

GENERAL :

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE STARTING WORK AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2. UNLESS DETAILED, SPECIFIED, OR INDICATED OTHERWISE, CONSTRUCTION SHALL BE AS INDICATED IN THE APPLICABLE TYPICAL DETAILS AND GENERAL NOTES. TYPICAL DETAILS ARE MEANT TO APPLY EVEN THOUGH NOT REFERENCED AT SPECIFIC LOCATIONS ON DRAWINGS.
3. WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF WORK, DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
4. VERIFY LOCATION & SIZE OF OPENINGS AT ROOF, FLOORS, AND WALLS WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL PLANS AND AS REQUIRED FOR EQUIPMENT FURNISHED.
FOR ADDITIONAL OPENINGS AT ROOF, FLOORS AND WALLS SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.
SEE SPECS AND MFR'S DATA FOR THIMBLES AND OTHER EMBEDDED ITEMS AROUND SLUICE GATE AND SLIDE GATE OPENINGS.
5. CODES:
2006 INTERNATIONAL BUILDING CODE WITH
2007 NORTHERN NEVADA AMENDMENTS
REINFORCED CONCRETE: AMERICAN CONCRETE INSTITUTE ACI 318-05
ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES ACI 350-01
6. LOADING CRITERIA:
MINIMUM LOADING REQUIREMENTS PER CHAPTER 16 OF THE IBC-2006.

DEAD LOAD CALCULATED
LIVE LOADS SEE PLANS
LATERAL EARTH PRESSURE AND ALLOWABLE BEARING PRESSURE PER SOILS REPORT.
LATERAL SURCHARGE EQUIVALENT TO 2 FT OF SOIL
HYDROSTATIC FLUID PRESSURE 63 PSF/FT
WIND LOAD:
BASIC WIND SPEED 100 MPH (ASCE 7)
EXPOSURE C
IMPORTANCE FACTOR 1.0 OR 1.15
SEISMIC LOAD:
SITE CLASSIFICATION D
S_{DS} = 1.0 g
S_{D1} = 0.6 g
SEISMIC DESIGN CATEGORY E
IMPORTANCE FACTOR 1.25 OR 1.5
GROUND SNOW LOAD 30 PSF
7. CONSTRUCTION LOADS:
STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL LOADS ON COMPLETED STRUCTURES. DURING CONSTRUCTION, STRUCTURES SHALL BE PROTECTED BY BRACING AND BALANCING WHEREVER EXCESSIVE LOADS MAY OCCUR.
8. INSERTS AND SLEEVES FOR PIPES, GATES, ETC. AND EMBEDDED ITEMS SUCH AS CONDUITS ARE SHOWN IN MECHANICAL AND ELECTRICAL DRAWINGS.
9. WHERE LIFTING LUGS ARE CALLED FOR ON THE PLANS, CONTRACTOR SHALL PROVIDE A DETAIL AND CALCULATIONS FOR A REMOVABLE EYE, FOR REVIEW AND APPROVAL BY THE ENGINEER. REMOVABLE EYE SHALL BE TURNED OVER TO THE OWNER AFTER INSTALLATION OF MOVABLE PANELS.

FOUNDATION :

1. FOR GEOTECHNICAL DATA REFER TO REPORT BY: KLEINFELDER, INC. DATED NOVEMBER 2006. THE REPORT IS FOR INFORMATION ONLY.
2. THE SUB GRADE SHALL BE PREPARED AS INDICATED IN THE SPECIFICATIONS AND APPROVED BY THE ENGINEER BEFORE COMMENCING FOUNDATION CONSTRUCTION.

CONCRETE :

1. ALL CONCRETE STRENGTH SHALL BE 4,000 PSI MINIMUM AT 28 DAYS UNO.
2. LOCATION OF CONSTRUCTION JOINTS SHALL BE APPROVED BY THE ENGINEER, IF NOT SHOWN ON DRAWINGS. CONSTRUCTION JOINTS SHALL BE ROUGH AND CLEAN. REMOVE LOOSE AGGREGATE AND DAMAGED CONCRETE.
3. PROVIDE 3/4 INCH CHAMFERS AT ALL EXPOSED EDGES.
4. FOR ADDITIONAL CONCRETE NOTES SEE S101
TYP
5. CONCRETE SLAB SHALL BE PLACED IN A CHECKERED BOARD PATTERN, SEE SPECIFICATIONS.
6. VARY THE TOP COVER OVER REINFORCEMENT IN SLABS AND MATS TO ACHIEVE THE SLOPES THAT ARE INDICATED. IN CASE WHERE COVER OVER REINFORCEMENT EXCEEDS 3", SLOPE TOP BARS TO MATCH SLOPES INDICATED.

REINFORCING STEEL :

1. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM SPECIFICATION A615 GRADE 60.
2. PROVIDE SPACER BARS, SPREADERS, CHAIRS, BLOCKS, ETC., AS REQUIRED TO SECURELY HOLD STEEL IN PLACE.
3. MAINTAIN 3 INCHES MINIMUM CLEARANCE BETWEEN REINFORCING STEEL AND PIPELINES UNLESS OTHERWISE NOTED.
4. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
5. NO WELDING OF REINFORCEMENT BARS SHALL BE PERMITTED UNLESS APPROVAL IS OBTAINED FROM THE ENGINEER PRIOR TO CONSTRUCTION
6. ALL REINFORCING STEEL SHALL BE LAP SPLICED PER S101
TYP ALL BARS SHALL BE DEVELOPED BEYOND POINT OF TERMINATION, AS SHOWN ON DRAWINGS. IF DEVELOPMENT LENGTH IS NOT SHOWN, WHETHER HOOKED OR STRAIGHT, DEVELOPMENT LENGTH SHALL BE PER ACI 318-05.

STEEL AND STAINLESS STEEL :

1. ALL MATERIAL AND WORK SHALL CONFORM TO THE AISC SPECIFICATION, LATEST EDITION, FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
2. STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 GRDAE 50.
3. STRUCTURAL PIPE MEMBERS SHALL CONFORM TO ASTM A53, GRADE B.
4. STRUCTURAL TUBE MEMBERS SHALL CONFORM TO ASTM A-500, GRADE B, F_y=46 KSI.
5. STRUCTURAL STAINLESS STEEL SHALL CONFORM TO ASTM A276 FOR BARS AND SHAPES, TYPE 304L OR 316L. ALL CONNECTORS ETC.
6. UNLESS DETAILED OTHERWISE, ALL CONNECTIONS SHALL BE MADE WITH 3/4 INCH DIAMETER HIGH STRENGTH BOLTS. HIGH STRENGTH BOLTS SHALL CONFORM TO A325SC UNLESS NOTED OTHERWISE. LOAD INDICATOR WASHERS: ASTM A 325, TYPE 1; STEEL WASHER MANUFACTURED WITH PROTRUSIONS ON ONE FACE OF THE WASHER AND DESIGNED FOR USE WITH HIGH STRENGTH BOLTS. AS THE BOLT IS TIGHTENED, THE WASHER PROTRUSIONS SHALL PARTIALLY FLATTEN TO A SPECIFIED GAP, INDICATING THE DESIGN BOLT TENSION HAS BEEN OBTAINED.
7. EACH CONNECTION SHALL HAVE A MINIMUM OF TWO BOLTS.
8. BOLT SPACING SHALL BE 3 INCHES, UNLESS NOTED OTHERWISE.
9. MINIMUM EDGE DISTANCE (DISTANCE FROM CENTER OF BOLT TO NEAREST EDGE OF PLATE OR STRUCTURAL ELEMENT) SHALL BE 1 1/2 INCHES FOR 3/4 INCH DIAMETER BOLTS UNLESS NOTED OTHERWISE.
10. ANCHOR BOLTS SHALL BE PER ASTM A307, UNO.
11. ALL BOLTED STAINLESS STEEL CONNECTIONS SHALL CONSIST OF STAINLESS STEEL BOLTS, NUTS, AND WASHERS.

HOT-DIP GALVANIZING

1. ALL GALVANIZING SHALL BE PERFORMED AFTER FABRICATION.
2. EXCEPT AS OTHERWISE SPECIFIED HEREIN, HOT-DIP GALVANIZING SHALL CONFORM TO THE REQUIREMENTS OF ASTM STANDARD A 123-78 WITH AN AVERAGE WEIGHT PER SQUARE FOOT OF 2 OUNCES AND NOT LESS THAN 1.8 OUNCES PER SQUARE FOOT.
3. AREAS OF GALVANIZING DAMAGED BY WELDING OR BURNING, OR OTHERWISE DAMAGED, SHALL BE REPAIRED AND RECOATED.

WELDING STEEL :

1. WELDING SHALL BE DONE BY ELECTRIC SHIELDED ARC PROCESS USING E-70XX ELECTRODES.
2. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS.
3. ALL WELDS SHALL BE MADE IN CONFORMANCE WITH THE LATEST EDITION OF THE STRUCTURAL WELDING CODE AWS A5.1 AND AWS D1.1 OF THE AMERICAN WELDING SOCIETY.
4. ALL FILLET WELDS SHALL BE A MINIMUM 3/16 INCH, IF NOT CALLED OUT.

ALUMINUM :

1. ALUMINUM CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE ALUMINUM MANUAL OF THE ALUMINUM ASSOCIATION.
2. UNLESS OTHERWISE NOTED, STRUCTURAL ALUMINUM SHALL BE ALLOY 6061-T6 AS SPECIFIED IN ASTM B211 OR ASTM B221 FOR BARS, AND ASTM B308 FOR STRUCTURAL SHAPES.
3. WHERE ALUMINUM IS IN CONTACT WITH MASONRY OR CONCRETE SURFACES, CONTACT SURFACES SHALL BE COATED WITH HEAVY ALKALI-RESISTANT BITUMINOUS PAINT PER SPECIFICATIONS.
4. EACH BOLTED CONNECTION SHALL HAVE MINIMUM OF TWO BOLTS.
5. BOLT SPACING SHALL BE 3 INCHES, UNO.

WELDING ALUMINUM :

1. WELDING ALUMINUM SHALL BE IN CONFORMANCE WITH AWS D1.2-90
2. WELDING SHALL BE DONE BY USING ER4043 ELECTRODES.
3. ALL WELDING SHALL BE CONTINUOUS AND SHALL BE 3/16" FILLET WELDS, UNO.

WELDING STAINLESS STEEL :

1. WELDING SHALL BE DONE BY USING E308L-15 ELECTRODES FOR ASTM304L AND E316L-15 ELECTRODES FOR ASTM316L.
2. SEE NOTE 4 UNDER WELDING STEEL.
3. WELD PER AWS B2.1 OR D10.4 AS APPLICABLE.

CONCRETE MASONRY UNIT :

1. CONCRETE MASONRY UNITS SHALL COMPLY WITH THE REQUIREMENTS OF ASTM C90, GRADE N-1 WITH MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI, AND SHALL BE NORMAL WEIGHT TYPE. USE OPEN END BLOCK ONLY EXCEPT AT CORNERS.
2. CORNER BOND BEAM, PILASTER, U-BLOCKS, AND ACCESSORY UNITS OF THE SAME COLOR AND TEXTURE SHALL BE PROVIDED.
3. REINFORCEMENT FOR MASONRY SHALL BE SECURED IN PLACE IN CONFORMANCE WITH THE DRAWINGS AND APPLICABLE REQUIREMENTS OF THE 2006 IBC.
4. GROUTING: ALL CELLS SHALL BE SOLID GROUTED.
5. MIN LAP FOR ALL REINF. BARS SHALL BE 62 BAR DIAMETERS; ALL JAMB SPLICES SHALL BE 72 BAR DIAMETERS.
6. VERTICAL REINF. FOR WALLS SHALL BE CONTINUOUS FROM FLOOR TO ROOF WITHOUT SPLICE, USE OPEN END BLOCK AT VERTICAL REINF. BARS.
7. OWNER SHALL PROVIDE CONTINUOUS INSPECTION BY A REGISTERED DEPUTY INSPECTOR AS REQUIRED FOR MASONRY CONSTRUCTION IN ACCORDANCE WITH 2006 IBC, CHAPTER 17.
8. ALL MASONRY SHALL CONFORM TO: S410
TYP S412
TYP S430
TYP S432
TYP S440
TYP

BACKFILL :

1. UNLESS OTHERWISE NOTED, BACKFILL SHALL NOT BE PLACED AGAINST WALLS UNTIL TOP SLAB HAS BEEN PLACED IN ITS ENTIRETY AND ALL CONCRETE HAS REACHED ITS DESIGN STRENGTH.

ADDITIONAL ABBREVIATIONS :

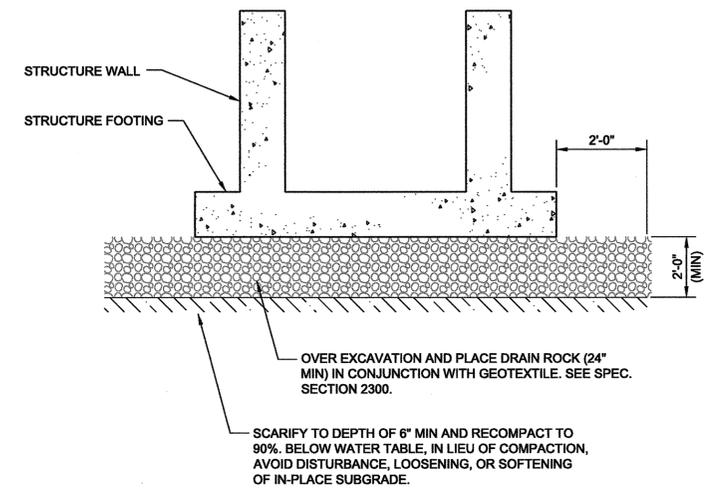
H1E HOOK ONE END TOS TOP OF STEEL
H2E HOOK TWO ENDS TOG TOP OF GRATING
RW REINFORCE WITH

SPECIAL INSPECTION :

SPECIAL INSPECTION OF THE FOLLOWING ITEMS SHALL BE IN ACCORDANCE WITH IBC-2006 CHAPTER 17.

- A. CONCRETE:**
- PLACING OF REINFORCING STEEL.
 - PLACING OF ANCHOR BOLTS OR EMBEDDED PLATES.
 - INSTALLATION OF MECHANICAL COUPLERS.
 - INSTALLATION OF EXPANSION ANCHORS AND ADHESIVE ANCHORS WHERE REQUIRED BY THE RESPECTIVE ICBO EVALUATION REPORT.
- B. WELDING:**
- ALL STRUCTURAL STEEL.
 - STEEL DECKING.
 - HEADED STUDS FOR EMBEDDED PLATES.
- C. HIGH STRENGTH BOLTING.**
- D. MASONRY CONSTRUCTION.**

OVER-EXCAVATION FOR BELOW GRADE STRUCTURES: (UNO, SEE SPECIFICATIONS)



VERIFY SCALES
BARS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DESIGNED	FS	DATE	OCTOBER 2010
DRAWN	JAP	CHECKED	JS

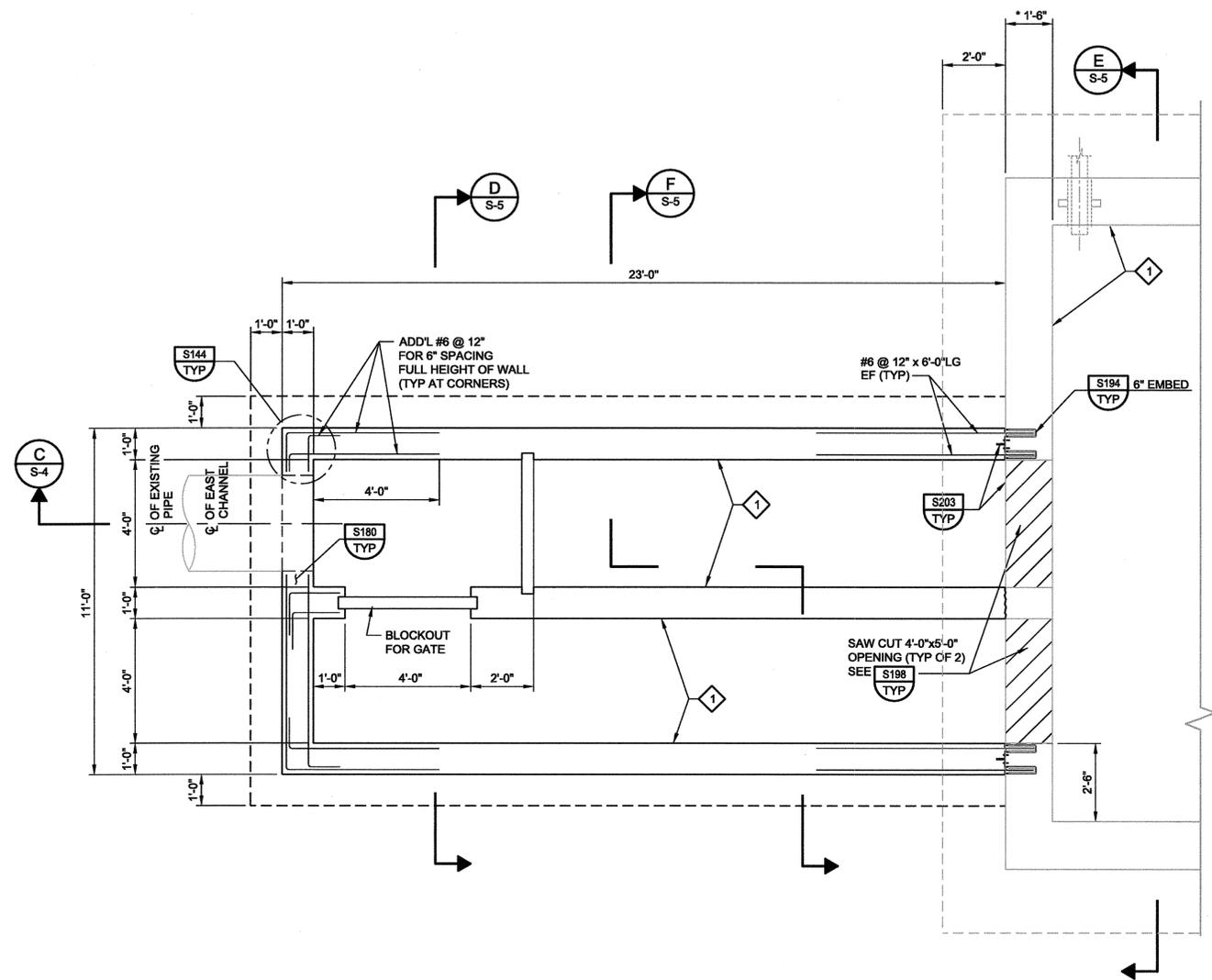


REV.	DATE	DESCRIPTION	BY	APPD

CARSON CITY PUBLIC WORKS
NORTH LIFT PUMP STATION IMPROVEMENTS
CARSON CITY CIP NO. 5.0609
STRUCTURAL
STRUCTURAL NOTES

DRAWING NO.
S-1
SHEET NO.
21 OF 55

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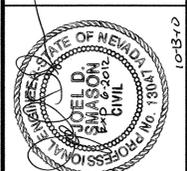
A FOUNDATION PLAN
 SCALE: 3/8"=1'-0"
 FILE: S-PSFP100

* = DENOTES EXISTING DIMENSIONS
 CONTRACTOR TO FIELD VERIFY

- NOTES:**
- FOR STRUCTURAL NOTES SEE SHEET S-1.
 - COAT CONCRETE PER SPECS.
 - COORDINATE OPENINGS IN GRATING WITH GATE AND EQUIPMENT MANUFACTURERS AND PROCESS DWGS.
 - COORDINATE GATE AND PUMP OPENINGS IN TREAD PLATE WITH MANUFACTURER, AND PROCESS DWGS.
- KEY NOTE:**
- 1 COAT WITH EPOXY POLYMER SYSTEM PER SPECIFICATION 09960. (TYP ALL WALLS & SLAB)

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
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 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DESIGNED	FS
DRAWN	WRH
CHECKED	JS
DATE	OCTOBER 2010



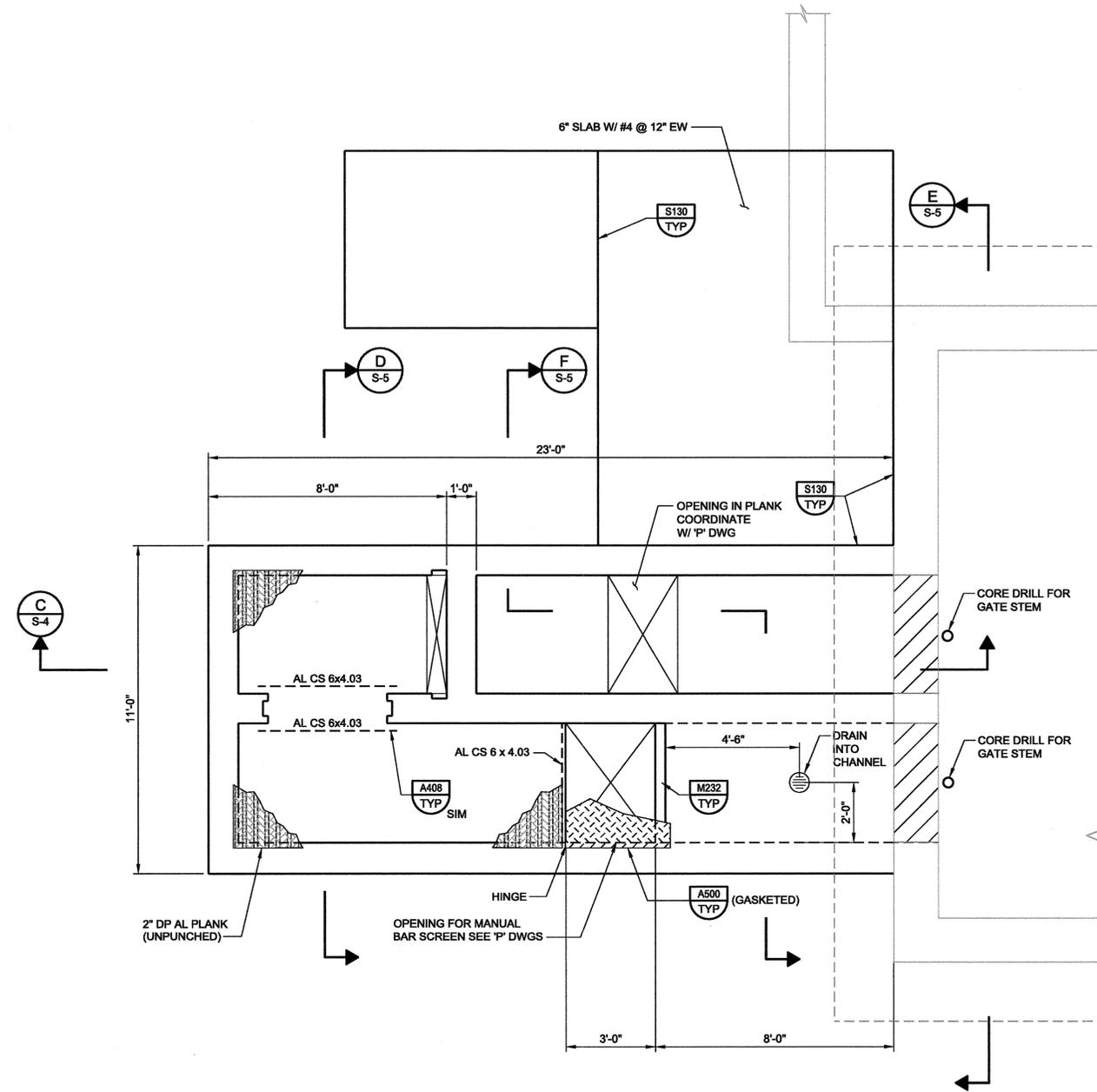
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CARSON CITY PUBLIC WORKS
NORTH LIFT PUMP STATION IMPROVEMENTS
 CARSON CITY CIP NO. 5.0609
 STRUCTURAL
 NORTH LIFT PUMP STATION
 MODIFICATIONS- FOUNDATION PLAN

DRAWING NO.
S-2
 SHEET NO.
 22 OF 55

NOTES:

- FOR STRUCTURAL NOTES SEE SHEET S-1.
- COAT PER SPECS.
- COORDINATE OPENINGS IN GRATING WITH GATE AND EQUIPMENT MANUFACTURERS PER PROCESS DWGS.



B TOP PLAN
 SCALE: 3/8"=1'-0"
 FILE: S-PSFP101
 LL = 100 psf

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1"
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

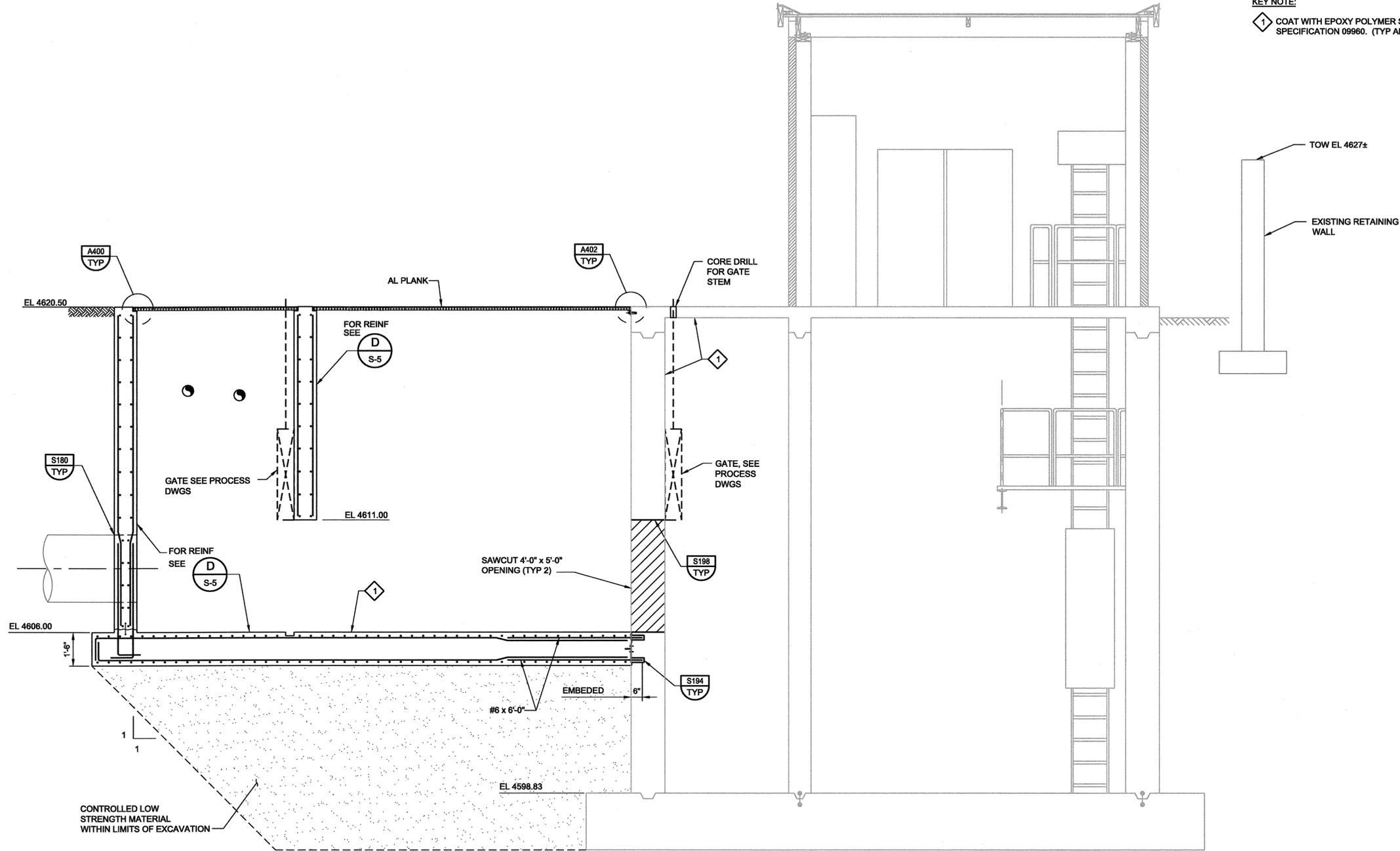
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DRAWN	WRH
CHECKED	IS
DATE	OCTOBER 2010



REV	DATE	DESCRIPTION	BY	APP'D

CARSON CITY PUBLIC WORKS
NORTH LIFT PUMP STATION IMPROVEMENTS
 CARSON CITY CIP NO. 5.0609
 STRUCTURAL
 NORTH LIFT PUMP STATION
 MODIFICATIONS - TOP PLAN

DRAWING NO.
S-3
 SHEET NO.
 23 OF 55



NOTES:

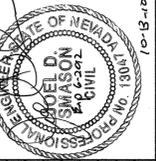
1. FOR STRUCTURAL NOTES SEE DWG S-1.

KEY NOTE:

1 COAT WITH EPOXY POLYMER SYSTEM PER SPECIFICATION 09960. (TYP ALL WALLS & SLAB)

VERIFY SCALES
 BASIS ONE INCH ON ORIGINAL DRAWING
 0 1"
 IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

DESIGNED	FS
DRAWN	WRH
CHECKED	JS
DATE	OCTOBER 2010



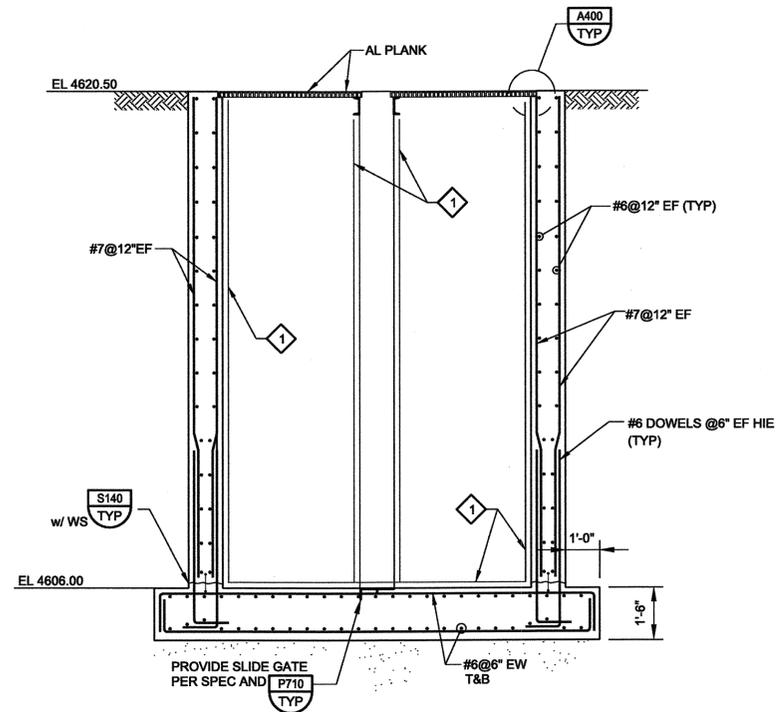
REV.	DATE	DESCRIPTION	BY	APPD

CARSON CITY PUBLIC WORKS
NORTH LIFT PUMP STATION IMPROVEMENTS
 CARSON CITY CIP NO. S.0609
 STRUCTURAL
 NORTH LIFT PUMP STATION
 MODIFICATIONS - MAJOR SECTION

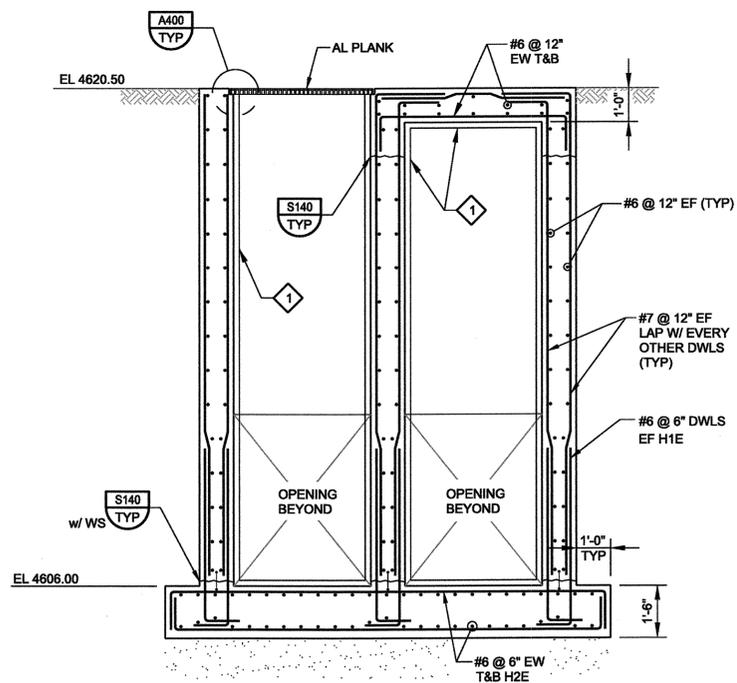
DRAWING NO.
S-4
 SHEET NO.
 24 OF 55

C SECTION
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 S-3

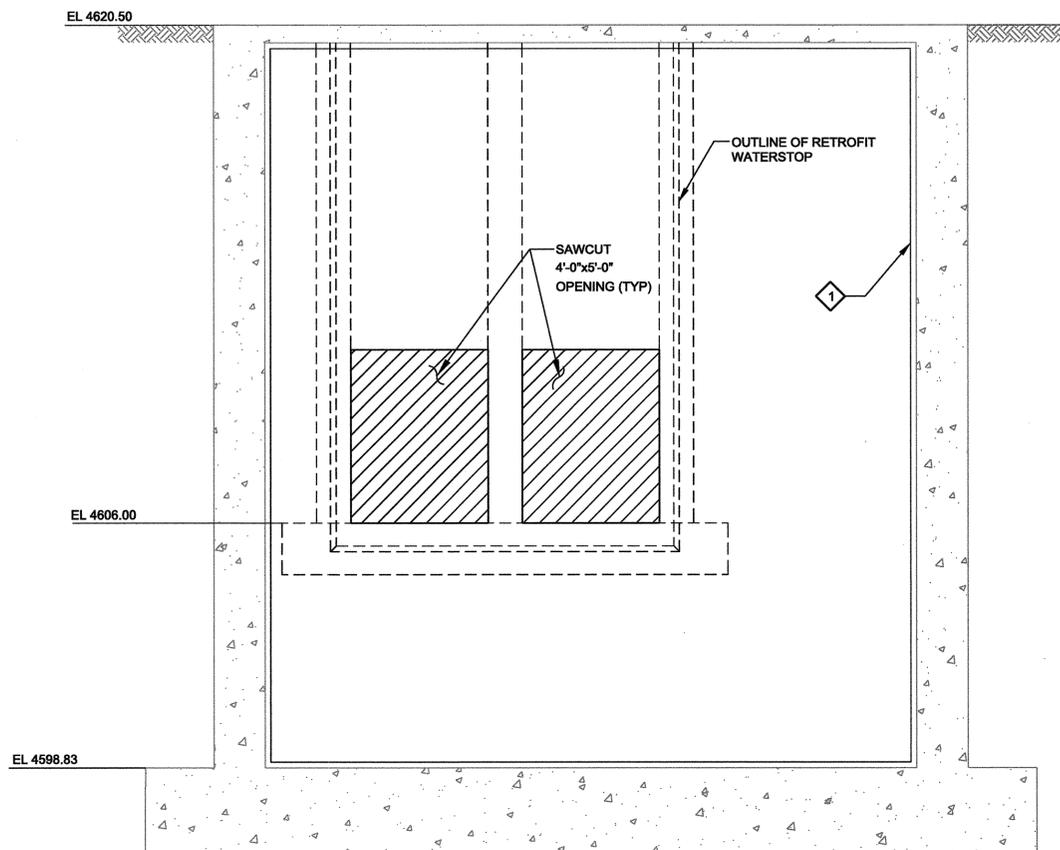
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D SECTION
S-2 SCALE: 3/8" = 1'-0"
S-3 FILE: S-PSNP205



F SECTION
S-2 SCALE: 3/8" = 1'-0"
S-3 FILE: S-PSNP206



E SECTION
S-2 SCALE: 3/8" = 1'-0"
S-3 FILE: S-PSNP204

NOTES:

1. FOR STRUCTURAL NOTES SEE DWG S-1.

KEY NOTE:

1 COAT WITH EPOXY POLYMER SYSTEM PER SPECIFICATION 09960. (TYP ALL WALLS & SLABS)

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DESIGNED	FS
DRAWN	WRH
CHECKED	JS
DATE	OCTOBER 2010



REV.	DATE	DESCRIPTION	BY	APP'D

CARSON CITY PUBLIC WORKS
NORTH LIFT PUMP STATION IMPROVEMENTS
CARSON CITY CIP NO. 5.0609
STRUCTURAL
NORTH LIFT PUMP STATION
MODIFICATIONS - SECTIONS & DETAILS

DRAWING NO.
S-5
SHEET NO.
25 OF 55