

GENERAL TRANSFORMER NOTES

GENERAL REQUIREMENTS:

- COORDINATE WITH THE LOCAL ELECTRIC UTILITY COMPANY TO VERIFY THE EXACT REQUIREMENTS AND REGULATIONS FOR THE TRANSFORMER AND ALL CORRESPONDING EQUIPMENT.
- THE CUSTOMER SHALL INSTALL, OWN, AND MAINTAIN A CONCRETE TRANSFORMER PAD WHENEVER THE UNDERGROUND SERVICE REQUIRES A THREE PHASE TRANSFORMER PAD.
- ALL CONDUITS SHALL ENTER THROUGH THE WINDOW OPENING PROVIDED IN THE PAD FOUNDATION. THESE CONDUITS SHALL BE CUT OFF SO THE TOP OF THE CONDUIT IS FLUSH WITH THE SURFACE OF THE CONCRETE PAD.
- ALL METALLIC CONDUITS SHALL BE FITTED WITH AN INSULATING BUSHING.
- THE TOP OF THE PAD SHALL BE LEVEL AND ALL EDGES AND CORNERS ROUNDED OFF.

STRENGTH REQUIREMENTS:

- MINIMUM SOIL BEARING CAPACITY OF 2000 lbs/sq. ft.
- CONCRETE MIX SHALL HAVE A MINIMUM STRENGTH OF 3500 lbs/sq. in. AFTER 28 DAYS. MAXIMUM AGGREGATE 3/4".
- MINIMUM CONCRETE COVER OVER REINFORCING STEEL 2" UNLESS OTHERWISE NOTED.
- REINFORCING STEEL ASTM-A615 GRADE 60 PLACED APPROXIMATELY 6" O.C. EACH DIRECTION AND SECURELY TIED TOGETHER.

CLEARANCE REQUIREMENTS:

- CONCRETE PADS SHALL BE INSTALLED NO LESS THAN 20 FEET FROM DOORS, COMBUSTIBLE MATERIALS, OR WINDOWS WHICH CAN BE OPENED AND NO LESS THAN 10 FEET FROM PERMANENT (NON-OPENING) WINDOWS.
- A MINIMUM DISTANCE OF 3' IS REQUIRED BETWEEN CONCRETE PADS AND NON-COMBUSTIBLE WALLS (MIN. 2 HR FIRE RATING).
- A MINIMUM OF 3' OF WORKING SPACE MUST BE MAINTAINED FROM EACH SIDE OF THE TRANSFORMER AND A MINIMUM OF 10' MUST BE MAINTAINED ON THE FRONT (DOOR SIDE) OF THE TRANSFORMER. THIS IS TO ALLOW FOR COOLING, REPLACEMENT, AND OPERATIONS.
- WHEN THE PAD IS LOCATED NEAR A TRAFFIC AREA, 6" STEEL POSTS FILLED WITH CONCRETE MUST BE PLACED AT CORNERS OF PAD FOR PROTECTION.

SECONDARY REQUIREMENTS:

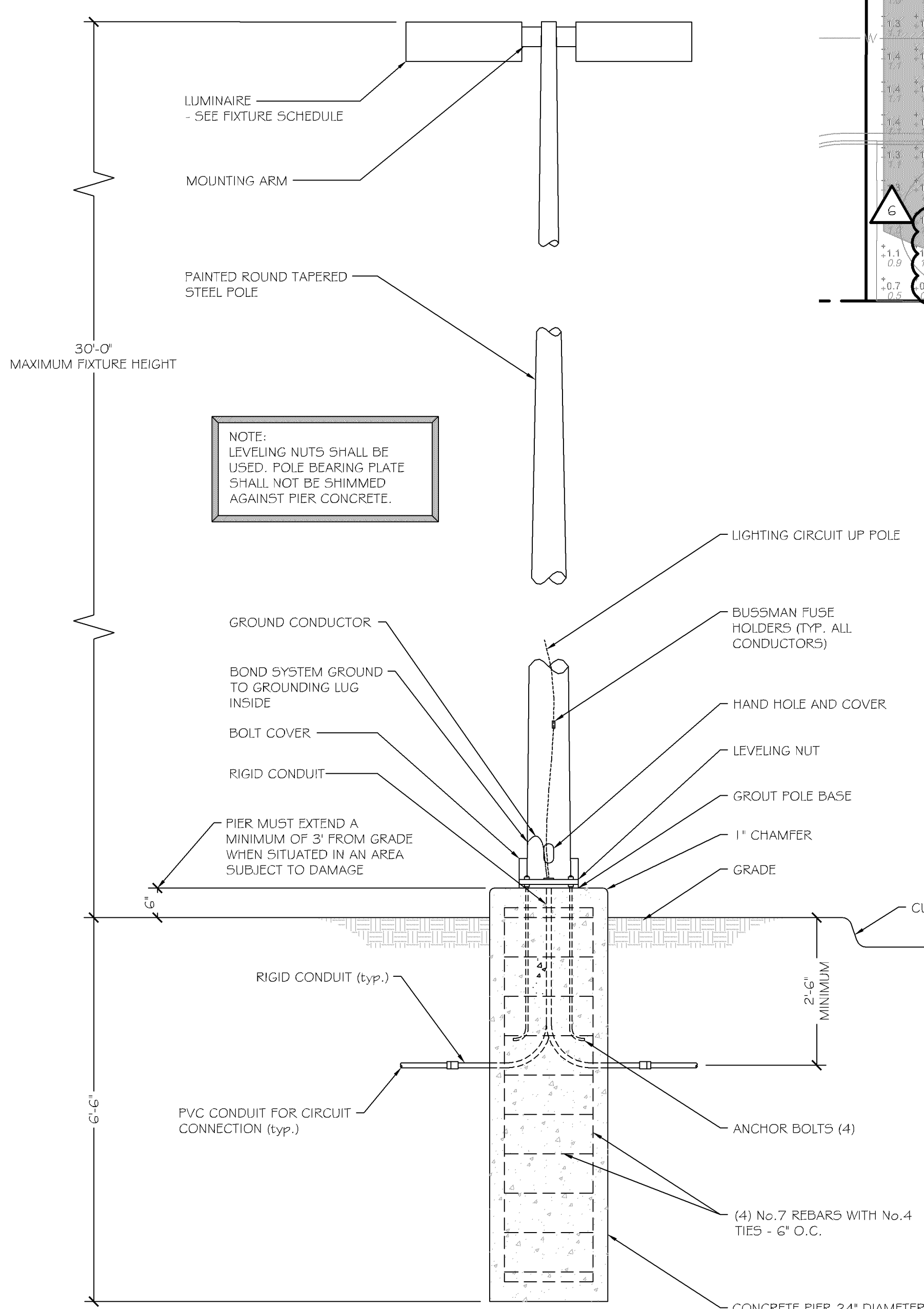
- CONDUITS FOR THE SECONDARY CABLE SHALL BE PLACED ON THE RIGHT SIDE NEAR THE FRONT OF THE CABLE OPENING TO ACCOMMODATE SECONDARY CABLE TIRATIONS AND PROVIDE ADEQUATE CLEARANCE FOR THE TRANSFORMER OIL DRAIN VALVES. THE NUMBER OF CONDUITS SHALL BE PLACED AS SHOWN ON THE DAKOTA ELECTRIC DIAGRAM.
- THE LARGEST SECONDARY SIZE CONDUCTOR SHALL BE 750 kcmil.
- A MAXIMUM OF 6 CONDUITS MAY BE USED FOR INSTALLATIONS OF LESS THAN 500 KVA.
- A MAXIMUM OF 8 CONDUITS MAY BE USED FOR INSTALLATIONS OF 500KVA TO 2000 KVA.

LIGHTING CONTROL NOTE

- ALL EXTERIOR LIGHTING TO BE FED THROUGH A LITE LIGHTING CONTROLLER AND CONTROLLED VIA PHOTOCELL. ALLOWING THE LIGHTING TO AUTOMATICALLY SWITCH ON AND OFF AS NEEDED. THE LIGHTING CONTROLLER IS LOCATED IN THE MAIN ELECTRICAL ROOM (118) LOCATED ON THE 1st FLOOR. THE PHOTOCELL IS TO BE LOCATED IN A EASILY ACCESSIBLE LOCATION THAT DOES NOT DETRACT FROM ANY ARCHITECTURAL DETAILING. FOR BEST RESULTS, IT SHOULD BE PLACED ON THE NORTHEAST FACE OF THE BUILDING.

SHEET NOTES

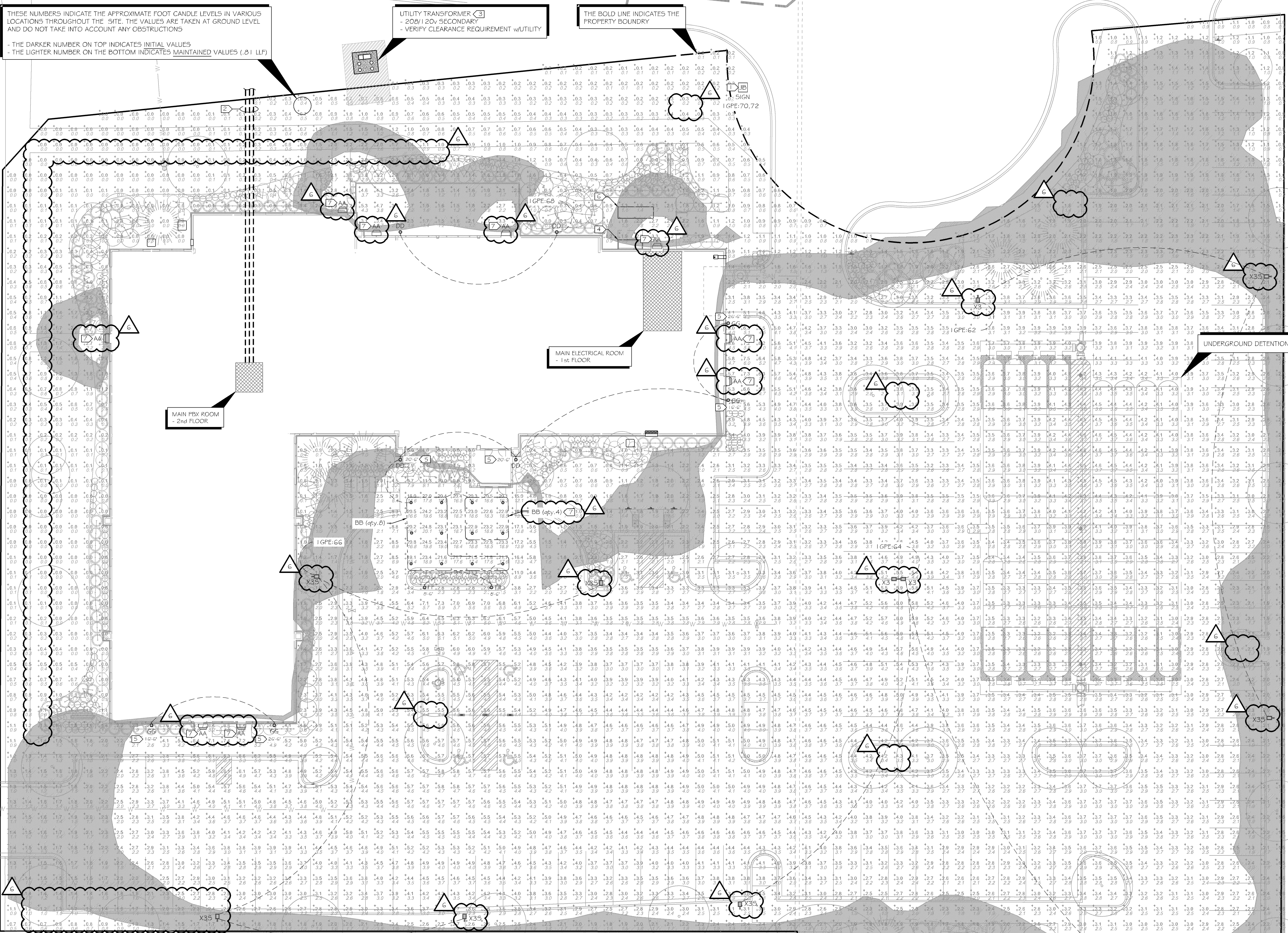
- RUN 1" CONDUIT WITH PULL STRING TO THESE AREAS FOR EXTERIOR SIGNAGE. VERIFY EXACT LOCATION & REQUIREMENTS WITH SIGN MANUFACTURER. ALL CIRCUITS FEEDING THE SIGNS REQUIRE A DISCONNECT SWITCH PREPARED WITHIN SIGHT OF THE SIGN THAT THEY ARE SERVING. WHERE THE DISCONNECTING MEANS IS OUT OF THE LINE OF SIGHT FROM ANY SECTION THAT IS ABLE TO BE ENERGIZED, THE DISCONNECTING MEANS SHALL BE CAPABLE OF BEING LOCKED IN THE OPEN POSITION. VERIFY THE EXACT ELECTRICAL REQUIREMENTS OF ALL SIGNAGE PRIOR TO BEGINNING INSTALLATION.
- PROVIDE (3) SEPARATE 4" CONDUITS FOR BUILDING SERVICES:
 - (1) TELEPHONE / INTERNET, (1) CATV, (1) SPARE.
 - VERIFY EXACT SIZES AND SOURCE LOCATIONS WITH LOCAL PROVIDERS.
 - TERMINATE CONDUITS IN THE MAIN PBX ROOM (204S) LOCATED ON THE 2nd FLOOR.
- UTILITY TRANSFORMER SHOWN AT A PROPOSED LOCATION (THE EXACT LOCATION OF THE TRANSFORMER IS DICTATED BY THE LOCAL UTILITY COMPANY). ALL UNDERGROUND SECONDARY CONDUIT OR INSTALLATION SHALL COMPLY IN FULL WITH THE NEC. REFER TO ARTICLE 250.6 PRIOR TO BEGINNING INSTALLATION WHEN CONDUCTORS ARE CONSIDERED OUTSIDE OF THE BUILDING. THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL) BETWEEN PULL POINTS. FOR EXAMPLE, CONDUIT BODIES AND BOXES, BOXES AND CONDUIT BODIES USED AS PULL OR JUNCTION BOXES SHALL COMPLY WITH ARTICLE 314.26 OF THE NEC.
- CT CABINET / METER. VERIFY INSTALLATION REQUIREMENTS WITH LOCAL UTILITY COMPANY.
- MOUNTING HEIGHTS INDICATED ARE TO CENTER OF BOX.
- EMERGENCY GENERATOR - REFER TO PLANS / SPECIFICATIONS FOR REQUIREMENTS.
- ALL BUILDING MOUNT EXTERIOR GREEN LIGHTING SHALL BE CONNECTED TO THE NEAREST INTERIOR EMERGENCY LIGHTING CIRCUIT AREA OF THE SWITCH LUG.



SITE LIGHTING DETAIL - PARKING LOT POLE MOUNT

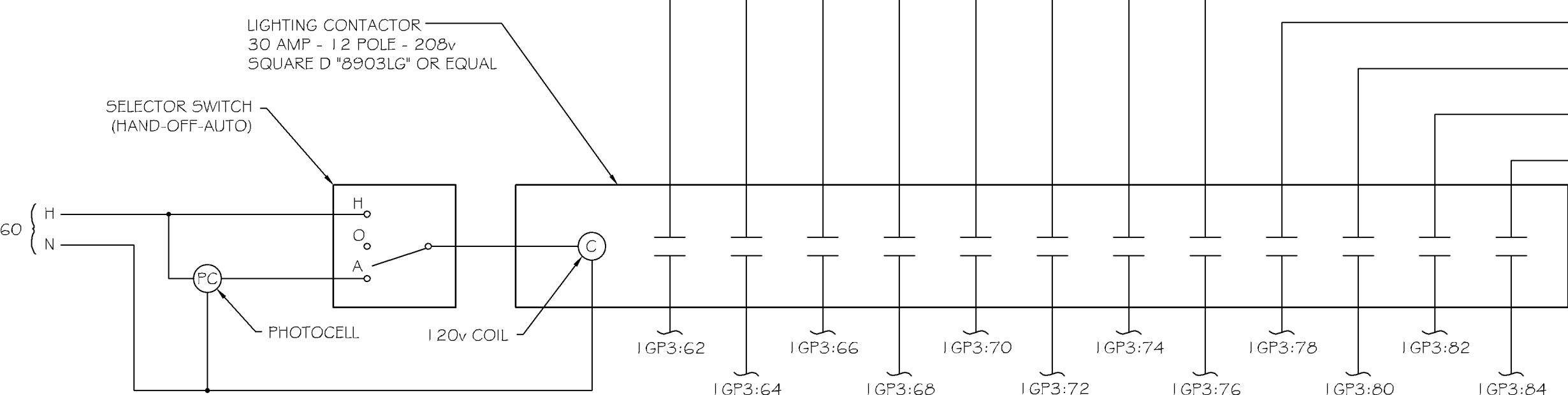
THESE NUMBERS INDICATE THE APPROXIMATE FOOT CANDLE LEVELS IN VARIOUS LOCATIONS THROUGHOUT THE SITE. THE VALUES ARE TAKEN AT GROUND LEVEL AND DO NOT TAKE INTO ACCOUNT ANY OBSTRUCTIONS

- THE DARKER NUMBER ON TOP INDICATES INITIAL VALUES
- THE LIGHTER NUMBER ON THE BOTTOM INDICATES MAINTAINED VALUES (.81 LLF)



SITE LIGHTING DETAIL - LIGHTING CONTACTOR

NOTE: THE PHOTOCELL IS TO BE LOCATED IN A EASILY ACCESSIBLE LOCATION THAT DOES NOT DETRACT FROM ANY ARCHITECTURAL DETAILING. FOR BEST RESULTS, IT SHOULD BE PLACED ON THE NORTHEAST FACE OF THE BUILDING.



PHOTOMETRICS HAVE CHANGED THROUGHOUT

LIGHTING FIXTURE SCHEDULE

TAG	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	VOLTAGE	LAMPING	MOUNTING	FINISH	WATTS	CONTROL	NOTES
AA	LITHONIA	#W912 LED SERIES	LED AREA LIGHT (TYPE III DISTRIBUTION)	120V	LED (4,000K)	WALL - SURFACE	TBD	24	PHOTOCONTROL	EMERGENCY BATTERY OPTION (ELOW)
BB	GOTHAM	EVO SERIES - 2200 LUMEN	LED DOWNLIGHT (WET LOCATION TRIM)	120V	LED (4,000K)	CEILING - RECESSED	TBD	20	CONTACTOR	FORTE COCHERE
DD	HALLMARK FIXTURE SUPPLIED BY OWNER		LED SPOT LIGHT (UPLIGHTING)	120V	LED	WALL - SURFACE	TBD	32	CONTACTOR	BUILDING HIGHLIGHT - VERIFY MOUNTING HEIGHTS WITH ARCHITECTURAL ELEVATIONS
FF	HALLMARK FIXTURE SUPPLIED BY OWNER		LED SPOT LIGHT (DOWNLIGHTING)	120V	LED	COLUMN - SURFACE	TBD	13	CONTACTOR	MAIN ENTRANCE - COVERED WITH HOLIDAY INN SHROUD
GG	SISTEMALUX	S-5061 UNV (4 NARROW BEAM)	ARCHITECTURAL ACCENT LIGHT	120V	LED	WALL - SURFACE	TBD	39	CONTACTOR	BUILDING ACCENT - VERIFY MOUNTING HEIGHTS WITH ARCHITECTURAL ELEVATIONS
X3	LITHONIA	CSX2 LED2 700 40K T3M	LED AREA LIGHT	208	LED (4,000K)	POLE - 30'-0\" a.f.f.	TBD	266	CONTACTOR	EXTERIOR PARKING AREA (TYPE III DISTRIBUTION) - 1.03.5 LUMENS PER WATT
X35	LITHONIA	CSX2 LED2 700 40K T3M HS	LED AREA LIGHT W/HOUSE SHIELD	208	LED (4,000K)	POLE - 30'-0\" a.f.f.	TBD	266	CONTACTOR	EXTERIOR PARKING AREA (TYPE III DISTRIBUTION) - 1.03.5 LUMENS PER WATT

Certification & Seal:

By me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.



James R. Bloomington 9/28/2017
State Registered Professional Engineer
No. 42202

09/28/17 ADDENDUM #6
09/27/17 ADDENDUM #5
09/28/17 ADDENDUM #3
MARK DATE DESCRIPTION
DATE ISSUED: 2017-06-07
ISSUE PHASE: PERMITTING
PROJECT TITLE: HOLIDAY INN EXPRESS & SUITES

5 STORIES
171 UNITS
PROJECT OWNER: HAWKEYE HOTELS

PROJECT LOCATION: BLOOMINGTON, MN

SHEET TITLE:

ELECTRICAL
SITE PLAN

0 7.5' 15' 30'
1" = 20'
1" = 30'
3/4" = 40'
1/2" = 60'
PROJ. NO. 33476
SHEET NUMBER E002