

GENERAL ELECTRICAL NOTES:

1. IF THERE IS A DISCREPANCY BETWEEN DRAWINGS, DETAILS, OR SPECIFICATIONS, THE E.C. SHALL PROCEED WITH THE MOST STRINGENT OPTION UNLESS AN RFI IS PROVIDED TO THE ENGINEER.
2. SINGLE LINE DIAGRAMS ARE DIAGRAMMATIC IN NATURE TO DEPICT INTENDED WORK, DIAGRAMS ARE BASED OFF OF VISUAL INSPECTIONS AND AS-BUILT DOCUMENTS. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO ANY WORK STARTING.
3. EQUIPMENT INFORMATION SHOWN ON SINGLE LINE DIAGRAMS SUCH AS VOLTAGE, AMPERAGE, AND PHASING ARE BASED ON VISUAL INSPECTION AND AS-BUILT DOCUMENTS. NOT ALL INFORMATION IS SHOWN ON EQUIPMENT CALLOUTS.
4. ALL EXISTING TO REMAIN EQUIPMENT, SHOWN OR NOT SHOWN, SHALL BE SAFEGUARDED THROUGH ALL PHASES OF PROJECT.
5. ALL HARDWARE UTILIZED FOR ATTACHING ELECTRICAL EQUIPMENT IN EXTERIOR LOCATIONS SHALL BE 316 STAINLESS STEEL. ALL OUTDOOR ENCLOSURES SHALL BE NEMA 4X STAINLESS STEEL.
6. ALL EQUIPMENT NOTED TO BE PROVIDED NEW IN EXTERIOR SPACES SHALL BE PROVIDED WITH UNISTRUT STRUCTURES IF REQUIRED AND NEMA 4X RATED ENCLOSURES WITH LOCKABLE DOORS.
7. IN ADDITION TO ITEMS SHOWN ON THE PLANS, FURNISH AND INSTALL ALL REQUIRED CONDUITS, CABLES, WIRES, FITTINGS, BOXES, AND HARDWARE FOR A COMPLETE AND OPERABLE ELECTRICAL SYSTEM.
8. ALL PROPOSED CONDUCTORS SHALL BE XHHW-2 COPPER CABLE UNLESS NOTED OTHERWISE.
9. CONDUITS AND BOXES SHALL BE INSTALLED IN THE LEAST OBTRUSIVE MANNER POSSIBLE. COORDINATE LOCATION OF HANDHOLES AND MANHOLES WITH LRTA AND SITE CONDITIONS.
10. FINAL LOCATION OF ALL EQUIPMENT SHALL BE DETERMINED IN FIELD AND SHALL BE INSTALLED AS DIRECTED BY THE ARCHITECT OR OWNERS REPRESENTATIVE.
11. COORDINATE ALL WORK WITH THE CIVIL DRAWING, INCLUDING BUT NOT LIMITED TO, UTILITIES AND GRADING.
12. CONDUITS SHALL BE INSTALLED IN ACCORDANCE WITH TABLE 300.5 DEPTHS BASED ON FINAL GRADING ELEVATIONS AND EXISTING FIELD CONDITIONS. PROVIDE SUBMISSIONS TO ENGINEER AND OWNER FOR REVIEW PRIOR TO INSTALLATION.
13. COORDINATE ALL EQUIPMENT FOUNDATIONS WITH EXISTING AND NEW UTILITIES. FINAL ELEVATIONS ABOVE GRADE SHALL BE BASED ON FINAL GRADING PLANS.
14. GROUNDING CONDUCTORS SHALL BE CONTINUOUS AND SHALL BE SIZED PER NEC. GROUNDING CONNECTIONS ARE TO BE MADE WITH IRREVERSIBLE TYPE CONNECTIONS. PROVIDE PERMANENT LABEL TO IDENTIFY GROUNDING CONDUCTORS TERMINATING AT GROUNDING BAR. PROVIDE A PERMANENT PLAQUE TO READ "CAUTION SYSTEM GROUND CONNECTIONS, DO NOT DISCONNECT."
15. PLANS ARE INTENDED ONLY TO INDICATE THE GENERAL MAGNITUDE OF THE WORK, AND DO NOT INDICATE EVERY PANELBOARD, TRANSFORMER, RECEPTACLE, ETC. THAT EXISTS IN THE SPACE. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID TO FULLY UNDERSTAND THE SCOPE OF DEMOLITION & NEW WORK.
16. DISCONNECT AND MAKE SAFE ALL SYSTEMS AND EQUIPMENT TO BE REMOVED. REMOVE ABANDONED RACEWAY AND CONDUCTORS.
17. IDENTIFY AND MAINTAIN ANY CIRCUITS PASSING THROUGH THE DEMOLITION AREA THAT ARE NOT INTENDED TO BE DEMOLISHED.
18. COORDINATE SCHEDULING OF DEMOLITION WORK WITH OTHER TRADES AND LRTA.
19. MAINTAIN EXISTING CIRCUITS, LIGHTING, ELECTRICAL EQUIPMENT, MECHANICAL EQUIPMENT, ETC. AS NEEDED FOR DEMOLITION WORK OF ALL TRADES.
20. WHERE EXISTING LIGHTING AND CIRCUITS NEEDED FOR DEMOLITION WORK CANNOT BE MAINTAINED FOR ANY REASON, PROVIDE TEMPORARY LIGHTING AND POWER AS REQUIRED FOR DEMOLITION WORK.
21. COORDINATE ALL SHUTDOWNS WITH UTILITY AND OWNERS REPRESENTATIVE. OWNERS REPRESENTATIVE SHALL BE NOTIFIED (45) DAYS PRIOR TO ANY SERVICE INTERRUPTIONS.
22. E.C. SHALL PROVIDE TEMPORARY POWER TO ELEVATORS DURING ALL SHUTDOWNS. E.C. SHALL COORDINATE TEMPORARY POWER PRIOR TO COMMENCEMENT OF WORK.
23. ALL FLOORSTOP AND RACEWAY PENETRATIONS THROUGH FIRE-RATED WALLS AND FLOOR/CEILING ASSEMBLIES SHALL BE FIRESTOPPED IN ACCORDANCE WITH THE IBC AND NFPA 101.
24. ALL FIRESTOP SYSTEMS SHALL BE UL LISTED AND INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS.
24. EXISTING UNDERGROUND WIRE AND CONDUIT NOTED TO BE REMOVED SHALL HAVE WIRE PULLED FROM CONDUITS AND CONDUITS SHALL BE CUT, CAPPED, AND ABANDONED IN PLACE UNLESS OTHERWISE NOTED.
25. ALL ELECTRICAL WORK MUST COMPLY WITH NFPA 70E: STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE. CONTRACTORS ARE REQUIRED TO FOLLOW ALL SAFETY PROCEDURES OUTLINED IN THIS STANDARD, INCLUDING THE USE OF APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) AND ENSURING THAT ALL PERSONNEL ARE TRAINED IN ELECTRICAL SAFETY PRACTICES.
26. ALL MATERIALS AND EQUIPMENT SHALL BE LISTED AND LABELED BY THE UNDERWRITER LABORATORIES AND SHALL BE INSTALLED IN ACCORDANCE WITH SUCH LISTINGS. ALL INSTALLATIONS SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
27. PROVIDE A SUBMITTAL OF ALL ELECTRICAL EQUIPMENT AND COMPONENTS TO BE FURNISHED AND INSTALLED ON THIS PROJECT.
28. GENERATOR INSTALLATION SHALL MEET ALL REQUIREMENTS OF ARTICLE 702 OF THE NATIONAL ELECTRICAL CODE. GENERATOR "BELLY-TYPE" FUEL TANK SHALL BE SIZED FOR A MINIMUM 72HOURS AT FULL LOAD.
29. ABOVE GROUND CONDUITS TRANSITIONING TO UNDERGROUND SHALL EXTEND 18" BELOW GROUND PRIOR TO PVC SCH. 40 TRANSITION. REFER TO NEC ARTICLE 300.7 FOR MORE INFORMATION.
30. E.C. SHALL PERFORM ALL CUTTING, PATCHING, AND RESTORATION OF FINISHES NECESSARY FOR WORK SURFACES DAMAGED DURING WORK. SPACES AROUND CONDUITS PASSING THROUGH WALLS AND FLOORS SHALL BE NEATLY PATCHED AND FINISHED TO MATCH EXISTING. STRUCTURAL MEMBERS SHALL NOT BE DISTURBED IN ANY MANNER. ALL CONDUIT PENETRATIONS SHALL BE SEALED TO PREVENT ENTRANCE OF MOISTURE. PROVIDE FIRE STOPPING PER UL APPROVED METHODS.
31. ALL CABLING RUN INSIDE BUILDING IN PROJECT SHALL BE PLENUM RATED.
32. E.C. SHALL SUBMIT DRAWINGS FOR REVIEW FOR ELEVATOR STEP CONTROLS AS COORDINATED WITH ELEVATOR CONTROLS CONTRACTOR AND ATS VENDOR.

ABBREVIATIONS

A	AMPERAGE/AMP
AIC	AMPERAGE INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
CCTV	CLOSED CIRCUIT TELEVISION
CU	COPPER
(D)	TO BE DEMOLISHED
DISC	DISCONNECT
E.C.	ELECTRICAL CONTRACTOR
EXISTING, E. (E)	EXISTING/ EXISTING TO REMAIN
G, GND	GROUND
GFI, GFCI	GROUND FAULT (CIRCUIT) INTERRUPTER
JW	JUNCTION BOX
KVA	KILOVOLT AMPERES
KB	KILOWATTS
LED	LIGHT EMITTING DIODE
LRTA	LOWELL REGIONAL TRANSIT AUTHORITY
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUG ONLY
MTS	MANUAL TRANSFER SWITCH
(N)	NEW/PROPOSED TO BE INSTALLED
N	NEUTRAL
NTS	NOT TO SCALE
ø	PHASE
P	POLE
PB	PULL BOX
(R)	RELOCATED
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V	VOLTS

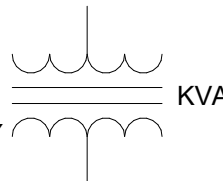
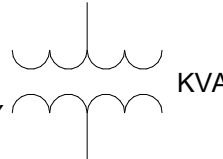
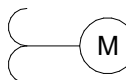
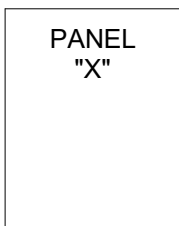
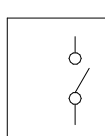
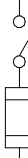
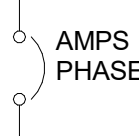
ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	PANELBOARD, TYPE AS DENOTED. TYPE NEMA 1 ENCLOSURE U.O.N.
	TRANSFORMER, TYPE AS DENOTED. TYPE NEMA 1 ENCLOSURE U.O.N.
	DISCONNECT SWITCH, UNIT RATING AND FUSE SIZE AS DENOTED, ALL UNITS SHALL BE NEMA 1 U.O.N. ALL FUSED SWITCHES SHALL BE PROVIDED WITH APPROPRIATE SIZED RK1 FUSES.
	120V, 20A DUPLEX RECEPTACLE, COMMERCIAL GRADE, TYPE AS DENOTED. GFCI = GROUND FAULT CIRCUIT INTERRUPTER, T = TAMPER RESISTANT, S = SURFACE MOUNT, WP = WATERPROOF COVER. COLOR AS SELECTED BY OWNERS REPRESENTATIVE.
	CONDUIT RUN UNDERGROUND
	CONDUIT RUN ABOVEGROUND
	CONDUIT LB FITTING
	CIRCUIT HOMERUN. WIRING SHALL BE (2) #12 AWG CU. & (1) #12 AWG CU. GND. IN 3/4" U.O.N. PANEL DESIGNATION AND CIRCUIT NUMBER AS NOTED.
	EXISTING TO REMAIN
	NEW WORK
	EXISTING TO BE DEMOLISHED
	KEY NOTE, # DENOTES KEY NOTE NUMBER

ELECTRICAL SHEET LIST

SHEET NUMBER	SHEET NAME
E001	NOTES, SYMBOLS & SHEET LIST
E002	NOTES
E100	ELECTRICAL GENERATOR SITE PLAN
E101	ELECTRICAL ENLARGED POWER PLANS
E600	ELECTRICAL DETAILS
E700	ELECTRICAL SINGLE LINE DIAGRAM

SINGLE LINE DIAGRAM SYMBOLS

	ISOLATION TRANSFORMER
	TRANSFORMER
	UTILITY METER
	ELECTRICAL PANELBOARD
	NON-FUSED DISCONNECT
	FUSED DISCONNECT
	CIRCUIT BREAKER
	JUNCTION BOX
	GENERATOR
	AUTOMATIC TRANSFER SWITCH
	MOTOR
	CONTACTOR

CODE ANALYSIS

PROJECT DESCRIPTION

PROPOSED WORK IS LOCATED AT THE MAGUIRE TRANSPORTATION CENTER , 115 THORNDIKE STREET, LOWELL MA 01852.

THE SCOPE OF WORK INCLUDES THE INSTALLATION OF A CONCRETE PAD AND 250 KW STANDBY GENERATOR TO PROVIDE SUPPLEMENTAL POWER TO THE MAGUIRE TRANSPORTATION CENTER AT 115 THORNDIKE STREET, LOWELL, MA, AND THE GALLAGHER TERMINAL LOCATED AT 117 THORNDIKE STREET, LOWELL, MA.

NOTE: THERE IS NO CHANGE IN USE OR OCCUPANCY CLASSIFICATION.

APPLICABLE CODES

780 CMR MASSACHUSETTS STATE BUILDING CODE (EFFECTIVE 10/11/2024)
INTERNATIONAL BUILDING CODE (IBC) – 2021 EDITION
INTERNATIONAL EXISTING BUILDING CODE (IEBC) – 2021 EDITION
NFPA 110, STANDARD FOR EMERGENCY AND STANDBY POWER SYSTEMS -
2019 EDITION
527 CMR 12.00 MASSACHUSETTS ELECTRICAL CODE (EFFECTIVE 4/24/26)
NATIONAL ELECTRICAL CODE (NEC), NFPA 70 – 2026 EDITION

CLASSIFICATION OF WORK: ALTERATION - LEVEL 2. THE INSTALLATION OF ANY ADDITIONAL EQUIPMENT (PER IEBC – 2021 SECTION 603.1).

"LEVEL 2 ALTERATIONS INCLUDE THE ADDITION OR ELIMINATION OF ANY DOOR OR WINDOW, THE RECONFIGURATION OR EXTENSION OF ANY SYSTEM, OR THE INSTALLATION OF ANY ADDITIONAL EQUIPMENT, AND SHALL APPLY WHERE THE WORK AREA IS EQUAL TO LESS THAN 50 PERCENT OF THE BUILDING AREA."

OCCUPANCY CLASSIFICATION AND USE: SEPARATED MIXED USE OCCUPANCY

- GROUP B, BUSINESS GROUP B (ADMINISTRATIVE OFFICES)
- GROUP S-1, MODERATE-HAZARD STORAGE (MOTOR VEHICLE REPAIR GARAGES)
- GROUP S-2, LOW-HAZARD STORAGE (PUBLIC PARKING GARAGES)

CONSTRUCTION CLASSIFICATION: 2B

- FIRE PROTECTION AND LIFE SAFETY SYSTEMS**
- DRY SPRINKLER SYSTEM LEVEL 1; DRY STANDPIPE LEVEL 2 AND LEVEL 3.
 - PORTABLE FIRE EXTINGUISHERS (PER NFPA 10)
 - MANUAL FIRE ALARM SYSTEM (PER NFPA 72)

LUMINARE SCHEDULE

MARK	MANUFACTURER & MODEL (OR APPROVED EQUAL)	DESCRIPTION	MOUNTING	LAMP	WATTAGE	VOLTAGE	LUMENS	CCT	CRI	COMMENTS
A1	NLS LIGHTING / NV-W-T4-16L-40-30K8-UNV-WM-BRZ-PCR-MGF-GL	WALL MOUNTED LED FIXTURE, DIE CAST ALUMINUM HOUSING, SILICONE OPTICS, GLASS LENS, PHOTOCELL CONTROLLED, MARINE GRADE FINISH, 0-10V DIMMING DRIVER.	WALL MOUNT - 10'	LED	29 W	UNV	3544	3000K	80	E.C. SHALL COORDINATE EXACT LOCATION OF FIXTURE WITH EXISTING CONDITIONS.

PROJECT

COMMUTER RAIL & GALLAGHER TERMINAL GENERATOR

CLIENT

LOWELL REGIONAL
TRANSIT AUTHORITY

115 THORNDIKE STREET
LOWELL, MA 01852
978.459.0164 tel 978.458.9673 fax

www.lrta.com
CONSULTANT

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REGISTRATION

ISSUE/REVISION

[illegible]

0	AUG. 2026	ISSUED FOR BID
I/R	DATE	DESCRIPTION

KEY PLAN

PROJECT NUMBER

60778959

SHEET TITLE

NOTES, SYMBOLS & SHEET LIST

SHEET NUMBER

E001

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POST-INSTALLED ANCHORS:

1. POST-INSTALLED ANCHORS MUST CONFORM WITH ALL REQUIREMENTS OF ACI 318-19 - BUILDING CODE REQUIREMENTS OF STRUCTURAL CONCRETE.
2. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ANCHOR LOCATIONS, AS REQUIRED.
3. ALL ANCHORS MUST BE INSTALLED INTO DRY OR WATER SATURATED CONCRETE.
4. ANCHOR CAPACITY USED IN DESIGN MUST BE BASED ON THE TECHNICAL DATA PUBLISHED BY ANCHOR MANUFACTURER OR SUCH OTHER METHOD AS ACCEPTED BY THE STRUCTURAL ENGINEER. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE ACCEPTED IN WRITING BY THE STRUCTURAL ENGINEER. PRIOR TO USE, CONTRACTOR MUST PROVIDE CALCULATIONS STAMPED BY PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MASSACHUSETTS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT IN DRY AND WATER SATURATED CONCRETE. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. CONTRACTOR IS RESPONSIBLE FOR PREPARATION OF SHOP DRAWINGS IN ACCORDANCE WITH THE DESIGN DOCUMENTS. SUBMIT SHOP DRAWINGS TO THE STRUCTURAL ENGINEER FOR ACCEPTANCE.
5. FOR OVERHEAD APPLICATION OR ANCHOR WITH PERMANENT TENSION EXPOSED TO DYNAMIC LOAD SUCH AS FATIGUE, IMPACT, SHOCK LOAD; HEAVY DUTY EXPANSION ANCHOR SUCH AS HILTI HSL-4 OR HSL-3-R OR APPROVED EQUAL MUST BE USED FOR LOADS LESS THAN 500 POUNDS; HILTI HDA UNDERCUT ANCHORS OR APPROVED EQUAL MUST BE USED FOR LOADS IN EXCESS OF 500 POUNDS. THE USE OF ADHESIVE ANCHORS IS NOT ALLOWED.
6. INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.
7. DRILL HOLES WITH ROTARY IMPACT HAMMER DRILLS USING CARBIDE-TIPPED DRILL BIT, OR HOLLOW DRILL BIT WITH INTEGRAL VACUUM CLEAN AS PERMITTED BY ICC-ESR. USE OF DIAMOND CORE BIT WITH ROUGHENING TOOL MAY BE PERMITTED AFTER STRUCTURAL ENGINEER OF RECORD ACCEPTANCE. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, ALL HOLES MUST BE DRILLED PERPENDICULAR TO THE CONCRETE SURFACE.
8. THE CONTRACTOR MUST ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED.
9. THE CONTRACTOR MUST PROVIDE TO THE STRUCTURAL ENGINEER OF RECORD DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.
10. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
11. **CONTRACTOR TO NOTE WELL:** EXISTING PRE-STRESSING STRANDS AND REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. THE CONTRACTOR MUST REVIEW THE EXISTING STRUCTURAL DRAWINGS AND MUST UNDERTAKE TO LOCATE THE POSITION OF THE PRESTRESSING STRANDS AND REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS, BY GPR, X-RAY OR OTHER NON-DESTRUCTIVE MEANS. **ANCHOR LOCATIONS ARE TO BE ADJUSTED/MODIFIED BASED ON FIELD VERIFICATION TO ENSURE THAT EXISTING POST-TENSIONING STRANDS AND REINFORCING BARS ARE AVOIDED AND ARE NOT DAMAGED BY ANCHOR INSTALLATIONS.** SUBMIT FIELD VERIFICATIONS TO STRUCTURAL ENGINEER OF RECORD AND PHYSICALLY MARK IDENTIFIED BAR AND STRAND LOCATIONS IN THE FIELD TO ENSURE THAT ANCHORS ARE PLACED TO AVOID CONFLICT AND DAMAGE TO EXISTING REBAR & POST-TENSIONING. FOR DEVELOPMENT OF REVISED ANCHOR DETAILS. REFER TO "ADDITIONAL REQUIREMENTS & QUALIFICATIONS FOR WORK AT EXISTING PRESTRESSED CONCRETE".

SELECTIVE DEMOLITION/CORING:

1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR METHODS, PROCEDURES, AND SEQUENCES OF DEMOLITION AND FOR THE STABILITY AND INTEGRITY OF ALL EXISTING STRUCTURES, SIDEWALKS, UTILITIES, ETC. THE CONTRACTOR IS ALSO SOLELY RESPONSIBLE FOR ALL TEMPORARY BRACING, SHEETING, SHORING, ETC. REQUIRED TO COMPLETE DEMOLITION AND FOR PROTECTION OF ALL ADJACENT AND NEARBY STRUCTURES AND UTILITIES FROM DAMAGE DURING DEMOLITION. REFER TO GENERAL REQUIREMENT NOTES.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY AND ALL REPAIRS TO EXISTING STRUCTURAL ELEMENTS TO REMAIN WHICH ARE DAMAGED DURING DEMOLITION AND ALL OTHER PHASES OF THE PROJECT WORK, TO THE COMPLETE SATISFACTION OF THE OWNER. THE REPAIRS MUST BE WITHOUT ADDITIONAL COST TO THE OWNER. ALL STRUCTURAL REPAIR WORK MUST BE PREPARED BY THE CONTRACTOR'S ENGINEER, REGISTERED IN THE STATE OF MASSACHUSETTS, AND SUBMITTED FOR ACCEPTANCE TO THE SATISFACTION OF THE OWNER, DESIGNER, AND STRUCTURAL ENGINEER OF RECORD, PRIOR TO COMMENCING REPAIR WORK.
3. THE CONTRACTOR MUST SUBMIT A WORK PLAN FOR ALL STRUCTURAL DEMOLITION ACTIVITIES, INCLUDING DEMOLITION SEQUENCE, FOR REVIEW AND ACCEPTANCE BY THE OWNER AND DESIGNERS OF RECORD.
4. ALL EXISTING FRAMING IS NOT INDICATED AND MUST BE FIELD VERIFIED BY THE CONTRACTOR. THE CONTRACTOR MUST VERIFY THE EXACT EXTENT OF DEMOLITION AT THE SITE AND DETERMINE THE NATURE AND EXTENT OF DEMOLITION THAT WILL BE NECESSARY BY COMPARING THE CONTRACT DOCUMENTS WITH THE VERIFIED EXISTING CONDITIONS. ALL DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN IN THE CONTRACT DOCUMENTS MUST BE IMMEDIATELY REPORTED TO THE OWNER, DESIGNER, AND STRUCTURAL ENGINEER OF RECORD FOR EVALUATION BEFORE COMMENCING DEMOLITION.
5. THE CONTRACTOR MUST USE QUALIFIED, EXPERIENCED PERSONNEL FOR DEMOLITION AND REMOVAL OPERATIONS. PERFORM DEMOLITION AND REMOVAL OPERATIONS IN A CAREFUL AND ORDERLY MANNER TO PREVENT HAZARDS TO PERSONS, DAMAGE TO PROPERTY, AND THE SPREADING OF DUST AND DEBRIS.
6. THE CONTRACTOR MUST NOT PERMIT PORTIONS OF THE STRUCTURE TO FALL NOR DEBRIS TO DROP EXCEPT BY METHODS WHICH WILL ENSURE INTEGRITY OF THE STRUCTURE.
7. PRIOR TO THE START OF WORK, THE CONTRACTOR MUST VERIFY THAT THE SCOPE OF DEMOLITION INDICATED ON THE CONTRACT DOCUMENTS WILL NOT DAMAGE, CUT OR DISRUPT SERVICE OF ANY MECHANICAL SYSTEM, ELECTRICAL SYSTEM OR UTILITY EMBEDDED IN THE EXISTING STRUCTURE.
8. THE CONTRACTOR MUST NOT REMOVE MORE OF THE EXISTING STRUCTURE THAN INDICATED ON THE CONTRACT DOCUMENTS. THE CONTRACTOR MUST NOT DAMAGE, MAR, CUT OR DEFACE THE REMAINING STRUCTURE OR MATERIALS TO BE REUSED.
9. THE CONTRACTOR MUST INCLUDE IN HIS BID THE COST OF REMOVING DEMOLISHED MATERIALS FROM THE SITE IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES, AND REGULATIONS.
10. WHERE NEW OPENINGS IN EXISTING CONCRETE SLABS OR WALLS ARE TO BE CREATED, THE DEMOLITION CONTRACTOR MUST CORE HOLES AT THE OUTSIDE CORNERS OF THE NEW OPENING PRIOR TO DEMOLITION. SAW-CUT AND DEMOLISH SLAB OR WALL ONLY AFTER THE INSTALLATION OF ALL REQUIRED NEW STRUCTURAL FRAMING AND/OR REINFORCEMENT IN PLAN OR SECTION, UNLESS OTHERWISE NOTED. SAW CUTTING MUST BE STRAIGHT AND MUST NOT EXTEND INTO EXISTING SLAB OR WALL TO REMAIN NOR BEYOND THE HOLES CORED AT THE CORNERS OF THE NEW OPENING.

ADDITIONAL REQUIREMENTS & QUALIFICATIONS FOR WORK AT EXISTING PRESTRESSED CONCRETE :

1. PROJECT WORK INCLUDES ANCHORAGE TO EXISTING PRESTRESSED CONCRETE STRUCTURES. THE CONTRACTOR UNDERTAKING SUCH WORK MUST HAVE DEMONSTRATED EXPERIENCE WITH WORK OF SIMILAR SCOPE AND NATURE AND MUST SUBMIT A RECORD OF QUALIFICATIONS PACKAGE FULLY DOCUMENTING SUCH PRIOR EXPERIENCE. THE RECORD OF QUALIFICATIONS MUST BE SUBMITTED FOR REVIEW BY THE OWNER, DESIGNER, STRUCTURAL ENGINEER OF RECORD, PRIOR TO THE START OF WORK.
2. THE CONTRACTOR MUST TAKE EXTREME CARE FOR ANCHORAGE TO PORTIONS OF EXISTING PRESTRESSED CONCRETE STRUCTURAL ELEMENTS, AND FOR DEMOLITION / CORING WORKS DIRECTLY ADJACENT TO SUCH CONSTRUCTION, SO AS NOT TO DAMAGE ELEMENTS OF THE EXISTING PRESTRESSED CONCRETE STRUCTURAL ELEMENTS AND EMBEDDED PRESTRESSING STRANDS TO REMAIN.
3. IF ELEMENTS OF THE EXISTING PRESTRESSED CONCRETE STRUCTURES TO REMAIN ARE DAMAGED IN ANY WAY DURING THE WORK, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE OWNER, DESIGNER AND STRUCTURAL ENGINEER OF RECORD, AND ENGAGE A SPECIALIST STRUCTURAL ENGINEER, WITH DEMONSTRATED PRESTRESSING EXPERIENCE, FOR AN ASSESSMENT OF THE DAMAGE. CONTRACTOR MUST PROVIDE TEMPORARY SHORING TO SUPPORT THE STRUCTURE UNTIL SUCH AN ASSESSMENT BY THE SPECIALIST STRUCTURAL ENGINEER IS MADE AND ALL STRUCTURAL MITIGATION (IF DEEMED REQUIRED) IS COMPLETED AND ACCEPTED BY OWNER, DESIGNER, STRUCTURAL ENGINEER OF RECORD, AND SPECIALIST STRUCTURAL ENGINEER.

PROJECT

COMMUTER RAIL & GALLAGHER TERMINAL GENERATOR

CLIENT

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REGISTRATION



ISSUE/REVISION

0	AUG. 2026	ISSUED FOR BID
I/R	DATE	DESCRIPTION

KEY PLAN

PROJECT NUMBER

60778959

SHEET TITLE

NOTES

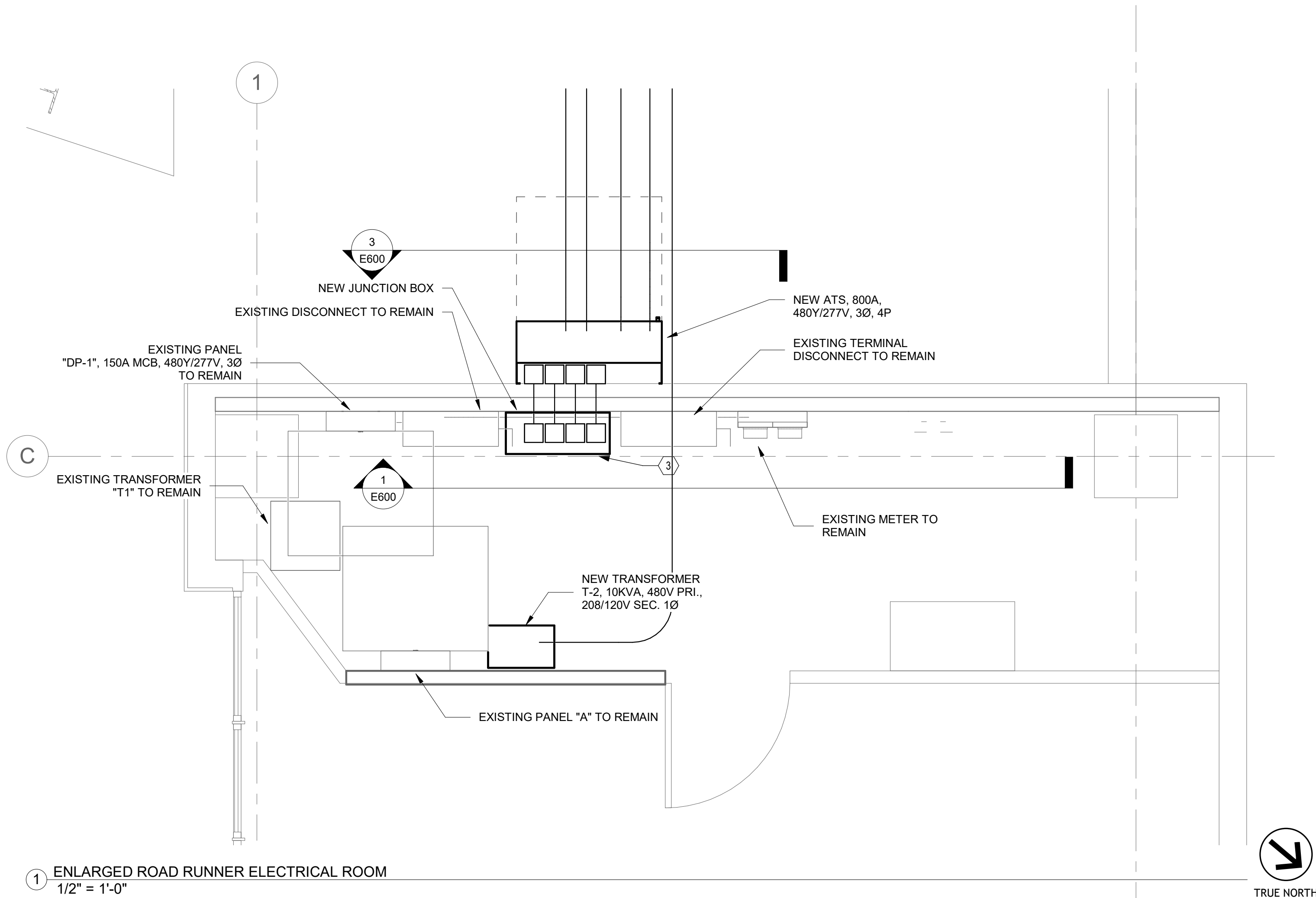
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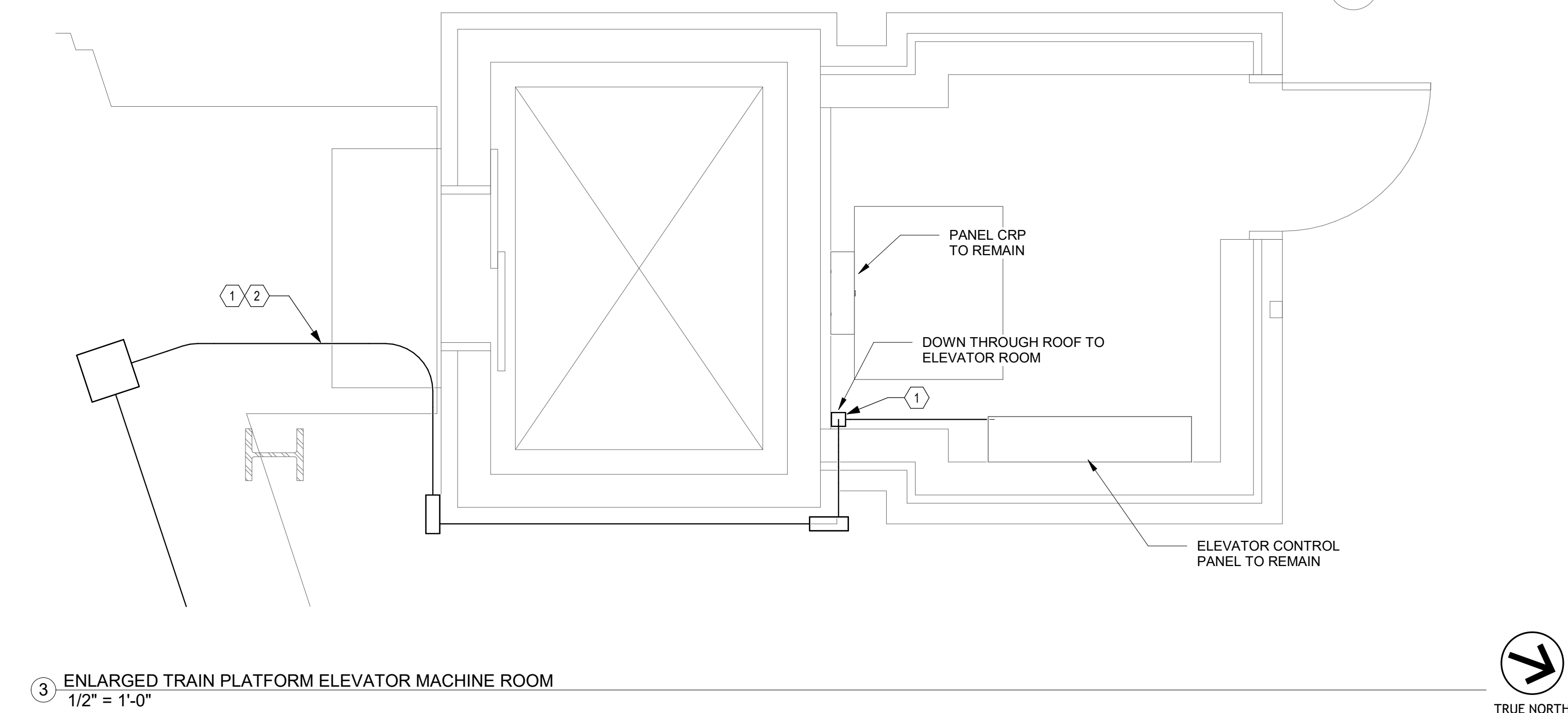
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E100

1	ELEVATOR EQUIPMENT AND CONTROLLERS ARE EXISTING TO REMAIN. EXISTING CONTROLLERS ARE ASSUMED TO BE MICROPROCESSOR-BASED WITH NATIVE CAPABILITY TO ACCEPT STANDARD ATS DRY-CONTACT LOGIC SIGNALS.
2	E.C. SHALL FURNISH AND INSTALL ALL REQUIRED HARDWIRED CONTROL CONDUITS AND CONDUCTORS (MINIMUM FOUR #14 AWG THHN/THWN 2, OR AS REQUIRED BY ELEVATOR MANUFACTURER) FROM THE ATS AUXILIARY CONTACTS TO THE ELEVATOR MACHINE ROOM. ADDITIONALLY WIRELESS SIGNAL TRANSMISSION OR RETROFIT STRATEGIES ARE STRICTLY PROHIBITED.
3	CONTRACTOR SHALL COORDINATE ALL ATS SIGNAL REQUIREMENTS, TERMINATION POINTS, AND INTEGRATION DETAILS WITH THE BUILDING'S ELEVATOR MODERNIZATION/MAINTENANCE PROVIDER (STEWART ELECTRICAL CONTRACTING, DAVID SILVER, O - 800-897-9423, C - 617-774-8924)
4	THE ELEVATOR CONTRACTOR SHALL WORK WITH THE ELEVATOR MAINTENANCE PROVIDER AND SHALL BE RESPONSIBLE FOR TERMINATING THE ATS SIGNALS BY WIRING TO THE ELEVATOR CONTROLLER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIGURING INTERNAL CONTROLLER PARAMETERS, AND VERIFYING THE SOFTWARE LOGIC REQUIRED TO PROPERLY RECEIVE AND EXECUTE THE ATS PRETRANSFER AND STANDBY POWER AVAILABLE SIGNALS.
5	ALL ELEVATOR SEQUENCING, RECALL, AND STANDBY POWER OPERATION SHALL BE FULLY AUTOMATED AND COMPLY WITH ALL REQUIREMENTS OF ASME A17.1 AND NEC ARTICLE 620. ANY LOW-VOLTAGE INTERFACE TERMINATIONS REQUIRED AT THE ELEVATOR CONTROLLER SHALL BE PERFORMED EXCLUSIVELY UNDER THE ELEVATOR SCOPE OF WORK.
6	CONTRACTOR SHALL VERIFY THAT THE ATS IS EQUIPPED WITH ALL NECESSARY PROGRAMMABLE TIME DELAYS AND AUXILIARY DRY CONTACTS TO FACILITATE THE ELEVATOR TRANSFER SEQUENCE.

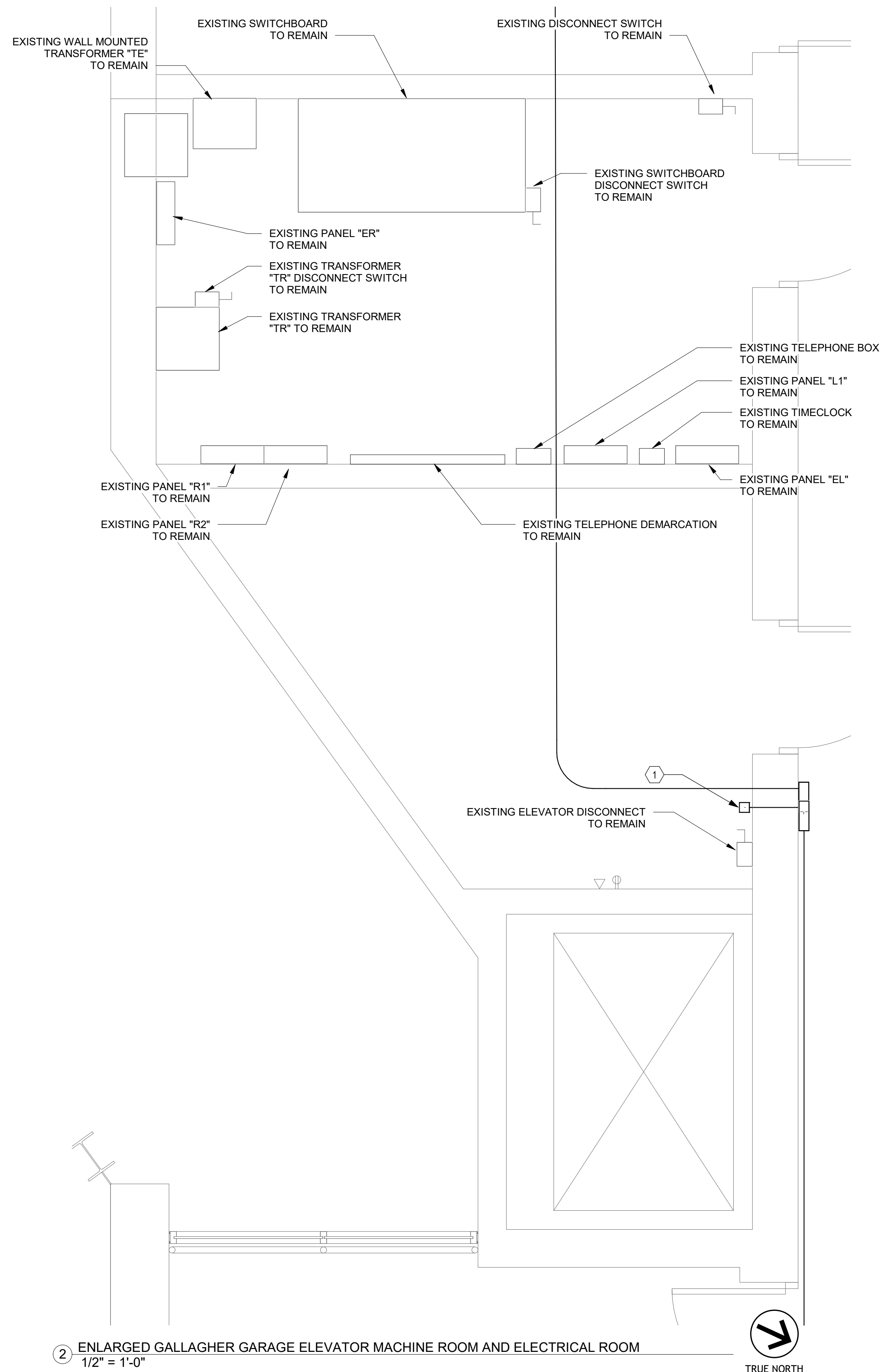


① ENLARGED ROAD RUNNER ELECTRICAL ROOM
1/2" = 1'-0"



3 ENLARGED TRAIN PLATFORM ELEVATOR MACHINE ROOM
1/2" = 1'-0"

1	E.C. SHALL COORDINATE FINAL CONNECTIONS TO ELEVATOR CONTROLS WITH THE BUILDING'S ELEVATOR MODERNIZATION/MAINTENANCE PROVIDER. E.C. SHALL DETERMINE EXACT ROUTING IN FIELD WITH EXISTING CONDITIONS.
2	E.C. SHALL FOLLOW EXISTING CONDUIT ROUTING TO ELEVATOR CONTROL ROOM. E.C. SHALL INSPECT ALL ROUTING IN FIELD PRIOR TO COMMENCEMENT OF WORK TO DETERMINE EXACT ROUTING AND FIELD CONDITIONS.
3	E.C. SHALL COORDINATE ALL WORK INVOLVING SERVICE INTERRUPTIONS IN A MANNER THAT LIMITS FACILITY DOWNTIME. E.C. SHALL OBTAIN APPROVAL FOR SERVICE INTERRUPTION SCHEDULE WITH LRTA (45) DAYS PRIOR TO COMMENCEMENT OF WORK.



② ENLARGED GALLAGHER GARAGE ELEVATOR MACHINE ROOM AND ELECTRICAL ROOM
1/2" = 1'-0"

COMMUTER RAIL & GALLAGHER TERMINAL GENERATOR

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TRANSIT AUTHORITY

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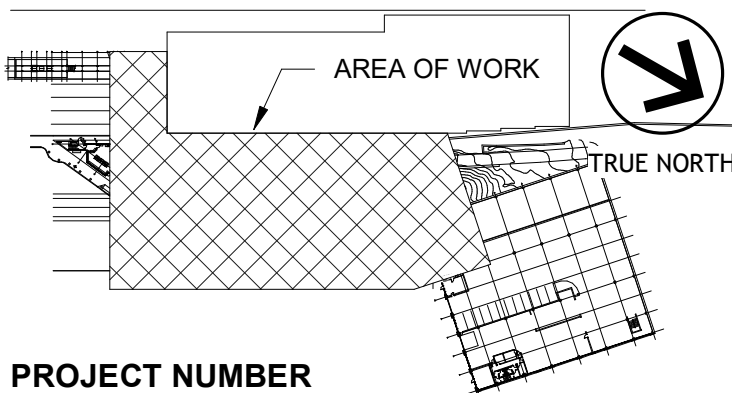


REGISTRATION

ISSUE/REVISION

[illegible]

KEY PLAN



PROJECT NUMBER

60778959

SHEET TITLE

ELECTRICAL ENLARGED POWER
PLANS

SHEET NUMBER

F101

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