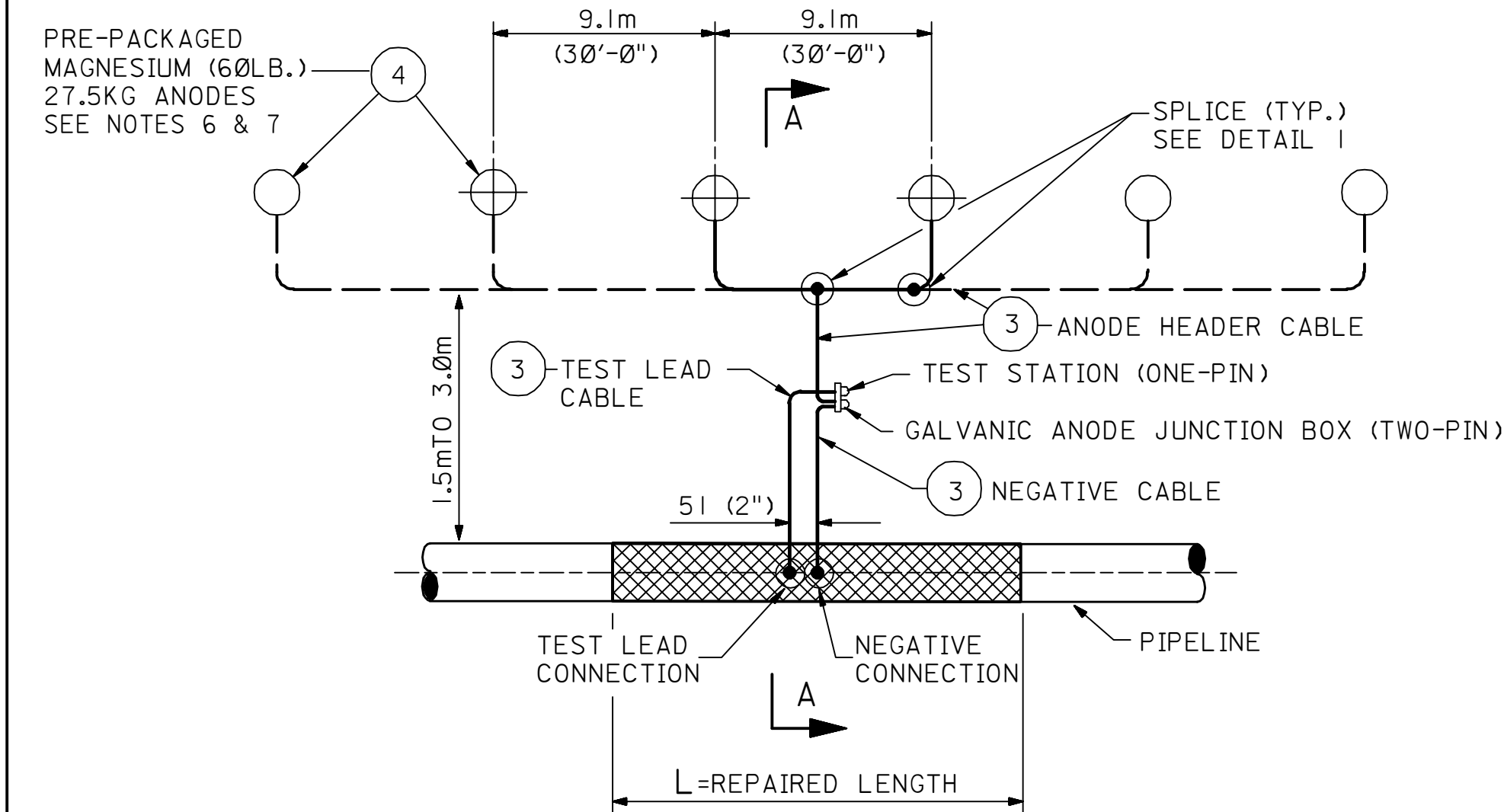
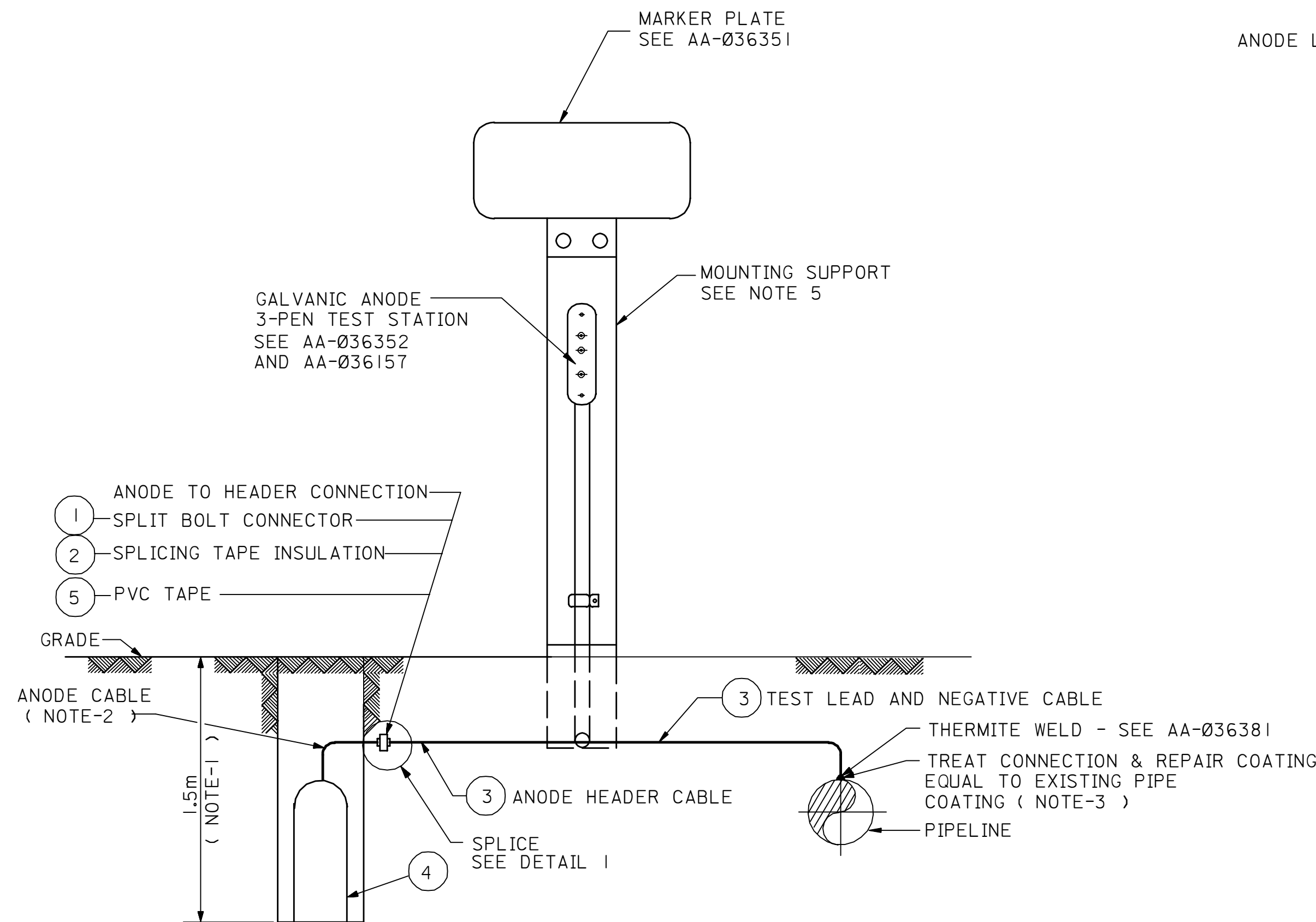


990	100	817	AB-036478	X	066
PLANT NO.	INDEX	DRAWING NUMBER	SHT. NO.	REV. NO.	



ANODE LAYOUT



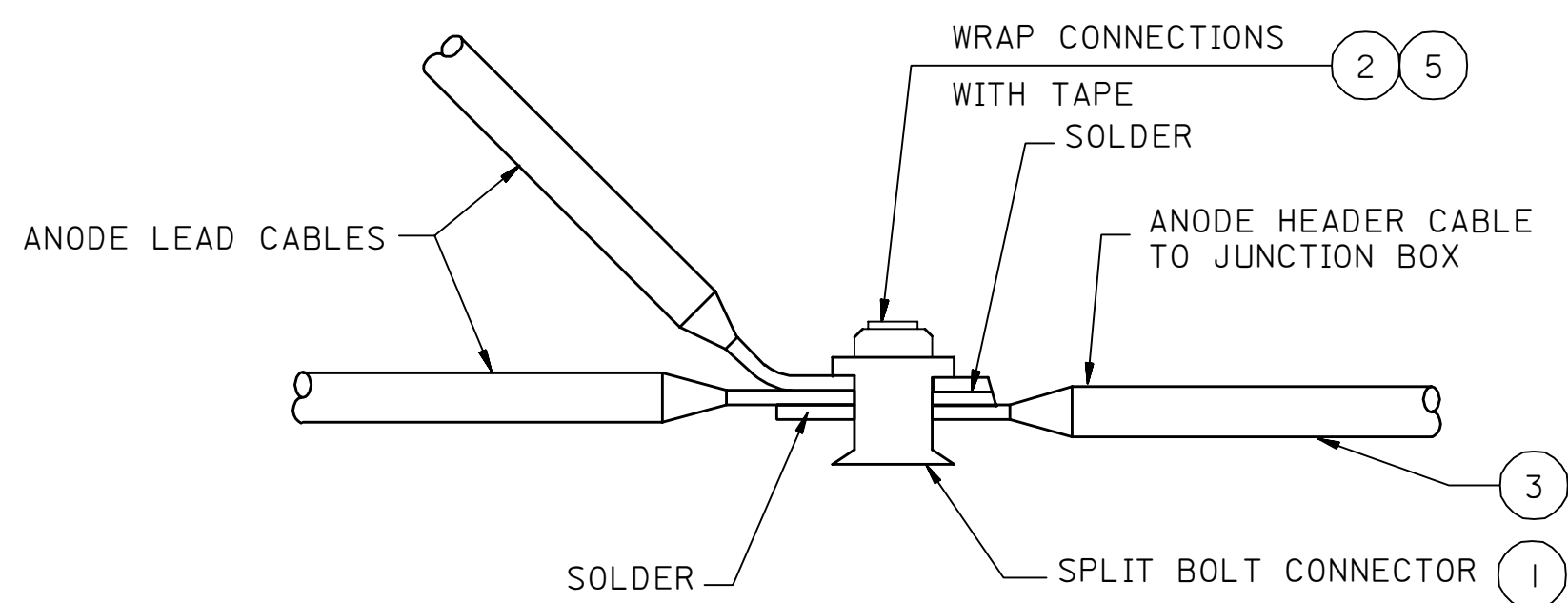
SECTION "A-A"

(ANODE INSTALLATION)
SEE NOTE 7

MATERIAL LIST

DWG. CODE	S.A.M.S. NO.	DESCRIPTION
1	14-114-454	CONNECTOR: CONDUCTOR, PARALLEL, SPLIT BOLT, #8 AWG. SOLID
2	14-909-065	TAPE: INSULATING, SPLICING, 1" WIDE x 0.020" THICK, 30 FT. ROLL
3	15-194-390	WIRE: BUILDING, 600V, THWN, #8 AWG, STRANDED
4	17-851-611	ANODE: CATHODIC PROTECTION, MAGNESIUM ALLOY, 27.5Kg. (60 LBS.)
5	18-079-940	TAPE: PVC, 3/4 " WIDE

ANODE REQUIREMENT SEE NOTE 6 & 8	
L (METERS)	NUMBER OF ANODES
0 TO 15	2
16 TO 30	4
31 TO 46	5
47 TO 61	7
62 TO 76	9
77 TO 90	10



DETAIL 1

CONNECTION OF ANODE CABLES
SEE NOTES 2 & 4

NOTES:

1. TAMP BACKFILL FIRMLY AROUND ANODE. IN DRY SOIL, ANODE AND SOIL BACKFILL TO BE WATERED THOROUGHLY AFTER HOLE IS FILLED TO TOP OF ANODE. DO NOT HANDLE ANODE BY ANODE WIRE.
2. CUT-OFF EXCESS ANODE WIRE BEFORE SPLICING.
3. CABLE CONNECTION TO PIPE TO BE COATED USING COMPATIBLE COATING MATERIAL, PER AES-H-100.
4. AFTER SECURING ANODE LEAD WIRE TO HEADER CABLE WITH SPLIT BOLT CONNECTOR, AND SOLDERING WIRES, WRAP CONNECTION WITH 3 ONE HALF LAP LAYERS RUBBER TAPE. THEN 3 ONE HALF LAP LAYERS OF PLASTIC VINYL TAPE.
5. FABRICATE JUNCTION BOX ASSEMBLY, INCLUDING FOUNDATION, IN SHOP ACCORDING TO STANDARD DRAWING AA-036540 AND TRANSPORT TO SITE.
6. MINIMUM NUMBER OF ANODES REQUIRED IS TWO.
7. IN SUBKHA AREAS USE 45Kg. (100 LBS.) BARE MAGNESIUM ANODES (SAMS NO. 17-851-681) IN LIEU OF 27.5Kg. ANODES. ANODES TO BE INSTALLED HORIZONTALLY ABOVE WATER TABLE AND AT PIPE DEPTH, OR AS NEAR PIPE DEPTH AS WATER TABLE ALLOWS.
8. FOR REPAIR LOCATIONS GREATER THAN 90 METERS A NEW INSTALLATION IS REQUIRED.
9. ANODES MAY BE INSTALLED VERTICALLY OR HORIZONTALLY.

REFERENCE DRAWINGS

STANDARD DETAILS OF CATHODIC PROTECTION MARKER PLATES	AA-036351
MOUNTING SUPPORT DETAILS	AA-036540
GALVANIC ANODES AT ROAD CROSSINGS	AA-036352
THERMITE WELDING OF CABLES	AB-036381
TEST STATIONS & KM MARKERS	AA-036907
GALVANIC ANODE 3-PIN TEST STATION	AA-036157

DWG. RESPONSIBILITY:
CATHODIC PROTECTION & COATING COMMITTEE

REV. NO.	DATE	BY	JO/EWO	DESCRIPTION	CHKD.	CERT.	APPD.
06	NOV99	EDSD	WED	REVISED NOTE 1 & SECTION A-A			
05	AUG95	ESSD	RLO	ADDED NOTE-9 AND CHANGED "MANDATORY" TO "TYPICAL INSTALLATION" NOTE.	ORIG. SIGNED	ORIG. SIGNED	ORIG. SIGNED
04	JAN93	ESSD	DTT	GENERAL REVISION.	ORIG. SIGNED	ORIG. SIGNED	ORIG. SIGNED

SAUDI ARABIAN OIL COMPANY

DRAWN BY	NJF/AM	CHECKED BY	NAK 11.75	SCALE	NONE
DATE STARTED		DATE COMPLETED	10/28/75	OPR'G. DEPT.	ACT 12/8/75
APP'D FOR CONSTR.		CERTIFIED		BY	DATE

MAGNESIUM ANODE INSTALLATION
AT PIPELINE REPAIR LOCATIONS
CATHODIC PROTECTION

STD. DWG.					
PLANT NO.	INDEX	DRAWING NUMBER	SHT. NO.	REV. NO.	
990	X	AB-036478	001	06	