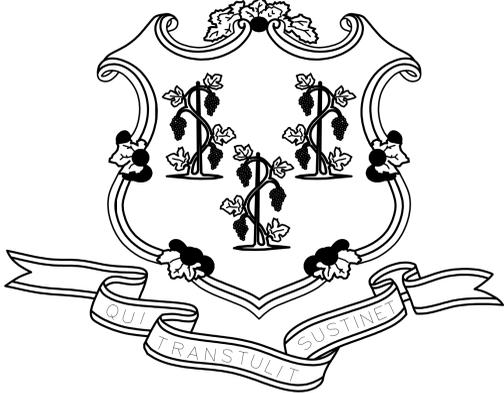


STATE OF CONNECTICUT



DANNEL P. MALLOY GOVERNOR

DEPARTMENT OF ADMINISTRATIVE SERVICES
 MELODY A. CURREY
 COMMISSIONER

GENERATOR INSTALLATION AT WESTERN CONNECTICUT STATE UNIVERSITY

181 WHITE STREET,
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 MARCH 2016



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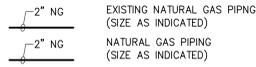
GENERAL NOTES:
 1. ALL WORK TO BE ACCOMPLISHED IN STRICT COMPLIANCE WITH THE CURRENT EDITIONS AT THE TIME OF BID OF THE CONNECTICUT STATE BUILDING CODE.

APPROVALS	
PUBLIC WORKS	DATE
AGENCY	DATE

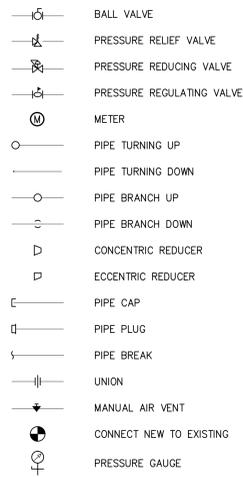
ABBREVIATIONS

CFH	CUBIC FEET PER HOUR
DN	DOWN
FF	FINISH FLOOR
FLR	FLOOR
GPH	GALLONS PER HOUR
GA	GAUGE or GAGE
HDPE	HIGH DENSITY POLYETHYLENE
IN WG	INCHES WATER GAUGE
KW	KILOWATT
MBH	BTU PER HOUR (THOUSAND)
NA	NATURAL GAS
PD	PRESSURE DROP
PSIG	POUNDS PER SQUARE INCH GAUGE
RPM	REVOLUTIONS PER MINUTE
LPG	LIQUID PROPANE GAS

PIPING LINE TYPES



SYMBOLS

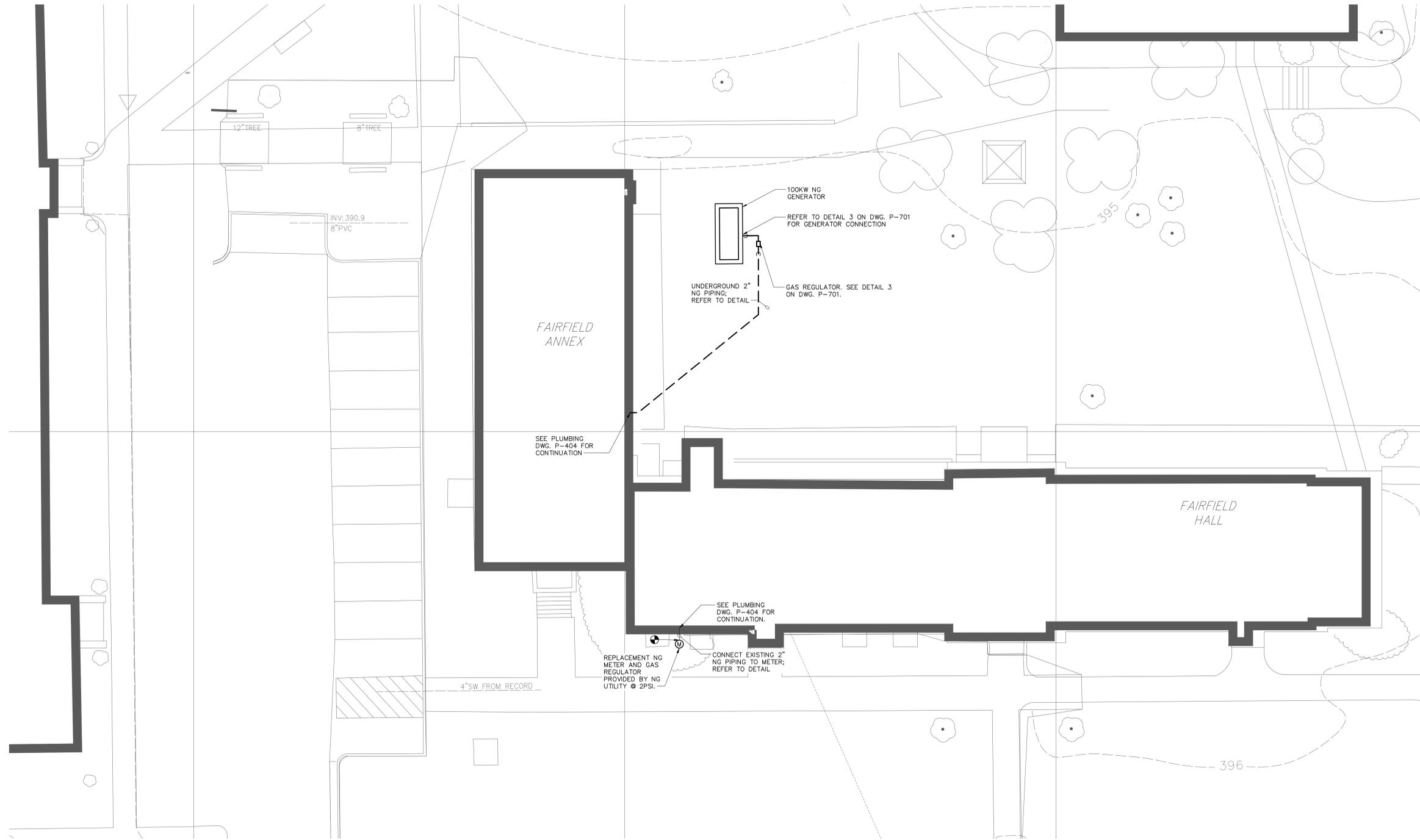


GENERAL NOTES

1. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TOOLS, AND EQUIPMENT AS REQUIRED FOR THE COMPLETE INSTALLATION AND SATISFACTORY OPERATION OF THE MECHANICAL WORK AS SHOWN ON THE DRAWINGS AND AS DESCRIBED IN THESE SPECIFICATIONS.
2. ALL WORK SHALL BE PERFORMED IN A WORKMAN-LIKE MANNER. CONTRACTORS SHALL BE RESPONSIBLE FOR ANY DAMAGES INCURRED DURING CONSTRUCTION. AT THE CLOSE OF THE PROJECT, ALL UNUSED MATERIAL SHALL BE DISPOSED OF OFF-SITE.
3. CONTRACTOR SHALL PROVIDE ONE (1) YEAR GUARANTEE FROM DATE OF FINAL OWNER ACCEPTANCE ON ALL WORK AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR THE REPAIR OF SUCH AT NO COST TO THE OWNER.
4. CONTRACTOR SHALL REMOVE ANY DEBRIS, ETC ASSOCIATED WITH THE WORK OF THIS CONTRACT AT THE END OF EACH DAY.
5. CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL FEES REQUIRED TO COMPLETE THE WORK INDICATED ON THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL EXAMINE THE SITE AND TAKE INTO ACCOUNT ALL EXISTING CONDITIONS AFFECTING THE WORK BEFORE SUBMITTING A PROPOSAL. CONTRACTOR SHALL INCLUDE IN THE BID ALL LABOR AND MATERIALS REQUIRED FOR A COMPLETE INSTALLATION. NO ADDITIONAL COMPENSATION WILL BE PROVIDED TO THE CONTRACTOR FOR CHANGES IN LABOR OR MATERIAL REQUIRED DUE TO EXISTING SITE CONDITIONS.
7. CONTRACTOR SHALL SECURE A SEISMIC ENGINEER TO PROVIDE CERTIFIED DETAILS SHOWING ALL SUPPORTS, BRACING AND COMPONENTS AS REQUIRED FOR MECHANICAL SYSTEM.
8. THE CONTRACTOR SHALL VERIFY ALL WORK AS PART OF THIS CONTRACT AND SHALL REQUEST FROM THE ENGINEER ANY CLARIFICATIONS PRIOR TO SUBMITTING PROPOSAL.
9. THE CONTRACTOR SHALL CHECK AND VERIFY ALL CONDITIONS AND DIMENSIONS AT THE SITE AND SHALL BE RESPONSIBLE FOR THE ACCURACY OF HIS FINDINGS. THE DRAWINGS SHOW THE GENERAL ARRANGEMENT OF PIPING, EQUIPMENT, AND ACCESSORIES. DRAWINGS DO NOT INDICATE ALL OFFSETS, FITTINGS, ACCESSORIES, AND CHANGES IN ELEVATION, WHICH MAY BE NECESSARY. THE CONTRACTOR SHALL MAKE ALL CHANGES IN EQUIPMENT, LOCATIONS, ETC., TO ACCOMMODATE THE WORK AND TO AVOID OBSTACLES. THE CONTRACTOR SHALL PROVIDE OFFSETS, FITTINGS, VALVES AND ACCESSORIES AS MAY BE REQUIRED TO MEET SUCH CONDITIONS.
10. **NATURAL GAS (NG):**
 - a. ABOVE GROUND NATURAL GAS PIPING SHALL BE STEEL PIPE, ASTM A 53, TYPE E SCHEDULE 40 BLACK WITH THREADED ENDS. STEEL PIPE FITTINGS SHALL BE MALLEABLE IRON, ASME B16.3 CLASS 150, STANDARD PATTERN WITH THREADS CONFORMING TO ASME B1.20.1.
 - b. BELOW GROUND NATURAL GAS PIPING SHALL BE SDR11 HIGH DENSITY POLYETHYLENE (HDPE) PIPE, ASTM D 2513 WITH HEAT FUSED JOINTS. FITTINGS SHALL BE HDPE ASTM D 2513. ALL ABOVE GROUND PIPING SHALL BE PRIMED, PAINTED, AND IDENTIFIED BY A YELLOW LABEL MARKED "GAS" IN BLACK LETTERS SPACED AT INTERVALS NOT EXCEEDING 5'-0" FEET.
 - c. ALL ABOVE GROUND PIPING SHALL BE PRIMED, PAINTED, AND IDENTIFIED BY A YELLOW LABEL MARKED "GAS" IN BLACK LETTERS SPACED AT INTERVALS NOT EXCEEDING 5'-0" FEET.
 - d. NATURAL GAS PIPING SHALL BE INSTALLED IN STRICT CONFORMANCE WITH NFPA 54 AND THE NEW YORK STATE FUEL GAS CODE.
11. **LIQUID PROPANE GAS (LPG):**
 - a. ABOVE GROUND PROPANE PIPING SHALL BE STEEL PIPE, ASTM A 53, TYPE E SCHEDULE 40 BLACK WITH THREADED ENDS. STEEL PIPE FITTINGS SHALL BE MALLEABLE IRON, ASME B16.3 CLASS 150, STANDARD PATTERN WITH THREADS CONFORMING TO ASME B1.20.1.
 - b. BELOW GROUND PROPANE PIPING SHALL BE SDR11 HIGH DENSITY POLYETHYLENE (HDPE) PIPE, ASTM D 2513 WITH HEAT FUSED JOINTS. FITTINGS SHALL BE HDPE ASTM D 2513. ALL ABOVE GROUND PIPING SHALL BE PRIMED, PAINTED, AND IDENTIFIED BY A YELLOW LABEL MARKED "GAS" IN BLACK LETTERS SPACED AT INTERVALS NOT EXCEEDING 5'-0" FEET.
 - c. PROPANE TANKS SHALL BE RATED AS NECESSARY FOR SEISMIC REQUIREMENTS AS DETERMINED BY CONTRACTOR'S SEISMIC ENGINEER.
 - d. FOR PROPANE TANKS, PROVIDE ALL REQUIRED ACCESSORIES AND APPURTENANCES INCLUDING BUT NOT LIMITED TO A LIQUID LEVEL GAUGE TUBE, VAPOR SERVICE VALVE, FILL VALVE, RELIEF VALVE AND LIQUID WITHDRAWAL WITH CHECK-LOC.
 - e. THE PROPANE TANKS AND PROPANE PIPING SHALL BE INSTALLED IN STRICT CONFORMANCE WITH NFPA 58 AND THE NEW YORK STATE FUEL GAS CODE.
12. CONFIRM THE GAS SUPPLY PRESSURE REQUIREMENTS FOR EACH GENERATOR.
 - a. FUEL CONSUMPTION OF THE MIDTOWN CAMPUS STUDENT CENTER NG GENERATOR AT FULL LOAD IS **4,823** CFH.
 - b. FUEL CONSUMPTION OF THE MIDTOWN CAMPUS FAIRFIELD HALL CENTER NG GENERATOR AT FULL LOAD IS **1,116** CFH.
 - c. FUEL CONSUMPTION OF THE WESTSIDE CLASSROOM BUILDING LPG GENERATOR AT FULL LOAD IS **739** CFH.



 WESTERN CONNECTICUT STATE UNIVERSITY	Drawing Title PLUMBING LEGENDS, ABBREVIATIONS, AND SYMBOLS	STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS
	Drawing Prepared By CHA 2139 SILAS DEANE HIGHWAY, SUITE 212, ROCKY HILL, CT 06067-2336	Date 03/31/2016
REVISIONS		Scale AS SHOWN
Mark Date Description	Project WESTERN CONNECTICUT STATE UNIVERSITY	
Drawn By KKK	Project No. 30176	
Approved By BM	Drawing No. P-001	
CAD No. K4\30176\acad	Project No. 30176	



PARTIAL PLUMBING SITE PLAN – FARFIELD HALL
 SCALE: 1"=10'-0"



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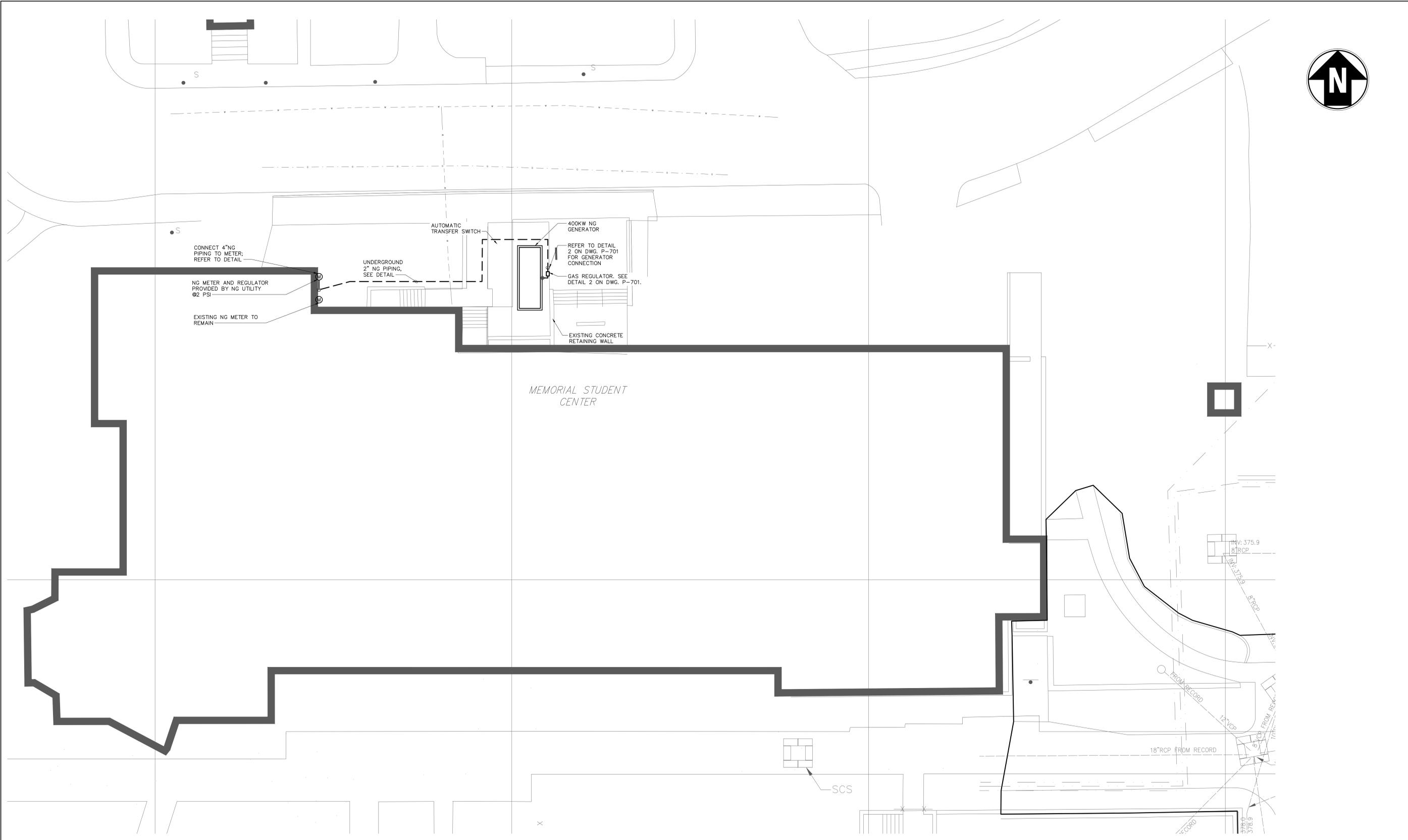


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Drawing Title PARTIAL PLUMBING SITE PLAN - FARFIELD HALL		STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
REVISIONS		Drawing Prepared By CHA 2139 SILAS DEANE HIGHWAY, SUITE 212, ROCKY HILL, CT 06067-2336	Date 03/31/2016
Mark	Date	Description	Scale AS SHOWN
Project WESTERN CONNECTICUT STATE UNIVERSITY		Project No. 30176	Drawn By KIKK Approved By EM Drawing No. P-401
CAD No. K4\30778\acad		Project No. 30176	



PARTIAL PLUMBING SITE PLAN - MIDTOWN STUDENT CENTER
SCALE: 1"=10'-0"



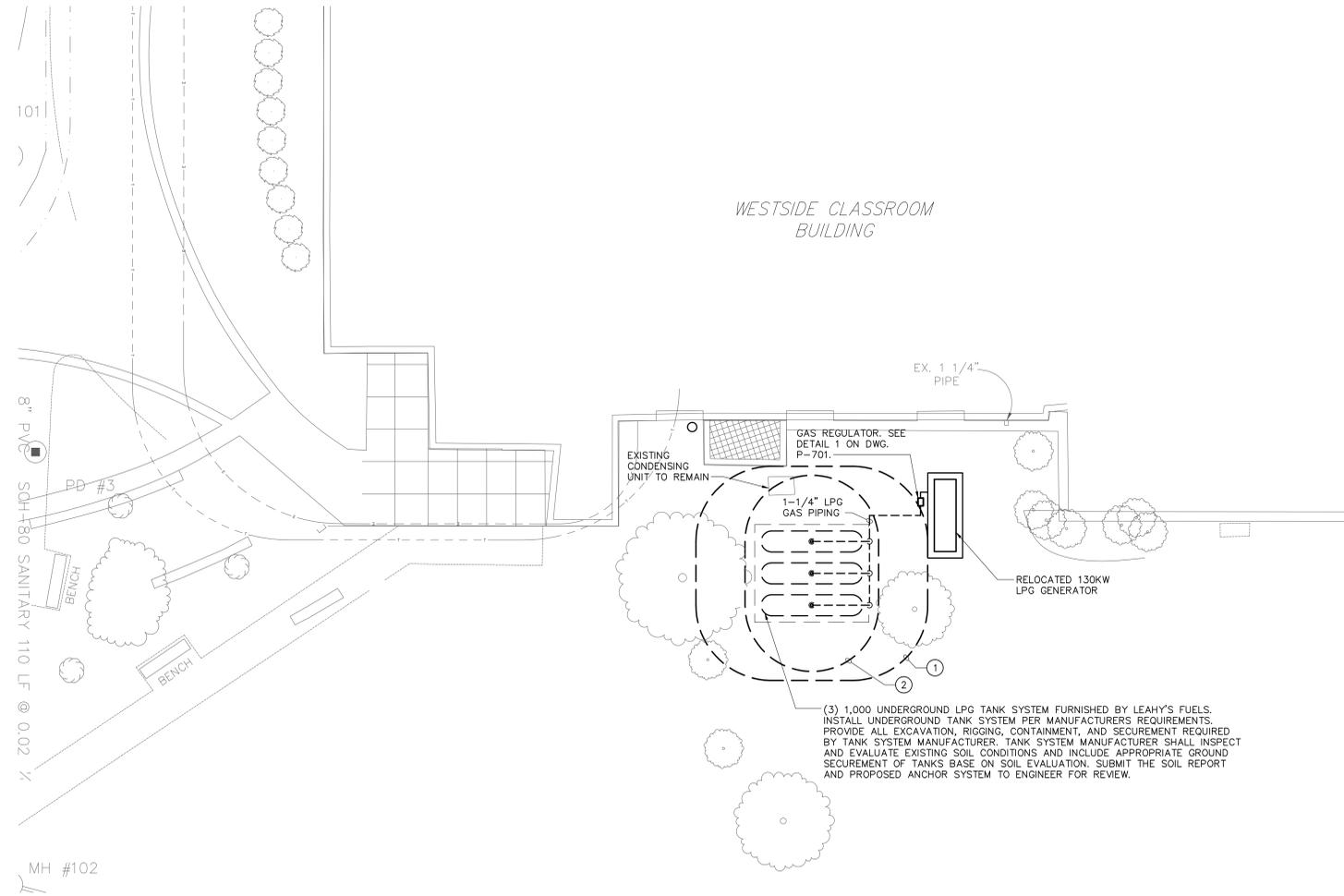
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 <p>WESTERN CONNECTICUT STATE UNIVERSITY</p>	Drawing Title PARTIAL PLUMBING SITE PLAN - MIDTOWN STUDENT CENTER	STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS					
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Mark	Date	Description					
	Project WESTERN CONNECTICUT STATE UNIVERSITY	Date 03/31/2016 Scale AS SHOWN Drawn By KKK Approved By BM Drawing No. P-402					
CAD No. K4\30778\acad	Project No. 30176						



CODED NOTES

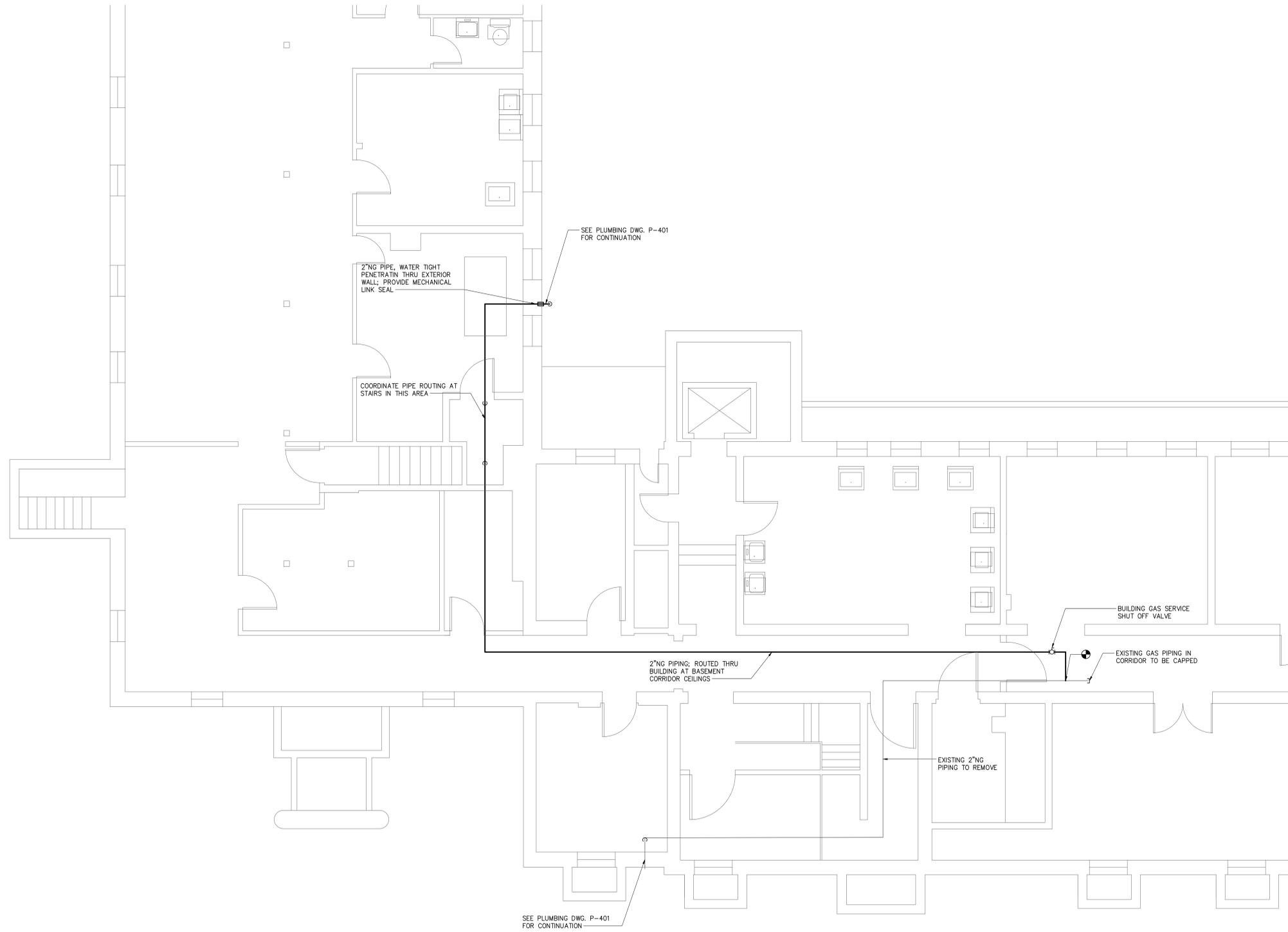
- ① 10' SEPARATION DISTANCE BETWEEN PROPANE TANK, AND ANY IMPORTANT BUILDINGS, OR LINE OF ADJOINING PROPERTY THAT CAN BE BUILT UPON PER NFPA 58.
- ② 10' SEPARATION DISTANCE BETWEEN CONTAINER PRESSURE RELIEF VALVE, VENT DISCHARGE, AND FILLING CONNECTION TO EXTERIOR SOURCE OF IGNITION PER NFPA 58.

(3) 1,000 UNDERGROUND LPG TANK SYSTEM FURNISHED BY LEAHY'S FUELS. INSTALL UNDERGROUND TANK SYSTEM PER MANUFACTURERS REQUIREMENTS. PROVIDE ALL EXCAVATION, RIGGING, CONTAINMENT, AND SECUREMENT REQUIRED BY TANK SYSTEM MANUFACTURER. TANK SYSTEM MANUFACTURER SHALL INSPECT AND EVALUATE EXISTING SOIL CONDITIONS AND INCLUDE APPROPRIATE GROUND SECUREMENT OF TANKS BASE ON SOIL EVALUATION. SUBMIT THE SOIL REPORT AND PROPOSED ANCHOR SYSTEM TO ENGINEER FOR REVIEW.

PARTIAL PLUMBING SITE PLAN – WESTSIDE CAMPUS CLASSROOM BUILDING
1"=10'-0"



Drawing Title PARTIAL PLUMBING SITE PLAN - WESTSIDE CAMPUS CLASSROOM BUILDING		STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
REVISIONS		Drawing Prepared By CHA 2139 SILAS DEANE HIGHWAY, SUITE 212, ROCKY HILL, CT 06067-2336	Date 03/31/2016
Mark	Date	Description	Scale AS SHOWN
			Drawn By KXX
			Approved By EM
			Drawing No. P-403
CAD No.	K4\30176\acad	Project No. 30176	



FAIRFIELD HALL ENLARGED BASEMENT PLAN
1/4"=1'-0"



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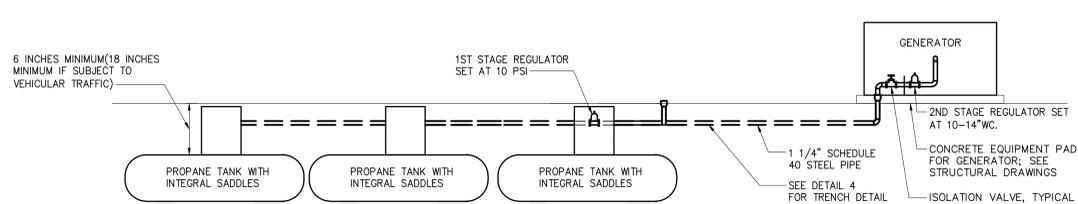


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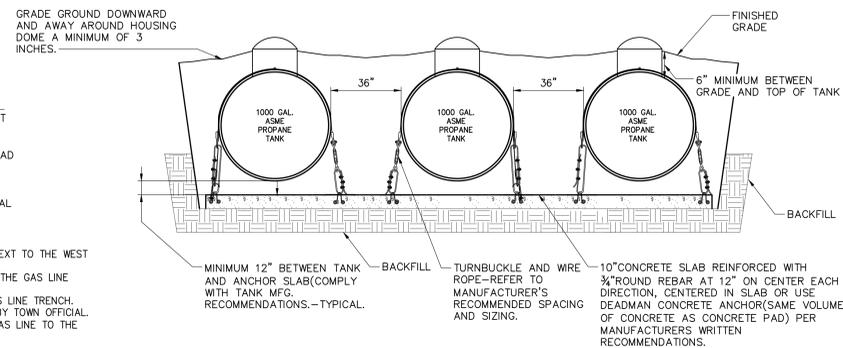


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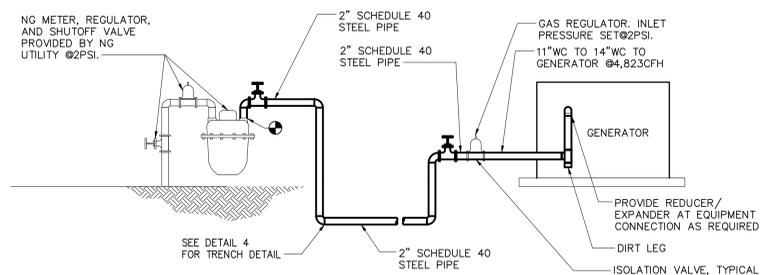
Drawing Title PLUMBING FAIRFIELD HALL ENLARGED BASEMENT PLAN		STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
REVISIONS		Drawing Prepared By CHA 2139 SILAS DEANE HIGHWAY, SUITE 212, ROCKY HILL, CT 06067-2336	Date 03/31/2016
Mark	Date	Description	Scale AS SHOWN
Drawn By KXK			Project WESTERN CONNECTICUT STATE UNIVERSITY
Approved By EM			Project No. 30176
Drawing No. P-404		Project No. 30176	



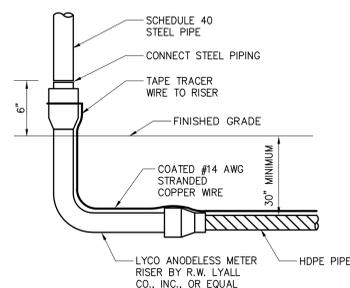
- NOTE:**
- 3-1000 GALLON UNDERGROUND PROPANE TANKS TO BE INSTALLED NEXT TO THE WEST SIDE CLASSROOM BUILDING.
 - CONTRACTOR TO EXCAVATE HOLE FOR THE TANKS AND TRENCH FOR THE GAS LINE FROM THE TANKS TO THE GENERATOR.
 - CONTRACTOR TO PROVIDE SAND OR CLEAN SOIL FOR TANKS AND GAS LINE TRENCH.
 - GAS LINE WILL BE LEFT UNDER AN AIR TEST FOR INSPECTION DONE BY TOWN OFFICIAL. AFTER INSPECTION HAS PASSED, LEAHY'S FUEL WILL CONNECT THE GAS LINE TO THE TANKS AND GENERATOR. LEAHY'S FUELS (203) 748-3535.
 - GENERATOR TO BE TESTED AND ADJUSTED BY THE CONTRACTOR.
 - TANK INSULATION TO BE PROVIDED BY CLEAN SOIL BACKFILL.



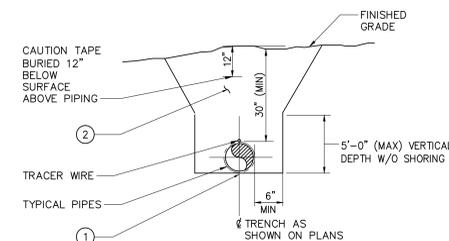
1 WESTSIDE CAMPUS CLASSROOM BUILDING PROPANE SITE LAYOUT SCHEMATIC
NOT TO SCALE



2 MEMORIAL STUDENT CENTER NG SITE LAYOUT SCHEMATIC
NOT TO SCALE



4 WESTSIDE CAMPUS CLASSROOM BUILDING PROPANE SITE LAYOUT SCHEMATIC
NOT TO SCALE

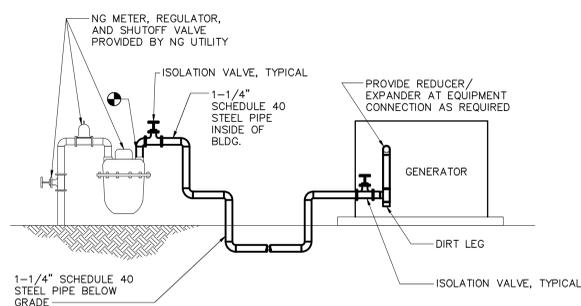


* UPON COMPLETION OF WORK RESTORE FINISHED GRADE TO MATCH EXISTING CONDITIONS WHERE APPLICABLE

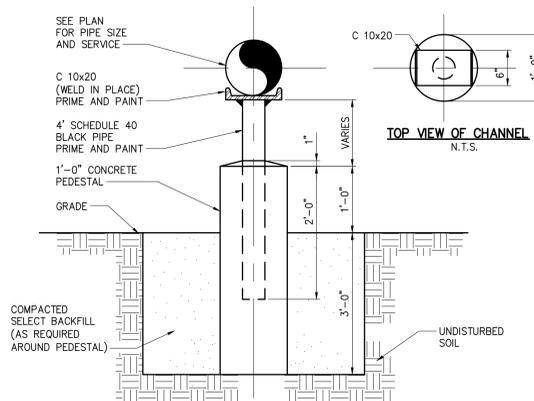
CODED NOTES

- BEDDING MATERIAL SHALL CONSIST OF LOOSE SAND/SOIL. A MINIMUM OF 6" OF BEDDING MATERIAL SHALL BE PROVIDED PRIOR TO PIPE PLACEMENT AND SHALL BE LOOSELY COMPACTED.
- INITIAL BACKFILL MATERIAL SHALL HAVE THE SAME REQUIREMENTS AS THE BEDDING MATERIAL AND SHALL EXTEND 6" ABOVE THE TOP OF THE PIPE. FINAL BACKFILL MATERIAL SHALL MEET THE REQUIREMENTS OF ASTM D2321 CLASS II OR CLASS III MATERIAL.

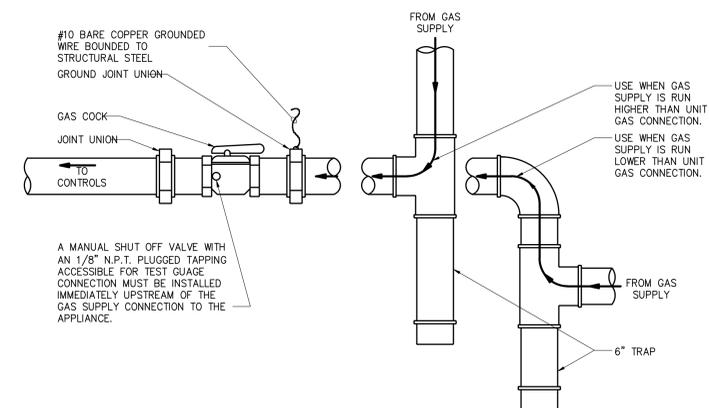
6 TRENCH DETAIL
NOT TO SCALE



3 FAIRFIELD HALL NG SITE LAYOUT SCHEMATIC
NOT TO SCALE



5 PIPE SUPPORT PEDESTAL DETAIL
NOT TO SCALE

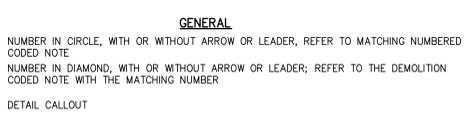
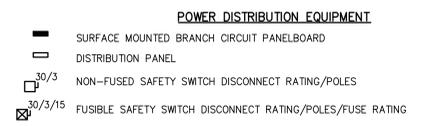
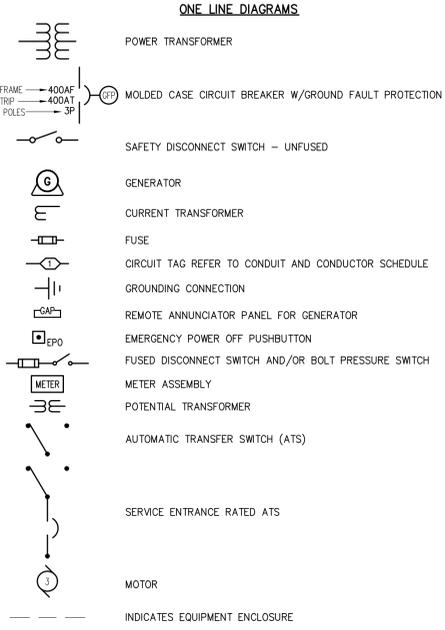
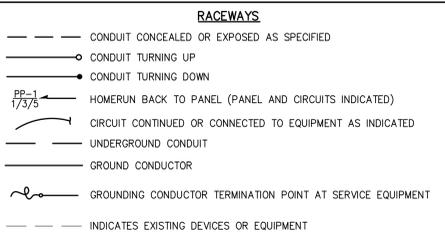


7 GAS DRIP LEG DETAIL
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PLUMBING DETAILS			STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
REVISIONS				
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			2139 SILAS DEANE HIGHWAY, SUITE 212, ROCKY HILL, CT 06067-2336	Scale AS SHOWN
			Project WESTERN CONNECTICUT STATE UNIVERSITY	Drawn By NIS
			Project No. 30176	Approved By EM
				Drawing No. P-701

ABBREVIATIONS	
A	AMPERE
AC	ALTERNATING CURRENT
AF	AMPERE FRAME
AFF/G	ABOVE FINISHED FLOOR/GRADE
AIC	AMPERE INTERRUPTING CAPACITY
AT	AMPERE TRIP
AUX	AUXILIARY
A/V	AUDIBLE/VISUAL
AWG	AMERICAN WIRE GAUGE
BB	BACKBOARD
BCW	BARE COPPER WIRE
BATT	BATTERY
BTM	BOTTOM
BKR	BREAKER
BLDG	BUILDING
C	CONDUIT
CAB	CABINET
CATV	COMMUNITY ACCESS TELEVISION (CABLE TELEVISION)
CB	CIRCUIT BREAKER
CIR	CIRCUIT
CKT	CIRCUIT
E	CENTER LINE
CO	COMPANY
COMM	COMMUNICATIONS
CONN	CONNECTION, CONNECT
CUH	CABINET UNIT HEATER
CT	CURRENT TRANSFORMER
CU	COPPER
CWA	CONSTANT WATTAGE AUTOTRANSFORMER
△	DELTA CONNECTION
D	DEEP
DB	DECIBEL
DET	DETECTOR
DIA	DIAMETER
DISC	DISCONNECT
DIST	DISTRIBUTION
DIV	DIVISION
DN	DOWN
DWG	DRAWING
EA	EACH
EBH	ELECTRIC BASEBOARD HEATER
EF	EXHAUST FAN
EL	ELEVATION
ELEC	ELECTRIC(AL)
EMER	EMERGENCY
ENCL	ENCLOSURE
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EXT	EXTERIOR
F	FUSE(D)
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLES
FIXT	FIXTURE
FLR	FLOOR
FLUOR	FLUORESCENT
FT	FOOT (FEET)
FUT	FUTURE
G, GND	GROUND
GALV	GALVANIZE(D)
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
HD	HEAVY DUTY
HGT	HEIGHT
HI	HIGH INTENSITY DISCHARGE
HO	HIGH OUTPUT
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HTR	HEATER
HV	HIGH VOLTAGE
HW	HOT WATER
ID	IDENTIFY, IDENTIFICATION
INCAND	INCANDESCENT
J-BOX	JUNCTION BOX
J.C.	JANITOR CLOSET
JCT	JUNCTION
KCM/Kcmil	THOUSAND CIRCULAR MILS
KVA	KILO VOLT AMPERE
KW	KILOWATT
LGT	LIGHTING
LT(S)	LIGHT(S)
LED	LIGHT EMITTING DIODE
L	LOUVER
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MC	METAL CLAD CABLE
MFR	MANUFACTURER
MH	METAL HALIDE
MECH	MECHANICAL
MIN	MINIMUM
ML	MOTORIZED LOUVER
MLO	MAIN LUGS ONLY
MT	MOUNT
MTD	MOUNTED
MTR	MOTOR
N	NORTH
NEC	NATIONAL ELECTRICAL CODE
NF	NON-FUSED
NL	NIGHT LIGHT
No/#	NUMBER
OC	OVER COUNTER
OL	OVERLOAD
P	POLE(S)
PA	PUBLIC ADDRESS
PANL	PANEL
PR	PAIR
PRI	PRIMARY
PWR	POWER
φ	PHASE
PT	PRESSURE TREATED
RECEPT	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RM	ROOM
SEC	SECONDARY
SH	SHIELDED
SPKR	SPEAKER
SW	SWITCH
TEMP	TEMPORARY/TEMPERATURE
T-STAT	THERMOSTAT
TB	TERMINAL BOARD
TYP	TYPICAL
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VOLT, VOLTS
VA	VOLT-AMPERES
W	WATT, WIRE
W/	WITH
WP	WEATHERPROOF
XFMR/T	TRANSFORMER
Y	WYE CONNECTION

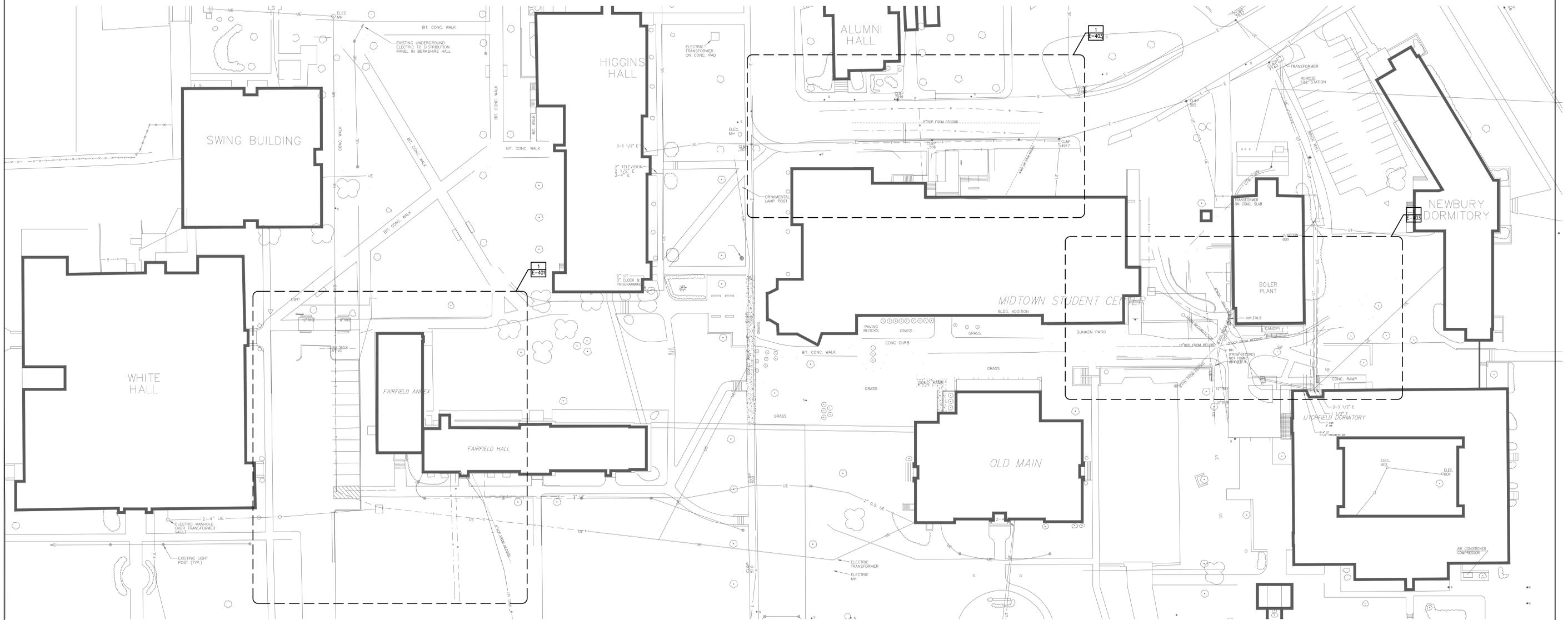


- ### GENERAL NOTES
- ALL WORK SHOWN ON THE ELECTRICAL DRAWINGS SHALL BE BY THE ELECTRICAL CONTRACT UNLESS OTHERWISE INDICATED.
 - COORDINATE WORK WITH ALL TRADES. MECHANICAL EQUIPMENT INDICATED ON 'M', 'P' AND 'FP' DRAWINGS WILL BE FURNISHED BY DIVISION 21, 22, 23, 25 AND WIRED COMPLETE BY DIVISION 26, 27 AND 28 UNLESS OTHERWISE NOTED. REFER TO MECHANICAL, PLUMBING AND FIRE PROTECTION SCHEDULES.
 - CONDUIT RUNS SHOWN ARE DIAGRAMMATIC UNON. EXACT LOCATION OF ALL CONDUIT RUNS SHALL BE DETERMINED IN THE FIELD. COORDINATE INSTALLATIONS AND AVOID CONFLICTS WITH EXISTING BUILDING AND SIZE SERVICES AND WORK BY OTHER TRADES.
 - GENERAL NOTES APPLY TO ALL ELECTRICAL CONTRACT DRAWINGS.

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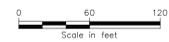


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REVISIONS		Drawing Prepared By CHA 2139 SILAS DEANE HIGHWAY, SUITE 212, ROCKY HILL, CT 06067-2336	
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CAD No. K4\30778\acad		Project No. 30176	Drawn By MWS Approved By EM Drawing No. E-001



PARTIAL ELECTRICAL SITE PLAN – MID TOWN CAMPUS
1"=30'-0"

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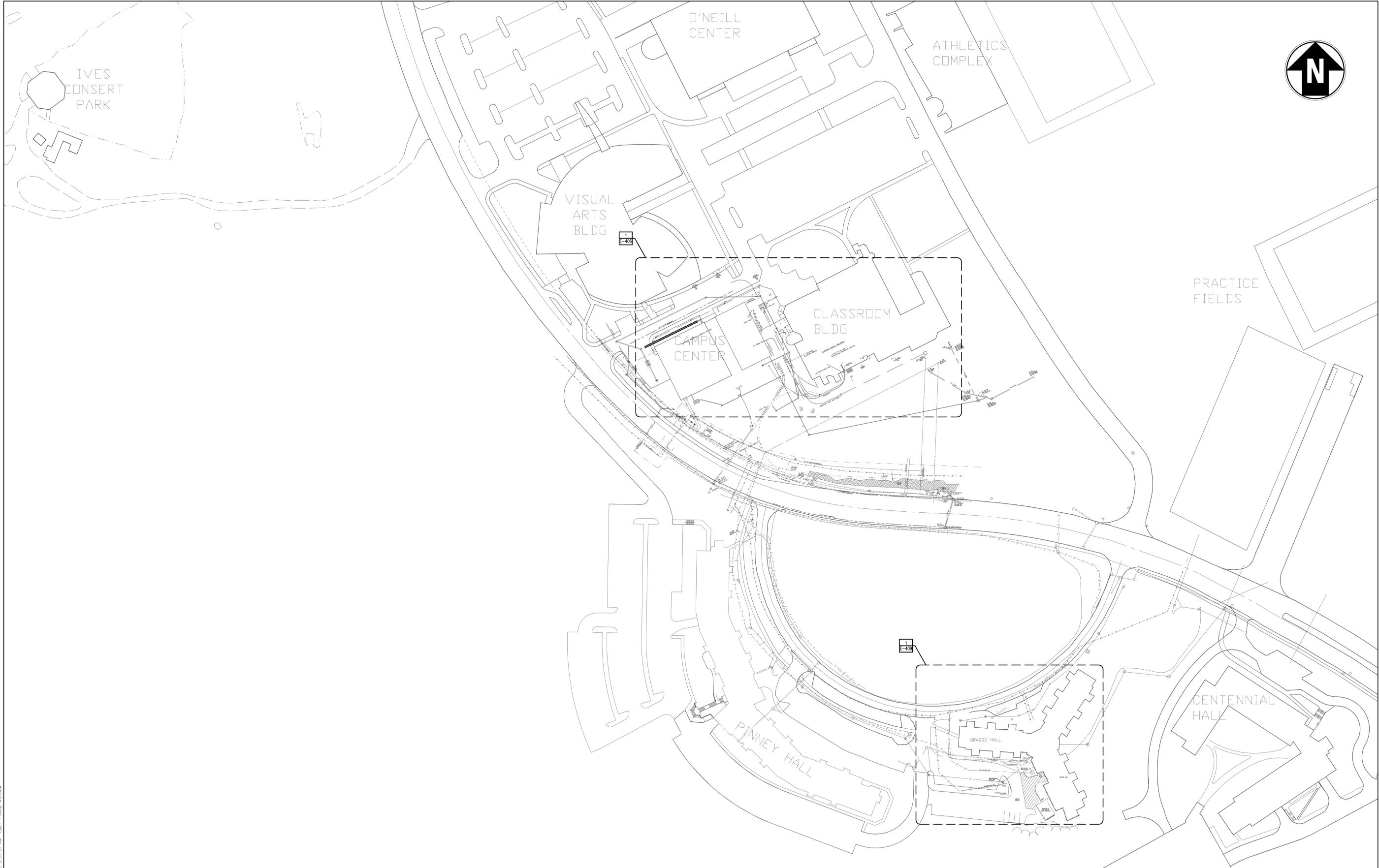


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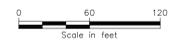
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Drawing Title ELECTRICAL SITE PLAN-MID TOWN CAMPUS		STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
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CAD No.	K4\30176\acad	Project No. 30176	



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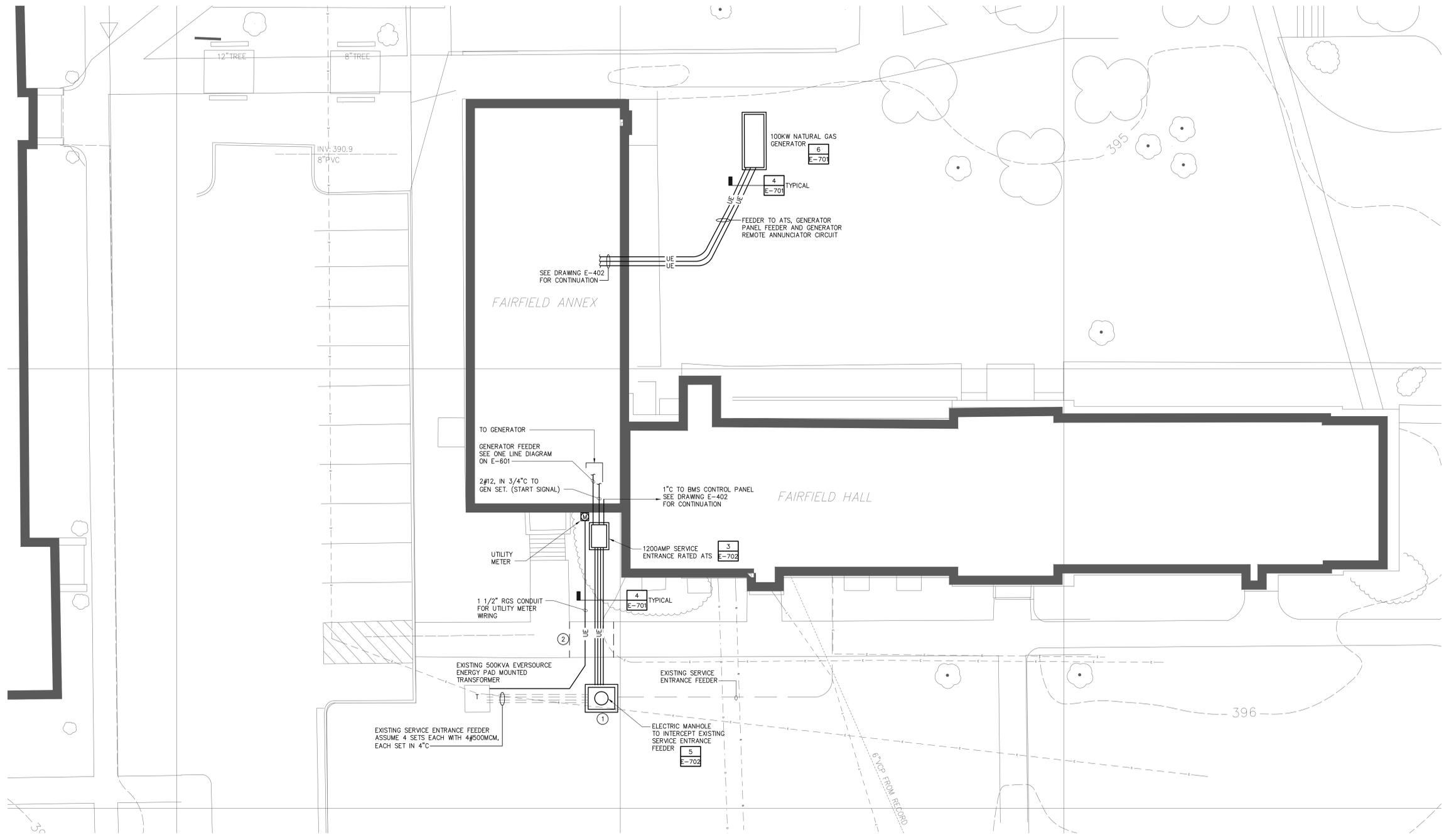
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 Date: 03/31/2016
 Scale: AS SHOWN
 Project: WESTERN CONNECTICUT STATE UNIVERSITY
 Project No.: 30176
 Drawing No.: E-003

- CODED NOTES**
- 1 INTERCEPT EXISTING SECONDARY SERVICE ENTRANCE FEEDER WITH MANHOLE. CUT BACK SERVICE ENTRANCE CONDUITS AND REMOVE SERVICE ENTRANCE CONDUCTORS COMPLETE, TO ALLOW FOR MANHOLE INSTALLATION. PROVIDE SERVICE ENTRANCE FEEDER AS INDICATED ON ONE LINE DIAGRAM. REFER TO DRAWING E-601.
 - 2 REMOVE BRICK PAVEMENT SIDEWALK TO ALLOW FOR UNDERGROUND CONDUIT INSTALLATION. ONCE CONDUIT INSTALLATION IS COMPLETE REINSTALL BRICK PAVERS MATCHING EXISTING PATTERN. REFER TO DETAIL 3 / E-703. PROVIDE ADDITIONAL PAVERS (MATCHING EXISTING) AS REQUIRED.



PARTIAL ELECTRICAL ENLARGED PLAN
1"=10'-0"

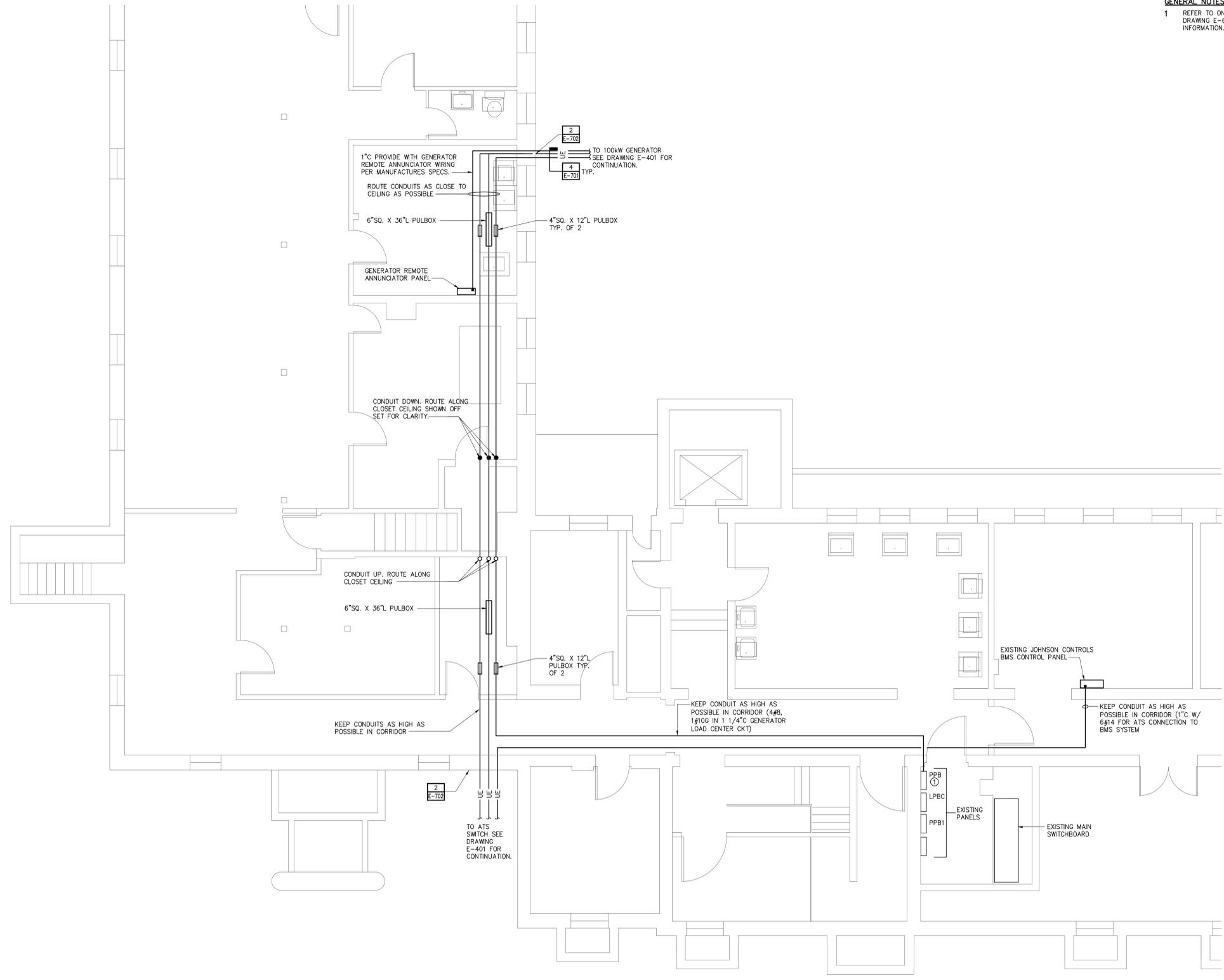
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Drawing Title PARTIAL ELECTRICAL SITE PLAN - FAIRFIELD HALL		STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
REVISIONS		Drawing Prepared By CHA 2139 SILAS DEANE HIGHWAY, SUITE 212, ROCKY HILL, CT 06067-2336	
Mark	Date	Description	Date 03/31/2016
			Scale AS SHOWN
			Drawn By MWS
			Approved By EM
			Drawing No. E-401
CAD No.	K4\30778\acad	Project No.	30176

GENERAL NOTES
 1 REFER TO ONE LINE DIAGRAM ON DRAWING E-501 FOR ADDITIONAL INFORMATION.

CODED NOTES
 ① PROVIDE A 3P-40AMP BRANCH BREAKER AT EXISTING OPEN POSITIONS 38,40,42. BREAKER SHALL BE SIEMENS TYPE BLH.



FAIRFIELD HALL ENLARGED BASEMENT PLAN
 1/4"=1'-0"



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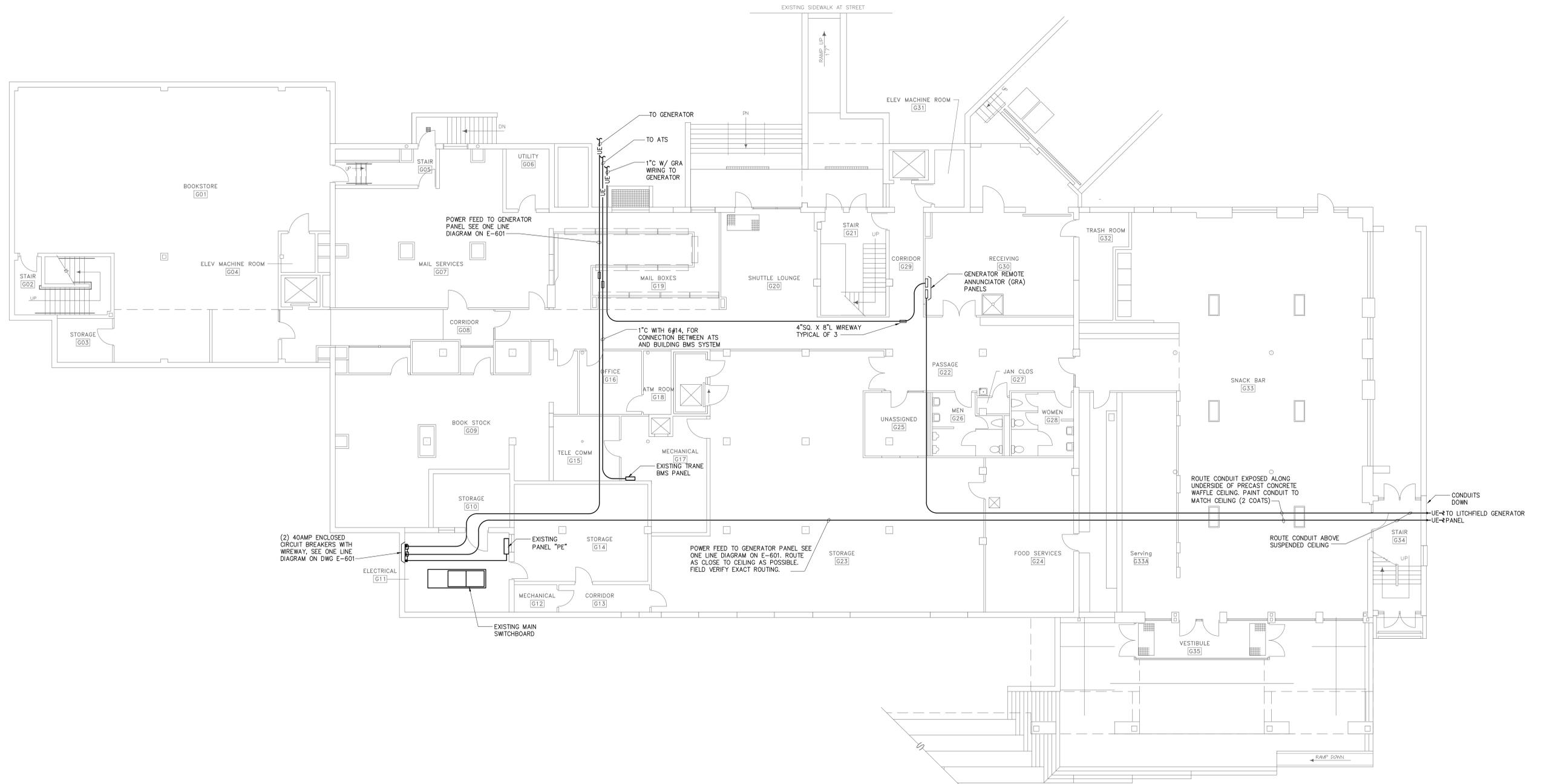


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Drawing Title ELECTRICAL FAIRFIELD HALL ENLARGED BASEMENT PLAN		STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
REVISIONS		Drawing Prepared By CHA 2139 SILAS DEANE HIGHWAY, SUITE 212, ROCKY HILL, CT 06067-2336	Date 03/31/2016
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CAD No. K4\30778\ecad		Project No. 30176	



MIDTOWN STUDENT CENTER PARTIAL FIRST FLOOR POWER PLAN
1/8"=1'-0"



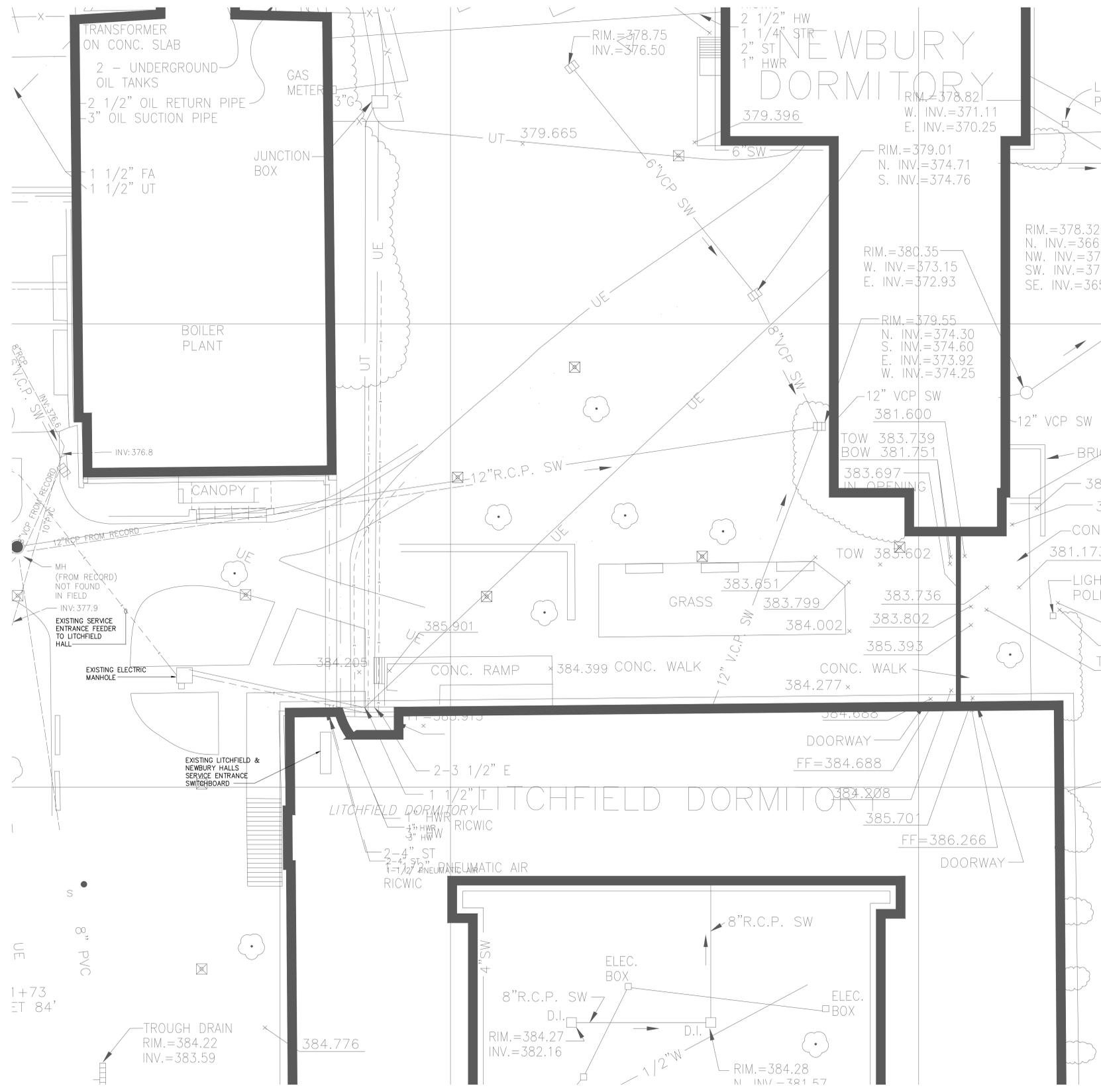
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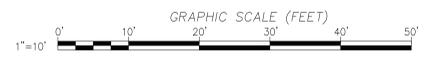
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Drawing Title MIDTOWN STUDENT CENTER PARTIAL FIRST FLOOR POWER PLAN		STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
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Mark	Date	Description	Project WESTERN CONNECTICUT STATE UNIVERSITY
			Project No. 30176
			Date 03/31/2016
			Scale AS SHOWN
			Drawn By DAS
			Approved By EM
			Drawing No. E-404



- CODED NOTES**
- 1 INTERCEPT EXISTING SECONDARY SERVICE ENTRANCE FEEDER WITH MANHOLE, CUT BACK SERVICE ENTRANCE CONDUITS AND REMOVE SERVICE ENTRANCE CONDUCTORS COMPLETE. TO ALLOW FOR MANHOLE INSTALLATION, PROVIDE SERVICE ENTRANCE FEEDER AS INDICATED ON ONE LINE DIAGRAM. REFER TO DRAWING E-601.
 - 2 REMOVE BRICK PAVEMENT SIDEWALK TO ALLOW FOR UNDERGROUND CONDUIT INSTALLATION. ONCE CONDUIT INSTALLATION IS COMPLETE REINSTALL BRICK PAVEMENT MATCHING EXISTING PATTERN. REFER TO DETAIL 3 / E-703. PROVIDE ADDITIONAL PAVEMENT (MATCHING EXISTING) AS REQUIRED.
 - 3 PROVIDE FEEDER FROM GENERATOR ENCLOSURE PANEL TO ENCLOSED CIRCUIT BREAKER. SEE ONE LINE DIAGRAM ON DWG E-601.

PARTIAL ELECTRICAL ENLARGED PLAN
1"=10'-0"



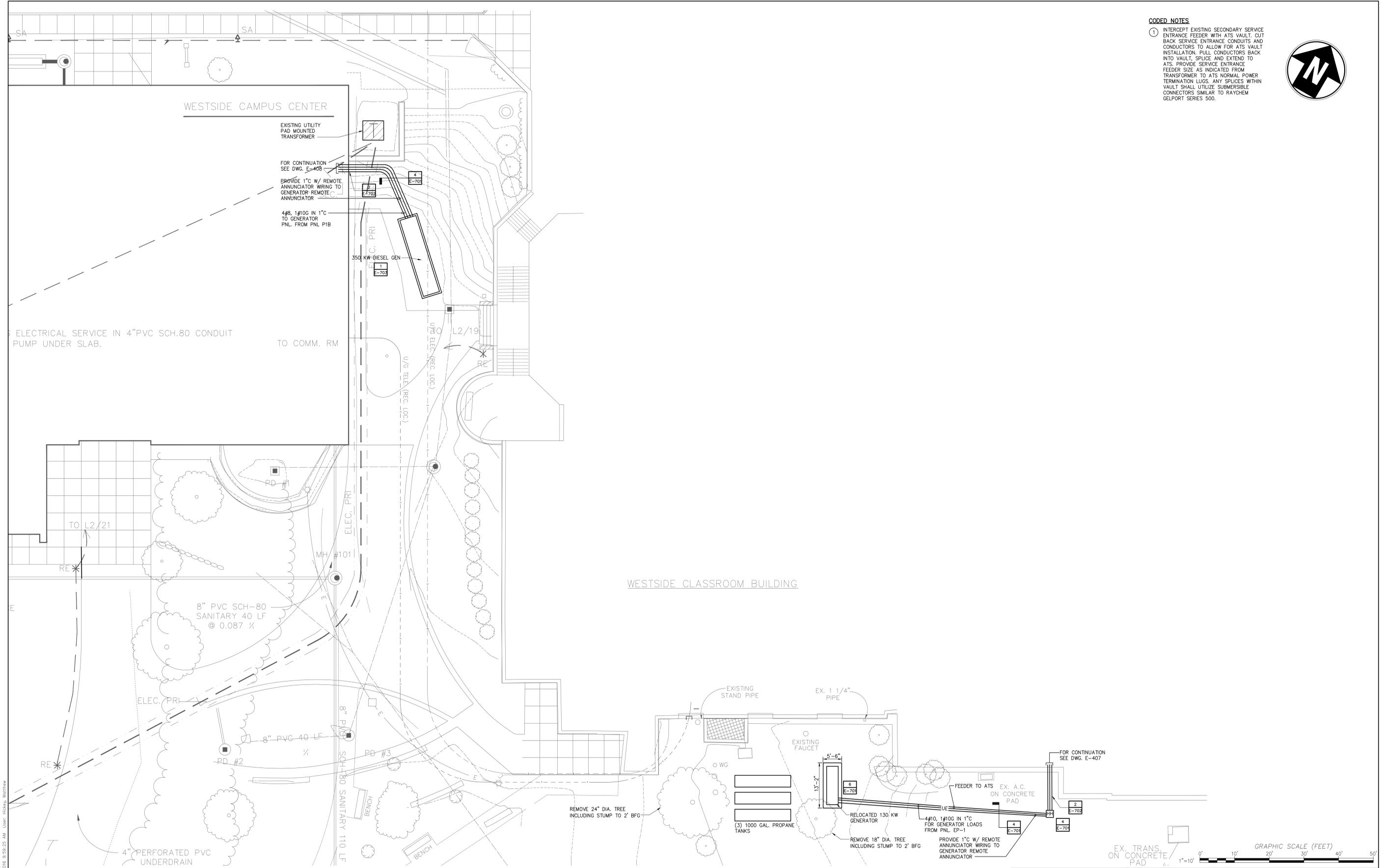
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Drawing Title			STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
PARTIAL ELECTRICAL SITE PLAN - LITCHFIELD HALL			Date: 03/31/2016	
REVISIONS			Scale: AS SHOWN	
Mark	Date	Description	Drawing Prepared By: CHA	
			2139 SILAS DEANE HIGHWAY, SUITE 212, ROCKY HILL, CT 06067-2336	
			Project: WESTERN CONNECTICUT STATE UNIVERSITY	
			Approved By: BM	
			Drawing No: E-405	
			Project No: 30176	
			CAD No: K4\30176\acad	



CODED NOTES

- 1 INTERCEPT EXISTING SECONDARY SERVICE ENTRANCE FEEDER WITH ATS VAULT. CUT BACK SERVICE ENTRANCE CONDUITS AND CONDUCTORS TO ALLOW FOR ATS VAULT INSTALLATION. PULL CONDUCTORS BACK INTO VAULT, SPLICE AND EXTEND TO ATS. PROVIDE SERVICE ENTRANCE FEEDER SIZE AS INDICATED FROM TRANSFORMER TO ATS NORMAL POWER TERMINATION LUGS. ANY SPLICES WITHIN VAULT SHALL UTILIZE SUBMERSIBLE CONNECTORS SIMILAR TO RAYCHEM GELPORT SERIES 500.



PARTIAL ELECTRICAL SITE PLAN – WESTSIDE CAMPUS CENTER & CLASSROOM BUILDING
1"=10'-0"

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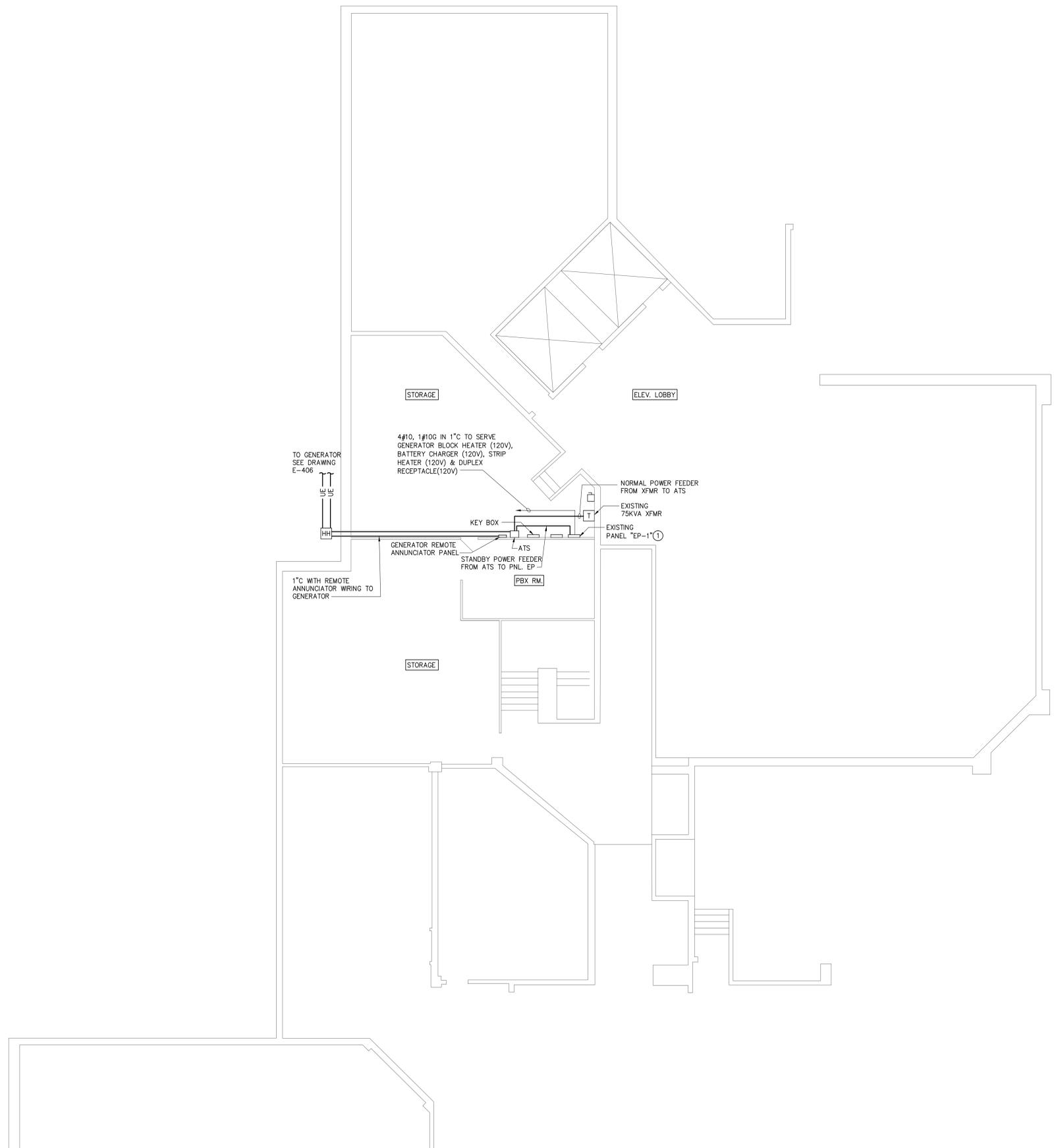
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Drawing Title PARTIAL ELECTRICAL SITE PLAN - CAMPUS CENTER & CLASSROOM BLDG		State of Connecticut DEPARTMENT OF PUBLIC WORKS	
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Drawing Prepared By CHA 2139 SILAS DEANE HIGHWAY, SUITE 212, ROCKY HILL, CT 06067-2336		Date 03/31/2016 Scale AS SHOWN	
Project WESTERN CONNECTICUT STATE UNIVERSITY		Drawn By MWS Approved By BM Drawing No. E-406	
Project No. 30176		Drawing No. E-406	

- CODED NOTES**
- ① PROVIDE 3-1P-20AMP BRANCH BREAKERS AT POSITIONS #19, 21 & 23 TO SERVE GENERATOR LOADS. BREAKERS SHALL BE SIEMENS TYPE "BLH".



PARTIAL WESTSIDE CLASSROOM BASEMENT PLAN
1/8"=1'-0"



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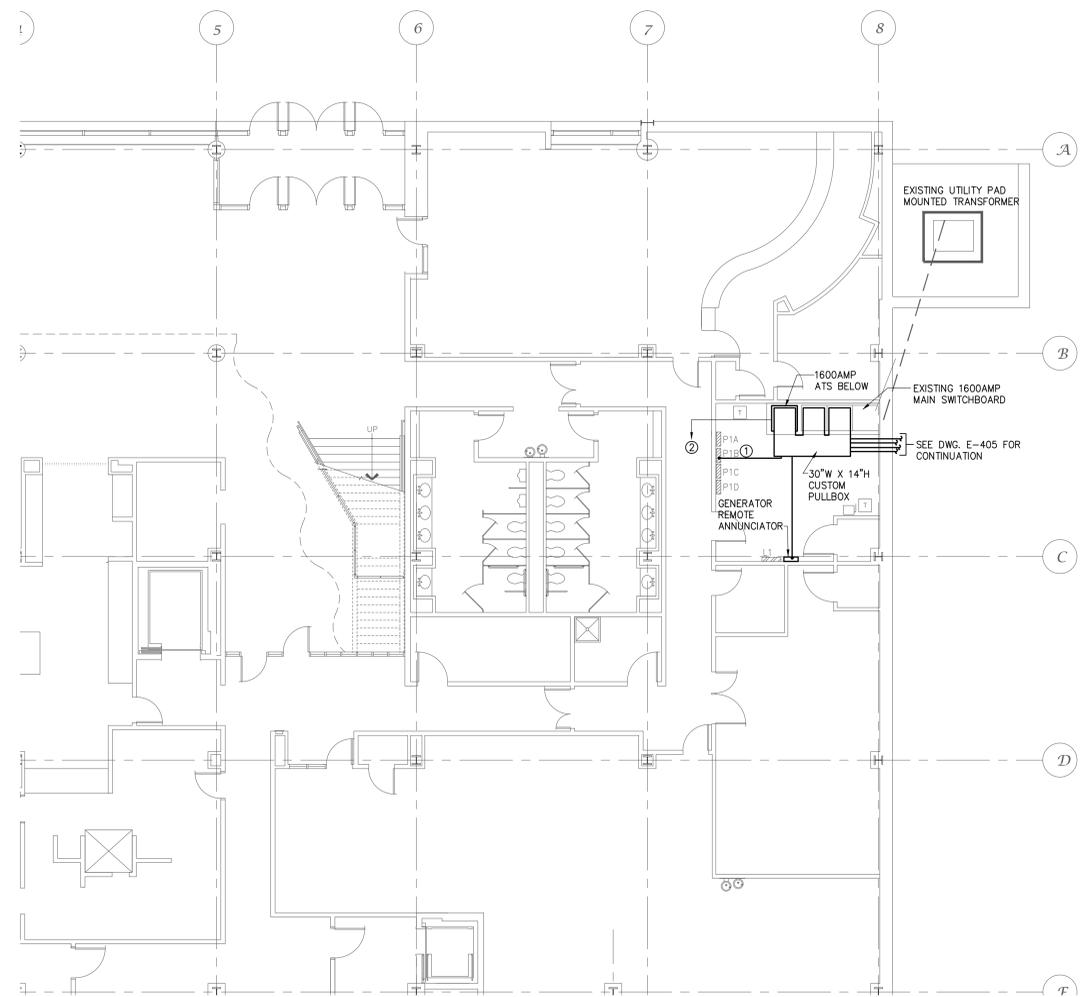
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			Drawn By MWS
			Approved By EM
			Drawing No. E-407
CAD No.	K4\30176\acad	Project No.	30176

CODED NOTES

- ① REMOVE EXISTING 1P-20AMP BRANCH BREAKERS FROM POSITION 38,40 & 42 IN PANELBOARD P1B AND REPLACE WITH 1-3P-40AMP BREAKER SIEMENS TYPE "BLH", TO SERVE GENERATOR PANEL.
- ② PROVIDE 1" C WITH 6#14 FROM ATS TO EXISTING JOHNSON CONTROLS BMS PANEL.



PARTIAL WESTSIDE CAMPUS BUILDING ENLARGED PLAN
1/8"=1'-0"



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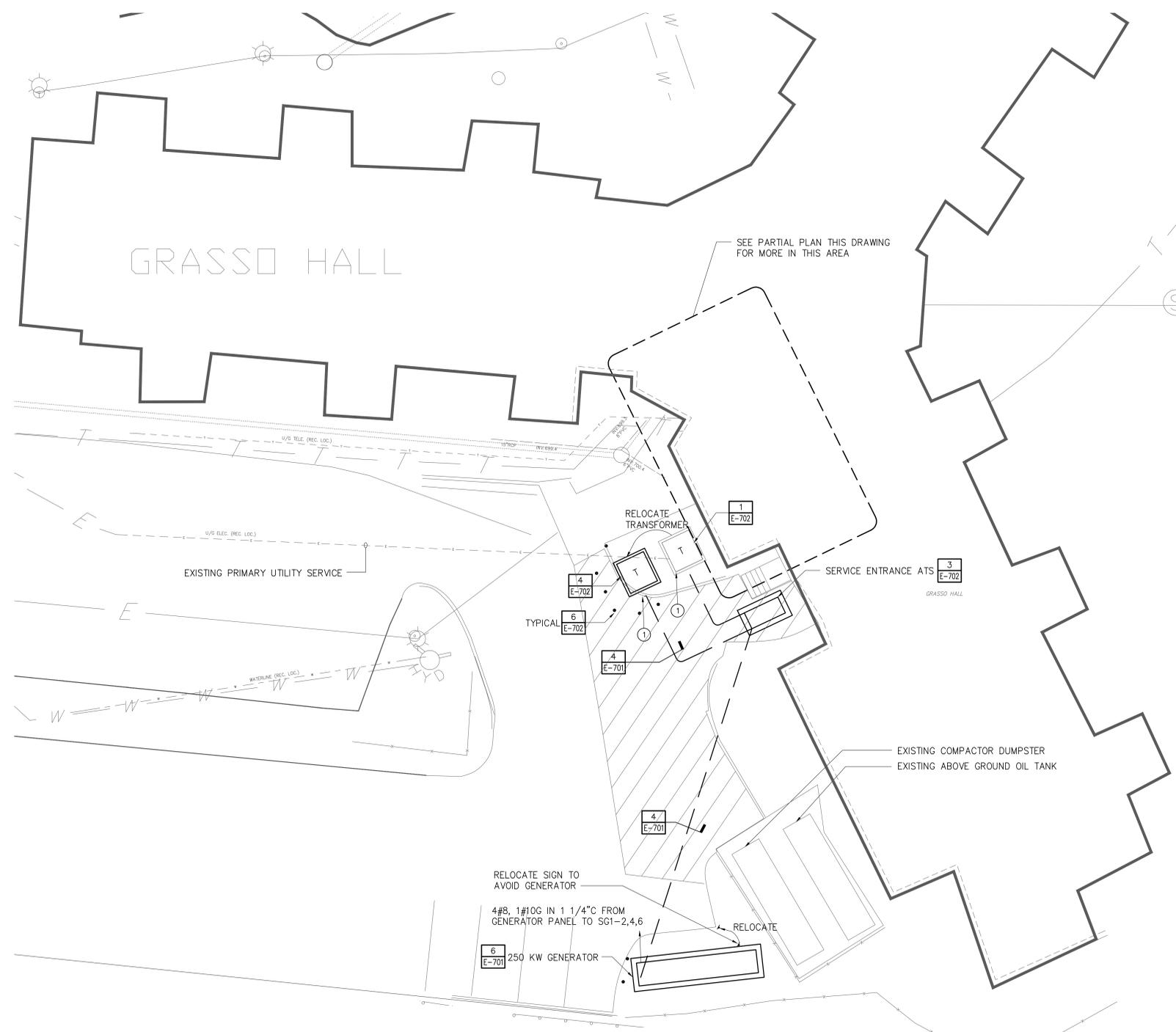


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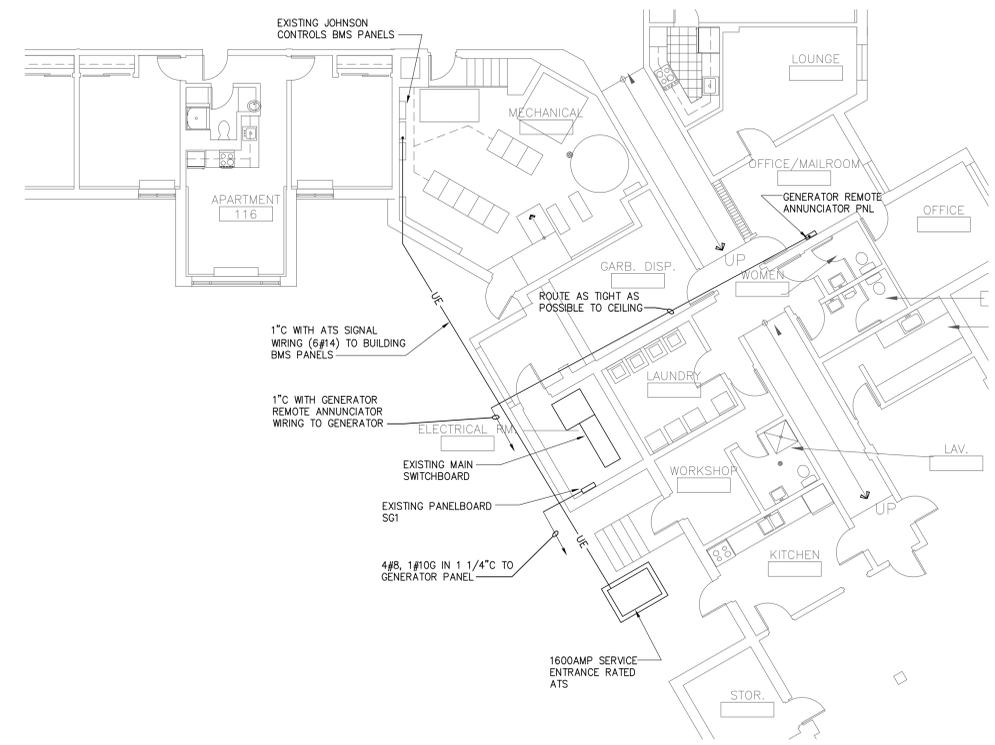
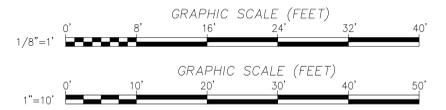
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<p>Drawn By MWS</p> <p>Approved By EM</p> <p>Drawing No. E-408</p>		<p>Drawn By MWS</p> <p>Approved By EM</p> <p>Drawing No. E-408</p>							

CODED NOTES

- ELECTRICAL CONTRACTOR TO HAVE EVERSOURCE ENERGY DISCONNECT EXISTING PRIMARY SERVICE CONDUCTORS AND RELOCATE PAD MOUNTED TRANSFORMER. ONCE TRANSFORMER HAS BEEN RELOCATED REMOVE CONCRETE PAD TO ALLOW FOR LOAD CONDUITS FROM ATS TO BE INSTALLED. PROVIDE CONCRETE PAD AS INDICATED. PROVIDE PAD MOUNTED THREE PHASE SECTIONALIZING CABINET SIMILAR TO HIGHLINE #FSC6963DGB TO COVER SPLICES OF SERVICE ENTRANCE CONDUCTORS. SPLICE CONDUCTORS WITH A SUBMERSIBLE GELPORT CONNECTORS SIMILAR TO RAYCHEM GELPORT SERIES 500 CONNECTORS.



PARTIAL ELECTRICAL SITE PLAN - GRASSO HALL
1"=10'-0"



PARTIAL GRASSO HALL PARTIAL FIRST FLOOR POWER PLAN
1/8"=1'-0"

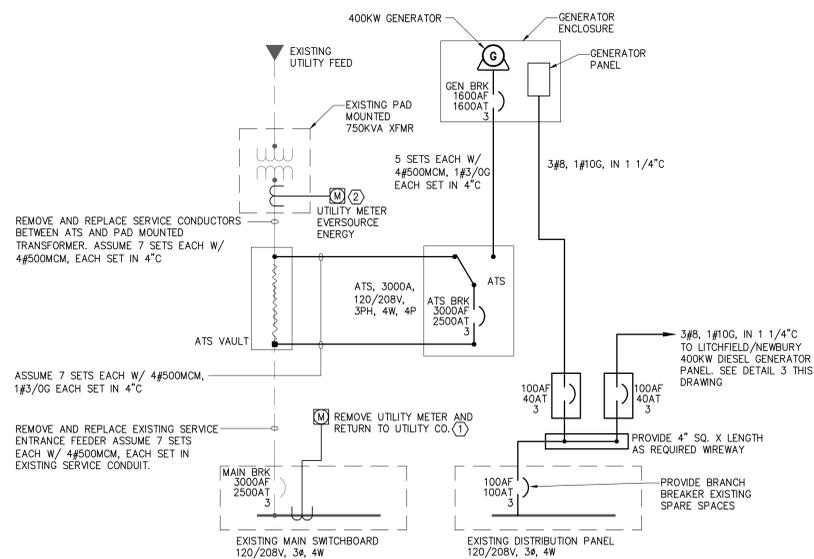
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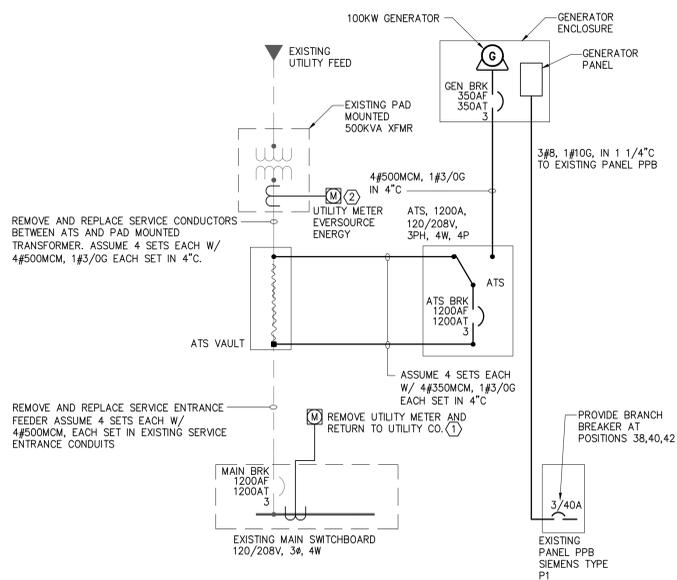
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Drawing No. K4\30778\acad		Project No. 30176	
		Date 03/31/2016	
		Drawn By MWS	
		Approved By EM	
		Drawing No. E-409	



DETAIL NOTES:

- ① DISCONNECT AND REMOVE EXISTING UTILITY METER AND ASSOCIATED CONDUIT AND WIRING BACK TO CT SECTION OF MAIN SWITCHBOARD
- ② PROVIDE 1 1/2" RGS CONDUIT FROM EXISTING PAD MOUNTED TRANSFORMER TO UTILITY METER. COORDINATE WITH EVERSOURCE ENERGY (MR. MATT HICKEY (203)-206-9919) FOR INSTALLATION OF CURRENT TRANSFORMERS WITH-IN PAD MOUNTED TRANSFORMER. REFER TO SITE PLANS FOR LOCATIONS OF UTILITY METER.

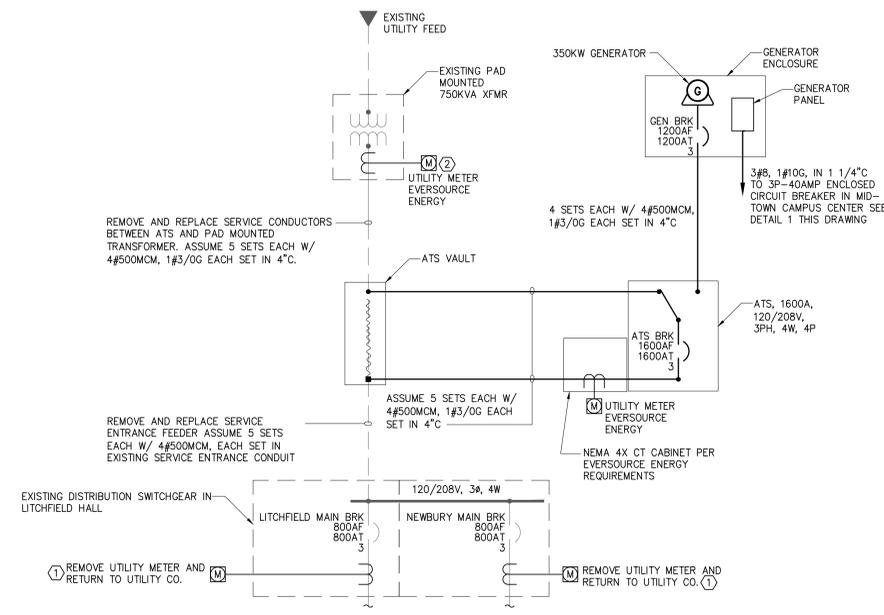
1 PARTIAL ONE LINE DIAGRAM -- MIDTOWN STUDENT CENTER
NOT TO SCALE



DETAIL NOTES:

- ① DISCONNECT AND REMOVE EXISTING UTILITY METER AND ASSOCIATED CONDUIT AND WIRING BACK TO CT SECTION OF MAIN SWITCHBOARD
- ② PROVIDE 1 1/2" RGS CONDUIT FROM EXISTING PAD MOUNTED TRANSFORMER TO UTILITY METER. COORDINATE WITH EVERSOURCE ENERGY (MR. MATT HICKEY (203)-206-9919) FOR INSTALLATION OF CURRENT TRANSFORMERS WITH-IN PAD MOUNTED TRANSFORMER. REFER TO SITE PLANS FOR LOCATIONS OF UTILITY METER.

2 PARTIAL ONE LINE DIAGRAM -- FAIRFIELD HALL
NOT TO SCALE



DETAIL NOTES:

- ① DISCONNECT AND REMOVE EXISTING UTILITY METER AND ASSOCIATED CONDUIT AND WIRING BACK TO CT SECTION OF MAIN SWITCHBOARD
- ② PROVIDE 1 1/2" RGS CONDUIT FROM EXISTING PAD MOUNTED TRANSFORMER TO UTILITY METER. COORDINATE WITH EVERSOURCE ENERGY (MR. MATT HICKEY (203)-206-9919) FOR INSTALLATION OF CURRENT TRANSFORMERS WITH-IN PAD MOUNTED TRANSFORMER. REFER TO SITE PLANS FOR LOCATIONS OF UTILITY METER.

3 PARTIAL ONE LINE DIAGRAM -- LITCHFIELD AND NEWBURY DORMITORIES
NOT TO SCALE

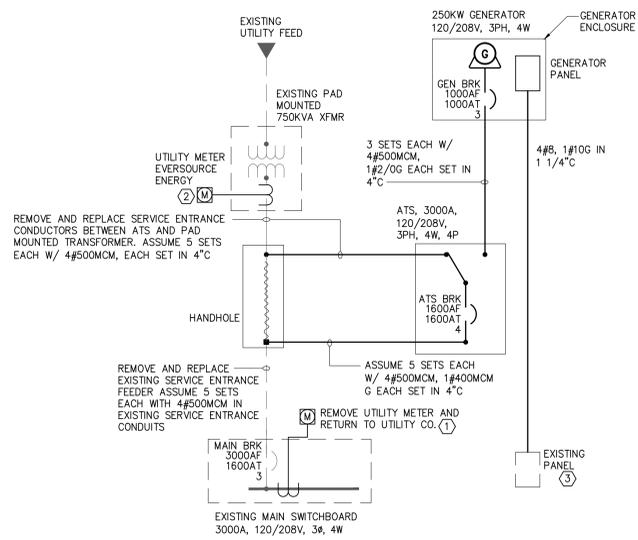
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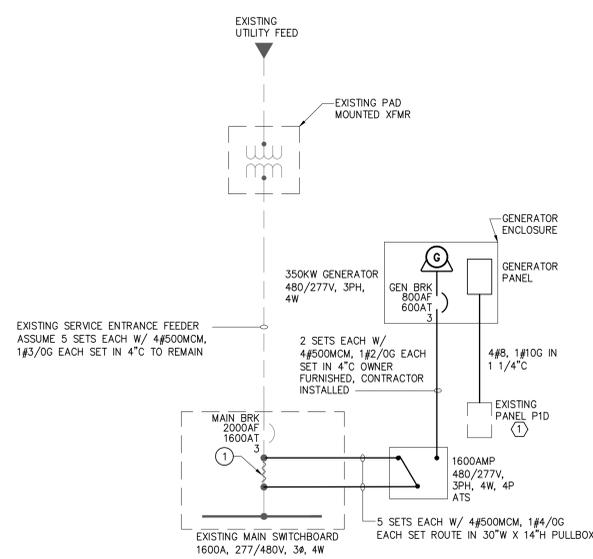
- ① DISCONNECT AND REMOVE EXISTING CONNECTIONS BETWEEN LOAD SIDE OF MAIN BREAKER AND DISTRIBUTION SECTION OF SWITCHBOARD. PROVIDE CONDUIT AND WIRING AS INDICATED BETWEEN LOAD SIDE OF MAIN BREAKER, ATS AND BETWEEN ATS AND DISTRIBUTION SECTION OF SWITCHBOARD.



DETAIL NOTES:

- ① DISCONNECT AND REMOVE EXISTING UTILITY METER AND ASSOCIATED CONDUIT AND WIRING BACK TO CT SECTION OF MAIN SWITCHBOARD
- ② PROVIDE 1 1/2" RGS CONDUIT FROM EXISTING PAD MOUNTED TRANSFORMER TO UTILITY METER. COORDINATE WITH EVERSOURCE ENERGY (MR. MATT HICKEY (203)-206-9919) FOR INSTALLATION OF CURRENT TRANSFORMERS WITH-IN PAD MOUNTED TRANSFORMER. REFER TO SITE PLANS FOR LOCATIONS OF UTILITY METER.
- ③ PROVIDE 3P-40AMP BRANCH BREAKER IN EXISTING SPARE SPACE TO SERVE GENERATOR PANEL

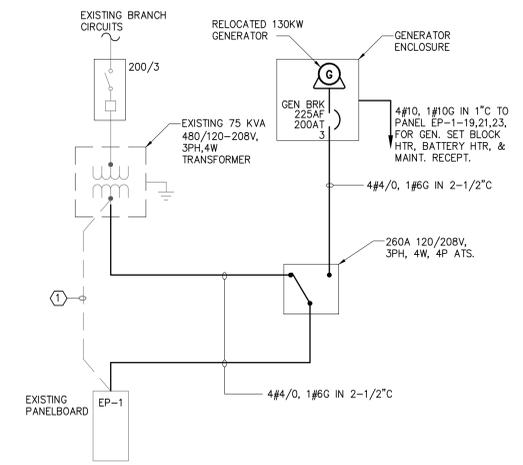
1 PARTIAL ONE LINE DIAGRAM - GRASSO HALL
- NOT TO SCALE



DETAIL NOTES:

- ① DISCONNECT AND REMOVE 3-1P-20AMP SPARE BRANCH BREAKERS FROM POSITIONS 32,34,36 AND REPLACE WITH 1-3P-40AMP BRANCH BREAKER TO SERVE GENERATOR PANEL. RETURN REMOVED BREAKERS TO OWNER.

2 PARTIAL ONE LINE DIAGRAM - WESTSIDE CAMPUS CENTER
- NOT TO SCALE



DETAIL NOTES:

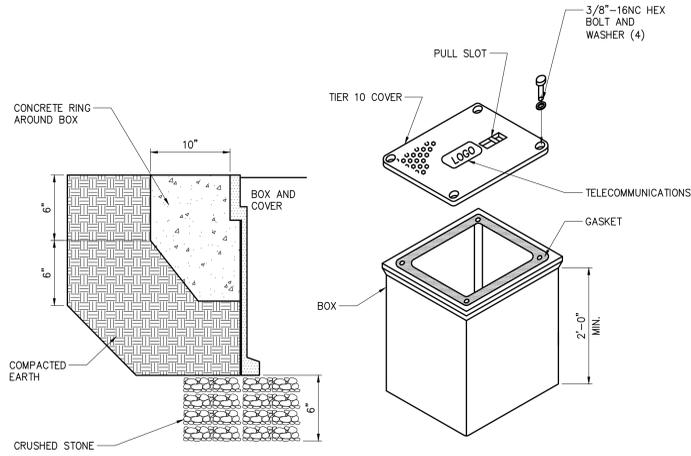
- ① DISCONNECT AND REMOVE EXISTING FEEDER BETWEEN TRANSFORMER AND PANELBOARD EP-1. PROVIDE NEW FEEDER AS INDICATED FROM EXISTING TRANSFORMER TO ATS AND TO EXISTING PANEL EP-1.

3 PARTIAL ONE LINE DIAGRAM - WESTSIDE CLASSROOM BLDG
- NOT TO SCALE

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Drawing Title PARTIAL ELECTRICAL ONE LINE DIAGRAMS		STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
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CAD No. K4\30778\acad		Project No. 30176	Date 03/31/2016
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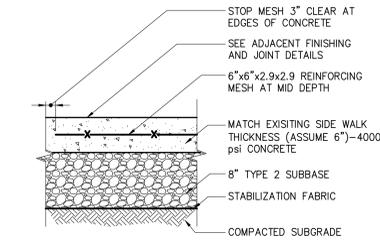


1 HANDHOLE - DETAIL

NOTES:
 SIZE HANDHOLE AT EACH LOCATION PER NEC. MINIMUM SIZE SHALL BE 17\"/>

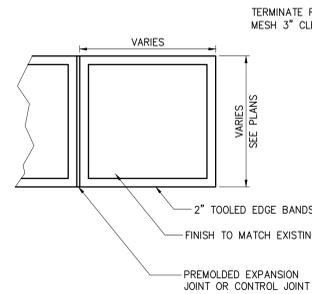
- PROVIDE ALL CONDUITS WITH A PULL ROPE.
- REPLACE EXISTING SURFACE CONDITIONS IN KIND TO INCLUDE, BUT NOT LIMITED TO: CONCRETE, CRUSHED STONE, SELECT GRAVEL, ASPHALT CONCRETE, TOPSOIL AND GRASS.

1 HANDHOLE - DETAIL
 - NOT TO SCALE

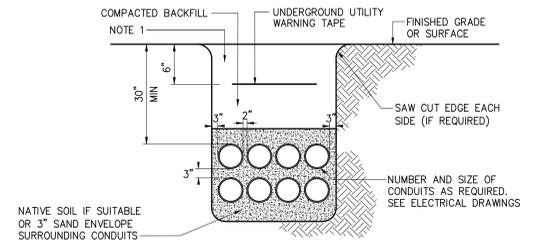


- NOTES:
 1. EXPANSION JOINTS TO BE PLACED BETWEEN ADJACENT SLABS, AT BUILDING LINE, AT CURBS, OR AT PENETRATING STRUCTURES. MAX. 20'-0\"/>

2 CONCRETE SIDEWALK DETAIL
 - NOT TO SCALE

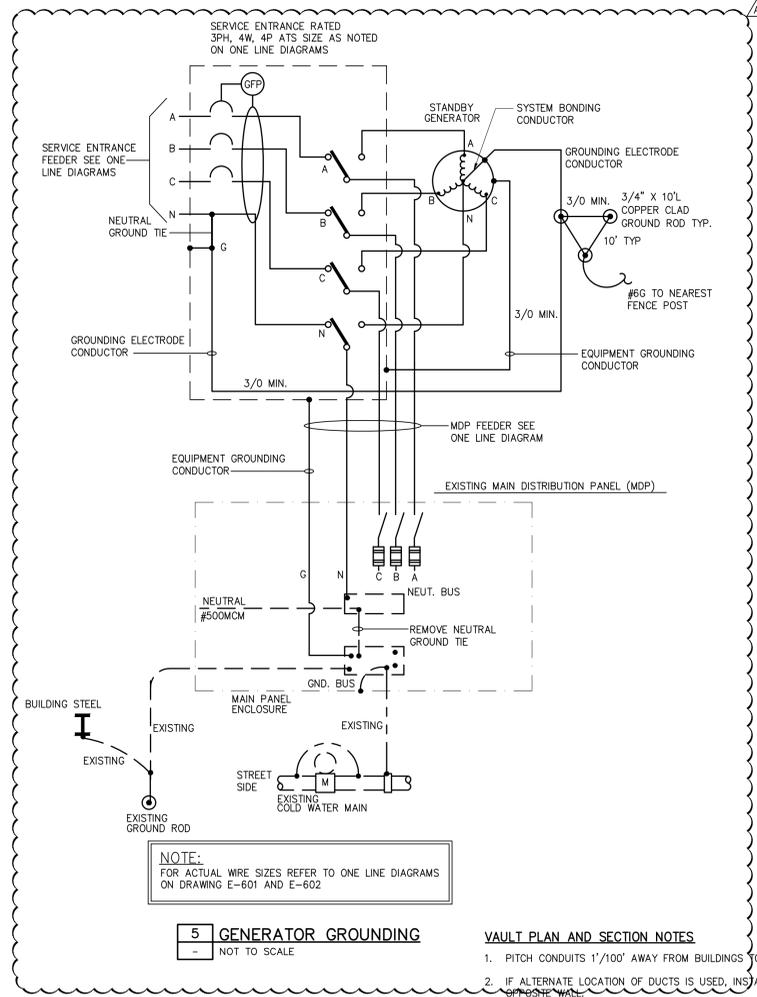


3 CONCRETE SIDEWALK FINISHING AND JOINTS
 - NOT TO SCALE



- NOTE:
 1. REPLACE EXISTING SURFACE CONDITIONS IN KIND TO INCLUDE, BUT NOT LIMITED TO: CONCRETE, CRUSHED STONE, SELECT GRAVEL, ASPHALT, TOPSOIL AND GRASS.

4 UNDERGROUND CONDUIT
 - NOT TO SCALE

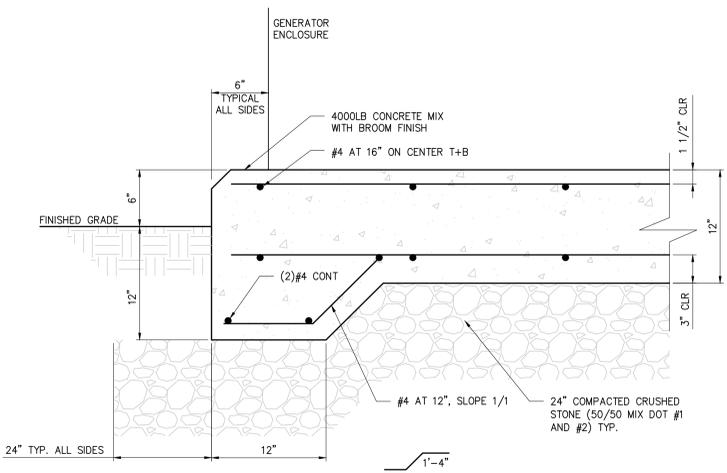


NOTE:
 FOR ACTUAL WIRE SIZES REFER TO ONE LINE DIAGRAMS ON DRAWING E-601 AND E-602

5 GENERATOR GROUNDING
 - NOT TO SCALE

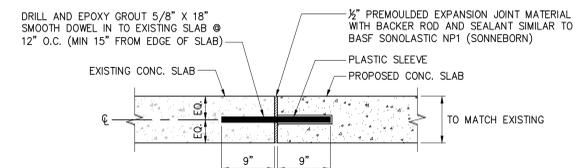
VAULT PLAN AND SECTION NOTES

- PITCH CONDUITS 1\"/>



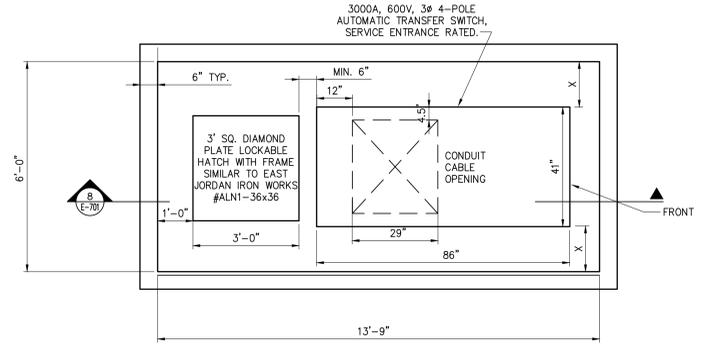
- NOTES:
 1. AT CONTROL JOINT CUT EVERY OTHER REINFORCING BAR.
 2. PROVIDE 4000 POUND AIR ENTRAINED CONCRETE MIX WITH BROOM FINISH.

6 GENERATOR SLAB DETAIL
 - NOT TO SCALE

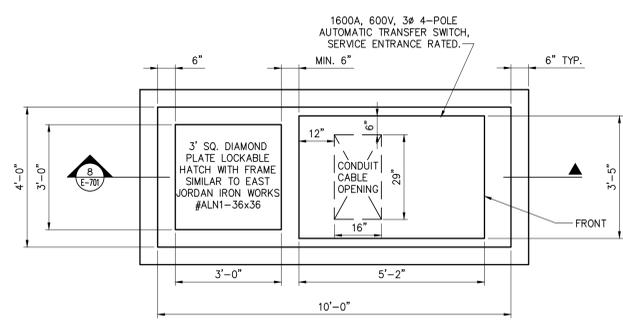


- NOTES:
 1. SLAB REINFORCEMENT NOT SHOWN.
 2. TERMINATE SLAB REINFORCEMENT 2 1/2\"/>

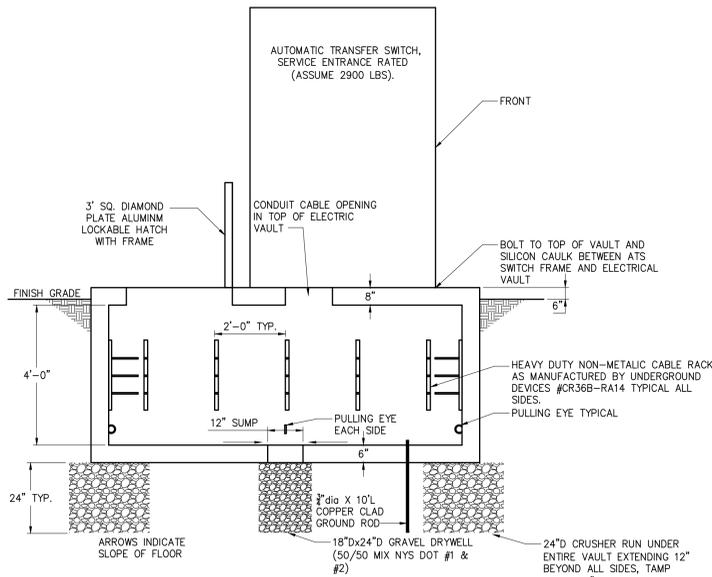
7 SIDEWALK PINNING DETAIL
 - NOT TO SCALE



9 3000AMP TRANSFER SWITCH/ELECTRICAL VAULT PLAN VIEW
 - SCALE: NONE



10 1200 AND 1600 AMP TRANSFER SWITCH/ELECTRICAL VAULT PLAN VIEW
 - SCALE: NONE

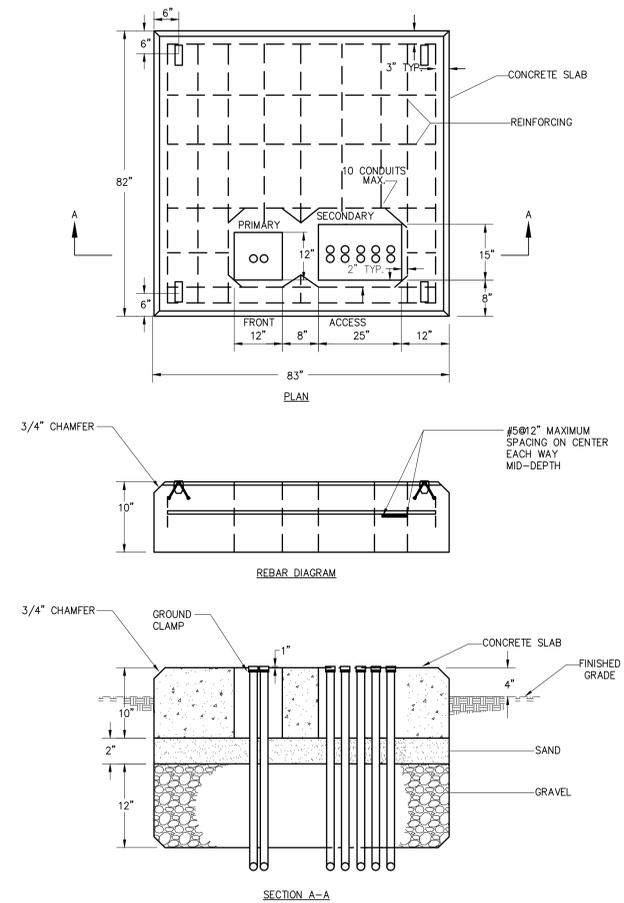
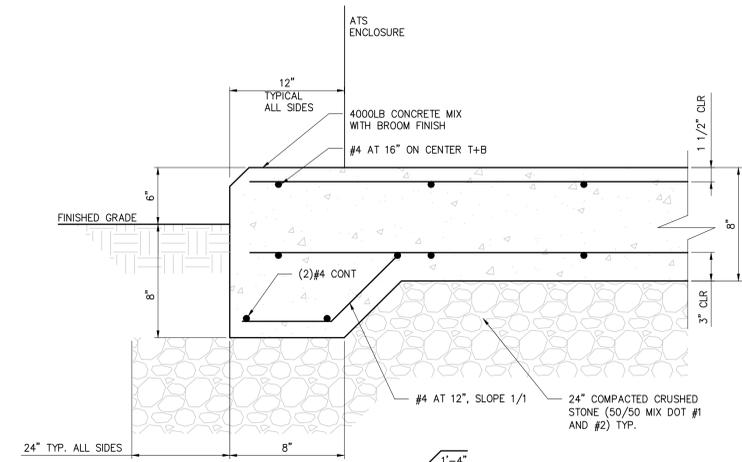
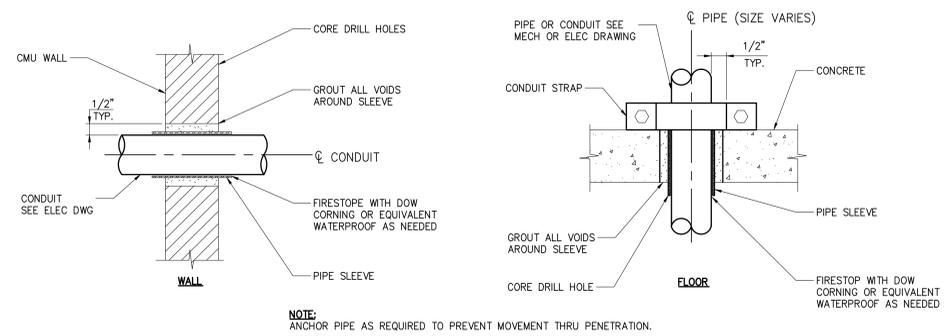
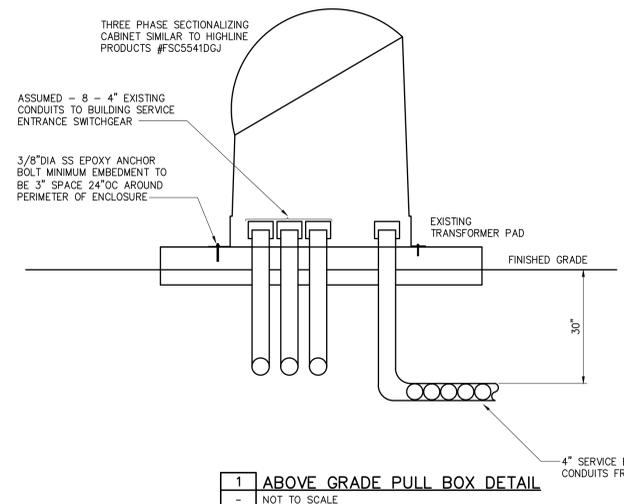


8 TRANSFER SWITCH/ELECTRICAL VAULT SECTION VIEW
 - SCALE: NONE

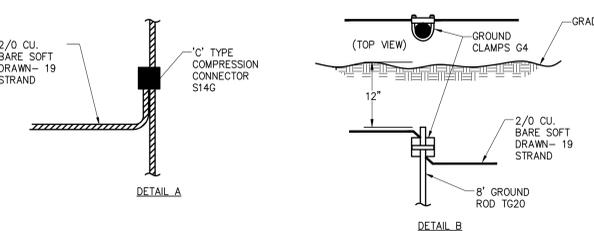
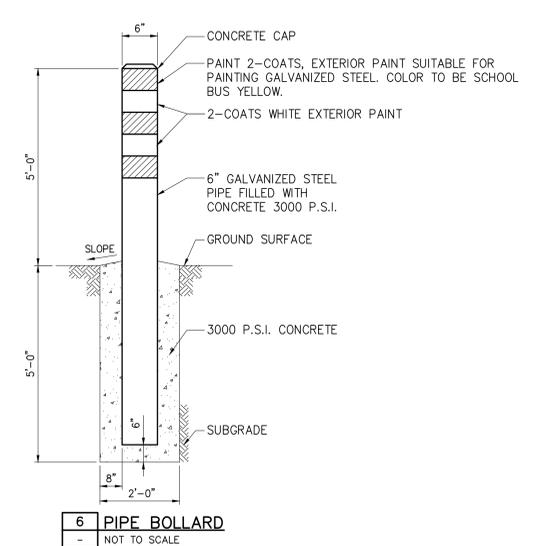
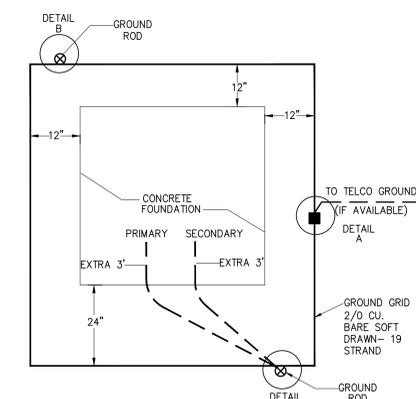
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Drawing Title ELECTRICAL DETAILS		STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
REVISIONS			
Mark 1 2	Date 3/16/16	Description OWNERS COMMENTS	Drawing Prepared By CHA 2139 SILAS DEANE HIGHWAY, SUITE 212, ROCKY HILL, CT 06067-2336
Drawing No. K4\30778\ecad		Date 03/31/2016 Scale AS SHOWN Project WESTERN CONNECTICUT STATE UNIVERSITY Project No. 30176	



CONCRETE SLAB DETAIL FOR 750-2500KVA
THREE PHASE TRANSFORMERS - 15 KV CIRCUITS
NOT TO SCALE

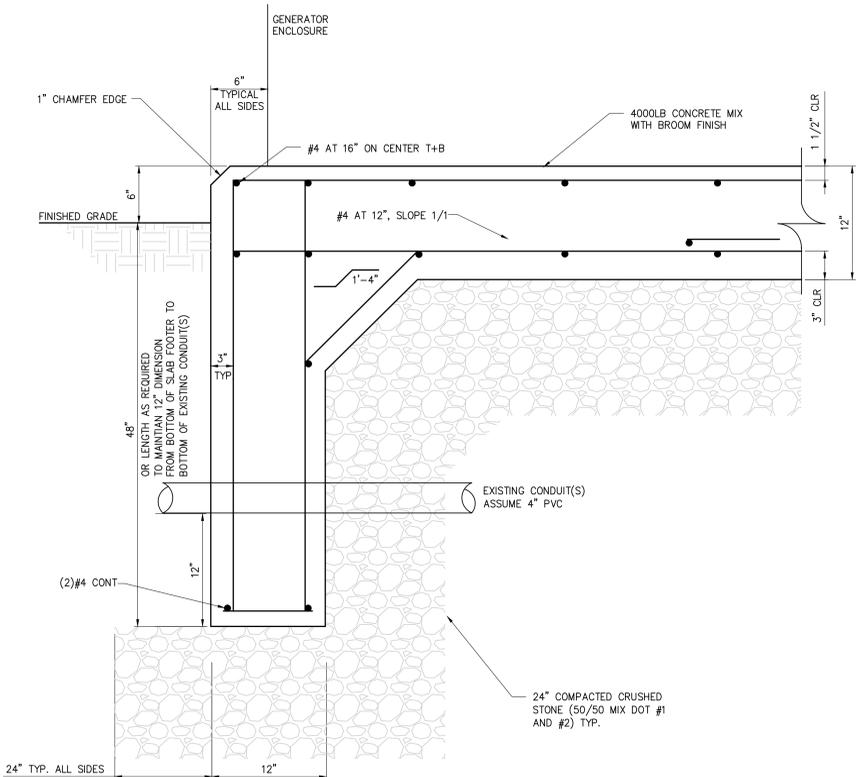


TRANSFORMER PAD DETAIL
NOT TO SCALE



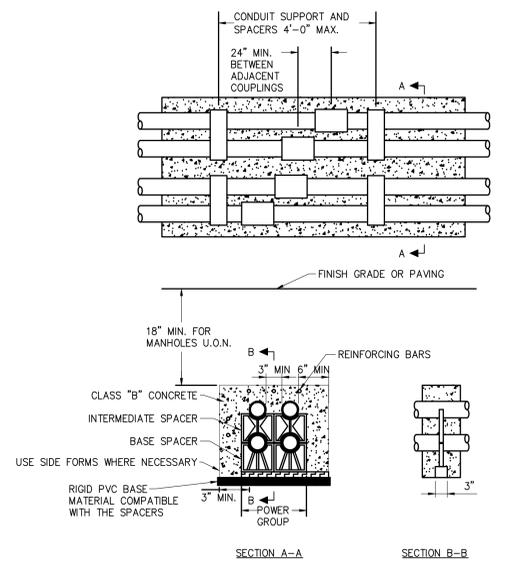
 <p>WESTERN CONNECTICUT STATE UNIVERSITY</p>		<p>Drawing Title ELECTRICAL DETAILS</p> <p>REVISIONS</p> <table border="1"> <thead> <tr> <th>Mark</th> <th>Date</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>CD# No. K4\30176\uscd</p>	Mark	Date	Description				<p>STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS</p> <p>Drawing Prepared By CHA 2139 SILAS DEANE HIGHWAY, SUITE 212, ROCKY HILL, CT 06067-2336</p> <p>Project WESTERN CONNECTICUT STATE UNIVERSITY</p> <p>Date 03/31/2016</p> <p>Scale AS SHOWN</p> <p>Drawn By MWS</p> <p>Approved By EM</p> <p>Drawing No. E-702</p> <p>Project No. 30176</p>
Mark	Date	Description							

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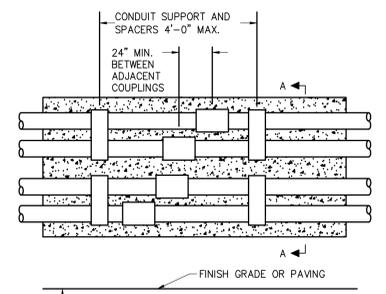
- NOTES:**
1. AT CONTROL JOINT CUT EVERY OTHER REINFORCING BAR.
 2. PROVIDE 4000 POUND AIR ENTRAINED CONCRETE MIX WITH BROOM FINISH.
 3. FIELD LOCATE EXISTING UNDERGROUND CONDUIT(S) AND FORM GENERATOR SLAB AROUND CONDUIT(S), PROTECT CONDUIT(S) AS REQUIRED.

1 WESTSIDE CAMPUS CENTER GENERATOR SLAB DETAIL
- NOT TO SCALE

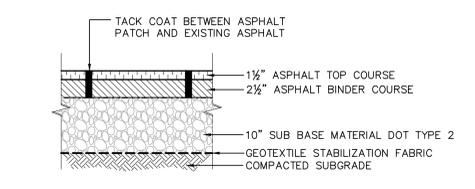


- NOTES:**
1. FOR SIZE AND NUMBER OF CONDUITS AS WELL AS DUCT BANK FORMATION, SEE PLANS.
 2. REINFORCEMENT OF THE CONCRETE ENCASEMENT FOR CONDUIT BANKS SHALL CONSIST OF #5 LONGITUDINAL REINFORCING BARS LOCATED 3" IN FROM THE OUTSIDE SURFACE OF THE ENVELOPE AND SPACED 6" ON CENTERS ON ALL 4 SIDES: TOP, BOTTOM, AND TWO SIDES #4 REBARS AT 12" ON CENTERS APART SHALL BE USED TO TIE THE LONGITUDINAL BARS TOGETHER.

2 CONCRETE DUCT BANK
- NOT TO SCALE



3 BRICK PAVER DETAIL
- NOT TO SCALE



4 ASPHALT PAVEMENT PATCH DETAIL
- NOT TO SCALE

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Drawing Title ELECTRICAL DETAILS		STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
REVISIONS		Drawing Prepared By CHA 2139 SILAS DEANE HIGHWAY, SUITE 212, ROCKY HILL, CT 06067-2336	
Mark	Date	Description	Date 03/31/2016
			Scale AS SHOWN
			Drawn By NWS
			Approved By EM
			Drawing No. E-703
CAD No. K4\30778\ecsd		Project No. 30176	