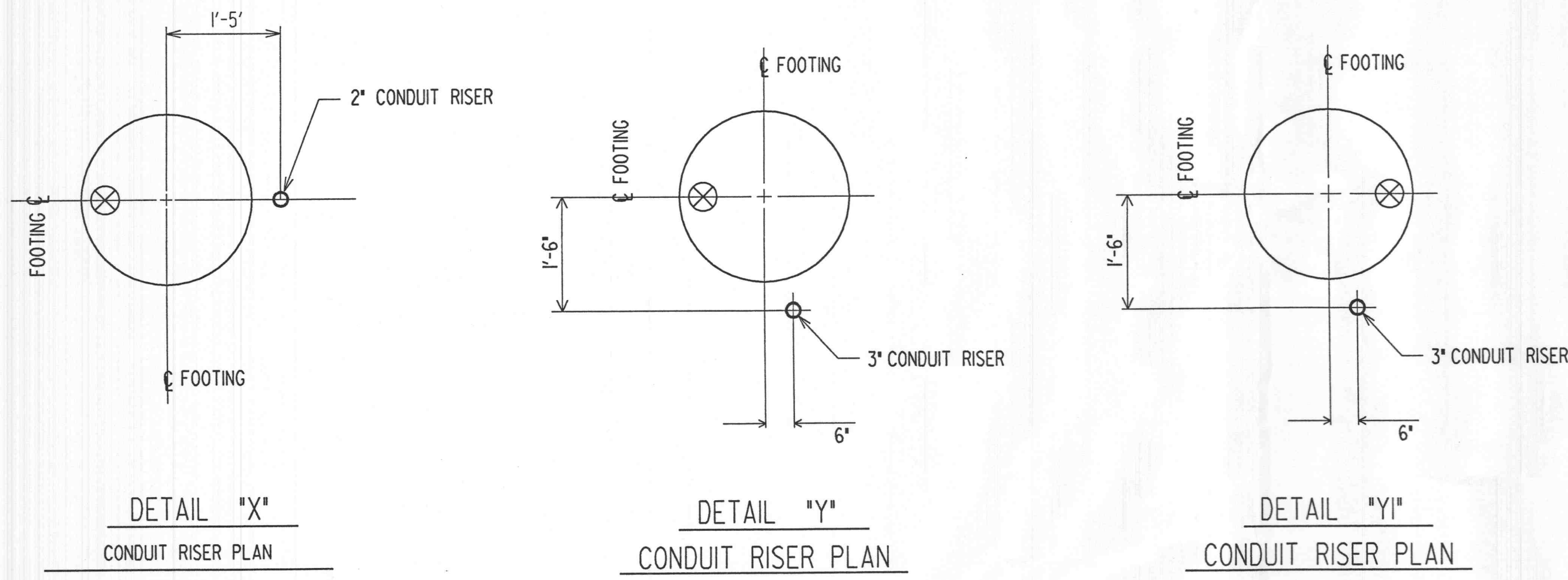


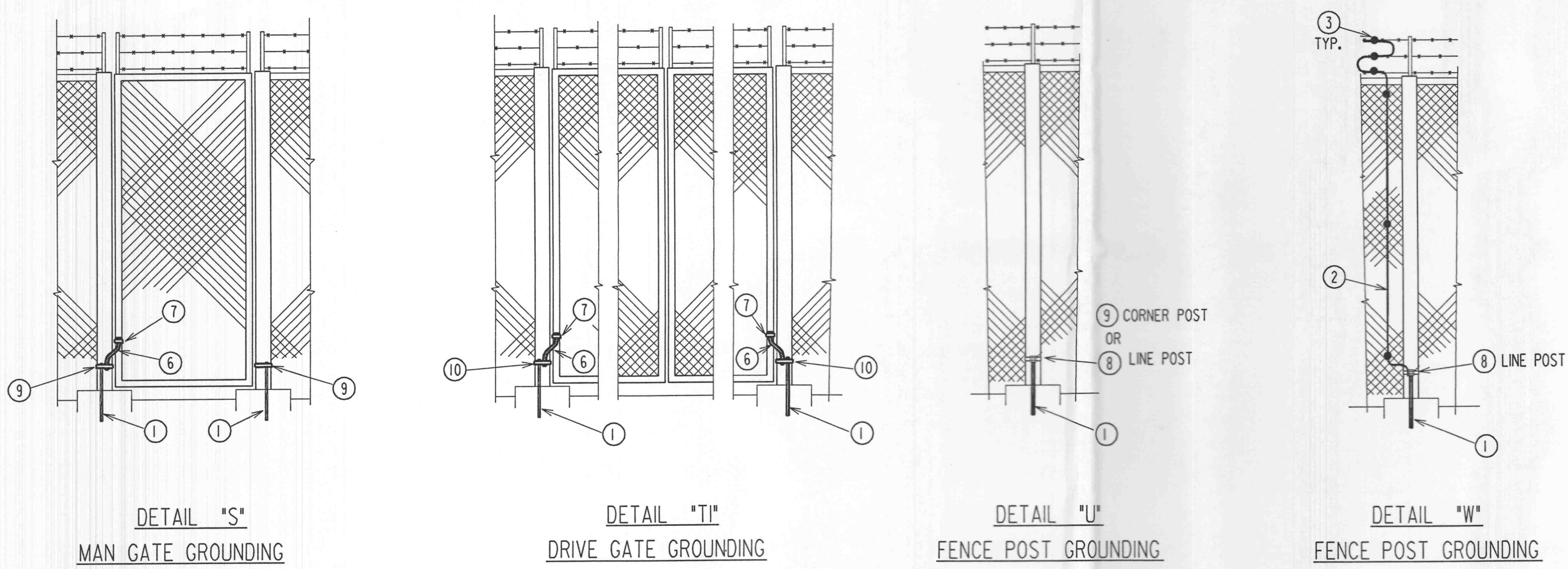
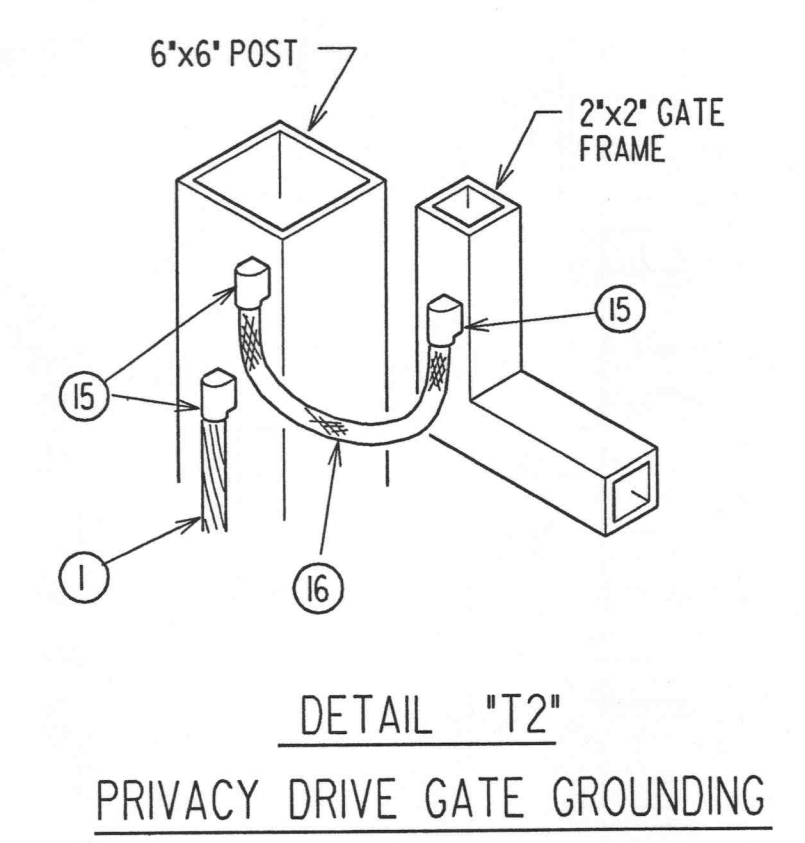
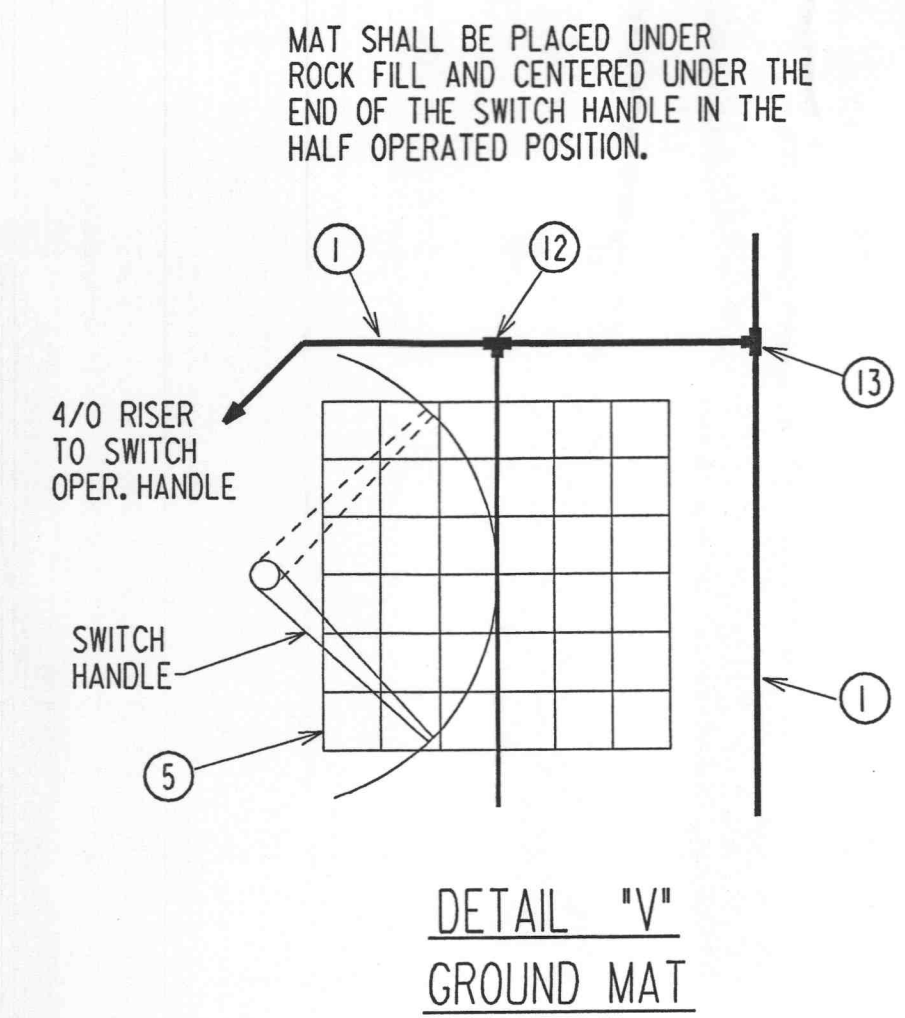
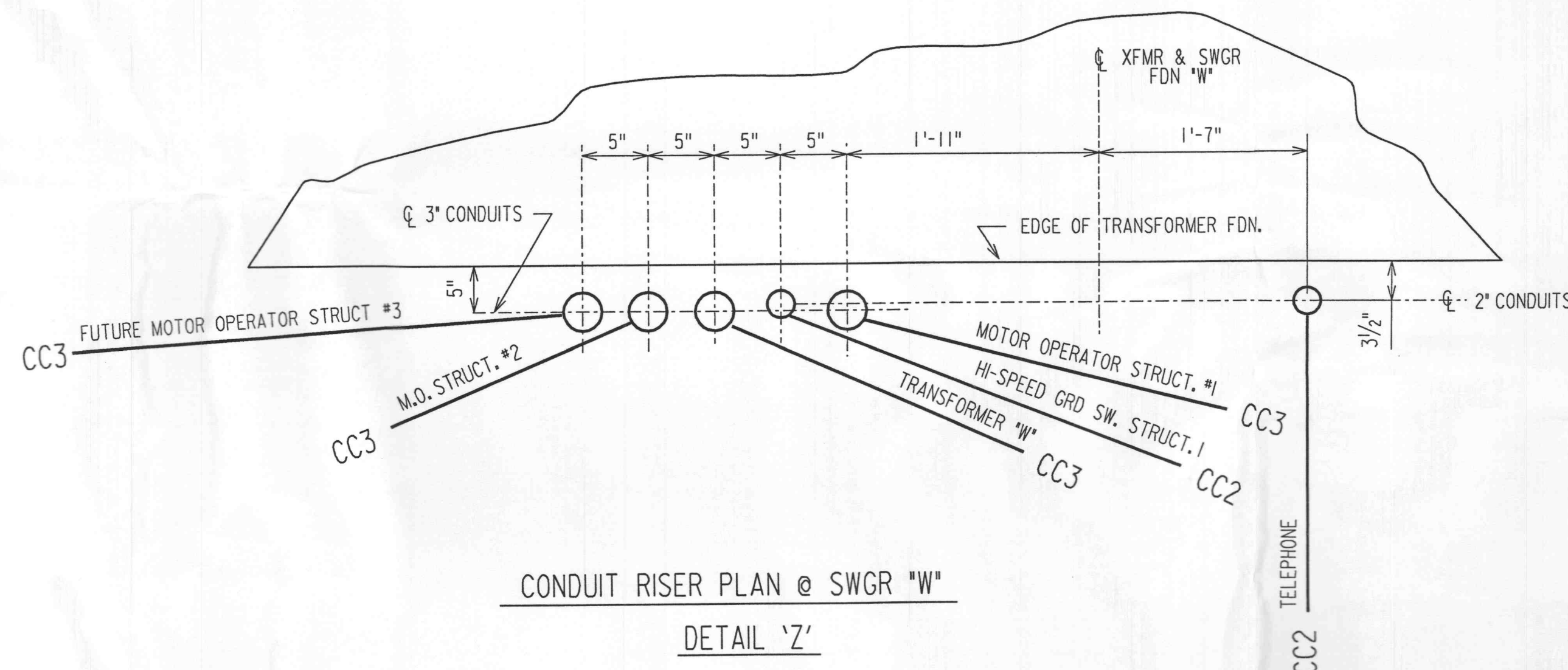
PRINT DIST. 9443-Y-149204 3

REVISIONS
 REV. W.O. 0 10969
 FIRST ISSUE



BILL OF MATERIAL			
ITEM NO.	NO. REQUIRED	DESCRIPTION	MFR. CAT. NO. OR U.E. STOCK NO.
1	1350'	4/0 WIRE, COPPER, BARE, 19 STRAND, SOFT DRAWN	18 52 031
2	30	1/0 WIRE, COPPER, BARE, 7 STRAND, SOFT DRAWN	18 52 026
3	12	BRONZE SPLIT BOLT CONNECTOR ANDERSON	TYPE C OR EQUAL
4	8	5/8" X 8' LONG GROUND ROD COPPER BOND	23 63 124
5	2	4' X 4' GROUND MAT	18 16 099
6	4'	1/8" X 1" FLEXIBLE BRAID	18 66 065
7	5	1" BRAID TO 2" O.D. PIPE, GROUND CLAMP ANDERSON	GC-109-06
8	7	4/0 TO 2 1/2" O.D. PIPE, GROUND CLAMP ANDERSON	GC-110-82C
9	5	4/0 TO 2 1/4" O.D. PIPE, GROUND CLAMP ANDERSON	GC-110-102C
10	4	4/0 TO 4" O.D. PIPE, GROUND CLAMP ANDERSON	GC-110-142C
11	8	4/0 TO 5/8" GROUND ROD, CADWELD TYPE GT, CARTRIDGE SIZE 115	22 02 347
12	2	4/0 TO 1/0 SOLID, CADWELD TYPE TA, CARTRIDGE SIZE 115	22 02 347
13	40	4/0 TO 4/0, CADWELD TYPE TA, CARTRIDGE SIZE 150	22 02 346
14	7	4/0 TO 4/0, CADWELD TYPE XB, CARTRIDGE SIZE 250	22 02 357
15	12	4/0 TO FLAT (VERTICLE), CADWELD TYPE VB, CARTRIDGE SIZE 150	22 02 346
16	5'	FLEXIBLE JUMPER CADWELD TYPE FJ	
16		2" 36"R 90° PLASTIC BEND, W/COUPLING	12 51 180
17		3" 36"R 90° PLASTIC BEND, W/COUPLING	12 51 173
18		3" 24"R 90° PLASTIC BEND, W/COUPLING	12 51 253
19		2" 36"R 45° PLASTIC BEND, W/COUPLING	12 51 235
20		1" 18"R 90° PLASTIC BEND, W/COUPLING	12 51 236
21		2C #10 UF DIRECT BURIAL W/GROUND CONNECTOR	18 61 064
22		2" CONDUIT, PLASTIC, TYPE DB, W/COUPLING	12 01 178
23		3" CONDUIT, PLASTIC, TYPE DB, W/COUPLING	12 01 152

NUMBER REQUIRED PRIOR TO LATEST REVISION
 NUMBER REQUIRED PER LATEST REVISION
 FOR CONTRACTORS REFERENCE ONLY



FOR BIDDING ONLY
 - FOR CONSTRUCTION -

CONDUIT AND GROUNDING PLAN	9443-Y-149203
FOUNDATION LOCATION PLAN	9443-Y-149195
PROPERTY - GRADING, SURFACING, & FENCE	9443-Y-149194
POWER DUCT ROUTING	9443-Y-149208



APPROVED FOR CONSTRUCTION
 JOB NO. INITIALS

NOTICE OF LIMITED RESPONSIBILITY
 THE RESPONSIBILITY OF THE UNDERSIGNED ENGINEER IS LIMITED TO THE DESIGN WORK SHOWN ON PROJECT DRAWINGS AND DOCUMENTS TO WHICH HIS SEAL, SIGNATURE OR INITIALS HAVE BEEN APPLIED. HE DOES NOT HAVE AUTHORITY OVER THE PROJECT AS A WHOLE. THE UNDERSIGNED DOES NOT ASSUME RESPONSIBILITY FOR WORK DONE UNDER SUBSEQUENT REVISIONS AND ANY OTHER DOCUMENTS ASSOCIATED WITH THE PROJECT WHICH DO NOT BEAR HIS SEAL, SIGNATURE OR INITIALS.

STATE OF MISSOURI
 JOHN ANTHONY WILLIAMSON
 REGISTERED PROFESSIONAL ENGINEER
 E-19453

PREPARED FOR AmerenUE
 CONDUIT AND GROUNDING PLAN DETAILS
 DRAWN 07-05-00 M.S.M.
 CHKD. NOT SUPV.
 APPRO. [Signature]
 LOCATION 004726 WINGHAVEN SUBSTATION CLASS 10020
 ST. LOUIS, MISSOURI 9443-Y-149204 REV. 0