

February 16, 2018

**COUNTY OF SAN MATEO**  
**SANITARY SEWER REPAIR PROJECT AT 3383 OAK KNOLL DRIVE**

**TOTAL PROJECT APPROXIMATELY 192 LF IN LENGTH  
WITH APPURTENANT WORK THERETO  
IN SAN MATEO COUNTY**

**COUNTY PROJECT NO. SE005  
PROJECT FILE NO. E4954**

**ADDENDUM NO. 1**

TO ALL PLAN HOLDERS:

The following **Addendum No. 1** to the above referenced project, dated January 29, 2018, shall be included in the project plans and specifications.

1. Sheets S1 and S2 of the Plans shall be replaced in the Project Plans:

**Replace Sheet S1 (Sheet 7 of 8) and Sheet S2 (Sheet 8 of 8) of the Plans with Sheet S1 (REV) (Sheet 7 of 8) and Sheet S2 (REV) (Sheet 8 of 8).**

2. Pages 105, 106, and 109 of the Special Provisions shall be replaced in the Project Specifications:

**Replace pages 105, 106, and 109 of the Special Provisions with pages 105 (REV), 106 (REV), and 109 (REV).**

***Please sign and return the attached "Receipt of Addendum No. 1" form. The "Receipt of Addendum No. 1" form MUST be received in this office no later than 4:00 PM, Tuesday, February 20, 2018 or the bid will NOT be considered. The Receipt of Addendum can be faxed to Gil Tourel's attention at (650)361-8220 or email at [gtourel@smcgov.org](mailto:gtourel@smcgov.org).***



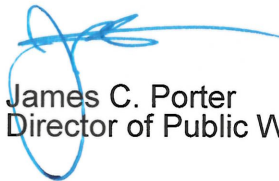
To All Plan Holders  
**Sanitary Sewer Repair Project at 3383 Oak Knoll Drive**  
Addendum No. 1  
February 16, 2018

Page 2

If you have any questions or require additional information, please contact Michelle Manalo, Carter Choi, or Gil Tourel of our office at (650) 363-4100. They can also be reached by e-mail at:

[mmanalo@smcgov.org](mailto:mmanalo@smcgov.org)  
[cchoi@smcgov.org](mailto:cchoi@smcgov.org)  
[gtourel@smcgov.org](mailto:gtourel@smcgov.org)

Very truly yours,



James C. Porter  
Director of Public Works

JCP:AMS:GT:CC:MM

F:\Users\design\C3D\E4954000\_Oak Knoll Sewer Repair\Advertise\Readvertise\E4954 Addendum 1.docx

Encl.- "Receipt of Addendum No. 1" Form

cc: Ann M. Stillman, Deputy Director, Engineering and Resource Protection  
Gil Tourel, Principal Civil Engineer, Engineering and Construction  
Carter Choi, Senior Civil Engineer, Project Development and Design  
Michelle Manalo, Assistant Engineer, Project Development and Design

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**COUNTY PROJECT NO. SE005  
PROJECT FILE NO. E4954**

**RECEIPT OF ADDENDUM NO. 1**

I, \_\_\_\_\_, an authorized representative for \_\_\_\_\_, have received **Addendum No. 1** for the Sanitary Sewer Repair Project at 3383 Oak Knoll Drive from an authorized representative of the County of San Mateo, to be included in the Specifications for the above referenced project.

This form must be signed and received in the offices of the County of San Mateo, Department of Public Works ***no later than 4:00 PM, Tuesday, February 20, 2018.***

“Contractor”

\_\_\_\_\_  
(Print)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

# MATERIAL DATA

## GENERAL

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS 2006, THE LATEST AMENDMENTS TO THE 2006 STATE STANDARD SPECIFICATIONS, AND THE PROJECT SPECIAL PROVISIONS.

### CONSTRUCTION LIABILITY

THE CONSTRUCTION CONTRACTOR AND HIS SUBCONTRACTORS AGREE THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONSTRUCTION CONTRACTOR AND HIS SUBCONTRACTORS WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT LIMITED TO NORMAL WORKING HOURS, AND THE CONSTRUCTION CONTRACTOR AND HIS SUBCONTRACTORS FURTHER AGREE TO DEFEND, INDEMNIFY AND HOLD THE DESIGN PROFESSIONAL HARMLESS FROM ANY LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.

## CONCRETE

CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 51 "CONCRETE STRUCTURES" AND SECTION 90 "PORTLAND CEMENT CONCRETE", OF THE STATE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS. ALL CONCRETE SHALL BE DESIGNATED BY COMPRESSIVE STRENGTH. CEMENT SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF PORTLAND CEMENT PER ASTM DESIGNATION C150, TYPE II.

### MAXIMUM WATER-CEMENT RATIO, BY WEIGHT

28 DAY COMPRESSIVE STRENGTH	WATER-CEMENT RATIO
3600 PSI CONCRETE	0.48

CONCRETE ELEMENT	MIN 28 DAY COMPRESSIVE STRENGTH	MAX SIZE AGGREGATE (INCHES)	SLUMP (INCHES)
DRILLED PIERS	3600	1	5

SLUMP WILL BE MEASURED AT THE TRUCK DISCHARGE. SLUMPS NOTED ABOVE ARE FOR CONCRETE WITHOUT ADMIXTURES TO BE CONSOLIDATED USING VIBRATION. FORMWORK CONSTRAINTS, CONGESTION OF REBAR, AND PUMPING OF CONCRETE MAY REQUIRE INCREASED SLUMP BEYOND THE SLUMP LISTED ABOVE. THE CONTRACTOR SHALL ADJUST THE SLUMP UP TO 8" MAX USING ADMIXTURES AS NECESSARY TO PROVIDE WORKABILITY AND CONSISTENCY TO PERMIT CONCRETE TO BE WORKED READILY INTO FORMS AND AROUND REINFORCEMENT UNDER CONDITIONS OF PLACEMENT TO BE EMPLOYED WITHOUT SEGREGATION OR EXCESSIVE BLEEDING. ALL ADMIXTURES SHALL BE NOTED IN THE SUBMITTED MIX DESIGN AND ARE SUBJECT TO THE ENGINEER'S REVIEW. THE SPECIAL INSPECTOR SHALL BE PROVIDED WITH A BATCH TICKET AND WEIGHT TAG UPON DELIVERY OF EACH LOAD OF CONCRETE.

ALL CONCRETE SHALL BE PLACED WITH MECHANICAL VIBRATION UNLESS NOTED OTHERWISE.

## DEEP FOUNDATIONS

### DRILLED PIERS / CAST-IN-DRILLED HOLE PIERS (CIDH)

DRILLED PIERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 49 "PILING" OF THE STATE STANDARD SPECIFICATIONS

## STRUCTURAL STEEL

### STRUCTURAL STEEL AND MISCELLANEOUS IRON

STRUCTURAL STEEL AND MISCELLANEOUS IRON SHALL CONFORM TO THE PROVISIONS OF SECTION 55 OF THE STATE STANDARD SPECIFICATIONS, THE PROJECT SPECIAL PROVISIONS, AND THE FOLLOWING:

1. WIDE FLANGE AND STRUCTURAL TEE SHAPES SHALL CONFORM TO ASTM A992.
2. CHANNELS AND ANGLES SHALL CONFORM TO ASTM A36
3. HOLLOW STRUCTURAL SECTIONS SHALL CONFORM TO ASTM A500, GRADE B
4. STRUCTURAL PLATE SHALL CONFORM TO ASTM A36.

ALL STRUCTURAL STEEL AND MISCELLANEOUS IRON SHALL BE PAINTED AND SHALL CONFORM TO THE PROVISIONS IN SECTION 57 OF THE STATE STANDARD SPECIFICATIONS AND THE PROJECT SPECIAL PROVISIONS.

### WELDING

ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS PER AWS "STANDARD QUALIFICATION PROCEDURE" TO PERFORM THE TYPE OF WORK REQUIRED. ALL WELDING SHALL BE IN ACCORDANCE WITH THE CURRENT AWS WELDING CODE. ARC WELDING ELECTRODES SHALL BE E70 SERIES FOR A36, A53, A500, A572 & A992 MATERIAL, AND E80 SERIES FOR A706 REINFORCING STEEL.

THE FILLER METAL MANUFACTURER'S PUBLISHED RECOMMENDATIONS SHALL BE THE BASIS FOR DETERMINING THE ALLOWABLE RANGE OF ESSENTIAL VARIABLES FOR THE PRE QUALIFIED WPS. UNLESS NOTED OTHERWISE ON THE PLANS, BACK-UP BARS FOR CJP WELDS SHALL BE REMOVED FOLLOWED BY BACKGOUING AND BACKWELDING.

### MACHINE BOLTS, ANCHOR BOLTS AND THREADED RODS

BOLTS, NUTS, WASHERS AND RODS PERMANENTLY EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED.

1. BOLTS AND RODS SHALL CONFORM TO ASTM A307 GRADE A OR B OR A36.
2. ALL BOLTS & LAG SCREWS SHALL HAVE STANDARD STEEL WASHERS, U.N.O.
3. NUTS SHALL BE AS SHOWN BELOW AND FINISH SHALL MATCH FASTENER.

FASTENER GRADE AND SIZE	NUT CLASS	NUT STYLE
ASTM A36 OR ASTM A307A, 1/4" TO 1-1/2"	ASTM A563-A	HEX
ASTM A36 OR ASTM A307A, OVER 1-1/2" TO 4"	ASTM A563-A	HEAVY HEX
ASTM A307B, 1/4" TO 4"	ASTM A563-A	HEAVY HEX

# TESTING AND SPECIAL INSPECTIONS

## GENERAL

THE OWNER OR OWNER'S AGENT SHALL EMPLOY A SPECIAL INSPECTOR DURING CONSTRUCTION ON THE FOLLOWING TYPES OF WORK.

### SPECIAL INSPECTOR

THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE HIS COMPETENCE FOR INSPECTING RETAINING WALL STRUCTURES TO THE SATISFACTION OF THE COUNTY AND THE STRUCTURAL ENGINEER OF RECORD.

### DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR

- THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPLICABLE PROJECT DRAWINGS AND SPECIFICATIONS.
- THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE RESIDENT ENGINEER, THE STRUCTURAL ENGINEER OF RECORD, THE CONTRACTOR AND OTHER PERSONS DESIGNATED BY THE CONTRACTOR'S DESIGNATED REPRESENTATIVE. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY.
- THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING RETAINING WALL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP OF THE STANDARD SPECIFICATIONS.

## SOILS & FOUNDATIONS

### SOILS

- PERIODICALLY INSPECT EXCAVATIONS FOR PROPER DEPTH.
- PERIODICALLY PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS.
- CONTINUOUSLY VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.
- PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY SITE HAS BEEN PREPARED PROPERLY.

### DRILLED PIERS

- CONTINUOUSLY INSPECT DRILLING OPERATIONS.

## CONCRETE

### CONCRETE

- CONTINUOUSLY INSPECT THE PLACEMENT OF ALL CONCRETE
- SAMPLE CONCRETE: ASTM C172, EXCEPT SLUMP SHALL COMPLY WITH ASTM C94.
- TEST SLUMP: ASTM C143, ONE TEST AT POINT OF TRUCK DISCHARGE FOR 300 CY OR FRACTION THEREOF FOR EACH TYPE OF CONCRETE; ADDITIONAL TESTS REQUIRED WHEN CONCRETE CONSISTENCY SEEMS TO HAVE CHANGED.
- TEST AIR CONTENT: ASTM C173, VOLUMETRIC METHOD FOR LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE, ONE FOR EACH 300 CY PLACED OR FRACTION THEREOF FOR EACH TYPE OF AIR-ENTRAINED CONCRETE.
- TEST CONCRETE TEMPERATURE: TEST HOURLY WHEN AIR TEMPERATURE IS 50 DEGREES F. (10 DEGREES C.) AND BELOW, AND WHEN 85 DEGREES F. (29 DEGREES C.) AND ABOVE; AND EACH TIME A SET OF COMPRESSION TEST SPECIMENS ARE MADE.
- TAKE COMPRESSION TEST SPECIMENS: ASTM C31, TAKE ONE SET OF 3 STANDARD CYLINDERS FOR EACH 300 CY OF CONCRETE FOR EACH TYPE OF CONCRETE TAKEN EACH DAY. MOLD AND STORE CYLINDERS FOR LABORATORY CURED TEST SPECIMENS EXCEPT WHEN FIELD-CURE TEST SPECIMENS ARE REQUIRED.
- TEST COMPRESSIVE STRENGTH: ASTM C39; ONE SPECIMEN TESTED AT 7 DAYS, TWO SPECIMENS TESTED AT 28 DAYS.

## STRUCTURAL STEEL

### STRUCTURAL STEEL AND MISCELLANEOUS IRON

- VERIFY THAT MILL CERTIFICATES SHOW STRUCTURAL STEEL AND MISCELLANEOUS IRON IS IN COMPLIANCE WITH PROJECT SPECIFICATIONS.

### WELDING

- VERIFY WELDER CERTIFICATIONS, COMPLIANCE WITH WELDING PROCEDURE SPECIFICATIONS AND PROCEDURE QUALIFICATION RECORD (PQR) (IF APPLICABLE).
- CONTINUOUSLY INSPECT ALL STRUCTURAL WELDING, INCLUDING WELDING OF REINFORCING STEEL.

### EXCEPTIONS:

1. SINGLE PASS FILLET WELDS NOT EXCEEDING 3/8" MAY HAVE PERIODIC INSPECTION.

# STRUCTURAL OBSERVATION

### REQUIRED OBSERVATION BY THE STRUCTURAL ENGINEER OF RECORD

1. STEEL ERECTION.

CONTRACTOR SHALL NOTIFY ENGINEER A MINIMUM OF 2 WORKING DAYS PRIOR TO THE TIME WHEN HIS PRESENCE IS REQUIRED. NOTE THAT THESE OBSERVATIONS ARE INDEPENDENT OF INSPECTIONS REQUIRED BY THE COUNTY.

# SUBMITTALS

SUBMITTALS FOR THE ENGINEER'S REVIEW WILL BE REQUIRED AS FOLLOWS:

1. DRILLED PIER CONSTRUCTION METHOD, PROCEDURE AND EQUIPMENT;
2. MIX DESIGNS;
3. STRUCTURAL STEEL AND MISCELLANEOUS METALS SHOP DRAWINGS;

### NOTES:

1. CONTRACTOR SHALL ELECTRONICALLY SUBMIT SUBMITTALS FOR REVIEW OR SHALL SUBMIT A MINIMUM OF TWO SETS OF HARD PRINTS FOR REVIEW.
2. THE GENERAL CONTRACTOR SHALL REVIEW EACH SUBMITTAL PRIOR TO FORWARDING TO ARCHITECT AND STRUCTURAL ENGINEER. THE GENERAL CONTRACTOR SHALL VERIFY THAT THE SHOP DRAWING IS COORDINATED AMONG ALL CONSTRUCTION TRADES AND THAT THE ENGINEER'S AND STRUCTURAL ENGINEER'S COMMENTS FROM ANY PREVIOUS SUBMITTALS ARE ADDRESSED.
3. CONTRACTOR SHALL SUBMIT IN WRITING, ANY REQUEST FOR MODIFICATIONS TO THE PLANS AND SPECIFICATIONS. SHOP DRAWINGS SUBMITTED FOR REVIEW DO NOT CONSTITUTE "IN WRITING" UNLESS IT IS CLEARLY NOTED THAT SPECIFIC CHANGES ARE BEING REQUESTED.
4. REVISIONS FROM PREVIOUS SUBMITTALS SHALL BE CLEARLY MARKED BY CLOUDS.
5. FABRICATION SHALL NOT PROCEED UNTIL SUBMITTALS HAVE BEEN REVIEWED AND APPROVED BY THE ENGINEER.



APPROVED:

DATE: 2-16-18

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS  
R. C. E. # 48056 / EXPIRES 12-31-2019

# ABBREVIATIONS

Ø	AT	DBL	DOUBLE	LONGIT	LONGITUDINAL	REQ'D	REQUIRED
φ	DIAMETER	DET	DETAIL	LT	LEFT	REV	REVISION
#	NUMBER	DF	DOUGLAS FIR	LW	LIGHT WEIGHT	RT	RIGHT
ACI	AMERICAN CONCRETE INSTITUTE	DIAG	DIAGONAL	MAX	MAXIMUM	RW	RETAINING WALL
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	DIA	DIAMETER	MB	MACHINE BOLT(S)	SCHED	SCHEDULE
ALT	ALTERNATE	DIST	DISTANCE	MCH	MECHANICAL	SEC	SECTION
APPROX	APPROXIMATE(LY)	DL	DEAD LOAD	MFR	MANUFACTURER	SHT	SHEET
ARCH	ARCHITECT(URAL)	DN	DOWN	MIN	MINIMUM, MINUTES	SPEC(S)	SPECIFICATION(S)
BM	BEAM	DWG	DRAWING	MISC	MISCELLANEOUS	SQ	SQUARE
C-C	CENTER TO CENTER	(E)	EXISTING	No.	NUMBER	STD	STANDARD
CF	CENTERLINE	EA	EACH	Ø	NOMINAL DIAMETER	STL	STEEL
CIDH	CUBIC FOOT CAST IN DRILLED HOLE	EL	ELEVATION	NOM	NOMINAL	STRUCT	STRUCTURAL
CIP	CAST IRON PIPE	EMB	EMBANKMENT	NS	NEAR SIDE	SYM	SYMMETRICAL
CJ	CONSTRUCTION JOINT	EQ	EQUAL	NTS	NOT TO SCALE	TBR	TO BE REMOVED
CJP	COMPLETE JOINT PENETRATION	EW	EACH WAY	OC	ON CENTER	TEMP	TEMPORARY
CL	CEILING	EXIST	EXISTING	OD	OUTSIDE DIAMETER	TO	TOP OF
CLR	CLEAR, CLEARANCE	FG	FINISHED GRADE	OG	ORIGINAL GROUND	TOF	TOP OF FOOTING
CONC	CONCRETE	FIN	FINISH(ED)	OPP	OPPOSITE	TOW	TOP OF WALL
CONN	CONNECTION	Ga	GAUGE	PG	PROFILE GRADE	TRANS	TRANSVERSE
CONST	CONSTRUCTION	GALV	GALVANIZED	P/L	PROPERTY LINE	TYP	TYPICAL
CONT	CONTINUOUS	H or HT	HEIGHT	PSF	POUNDS PER SQUARE FOOT	UNO	UNLESS NOTED OTHERWISE
COORD	COORDINATE	HORIZ	HORIZONTAL	PSI	POUNDS PER SQUARE INCH	VERT	VERTICAL
CY	CUBIC YARD	HSS	HOLLOW STRUCTURAL STEEL	PTDF	PRESSURE TREATED DOUGLAS FIR	W/	WITH
		INSP	INSPECTION/INSPECTOR	PC	POLYETHYLENE CHLORIDE	WF	WIDE FLANGE
		LF	LINEAR FOOT	PVC	POLYVINYL CHLORIDE	WP	WATERPROOF or WORKPOINT
		LOC	LOCATION	RAD or R	RADIUS	WPS	WELDING PROCEDURE SPECIFICATION
		LOL	LAYOUT LINE			WT	WEIGHT

# PROJECT DATA

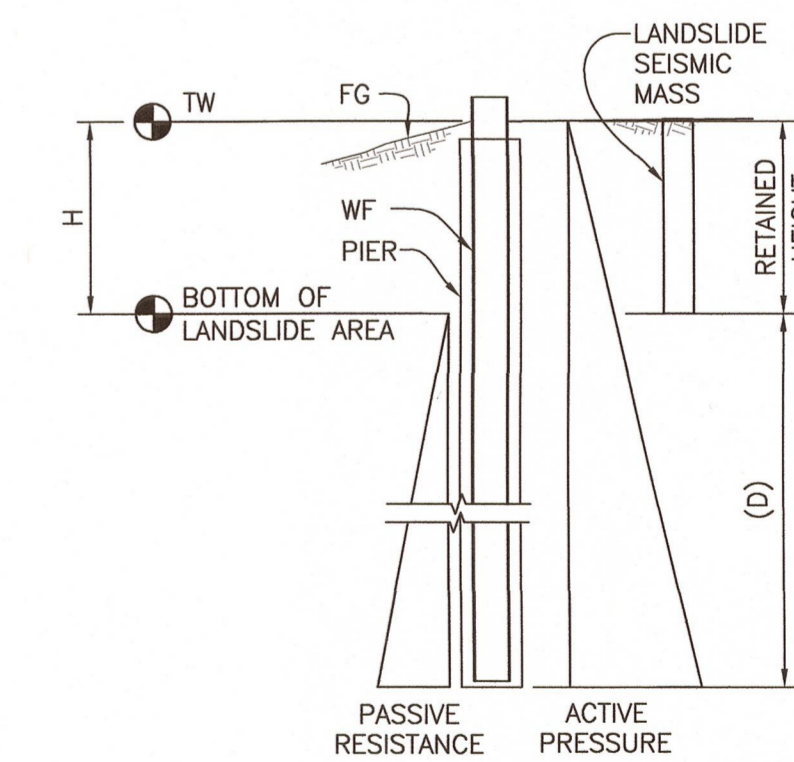
1. PLANS AND CALCULATIONS FOR THE STRUCTURAL DESIGN WERE BASED UPON:
  - THE STATE OF CALIFORNIA SPECIFICATION
  - SOILS REPORT: "GEOTECHNICAL ENGINEERING INVESTIGATION, OAK KNOLL RD. SEWER LINE REPAIR" BY BAGG ENGINEERS, PROJECT NO. BKFN-25-00, DATED FEBRUARY 9, 2015 WITH "ADDENDUM TO GEOTECHNICAL REPORT" DATED FEBRUARY 2015 AND "SECOND ADDENDUM TO GEOTECHNICAL ENGINEERING INVESTIGATION" DATED JUNE 2016.
2. FOUNDATION DESIGN CRITERIA:
  - ACTIVE PRESSURE: 55 PCF
  - LANDSLIDE SEISMIC PRESSURE: 650 PSF
  - PASSIVE PRESSURE: 500 PSF

# PROJECT DESCRIPTION

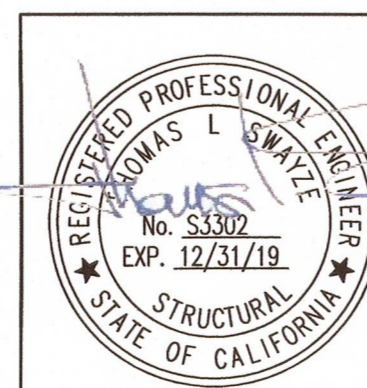
DUE TO CREEK EROSION, A 6-IN SEWER LINE HAS BECOME EXPOSED BELOW OAK KNOLL ROAD IN SAN MATEO COUNTY. A STABILIZATION STITCH PILE WALL THAT WILL BE COMPLETELY COVERED BY EARTH HAS BEEN DESIGNED TO RETAIN UPHILL EARTH PRESSURES AND SEISMIC LANDSLIDE EARTH PRESSURES. THE EXPOSED 6-IN SEWER LINE WILL BE INSTALLED ON THE DOWNHILL SIDE OF THE STITCH PILE WALL AND WILL BE COVERED WITH EARTH.

# SHEET INDEX

S1	MATERIALS DATA AND PROJECT DATA
S2	SOLDIER PILE WALL ELEVATION AND DETAILS

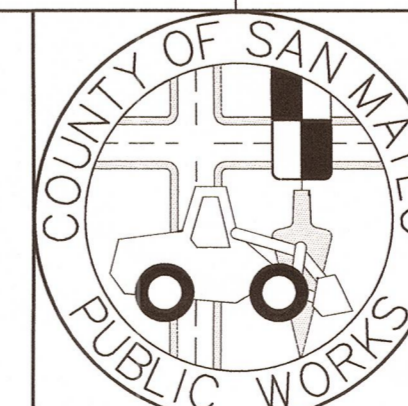


# STITCH PILE WALL PRESSURE DIAGRAM

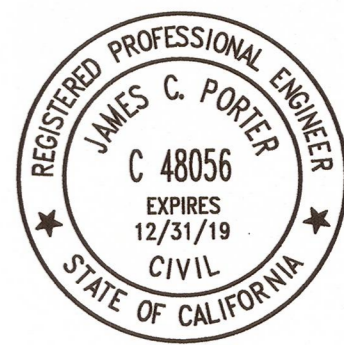


**CORNERSTONE**  
structural engineering group

40 Federal Street  
San Francisco, California 94107  
415.369.9100  
fax 415.369.9101



DESIGNED BY: CDI	SANITARY SEWER REPAIR PROJECT AT 3383 OAK KNOLL DRIVE	SCALE: AS NOTED
CHECKED BY: TLS	EMERALD LAKE HEIGHTS SEWER MAINTENANCE DISTRICT	DATE: 1/19/18
DRAWN BY: CDI	<b>MATERIAL DATA AND PROJECT DATA</b>	FILE NO.: 1/E4954
REVISION	DATE	
△	2/15/18-RFI 001	
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY		555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		0 1 2 3 4
		<b>S1(REV)</b> SHEET 7 OF 8



APPROVED:

DATE: 2-16-18

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS  
R. C. E. # 48056 / EXPIRES 12-31-2019

NOTES:

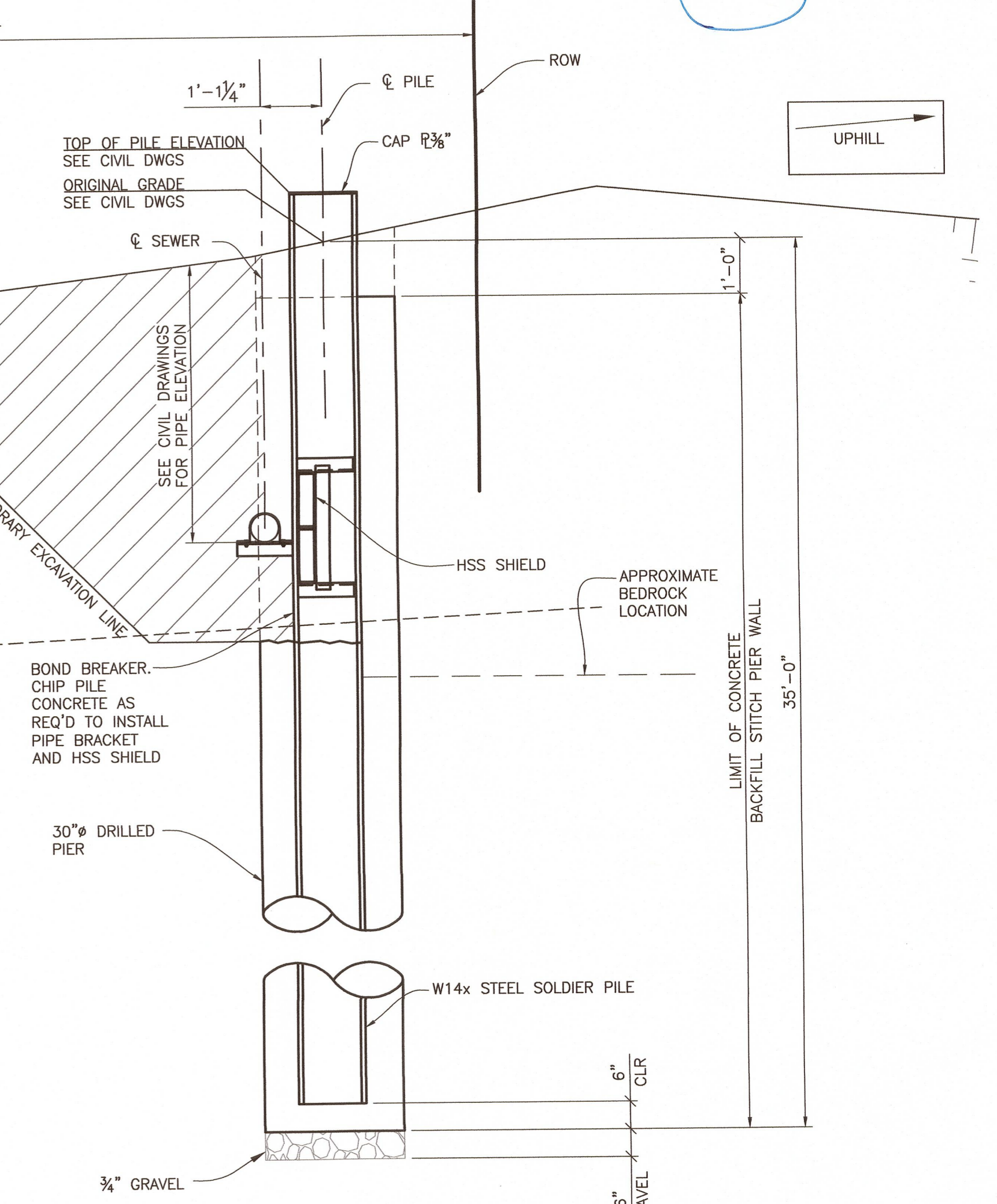
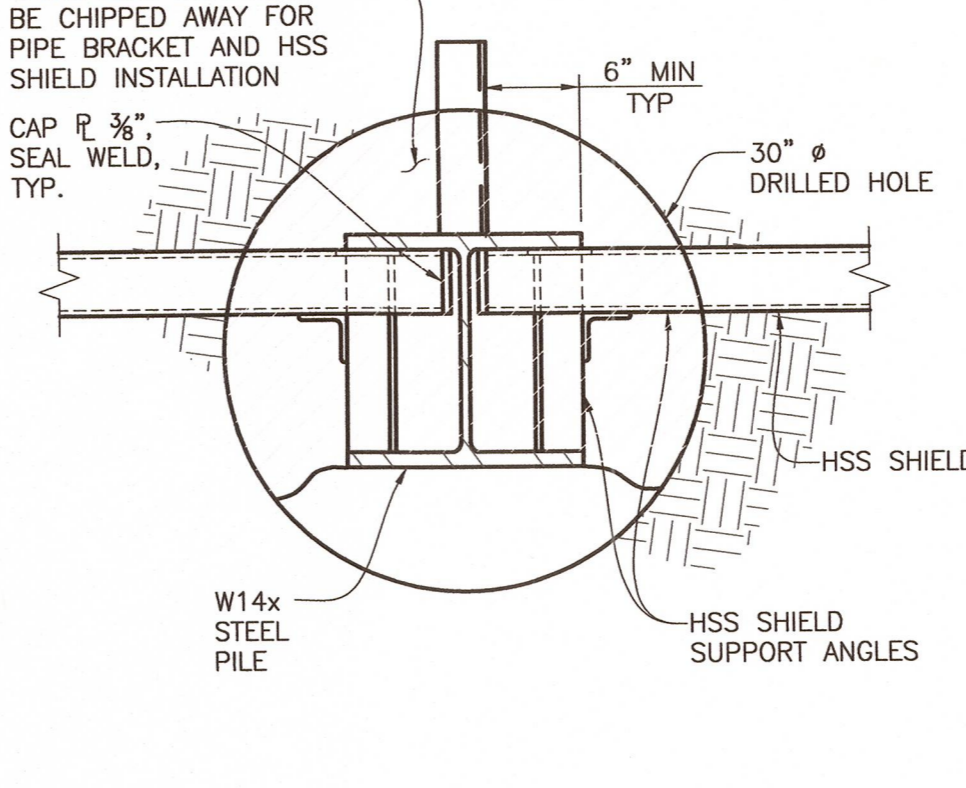
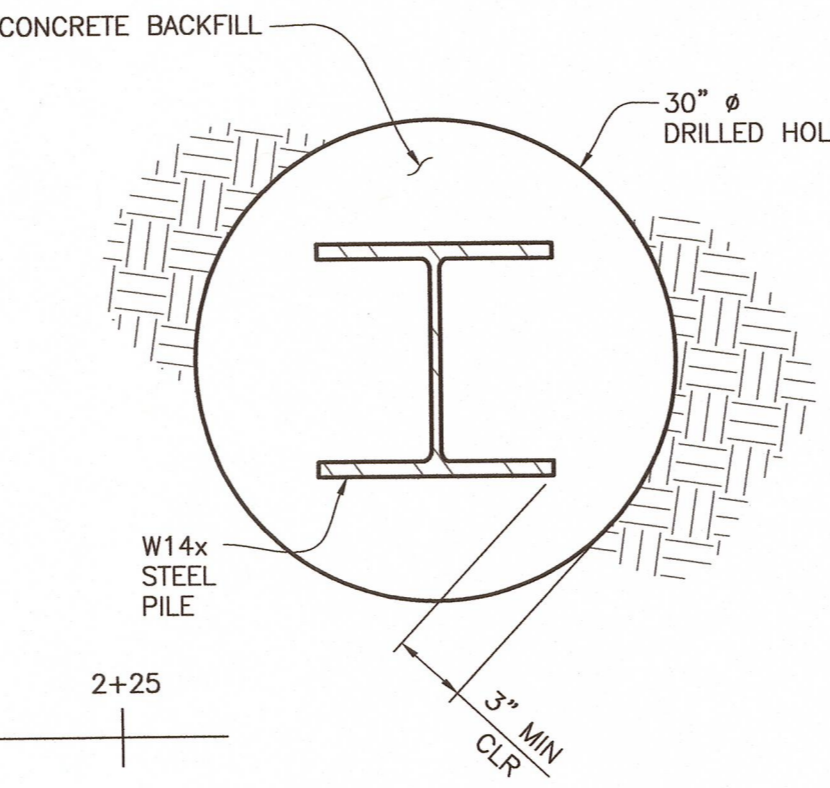
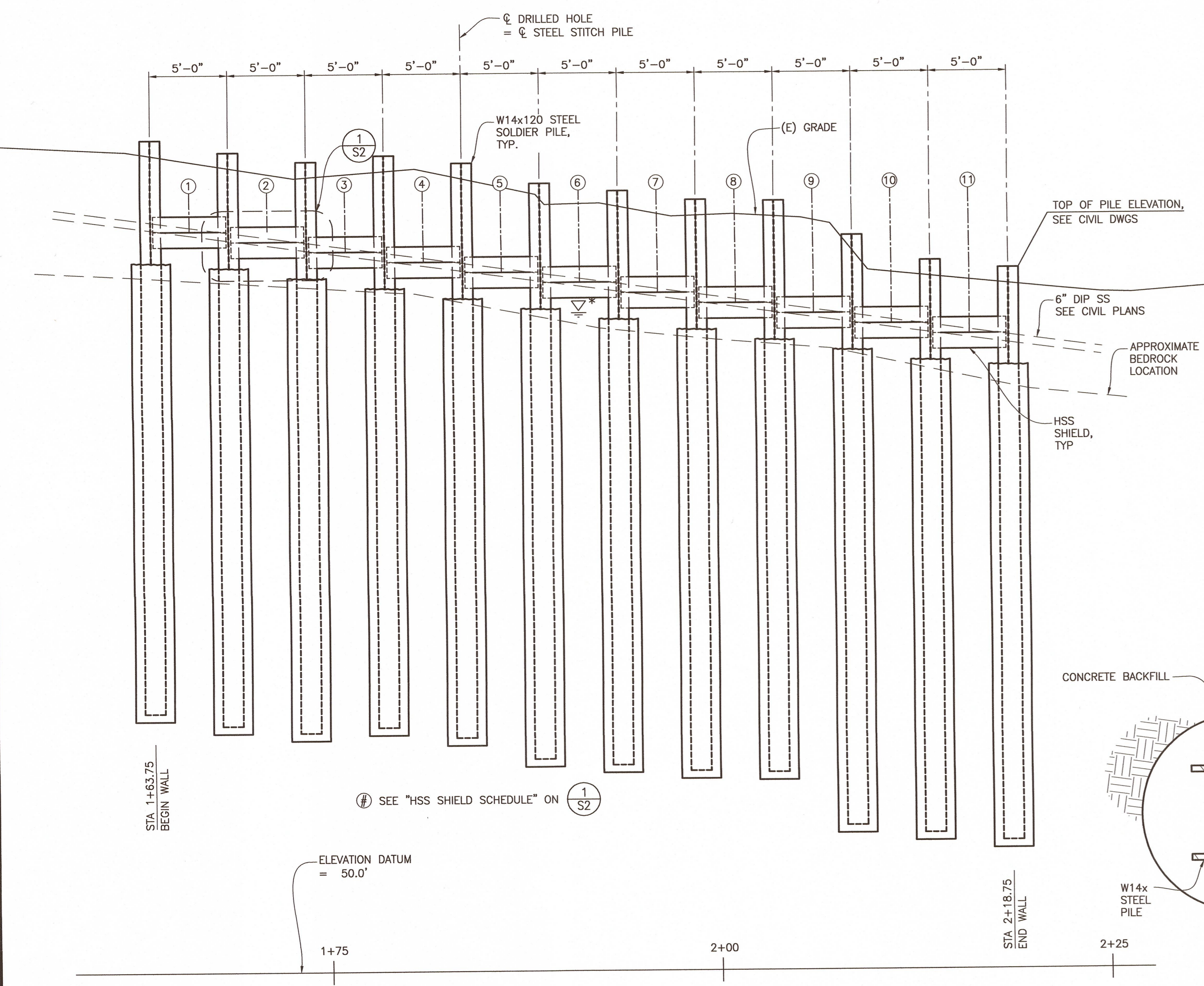
- 1. SEE CIVIL PLANS FOR WALL LAYOUT INFORMATION, TOP OF WALL, BOTTOM OF WALL, TOP OF GRADE, AND FINISHED GRADE ELEVATIONS. ALL WALL LAYOUT INFORMATION SHALL BE VERIFIED WITH CIVIL PLANS.
- 2. HSS SHIELD SHALL BE INSTALLED HORIZONTALLY.



INDICATES TEMPORARY EXCAVATION TO INSTALL SS PIPE CONNECTION AND HSS SHIELD. BACKFILL TEMPORARY EXCAVATION WITH STRUCTURE BACKFILL. LIMITS OF TEMPORARY EXCAVATION ARE SHOWN AS SCHEMATIC ONLY. CONTRACTOR TO DETERMINE REQUIRED LIMITS OF TEMPORARY EXCAVATION.

TYPICAL RETAINING WALL NOTES:

- 1. VERIFY TOP OF WALL, BOTTOM OF WALL, TOP OF GRADE & FINISHED GRADE ELEVATIONS WITH CIVIL PLANS
  - 2. CLEAN AND PAINT STEEL SOLDIER PILE PER PROJECT SPECIFICATIONS FROM TOP OF PILE TO 5 FEET BELOW THE LOWEST PORTION OF REMOVED SACRIFICIAL, CONCRETE BACKFILL
  - 3. ALL STEEL HSS AND ANGLE FRAMING MEMBERS FOR UTILITY SHIELD TO BE HOT DIPPED GALVANIZED. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY THOROUGHLY WIRE BRUSHING THE DAMAGED AREAS AND REMOVING LOOSE AND CRACKED COATING AND SHALL BE PAINTED WITH ZINC-RICH PRIMER CONFORMING TO SECTION 91 OF CALTRANS STANDARD SPECIFICATIONS
- \*APPROXIMATE GROUND WATER SURFACE ELEVATION



**HSS SHIELD SCHEDULE**

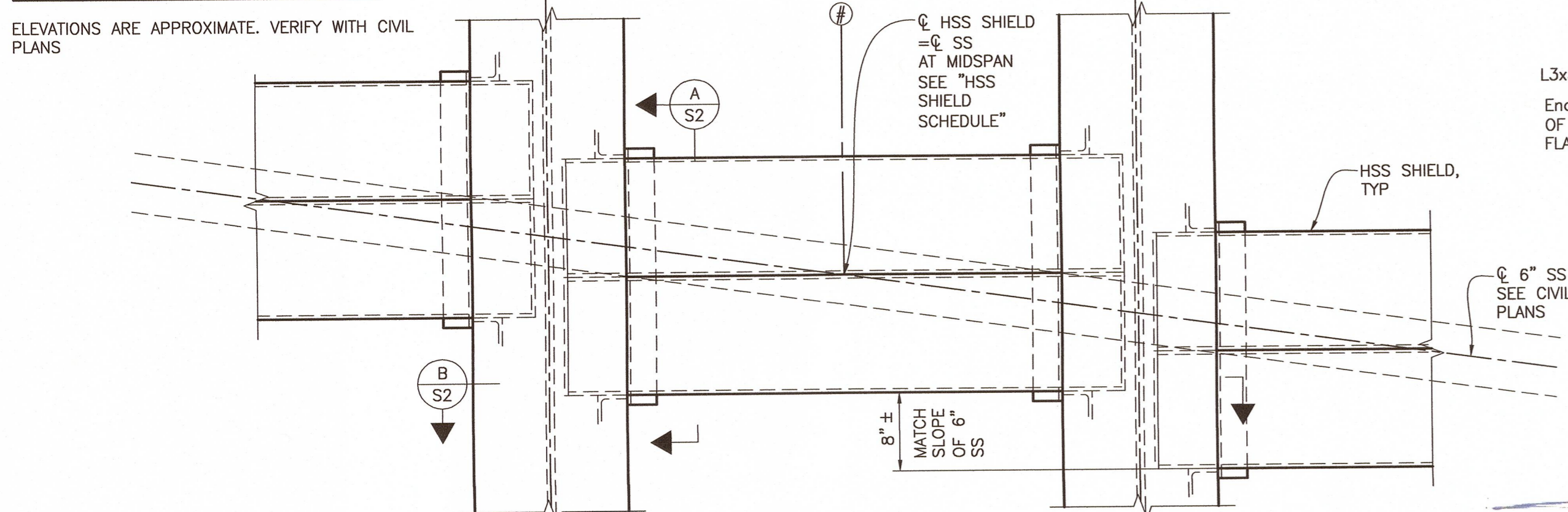
NO.	STATION	SHIELD ELEVATION (FT)
1.	1+66.25	97.5
2.	1+71.25	96.8
3.	1+76.25	96.1
4.	1+81.25	95.4
5.	1+86.25	94.7
6.	1+91.25	94.0
7.	1+96.25	93.4
8.	2+01.25	92.7
9.	2+06.25	92.0
10.	2+11.25	91.3
11.	2+16.25	90.6

**ELEVATION**  
1"=5'-0"

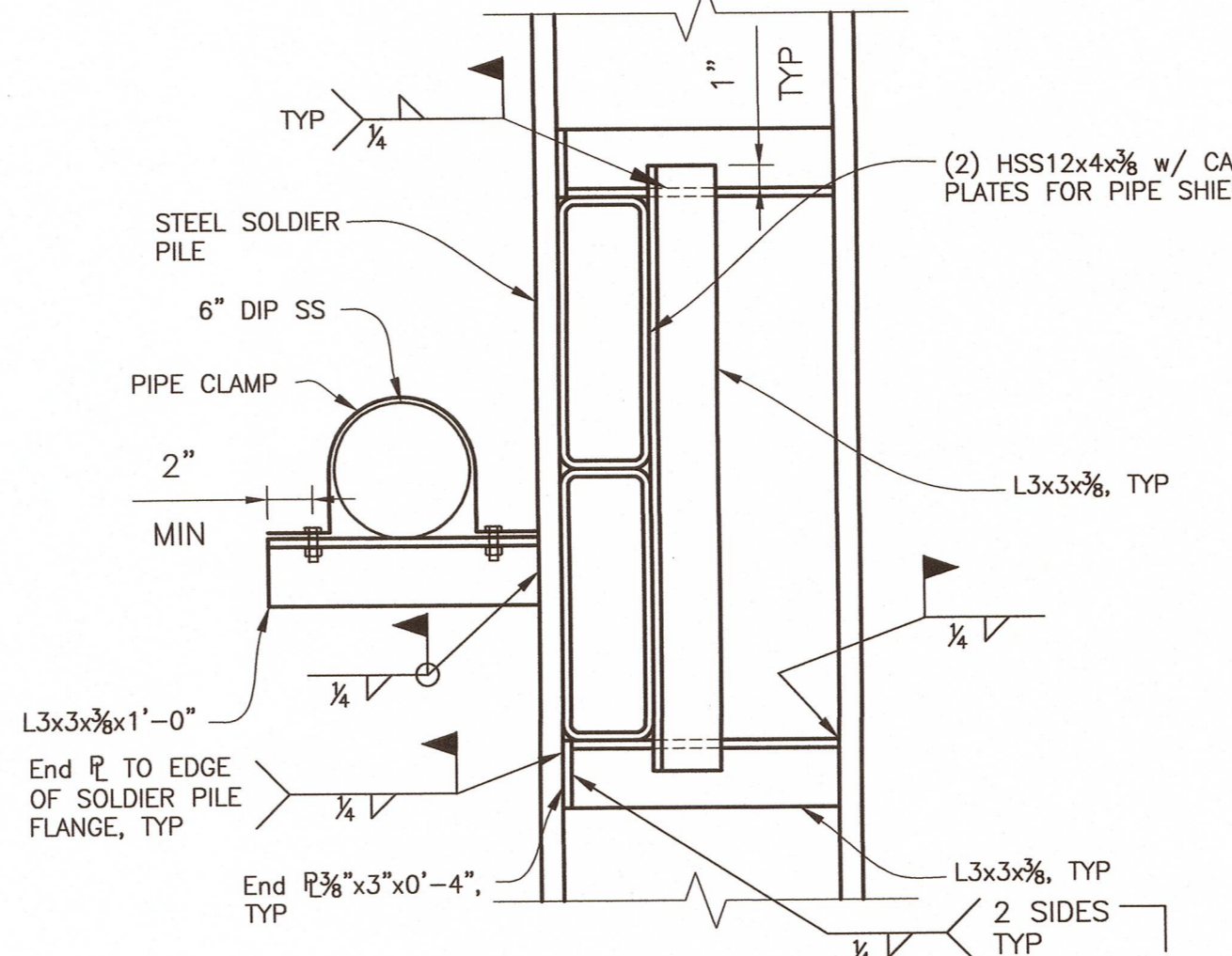
**AT DRILLED HOLE**  
N.T.S.

**AT HSS SHIELD**  
N.T.S.

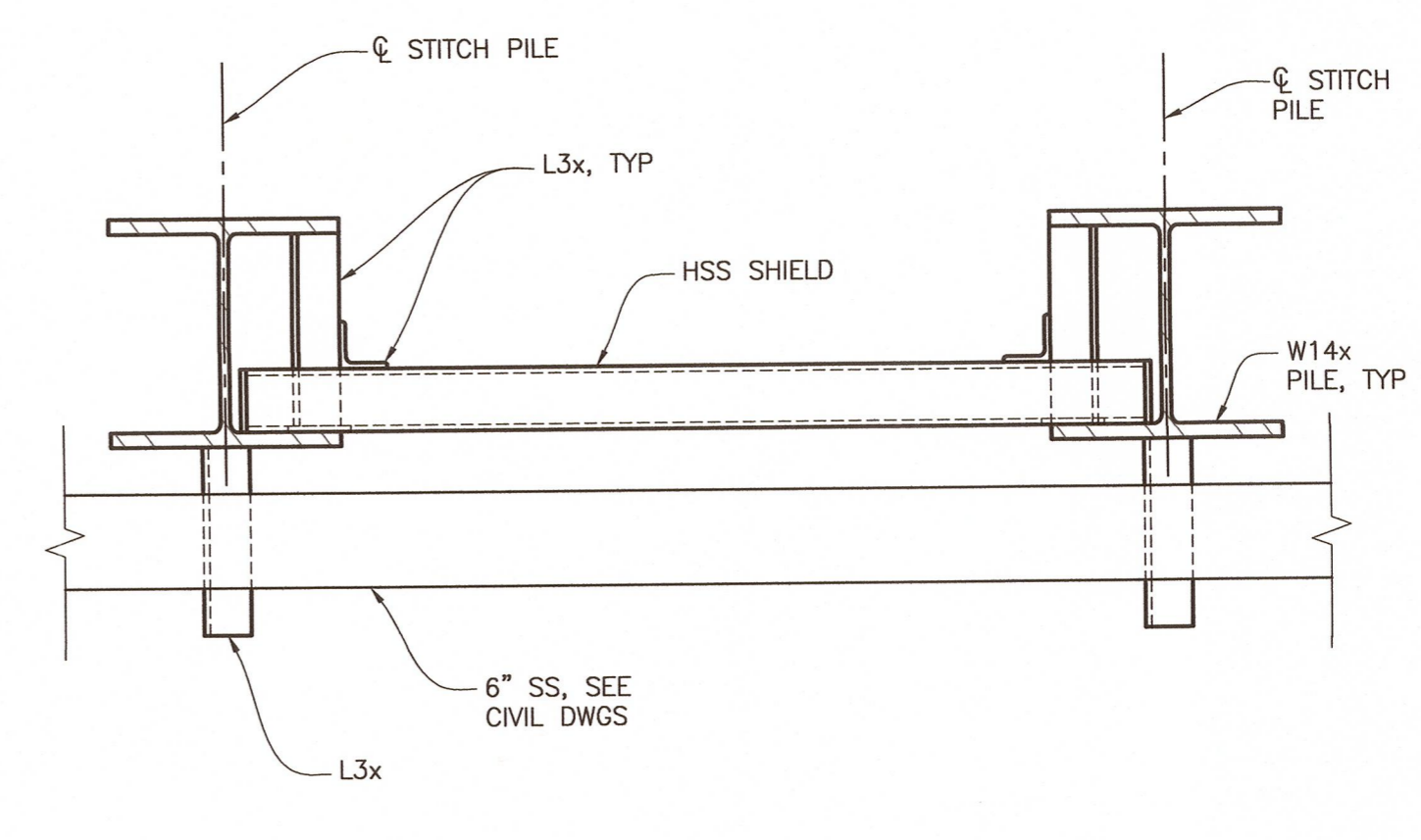
**STITCH PILE WALL TYPICAL SECTION**  
1/2"=1'-0"



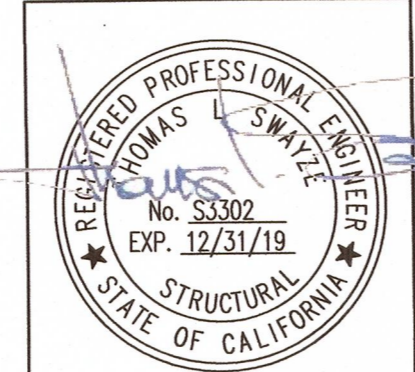
**HSS SHIELD DETAIL**  
1"=1'-0"



**SECTION A**  
1 1/2"=1'-0"

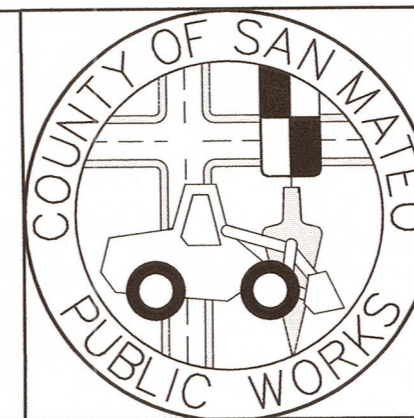


**SECTION B**  
1"=1'-0"



**CORNERSTONE**  
structural engineering group

40 Federal Street  
San Francisco, California 94107  
415.369.9100  
fax 415.369.9101



DESIGNED BY: CDI	SANITARY SEWER REPAIR PROJECT AT 3383 OAK KNOLL DRIVE	SCALE: AS NOTED
CHECKED BY: TJS	EMERALD LAKE HEIGHTS SEWER MAINTENANCE DISTRICT	DATE: 1/19/18
DRAWN BY: CDI	<b>SOLDIER PILE WALL ELEVATION AND DETAILS</b>	FILE NO.: 1/E4954
REVISION	DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY
2/15/18-RF1 001		555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

**S2(REV)**  
SHEET 8 OF 8

Full compensation for steel framing at HSS utility shield, including furnishing and installation of HSS utility shield, as shown in the Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer shall be considered as included in the contract price per linear foot price for item, "Construct Stitch Pile Wall" and no additional compensation will be allowed therefore.

105-4 Welding

105-4.1 General

Unless otherwise specified, "Welding," shall apply to any welding that is specified to conform to an AWS welding code.

Requirements of the AWS welding codes shall apply unless otherwise specified in the Standard Specifications, on the Plans, or in these Special Provisions. Wherever the abbreviation AWS is used, it shall be equivalent to the abbreviations ANSI/AWS or AASHTO/AWS.

Wherever reference is made to the following AWS welding codes in the Standard Specifications, on the Plans, or in these Special Provisions, the year of adoption for these codes shall be as listed:

AWS Code	Year of Adoption
D1.1	2008
D1.3	2008
D1.4	2005
D1.5	2008
D1.6	2007
D1.8	2009

Flux cored welding electrodes conforming to the requirements of AWS A5.20 E6XT-4 or E7XT-4 shall not be used to perform welding for this project.

Unless otherwise specified, Clause 6.1.3 of AWS D1.1, paragraph 1 of Section 7.1.2 of AWS D1.4, and Clause 6.1.1.2 of AWS D1.5, are replaced with the following:

The QC Inspector shall be the duly designated person who acts for and on behalf of the ~~Contractor~~ **County or County's Agent** for inspection,

testing, and quality related matters for all welding. **Quality Control (QC) is the prerogative of the County.**

Quality Assurance (QA) is the prerogative of the Engineer. The QA Inspector is the duly designated person who acts for and on behalf of the Engineer.

The QC Inspector shall be responsible for quality control acceptance or rejection of materials and workmanship.

When the term "Inspector" is used without further qualification, it shall refer to the QC Inspector.

Inspection and approval of all joint preparations, assembly practices, joint fit-ups, welding techniques, and the performance of each welder, welding operator, and tack welder shall be documented by the QC Inspector on a daily basis for each day welding is performed. For each inspection, including fit-up, Welding Procedure Specification (WPS) verification, and final weld inspection, the QC Inspector shall confirm and document compliance with the requirements of the AWS or other specified code criteria and the requirements of these Special Provisions on all welded joints before welding, during welding, and after the completion of each weld.

The Engineer shall have the authority to verify the qualifications or certifications of any welder, ~~QC Inspector~~, or NDT personnel to specified levels by retests or other means approved by the Engineer.

When joint weld details that are not prequalified to the details of Clause 3 of AWS D1.1 or to the details of Figure 2.4 or 2.5 of AWS D1.5 are proposed for use in the work, the joint details, their intended locations, and the proposed welding parameters and essential variables, shall be approved by the Engineer. The Contractor shall allow the Engineer ten (10) working days to complete the review of the proposed joint detail locations.

In addition to the requirements of AWS D1.1, welding procedure qualifications for work welded in conformance with this code shall conform to the following:

When a nonstandard weld joint is to be made using a combination of WPSs, a single test may be conducted combining the WPSs to be used

repair, and any delays caused by the repair, shall be at the Contractor's expense.

Repair work to correct welding deficiencies discovered by visual inspection directed or performed by the Engineer, and any associated delays or expenses caused to the Contractor by performing these repairs, shall be at the Contractor's expense.

#### 105-4.2 Welding Quality Control

Welding quality control shall conform to the requirements in the AWS or other specified welding codes, the Standard Specifications, and these Special Provisions.

Unless otherwise specified, welding quality control shall apply to work welded in conformance with the provisions in the following:

- A. Section 49, "Piling," Section 52, "Reinforcement," Section 55, "Steel Structures," and Section 75-1.035, "Bridge Joint Restrainer Units," of the Standard Specifications
- B. "Structural Steel for Building Work" of these Special Provisions

~~Unless otherwise specified, Clauses 6.1.4.1 and 6.1.4.3 of AWS D1.1, paragraph 2 of Section 7.1.2 of AWS D1.4, and Clauses 6.1.3.2 through 6.1.3.3 of AWS D1.5 are replaced with the following:~~

~~The QC Inspector shall be currently certified as an AWS Certified Welding Inspector (CWI) in conformance with the requirements in AWS QC1, "Standard for AWS Certification of Welding Inspectors."~~

~~The QC Inspector may be assisted by an Assistant QC Inspector provided that this individual is currently certified as an AWS Certified Associate Welding Inspector (CAWI) in conformance with the requirements in AWS QC1, "Standard for AWS Certification of Welding Inspectors." The Assistant QC Inspector may perform inspection under the direct supervision of the QC Inspector provided the assistant is always within visible and audible range of the QC Inspector. The QC Inspector shall be responsible for signing all reports and for determining if welded materials conform to workmanship and acceptance criteria. The ratio of QC Assistants to QC Inspectors shall not exceed 5 to 1.~~