Queens Central Library

Queens Central Library Renovations Phase 2B

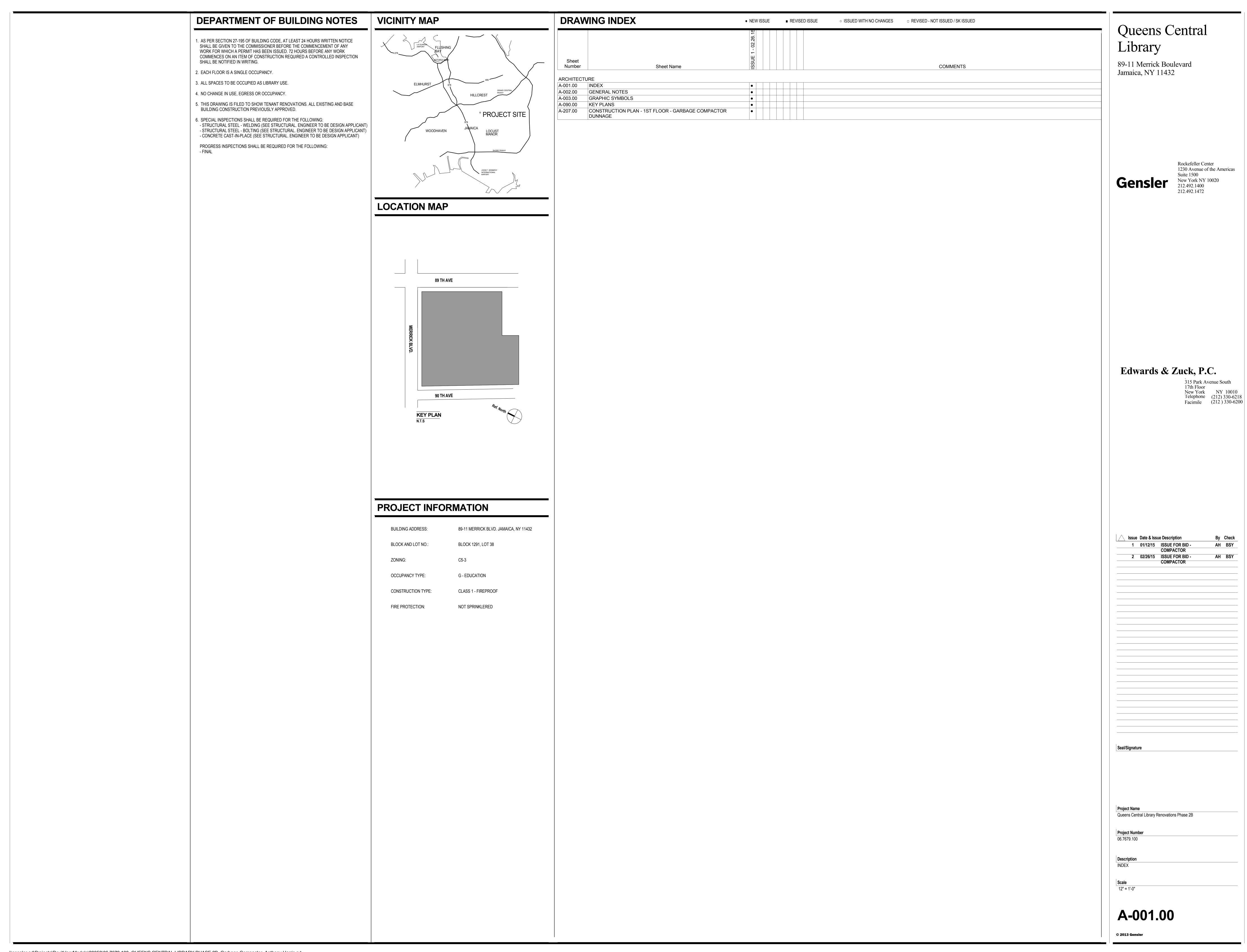
Issue for Bid - Compactor 02/27/2015

89-11 Merrick Boulevard Jamaica, NY 11432

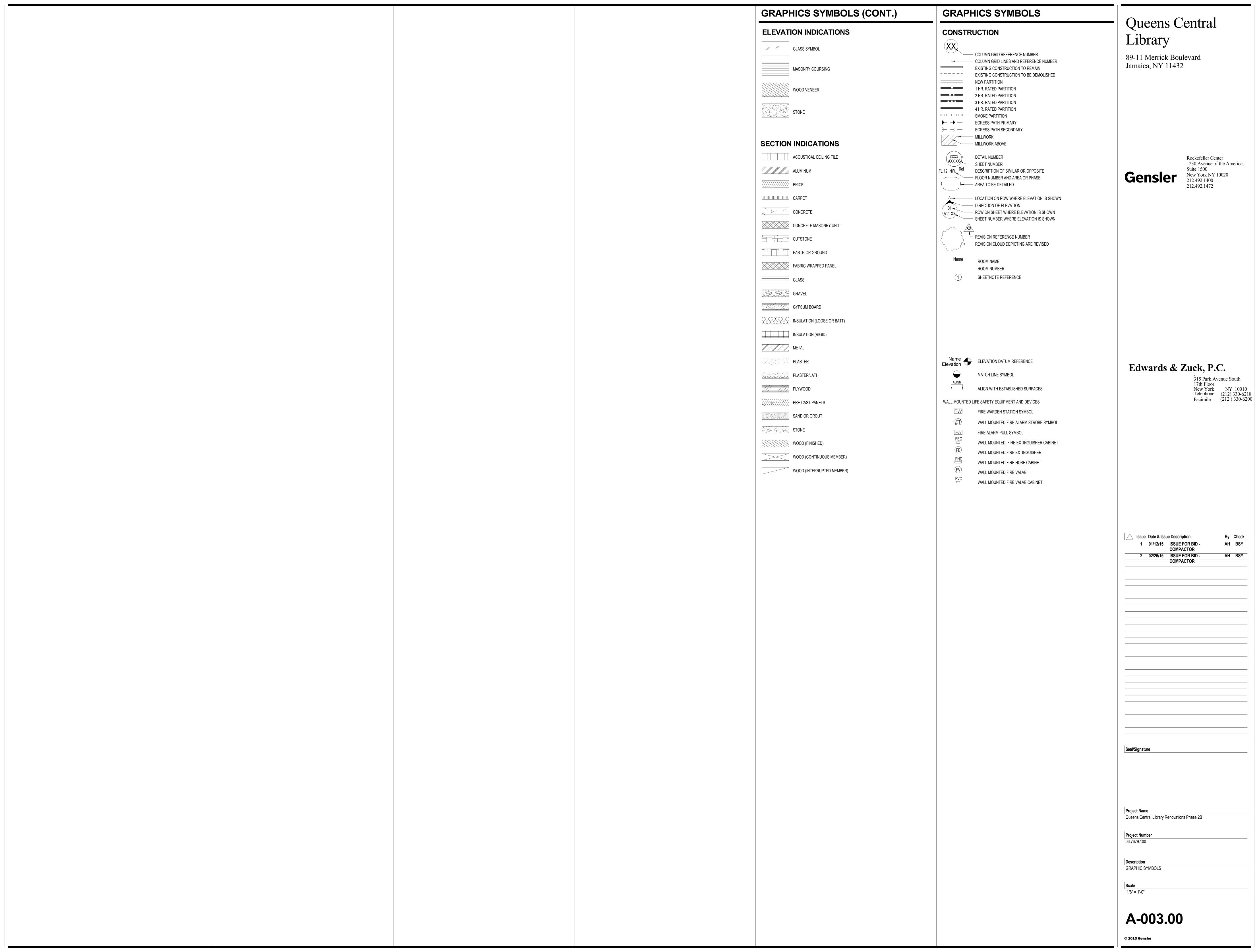
Gensler

Architect Rockefeller Center 1230 Avenue of the Americas Suite 1500 New York NY 10020

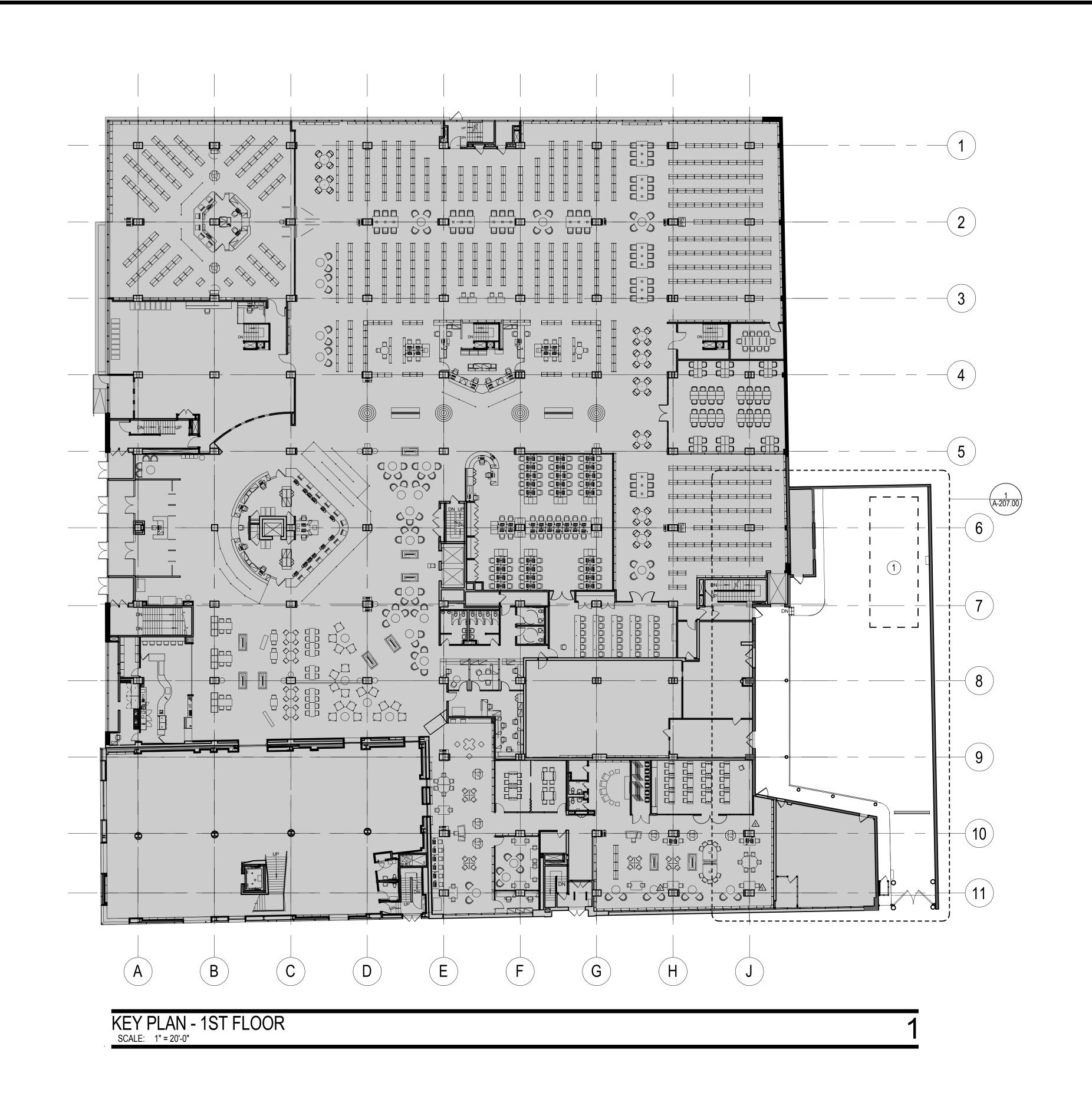
Phone: 212.492.1400 Fax: 212.492.1472



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89-11 Merrick Boulevard Jamaica, NY 11432

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By Check Issue Date & Issue Description 1 01/12/15 ISSUE FOR BID - COMPACTOR AH BSY 2 02/26/15 ISSUE FOR BID -COMPACTOR

SHEET NOTES

1) REFER TO STRUCTURAL DRAWINGS FOR INFORMATION ON EXTENT AND DETAILS OF STRUCTURAL STEEL AND CONCRETE SLAB WORK. REFER TO ELECTRICAL DRAWINGS FOR INFORMATION ON NEW TRASH COMPACTOR POWER REQUIREMENTS AND SERVICE PANEL.

Seal/Signature

Queens Central Library Renovations Phase 2B

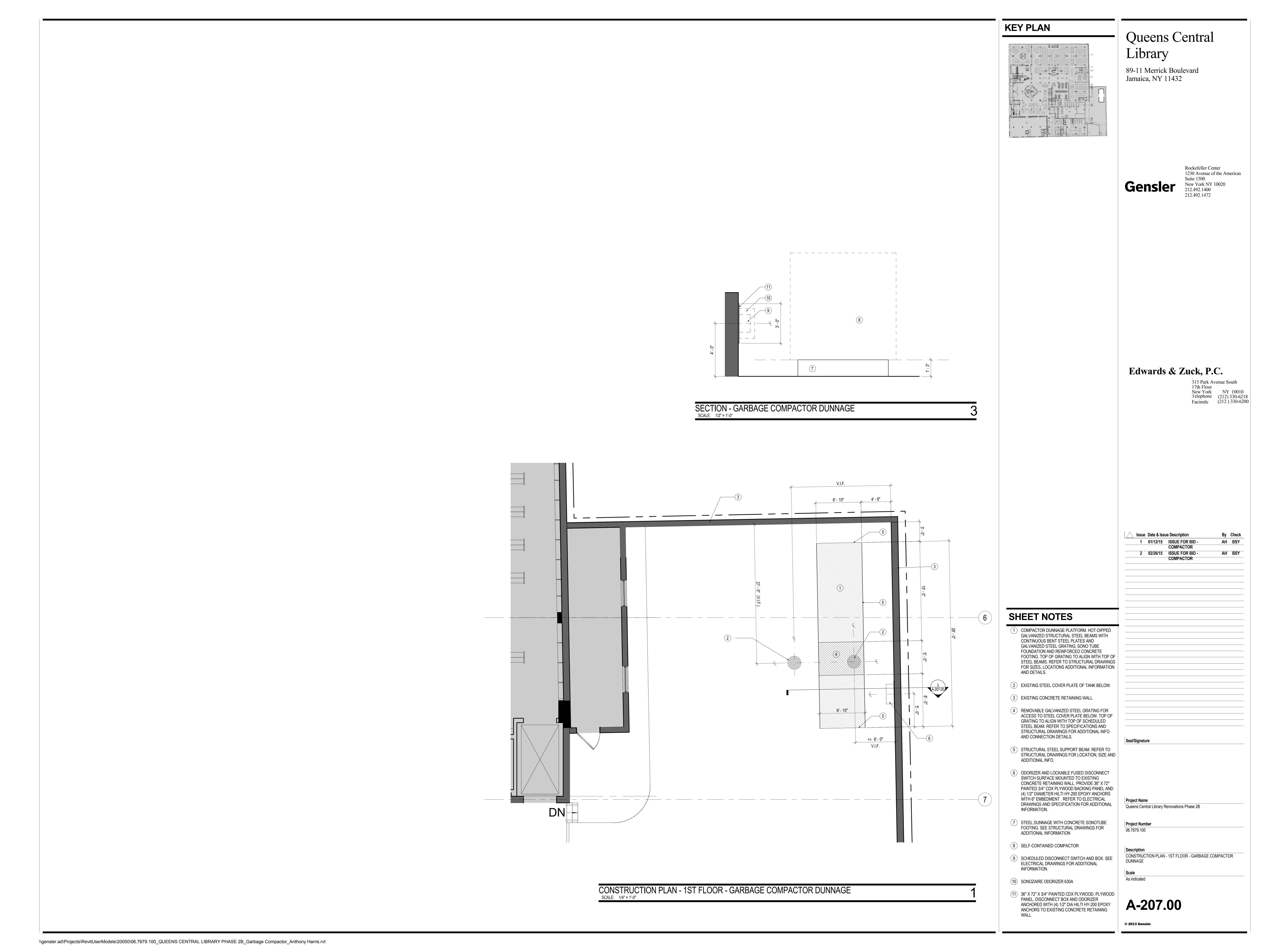
Project Number 06.7679.100

DescriptionKEY PLANS

1" = 20'-0"

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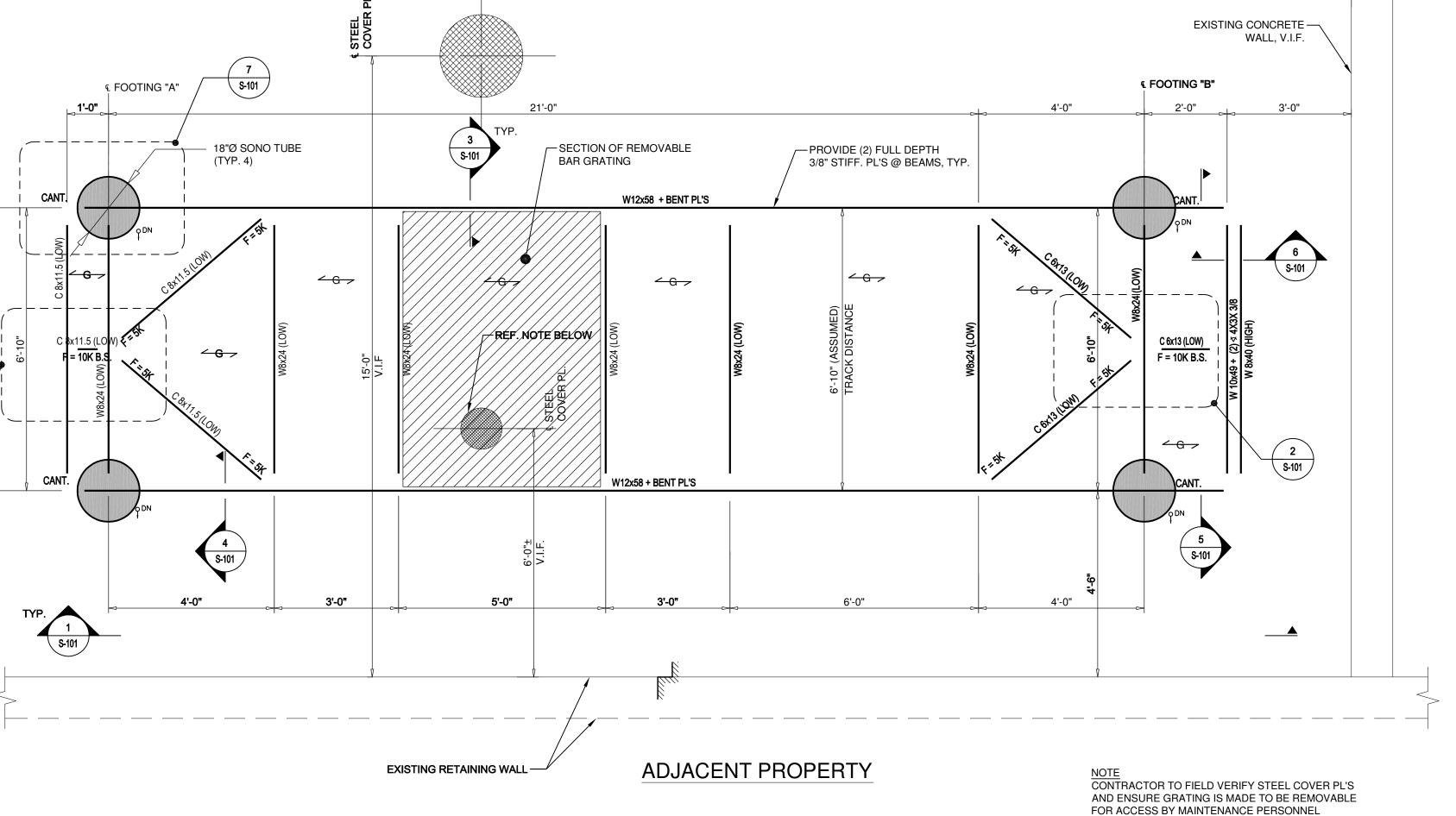
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FACE OF (E) CONCRETE WALL

F3

€ FOOTING "B"



APPROVAL / BID 01.12.2015 10.15.2014 PROGRESS NO. DATE REVISION

> NEW YORK, NEW YORK T. 212.532.2211 F. 212.481.6108

QUEENS LIBRARY

CLIENT:

89-11 MERRICK BOULEVARD JAMAICA, NY 11432

QUEENS CENTRAL LIBRARY RENOVATION TRASH COMPACTOR DONNAGE

> GENERAL NOTES, DRAWING INDEX AND PLANS

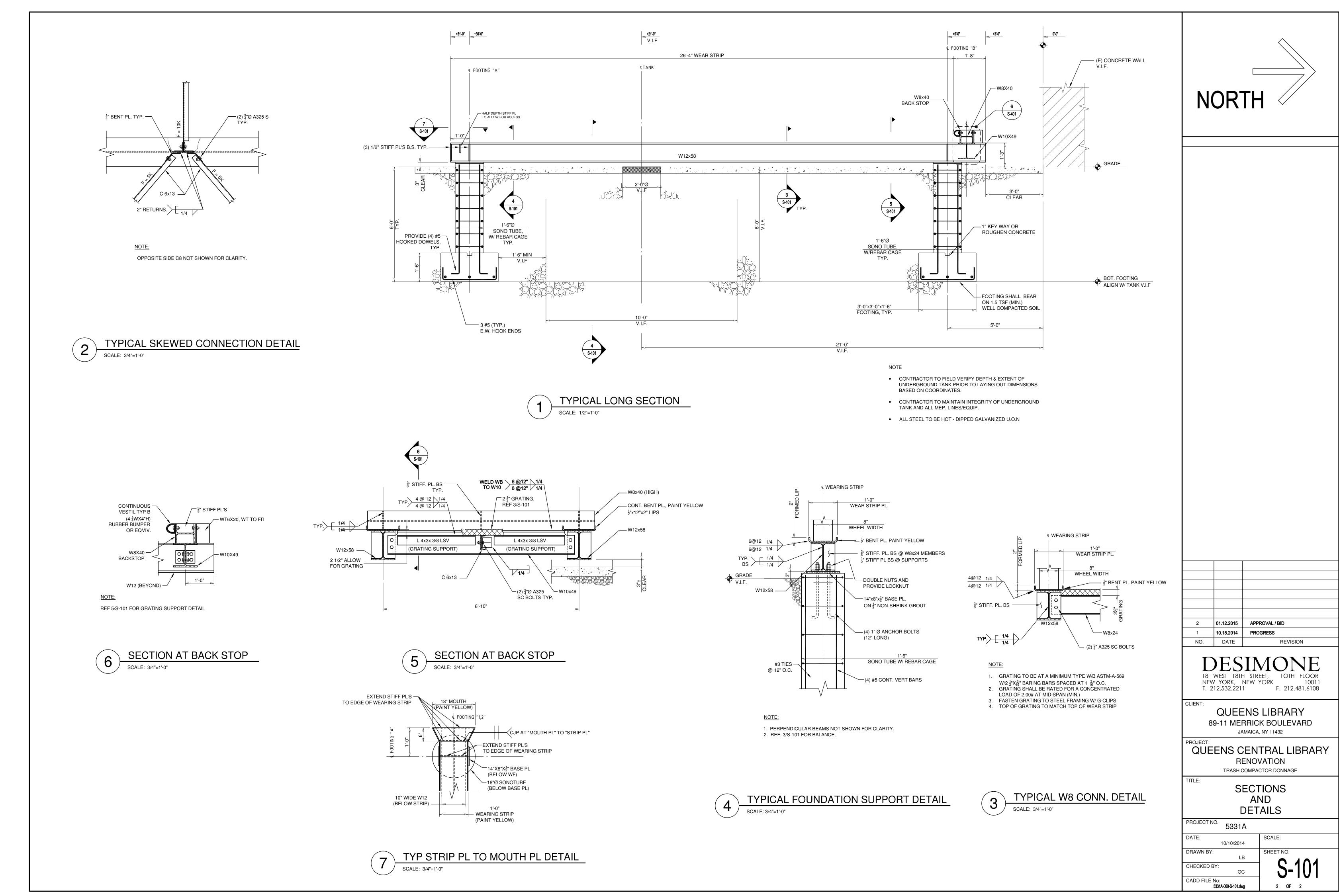
PROJECT NO. 5331A

SCALE: 1/2"=1'-0" 10/10/2014 DRAWN BY: SHEET NO. CHECKED BY

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ENGINEER END CONNECTIONS FOR THE LOADS LISTED. SUBMIT SIGNED AND SEALED CALCULATIONS FOR APPROVAL.

SITE PLAN



GENERAL NOTES

- THE ELECTRICAL INSTALLATION HEREIN SHALL BE DONE IN ACCORDANCE WITH BUILDING RULES AND REGULATIONS, NYC CODE, AND ALL LOCAL GOVERNMENTAL ENFORCING AUTHORITIES. WHERE CONFLICT OCCURS MOST STRINGENT REQUIREMENTS SHALL APPLY.
- 2. REFER TO SPECIFICATIONS COVERING HVAC WORK FOR POSSIBLE ADDITIONAL WORK TO BE PERFORMED UNDER THE ELECTRICAL CONTRACT.
- 3. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WORK WITH HVAC, PLUMBING AND OTHER TRADES FOR EXACT LOCATION OF ALL MOTOR AND CONTROL DEVICES. LOCATIONS AS SHOWN ON ELECTRICAL DRAWINGS ARE APPROXIMATE.
- 4. EXACT LOCATION OF POWER EQUIPMENT SHALL BE AS INDICATED ON ARCHITECTURAL DRAWINGS.
- 5. ALL NEW AND EXISTING PENETRATIONS THROUGH FIRE RATED PARTITIONS AND FLOOR SLABS SHALL BE FIRE STOPPED WITH LISTED MATERALS. CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL BID DOCUMENTS (ALL TRADES) AND TO CONDUCT A PRE—BID SITE SURVEY TO IDENTIFY FULL SCOPE OF WORK AND INCLUDE AS PART OF BASE BID WORK.
- 6. ALL CONDUIT AND WIRING FOR EXISTING/RELOCATED MECHANICAL EQUIPMENT SHALL REMAIN. RELOCATE AND/OR EXTEND CONDUIT AND WIRING AS REQUIRED.
- 7. PROVIDE WEIGHTS, LOCATIONS AND DIMENSIONS OF EQUIPMENT IN EXCESS OF 200 LBS. SUPPORTED ON FLOOR TO BASE BUILDING STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
- 8. PROVIDE AUTOCAD "AS-BUILT" DRAWINGS ON DISK UPON COMPLETION OF THE WORK.
 9. ALL ABANDONED OR UNUSED CABLING, RACEWAYS, ETC., MUST BE REMOVED BACK TO THE POINT OF ORIGIN AND INCLUDED AS PART OF BASE BID. IF CONTRACTOR IS UNABLE TO ESTABLISH A
- REASONABLE SCOPE OF WORK BASED ON PRE-BID SITE WALK THROUGH, CONTRACTOR SHALL IDENTIFY DURING BID.

 10. TEST FOR SHORTS AND GROUNDS BEFORE ENERGIZING ANY NEW
- OR EXISTING CIRCUITS.

 11. ALL CONNECTIONS TO THE BASE BUILDING RISERS AND/OR EQUIPMENT SHALL BE COORDINATED WITH THE BUILDING MANAGER.
- ALL BUILDING DEPARTMENT FORMS MUST BE FILED AND SUBMITTED TO THE DEPTARTMENT OF BUILDINGS WITH FINAL PLANS.
- 13. ALL HOMERUNS SHALL BE PROVIDED WITH GROUND WIRE.14. ALL MOTOR CIRCUITS SHALL BE PROVIDED WITH DEDICATED
- 15. ALL BASE BUILDING ELECTRIC CLOSETS AND TELEPHONE CLOSETS SHALL BE BROOM CLEANED UPON COMPLETION OF THE PROJECT.
 16. PRIOR TO COMPLETION OF WORK, CONTRACTOR SHALL CONDUCT POWER SHUTDOWN AND MEASURE EMERGENCY LIGHT LEVELS WITH FOOTCANDLE METER. ADJUST LIGHTING TO PROVIDE 2 FOOTCANDLES ON AVERAGE AT PATH OF EGRESS. SUBMIT BID

ACCORDINGLY. ALLOW FOR ADJUSTMENTS AND AFTER HOUR

SY	MBOL LIST - POWER
	ELECTRICAL PANEL
	DISCONNECT SWITCH. SIZE TO MATCH CIRCUITING OF AS NOTED. HORSEPOWER RATED TO MATCH INDICATED MOTOR LOAD.

	ADDITE VIA HONO
A, AMP.	AMPERE.
AFF.	ABOVE FINISHED FLOOR
C.,COND.	CONDUIT.
C.B.	CIRCUIT BREAKER.
C.T.	CURRENT TRANSFORMER.
CKT.	CIRCUIT.
DWG.	DRAWING.
E.C.	ELECTRICAL CONTRACTOR.
ELEC.	ELECTRICAL.
ЕМ	EMERGENCY
GFI.	GROUND FAULT INTERRUPTER
G, GRD.	GROUND.
HP	HORSEPOWER.
KVA	KILOVOLTAMPERE.
KW	KILOWATT.
L.V.	LOW VOLTAGE.
MCM	THOUSAND CIRCULAR MILLS.
N.I.C.	NOT IN CONTRACT
Р	POLE.
TYP.	TYPICAL.
U.O.N.	UNLESS OTHERWISE NOTED.
٧	VOLT
W.P.	WEATHER PROOF OR WATER PROOF.

ABBREVIATIONS

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

C. SITE VERIFICATION:

- A. INSTALL ALL NEW WORK IN A NEAT WORKMANLIKE MANNER READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR.
- B. INSTALLATION SHALL BE IN ACCORDANCE WITH BASE BUILDING STANDARDS AND CONTRACTOR GUIDELINES.
- 1. PRIOR TO SUBMISSION OF THE BID, THIS CONTRACTOR SHALL VISIT THE JOB SITE TO ASCERTAIN THE ACTUAL FIELD CONDITIONS AS THEY RELATE TO THE WORK INDICATED ON THE DRAWINGS AND DESCRIBED HEREIN. DISCREPANCIES, IF ANY, SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO SUBMISSION OF THE BID, AND IF NOT RESOLVED TO SATISFACTION, SHALL BE SUBMITTED AS A WRITTEN QUALIFICATION OF THE BID. SUBMISSION OF A BID SHALL BE EVIDENCE THAT SITE VERIFICATION HAS BEEN PERFORMED AS DESCRIBED ABOVE.

D. CONTRACT DOCUMENTS:

- 1. PRIOR TO SUBMISSION OF A FORMAL BID, THIS CONTRACTOR SHALL REVIEW ALL DRAWINGS OF THE ENTIRE PROJECT INCLUDING GENERAL CONSTRUCTION, DEMOLITION, ARCHITECTURAL AND SHALL INCLUDE ANY WORK REQUIRED IN THE BID WHICH IS INDICATED OR
- IMPLIED TO BE PERFORMED BY THIS TRADE IN OTHER SECTIONS OF THE WORK.

 2. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF WORK AND APPROXIMATE LOCATION OF EQUIPMENT. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND COORDINATE FINAL
- LOCATIONS OF SWITCHES LIGHT FIXTURES,
 RECEPTACLES ETC. WORK SHALL BE COORDINATED WITH
 OTHER TRADES TO AVOID CONFLICTS.

 3. IF A CONFLICT OCCURS IN THE SPECIFICATIONS
- AND/OR ON THE DRAWINGS, THE MORE STRINGENT SITUATION SHALL APPLY.

 4. ANY EQUIPMENT, PARTS, MATERIALS, ACCESSORIES, OR LABOR THAT IS NECESSARY FOR PROPER PERFORMANCE OF THE ELECTRICAL WORK, ALTHOUGH NOT SPECIFICALLY MENTIONED HEREIN OR SHOWN ON THE DRAWINGS, SHALL BE FURNISHED AND INSTALLED WITHOUT ADDITIONAL COST.

E. GUARANTEE:

- 1. ALL MATERIALS AND WORKMANSHIP SHALL BE
 GUARANTEED FOR A PERIOD OF TWO YEARS FROM
 DATE OF FINAL ACCEPTANCE OF THIS WORK. FINAL
 ACCEPTANCE SHALL BE DEFINED AS THE TIME AT
 WHICH THE ELECTRICAL WORK IS TAKEN OVER AND
 ACCEPTED BY THE OWNER, AND IS UNDER CARE,
 CUSTODY, AND CONTROL OF THE OWNER. ENGAGE THE
 SERVICES OF VARIOUS MANUFACTURERS SUPPLYING THE
 EQUIPMENT FOR THE PROPER STARTUP AND OPERATION
 OF ALL SYSTEMS INSTALLED. INSTRUCT THE OWNERS
 PERSONNEL IN THE PROPER OPERATION AND SERVICING
- OF THE EQUIPMENT.

 THE CONTRACTOR SHALL GUARANTEE TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED FOR ANY WORKMANSHIP AND EQUIPMENT IN WHICH DEFECTS DEVELOP WITHIN THE GUARANTEE PERIOD. THIS WORK SHALL BE DONE AS DIRECTED BY THE OWNER. THIS GUARANTEE SHALL INCLUDE RESPONSIBILITY TO PAY FOR ALL EXPENSES INCURRED IN REPAIRING AND REPLACING WORK OF OTHER TRADES AFFECTED BY DEFECTS, REPAIRS OR
- REPLACEMENTS IN EQUIPMENT SUPPLIED BY THIS CONTRACTOR.

 3. THIS CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE AND OPERATION OF ALL SYSTEMS UNTIL THE FINAL ACCEPTANCE OF THE WORK.
- F. THE "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION" AIA DOCUMENT A201, LATEST EDITION, OR AS REQUIRED BY THE ARCHITECT DOCUMENTS, AND/OR THE STRUCTURAL ENGINEER'S DOCUMENTS, AS APPLICABLE, ARE PART OF THIS CONTRACT.
 G. DEFINITIONS:
- 1. "ELECTRICAL CONTRACTOR", "THIS CONTRACTOR" THE PARTY OR PARTIES HAVE BEEN DULY AWARDED THE CONTRACT FOR AND ARE THEREBY MADE RESPONSIBLE FOR THE ELECTRICAL WORK AS DESCRIBED HEREIN.
- "THIS CONTRACT", "THE CONTRACT" THE AGREEMENT COVERING THE WORK TO BE PERFORMED BY "THIS CONTRACTOR".
 "APPROVED", "EQUAL", "SATISFACTORY", "ACCEPTED", "ACCEPTABLE", "EQUIVALENT" SUITABLE FOR USE ON

THE PROJECT. AS DETERMINED BY THE ENGINEER

- BASED ON DOCUMENTS PRESENTED FOR SUCH DETERMINATION.

 4. "THESE SPECIFICATIONS", "THIS SECTION, PART, DIVISION" (OF THE SPECIFICATION)— THE DOCUMENT SPECIFYING THE WORK TO BE PERFORMED BY "THIS
- CONTRACTOR".

 5. THE ELECTRICAL WORK", "THIS WORK", ALL LABOR MATERIALS, EQUIPMENT, APPARATUS, CONTROLS, ACCESSORIES, AND OTHER ITEMS REQUIRED FOR A
- PROPER AND COMPLETE INSTALLATION BY THE ELECTRICAL CONTRACTOR.

 6. "ARCHITECT", "ENGINEER", "OWNER'S REPRESENTATIVE"

 THE PARTY OR PARTIES RESPONSIBLE FOR
- INTERPRETING, ACCEPTING AND OTHERWISE RULING ON THE PERFORMANCE UNDER THIS CONTRACT.

 7. "FURNISH" PURCHASE AND DELIVER TO THE PROJECT SITE COMPLETE WITH EVERY NECESSARY
- 7. "FURNISH" PURCHASE AND DELIVER TO THE PROJECT SITE COMPLETE WITH EVERY NECESSARY APPURTENANCE AND SUPPORT, ALL AS PART OF THE ELECTRICAL WORK.

 8. "INSTALL" UNLOAD AT THE DELIVERY POINT AT THE
- SITE AND PERFORM EVERY OPERATION NECESSARY TO ESTABLISH SECURE MOUNTING INSTALLATION AND CORRECT OPERATION AT THE PROPER LOCATION IN THE PROJECT, ALL AS PART OF THE ELECTRICAL WORK 9. "PROVIDE" "FURNISH" AND "INSTALL".
- 10. "NEW" MANUFACTURED WITHIN THE PAST TWO YEARS AND NEVER BEFORE USED.
 11. "RELOCATE" MOVE EXISTING EQUIPMENT/DEVICES/FIXTURE AND ALL ACCESSORIES AS REQUIRED, INCLUDING THE EXTENSION OF EXISTING
- OR PROVIDING NEW CIRCUIT/CONDUCTORS/WIRING AS REQUIRED.

 12. "REMOVE" DISMANTLE AND CART AWAY FROM SITE INCLUDING ALL RELATED ACCESSORIES. ALL OTHER

EQUIPMENT AND OPERATIONS IN ANY WAY EFFECTED BY THE REMOVAL IS TO REMAIN IN FULL OPERATION.
PROVIDE ALL NECESSARY COMPONENTS TO MAINTAIN SUCH OPERATION.

1.02 SCOPE OF WORK:

A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, AND CONTRACTOR'S SERVICES NECESSARY FOR COMPLETE, SAFE

- INSTALLATION OF ALL ELECTRICAL WORK. THE SCOPE OF WORK SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:

 1. INSTALLATION OF NEW RACEWAY AND CONDUCTORS FOR
- CUTTING, CHANNELING AND CHASING REQUIRED TO
 ACCOMMODATE THE ELECTRICAL INSTALLATION AND
 ROUGH PATCHING.
 ADDITION OR MODIFICATION OF EXISTING ELECTRICAL
 DISTRIBUTION EQUIPMENT.
- 4. INSTALLATION OF CONDUIT, JUNCTION BOXES, PULL BOXES, ETC. REQUIRED FOR THE AFOREMENTIONED EQUIPMENT.

 5. MAINTENANCE AND PROPER OPERATION OF EXISTING
- BASE BUILDING SYSTEMS WITHIN THE CONTRACT AREA IN ACCORDANCE WITH THE REQUIREMENTS OF BUILDING MANAGEMENT.

 6. TEMPORARY LIGHT AND POWER DURING CONSTRUCTION AS REQUIRED BY BUILDING STANDARDS AND AS
- 7. GROUNDING OF ALL EQUIPMENT AS REQUIRED BY CODE AND AS SPECIFIED.

 8. ALL WORK AS PER APPROVED MANUFACTURERS SHOP

1.03 COORDINATION WITH BUILDING MANAGEMENT:

- A. THIS CONTRACTOR IS TO OBTAIN A COPY OF THE BUILDING RULES AND REGULATIONS PRIOR TO BID SUBMISSION TO DETERMINE REQUIREMENTS AND THE EXTENT OF PREMIUM TIME WORK REQUIRED BY BUILDING MANAGEMENT. FOR THE PURPOSE OF THE BID ASSUME ANY NOISY WORK (E.G., CHOPPING, CORE DRILLING ETC.) AND BASE BUILDING SYSTEM INTERRUPTIONS ARE TO BE PERFORMED OUTSIDE NORMAL BUSINESS HOURS (8:00am-6:00pm).
- B. THIS CONTRACTOR IS RESPONSIBLE FOR ADHERING TO THE BUILDING OWNER'S RULES AND REGULATIONS. ANY DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND THE BUILDING RULES AND REGULATIONS SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT/ENGINEER FOR REVIEW, WITH BID SUBMISSION.
- C. COORDINATE WITH BUILDING OWNER FOR ANY SERVICE INTERRUPTION OF EXISTING SYSTEMS AND GIVE NOTICE AS REQUIRED BY BUILDING RULES AND REGULATIONS OR A MINIMUM OF TWO (2) DAYS PRIOR TO ANY WORK, WHICHEVER IS MORE STRINGENT. CONTRACTOR IS TO PERFORM WORK ON PREMIUM TIME, SO AS NOT TO DISTURB EXISTING TENANTS ON OTHER FLOORS.

1.04 SHOP DRAWINGS:

- A. SUBMIT SHOP DRAWINGS CERTIFIED BY ALL TRADES THAT COORDINATION HAS BEEN COMPLETED. SUBMIT ALL CERTIFIED EQUIPMENT CUTS WITH CONSTRUCTION WIRING DIAGRAMS. SHOP DRAWINGS SUBMISSION SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
- OVERCURRENT PROTECTIVE DEVICES (FUSES AND BREAKERS)
 WIRING DEVICES.
- B. PROVIDE A MINIMUM OF FOUR (4) COPIES OF 8-1/2"x 11"
 SUBMISSIONS AND ONE (1) REPRODUCIBLE AND ONE (1)
 PRINT OF ALL DRAWINGS. SPECIFIC JOB REQUIREMENTS MAY
 BE MORE STRINGENT AND CONTRACTOR IS RESPONSIBLE TO
 OBTAIN REQUIREMENTS FROM CONSTRUCTION MANAGER,
 GENERAL CONTRACTOR OR ARCHITECT.

1.05 MAINTENANCE MANUALS: A SUBMIT FOUR (4) LOOSE-LEAF BOUND OPERATION

- A. SUBMIT FOUR (4) LOOSE—LEAF BOUND OPERATING AND MAINTENANCE MANUALS WITH INDEX AND INDEX TABS TO INCLUDE THE FOLLOWING:
 1. OPERATING AND MAINTENANCE INSTRUCTIONS ON ALL
- SYSTEMS.

 2. MANUFACTURERS' CATALOG CUTS ON ALL EQUIPMENT.

 3. ALL ITEMS SUBMITTED FOR REVIEW IN SHOP DRAWING SECTION.

1.06 AS-BUILT DRAWINGS:

- A. CONTRACTOR SHALL MAINTAIN RECORD DRAWING PRINTS ON JOB SITE AND RECORD, AT TIME OF OCCURRENCE, DEVIATIONS FROM CONTRACT DOCUMENTS DUE TO FIELD COORDINATION, BULLETINS, OR ADDENDA.
- B. CONTRACTOR SHALL REVISE SHOP DRAWINGS TO CONFORM TO RECORD DRAWINGS AND SUBMIT AN AS-BUILT CONDITION (DEVICES, EQUIPMENT, CIRCUITRY, ETC.) DRAWINGS UPON COMPLETION OF THE PROJECT. FINAL SUBMISSION OF REPRODUCIBLE AS-BUILT DRAWINGS ARE TO BE SIGNED AND CERTIFIED BY INSTALLING CONTRACTOR THAT THIS IS THE AS-BUILT CONDITION OF THE WORK.

1.07 SUBSTITUTIONS:

A. NO SUBSTITUTE MATERIAL OR MANUFACTURER OF EQUIPMENT SHALL BE PERMITTED WITHOUT A FORMAL WRITTEN SUBMITTAL O THE ENGINEER WHICH INCLUDES ALL DIMENSIONAL, PERFORMANCE AND MATERIAL SPECIFICATIONS. ANY CHANGES IN LAYOUT, MECHANICAL CHARACTERISTICS, STRUCTURAL REQUIREMENTS, OR DESIGN DUE TO THE USE OF A SUBSTITUTION SHALL BE SUBMITTED TO THE ENGINEER AS PART OF THIS PROPOSAL. THE CONTRACTOR TAKES FULL RESPONSIBILITY FOR THE SUBSTITUTION AND ALL CHANGES RESULTING FROM SUBSTITUTION. ALL ITEMS SHALL BE SUBMITTED FOR REVIEW IN CONJUNCTION WITH THE SUBMITTAL OF THE ALTERNATE. ANY SUBSTITUTION MUST BE SUBMITTED WITH AN EXPLANATION WHY A SUBSTITUTION IS BEING UTILIZED. IF THE SUBSTITUTED ITEM DEVIATES FROM THE SPECIFIED ITEM, THOSE DEVIATIONS ARE TO BE IDENTIFIED ON A LINE BY LINE BASIS. IF THE SUBSTITUTE IS BEING UTILIZED FOR FINANCIAL REASONS. THE ASSOCIATED CREDIT MUST BE SIMULTANEOUSLY SUBMITTED.

- B. ALL SUBSTITUTED EQUIPMENT SHALL CONFORM TO SPACE REQUIREMENTS AND PERFORMANCE REQUIREMENTS SHOWN ON CONTRACT DOCUMENTS. CONTRACTOR SHALL REPLACE ANY EQUIPMENT THAT DOES NOT MEET THESE REQUIREMENTS AT HIS OWN EXPENSE. ANY MODIFICATIONS TO ASSOCIATED SYSTEMS OR ADDITIONAL COSTS ATTRIBUTED TO THIS SUBSTITUTION SHALL BE AT THIS CONTRACTOR'S EXPENSE.
- C. CONTRACTOR SHALL SUBMIT BID BASED ON SPECIFIED ITEMS AND SHALL SUPPLY AS AN ALTERNATE PRICE ANY SUBSTITUTIONS.

1.08 ACCESS DOORS IN GENERAL CONSTRUCTION:

A. THIS CONTRACTOR SHALL SUBMIT TO THE ARCHITECT FOR APPROVAL A PLAN INDICATING THE SIZE AND LOCATION OF ALL ACCESS DOORS REQUIRED FOR OPERATION AND MAINTENANCE OF ALL CONCEALED EQUIPMENT, DEVICES, JUNCTION BOXES, PULL BOXES ETC. THIS CONTRACTOR SHALL ARRANGE FOR THE FURNISHING AND INSTALLATION OF ALL ACCESS DOORS IN FINISHED CONSTRUCTION AND INCLUDE COSTS IN THE BID. ACCESS DOORS SHALL BE OF ADEQUATE SIZE TO PROVIDE ACCESS TO CONCEALED ITEMS FOR OPERATION AND MAINTENANCE.

1.09 UNIT PRICES:

AMOUNTS INDICATED SHALL BE FOR WORK FULLY INSTALLED COMPLETE WITH ALL ASSOCIATED COMPONENTS. AMOUNTS INDICATED SHALL BE BINDING FOR THE DURATION OF THE PROJECT.
 UNIT PRICES SHALL INCLUDE ALL RELATED GENERAL CONDITIONS, OVER—HEAD, PROFIT, INSURANCES, LABOR, ENGINEERING MATERIALS, SUPERVISION AND FRINGES

REQUIRED. UNIT PRICES TO BE TAKEN EQUALLY FOR

ALL ADDS AND DEDUCTS TO THE CONTRACT DOCUMENTS.

3. UNIT PRICES ARE TO BE A MAXIMUM PRICE, NOT TO EXCEED COST UNDER ANY CIRCUMSTANCES.

PART 2 - PRODUCTS/APPLICATION

- B. A TYPEWRITTEN LIST OF CIRCUITS SHOWING CLEARLY THE LOADS SUPPLIED BY EACH CIRCUIT SHALL BE INSTALLED ON THE INSIDE OF EACH PANEL BOARD DOOR. THIS LIST SHALL BE MOUNTED IN A STEEL FRAME UNDER A PLASTIC WINDOW. EACH PANEL SHALL BE EXTERNALLY TAGGED WITH PERMANENT LAMACOID PLATE INDICATING PANEL IDENTIFICATION AND VOLTAGE.
- C. PHASE LEGS OF ALL PANELS SHALL BE BALANCED AT SUPPLY POINT. ANY PANEL FOUND WITH UNBALANCED LOADS SHALL HAVE ITS CIRCUITS REARRANGED AS REQUIRED TO BALANCE PHASE LEGS WITHIN 10%.
- D. ALL A/V CIRCUITS SHALL BE CONNECTED TO THE SAME PHASE LEG. CONTRACTOR SHALL REVISE CIRCUIT NUMBERS AND REARRANGE PANEL BREAKER POSITIONS AS REQUIRED.

DRAWINGS ARE DIAGRAMMATIC.

E. MULTIWIRE BRANCH CIRCUITS SUPPLYING WIRED FIXED—TYPE OFFICE PARTITIONS REQUIRE A SIMULTANEOUS DISCONNECTION MEANS. CONTRACTOR SHALL PROVIDE HANDLE TIES BETWEEN SINGLE—POLE CIRCUIT BREAKERS FEEDING THE SAME FIXED—TYPE OFFICE PARTITION GROUP.

FIXED—TYPE OFFICE 2.02 DISCONNECT SWITCHES:

- A. UNLESS OTHERWISE NOTED, DISCONNECT SWITCHES SHALL BE "QUICK—MAKE, QUICK—BREAK," 600V HEAVY DUTY TYPE IN NEMA 1 ENCLOSURES FUSED OR UNFUSED AS INDICATED ON THE DRAWINGS. PROVIDE ALL FUSES AS REQUIRED.
- 2.03 CIRCUIT BREAKERS:

 A. FOR PANELBOARD APPLICATIONS, CIRCUIT BREAKERS SHALL
 BE BOLTED TO THE PANELBOARD BUS BARS. WHERE CIRCUIT
 BREAKERS ARE INSTALLED IN EXISTING PANELBOARD
 BREAKERS SHALL BE OF THE SAME MANUFACTURER AND BE
 COMPATIBLE WITH EXISTING PANELBOARD. FOR STAND ALONE
 APPLICATIONS, CIRCUIT BREAKERS SHALL BE IN A NEMA 1
- B. CIRCUIT BREAKERS SHALL BE "THERMAL MAGNETIC" TYPE,
 QUICK-MAKE, QUICK-BREAK WITH NON-WELDING CONTACTS
 COMPENSATED FOR AMBIENT TEMPERATURES AND SHALL HAVE
 A MINIMUM SHORT CIRCUIT RATING OF 10,000 AMPERES

SYMMETRICAL FOR 120/280V PANELS AND 14,000 AMPERES SYMMETRICAL FOR 277/480V PANELS.

- C. ANY CIRCUIT BREAKERS MADE AVAILABLE DUE TO DEMOLITION SHALL BE DESIGNATED AS SPARE ON PANELBOARD DIRECTORIES.

 2.04 FUSES:
- A. FUSES SHALL BE DUAL ELEMENT CURRENT LIMITING TYPE
 WITH AN INTERRUPTING CAPACITY OF 200,000 RMS AMPERES
 AND OF THE CONTINUOUS CURRENT RATINGS AS SHOWN ON
 THE DRAWINGS.
- B. THEY SHALL HAVE AVERAGE MELTING TIME—CURRENT CHARACTERISTICS TO MEET THE UNDERWRITERS' LABORATORIES REQUIREMENTS FOR "CLASS K" 0—600 AMP FUSES AND

2.05 RACEWAYS:

A. ALL WIRES SHALL BE RUN IN CONDUIT AS SPECIFIED HEREINAFTER. MINIMUM SIZE SHALL BE 3/4 INCH. METAL CLAD AND ARMORED CLAD CABLES SHALL BE UTILIZED IF WRITTEN APPROVAL IS GRANTED BY BUILDING MANAGEMENT

"CLASS L" OVER 600 AMP FUSES.

- B. FOR ALL SIZES OF CONDUIT LARGER THAN 1-1/2", USE STANDARD ELBOW; IN SMALLER SIZES, FIELD BENDS WILL BE PERMITTED INSTEAD OF USING MANUFACTURED ELBOWS BUT CARE MUST BE TAKEN NOT TO DAMAGE THE CONDUIT. THE RADIUS OF THE INNER CURVE OF ANY BEND SHALL NOT BE
- ANY LESS THAN THAT PERMITTED BY CODE.

 C. CONDUIT SHALL BE SECURELY FASTENED IN PLACE AND HANGERS, SUPPORTS OR FASTENINGS SHALL BE PROVIDED AT EACH ELBOW AND AT EACH END OF EACH STRAIGHT RUN TERMINATED AT A BOX OR CABINET. WHERE RISER CONDUITS PIERCE FLOOR SLABS, THEY SHALL REST ON EACH FLOOR WITH APPROVED BEAM CLAMPS, PIPE STRAPS OR HEAVY IRON TIES WIRED TO THE STRUCTURAL MEMBERS SUPPORTING EQUIPMENT. SIZE AND TYPE OF ANCHOR SHALL BE BASED
- D. INSTALL CONDUIT EXPANSION FITTINGS IN EACH CONDUIT RUN WHEREVER IT CROSSES AN EXPANSION JOINT AND WHEREVER THE CONDUIT LENGTH EXCEEDS 200 FEET.
- E. RUNNING THREADS SHALL NOT BE USED. WHERE CONDUIT WITH TAPERED THREADS CANNOT BE COUPLED WITH STANDARD CONDUIT COUPLINGS UTILIZE O.Z./GEDNEY SPLIT COUPLING OR ERICKSON COUPLINGS.

ON THE COMBINED WEIGHTS OF CONDUIT, HANGER AND

F. LAY OUT AND INSTALL ALL CONDUIT RUNS TO AVOID PROXIMITY TO STEAM AND HOT WATER PIPES. DO NOT RUN CONDUIT WITHIN THREE INCHES OF SUCH PIPES EXCEPT WHERE CROSSINGS ARE UNAVOIDABLE, THEN THE CONDUIT SHALL BE KEPT AT LEAST 1 INCH FROM THE COVERING OF THE PIPE CROSSING.

G. UNLESS OTHERWISE INDICATED OR SPECIFIED, ALL WIRING SHALL BE INSTALLED CONCEALED IN CEILINGS, WALLS, SLABS, PIPE CHASES, AND FURRED SPACES WHENEVER POSSIBLE.

- H. ALL FEEDERS AND BRANCH CIRCUIT SHALL BE RUN IN CONDUIT (EMT, RIGID STEEL, ETC.). FINAL CONNECTIONS TO MOTORS, LIGHT FIXTURES, ETC. MAY BE DONE WITH FLEXIBLE METALLIC CONDUIT (NO LONGER THAN SIX FEET).
- STRUCTURE/SLAB. CONDUIT SHALL NOT BE ATTACHED TO HUNG CEILING SUPPORTED.

 J. ELECTRIC METALLIC TUBING SHALL BE INDUSTRY STANDARD THIN WALL CONDUIT. FMT SHALL BE HOT DIPPED.

I. ALL CONDUIT SHALL BE SUPPORTED DIRECTLY FROM

- J. ELECTRIC METALLIC TUBING SHALL BE INDUSTRY STANDARD THIN WALL CONDUIT, EMT SHALL BE HOT DIPPED GALVANIZED STEEL ONLY. IT SHALL NOT BE LESS THAN 3/4" TRADE SIZE UNLESS OTHERWISE NOTED. IT SHALL BE USED FOR TRADE SIZE UP TO 4" UNLESS OTHERWISE NOTED.
- K. FLEXIBLE METALLIC CONDUIT SHALL BE OF THE GROUNDING TYPE. IT SHALL CONSIST OF GALVANIZED STEEL TAPE FORMED INTO AN INDUSTRY STANDARD INTERLOCKING COIL. IT SHALL NOT BE LESS THAN 3/4" TRADE SIZE UNLESS OTHERWISE NOTED.
- L. RIGID METAL CONDUIT SHALL BE INDUSTRY STANDARD STEEL CONDUIT. IT SHALL NOT BE LESS THAN 3/4" TRADE SIZE UNLESS OTHERWISE NOTED. STEEL CONDUIT SHALL BE HOT DIPPED GALVANIZED. IT SHALL BE USED FOR TRADE SIZE GREATER THAN 4" UNLESS OTHERWISE NOTED. ALUMINUM SHALL BE ACCEPTABLE EXCEPT FOR CONCRETE ENCASEMENT.
- SET SCREW OR COMPRESSION FITTINGS SHALL BE USED WITH EMT.

 N. ALL METAL CONDUIT TERMINATING IN A METAL ENCLOSURE SHALL HAVE AN INSULATED BUSHING. PROVIDE

M. THREADED FITTINGS SHALL BE USED WITH RIGID CONDUIT

SHALL HAVE AN INSULATED BUSHING. PROVIDE
"GROUNDING" TYPE BUSHING WHERE REQUIRED.

2.06 WIRE AND CABLE: A. ALL CONDUCTORS SHALL BE SOFT 98% MINIMUM CONDUCTIVITY PROPERLY REFINED COPPER, TYPE THHN/THWN INSULATED. ALL CONDUCTORS SHALL HAVE 600 VOLT RATED

INSULATION UNLESS OTHERWISE NOTED.

B. THE MINIMUM WIRE SIZE FOR BRANCH CIRCUITS SHALL BE NO. 12 AWG.
C. RECESSED LIGHTING FIXTURES FOR HUNG CEILING APPLICATIONS SHALL BE SUPPLIED WITH TYPE THHN INSULATED WIRE IN FLEXIBLE METALLIC CONDUIT, IN

LENGTHS NOT TO EXCEED 6 FEET FROM ADJACENT JUNCTION

- D. CONNECTION TO RECESSED CEILING FIXTURES SUPPLIED WITH PIGTAILS SHALL BE ARRANGED SO THAT UP TO FOUR SUCH FIXTURES MAY BE CONNECTED INTO A SINGLE OUTLET BOX. NO FIXTURE SHALL BE SUPPLIED FROM AN OUTLET IN
- E. ALL CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID, CONDUCTORS #8 AWG AND LARGER SHALL BE STRANDED.
 F. COLOR CODING SHALL BE BUILDING STANDARD. WHERE NO BUILDING STANDARD EXISTS, FACTORY COLOR CODING SHALL

ANOTHER ROOM.

BE AS FOLLOWS:

EES <u>CONDUCTO</u>
PHASE A
PHASE E

NEUTRAL

GROUND

ISOLATED GROUND

120/208V SYSTEM BLACK RED BLUE WHITE GREEN

GREEN W/ YELLOW STRIPE

- G. INSTALL AND CONNECT UP COMPLETE CONDUCTORS FOR ALL CIRCUITS AND WIRING SYSTEMS UNLESS OTHERWISE NOTED. UP TO 3 SINGLE CIRCUITS MAY BE RUN IN A CONDUIT.
- H. NO CONDUCTORS SHALL BE PULLED INTO ANY CONDUIT RUN BEFORE ALL CONDUIT JOINTS ARE MADE UP TIGHTLY, AND THE ENTIRE RUN IS SECURED IN PLACE. WHEN REQUIRED TO EASE THE PULLING OF WIRES INTO CONDUIT, USE POWDERED SOAPSTONE, MINERALLAC #100 OR APPROVED EQUAL BY THOMAS AND BETTS.
- I. TAG ALL FEEDERS IN ALL PULL BOXES, GUTTER SPACES, AND WIREWAYS THROUGH WHICH THEY PASS WITH FIREPROOF TAGS AND PERMANENT BLACK INK.
- J. TERMINATE STRANDED CONDUCTORS #6 AWG AND LARGER AT SWITCHBOARDS, TRANSFORMERS, UPS SYSTEMS WITH COMPRESSION TYPE CONNECTORS. AT PANELBOARDS TERMINATE WITH MECHANICAL LUGS.
- K. JOIN OR TAP STRANDED CONDUCTORS (#6 AWG AND LARGER)
 WITH PRESSURE INDENT TYPE CONNECTORS BURNDY, NEPCO,
- OR O.Z./GEDNEY WITH COMPOSITION INSULATING COVERS.

 L. SPLICES IN BRANCH WIRING (#8 AWG AND SMALLER) SHALL BE TWISTED AND MADE MECHANICALLY TIGHT; THEN SECURED WITH PIGTAIL CONNECTORS, CRIMP TYPE CONNECTORS SHALL NOT BE USED. UTILIZE UL LISTED "SILICON FILLED" PIGTAIL CONNECTORS WHERE LOCATED IN WET ENVIRONMENTS, OUTDOORS OR IN DATA PROCESSING/COMMUNICATION ROOM
- RAISED FLOOR CAVITIES.

 M. SUPPORT CONDUCTORS IN VERTICAL RACEWAYS AT THE TOP OF ANY RACEWAY LONGER THAN 20 FEET. INCLUDE ADDITIONAL SUPPORTS SPACED AT INTERVALS WHICH ARE NOT GREATER THAN 40 FEET. SUPPORT SHALL BE 0.Z./
- GEDNEY TYPE R.

 N. ALL BRANCH CIRCUITS SHALL BE PROVIDED WITH A SEPARATE NEUTRAL AND GROUND CONDUCTOR. THIS IS TO COMPENSATE FOR HARMONIC CURRENTS. UNLESS OTHERWISE NOTED,
- SHARED NEUTRAL CONDUCTORS SHALL NOT PERMITTED.

 O. BRANCH CIRCUITING/FEEDERS SHALL BE SUPPORTED FROM BUILDING STRUCTURE NOT FROM HUNG CEILING SUPPORTS.

PERIMETER FAN COIL/INDUCTION UNIT ENCLOSURES SHALL

NOT BE UTILIZED TO ROUTE BRANCH CIRCUITING.

CABLE SUPPORTS.

- 2.07 PULL BOXES, JUNCTION BOXES, OUTLET BOXES:

 A. PULL BOXES, JUNCTION BOXES AND OUTLET BOXES SHALL BE MANUFACTURED FROM GALVANIZED INDUSTRY STANDARD GAUGE SHEET STEEL.
- B. PROVIDE PULL BOXES AND JUNCTION BOXES IN LONG
 STRAIGHT RUNS OF RACEWAY TO ASSURE THAT CABLES ARE
 NOT DAMAGED WHEN THEY ARE PULLED, TO FULFILL
 REQUIREMENTS AS TO THE NUMBER OF BENDS PERMITTED IN
 RACEWAY BETWEEN CABLE ACCESS POINTS, THE ACCESSIBILITY
 OF CABLE JOINTS AND SPLICES, AND THE APPLICATION OF
- C. PULL BOXES AND JUNCTION BOXES SHALL BE SIZED SO THAT THE MINIMUM BENDING RADIUS CRITERIA SPECIFIED FOR THE WIRES AND CABLE ARE MAINTAINED.
- D. INCLUDE ALL REQUIRED JUNCTION/PULL BOXES AND OUTLET BOXES REGARDLESS OF INDICATIONS ON THE DRAWINGS WHICH DUE TO SYMBOLIC METHODS OF NOTATION, MAY NOT SHOW ALL THAT ARE ACTUALLY REQUIRED).
- E. WHERE BOXES HAVE ANY SINGLE HORIZONTAL DIMENSION LARGER THAN 36", THEY SHALL BE FITTED WITH CABLE SUPPORT RACKS CONSISTING OF 3/4" DIAMETER STEEL PIPES WITH FLANGED ENDS BOLTED TO THE SIDES OR FRAME OF THE PULL BOXES. EACH PIPE SUPPORT SHALL BE FITTED WITH A CONTINUOUS FIBER INSULATING SLEEVE. THE PIPE SUPPORTS SHALL BE ARRANGED IN TIERS CORRESPONDING TO THE CABLES ENTERING AND LEAVING THE BOX. SUFFICIENT PIPE SUPPORT RACKS SHALL BE INCLUDED WITH THE PULL BOX SO THAT NO CABLE REMAINS UNSUPPORTED FOR A HORIZONTAL DISTANCE GREATER THAN 36". IN NO CASE SHALL CABLE SUPPORT PIPE RACKS BE MOUNTED SO
- I. BARRIERS IN JUNCTION AND PULL BOXES SHALL BE OF CONDUCTIVE MATERIAL OF ADEQUATE THICKNESS FOR MECHANICAL STRENGTH BUT IN NO CASE LESS THAN 1/8". EACH BARRIER SHALL HAVE AN ANGLE IRON FRAMING SUPPORT ALL AROUND.

THAT THEY INTERFERE WITH THE REMOVAL OF SCREW

J. ALL EQUIPMENT, DEVICE BOXES, JUNCTION BOXES, PULL BOXES AND OUTLET BOXES SHALL BE INSTALLED SO AS TO ALLOW ACCESS TO THE BOX. IF NECESSARY AND APPROVED BY ARCHITECT, PROVIDE ACCESS DOOR OR COVER PLATES IN AREAS WHERE UNOBSTRUCTED ACCESS IS NOT POSSIBLE.

208 SUPPORTS AND FASTENINGS: A. ALL SUPPORTS AND FASTENINGS NECESSARY FOR THE SUPPORT OF ELECTRICAL EQUIPMENT SHALL BE IN

SPECIFIED HEREIN.

B. FURNISH AND INSTALL ALL STEEL SUPPORTING MEMBERS, HANGERS, BRACKETS OR OTHER SPECIAL DETAILS REQUIRED AND NECESSARY FOR THE PROPER INSTALLATION OF ELECTRIC EQUIPMENT.

ACCORDANCE WITH THE BEST INDUSTRY PRACTICE AND AS

CONDUIT AT INTERVALS NO GREATER THAN 8 FEET.
SUPPORT SUCH CONDUITS 2" TRADE SIZE OR LARGER, AT INTERVALS NO GREATER THAN THE STORY HEIGHT, OR 15 FT. WHICHEVER IS SMALLER.

D. WHERE THEY ARE NOT EMBEDDED IN CONCRETE, SUPPORT LESS THAN 1" TRADE SIZE, HORIZONTALLY RUN CONDUITS

SUPPORT LESS THAN 2" TRADE SIZE, VERTICALLY RUN

AT INTERVALS NO GREATER THAN 7 FT. SUPPORT SUCH

CONDUITS, 1" TRADE SIZE OR LARGER, AT INTERVALS NO

E. INCLUDE SUPPORTING FRAMES OR RACKS EXTENDING FROM

GREATER THAN 10 FT.

- SLAB TO SLAB FOR WORK INDICATED AS BEING SUPPORTED FROM WALLS UNLESS WALLS OF CONCRETE BLOCK OR SIMILAR STRUCTURAL CONSTRUCTION.
- F. INCLUDE SUPPORTING FRAMES OR RACKS FOR EQUIPMENT, INTENDED FOR VERTICAL SURFACE MOUNTING, WHICH IS REQUIRED IN A FREE STANDING POSITION.
- G. EXCEPT FOR BRANCH CIRCUITRY INSTALL ALL CONDUIT IN HUNG CEILING SPACE ON ACCEPTABLE HANGERS AND INSERTS. CONDUIT OR MC CABLE FOR BRANCH CIRCUITRY SHALL BE SUPPORTED BY CLAMPS OR PIPE STRAPS SECURED TO THE CEILING SUPPORT SYSTEM (BLACK IRON), FROM STRUCTURAL MEMBERS OR FROM THE DECK. SUPPORT FROM CEILING TEES, CROSS TEES OR SUPPORT WIRES IS

PROHIBITED. 2.09 GROUNDING:

- A. PROVIDE A GREEN GROUND CONDUCTOR IN CIRCUIT CONDUITS AS INDICATED.

 B. PROVIDE SUPPLEMENTARY GROUND BONDING WHERE METALLIC CONDUITS TERMINATE AT METAL CLAD EQUIPMENT (OR AT THE METAL PULL BOX OF EQUIPMENT) FOR WHICH A GROUND BUS IS SPECIFIED WITH A BUSHING OF THE GROUNDING
- TYPE CONNECTED INDIVIDUALLY TO GROUND BUS.

 C. ALL GROUND WIRES SHALL BE SUITABLY PROTECTED FROM MECHANICAL INJURY.

2.10 ACCEPTABLE MANUFACTURERS:

- D. DISCONNECT SWITCHES: SQUARE D, EATON CUTLER-HAMMER, GENERAL ELECTRIC
- E. CIRCUIT BREAKERS: SQUARE D, EATON CUTLER—HAMMER, GENERAL ELECTRICF. FUSES: BUSSMAN (200 KAIC DUAL ELEMENT TIME—DELAY)
- REPUBLIC

 H. WIRE/CABLE: ROME PHELPS DOGGE, GENERAL CABLE,

G. RACEWAY: NATIONAL WIRE PRODUCTS, TRIANGLE OR

I. JUNCTION/PULL BOXES: APPLETOWN ELECTRIC, CROUSE HINDS, O.Z./ GEDNEY CO., STEEL CITY

BURNDY, NEPCO, THOMAS AND BETTS

J. FIRE STOP MATERIAL: HILTI, 3M (NOTE: MATERIAL MUST BE ACCEPTABLE TO LOCAL AHJ)

DADT 3 _ EVECUTION

PART 3 — EXECUTION

OPENINGS AROUND ELECTRICAL PENETRATIONS THROUGH FIRE RESISTANCE RATED WALLS, PARTITIONS, FLOORS, OR CEILINGS SHALL BE FIRE STOPPED USING APPROVED

K. FITTINGS, COUPLINGS, BUSHINGS, CONNECTORS: OZ GEDNEY,

- METHODS. SEALANT SHALL BE RATED FOR 3 HOURS.

 B. PROVIDE DANGER LABELING AT ALL EQUIPMENT AND
- JUNCTION/PULL BOXES PER CODE.

 C. CONTRACTOR SHALL PREPARE AND SUBMIT TO BUILDING FOR APPROVAL NECESSARY SLAB TRENCHING.
- D. ALL PANELBOARD COVERS SHALL BE REPLACED AT THE COMPLETION OF EACH DAYS WORK.E. MAINTAIN GROUND CONTINUITY THROUGHOUT ALL SYSTEMS.

TRACING CABLE AS REQUIRED BY OTHER TRADES.

F. MEGGER TEST TEMPERATURE MAINTENANCE CABLE AND HEAT

- COORDINATE WITH OTHER TRADES PRIOR TO SUBMISSION OF BID.

 G. PRIOR TO ANY CHASING, CHOPPING, OR CORE DRILLING BEING PERFORMED, THE CONTRACTOR SHALL FIELD INVESTIGATE CONDITIONS AND COORDINATE WITH ALL APPROPRIATE TRADES TO ENSURE THAT WORK WILL BE IN HARMONY WITH OTHER WORK AND NOT AFFECTED ANY EXISTING BUILDING SYSTEMS. X—RAY SLABS AS REQUIRED. THIS WORK MUST BE APPROVED BY BUILDING MANAGEMENT
- SHALL BE APPROVED BY BUILDING STRUCTURAL ENGINEER.
 ALL CHOPPING/CORING SHALL BE DONE ON PREMIUM TIME.

 H. MOUNTING HEIGHTS: DISCONNECT SWITCHES OR ENCLOSED
 CB'S -6'-6" TO HANDLE. PANELBOARDS 6'-6" TO MCB
 OR TOP CIRCUIT BREAKER (IF NO MCB) TRANSFORMERS
 (WHERE HUNG) AS CLOSE AS POSSIBLE TO SLAB ABOVE
 BUT NO LESS THAN MANUFACTURERS CLEARANCE

PRIOR TO PROCEEDING. ALL PROPOSED SLAB PENETRATIONS

REQUIREMENTS. 3.02 EXISTING EQUIPMENT REFURBISHMENT:

A. WHERE PANELBOARDS, SWITCHES, CIRCUIT BEAKERS, ARE EXISTING AND INDICATED ON DRAWINGS TO BE REUSED THE CONTRACTOR SHALL CLEAN AND REFURBISH THE EQUIPMENT. THIS SHALL INCLUDE TIGHTENING ALL CONNECTIONS, REPLACING DEFECTIVE MECHANISMS, EXERCISING MECHANISMS AND PROVIDING ANY MISCELLANEOUS COMPONENTS SO THE EQUIPMENT IS IN FIRST CLASS WORKING ORDER.

3.03 IDENTIFICATION OF EQUIPMENT:

SCREWS.

DEVICES IN BLUE.

- A. ALL PANELBOARDS, CONTROL PANELS, AND CABINETS SPECIFIED HEREIN SHALL BE CLEARLY IDENTIFIED WITH THE EQUIPMENT DESIGNATION, VOLTAGE AND AMPERE RATING, EQUIPMENT SERVED AND ORIGIN OF THE INCOMING FEED. CONTROL PANELS SHALL BE IDENTIFIED WITH SYSTEM NAME. IDENTIFICATION SHALL BE BY WHITE ON BLACK PLASTIC NAMEPLATE WITH 1/2" MINIMUM LETTERING ATTACHED BY
- B. JUNCTION BOXES, SPLICE BOXES, ETC., SHALL BE IDENTIFIED WITH PANEL AND CIRCUIT NUMBERS, FOR CIRCUITS CONTAINED THEREIN. FACEPLATE OF SWITCHES FOR EQUIPMENT SUCH AS PANTRY EXHAUST FANS, MOTORIZED SCREENS, ETC., SHALL BE IDENTIFIED WITH THE NAME OF THE DEVICE CONTROLLED. IDENTIFICATION SHALL BE BY INDELIBLE MARKER IN CONCEALED LOCATIONS AND ADHESIVE ('P' TOUCH TYPE) LABELS IN EXPOSED LOCATIONS. EMERGENCY DEVICES SHALL BE IDENTIFIED IN RED AND UPS

C. EMPTY CONDUITS SHALL BE IDENTIFIED WITH TAGS AT BOTH
ENDS INDICATING THE LOCATION OF TERMINATION FOR THE WORK ON THE
OPPOSITE END.

APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN
ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED AS EITHER
BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.

Queens Central Library

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PROGRESS SET NOT FOR CONSTRUCTION

Project Name Queens Central Libra	ary Renovations Phase 2C	
Project Number		

ELECTRICAL SYMBOLS, NOTES AND ABBREVIATIONS

E-101.00

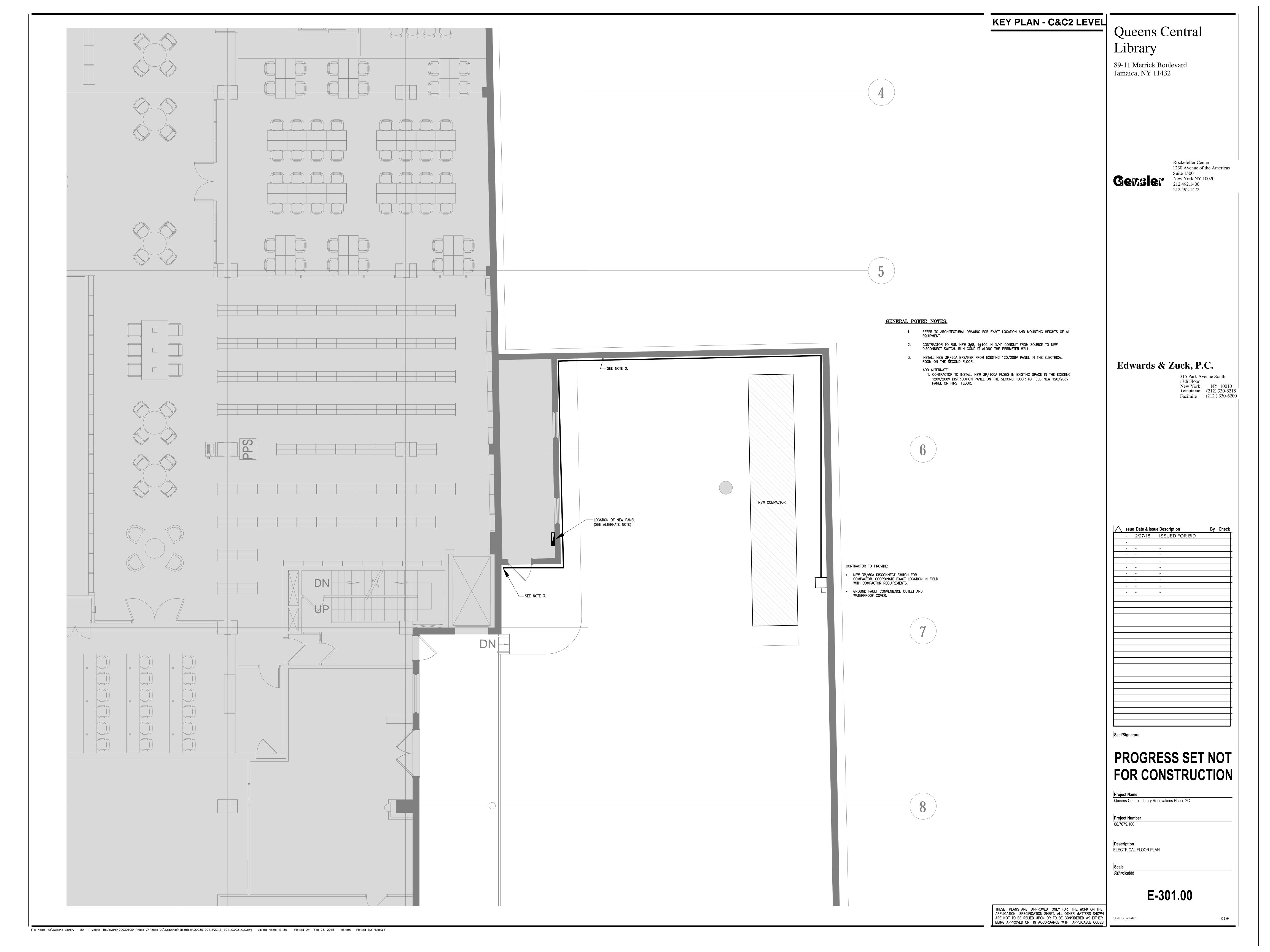
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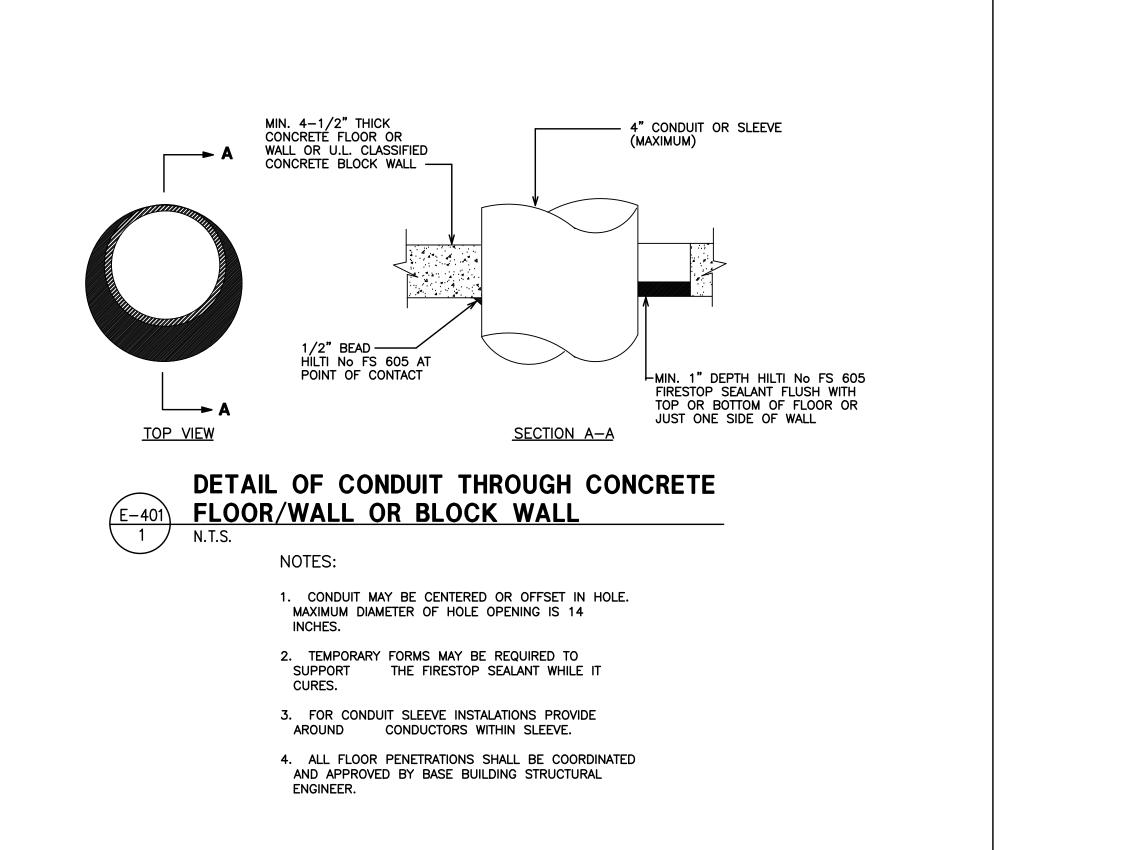
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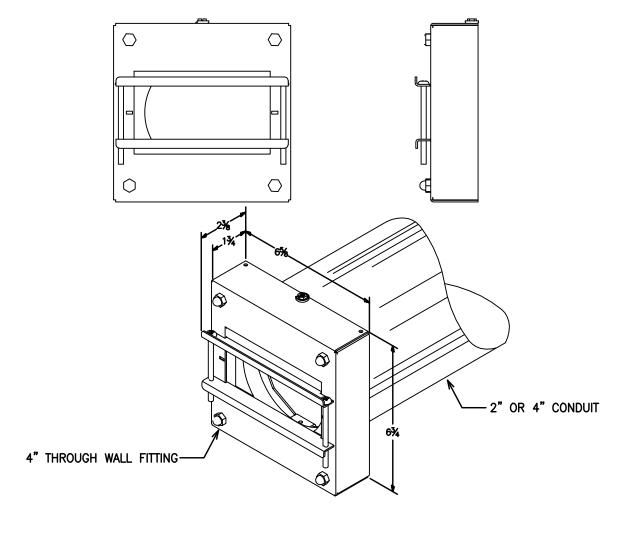
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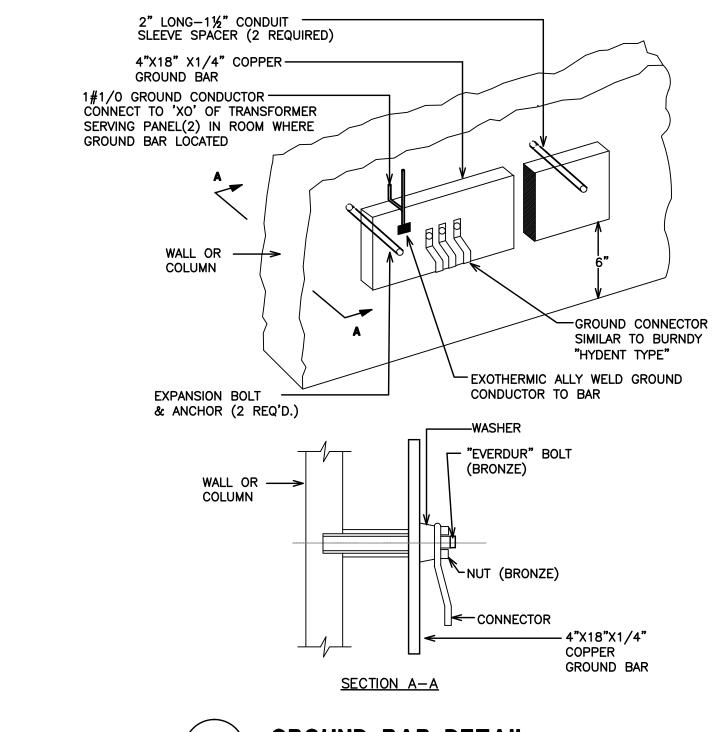


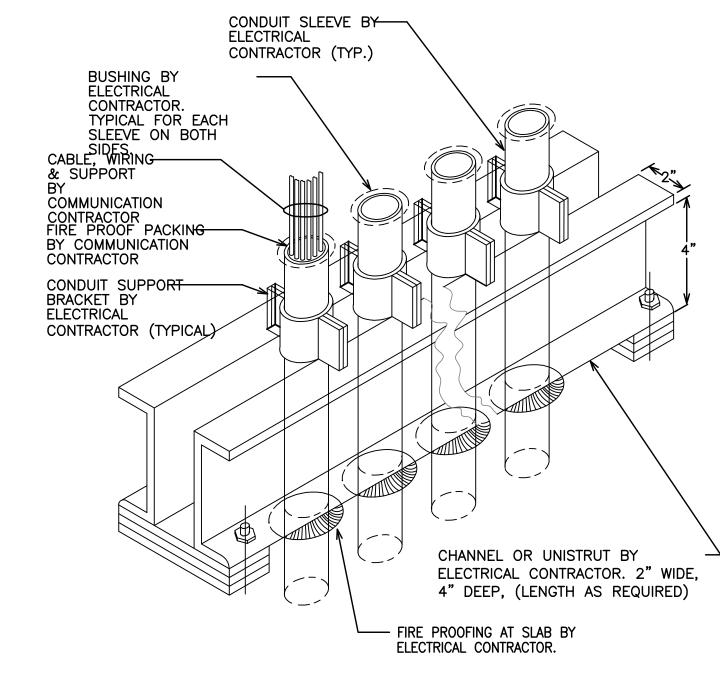


TYPICAL CONDUIT THRU-WALL FIRESTOPPING DETAIL

1. CONTRACTOR TO PROVIDE FITTING ON EACH END OF CONDUIT(S). FOR 4" CONDUITS UTILIZE WIREMOLD FLAMSTOPPER CAT No.FS4-FY. FOR 2" CONDUITS UTILIZE WIREMOLD FLAMSTOPPER CAT No.FS2-FY. AT CONTRACTORS OPTION, UTILIZE PRE-CUT 2", 4" CONDUITS, WIREMOLD CAT No.FSPCC2725 OR FSPCC4725 RESPECTIVELY. PRE-CUT CONDUITS ARE 7-5/16" IN LENGTH. PROVIDE ADEQUATE SPACING BETWEEN CONDUIT BANKS TO ALLOW FOR INSTALLATION OF FITTING.

2. DETAIL/SPECIFICATIONS APPLICABLE FOR ALL LOW VOLTAGE CABLING PASSING THROUGH ALL FIRE RATED WALLS. CONTRACTOR SHALL REFERENCE ARCHITECTURAL DRAWINGS FOR RATED WALL LOCATIONS. 3. IF UTILIZED IN CONJUNCTION WITH CABLE TRAY, PROVIDE GROUND HARDWARE AND CONNECTIONS AS REQUIRED.





COMMUNICATION CONDUIT VERTICAL SUPPORT DETAIL

 ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWING OF CONDUIT SUPPORT FOR REVIEW BY STRUCTURAL ENGINEER. 2. CONDUIT SUPPORT SHALL BE PROVIDED IN QUANTITIES AS REQUIRED TO ACCOMMODATE ALL VERTICAL COMMUNICATION

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Library

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PROGRESS SET NOT FOR CONSTRUCTION

Project Name

Queens Central Library Renovations Phase 2C

Description
ELECTRICAL DETAILS 1

Project Number 06.7679.100

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E-401.00

THESE PLANS ARE APPROVED ONLY FOR THE WORK ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.