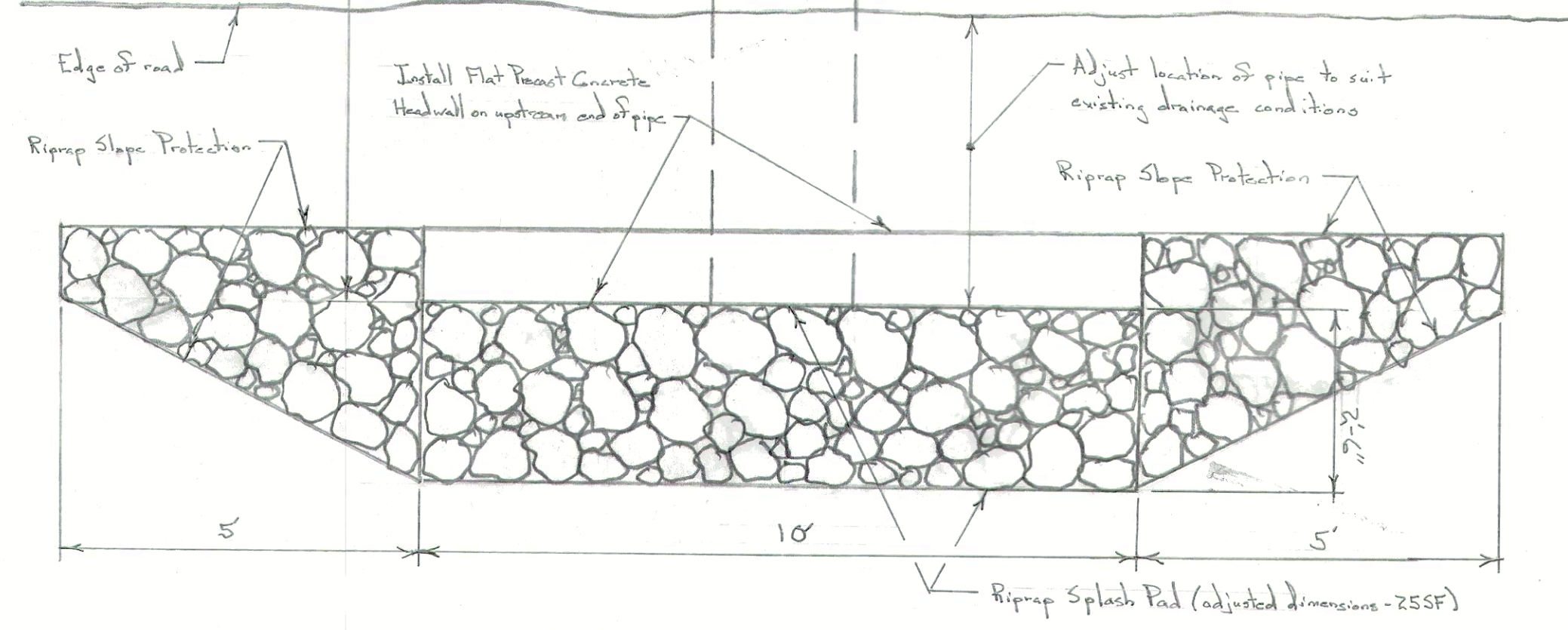
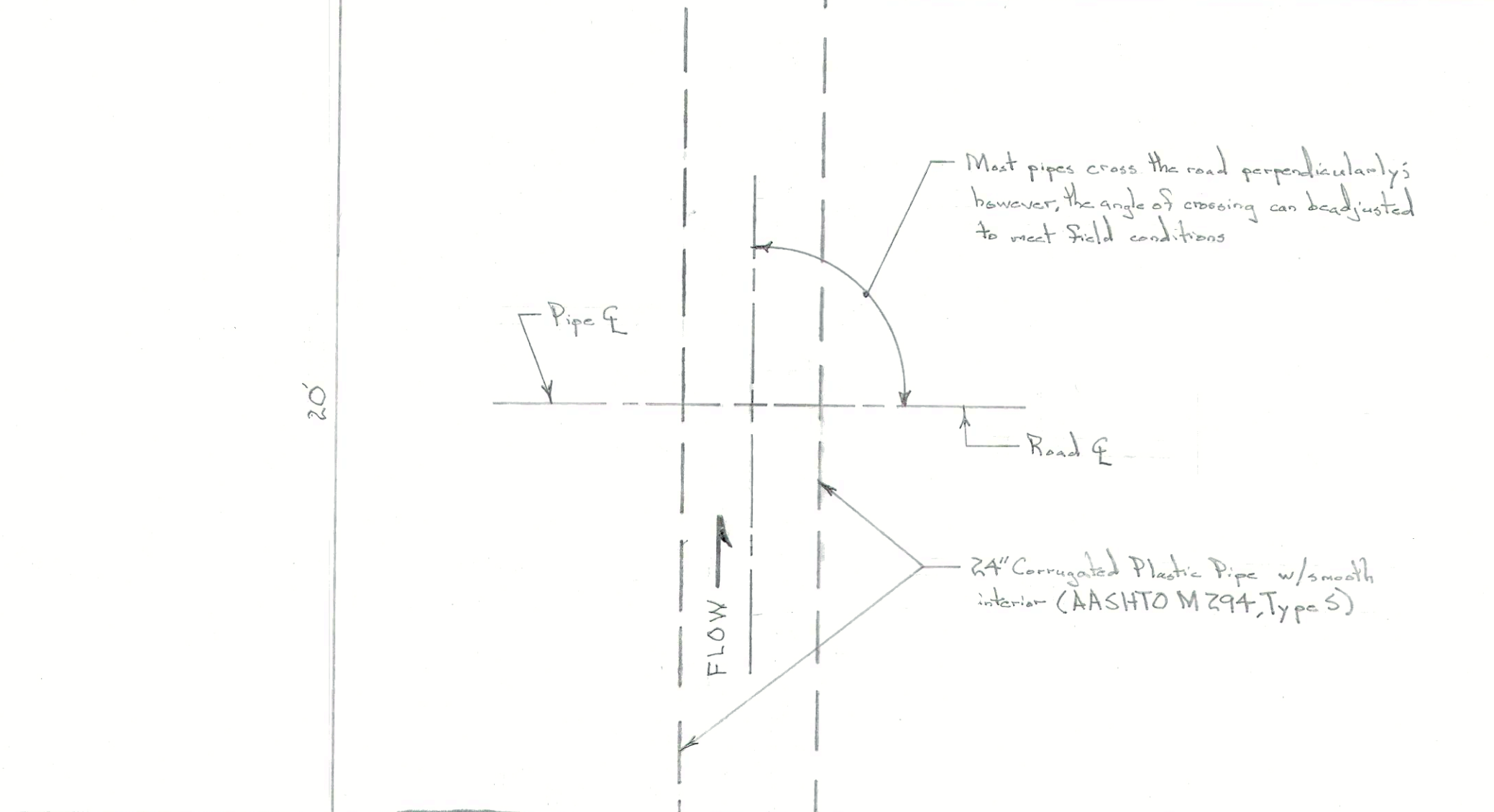
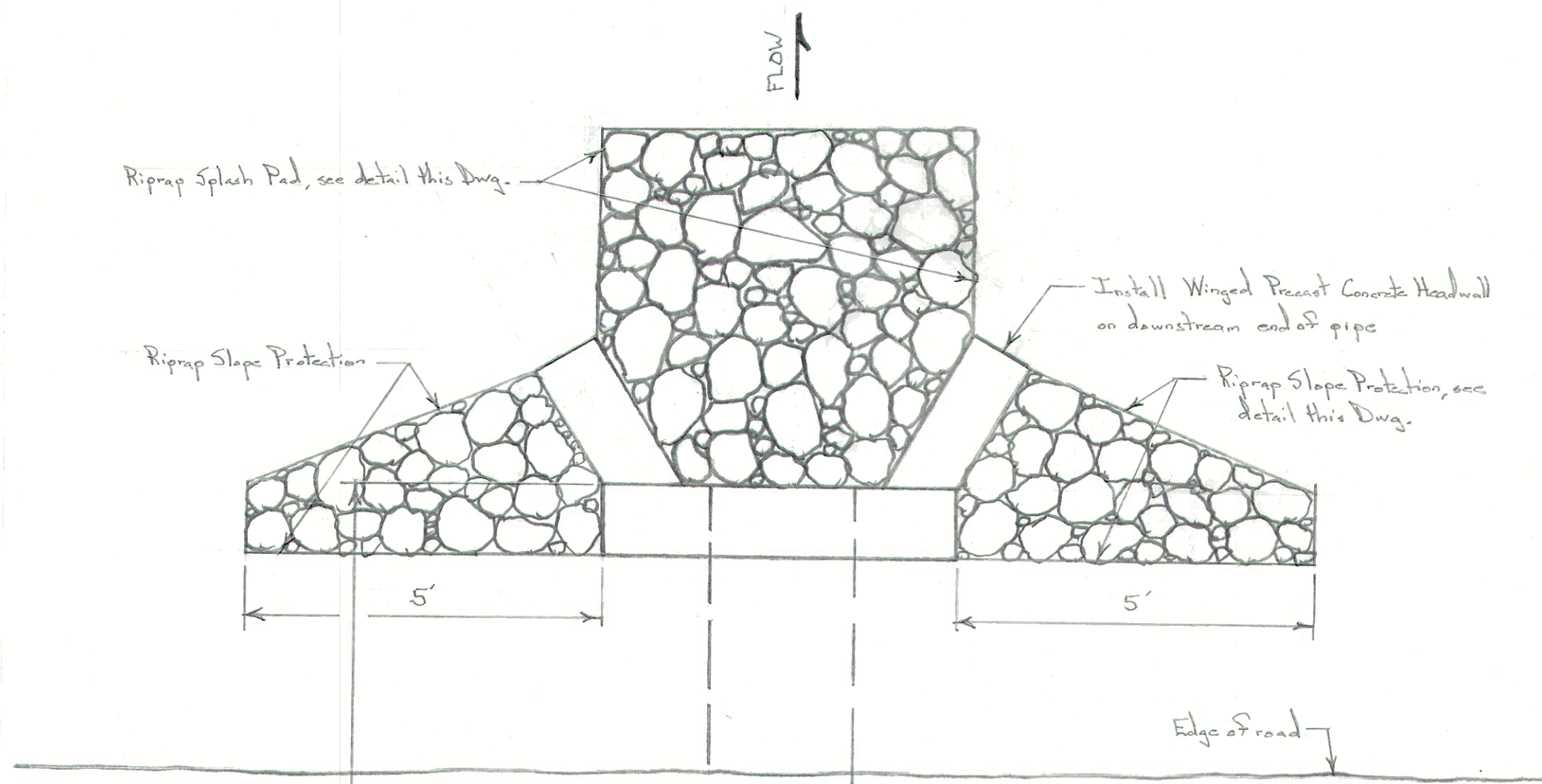


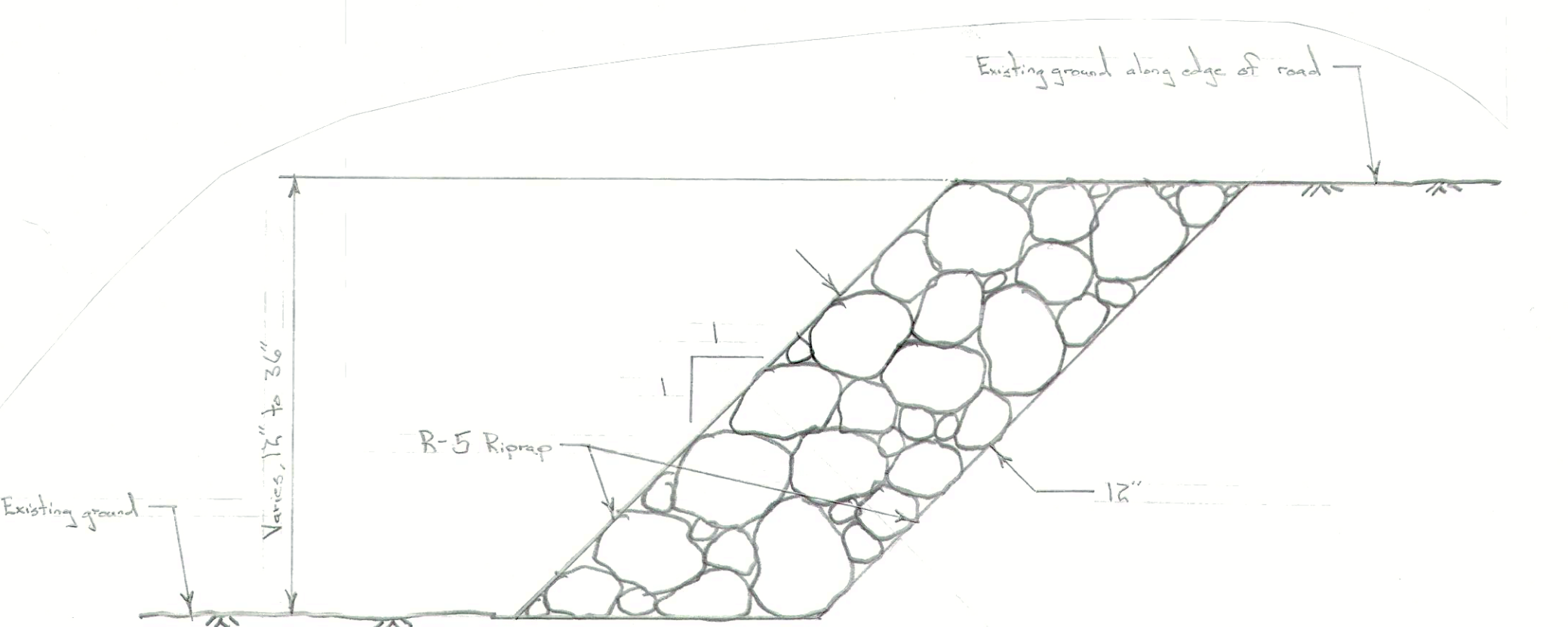
DRAINAGE PIPE NOTES

1. The minimum fall in the new drainage pipes is 6-inches over the 20-foot length (slope of 0.025).
2. Pipes should cross the road perpendicularly. Crossing angles can be altered to suit field conditions and existing drainage paths.
3. Perform minor grading at the inlet and outlet ends of the new and existing drainage pipes so that flow smoothly enters and exits the pipes.
4. Minimum cover over the new drainage pipes is 12-inches.
5. The depth of placement of the new drainage pipes can vary to meet field conditions. The downstream ends of the pipes can be deeper to meet field conditions and slope requirements.
6. The top of the headwalls must be lower than the surrounding ground surface.



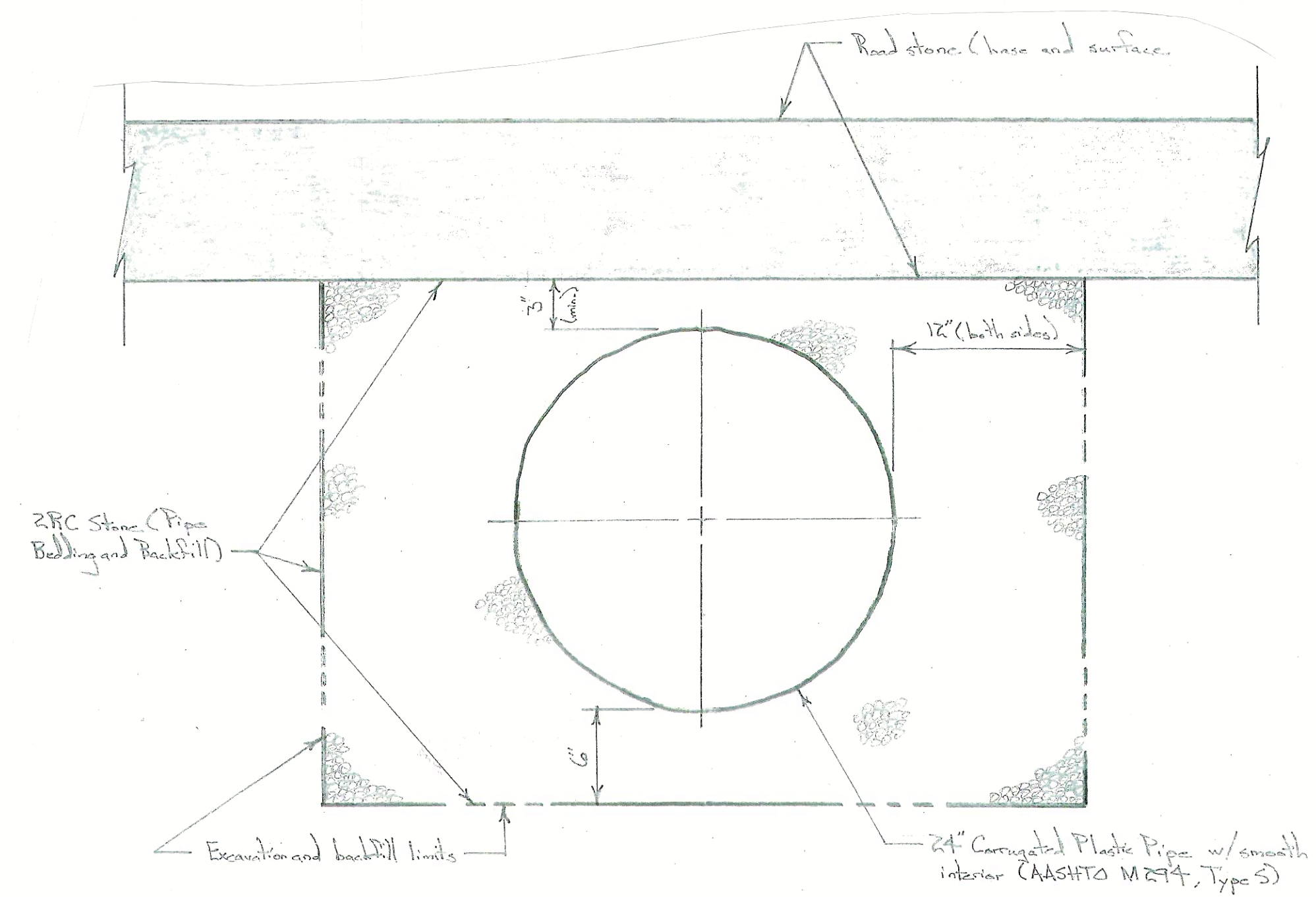
DRAINAGE PIPE PLAN

Scale: 1/2 in. = 1 ft.



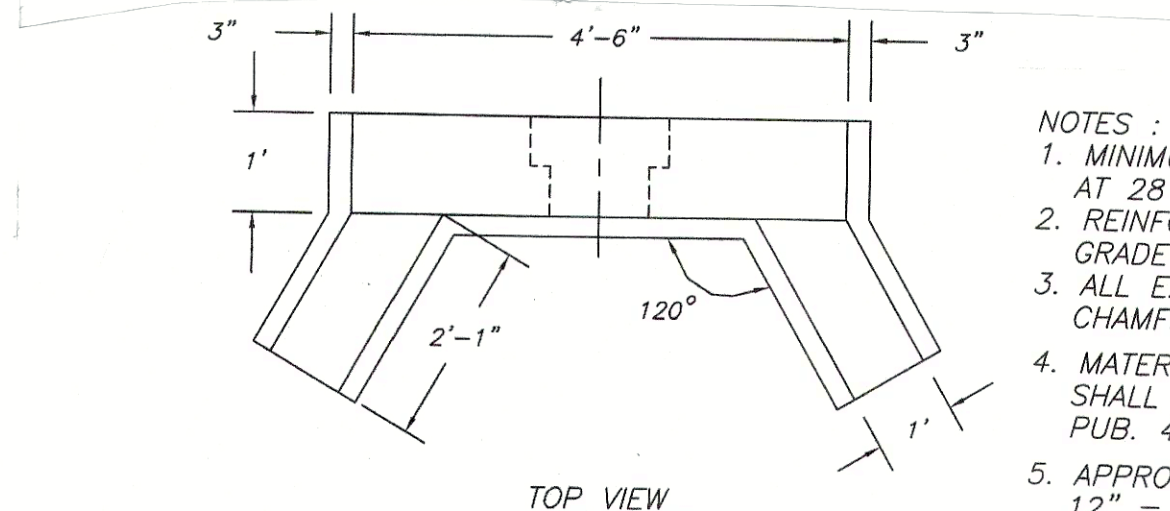
RIPRAP SLOPE PROTECTION SECTION

Scale: 1-1/2 in. = 1 ft.

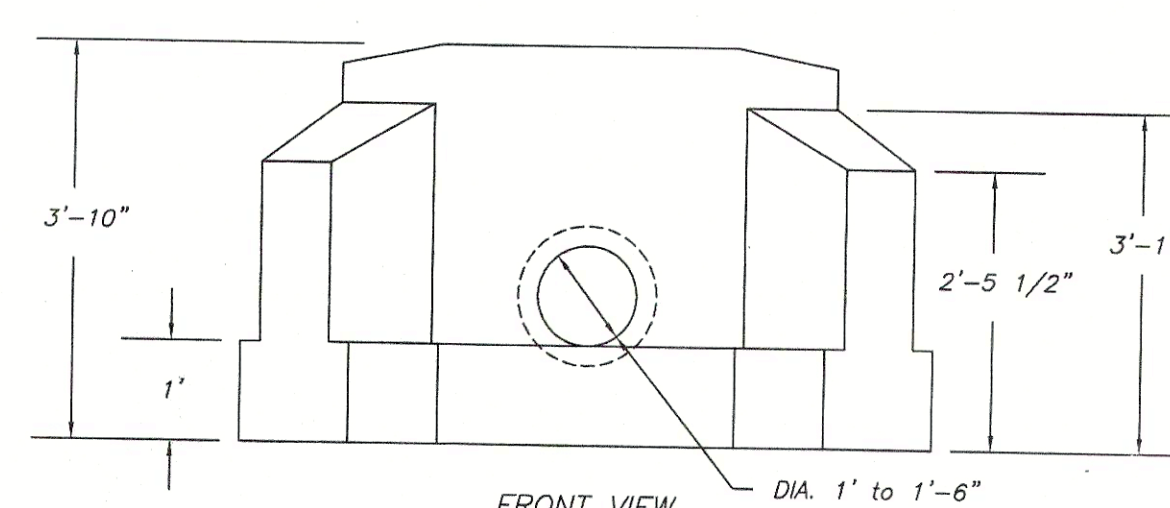


DRAINAGE PIPE SECTION

Scale: 1-1/2 in. = 1 ft.



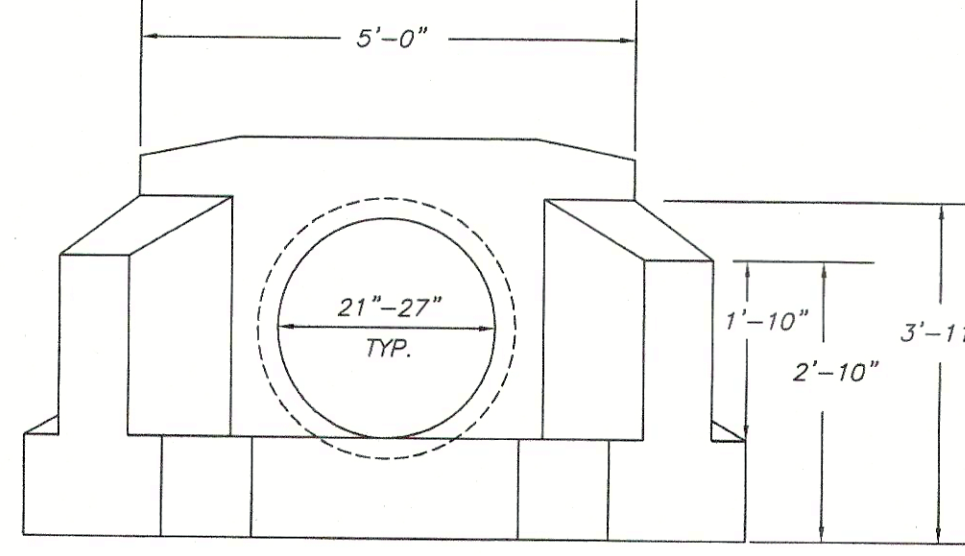
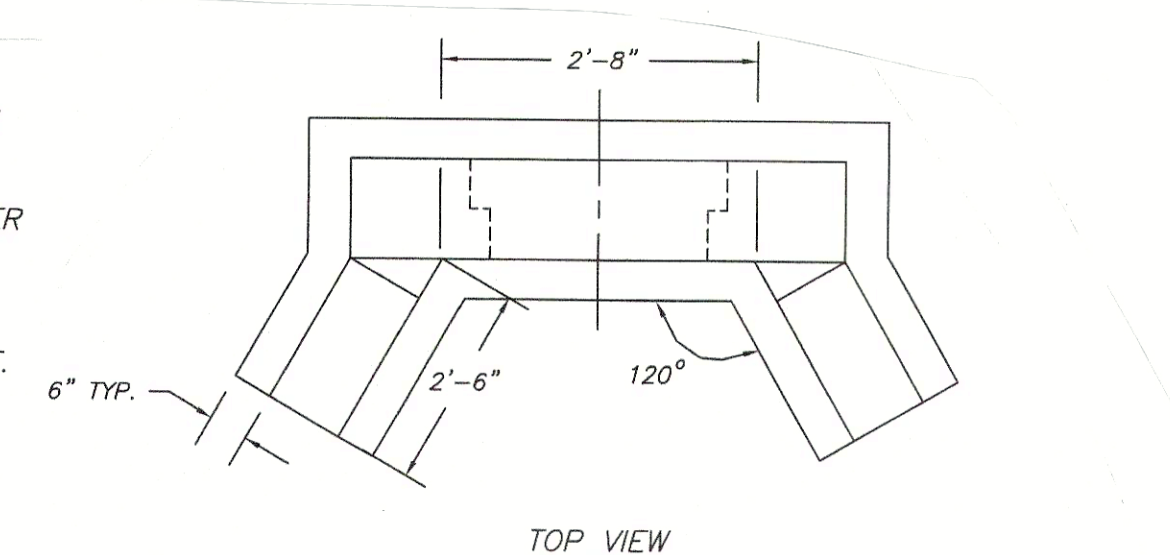
- NOTES:
1. MINIMUM 4,000 P.S.I. CONCRETE AT 28 DAYS WITH 5.5% A.E.
 2. REINFORCEMENT—A.S.T.M. A615 GRADE 60, MINIMUM 1 1/2" COVER
 3. ALL EXPOSED EDGES ARE CHAMFERED 1"
 4. MATERIAL AND CONSTRUCTION SHALL COMPLY WITH PENN. D.O.T. PUB. 408
 5. APPROX. WEIGHTS:
 12" = 4,200 LBS.
 15" = 4,100 LBS.
 18" = 4,000 LBS.
 24" = 5,200 LBS.



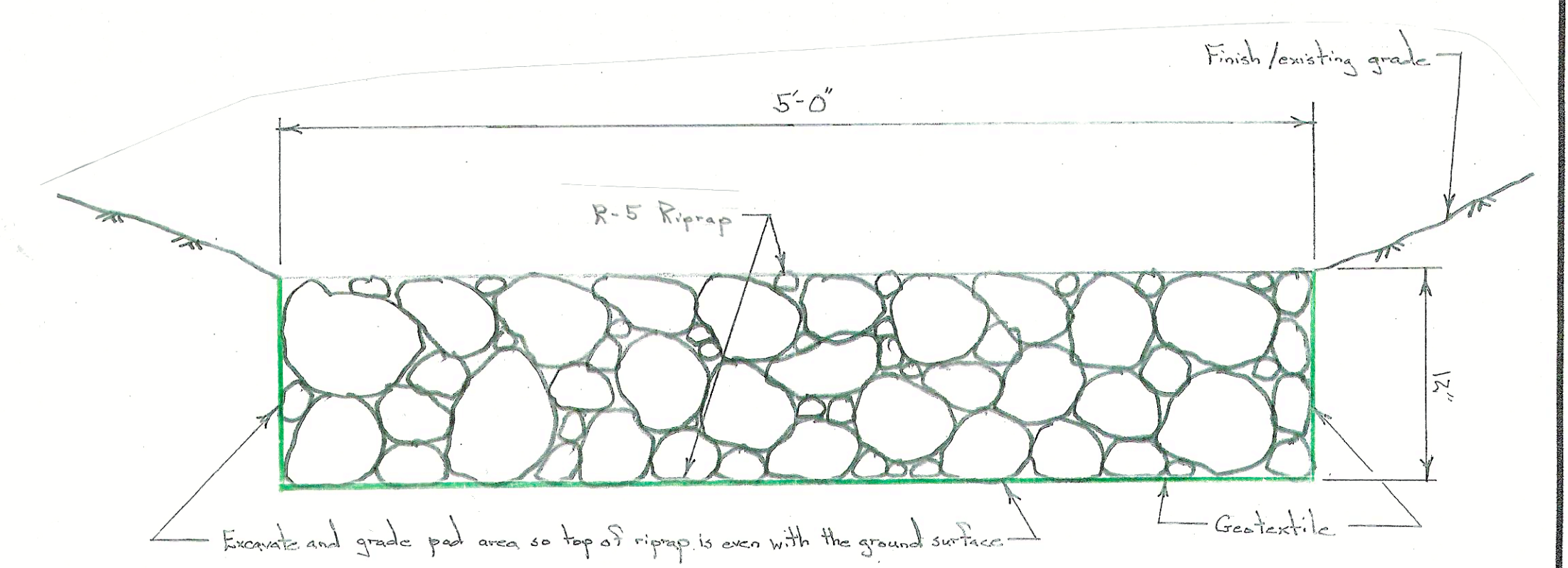
12", 15" & 18" HEADWALL

HEADWALL DETAILS

No Scale

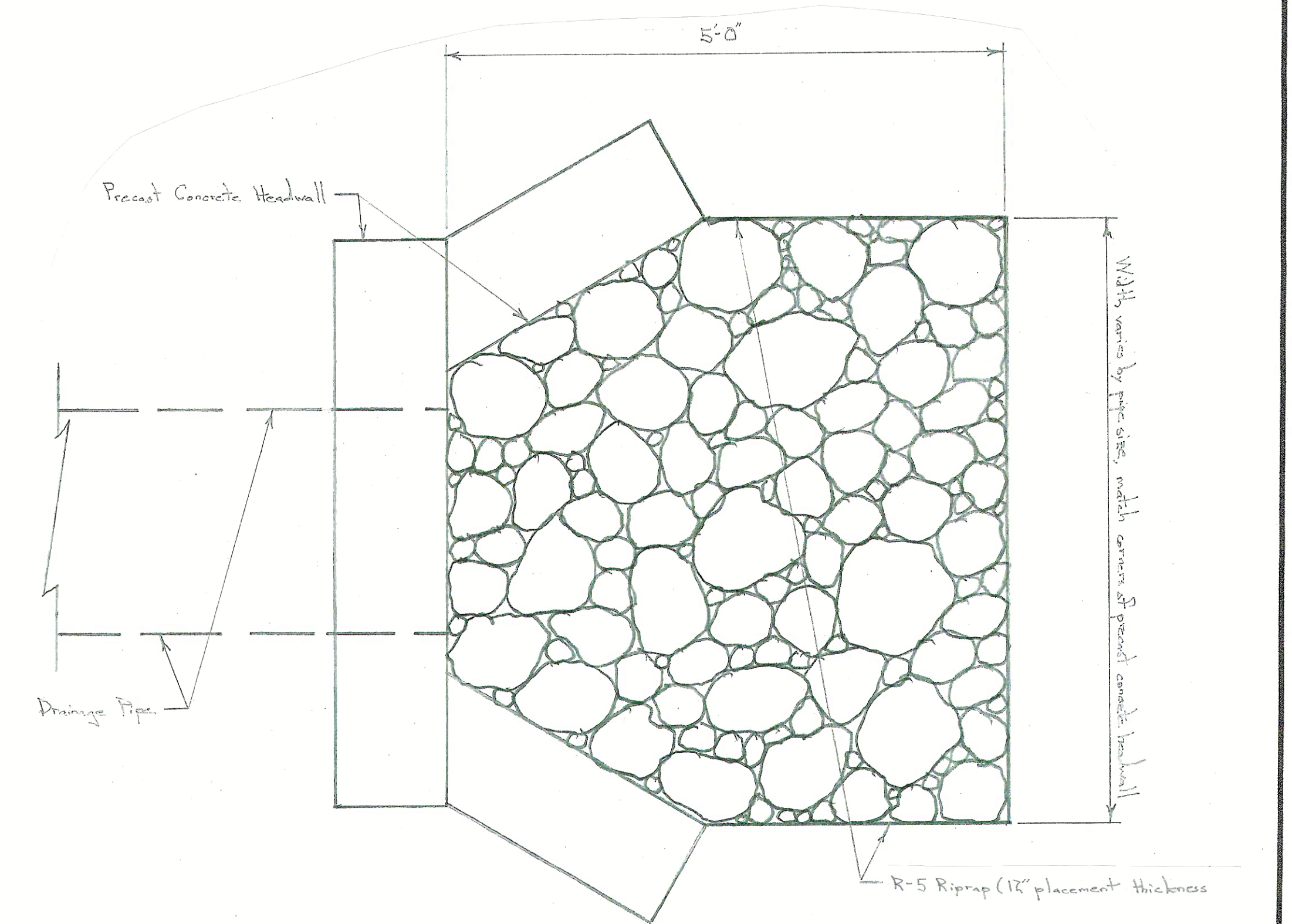


24" HEADWALL



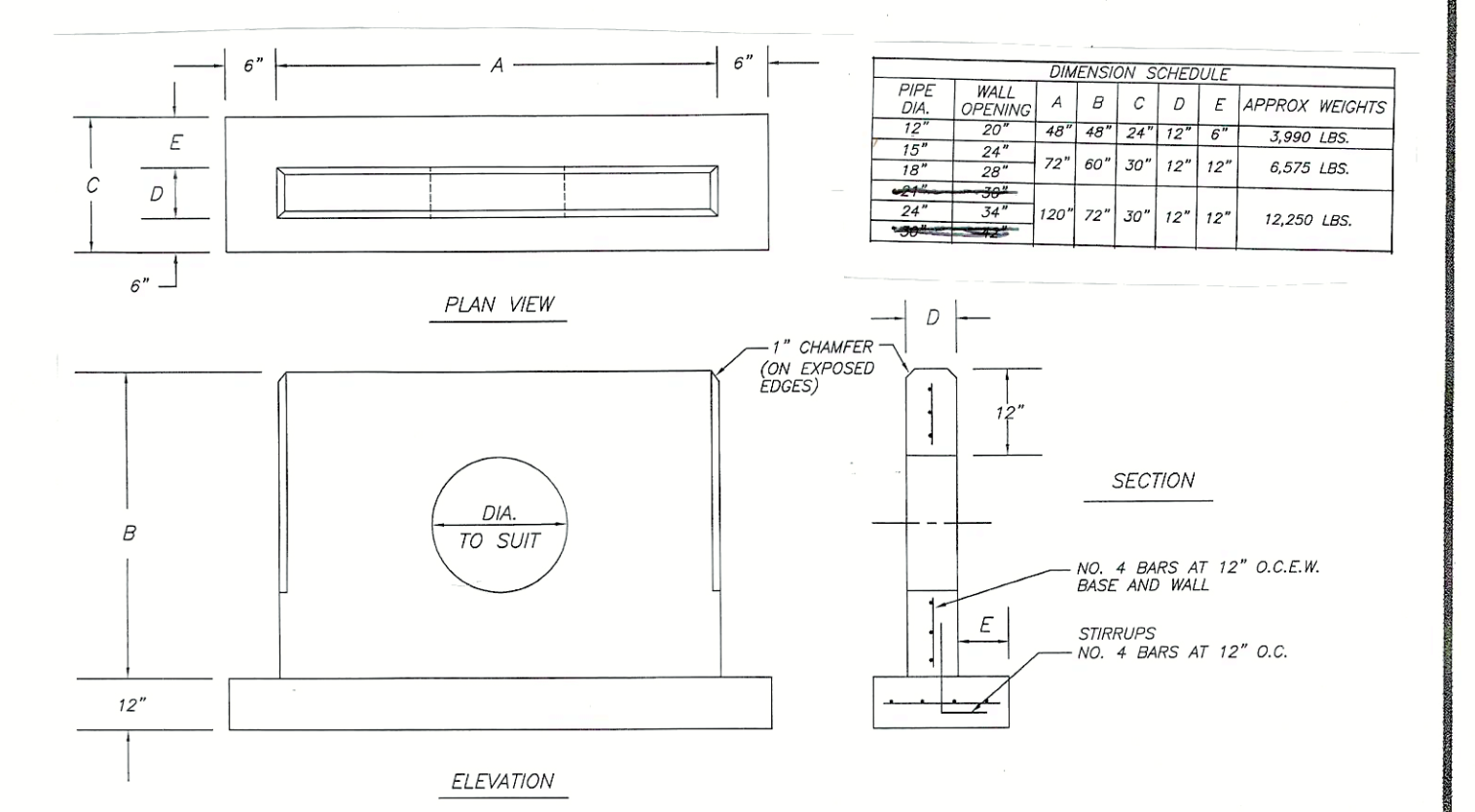
RIPRAP SPLASH PAD DETAIL

Scale: 1-1/2 in. = 1 ft.

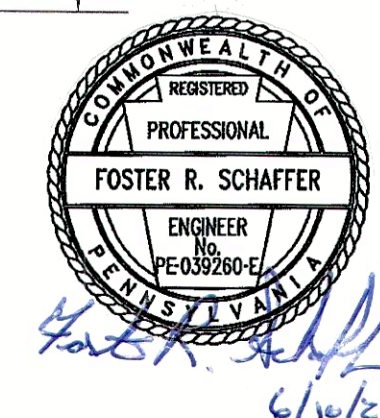


RIPRAP PAD DETAIL

Scale: 1 in. = 1 ft.



FLAT HEADWALLS



| | | |
|---------------------------------------|--------------------------|-------------|
| PENNSYLVANIA GAME COMMISSION | | |
| SQL #211 | COLD SPRING TWP. | LEBANON CO. |
| RAILROAD GRADE ROAD PROJECT (PHASE 2) | | |
| DRAINAGE DETAILS | | |
| REVISIONS | PROJECT NO. PGC 211-22-2 | |
| | DRAWN BY: JS | |
| | DATE: 6/10/22 | |
| | SHEET NO. 3 OF 3 | |