

**SAUSALITO-MARIN CITY SANITARY DISTRICT  
BEACH FORCE MAIN REHABILITATION PROJECT**

**Addendum No. 1**

The following shall modify the Contract Documents. The work shall be accomplished in accordance with such modifications. It is required that this addendum be attached to the Specifications.

**IMPORTANT: Receipt of this Addendum must be acknowledged in the space provided on the Bid form when your bid is submitted. Failure to acknowledge receipt of this addendum may constitute grounds for rejection of the bid.**

**Addendum Items:**

**PERMIT CONDITIONS:**

- Item 1.1:** The District has completed “Part A” of the City of Sausalito’s encroachment permit. All required terms and conditions are included in the attached permit, identified as “**Encroachment Permit EZ2023-0484**,” and apply to all work performed within the City of Sausalito. Contractor is required to complete “Part B” prior to mobilizing. Specifically, Part B requires the Contractor to provide Insurance naming the City and District as additional insured and to submit a traffic control plan for approval. See Special Conditions, paragraph 20.
- Item 1.2:** The District has been issued a permit by the San Francisco Bay Conservation and Development Commission (BCDC). All required terms and conditions are included in the attached permit identified as “**PERMIT NO. M2023.002.00**,” and apply to all work performed within 100 feet of the Mean High Tide. Contractor shall maintain access to the beach during construction as long as egress remains safe. All construction activities occurring on the beach/shoreline shall be confined to the window between July 1 and March 1 to minimize disturbance to spawning Pacific herring and migrating salmon.

**CLARIFICATIONS AND MINOR CHANGES:**

- Item 1.3:** Materials: All hardware shall be 316 SS. All Unistrut shall be 316 SS or non-metallic. All steel including pipe supports, brackets, hangers, control panels, pedestals, etc. shall be 316 SS unless otherwise specified. Galvanized steel is not

permitted. Conduits shall be PVC coated Rigid Galvanized Steel in all areas including indoor and dry locations.

**Item 1.4:** Bypass pumping: At the Main Street pump station, influent sewer flow cannot be stopped. See Section 02145 for bypass requirements. Additional clarification is as follows:

There is an existing pump station on a separate force main that can be used while installing piping, controls, etc. However, this pump station shares the same wet well. While working in the wet well, or when power or controls of the existing pump station are impacted, a bypass pump station must be provided. Due to the location of this pump station in a residential area, pumping outside of permitted construction hours will require the use of electric pumps. Pumps may be powered by PG&E through the existing station and utilize the existing backup generator when possible. If existing power is not available, a sound attenuated generator will be required and must be backed up by a second power source for reliability.

In order to maintain redundancy for reliability, all bypasses must include a full capacity pump as well as a full capacity backup pump. In addition, a primary and secondary power source is required if using electric pumps. Gas powered pumps may only be used during permitted construction hours. All pumps must be monitored and maintained in accordance with Section 2145.

**Item 1.5:** Force Main Cleaning: All captured sewage may be delivered to the treatment plant and/or the Main Street pump station. Bay water shall not be delivered to either location. Solids and silt must be settled and decanted prior to disposal into either of these facilities. A baker tank may be staged at Main Street and decanted into the existing rock catcher structure located at the foot of Main Street. A small sized baffled tank can be staged at the treatment plant and decanted into the plants recycle pump station wet well. However, the treatment plant causeway has weight limitations of 400 pounds per square foot, has a steep driveway which may not accommodate placement by roll off truck, and has potential capacity restrictions at the plant's recycle pump station. Alternately, at either location, a vac truck may be utilized. The District cannot receive solids from a baker tank or vac truck. Solids may be delivered to Redwood landfill using the District's grit profile (to be provided as needed). Contractor shall be responsible for all transport and disposal fees.

**Item 1.6:** Tide Constraints: Note that the entire beach is covered and inaccessible during high tides at both work locations. Access to worksites on the beach will require working during low tide periods. The lower the tide the longer the window of opportunity to construct. Contractor's workplan must consider tides, and permitted working hours at the Main Street pump station location. Also note that ferry waves wash the shore regularly and may flood open excavations. Rip-rap or similar should be used to protect from wave action.

**Item 1.7:** Level Sensor: Prior to demolishing the Main Street wet well lid for the new hatch, Contractor shall relocate the existing level sensor. The new location shall be as directed in the field by District operators. The level sensor must remain active at all times the pump station is on-line as it provides primary pump control. Relocation includes installation of new 316 SS anchors and sealing of all resulting voids in the polyurethane coating using Sikaflex-1A sealant. Existing anchors may remain if not in the way of other facilities. Cable length does not require adjustment but cable must be supported as needed to maintain clear opening under hatches.

**Item 1.8:** Storm Drain: Contractor is required to protect and support the 30” storm drain at Main Street during excavation and installation of new piping. Contractor’s means and methods shall consider the presence of the storm drain as shown on project plans. If damaged during construction, Contractor shall repair or replace as necessary at no additional cost to Owner.

**Item 1.9:** Air Gap for Pump Cables: All new wet well penetrations shall be detailed as follows in lieu of detail 1 shown on drawing E-7. **See attached “Addenda Item 1.9”** for example photos of an “air gap” from another District pump station.

- a. Wet well penetrations shall be core drilled.
- b. Seal Sch. 80 PVC conduit into core hole using link seal in center of slab.
- c. Apply duct seal to fill voids on both sides and apply Sika-1A on inside of wet well from existing polyurethane coating to PVC to completely cover duct seal.
- d. Provide air-gap between wet well and junction box. (Conduit to junction box shall be PVC coated rigid.)
- e. Seal cable at conduit ends with liquid tight gromets.
- f. Protect exposed cables at air gap using a stainless steel shield.

**Item 1.10:** Pre-Bid Site Inspection: **See Section 100, Article 4.** All bidders must visit the project sites prior to submitting a bid to the District. The District will host a project walk on April 9, 2024 at 10 AM. The project walk will begin at the Main Street pump station located at the foot of Main St (adjacent to the Bay). Parking is limited so please be sure to provide enough time to find parking. The treatment plant location will follow.

Contractors may also conduct a self-guided tour or request an alternate time and date from the District. For access to the District’s treatment plant please contact Kevin Rahman, District Engineer, at 415-331-4714 to schedule a visit. Visits can generally be accommodated from 7:00 AM to 4:00 PM, Mon thru Fri.

## **ADDITIONAL SCOPE OF WORK**

**Item 1.11: Scrubber fan:** The existing scrubber fan shall be replaced with a direct drive fan in the same location to reduce noise. Existing controls and power are to be re-used. Contractor shall provide all required mounting, pads and connections. Return existing blower and motor to District. **See attached “Addenda Item 1.11”** for photos and New York Blower cut sheets. Contractor shall submit proposed fan for approval.

Fan must meet the following criteria:

1. Connect to 480/240 V, 15 Amp Service with VFD controls.
2. Fan suction has 8” flanged connection with an isolation gasket.
3. Discharge pipe OD is 13.3” (Boot connection).
4. Discharge pipe is 40’ long with 4 – 90 deg elbows and a 24’ rise.
5. Fan shall achieve 700 ACFM with a static pressure of 9”.
6. Material of construction shall be 304L or 316 SS.
7. Fan shall be rated at  $\leq 70$  decibels.
8. Fan shall be provided by New York Blower, size 1508, or equal.

**Item 1.12: TCSD Flow Meter Installation:** Contractor shall contract with Calcon Systems to install a clamp-on flow meter and all associated facilities required including but not limited to a control panel, solar panel and mounting pole, underground vault, conduits, wires, etc. as described below. **See “Addenda Item 1.12”** for specifications, project location and additional reference material. Contractor shall obtain all County and Caltrans permits required to facilitate installation. District will pay any required permit fees.

- a. Install vault around existing 18” SDR 17 HDPE pipe per details provided in the attached “Addenda Item 1.12.”
- b. Existing pipe is approximately 4.5’ to top of pipe. Floor of vault shall be 1’ below bottom of pipe (approximately 7’ from grade to top of floor slab).
- c. Contractor shall comply with Marin County detail 210B for H2O rated vault and 30” manhole access cover. Internal dimensions of vault shall be 6’ along pipe alignment with an internal width of 5’.
- d. Waterstop shall be provided for all penetrations and joints using Sika Hydrotite CJ or equal.
- e. Construct 4 removable bollards per attached detail. Field verify location with Owner.
- f. Install two (2) - 1” PVC coated rigid conduits from vault to pull box identified on pole mount detail.
- g. Construct aluminum pole and concrete base as detailed in Addenda Item 1.12.

- h. Contractor shall contract with Calcon Systems for all parts, programming and field services as required to provide a working flow meter. Parts include a new control panel, clamp on flow meter, solar panels and appurtenances as required to provide a functional flow meter and SCADA interface.

Contact: Calcon Systems Inc. Contact:  
Christopher Ortega  
925-277-0665  
[cortega@calcon.com](mailto:cortega@calcon.com)

- i. Contractor shall perform the installation of the clamp-on style flow meter provided by Calcon Systems per manufacturer's instructions.
- j. Contractor shall coordinate with Calcon Systems for all required conduit and wiring for the control panel and solar panel.
- k. Groundwater is present at worksite and must be mitigated by Contractor to facilitate installation of vault and conduits at no additional cost to Owner.

**Item 1.13: Public Access Improvements:** Install approximately 180 square feet of amphitheater style seating/steps at the foot of Main Street to provide improved public access to the beach. The design includes piers located in the beach. See drawings titled, "The Valhalla Beach Access" as provided by Darius Abolhassani Consultant & Associates, Inc. (File name, "Public Access Improvements Drawings\_SMCS") The scope of work includes only the South portion as identified on Drawing S-2.0. The North portion will be constructed by others in advance.

**This Addendum No. 1 shall become part of the Contract and all provisions of the Contract shall apply thereto.**

## **Addenda Item 1.9**

### **Air Gap for Pump Cables**

The photos below show a cable air gap from another pump station. This setup shall be used for the new pump cables at the Main Street pump station. For Main Street, conduits from the wet well shall be Sch. 80 PVC and located near the building wall such that they are out of the way of hatches and foot traffic. Locate penetration locations with Owner prior to coring. Cast or core penetrations as necessary to install link-seals around PVC conduits. Grout link-seals on top and use all 316 SS hardware. All other conduit shall be PVC coated Rigid. Install a stainless steel shield over exposed cables for protection as shown.



Cables exposed (air gap) to prevent gasses from reaching the termination cabinet.



Stainless Steel shield/kick plate installed over air gap to protect exposed cables.

## **Addenda Item 1.11** **Replace Scrubber Fan**

The existing scrubber fan is located inside the Main Street pump station. This fan is to be replaced with a direct drive fan in the same location to reduce noise. The new fan shall be direct drive, fit in the existing location, connect to existing suction and discharge piping and be compatible with the existing VFD controller.





# REFERENCE INFORMATION FOR NEW YORK BLOWER



## The New York Blower Company Fan-to-Size Fan Selection Detail



### Fan Design

Product: Pressure Blower  
 Type: Radial  
 Size: 1508  
 Fan Class: N/A  
 Wheel Type: Radial (open frontplate) - OPEN  
 Wheel Material: 304L  
 Wheel Weight: 22.0 lb  
 Wheel WR<sup>2</sup>: 3.4 lb-ft<sup>2</sup>  
 Percent Width: 100%  
 Percent Diameter: 100.0%  
 Outlet Area: .349 sq. ft.  
 Options: None  
 Axial thrust load is 11.2 lbf.

### Calculation Mode: Find Speed

Drive Type: Direct  
 Arrangement: 4  
 Outlet Velocity: 2006 ft/min  
 Static Efficiency: 62.09%  
 Total Efficiency: 63.8%  
 Operating Temp: 70° F  
 Maximum Temp: 70° F  
 Maximum Speed: **(1)** 4000 RPM  
 Velocity Pressure: 0.251 in wg  
 Fan Static Pressure: 9 in wg  
 Fan Total Pressure: 9.25 in wg  
 Altitude: 0 ft

### Conditions (Actual Volume; Fan Static Pressure)

	<u>Flow</u>	<u>Pressure</u>	<u>Power</u>	<u>Speed</u>	<u>Speed Limit (2)</u>	<u>Density</u>	<u>Altitude</u>	<u>Inlet Temp.</u>
	<u>ACFM</u>	<u>in wg (FSP)</u>	<u>bhp</u>	<u>rpm</u>	<u>rpm</u>	<u>lb/ft<sup>3</sup></u>	<u>ft</u>	<u>f</u>
<b>Operating</b>	700	9	1.60	2771	4000	0.0750	0	70
<b>Cold</b>	700	9	1.60	2771	4000	0.0750	0	70
<b>Standard</b>	700	9	1.60	2771	4000	0.0750	0	70

(1) Speed Limit at Maximum Temperature    (2) Speed Limit at indicated Inlet Temperature



**The New York Blower Company**  
**Fan-to-Size**  
**Fan Selection Detail**

**Sound Power Level Ratings**

Sound power and sound pressure levels are shown in decibels. (Power levels reference 10-12 watts and pressure levels reference 2x10<sup>-7</sup> microbar.) Sound power ratings are calculated per AMCA Standard 301. Ratings do not include the effects of duct end correction. Sound levels do not include motors or drives. Pressure levels are estimated. A-weighting is per ANSI S.1.42-2001 (R2011).

**Fan Sound**

Center Freq (Hz)	63	125	250	500	1000	2000	4000	8000	Overall
Octave	1	2	3	4	5	6	7	8	
Inlet Total Power, dB	79	84	84	80	76	74	71	68	<b>89</b>
A-Weighting	-26.2	-16.1	-8.6	-3.2	0	1.2	1	-1.1	
Convert To Pressure	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	
Inlet Total Pressure, dBA	42	57	64	65	65	64	60	55	<b>71</b>
Outlet Total Power, dB	79	84	84	80	76	74	71	68	<b>89</b>
A-Weighting	-26.2	-16.1	-8.6	-3.2	0	1.2	1	-1.1	
Convert To Pressure	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	
Outlet Total Pressure, dBA	42	57	64	65	65	64	60	55	<b>71</b>
Fan Total Power, dB	82	87	87	83	79	77	74	71	<b>92</b>
Housing Radiated Noise	-5	-9	-14	-16	-13	-13	-14	-15	
A-Weighting	-26.2	-16.1	-8.6	-3.2	0	1.2	1	-1.1	
Convert To Pressure	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	
Fan Total Pressure, dBA	40	51	53	52	55	54	49	43	<b>61</b>

Directivity/Reflection is a hemispherical radiation (Q = 2); Distance is 5 ft.

At 5 ft, the estimated sound pressure level:

1. outside the fan due to an open inlet OR outlet is 71 dBA.
2. housing radiated noise when inlet and outlet are ducted away from listening point is 61 dBA.

The sound power and pressure levels displayed here are estimated values based on tests and ratings conducted in accordance with AMCA standards 300 and 301. AMCA does not certify any of these ratings.

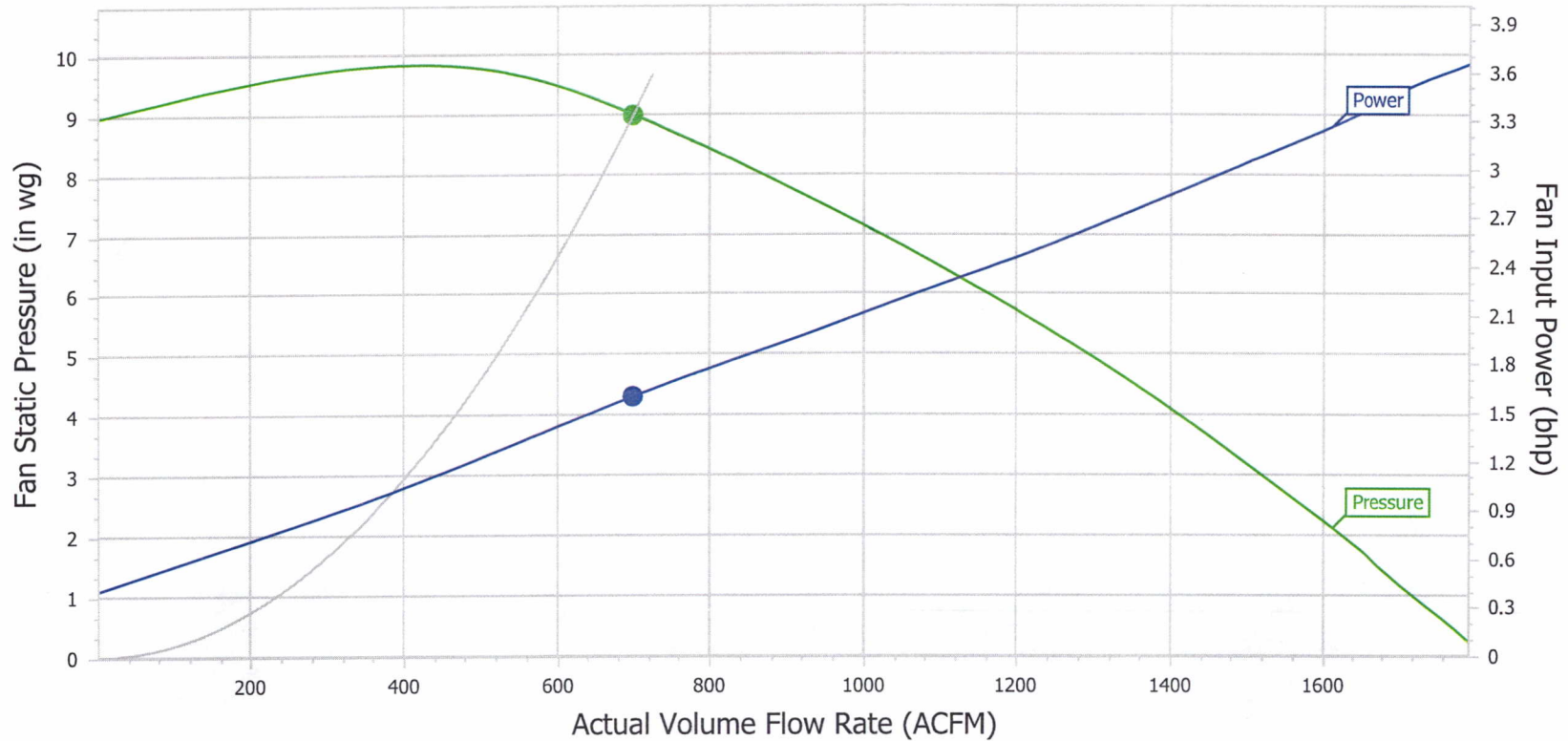


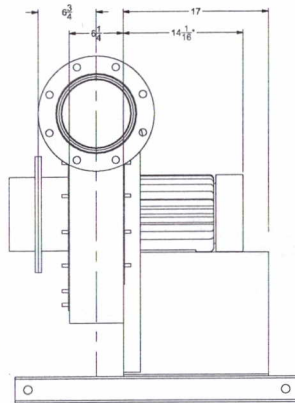
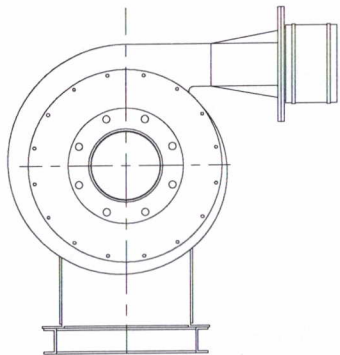
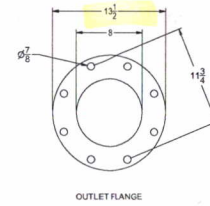
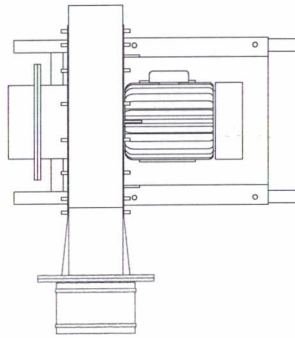
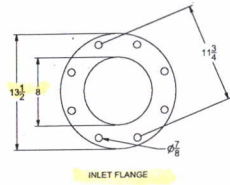
The New York Blower Company  
Fan-to-Size  
Fan Selection Detail

Product: Pressure Blower  
Material: 304L  
Fan Size: 1508  
Arrangement: 4  
Wheel Type: Radial (open frontplate) - OPEN  
Options: None

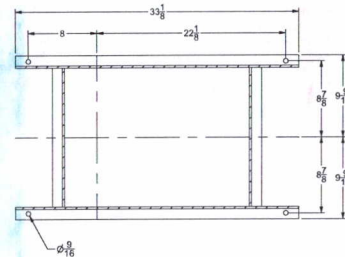
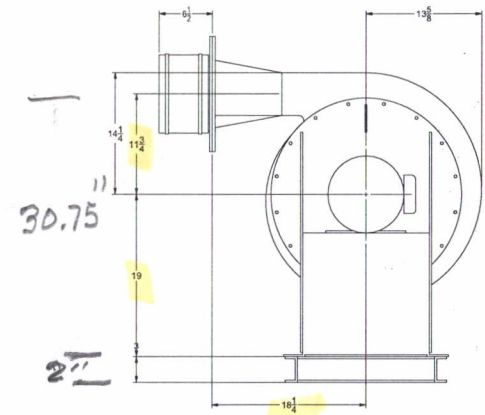
Actual Volume Flow Rate: 700 ACFM  
Fan Static Pressure: 9 in wg  
Speed: 2771 rpm  
Power: 1.60 bhp

Inlet Temperature: 70 °f  
Altitude: 0 ft  
Density: 0.0750 lb/ft<sup>3</sup>  
Outlet Velocity: 2006 ft/min





N4B 32.75"  
 VS  
 TC 32.90"



EST FAN SHIPPING WEIGHT 344#  
 EST SHIPPING DIM 62" W X 58" L X 52" H

CUSTOMER: Umsook Corporation  
 CUSTOMER'S NO.:  
 FILE NO.: E00H1123  
 TAGLINE: Results.

NOTICE: This drawing is the property of THE NEW YORK BLOWER CO. and is loaned subject to the condition that it shall not be reproduced, copied, loaned or supplied to outside parties without the consent of THE NEW YORK BLOWER CO.

1508 PRESSURE BLOWER  
 CCW TH  
 Arrangement 4

PROPOSAL DRAWING ONLY

DRAWN: DCD DATE: 6/23/2021  
 THE NEW YORK BLOWER COMPANY  
 100 Spring Street  
 New York, N.Y. 10012-3038  
 Phone: (212) 310-1111 Email: info@nybc.com

DRAWING NUMBER: D00181123

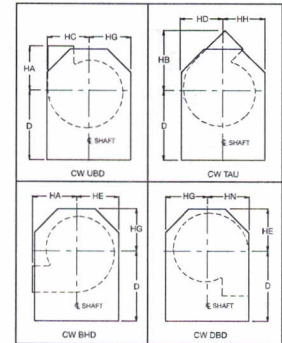
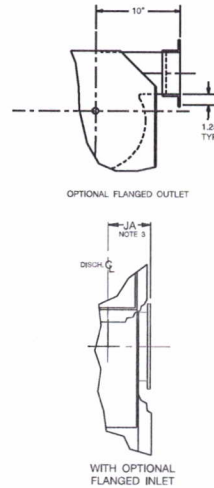
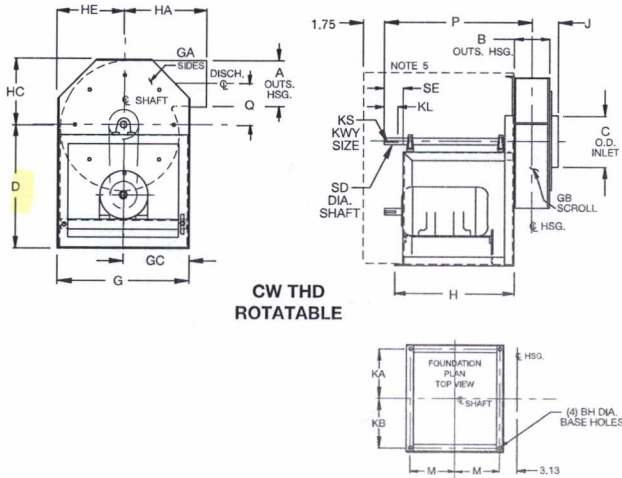
\*VARIES SLIGHTLY WITH MOTORS OF DIFFERENT MANUFACTURE.



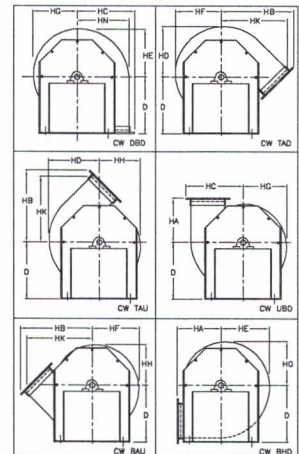
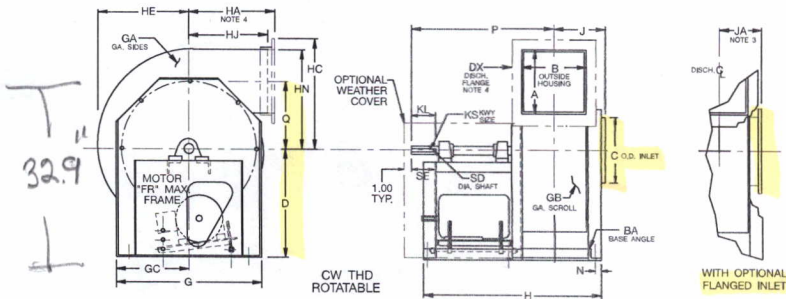
RBA, RBO & RBW,  
Arr. 10: Class 22

**ARR-4  
DIRECT DRIVE**

## Size 905



## Sizes 907 - 919



### NOTES:

1. Clockwise (CW) rotation shown, counterclockwise (CCW) rotation is similar but opposite.
2. All sizes are rotatable, except for DBD discharge with an outlet flange option.
3. Optional flanged inlet shown. See AC15143 for dimensional data.
4. Punched outlet flange is optional on all sizes. See drawing AC15146 for dimensional data. Consult factory for DBD discharge with punched outlet flange option.
5. Weather cover is optional.
6. All Arrangement 10 fans are available as Class 22 only.

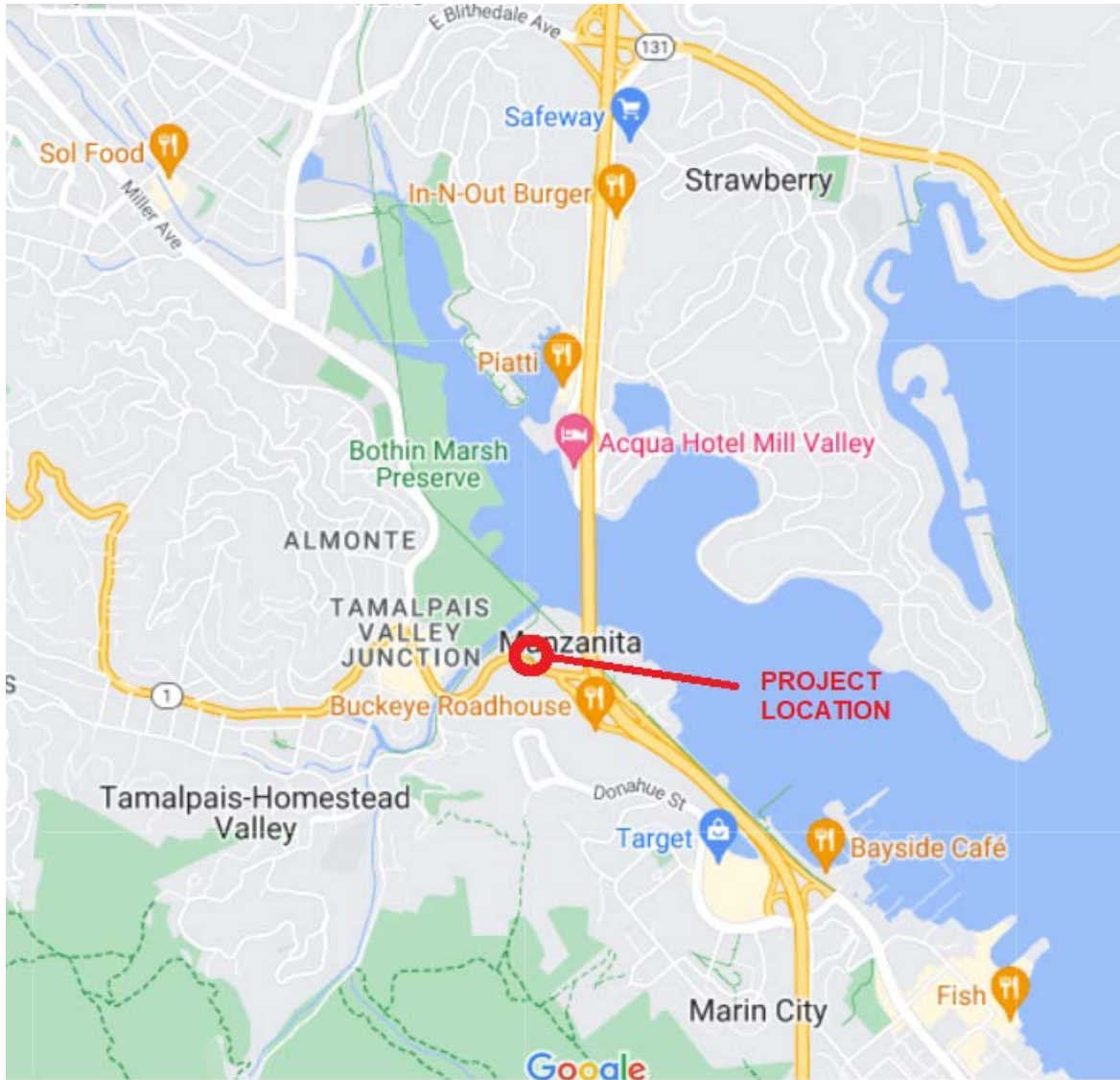
FAN SIZE	A	B	BA	BH	C	D	DX	G	GA	GB	GC	H	HA	HB	HC	HD	HE	HJ	HK
905	4.88	4.50	—	0.44	5.00	14.50	1.25	16.00	12	12	8.00	13.38	9.00	11.75	8.00	8.00	8.00	—	—
907	6.81	6.06	1.50x1.50	0.44	7.00	17.63	1.25	16.00	12	12	8.00	28.63	9.56	15.13	11.81	10.13	9.69	8.31	13.38
909	8.63	7.69	1.50x1.50	0.44	9.00	19.38	1.25	19.00	10	10	9.50	32.00	11.13	18.31	14.75	12.94	12.38	10.63	17.06
911	10.56	9.44	2.00x2.00	0.56	11.00	21.88	1.50	25.00	10	10	12.50	39.00	14.25	22.75	17.94	15.75	15.06	13.00	20.81
913	12.44	11.13	2.00x2.00	0.56	13.25	25.50	1.50	27.25	10	10	13.63	40.69	15.88	26.06	20.94	18.63	17.81	15.38	24.63
915	14.31	12.81	2.50x2.50	0.56	15.25	30.50	1.50	33.00	10	10	16.50	45.13	18.25	29.81	23.88	21.50	20.50	17.75	28.38
917	16.25	14.50	2.50x2.50	0.56	17.25	27.50	1.50	36.13	10	10	18.06	46.81	20.63	33.63	26.88	24.31	23.25	20.13	32.19
919	18.06	16.13	2.50x2.50	0.56	19.25	30.00	2.00	38.88	10	10	19.44	51.94	22.94	37.63	30.25	27.06	25.88	22.44	35.88

FAN SIZE	HF	HG	HH	HN	J	JA	KA	KB	KL	KS	L	M	N	P	Q	SD	SE	MAX. MTR. FR.
905	—	8.00	8.00	8.00	3.88	4.88	6.75	6.75	2.00	0.25 x 0.13	—	6.00	—	17.13	5.13	1.00	2.75	145T
907	9.25	8.81	8.38	10.56	4.69	5.69	4.06	4.94	2.00	0.38 x 0.19	18.50	7.31	0.63	24.81	7.19	1.44	2.75	184T
909	11.81	11.25	10.69	13.50	5.50	6.50	4.88	5.75	2.63	0.38 x 0.19	20.25	8.81	0.63	28.06	9.19	1.44	3.38	215T
911	14.38	13.69	13.00	16.44	6.88	8.38	6.00	6.75	3.25	0.38 x 0.19	24.75	10.88	0.88	34.25	11.19	1.69	4.00	256T
913	17.00	16.19	15.38	19.44	7.69	9.19	6.81	8.19	3.25	0.38 x 0.19	23.88	11.13	0.88	35.13	13.25	1.69	4.00	256T
915	19.56	18.63	17.69	22.38	9.06	10.06	7.94	9.06	3.63	0.50 x 0.25	26.13	12.13	1.13	38.88	15.25	2.19	4.63	286T
917	22.19	21.13	20.06	25.38	9.88	10.88	8.75	10.44	3.63	0.50 x 0.25	25.38	12.38	1.13	39.81	17.25	2.19	4.63	286T
919	24.69	23.50	22.31	28.25	10.69	11.69	9.56	11.25	4.50	0.50 x 0.25	28.88	14.13	1.13	44.75	19.25	2.19	5.25	326T

Dimensions are not to be used for construction. Certified drawings are available upon request.

AC10726D  
AC15142A

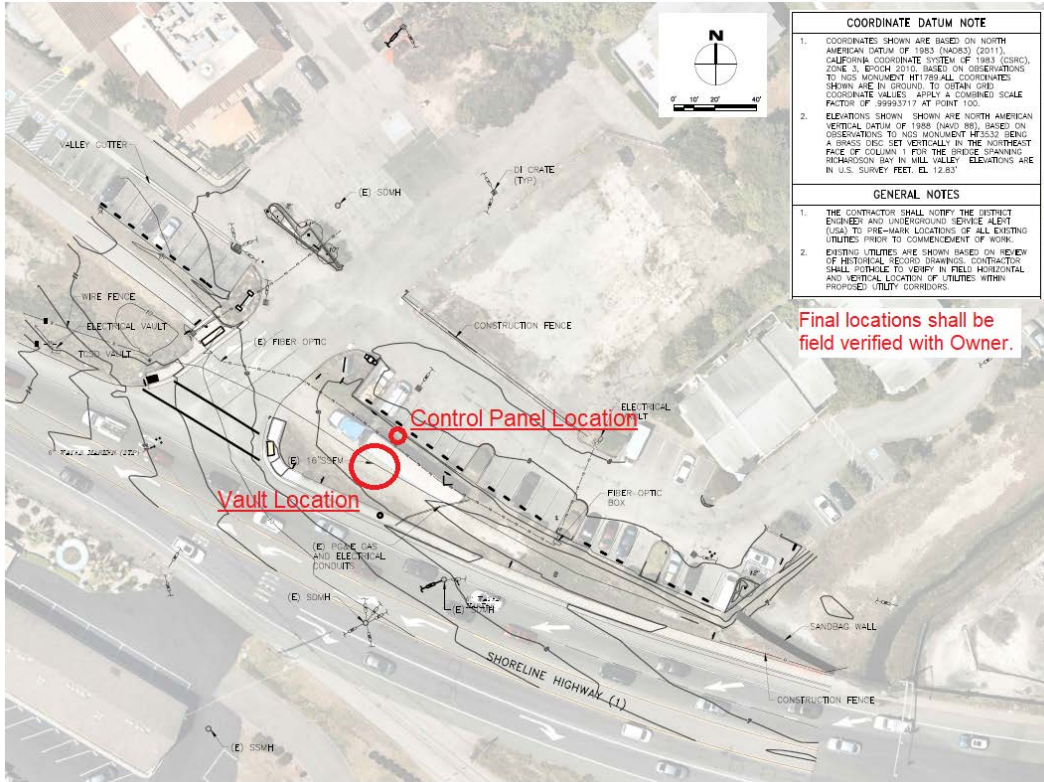
**Addenda Item 1.12**  
**TCS D Flow Meter**



VICINITY MAP FOR FLOW METER

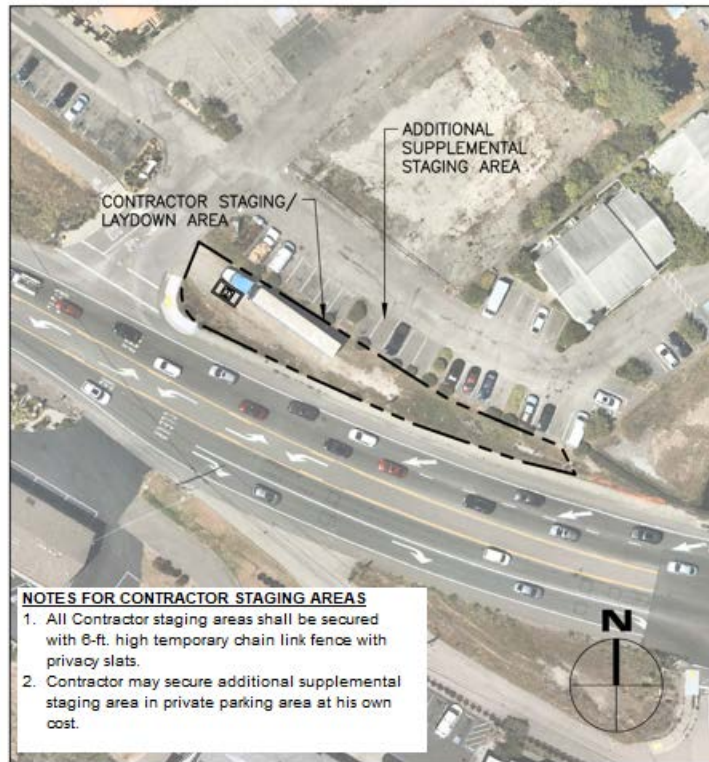


PROJECT LOCATION



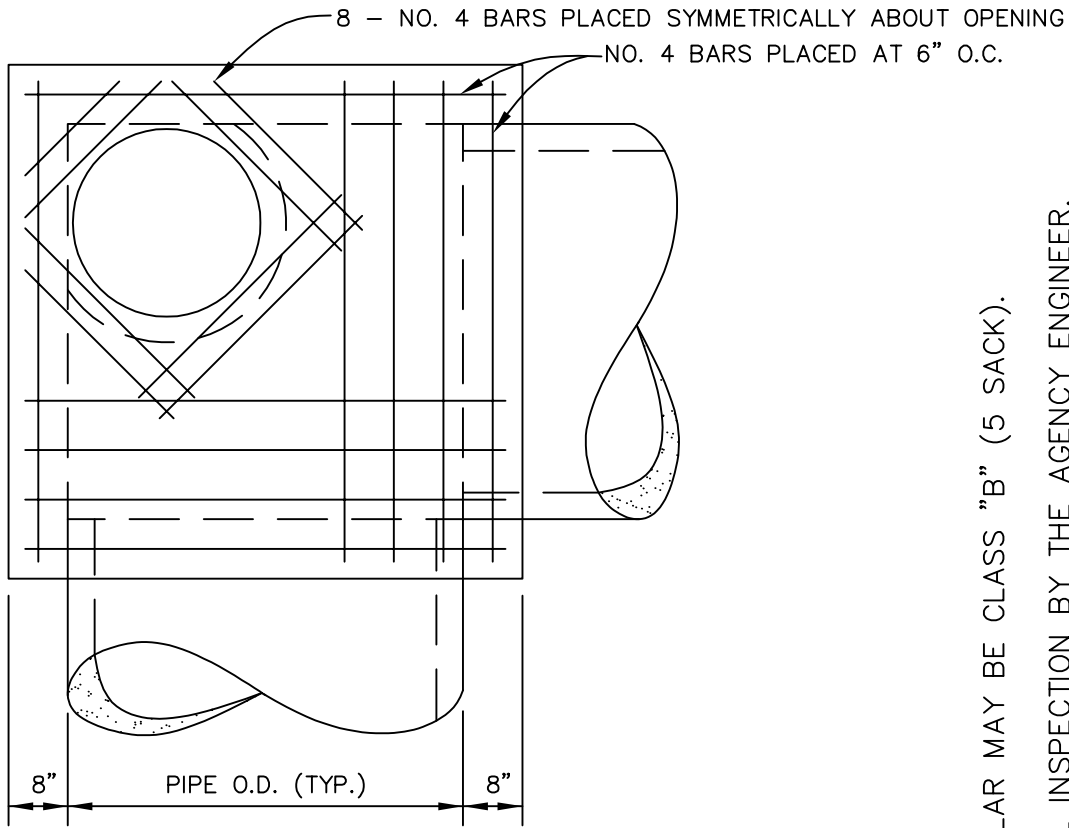
COORDINATE DATUM NOTE	
1.	COORDINATES SHOWN ARE BASED ON NORTH AMERICAN DATUM OF 1983 (NAD83) (2011), CALIFORNIA COORDINATE SYSTEM OF 1983 (CCSR), ZONE 3, EPOCH 2010, BASED ON OBSERVATIONS TO NGS MONUMENT HT/PTIAL COORDINATES SHOWN ARE IN GROUND. TO OBTAIN GROUND COORDINATE VALUES, APPLY A COMBINED SCALE FACTOR OF .9999371 AT POINT 100.
2.	ELEVATIONS SHOWN SHOWN ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). BASED ON OBSERVATIONS TO NGS MONUMENT HESS353, BEING A BRASS DISC SET VERTICALLY IN THE NORTHEAST FACE OF COLUMN 1 FOR THE BRIDGE SPANNING RICHARDSON BAY IN MILL VALLEY. ELEVATIONS ARE IN U.S. SURVEY FEET, EL. 12.83'
GENERAL NOTES	
1.	THE CONTRACTOR SHALL NOTIFY THE DISTRICT ENGINEER AND UNDERGROUND SERVICE ALERT (USA) TO PRE-MARK LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF WORK.
2.	EXISTING UTILITIES ARE SHOWN BASED ON REVIEW OF HISTORICAL RECORD DRAWINGS. CONTRACTOR SHALL PORTABLE TO VERIFY IN FIELD HORIZONTAL AND VERTICAL LOCATION OF UTILITIES WITHIN PROPOSED UTILITY CORRIDORS.

**Final locations shall be field verified with Owner.**



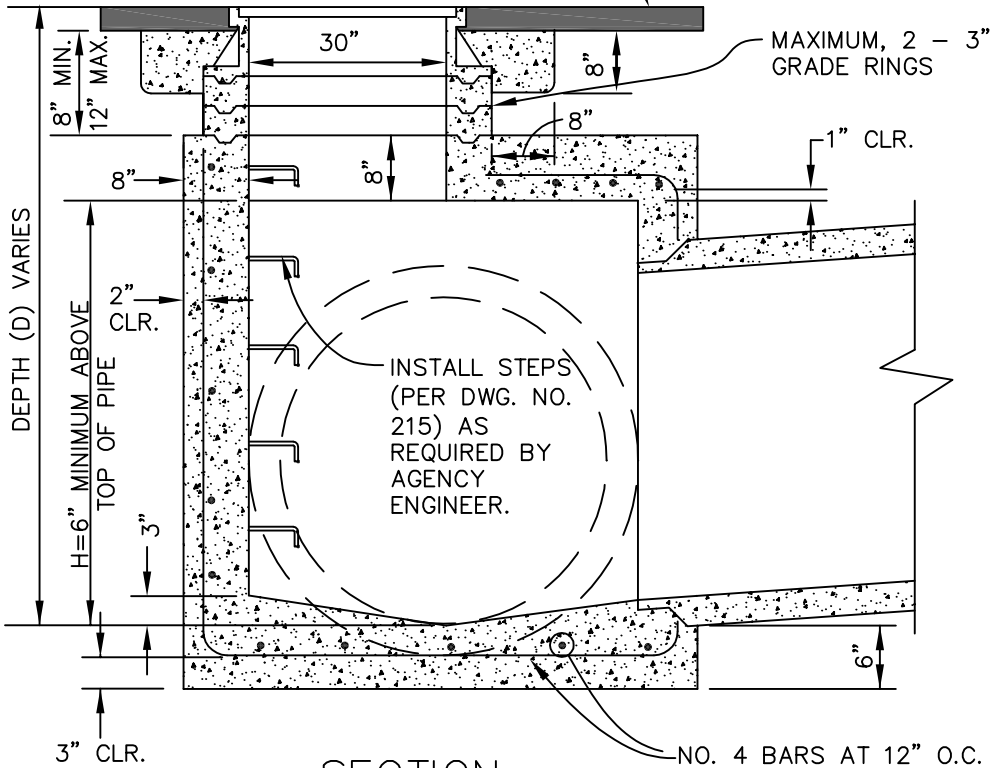
- NOTES FOR CONTRACTOR STAGING AREAS**
1. All Contractor staging areas shall be secured with 6-ft. high temporary chain link fence with privacy slats.
  2. Contractor may secure additional supplemental staging area in private parking area at his own cost.

**SITE LOCATION  
CONTRACTOR STAGING AREA**  
SCALE: 1" = 50'



PLAN

HOLD CONCRETE DOWN 2" AND PAVE WITH ASPHALT CONCRETE (SEE NOTE 7)



SECTION

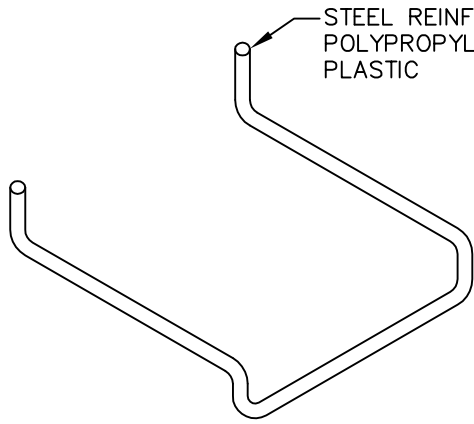
NOTES:

1. BASE SHALL BE PLACED AGAINST UNDISTURBED EARTH.
2. ALL CONCRETE SHALL BE CLASS "A" (6 SACK), EXCEPT COLLAR MAY BE CLASS "B" (5 SACK).
3. CONCRETE CHANNELS SHALL BE BRUSH FINISHED.
4. NO CONCRETE SHALL BE PLACED PRIOR TO FORM AND STEEL INSPECTION BY THE AGENCY ENGINEER.
5. SEE DWG. NO. 215 FOR STEP, FRAME AND COVER DETAIL.
6. MANHOLE FRAME MAY BE ADJUSTED EITHER BEFORE OR AFTER PAVING, BUT THE FINAL GRADE OF THE FRAME MUST MATCH THAT OF THE PAVEMENT WITHIN 1/4".
7. WHERE FRAME IS SET AFTER PAVING, EXPOSED CONCRETE SURFACES WILL NOT BE ALLOWED UNLESS PERMITTED BY AGENCY ENGINEER IN WRITING.

UNIFORM STANDARDS  
ALL CITIES AND  
COUNTY OF MARIN

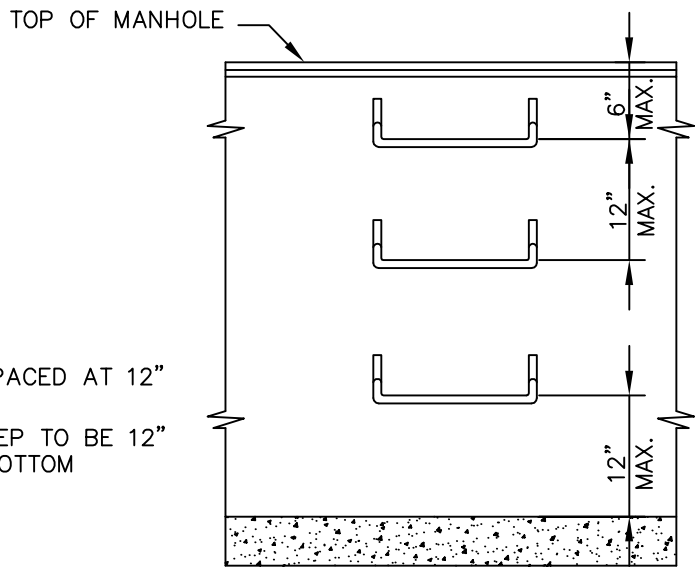
TYPE "B" MANHOLE  
(21" THROUGH 72" DIA. PIPE)

			MAY 2008
			DWG. NO.
REV.	DATE	BY	210

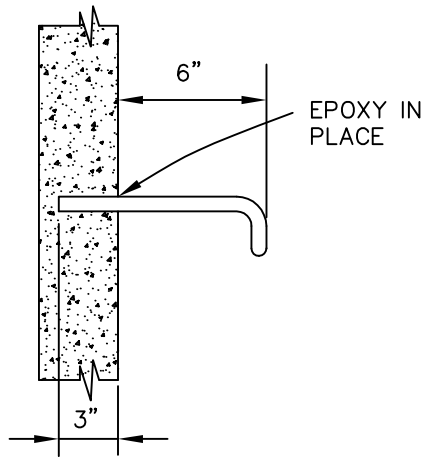


STEEL REINFORCED  
POLYPROPYLENE  
PLASTIC

STEPS SPACED AT 12"  
O. C.  
FIRST STEP TO BE 12"  
ABOVE BOTTOM

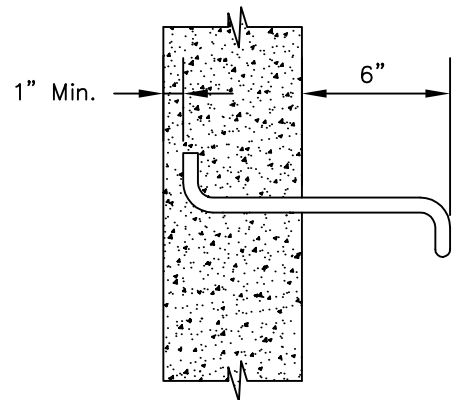


STEP DETAIL



PRECAST WALL

STEPS SHALL BE CAST INTO WALL  
AT FACTORY



CAST IN PLACE WALL

MANHOLE FRAME AND COVER

INSTALLED IN SIDEWALK

PHOENIX P-1067

SOUTH BAY FOUNDRY  
SBF-1967

OR APPROVED EQUAL

NON-SIDEWALK INSTALLATIONS

PHOENIX P-1067; P-1090; P-1005

SOUTH BAY FOUNDRY SBF-1900-REG;  
SBF-1905

OR APPROVED EQUAL

NOTE:

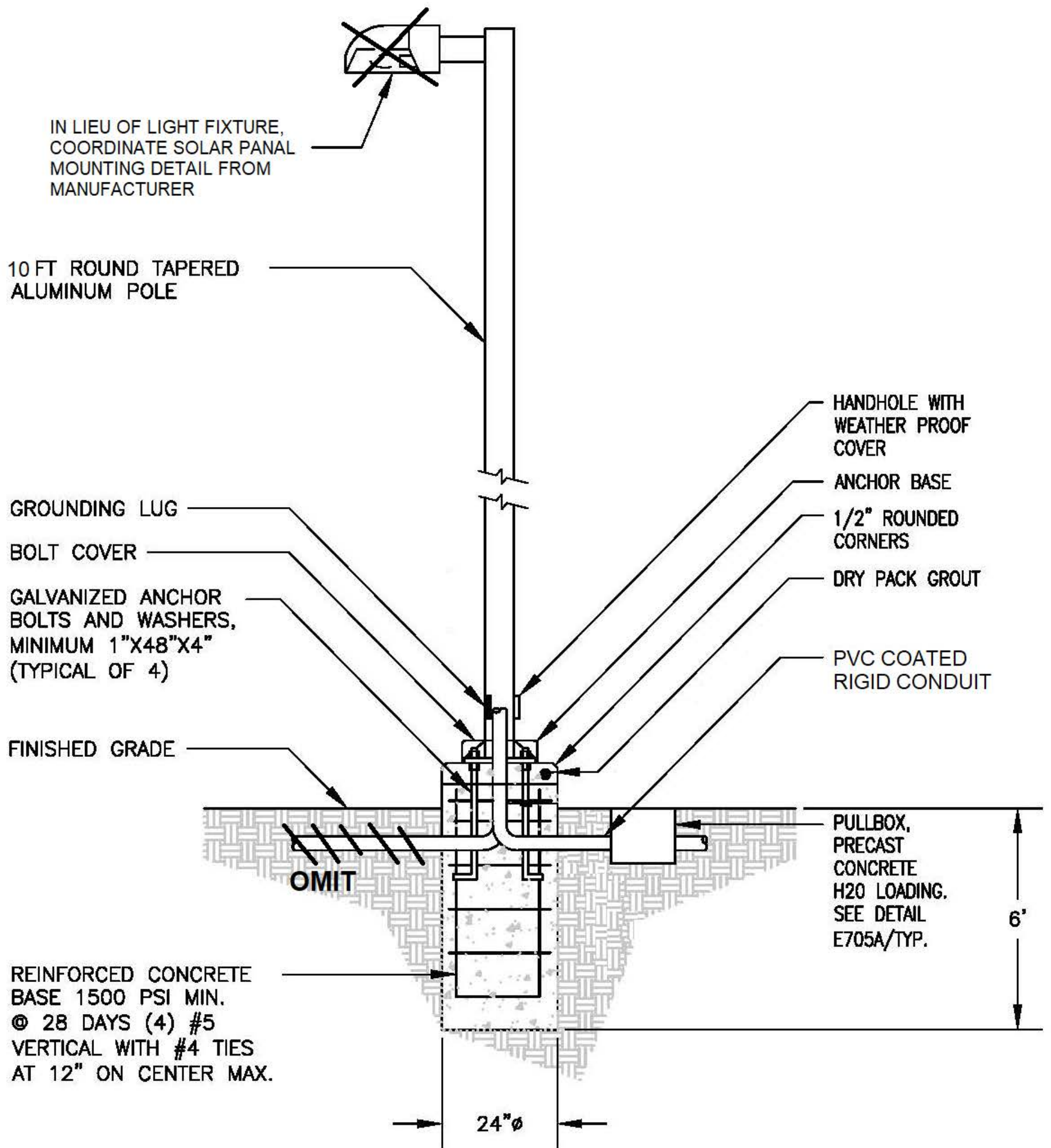
INSTALLATION OF STEPS SHALL BE AS REQUIRED BY AGENCY ENGINEER.  
WHERE INSTALLED, STEPS SHALL BE STEEL REINFORCED POLYPROPYLENE PLASTIC. CENTRAL PRECAST CONCRETE CO. DWG. No. PS2-PF OR EQUIVALENT. STEPS TO BE CAST IN PLACE OR PRESS FITTED INTO PROVIDED HOLES AS PER MANUFACTURER. INSTALL STEPS WITH LOWEST RUNG 1'-0" ABOVE THE FLOOR AND HIGHEST RUNG NOT MORE THAN 6" BELOW TOP OF MANHOLE. THE SPACING BETWEEN STEPS SHALL NOT EXCEED 1'-0" AND SHALL BE UNIFORM THROUGHOUT THE LENGTH OF THE WALL. PLACE STEPS IN THE WALL WITHOUT A PIPE OPENING. NO STEPS REQUIRED WHERE HEIGHT FROM BOTTOM TO TOP OF MANHOLE IS LESS THAN 30".

M: \Standards\County Standards (UCS)\2008 Updated County Standards

UNIFORM STANDARDS  
ALL CITIES AND  
COUNTY OF MARIN

STEP & MANHOLE  
CASTING DETAIL  
(WHERE REQUIRED BY  
AGENCY ENGINEER)

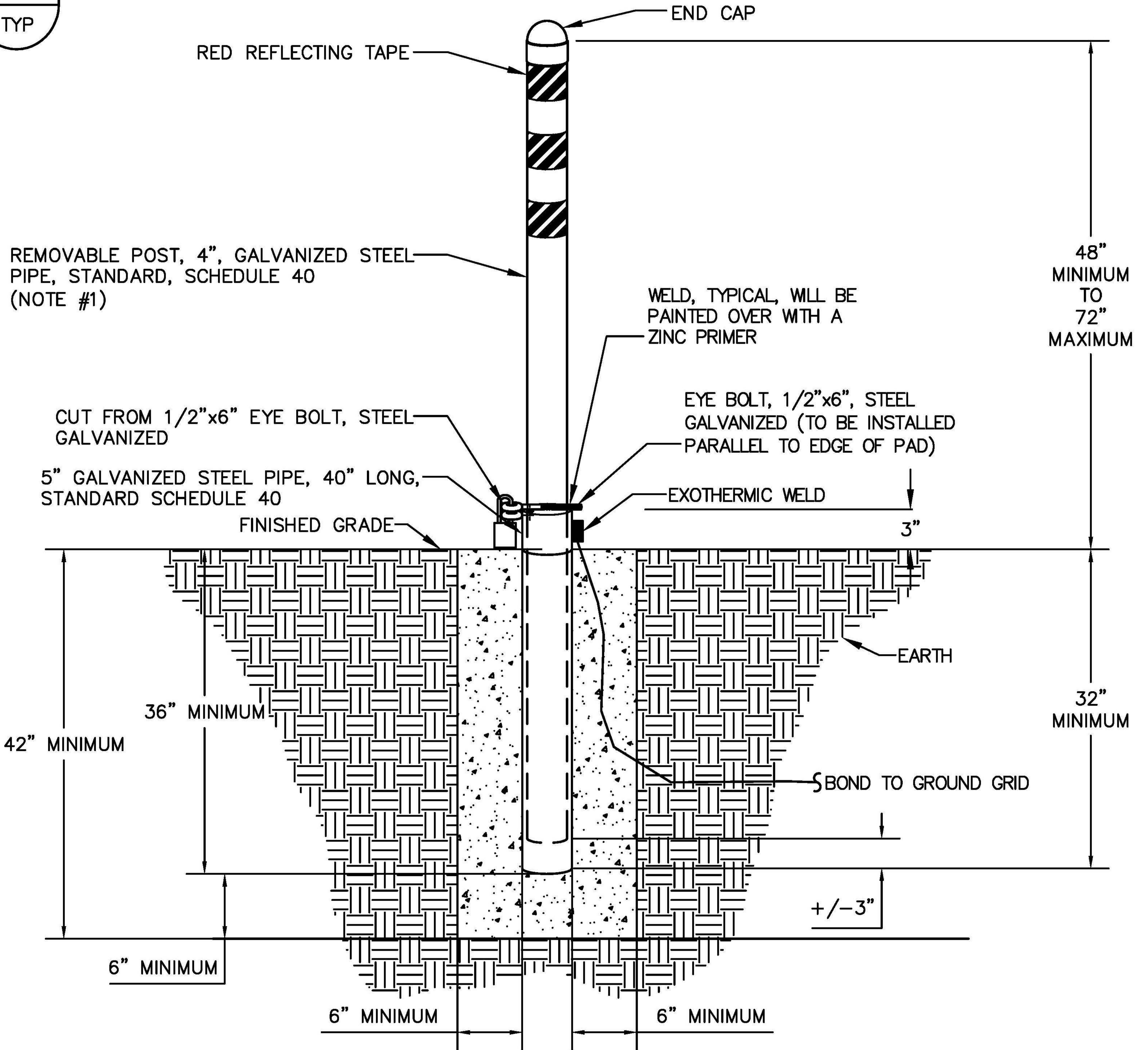
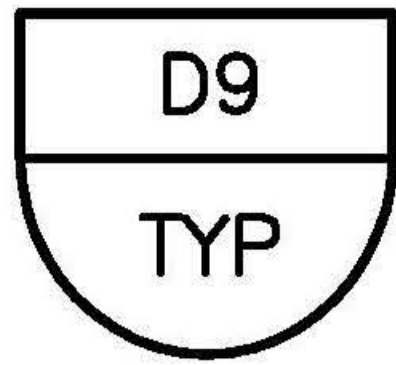
			MAY 2008
			DWG. NO.
			215
REV.	DATE	BY	



**E500**  
TYP

# POLE MOUNT FOR SOLAR PANEL

SCALE: NTS



### **REMOVABLE BOLLARD**

NOT TO SCALE

**DETAIL NOTE:**

1. GUARD POST SHALL BE PAINTED USING OUTDOOR YELLOW OIL-BASED ENAMEL RUST PREVENTATIVE PAINT TO PREVENT CORROSION.



# PRODUCT DATA SHEET

## Sika® Hydrotite CJ

### Hydrophilic Strip Applied Waterstop

#### PRODUCT DESCRIPTION

Sika® Hydrotite® IS A STATE-OF-THE-ART HYDROPHILIC WATERSTOP with unmatched durability and watersealing capacity. Comprised of NON-BENTONITE, modified chloroprene rubber, Sika® Hydrotite® expands up to EIGHT TIMES its original volume when exposed to water. This expansion creates an effective compression seal within joints of limited movement.

#### USES

- Water and waste water treatment facilities
- Primary structures
- Tunnels and culverts
- Dams, locks, canals, water reservoirs and aqueducts
- Pipe penetrations
- Swimming pools
- Storage tanks
- Retaining walls
- Foundations
- Slabs on grade

#### CHARACTERISTICS / ADVANTAGES

- Comprised of NON-BENTONITE, modified chloroprene rubber
- Available as a co-extruded profile to provide directional expansion (also available as a single extrusion)
- Special expansion delay coating to allow concrete cure prior to expansion
- Reliable and durable
- CJ-0725-3K-ADH and CJ-1020-2K-ADH offered with an adhesive back
- Simple, low cost installation
- Available in a multitude of sizes and shapes for

numerous applications

- Appropriate for retro-fit as well as new construction
- Can withstand high hydrostatic pressures (150' head for most profiles)
- All CJ profiles NSF/ANSI 61 Approved

## PRODUCT INFORMATION

<b>Packaging</b>	<b>Profile</b>	<b>Packaging Unit Meters/Roll x Rolls/box (FT/Box)</b>	
	CJ-0725-3K	10m x 4 (131ft)	
	CJ-0725-3K-ADH		
	CJ-1020-2K	10m x 5 (164ft)	
	CJ-1020-2K-ADH		
	CJ-1030-4M	10m x 4 (131ft)	
	CJ-3030-M	10m x 1 (33ft)	
<b>Appearance / Color</b>	Co-extruded with Hydrophilic and Non Hydrophilic Rubber Blue (Hydrophilic Rubber) Black (Non Hydrophilic Rubber)		
<b>Shelf Life</b>	N/A		
<b>Storage Conditions</b>	Store in a cool, dark, dry place. Exposure to moisture prior to installation may expand the Sika® Hydrotite® prematurely. If installed in an expanded condition, the effectiveness of the seal may be severely reduced.		
<b>Dimensions</b>	<b>Profile</b>	<b>Nominal Size mm (inches)</b>	
	CJ-0725-3K	7(.28) x 25(.98)	
	CJ-0725-3K-ADH		
	CJ-1020-2K	10(.39) x 20(.79)	
	CJ-1020-2K-ADH		
	CJ-1030-4M	10(.39) x 30(1.18)	
	CJ-3030-M	30(1.18) x 30(1.18)	
<b>Shore A Hardness</b>	<b>Hydrophilic Rubber</b>	<b>Chloroprene Rubber</b>	(ASTM D2240)
	52+/-5 Minimum	54 Minimum	
<b>Tensile Strength</b>	<b>Hydrophilic Rubber</b>	<b>Chloroprene Rubber</b>	(ASTM D412)
	350psi Minimum	1300psi Minimum	
<b>Elongation</b>	<b>Hydrophilic Rubber</b>	<b>Chloroprene Rubber</b>	(ASTM D412)
	600% Minimum	400% Minimum	
<b>Change of volume</b>	<b>Hydrophilic Rubber</b>	<b>Chloroprene Rubber</b>	
	500% Minimum	N/A	

## APPLICATION INSTRUCTIONS

### FORMING REQUIREMENTS

Sika® Hydrotite® CJ profiles are installed after the form is stripped from the first pour and before the second concrete pour is made. Therefore, splitting of the form is not required. Sika® Hydrotite® can be installed to the plain surface of concrete or in a formed keyway. Due to the hydrophilic nature, installation of the profile should be timed as close as possible to the second placement of concrete. This will reduce the chance for premature expansion of Sika® Hydrotite® due to rainwater or ground water exposure. When extended periods are expected between pours along a common joint line, install Sika® Hydrotite® to a point slightly beyond the

end of the first expected pour. Protect exposed length of Sika® Hydrotite® from moisture. In the event the exposed Sika® Hydrotite® exhibits expansion before the next placement of concrete, remove swelled material before splicing to a new length of Sika® Hydrotite®. Follow splicing instructions listed below.

### SPLICING

Sika® Hydrotite® CJ profiles are designed with a cellular cross section. The cellular cross section allows the profile to compress slightly when concrete is placed and rebound as the concrete shrinks during cure. The cellular cross section also acts to control the expansive force placed on the surrounding concrete.

Straight lengths of CJ profiles should be cut square with a sharp knife or good pair of shears. Place several drops of a cyanoacrylate adhesive (i.e. Super Glue) on the cut

ends of Sika® Hydrotite® and immediately join the ends together. Hold in position for approximately 30-45 seconds to allow the adhesive to set. Proper alignment and bonding of the cut ends will prevent water entering the cells of the profile. Future hydration of the waterstop will further seal the bond area.

Flat 90° corners should be spliced by miter cutting the two ends at 45° and proceeding in a manner similar to the above. When space permits, CJ-0725-3K and CJ-1020-2K can be bent to an inside radius of approximately 2 inches, eliminating a spliced joint. Flat “T’s” and “X’s” should be made by butt splicing the legs with the use of cyanoacrylate adhesive. Vertical 90° corners, vertical “T’s” and vertical “X’s” should be butted and bonded with the cyanoacrylate adhesive. All splices can be further enhanced by placing a bead of LEAKMASTER® LV-Z at the splice.

#### **BONDING TO CONCRETE**

Remove all dust, oil, laitance, etc., from concrete surface prior to adhering Sika® Hydrotite®. Depending on concrete surface conditions, one of several adhesives can be used.

Normal forming practice leaves a sufficiently smooth surface for direct bonding to the concrete by one of several methods. Sika® Hydrotite® CJ-1020-2K-ADH and CJ-0725-3K-ADH are profiles available with a “peel-and-stick” adhesive backing for fast and easy installation. Simply remove the release paper and press the profile firmly against the concrete in the desired location. Other Sika® Hydrotite® profiles can alternatively be secured with Sika® Hydrotite® Adhesive. The adhesive should be applied to both the profile and the concrete surface and allowed to dry to a tacky condition. Once this condition is met, place the profile into position. These methods work well when concrete surfaces are smooth and dry. Concrete surfaces left rough due to jackhammering, extensive weathering, etc., should be brought to a smooth level condition. LEAKMASTER® LV-Z, a single component swellable sealant, can be used for this purpose when the concrete surface is dry. Apply a sufficient bead of LEAKMASTER® LV-Z to the rough concrete to ensure that a smooth level surface will result. Sika® Hydrotite® should be placed in position within 4 hours of application of LEAKMASTER® LV-Z. Concrete nails may be used on vertical or overhead surfaces to hold the profile in position while the LEAKMASTER® LV-Z cures.

A 2-part epoxy may also be used to level rough surfaces. Sika® Greenstreak® Epoxy 7300 can be used on rough, wet concrete surfaces to bond Sika® Hydrotite® profiles into position. Sika® Hydrotite® should be applied to the bed of epoxy prior to final cure, approximately 30 minutes. Again, concrete nails may be used on vertical or overhead applications while the epoxy cures.

#### **LIMITATIONS**

Sika® Hydrotite® CJ type profiles should be used primarily in site formed concrete joints where limited movement is expected. Sika® Hydrotite® protects a joint

from water migration by creating a compressive seal within the joint. Joints with excessive movement will diminish this compressive seal and compromise the seals’ effectiveness. While Sika® Hydrotite® CJ profiles can be wet-dry cycled many times, a constantly damp and/or wet environment is ideal.

Cracking of the concrete, caused by the expansion pressure of the profile can be avoided by maintaining a 2” minimum concrete coverage. Increase this coverage if lightweight or low strength concrete (<3000 PSI compressive strength) is used or when using CJ-1030-4M and CJ-3030-M profiles.

Once installed, adequate measures should be taken to prevent exposure to rain water, ground water, etc., before the joint is covered with concrete.

#### **BASIS OF PRODUCT DATA**

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

#### **OTHER RESTRICTIONS**

See Legal Disclaimer.

#### **ENVIRONMENTAL, HEALTH AND SAFETY**

#### **LEGAL DISCLAIMER**

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates (“SIKA”), the user must always read and follow the warnings and instructions on the product’s most current product label, Product Data Sheet and Safety Data Sheet which are available at [usa.sika.com](http://usa.sika.com) or by calling SIKA’s Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product’s shelf life. User determines suitability of product for intended use and assumes all risks. User’s and/or buyer’s sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL**

**APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at <https://usa.sika.com/en/group/SikaCorp/termsandconditions.html> or by calling 1-800-933-7452.

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**Sika Mexicana S.A. de C.V.**

Carretera Libre Celaya Km. 8.5  
Fracc. Industrial Balvanera  
Corregidora, Queretaro  
C.P. 76920  
Phone: 52 442 2385800  
Fax: 52 442 2250537



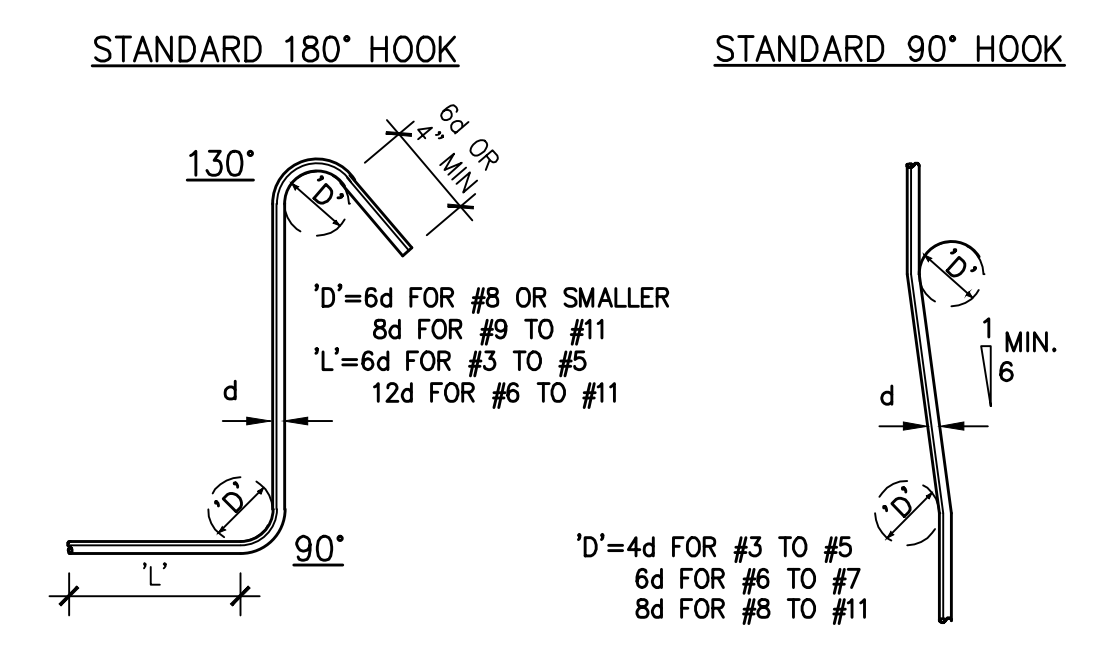
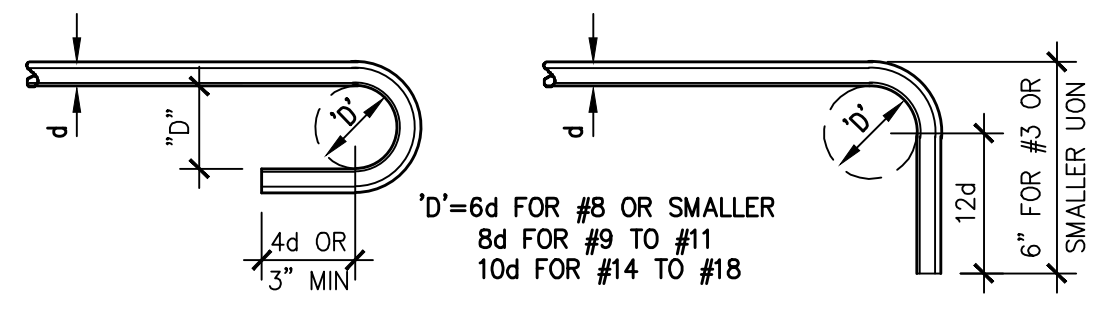
**Product Data Sheet**

Sika® Hydrotite CJ  
August 2020, Version 01.01  
020703300200000002

SikaHydrotiteCJ-en-US-(08-2020)-1-1.pdf

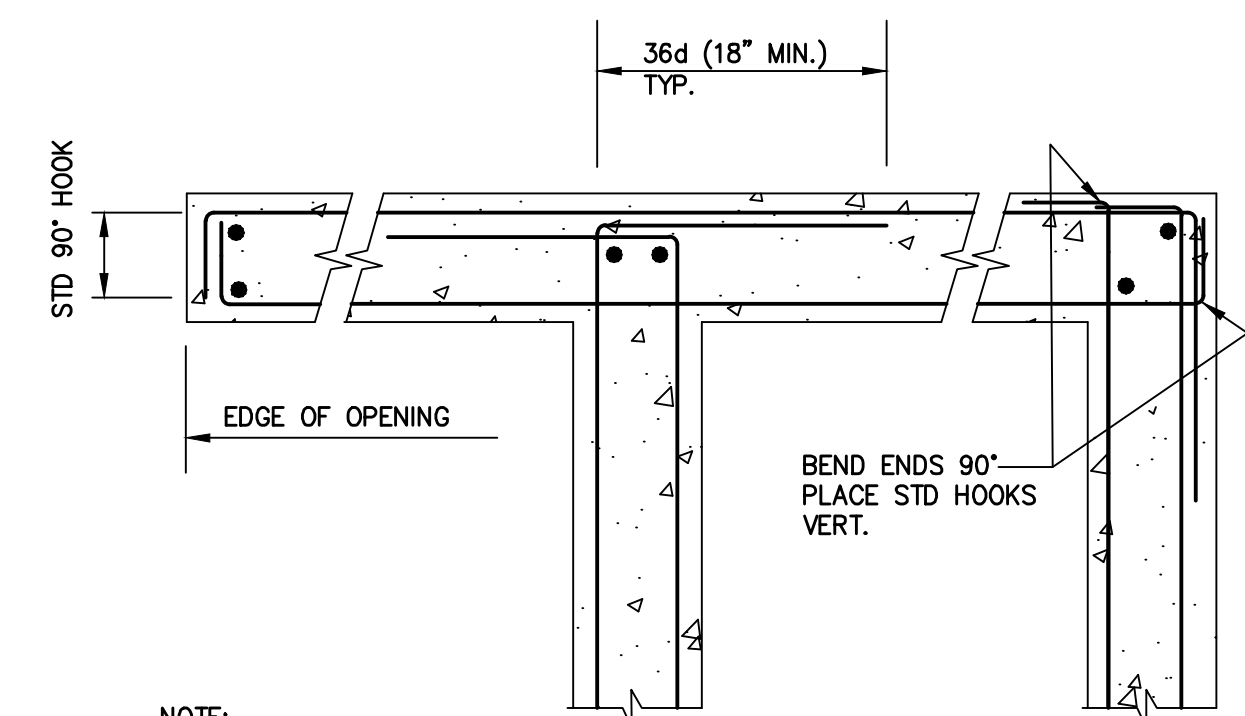




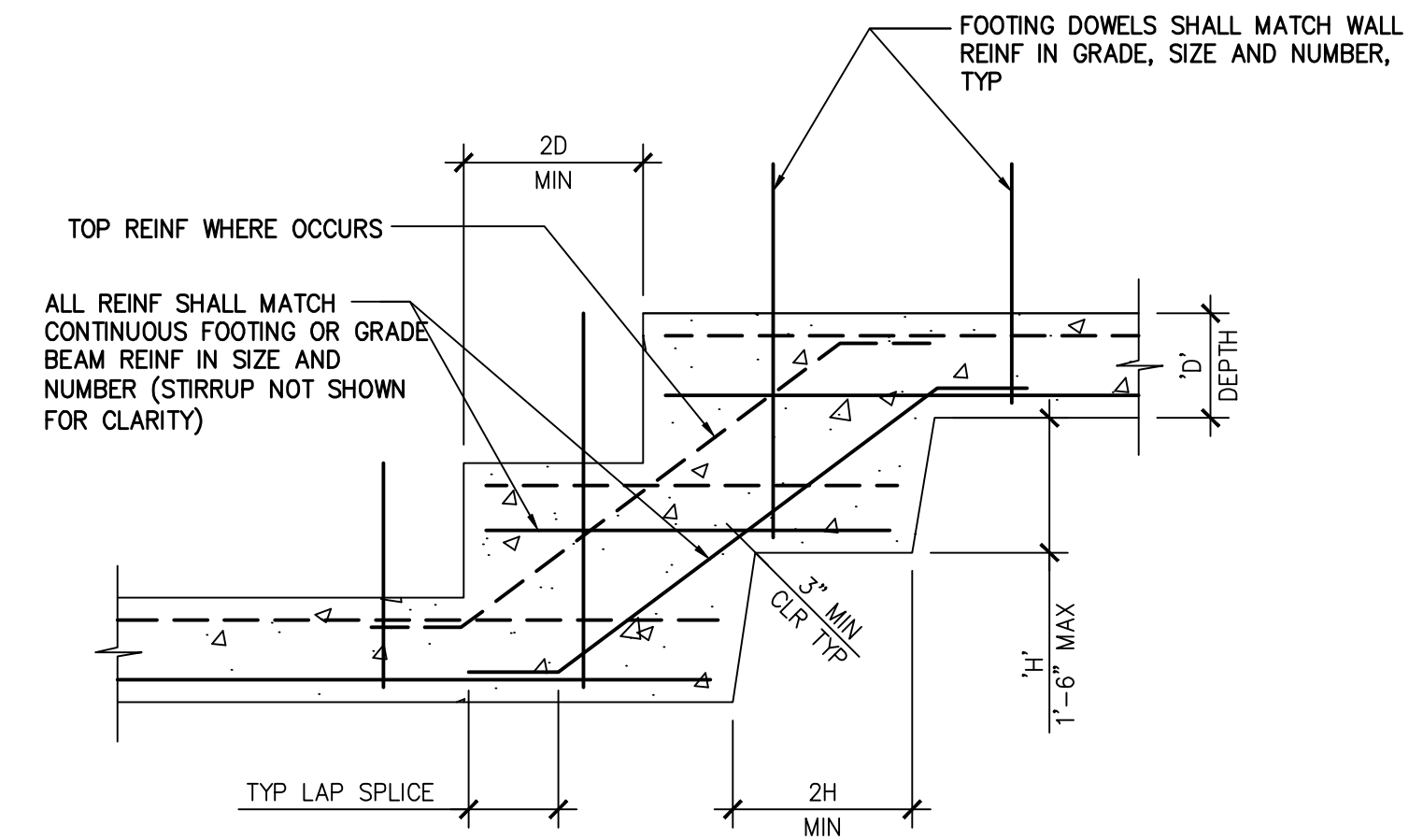


NOTE:  
 1. ALL BENDS SHALL BE MADE COLD.  
 2. #14 AND #18 BARS SHALL BE BEND TESTED LAB APPROVED PRIOR TO BENDING.  
 3. DO NOT BEND BARS ALREADY CAST IN CONCRETE UNLESS OTHERWISE NOTED.

**1** STANDARD REINFORCEMENT HOOKS & BENDS NTS



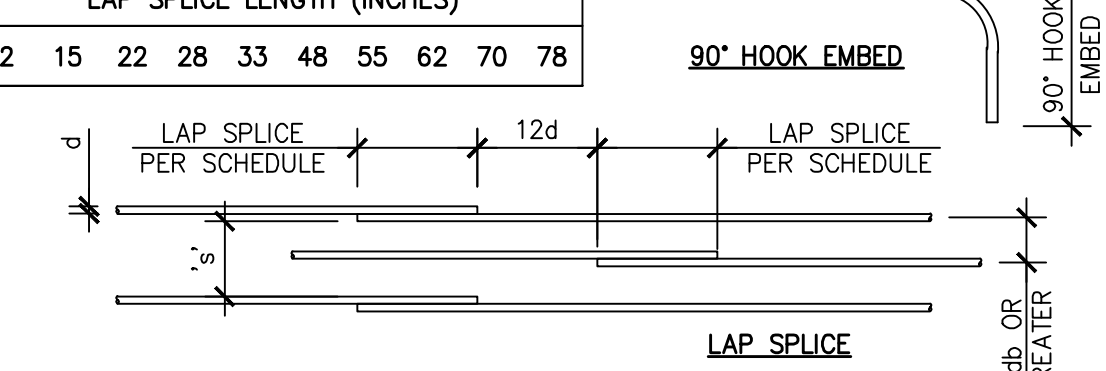
**2** (TYP) REINFORCING HORIZONTAL BEND NTS



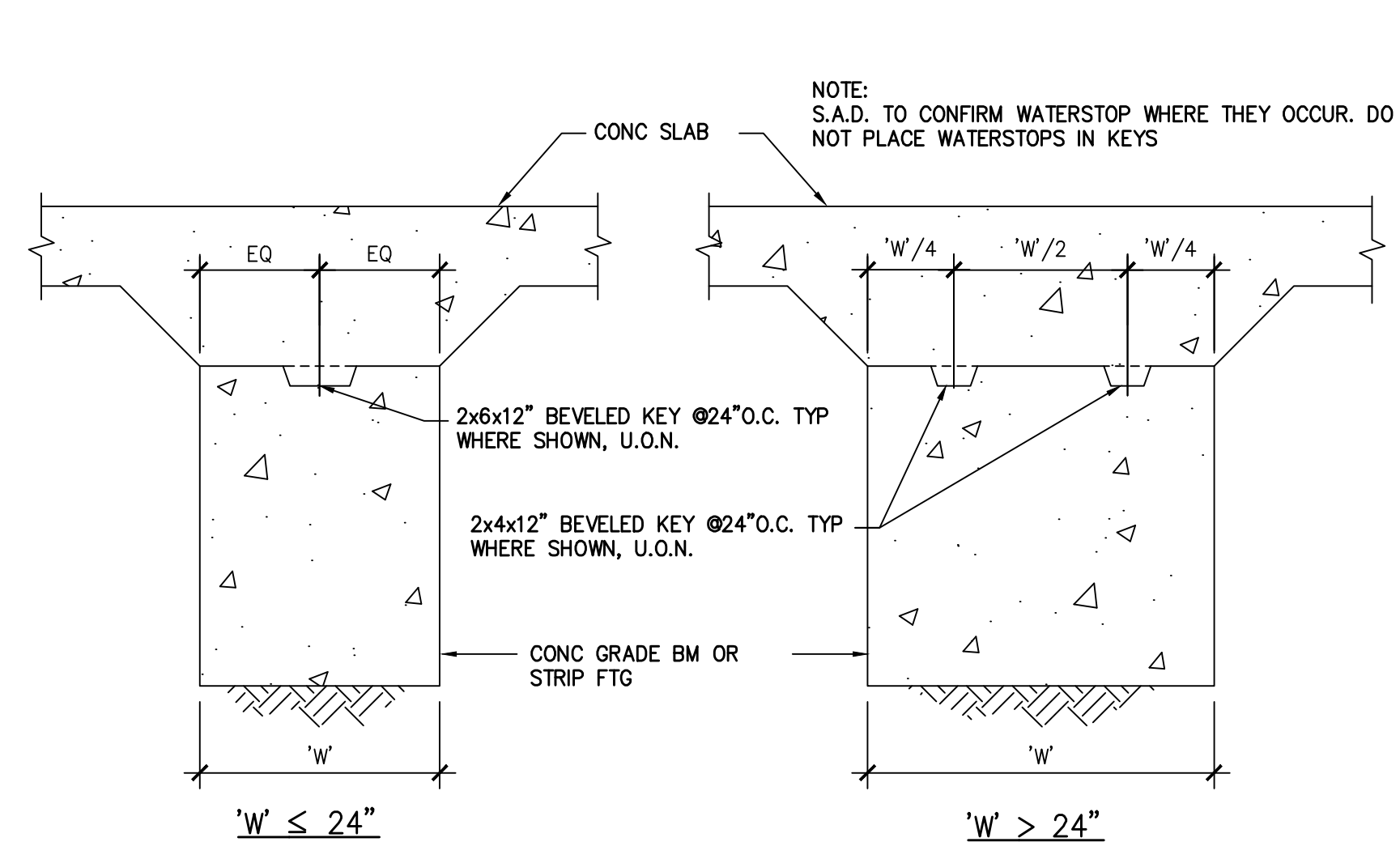
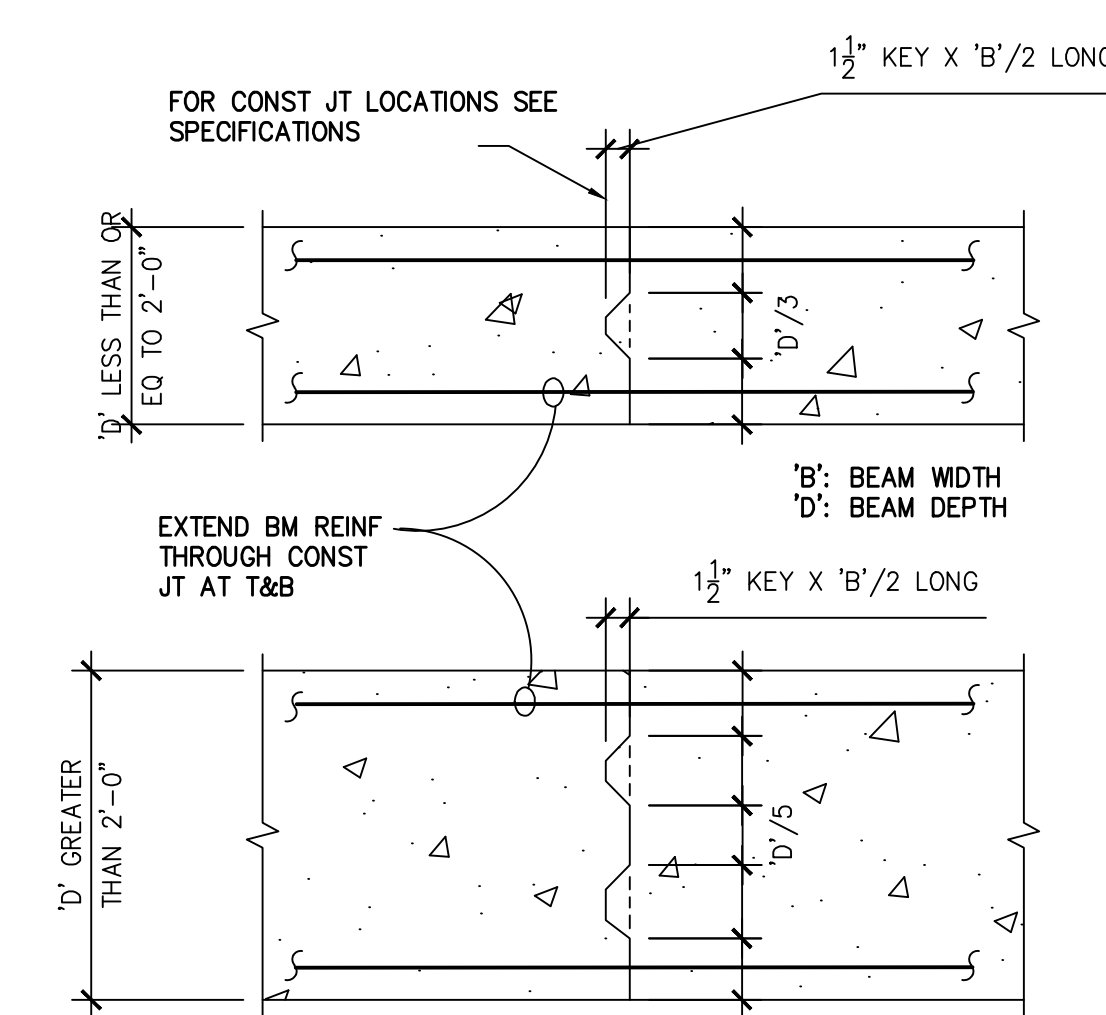
**3** (TYP) STEPPED FOOTING / GRADE BEAM NTS

**WALL AND FOOTING LAP SPLICE SCHEDULE**

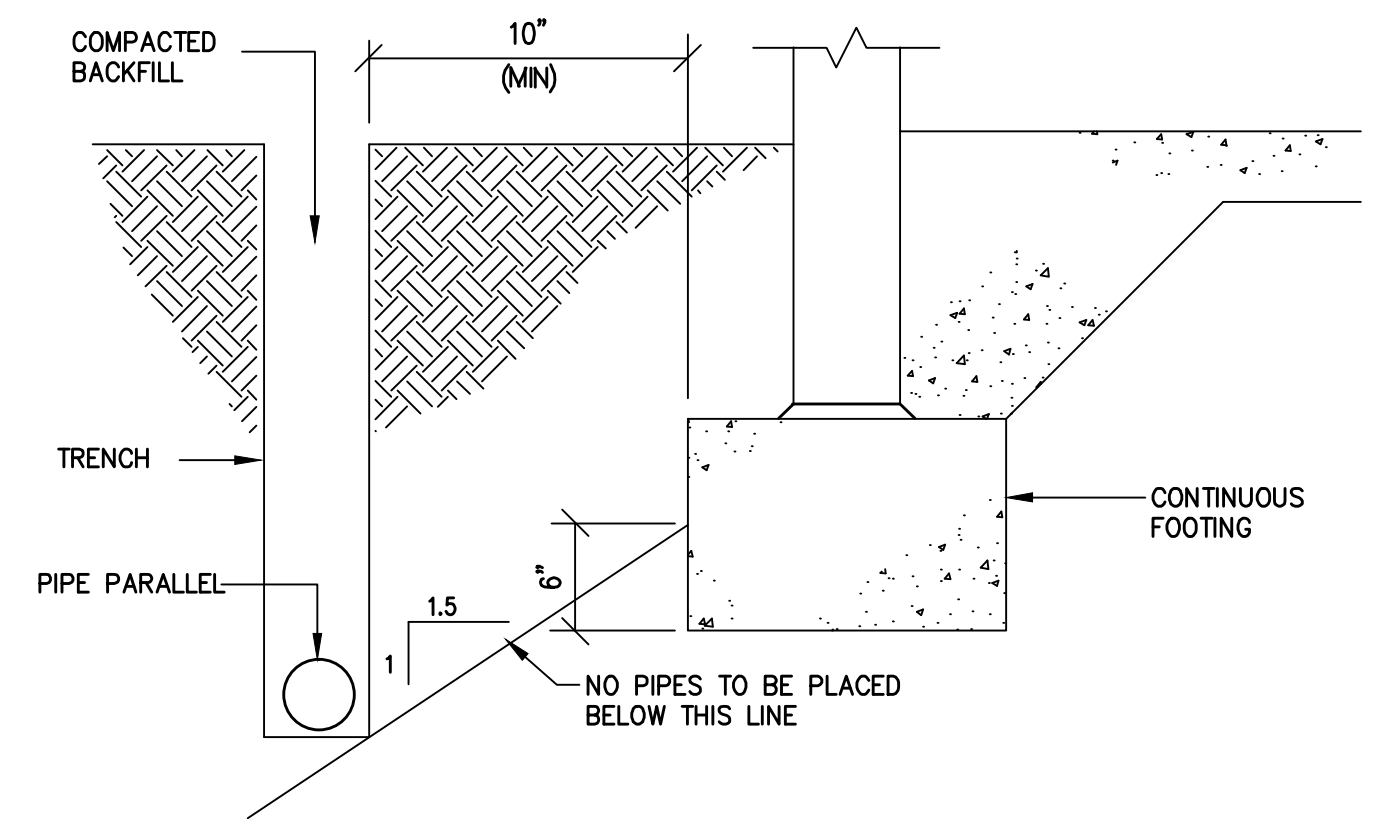
f'c CONCRETE STRENGTH	REBAR SIZE										
	GRADE 40					GRADE 60					
	#3	#4	#5	#6	#7	#8	#9	#10	#11		
3000	8	10	11	14	17	20	22	25	28	31	90° HOOK EMBED (INCHES)
3000	12	15	22	28	33	48	55	62	70	78	LAP SPLICE LENGTH (INCHES)



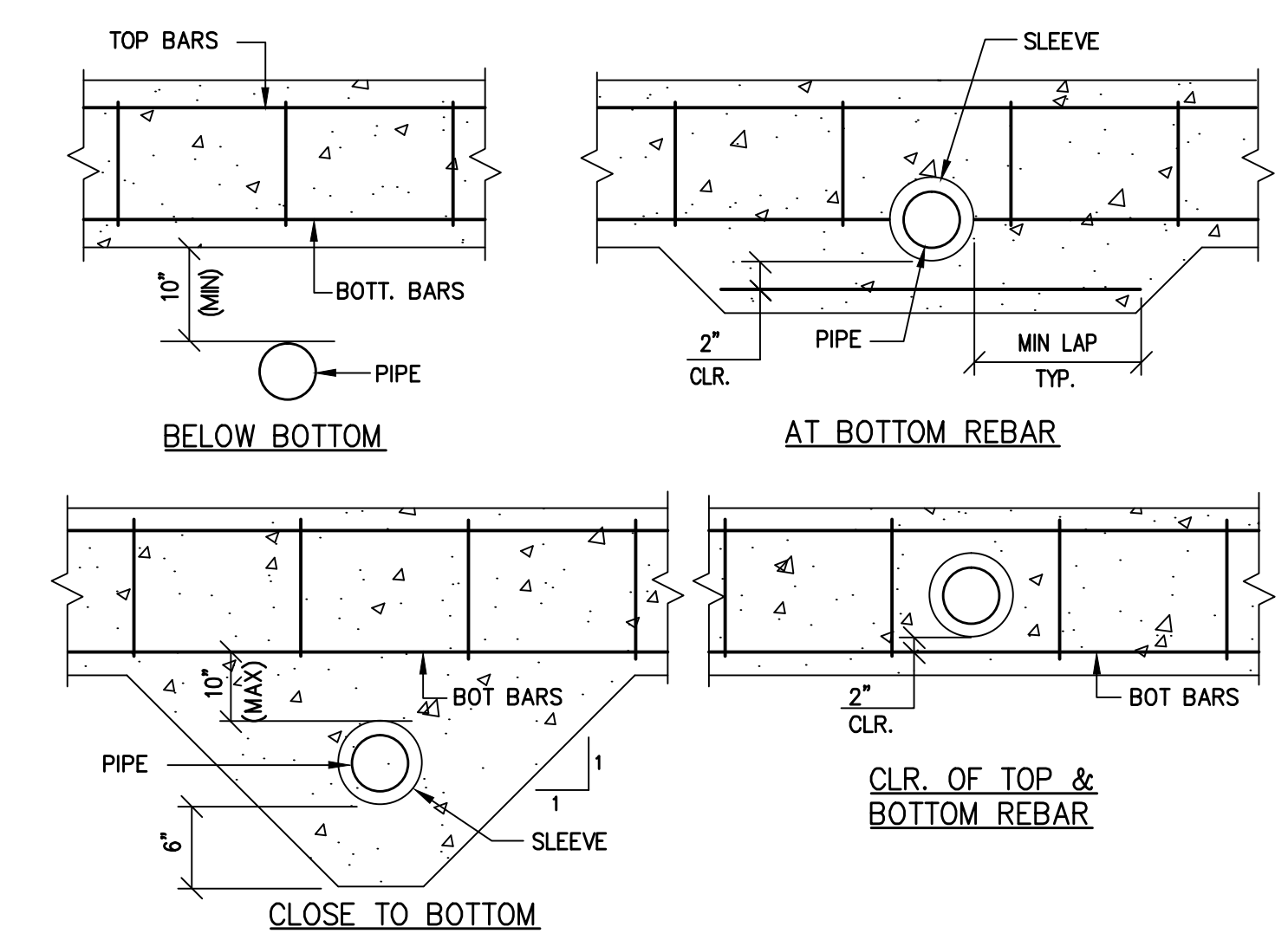
**4** (TYP) REINFORCEMENT LAP SPLICE & HOOK EMBED NTS



**6** (TYP) FOOTING KEY NTS



**7** (TYP) PIPES ADJACENT TO FOUNDATIONS NTS

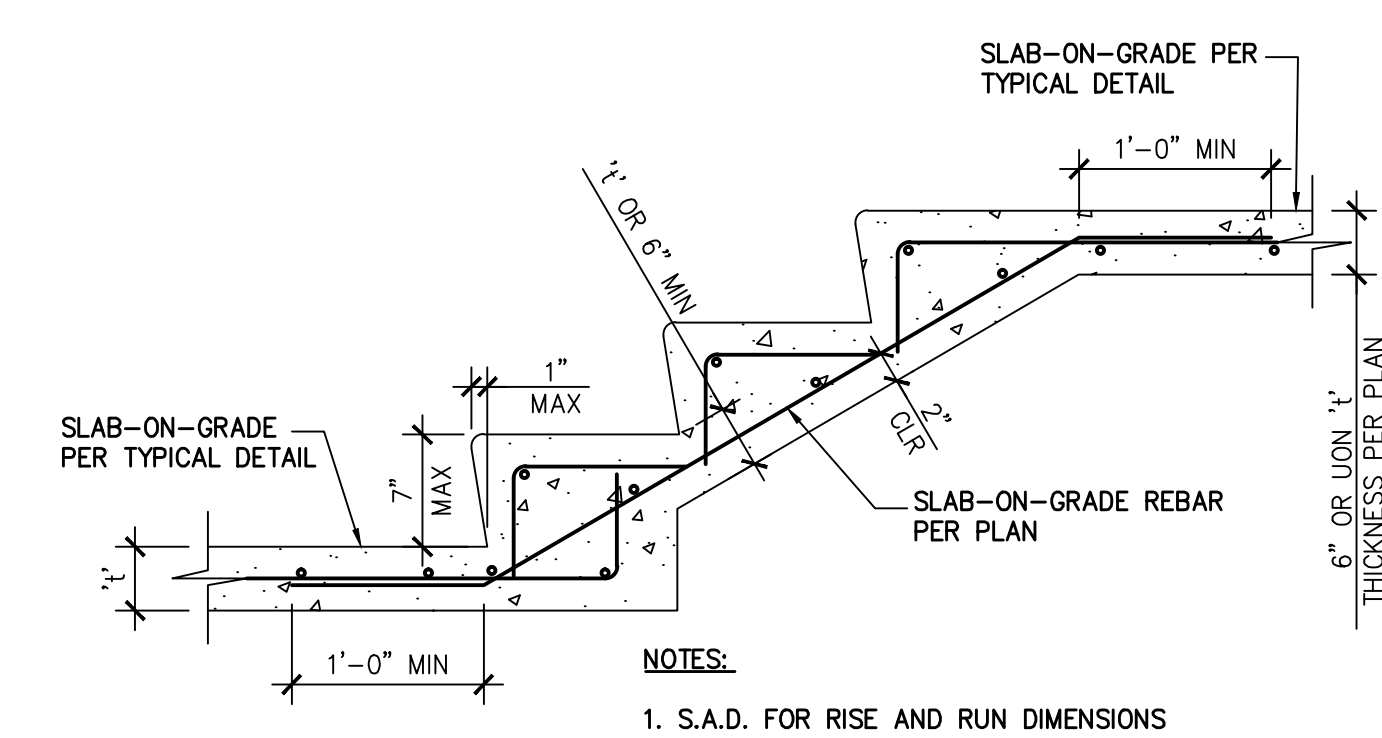


PIPE PERPENDICULAR TO FOOTING

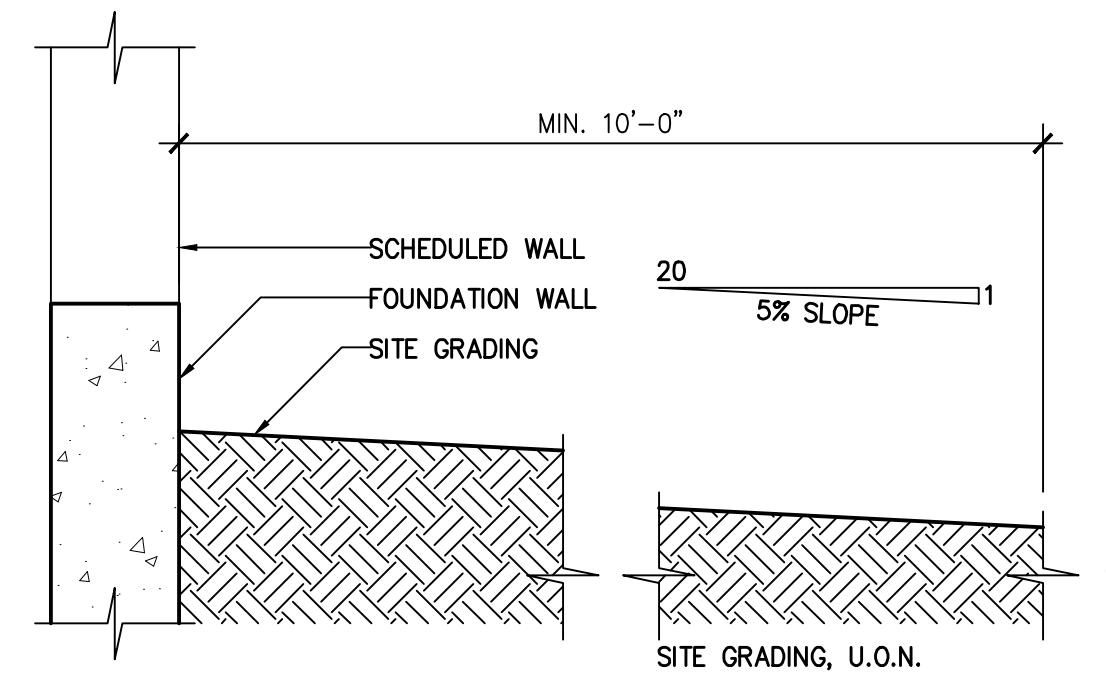
**5** (TYP) CONC BEAM CONST JOINTS NTS

NOT USED

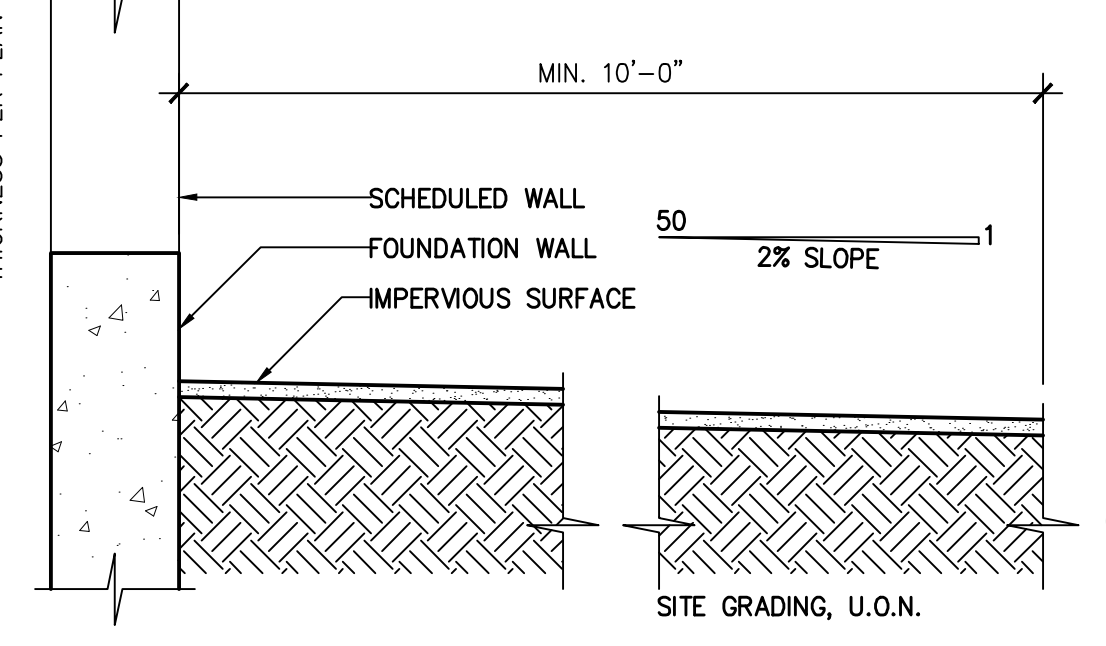
NOT USED



**10** (TYP) CONCRETE STAIR ON GRADE NTS



**11a** (TYP) SITE GRADING NTS



**11b** (TYP) SITE GRADING NTS

**8** (TYP) PIPES PERPENDICULAR TO FOOTING NTS

**9** (TYP) PIPES ADJACENT TO FOUNDATIONS NTS

REVISIONS

NO.	DESCRIPTION	DATE	BY
1		2023-11-15	DL

**Darius Abolhassani Consultant & Associates, Inc.**  
 Consulting Engineering & Construction Support

7 Mt. Lassen Drive, Suite A-129, San Rafael, CA 94903  
 Phone: (415)499-1919 Email: darius@dacassociates.net



**THE VALHALLA BEACH ACCESS**  
 201 BRIDGEWAY BLVD  
 SAUSALITO, CA 94965  
 PROJECT APN: 065-242-06

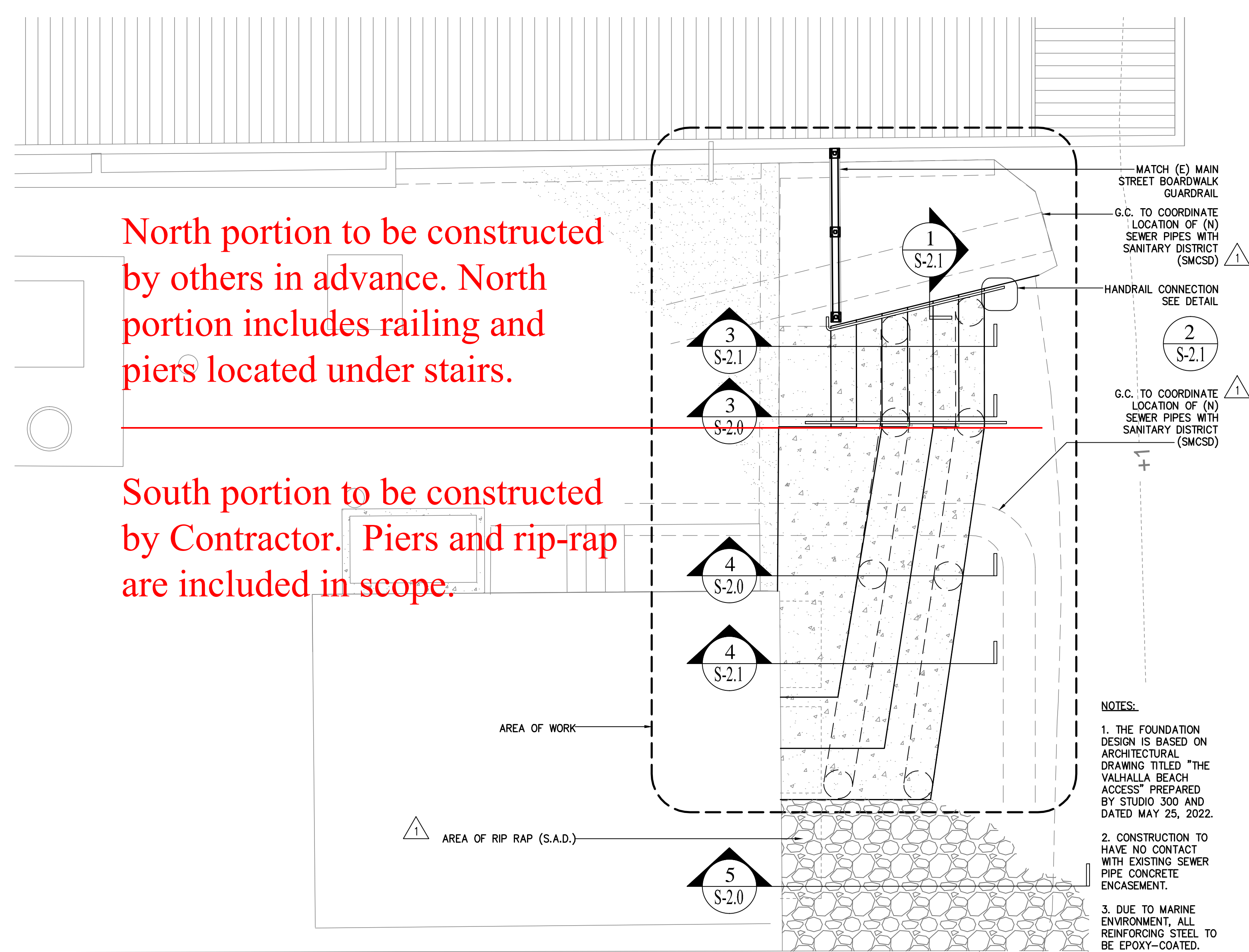
STRUCTURAL TYPICAL DETAILS

DATE: 2022-06-12  
 SCALE: AS SHOWN  
 DRAWN BY: WT  
 JOB NUMBER: 1506-37225

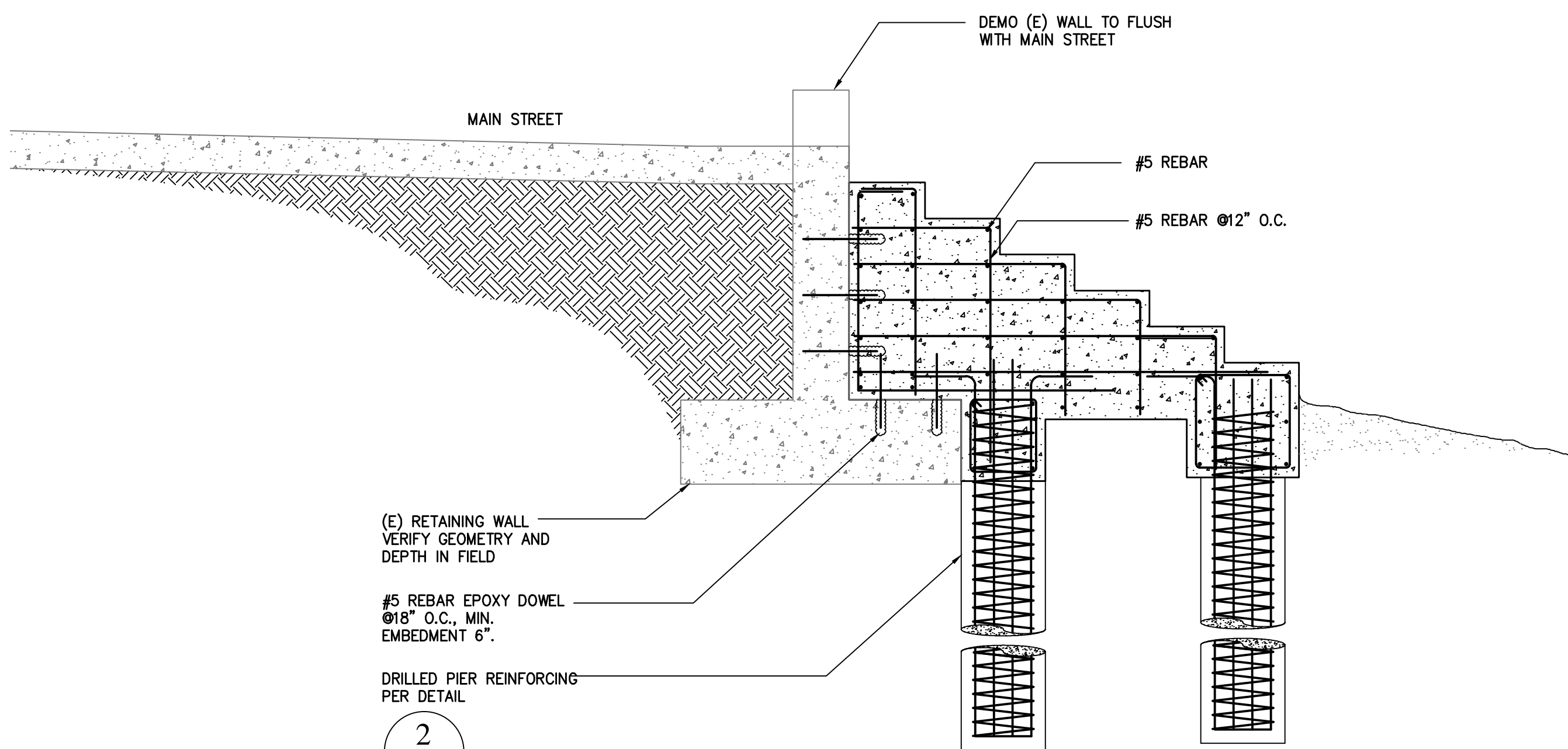
SHEET 2  
**S-1.1**  
 OF 4 SHEET

North portion to be constructed by others in advance. North portion includes railing and piers located under stairs.

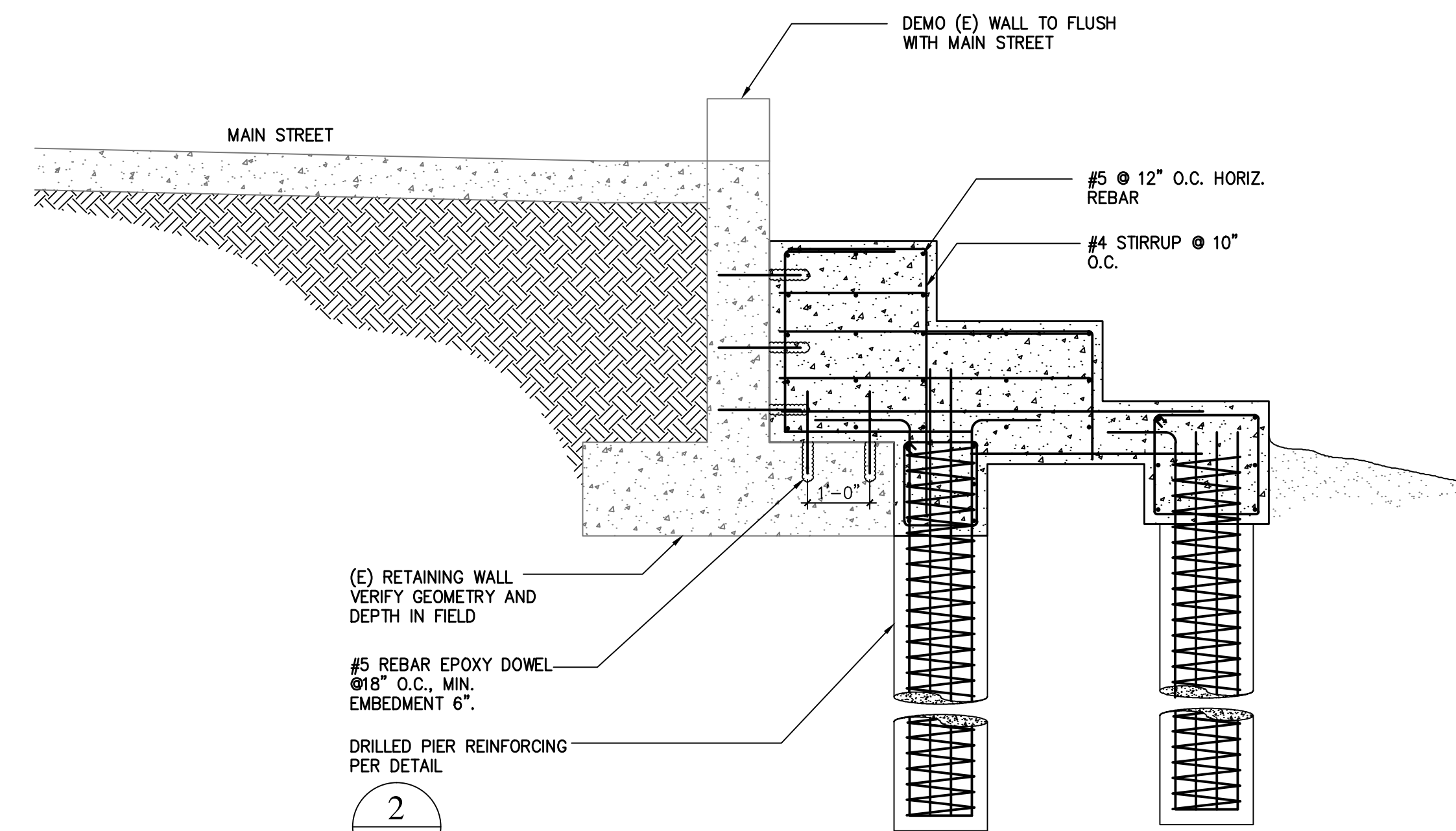
South portion to be constructed by Contractor. Piers and rip-rap are included in scope.



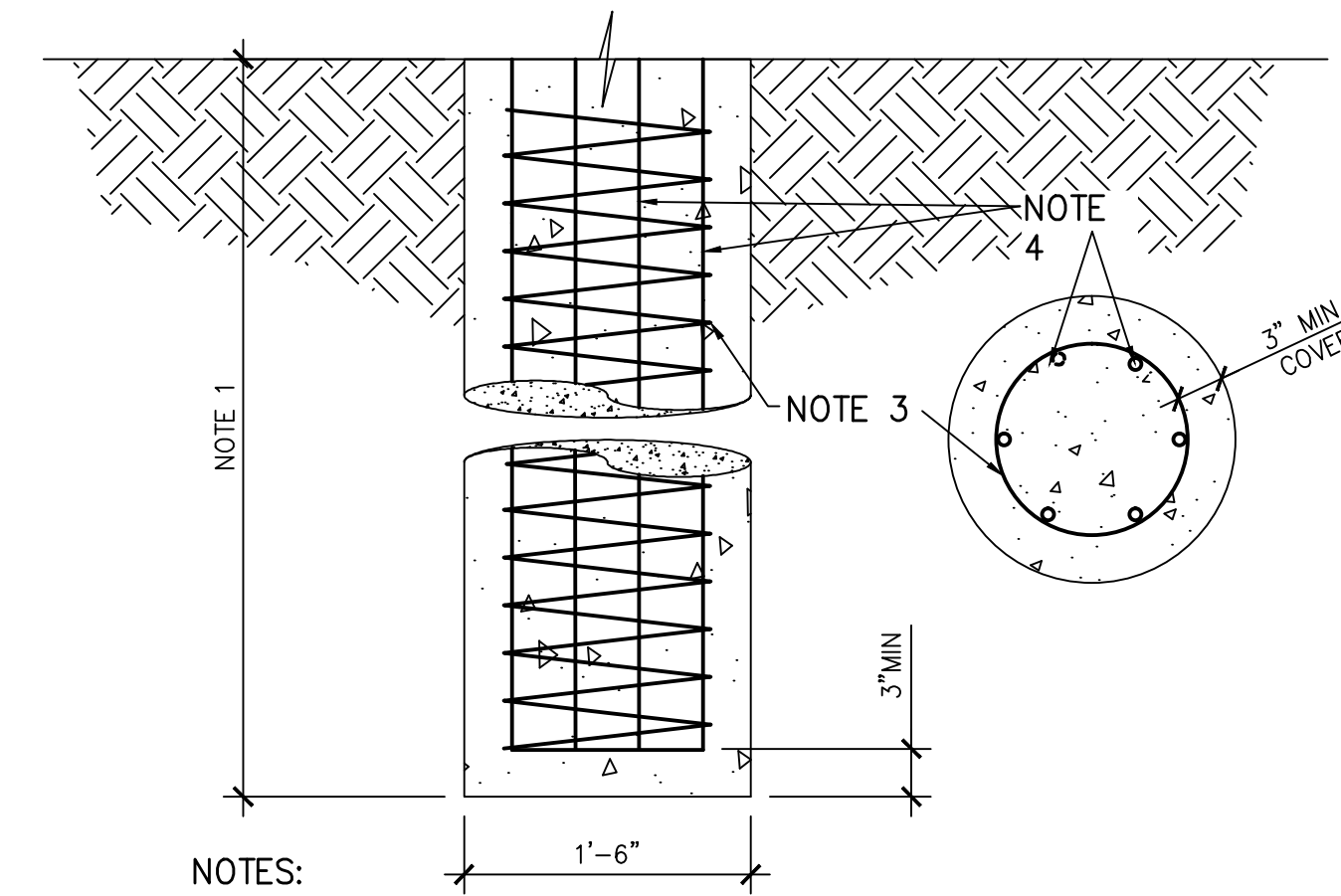
1 S-2.0 FOUNDATION PLAN SCALE: 1/4" = 1'-0"



3 S-2.0 STAIR W/ DRILLED PIER FOUNDATION DETAIL SCALE: 1/2" = 1'-0"

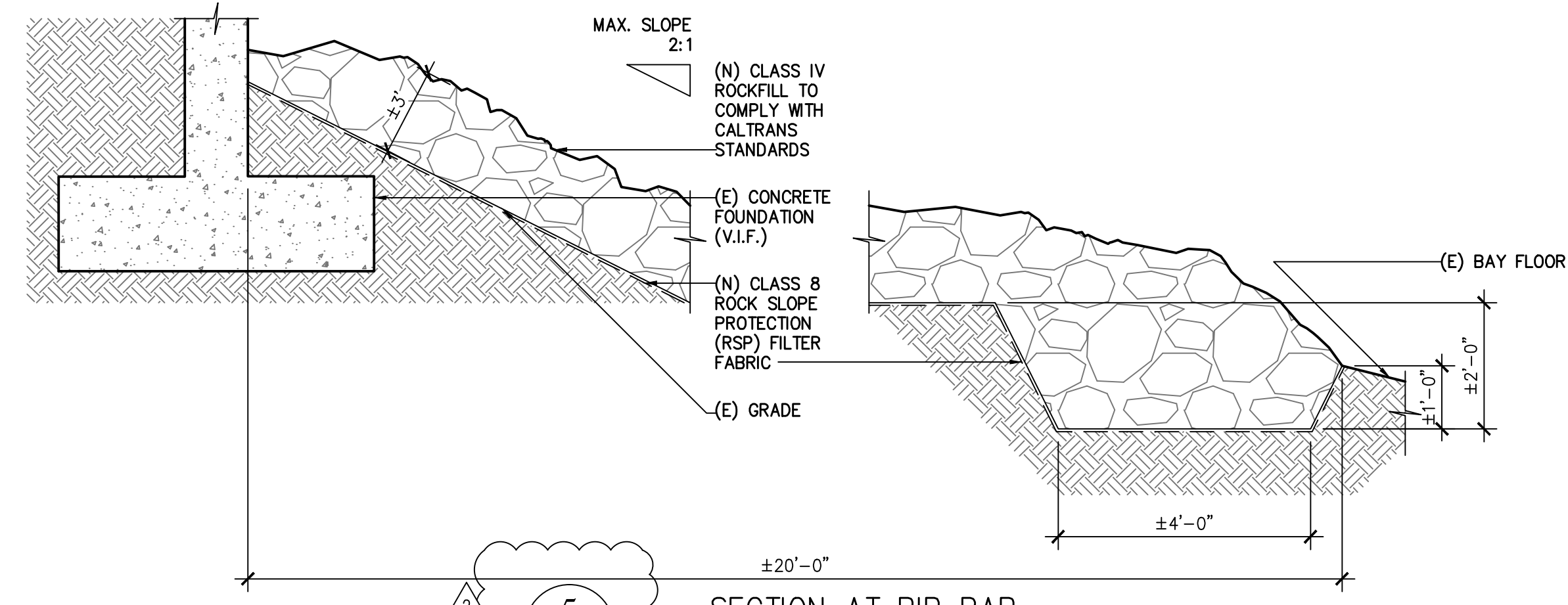


4 S-2.0 AMPHITHEATER W/ DRILLED PIER FOUNDATION DETAIL SCALE: 1/2" = 1'-0"



- NOTES:
1. DEPTH OF PIER VARIES DEPENDING ON THE DEPTH OF BEDROCK. 6'-0" MINIMUM INTO COMPETENT BEDROCK. CONTRACTOR SHALL CONTACT THE ENGINEER TO OBSERVE EXCAVATION AND VERIFY ADEQUATE DEPTH IN WRITING BEFORE POURING CONCRETE.
  2. CONCRETE MINIMUM COMPRESSIVE STRENGTH FC=3000 PSI AT 28 DAYS.
  3. USE #4 AT 3" PITCH.
  4. USE (6) #6 VERTICAL REBAR BENT EXTEND 1/2 RETAINED HEIGHT (24" MIN) WHERE APPLY.

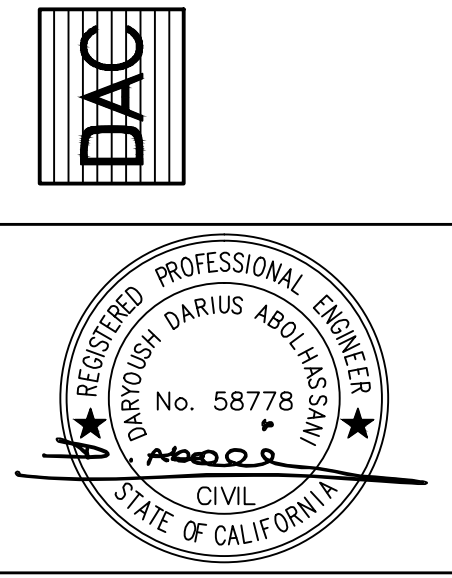
2 S-2.0 DRILLED PIER DETAIL SCALE: 1" = 1'-0"



5 S-2.0 SECTION AT RIP RAP SCALE: 1/2" = 1'-0"

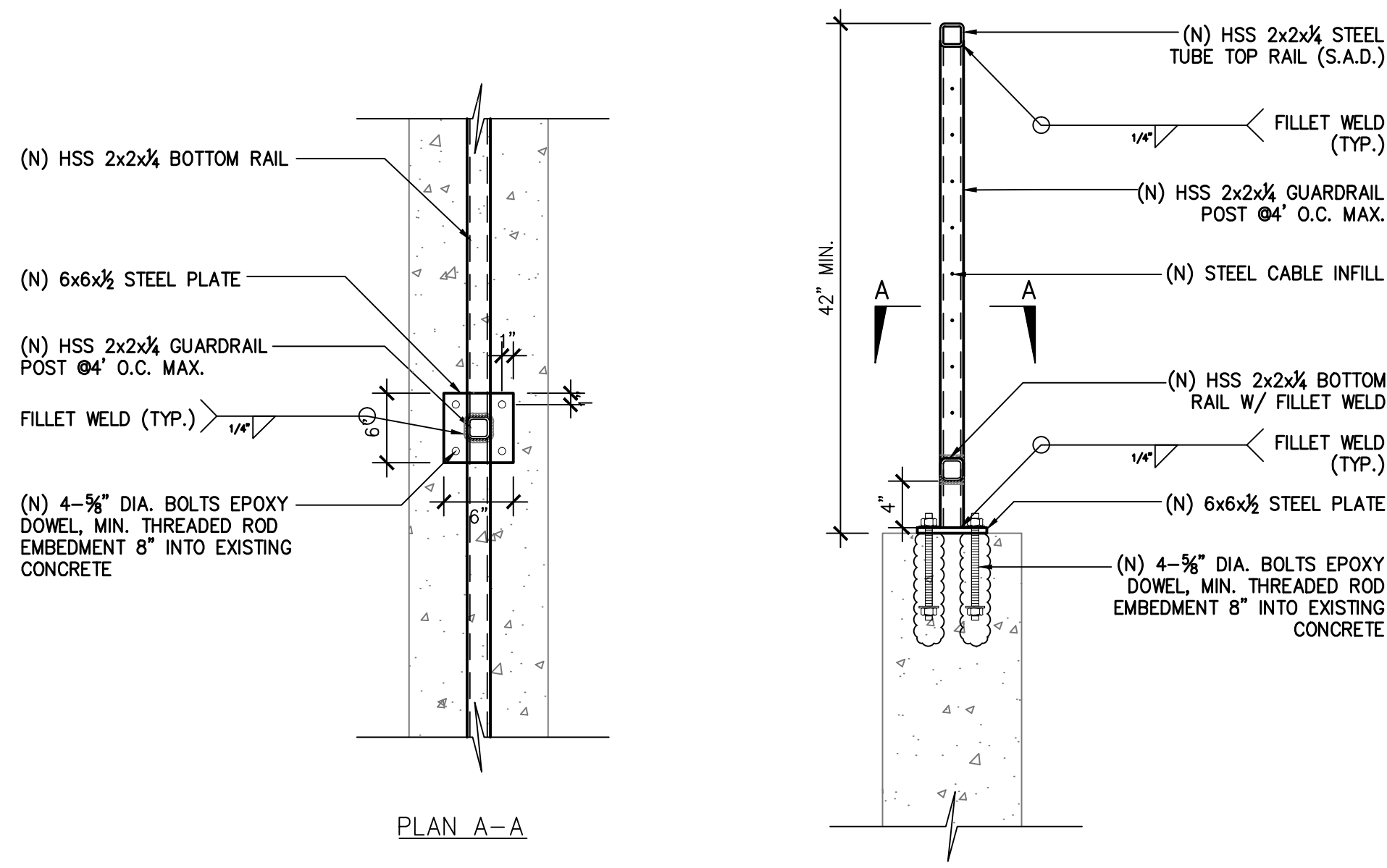
REVISIONS	BY
1	2023-11-15 DL
2	2024-02-16 DL

**Darius Abolhassani Consultant & Associates, Inc.**  
Consulting Engineering & Construction Support  
7 Mt. Lassen Drive, Suite A-129, San Rafael, CA 94903  
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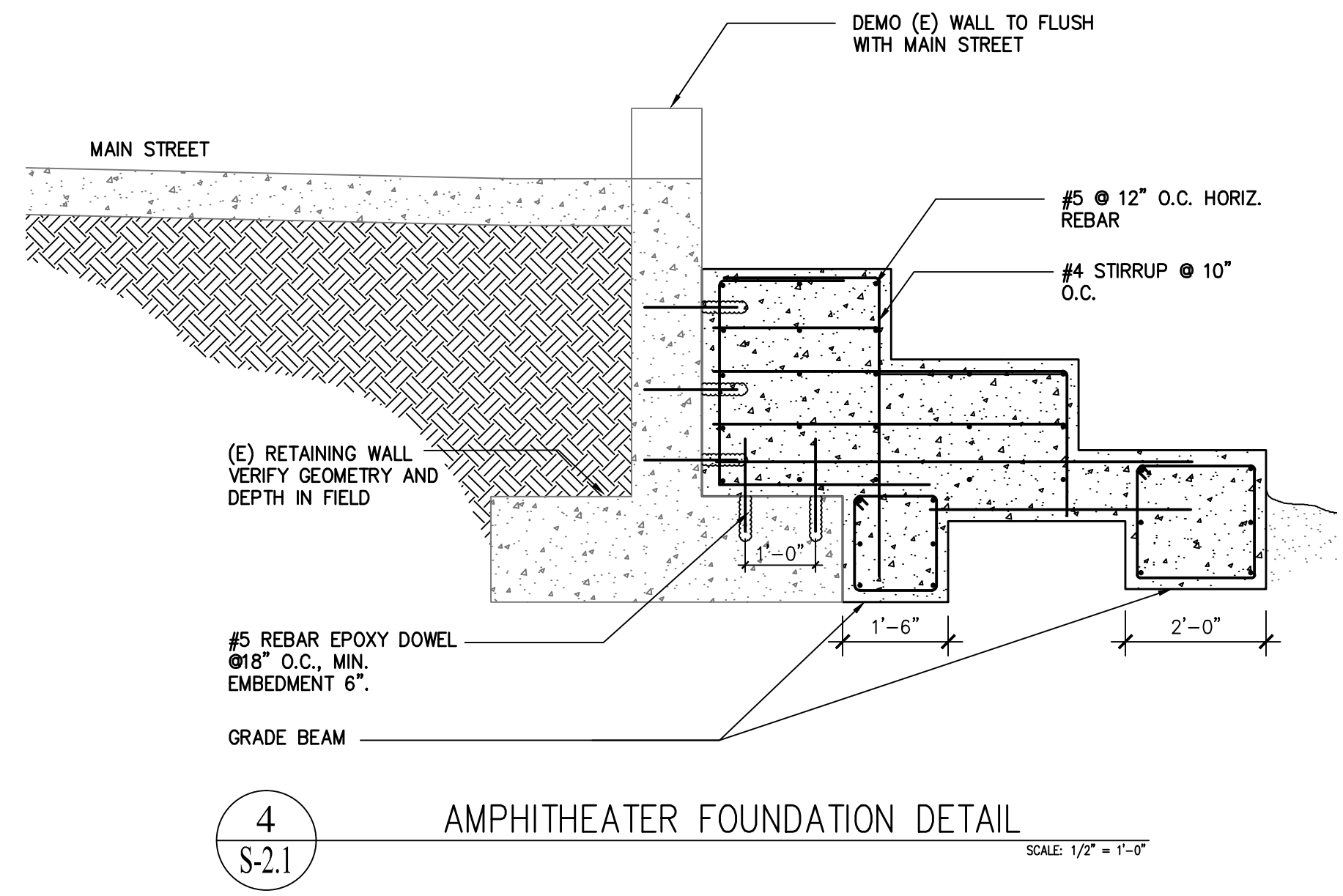
**THE VALHALLA BEACH ACCESS**  
201 BRIDGEWAY BLVD  
SAUSALITO, CA 94965  
PROJECT APN: 065-242-06

FOUNDATION PLAN
DATE: 2022-06-12
SCALE: AS SHOWN
DRAWN BY: WT
JOB NUMBER: 1506-37225
SHEET 3
<b>S-2.0</b>
OF 4 SHEET

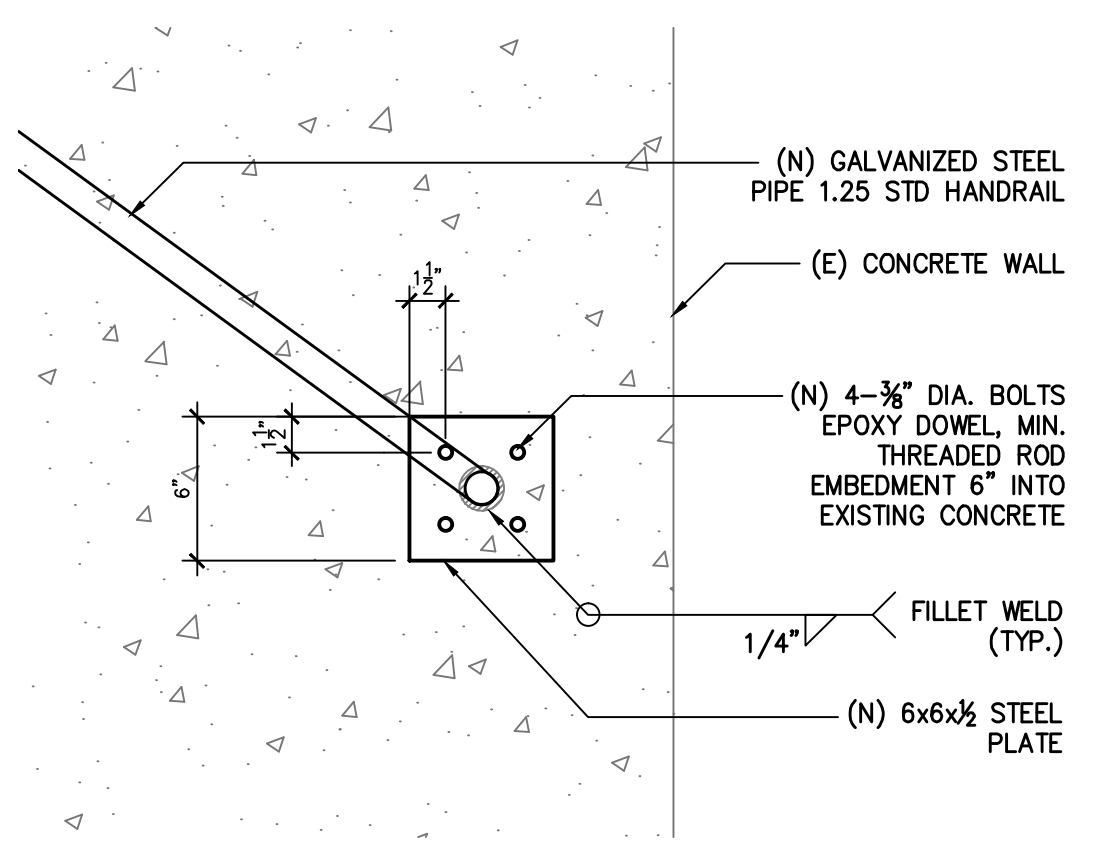


1  
S-2.1  
GUARD RAIL DETAIL  
SCALE: 1" = 1'-0"

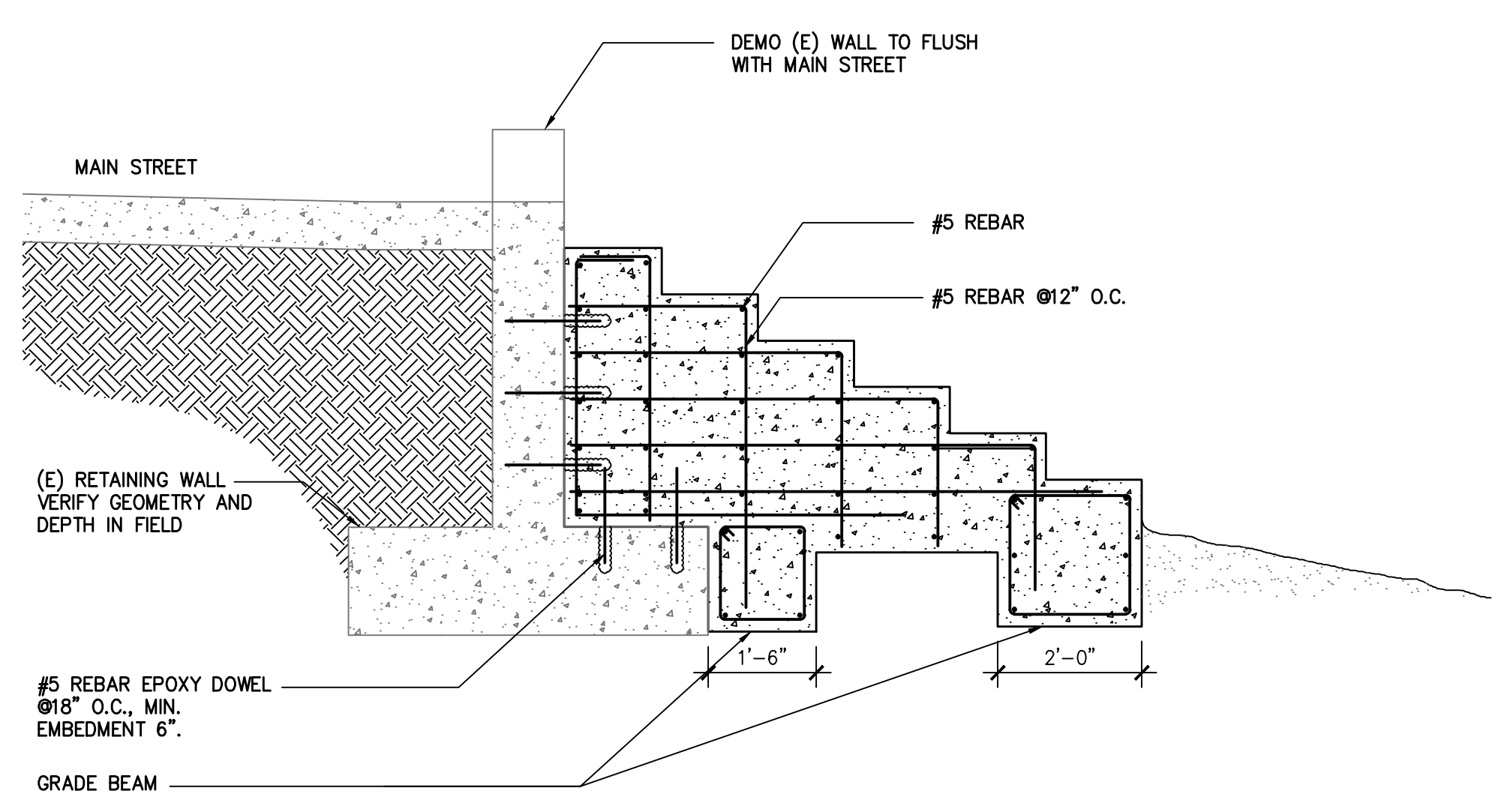
- NOTES:
- 4" SPHERE MUST NOT BE ABLE TO PASS BETWEEN ANY GUARD OPENING.
  - PER CALIFORNIA RESIDENTIAL CODE (CRC) TABLE R301.5, GUARDRAIL MUST BE ABLE TO BEAR 200 LBS./SQ. FT. LIVE LOAD.
  - GUARDRAIL INFILL TO BEAR MIN. 50 LBS./SQ. FT. PER CRC TABLE R301.5.



4  
S-2.1  
AMPHITHEATER FOUNDATION DETAIL  
SCALE: 1/2" = 1'-0"



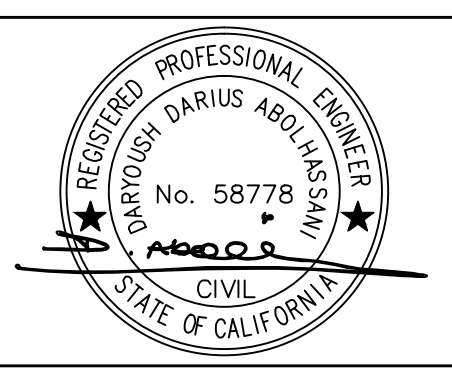
2  
S-2.1  
HANDRAIL DETAIL  
SCALE: 1-1/2" = 1'-0"



3  
S-2.1  
STAIR FOUNDATION DETAIL  
SCALE: 1/2" = 1'-0"

REVISIONS	BY
1	DL
2023-11-15	

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**THE VALHALLA  
 BEACH ACCESS**  
 201 BRIDGEWAY BLVD  
 SAUSALITO, CA 94965  
 PROJECT APN: 065-242-06

STRUCTURAL DETAILS

DATE: 2022-06-12  
 SCALE: AS SHOWN  
 DRAWN BY: WT  
 JOB NUMBER: 1506-37225

SHEET 4  
**S-2.1**  
 OF 4 SHEET