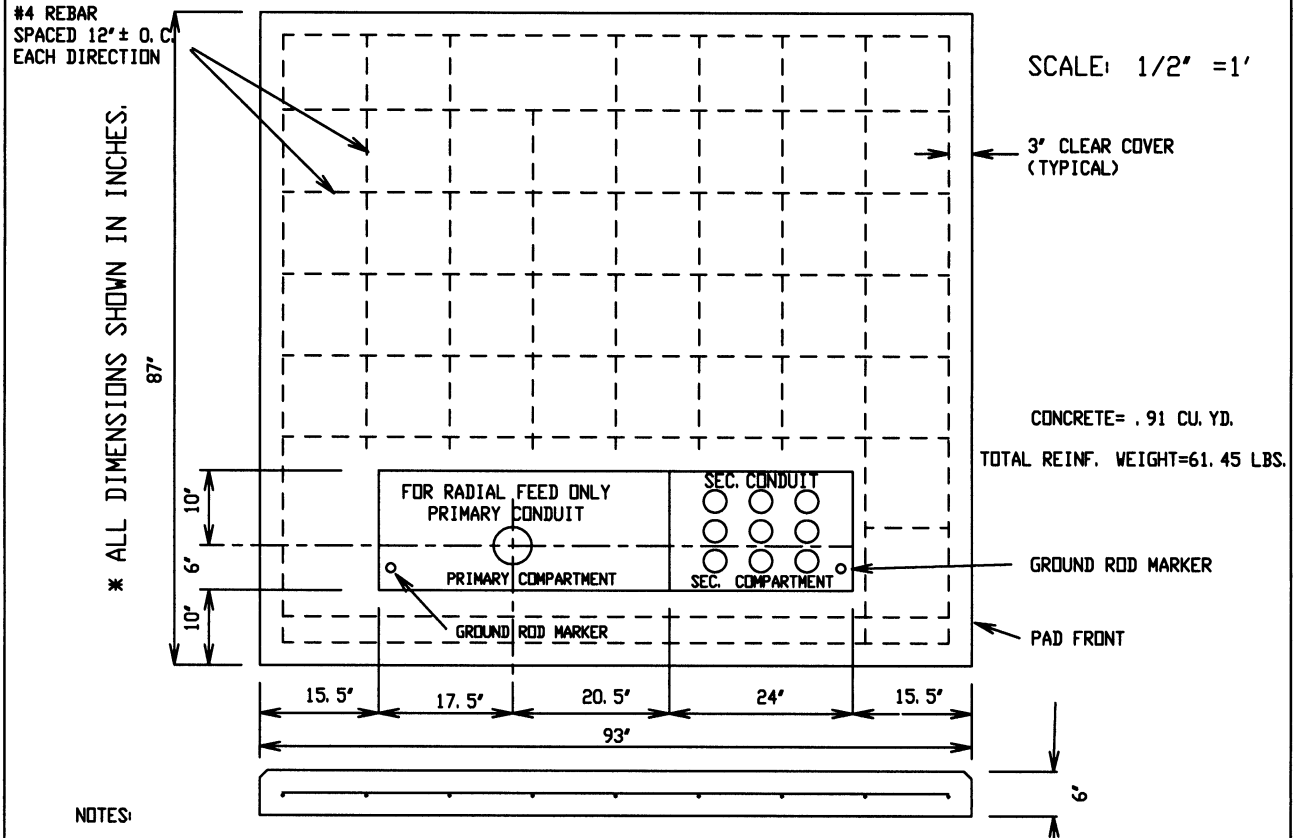
CONCRETE PAD DETAIL FOR RADIAL FEED PAD-MOUNTED TRANSFORMERS

BY MEH
DATE 7-29-85
REV. 4
TUG-1
SHEET 1 OF 4

REV. #4 7/30/01 ADDED GND. ROD LOCATION INFO.
REV. #3 10-20-95 BH CHGD. DWG # FROM TR-1

APP. GCC DATE 10-15-85 APP. CLR DATE 10-15-85 APP. _____ DATE _____



NOTES:

1. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI MAX. AGGREGATE SIZE 1".
2. STEEL REINFORCING BARS ARE TO BE INTERMEDIATE GRADE BILLET STEEL BARS WITH 40,000 PSI MINIMUM YIELD STRENGTH, CONFORMING TO A.S.T.M. A615 GRADE 40.
3. CONCRETE SHALL MEET ALL THE REQUIREMENTS OF A CLASS A (3000 PSI) STRUCTURAL CONCRETE OF THE S.C. HWY. DEPT. SPECIFICATIONS. COARSE AGGREGATE SHALL BE EITHER CRUSHED GRANITE OR RIVER GRAVEL. LIMESTONE AGGREGATE IS NOT ACCEPTABLE. CONCRETE MATERIALS, BATCHING, HAULING, HANDLING, PLACING, ETC. SHALL BE ACCORDING TO SECTION 701, PORTLAND CEMENT CONCRETE FOR STRUCTURES, OF THE S.C. HWY. DEPT. SPECIFICATIONS. AIR ENTAINMENT SHALL BE 4%-8%.
4. PROVIDE MIN. CLEARANCE FROM EDGE OF PAD TO ANY BUILDING, PROPERTY LINE, WALL, OR ANY OTHER OBSTRUCTION IN ACCORDANCE WITH DWG. TUG-1-SHT. 3
5. FINAL LOCATION OF CONCRETE PAD & FORM TO BE SPOTTED AND INSPECTED BY SCE&G COMPANY REPRESENATIVE BEFORE CONCRETE IS POURED.
6. IF LOCATION IS SUBJECT TO FLOODING, PAD SHALL BE ELEVATED ABOVE WATER LEVEL.
7. LOCATION MUST HAVE HEAVY TRUCK ACCESS NOT MORE THAN 1' FROM PAD.
8. ALL CONDUITS TO EXTEND 1' ABOVE TOP OF PAD. GROUNDING BUSHINGS REQUIRED FOR ALL METAL CONDUIT'S.
9. PAD MUST SUPPORT TRANSFORMER WEIGHT AS SHOWN IN CHART ON RIGHT. IF SOIL CONDITIONS WILL NOT WITHSTAND WEIGHT PER SQ.FT. AS SHOWN IN TABLE, AREA OF PAD MUST BE INCREASED OR PILING INSTALLED TO MEET TRANSFORMER REQUIREMENT.
10. CUSTOMER TO MARK LOCATION FOR GROUND ROD WITH 1/2" TO 3/4" CONDUIT (1 FT. STICK) IN PRIMARY AND SECONDARY COMPARTMENTS. THIS LOCATION TO BE FREE OF ANY CONDUIT AT OR BELOW SURFACES.

TRANSF. SIZE KVA	TRANSF WEIGHT IN LBS.	WEIGHT PER FT2 IN LBS.
150-225	5000	150
300-500	12000	400
750-1000	18000	300
1500-2500	23000	500

MAXIMUM NUMBER OF CONDUCTORS PER PHASE THAT CAN BE PLACED IN SEC. COMPARTMENT

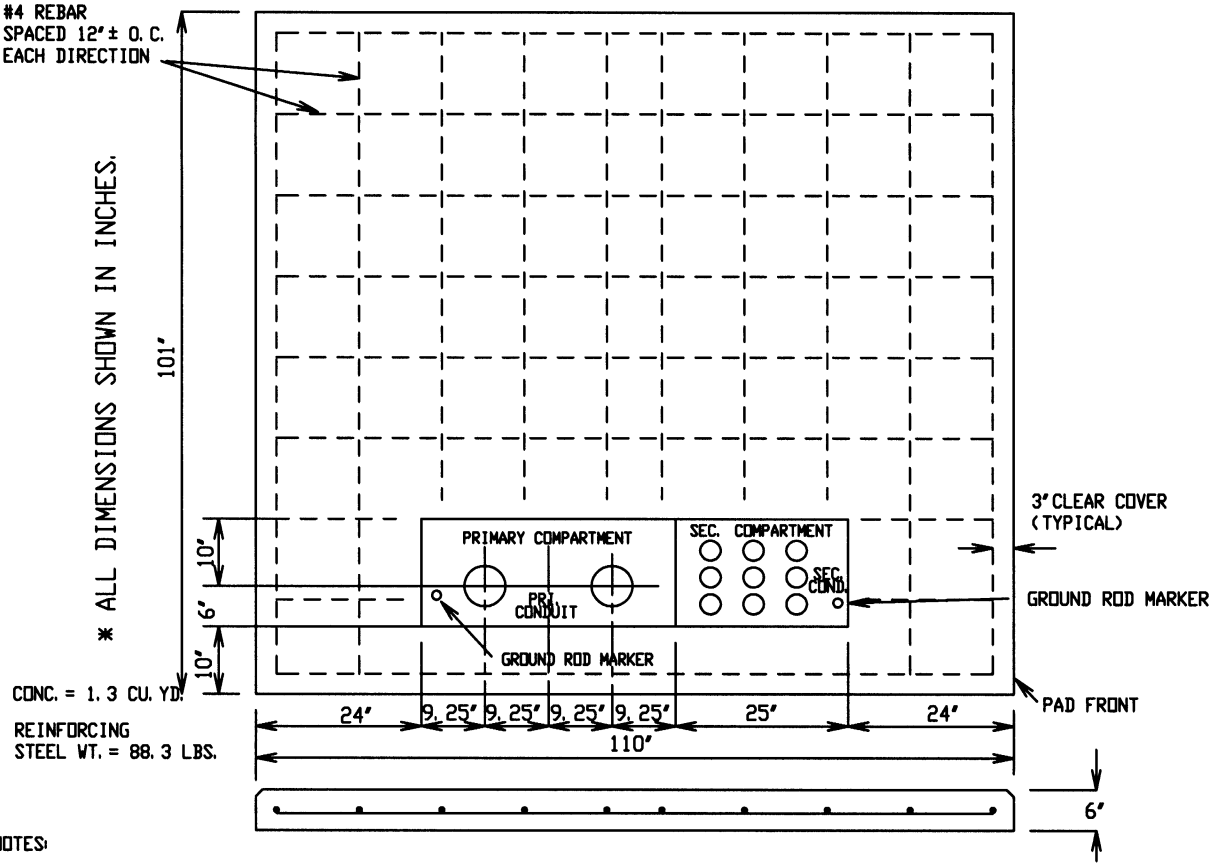
TRANSF. SIZE KVA	SECONDARY VOLTAGE		TRANSF. SIZE KVA	SECONDARY VOLTAGE		TRANSF. SIZE KVA	SECONDARY VOLTAGE	
	208Y/120	480Y/277		208Y/120	480Y/277		208Y/120	480Y/277
150	4	4	750	12	6	2500	-	16
225	4	4	1000	-	8	-	-	-
300	6	4	1500	-	12	-	-	-
500	8	6	2000	-	14	-	-	-

DISTRIBUTION CONSTRUCTION STANDARD
SOUTH CAROLINA ELECTRIC & GAS CO.

CONCRETE PAD DETAIL FOR LOOP FEED PAD-MOUNTED TRANSFORMERS

BY MEH
DATE 7-29-85
REV. 4
TUG-1
SHEET 2 OF 4

REV. #4 7/30/01 ADDED GND. MARKER INFO.
REV. #3 5/10/00 SECONDARY COMPARTMENT CHANGE
REV. #2 10-20-95 BH CHGD DWG # FRM TR-1



NOTES:

1. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI MAX. AGGREGATE SIZE 1".
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4. PROVIDE MIN. CLEARANCE FROM EDGE OF PAD TO ANY BUILDING, PROPERTY LINE, WALL, OR ANY OTHER OBSTRUCTION IN ACCORDANCE WITH DWG. TR1-SHT. 3
5. FINAL LOCATION OF CONCRETE PAD TO BE SPOTTED IN THE FIELD BY SCE&G CO. REPRESENATIVE.
6. IF LOCATION IS SUBJECT TO FLOODING, PAD SHALL BE ELEVATED ABOVE WATER LEVEL.
7. LOCATION MUST HAVE HEAVY TRUCK ACCESS NOT MORE THAN 1' FROM PAD.
8. ALL CONDUITS TO EXTEND 1' ABOVE TOP OF PAD. GROUNDING BUSHINGS REQUIRED FOR ALL METAL CONDUIT'S.
9. PAD MUST SUPPORT TRANSFORMER WEIGHT AS SHOWN IN CHART ON RIGHT. IF SOIL CONDITIONS WILL NOT WITHSTAND WEIGHT PER SQ.FT. AS SHOWN IN TABLE, AREA OF PAD MUST BE INCREASED OR PILING INSTALLED TO MEET TRANSFORMER REQUIREMENT.
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10-15-85 CLR
10-15-85 GCC

TRANSF. SIZE KVA	TRANSF WEIGHT	WEIGHT PER FT2 IN LBS.
150-225	5000	150
300-500	12000	400
750-1000	18000	300
1500-2500	23000	500

TRANSF. SIZE KVA	SECONDARY VOLTAGE	
	208Y/120	480Y/277
150	4	4
225	4	4
300	6	4
500	8	6

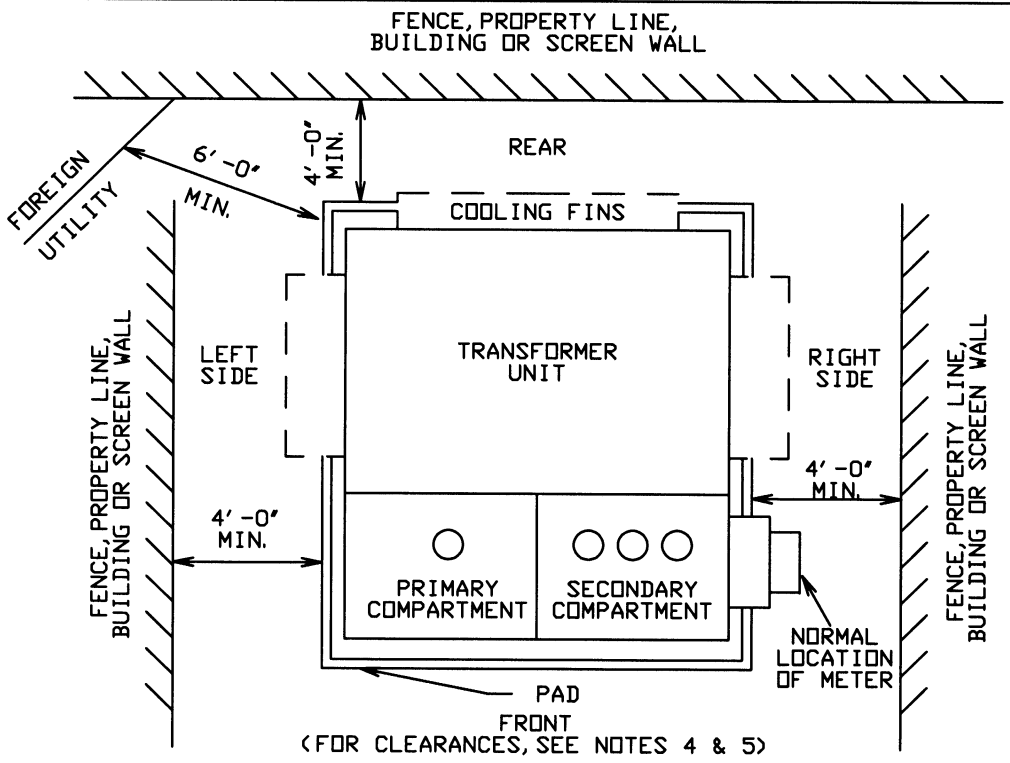
MAXIMUM NUMBER OF CONDUCTORS PER PHASE THAT CAN BE PLACED IN SEC. COMPARTMENT

TRANSF. SIZE KVA	SECONDARY VOLTAGE	
	208Y/120	480Y/277
750	12	6
1000	-	8
1500	-	12
2000	-	14
2500	-	16

DISTRIBUTION CONSTRUCTION STANDARD
SOUTH CAROLINA ELECTRIC & GAS CO.

GUIDE FOR LOCATING 3 PHASE TRANSFORMER PAD

BY BH
DATE 8-2-85
REV. 3
TUG-1
SHEET 3 OF 4



NOTES:

1. A 10 FT. MINIMUM WIDTH CORRIDOR, SUITABLE FOR HEAVY TRUCK ACCESS, SHALL BE PROVIDED TO WITHIN ONE FOOT OF THE TRANSFORMER.
2. FINAL PAD LOCATION AND ORIENTATION TO BE SPOTTED ON JOB SITE BY SCE&G COMPANY REPRESENTATIVE. PAD MUST BE LEVEL.
3. TRANSFORMER LOCATION SHOULD NOT BE WITHIN 10' OF COOLING TOWER OR APPARATUS WHICH COULD DAMAGE THE TRANSFORMER'S FINISH.
4. A MINIMUM WORKING DISTANCE OF 12 FT. FROM THE FRONT OF THE PAD TO ANY PERMANENT STRUCTURE MUST BE PROVIDED. THIS DISTANCE MAY BE REDUCED TO 4 FT. MINIMUM IF AN EASILY REMOVABLE LIGHTWEIGHT SCREEN OR BLIND IS USED. TRUCK ACCESS MAY BE INCLUDED IN THE 12 FT. MINIMUM WORKING DISTANCE.
5. THERE SHALL BE NO BUILDING OVERHANG OR ANY STRUCTURE DIRECTLY ABOVE THE CONCRETE TRANSFORMER PAD FOR A MINIMUM VERTICAL CLEARANCE OF 40 FT.
6. SUITABLE PROTECTION FROM VEHICLES TO BE PROVIDED BY CUSTOMER WHERE DEEMED NECESSARY AND APPROVED BY SCE&G COMPANY.
7. METER SHOULD BE READILY VISIBLE OR WHERE IT FACES A BUILDING WALL, A MIN. CLEARANCE OF 36"FROM WALL AND ACCESS TO IT MUST BE PROVIDED.
8. NO FOREIGN UNDERGROUND UTILITY LINES SHALL PASS UNDERNEATH OR WITHIN 6 FT. FROM THE EDGE OF THE CONCRETE TRANSFORMER PAD.
9. NO FUEL STORAGE TANKS MAY BE CLOSER THAN 15 FT. TO THE TRANSFORMER OR SUPPLY CABLES. NO FUEL DISPENSING POINT MAY BE CLOSER THAN 20 FT. TO THESE ITEMS.
10. A WORKING AREA OF 30 FT. BY 18 FT. SHALL BE AVAILABLE WHEN REPLACING TRANSFORMER. AN ADDITIONAL PARALLELING 20 FT. BY 10 FT. SHALL BE CLEAR OF OBSTRUCTIONS OVER EIGHT FEET HIGH.
11. WHEN ALL SIDES OF THE TRANSFORMER ARE ENCLOSED VENTILATION OF AT LEAST 7500 SQUARE INCHES IS REQUIRED AFTER DEDUCTING THE AREA OCCUPIED BY SCREENS, GRATINGS, OR LOUVERS.

REV. 3 10-20-95 CHGD. DWG # FRM TR-1 - BH
10-15-85 CLR
10-15-85 GCC

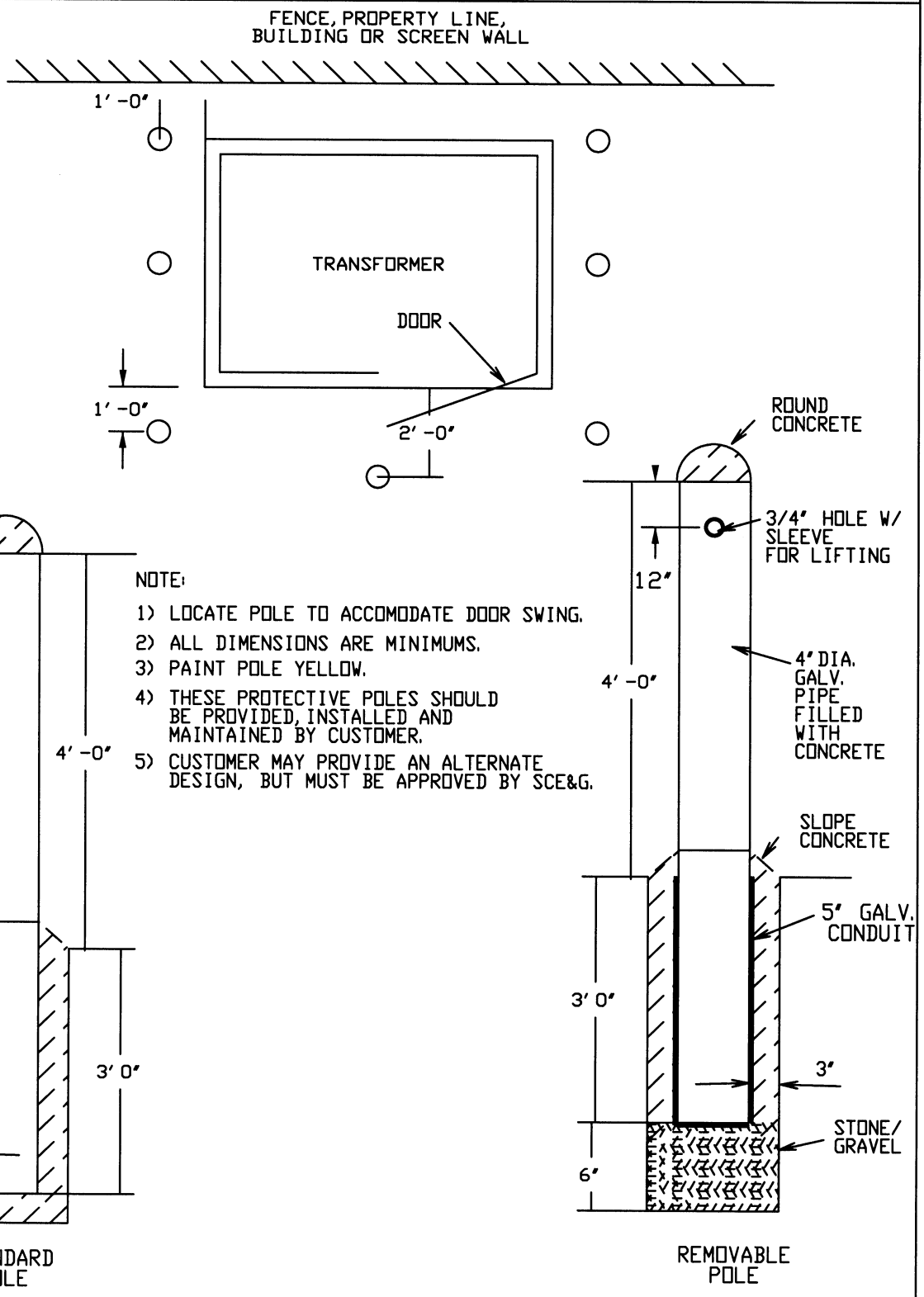
DISTRIBUTION CONSTRUCTION STANDARD
SOUTH CAROLINA ELECTRIC & GAS CO.

GUIDE FOR VEHICULAR PROTECTION TRANSFORMER AND SWITCH GEAR

BY BH
DATE 3-13-00
REV. _____

TUG-1

SHEET 4 OF 4



3/20/00 WJT
3/20/00 MLF

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SOUTH CAROLINA ELECTRIC & GAS CO.