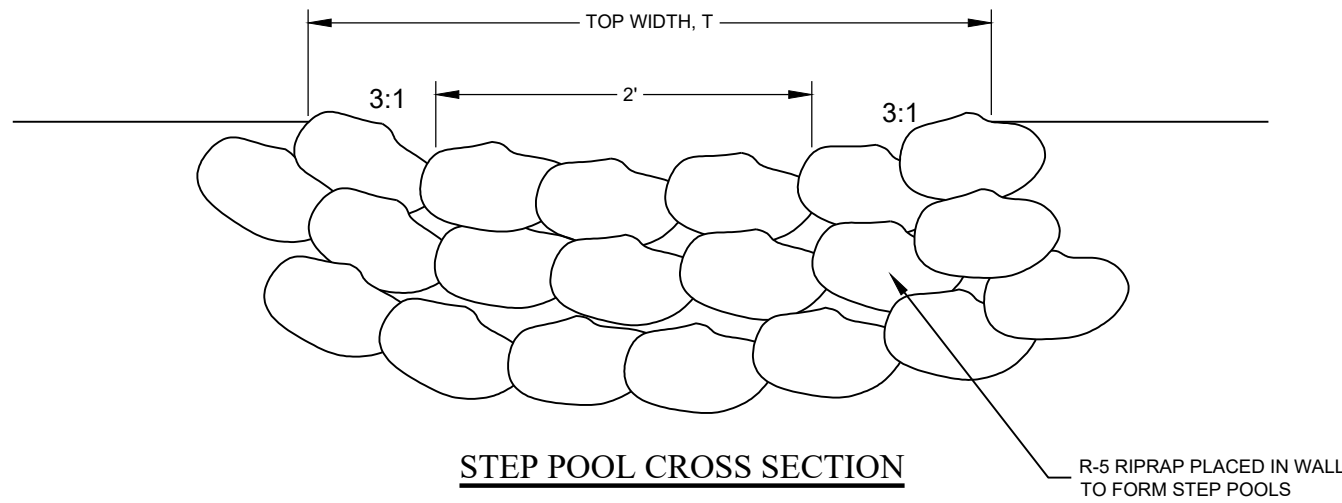


CHANNEL 2 LOWER RIPRAP V CHANNEL

CHANNEL SCHEDULE									
CHANNEL I.D.	DESIGN FLOW (cfs)	LENGTH (ft)	BOTTOM WIDTH (ft)	SIDE SLOPES (Z:1)	MAXIMUM DESIGN SLOPE (%)	DEPTH (ft)	TOP WIDTH T (ft)	FLOODPLAIN BENCH WIDTH F (ft)	FP SIDE SLOPES (Z:1)
CHANNEL 2	0.22 (100 GPM)	125	2	2	3-37	2	10.0	N/A	N/A
									R-3

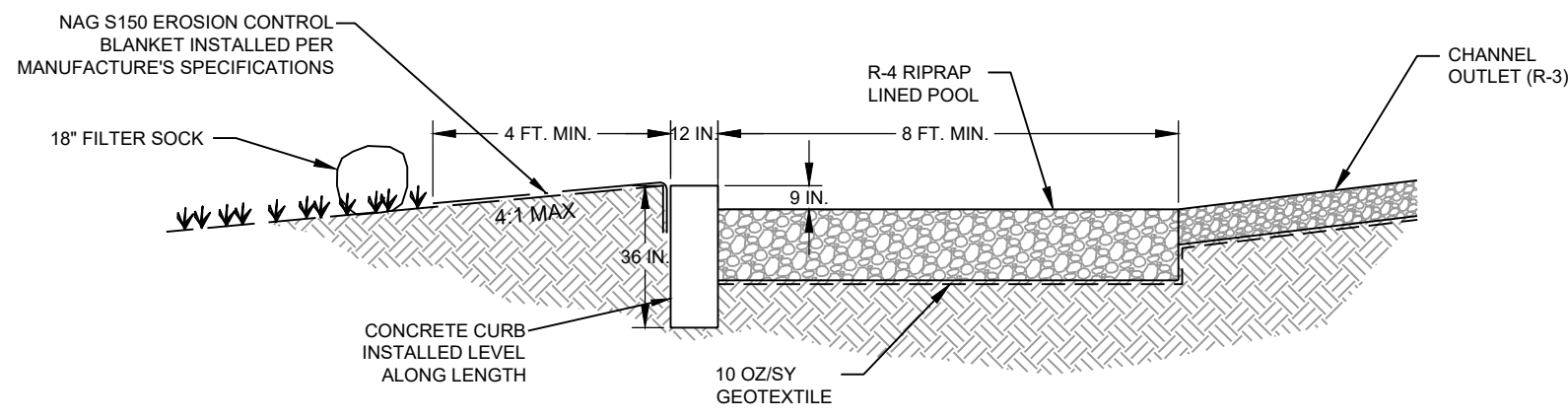
1 DETAIL CHANNEL 2 LOWER ENHANCEMENT NOT TO SCALE



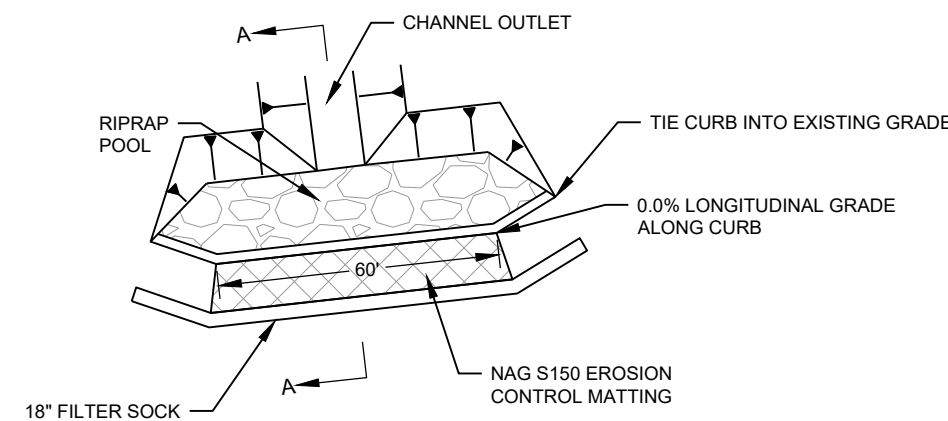
STEP POOL CROSS SECTION

CHANNEL 2 STEP-POOL LOCATIONS	
No.	STA
1	8+15.1
2	8+18.7
3	8+22.3
4	8+25.9
5	8+29.5
6	8+33.1
7	8+36.7
8	8+40.3
9	8+43.9
10	8+47.5
11	8+51.1
12	8+54.7
13	8+58.3
14	9+04.0

2 DETAIL STEP POOL NOT TO SCALE

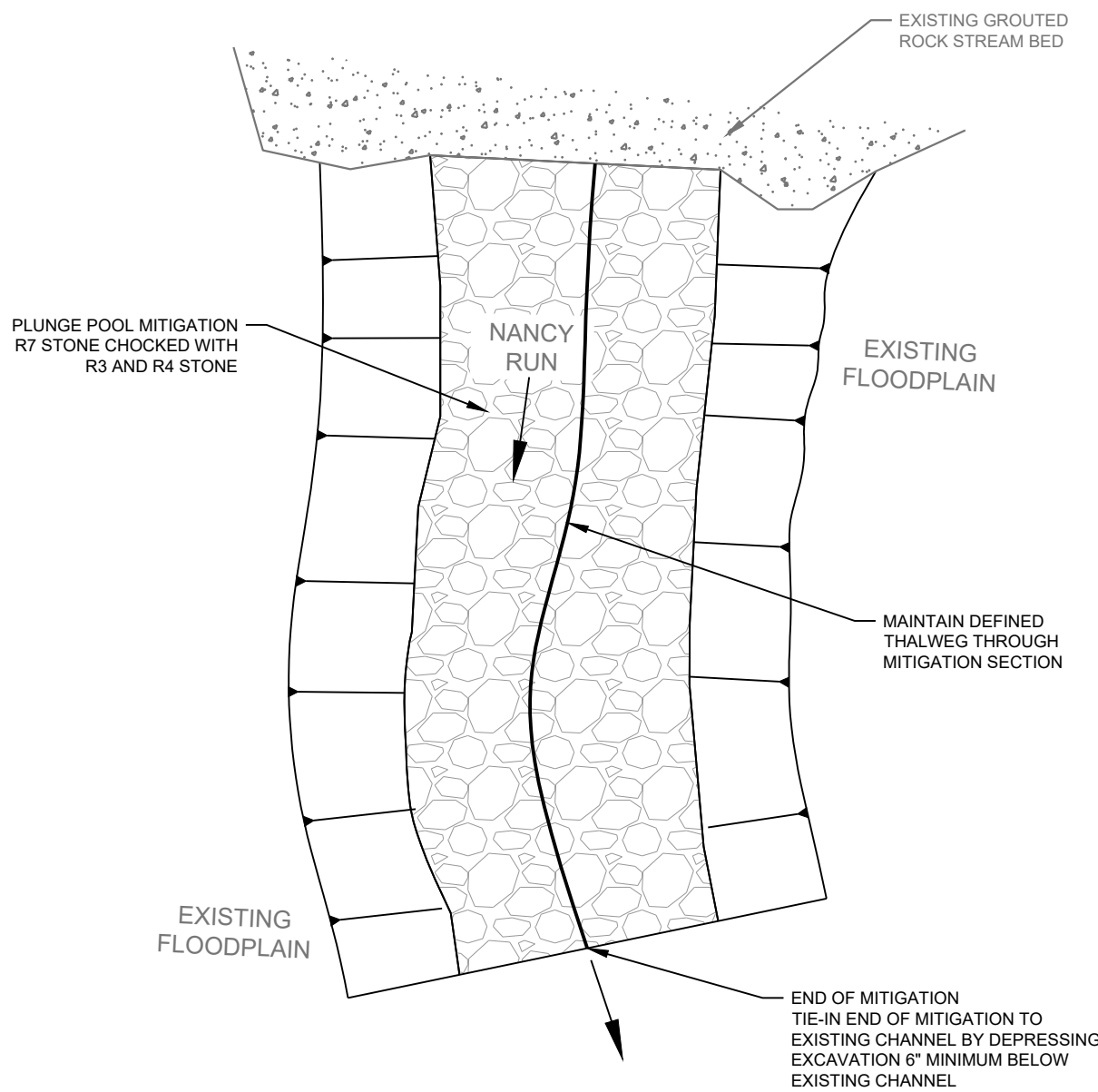


SECTION A-A

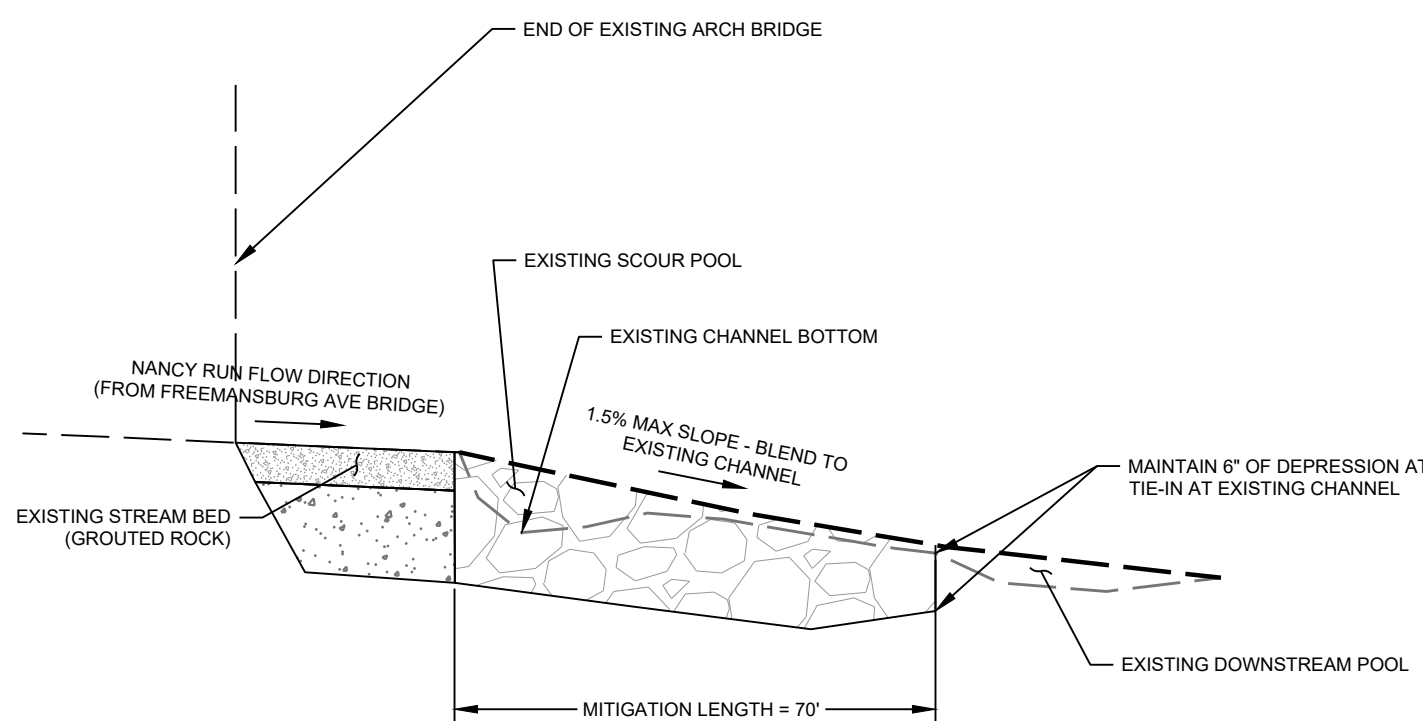


PLAN VIEW

3 DETAIL STRUCTURAL LEVEL SPREADER NOT TO SCALE



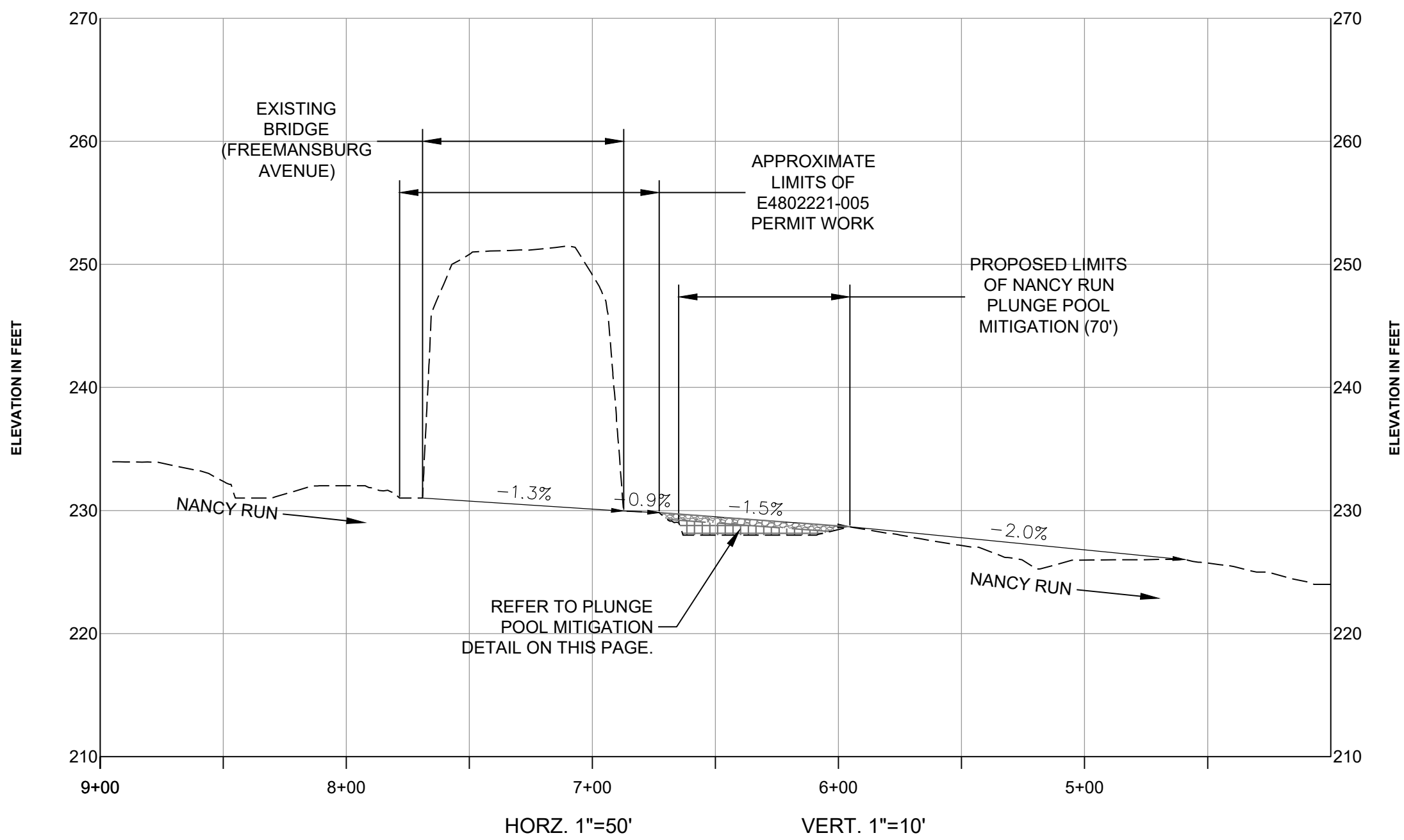
4 DETAIL NANCY RUN SCOUR POOL MITIGATION (PLAN VIEW) NOT TO SCALE



5 DETAIL NANCY RUN SCOUR POOL MITIGATION NOT TO SCALE

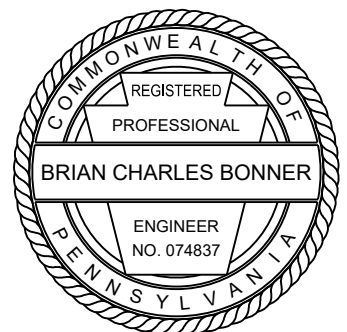
NOTES:

1. STREAMBED TO BE EXCAVATED AS NECESSARY FOR RIPRAP INSTALLATION.
2. ANY MATERIAL REMOVED FROM THE STREAMBED IS TO BE DISPOSED OF OFFSITE IN ACCORDANCE WITH APPLICABLE DEP REGULATIONS.
3. ENSURE THAT R7 RIPRAP IS CHOKED WITH R3 AND R4 RIPRAP TO ENSURE SURFACE WATER TRAVEL ALONG TOP OF PLUNGE POOL MITIGATION.
4. PROVIDE GRADING FOR LOW FLOW CHANNEL ALONG EXISTING THALWEG ALIGNMENT.
5. TIE IN LOWER RIPRAP TO EXISTING CHANNEL 6" BELOW EXISTING STREAM BED.



9+00	232.00	249.13	228.45	225.96
8+00	232.000	249.129	228.447	225.964
7+00				
6+00				
5+00				

6 DETAIL NANCY RUN PLUNGE POOL MITIGATION - PROFILE NOT TO SCALE

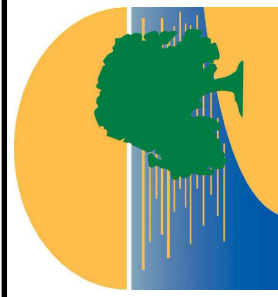


This Drawing shall not be used for tender or construction unless sealed.

"I, Brian Charles Bonner, P.E. do hereby certify to the best of my knowledge, information and belief, that the information contained in the accompanying plans, specifications, and reports have been prepared in accordance with accepted engineering practice, is true and correct, and is in conformance with Chapters 102 and 105 of the rules and regulations of the Department of Environmental Protection."

Brian C. Bonner  
BRIAN CHARLES BONNER, P.E. - 074837

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Revised	By	Date

Designed	KEM	AS NOTED
Checked	BCB	Date 07/15/2022
Drawn	TMR	Project No. 20010423
Graphic scale		

DETAILS (SHEET 1 OF 3) BASEFLOW MITIGATION PLAN		BETHLEHEM TOWNSHIP AND FREEMANSBURG BOROUGH NORTHAMPTON COUNTY, PA
PROJECT NO.	PRE-ACT QUARRY RECLAMATION BARNSDALE ASSOCIATES LLC	