

N.T.S.

NOTES:

1. WIRE TO BE SIMILAR TO EXISTING FENCE.
2. BRACE SPANS ARE TO BE INSTALLED PRIOR TO DISMANTLING FENCE. (SEE DWG. P11-103 FOR DETAIL)
3. REFER TO DWG. P11-103 FOR FENCE RESTORATION DETAIL.
4. ALL MATERIAL TO BE FURNISHED BY CONTRACTOR.

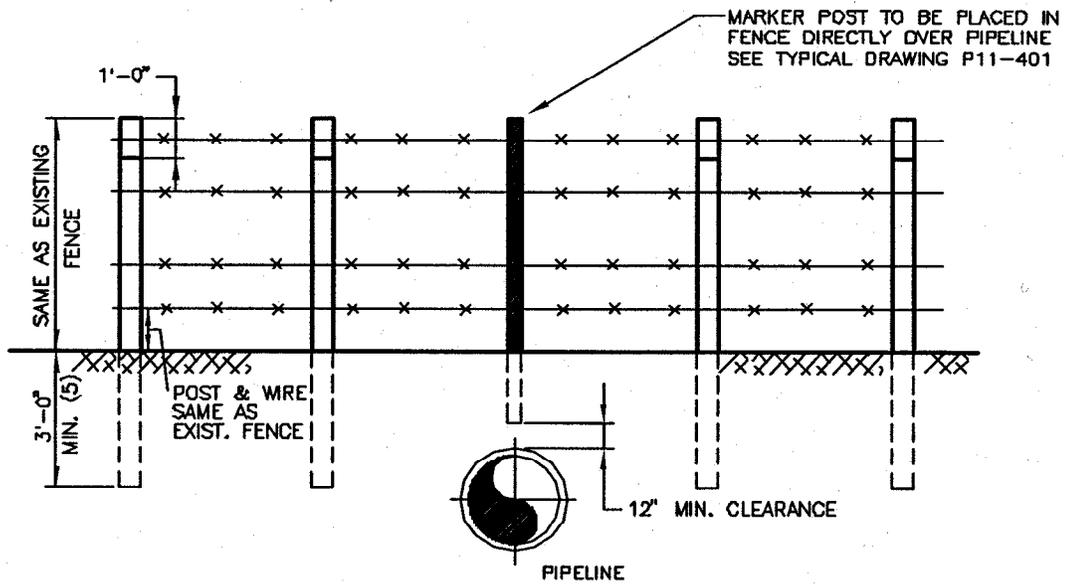
Mfr. By			Dr. By			Construction			
Date			Date			Scale			
Revision - Description	By	App.	Dwg. Stat.	Ckd. By	Date	App. By	Date	App. By	Date
			Prel'y.						
			Bld						
			Const.						

TYPICAL CONSTRUCTION
FENCE GAP
EXHIBIT 1

DWG. NO.

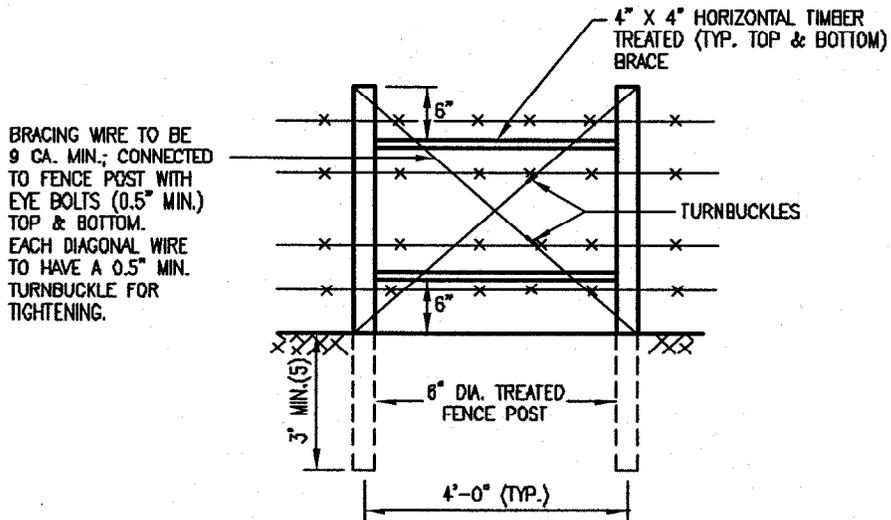
CADD NAME:

FENCE RESTORATION DETAIL



BRACE SPAN DETAIL

SEE NOTE 3



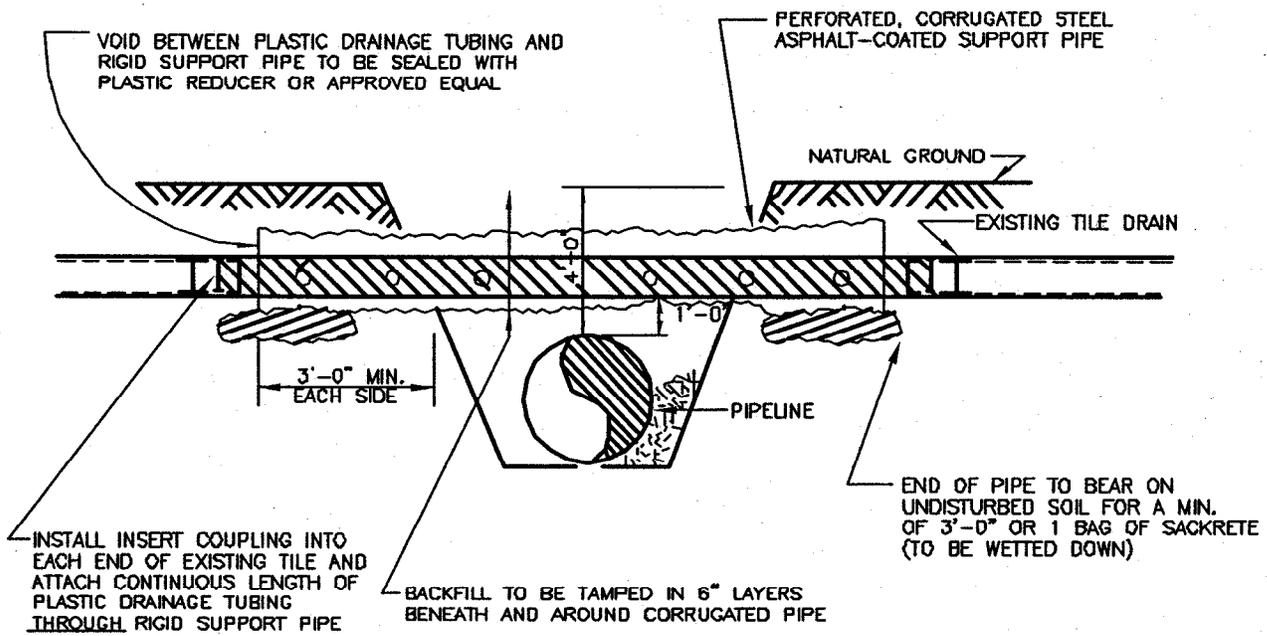
NOTES:

1. CONTRACTOR TO FURNISH ALL NECESSARY MATERIAL TO RESTORE FENCE TO ORIGINAL CONDITION.
2. POSTS, WIRE AND OTHER MATERIAL SHALL BE SAME AS OR EQUIVALENT MATERIAL TO MATCH EXISTING FENCE.
3. BRACE SPAN TO BE CONSTRUCTED ON EACH SIDE OF PIPELINE ROW. PRIOR TO INITIAL DISMANTLING OF FENCE.
4. FOR TYPICAL CROSSING GATE SEE DRAWING P11-101.
5. ACTUAL DEPTH REQUIRED TO BE SET BY WHAT IS REQUIRED TO ACHIEVE A STABLE SUPPORT POST.

Mfr. By		Date		Dr. By		Date		Scale		Construction		
Revision - Description	By	App.	Dwg. Stat.	Ckd. By	Date	App. By	Date	App. By	Date	TYPICAL FENCE RESTORATION DETAILS BRACE SPAN DETAILS EXHIBIT 1B		
			Prel'y.									
			Bld									
			Const.									

DWG. NO. P11-103

CADD NAME:



TUBING SIZE	CORRUGATED PIPE SIZE
4"	6"
6"	8"
8"	10"
10"	12"
12"	16"
16"	20"

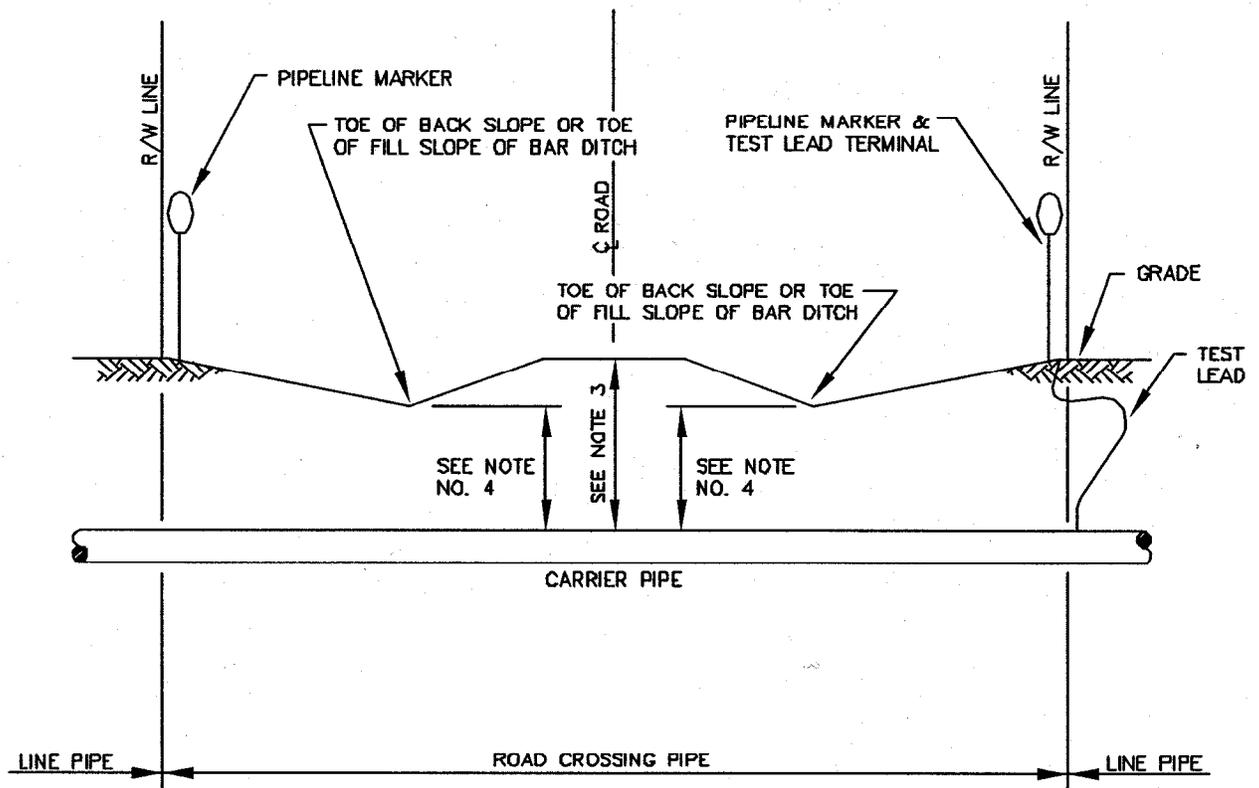
NOTES

1. ALL CORRUGATED PIPE TO BE OF 16 GAUGE GALVINIZED STEEL.
2. PLASTIC DRAINAGE TUBING AND CORRUGATED PIPE TO BE INSTALLED SO THAT THE HOLES ARE CENTERED ON EACH SIDE OF THE BOTTOM OF PIPE.
3. ALL MATERIAL TO BE CONTRACTOR SUPPLIED.

		Mfr. By		Date		Dr. By		Date		Scale		Construction		
Revision	Description	By	App.	Dwg. Stat.	Ckd. By	Date	App. By	Date	App. By	Date				
				Prel'y.							TYPICAL DRAIN TILE RESTORATION EXHIBIT 2			
				Bid										
				Const.										

DWG. NO. P11-1601

CADD NAME:



NOTES:

1. CARRIER PIPE MUST CONFORM TO MAXIMUM DESIGN FACTOR AS DETAILED BELOW:

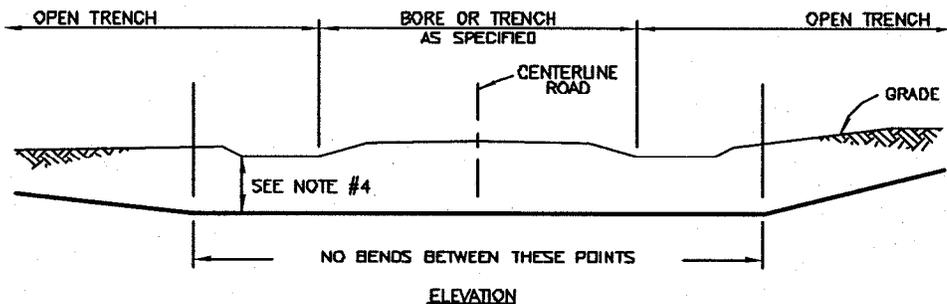
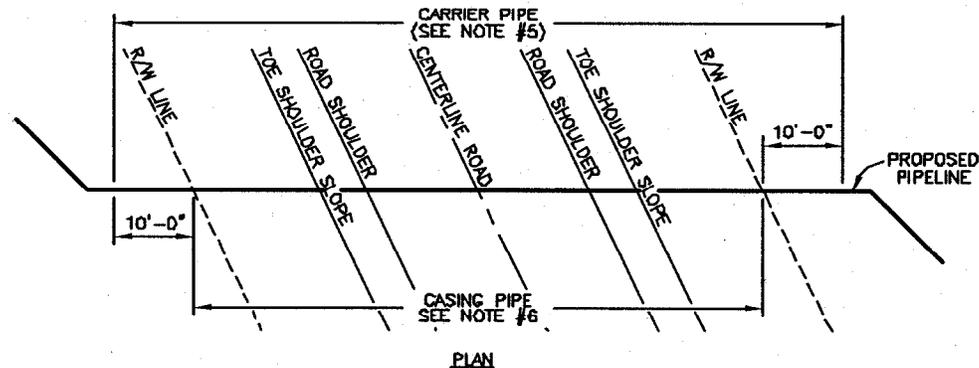
CLASS	LOCATION	DESIGN FACTOR
1		0.6
2		0.5
3		0.5

2. OPEN TRENCH METHOD TO BE UTILIZED ONLY ON UNIMPROVED ROADS.
3. MINIMUM DEPTH OF COVER SHALL BE 5'-0" OF CONFORM TO THE ROAD CROSSING PERMIT, WHICHEVER IS GREATER.
4. MINIMUM COVER AT DITCHES SHALL BE DETERMINED ON A SITE SPECIFIC BASIS BUT SHALL NOT BE LESS THAN 3'.

P.L. OR Sta. Account No.			W.O.			Construction				TYPICAL UNCASSED ROAD CROSSING-UNIMPROVED ROAD OPEN CUT METHOD EXHIBIT 3	DWG. NO. 636
Micfilm File No.	Mfilm By	Date	Dr. By	Date	Scale						
Revision - Description	By	App.	Dwg. Stat.	Ckd. By	Date	App. By	Date	App. By	Date		
			Prel'y.								
			Bid								
			Const.								

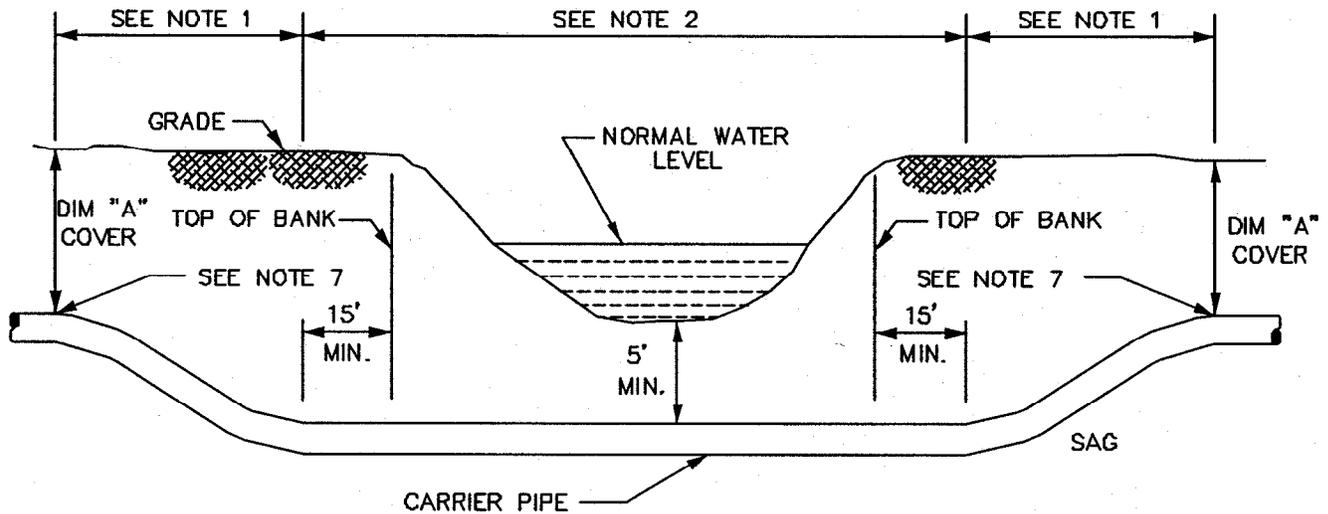
CADDS NAME:

TYPICAL NATURAL GAS PIPELINE
UNDERCROSSING ALL ROADS AND HIGHWAYS
CASED AND UNCASD



GENERAL SPECIFICATIONS:

1. Contractor to install pipeline under all public roads as shown in the sketch above, or as shown on approved construction drawings.
2. All voids developed by boring under surface of road bed shall be repaired.
 - (A) Voids developed under hard surface roads (bit. mat. & concrete) shall be filled by pressure grouting. Grout shall consist of a sand-cement slurry of at least 2 sacks of cement per cubic yard.
 - (B) Voids developed under non-hard surface roads (graded gravel or crushed rock & dirt) shall be filled by removal of road bed & backfilling with suitable material pneumatically tamped in 6" layers to density of surrounding undisturbed earth & replacing surface material to original condition.
3. Pipeline undercrossings of all roads shall be installed in accordance with Engineering Standards and/or other permit requirements or specifications provided by the Company.
4. The pipeline should cross as near to right angles as possible and economically practical.
5. For roads not having a drainage ditch, the minimum cover from the top of the road bed or the lowest elevation within the R/W shall be 4'-0" or as specified by the permitting authorities.
6. For uncased road crossings, the design factor for the carrier pipe shall extend 10'-0" beyond each R/W line.
7. When casing pipe is required, it shall be installed as required by the permit or extend from R/W to R/W. Carrier pipe for cased road crossings shall meet the DOT design requirements.
8. All undercrossings shall be bored unless specified otherwise in the construction drawings or specifications. All other information regarding the crossing permit must be complied with.



NOTE:

- 1.) PIPE SHALL BE LAID TO EXTRA DEPTH AT THESE LOCATIONS, TO PREVENT EXCESSIVE BENDING, AT NO ADDITIONAL COST TO COMPANY.
- 2.) PIPE SHALL BE LEVEL UNDER STREAM CHANNEL AT DEPTH SHOWN.
- 3.) PIPE WALL THICKNESS AND GRADE AS SPECIFIED ON ENGINEERING DRAWINGS.
- 4.) NORMAL PIPE DEPTH TO BE MINIMUM OF 5'-0" OR AS SPECIFIED ON ENGINEERING DRAWINGS.
- 5.) MORE STRINGENT REQUIREMENTS OF APPLICABLE PERMITS AND DESIGN DRAWINGS SHALL BE FOLLOWED.
- 6.) LOCATIONS FOR STREAM CROSSINGS WILL BE NOTED ON THE ALIGNMENT SHEET OR AS DESIGNATED BY COMPANY'S SPECIFICATIONS.
- 7.) DIMENSION "A" AS PER COMPANY'S SPECIFICATIONS.
- 8.) THIS DRAWING IS APPLICABLE TO ALL STREAM OR DITCH CROSSINGS NOT SHOWN INDIVIDUALLY DESIGNED ON OTHER ACCOMPANING DRAWINGS.
- 9.) GIRTH WELDS SHALL BE 100% RADIOGRAPHICALLY INSPECTED AND COATED WITH TAPE COAT OR SHRINK SLEEVE PER COMPANY SPECIFICATIONS.

P.L. OR Sta. Account No.			W.O.			Construction				CONSTRUCTION STANDARD STREAM AND DITCH CROSSING EXHIBIT 5	DWG. NO. 1443		
Micfilm File No.	Mfirm By	Date	Dr. By	Date	Scale								
Revision - Description	By	App.	Dwg. Stat.	Ckd. By	Date	App. By	Date	App. By	Date				
			Prel'y.										
			Bld										
			Const.										

CADD NAME: