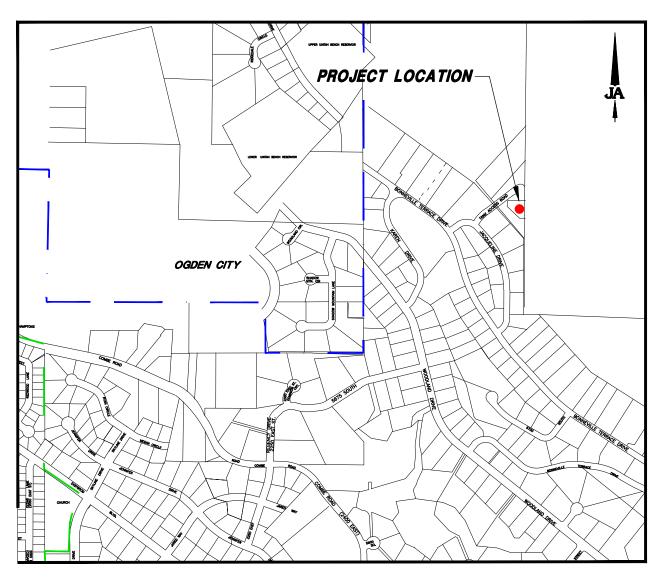
Uintah Highlands Improvement District RESERVOIR #3 REBUILD



Location Map



Index

C/VIL

- 1....PROJECT LOCATION / INDEX SHEET
- 2...DEMOLITION PLAN
- 3...SITE PLAN
- 4...DRAINAGE PLAN AND PROFILE STA. 0+00 TO 1+95
- 5...WATER PLAN AND PROFILE STA. 0+00 TO 3+15
- 6...WATER PLAN AND PROFILE STA. 3+15 TO 7+20
- 7...WATER PLAN AND PROFILE STA. 7+20 TO 9+45
- 8...RESERVOIR PIPING DETAILS I
- 9...RESERVOIR PIPING DETAILS II AND AIR GAP BOX DETAIL
- 10...RESERVOIR APPURTENANCES DETAILS
- 11...RESERVOIR ACCESS LADDER AND LAND DRAIN DETAILS
- 12...CHLORINATION BUILDING DETAILS CS-03...DISTRICT STANDARD DETAILS

STRUCTURAL

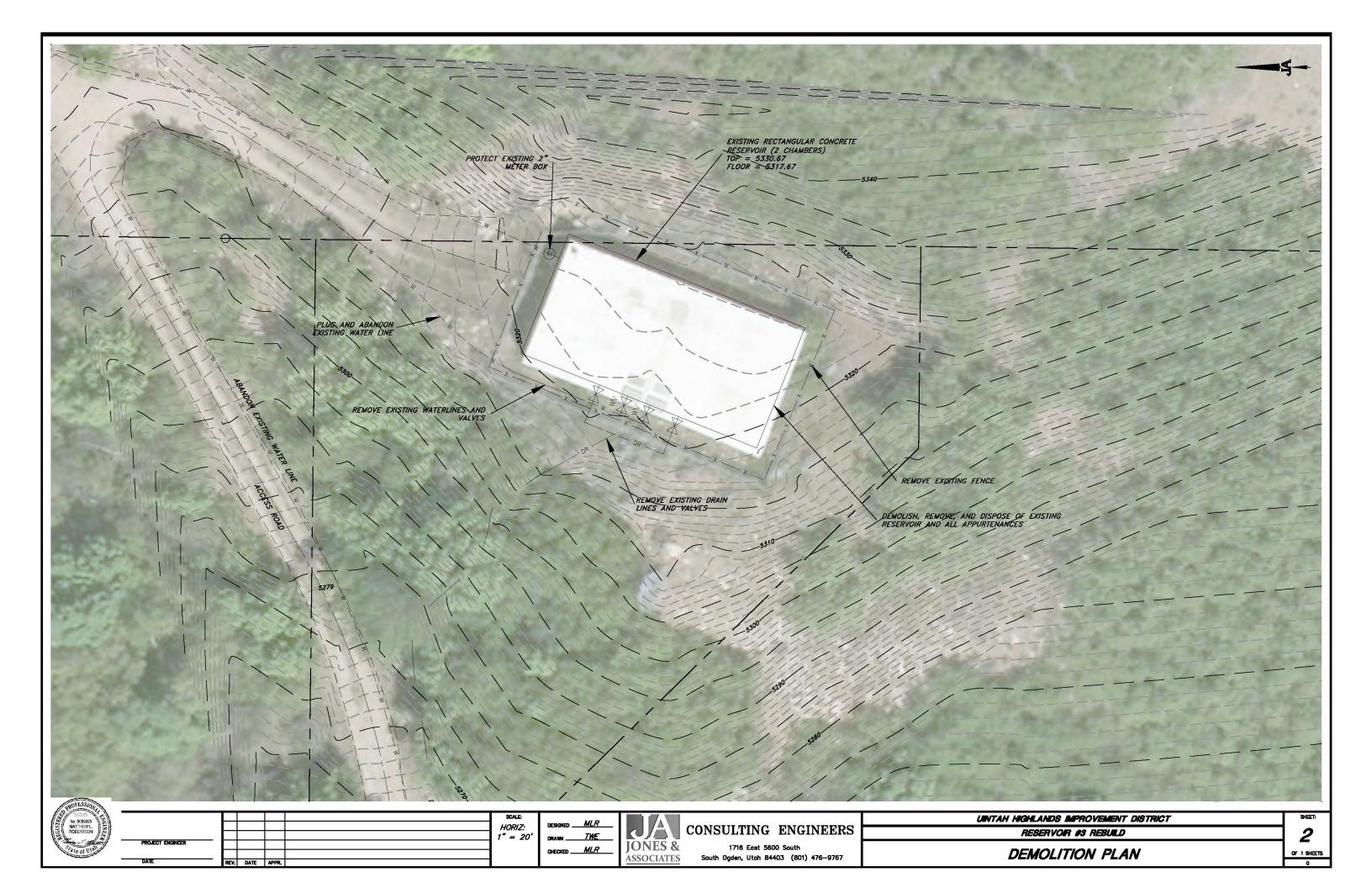
- S1...STRUCTURAL NOTES AND SCHEDULES
- S2...STRUCTURAL PLANS
- S3...STRUCTURAL DETAILS

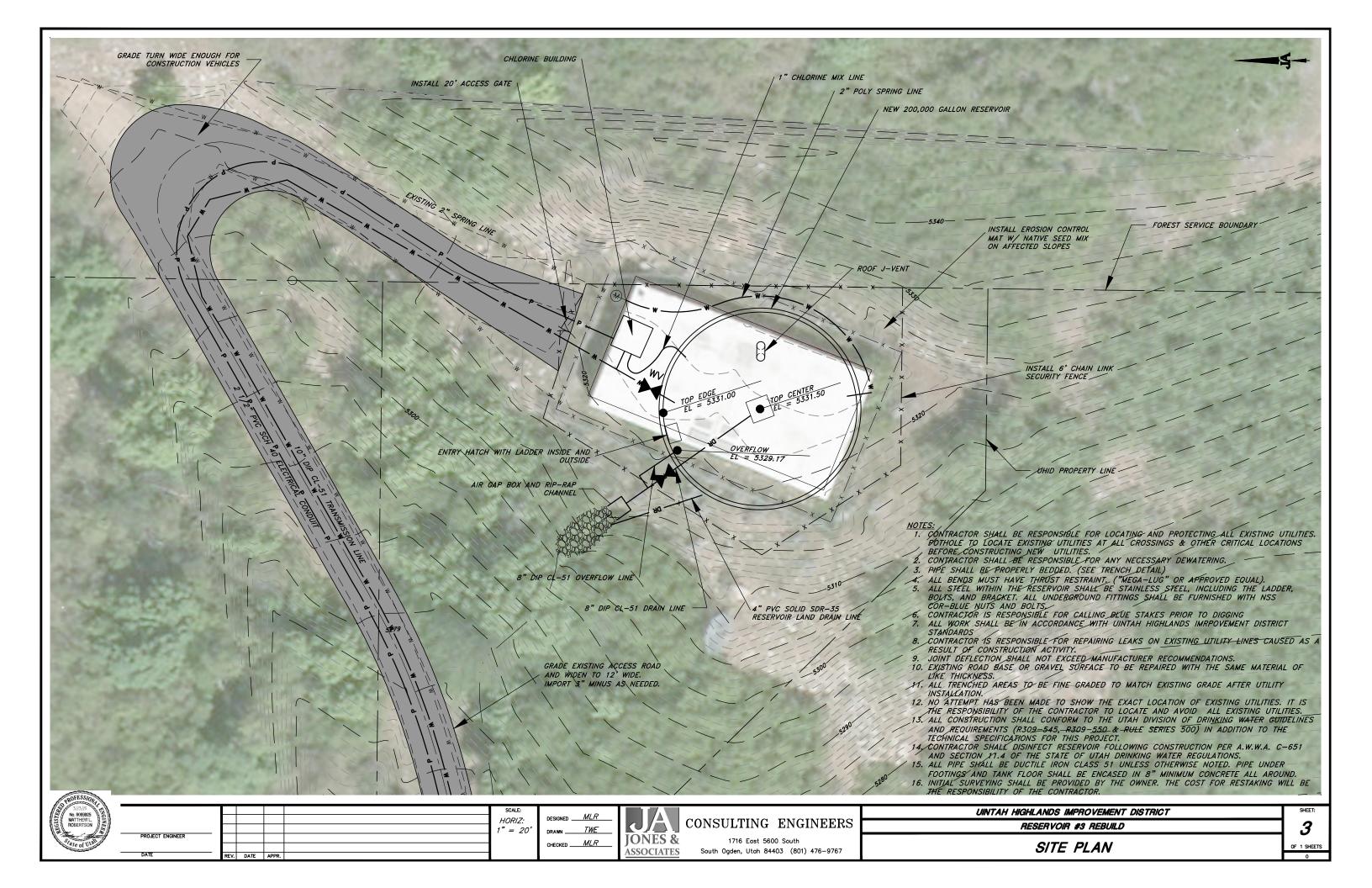


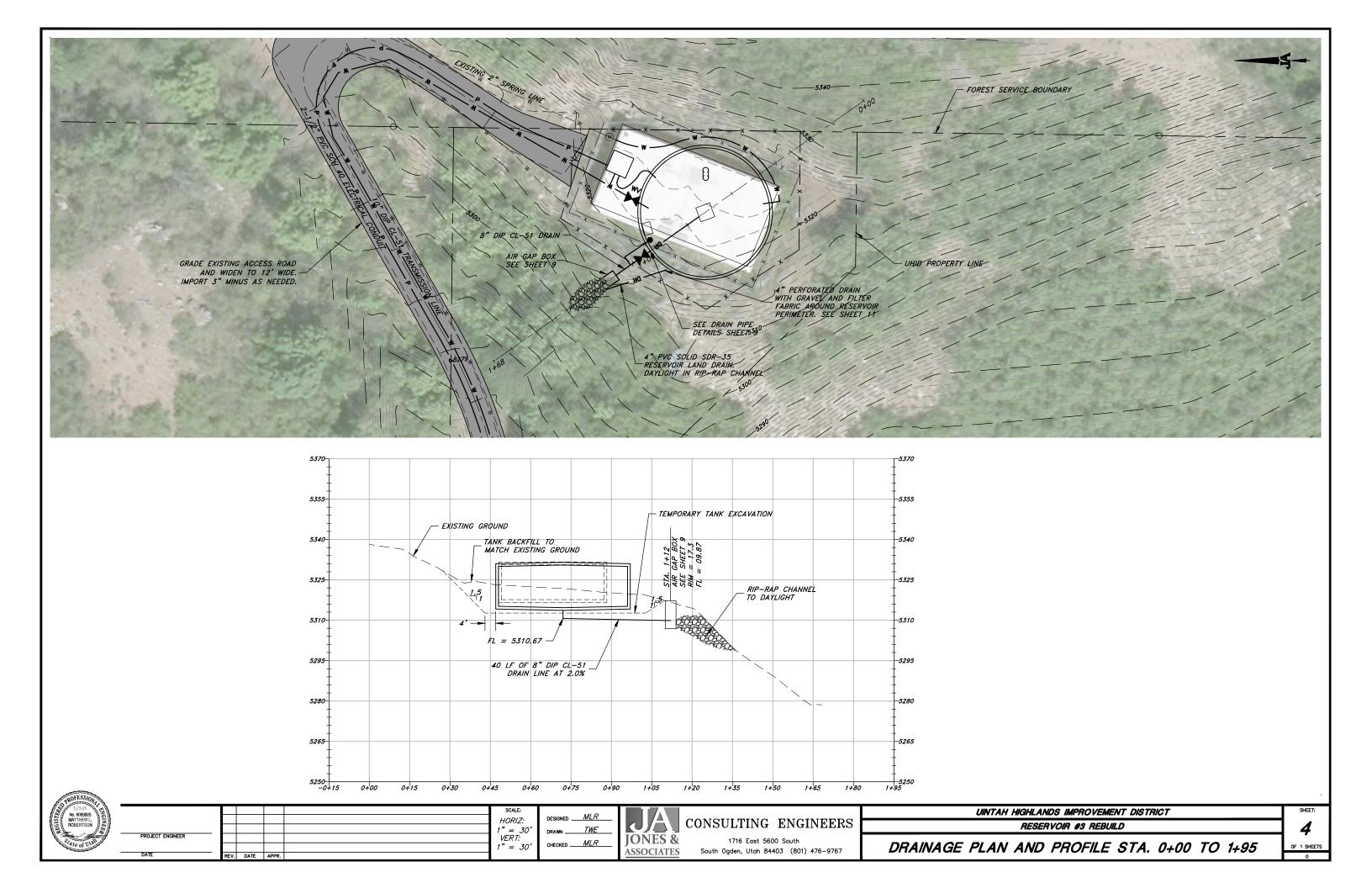
MARCH 2015

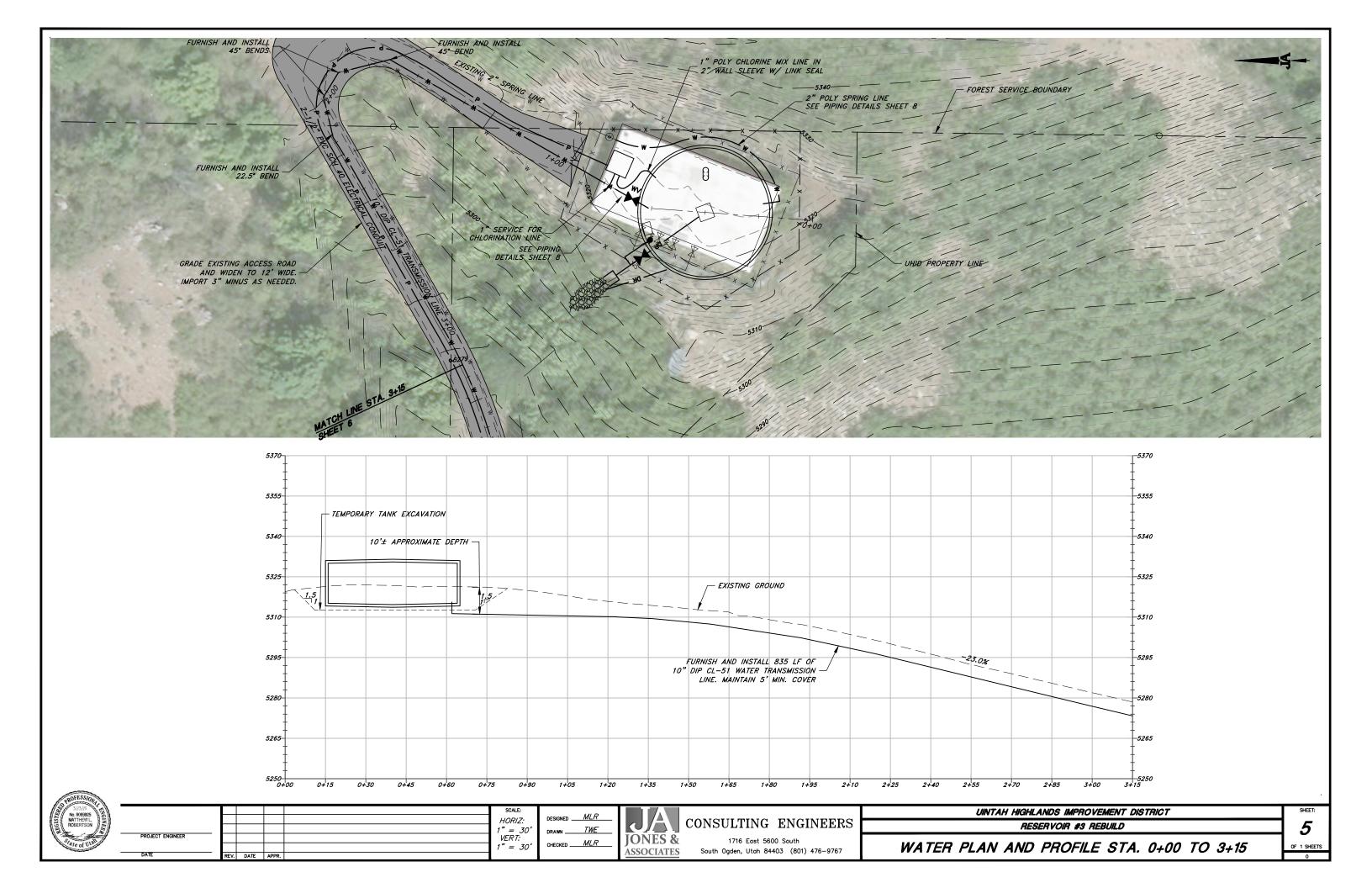


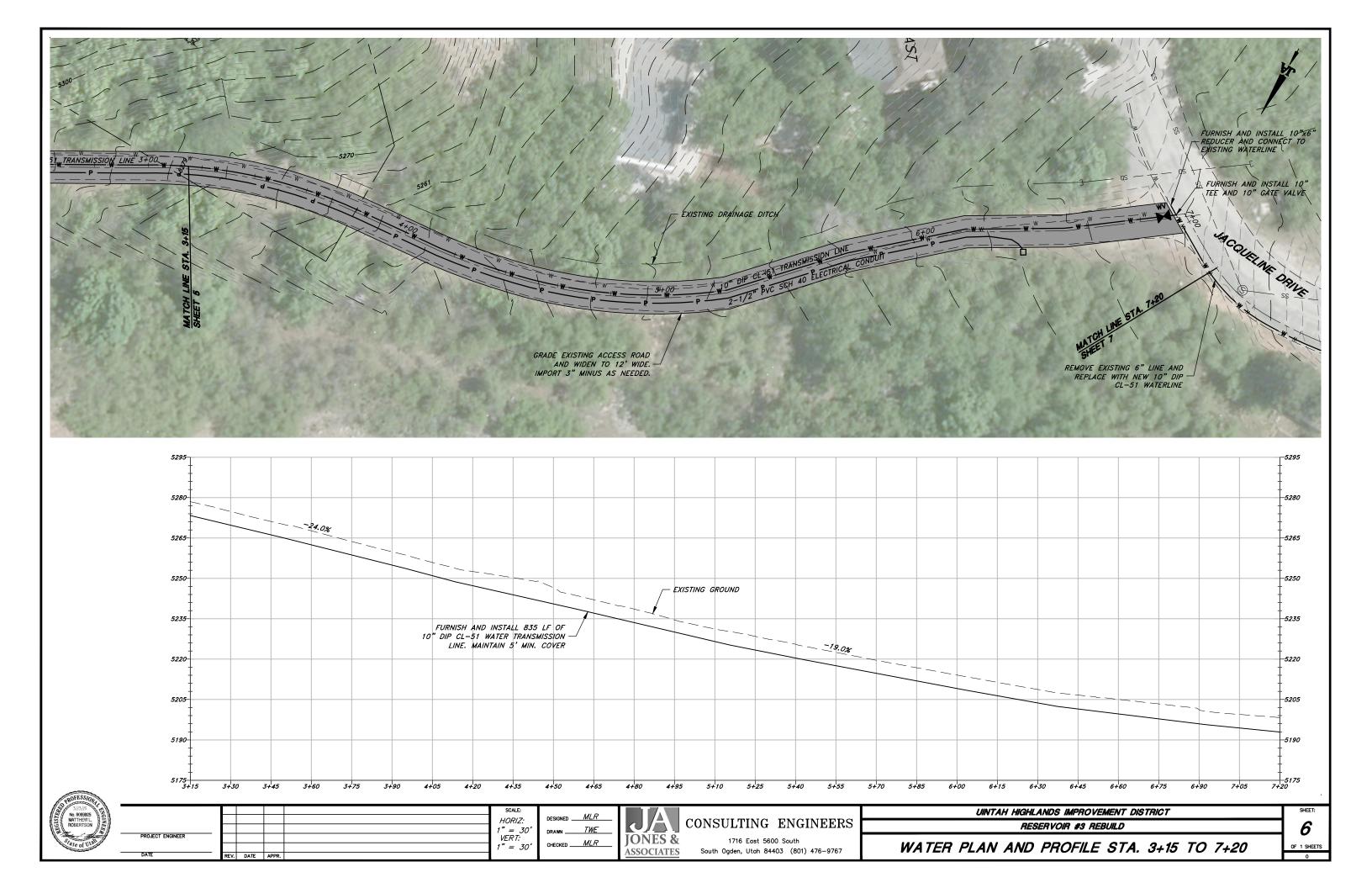
South Ogden, Utah 84403 (801) 476-9767

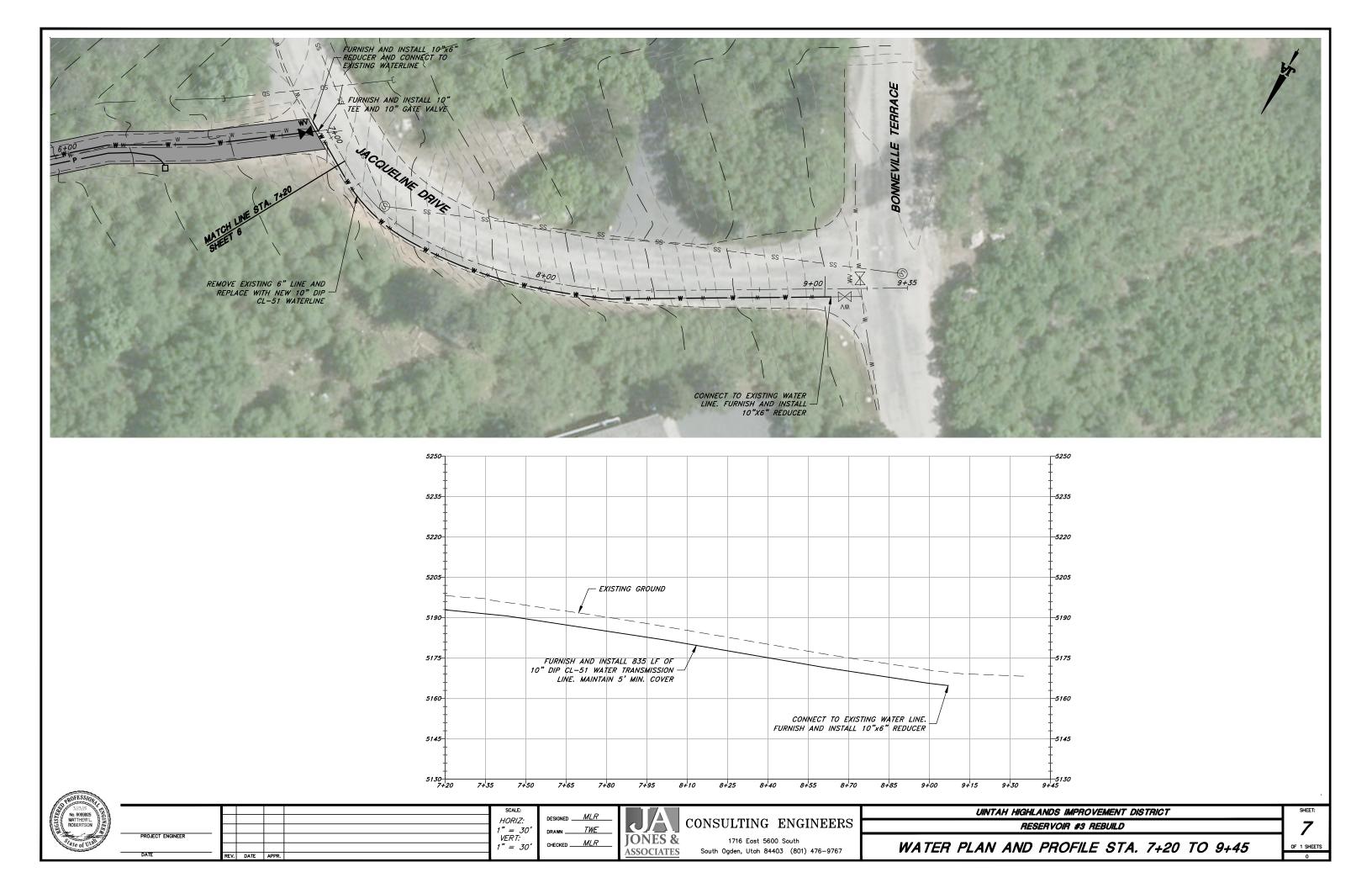


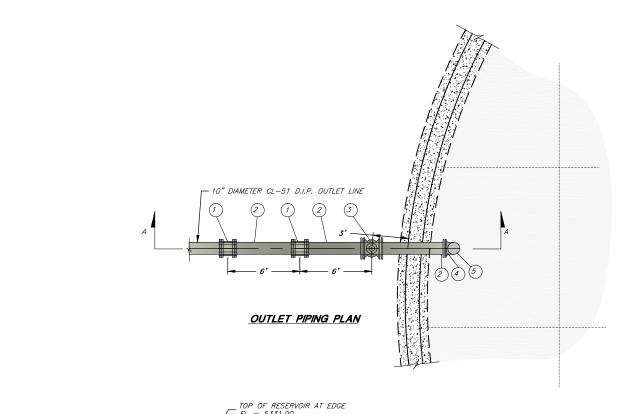


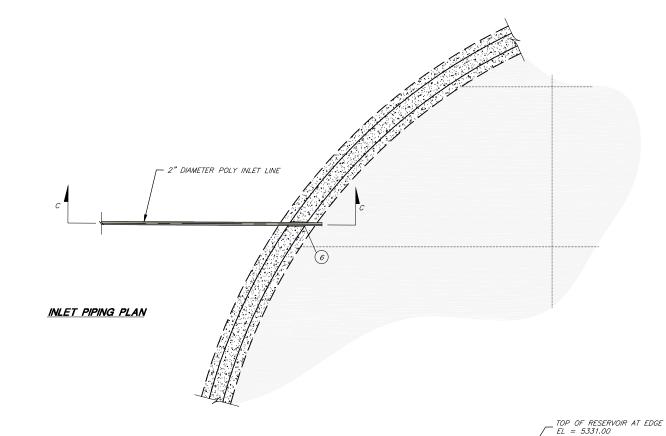


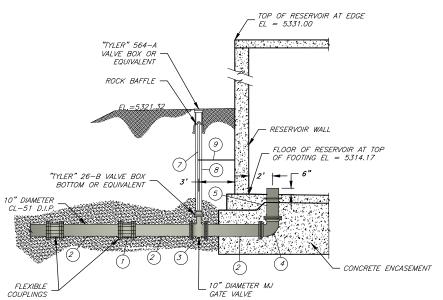












NO.	DESCRIPTION	SIZE	JOINT
1	FLEXIBLE COUPLING	10"	P.E. X P.E.
2	DUCTILE IRON EXTENSION PIECE	10"	P.E. X P.E.
3	GATE VALVE	10"	M.J. WITH MEGA LUG
4	90° ELBOW	10"	M.J. (CONCRETE ENCASED OR MEGALUG)
5	DUCTILE IRON EXTENSION PIECE WITH SEEPAGE RING	10"	P.E. X P.E.
6	WALL SLEEVE WITH SEEPAGE RING AND LINK SEAL TO SEAL AROUND 2" LINE	3"	
7	VALVE KEY EXTENSION TO BE 12" BELOW FINISHED GRADE WITH CENTERING RING LOCATED 12" BELOW OPERATING NUT OPERATING NUT	-	-
8	STEEL PIPE	6"	-
9	SUPPORT BRACKET (TYPICAL) SEE DETAIL SHEET 10	-	=

- RESERVOIR WALL 2" DIAMETER POLY SPRING LINE - CL PIPE EL = 5317.10 FLOOR OF RESERVOIR AT TOP OF FOOTING EL = 5314.17

C-C INLET DETAILS

A-A OUTLET DETAILS

- NOTES:

 1. ALL PIPE SHALL BE DUCTILE IRON THICKNESS CLASS 51
 UNLESS OTHERWISE NOTEO. ALL PIPE UNDER FOOTINGS
 AND TANK SHALL BE ENCASED AND COVERED IN 8 INCHES
 OF 3000 PSI CONCRETE.
 2. ENCASE AND COVER ALL PIPES PROTRUDING FROM TANK
 WITH 12 INCHES MINIMUM SAND. EXTEND SAND 12 INCHES
 PAST LAST COUPLING.

6	ROFESSION	1
STERE	3/ 3/ 5 No. 9099925 MATTHEW L.	
I STE	ROBERTSON	
1	State of Ula	

	Δ	1/16/15	DDA	12" TRANSMISSION LINE	SCALE:
					i
					N.T.S.
PROJECT ENGINEER					i
3/13/15					i
DATE	REV.	DATE	APPR.	FILE NAME: C:\	



DESIGNED MLR

CHECKED <u>MEH</u>

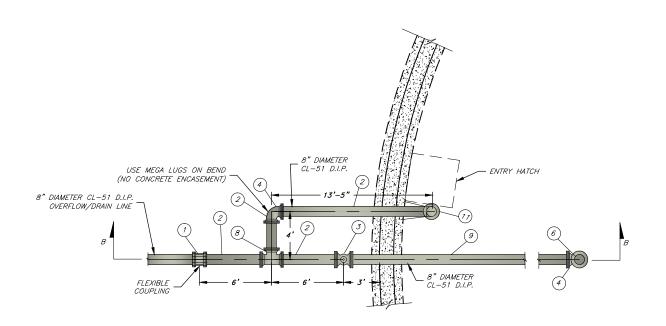


CONSULTING ENGINEERS 1716 East 5600 South

South Ogden, Utah 84403 (801) 476-9767

RESERVOIR #3 REBUILD RESERVOIR PIPING DETAILS I

UINTAH HIGHLANDS IMRPOVEMENT DISTRICT

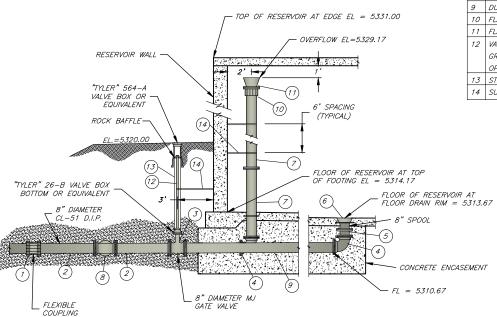


DRAIN LINE AND OVERFLOW PLAN

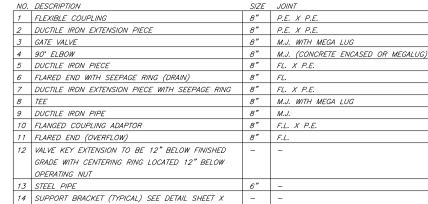
NOTES:

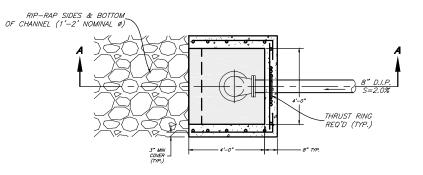
1. ALL PIPE SHALL BE DUCTILE IRON THICKNESS CLASS 51
UNLESS OTHERWISE NOTED. ALL PIPE UNDER FOOTINGS
AND TANK SHALL BE ENCASED AND COVERED IN 8 INCHES
OF 3000 PSI CONCRETE.

2. ENCASE AND COVER ALL PIPES PROTRUDING FROM TANK
WITH 12 INCHES MINIMUM SAND. EXTEND SAND 12
INCHES PAST LAST COUPLING.

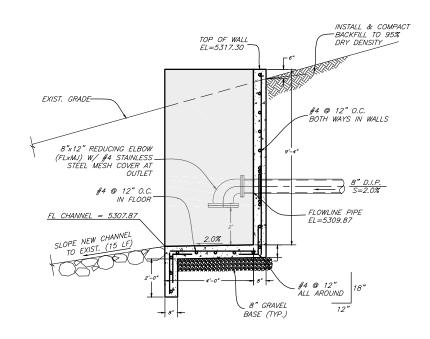


B-B DRAIN AND OVERFLOW DETAILS





AIR GAP BOX - PLAN VIEW



AIR GAP BOX - SECTION A-A



					SCALE:
					N.T.S.
PROJECT ENGINEER					
3/13/15					
DATE	REV.	DATE	APPR.	FILE NAME: C:\	





CONSULTING ENGINEERS 1716 East 5600 South

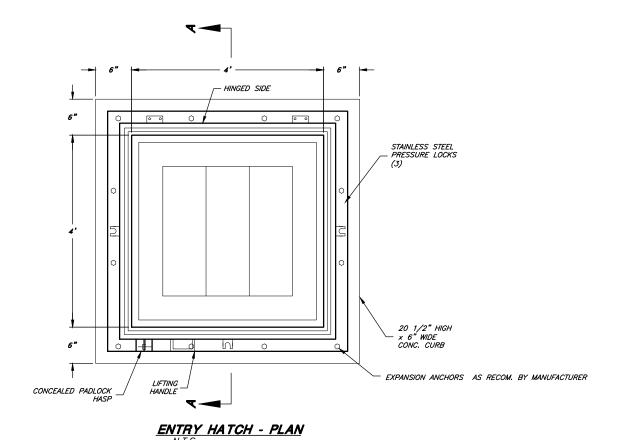
South Ogden, Utah 84403 (801) 476-9767

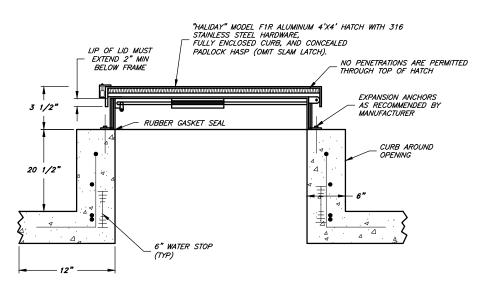
	RESERVOIR #3 REBUILD
RESERVOIR	PIPING DETAILS II & .

9

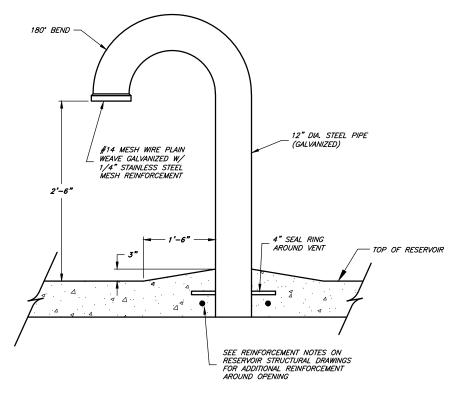
AIR GAP BOX

UINTAH HIGHLANDS IMPROVEMENT DISTRICT

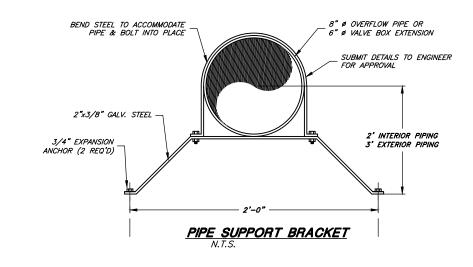




ENTRY HATCH - SECTION A-A



<u>VENT PIPE DETAIL</u> N.T.S.



PROTESSION						
3/13/15						SCALE:
No. 9099925 MATTHEW L. ROBERTSON						
ROBERTSON E						N.T.S.
The state of the s	PROJECT ENGINEER					,
of ate of Utah	3/13/15					
	DATE	REV.	DATE	APPR.	FILE NAME: C:\	

JONES & ASSOCIATES

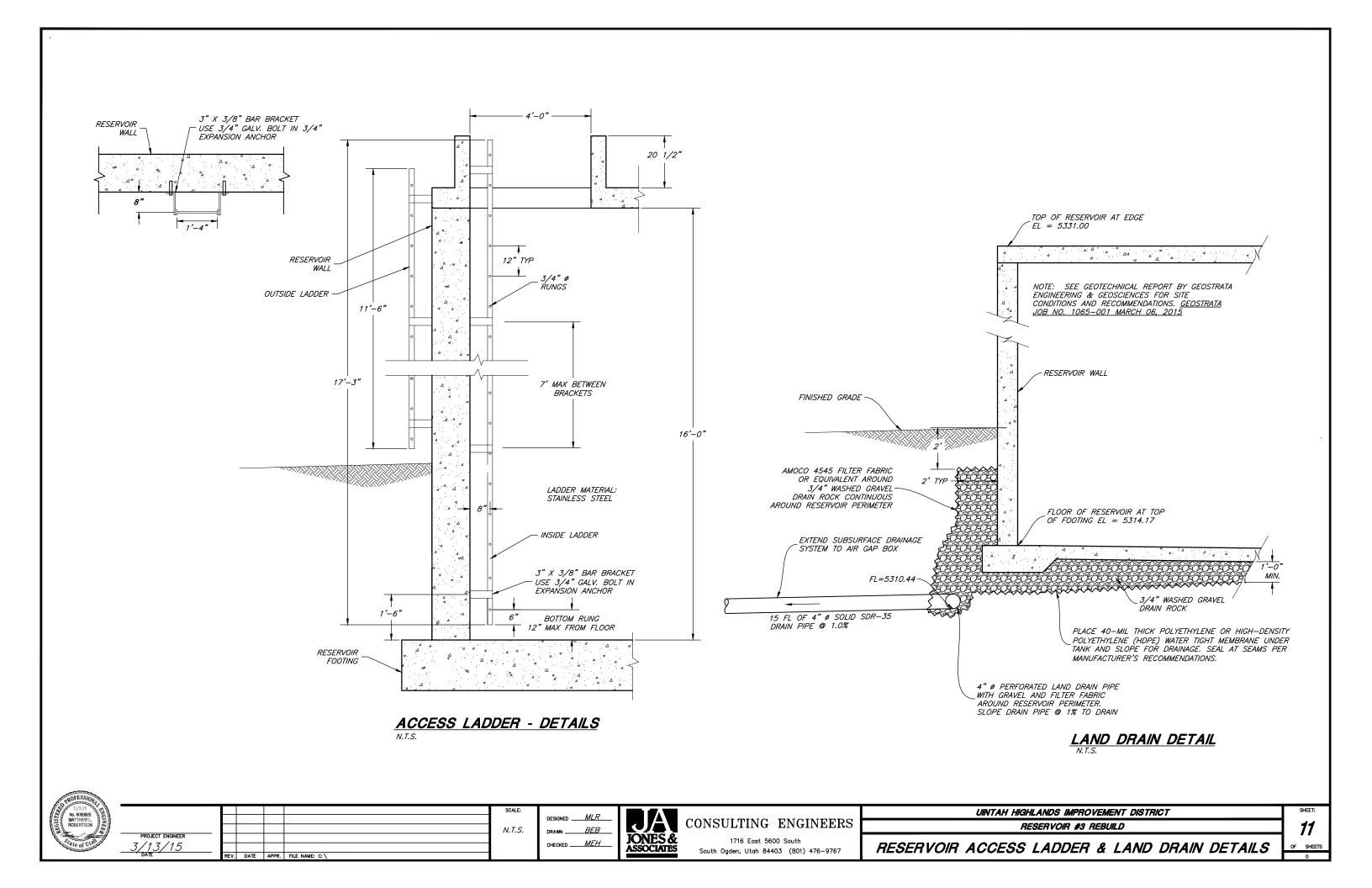
DESIGNED _____MLR

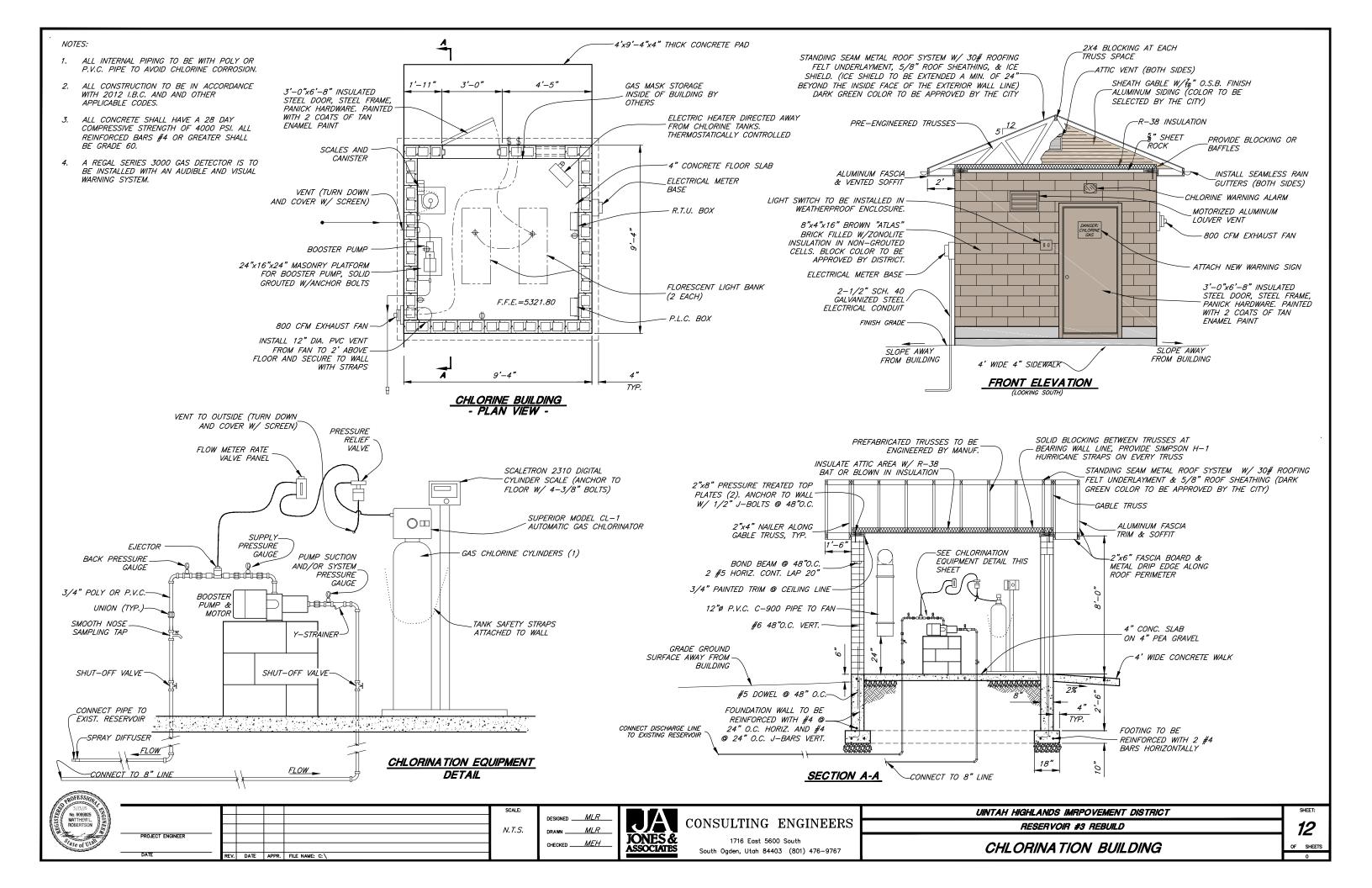
CHECKED <u>MEH</u>

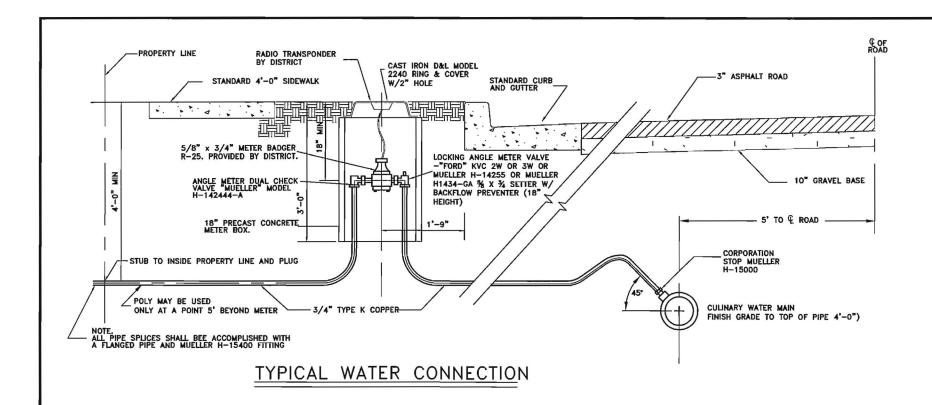
CONSULTING ENGINEERS 1716 East 5600 South South Ogden, Utah 84403 (801) 476-9767

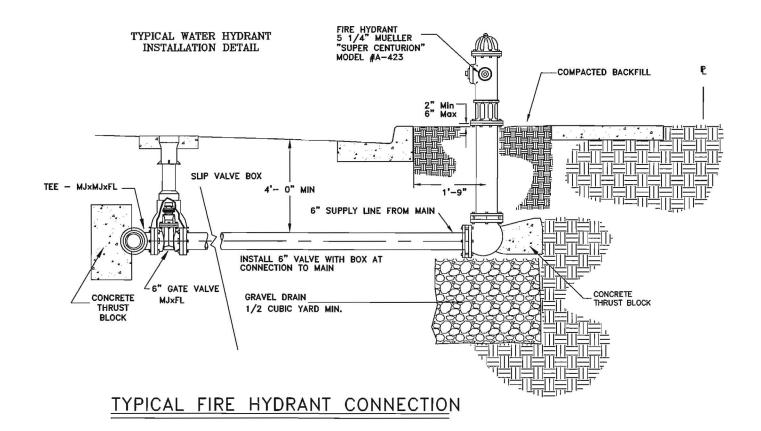
UINTAH HIGHLANDS IMRPOVEMENT DISTRICT RESERVOIR #3 REBUILD RESERVOIR APPURTENANCES DETAILS

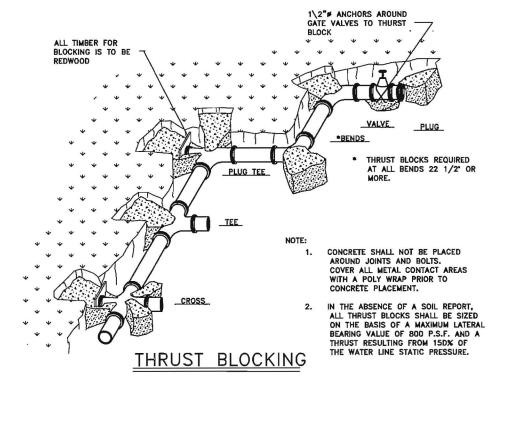
10

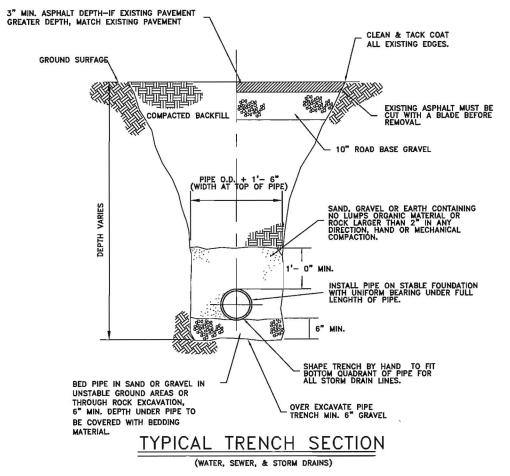












1/07 GLS POLY ON LATERALS N. T.S. PROJECT ENGINEER March 9, 2007

JONES & **ASSOCIATES**

CONSULTING ENGINEERS

4768 South Harrison Boulevard Ogden, Utah 844D3 (801) 476-9767 UINTAH HIGHLANDS IMPROVEMENT DISTRICT

PUBLIC WORKS STANDARDS

FIRE HYDRANT & WATER SERVICE CONNECTION DETAILS

CS-03

STRUCTURAL NOTES

A. GENERAL

- 1. THE STRUCTURAL NOTES ARE INTENDED TO COMPLEMENT THE PROJECT SPECIFICATIONS WHICH ARE PART OF THE CONSTRUCTION DOCUMENTS. SPECIFIC NOTES AND DETAILS ON THE DRAWINGS SHALL GOVERN OVER THE STRUCTURAL NOTES AND TYPICAL DETAILS.
- 2. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE SITE. IF ACTUAL CONDITIONS DIFFER FROM THOSE SHOWN ON CONTRACT DOCUMENTS, CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO FABRICATION OR CONSTRUCTION OF ANY AFFECTED ELEMENTS.
- 3. ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK INVOLVED. IN CASE OF CONFLICT, FOLLOW THE MOST STRINGENT REQUIREMENT AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
- 4. OBSERVATION VISITS TO THE SITE BY ARM ENGINEERS FIELD REPRESENTATIVES SHALL NEITHER BE CONSTRUED AS INSPECTION NOR APPROVAL OF CONSTRUCTION.
- 5. SEE SPECIFICATIONS FOR REQUIRED SUBMITTALS. SUBMITTALS SHALL BE MADE IN A TIMELY MANNER AS INDICATED IN SPECIFICATIONS. REVIEW OF SUBMITTALS BY ARW ENGINEERS IS FOR GENERAL COMPLIANCE ONLY AND IS NOT INTENDED AS APPROVAL.
- SUBMITTALS WHICH ARE UNCLEAR OR DIFFICULT TO READ SHALL BE REJECTED. 6. DURING AND AFTER CONSTRUCTION, BUILDER AND/OR OWNER SHALL KEEP LOADS ON STRUCTURE WITHIN THE LIMITS OF DESIGN LOADS.
- 7. TYPICAL DETAILS AND SECTIONS SHALL APPLY WHERE SPECIFIC DETAILS ARE NOT
- 8. THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST TO THE ENGINEER FOR APPROVAL BEFORE PROCEEDING WITH ANY CHANGES, MODIFICATIONS OR SUBSTITUTIONS.
- 9. THE CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY SHORING AND BRACING FOR ALL STRUCTURAL ELEMENTS UNTIL THE ENTIRE STRUCTURAL SYSTEM IS COMPLETED. CONTRACTOR IS RESPONSIBLE FOR DESIGN OF ALL SHORING.
- IO. THE CONTRACTOR SHALL COORDINATE AND VERIFY ALL LOCATIONS AND SIZES OF MECHANICAL EQUIPMENT OR OTHER EQUIPMENT BEFORE FABRICATING AND ERECTING STRUCTURAL ELEMENTS.

B. SPECIAL INSPECTION

1. SPECIAL INSPECTION OF ALL CONCRETE SHALL BE PROVIDED BY AN INDEPENDENT AGENCY EMPLOYED AS OUTLINED IN THE SPECIFICATIONS. CONTRACTOR SHALL COORDINATE AND COOPERATE WITH REQUIRED INSPECTIONS.

C. BASIS OF DESIGN

- 1. GOVERNING CODE: ACI 318 / ACI 350R
- 2. SNOW LOAD = 66 PSF (USE 100 PSF)
- 3. MAXIMUM SOIL OVER COVER = NO SOIL OVER COVER

D. FOUNDATION

- 1. DESIGN SOIL PRESSURE: 4000 PSF
- 2. SOILS REPORT BY : GEOSTRATA
- REPORT #: 1065-001 , DATED : MARCH 6, 2015
- 3. SOIL PREPARATION UNDER FOOTINGS AND SLABS-ON-GRADE SHALL BE IN ACCORDANCE WITH THE SOILS REPORT.
- 4. UNLESS NOTED OTHERWISE, ALL FOOTINGS AT COLUMNS TO BE CENTERED BELOW COLUMNS.

E. CONCRETE

- 1. ALL CONCRETE SHALL HAVE A DESIGN 28-DAY COMPRESSIVE STRENGTH AS FOLLOWS :
- FOOTINGS, SLAB ON GRADE, COLUMNS, WALLS, AND ROOF SLAB: 4500psi ALL CONCRETE SAHLL HAVE AN AIR CONTENT OF 5% AND MAXIMUM WATER / CEMENT RATIO OF 0.40 2. NO PIPES, DUCTS, SLEEVES, ETC. SHALL BE PLACED IN STRUCTURAL CONCRETE
- UNLESS SPECIFICALLY DETAILED OR APPROVED BY STRUCTURAL ENGINEER. NO ALUMINUM PRODUCTS SHALL BE EMBEDDED IN CONCRETE. PENETRATIONS THRU WALLS
- WHEN APPROVED SHALL BE BUILT INTO THE WALL PRIOR TO PLACEMENT OF CONCRETE.
- 3. REFER TO OTHER (CIVIL, ETC) DRAWINGS FOR EXTENT AND LOCATION OF DEPRESSIONS, CURBS, RAMPS, ETC..
- 4. AROUND OPENINGS IN SUSPENDED CONCRETE SLABS, ADD REINFORCING BARS EQUIVALENT TO BARS CUT BY OPENING WITH HALF ON EACH SIDE OF OPENING. BARS SHALL RUN FULL LENGTH OF SPAN. SEE DETAIL 3/SI.
- 5. CONSTRUCTION JOINTS NOT SHOWN ON THE PLANS SHALL BE MADE AND LOCATED SO AS TO NOT IMPAIR THE STRENGTH OF THE STRUCTURE AND AS APPROVED BY THE STRUCTURAL ENGINEER. PROVIDE WATERSTOP IN ALL VERTICAL AND HORIZONTAL JOINTS. ALL STEEL REINFORCING SHALL BE CONTINUOUS THROUGH COLD JOINTS,
- WITH LAP SPLICES AS INDICATED, UNLESS NOTED OTHERWISE. 6. PROVIDE WATERPROOFING ADMIXTURE PER PROJECT SPECIFICATIONS.

F. REINFORCING STEEL

- 1. ALL REINFORCING BARS SHALL CONFORM TO ASTM STANDARD A-615 GRADE 60 ADEQUATELY TIE AND SUPPORT ALL REINFORCING
- STEEL AS SPECIFIED BY ACI 315, TO MAINTAIN EXACT REQUIRED POSITION. ALL FIELD BENT DOWELS SHALL BE GRADE 40 WITH SPACINGS INDICATED REDUCED BY 1/3.
- 2. REINFORCEMENT SHALL HAVE THE FOLLOWING CONCRETE COVERAGE:
- A. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3" B. EXPOSED TO EARTH, WATER OR WEATHER:
- i. #6 & LARGER 2" ii. #5 & SMALLER 2" (1 3/4" FOR #3 COLUMN TIES)
- C. SLAB ON GRADE
- i. PLACE REINFORCING AT CENTER OF SLAB UNLESS INDICATED OTHERWISE.
- 3. EXCEPT WHERE NOTED, CONTINUOUS REINFORCEMENT SHALL BE SPLICED WITH LAP SPLICES AT POINTS OF MINIMUM STRESS AS FOLLOWS:
- A. IN RESERVOIR WALLS, SEE DETAILS 1/S1, 2/S1 AND 1/S3.
- B. IN COLUMNS, USE 30 INCH LAP
- C. IN SUSPENDED SLAB, USE 36 BAR DIAMETER LAP AND STAGGER ADJACENT BAR SPLICES 24" MIN. D. IN SLAB-ON-GRADE, USE 30 BAR DIAMETER LAP.
- 4. ALL VERTICAL REINFORCING SHALL BE DOWELED TO FOOTINGS OR STRUCTURE BELOW WITH DOWELS TO MATCH. SPLICE LENGTHS SHALL COMPLY WITH NOTE F.3. DOWELS INTO FOOTINGS SHALL TERMINATE WITH A STANDARD HOOK, AND SHALL EXTEND TO WITHIN 4" OF THE BOTTOM OF THE FOOTING, BUT NOT MORE THAN 20" INTO FOOTING. SEE DETAILS FOR REQ'D. EMBEDMENT OR DOWELS.
- 5. DO NOT WELD REINFORCING.

SPECIAL INSPECTION SCHEDULE 1,2

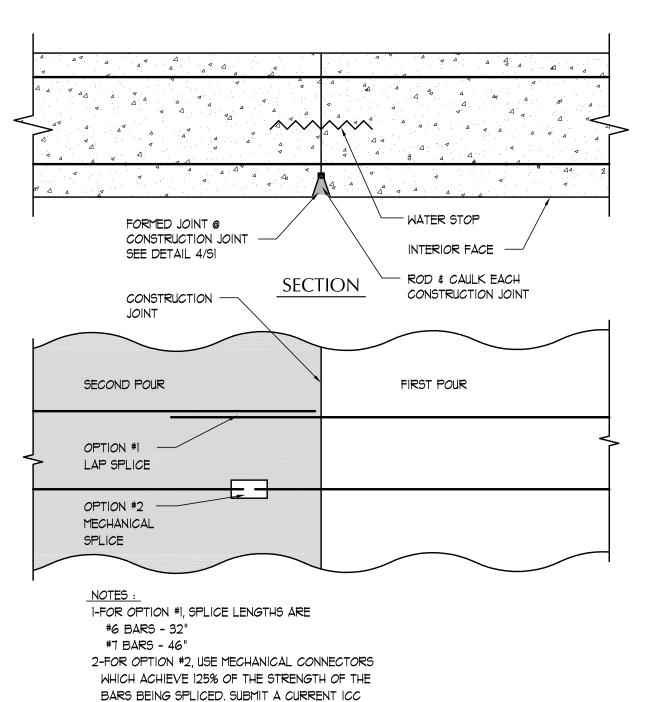
ESTABLISHED PER 2012 IBC SECTION 110 AND CHAPTER 17

PRE-FAB CONSTRUCTION (IBC 1704.2) CONCRETE CONSTRUCTION (IBC 1704.4) REINFORCING STEEL PLACEMENT EMBEDDED BOLTS & PLATES VERIFYING REQUIRED DESIGN MIX CONCRETE PLACEMENT / SAMPLING CURING TEMPERATURE / TECHNIQUES ERECTION OF PRECAST MEMBERS VERIFICATION OF IN-SITU STRENGTH REFERENCE NOTE C3	SPECIAL INSPECTION IS NOT REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION, PROVIDED THE FABRICATOR COMPLIES WITH IBC. INSPECTION FOR PREFABRICATED CONSTRUCTION SHALL BE THE SAME AS IF THE MATERIAL USED IN THE CONSTRUCTION TOOK PLACE ON SITE. SPECIAL INSPECTION WILL NOT BE REQUIRED DURING PREFABRICATION IF THE APPROVED AGENCY CERTIFIES THE CONSTRUCTION AND FURNISHES EVIDENCE OF COMPLIANCE. (SEE NOTE 2). SPECIAL INSPECTION IS NOT REQUIRED FOR CONC. ISOLATED SPREAD FOOTINGS, CONTINUOUS FOOTINGS, NON-STRUCTURAL SLABS, FOUNDATION WALLS, PATIOS, DRIVEWAYS, AND SIDEWALKS PROVIDED THE REQUIREMENTS OF IBC 1704.4 ARE MET. PERFORM AIR, SLUMP AND TEMP. TESTS WHEN CONCRETE SAMPLES ARE CAST. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR VERIFICATION OF IN-SITU CONCRETE STRENGTH FOR POST-TENSIONED CONCRETE PRIOR TO TENSIONING TENDONS OR REMOVING SHORING OR FORMS.
REINFORCING STEEL PLACEMENT EMBEDDED BOLTS & PLATES VERIFYING REQUIRED DESIGN MIX CONCRETE PLACEMENT / SAMPLING CURING TEMPERATURE / TECHNIQUES ERECTION OF PRECAST MEMBERS VERIFICATION OF IN-SITU STRENGTH REFERENCE NOTE C3	NON-STRUCTURAL SLABS, FOUNDATION WALLS, PATIOS, DRIVEWAYS, AND SIDEWALKS PROVIDED THE REQUIREMENTS OF IBC 1704.4 ARE MET. PERFORM AIR, SLUMP AND TEMP. TESTS WHEN CONCRETE SAMPLES ARE CAST. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR VERIFICATION OF IN-SITU CONCRETE STRENGTH FOR
EMBEDDED BOLTS & PLATES VERIFYING REQUIRED DESIGN MIX CONCRETE PLACEMENT / SAMPLING CURING TEMPERATURE / TECHNIQUES ERECTION OF PRECAST MEMBERS VERIFICATION OF IN-SITU STRENGTH COLUMN C	REQUIREMENTS OF IBC 1704.4 ARE MET. PERFORM AIR, SLUMP AND TEMP. TESTS WHEN CONCRETE SAMPLES ARE CAST. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR VERIFICATION OF IN-SITU CONCRETE STRENGTH FOR
EMBEDDED BOLTS & PLATES VERIFYING REQUIRED DESIGN MIX CONCRETE PLACEMENT / SAMPLING CURING TEMPERATURE / TECHNIQUES ERECTION OF PRECAST MEMBERS VERIFICATION OF IN-SITU STRENGTH COLUMN CAPACITOR OF THE COLUMN COLUM	PERFORM AIR, SLUMP AND TEMP. TESTS WHEN CONCRETE SAMPLES ARE CAST. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR VERIFICATION OF IN-SITU CONCRETE STRENGTH FOR
VERIFYING REQUIRED DESIGN MIX CONCRETE PLACEMENT / SAMPLING CURING TEMPERATURE / TECHNIQUES ERECTION OF PRECAST MEMBERS VERIFICATION OF IN-SITU STRENGTH COLUMN (IRC 4705.6)	PERIODIC SPECIAL INSPECTION IS REQUIRED FOR VERIFICATION OF IN-SITU CONCRETE STRENGTH FOR
CONCRETE PLACEMENT / SAMPLING CURING TEMPERATURE / TECHNIQUES ERECTION OF PRECAST MEMBERS VERIFICATION OF IN-SITU STRENGTH REFERENCE NOTE C2 REFERENCE NOTE C2 REFERENCE NOTE C2	
ERECTION OF PRECAST MEMBERS VERIFICATION OF IN-SITU STRENGTH REFERENCE NOTE C3	FOST-TENSIONED CONCRETE FRIOR TO TENSIONING TENDONS OR RELICVING SHORING OR FOR IS.
VERIFICATION OF IN-SITU STRENGTH REFERENCE NOTE C3	
COULC (IDC 4705 C)	
SOILS (IBC 1705.6) REFERENCE NOTE F1 □ □	
l ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	SPECIAL INSPECTION OF SOILS SHALL REFERENCE THE APPROVED SOILS REPORT TO DETERMINE COMPLIANCE.
I VENIETADEGUATENIA GENTALA DELLAM EULITINGA I BULLO B	WHERE SOILS REPORT IS NOT PROVIDED SPECIAL INSPECTIONS ARE REQUIRED TO VERIFY THAT THE IN-PLACE DRY DENSITY OF THE COMPACTED FILL IS NOT LESS THAN 90 PERCENT OF THE MAXIMUM DRY DENSITY AT
	OPTIMUM MOISTURE CONTENT DETERMINED IN ACCORDANCE WITH ASTM D 1557.
CLASSIFY & TEST CONTROLLED FILL MATERIALS • REFERENCE NOTE F2	
PERFORM MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL. REFERENCE NOTE F1	
PROPERLY PREPARED SITE AND SUB-GRADE PRIOR TO FILL. REFERENCE NOTE F1	

GENERAL SPECIAL INSPECTION NOTES:

THE ITEMS MARKED WITH A " " IN THE SPECIAL INSPECTION SCHEDULE SHALL BE INSPECTED IN ACCORDANCE WITH IBC CHAPTER 17 BY A CERTIFIED SPECIAL INSPECTOR FROM AN ESTABLISHED TESTING AGENCY. FOR MATERIAL SAMPLING AND TESTING REQUIREMENTS, REFER TO THE MATERIAL SAMPLING AND TESTING SECTION, THE PROJECT SPECIFICATIONS, AND THE SPECIFIC GENERAL NOTES SECTIONS. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE ARCHITECT, ENGINEER, CONTRACTOR, AND BUILDING OFFICIAL. ANY ITEMS WHICH FAIL TO COMPLY WITH THE APPROVED CONSTRUCTION DOCUMENTS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF DISCREPANCIES ARE NOT CORRECTED, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL, ARCHITECT, AND ENGINEER PRIOR TO COMPLETION OF THAT PHASE OF WORK. SPECIAL INSPECTION TESTING REQUIREMENTS APPLY EQUALLY TO ALL BIDDER DESIGNED COMPONENTS. ANY CONSTRUCTION OR MATERIAL THAT HAS FAILED INSPECTION SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT.

CONTINUOUS SPECIAL INSPECTION MEANS THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTION WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED. PERIODIC SPECIAL INSPECTION MEANS THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTION WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK. (IBC SECTION 1702)



SPLICE SPLICE 4'-0" 4'-0" MIN. MIN. SPLICE LENGTHS

#7 BAR = 52" #6 BAR = 35" SPLICES MAY NOT COINCIDE VERTICALLY #5 BAR = 30" MORE FREQUENTLY THAN EVERY THIRD BAR #4 BAR = 23"

(2) #7 x 9'-0" EACH END OF OPENING TYPICAL RADIAL TOP & BOTTOM -BOTTOM REINF. TYPICAL #5 CIRCULAR (2) #5 x 10'-0" — BOTTOM REINF. -OPENING FOR HATCH 48" x 48" MAX. - VERIFY EXACT OPENING SIZE \$ LOCATION - SEE / DRAWING TNK-1 — - INSIDE OF WALL OUTSIDE OF WALL (2) #5 CIRCULAR BAR @ PERIMETER-

FORMED JOINT @ / ROD AND CAULK CONSTRUCTION JOINT **ENLARGED VIEW** WATER STOP -EXTEND SLAB REINF. CONC. FLOOR SLAB -REINF. - SEE PLAN NOTE: IT IS NOT ANTICIPATED THAT THIS DETAIL WILL BE

TYPICAL WALL OPENING DETAIL THROUGH JOINT & LAP SPLICE SEE STRUCT. NOTES FOR LAP

REQUIRED. IT IS ONLY PROVIDED TO GIVE THE CONTRACTOR THE OPTION OF POURING THE FLOOR WITH MULTIPLE POURS.



TYP. CONST. JOINT IN WALL DETAIL SCALE: NONE

RESEARCH REPORT FOR APPROVAL PRIOR TO

TYP. REINF. BAR SPLICE DETAIL

S1

DESIGNED _

DRAWN ____

TYPICAL HATCH OPENING SCALE: NONE

S1

TYP. CONST. JOINT IN FLOOR SLAB DETAIL SCALE: NONE



TYPICAL WALL REINF. -

- ADDED BAR AT EACH FACE SAME SIZE AS

SEE DETAIL 1/S3

-BARS CUT

- WALL OPENING

NOTE: NO MORE THAN (2) BARS EACH DIRECTION CAN BE CUT.

SEE CIVIL DRAWINGS FOR EXACT LOCATIONS OF OPENINGS

S1

-MAX. OPENING SIZE =

(3x BAR SPACING) - 4" -

1.5 x SPLICE LENGTH

No. 7749124-2203

CONSTRUCTION.

ZACH HANSEN PROJECT ENGINEER EV. DATE APPR.

SCALE: NONE

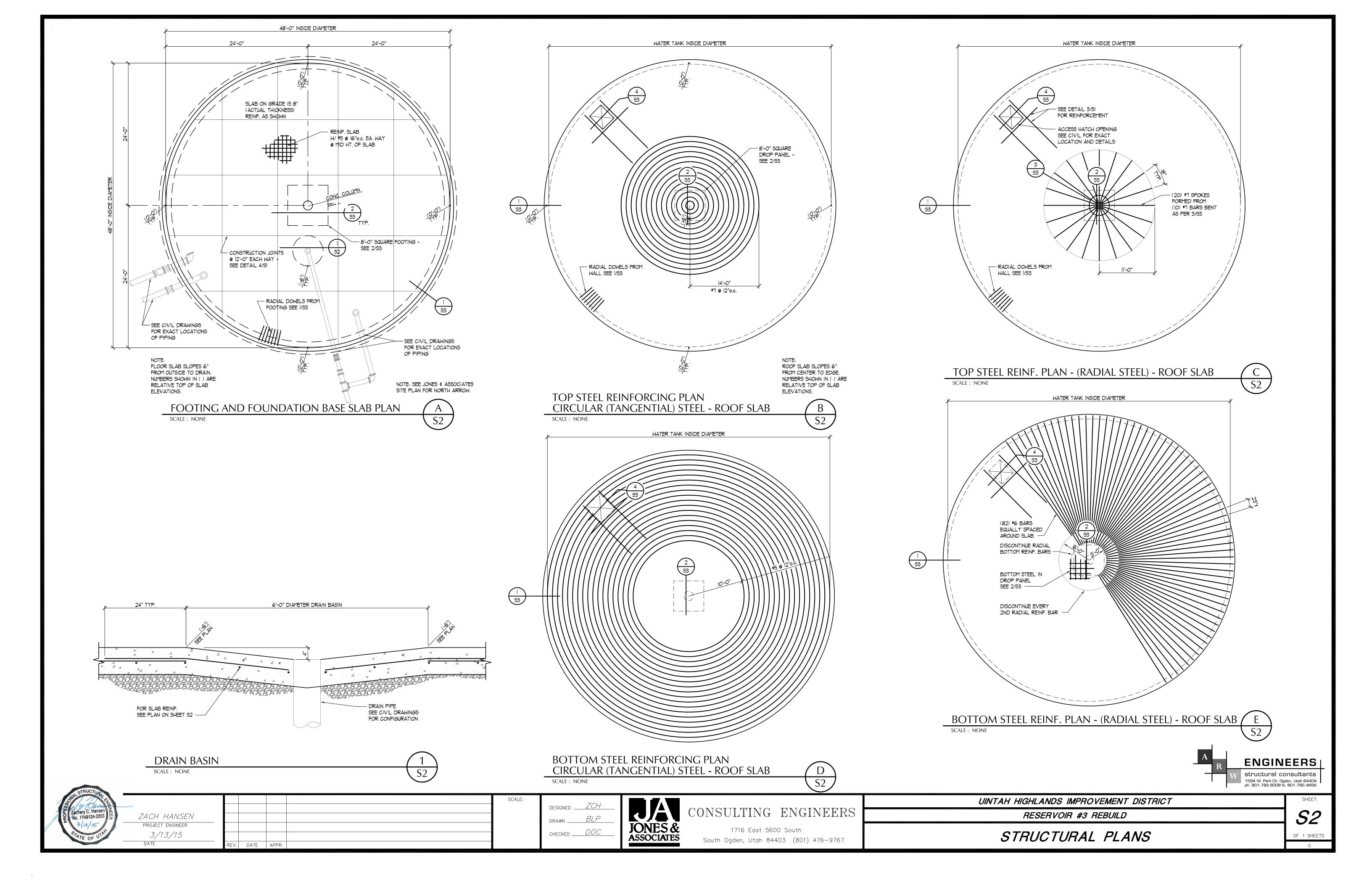
JONES & ASSOCIATES

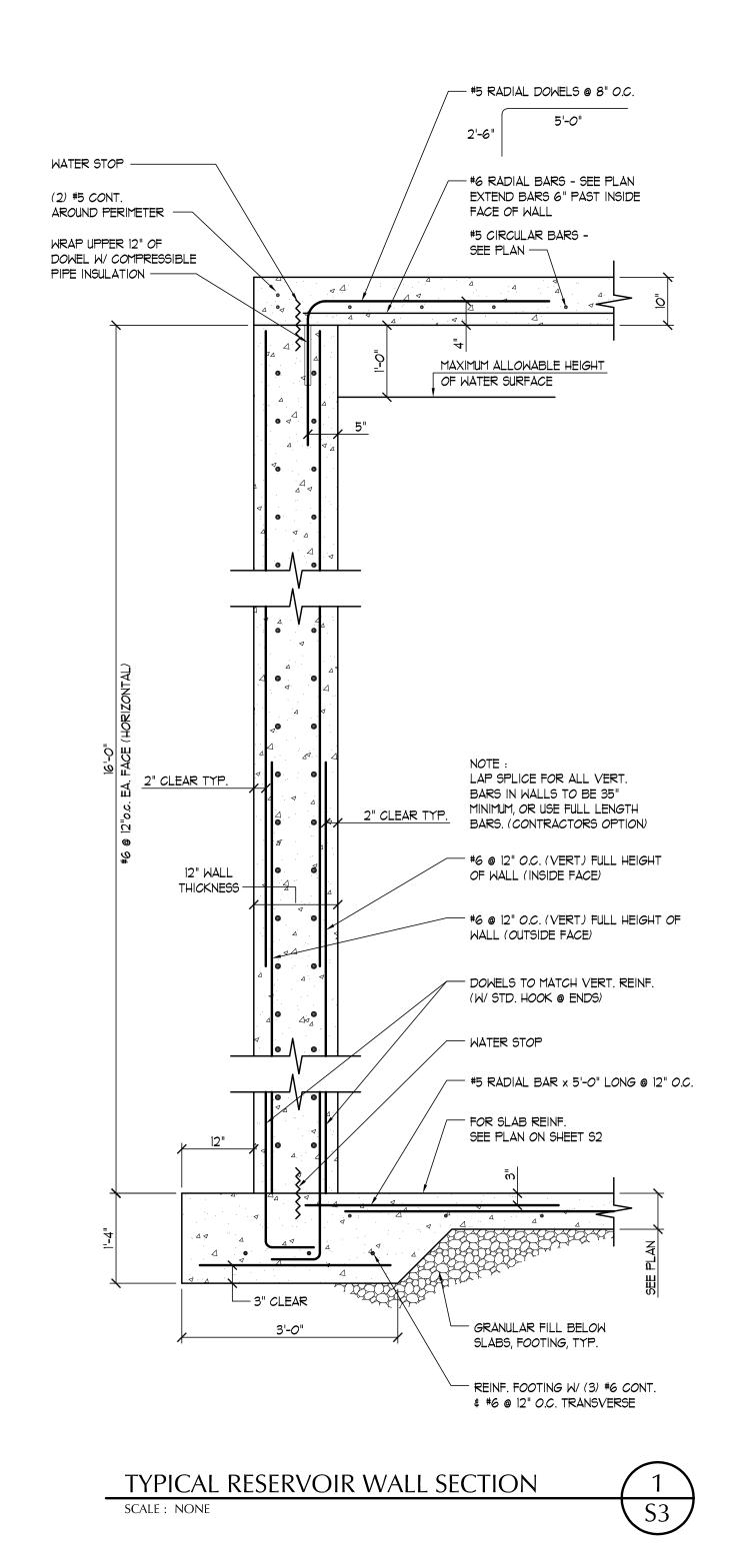
ONSULTING ENGINEERS 1716 East 5600 South South Ogden, Utah 84403 (801) 476-9767

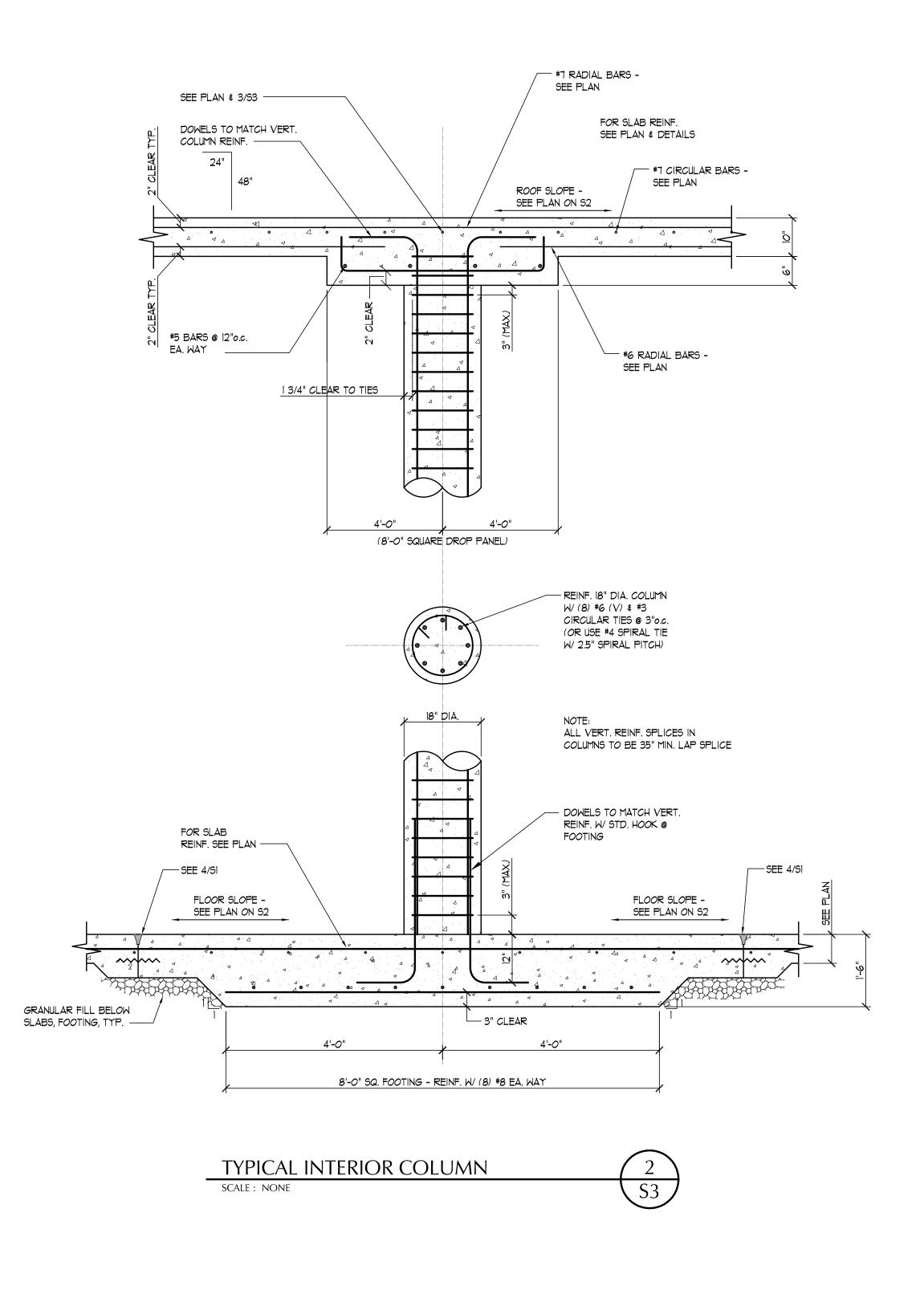
STRUCTURAL NOTES & SCHEDULES

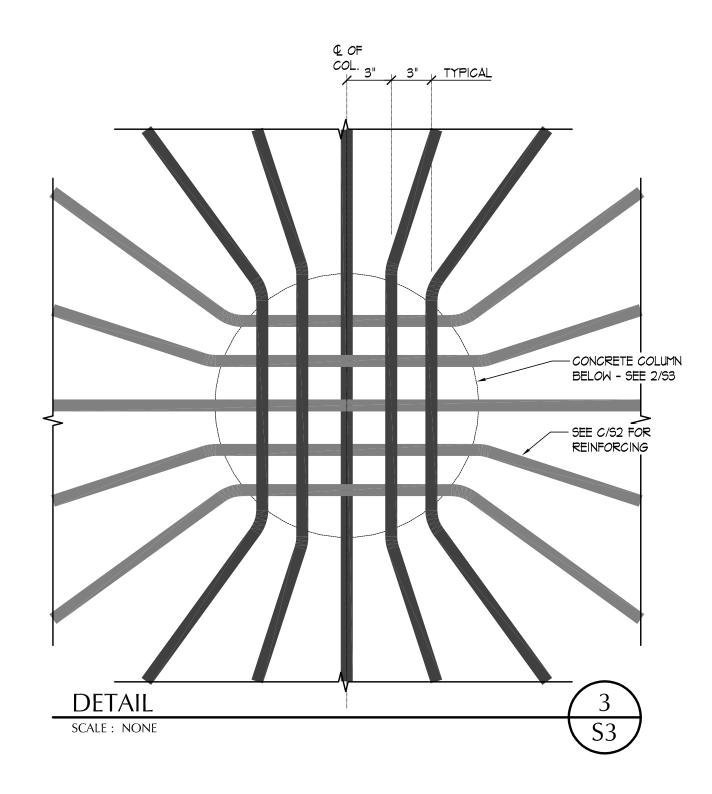
UINTAH HIGHLANDS IMPROVEMENT DISTRICT

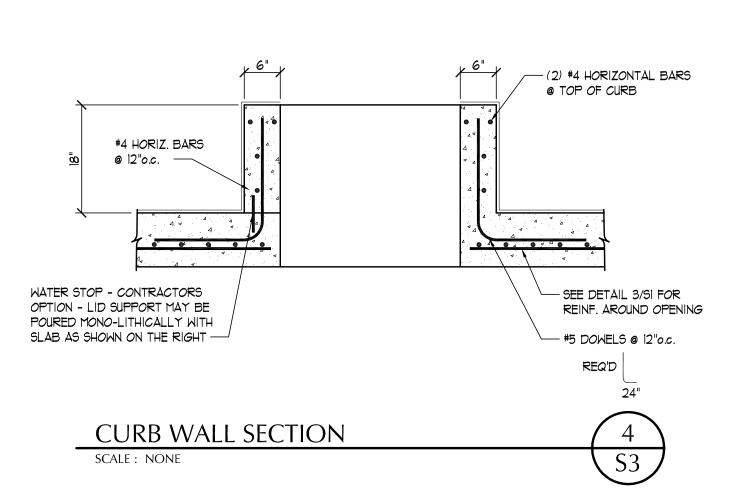
RESERVOIR #3 REBUILD











ENGINEERS structural consultants 1594 W. Park Cir. Ogden, Utah 84404 ph. 801.782.6008 fx. 801.782.4656



ZACH HANSEN PROJECT ENGINEER 3/13/15

REV. DATE APPR.

DESIGNED ZCH drawn ______BLP



CONSULTING ENGINEERS 1716 East 5600 South South Ogden, Utah 84403 (801) 476-9767

UINTAH HIGHLANDS IMPROVEMENT DISTRICT RESERVOIR #3 REBUILD

STRUCTURAL DETAILS

S3