

20 GLENN WILLOW DR, STE #11
ARDEN, NC 28704
www.garner-eng.com
828.337.5716

SCALE:	AS SHOWN
DRAWN BY:	JFG
PROJECT NO:	GE-284
DATE:	02/12/2025

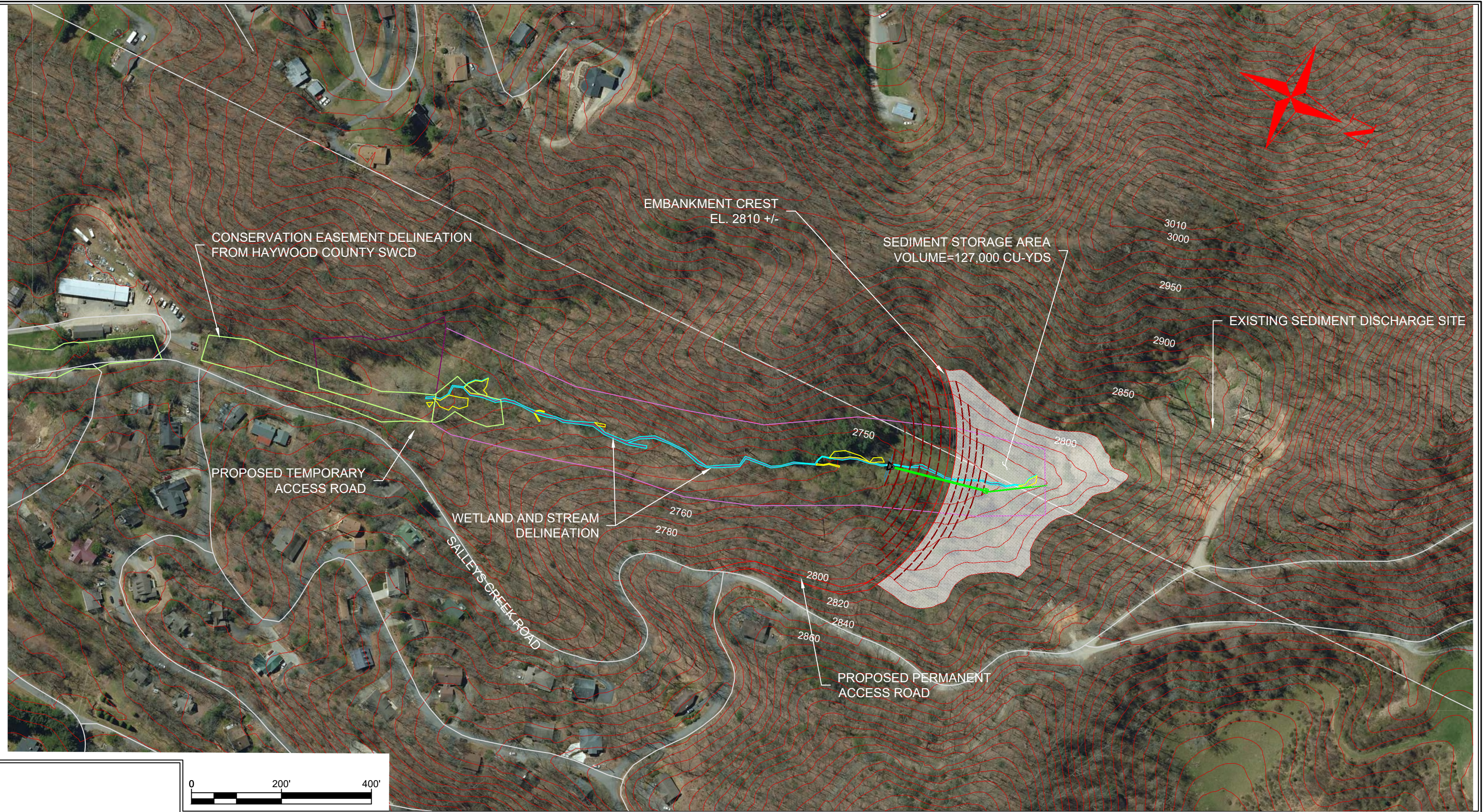
PROF. ENG. FIRM
NO. C-4451

SITE MAP

DREGED SPOILS EXPANSION
LAKE JUNALUSKA
SLEEPY HOLLOW DRIVE
LAKE JUNALUSKA, NC

DWG

A1



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AREA PLAN

DREGED SPOILS EXPANSION
LAKE JUNALUSKA
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LAKE JUNALUSKA, NC

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A2

WETLAND AND STREAM IMPACTS		
TOTAL STREAMS ON-SITE	1466.3 LIN-FT	0.144 AC
TOTAL WETLANDS ON-SITE	0.151 AC	
PROPOSED PERM. STREAM IMPACTS	350 LIN-FT	0.0234 AC
PROPOSED WETLAND IMPACTS	0.009 AC	
TOTAL STREAMS AVOIDED ON-SITE	1116.3 LIN-FT	0.120 AC
TOTAL WETLANDS AVOIDED ON-SITE	0.142 AC	

BASIN STORAGE BY ELEVATION - AREA					
ELEV	AREA (SQ-FT)	AREA (ACRES)	VOL (AC-FT)	VOL - CUM. (AC-	
2760	1708	0.0	0	0	
2770	18084	0.4	2	2	
2780	41730	1.0	7	9	
2790	79168	1.8	14	23	
2800	121390	2.8	23	46	
2810	167237	3.8	33	79	
				127720	CU-YDS

SEDIMENT STORAGE
EXTENTS

PROPOSED WETLAND IMPACT
W1 = 0.009 AC

PROPOSED PERMANENT STREAM IMPACTS
S1 = 350.0 LIN-FT, (0.0234 AC)

PROPOSED EMBANKMENT
CENTERLINE
EMBANKMENT FILL = 60,118 CU-YDS



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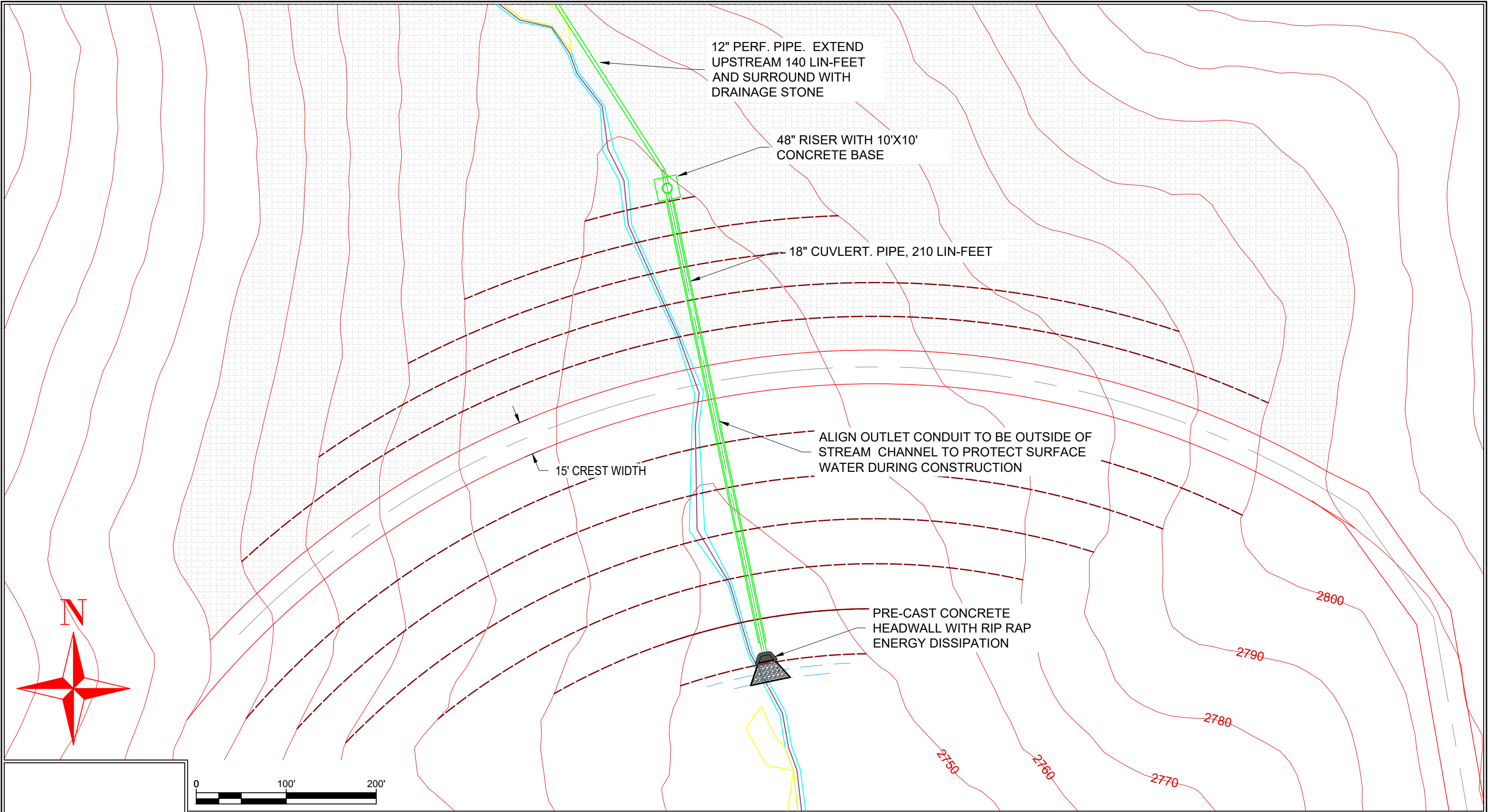
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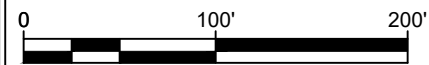
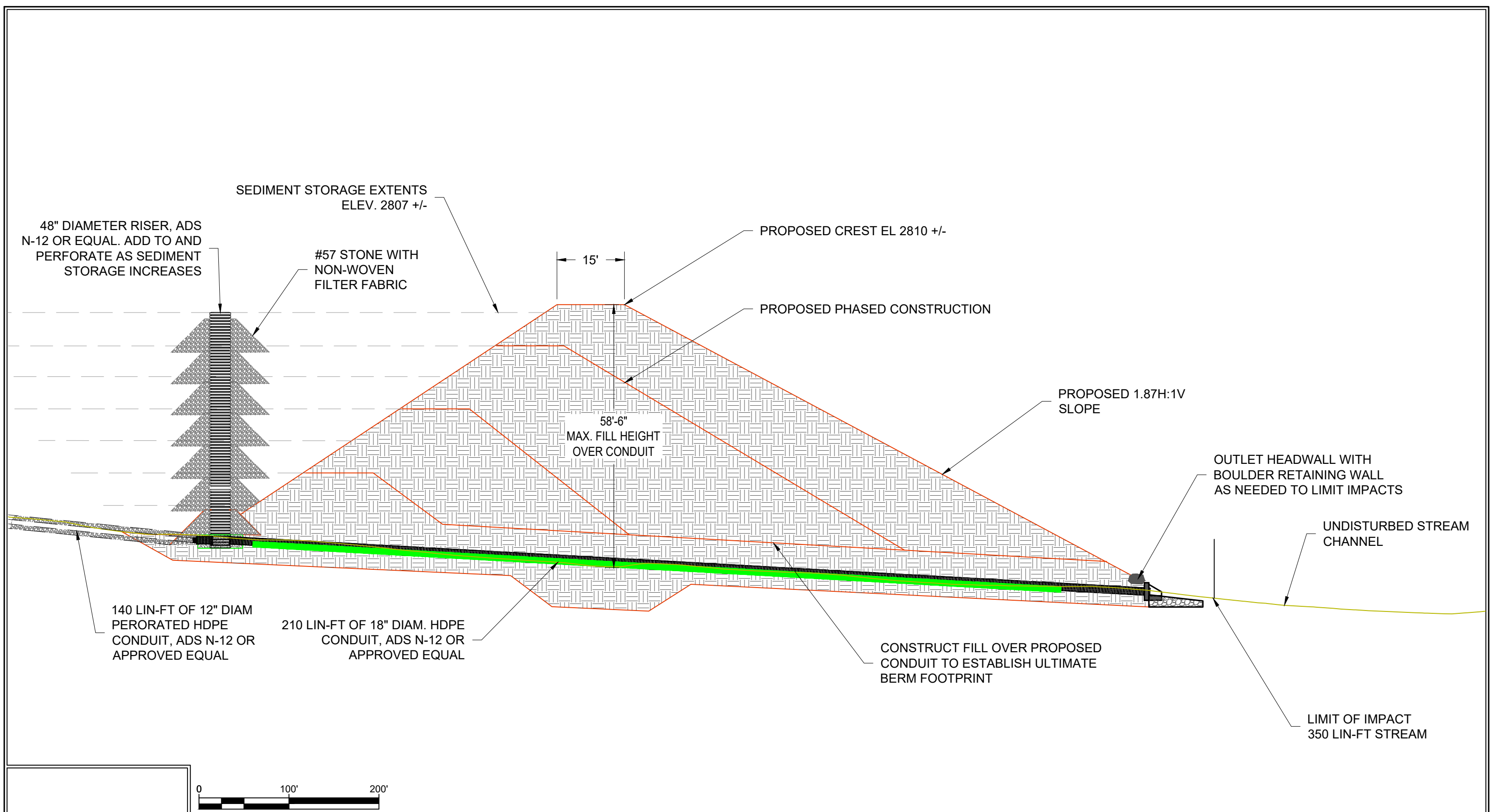
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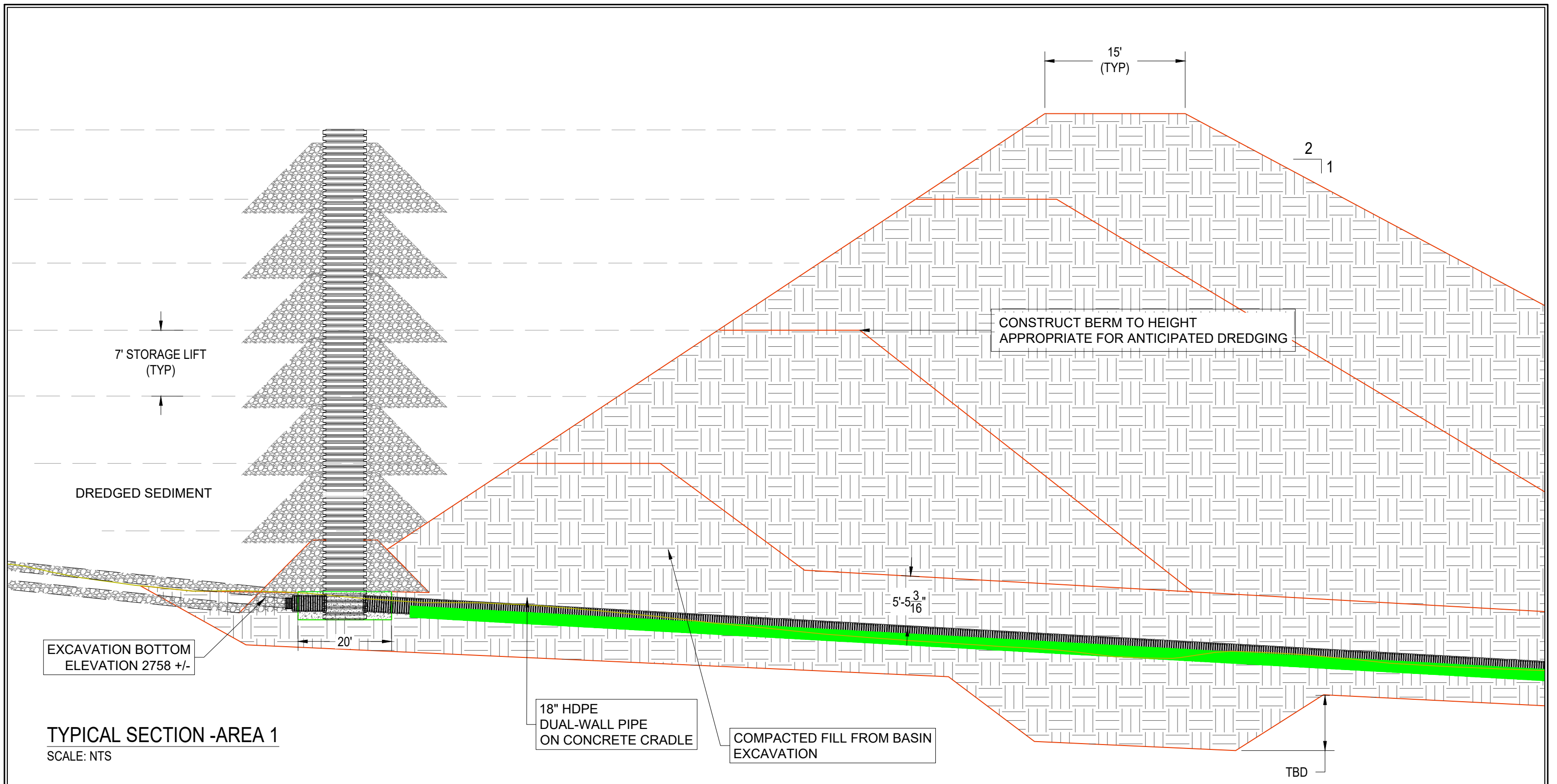
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TYPICAL SECTION

DREGED SPOILS EXPANSION
LAKE JUNALUSKA
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TYPICAL SECTION -AREA 1
SCALE: NTS

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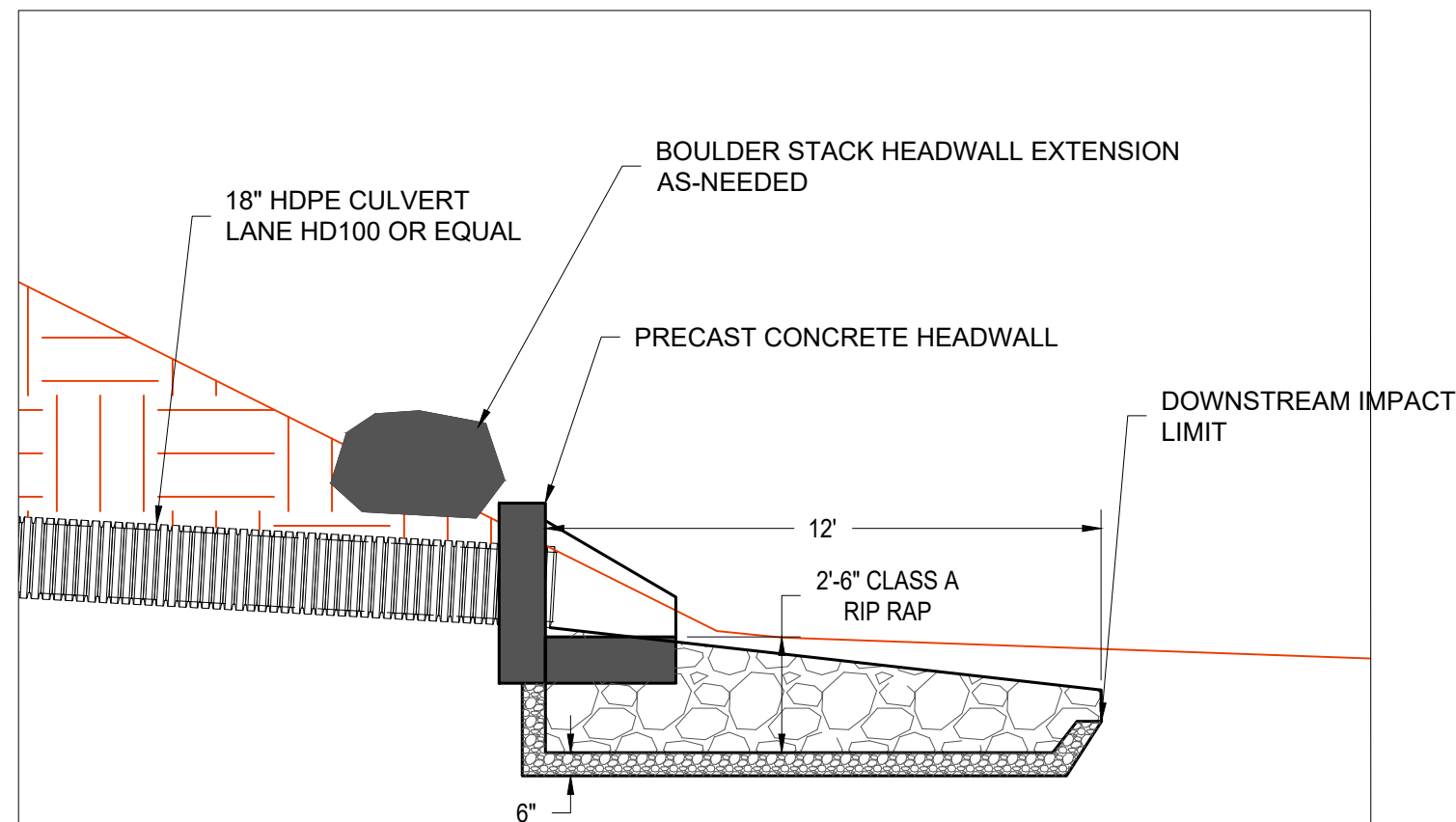
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CONTAINMENT BERM DETAILS

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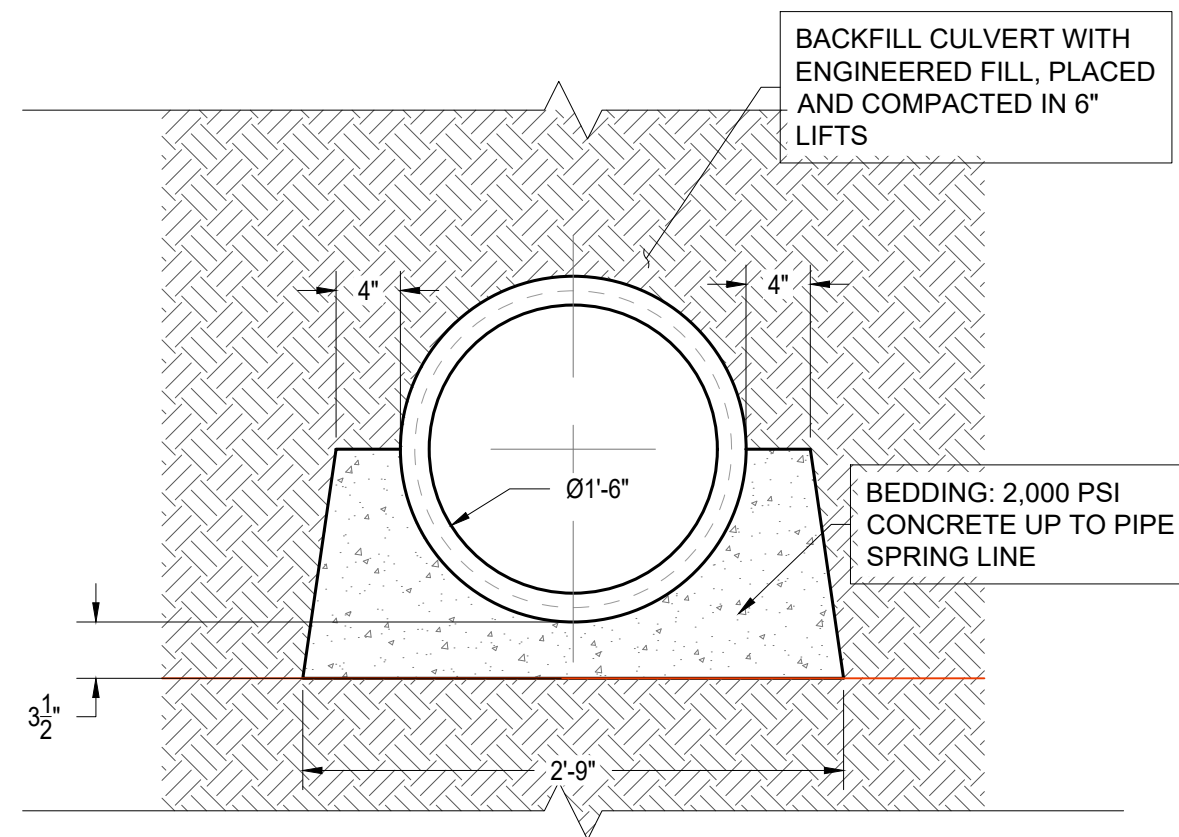
DWG

D1



OUTLET CONDUIT DETAIL

SCALE: 1"=4'



OUTLET CONDUIT SECTION

SCALE: NTS

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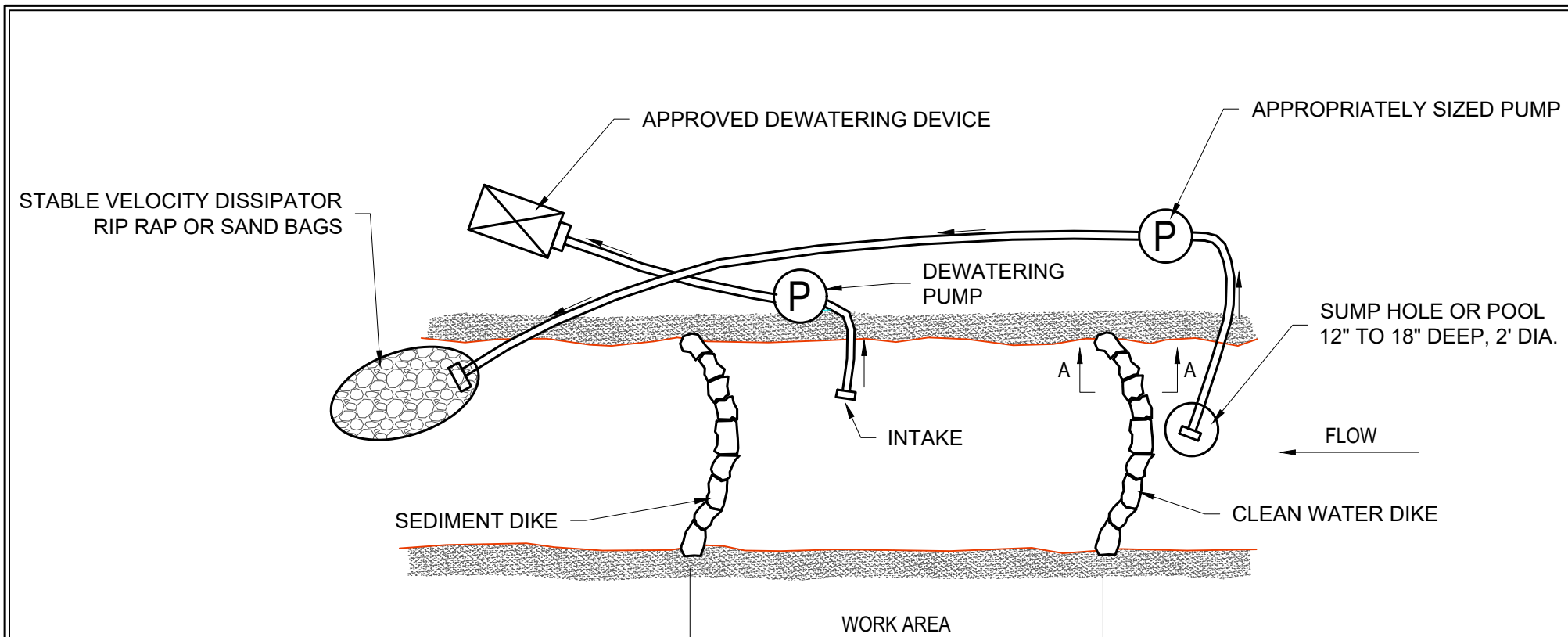
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CONSTRUCTION DETAILS

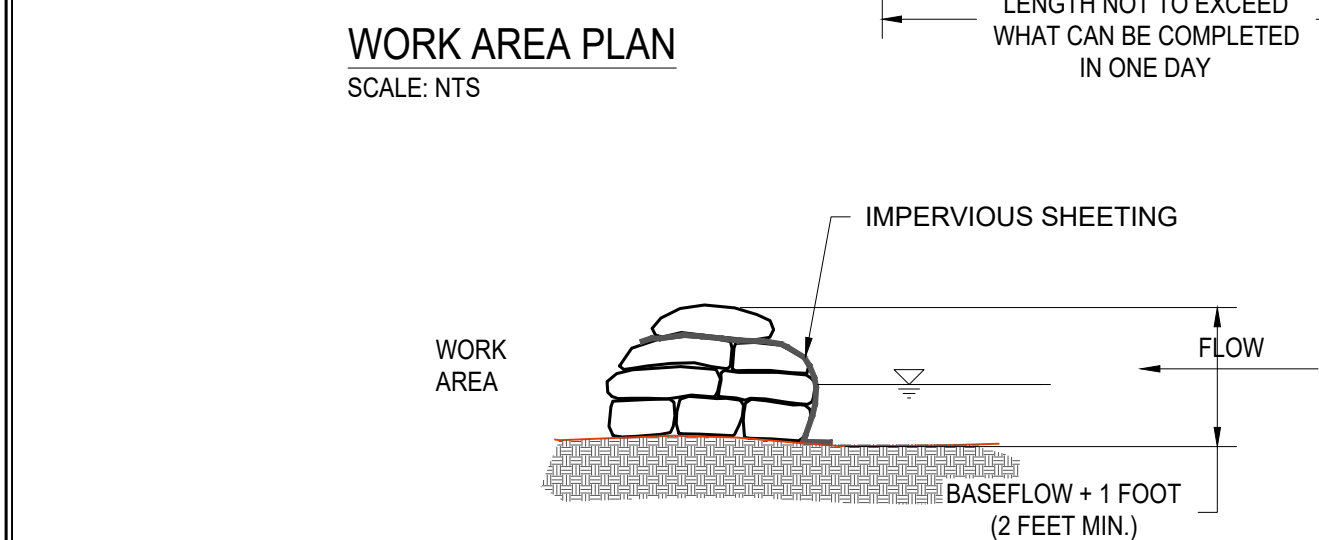
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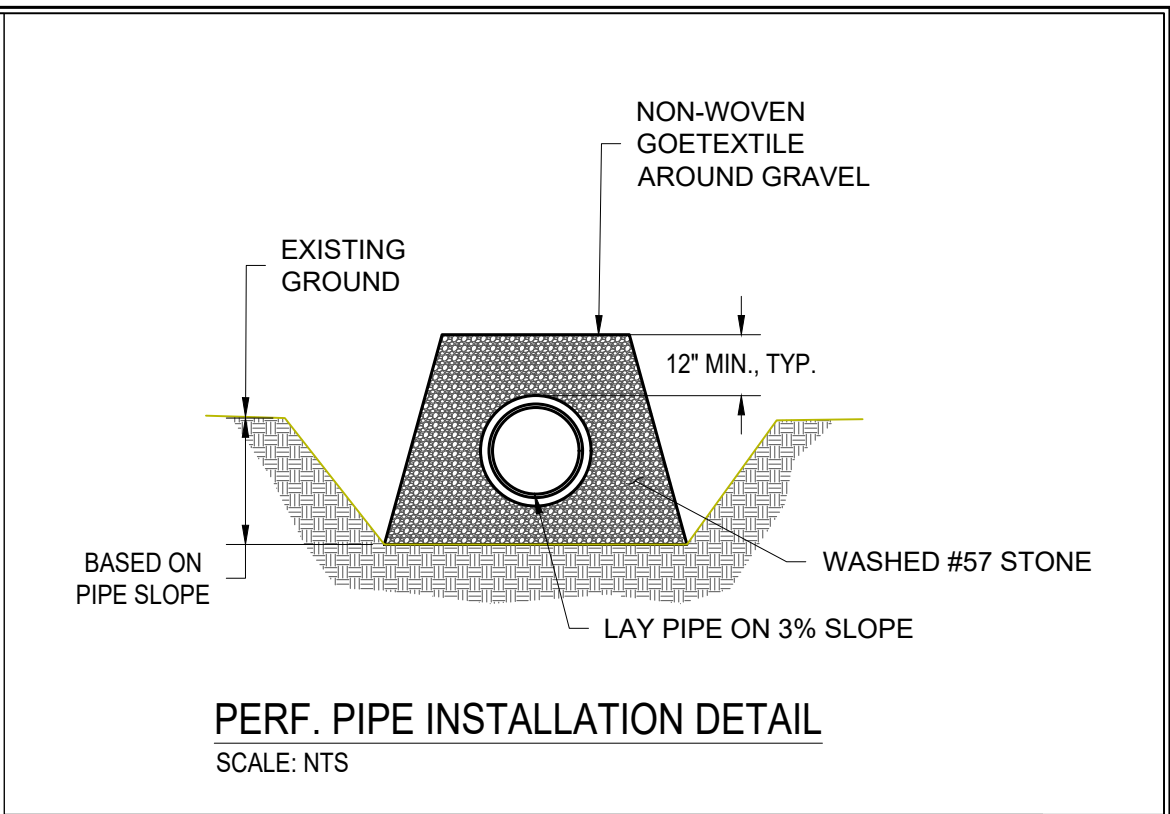
D2



WORK AREA PLAN
SCALE: NTS



SECTION A-A SANDBAG DIKE
PUMP AROUND PRACTICE
SCALE: NTS



PERF. PIPE INSTALLATION DETAIL
SCALE: NTS

- DEFINITION**
A PUMP AROUND IS USED AS A METHOD OF DIVERSION FOR AN EXISTING STREAM WATER.
- PURPOSE**
TO ISOLATE THE JURISDICTIONAL WATER FROM THE WORK AREA.
- INSTALLATION**
- PLACE WATERTIGHT DIKES IN THE WATERWAY UPSTREAM AND DOWNSTREAM OF THE WORK AREA.
 - PUMP WATER FROM THE UPSTREAM SIDE, AROUND THE WORK AREA, AND OUTLET ON A STABLE DISCHARGE AREA (USUALLY RIP RAP LINED) ON THE BANKS OF THE WATERWAY, DOWNSTREAM OF THE DOWNSTREAM DIKE.
 - PUMP SHOULD BE SIZED TO ENSURE WATER DOES NOT OVERTOP THE COFFERDAM AND ALLOW WATER INTO THE WORK AREA.
 - STREAM WATER SHOULD NOT BE ALLOWED TO FLOW THROUGH THE WORK AREA UNTIL THE AREA IS COMPLETELY STABLE, WHICH INCLUDES THE FINAL SHAPING OF THE DISTURBED STREAM BANKS AND STABILIZATION OF THOSE BANKS WITH RIP RAP, EROSION CONTROL BLANKETS, ETC.
- INSPECTION**
- INSPECT DAILY DURING PUMP AROUND OPERATIONS.
 - INSPECT STABLE OUTLET AND INSURE STREAM BANK IS NOT ERODING.
 - MONITOR THE CREEK WATER LEVEL UPSTREAM TO ENSURE PUMP IS ADEQUATELY SIZED AND WATER DOES NOT FLOW OVER THE COFFERDAM.
 - MONITOR THE WEATHER FORECAST AND ANTICIPATE INCREASES IN STREAM LEVELS.
- MAINTENANCE**
- ADJUST OUTLET STABILIZATION IF BANK EROSION IS OBSERVED.
 - ADJUST PUMP CAPCITY AS NEEDED TO HANDLE STREAM WATER VOLUME
 - FIX LEAKS OR OTHERWISE STABILIZE DIKES IF WATER IS BACK FLOWING INTO THE WORK AREA.

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<p>CONSTRUCTION DETAILS</p> <p>DREGED SPOILS EXPANSION LAKE JUNALUSKA SLEEPY HOLLOW DRIVE LAKE JUNALUSKA, NC</p>		DWG
		D3