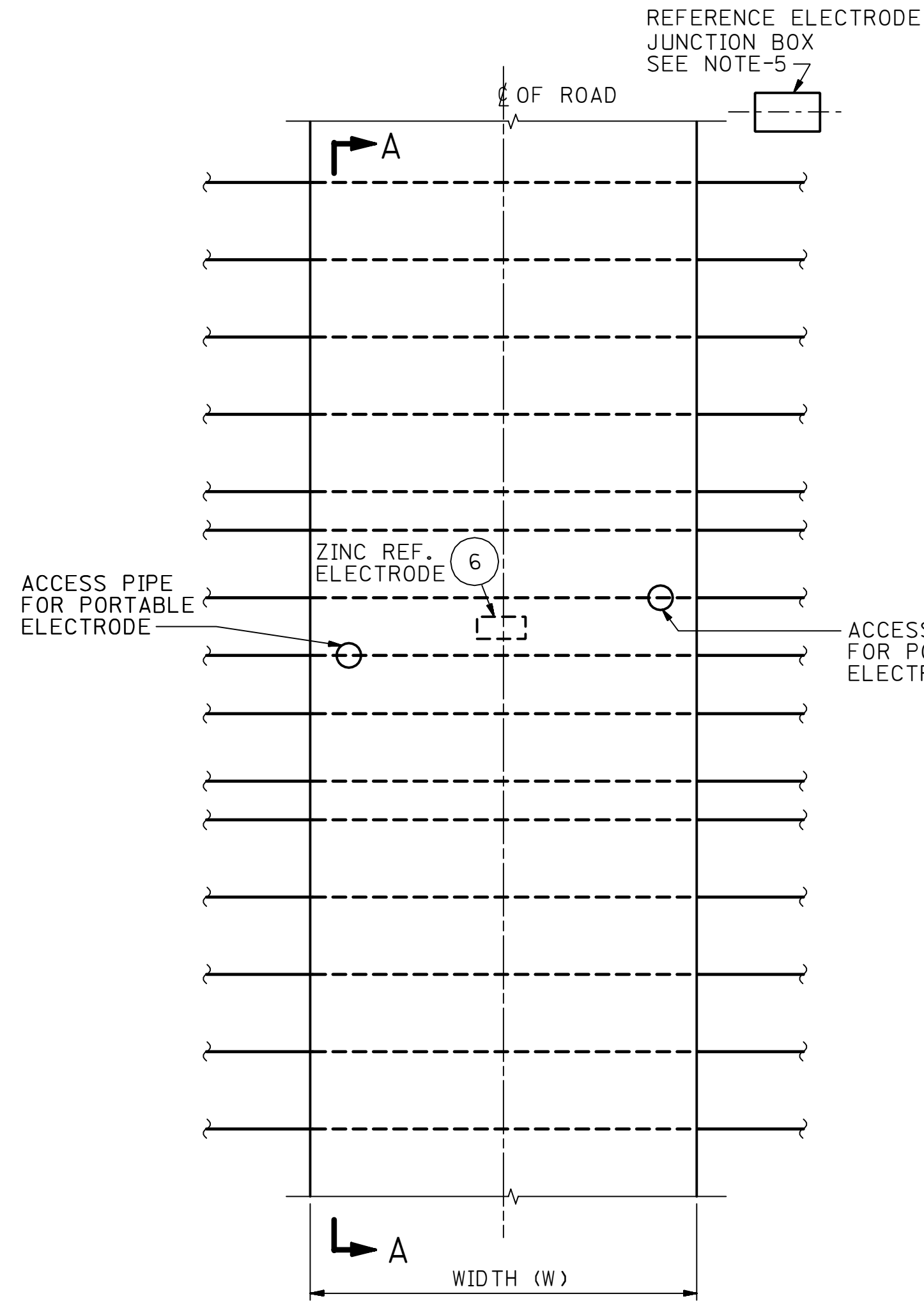
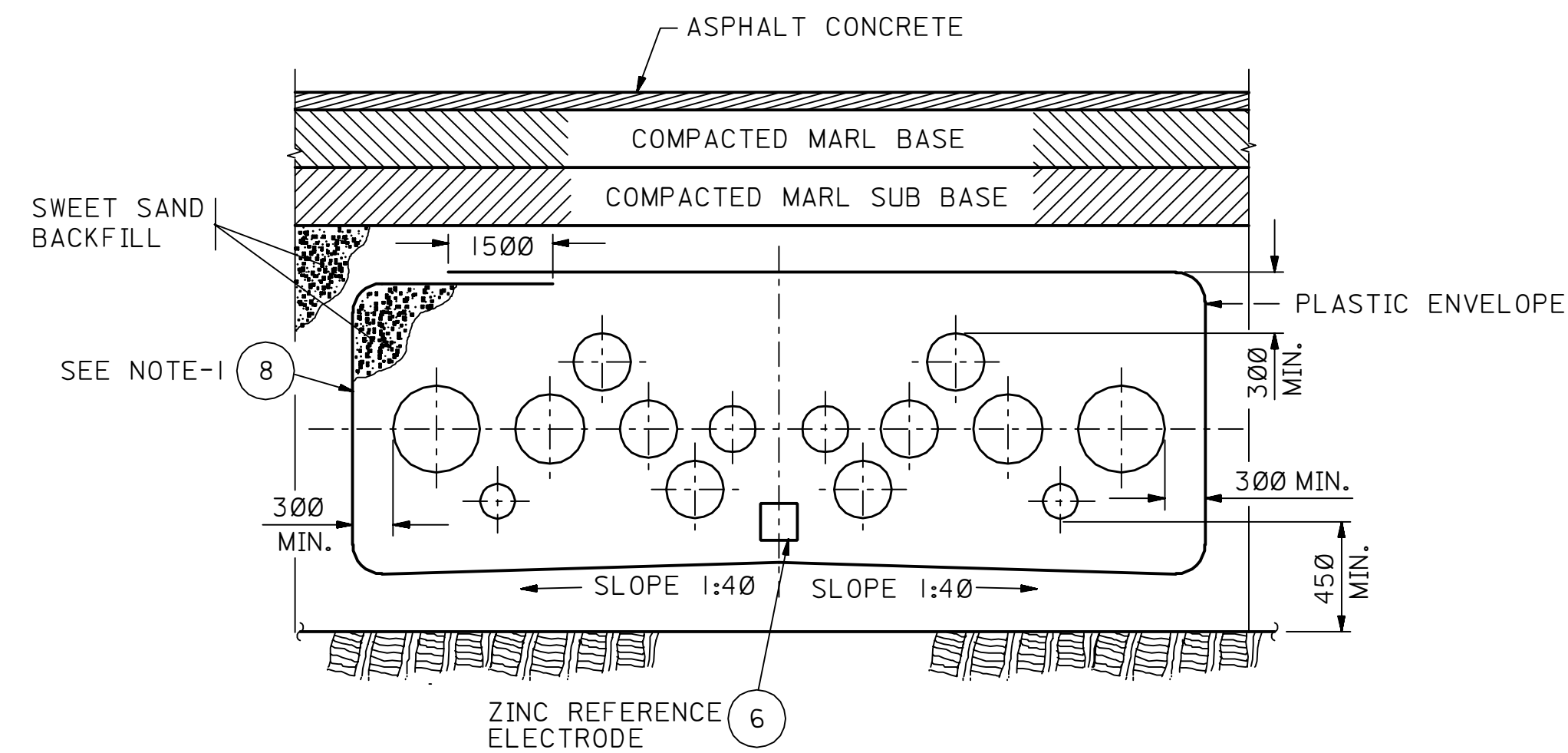


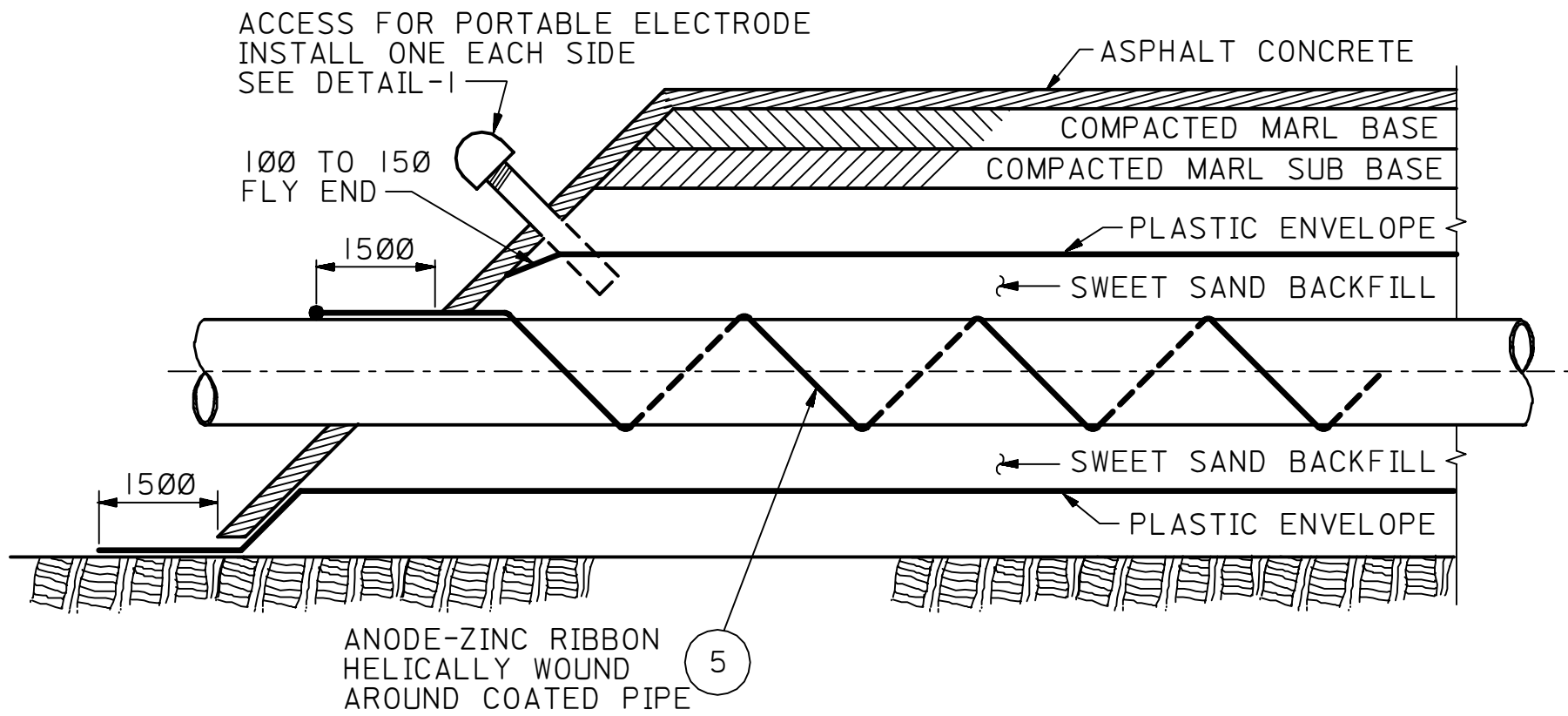
990	X	AB-036787	100	03
PLANT NO.	INDEX	DRAWING NUMBER	SHT. NO.	REV. NO.



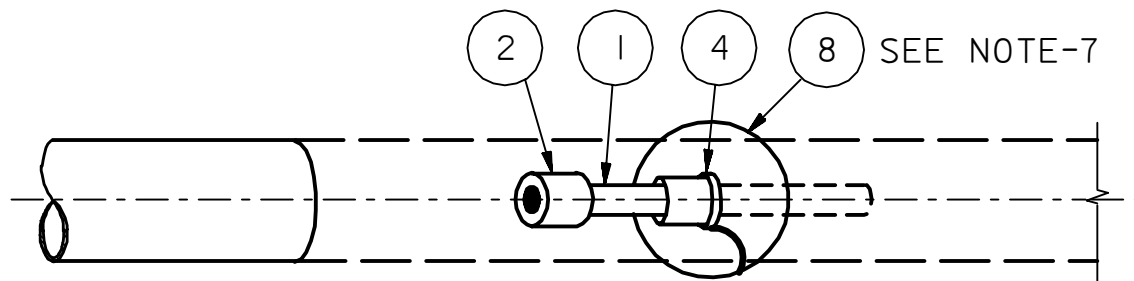
PLAN OF ROAD CROSSING



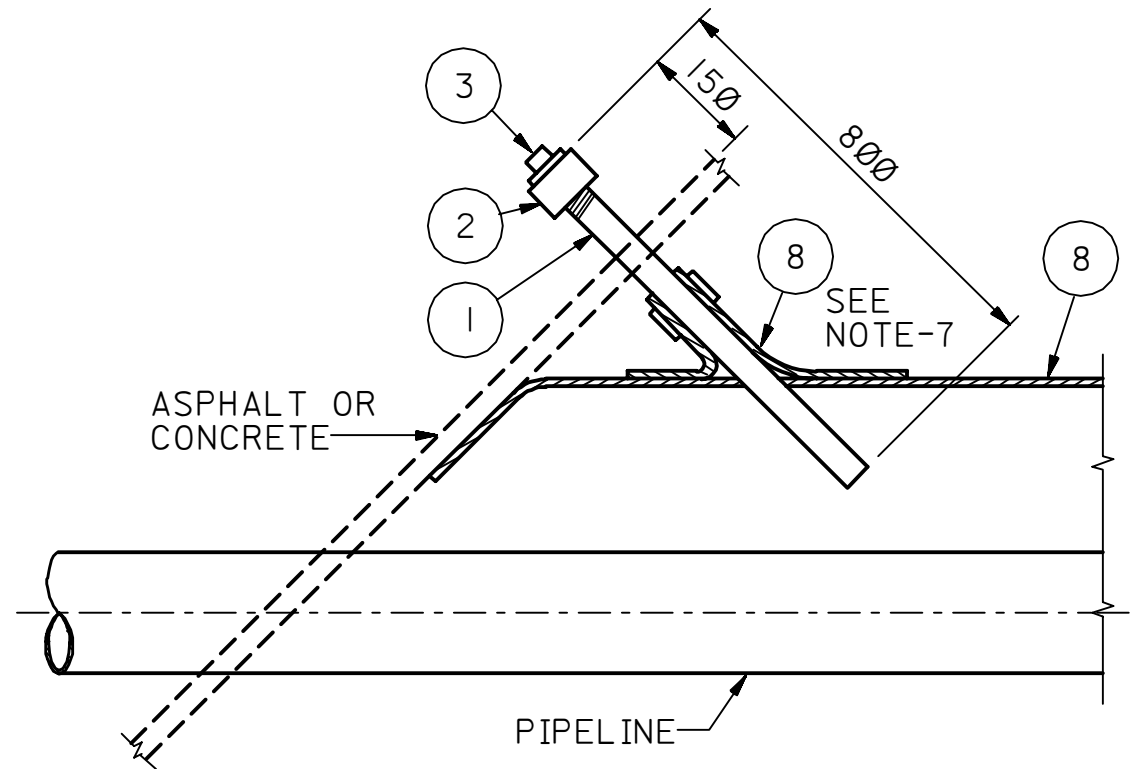
SECTION A-A



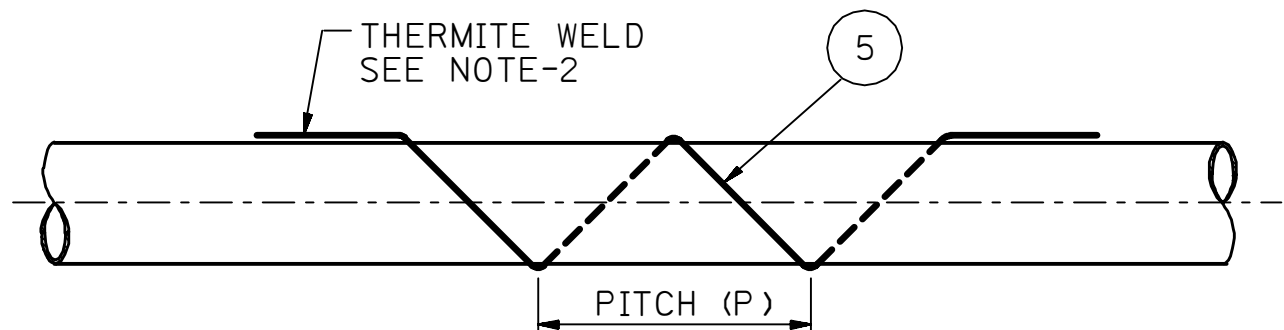
TYPICAL SECTION THRU CROSSING



TOP VIEW



DETAIL-I

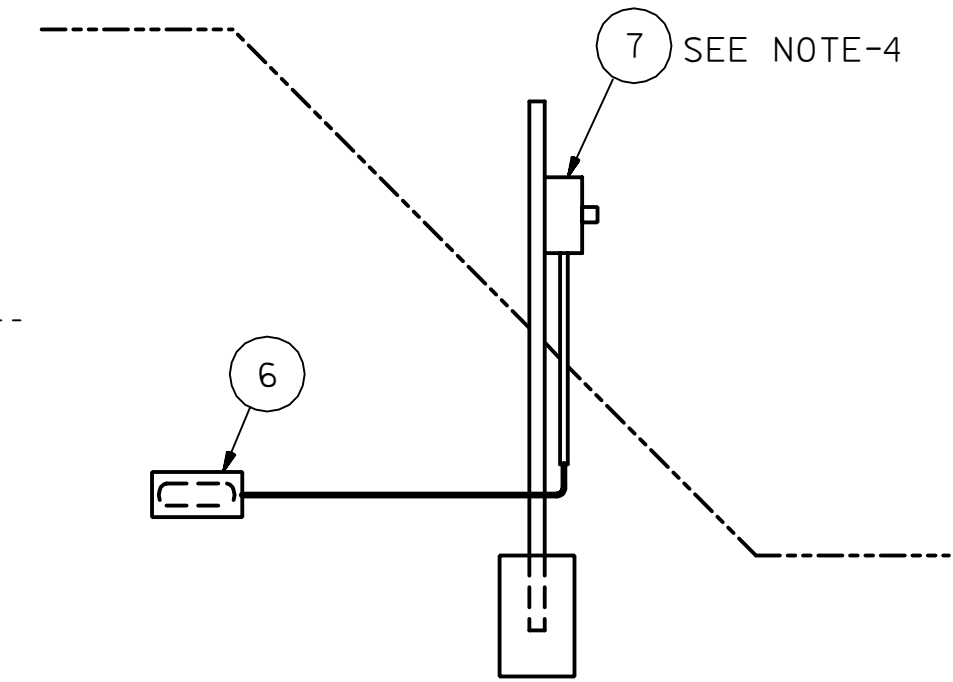


TYPICAL DETAIL OF ANODE RIBBON

DIAMETER (D) OF PIPELINE	PITCH (P)	REMARKS
1-10 INCHES	3000	FORMULA: LENGTH OF RIBBON (L) = (N) (√(πD ² + P ² + 3000))
12-16 INCHES	1500	N=NUMBER OF PICHES IN WIDTH (W) OF ROAD EXAMPLE: FOR 20" PIPELINE AND 15,000mm WIDE ROAD
18-60 INCHES	1000	L=(15) (√(π508 ² + 1000 ² + 3000)) =73250mm

LENGTH OF ANODE RIBBON

MATERIAL LIST		
CODE NO.	AMS NUMBER	DESCRIPTION
1	01-514-250	PIPE: PLASTIC; ABS; 2"
2	03-157-312	ADAPTER: PLASTIC; 2"
3	03-254-022	PLUG: PLASTIC; 2"
4	15-525-030	TIE: CABLE
5	17-851-915	ANODE: RIBBON; ZINC
6	17-851-937	ELECTRODE: REFERENCE; ZINC
7	17-856-050	JUNCTION BOX
8	29-822-735	FILM: POLYETHYLENE 0.15mm THK. 9.1m WIDE; 278.7m ² /ROLL



REFERENCE ELECTRODE JUNCTION BOX

- NOTES:**
1. PLASTIC ENVELOPE SHALL BE DOUBLE THICKNESS WITH 1500mm OVERLAP AT THE EDGES.
 2. THERMITE WELDING OF THE RIBBON TO THE PIPELINE CAN BE ACCOMPLISHED BY REMOVING APPROXIMATELY 50mm OF ZINC FROM THE STEEL CORE AT EACH END, AND THERMITE WELDING THE CORE TO THE PIPELINE. AFTER REMOVING THE WELD SLAG, COAT THE WELD AREA. REFER TO STANDARD DRAWING AB-036381.
 3. ANODE RIBBON IS HELICALLY WOUND AROUND EACH PIPELINE AND EXTENDS OUTSIDE THE ENVELOPE ON EACH END FOR APPROXIMATELY 150mm. REFER TO THE TABLE AND THE FORMULA FOR DETERMINING THE LENGTH OF RIBBON NEEDED FOR EACH PIPELINE.
 4. FOR DETAILS OF FABRICATING THE JUNCTION BOX SUPPORT AND OF MOUNTING THE JUNCTION BOX AND CONDUIT ON THE SUPPORT, REFER TO STANDARD DRAWING AA-036540.
 5. THE POSITION OF THE REFERENCE ELECTRODE JUNCTION BOX SHALL BE DETERMINED IN THE FIELD.
 6. THE ZINC REFERENCE ELECTRODE SHALL BE BURIED BETWEEN TWO PIPELINES APPROXIMATELY MIDWAY IN THE ROAD CROSSING, THE BAGGED ELECTRODE SHALL BE SOAKED IN WATER PRIOR TO INSTALLATION.
 7. CUT A SMALL HOLE IN THE PLASTIC SHEET FOR THE PLASTIC PIPE, AND AFTER INSTALLING THE PIPE, TIE WRAP A 1000mm SQUARE PLASTIC SHEET AROUND THE PIPE TO COVER THE HOLE.

REFERENCE DRAWINGS	
THERMITE WELDING OF CATHODIC PROTECTION CABLE & COATING REP. TO BURIED PIPELINES	AB-036381
C.P. MOUNTING SUPPORT DETAILS FOR JUNCTION BOXES	AB-036540

TYPICAL INSTALLATION DRAWING

03	JULY95	ESSD CAB		REVISED NOTE 5 & 7 AND CHANGED MANDATORY DRAWING TO TYPICAL INSTALLATION DRAWING.			
02	MAR92	ESSD EPE		REVISED AS PER MARK-UP.	ORIGINAL SIGNED	ORIGINAL SIGNED	ORIGINAL SIGNED
01	01-24-89	RLO		NEW DRAWING DIGITIZED INTO CADD DATABASE.	ORIGINAL SIGNED	ORIGINAL SIGNED	ORIGINAL SIGNED
REV. NO.	DATE	BY	JO/EWO	DESCRIPTION	CHKD.	CERT.	APPD.
SAUDI ARABIAN OIL COMPANY							
DRAWN BY <u> RLO </u> CHECKED BY <u> </u>							