

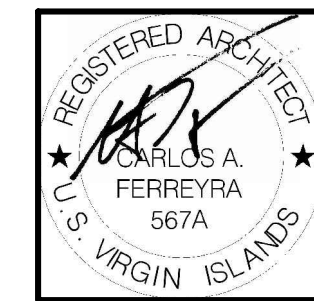
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CAD FILE: 17-014/		DESIGN DEVELOPMENT DWGS: (DD)
CAD SUBFILE: 17-014-E001 -R00 -BD		ADVANCED DWGS: (AD)
PLOT DATE: 09.01.18		BID DWGS: (BD)
PLOT SCALE: AS SHOWN		CONTRACT DWGS: (CD)
ISSUE DATE: 09.01.18		RECORD DWGS: (RD)
REMARKS: NOT FOR CONSTRUCTION		IN PROCESS

- KEYED NOTES:**
- ① - ALL CONDUIT RISERS FROM THE METER BANK TO RETAIL & OFFICE AREAS AS WELL AS TO THE APARTMENT PANELS SHALL BE INSTALLED IN THE ARCHITECTURAL CHASES LEFT FOR THIS PURPOSE.
 - ② - INSTALL AT 36" BELOW FINISHED GRADE CONCRETE ENCASED.

ELECTRICAL SITE PLAN
SCALE: 3/32" = 1'-0"

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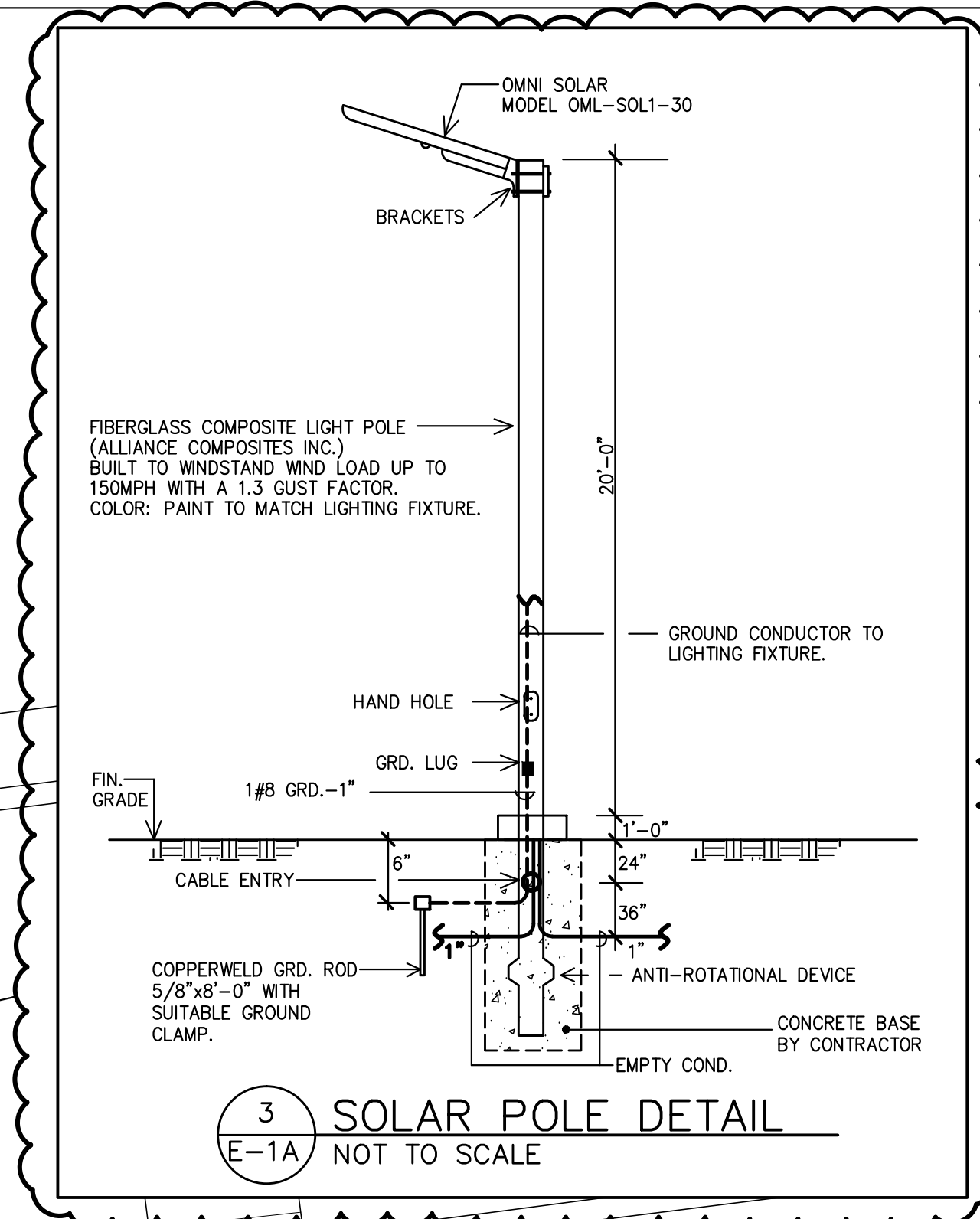
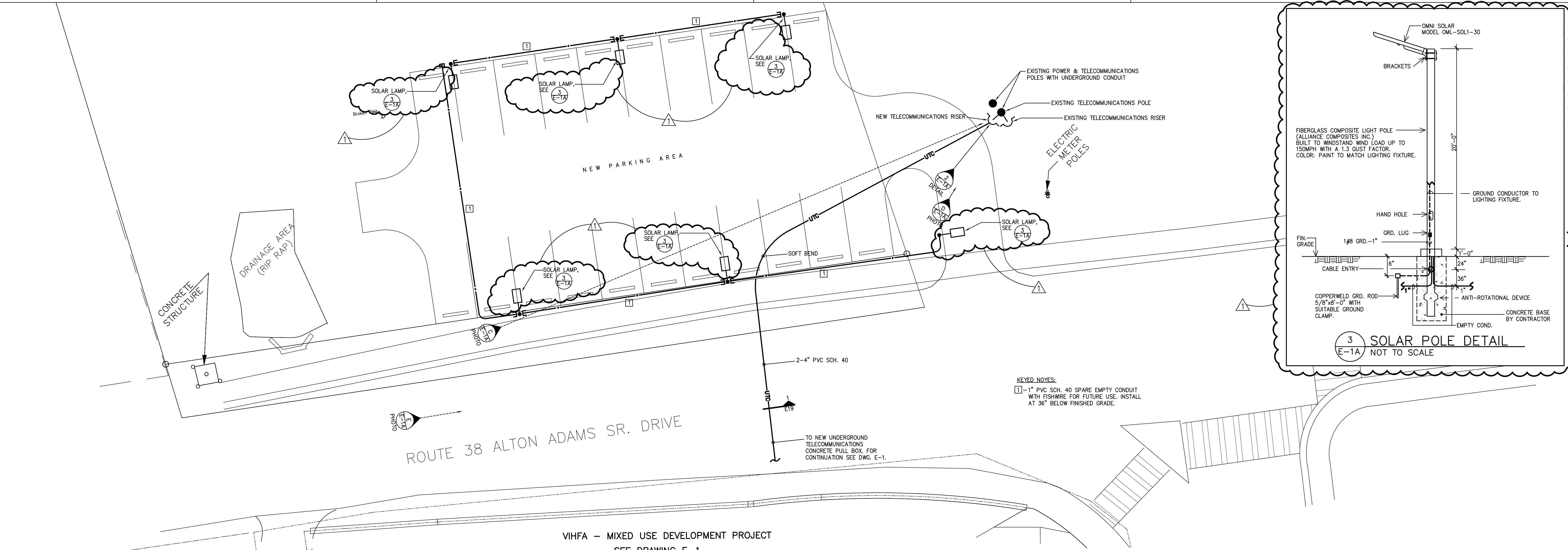
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VIHFA - MIXED USE DEVELOPMENT ST. THOMAS, U.S. VIRGIN ISLANDS ELECTRICAL SITE PLAN

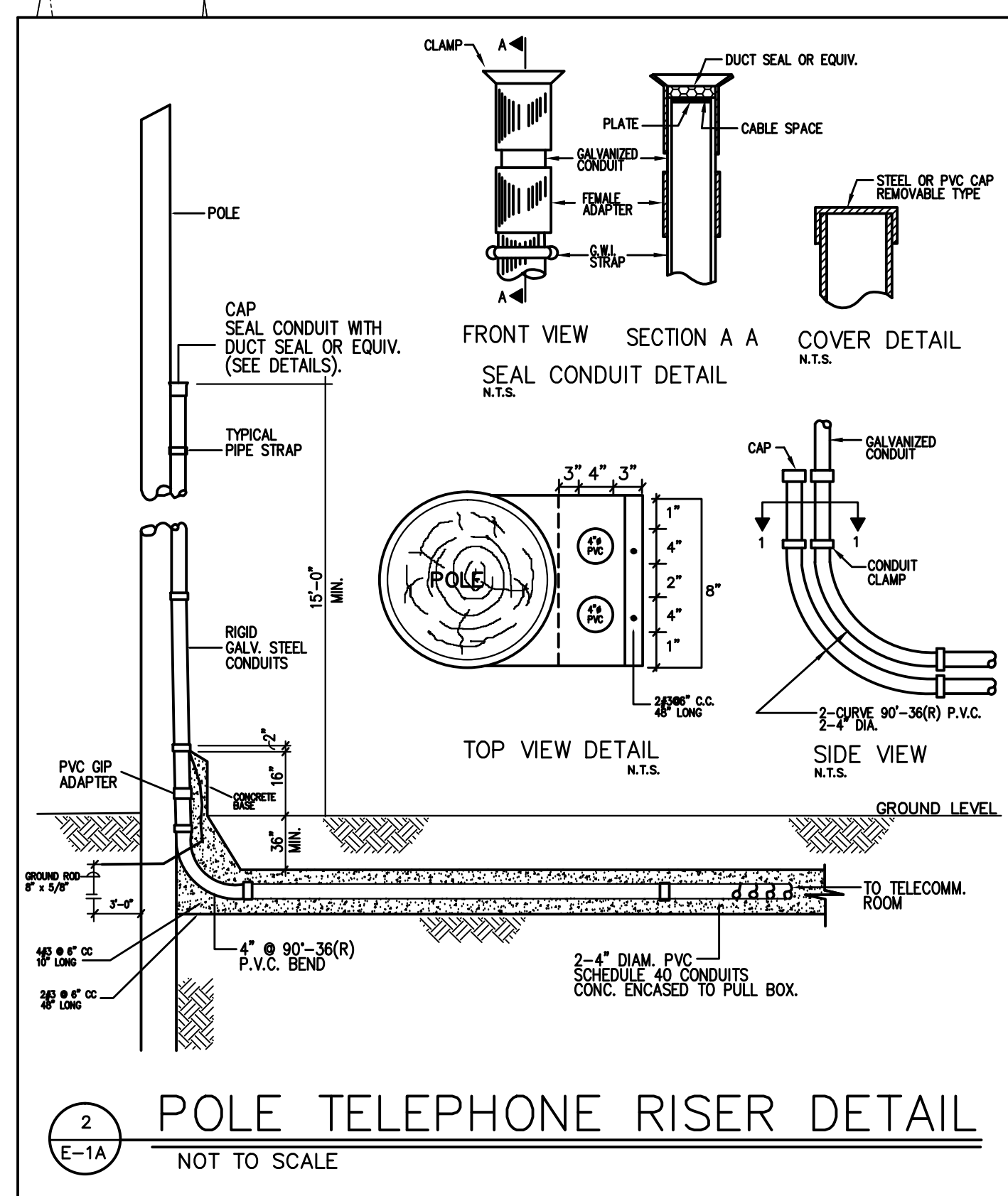
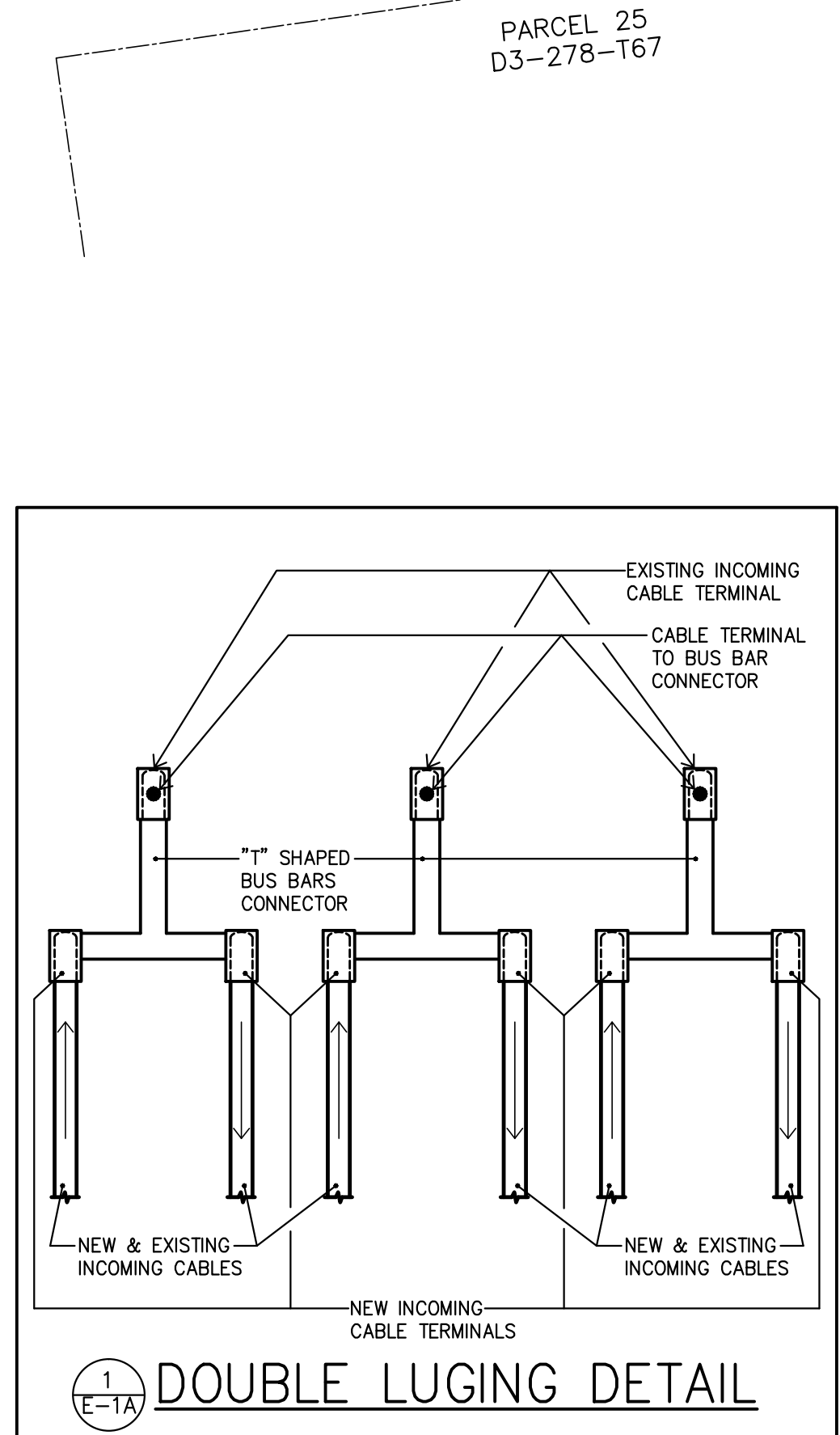


KEYED NOYES:
 1- 1" PVC SCH. 40 SPARE EMPTY CONDUIT WITH FISHWIRE FOR FUTURE USE. INSTALL AT 36" BELOW FINISHED GRADE.

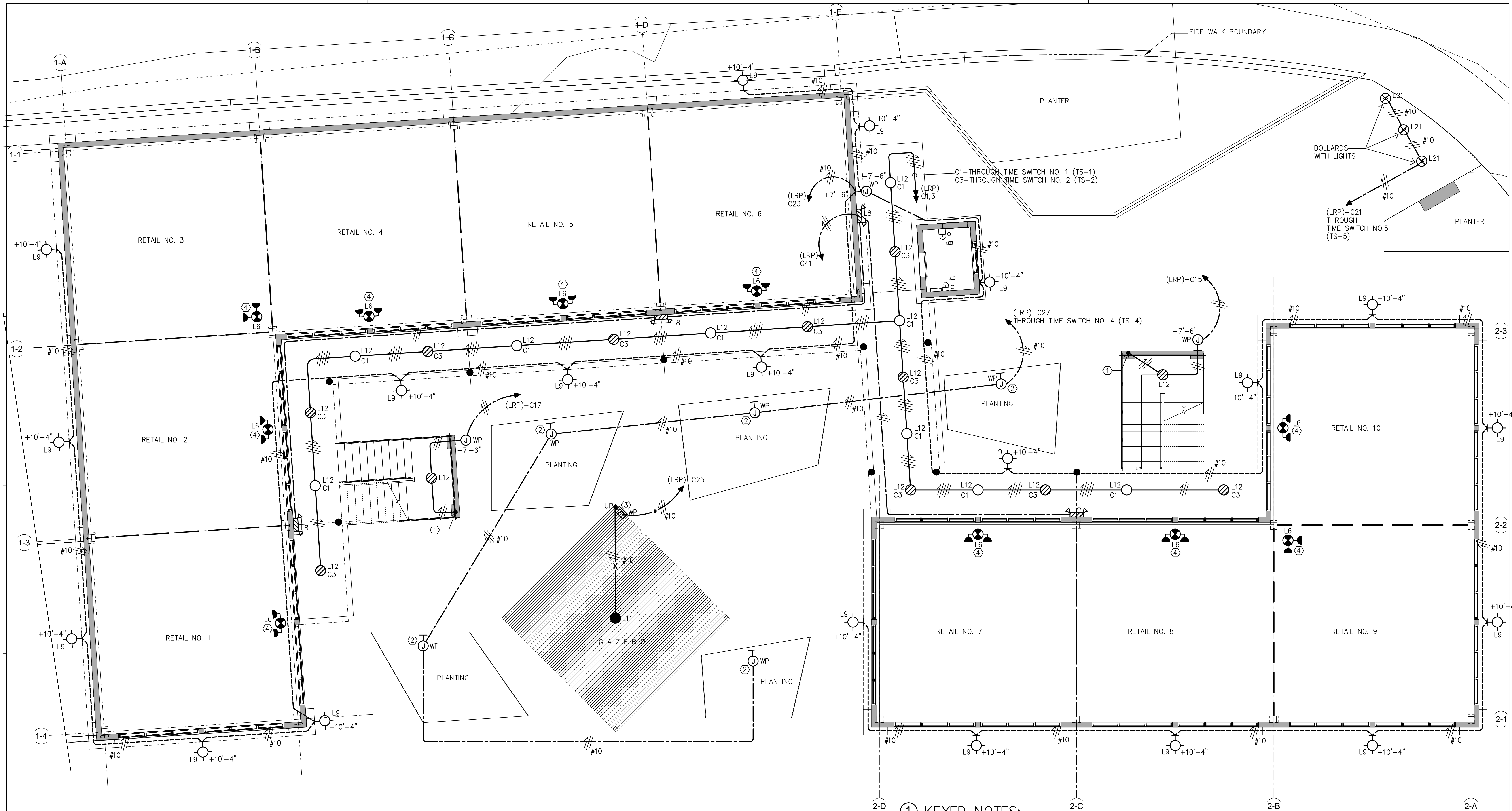
ROUTE 38 ALTON ADAMS SR. DRIVE

VIHFA - MIXED USE DEVELOPMENT PROJECT
 SEE DRAWING E-1

ELECTRICAL OFF-SITE PLAN
 SCALE: 3/32" = 1'-0"



LIV DRAWING HISTORY	LIV-DSB	DESIGN STAGE
PROJECT NO:	17-014	SCHEMATIC DWGS: (SD)
DRAWING NO:	E-1A	PRELIMINARY DWGS: (PD)
CAD FILE:	17-014/	DESIGN DEVELOPMENT DWGS: (DD)
CAD SUBFILE:	17-014-E01A - R00 - BD	ADVANCED DWGS: (AD)
PLOT DATE:	02.06.19	BID DWGS: (BD)
PLOT SCALE:	AS SHOWN	CONTRACT DWGS: (CD)
ISSUE DATE:	02.06.19	RECORD DWGS: (RD)
REMARKS:	NOT FOR CONSTRUCTION	IN PROCESS



GROUND FLOOR PLAN – LIGHTING
SCALE: 3/16" = 1'-0"

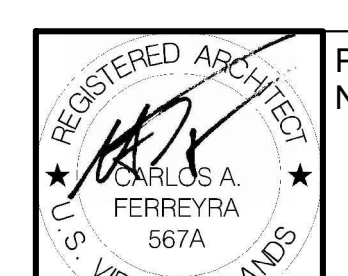
KEYED NOTES:

- ① – UP TO LUMINARY TYPE L12 AT SECOND FLOOR ABOVE.
- ② – CROUSE HINDS TYPE "FS" BOX WITH GASKETED FRONT COVER PLATE FOR PLANTER LIGHTS.
- ③ – SINGLE POLE SWITCH—20 AMPS/125 VOLTS INSTALLED EXPOSED AT 4'-0" A.F.F. IN A CROUSE HINDS "FS" TYPE BOX WITH WEATHERPROOF COVER PLATE.
- ④ – COMBINATION EXIT & EMERGENCY LIGHTING FIXTURE TO BE LOCATED AT RETAIL AREA EGRESS DOOR AND FED FROM CORRESPONDING RETAIL AREA PANEL.

LJV DRAWING HISTORY	LJV-DSB	DESIGN STAGE
PROJECT NO: 17-014		SCHEMATIC DWGS: (SD)
DRAWING NO: E-2		PRELIMINARY DWGS: (PD)
CAD FILE: 17-014/		DESIGN DEVELOPMENT DWGS: (DD)
CAD SUBFILE: 17-014-E002-R00-BD		ADVANCED DWGS: (AD)
PLOT DATE: 09.01.18		BID DWGS: (BD)
PLOT SCALE: AS SHOWN		CONTRACT DWGS: (CD)
ISSUE DATE: 09.01.18		RECORD DWGS: (RD)
REMARKS: NOT FOR CONSTRUCTION		IN PROCESS

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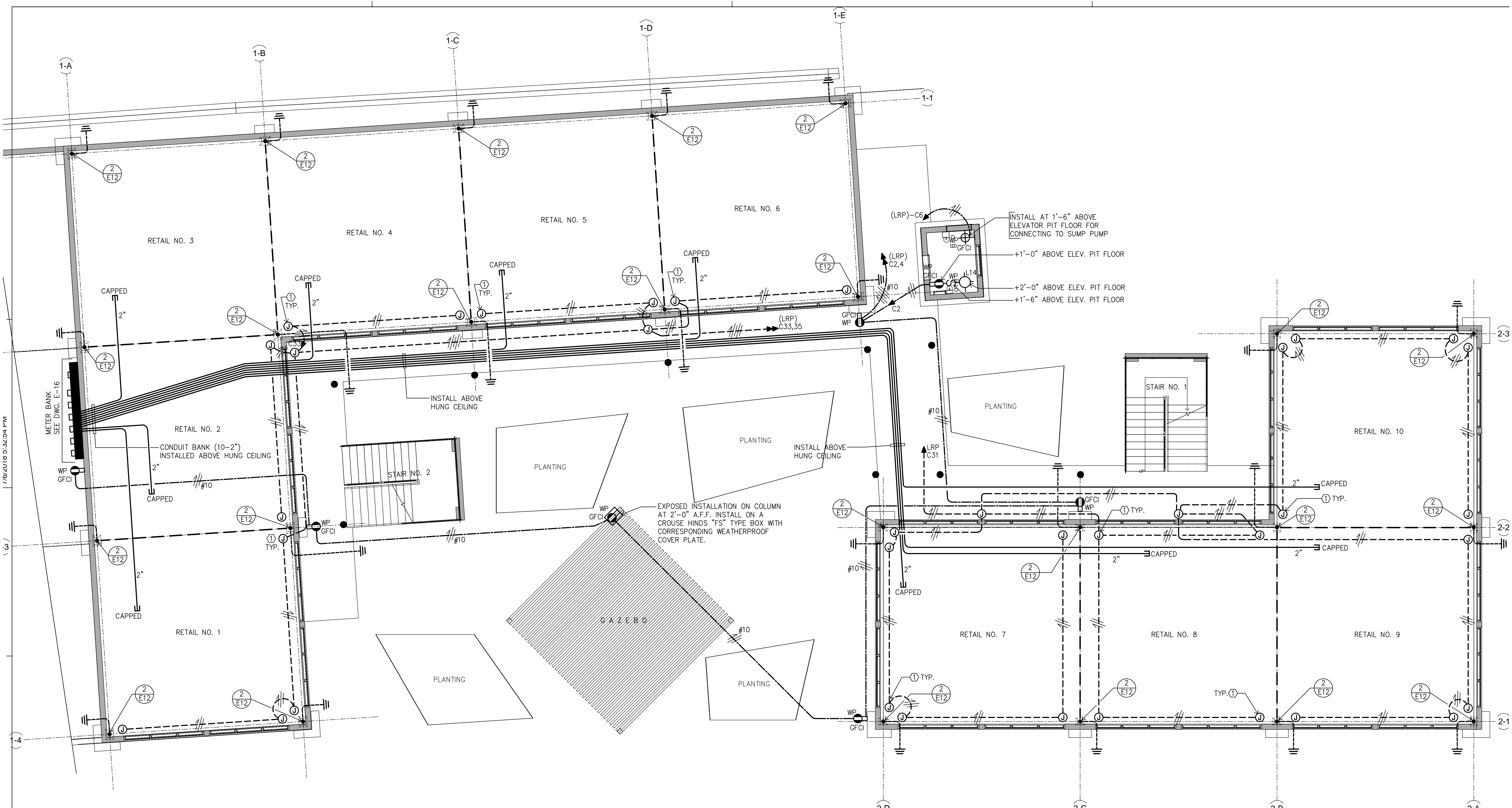


PROJECT No: '34 ISSUED/00/00	REVISIONS	Date
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VHFA - MIXED USE DEVELOPMENT
ST. THOMAS, U.S. VIRGIN ISLANDS
GROUND FLOOR PLAN - LIGHTING

Sheet Issue Date: _____

E-2



GROUND FLOOR PLAN – POWER
SCALE: 3/16" = 1'-0"

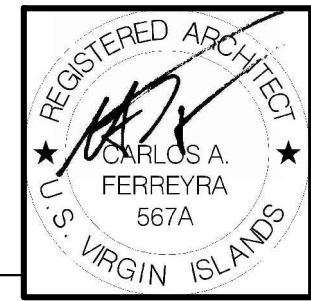
KEYED NOTES:

① – JUNCTION BOX LOCATED ABOVE HUNG CEILING FOR CONNECTION TO FUTURE HURRICANE SHUTTERS. THEY ARE SHOWN TO BE CONNECTED TO THE COMMON ELECTRICAL FACILITIES PANEL, AS THE RETAIL AREAS BECOME OCCUPIED THE JUNCTION BOXES ARE TO BE DISCONNECTED FROM THE COMMON FACILITIES PANEL AND TRANSFERRED TO A DEDICATED CIRCUIT AT THE CORRESPONDING RETAIL AREA PANEL.

LIV DRAWING HISTORY	LIV-DSB	DESIGN STAGE
PROJECT NO:	17-014	SCHEMATIC DWGS: (SD)
DRAWING NO:	E-3	PRELIMINARY DWGS: (PD)
CAD FILE:	17-014/	DESIGN DEVELOPMENT DWGS: (DD)
CAD SUBFILE:	17-014-E003 - R00 - BD	ADVANCED DWGS: (AD)
PLOT DATE:	09.01.18	BID DWGS: (BD)
PLOT SCALE:	AS SHOWN	CONTRACT DWGS: (CD)
ISSUE DATE:	09.01.18	RECORD DWGS: (RD)
REMARKS:	NOT FOR CONSTRUCTION	IN PROCESS

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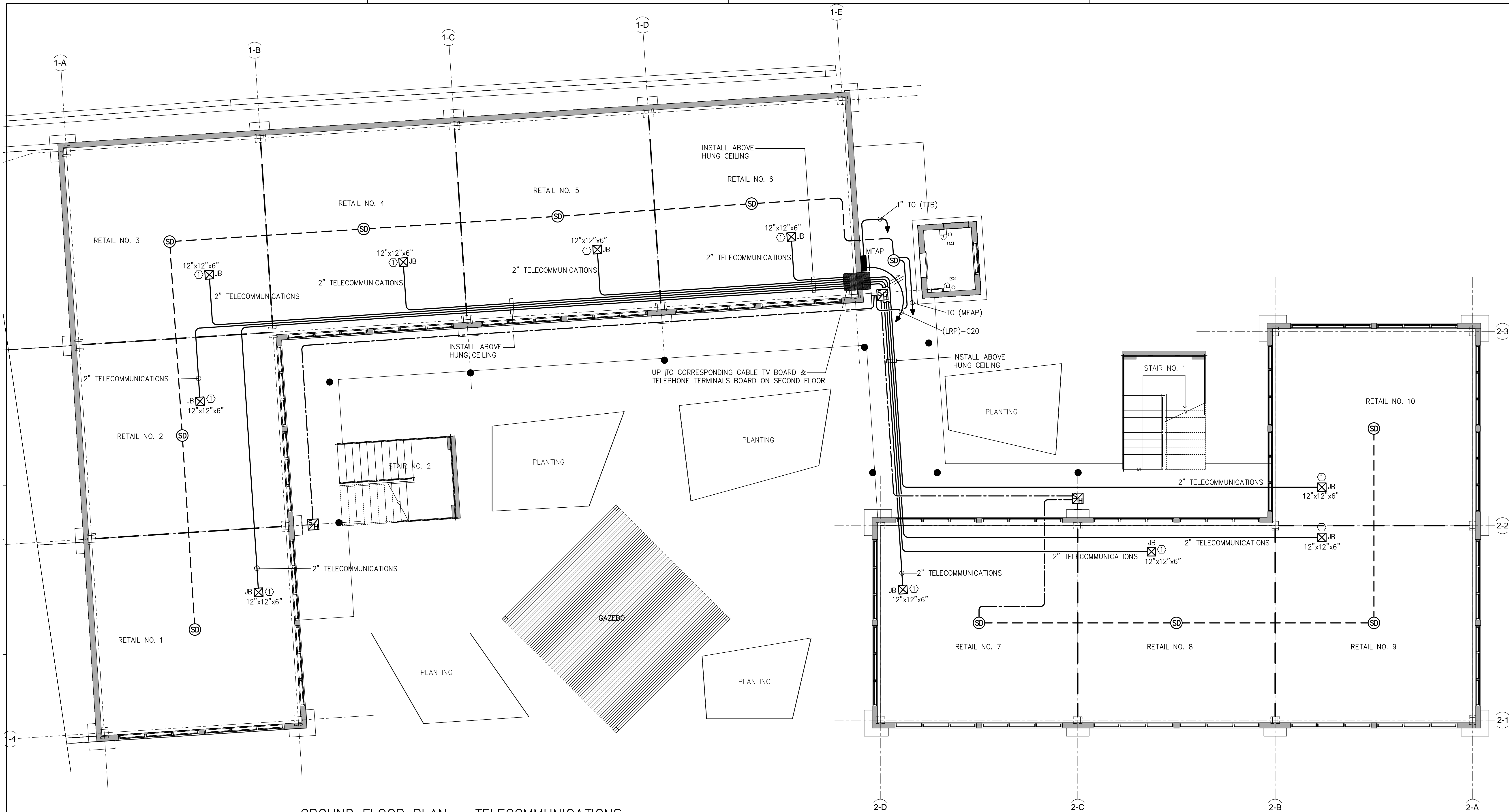
REVISIONS	Date	Sheet Issue Date:
#		

**VIHFA - MIXED USE DEVELOPMENT
ST. THOMAS, U.S. VIRGIN ISLANDS
GROUND FLOOR PLAN - POWER**

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3

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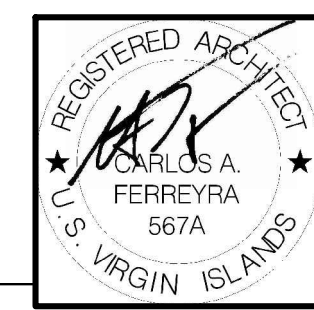
GROUND FLOOR PLAN – TELECOMMUNICATIONS
 SCALE: 3/16" = 1'-0"

KEYED NOTES:
 ① – JUNCTION BOX INSTALLED ABOVE HUNG CEILING.
 SIZE AS INDICATED IN DRAWINGS. FLAT BLANK
 BOTTOM COVER PLATE.

LJV DRAWING HISTORY	LJV-DSB	DESIGN STAGE
PROJECT NO:	17-014	SCHEMATIC DWGS: (SD)
DRAWING NO:	E-4	PRELIMINARY DWGS: (PD)
CAD FILE:	17-014/	DESIGN DEVELOPMENT DWGS: (DD)
CAD SUBFILE:	17-014-E004-R00-BD	ADVANCED DWGS: (AD)
PLOT DATE:	09.01.18	BID DWGS: (BD)
PLOT SCALE:	AS SHOWN	CONTRACT DWGS: (CD)
ISSUE DATE:	09.01.18	RECORD DWGS: (RD)
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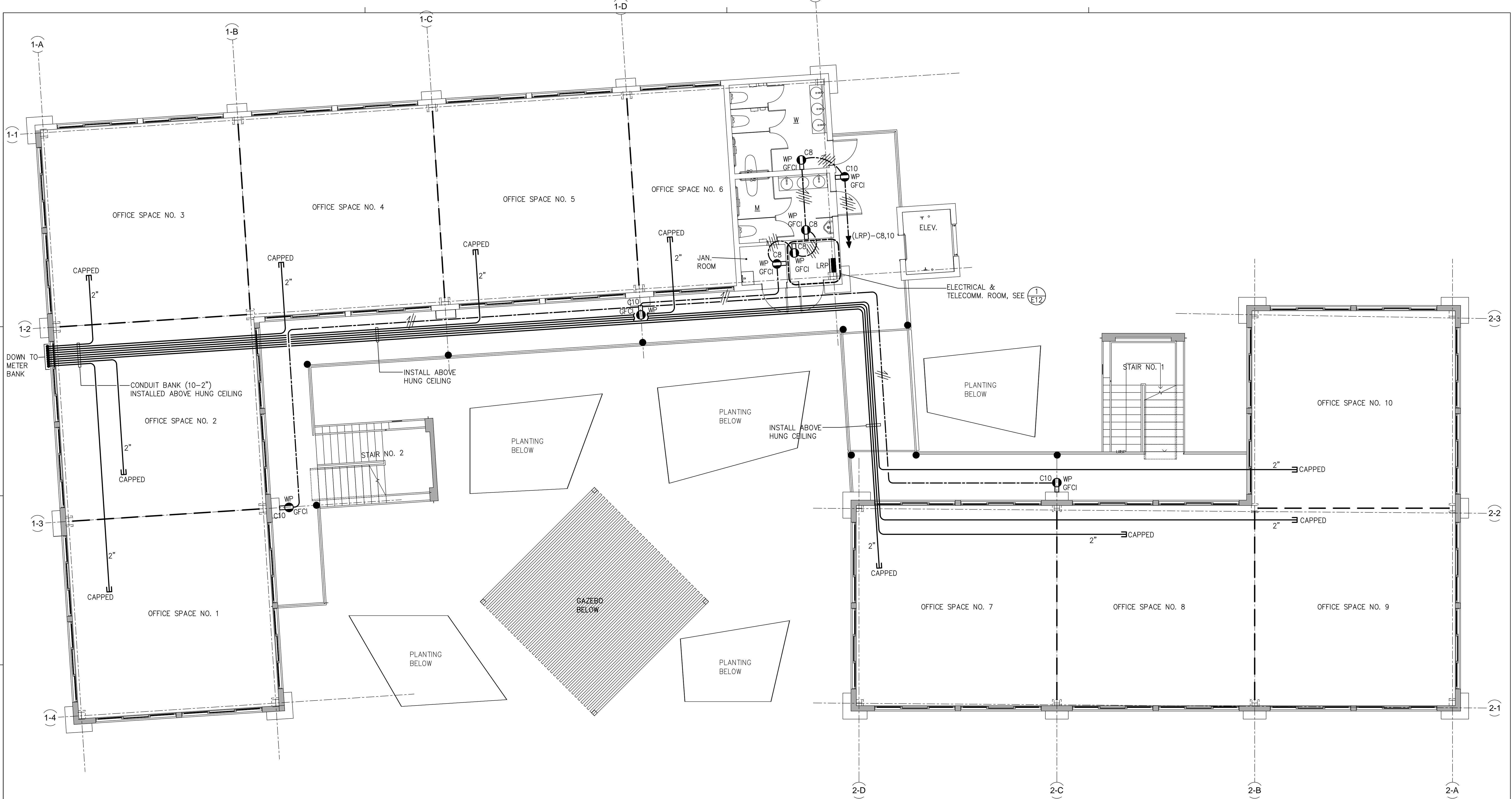
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GROUND FLOOR PLAN - TELECOMMUNICATIONS

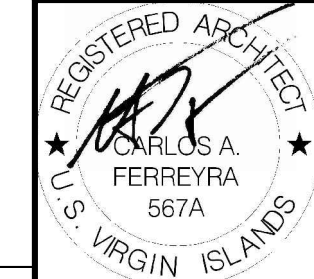


SECOND FLOOR PLAN – POWER
SCALE: 3/16" = 1'-0"

LJV DRAWING HISTORY	LJV-DSB	DESIGN STAGE
PROJECT NO: 17-014		SCHEMATIC DWGS: (SD)
DRAWING NO: E-6		PRELIMINARY DWGS: (PD)
CAD FILE: 17-014/		DESIGN DEVELOPMENT DWGS: (DD)
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PLOT DATE: 09.01.18		BID DWGS: (BD)
PLOT SCALE: AS SHOWN		CONTRACT DWGS: (CD)
ISSUE DATE: 09.01.18		RECORD DWGS: (RD)
REMARKS: NOT FOR CONSTRUCTION		IN PROCESS

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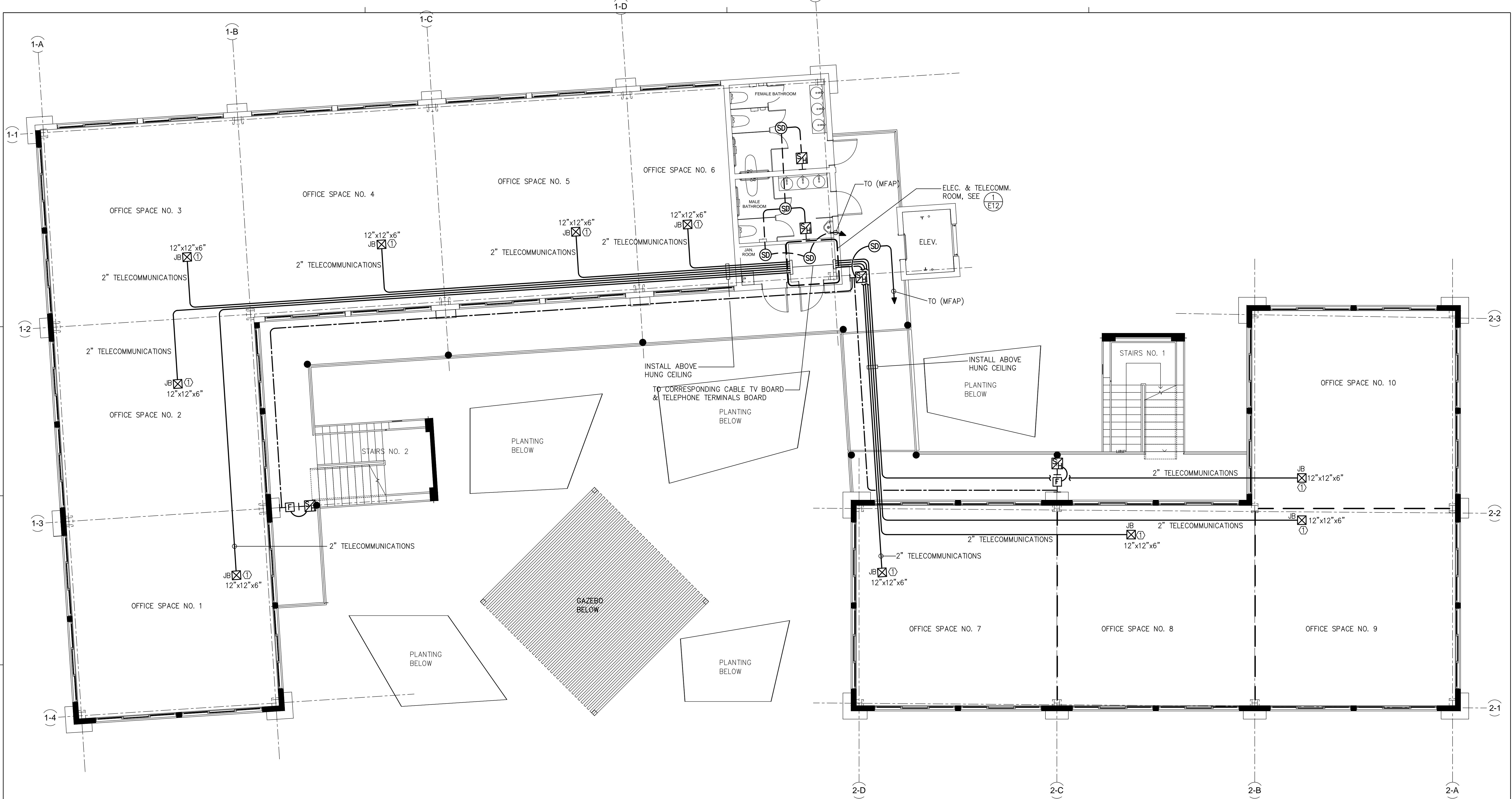
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VIHFA - MIXED USE DEVELOPMENT ST. THOMAS, U.S. VIRGIN ISLANDS
SECOND FLOOR PLAN - POWER

E-6



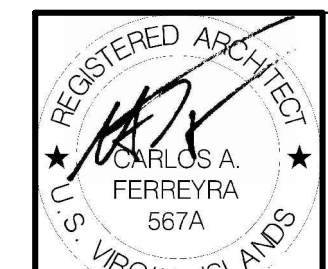
SECOND FLOOR PLAN – TELECOMMUNICATIONS
 SCALE: 3/16" = 1'-0"

KEYED NOTES:
 (1) – JUNCTION BOX INSTALLED ABOVE HUNG CEILING.
 SIZE AS INDICATED IN DRAWINGS. FLAT BLANK
 BOTTOM COVER PLATE.

LJV DRAWING HISTORY	LJV-DSB	DESIGN STAGE
PROJECT NO: 17-014		SCHEMATIC DWGS: (SD)
DRAWING NO: E-7		PRELIMINARY DWGS: (PD)
CAD FILE: 17-014/		DESIGN DEVELOPMENT DWGS: (DD)
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PLOT DATE: 09.01.18		BID DWGS: (BD)
PLOT SCALE: AS SHOWN		CONTRACT DWGS: (CD)
ISSUE DATE: 09.01.18		RECORD DWGS: (RD)
REMARKS: NOT FOR CONSTRUCTION		IN PROCESS

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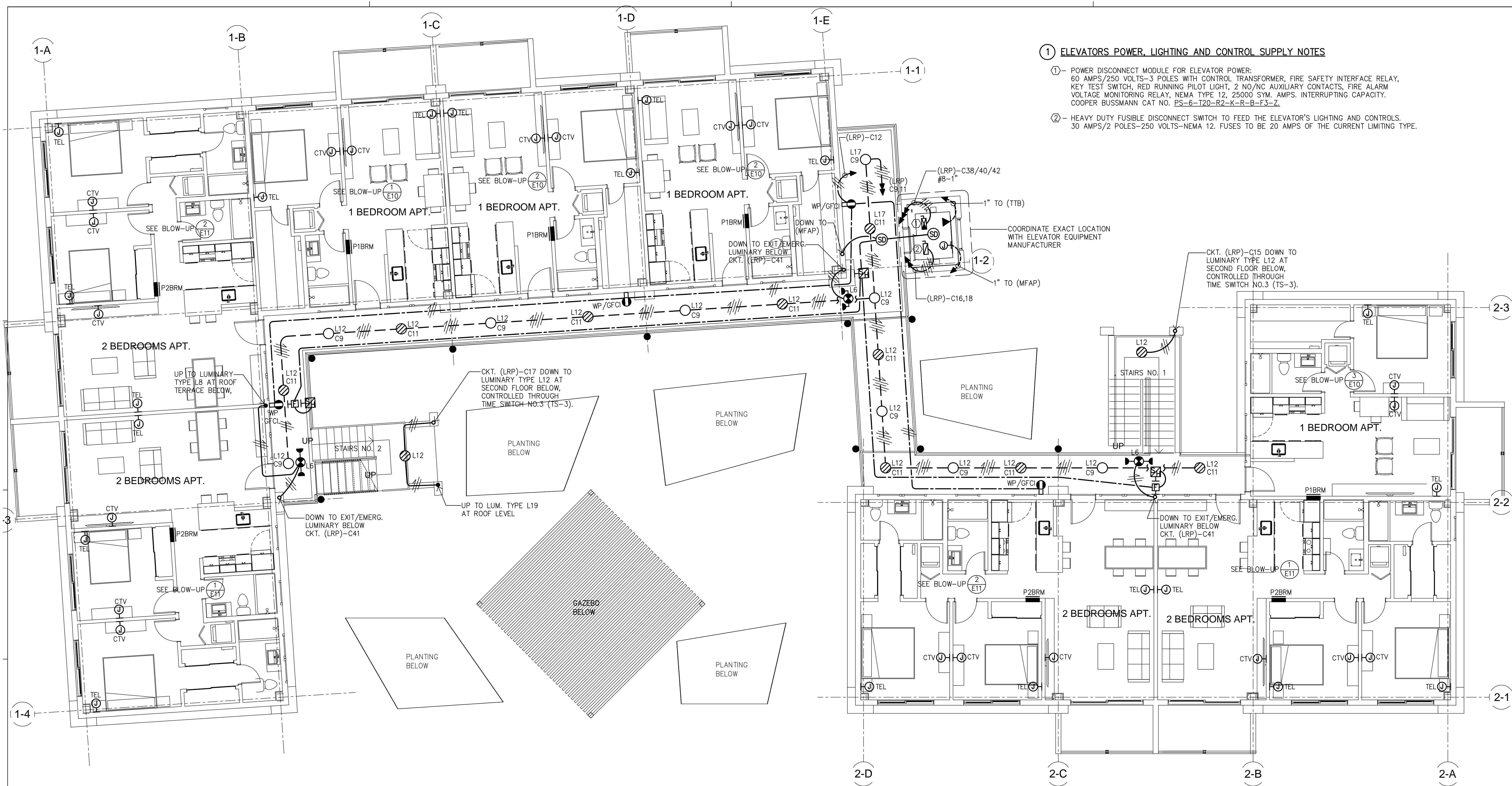


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VIHFA - MIXED USE DEVELOPMENT ST. THOMAS, U.S. VIRGIN ISLANDS
 SECOND FLOOR PLAN - TELECOMMUNICATIONS

E-7



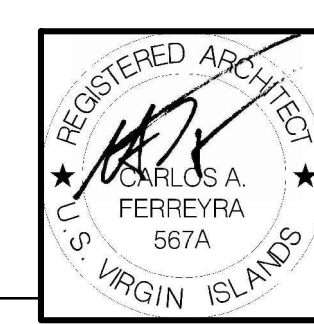
- 1 ELEVATORS POWER, LIGHTING AND CONTROL SUPPLY NOTES**
- ① - POWER DISCONNECT MODULE FOR ELEVATOR POWER:
60 AMPS/250 VOLTS-3 POLES WITH CONTROL TRANSFORMER, FIRE SAFETY INTERFACE RELAY, KEY TEST SWITCH, RED RUNNING PILOT LIGHT, 2 NO/NC AUXILIARY CONTACTS, FIRE ALARM VOLTAGE MONITORING RELAY, NEMA TYPE 12, 25000 SYM. AMPS. INTERRUPTING CAPACITY. COOPER BUSSMANN CAT NO. PS-6-T20-R2-K-R-B-F3-Z.
 - ② - HEAVY DUTY FUSIBLE DISCONNECT SWITCH TO FEED THE ELEVATOR'S LIGHTING AND CONTROLS.
30 AMPS/2 POLES-250 VOLTS-NEMA 12. FUSES TO BE 20 AMPS OF THE CURRENT LIMITING TYPE.

THIRD FLOOR PLAN - ELECTRICAL INSTALLATION
SCALE: 3/16" = 1'-0"

LJV DRAWING HISTORY	LJV-DSB	DESIGN STAGE
PROJECT NO: 17-014		SCHEMATIC DWGS: (SD)
DRAWING NO: E-8		PRELIMINARY DWGS: (PD)
CAD FILE: 17-014/		DESIGN DEVELOPMENT DWGS: (DD)
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PLOT DATE: 09.01.18		BID DWGS: (BD)
PLOT SCALE: AS SHOWN		CONTRACT DWGS: (CD)
ISSUE DATE: 09.01.18		RECORD DWGS: (RD)
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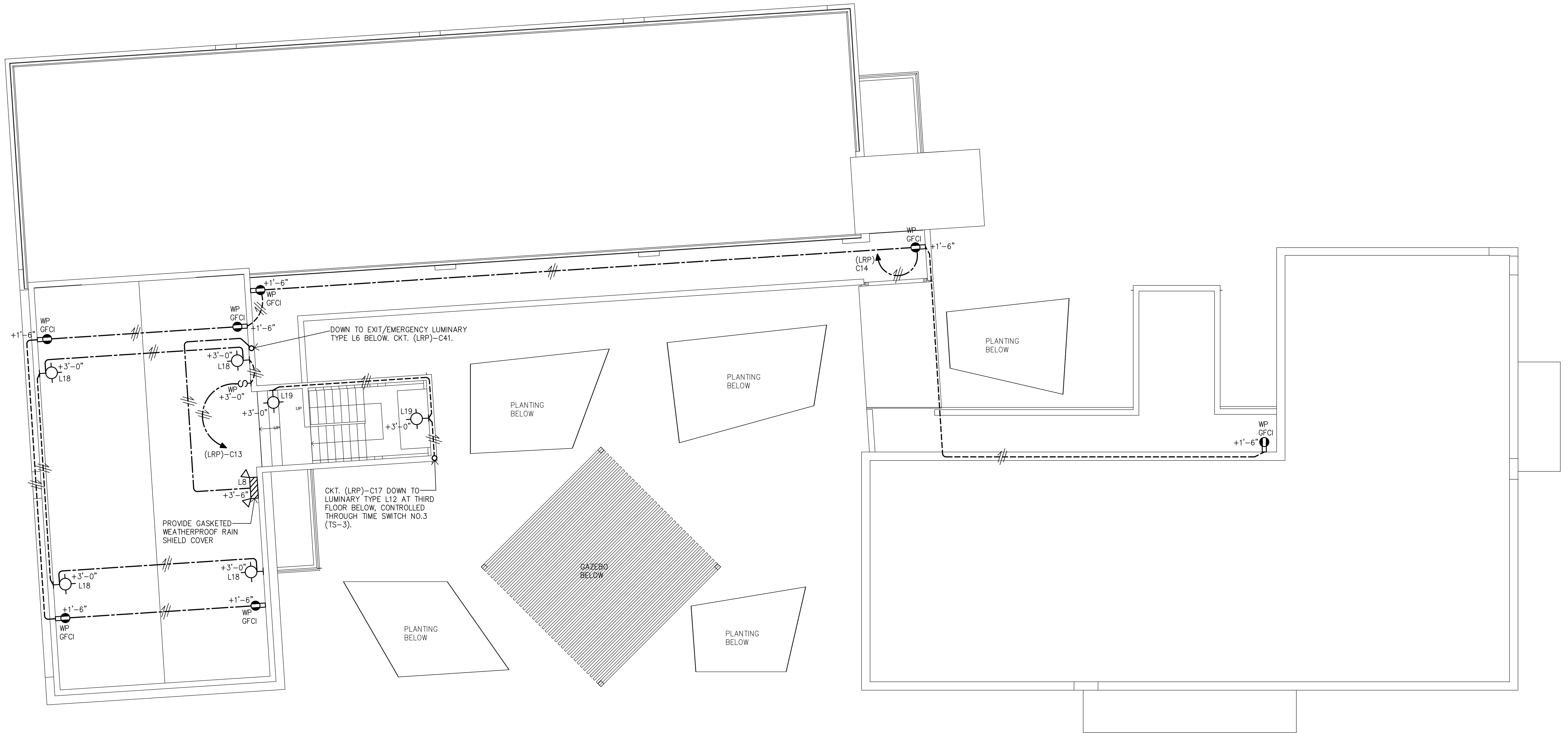


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THIRD FLOOR PLAN - ELECTRICAL INSTALLATION

E-8

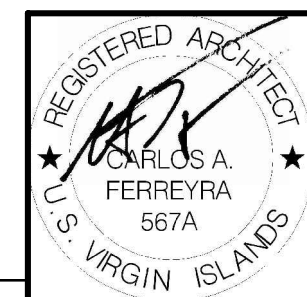


ROOF PLAN - ELECTRICAL INSTALLATION
SCALE: 3/16" = 1'-0"

LJV DRAWING HISTORY	LJV-DSB	DESIGN STAGE
PROJECT NO: 17-014		SCHEMATIC DWGS: (SD)
DRAWING NO: E-9		PRELIMINARY DWGS: (PD)
CAD FILE: 17-014/		DESIGN DEVELOPMENT DWGS: (DD)
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PLOT DATE: 09.01.18		BID DWGS: (BD)
PLOT SCALE: AS SHOWN		CONTRACT DWGS: (CD)
ISSUE DATE: 09.01.18		RECORD DWGS: (RD)
REMARKS: NOT FOR CONSTRUCTION		IN PROCESS

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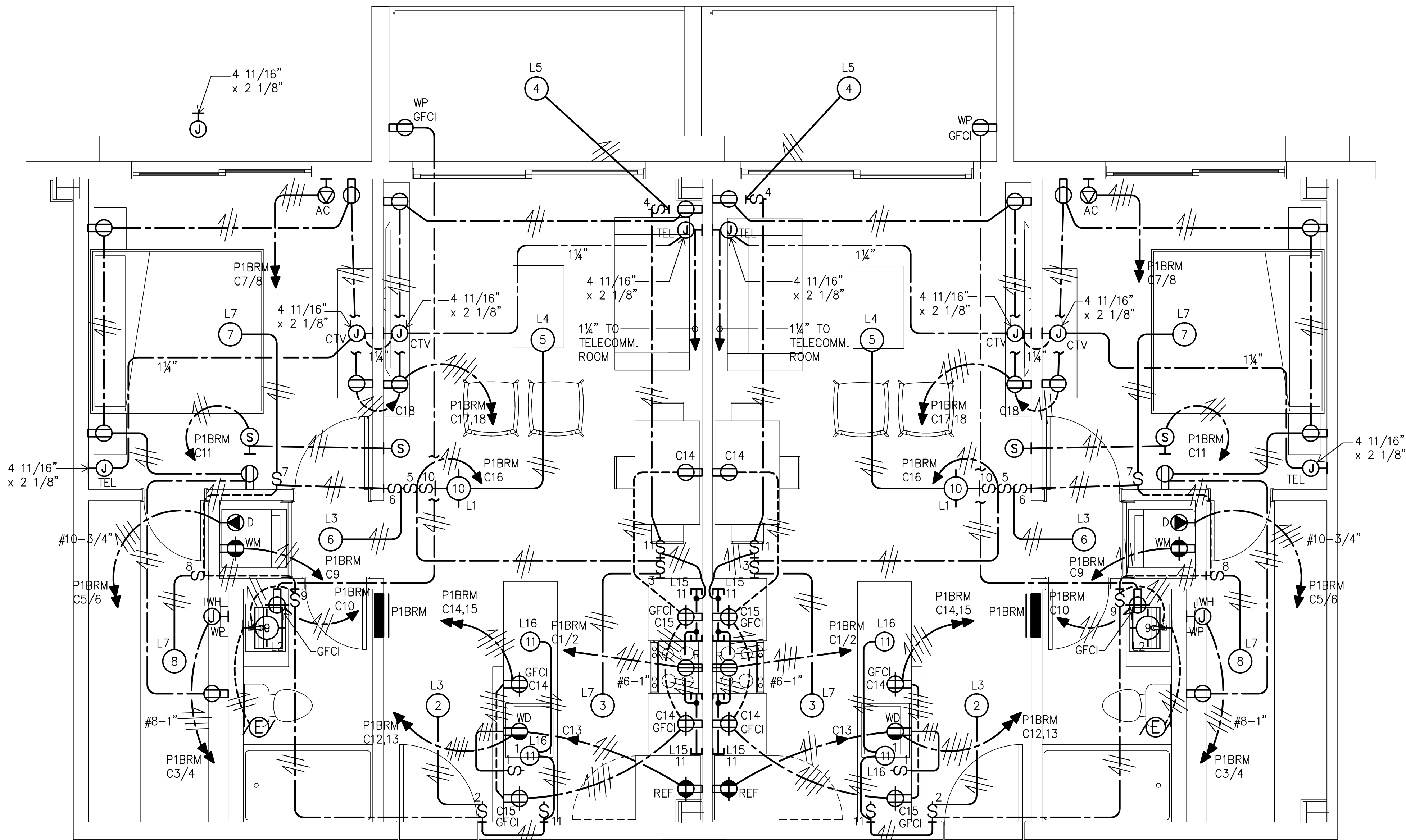


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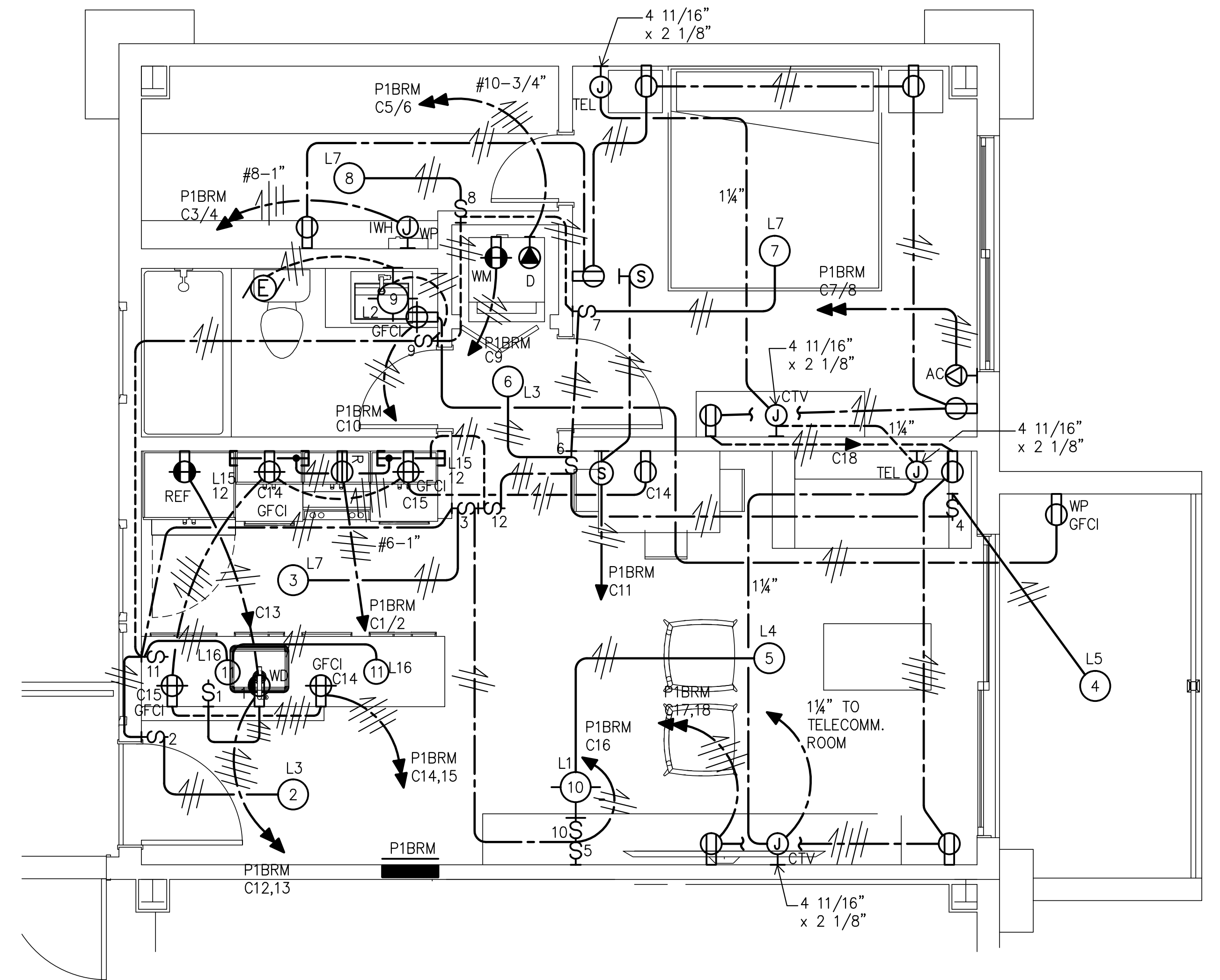
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 ST. THOMAS, U.S. VIRGIN ISLANDS**
 ROOF PLAN - ELECTRICAL INSTALLATION



1 BLOW-UP
E10 SCALE: 3/8" = 1'-0"

2 BLOW-UP
E10 SCALE: 3/8" = 1'-0"



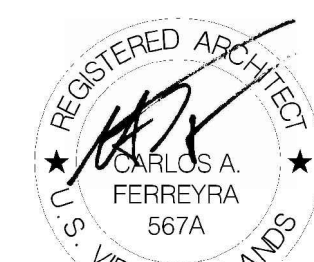
3 BLOW-UP
E10 SCALE: 3/8" = 1'-0"

TYPICAL 1 BEDROOM APARTMENT
ELECTRICAL INSTALLATION

LJV DRAWING HISTORY	LJV-DSB	DESIGN STAGE
PROJECT NO:	17-014	SCHEMATIC DWGS (SSD)
DRAWING NO:	E-10	PRELIMINARY DWGS (PD)
CAD FILE:	17-014/	DESIGN DEVELOPMENT DWGS (DD)
CAD SUBFILE:	17-014-E010 -R00 -BD	ADVANCED DWGS (AD)
PLDT DATE:	09.01.18	BID DWGS (BD)
PLDT SCALE:	AS SHOWN	CONTRACT DWGS (CD)
ISSUE DATE:	09.01.18	RECORD DWGS (RD)
REMARKS:	NOT FOR CONSTRUCTION	IN PROGRESS

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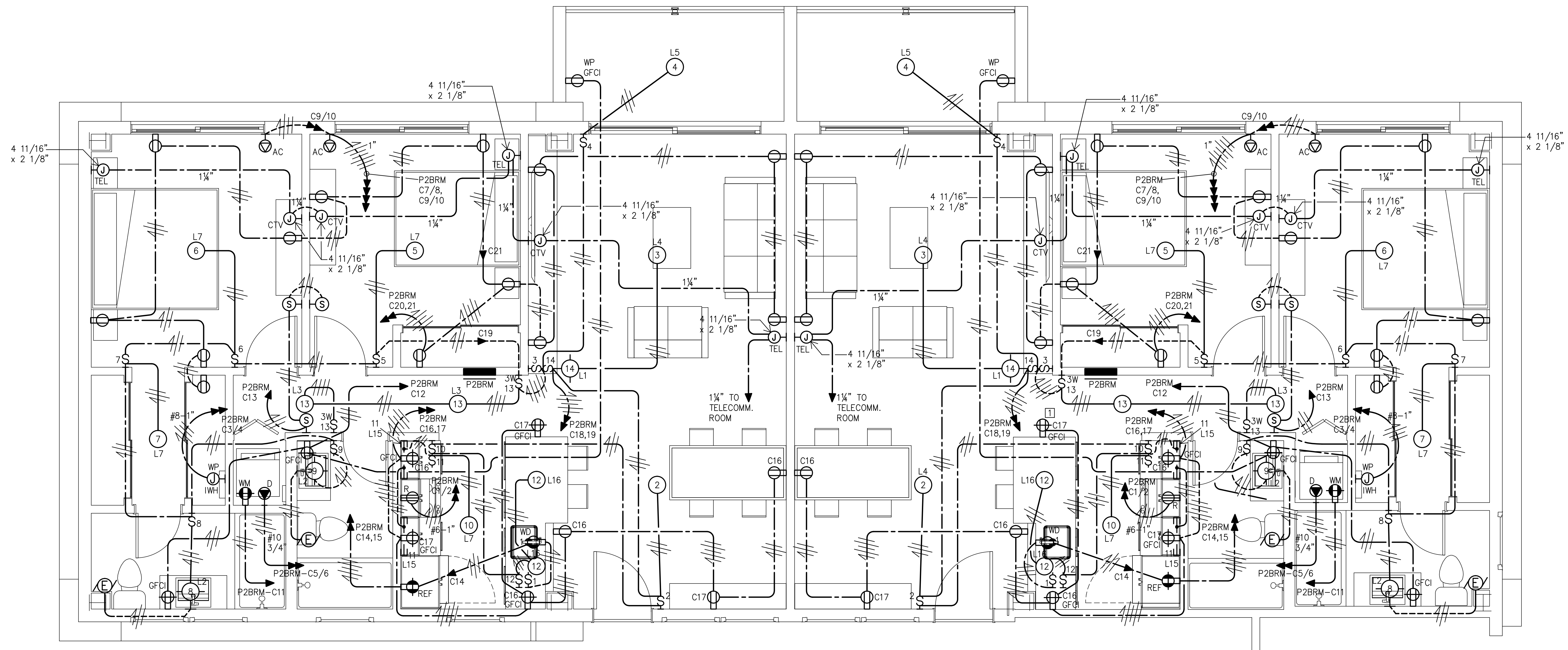


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ST. THOMAS, U.S. VIRGIN ISLANDS**
TYP. 1 BEDROOM APT-ELECTRICAL INSTALLATION



1 - AT 6" BELOW COUNTER TOP.

1 BLOW-UP
E11 SCALE: 3/8" = 1'-0"

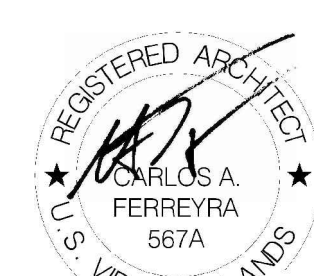
2 BLOW-UP
E11 SCALE: 3/8" = 1'-0"

TYPICAL 2 BEDROOMS APARTMENT
ELECTRICAL INSTALLATION

LJV DRAWING HISTORY	LJV-DSB	DESIGN STAGE
PROJECT NO:	17-014	SCHEMATIC DWGS. (SSD)
DRAWING NO:	E-11	PRELIMINARY DWGS. (PD)
CAD FILE:	17-014/	DESIGN DEVELOPMENT DWGS. (DD)
CAD SUBFILE:	17-014-E011 - R00 - BD	ADVANCED DWGS. (AD)
PLOT DATE:	09.01.18	BID DWGS. (BD)
PLOT SCALE:	AS SHOWN	CONTRACT DWGS. (CD)
ISSUE DATE:	09.01.18	RECORD DWGS. (RD)
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**VIHFA - MIXED USE DEVELOPMENT
 ST. THOMAS, U.S. VIRGIN ISLANDS**
TYP. 2 BEDROOMS APT-ELECTRICAL INSTALLATION

E-11

1 GENERAL NOTES:

- 1 - UNLESS OTHERWISE INDICATED ALL CONDUCTORS SHALL BE #12-AWG. UP TO #10-AWG USE SOLID CONDUCTORS. ALL LARGER SIZES SHALL BE STRANDED CONDUCTORS. CONTROL CONDUCTORS TO BE #14 AWG. MINIMUM SIZE.
- 2 - ALL BUILDING CONDUCTORS SHALL BE THHN/THHH-600V. INSULATION. ALL CONDUCTORS INSTALLED IN UNDERGROUND CONDUITS SHALL BE (THHN-2)-600 VOLTS INSULATION.
- 3 - UNLESS OTHERWISE INDICATED ALL CONDUCTORS SHALL BE COPPER.
- 4 - PROVIDE GROUND CONDUCTOR IN ALL THE CONDUITS.
- 5 - PROVIDE #12-AWG GREEN JUMPER BETWEEN RECEPTACLE GROUNDING SCREW AND OUTLET BOX GROUNDING SCREW.
- 6 - UNLESS OTHERWISE INDICATED ALL CONDUITS SHALL BE 3/4" IN DIAMETER MINIMUM.
- 7 - ALL UNDERGROUND CONDUIT COUPLING SHALL BE WATERTIGHT.
- 8 - PROVIDE AN EXPANSION JOINT COUPLING OF THE REQUIRED TYPE AND SIZE WHENEVER A CONDUIT CROSSES AN EXPANSION JOINT.
- 9 - PROVIDE PLASTIC CONDUIT DIVIDERS IN ALL UNDERGROUND CONDUIT RUNS. MAXIMUM DISTANCE BETWEEN DIVIDERS TO BE 4'-0".
- 10 - CONTRACTOR MUST MAKE SURE THAT THE ENTIRE ELECTRICAL SYSTEM HAS GROUND CONTINUITY.
- 11 - ALL THE ELECTRICAL INSTALLATION SHALL BE DONE IN A NEAT & WORKMANLIKE MANNER, ACCORDING TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, THE U.S. VIRGIN ISLANDS ELECTRIC POWER AUTHORITY LATEST STANDARDS & THE U.S. VIRGIN ISLANDS TELEPHONE CO. LATEST PRACTICES.
- 12 - THE CONTRACTOR SHALL VISIT THE JOB SITE AND BECOME ACQUAINTED WITH THE EXISTING FIELD CONDITIONS. IT SHALL BE THE DIRECT RESPONSIBILITY OF THE CONTRACTOR TO BRING PROMPTLY TO THE ATTENTION OF THE ENGINEER ANY DISCREPANCIES BETWEEN THE EXISTING FIELD CONDITIONS AND THOSE THAT WERE USED FOR DESIGN PURPOSES. THIS SHALL BE DONE BEFORE THE CONTRACTOR SUBMITS HIS BID, SO THAT THE ENGINEER CAN RENDER A DECISION ON THE MATTER BEFORE THE BIDS ARE RECEIVED. THE SUBMITTAL OF THE BID BY THE CONTRACTOR WILL BE HELD AS PROOF THAT THE CONTRACTOR UNDERSTANDS THOROUGHLY AND COMPLETELY THE SCOPE OF THE WORK INVOLVED, HAS FAMILIARIZED HIMSELF WITH THE EXISTING FIELD CONDITIONS, AND HAS INCLUDED IN HIS BID ALL THE ITEMS NECESSARY TO PERFORM THE ELECTRICAL WORK. NO ALLOWANCE WILL BE PERMITTED ON THIS MATTER AFTER THE BIDS ARE RECEIVED.
- 13 - UNLESS OTHERWISE INDICATED ALL OUTLETS SHALL BE FLUSH MOUNTED AND SHALL HAVE THEIR OWN INDEPENDENT OUTLET BOXES. MINIMUM SIZE OF OUTLET BOX TO BE 4" SQUARE & 1-1/2" DEEP. EXACT SIZE OF OUTLET BOX SHALL BE DETERMINED ACCORDING TO THE MAXIMUM NUMBER OF CONDUCTORS IN THE BOX PER N.E.C. ARTICLE 370-SECTION 6.
- 14 - ALL INDICATED HEIGHTS ARE FROM CENTER OF BOX TO FINISHED FLOOR.
- 15 - CONTRACTOR SHALL BALANCE ALL LOADS.
- 16 - ROUTE OF CONDUITS SHOWN IN THE LAYOUT IS SCHEMATIC AND INTENDED ONLY TO INDICATE INTER-CONNECTIONS BETWEEN OUTLETS. EXACT CONDUIT ROUTING SHALL BE DETERMINED AT THE JOB SITE TO CONFORM WITH THE STRUCTURAL CONDITIONS AND SHALL BE SUBJECT TO THE FINAL APPROVAL OF THE ARCHITECT/ENGINEER.
- 17 - LEAVE A #12-AWG-TW FISHWIRE IN ALL EMPTY CONDUITS.
- 18 - ALL PANELBOARDS AND LOAD CENTERS SHALL BE PROVIDED WITH A FACTORY INSTALLED GROUND BUS FOR CONNECTING TO GROUND ALL THE GROUND WIRES OR CABLES ENTERING OR LEAVING THE PANELBOARD. THE GROUND BUS SHALL BE SIMILAR IN SIZE AND CHARACTERISTICS TO THE NEUTRAL BUS. ALL PANELBOARDS SHALL HAVE A MONOFLAT FRONT AND KEY LOCK.
- 19 - WHEN TWO OR MORE WIRING DEVICES ARE SHOWN TOGETHER IN ADJACENT POSITIONS AND AT THE SAME HEIGHT, THEY SHALL BE INSTALLED IN A MULTIPLE GANG OUTLET BOX OF THE PROPER SIZE SO THAT ONLY ONE RAISED COVER PLATE OF THE REQUIRED TYPE AND SIZE ARE USED.
- 20 - UNLESS OTHERWISE INDICATED, ALL WIRING DEVICES SHALL BE WHITE COLORED WITH WHITE NYLON COVER PLATES, EXCEPT THE WEATHERPROOF OUTLETS WHICH SHALL HAVE THEIR STANDARD GRAY COVER PLATES.
- 21 - WHEN TWO OR MORE PANELBOARDS OR CABINETS ARE SHOWN TOGETHER IN ADJACENT LOCATIONS, THE TOP OF ALL PANELBOARDS OR CABINETS SHALL BE ALIGNED WITH THE TOP OF THE BIGGEST ONE SO THAT ALL THE TOPS ARE AT EXACTLY THE SAME HEIGHT FROM THE FINISHED FLOOR.
- 22 - IN CONDUIT RUNS, THE NUMBER OF ARROWS DESIGNATE THE NUMBER OF CIRCUITS IN THE CONDUIT (ONE POLE IN THE PANELBOARD PER EACH CIRCUIT), THE NUMBER OF LINES DESIGNATE THE NUMBER OF CONDUCTORS IN THE CONDUIT, THE LONGER LINE BEING A NEUTRAL CONDUCTOR AND " / " BEING THE GROUND CONDUCTOR.
- 23 - TELEPHONE TERMINALS CABINET SHALL BE APPROVED EQUAL TO COLUMBIA METAL TYPE "PFT" WITH THE DOOR HINGES, LOCK AND 3/4" PLYWOOD BACKBOARD COVER AT THE BOTTOM OF THE CABINET.
- 24 - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE VOLTAGE CHARACTERISTICS AT THE SITE WITH THE UTILITY COMPANY AT THE TIME OF INSTALLATION BEFORE ORDERING ANY PRIMARY EQUIPMENT.
- 25 - ALL WIRING DEVICES SHALL BE SPECIFICATION GRADE.
- 26 - ALL THE SELF-STANDING AND SURFACE MOUNTED ELECTRICAL EQUIPMENT AS WELL AS THE LUMINARIES SHALL ALL BE BRACED FOR SEISMIC SHOCK ACCORDING TO THE SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL SYSTEMS. THE SAME APPLIES TO ALL THE CONDUIT WORK. THE DETAILS AND INSTALLATION METHODS IN SAID MANUAL SHALL BE MODIFIED AS REQUIRED TO FIT THE ELECTRICAL INSTALLATION OF THE PROJECT.
- 27 - FOR FINAL LOCATION OF MECHANICAL EQUIPMENT SEE CORRESPONDING MECHANICAL AND ARCHITECTURAL DRAWINGS. CONTRACTOR TO RELOCATE ELECTRICAL ROUGH-IN ACCORDINGLY AT NO ADDITIONAL COST TO OWNER.
- 28 - CONDUIT WORK:
 - A - ALL CONDUITS INSTALLED UNDERGROUND SHALL BE PVC SCH. 40.
 - B - ALL CONDUITS INSTALLED EMBEDDED IN FLOOR SLABS WHICH ARE IN DIRECT CONTACT WITH THE EARTH SHALL BE PVC SCH. 40.
 - C - ALL CONDUITS INSTALLED EMBEDDED IN WALLS, CEILING SLABS AND IN FLOOR SLABS WHICH ARE NOT IN DIRECT CONTACT WITH THE EARTH SHALL BE PVC SCH. 40.
 - D - ALL CONDUITS INSTALLED IN THE AREA BETWEEN HUNG CEILINGS AND CEILING SLABS OR METAL DECK SHALL BE EMT.
 - E - ALL CONDUITS INSTALLED EXPOSED IN INDOOR AREAS SHALL BE EMT.
 - F - ALL CONDUITS INSTALLED EXPOSED IN OUTDOOR AREAS SHALL BE PVC COATED HEAVY WALL RIGID GALVANIZED STEEL.
 - G - FINAL CONNECTIONS TO ALL MOTORS AND ELECTRICAL EQUIPMENT SHALL BE DONE WITH LIQUIDTIGHT FLEXIBLE STEEL CONDUIT.
 - H - EMT CONDUIT IS NOT ALLOWED IN THIS PROJECT.
- 29 - ALL CONDUCTORS SHALL BE #12-AWG, EXCEPT WHEN OTHERWISE INDICATED IN THE DRAWINGS OR AS INDICATED BELOW FOR 20 AMPS. CKTS. CONDUCTOR SIZING:
 - 1 - ALL 20 AMP, 120VOLT CIRCUIT RUNS SHALL BE AS FOLLOWS:
 - 5' TO 100' IN LENGTH, #12-AWG.
 - 100' TO 200' IN LENGTH, #10-AWG.
 - 200' TO 300' IN LENGTH, #8-AWG.
 - 300' TO 400' IN LENGTH, #6-AWG.
- 30 - ALL PENDANT MOUNTED LUMINARIES SHALL BE INSTALLED USING STEMS, 2 STEMS PER EACH 4' LUMINARY. STEMS SHALL BE PAINTED OF THE COLOR REQUIRED BY THE ARCHITECT.
- 31 - ALL DIMMERS SHALL BE OF THE SLIDE TYPE.
- 32 - THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL THE POWER AND CONTROL INTERCONNECTIONS AMONG ALL THE DIFFERENT PARTS OF THE AIR CONDITIONING SYSTEMS (FAN COILS/SYSTEMS, CONDENSING UNITS, THERMOSTATS, ETC.). THE CONTRACTOR SHALL ALSO PROVIDE ALL THE STARTING AND DISCONNECT EQUIPMENT FOR SAID SYSTEMS.
- 33 - ALL 15A OR 20A/1P-125V. RECEPTACLES LOCATED OUTDOORS SHALL BE PROVIDED WITH INTEGRAL GROUND FAULT PROTECTION AND WEATHERPROOF COVER PLATES.
- 34 - ALL BRANCH CIRCUITS THAT SUPPLY 125 VOLTS, SINGLE PHASE 15 AMPS & 20 AMPS OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DECKS, BEDROOMS, SUNROOMS, RECREATION ROOM, CLOSETS, HALLWAYS OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.
- 35 - ALL THE SMOKE DETECTORS SHALL BE INTERCONNECTED SO THAT IF ONE SMOKE DETECTOR IS ACTIVATED ALL THE SMOKE DETECTORS WILL SOUND THE ALARM.
- 36 - ALL FLOOR OUTLETS SHALL BE PROVIDED WITH PVC FLOOR BOXES AND GASKETED FLUSH BRONZE COVER PLATES.

2 LEGEND

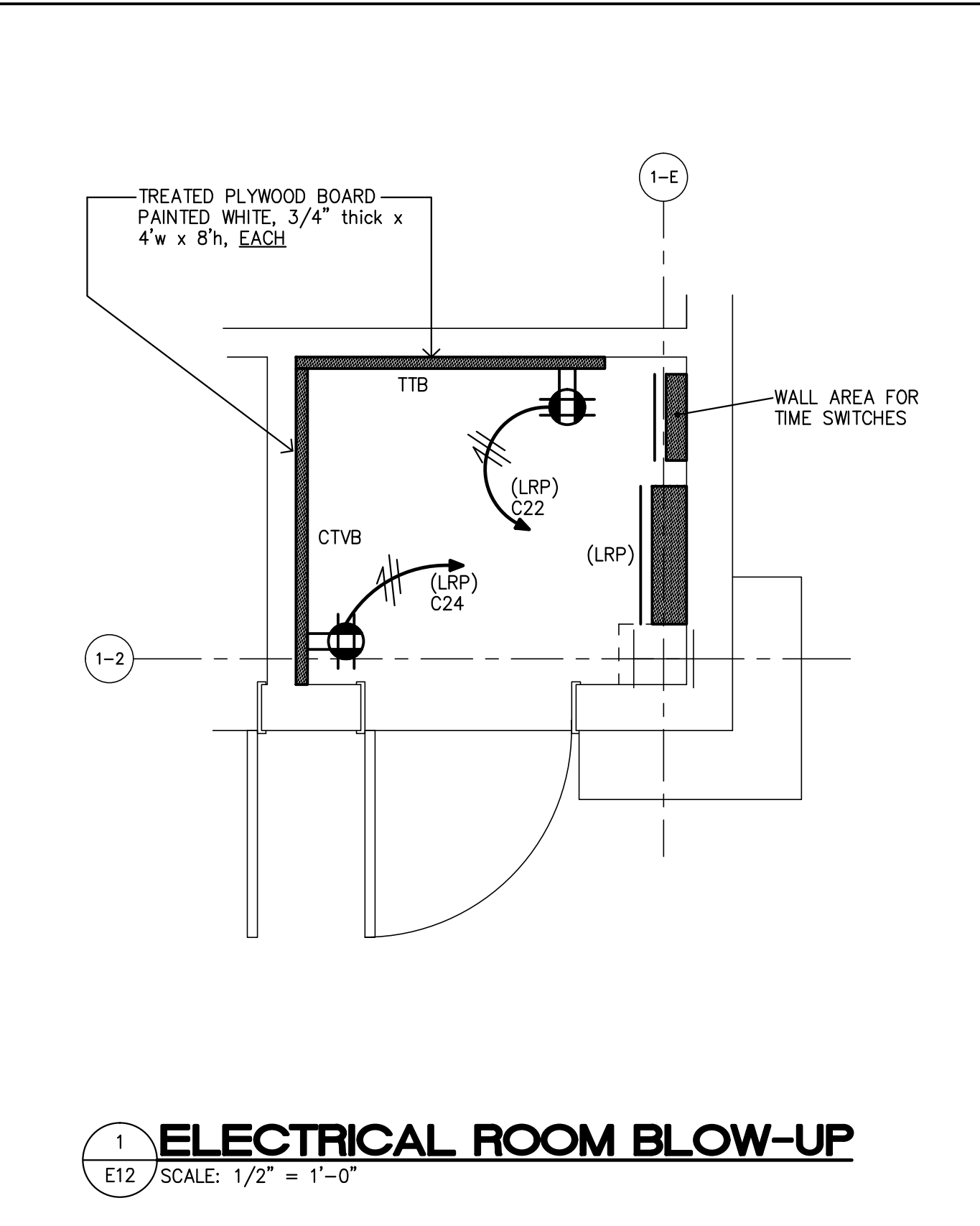
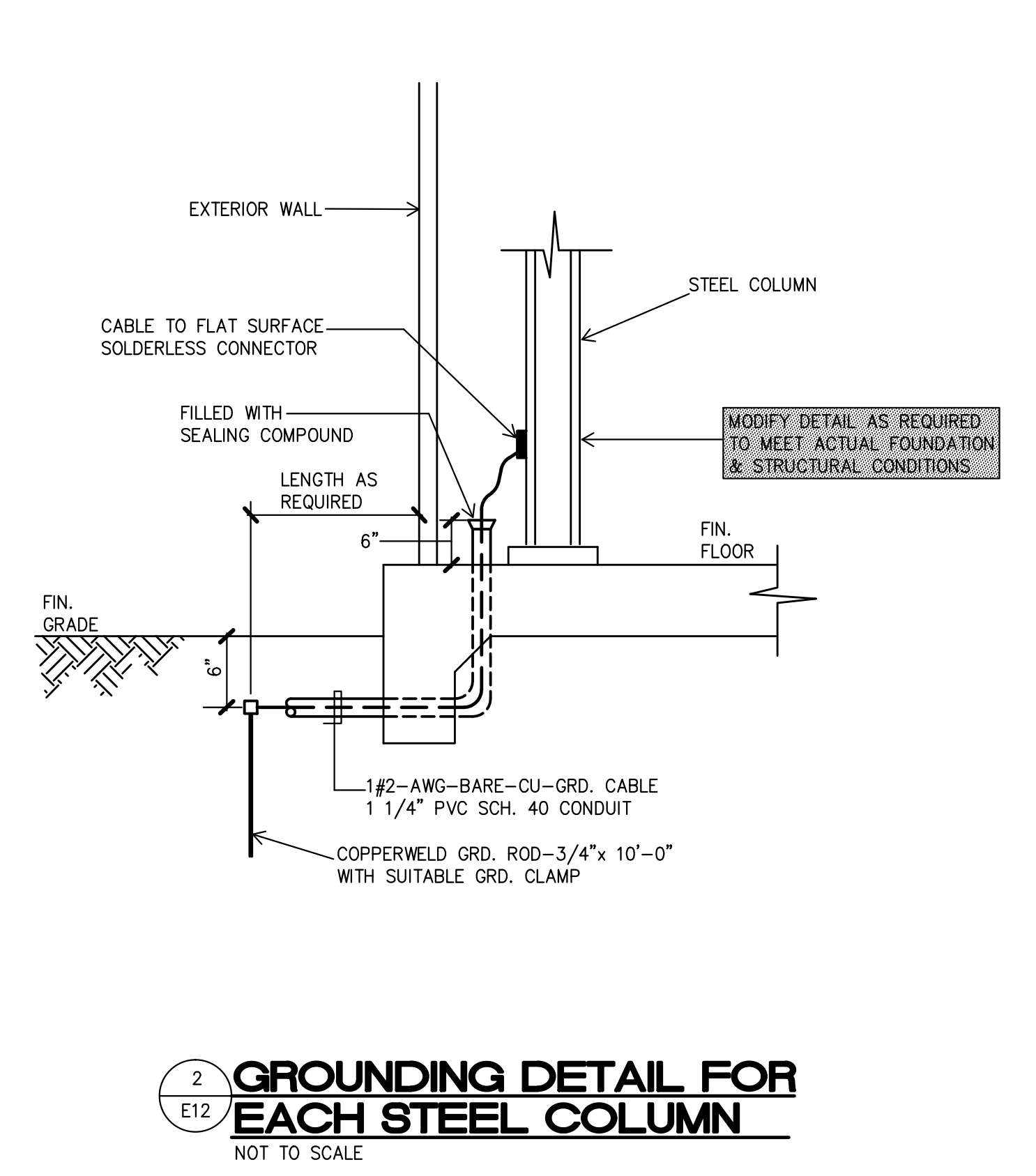
- CEILING LIGHTING OUTLET.
- ⊕ WALL LIGHTING OUTLET, 7"-6" A.F.F. UNLESS OTHERWISE INDICATED IN THE DRAWINGS.
- ⊕ FLOODLIGHT, SEE DETAILS IN ELECTRICAL DRAWINGS.
- 2' x 4' FLUORESCENT RECESSED LUMINARY.
- 2' x 2' FLUORESCENT RECESSED LUMINARY.
- SURFACE MOUNTED FLUORESCENT LUMINARY.
- CEILING LIGHTING OUTLET INSTALLED EXPOSED.
- ⊕ WALL LIGHTING OUTLET INSTALLED EXPOSED, 7"-6" A.F.F. UNLESS OTHERWISE INDICATED IN THE DRAWINGS.
- ⊕ SURFACE MOUNTED FLUORESCENT LUMINARY INSTALLED EXPOSED.
- ⊕ STEP LIGHT, 1'-0" A.F.F. SEE ELECTRICAL DRAWINGS FOR DETAILS.
- ⊕ SURFACE MOUNTED COMBINATION EXIT & EMERGENCY LUMINARY.
- ⊕ WALL MOUNTED COMBINATION EXIT & EMERGENCY LUMINARY, 7'-0" A.F.F. UNLESS OTHERWISE INDICATED IN THE DRAWINGS.
- ⊕ WALL MOUNTED EMERGENCY LUMINARY, 7'-0" A.F.F. UNLESS OTHERWISE INDICATED IN THE DRAWINGS.
- ⊕ RECESSED MOUNTED EMERGENCY EXIT LUMINARY.
- ⊕ SINGLE POLE SWITCH, 20 AMPS, 125 VOLTS, 48" A.F.F.
- ⊕ THREE-WAY SWITCH, 20 AMPS, 125 VOLTS, 48" A.F.F.
- ⊕ FOUR-WAY SWITCH, 20 AMPS, 125 VOLTS, 48" A.F.F.
- ⊕ TWO POLE SWITCH, 20 AMPS, 250 VOLTS, 48" A.F.F.
- ⊕ FRACTIONAL HORSEPOWER MANUAL STARTER WITH RED RUNNING PILOT LIGHT AND OVERLOAD RELAY, RATED FOR 1 HP, 125 VOLTS, 48" A.F.F.
- ⊕ SINGLE GROUNDING POWER OUTLET, 20 AMPS, 125 VOLTS, 1'-6" A.F.F.
- ⊕ DUPLEX GROUNDING POWER OUTLET, 15 AMPS, 125 VOLTS, 1'-6" A.F.F.
- ⊕ DUPLEX GROUNDING POWER OUTLET, 15 AMPS, 125 VOLTS, 6" ABOVE COUNTER TOP.
- ⊕ QUADRUPLEX GROUNDING POWER OUTLET, 15 AMPS, 125 VOLTS, 1'-6" A.F.F.
- ⊕ DUPLEX GROUNDING POWER OUTLET, 20 AMPS, 125 VOLTS, 1'-6" A.F.F.
- ⊕ DUPLEX GROUNDING POWER OUTLET, 20 AMPS, 125 VOLTS, 6" ABOVE COUNTER TOP.
- ⊕ QUADRUPLEX GROUNDING POWER OUTLET, 20 AMPS, 125 VOLTS, 1'-6" A.F.F.
- ⊕ DUPLEX GROUNDING POWER OUTLET, 20 AMPS, 125 VOLTS, 1'-6" A.F.F. ONE OUTLET TO BE SWITCH CONTROLLED.
- ⊕ DUPLEX COMBINATION GROUNDING POWER OUTLET, 20 AMPS, 125/250 VOLTS, 1'-6" A.F.F. UNLESS OTHERWISE INDICATED IN THE DRAWINGS.
- ⊕ SINGLE GROUNDING POWER OUTLET, 30 AMPS, 250 VOLTS, 1'-6" A.F.F. UNLESS OTHERWISE INDICATED IN THE DRAWINGS. NEMA 14-30R.
- ⊕ SINGLE GROUNDING POWER OUTLET, 50 AMPS, 250 VOLTS, 1'-6" A.F.F. UNLESS OTHERWISE INDICATED IN THE DRAWINGS. NEMA 14-50R.
- ⊕ CEILING FAN OUTLET, SEE ARCHITECTURAL DRAWINGS FOR DETAILS.
- ⊕ FAN CONTROL UNIT, 48" A.F.F.
- ⊕ WALL JUNCTION BOX, FLAT BLANK COVER PLATE, 1'-6" A.F.F. UNLESS OTHERWISE INDICATED.
- ⊕ CEILING JUNCTION BOX, FLAT BLANK COVER PLATE.
- ⊕ WALL JUNCTION BOX INSTALLED EXPOSED, 1'-6" A.F.F. UNLESS OTHERWISE INDICATED.
- ⊕ CEILING JUNCTION BOX INSTALLED EXPOSED.
- ⊕ WALL TELEPHONE OUTLET, 1'-6" A.F.F.
- ⊕ WALL TELEPHONE OUTLET, 4'-0" A.F.F.
- ⊕ TELEVISION SYSTEM OUTLET, 1'-6" A.F.F.
- ⊕ FAN COIL OUTLET, SEE MECHANICAL AND ARCHITECTURAL DRAWINGS FOR DETAILS.
- ⊕ PANELBOARD, CENTER LINE AT 5'-0" A.F.F. SEE ELECTRICAL DRAWINGS FOR DETAILS.
- ⊕ HEAVY DUTY DISCONNECT SWITCH, CENTER LINE AT 5'-0" A.F.F. AND MOUNTED NEXT TO THE UNIT IT FEEDS.
- ⊕ FULL VOLTAGE NON REVERSING COMBINATION MAGNETIC STARTER, CENTER LINE AT 5'-0" A.F.F. AND MOUNTED NEXT TO THE UNIT IT FEEDS.
- ⊕ MOTOR (HP).
- ⊕ EXHAUST FAN OUTLET, SEE MECHANICAL AND ARCHITECTURAL DRAWINGS FOR EXACT LOCATION.
- ⊕ WEATHERPROOF COVER PLATE TO BE PROVIDED IN ALL OUTLETS THIS SYMBOL IS SHOWN ADJACENT TO.
- GFCI INTEGRAL GROUND FAULT PROTECTION TO BE PROVIDED IN ALL RECEPTACLES THIS SYMBOL IS SHOWN ADJACENT TO.
- CONDUIT INSTALLED IN THE CEILING SLAB.
- CONDUIT INSTALLED BETWEEN THE HUNG CEILING AND THE CEILING SLAB.
- CONDUIT INSTALLED IN THE FLOOR SLAB.
- CONDUIT INSTALLED IN WALL.
- X- CONDUIT INSTALLED EXPOSED.
- CONDUIT INSTALLED UNDERGROUND.
- C1 IN THE LIGHTING OUTLET, C1 INDICATES THE CIRCUIT NUMBER, L1 INDICATES THE LUMINARY TYPE FROM THE LUMINARY SCHEDULE IF APPLICABLE AND 1 INDICATES THE SWITCH CONTROLLING UNIT (TYPICAL FOR LIGHTING OUTLETS).
- L1
- 1
- ⊕ CONDUIT HOME RUN, NUMBER OF ARROWS INDICATE THE NUMBER OF POLES IN THE CIRCUIT, THE NUMBER OF LINES INDICATE THE NUMBER OF CONDUCTORS IN THE CONDUIT, THE LONGER LINE BEING THE NEUTRAL CONDUCTOR AND " / " BEING THE GROUND CONDUCTOR.
- ⊕ C3 IN THE RECEPTACLE OUTLET, C3 INDICATES THE CIRCUIT NUMBER (TYPICAL).

3 FIRE ALARM SYSTEM NOTES:

- | SYMBOL | DESCRIPTION |
|--------|---|
| ⊕ | WALL MOUNTED MANUAL FIRE ALARM STATION 48" A.F.F. CERBERUS MSI-86F. |
| ⊕ | SURFACE MOUNTED AUTOMATIC FIRE DETECTOR-COMBINATION RATE-OF-RISE AND FIXED TEMPERATURE. CERBERUS FP-11. |
| ⊕ | SURFACE MOUNTED IONIZATION SMOKE DETECTOR. CERBERUS ID-601 SERIES. |
| ⊕ | WALL MOUNTED COMBINATION STROBE/HORN, 80" A.F.F. CERBERUS U-MHT. |
| ⊕ | DUCT MOUNTED IONIZATION SMOKE DETECTOR, CERBERUS SERIES 3/X3. |
| ⊕ | FLUSH MOUNTED IN WALL FIRE ALARM ANNUNCIATOR PANEL CERBERUS MXL-10. CENTER LINE AT 5'-0" A.F.F. |

FURNISH AND INSTALL A FIRE ALARM SYSTEM AS MANUFACTURED BY PYROTRONICS CO. AND DESCRIBED IN THESE SPECIFICATIONS AND INDICATED IN THE ELECTRICAL DRAWINGS. THE SYSTEM SHALL BE WIRED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS AND IT SHALL BE LEFT IN A COMPLETE AND FIRST CLASS OPERATING CONDITION. THE FIRE ALARM SYSTEM SHALL BE A COMPLETE, AUTOMATIC SYSTEM FOR THE DETECTION AND ALARM OF FIRE, SMOKE AND COMBUSTION GASES. THE SYSTEM AND ITS COMPONENTS SHALL BE U.L. APPROVED. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE DRAWINGS FOR SPECIFIC INSTALLATION SUPPLIED BY PYROTRONICS CO. THE DRAWINGS SHALL BE SUBMITTED TO THE A/E FOR HIS APPROVAL PRIOR TO THE INSTALLATION OF THE SYSTEM. ALL THE INSTALLATION AND WIRING OF THE SYSTEM SHALL BE OF HIGH QUALITY WORKMANSHIP.

- THE EMERGENCY VOICE ANNUNCIATION SYSTEM SHALL CONSIST BUT NOT BE LIMITED TO THE FOLLOWING EQUIPMENT:
- 1 - POWER SUPPLY MODULE.
 - 2 - COMON AUDIO MODULE.
 - 3 - AMPLIFIER MODULE / AMPLIFIER SPLITTER MODULE.
 - 4 - MICROPHONE & SERVICE SWITCH MODULE.
 - 5 - COMMERCIAL GRADE CASSETTE PLAYER WITH PRE-RECORDED MESSAGE. THE WORDING OF THE MESSAGE WILL BE DETERMINED BY THE OWNER.
 - 6 - SELECTIVE SWITCHING TO CHOOSE VOICE COMMUNICATION ZONES AS PER FIRE ALARM ZONE DIVISION.



LJV DRAWING HISTORY		LJV-DSB	DESIGN STAGE
PROJECT NO:	17-014		SCHEMATIC DWGS: (SD)
DRAWING NO:	E-12		PRELIMINARY DWGS: (PD)
CAD FILE:	17-014/		DESIGN DEVELOPMENT DWGS: (DD)
CAD SUBFILE:	17-014-E012 - R00 - BD		ADVANCED DWGS: (AD)
PLOT DATE:	09.01.18		BID DWGS: (BD) ●
PLOT SCALE:	AS SHOWN		CONTRACT DWGS: (CD)
ISSUE DATE:	09.01.18		RECORD DWGS: (RD)
REMARKS:	NOT FOR CONSTRUCTION		IN PROCESS

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REGISTERED ARCHITECT
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 U.S. VIRGIN ISLANDS

PROJECT '34 ISSUED 3/00/00
 No: Parcels No. 26-A, 102, 103, 104
 Estate Taarnebrg
 Kings Quarter
 St. Thomas, U.S. Virgin Islands

REVISIONS	Date	Sheet Issue Date:
#		

VIHFA - MIXED USE DEVELOPMENT
ST. THOMAS, U.S. VIRGIN ISLANDS
NOTES, LEGEND, BLOW-UP & DETAILS

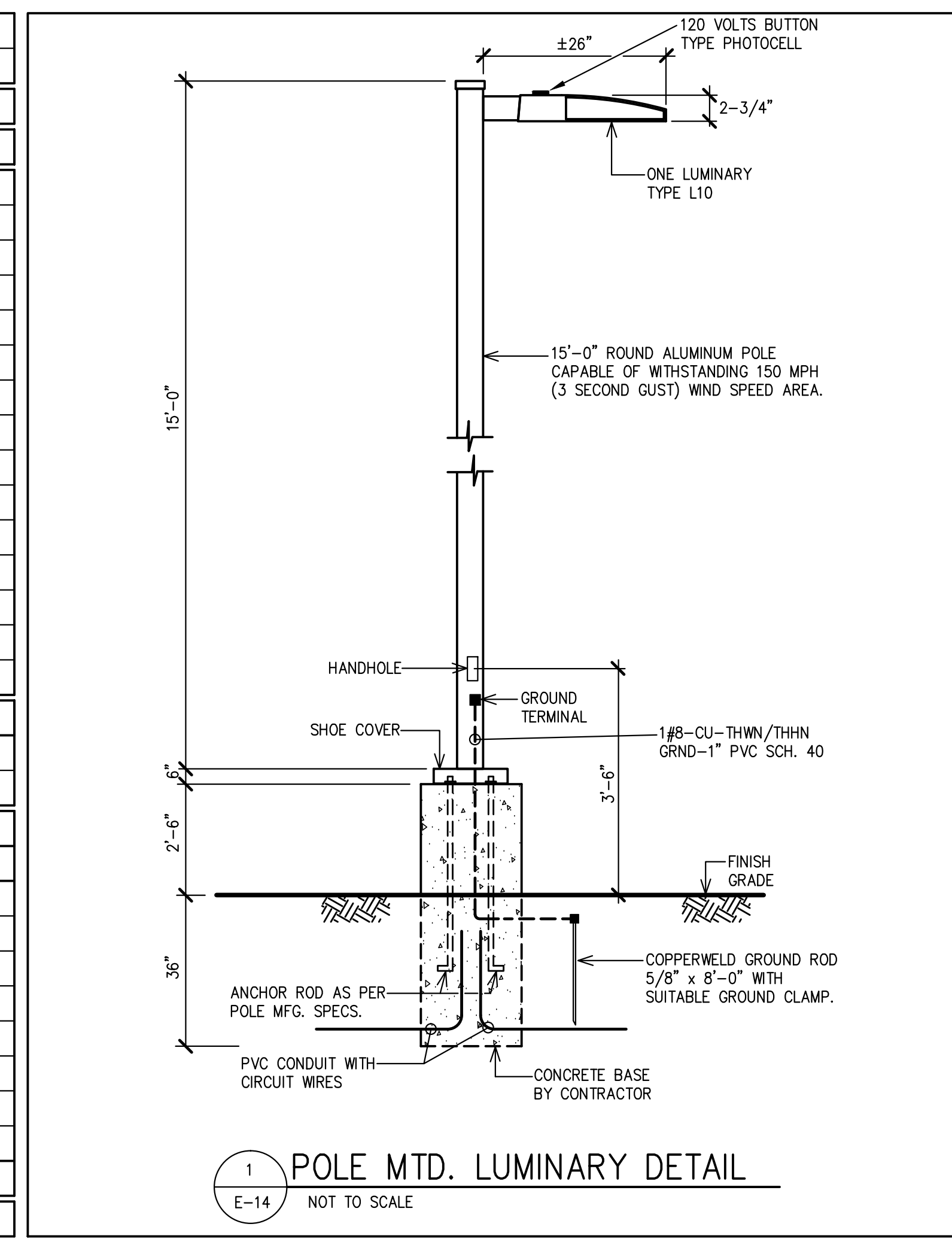
1 PANELBOARD SCHEDULE					LJVPS	
PANELBOARD DESIGNATION	CKT. NO.	BREAKER			DESCRIPTION	REMARKS
		FRAME	SIZE	POLES		
P1BRM FLUSH MTD. 125AMPS. BUS BARS FLUSH MTD. GROUND BUS 10000AMP. SYM. INT. CAPACITY SQUARE D OO LOAD CENTER * PROVIDE LOCK-ON DEVICE	1/2	100	50	2	RANGE	-
	3/4	100	50	2	WATER HEATER	-
	5/6	100	30	2	DRYER	-
	7/8	100	20	2	A/C UNIT	-
	9	100	20	1	WASHER MACHINE	-
	10	100	20	1	GRND. FAULT RECEPT.	-
	11*	100	20	1	SMOKE DETECTORS	-
	12	100	20	1	WASTE DISPOSER	-
	13	100	20	1	REFRIGERATOR	-
	14,15	100	20	1	APPLIANCES	-
	16	100	20	1	LIGHTING	-
	17,18	100	20	1	RECEPTACLES	-
	19,20	--	--	--	SPACE	-
	21,22	--	--	--		-
	23,24	--	--	--		-

2 PANELBOARD SCHEDULE					LJVPS	
PANELBOARD DESIGNATION	CKT. NO.	BREAKER			DESCRIPTION	REMARKS
		FRAME	SIZE	POLES		
P2BRM FLUSH MTD. 125AMPS. BUS BARS FLUSH MTD. GROUND BUS 10000AMP. SYM. INT. CAPACITY SQUARE D OO LOAD CENTER * PROVIDE LOCK-ON DEVICE	1/2	100	50	2	RANGE	-
	3/4	100	50	2	WATER HEATER	-
	5/6	100	30	2	DRYER	-
	7/8	100	20	2	A/C UNIT	-
	9/10	100	20	2	A/C UNIT	-
	11	100	20	1	WASHER MACHINE	-
	12	100	20	1	GRND. FAULT RECEPT.	-
	13*	100	20	1	SMOKE DETECTORS	-
	14	100	20	1	WASTE DISPOSER	-
	15	100	20	1	REFRIGERATOR	-
	16,17	100	20	1	APPLIANCES	-
	18,19	100	20	1	LIGHTING	-
	20,21	--	--	--	RECEPTACLES	-
	22	--	--	--	SPACE	-
	23,24	--	--	--		-



4 FAMILY DWELLING-CALCULATIONS				
DWELLING DESIGNATION-1 BEDROOM UNIT				
SERVICE:	1 Ø	3 W	120/208 V	125 AMPS.
FEEDER:	Ø OUT	Ø IN	Ø IN	Ø IN
BREAKER:	125 AMPS.	2 POLES	250 VOLTS	AREA = ±650 ʘ
LIGHTS & RECEPTACLES LOAD:	650	x 3W ʘ = 1950 ʘ		1950W
APPLIANCES:	2	CKTS. x 1500W/CIRCUIT =		3000W
LOAD	NO. OF UNITS	WATTS PER UNIT	TOTAL UNITS WATTS	
WATER HEATERS	1	9000	9000	9000W
DRYER	1	5000	5000	5000W
WASHER MACHINE	1	1500	1500	1500W
COMPACTOR	---	---	---	---
DISHWASHER	---	---	---	---
WASTE DISPOSER	1	1500	1500	1500W
RANGE	1	8000	8000	8000W
SUB-TOTAL				29950W
APPLICATION OF DEMAND FACTOR:				
10000 WATTS AT 100%		10000 WATTS		
19950 WATTS AT 40%		7980 WATTS		
AIR CONDITIONING AND HEATING LOADS AT 100%				
NO. OF UNITS	WATTS PER UNIT	TOTAL UNITS WATTS		
1	1500	1500		1500W
---	---	---		---
---	---	---		---
TOTAL				19480W
-- I = 19480 WATTS/208 VOLTS = .94 AMPS.				

5 FAMILY DWELLING-CALCULATIONS				
DWELLING DESIGNATION-2 BEDROOM UNIT				
SERVICE:	1 Ø	3 W	120/208 V	125 AMPS.
FEEDER:	Ø OUT	Ø IN	Ø IN	Ø IN
BREAKER:	125 AMPS.	2 POLES	250 VOLTS	AREA = ±950 ʘ
LIGHTS & RECEPTACLES LOAD:	950	x 3W ʘ = 2850 ʘ		2850W
APPLIANCES:	2	CKTS. x 1500W/CIRCUIT =		3000W
LOAD	NO. OF UNITS	WATTS PER UNIT	TOTAL UNITS WATTS	
WATER HEATERS	1	9000	9000	9000W
DRYER	1	5000	5000	5000W
WASHER MACHINE	1	1500	1500	1500W
COMPACTOR	---	---	---	---
DISHWASHER	---	---	---	---
WASTE DISPOSER	1	1500	1500	1500W
RANGE	1	8000	8000	8000W
SUB-TOTAL				30850W
APPLICATION OF DEMAND FACTOR:				
10000 WATTS AT 100%		10000 WATTS		
20850 WATTS AT 40%		8340 WATTS		
AIR CONDITIONING AND HEATING LOADS AT 100%				
NO. OF UNITS	WATTS PER UNIT	TOTAL UNITS WATTS		
2	1500	3000		3000W
---	---	---		---
---	---	---		---
TOTAL				21340W
-- I = 21340 WATTS/208 VOLTS = .103 AMPS.				



LIV DRAWING HISTORY		LJV-DSB	DESIGN STAGE
PROJECT NO:	17-014		SCHEMATIC DWGS. (SD)
DRAWING NO:	E-14		PRELIMINARY DWGS. (PD)
CAD FILE:	17-014/		DESIGN DEVELOPMENT DWGS. (DD)
CAD SUBFILE:	17-014-E014	R00	ADVANCED DWGS. (AD)
PLOT DATE:	09.01.18		BID DWGS. (BD)
PLOT SCALE:	AS SHOWN		CONTRACT DWGS. (CD)
ISSUE DATE:	09.01.18		RECORD DWGS. (RD)
REMARKS:	NOT FOR CONSTRUCTION		IN PROCESS

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 CARLOS A. FERREYRA
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 ST. THOMAS, U.S. VIRGIN ISLANDS

PROJECT '34 ISSUED 00/00
 No: Parcels No. 26-A, 102, 103, 104
 Estate Taarnebg
 Kings Quarter
 St. Thomas, U.S. Virgin Islands

REVISIONS	Date
#	

VHFA - MIXED USE DEVELOPMENT
ST. THOMAS, U.S. VIRGIN ISLANDS
PANELBOARDS, ELECTRICAL CALCULATIONS & DETAILS
E-14

1 EMERGENCY GENERATOR(S) AND TRANSFER SWITCH(ES) SPECIFICATIONS

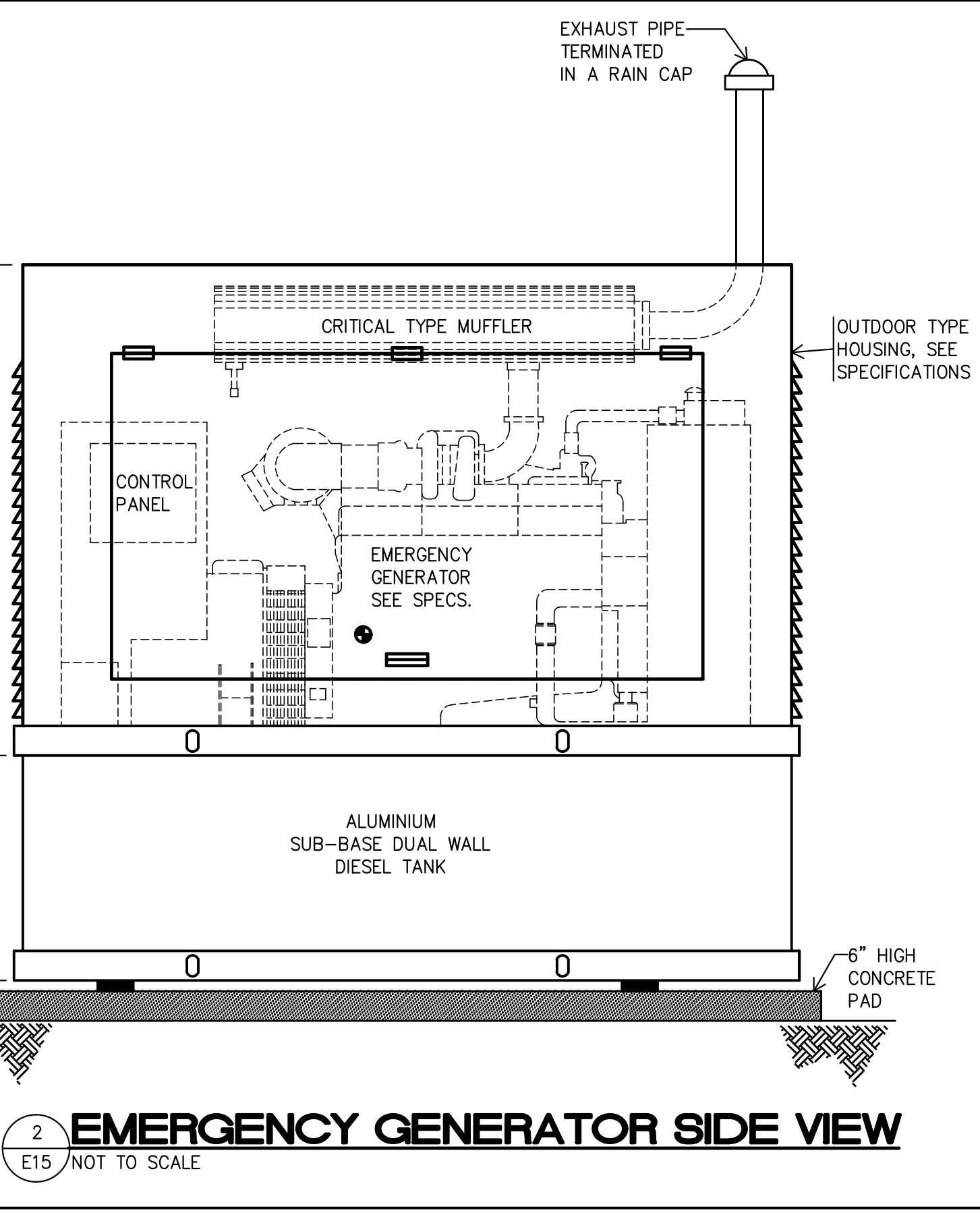
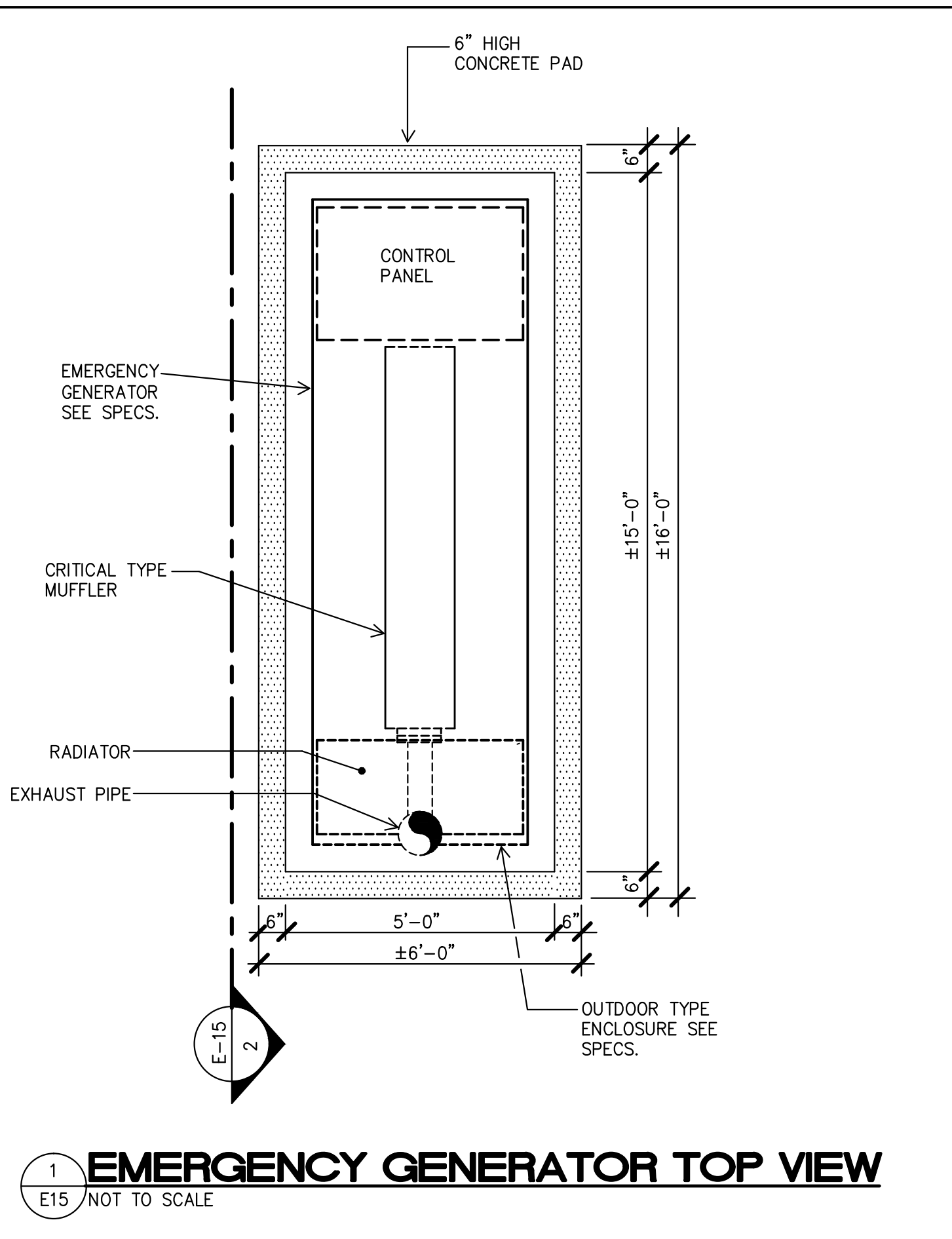
- 1- THE EMERGENCY GENERATOR(S) SHALL BE FURNISHED COMPLETE WITH A FUEL (DIESEL) TANK, AUTOMATIC TRANSFER SWITCH(ES), BATTERY, AUTOMATIC BATTERY CHARGER, AND ALL THE REQUIRED ACCESSORIES FOR NORMAL OPERATION.
- 2- THE EMERGENCY GENERATOR SHALL BE RATED AS FOLLOWS:
- | | | |
|--------|---|---------|
| KW | = | 250 |
| KVA | = | 312.5 |
| PHASES | = | 3 |
| WIRES | = | 4 |
| VOLTS | = | 120/208 |
| HERTZ | = | 60 |
| R.P.M. | = | 1800 |
- AT 0.8 POWER FACTOR
- THE EMERGENCY GENERATOR SHALL BE EQUAL TO:
 QWAN CAT. NO. 000AA
 THE UNIT SHALL BE SKID MOUNTED AND PROVIDED WITH A TIER III SOUND ATTENUATED, WEATHERPROOF POLYMER ENCLOSURE WITH KEYLOCKS IN ALL DOORS.
- 3- THE UNIT SHALL IS TO INCLUDE THE FOLLOWING EQUIPMENT AND ACCESSORIES:
- A.- WATER COOLED RADIATOR.
 - B.- ONE (1) SUB-BASE DUAL WALL DIESEL FUEL TANK OF 520 GALLONS CAPACITY WITH ALL FUEL SUPPLY, RETURN AND VENTILATION LINES AND EQUIPMENT.
 - C.- ONE 24 VOLTS, HEAVY DUTY BATTERY WITH RACK AND CABLES.
 - D.- EXHAUST CRITICAL TYPE MUFFLER WITH STEEL CONNECTIONS AND FITTINGS, INCLUDING FLEXIBLE FLEXIBLE SECTION AND RAIN CAP FOR EXHAUST.
 - E.- VIBRATION ISOLATORS OF THE SIZE, NUMBER AND TYPE REQUIRED BY THE PLANT MANUFACTURER.
 - F.- SCREEN, BAFFLED, LOUVERED AIR INTAKE.
 - G.- DUCTED, BAFFLED, LOUVERED AND SCREENED HOT AIR DISCHARGE.
 - H.- PUMPS AND FILTERS AS REQUIRED.
 - I.- RELAYS AND CONTACTORS AS REQUIRED FOR REMOTE CONTROL FROM TRANSFER SWITCH.
 - J.- INSTRUMENTS AND CONTROL PANEL INCLUDING THE FOLLOWING:
 - a.- VOLTMETER AND SELECTOR SWITCH.
 - b.- AMMETER AND SELECTOR SWITCH.
 - c.- WATTMETER AND SELECTOR SWITCH.
 - d.- FREQUENCY METER AND SELECTOR SWITCH.
 - e.- RUNNING TIME METER.
 - f.- FIELD CIRCUIT BREAKER(S).
 - g.- VOLTAGE REGULATOR WITH A TWO (2) POSITION (OFF AND AUTOMATIC) SWITCH.
 - h.- WATER TEMPERATURE GAUGE.
 - i.- OIL PRESSURE GAUGE.
 - j.- AUTOMATIC SHUTDOWN DEVICE WITH INDICATOR LIGHTS FOR:
 - (1)- OVER CRANKING PROTECTION.
 - (2)- HIGH WATER TEMPERATURE.
 - (3)- LOW OIL PRESSURE.
 - k.- START/STOP SWITCH.
 - l.- REMOTE START/ STOP TERMINALS.
- K.- AUTOMATIC TRANSFER SWITCH(ES) RATED AS FOLLOWS:
- | | | |
|-------------------|---|---|
| DESIGNATION: | ATS | - |
| AMPS: | 1000 | - |
| VOLTS: | 250 | - |
| POLES: | 3 | - |
| FOR OPERATION AT: | 120/208 | - |
| NEMA TYPE: | 4X STAINLESS STEEL OUTDOOR CONSTRUCTION | - |

THE TRANSFER SWITCH(ES) SHALL BE FOR OPERATION AT 60 HERTZ AND SHALL BE PROVIDED WITH THE REQUIRED PILOT LIGHTS ON THE DOOR AND WITH THE FOLLOWING ACCESSORIES:

- a.- SELECTOR SWITCH WITH OFF-AUTOMATIC CHECK POSITIONS
- b.- TIME DELAY IN TRANSFER TO EMERGENCY ENGINE START, ADJUSTABLE FROM 1/16 TO 180 SECONDS.
- c.- TIME DELAY ON RESTORATION TO NORMAL POWER, ADJUSTABLE FROM 30 SECOND AND 10 MINUTES.
- d.- CLOCK EXERCISER TO START GENERATOR SET AUTOMATICALLY. IT SHALL OPERATE EVERY WEEK AND RUN THE GENERATOR SET FOR ONE (1) HOUR AND THEN, STOP THE GENERATOR SET AUTOMATICALLY.
- e.- ALL OTHER ACCESSORIES REQUIRED FOR NORMAL OPERATION, TIME DELAY RELAYS AND CONTACTORS (IF SO REQUIRED) TO ACHIEVE THE FOLLOWING STARTING SEQUENCE TO OPERATE UNDER EMERGENCY CONDITIONS:

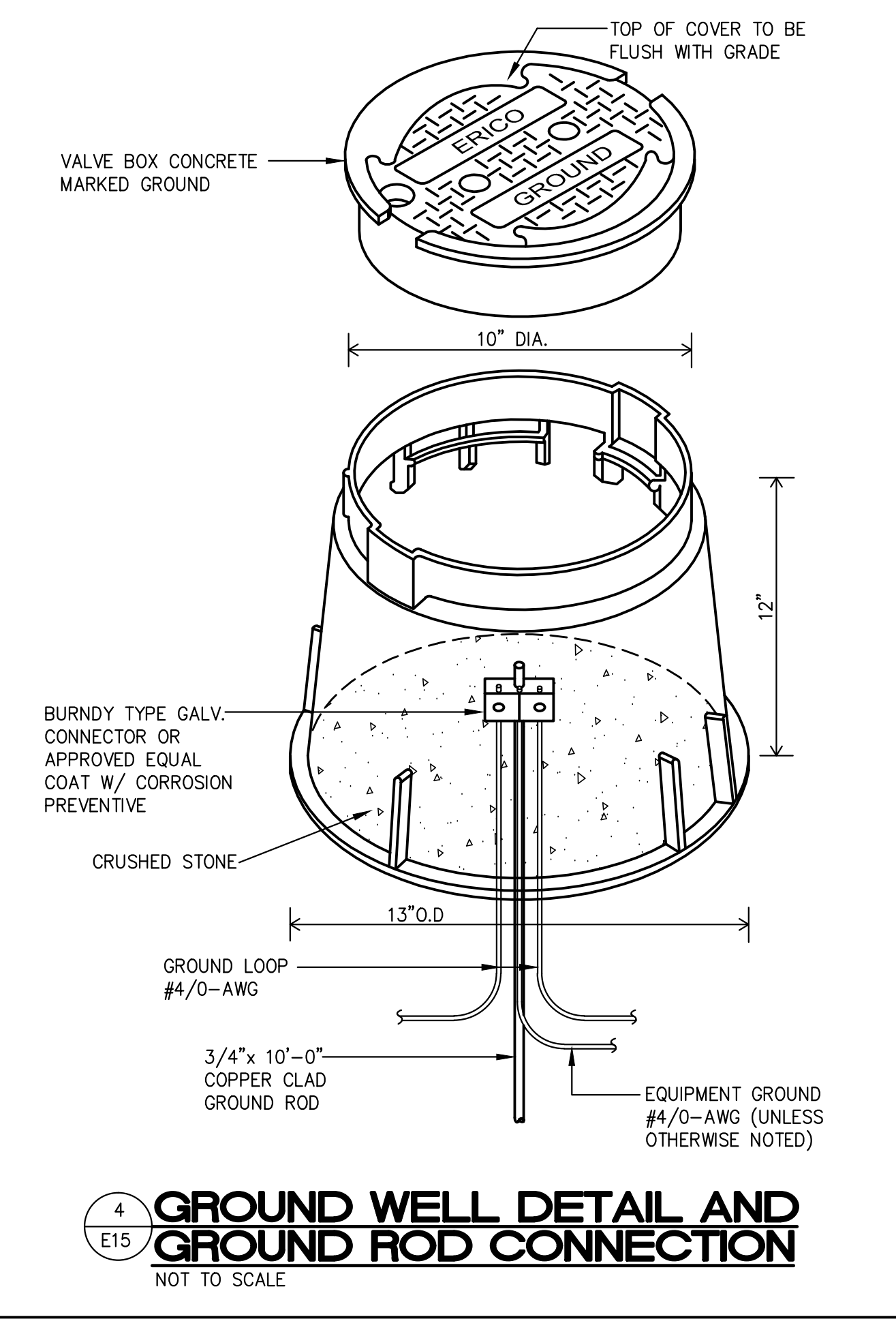
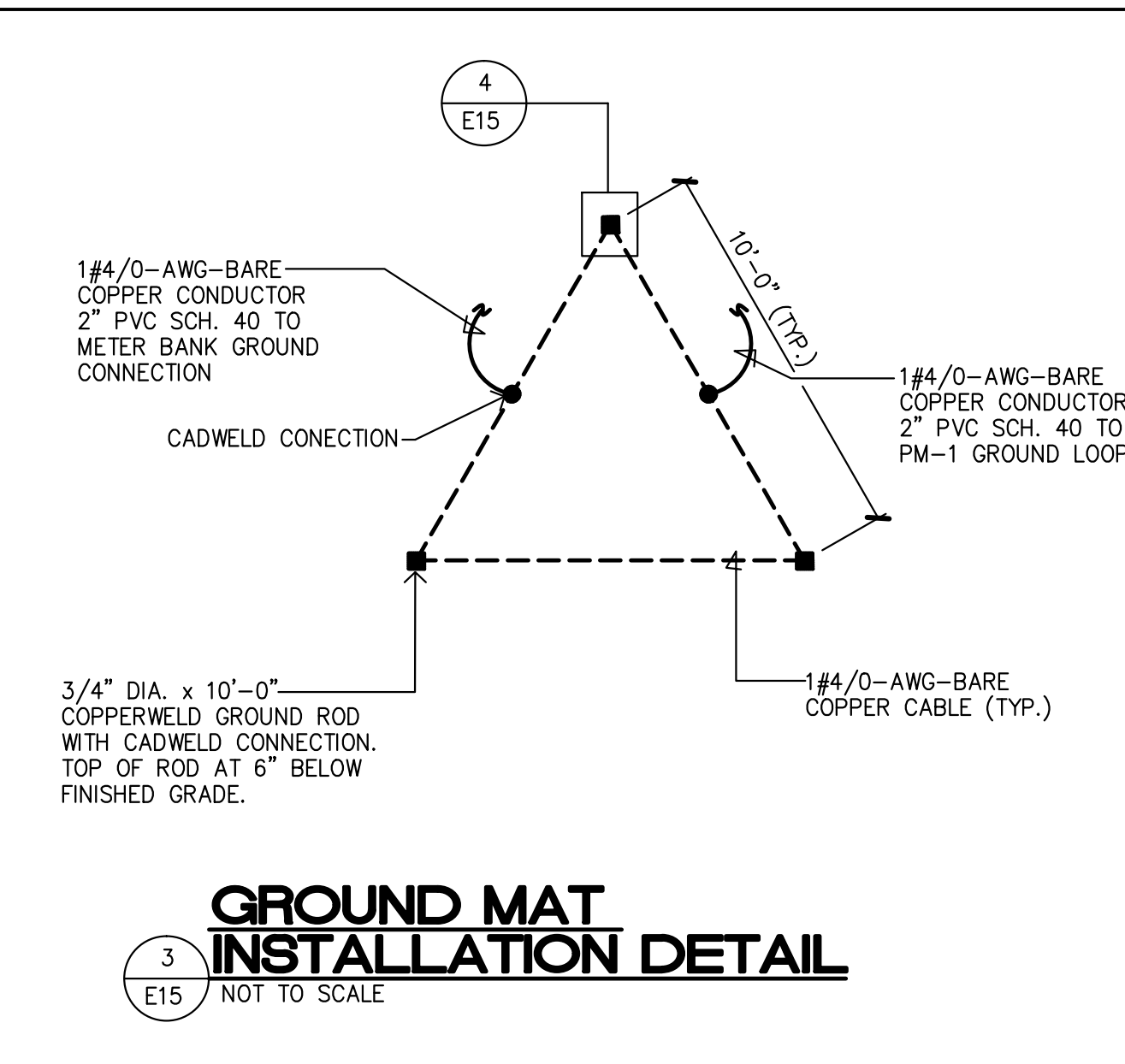
METER BANK	
-	
-	
-	
-	

- 4- REMARKS:
- A.- ALL ELBOWS SHALL BE OF THE LONG RADIUS TYPE.
 - B.- THE DIAMETER OF THE EXHAUST PIPE MUST BE INCREASED 1" FOR EACH 10 FEET OF VERTICAL RUN AFTER THE FIRST 10 FEET.
 - C.- THE CONTRACTOR SHALL LEAVE THE TANK(S) FULL OF DIESEL FUEL OF THE TYPE REQUIRED FOR THE OPERATION OF THE EMERGENCY GENERATOR.
 - D.- THE CONTRACTOR SHALL MAKE SURE THAT THE CONNECTIONS AT THE DIESEL FUEL TANK(S) ARE TIGHT BEFORE PROCEEDING WITH THE FINAL INSTALLATION OF THE TANK(S).
 - E.- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE COMPLETE INSTALLATION OF THE EMERGENCY GENERATOR WITH ALL ITS NECESSARY FITTINGS AND APPURTENANCES. THIS SHALL BE DONE ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR LEAVING THE EMERGENCY POWER GENERATING SYSTEM IN PERFECT OPERATING CONDITIONS.
 - F.- THE STRUCTURAL DETAILS SHOWN IN THE ELECTRICAL DRAWINGS FOR THE SUPPORT OF THE DIESEL FUEL TANK ARE OF A GENERAL NATURE. IT CORRESPONDS TO THE CONTRACTOR TO PROVIDE THE CORRECT TYPE AND SIZE OF STRUCTURAL SUPPORTS ACCORDING TO THE ACTUAL DIMENSIONS AND CHARACTERISTICS OF THE TANK PURCHASED.
 - G.- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE CONSTRUCTION AND OPERATION PERMITS FOR THE GENERATOR FROM THE ENVIRONMENTAL QUALITY BOARD.
 - H.- THE CONCRETE PAD INDICATED IS TO BE USED ONLY FOR DIMENTIONING PURPOSES REGARDING ITS LENGTH & WIDTH. THE PAD SHALL BE 6" HIGH ABOVE GROUND. IT CORRESPONDS TO THE CONTRACTOR TO PROVIDE (FURNISH AND INSTALL) THE CONCRETE PAD AS WELL AS THE STRUCTURAL DETAILS FOR THE PAD AS PER A LICENSED STRUCTURAL ENGINEER CERTIFIED DRAWINGS AND SPECIFICATIONS.

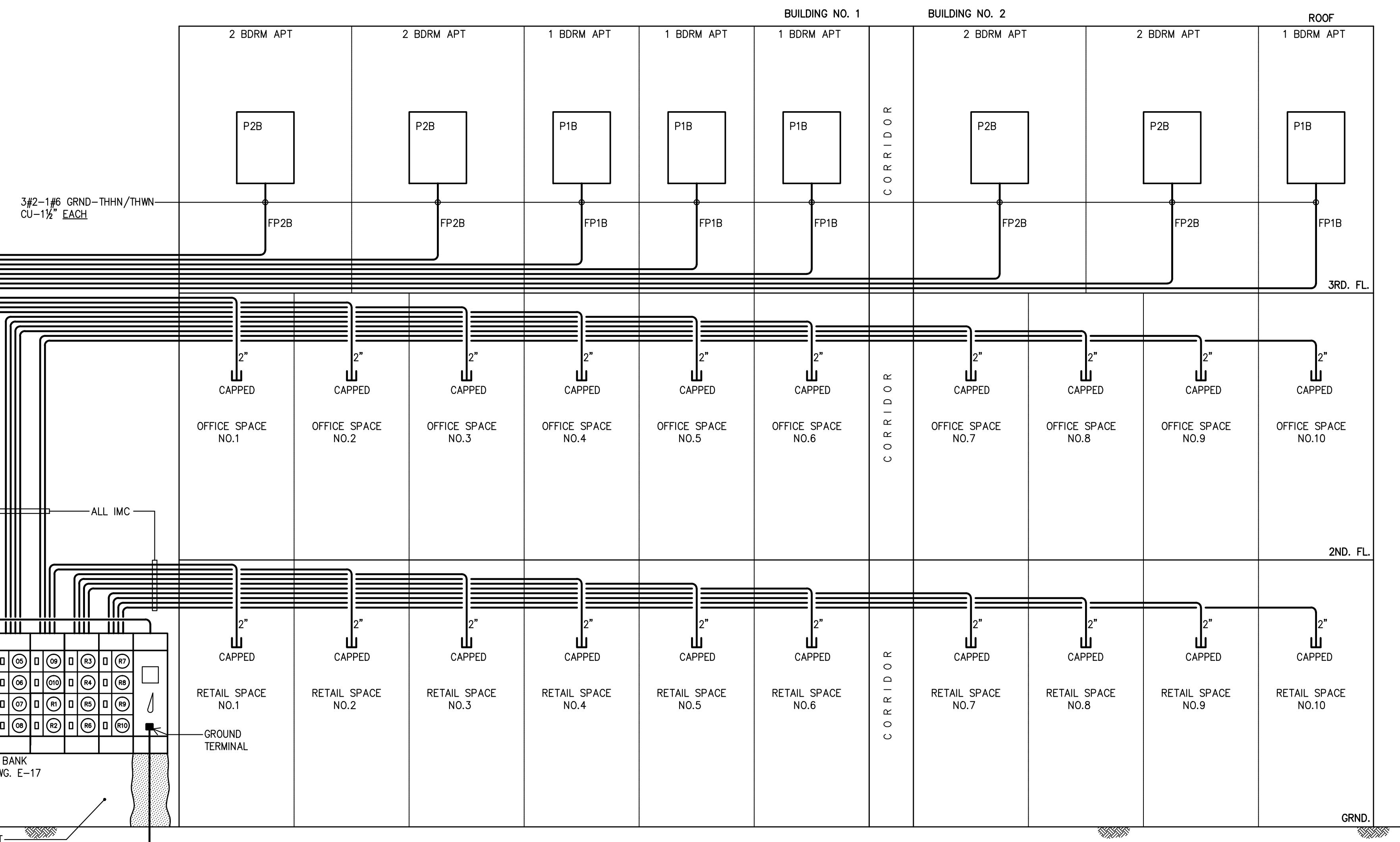
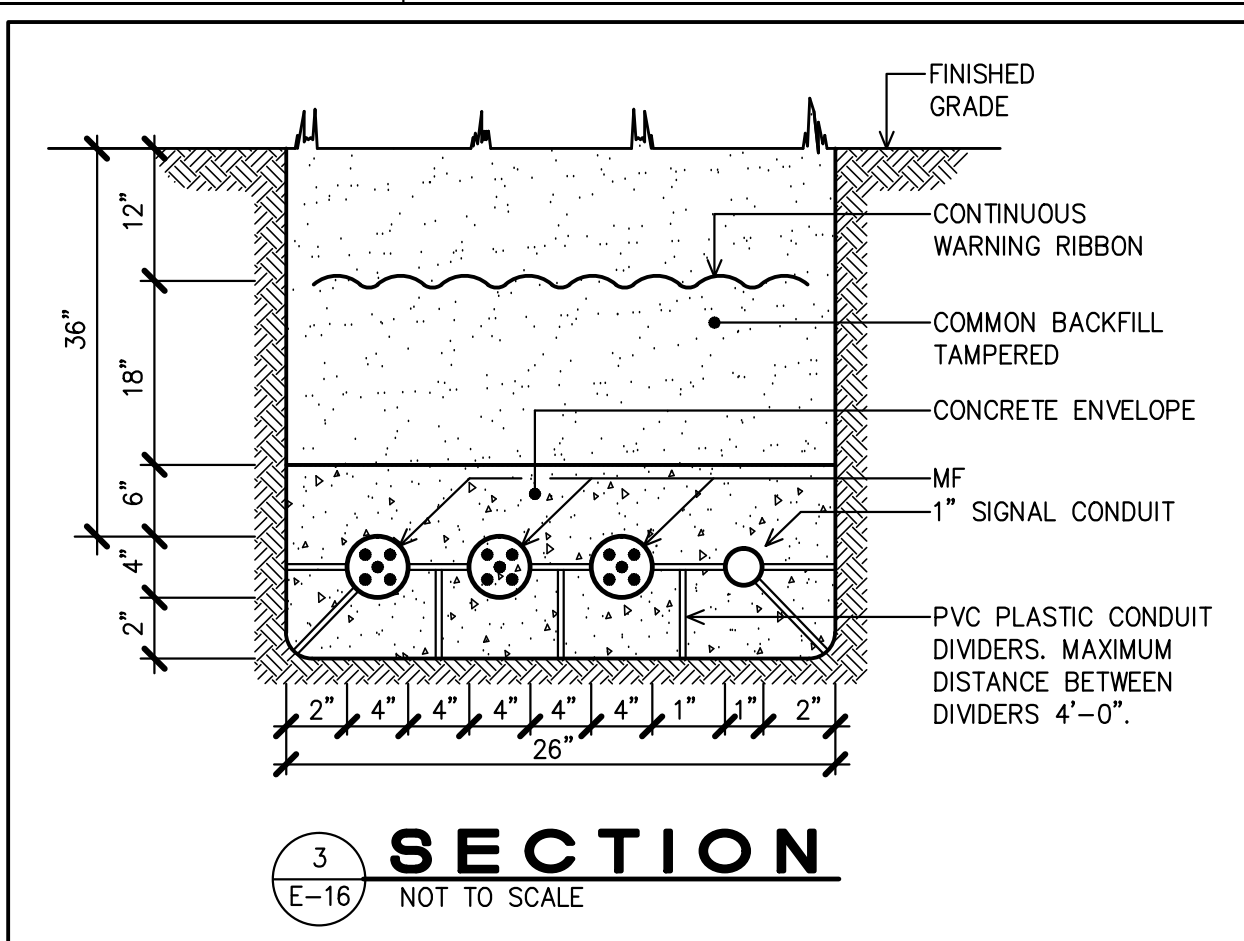
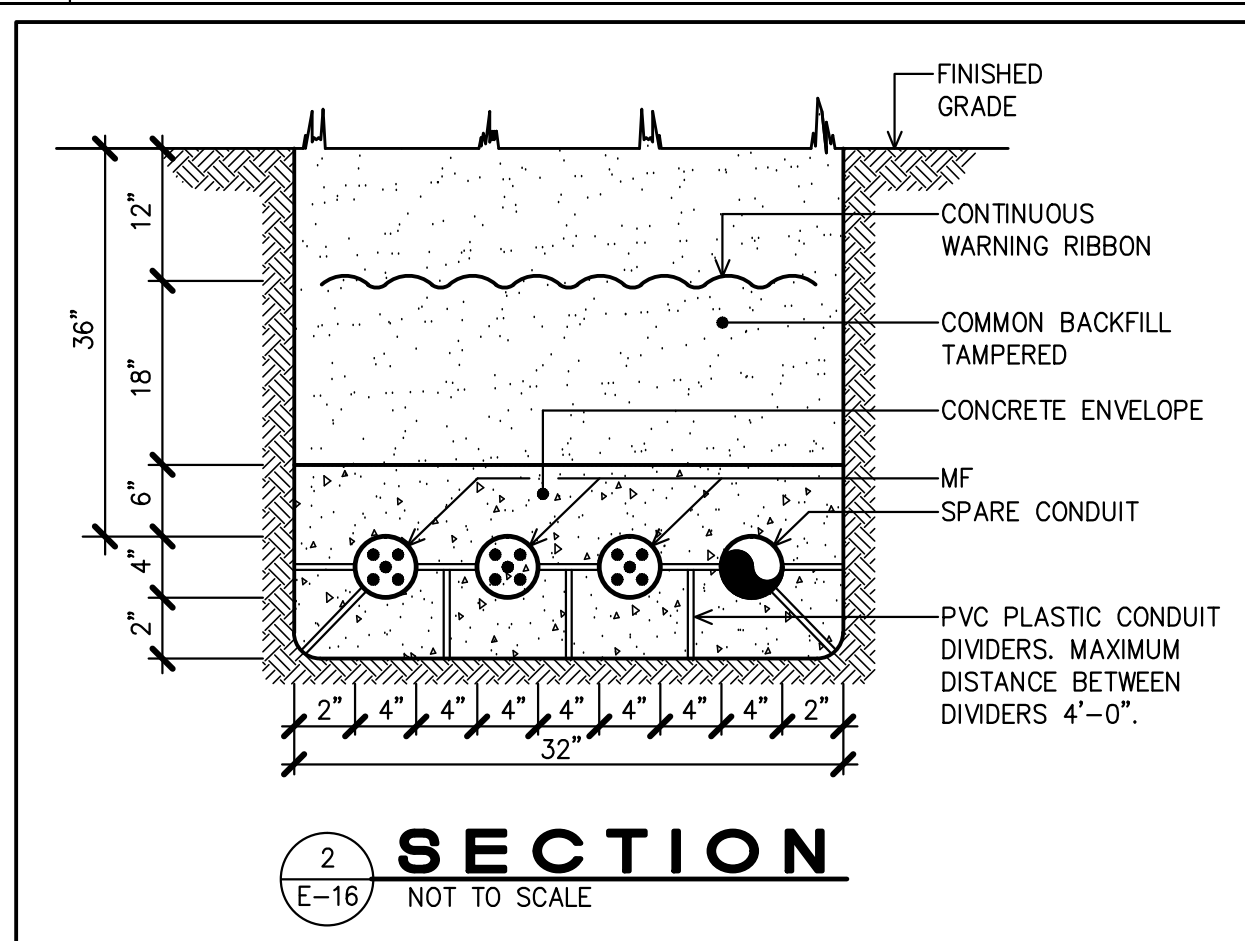
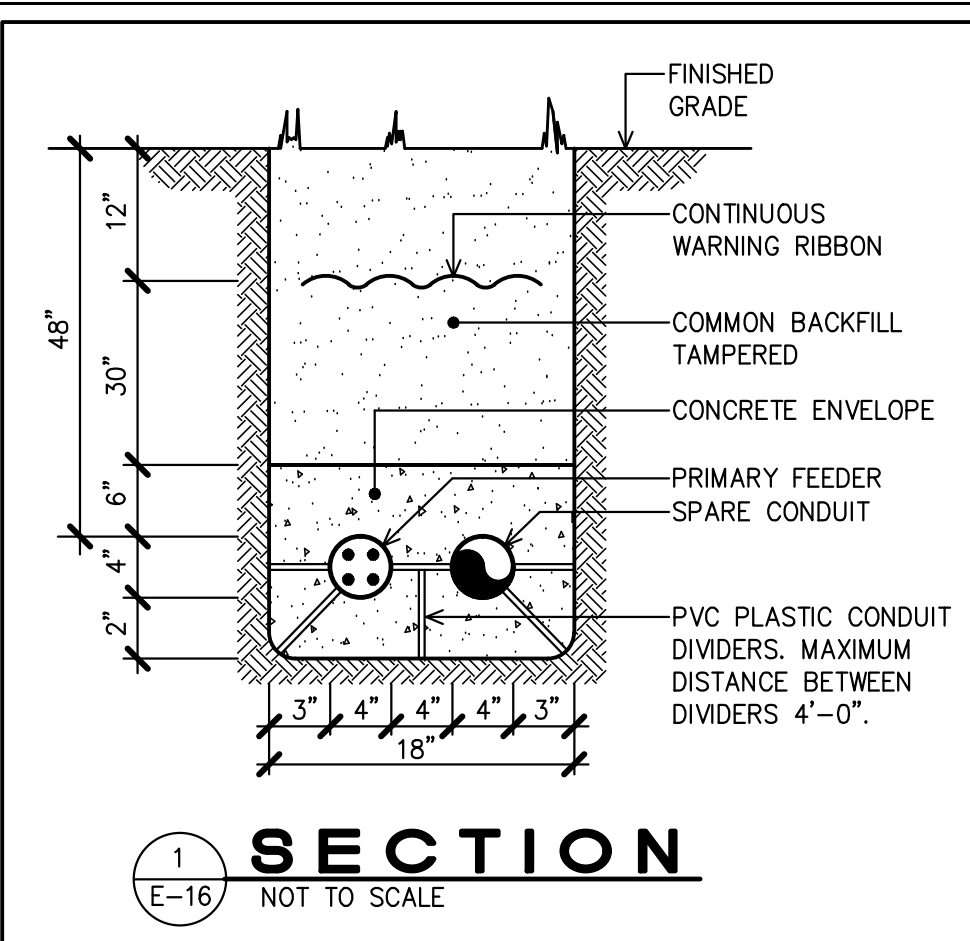
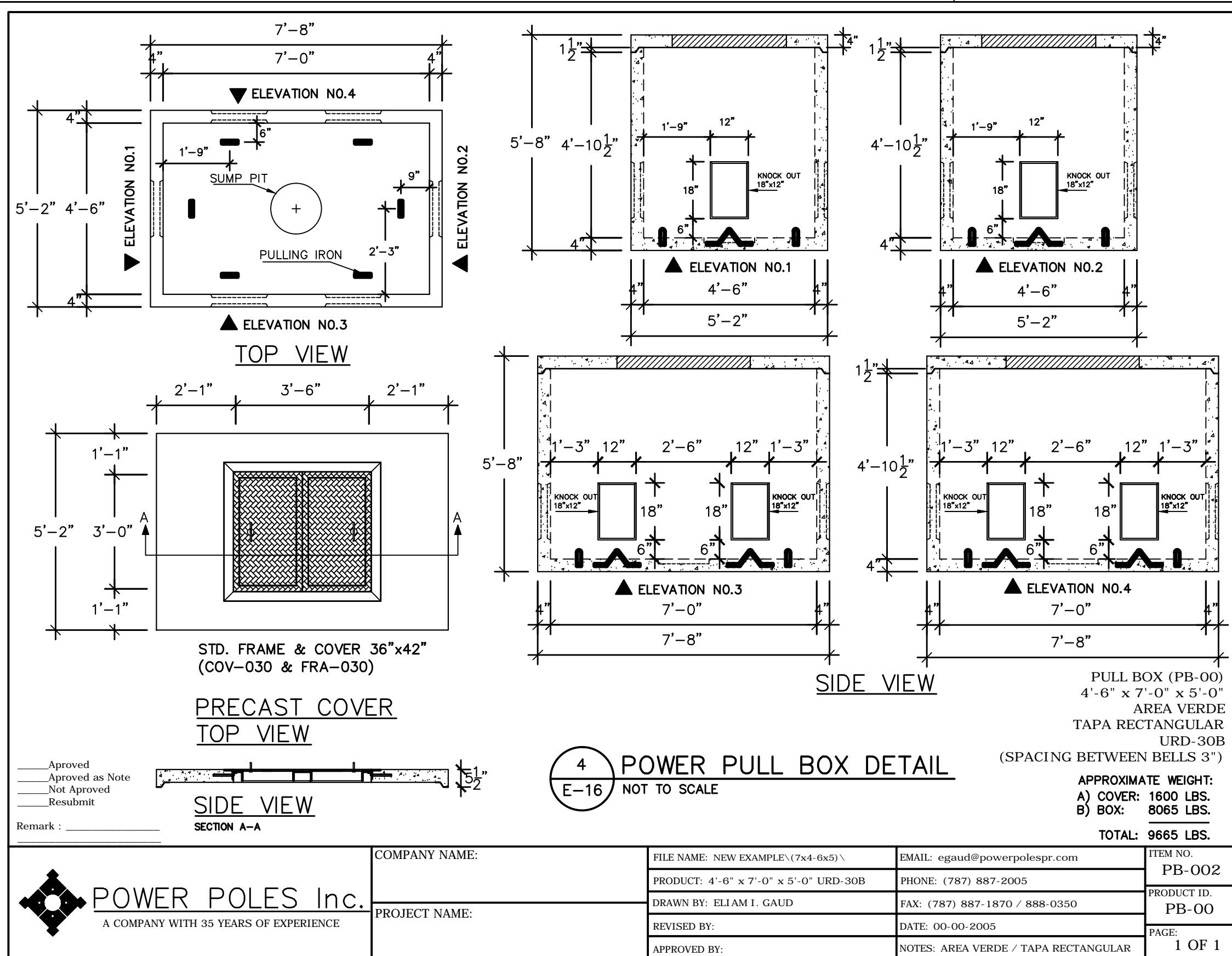


2 EQUIPMENT WEIGHT

EMERGENCY GENERATOR WITH ENCLOSURE	=	±6,000 lbs.
WEIGHT OF SUB-BASE FUEL TANK (EMPTY)	=	±1,500 lbs.
WEIGHT OF DIESEL FUEL	=	±4,500 lbs.
APPROXIMATE TOTAL WEIGHT	=	±12,000 lbs.

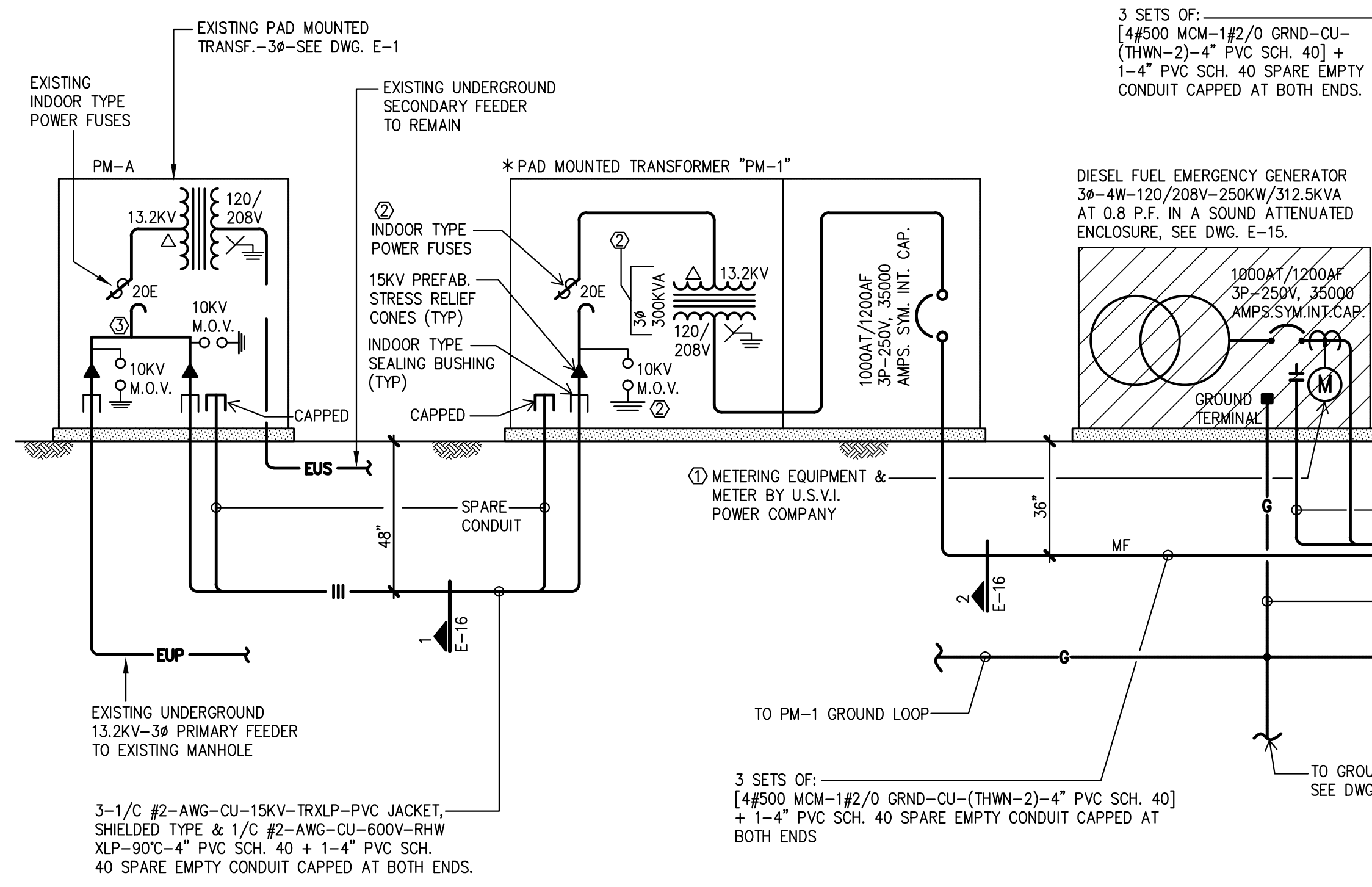


LJV DRAWING HISTORY		LJV-DSB	DESIGN STAGE
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CAD SUBFILE:	17-014-E015	- R00 - BD	ADVANCED DWGS: (AD)
PLOT DATE:	09.01.18		BID DWGS: (BD)
PLOT SCALE:	AS SHOWN		CONTRACT DWGS: (CD)
ISSUE DATE:	09.01.18		RECORD DWGS: (RD)
REMARKS:	NOT FOR CONSTRUCTION		IN PROCESS



KEYED NOTES:

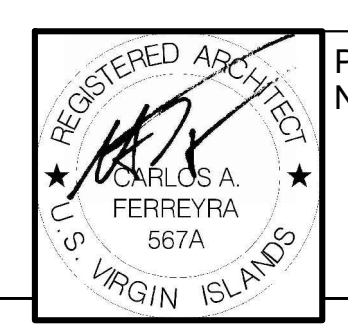
- 1- CONTRACTOR TO COORDINATE WITH THE U.S.V.I. POWER COMPANY THE METERING SEQUENCE IN ORDER TO AVOID DUAL SERVICE METERING FROM BOTH A NORMAL POWER SOURCE AND AN EMERGENCY POWER SOURCE.
- 2- HOLD PURCHASE OF EQUIPMENT UNTIL PRIMARY VOLTAGE IS VERIFIED AND DRAWINGS ARE APPROVED BY THE U.S. VIRGIN ISLANDS POWER COMPANY.
- 3- NEW DOUBLE LUGGING CONNECTION BY U.S.V.I. POWER COMPANY AT CONTRACTOR'S EXPENSE SEE DETAIL E-1A



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ONE LINE DIAGRAM
 NOT TO SCALE



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ST. THOMAS, U.S. VIRGIN ISLANDS
ONE LINE DIAGRAM & POWER PULL BOX DETAIL

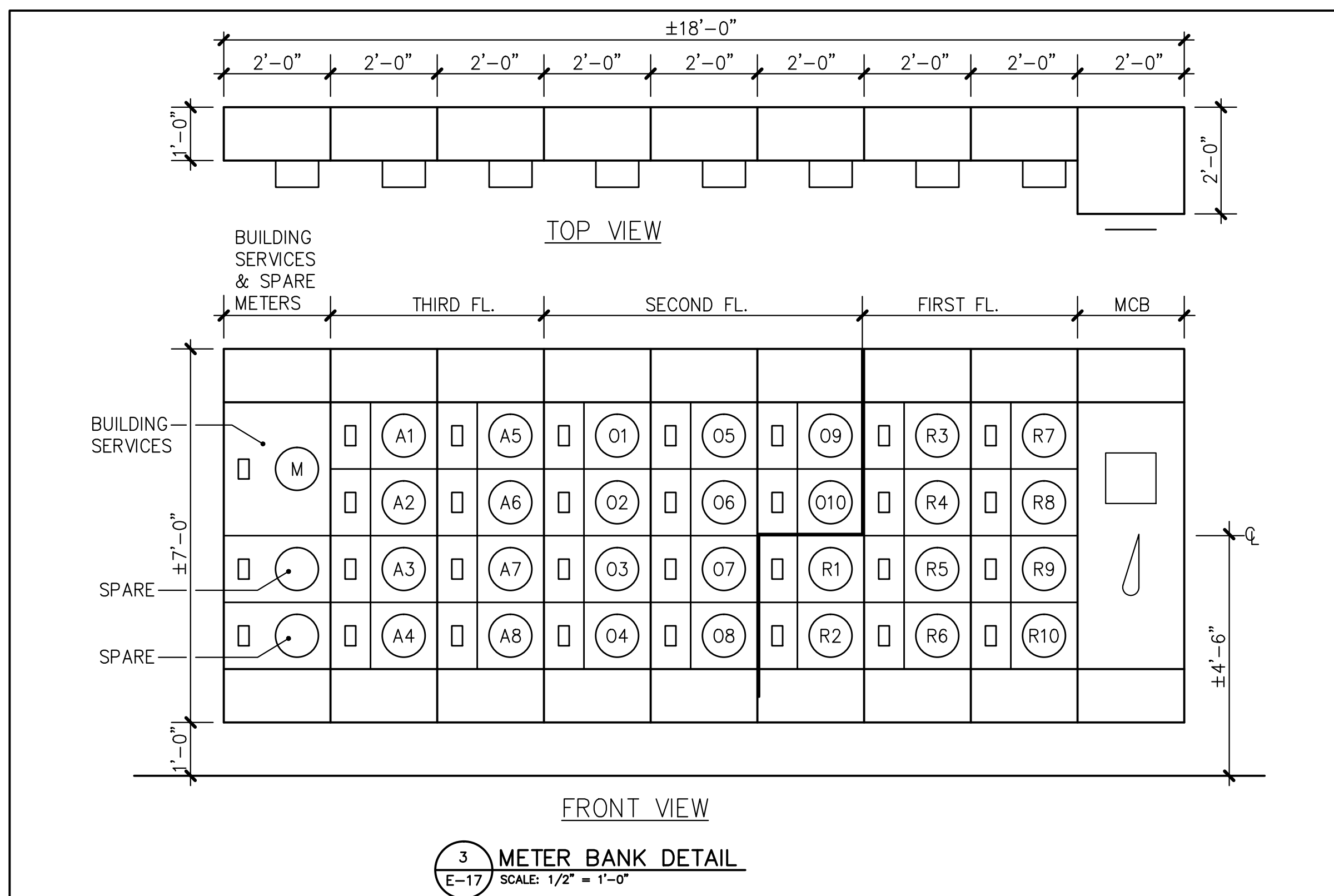
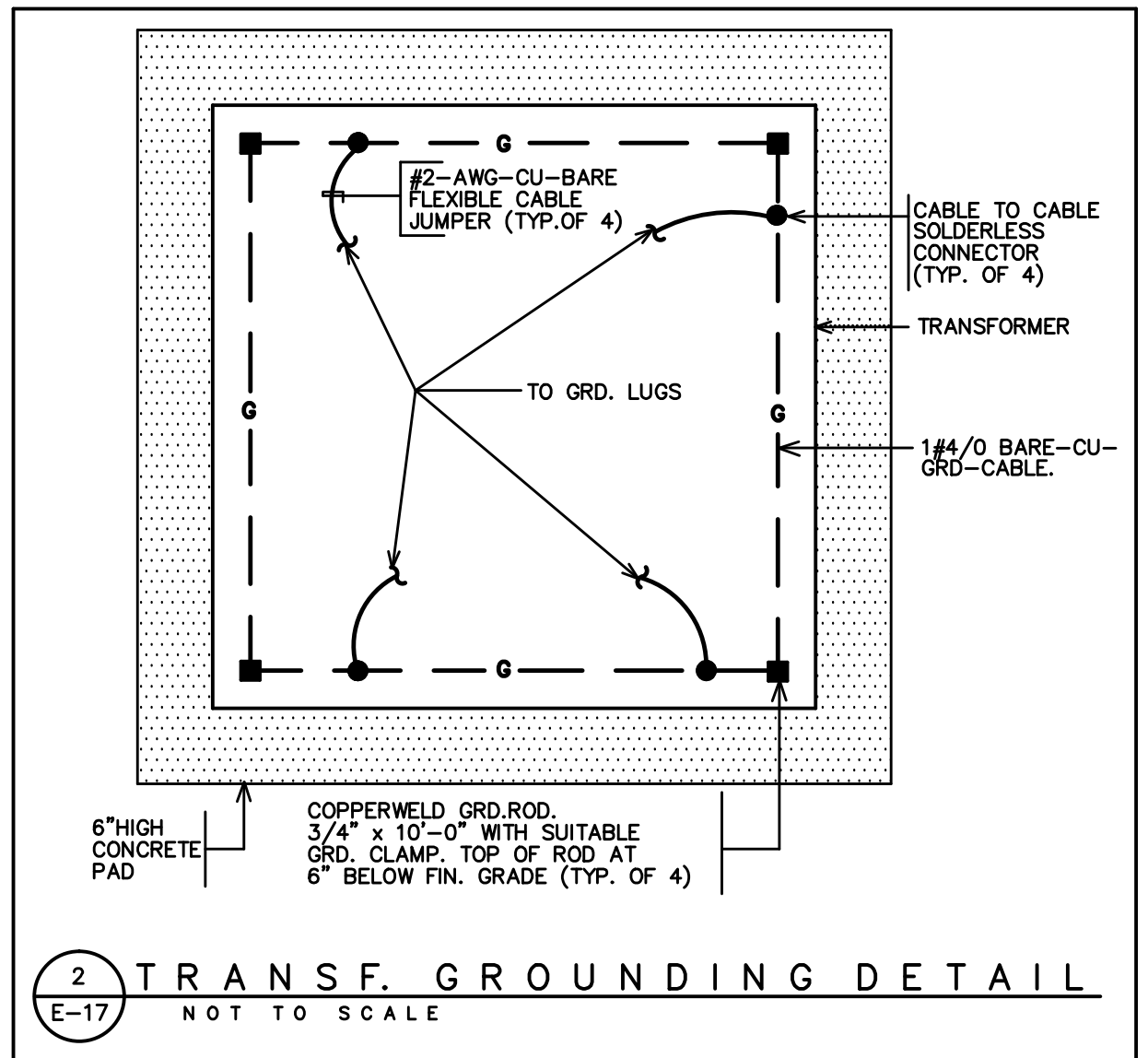
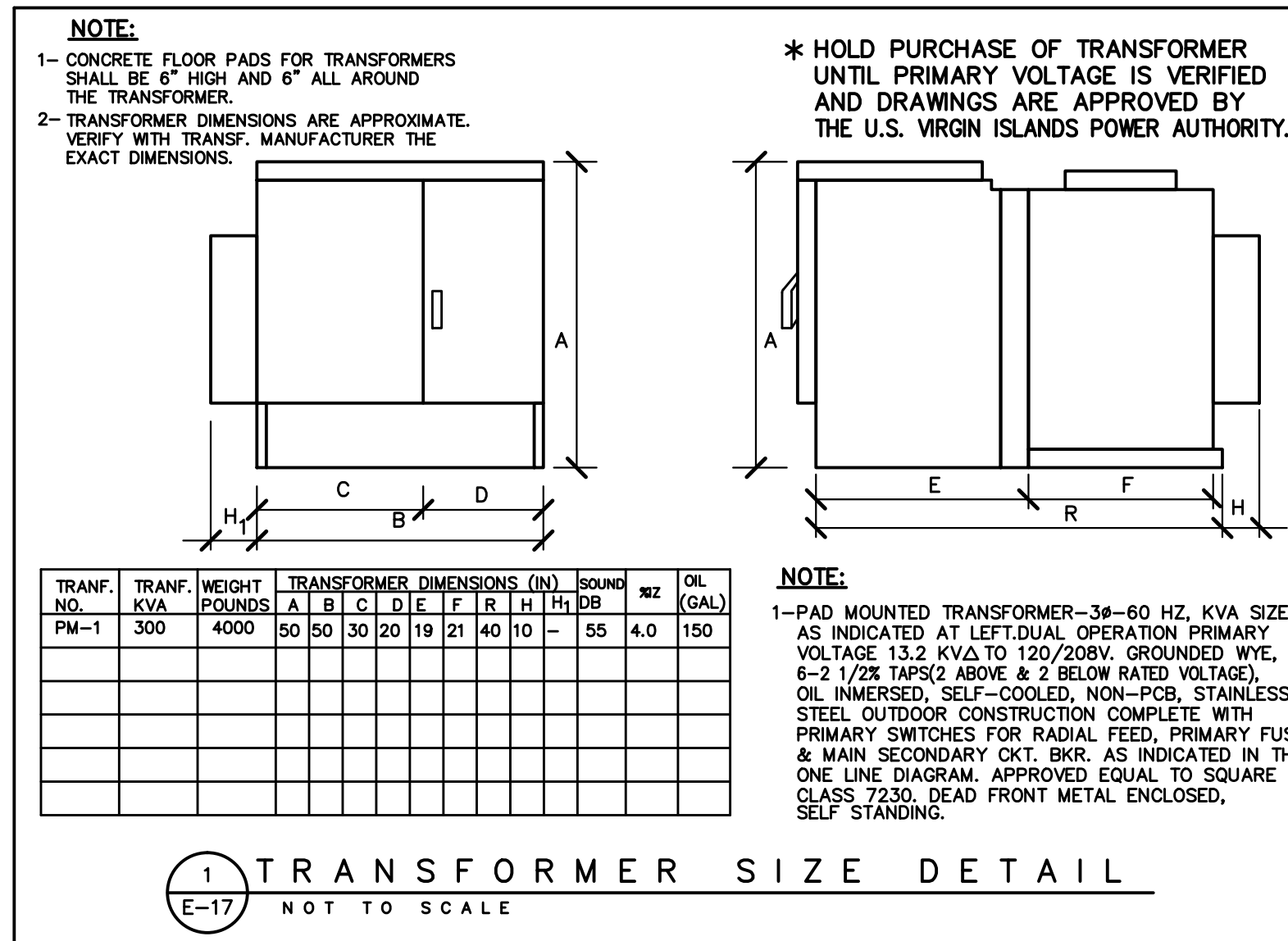
E-16

LJV DRAWING HISTORY	LJV-DSB	DESIGN STAGE
PROJECT NO: 17-014		SCHEMATIC DWGS: (SD)
DRAWING NO: E-16		PRELIMINARY DWGS: (PD)
CAD FILE: 17-014/		DESIGN DEVELOPMENT DWGS: (DD)
CAD SUBFILE: 17-014-E016 -R00 -BD		ADVANCED DWGS: (AD)
PLOT DATE: 09.01.18		BID DWGS: (BD)
PLOT SCALE: AS SHOWN		CONTRACT DWGS: (CD)
ISSUE DATE: 09.01.18		RECORD DWGS: (RD)
REMARKS: NOT FOR CONSTRUCTION		IN PROCESS

① METER BANKS SPECIFICATIONS

DESIG-NATION	Ø	W	VOLTS	MAIN (AMPS)		MTG. TYPE	NEMA TYPE	GRD. BUS	SHORT CIRCUIT INT. CAP.	METERING POSITIONS			REMARKS			
				LUGS	BREAKER					NO.	Ø	W		SERVICE	BREAKER	FEEDS
METER BANK	3	4	120/208	-----	1000AT/1000AF 3P-250V	SURFACE	4X	●	35000 SYM. AMPS.	1	3	4	125A	125AT/225AF 3 POLE	---	BUILDING SERVICES
										2	---	---	---	---	---	SPARE
										3	---	---	---	---	---	SPARE
										A1	1	3	125A	125AT/225AF 2 POLE	APT. NO. 1 2 BDRM.	ØA/ØB
										A2	1	3	125A	125AT/225AF 2 POLE	APT. NO. 2 2 BDRM.	ØB/ØC
										A3	1	3	125A	125AT/225AF 2 POLE	APT. NO. 3 1 BDRM.	ØC/ØA
										A4	1	3	125A	125AT/225AF 2 POLE	APT. NO. 4 1 BDRM.	ØA/ØB
										A5	1	3	125A	125AT/225AF 2 POLE	APT. NO. 5 1 BDRM.	ØB/ØC
										A6	1	3	125A	125AT/225AF 2 POLE	APT. NO. 6 2 BDRM.	ØC/ØA
										A7	1	3	125A	125AT/225AF 2 POLE	APT. NO. 7 2 BDRM.	ØA/ØB
										A8	1	3	125A	125AT/225AF 2 POLE	APT. NO. 8 1 BDRM.	ØB/ØC
										R1	3	4	125A	125AT/225AF 3 POLE	RETAIL NO. 1	ØA/ØB/ØC
										R2	3	4	125A	125AT/225AF 3 POLE	RETAIL NO. 2	ØA/ØB/ØC
										R3	3	4	125A	125AT/225AF 3 POLE	RETAIL NO. 3	ØA/ØB/ØC
										R4	3	4	125A	125AT/225AF 3 POLE	RETAIL NO. 4	ØA/ØB/ØC
										R5	3	4	125A	125AT/225AF 3 POLE	RETAIL NO. 5	ØA/ØB/ØC
										R6	3	4	125A	125AT/225AF 3 POLE	RETAIL NO. 6	ØA/ØB/ØC
										R7	3	4	125A	125AT/225AF 3 POLE	RETAIL NO. 7	ØA/ØB/ØC
										R8	3	4	125A	125AT/225AF 3 POLE	RETAIL NO. 8	ØA/ØB/ØC
										R9	3	4	125A	125AT/225AF 3 POLE	RETAIL NO. 9	ØA/ØB/ØC
										R10	3	4	125A	125AT/225AF 3 POLE	RETAIL NO. 10	ØA/ØB/ØC
										R1	3	4	125A	125AT/225AF 3 POLE	OFFICE NO. 1	ØA/ØB/ØC
										R2	3	4	125A	125AT/225AF 3 POLE	OFFICE NO. 2	ØA/ØB/ØC
										R3	3	4	125A	125AT/225AF 3 POLE	OFFICE NO. 3	ØA/ØB/ØC
										R4	3	4	125A	125AT/225AF 3 POLE	OFFICE NO. 4	ØA/ØB/ØC
										R5	3	4	125A	125AT/225AF 3 POLE	OFFICE NO. 5	ØA/ØB/ØC
										R6	3	4	125A	125AT/225AF 3 POLE	OFFICE NO. 6	ØA/ØB/ØC
										R7	3	4	125A	125AT/225AF 3 POLE	OFFICE NO. 7	ØA/ØB/ØC
										R8	3	4	125A	125AT/225AF 3 POLE	OFFICE NO. 8	ØA/ØB/ØC
										R9	3	4	125A	125AT/225AF 3 POLE	OFFICE NO. 9	ØA/ØB/ØC
										R10	3	4	125A	125AT/225AF 3 POLE	OFFICE NO. 10	ØA/ØB/ØC

STAINLESS STEEL
OUTDOOR CONSTRUCTION



LJV DRAWING HISTORY	LJV-DSB	DESIGN STAGE
PROJECT NO: 17-014		SCHEMATIC DWGS: (SD)
DRAWING NO: E-17		PRELIMINARY DWGS: (PD)
CAD FILE: 17-014/		DESIGN DEVELOPMENT DWGS: (DD)
CAD SUBFILE: 17-014-E017 - R00 - BD		ADVANCED DWGS: (AD)
PLOT DATE: 09.01.18		BID DWGS: (BD)
PLOT SCALE: AS SHOWN		CONTRACT DWGS: (CD)
ISSUE DATE: 09.01.18		RECORD DWGS: (RD)
REMARKS: NOT FOR CONSTRUCTION		IN PROCESS

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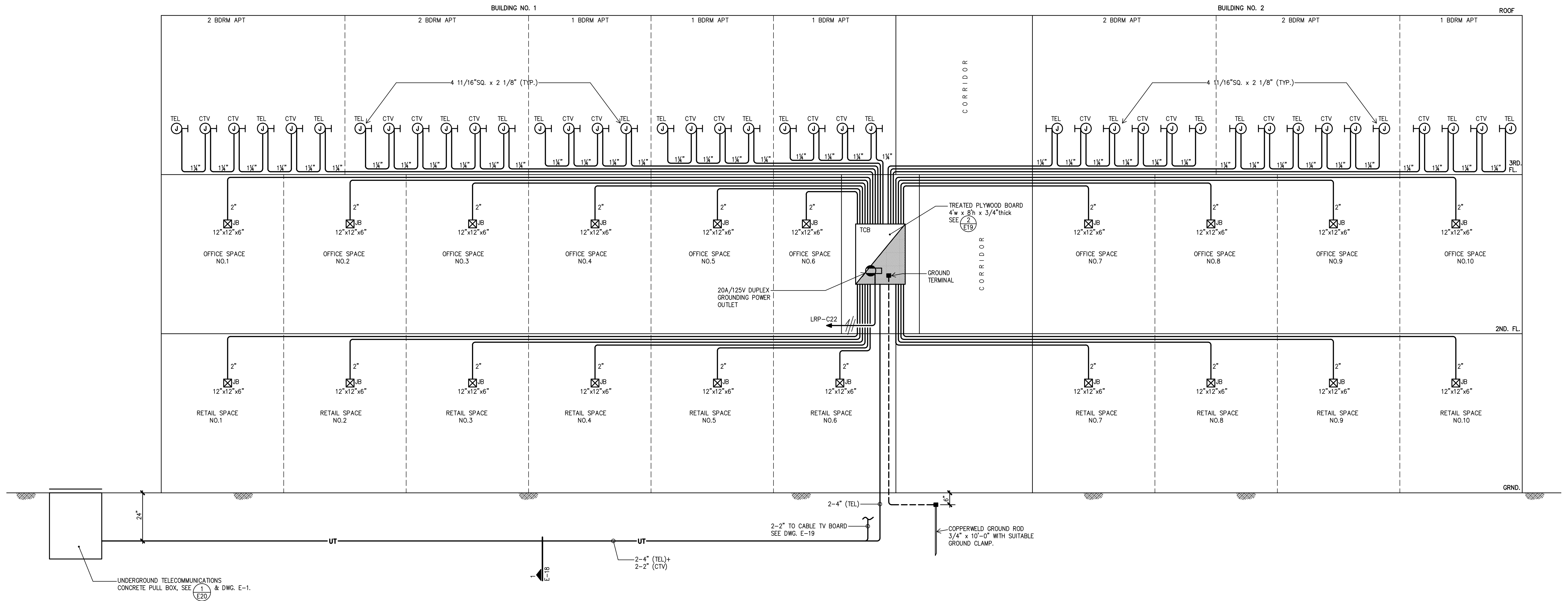
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REGISTERED ARCHITECT
CARLOS A. FERREYRA
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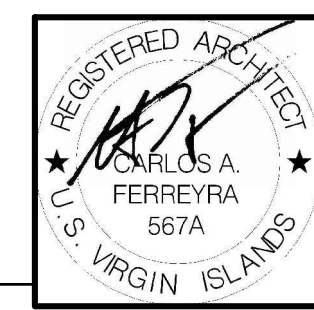
**VIHFA - MIXED USE DEVELOPMENT
ST. THOMAS, U.S. VIRGIN ISLANDS
METER BANKS SPECIFICATIONS & DETAILS**



LJV DRAWING HISTORY	LJV-DSB	DESIGN STAGE
PROJECT NO: 17-014		SCHEMATIC DWGS. (SD)
DRAWING NO: E-18		PRELIMINARY DWGS. (PD)
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CAD SUBFILE: 17-014-E018 - ROO - BD		ADVANCED DWGS. (AD)
PLOT DATE: 09.01.18		BID DWGS. (BD)
PLOT SCALE: AS SHOWN		CONTRACT DWGS. (CD)
ISSUE DATE: 09.01.18		RECORD DWGS. (RD)
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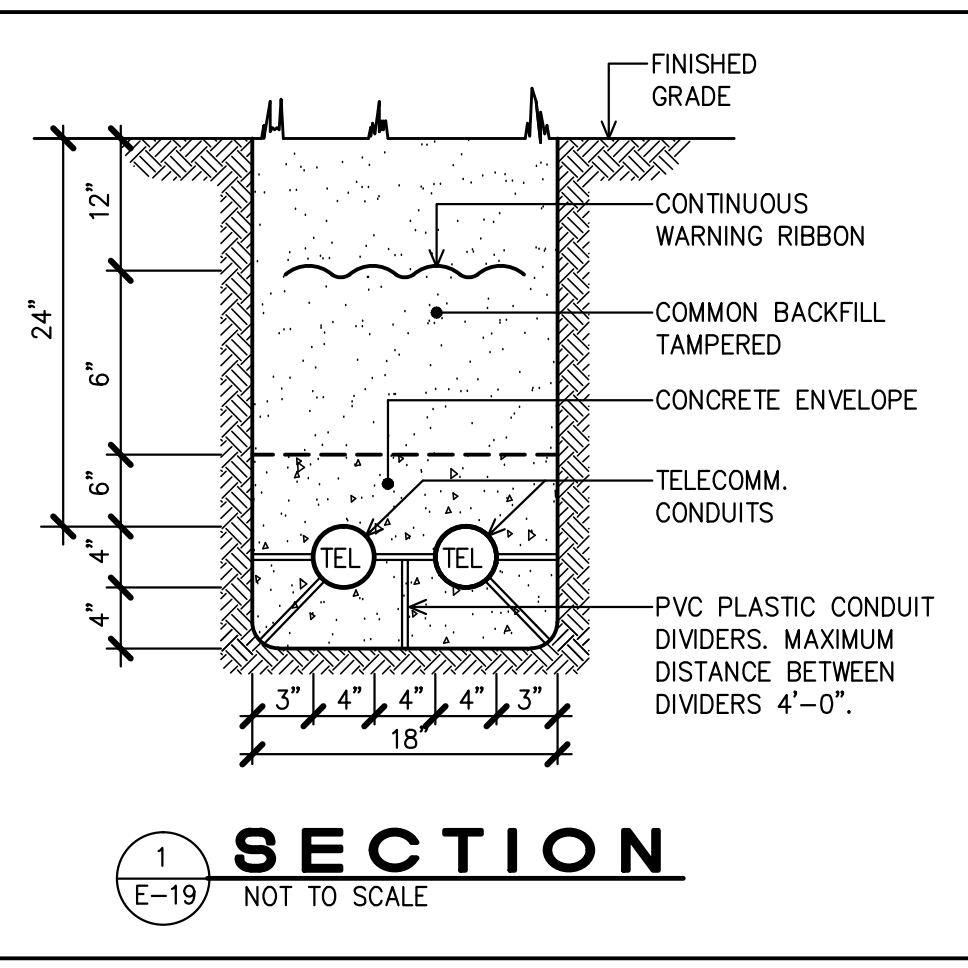
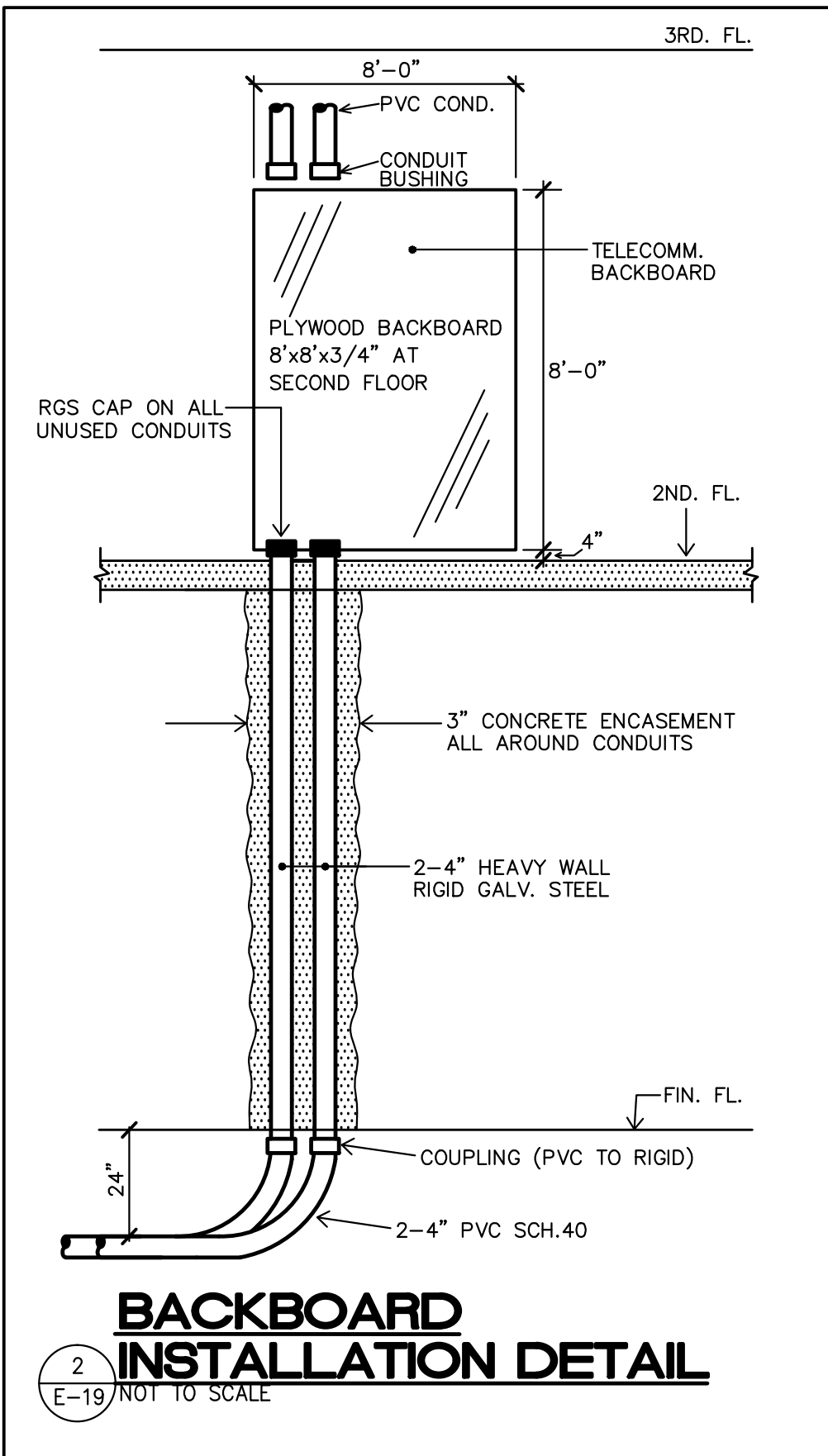
Sheet Issue Date:

**VIHFA - MIXED USE DEVELOPMENT
 ST. THOMAS, U.S. VIRGIN ISLANDS**
TELEPHONE SYSTEM RISER

1 TELECOMMUNICATIONS NOTES

- 1- THE CONTRACTOR SHALL PROVIDE A COMPLETE RACEWAY SYSTEM INCLUDING CABLES TRAYS, CONDUITS, BOXES AND CABINETS, AS INDICATED ON DRAWINGS AND IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE U.S. VIRGIN ISLANDS TELECOMMUNICATIONS COMPANY.
- 2- MINIMUM SIZE OF TELECOMMUNICATIONS CONDUITS TO BE 1 1/2".
- 3- RADII FOR CONDUIT BENDS SHALL BE AS FOLLOWS:

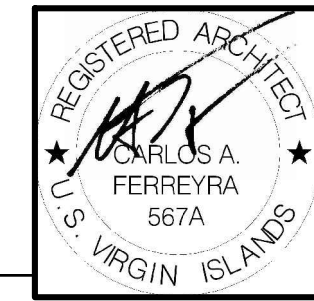
SIZE OF CONDUITS	MINIMUM RADIUS
1" TO 1-1/2"	18"
2"	24"
3" & 4"	30"
- 4- ALL CONDUITS SHALL BE PROVIDED WITH A NO. 14 TW-CU-FISHWIRE.
- 5- NO. 10 TW-CU-FISHWIRE SHALL BE PROVIDED IN RUNS FROM CABINET TO CABINET, FROM CABINET TO CLOSET, FROM CLOSET TO CLOSET, OR FROM MAIN CLOSET OR MAIN CABINET TO SERVICE POLE OR EASEMENT.
- 6- MINIMUM SIZE OF TELECOMMUNICATIONS WALL OUTLETS SHALL CONSIST OF 4 11/16" x 4 11/16" SQUARE BY 2 1/8" DEEP BOX WITH K.O. TO FIT CONDUIT AND EQUIPPED WITH ONE GANG RAISED COVER OF THE REQUIRED HEIGHT TO BRING THE OUTLET FLUSH WITH THE FINISHED WALL SURFACE. PLATES SHALL BE OF THE TYPE SPECIFIED IN THE DRAWINGS.
- 7- WHERE TELECOMMUNICATIONS CLOSETS ARE SPECIFIED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE 3/4" TREATED PLYWOOD BACKING WITH THE DIMENSIONS SPECIFIED ON THE DRAWINGS. THE PLYWOOD BACKING SHALL BE SECURELY FASTENED TO THE WALL.
- 8- PUBLIC TELECOMMUNICATIONS SYSTEM CONDUCTORS, EQUIPMENT AND INSTRUMENTS SHALL BE FURNISHED AND INSTALLED BY THE U.S. VIRGIN ISLANDS TELEPHONE COMPANY.



LJV DRAWING HISTORY	LJV-DSB	DESIGN STAGE
PROJECT NO: 17-014		SCHEMATIC DWGS: (SD)
DRAWING NO: E-19		PRELIMINARY DWGS: (PD)
CAD FILE: 17-014/		DESIGN DEVELOPMENT DWGS: (DD)
CAD SUBFILE: 17-014-E019	-R00 -BD	ADVANCED DWGS: (AD)
PLOT DATE: 09.01.18		BID DWGS: (BD)
PLOT SCALE: AS SHOWN		CONTRACT DWGS: (CD)
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**VIHFA - MIXED USE DEVELOPMENT
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CABLE T.V. SYSTEM RISER

E-19

1 ELECTRICAL DRAWINGS ABBREVIATIONS

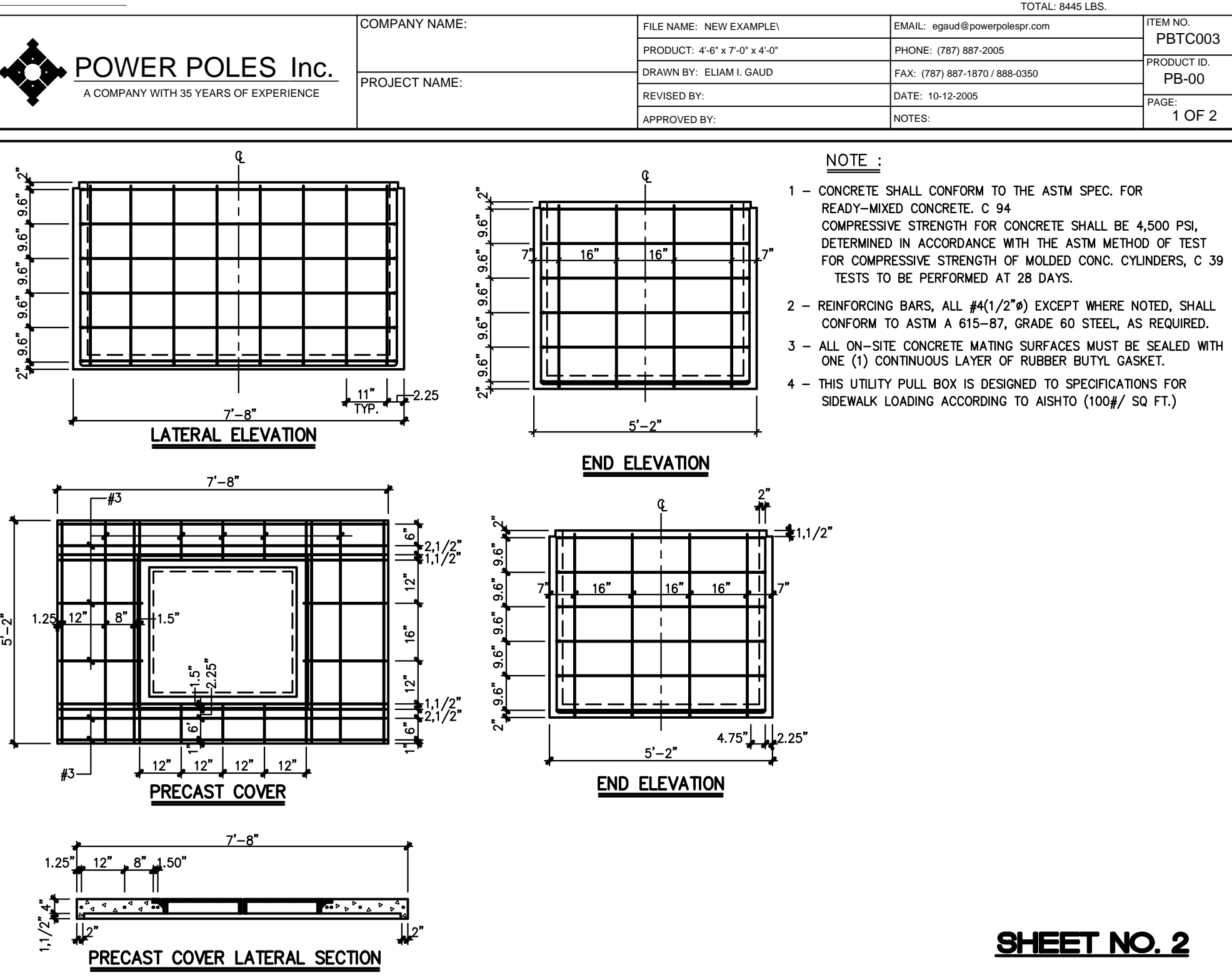
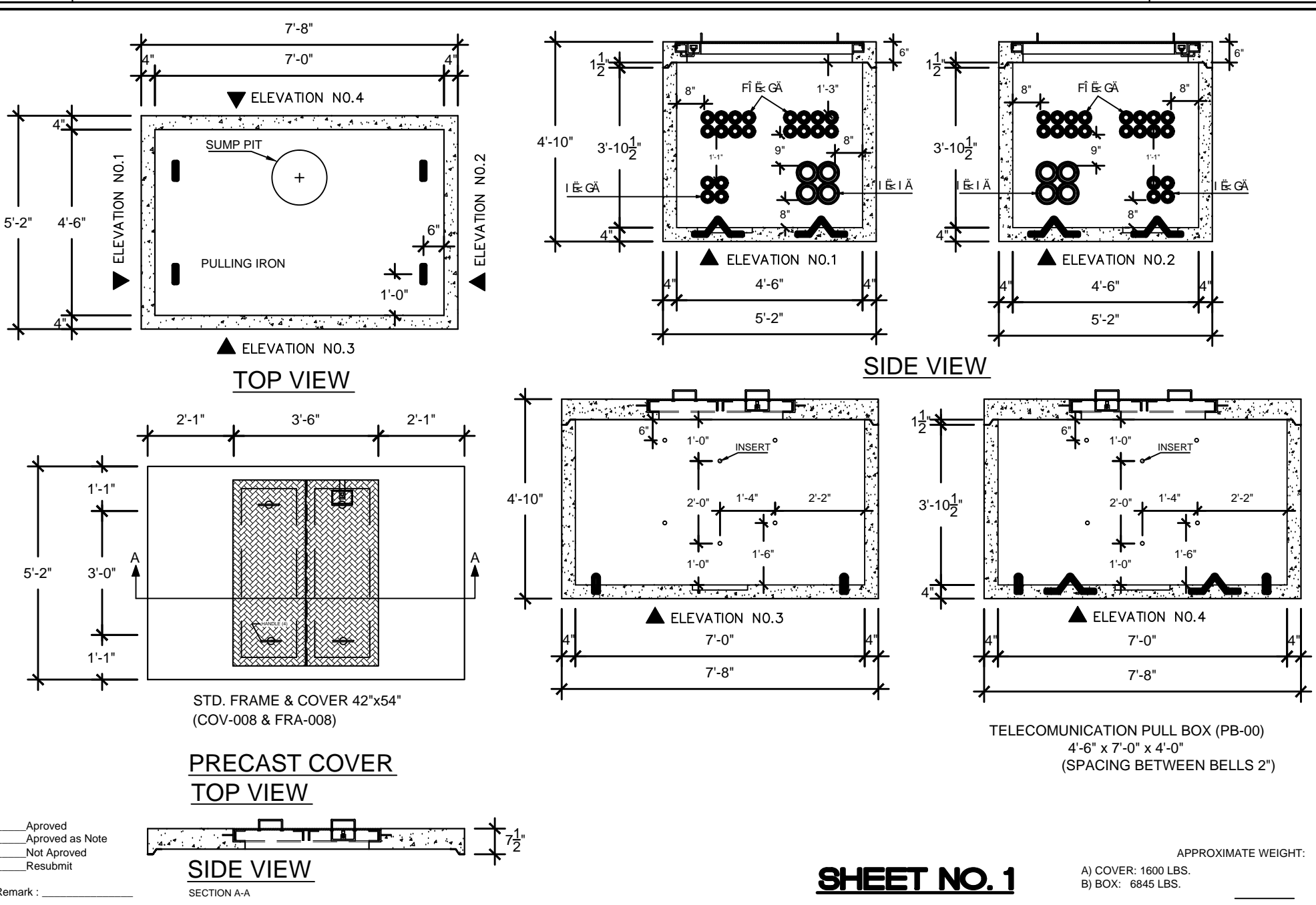
DESIGNATION	DESCRIPTION
A	
AVE	AVENUE
AWG	AMERICAN WIRE GAGE
AHU	AIR HANDLING UNIT
A	AMPERES
AT	AMPERES-TRIP
AF	AMPERES-FRAME
AM	AMMETER
AM/S	AMMETER SWITCH
AL	ALUMINUM
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ATS	AUTOMATIC TRANSFER SWITCH
B	
BFG	BELOW FINISHED GRADE
C	
CTVC	CABLE TELEVISION COMPANY
CU	COPPER
CCTV	CLOSED CIRCUIT TELEVISION
CTV	CABLE TELEVISION
CTVC	CABLE TELEVISION CABINET
CWA	CONSTANT WATTAGE AUTO-TRANSFORMER
CW	COOL WHITE
CIRC	CIRCLE
CL or CL	CENTER LINE
CEM	CENTIMETERS
CEM ²	SQUARED CENTIMETERS
CONC	CONCRETE
CAP	CAPACITY
CLF	CURRENT LIMITING FUSES
CONT	CONTROL
D	
D	DRYER
DW	DISH WASHER
DO	DOOR OPENER
DWG	DRAWINGS
DT	DRY TYPE TRANSFORMER
E	
ENT	ELECTRICAL NON-METALLIC CONDUIT
EMT	ELECTRICAL METALLIC TUBING
ELEC	ELECTRICAL
EXH	EXHAUST
EMERG	EMERGENCY
EQUIP	EQUIPMENT
ELEV	ELEVATOR
ESC	ESCALATOR
EVAP	EVAPORATOR
F	
FS	FLOW SWITCH
FF	FINISHED FLOOR
FHC	FIRE HOSE CABINET
FAP	FIRE ALARM PANEL
FLUO	FLUORESCENT
FVNR	FULL VOLTAGE NON-REVERSING
FC	FANCOIL
FT	FEET
FT ²	SQUARED FEET
G	
GF	GROUND FAULT
GAL	GALLONS
GEN	GENERATOR
H	
HD	HEAT DETECTOR
HOA	HAND-OFF-AUTO SELECTOR SWITCH
HPS	HIGH PRESSURE SODIUM
HPF	HIGH POWER FACTOR
HH	HAND HOLE
H	HOOD
HWY	HIGHWAY
HP	HORSEPOWER

2 ELECTRICAL DRAWINGS ABBREVIATIONS

DESIGNATION	DESCRIPTION
I	
IN	INCHES
IN ²	SQUARED INCHES
INT	INTERCOM
IP	INTERCOM PANEL
IMC	INTERMEDIATE METALLIC CONDUIT
INC	INCANDESCENT
INT	INTERRUPTING
J	
JB	JUNCTION BOX
K	
KW	KILO WATTS
KVA	KILO VOLTS-AMPS
KWHRM	KILO-WATT-HOUR METER
L	
LTG	LIGHTING
LPS	LOW PRESSURE SODIUM
LPF	LOW POWER FACTOR
M	
M	METER
M ²	SQUARED METERS
MM	MILIMETERS
MM ²	SQUARED MILIMETERS
MIP	MASTER INTERCOM PANEL
MTR	MOTOR
MOS	MOTOR OPERATED SWITCH
MOV	MOTOR OPERATED VALVE
MDF	MAIN DISTRIBUTION FRAME
MACH	MACHINE
MB	METER BANK
MCTVC	MAIN CABLE TELEVISION CABINET
MECH	MECHANICAL
MFP	MOTORIZED FIRE DAMPER
MFAP	MAIN FIRE ALARM PANEL
MV	MERCURY VAPOR
MH	METAL HALIDE
MH	MANHOLE
MCC	MOTOR CONTROL CENTER
N	
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEC	NATIONAL ELECTRIC CODE
NESC	NATIONAL ELECTRICAL SAFETY CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NF	NON-FUSIBLE
NPF	NORMAL POWER FACTOR
O	
OFF	OFFICE
P	
PF	POWER FACTOR
PLATF	PLATFORM
PH	PENTHOUSE
PRE-FAB	PREFABRICATED
PFM	POWER FACTOR METERS
PREPA	PUERTO RICO ELECTRIC POWER AUTHORITY
PRTC	PUERTO RICO TELEPHONE COMPANY
PVC	POLYVINYL CHLORIDE CONDUIT
PNL	PANEL
PB	PULL BOX
PM	PAD MOUNTED
Q	
Q	QUARTZ
R	
RGS	HEAVY WALL RIGID GALVANIZED STEEL CONDUIT
RS	RAPID START
RVAT	REDUCED VOLTAGE AUTO-TRANSFORMERS
R/W	RIGHT OF WAY
REF	REFRIGERATOR
RM	ROOM

3 ELECTRICAL DRAWINGS ABBREVIATIONS

DESIGNATION	DESCRIPTION
S	
SPECS	SPECIFICATIONS
SD	SMOKE DETECTOR
SWBD	SWITCHBOARD
SU	SWITCHING UNIT
ST	STREET
STO	STORAGE
SYM	SYMMETRICAL
T	
TS	TIME SWITCH
TEL	TELEPHONE
TTC	TELEPHONE TERMINALS CABINET
TTB	TELEPHONE TERMINALS BOARD
TD	TAMPERING DEVICE
TYP	TYPICAL
TT	TRIPLE TUBE
TSB	TELEPHONE SPLICING BOX
TPB	TELEPHONE PULL BOX
TMH	TELEPHONE MANHOLE
TP	TELEPHONE POLE
U	
UG	UNDERGROUND
UL	UNDERWRITER'S LABORATORIES
UBC	UNIFORM BUILDING CODE
UPS	UNINTERRUPTER POWER SUPPLY
V	
V	VOLTS
VM	VOLT METER
VM/S	VOLT METER SWITCH
W	
WW	WARM WHITE
WM	WASHER MACHINE
WH	WATER HEATER
W	WATTS
WC	WATER COOLER
X	
XP	EXPLOSION PROOF
XT	CONTROL TRANSFORMER



1 TELECOMMUNICATIONS PULL BOX DETAILS
E20 / NOT TO SCALE

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PROJECT '34 ISSUED 00/00
No: Parcels No. 26-A, 102, 103, 104
Estate Taarnebrg
Kings Quarter
St. Thomas, U.S. Virgin Islands

REVISIONS	Date
#	

**VIHFA - MIXED USE DEVELOPMENT
ST. THOMAS, U.S. VIRGIN ISLANDS**
TELECOMMUNICATIONS PULL BOXES DETAILS

E-20

LJV DRAWING HISTORY	LJV-DSB	DESIGN STAGE
PROJECT NO: 17-014		SCHEMATIC DWGS: (SD)
DRAWING NO: E-20		PRELIMINARY DWGS: (PD)
CAD FILE: 17-014/		DESIGN DEVELOPMENT DWGS: (DD)
CAD SUBFILE: 17-014-E020	- R00 - BD	ADVANCED DWGS: (AD)
PLOT DATE: 09.01.18		DWGS: (BD)
PLOT SCALE: AS SHOWN		CONTRACT DWGS: (CD)
ISSUE DATE: 09.01.18		RECORD DWGS: (RD)
REMARKS: NOT FOR CONSTRUCTION		IN PROCESS