



MONTECITO WATER DISTRICT

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www.tetrattech.com



RESERVOIR SEISMIC RETROFIT AND REPLACEMENT PROJECT FOR BELLA VISTA RESERVOIR



PROJECT LOCATION:	CLIENT INFORMATION:
BELLA VISTA DR MONTECITO, CALIFORNIA 34.450089, -119.579821	MONTECITO WATER DISTRICT 583 San Ysidro Rd Montercito, CA 93108
Tt PROJECT No.: 200-106490-21001	CLIENT PROJECT No.: P134

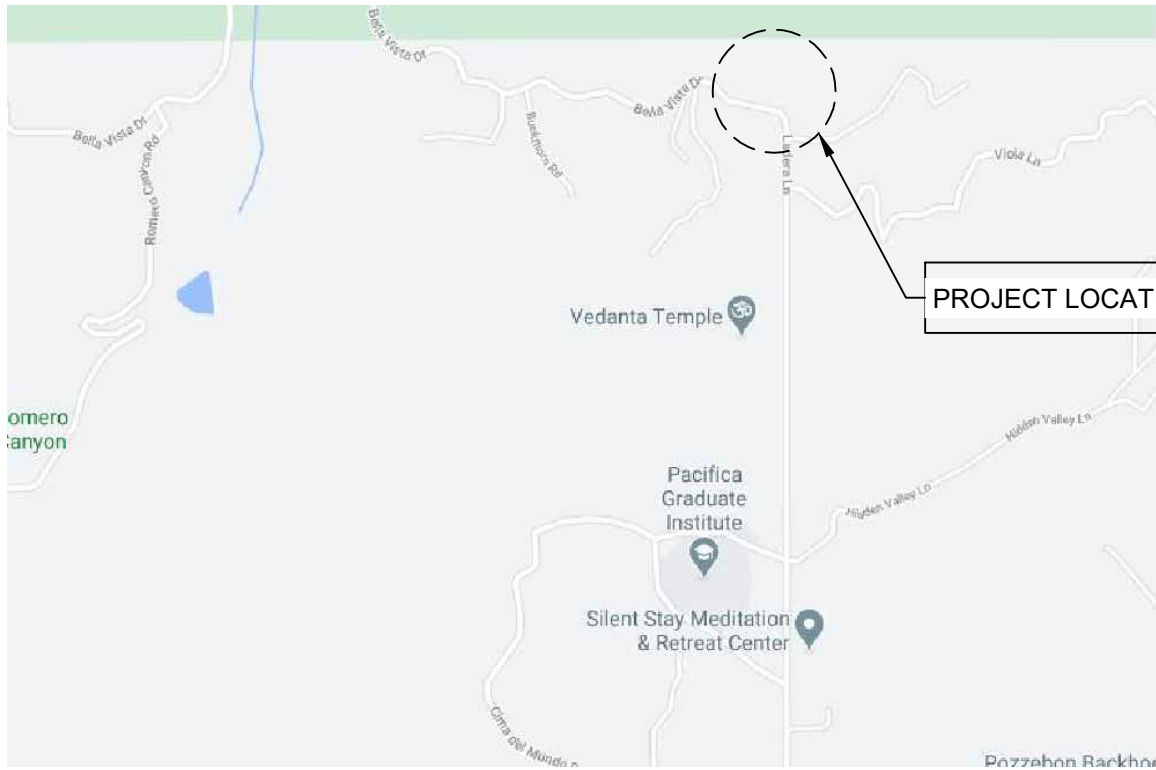
PROJECT DESCRIPTION / NOTES:
RETROFIT OF RESERVOIR WALL AND WALL FOOTING AT THE EXISTING BELLA VISTA RESERVOIR

ISSUED:
06/30/2021: 60 PERCENT DESIGN REVIEW 08/27/2021: 90 PERCENT DESIGN REVIEW 10/22/2021: 100 PERCENT DESIGN REVIEW 12/16/2021: FINAL SUBMITTAL 08/24/2026: BID SET

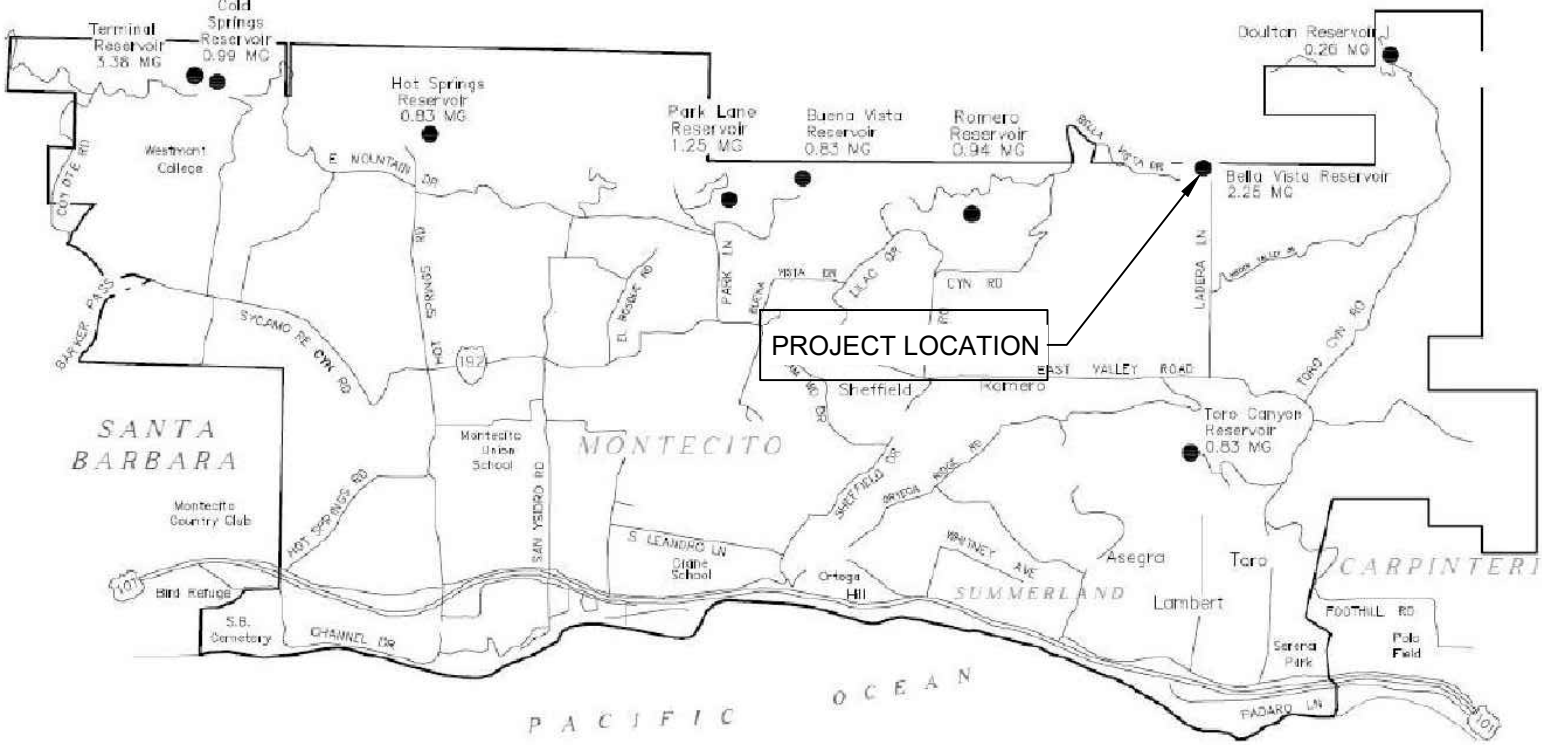
SHEET INDEX

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
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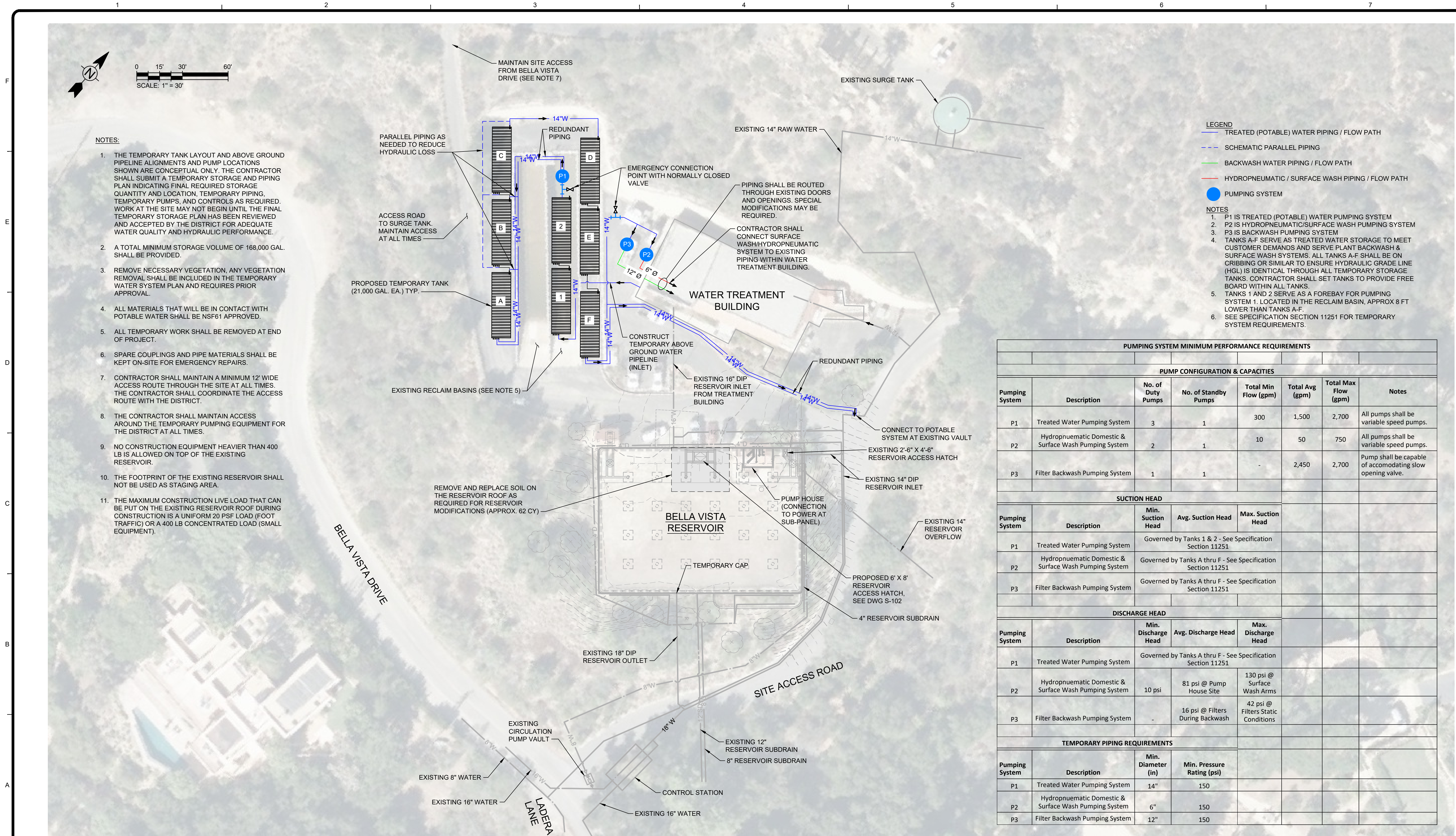
LOCATION MAP:

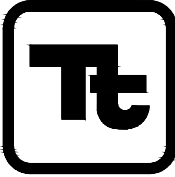


VICINITY MAP:



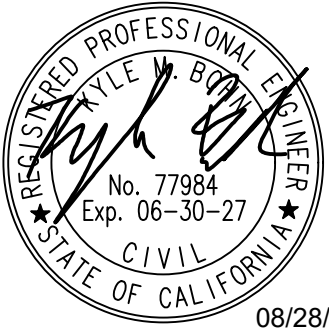
8/28/2026 1:22:32 PM - O:\PROJECTS\IRVINE\106490\200-106490-21001\CAD SHEET FILES\BELLA VISTA\AC-101-TEMPORARY WATER SYSTEM PLAN.DWG - LUGO, RUBEN





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BID SET



08/28/26



MARK	DATE	DESCRIPTION	BY

MONTECITO WATER DISTRICT

RESERVOIR SEISMIC RETROFIT AND REPLACEMENT
PROJECT FOR BELLA VISTA RESERVOIR

TEMPORARY WATER SYSTEM PLAN

Project No.: 200-106490-21001

Designed By: AML

Drawn By: AS

Checked By: KRB

C-101

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GENERAL STRUCTURAL NOTES

THESE NOTES SHALL APPLY UNLESS SHOWN/INDICATED OTHERWISE ELSEWHERE IN THE STRUCTURAL DRAWINGS.

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE 2025 CALIFORNIA BUILDING CODE (C.B.C.) BASED UPON THE 2024 EDITION OF THE INTERNATIONAL BUILDING CODE (I.B.C.).

2. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE STARTING WORK. DIMENSIONS OF (E) CONSTRUCTION WHERE SHOWN ON THESE DRAWINGS ARE NOMINAL AND SHOULD BE FIELD VERIFIED. SHOULD CONDITIONS EXIST WHICH ARE CONTRARY TO THOSE SHOWN ON PLANS, THE ENGINEER SHALL BE NOTIFIED IN WRITING BEFORE PROCEEDING WITH WORK.

3. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE STARTING WORK. SHOULD CONDITIONS EXIST WHICH ARE CONTRARY TO THOSE SHOWN ON PLANS, THE ENGINEER SHALL BE NOTIFIED IN WRITING BEFORE PROCEEDING WITH WORK.

4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL COLUMNS, FRAMING, BEAMS, ETC. ARE ADEQUATELY BRACED AND SHORED DURING CONSTRUCTION. ALL BRACING/SHORING SHALL BE DESIGNED BY A REGISTERED ENGINEER HIRED BY THE CONTRACTOR. BRACING OF CONCRETE WALLS AND COLUMNS SHALL REMAIN IN PLACE UNTIL RETROFIT WORK IS COMPLETE

5. UNLESS DETAILED, SPECIFIED, OR INDICATED OTHERWISE, CONSTRUCTION SHALL BE AS INDICATED IN THE APPLICABLE TYPICAL DETAILS AND THESE GENERAL NOTES. TYPICAL DETAILS ARE MEANT TO APPLY EVEN THOUGH NOT REFERENCED AT SPECIFIC LOCATIONS ON DRAWINGS WHERE THE OCCUR.

6. THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKERS AND PEDESTRIANS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, TEMPORARY STRUCTURES, AND PARTIALLY COMPLETED WORK, ETC. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT BE CONSIDERED AS INSPECTION OF SUCH ITEMS.

7. DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALES SHOWN ON DRAWINGS.

8. ALL ITEMS REMOVED DURING CONSTRUCTION WORK SHALL BE REPLACED TO MATCH EXISTING.

9. ALL WORK SHALL CONFORM TO THE PLANS AND SPECIFICATIONS IN ALL RESPECTS AND SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.

10. SOIL BEARING CAPACITY OF 4,000 PSF IS BASED ON THE 1974 AS-BUILT PLANS.

11. CONTRACTOR SHALL VERIFY LOCATION OF ALL SITE UTILITIES PRIOR TO STARTING WORK, BOTH ABOVE GROUND AND BELOW GROUND, WHICH MAY BE IMPACTED BY THE WORK SHOWN ON THESE DRAWINGS. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

12. ALL ITEMS SHOWN ON THESE PLANS ARE NEW UNLESS NOTED (E), EXIST, OR EXISTING.

13. ALL PRODUCTS THAT ARE IN CONTACT WITH DRINKING WATER INSIDE THE RESERVOIR (CONCRETE, JOINT SEALERS, PIPING ETC.) SHALL BE NSF 61 APPROVED.

REINFORCING NOTES

1. REINFORCEMENT FOR CONCRETE SHALL BE DEFORMED BARS CONFORMING TO A.S.T.M. SPECIFICATION A615 (A706/A706M FOR WELDED REINFORCING). GRADE 60 STEEL SHALL BE USED

2. ALL REINFORCEMENT, ANCHOR BOLTS, AND OTHER ANCHORAGES PLACED IN MASONRY AND CONCRETE SHALL BE ACCURATELY PLACED AND POSITIVELY SECURED AND SUPPORTED BY CONCRETE BLOCKS, METAL CHAIRS, SPACERS, OR METAL HANGERS, AND SHALL BE IN POSITION BEFORE CONCRETE PLACING BEGINS. DETAILING AND PLACING OF BARS SHALL CONFORM TO THE A.C.I. MANUAL OF STANDARD PRACTICES.

3. BARS SPECIFIED AS "CONTINUOUS" SHALL EXTEND THE FULL LENGTH OF THE MEMBER CONTAINING THEM AND MAY BE SPLICED (UNLESS NOTED OR SHOWN WITHOUT SPLICES ON THE PLANS). IN CONCRETE, PROVIDE LAPS PER DETAIL 2 ON SHEET S-501. STAGGER ALL SPLICES.

4. DOWELS SHALL BE PROVIDED AT ALL POUR JOINTS AND SHALL BE THE SAME SIZE AND SPACING AS REINFORCING DIRECTLY BEYOND POUR JOINTS.

5. WELDING OF REINFORCING STEEL, METAL INSERTS AND CONNECTIONS IN REINFORCED CONCRETE CONSTRUCTION SHALL CONFORM TO ANSI/AWS D1.4-11. USE LOW HYDROGEN E-70 SERIES ELECTRODES FOR WELDING OF REINFORCING BARS. CONTINUOUS INSPECTION IS REQUIRED OF ALL FIELD WELDING IN ACCORDANCE WITH C.B.C. CHAPTER 17.

CONCRETE NOTES

1. ALL CONCRETE STRUCTURAL SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS. AGGREGATES SHALL CONFORM TO A.S.T.M. C33. REFER TO THE SPECIFICATIONS FOR THE STRENGTH OF CONCRETE FOR OTHER APPLICATIONS

2. CEMENT FOR CONCRETE SHALL BE TYPE II/V PORTLAND CEMENT CONFORMING TO A.S.T.M. C150.

3. CONCRETE COVER FOR REINFORCING BARS SHALL BE: CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH = 3" EXPOSED TO EARTH OR WEATHER: NO. 6 THROUGH NO. 18 BARS = 2" NO. 5 BARS, W31 OR D31 WIRE, AND SMALLER = 1 1/2" NOT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND: SLABS, WALLS, JOISTS: NO. 14 AND NO. 18 BARS = 1 1/2" NO. 11 BARS AND SMALLER = 3/4" BEAMS, COLUMNS: PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS = 1 1/2"

4. DRYPACK SHALL BE 1 PART CEMENT AND 3 PARTS SAND (BY VOLUME).

5. NO PIPES OR DUCTS SHALL BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED. SEE MECHANICAL AND/OR ELECTRICAL DRAWINGS FOR LOCATION OF SLEEVES THROUGH WALLS AND FLOORS.

6. THE LOCATION OF ALL CONSTRUCTION JOINTS NOT SPECIFICALLY NOTED OR SHOWN SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.

7. "ROUGHENED SURFACES", WHERE SPECIFIED ON THE DRAWINGS, SHALL BE MECHANICALLY ROUGHENED SUCH THAT A 1/4" AMPLITUDE (±) IS ACHIEVED BETWEEN HIGH AND LOW SPOTS OF THE ROUGHENED SURFACE. THE SURFACE SHALL BE CLEAN AND FREE OF LAITANCE

SHOTCRETE NOTES

1. SHOTCRETE SHALL BE DEFINED AS CONCRETE PNEUMATICALLY PROJECTED AT HIGH VELOCITY ON A SURFACE. INCLUDED ARE SUCH TERMS COMMONLY KNOWN AS GUNITED AND GUNCRETE. EXCEPT AS SPECIFIED IN THESE NOTES, SHOTCRETE SHALL CONFORM TO THE SPECIFICATIONS AND THE PROVISIONS OF A.C.I. 506.2. "STANDARD SPECIFICATION FOR SHOTCRETE". ALL SHOTCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS.

2. CONCRETE TO RECEIVE SHOTCRETE SHALL HAVE THE ENTIRE SURFACE THOROUGHLY CLEANED AND ROUGHENED BY SAND BLASTING, AND JUST PRIOR TO RECEIVING SHOTCRETE, SHALL BE THOROUGHLY CLEANED OF ALL DEBRIS, DIRT AND DUST. CONCRETE SHALL BE WETTED BEFORE SHOTCRETE IS DEPOSITED, BUT NOT SO WET AS TO OVERCOME SUCTION. SAND FOR SANDBLASTING SHALL BE CLEAN, SHARP AND UNIFORM IN SIZE, WITH NO PARTICLES THAT WILL PASS A 50-MESH SCREEN.

3. SHOTCRETE PROPORTIONS SHALL BE SELECTED THAT ALLOW SUITABLE PLACEMENT PROCEDURES USING THE DELIVERY EQUIPMENT SELECTED AND SHALL RESULT IN FINISHED-IN-PLACE HARDENED SHOTCRETE MEETING THE STRENGTH REQUIREMENTS OF THESE PLANS. SHOTCRETE SHALL BE APPLIED UNDER THE WET MIX PROCESS ONLY.

4. COARSE AGGREGATE SHALL NOT EXCEED 3/4 INCH.

5. LAP SPLICES IN REINFORCING BARS SHALL BE BY THE NONCONTACT LAP SPLICE METHOD WITH AT LEAST 2 INCHES CLEAR BETWEEN BARS. THE DISTRICT BUILDING OFFICIAL MAY PERMIT THE USE OF CONTACT LAP SPLICES WHEN NECESSARY FOR THE SUPPORT OF THE REINFORCING PROVIDED IT CAN BE DEMONSTRATED BY MEANS OF PRECONSTRUCTION TESTING; THAT ADEQUATE ENCASEMENT OF THE BARS AT THE SPLICE CAN BE ACHIEVED, AND PROVIDED THAT THE SPLICES ARE PLACED SO THAT A LINE THROUGH THE CENTER OF THE TWO SPLICED BARS IS PERPENDICULAR TO THE SURFACE OF THE CONCRETE WORK.

6. PRECONSTRUCTION TEST - TEST PANELS SHALL BE SHOT, CURED, CORED OR SAWN, EXAMINED AND TESTED PRIOR TO COMMENCEMENT OF THE PROJECT. SAMPLE PANELS SHALL BE REPRESENTATIVE OF THE PROJECT AND SIMULATE JOB CONDITIONS AS CLOSELY AS POSSIBLE. THE PANEL THICKNESSES AND REINFORCING SHALL REPRODUCE THE THICKEST AND MOST CONGESTED AREA SPECIFIED IN THE STRUCTURAL DESIGN. THEY SHALL BE SHOT AT THE SAME ANGLE, USING THE SAME NOZZLEMAN AND WITH THE SAME CONCRETE MIX DESIGN THAT WILL BE USED ON THE PROJECT.

7. ANY REBOUND OR ACCUMULATED LOOSE AGGREGATE SHALL BE REMOVED FROM THE SURFACES TO BE COVERED PRIOR TO PLACING THE INITIAL OR ANY SUCCEEDING LAYERS OF SHOTCRETE. REBOUND SHALL NOT BE REUSED AS AGGREGATE.

8. EXCEPT WHERE PERMITTED HEREIN, UNFINISHED WORK SHALL NOT BE PERMITTED TO STAND FOR MORE THAN 30 MINUTES UNLESS ALL EDGES ARE SLOPED TO A THIN EDGE. BEFORE PLACING ADDITIONAL MATERIAL ADJACENT TO PREVIOUSLY APPLIED WORK, SLOPING AND SQUARE EDGES SHALL BE CLEANED AND WETTED. THE FILM OF LAITANCE WHICH FORMS ON THE SURFACE OF THE SHOTCRETE SHALL BE REMOVED WITHIN APPROXIMATELY TWO HOURS AFTER APPLICATION BY BRUSHING WITH A STIFF BROOM. IF THIS FILM IS NOT REMOVED WITHIN TWO HOURS, IT SHALL BE REMOVED BY THOROUGH WIRE BRUSHING OR SAND BLASTING. CONSTRUCTION JOINTS OVER EIGHT HOURS OLD SHALL BE THOROUGHLY CLEANED WITH AIR AND WATER PRIOR TO RECEIVING SHOTCRETE.

9. IN-PLACE SHOTCRETE WHICH EXHIBITS SAGS OR SLOUGHS, SEGREGATION, HONEYCOMBING, SAND POCKETS OR OTHER OBVIOUS DEFECTS SHALL BE REMOVED AND REPLACED. SHOTCRETE ABOVE SAGS AND SLOUGHS SHALL BE REMOVED AND REPLACED WHILE STILL PLASTIC.

10. SPECIAL DEPUTY INSPECTION SHALL BE PROVIDED DURING THE SHOTCRETE CONSTRUCTION PER SHEET S-002.

SHOTCRETE NOTES CONT.

11. COMPLETED SHOTCRETE WORK SHALL BE CHECKED VISUALLY FOR REINFORCING BAR EMBEDMENT, VOIDS, ROCK POCKETS, SAND STREAKS AND SIMILAR DEFICIENCIES BY EXAMINING A MINIMUM OF THREE 3-INCH CORES TAKEN FROM THREE AREAS CHOSEN BY THE DESIGN ENGINEER WHICH REPRESENT THE WORST CONGESTION OF REINFORCING BARS OCCURRING ON THE PROJECT. EXTRA REINFORCING BARS MAY BE ADDED TO NONCONGESTED AREAS AND CORES MAY BE TAKEN FROM THESE AREAS. THE CORES SHALL BE EXAMINED BY THE SPECIAL INSPECTOR AND A REPORT SUBMITTED TO THE DISTRICT BUILDING OFFICIAL PRIOR TO FINAL APPROVAL OF THE SHOTCRETE.

12. THE EQUIPMENT USED IN PRECONSTRUCTION TESTING SHALL BE THE SAME EQUIPMENT USED IN THE WORK REQUIRING SUCH TESTING, UNLESS SUBSTITUTE EQUIPMENT IS APPROVED BY THE DISTRICT BUILDING OFFICIAL.

13. SHOTCRETE SURFACES SHALL BE FREE FROM FINS, BULGES, RIDGES, OFFSETS, HONEYCOMBING, OR ROUGHNESS OF ANY KIND, AND SHALL PRESENT A FINISHED, SMOOTH, CONTINUOUS HARD SURFACE.

ADHESIVE ANCHORS

1. ADHESIVE ANCHORS SHALL BE "SET-3G" ADHESIVE ANCHORS, MANUFACTURED BY SIMPSON STRONG-TIE.

2. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH I.C.C. EVALUATION REPORT ESR-4057.

3. SPECIAL INSPECTION PER SHEET S-002 SHALL BE PROVIDED DURING ANCHOR INSTALLATION.

4. AN ALTERNATIVE ADHESIVE ANCHOR PRODUCT MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL, PROVIDED THAT IT HAS A CURRENT I.C.C. EVALUATION REPORT APPROVAL.

5. ALL ABANDONED HOLES SHALL BE FILLED WITH A DRYPACK GROUT A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,000 PSI. THE FILLED HOLE(S) SHALL BE PREPARED AND CLEANED AS REQUIRED BY THE GROUT MANUFACTURER.

6. LOCATE EXISTING REINFORCING USING A NON-DESTRUCTIVE METHOD (PACHOMETER OR OTHER), PRIOR TO DRILLING HOLES FOR ANCHORS. MAINTAIN A MINIMUM CLEARANCE OF 1" BETWEEN THE REINFORCEMENT AND THE ANCHOR.

EXPANSION ANCHORS

1. EXPANSION ANCHORS SHALL BE "STRONG-BOLT 2" MANUFACTURED BY SIMPSON STRONG-TIE.

2. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH I.C.C. EVALUATION REPORT ESR-3037.

3. SPECIAL INSPECTION PER SECTION 17 OF THE C.B.C. SHALL BE PROVIDED DURING ANCHOR INSTALLATION.

4. AN ALTERNATIVE EXPANSION ANCHOR PRODUCT MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE PRODUCT ALTERNATIVE MUST HAVE A CURRENT I.C.C. EVALUATION REPORT APPROVAL.

5. ALL ABANDONED HOLES SHALL BE FILLED WITH A DRYPACK GROUT A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,000 PSI. THE FILLED HOLE(S) SHALL BE PREPARED AND CLEANED AS REQUIRED BY THE GROUT MANUFACTURER.

6. LOCATE EXISTING REINFORCING USING A NON-DESTRUCTIVE METHOD (PACHOMETER OR OTHER), PRIOR TO DRILLING HOLES FOR ANCHORS. MAINTAIN A MINIMUM CLEARANCE OF 1" BETWEEN THE REINFORCEMENT AND THE ANCHOR.

RESERVOIR ROOF REPAIR PROCEDURES

1. THE AREAS THAT ARE TO BE REPAIRED ARE SHOWN ON SHEET S-102.

2. THE PIPE PENETRATIONS AT THE EXISTING CONCRETE ROOF SLAB CONTAINING EXPOSED RUSTY REINFORCING STEEL OR SPALLED CONCRETE SHALL BE CLEANED, COATED WITH A BONDING PRIMER WITH REINFORCING CORROSION PROTECTOR AND REPAIRED WITH REPAIR MORTAR.

3. ALL LOOSE CONCRETE SHALL BE CHIPPED AWAY TO EXPOSE SOUND CONCRETE BEFORE ANY WORK IS DONE AT THE RUSTED AREAS.

4. WHEN CORROSION OF THE REINFORCEMENT EXISTS, CONTINUE CHIPPING CONCRETE ALONG THE REINFORCING STEEL UNTIL SOUND REINFORCING STEEL IS EXPOSED.

5. ALL THE REINFORCING STEEL THAT IS RUSTY SHALL BE CLEANED BY WIRE BRUSHING, WET SANDBLASTING, CHIPPING OR SANDING. ALL THE RUST SHALL BE REMOVED PRIOR TO APPLYING THE BONDING PRIMER.

6. SURFACE TO RECEIVE BONDING PRIMER AND REPAIR MORTAR SHALL BE PREPARED IN ACCORDANCE WITH THE REPAIR PRODUCT MANUFACTURER'S RECOMMENDATIONS INCLUDING THE MINIMUM REQUIRED SURFACE PROFILE/ROUGHNESS AND MINIMUM MORTAR APPLICATION THICKNESS.

7. THE CONTRACTOR'S CLEANING AND SURFACE PREPARATION WORK SHALL BE INSPECTED AND APPROVED BY THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO APPLYING THE BONDING PRIMER AND REPAIR MORTAR.

8. BONDING PRIMER SHALL BE APPLIED TO THE CLEANED AND PREPARED REINFORCING STEEL AND CONCRETE SURFACE BY STIFF-BRISTLE BRUSH PER THE MANUFACTURER'S RECOMMENDATIONS AFTER THE OWNER OR OWNER'S REPRESENTATIVE'S APPROVAL TO PROCEED.

9. THE BONDING PRIMER WITH REINFORCING CORROSION PROTECTOR SHALL BE "SIKA ARMATEC 110 EPO CEM," BY SIKA, OR APPROVED EQUAL.

RESERVOIR ROOF REPAIR PROCEDURES CONT.

10. REPAIR MORTAR SHALL BE APPLIED BY SCRUBBING AND HAND TROWEL TO THE REPAIR ZONE IMMEDIATELY AFTER THE APPLICATION OF THE BONDING PRIMER WHEN THE BONDING PRIMER IS STILL WET.

11. THE PORTLAND CEMENT-BASED REPAIR MORTAR SHALL BE "SIKATOP 123 PLUS" BY SIKA, OR APPROVED EQUAL.

12. ALL THE WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

13. A MANUFACTURE'S REPRESENTATIVE OF THE BONDING AGENT AND REPAIR MORTAR SHALL BE PRESENT AT THE BEGINNING OF THE WORK TO VERIFY THAT THE WORK IS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

14. REFER TO SPECIFICATIONS SECTION 03730 FOR ADDITIONAL REQUIREMENTS.

DESIGN CRITERIA

DESIGN CODES AND REFERENCES:
-CALIFORNIA BUILDING CODE, 2025 EDITION
-ASCE/SEI 7-22 MINIMUM DESIGN LOADS FOR BUILDINGS & OTHER STRUCTURES
-ACI 7-22 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
-ACI 350.3-20 CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES
-ACI 350.3 SEISMIC DESIGN OF LIQUID CONTAINING CONCRETE STRUCTURES
-AISC STEEL CONSTRUCTION MANUAL, 16TH EDITION - ANSI/AISC 360-20

LOADING:
CONCRETE RESERVOIR ROOF DL = 125 PSF
CONCRETE RESERVOIR ROOF LL = 100 PSF
CONTENTS OF RESERVOIR: POTABLE WATER, 62.4 PCF

MATERIAL PROPERTIES:
EXISTING STRUCTURAL CONCRETE f_c = 2500 PSI (ASSUMED)
EXISTING REINFORCING f_y = 40 KSI (ASSUMED)
NEW STRUCTURAL CONCRETE f_c = 4000 PSI
NEW REINFORCING f_y = 60 KSI

SEISMIC DESIGN PARAMETERS:
ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE PROCEDURE
LOCATION: LAT. 34.45009 N, LONG. 119.57982 W
OCCUPANCY CATEGORY: IV
SITE CLASS: D
SEISMIC DESIGN CATEGORY: F

CONCRETE RESERVOIR
S_u = 2.34 S_t = 0.87
S_{uB} = 2.26 S_{uT} = 1.88
S_{DB} = 2.34 S_{DT} = 1.26
l_e = 1.5
R₁ = 2.0
R₂ = 1.0

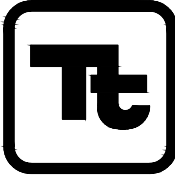
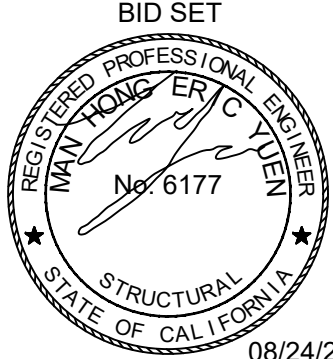
WIND LOAD DESIGN PARAMETERS:
BASIC WIND SPEED: 104 MPH
EXPOSURE CATEGORY: C
WIND DIRECTIONAL FACTOR, K_d = 0.85
I_w = 1.0

SOIL DESIGN PARAMETERS:
ALLOWABLE SOIL BEARING = 4,000 PSF FOR MAT FOUNDATIONS (MAY BE INCREASED BY 1/3 FOR TRANSIENT LOADING CONDITIONS)
SOIL FRICTION COEFFICIENT = 0.35
SOIL ACTIVE = 40 PCF
SOIL AT-REST = 60 PCF
SOIL SEISMIC PRESSURE = 30.5 PCF (INVERTED TRIANGLE)

STRUCTURAL ABBREVIATIONS

BTM. BOTTOM
CANT. CANTILEVERED
C.B.C. CALIFORNIA BUILDING CODE
C.I.D.H. CAST-IN-DRILLED-HOLE
C.I.P. CAST IN PLACE
CL. CENTERLINE
CLR. CLEAR
COL. COLUMN
CONC. CONCRETE
CONT. CONTINUOUS
DET. DETAIL
DIA. DIAMETER
DWGS. DRAWINGS
(E) EXISTING
EA. EACH
E.F. EACH FACE
EL. ELEVATION
ELEV. ELEVATION
EQ. EQUAL
EXIST. EXISTING
FDN. FOUNDATION
F.F. FINISH FLOOR
F.G. FINISH GRADE
FIN. FINISH
FLR. FLOOR
F.S. FINISHED SURFACE

FT. FOOT
FTG. FOOTING
GALV. GALVANIZED
L.A.C.B.C. LOS ANGELES COUNTY BUILDING CODE
MAX. MAXIMUM
M.B. MACHINE BOLT (A307)
MIN. MINIMUM
M.O. MASONRY OPENING
N.G. NATURAL GRADE
No. NUMBER
N.T.S. NOT TO SCALE
O.A.E. OR APPROVED EQUAL
O.C. ON CENTER
O.D. OUTSIDE DIAMETER
REINF. REINFORCING
REQ'D. REQUIRED
SIM. SIMILAR
SPECS. SPECIFICATIONS
STRUCT. STRUCTURAL
TS. TUBE STEEL
TYP. TYPICAL
U.N.O. UNLESS NOTED OTHERWISE
w/ WITH
@ AT
& AND
NUMBER

 TETRA TECH www.tetrattech.com 160 East Via Verde, Suite 240 San Dimas, California, 91773 Phone: (909) 305-2930 Fax: (909) 305-2959			<table><tr><th>MARK</th><th>DATE</th><th>DESCRIPTION</th><th>BY</th></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></table>	MARK	DATE	DESCRIPTION	BY																																					Project No.: 200-106490-21001 Designed By: EY Drawn By: EJH Checked By: VMR
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MONTECITO WATER DISTRICT RESERVOIR SEISMIC RETROFIT AND REPLACEMENT PROJECT FOR BELLA VISTA RESERVOIR GENERAL STRUCTURAL NOTES S-001																																												

SPECIAL INSPECTIONS REQUIRED FOR THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH C.B.C. CHAPTER 17. SPECIAL INSPECTIONS SHALL BE PERFORMED BY AN APPROVED INSPECTION AGENCY U.N.O, EMPLOYED BY THE OWNER.

THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND/OR THE ENGINEER. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE STRUCTURAL ENGINEER AND TO THE BUILDING OFFICIAL.

THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THIS CODE.

IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE AT LEAST 48 HOURS ADVANCE NOTICE TO THE OWNER/OWNER'S REPRESENTATIVE WHEN HIS WORK IS READY FOR ANY REQUIRED SPECIAL INSPECTIONS.

SHOP INSPECTION OF STEEL CONSTRUCTION IS NOT REQUIRED WHEN THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. APPROVAL SHALL BE BASED UPON REVIEW OF THE FABRICATOR'S WRITTEN PROCEDURAL AND QUALITY CONTROL MANUALS AND PERIODIC AUDITING OF FABRICATION PRACTICES BY AN APPROVED SPECIAL INSPECTION AGENCY. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.

EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND- OR SEISMIC-FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND- OR SEISMIC-RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTION.

OWNER OR OWNER'S REPRESENTATIVE SHALL BE SYNONYMOUS WITH 'BUILDING OFFICIAL' IN THE FOREGOING IF THE PROJECT IS NOT UNDER THE JURISDICTION OF A BUILDING DEPARTMENT

SPECIAL INSPECTION SHALL BE PROVIDED FOR THE FOLLOWING TYPES OF WORK PERFORMED IN THE FIELD, OR NOT PERFORMED IN AN APPROVED FABRICATION SHOP AS DEFINED ABOVE, UNLESS NOTED AS "N/A".

SPECIAL INSPECTIONS
REQUIRED (☒ YES ☐ NO)

CONT	PERIODIC	N/A
------	----------	-----

REQUIRED VERIFICATION AND INSPECTION OF SOILS (TO BE PERFORMED BY A LICENSED GEOTECHNICAL ENGINEER):

- | | | | | |
|----|--|-------------------------------------|-------------------------------------|--------------------------|
| 1. | VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY. | ☐ | ☒ | ☐ |
| 2. | VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL. | ☐ | ☒ | ☐ |
| 3. | PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS. | ☐ | ☒ | ☐ |
| 4. | PERFORM CLASSIFICATION AND TESTING OF NATIVE SOILS TO VERIFY ANY SOIL PROPERTIES ASSUMED AS PART OF DESIGN FOR THIS PROJECT IN THE ABSENCE OF A SOILS REPORT (SEE SOIL PROPERTIES ON THIS DRAWING). THIS TESTING SHALL BE PERFORMED IN ADVANCE OF ANY CONSTRUCTION. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED IF THE ASSUMED VALUES ARE NOT VALID. | ☐ | ☒ | ☐ |
| 5. | VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL. | ☒ | ☐ | ☐ |
| 6. | PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY. | ☐ | ☒ | ☐ |

1.	INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT	☐	☒	☐
2.	REINFORCING BAR WELDING:			
	A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	☐	☒	☐
	B. INSPECT SINGLE-PASS FILLET WELD, MAXIMUM 5/16"; AND	☐	☒	☐
	C. INSPECT ALL OTHER WELDS.	☒	☐	☐
3.	INSPECTION OF ANCHORS CAST IN CONCRETE.	☐	☒	☐
4.	INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS			
	A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	☒	☐	☐
	B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A.	☐	☒	☐
5.	VERIFYING USE OF REQUIRED DESIGN MIX	☐	☒	☐
6.	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	☒	☐	☐
7.	INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	☒	☐	☐
8.	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	☐	☐	☐
9.	INSPECT PRESTRESSED CONCRETE FOR:			
	A. APPLICATION OF PRESTRESSING FORCES; AND	☐	☐	☒
	B. GROUTING OF BONDED PRESTRESSING TENDONS.	☐	☐	☐
10.	INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	☐	☒	☐
11.	VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	☐	☐	☒
12.	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF CONCRETE MEMBER BEING FORMED	☐	☒	☐

1. VERIFY ANCHOR TYPE:	☐	☒	☐
2. VERIFY ADHESIVE IDENTIFICATION AND EXPIRATION DATE	☐	☒	☐
3. VERIFY ANCHOR DIMENSIONS:	☐	☒	☐
4. VERIFY CONCRETE TYPE:	☐	☒	☐
5. VERIFY CONCRETE COMPRESSIVE STRENGTH.	☐	☒	☐
6. VERIFY HOLE DRILLING METHOD.	☐	☒	☐
7. VERIFY HOLE DIMENSIONS.	☐	☒	☐
8. VERIFY HOLE CLEANING PROCEDURES.	☐	☒	☐
9. VERIFY ANCHOR SPACING.	☐	☒	☐
10. VERIFY EDGE DISTANCES	☐	☒	☐
11. VERIFY CONCRETE THICKNESS	☐	☒	☐
12. VERIFY ANCHOR EMBEDMENT.	☐	☒	☐
13. VERIFY TIGHTENING TORQUE	☐	☒	☐
14. VERIFY ADHERENCE TO THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS	☐	☒	☐

THE SPECIAL INSPECTOR MUST VERIFY THE INITIAL INSTALLATIONS OF EACH TYPE AND SIZE OF ADHESIVE ANCHOR INSTALLED BY THE CONSTRUCTION PERSONNEL ON SITE. SUBSEQUENT INSTALLATIONS OF THE SAME ANCHOR TYPE AND SIZE BY THE SAME CONSTRUCTION PERSONNEL MAY BE PERMITTED, WITH THE APPROVAL OF THE ENGINEER AND THE SPECIAL INSPECTOR, TO BE PERFORMED IN THE ABSENCE OF THE SPECIAL INSPECTOR. ANY CHANGE IN THE ANCHOR PRODUCT BEING INSTALLED OR THE PERSONNEL PERFORMING THE INSTALLATION REQUIRES AN INITIAL INSPECTION. FOR ONGOING INSTALLATIONS OVER AN EXTENDED PERIOD, THE SPECIAL INSPECTOR MUST MAKE REGULAR INSPECTIONS TO CONFIRM CORRECT HANDLING AND INSTALLATION OF THE PRODUCT. THE SPECIAL INSPECTOR SHALL INFORM THE ENGINEER OF THE FREQUENCY OF THE PERIODIC ANCHOR INSPECTIONS. THE ENGINEER MAY REQUEST ADDITIONAL INSPECTIONS AT ANY TIME.

THE STRUCTURAL ENGINEER, OR ANOTHER ENGINEER DESIGNATED BY THE STRUCTURAL ENGINEER SHALL BE RETAINED BY THE OWNER TO PERFORM STRUCTURAL OBSERVATION AS REQUIRED BY C.B.C. CHAPTER 17. STRUCTURAL OBSERVATION SHALL BE PROVIDED DURING THE STAGES OF CONSTRUCTION LISTED BELOW. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AT LEAST 48 HOURS ADVANCE NOTICE TO THE STRUCTURAL ENGINEER WHEN HIS WORK IS READY FOR STRUCTURAL OBSERVATION FOR EACH OF THESE STAGES.

STRUCTURAL OBSERVATIONS
REQUIRED (☒ YES ☐ NO)

1. CONCRETE: REQUIRED (☒ YES ☐ NO)

REINFORCING STEEL AND EMBEDDED STRUCTURAL ANCHORAGES PRIOR TO PLACEMENT OF CONCRETE FOR THE FOLLOWING:

 - A. FOUNDATIONS ☒
 - B. SLABS-ON-GRADE (EXCEPT SITE PAVING AND FLATWORK) ☐
 - C. WALLS ☒
 - D. STRUCTURAL FLOOR SLABS AND BEAMS NOT SUPPORTED ON-GRADE ☐
 - E. ROOF SLABS AND BEAMS ☐

2. STRUCTURAL STEEL:

 - A. ERECTED COLUMN, BEAMS AND GIRDERS, PRIOR TO INSTALLATION OF ROOF AND FLOOR JOISTS, TRUSSES AND DECKING ☐

SUBMITTALS
REQUIRED (☒ YES ☐ NO)

- REQUIRED (☒ YES ☐ NO)

1. OFF-SITE FABRICATION: FABRICATORS SHALL BE CITY, COUNTY AND/OR C.B.C. APPROVED FABRICATORS. FABRICATORS

FOR ALL OFFSITE FABRICATION OF THE ITEMS LISTED BELOW:

A. TRUSSES ☐ N/A

B. GLU-LAMINATED MEMBERS ☐ N/A

C. PRECAST CONCRETE ☐ N/A

D. STRUCTURAL STEEL (MILL REPORTS AND IDENTIFICATION OF STEEL, AFFIDAVIT OF COMPLIANCE) ☐ N/A

E. OTHER: _____ ☐

2. DEFERRED SUBMITTALS:

SUBMITTAL DOCUMENTS FOR THE DEFERRED SUBMITTAL ITEMS LISTED BELOW SHALL BE DESIGNED BY A LICENSED PE OR SE AND SUBMITTED BY THE CONTRACTOR TO THE BUILDING DEPARTMENT/APPROVAL AGENCY AND STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

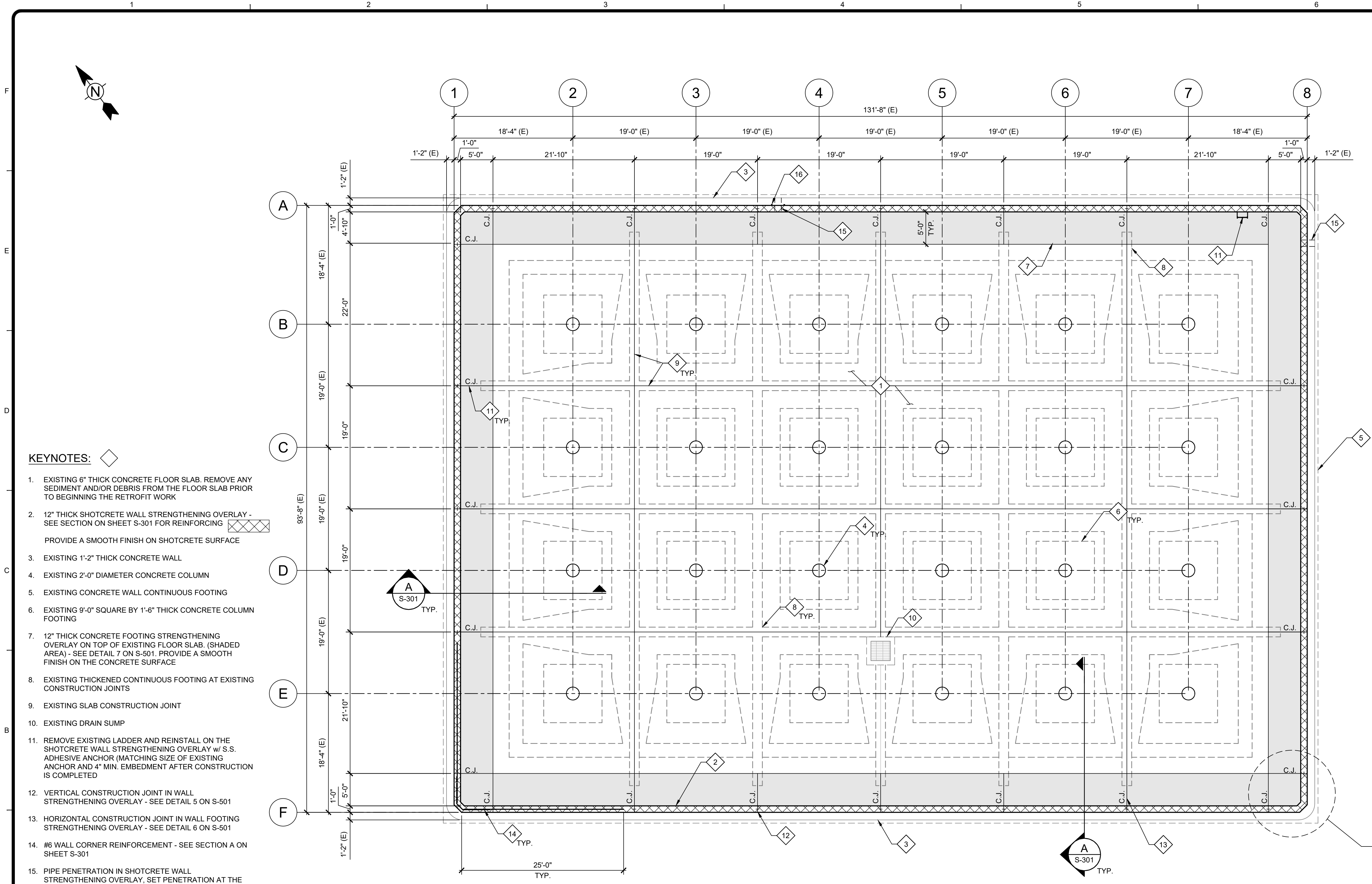
A. PREFABRICATED TRUSSES ☐ N/A

B. PRECAST VAULTS ☐ N/A

C. OTHER: _____ ☐

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8/28/2026 12:49:22 PM - I:\T:\LOCAL\PROJECTS\IRVINE\106490-21001\CAD\SHEETFILES\BELLA VISTA\1-FOUNDATION.DWG - HUTCHINS, ERIC



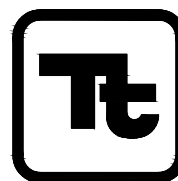
KEYNOTES:

- EXISTING 6" THICK CONCRETE FLOOR SLAB. REMOVE ANY SEDIMENT AND/OR DEBRIS FROM THE FLOOR SLAB PRIOR TO BEGINNING THE RETROFIT WORK
- 12" THICK SHOTCRETE WALL STRENGTHENING OVERLAY - SEE SECTION ON SHEET S-301 FOR REINFORCING
PROVIDE A SMOOTH FINISH ON SHOTCRETE SURFACE
- EXISTING 1'-2" THICK CONCRETE WALL
- EXISTING 2'-0" DIAMETER CONCRETE COLUMN
- EXISTING CONCRETE WALL CONTINUOUS FOOTING
- EXISTING 9'-0" SQUARE BY 1'-6" THICK CONCRETE COLUMN FOOTING
- 12" THICK CONCRETE FOOTING STRENGTHENING OVERLAY ON TOP OF EXISTING FLOOR SLAB. (SHADED AREA) - SEE DETAIL 7 ON S-501. PROVIDE A SMOOTH FINISH ON THE CONCRETE SURFACE
- EXISTING THICKENED CONTINUOUS FOOTING AT EXISTING CONSTRUCTION JOINTS
- EXISTING SLAB CONSTRUCTION JOINT
- EXISTING DRAIN SUMP
- REMOVE EXISTING LADDER AND REINSTALL ON THE SHOTCRETE WALL STRENGTHENING OVERLAY w/ S.S. ADHESIVE ANCHOR (MATCHING SIZE OF EXISTING ANCHOR AND 4" MIN. EMBEDMENT AFTER CONSTRUCTION IS COMPLETED
- VERTICAL CONSTRUCTION JOINT IN WALL STRENGTHENING OVERLAY - SEE DETAIL 5 ON S-501
- HORIZONTAL CONSTRUCTION JOINT IN WALL FOOTING STRENGTHENING OVERLAY - SEE DETAIL 6 ON S-501
- #6 WALL CORNER REINFORCEMENT - SEE SECTION A ON SHEET S-301
- PIPE PENETRATION IN SHOTCRETE WALL STRENGTHENING OVERLAY. SET PENETRATION AT THE LOCATION OF THE EXISTING INLET PIPE AND THE SIZE OF THE PENETRATION SHALL BE THE SAME AS THE INNER DIAMETER OF THE EXISTING PIPE. PROVIDE 1" RADIUS ROUNDED EDGE AROUND THE PENETRATION - SEE DETAIL 3 ON S-501 FOR ADDITIONAL REINF. AROUND PENETRATION
- HYDROPHILIC WATERSTOP. SET WATERSTOP 2" CLR. FROM PENETRATION

FOUNDATION PLAN

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

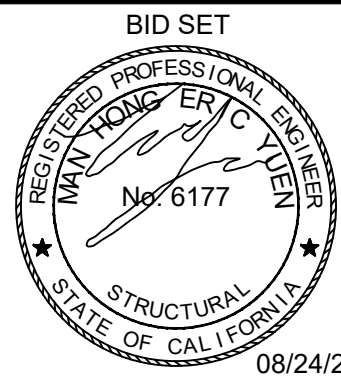
NOTE:
PROTECT ALL EXISTING ELEMENTS IN PLACE
UNLESS NOTED OTHERWISE



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MARK	DATE	DESCRIPTION	BY

MONTECITO WATER DISTRICT
RESERVOIR SEISMIC RETROFIT AND REPLACEMENT
PROJECT FOR BELLA VISTA RESERVOIR

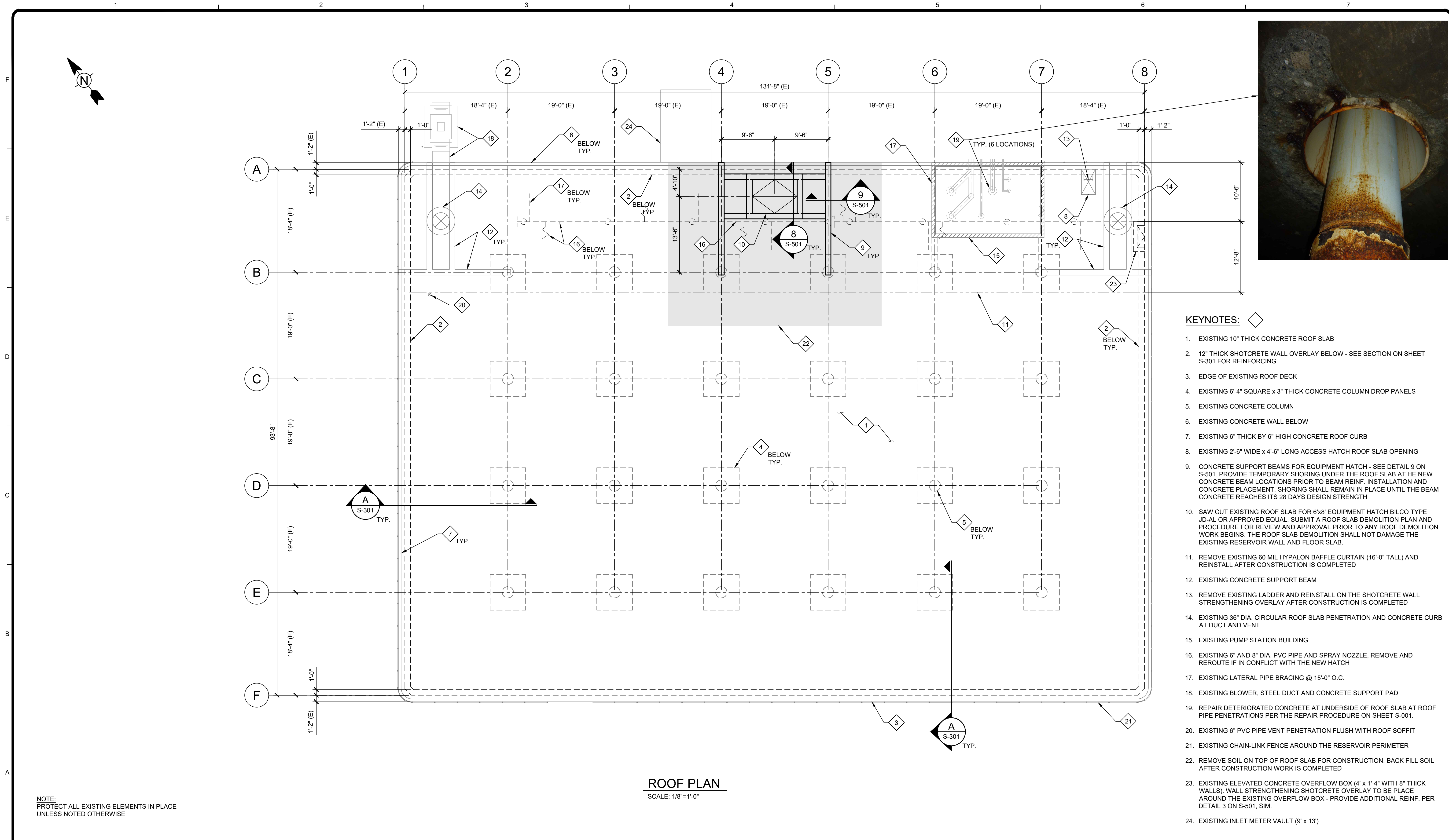
FOUNDATION PLAN

Project No.: 200-106490-21001
Designed By: EY
Drawn By: MSN
Checked By: VMR

S-101

Bar Measures 1 inch

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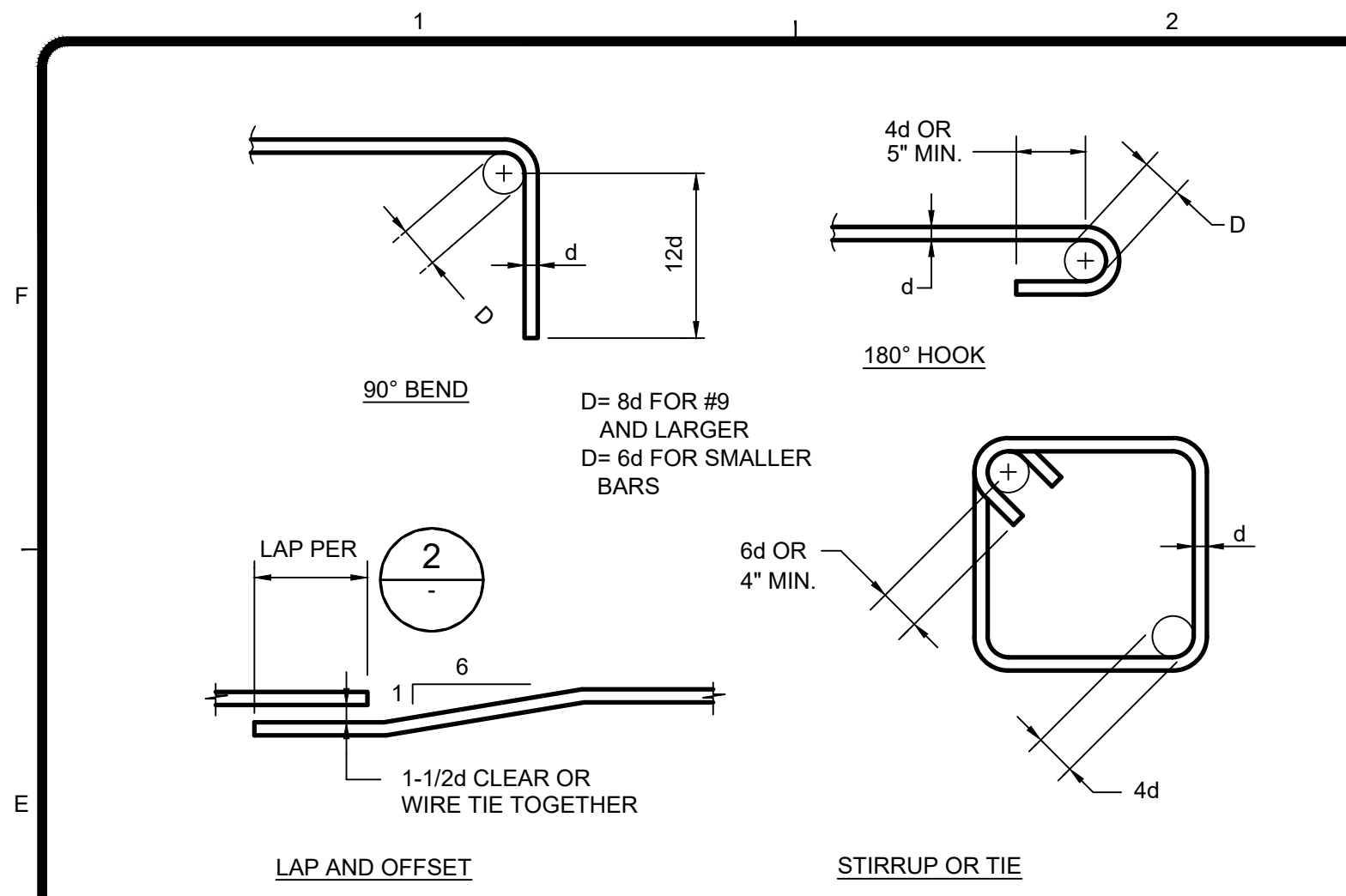
 TETRA TECH www.tetrattech.com 160 East Via Verde, Suite 240 San Dimas, California, 91773 Phone: (909) 305-2930 Fax: (909) 305-2959			MARK	DATE	DESCRIPTION	BY	MONTECITO WATER DISTRICT		Project No.: 200-106490-21001
							RESERVOIR SEISMIC RETROFIT AND REPLACEMENT PROJECT FOR BELLA VISTA RESERVOIR		Designed By: EY
								ROOF PLAN	Drawn By: MSN
									Checked By: VMR
									S-102

1. PRIOR TO PLACEMENT OF NEW CONCRETE, ENTIRE SURFACE AREA SHALL BE ADEQUATELY SURFACE PREPARED TO ACHIEVE A MINIMUM CONCRETE SURFACE PROFILE 5 (CSP-5) PER THE INTERNATIONAL CONCRETE REPAIR INSTITUTE (ICRI).
2. THE EXISTING CONCRETE SURFACE SHALL BE SURFACE PREPARED VIA HIGH-PRESSURE WATER BLASTING (HYDROBLASTING) OR VIA PNEUMATICALLY OPERATED TOOL (SCABBLER).
3. THE PROPOSED HIGH-PRESSURE WATER BLASTING EQUIPMENT (HYDROBLASTER) SHALL BE CAPABLE OF WATER-BLASTING AT 5,000 PSI TO 40,000 PSI, OR THE PROPOSED PNEUMATICALLY OPERATED TOOL (SCABBLER) SHALL BE CAPABLE OF PROVIDING CONCRETE SURFACE PROFILE AS STATED ABOVE FOR CONCRETE PLACEMENT.

TETRA TECH www.tetrattech.com 160 East Via Verde, Suite 240 San Dimas, California, 91773 Phone: (909) 305-2930 Fax: (909) 305-2959	BID SET 		<table border="1"> <thead> <tr> <th>MARK</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	MARK	DATE	DESCRIPTION	BY																																									<table border="1"> <tr> <td rowspan="3"> MONTECITO WATER DISTRICT RESERVOIR SEISMIC RETROFIT AND REPLACEMENT PROJECT FOR BELLA VISTA RESERVOIR </td> <td> Project No.: 200-106490-21001 Designed By: EY Drawn By: MSN Checked By: VMR </td> </tr> <tr> <td> SECTION </td> </tr> <tr> <td> S-301 </td> </tr> </table>	MONTECITO WATER DISTRICT RESERVOIR SEISMIC RETROFIT AND REPLACEMENT PROJECT FOR BELLA VISTA RESERVOIR	Project No.: 200-106490-21001 Designed By: EY Drawn By: MSN Checked By: VMR	SECTION	S-301
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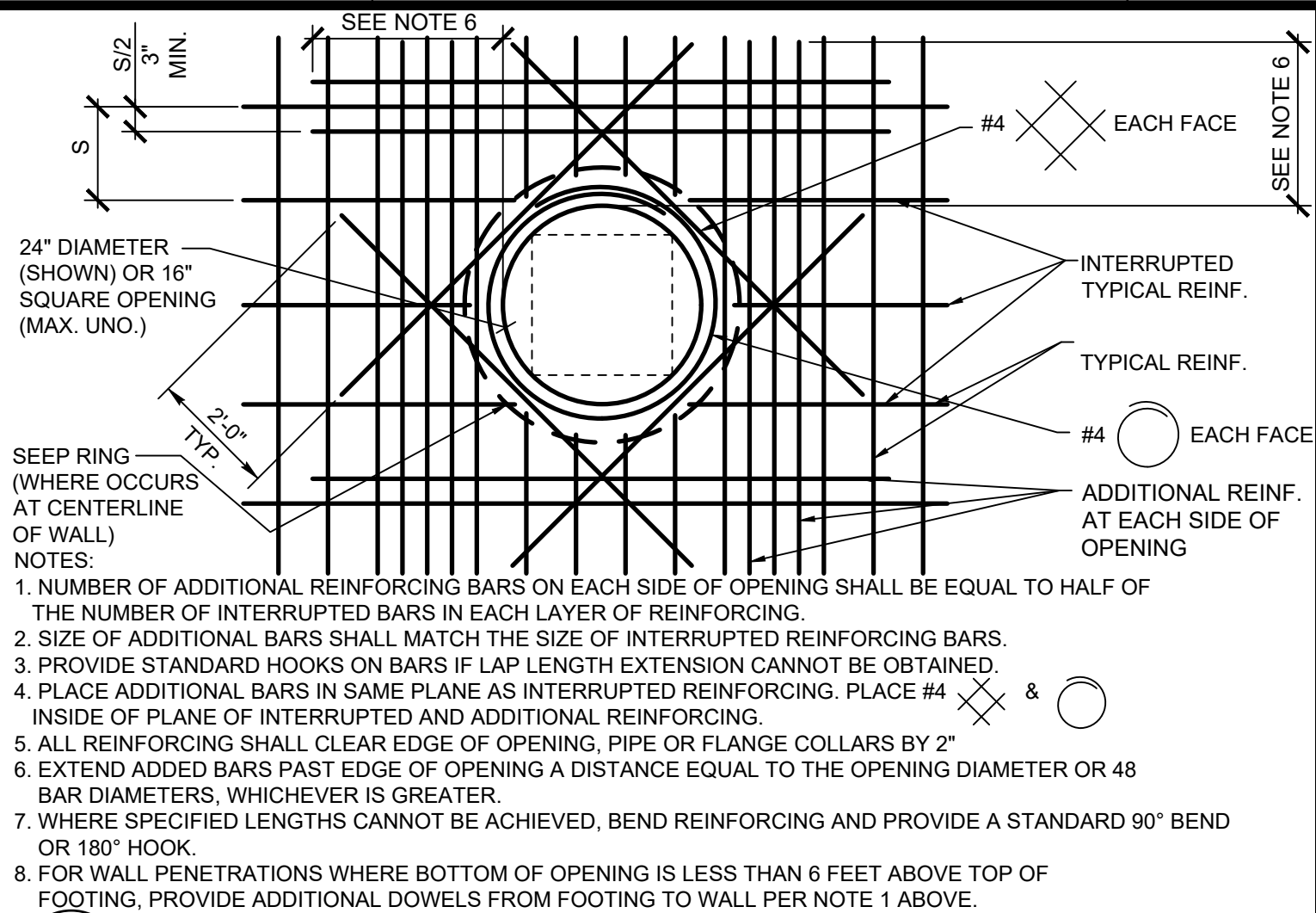


1 TYPICAL BAR BENDS
SCALE: N.T.S.

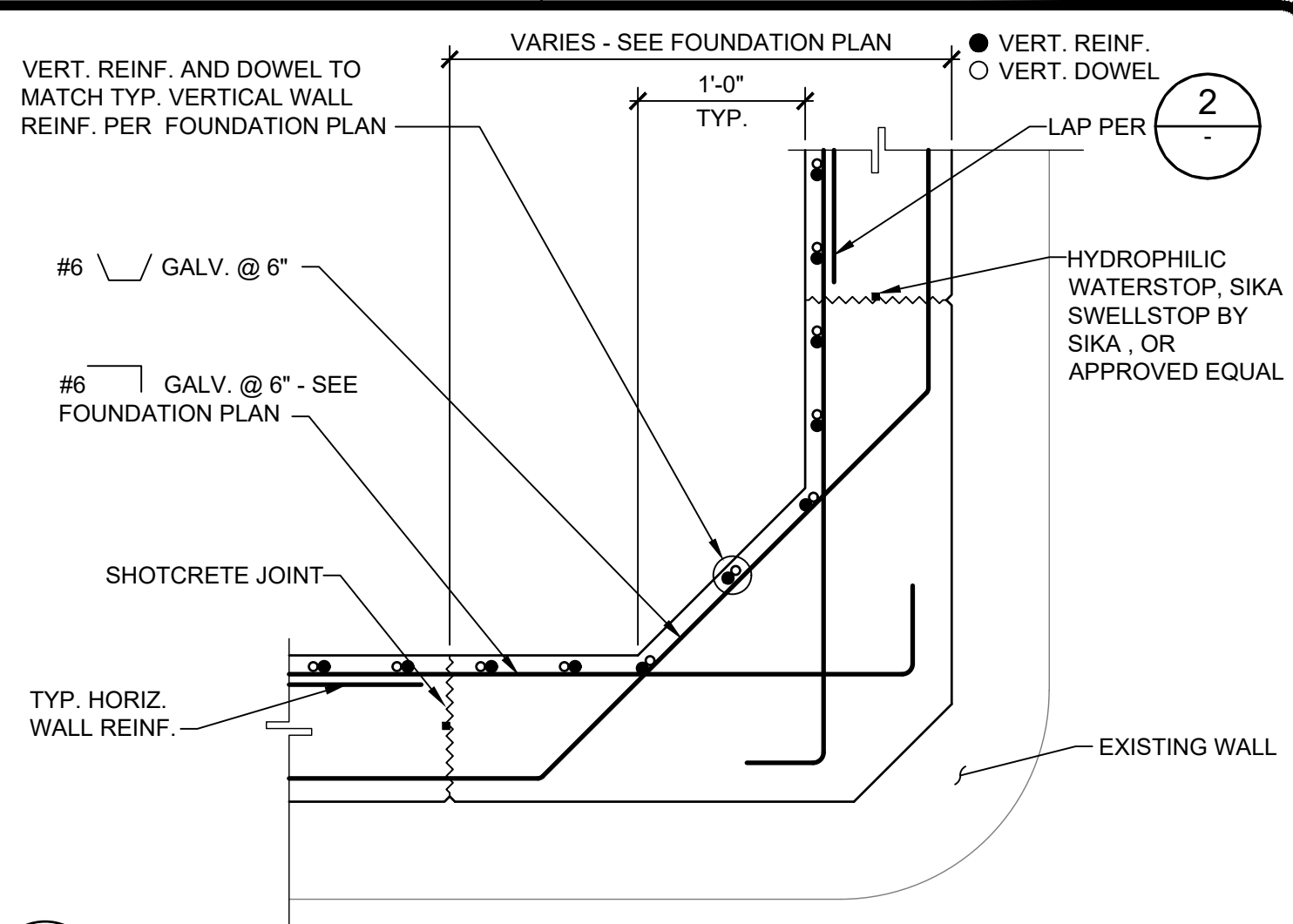
REINFORCING LAP SPLICE SCHEDULE					
BAR	f _c =2500	f _c =3250	f _c =4000	f _c =4500	f _c =5000
	L (inches)	L (inches)	L (inches)	L (inches)	L (inches)
3	24	21	19	18	17
4	32	28	25	24	23
5	39	35	31	30	28
6	47	42	37	35	34
7	69	60	54	51	49
8	78	69	62	59	56

- NOTES:
- LAPS SHOWN IN THIS TABLE ARE CLASS B, CATEGORY 3 TYPE SPLICES. LAP LENGTH IS BASED UPON SMALLER OF TWO BARS BEING SPLICED WHEN NOT THE SAME SIZE.
 - INCREASE LAP LENGTHS BY A FACTOR OF 1.3 FOR HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THIS REINFORCEMENT.

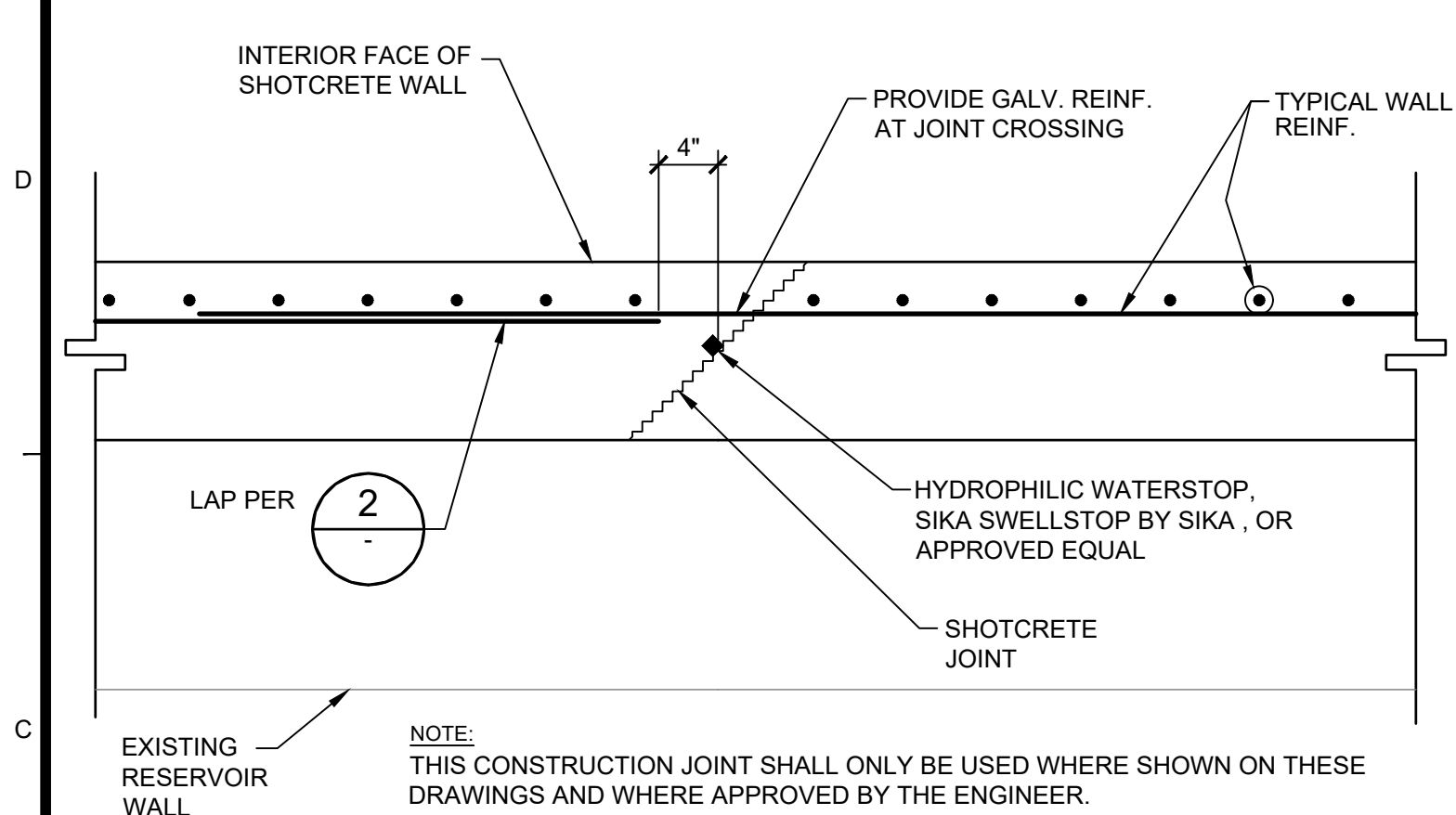
2 REINFORCING LAP SPLICE SCHEDULE
SCALE: N.T.S.



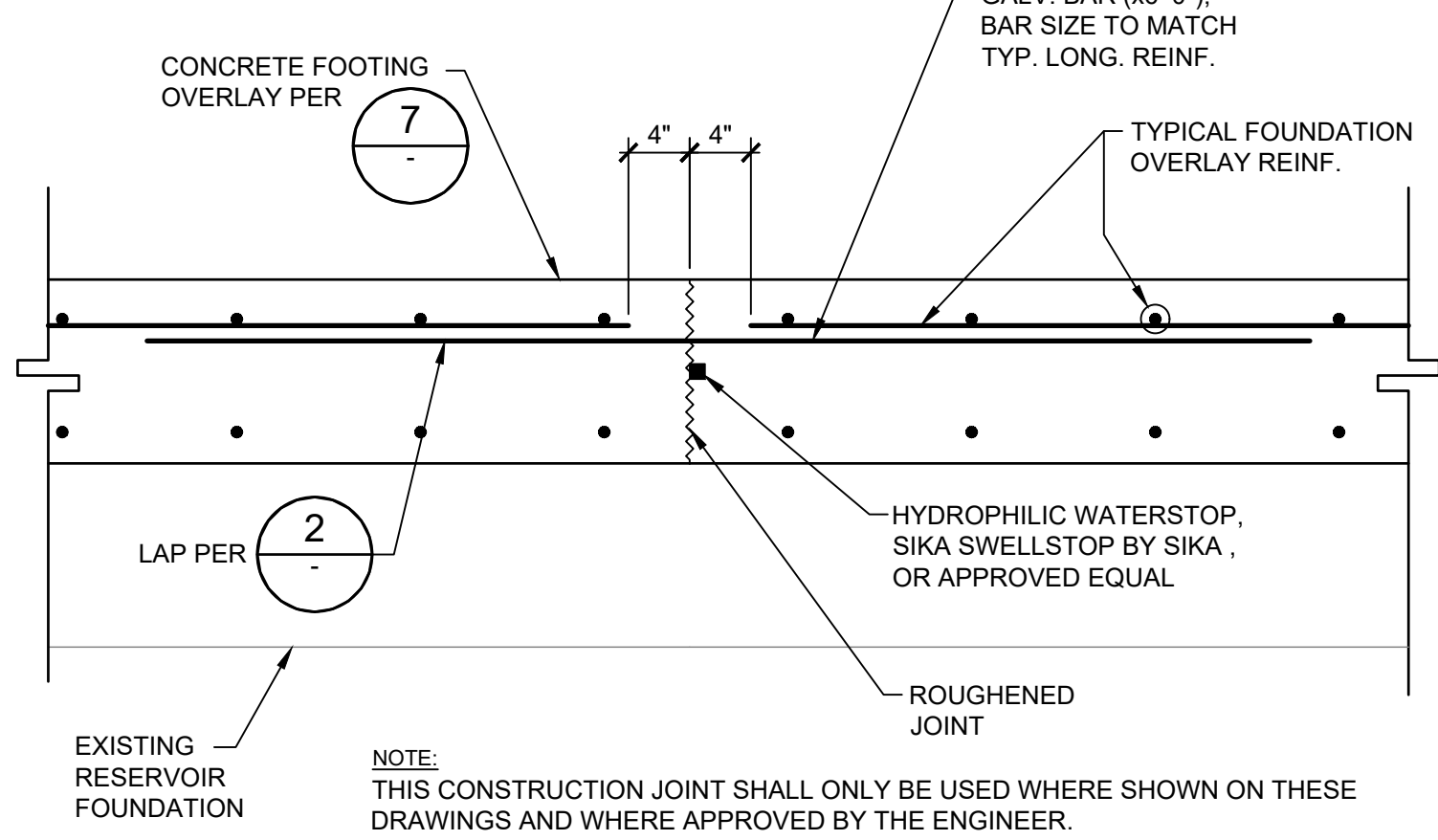
3 ADDITIONAL REINFORCING AT PENETRATIONS
SCALE: N.T.S.



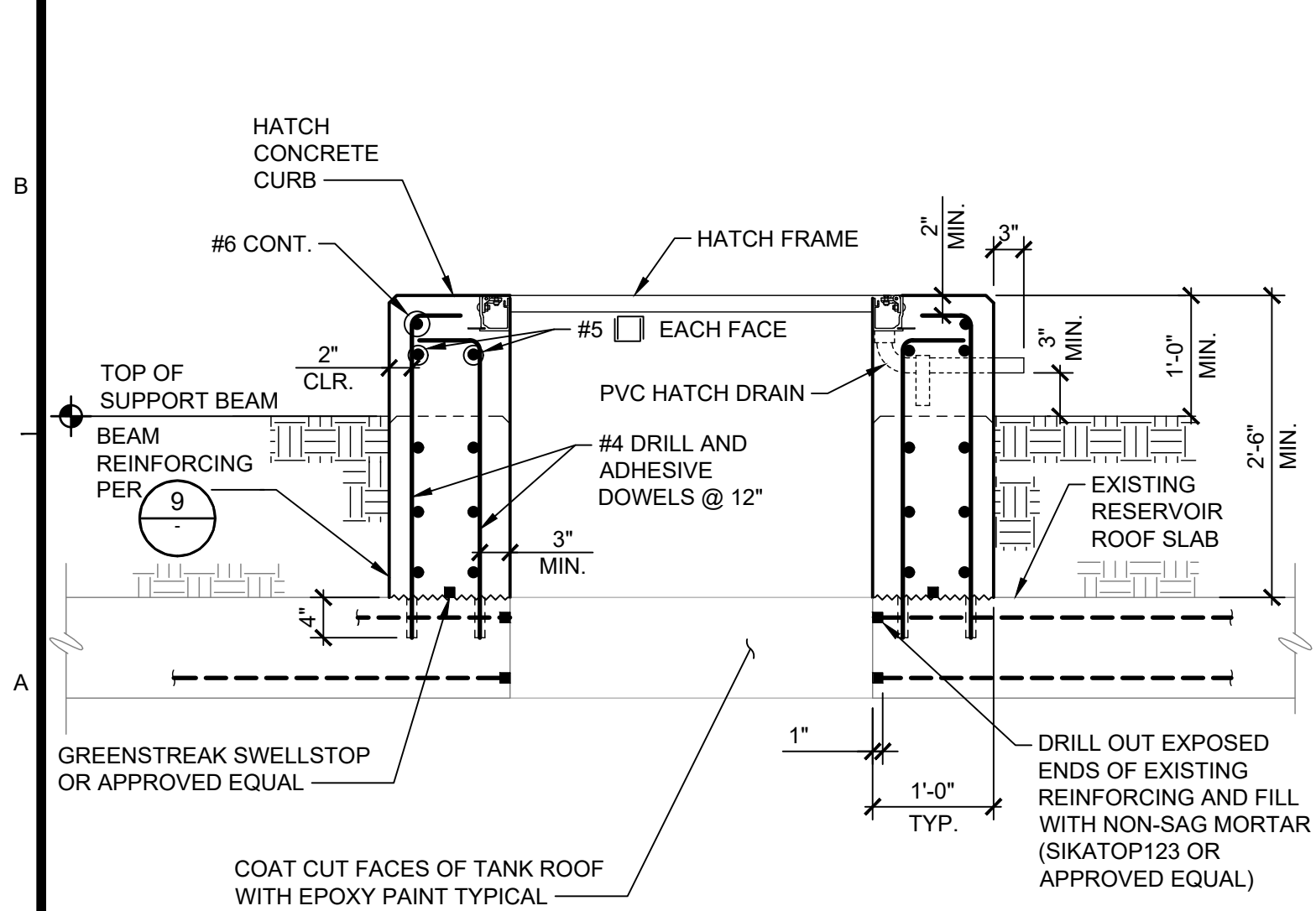
4 WALL CORNER DETAIL
SCALE: N.T.S.



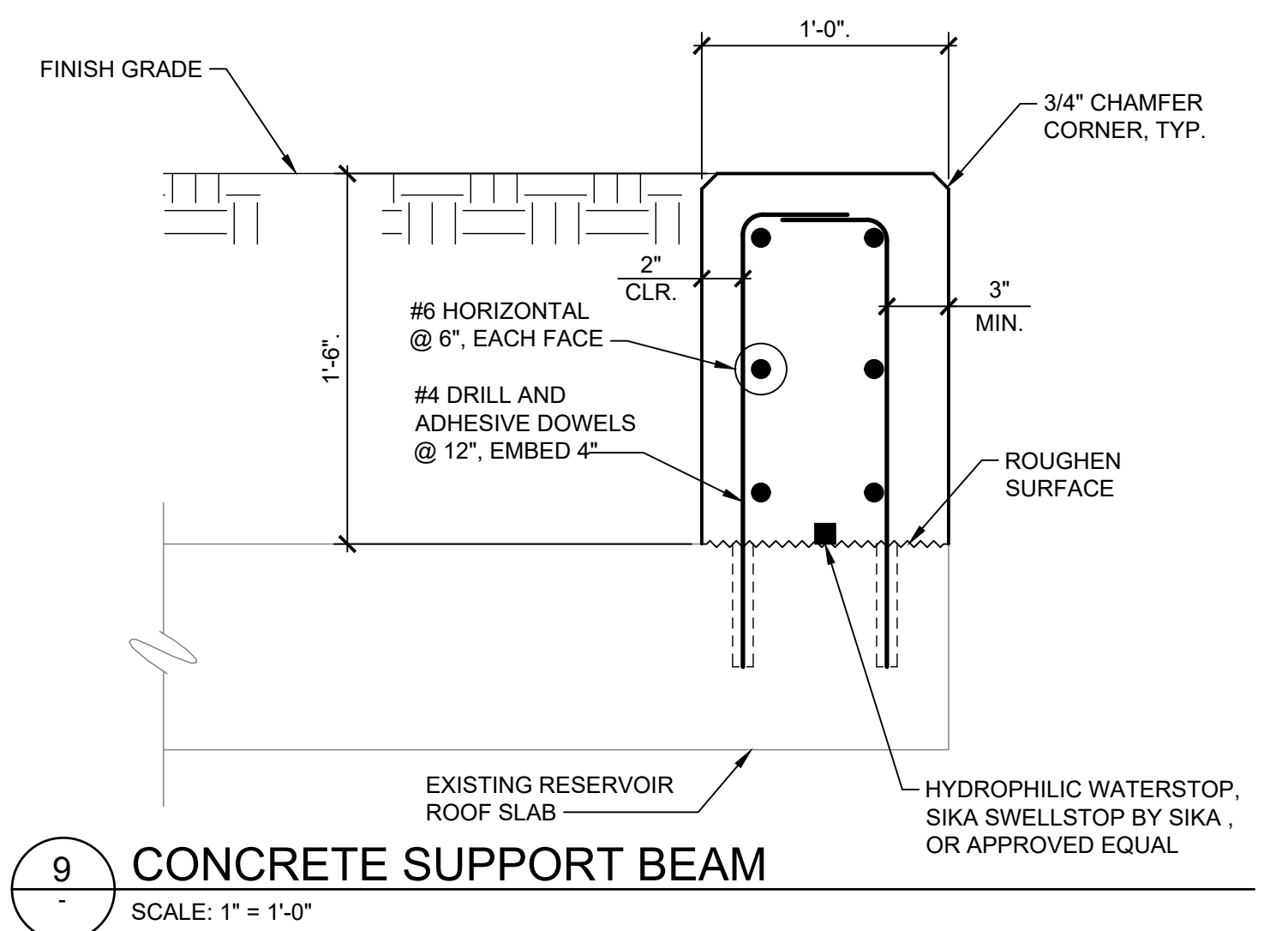
5 CONSTRUCTION JOINT IN SHOTCRETE WALL STRENGTHENING OVERLAY
SCALE: N.T.S.



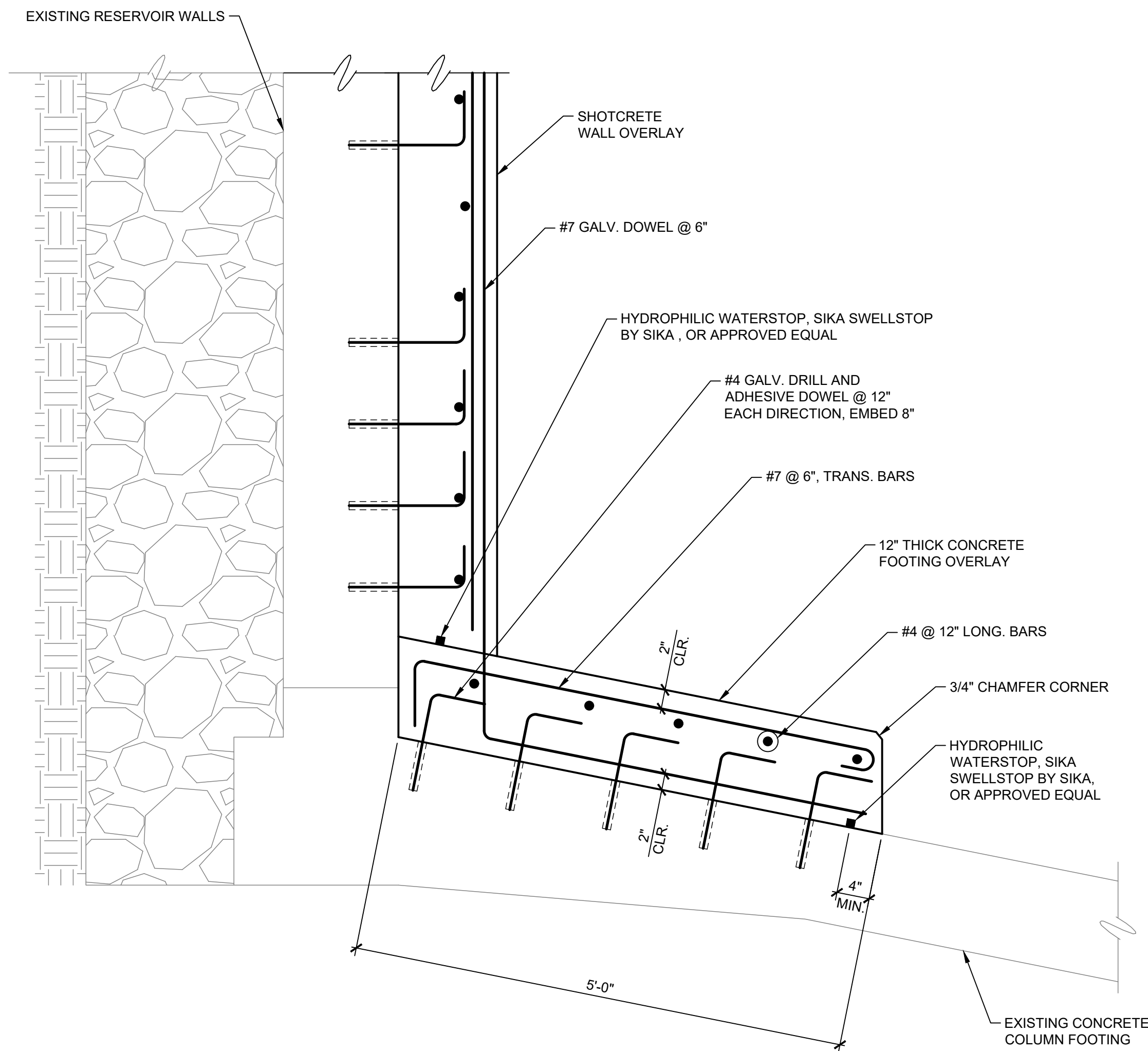
6 CONSTRUCTION JOINT IN CONCRETE FOOTING STRENGTHENING OVERLAY
SCALE: N.T.S.



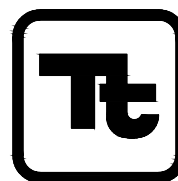
8 HATCH OPENING
SCALE: 3/4" = 1'-0"



9 CONCRETE SUPPORT BEAM
SCALE: 1" = 1'-0"



7 CONCRETE WALL FOOTING STRENGTHENING OVERLAY DETAIL
SCALE: 1" = 1'-0"



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MARK	DATE	DESCRIPTION	BY

MONTECITO WATER DISTRICT
RESERVOIR SEISMIC RETROFIT AND REPLACEMENT
PROJECT FOR BELLA VISTA RESERVOIR

STRUCTURAL DETAILS 1

Project No.: 200-106490-21001
Designed By: JQ
Drawn By: EJM
Checked By: EY

S-501

Bar Measures 1 inch