

TOWN OF CHATHAM, MASSACHUSETTS

CHATHAM FISH PIER OBSERVATION DECK RECONSTRUCTION 45 BARCLIFF AVENUE EXTENSION, CHATHAM, MA 02633

DECEMBER 21, 2018

ISSUED FOR CONSTRUCTION



SHEET LIST:

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- M1: PIPING / MECHANICAL (BY WEB ENGINEERING ASSOCIATES)
- M2: PIPING SUMP DETAILS (BY WEB ENGINEERING ASSOCIATES)
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- MS1: CONCRETE (BY WEB ENGINEERING ASSOCIATES)
- E1: ELECTRICAL SCHEMATIC (BY WEB ENGINEERING ASSOCIATES)



GENERAL NOTES:

SHEET LIST

- 1. THIS FULL SET OF PLANS CONTAINS A TOTAL OF (28) SHEETS, INCLUDING (18) SHEETS BY FOTH-CLE ENGINEERING GROUP, (2) SHEETS BY PARE CORPORATION, (1) SHEET BY ENCORE FIRE PROTECTION, AND (7) SHEETS BY WEB ENGINEERING ASSOCIATES, INC.

SURVEY NOTES

- 1. THE TOPOGRAPHY AND EXISTING SITE CONDITIONS DEPICTED HEREON ARE THE RESULT OF AN ON THE GROUND FIELD SURVEY CONDUCTED BY THE HORSLEY WITTEN GROUP, INC. DECEMBER 20, 2016.
- 2. HORIZONTAL DATUM IS MASS STATE PLANE COORDINATE SYSTEM. DATUM ESTABLISHED BY SCALING ORTHOMETRIC PHOTOS PROVIDED BY MASSACHUSETTS GEOGRAPHICAL INFORMATION SYSTEM (MA GIS).
- 3. THE ELEVATIONS DEPICTED HEREON WERE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.
- 4. THE PROPERTY LINES AND RIGHTS OF WAYS DEPICTED ARE APPROXIMATE ONLY.
- 5. THE ACCURACY OF MEASURED PIPE INVERTS AND PIPE SIZES IS SUBJECT TO FIELD CONDITIONS, THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS AND OTHER CONDITIONS.
- 6. THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF VARIOUS UTILITY COMPANIES, AND WHEREVER POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD PRIOR TO THE START OF ANY CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY IN THE TOWN, AND "DIGSAFE" (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK IN PREVIOUSLY UNALTERED AREAS TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
- 7. THE PROPERTY IS LOCATED WITHIN F.I.R.M ZONE AE AS SHOWN ON COMMUNITY PANEL NO. 25001C0629J DATED JULY 16, 2014.
- 8. COORDINATES ARE BASED ON MASSACHUSETTS (MAINLAND) STATE PLANE COORDINATE SYSTEM (NAD 83) AND ARE EXPRESSED IN FEET.
- 9. ELEVATIONS ARE SHOWN IN FEET AND ARE BASED ON NAVD 88 DATUM. POSITIVE VALUES REPRESENT DEPTH ABOVE THAT SAME PLANE.

DESIGN BASIS

- 1. STRUCTURAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE BUILDING CODE OF MASSACHUSETTS. WORK SHALL COMPLY WITH FEDERAL, STATE AND LOCAL PERMIT CONDITIONS.
- 2. ALL CONCRETE HAS BEEN DESIGNED IN ACCORDANCE WITH ACI 318. ALL CONCRETE MIXES, REINFORCEMENT, PLACEMENT, CURING, FROST PROTECTION AND THE LIKE SHALL BE PERFORMED IN ACCORDANCE WITH THIS CODE.
- 3. CONCRETE STEEL REINFORCEMENT SHALL COMPLY WITH THE "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT," ACI 315-99, PUBLISHED BY THE AMERICAN CONCRETE INSTITUTE (ACI).
- 4. CONCRETE STEEL REINFORCEMENT SHALL CONFORM TO GRADE ASTM A 615 GRADE 60 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 767.
- 5. CONCRETE SHALL BE NORMAL WEIGHT WITH A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS. PORTLAND CEMENT SHALL BE TYPE I OR TYPE II. CONCRETE SHALL CONTAIN A MINIMUM OF 6 (+/- 1.5%) ENTRAINED AIR AND HAVE A MAXIMUM WATER TO CEMENT RATIO OF 0.40.
- 6. STRUCTURAL STEEL SHAPES, ANGLES AND PLATES SHALL CONFORM TO ASTM A 572, GRADE 50 AND HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A 123 AND A 153.
- 7. WELDING SHALL CONFORM TO THE 'STRUCTURAL WELDING CODE - STEEL', AS ADOPTED BY THE AMERICAN WELDING SOCIETY (AWS D1.1). A WELDER CERTIFIED IN ACCORDANCE WITH THE AWS STANDS SHALL PERFORM WELDING.
- 8. WELDING ELECTRODES SHALL BE SELECTED SPECIFICALLY FOR WELDING STAINLESS STEEL ELEMENTS AND SHALL COMPLY WITH A.W.S. A5.1 AND A5.5. CONTRACTOR TO SUBMIT A WELDING PROCEDURE SPECIFICATION (WPS) AND PROPOSED ELECTRODE FOR ENGINEER REVIEW AND APPROVAL WITHIN 48 HOURS PRIOR TO COMMENCEMENT OF WELDING OPERATIONS.
- 9. STRUCTURAL TIMBER SHALL BE SOUTHERN PINE OF THE QUALITY DEFINED AS "DENSE STRUCTURAL 65" OR GRADE NO. 1 OR BETTER. GRADES OF SOUTHERN PINE REFER TO THE LATEST STANDARD GRADING RULES OF THE SOUTHERN PINE INSPECTION BUREAU. ALL TIMBER SHALL BE ROUGH SIZES.
- 10. GLULAMINATED STRUCTURAL TIMBER SHALL BE POWER PRESERVED GLULAM BEAMS BY ANTHONY FOREST PRODUCTS OR EQUAL APPROVED BY THE ENGINEER.
- 11. ELEVATIONS BASED ON NAVD 88 DATUM

ANNUAL HIGH TIDE LINE (HTL)	+3.56 FEET
MHW	+2.32 FEET
NAVD 88	0.00 FEET
MLW	-2.63 FEET
MLLW	-2.81 FEET

- 12. THE COMPLETED STRUCTURE HAS BEEN DESIGN TO WITHSTAND THE FOLLOWING DESIGN LIVE LOADS:

PEDESTRIAN LIVE LOAD	100 PSF
GROUND SNOW LOAD	35 PSF
DESIGN WIND SPEED	120 MPH

UTILITIES

- 1. CONTRACTOR SHALL SUPPLY ALL NECESSARY TEMPORARY UTILITIES FOR CONSTRUCTION INCLUDING WATER, POWER, LIGHTING, DATA AND TELEPHONE
- 2. CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- 3. CONTRACTOR SHALL VERIFY CONDITION OF ALL EXISTING UTILITIES PRIOR TO TEMPORARY REMOVAL OR RELOCATION. REQUEST FOR APPROVAL TO SHUTOFF OR REMOVE ANY UTILITIES SHALL BE SUBMITTED TO THE ENGINEER 7 DAYS PRIOR TO WORK. NO UTILITIES SHALL BE REMOVED OR SHUT OFF WITHOUT PRIOR APPROVAL.
- 4. ANY UTILITIES TEMPORARILY REMOVED OR RELOCATED BY THE CONTRACTOR SHALL BE RESTORED BY THE CONTRACTOR AFTER CONSTRUCTION.

ENVIRONMENTAL

- 1. CONTRACTORS SHALL COMPLY WITH ALL ENVIRONMENTAL REQUIREMENTS AND PERMIT CONDITIONS.
- 2. CONTRACTOR SHALL PROVIDE CONFINED CONCRETE TRUCK WASHDOWN AREA AT A LOCATION TO BE APPROVED BY THE ENGINEER. WASHDOWN AREA SHALL INCLUDE PROTECTION TO PIER DECK, A PERIMETER WALL AND A FILTER FABRIC LINER. NO RUNOFF CONTAINING CEMENT OR OTHER SUSPENDED SOLIDS WILL BE PERMITTED.

SELECTIVE DEMOLITION AND DISPOSAL

- 1. SELECTIVE DEMOLITION AND DISPOSAL SHALL BE PERFORMED IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL PERMIT AND BUILDING CODE REQUIREMENTS.
- 2. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THOSE STRUCTURE AND DERELICT COMPONENTS REQUIRED TO PERFORM THE WORK. THIS WORK INCLUDES BUT IS NOT LIMITED TO EXISTING UTILITIES, EXISTING DECK, FRAMING, SUPPORTS, RAILING, STAIRS, CONCRETE SLAB, CONCRETE, TIMBER OR STEEL DEBRIS AND OTHER ITEMS AS INDICATED ON THE CONTRACT DRAWINGS.
- 3. SELECTIVE DEMOLITION INCLUDES BUT IS NOT LIMITED TO REMOVAL AND REUSE WHERE SPECIFIED OF EXISTING MATERIALS, UTILITIES AND OTHER COMPONENTS ESSENTIAL TO COMPLETE THE PROJECT.
- 4. THE CONTRACTOR SHALL TAKE REASONABLE CARE IN REMOVING ELEMENTS SELECTED TO BE DEMOLISHED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. DAMAGE OR DESTRUCTION BY THE CONTRACTOR TO EXISTING ELEMENTS DESIGNATED TO REMAIN SHALL BE REPAIRED OR REPLACED IN-KIND AT THE DISCRETION OF THE TOWN AT NO ADDITIONAL COST.
- 5. PRIOR TO COMMENCEMENT OF DEMOLITION, CONTRACTOR TO SUBMIT A DISPOSAL PLAN FOR ITEMS TO BE DEMOLISHED. DEMOLITION MATERIAL DESIGNATED BY THE OWNER TO BE REMOVED FROM THE SITE SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
- 6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING THE COURSE OF DEMOLITION.
- 7. THE CONTRACTOR SHALL SUBMIT A DISPOSAL CERTIFICATE TO THE OWNER'S REPRESENTATIVE OR ENGINEER CERTIFYING LEGAL AND PROPER DISPOSAL.

TIMBER

- 1. ALL GLULAMINATED BEAMS SHALL BE POWER PRESERVED GLULAM BEAMS BY ANTHONY FOREST PRODUCTS OR EQUAL APPROVED BY THE ENGINEER. GLULAM BEAMS SHALL HAVE OR EXCEED THE FOLLOWING MINIMUM STRUCTURAL DESIGN PARAMETERS:

FLEXURAL STRESS	FB = 2400 PSI
MODULUS OF ELASTICITY	E = 1.8 X 10 ⁶ PSI
HORIZONTAL SHEAR STRESS	FV = 300 PSI
COMPRESSION PERPENDICULAR TO THE GRAIN	FC = 740 PSI

- 2. ALL GLULAMINATED COLUMNS SHALL BE POWER PRESERVED COLUMNS BY ANTHONY FOREST PRODUCTS OR EQUAL APPROVED BY THE ENGINEER. POWER PRESERVED COLUMNS SHALL HAVE OR EXCEED THE FOLLOWING MINIMUM STRUCTURAL DESIGN PARAMETERS:

FLEXURAL STRESS	FBX = 2100 PSI
FLEXURAL STRESS	FBY = 2300 PSI
MODULUS OF ELASTICITY	E = 1.9 X 10 ⁶ PSI
COMPRESSION PERPENDICULAR TO THE GRAIN	FC = 2300 PSI

- 3. TIMBER HANDRAIL POSTS AND RAILS SHALL PRESERVATIVE PRESSURE TREATED WITH AMMONIACAL COPPER QUAT (ACQ) TO A MINIMUM RETENTION OF 0.6 PCF.
- 4. TIMBER STRINGERS AND ALL OTHER TIMBER FRAMING SHALL BE PRESERVATIVE PRESSURE TREATED WITH A MINIMUM CCA CONTENT OF 2.5 PCF.
- 5. ALL POWER PRESERVED GLULAM BEAMS AND COLUMNS SHALL BE TREATED WITH COP-GUARD (COPPER NAPHTHENATE-CUN) WOOD PRESERVATIVE TO MEET APWA USE CATEGORY UC3 TO THE MINIMUM RETENTIONS RECOMMENDED BY THE MANUFACTURER FOR THE USE CATEGORY SPECIFIED.
- 6. UNLESS NOTED OTHERWISE, ALL WOOD CONNECTORS NOT SPECIFIED ON THE DRAWINGS SHALL BE MANUFACTURED SIMPSON STRONG-TIE OR EQUAL APPROVED BY THE ENGINEER AND SHALL BE TYPE 316 STAINLESS STEEL. CONTRACTOR SHALL SELECT THE MOST SUITABLE CONNECTOR FOR THE INSTALLATION CONDITIONS AND SHALL SUBMIT ALL CONNECTORS TO THE ENGINEER FOR REVIEW AND APPROVAL. WOOD CONNECTOR INSTALLATION AND FASTENING REQUIREMENTS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

ADA VERTICAL PLATFORM LIFT

- 1. VERTICAL PLATFORM LIFT SHALL BE MODEL V-1504 TL - VPL ENCLOSURE SYSTEM (ALUMINUM INSERTS) AS MANUFACTURED BY SAVARIA OR APPROVED EQUAL.
- 2. ALL PERMITS, INSPECTIONS, VARIANCE, APPROVALS AND INSTALLATION SHALL BE BY THE VERTICAL PLATFORM LIFT SUPPLIER.
- 3. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A PLUMB RUNWAY. RUNWAY SHALL BE PLUMB +/- 1/8" AND SQUARE IN ACCORDANCE WITH VERTICAL PLATFORM LIFT FABRICATION DRAWINGS.
- 4. A POWDER COAT PAINTED FINISH SHALL BE PROVIDED IN DARK GRAY (PS311A13)
- 5. NON-SKID PLATFORM SHALL BE 36"x48", WITH UPGRADE FOR OUTDOOR USE. DUE TO FLOODING CONCERNS, A SUMP PIT SHALL NOT BE UTILIZED.
- 6. LIFT SHALL BE CAPABLE OF TRAVELING THE TOTAL VERTICAL DISTANCE REQUIRED AND MAKING A MINIMUM OF TWO STOPS.
- 7. LIFT SHALL MAINTAIN A CONSTANT PRESSURE AND HAVE A MINIMUM CAPACITY OF 750 LB. THE NOMINAL SPEED OF THE LIFT SHALL BE 20 FT/MIN.
- 8. CONTRACTOR TO ENSURE THAT 110 VOLT, 15 AMP SINGLE PHASE, 60 HZ POWER IS AVAILABLE TO POWER THE LIFT.
- 9. DRIVE SYSTEM SHALL CONSIST OF A 2:1 ROLLER CHAIN HYDRAULIC SYSTEM.
- 10. MOTOR PUMP SHALL BE 1.5 HP, GEAR-TYPE.
- 11. EMERGENCY OPERATING SYSTEM SHALL CONSIST OF A BATTER-OPERATED SYSTEM WITH AUTOMATIC RECHARGING PLUS A REMOTE ACCESS MANUAL LOWERING VALVE.
- 12. ADDITIONAL OPTIONS SHALL INCLUDE 2 CANS OF TOUCH-UP PAINT, OUTDOOR APPLICATION PACKAGE, PUBLIC BUILDING PACKAGE, AND 1 EXTRA KEY.
- 13. VERTICAL PLATFORM LIFT SHALL HAVE A MINIMUM ONE YEAR LABOR WARRANTY AND 3 YEAR PARTS WARRANTY.

SPACEMAKER COMPOSITE DECKING

- 1. DECKING SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURES' RECOMMENDATIONS AND INSTALLATION GUIDES.
- 2. DECK BOARDS FOR COMPOSITE DECKING SHALL BE PVC BASED AND HAVE A TONGUE AND GROOVE DECKING PROFILE. DECK BOARDS SHALL CONTAIN A HIGH TEMPERATURE, VULCANIZED, SILICONE SEAL ON THE TONGUE FOR MAXIMUM COMPRESSION.
- 3. DECK BOARDS SHALL BE COMPRISED OF A PURE VIRGIN CELLULAR PVC CORE, WITH NOT FILLERS, FOR MAXIMUM RESISTANCE TO SWELLING, MOLD, MILDEW, CRACKING, ROT AND DECAY.
- 4. DECK BOARDS SHALL BE COMPRISED OF A PURE ASA (ACRYLONITRILE STYRENE ACRYLATE) CAP COAT FOR MAXIMUM RESISTANCE TO STAINING, FADING, UV, AND CHEMICALS. COATING SHALL BE APPLIED TO BOTH THE TOP AND BOTTOM SURFACE OF THE DECK BOARDS.
- 5. THE TOP SURFACE OF DECK BOARDS SHALL BE MANUFACTURED WITH A VARIEGATED DECKING SURFACE APPEARANCE AND THE BOTTOM SURFACE SHALL BE CAP COATED WITH A BRIGHT, PEBBLE GRAINED APPEARANCE CEILING SURFACE.
- 6. SCREWS SHALL BE INSTALLED THROUGH THE GROOVE SIDE OF DECK BOARD AND THEN INTO THE SUBSTRUCTURE'S JOISTS FOR MAXIMUM STRENGTH AND MINIMAL EXPANSION AND CONTRACTION. SCREWS SHALL BE PLACED IN THE LOWER PORTION OF THE GROOVE SIDE. THIS POSITIONS THE SEAL ABOVE THE SCREWS ENSURING THAT THE SCREWS REAMING COMPLETELY DRY AFTER ASSEMBLY.
- 7. AN EDGE STRIP SHALL BE INSTALLED AROUND THE PERIMETER OF THE DECKING TO CONCEAL THE BOARD EDGE PROFILE. PROVIDE A MOLDING APPEARANCE AND A MINI-GUTTER WITH 1-INCH WIDE WEEP SLOTS, PLACE EVERY 4-FEET SO THAT WATER FROM UPPER DECK IS FUNNELED INTO STREAMS OF WATER 4-FEET APART.

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CHATHAM FISH PIER
TOWN OF CHATHAM
549 MAIN ST. CHATHAM, MA 02633
OBSERVATION DECK RECONSTRUCTION

SEAL AND SIGNATURE



REVISIONS

SHEET TITLE

PROJECT NOTES

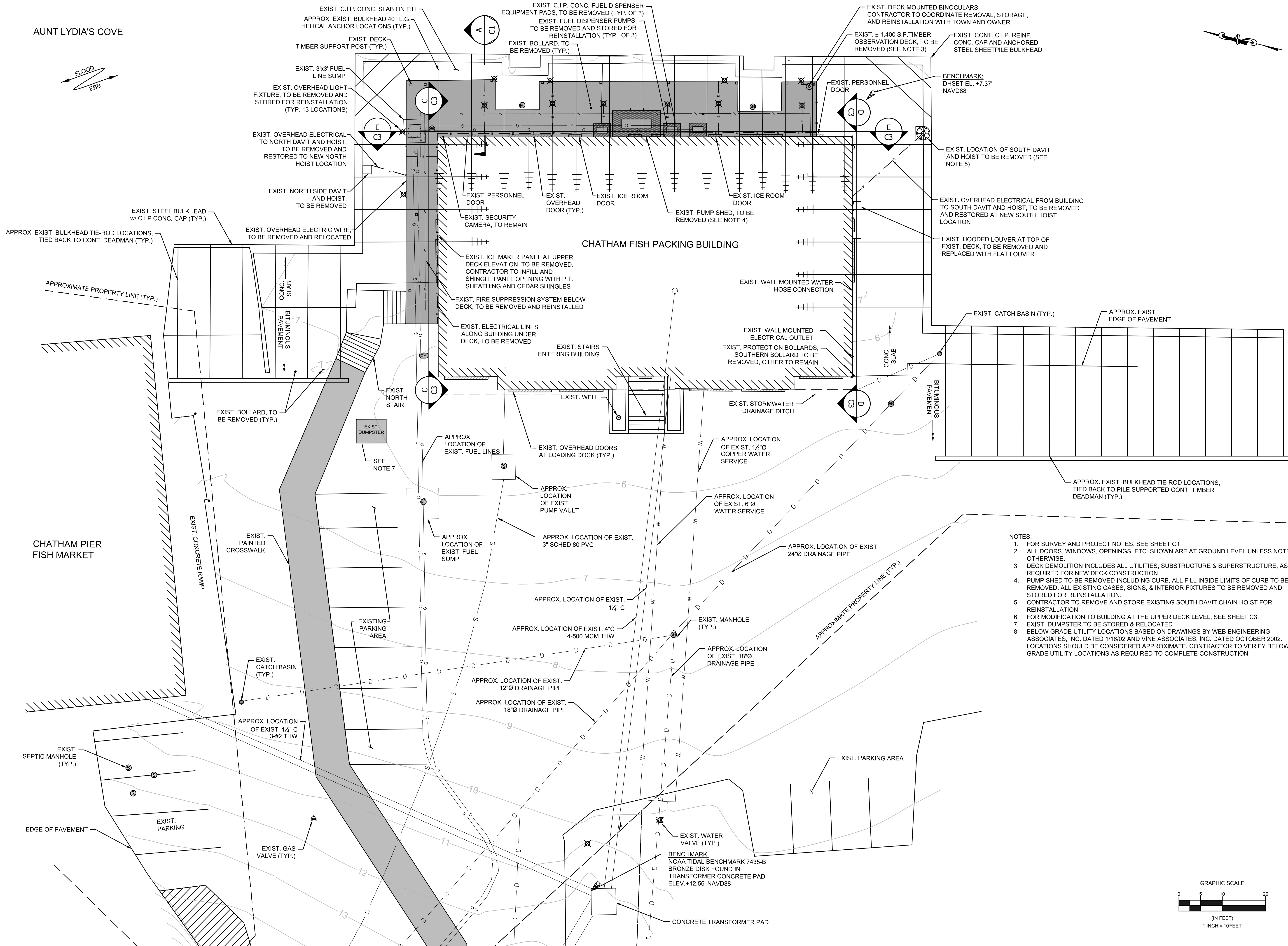
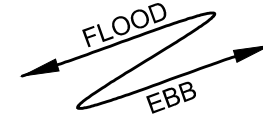
ISSUANCE

FOR CONSTRUCTION

SCALE	
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PROJECT NO	
0016C282.100	<h1>G1</h1>
DATE	
12/21/18	

1:100, 12/21/18, 10:00 AM, 10/18/2018, 10:00 AM, 10/18/2018

AUNT LYDIA'S COVE



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CHATHAM FISH PIER
TOWN OF CHATHAM
549 MAIN ST. CHATHAM, MA 02633
OBSERVATION DECK RECONSTRUCTION

SEAL AND SIGNATURE

- NOTES:
1. FOR SURVEY AND PROJECT NOTES, SEE SHEET G1
 2. ALL DOORS, WINDOWS, OPENINGS, ETC. SHOWN ARE AT GROUND LEVEL, UNLESS NOTED OTHERWISE.
 3. DECK DEMOLITION INCLUDES ALL UTILITIES, SUBSTRUCTURE & SUPERSTRUCTURE, AS REQUIRED FOR NEW DECK CONSTRUCTION.
 4. PUMP SHED TO BE REMOVED INCLUDING CURB, ALL FILL INSIDE LIMITS OF CURB TO BE REMOVED, ALL EXISTING CASES, SIGNS, & INTERIOR FIXTURES TO BE REMOVED AND STORED FOR REINSTALLATION.
 5. CONTRACTOR TO REMOVE AND STORE EXISTING SOUTH DAVIT CHAIN HOIST FOR REINSTALLATION.
 6. FOR MODIFICATION TO BUILDING AT THE UPPER DECK LEVEL, SEE SHEET C3.
 7. EXIST. DUMPSTER TO BE STORED & RELOCATED.
 8. BELOW GRADE UTILITY LOCATIONS BASED ON DRAWINGS BY WEB ENGINEERING ASSOCIATES, INC. DATED 1/16/02 AND VINE ASSOCIATES, INC. DATED OCTOBER 2002. LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. CONTRACTOR TO VERIFY BELOW GRADE UTILITY LOCATIONS AS REQUIRED TO COMPLETE CONSTRUCTION.

REVISIONS

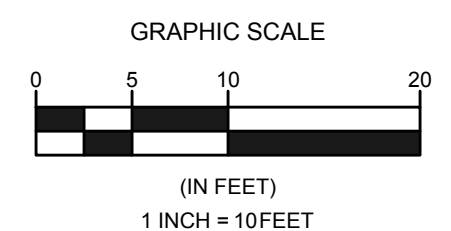
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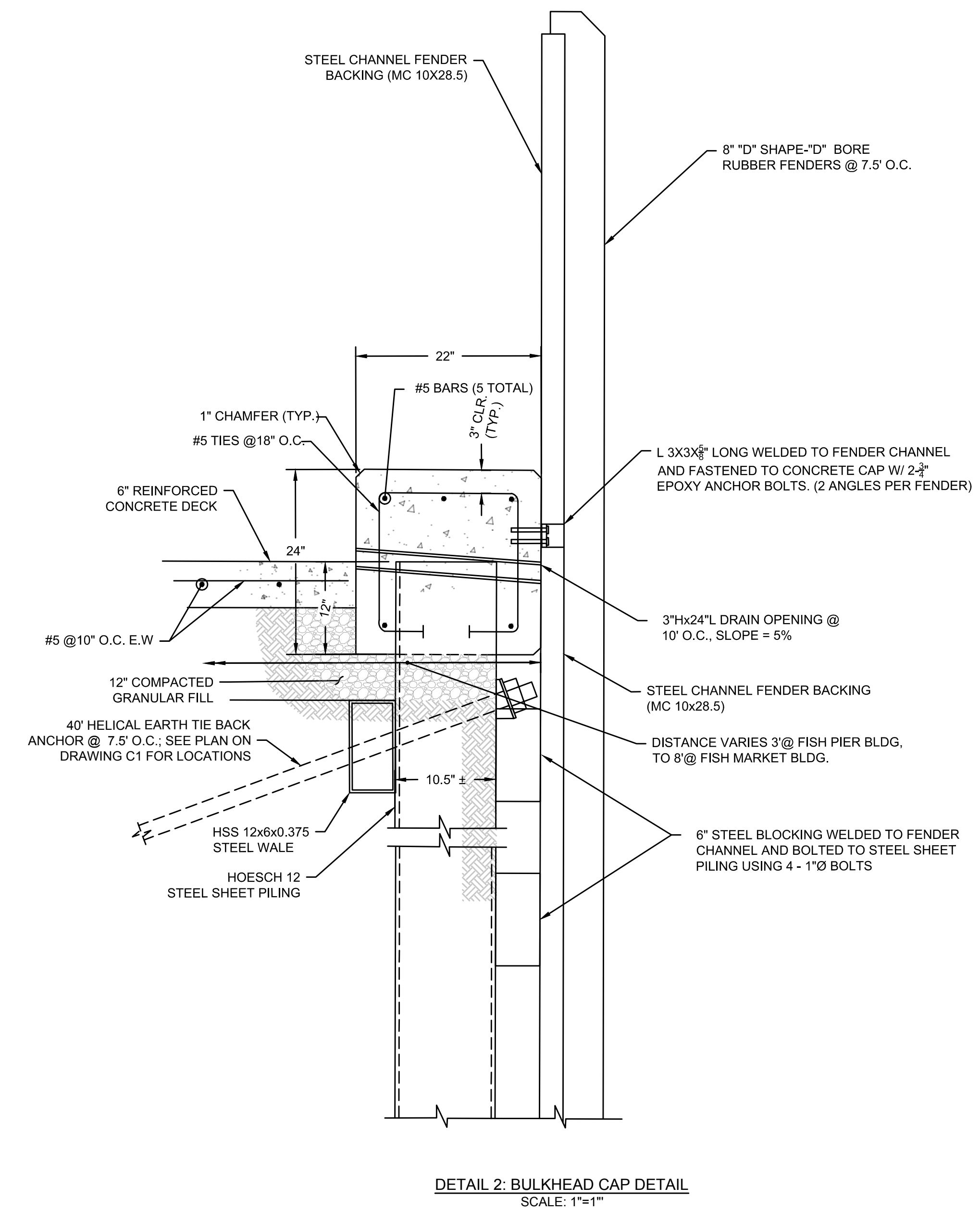
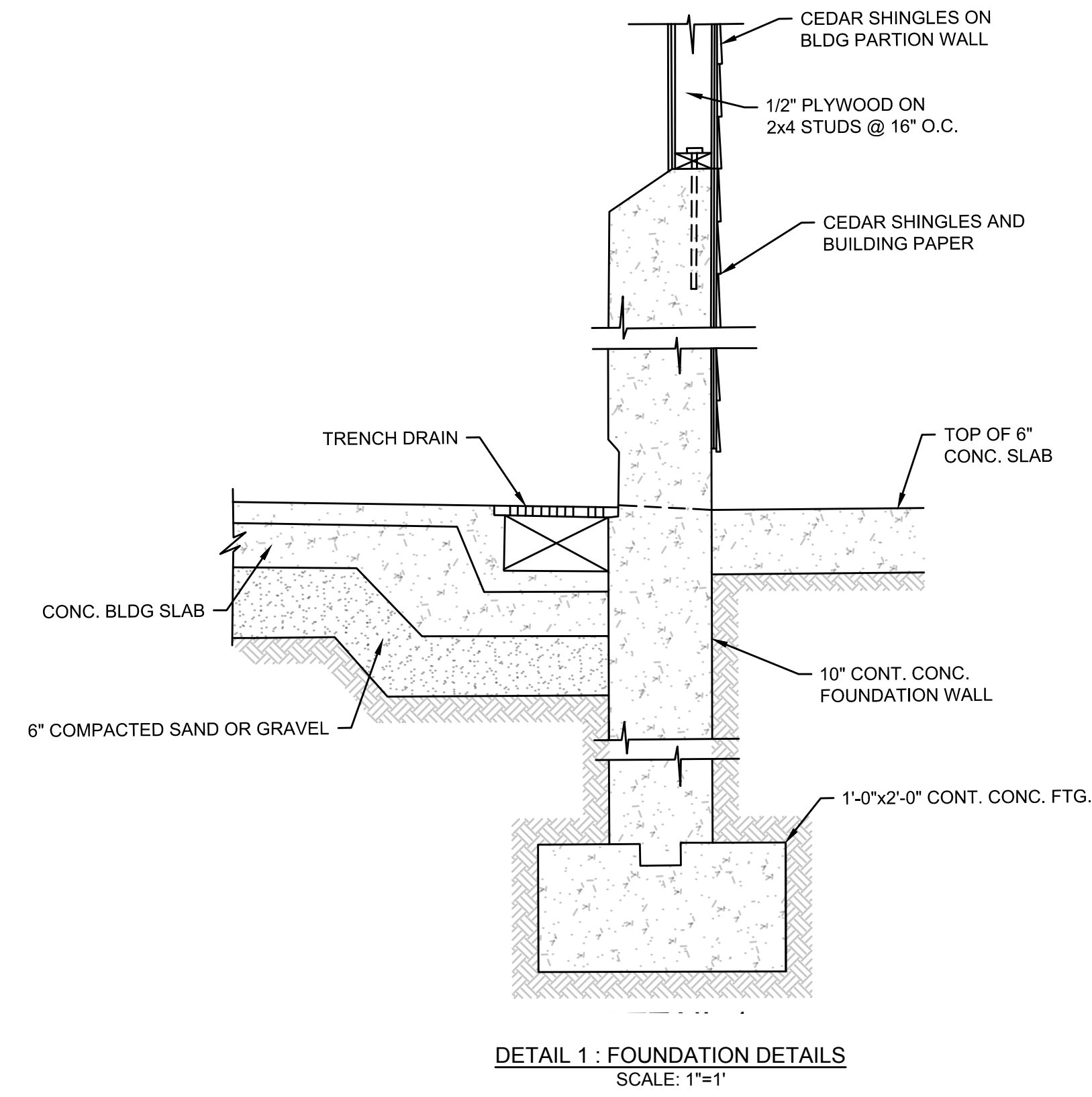
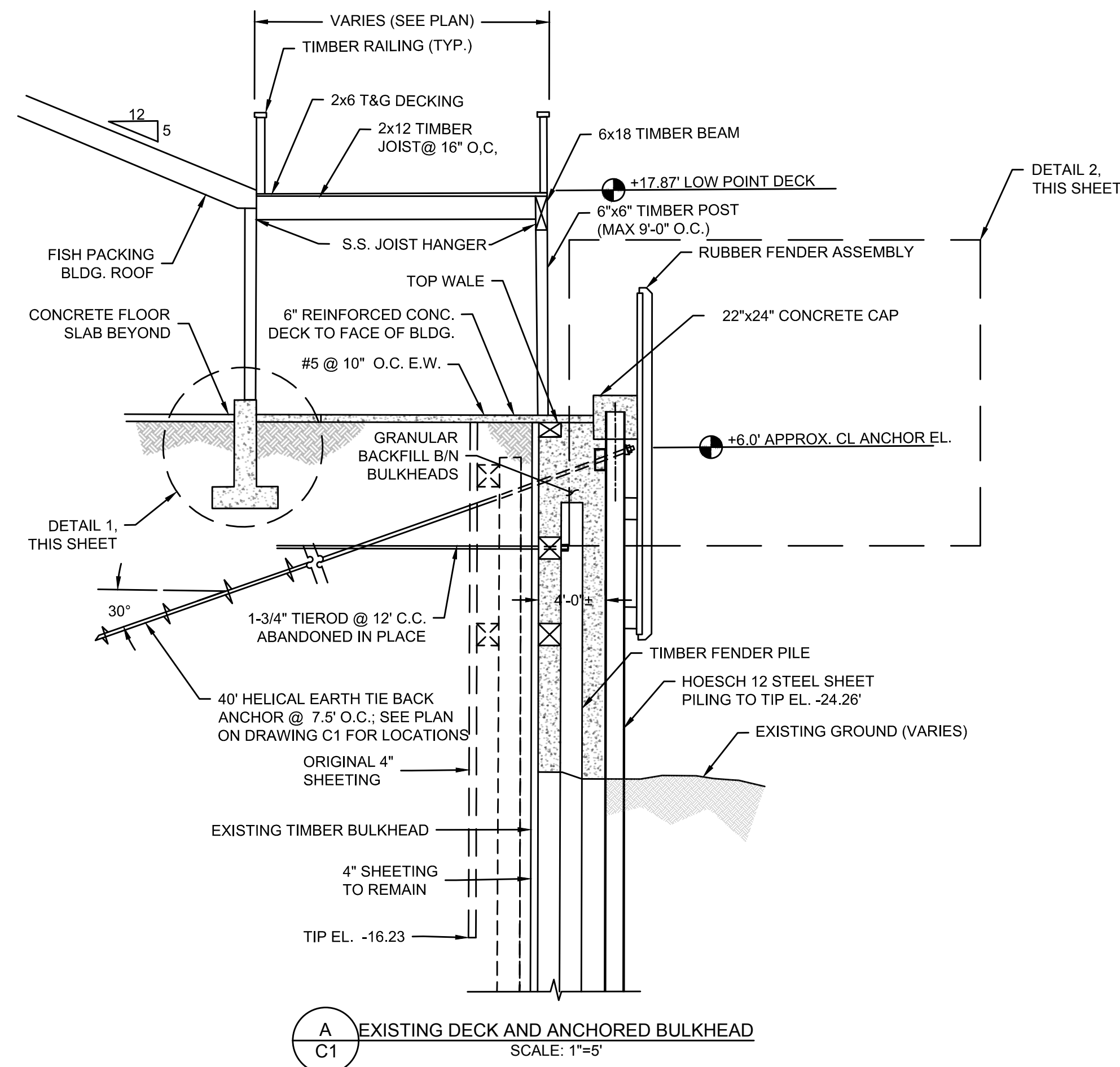
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EXISTING CONDITIONS AND DEMOLITION PLAN

ISSUANCE
FOR CONSTRUCTION

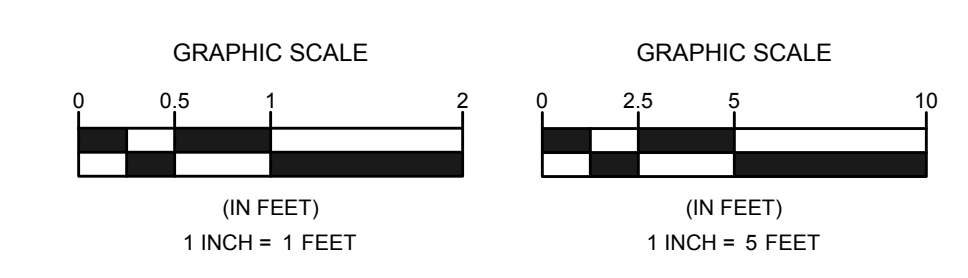
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JG
PROJECT NO
0016C282.100
DATE
12/21/18

SHEET NUMBER
C1





NOTES:
1. FOR PROJECT NOTES, SEE SHEET G1.



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OBSERVATION DECK RECONSTRUCTION

SEAL AND SIGNATURE

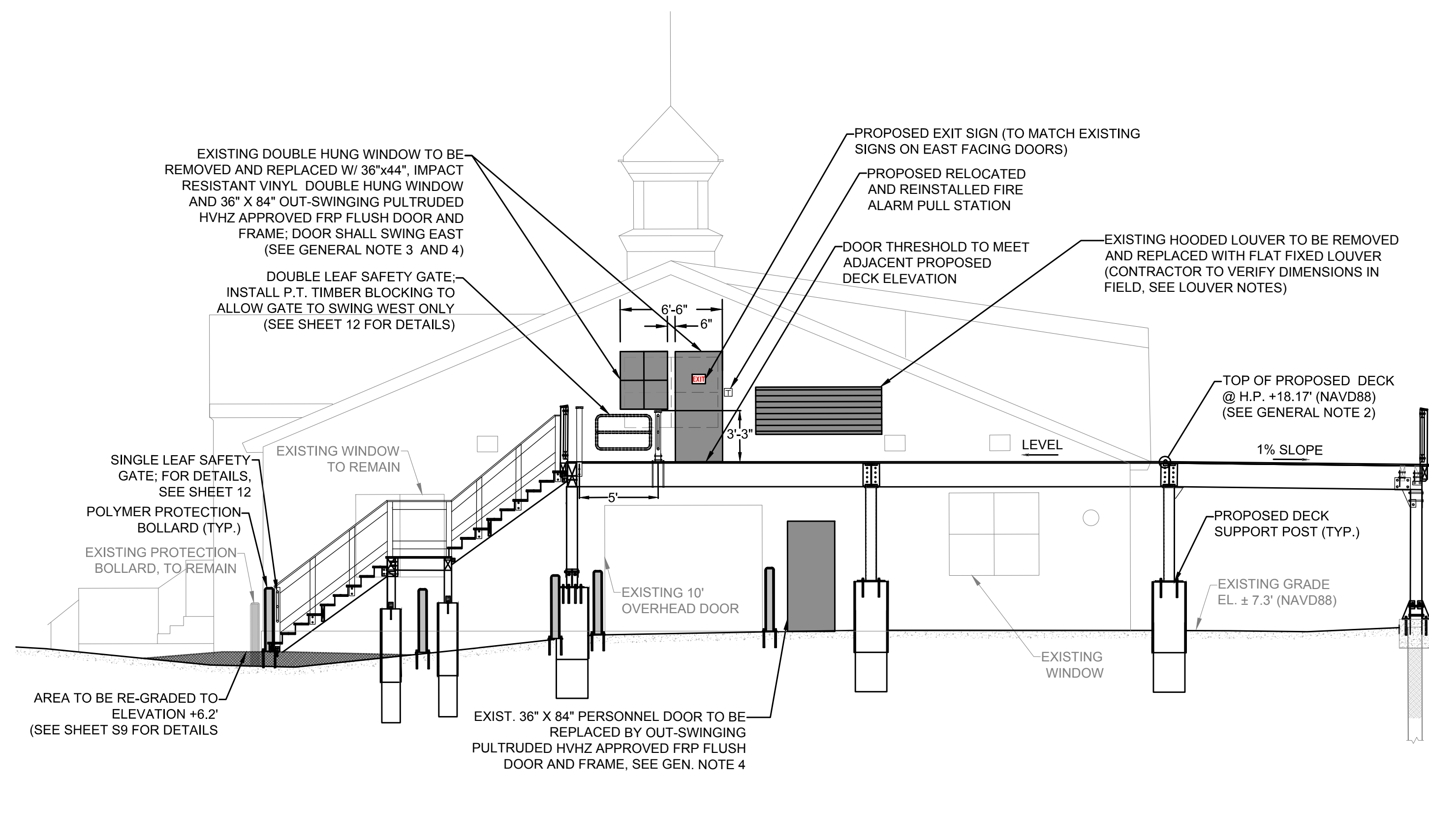
 JENNIFER S. GREEN
 No. 01121819
 REGISTERED PROFESSIONAL ENGINEER

REVISIONS

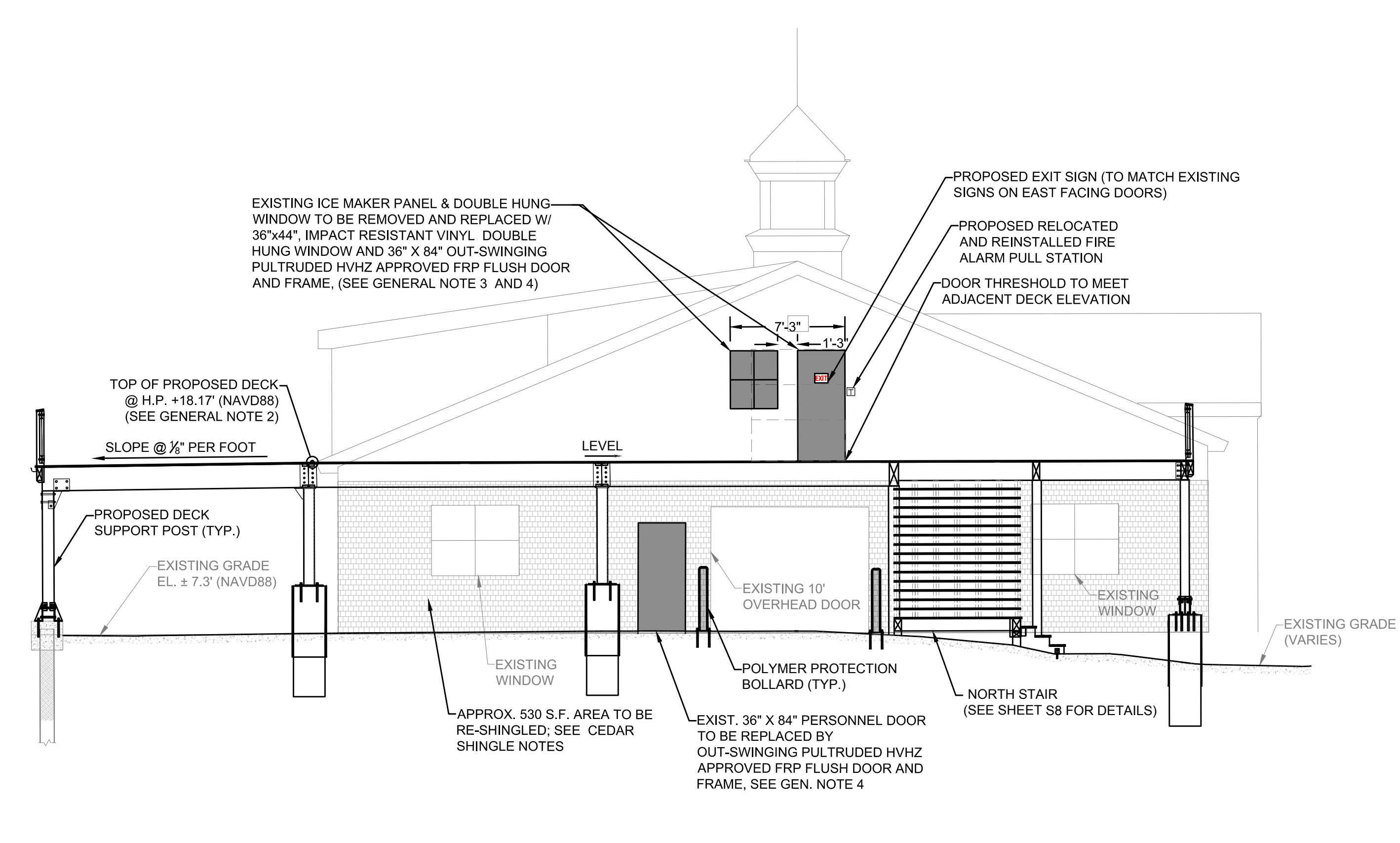
SHEET TITLE
EXISTING SECTIONS AND DETAILS

ISSUANCE
FOR CONSTRUCTION

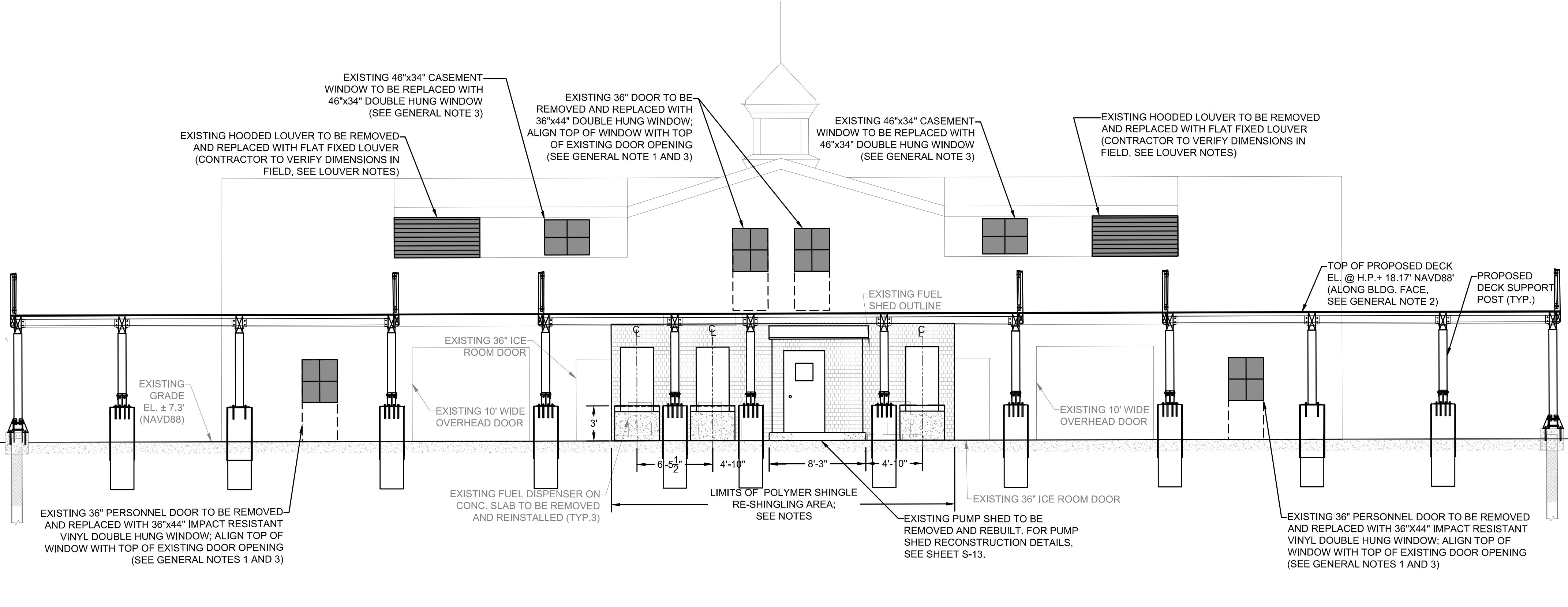
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CHECKED BY JG	
PROJECT NO 0016C282.100	
DATE 12/21/18	



C FISH PACKING BUILDING - SOUTH ELEVATION
SCALE: 1"=6'



D FISH PACKING BUILDING - NORTH ELEVATION
SCALE: 1"=6'



E FISH PACKING BUILDING - EAST ELEVATION
SCALE: 1"=6'

- GENERAL NOTES:**
- CLOSE UP ALL OPENINGS SCHEDULED FOR MODIFICATION WITH P.T. STUDS, SHEATHING, & CEDAR SHINGLES TO MATCH EXISTING, UNLESS NOTED OTHERWISE.
 - PROPOSED DECK SHOWN FOR CLARITY.
 - PROPOSED DOUBLE HUNG, IMPACT RESISTANT VINYL WINDOWS SHALL BE MODEL DH5660 AS MANUFACTURED BY PGT WINDOWS AND DOORS, 800-282-6019 OR APPROVED EQUAL. COORDINATE COLOR WITH OWNER.
 - HVHZ APPROVED FRP PULTRUDED DOORS AND FRAMES SHALL BE MODEL AF-100, AS MANUFACTURED BY SPECIAL-LITE, INC., PO BOX 6, DECATUR, MICHIGAN 49045, 800-821-6531 OR EQUAL APPROVED BY THE ENGINEER/OWNER. DOORS SHALL CONTAIN A 18"X18" IMPACT RESISTANT LITE.
- CEDAR SHINGLE NOTES:**
- SHINGLES SHALL BE CERTI-SPLIT SHAKES, NUMBER ONE GRADE, 18 INCH LONG, THICKNESS 5/2 INCH, CLEAR HEARTWOOD, 100% EDGE GRAIN, NO DEFECTS. FASTENERS FOR SHINGLES SHALL BE STAINLESS STEEL NAILS, MINIMUM LENGTH 1.5-INCHES OR AS RECOMMENDED BY MANUFACTURER.
 - MANUFACTURER SHALL PROVIDE A MINIMUM 25-YEAR LIMITED WARRANTY AGAINST MANUFACTURING DEFECTS. CONTRACTOR TO FIELD VERIFY ALL EXISTING PENETRATIONS AND OPENINGS ALONG NORTH SIDE OF BUILDING.
 - SHINGLES SHALL BE COATED WITH FACTORY APPLIED OIL BASED, STAIN BLOCKING PRIMER ON ALL SURFACES. COATING SHALL BE COMPRISED OF TWO (2) TOP COATS OF GRAY STAIN, AS APPROVED BY THE ENGINEER. CONTRACTOR TO SUBMIT SHINGLE SAMPLE AND COATING COLOR SAMPLE FOR ENGINEER/OWNER APPROVAL PRIOR TO INSTALLATION.
 - FOR MOISTURE BARRIERS BELOW SHINGLES, CONTRACTOR TO PROVIDE BUILDING PAPER AS FOLLOWS:
 - ASPHALT IMPREGNATED PAPER, ASTM D4869, NO. 30 TYPE IV
 - ASPHALT IMPREGNATED PAPER, ASTM D226, NO. 30 TYPE II
 - SPUN FIBER OR OTHER CODE APPROVED MOISTURE BARRIER
 - CONTRACTOR TO SUBMIT MOISTURE BARRIER PRODUCT TO ENGINEER/OWNER FOR APPROVAL. BUILDING PAPER INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. BUILDING PAPER SHALL BE INSTALLED HORIZONTALLY, SHINGLE STYLE, BEGINNING AT THE BOTTOM OF THE WALL, WITH MINIMUM 3-INCH OVERLAPS BOTH VERTICALLY AND HORIZONTALLY AS REQUIRED.
- LOUVER NOTES:**
- LOUVERS SHALL BE TYPE E6WF - 6" DEEP WIND DRIVEN RAIN HURRICANE LOUVER AS MANUFACTURED BY ARCHITECTURAL LOUVERS CO., 266 W. MITCHELL AVENUE, CINCINNATI, OH, 45232; 888-568-8371 OR EQUAL APPROVED BY THE ENGINEER/OWNER.
 - LOUVERS SHALL HAVE THREE (3) COATS OF KYNAR 500 FINISH WITH A MINIMUM 20-YEAR WARRANTY.
 - LOUVERS SHALL BE FABRICATED WITH A 2-INCH BLANK OFF PANEL, PROVIDED BY THE LOUVER MANUFACTURER.
 - COORDINATE LOUVER PAINT COLOR WITH OWNER AND SUBMIT COLOR SAMPLE TO THE TOWN OF CHATHAM FOR APPROVAL.
- POLYMER SHINGLE NOTES:**
- SHINGLES FOR PUMP SHED AND FISH PACKING BUILDING AREA DIRECTLY BEHIND AND ADJACENT TO PUMP SHED SHALL BE CEDAR IMPRESSIONS, 5" POLYMER SHINGLES BY CERTAINTED SAINT-GOBAIN, 800-233-8990 OR EQUAL APPROVED BY THE OWNER/ENGINEER. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. COORDINATE COLOR WITH OWNER AND SUBMIT SAMPLE FOR REVIEW AND APPROVAL.

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OBSERVATION DECK RECONSTRUCTION

SEAL AND SIGNATURE

REVISIONS

NO.	DATE	DESCRIPTION

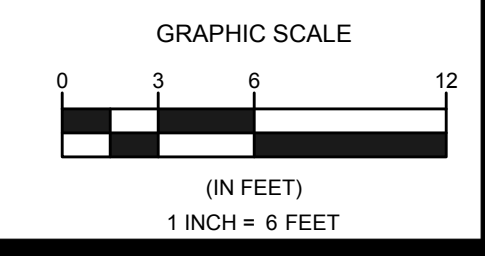
SHEET TITLE

PROPOSED ELEVATIONS

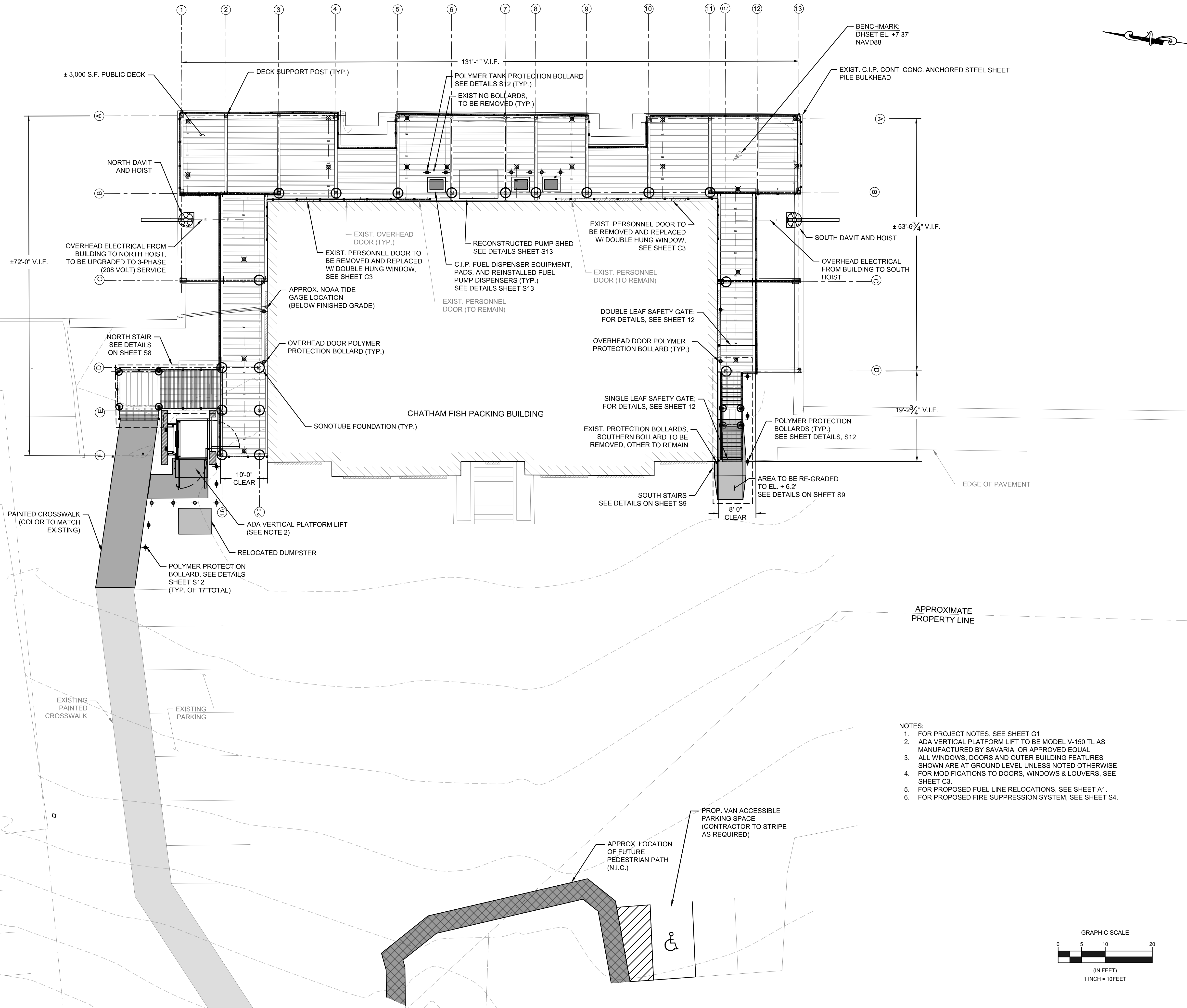
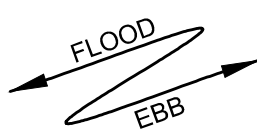
ISSUANCE

FOR CONSTRUCTION

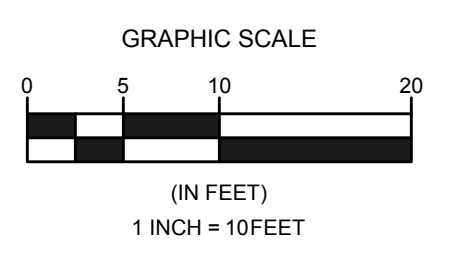
SCALE	C3
AS NOTED	
DRAWN BY CFF/JG	PROJECT NO 0016C282.100
CHECKED BY JG	
DATE 12/21/18	SHEET NUMBER



AUNT LYDIA'S COVE



- NOTES:
1. FOR PROJECT NOTES, SEE SHEET G1.
 2. ADA VERTICAL PLATFORM LIFT TO BE MODEL V-150 TL AS MANUFACTURED BY SAVARIA, OR APPROVED EQUAL.
 3. ALL WINDOWS, DOORS AND OUTER BUILDING FEATURES SHOWN ARE AT GROUND LEVEL UNLESS NOTED OTHERWISE. FOR MODIFICATIONS TO DOORS, WINDOWS & LOUVERS, SEE SHEET C3.
 4. FOR PROPOSED FUEL LINE RELOCATIONS, SEE SHEET A1.
 5. FOR PROPOSED FIRE SUPPRESSION SYSTEM, SEE SHEET S4.



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CHATHAM FISH PIER

TOWN OF CHATHAM

549 MAIN ST. CHATHAM, MA 02633

OBSERVATION DECK RECONSTRUCTION

SEAL AND SIGNATURE

REVISIONS

NO.	DESCRIPTION

SHEET TITLE

PROPOSED SITE PLAN

ISSUANCE

FOR CONSTRUCTION

SCALE

AS NOTED

DRAWN BY
CFF/JG

CHECKED BY
JG

PROJECT NO
0016C282.100

DATE
12/21/18

SHEET NUMBER

C4

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CHATHAM FISH PIER
TOWN OF CHATHAM
549 MAIN ST. CHATHAM, MA 02633
OBSERVATION DECK RECONSTRUCTION

SEAL AND SIGNATURE

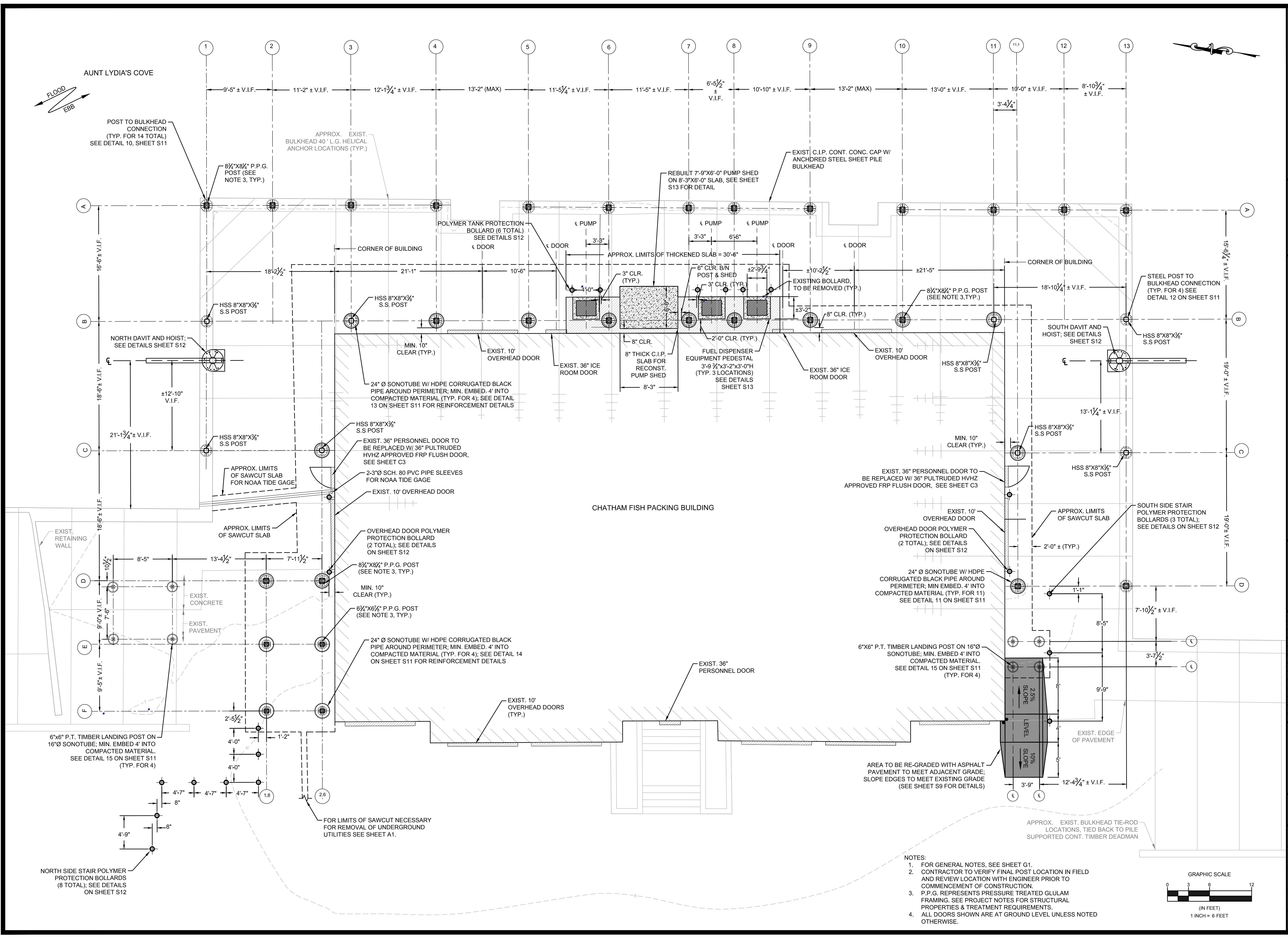
REVISIONS

NO.	DESCRIPTION

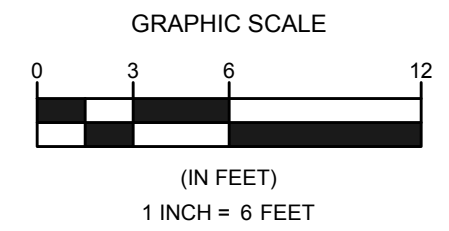
PROPOSED FOUNDATION PLAN

FOR CONSTRUCTION

SCALE: AS NOTED
 DRAWN BY: CFF/JG
 CHECKED BY: JG
 PROJECT NO: 0016C282.100
 DATE: 12/21/18
 SHEET NUMBER: **S1**



- NOTES:
- FOR GENERAL NOTES, SEE SHEET G1.
 - CONTRACTOR TO VERIFY FINAL POST LOCATION IN FIELD AND REVIEW LOCATION WITH ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 - P.P.G. REPRESENTS PRESSURE TREATED GLULAM FRAMING. SEE PROJECT NOTES FOR STRUCTURAL PROPERTIES & TREATMENT REQUIREMENTS.
 - ALL DOORS SHOWN ARE AT GROUND LEVEL UNLESS NOTED OTHERWISE.



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CHATHAM FISH PIER
TOWN OF CHATHAM
549 MAIN ST. CHATHAM, MA 02633
OBSERVATION DECK RECONSTRUCTION

SEAL AND SIGNATURE

REVISIONS

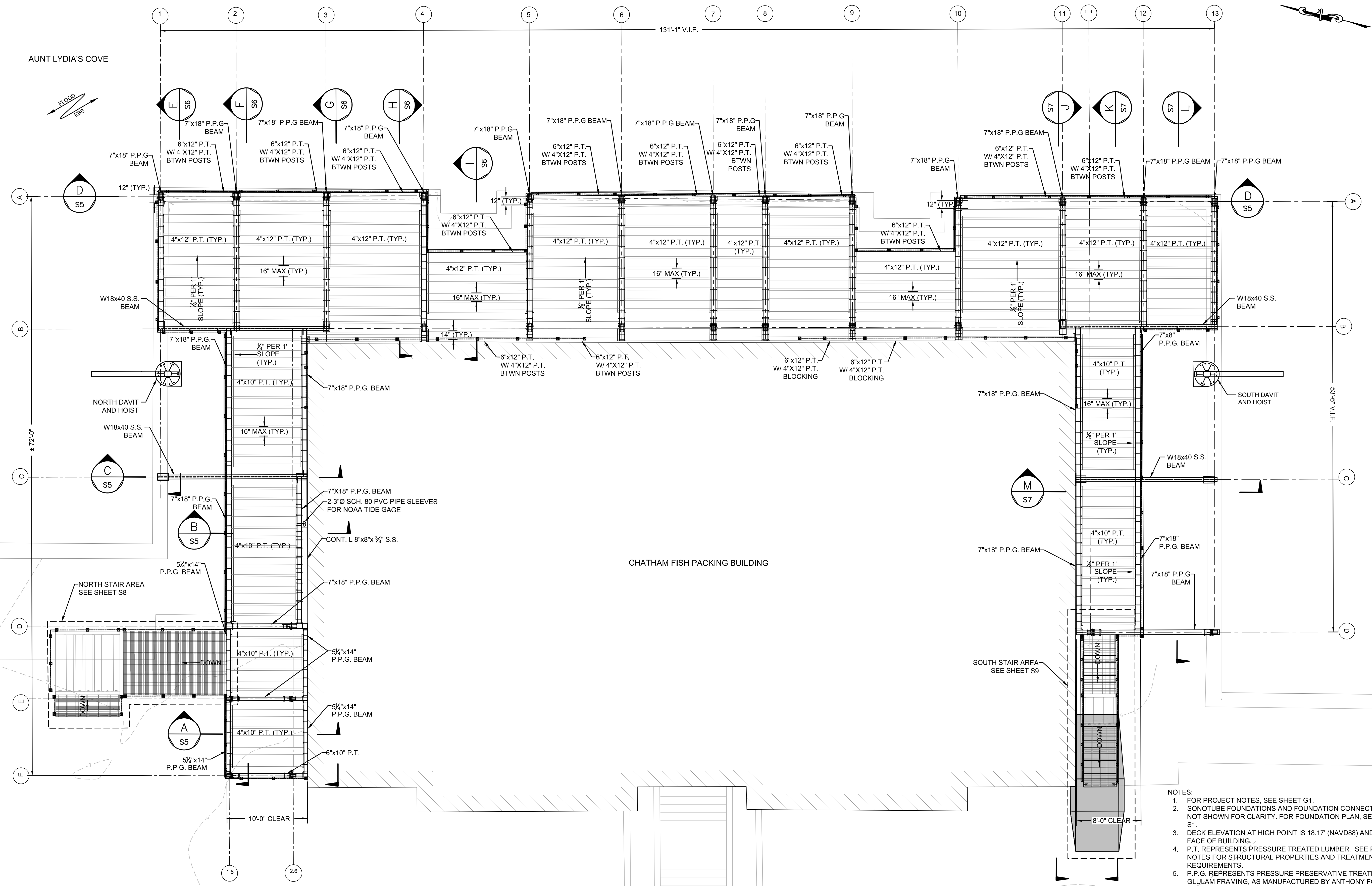
NO.	DESCRIPTION

SHEET TITLE
PROPOSED FRAMING PLAN

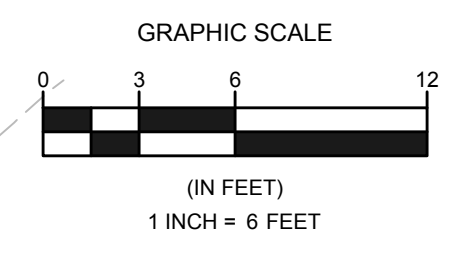
ISSUANCE
FOR CONSTRUCTION

SCALE
AS NOTED

DRAWN BY CFF/JG	SHEET NUMBER
CHECKED BY JG	S2
PROJECT NO 0016C282.100	
DATE 12/21/18	



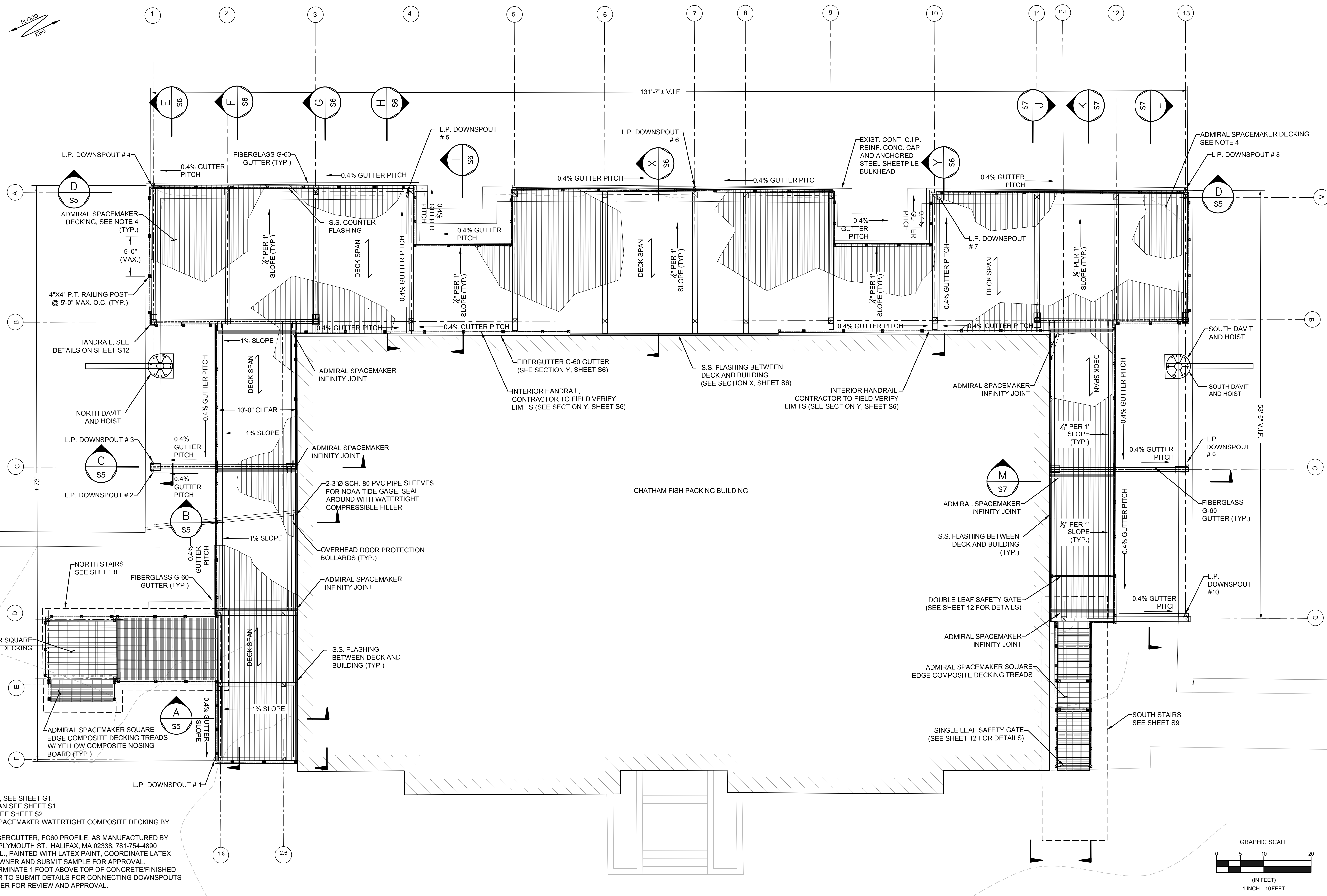
- NOTES:
- FOR PROJECT NOTES, SEE SHEET G1.
 - SONOTUBE FOUNDATIONS AND FOUNDATION CONNECTIONS NOT SHOWN FOR CLARITY. FOR FOUNDATION PLAN, SEE SHEET S1.
 - DECK ELEVATION AT HIGH POINT IS 18.17' (NAVD88) AND IS AT FACE OF BUILDING.
 - P.T. REPRESENTS PRESSURE TREATED LUMBER. SEE PROJECT NOTES FOR STRUCTURAL PROPERTIES AND TREATMENT REQUIREMENTS.
 - P.P.G. REPRESENTS PRESSURE PRESERVATIVE TREATED GLULAM FRAMING, AS MANUFACTURED BY ANTHONY FOREST PRODUCTS. SEE PROJECT NOTES FOR STRUCTURAL PROPERTIES AND TREATMENT REQUIREMENTS.
 - ALL DOORS SHOWN ARE AT GROUND LEVEL UNLESS NOTED OTHERWISE.



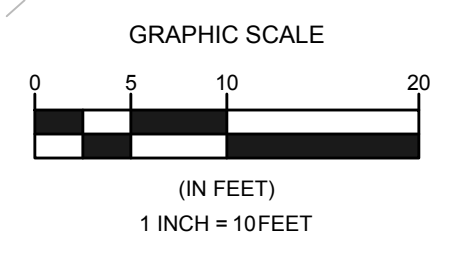
DATE PLOTTED: 12/21/18 10:58 AM

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AUNT LYDIA'S COVE



- NOTES:
- FOR PROJECT NOTES, SEE SHEET G1.
 - FOR FOUNDATION PLAN SEE SHEET S1.
 - FOR FRAMING PLAN SEE SHEET S2.
 - DECKING SHALL BE SPACEMAKER WATERTIGHT COMPOSITE DECKING BY ADMIRAL.
 - GUTTER SHALL BE FIBERGUTTER, FG60 PROFILE, AS MANUFACTURED BY FIBERGUTTER, 546-A PLYMOUTH ST., HALIFAX, MA 02338, 781-754-4890 OR APPROVED EQUAL, PAINTED WITH LATEX PAINT, COORDINATE LATEX PAINT COLOR WITH OWNER AND SUBMIT SAMPLE FOR APPROVAL.
 - DOWNSPOUTS TO TERMINATE 1 FOOT ABOVE TOP OF CONCRETE/FINISHED GRADE. CONTRACTOR TO SUBMIT DETAILS FOR CONNECTING DOWNSPOUTS TO POSTS TO ENGINEER FOR REVIEW AND APPROVAL.



CHATHAM FISH PIER
TOWN OF CHATHAM
549 MAIN ST. CHATHAM, MA 02633
OBSERVATION DECK RECONSTRUCTION

SEAL AND SIGNATURE


REVISIONS

REV.	DESCRIPTION
REV. 1	11/16/18: EAST FACE DRAINAGE DETAILS

SHEET TITLE
PROPOSED DECK PLAN

ISSUANCE
FOR CONSTRUCTION

SCALE AS NOTED	SHEET NUMBER S3
DRAWN BY CFF/JG	
CHECKED BY JG	
PROJECT NO 0016C282.100	
DATE 12/21/18	

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CHATHAM FISH PIER
TOWN OF CHATHAM
549 MAIN ST. CHATHAM, MA 02633
OBSERVATION DECK RECONSTRUCTION

SEAL AND SIGNATURE

REVISIONS

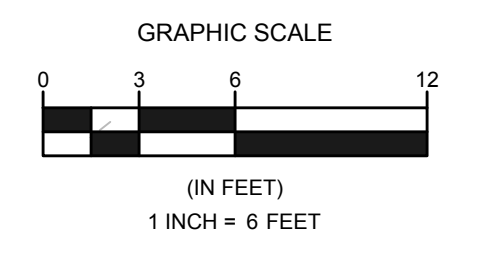
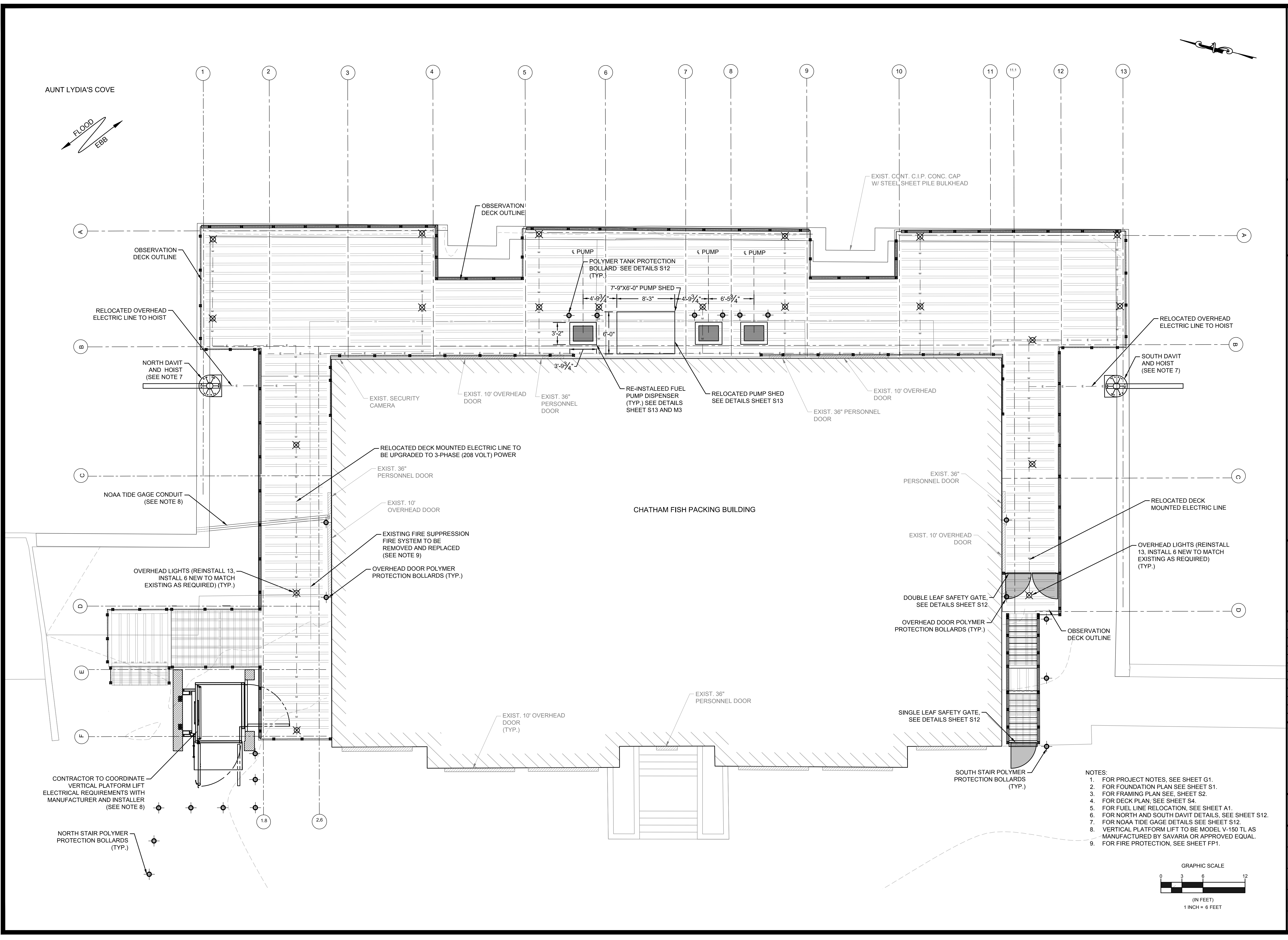
NO.	DESCRIPTION

SHEET TITLE
PROPOSED UTILITY PLAN

ISSUANCE
FOR CONSTRUCTION

SCALE
AS NOTED

DRAWN BY CFF/JG	SHEET NUMBER S4
CHECKED BY JG	
PROJECT NO 0016C282.100	
DATE 12/21/18	



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CHATHAM FISH PIER
TOWN OF CHATHAM
549 MAIN ST. CHATHAM, MA 02633
OBSERVATION DECK RECONSTRUCTION

SEAL AND SIGNATURE

REVISIONS

NO.	DESCRIPTION

SHEET TITLE
PROPOSED SECTIONS - SHEET 1 OF 3

ISSUANCE
FOR CONSTRUCTION

SCALE
AS NOTED

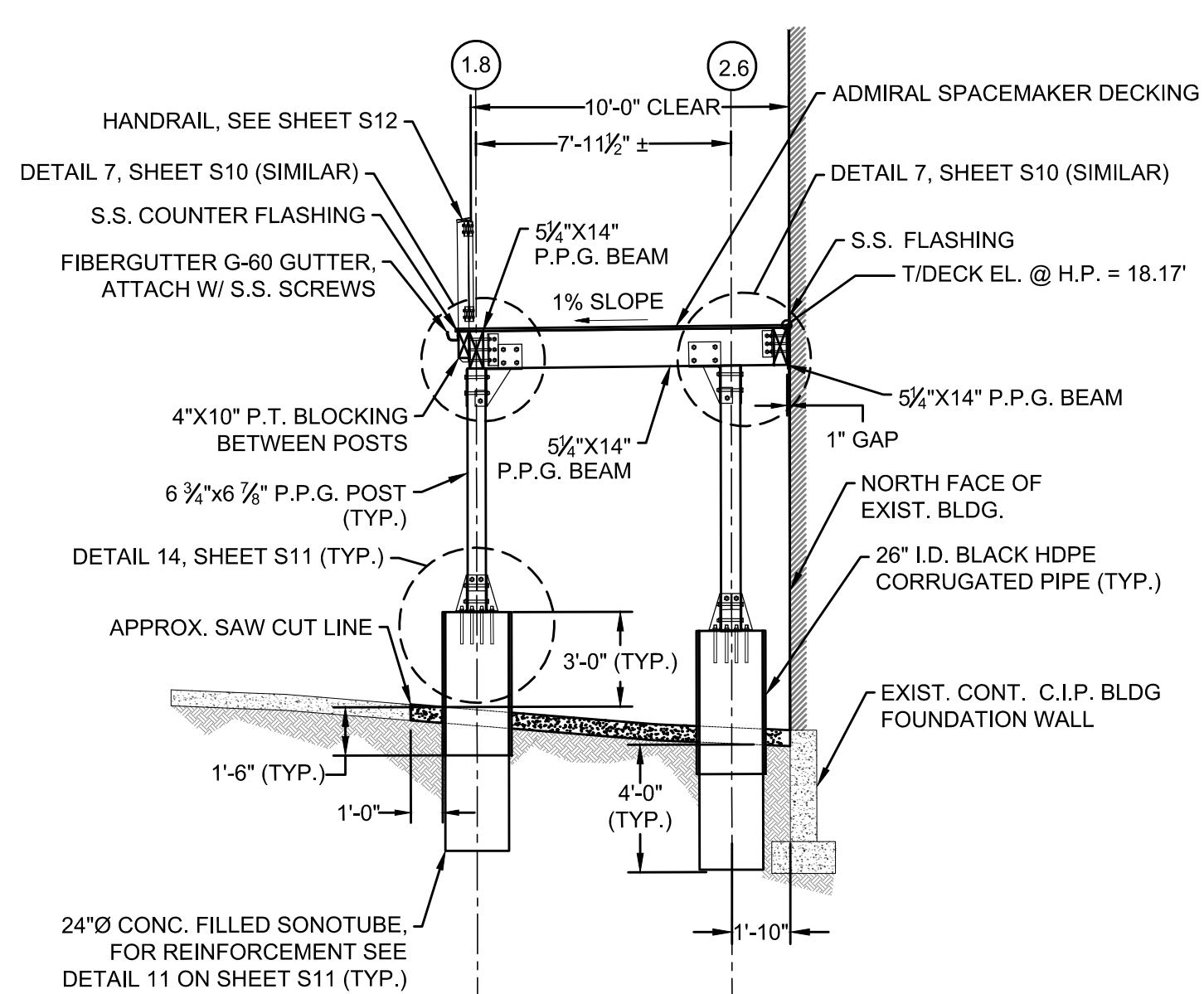
DRAWN BY
CFF/JG

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JG

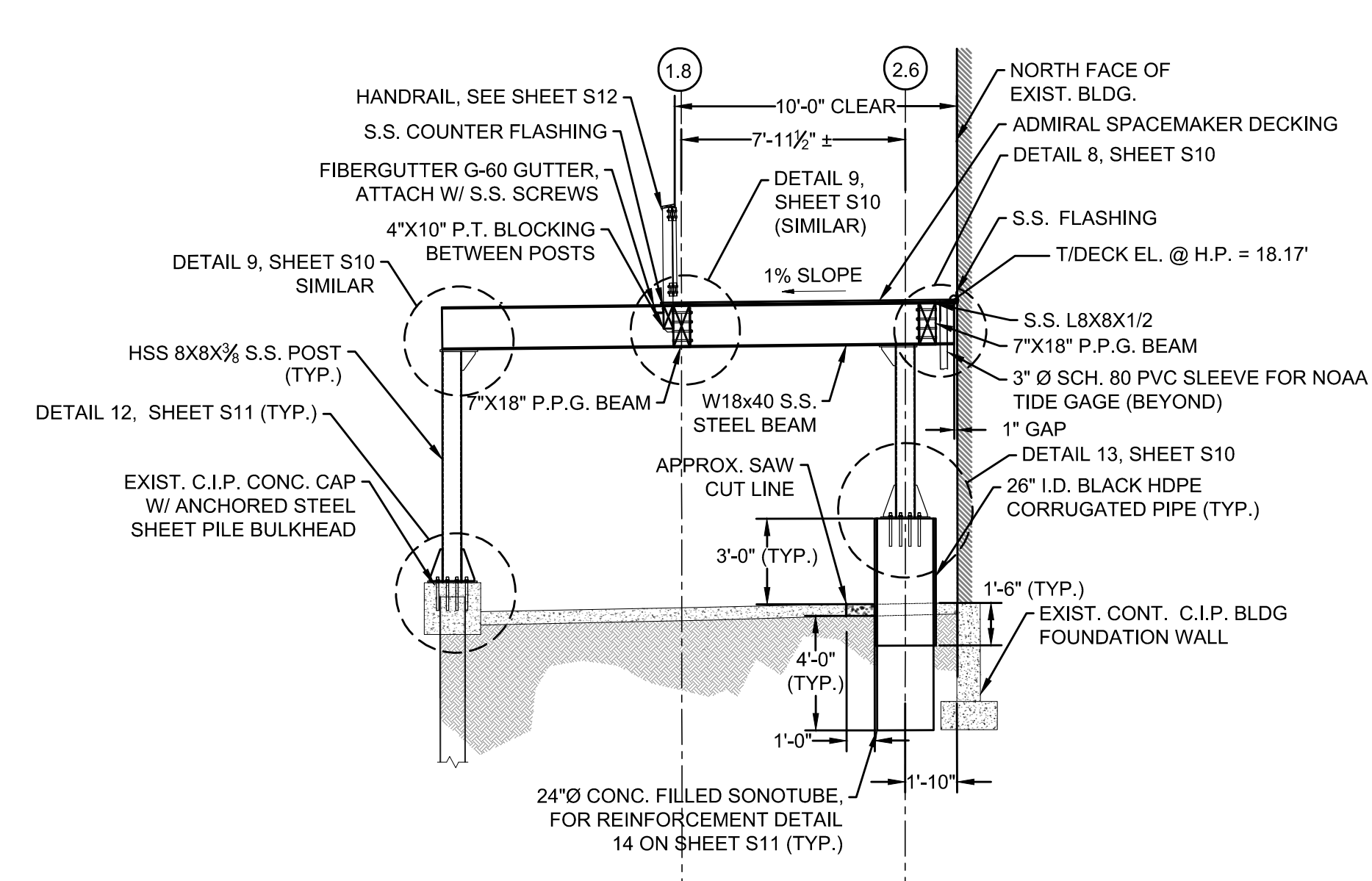
PROJECT NO
0016C282.100

DATE
12/21/18

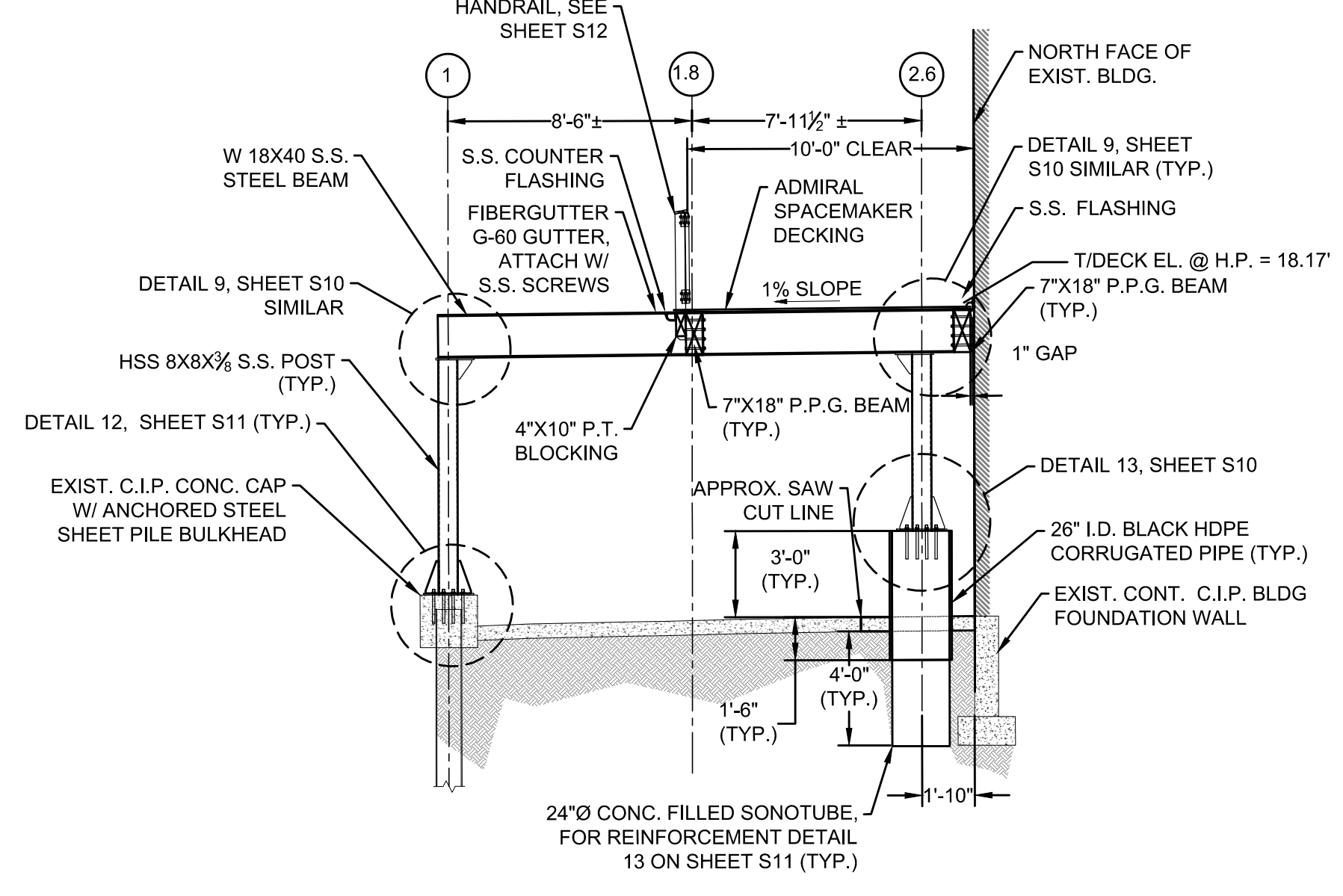
SHEET NUMBER
S5



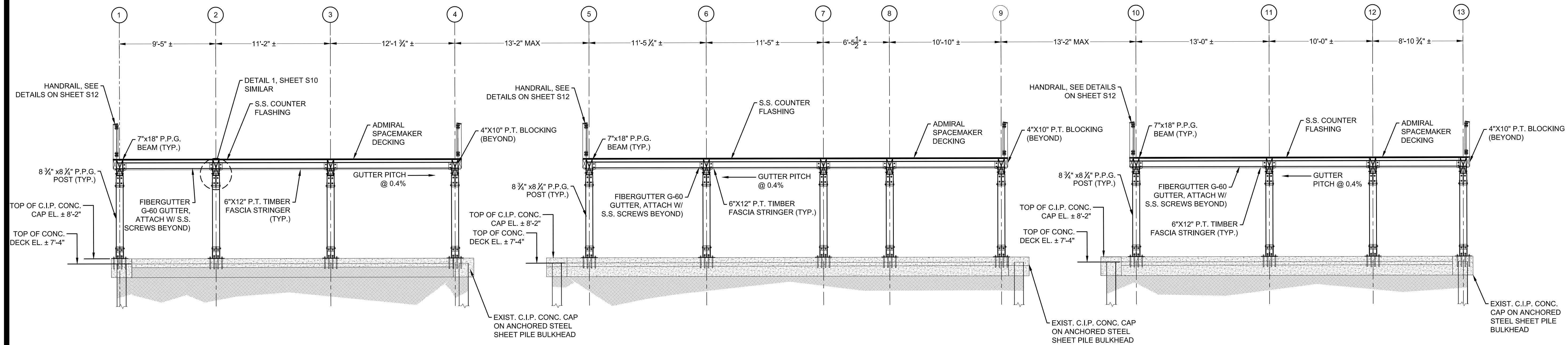
S5 SECTION A
 SCALE 1"=5'



S5 SECTION B
 SCALE 1"=5'



S5 SECTION C
 SCALE 1"=5'



S5 SECTION D
 SCALE 1"=5'

NOTES:
 1. FOR FOUNDATION PLANS SEE SHEET S1.
 2. FOR FRAMING PLANS SEE SHEET S2.
 3. FOR DECK PLANS SEE SHEET S3.
 4. P.P.G. REPRESENTS POWER PRESERVED GLULAM BY ANTHONY FOREST PRODUCTS.
 5. GUTTERS SHALL BE FASTENED IN ACCORDANCE W/ MANUFACTURER'S REQUIREMENTS.

GRAPHIC SCALE
 0 2.5 5 10
 (IN FEET)
 1 INCH = 5 FEET

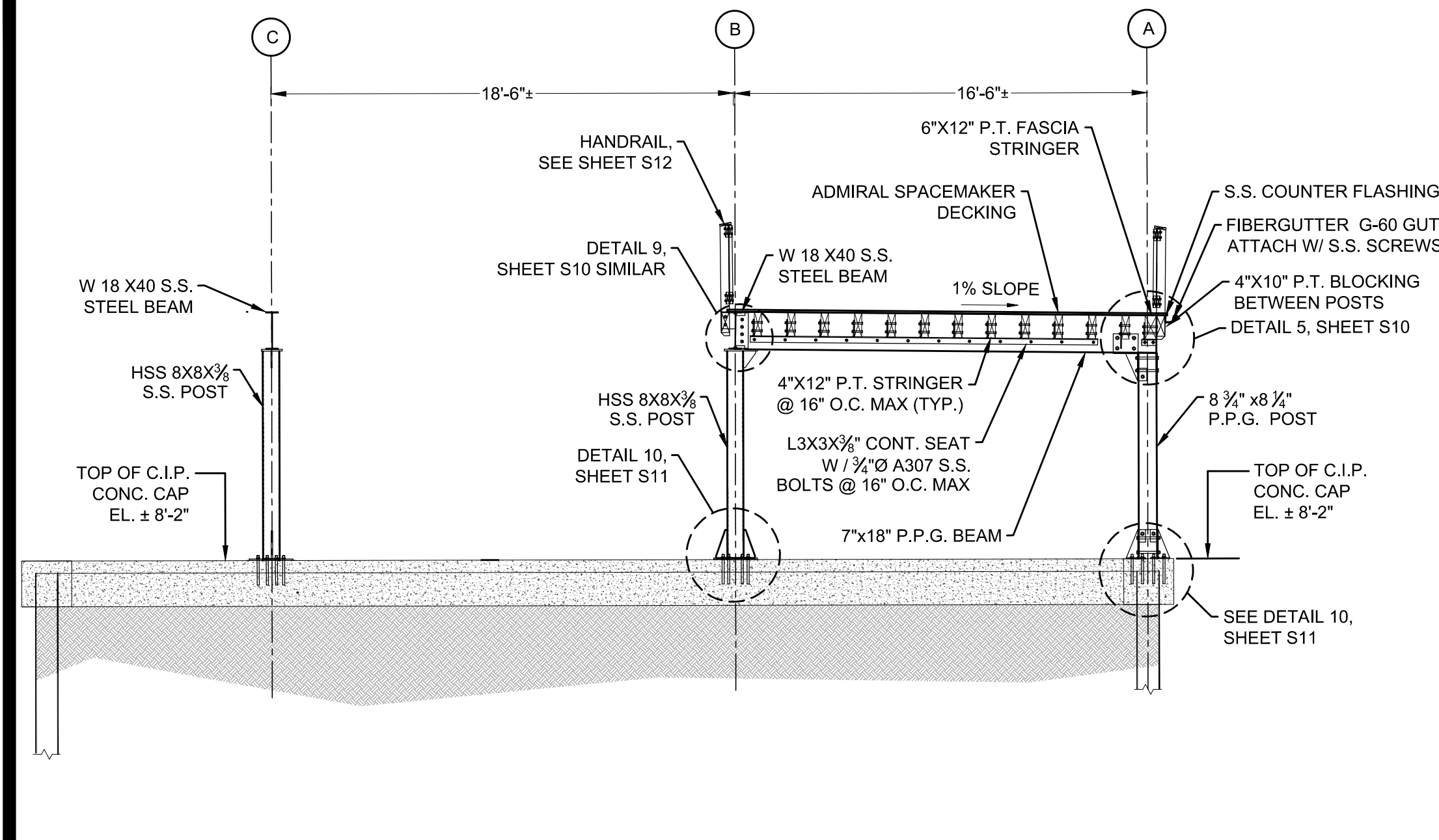
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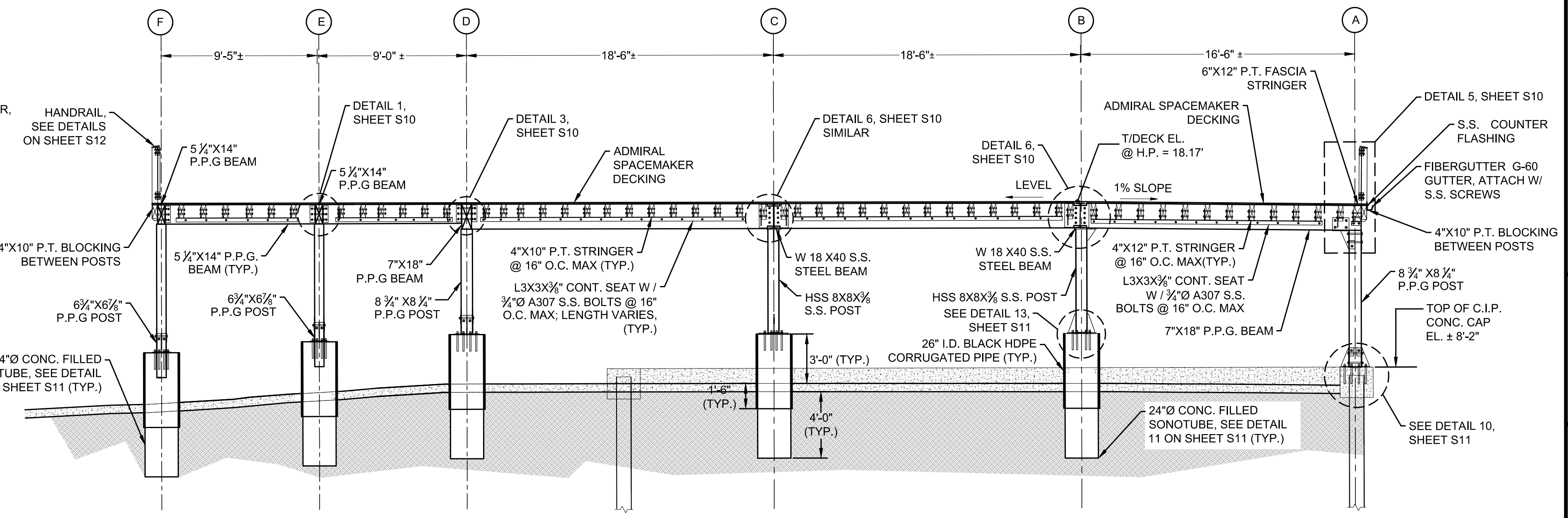
CONSULTANT
Foth
 cleengineering

CHATHAM FISH PIER

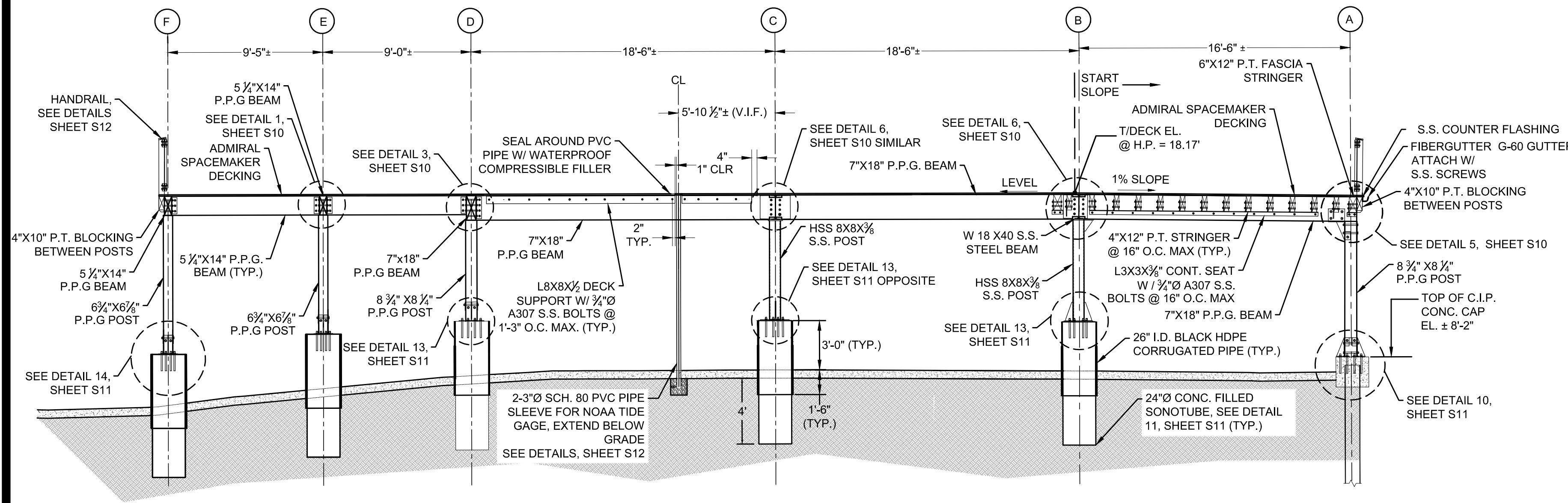
TOWN OF CHATHAM
549 MAIN ST. CHATHAM, MA 02633
OBSERVATION DECK RECONSTRUCTION



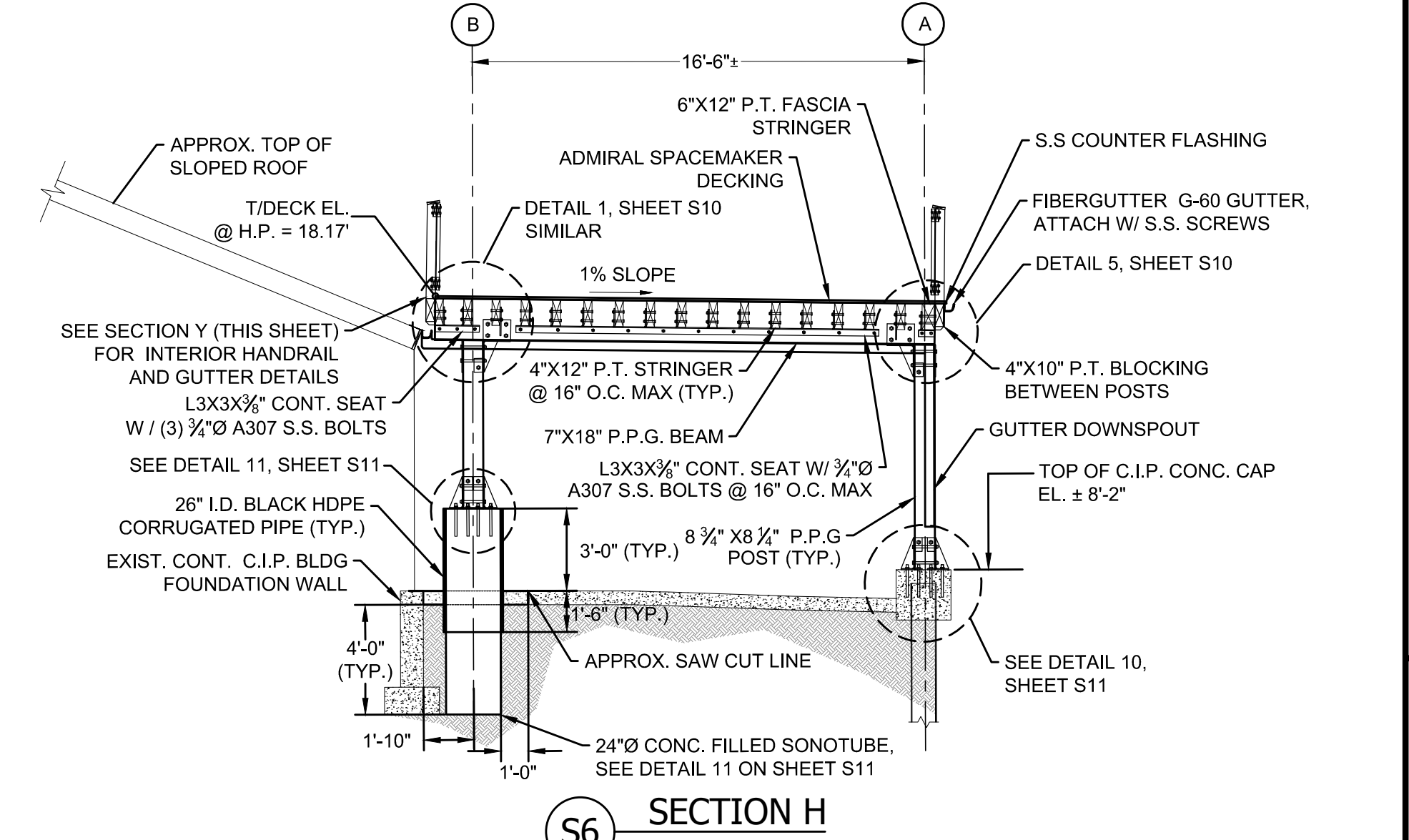
S6 SECTION E
 SCALE 1"=5'



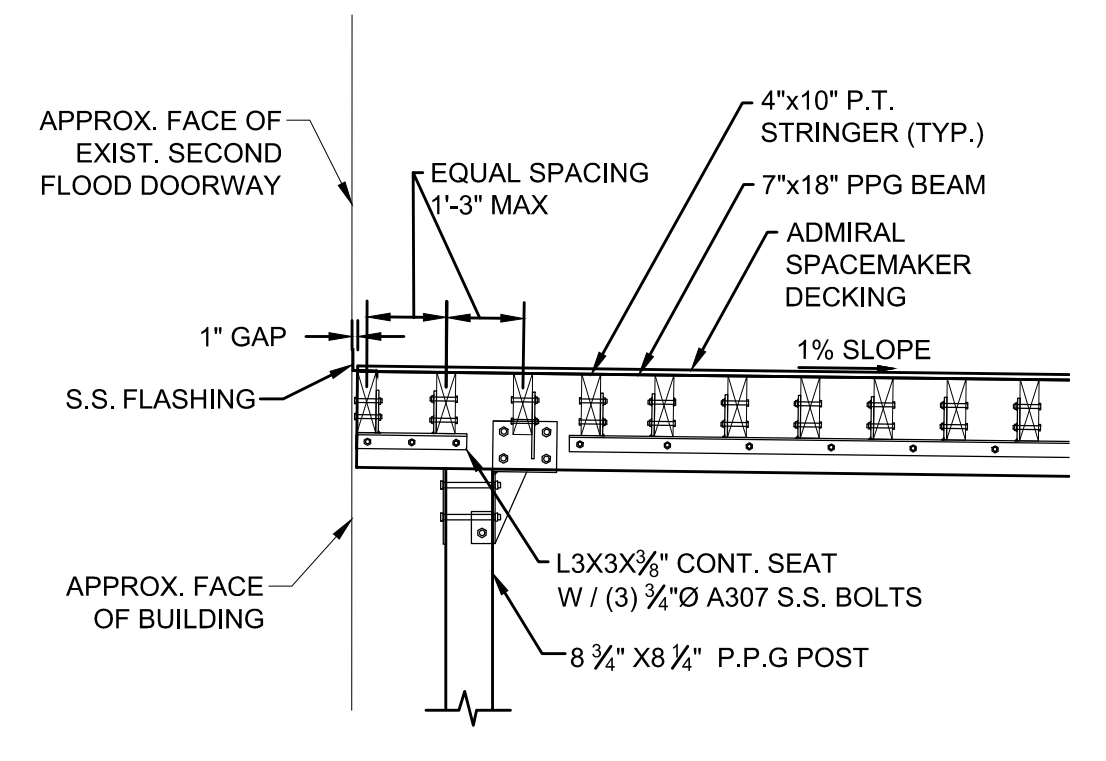
S6 SECTION F
 SCALE 1"=5'



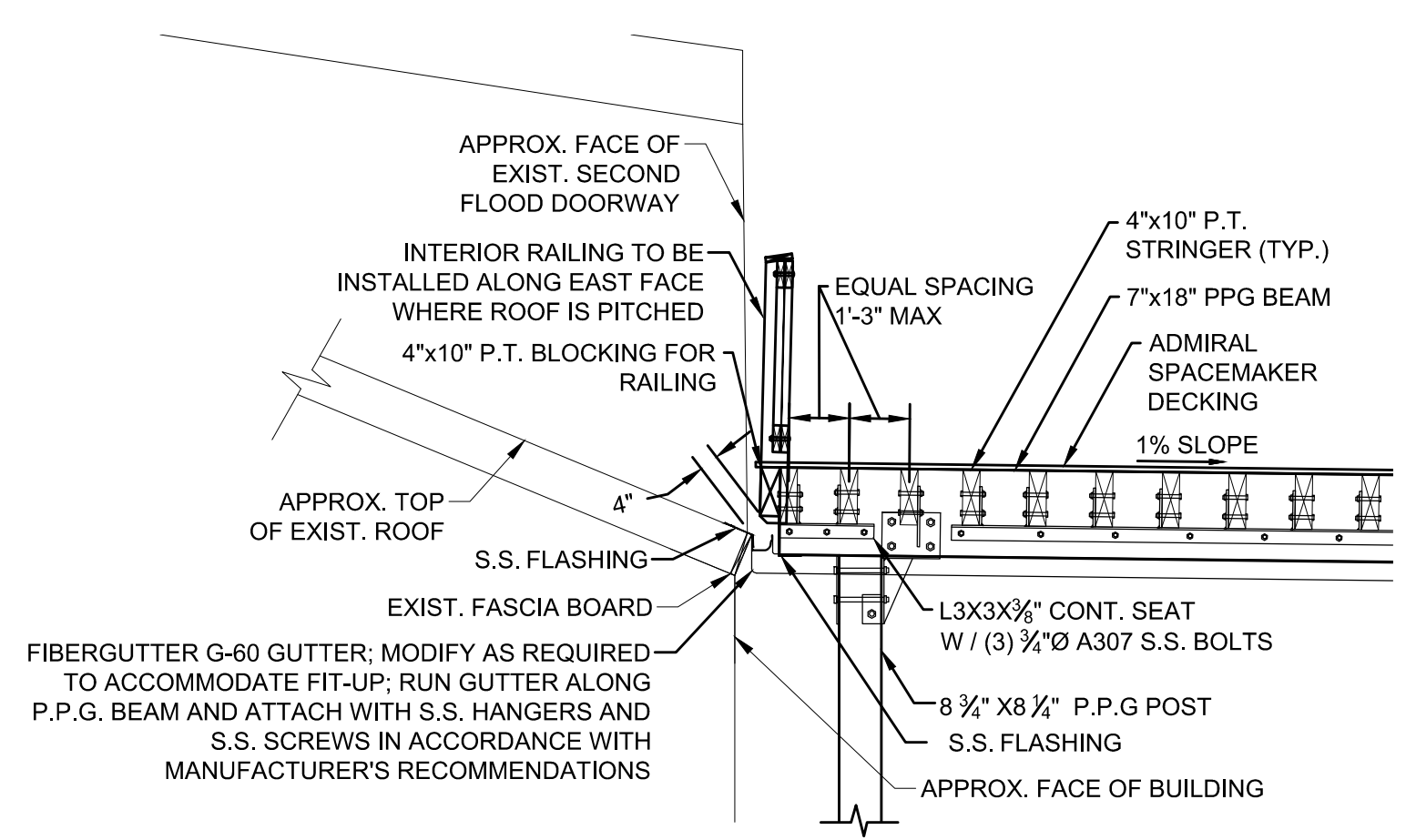
S6 SECTION G
 SCALE 1"=5'



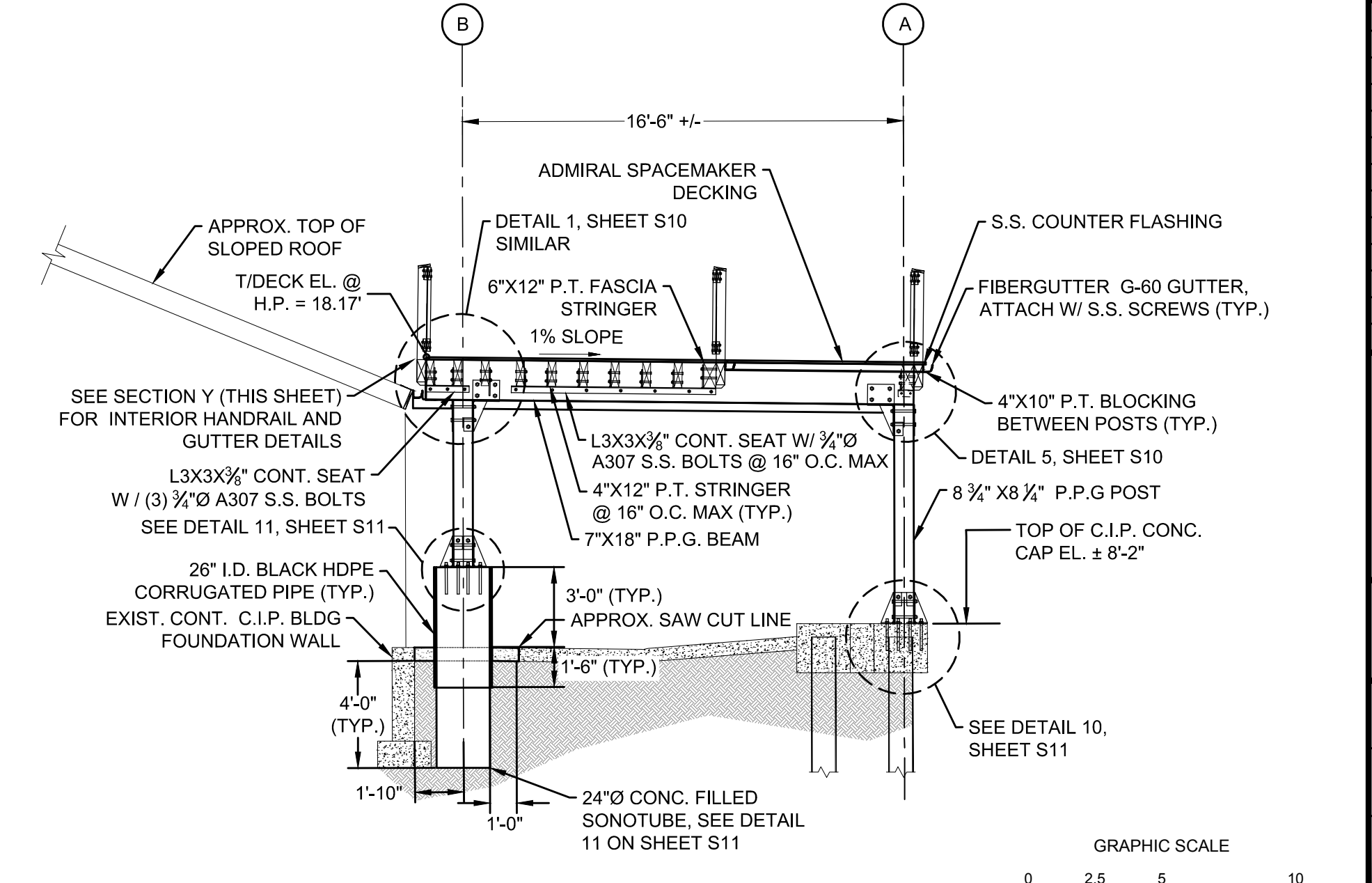
S6 SECTION H
 SCALE 1"=5'



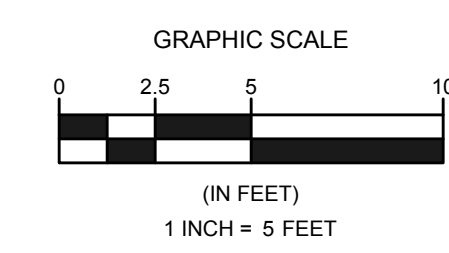
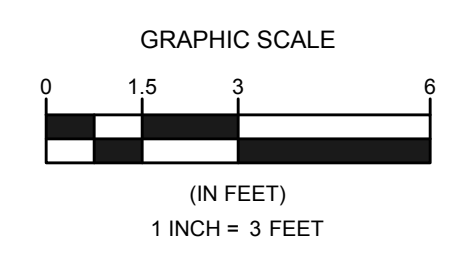
S6 SECTION X
 SCALE 1"=3'



S6 SECTION Y
 SCALE 1"=3'



S6 SECTION I
 SCALE 1"=5'



- NOTES:
1. FOR FOUNDATION PLANS SEE SHEET S1.
 2. FOR FRAMING PLANS SEE SHEET S2.
 3. FOR DECK PLANS SEE SHEET S3.
 4. P.P.G. REPRESENTS POWER PRESERVED GLULAM.

SEAL AND SIGNATURE

REVISIONS

NO.	DESCRIPTION

SHEET TITLE

PROPOSED SECTIONS - SHEET 2 OF 3

ISSUANCE

FOR CONSTRUCTION

SCALE
AS NOTED

DRAWN BY
CFF/JG

CHECKED BY
JG

PROJECT NO
0016C282.100

DATE
12/21/18

SHEET NUMBER

S6

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CHATHAM FISH PIER
TOWN OF CHATHAM
549 MAIN ST. CHATHAM, MA 02633
OBSERVATION DECK RECONSTRUCTION

SEAL AND SIGNATURE

REVISIONS

NO.	DESCRIPTION

SHEET TITLE

PROPOSED SECTIONS - SHEET 3 OF 3

ISSUANCE

FOR CONSTRUCTION

SCALE
 AS NOTED

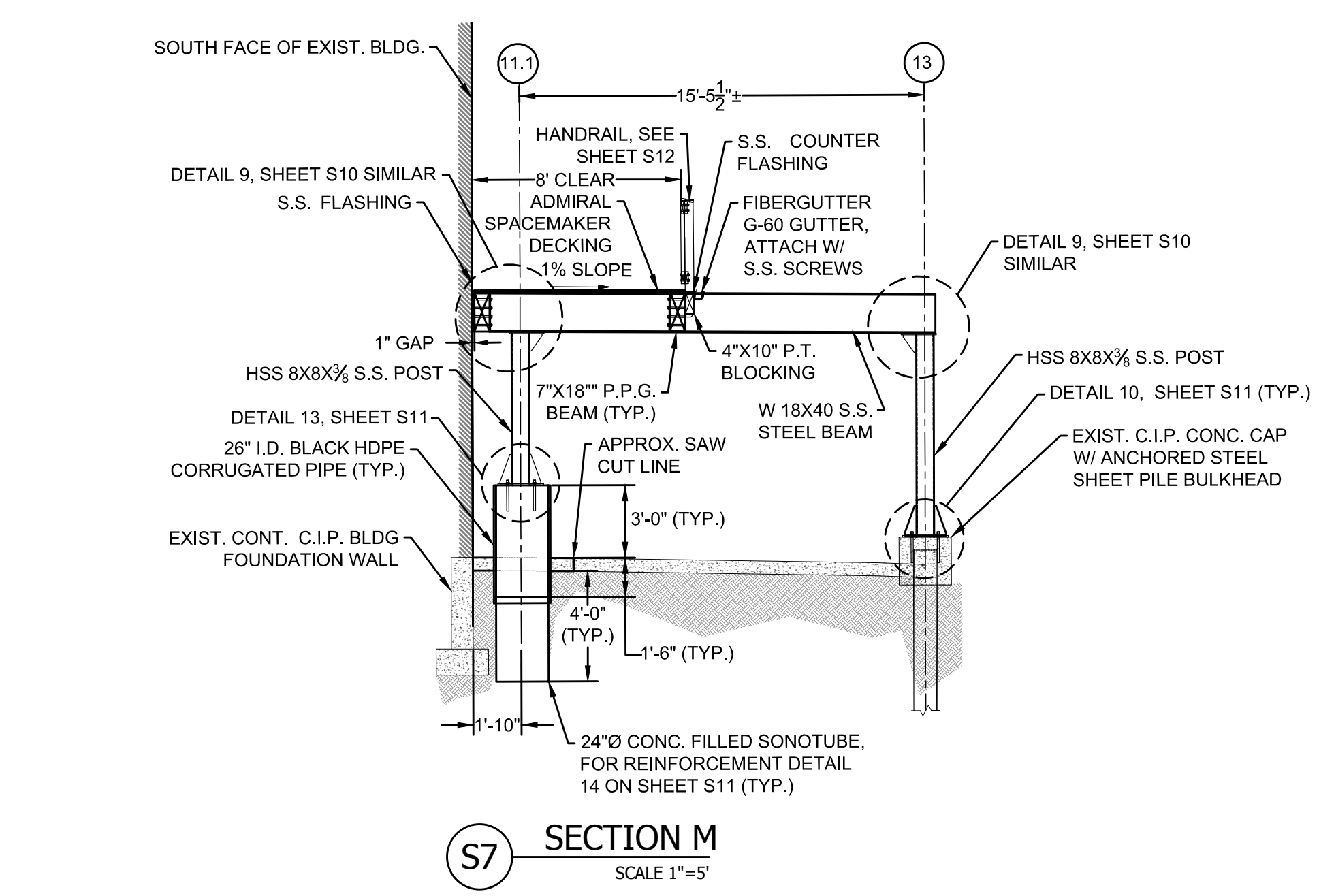
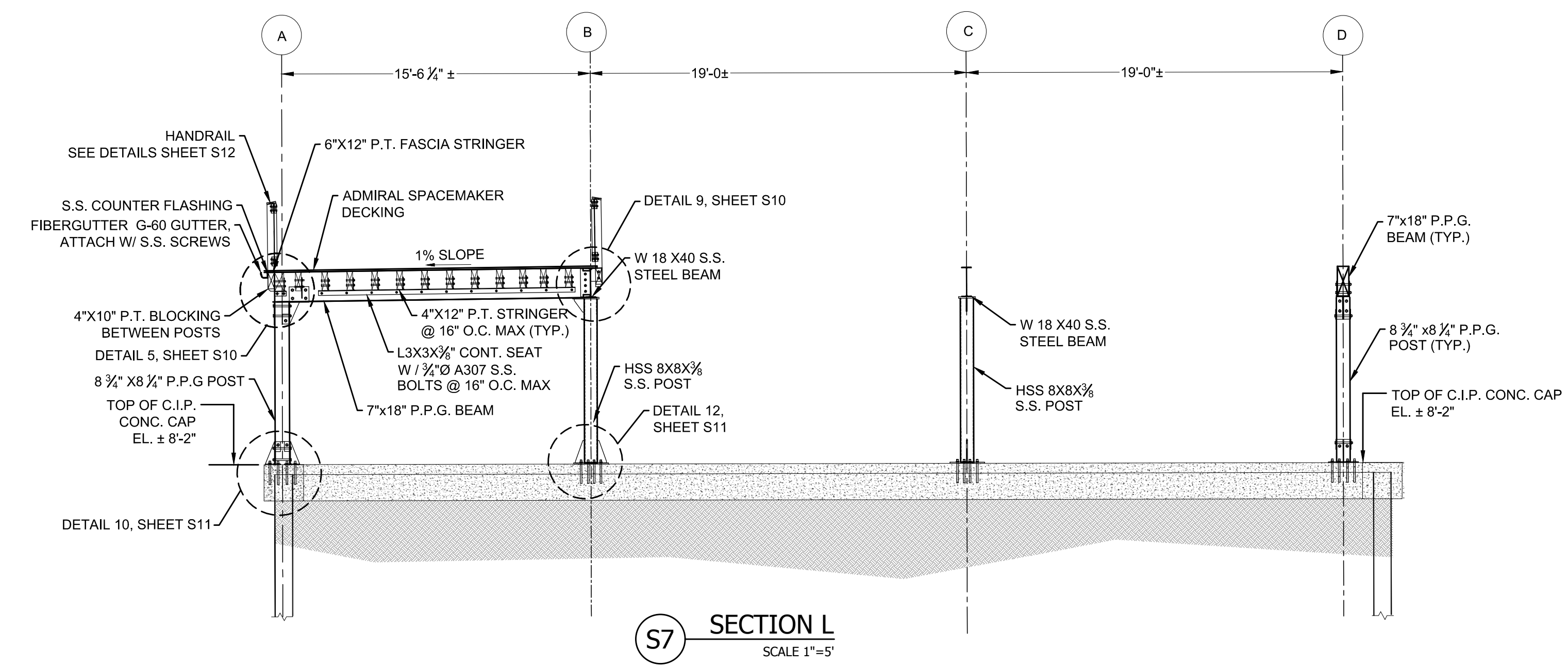
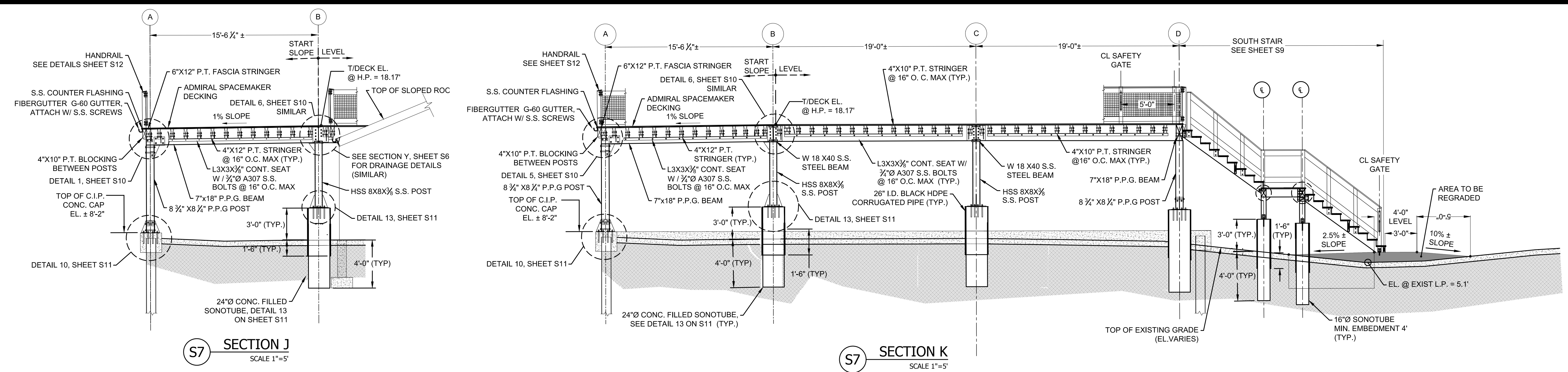
DRAWN BY
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CHECKED BY
 JG

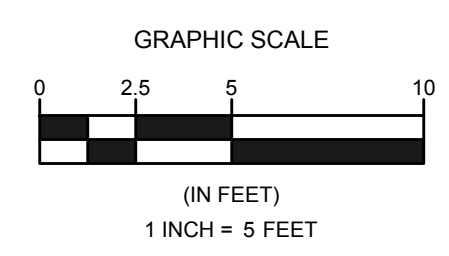
PROJECT NO
 0016C282.100

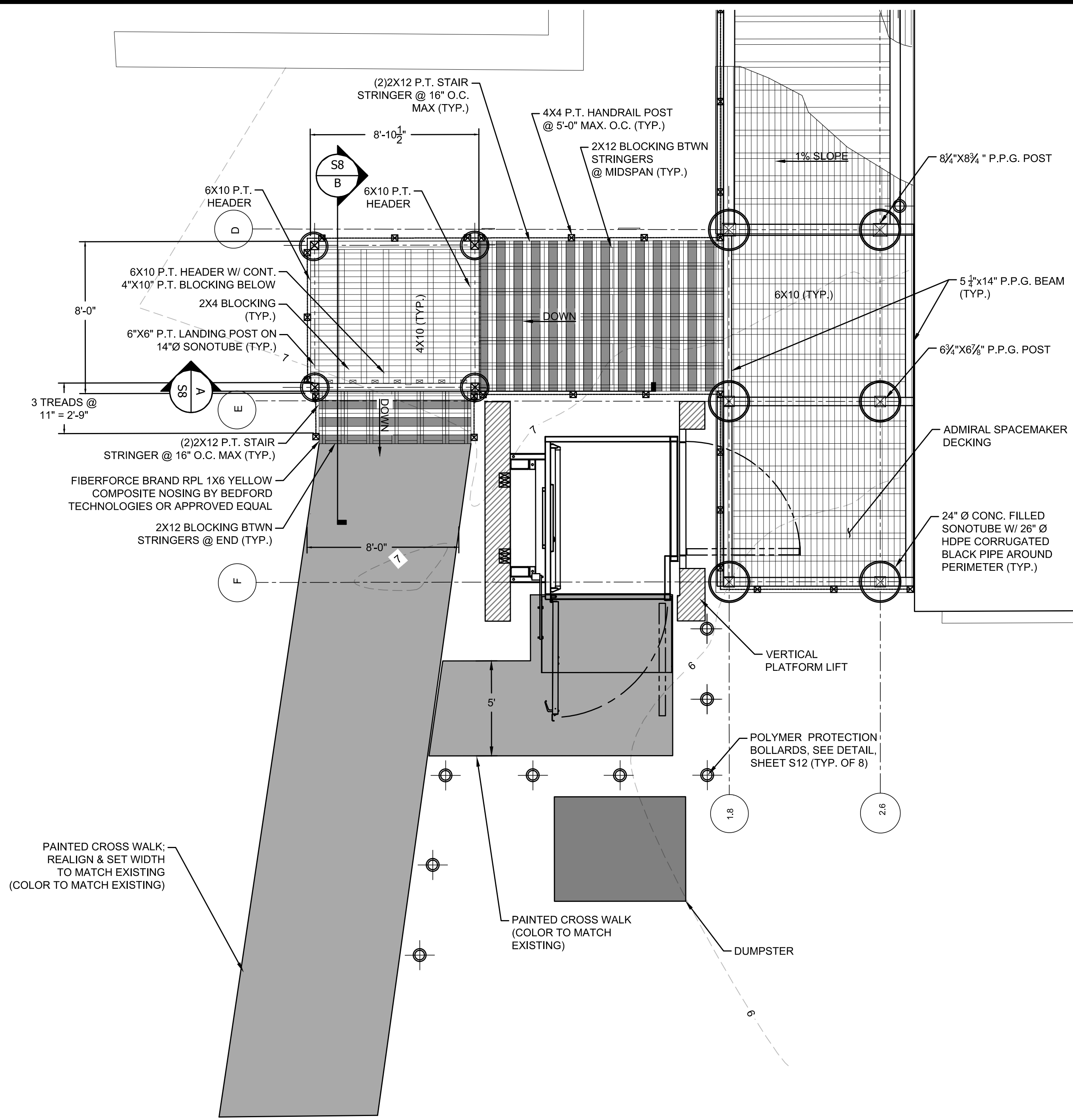
DATE
 12/21/18

S7

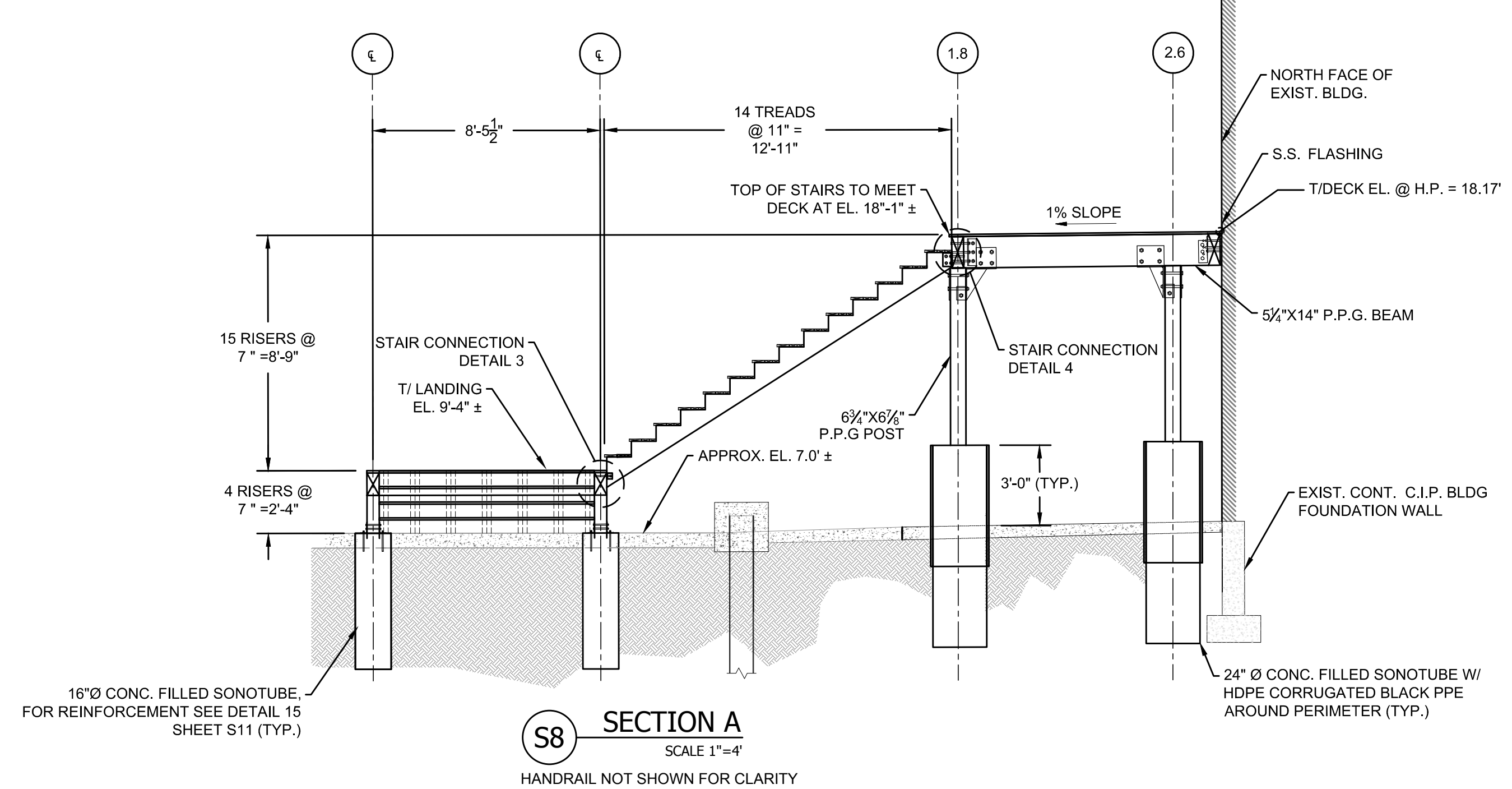


- NOTES:
- FOR FOUNDATION PLANS SEE SHEET S1.
 - FOR FRAMING PLANS SEE SHEET S2.
 - FOR DECK PLANS SEE SHEET S3.
 - P.P.G. REPRESENTS POWER PRESERVED GLULAM.

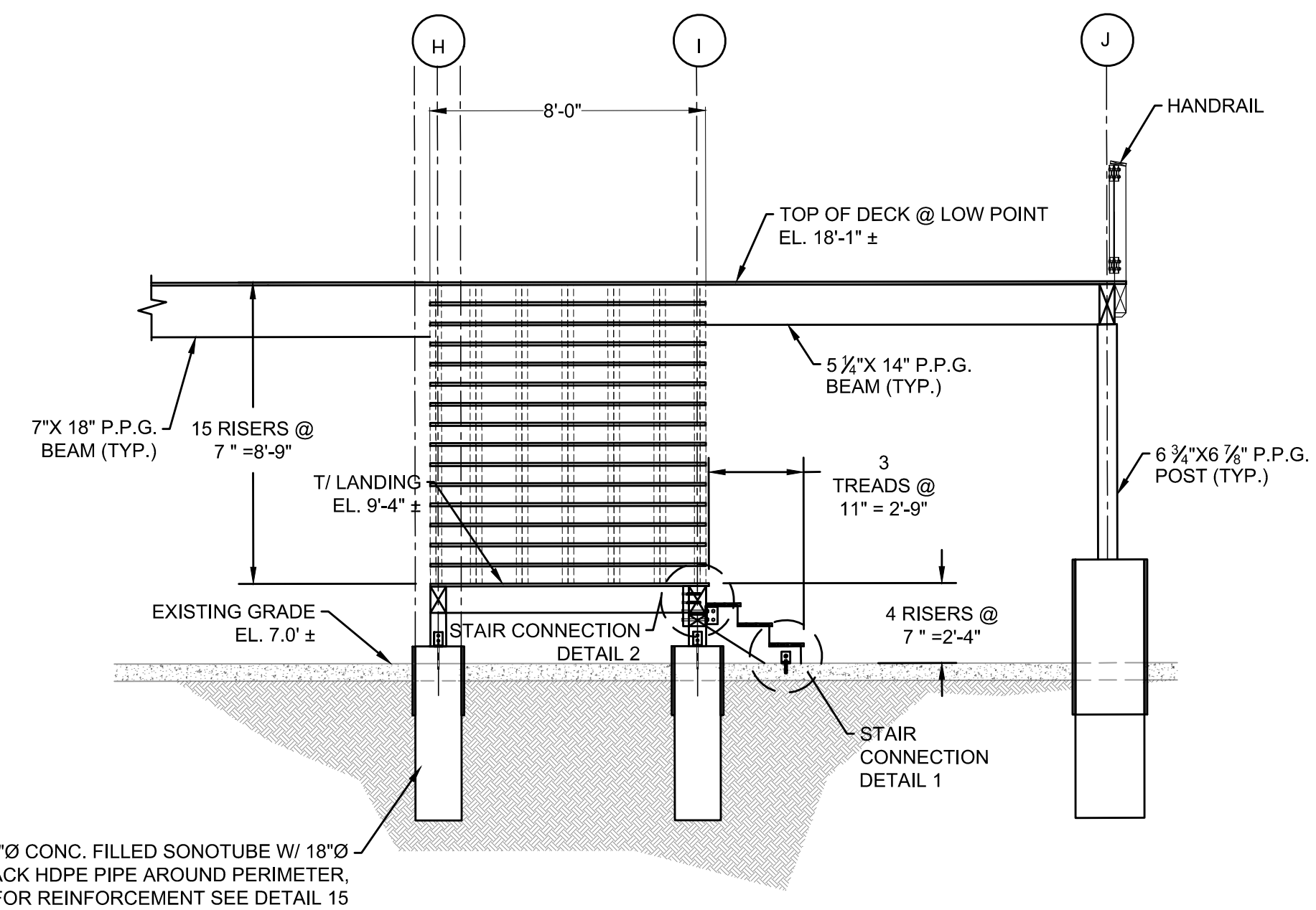




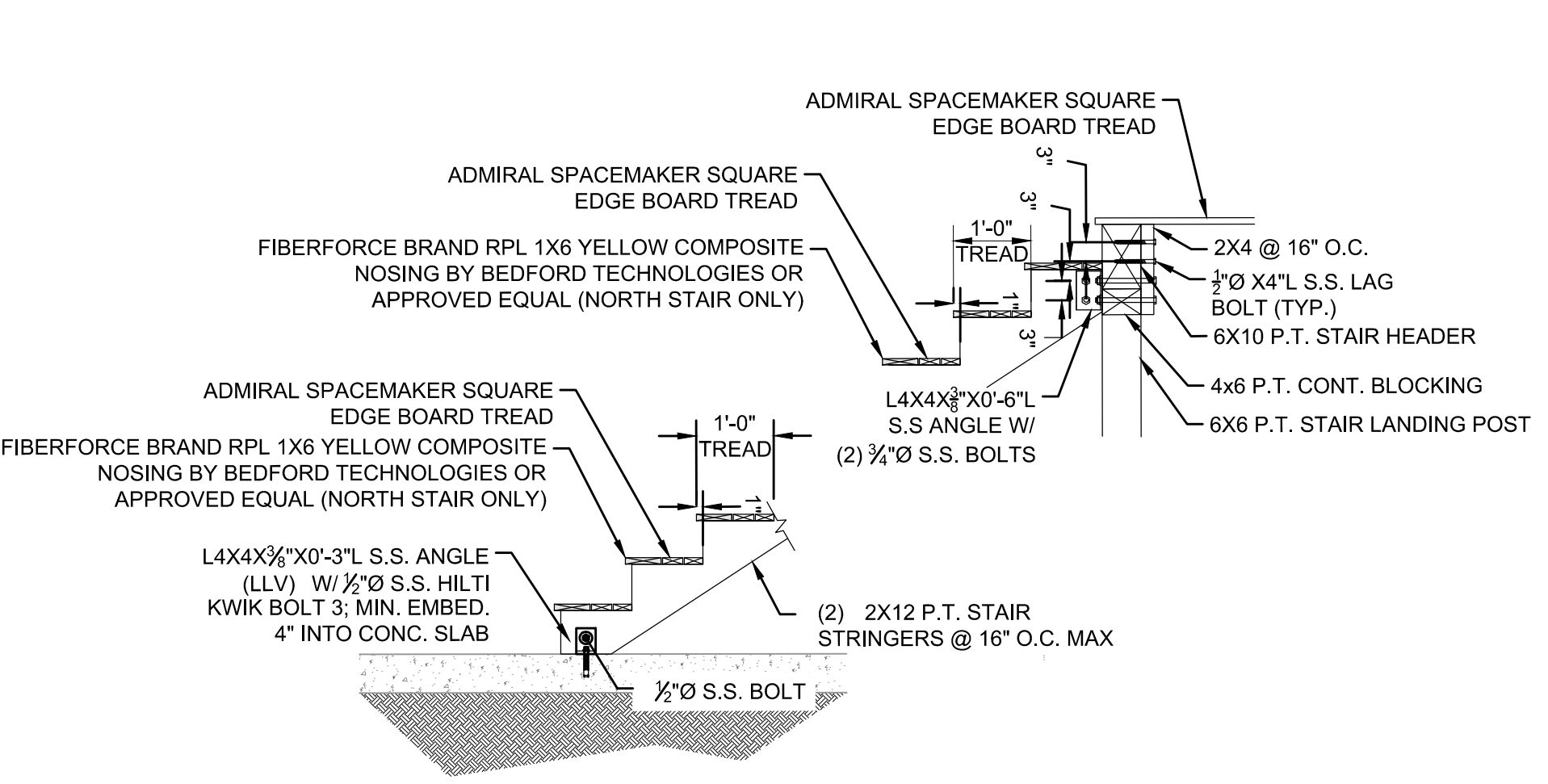
S8 NORTH STAIR - PARTIAL PLAN
SCALE 1"=4"



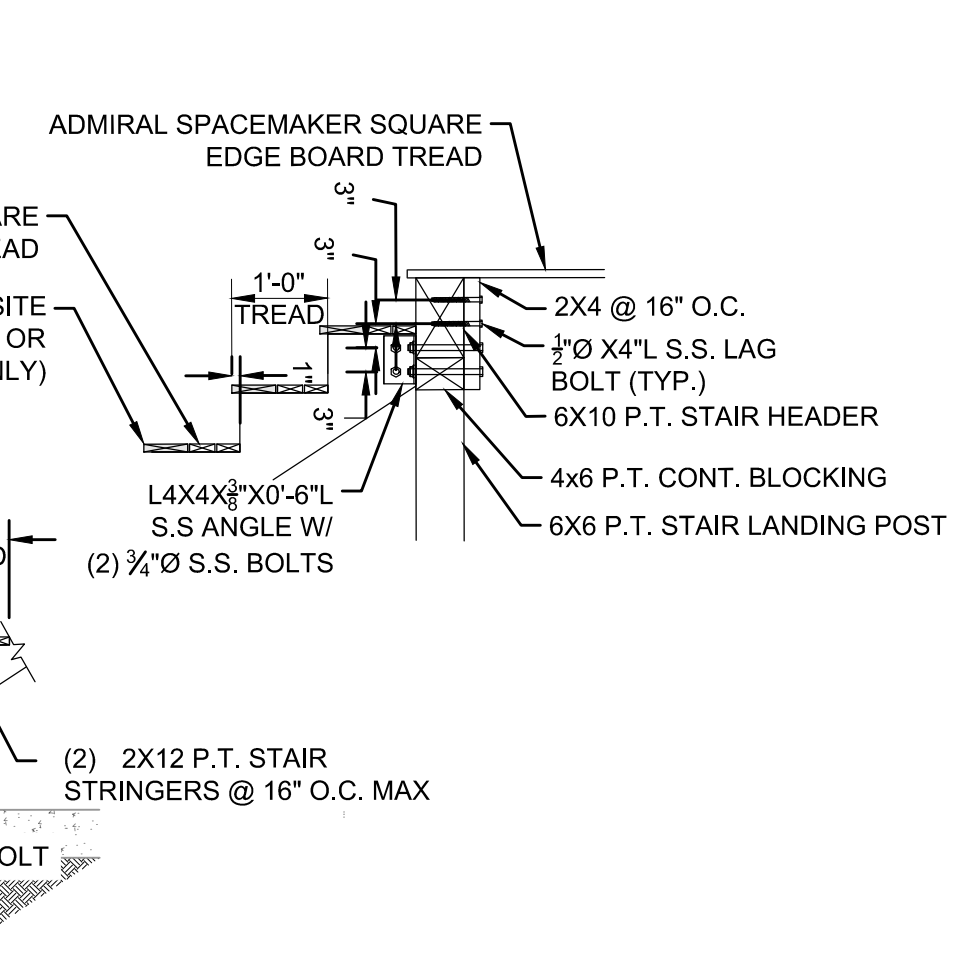
S8 SECTION A
SCALE 1"=4"
HANDRAIL NOT SHOWN FOR CLARITY



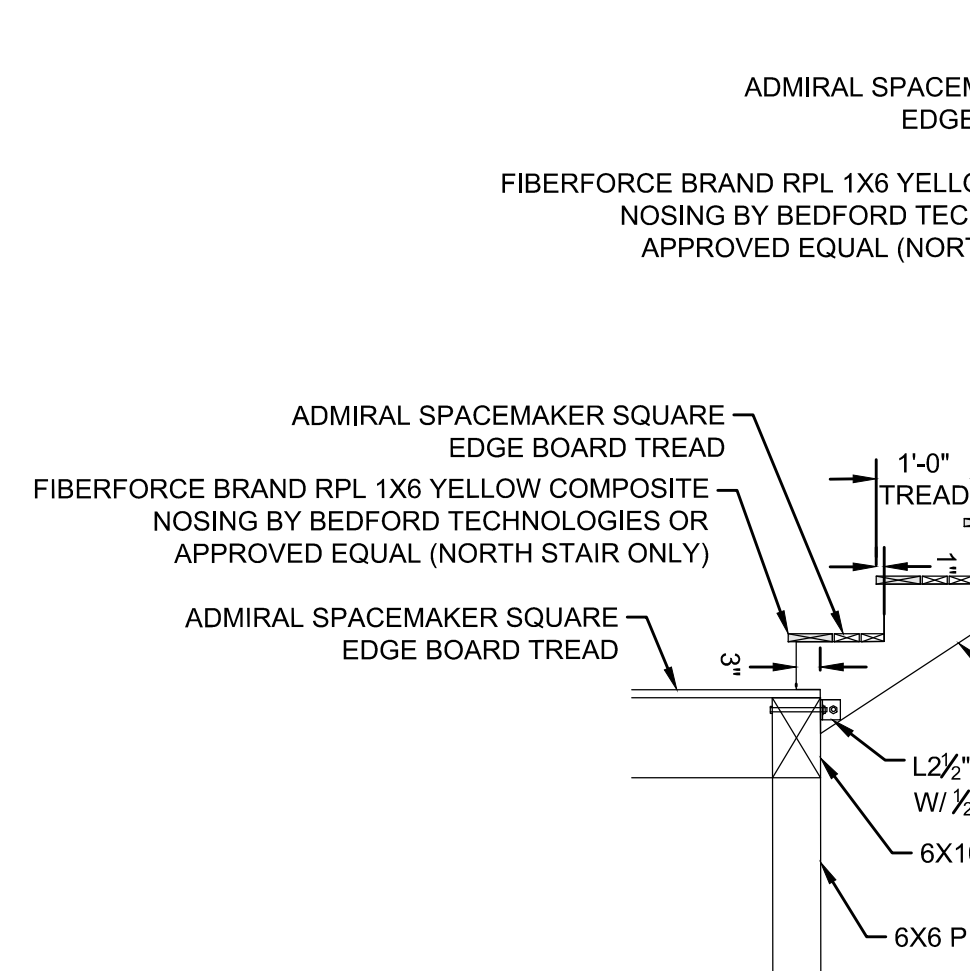
S8 SECTION B
SCALE 1"=4"
HANDRAIL NOT SHOWN FOR CLARITY



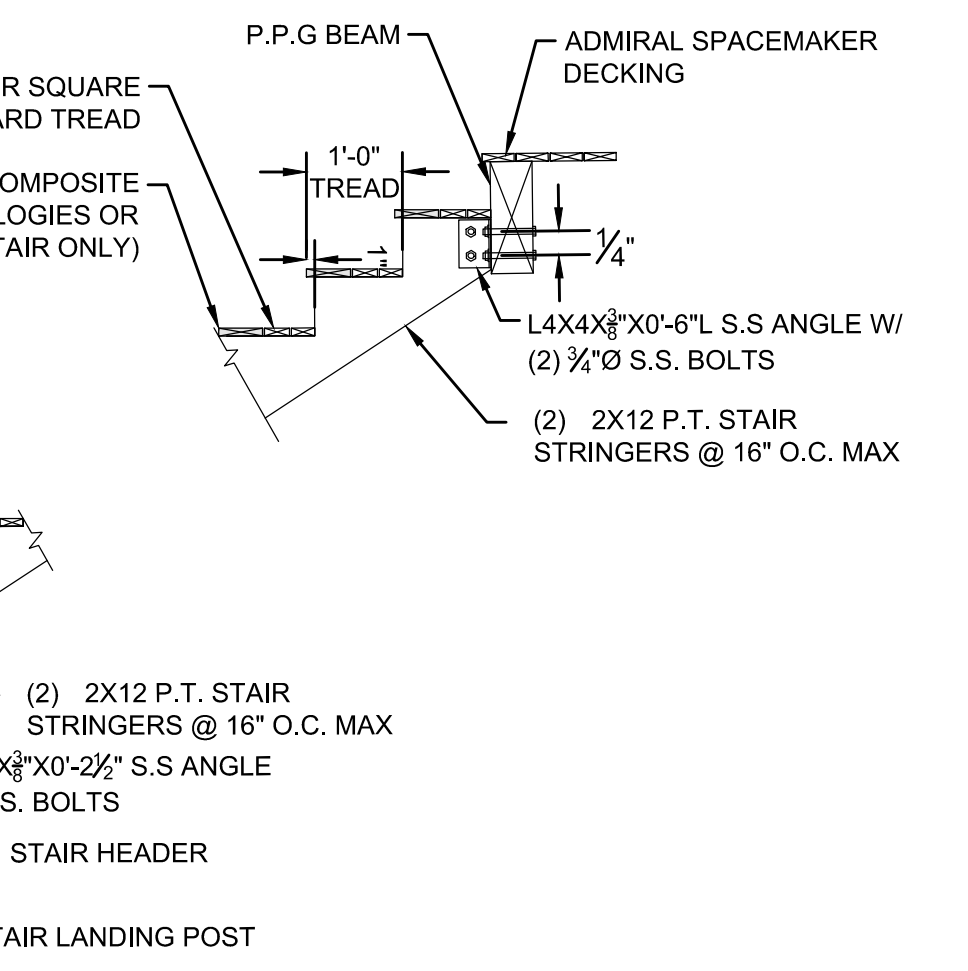
S8 STAIR CONNECTION DETAIL 1
SCALE 1"=2"



S8 STAIR CONNECTION DETAIL 2
SCALE 1"=2"

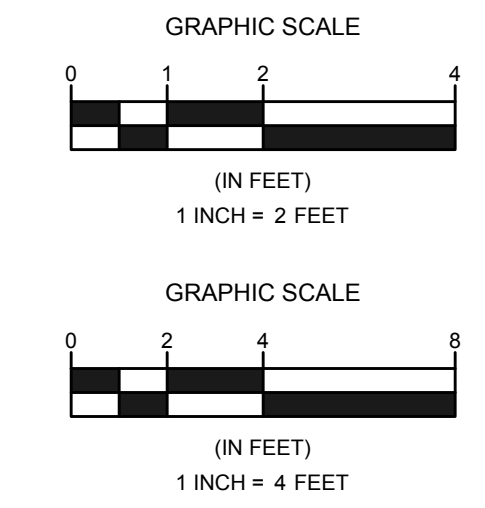


S8 STAIR CONNECTION DETAIL 3
SCALE 1"=2"



S8 STAIR CONNECTION DETAIL 4
SCALE 1"=2"

NOTES:
1. ALL FASTENERS SHALL BE STAINLESS STEEL TYPE 316, UNLESS OTHERWISE NOTED.



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CHATHAM FISH PIER
TOWN OF CHATHAM
549 MAIN ST. CHATHAM, MA 02633
OBSERVATION DECK RECONSTRUCTION

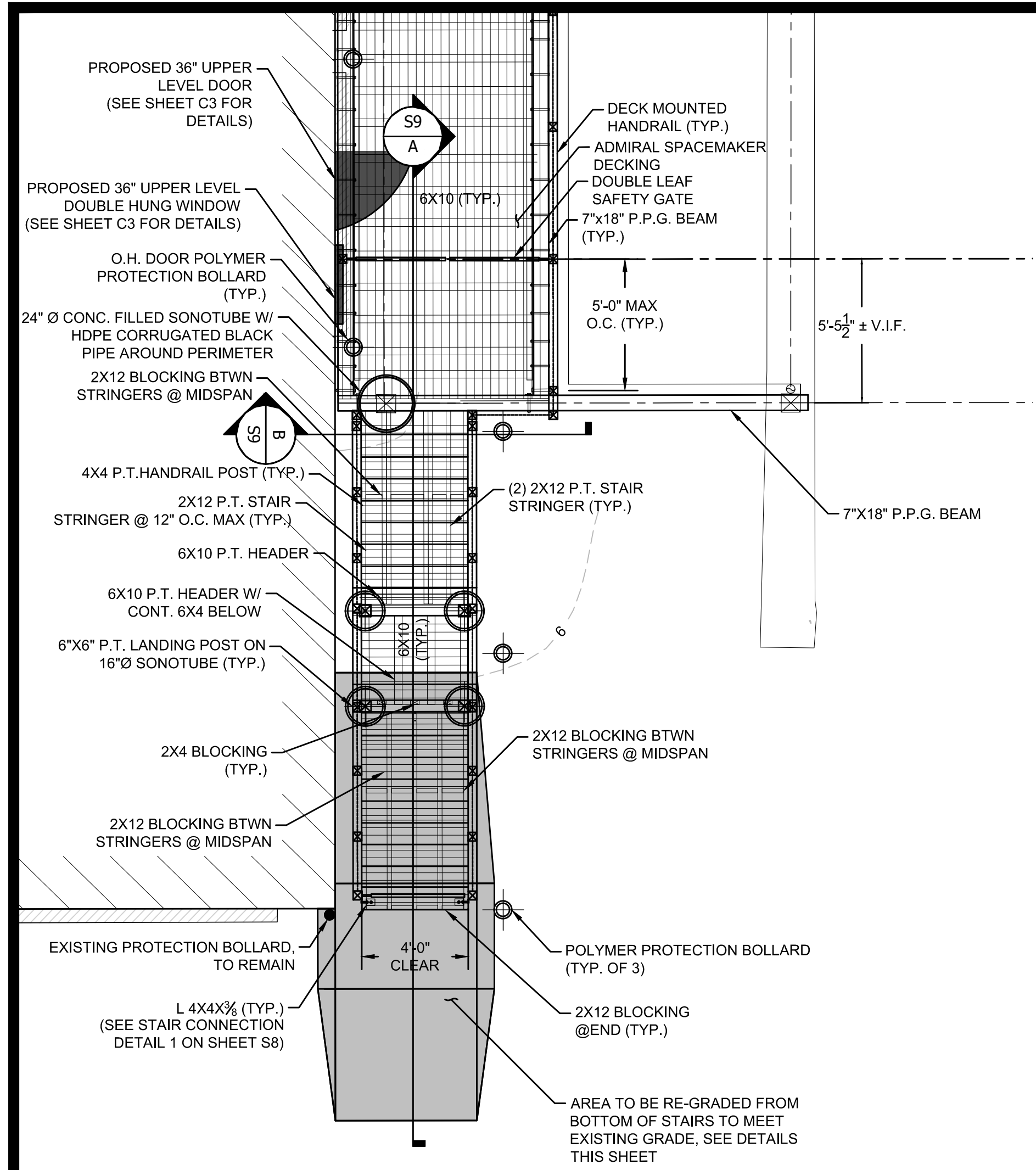
SEAL AND SIGNATURE

REVISIONS

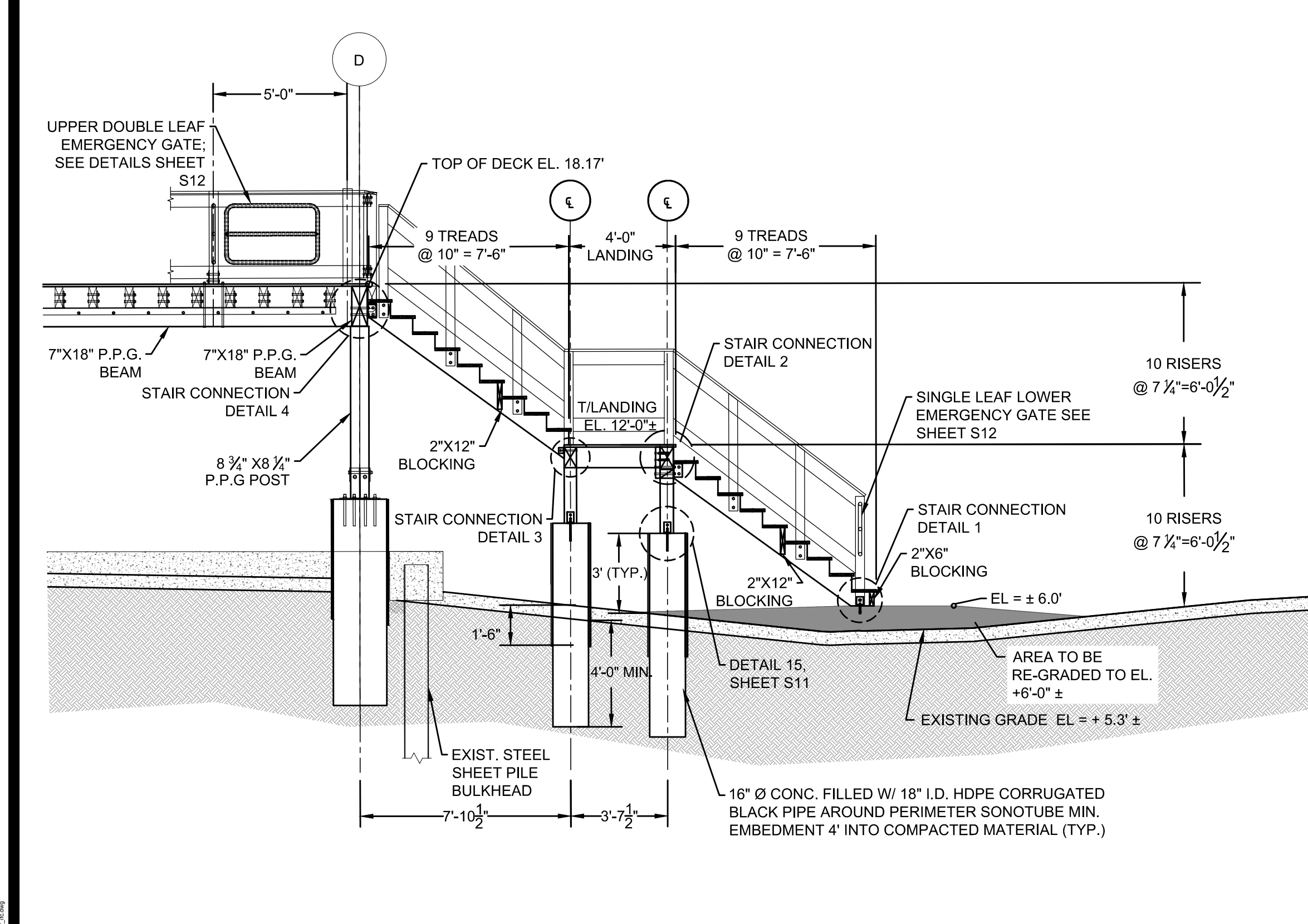
SHEET TITLE
PROPOSED NORTH STAIR SECTIONS AND DETAILS FOR CONSTRUCTION

ISSUANCE
AS NOTED

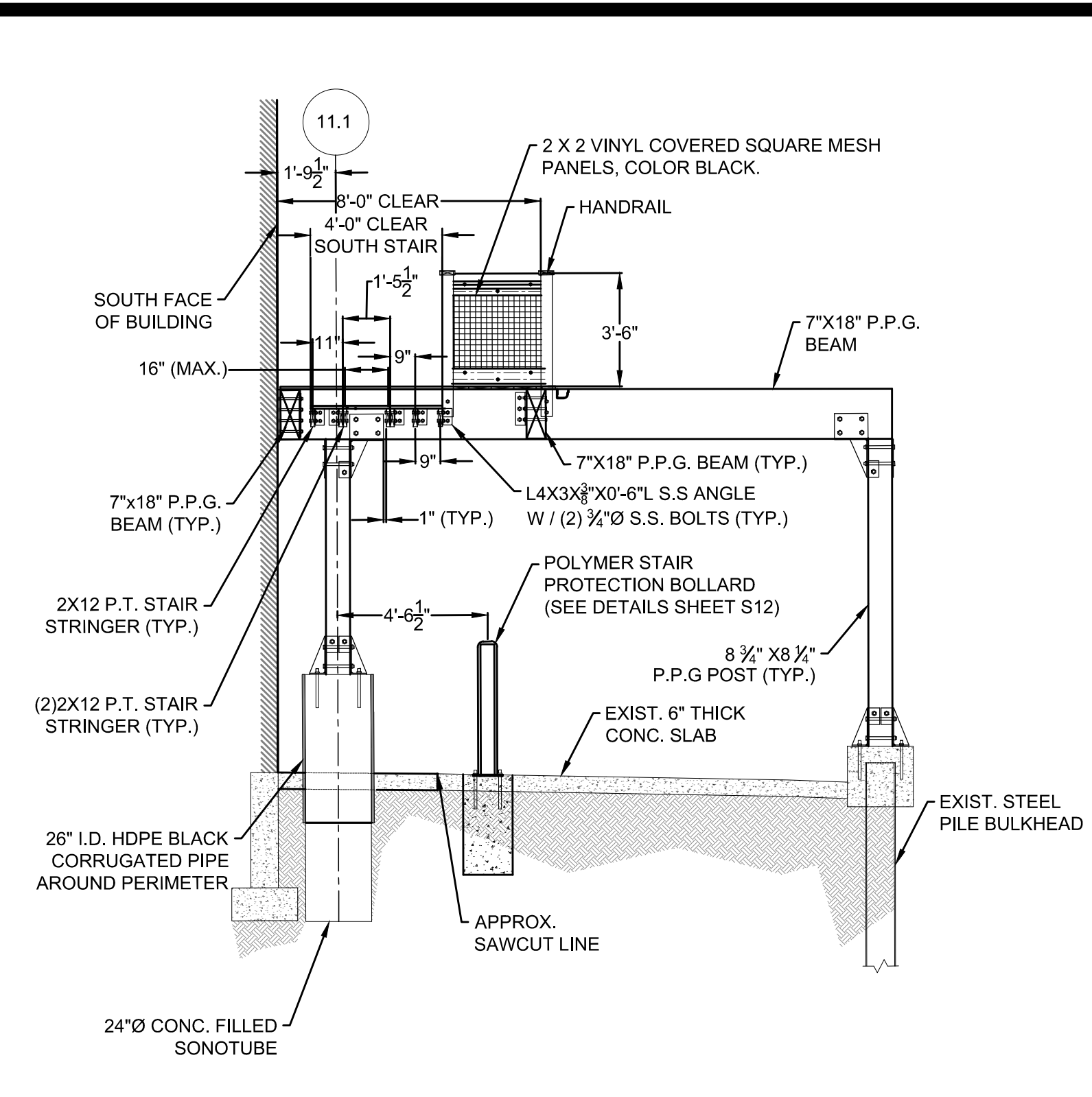
DRAWN BY CFF/JG	SHEET NUMBER S8
CHECKED BY JG	
PROJECT NO 0016C282.100	
DATE 12/21/18	



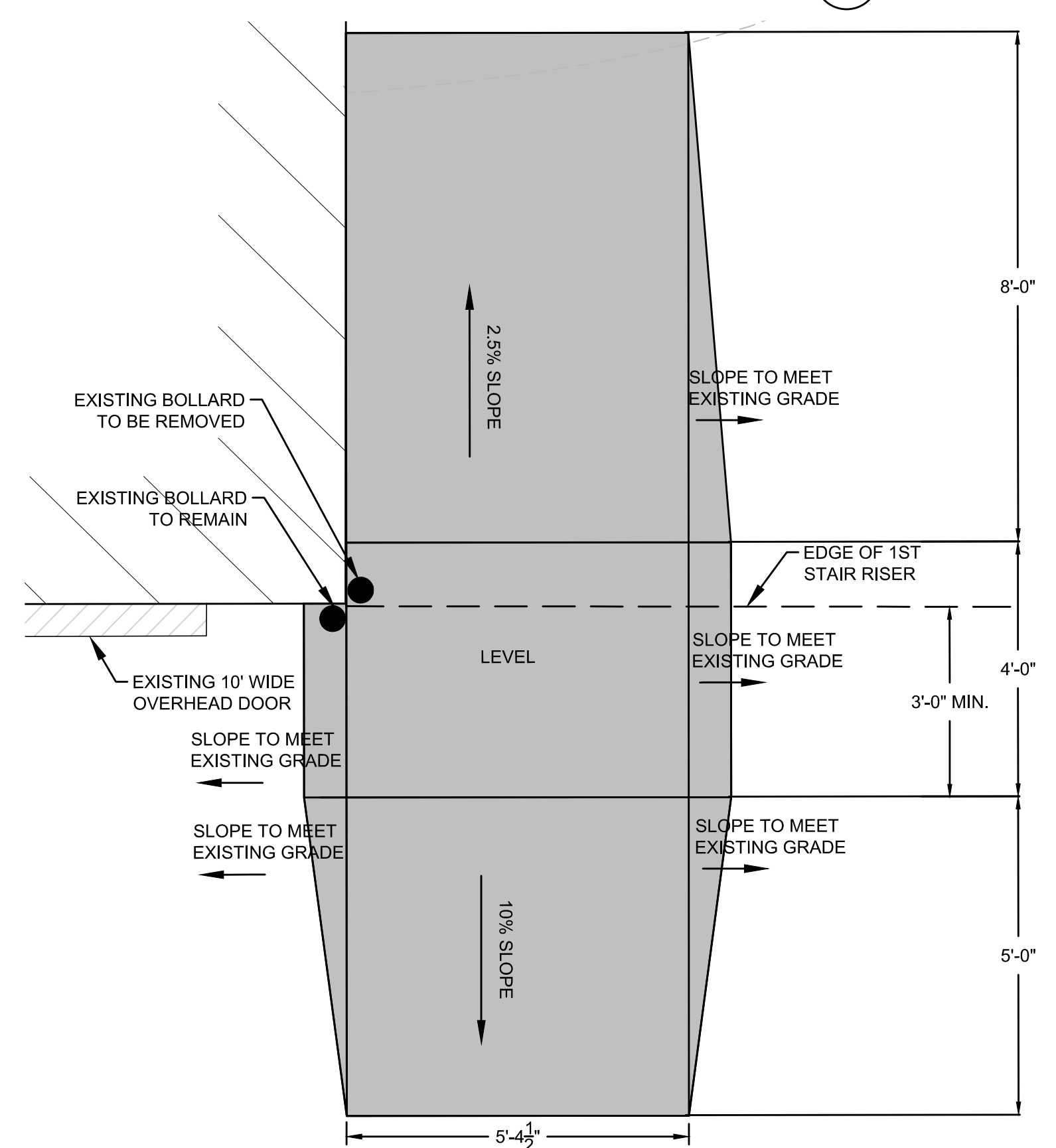
S9 SOUTH STAIR - PARTIAL PLAN
SCALE 1"=4"



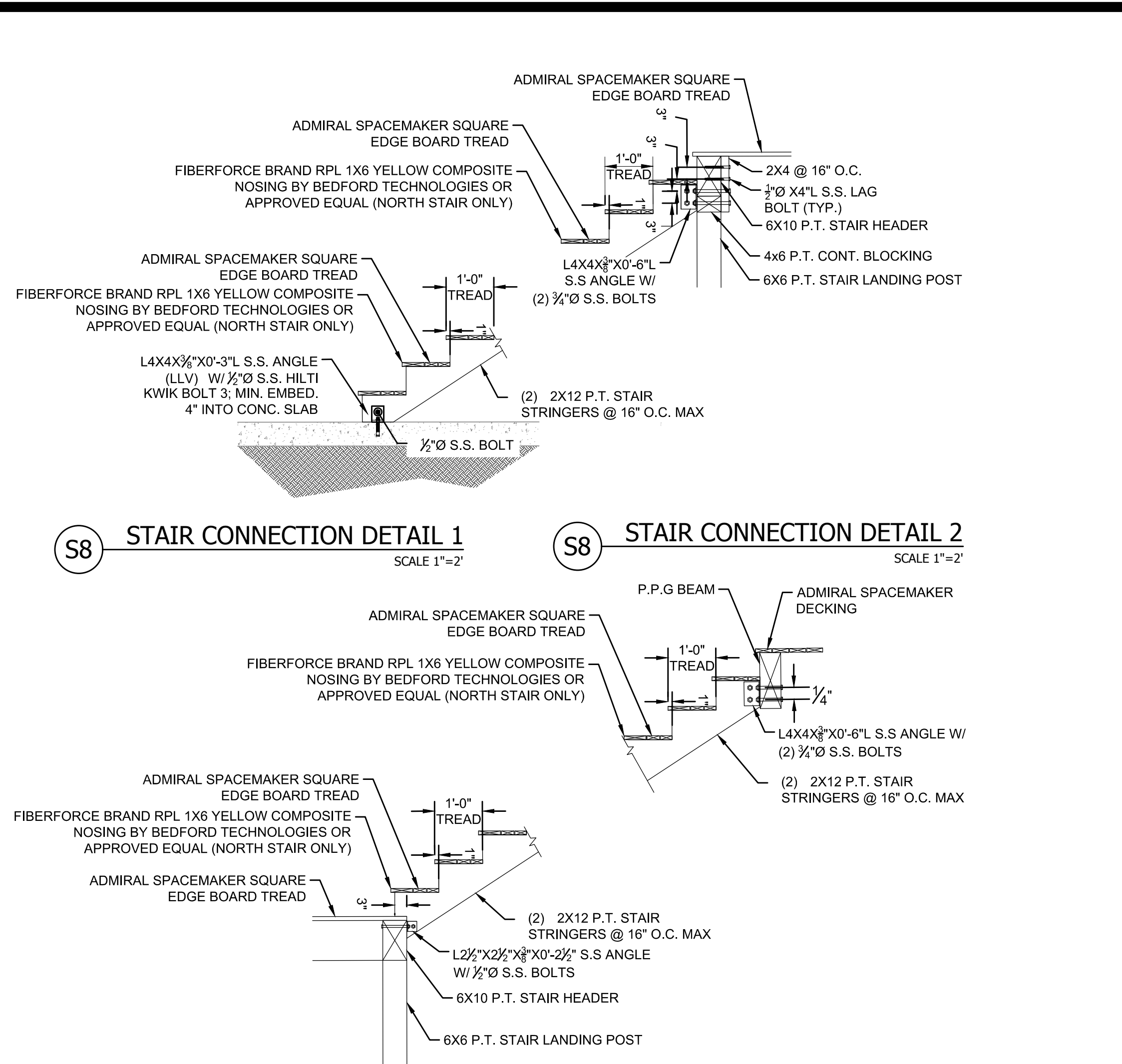
S9 SECTION A
SCALE 1"=4"
HANDRAIL NOT SHOWN FOR CLARITY.



S9 SECTION B
SCALE 1"=4"
EMERGENCY GATE NOT SHOWN FOR CLARITY. SEE DETAILS ON SHEET S10.



S9 SOUTH STAIR - GRADING PLAN
SCALE 1"=2"



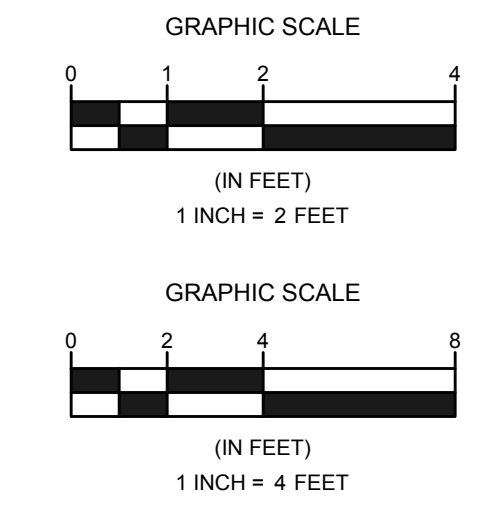
S8 STAIR CONNECTION DETAIL 1
SCALE 1"=2"

S8 STAIR CONNECTION DETAIL 2
SCALE 1"=2"

S8 STAIR CONNECTION DETAIL 3
SCALE 1"=2"

S8 STAIR CONNECTION DETAIL 4
SCALE 1"=2"

NOTES:
1. ALL FASTENERS SHALL BE STAINLESS STEEL TYPE 316, UNLESS OTHERWISE NOTED.



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CONSULTANT
Foth
cleengineering

CHATHAM FISH PIER
TOWN OF CHATHAM
549 MAIN ST. CHATHAM, MA 02633
OBSERVATION DECK RECONSTRUCTION

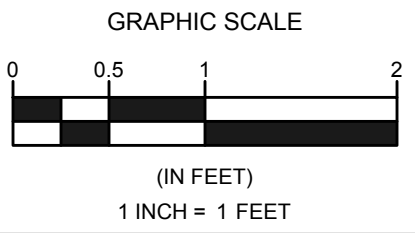
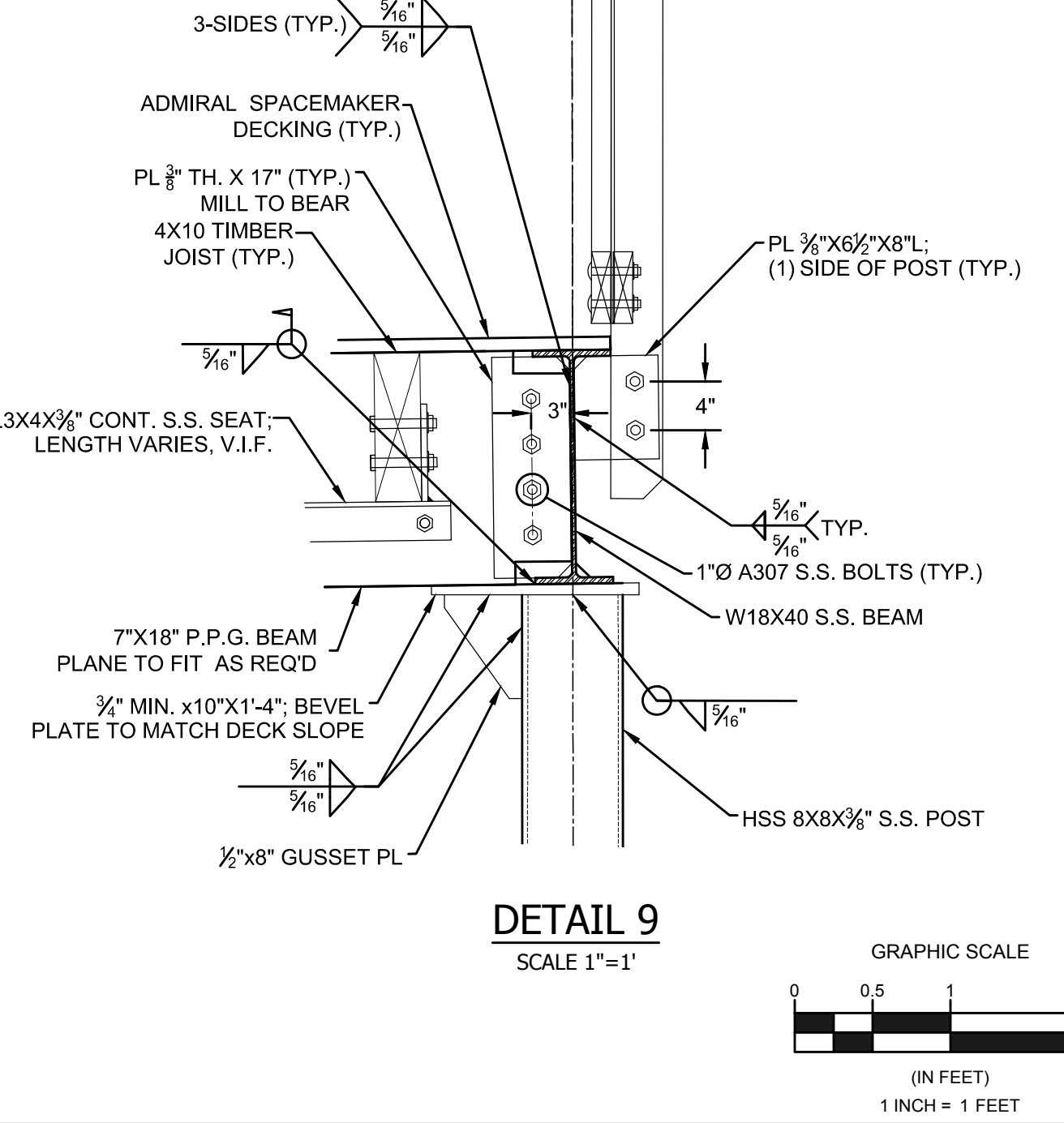
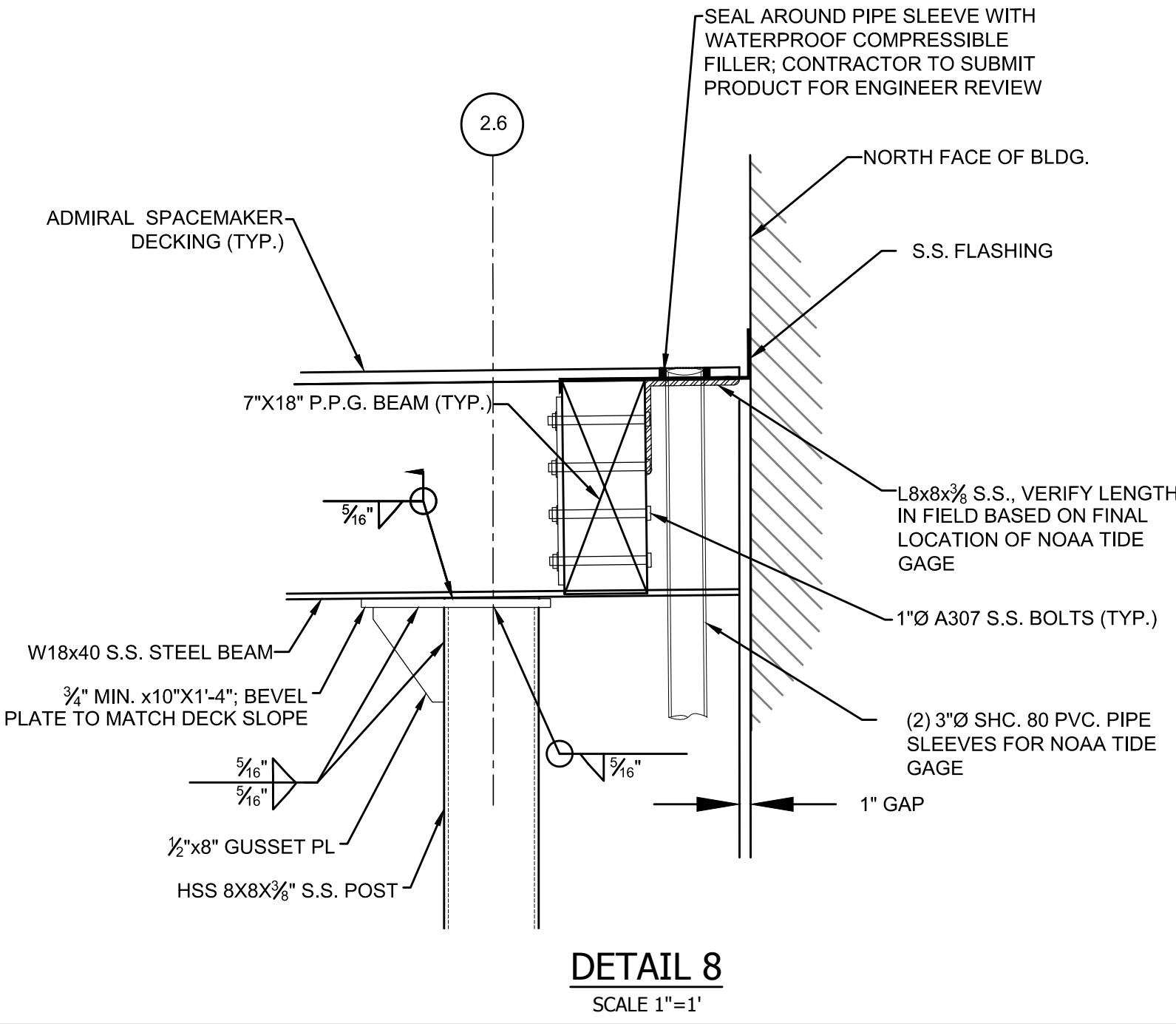
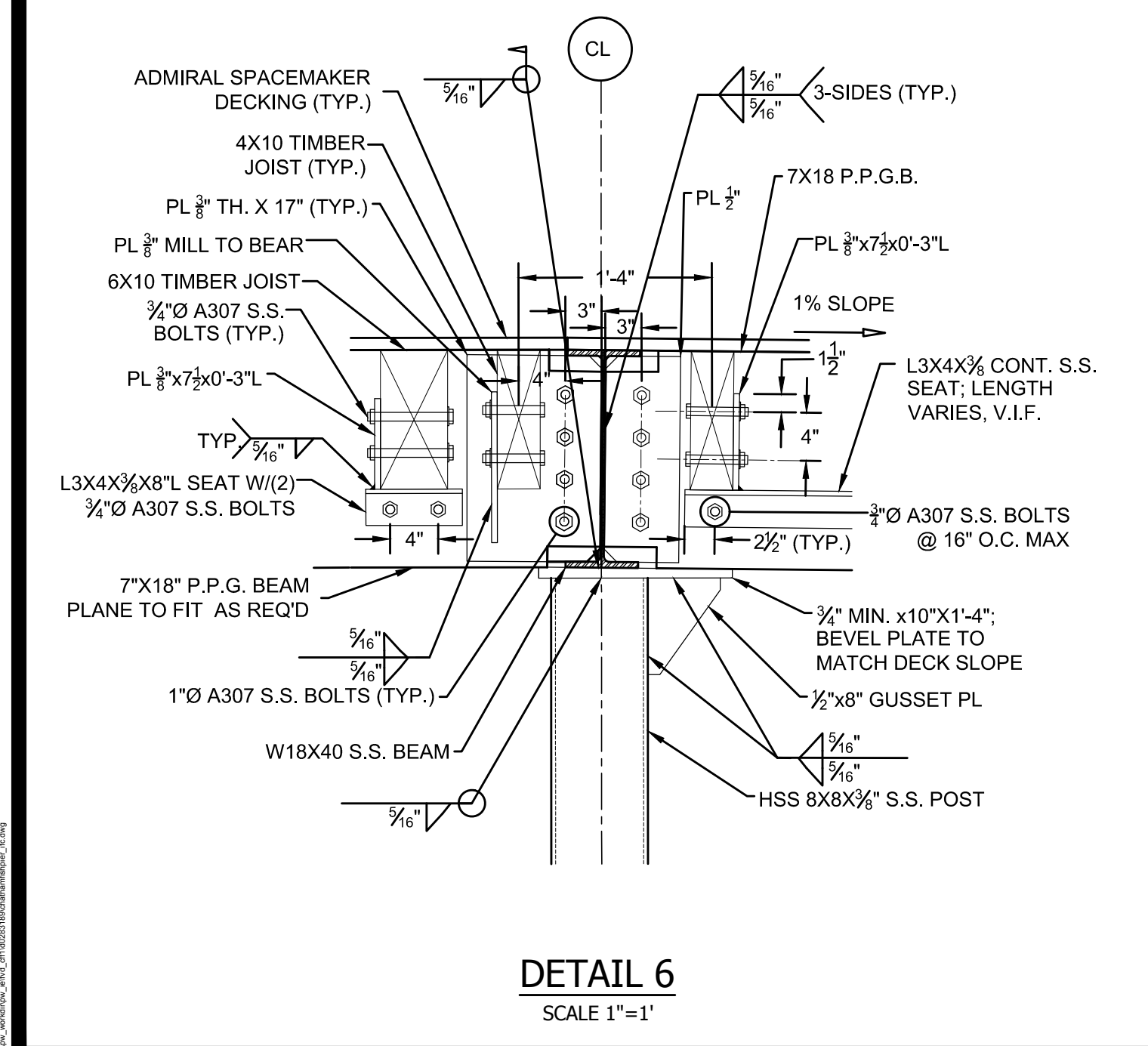
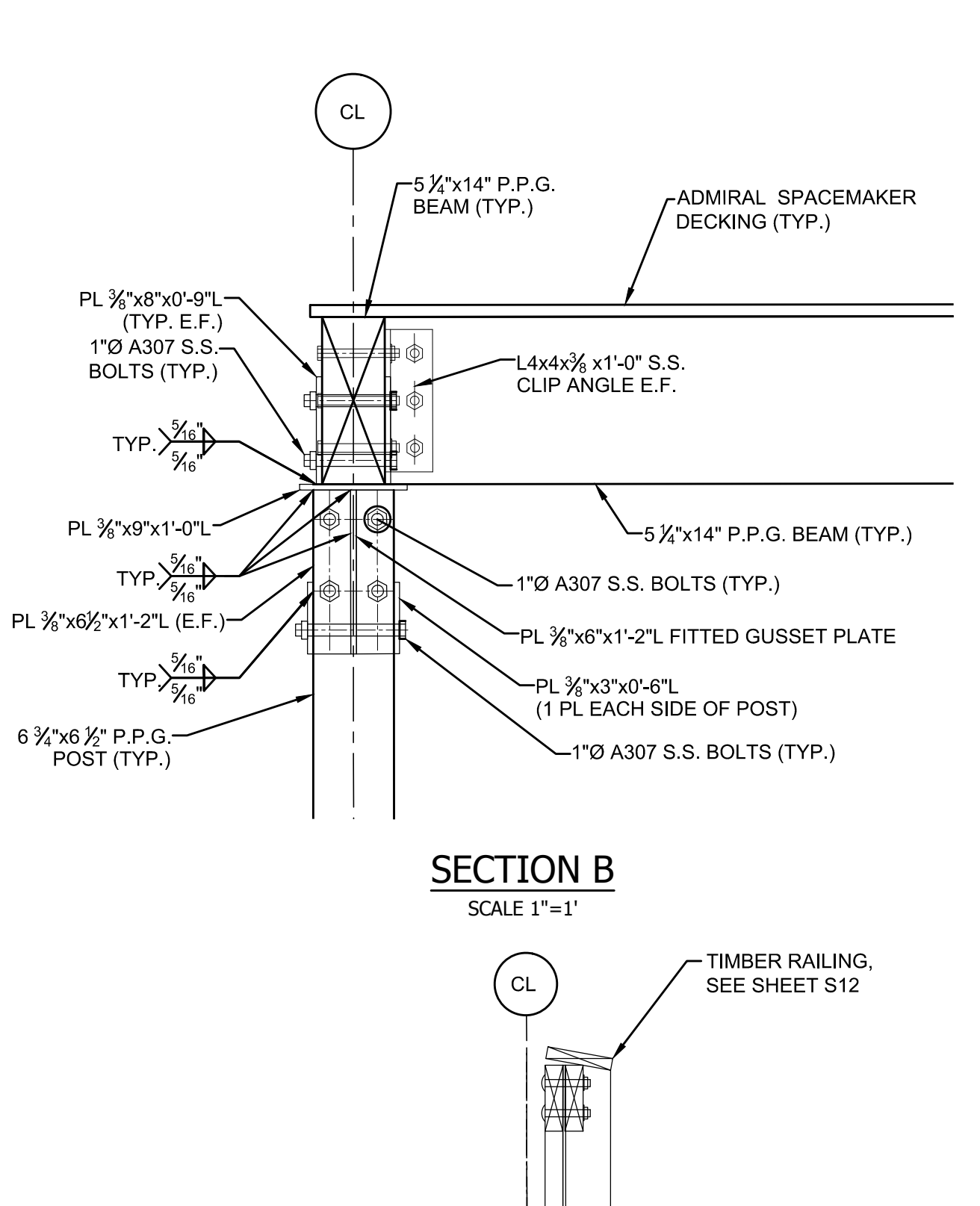
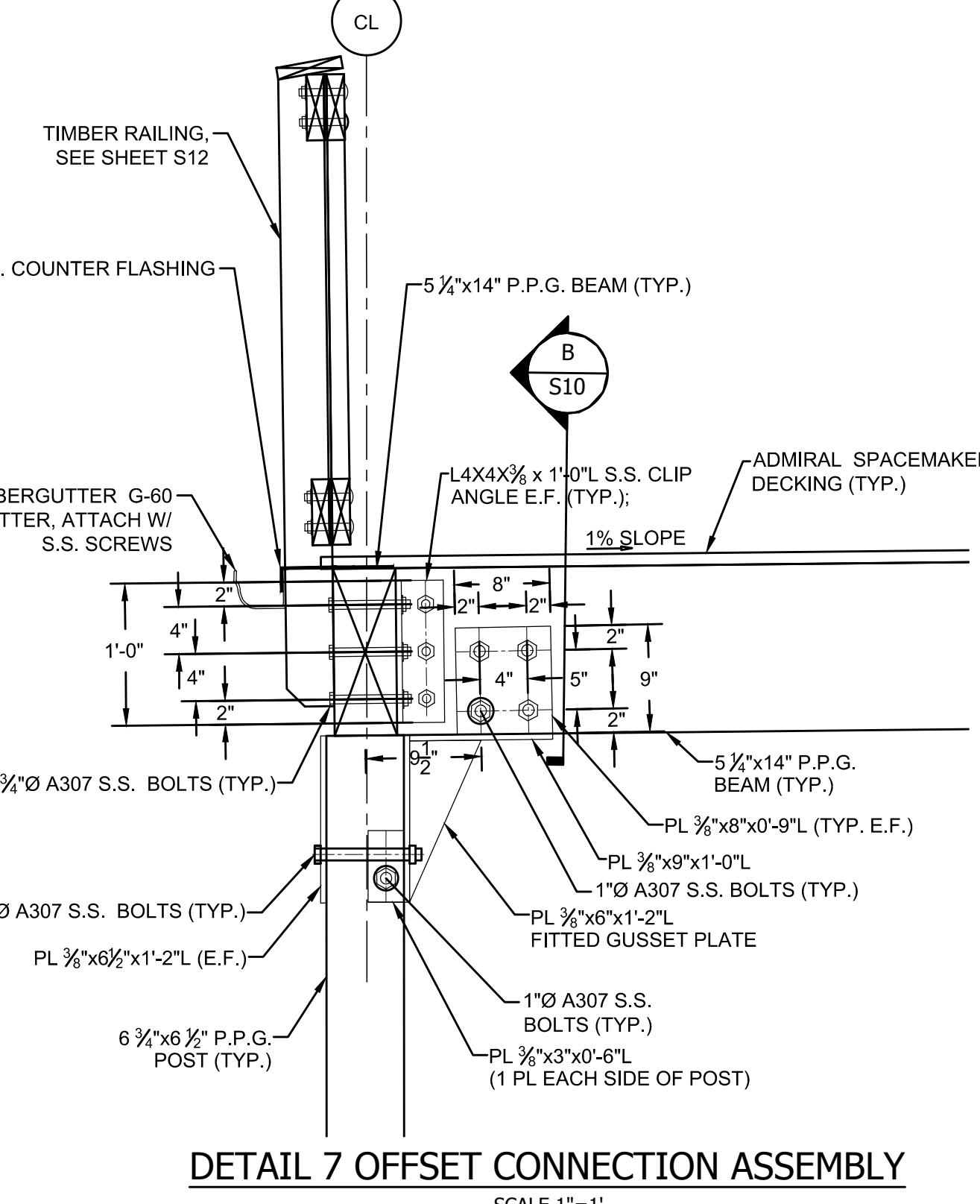
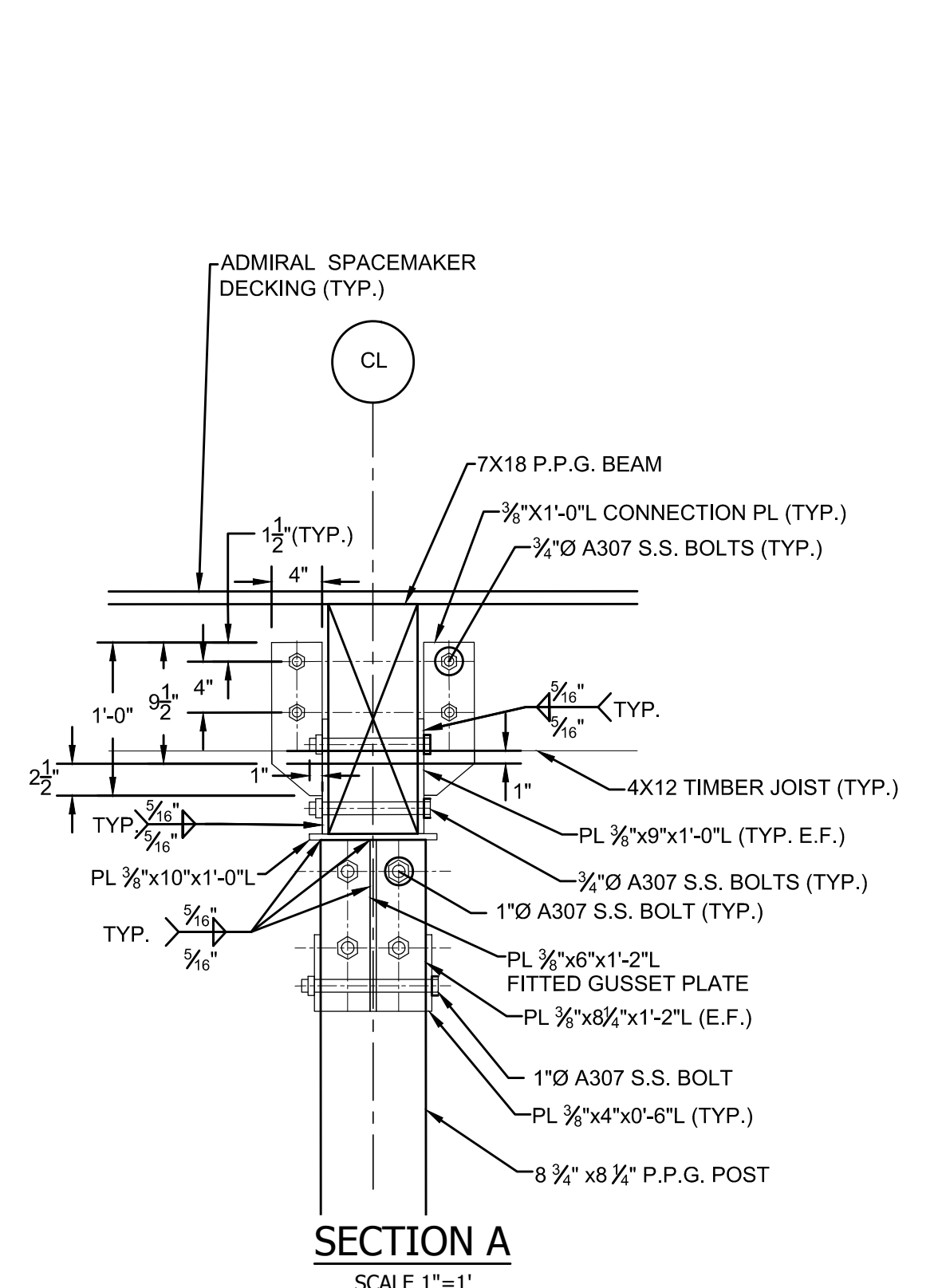
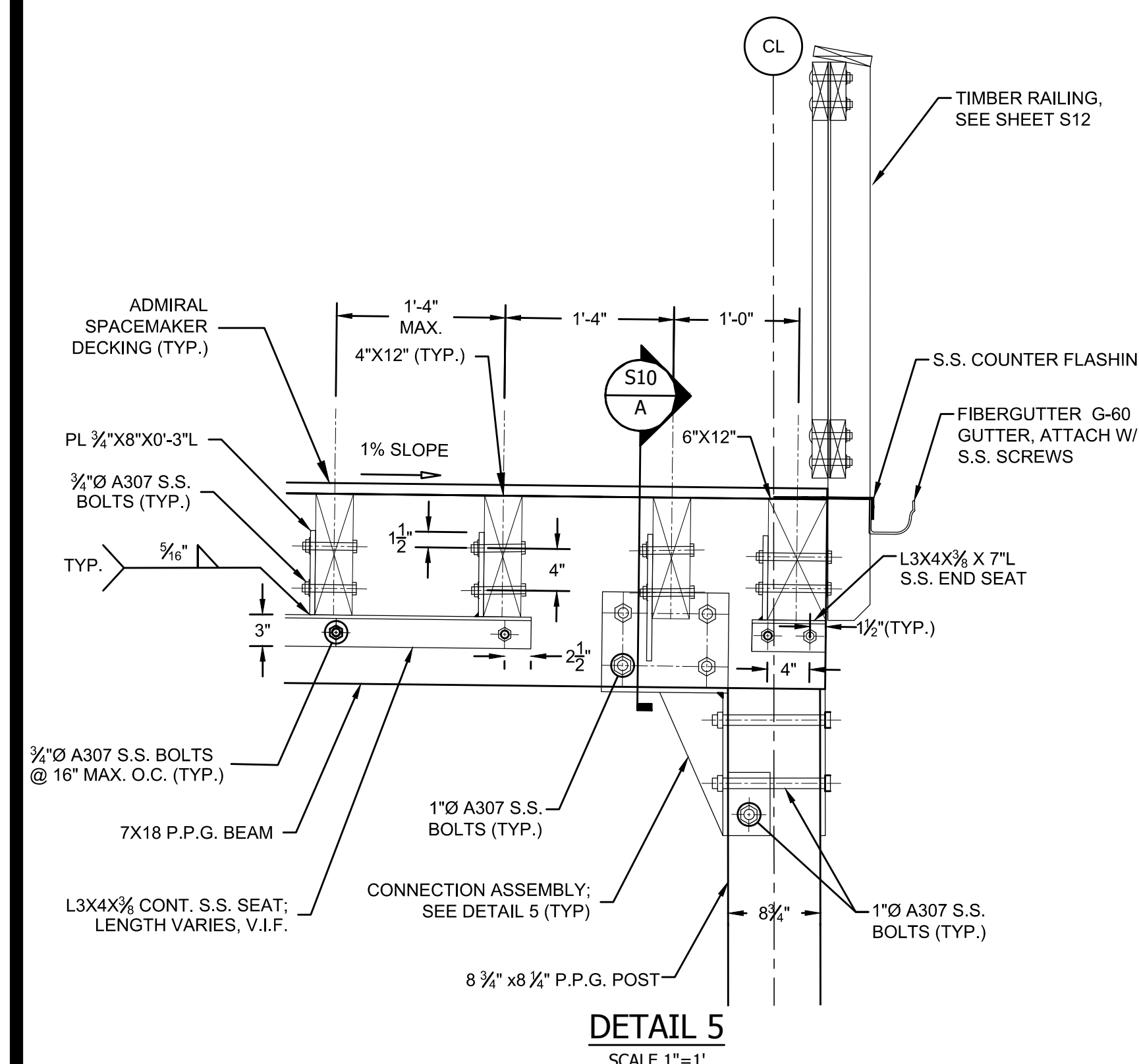
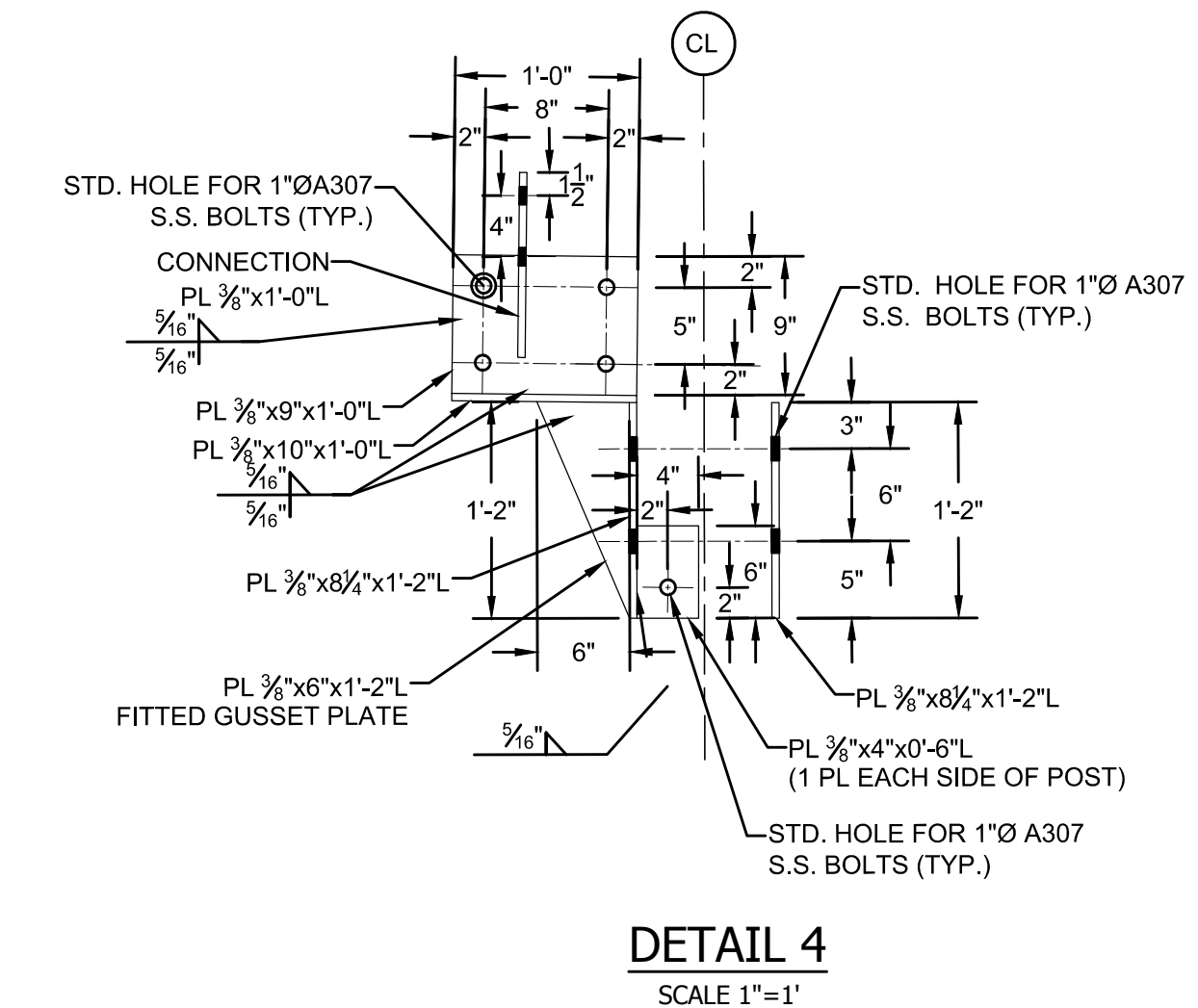
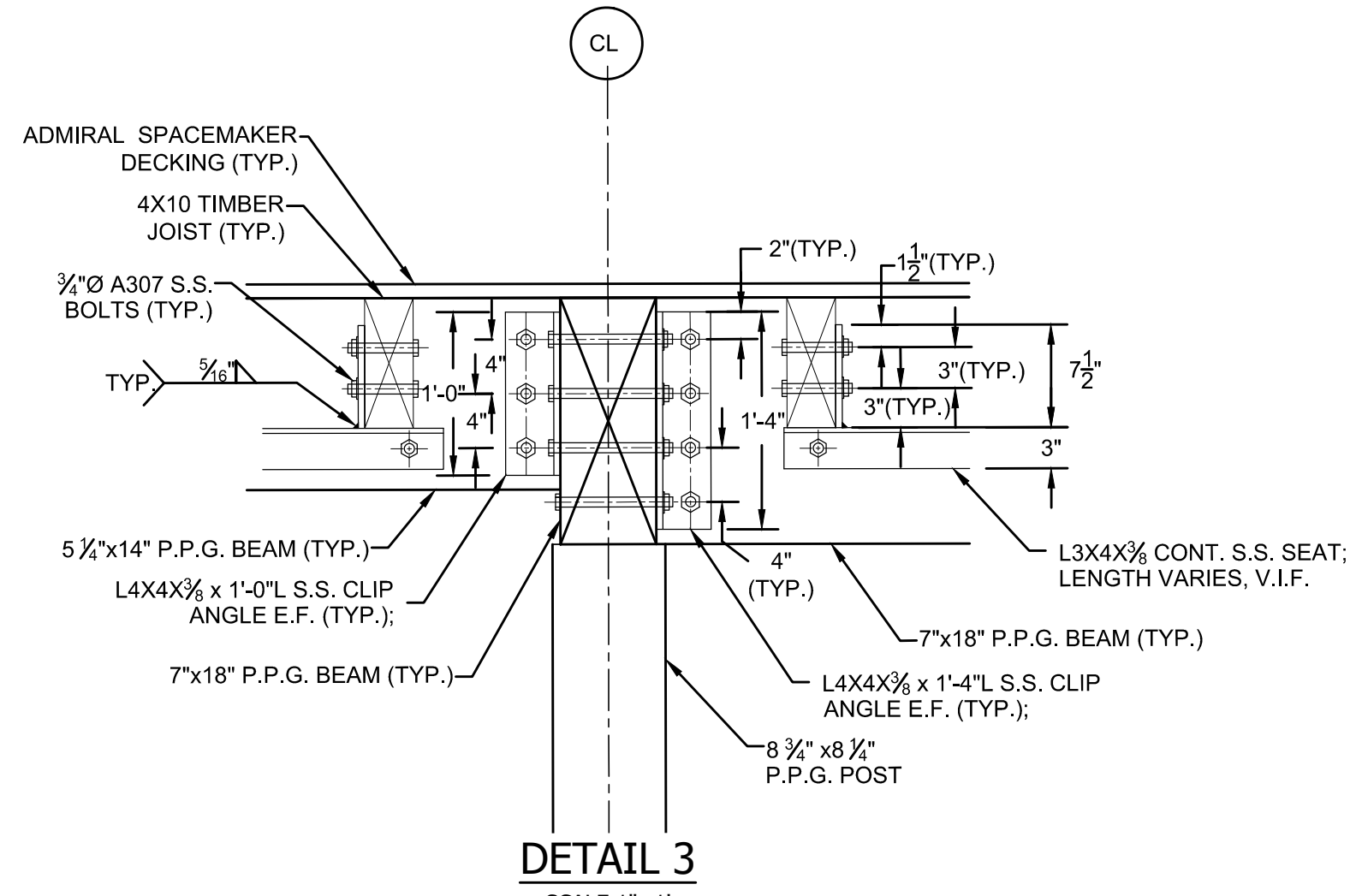
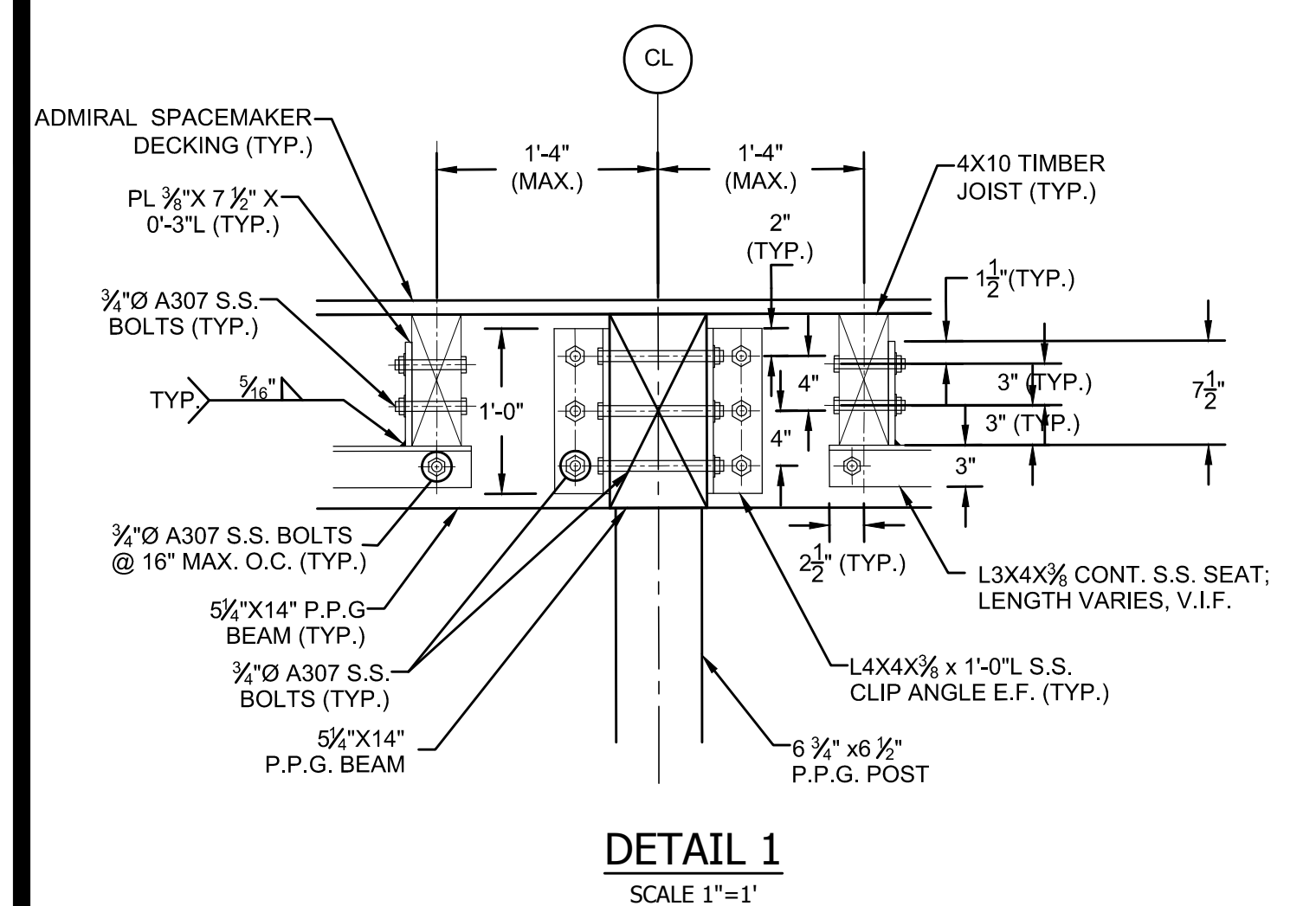


REVISIONS	

SHEET TITLE
PROPOSED SOUTH STAIR SECTIONS AND DETAILS

ISSUANCE
FOR CONSTRUCTION

SCALE AS NOTED	SHEET NUMBER S9
DRAWN BY CFF/JG	
CHECKED BY JG	
PROJECT NO 0016C282.100	
DATE 12/21/18	



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CHATHAM FISH PIER
TOWN OF CHATHAM
549 MAIN ST. CHATHAM, MA 02633
OBSERVATION DECK RECONSTRUCTION

SEAL AND SIGNATURE

REVISIONS

NO.	DESCRIPTION

SHEET TITLE
PROPOSED DETAILS - SHEET 1 OF 2

ISSUANCE
FOR CONSTRUCTION

SCALE
AS NOTED

DRAWN BY
CFF/JG

CHECKED BY
JG

PROJECT NO
0016C282.100

DATE
12/21/18

SHEET NUMBER
S10

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CHATHAM FISH PIER

TOWN OF CHATHAM
549 MAIN ST. CHATHAM, MA 02633
OBSERVATION DECK RECONSTRUCTION

SEAL AND SIGNATURE



REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

**PROPOSED
 DETAILS- SHEET 2
 OF 2**

ISSUANCE

FOR CONSTRUCTION

SCALE
 AS NOTED

DRAWN BY
 CFF/JG

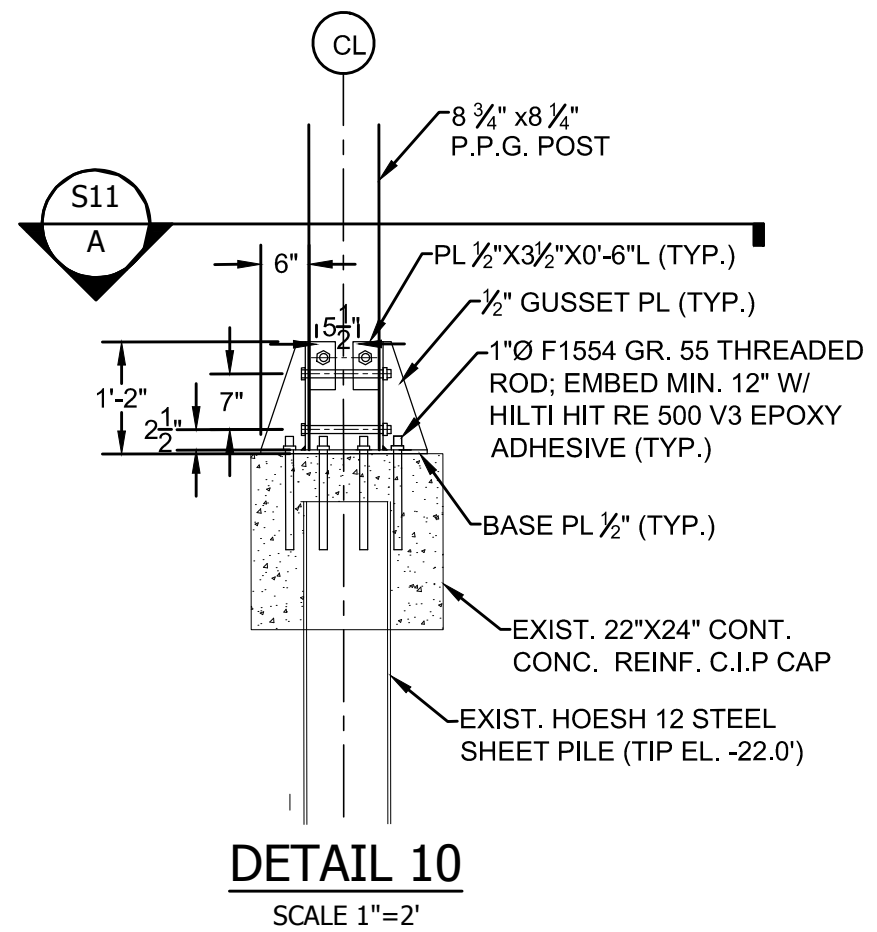
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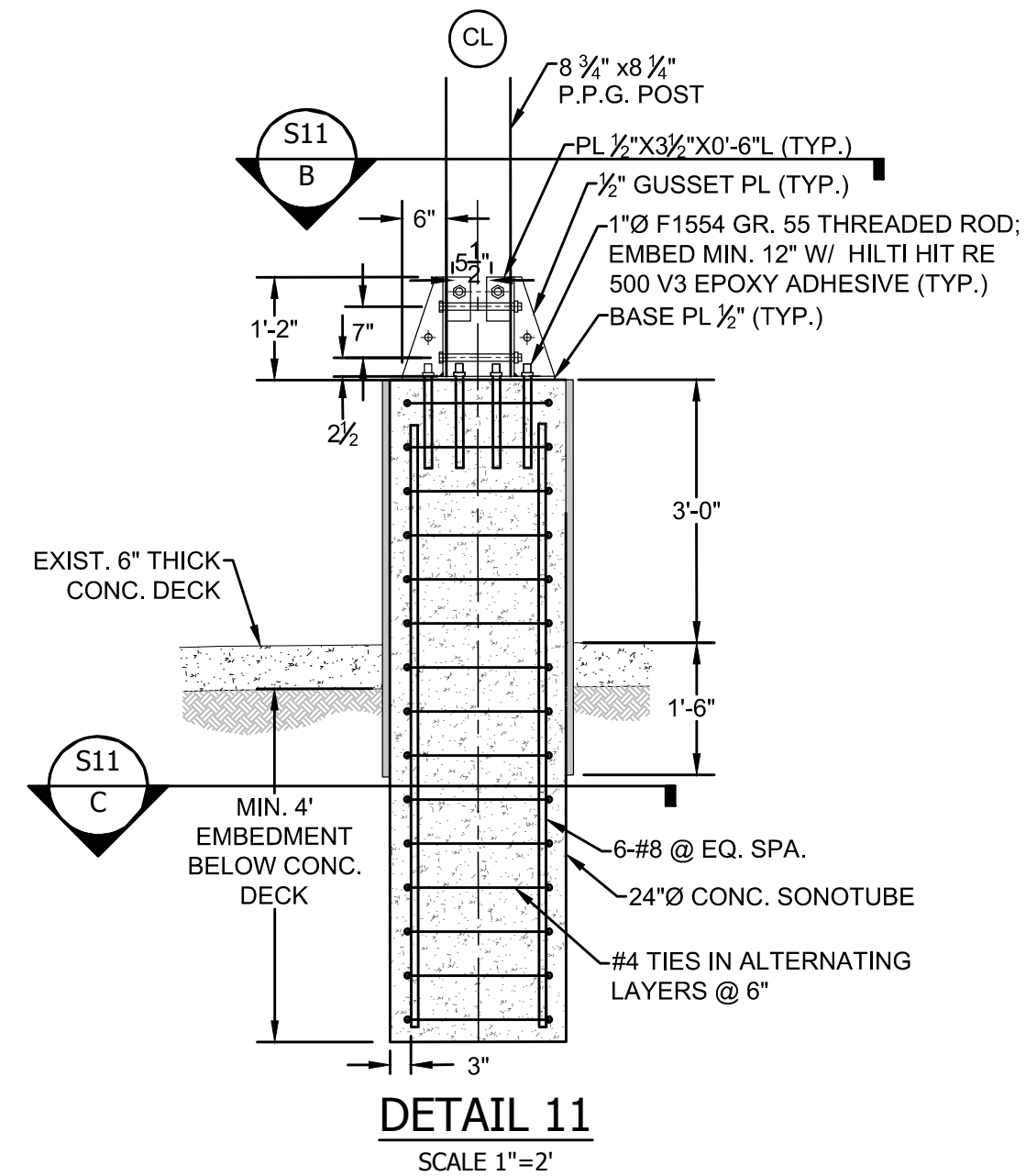
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S11

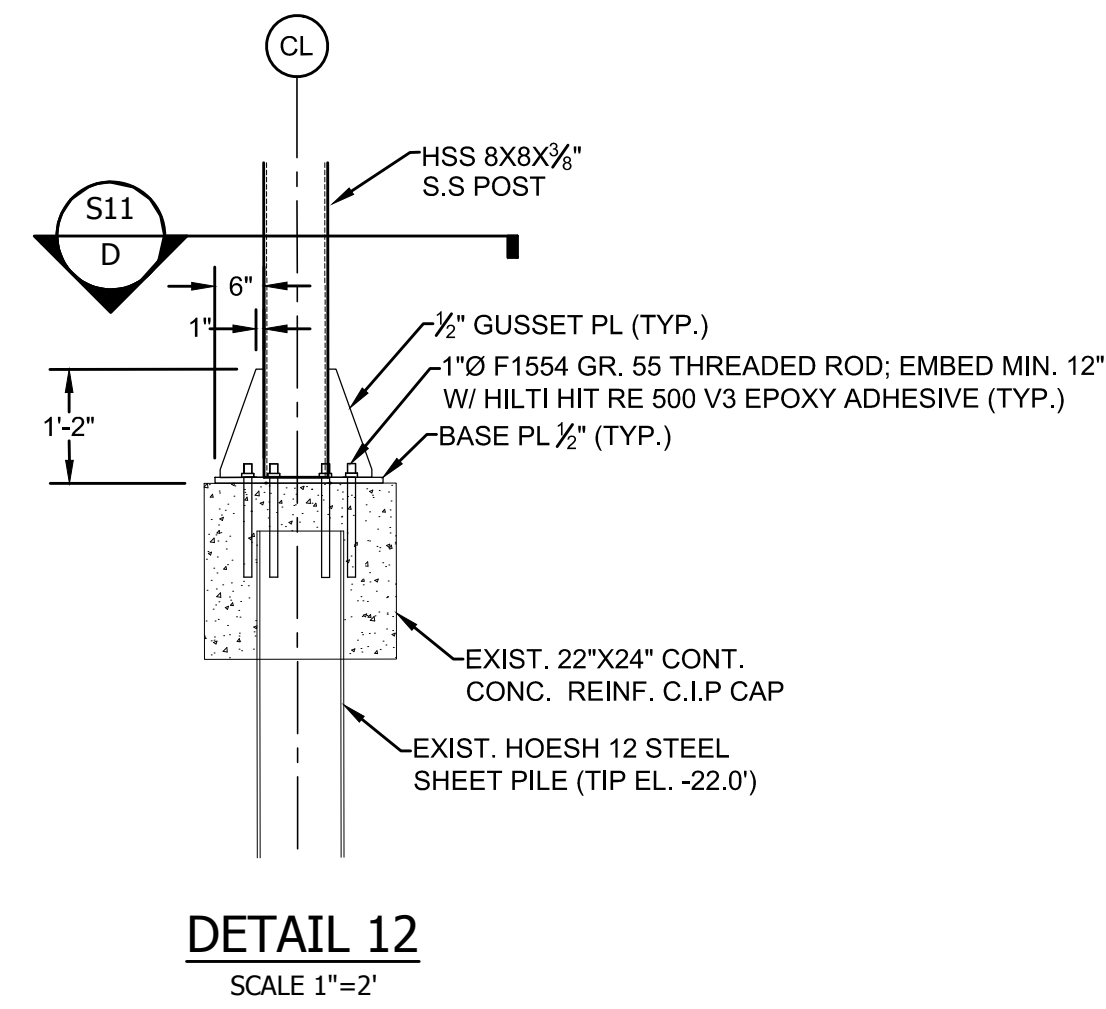
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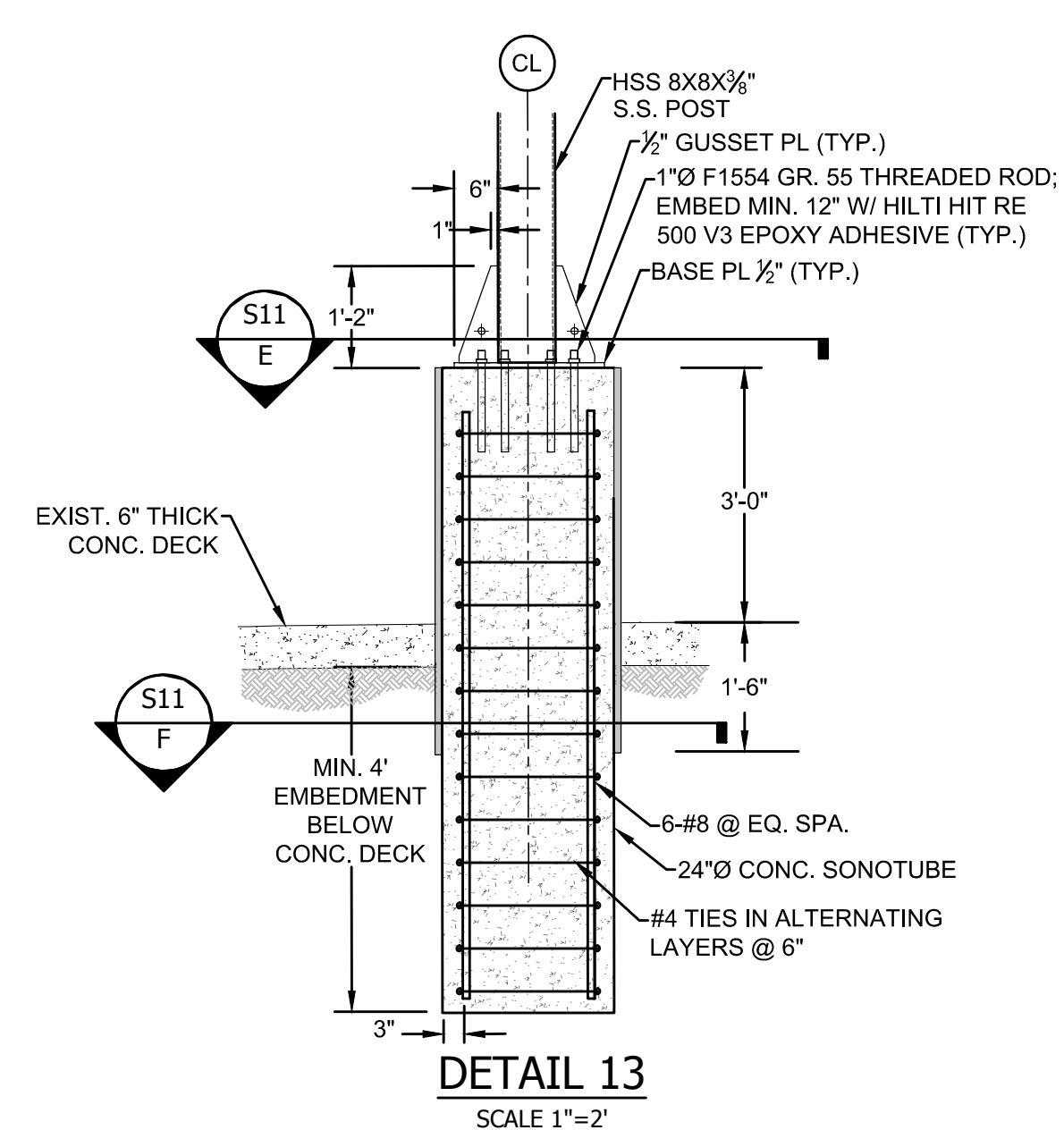
DETAIL 10
 SCALE 1"=2'



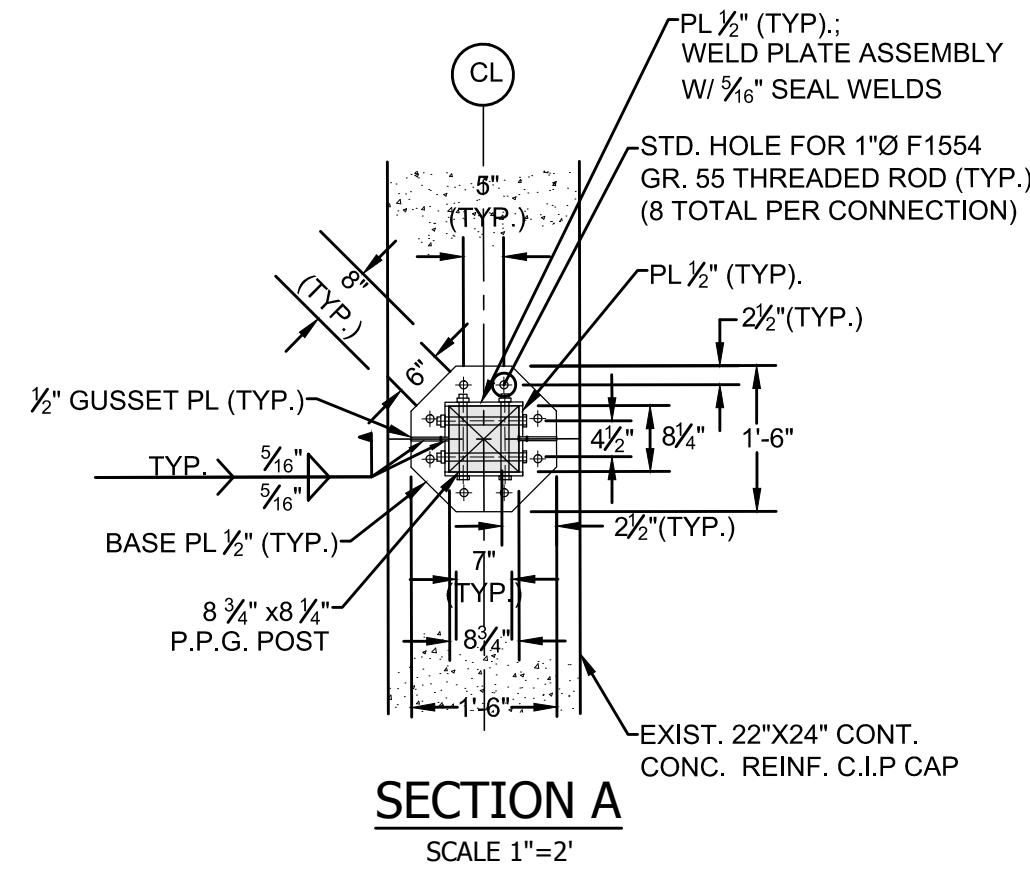
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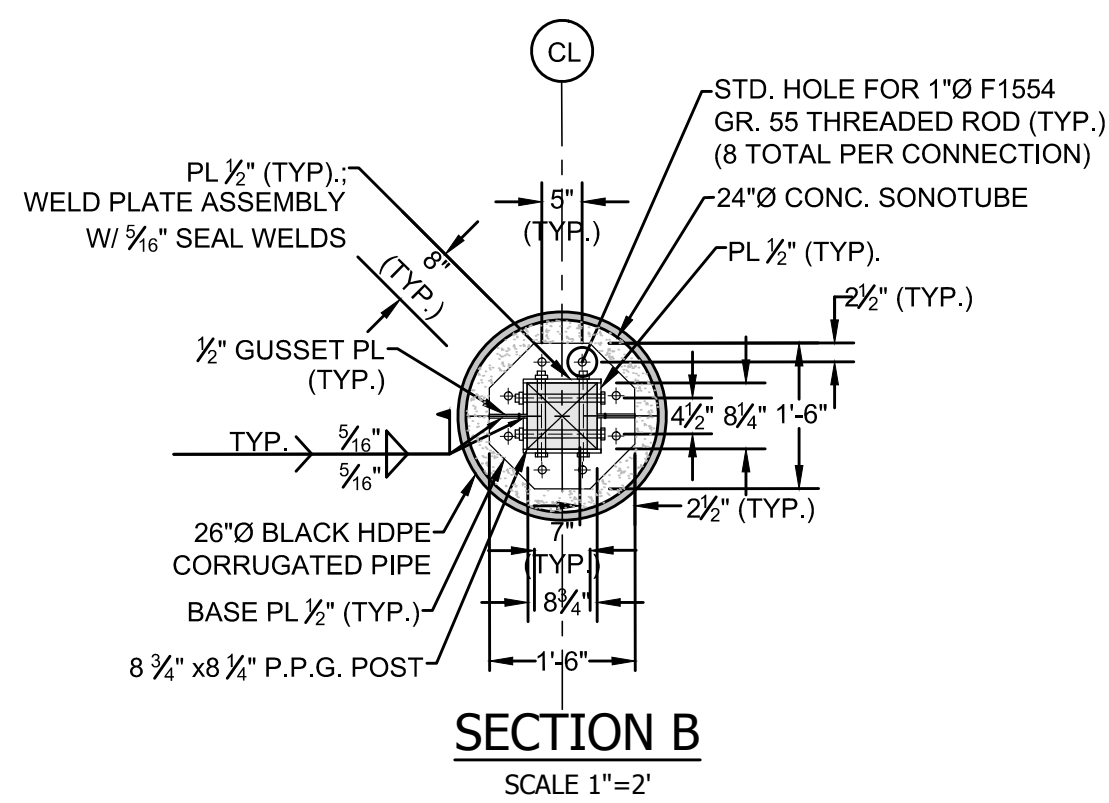
DETAIL 12
 SCALE 1"=2'



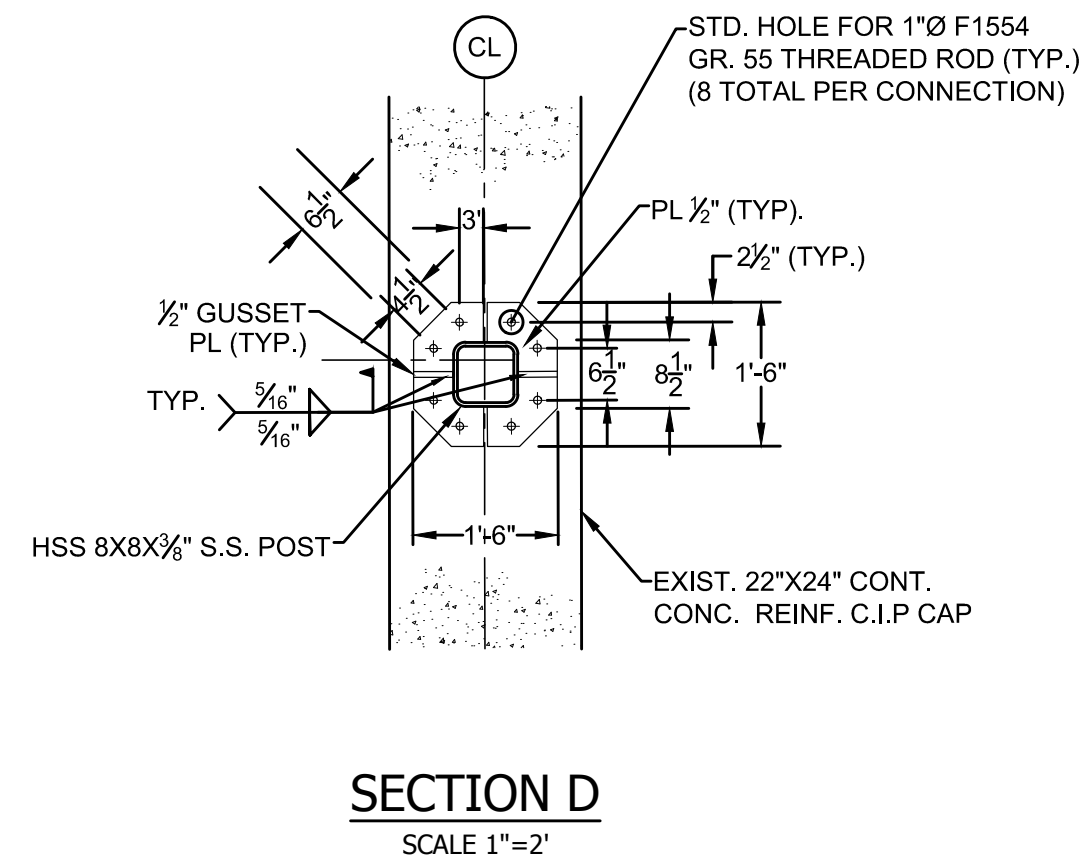
DETAIL 13
 SCALE 1"=2'



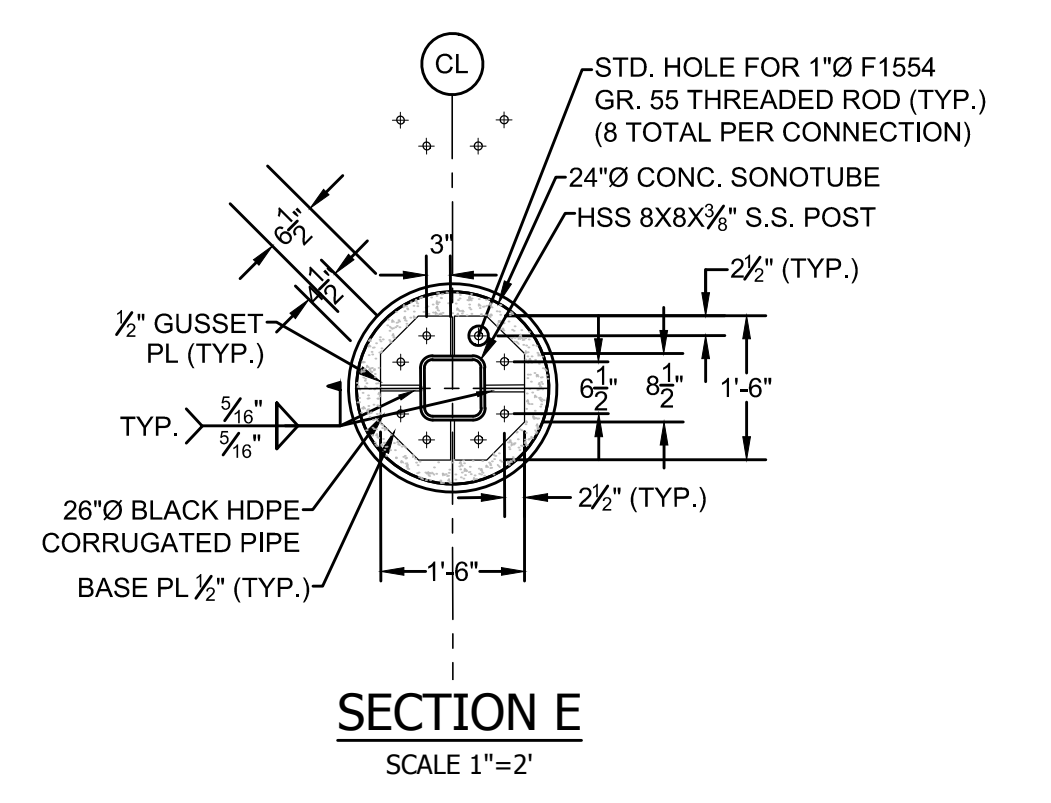
SECTION A
 SCALE 1"=2'



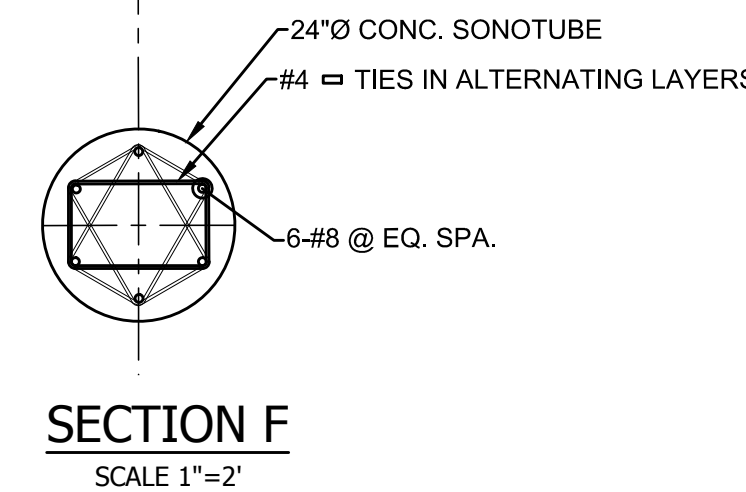
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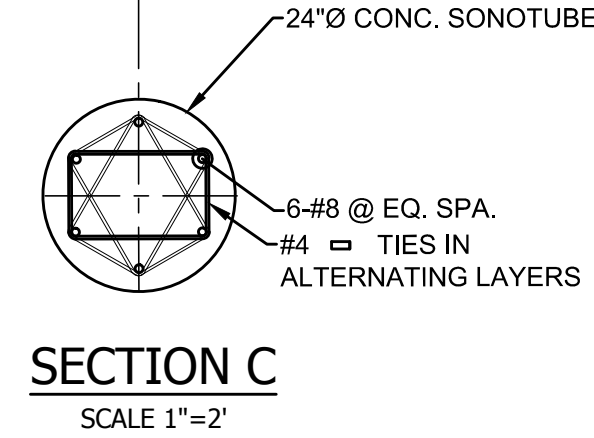
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 SCALE 1"=2'



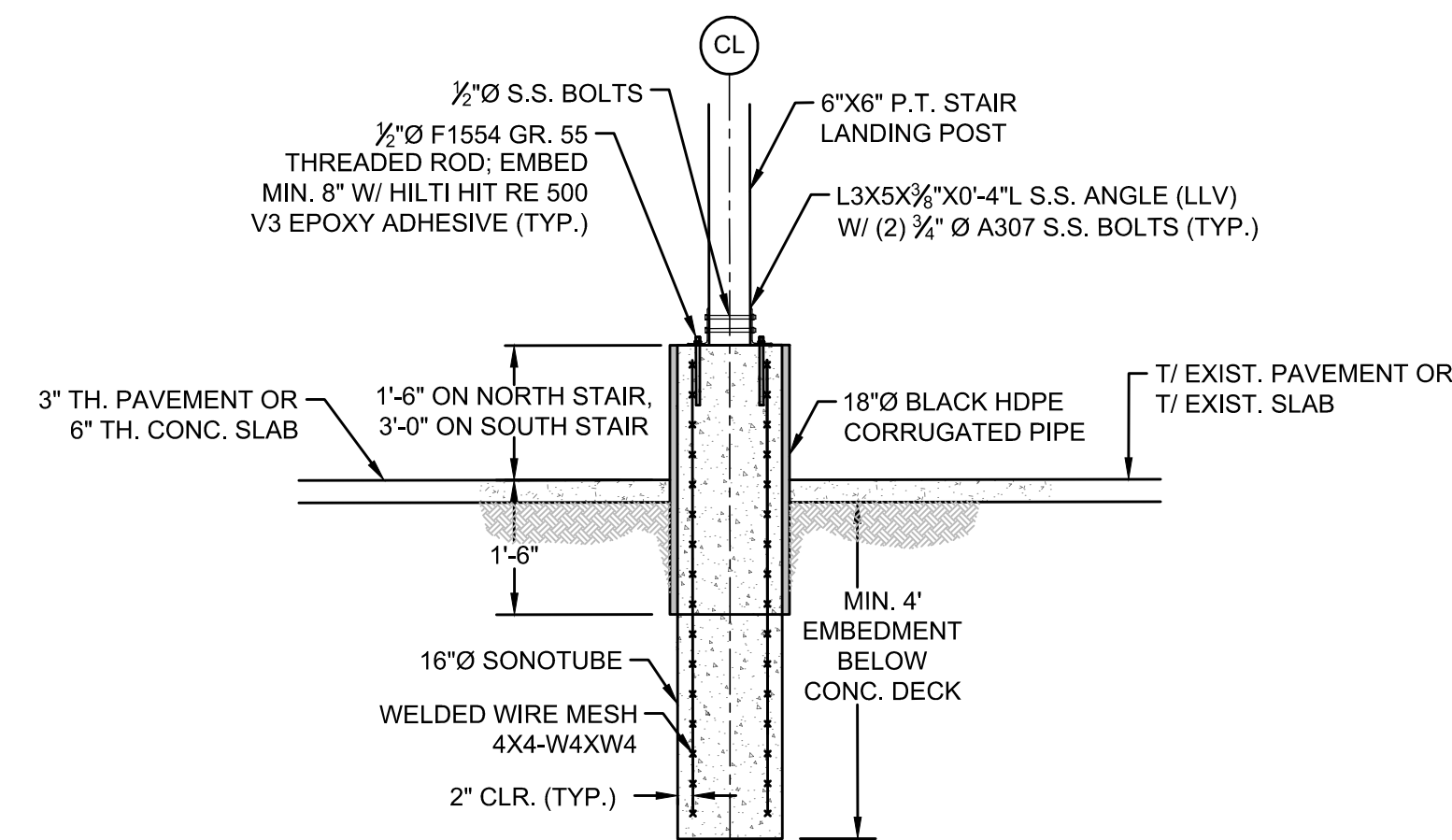
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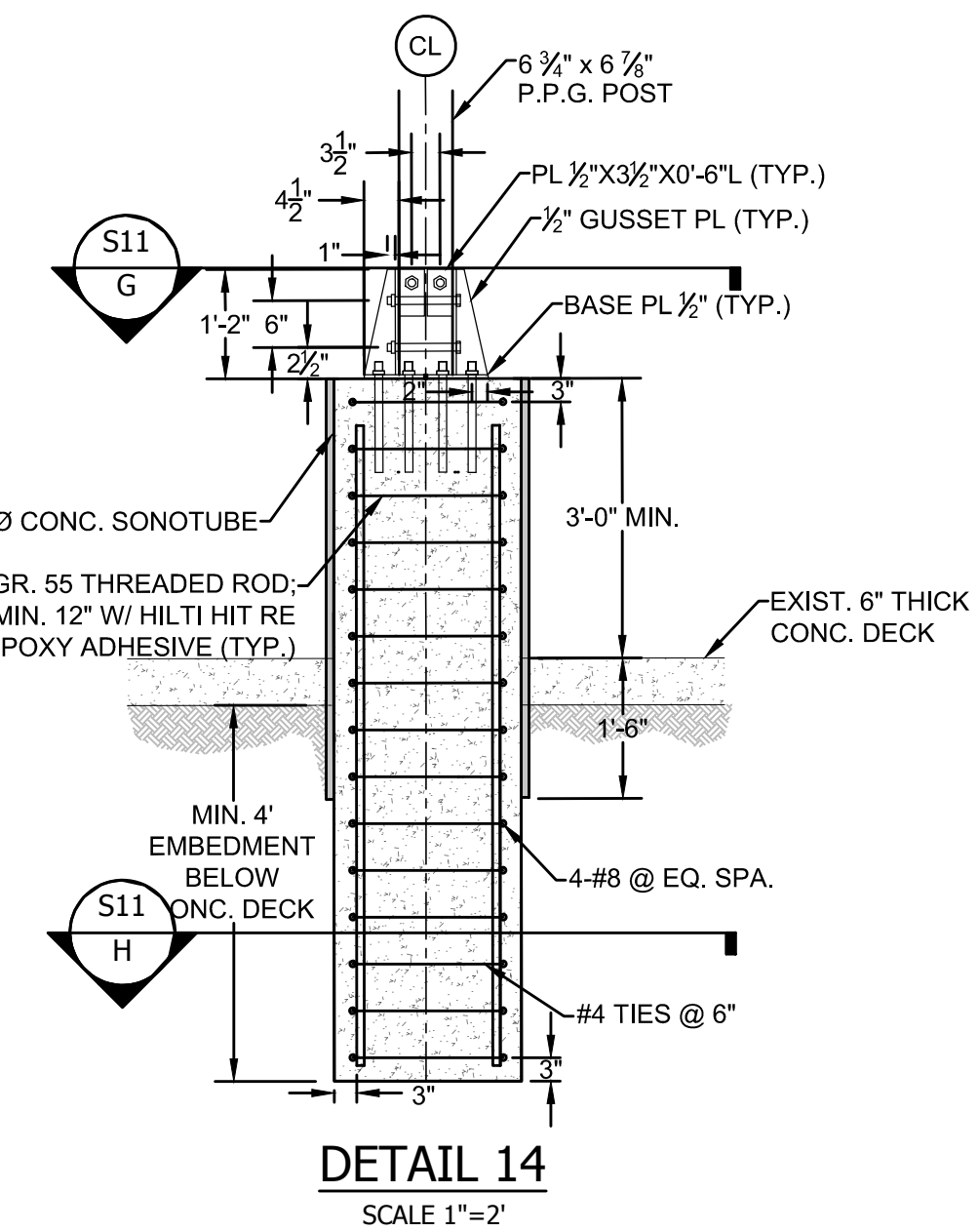
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 SCALE 1"=2'



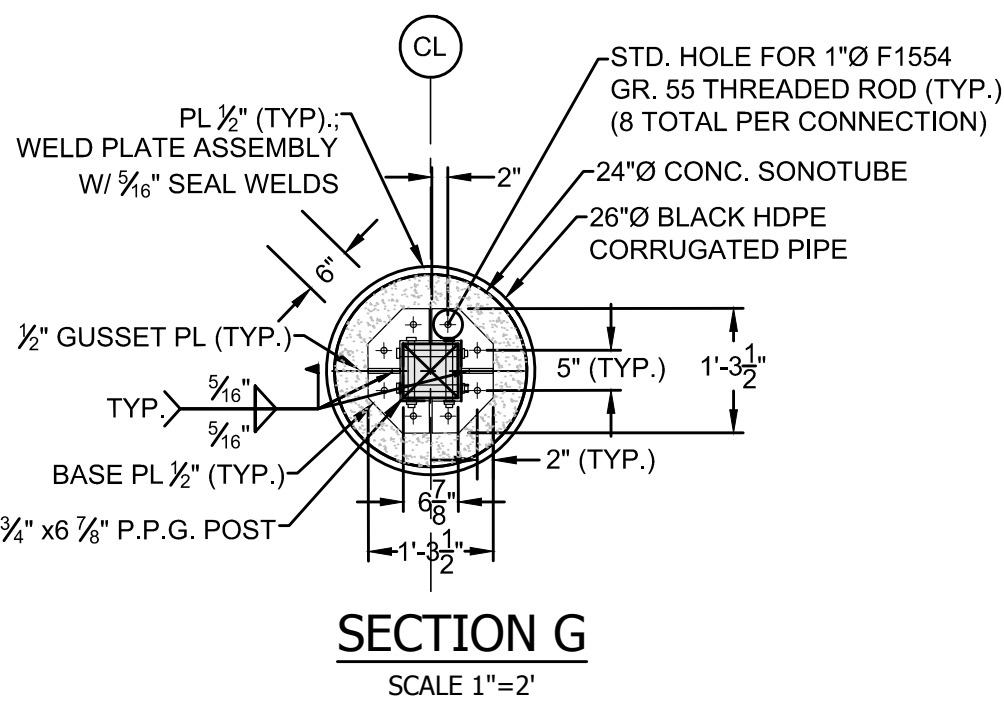
SECTION C
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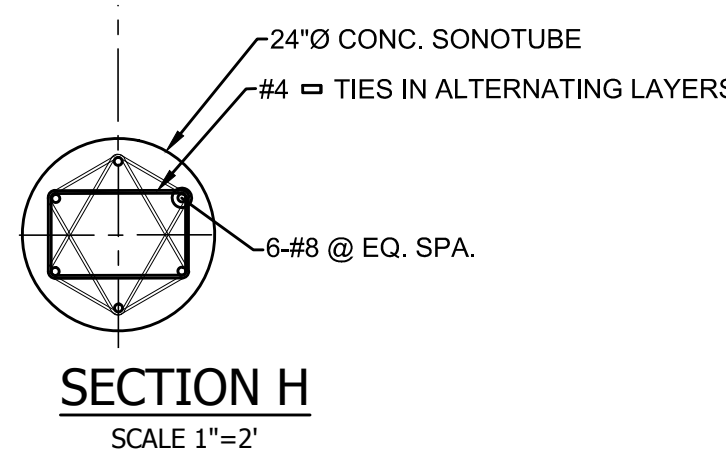
DETAIL 15 - STAIR LANDING POSTS
 SCALE 1"=2'



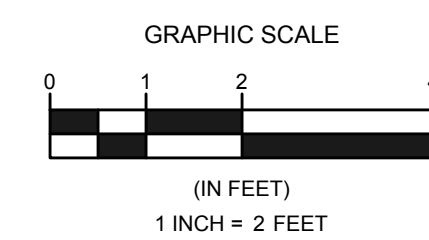
DETAIL 14
 SCALE 1"=2'

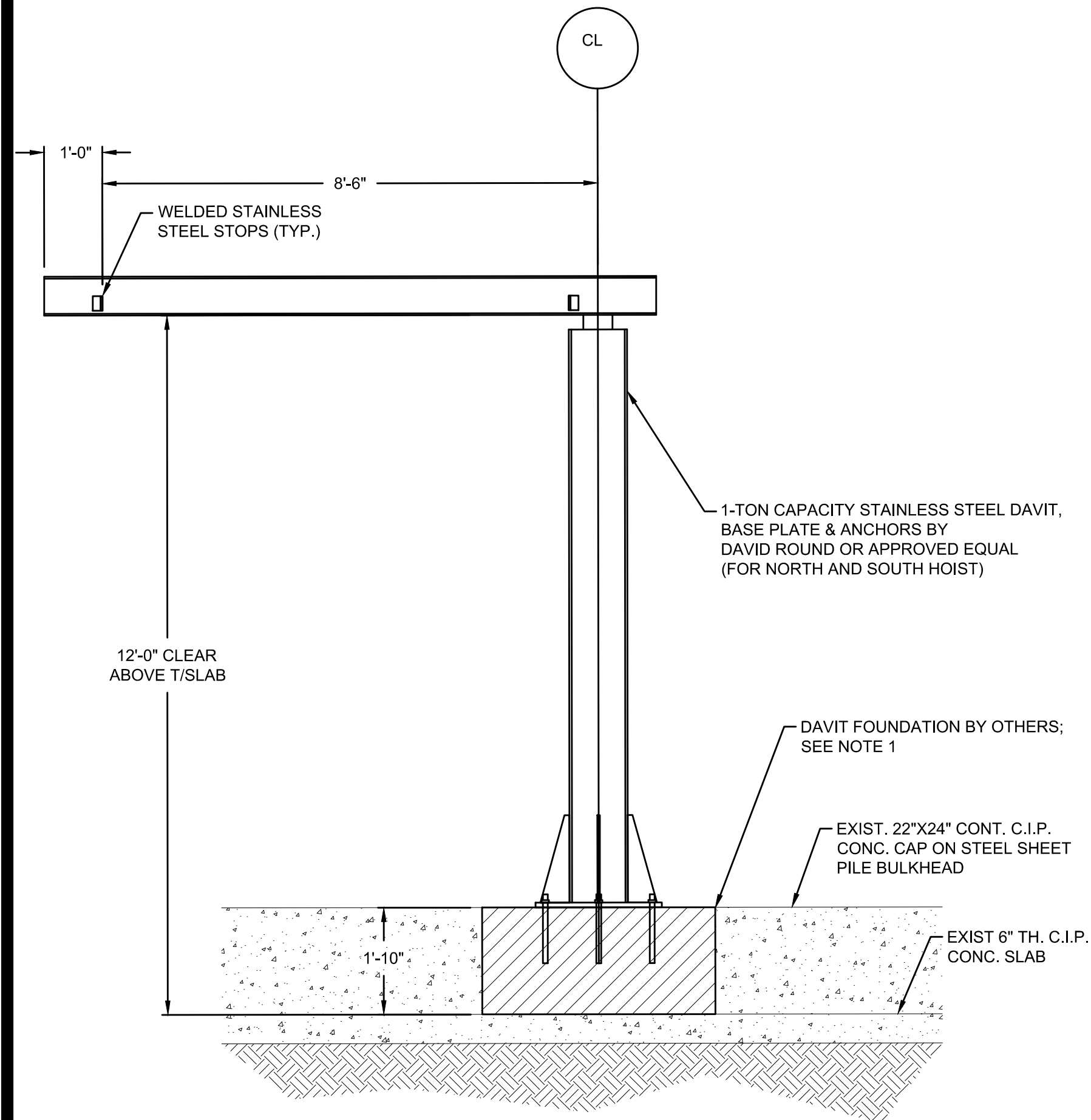


SECTION G
 SCALE 1"=2'



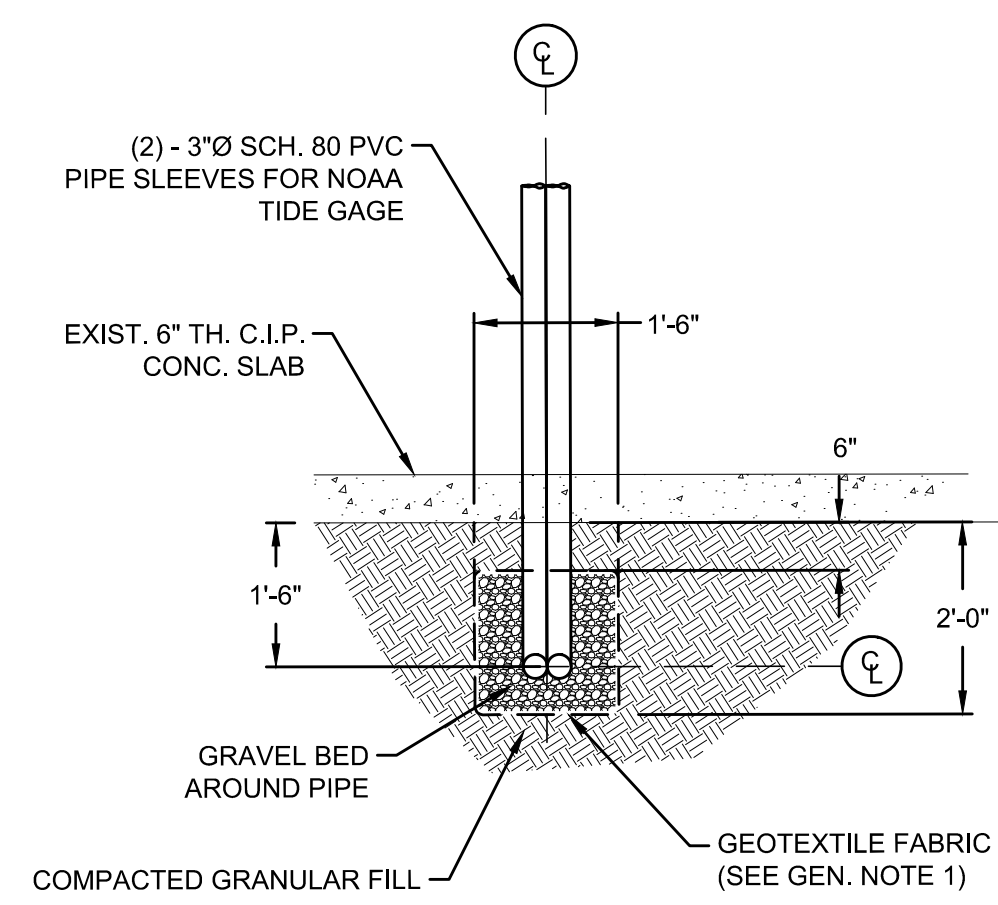
SECTION H
 SCALE 1"=2'





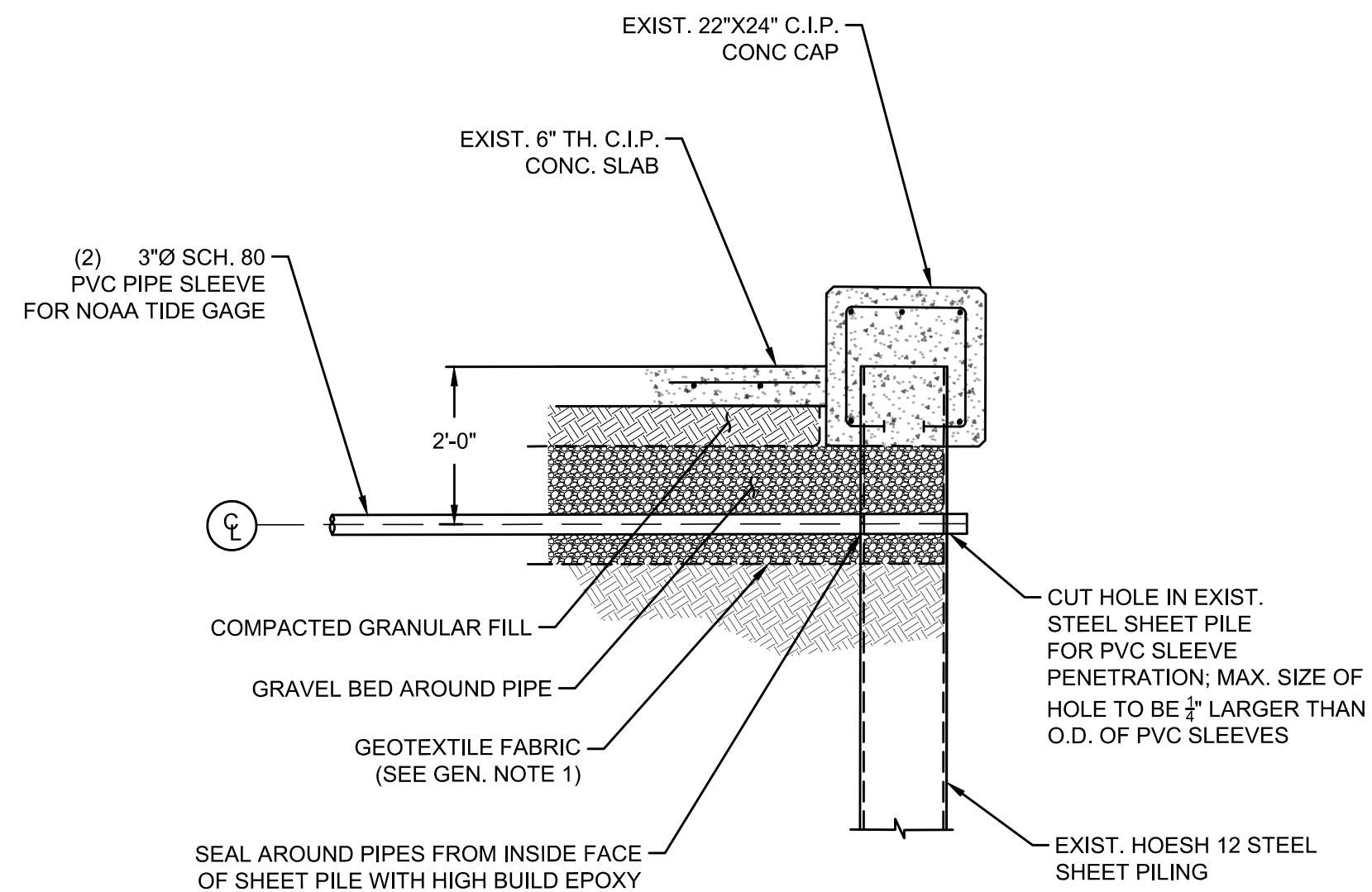
**NORTH AND SOUTH
DAVIT DETAIL**
SCALE 1"=2"

- DAVIT NOTES:**
- CONTRACTOR TO PROVIDE DAVIT FOUNDATION DESIGN CALCULATIONS AND DRAWINGS, STAMPED BY A PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF MASSACHUSETTS TO ENGINEER FOR REVIEW AND APPROVAL.
 - EXISTING SOUTH SIDE CHAIN HOIST SHALL BE RE-INSTALLED ON NEW SOUTH DAVIT. ON NORTH SIDE, CONTRACTOR TO PROVIDE NEW CHAIN HOIST TO MATCH SOUTH SIDE CHAIN HOIST AND INSTALL ON NEW NORTH SIDE DAVIT.
 - CONTRACTOR TO FIELD VERIFY FINAL LOCATIONS OF NORTH AND SOUTH DAVITS WITH TOWN OF CHATHAM.

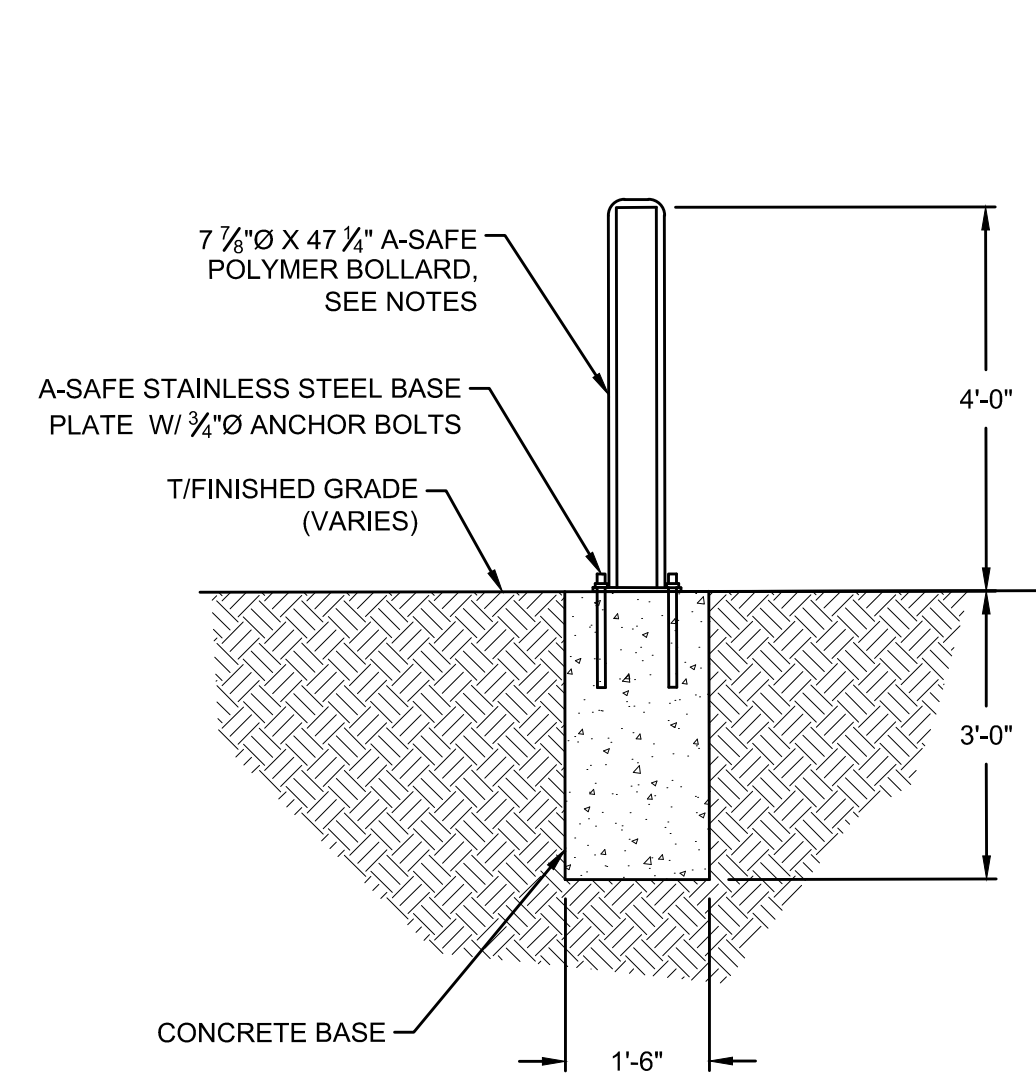


NOAA TIDE GAGE DETAIL 1
SCALE 1"=2"

- GENERAL NOTES:**
- GEOTEXTILE FABRIC TO BE MIRAFI FILTER FABRICWEAVE FW-700 GEOTEXTILE FABRIC OR EQUIVALENT ACCEPTED BY THE ENGINEER. INSTALL GEOTEXTILE FABRIC IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS. MAINTAIN A MINIMUM 12-INCH CAP AT ADJACENT SECTIONS.

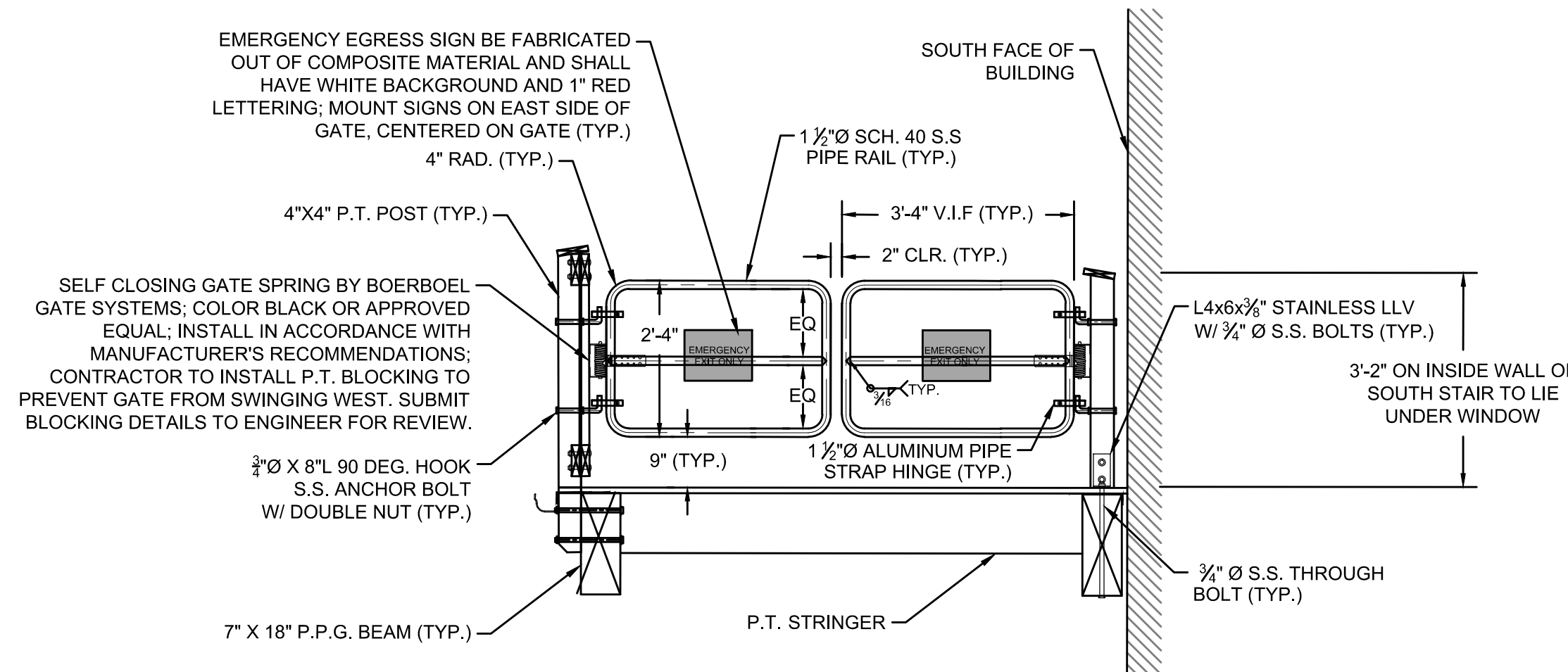


NOAA TIDE GAGE DETAIL 2
SCALE 1"=2"

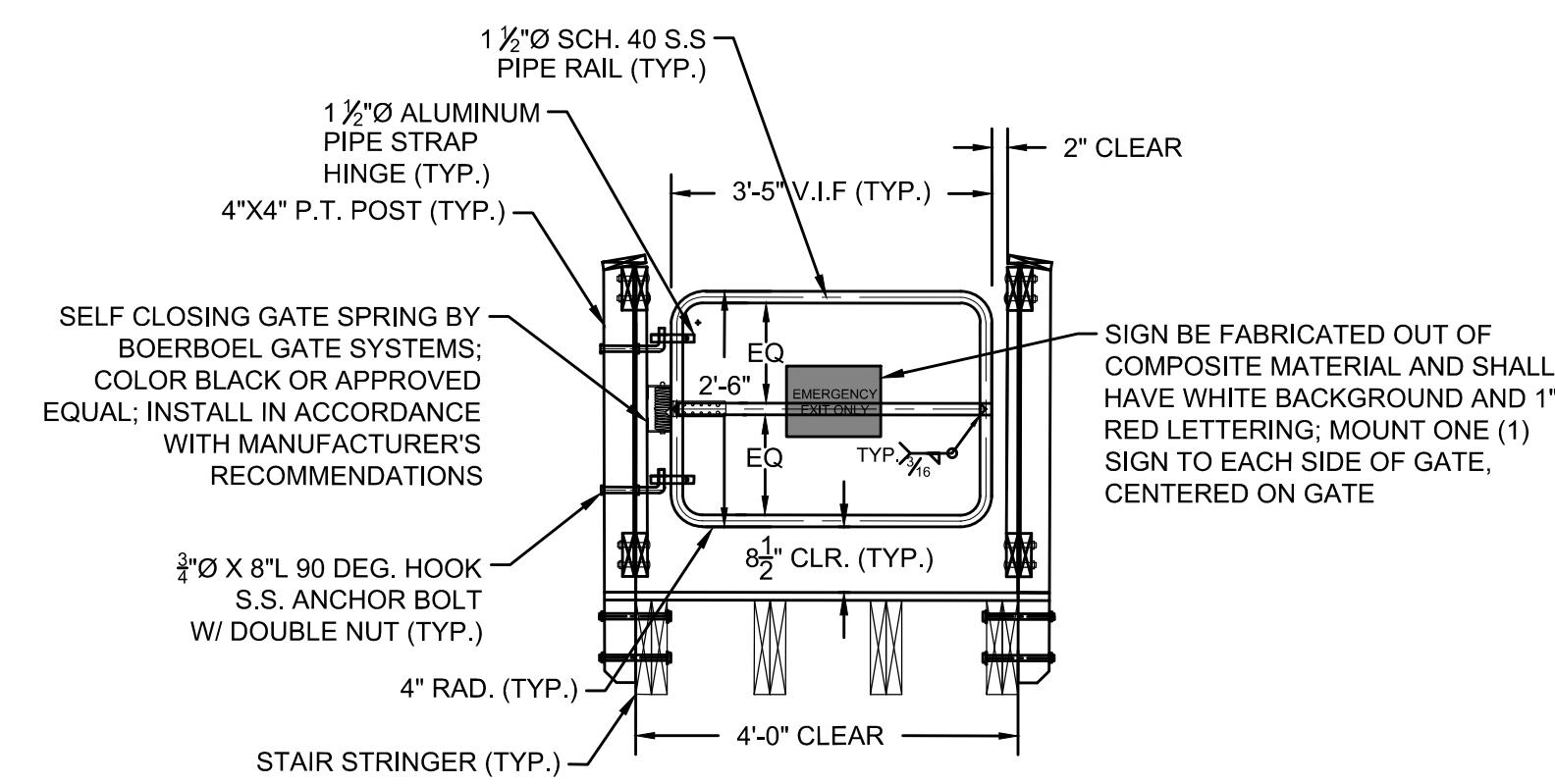


POLYMER BOLLARD
SCALE 1"=2"

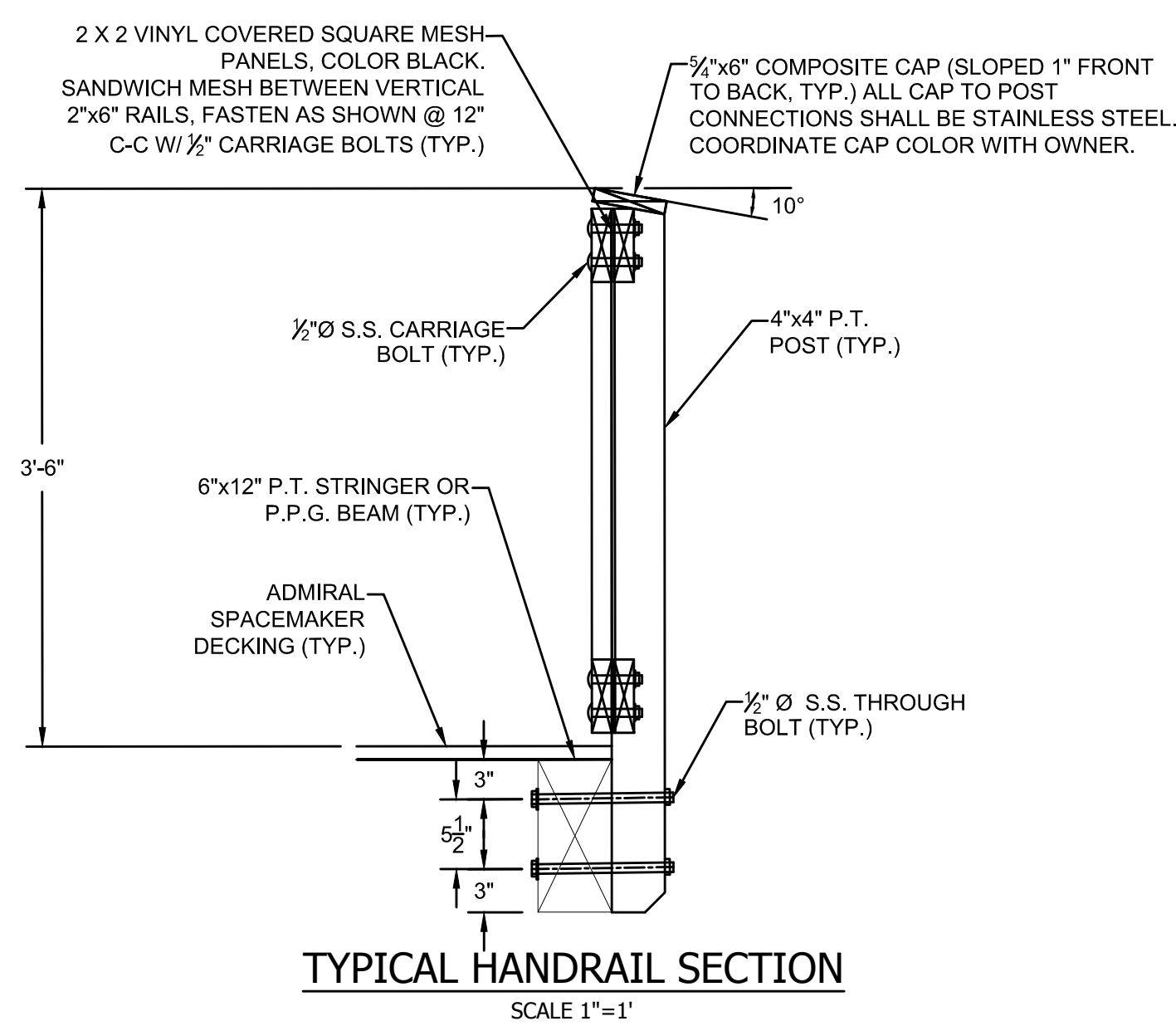
- POLYMER PROTECTION BOLLARD NOTES:**
- BOLLARDS SHALL BE 47 1/2" HEIGHT, POLYMER BOLLARD, BY A-SAFE INC, 6635 BUSINESS PARKWAY, SUITE 100, ELKRIDGE, MARYLAND, 443-776-3472.
 - INSTALL PROTECTION BOLLARD IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



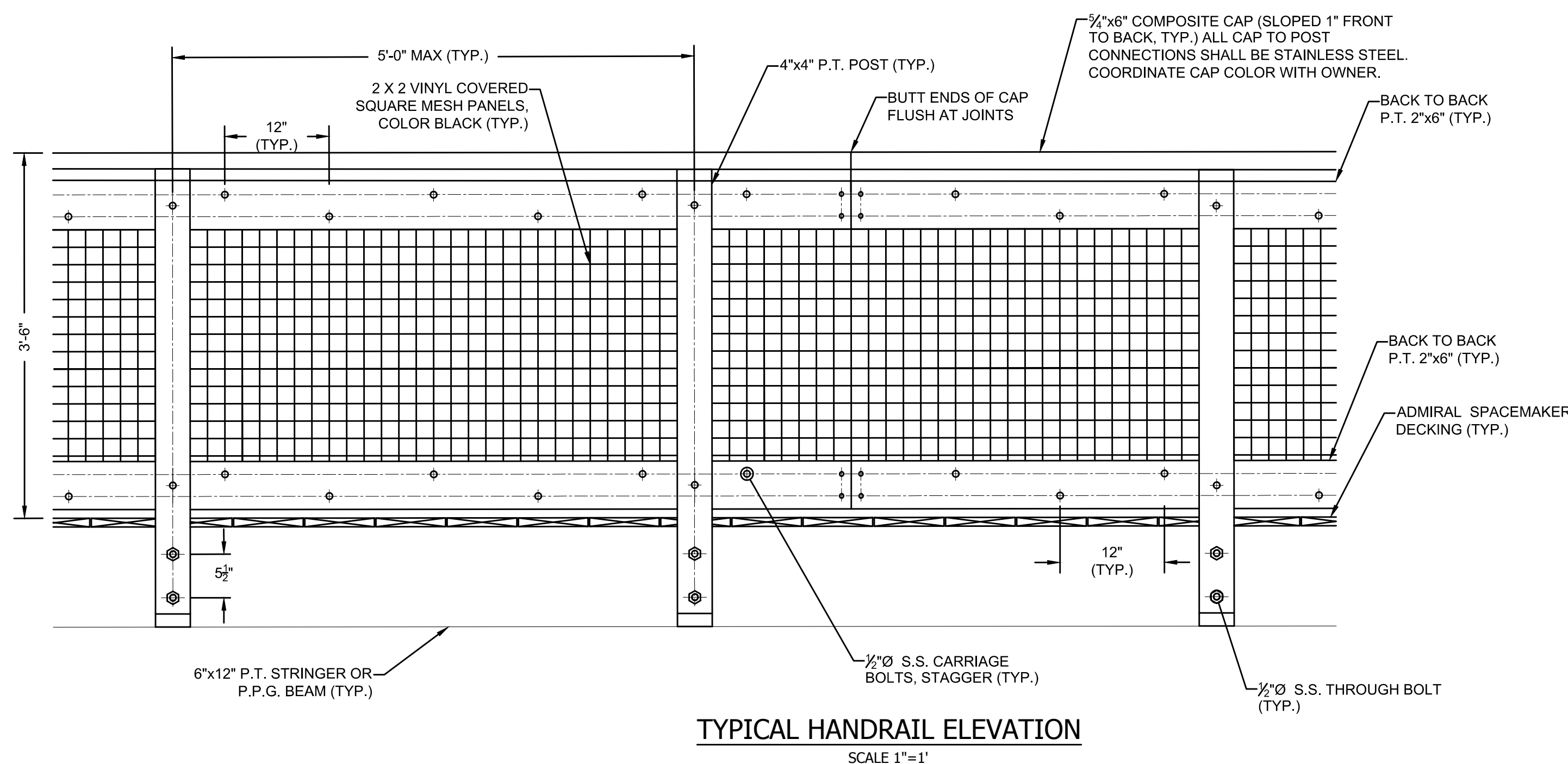
SOUTH DECK EMERGENCY GATE DETAIL
SCALE 1"=2"



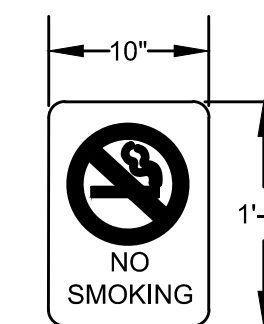
SOUTH STAIR EMERGENCY GATE DETAIL
SCALE 1"=2"



TYPICAL HANDRAIL SECTION
SCALE 1"=1'



TYPICAL HANDRAIL ELEVATION
SCALE 1"=1'

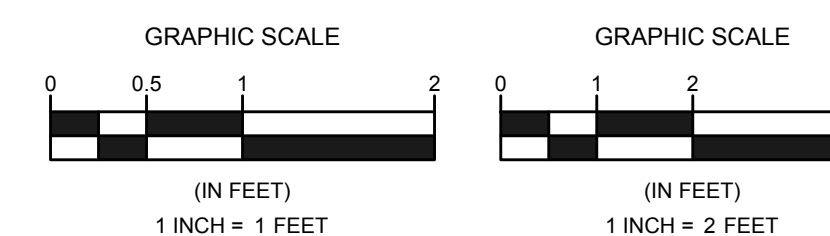


NO SMOKING SIGN

SCALE N.T.S.

NO SMOKING SIGN NOTES:

- PROVIDE SIX (6) ALUMINUM, NO SMOKING SIGNS. COORDINATE INSTALLATION LOCATIONS WITH OWNER. SIGNS SHALL BE FASTENED WITH STAINLESS STEEL HARDWARE.



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CHATHAM FISH PIER

**TOWN OF CHATHAM
549 MAIN ST. CHATHAM, MA 02633
OBSERVATION DECK RECONSTRUCTION**

SEAL AND SIGNATURE



REVISIONS

NO.	DESCRIPTION

SHEET TITLE

**PROPOSED
MISCELLANEOUS
DETAILS**

ISSUANCE

FOR CONSTRUCTION

SCALE

AS NOTED

DRAWN BY

CFF/JG

CHECKED BY

JG

PROJECT NO

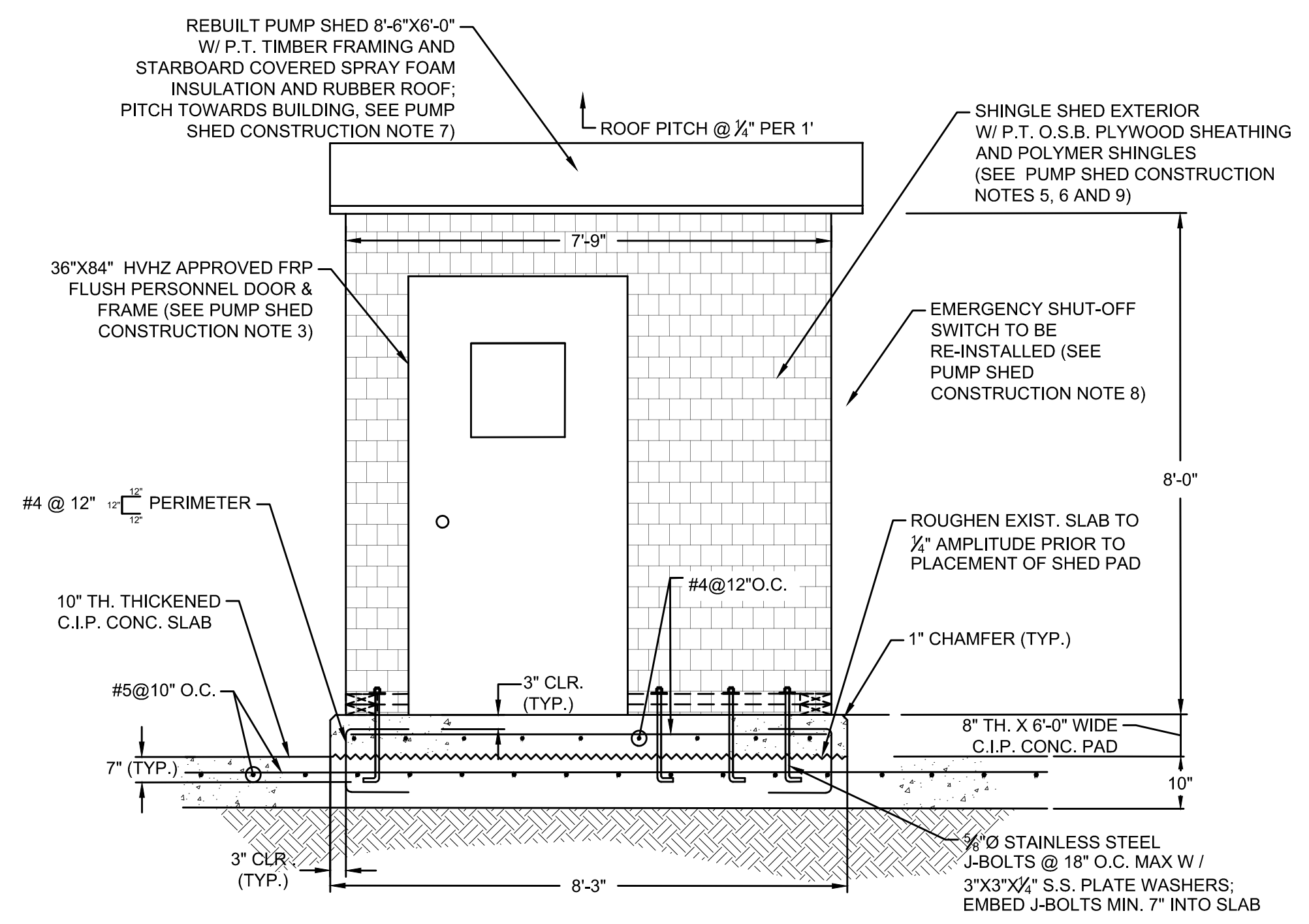
0016C282.100

DATE

12/21/18

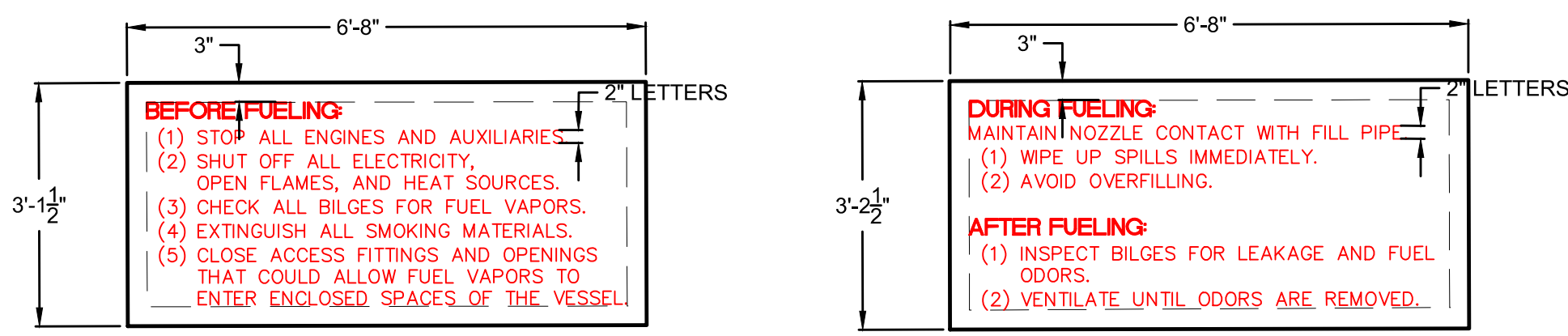
SHEET NUMBER

S12



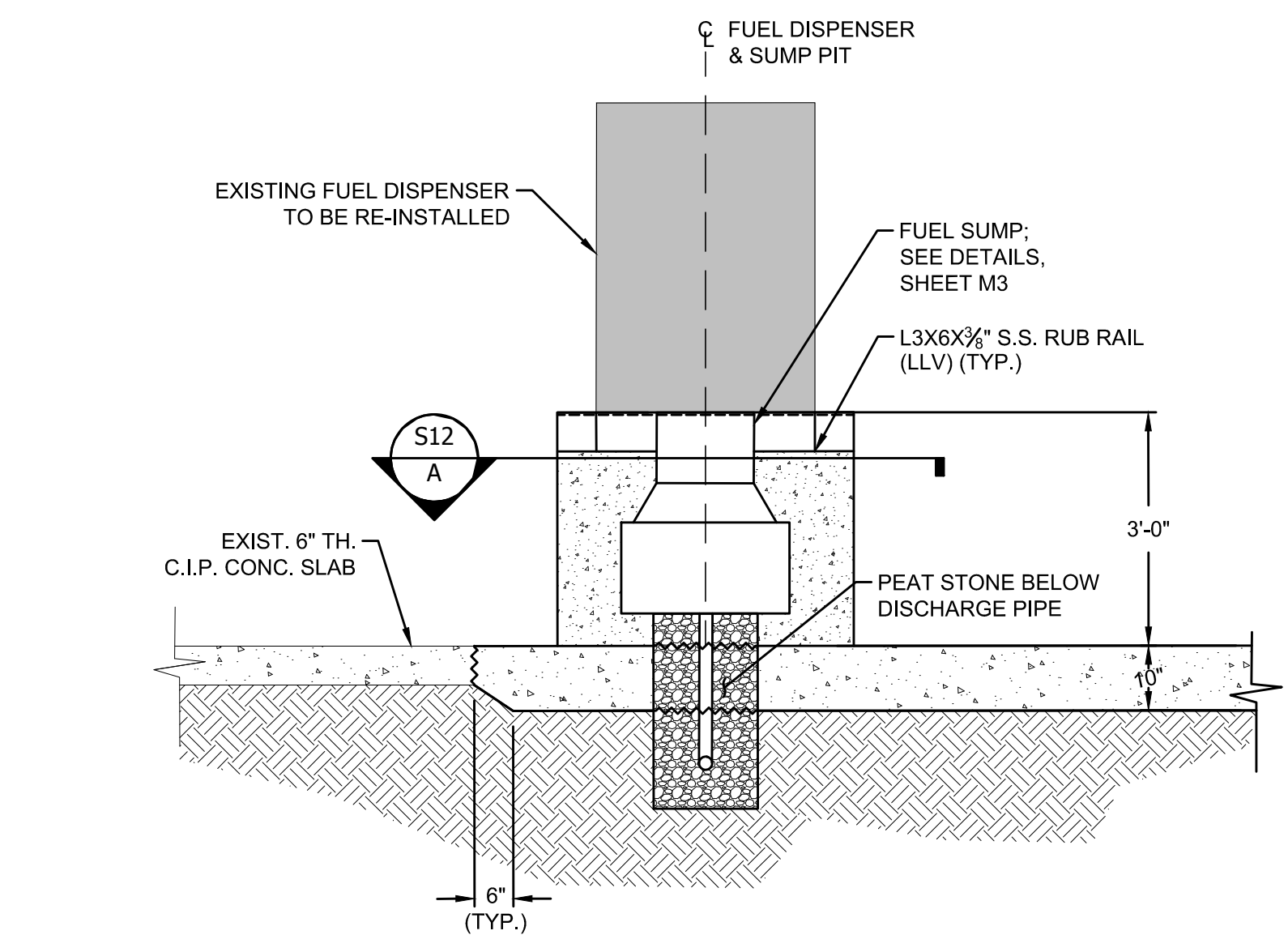
REBUILT PUMP SHED DETAIL
SCALE 1"=2'

- PUMP SHED CONSTRUCTION NOTES:**
- PUMP SHED CONSTRUCTION, INCLUDING BUT NOT LIMITED TO ALL FRAMING AND CONNECTIONS, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MASSACHUSETTS BUILDING CODE SECTION CRM 5301.2.1.1 AND THE AMERICAN FOREST AND PAPER ASSOCIATION, *GUIDE TO WOOD CONSTRUCTION IN HIGH WIND AREAS FOR ONE- AND TWO-FAMILY DWELLINGS, 110 MP, EXPOSURE B*, UNLESS NOTED OTHERWISE.
 - PUMP SHED FRAMING LUMBER SHALL BE PRESSURE TREATED AND ALL CONNECTIONS, HANGERS, TIES, ETC. SHALL BE STAINLESS STEEL, UNLESS NOTED OTHERWISE.
 - DOORS SHALL BE OUT-SWINGING HVHZ APPROVED FRP FLUSH DOORS AND FRP FRAME WITH AN 18" X 18" IMPACT RESISTANT GLASS LITE, MODEL AF-100 AS MANUFACTURED BY SPECIAL-LITE, 860 S. WILLIAMS ST., DECATUR, MI 49045, 800-821-6531 OR EQUAL APPROVED BY THE OWNER/ENGINEER. FRP DOORS SHALL BE FABRICATED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
 - INTERIOR SHEATHING SHALL BE KING STARBOARD ST POLYMER SHEETS AS MANUFACTURED BY KING PLASTIC CORPORATION, 1100 N. TOLEDO BLADE BLVD, NORTH POINT, FLORIDA 34288, 800-780-5502, OR EQUAL APPROVED BY THE OWNER/ENGINEER. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
 - EXTERIOR SHEATHING SHALL BE PRESSURE TREATED O.S.B. PLYWOOD. SHED SHALL BE INSULATED WITH SPRAY FOAM INSULATION.
 - SHINGLES FOR PUMP SHED AND FISH PACKING BUILDING AREA DIRECTLY BEHIND AND ADJACENT TO PUMP SHED SHALL BE CEDAR IMPRESSIONS, 5" POLYMER SHINGLES BY CERTANTEED SAINT-GOBAIN, 800-233-8990 OR EQUAL APPROVED BY THE OWNER/ENGINEER. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. COORDINATE COLOR WITH OWNER AND SUBMIT SAMPLE FOR REVIEW AND APPROVAL.
 - PUMP SHED ROOF SHALL BE 60-MIL RUBBERGARD MAX FR EDPM MEMBRANE ROOFING, COLOR BLACK, AS MANUFACTURED BY FIRESTONE BUILDING PRODUCTS, 200 4TH AVENUE SOUTH, NASHVILLE, TN 37201, 800-428-4442 OR EQUAL APPROVED BY THE ENGINEER/OWNER. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND ALL ROOFING FASTENERS HEAVY DUTY AND SHALL BE FABRICATED WITH NON-CORROSIVE MATERIALS.
 - CONTRACTOR TO RESTORE ELECTRICAL AND LIGHTING IN-KIND AND RE-INSTALL EXISTING EMERGENCY SHUT-OFF SWITCH. LOCATION OF SWITCH TO MATCH EXISTING.
 - FOR LIMITS OF CONCRETE SHINGLES, SEE DRAWINGS C3.

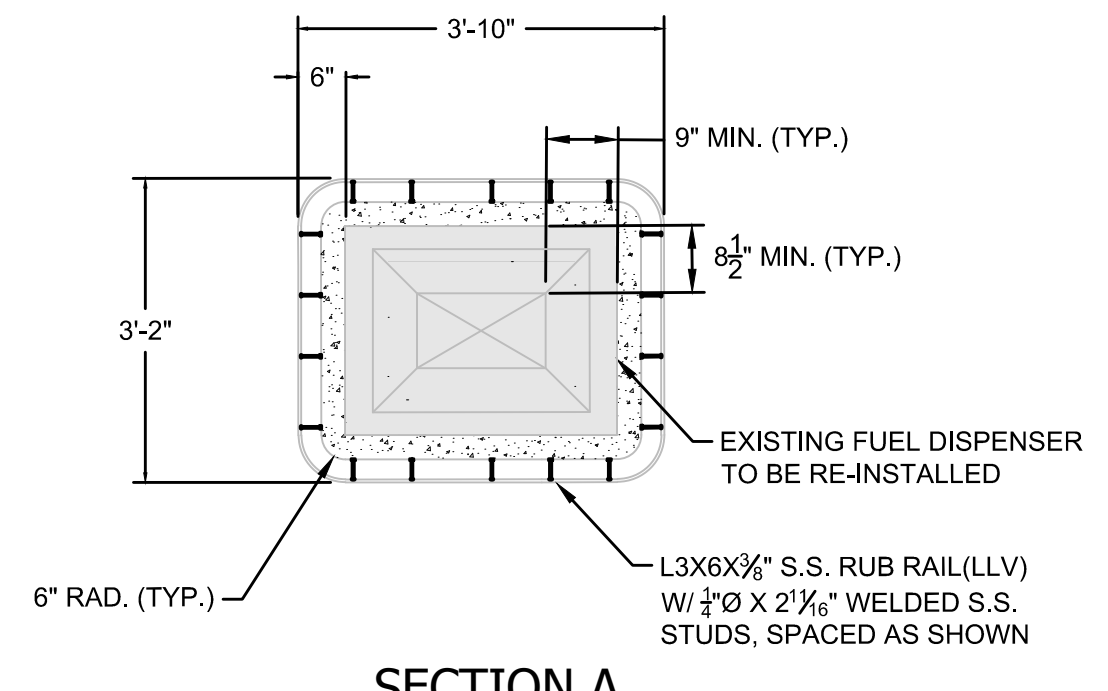


CAUTION SIGN TO BE DISPLAYED NEAR PUMPS
SCALE 1"=2'

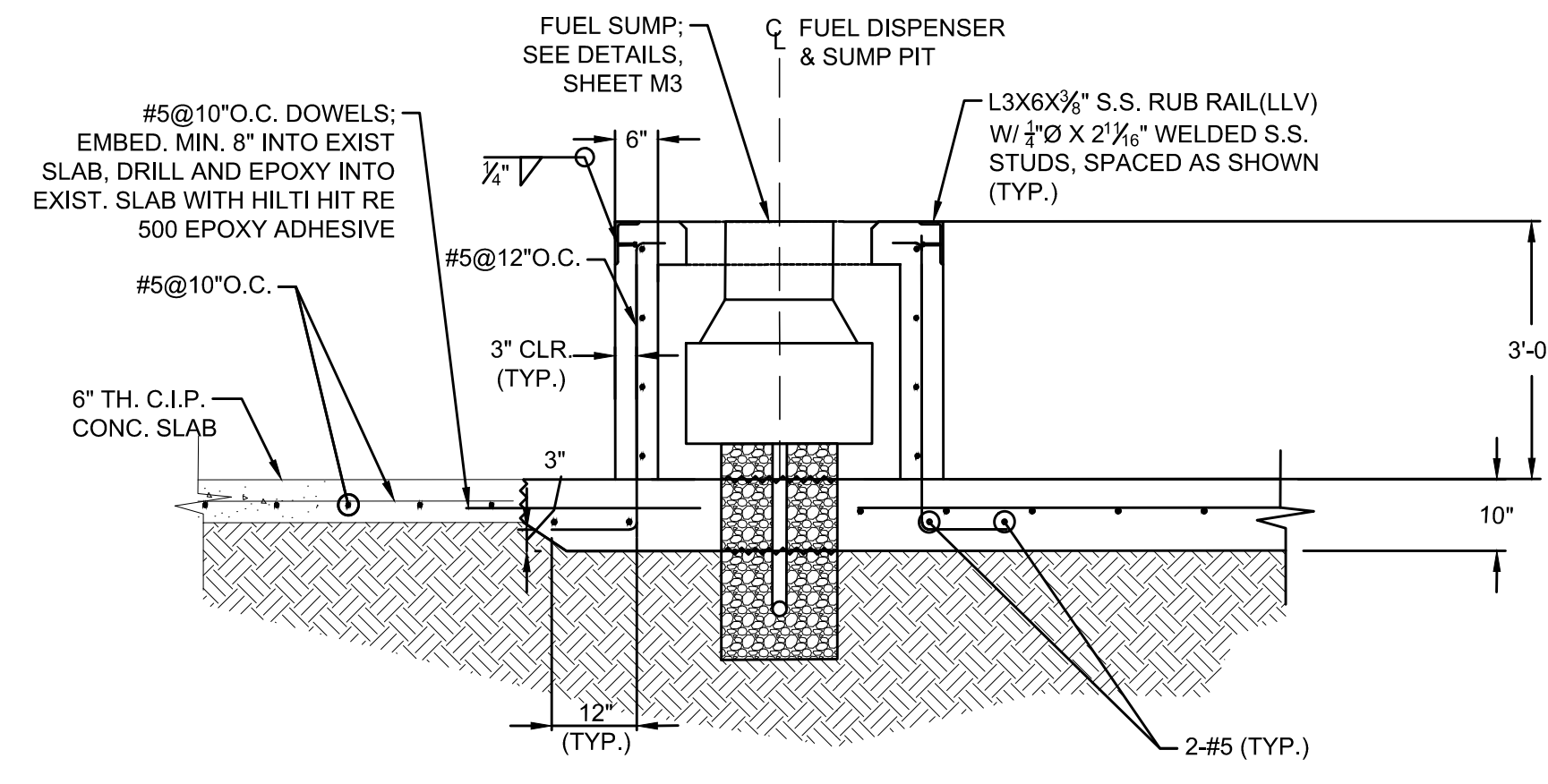
- FUEL SIGN NOTES:**
- SIGN SHALL BE PRINTED IN 2-INCH RED CAPITAL LETTERS ON A WHITE BACKGROUND.
 - SUBMIT MATERIAL FOR SIGN TO ENGINEER/OWNER FOR REVIEW AND APPROVAL.
 - SIGNS TO BE FASTENED TO UPPER DECK HANDRAIL SYSTEM, ON ADJACENT RAIL SECTIONS, ABOVE THE FUEL DISPENSER AREA BELOW. SUBMIT PROPOSED FASTENING METHOD TO ENGINEER/OWNER FOR REVIEW AND APPROVAL.



FUEL DISPENSER PUMP DETAIL
SCALE 1"=2'



SECTION A
SCALE 1"=2'



TYPICAL FUEL DISPENSER PEDESTAL REINFORCEMENT DETAIL
SCALE 1"=2'

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CHATHAM FISH PIER

TOWN OF CHATHAM

549 MAIN ST. CHATHAM, MA 02633

OBSERVATION DECK RECONSTRUCTION



REVISIONS

PROPOSED PUMP SHED AND FUEL DISPENSER DETAILS

FOR CONSTRUCTION

SCALE: AS NOTED

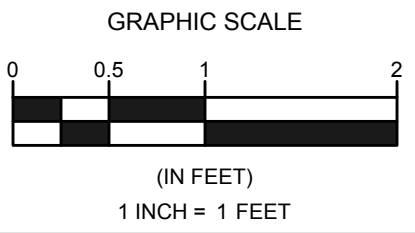
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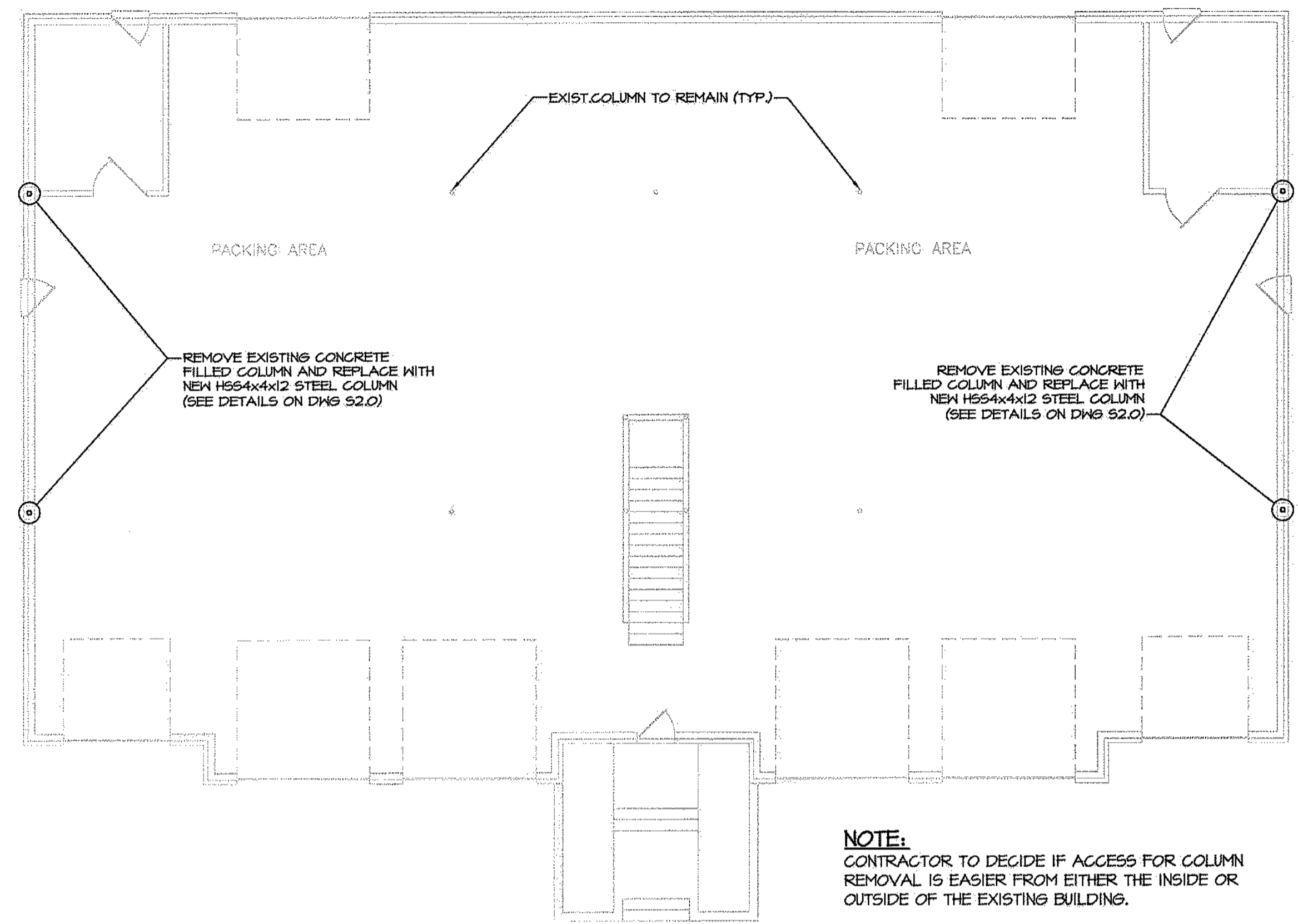
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PROJECT NO: 0016C282.100

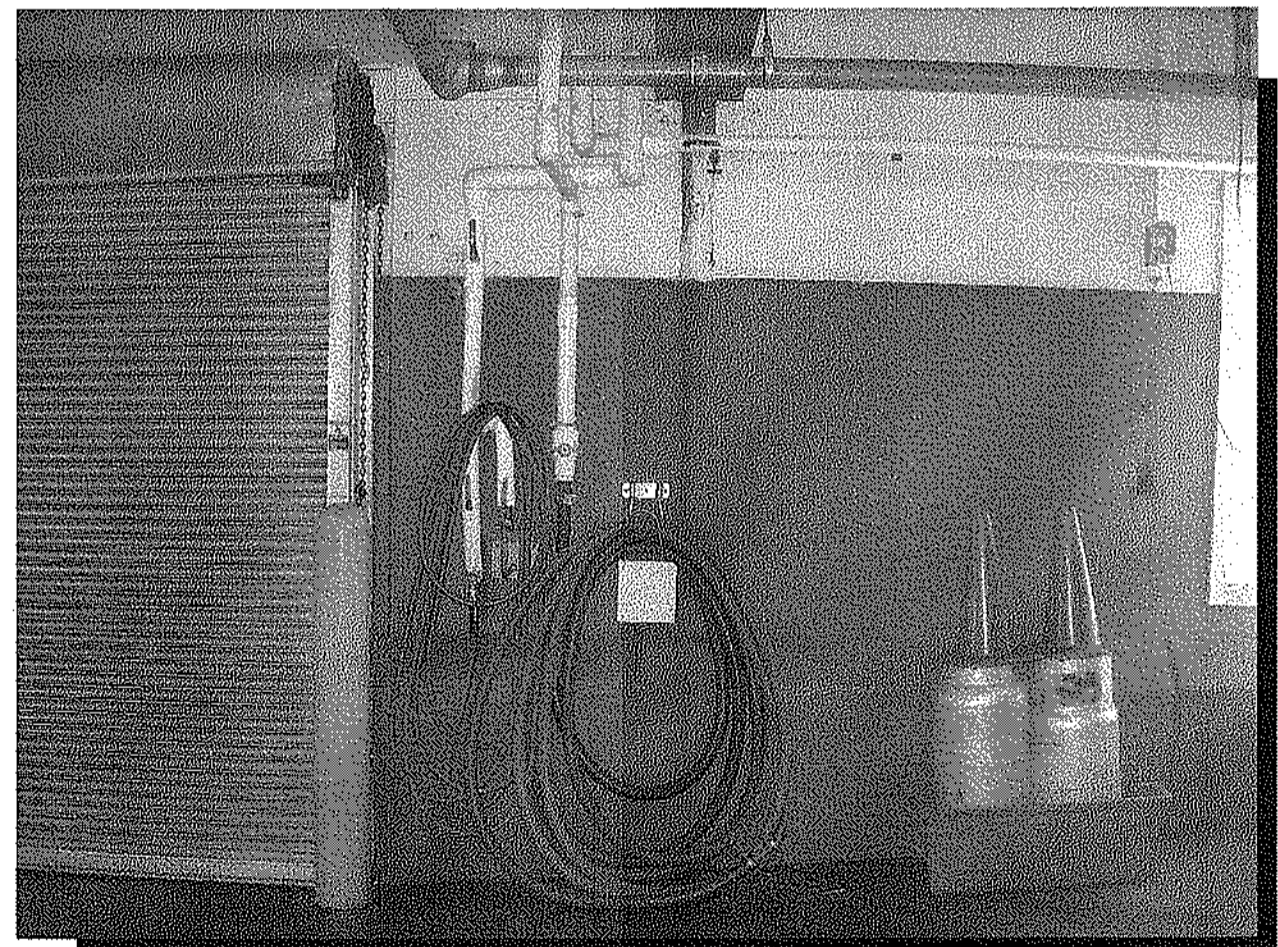
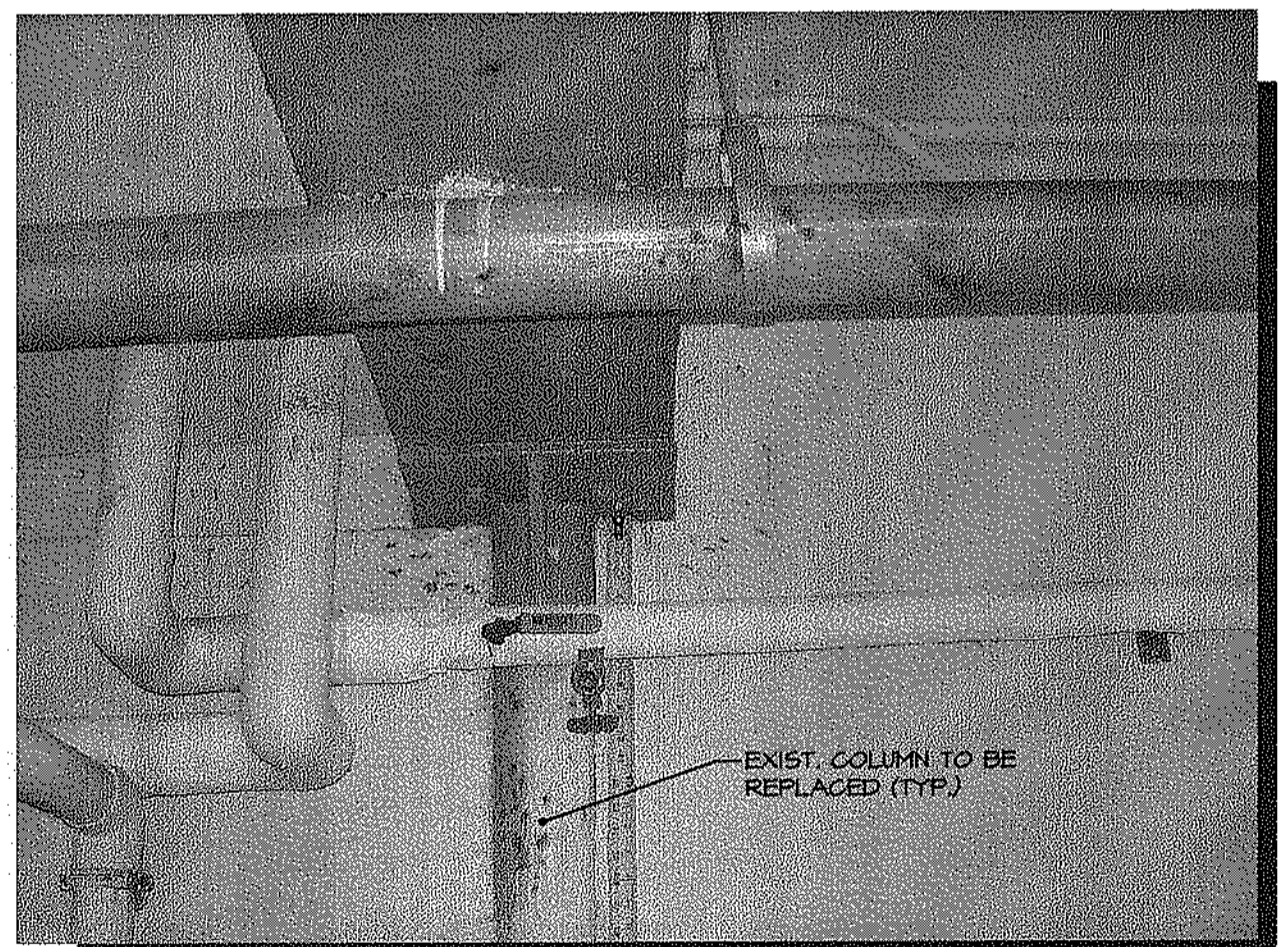
DATE: 12/21/18

SHEET NUMBER: **S13**





KEY PLAN
NOT TO SCALE



A. GENERAL STRUCTURAL REQUIREMENTS

- ALL METHODS OF CONSTRUCTION, DETAILS, NOTES, ETC., INDICATED ON THE DRAWINGS ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.
- CONSTRUCTION SHALL BE MADE FROM APPROVED SHOP DRAWINGS ONLY.
- ANY DISCREPANCIES ON THESE PLANS WITH REGARD TO DIMENSIONS OR CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PORTION OF WORK.
- ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT AND THE MASSACHUSETTS STATE BUILDING CODE.
 - MASSACHUSETTS STATE BUILDING CODE (STATE CODE), INTERNATIONAL BUILDING CODE, 2009 EDITION AND ITS APPLICABLE REFERENCED STANDARDS.
 - AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS AND ITS CODE OF STANDARD PRACTICE (AISC)
 - AMERICAN CONCRETE INSTITUTE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI 318.
 - AMERICAN CONCRETE INSTITUTE BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES, ACI 530 AND ACI 530.1.
- THE LATEST EDITION OF THE FOLLOWING LISTED CODES SHALL APPLY. IN CASE OF CONFLICT, THE MORE RIGID REQUIREMENTS AND CODES SHALL GOVERN.
- THE DESIGN LOADS ARE RESISTED BY THE COMPLETED STRUCTURE ACTING AS A UNIT. THE CONTRACTOR SHALL DESIGN AND PROVIDE ANY AND ALL TEMPORARY BRACING, SHORING, OR ADDITIONAL REINFORCEMENT NECESSARY TO RESIST LOADS IMPOSED ON ANY PORTION OF THE STRUCTURE THROUGHOUT ALL STAGES OF CONSTRUCTION. THE SHORING SHALL BE DESIGNED TO RESIST ALL DEAD LOADS AND ANY APPLICABLE CONSTRUCTION LOADS.
- ALL SHORING DESIGNS AND PLANS SHALL BE SUBMITTED FOR OWNER'S ENGINEER REVIEW AND APPROVAL.
- NOTES AND TYPICAL DETAILS APPLY TO ALL STRUCTURAL WORK UNLESS OTHERWISE NOTED. FOR CONDITIONS NOT SPECIFICALLY SHOWN PROVIDE DETAILS OF SIMILAR NATURE. VERIFY APPLICABILITY BY SUBMITTING SHOP DRAWINGS FOR REVIEW.
- PLANS SHALL NOT BE SCALED FOR DIMENSIONS.

B. DESIGN LOADS

- GENERAL BUILDING OCCUPANCY CATEGORY..... II
- LIVE LOADS: (2nd FLOOR)
 - OFFICES (50 psf + 20 psf PARTITIONS)=70 psf
 - STAIRS 100 psf
 - CORRIDORS 100 psf
- ROOF LIVE LOADS (SNOW):
 - IMPORTANCE FACTOR 1.0
 - GROUND SNOW LOAD MIN. 25 psf
 - FLAT ROOF SNOW LOAD 25 psf
 - EXPOSURE FACTOR (Ce) 1.0
 - THERMAL FACTOR (Ct) 1.0
- WIND LOADS:
 - IMPORTANCE FACTOR 0.9
 - BASIC WIND SPEED 115 mph
 - EXPOSURE CATEGORY C
 - ENCLOSED BUILDING (Scpl) +/-0.18
- EARTHQUAKE LOADS:
 - IMPORTANCE FACTOR 1.0
 - MAPPED SPECTRAL RESPONSE ACCELERATIONS (Ss, S1) 0.17, 0.050
 - SITE CLASS D
 - DESIGN SPECTRAL RESPONSE COEFFICIENTS (Sds, Sd1) 0.18, 0.08
 - SEISMIC DESIGN CATEGORY B
 - DESIGN PROCEDURE EQUIVALENT LATERAL FORCE PROCEDURE

C. CONCRETE ANCHORS

- ADHESIVE TYPE ANCHORS SHALL FURTHER CONFORM TO THE REQUIREMENTS OF ASTM E1512, "STANDARD TEST METHODS FOR TESTING BOND PERFORMANCE OF ADHESIVE-BONDED ANCHORS" AND ICBO ES AC-01, "ACCEPTANCE CRITERIA FOR ADHESIVE ANCHORS IN CONCRETE AND MASONRY ELEMENTS".
- PROVIDE SIZE, TYPE, AND EMBEDMENT OF ANCHOR INDICATED INSTALLED TO DEVELOP THE MAXIMUM CAPACITY FOR THE EMBEDMENT, TYPE AND ANCHOR SIZE WITH A MINIMUM SAFETY FACTOR OF FOUR.
- DRILL AND EPOXY ANCHORAGES SHALL BE HILTI "HIT-HY 200 AR ADHESIVE SYSTEM" WITH STANDARD "HAS" RODS, OR APPROVED EQUAL. ROD EMBEDMENT LENGTH AND DIAMETER SHALL BE AS INDICATED ON DRAWINGS.
- ANCHOR INSTALLATION SHALL CONFORM TO THE MANUFACTURER'S CURRENT PRINTED INSTRUCTIONS.
- REMOVE DUST AND DEBRIS FROM DRILLED HOLES USING COMPRESSED AIR OR VACUUM AT BOTTOM OF HOLE. IMMEDIATELY REMOVE STANDING WATER FROM HOLES TO RECEIVE ADHESIVE ANCHORS.
- DO NOT HAMMER IN ANCHOR BOLTS. INSTALL ANCHOR BOLTS AS RECOMMENDED BY ANCHOR MANUFACTURER. THE USE OF HAMMER IN ADHESIVE TYPE CAPSULES IS PROHIBITED.
- USE ONLY DRILL TYPE AND BIT TYPE AND DIAMETER RECOMMENDED BY ANCHOR MANUFACTURER.
- WHEN EMBEDDED STEEL OR REBAR IS ENCOUNTERED IN THE DRILL PATH, SLANT DRILL TO CLEAR OBSTRUCTION. IF DRILL MUST BE SLANTED MORE THAN 10 DEGREES TO CLEAR OBSTRUCTION, NOTIFY THE ENGINEER FOR DIRECTION ON HOW TO PROCEED.

D. STRUCTURAL STEEL

- DESIGN FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH AISC SPECIFICATION FOR BUILDINGS.
- STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:

A) STRUCTURAL STEEL	A572 OR A992 GR. 50	Fy=50 KSI
B) TYPICAL PLATES AND ANGLES	ASTM A36	Fy=36 KSI
C) STRUCTURAL TUBING	ASTM A500, GR. B	Fy=46 KSI
D) HIGH STRENGTH BOLTS	A325 (TYPE 1)	Fy=42 KSI
E) ANCHOR RODS	F1554 (GRADE 36)	Fy=36 KSI
- SHAPES NOTED "GALV." ON DRAWINGS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123.
- STRUCTURAL STEEL CONNECTIONS NOT DETAILED ON THE PLANS SHALL DEVELOP (1/2) OF MEMBER'S TOTAL UNIFORM LOAD CAPACITY, TYPICAL UNLESS NOTED OTHERWISE.
- ALL BOLTED CONNECTIONS SHALL USE 3/4" DIA., ASTM A-325-N BOLTS, UNLESS NOTED OTHERWISE.
- HIGH STRENGTH BOLTS SHALL BE TORQUED TO 70% OF THE MINIMUM TENSILE STRENGTH OF THE BOLT IN CONFORMANCE WITH AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS. PROVIDE ONE HARDENED WASHER UNDER THE ELEMENT TURNED IN TIGHTENING.
- WELDS SHALL BE MADE ONLY BY OPERATORS CERTIFIED BY THE STANDARD QUALIFICATION PROCEDURE OF THE AMERICAN WELDING SOCIETY.
- WELDING: IN ACCORDANCE WITH LATEST EDITION OF AWS D11 CODE FOR WELDING IN BUILDING CONSTRUCTION. USE E70 SERIES ELECTRODES UNLESS NOTED OTHERWISE.
- FIELD WELDING OF STRUCTURAL MEMBERS IS NOT PERMITTED UNLESS SPECIFICALLY INDICATED.
- FURNISH AND INSTALL ONE WASHER AND ONE HEAVY HEX NUT WITH ASTM F1554 ANCHOR BOLTS UNLESS OTHERWISE INDICATED.
- PROVIDE FITTED WELDED 3/8" WEB STIFFENER PLATES ON EACH SIDE OF ALL BEAMS SEATED ON WALLS UNLESS NOTED OTHERWISE.
- FIELD CUTTING OR MODIFICATION OF STRUCTURAL STEEL IS PROHIBITED UNLESS PRIOR WRITTEN APPROVAL IS RECEIVED FROM THE ENGINEER.
- SURFACES OF GALVANIZED MEMBERS TO BE WELDED SHALL BE GROUND TO BARE METAL PRIOR TO WELDING, AND TOUCHED UP AFTER WELDING.
- MINIMUM FILLET WELD (LEG) SIZE SHALL BE 3/16", UNLESS NOTED OTHERWISE.

E. WOOD FRAMING

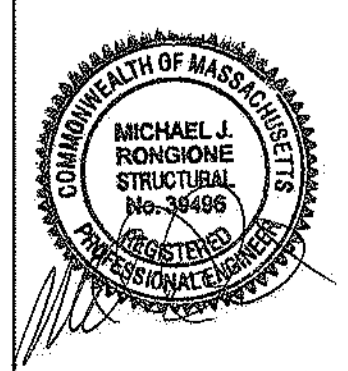
- ALL LUMBER FRAMING AND BUILDING COMPONENTS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE STATE CODE, THE AMERICAN FOREST AND PAPER ASSOCIATION (AFPA)/NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS), AND THESE DRAWINGS. LUMBER SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 15%. WOOD FRAMING SHALL BE AS FOLLOWS:
 - TYPICAL FRAMING: SPRUCE-PINE-FIR No.1/2 OR BETTER (Fb=875 PSI)
 - STUD FRAMING: SPRUCE-PINE-FIR STUD GRADE OR BETTER (Fc=125 PSI)
 - PRESSURE TREATED WOOD: SOUTHERN YELLOW PINE No.2 OR BETTER
- ALL SILL PLATES SHALL BE PRESSURE TREATED AND SIZED AS INDICATED ON PLANS. PROVIDE 3"x3"x1/4" PLATE WASHER ON ALL ANCHORS.
- REFER TO PLANS FOR SHEATHING REQUIREMENTS. SPACING OF 1/8" IS RECOMMENDED AT PANEL ENDS AND EDGES, UNLESS OTHERWISE INDICATED BY THE PANEL MANUFACTURER.
- COMPONENTS, ANCHORS, AND FASTENERS DESIGNATED AS "GALVANIZED" OR "GALV." SHALL BE HOT-DIPPED GALVANIZED (690 MINIMUM) IN ACCORDANCE WITH ASTM A123, A153, OR A653 AS APPROPRIATE.

ABBREVIATIONS

ADDL	Additional	Max.	Maximum
ALT	Alternate	M.C.	Moment Connection
ARCH	Architect	MECH	Mechanical
B.P.	Base Plate	M.M.	Miscellaneous Metal
BM	Beam	Min.	Minimum
BRG	Bearing	MTL	Metal
BS	Both Sides	NF	Near Face
Clr.	Clear	N-S	Non-shrink
COL	Column	NTS	Not To Scale
Comp. DK.	Composite Deck	O.C.	On Center
Conc.	Concrete	PL	Plate
CMU	Concrete Masonry Unit	R & D	Remove and Dispose
C-J	Control Joint	Reinf.	Reinforcing
CL	Center Line	SC	Shear Connector
Const. Jt.	Construction Joint	SLV	Short Leg Vertical
Cont.	Continuous	SOB	Slab On Grade
DIA or Ø	Diameter	S/L	Short Leg
DWLS	Dowels	S.S.	Stainless Steel
Dwg	Drawing	STIFF	Stiffener
Ea.	Each	STL	Steel
EF	Each Face	SJ	Sawn Joint
EM	Each Way	T	Top
EL	Elevation	TCX	Top Chord Extension
E.J.	Expansion Joint	Thk	Thick
EQ	Equal	TOC	Top Of Concrete
FF	For Face	TOF	Top Of Footing
FFE	Finish Floor Elevation	TOW	Top Of Wall
FND	Foundation	Trans.	Transverse
FTG	Footing	TSL	Top Of Slab
Ga.	Gauge	TST	Top Of Steel
Galv.	Galvanized	Typ.	Typical
Horiz.	Horizontal	U.N.O.	Unless Noted Otherwise
HS	High Strength	Vert.	Vertical
HSS	Hollow Structural Shape	V.I.F.	Verify In Field
IF	Inside Face	W/F	Welded Wire Fabric
		W/	With
		W/P.	Working Point

REVISIONS				REVISIONS			
NO.	DATE	BY	DESCRIPTION	NO.	DATE	BY	DESCRIPTION

**CHATHAM FISH BUILDING
COLUMN REPLACEMENT**
CHATHAM, MA

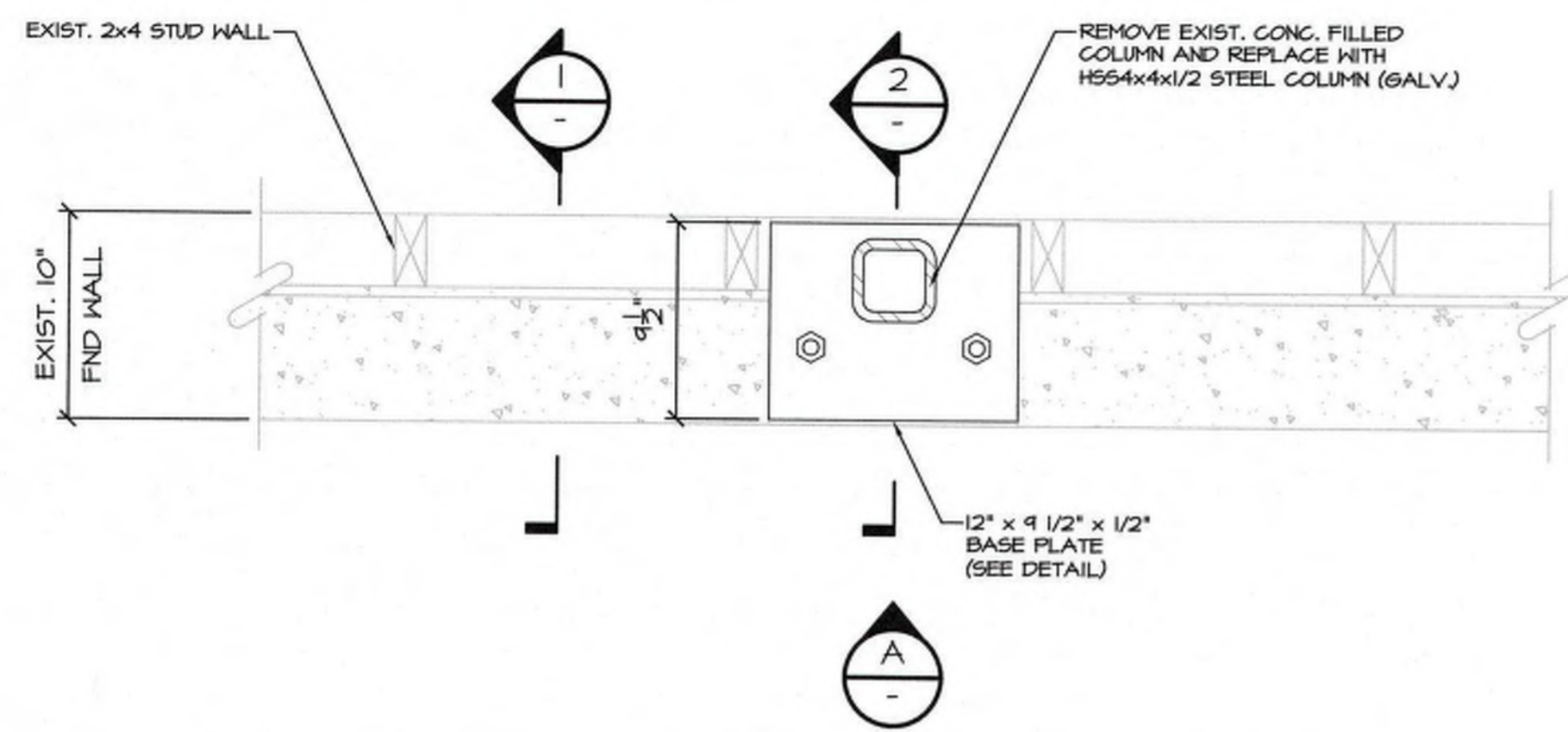


PARE CORPORATION
ENGINEERS - SCIENTISTS - PLANNERS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
401-334-4100

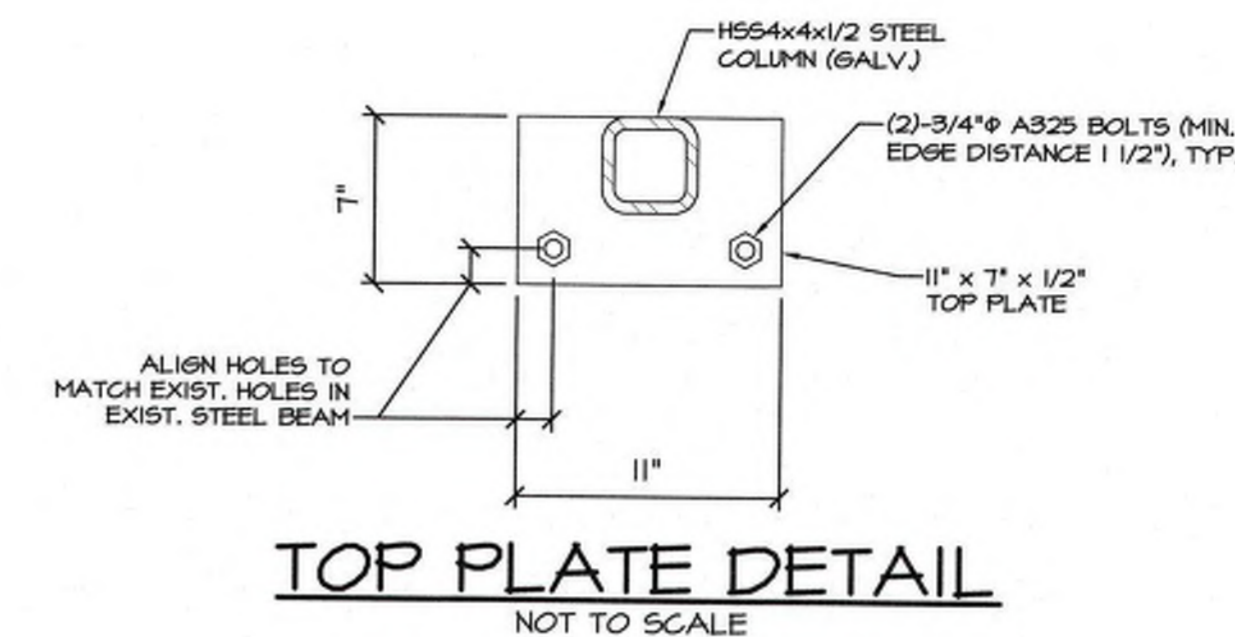
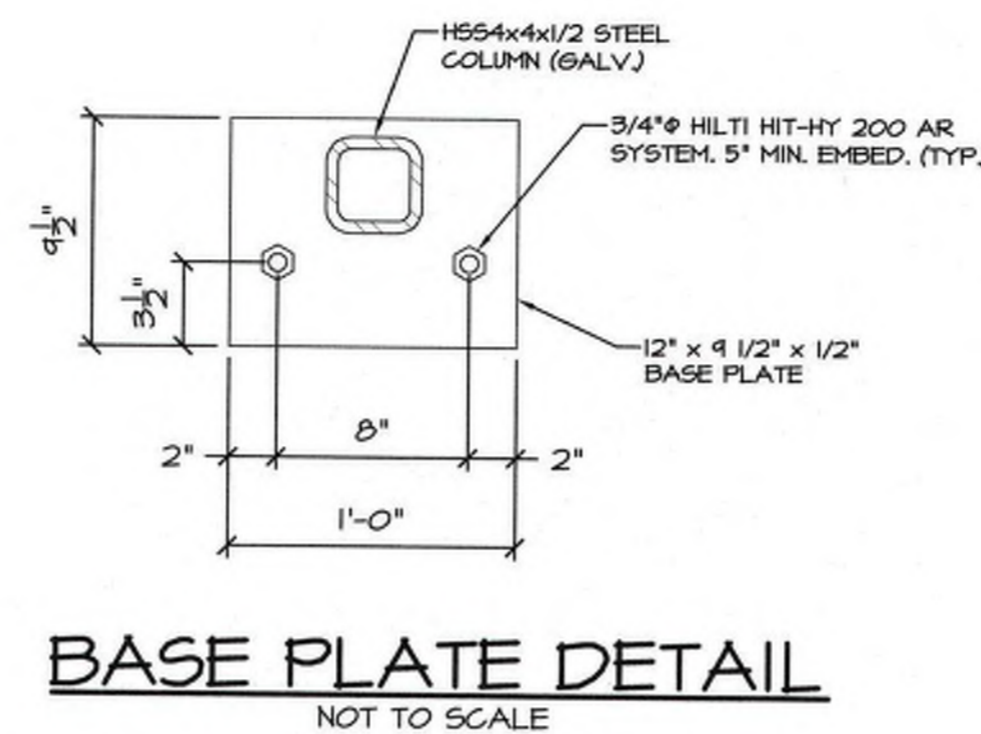
**KEY PLAN AND
STRUCTURAL NOTES**

DESIGNED BY:	DATE:	DRAWN BY:	DATE:	CHECKED BY:	DATE:
DM	5/17/2016	JDB	5/17/2016	DM	5/17/2016
CONST. REV.:	DATE:	APPROVED BY:	DATE:	CHECKED BY:	DATE:

SCALE: AS NOTED
PROJ. NO. 15124.00
DWG. NO. **S1.0**
SHEET 1 OF 2

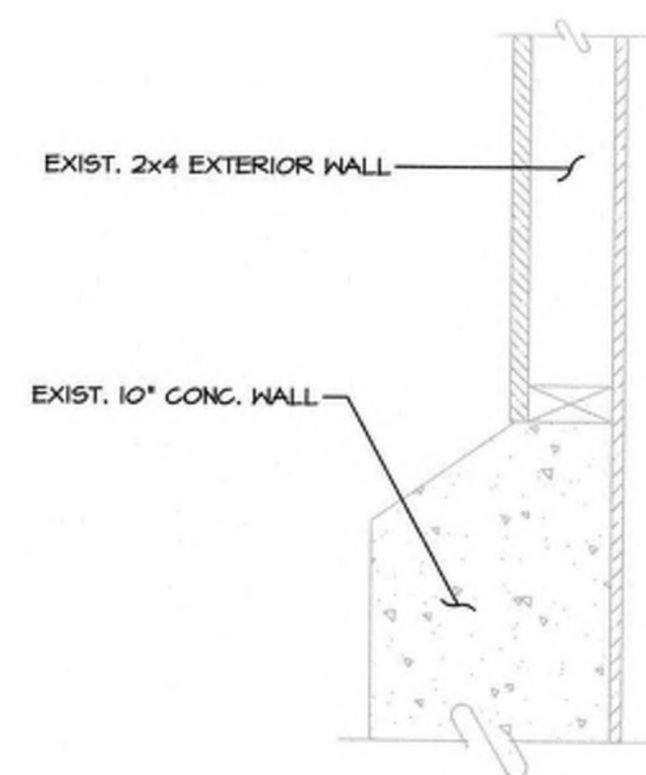


PLAN AT EXISTING CONCRETE FOUNDATION WALL
SCALE: 1/2"=1'-0"

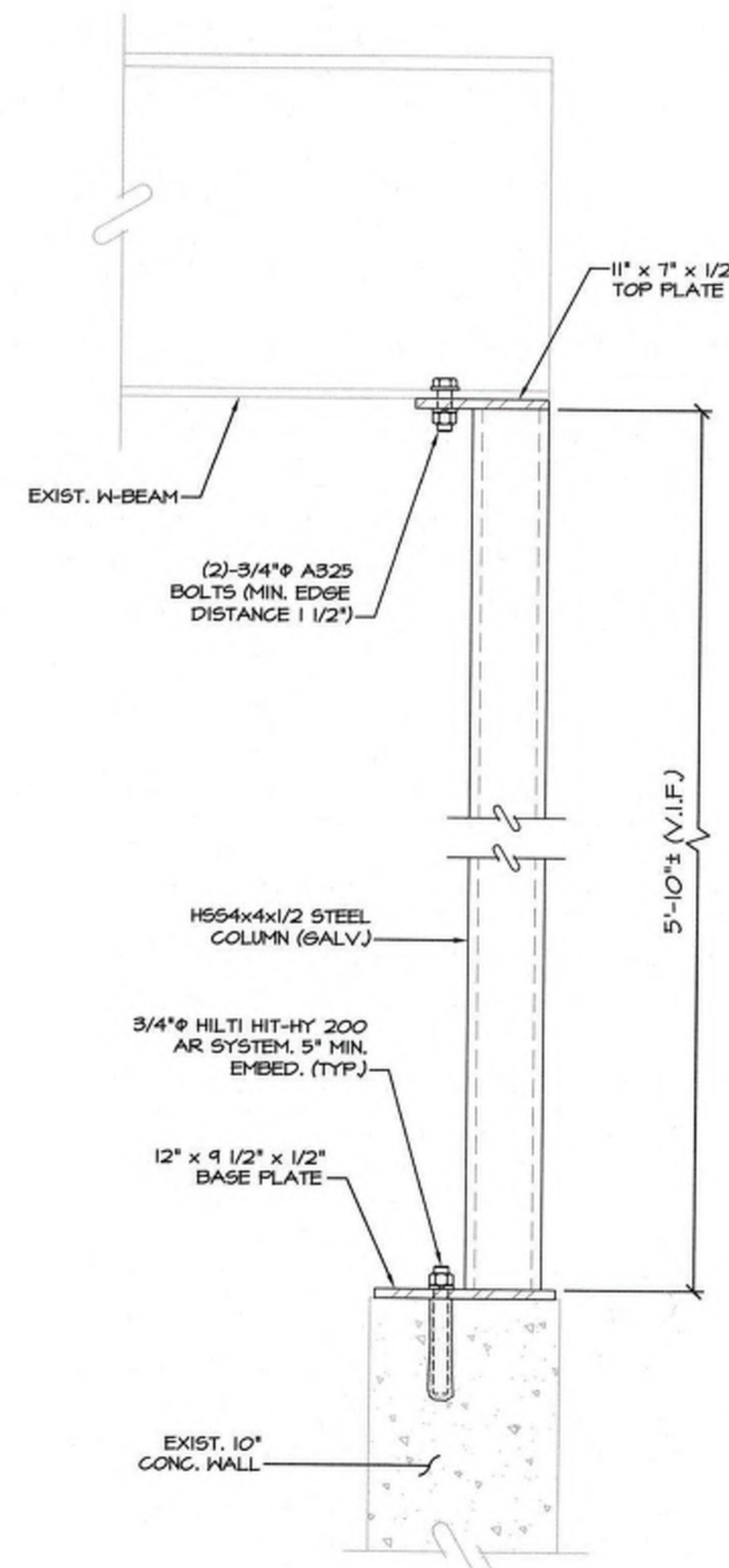


SCOPE OF WORK:

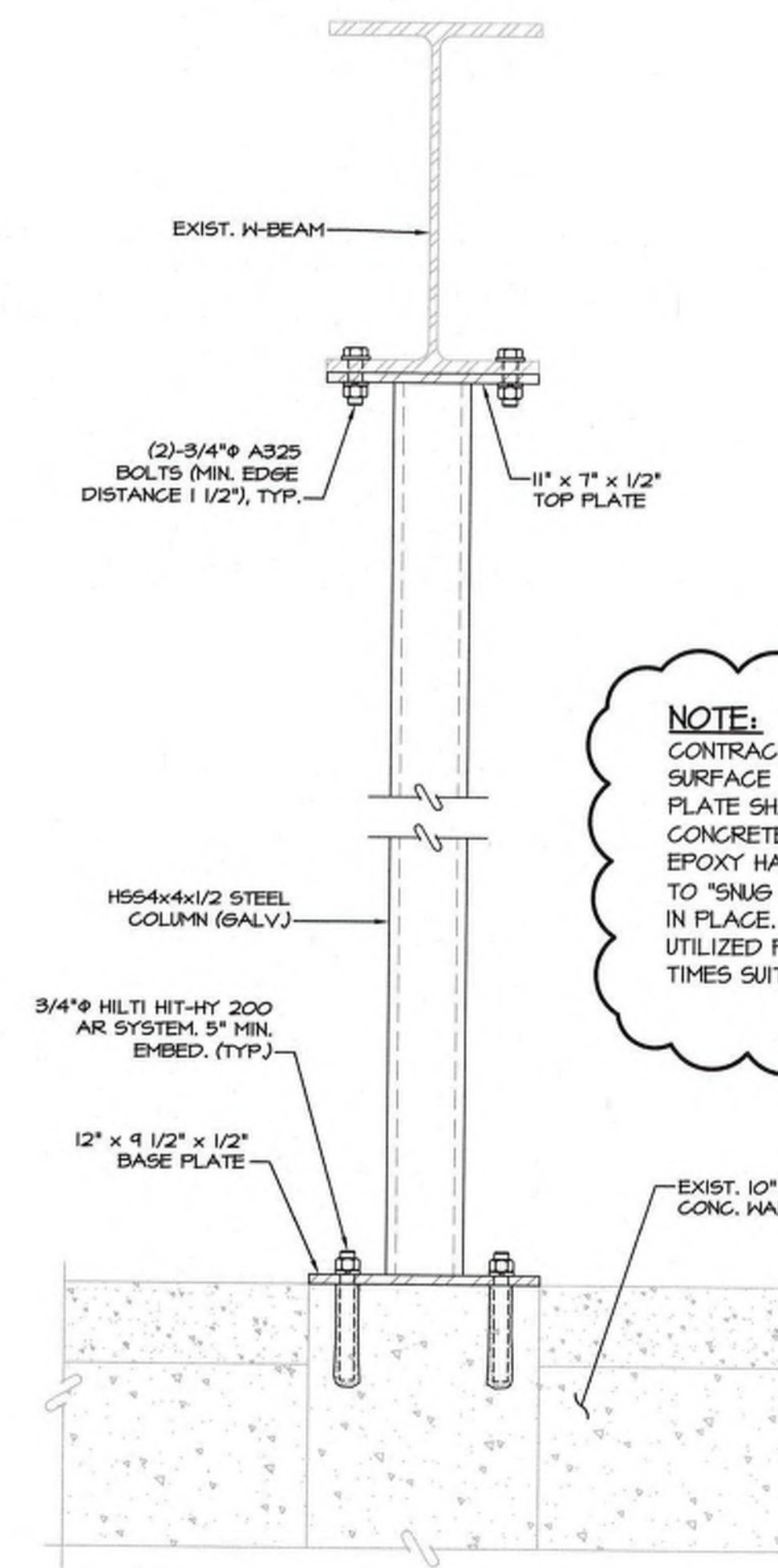
1. MOBILIZE TO SITE.
2. COORDINATE WITH THE TOWN OF CHATHAM AND FISH PACKING BUILDING TENANTS REGARDING PROPOSED WORK AND WORK AREA NEEDS. AS THE FISH PACKING BUILDING WILL BE OPERATIONAL DURING THE WORK, DO NOT INTERFERE WITH DAY TO DAY OPERATIONS.
3. KEEP THE WORK SITE NEAT AND CLEAN AT ALL TIMES.
4. SUBMIT COLUMN SHOP DRAWINGS, AS WELL AS A DETAILED APPROACH TO THE WORK. SUBMIT DETAILS OF TEMPORARY BEAM SUPPORT FALSEWORK FOR APPROVAL BY THE ENGINEER.
5. CARRY OUT DEMOLITION IN A NEAT AND ORDERLY FASHION. DEMOLITION SHALL BE LIMITED TO THAT AREA NEEDED TO ACCESS THE WORK. DEMOLITION SHALL BE ACCOMPLISHED SUCH THAT THE REPAIR WORK TO THE INTERIOR AND EXTERIOR WALLS WILL BE EASILY, AND NEATLY ACCOMPLISHED. ALL DEMOLITION MATERIALS SHALL BE REMOVED FROM THE SITE.
6. FALSEWORK TO SUPPORT THE BEAMS DURING REMOVAL AND REPLACEMENT OF THE DETERIORATED COLUMNS SHALL BE CARRIED OUT ONE AT A TIME, SUCH THAT ADEQUATE LATERAL BRACING WILL BE PROVIDED DURING THE COLUMN REPLACEMENT.
7. ENGINEER AND OWNER SHALL INSPECT FALSEWORK PRIOR TO REMOVAL OF THE EXISTING COLUMNS.
8. SUPPLY AND INSTALL REPLACEMENT COLUMNS AS INDICATED ON THE DRAWINGS, AND AS APPROVED BY THE ENGINEER.
9. FOLLOWING INSTALLATION OF THE COLUMNS, RESTORE THE WALLS AND FINISHED TO MATCH THE EXISTING WALL SECTION. PLYWOOD WALL SHEATHING SHALL BE MARINE PLYWOOD, WITH A "LINE-X" COATING TO MATCH THE EXISTING. PAINT SHALL BE MARINE ENAMEL TO MATCH EXISTING.
10. FOLLOWING COMPLETION OF THE WORK, CLEAN AND RESTORE THE SITE TO PRISTINE CONDITIONS.



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



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



ELEVATION A
SCALE: 1/2"=1'-0"

NOTE:
CONTRACTOR TO PREPARE CLEAN LEVEL SURFACE FOR BASE PLATE BEARING. THE BASE PLATE SHALL BE LAID FLAT ON EXISTING CONCRETE AND "CLAMPED DOWN" AFTER THE EPOXY HAS CURED. THE NUTS SHALL BE TORQUED TO "SNUG TIGHT" (120 FT-LBS) AND TACK WELDED IN PLACE. CONSULT MANUFACTURER OF EPOXY UTILIZED FOR RECOMMENDATIONS ON CURING TIMES SUITABLE FOR THIS PROCEDURE.

REVISIONS				REVISIONS			
NO.	DATE	BY	DESCRIPTION	NO.	DATE	BY	DESCRIPTION
1	2/16/18	DM	UPDATE TO CURRENT CODE				
2	3/26/18	DM	COLUMN BASE CLARIFICATION				

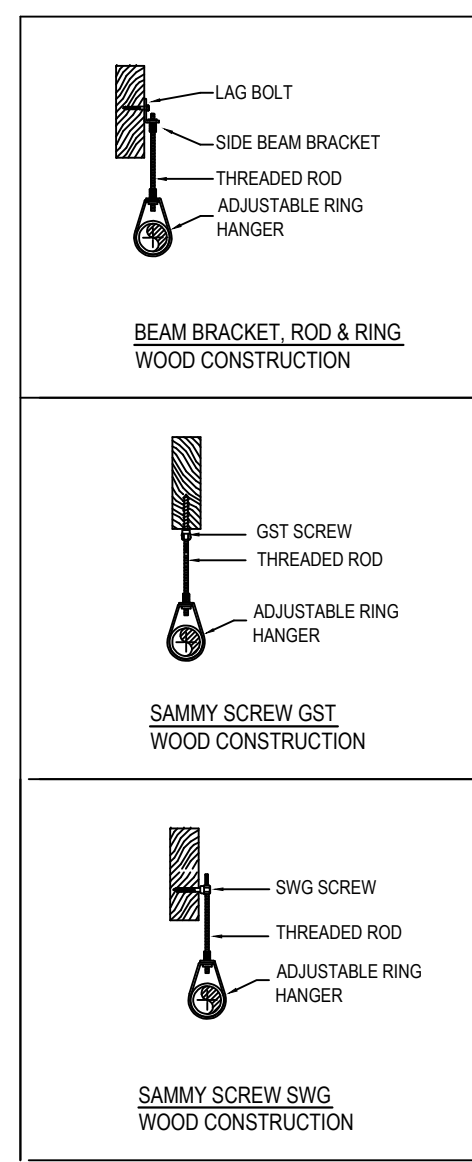
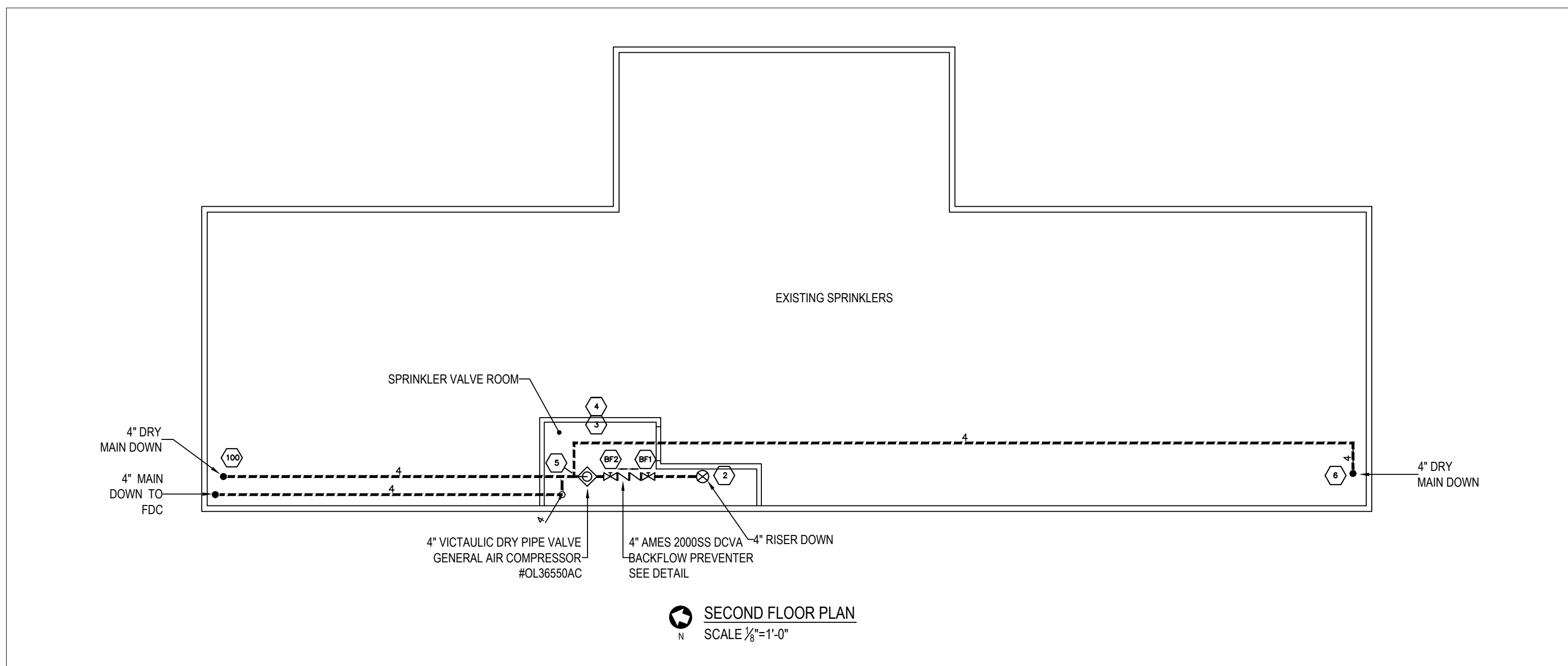
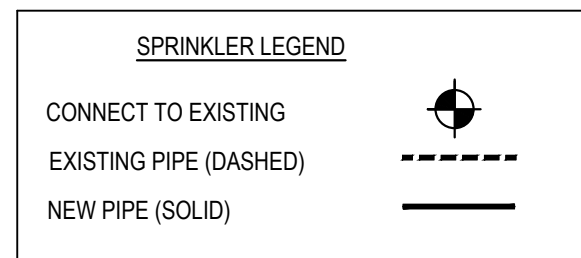
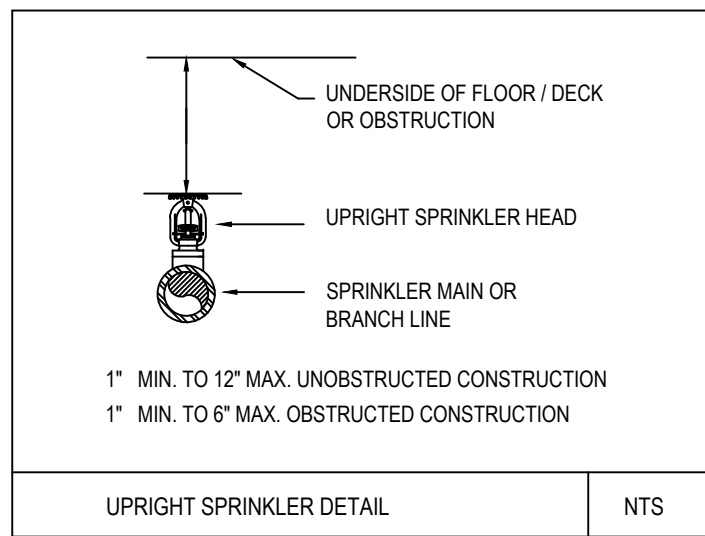
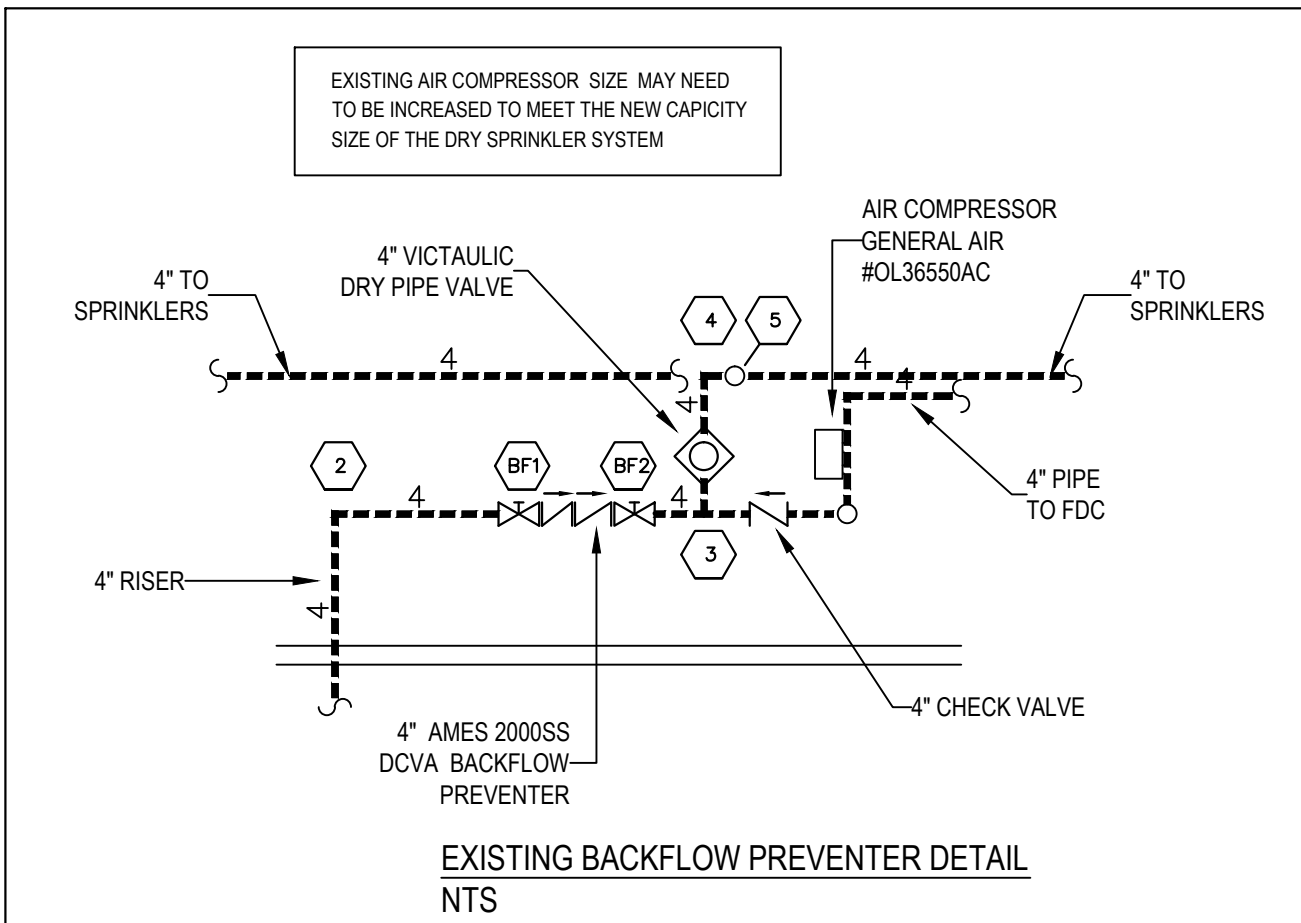
CHATHAM FISH BUILDING COLUMN REPLACEMENT
CHATHAM, MA



PARE CORPORATION
ENGINEERS - SCIENTISTS - PLANNERS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
401-334-4100

PLAN, SECTIONS, AND DETAILS							
DESIGNED BY:	DM	DATE:	5/17/2016	DRAWN BY:	JDB	DATE:	5/17/2016
CONST. REV.:		DATE:		APPROVED BY:		DATE:	
CHECKED BY:	DM	DATE:	5/17/2016	CHECKED BY:		DATE:	

SCALE: AS NOTED
PROJ. NO. 15124.00
DWG. NO. **S2.0**
SHEET 2 OF 2



FIRE EXTINGUISHERS NOTES:

FIRE EXTINGUISHERS DESIGN AND INSTALLATION SHALL BE ACCORDANCE WITH:

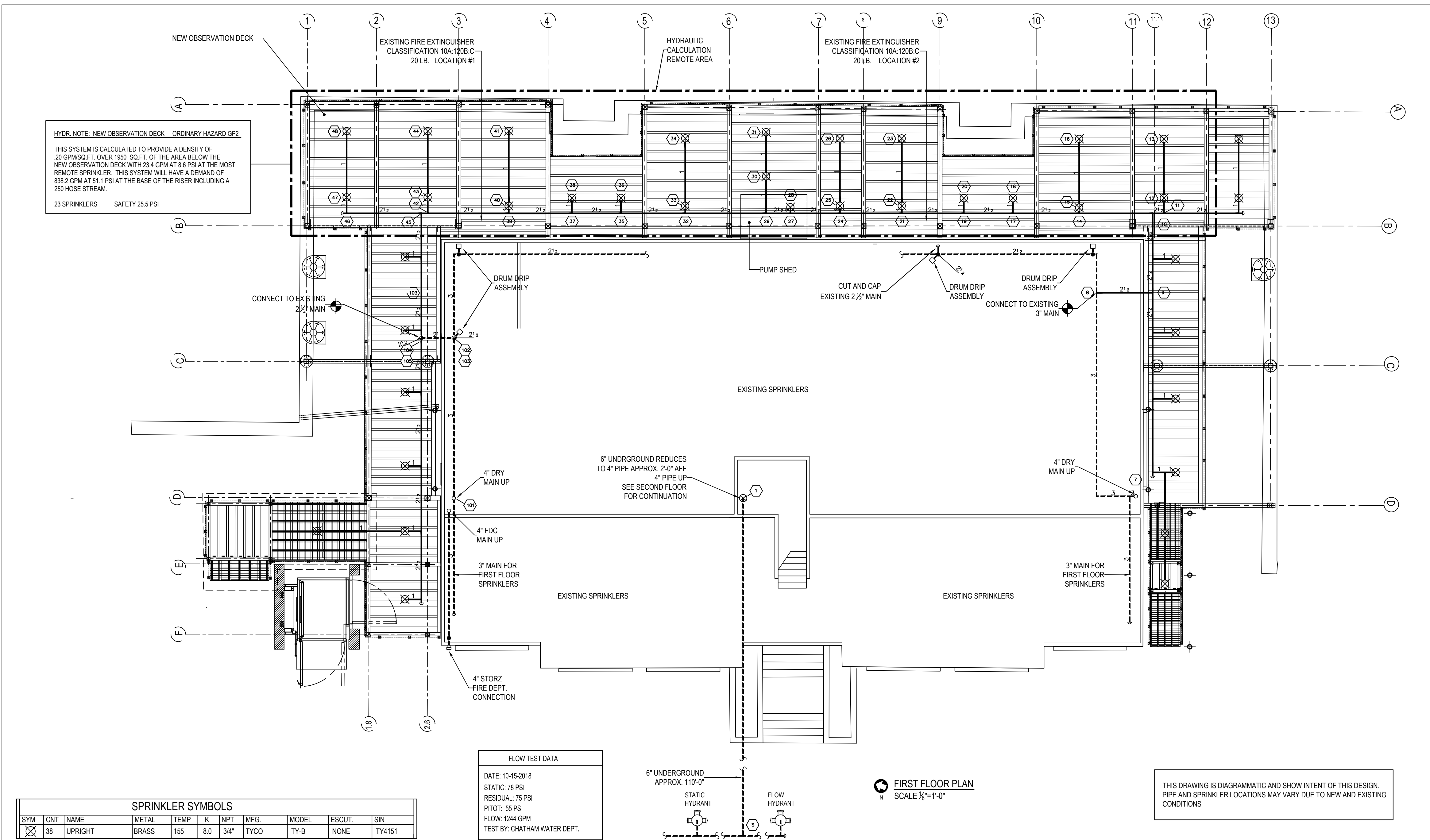
NPFA 30A 2015 EDITION
CHAPTER 11 MARINE FUELING
SEC. 11.7 FIRE CONTROL

MASSACHUSETTS STATE FIRE CODE, CHAPTER 42, WITH MASSACHUSETTS AMENDMENTS

CONTRACTOR TO FURNISH AND INSTALL SIX (6) "NO SMOKING" SIGNS. SIGN INSTALLATION LOCATIONS SHALL BE COORDINATED WITH THE TOWN AND LOCAL FIRE INSPECTORS.

a. BASE THE NUMBER OF SIGNS ON THE FOLLOWING PROPOSED LOCATIONS.

- (1) THE BOTTOM OF THE NORTH STAIRS
- (1) AT THE BOTTOM SOUTH STAIRS
- (1) AT THE TOP OF THE NORTH STAIR AT THE DECK LEVEL
- (1) AT THE NORTH EAST SIDE OF THE BUILDING AT THE DECK LEVEL
- (1) AT THE SOUTH EAST SIDE OF THE BUILDING AT THE DECK LEVEL
- (1) ON THE SOUTH SIDE OF THE BUILDING AT THE DECK LEVEL



HYDR. NOTE: NEW OBSERVATION DECK ORDINARY HAZARD GP2

THIS SYSTEM IS CALCULATED TO PROVIDE A DENSITY OF 20 GPM/SQ.FT. OVER 1950 SQ.FT. OF THE AREA BELOW THE NEW OBSERVATION DECK WITH 23.4 GPM AT 8.6 PSI AT THE MOST REMOTE SPRINKLER. THIS SYSTEM WILL HAVE A DEMAND OF 338.2 GPM AT 51.1 PSI AT THE BASE OF THE RISER INCLUDING A 250 HOSE STREAM.

23 SPRINKLERS SAFETY 25.5 PSI

SPRINKLER SYMBOLS										
SYM	CNT	NAME	METAL	TEMP	K	NPT	MFG.	MODEL	ESCU.	SIN
☒	38	UPRIGHT	BRASS	155	8.0	3/4"	TYCO	TY-B	NONE	TY4151

FLOW TEST DATA

DATE: 10-15-2018
 STATIC: 78 PSI
 RESIDUAL: 75 PSI
 PILOT: 55 PSI
 FLOW: 1244 GPM
 TEST BY: CHATHAM WATER DEPT.

FIRE SPRINKLER NOTES:

NOTES

THE EXISTING BUILDING IS CURRENTLY EQUIPPED WITH A DRY SPRINKLER SYSTEM

EXISTING SPRINKLER PIPE AND SIZES ARE APPROXIMATE BASED ON AN EXISTING BUILDING SURVEY. ONLY THE PIPE RELATED TO THE CURRENT SCOPE OF WORK IS SHOWN ON THESE DRAWING. ALL PIPE NOT RELEVANT TO THE CURRENT SCOPE OF WORK HAVE NOT BEEN SHOWN.

SCOPE OF WORK

CONNECT TO THE EXISTING DRY SPRINKLER SYSTEM AND EXTENDED SPRINKLER COVERAGE BELOW THE NEW EXPANDED OBSERVATION DECK

INSTALL AUXILIARY DRY PIPE DRAINS AT ALL LOW POINTS PITCH ALL PIPING DOWN TOWARDS AUXILIARY DRAINS

SPRINKLER DESIGN NOTES

PIERS AND WHARVES
 ORDINARY HAZARD GROUP 2
 20 GPM / 1500 SQ.FT. + 250 GPM HOSE
 SPRINKLER SPACING 130 SQ.FT MAXIMUM

NFPA 13 SEC. 11.2.3.2.5.
 DRY PIPE SYSTEM THE AREA OF SPRINKLER OPERATION SHALL BE INCREASE BY 30% WITHOUT REVISING THE DENSITY

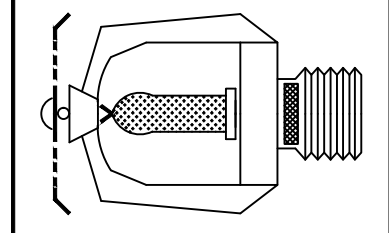
HYDRAULIC AREA 1950 SQ.FT.

SPRINKLER SYSTEM GENERAL NOTES

- ALL NEW PIPING 1"-1 1/2" TO BE STAINLESS STEEL SCH.40 WITH STAINLESS STEEL THREADED FITTINGS
- ALL NEW PIPING 1 1/2" AND LARGER TO BE STAINLESS STEEL SCH.10 ROLL GROOVED FOR THE USE WITH STAINLESS STEEL MECHANICAL TEES GROOVED FITTINGS.
- ALL HANGERS TO BE AS PER NPFA #13, CHAPTER 9
- ALL DESIGN AND INSTALLED OF THE SPRINKLER SYSTEM TO BE IN ACCORDANCE WITH NPFA #13, ALL LOCAL AND STATE CODES.
- SPRINKLER SYSTEM TO BE TEST PER NPFA #13

REVISIONS	DESCRIPTION	DATE	BY	MA	MA
	ISSUE FOR BID	10-22-2018			
	ISSUE FOR CONSTRUCTION	12-21-2019			

ENCORE FIRE PROTECTION
 70 BACON STREET
 PAWTUCKET, RI 02861
 (800)966-0000



CHATHAM FISH PIER OBSERVATION DECK RENOVATIONS
 45 BARCLIFF AVE EXTENSION
 CHATHAM, MA 02633

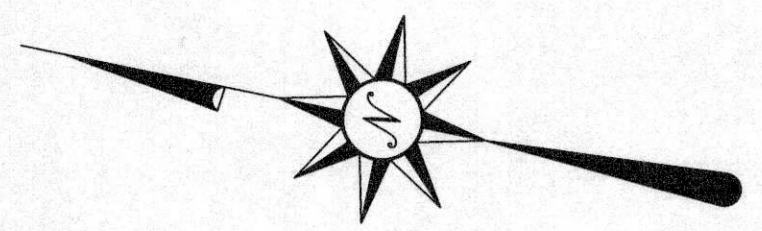
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1.21.19

SPRINKLER PIPE

PERMIT NO. _____
 CONTRACT NO. 1-SPS-18124
 APPROVAL: LOCAL FIRE DEPT.
 DRAWN BY: M.A.
 SCALE: AS NOTED
 DATE: 10-22-2018
 REVISED _____
 PLOTTED _____

ISSUE FOR CONSTRUCTION



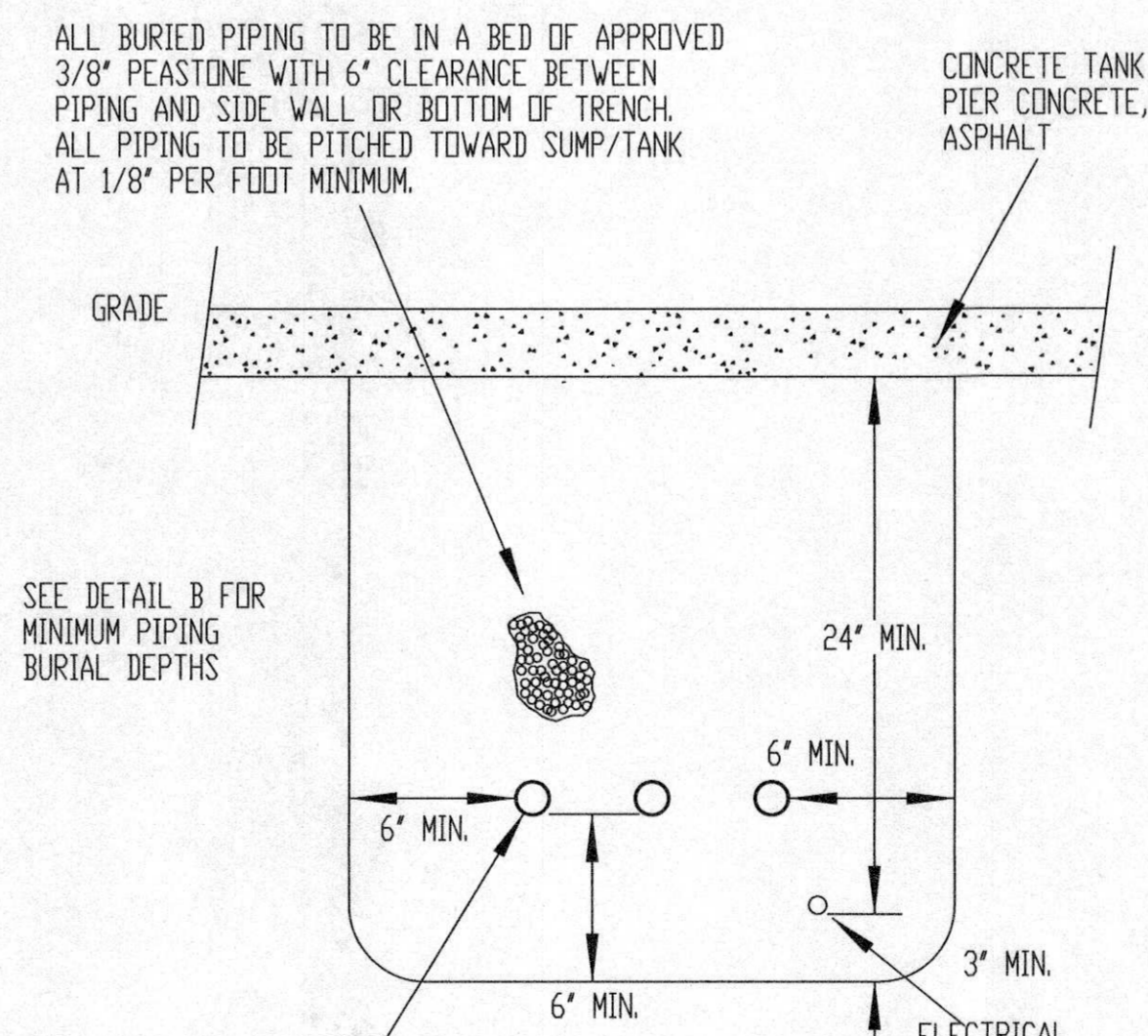
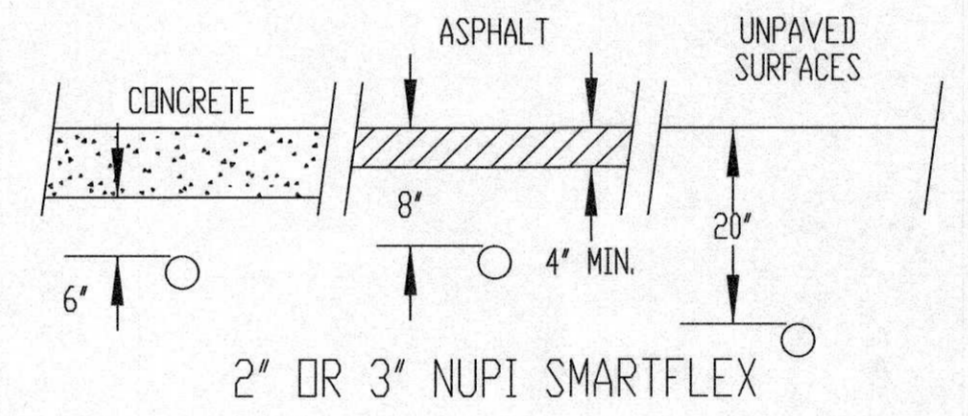
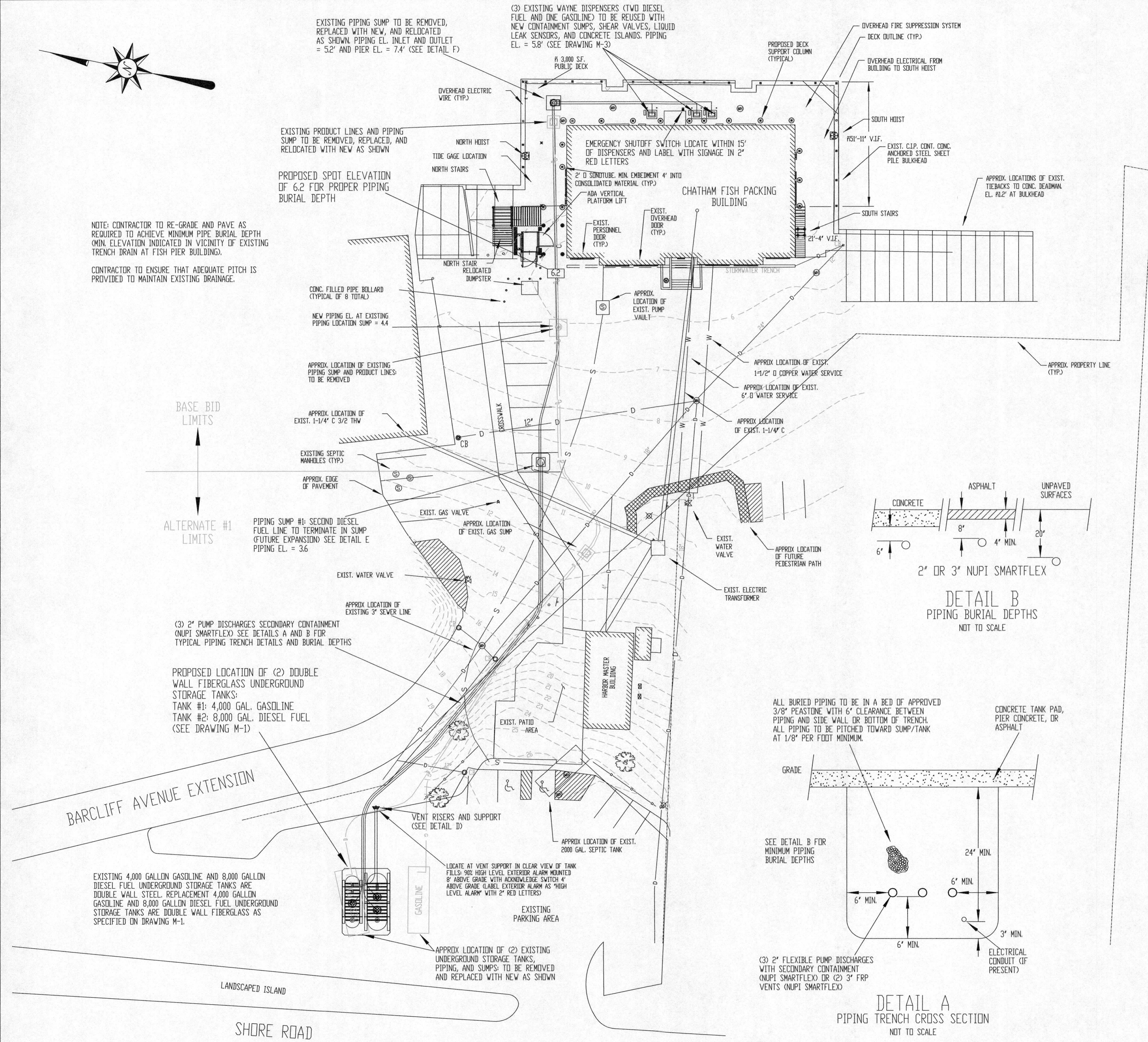
EXISTING PIPING SUMP TO BE REMOVED, REPLACED WITH NEW, AND RELOCATED AS SHOWN. PIPING EL. = 5.2' AND PIER EL. = 7.4' (SEE DETAIL F)

(3) EXISTING WAYNE DISPENSERS (TWO DIESEL FUEL AND ONE GASOLINE) TO BE REUSED WITH NEW CONTAINMENT SUMPS, SHEAR VALVES, LIQUID LEAK SENSORS, AND CONCRETE ISLANDS. PIPING EL. = 5.8' (SEE DRAWING M-3)

- DRAWING LIST:**
- A-1 SITE PLAN - PROPOSED MODIFICATIONS
 - M-1 PIPING / MECHANICAL
 - M-2 PIPING SUMP DETAILS
 - M-3 PIER AREA DETAILS
 - M-4 TANK ELEVATIONS
 - S-1 CONCRETE
 - E-1 ELECTRICAL SCHEMATIC: POWER, DATA, AND SIGNAL CONDUITS

NOTE: CONTRACTOR TO RE-GRADE AND PAVE AS REQUIRED TO ACHIEVE MINIMUM PIPE BURIAL DEPTH (MIN. ELEVATION INDICATED IN VICINITY OF EXISTING TRENCH DRAIN AT FISH PIER BUILDING).

CONTRACTOR TO ENSURE THAT ADEQUATE PITCH IS PROVIDED TO MAINTAIN EXISTING DRAINAGE.



FUELING PROCEDURES SIGNAGE:

FUELING PROCEDURE SIGNAGE (LOCATED AT DISPENSERS) REFERRED TO IN NFPA 1, PARAGRAPH 281.8.2.6(6) SHALL INCLUDE THE FOLLOWING INFORMATION:

- (1) PROCEDURES BEFORE FUELING
- (A) STOP ALL ENGINES AND AUXILIARIES
 - (B) SHUT OFF ALL ELECTRICITY, OPEN FLAMES, AND HEAT SOURCES
 - (C) CHECK BILGES FOR FUEL VAPORS
 - (D) EXTINGUISH ALL SMOKING MATERIALS
 - (E) CLOSE ACCESS FITTINGS AND OPENINGS THAT COULD ALLOW FUEL VAPORS TO ENTER ENCLOSED SPACES
 - (F) REMOVE ALL PERSONNEL FROM THE BOAT EXCEPT THE PERSON HANDLING THE FUELING HOSE
- (2) PROCEDURES DURING FUELING
- (A) MAINTAIN NOZZLE CONTACT WITH FILL PIPE
 - (B) ATTEND FUEL-FILLING NOZZLE AT ALL TIMES
 - (C) WIPE UP SPILLS IMMEDIATELY
 - (D) AVOID OVERFILLING
- (3) PROCEDURES AFTER FUELING AND BEFORE STARTING ENGINE
- (A) INSPECT BILGES FOR LEAKAGE OR FUEL ODORS
 - (B) VENTILATE UNTIL ODORS ARE REMOVED

NOTE: ALL GASOLINE RELATED EQUIPMENT TO BE CARB APPROVED PER EXECUTIVE ORDER VR-401-R

- GENERAL TESTING NOTES:**
- 1) ALL SUMPS SHALL PASS A TIGHTNESS TEST AT INSTALLATION TO ENSURE THE SUMP IS LIQUID TIGHT BY USING VACUUM, PRESSURE, OR LIQUID TESTING. THE STANDARD FOR FAILING IS 1 INCH OR GREATER LOSS OF WATER WITHIN ONE HOUR.
 - 2) AFTER INSTALLATION, BACKFILLING AND SURFACING TO GRADE, BUT PRIOR TO PUTTING REGULATED SUBSTANCE INTO THE TANK, EACH TANK AND ALL PIPING SHALL PASS A TIGHTNESS TEST PURSUANT TO 310 CMR 80.32.
 - 3) ALL UST SYSTEMS SHALL BE INSPECTED BY THE PERSON, WHO PREPARES THE DRAWING OR AS-BUILT PLANS IN ACCORDANCE WITH 310 CMR 80.16(7), OR THEIR DESIGNATED REPRESENTATIVE, PRIOR TO BEING BACKFILLED, TO ENSURE THE UST SYSTEM IS INSTALLED IN ACCORDANCE WITH 310 CMR 80.14 THROUGH 80.22.
 - 4) IF THE PERSON WHO PREPARES THE DRAWING OR AS-BUILT PLANS, OR THEIR DESIGNATED REPRESENTATIVE, DETERMINES THE UST SYSTEM IS NOT INSTALLED IN ACCORDANCE WITH 310 CMR 80.14 THROUGH 80.22, THE UST SYSTEM SHALL NOT BE BACKFILLED UNTIL THE OWNER OR OPERATOR OF THE UST SYSTEM COMPLIES WITH ALL REQUIREMENTS AT 310 CMR 80.14 THROUGH 80.22.
 - 5) PROVIDE ENGINEER WITH TANK MANUFACTURER'S CHECKLIST COMPLETED BY CONTRACTOR.

- GENERAL NOTES:**
- 1) NEW TANKS TO BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH UL 1316 "GLASS-FIBER REINFORCED PLASTIC UNDERGROUND STORAGE TANKS FOR PETROLEUM PRODUCTS, ALCOHOLS, AND ALCOHOL-GASOLINE MIXTURES."
 - 2) ALL CONSTRUCTION, TANKS, AND PIPING TO MEET OR EXCEED 310 CMR 80.00 "UNDERGROUND STORAGE TANK SYSTEMS."
 - 3) ELECTRICAL CLASSIFICATION: CLASS 1 DIV 1/2 IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
 - 4) ALL STRUCTURES TO MEET OR EXCEED THE LATEST REVISION OF AISC AND A58 SPECIFICATIONS.
 - 5) ALL STRUCTURES TO MEET OR EXCEED MASSACHUSETTS BUILDING CODES.
 - 6) PIPING AND VENTING TO MEET OR EXCEED ASME B31 "PRESSURE PIPING CODE" AND API 2000 FOR "VENTING ATMOSPHERIC AND LOW PRESSURE STORAGE TANKS."
 - 7) ALL TANKS TO BE EQUIPPED WITH FILL TERMINATION SET AT 95% CAPACITY.
 - 8) TANKS TO BE EQUIPPED WITH INVENTORY CONTROL MONITOR WITH HIGH LEVEL ALARM SET AT 90% CAPACITY. AUDIBLE/VISIBLE HIGH LEVEL ALARM TO HAVE ACKNOWLEDGE SWITCH.
 - 9) ALL PIPING TO HAVE PRESSURE RELIEF AROUND ALL FLOW BLOCKING DEVICES (TO RELIEVE BACK TO UNDERGROUND TANKS).
 - 10) TANKS TO BE LABELED FOR CONTENTS USING 2" MIN. RED LETTERING AND WITH THE DOT FIRE RATING SYSTEM SYMBOL.
 - 11) TANKS TO BE LABELED WITH MAXIMUM FILL HEIGHT IN PLAIN VIEW OF OFFLOADING OPERATIONS.
 - 12) THE SELF-SERVICE DISPENSING OF MOTOR FUELS BY THE PUBLIC IS PROHIBITED.

THIS DRAWING TAKEN FROM A PLAN OF LAND BY FOTH OF MARION, MASSACHUSETTS, DATED MAY 10, 2018, AND SHOULD NOT BE USED FOR THE DETERMINATION OF PROPERTY LINES, METES, BOUNDS, ETC.

A-1

TOWN OF CHATHAM
549 MAIN STREET, CHATHAM, MASSACHUSETTS

ISSUED FOR CONSTRUCTION

SITE PLAN - PROPOSED MODIFICATIONS

WEB ENGINEERING ASSOCIATES, INC.
111 SUMMER STREET, SCITUATE, MASSACHUSETTS 02066

DATE	REVISION

FILE: PROPOSED B
DRAWN BY: JAS
DATE: 12/21/18
JOB #: 18-E-011
WEB DRAWING NO. 1872
SCALE: 1" = 20'

ROBERT P. COLUCCIO
CHEMICAL
NO. 41274
REGISTERED PROFESSIONAL ENGINEER

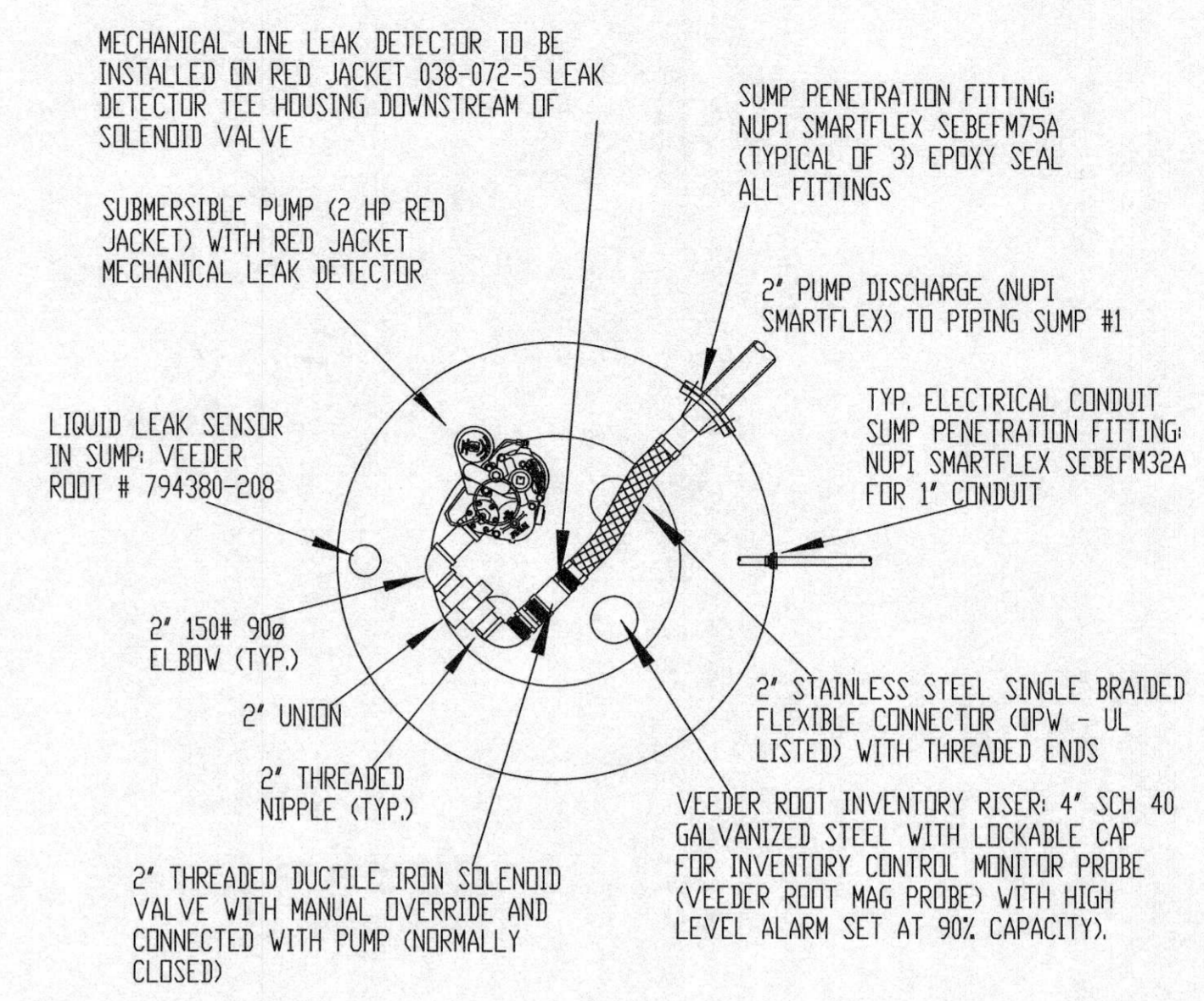
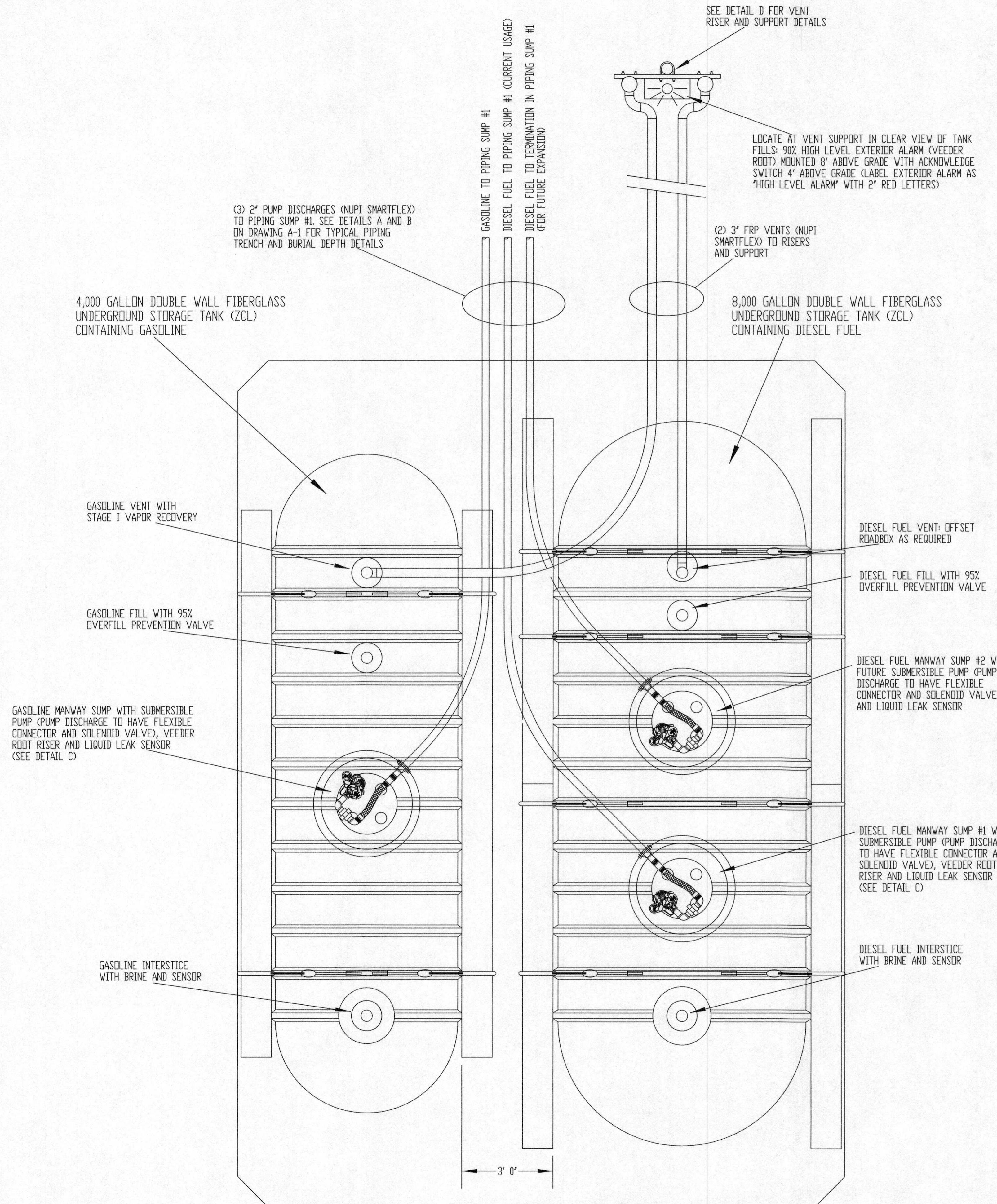
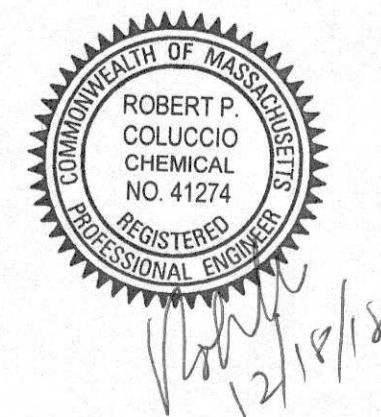
TOWN OF CHATHAM
549 MAIN STREET, CHATHAM, MASSACHUSETTS

ISSUED FOR CONSTRUCTION
PIPING / MECHANICAL

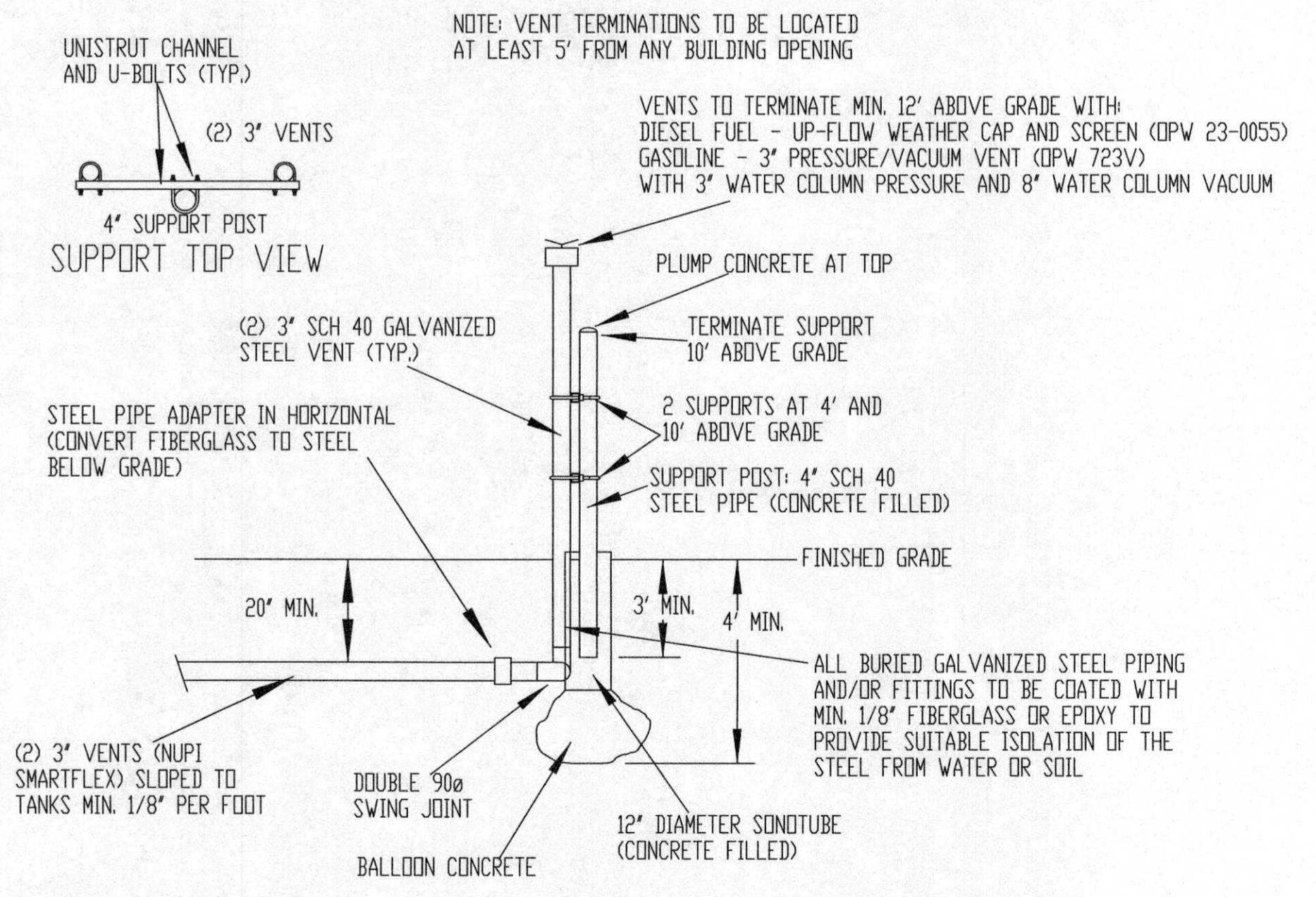
WEB ENGINEERING ASSOCIATES, INC.
111 SUMMER STREET, SCITUATE, MASSACHUSETTS 02066

DATE	REVISION

FILE: PIPING
DRAWN BY: JAS
DATE: 12/21/18
JOB #: 18-E-011
WEB DRAWING NO. 1873
SCALE: 1/2" = 1'



DETAIL C
TANK SUMP CONFIGURATION
NOT TO SCALE



DETAIL D
VENT SUPPORT AND TERMINATION
NOT TO SCALE

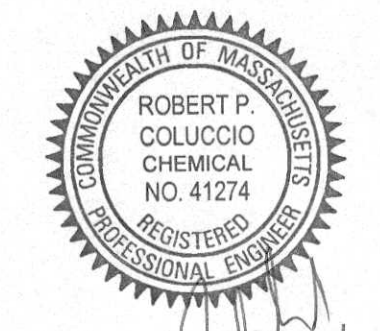
NOTE: ALL GASOLINE RELATED EQUIPMENT TO BE CARB APPROVED PER EXECUTIVE ORDER VR-401-R

NOTE: PIPING AND VENTILATION TO MEET OR EXCEED ANSI B31 "PRESSURE PIPING CODE" AND API 2000 FOR "VENTING ATMOSPHERIC AND LOW PRESSURE TANKS"

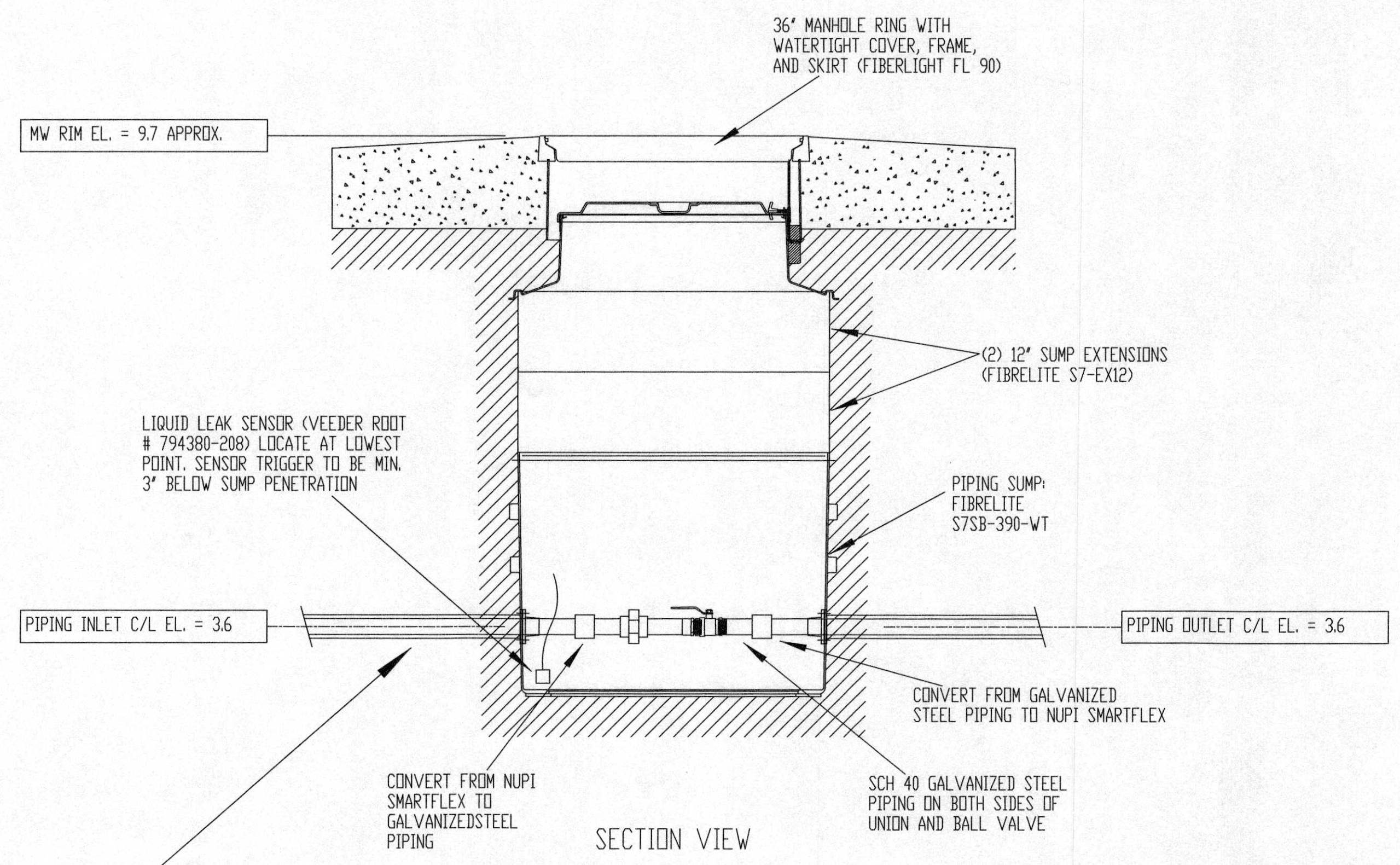
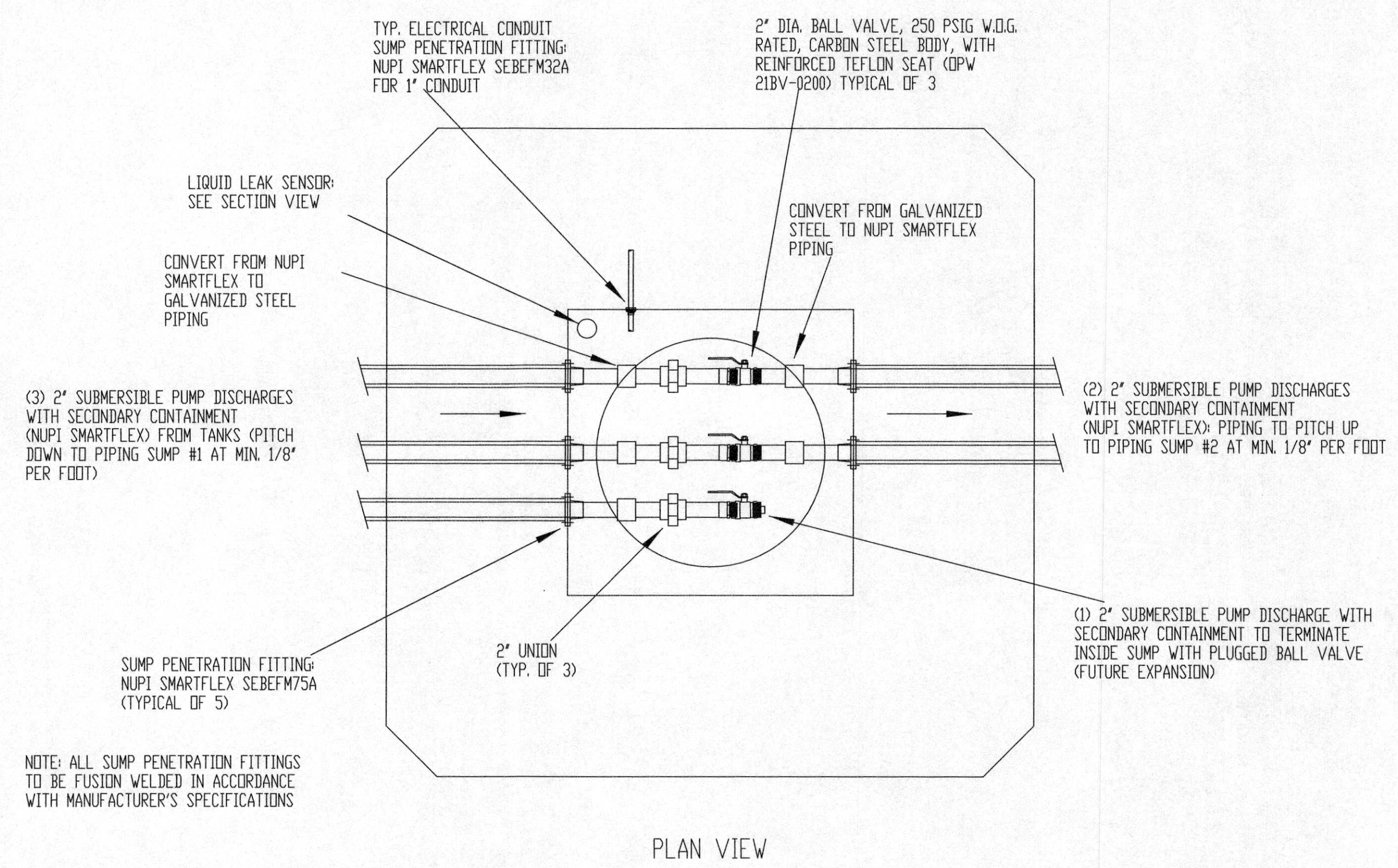
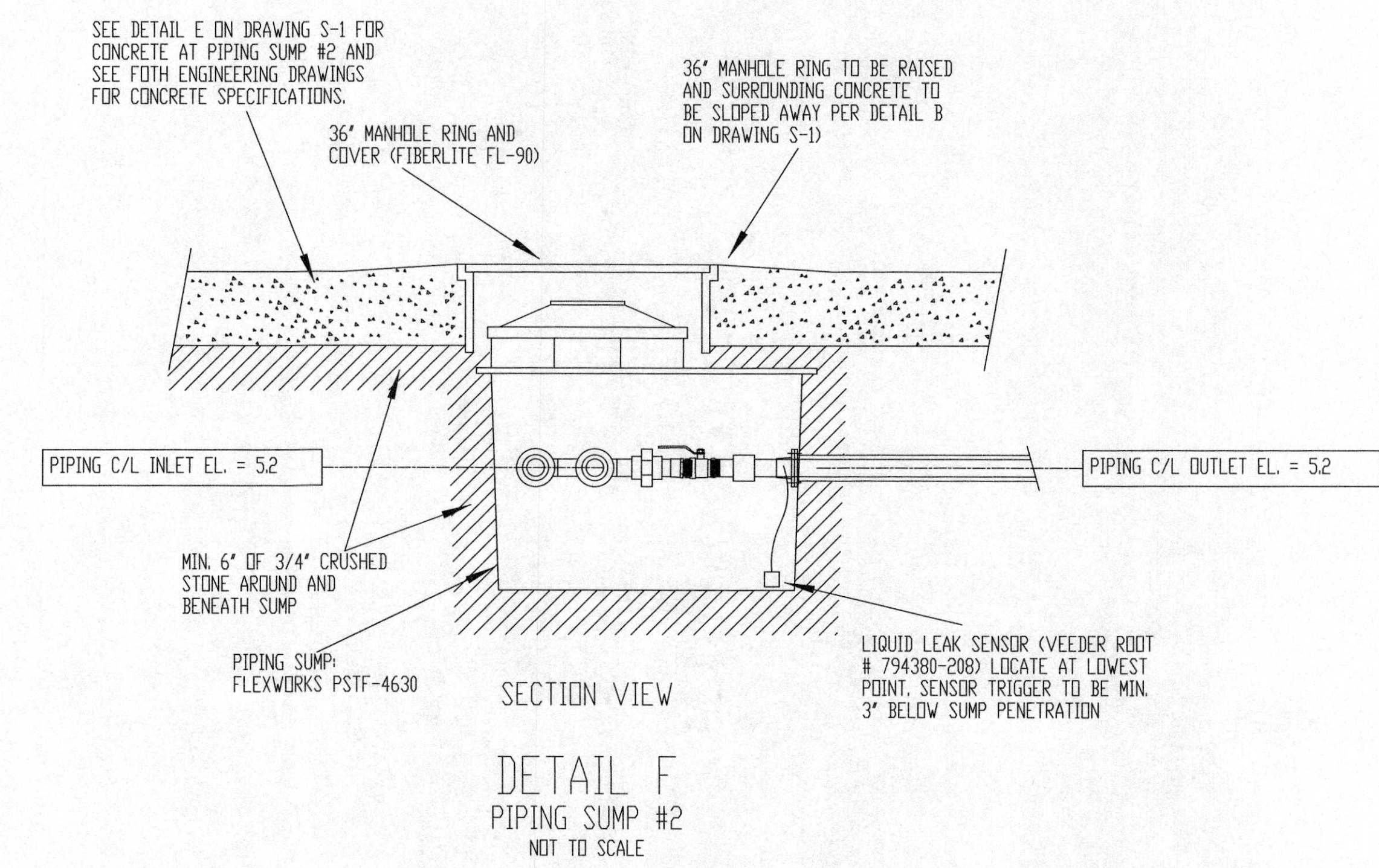
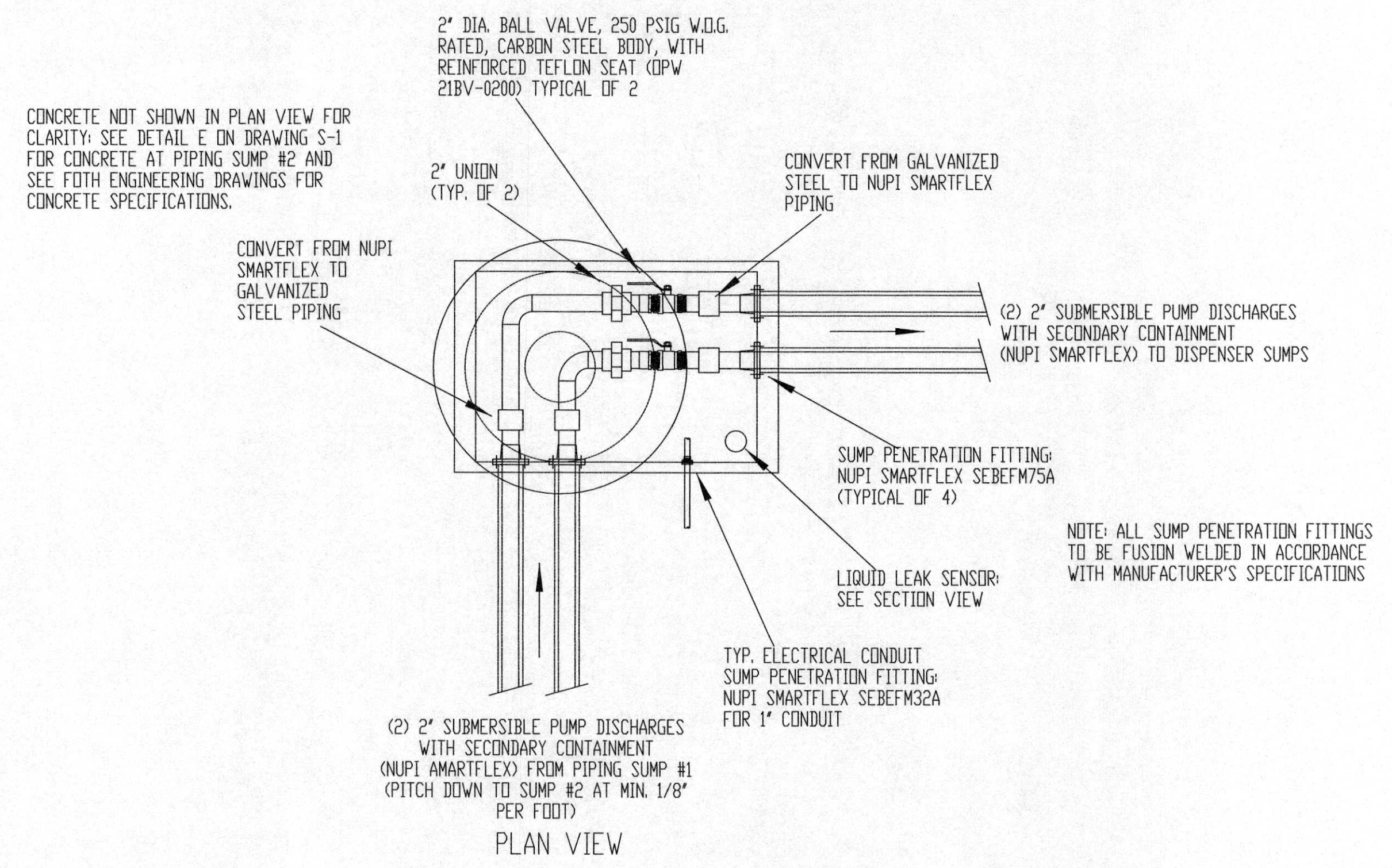
SEE DRAWING M-2 FOR ADDITIONAL DETAILS
SEE DRAWING A-1 FOR TANK LOCATION ON SITE

DATE	REVISION

FILE: DETAILS
DRAWN BY: JAS
DATE: 12/21/18
JOB #: 18-E-011
WEB DRAWING NO. 1874
SCALE: 1/2" = 1'



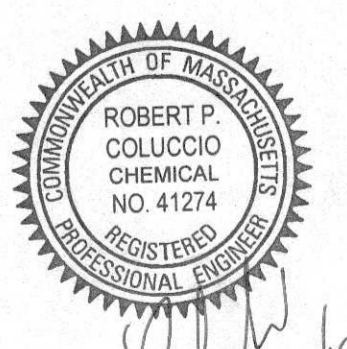
12/18/18



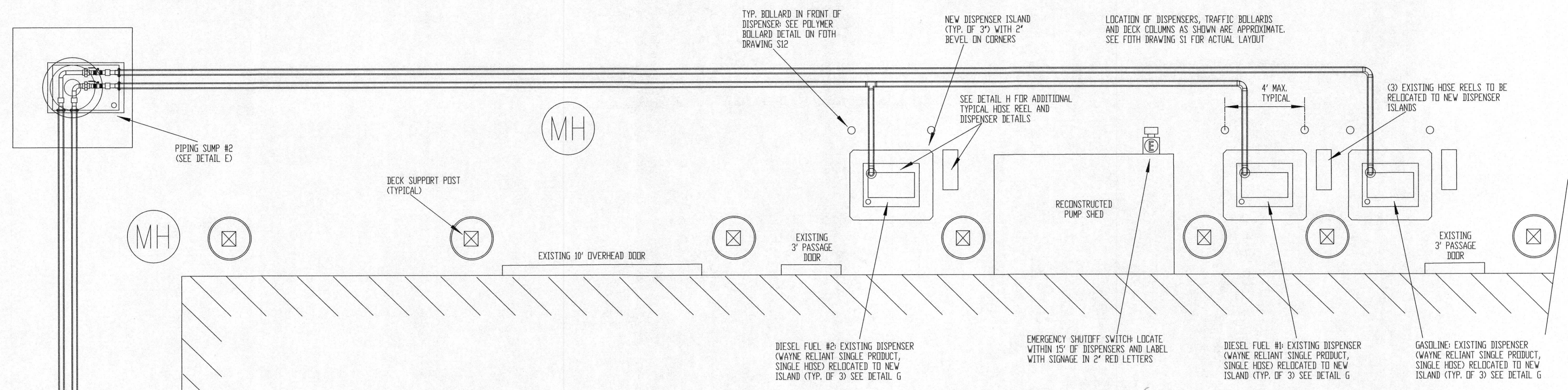
PIPING AND ELECTRICAL DEPICTED REPRESENTS ALTERNATE BID DESIGN. BASE BID WILL INCLUDE MODIFICATION OF TANK-SIDE PIPING FOR SUMP ENTRY, CONNECTION TO NEW PIPING AND FINAL TESTING OF PIPING AND ELECTRICAL. CONTRACTOR TO SUBMIT FOR APPROVAL DETAILED PLAN UNDER BASE BID TO ACCOMPLISH ELEVATION CHANGE BETWEEN EXISTING AND NEW PIPING.

DATE	REVISION

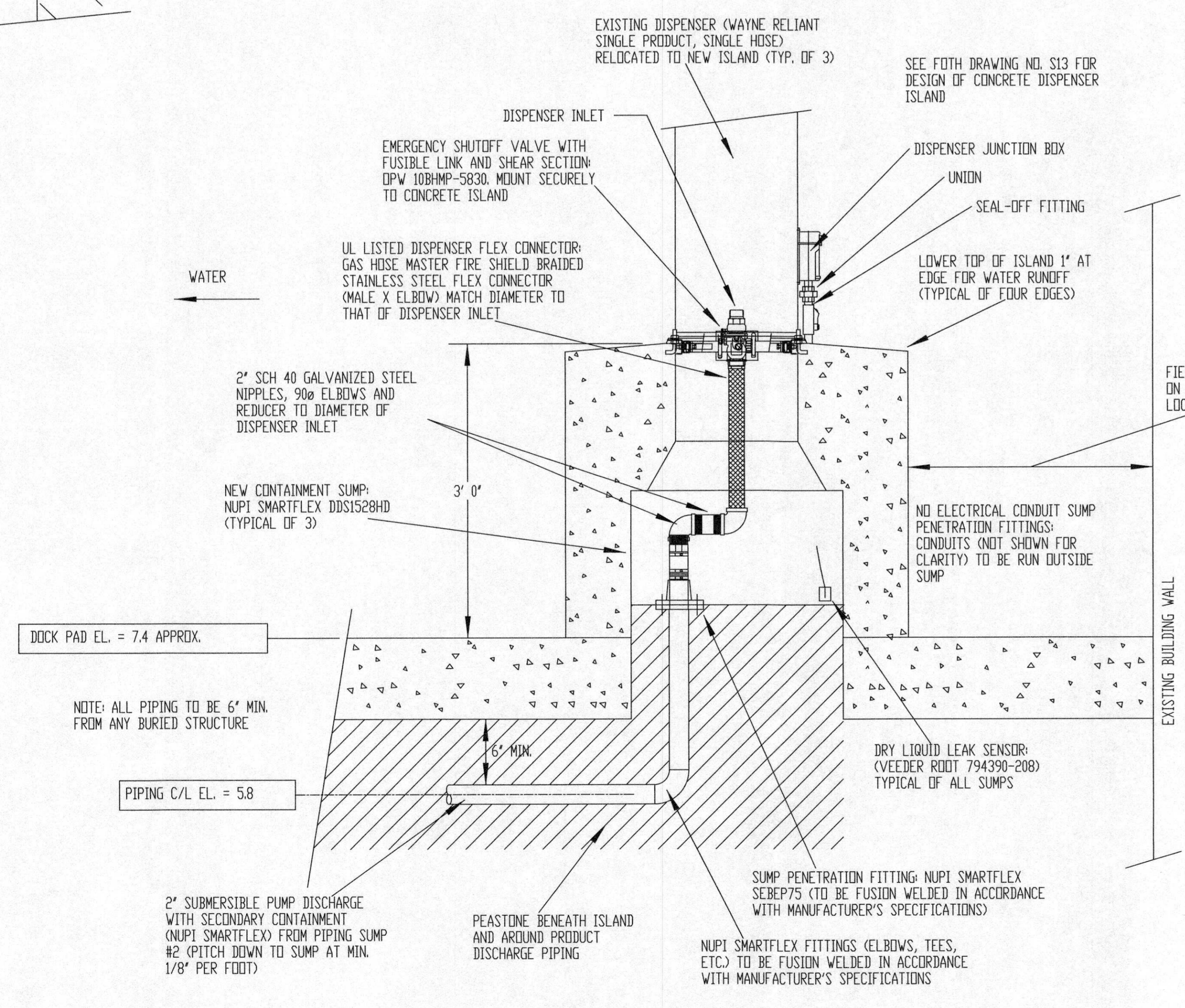
FILE: DOCK DETAILS A
DRAWN BY: JAS
DATE: 12/21/18
JOB #: 18-E-011
WEB DRAWING NO. 1875
SCALE: 3/8" = 1'



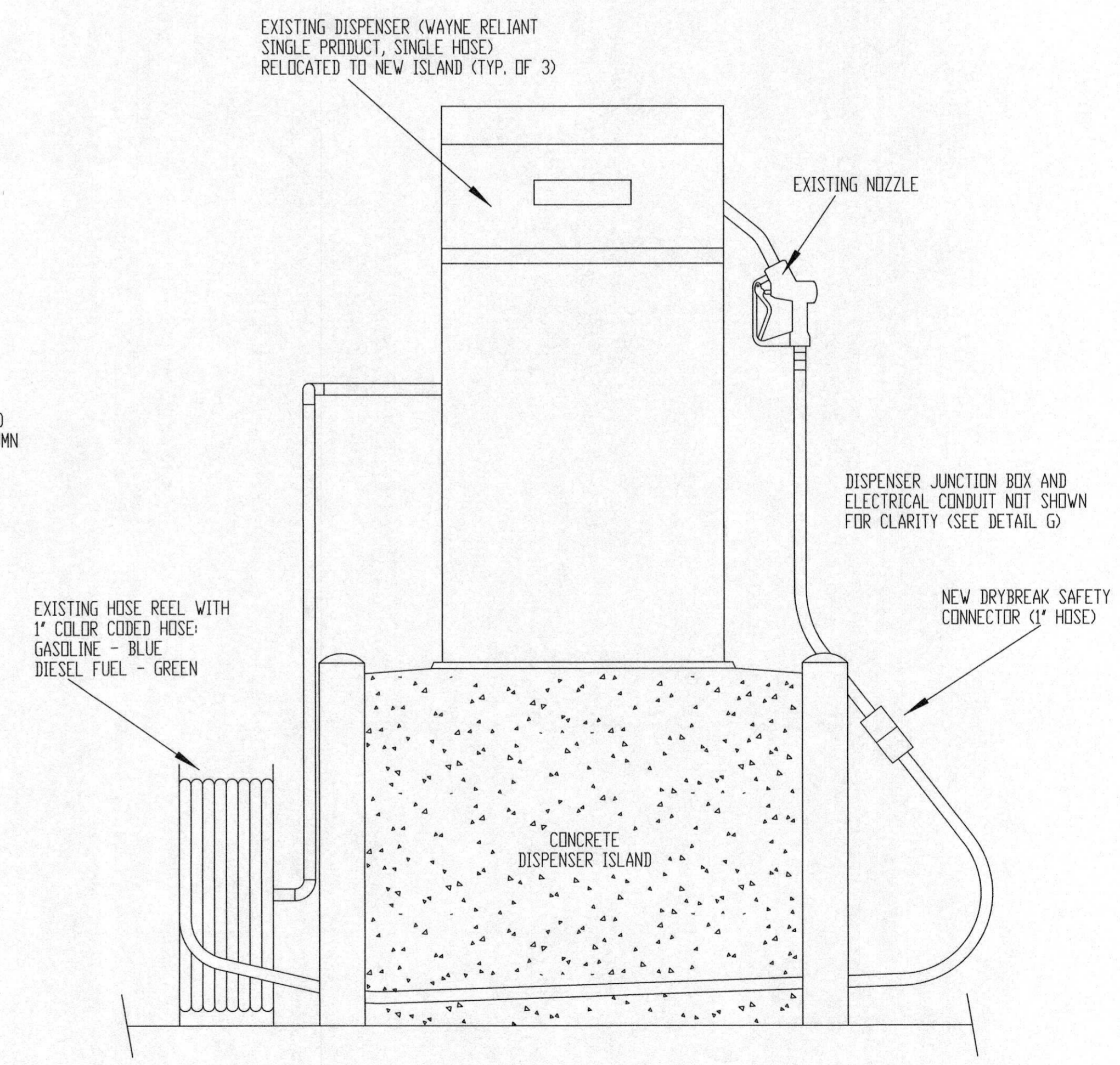
12/18/18



PLAN VIEW: PIER AREA



DETAIL G
TYP. DISPENSER, SUMP, AND ISLAND
NOT TO SCALE



DETAIL H
TYP. DISPENSER AND HOSE REEL
NOT TO SCALE

(2) DISCHARGE LINES FROM PIPING SUMP #1

DOCK PAD EL. = 7.4 APPROX.

NOTE: ALL PIPING TO BE 6\"/>

PIPING C/L EL. = 5.8

2\"/>

PEASTONE BENEATH ISLAND AND AROUND PRODUCT DISCHARGE PIPING

SUMP PENETRATION FITTING: NUPI SMARTFLEX SEBEP75 (TO BE FUSION WELDED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS)
NUPI SMARTFLEX FITTINGS (ELBOWS, TEES, ETC.) TO BE FUSION WELDED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

DRY LIQUID LEAK SENSOR: (VEEEDER ROOT 794390-208) TYPICAL OF ALL SUMPS

NEW CONTAINMENT SUMP: NUPI SMARTFLEX DDS1528HD (TYPICAL OF 3)

2\"/>

WATER

EMERGENCY SHUTOFF VALVE WITH FUSIBLE LINK AND SHEAR SECTION: OPW 108HMP-5830. MOUNT SECURELY TO CONCRETE ISLAND
UL LISTED DISPENSER FLEX CONNECTOR: GAS HOSE MASTER FIRE SHIELD BRAIDED STAINLESS STEEL FLEX CONNECTOR (MALE X ELBOW) MATCH DIAMETER TO THAT OF DISPENSER INLET

EXISTING DISPENSER (WAYNE RELIANT SINGLE PRODUCT, SINGLE HOSE) RELOCATED TO NEW ISLAND (TYP. OF 3)

SEE FOTH DRAWING NO. S13 FOR DESIGN OF CONCRETE DISPENSER ISLAND

DISPENSER JUNCTION BOX
UNION
SEAL-OFF FITTING

LOWER TOP OF ISLAND 1\"/>

NO ELECTRICAL CONDUIT SUMP PENETRATION FITTINGS: CONDUITS (NOT SHOWN FOR CLARITY) TO BE RUN OUTSIDE SUMP

FIELD DETERMINE BASED ON DECK SUPPORT COLUMN LOCATIONS

EXISTING BUILDING WALL

EXISTING HOSE REEL WITH 1\"/>

EXISTING DISPENSER (WAYNE RELIANT SINGLE PRODUCT, SINGLE HOSE) RELOCATED TO NEW ISLAND (TYP. OF 3)

EXISTING NOZZLE

DISPENSER JUNCTION BOX AND ELECTRICAL CONDUIT NOT SHOWN FOR CLARITY (SEE DETAIL G)

NEW DRYBREAK SAFETY CONNECTOR (1\"/>

LOCATION OF DISPENSERS, TRAFFIC BOLLARDS AND DECK COLUMNS AS SHOWN ARE APPROXIMATE. SEE FOTH DRAWING S1 FOR ACTUAL LAYOUT

NEW DISPENSER ISLAND (TYP. OF 3) WITH 2\"/>

TYP. BOLLARD IN FRONT OF DISPENSER: SEE POLYMER BOLLARD DETAIL ON FOTH DRAWING S12

SEE DETAIL H FOR ADDITIONAL TYPICAL HOSE REEL AND DISPENSER DETAILS

4\"/>

(3) EXISTING HOSE REELS TO BE RELOCATED TO NEW DISPENSER ISLANDS

RECONSTRUCTED PUMP SHED

EXISTING 3\"/>

EXISTING 3\"/>

EXISTING 10\"/>

DECK SUPPORT POST (TYPICAL)

PIPING SUMP #2 (SEE DETAIL E)

MH

MH

MH

MH

MH

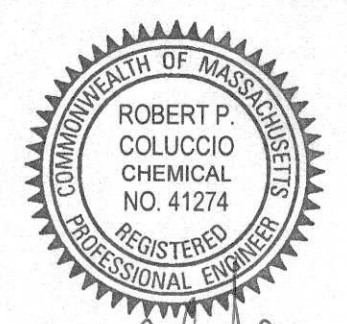
MH

MH

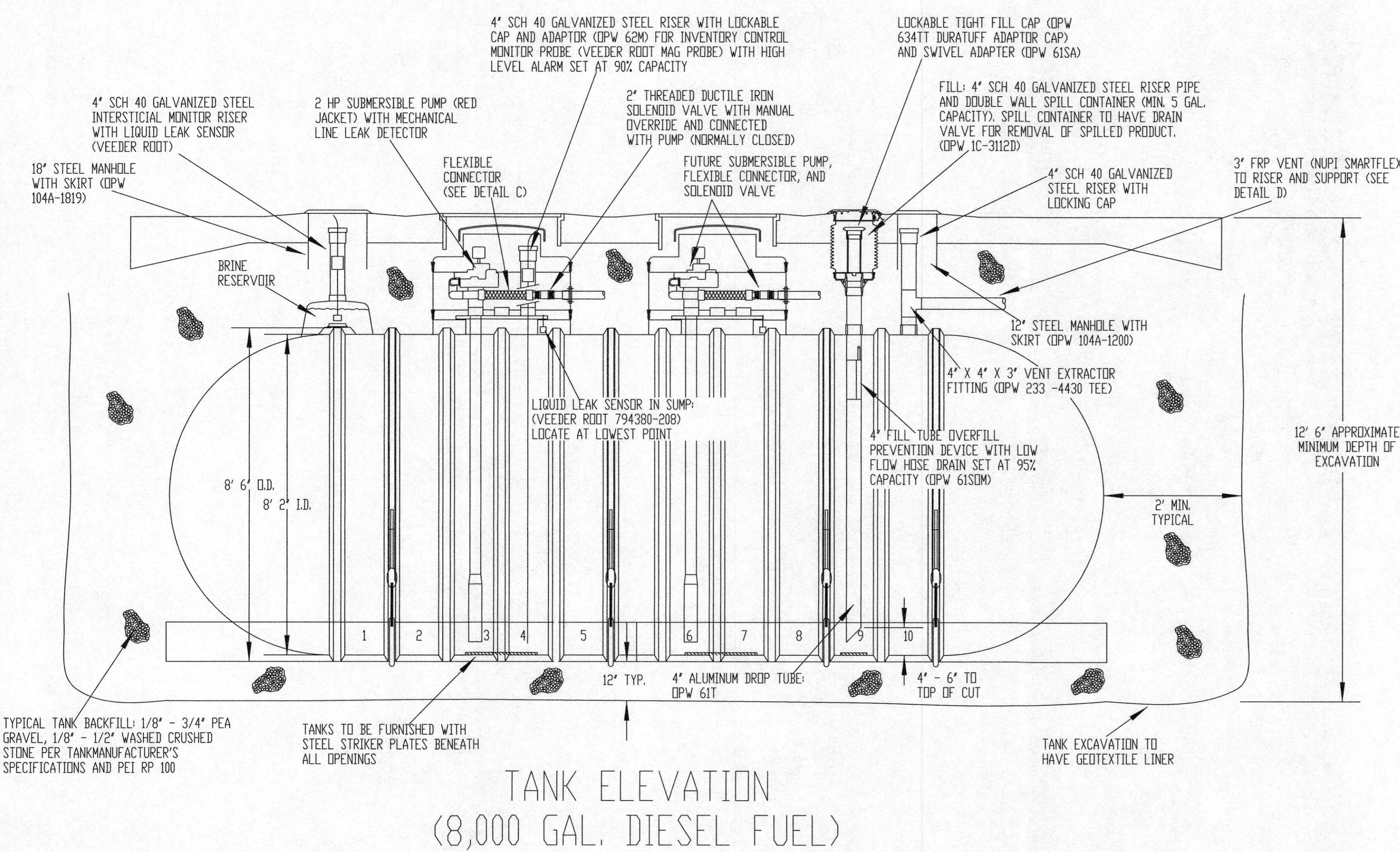
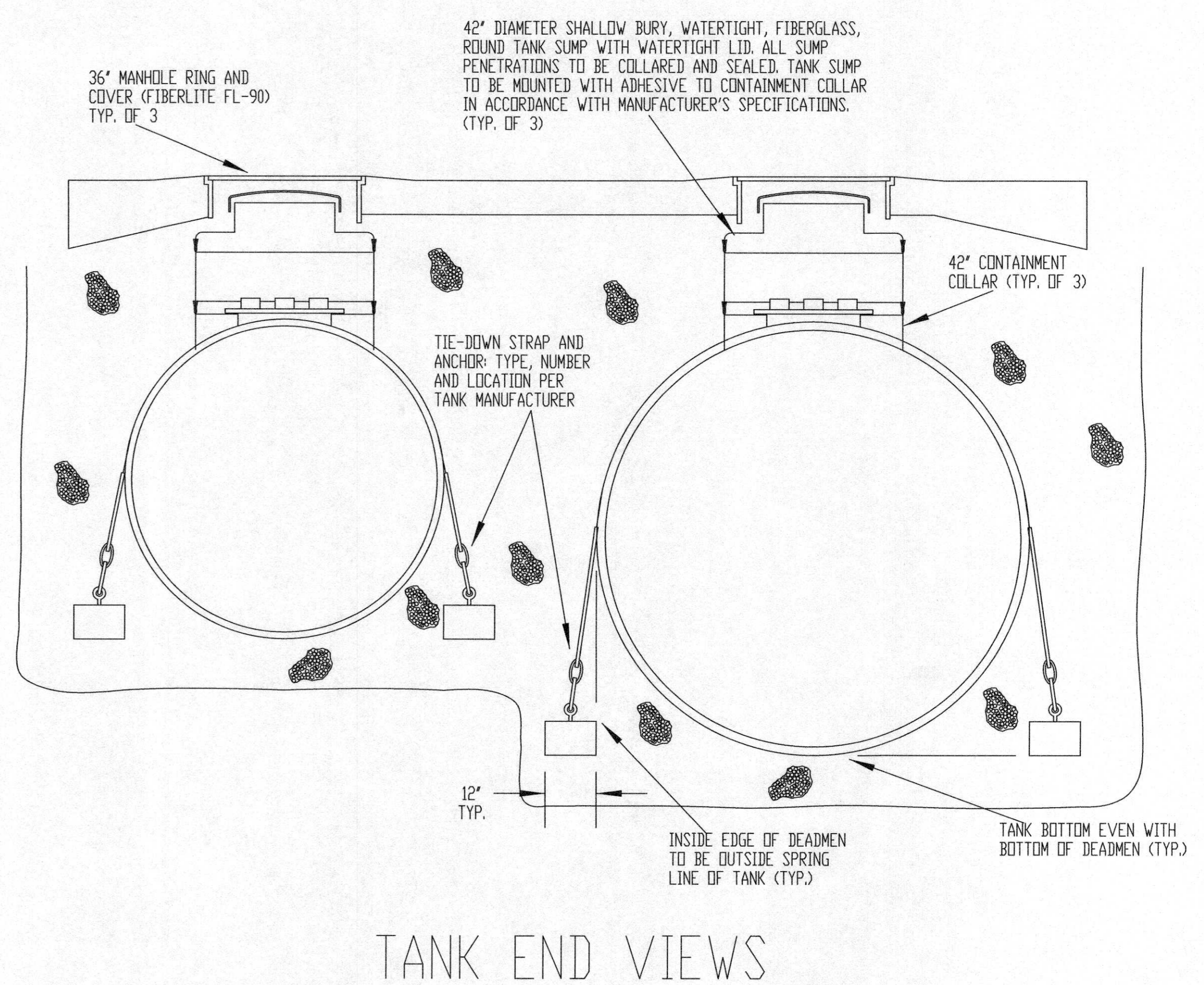
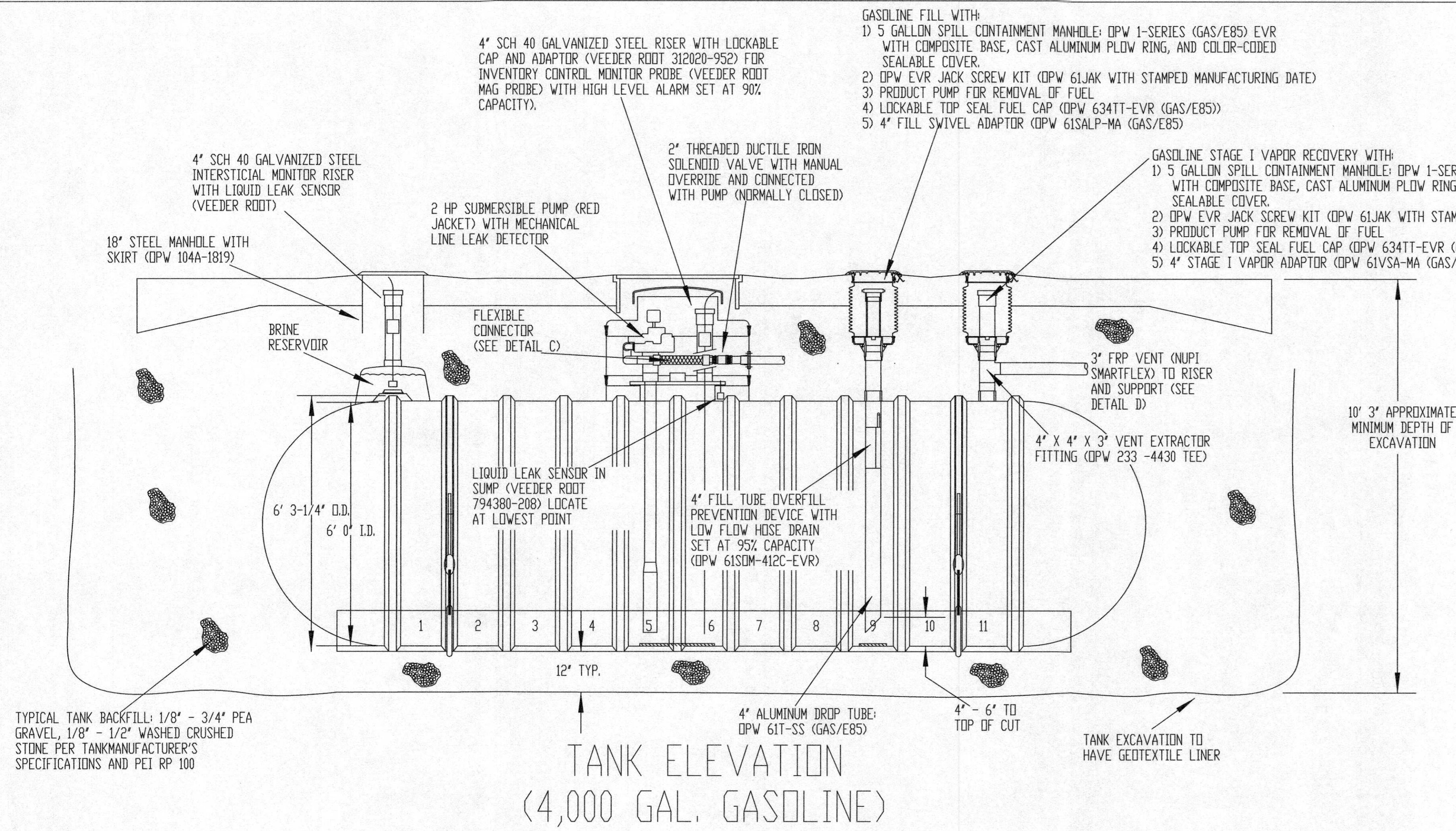
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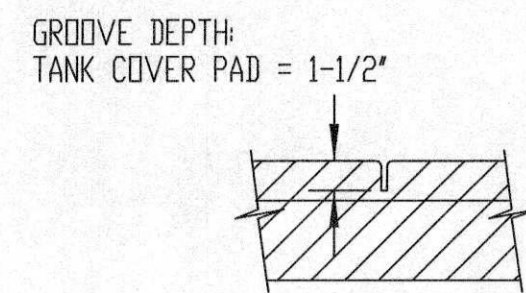
DATE	REVISION

FILE: TANK ELEVATIONS
DRAWN BY: JAS
DATE: 12/21/18
JOB #: 18-E-011
WEB DRAWING NO. 1876
SCALE: 1/2" = 1'



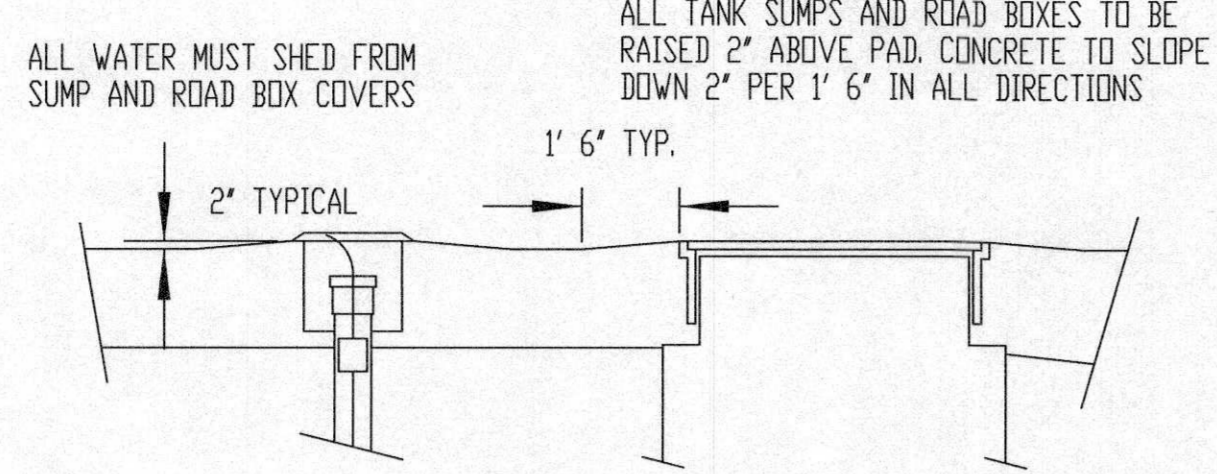
Robert P. Coluccio
12/18/18



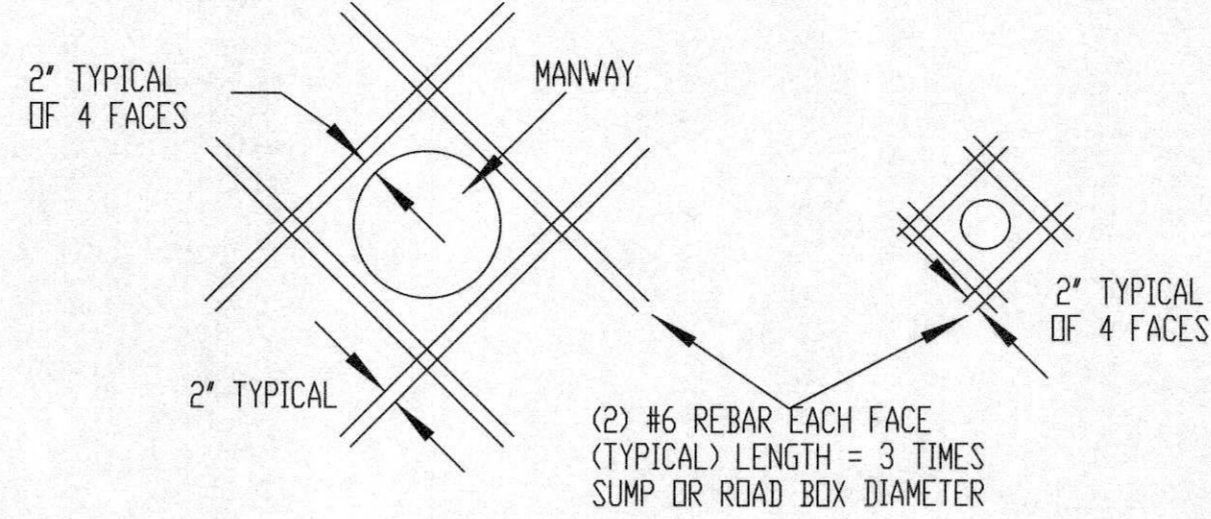


DETAIL A
TYPICAL CONTROL JOINT
NOT TO SCALE

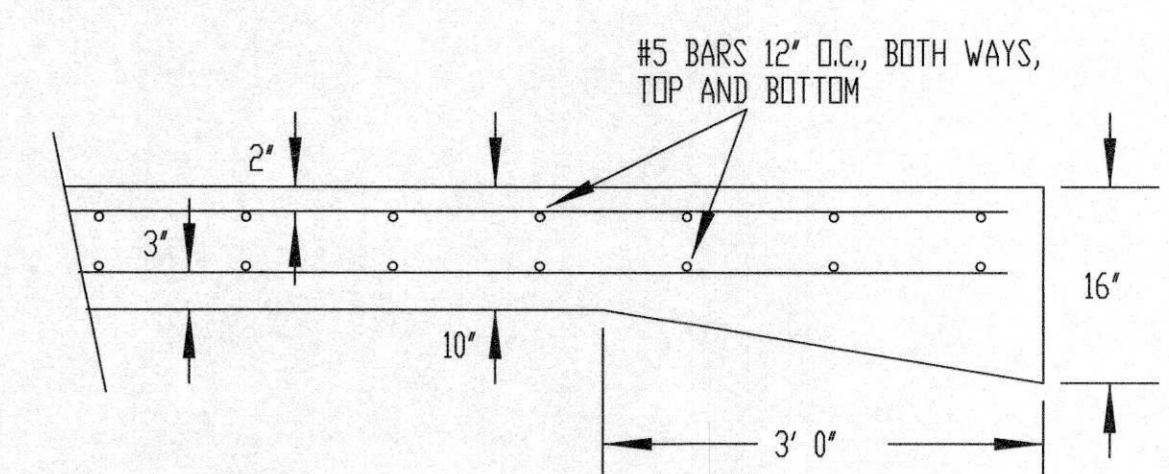
NO MORE THAN 50% OF REINFORCEMENT TO RUN THROUGH JOINTS



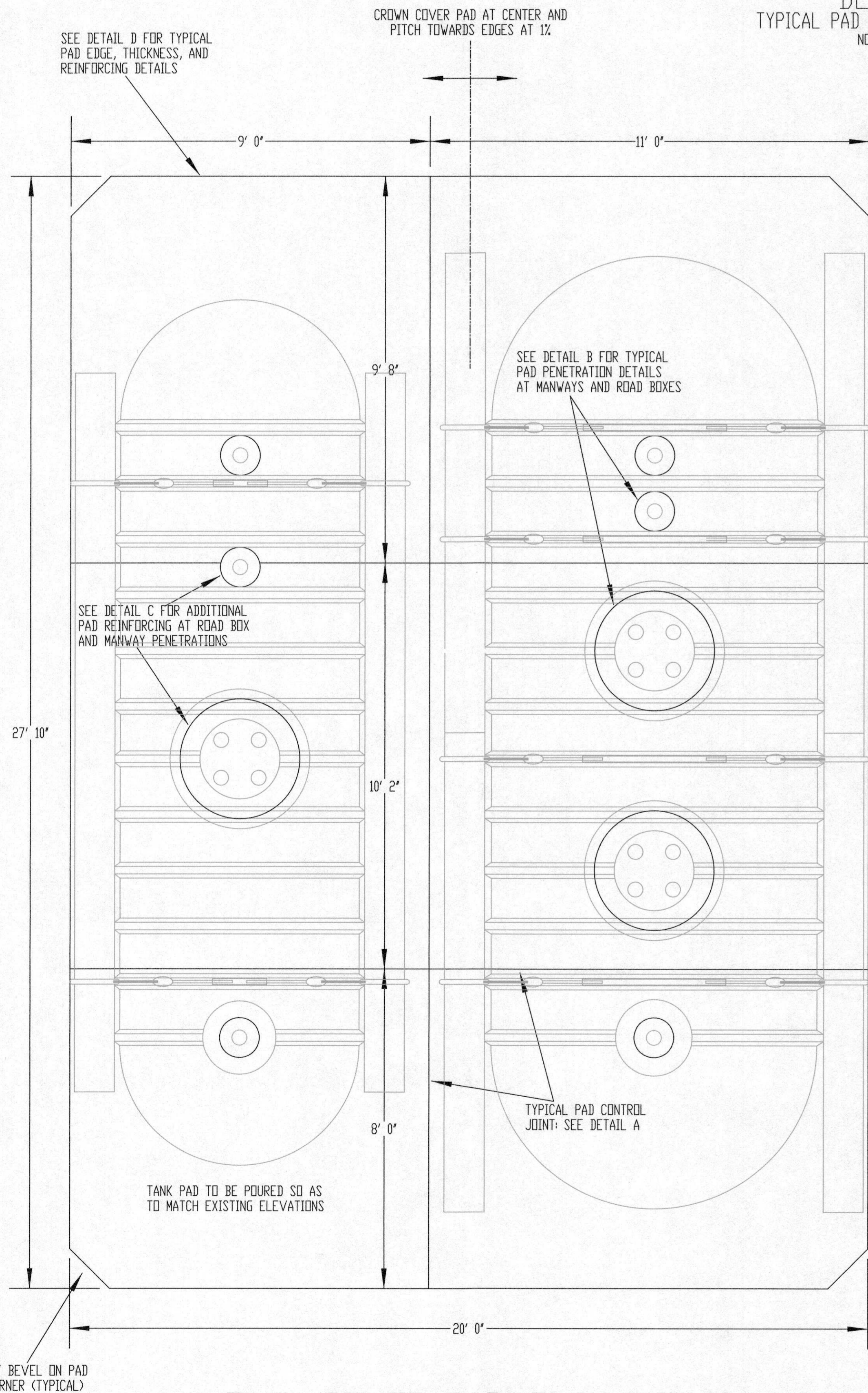
DETAIL B
TYPICAL PAD PENETRATION DETAILS
NOT TO SCALE



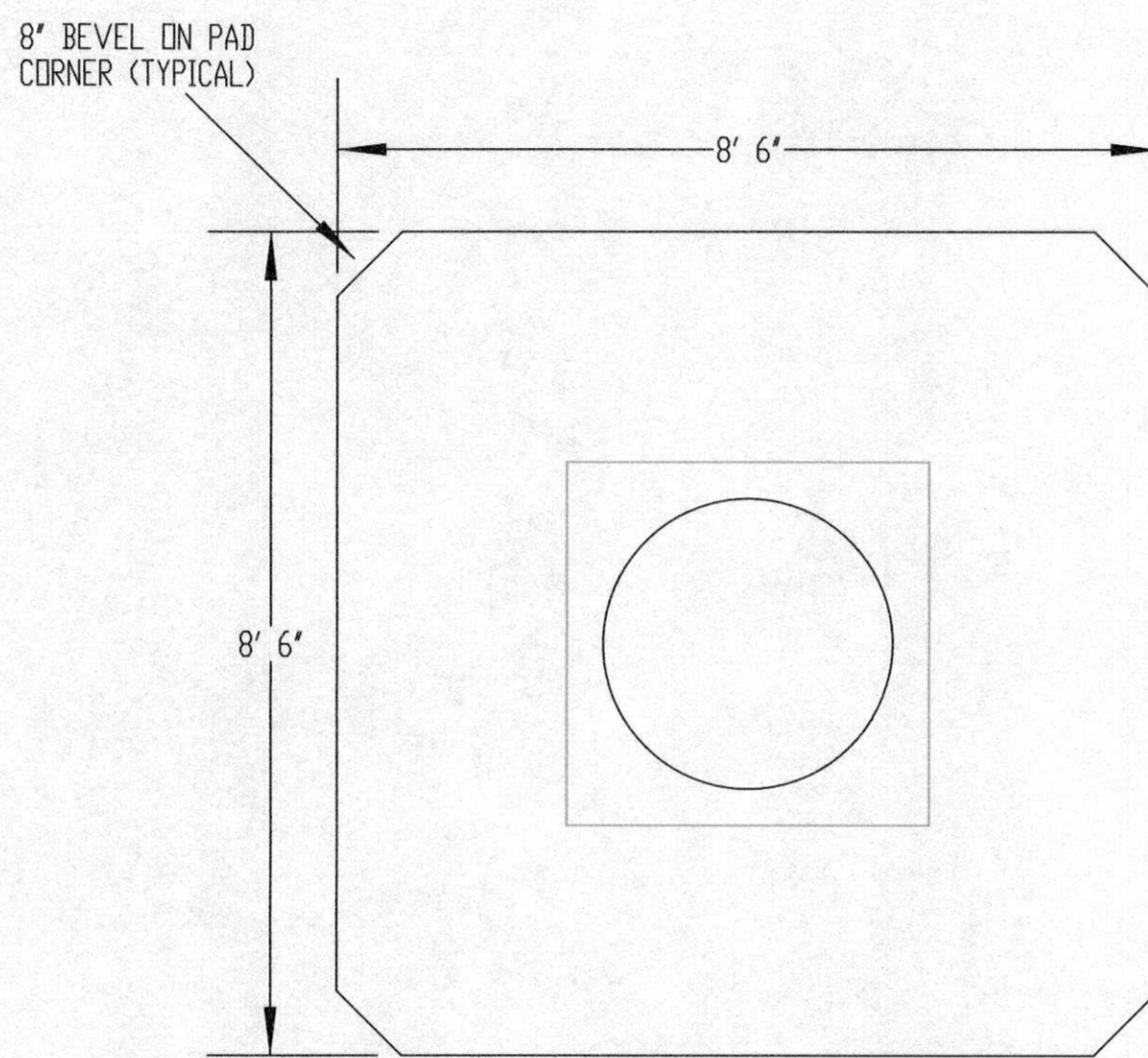
DETAIL C
TYPICAL REINFORCING DETAILS
AROUND TANK SUMPS AND ROAD BOXES
NOT TO SCALE



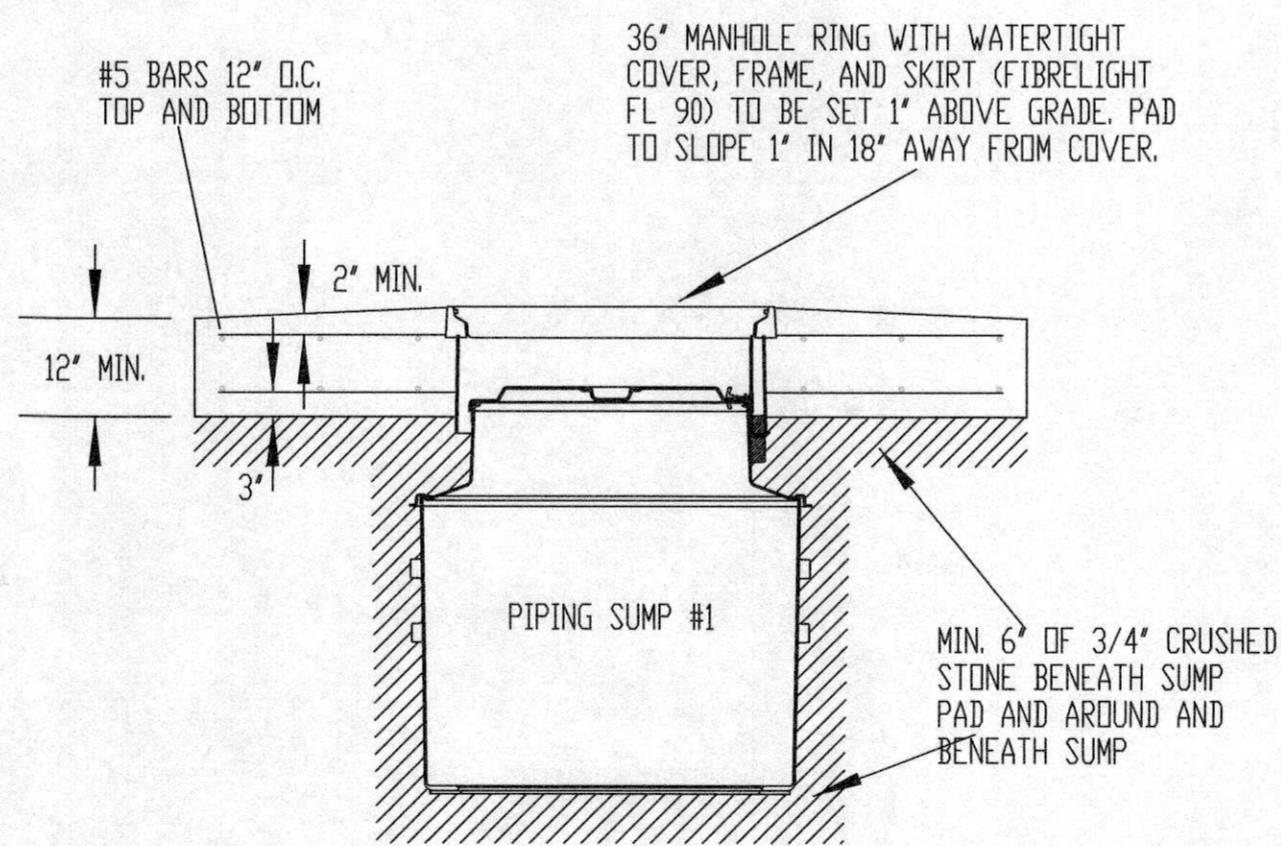
DETAIL D
PAD EDGE, THICKNESS & REINFORCING
(TYP. OF 4 EDGES)
NOT TO SCALE



TANK COVER PAD: PLAN VIEW

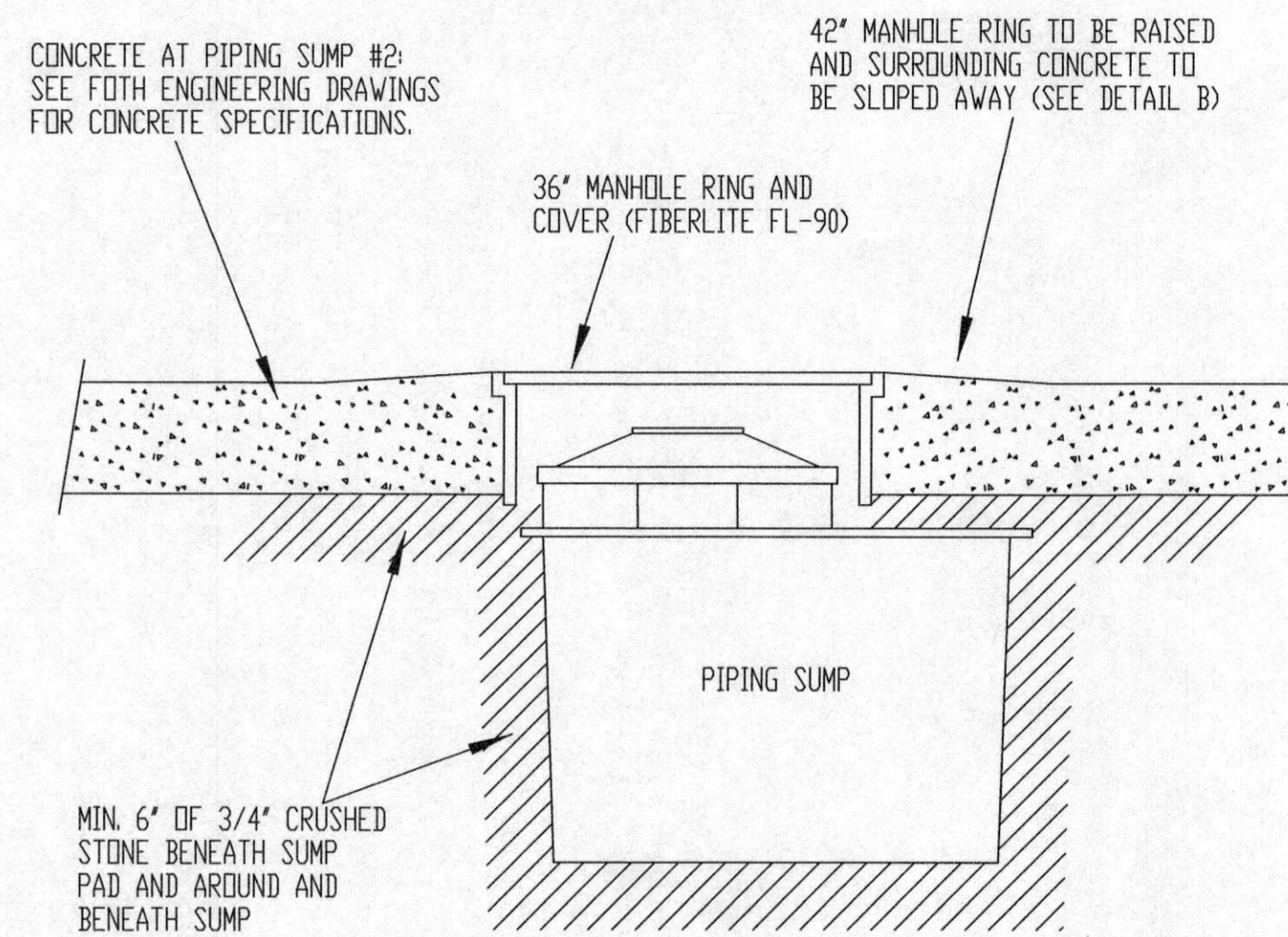


PLAN VIEW



SECTION VIEW

PIPING SUMP #1 PAD



SECTION VIEW

DETAIL E
CONCRETE AT PIPING SUMP #2
NOT TO SCALE

GENERAL CONCRETE NOTES:

- 1) ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE MASSACHUSETTS BUILDING CODE AND MEET OR EXCEED THE LATEST REVISION OF ACI 318.
- 2) ALL CONCRETE SHALL ATTAIN A MIN. COMPRESSIVE STRENGTH OF 4000 PSI AT THE END OF 28 DAYS. ALL EXTERIOR EXPOSED CONCRETE SHALL BE AIR ENTRAINED. (NOMINAL 6%) ALL PROPOSED CONCRETE MIXES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. ALL APPROVED MIX DESIGNS SHALL BE IN STRICT CONFORMANCE TO CHAPTER 4 OF ACI 318-17. ALL CONCRETE SHALL CONFORM TO ACI 350R CONCRETE SANITARY ENGINEERING STRUCTURES.
- 3) ALL REINFORCING STEEL, EXCEPT AS OTHERWISE NOTED, SHALL BE DEFORMED BARS CONFORMING TO ASTM DESIGNATION A615 GRADE 60.
- 4) SHORE, SHEET AND BRACE EXCAVATIONS AS REQUIRED TO ASSURE COMPLETE SAFETY AGAINST COLLAPSE OF EARTH AND DAMAGE TO ADJACENT PROPERTY INCLUDING BUT NOT LIMITED TO EXISTING STREETS, BUILDING AND UTILITY LINES.
- 5) CONTRACTOR TO PROVIDE A SHORING PLAN CERTIFIED BY A MASSACHUSETTS PROFESSIONAL ENGINEER.
- 6) DEPTH OF EXCAVATION REQUIRED IS ESTIMATED AND NOT TO BE CONSTRUED AS LIMITING IN ANY WAY THE AMOUNT OF EXCAVATION REQUIRED FOR COMPLETE INSTALLATION.
- 7) SHOP DRAWINGS, REVIEWED BY THE GENERAL CONTRACTOR, FOR REINFORCING, AND POUR SCHEDULES SHALL BE SUBMITTED TO THE ENGINEER AND A STAMPED APPROVAL RECEIVED BEFORE FABRICATION CAN PROCEED. ERECTION SHALL BE MADE FROM SHOP DRAWINGS ONLY.
- 8) CONSTRUCTION JOINTS MAY NOT BE ADDED WITHOUT THE APPROVAL OF AN ENGINEER.
- 9) ALL REINFORCING SHALL BE DETAILED IN ACCORDANCE WITH ACI MANUAL AS AMENDED TO DATE.
- 10) WHERE REINFORCING BARS ARE CALLED FOR, INDICATED, OR REQUIRED, THEY SHALL BE RUN CONTINUOUSLY AROUND CORNERS, LAPPED AT NECESSARY SPLICES, SPLICES STAGGERED WHERE EVER POSSIBLE, AND HOOKED AT DISCONTINUOUS ENDS. LAPS SHALL BE CLASS "B" TYPE.
- 11) PROVIDE AND SCHEDULE WITH SHOP DRAWINGS, ALL NECESSARY ACCESSORIES TO HOLD THE REINFORCING SECURELY AND ACCURATELY IN POSITION. HIGH CHAIRS SHALL BE SPACED AT 4' 0" O.C. MAXIMUM AND WIRED TO BOTTOM SLAB REINFORCING. SUPPORT BARS ON HIGH CHAIRS SHALL BE #5 MINIMUM. SLAB BOLSTERS SHALL BE SPACED AT 3' 6" MAXIMUM.
- 12) CLEARANCE OF MAIN REINFORCING BARS FROM ADJACENT CONCRETE SURFACES SHALL BE:
 - A) WHERE UNFORMED FACE OF CONCRETE IS IN CONTACT WITH EARTH, 3'
 - B) WHERE FORMED FACE OF CONCRETE IS IN CONTACT WITH EARTH, OR EXPOSED TO WEATHER, 2'
 - C) THE MAXIMUM ALLOWABLE DEVIATION FROM THE FIGURES ABOVE, WHEN PLACING REINFORCING IN THE FORMS, SHALL BE 1/4" FOR ALL SHAPES.
- 13) SAMPLING OF POURED CONCRETE SHALL CONSIST OF 4 CYLINDERS PER POUR COMPRESSION-TESTED AT 7 AND 28 DAYS WITH TEST RESULTS SUBMITTED TO ENGINEER FOR APPROVAL.
- 14) ALL REINFORCING STEEL TO BE FREE OF VISIBLE RUST.
- 15) BASED ON AMBIENT TEMPERATURE, POURED CONCRETE TO BE COVERED AND MAINTAINED WITH WET BURLAP FOR (7) DAYS AFTER POURING. DURING THIS PERIOD NO WEIGHT IS TO BE APPLIED TO PADS. MAINTAIN GROUNDWATER ELEVATION BELOW BOTTOM OF PADS.
- 16) ALL CONCRETE TO BE CONTINUOUSLY AND ADEQUATELY VIBRATED DURING PLACEMENT.

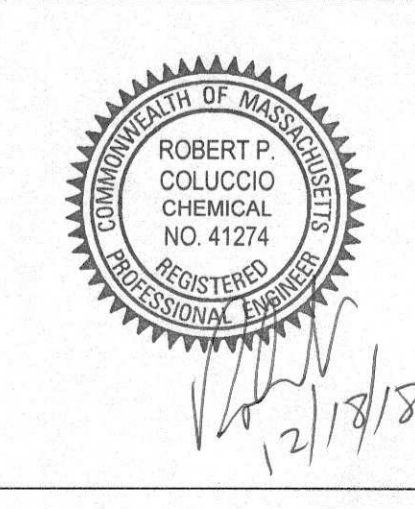
XXX PROPOSED ELEVATION

TOWN OF CHATHAM
549 MAIN STREET, CHATHAM, MASSACHUSETTS
ISSUED FOR CONSTRUCTION
CONCRETE

WEB ENGINEERING ASSOCIATES, INC.
111 SUMMER STREET, SCITUATE, MASSACHUSETTS 02066

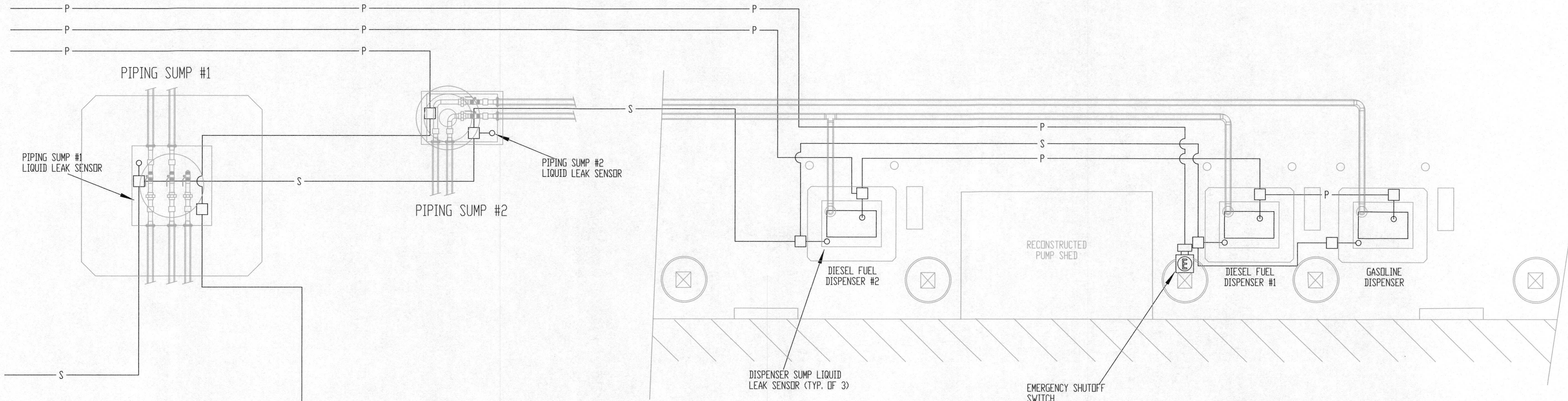
DATE	REVISION

FILE: CONCRETE
DRAWN BY: JAS
DATE: 12/21/18
JOB #: 18-E-011
WEB DRAWING NO. 1877
SCALE: 1/2" = 1'



MS-1

(3) POWER CONDUITS FOR DISPENSERS, EMERGENCY SHUTOFF SWITCH, AND SUBMERSIBLE PUMPS TO PANEL IN HARBOR MASTER BUILDING



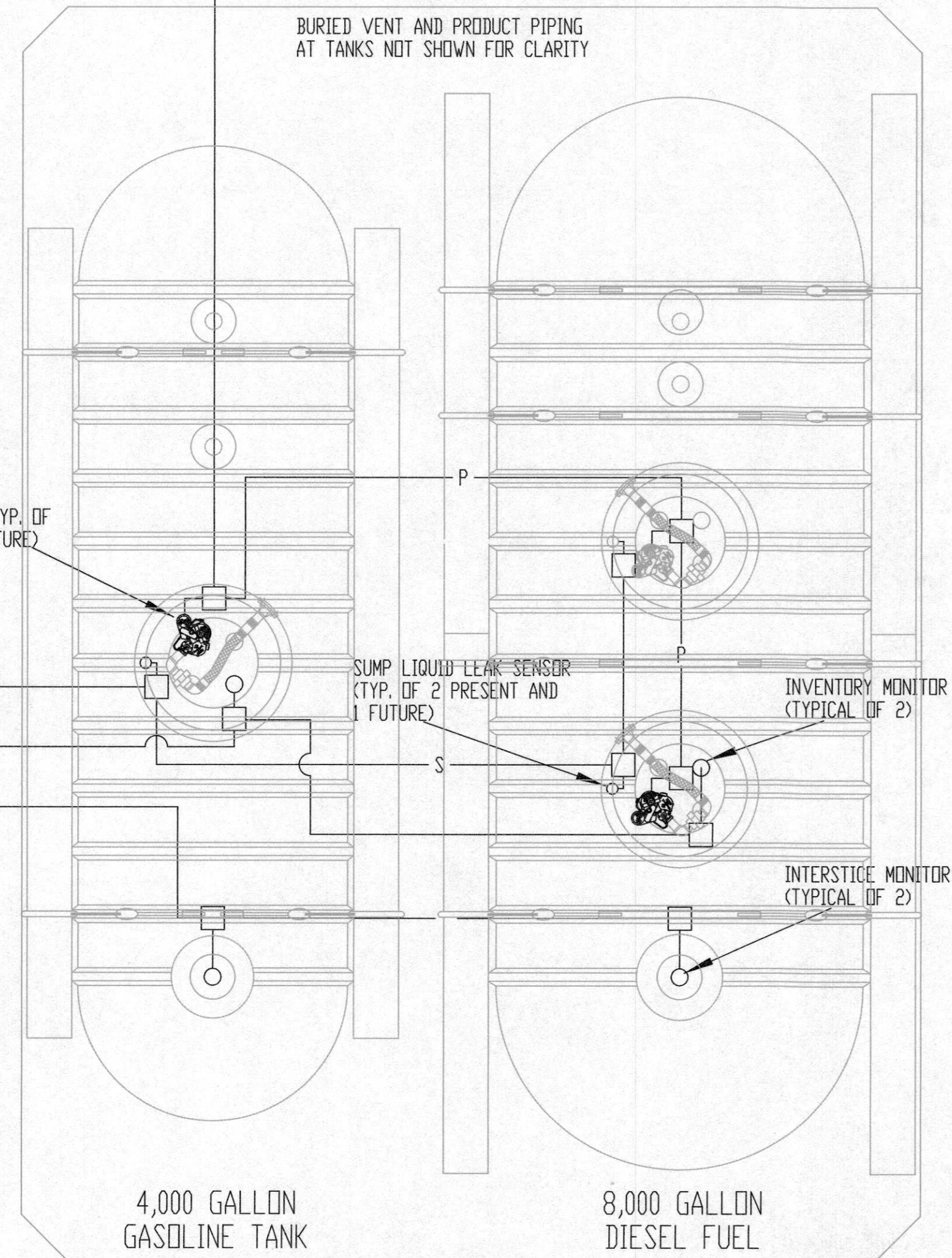
PLAN VIEW: PIER AREA

SIGNAL CONDUIT FOR DISPENSER AND PIPING SUMP LIQUID LEAK SENSORS TO INVENTORY CONSOLE IN HARBOR MASTER BUILDING

POWER AND SIGNAL CONDUITS FOR HIGH LEVEL ALARM TO EXISTING TLS 300C AND ILS-350 INVENTORY CONSOLE IN HARBOR MASTER BUILDING

EXISTING TLS 300C AND ILS-350 TO BE RE-USED. ALL OTHER EQUIPMENT TO BE NEW

PIPING AND ELECTRICAL DEPICTED REPRESENTS ALTERNATE BID DESIGN. BASE BID WILL INCLUDE MODIFICATION OF TANK-SIDE PIPING FOR SUMP ENTRY, CONNECTION TO NEW PIPING AND FINAL TESTING OF PIPING AND ELECTRICAL. CONTRACTOR TO SUBMIT FOR APPROVAL DETAILED PLAN UNDER BASE BID TO ACCOMPLISH ELEVATION CHANGE BETWEEN EXISTING AND NEW PIPING.



PLAN VIEW: TANK AREA

POWER CONDUIT FOR SUBMERSIBLE PUMPS TO PANEL IN FISH PACKING BUILDING

SIGNAL CONDUITS FOR INTERSTICE MONITORS, INVENTORY MONITORS, AND SUMP LIQUID LEAK SENSORS TO INVENTORY CONSOLE IN OFFICE

- NOTES:**
1. CONDUIT SYSTEM TO BE CONSTRUCTED AS SHOWN WITH SEPARATE HOME RUNS TO ATG WIREWAY.
 2. LEVEL SYSTEM CONTROL AND SIGNAL CABLES ARE TO BE CONTINUOUS FROM SENSOR OR EQUIPMENT TO SENSOR OR EQUIPMENT. NO INLINE SPLICING IS ACCEPTABLE IN RACEWAY, CONDUIT, PULLBOXES, WIREWAY, ETC.
 3. ALL EQUIPMENT WIRING TO CONFORM TO MANUFACTURER'S SPECIFICATIONS

- NOTE:**
1. CONDUIT SYSTEMS ORIGINATING AT THE ATG WIREWAY SHALL END AT JUNCTION BOXES IN SENSOR WELL/SUMP. PULL ROPES SHALL BE INSTALLED FROM EACH SENSOR WELL JUNCTION BOX TO THE ATG WIREWAY. INSTALL TAGS ON THE ENDS OF EACH PULL ROPE THAT INDICATE UNIQUELY WHERE THE OTHER END OF THE CONDUIT IS LOCATED. SENSORS AND SENSOR CABLES WILL BE INSTALLED BY OTHERS. LOCATE EACH SENSOR WELL JUNCTION BOX AS CLOSE AS PRACTICAL TO THE SENSOR LOCATION.
 2. CONDUITS USED IN THE ATG SYSTEM SHALL BE LABELED "ATG CONDUIT" WITH A PERMANENTLY ATTACHED WATERPROOF LABEL WITH A WHITE BACKGROUND AND BLACK 1/4" HIGH LETTERS. THE LABELS SHALL BE AFFIXED ON EACH PIECE CONDUIT ABOVEGROUND INSIDE THE BUILDING. LABEL SPACING SHALL NOT EXCEED 10 FEET.
 3. CONDUITS USED IN THE ATG SYSTEM TO CONVEY INTRINSICALLY SAFE WIRING SHALL BE LABELED IN ACCORDANCE WITH THE GENERAL ELECTRIC "GEOTROL" COLOR CODE AND SHALL HAVE ADJACENT SIMILARLY CONSTRUCTED LABELS THAT READ "INTRINSICALLY SAFE WIRING". SEE ELECTRICAL SYMBOL LEGEND FOR GRAPHIC SYMBOLS FOR INTRINSICALLY SAFE WIRING CONDUITS.
 4. ALL CONDUITS TO MEET APPLICABLE REQUIREMENTS OF NATIONAL ELECTRIC CODE (NFPA 70)

NOTE: CONTRACTOR TO BE RESPONSIBLE FOR ELECTRICAL CONDUIT SIZE AND TYPE OF WIRING TO BE USED BASED ON VOLTAGE, DISTANCE, AND EQUIPMENT MANUFACTURER'S REQUIREMENTS. CONTRACTOR TO CONSULT WITH MANUFACTURER'S OPERATIONS AND INSTALLATION MANUALS.

FUEL SYSTEM ELECTRICAL NOTES

1. WORK SHALL BE PERFORMED IN CONFORMANCE TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC)
2. EQUIPMENT AND DEVICES ARE TO BE INSTALLED AS INDICATED IN THEIR MANUFACTURERS' INSTRUCTIONS AND NOTE 1 ABOVE.
3. FEEDER AND CONTROL RACEWAYS ARE TO CONTAIN COPPER CONDUCTORS OF A MINIMUM SIZE OF #12 AWG AND USE CONDUITS OF A MINIMUM SIZE
4. CONDUCTOR INSULATION COLORS ARE TO FOLLOW THE GENERAL ELECTRIC "GEOTROL" COLOR CODE.
5. PANEL SCHEDULES ARE TO BE UPDATED BY TYPING IN THE INFORMATION FOR CIRCUITS CONNECTED.
6. RACEWAYS SHALL BE RIGID GALVANIZED STEEL WITH RIGID GALVANIZED STEEL FITTINGS INSTALLED PER MANUFACTURERS' INSTRUCTIONS TO CREATE A WATERTIGHT CORROSION RESISTANT RACEWAY.
7. FUEL ISLAND ELECTRICAL EQUIPMENT AS SHOWN ON THE FUEL ISLAND ELECTRICAL PLAN IS TO BE FED FROM SWITCHED NEUTRAL BREAKERS THROUGH A CONTACTOR THAT DISCONNECTS POWER, NEUTRAL, AND GROUND CONDUCTORS FOR EACH ITEM. THE CONTACTOR IS TO BE ACTIVATED IN A FAILSAFE MODE BY THE E-STOP BUTTONS.
8. CONDUIT TO FOLLOW PRODUCT PIPING RUNS. SECURE CONDUIT AS REQUIRED.

ELECTRICAL CLASSIFICATION: IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. ALL ELECTRICAL TO BE CLASS 1, DIVISION 1/2

NOTE:
CLEARLY IDENTIFIED EMERGENCY ELECTRICAL DISCONNECTS THAT ARE READILY ACCESSIBLE IN CASE OF FIRE OR PHYSICAL DAMAGE AT ANY DISPENSING UNIT SHALL BE PROVIDED ON EACH MARINE WHARF. THE DISCONNECTS SHALL BE INTERLOCKED TO SHUT OFF POWER TO ALL PUMP MOTORS FROM ANY INDIVIDUAL LOCATION AND SHALL BE MANUALLY RESET ONLY FROM A MASTER SWITCH. EACH SUCH DISCONNECT SHALL BE IDENTIFIED BY AN APPROVED SIGN STATING EMERGENCY PUMP SHUTOFF IN 2 IN. RED CAPITAL LETTERS.

	JUNCTION BOX - SIZED PER NEC BY CONTRACTOR
	UNDERGROUND CONDUIT (POWER)
	UNDERGROUND CONDUIT (SIGNAL)

E-1

TOWN OF CHATHAM
549 MAIN STREET, CHATHAM, MASSACHUSETTS

ISSUED FOR CONSTRUCTION
ELECTRICAL SCHEMATIC:
POWER, DATA, AND SIGNAL CONDUITS

WEB ENGINEERING ASSOCIATES, INC.
111 SUMMER STREET, SCITUATE, MASSACHUSETTS 02066

DATE	REVISION

FILE: ELECTRICAL
DRAWN BY: JAS
DATE: 12/21/18
JOB #: 18-E-011
WEB DRAWING NO. 1875
SCALE: 3/8" = 1'

12/21/18