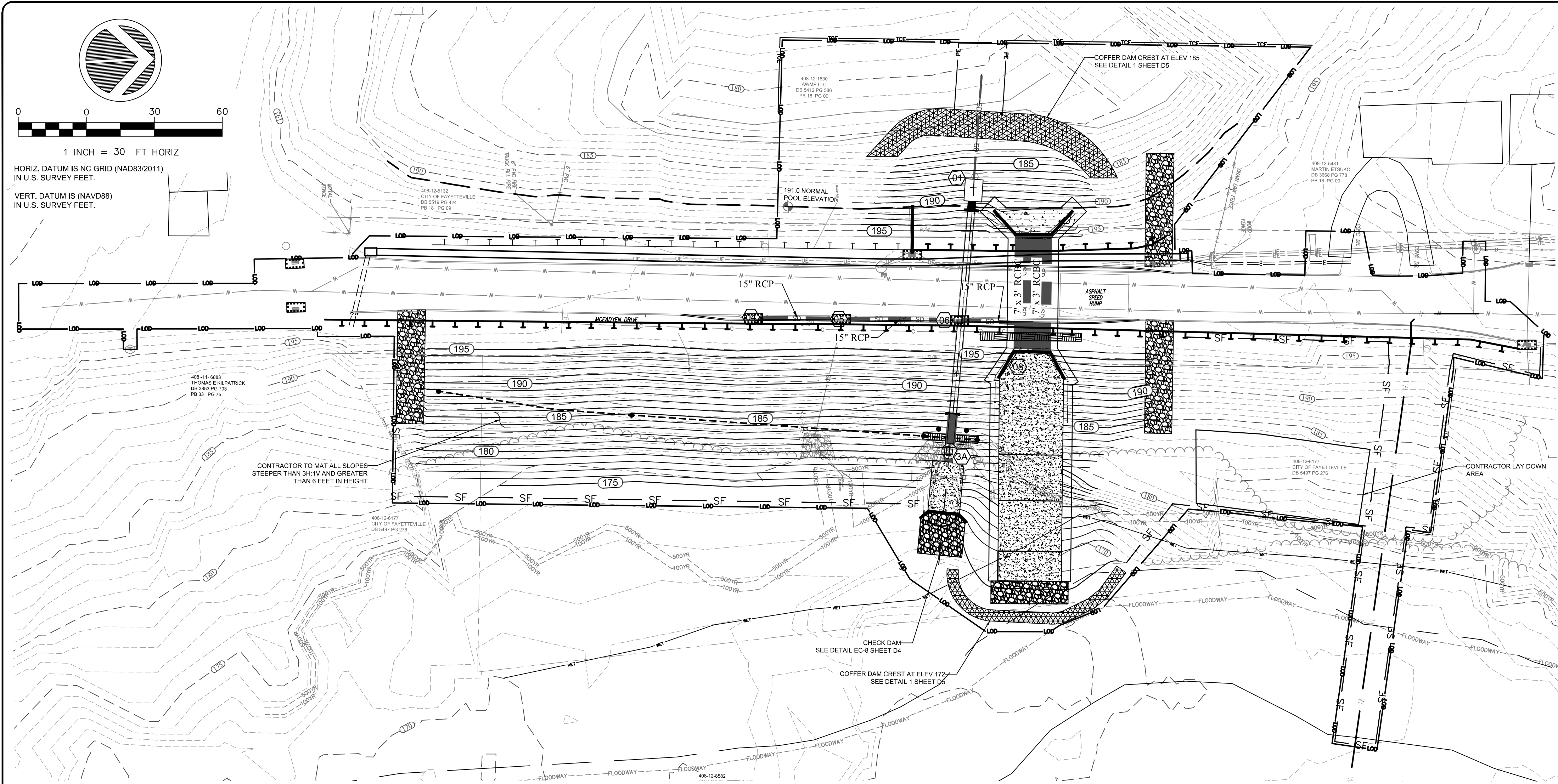


RELEASED FOR CONSTRUCTION





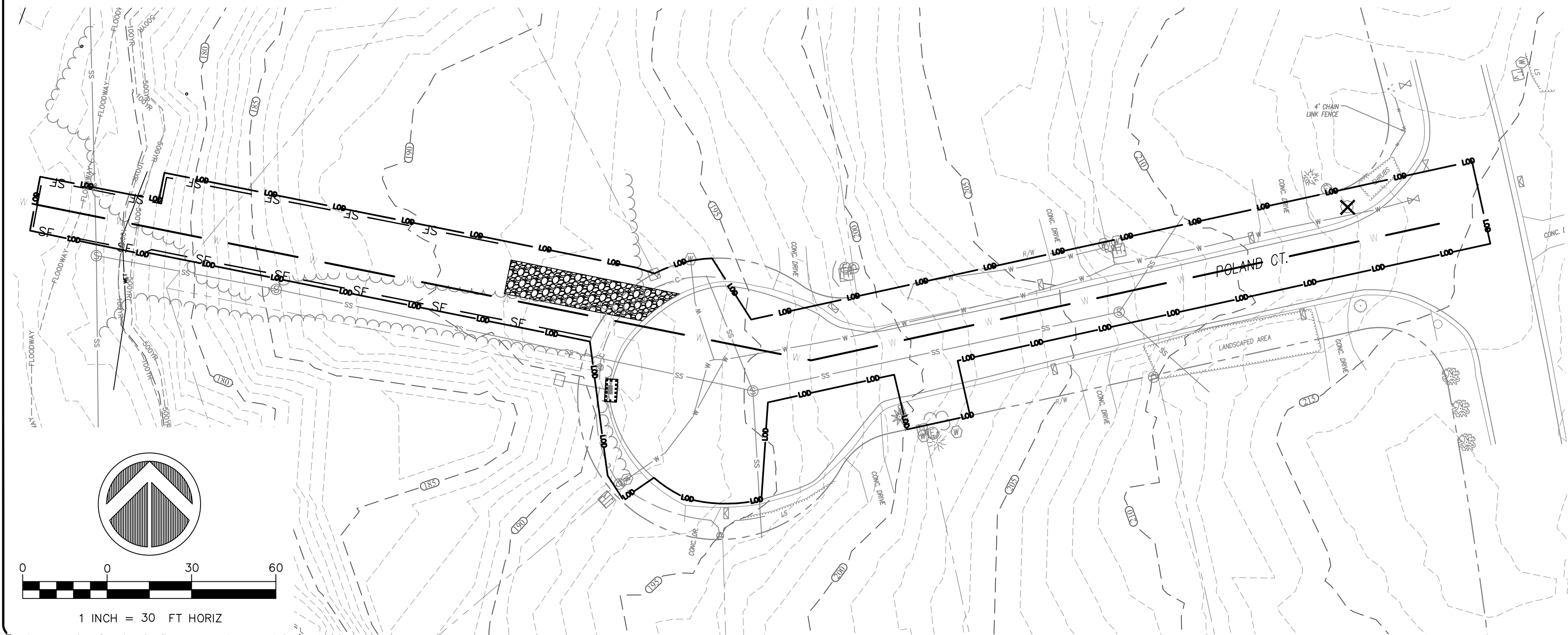
VEGETATIVE PLAN:

- EROSION CONTROL MEASURES SHALL BE PROPERLY MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED. THE CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO INSURE MEASURES ARE FUNCTIONING PROPERLY.
- DISTURBED AREAS NOT AT FINAL GRADE, LEFT IDLE FOR TWO OR MORE WEEKS, SHALL BE TEMPORARILY VEGETATED PER THE TABLE BELOW. SEEDING SHALL BE IN ACCORDANCE WITH SEEDING DETAIL EC-8 ON SHEET D4.
- ALL DISTURBED AREAS AS PART OF WATERLINE WORK SHOWN ON SHT U1-U4 WILL BE STABILIZED PERMANENTLY WITH CENTIPEDE SOD AS RECOMMENDED WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER).
- ALL REMAINING DISTURBED AREAS WILL BE STABILIZED PERMANENTLY PER SP-10.
- ONCE PERMANENT VEGETATION AND EROSION CONTROL MEASURES ARE ESTABLISHED, THE CONTRACTOR SHALL SCHEDULE A FINAL INSPECTION IN ORDER TO OBTAIN A CERTIFICATE OF COMPLETION. AFTER APPROVAL, ALL REMAINING TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED.

MAINTENANCE PLAN:

- ALL TEMPORARY EROSION CONTROL AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED AS NOTED ON THE EROSION CONTROL DETAILS.
- ALL SEDIMENT AND EROSION CONTROL PRACTICES SHALL BE CHECKED FOR STABILITY AND OPERATION ON A WEEKLY BASIS AND FOLLOWING EVERY RUNOFF PRODUCING RAINFALL EVENT. ANY REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN THE FUNCTION OF THE PRACTICE.
- TRAPPED SEDIMENT SHALL BE PROPERLY REMOVED FROM THE UPSLOPE SIDE OF SEDIMENT FENCE WHEN SEDIMENT BUILDS UP TO A DEPTH OF 0.5 FEET. SEDIMENT FENCE SHALL BE REPAIRED AS NECESSARY TO MAINTAIN ITS FUNCTION.
- REFER TO DETAIL SHEETS D4 & D5 FOR ADDITIONAL MAINTENANCE NOTES ON EROSION CONTROL STRUCTURES.

GROUND STABILIZATION TIMEFRAMES		
Site Area Description	Stabilization	Timeframe Exceptions
Perimeter dikes, swales and slopes	7 Days	None
High Quality Water (HQW) Zones	7 Days	None
Slopes Steeper than 3:1	7 Days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
Slopes 4:1 or flatter	14 Days	7 days for slopes greater than 50' in length
All other areas with slopes flatter than 4:1	14 Days	None, except for perimeters and HQW Zones



EROSION CONTROL NOTES:

- REFER TO GENERAL NOTES ON SHEET 3.
- DISTURBED AREAS:  
TOTAL = 2.31 ACRES
- ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE SEALED PER THE SPECIFICATION SHOW BELOW.

EROSION CONTROL:

- INSTALL PERMANENT VEGETATIVE COVER AND THE LONG-TERM EROSION PROTECTION MEASURES OR STRUCTURES AS SOON AS PRACTICAL IN THE CONSTRUCTION PROCESS. APPROPRIATE EROSION CONTROL MEASURES MUST BE PLACED BETWEEN THE DISTURBED AREA AND AFFECTED WATERWAY AND MAINTAINED UNTIL PERMANENTLY VEGETATED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL MEASURES RELATED TO THE CONSTRUCTION SITE.
- AT A MINIMUM, EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL REGULATIONS. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY LOCAL GOVERNING AGENCIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REMOVAL OF ANY SOIL TRACKED INTO THE PUBLIC RIGHT-OF-WAY.
- THE LOCATIONS OF SOME EROSION CONTROL MEASURES MAY HAVE TO BE ALTERED FROM THOSE SHOWN ON THE PLANS IF DRAINAGE PATTERNS CHANGE DURING CONSTRUCTION.
- PROVIDE FOR HANDLING THE INCREASED RUNOFF CAUSED BY CHANGED SOIL AND SURFACE CONDITIONS. USE EFFECTIVE MEANS TO CONSERVE EXISTING ON-SITE SOIL INCLUDING THE USE OF DIVERSION DITCHES.
- ALL DISTURBED AREAS SHALL BE SEEDED. USE TEMPORARY PLANT COVER, MULCHING, AND/OR STRUCTURES TO CONTROL RUNOFF AND PROTECT AREAS SUBJECT TO EROSION DURING CONSTRUCTION. CHANNEL BANKS SHALL BE SEEDED DAILY UPON COMPLETION OF FINAL GRADING.
- ALL SEDIMENT AND EROSION CONTROLS ARE TO BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. MAINTENANCE OF SEDIMENT TRAPPING STRUCTURES SHALL BE PERFORMED AS NECESSARY PER THESE INSPECTIONS. SILT FENCING AND DIVERSION DITCHES SHALL BE INSTALLED AS SHOWN ON PLANS.
- STABILIZATION MEASURES SHALL BE INITIATED AT THE END OF EACH DAY IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, EXCEPT WHERE CONSTRUCTION ACTIVITIES SHALL BE REINITIATED WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS, WHICHEVER IS SHORTER.
- CONTRACTOR MUST TAKE THE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO THE PAVED ROADWAY FROM CONSTRUCTION AREAS. DAILY REMOVAL OF MUD/SOIL MAY BE REQUIRED.
- ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. CONTRACTOR SHALL REMOVE ALL TEMPORARY CONTROL DEVICES ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED. SILT FENCING TO BE INSTALLED AROUND INDICATED SPOILS AREAS TO PREVENT LOSS OF SEDIMENT.
- ASPHALT TACKIFIER SHALL NOT BE USED.
- ALL NECESSARY MEASURES MUST BE TAKEN TO PREVENT OIL, TAR, TRASH, AND OTHER POLLUTANTS FROM ENTERING THE ADJACENT OFFSITE AREAS.
- CONSTRUCTION ACTIVITIES MUST AVOID TO THE GREATEST EXTENT PRACTICABLE, ENCROACHMENT INTO ANY WETLAND/STREAM AREAS NOT DESIGNATED AS IMPACT AREAS.
- ACTIVITIES MUST AVOID DISTURBANCE OF WOODY RIPARIAN VEGETATION WITHIN THE PROJECT AREA TO THE GREATEST EXTENT PRACTICABLE. REMOVAL OF VEGETATION MUST BE LIMITED TO ONLY THAT NECESSARY FOR CONSTRUCTION OF THE CHANNEL.
- NO ON-SITE BURIAL OF VEGETATION OR CONSTRUCTION DEBRIS WILL BE PERMITTED.
- ANY GRADING BEYOND THE CONSTRUCTION LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE NORTH CAROLINA EROSION CONTROL ORDINANCE, AND IS SUBJECT TO A FINE.
- PLEASE REFERENCE PLAN SHEET DETAILS AND NCDENR STANDARDS FOR CONSTRUCTION OF EROSION CONTROL MEASURES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL MEASURES RELATED TO THE CONSTRUCTION SITE.
- MAINTAIN WRITTEN SELF-INSPECTION RECORDS IN ACCORDANCE WITH GS 113A-54.1 (E) AND NCG 010000 SEC. II.B, 3).

EROSION CONTROL SEQUENCE

- SEE EROSION CONTROL NOTES THIS SHEET.
- CONDUCT PRE-CONSTRUCTION MEETING INCLUDING OWNER/ENGINEER, ASSOCIATED CONTRACTORS AND OTHER AFFECTED PARTIES.
- ALL EROSION CONTROL MEASURES (CHECK DAMS AND SILT FENCES) SHALL BE INSTALLED PRIOR TO CLEARING AND GRUBBING. CLEAR ONLY AS NECESSARY TO INSTALL SEDIMENT AND EROSION CONTROL MEASURES.
- CONTRACTOR TO INSTALL IMPERVIOUS DIKES OR APPROVED EQUIVALENT TO PROVIDE DRY WORK AREA. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PUMPING OPERATION AS NEEDED TO MAINTAIN DRY WORK AREA. WATER SHALL BE PUMPED AND OR DIRECTED TO EITHER SEDIMENT BASINS OR TO AN APPROVED SEDIMENT BAG PLACED INSIDE THE LIMITS OF CONSTRUCTION.
- PRIOR TO CLEARING AND GRUBBING, THE CONTRACTOR SHALL REQUEST AN ON-SITE INSPECTION. UPON RECEIPT OF CERTIFICATE OF COMPLIANCE, GRUBBING/CONSTRUCTION MAY BEGIN.
- PERFORM GRADING OPERATIONS IN A MANNER AND SEQUENCE SO AS TO REDUCE UNNECESSARY DISTURBANCE OF SURFACE COVER.
- DURING EXCAVATION DE-WATERING SHALL BE CONDUCTED AS NEEDED. DE-WATERING SHALL BE COMPLETED THROUGH USE OF PUMPS. WATER SHALL BE PUMPED AND OR DIRECTED TO EITHER SEDIMENT BASINS OR TO AN APPROVED SEDIMENT BAG PLACED INSIDE THE LIMITS OF CONSTRUCTION.
- UPON COMPLETION OF GRADING OPERATIONS, INSTALL PERMANENT STABILIZATION MEASURES. SEE VEGETATION NOTES THIS SHEET
- ONCE FINAL VEGETATION IS ESTABLISHED CALL FOR FINAL APPROVAL. FINAL APPROVAL MUST BE GRANTED PRIOR TO REMOVAL OF EROSION CONTROL MEASURE.
- UPON FINAL APPROVAL, REMOVE TEMPORARY EROSION CONTROL MEASURES.

EC LEGEND

LOD	LIMITS OF DISTURBANCE	SF	SEDIMENT FENCE (SILT FENCE) (SEE DETAIL EC-5 ON SHEET D4)
	TREE PROTECTION (SEE DETAIL WKD-1 ON SHEET D4)		CHECK DAM (SEE DETAIL EC-6 ON SHEET D4)
	TREE REMOVAL	PS	SEEDING (PERMANENT) (SEE DETAIL EC-7 ON SHEET D4)
	TEMPORARY GRAVEL CONSTR. ENTRANCE/EXIT (SEE DETAIL EC-2 ON SHEET D4)	CM	COIR FIBER MATTING (EROSION CONTROL MATTING) (SEE DETAIL 1631.01 ON SHEET D4)
	INLET PROTECTION (SEE DETAIL EC-1 ON SHEET D4)		COFFOR DAM OR EQUIVALENT (SEE DETAIL 1 ON SHEET D5)

RELEASED FOR CONSTRUCTION

DEVONWOOD LOWER DAM

SHEET NUMBER  
EC1

**WK Dickson**  
community infrastructure consultants  
720 CORPORATE CENTER DRIVE  
RALEIGH, NC 27607  
Office Locations:  
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Georgia

City of Fayetteville  
ENGINEERING DIVISION  
ENGINEERING & CONSTRUCTION DEPARTMENT  
433 HAY STREET FAYETTEVILLE, NC 28301

REVISIONS

REV.	DESCRIPTION	DATE
1	BULLETIN DRAWING 2	8/20/21

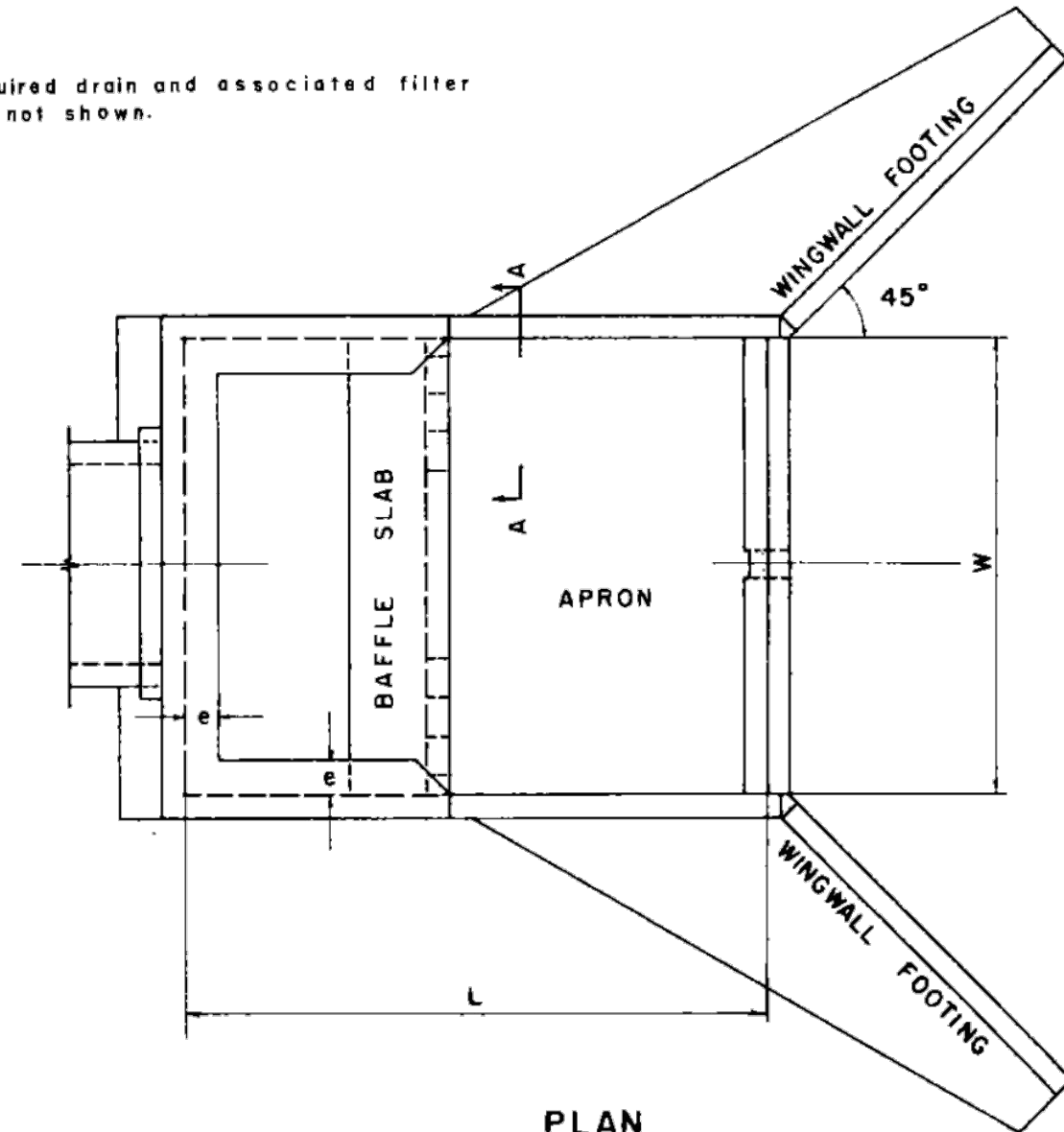
DRAWN : R. SMITH	PROJECT 2018012500RA
DESIGN : T. MURRAY	NAME : DEVONWOOD LOWER DAM
CHECK : T. MURRAY	SCALE : 1" = 20'
APPROVED : T. MURRAY	DATE : APR-19

PROJECT NO. 2018012500RA  
SUB-LEDGER NO.



IMPACT BASINS: General Layout and Hydraulic Design

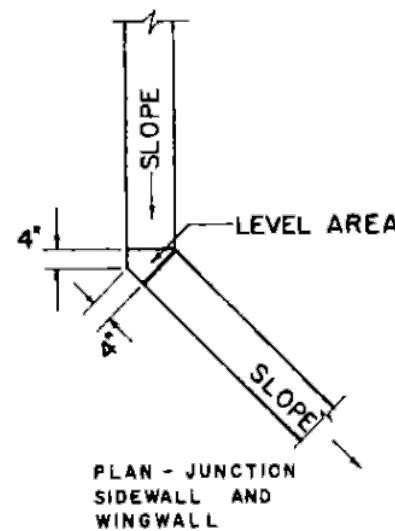
Required drain and associated filter are not shown.



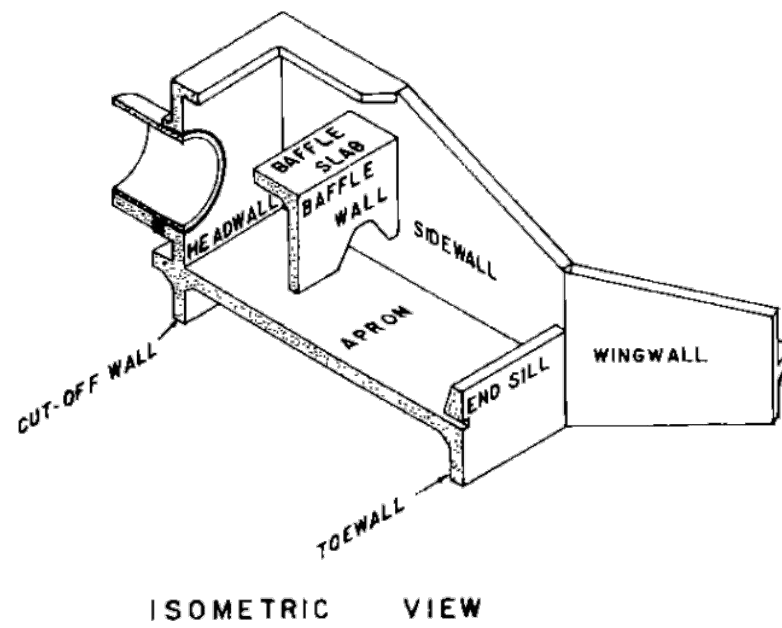
PLAN

- SYMBOLS**
- |   |   |                  |
|---|---|------------------|
| W | Width of basin  | = 14'-0"         |
| L | Length of basin   | = 4/3 W = 18'-8" |
| H | Depth of basin  | = 3/4 W = 10'-6" |
| d | Height of end sill and height of pipe invert above apron slab | = 1/6 W = 2'-4"  |
| f | Height of baffle wall   | = 3/8 W = 5'-3"  |
| a | Distance to upstream face of baffle wall                      | = 1/2 W = 7'-0"  |
| c | Height of sidewall and wingwall of junction                   | = 1/2 W = 7'-0"  |
| e | Width of splash brim  | = 1/12 W = 1'-2" |

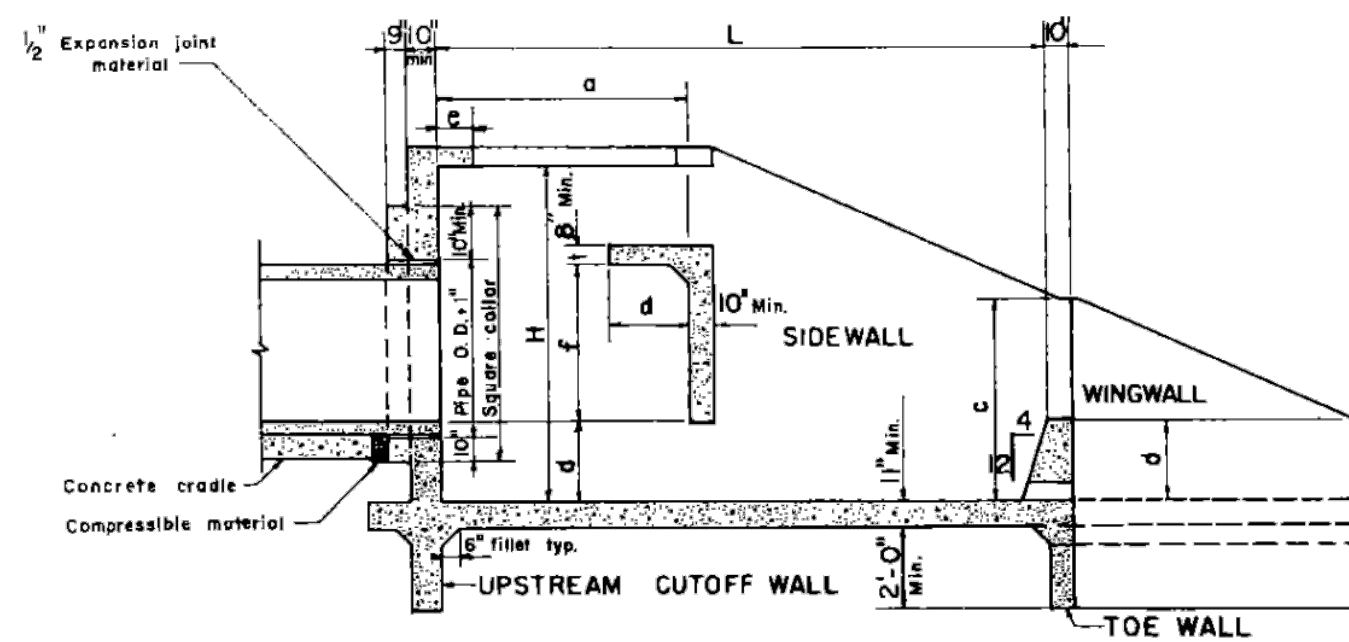
SECTION "A-A"



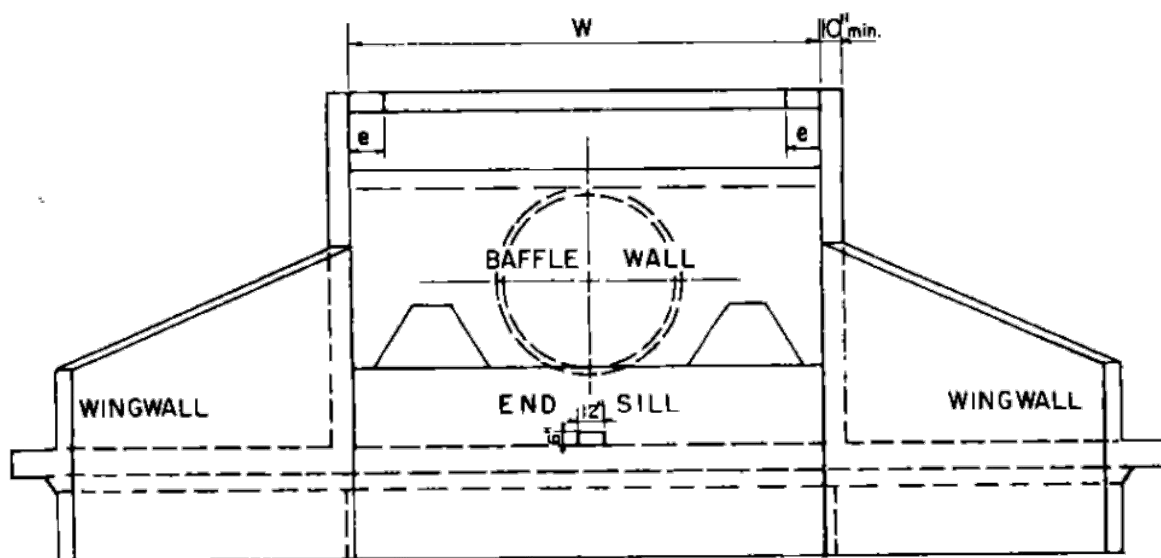
PLAN - JUNCTION SIDEWALL AND WINGWALL



ISOMETRIC VIEW



SECTION ON CENTER LINE



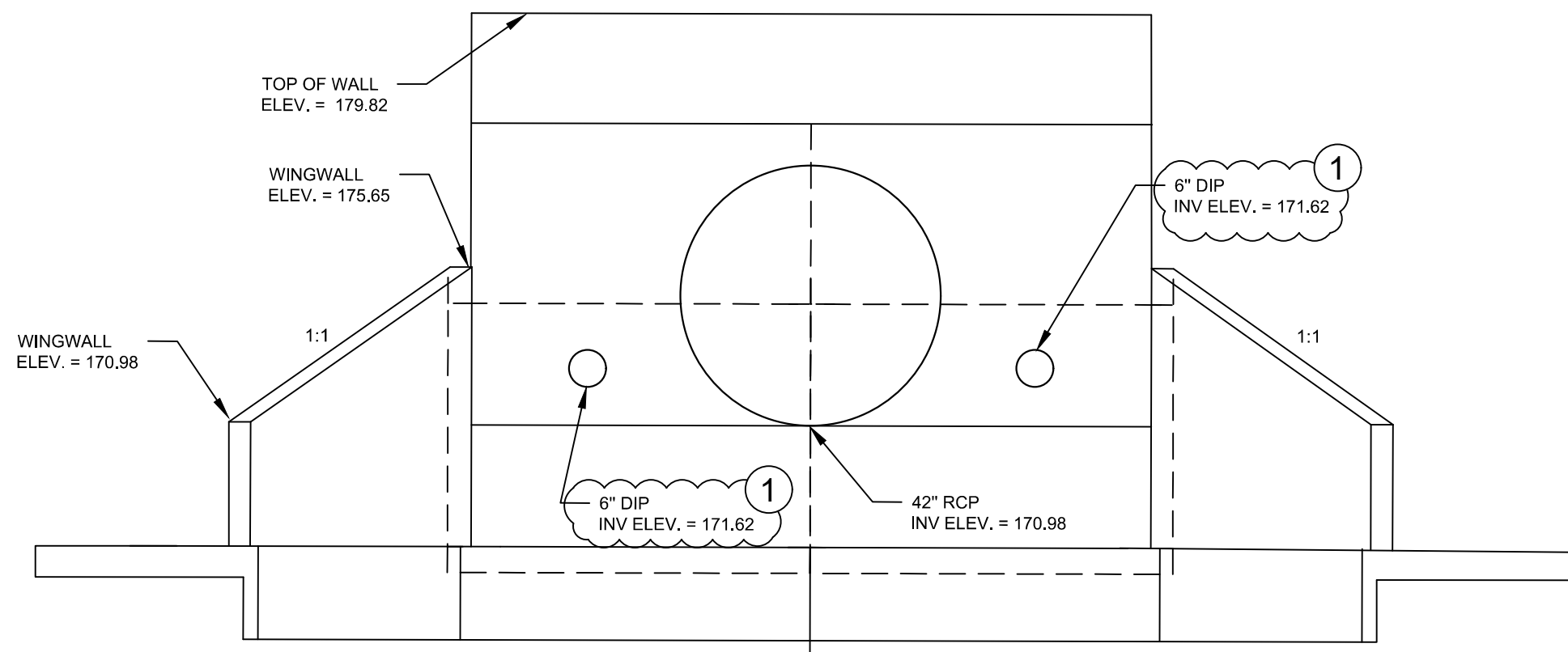
DOWNSTREAM ELEVATION

**REFERENCE**  
Bureau of Reclamation, Report No. HYD-572, Progress Report No. XIII—Research Study on Stilling Basins, Energy Dissipators, and Associated Appurtenances—Section 14, Modification of Section 6 (Stilling Basin for Pipe or Open Channel Outlets—Basin XI) by G. L. Beichley

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
ENGINEERING DIVISION - DESIGN UNIT

STANDARD DWG. NO.  
ES-187  
SHEET 1 OF 1  
DATE 12-70

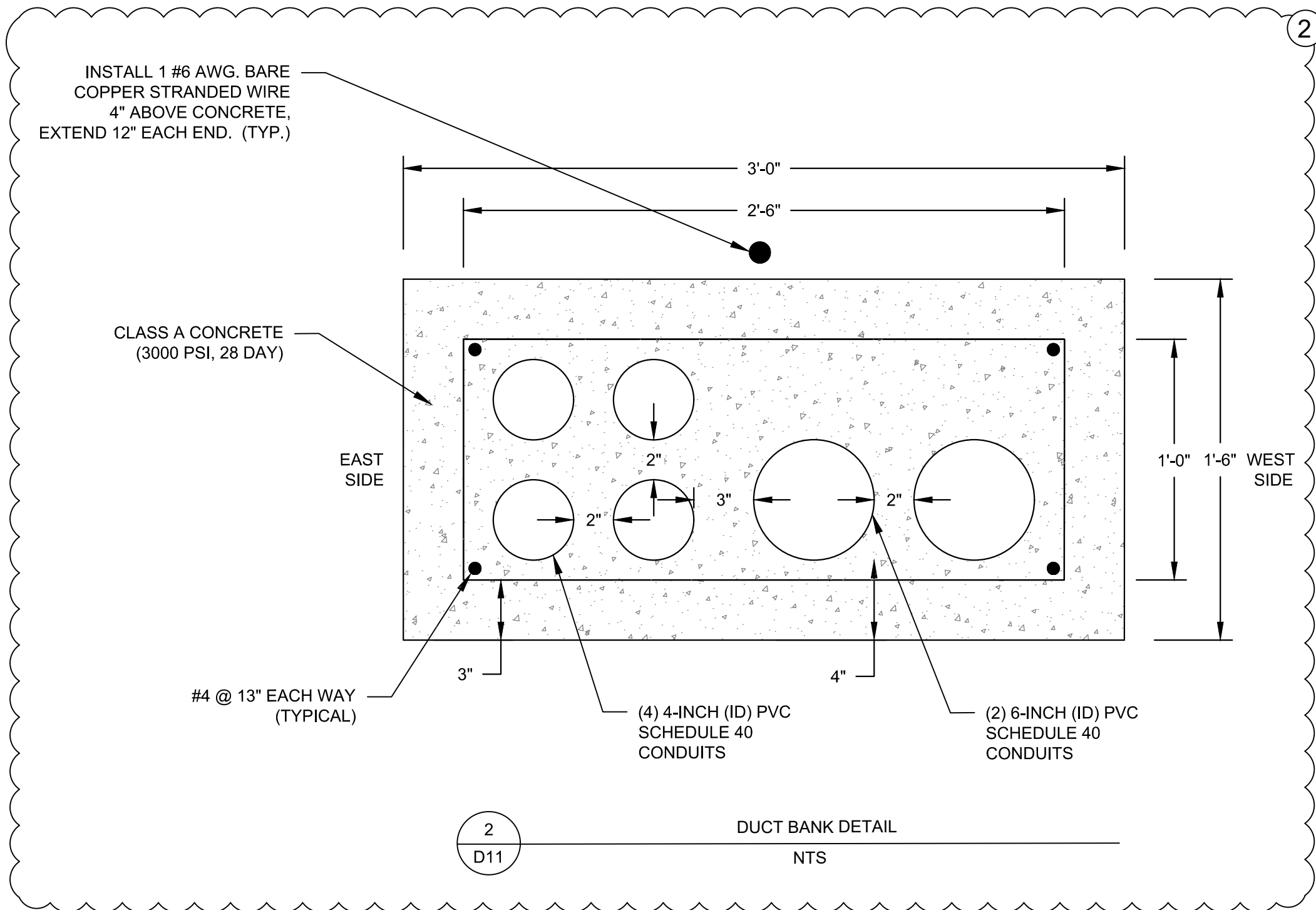
1  
D11  
IMPACT BASIN DETAIL  
NTS



NOTE:  
SEE SHEET S6 FOR STRUCTURAL DETAILING

DEVONWOOD IMPACT BASIN WINGWALL  
NTS

1  
D11  
IMPACT BASIN DETAIL  
NTS



2  
D11  
DUCT BANK DETAIL  
NTS

RELEASED FOR CONSTRUCTION

DRAWN : R. SMITH  
DESIGN : T. MURRAY  
CHECK : T. MURRAY  
APPROVED : T. MURRAY

PROJECT 2018012500RA  
NAME : DEVONWOOD LOWER DAM  
SCALE :  
DATE : APR-19

REVISIONS  
REV. 1 BULLETIN DRAWING 3 DATE 8/20/21  
REV. 2 BULLETIN DRAWING 2 DATE 8/20/21

City of Fayetteville  
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DEVONWOOD LOWER DAM

PROJECT NO. 2018012500RA  
SUB-LEDGER NO.

DRAFT

PLAN TYPE: DETAILS

SHEET NUMBER  
D11