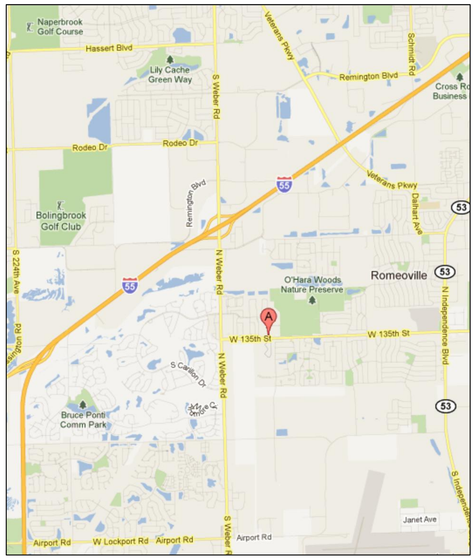
JOLIET JUNIOR COLLEGE
EMERGENCY GENERATOR
ROMEOVILLE CAMPUS
ROMEOVILLE, ILLINOIS

DRAWING LIST	
DRAWING NO.	DRAWING DESCRIPTION
GG01	COVER SHEET
EG01	ELECTRICAL NOTES, SYMBOLS, & LEGEND
EG02	DETAILS
EG03	MECHANICAL DETAILS
EO01	ONE LINE AND CONTROLS
EP01	ROMEOVILLE CAMPUS SITE PLAN
EP02	ROMEOVILLE CAMPUS BUILDING PLAN

NOTE TO BIDDERS:

INCLUDE AN ALLOWANCE OF TEN-THOUSAND DOLLARS ($10,000.00) IN THE BASE BID FOR MISCELLANEOUS UNFORESEEN ADDITIONAL WORK ONLY AS DIRECTED AND APPROVED BY THE JOLIET JUNIOR COLLEGE CONSTRUCTION MANAGER. ANY CHARGES TO THE ALLOWANCE WILL BE FOR MATERIALS AND LABOR ONLY. OVERHEAD AND PROFIT SHALL BE INCLUDED IN THE BASE BID. THIS ALLOWANCE SHALL NOT BE INVOICED IF NOT APPROVED. CONTRACTOR SHALL NOT BE ENTITLED TO ANY UNSPENT BALANCE.

NORTH



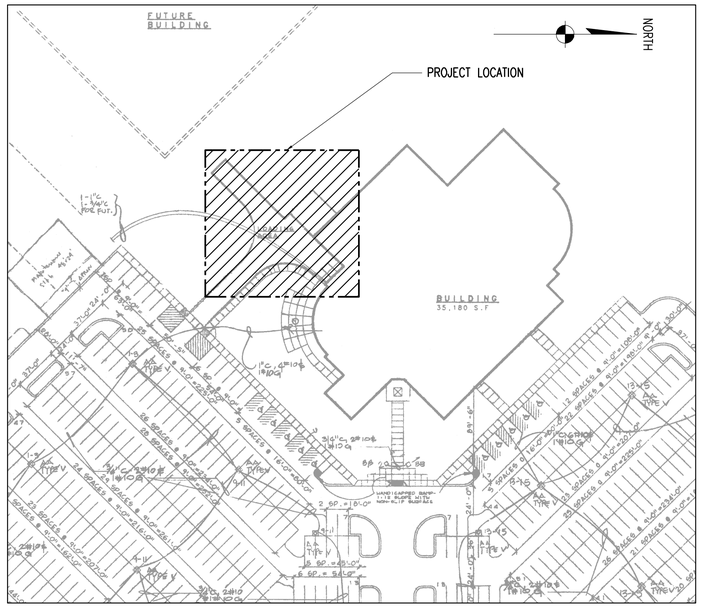
PROJECT ADDRESS:

ROMEOVILLE CAMPUS

1125 WEST ROMEO RD.
ROMEOVILLE, ILLINOIS 60446

LOCATION MAP

NO SCALE



PROJECT LOCATION

NO SCALE

CALL JULIE TOLL FREE 1-800-892-0123

LICENSED PROFESSIONAL ENGINEER
MAJID ZARGAR
062-047370
OF ILLINOIS

EXP. DATE 11/30/13

M. Zarga

NO.	REVISIONS	DSGN	CHKD	APVD	DATE

Stanley Consultants INC.

8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleyconsultants.com

JOLIET JUNIOR COLLEGE
EMERGENCY GENERATOR
ROMEOVILLE, ILLINOIS

COVER SHEET

Illinois Firm Registration No.: 184-001533

DESIGNED	S. KOSS
DRAWN	B. KOWALCZYKOWSKA
CHECKED	M. ZARGAR
APPROVED	M. ZARGAR
APPROVED	
DATE	12-16-2011

SCALE:

NO. 23778.01.00	REV.
GG01	0

23778.01.00-C:\PROJECTS\DATASOURCE-1\COMMON\DMS73695\01_2377801_GG01.DWG

CADD D1-R3

ONE-LINE AND RISER

KVA,CLG
HV-LV
Z
POWER TRANSFORMER

LOW VOLTAGE CIRCUIT BREAKER

AMP
*

E.O. = ELECTRICALLY OPERATED
G = GROUND
I = INSTANTANEOUS
IA = INSTANTANEOUS AMPS
LT = LONG TIME
M.O. = MANUALLY OPERATED
ST = SHORT TIME
S = SENSOR RATING

A
MOLDED CASE CIRCUIT BREAKER

AMP
FUSE
FUSED CUT OUT SWITCH

AMP
AMP
FUSED DISCONNECT SWITCH

AMP
NON-FUSED DISCONNECT SWITCH

COMBINATION DISCONNECT WITH STARTER

PANELBOARD

TRANSFER SWITCH (AUTOMATIC OR MANUAL)

HP
MOTOR

KW
ELECTRICAL POWER METER

GROUND

DELTA

SOLID GROUNDED WYE

(QTY)
PRI:SEC
ACCUR
VOLTAGE TRANSFORMER

(QTY)
PRI/SEC
ACCUR
CURRENT TRANSFORMER
■ INDICATES POLARITY

RACEWAY AND LINE TYPES

CONDUIT:
EMBEDDED OR HIDDEN
EXPOSED
C CONDUIT TURN-DOWN
CONDUIT TURN-UP
J JUNCTION BOX

PLAN VIEW

T TRANSFORMER
NON-FUSED DISCONNECT SWITCH
FUSED DISCONNECT SWITCH
COMBINATION DISCONNECT WITH STARTER
PANELBOARD
XFR AUTOMATIC TRANSFER SWITCH
MTR MOTOR
LOCAL CONTROL PANEL

GROUNDING

GROUND CONDUCTOR
LIGHTNING PROTECTION CONDUCTOR
GROUND
GROUND ROD
LIGHTNING PROTECTION AIR TERMINAL
LIGHTNING PROTECTION SPHERE
THROUGH ROOF TERMINAL
GROUNDING CONNECTION TO STRUCTURE
FLUSH GROUND PLATE
GROUND CONDUCTOR CONNECTION
GROUNDING PIGTAIL

VIEW MARKERS

A-SF1 DESIGNATES CUTTING PLANE OF SECTION

B-SF1 DESIGNATES DIRECTION FROM WHICH PLAN OR ELEVATION IS VIEWED

C-SF1 DESIGNATES LOCATION OF DETAIL

SECTION A-SF1 / SF1,SF2
ELEVATION B-SF1 / SF1,SF2
DETAIL C-SF1 / SF1,SF2

VIEW IDENTIFICATION NUMBER
DRAWING NUMBER(S) ON WHICH VIEW IS CALLED OUT

GENERAL SYMBOLS

BOLD LINE TYPES AND TEXT DEFINE NEW WORK TO BE BID AND CONSTRUCTED UNDER THIS CONTRACT.

LIGHT LINE TYPES AND TEXT DEFINE EXISTING CONDITIONS. NOT ALL EXISTING CONDITIONS MAY BE SHOWN ON THESE DRAWINGS. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY THE EXISTING CONDITIONS IN ALL AREAS OF WORK.

ITEMS TO BE DEMOLISHED/REMOVED

1 REVISION IDENTIFICATION SYMBOL:
THE NUMBER IN THE TRIANGLE INDICATES THE REVISION NUMBER IDENTIFIED.

WORK WITHIN BUBBLED AREAS IDENTIFY CHANGES TO THE BID/CONSTRUCTION DRAWINGS

LEGEND GENERAL NOTES

1. ALL SYMBOLS AND ABBREVIATIONS SHOWN ON THIS LEGEND MAY NOT APPEAR ON THIS SET OF DRAWINGS.

GENERAL NOTES

1. DESIGN AND CONTRACT BASIS FOR OUTDOOR CONDUIT INSTALLATIONS IS FOR TRENCH AND BACKFILL.
2. ALL DIMENSIONS OF EXISTING CONSTRUCTION ARE APPROXIMATE. CONTRACTOR SHALL MAKE ALL NECESSARY FIELD MEASUREMENTS OF EXISTING STRUCTURES AND EQUIPMENT TO VERIFY DIMENSIONS SHOWN ON DRAWINGS AND TO PROVIDE DIMENSIONS NOT SHOWN PRIOR TO FABRICATION. COSTS FOR MODIFICATIONS OF NEW CONSTRUCTION DUE TO LACK OF CONFIRMATION BY CONTRACTOR OF DIMENSIONS BY FIELD MEASUREMENTS SHALL BE BORNE BY THE CONTRACTOR.
3. ELECTRICAL LAYOUT DRAWINGS ARE PARTIALLY DIAGRAMMATIC. INSTALL THE ELECTRICAL SYSTEMS WITHOUT INTERFERING WITH DUCTS, PIPES, STRUCTURAL STEEL OR OTHER SYSTEMS.
4. PROVIDE ADDITIONAL SUPPORTS FOR SWITCHES, PANELS, RACEWAYS AND OTHER ELECTRICAL EQUIPMENT WHEREVER THE BUILDING STRUCTURE IS NOT SUITABLE FOR DIRECT MOUNTING.
5. PROVIDE FIRE STOPPING AROUND ALL RACEWAYS PENETRATION FIRE RATED WALLS, FLOORS, OR CEILINGS. DESIGN BASIS IS THOMAS AND BETTS "UL" LISTED FLAME SAFE STOP SYSTEM OR EQUAL.
6. PROVIDE SEAL FITTINGS IN CONDUITS ENTERING AND LEAVING CONDITIONED AREAS FROM NON-CONDITIONED AREAS.
7. CORE DRILL THROUGH CONCRETE SLAB OR WALL FOR CONDUIT PLACEMENT. SEAL ALL NEW CORE DRILLED HOLES.
8. COORDINATE PENETRATIONS AND ROUTINGS FOR CONDUITS WITH EQUIPMENT PROVIDED.
9. COORDINATE ALL ELECTRICAL REQUIREMENT CHANGES FOR EQUIPMENT PROVIDED THAT IS DIFFERENT FROM THE BASIS OF DESIGN.
10. PROVIDE TWO HARD COPY AND ONE SOFT COPY OF RECORD DRAWINGS AND O&M MANUALS THAT SHALL INCLUDE BUT NOT BE LIMITED TO WIRING DIAGRAMS, CONDUIT ROUTINGS, EQUIPMENT DETAILS, AND DEVIATIONS FROM THE CONSTRUCTION DRAWINGS. SOFT COPY FILES SHALL INCLUDE BOTH PDF AND AUTOCAD FORMATS AS APPLICABLE.
11. WHERE CONSTRUCTION, SUCH AS TRENCHING, HAS DISTURBED PAVED AREAS, SIDEWALKS, GRASS OR LANDSCAPED AREAS, THE AREA SHALL BE GRADED, LANDSCAPED, PATCHED, REPAVED, REPOURED AND RESTORED TO ORIGINAL CONDITION.
12. ALL REQUIRED POWER OUTAGES SHALL BE BETWEEN 10PM AND 6 AM. BID SHALL INCLUDE PREMIUM AS REQUIRED. AT OWNER'S OPTION AND IF SCHEDULE PERMITS, THE SHUTDOWN MAY BE PERFORMED DURING NORMAL BUSINESS HOURS. IF OWNER EXERCISES THIS OPTION, CONTRACTOR SHALL ISSUE A CREDIT VIA CHANGE ORDER.
13. PROVIDE A 4 FOOT NEON ORANGE PLASTIC FENCE BARRIER ALONG ALL OPEN TRENCHES OR EXCAVATIONS.
14. FIELD ADJUST EXACT ROUTING OF CONDUIT TO COORDINATE WITH EXISTING UTILITIES, BUILDING FACILITIES, AND SITE OBSTRUCTIONS AS REQUIRED. DOCUMENT ALL ADJUSTMENTS ON THE AS-BUILT DRAWINGS.
15. NO CABLE SPLICING SHALL BE ALLOWED UNDERGROUND. ALL CABLES SHALL BE TESTED. REPLACE ANY FAILED CABLE AT CONTRACTOR'S EXPENSE.
16. ALL SYMBOLS AND ABBREVIATIONS SHOWN ON THIS LEGEND MAY NOT APPEAR ON THIS SET OF DRAWINGS.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR AND FULLY REPAIR ANY DAMAGE TO UTILITIES INCURRED ON THIS PROJECT.
18. PERFORM UTILITY LOCATIONS PRIOR TO ANY TRENCHING, BORING, DIGGING, OR AUGERING.

MECHANICAL NOTES

1. INSTALLATION OF COMPLETE GAS DELIVERY SYSTEM SHALL CONFORM TO NFPA 54.
2. ALL UNDERGROUND PIPING SHALL BE POLYETHYLENE PIPE AND SHALL CONFORM TO ASTM D-2513, STANDARD SPECIFICATION FOR THERMOPLASTIC GAS PRESSURE PIPING, TUBING AND FITTINGS. PIPING SHALL BE MARKED "GAS" AND "ASTM-2513".
3. WORKMANSHIP AND DEFECTS. GAS PIPES AND FITTINGS SHALL BE CLEAR AND FREE FROM CUTTING BURRS AND DEFECTS IN STRUCTURE OR THREADING AND SHALL BE THOROUGHLY BRUSHED AND CHIP AND SCALE BLOWN. DEFECTS IN PIPING AND FITTINGS SHALL NOT BE REPAIRED. DEFECTIVE PIPE AND FITTINGS SHALL BE REPLACED.
4. PROTECTIVE COATING. WHERE IN CONTACT WITH MATERIAL OR ATMOSPHERE EXERTING A CORROSIVE ACTION, METALLIC PIPING AND FITTINGS COATED WITH A CORROSION-RESISTANT MATERIAL SHALL BE USED. EXTERNAL OR INTERNAL COATINGS OR LININGS USED ON PIPING OR COMPONENTS SHALL NOT BE CONSIDERED AS ADDING STRENGTH.
5. SPECIFICATION FOR PIPE THREADS. METALLIC PIPE AND FITTING THREADS SHALL BE TAPER PIPE THREADS AND SHALL COMPLY WITH ANSI/ASME B1.20.1, STANDARD FOR PIPE THREADS, GENERAL PURPOSE.
6. DAMAGED THREADS. PIPE WITH THREADS THAT ARE STRIPPED, CHIPPED, CORRODED, OR OTHERWISE DAMAGED SHALL NOT BE USED. WHERE A WELD OPENS DURING THE OPERATION OF CUTTING OR THREADING, THAT PORTION OF THE PIPE SHALL NOT BE USED.
7. DO NOT USE THREAD COMPOUNDS THAT ARE NOT COMPATIBLE WITH NATURAL GAS.
8. METALLIC PIPING JOINTS AND FITTINGS. THE TYPE OF PIPING JOINTS SHALL BE SUITABLE FOR THE PRESSURE-TEMPERATURE CONDITIONS AND SHALL BE SELECTED GIVING CONSIDERATION TO JOINT TIGHTNESS AND MECHANICAL STRENGTH UNDER THE SERVICE CONDITIONS. THE JOINT SHALL BE ABLE TO SUSTAIN THE MAXIMUM TEMPERATURE AND PRESSURE AND ANY ADDITIONAL FORCE DUE TO THE INTERNAL PRESSURE AND ANY ADDITIONAL FORCES DUE TO TEMPERATURE EXPANSION AND CONTRACTION, VIBRATION, FATIGUE OR THE WEIGHT OF THE PIPE AND ITS CONTENT.
9. PIPE JOINTS SHALL BE THREADED, FLANGED, OR WELDED.
10. FITTINGS USED WITH STEEL PIPES SHALL BE STEEL, BRASS OR BRONZE.
11. PLASTIC PIPING JOINTS AND FITTINGS. PLASTIC PIPE FITTINGS SHALL BE JOINED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THE FOLLOWING SHALL BE OBSERVED WHEN MAKING THE JOINTS:
    A. THE JOINT SHALL BE DESIGNED AND INSTALLED SO THAT THE LONGITUDINAL PULLOUT RESISTANCE OF THE JOINT WILL BE AT LEAST EQUAL TO THE TENSILE STRENGTH OF THE PLASTIC MATERIAL.
    B. HEAT FUSION JOINTS SHALL BE MADE IN ACCORDANCE WITH QUALIFIED PROCEDURES THAT HAVE BEEN ESTABLISHED AND PROVEN BY TEST TO PRODUCE GAS-TIGHT JOINTS AT LEAST AS STRONG AS THE PIPE BEING JOINED.
    C. WHERE COMPRESSION-TYPE MECHANICAL JOINTS ARE USED, THE GASKET MATERIAL IN THE FITTING SHALL BE COMPATIBLE WITH THE PLASTIC PIPING AND THE NATURAL GAS DISTRIBUTED BY THE SYSTEM. AN INTERNAL TUBULAR STIFFENER SHALL BE USED IN CONJUNCTION WITH THE FITTING. THE STIFFENER SHALL BE FLUSHED WITH THE END OF THE PIPE, SHALL EXTEND AT LEAST TO THE OUTSIDE END OF THE PIPE, AND SHALL EXTEND AT LEAST TO THE END OF THE COMPRESSION FITTING WHEN INSTALLED. THE STIFFENER SHALL NOT BE A FORCE FIT IN THE PLASTIC.
16. FLANGES.
    A. ALL FLANGES SHALL COMPLY ANSI/ASME B16.20, STANDARD RING-JOINT GASKETS AND GROOVES FOR STEEL FLANGES; OR MSS SP-6, STANDARD FINISHES FOR CONTACT FACES OF PIPE FLANGES AND CONNECTING-END FLANGES OF VALVES AND FITTINGS. THE PRESSURE TEMPERATURE RATINGS SHALL EQUAL OR EXCEED THAT REQUIRED BY THE APPLICATION.
    B. FLANGE FACING. STANDARD FACING SHALL BE PERMITTED. WHERE 150-PSI STEEL FLANGES ARE BOLTED TO CLASS 125 CAST-IRON FLANGES, THE RAISED FACE ON THE STEEL FLANGE SHALL BE REMOVED.
    C. LAPPED FLANGES. LAPPED FLANGES SHALL BE USED ONLY ABOVE GROUND OR IN EXPOSED LOCATIONS ACCESSIBLE FOR INSPECTION.
17. GAS PRESSURE REGULATORS. THE PRESSURE REGULATOR SHALL BE LISTED IN ACCORDANCE WITH ANSI Z21.80.
19. GAS PRESSURE REGULATOR VENTING. THE VENT SHALL BE DESIGNED TO PREVENT ENTRY OF WATER, INSECTS OR OTHER FOREIGN MATERIAL THAT COULD CAUSE BLOCKAGE.
20. GAS SERVICE INSTALLATION SHALL BE PROVIDED ACCORDING TO NICOR STANDARDS.

SITE RESTORATION NOTES

RESTORATION OF GROUNDS SHALL BE PERFORMED FOR ANY CONSTRUCTION ACTIVITY DAMAGE TO SIDEWALKS, LAWNS, AND ASPHALT SURFACES. RESTORE DAMAGED AREAS ACCORDING TO THE FOLLOWING SPECIFICATIONS:

1. SIDEWALKS: 5" THICK AND 6" THICK ACROSS DRIVEWAYS. EXCAVATE TO 8" AND BACKFILL WITH STONE TO 3" DEPTH. INSTALL 6 X 6 X 10 REINFORCED WIRE MESH AND EXPANSION JOINT AT JUNCTION WITH EXISTING. POUR TO A DEPTH OF 5" WITH 6 BAG CONCRETE MIX. PROVIDE EDGE AND JOINT TOOLING AND FINISH TO MATCH EXISTING.
2. LAWNS AND GRASS AREAS: ROUGHEN SUBGRADE AND REMOVE STONES, CLODS, AND DEBRIS LARGER THAN 1". SPREAD TOPSOIL AND FIRM TO DEPTH OF 4", BLENDING WITH SURROUNDING GRADE. APPLY 10-10-10 FERTILIZER AT 10LB/1000SF AND INCORPORATE INTO TOP 1" OF SOIL. SOW SEED MIX AT 4LB/100SF WITH 1/4" COVER. MULCH IMMEDIATELY AFTER SEEDING WITH BIODEGRADABLE EXCELSIOR OR FUTURA MULCH BLANKETS.
3. ASPHALT SURFACES: BASE 6" THICK GRAVEL COMPACTED TO 95% DENSITY (ASTM D1557). PRIME COAT 0.4 GAL/SQ YD AT MINIMUM 55° F. SURFACE COURSE HOT MIX TOTAL 4" THICK, PLACE AND COMPACT IN 2" LAYERS. MATCH EXISTING SURFACE GRADE.

LICENSED PROFESSIONAL ENGINEER
MAJID ZARGAR
062-047370
OF ILLINOIS
EXP. DATE 11/30/13
M. Zargar

NO.	REVISIONS	DSGN	CHKD	APVD	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleyconsultants.com

JOLIET JUNIOR COLLEGE
EMERGENCY GENERATOR
ROMEOVILLE, ILLINOIS

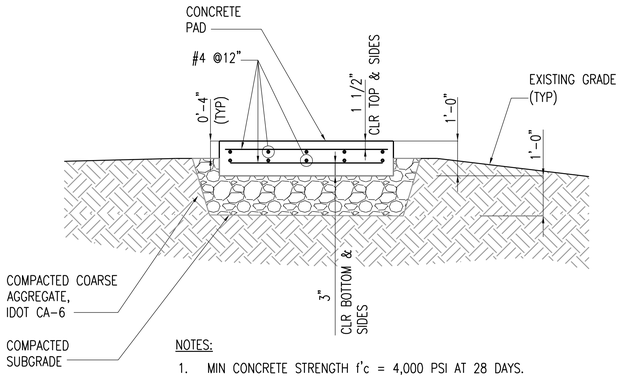
ELECTRICAL NOTES, SYMBOLS, & LEGEND

Illinois Firm Registration No.: 184-001533

DESIGNED	S. KOSS
DRAWN	B. KOWALCZYKOWSKA
CHECKED	M. ZARGAR
APPROVED	M. ZARGAR
APPROVED	
DATE	12-16-2011

SCALE: NO SCALE
NO. 23778.01.00
REV. 0
EG01

AT FULL SIZE
0 1 2 3 IN
0 1 2 3 4 5 6 7 8 cm

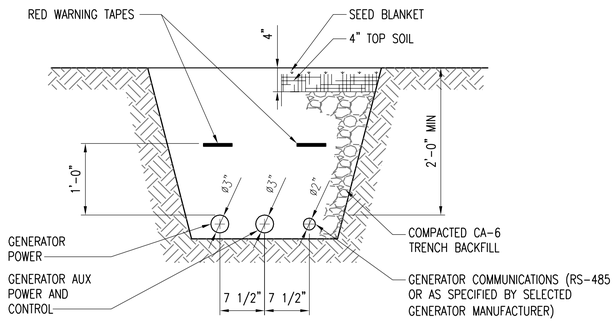


NOTES:

1. MIN CONCRETE STRENGTH f'c = 4,000 PSI AT 28 DAYS.
2. REINFORCING fy = 60,000 PSI
3. PROVIDE SLEEVES FOR POWER AND CONTROL AS INDICATED ON PLAN DRAWINGS.

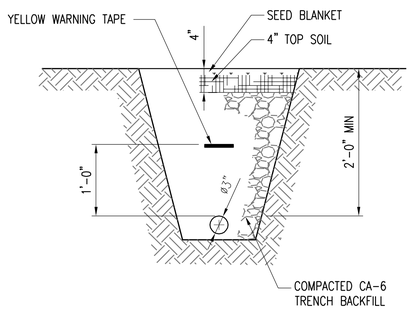
CONCRETE PAD FOR STANDBY GENERATOR
NO SCALE

SECTION A-EG02 / EP01



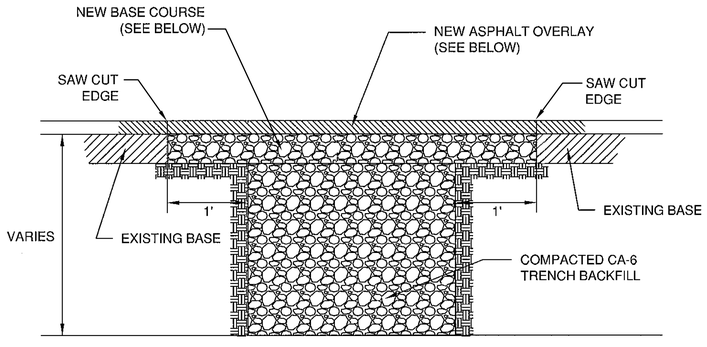
DIRECT-BURIED GENERATOR DUCTS
NO SCALE

SECTION B-EG02 / EP01



DIRECT-BURIED GENERATOR GAS LINE
NO SCALE

SECTION C-EG02 / EP01

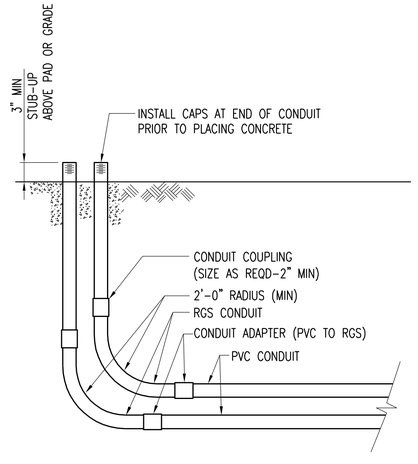


NOTES:

1. ASPHALT OVERLAY SHALL MATCH EXISTING ASPHALT THICKNESS (4" MIN.)
2. BASE COURSE SHALL MATCH EXISTING BASE COURSE THICKNESS (8" MIN.).

PAVEMENT RESTORATION
NO SCALE

SECTION D-EG02 / EP01



ELECTRICAL DUCT BANK STUB-UP AT GRADE OR PAD
NO SCALE

SECTION E-EG02 / EP01

LICENSED PROFESSIONAL ENGINEER
MAJID ZARGAR
062-047370
OF ILLINOIS
EXP. DATE 11/30/13

NO.	REVISIONS	DSGN	CHKD	APVD	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleyconsultants.com

JOLIET JUNIOR COLLEGE
EMERGENCY GENERATOR
ROMEOVILLE, ILLINOIS

DETAILS

Illinois Firm Registration No.: 184-001533

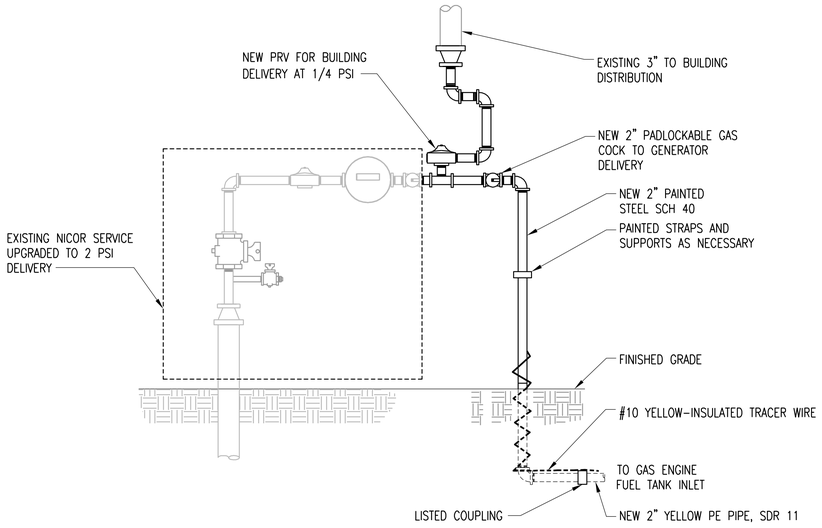
DESIGNED	S. KOSS
DRAWN	B. KOWALCZYKOWSKA
CHECKED	M. ZARGAR
APPROVED	M. ZARGAR
APPROVED	
DATE	12-16-2011

SCALE: AS NOTED

NO. 23778.01.00 — REV. 0

EG02

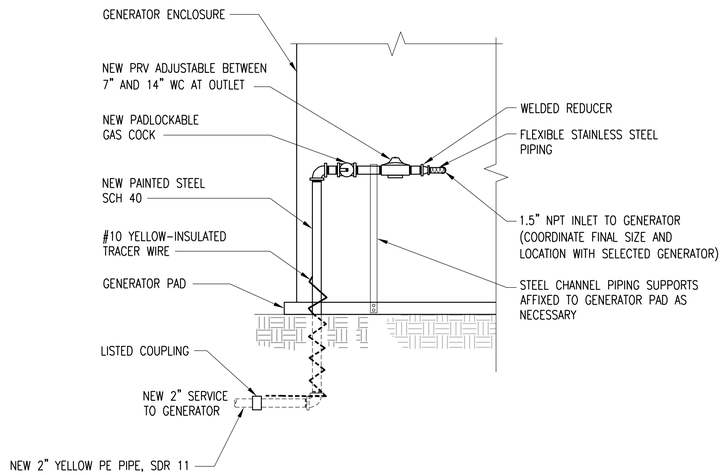
AT FULL SIZE
0 1 2 3 IN
0 1 2 3 4 5 6 7 8 cm



GAS SERVICE MODIFICATION AT BUILDING

NO SCALE

DETAIL A-EG03 / EP01



GAS SERVICE AT GENERATOR

NO SCALE

DETAIL B-EG03 / EP01

EXP. DATE 11/30/13

NO.	REVISIONS	DSGN	CHKD	APVD	DATE

Stanley Consultants INC.

8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleyconsultants.com

JOLIET JUNIOR COLLEGE
EMERGENCY GENERATOR
ROMEOVILLE, ILLINOIS

MECHANICAL DETAILS

Illinois Firm Registration No.: 184-001533

DESIGNED	S. KOSS
DRAWN	B. KOWALCZYKOWSKA
CHECKED	M. ZARGAR
APPROVED	M. ZARGAR
APPROVED	
DATE	12-16-2011

SCALE: AS NOTED

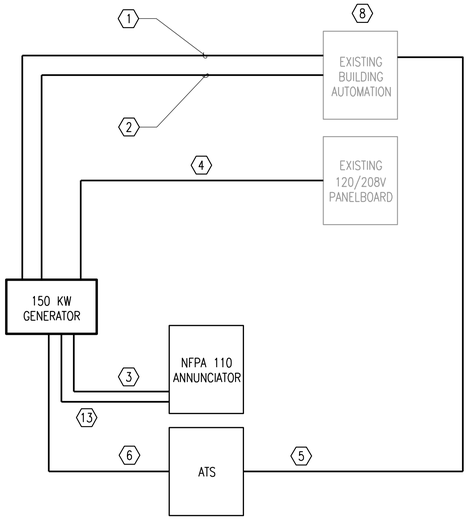
NO. 23778.01.00 | REV. 0

EG03

AT FULL SIZE
0 1 2 3 IN
0 1 2 3 4 5 6 7 8 cm

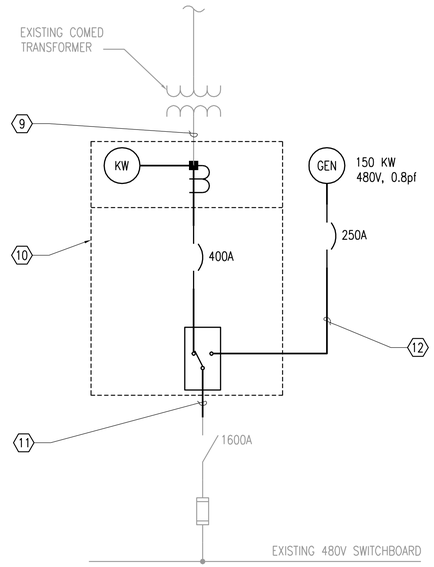
23778.01.00-C:\PROJECTS\DATASOURCE-I:\COMMON\DMS73695\04_2377801_EG03.DWG

CADD D1-R3



CONTROL WIRING BLOCK DIAGRAM ⟨7⟩

NO SCALE



PROPOSED ONE LINE

GENERAL NOTES:

1. COORDINATE DEMOLITION AND CUTOVER OF SERVICE WITH COMED, NICOR, AND OWNER TO MINIMIZE DOWNTIME.

KEY NOTES:

⟨1⟩ GENERATOR RUN STATUS. 2-#14.

⟨2⟩ GENERATOR FAULT STATUS (AUX 1 CONTACT AT GENERATOR). 2-#14.

⟨3⟩ MODBUS/RTU COMMUNICATIONS. RS-485 SHIELDED TWISTED PAIR OR AS SPECIFIED BY SELECTED GENERATOR MANUFACTURER, IN DEDICATED CONDUIT.

⟨4⟩ PROVIDE 1-POLE 50A BREAKER FOR GENERATOR BATTERY CHARGER, HEATERS, AND CONTROL POWER. PROVIDE 2-#8 AND 1-#8 GND.

⟨5⟩ 3-PHASE VOLTAGE LOSS SIGNAL. 2-#14.

⟨6⟩ GENERATOR START COMMAND. 2-#14.

⟨7⟩ CONTROL CABLING AND GENERATOR AUX POWER SHALL BE AGGREGATED IN ONE DUCT. RS-485/SPECIFIED GENERATOR COMMUNICATIONS CABLE SHALL BE IN ITS OWN DUCT.

⟨8⟩ CONTRACT WITH BUILDING AUTOMATION SYSTEM VENDOR JCI AS PART OF THIS PROJECT TO INTEGRATE THE THREE DISCRETE INPUTS INTO THE EXISTING BAS PANEL. POINTS SHALL BE REMOTELY VIEWABLE AT THE MAIN CAMPUS AND A SCREEN CREATED TO SHOW THEM. ALL REQUIRED HARDWARE SHALL BE INCLUDED AS WELL.

⟨9⟩ FOUR SETS OF 4-1/C 500kcmil SERVICE ENTRANCE CABLES EXIST BETWEEN TRANSFORMER AND SWITCHBOARD. REMOVE 2 SETS OF THESE CABLES, LEAVING TWO OF THE FOUR EXISTING DUCTS AS SPARE. CAP SPARE CONDUITS.

⟨10⟩ SERVICE ENTRANCE RATED AUTOMATIC TRANSFER SWITCH WITH CECHA-APPROVED CT COMPARTMENT. EQUIPMENT ASSEMBLY SHALL BE APPROVED BY COMED AND ENGINEER PRIOR TO ANY CONSTRUCTION.

⟨11⟩ PROVIDE TWO SETS OF 4-1/C 500kcmil AND 1/C #3 GND BETWEEN TRANSFER SWITCH AND SWITCHBOARD. PROVIDE TWO 3" RGS SLEEVES AS NECESSARY. REUSE OF EXISTING SLEEVES AND CABLES IS ACCEPTABLE IF ROUTING AND LENGTH ALLOWS.

⟨12⟩ PROVIDE 4-1/C 300kcmil AND 1/C #4 GND BETWEEN GENERATOR AND TRANSFER SWITCH.

⟨13⟩ PROVIDE 2-#10 FOR 24VDC POWER FROM GENERATOR TO NFPA 110 REMOTE ANNUNCIATOR.

LICENSED PROFESSIONAL ENGINEER
MAJID ZARGAR
062-047870
OF ILLINOIS

EXP. DATE 11/30/13

m. zarga

NO.	REVISIONS	DSGN	CHKD	APVD	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleyconsultants.com

JOLIET JUNIOR COLLEGE
EMERGENCY GENERATOR
ROMEOVILLE, ILLINOIS

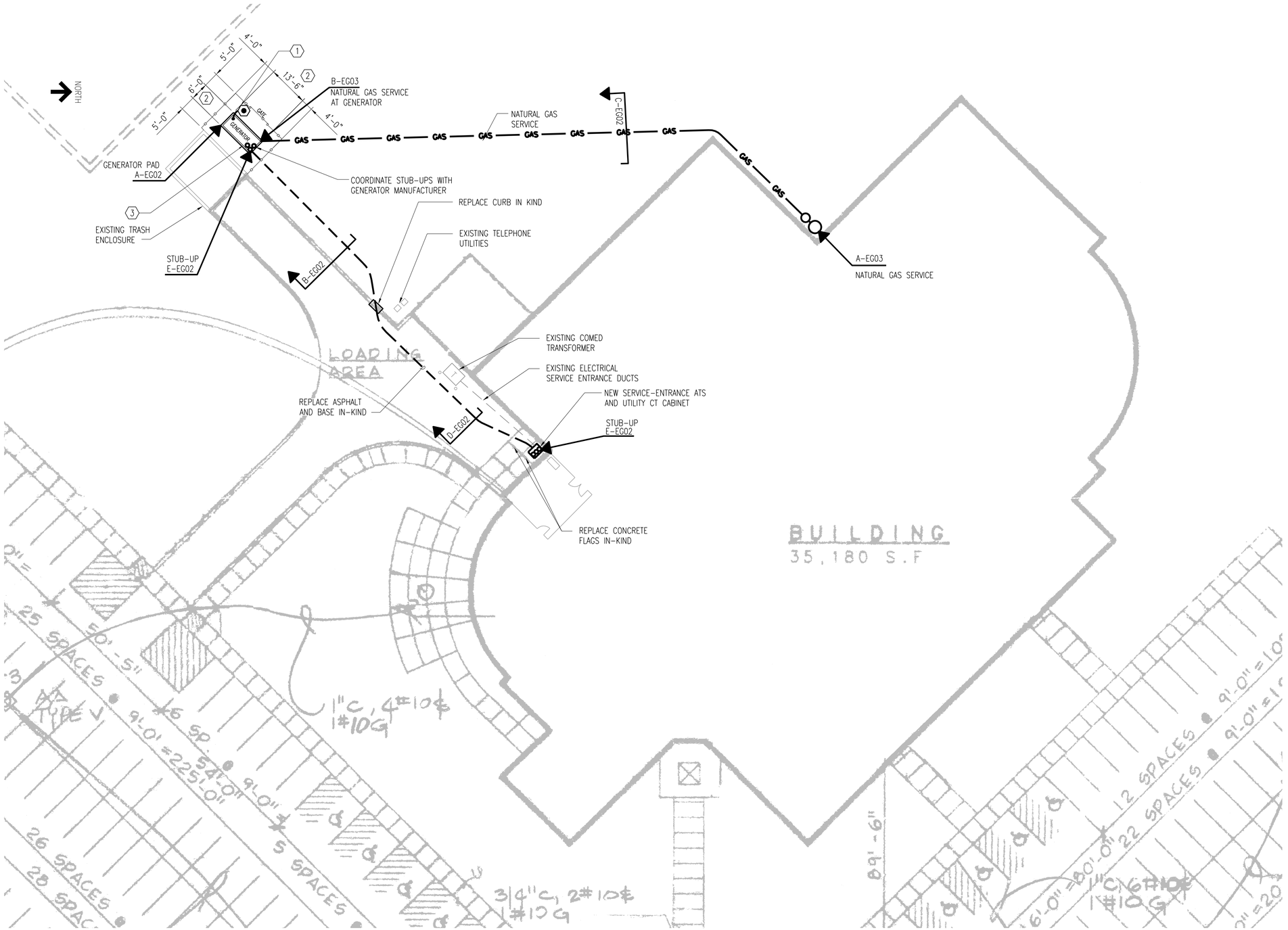
ONE LINE AND CONTROLS

Illinois Firm Registration No.: 184-001533

DESIGNED	S. KOSS
DRAWN	B. KOWALCZYKOWSKA
CHECKED	M. ZARGAR
APPROVED	M. ZARGAR
APPROVED	
DATE	12-16-2011

SCALE: NOT TO SCALE

NO. 23778.01.00 E001 REV. 0



KEY NOTES:

1. PROVIDE WHITE VINYL FENCE AROUND PERIMETER OF GENERATOR PAD ACCORDING TO THE FOLLOWING:
   - FENCING PERIMETER AND OFFSET FROM GENERATOR PAD FOUNDATION AS SHOWN ON DRAWINGS
   - ALL MATERIALS SHALL BE COMMERCIAL GRADE
   - SECTIONS:
     - 6 FOOT HIGH
     - 8 FOOT WIDE NOMINAL
     - PRIVACY TONGUE AND GROOVE CONSTRUCTION
     - MINIMUM 0.06" THICK VINYL
     - ALUMINUM REINFORCED BOTTOM RAIL
     - MOUNTED 3" ABOVE GRADE
   - POSTS:
     - 5" X 5", DEPTH PER MANUFACTURER'S RECOMMENDATIONS
     - POST CAPS: FEDERATION
     - GATE POSTS SHALL HAVE ALUMINUM INSERTS FOR ADDED STRENGTH
     - INSTALLED PER MANUFACTURER'S RECOMMENDATIONS, MINIMUM 30" DEPTH WITH CONCRETE
   - GATE:
     - TWO 44.5" DOUBLE GATES
     - STAINLESS STEEL HARDWARE AND LATCH, PADLOCKABLE
   - ACCEPTABLE MANUFACTURER AND MODEL:
     - USA VINYL FENCE COMPANY, SAVANNAH SERIES
     - HOOVER FENCE, NEW LEXINGTON SERIES
2. COORDINATE FINAL GENERATOR PAD DIMENSIONS WITH SELECTED GENERATOR MANUFACTURER, MINIMUM 6" CONCRETE BEYOND GENERATOR ENCLOSURE LIMITS ON ALL SIDES.
3. SEAL ALL GENERATOR ENCLOSURE PENETRATIONS TO PREVENT THE ENTRANCE OF RODENTS AND OTHER ANIMALS.
4. PROVIDE 1" RGS STUB-UP SLEEVE, GROUND ROD, AND BARE 4/0 COPPER CONDUCTOR. BOND EQUIPMENT TO NEW GROUND.

ROMEOVILLE CAMPUS - SITE PLAN

SCALE: 1/16" = 1'-0"

CALL JULIE TOLL FREE 1-800-892-0123

AT FULL SIZE
0 1 2 3 IN
0 1 2 3 4 5 6 7 8 cm

MAJID ZARGAR 062-047370
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS
EXP. DATE 11/30/13

NO.	REVISIONS	DSGN	CHKD	APVD	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleyconsultants.com

JOLIET JUNIOR COLLEGE
EMERGENCY GENERATOR
ROMEOVILLE, ILLINOIS

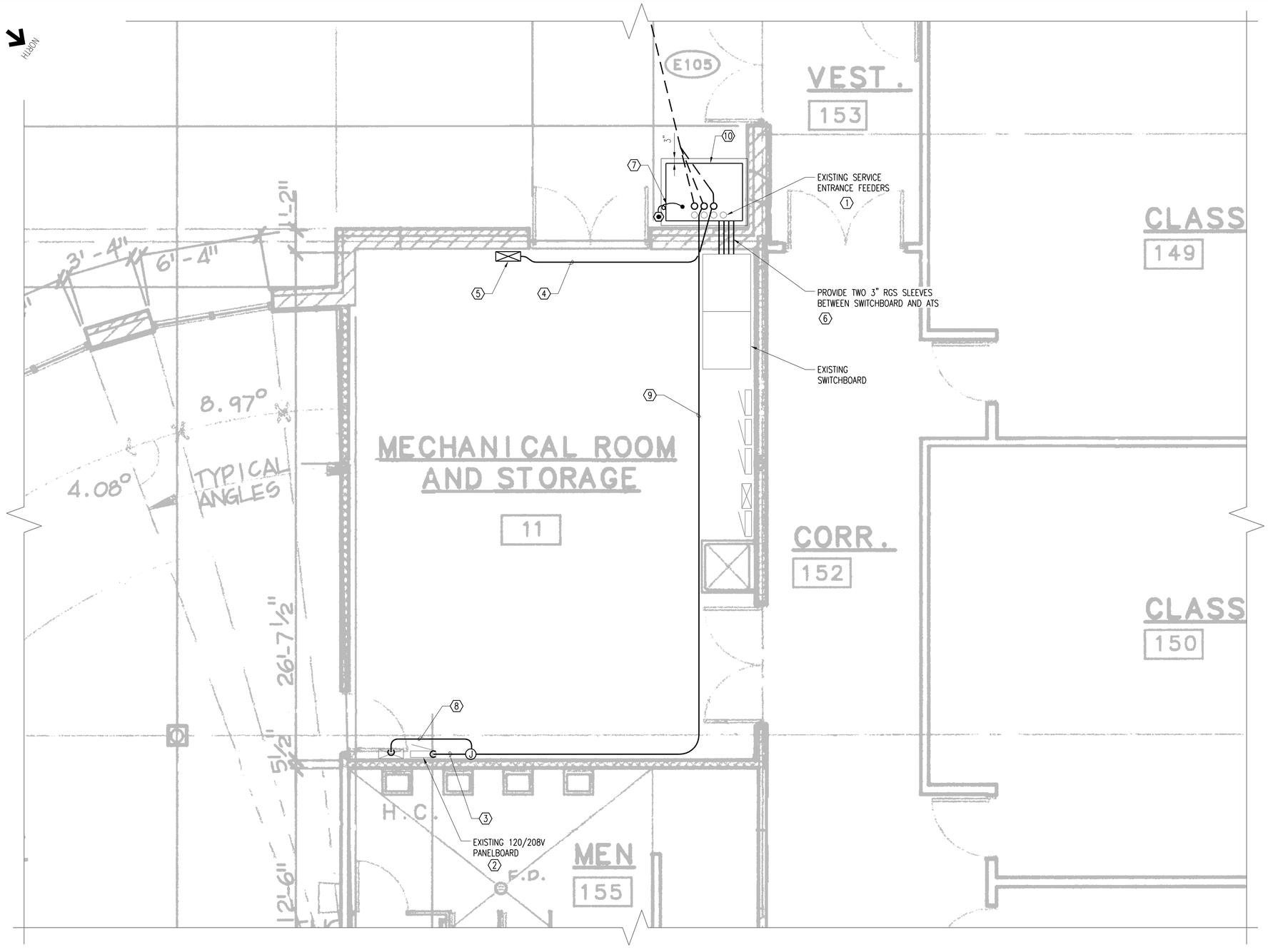
ROMEOVILLE CAMPUS
SITE PLAN

Illinois Firm Registration No.: 184-001533

DESIGNED	S. KOSS
DRAWN	B. KOWALCZYKOWSKA
CHECKED	M. ZARGAR
APPROVED	
APPROVED	
DATE	12-16-2011

SCALE: AS NOTED
NO. 23778.01.00
REV. 0
EP01

23778.01.00-C:\PROJECTS\DATASOURCE-1\COMMON\DMS73695\06_2377801_EP01.DWG
CADD 01-R3



NORTH CAMPUS – BUILDING

SCALE: 3/8" = 1'-0"

GENERAL NOTES:

1. COORDINATE DEMOLITION AND CUTOVER OF SERVICE WITH COMED, NICOR, AND OWNER TO MINIMIZE DOWNTIME.

KEY NOTES:

(1) FOUR SETS OF 4–1/C 500kcmil SERVICE ENTRANCE CABLES EXIST BETWEEN TRANSFORMER AND CT CABINET, AND SWITCHBOARD. REMOVE 2 SETS OF THESE CABLES, LEAVING TWO OF THE FOUR EXISTING DUCTS AS SPARE. CAP SPARE CONDUITS.

(2) PROVIDE 1–POLE 50A BREAKER FOR GENERATOR BATTERY CHARGER, HEATERS, AND CONTROL POWER.

(3) PROVIDE 2–#8 AND 1–#8 GND IN 3/4" CONDUIT. EMT FOR INDOORS. PROVIDE RGS SLEEVE THROUGH WALL TO TRANSFER SWITCH.

(4) PROVIDE MODBUS/RTU COMMUNICATIONS RS–485 SHIELDED TWISTED PAIR OR AS SPECIFIED BY SELECTED GENERATOR MANUFACTURER TO NFPA 110 REMOTE ANNUNCIATION PANEL. ALSO PROVIDE 2–#10 FOR 24VDC POWER FROM GENERATOR TO NFPA 110 PANEL, ALL IN 3/4" EMT.

(5) MOUNT NFPA 110 REMOTE ANNUNCIATION PANEL (PROVIDED BY GENERATOR MANUFACTURER) IN AVAILABLE WALL SPACE. FINAL LOCATION PER OWNER'S DIRECTION.

(6) PROVIDE TWO 3.5" RGS SLEEVES AS NECESSARY. REUSE OF EXISTING SLEEVES IS ACCEPTABLE IF ROUTING ALLOWS.

(7) PRIOR TO PLACING HOUSEKEEPING PAD, PROVIDE NEW 10', 3/4" COPPER CLAD STEEL GROUND ROD AND BARE 4/0 COPPER CONDUCTOR IN 1" RGS STUB–UP SLEEVE ADJACENT TO TRANSFER SWITCH. BOND BUILDING NEUTRAL TO GROUND AT THIS POINT. GROUND ROD SHALL BE 4" ABOVE FINISHED GRADE. PROVIDE EXOTHERMIC CONNECTION BETWEEN NEUTRAL BOND AND GROUND ROD.

(8) PROVIDE CONTROL CABLES AS INDICATED IN CONTROL WIRING BLOCK DIAGRAM TO EXISTING BUILDING AUTOMATION SYSTEM IN 3/4" EMT.

(9) CONTROL CABLES AND GENERATOR AUX POWER IN 1–1/2" CONDUIT. EMT FOR INDOORS. PROVIDE RGS SLEEVE THROUGH WALL AND DOWN TO DUCT.

(10) INTEGRATED UTILITY CT CABINET AND METERING, SERVICE ENTRANCE DISCONNECT AND AUTOMATIC TRANSFER SWITCH. EQUIPMENT SHALL BE APPROVED BY COMED AND ENGINEER PRIOR TO ANY CONSTRUCTION. PROVIDE 4" HEIGHT CONCRETE HOUSEKEEPING PAD. PROTECT EXISTING CONDUITS WHILE PLACING CONCRETE.

CALL JULIE TOLL FREE 1-800-892-0123

ILLINOIS PROFESSIONAL ENGINEER
MAJID ZARGAR
062-047370
OF ILLINOIS

EXP. DATE 11/30/13

NO.	REVISIONS	DSGN	CHKD	APVD	DATE

Stanley Consultants INC.

8501 West Higgins Road, Suite 730, Chicago, Illinois 60631–2801
www.stanleyconsultants.com

JOLIET JUNIOR COLLEGE
EMERGENCY GENERATOR
ROMEOVILLE, ILLINOIS

ROMEOVILLE CAMPUS
BUILDING PLAN

Illinois Firm Registration No.: 184–001533

DESIGNED	S. KOSS
DRAWN	B. KOWALCZYKOWSKA
CHECKED	M. ZARGAR
APPROVED	M. ZARGAR
APPROVED	
DATE	12–16–2011

SCALE: AS NOTED

NO. 23778.01.00 | REV. 0

EP02

AT FULL SIZE
0 1 2 3 IN
0 1 2 3 4 5 6 7 8 cm

23778.01.00–C:\PROJECTS\DATASOURCE–1\COMMON\DMS73695\07_23778011_EP02.DWG
CADD D1–R3