF : 23FT.

1-STORY BLDG.  
TOP OF ROOF : 17FT.



1-STORY BLDG.  
TOP OF ROOF : 16FT., CANOPY TOP : 20FT.



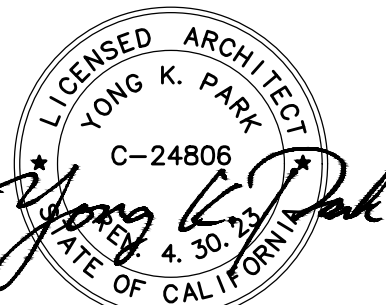
1-STORY BLDG.  
TOP OF ROOF : 16FT.





**G · R · O · U · P**  
**A · R · C · H**  
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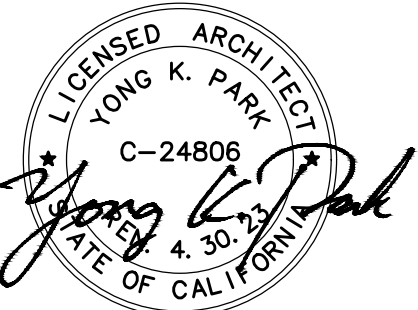
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**STAR EXPRESS CAR WASH**  
1911 E. PACIFIC COAST HWY.  
LONG BEACH, CA 90806

TITLE	
SITE RENDERING	
NO. DATE	
PRINT DATE 7/25/2021	
SCALE	
DRAWN BY	
CHECKED BY	
SHEET	





## EXPRESS CAR WASH DEVELOPMENT FOR

# STAR EXPRESS CAR WASH

1911 E. PACIFIC COAST HWY.  
LONG BEACH, CA 90806

TITLE

## SITE RENDERINGS

NO	DATE
----	------

PRINT DATE 7/25/2021

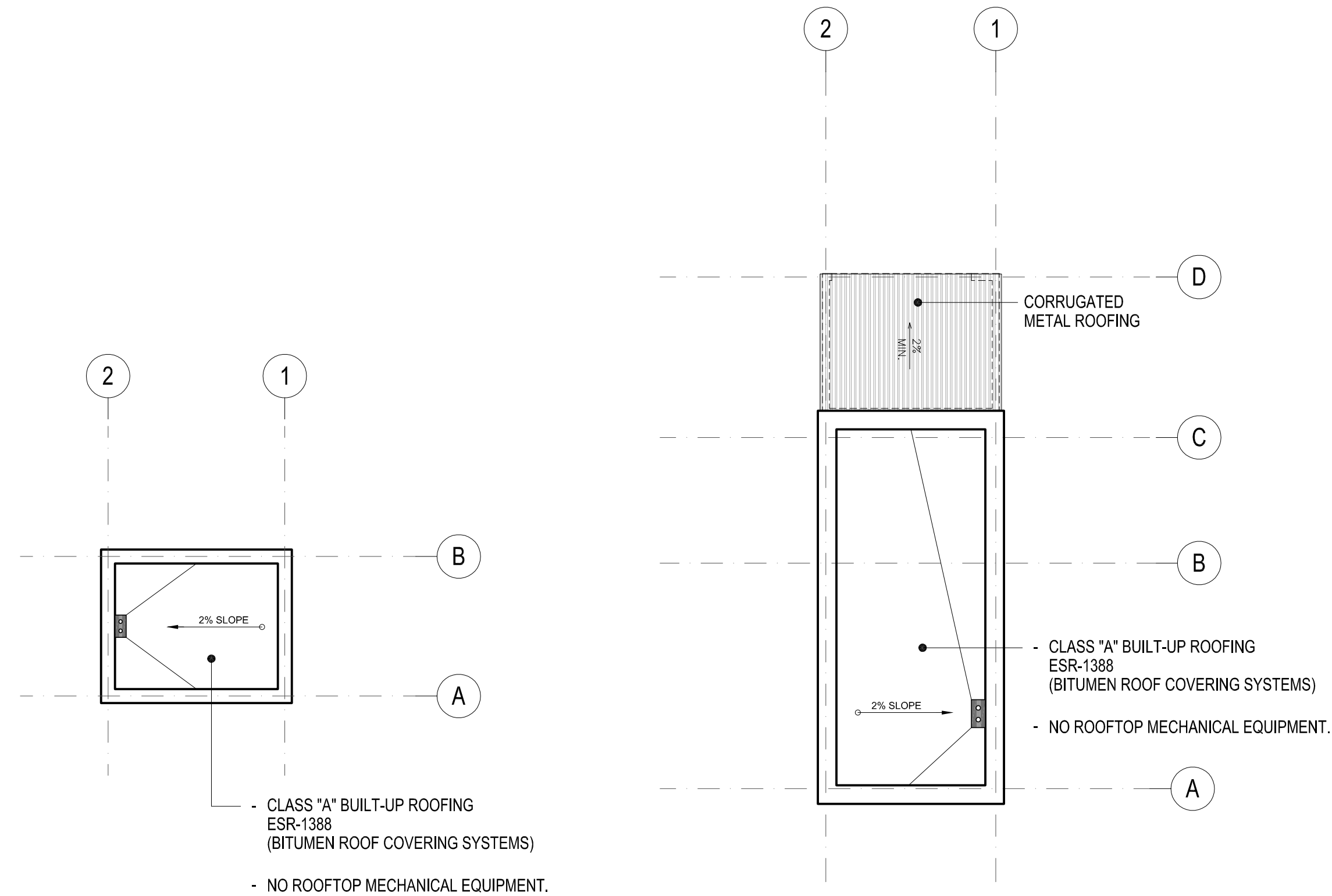
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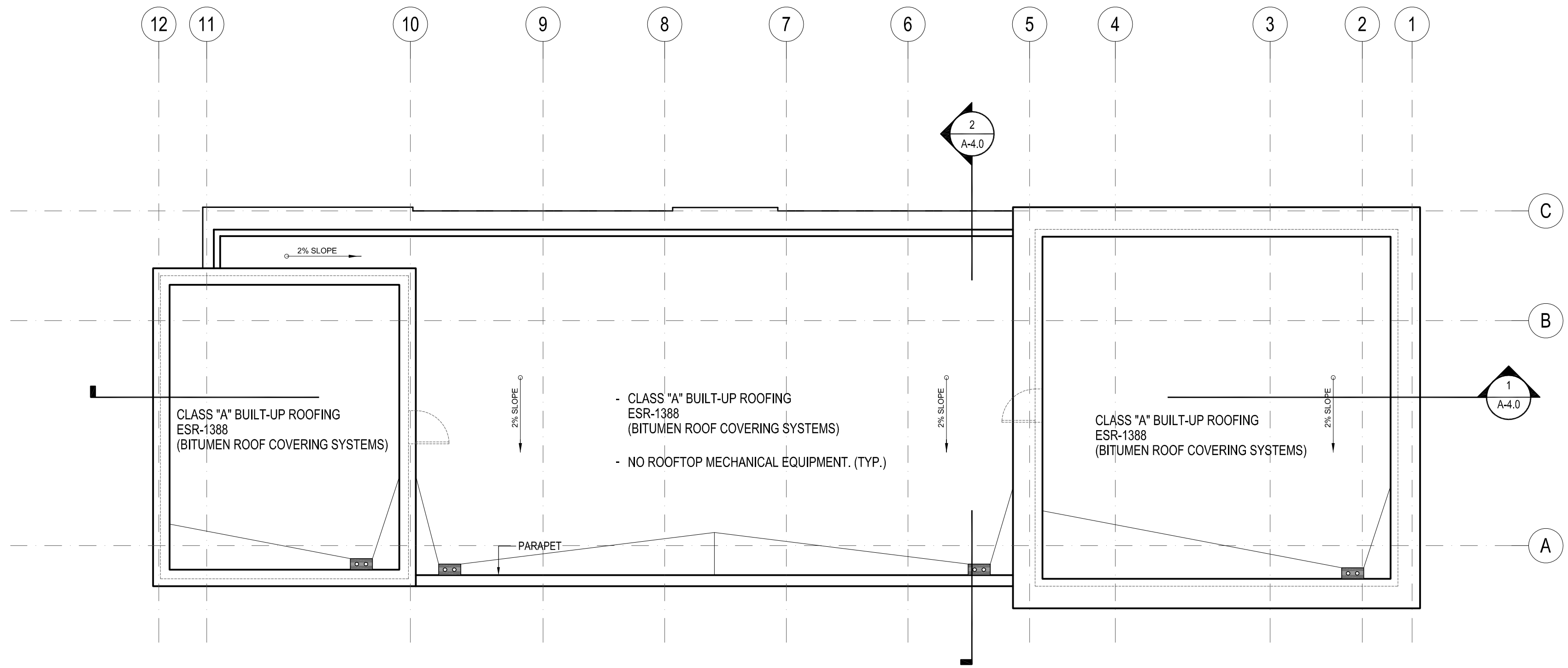
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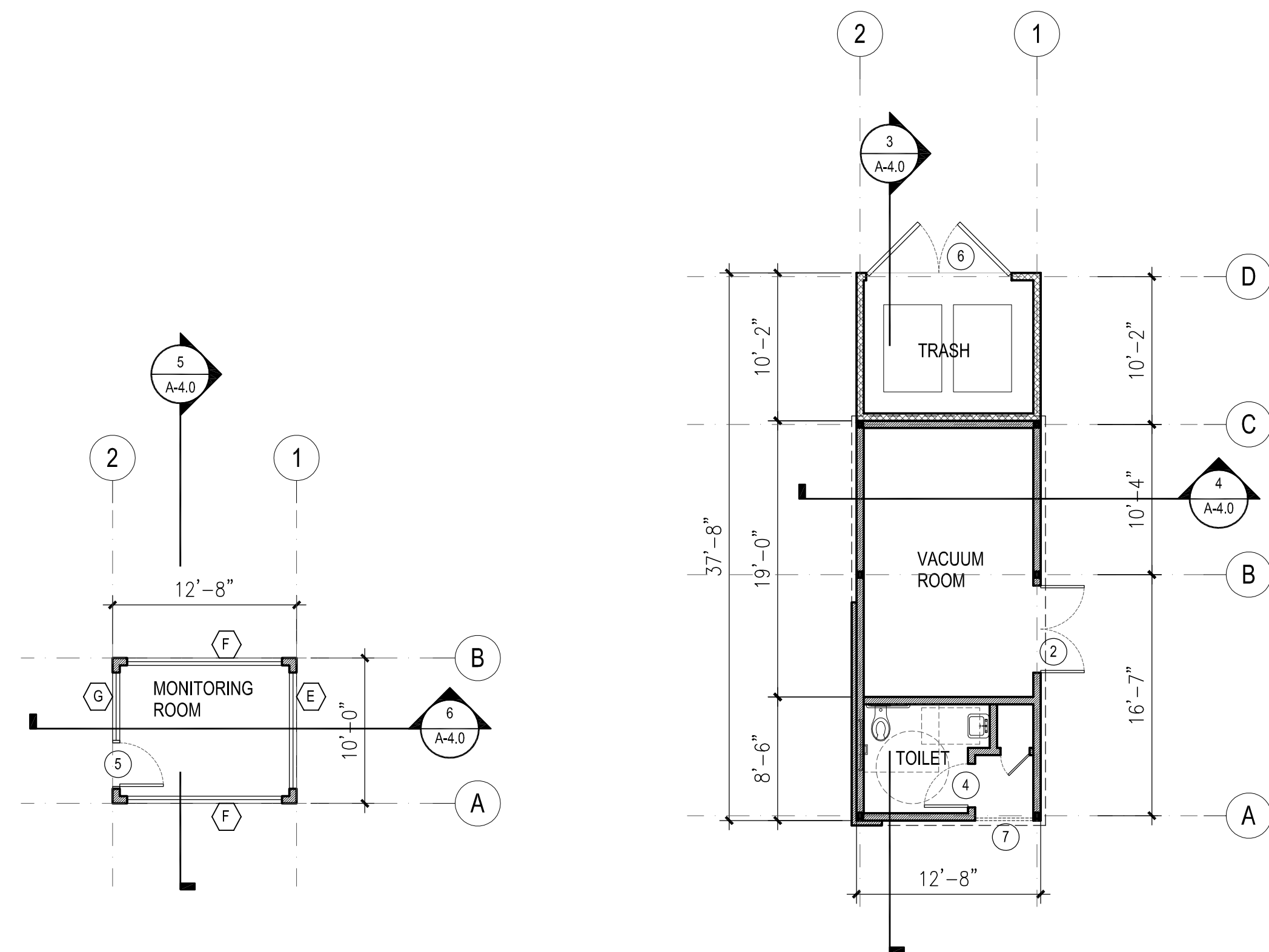


MONITORING RM. ROOF PLAN  
SCALE: 1/8" = 1'-0"

TOILET, VACUUM RM BLDG. ROOF PLAN  
SCALE: 1/8" = 1'-0"

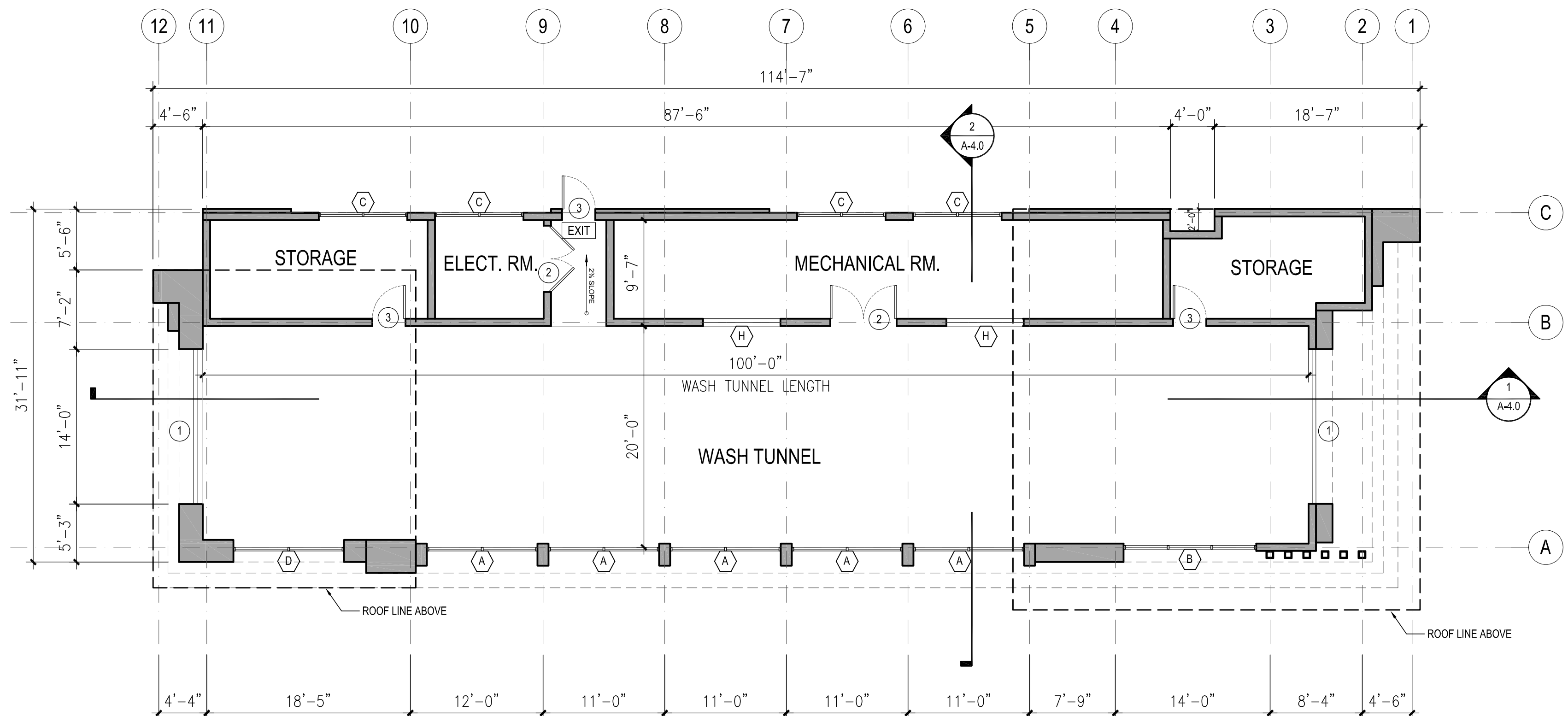


WASH TUNNEL BLDG. ROOF PLAN  
SCALE: 1/8" = 1'-0"

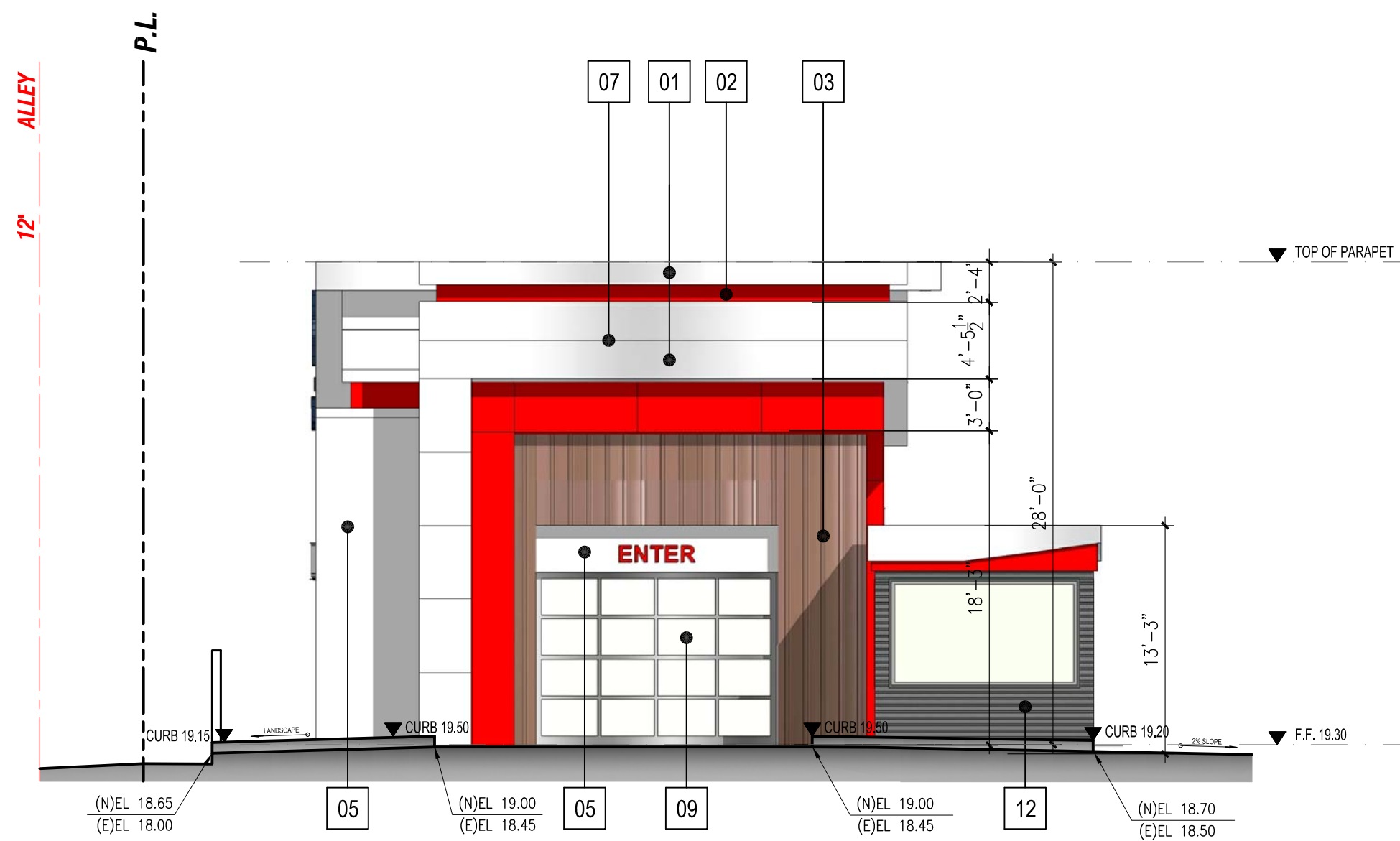


MONITORING RM. FLOOR PLAN  
SCALE: 1/8" = 1'-0"

TOILET, VACUUM RM BLDG. FLOOR PLAN  
SCALE: 1/8" = 1'-0"

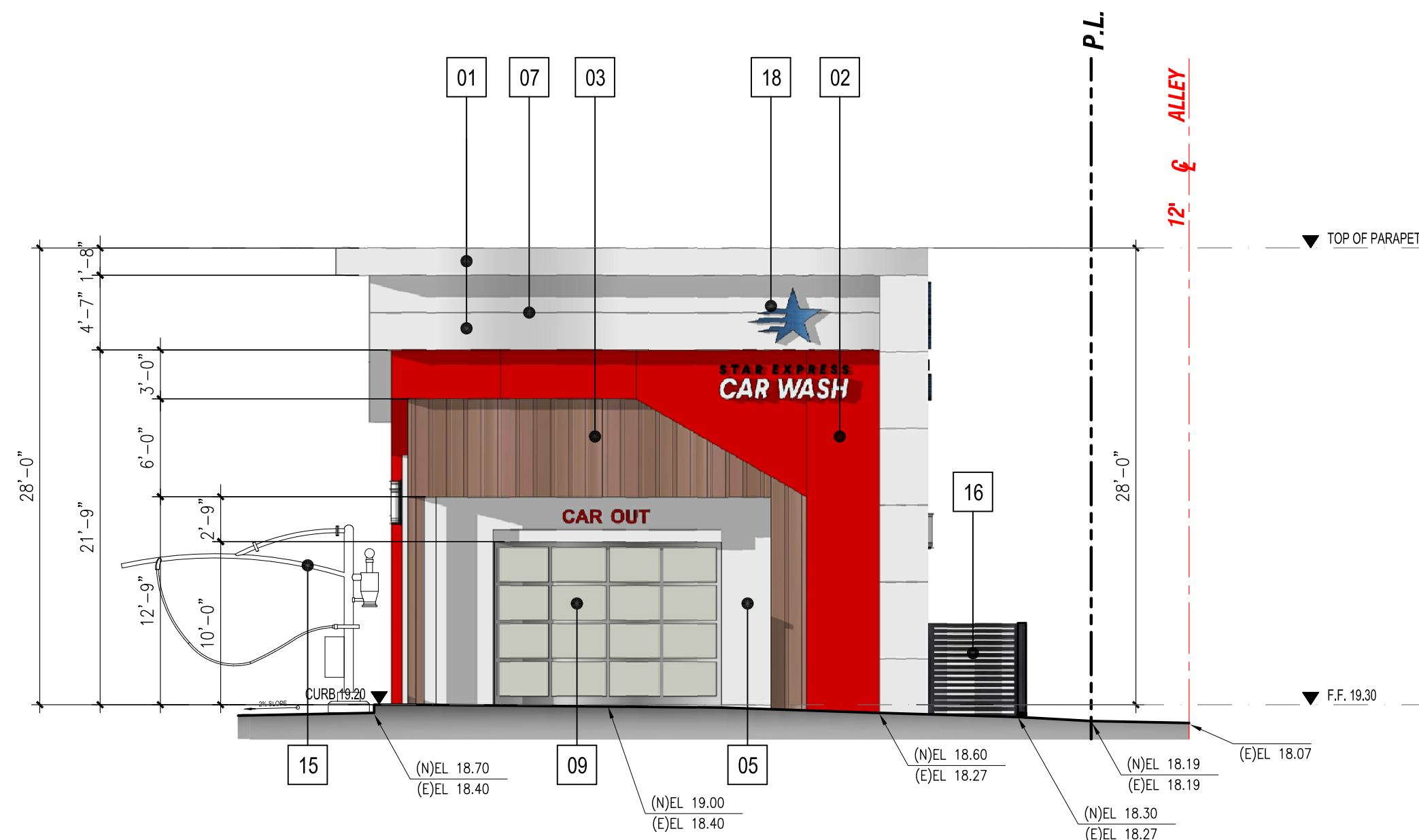


WASH TUNNEL BLDG. FLOOR PLAN  
SCALE: 1/8" = 1'-0"



WASH TUNNEL BLDG  
**NORTH ELEVATION**  
SCALE: 1/8" = 1'-0"

4



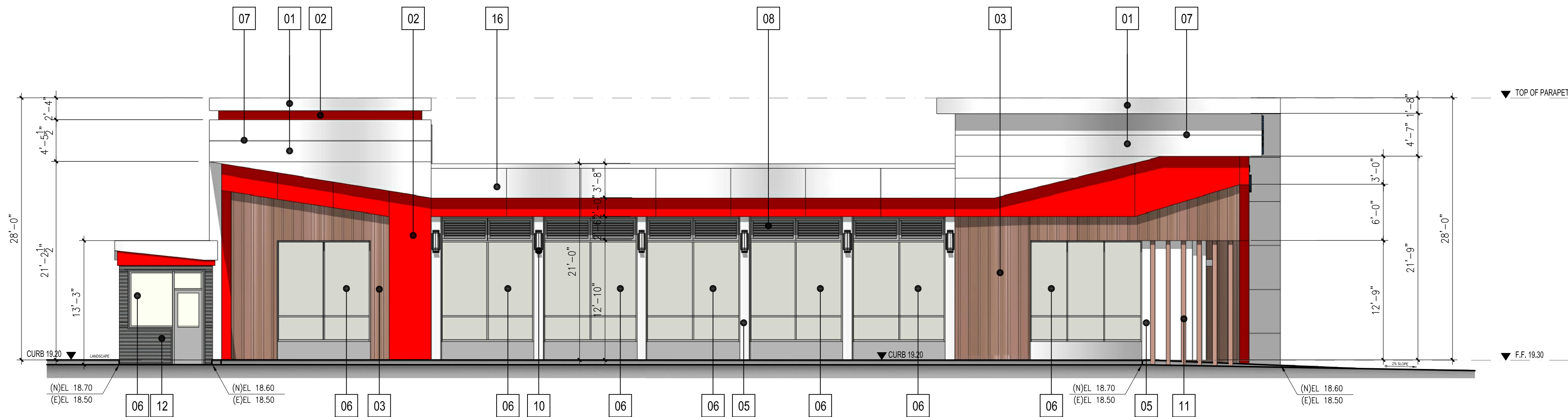
WASH TUNNEL BLDG  
**SOUTH ELEVATION**  
SCALE: 1/8" = 1'-0"

3



WASH TUNNEL BLDG  
**EAST ELEVATION**  
SCALE: 1/8" = 1'-0"

2



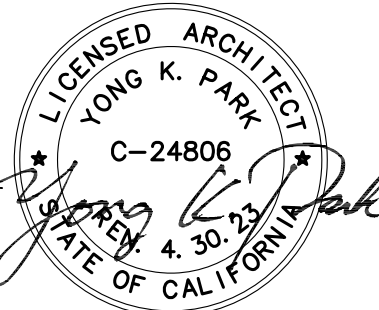
WASH TUNNEL BLDG  
**WEST ELEVATION**  
SCALE: 1/8" = 1'-0"

1

**ELEVATION KEY NOTES:**

- 01 : METAL CLAD EXTERIOR WALL PANEL COLOR-1 (WHITE MATTE)
- 02 : METAL CLAD EXTERIOR WALL PANEL COLOR-2 (RED GLOSS)
- 03 : METAL CLAD EXTERIOR WALL PANEL COLOR-3 (DARK COPPER)
- 04 : METAL CLAD EXTERIOR WALL PANEL COLOR-4 (LIGHT SILVER)
- 05 : EXTERIOR CEMENT PLASTER SMOOTH FINISH
- 06 : TEMPERED CLEAR GLASS W/ ALUM. FRAME (TYP.) SEE WINDOW SCDL FOR SIZE ON A-5.0
- 07 : 3/8" PANEL REVEAL
- 08 : ALUMINUM LOUVER
- 09 : OVERHEAD SECTIONAL DOOR
- 10 : WALL SCONCE
- 11 : POWDER COATED ALUM. CLADDING COLOR-3 (DARK COPPER)
- 12 : METAL SIDING
- 13 : PAINTED METAL DOOR (ALL SOLID DOOR TYP.)
- 14 : CORRUGATED METAL SHEET
- 15 : VACUUM STATION ALUMINUM CANOPY
- 16 : 5'-0" HIGH METAL FENCE
- 17 : TRASH ROOM DOOR
- 18 : ILLUMINATED INDIVIDUAL CHANNEL WALL SIGNS SEE SIGN PLAN SN-1.2

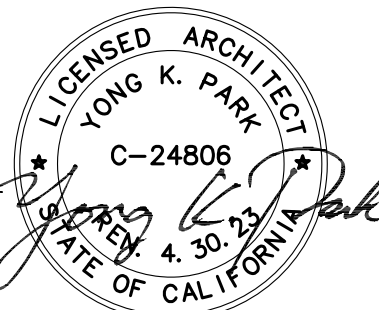
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LONG BEACH, CA 90806

TITLE

BLDG. ELEVATIONS -  
TOILET, VACUUM RM. BLDG.  
MONITORING RM. BLDG.

NO. DATE

PRINT DATE 7/12/2021

SCALE

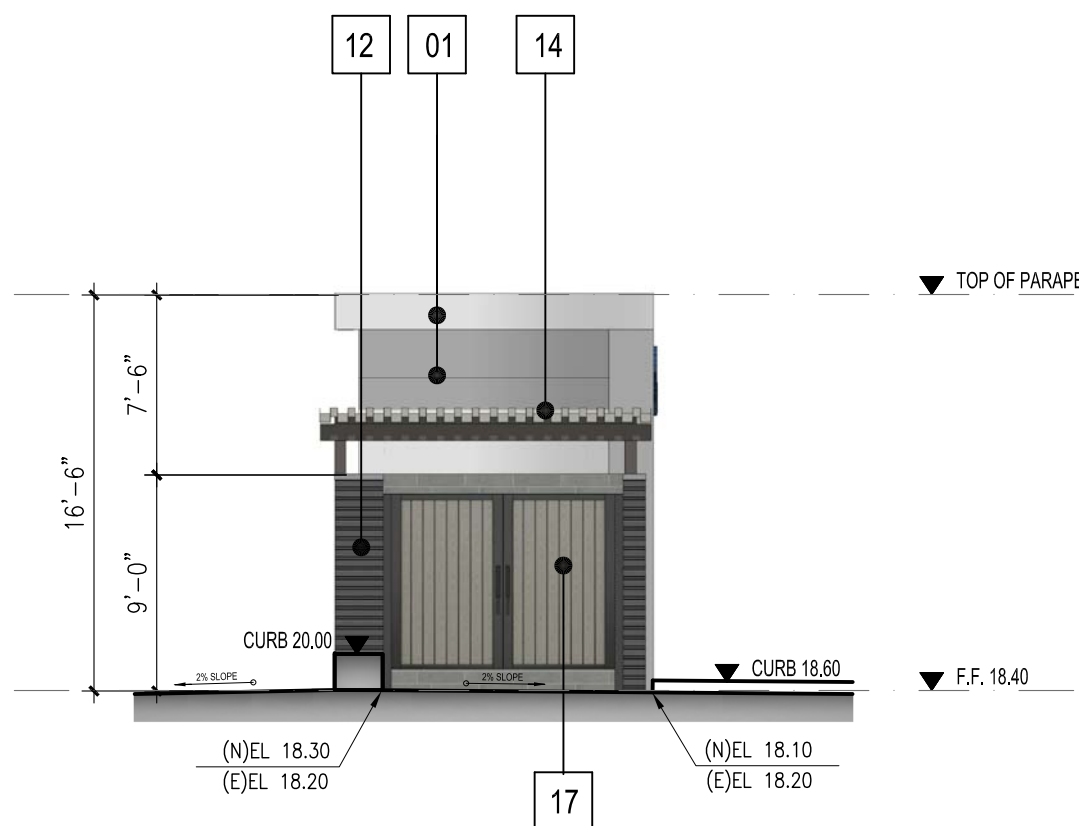
DRAWN BY

CHECKED BY

SHEET

**A-3.1****ELEVATION KEY NOTES:**

- 01 : METAL CLAD EXTERIOR WALL PANEL  
COLOR-1 (WHITE MATTE)
- 02 : METAL CLAD EXTERIOR WALL PANEL  
COLOR-2 (RED GLOSS)
- 03 : METAL CLAD EXTERIOR WALL PANEL  
COLOR-3 (DARK COPPER)
- 04 : METAL CLAD EXTERIOR WALL PANEL  
COLOR-4 (LIGHT SILVER)
- 05 : EXTERIOR CEMENT PLASTER  
SMOOTH FINISH
- 06 : TEMPERED CLEAR GLASS W/ ALUM. FRAME (TYP.)  
SEE WINDOW SCDL FOR SIZE ON A-5.0
- 07 : 3/8" PANEL REVEAL
- 08 : ALUMINUM LOUVER
- 09 : OVERHEAD SECTIONAL DOOR
- 10 : WALL SCONCE
- 11 : POWDER COATED ALUM. CLADDING  
COLOR-3 (DARK COPPER)
- 12 : METAL SIDING
- 13 : PAINTED METAL DOOR (ALL SOLID DOOR TYP.)
- 14 : CORRUGATED METAL SHEET
- 15 : VACUUM STATION  
ALUMINUM CANOPY
- 16 : 5'-0" HIGH METAL FENCE
- 17 : TRASH ROOM DOOR
- 18 : ILLUMINATED INDIVIDUAL CHANNEL WALL SIGNS  
SEE SIGN PLAN SN-1.2

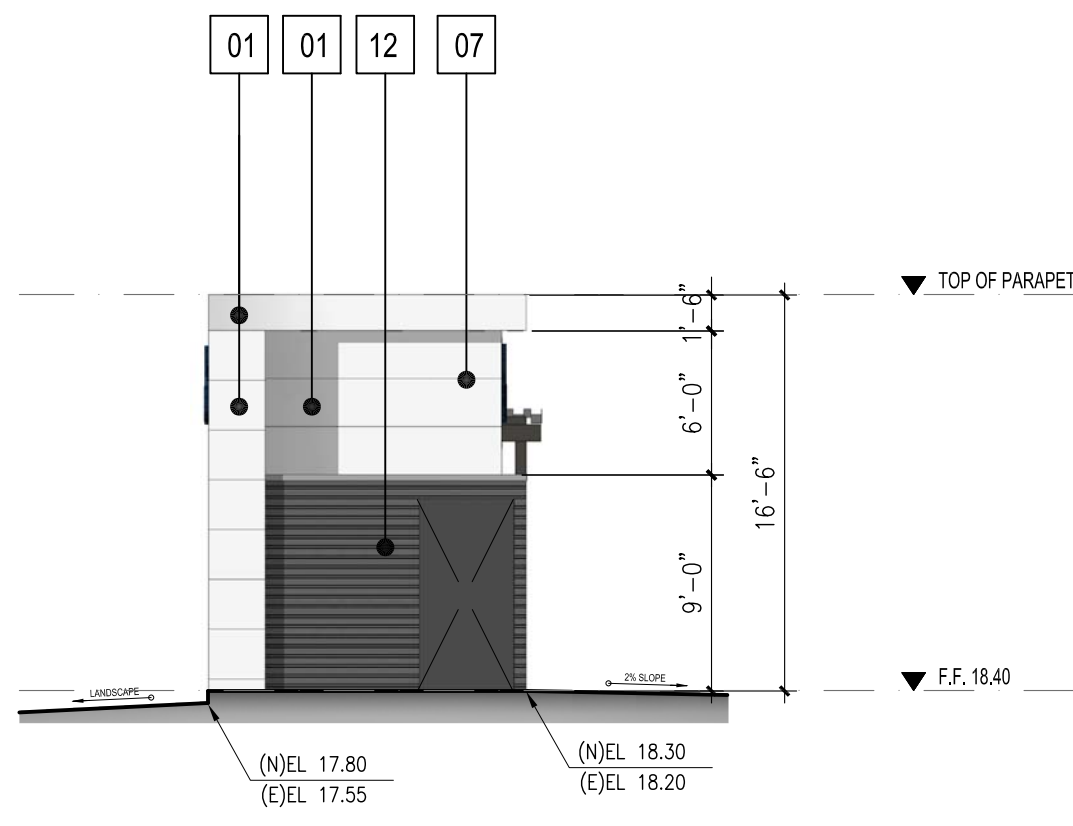


TOILET, VACUUM RM. BLDG.

**NORTH ELEVATION**

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

4

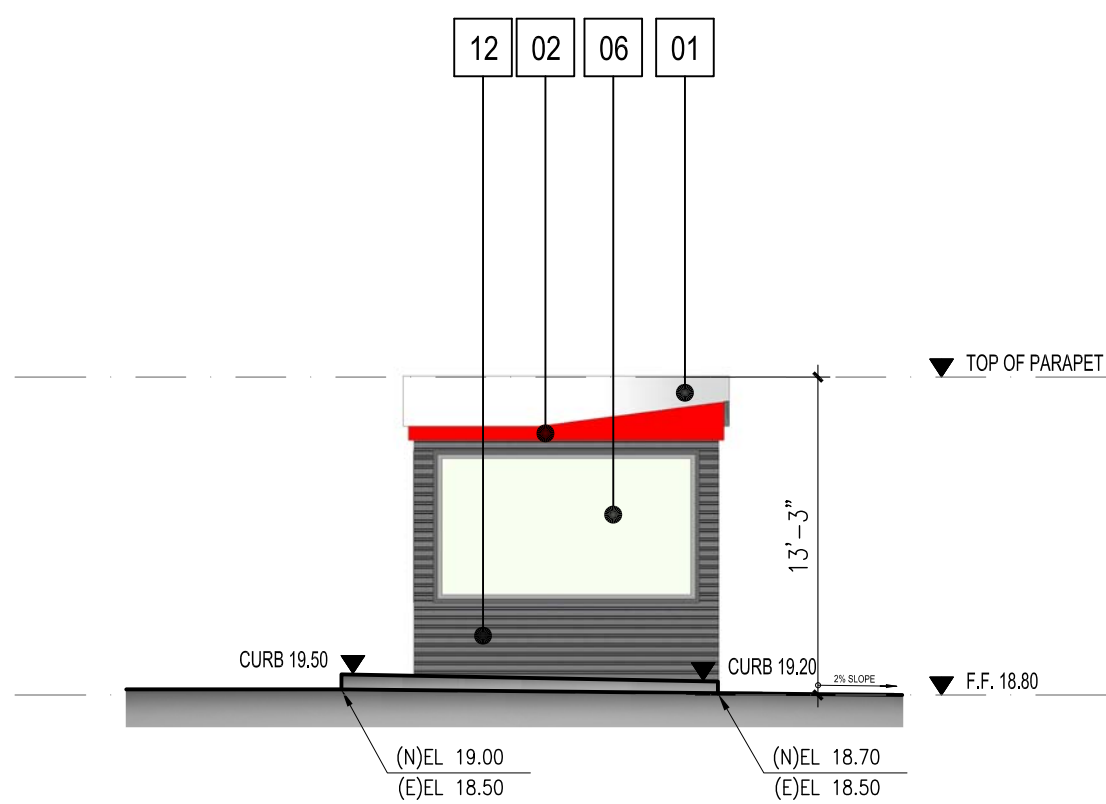


TOILET, VACUUM RM. BLDG.

**SOUTH ELEVATION**

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

3

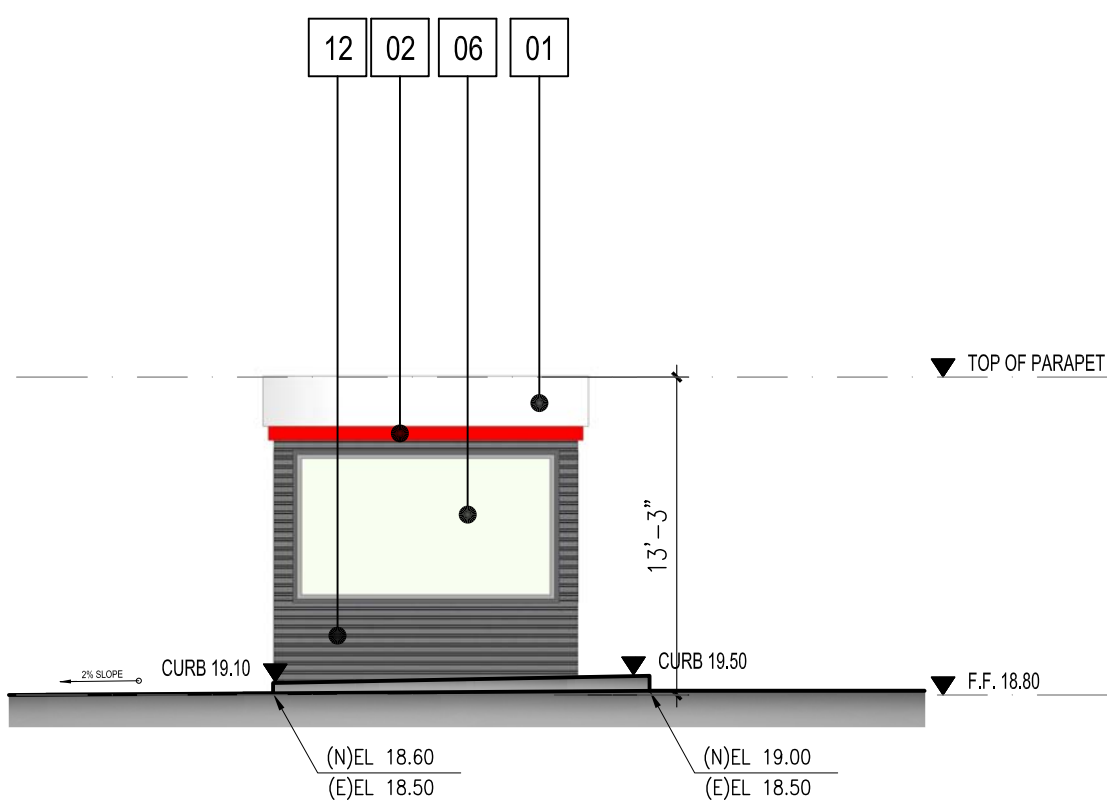


MONITORING RM. BLDG.

**NORTH ELEVATION**

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

8

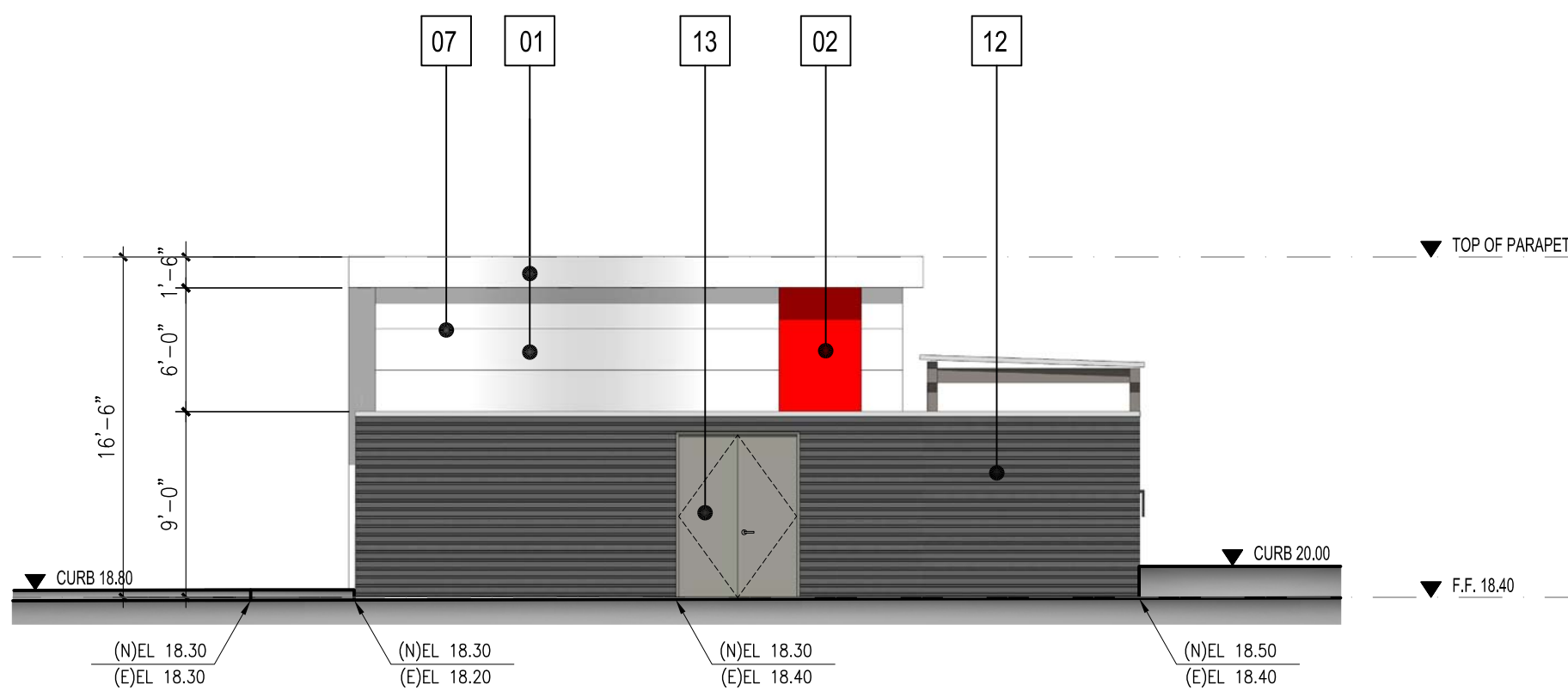


MONITORING RM. BLDG.

**SOUTH ELEVATION**

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

7

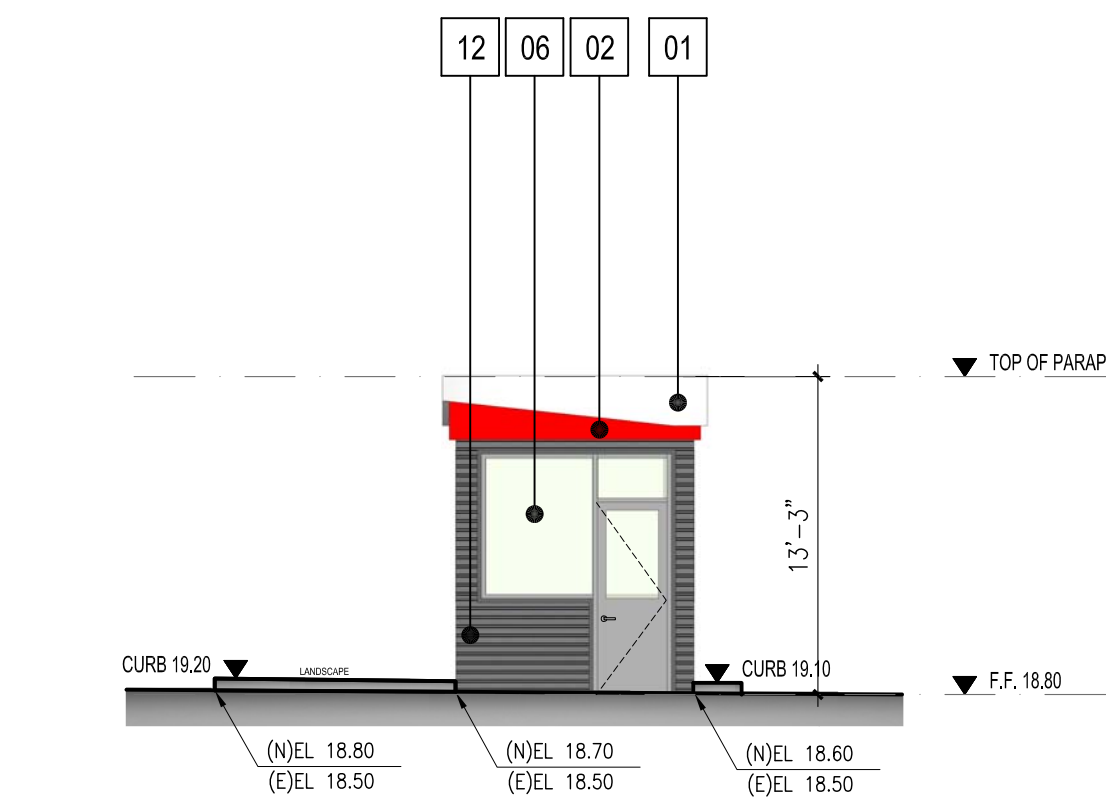


TOILET, VACUUM RM. BLDG.

**EAST ELEVATION**

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

2

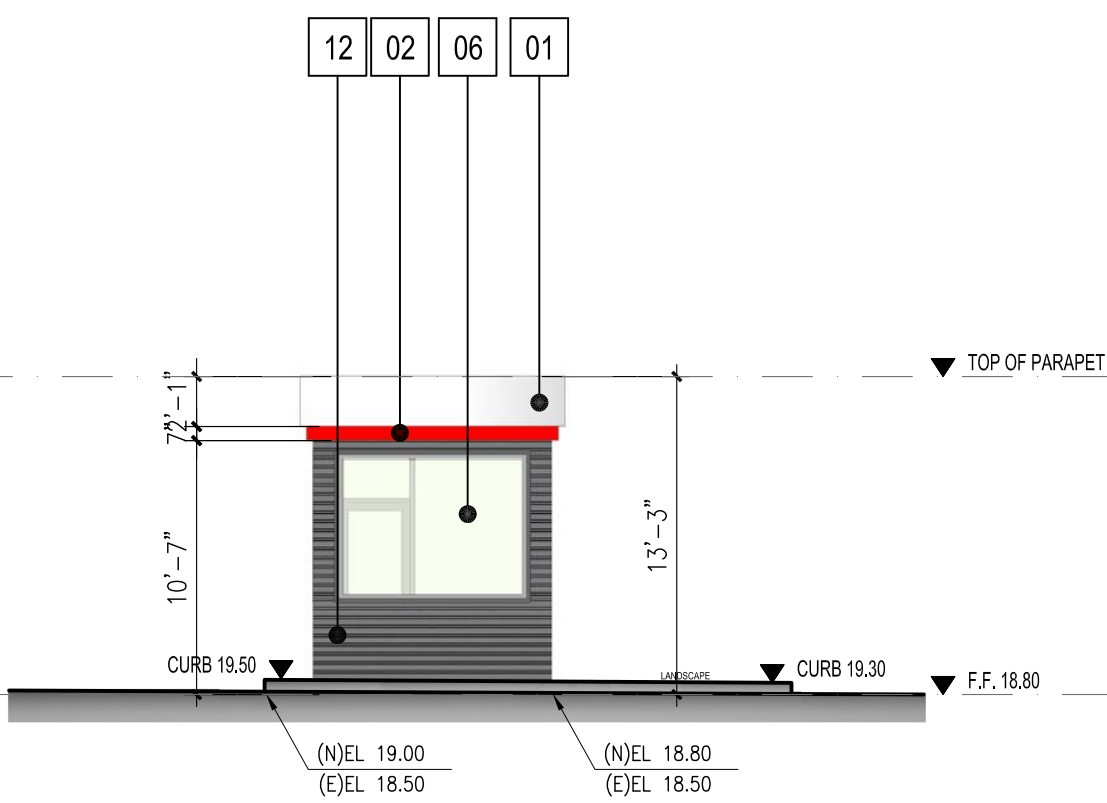


MONITORING RM. BLDG.

**WEST ELEVATION**

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

6

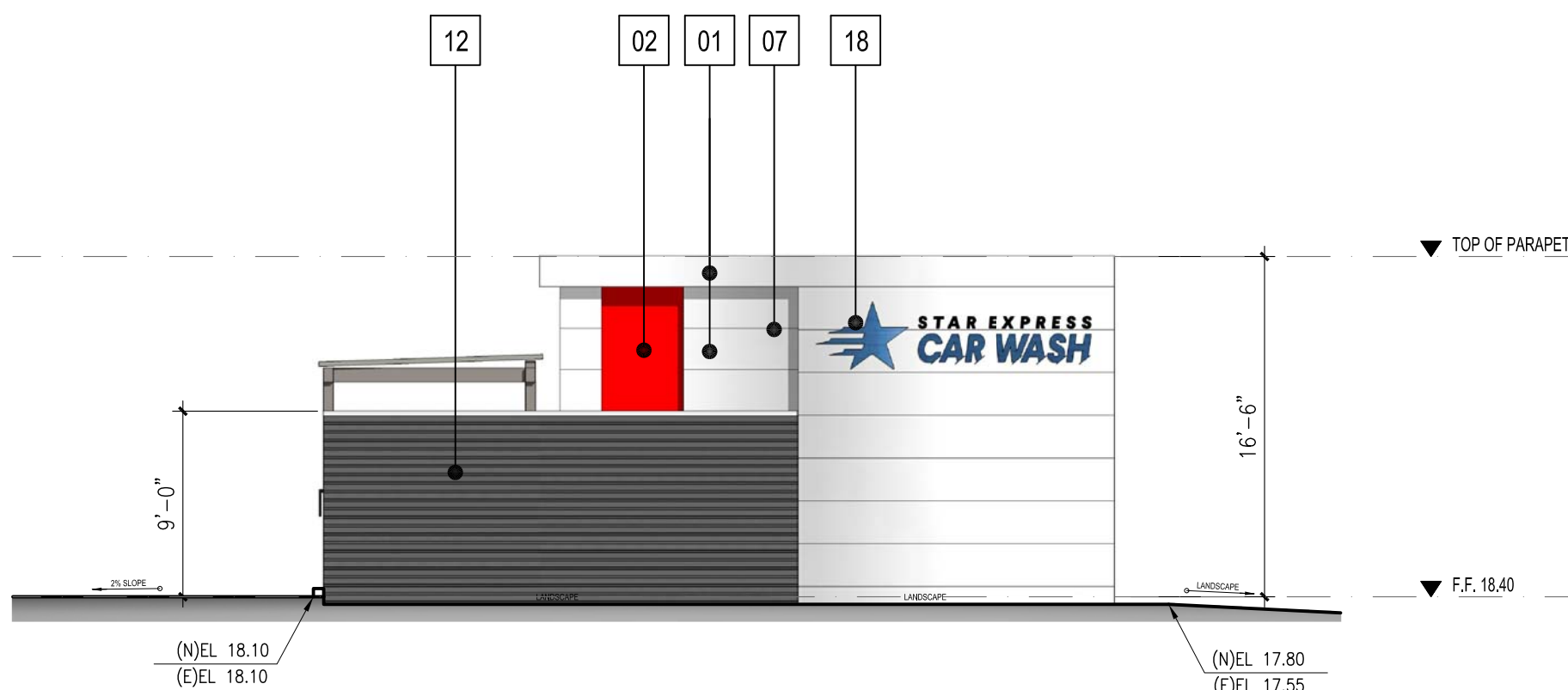


MONITORING RM. BLDG.

**EAST ELEVATION**

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

5



TOILET, VACUUM RM. BLDG.

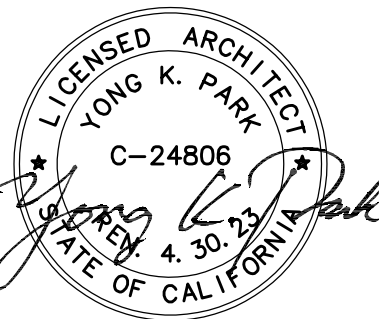
**WEST ELEVATION**

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

1



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EXPRESS CAR WASH DEVELOPMENT FOR

## STAR EXPRESS CAR WASH

1911 E. PACIFIC COAST HWY.  
LONG BEACH, CA 90806

TITLE

BLDG. SECTIONS

NO. DATE

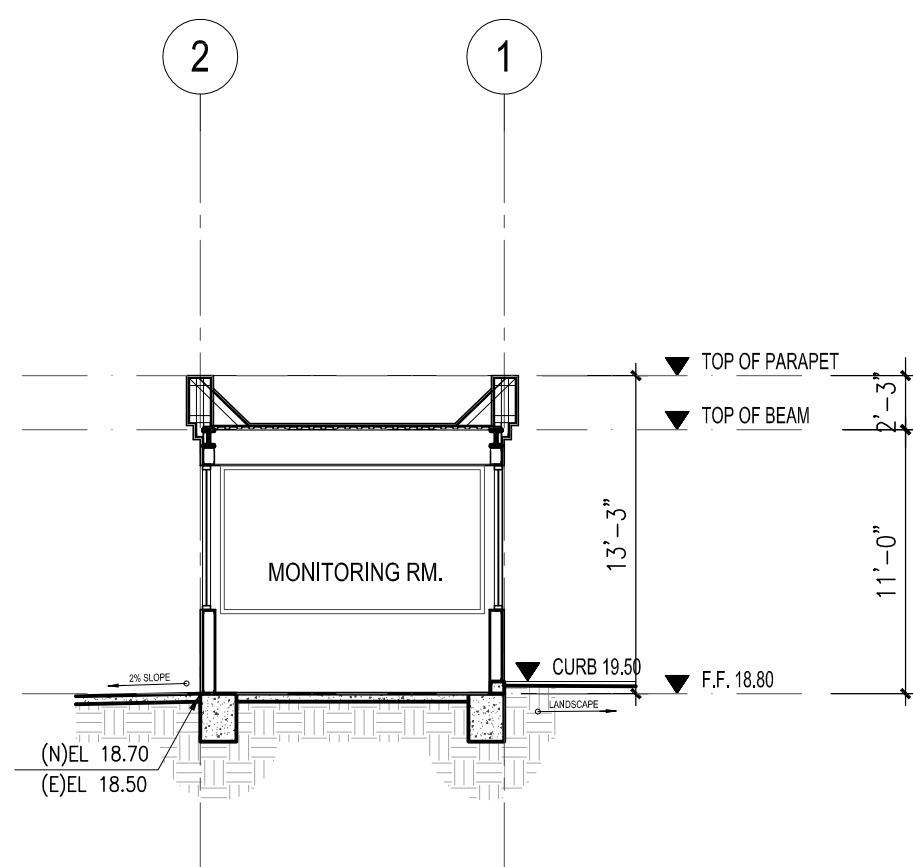
PRINT DATE 7/12/2021

SCALE

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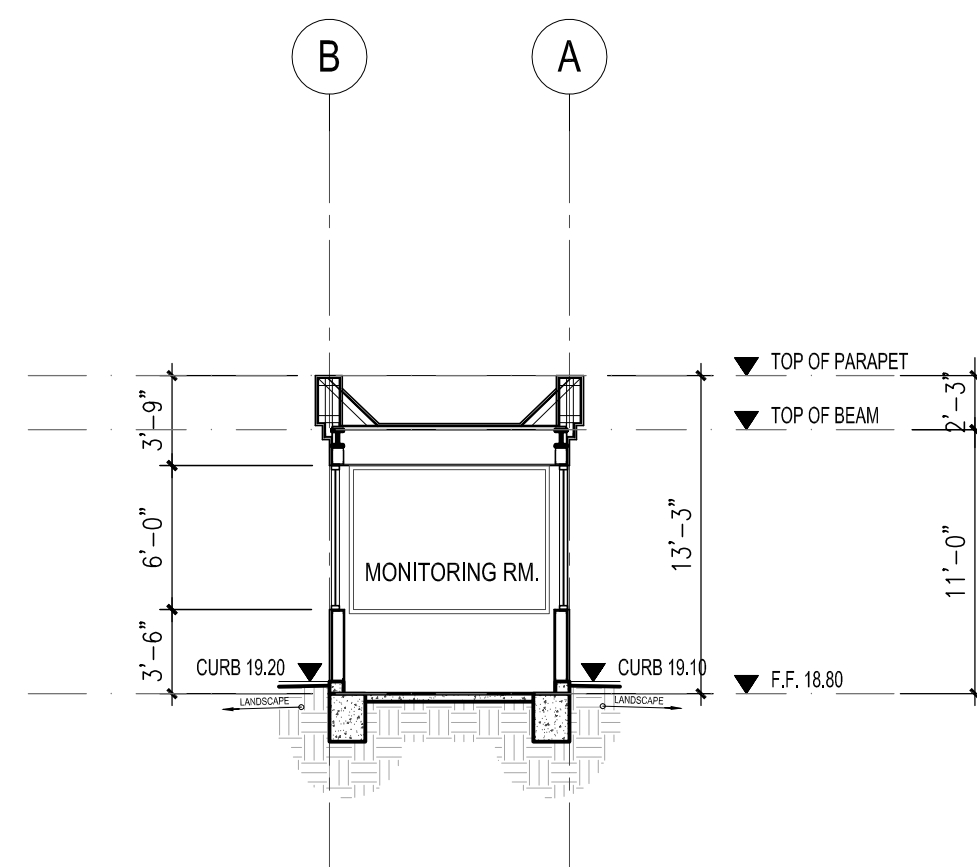
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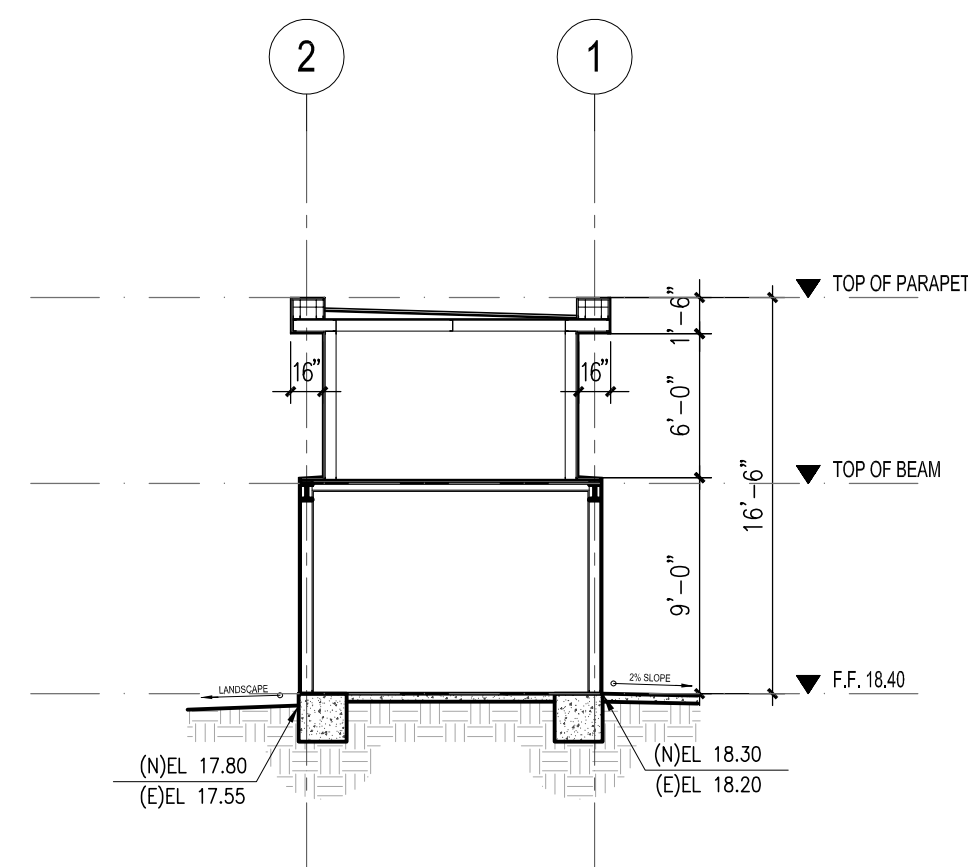
MONITORING RM. BLDG.  
**BLDG. CROSS SECTION**  
SCALE: 1/8" = 1'-0"

6



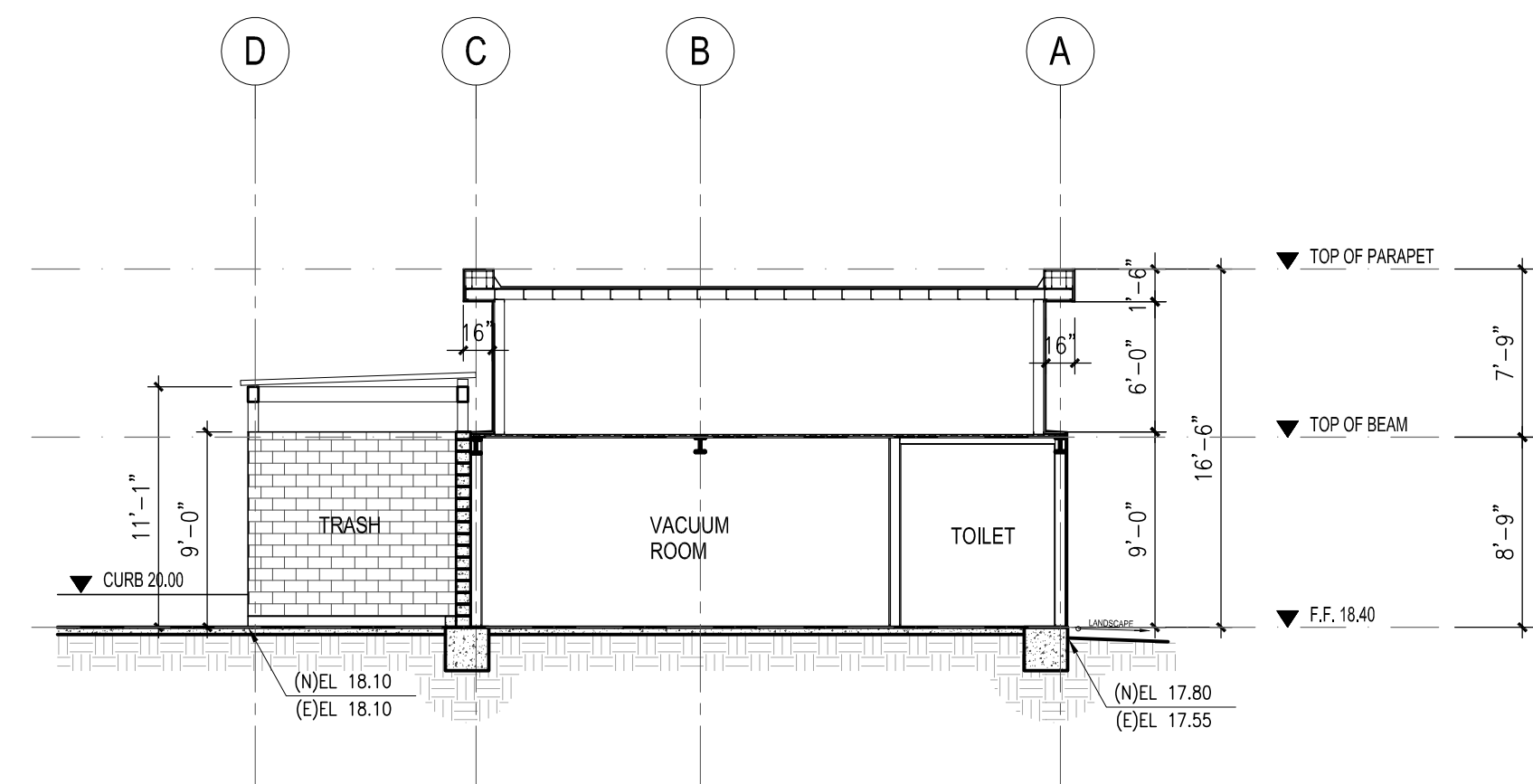
MONITORING RM. BLDG.  
**BLDG. CROSS SECTION**  
SCALE: 1/8" = 1'-0"

5



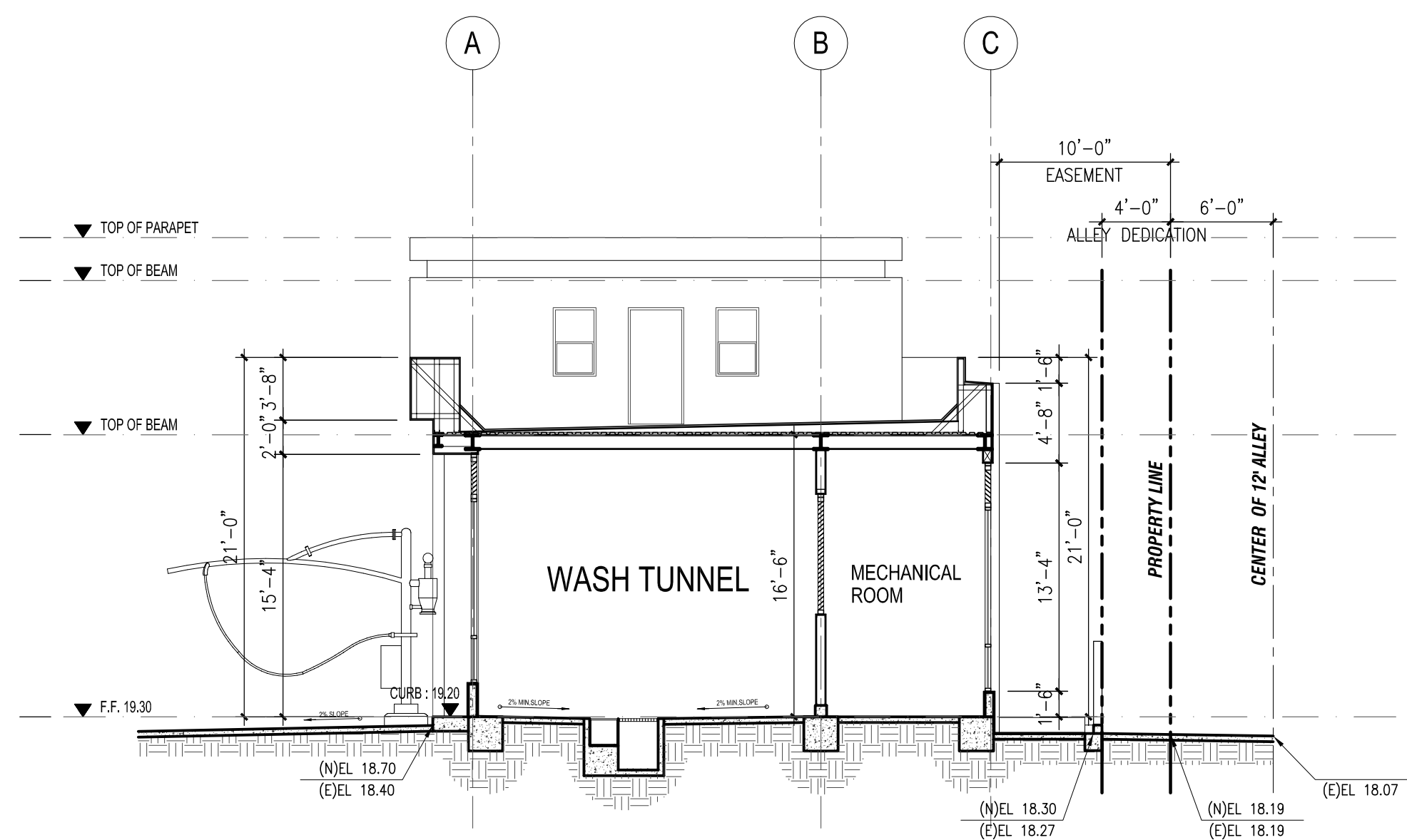
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**BLDG. CROSS SECTION**  
SCALE: 1/8" = 1'-0"

4



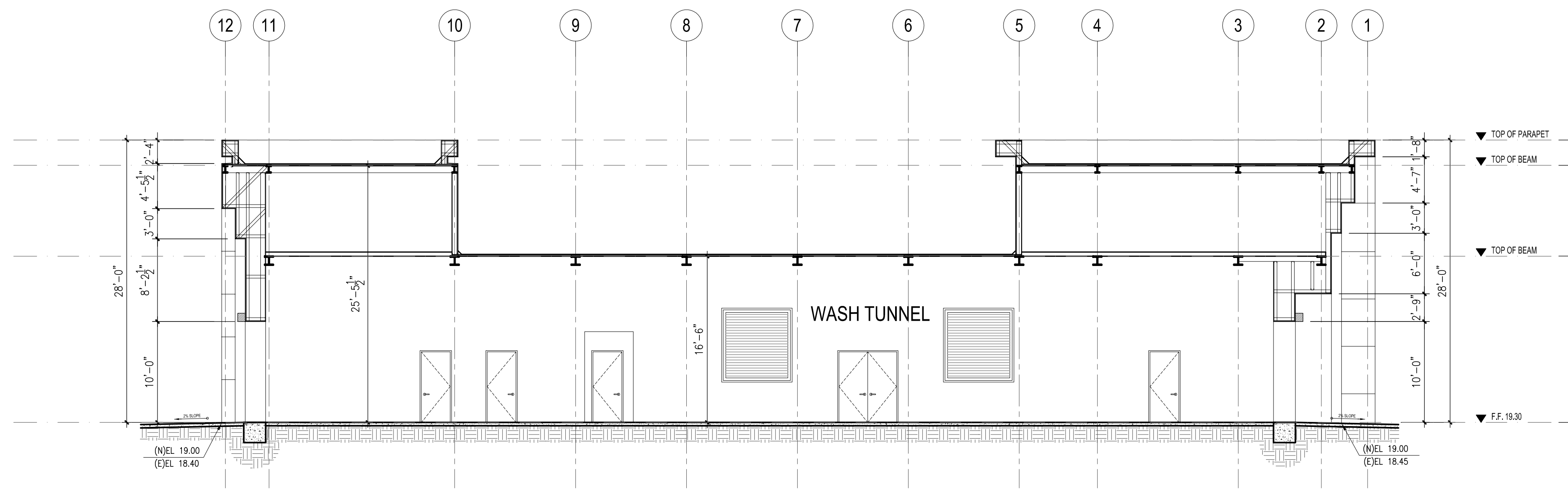
TOILET, VACUUM RM. BLDG.  
**BLDG. CROSS SECTION**  
SCALE: 1/8" = 1'-0"

3



WASH TUNNEL BLDG  
**BLDG. CROSS SECTION**  
SCALE: 1/8" = 1'-0"

2

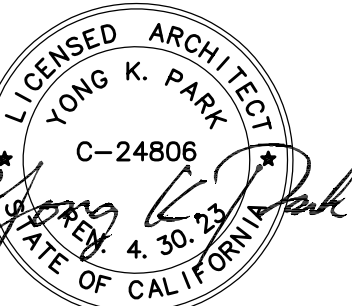


WASH TUNNEL BLDG  
**BLDG. CROSS SECTION**  
SCALE: 1/8" = 1'-0"

1



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**STAR EXPRESS CAR WASH**  
1911 E. PACIFIC COAST HWY.  
LONG BEACH, CA 90806

## DOOR AND WINDOW SCHEDULES

DATE \_\_\_\_\_

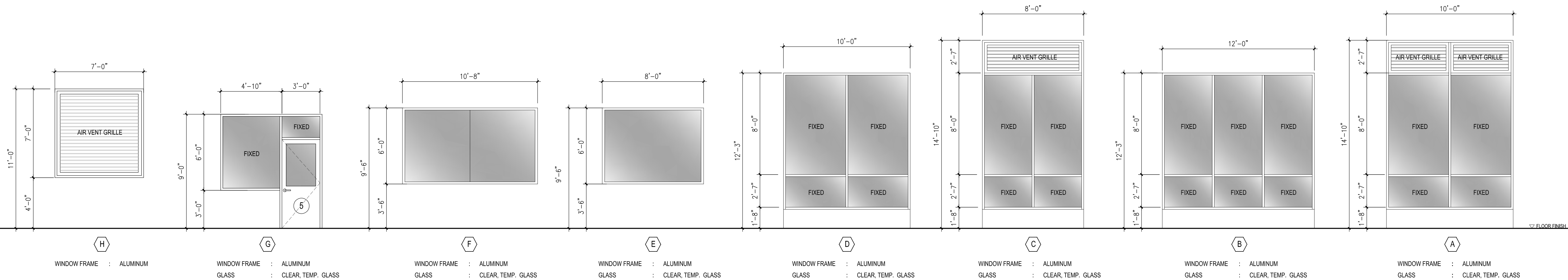
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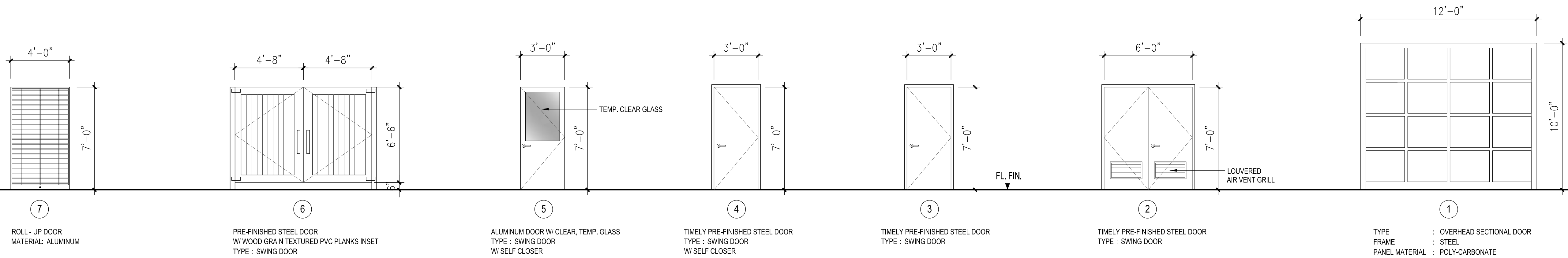
ET

## A-5.0



## WINDOW, LOUVER SCHEDULE

SCALE : 1/4"=1'-0"



## DOOR SCHEDULE

SCALE : 1/4"=1'-0"







PRECISE GRADING AND DRAINAGE PLAN
1911 E. PACIFIC COAST HWY., LONG BEACH, CA 90806

ABBREVIATIONS:

Table with 4 columns: Abbreviation, Description, Abbreviation, Description. Includes terms like AC (Asphalt Concrete), ADDL (Additional), AFSR (Automatic Fire Sprinkler Riser), AGG (Aggregate), APPROX (Approximate), ARCH (Architectural Plans), BC (Begin Curve), BCR (Begin Curve Return), BLDG (Building), BM (Benchmark), BOE (Bottom of Excavation), BOS (Bottom of Step), BW (Back of Walk), C (Cut), CA (Cable), CAB (Crushed Aggregate Base), CATV (Cable Television), CB (Catch Basin), CF (Curb Face), C&G (Curb and Gutter), CI (Cast Iron), CL (Centerline, Chain Link), CLR (Clear), CMP (Corrugated Metal), CO (Pipe), CONC (Cleanout, County), CONN (Concrete), CONST (Connection, Connect), CONT (Construct), COR (Continuation), COR (Corner), CSP (Corrugated Steel Pipe), CY (Cubic Yards), D (Depth), DET (Detail), DIA (Diameter), DIP (Ductile Iron Pipe), DS (Down Spout), DW (Domestic Water), DWG(S) (Drawing(s)), Dwy (Driveway), E (East), EX (Existing), EA (Each), ESMT (Easement), EC (End Curve), ECR (End Curve Return), EG (Edge of Gutter), EL (Elevation), ELEV (Elevation), ELEC (Electrical), ELY (Easterly), EP (Edge of Paving), EQ (Equal), EW (Each Way), F (Fill), FF (Finish Floor), FG (Finish Grade), FH (Fire Hydrant), FL (Flowline), FS (Finish Surface), FT (Foot, Feet), FTG (Footing), FUT (Future), FW (Fire Water), G (Gas), GA (Gauge), GALV (Galvanized), GB (Grade Break), H (High, Height), HPFL (Horizontal), HP (High Point), HPFL (High Point Flowline), IE (Invert Elevation), INT (Intersection), INV (Invert), IRR (Irrigation), LADWP (Los Angeles Dept. of Water and Power), L (Length), LF (Linear Feet), MAX (Maximum), MB (Map Book), MC (Middle of Curve), MIN (Minimum), MISC (Miscellaneous), MOD (Modified), N (North), NA (Not Applicable), NIC (Not in Contract), NLY (Northerly), NO (Number, North), NTS (Not to Scale), Ø (Diameter), OC (On Center), OPNG (Opening), PA (Planting Area), PD (Planter Drain), PCC (Portland Cement Concrete), PKG (Point of Compound Curve), PM (Parcel Map), POC (Point on Curve), PRC (Point of Connection), PROOD (Point of Reverse Curve), PSF (Pounds per Square Foot), PSI (Pounds per Square Inch), PT (Point), PVC (Polyvinyl Chloride), PVM (Pavement), POT (Path of Travel), R (Ridge Line, Radius, Rate), RAD (Radial), REINF (Reinforced), RET (Retaining), REQD (Required), REV (Revised, Revision), ROW (Right of Way), S (Slope, Sewer, South), SD (Storm Drain), SDWK (Sidewalk), SHT (Sheet), SIM (Similar), SLY (Southerly), SO (South), SPEC (Specifications), SS (Sanitary Sewer), STA (Station), STD (Standard), STL (Steel), T (Tangent), TAD (Top of Area Drain), TCB (Top of Catch Basin), TELE (Telephone), TEMP (Telecommunications), TEMP (Temporary), TF (Top of Fence), TFG (Top of Footing), TCR (Top of Catch Basin), TH (Top of Header), THK (Thick), TMH (Top of Manhole), TMS (Top of Mow Strip), TPD (Top of Planter Drain), TR (Tract), TS (Top of Slope), TOS (Top of Step), TW (Top of Wall), TYP (Typical), TTD (Top of Trench Drain), VAR (Variable), VCB (Vertical Clay Pipe), VERT (Vertical), W (Water, Width, West), W/ (With), WLY (Westerly), WM (Water Meter), XING (Crossing)

LEGEND:

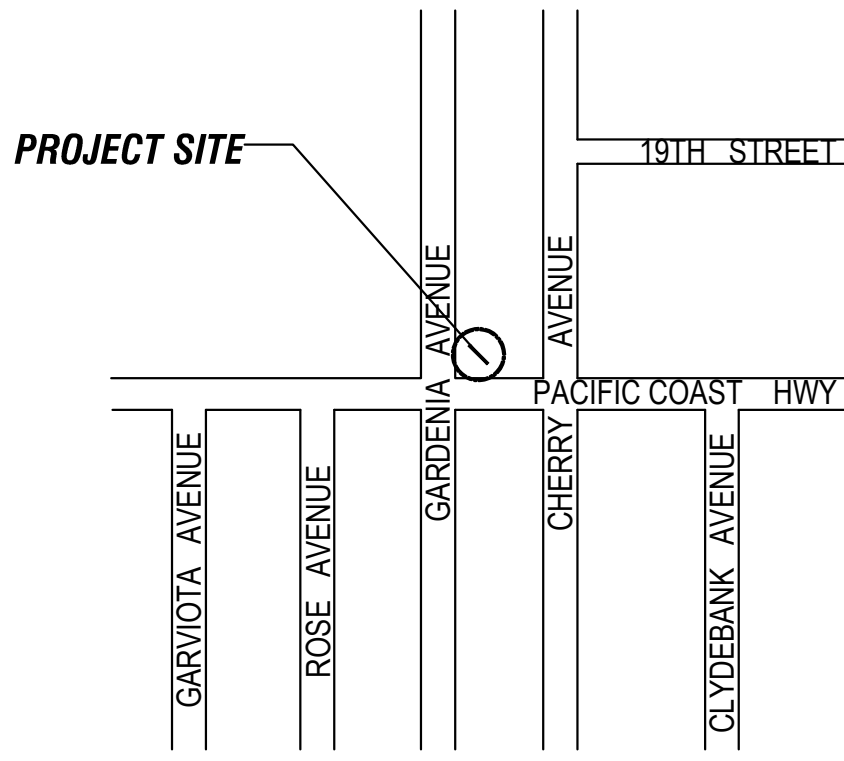
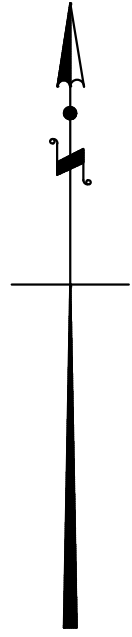
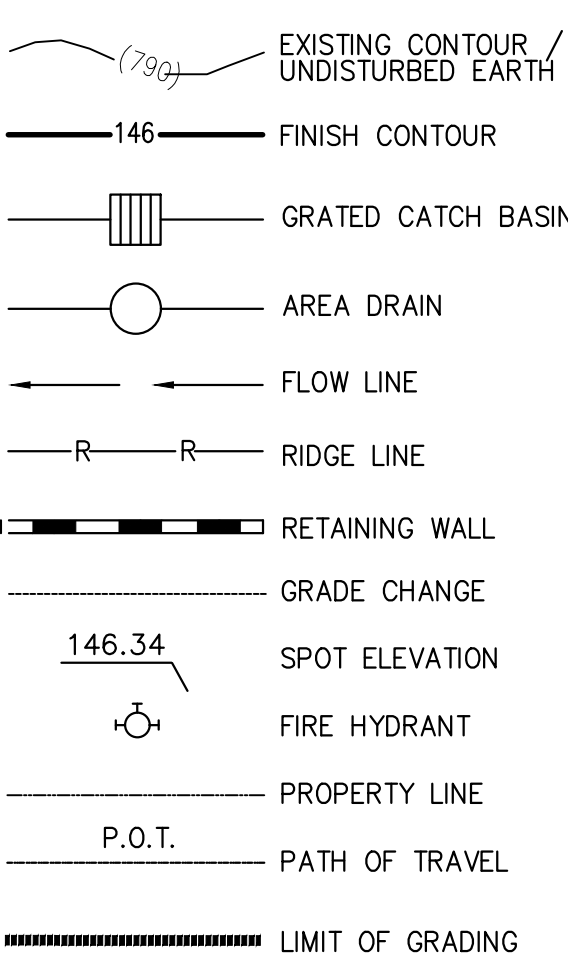


Table with 2 columns: SHEET, DESCRIPTION. Rows include C-1 (Title / Notes), C-2 (Drainage), C-3 (LID Plan), C-4 (Details), and C-5 (Details).

GENERAL NOTES:

1. All grading and construction shall conform to the 2017 County of Los Angeles Building Codes and the State Model Water Efficiency Landscape Ordinance unless specifically noted on these plans.
2. Any modifications of or changes to approved grading plans must be approved by the Building Official.
3. No grading shall be started without first notifying the Building Official. A Pre-grading meeting at the site is required before the start of the grading with the following people present: Owner, grading contractor, design civil engineer, soils engineer, geologist, City of Long Beach grading inspector(s) or their representatives, and when required the archeologist or other jurisdictional agencies. Permittee or his agent are responsible for arranging Pre-grade meeting and must notify the Building Official at least two business days prior to proposed pre-grade meeting.
4. Approval of these plans reflect solely the review of plans in accordance with the City of Long Beach Building Codes and does not reflect any position by the City of Long Beach or the Department of Public Works regarding the status of any title issues relating to the land on which the improvements may be constructed. Any disputes relating to title are solely a private matter not involving the City of Long Beach or the Department of Public Works.
5. All grading and construction activities shall comply with County of Los Angeles Code, Title 12, Section 12.12.030 that controls and restricts noise from the use of construction and grading equipment from the hours of 8:00 PM to 6:30 AM, and on Sundays and Holidays. (More restrictive construction activity times may govern, as required by the Department of Regional Planning and should be shown on the grading plans when applicable.)
6. California Public Resources Code (Section 5097.98) and Health and Safety Code (Section 7050.5) address the discovery and disposition of human remains. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, the law requires that grading immediately stops and no further excavation or disturbance of the site, or any nearby area where human remains may be located, occur until the following has been measures have been taken:
- a. The County Coroner has been informed and has determined that no investigation of the cause of death is required, and
- b. If the remains are of Native American origin, the descendants from the deceased Native Americans have made a recommendation for the means of treating or disposing, with appropriate dignity, of the human remains and any associated grave goods.
7. The location and protection of all utilities is the responsibility of the Permittee.
8. All export of material from the site must go to a permitted site approved by the Building Official or a legal dumpsite. Receipts for acceptance of excess material by a dumpsite are required and must be provided to the Building Official upon request.
9. A copy of the grading permit and approved grading plans must be in the possession of a responsible person and available at the site at all times.
10. Site boundaries, easements, drainage devices, restricted use areas shall be located per construction staking by Field Engineer or licensed surveyor. Prior to grading, as requested by the Building Official, all property lines, easements, and restricted use areas shall be staked.
11. No grading or construction shall occur within the protected zone of any oak tree as required per City of Long Beach Code. The protected zone shall mean that area within the drip line of an oak tree extending there from a point at least five feet outside the drip line, or 15 feet from the trunk(s) of a tree, whichever is greater.
- If an oak tree permit is obtained: (Add the following Note :)
- All grading and construction within the protected zone of all oak trees shall be per oak tree permit no... All recommendations in the permit and associated oak tree report must be complied with and are a part of the grading plan.
- A copy of the oak tree permit and associated reports shall be maintained in the possession of a responsible person and available at the site at all times.
12. The standard retaining wall details shown on the grading plans are for reference only. Standard retaining walls are not checked, permitted, or inspected per the Grading Permit. A separate retaining wall permit is required for all standard retaining walls.
- Note: This note only applies to standard retaining walls. Geogrid fabric and segmental retaining walls do not require a separate retaining wall permit. Details and construction notes for all Geogrid walls must be on the grading plan.
13. A preventive program to protect the slopes from potential damage from burrowing rodents is required per Section J101.8 of the County of Los Angeles Building Code. Owner is to inspect slopes periodically for evidence of burrowing rodents and a first evidence of their existence shall employ an exterminator for their removal.
14. Where a grading permit is issued and the Building Official determines that the grading will not be completed prior to November 1, the owner of the site on which the grading is being performed shall, on or before October 1, file or cause to be filed with the Building Official an ESCP per Section J110.8.3 of the County of Los Angeles Building Code.
15. Transfer of Responsibility: If the Field Engineer, the Soils Engineer, or the Engineering Geologist of record is changed during grading, the work shall be stopped until the replacement has agreed in writing to accept their responsibility within the area of technical competence for approval upon completion of the work. It shall be the duty of the permittee to notify the Building Official in writing of such change prior to the commencement of such grading.
- INSPECTION NOTES
16. The permittee or his agent shall notify the Building Official at least one working day in advance of required inspections at following stages of the work. (Section J105.7 of the Building Code.)
- a. Pre-grade - Before the start of any earth disturbing activity or construction.
- b. Initial - When the site has been cleared of vegetation and unapproved fill has been scarified, benched or otherwise prepared for fill. Fill shall not be placed prior to this inspection. Note: Prior to any construction activities, including grading, all storm water pollution prevention measures including erosion control devices which contain sediments must be installed.
- c. Rough - When approximate final elevations have been established; drainage terraces, swales and berms installed at the top of the slope; and the statements required in this Section have been received.
- d. Final - When grading has been completed; all drainage devices installed; slope planting established, irrigation systems installed and the As-Built plans, required statements, and reports have been submitted and approved.
17. In addition to the inspection required by the Building Official for grading, reports and statements shall be submitted to the Building Official in accordance with City of Long Beach Building Code.
18. Unless otherwise directed by the Building Official, the Field Engineer for all engineered grading projects shall prepare routine inspection reports as required under Section J105.11 of the County of Los Angeles Building Code. These reports, known as 'Report of Grading Activities', shall be submitted to the Building Official as follows:
- 1.Bi-weekly during all times when grading of 400 cubic yards or more per week is occurring on the site;

2. Monthly, at all other times; and
3. at any time when requested in writing by the Building Official.

Such 'Report of Grading Activities' shall certify to the Building Official that the Field Engineer has inspected the grading site and related activities and has found them in compliance with the approved grading plans and specifications, the building code, all grading permit conditions, and all other applicable ordinances and requirements. This form is available at the following website <http://dpw.lacounty.gov/bas/bg/default.aspx>. Report of Grading Activities may be scanned and uploaded at the website or faxed to (310) 217-9530. Failure to provide required inspection reports will result in a 'Stop Work Order'.

19. All graded sites must have drainage swales, berms, and other drainage devices installed prior to rough grading approval per Section J105.7 of the County of Los Angeles Building Code.
20. The grading contractor shall submit the statement to the grading inspector as required by City of Long Beach Building Code at the completion of rough grading.
21. Final grading must be approved before occupancy of buildings will be allowed per City of Long Beach Building Code.

DRAINAGE NOTES

22. Roof drainage must be diverted from graded slopes.
23. Provisions shall be made for contributory drainage at all times.
24. All construction and grading within a storm drain easement are to be done per Private Drain PD No. \_\_\_\_\_ or miscellaneous Transfer Drain MTD No. \_\_\_\_\_
25. All storm drain work is to be done under continuous inspection by the Field Engineer. Status reports required under City of Long Beach Building Code shall include inspection information and reports on the storm drain installation.

BEST MANAGEMENT PRACTICE NOTES:

1. Every effort should be made to eliminate the discharge of non-stormwater from the project site at all times.
2. Eroded sediments and other pollutants must be retained on-site and may not be transported from the site via sheet flow, swales, area drains, natural drainage courses or wind.
3. Stockpiles of liquid and other construction related materials must be protected from being transported from the site by the forces of wind or water.
4. Fuels, oils, solvents, and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of in a proper manner. Spills may not be washed into the drainage system.
5. Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete wastes on-site until they can be disposed of as solid waste.
6. Trash and construction related solid wastes must be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind.
7. Sediments and other materials may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental depositions must be swept up immediately and may not be washed down by rain or other means.
8. Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to inhibit erosion by wind and water.
- 9 I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that submitting false and/or inaccurate information, failing to update the ESCP to reflect current conditions, or failing to properly and/or adequately implement the ESCP may result in revocation of grading and/or other permits or other sanctions provided by law

Print Name \_\_\_\_\_ (Owner or authorized agent of the owner)

Signature \_\_\_\_\_ Date \_\_\_\_\_ (Owner or authorized agent of the owner)

The following BMPs as outlined in, but not limited to, the latest edition of the CASQA Construction BMP Online Quality Handbooks (Construction Site BMP Manual), may apply during the construction of this project (additional measures may be required if deemed appropriate by the Project Engineer or the Building Official)

EROSION CONTROL

- EC1 SCHEDULING  
EC2 PRESERVATION OF EXISTING VEGETATION  
EC3 HYDRAULIC MULCH  
EC4 HYDROSEEDING  
EC5 SOIL BINDERS  
EC6 STRAW MULCH  
EC7 GEOTEXTILES & MATS  
EC8 WOOD MULCHING  
EC9 EARTH DIKES AND DRAINAGE SWALES  
EC10 VELOCITY DISSIPATION DEVICES  
EC11 SLOPE DRAINS  
EC12 STREAMBANK STABILIZATION  
EC13 RESERVED  
EC14 COMPOST BLANKETS  
EC15 SOIL PREPARATION/ROUGHENING  
EC16 NON-VEGETATED STABILIZATION

WASTE MANAGEMENT & MATERIAL POLLUTION CONTROL

- WM1 MATERIAL DELIVERY AND STORAGE  
WM2 MATERIAL USE  
WM3 STOCKPILE MANAGEMENT  
WM4 SPILL PREVENTION AND CONTROL  
WM5 SOLID WASTE MANAGEMENT  
WM6 HAZARDOUS WASTE MANAGEMENT  
WM7 CONTAMINATION SOIL MANAGEMENT  
WM8 CONCRETE WASTE MANAGEMENT  
WM9 SANITARY/SEPTIC WASTE MANAGEMENT  
WM10 LIQUID WASTE MANAGEMENT

TEMPORARY SEDIMENT CONTROL

- SE1 SILT FENCE  
SE2 SEDIMENT BASIN  
SE3 SEDIMENT TRAP  
SE4 CHECK DAM  
SE5 FIBER ROLLS  
SE6 GRAVEL BAG BERM  
SE7 STREET SWEEPING AND VACUUMING  
SE8 SANDBAG BARRIER  
SE9 STRAW BALE BARRIER  
SE10 STORM DRAIN INLET PROTECTION  
SE11 ACTIVE TREATMENT SYSTEMS  
SE12 TEMPORARY SILT DIKE  
SE13 COMPOST SOCKS & BERMS  
SE14 BIOFILTER BAGS

WIND EROSION CONTROL

- WE1 WIND EROSION CONTROL

EQUIPMENT TRACKING CONTROL

- TC1 STABILIZED CONSTRUCTION ENTRANCE EXIT  
TC2 STABILIZED CONSTRUCTION ROADWAY  
TC3 ENTRANCE/OUTLET TIRE WASH
- NON-STORMWATER MANAGEMENT
- NS1 WATER CONSERVATION PRACTICES  
NS2 Dewatering Operations  
NS3 PAVING AND GRINDING OPERATIONS  
NS4 TEMPORARY STREAM CROSSING  
NS5 CLEAR WATER DIVERSION  
NS6 ILLICIT CONNECTION/DISCHARGE  
NS7 POTABLE WATER/IRRIGATION  
NS8 VEHICLE AND EQUIPMENT CLEANING  
NS9 VEHICLE AND EQUIPMENT FUELING  
NS10 VEHICLE AND EQUIPMENT MAINTENANCE  
NS11 PILE DRIVING OPERATIONS  
NS12 CONCRETE CURING  
NS13 CONCRETE FINISHING  
NS14 MATERIAL AND EQUIPMENT USE  
NS15 DEMOLITION ADJACENT TO WATER  
NS16 TEMPORARY BATCH PLANTS

((General Information))

- Grading Permit Application No. GR \_\_\_\_\_ \*
- Earthwork Volumes Cut 417 (cy), Fill \_\_\_\_\_ (cy) \*
- Over Excavation/ Alluvial Removal & Compaction 576 (cy) \*
- Export 417 (cy), Export Location: 13620 WORKMAN MILL RD. INDUSTRY, CA.
- Total Disturbed Area 0.517 (Acres) \*
- Total Proposed Landscape Area 2,626 Square Feet \*
- Total Turf Area 0 % (Percent of Total Proposed Landscaping) \*
- Total Drought Tolerant Landscaping Area 100 % (Percent of Total Proposed Landscaping) \*
- Pre-Development Impervious area 0.517 (Acres) \*
- Post-Development Impervious area 0.456 (Acres) \*
- Waste Discharge Identification Number (WIDID #) \_\_\_\_\_
- Construction & Demolition Debris Recycling and Reuse Plan (RPP ID) \_\_\_\_\_ \*
- Post-construction BMP feature(s) GPS coordinates x 33.79012 , y -118.16855 (RAIN TANKS)

((Property Information))

- Property Address 1911 E. PACIFIC COAST HWY., LONG BEACH, CA 90806 (If exist \*)
- Tract / Parcel Map No. TR 1319 Lot/Parcel No. LOT 9 TO 12
- Property Owner SM WASH LLC, \*
- Assessors ID Number(s) 7216-032-021 \*

((Zoning, Regional Planning, and other Agency Information))

- Property Zoning: CCN (PROPOSED) \*
- Intended Land Use: COMMERCIAL, CAR WASH \*
- (For proposed graded areas - i.e. ... Single Family Residence )
- Certificate of Compliance: CC NO. \_\_\_\_\_
- Plot Plan Number: PP NO. \_\_\_\_\_
- Conditional Use Permit: CUP NO. \_\_\_\_\_ Expiration Date: \_\_\_\_\_
- Oak Tree Permit Number: OTP NO. \_\_\_\_\_ Expiration Date: \_\_\_\_\_
- Community Standards District: \_\_\_\_\_
- California Coastal Commission Area: \_\_\_\_\_ Yes, \_\_\_\_\_ No Approved volume: \_\_\_\_\_ (cy)
- Coastal Development Permit CDP \_\_\_\_\_ Expiration Date: \_\_\_\_\_
- Fish & Wildlife, Army Corp of Engineers, Regional Water Control Board, AQMD & Other Agency Permits s \_\_\_\_\_

CONTACT INFORMAMTION

OWNER: SM WASH LLC, (CONTACT: JOHN LEE)  
3055 WILSHIRE BLVD STE 405, LOS ANGELES, CA 90010  
949 - 468 - 6069

CIVIL ENGINEER: POINT ENGINEERING, INC.  
3470 WILSHIRE BLVD #545, LOS ANGELES, CA 90010  
213 - 258 - 8451

SOIL ENGINEER: DON SOILS ENGINEERING, CO  
2225 S. LA BREA AVE. LOS ANGELES, CA900016  
323 - 936 - 6763

STANDARD PLANS FOR THIS PROJECT:

LONG BEACH CITY STANDARD

STD. PLAN NO. DESCRIPTION

150 DRIVEWAY APPROACH

AMERICAN PUBLIC WORKS ASSOCIATION

STD. PLAN NO. DESCRIPTION  
112-1 CURB AND SIDEWALK JOINTS  
150-2 CURB DRAIN

LEGAL DESCRIPTION

LOT 9, 10, 11, AND 12 OF TRACK 1319 IN CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA. AS PER MAP RECORDED IN THE BOOK 21, PAGES 137 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDED OF SAID COUNTY.

ASSESSORS PARCEL NO. 7216-032-021

BENCH MARK

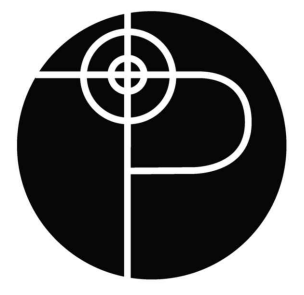
BENCH MARK: 364 (LONG BEACH)  
CHERRY AVE @ 20 TH ST. BRASS DISC IN CATCH BASIN;  
STAMPED "NAT'L GEODETIC SURVEY" 30.0' N / CURBLINE  
ELE. = 47.086 FT.

EARTHWORKS SUMMARY

RAW CUT- AREA = 22,500 S.F.  
DEPTH = 0.5 FT.  
22,500 X 0.5 = 417 CUBIC YARDS

RAW CUT = 417 CUBIC YARDS  
IMPORT/EXPORT ESTIMATES  
EXPORT = 417 CUBIC YARDS

REMOVAL AND RECOMPACTION =  
AREA = 5,180 S.F.  
DEPTH = 3.0 FT.  
5,180 X 3.0 = 576 CUBIC YARDS



POINT ENGINEERING

10201 RESEDA BLVD #116  
NORTHridge, CA 91324  
TEL 213-258-8451

Table with 4 columns: BY, DATE, REVISION, and empty cells for tracking changes.

Table with 3 columns: SHEET TITLE, PROJECT TITLE, and PROJECT ADDRESS. Includes information like 'STAR EXPRESS CAR WASH' and '1911 E. PACIFIC COAST HWY., LONG BEACH, CA 90806'.



DRAWN BY  
E.K.

SCALE

DATE  
JULY 07, 2021

SHEET

C-1



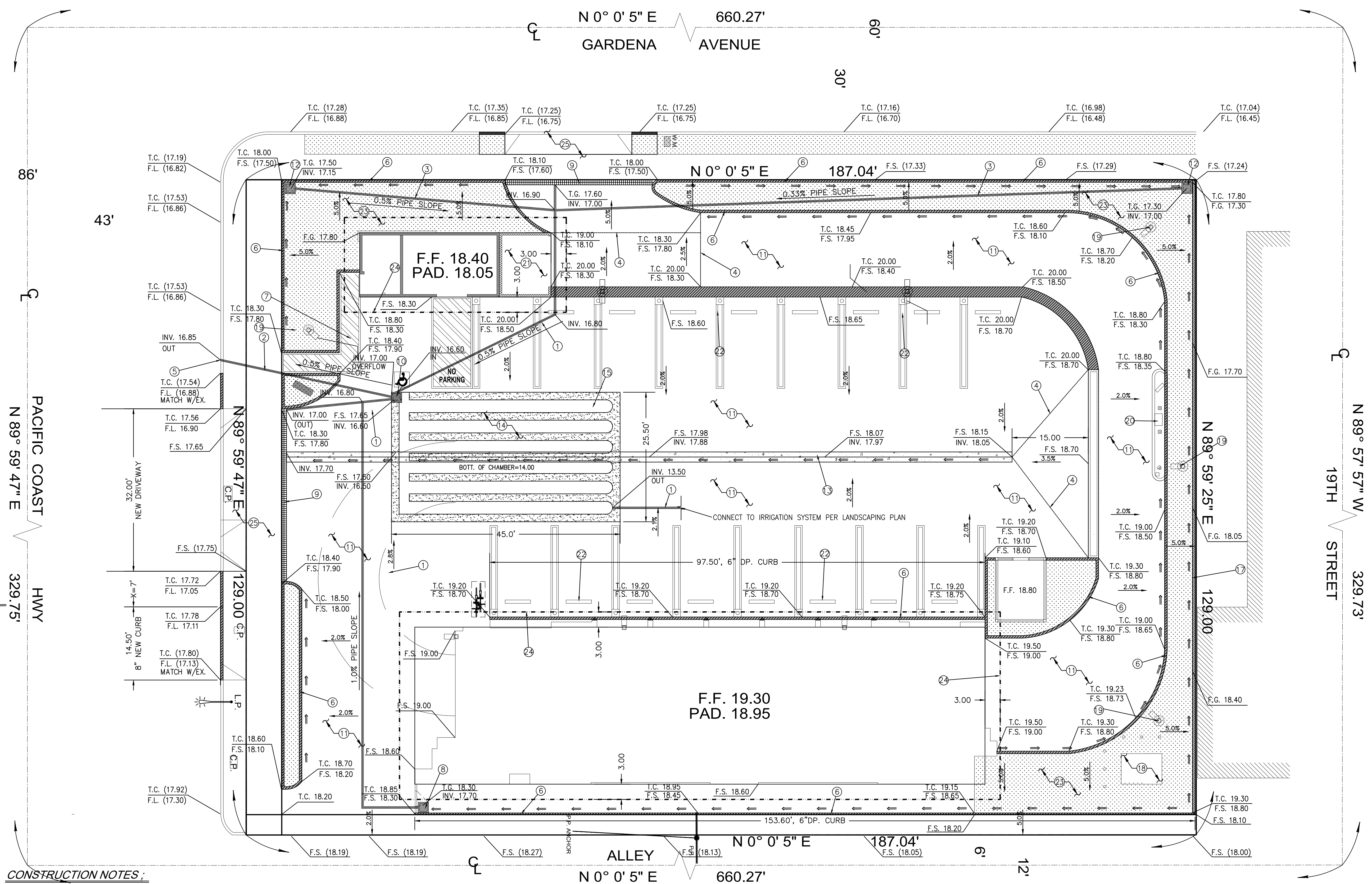
BY	
DATE	
REVISION	

SHEET TITLE	GRADING / DRAINAGE PLAN
PROJECT TITLE	STAR EXPRESS CAR WASH
PROJECT ADDRESS	1911 E. PACIFIC COAST HWY., LONG BEACH, CA 90806



DRAWN BY	E.K.
SCALE	
DATE	JULY 07, 2021
SHEET	

C-2



**LEGEND:**

- FLOW LINE
- RIDGE LINE
- GRADE BREAK
- (ELEV.) EXISTING CONTOURS
- ELEV. PROPOSED CONTOURS
- PROPERTY LINE
- GATE/FENCE
- RETAINING WALL
- 8"CMU WALL
- 6" W CON'C CURB
- CUT/FILL BOUNDARY
- OVER-EXCAVATION LIMITS
- LIMIT OF GRADING

FL FLOW LINE  
FS FINISHED SURFACE  
FF FINISHED FLOOR  
GF GARAGE FLOW  
TG TOP OF GRATE  
TC TOP OF CURB  
TW TOP OF WALL  
PP POWER POLE  
PAV PAVEMENT  
TOS TOP OF STEP  
BOS BOTTOM OF STEP  
INV INVERT ELEVATION  
XX.XX NEW ELEVATION  
(XX.XX) EXISTING ELEVATION

**CONSTRUCTION NOTES:**

- ①—DRAINAGE PIPE 1-6" P.V.C. SCH40. UNLESS OTHERWISE NOTED

②—DRAINAGE PIPE 1-3" C.I.P. UNLESS OTHERWISE NOTED

③—DRAINAGE PIPE 1-3" P.V.C. UNLESS OTHERWISE NOTED

④—GRADE BREAK

⑤—CURB DRAIN PER DETAIL 1 / C-4 SEPARATE PERMIT IS REQUIRED

⑥—CONSTRUCT CONCRETE CURB WALL PER DETAIL 2 / C-4

⑦—ADA PATH OF TRAVEL, PARKING, AND DETAIL PER ARCHITECTURAL PLAN

⑧—CONSTRUCT 24" S.Q. CATCH BASIN W / FLO-GARD FGP 24F, 12" D.P. PER DETAIL 6 / C-4

⑨—CONSTRUCT TRENCH DRAIN W / FLO-GARD FF-TDPC 600 PER DETAIL 3 / C-4

⑩—CONSTRUCT 24" S.Q. CATCH BASIN W / FILTER, W / SOLID GRATE 24" D.P. PER DETAIL 6 / C-4
- ⑪—CONSTRUCT 4" THICK CON'C PAVING ON 90% COMPACTION W / #3 @ 16" O.C. PER DETAIL 5 / C-4

⑫—CONSTRUCT 12" S.Q. CATCH BASIN W / FILTER 12" D.P. PER DETAIL 7 / C-4

⑬—CONSTRUCT 24" W V-GUTTER PER DETAIL 4 / C-4

⑭—CONSTRUCT STORAGE BASIN PER DETAIL 2 / C-3

⑮—6 - 30" Ø - 40'L STORAGE CHAMBER MODEL 2 2/3" X 1/2" HEL - COR CSP MANUFACTURED BY CONTECH, SEE SPECIFICATION ON PLAN C-5

⑯—ROOF DOWNSPOUT PER ARCHITECTURAL PLAN

⑰—CONSTRUCT 6'H FENCE WALL PER DETAIL 8 / C-4

⑱—NEW TRANSFORMER PER ELECTRICAL PLAN

⑲—NEW LIGHTING POLE PER ELECTRICAL PLAN

⑳—PAY STATION PER ARCHITECTURAL PLAN
- ㉑—NEW TRASH ENCLOSURE PER ARCHITECTURAL PLAN

㉒—CONSTRUCT WHEEL STOPS FOR 18' LONG PARKING SPACES.

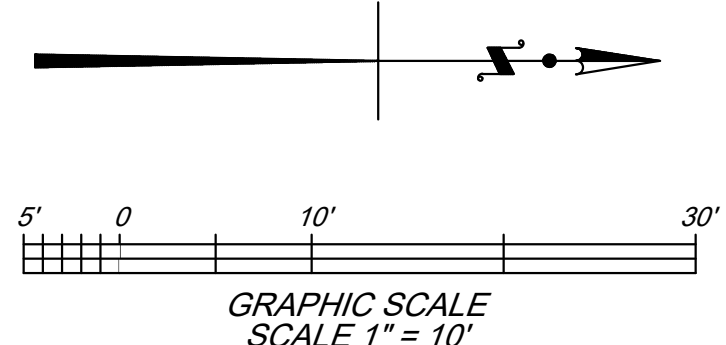
㉓—NEW LANDSCAPING PER LANDSCAPING PLAN

㉔—REMOVE AND RECOMPACTION, 3' VERTICAL AND HORIZONTAL OF BUILDING PER DETAIL 9 / C-4

㉕—NEW DRIVEWAY PER CITY OF LONG BEACH STD. PLAN 105

**GRADING / DRAINAGE PLAN**

SCALE: 1" = 10'-0"



**NOTE**

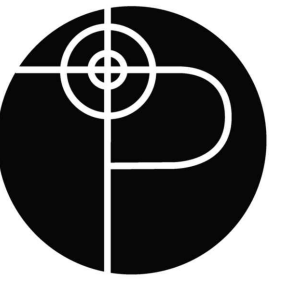
1. STENCIL AT ALL DRAINAGE INLETS.

**NO DUMPING**  
DRAINS TO OCEAN

2. DIGALERT

**DIGALERT**  
CALL TOLL FREE 1-800-422-4113  
2 WORKING DAYS BEFORE YOU DIG UNDERGROUND  
YOU'VE GOT TO BE ALERT OF SOUTHERN CALIFORNIA





POINT ENGINEERING

10201 RESEDA BLVD #116  
NORTHridge, CA 91324  
TEL 213-258-8451

BY	
DATE	
REVISION	

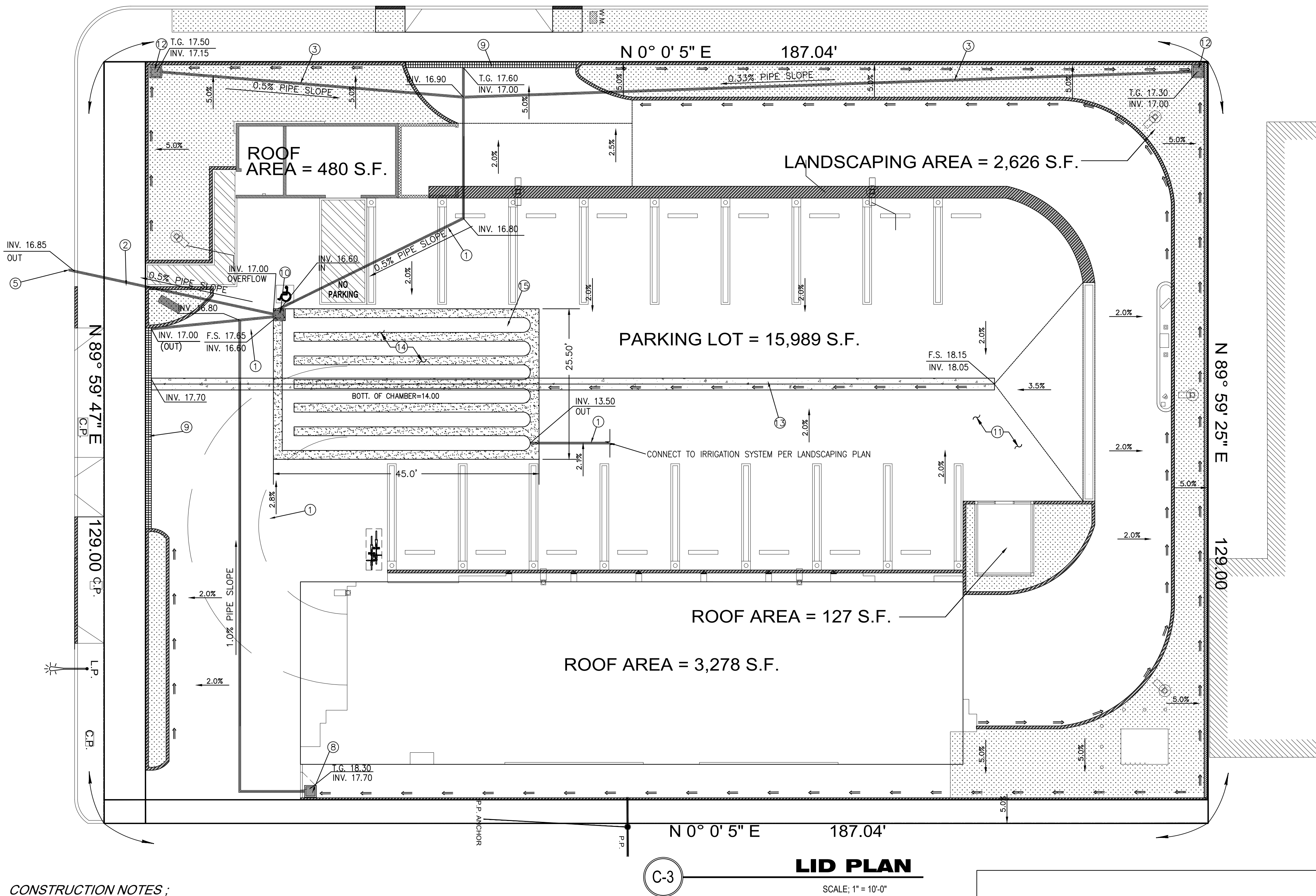
SHEET TITLE	LID PLAN
PROJECT TITLE	STAR EXPRESS CAR WASH
PROJECT ADDRESS	1911 E. PACIFIC COAST HWY., LONG BEACH, CA 90806



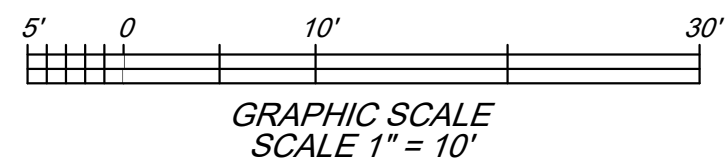
DRAWN BY E.K.
SCALE
DATE JULY 07, 2021
SHEET

C-3

3 OF 5 SHEETS



STORAGE CHAMBER	DISTRIBUTED ZONE	DISTRIBUTED IMPERVIOUS AREA(S.F.)	DISTRIBUTED PERVIOUS AREA(S.F.)	PROVIDED VOLUME (C.F.)	ETWU	PROVIDED STORAGE (C.F.)
	ROOF	3,885		8,393 GAL	31,014 GAL	CONTECH 6-30"Ø CSP
	PAVEMENT	15,989				
	LANDSCAPE		2,626			
	TOTAL	22,500		1,122	1,122	1,176

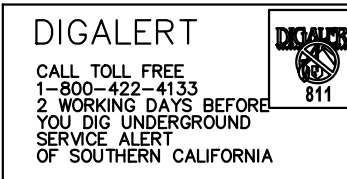


NOTE

1. STENCIL AT ALL DRAINAGE INLETS.



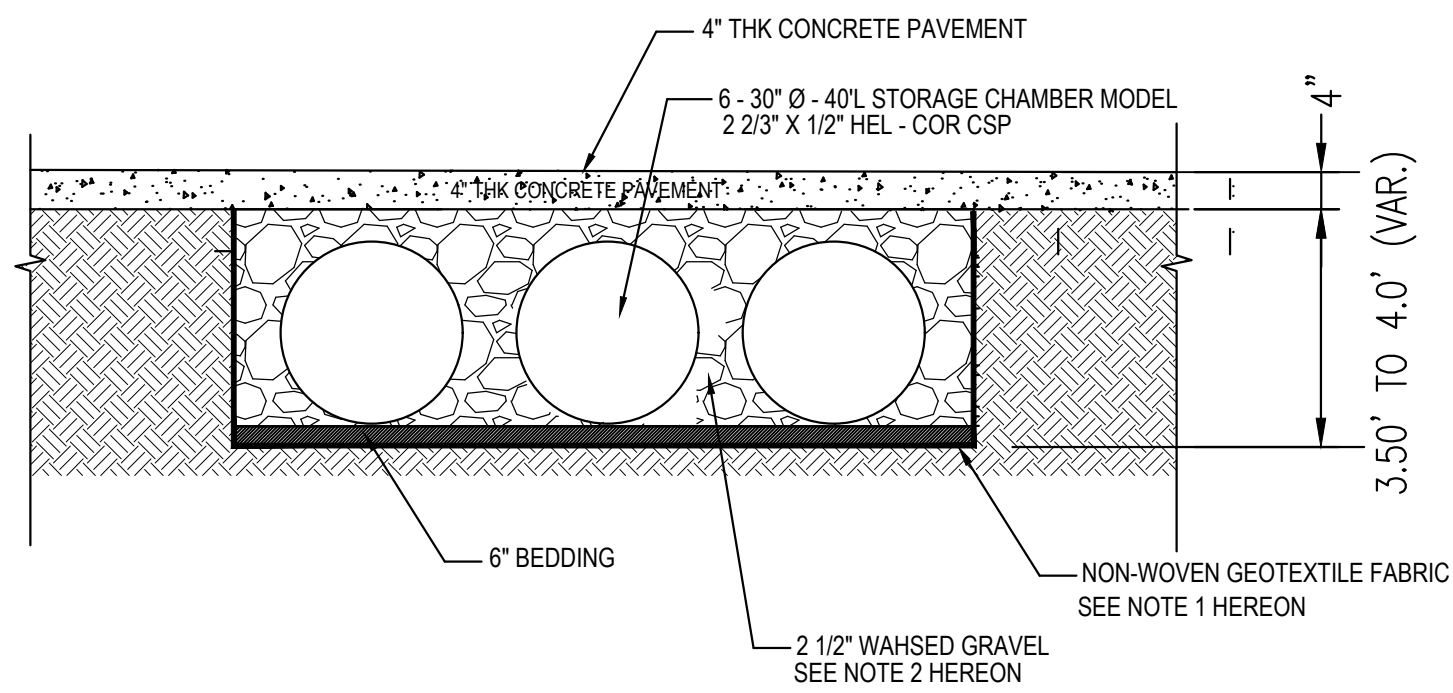
2. DIGALERT



CONSTRUCTION NOTES :

- 1— DRAINAGE PIPE 1-6" P.V.C. SCH40. UNLESS OTHERWISE NOTED
- 2— DRAINAGE PIPE 1-3" C.I.P. UNLESS OTHERWISE NOTED
- 3— DRAINAGE PIPE 1-3" P.V.C. UNLESS OTHERWISE NOTED
- 4— GRADE BREAK
- 5— CURB DRAIN PER DETAIL 1 / C-4 SEPARATE PERMIT IS REQUIRED
- 6— CONSTRUCT CONCRETE CURB WALL PER DETAIL 2 / C-4
- 7— ADA PATH OF TRAVEL, PARKING, AND DETAIL PER ARCHITECTURAL PLAN
- 8— CONSTRUCT 24" S.Q.CATCH BASIN W/ FLO-GARD FGP 24F, 12" D.P.PER DETAIL 6 / C-4
- 9— CONSTRUCT TRENCH DRAIN W/ FLO-GARD FF-TDPC 600 PER DETAIL 3 / C-4
- 10— CONSTRUCT 24" S.Q.CATCH BASIN WO / FILTER, W/ SOLID GRATE 24" D.P.PER DETAIL 6 / C-4
- 11— CONSTRUCT 4" THICK CON'C PAVING ON 90% COMPACTION W/ #3 @ 16" O.C. PER DETAIL 5 / C-4
- 12— CONSTRUCT 12" S.Q.CATCH BASIN WO / FILTER 12" D.P.PER DETAIL 7 / C-4
- 13— CONSTRUCT 24" W V-GUTTER PER DETAIL 4 / C-4
- 14— CONSTRUCT STORAGE BASIN PER DETAIL 2 / C-3
- 15— 6 - 30" Ø - 40'L STORAGE CHAMBER MODEL 2 2/3" X 1/2" HEL - COR CSP MANUFACTURED BY CONTECH, SEE SPECIFICATION ON PLAN C-5
- 16— ROOF DOWNSPOUT PER ARCHITECTURAL PLAN
- 17— CONSTRUCT 6'H FENCE WALL PER DETAIL 8 / C-4
- 18— NEW TRANSFORMER PER ELECTRICAL PLAN
- 19— NEW LIGHTING POLE PER ELECTRICAL PLAN
- 20— PAY STATION PER ARCHITECTURAL PLAN
- 21— NEW TRASH ENCLOSURE PER ARCHITECTURAL PLAN
- 22— CONSTRUCT WHEEL STOPS FOR 18' LONG PARKING SPACES.
- 23— NEW LANDSCAPING PER LANDSCAPING PLAN
- 24— REMOVE AND RECOMPACTION, 3' VERTICAL AND HORIZONTAL OF BUILDING PER DETAIL 9 / C-4
- 25— NEW DRIVEWAY PER CITY OF LONG BEACH STD. PLAN 105

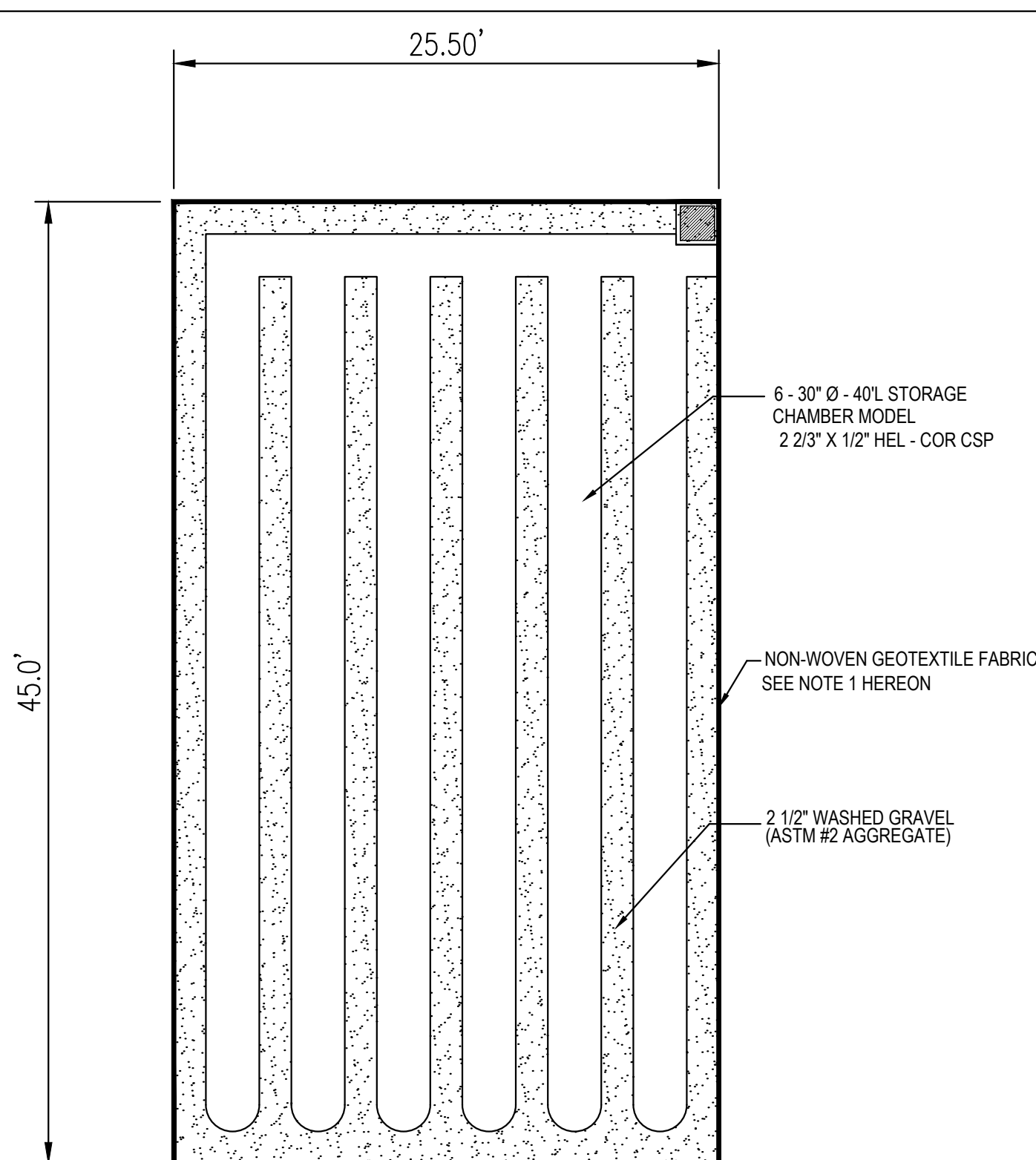
C-3 LID PLAN SCALE: 1" = 10'-0"



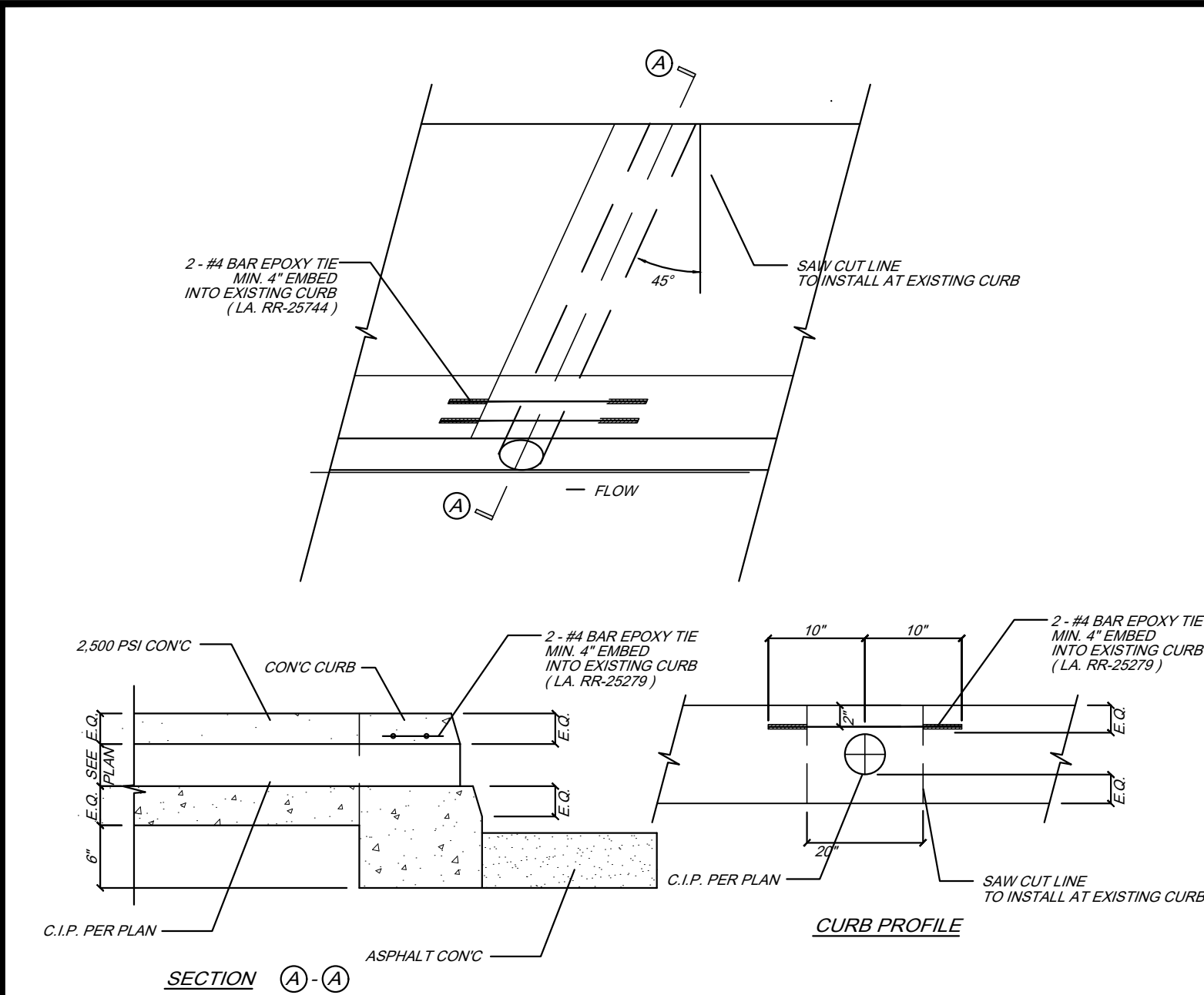
NOTES:

1. NON-WOVEN GEOTEXTILE FABRIC SHALL BE MANUFACTURED BY US FABRICS INC., MODEL US2059NW OR APPROVED EQUAL. (WEBSITE: WWW.USFABRICS.COM)
2. CONTRACTOR SHALL USE CRUSHED 2" WASHED ROCKS (ASTM#2 AGGREGATE).

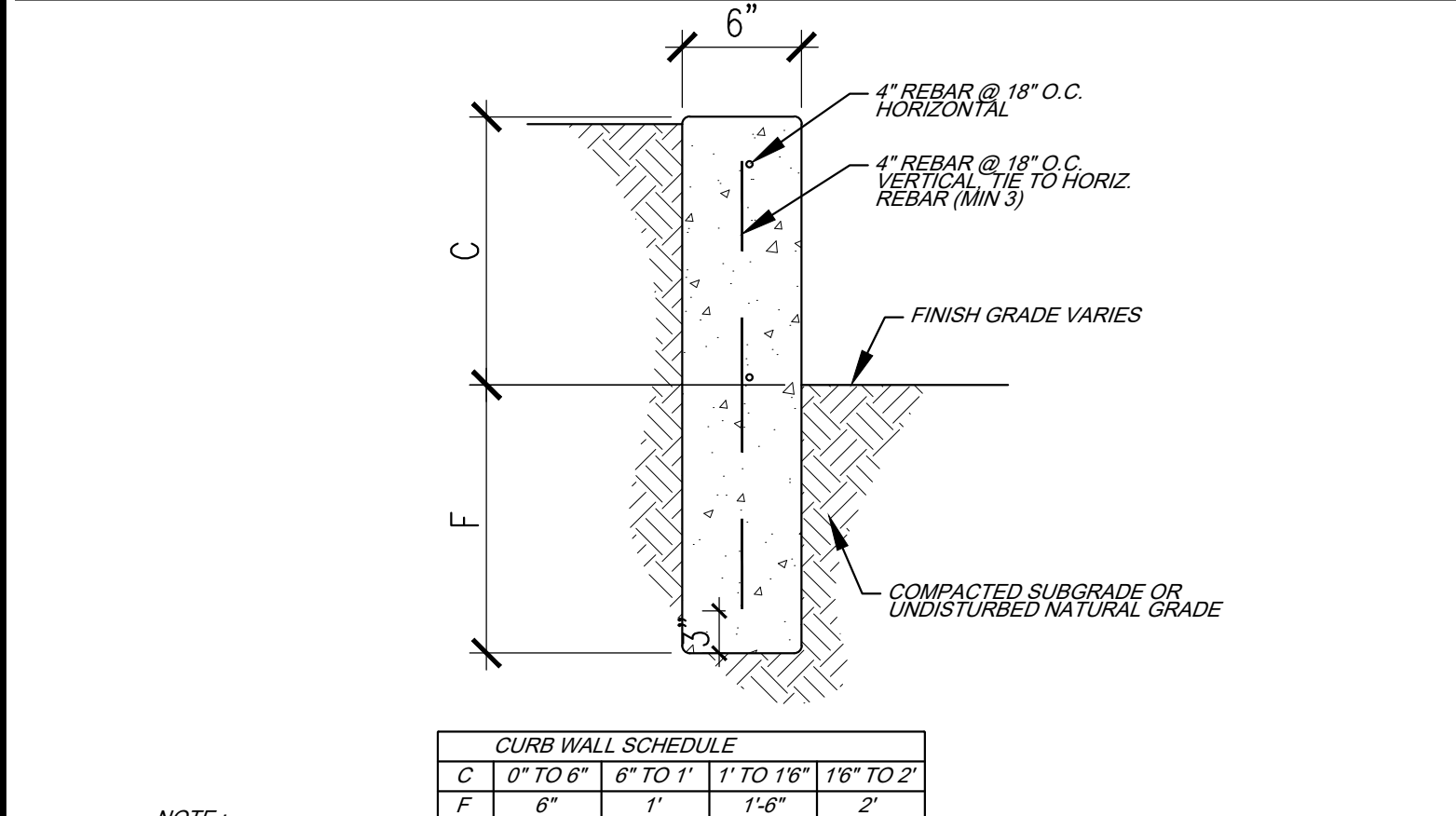
2 STORMWATER STORAGE TANK NOT TO SCALE







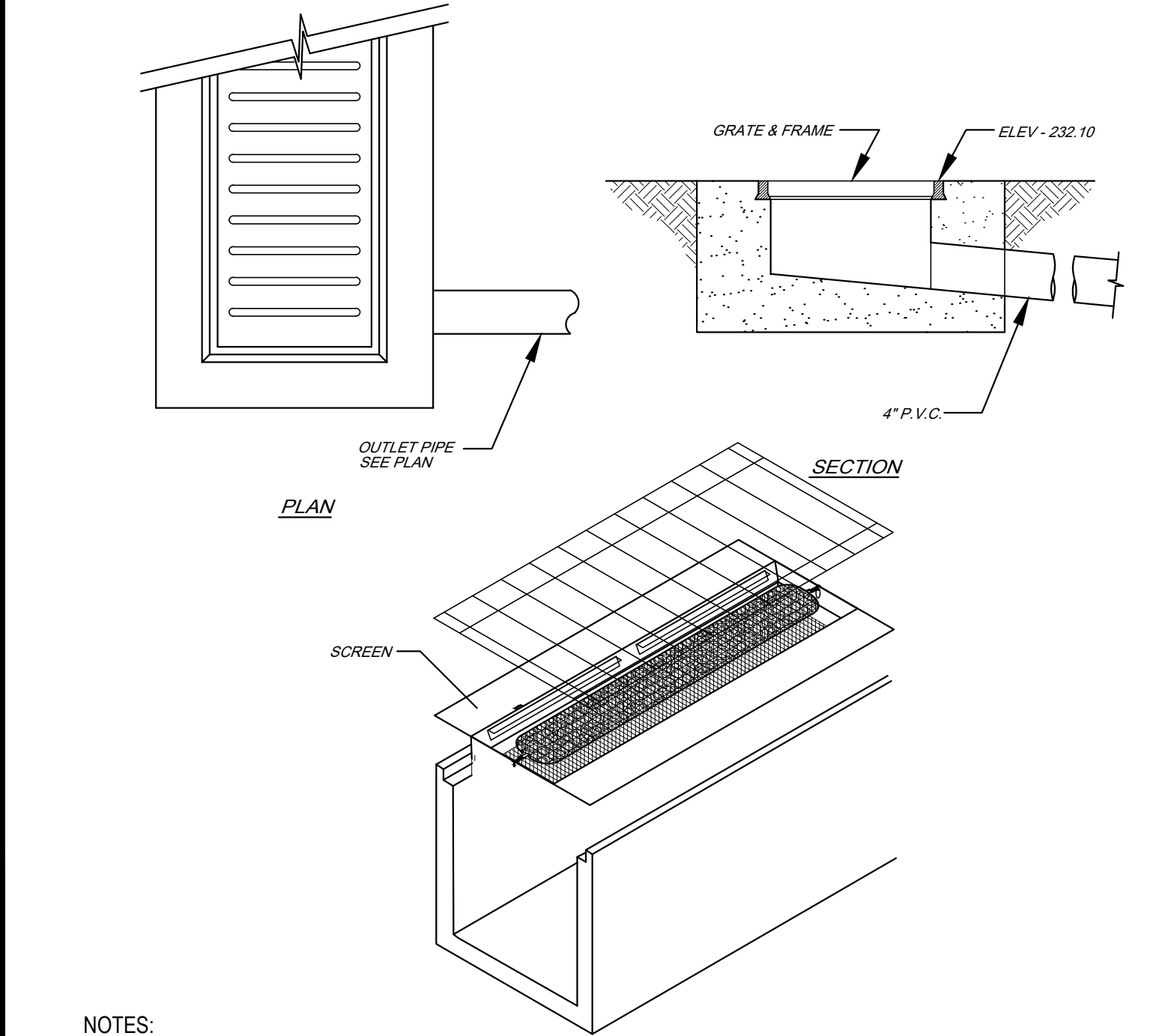
**1 DRAIN OUTLET DETAIL**  
NOT TO SCALE



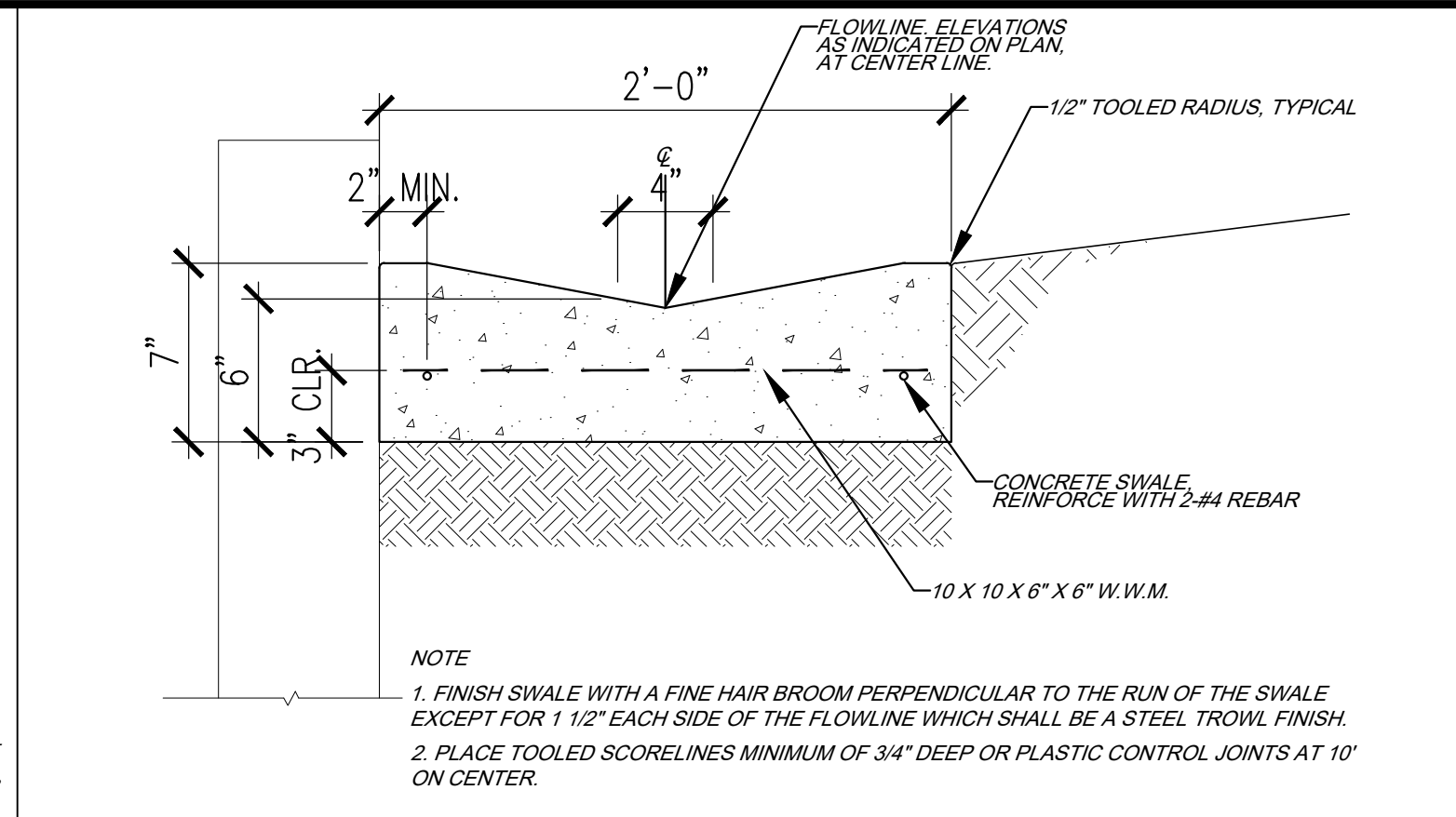
**NOTE:**

1. PROVIDE TOOLED SCORE LINES EVENLY SPACED THROUGHOUT CURB NOT TO EXCEED 20' O.C.. PROVIDE TOOLED SCORE LINES AT THE BEGINNING AND END OF ALL CURVED SECTIONS.
2. FINISH CURBS WITH A STEEL TOWLED FINISH ON ALL EXPOSED SURFACES.
- 3 WHEN CONC. CURB IS INSTALLED ADJACENT TO EXISTING A.C. PAVING, THE EXISTING A.C. PAVING SHALL BE SAWCUT 12\"/>

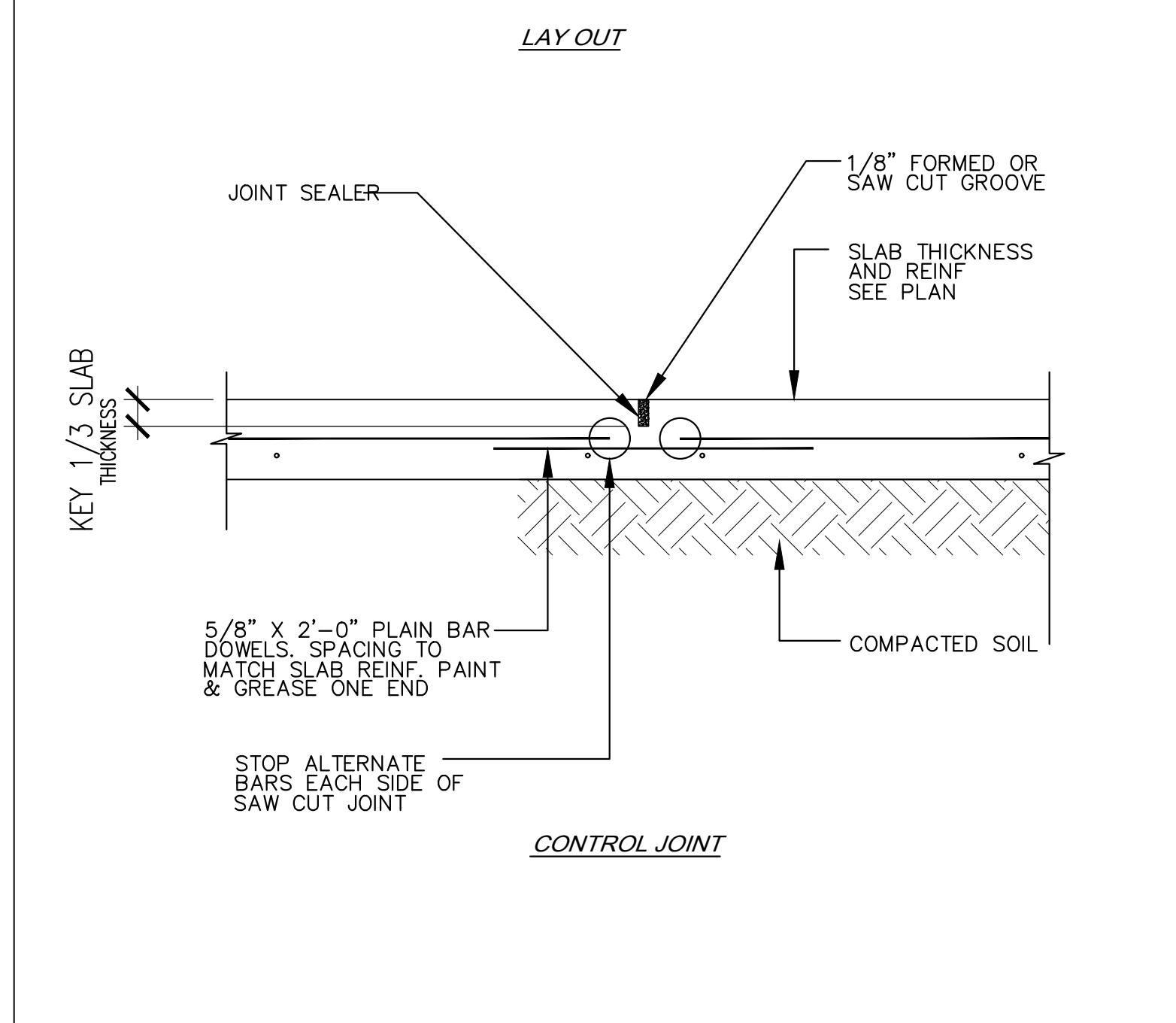
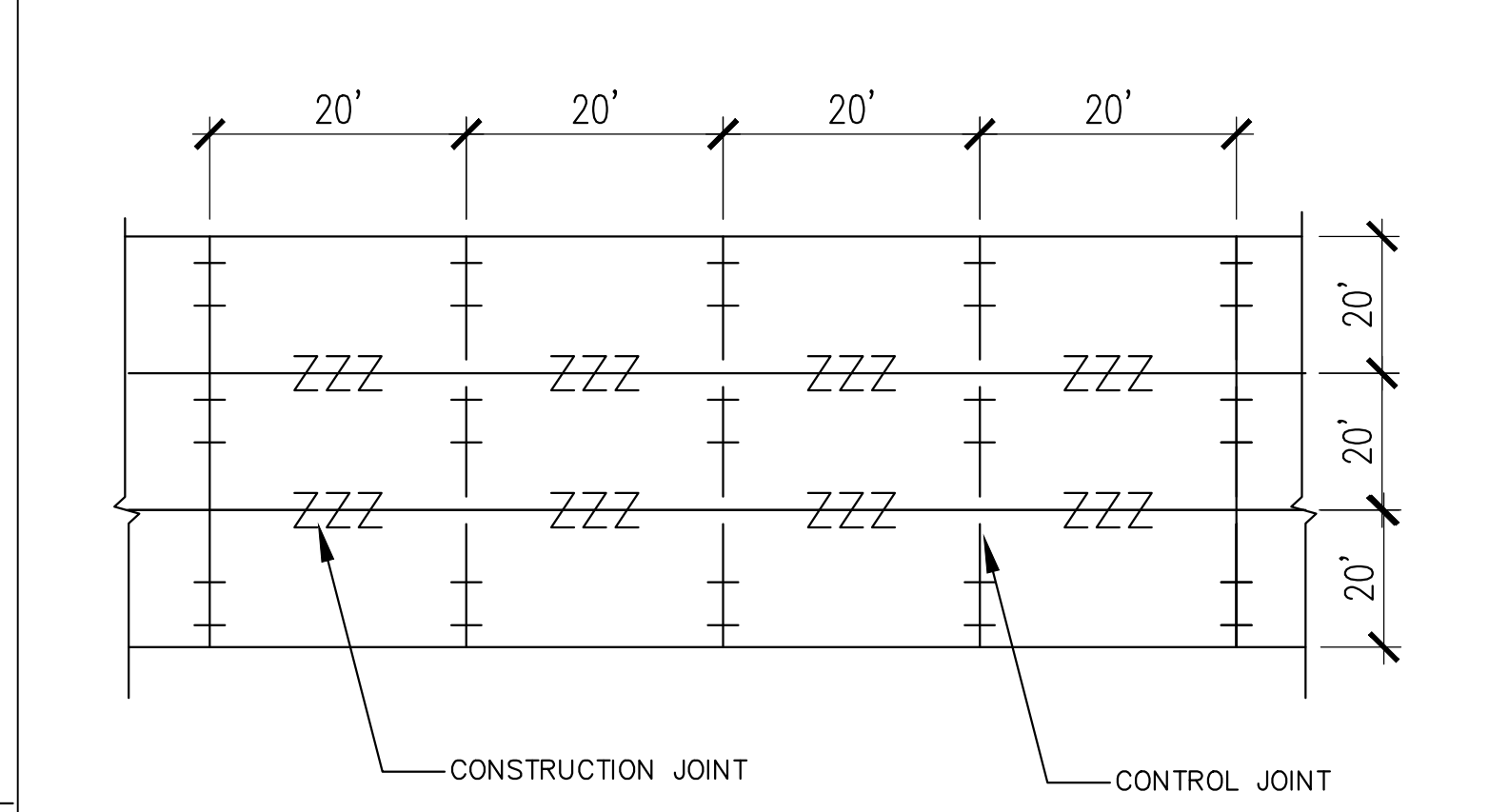
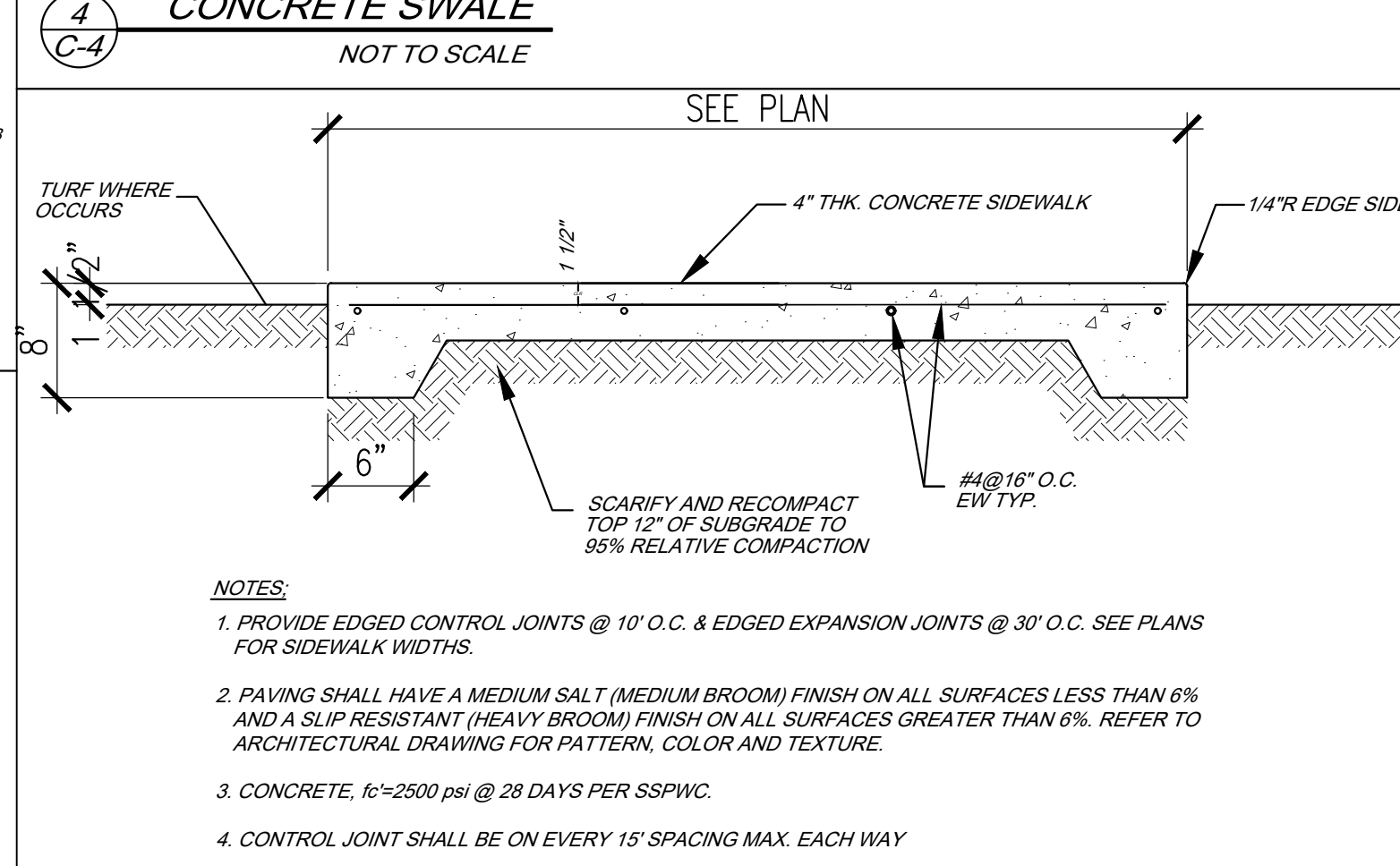
**2 CONCRETE CURB WALL**  
NOT TO SCALE



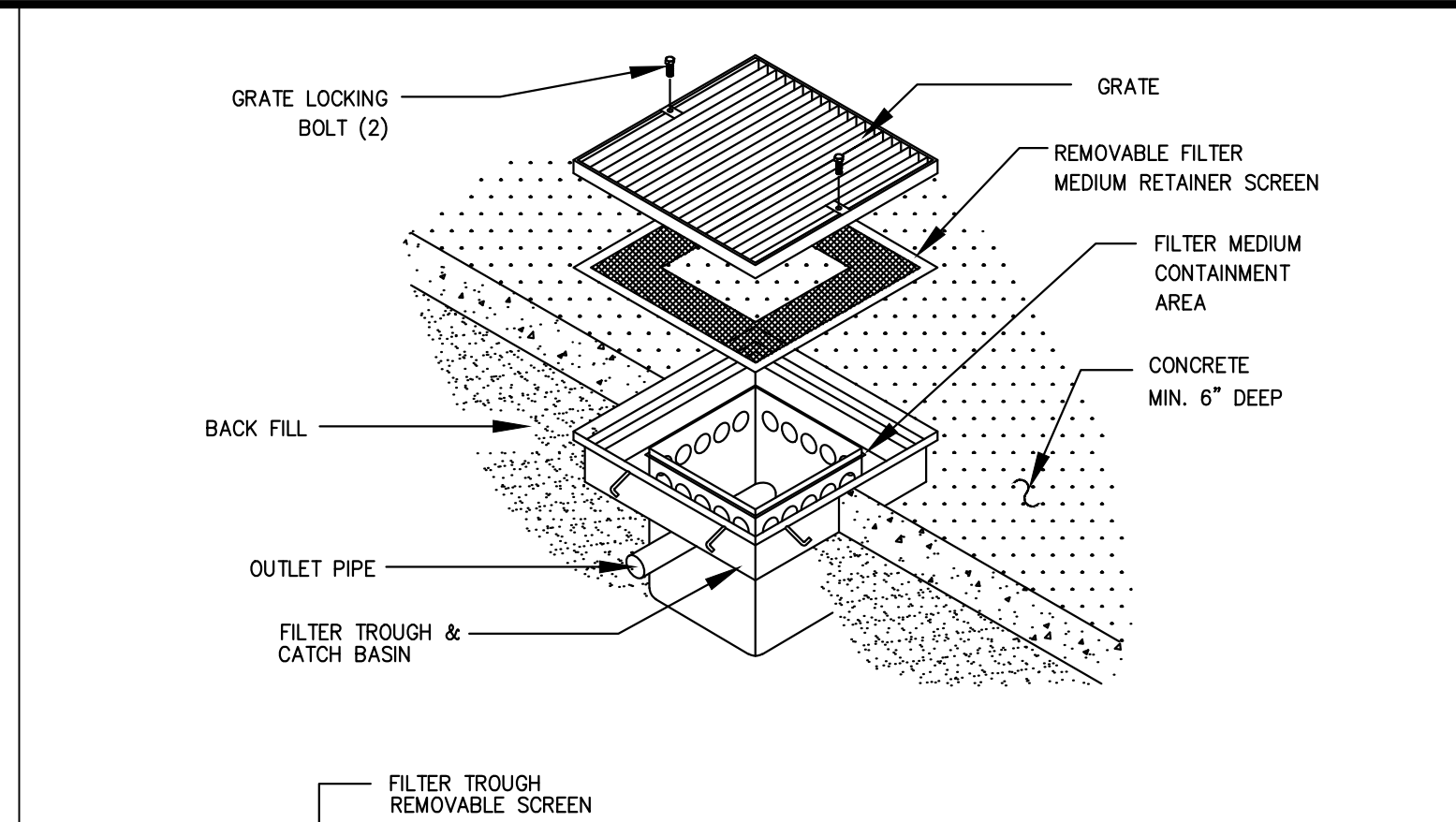
**3 TRENCH DRAIN DETAIL**  
NOT TO SCALE



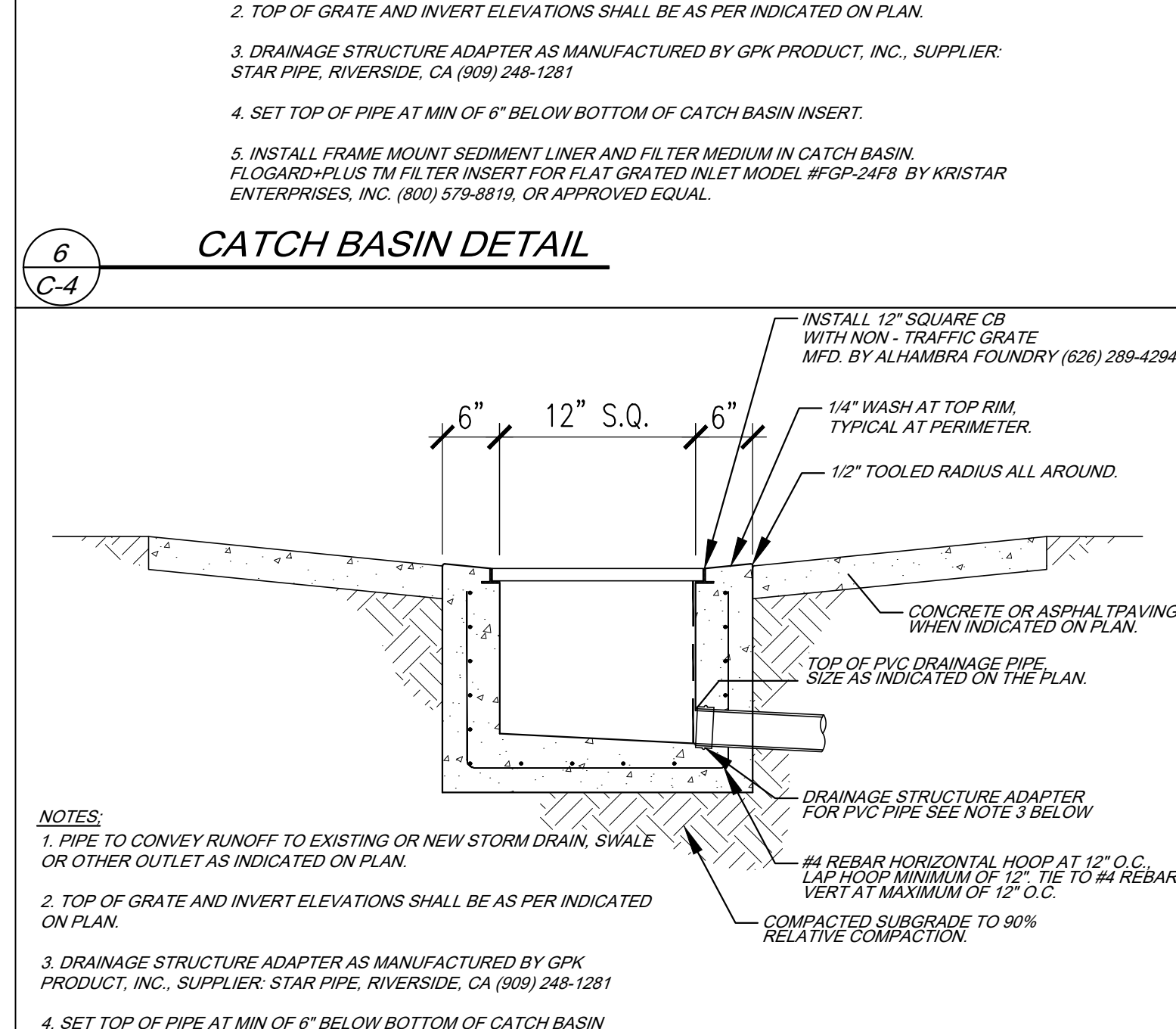
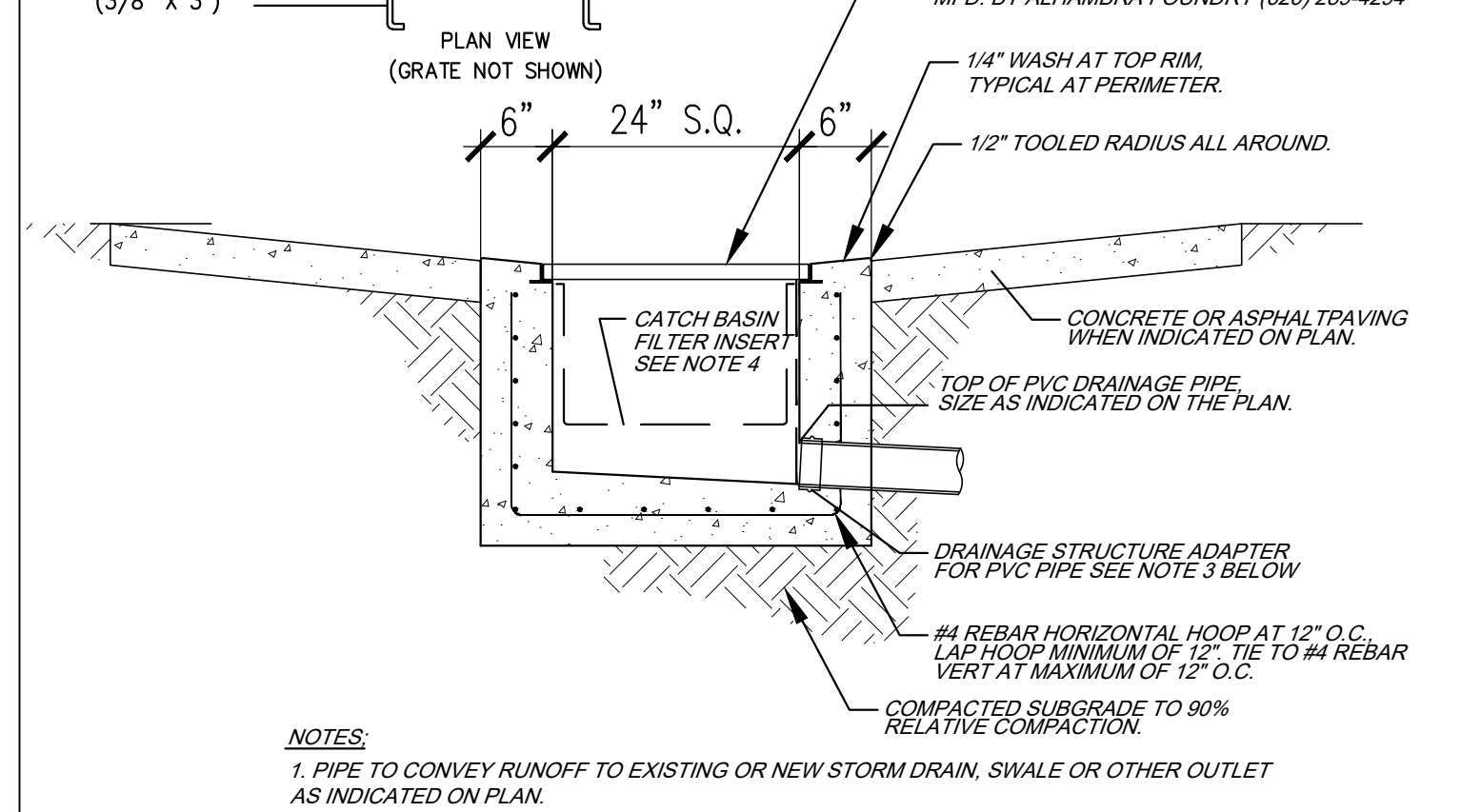
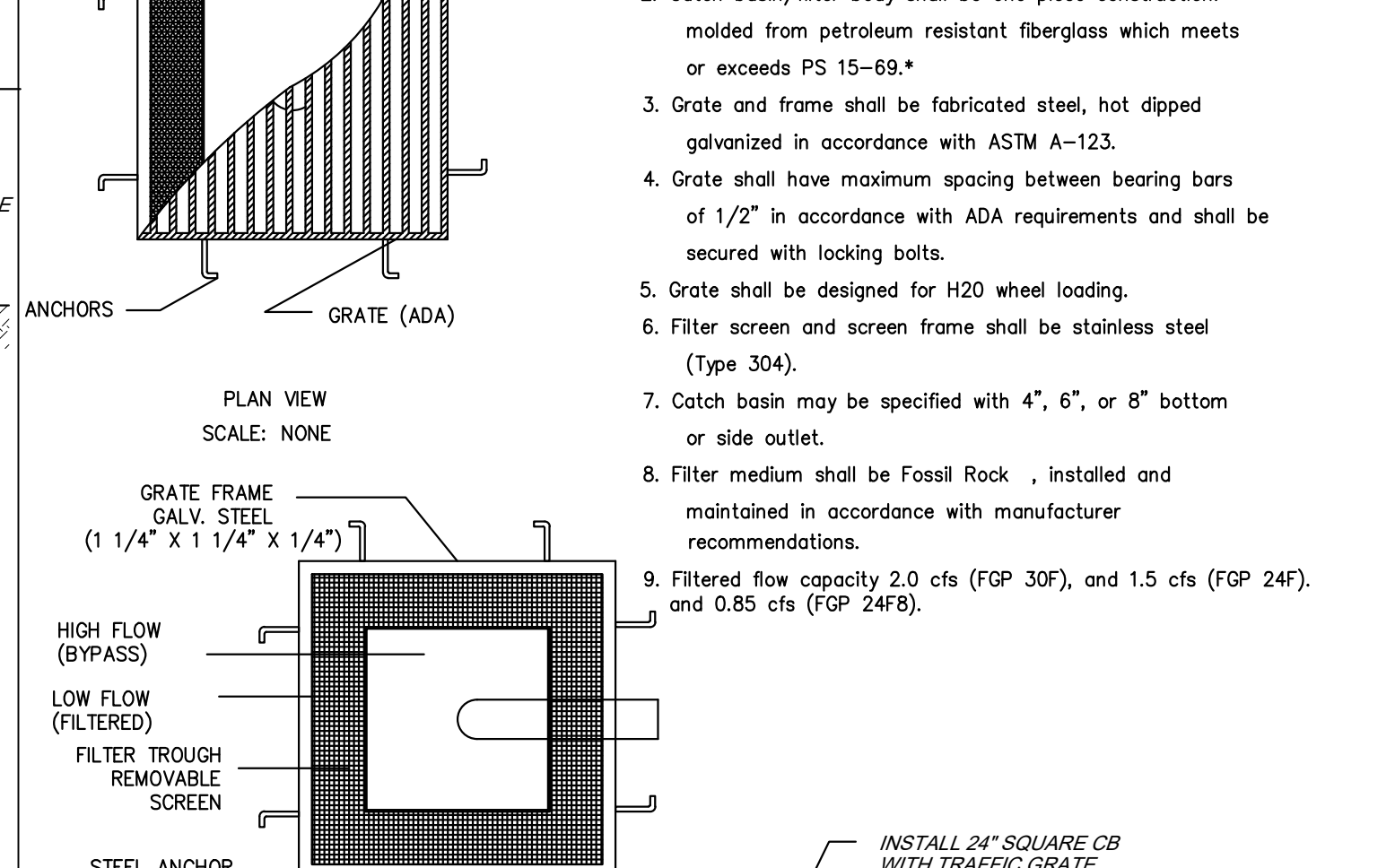
**4 CONCRETE SWALE**  
NOT TO SCALE



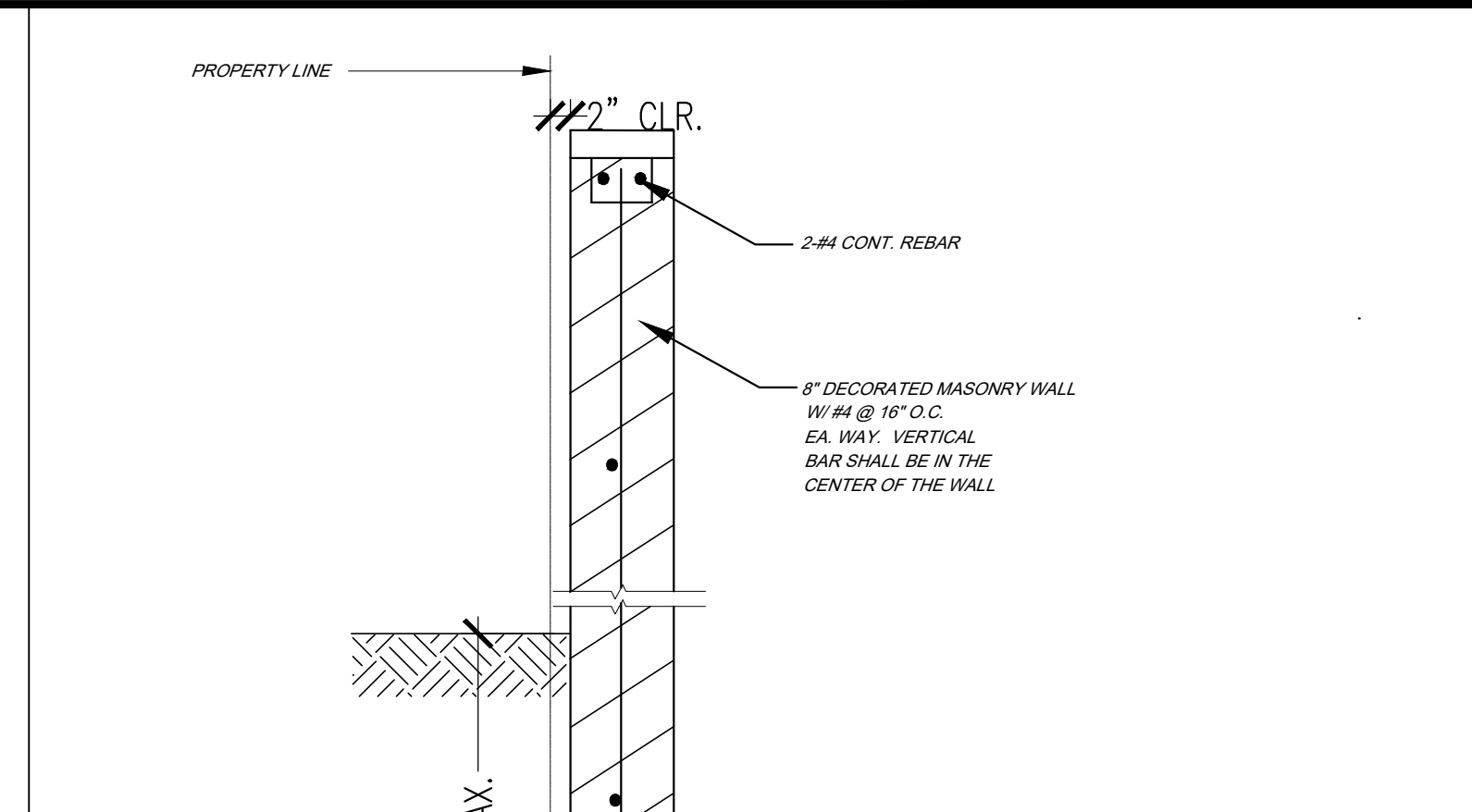
**5 CON'C PAVEMENT DETAIL**  
NOT TO SCALE



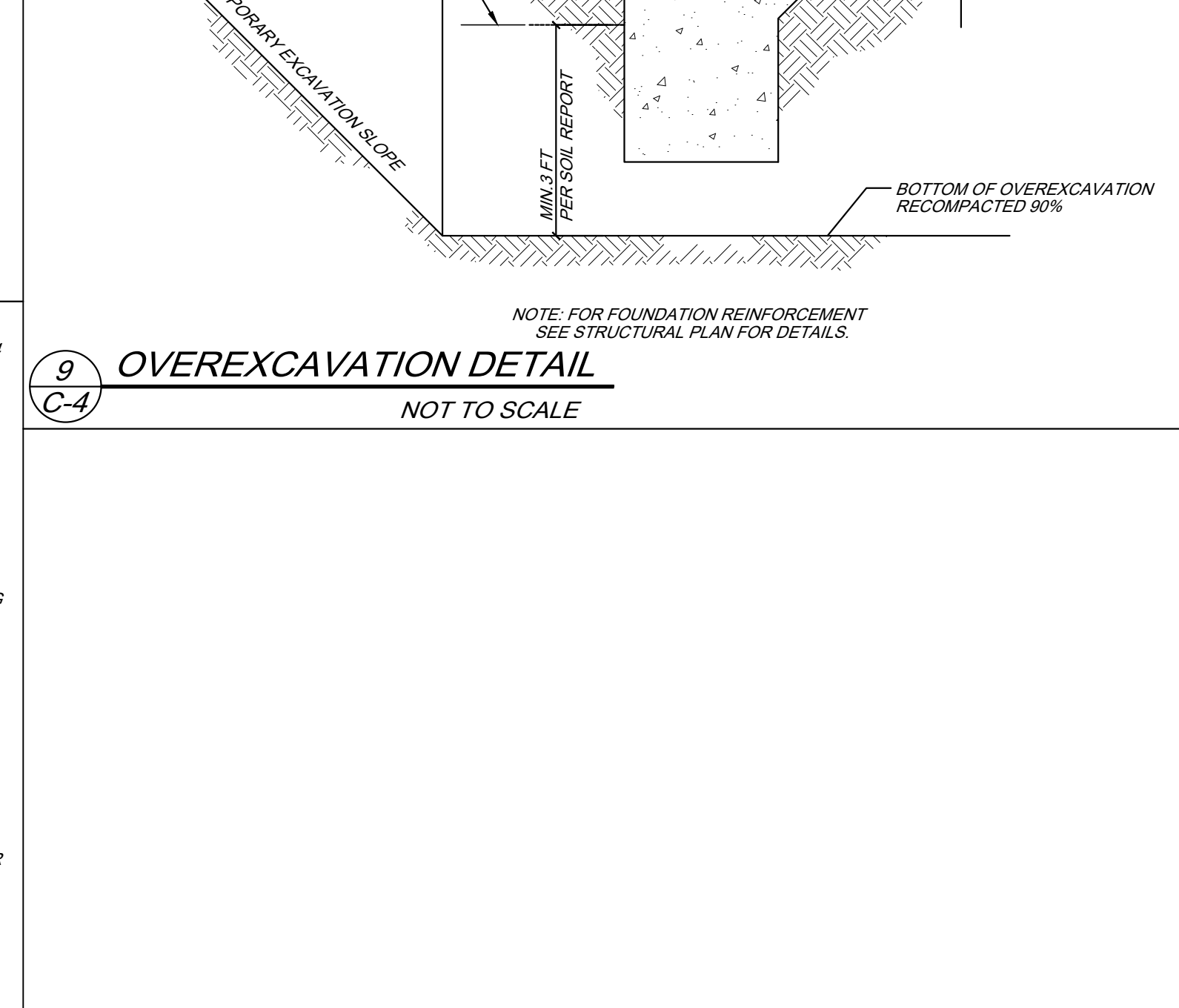
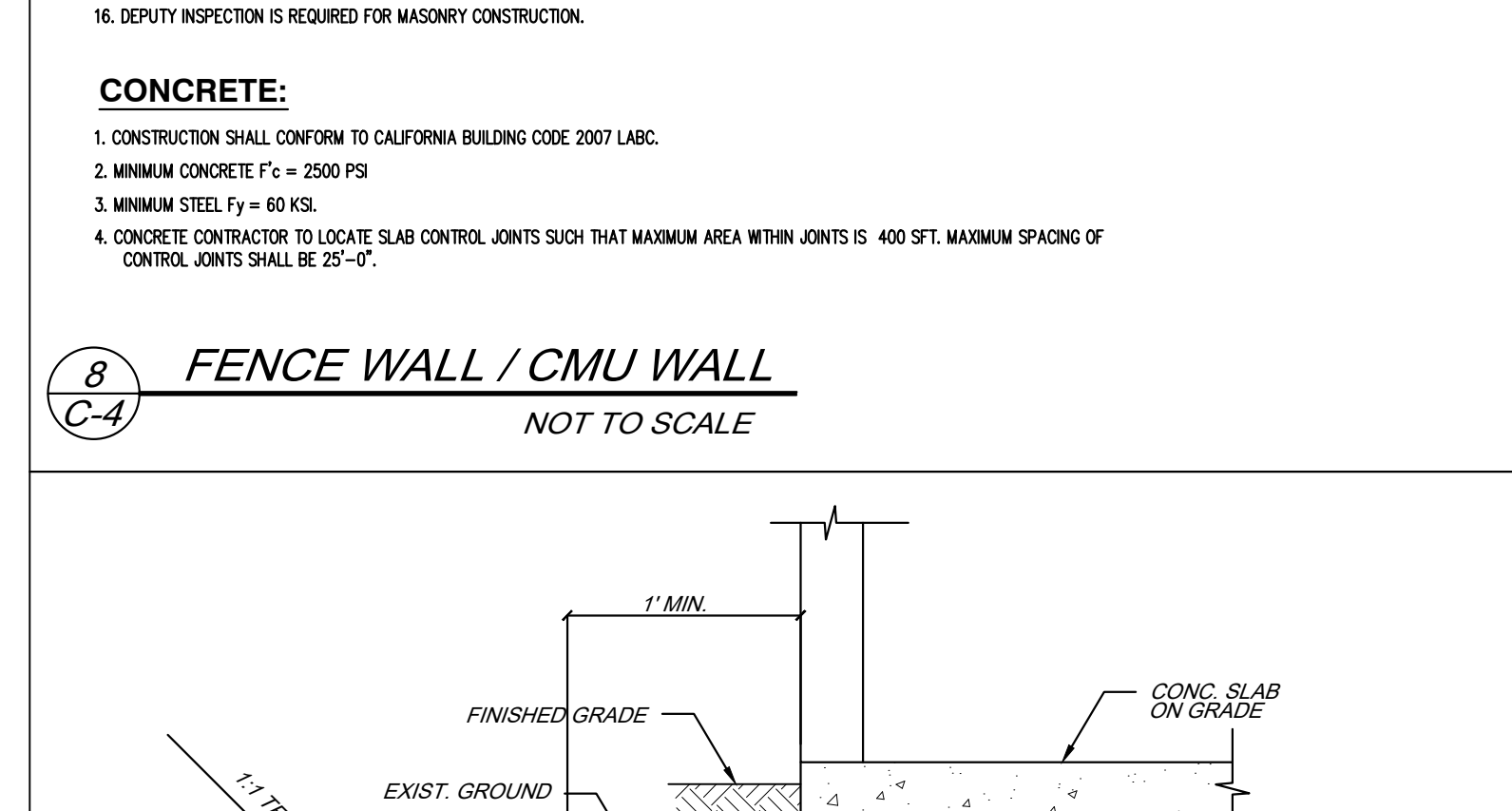
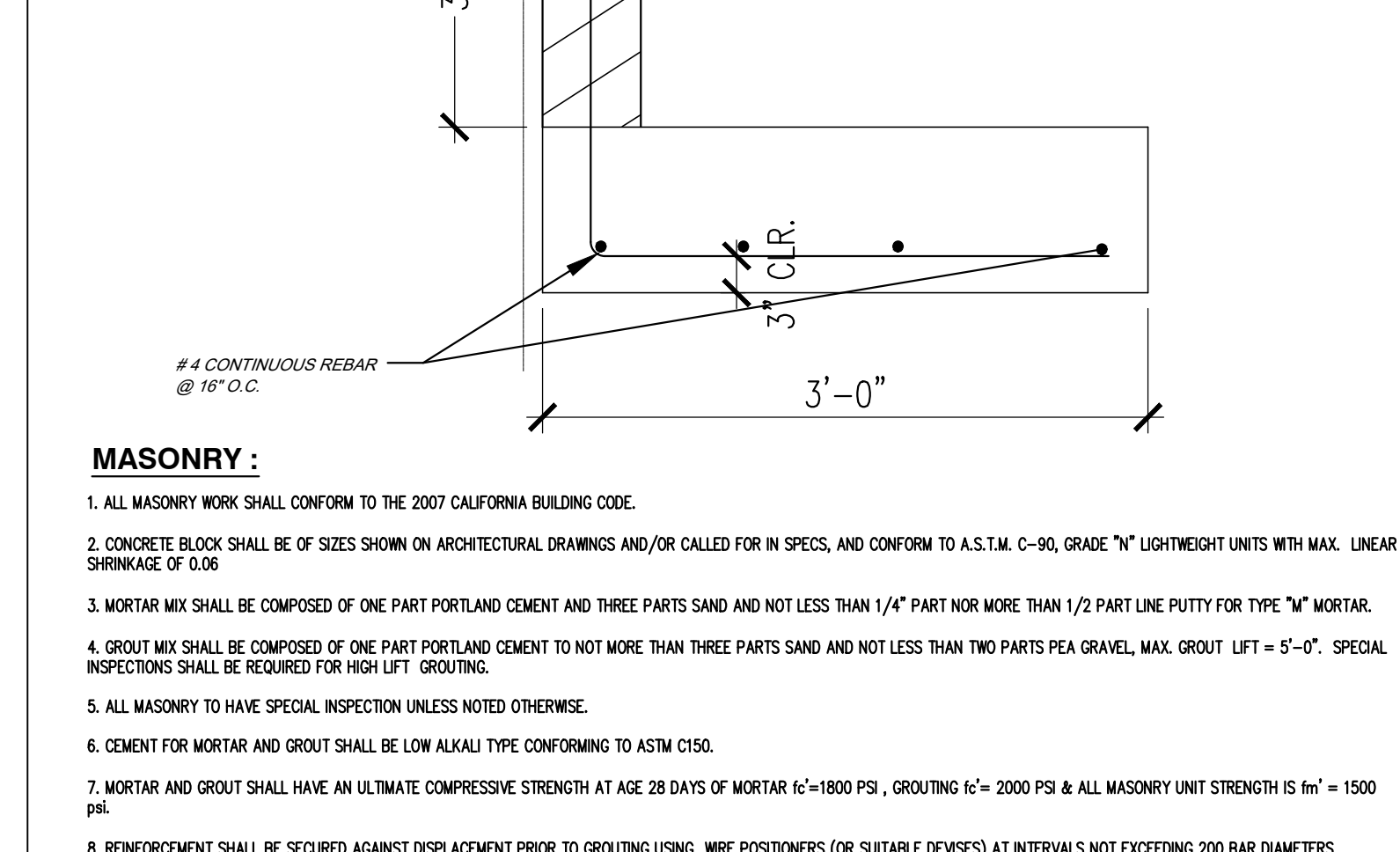
**8 FENCE WALL / CMU WALL**  
NOT TO SCALE



**9 OVEREXCAVATION DETAIL**  
NOT TO SCALE



**12 OVEREXCAVATION DETAIL**  
NOT TO SCALE



**15 OVEREXCAVATION DETAIL**  
NOT TO SCALE

**POINT ENGINEERING**

10201 RESEDA BLVD #116  
NORTHridge, CA 91324  
TEL: 213-256-8451

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

DATE: \_\_\_\_\_

REVISION: \_\_\_\_\_

SHEET TITLE: \_\_\_\_\_

PROJECT TITLE: STAR EXPRESS CAR WASH

PROJECT ADDRESS: 1911 E. PACIFIC COAST HWY., LONG BEACH, CA 90806

REGISTERED PROFESSIONAL ENGINEER

CELESTINE K. CHANG R.E.

No. 87288

Exp. 8/30/22

CIVIL

DRAWN BY: E.K.

SCALE: \_\_\_\_\_

DATE: JULY 07, 2021

SHEET: C-4

3 OF 5 SHEETS

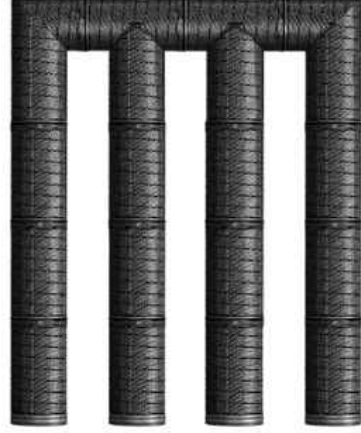


CMP Detention System Bedding and Backfill

Please follow the guidelines below regarding pipe bedding and backfill.

- Minimum trench width must allow room for proper compaction of haunch materials under pipe, min. width = (1.5 x diameter) + 12" (follow ASHTO Section 12.8.26).
  - The minimum embankment width is 3 pipe diameters.
- The foundation shall be well consolidated & stable.
- The bedding material shall be a relatively loose material that is roughly shaped to fit the bottom of the pipe, 4" to 6" in depth.
  - Haunch zone material shall be hand shoveled or shovel sliced into place to allow for proper compaction.
- Bedding material shall be a relatively loose material that is roughly shaped to fit the bottom of the pipe, and a minimum of twice the corrugation depth in thickness, with the maximum particle size of one-half of the corrugation depth (ASHTO Section 26.3.8.1, 26.5.3).
  - Haunch zone material shall be hand shoveled or shovel sliced into place to allow for proper compaction.
- H 20 and H 26 minimum cover is measured from top of pipe to bottom of flexible pavement or top of rigid pavement. Minimum cover is 12 inches for diameters up to and including 96", 18 inches for diameters ranging from 102" and greater.
- Final backfill material selection and compaction requirements per the project plans, specifications, or engineer of record.
- Geotextile shall be used as required to prevent soil migration.
- Final backfill material selection and compaction requirements shall follow the project plans and specifications per the engineer of record (26.5.4.1).

Single Manifold System



No Manifold System



CMP Detention System Installation

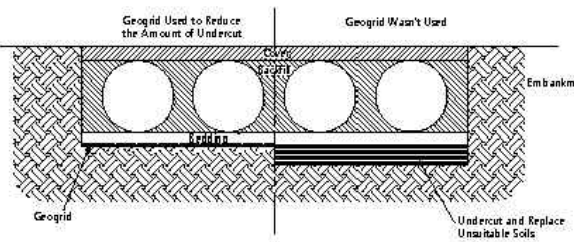
Overview

Proper installation of a flexible underground detention system will ensure long-term performance. The configuration of these systems often requires special construction practices that differ from conventional flexible pipe construction. Contech Engineered Solutions strongly suggests scheduling a pre-construction meeting with your local Sales Engineer to determine if additional measures, not covered in this guide, are appropriate for your site.

Foundation

Construct a foundation that can support the design loading applied by the pipe and adjacent backfill weight as well as maintain its integrity during construction.

If soft or unsuitable soils are encountered, remove the poor soils down to a suitable depth and then build up to the appropriate elevation with a competent backfill material. The structural fill material gradation should not allow the migration of fines, which can cause settlement of the detention system or pavement above. If the structural fill material is not compatible with the underlying soils an engineering fabric should be used as a separator. In some cases, using a stiff reinforcing geogrid reduces over excavation and replacement fill quantities.

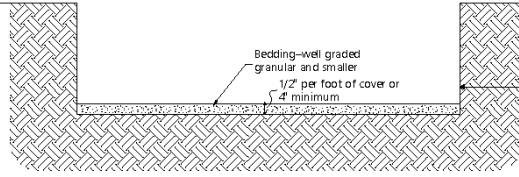


13

Grade the foundation subgrade to a uniform or slightly sloping grade. If the subgrade is clay or relatively non-permeable and the construction sequence will last for an extended period of time, it is best to slope the grade to one end of the system. This will allow excess water to drain quickly, preventing saturation of the subgrade.

Bedding

A 4 to 6-inch thick, well-graded, granular material is the preferred pipe bedding. If construction equipment will operate for an extended period of time on the bedding, use either an engineering fabric or a stiff geogrid to ensure the base material maintains its integrity.

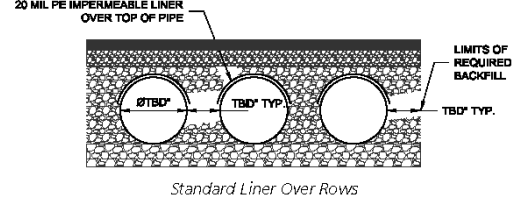


Using a relatively loose material, grade the base to a smooth, uniform grade to allow for the proper placement of the pipe. Using an open-graded bedding material is acceptable; however, an engineering fabric separator is required between the base and the subgrade.

Geomembrane Barrier

A site's resistivity may change over time when various types of salting agents are used, such as road salts for deicing purposes. If salting agents are used on or near the project site, a geomembrane barrier must be used with the system. The geomembrane liner is intended to help protect the system from the potential adverse effects that may result from the use of such salting agents including premature corrosion and reduced actual service life.

The project's Engineer of Record is to evaluate whether salting agents will be used on or near the project site, and use his/her best judgment to determine if any additional protective measures are required. Below is a typical detail showing the placement of a geomembrane barrier for projects where salting agents are used on or near the project site.



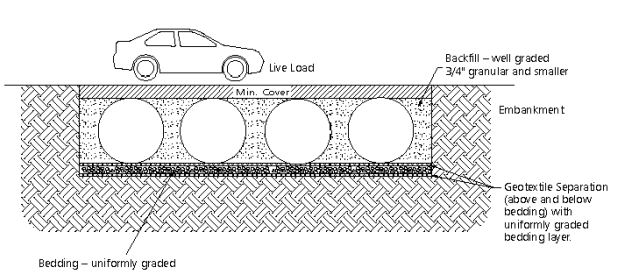
In-Situ Trench Wall

If excavation is required, the trench wall needs to be capable of supporting the load that the pipe sheds as the system is loaded. If soils are not capable of supporting these loads, the pipe can deflect. Perform a simple soil pressure check using the applied loads to determine the limits of excavation beyond the spring line of the outer most pipes. In most cases the requirements for a safe work environment and proper backfill placement and compaction take care of this concern.

14

Backfill Material

Typically, the best backfill material is an angular, well-graded, granular fill meeting the requirements of ASHTO A-1, A-2 or A-3. In some cases, it may be desirable to use a uniformly graded material for the first 18- to 24-inches. This type of material is easier to place under the haunches of the pipe and requires little compactive effort. Depending on the bedding material, a separation geotextile might be required above and below these initial lifts.

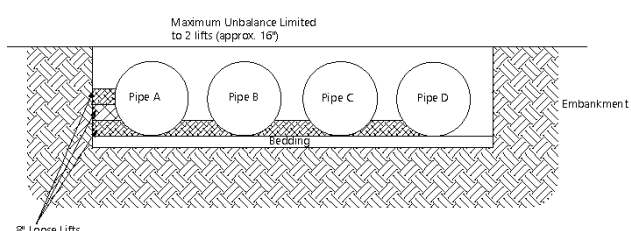


Open-graded fill is typically not used beyond the initial 18- to 24-inches because this type of fill often does not provide adequate confining restraint to the pipes. If a uniformly graded material (particles all one size) is used, install a geotextile separation fabric to prevent the migration of fines into the backfill.

Backfill using controlled low-strength material (CLSM or "flowable fill") when the spacing between the pipes will not allow for placement and adequate compaction of the backfill. Work closely with the local Contech Stormwater Consultant regarding the special installation techniques required when using CLSM.

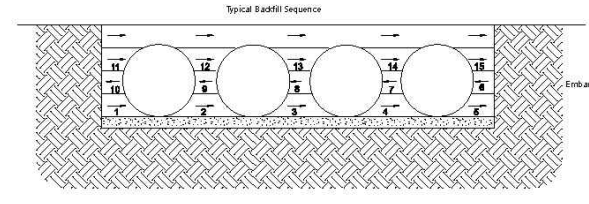
Backfill Placement

Place backfill in 8-inch loose lifts and compact to 90% ASHTO 199 standard proctor density. Material shall be worked into the pipe haunches by means of shovel-slicing, rodding, air tamper, vibratory rod, or other effective methods. If ASHTO 199 procedures are determined infeasible by the geotechnical engineer of record, compaction is considered adequate when no further yielding of the material is observed under the compactor, or under foot, and the geotechnical engineer of record (or representative thereof) is satisfied with the level of compaction.

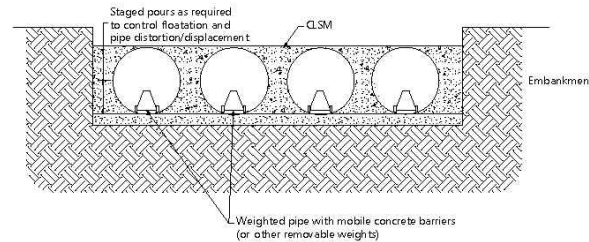


For large systems, conveyor systems, backhoes with long reaches or draglines with stone buckets may be used to place backfill.

Once minimum cover for construction loading across the entire width of the system is reached, advance the equipment to the end of the recently placed fill, and begin the sequence again until the system is completely backfilled. This type of construction sequence provides room for stockpiled backfill directly behind the backhoe, as well as the movement of construction traffic. Material stockpiles on top of the backfilled detention system should be limited to 8- to 10-foot high and must provide balanced loading across all barrels. To determine the proper cover over the pipes to allow the movement of construction equipment see Table 1, or contact your local Contech Stormwater Consultant.



When flowable fill is used, you must prevent pipe flotation. Typically, small lifts are placed between the pipes and then allowed to set-up prior to the placement of the next lift. The allowable thickness of the CLSM lift is a function of a proper balance between the uplift force of the CLSM, the opposing weight of the pipe, and the effect of other restraining measures. The pipe can carry limited fluid pressure without pipe distortion or displacement, which also affects the CLSM lift thickness. Your local Contech Stormwater Consultant can help determine the proper lift thickness.

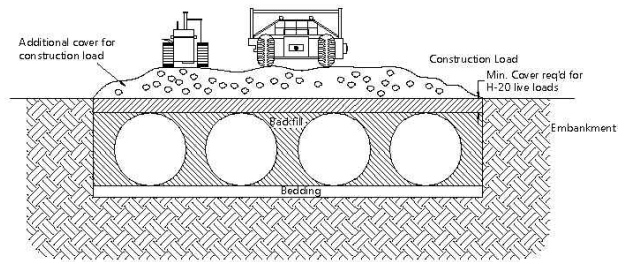


Construction Loading

Typically, the minimum cover specified for a project assumes H-20 live load. Because construction loads often exceed design live loads, increased temporary minimum cover requirements are necessary. Since construction equipment varies from job to job, it is best to address equipment specific minimum cover requirements with your local Contech Stormwater Consultant during your pre-construction meeting.

HEL-COR® CSP Minimum Height of Cover Requirements for Heavy Off-Road Construction Equipment

Pipe Span, Inches	Minimum Cover, Inches for Indicated Axle Loads (kips)			
	18-50	50-75	75-110	110-150
12'-42'	24	30	36	36
42'-72'	36	36	42	48
72'-120'	36	42	48	48
120'-144'	42	48	54	54



Firetruck Loading

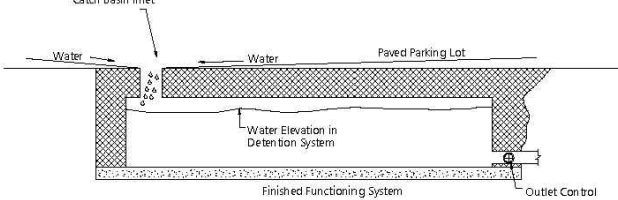
Please use the table below for general guidance.

Pipe Span, Inches	Corrugation Profile, Inches	Minimum Cover, Inches for Firetruck Outrigger Load (64 kips)			
		16 GA 0.064	14 GA 0.079	12 GA 0.109	10 GA 0.138
12'-36'	2 5/8 x 3/8	19	17	12	12
42'-48'	2 5/8 x 3/8	18	18	18	18
54'-60'	3 x 1 or 5 x 1	24	18		
72'	3 x 1 or 5 x 1	30	24		
78'-120'	3 x 1 or 5 x 1		36	20	
120'-144'	3 x 1 or 5 x 1		42		36

- Minimum cover may vary depending on local conditions. The restrainer must provide additional cover required to avoid damage to the pipe. Minimum cover is measured from the top of the pipe to the top of the maintained construction roadway surface.
- Table is based on a typical 85,000 lb GVW firetruck with an outrigger load of 64,000 lbs. The 64,000 lb outrigger force is applied over a surface area of about 800 sq. in. The dimensions of the outrigger square pad are 25-7/8" x 22-7/8".
- The outrigger load will be the heaviest load applied from the firetruck.

Additional Considerations

Because most systems are constructed below-grade, rainfall can rapidly fill the excavation; potentially causing flotation and movement of the previously placed pipes. To help mitigate potential problems, it is best to start the installation at the downstream end with the outlet already constructed to allow a route for the water to escape. Temporary diversion measures may be required for high flows due to the restricted nature of the outlet pipe.



15



POINT ENGINEERING  
10201 RESEDA BLVD #116  
NORTHridge, CA 91324  
TEL: 213-258-8451

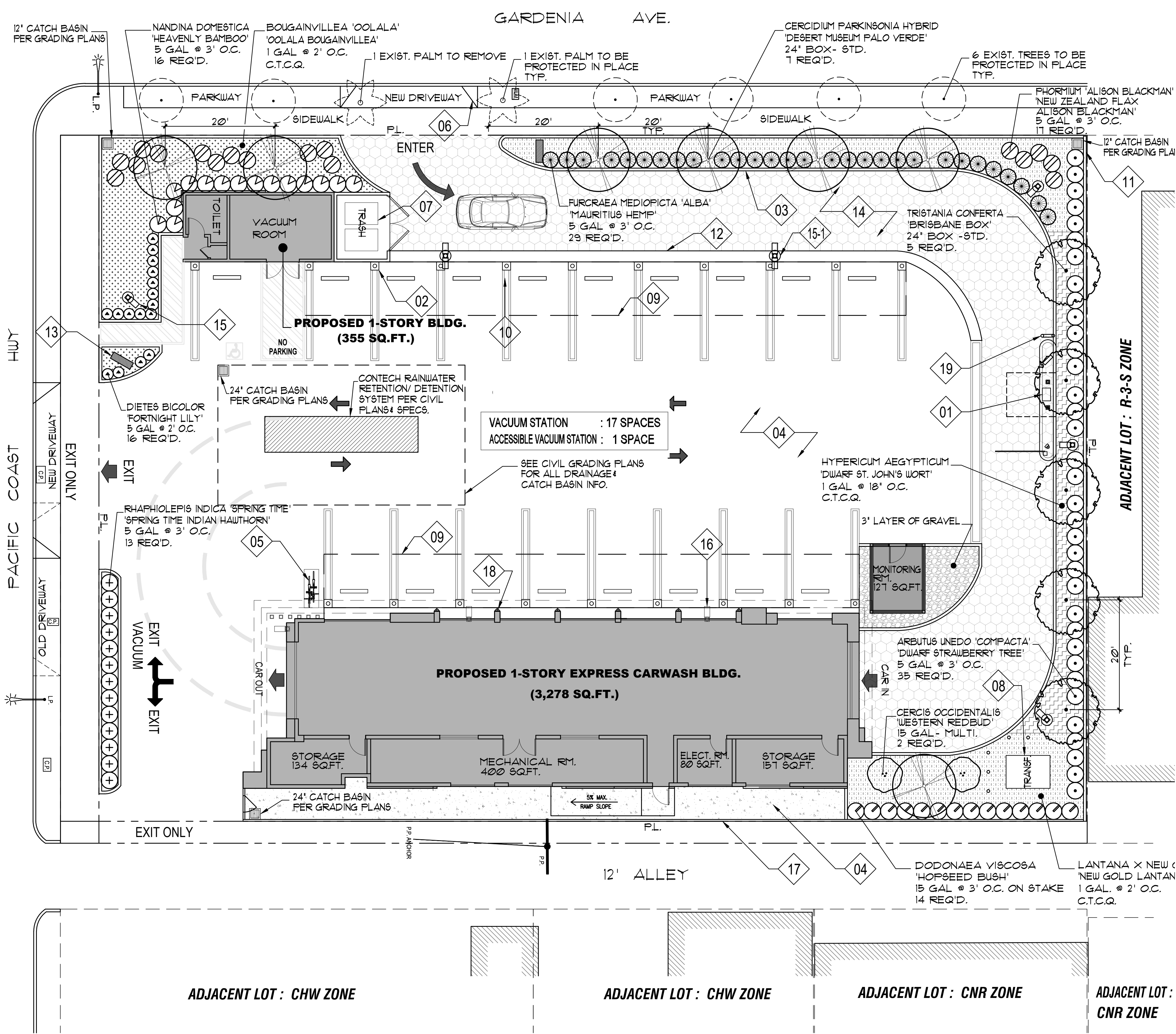
BY	DATE	REVISION

SHEET TITLE	DETAILS
PROJECT TITLE	STAR EXPRESS CAR WASH
PROJECT ADDRESS	1911 E. PACIFIC COAST HWY., LONG BEACH, CA 90806



DRAWN BY	E.K.
SCALE	
DATE	JULY 07, 2021
SHEET	C-5
5	OF 5 SHEETS





SYMBOLS	SCIENTIFIC NAME	COMMON NAME	QUANTITIES	SIZE AT TIME OF PLANTING	WATER CONSUMPTION	COMMENTS
TREES:						
	TRISTANIA CONFERTA	'BRISBANE BOX'	5 REQ'D.	24" BOX - STD. (10-12" x 4-5')	MEDIUM	EVERGREEN TREE
	CERCIDIUM PARKINSONIA	'DESERT MUSEUM PALO VERDE'	1 REQ'D.	24" BOX - STD. (9-11" x 3-4')	LOW	DECIDUOUS TREE
	CERCIS OCCIDENTALIS	'WESTERN REDBUD'	2 REQ'D.	15 GAL - MULTI.	LOW	DECIDUOUS TREE OR SHRUB
SHRUBS:						
	DODONAEA VISCOSA	'HOPSEED BUSH'	14 REQ'D.	15 GAL @ 3' O.C. ON STAKE	LOW	EVERGREEN SHRUB
	FURCRAEA MADIOPICTA	'MAURITIUS HEMP'	29 REQ'D.	5 GAL @ 3' O.C.	LOW	SUCCULENT
	ARBUS UNEDO	'COMPACTA'	35 REQ'D.	5 GAL @ 3' O.C.	LOW	EVERGREEN SHRUB
	PHORMIUM 'ALISON BLACKMAN'	'NEW ZEALAND FLAX ALISON BLACKMAN'	17 REQ'D.	5 GAL @ 3' O.C.	LOW	PERENNIAL
	RHAPHIOLEPIS INDICA	'SPRING TIME INDIAN HAWTHORN'	13 REQ'D.	5 GAL @ 3' O.C.	LOW	EVERGREEN SHRUB
	NANDINA DOMESTICA	'HEAVENLY BAMBOO'	16 REQ'D.	5 GAL @ 3' O.C.	LOW	EVERGREEN SHRUB
	DIETES BICOLOR	'FORTNIGHT LILY'	16 REQ'D.	5 GAL @ 2' O.C.	LOW	PERENNIAL
GROUNDCOVER:						
	LANTANA X NEW GOLD	'NEW GOLD LANTANA'	C.T.C.Q.	1 GAL @ 2' O.C.	LOW	EVERGREEN SHRUB
	BOUGAINVILLEA 'OOLALA'	'OOLALA BOUGAINVILLEA'	C.T.C.Q.	1 GAL @ 18' O.C.	LOW	EVERGREEN SHRUB
	HYPERICUM AEGYPTICUM	'DWARF ST. JOHN'S WORT'	C.T.C.Q.	1 GAL @ 18' O.C.	LOW	EVERGREEN SHRUB

**GBC NOTE:**

1. FOR PROJECTS THAT INCLUDE LANDSCAPE WORK, THE LANDSCAPE CERTIFICATION, FORM GRN 12, SHALL BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL.

2. A MINIMUM 3-INCH LAYER OF MULCH SHALL BE APPLIED ON ALL EXPOSED SOIL SURFACES OF PLANTING AREAS EXCEPT TURF AREAS, CREEPING OR ROOTING GROUNDCOVERS OR SEEDING APPLICATIONS WHERE MULCH IS CONTRAINDICATED.

3. FOR SOILS LESS THAN 6% ORGANIC MATTER IN THE 6 INCHES OF SOIL, COMPOST AT A RATE OF MINIMUM OF FOUR CUBIC YARDS PER 1000 SF. OF PERMEABLE AREA SHALL BE INCORPORATED TO A DEPTH OF SIX INCHES INTO THE SOIL.

4. A CERTIFICATE OF COMPLETION SHALL BE FILLED OUT AND CERTIFIED BY EITHER THE DESIGNER OF THE LANDSCAPE PLANS, IRRIGATION PLANS, OR LICENSED LANDSCAPE CONTRACTOR FOR THE PROJECT.

I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLANS.

DAVID KIM, PRESIDENT, DSK LAND. ARCH. INC., , 7/6/2021

- KEY NOTES :**

01

3'-0" X 18'-0" PAY STATION W/ SPEAKER (TYP.)

02

POST FOR VACUUM OUTLETS, TRASH RECEPTACLE WITH COMPRESSED AIR & WATER OUTLET (TYP.)

03

6" CONC. CURB

04

CONCRETE PAVING

05

BICYCLE RACK

06

(N) ROUND CURB CUT DRIVEWAY

07

TRASH ENCLOSURE

08

6'X8' CONC. PAD FOR TRANSFORMER

09

VACUUM CANOPY ABOVE (TYP.)

10

WHEEL STOP (TYP.)

11

6'-6" HIGH DECORATIVE MASONRY WALL

12

18" HIGH CONC. CURB

13

MONUMENT SIGN

14

COLOR CONCRETE

15

20FT. HT. LIGHT POLE. W/ 1-LIGHT HEAD (TYP.) SEE MATERIAL KEY NOTE 19 ON A-6.0

16

20FT. HT. LIGHT POLE. W/ 2-LIGHT HEADS SEE MATERIAL KEY NOTE 19 ON A-6.0

17

PARKING LOT LIGHT AT PARAPET (TYP.) SEE MATERIAL KEY NOTE 20 ON A-6.0

18

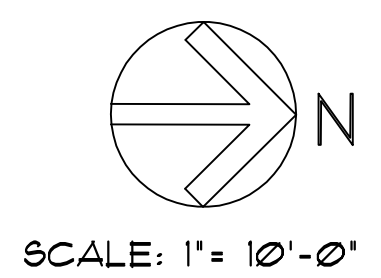
5'-0" HIGH METAL FENCE

19

EXTERIOR WALLSCONE (TYP.)

20

ST'L PIPE BOLLARD



DSK LANDSCAPE ARCHITECTS  
LANDSCAPE ARCHITECTURE  
SITE PLANNING  
URBAN DESIGN

3000 WEST 6TH STREET SUITE 300  
LOS ANGELES, CALIFORNIA 90010  
PHONE (213) 382-3113  
FAX (213) 382-2669  
email dsklandarch@yahoo.com

Date : 7/9/21

Scale : 1"=10'-0"

Drawn By :

Check 1 :

Check 2 :

File :

Date Issued :

Revisions :

Project

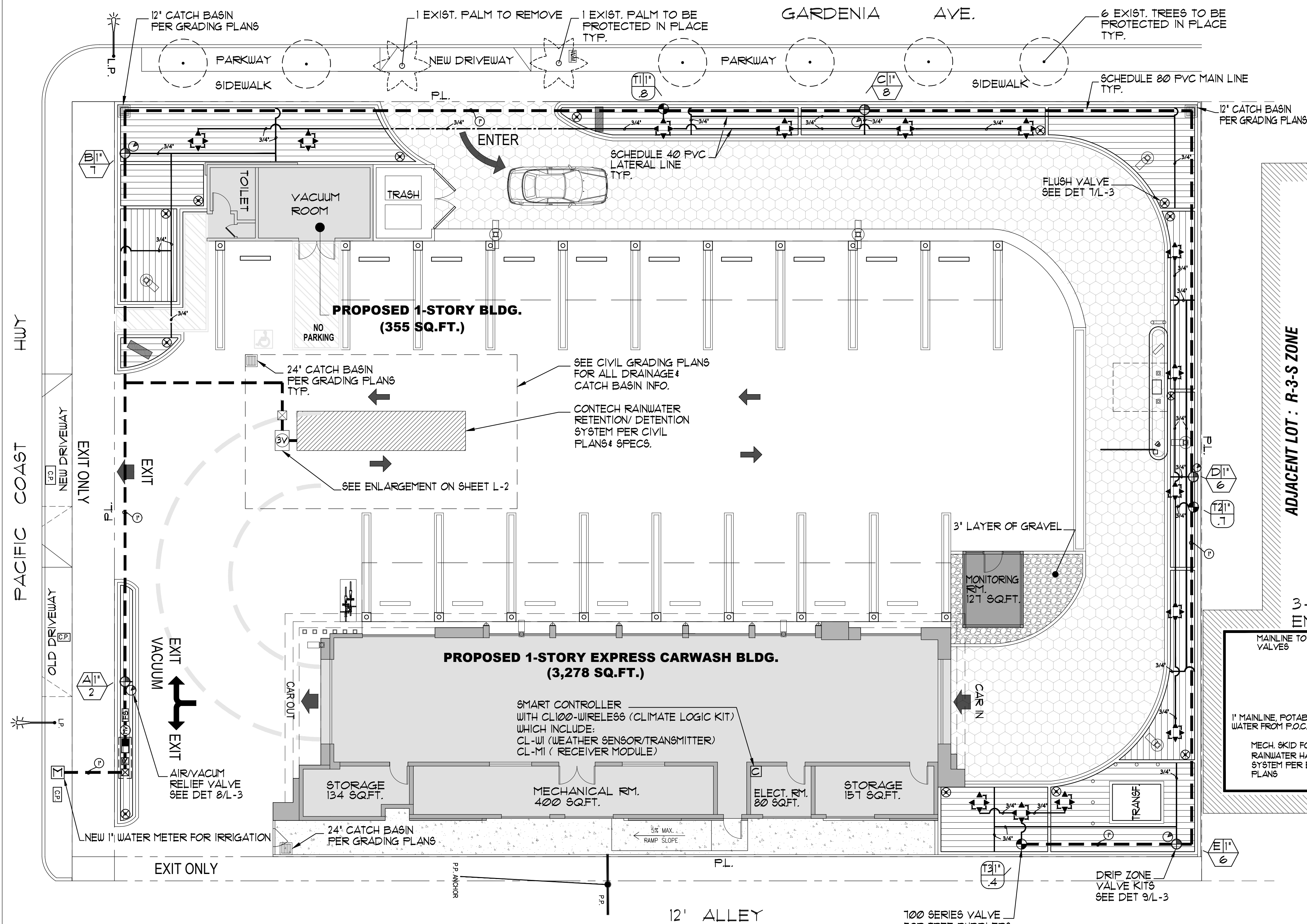
**STAR EXPRESS CAR WASH**

1911 E. PACIFIC COAST HWY.  
LONG BEACH, CA 90806

**PLANTING PLAN**

Sheet Title





## LEGEND

SYMBOL	MANUF.	DESCRIPTION/MODEL NO.	PSI	GPM	NOTE
◀	TORO	LF20-FC (DRIP BUBBLERS)	40	2GPH	4 BUBBLERS ON RISER FOR EACH TREE ON PRIVATE PROPERTY ONLY
△	TORO	510Z-PR-COM-FB-25-PC	40	.25	2 FLOOD BUBBLERS W/ NO RISER FOR EACH STREET TREE, NEXT TO WALK USE
□	TORO	RGP-418-05 (100 GPH, 18' EMITTER SPACING, 500 FT. COIL LENGTH)			
⊙	TORO	T-YD-500-34 (TORO DL2000 AIR/VACUUM RELIEF VALVE)			
⊗	TORO	T-FCH-H-FIPT (TORO DL2000 AUTOMATIC FLUSH VALVE)			
⊕	TORO	DZK-100-1-LF (DRIP ZONE VALVE KIT) UP TO 8 GPM			
⊕	TORO	DZK-100-1-MF (DRIP ZONE VALVE KIT) UP TO 15 GPM			
●	TORO	015-8L8C QUICK COUPLER VALVE 3/4" SIZE. PROVIDE COUPLER KEYS.			
⊖	IRRITROL	100-1 SERIES PLASTIC REMOTE CONTROL VALVE IN PLASTIC BOX. (CONC. VALVE BOX IN PUBLIC RIGHT-OF-WAY)			
⊗	NIBCO	T 113 GATE VALVE LINE SIZE			
■	FEBCO	825Y REDUCED PRESSURE BACKFLOW PREVENTER W/ WATTS N55B 1" PRESSURE REGULATOR			
FS	TORO	TF5-050 FLOW SENSORS 12-12 GPM			
⊖	IRRITROL	MC-8E 8 STATION CONTROLLER W/ TORO CL100-WIRELESS (CLIMATE LOGIC KIT) (LOCATION BY OWNER)			
---		SCHEDULE 40 PVC LATERAL LINE (SCHEDULE 40 PVC LATERAL LINE IN PUBLIC RIGHT-OF-WAY)			
---		LATERAL LINE IN 2X DIA. SCHEDULE 40 PVC SLEEVE (SCHEDULE 40 PVC LATERAL LINE IN PUBLIC RIGHT-OF-WAY)			
---		SCHEDULE 80 PVC MAIN LINE (SCHEDULE 80 PVC MAIN LINE IN PUBLIC RIGHT-OF-WAY)			
1		VALVE NUMBER			
1"		VALVE SIZE			
GPM		GPM			

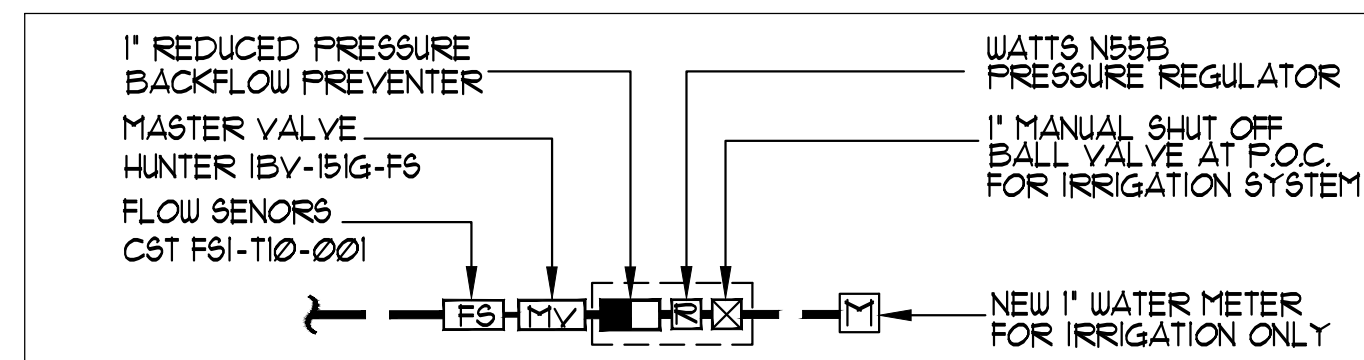
## NOTE:

- 1- DRIP LINE SHALL BE INSTALLED @ 12" SPACING USING EMITTER SPACING @ 18" O.C.
- 2- INSTALLATION OF TUBE TO BE INSTALLED TO MAINTAIN TRIANGULAR SPACING OF ALL EMITTERS.
- 3- LOCATE FLUSH VALVE AT OPPOSITE ENDS OF ZONE AT THEIR RESPECTIVE LOW POINTS.
- 4- LOCATE AIR RELIEF VALVE AS CLOSE AS POSSIBLE TO REMOTE CONTROL VALVE WHILE MAINTAINING HIGHEST ELEVATION.
- 5- CONTRACTOR TO PROVIDE ONE FLUSH VALVE, PER PLANTING BED, WHEN A SINGLE VALVE CONTROLS MULTIPLE, NON CONTIGUOUS BEDS. (ONE FLUSH VALVE PER PLANTER)

## IRRIGATION NOTES:

- 1" REDUCED PRESSURE BACKFLOW PREVENTER EXACT LOCATION TO BE DETERMINED IN FIELD. INSTALL PER LOCAL CODE. SEE DETAIL (3) L-3
- 1" P.O.C. FOR IRRIGATION SYSTEM TO BE PROVIDED BY OTHERS. LANDSCAPE CONTRACTOR TO INSTALL LINE SIZE SHUT OFF VALVE PER DETAIL. SEE DETAIL (1) L-3
- PRESSURE REGULATOR TO BE SET AT 50 PSI. SEE DETAIL (4) L-3
- 8 STATION AUTOMATIC CONTROLLER, INDEPENDENT 18V, 60 CYCLE, 2AMP CIRCUIT TO BE PROVIDED AT THIS LOCATION BY OTHERS. EXACT LOCATION TO BE DETERMINED IN FIELD. SEE DETAIL (5) L-3
- REMOTE CONTROL VALVE SEE DETAIL (6) L-3
- AUTOMATIC FLUSH VALVE SEE DETAIL (7) L-3
- AIR/VACUUM RELIEF VALVE SEE DETAIL (8) L-3
- MAINLINE SHOWN OUT SIDE OF PLANTING AREA FOR CLARITY ONLY. INSTALL IN PLANTING AREA WHERE POSSIBLE.
- INSTALL P.O.C., BACKFLOW PREVENTER, AND ALL VALVES IN PLANTING AREAS. EQUIPMENT SHOWN OUTSIDE OF PLANTING AREAS FOR CLARITY ONLY.
- NOTES:  
THIS SYSTEM DESIGNED ON MIN. OPERATION PRESSURE OF 65 PSI WITH A MAX. DEMAND OF 1 GPM. CONTRACTOR TO CHECK AND VERIFY IN FIELD AVAILABLE WATER PRESSURE AND TO NOTIFY LAND. ARCH. IF PRESSURE IS BELOW MIN. REQ'D.
- GENERAL CONTRACTOR TO PROVIDE ALL SAWCUTTING, AND SLEEVES AS REQUIRED BY NEW LANDSCAPE LAYOUT.
- ALL IRRIGATION LINES UNDER PAVING TO BE IN SLEEVES 2X DIAMETER OF IRRIGATION LINE.
- WATTS N55B PRESSURE REGULATOR
- 1" MANUAL SHUT OFF BALL VALVE AT P.O.C. FOR IRRIGATION SYSTEM
- NEW 1" WATER METER FOR IRRIGATION ONLY

## P.O.C. ENLARGEMENT



Per AB 1881( 2015) MAWA / ETWU / EAWU					
MAXIMUM APPLIED WATER ALLOWANCE (GALLONS PER YEAR)					
LANDSCAPE AREAS					
TREES					
ET <sub>o</sub>	ET ADJ	AREA	GAL/YEAR	GAL/FT.	ccf
39.7	0.45	32	0.62	354.4	0.5
SHRUBS					
ET <sub>o</sub>	ET ADJ	AREA	GAL/YEAR	GAL/FT.	ccf
39.7	0.45	2,626	0.62	29086.4	38.9
TOTAL HYDROZONE CALC					
ET <sub>o</sub>	ET ADJ	AREA	GAL/YEAR	GAL/FT.	ccf
39.7	0.45	2,658	0.62	29,441	39.4
(ETWU) ESTIMATED TOTAL WATER USE (GALLONS PER YEAR)					
ET <sub>o</sub>	Plant Factor	Efficiency	Area in S.F.	Gal/Sq.Ft.	Water use
39.7	0.3	0.81 (Hydrozone 1)	118	0.62	1076
39.7	0.3	0.81 (Hydrozone 2)	768	0.62	7001
39.7	0.3	0.81 (Hydrozone 3)	710	0.62	6473
39.7	0.3	0.81 (Hydrozone 4)	511	0.62	4658
39.7	0.3	0.81 (Hydrozone 5)	519	0.62	4731
39.7	0.5	0.8 (Hydrozone 6)	32	0.62	492
(for 14 Trees: 15x15=225 s.f. per Tree = 32 s.f.)					
(EAWU) ESTIMATED APPLIED WATER USE					24,432 gal.
(EAWU) ESTIMATED APPLIED WATER USE					33 ccf
(EAWU) PERCENTAGE OF MAWA / YR.					83%
Plant Factors (% of ET <sub>o</sub> ):					
	Turf:	0.8	Irrigation Efficiency (%):		0.75
	Low Water Use Shrubs:	0.3	Precision Series Spray Heads:		0.55
	Medium Water Use Shrubs:	0.4-0.5	Drip Bubbler Heads:		0.80
	High Water Use Shrubs:	0.8	Drip Systems:		0.81

## MAXIMUM WATER ALLOWANCE (MAWA)

MAWA = (ET<sub>o</sub>) (.62) (ETAF x LA)  
(39.7) (.62) (.45 x 2,626) = 29,086.4 gal (PLANTING AREA)  
(39.7) (.62) (.45 x 32) = 354.4 gal (14 TREES (15X15= 225 s.f. per tree) = 32 s.f.)  
29,086.4 + 354.4 = 29,441 gal / 748 = 39.4 ccf

ET<sub>o</sub> FROM APPENDIX 'A' FOR LONG BEACH = 39.7  
CONVERSION FACTOR (TO GALLON PER SQUARE FOOT) = .62

ET ADJUSTMENT FACTOR (ETAF)  
ETAF = .55 FOR RESIDENTIAL  
ETAF = .45 FOR COMMERCIAL

ESTIMATED TOTAL WATER USE  
ETWU = (ET<sub>o</sub>) (.62) (ETAF x LA)

## ESTIMATED TOTAL WATER USE (ETWU)

HYDROZONES	PLANT WATER USE TYPE(S)	PLANT FACTOR (PF)	HYDROZONE AREA (HA) SQ. FT.	PF x HA SQ. FT.	IRRIGATION EFFICIENCY %
HYDROZONE-1 VALVE A	LOW	.3	118	35.4	DRIP LINES .81
HYDROZONE-2 VALVE B	LOW	.3	768	230.4	DRIP LINES .81
HYDROZONE-3 VALVE C	LOW	.3	710	213	DRIP LINES .81
HYDROZONE-4 VALVE D	LOW	.3	511	153.3	DRIP LINES .81
HYDROZONE-5 VALVE E	LOW	.3	519	155.7	DRIP LINES .81
SUM		.3	2,431	781.8	DRIP LINES .81
HYDROZONE-6 VALVE T1,T2,T3	MED	.5	32	16	DRIP BUBBLERS .8

(781.8 / .81) (.62) (39.7) = 23,940 gal  
(16 / .80) (.62) (39.7) = 492 gal  
23,940 + 492 = 24,432 Gal / 748 = 33 ccf

ETWU	MAWA	EAWU: PERCENTAGE OF MAWA/YEAR
24,432 Gal	29,441 Gal	83%

LOW HYDROZONE SPECIES REQUIRE 3 (30%) OF THE SEASONAL ET<sub>o</sub>.  
MEDIUM HYDROZONE SPECIES REQUIRE 5 (50%) OF THE SEASONAL ET<sub>o</sub>.

## NOTE:

4 DRIP BUBBLERS AROUND EACH TREE.  
15' SPACING BETWEEN HEADS  
(15' X 15' = 225 S.F. WATER COVERAGE AROUND TREE ROOT)

## GBC NOTE:

1. PROJECT ADDRESS: 1911 E. PACIFIC COAST HWY. LONG BEACH, CA 90806  
TOTAL LANDSCAPE AREA: 2,626 S.F.  
WATER SUPPLY TYPE: DOMESTIC WATER
2. PRESSURE REGULATING DEVICES ARE REQUIRED IF WATER PRESSURE IS BELOW OR EXCEEDS THE RECOMMENDED PRESSURE OF THE SPECIFIED IRRIGATION DEVICES.
3. CHECK VALVES OR ANTI-DRAIN VALVES ARE REQUIRED ON ALL SPRINKLER HEADS WHERE LOW POINT DRAINAGE COULD OCCUR.
4. OVERHEAD IRRIGATION SHALL NOT BE PERMITTED WITHIN 24-INCHES OF ANY NON-PERMEABLE SURFACE.
5. A DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.
6. AN IRRIGATION AUDIT REPORT SHALL BE COMPLETED AT THE TIME OF FINAL INSPECTION.
7. RECIRCULATING WATER SYSTEM SHALL BE USED FOR WATER FEATURES.

'I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLANS.'

DAVID KIM, PRESIDENT, DSK LAND. ARCH. INC., 1/6/2021



3000 WEST 6TH STREET SUITE 300  
LOS ANGELES, CALIFORNIA 90010  
PHONE (213) 382-3113  
FAX (213) 382-2669  
email dsklandarch@yahoo.com

Date : 1/9/21  
Scale : 1"=10'-0"  
Drawn By :  
Check 1 :  
Check 2 :  
File :  
Date Issued :  
Revisions :

Project

## STAR EXPRESS CAR WASH

1911 E. PACIFIC COAST HWY.  
LONG BEACH, CA 90806

## IRRIGATION PLAN

Sheet Title



Job Number

L-2

Sheet No. 2 of 3

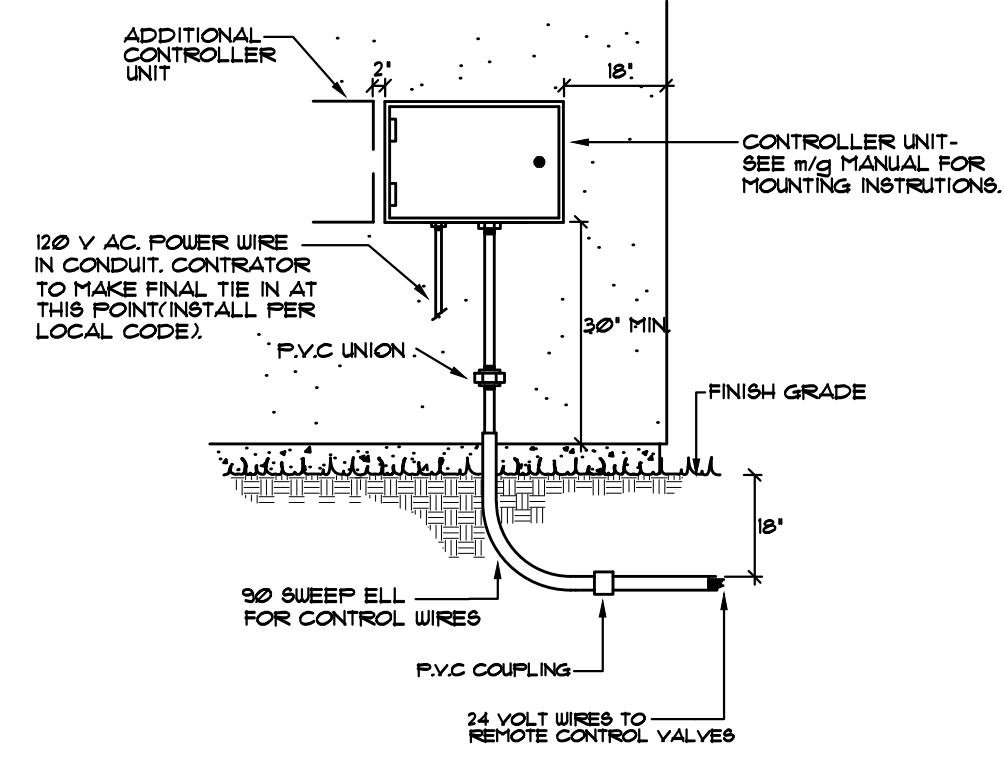


## IRRIGATION NOTES

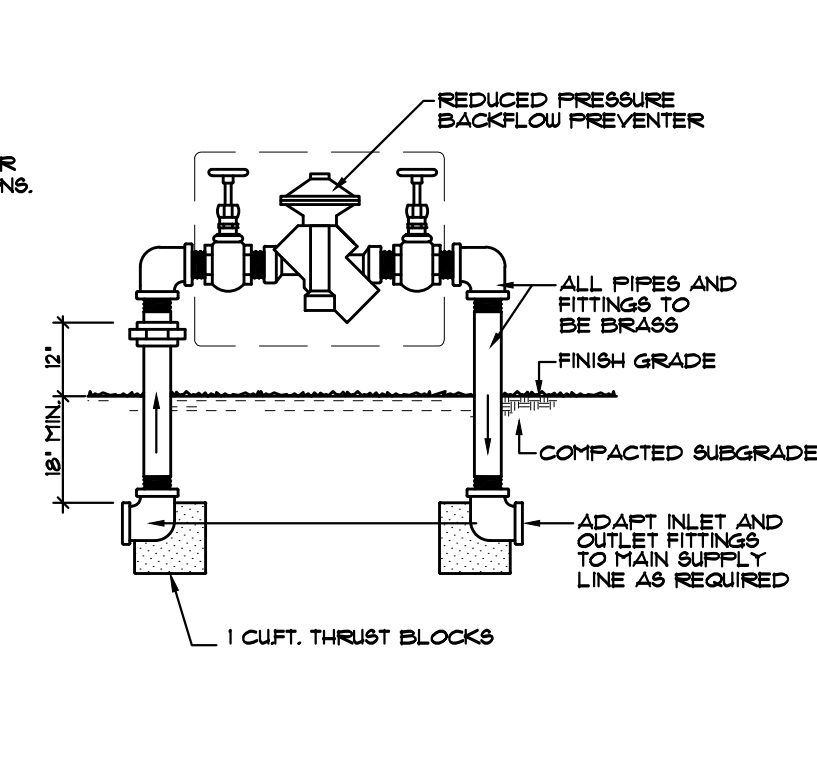
- All workmanship and materials shall conform to local building and plumbing codes having jurisdiction.
- Prior to submitting bid, examine the site and conditions thereof.
- The work to be performed under this contract shall include furnishing all labor, materials, tools, machinery, and equipment necessary to install a complete sprinkler system as shown on the irrigation plans, including trenching, backfilling, etc.
- Protect this work and Owner's property from damage as a result of this work.
- Prior to commencing work on the project, arrange an on-site conference with the Landscape Architect, or his duly appointed representative.
- Apply and pay for all permits required for this portion of the work.
- The installation and the operation of the system must be approved by the Landscape Architect.
- If it is found during installation that the site varies from the drawings, notify the Landscape Architect before proceeding with the work.
- Coordinate the installation of all sprinkler materials, including pipe, with the landscape drawings to avoid interfering with the planting of trees, shrubs or other planting.
- It is the intent of these drawings and specifications to indicate a complete sprinkler system installed and ready for use without further cost to the Owner.
- Record accurately on one set of reproducible prints of the drawings, an as-built plan kept up to date as the project is under construction. In addition, dimension from two permanent points of reference, the location of the pressure supply line routing, all valves, plug tees and control wire.
- All sprinkler heads and piping shall be installed per their details in their respective locations, and shall be of the manufacturer noted unless otherwise approved.
- The sprinkler system shall be unconditionally guaranteed for a period of one year from the date of acceptance. Manufacturer warranties of one year from the date of acceptance. Manufacturer warranties shall not replace this guarantee and the Contractor shall be responsible for repairs and replacement of failed material.
- Upon completion of the work, remove all excess material, equipment and waste to the satisfaction of the Landscape Architect.
- The sprinkler installation shall be deemed incomplete until all sprinkler heads, valves, and all related irrigation equipment have been checked and adjusted to best conform to the conditions and requirements that will prevail at the finish site, and approved as-built drawings have been submitted.
- Trenches shall be excavated to sufficient depth to provide coverage of 24" over all pressure supply lines and 12" over all non-pressure lines.
- Backfill for trenching shall be compacted to a dry density equal to the adjacent undisturbed soil, and shall conform to adjacent grades without dips, sunken areas, humps, or other irregularities.
- Plastic fittings shall be of Schedule 40 polyvinyl chloride injection molded and side gated. Where threads are required, these shall be injection molded also.
- Initial backfill on plastic lines shall be of a fine granular material, a min. of 3" above and below line with no foreign matter larger than 1/2" in size.
- All material required for the project shall be as indicated on legend and installed according to same.
- Supply as part of this contract the following tools: (a) One wrench for disassembling type of sprinkler head supplied; (b) Four 3/8" sprinkler keys for operation of sprinkler keys for operation of sprinkler control valves.
- All valves are installed below grade in a valve box identified by the controller and station designation, heat branded with 2" letters. One valve per valve box.
- All pop-up heads located within 12' of hardscape areas to be set min 1/2" below finish surface of hardscape.
- All riser/lateral connections to be triple swing joints.
- All risers for hose bibs to be 12' above finished grade.
- All control valve boxes to be located @ right angle to hardscape areas.
- Where heads on slope occur, all heads shall be placed parallel to the angle of slope.
- All wire shall be a minimum #14 AWG 600-VOLT Direct burial and UL listed.

## NOTE:

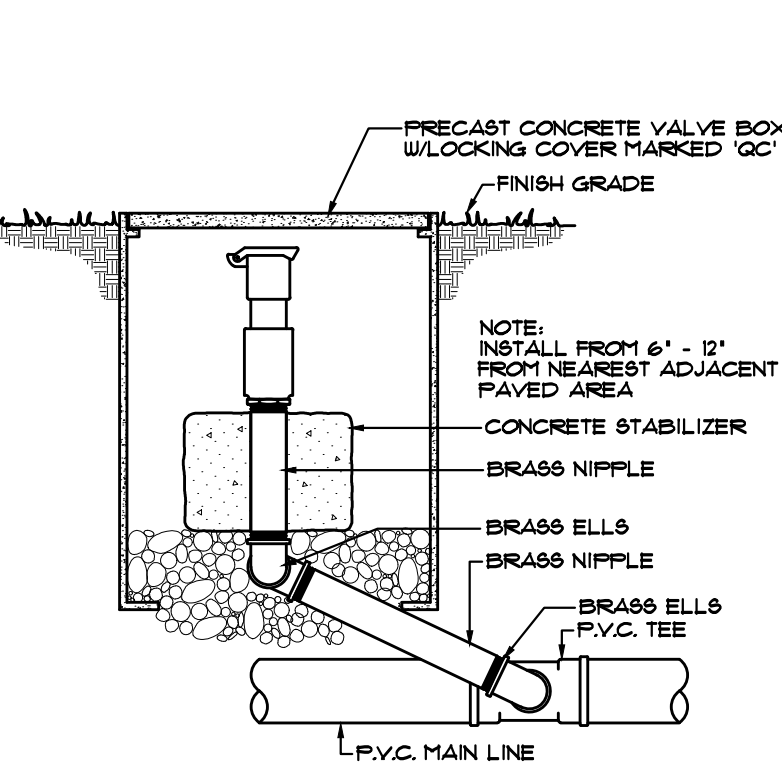
ALL TREES TO HAVE ROOT BARRIER UB-24 BY DEEP ROOT.  
SEE DETAILS 12 THIS SHEET.



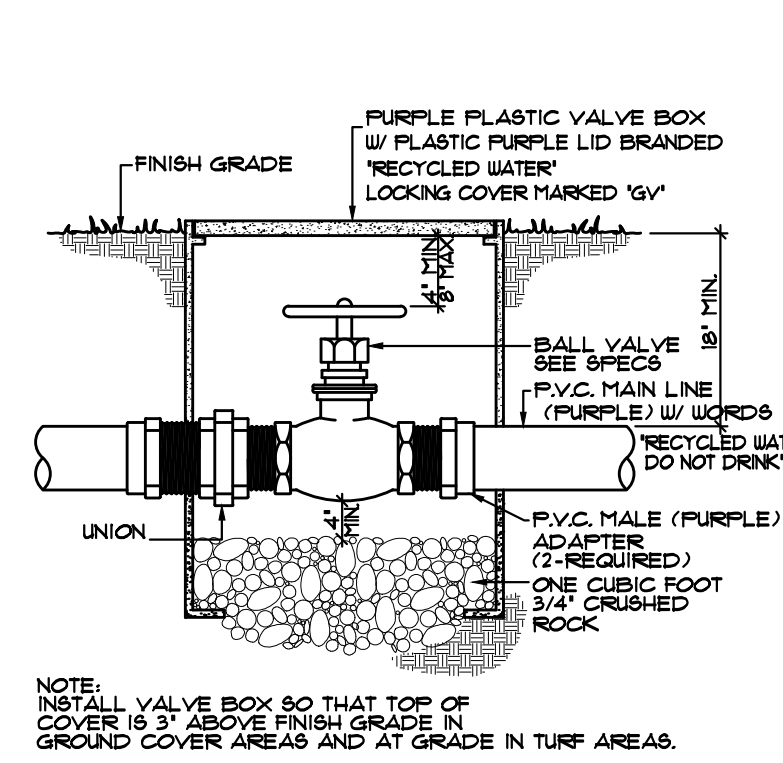
4 AUTOMATIC CONTROLLER (WALL-MOUNT) NO SCALE



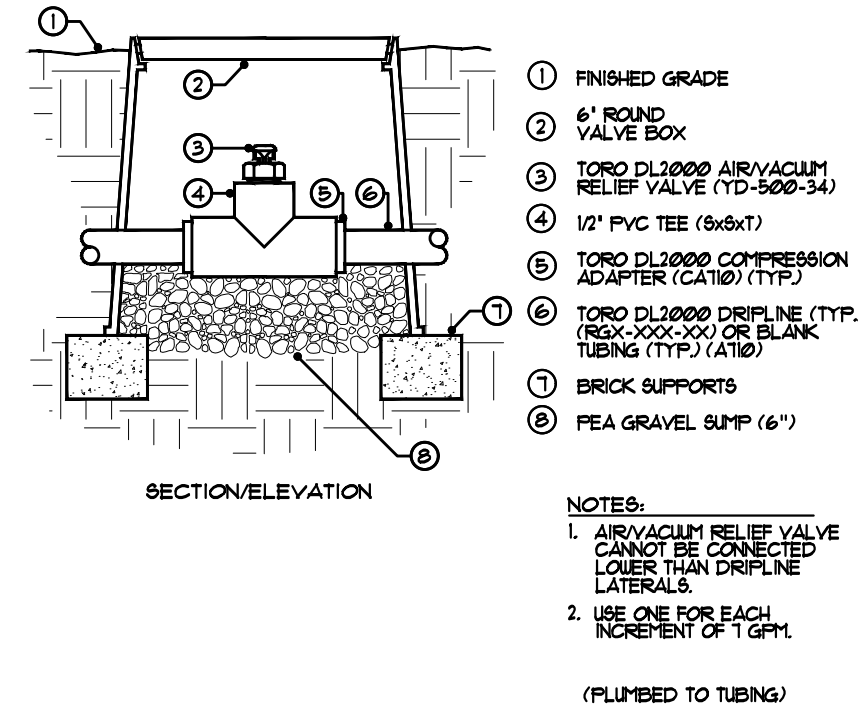
3 BACKFLOW PREVENTER NO SCALE



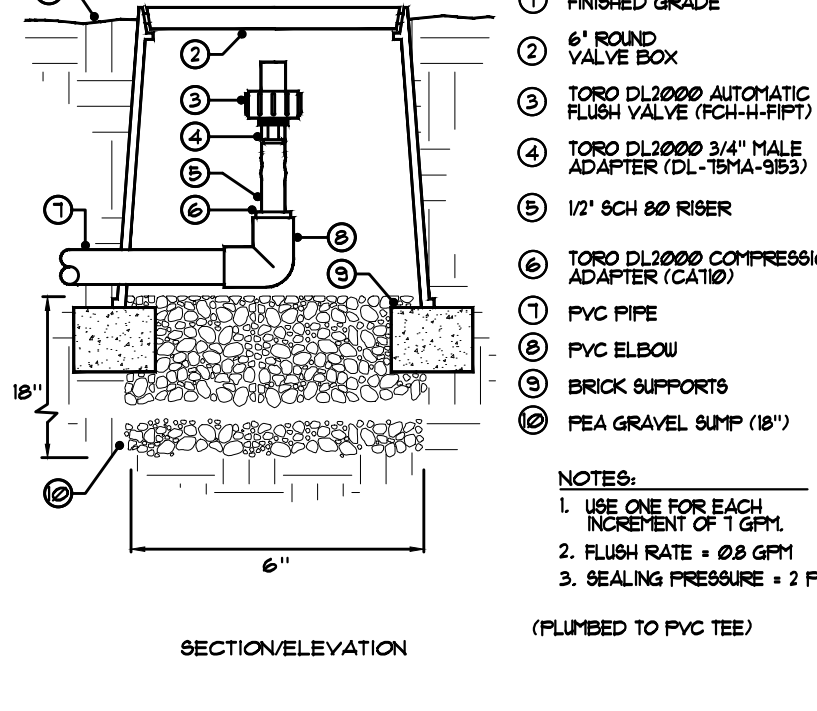
2 QUICK COUPLING VALVE NO SCALE



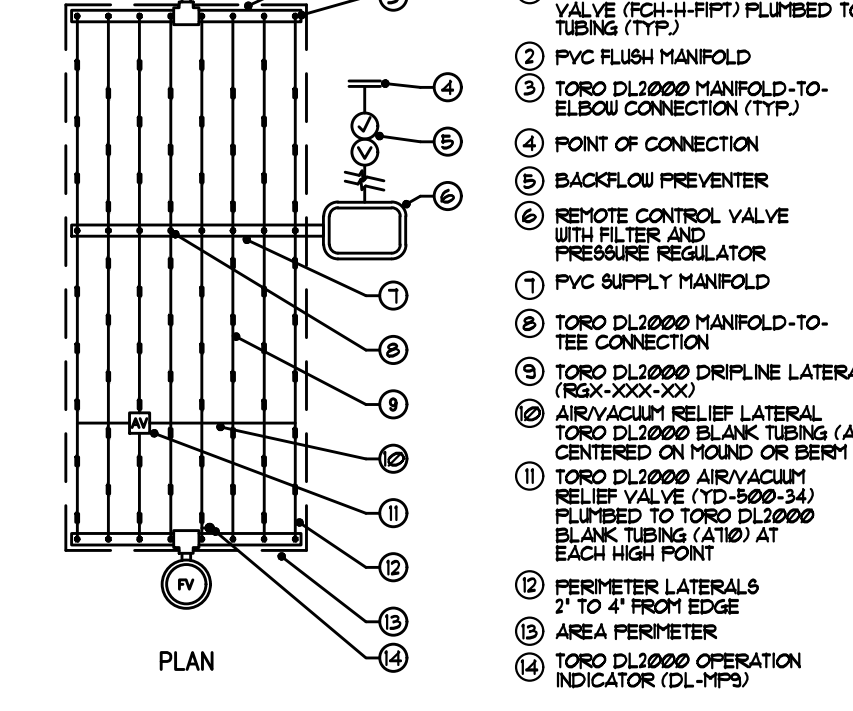
1 SHUT OFF BALL VALVE NO SCALE



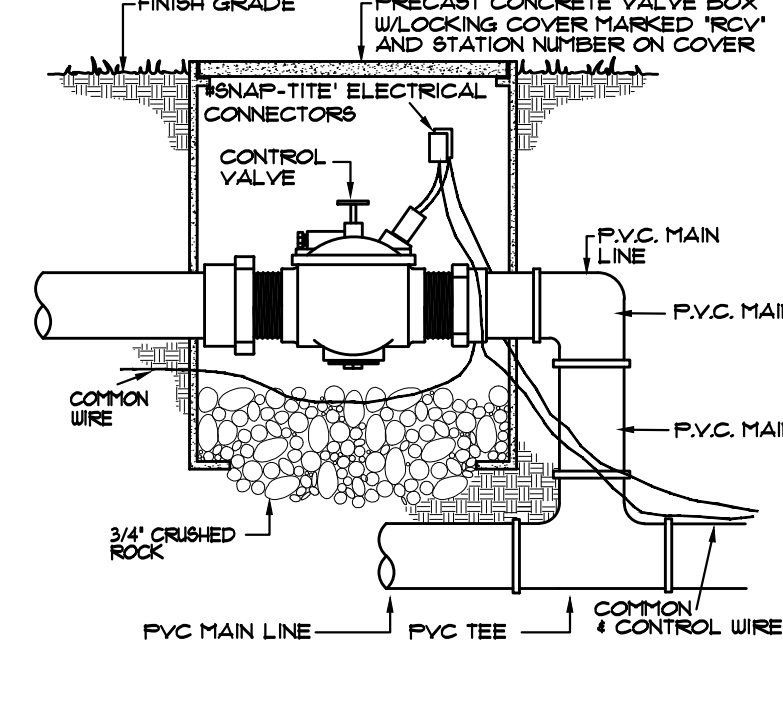
6 1/2" AIR/VACUUM RELIEF VALVE TORO DL2000 NO SCALE



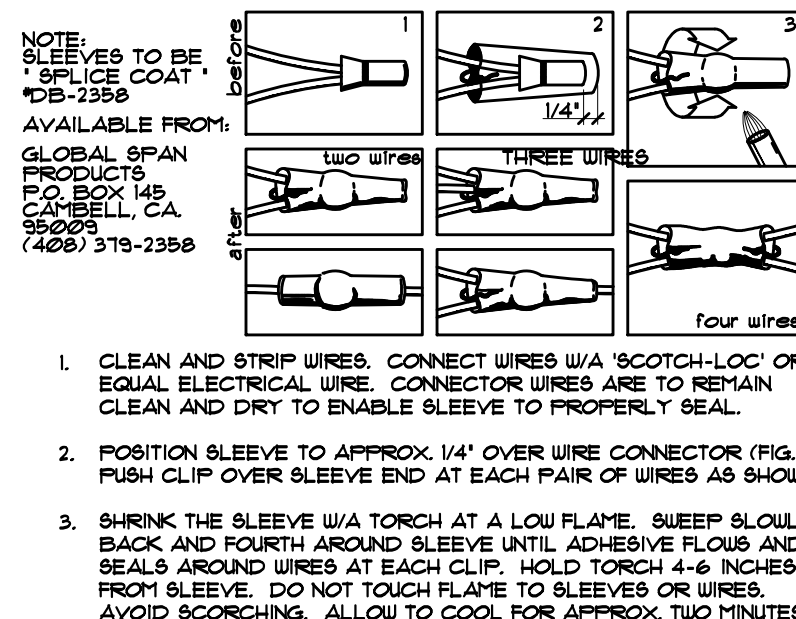
7 AUTOMATIC FLUSH VALVE TORO DL2000 NO SCALE



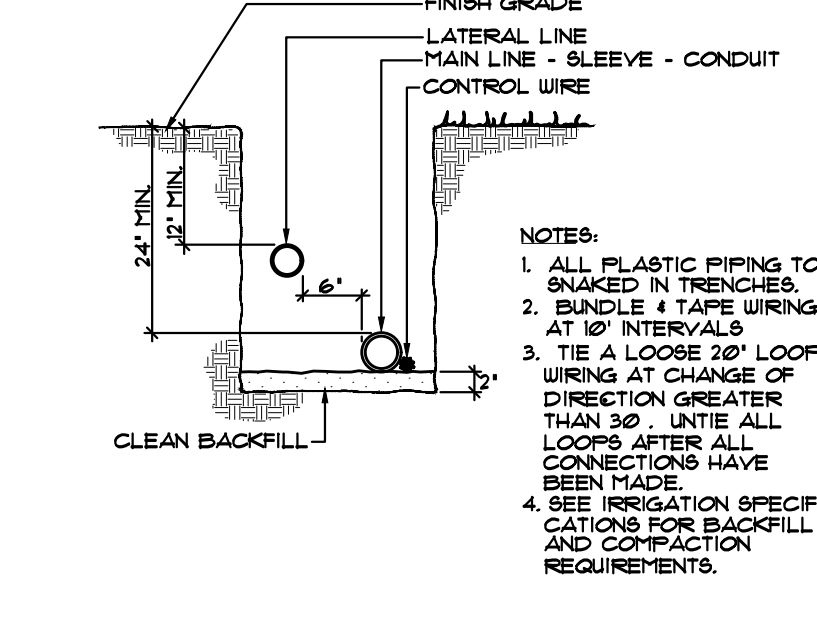
8 CENTER-FEED LAYOUT TORO DL2000 NO SCALE



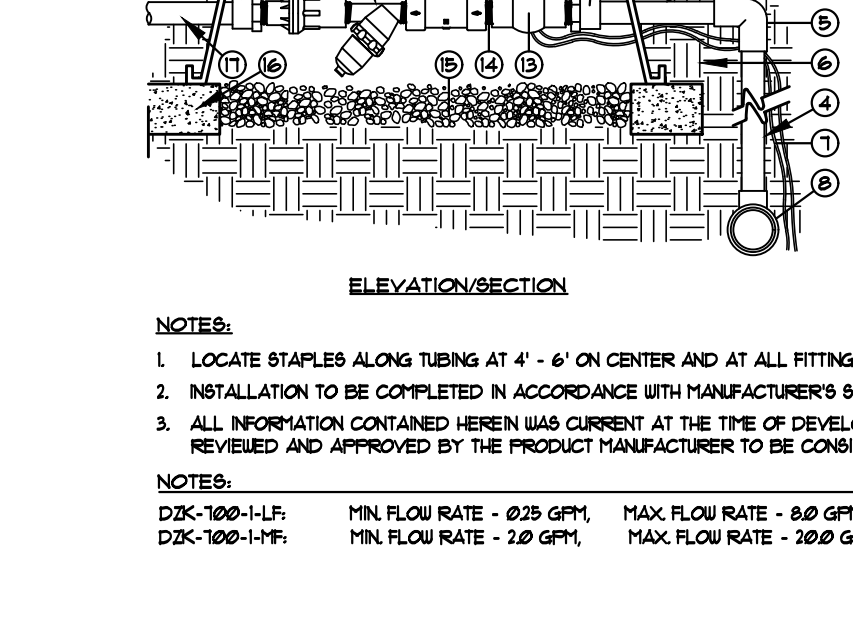
5 REMOTE CONTROL VALVE NO SCALE



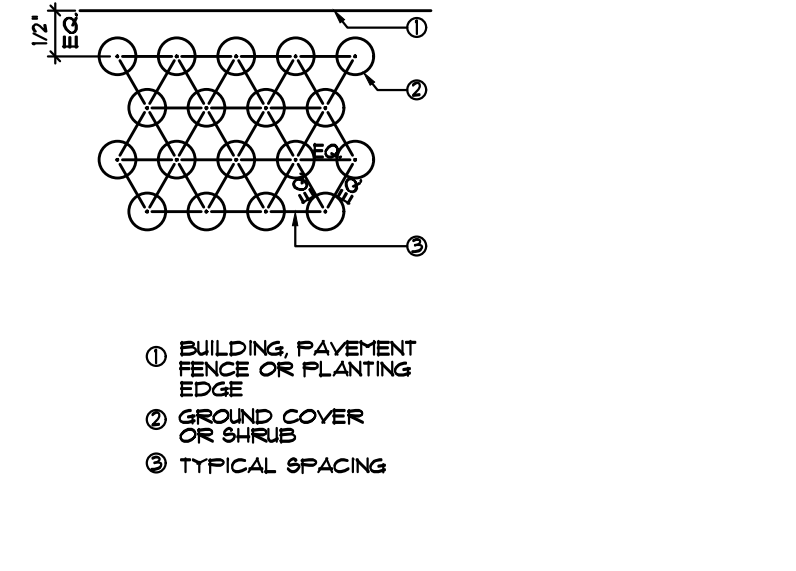
11 WIRE CONNECTIONS NO SCALE



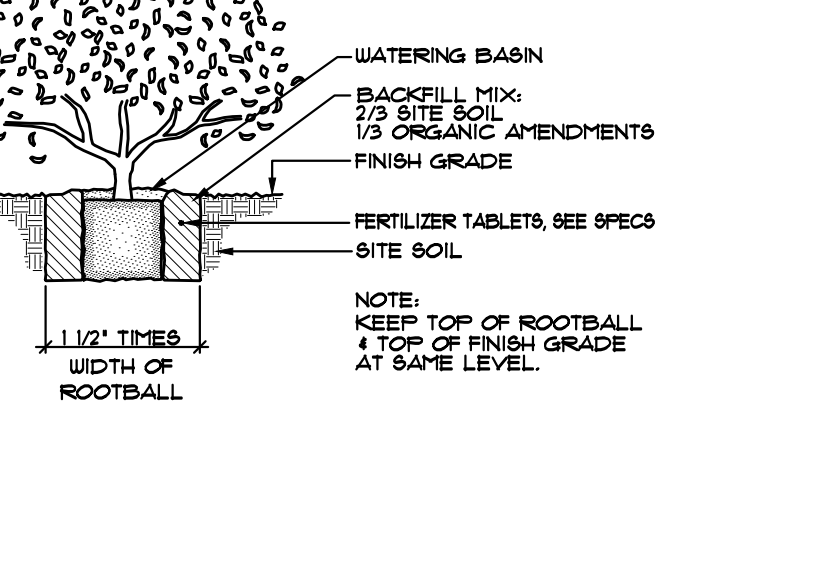
10 TRENCHING DETAIL NO SCALE



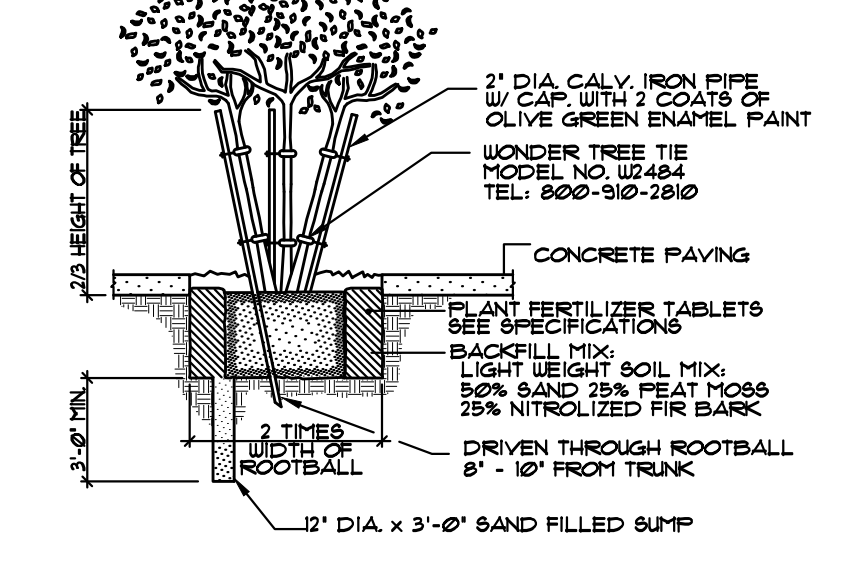
9 TORO DRIP ZONE KIT (DK-100-1-LF / DK-100-1-MF) NO SCALE



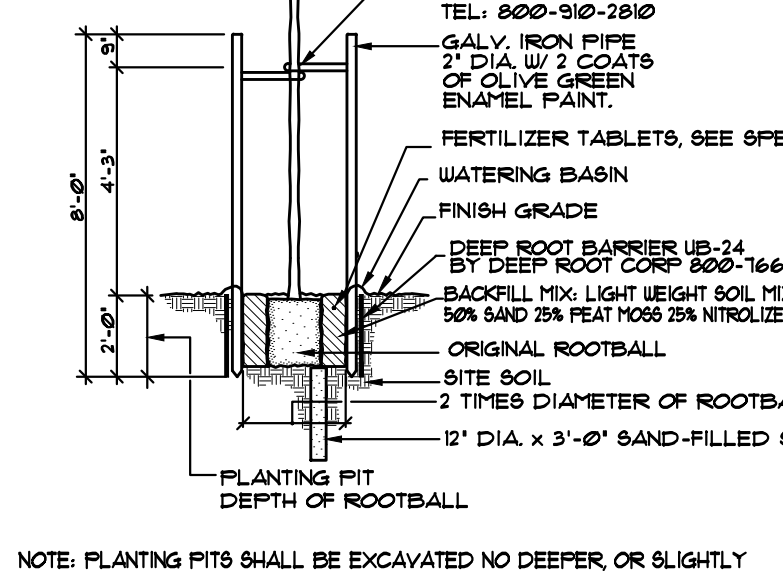
15 GROUND COVER PLANTING NO SCALE



14 SHRUB PLANTING DETAIL NO SCALE



13 WOOD STAKE FOR MULTI-TRUNK TREE NO SCALE



12 DOUBLE STAKE DETAIL NO SCALE

## LANDSCAPE PLANTING NOTES

- GENERAL
  - The Landscape Contractor shall furnish all labor, equipment, materials and services for the complete installation as described by the landscape drawings and in these specifications.
  - Any deviation from the plan or specifications is to have prior written approval by the Owner or his representative.
  - All materials and workmanship shall be of highest quality.
  - Until all working is complete and accepted by Owner, the Landscapes Contractor shall assume all risks and bear all losses to his materials and equipment.
  - During the course of the contract (including maintenance period), the Landscape Contractor shall provide and maintain public liability and property damage insurance. The minimum amount of public liability insurance shall be \$100,000.00 for each person injured. The minimum amount of property damage insurance be \$50,000.00 for any single property damage claim.
  - The Landscape Contractor shall repair work damaged by him or make payment for such repair. Should the Landscape Contractor have his work damaged by another Contractor, he is to make arrangements with the other Contractor for that Contractor's repair or that Contractor's payment for the repair.

## WEED REMOVAL

- The Landscape Contractor is to remove all weeds and/or grasses (including the roots) existing in the landscape areas.
- All landscape areas are to receive the pre-emergent herbicide Surflan TSW per manufacturer's instructions.

## SOIL CONDITIONING AND GRADING

- Landscape Contractor shall familiarize himself with the site to determine scope of fine grading. Rough grading shall be by General Contractor. Finish grading shall consist of raising all areas to a smooth grade for positive drainage, loosening the soil to a depth of 6', removing all rocks and breaking up clods of 2' diameter or larger, and removal of deleterious material. Finish grade is to be 2' below top of adjacent curb and sidewalk.
- The following soil amendments and quantities are given for total purposes only. Final amendments and quantities shall be determined by soil analysis. All landscape areas are to receive an even application of 6 cubic yards of nitrogen mineralized, stabilized wood sawdust, 30 pounds of 6N-20P-20K fertilizer, 10 lbs. of soil sulfur for each 1,000 square feet. The above amendments are to be incorporated uniformly into the top 6" of soil.

## PLANTING

- All plants are to have a planting pit 1-1/2 times the diameter of the rootball and equal to its depth. The plant pit is to be backfilled (after positioning of plant) with a mixture of 2/3 site soil and 1/3 nitrolized-mineralized wood sawdust. Provide a shallow watering basin for each plant.
- Groundcovers are to be planted so that after setting, the crown of the plant is even with finish grade, roots fully covered with soil and firmed.
- Watering of plants is to take place immediately after planting.
- All planting areas not planted with turf, are to receive a 2" layer of mulch to be approved.
- Guying and staking of trees is to be per details.

## CLEAN UP

- At the completion of all planting operations, the premises are to be left neat and clean. All surplus materials, nursery items and waste are to be removed from the site.

## MAINTENANCE

- The Landscape Contractor is to maintain all landscape areas for a period of three months from the date of completion, established by the Owner or his representative. All areas are to be kept well watered, free of weeds, grasses and trash during this maintenance period.

- An application of fertilizer (16% nitrogen, 6% phosphoric acid, 8% potash) is to be made just prior to the completion of the maintenance period, or at 30 day intervals if maintenance period is greater than 30 days.

- The sprinkler system is to be checked for coverage at each watering immediately following installation. Malfunctions, such as dirty heads, adjustment of heads, etc., are to be corrected on the spot. More serious defects are to be reported immediately to the Owner for correction by the Sprinkler Contractor, or corrected immediately by the Landscape Contractor if contract included skrinkler installation. Sprinkler system to be operational before installation of any plantings, or Landscape Contractor is responsible for the watering of plants. Palm trees must be planted prior to installation of concrete to preclude damage to concrete.

## GUARANTEE

- All trees, shrubs and plant material (other than flatted material) less than 15 gallon size shall be guaranteed for a period of 6 months. All material larger than 15 gallon size shall be guaranteed for a period of 1 year.

**D S K LANDSCAPE ARCHITECTS**  
ARCHITECTURE  
SITE PLANNING  
URBAN DESIGN

3000 WEST 6TH STREET SUITE 300  
LOS ANGELES, CALIFORNIA 90010  
PHONE (213) 382-3113  
FAX (213) 382-2669  
email dsklandarch@yahoo.com

Date	: 7/9/21
Scale	: N.T.S.
Drawn By	:
Check 1	:
Check 2	:
File	:
Date Issued	:
Revisions	:
Project	:

## STAR EXPRESS CAR WASH

1911 E. PACIFIC COAST HWY.  
LONG BEACH, CA 90806

## IRRIGATION & PLANTING DETAILS

Sheet Title



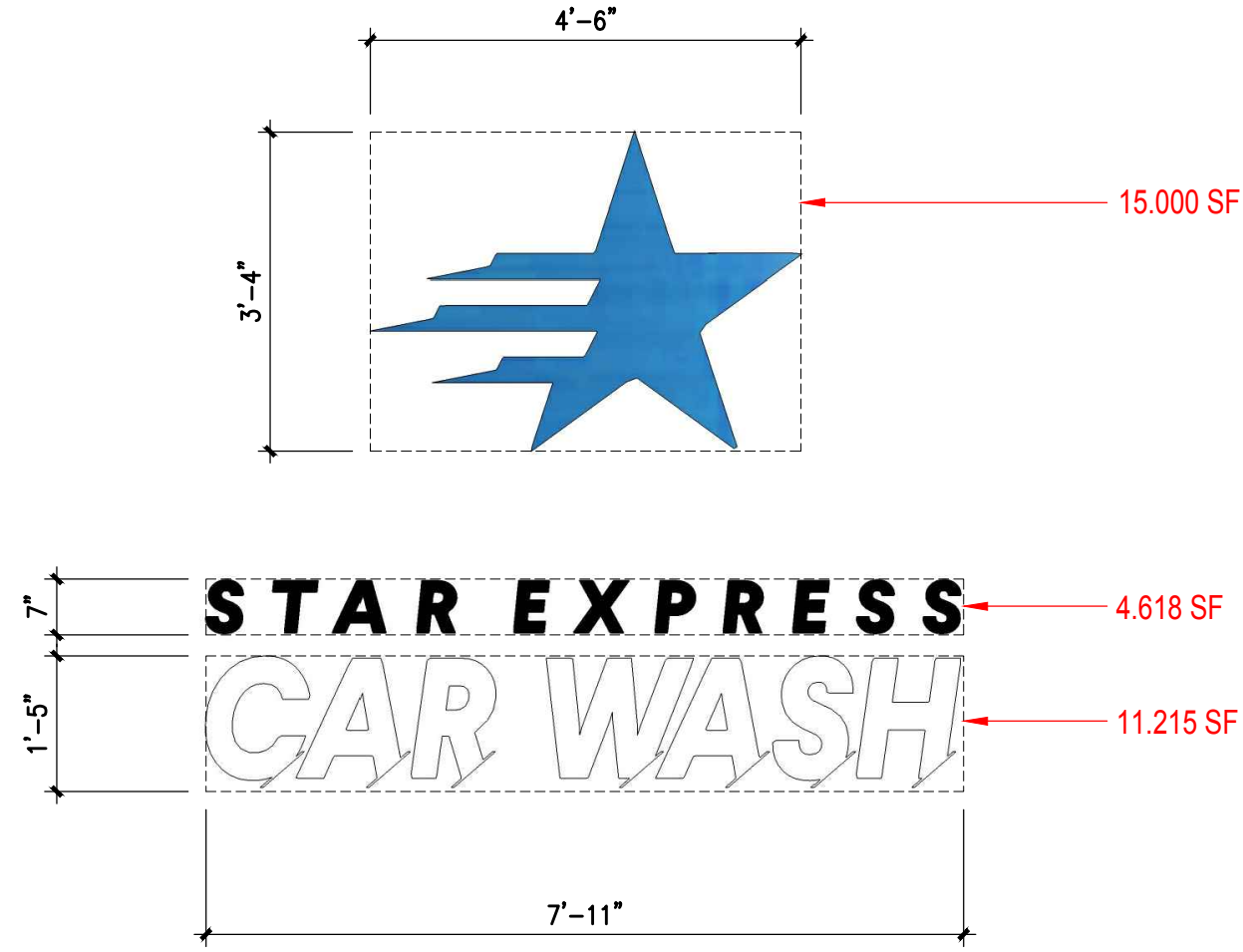
Job Number



ILLUMINATED INDIVIDUAL CHANNEL WALL SIGNS

A

30.833 SF



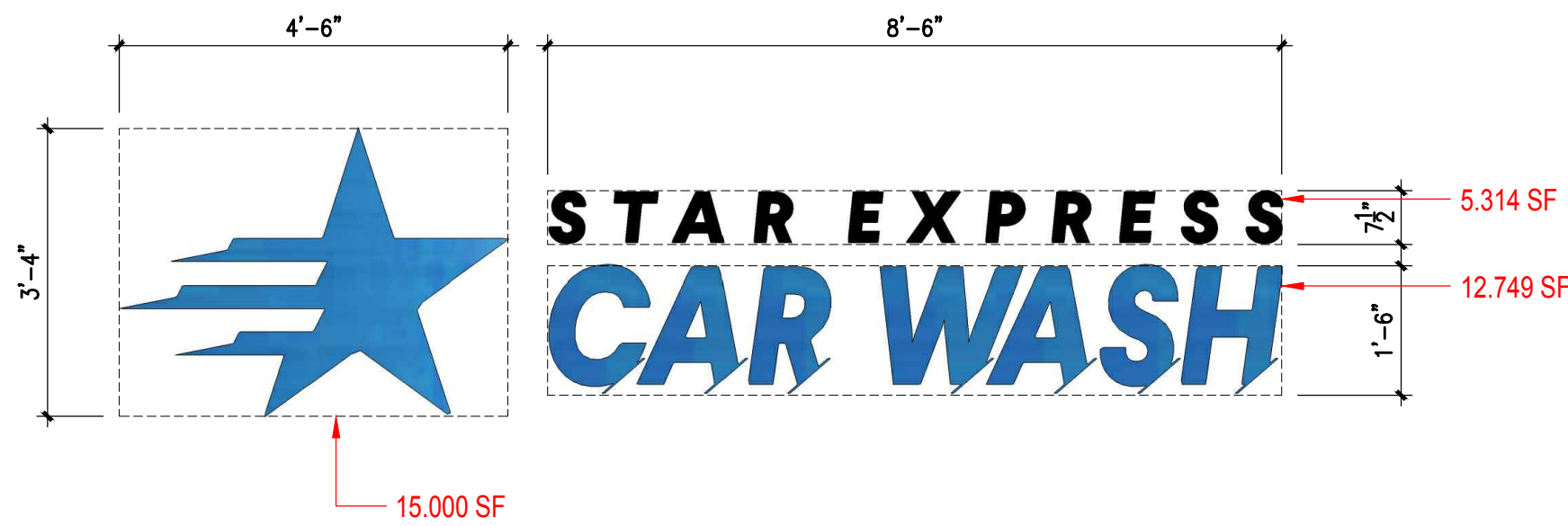
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43.237 SF



C

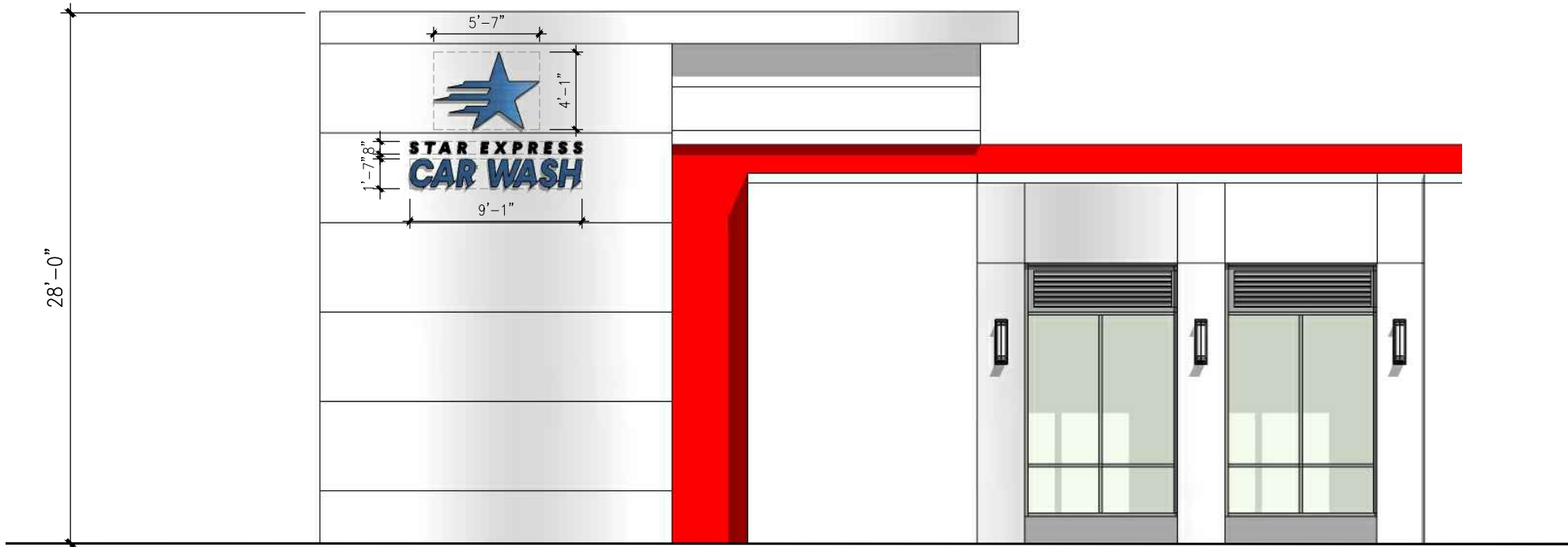
33.063 SF



SOUTH ELEVATION - WASH BLDG.

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

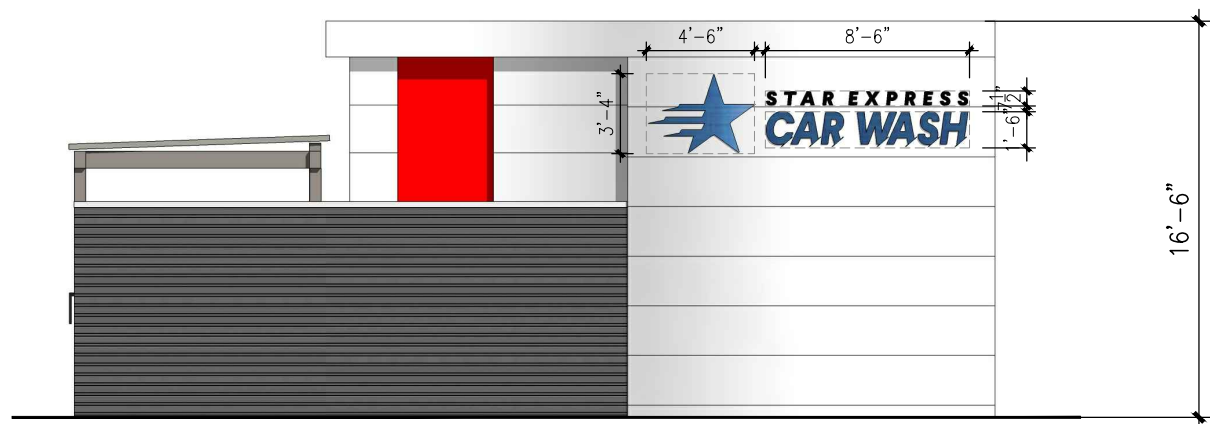
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EAST ELEVATION - WASH BLDG.

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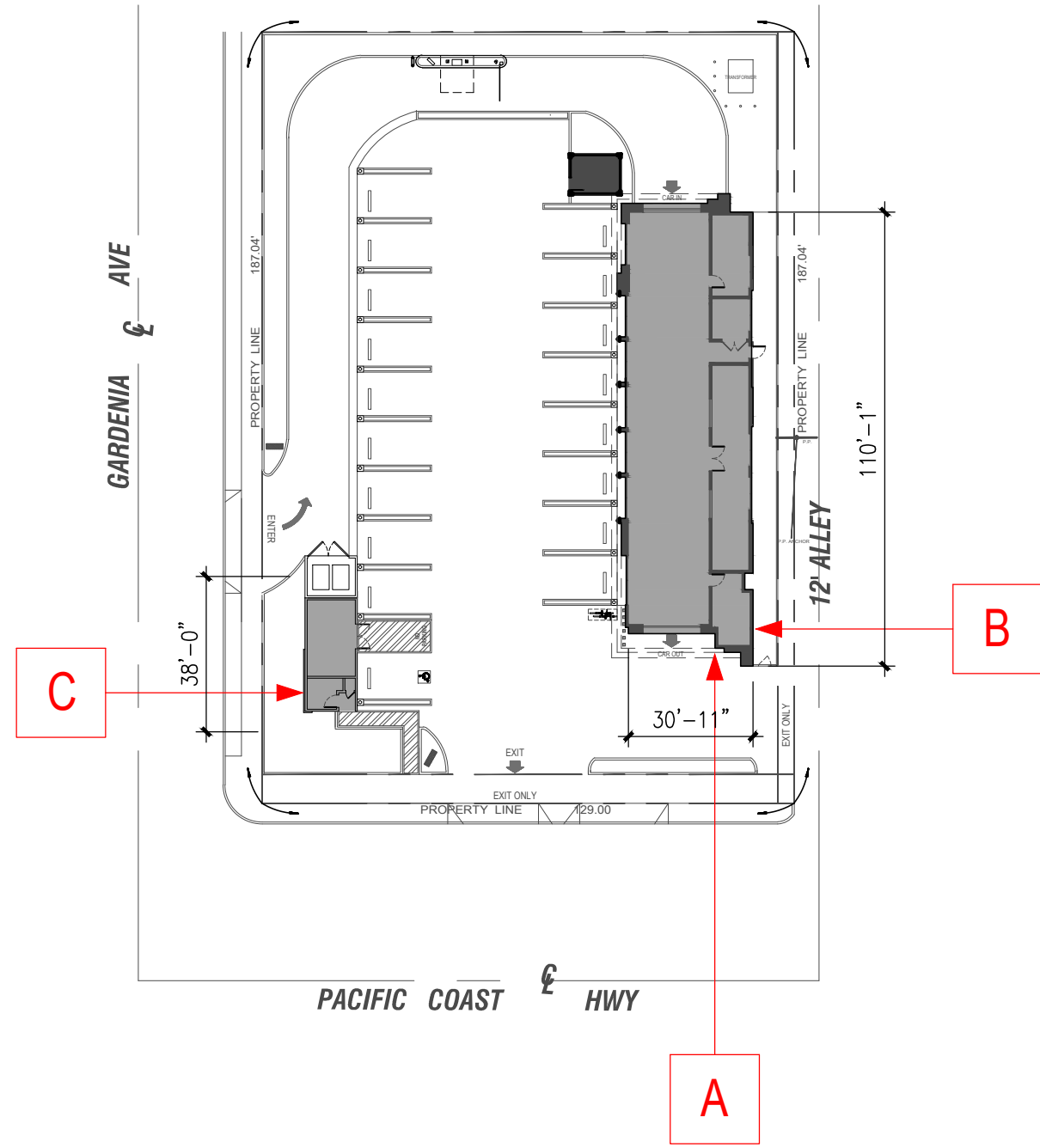
B



WEST ELEVATION - TOILET, VACUUM BLDG.

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

C



G · R · O · U · P

A · R · C · H

GROUPARCH. DEVELOPMENT, INC.

ARCHITECTURE, PLANNING,  
INTERIORS, CONSULTANTS

3850 WILSHIRE BLVD, SUITE 208  
LOS ANGELES, CA 90010

TEL : 213 - 383 - 2088  
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EXPRESS CAR WASH DEVELOPMENT FOR

STAR EXPRESS CAR WASH

1911 E. PACIFIC COAST HWY.  
LONG BEACH, CA 90806

TITLE

SIGN PLAN

NO DATE

PRINT DATE 7/25/2021

SCALE

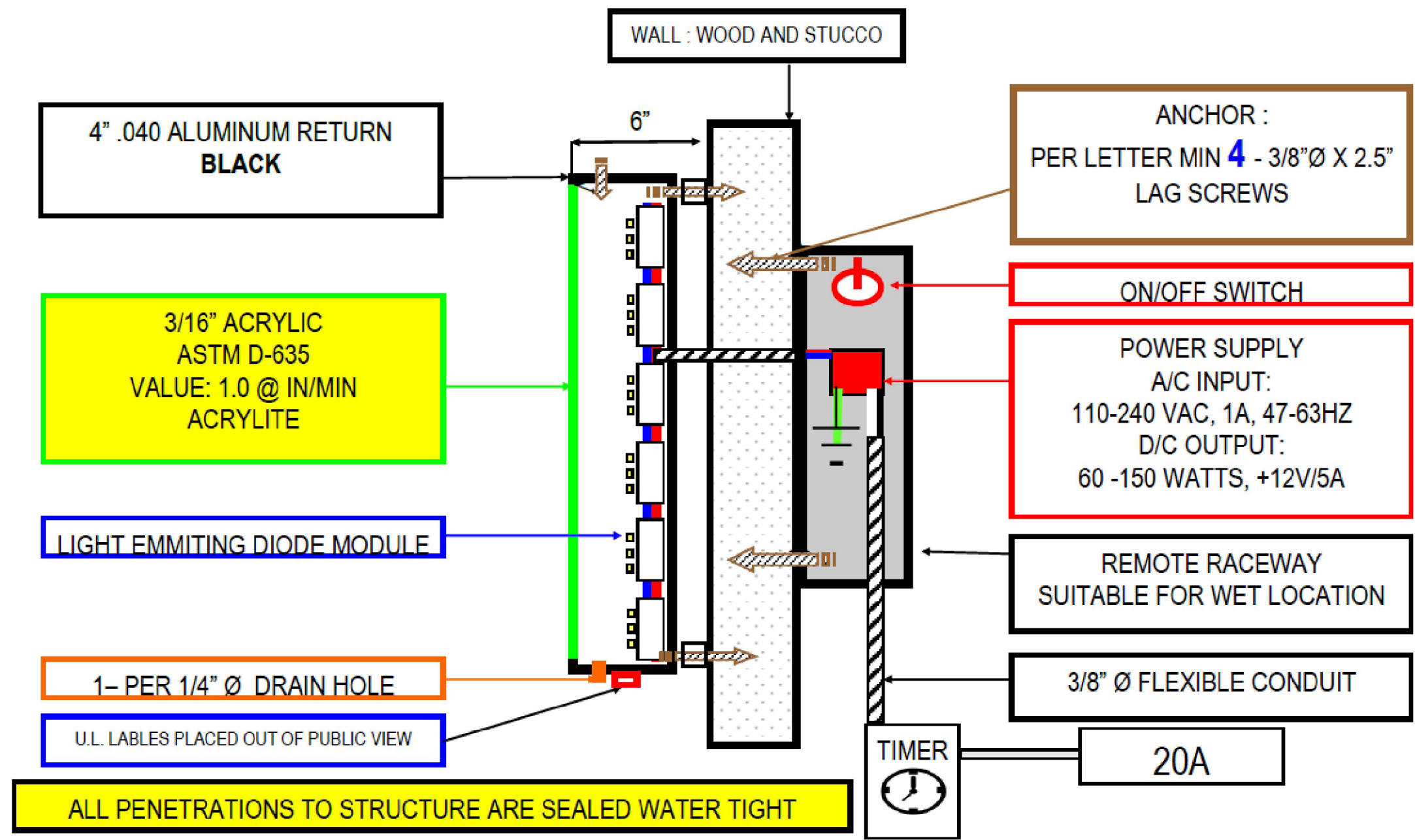
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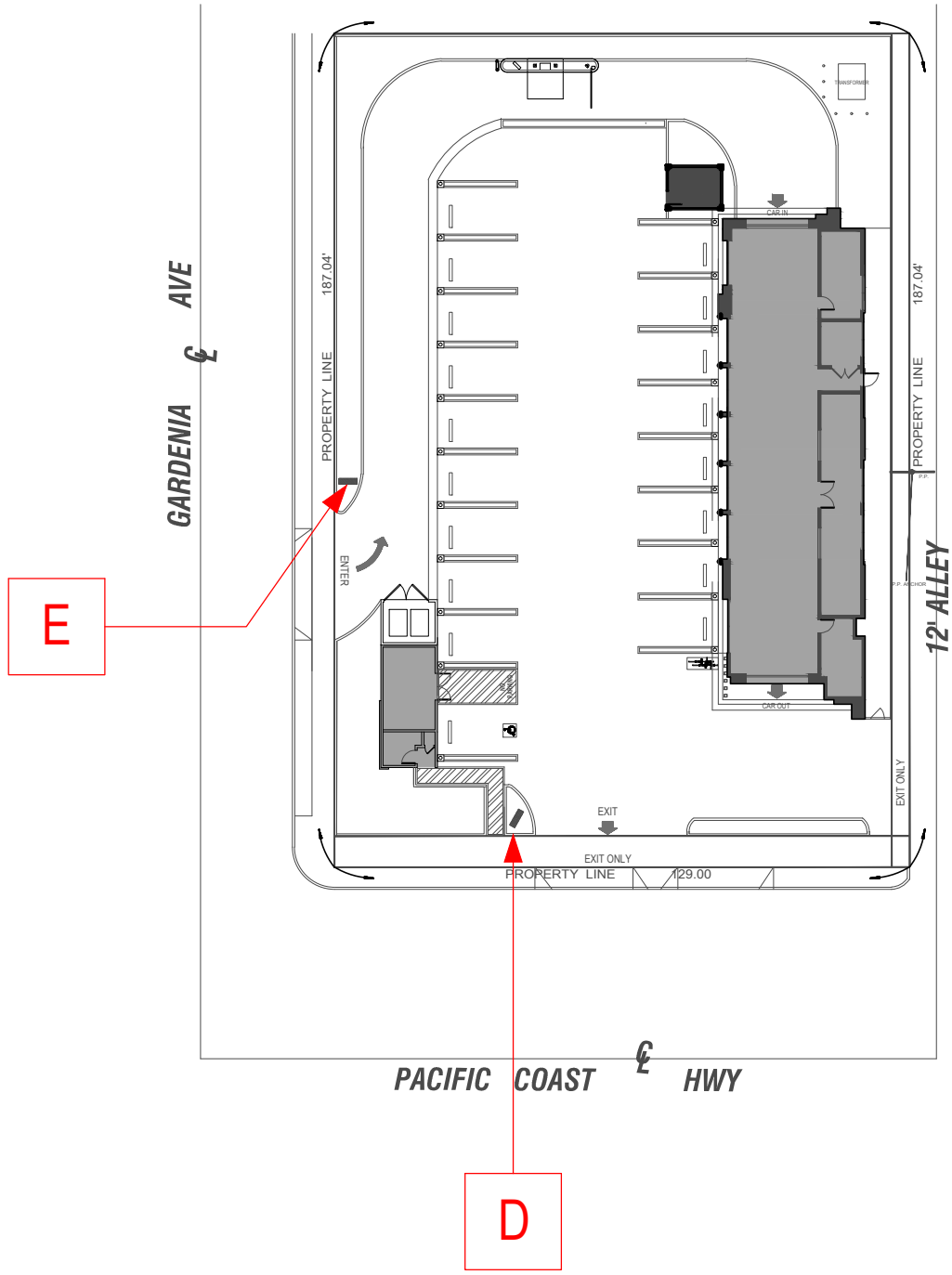
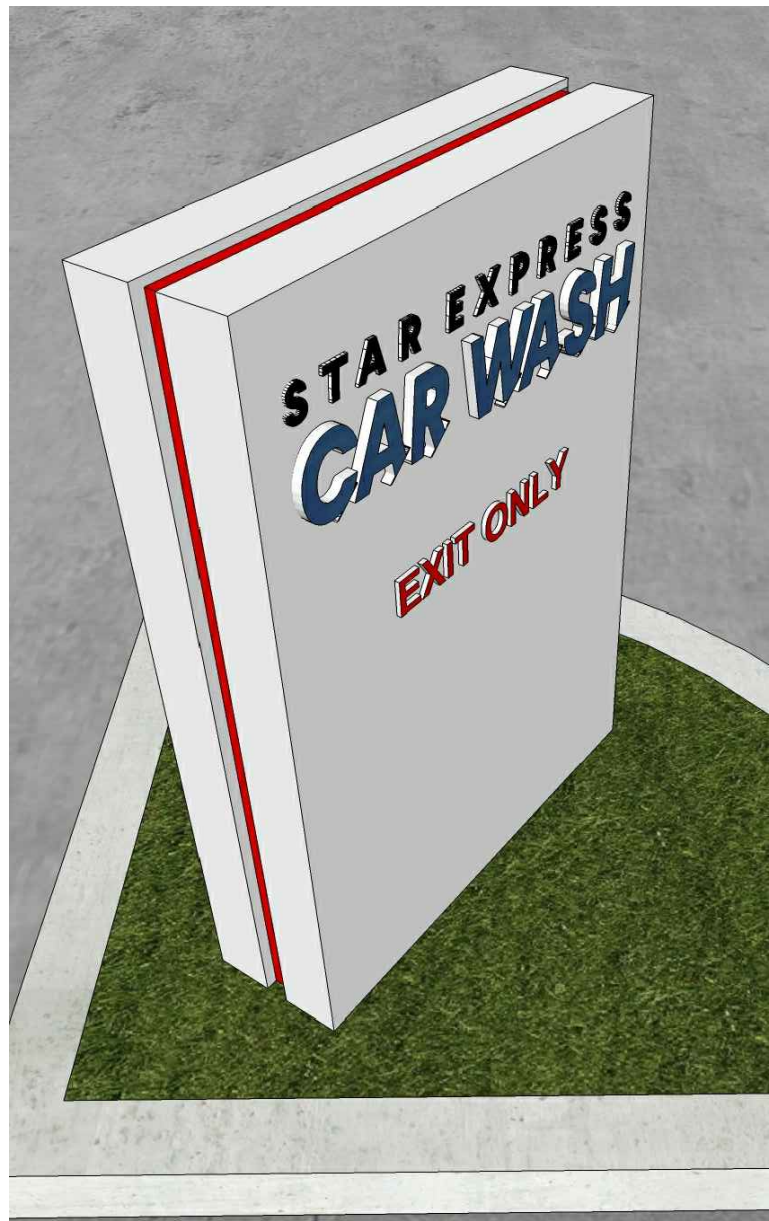
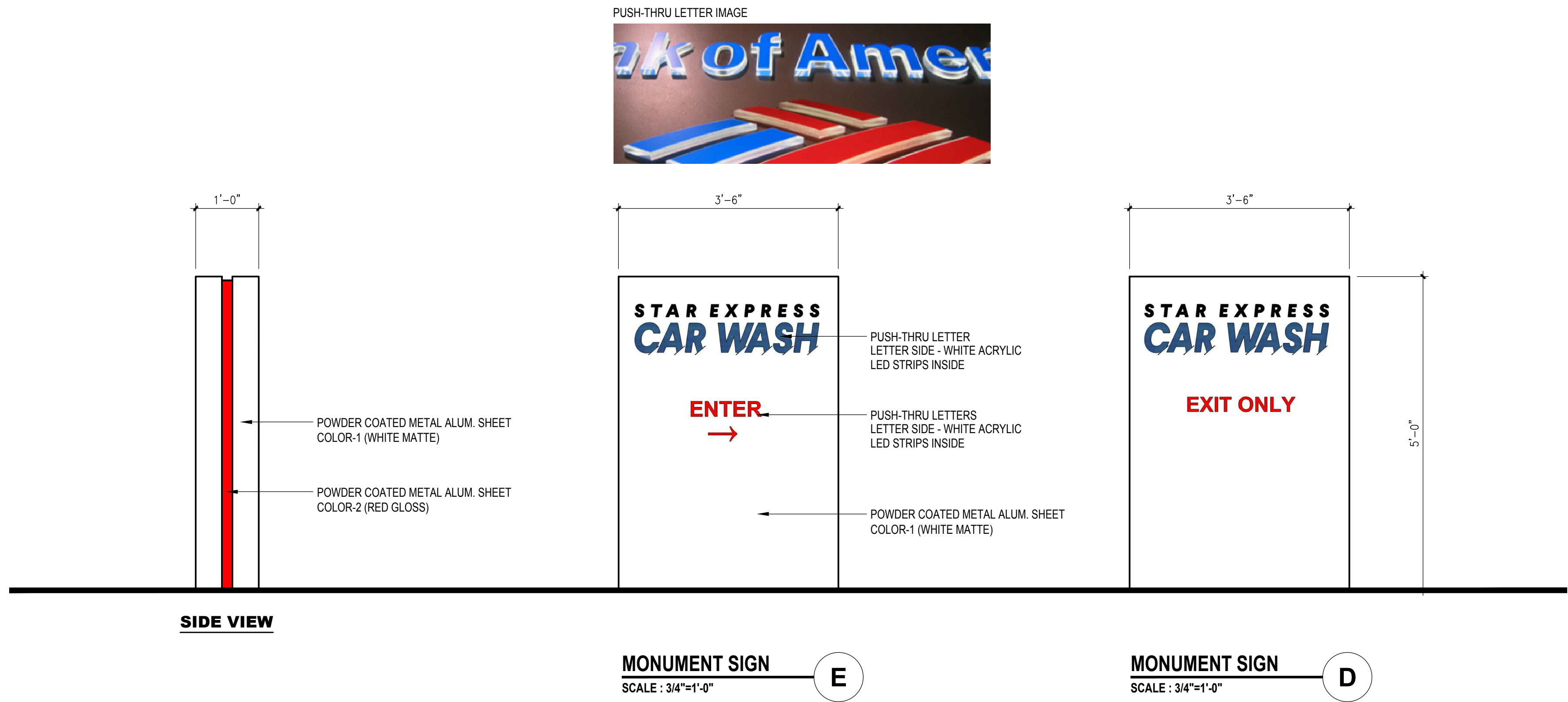
SHEET

SN-1





### ILLUMINATED INDIVIDUAL CHANNEL WALL SIGN INSTALLATION & SPEC.



## EXPRESS CAR WASH DEVELOPMENT FOR STAR EXPRESS CAR WASH 1911 E. PACIFIC COAST HWY. LONG BEACH, CA 90806

TITLE	
SIGN PLAN	
NO DATE	
PRINT DATE 7/25/2021	
SCALE	
DRAWN BY	
CHECKED BY	
SHEET	