

Commissioners:

- Bill Proctor
District 1
- Jane G. Sauls
District 2
- John E. Dailey
District 3
- Bryan Desloge
District 4
- Kristen Dozier - Chairman
District 5
- Mary Ann Lindley - Vice Chairman
At-Large
- Nick Maddox
At-Large

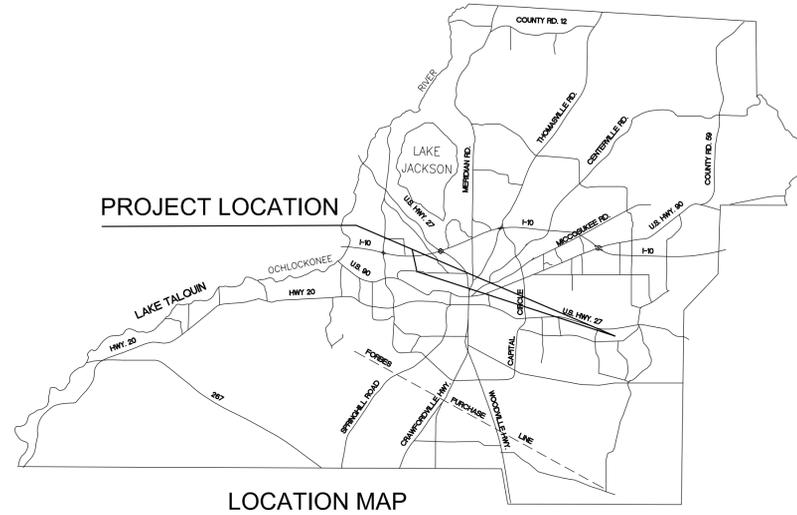


- Vincent S. Long
County Administrator
- Herbert W. A. Thiele
County Attorney
- Tony Park, P.E.
Public Works Director

LAKE HERITAGE DAM IMPROVEMENTS FEBRUARY 2015

INDEX OF SHEETS

SHEET NO.	TITLE
GENERAL	
G-0	COVER
G-1	GENERAL NOTES
CIVIL	
C-1	EXISTING CONDITIONS PLAN
C-2	DEMOLITION PLAN
C-3	PROPOSED CONDITIONS PLAN
C-4	PROPOSED CONDITIONS DETAIL PLAN
C-5	DAM PROFILE
C-6	DAM SECTIONS
C-7	DAM SECTIONS
C-8	SPILLWAY AND EXCAVATION SECTIONS
C-9	STREAM DIVERSION PLAN
C-10	EROSION AND SEDIMENTATION CONTROL PLAN
CD-1	EROSION AND SEDIMENTATION CONTROL DETAILS
CD-2	CIVIL DETAILS
STRUCTURAL	
S-1	STANDARD NOTES AND DETAILS
S-2	SPILLWAY PLAN AND ELEVATION
S-3	SPILLWAY SECTIONS
SD-1	STANDARD DETAILS



LOCATION MAP

CONSTRUCTION SEQUENCE:

1. THE CONTRACTOR SHALL REQUEST AN ON-SITE PRE CONSTRUCTION CONFERENCE WITH LEON COUNTY ENVIRONMENTAL COMPLIANCE DIVISION PRIOR TO ANY CONSTRUCTION ACTIVITY.
2. THE CONTRACTOR SHALL FIRST CONSTRUCT EROSION AND SEDIMENTATION CONTROLS AND THEN CLEARLY "FLAG" THE LIMITS OF CONSTRUCTION. CONSTRUCTION ACTIVITY SHALL NOT COMMENCE UNTIL THE SEDIMENTATION CONTROLS HAVE BEEN INSPECTED AND APPROVED BY THE LEON COUNTY ENVIRONMENTAL INSPECTOR.
3. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL ABOVE GROUND AND UNDERGROUND UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. CALL SUNSHINE LOCATE AT 1-800-432-4770 OR 811 TO CONFIRM UNDERGROUND UTILITY LINES 48 HOURS BEFORE DIGGING.
4. CONSTRUCT DAM AND SPILLWAY IMPROVEMENTS AS SHOWN ON THE PLANS AND DESCRIBED HEREIN.
5. CLEAN UP JOB SITE AND DEMOBILIZE CONSTRUCTION EQUIPMENT.

GENERAL NOTES:

1. A SUFFICIENT LABOR FORCE SHALL BE MAINTAINED TO UNDERTAKE THE SCOPE OF WORK THAT IS TO BE PERFORMED. PRIOR TO THE START OF EACH DAY'S WORK, THE ON-SITE INSPECTOR SHALL APPROVE THE PERSONNEL PROVIDED BY THE CONTRACTOR TO ENSURE THAT AN ADEQUATE NUMBER OF WORKERS ARE AVAILABLE AS WELL AS CAPABLE OF PROVIDING THE SKILLS NECESSARY TO PERFORM THE NECESSARY TASK. IF AT ANY TIME, DURING THE WORKING DAY, THE INSPECTOR FEELS THAT ADEQUATE PERSONNEL ARE NOT BEING PROVIDED, HE MAY STOP ALL WORK ACTIVITIES UNTIL THE CONTRACTOR CORRECTS THE SITUATION. THE CONTRACTOR'S SUPERINTENDENT SHALL BE FREE AT ALL TIMES TO SUPERVISE AND COORDINATE THE WORK IN PROGRESS WITH THE ON-SITE INSPECTOR WITHOUT BEING REQUIRED TO PERSONALLY OPERATE THE EQUIPMENT OF THE PROJECT.
2. LEON COUNTY SHALL RESERVE THE RIGHT TO SAMPLE ANY OR ALL MATERIALS TO DETERMINE THAT MATERIALS MEET SPECIFICATIONS. FAILURE TO MEET SPECIFICATIONS SHALL BE CAUSE FOR CANCELLATION OF DELIVERY, REJECTION OF MATERIALS PROVIDED FOR PARTIAL OR FULL PAYMENT DEDUCTION AS DETERMINED BY THE COUNTY REPRESENTATIVE.
3. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING STREETS AND PRIVATE ENTRANCES THROUGHOUT PROJECT CONSTRUCTION. THIS PROJECT ANTICIPATES THE NEED FOR TRAFFIC CONTROL DEVICES LISTED IN THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES AND FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY STANDARD INDICES.
4. THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN ALL NECESSARY BARRICADES, WARNING, DANGER, AND DETOUR SIGNS, SUITABLE AND ADEQUATE LIGHTS, PROVIDE FLAGMEN WHERE NECESSARY TO DIRECT TRAFFIC, AND TAKE ALL OTHER PRECAUTIONS TO PROTECT THE WORK AND THE PUBLIC. STREETS, WHICH ARE CLOSED TO TRAFFIC BY AUTHORITY OF LEON COUNTY, SHALL BE ADEQUATELY BARRICADED AND MARKED WITH WARNING AND DETOUR SIGNS, AND LIGHTS AT ALL INTERSECTIONS AND CROSSINGS ALONG THE DETOURS. STREET CLOSING AND DETOUR ROUTING SHALL BE REQUESTED OF AND RECEIVE APPROVAL FROM THE OWNER OR HIS DESIGNEE, PRIOR TO IMPLEMENTATION. THE TEMPORARY DETOUR SHALL BE ADEQUATELY MARKED THROUGHOUT ITS LENGTH. ALL DETOUR ROUTES SHALL BE MAINTAINED BY THE CONTRACTOR IN A SAFE AND PASSABLE CONDITION AT ALL TIMES, AND AT SUCH TIME AS THE DETOUR IS NO LONGER NECESSARY, THE STREETS CONSTITUTING THE DETOUR ROUTE SHALL BE RESTORED TO A CONDITION EQUAL TO THE CONDITION OF SUCH STREETS PRIOR TO THEIR USE FOR DETOURS, ALL TO THE SATISFACTION OF THE ENGINEER OR HIS DESIGNEE.
5. THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT FROM THE ROADWAY AND THE SHOULDER DURING NON-WORKING HOURS TO ENSURE THE LEAST PRACTICABLE INTERFERENCE WITH TRAFFIC AND PEDESTRIANS. THE CONTRACTOR IS TO PROVIDE THE AREA FOR STORING EQUIPMENT.
6. WORKING HOURS WILL NORMALLY BE FROM 8:30 A.M. TO 4:30 P.M., MONDAY THROUGH FRIDAY, HOWEVER, UPON REQUEST OF THE CONTRACTOR, THE ENGINEER OR HIS DESIGNEE, MAY CONSIDER AN ALTERNATIVE TO THESE WORKING HOURS BASED ON THE TIME OF THE YEAR, SITE, WEATHER, AND TRAFFIC CONDITIONS.
7. NO NIGHT WORK SHALL BE PERFORMED UNLESS ADEQUATE LIGHTING IS PROVIDED AND APPROVAL GIVEN BY THE ENGINEER OR HIS DESIGNEE. IF THE EXISTING LIGHTING IS NOT ADEQUATE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ARTIFICIAL LIGHTING THAT SHALL BE APPROVED BY THE ENGINEER OR HIS DESIGNEE.
8. OBSTRUCTIONS AND BARRICADES SHALL BE LIGHTED AT NIGHT AND SUCH LIGHTS SHALL BE KEPT BURNING FROM SUNSET TO SUNRISE. ALL SUCH SIGNING AND TRAFFIC CONTROL WITHIN THE LIMITS OF THE PROJECT SHALL BE DONE IN ACCORDANCE WITH THE ENGINEER OR HIS DESIGNEE, APPLICABLE OSHA REGULATIONS AND MUTCD, PART VI.
9. THE EXACT LOCATION OF ALL UTILITIES IN THE VICINITY OF CONSTRUCTION ACTIVITIES SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES PRIOR TO BEGINNING OF CONSTRUCTION AND COORDINATE SCHEDULES WITH UTILITY OWNERS DURING CONSTRUCTION.
10. POST ALL APPLICABLE PERMITS AS REQUIRED.
11. ALL DISTURBED AREAS SHALL BE STABILIZED AS SHOWN.
12. CONTRACTOR IS RESPONSIBLE TO MAINTAIN AND REPLACE STORMWATER CONTROL DEVICES AS NEEDED.
13. STORMWATER MANAGEMENT CONTROL OFFICER:
MS. BETSY THORPE
(850) 606-1522



CDM Smith, Inc.
3522 Thomasville Road, Suite 300
Tallahassee, FL 32309
Tel: (850) 386-9500
FL COA No. EB-0000020

consulting • engineering • construction • operations

GOVERNING STANDARDS AND SPECIFICATIONS :

LAKE HERITAGE DAM IMPROVEMENTS PROJECT MANUAL

LEON COUNTY SUPPLEMENTAL SPECIFICATIONS TO THE 2010 FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

2010 FDOT DESIGN STANDARDS AND 2010 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DIVISION 1, AS AMENDED BY CONTRACT DOCUMENTS

LEON COUNTY
Department of Public Works
Division of Engineering Services
Public Works Center
2280 Miccosukee Road, Tallahassee, FL 32308-5310
Ph: (850)606-1500 Fax: (850)606-1501
Web: <http://www.leoncountyfl.gov>

100% FOR CONSTRUCTION

ABBREVIATIONS

#	NUMBER
&	AND
∅	DIAMETER
APPROX	APPROXIMATE
BLDG	BUILDING
C&G	CURB AND GUTTER
CFS	CUBIC FEET PER SECOND
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CP	CONTROL POINT
DET	DETAIL
DI	DUCTILE IRON
DIA	DIAMETER
DIM	DIMENSION
DISCH	DISCHARGE
DWG	DRAWING
E	EASTING
EA	EACH
ELEV	ELEVATION
ELEC	ELECTRIC
EOP	EDGE OF PAVING
EQUIP	EQUIPMENT
ESMT	EASEMENT
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR/EXTENDED
FES	FLARED END SECTION
FFE	FINISHED FLOOR ELEVATION
FIN	FINISH (ED)
FLG	FLANGE
FLR	FLOOR
FLEX	FLEXIBLE
FT	FOOT/FEET
FTG	FOOTING
GN	GROUND
GPD	GALLONS PER DAY
GPM	GALLONS PER MINUTE
GPS	GLOBAL POSITIONING SYSTEM
GR	GRADE
GV	GATE VALVE
HDPPE	HIGH DENSITY POLYETHYLENE
HOR	HORIZONTAL
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH (ES)
INV	INVERT
JT	JOINT
LB	LICENSED BUSINESS
LB(S)	POUND (S)
LG	LONG
MATL	MATERIAL
MFD	MANUFACTURED
MFG	MANUFACTURING
MFR/MFGR	MANUFACTURER
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
N	NORTHING
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD UTILITIES
OPNG	OPENING
PERF	PERFORATED
PL	PROPERTY LINE
PS	PUMP STATION
PVC	POLYVINYL CHLORIDE
ROW	RIGHT OF WAY
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
REINF	REINFORCING
REQ'D	REQUIRED
RW	RAW WATER
SCH	SCHEDULE
SD	STORM DRAIN
SEC	SECTION
SF	SILT FENCE
SHT	SHEET
S/W	SIDEWALK
SQ	SQUARE
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD/STND	STANDARD
TC	TOP OF CONCRETE
THK	THICK
TSP	TOP OF SHEETPILE
TW	TOP OF WALL
TYP	TYPICAL
UNK	UNKNOWN
W	WIDTH
W/	WITH
WL	WATER LEVEL

LEGEND

EXISTING FEATURES

	BENCHMARK
	FOUND CONCRETE MONUMENT
	FOUND NAIL AND DISK
	TELEPHONE PEDESTAL
	WATER VALVE
	WATER METER
	SERVICE BOX
	CABLE TELEVISION SERVICE
	MAILBOX
	AIR CONDITIONING UNIT
	PIEZOMETER
	PARKER-KALOU
	SPOT SHOT
	5' CONTOUR LINE
	1' CONTOUR LINE
	RIGHT-OF-WAY
	EASEMENT
	PROPERTY LINE
	FIELD WIRE FENCE
	WOOD BOARD FENCE
	WATER PIPE
	TREELINE
	ASPHALT
	WETLAND BOUNDARY
	EDGE OF WATER
	STORMPIPE
	OAK TREE
	PINE TREE
	CHERRY TREE
	POPLAR TREE
	SWEETGUM TREE
	ORNAMENTAL PLANT

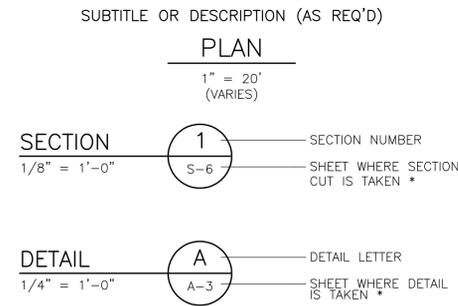
PROPOSED FEATURES

	5' CONTOUR LINE
	1' CONTOUR LINE
	COFFERDAM
	PERMANENT EASEMENT
	TEMPORARY CONSTRUCTION EASEMENT
	SILT FENCE
	TURBIDITY FENCE
	FORCEMAIN/PUMP DISCHARGE
	DEWATERING PUMP

EROSION CONTROL NOTES

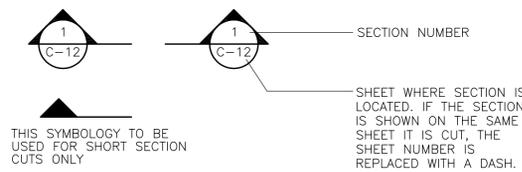
1. EROSION CONTROL BMP DEVICES SHALL BE IN PLACE PRIOR TO ANY SIGNIFICANT DISTURBANCE TO THE PROJECT SITE. THESE DEVICES MUST BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.
2. EROSION CONTROL DEVICES INCLUDE, BUT ARE NOT LIMITED TO, SILT FENCES, FLOATING TURBIDITY BARRIERS, GRAVEL FILTER WEIRS, AND SUMPS.
3. CONTRACTOR SHALL USE ANY AND ALL MEASURES AND DEVICES TO CONTROL EROSION AND PREVENT THE RELEASE OF TURBID AND/OR POLLUTED DISCHARGE TO DOWNSTREAM RECEIVING WATERS.
4. THE CONTRACTOR SHALL DEVELOP A FORMAL DETAILED SEQUENCE OF CONSTRUCTION PLAN AND SUBMIT PLAN TO OWNER AT THE PRE-CONSTRUCTION MEETING.
5. THE CONTRACTOR SHALL DEVELOP A FORMAL DETAILED DEWATERING PLAN IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS PRIOR TO CONSTRUCTION AND SUBMIT PLAN TO OWNER. NO IMPACTS TO SURROUNDING STRUCTURES OR INFRASTRUCTURE WILL BE PERMITTED.

DRAWING, SECTION AND DETAIL TITLES

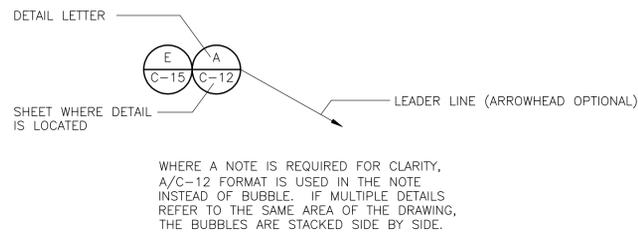


* IF SECTION, DETAIL OR DIAGRAM IS DRAWN ON THE SAME SHEET THAT IT IS TAKEN FROM, THE SHEET NUMBER IS REPLACED WITH A HYPHEN. IF THE SECTION IS REFERENCED ON MULTIPLE SHEETS, THE SHEET NUMBER SHOWN INDICATES THE FIRST SHEET THE SECTION IS TAKEN FROM.

SECTION CUT SYMBOLS



DETAIL CALL OUT SYMBOLS



GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF ALL GOVERNING AUTHORITIES.
2. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO CONFIRM THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. SHOP DRAWINGS SHALL BE SUBMITTED TO THE OWNER PER THE SPECIFICATIONS. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES AND THE MANDATORY PRE-CONSTRUCTION MEETING HAS BEEN CONDUCTED. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND BUILDING PERMITS, UTILITY DISCONNECTION AND UTILITY RECONNECTION/NEW SERVICE APPLICATIONS AND FEES. CONTRACTOR SHALL OBTAIN NPDES AND DEWATERING PERMIT AT LEAST 48 HOURS PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES.
3. ALL ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). HORIZONTAL COORDINATES ARE REFERENCED TO NORTH AMERICAN DATUM OF 1983 (NAD83).
4. TOPOGRAPHIC SURVEY PERFORMED BY:
DIVERSIFIED DESIGN AND DRAFTING SERVICES, INC. (3DS)
2374 CAPITAL CIRCLE NE
TALLAHASSEE, FLORIDA 32308
PH: 850-365-1133
5. THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THESE PLANS ARE BASED ON INFORMATION PROVIDED BY THE UTILITIES AND SHALL BE CONSIDERED APPROXIMATE. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO STARTING CONSTRUCTION. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK FORCE.
6. THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENTS OF THE WATER, SANITARY SEWER, GAS, TELEPHONE, CABLE TELEVISION, AND POWER COMPANIES AT LEAST 10 DAYS IN ADVANCE THAT HE INTENDS TO START WORK AND SCHEDULE UTILITY SERVICE DISCONNECTIONS AND RECONNECTIONS. THE OWNER DISCLAIMS ANY RESPONSIBILITY FOR THE SUPPORT AND PROTECTION OF SEWERS, DRAINS, WATER PIPES, GAS PIPES, CONDUITS OF ANY KIND, UTILITIES OR OTHER STRUCTURES OWNED BY THE CITY, COUNTY, STATE OR BY PRIVATE OR PUBLIC UTILITIES LEGALLY OCCUPYING ANY STREET, ALLEY, PUBLIC PLACE OR RIGHT-OF-WAY.
7. PROPERTY OBSTRUCTIONS WHICH ARE TO REMAIN IN PLACE, SUCH AS SEWERS, DRAINS, WATER OR GAS PIPES, CONDUITS, CABLES, POLES, WALLS, POSTS, ETC. ARE TO BE CAREFULLY PROTECTED. CONTRACTOR SHALL NOTIFY OWNER PRIOR TO REMOVING ANY OBSTRUCTIONS NOT SPECIFICALLY NOTED ON THE PLANS.
8. THE CONTRACTOR SHALL PLACE AND MAINTAIN ADEQUATE BARRICADES, CONSTRUCTION SIGNS, FLASHING LIGHTS, TORCHES, RED LANTERNS AND GUARDS DURING PROGRESS OF CONSTRUCTION WORK IN PUBLIC ROADWAYS, IN ACCORDANCE WITH APPLICABLE FDOT REGULATIONS.
9. ALL AREAS, NOT PAVED, DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED BY SODDING OR SEEDING AND MULCHING UNLESS OTHERWISE INDICATED. SOD, SEED AND MULCH SHALL BE PLACED AND MAINTAINED IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS.
10. ALL SITE CLEARING AND CONSTRUCTION DEBRIS AND EXCESS MATERIAL SHALL BE HAULED AWAY AND DISPOSED OF APPROPRIATELY AT THE CONTRACTOR'S EXPENSE TO AN APPROPRIATE DISPOSAL LOCATION. NO BALANCE OF CUT/FILL IS IMPLIED BY THESE CONTRACT DOCUMENTS.
11. NO CONSTRUCTION, PARKING, OR STORAGE SHALL OCCUR WITHIN THE DRIP LINE OF TREES TO REMAIN. ALL TREE BARRICADES SHALL BE IN PLACE PRIOR TO ANY LAND DISTURBANCE.
12. CONTRACTOR SHALL VISIT SITE TO FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS AND THE EXTENT OF DEMOLITION, CLEARING & GRUBBING REQUIRED, PRIOR TO BID SUBMISSION. CONTRACTOR SHALL ATTEND THE MANDATORY PRE-BID CONFERENCE.
13. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
14. CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR THE LAYOUT OF THE SITE IMPROVEMENTS AND WORK INCIDENTAL TO THE PROJECT. ANY DEVIATION FROM THE PRESCRIBED LAYOUT NECESSARY TO AVOID CONFLICTS SHALL REQUIRE WRITTEN PERMISSION FROM THE ENGINEER OR OWNER.
15. CONTRACTOR SHALL COORDINATE WITH RESPONSIBLE UTILITY FOR PROTECTION/HOLDING OF UTILITY POLES, GUY WIRES, AND GUY ANCHORS IN AREAS OF CONSTRUCTION.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR AND COMPLY WITH ANY TESTING REQUIRED BY THE LOCAL GOVERNING AGENCY IN ADDITION TO THE TESTING REQUIREMENTS OUTLINED IN THE SPECIFICATIONS.
17. TO MAINTAIN CONTRACT PLAN CLARITY ALL SYSTEM AND EQUIPMENT COMPONENTS MAY NOT BE SHOWN. CONTRACTOR IS RESPONSIBLE TO FURNISH AND INSTALL ALL EQUIPMENT, FITTINGS, ADAPTERS, CONNECTORS, PIPING, VALVES AND OTHER COMPONENTS TO PROVIDE FULLY FUNCTIONAL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
18. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL EROSION AND SEDIMENTATION CONTROLS: DESIGN, PERMITTING, INSTALLATION, MAINTENANCE, AND REPLACEMENT. CONTRACTOR SHALL INSTALL PRIOR TO THE START OF CONSTRUCTION AND MAINTAIN DURING CONSTRUCTION ALL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED TO RETAIN ALL SEDIMENTS ON THE SITE AND REMAIN IN COMPLIANCE WITH ALL APPLICABLE REGULATORY CRITERIA.
19. CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS DURING CONSTRUCTION WHICH SHOW "AS-BUILT" CONDITIONS OF ALL WORK INCLUDING PIPING, DRAINAGE STRUCTURES, TOPOGRAPHIC OF POND(S), OUTLET STRUCTURES, DIMENSIONS, ELEVATIONS, GRADING, ETC. RECORD DRAWINGS AND A COMPLIANCE CERTIFICATE SHALL BE CERTIFIED AND PROVIDED TO THE ENGINEER OF RECORD AND THE DIRECTOR OF LEON COUNTY DEPARTMENT OF DEVELOPMENT SUPPORT AND ENVIRONMENTAL MANAGEMENT 20 DAYS PRIOR TO REQUESTING FINAL INSPECTION.
20. CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, AND FEDERAL PERMITS PERTAINING TO THIS PROJECT.

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REV. NO.	DATE	DRWN	CHKD	REMARKS

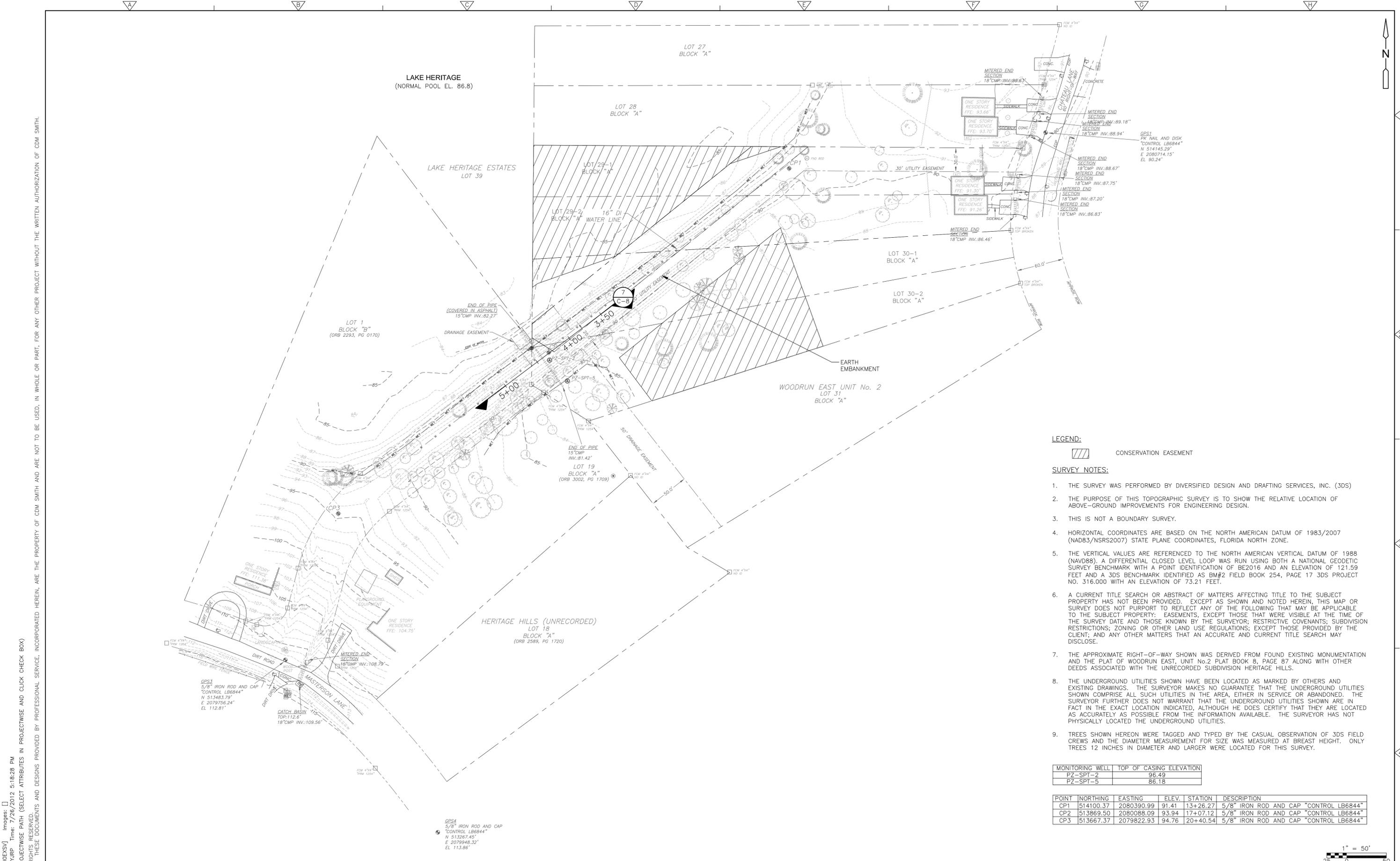
DESIGNED BY:	R.NAGEL
DRAWN BY:	A.PEREZ
SHEET CHK'D BY:	J.MORENCY
CROSS CHK'D BY:	R.NAGEL
APPROVED BY:	S. WHITESIDE
DATE:	FEBRUARY 2015

CDM Smith
 3522 Thomasville Road, Suite 300
 Tallahassee, FL 32309
 Tel: (850) 366-9500
 FL CCA No. EB-0000020

LEON COUNTY, FLORIDA
LAKE HERITAGE DAM IMPROVEMENTS

GENERAL NOTES

DATE:	STEPHEN L. WHITESIDE
P.E. NO.	55002
PROJECT NO.	6021-84063
FILE NAME:	G001NXSH
SHEET NO.	G-1



LEGEND:

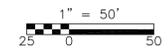
CONSERVATION EASEMENT

SURVEY NOTES:

1. THE SURVEY WAS PERFORMED BY DIVERSIFIED DESIGN AND DRAFTING SERVICES, INC. (3DS)
2. THE PURPOSE OF THIS TOPOGRAPHIC SURVEY IS TO SHOW THE RELATIVE LOCATION OF ABOVE-GROUND IMPROVEMENTS FOR ENGINEERING DESIGN.
3. THIS IS NOT A BOUNDARY SURVEY.
4. HORIZONTAL COORDINATES ARE BASED ON THE NORTH AMERICAN DATUM OF 1983/2007 (NAD83/NSRS2007) STATE PLANE COORDINATES, FLORIDA NORTH ZONE.
5. THE VERTICAL VALUES ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). A DIFFERENTIAL CLOSED LEVEL LOOP WAS RUN USING BOTH A NATIONAL GEODETIC SURVEY BENCHMARK WITH A POINT IDENTIFICATION OF BE2016 AND AN ELEVATION OF 121.59 FEET AND A 3DS BENCHMARK IDENTIFIED AS BM#2 FIELD BOOK 254, PAGE 17 3DS PROJECT NO. 316.000 WITH AN ELEVATION OF 73.21 FEET.
6. A CURRENT TITLE SEARCH OR ABSTRACT OF MATTERS AFFECTING TITLE TO THE SUBJECT PROPERTY HAS NOT BEEN PROVIDED. EXCEPT AS SHOWN AND NOTED HEREIN, THIS MAP OR SURVEY DOES NOT PURPORT TO REFLECT ANY OF THE FOLLOWING THAT MAY BE APPLICABLE TO THE SUBJECT PROPERTY: EASEMENTS, EXCEPT THOSE THAT WERE VISIBLE AT THE TIME OF THE SURVEY DATE AND THOSE KNOWN BY THE SURVEYOR; RESTRICTIVE COVENANTS; SUBDIVISION RESTRICTIONS; ZONING OR OTHER LAND USE REGULATIONS; EXCEPT THOSE PROVIDED BY THE CLIENT; AND ANY OTHER MATTERS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
7. THE APPROXIMATE RIGHT-OF-WAY SHOWN WAS DERIVED FROM FOUND EXISTING MONUMENTATION AND THE PLAT OF WOODRUN EAST, UNIT No.2 PLAT BOOK 8, PAGE 87 ALONG WITH OTHER DEEDS ASSOCIATED WITH THE UNRECORDED SUBDIVISION HERITAGE HILLS.
8. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED AS MARKED BY OTHERS AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN FACT IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
9. TREES SHOWN HEREON WERE TAGGED AND TYPED BY THE CASUAL OBSERVATION OF 3DS FIELD CREWS AND THE DIAMETER MEASUREMENT FOR SIZE WAS MEASURED AT BREAST HEIGHT. ONLY TREES 12 INCHES IN DIAMETER AND LARGER WERE LOCATED FOR THIS SURVEY.

MONITORING WELL	TOP OF CASING ELEVATION
PZ-SPT-2	96.49
PZ-SPT-5	86.18

POINT	NORTHING	EASTING	ELEV.	STATION	DESCRIPTION
CP1	514100.37	2080390.99	91.41	13+26.27	5/8" IRON ROD AND CAP "CONTROL LB6844"
CP2	513869.50	2080088.09	93.94	17+07.12	5/8" IRON ROD AND CAP "CONTROL LB6844"
CP3	513667.37	2079822.93	94.76	20+40.54	5/8" IRON ROD AND CAP "CONTROL LB6844"



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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: _____
 DRAWN BY: _____
 SHEET CHK'D BY: _____
 CROSS CHK'D BY: _____
 APPROVED BY: _____
 DATE: FEBRUARY 2015

CDM Smith
 3522 Thomasville Road, Suite 300
 Tallahassee, FL 32309
 Tel: (850) 388-9500
 FL CCA No. EB-0000020

LEON COUNTY, FLORIDA
LAKE HERITAGE DAM IMPROVEMENTS

EXISTING CONDITIONS PLAN
 SHEET NO.
C-1

PROJECT NO. 6021-84063
 FILE NAME: C001EXPL
 SHEET NO.
C-1
 100% FOR CONSTRUCTION

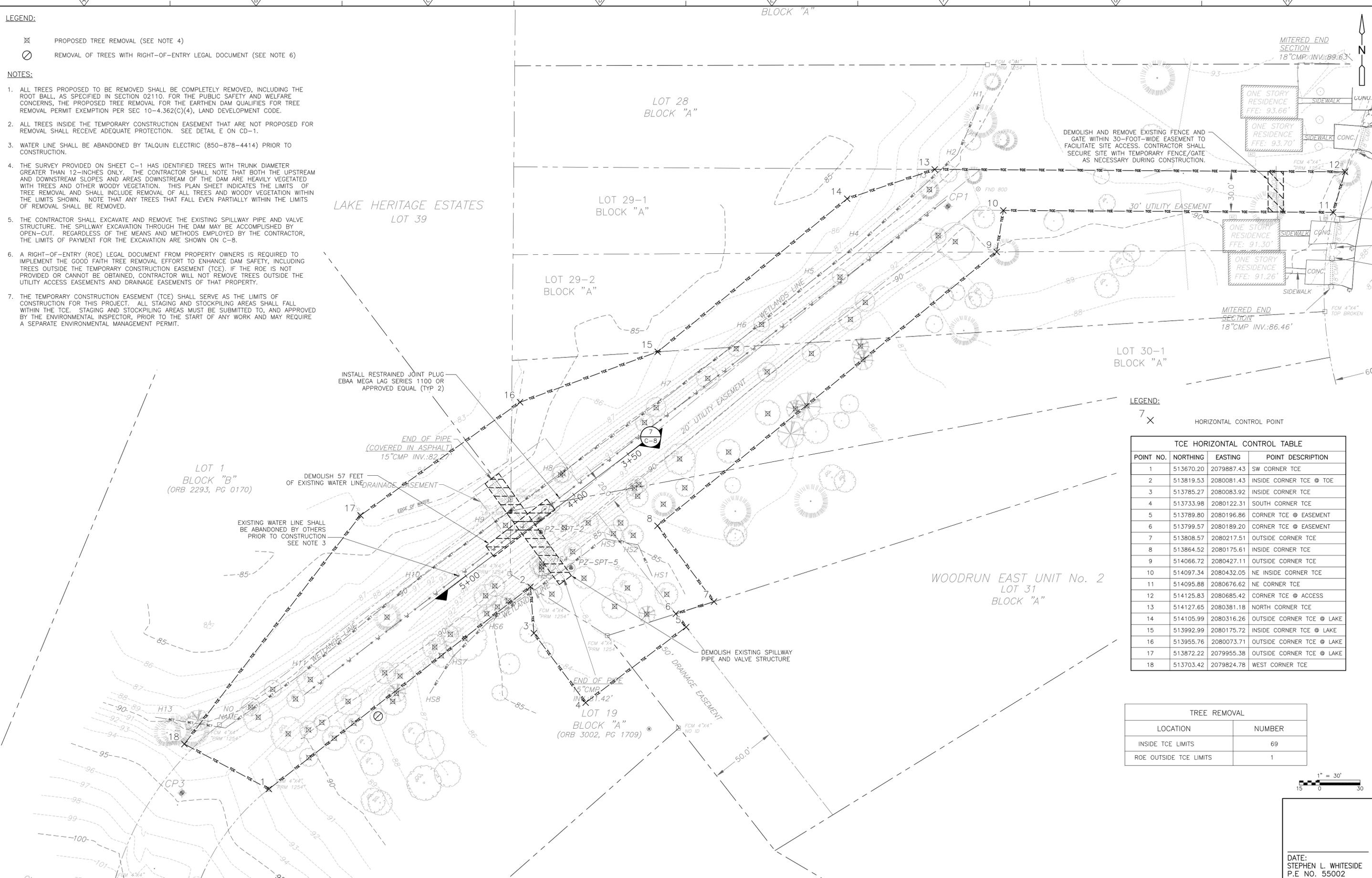
LEGEND:

- ⊗ PROPOSED TREE REMOVAL (SEE NOTE 4)
- ⊙ REMOVAL OF TREES WITH RIGHT-OF-ENTRY LEGAL DOCUMENT (SEE NOTE 6)

NOTES:

1. ALL TREES PROPOSED TO BE REMOVED SHALL BE COMPLETELY REMOVED, INCLUDING THE ROOT BALL, AS SPECIFIED IN SECTION 02110. FOR THE PUBLIC SAFETY AND WELFARE CONCERNS, THE PROPOSED TREE REMOVAL FOR THE EARTHEN DAM QUALIFIES FOR TREE REMOVAL PERMIT EXEMPTION PER SEC 10-4.362(C)(4), LAND DEVELOPMENT CODE.
2. ALL TREES INSIDE THE TEMPORARY CONSTRUCTION EASEMENT THAT ARE NOT PROPOSED FOR REMOVAL SHALL RECEIVE ADEQUATE PROTECTION. SEE DETAIL E ON CD-1.
3. WATER LINE SHALL BE ABANDONED BY TALQUIN ELECTRIC (850-878-4414) PRIOR TO CONSTRUCTION.
4. THE SURVEY PROVIDED ON SHEET C-1 HAS IDENTIFIED TREES WITH TRUNK DIAMETER GREATER THAN 12-INCHES ONLY. THE CONTRACTOR SHALL NOTE THAT BOTH THE UPSTREAM AND DOWNSTREAM SLOPES AND AREAS DOWNSTREAM OF THE DAM ARE HEAVILY VEGETATED WITH TREES AND OTHER WOODY VEGETATION. THIS PLAN SHEET INDICATES THE LIMITS OF TREE REMOVAL AND SHALL INCLUDE REMOVAL OF ALL TREES AND WOODY VEGETATION WITHIN THE LIMITS SHOWN. NOTE THAT ANY TREES THAT FALL EVEN PARTIALLY WITHIN THE LIMITS OF REMOVAL SHALL BE REMOVED.
5. THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE EXISTING SPILLWAY PIPE AND VALVE STRUCTURE. THE SPILLWAY EXCAVATION THROUGH THE DAM MAY BE ACCOMPLISHED BY OPEN-CUT. REGARDLESS OF THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR, THE LIMITS OF PAYMENT FOR THE EXCAVATION ARE SHOWN ON C-8.
6. A RIGHT-OF-ENTRY (ROE) LEGAL DOCUMENT FROM PROPERTY OWNERS IS REQUIRED TO IMPLEMENT THE GOOD FAITH TREE REMOVAL EFFORT TO ENHANCE DAM SAFETY, INCLUDING TREES OUTSIDE THE TEMPORARY CONSTRUCTION EASEMENT (TCE). IF THE ROE IS NOT PROVIDED OR CANNOT BE OBTAINED, CONTRACTOR WILL NOT REMOVE TREES OUTSIDE THE UTILITY ACCESS EASEMENTS AND DRAINAGE EASEMENTS OF THAT PROPERTY.
7. THE TEMPORARY CONSTRUCTION EASEMENT (TCE) SHALL SERVE AS THE LIMITS OF CONSTRUCTION FOR THIS PROJECT. ALL STAGING AND STOCKPILING AREAS SHALL FALL WITHIN THE TCE. STAGING AND STOCKPILING AREAS MUST BE SUBMITTED TO, AND APPROVED BY THE ENVIRONMENTAL INSPECTOR, PRIOR TO THE START OF ANY WORK AND MAY REQUIRE A SEPARATE ENVIRONMENTAL MANAGEMENT PERMIT.

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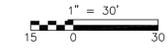


LEGEND:

- ⊗ HORIZONTAL CONTROL POINT

TCE HORIZONTAL CONTROL TABLE			
POINT NO.	NORTHING	EASTING	POINT DESCRIPTION
1	513670.20	2079887.43	SW CORNER TCE
2	513819.53	2080081.43	INSIDE CORNER TCE @ TOE
3	513785.27	2080083.92	INSIDE CORNER TCE
4	513733.98	2080122.31	SOUTH CORNER TCE
5	513789.80	2080196.86	CORNER TCE @ EASEMENT
6	513799.57	2080189.20	CORNER TCE @ EASEMENT
7	513808.57	2080217.51	OUTSIDE CORNER TCE
8	513864.52	2080175.61	INSIDE CORNER TCE
9	514066.72	2080427.11	OUTSIDE CORNER TCE
10	514097.34	2080432.05	NE INSIDE CORNER TCE
11	514095.88	2080676.62	NE CORNER TCE
12	514125.83	2080685.42	CORNER TCE @ ACCESS
13	514127.65	2080381.18	NORTH CORNER TCE
14	514105.99	2080316.26	OUTSIDE CORNER TCE @ LAKE
15	513992.99	2080175.72	INSIDE CORNER TCE @ LAKE
16	513955.76	2080073.71	OUTSIDE CORNER TCE @ LAKE
17	513872.22	2079955.38	OUTSIDE CORNER TCE @ LAKE
18	513703.42	2079824.78	WEST CORNER TCE

TREE REMOVAL	
LOCATION	NUMBER
INSIDE TCE LIMITS	69
ROE OUTSIDE TCE LIMITS	1



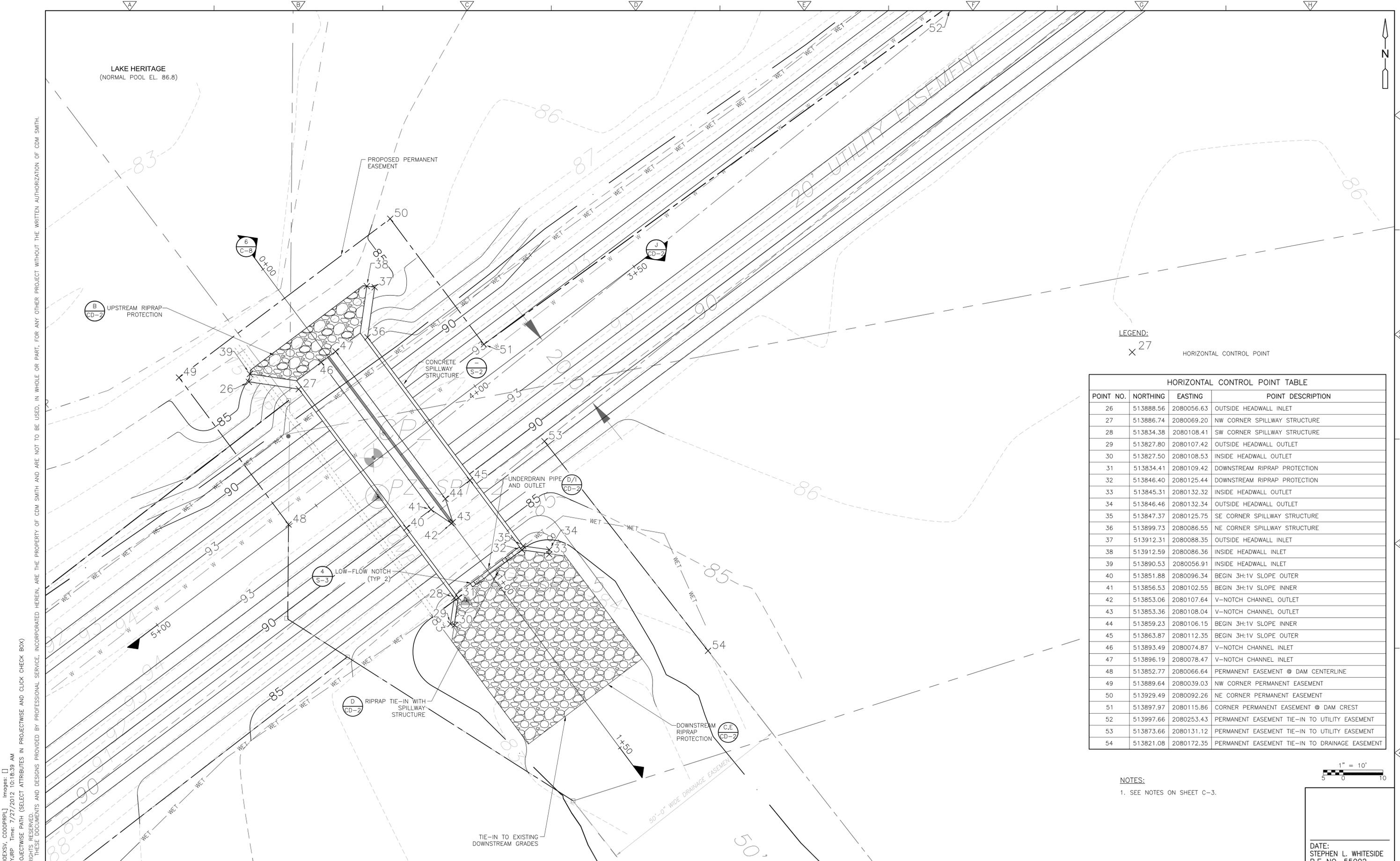
REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R. NAGEL
 DRAWN BY: A. PEREZ
 SHEET CHK'D BY: J. MORENCY
 CROSS CHK'D BY: R. NAGEL
 APPROVED BY: S. WHITESIDE
 DATE: FEBRUARY 2015



LEON COUNTY, FLORIDA
LAKE HERITAGE DAM IMPROVEMENTS

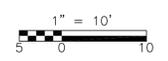
DEMOLITION PLAN
 DATE: STEPHEN L. WHITESIDE
 P.E. NO. 55002
 PROJECT NO. 6021-84063
 FILE NAME: C002EXPL
 SHEET NO. **C-2**
 100% FOR CONSTRUCTION



LEGEND:
 X 27 HORIZONTAL CONTROL POINT

HORIZONTAL CONTROL POINT TABLE			
POINT NO.	NORTHING	EASTING	POINT DESCRIPTION
26	513888.56	2080056.63	OUTSIDE HEADWALL INLET
27	513886.74	2080069.20	NW CORNER SPILLWAY STRUCTURE
28	513834.38	2080108.41	SW CORNER SPILLWAY STRUCTURE
29	513827.80	2080107.42	OUTSIDE HEADWALL OUTLET
30	513827.50	2080108.53	INSIDE HEADWALL OUTLET
31	513834.41	2080109.42	DOWNSTREAM RIPRAP PROTECTION
32	513846.40	2080125.44	DOWNSTREAM RIPRAP PROTECTION
33	513845.31	2080132.32	INSIDE HEADWALL OUTLET
34	513846.46	2080132.34	OUTSIDE HEADWALL OUTLET
35	513847.37	2080125.75	SE CORNER SPILLWAY STRUCTURE
36	513899.73	2080086.55	NE CORNER SPILLWAY STRUCTURE
37	513912.31	2080088.35	OUTSIDE HEADWALL INLET
38	513912.59	2080086.36	INSIDE HEADWALL INLET
39	513890.53	2080056.91	INSIDE HEADWALL INLET
40	513851.88	2080096.34	BEGIN 3H:1V SLOPE OUTER
41	513856.53	2080102.55	BEGIN 3H:1V SLOPE INNER
42	513853.06	2080107.64	V-NOTCH CHANNEL OUTLET
43	513853.36	2080108.04	V-NOTCH CHANNEL OUTLET
44	513859.23	2080106.15	BEGIN 3H:1V SLOPE INNER
45	513863.87	2080112.35	BEGIN 3H:1V SLOPE OUTER
46	513893.49	2080074.87	V-NOTCH CHANNEL INLET
47	513896.19	2080078.47	V-NOTCH CHANNEL INLET
48	513852.77	2080066.64	PERMANENT EASEMENT @ DAM CENTERLINE
49	513889.64	2080039.03	NW CORNER PERMANENT EASEMENT
50	513929.49	2080092.26	NE CORNER PERMANENT EASEMENT
51	513897.97	2080115.86	CORNER PERMANENT EASEMENT @ DAM CREST
52	513997.66	2080253.43	PERMANENT EASEMENT TIE-IN TO UTILITY EASEMENT
53	513873.66	2080131.12	PERMANENT EASEMENT TIE-IN TO UTILITY EASEMENT
54	513821.08	2080172.35	PERMANENT EASEMENT TIE-IN TO DRAINAGE EASEMENT

NOTES:
 1. SEE NOTES ON SHEET C-3.



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 CROSS CHK'D BY: R. NAGEL
 APPROVED BY: S. WHITESIDE
 DATE: FEBRUARY 2015

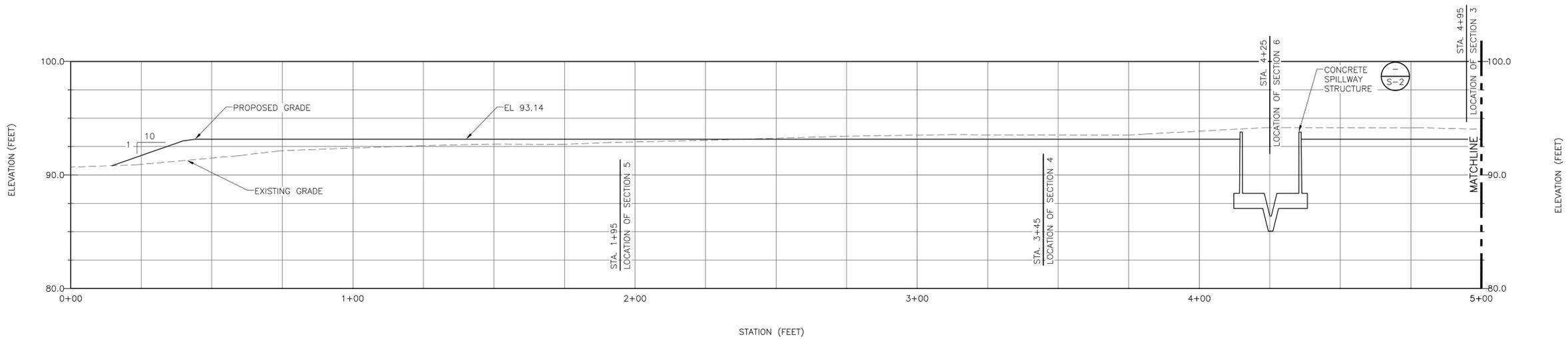
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 Tel: (850) 386-9500
 FL CCA No. EB-0000020

LEON COUNTY, FLORIDA
LAKE HERITAGE DAM IMPROVEMENTS

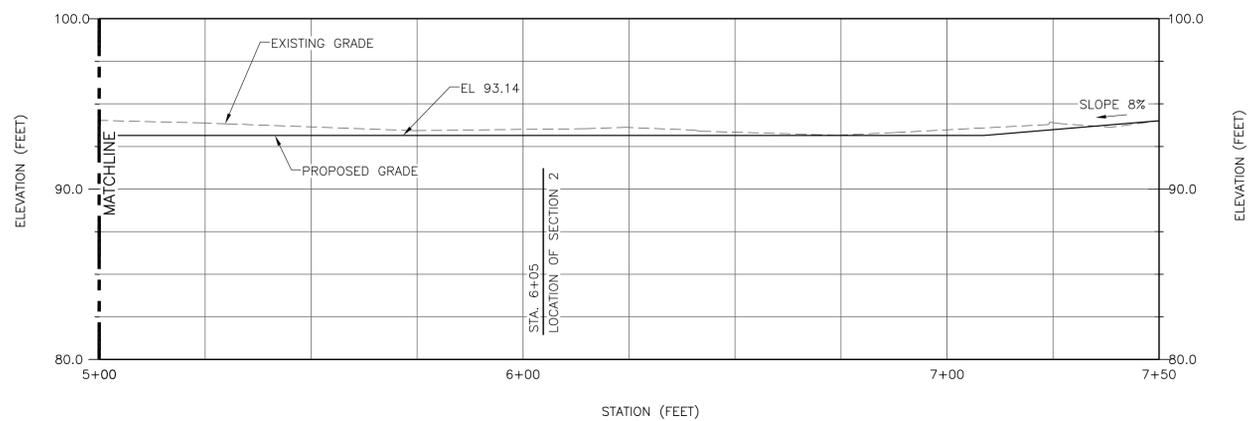
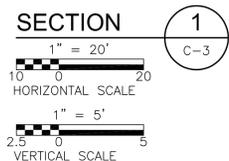
**PROPOSED CONDITIONS
 DETAIL PLAN**

DATE:
 STEPHEN L. WHITESIDE
 P.E. NO. 55002
 PROJECT NO. 6021-84063
 FILE NAME: C004STPL
 SHEET NO.
C-4

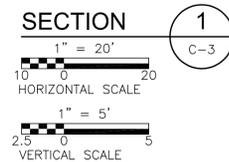
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STA 0+00 TO STA 5+00



STA 5+00 TO STA 7+50



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 CROSS CHK'D BY: D. NEAMTU
 APPROVED BY: S. WHITESIDE
 DATE: FEBRUARY 2015

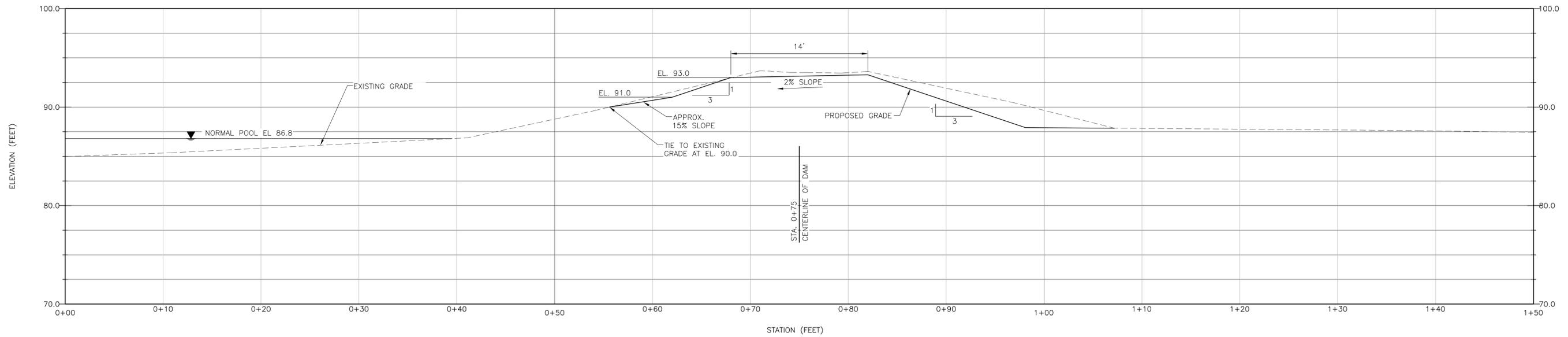


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 LAKE HERITAGE DAM IMPROVEMENTS

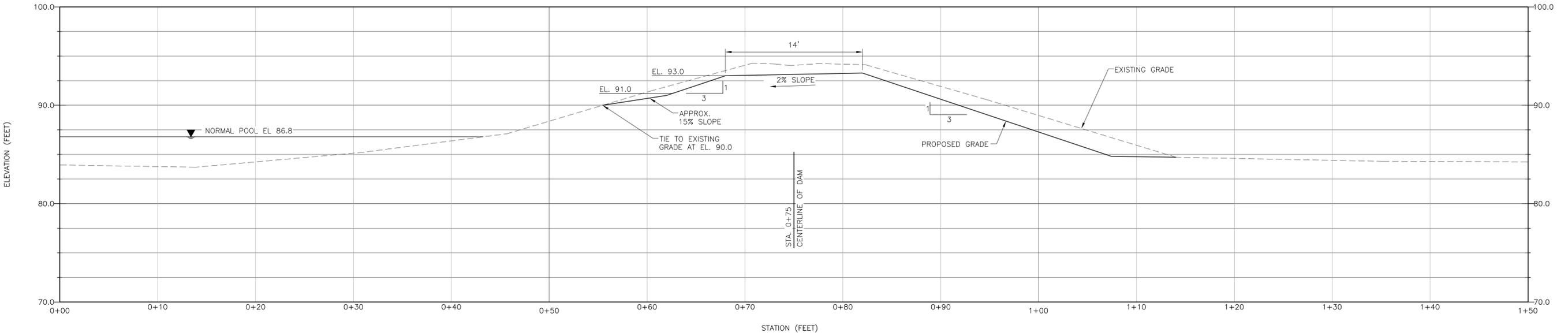
DAM PROFILE
 SHEET NO. C-5

DATE: STEPHEN L. WHITESIDE
 P.E. NO. 55002
 PROJECT NO. 6021-84063
 FILE NAME: C005STSC
 SHEET NO. C-5

A B C D E F G H



STATION 6+05 OF SECTION 1
SECTION 2
 1" = 5'
 2.5 0 5
 C-3



STATION 4+95 OF SECTION 1
SECTION 3
 1" = 5'
 2.5 0 5
 C-3

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R. NAGEL
 DRAWN BY: K. REESE
 SHEET CHK'D BY: R. NAGEL
 CROSS CHK'D BY: D. NEAMTU
 APPROVED BY: S. WHITESIDE
 DATE: FEBRUARY 2015

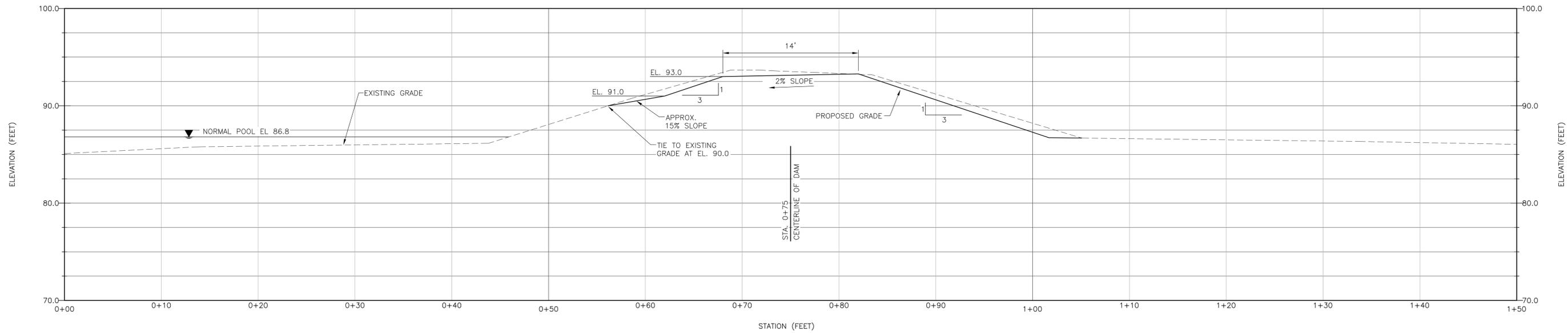


LEON COUNTY, FLORIDA
LAKE HERITAGE DAM IMPROVEMENTS

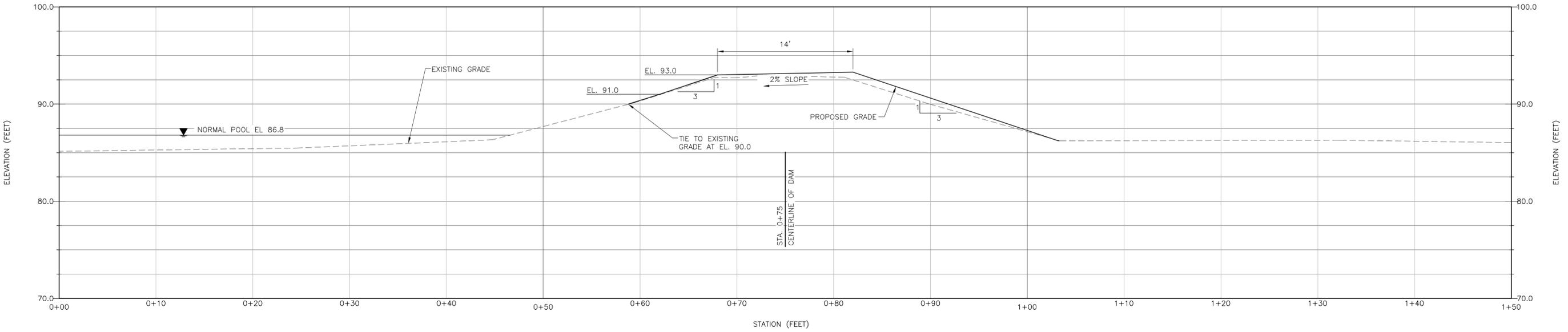
DAM SECTIONS
 SHEET NO.
C-6

DATE: STEPHEN L. WHITESIDE
 P.E. NO. 55002
 PROJECT NO. 6021-84063
 FILE NAME: C006STSC
 SHEET NO.
C-6

A B C D E F G H



STATION 3+45 OF SECTION 1
SECTION 4
 1" = 5'
 2.5 0 5
 C-3



STATION 1+95 OF SECTION 1
SECTION 5
 1" = 5'
 2.5 0 5
 C-3

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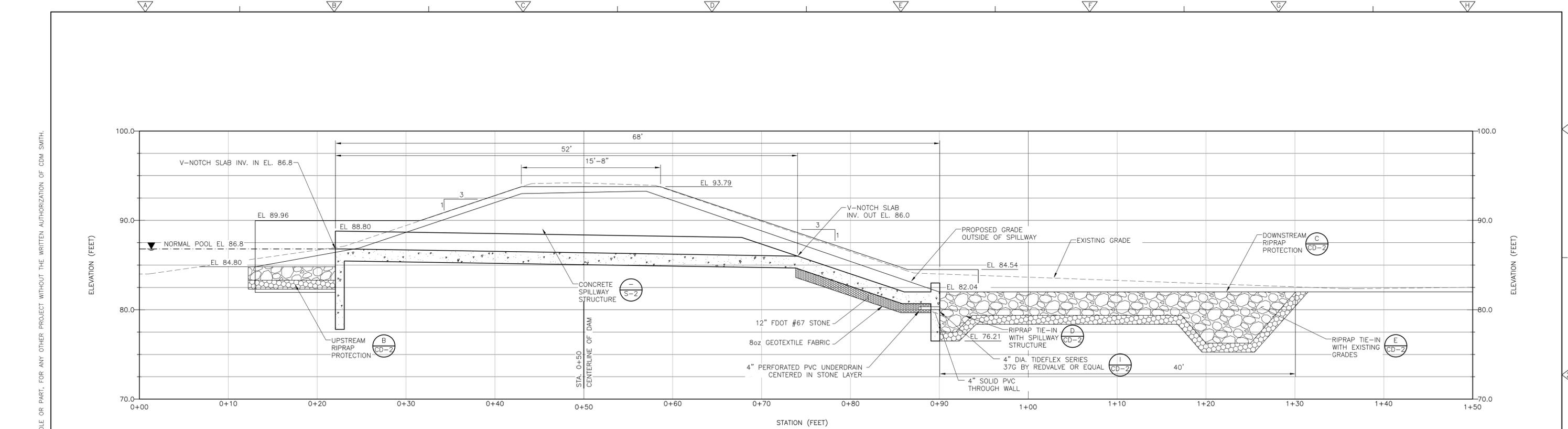
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 CROSS CHK'D BY: D. NEAMTU
 APPROVED BY: S. WHITESIDE
 DATE: FEBRUARY 2015



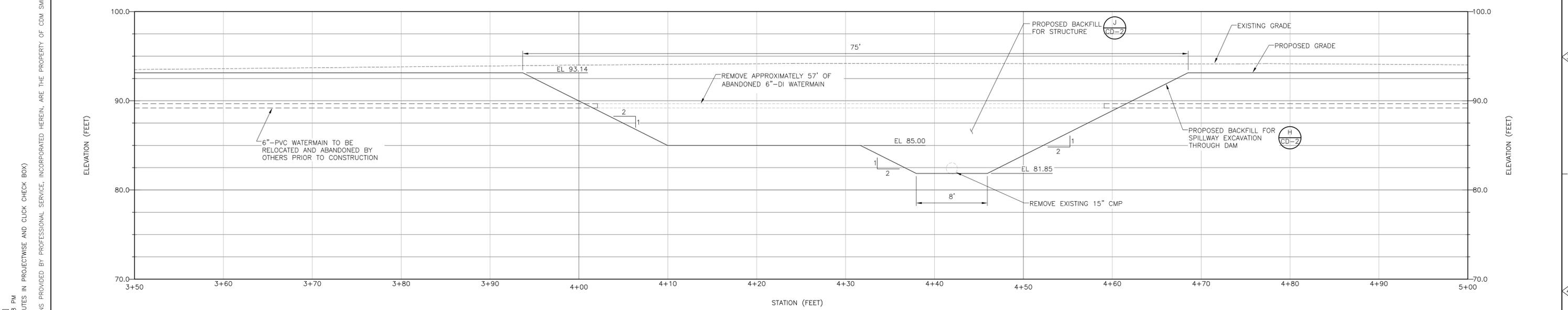
LEON COUNTY, FLORIDA
LAKE HERITAGE DAM IMPROVEMENTS

DAM SECTIONS
 SHEET NO.
C-7

DATE: STEPHEN L. WHITESIDE
 P.E. NO. 55002
 PROJECT NO. 6021-84063
 FILE NAME: C007STSC
 SHEET NO.
C-7



SECTION 6
 1" = 5'
 2.5 0 5
 C-4



SECTION 7
 1" = 5'
 2.5 0 5
 C-2

- NOTES:**
1. WATER LINE SHALL BE ABANDONED BY TALQUIN ELECTRIC (850-878-4414).
 2. THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE EXISTING SPILLWAY PIPE. THE SPILLWAY EXCAVATION THROUGH THE DAM MAY BE ACCOMPLISHED BY OPEN-CUT, REGARDLESS OF THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR, THE LIMITS OF PAYMENT FOR THE EXCAVATION ARE AS SHOWN ON SECTION 7.

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REV. NO.	DATE	DRWN	CHKD	REMARKS

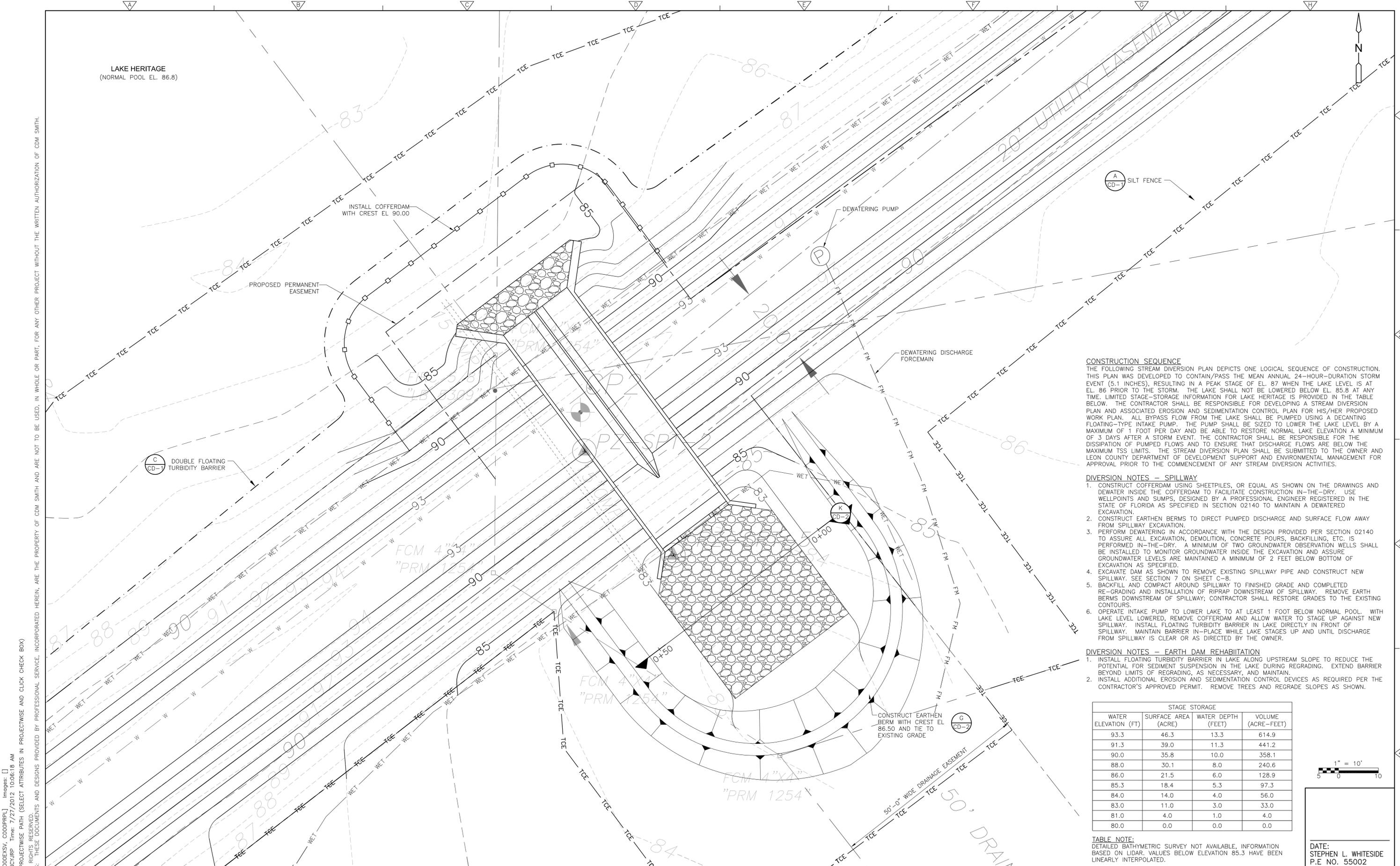
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 APPROVED BY: S. WHITESIDE
 DATE: FEBRUARY 2015



LEON COUNTY, FLORIDA
LAKE HERITAGE DAM IMPROVEMENTS

SPILLWAY AND EXCAVATION SECTIONS

DATE: STEPHEN L. WHITESIDE P.E. NO. 55002
PROJECT NO. 6021-84063 FILE NAME: C008STSC
SHEET NO. C-8

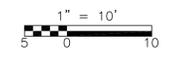


CONSTRUCTION SEQUENCE
 THE FOLLOWING STREAM DIVERSION PLAN DEPICTS ONE LOGICAL SEQUENCE OF CONSTRUCTION. THIS PLAN WAS DEVELOPED TO CONTAIN/PASS THE MEAN ANNUAL 24-HOUR-DURATION STORM EVENT (5.1 INCHES), RESULTING IN A PEAK STAGE OF EL. 87 WHEN THE LAKE LEVEL IS AT EL. 86.8 PRIOR TO THE STORM. THE LAKE SHALL NOT BE LOWERED BELOW EL. 85.8 AT ANY TIME. LIMITED STAGE-STORAGE INFORMATION FOR LAKE HERITAGE IS PROVIDED IN THE TABLE BELOW. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING A STREAM DIVERSION PLAN AND ASSOCIATED EROSION AND SEDIMENTATION CONTROL PLAN FOR HIS/HER PROPOSED WORK PLAN. ALL BYPASS FLOW FROM THE LAKE SHALL BE PUMPED USING A DEWATERING FLOWING-TYPE INTAKE PUMP. THE PUMP SHALL BE SIZED TO LOWER THE LAKE LEVEL BY A MAXIMUM OF 1 FOOT PER DAY AND BE ABLE TO RESTORE NORMAL LAKE ELEVATION A MINIMUM OF 3 DAYS AFTER A STORM EVENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISSIPATION OF PUMPED FLOWS AND TO ENSURE THAT DISCHARGE FLOWS ARE BELOW THE MAXIMUM TSS LIMITS. THE STREAM DIVERSION PLAN SHALL BE SUBMITTED TO THE OWNER AND LEON COUNTY DEPARTMENT OF DEVELOPMENT SUPPORT AND ENVIRONMENTAL MANAGEMENT FOR APPROVAL PRIOR TO THE COMMENCEMENT OF ANY STREAM DIVERSION ACTIVITIES.

- DIVERSION NOTES — SPILLWAY**
1. CONSTRUCT COFFERDAM USING SHEETPILES, OR EQUAL AS SHOWN ON THE DRAWINGS AND DEWATER INSIDE THE COFFERDAM TO FACILITATE CONSTRUCTION IN-THE-DRY. USE WELLPOINTS AND SUMPS, DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA AS SPECIFIED IN SECTION 02140 TO MAINTAIN A DEWATERED EXCAVATION.
 2. CONSTRUCT EARTHEN BERMS TO DIRECT PUMPED DISCHARGE AND SURFACE FLOW AWAY FROM SPILLWAY EXCAVATION.
 3. PERFORM DEWATERING IN ACCORDANCE WITH THE DESIGN PROVIDED PER SECTION 02140 TO ASSURE ALL EXCAVATION, DEMOLITION, CONCRETE POURS, BACKFILLING, ETC. IS PERFORMED IN-THE-DRY; A MINIMUM OF TWO GROUNDWATER OBSERVATION WELLS SHALL BE INSTALLED TO MONITOR GROUNDWATER INSIDE THE EXCAVATION AND ASSURE GROUNDWATER LEVELS ARE MAINTAINED A MINIMUM OF 2 FEET BELOW BOTTOM OF EXCAVATION AS SPECIFIED.
 4. EXCAVATE DAM AS SHOWN TO REMOVE EXISTING SPILLWAY PIPE AND CONSTRUCT NEW SPILLWAY. SEE SECTION 7 ON SHEET C-8.
 5. BACKFILL AND COMPACT AROUND SPILLWAY TO FINISHED GRADE AND COMPLETED RE-GRADING AND INSTALLATION OF RIPRAP DOWNSTREAM OF SPILLWAY. REMOVE EARTH BERMS DOWNSTREAM OF SPILLWAY; CONTRACTOR SHALL RESTORE GRADES TO THE EXISTING CONTOURS.
 6. OPERATE INTAKE PUMP TO LOWER LAKE TO AT LEAST 1 FOOT BELOW NORMAL POOL. WITH LAKE LEVEL LOWERED, REMOVE COFFERDAM AND ALLOW WATER TO STAGE UP AGAINST NEW SPILLWAY. INSTALL FLOATING TURBIDITY BARRIER IN LAKE DIRECTLY IN FRONT OF SPILLWAY. MAINTAIN BARRIER IN-PLACE WHILE LAKE STAGES UP AND UNTIL DISCHARGE FROM SPILLWAY IS CLEAR OR AS DIRECTED BY THE OWNER.
- DIVERSION NOTES — EARTH DAM REHABILITATION**
1. INSTALL FLOATING TURBIDITY BARRIER IN LAKE ALONG UPSTREAM SLOPE TO REDUCE THE POTENTIAL FOR SEDIMENT SUSPENSION IN THE LAKE DURING REGRADING. EXTEND BARRIER BEYOND LIMITS OF REGRADING, AS NECESSARY, AND MAINTAIN.
 2. INSTALL ADDITIONAL EROSION AND SEDIMENTATION CONTROL DEVICES AS REQUIRED PER THE CONTRACTOR'S APPROVED PERMIT. REMOVE TREES AND REGRADE SLOPES AS SHOWN.

STAGE STORAGE			
WATER ELEVATION (FT)	SURFACE AREA (ACRE)	WATER DEPTH (FEET)	VOLUME (ACRE- FEET)
93.3	46.3	13.3	614.9
91.3	39.0	11.3	441.2
90.0	35.8	10.0	358.1
88.0	30.1	8.0	240.6
86.0	21.5	6.0	128.9
85.3	18.4	5.3	97.3
84.0	14.0	4.0	56.0
83.0	11.0	3.0	33.0
81.0	4.0	1.0	4.0
80.0	0.0	0.0	0.0

TABLE NOTE:
 DETAILED BATHYMETRIC SURVEY NOT AVAILABLE, INFORMATION BASED ON LIDAR. VALUES BELOW ELEVATION 85.3 HAVE BEEN LINEARLY INTERPOLATED.



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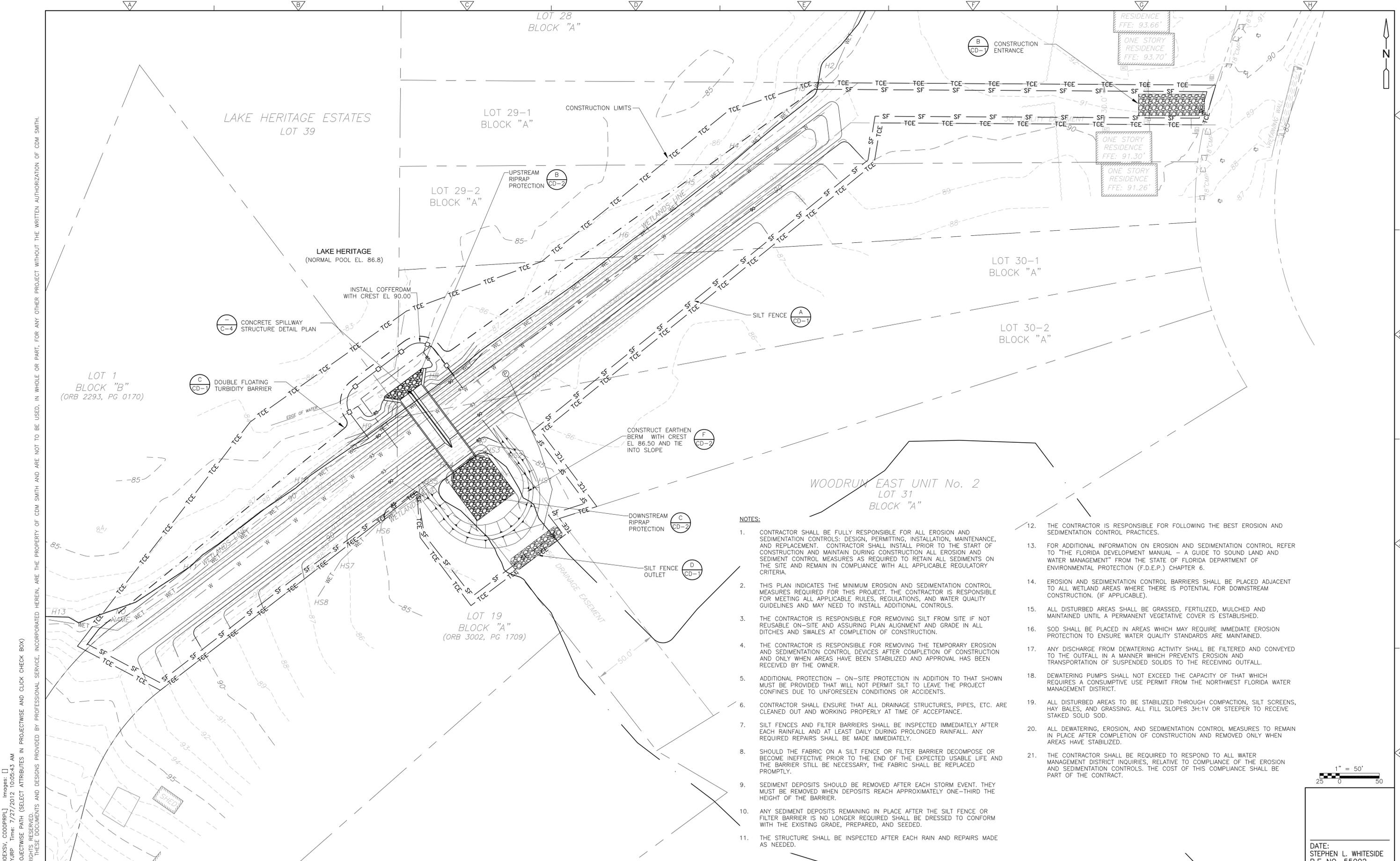
REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R. NAGEL
 DRAWN BY: K. REESE
 SHEET CHK'D BY: R. NAGEL
 CROSS CHK'D BY: D. NEAMTU
 APPROVED BY: S. WHITESIDE
 DATE: FEBRUARY 2015

CDM Smith
 3522 Thomasville Road, Suite 300
 Tallahassee, FL 32309
 Tel: (850) 386-9500
 FL COA No. EB-0000020

LEON COUNTY, FLORIDA
LAKE HERITAGE DAM IMPROVEMENTS

STREAM DIVERSION PLAN
 PROJECT NO. 6021-84063
 FILE NAME: C009STPL
 SHEET NO.
C-9



- NOTES:**
- CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL EROSION AND SEDIMENTATION CONTROLS: DESIGN, PERMITTING, INSTALLATION, MAINTENANCE, AND REPLACEMENT. CONTRACTOR SHALL INSTALL PRIOR TO THE START OF CONSTRUCTION AND MAINTAIN DURING CONSTRUCTION ALL EROSION AND SEDIMENT CONTROL MEASURES AS REQUIRED TO RETAIN ALL SEDIMENTS ON THE SITE AND REMAIN IN COMPLIANCE WITH ALL APPLICABLE REGULATORY CRITERIA.
 - THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENTATION CONTROL MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS, AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
 - THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
 - THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED AND APPROVAL HAS BEEN RECEIVED BY THE OWNER.
 - ADDITIONAL PROTECTION -- ON-SITE PROTECTION IN ADDITION TO THAT SHOWN MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNFORESEEN CONDITIONS OR ACCIDENTS.
 - CONTRACTOR SHALL ENSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
 - SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
 - SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
 - SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
 - ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.
 - THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
 - THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENTATION CONTROL PRACTICES.
 - FOR ADDITIONAL INFORMATION ON EROSION AND SEDIMENTATION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (F.D.E.P.) CHAPTER 6.
 - EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM CONSTRUCTION. (IF APPLICABLE).
 - ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, MULCHED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.
 - SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
 - ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
 - DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT.
 - ALL DISTURBED AREAS TO BE STABILIZED THROUGH COMPACTION, SILT SCREENS, HAY BALES, AND GRASSING. ALL FILL SLOPES 3H:1V OR STEEPER TO RECEIVE STAKED SOLID SOD.
 - ALL DEWATERING, EROSION, AND SEDIMENTATION CONTROL MEASURES TO REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION AND REMOVED ONLY WHEN AREAS HAVE STABILIZED.
 - THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO ALL WATER MANAGEMENT DISTRICT INQUIRIES, RELATIVE TO COMPLIANCE OF THE EROSION AND SEDIMENTATION CONTROLS. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.

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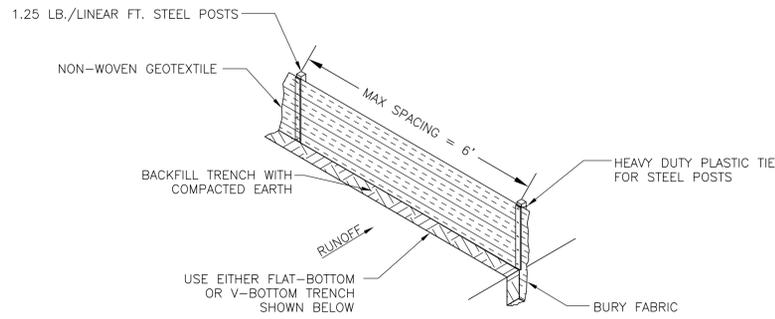
DESIGNED BY: R. NAGEL
 DRAWN BY: A. PEREZ
 SHEET CHK'D BY: J. MORENCY
 CROSS CHK'D BY: R. NAGEL
 APPROVED BY: S. WHITESIDE
 DATE: FEBRUARY 2015

CDM Smith
 3522 Thomasville Road, Suite 300
 Tallahassee, FL 32309
 Tel: (850) 388-9500
 FL COA No. EB-0000020

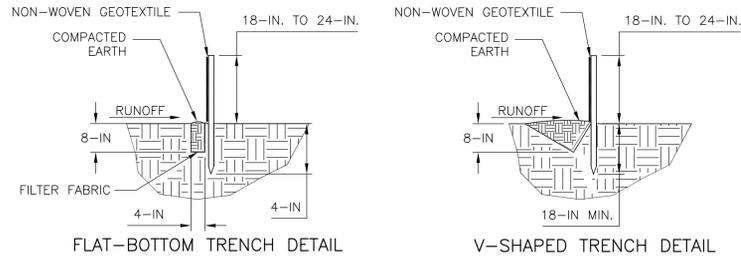
LEON COUNTY, FLORIDA
LAKE HERITAGE DAM IMPROVEMENTS

EROSION AND SEDIMENTATION CONTROL PLAN

DATE: STEPHEN L. WHITESIDE
 P.E. NO. 55002
 PROJECT NO. 6021-84063
 FILE NAME: C010STPL
 SHEET NO. C-10



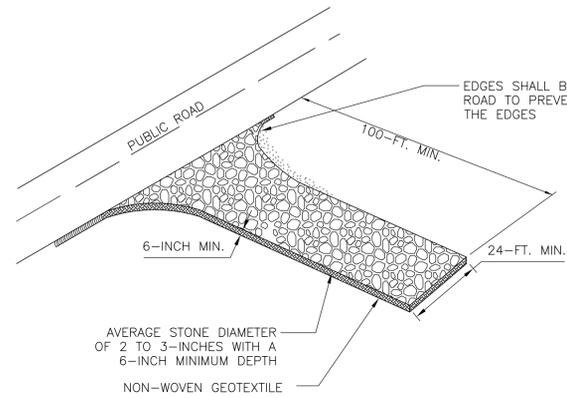
SILT FENCE INSTALLATION



NOTES:

1. PROVIDE SILT FENCE TIE BACKS IN LOCATIONS WHERE SILT FENCE CUTS ACROSS GRADE LINES.
2. REMOVE SEDIMENT FROM BEHIND THE SILT FENCE WHEN IT REACHES $\frac{3}{4}$ THE HEIGHT OF THE FENCE.

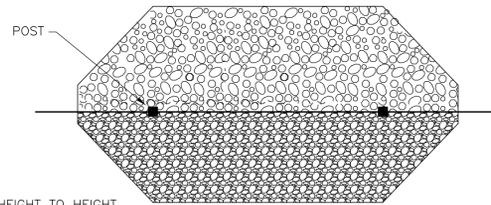
SILT FENCE
DETAIL
A
NTS



CONSTRUCTION ENTRANCE
DETAIL
B
NTS

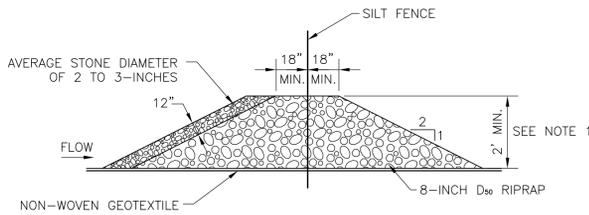
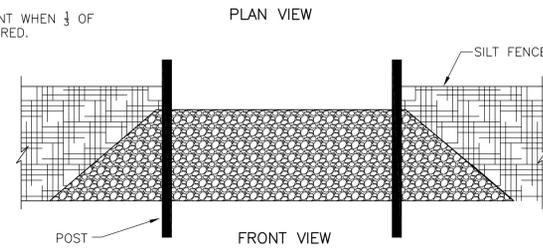
NOTES:

1. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN OR OTHER SEDIMENT TRAPPING STRUCTURE.
2. INSTALL A CULVERT PIPE ACROSS THE ENTRANCE WHEN NEEDED TO PROVIDE POSITIVE DRAINAGE.
3. WASH OR REPLACE STONE WHENEVER ENTRANCE FAILS TO PREVENT MUD FROM BEING CARRIED OFFSITE BY VEHICLES.

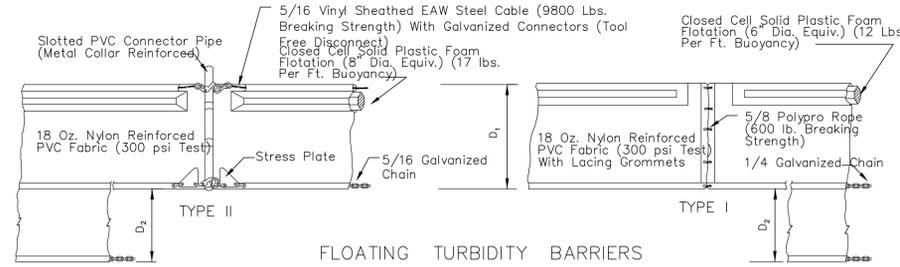


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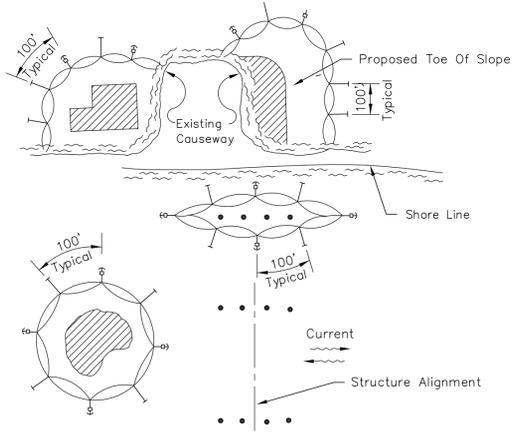
1. MATCH OUTLET HEIGHT TO HEIGHT OF SILT FENCE.
2. REMOVE SEDIMENT WHEN $\frac{3}{4}$ OF OUTLET IS COVERED.



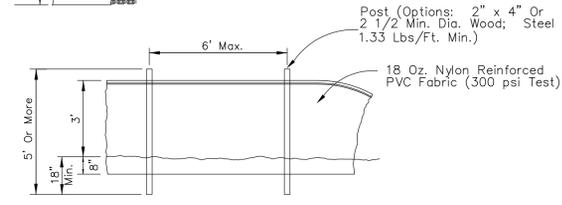
SILT FENCE OUTLET
DETAIL
D
NTS
C-10



FLOATING TURBIDITY BARRIERS



- LEGEND
- Pile Locations
 - ▨ Dredge Or Fill Area
 - Mooring Buoy w/Anchor
 - Anchor
 - Barrier Movement Due To Current Action



STAKED TURBIDITY BARRIER

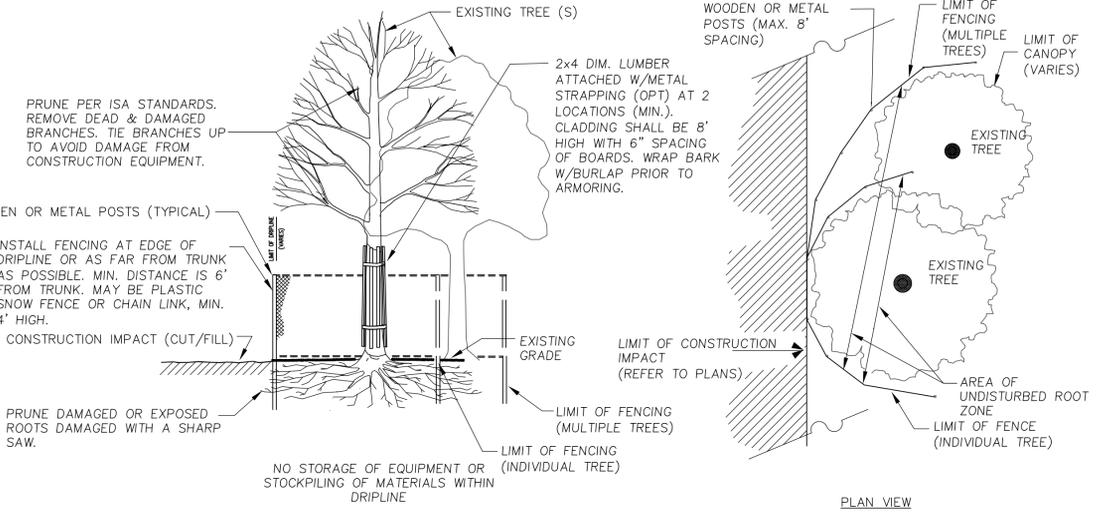
NOTES:

1. TURBIDITY BARRIERS ARE TO BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF WATER DEPTH.
2. NUMBER AND SPACING OF ANCHORS DEPENDENT ON CURRENT VELOCITIES.
3. DEPLOYMENT OF BARRIER AROUND PILE LOCATIONS MAY VARY TO ACCOMMODATE CONSTRUCTION OPERATIONS.
4. NAVIGATION MAY REQUIRE SEGMENTING BARRIER DURING CONSTRUCTION OPERATIONS.
5. FOR ADDITIONAL INFORMATION SEE SECTION 104 OF THE FDOT STANDARD SPECIFICATIONS.

TURBIDITY BARRIER APPLICATIONS

TURBIDITY BARRIERS

DETAIL
C
NTS
C-10



TREE PROTECTION
DETAIL
E
NTS

DESIGNED BY: R. NAGEL
DRAWN BY: K. REESE
SHEET CHK'D BY: R. NAGEL
CROSS CHK'D BY: D. NEAMTU
APPROVED BY: S. WHITESIDE
DATE: FEBRUARY 2015

CDM Smith
3522 Thomasville Road, Suite 300
Tallahassee, FL 32309
Tel: (850) 388-9500
FL CCA No. EB-0000020

LEON COUNTY, FLORIDA

LAKE HERITAGE DAM IMPROVEMENTS

EROSION AND SEDIMENTATION CONTROL DETAILS

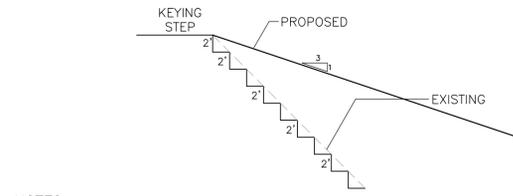
DATE: STEPHEN L. WHITESIDE
P.E. NO. 55002

PROJECT NO. 6021-84063
FILE NAME: CD01STD1

SHEET NO.

CD-1

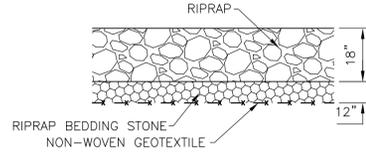
REV. NO.	DATE	DRWN	CHKD	REMARKS



- NOTES:**
1. REMOVE TOP SOIL AND VEGETATION FROM SLOPES.
 2. CUT EXISTING SLOPE WITH 2' VERTICAL STEPS.
 3. BACKFILL AND COMPACT TO PROPOSED SLOPE USING 8" THICK (LOOSE THICKNESS) VERTICAL LIFTS.
 4. OVERFILL NEW SLOPES AND CUT GRADES BACK TO FINAL GRADE TO ENSURE PROPER COMPACTION AT FACE OF SLOPE.

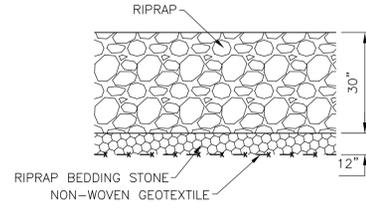
PROPOSED FILL SLOPE

DETAIL A
NTS



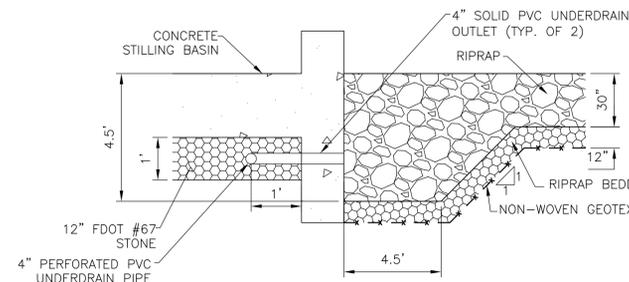
TYPICAL UPSTREAM RIPRAP PROTECTION

DETAIL B
NTS



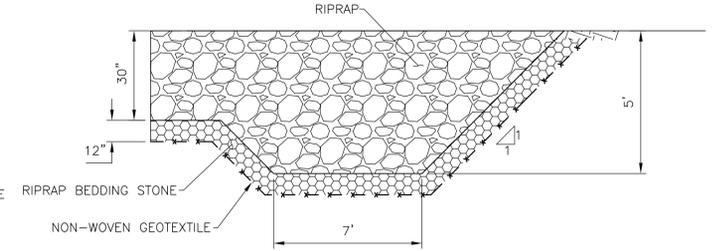
TYPICAL DOWNSTREAM RIPRAP PROTECTION

DETAIL C
NTS



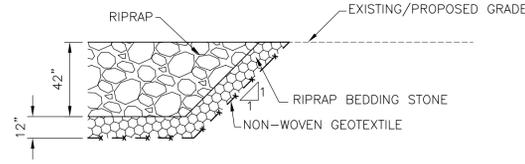
TYPICAL RIPRAP TIE-IN WITH SPILLWAY STRUCTURE

DETAIL D
NTS



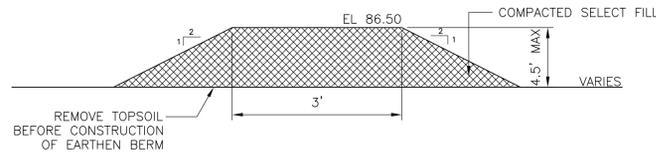
RIPRAP TIE-IN WITH EXISTING DOWNSTREAM GRADES

DETAIL E
NTS



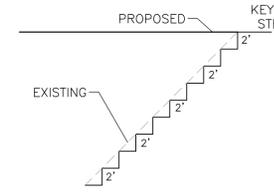
RIPRAP TIE-IN WITH EXISTING BANK GRADES (FLANK)

DETAIL F
NTS



EARTHEN BERM CROSS SECTION

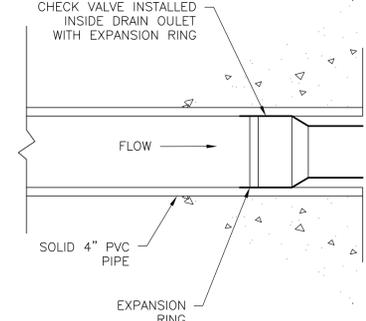
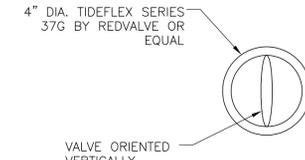
DETAIL G
NTS



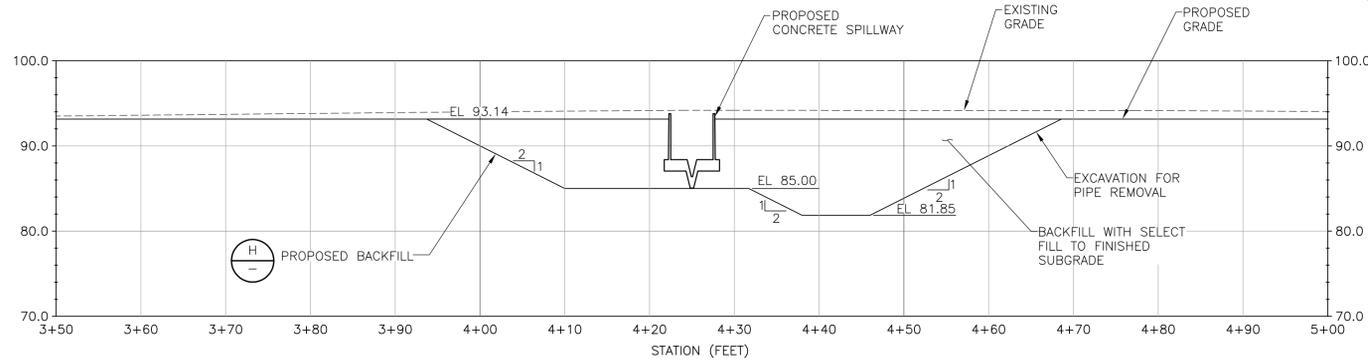
- NOTES:**
1. CUT SLOPE WITH 2' VERTICAL STEPS.
 2. BACKFILL AND COMPACT TO PROPOSED GRADE USING 8" THICK (LOOSE THICKNESS) VERTICAL LIFTS. LIFTS SHALL BE COMPACTED TO 95% OF THE STANDARD PROCTOR AND BE 0% TO +4% OF THE OPTIMUM MOISTURE CONTENT.

PROPOSED BACKFILL FOR SPILLWAY EXCAVATION THROUGH DAM

DETAIL H
NTS

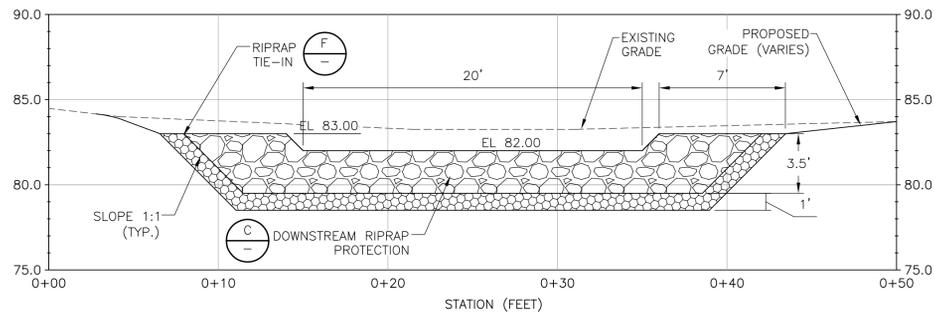


UNDERDRAIN OUTLET
DETAIL I
SCALE 1"=10'



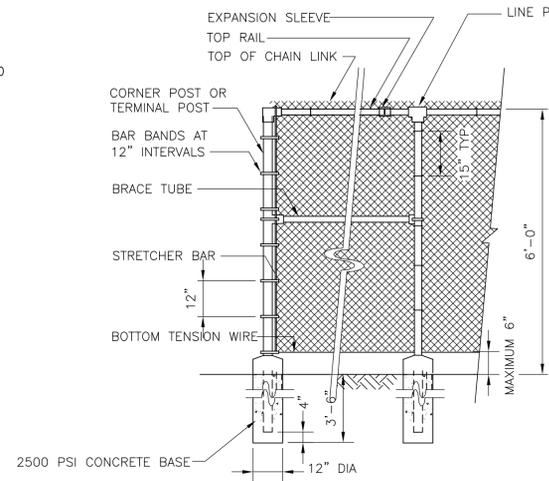
PROPOSED BACKFILL FOR STRUCTURE

DETAIL J
NTS



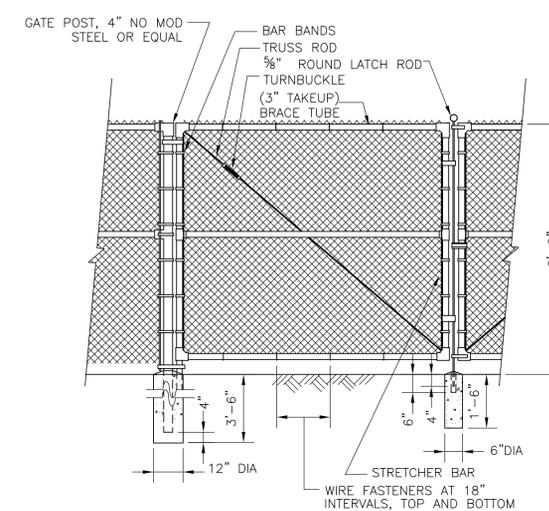
DOWNSTREAM RIPRAP PROTECTION

SECTION K
NTS



- NOTE:**
1. ALL PERMANENT FENCE COMPONENTS SHALL BE BLACK VINYL COATED

CHAINLINK FENCE
DETAIL L
NTS



- NOTE:**
1. GATE WIDTH WILL BE PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER TO PROVIDE REQUIRED ACCESS ACROSS EASEMENT.

DOUBLE SWING GATE
DETAIL M
NTS

GENERAL NOTES:

1. SEE SECTION 2200 FOR RIPRAP, BEDDING STONE, AND SELECT FILL.
2. SEE SECTION 2270 FOR NON-WOVEN GEOTEXTILE.

DESIGNED BY: R. NAGEL
DRAWN BY: K. REESE
SHEET CHK'D BY: R. NAGEL
CROSS CHK'D BY: D. NEAMTU
APPROVED BY: S. WHITESIDE
DATE: FEBRUARY 2015

CDM Smith
3522 Thomasville Road, Suite 300
Tallahassee, FL 32309
Tel: (850) 388-9500
FL CCA No. EB-0000020

LEON COUNTY, FLORIDA

LAKE HERITAGE DAM IMPROVEMENTS

CIVIL DETAILS

DATE: STEPHEN L. WHITESIDE
P.E. NO. 55002

PROJECT NO. 6021-84063
FILE NAME: CD02STD1

SHEET NO.

CD-2

100% FOR CONSTRUCTION

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REV. NO.	DATE	DRWN	CHKD	REMARKS

GENERAL NOTES

DESIGN CRITERIA:

CODES:

- FLORIDA BUILDING CODE, 2010 EDITION AND 2012 SUPPLEMENT
- ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"
- AISC MANUAL OF STEEL CONSTRUCTION, THIRTEENTH EDITION

DESIGN LOADS:

LIVE LOADS:

- PROCESS SLABS ON GRADE 300 PSF
- FLOOR LIVE LOAD N/A
- ROOF LIVE LOAD N/A

SUPERIMPOSED DEAD LOADS: AS NOTED

WIND LOADS:

- ULTIMATE DESIGN WIND SPEED $V_{ult}=130$ MPH
- NOMINAL DESIGN WIND SPEED $V_{asd}=101$ MPH
- RISK CATEGORY III
- WIND EXPOSURE CATEGORY C
- ENCLOSURE CLASSIFICATION OPEN STRUCTURE
- INTERNAL PRESSURE COEFFICIENT 0.00

FLOOD LOADS:

- 100 YEAR FLOOD ELEVATION EL 88.50'

CONCRETE 28-DAY STRENGTH:

- SLABS, WALLS, FOOTINGS 4500 PSI
- CONCRETE FILL (GROUT) 2500 PSI

REINFORCING STEEL:

- ALL BARS ASTM A615, GRADE 60
- WELDED WIRE FABRIC ASTM A185

FOUNDATIONS:

- ALLOWABLE BEARING PRESSURE FOR SPREAD FOOTINGS OVER SUBSURFACE PREPARED AS PER SPECIFICATIONS: 2000 PSF

GENERAL CONDITIONS:

ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, HVAC, PLUMBING, MECHANICAL, CIVIL, ELECTRICAL AND SHOP DRAWINGS AND SPECIFICATIONS.

THE CONTRACTOR SHALL REVIEW AND VERIFY DIMENSIONS SHOWN IN ALL PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT THE INSTALLATION OF THE FACILITY, SHOULD DISCREPANCIES APPEAR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING TO OBTAIN ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH THE WORK.

FOR ALL ITEMS EMBEDDED IN OR PASSED THROUGH CONCRETE, THE CONTRACTOR SHALL INITIALLY REFER TO MECHANICAL, HEATING AND VENTILATION DRAWINGS FOR TYPE, SIZE, LOCATION AND SPECIAL INSTALLATION REQUIREMENTS FOR THESE ITEMS.

THE CONTRACTOR SHALL TAKE ANY AND ALL NECESSARY MEASURES TO PROTECT EXISTING STRUCTURES FROM DAMAGE WHEN WORKING IN AND AROUND EXISTING STRUCTURES PERFORMING WORK SUCH AS DEMOLITION, FOUNDATION EXCAVATION AND OTHERS.

SIZE AND LOCATION OF EQUIPMENT PADS AND ANCHOR BOLTS SHALL BE PER EQUIPMENT MANUFACTURER'S REQUIREMENTS.

ANY EQUIPMENT THAT MAY INDUCE VIBRATION TO THE STRUCTURE SHALL BE ADEQUATELY ISOLATED FROM THE STRUCTURES.

ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUCTED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN.

STANDARD DETAILS (SHOWN ON S-1 AND SD-1) APPLY TO ALL SIMILAR SITUATIONS ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN.

CONCRETE:

ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318 REQUIREMENTS.

ALL CONCRETE SHALL BE AIR-ENTRAINED WITH 4500 PSI COMPRESSIVE STRENGTH AT 28 DAYS UNLESS OTHERWISE NOTED.

WATER REDUCING AGENT SHALL BE IN ACCORDANCE WITH ASTM C494.

ALL CONCRETE SURFACES EXPOSED TO AIR, UNLESS OTHERWISE NOTED IN SPECIFICATIONS, SHALL BE TREATED WITH AN APPROPRIATE CURING COMPOUND AS SOON AS CEMENT FINISHING IS COMPLETED OR FORMS ARE REMOVED.

ALL EXPOSED CORNERS OF CONCRETE SHALL HAVE A MINIMUM CHAMFER OF 3/4" UNLESS OTHERWISE NOTED.

THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL FOR THE LOCATION OF CONSTRUCTION JOINTS THAT ARE NOT SHOWN ON THE DRAWING.

REINFORCING STEEL:

REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60 REQUIREMENTS.

ALL ACCESSORIES SHALL BE IN CONFORMANCE WITH ACI 315 REQUIREMENTS. REINFORCING STEEL SHALL HAVE THE FOLLOWING CLEAR COVER UNLESS OTHERWISE NOTED:

- CONCRETE CAST AGAINST EARTH 3"
- FORMED SURFACES IN CONTACT WITH SOIL, SEWAGE, WATER OR EXPOSED TO WEATHER 2"
- FORMED SURFACES NOT EXPOSED TO WEATHER OR IN CONTACT WITH SOIL:
 - SLABS, WALLS AND JOISTS 1"
 - BEAMS AND COLUMNS 1-1/2"

LAP SPLICES SHALL BE AS SHOWN ON THE DRAWINGS. FOR LAP SPLICES NOT SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL.

THE CONTRACTOR SHALL PREPARE PLACING DRAWINGS AND SCHEDULES IN CONFORMANCE WITH ACI 315 REQUIREMENTS.

FLOATATION CONSIDERATION:

STRUCTURES WERE DESIGNED TO BE NON-BUOYANT AFTER THE STRUCTURE IS PLACED INTO SERVICE. THEREFORE, THE STRUCTURE MAY BE BUOYANT DURING CONSTRUCTION. THE GENERAL CONTRACTOR SHALL PROTECT ALL STRUCTURES (NEW AND EXISTING) FROM FLOATATION DURING CONSTRUCTION, REGARDLESS OF GROUNDWATER LEVELS, UNTIL STRUCTURES ARE PLACED IN OPERATION.

GEOTECHNICAL REPORT:

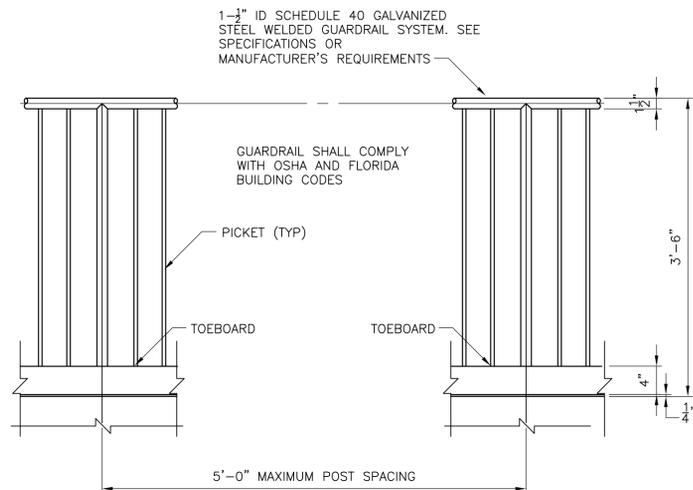
FINAL DESIGN REPORT PREPARED BY CDM SMITH, DATED JUNE 2014.

ABBREVIATIONS:

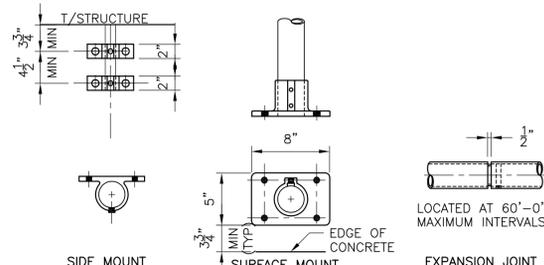
AL	ALUMINUM	MIN	MINIMUM
BLDG	BUILDING	MISC	MISCELLANEOUS
BOT	BOTTOM	NF	NEAR FACE
CC	CENTER TO CENTER	NTS	NOT TO SCALE
CJ	CONTROL JOINT	OC	ON CENTER
CMU	CONCRETE MASONRY UNIT	PCJ	PARTIAL CONTRACTION JOINT
CONC	CONCRETE	PL	PLATE
CONST JT	CONSTRUCTION JOINT	PLF	POUNDS PER LINEAR FOOT
CONT	CONTINUOUS	PROJ	PROJECTION
DIA	DIAMETER	PSF	POUNDS PER SQUARE FOOT
DWG	DRAWING	PSI	POUNDS PER SQUARE INCH
EF	EACH FACE	REINF	REINFORCEMENT
EJ	EXPANSION JOINT	SPECS	SPECIFICATIONS
EL	ELEVATION	SS	STAINLESS STEEL
EW	EACH WAY	STD	STANDARD
FF	FAR FACE	T&B	TOP AND BOTTOM
FTG	FOOTING	T/STRUCTURE	TOP OF STRUCTURE
HORIZ	HORIZONTAL	TYP	TYPICAL
HP	HIGH POINT	UON	UNLESS OTHERWISE NOTED
ID	INSIDE DIAMETER	VERT	VERTICAL
LP	LOW POINT	WSTP	WATERSTOP
MAT'L	MATERIAL	WWF	WELDED WIRE FABRIC
MAX	MAXIMUM		

NOTE:

THESE ABBREVIATIONS ARE FOR USE ON STRUCTURAL DRAWINGS ONLY.



**GUARDRAIL
DETAIL A**
1" = 1'-0"



TYPICAL CONNECTIONS FOR NON-REMOVABLE GUARDRAIL

GALVANIZED STEEL GUARDRAIL NOTES:

1. GALVANIZED STEEL EMBEDDED IN CONCRETE SHALL BE PAINTED WITH ONE SHOP COAT OF HEAVY BITUMASTIC. EMBEDDED POST SUPPORTS WILL NOT BE PERMITTED.
2. GALVANIZED STEEL SHAPES IN CONTACT WITH CONCRETE SHALL BE SEPARATED BY A 1/8" NEOPRENE GASKET OR ANY CASE WHERE TWO DIFFERENT METALS ARE TO BE IN CONTACT. A NEOPRENE GASKET SHALL BE PROVIDED.
3. GUARDRAILS, POSTS, BRACKETS AND MOUNTINGS SHALL MEET THE FLORIDA BUILDING CODE AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) LOADING REQUIREMENTS.
4. TOP OF ALL GUARDRAILS SHALL BE 42" HIGH ABOVE THE TOP OF THE WALL AND SHALL BE PROVIDED WITH A 4" TOEBOARD.
5. RAILINGS SHALL BE A VERTICAL PICKETED WELDED RAILING SYSTEM WITH 1.5" DIAMETER PIPE FOR POST AND TOP RAIL. POSTS SHALL BE SCHEDULE 80 PIPE MINIMUM AND RAILS SHALL BE A SCHEDULE 40 PIPE MINIMUM. POSTS AND TOP RAILS SHALL BE CONTINUOUS. SPACING OF POSTS SHALL NOT EXCEED 5 FT. ON CENTER AND SHALL BE UNIFORMLY SPACED.
6. PICKETS SHALL BE PROVIDED SUCH THAT A 4" DIAMETER SPHERE CANNOT PASS THROUGH ANY OPENING UP TO A HEIGHT OF 34 INCHES. FROM A HEIGHT OF 34" TO 42" ABOVE THE ADJACENT WALKING SURFACE, A SPHERE 8" IN DIAMETER SHALL NOT PASS.
7. PICKETS SHALL BE DESIGNED TO WITHSTAND A HORIZONTALLY APPLIED NORMAL LOAD OF 50 LB ON AN AREA NOT TO EXCEED ONE SQUARE FOOT INCLUDING OPENINGS AND SPACES BETWEEN RAILS.
8. GUARDRAILS SHALL BE DESIGNED TO WITHSTAND A 200 LB CONCENTRATED LOAD APPLIED IN ANY DIRECTION AND AT ANY POINT ON THE TOP RAIL. GUARDRAILS SHALL ALSO BE DESIGNED TO WITHSTAND A UNIFORM LOAD OF 50 LB/FT APPLIED HORIZONTALLY TO THE TOP RAIL. UNIFORM LOADS NEED NOT TO BE APPLIED SIMULTANEOUSLY WITH THE CONCENTRATED LOADS.
9. THE MANUFACTURER SHALL SUBMIT CALCULATIONS AND VERIFICATION OF OSHA AND FBC 2010 COMPLIANCE PER SPECIFICATION SECTION 05500.
10. POSTS SHALL NOT INTERRUPT THE CONTINUATION OF THE TOP RAIL AT ANY POINT ALONG THE RAILING, INCLUDING CORNERS AND END TERMINATIONS. THE TOP SURFACE OF THE TOP RAILING SHALL BE SMOOTH AND SHALL NOT BE INTERRUPTED BY PROJECTED FITTINGS.
11. CONCRETE ANCHORS SHALL BE STAINLESS STEEL TYPE 316 ANCHORS SHALL BE FURNISHED BY THE MANUFACTURER. THE ANCHOR DESIGN SHALL BE IN ACCORDANCE WITH ACI 318, APPENDIX D.
12. RAILINGS SHALL BE ASSEMBLED IN SECTIONS AS LONG AS PRACTICAL BUT SHALL NOT BE GREATER THAN 24 FT IN LENGTH. FIELD SPLICE SHALL BE USED WHEN AN ASSEMBLED SECTION IS TO BE ATTACHED TO ANOTHER SECTION.

DATE:
DONNA L. R. FRIIS
P.E. NO. 57454

PROJECT NO. 6021-84063
FILE NAME: S001STNT

SHEET NO.

S-1

DESIGNED BY: P. SHAH
DRAWN BY: P. SCHIAVO
SHEET CHK'D BY: W. MAPLES
CROSS CHK'D BY: D. NEAMTU
APPROVED BY: D. FRIIS
DATE: FEBRUARY 2015

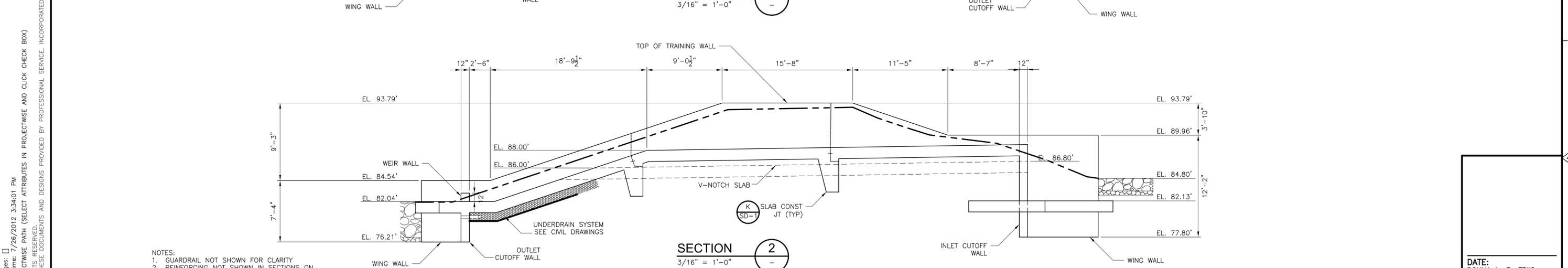
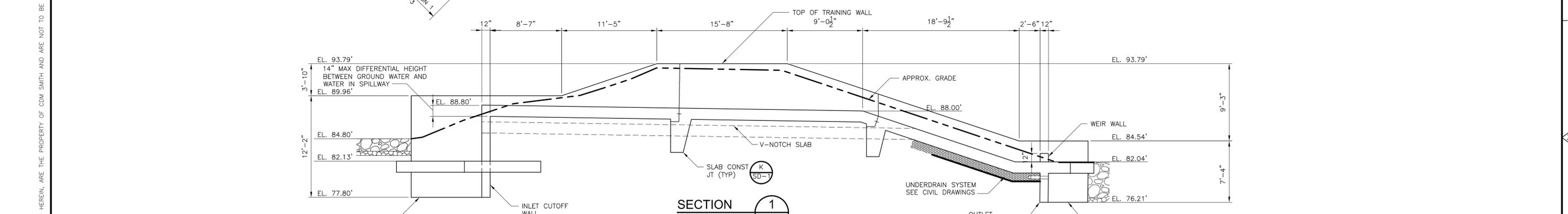
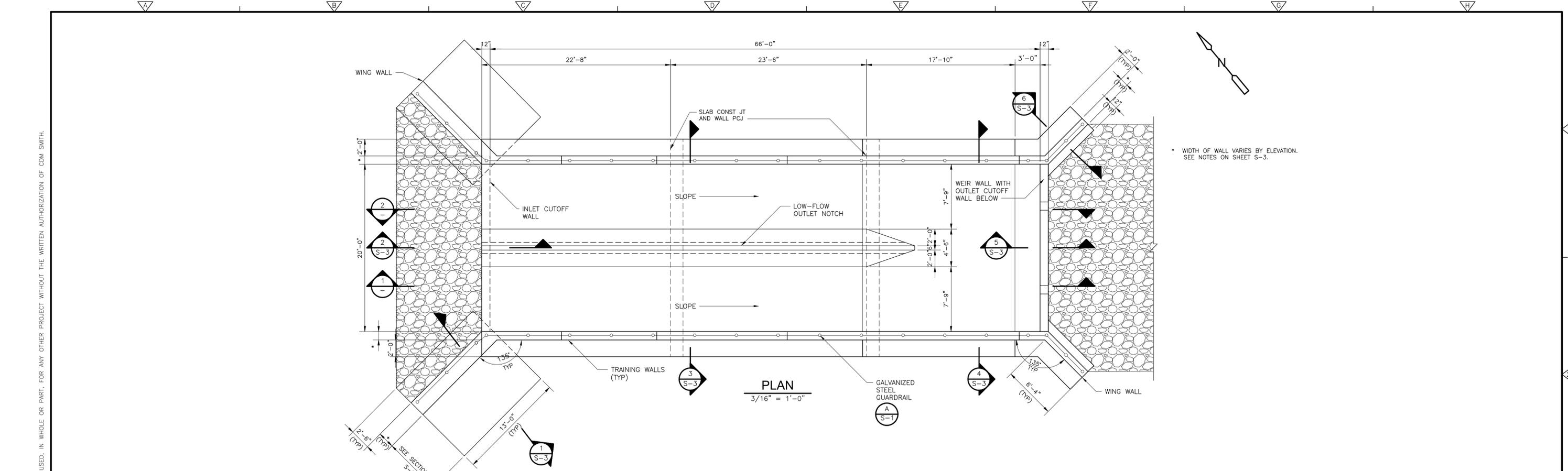


LEON COUNTY, FLORIDA

LAKE HERITAGE DAM IMPROVEMENTS

STANDARD NOTES AND DETAILS

REV. NO.	DATE	DRWN	CHKD	REMARKS



- NOTES:
1. GUARDRAIL NOT SHOWN FOR CLARITY
2. REINFORCING NOT SHOWN IN SECTIONS ON S-2. SEE S-3 FOR STEEL REINFORCING

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: P. SHAH
DRAWN BY: P. SCHIAVO
SHEET CHK'D BY: W. MAPLES
CROSS CHK'D BY: D. NEAMTU
APPROVED BY: D. FRIIS
DATE: FEBRUARY 2015

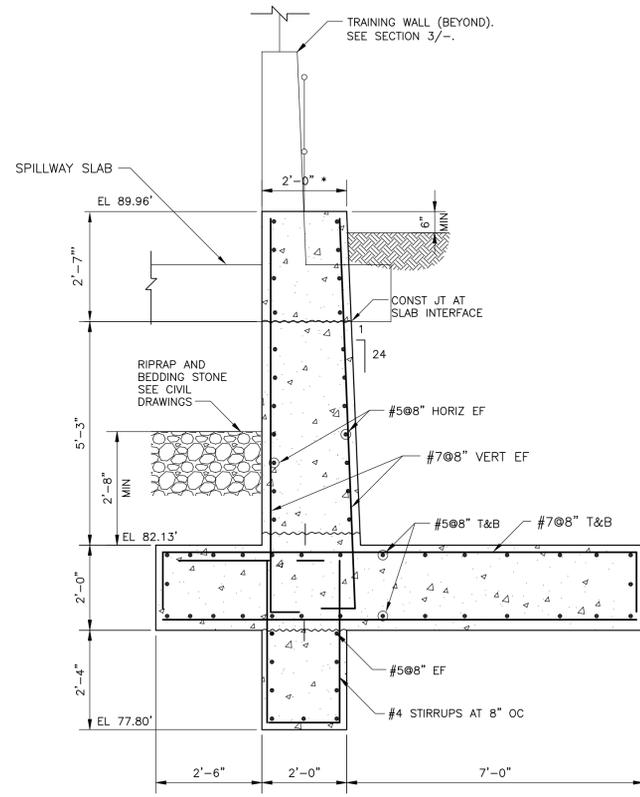


LEON COUNTY, FLORIDA
LAKE HERITAGE DAM IMPROVEMENTS

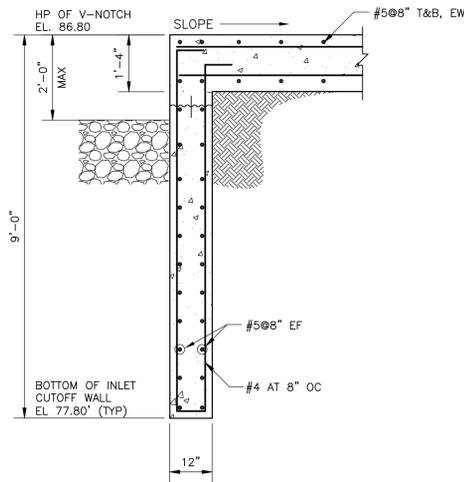
SPILLWAY PLAN AND SECTIONS
S-2

DATE: DONNA L. R. FRIIS
P.E. NO. 57454
PROJECT NO. 6021-84063
FILE NAME: S002SWPL
SHEET NO. S-2

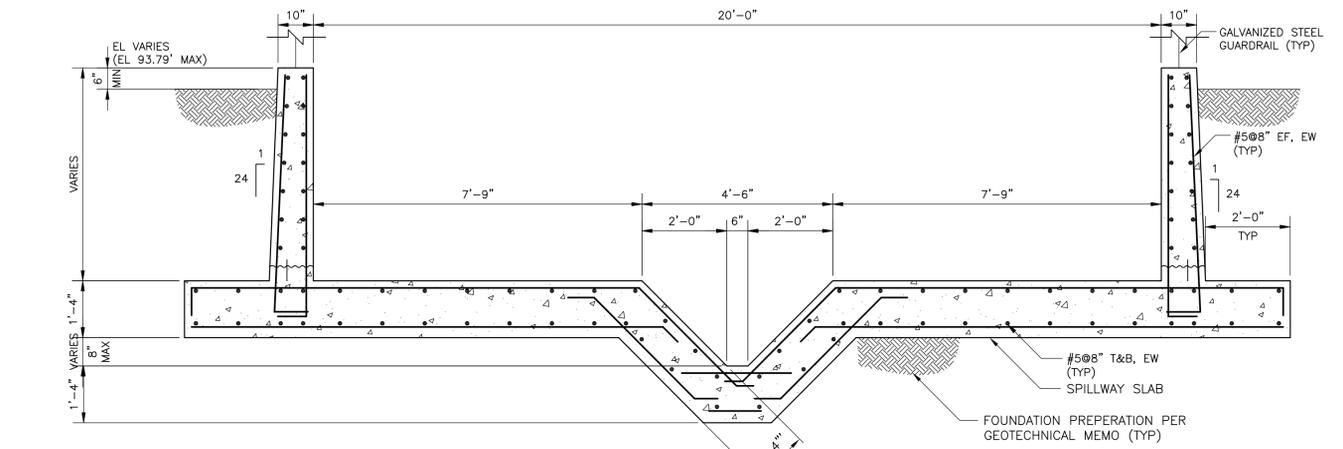
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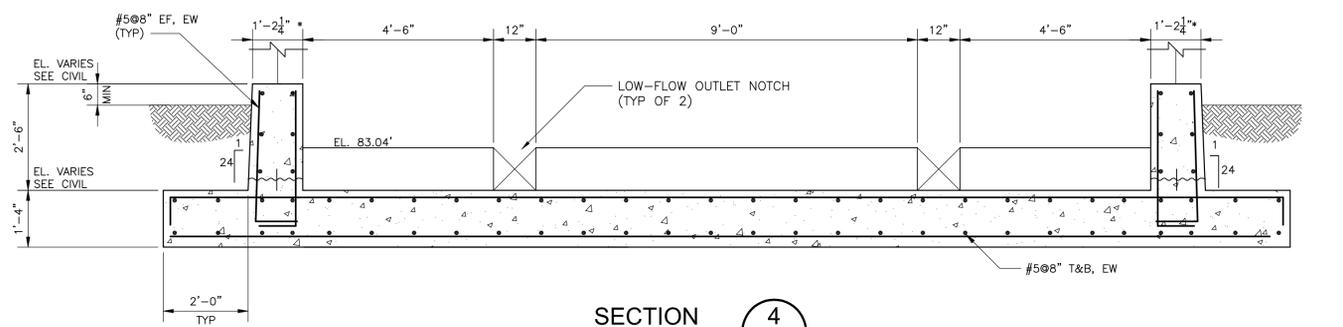
SECTION 1
1/2" = 1'-0" S-2



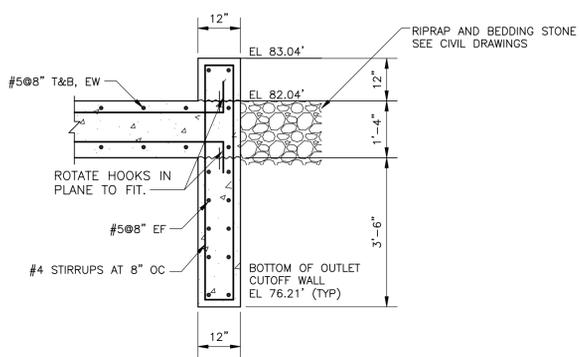
SECTION 2
1/2" = 1'-0" S-2



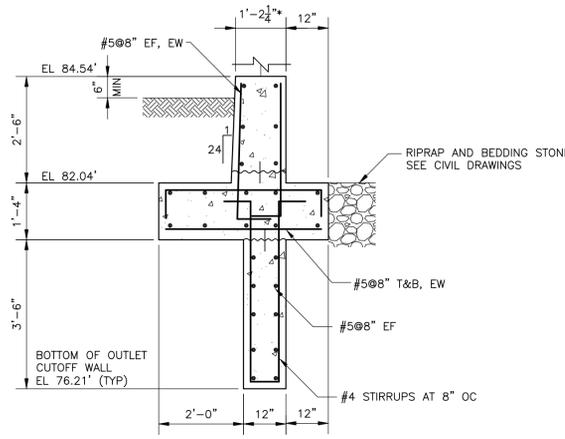
SECTION 3
1/2" = 1'-0" S-2



SECTION 4
1/2" = 1'-0" S-2



SECTION 5
1/2" = 1'-0" S-2



SECTION 6
1/2" = 1'-0" S-2

- * WIDTH OF WALL VARIES BY ELEVATION. SEE NOTES BELOW.
- NOTES:
- SEE SHEET C-8 FOR ELEVATIONS.
 - BATTER EARTH SIDE OF WALLS 1 INCH HORIZONTAL TO 24 INCHES VERTICAL.
 - TOP OF TRAINING WALLS AT ELEVATION 93.79' SHALL BE 10" THICK AND SHALL INCREASE GOING DOWN THE WALL DUE TO THE BATTER.
 - WALLS WHERE THE TOP OF WALL IS LOWER THAN 93.79' SHALL MATCH THE HORIZONTAL THICKNESS BASED ON THE THICKNESS OF THE TRAINING WALLS AT THE GIVEN ELEVATION SO THE HORIZONTAL THICKNESS OF ALL WALLS WILL BE THE SAME AT A GIVEN ELEVATION.

REV. NO.	DATE	DRWN	CHKD	REMARKS

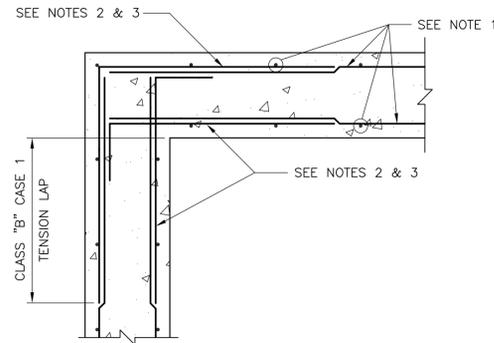
DESIGNED BY: P. SHAH
 DRAWN BY: P. SCHIAVO
 SHEET CHK'D BY: W. MAPLES
 CROSS CHK'D BY: D. NEAMTU
 APPROVED BY: D. FRIIS
 DATE: FEBRUARY 2015



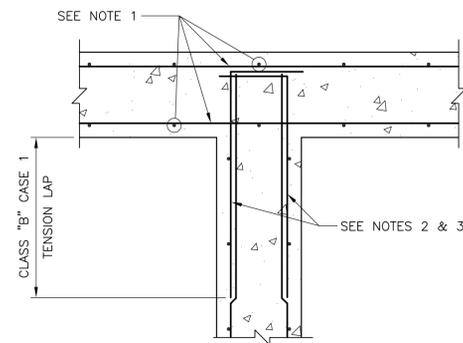
LEON COUNTY, FLORIDA
 LAKE HERITAGE DAM IMPROVEMENTS

SPILLWAY SECTIONS
 SHEET NO. S-3

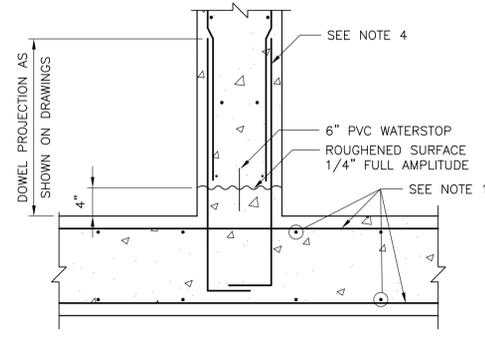
DATE: DONNA L. R. FRIIS
 P.E. NO. 57454
 PROJECT NO. 6021-84063
 FILE NAME: S003SWSC
 SHEET NO. S-3



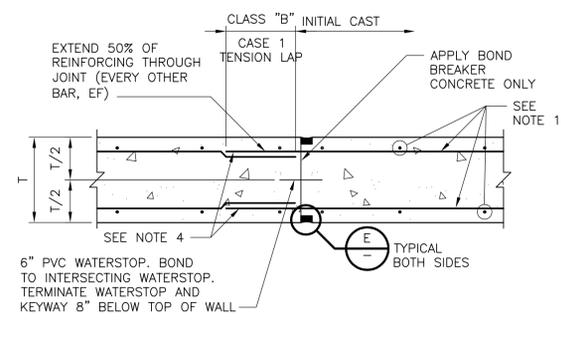
WALL CORNER REINFORCING
DETAIL A
NTS



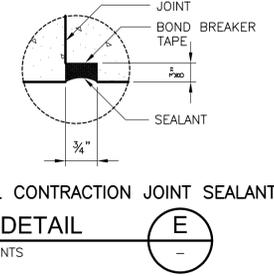
WALL INTERSECTION REINFORCING
DETAIL B
NTS



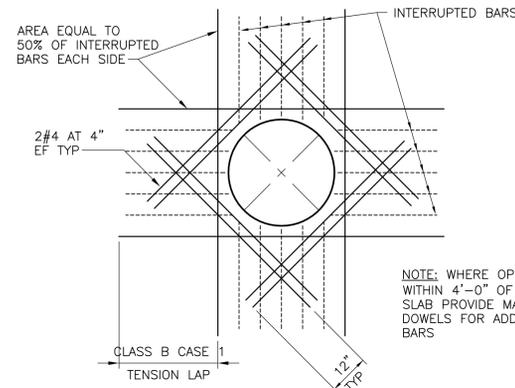
WALL BASE CONSTRUCTION JOINT
DETAIL C
NTS



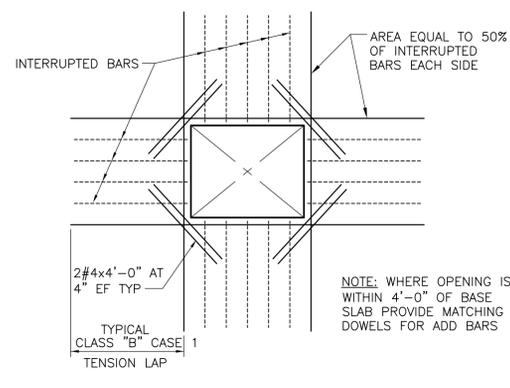
WALL PARTIAL CONTRACTION JOINT (PCJ)
DETAIL D
NTS



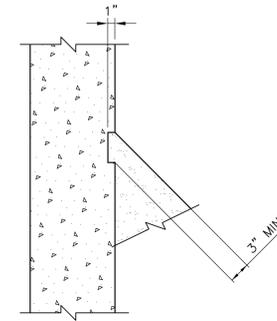
PARTIAL CONTRACTION JOINT SEALANT
DETAIL E
NTS



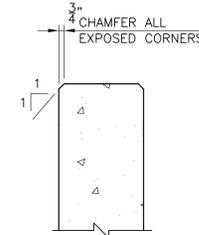
REINFORCEMENT AT CIRCULAR OPENINGS GREATER THAN 12"
DETAIL F
NTS



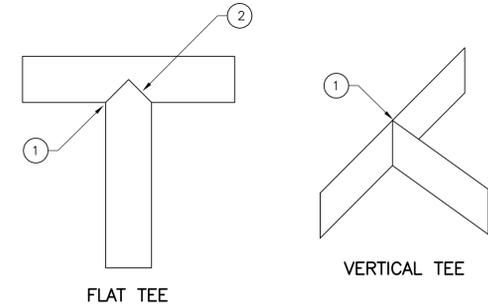
REINFORCEMENT AT RECTANGULAR OPENINGS GREATER THAN 12"
DETAIL G
NTS



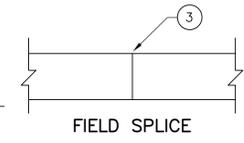
GROUT FILLET
DETAIL H
NTS



CHAMFER
DETAIL I
NTS



- WATERSTOP NOTES:**
1. FACTORY FABRICATED INTERSECTION PIECES.
 2. USE THERMOSTATICALLY CONTROLLED SPLICING IRON TO WELD INTERSECTION PIECE TO FIELD PIECE SPLICING IRON SHALL BE DESIGNED SPECIFICALLY FOR THE WATERSTOP BEING SPLICED.
 3. USE INDIRECT SOURCE OF HEAT ONLY. USE OF DIRECT FLAME IS SPECIFICALLY PROHIBITED.
 4. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR ALL SPLICING AND WELDING REQUIREMENTS.

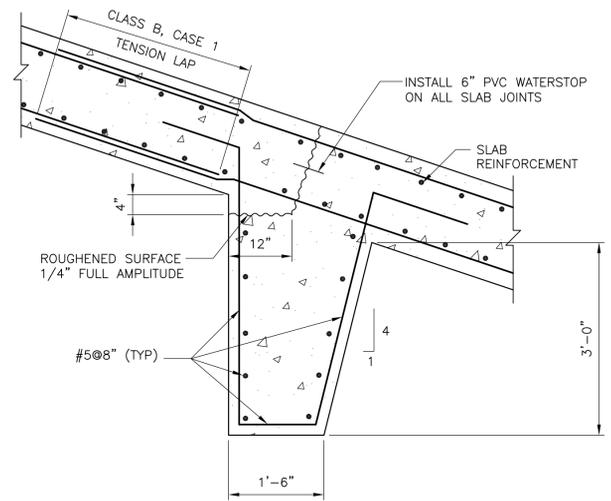


PVC WATERSTOP SPLICE AND JOINTS
DETAIL J
NTS

CLASS B TENSION LAP SPLICE LENGTHS IN WALLS AND SLABS (INCHES)			TENSION DEVELOPMENT LENGTHS IN WALLS AND SLABS (INCHES)		
BAR SIZE	f' _c =4000 psi		BAR SIZE	f' _c =4000 psi	
	TOP BARS	OTHER BARS		TOP BARS	OTHER BARS
3	15	12	3	12	12
4	20	15	4	15	12
5	29	23	5	22	17
6	40	31	6	31	24
7	65	50	7	50	38
8	81	62	8	62	48
8*	49	37	8*	37	29
9*	60	46	9*	46	36
10*	74	57	10*	57	44

- NOTES:**
1. MINIMUM BAR SPACING = 6" INCHES ON CENTER.
 2. MINIMUM CONCRETE COVER = 1", EXCEPT AS NOTED BY * . * INDICATES MINIMUM CONCRETE COVER= 2".
 3. A TOP BAR IS A HORIZONTAL BAR WHERE MORE THAN 12" OF FRESH CONCRETE IS CAST DIRECTLY BELOW THE BAR. WHERE HORIZONTAL WALL REINFORCEMENT IS UNIFORMLY SPACED IN A VERTICAL PLANE AT 12" MAXIMUM SPACING, LENGTHS MAY BE AS FOR "OTHER BARS".
 4. LENGTHS FOR BEAMS AND COLUMNS SHALL BE AS SHOWN ON THE DRAWINGS.

LAP SPLICE AND DEVELOPMENT LENGTHS BLACK REINFORCING STEEL



SLAB CONSTRUCTION JOINT
DETAIL K
NTS

- CONCRETE NOTES:**
1. BASIC SLAB/WALL/BASE REINFORCING AS SHOWN ON DESIGN DRAWINGS
 2. SIZE & SPACING OF BAR TO MATCH WALL/BASE REINFORCEMENT AS SHOWN ON DESIGN DRAWINGS
 3. FOR ADDITIONAL BARS AT CORNERS AND INTERSECTIONS SEE DESIGN DRAWINGS
 4. FOR DOWEL SIZE & SPACING SEE DESIGN DRAWINGS

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: P. SHAH
 DRAWN BY: P. SCHIAVO
 SHEET CHK'D BY: W. MAPLES
 CROSS CHK'D BY: D. NEAMTU
 APPROVED BY: D. FRIIS
 DATE: FEBRUARY 2015



LEON COUNTY, FLORIDA
 LAKE HERITAGE DAM IMPROVEMENTS

STANDARD DETAILS
 SHEET NO. SD-1

DATE: DONNA L. R. FRIIS
 P.E. NO. 57454
 PROJECT NO. 6021-84063
 FILE NAME: SD01STD1
 SHEET NO. SD-1