

PROPOSED NEW BUILDING FOR:  
**NOOR INTERNATIONAL ACADEMY**

4050 COOLIDGE HWY  
TROY, MICHIGAN 48098  
PERMITS 08.17.2022



**OWNER**



Hamadeh Educational Services, Inc. For  
Star International Academy | Universal Learning Academy |  
Universal Academy | Noor International Academy  
"Promoting Academic Excellence, Leadership & Cultural Diversity"  
P.O. Box 1440 | Dearborn, MI 48121 | (313) 565-0507

**CIVIL**



CONSULTING  
ENGINEERS  
CIVIL

PEA GROUP  
1849 POND RUN DRIVE  
AUBURN HILLS, MICHIGAN 48326  
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Email: jbutler@peagroup.com

**PROJECT INFORMATION**

PROJECT NUMBER: 22010

PROJECT LOCATION: 4050 COOLIDGE HWY  
TROY, MICHIGAN 48098

DESIGN FIRM: GAY & ASSOCIATES, INC.  
24001 ORCHARD LAKE RD  
FARMINGTON, MI 48336  
PHONE: (248) 985-9101

1. THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE:  
SAMIR M. KARIM, MI LIC. #1301030452.
2. THESE CONSTRUCTION DOCUMENTS WERE PREPARED FOR COMPLIANCE WITH THE MICHIGAN CONSTRUCTION CODES IN EFFECT AT THE TIME OF PERMIT SUBMITTAL. ALL ENGINEERS, CONTRACTORS AND SUPPLIERS INVOLVED WITH THIS PROJECT SHALL COMPLY WITH THE SAME CODES, ISSUED AND APPROVED CODE MODIFICATIONS AND/OR CITY OF TROY / STATE OF MICHIGAN CONSTRUCTION BOARDS OF APPEALS RULINGS AND WHENEVER REQUIRED SHALL PROVIDE SHOP DRAWINGS AND SUBMITTALS CLEARLY DESCRIBING COMPLIANCE TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR REVIEW AND APPROVAL.
3. ALL APPLICABLE GOVERNMENTAL AGENCIES, SUCH AS MDOT, COUNTY, UTILITY SERVICES, ETC. SHALL HAVE DRAWINGS SUBMITTED FOR REVIEW FOR ENGINEERING APPROVAL AT THE TIME OF PERMIT SUBMITTAL.

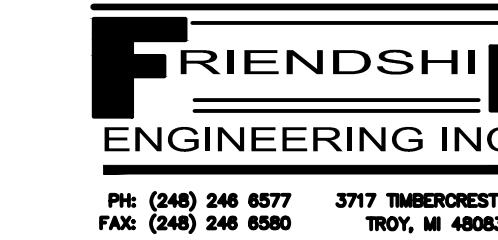
**ARCHITECTURAL**



ARCHITECTURAL  
DESIGN  
RESIDENTIAL  
COMMERCIAL  
INDUSTRIAL

G.A.V. & Associates, Inc.  
24001 ORCHARD LAKE RD.  
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**STRUCTURAL**



CONSULTING  
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STRUCTURE

FRIENDSHIP ENGINEERING  
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**MECHANICAL / ELECTRICAL / PLUMBING**



CONSULTING  
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MECHANICAL  
ELECTRICAL  
PLUMBING  
ENERGY

MEP Engineers  
380 NORTH MAIN STREET  
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**CONTRACT RELATED DOCUMENTS (BUILDING ONLY):**

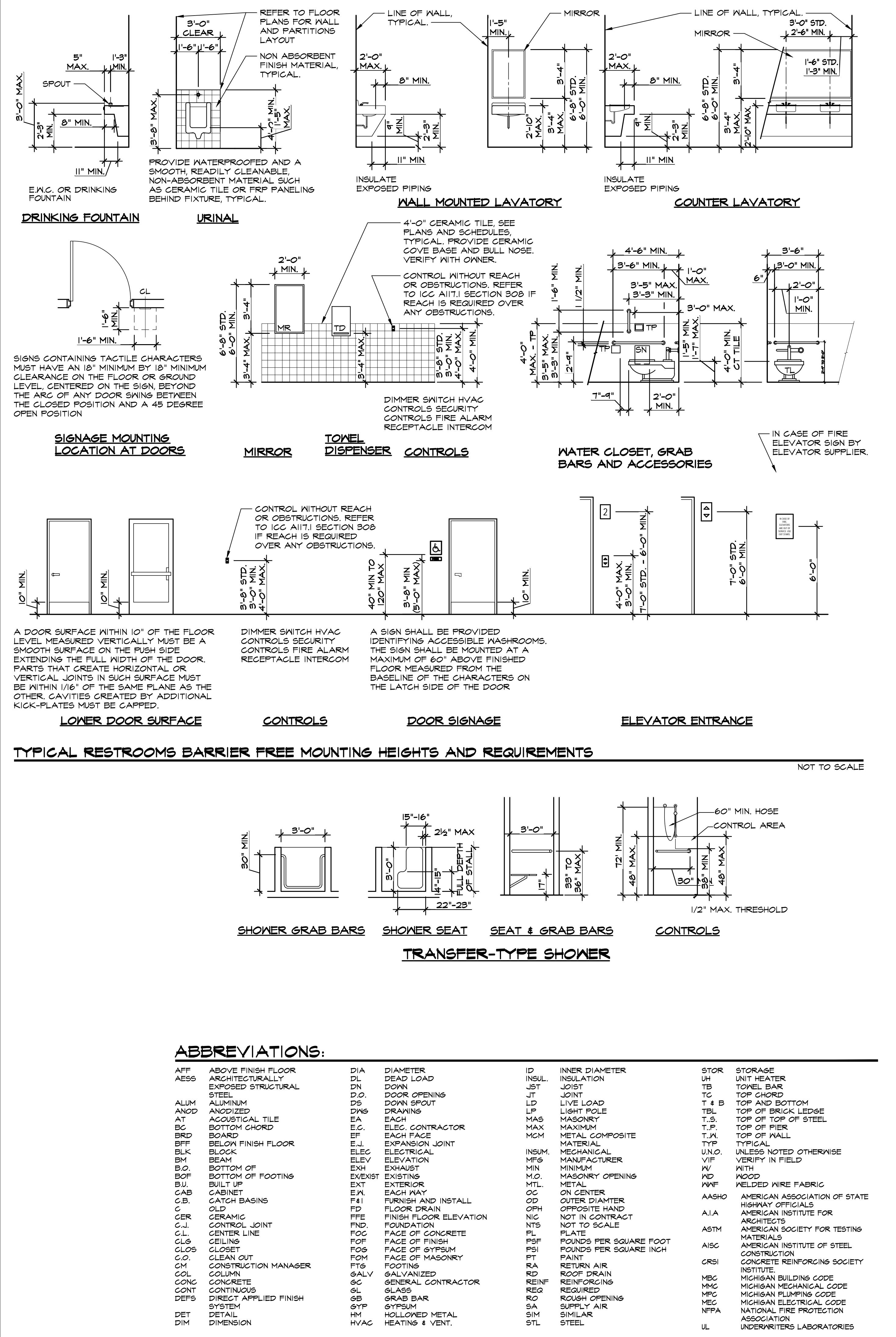
GEOTECHNICAL EXPLORATION AND ENGINEERING REPORT PEA ENGINEERS

**PERMIT APPROVAL DOCUMENTS (PLAN REVIEW):**

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS:  
OFFICE \_\_\_\_\_ PROJECT NUMBER \_\_\_\_\_ DATE \_\_\_\_\_  
BUREAU OF FIRE SERVICES \_\_\_\_\_  
BUREAU OF CONSTRUCTION CODES \_\_\_\_\_  
GC/CM TO INCLUDE AND PROVIDE TO ALL CONTRACTORS. \_\_\_\_\_



-6.00-



DRAWING INDEX		ISSUED FOR:
SHEET TITLE	ISSUED X DELETED SHEET N NEW SHEET	08-17-2022 PERMITS
NOT INCLUDED		
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DRAWING INDEX AND GENERAL INFORMATION	●	
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GENERAL INFORMATION AND SCHEDULES	●	
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DRAWING INDEX			ISSUED FOR:
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FOODSERVICE			

## GENERAL CONDITIONS:

- THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERALLY THE LOCATIONS OF MATERIAL AND EQUIPMENT; THESE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. CONSTRUCTION MANAGER IS RESPONSIBLE FOR REVIEWING, COORDINATING AND APPROVING ALL WORK TO BE DONE BY CONTRACTORS. ANY SUBMITTAL TO ARCHITECT / ENGINEER SHALL BE REVIEWED BY THE C.M. BEFORE SUBMITTING TO ARCHITECT / ENGINEER.
- BUILDING SHALL BE FULLY FIRE SUPPRESSED IN ACCORDANCE WITH 2015 MBC AND ALL APPLICABLE CODES.
- SPRINKLER CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF FIRE SUPPRESSION SYSTEM FOR FIRE MARSHALS REVIEW AND APPROVAL.
- BUILDING SHALL HAVE A FIRE ALARM SYSTEM PER ELECTRICAL DRAWINGS AND THE SYSTEM SHALL COMPLY WITH 2015 MBC AND ALL APPLICABLE CODES.
- ALL EXTERIOR WOOD, PLYWOOD, ETC. SHALL BE PRESERVATIVE TREATED.
- CONSTRUCTION MANAGER AND THE CONTRACTORS SHALL COMPLY WITH ALL CODES CURRENTLY IN EFFECT IN THE CITY OF AUBURN HILLS AND THE STATE OF MICHIGAN.
- CONFORM TO A.I.A. DOCUMENT NO. A-201, LATEST EDITION, AND COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, LAWS, RULES AND REGULATIONS.
- ALL CONTRACTORS SHALL CARRY ADEQUATE INSURANCE OR OTHERWISE SECURE, PROTECT AND HOLD HARMLESS THE OWNER AND ITS AGENTS AND THE ARCHITECT/ENGINEER FROM ANY LIABILITY OR DAMAGE WHATSOEVER, FOR INJURY (INCLUDING DEATH) TO ANY PERSON OR PROPERTY.
- SUSPENDED ACOUSTICAL CEILING TILES AND GRID SYSTEM SHALL COMPLY NFPA 101-2012 AND MBC 2015.
- GRID WORK SHALL BE SUPPORTED WITH A MINIMUM OF 2-12 GA. HANGER WIRES TO STRUCTURE ABOVE.
- PROVIDE A KNOX BOX FOR FIRE DEPARTMENT ACCESS. LOCATE ON BUILDING, AS PER FIRE MARSHALL.
- INSTALL 6" HIGH ADDRESS NUMBERS WHICH ARE VISIBLE FROM THE STREET. VERIFY LOCATION WITH FIRE MARSHAL.
- ALL WALLS SHALL EXTEND UP TO AND BE SEALED TO THE UNDERSIDE OF FLOOR / ROOF DECK.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY SIGNAGE PER SECTION II 104 OF THE 2015 MBC AND SECTION 703 OF THE ANSI A111.
- ALL PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL COMPLY WITH SECTION 307 OF THE ANSI A111-2009.
- ANY RATED WALL THAT HAS PROTECTED OPENINGS OR PENETRATIONS SHALL BE PERMANENTLY IDENTIFIED ABOVE CEILING WITH SIGNS OR STENCILING @ NOT LESS THAN 30" O.C. ALONG THE HORIZONTAL DIMENSION. LETTERS SHALL NOT BE LESS THAN 0.5" IN HT. AND CONTAIN THE WORDS "FIRE & SMOKE BARRIER-PROTECT ALL OPENINGS". ALL PENETRATIONS IN WALLS FOR PIPING.
- ALL PENETRATIONS IN RATED WALLS SHALL BE SEALED w/ APPLICABLE FIRE RATED SEALANT, STOP, OR OTHER APPROVED METHOD PER I.F.C. 2012. ANY PENETRATIONS SHALL BE SEALED WITH FIRE RATING EQUIVALENT TO PENETRATED SYSTEM.
- A PORTABLE FIRE EXTINGUISHER MUST BE PRESENT DURING CONSTRUCTION. PERMANENT PORTABLE FIRE EXTINGUISHER LOCATIONS TO BE DETERMINED PER I.F.C. AND FIELD BUILDING INSPECTOR.
- FIRESTOPPING SHALL BE TESTED IN ACCORDANCE WITH ASTM E-814 TEST STANDARDS. CONTRACTOR TO SUBMIT TEST REPORT ATTACHED WITH THE SUBMITTAL COVER SHEET FOR EACH APPLICATION, I.E., FOR EACH KIND OF CONSTRUCTION (RATED FLOOR/CEILING RATED WALLS/ETC.) BEFORE INSTALLATION. FIRESTOPPING INSTALLATION SHALL NOT BE CONCEALED WITH FINAL CONSTRUCTION UNTIL APPROVED BY BUILDING INSPECTOR.
- ALL HAZARDOUS ROOMS TO HAVE DOOR CLOSURE AND SHALL BE SMOKE TIGHT ENCLOSURES IN JANITOR CLOSETS, MECHANICAL / ELECTRICAL ROOMS AND STORAGE ROOMS.
- DO NOT SCALE DRAWINGS. USE GIVEN DIMENSIONS ONLY. DIMENSIONS ARE NOT FACED DRAWINGS. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERALLY THE LOCATION OF MATERIAL AND EQUIPMENT. THESE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. GENERAL CONTRACTOR IS RESPONSIBLE FOR REVIEWING, COORDINATING AND APPROVING ALL WORK TO BE DONE BY SUB CONTRACTORS. ANY SUBMITTAL TO ARCHITECT / ENGINEER SHALL BE REVIEWED BY THE G.C. BEFORE SUBMITTING TO ARCHITECT / ENGINEER. IF DIMENSIONS ARE IN QUESTION THE CONTRACTOR IS RESPONSIBLE FOR CONSULTING WITH THE TENANT AND OWNER BEFORE CONTINUING WITH THE WORK FOR POSSIBLE REDESIGN.
- VERIFY LOCATION OF ALL EQUIPMENT AND VERIFY SIZES, WALL OPENINGS, AND SUPPORT REQUIREMENTS. WITH MANUFACTURER, PROVIDE OPENINGS, BRACING AND REINFORCEMENT AS REQUIRED BY MANUFACTURER.
- CONSTRUCTION MANAGER WILL SUPPLY SECURED STAGING AREA AND OFFICE TRAILER.
- CONSTRUCTION MANAGER WILL COMPLY WITH ENVIRONMENTAL AGENCIES.
- CONSTRUCTION MANAGER WILL SUPPLY TOILET FACILITIES FOR ALL TRADES.
- CONSTRUCTION MANAGER WILL COMPLY WITH DEMATERIALIZATION AS NECESSARY.
- CONSTRUCTION MANAGER WILL BE RESPONSIBLE TO KEEP A CLEAN SITE AT ALL TIMES.
- TEMPORARY BRACING, GUYING AND TIE DOWNS OF THE STRUCTURE DURING ERECTION SHALL BE THE RESPONSIBILITY OF THE ERECTOR AND CONTRACTOR(S). THE ENGINEER AND ARCHITECT ASSUME NO RESPONSIBILITY FOR THE ABSENCE, PRESENCE OR ADEQUACY OF ANY TEMPORARY BRACING. ALL EXISTING STRUCTURES THAT MAY BE AFFECTED BY THE NEW CONSTRUCTION SHALL BE BRAZED AND PROTECTED AS REQUIRED.
- WHERE A DETAIL IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS (UNLESS NOTED OTHERWISE).
- ALL FURRED/ STUDPED WALLS SHALL HAVE FIRE BLOCKING AS REQUIRED BY CODE.
- VERIFY ALL EXISTING FIELD CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK. VERIFY ALL DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS. IN THE EVENT OF DISCREPANCY, NOTIFY THE G.C. AND/OR THE ARCHITECT AND OBTAIN RESOLUTION BEFORE PROCEEDING. FAILURE TO NOTIFY THE ARCHITECT WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO PERFORM THE WORK AS INTENDED BY THE CONTRACT DOCUMENTS. CONTRACTOR(S) SHALL BE RESPONSIBLE FOR ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ARCHITECT.
- ALIGN PARTITIONS WITH FACE OF OTHER PARTITIONS OR COLUMNS, UNLESS NOTED OTHERWISE. THE FACE OF EVERY PARTITION SHALL BE FLUSH WITHOUT OFFSETS. CHANGES IN PARTITION THICKNESS SHALL OCCUR AT CORNERS, PARTITION INTERSECTIONS OR OTHER FEATURES WHICH INTERRUPT THE PLANE OF THE PARTITION. FACE OF CORRIDOR PARTITIONS SHALL BE FLUSH FOR THE ENTIRE LENGTH OF THE CORRIDOR REGARDLESS OF CHANGES IN PARTITION THICKNESS. ALL ADJUSTMENTS SHALL BE MADE TO THE ROOM SIDE OF THE CORRIDOR PARTITION AND AT CORNERS.
- ALL GYPSUM BOARD MATERIALS AND ACCESSORIES SHALL CONFORM TO THE APPROPRIATE STANDARDS IN ACCORDANCE WITH TABLE 2506.2 MBC 2015.
- REFER TO INTERIOR FINISHES REQUIREMENT ON LIFE SAFETY SHEET A.091. ALL INTERIOR FINISHES SHALL HAVE A CLASS C FLAME SPREAD OF 76 TO 200 AND A SMOKE DEVELOPMENT INDEX NOT GREATER THAN 450 IN ACCORDANCE WITH ASTM E84 OR UL 723. ALL INTERIOR CARPET INCLUDING THOSE IN EXIT ENCLOSURES SHALL COMPLY WITH MBC SECTION 204. DOC FF-1 "PILL TEST" (SPEC 16 CFR, PART 1630) CONTRACTOR TO PROVIDE COMPLETE DOCUMENTATION TO FIELD INSPECTOR. FLOOR FINISH SHALL MEET A MIN. OF CLASS II FOR THE MIN. CRITICAL RADIANT FLUX INCLUDING THOSE IN EXIT ENCLOSURES. ALL FLOOR FINISHES SHALL BE IN ACCORDANCE WITH NFPA 253.

## GENERAL CONDITIONS (CONTINUED):

- ALL EXPOSED INSULATION SHALL HAVE A CLASS A FLAME SPREAD NOT GREATER THAN 25 AND A SMOKE DEVELOPMENT NOT GREATER THAN 450 IN ACCORDANCE WITH ASTM E84 REQUIREMENTS. OWNER TO PROVIDE DOCUMENTATION.
- ALL EXIT DOORS & MEANS OF EGRESS DOORS SHALL BE SIDE HINGED, NON-LOCKING & SWING IN DIRECTION OF EGRESS.
- ALL PLYWOOD, WOOD BLOCKING & NAILERS TO BE NON COMBUSTIBLE.
- INFILL AROUND ALL EXTERIOR WALL PENETRATIONS. FLASH WITH METAL & RUBBER AND SEAL TIGHT AT WALL.
- "EXIT" SIGNS SHALL HAVE RED LETTERS AT LEAST 6" HIGH AND THE MINIMUM WIDTH OF EACH STROKE SHALL BE 3/4" ON A WHITE BACKGROUND OR IN OTHER APPROVED DISTINGUISHABLE COLOR. THE WORD "EXIT" EXCEPT THE LETTER "I" SHALL HAVE LETTERS HAVING A WIDTH NOT LESS THAN 2 INCHES AND THE MINIMUM SPACING BETWEEN LETTERS SHALL NOT BE LESS THAN 3/8" OF AN INCH. SIGNS LARGER THAN THE MINIMUM SIZE REQUIRED SHALL HAVE LETTERS WIDTH AND SPACING IN THE SAME PROPORTION TO THE HEIGHT AS INDICATED IN THIS CODE. IF AN ARROW IS PROVIDED AS PART OF AN EXIT SIGN, THE CONSTRUCTION SHALL BE SUCH THAT THE ARROW CAN NOT BE READILY CHANGED. THE WORD "EXIT" SHALL BE CLEARLY DISCERNIBLE WHEN THE SIGN IS ILLUMINATION MEANS IS NOT ENERGIZED.
- MIN. AVERAGE ILLUMINATION OF 10 FOOTCANDLES IS REQUIRED AT A HEIGHT OF 30' AFF OVER THE AREA OF ALL ROOMS
- PROVIDE TYVEK DRAWRAP SHEET FOR ALL E.F.I.S. WORK INDICATED ON DRAWINGS.

## SITE WORK:

REFER TO CIVIL DRAWINGS FOR ALL SITE INFORMATION. CIVIL DRAWINGS SHALL OVERRIDE THE SITE NOTES IN THIS SECTION.

- PLACE FOUNDATIONS ON UNDISTurbed SOIL, U.N.O. VERIFY IN THE FIELD BY TEST AS REQUIRED THE BEARING CAPACITY UNDER FOOTINGS.
- WHERE FOOTINGS CHANGE ELEVATIONS, STEP DOWN FOOTINGS ON FIRM BEARING AT THE RATE OF ONE FOOT VERTICAL TO TWO FEET HORIZONTAL.
- STEP DOWN ALL FOOTINGS ADJACENT TO SUMPS, PITS, SEWERS, TANKS, EXISTING UNDERGROUND WORK, ETC., AND WHEREVER PRESSURE PLANE OF FOOTINGS MAY BE CUT BY DEEPER EXCAVATION. DROP THE FOOTING DOWN TO THE BOTTOM OF THE EXCAVATION FOR SUCH WORK TO FIRM BEARING.
- ALL CONTINUOUS REINFORCING BARS SHALL BE LAPPEd AS PER TENSION EMBEDMENT OR TENSION CLASS "C" SPLICE LENGTH, LAP CONTINUOUS TOP REINFORCING AT CENTER OF SPAN AND BOTTOM REINFORCING AT SUPPORTS. TERMINATE TOP BARS AT NON-CONTINUOUS END WITH STANDARD HOOK.
- REMOVE ALL EXCESS MATERIAL OFF THE SITE. REMOVE ALL TOP SOIL, BRUSH, ROOTS, TREES, RUBBISH AND ALL OBSTRUCTIONS TO THE WORK FROM THE AREAS OF BOTH CUT AND FILL. REMOVE EXISTING FILL WITHIN BUILDING AREA AND REPLACE WITH COMPACTED SAND FILL AS REQUIRED.
- PRIOR TO BACKFILLING TRENCHES OR FILLING EMBANKMENTS AT THE BUILDING AREA PRO ROLL THE AREA WITH A 10 TON TRUCK LOADED WITH SOIL. ANY AREA UNDER THE WHEEL THAT SHOWS A DEPRESSION MORE THAN ONE INCH SHALL BE REMOVED TWO FOOT DEEP AND REPLACED WITH APPROVED FILL MATERIAL FREE OF ORGANIC MATERIAL AND WITH GRAIN SIZE LESS THAN 2 INCHES AND WITH GRADATION THAT CAN BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER ASTM D-157.
- AND SHALL BE COMPACTED IN 6 INCH LOOSE LIFTS TO 95% MAXIMUM DENSITY PER ASTM D-157 AND THE REMAINING 12 INCH SPACE SHALL BE FILLED WITH CRUSHED AGGREGATE MDOT-22A COMPACTED IN 6 INCH LAYERS TO 98% MAXIMUM DENSITY PER ASTM D-157. ALL COMPACTION SHALL BE SUPERVISED BY A COMPETENT TESTING LABORATORY RETAINED BY THE CONTRACTOR AND APPROVED BY THE ARCHITECT.
- BACKFILL AGAINST GRADE BEAMS OR WALLS SHALL CONSIST OF GRANULAR FILL FREE OF ORGANICS AND NO MORE THAN 3 PERCENT SILT OR CLAY WITH PARTICLE SIZE LESS THAN 4 INCHES IN DIAMETER AND PASSING NO 4 SIZE BY 25 TO 10 PERCENT NOTIFY ARCHITECT/ENGINEER IF POOR SOIL CONDITIONS ARE FOUND AT THE SITE. BACKFILL SHALL BE PLACED IN 6 INCH LOOSE LIFTS AND COMPACTED TO 95% MAXIMUM DENSITY PER ASTM D-157 ON BOTH SIDES OF THE STRUCTURE BY HAND COMPACTORS. HEAVY COMPACTING ROLLERS SHALL BE KEPT 10 FEET CLEAR OF THE STRUCTURE.
- NO FROZEN MATERIAL SHALL BE USED AS FILL AND NO FILL SHALL BE PLACED ON FROZEN GROUND.
- USE ONLY CLEAN COMPACTED SAND UNDER THE FLOOR SLAB AND PAVED AREAS WHERE AGGREGATE BASE COURSE IS NOT SPECIFIED. PLACE FOUNDATIONS ON UNDISTurbed SOIL, U.N.O. VERIFY IN THE FIELD BY TEST AS REQUIRED THE BEARING CAPACITY UNDER FOOTINGS.
- WHERE FOOTINGS CHANGE ELEVATIONS, STEP DOWN FOOTINGS ON FIRM BEARING AT THE RATE OF ONE FOOT VERTICAL TO TWO FEET HORIZONTAL. WALL AND PIER FOOTINGS SHALL BE A MIN. OF 12 INCH THICK AND SHALL PROJECT A MINIMUM OF 6" BEYOND THE FACE OF WALLS, PIERS, STACKS, ETC.
- UNLESS OTHERWISE NOTED, PROVIDE (2) #5 ADDITIONAL BARS AROUND ALL OPENINGS IN WALL OR SLAB. EXTEND BARS 2 FEET BEYOND OPENING IN TO THE WALL OR SLAB.
- PLACE SLAB ON GRADE IN CHECKERBOARD PATTERN OR IN AN ALTERNATE LANES. CONSTRUCTION JOINTS OR CONTROL JOINTS SHALL BE PROVIDED SPACED NO GREATER THAN 20 FEET, UNLESS SHOWN OTHERWISE.
- SLAB ON GRADE SHALL BE 5" THICK WITH SMOOTH FLOAT FINISH.
- CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING SIZE, LENGTH, AND LOCATION OF REINFORCING INTENDED POURING SEQUENCE AND LOCATION OF CONSTRUCTION JOINTS TO ARCHITECT FOR REVIEW.
- BEFORE PLACING THE PIT MAT SPREAD AT NO COST TO THE OWNER ONE 94 LB. BAG OF DRY CEMENT PER 3 SY OF AREA AT THE BOTTOM OF THE EXCAVATION WHENEVER THE SOIL AT THE BOTTOM IS COMPOSED OF MORE THAN 16 PERCENT SILT AS DETERMINED BY THE TESTING AGENCY.

## FOUNDATION & EARTH WORK

- FOOTINGS SHALL BEAR ON THE FIRM UNDISTurbed SOIL WITH A SAFE NET CAPACITY OF 1500 PSF. IF SOIL OF THIS CAPACITY IS NOT FOUND AT THE ELEVATIONS INDICATED, FOOTINGS SHALL BE ENLARGED OR LOWERED AT THE DIRECTION OF THE ENGINEER. VERIFY FOUNDATION SOIL BEARING PRESSURE IN FIELD BY SOILS ENGINEER.
- EXCAVATION OF FILLS, ORGANIC MATERIALS AND OTHER UNSUITABLE MATERIAL IS TO BE REMOVED UNTIL THE MIN. SOIL BEARING IS OBTAINED PER AN ONSITE SOILS ENGINEER. PAD FOOTING IS TO EXTEND TO THAT POINT. IF WATER IS ENCOUNTERED DURING EXCAVATION, CONTRACTOR TO CONSULT WITH DEMATERIALIZATION CONTRACTOR FOR RECOMMENDATIONS.
- ALL FOOTINGS SHALL BE PLACED ONTO COMPAKTED SUB GRADE OR ENGINEERED FILL (95% MINIMUM DENSITY AT OPTIMUM MOISTURE CONTENT). FOOTING ELEVATIONS SHOWN DESIGNATE A MINIMUM DEPTH OF FOOTINGS WHERE A SAFE SOIL BEARING PRESSURE OF 3000 PSF FOR COLUMNS AND WALL FOOTINGS IS EXPECTED. UNDERCUT AND PROVIDE ENGINEERED FILL AS NECESSARY TO ACHIEVE BEARING CAPACITY INDICATED.
- ALL FOUNDATION EXCAVATIONS SHALL BE INSPECTED AND CERTIFIED. CONTRACTOR TO SUBMIT TESTING REPORT TO CITY.
- NO FOOTINGS SHALL BE PLACED ONTO OR AGAINST SUB GRADES CONTAINING FROST OR ICE. CROSS REFERENCE ARCHITECTURAL AND STRUCTURAL DRAWINGS TO ASSURE PROPER DIMENSIONS AND PLACEMENT OF ALL ANCHORS, BOLTS, INSERTS, ETC.
- AFTER EXCAVATING FOR ALL EARTH-SUPPORTED FLOOR AND STAIR SLABS, THE EXPOSED NATURAL SOIL SHALL BE THOROUGHLY COMPAKTED PRIOR TO PLACING FILL.

## DESIGN LOADS:

THE STRUCTURE IS DESIGN FOR THE FOLLOWING LIVE LOADS, IN ADDITION TO THE LATERTAL LOADS AND SUPERIMPOSED DEAD LOADS AND SELF-WEIGHT OF THE STRUCTURE.  
BUILDING OCCUPANCY CATEGORY: II  
LIVE LOADS:  
1. ROOF SNOW LOAD:  
A. GROUND SNOW LOAD: 25 PSF  
B. FLAT ROOF SNOW LOAD (PI): (MIN ROOF LOAD): 20 PSF  
C. SNOW EXPOSURE FACTOR (Ge): 1.0  
D. SNOW LOAD IMPORTANCE FACTOR (I): 1.0  
E. THERMAL FACTOR (Gt): 1.0  
F. ADDITIONAL LOADING DUE TO DRIFTING AT CHANGES IN ROOF ELEVATIONS AND ICE AT OVERHANGS PER APPLICABLE CODE.  
ROOF DEAD LOAD: 15 PSF  
TOTAL ROOF DESIGN LOAD: 35 PSF

SECOND FLOOR DESIGN LOADS:  
G. DEAD LOAD 65 PDF  
H. LIVE LOAD (CLASSROOMS): 60 PSF  
I. LIVE LOAD (HALLWAYS): 100 PSF

## WIND LOAD:

- BASIC WIND SPEED (3-SECOND GUST): 115 MPH
- RISK CATEGORY FACTOR: II
- EXPOSURE CATEGORY: A
- INTERNAL PRESSURE COEFFICIENT: +/- 0.18
- MAIN FORCE RESISTING STRUCTURAL SYS (EQUIVALENT STATIC FORCE): 6. MIN UNIFORM: 16 PSF

## EARTHQUAKE DATA:

- OCCUPANCY CATEGORY: II
- MAPPED SPECTRAL RESPONSE ACCELERATION Ss=0.085g & Si=0.044g
- SITE CLASS: D
- SPECTRAL RESPONSE COEFFICIENTS SdS=0.091g & SDi=0.071g
- SEISMIC DESIGN CATEGORY A
- SECTION II.7 (ASCE-10) DESIGN REQUIREMENT FOR SDC A
- DESIGN BASE SHEER Fx=0.01kN
- Cg=SdS / (Ra)
- RESPONSE MODIFICATION FACTOR R=5
- SECTION II.7 (ASCE-10) DESIGN REQUIREMENT FOR SDC A

## STRUCTURAL STEEL:

- ALL EXPOSED STEEL SHALL BE MEET ARCHITECTURALLY EXPOSED STRUCTURAL STEEL A352-2 OR AS NOTED FOR AISC STANDARDS.
- THE STRUCTURAL INTEGRITY OF THE BUILDING SHOWN ON THESE PLANS IS DEPENDENT UPON COMPLETION ACCORDING TO THE PLANS AND SPECIFICATIONS. STRUCTURAL MEMBERS ARE NOT SELF-BRACING UNTIL PERMANENTLY AFFIXED TO THE STRUCTURE AS DIRECTED. THE ARCHITECT/STRUCTURAL ENGINEERS ASSUME NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION, MEANS AND METHODS OF CONSTRUCTION AND JOB SITE SAFETY ARE THE SOLE RESPONSIBILITY OF THE CONTRACTORS.
- ALL CONTINUOUS REINFORCING BARS SHALL BE LAPPEd AS PER TENSION EMBEDMENT OR TENSION CLASS "C" SPLICE LENGTH, LAP CONTINUOUS TOP REINFORCING AT CENTER OF SPAN AND BOTTOM REINFORCING AT SUPPORTS. TERMINATE TOP BARS AT NON-CONTINUOUS END WITH STANDARD HOOK.
- ALL REINFORCING STEEL SHALL BE DEFORMED BARS GRADE 60 CONFORMING TO THE LATEST EDITION OF ASTM A-615/A 615M-00 OR ASTM-616 AND HAVE A MINIMUM YIELD STRENGTH OF 60000 PSI
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A25-85 USING COLD DRAWN WIRE CONFORMING TO ASTM A82-01.
- UNLESS OTHERWISE NOTED, MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE 3/4 INCH FOR SLABS, 1.5 INCH FOR BEAMS, COLUMNS AND PIERS, AND 1 INCH FOR WALLS. ALL CONCRETE EXPOSED TO WEATHER OR EARTHFLUID SHALL HAVE A MINIMUM COVER OF 1.5 INCHES FOR #8 BARS OR SMALLER, 2 INCH FOR BARS LARGER THAN #5 AND 3 INCH FOR CONCRETE PLACED AGAINST EARTH.
- ALL STRUCTURAL STEEL CONSTRUCTION TO CONFORM TO AISC-360 "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" AND AISC CODE OF STANDARD PRACTICE, UNLESS MODIFIED.
- ALL DETAILING FABRICATION AND ERECTION SHALL CONFORM TO MBC SECTION 2204 CODE, THE LATEST EDITION OF "AISC SPECIFICATION FOR STRUCTURAL FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS AND BRIDGES."
- CONTRACTOR TO USE AISC SPECIFICATIONS FOR THE MANUFACTURE OF ALL STRUCTURAL STEEL MEMBERS WITH TENSILE YIELD STRENGTH FY = 50 KSI, AND WHICH SHALL CONFORM TO ASTM A-992 STANDARDS, AND SHALL SUBMIT SHOP DRAWINGS. ALL STRUCTURAL STEEL SHALL BE ASTM A-992 (UNLESS NOTED OTHERWISE) HAVING FY=50,000 PSI.
- STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B OR ASTM A501. SEE DRAWING FOR EACH APPLICATION.
- ALL DRAWINGS SHOW THE INTENT AND CONCEPT OF THE CONNECTIONS BUT NOT THE DETAIL OF BOLTS AND WELDS. ALL CONNECTIONS NOT DETAILED SHALL BE DESIGNED, DETAILED AND MANUFACTURED BY THE FABRICATOR.
- SHOP CONNECTIONS SHALL BE WELDED FIELD CONNECTIONS USE ETTOX ELECTRODES, RUN PARALLEL TO THE TENSION MEMBERS, AND USE HIGH STRENGTH BOLTS WITH WASHER AND NUT.
- FIELD BOLT CONNECTIONS WITH ASTM A-325 OR ASTM A-490.
- PROVIDE PERIMETER STEEL ANGLES FOR METAL ROOF DECK SUPPORT AS REQUIRED, INCLUDING AROUND ALL ELEVATORS, STAIRS, AND OPENINGS IN FLOOR OR ROOF.
- ALL WELDING TO CONFORM TO AIA'S D11 "STRUCTURAL WELDING CODE", E 70 XX LOW HYDROGEN ELECTRODES CONFORMING TO AWS SPECIFICATION A5.1 SHALL BE USED FOR WELDING.
- ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS USING ELECTRIC ARC METHODS IN ACCORDANCE WITH LATEST EDITION OF "AWS CODE FOR WELDING IN BUILDING CONSTRUCTION." ETTOX ELECTRODES TO BE USED.
- UNLESS OTHERWISE NOTED, ALL FIELD CONNECTIONS SHALL BE FASTENED WITH 3/4 INCH DIAMETER ASTM A325-X, BEARING TYPE (WITH THREADS EXCLUDED FROM SHEAR PLANE) BOLTS.
- UNLESS OTHERWISE SHOWN, ALL BEAM END CONNECTIONS SHALL BE DESIGNED TO SUPPORT ONE-HALF THE TOTAL UNIFORM LOAD CAPACITY SHOWN IN AISC MANUAL FOR GIVEN BEAM, SPAN AND GRADE OF STEEL SPECIFIED. FOR COMPOSITE BEAM CONNECTIONS SHALL BE DESIGNED FOR THREE-FOURTHS OF THE TOTAL UNIFORM LOAD CAPACITY.
- ALL ANCHOR BOLTS SHALL CONFORM TO ASTM A-307-00.
- MINIMUM CONNECTION SHALL BE 3/4 INCH DIAMETER BOLTS OR A WELD DEVELOPING A FORCE OF 10 KIPS.
- PAINT ONE COAT OF PRIMER ON ALL EXPOSED SURFACES EXCEPT FOR THE FOLLOWING SURFACES WHICH WILL NOT BE PAINTED:  
A. SURFACES THAT ARE IN CONTACT WITH CONCRETE.  
B. CONTACT SURFACES IN FRICTION TYPE CONNECTIONS.  
C. SURFACES WHICH METAL FLOOR DECK AND/OR SHEAR STUDS ARE TO BE WELDED.  
D. SURFACES TO BE WELDED SHALL NOT BE PAINTED WITHIN THREE INCHES OF THE WELD.
- THE CONTRACTOR SHALL FURNISH AND INSTALL STEEL ANGLES WITH ANCHORS AT MECHANICAL CURBS WHERE INDICATED.
- FLOOR AND ROOF OPENINGS ARE TO BE FRAMED WITH STEEL ANGLES AS INDICATED. FRAMES TO BE CONNECTED TO THE PANEL POINTS OF BAR JOISTS OR GIRDER AND TRUSSES.
- REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL ANGLES, PLATES, BARS, CLIPS, ETC., ATTACHED TO STRUCTURAL STEEL. VERIFY EXACT SIZE AND LOCATION OF ALL FLOOR AND ROOF OPENINGS WITH CONTRACTOR INVOLVED.
- PROVIDE "DUR-O-WALL" RE-STEEL; USE NO. 8 LADDER TYPE ONLY. BLOCKWORK - EVERY 24" STEEL FABRICATOR TO PROVIDE SHOP DRAWINGS FOR ARCHITECTS APPROVAL PRIOR TO FABRICATION. THE SHOP DRAWINGS SHALL INCLUDE CONNECTION DETAILS FOR ALL STRUCTURAL STEEL MEMBERS. SPECIFY THAT STEEL JOIST AND JOIST GIRDER STRUCTURAL.
- NO COMBUSTIBLES IN PLENUM SPACE

## SPECIAL INSPECTIONS:

BUILDER SHALL BE SELECT AND PROVIDE A THIRD PARTY TESTING AGENCY - PER SECTION. I705 MBC 2015.  
THE SPECIAL INSPECTIONS SHALL INCLUDE:  
SECTION I705.2 STEEL CONSTRUCTION  
SECTION I705.3 CONCRETE CONSTRUCTION  
SECTION I705.4 MASONRY CONSTRUCTION  
SECTION I705.6 SOILS

## REINFORCING STEEL:

- DETAILING AND PLACING OF REINFORCING SHALL CONFORM TO AIC MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES.
- SECURE REBAR AND HOLD IN PLACE WITH GALVANIZED METAL ACCESSORIES, OR PLASTIC BOOTED CHAIRS.
- ALL RE-STEEL SHALL BE INTERMEDIATE GRADE NEW BILLET STEEL, ASTM 15.
- PLACE (2) #5 BARS CONTINUOUS IN TOP AND BOTTOM OF ALL WALL FOOTINGS, GRADE BEAMS, AND AT THE SIDES OF ALL OPENINGS, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- UNLESS NOTED, ROOF DECK SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM A100, 33 KSI.
- LOADS SHALL NOT BE HUNG FROM ROOF DECK.
- METAL DECK TO BE CONNECTED TO SUPPORTING MEMBERS AS PER RECOMMENDATION BY SDI OR AS SPECIFIED.
- THE CONTRACTOR SHALL FURNISH ALL ACCESSORIES INCLUDING CLOSURES, "Z" CLOSURES, COLUMN CLOSURES, SCREW ANGLES AND GIRDERS, AS REQUIRED.
- ROOF DECK SHALL HAVE MANUFACTURER'S STANDARD RUST INHIBITIVE PAINT.
- METAL DECK SHALL BE CONTINUOUS OVER THREE SPANS WHEREVER INDICATED. SINGLE AND DOUBLE SPANS SHALL COMPLY WITH "STEEL DECK" REQUIREMENT.
- ALL METAL DECKING SHALL BE WELDED TO THE STEEL BEAM WITH A 3/4 INCH PLUG WELD AT THE FLUTES NOT EXCEEDING 12 INCHES APART.
- ALL INTERIOR ROOF Sumps SHALL HAVE AN OVER FLOW 3" ABOVE ROOF SURFACE

## METAL DECK:

- METAL DECK SHALL CONFORM TO ALL REQUIREMENTS OF "BASIC DESIGN SPECIFICATION" AS ADOPTED BY THE STEEL DECK INSTITUTE (SDI).
- ALL METAL DECK WORK SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF AISI, SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS, A36-

# GENERAL NOTES & SPECIFICATIONS

1. CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY CHECK THE FIELD CONDITIONS PRIOR TO SUBMITTING HIS BID.
  2. CONTRACTOR SHALL BE PREPARED TO WORK CONTINUOUSLY AND EXPEDITIOUSLY TO COMPLETE THE WORK RIGHT ON SCHEDULE FOR A COMPLETE LIGHTING AND POWER SYSTEM.
  3. CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL FEES.
  4. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, CODES AND REGULATIONS AS WELL AS APPLICABLE CURRENT STANDARDS.
  5. CABINETS, MOTOR FRAMES, STARTERS, CONDUIT SYSTEM, PANELBOARDS, ETC., SHALL BE GROUNDED IN ACCORDANCE WITH THE LATEST N.E.C. AND LOCAL CODES.
  6. MATERIALS SHALL BE NEW AND BEAR THE U.L. LABEL OR LISTING, WHEREVER STANDARDS HAVE BEEN ESTABLISHED.
  7. COORDINATE EXACT LOCATION AND MOUNTING HEIGHTS OF ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES WITH OTHER TRADES BEFORE INSTALLATION.
  8. ALL WALL MOUNTED CONTROL DEVICES, LIGHTING SWITCHES SHALL BE 4'-0" A.F.F. UNLESS OTHERWISE NOTED ON THE DRAWINGS. SWITCHES SHALL BE 20A, 120/277V, 1 POLE, 2 POLE, 3 AND 4 WAY AS INDICATED, HUBBELL #1221 SERIES OR EQUAL.
  9. NOT USED.
  10. WALL MOUNTED DISCONNECT SWITCHES AND CONTROL PANELS SHALL BE 6'-0" TO TOP ABOVE FINISH FLOOR.
  11. EXPANSION FITTINGS SHALL BE PROVIDED FOR ALL CONDUIT CROSSING BUILDING EXPANSION JOINTS.
  12. ALL WEATHERPROOF (WP) DUPLEX RECEPTACLES SHALL BE INSTALLED HORIZONTALLY SUCH THAT COVER DOORS OPEN UPWARD.
  13. ALL PENETRATIONS OF FIRE WALLS OR FLOORS SHALL BE SEALED AFTER INSTALLATION OF CONDUIT WITH A FIRE RETARDANT SEALANT THAT IS RATED THE SAME AS THE FIRE WALL OR FLOOR.
  14. PROVIDE A GREEN GROUND CONDUCTOR IN ALL SYSTEMS CONDUITS INCLUDING BRANCH CIRCUIT CONDUITS FOR LIGHTING AND RECEPTACLES PER NEC TABLE 250-95.
  15. ALL CONDUIT SHALL BE 3/4"C. (MIN.) AND THEY SHALL BE OF SIZES REQUIRED TO ACCOMMODATE NUMBER OF CONDUCTORS IN ACCORDANCE WITH NEC WIRING TABLES OR AS INDICATED ON DRAWINGS, WHICHEVER IS LARGER.
  16. FEEDERS SHALL BE TYPE "THW" OR "XHHW", AND ALL 120 VAC LIGHTING AND RECEPTACLE CIRCUITS RUN 2#12 (THWN/THHN) MIN. + GND IN 3/4"C MIN. TO THE LIGHTING PANELBOARD INDICATED UNLESS NOTED OTHERWISE. HOME RUN TO PANEL IF MORE THAN 80' SHALL BE #10 IN 3/4"C. OR CONTRACTOR SHALL USE A CONDUCTOR SO THAT VOLTAGE DROP IS LESS THAN 2%. ALL WIRE SHALL BE COPPER, HAVE 600 VOLT INSULATION AND INSTALLED IN CONDUIT.
  17. RECEPTACLES SHALL BE DUPLEX GROUNDING TYPE 20A, 125V, HUBBELL #5362 OR EQUAL. SPECIAL PURPOSE RECEPTACLES 30A, 40A, 50A-2P OR 3P, ETC., SHALL BE SPECIFICATIONS GRADE.
  18. WALL PLATES FOR SWITCHES, RECEPTACLES AND TELEPHONE OUTLETS SHALL BE SUPER STAINLESS STEEL, TYPE 302, HUBBELL #93000 SERIES OR EQUAL.
  19. SINGLE PHASE MOTOR STARTERS SHALL HAVE MANUAL TOGGLE SWITCH WITH THERMAL OVERLOADS, FLUSH MOUNTED WITH PILOT LIGHT, ALLEN-BRADLEY #600 OR EQUAL.
  20. THREE PHASE MOTOR STARTERS SHALL BE MAGNETIC TYPE, WITH FUSED CONTROL TRANSFORMER (120 VOLT SECONDARY) AND AUXILIARY CONTACTS AS REQUIRED, ALLEN BRADLEY #712 OR EQUAL.
  21. DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE, FUSED OR NON-FUSED AS INDICATED, IN A NEMA 1 OR 12 ENCLOSURE, DISCONNECT SWITCHES INSTALLED OUTDOOR SHALL BE NEMA 3R ENCLOSURE, CUTLER-HAMMER, SQUARE D, OR G.E.
  22. ALL LIGHTING FIXTURES TO BE PROVIDED BY (CLARUS LIGHTING, INC.) AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE.
  23. ALL LIGHTING CONTROL SYSTEM TO BE PROVIDED BY (CLARUS LIGHTING, INC.). "GREENGATE CONTROL"
  24. ALL CABLES & MATERIALS INSTALLED IN A PLENUM RETURNED CEILING SHALL BE PLENUM RATED.
  25. DISRIBUTION PANELBOARD, OR PANELBOARDS SHALL BE SIEMENS, SQUARE D, OR EATON, SIZE ON THE DRAWINGS.
  26. FOR BRANCH CIRCUIT PANELBOARD TERMINATION AND CIRCUITRY, REFER TO PANEL SCHEDULES.
  27. FOR TYPE OF LIGHTING FIXTURES REFER TO LIGHTING FIXTURE SCHEDULE.
  28. ALL ELECTRICAL EQUIPMENT MOUNTED ON EXTERIOR WALLS SHALL HAVE A 1/2" MIN. AIR SPACE BETWEEN WALL AND EQUIPMENT. PROVIDE A NON-CORROSIVE SPACERS AND BRACKETS AS REQUIRED. ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL BE NEMA 3R ENCLOSURE.
  29. VERIFY ALL ROUGH-IN LOCATIONS, FINAL CONNECTIONS, MOUNTING HEIGHTS, VOLTAGES AND PHASES WITH OTHER TRADES EQUIPMENT SUPPLIERS SHOP DRAWINGS PRIOR TO INSTALLATION OF EQUIPMENT. FAILURE TO DO SO SHALL RESULT IN NO EXTRA CHARGE TO THE OWNER.
  30. EXACT LOCATIONS OF ELECTRICAL EQUIPMENT MAYBE ADJUSTED IN THE FIELD TO AVOID EXISTING AND UNEXPECTED CONSTRUCTION OBSTACLES.
  31. VERIFY EXACT LOCATION OF ALL CONTROL PANELS ETC., FOR MECHANICAL EQUIPMENT, AND WIRE ACCORDINGLY FOR A COMPLETE FUNCTIONAL SYSTEM

## **ABBREVIATIONS**

A	AMPS
AC	ALTERNATE CURRENT
ACCU	AIR COOLED CONDENSING UNIT
AFF	ABOVE FINISH FLOOR
AMP	AMPLIFIER
BKR	BREAKER
C,CND	CONDUIT
CUH	CABINET UNIT HEATER
CAT. NO.	CATALOG NUMBER
CKT.	CIRCUIT
CLG.	CEILING
CONT.	CONTRACTOR
C/T	CURRENT TRANSFORMER
D.E.CO.	DETROIT EDISON COMPANY
DN.	DOWN
DISC.	DISCONNECT
ELECT.	ELECTRICAL
EF	EXHAUST FAN
EXIST.	EXISTING
F	FIRE
FACP	FIRE ALARM CONTROL PANEL
FIXT.	Fixture
FL	FLOOR
GND.,G.	GROUND
GFI	GROUND FAULT INTERRUPT
HD	HEAT DETECTOR
HP	HORSE POWER
IT	INFORMATION TECHNOLOGY
KVA	KILO VOLT AMPERE
L,LTG.	LIGHTING
M.A.U.	MAKE-UP AIR UNIT
M.B.	MAIN BREAKER
MECH.	MECHANICAL
MIC	MICROPHONE
MIN.	MINIMUM
MTD	MOUNTED
N.T.S.	NOT TO SCALE
NO.	NUMBER
PNL	PANEL
PWR	POWER
R	RECEPTACLE
RM	ROOM
SD	SMOKE DETECTOR
SHT	SHEET
SW	SWITCH
SWBD	SWITCHBOARD
TYP.	TYPICAL
VA	VOLT AMPERE
V	VOLT
W	WATTS
W/	WITH
W/O	WITHOUT
WP	WEATHER PROOF
XFMR	TRANSFORMER

# ELECTRICAL SYMBOLS LIST

SYMBOLS	DESCRIPTION
— — — — —	CONDUIT RUN EXPOSED
— — — — —	CONDUIT RUN CONCEALED
— — — — —	HOME RUN TO PANEL
— — — — —	FLEXIBLE CONDUIT
— — — — —	CONDUIT TURNED DOWN
— — — — —	CONDUIT TURNED UP
(14)	INDICATES 208V, 3Ø SWITCHBOARD CIRCUIT #14
{4}	INDICATES 208V, 3Ø MDP-C CIRCUIT #4
[2]	INDICATES 208V, 3Ø MDP-B CIRCUIT #2
(2)	INDICATES 208V, 3Ø MDP-E CIRCUIT #2
[11]	INDICATES 208V, 3Ø MDP-D CIRCUIT #11
	MAIN SWBD (208V, 3Ø, 4W)
	AUTOMATIC TRANSFER SWITCH
	EMERGENCY DISTRIBUTION PANELBOARD
	DISTRIBUTION PANELBOARD (NORMAL)
	LIGHTING AND POWER PANEL (NORMAL – SURFACE)
	LIGHTING AND POWER PANEL (EMERGENCY – SURFACE)
EA,7	INDICATES EMERGENCY PANEL EA, BRANCH CIRCUIT #7
A,7	INDICATES PANEL A, BRANCH CIRCUIT #7
	3/4"X4'X4' TREATED PLYWOOD BOARD FOR COMMUNICATION SYSTEMS
P-C   LP-B →	PANEL DESIGNATION COVERAGE
	QUADRUPLEX RECEPTACLE, 48" AFF
	NEMA L5-30P OUTLET
●	POWER CONNECTION
⊕	DUPLEX RECEPTACLE, GROUNDING TYPE, WALL MOUNTED 18" AFF
	3/4"C – COMPLETE POWER RACEWAY SYSTEM WITH WIRING DEVICES 1"C – COMPLETE COMMUNICATION RACEWAY SYSTEMS
↑ ↑	1"C – RACEWAY SYSTEMS STUP-UP 1'-0" BEYOND THE CEILING SPACE WITH PULL ROPE
⊖	OVER THE COUNTER DUPLEX RECEPTACLE, 6" ABOVE COUNTER
GFCI ⊖	OVER THE COUNTER DUPLEX RECEPTACLE, GROUND FAULT INTERRUPTER, WALL MOUNTED 6" ABOVE COUNTER
WP ⊖	WEATHERPROOF DUPLEX RECEPTACLE
\$	SINGLE POLE SWITCH
\$3	THREE WAY SWITCH
\$P	PILOT LIGHT SWITCH WITH THERMAL OVERLOAD PROTECTION
\$T	MANUAL SWITCH WITH THERMAL OVERLOAD PROTECTION
\$K	KEY SWITCH
	DISCONNECT SWITCH – FUSED
	DISCONNECT SWITCH – UNFUSED
①	JUNCTION BOX OR PULL BOX – SIZED PER NEC
○	SINGLE PHASE MOTOR
◎	THREE PHASE MOTOR
— — — — —	4' FLUORESCENT LIGHTING FIXTURE AS INDICATED ON THE SCHEDULE
	2'X4' FLUORESCENT LIGHTING FIXTURE AS INDICATED ON THE SCHEDULE
X	LED EXIT LIGHT – WALL MOUNTED OR CEILING MOUNTED

## LIGHTING CONTROL LEGEND

LIGHTING CONTROL LEGEND	
	UL924 EMERGENCY POWER CONTROL
	(DSRC-FMOIR) OPEN LOOP DAYLIGHT SENSOR/IR RECEIVER
	(OAC-DT-100-R) 1000 SQ FT DUAL TECH LOW VOLTAGE OCCUPANCY CEILING SENSOR WITH BAS RELAY & DAYLIGHT SENSOR (MOUNT UP TO 12FT)
	(OCC-RJ45) INPUT/OUTPUT DEVICE
	(ONW-D-1001-MV-W) 1000 SQ FT DUAL TECH OCCUPANCY SENSOR WALL SWITCH
	(OXC-P-2MHO-R) PIR EXTREME TEMPERATURE SENSOR (MOUNT UP TO 25FT)
	(RC-5TSB-OS2-W) 5 BUTTON SMALL ZONE WALLSTATION (HALF LIGHTS, FULL LIGHTS, RAISE, LOWER, ALL OFF)
	(RC3DE-PL) ROOM CONTROLLER – 3 RELAYS, 3 0–10V DIMMING, UL924, PLenum RATED.
	(SP20-MV) 20A HEAVY DUTY SWITCHPACK (120/277V)
	LRM-2P-120/347 LOCAL RELAY MODULE – 2 POLE, (2) ISOLATED RELAYS, (2) DIGITAL INPUT PORTS, (3) SMART PORTS
	DI-PC DIGITAL INPUT PHOTO CELL



ISSUED FOR	DATE
PROGRESS	7-26-2
PROGRESS	8-2-22
0% COORDINATION	8-12-2
PERMITS	8-17-2

## **GENERAL REQUIREMENTS**

- A. CODES:
    - 1. THE WORK SHALL COMPLY WITH THE CURRENT NATIONAL ELECTRIC CODE AND ALL APPLICABLE CODES.
  
  - B. COORDINATION:
    - 1. THE WORK SHALL BE COORDINATED WITH THE WORK OF OTHER TRADES TO AVOID INTERFERENCE. REFER TO CIVIL, ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS FOR CEILING HEIGHTS, ROOM FINISHES, DOOR SWINGS, BUILDING DIMENSIONS, LOCATION AND SIZES OF DUCTS, PIPES AND MECHANICAL EQUIPMENT ETC.. PROVIDE ADDITIONAL SUPPORT FOR RACEWAYS, BOXES, SWITCHES, CIRCUIT BREAKERS, MOTOR CONTROLLERS, FIXTURES AND THE LIKE. WHERE THE BUILDING STRUCTURE IS NOT ADAPTED OR SUITABLE FOR MOUNTING THE SAME DIRECTLY THERE ON. RACEWAYS SHALL NOT BE USED AS SUPPORTS FOR BOXES OR OTHER ELECTRICAL EQUIPMENT.
  
    - 2. IT SHALL BE THE CONTRACTOR'S REPONSIBILITY TO VERIFY THAT ALL EQUIPMENT FURNISHED UNDER OTHER TRADES IS COMPATIBLE WITH THE ELECTRICAL FEEDER PROVIDED UNDER THE ELECTRICAL TRADE. CASES OF DISCREPENCY MUST BE BROUGHT TO THE ENGINEER ATTENTION.
  
    - 3. COORDINATE & VERIFY LOCATION OF ALL DEVICES WITH EQUIPMENT VENDORS AND MILLWORK SUPPLIERS BEFORE INSTALLATION OF DEVICES.
  
    - 4. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERALLY THE LOCATIONS OF MATERIALS AND EQUIPMENT. THESE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE.
  
    - 5. PROVIDE ARC FLASH PROTECTION FIELD MARKING PER 2017 NEC ART. 110.16.
  
  - C. TESTING:
    - 1. THE CONTRACTOR SHALL MAKE ALL TESTS, ADJUSTMENTS, AND TRIAL OPERATIONS REQUIRED TO PLACE THE SYSTEM IN BALANCED AND SATISFACTORY OPERATING CONDITION.
  
  - D. WARRANTY:
    - 1. WHEN THE JOB IS COMPLETED, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH CERTIFICATE OF APPROVAL FROM THE LOCAL INSPECTION AUTHORITY. THE CONTRACTOR SHALL GIVE THE OWNER A WRITTEN GUARANTEE THAT HE WILL MAKE GOOD, AT HIS OWN EXPENSE, ANY DEFECTS IN MATERIALS OR WORKMANSHIP WHICH MAY DEVELOP WITHIN TWO (2) YEARS FROM THE DATE OF FINAL ACCEPTANCE.

## SITE ELECTRICAL NOTES

1. CADWELD #1/0 BARE COPPER GROUND WIRE TO GROUND ROD (3/4" X 15'-0"). TOP OF GROUND ROD SHALL BE 12" MIN. BELOW GRADE.
  2. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION OF EXISTING UTILITY AND THE EXACT LOCATION OF UTILITY CO. CONCRETE PAD MOUNTED TRANSFORMER.
  3. PRIOR TO INSTALLATION OF THE CONCRETE PAD, COORDINATE THE WORK WITH UTILITY CO. FOR SPECIFIC DETAIL OF GROUNDING SYSTEM INSTALLATION OF THE TRANSFORMER.
  4. COORDINATE ALL NEW ELECTRICAL UNDERGROUND WORK WITH NEW AND EXISTING UNDERGROUND UTILITIES BEFORE INSTALLATION.
  5. PROVIDE WATERTIGHT HUBS AT CONDUIT ENTRANCES TO ALL ENCLOSURES MOUNTED OUTDOOR AND TO ALL WATERTIGHT (NEMA 4) ENCLOSURES MOUNTED INDOORS.
  6. ALL EXISTING DUCTS, MANHOLES, ETC. ARE APPROXIMATE LOCATIONS ONLY. THE ELECTRICAL CONTRACTOR SHALL VERIFY EXACT LOCATIONS IN THE FIELD.
  7. EXACT LOCATIONS MAYBE ADJUSTED IN THE FIELD TO AVOID EXISTING AND UNEXPECTED CONSTRUCTION OBSTACLES.
  8. IT SHALL BE THE CONTRACTOR RESPONSIBILITY TO EXERCISE EXTREME CAUTION WHILE EXCAVATING TO AVOID DAMAGE TO ANY BURIED UTILITY LINES, PIPING, CONDUIT, ETC., CONTRACTOR SHALL REPAIR OR REPLACE TO THE OWNER SATISFACTION ANY AND ALL DAMAGED UTILITY LINES, PIPING, CONDUIT, ETC., WHICH MAY BECOME DAMAGED DURING EXCAVATION OF THE NEW WORK AT NO EXTRA COST

# ARCHITECTURAL DESIGN

## RESIDENTIAL COMMERCIAL INDUSTRIAL

**G.A.V. ASSOCIATES, INC**  
24001 ORCHARD LAKE RD., STE. 180A  
**FARMINGTON, MICHIGAN 48336**  
PH: (248) 985-9101  
WEB: [WWW.GAVASSOCIATES.COM](http://WWW.GAVASSOCIATES.COM)

NOOR INTERNATIONAL  
ACADEMY  
4050 COOLIDGE HWY  
TROY, MI 48098  
586-365-5000

NOOR INTERNATIONAL ACADEMY  
4050 COOLIDGE HWY  
TROY, MI 48098

DRAWN:	DESIGNED:	CHECKED
IH	IH	SA
CALE : <b>NONE</b>		
FILE NAME : <b>22010_E100</b>		
JOB #: <b>22010</b>		
HEET TITLE		
<b>ELECTRICAL</b>		
NOTES &		
<b>SYMBOLS</b>		
SHEET #		

ISSUED FOR	DATE
PROGRESS	7-26-22
PROGRESS	8-2-22
100% COORDINATION	8-12-22
PERMITS	8-17-22

ARCHITECTURAL  
DESIGN

RESIDENTIAL  
COMMERCIAL  
INDUSTRIAL

G.A.V. ASSOCIATES, INC.  
24001 ORCHARD LAKE, STE. 180A  
FARMINGTON HILLS, MICHIGAN 48336  
PH: (248) 985-9101  
WEB: WWW.GAVASSOCIATES.COM

GAV  
ASSOCIATES

NOOR INTERNATIONAL  
ACADEMY  
4050 COOLIDGE HWY  
TROY, MI 48098  
586-365-5000

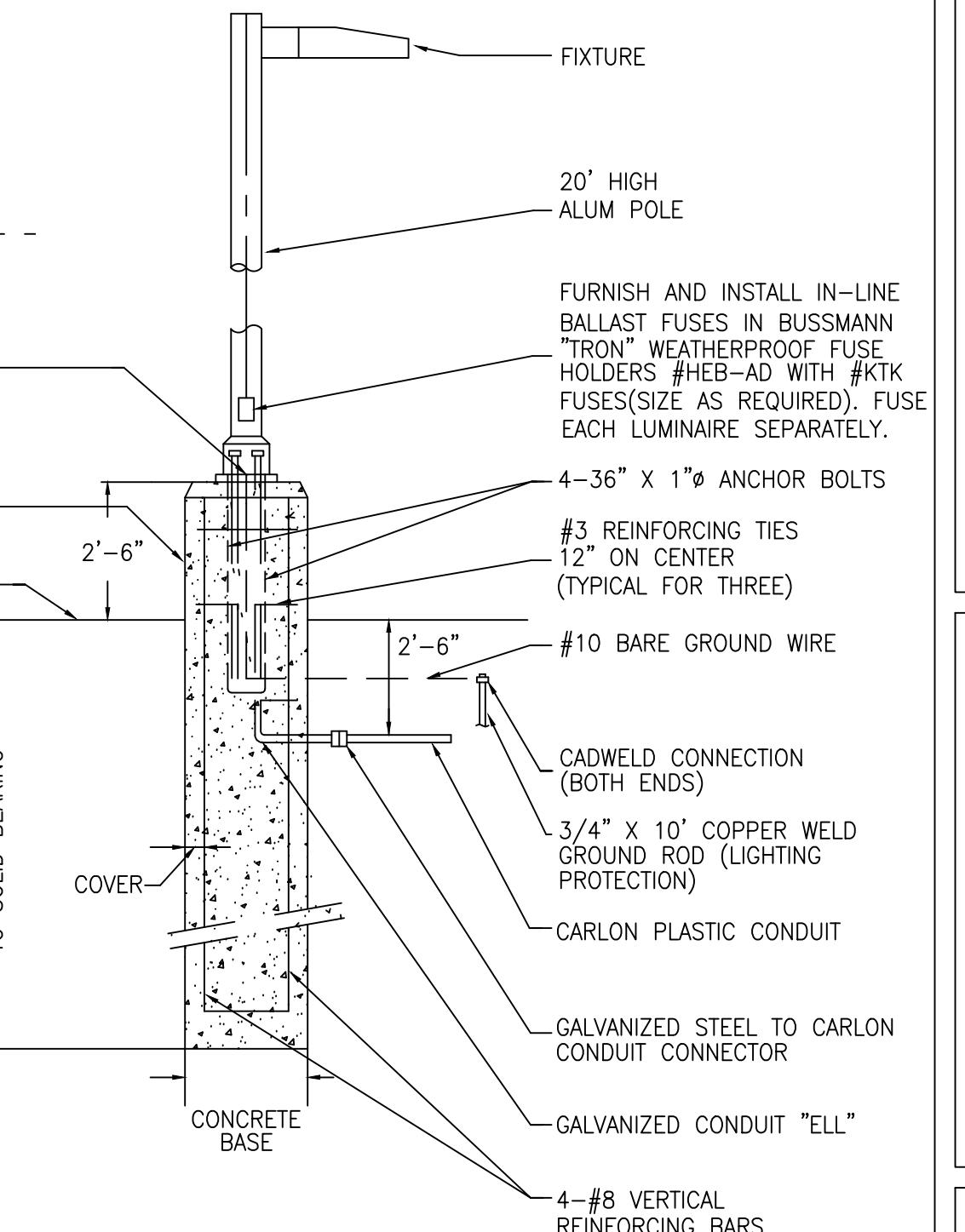
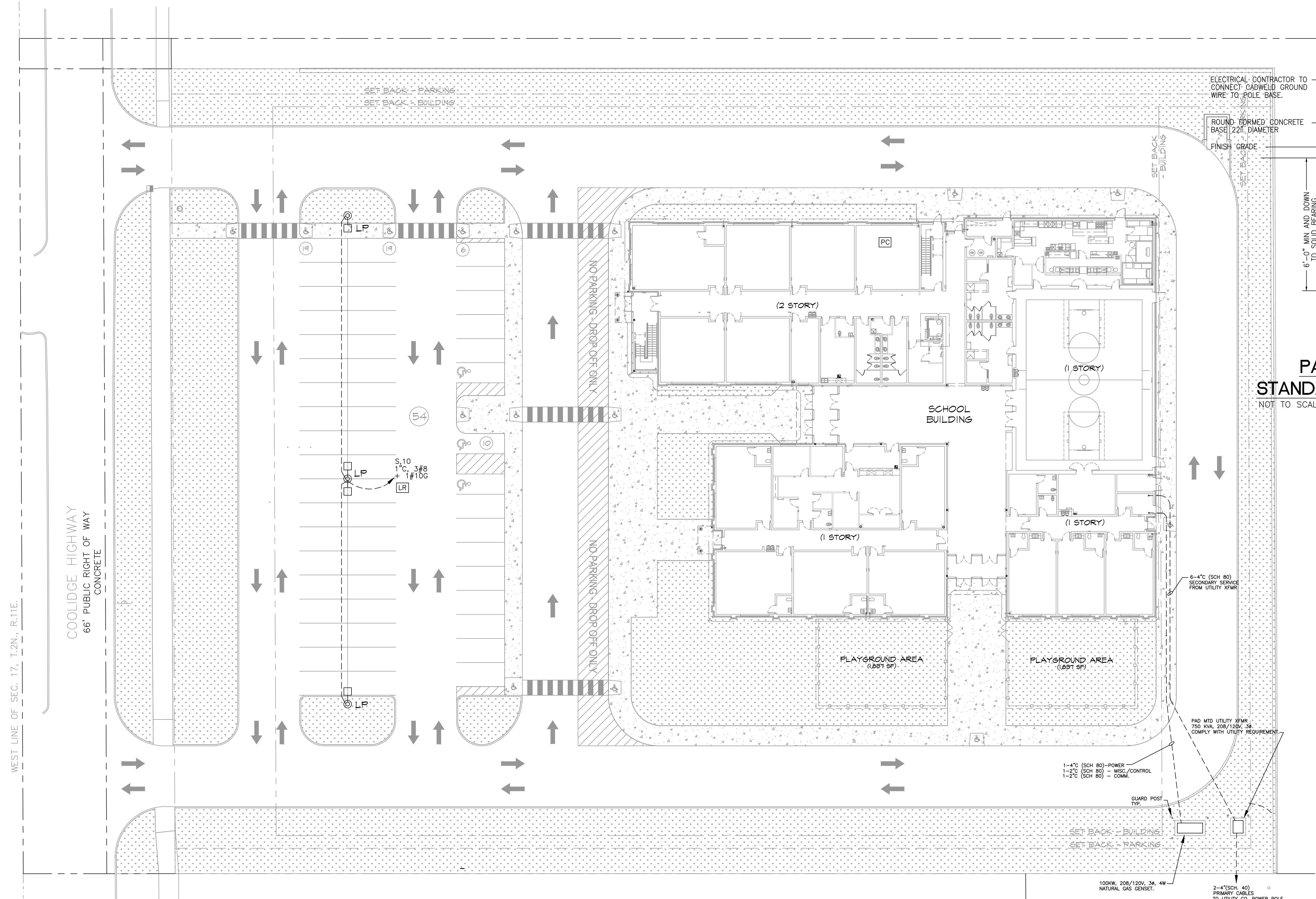
NOOR INTERNATIONAL ACADEMY  
4050 COOLIDGE HWY  
TROY, MI 48098



MEP Engineers LLC  
Mechanical | Electrical | Plumbing | Energy  
380 North Main Street  
Clawson, MI 48017  
Tel: (248) 488-9822 Fax: (248) 488-9811  
Web: www.mepml.com Email: mep@mepml.com

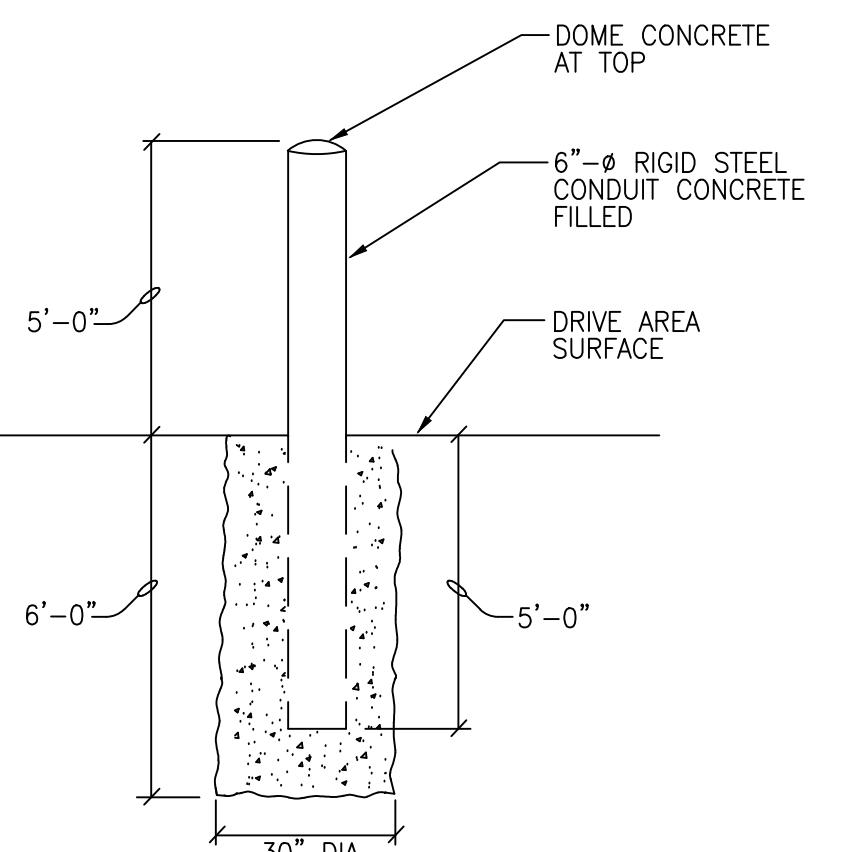


Contractor Note:  
The locations of existing underground utilities are shown in an approximate way only. The contractor shall determine the exact location of all existing utilities before commencing work. He agrees to be fully responsible for any and all damages which might be occasioned by his failure to exactly locate and preserve any and all underground utilities.



## PARKING LOT LIGHTING STANDARD WITH CONCRETE BASE

NOT TO SCALE



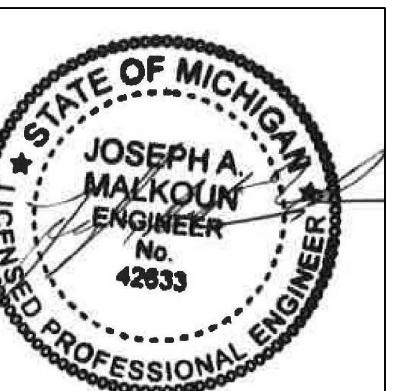
## CONCRETE BUMPER POST DETAIL

NO SCALE:

NOTES:

1. FOR GENERAL NOTES SEE SHEET E.100
2. FOR POWER DISTRIBUTION RISER DIAGRAM SEE SHEET E.502

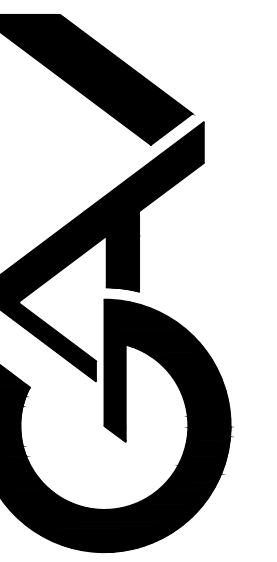
DRAWN:	DESIGNED:	CHECKED:
IH	IH	SA
SCALE : 1"-20'-0"		
FILE NAME : 2201_E101		
JOB # : 22010		
SHEET TITLE		
ELECTRICAL SITE PLAN		
SHEET #		



ISSUED FOR	DATE
PROGRESS	7-26-22
PROGRESS	8-2-22
100% COORDINATION	8-12-22
PERMITS	8-17-22

ARCHITECTURAL DESIGN  
 RESIDENTIAL COMMERCIAL INDUSTRIAL

G.A.V. ASSOCIATES, INC.  
 24001 ORCHARD LAKE, STE. 180A  
 FARMINGTON HILLS, MICHIGAN 48336  
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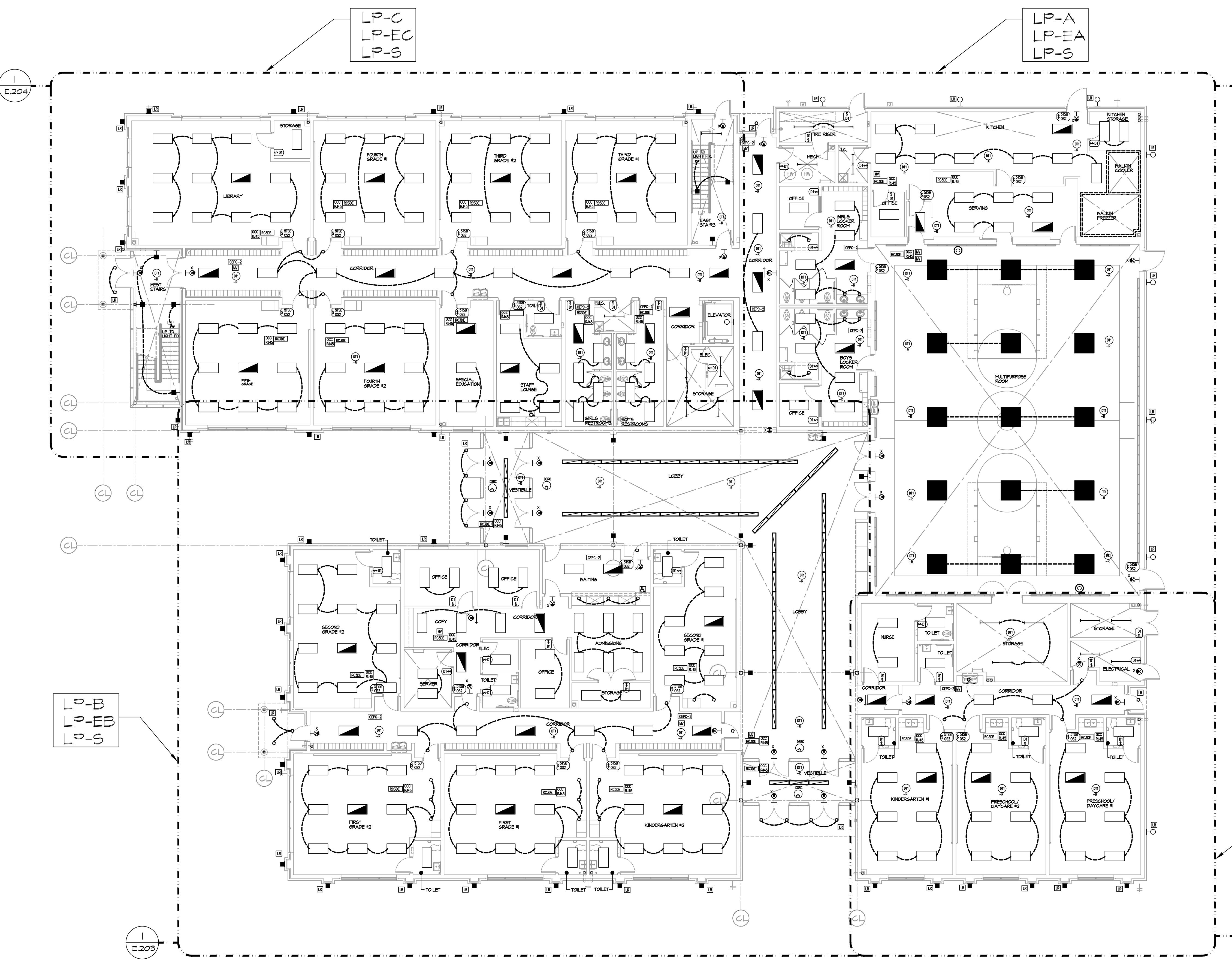
ASSOCIATES

NOOR INTERNATIONAL ACADEMY  
 4050 COOLIDGE HLY  
 TROY, MI 48098  
 586-365-5000

NOOR INTERNATIONAL ACADEMY  
 4050 COOLIDGE HLY  
 TROY, MI 48098

DRAWN:	IN	DESIGNED:	QA
SCALE :	AS SHOWN		
FILE NAME :	2201_E200		
JOB #:	22010		
SHEET TITLE			
GROUND LEVEL			
LIGHTING			
FLOOR PLAN			
SHEET #			

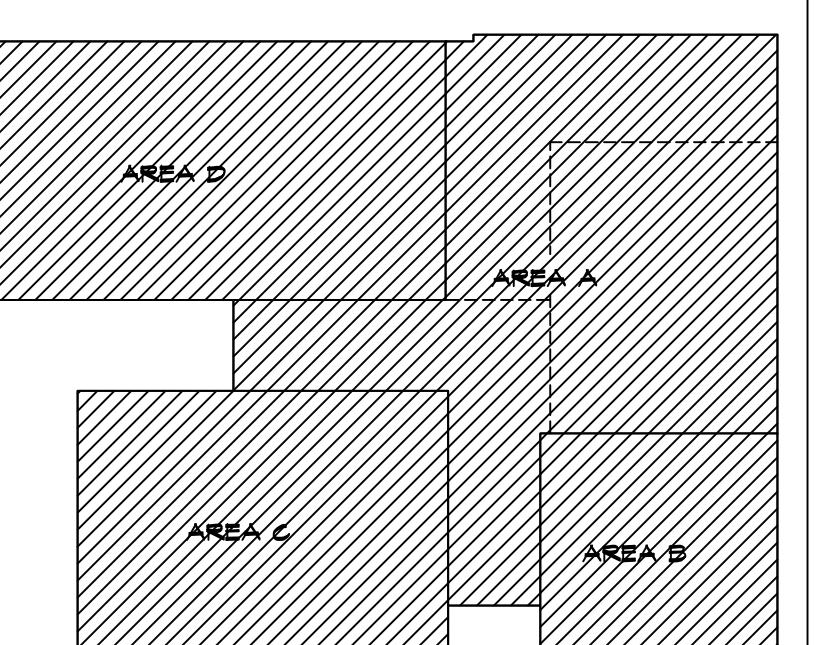
E.200



NORTH  
 GROUND LEVEL - LIGHTING FLOOR PLAN  
 SCALE: 3/32" = 1'-0"

**NOTES:**

1. FOR GENERAL NOTES SEE SHEET E.100
2. THE INTENT OF THIS SHEET IS TO SHOW THE LIGHTING PANELBOARDS SERVING EACH AREA, UNLESS OTHERWISE NOTED.



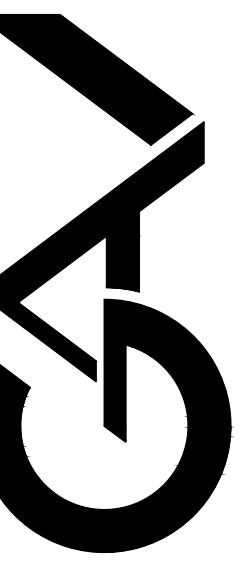
KEY PLAN  
 NO SCALE  
 NORTH



ISSUED FOR	DATE
PROGRESS	7-26-22
PROGRESS	8-2-22
100% COORDINATION	8-12-22
PERMITS	8-17-22

ARCHITECTURAL DESIGN  
RESIDENTIAL COMMERCIAL INDUSTRIAL

G.A.V. ASSOCIATES, INC.  
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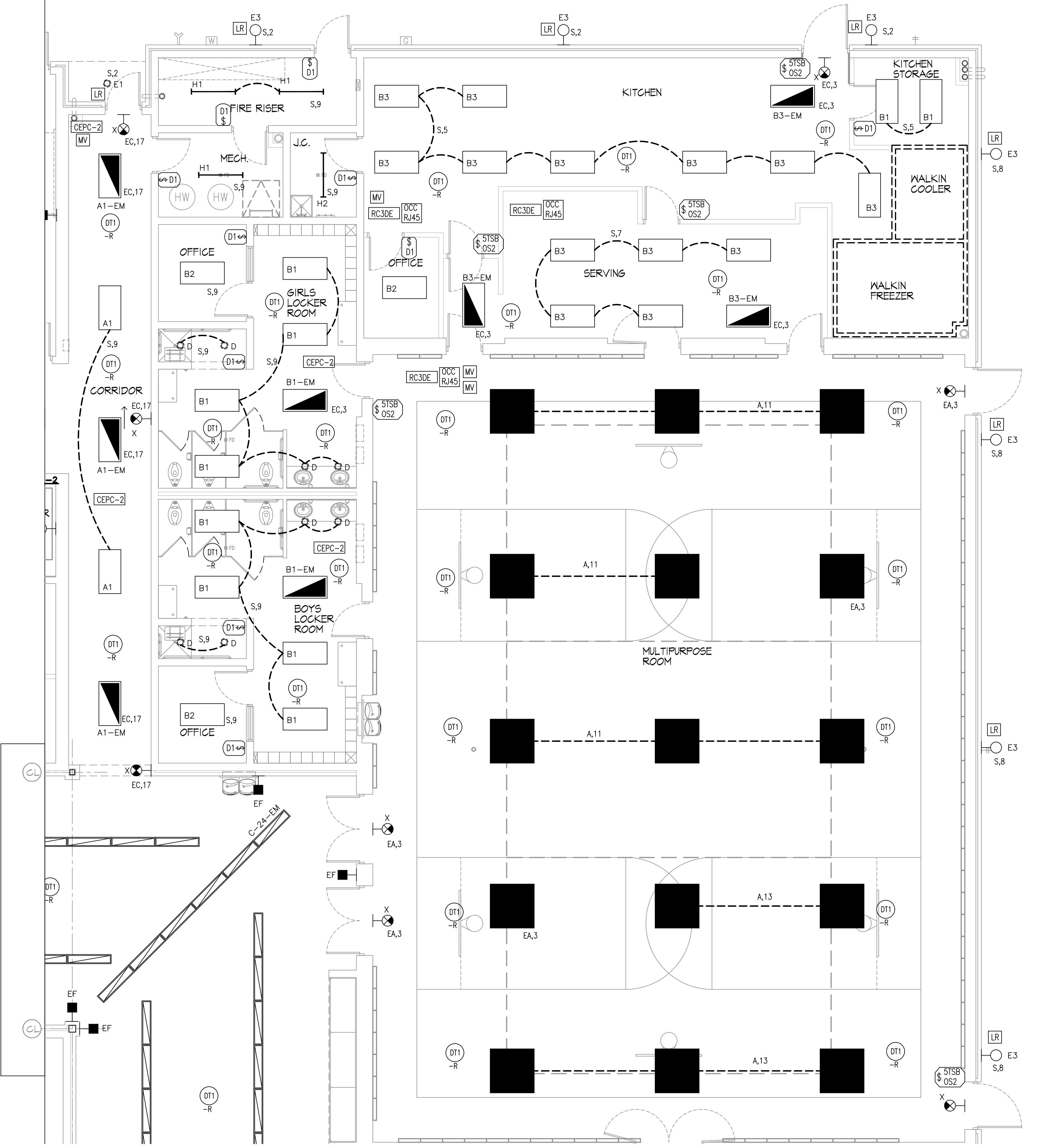
NOOR INTERNATIONAL  
ACADEMY  
4050 COOLIDGE HLY  
TROY, MI 48098  
586-365-5000

NOOR INTERNATIONAL ACADEMY  
4050 COOLIDGE HLY  
TROY, MI 48098

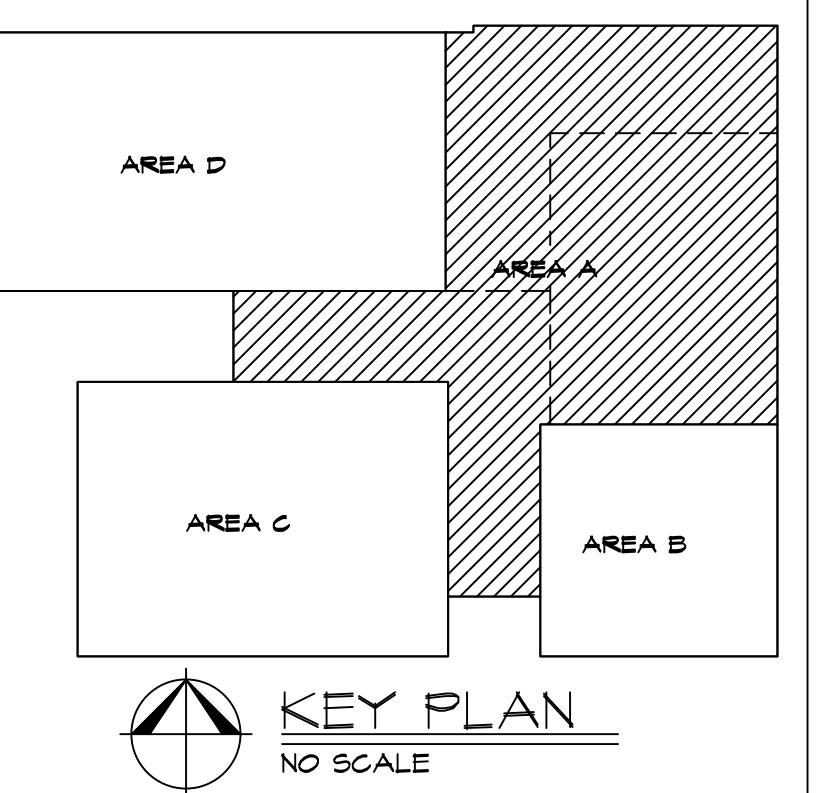
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IH	IH	GA
SCALE : AS SHOWN		
FILE NAME : 2201_E201		
JOB # : 22010		
SHEET TITLE		
ENLARGED LIGHTING FLOOR PLAN AREA "A" SHEET #		

#### NOTES:

- FOR GENERAL NOTES SEE SHEET E.001
- COORDINATE ALL LIGHTING FIXTURES FINISHES WITH THE ARCHITECT/OWNER PRIOR TO PURCHASING.
- PROVIDE A SEPARATE RACEWAY SYSTEM FOR ALL EXIT LIGHTS, AND EMERGENCY LIGHTS AS REQUIRED PER LATEST NEC.
- ALL BRANCH CIRCUIT SHOWN ON THE FLOOR PLAN ARE FED FROM PANEL "S" & "A". U.O.N.
- COORDINATE MOUNTING HEIGHTS FOR EXTERIOR WALL MOUNTED SCONCES WITH ARCHITECT AND BUILDING ELEVATIONS.
- COORDINATE ALL LIGHTING CONTROL WITH OWNER AND CLARUS LIGHTING, INC. SUPPLIER.



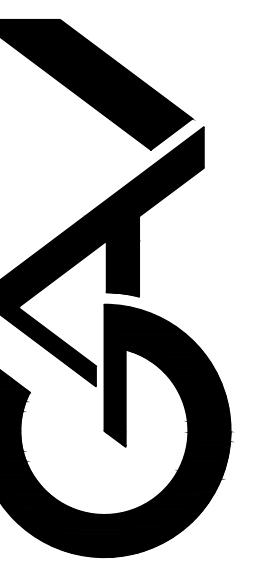
NORTH  
A101  
GROUND LEVEL  
ENLARGED LIGHTING FLOOR PLAN - AREA "A"  
SCALE: 3/16" = 1'-0"



ISSUED FOR	DATE
PROGRESS	7-26-22
PROGRESS	8-2-22
100% COORDINATION	8-12-22
PERMITS	8-17-22

ARCHITECTURAL DESIGN  
 RESIDENTIAL COMMERCIAL INDUSTRIAL

G.A.V. ASSOCIATES, INC.  
 24001 ORCHARD LAKE RD, STE. 180A  
 FARMINGTON HILLS, MICHIGAN 48336  
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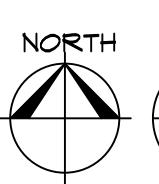
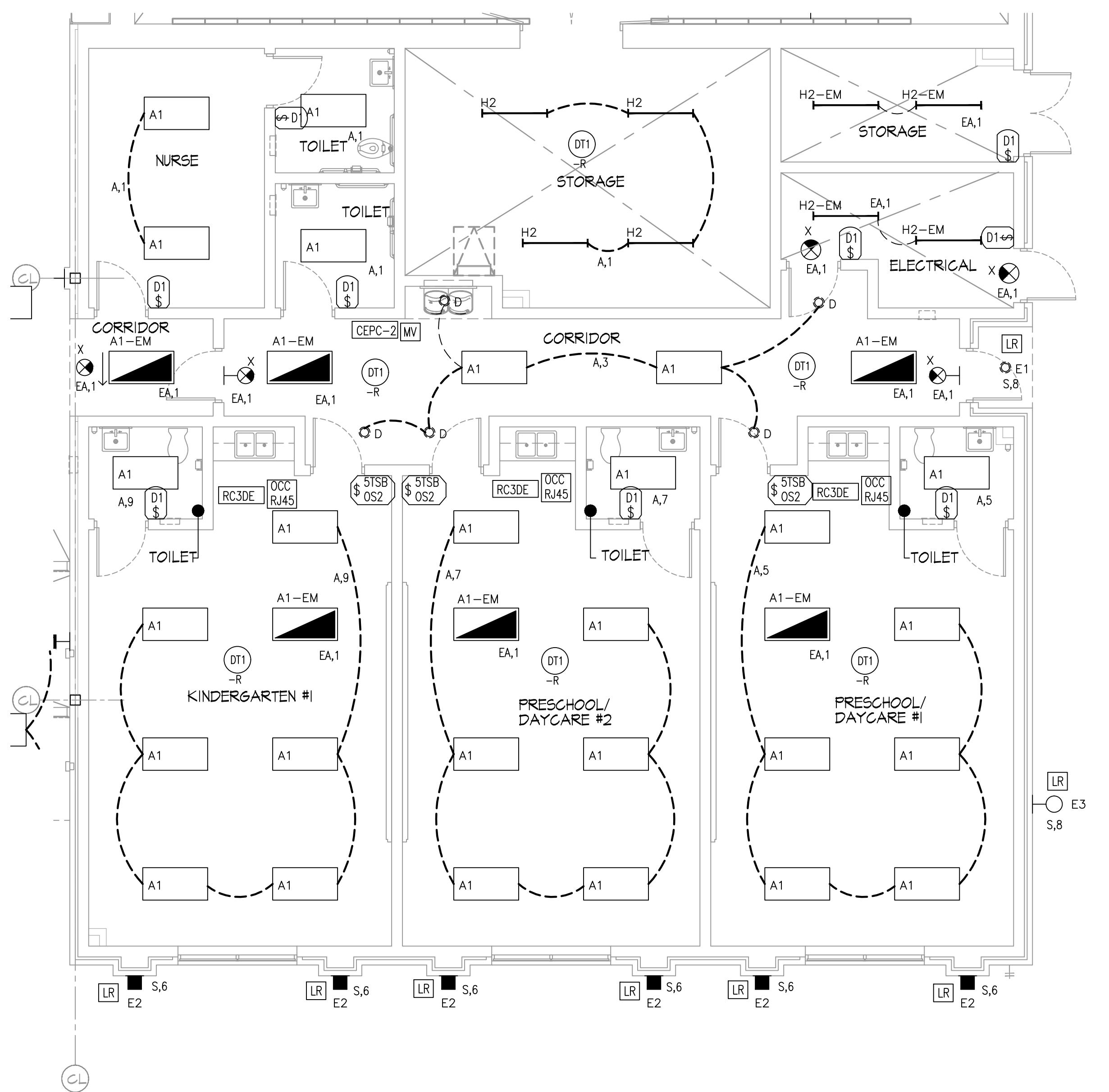


ASSOCIATES

NOOR INTERNATIONAL ACADEMY  
 4050 COOLIDGE HLY  
 TROY, MI 48098  
 586-365-5000

NOOR INTERNATIONAL ACADEMY  
 4050 COOLIDGE HLY  
 TROY, MI 48098

DRAWN: IH DESIGNED: GA CHECKED:  
 SCALE : AS SHOWN  
 FILE NAME : 2201\_E202  
 JOB #: 22010  
 SHEET TITLE  
 ENLARGED  
 LIGHTING FLOOR PLAN  
 AREA "B"  
 SHEET #  
 E.202

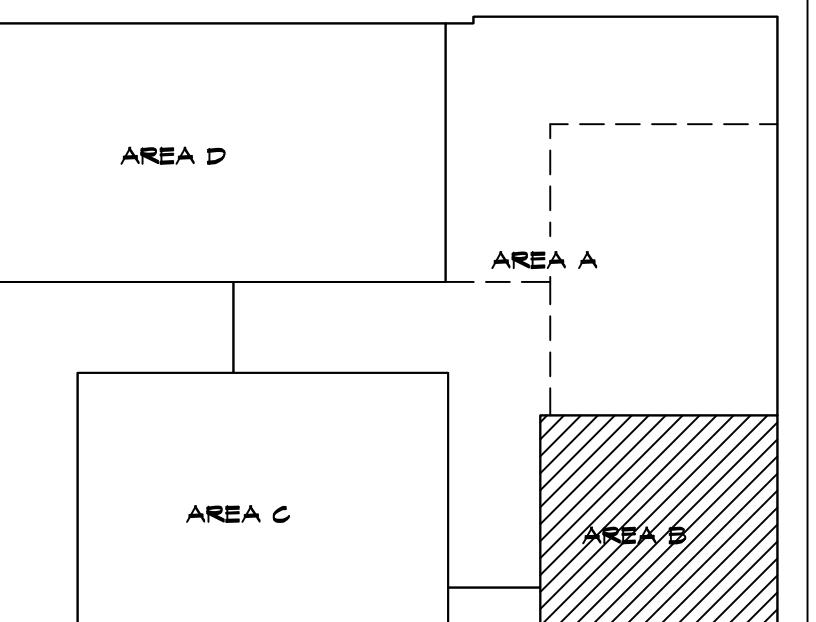


NORTH  
 E.202

GROUND LEVEL  
 ENLARGED LIGHTING FLOOR PLAN - AREA "B"  
 SCALE: 3/16" = 1'-0"

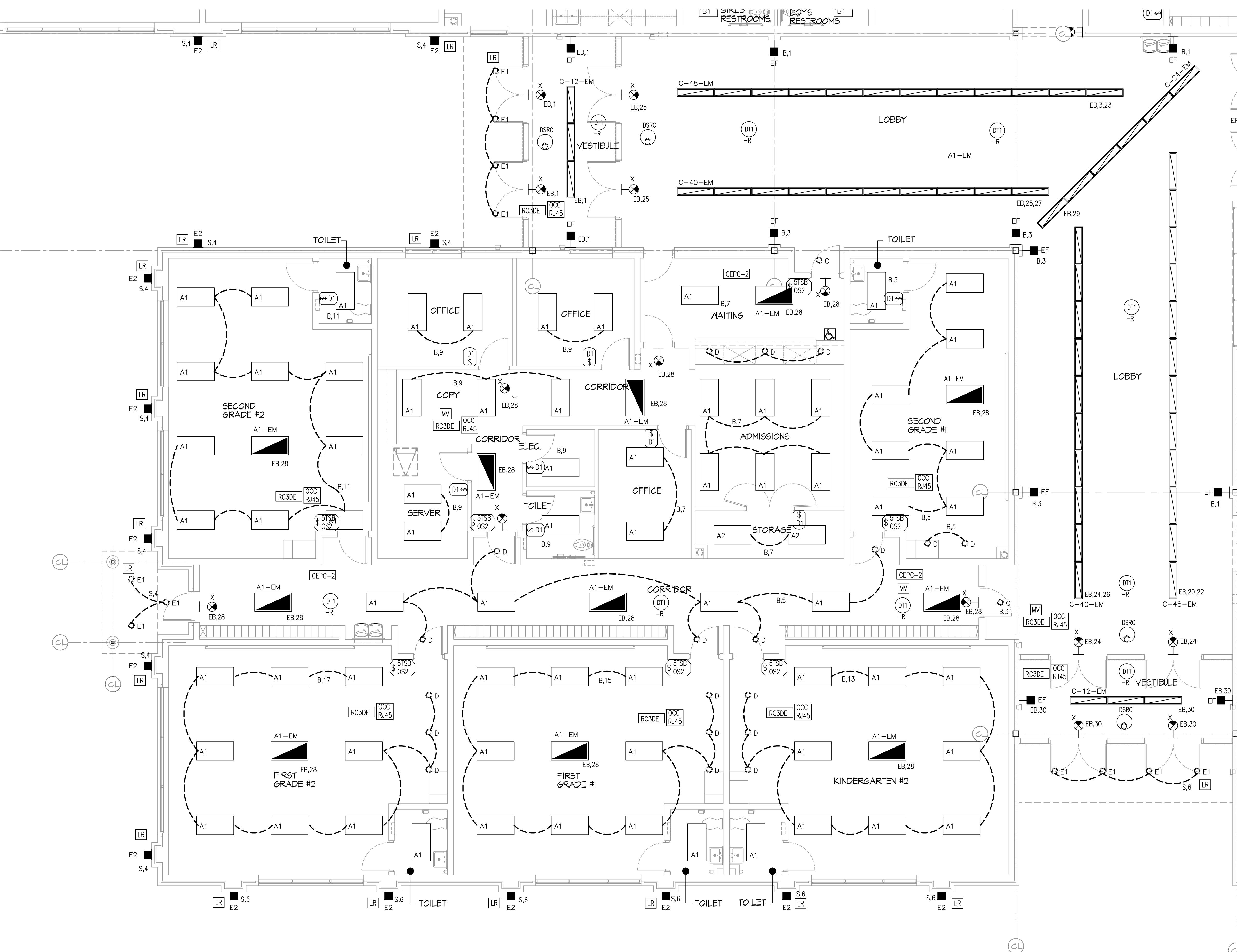
**NOTES:**

1. FOR GENERAL NOTES SEE SHEET E.001
2. COORDINATE ALL LIGHTING FIXTURES FINISHES WITH THE ARCHITECT/OWNER PRIOR TO PURCHASING.
3. PROVIDE A SEPARATE RACEWAY SYSTEM FOR ALL EXIT LIGHTS, AND EMERGENCY LIGHTS AS REQUIRED PER LATEST NEC.
4. ALL BRANCH CIRCUIT SHOWN ON THE FLOOR PLAN ARE FED FROM PANELS "A, EA, & S". U.O.N.
5. COORDINATE MOUNTING HEIGHTS FOR EXTERIOR WALL MOUNTED SCONCES WITH ARCHITECT AND BUILDING ELEVATIONS.
6. COORDINATE ALL LIGHTING CONTROL WITH OWNER AND CLARUS LIGHTING, INC. SUPPLIER.



KEY PLAN  
 NO SCALE  
 NORTH





**NORTH**      GROUND LEVEL  
ENLARGED LIGHTING FLOOR PLAN - AREA "C"  
I  
E.203  
SCALE: 3/16" = 1'-0"

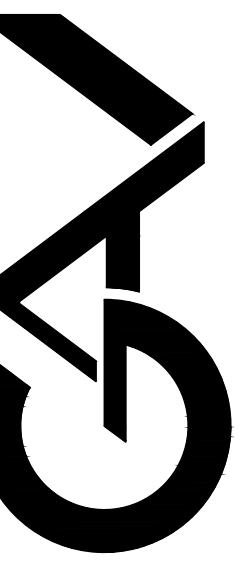
## **NOTES:**

1. FOR GENERAL NOTES SEE SHEET E.001
  2. COORDINATE ALL LIGHTING FIXTURES FINISHES WITH THE ARCHITECT/OWNER PRIOR TO PURCHASING.
  3. PROVIDE A SEPARATE RACEWAY SYSTEM FOR ALL EXIT LIGHTS, AND EMERGENCY LIGHTS AS REQUIRED PER LATEST NEC.
  4. ALL BRANCH CIRCUIT SHOWN ON THE FLOOR PLAN ARE FED FROM PANEL "B, EB, & S". U.O.N.
  5. COORDINATE MOUNTING HEIGHTS FOR EXTERIOR WALL MOUNTED SCONCES WITH ARCHITECT AND BUILDING ELEVATIONS.
  6. COORDINATE ALL LIGHTING CONTROL WITH OWNER AND CLARUS LIGHTING, INC. SUPPLIER.

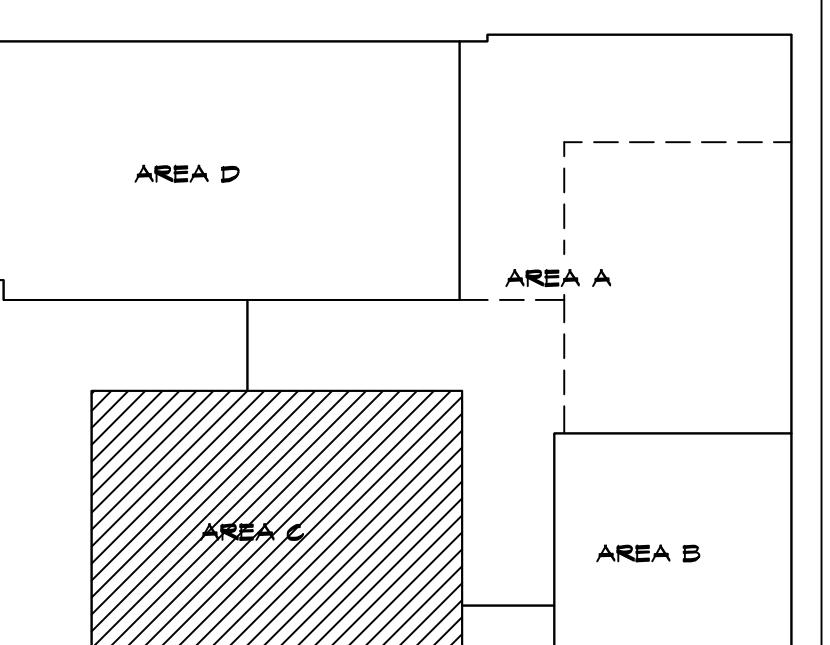
# ARCHITECTURAL DESIGN

## RESIDENTIAL COMMERCIAL INDUSTRIAL

**G.A.V. ASSOCIATES, INC**  
24001 ORCHARD LAKE RD., STE. 180A  
FARMINGTON, MICHIGAN 48336  
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WEB: [WWW.GAVASSOCIATES.COM](http://WWW.GAVASSOCIATES.COM)



NOOR INTERNATIONAL  
ACADEMY  
4050 COOLIDGE HIGH  
TROY, MI 48098  
586-365-5000

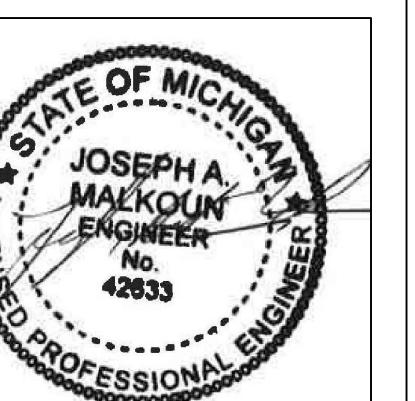


The logo consists of a circle divided into four quadrants by a crosshair. The top-left and bottom-right quadrants contain black right-angled triangle symbols, while the other two are white.

KEY PLAN

NO SCALE

NORTH



DRAWN: DESIGNED: CHECKED:

IH | IH | GA

SCALE : AS SHOWN

FILE NAME : 22010\_E203

JOB #: 22010

## SHEET TITLE

**ENLARGED  
EHTING FLOOR PLAN  
AREA "C"**

SHEET #

ISSUED FOR	DATE
PROGRESS	7-26-22
PROGRESS	8-2-22
100% COORDINATION	8-12-22
PERMITS	8-17-22

ARCHITECTURAL DESIGN  
RESIDENTIAL COMMERCIAL INDUSTRIAL

G.A.V. ASSOCIATES, INC.  
24001 ORCHARD LAKE, STE. 180A  
FARMINGTON HILLS, MICHIGAN 48336  
PH: (248) 985-9101  
WEB: WWW.GAVASSOCIATES.COM



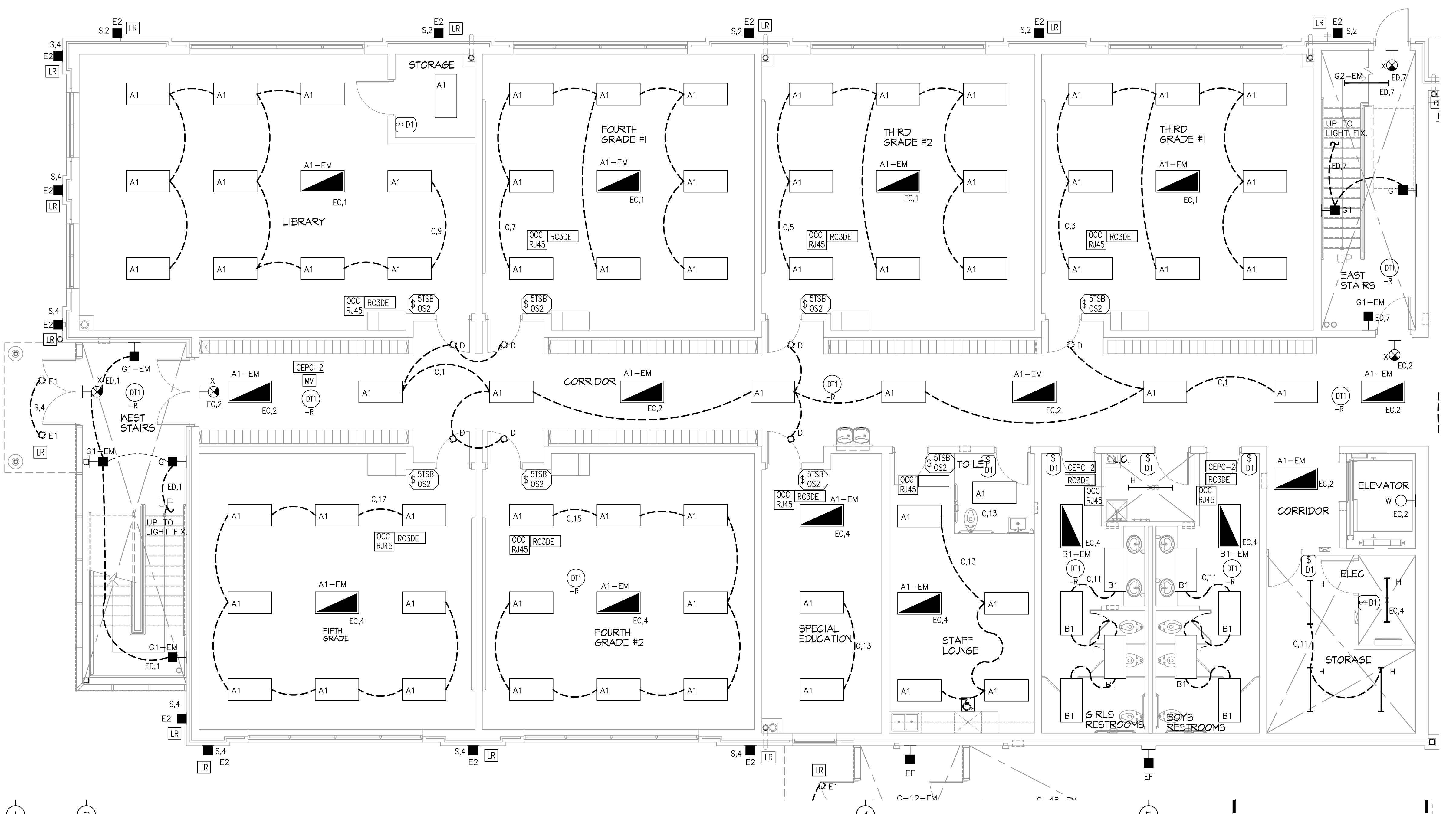
NOOR INTERNATIONAL ACADEMY  
4050 COOLIDGE HLY  
TROY, MI 48098  
586-365-5000

NOOR INTERNATIONAL ACADEMY  
4050 COOLIDGE HLY  
TROY, MI 48098

DRAWN: DESIGNED: CHECKED:  
SMA GA GA  
SCALE : AS SHOWN  
FILE NAME : 2201\_E204  
JOB #: 22010  
SHEET TITLE  
ENLARGED  
LIGHTING FLOOR PLAN  
AREA "D"  
SHEET #  
E.204

**NOTES:**

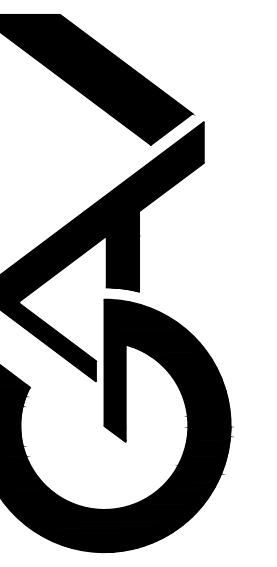
1. FOR GENERAL NOTES SEE SHEET E.001
2. COORDINATE ALL LIGHTING FIXTURES FINISHES WITH THE ARCHITECT/OWNER PRIOR TO PURCHASING.
3. PROVIDE A SEPARATE RACEWAY SYSTEM FOR ALL EXIT LIGHTS, AND EMERGENCY LIGHTS AS REQUIRED PER LATEST NEC.
4. ALL BRANCH CIRCUIT SHOWN ON THE FLOOR PLAN ARE FED FROM PANEL "C, EC, & S". U.O.N.
5. COORDINATE MOUNTING HEIGHTS FOR EXTERIOR WALL MOUNTED SCONCES WITH ARCHITECT AND BUILDING ELEVATIONS.
6. COORDINATE ALL LIGHTING CONTROL WITH OWNER AND CLARUS LIGHTING, INC. SUPPLIER.



ISSUED FOR	DATE
PROGRESS	7-26-22
PROGRESS	8-2-22
100% COORDINATION	8-12-22
PERMITS	8-17-22

ARCHITECTURAL DESIGN  
 RESIDENTIAL COMMERCIAL INDUSTRIAL

G.A.V. ASSOCIATES, INC.  
 24001 ORCHARD LAKE RD, STE. 180A  
 FARMINGTON HILLS, MICHIGAN 48336  
 PH: (248) 985-9101  
 WEB: WWW.GAVASSOCIATES.COM



ASSOCIATES

NOOR INTERNATIONAL ACADEMY  
 4050 COOLIDGE HLY  
 TROY, MI 48098  
 586-365-5000

NOOR INTERNATIONAL ACADEMY  
 4050 COOLIDGE HLY  
 TROY, MI 48098

DRAWN: IH DESIGNED: SA CHECKED:  
 SCALE :  
 FILE NAME : 22010\_E205  
 JOB #: 22010  
 SHEET TITLE  
 LIGHTING  
 2ND FLOOR PLAN  
 AREA "D"  
 SHEET #  
 E.205

**NOTES:**

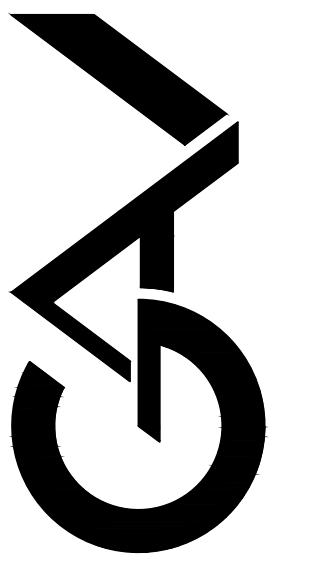
1. FOR GENERAL NOTES SEE SHEET E.001
2. COORDINATE ALL LIGHTING FIXTURES FINISHES WITH THE ARCHITECT/OWNER PRIOR TO PURCHASING.
3. PROVIDE A SEPARATE RACEWAY SYSTEM FOR ALL EXIT LIGHTS, AND EMERGENCY LIGHTS AS REQUIRED PER LATEST NEC.
4. ALL BRANCH CIRCUIT SHOWN ON THE FLOOR PLAN ARE FED FROM PANEL "D & ED". U.O.N.
5. COORDINATE MOUNTING HEIGHTS FOR EXTERIOR WALL MOUNTED SCONCES WITH ARCHITECT AND BUILDING ELEVATIONS.
6. COORDINATE ALL LIGHTING CONTROL WITH OWNER AND CLARUS LIGHTING, INC. SUPPLIER.



ISSUED FOR	DATE
PROGRESS	7-26-22
PROGRESS	8-2-22
100% COORDINATION	8-12-22
PERMITS	8-17-22

ARCHITECTURAL DESIGN  
 RESIDENTIAL COMMERCIAL INDUSTRIAL

G.A.V. ASSOCIATES, INC.  
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 FARMINGTON HILLS, MICHIGAN 48336  
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ASSOCIATES

NOOR INTERNATIONAL  
 ACADEMY  
 4050 COOLIDGE HWY  
 TROY, MI 48098  
 586-365-5000

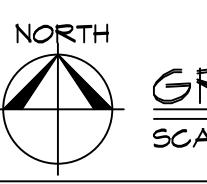
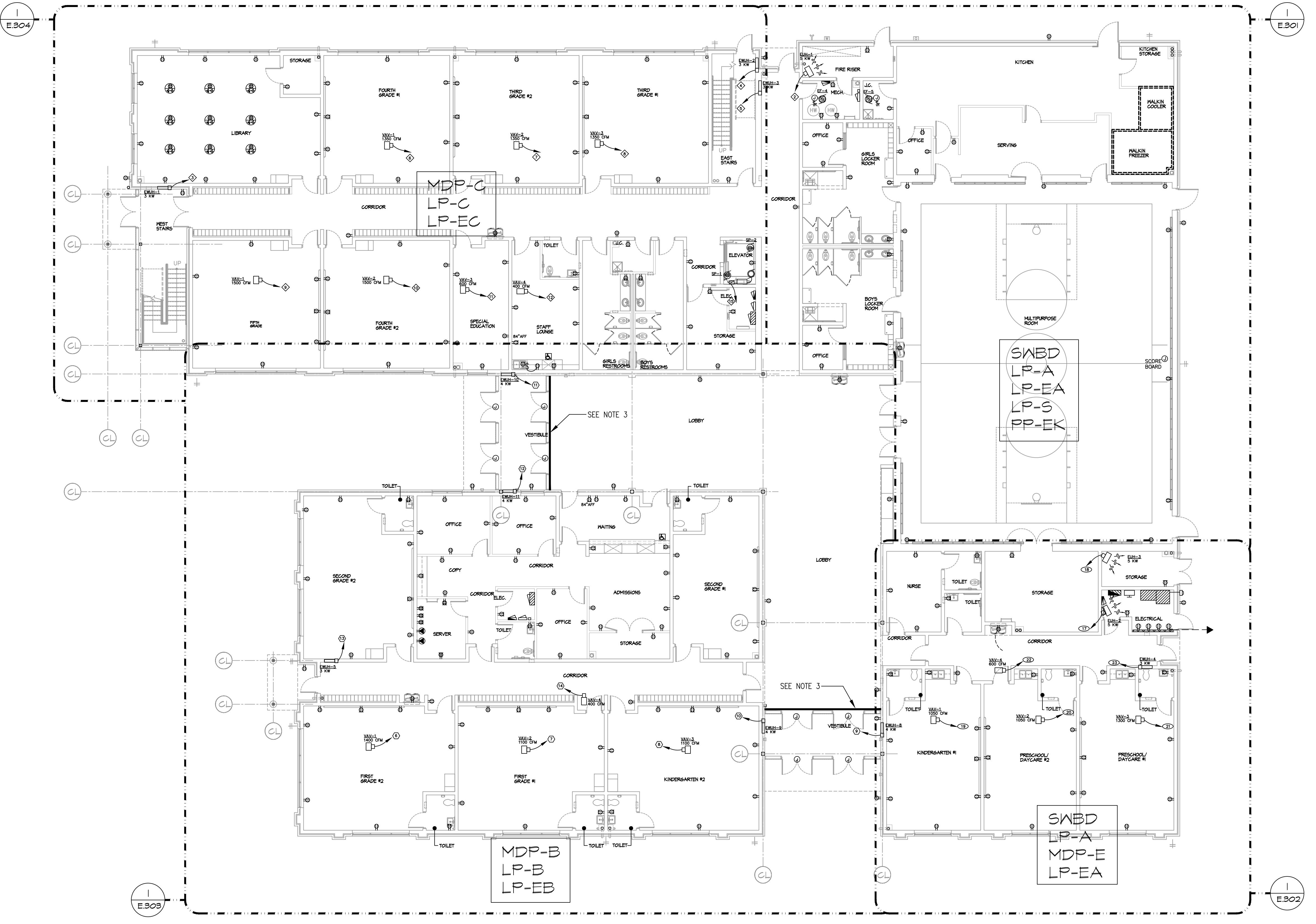
NOOR INTERNATIONAL ACADEMY  
 4050 COOLIDGE HWY  
 TROY, MI 48098

DRAWN:	IN	DESIGNED:	CHECKED:
IN	IN	GA	
SCALE :	AS SHOWN		
FILE NAME :	2201_E300		
JOB #:	2201		
SHEET TITLE			
GROUND LEVEL OVERALL POWER FLOOR PLAN			
JOSEPH A. MALKOUN ENGINEER No. 42633 STATE OF MICHIGAN PROFESSIONAL ENGINEER			

E.300

**NOTES:**

1. FOR GENERAL NOTES SEE SHEET E.100
2. THE INTENT OF THIS SHEET IS TO SHOW THE POWER DISTRIBUTION EQUIPMENT SERVING EACH AREA, UNLESS OTHERWISE NOTED.
3. INSTALL CONDUITS RUNS IN THESE LOCATIONS TO GO FROM ONE AREA TO THE OTHER AREA. KEEP THE LOBBY AS CLEAR AS POSSIBLE FROM INSTALLING CONDUITS ALL OVER THE LOBBY AREA. COORDINATE W/ARCHITECT TRADE AS REQUIRED.

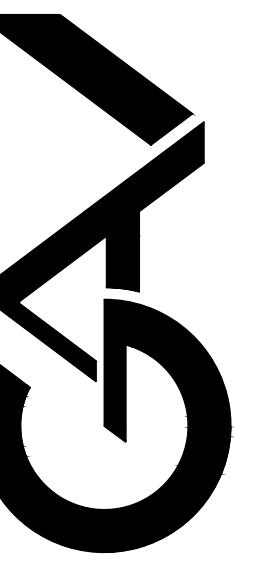


NORTH  
 GROUND LEVEL - OVERALL POWER FLOOR PLAN  
 SCALE: 3/32" = 1'-0"

ISSUED FOR	DATE
PROGRESS	7-26-22
PROGRESS	8-2-22
100% COORDINATION	8-12-22
PERMITS	8-17-22

ARCHITECTURAL DESIGN  
RESIDENTIAL COMMERCIAL INDUSTRIAL

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PH: (248) 985-9101  
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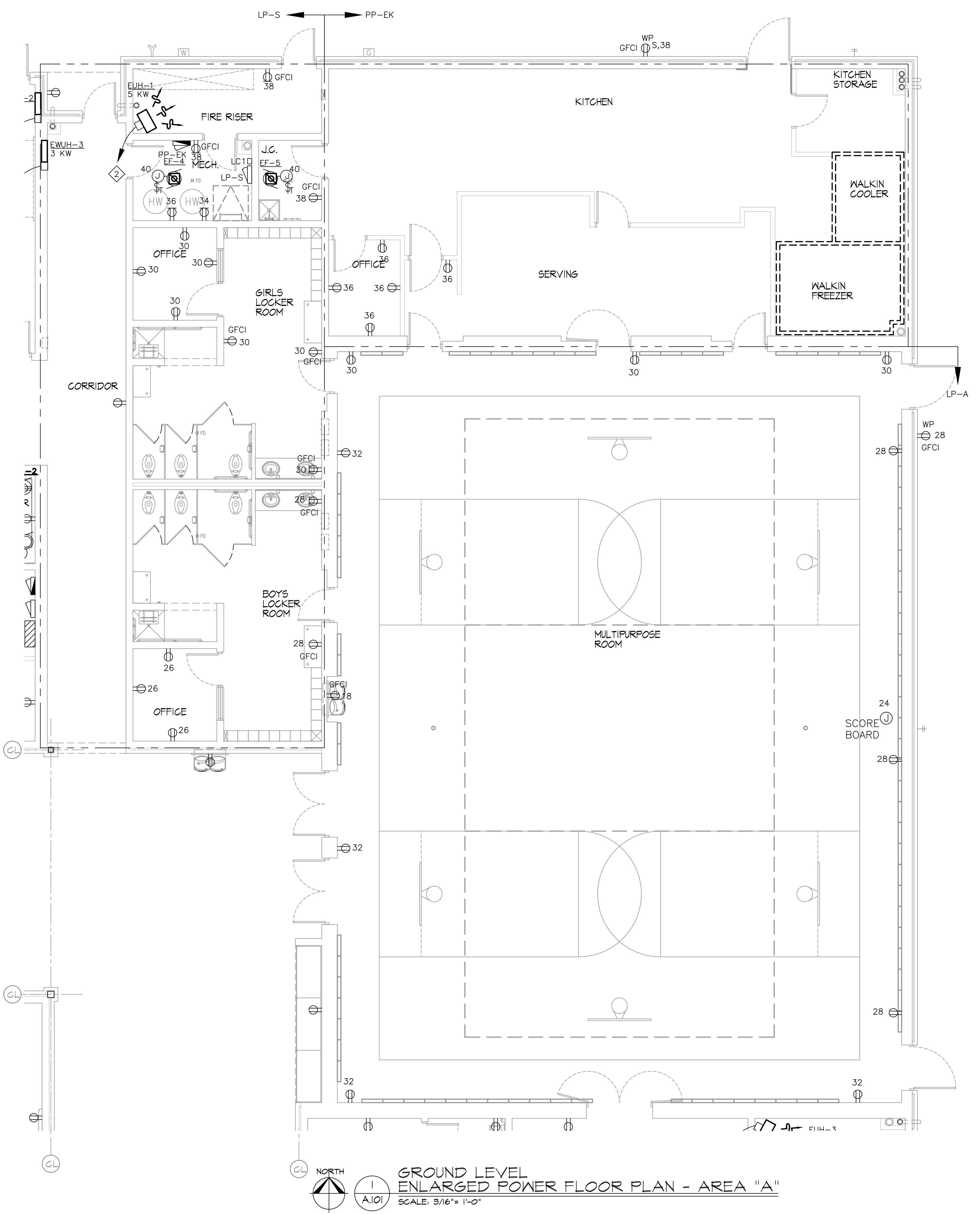


ASSOCIATES

NOOR INTERNATIONAL ACADEMY  
4050 COOLIDGE HLY  
TROY, MI 48098  
586-365-5000

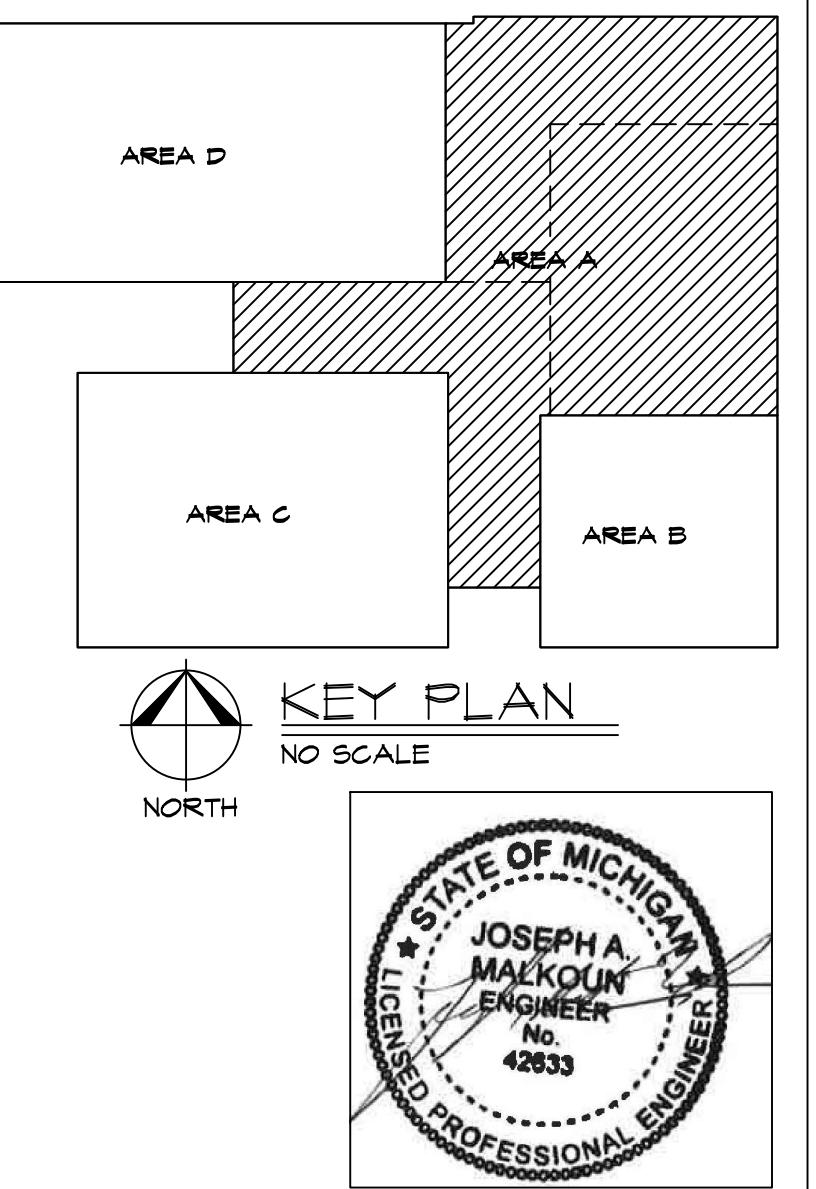
NOOR INTERNATIONAL ACADEMY  
4050 COOLIDGE HLY  
TROY, MI 48098

DRAWN: IN DESIGNED: GA CHECKED:  
SCALE : AS SHOWN  
FILE NAME : 2201\_E01  
JOB #: 2201  
SHEET TITLE  
ENLARGED POWER FLOOR PLAN AREA "A"  
SHEET # E.301



#### NOTES:

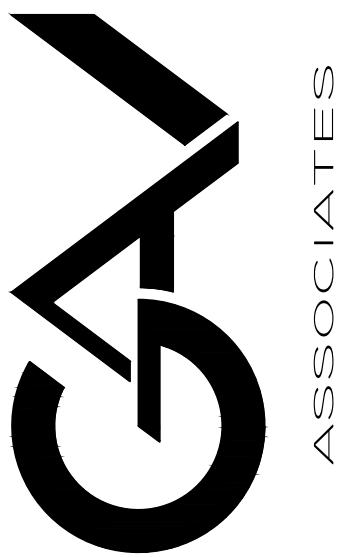
1. FOR GENERAL NOTES SEE SHEET E.100
2. ELECT. CONT. TO COORDINATE W/OWNER AND OTHER TRADES FOR EXACT EQUIP LOCATIONS IN THE FIELD PRIOR TO INSTALLATION. PROVIDE POWER TO THESE EQUIP ACCORDINGLY.
3. THERMOSTATS - ELECT. CONT. SHALL INSTALL ALL THERMOSTATS AS PROVIDED BY MECH. CONT.



ISSUED FOR	DATE
PROGRESS	7-26-22
PROGRESS	8-2-22
100% COORDINATION	8-12-22
PERMITS	8-17-22

ARCHITECTURAL DESIGN  
 RESIDENTIAL COMMERCIAL INDUSTRIAL

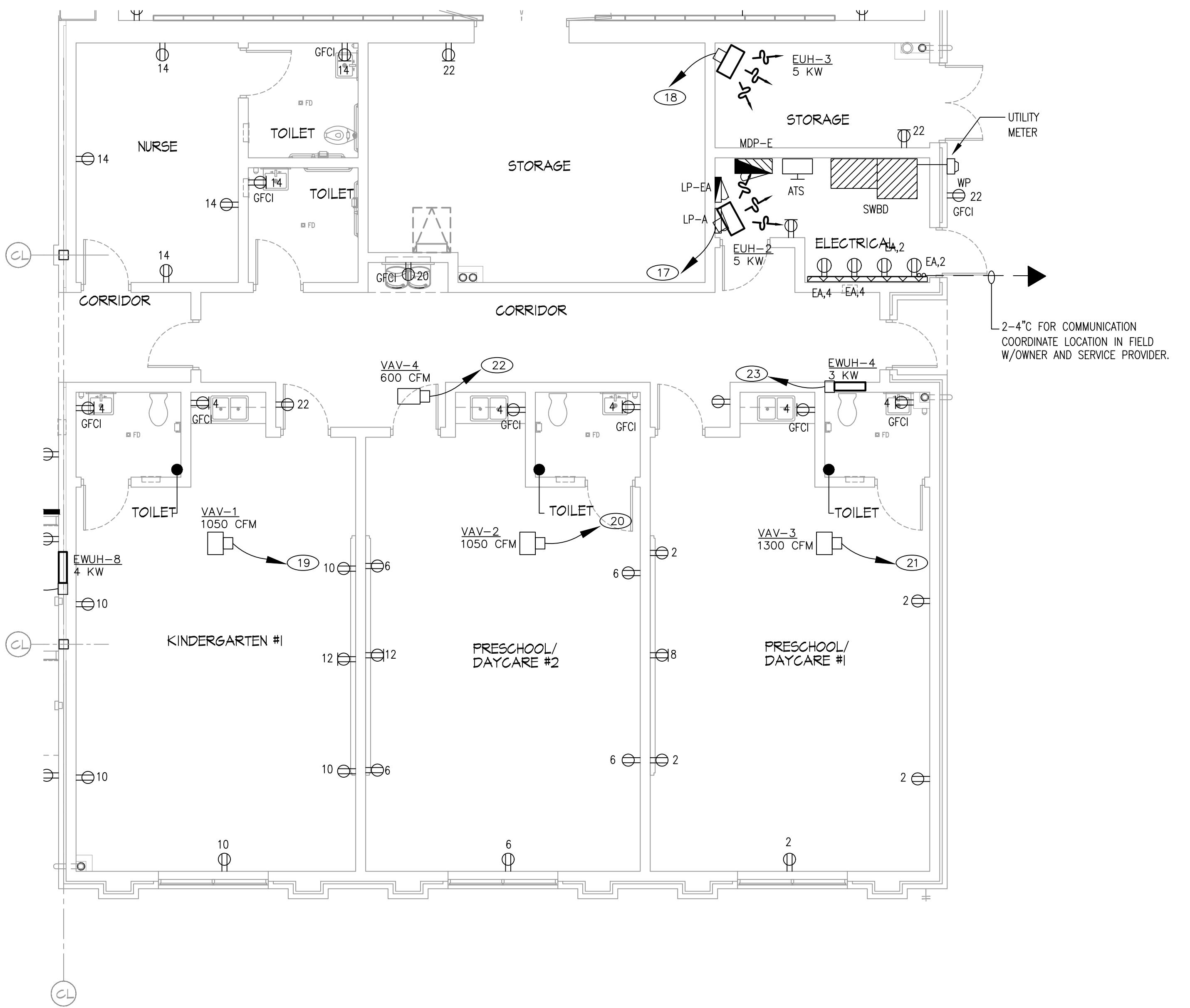
G.A.V. ASSOCIATES, INC.  
 24001 ORCHARD LAKE RD., STE. 180A  
 FARMINGTON HILLS, MICHIGAN 48336  
 PH: (248) 985-9101  
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NOOR INTERNATIONAL ACADEMY  
 4050 COOLIDGE HLY  
 TROY, MI 48098  
 586-365-5000

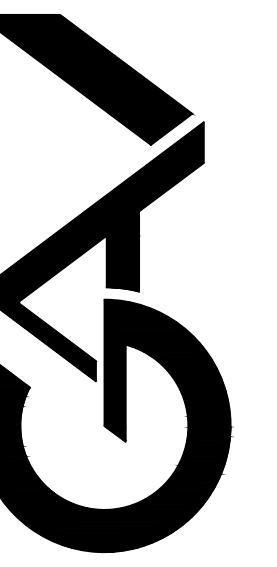
NOOR INTERNATIONAL ACADEMY  
 4050 COOLIDGE HLY  
 TROY, MI 48098

DRAWN:  DESIGNED:  CHECKED:   
 SCALE : AS SHOWN  
 FILE NAME : 2201\_E302  
 JOB #: 22010  
 SHEET TITLE  
 ENLARGED POWER FLOOR PLAN  
 AREA "B"  
 SHEET #  
 E.302



#### NOTES:

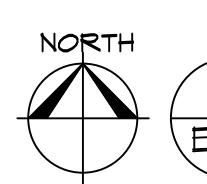
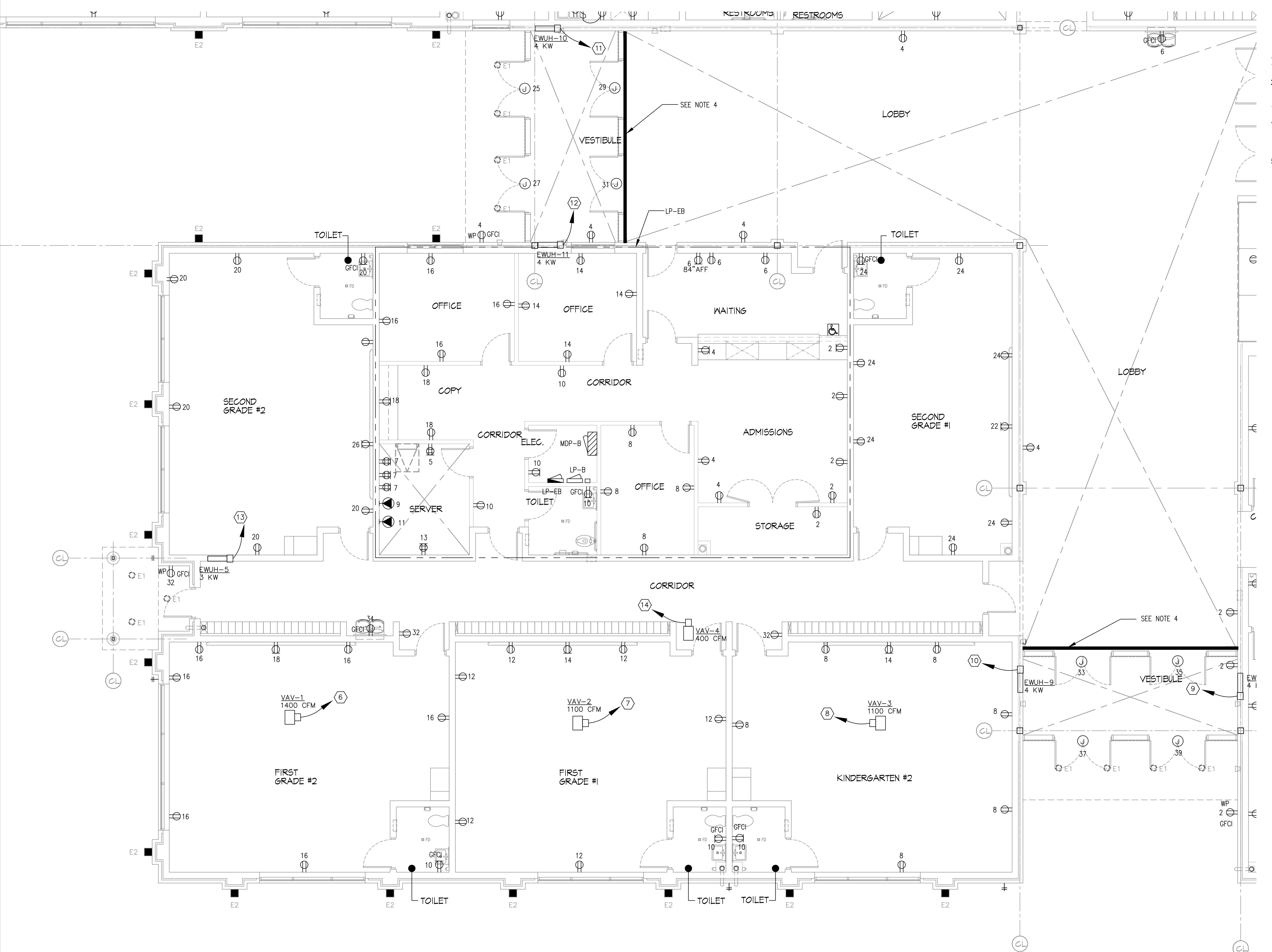
1. FOR GENERAL NOTES SEE SHEET E.100
2. ELECT. CONT. TO COORDINATE W/OWNER AND OTHER TRADES FOR EXACT EQUIP'T LOCATIONS IN THE FIELD PRIOR TO INSTALLATION. PROVIDE POWER TO THESE EQUIP'T ACCORDINGLY.
3. THERMOSTATS – ELECT. CONT. SHALL INSTALL ALL THERMOSTATS AS PROVIDED BY MECH. CONT.
4. ALL BRANCH CIRCUIT DESIGNATION SHOWN ARE FED FROM LP-A PANELBOARD. UON.



NOOR INTERNATIONAL ACADEMY  
4050 COOLIDGE HLY  
TROY, MI 48098  
586-365-5000

NOOR INTERNATIONAL ACADEMY  
4050 COOLIDGE HLY  
TROY, MI 48098

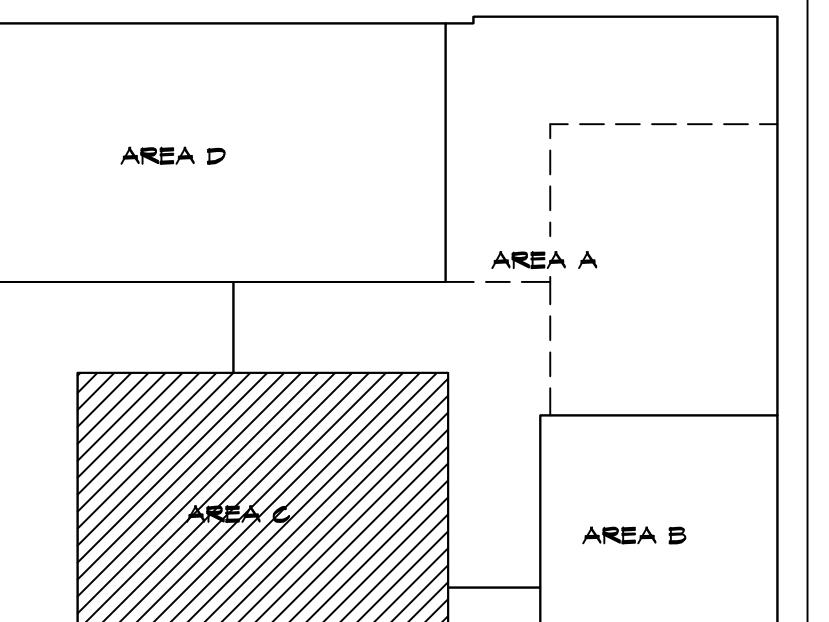
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SCALE : AS SHOWN  
FILE NAME : 2201\_E203  
JOB #: 22010  
SHEET TITLE  
ENLARGED POWER FLOOR PLAN  
AREA "C"  
SHEET #  
E.303



NORTH  
E.203  
GROUND LEVEL  
ENLARGED POWER FLOOR PLAN - AREA "C"  
SCALE: 3/16" = 1'-0"

**NOTES:**  
1. FOR GENERAL NOTES SEE SHEET E.100

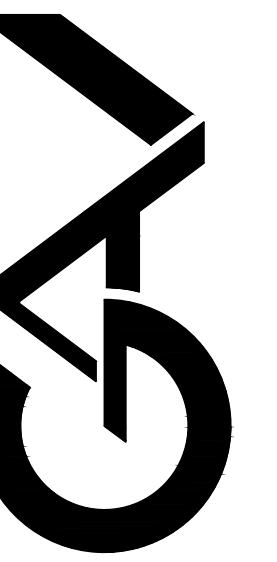
2. ELECT. CONT. TO COORDINATE W/OWNER AND OTHER TRADES FOR EXACT EQUIP'T LOCATIONS IN THE FIELD PRIOR TO INSTALLATION. PROVIDE POWER TO THESE EQUIP'T ACCORDINGLY.
3. THERMOSTATS - ELECT. CONT. SHALL INSTALL ALL THERMOSTATS AS PROVIDED BY MECH. CONT.
4. INSTALL CONDUITS RUNS IN THESE LOCATIONS TO GO FROM ONE AREA TO THE OTHER AREA. KEEP THE LOBBY AS CLEAR AS POSSIBLE FROM INSTALLING CONDUITS ALL OVER THE LOBBY AREA. COORDINATE W/ARCHITECT TRADE AS REQUIRED.
5. ALL BRANCH CIRCUIT DESIGNATION SHOW ON THE PLAN ARE FED FROM LP-B. U.O.N.



ISSUED FOR	DATE
PROGRESS	7-26-22
PROGRESS	8-2-22
100% COORDINATION	8-12-22
PERMITS	8-17-22

ARCHITECTURAL DESIGN  
 RESIDENTIAL COMMERCIAL INDUSTRIAL

G.A.V. ASSOCIATES, INC.  
 24001 ORCHARD LAKE RD., STE. 180A  
 FARMINGTON HILLS, MICHIGAN 48336  
 PH: (248) 985-9101  
 WEB: WWW.GAVASSOCIATES.COM



ASSOCIATES

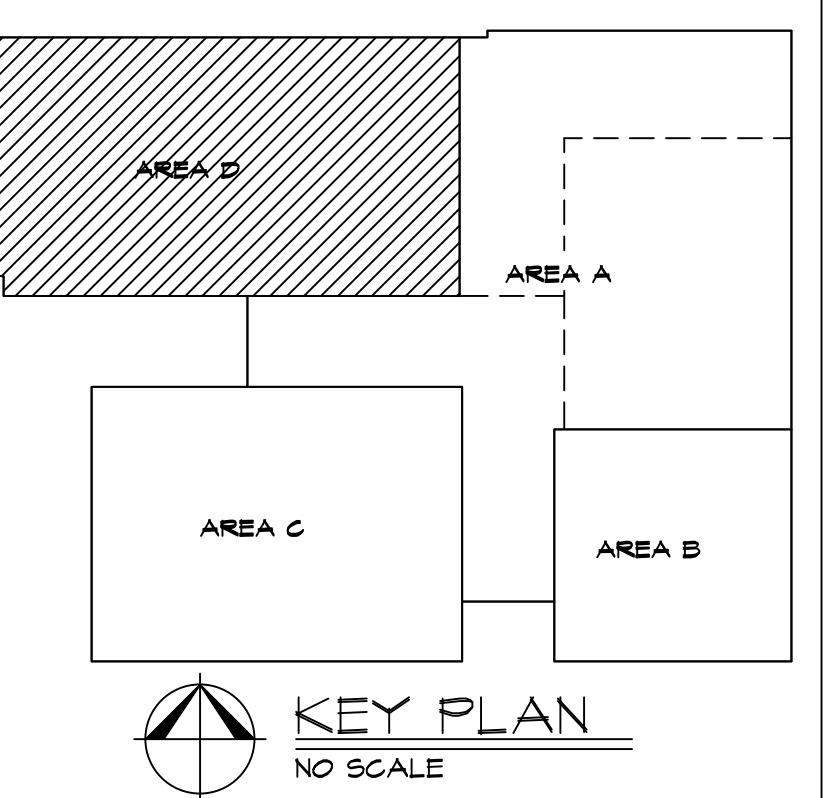
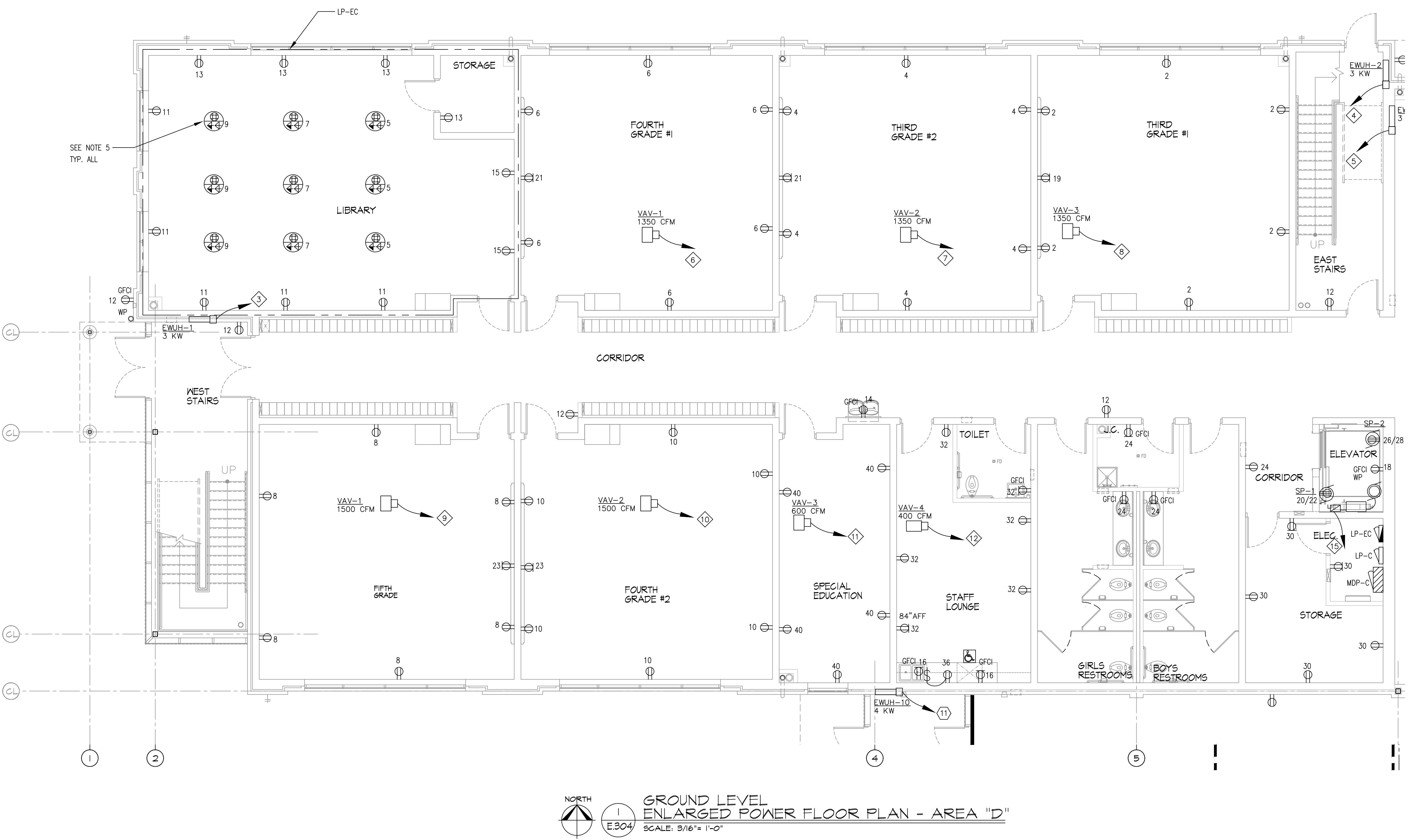
NOOR INTERNATIONAL ACADEMY  
 4050 COOLIDGE HLY  
 TROY, MI 48098  
 586-365-5000

NOOR INTERNATIONAL ACADEMY  
 4050 COOLIDGE HLY  
 TROY, MI 48098

DRAWN: IN DESIGNED: GA CHECKED:  
 SCALE : AS SHOWN  
 FILE NAME : 2201\_E304  
 JOB #: 2201  
 SHEET TITLE  
 ENLARGED POWER FLOOR PLAN  
 AREA "D"  
 SHEET #  
 E.304

**NOTES:**

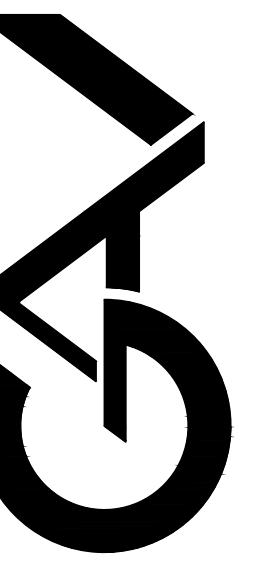
1. FOR GENERAL NOTES SEE SHEET E.100
2. ELECT. CONT. TO COORDINATE W/OWNER AND OTHER TRADES FOR EXACT EQUIPT LOCATIONS IN THE FIELD PRIOR TO INSTALLATION. PROVIDE POWER TO THESE EQUIPT ACCORDINGLY.
3. THERMOSTATS - ELECT. CONT. SHALL INSTALL ALL THERMOSTATS AS PROVIDED BY MECH. CONT.
4. ALL BRANCH CIRCUIT DESIGNATION SHOWN ON THE PLAN ARE FED FROM LP-C. U.O.N.
5. PROVIDE HUBBELL SYSTEM ONE-MODULAR IN-FLOOR SYSTEM, FLUSH MOUNTED MULTI-SERVICE (EXTRON) APPLICATIONS WITH ALL THE NECESSARY DEVICES FOR A COMPLETE FUNCTIONAL SYSTEM. COORDINATE EXACT LOCATION WITH THE COMMUNICATIONS TRADE AND THE OWNER PRIOR TO FINAL INSTALLATION IN THE FIELD.



ISSUED FOR	DATE
PROGRESS	7-26-22
PROGRESS	8-2-22
100% COORDINATION	8-12-22
PERMITS	8-17-22

ARCHITECTURAL DESIGN  
 RESIDENTIAL COMMERCIAL INDUSTRIAL

G.A.V. ASSOCIATES, INC.  
 24001 ORCHARD LAKE, STE. 180A  
 FARMINGTON HILLS, MICHIGAN 48336  
 PH: (248) 985-9101  
 WEB: WWW.GAVASSOCIATES.COM



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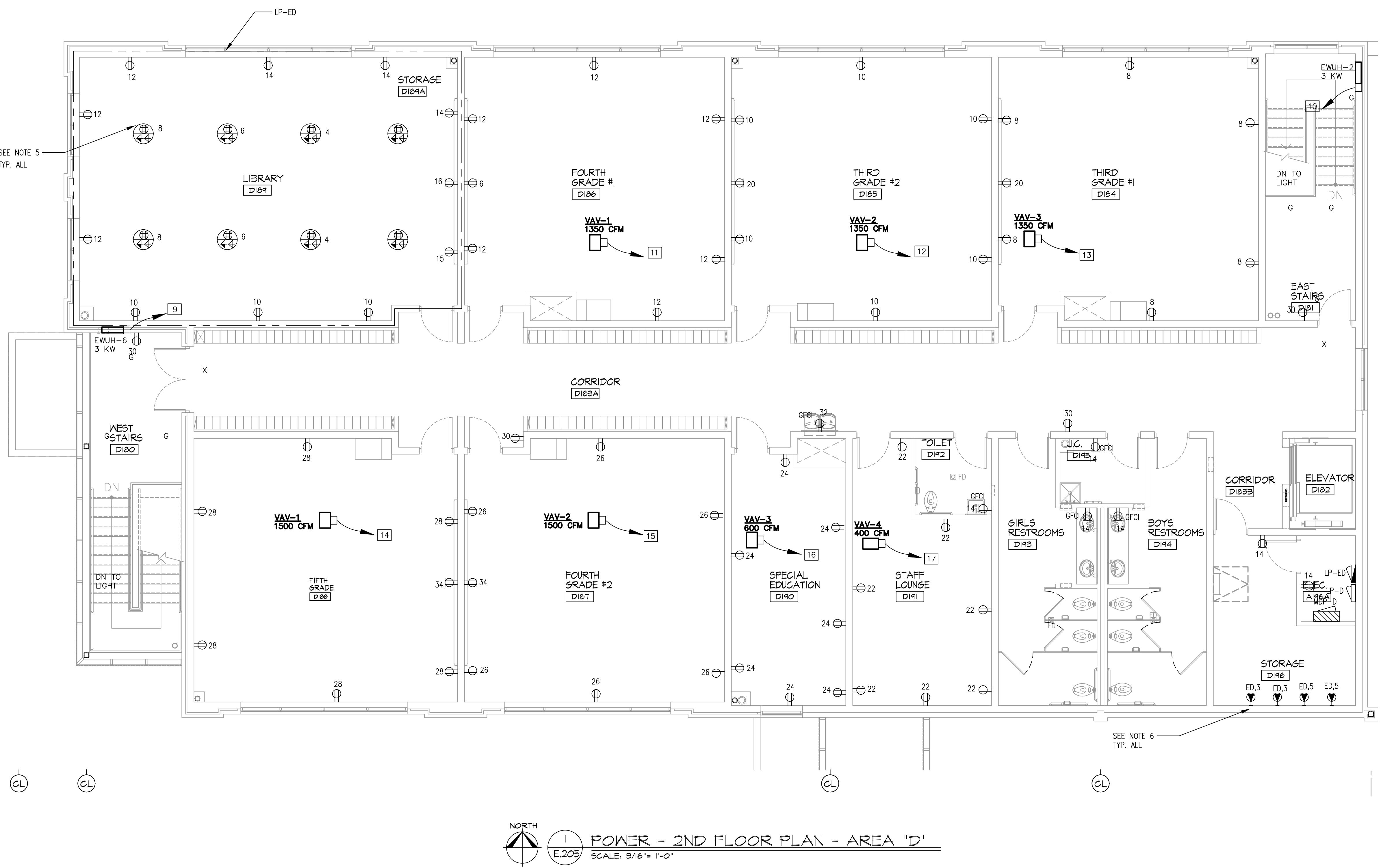
NOOR INTERNATIONAL ACADEMY  
 4050 COOLIDGE HLY  
 TROY, MI 48098  
 586-365-5000

NOOR INTERNATIONAL ACADEMY  
 4050 COOLIDGE HLY  
 TROY, MI 48098

DRAWN: in DESIGNED: in CHECKED: SA  
 SCALE :  
 FILE NAME : 2201\_E205  
 JOB #: 22010  
 SHEET TITLE  
 POWER  
 2ND FLOOR PLAN  
 AREA "D"  
 SHEET #  
 E.305

**NOTES:**

1. FOR GENERAL NOTES SEE SHEET E.100
2. ELECT. CONT. TO COORDINATE W/OWNER AND OTHER TRADES FOR EXACT EQUIP'T LOCATIONS IN THE FIELD PRIOR TO INSTALLATION. PROVIDE POWER TO THESE EQUIP'T ACCORDINGLY.
3. THERMOSTATS - ELECT. CONT. SHALL INSTALL ALL THERMOSTATS AS PROVIDED BY MECH. CONT.
4. ALL BRANCH CIRCUIT DESIGNATION SHOWN ON THE PLAN ARE FED FROM LP-D. U.O.N.
5. PROVIDE HUBBELL SYSTEM ONE-MODULAR IN-FLOOR SYSTEM, FLUSH MOUNTED MULTI-SERVICE (EXTRON) APPLICATIONS WITH ALL THE NECESSARY DEVICES FOR A COMPLETE FUNCTIONAL SYSTEM. COORDINATE EXACT LOCATION WITH THE COMMUNICATIONS TRADE AND THE OWNER PRIOR TO FINAL INSTALLATION IN THE FIELD.
6. COORDINATE FINAL LOCATION OF OUTLETS WITH THE COMMUNICATIONS TRADE PRIOR TO INSTALLATION. MOUNTING HEIGHTS OF OUTLETS SHALL BE 4'-0" AFF - 20A, 1P NEMA TWIST LOCK..



ISSUED FOR	DATE
PROGRESS	7-26-22
PROGRESS	8-2-22
100% COORDINATION	8-12-22
PERMITS	8-17-22

ARCHITECTURAL  
DESIGN

RESIDENTIAL  
COMMERCIAL  
INDUSTRIAL

G.A.V. ASSOCIATES, INC.  
24001 ORCHARD LAKE, STE. 180A  
FARMINGTON HILLS, MICHIGAN 48336  
PH: (248) 985-9101  
WEB: WWW.GAVASSOCIATES.COM

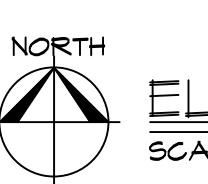
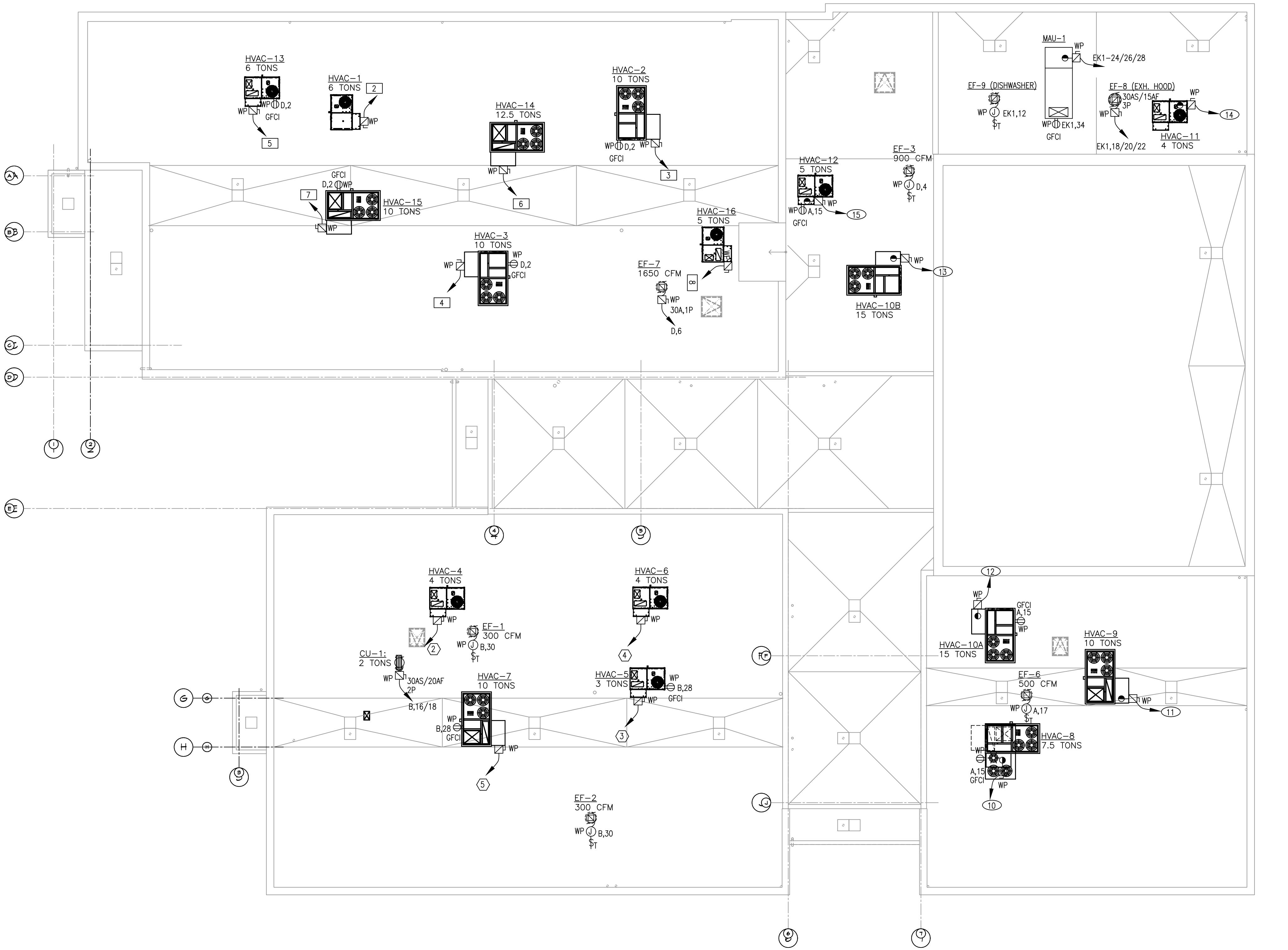
**GAV**  
ASSOCIATES

NOOR INTERNATIONAL  
ACADEMY  
4050 COOLIDGE HLY  
TROY, MI 48098  
586-365-5000

NOOR INTERNATIONAL ACADEMY  
4050 COOLIDGE HLY  
TROY, MI 48098

DRAWN:	DESIGNED:	CHECKED:
in	in	SA
SCALE : AS SHOWN		
FILE NAME : 22010_EB06		
JOB # : 22010		
SHEET TITLE		
ELECTRICAL ROOF PLAN		
SHEET #		

E.306



ELECTRICAL ROOF PLAN  
SCALE: 9/32" = 1'-0"

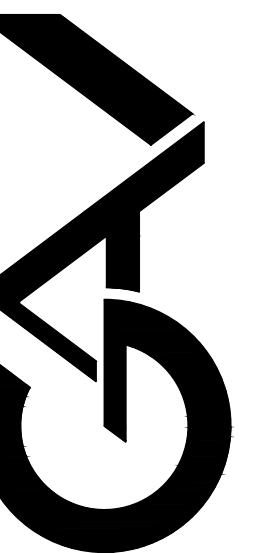


KEY PLAN  
NO SCALE  
NORTH

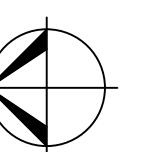
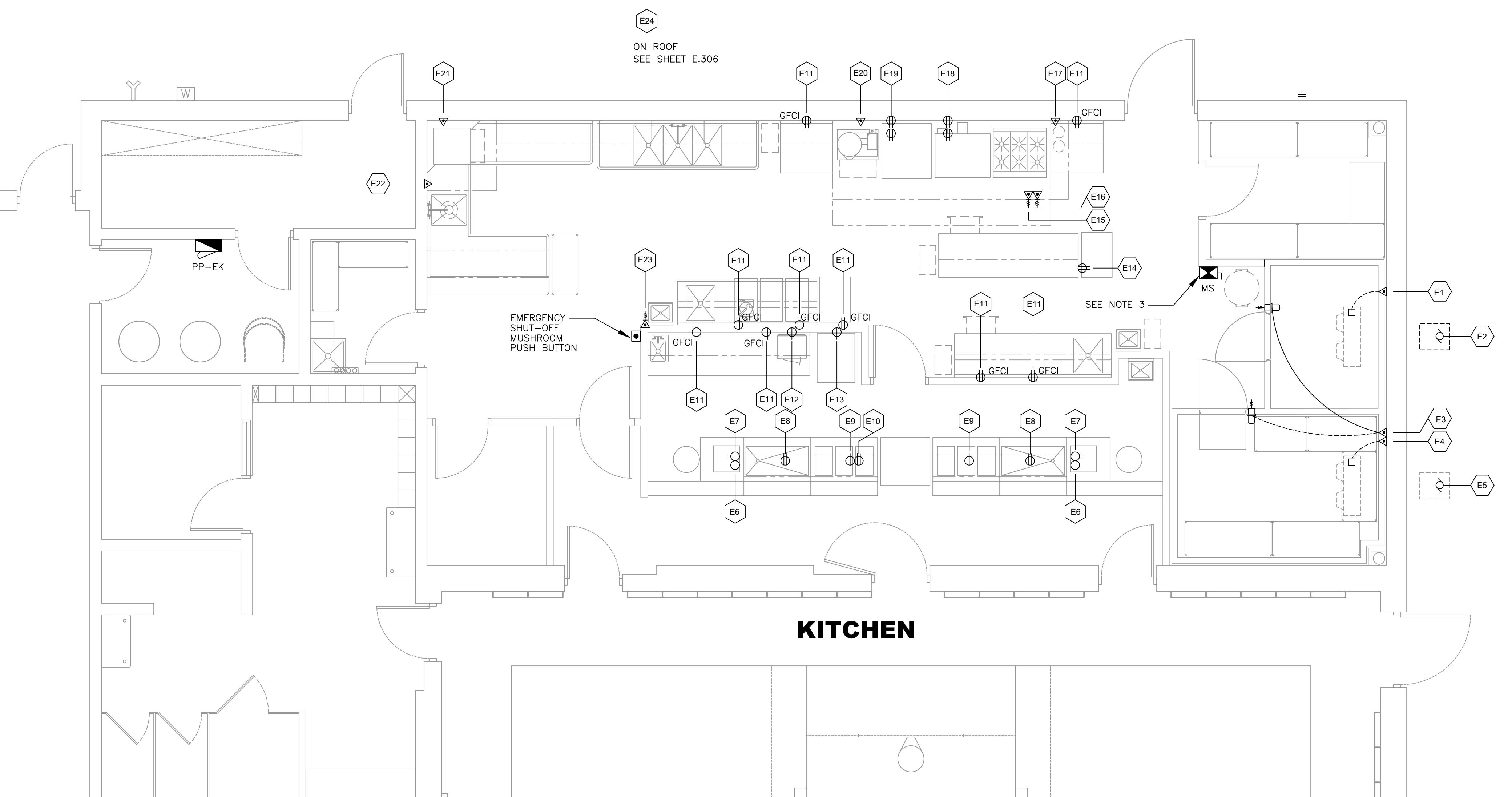


NOTES:

1. FOR GENERAL NOTES SEE SHEET E.100
2. ELECTRICAL CONTRACTOR TO COORDINATE ALL MECHANICAL INTERLOCKS WITH MECHANICAL TRADE PRIOR TO INSTALLATION.
3. FOR DUCT SMOKE DETECTORS REFER TO COORDINATE WITH MECHANICAL TRADE



ASSOCIATES



ENLARGED KITCHEN FLOOR PLAN- POWER  
SCALE: 1/4" = 1'-0"

ELECTRICAL REQUIREMENTS		SOURCE PANEL
NO.	ELECTRICAL CHARACTERISTICS	PP-EK
E1	E.C. 0.7 KW, 120V, 1PH, 6.5 AMPS 9"-0" A.F.F. - CT WALK-IN COOLER EVAPORATOR COIL	1
E2	E.C. 3/4 HP, 208V, 3PH, 3.5 AMPS ON ROOF OF BUILDING - CT WALK-IN COOLER CONDENSING UNIT	3/5/7
E3	E.C. 0.6 KW, 120V, 1PH, 5.2 AMPS 9"-0" A.F.F. - CT WALK-IN COOLER/FREEZER LIGHTS	9
E4	E.C. 2.3 KW, 208V, 1PH, 10.0 AMPS 9"-0" A.F.F. - CT FREEZER EVAPORATOR COIL	11/13
E5	E.C. 2 HP, 208V, 3PH, 4.4 AMPS ON ROOF OF BUILDING - CT FREEZER CONDENSING UNIT	15/17/19
E6	EMPTY CONDUIT 4" A.F.F. - FOR POS/CASH REGISTER SYSTEM	
E7	D.R. 120V, 1PH, 15.0 AMPS 4" A.F.F. - FOR POS/CASH REGISTER SYSTEM	21
E8	D.R. 0.9 KW, 120V, 1PH, 6.8 AMPS 4" A.F.F. - FOR COLD FOOD UNIT	23
E9	S.R. 2.7 KW, 208V, 1PH, 13.0 AMPS 4" A.F.F. - FOR HOT FOOD UNIT	25/27
E10	D.R. 1/3 HP, 120V, 1PH, 5.0 AMPS 4" A.F.F. - FOR MILK COOLER	29
E11	D.R. 120V, 1PH, 20.0 AMPS EA 48" A.F.F. - FOR GENERAL USE	31,33,35,37
E12	S.R. 1.2 KW, 120V, 1PH, 17.3 AMPS 72" A.F.F. - FOR MICROWAVE OVEN	39
E13	S.R. 1.8 KW, 120V, 1PH, 15.0 AMPS 48" A.F.F. - FOR HEATED CABINET	41
E14	D.R. 120V, 1PH, 20.0 AMPS EA, DROP DOWN FROM CEILING TO 72" A.F.F. - FOR GENERAL USE	2
E15	E.C. 0.4 KW, 120V, 1PH, 3.5 AMPS DROP DOWN FROM ABOVE - CT SWITCH HOOD LIGHT	4
E16	E.C. DROP DOWN FROM ABOVE - CT SWITCH ON HOOD TO EXHAUST FAN ON ROOF - VERIFY REQS. W/ SUPPLIER	18/20/22
E17	E.C. 1.0 KW, 120V, 1PH, 8.3 AMPS DROP DOWN FROM ABOVE TO 6" BELOW CEILING - CT FIRE SUPPRESSION SYSTEM	14
E18	D.R. 1/2 HP, 120V, 1PH, 10.8 AMPS EACH 12" & 48" A.F.F. - FOR DOUBLE DECK CONVECTION OVEN	16
E19	D.R. 1.0 KW, 120V, 1PH, 8.3 AMPS EACH 12" & 48" A.F.F. - FOR COMBO OVEN/STEAMER	30
E20	E.C. 1.0 KW, 120V, 1PH, 8.3 AMPS DROP DOWN FROM ABOVE TO 6" BELOW CEILING - CT FIRE SUPPRESSION SYSTEM	32
E21	E.C. 6.3 KW, 208V, 3PH, 18.0 AMPS 12" A.F.F. - CT KETTLE	6/8/10
E22	E.C. 2 HP, 208V, 3PH, 6.1 AMPS 24" A.F.F. - BT & CT SWITCH & DISPOSER	38/40/42
E23	E.C. 48" A.F.F. - CT SWITCH FOR EXHAUST FAN ON ROOF OF BLDG. FOR EXHAUST FANS & MAKE-UP AIR UNIT - VERIFY REQS. W/ SUPPLIER	12
E24	PROVIDE ELECTRIC SUPPLY ON ROOF OF BLDG. FOR EXHAUST FANS & MAKE-UP AIR UNIT - VERIFY REQS. W/ SUPPLIER	24/26/28

#### NOTES:

- FOR GENERAL NOTES SEE SHEET E.100
- ELECT. CONT. TO COORDINATE W/KITCHEN SUPPLIER AND OTHER TRADES FOR EXACT EQUIP'T LOCATIONS IN THE FIELD PRIOR TO INSTALLATION. PROVIDE POWER TO THESE EQUIP'T ACCORDINGLY.
- INTERLOCK MOTOR STARTER WITH KITCHEN FIRE SUPPRESSION SYSTEM AS REQUIRED. FINAL LOCATION OF MOTOR STARTER TO BE DETERMINED IN THE FIELD.

PANEL DESIGNATION: PP-EK"		SERVICE: 208/120V, 3Ø, 4W - 225A (CU) BUS						ENCLOSURE: NEMA-1
TYPE: SURFACE MTD (NODD)		LOCATION: MECH. RM. #A115						MAINS: 150A M.B. WITH SHUNT TRIP
CKT NO.	DESCRIPTION	WIRE SIZE	CKT. BKR.	LOAD KVA / PHASE	CKT. BKR.	WIRE SIZE	DESCRIPTION	CKT NO.
1	WALK-IN COOLER EVAP COIL (E1)	#12 20	1	0.78	1.0	0.8	1 20 #12	DROP DOWN (E14)
3					0.4	0.4	1 20 #12	HOOD LIGHTS (E15)
5	WALK-IN COOLER COND (E2)	#12 20	3	0.42	2.1	1.1	1 20 #12	CT FIRE SUPPRESSION (E17)
7					0.42	0.42	1 20 #12	DOUBLE DECK OVEN (E18)
9	WALK-IN COOLER/FREEZER LIGHTS (E3)	#12 20	2	0.6	2.1	0.5	1 20 #12	EF-9 ON ROOF (E23)
11	FREEZER EVAP COIL (E4)	#12 20	1	1.15	1.0	1.0	1 20 #12	CT FIRE SUPPRESSION (E20)
13					0.5	0.5	1 20 #12	R- OFFICE
15					0.5	0.5	1 20 #12	DISPOSAL (E22)
17	FREEZER COND UNIT (E5)	#12 20	3	0.5	1.1	0.8	1 20 #12	EF-8 ON ROOF (E16)
19					0.5	0.5	1 20 #12	MAU-1 ON ROOF (E24)
21	POS/CASH REGISTER (E7)	#12 20	1	0.4	1.1	0.8	1 20 #12	COMBO OVEN STEAMER (E19)
23	COLD FOOD UNIT (E8)	#12 20	1	0.8	1.0	0.8	1 20 #12	CT FIRE SUPPRESSION (E20)
25	HOT FOOD UNIT (E9)	#12 20	2	1.35	2.0	1.0	1 20 #12	R- OFFICE
27					0.8	0.8	1 20 #12	DISPOSAL (E22)
29	MILK COOLER (E10)	#12 20	1	0.6	1.0	1.0	1 20 #12	OUTDOOR WALL-PACK, WEST
31	R- GENERAL USE RECEPTACLES (E11)	#12 20	1	1.0	1.0	1.0	1 20 #12	OUTDOOR WALL-PACK, EAST
33	R- GENERAL USE RECEPTACLES (E11)	#12 20	1	1.0	1.0	1.0	1 20 #12	R- OFFICE
35	R- GENERAL USE RECEPTACLES (E11)	#12 20	1	1.0	1.0	1.0	1 20 #12	BOYS LOCKER RM
37	R- GENERAL USE RECEPTACLES (E11)	#12 20	1	1.0	1.0	1.0	1 20 #12	EF-4, EF-5
39	MICROWAVE OVEN (E12)	#12 20	1	1.2	1.0	1.0	1 20 #12	CIRCULATING PUMP - (CP-1)
41	HEATED CABINET (E13)	#12 20	1	1.8	1.0	1.0	1 20 #12	G BUS BAR
								G BUS BAR

PANEL DESIGNATION: LP-S		SERVICE: 208/120V, 3Ø, 4W						ENCLOSURE: NEMA-1
TYPE: SURFACE MTD (NODD)		LOCATION: MECH. RM. #B121						MAINS: 150A M.B. WITH 225A COPPER BUS
CKT NO.	DESCRIPTION	WIRE SIZE	CKT. BKR.	LOAD KVA / PHASE	CKT. BKR.	WIRE SIZE	DESCRIPTION	CKT NO.
1	L- OUTDOOR PARKING LOT A	#12 20	1	1.8	1.2	1.8	1 20 #10	L- OUTDOOR WALL-PACK, WEST
3	L- OUTDOOR PARKING LOT A	#12 20	1	1.8	1.8	1.8	1 20 #10	L- OUTDOOR WALL-PACK, EAST
5	L- KITCHEN	#12 20	1	1.0	1.0	1.0	1 20 #10	L- OUTDOOR WALL-PACK, SOUTH
7	L- SERVING, OFFICE	#12 20	1	0.7	1.5	1.5	1 20 #10	L- OUTDOOR WALL-PACK, EAST
9	L- SITE STORG., MECH. RM., LOCKER	#12 20	1	1.5	0.9	1.0	1 20 #10	L- OUTDOOR PARKING LOT
11	L- LIGHTING CONTROL PANEL	#12 20	1	0.5	1.8	1.0	1 20 #10	L- OUTDOOR SIGN
13	L- LIGHTING CONTROL PANEL	#12 20	1	0.5	1.8	1.0	1 20 #10	SPARE
15	L- CORRIDOR	#12 20	1	0.3	1.0	1.0	1 20 #10	SPARE
17	SPARE	-	20	1	-	-	1 20 #10	SPARE
19	SPARE	-	20	1	-	-	1 20 #10	SPARE
21	SPARE	-	20	1	-	-	1 20 #10	SPARE
23	SPARE	-	20	1	-	-	1 20 #10	SPARE
25	SPARE	-	20	1	-	-	1 20 #10	SPARE
27	SPARE	-	20	1	-	-	1 20 #10	R- BOYS LOCKER RM
29	SPARE	-	20	1	-	-	1 20 #10	R- OFFICE
31	SPACE	-	-	-	1.0	1.0	1 20 #12	R- GIRLS LOCKER RM
33	SPACE	-	-	-	1.0	1.0	1 20 #12	WH-1
35	SPACE	-	-	-	1.0	1.0	1 20 #12	WH-2
37	SPACE	-	-	-	1.0	1.0	1 20 #12	R- MECH. RM., CORRIDOR, OUTDOOR
39	SPACE	-	-	-	1.5	1.5	1 20 #12	EF-4, EF-5
41	SPACE	-	-	-	1.0	1.0	1 20 #12	CIRCULATING PUMP - (CP-1)
								G BUS BAR

## LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURES & CAT. NO.	MOUNTING	VOLT	WATTS PER FIXTURE	LUM. LUMENS	REMARKS
A1	2'X4' LED SPECIFICATION GRADE TROFFER	METALUX 24CZ-40-UNV-L835-CD1-U OR EQUAL BY VISCOR OR LUMAX	CEILING LAY-IN	120	31.6	4091 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
A1-EM	SAME AS "A1" FIXTURE EXCEPT IT IS ON EMERGENCY CIRCUIT	METALUX 24CZ-40-UNV-L835-CD1-U OR EQUAL BY VISCOR OR LUMAX	CEILING LAY-IN	120	31.6	4091 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
A2	2'X4' LED SPECIFICATION GRADE TROFFER	METALUX 24CZ-30-UNV-L835-CD1-U OR EQUAL BY VISCOR OR LUMAX	CEILING LAY-IN	120	23.6	3024 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
A2-EM	SAME AS "A2" FIXTURE EXCEPT IT IS ON EMERGENCY CIRCUIT	METALUX 24CZ-30-UNV-L835-CD1-U OR EQUAL BY VISCOR OR LUMAX	CEILING LAY-IN	120	23.6	3024 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
B1	2'X4' LED COMMERCIAL GRADE TROFFER	VISIONEERING LRTA2X4-LED835-040L-UNV P13-XX OR EQUAL BY METALUX OR LUMAX	CEILING LAY-IN	120	34	4059 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
B1-EM	SAME AS "B1" FIXTURE EXCEPT IT IS ON EMERGENCY CIRCUIT	VISIONEERING LRTA2X4-LED835-040L-UNV P13-XX OR EQUAL BY METALUX OR LUMAX	CEILING LAY-IN	120	34	4059 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
B2	2'X4' LED COMMERCIAL GRADE TROFFER	VISIONEERING LRTA2X4-LED835-063L-UNV P13-XX OR EQUAL BY METALUX OR LUMAX	CEILING LAY-IN	120	48	6524 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
B3	2'X4' LED EDGE LIT PANEL IMPACT RESISTANT	METALUX 24FP4735C OR EQUAL BY METALUX OR LUMAX	CEILING LAY-IN	120	41.4	4591 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
B3-EM	SAME AS "B3" FIXTURE EXCEPT IT IS ON EMERGENCY CIRCUIT	METALUX 24FP4735C OR EQUAL BY METALUX OR LUMAX	CEILING LAY-IN	120	41.4	4591 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
C12	LED LINEAR FIXTURE	PRUDENTIAL PRU15-SQ-LED35-MO-12FT WA-XX-D9-SC-UNV-C48-XX-DM01 OR EQUAL BY CORELITE OR AXIS	CEILING PENDANT	120	55.2	6000 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
C24	LED LINEAR FIXTURE	PRUDENTIAL PRU15-SQ-LED35-MO-24FT WA-XX-D9-SC-UNV-C48-XX-DM01 OR EQUAL BY CORELITE OR AXIS	CEILING PENDANT	120	110.4	12000 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
C40	LED LINEAR FIXTURE	PRUDENTIAL PRU15-SQ-LED35-MO-40FT WA-XX-D9-SC-UNV-C48-XX-DM01 OR EQUAL BY CORELITE OR AXIS	CEILING PENDANT	120	184	20000 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
C48	LED LINEAR FIXTURE	PRUDENTIAL PRU15-SQ-LED35-MO-48FT WA-XX-D9-SC-UNV-C48-XX-DM01 OR EQUAL BY CORELITE OR AXIS	CEILING PENDANT	120	220.8	24000 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
D & E1	6" LED DOWNLIGHT COMMERCIAL FIXTURE	HALO HC610D010-HM60525835-61MDH-WF OR EQUAL BY RAYON OR USAI	CEILING LAY-IN	120	9.9	1124 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
F-EM	LED SCONCE FIXTURE	CORELITE J2S-L-3L35-1C-UNV-SU-WA OR EQUAL BY PRUDENTIAL OR AXIS	WALL SURFACE	120	24.3	1376 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
G1	LED LINEAR FIXTURE	PRUDENTIAL S1-PRO-LED35-HO-2FT SAL-XX-UNV-SUR-XX-XX-XX OR EQUAL BY CORELITE OR AXIS	CEILING PENDANT	120	49.7	6458 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
G1-EM	SAME AS "G1" FIXTURE EXCEPT IT IS ON EMERGENCY CIRCUIT	PRUDENTIAL S1-PRO-LED35-HO-2FT SAL-XX-UNV-SUR-XX-XX-XX OR EQUAL BY CORELITE OR AXIS	CEILING PENDANT	120	49.7	6458 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
G2-EM	SAME AS "G1" FIXTURE EXCEPT IT IS ON EMERGENCY CIRCUIT	PRUDENTIAL S1-PRO-LED35-HO-2FT SAL-XX-UNV-SUR-XX-XX-XX OR EQUAL BY CORELITE OR AXIS	CEILING PENDANT	120	37.5	5100 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
H1	4' LED STRIPLIGHT	METALUX 4SNLED-LD-5-58SL-LW-UNV-L840 CD1-U OR EQUAL BY PACLIGHTS OR LUMAX	CEILING SURFACE	120	54.9	6015 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
H2	4' LED STRIPLIGHT	METALUX 4SNLED-LD-5-44SL-LW-UNV-L840 CD1-U OR EQUAL BY PACLIGHTS OR LUMAX	CEILING SURFACE	120	38.7	4681 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
K	LED GYMNASIUM FIXTURE	LUXE DYNAMICS L-2-SA-840-2-XX-CA-XX OR EQUAL BY METALUX OR LUMAX	CEILING PENDANT	120	153.7	23837 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
K-EM	SAME AS "K" FIXTURE EXCEPT IT IS ON EMERGENCY CIRCUIT	LUXE DYNAMICS L-2-SA-840-2-XX-CA-XX OR EQUAL BY METALUX OR LUMAX	CEILING PENDANT	120	153.7	23837 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS
W	LED VAPORPROOF ELEVATOR PIT	CANLET LED VAPORPROOF-02-20W L-W-XX-0G-09 OR EQUAL BY TERON OR LUMAX	WALL SURFACE	120	19.2	1832 LUMENS	PROVIDE ALL THE NECESSARY SUPPORTS, & HANGERS

### NOTES:

- FOR GENERAL NOTES SEE SHEET E.100
- COORDINATE ALL LIGHTING FIXTURE FINISHES WITH THE ARCHITECT/OWNER PRIOR TO PURCHASING.
- XX DESIGNATION IN THE LIGHTING FIXTURE SCHEDULE - REPRESENT EITHER OWNER/ARCHITECT TO SELECT THE CORRECT OPTION.

PANEL DESIGNATION: LP-A		SERVICE: 208/120V, 3Ø, 4W						ENCLOSURE: NEMA-1		
TYPE: SURFACE MTD (NODD)		LOCATION: MAIN ELECT. RM. #B147						MAINS: 200A M.L.O. WITH COPPER BUS		
CKT. NO.	DESCRIPTION	WIRE SIZE	CKT. BKR.	LOAD KVA / PHASE			CKT. BKR.	WIRE SIZE	DESCRIPTION	CKT. NO.
				A	P	A				
1 L- FIRE RISER, ELECT. NURSE, STO	#12 20 1 1.4	1.28	#12	20	#12	R- PRESCHOOL/DAYCARE	2			
3 L- CORRIDOR	#12 20 1 0.3	0.08	#12	20	#12	R- TOILET R'MS	4			
5 L- PRESCHOOL/DAYCARE	#12 20 1 1.1	1.26	#12	20	#12	R- SMART BOARD	6			
7 L- PRESCHOOL/DAYCARE	#12 20 1 1.1	1.26	#12	20	#12	R- PRESCHOOL/DAYCARE	10			
9 L- PRESCHOOL/DAYCARE	#12 20 1 1.5	1.0	#12	20	#12	R- SMART BOARD	12			
11 L- MULTIPURPOSE ROOM	#12 20 1 1.5	1.0	#12	20	#12	R- NURSE RM, TOILET	14			
13 L- MULTIPURPOSE ROOM	#12 20 1 1.0	—	#12	20	—	SPARE	16			
15 R- ROOF	#12 20 1 0.5	1.2	#12	20	#12	R- EWC	18			
17 FF-3	#12 20 1 0.5	1.2	#12	20	#12	R- EWC	20			
19 FF-6	#12 20 1 1.0	1.0	#12	20	#12	R- SCORE BOARD	24			
21 BATTERY CHARGER - GENERATOR	#8 40 2 3.0	1.0	#12	20	#12	R- MULTIPURPOSE ROOM	26			
23 BLOCK HEATER - GENERATOR	#8 40 2 3.0	1.0	#12	20	#12	R- MULTIPURPOSE ROOM	28			
27 SPARE	—	—	#12	20	#12	R- MULTIPURPOSE ROOM	30			
29 SPARE	—	—	#12	20	#12	R- MULTIPURPOSE ROOM	32			
31 SPACE	—	—	#12	20	—	SPACE	34			
33 SPACE	—	—	#12	20	—	SPACE	36			
35 SPACE	—	—	#12	20	—	SPACE	38			
37 SPACE	—	—	#12	20	—	SPACE	40			
39 SPACE	—	—	#12	20	—	SPACE	42			
41 SPACE	—	—	#12	20	—	SPACE	44			
CONNECTED LOAD:		32.66 KVA	7.5 3.4 6.1			5.86 4.34 5.46	G BUS BAR			
DEMAND LOAD:		24.8 KVA	—			—	G BUS BAR			

PANEL DESIGNATION: LP-SEA		SERVICE: 208/120V, 3Ø, 4W						ENCLOSURE: NEMA-1		
TYPE: SURFACE MTD (NODD)		LOCATION: MAIN ELECT. RM. #B147						MAINS: 100A M.L.O. WITH COPPER BUS		
CKT. NO.	DESCRIPTION	WIRE SIZE	CKT. BKR.	LOAD KVA / PHASE			CKT. BKR.	WIRE SIZE	DESCRIPTION	CKT. NO.


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# **MAIN SWITCHBOARD - (SWBD)**

MOUNTING: FLOOR MT'D SERVICE: 2000A, 208/120V, 3Ø, 4W, COPPER BUS ENCLOSURE: NEMA 1  
LOCATION: MAIN ELECTRICAL ROOM #B147 MANUFACTURERS: EATON RATING: 65,000 AIC  
OR EQUAL BY SQUARE D. OR SIEMENS

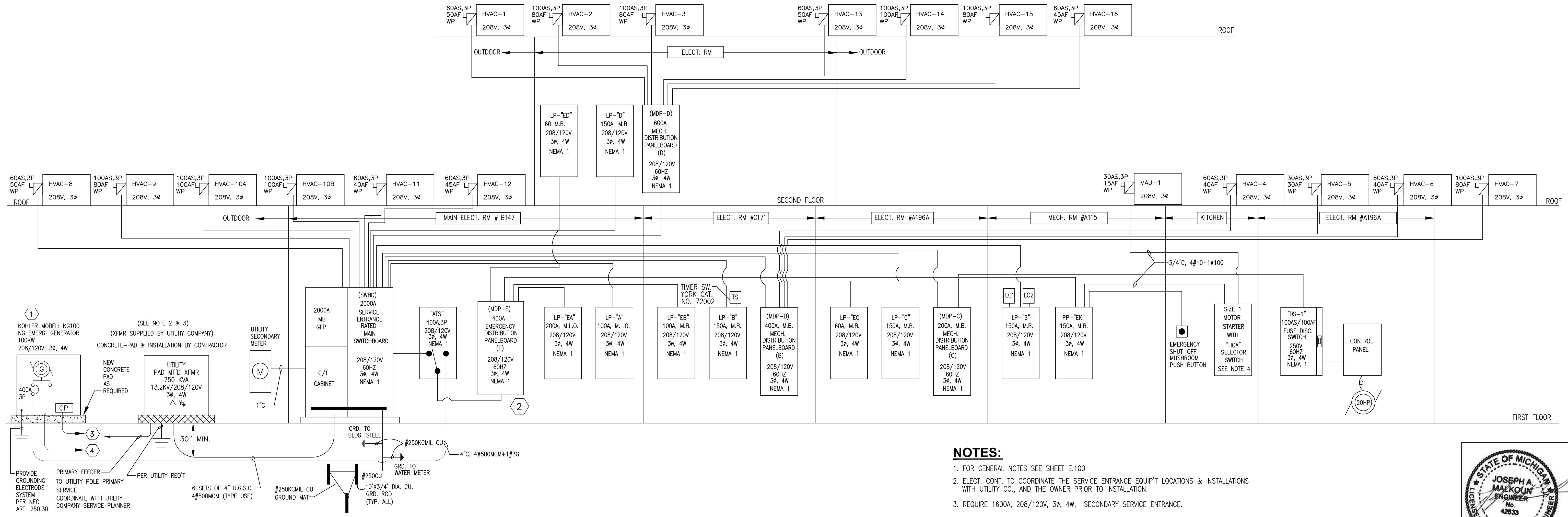
DESIGNATION	LOAD DESCRIPTION	LOAD			BREAKER FRAME/TRIP	FEEDER/CONDUIT	REMARKS
		TON	KVA	FLA			
(1)	MAIN BREAKER	-	-	-	1600AF/1600AT, 3P	(5) 4"C, 4#500MCM+1#4/0G	GROUND FAULT PROTECT
(2)	LP-A	-	29.0	80.3	200AF/150AT, 3P	2 1/2"C, 4#3/0+1#6G	
(3)	LP-B	-	32.3	89.5	200AF/150AT, 3P	2 1/2"C, 4#3/0+1#6G	
(4)	AUTOMATIC TRANSFER SWITCH – ATS (MDP-E)	-	81.1	224	400AF/400AT, 3P	4"C, 4#500MCM+1#3G	
(5)	LP-C	-	28.5	79.0	200AF/150AT, 3P	2 1/2"C, 4#3/0+1#6G	
(6)	LP-S	-	24.3	67.3	200AF/150AT, 3P	2 1/2"C, 4#3/0+1#6G	
(7)	MDP-D	-	156	418	600AF/600AT, 3P	(2) 3"C, 4#350MCM+1#1G	
(8)	MDP-B	-	77.6	240	400AF/400AT, 3P	4"C, 4#500MCM+1#3G	
(9)	MDP-C	-	51.5	143	200AF/200AT, 3P	2 1/2"C, 4#3/0+1#6G	
(10)	HVAC-8	7.5	16.2	45.0	60AF/50AT, 3P	1"C, 3#6+1#10G	
(11)	HVAC-9	10	22.3	62.0	100AF/80AT, 3P	1 1/2"C, 3#1+1#8G	
(12)	HVAC-10A	15	27.8	77.0	100AF/100AT, 3P	1 1/2"C, 3#1+1#6G	
(13)	HVAC-10B	15	27.8	77.0	100AF/100AT, 3P	1 1/2"C, 3#1+1#6G	
(14)	HVAC-11	4	10.4	29.0	60AF/40AT, 3P	1"C, 3#6+1#10G	
(15)	HVAC-12	5	12.0	33.0	60AF/45AT, 3P	1"C, 3#6+1#10G	
(16)	LP-D	-	26.7	74.0	200AF/150AT, 3P	2 1/2"C, 4#3/0+1#6G	
(17)	EUH-2	-	5.0	24.0	30AF/30AT, 2P	3/4"C, 3#10 +1#10G	
(18)	EUH-3	-	5.0	24.0	30AF/30AT, 2P	3/4"C, 3#10 +1#10G	
(19)	(HVAC-9) VAV-1	-	1.5	7.2	20AF/20AT, 2P	3/4"C, 3#12 +1#12G	
(20)	(HVAC-9) VAV-2	-	1.5	7.2	20AF/20AT, 2P	3/4"C, 3#12 +1#12G	
(21)	(HVAC-9) VAV-3	-	2.0	9.6	20AF/20AT, 2P	3/4"C, 3#12 +1#12G	
(22)	(HVAC-9) VAV-4	-	1.5	7.2	20AF/20AT, 2P	3/4"C, 3#12 +1#12G	
(23)	EWUH-4	-	3.0	14.4	20AF/20AT, 2P	3/4"C, 3#12 +1#12G	
(24)	SPARE	-	-	-	100AF/100AT, 3P	-	
CONNECTED LOAD:		643	1781				
DEMAND LOAD:		480	1330				

CONNECTED LOAD:	643	1
DEMAND LOAD:	480	1

# **EMERGENCY DISTRIBUTION PANEL (E) - (MDP-E)**

ING: WALL MT'D SERVICE: 400A, 208/120V, 3Ø, 4W, COPPER BUS ENCLOSURE: NEMA 1  
ON: MAIN ELECTRICAL ROOM #B147 MANUFACTURERS: EATON RATING: 65,000 AIC  
OR EQUAL BY SQUARE D OR G.F.

NATION	LOAD DESCRIPTION	LOAD			BREAKER FRAME/TRIP	FEEDER/CONDUIT	REMARKS
		TON	KVA	FLA			
1	MAIN BREAKER	—	—	—	400AF/400AT, 3P	4"C, 4#500MCM+1#3G	
2	LP-EA	—	5.3	14.7	60AF/60AT, 3P	1"C, 3#6+1#8G	
3	LP-EB	—	20.5	56.8	100AF/100AT, 3P	1 1/2"C, 4#1+1#8G	
4	LP-EC	—	6.5	18.0	60AF/60AT, 3P	1"C, 3#6+1#8G	
5	LP-EK (KITCHEN)	—	40.2	112	200AF/150AT, 3P	2 1/2"C, 4#3/0+1#6G	
6	LP-ED (2ND FLOOR)	—	8.8	22.6	60AF/60AT, 3P	1"C, 3#6+1#8G	
7	SPARE	—	—	—	60AF/60AT, 3P	—	
8	SPARE	—	—	—	100AF/100AT, 3P	—	
9	SPARE	—	—	—	60AF/60AT, 3P	—	
0	SPACE	—	—	—	—	—	
1	SPACE	—	—	—	—	—	
2	SPACE	—	—	—	—	—	



## POWER DISTRIBUTION - RISER DIAGRAM (@208/120V, 3Ø, 4W)

## **NOTES:**

1. FOR GENERAL NOTES SEE SHEET E.100
  2. ELECT. CONT. TO COORDINATE THE SERVICE ENTRANCE EQUIP'T LOCATIONS & INSTALLATIONS WITH UTILITY CO., AND THE OWNER PRIOR TO INSTALLATION.
  3. REQUIRE 1600A, 208/120V, 3Ø, 4W, SECONDARY SERVICE ENTRANCE.
  4. INTERLOCK MOTOR STARTER WITH KITCHEN FIRE SUPPRESSION SYSTEM AS REQUIRED. FINAL LOCATION OF MOTOR STARTER TO BE DETERMINED IN THE FIELD.



ACADEMY  
4050 COOLIDGE HWY  
TROY, MI 48098  
586-365-5000

4050 COOLIDGE HWY  
TROY, MI 48098

WN:	DESIGNED: IH	CHECKED: GA
E : AS SHOWN		
NAME : 22010_E501		
#: 22010		
IT TITLE		
RISER DIAGRAM AND SCHEDULES		
SHEET #		

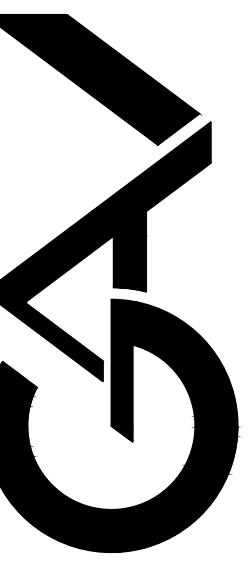
E.502

ISSUED FOR	DAT
PROGRESS	7-26-
PROGRESS	8-2-
COORDINATION	8-12-
PERMITS	8-17-

ISSUED FOR	DATE
PROGRESS	7-26-22
PROGRESS	8-2-22
100% COORDINATION	8-12-22
PERMITS	8-17-22

ARCHITECTURAL DESIGN  
 RESIDENTIAL COMMERCIAL INDUSTRIAL

G.A.V. ASSOCIATES, INC.  
 24001 ORCHARD LAKE RD, STE. 180A  
 FARMINGTON HILLS, MI 48336  
 PH: (248) 985-9101  
 WEB: WWW.GAVASSOCIATES.COM



ASSOCIATES

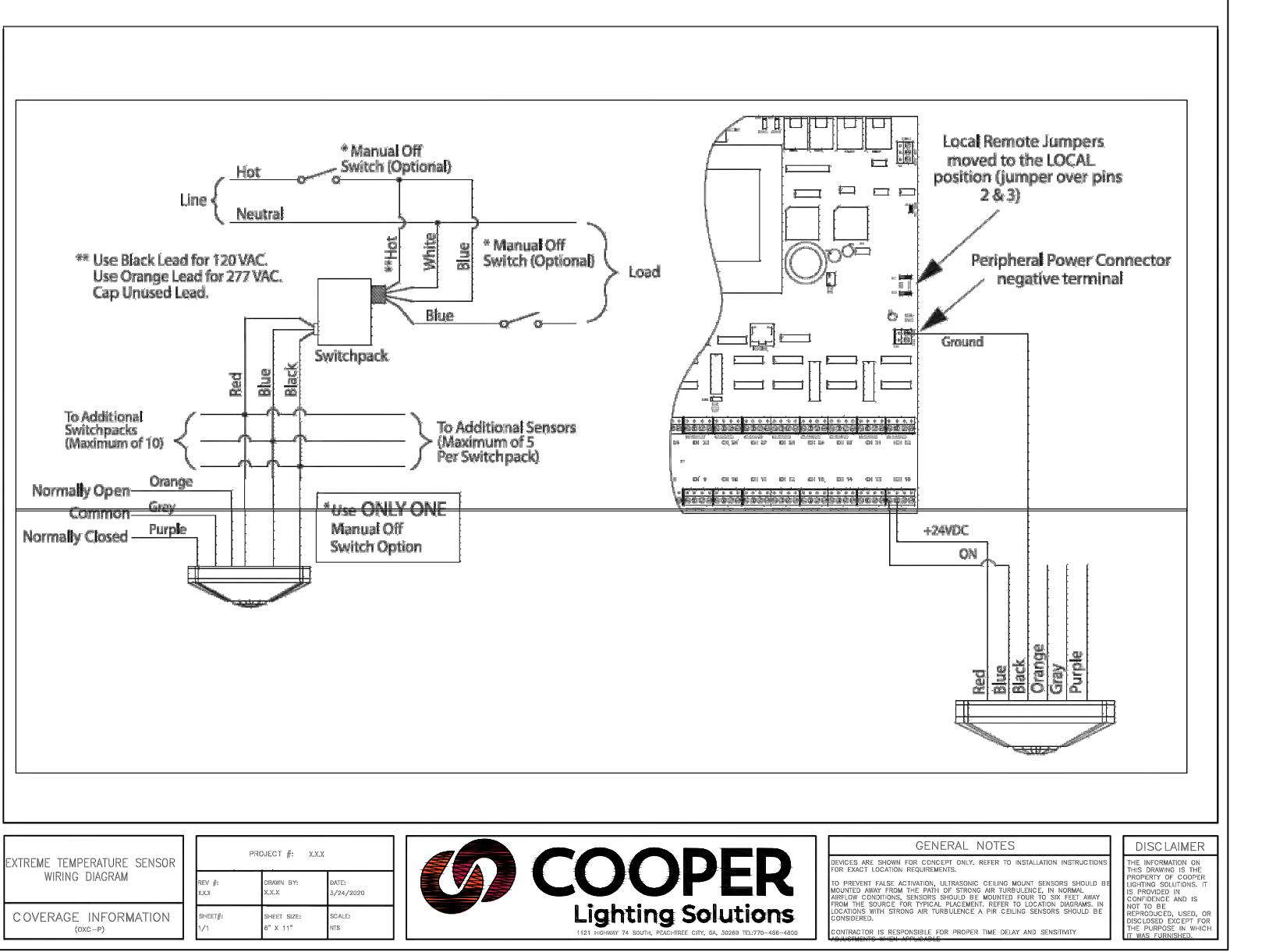
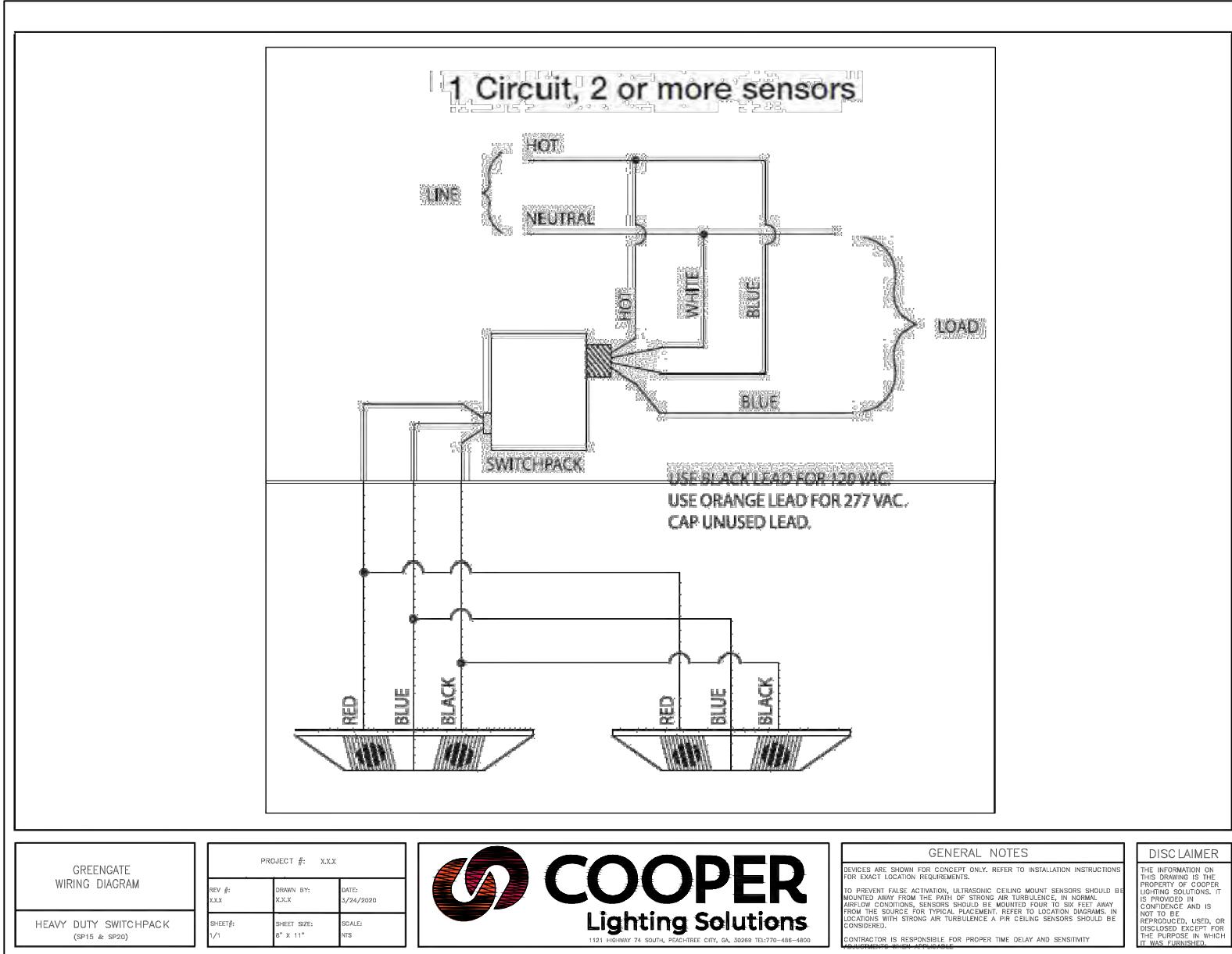
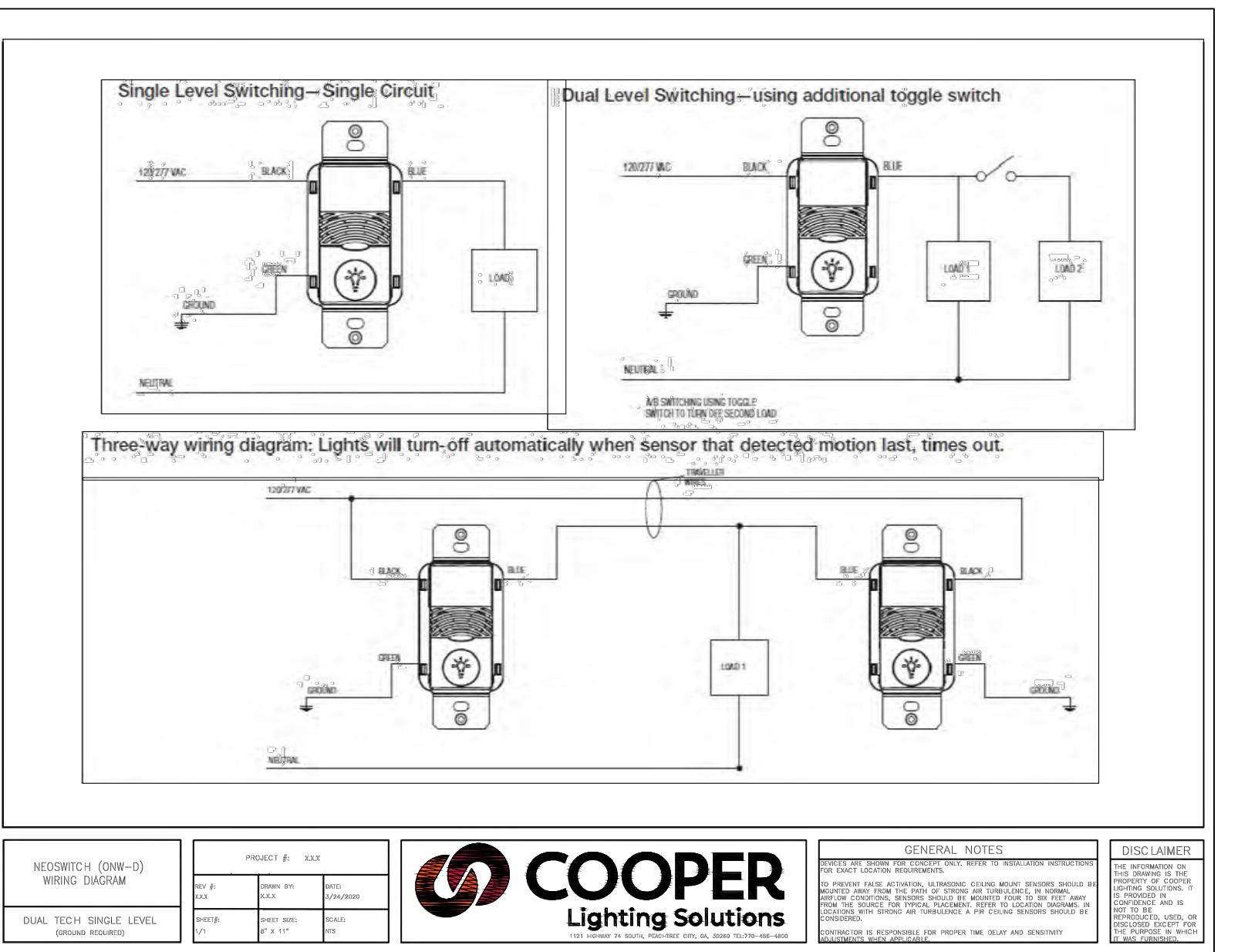
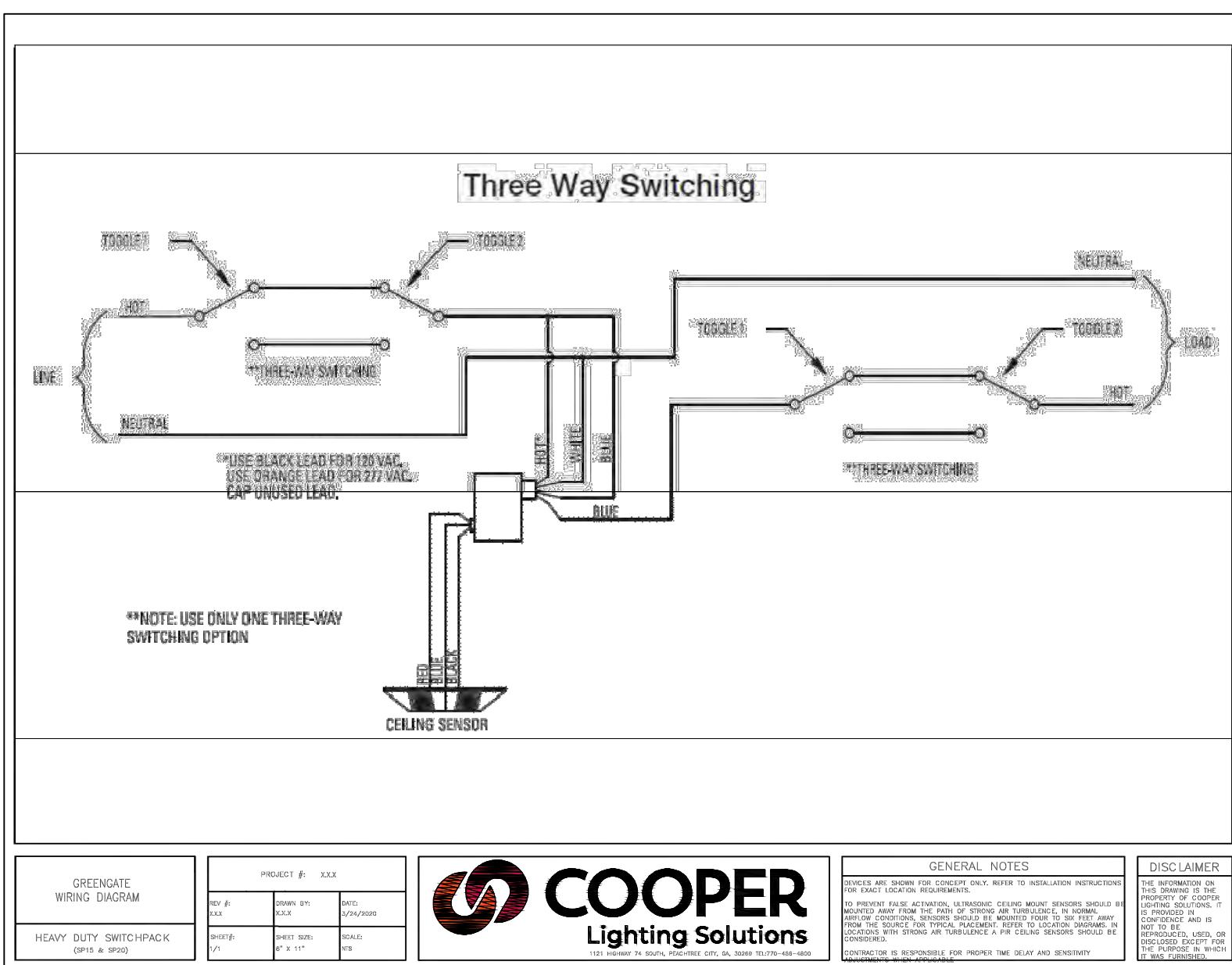
MECHANICAL DISTRIBUTION PANEL - (MDP-B)						
MOUNTING: WALL		SERVICE: 400A, 208/120V, 3Ø, 4W, COPPER BUS		ENCLOSURE: NEMA 1		
LOCATION: 1ST FLOOR - ELECT. RM #C171		MANUFACTURERS: EATON OR EQUAL BY SQUARE D, OR SIEMENS		RATING: 65,000 AIC		
DESIGNATION	LOAD DESCRIPTION	LOAD	BREAKER FRAME/TRIP	FEEDER/CONDUIT	REMARKS	
		TON KVA FLA				
①	MAIN BREAKER	- - -	400AF/400AT, 3P	4"Ø, 4#500MCM+1#2G		
②	HVAC-4	4 10.4 29.0	60AF/40AT, 3P	1"Ø, 3#6+1#10G		
③	HVAC-5	3 9.0 25.0	30AF/30AT, 3P	1"Ø, 3#8+1#10G		
④	HVAC-6	4 10.4 29.0	60AF/40AT, 3P	1"Ø, 3#6+1#10G		
⑤	HVAC-7	10 22.3 62.0	100AF/80AT, 3P	1 1/2"Ø, 3#3+1#8G		
⑥	(HVAC-7) VAV-1	- 2.0 9.6	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑦	(HVAC-7) VAV-2	- 1.5 7.2	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑧	(HVAC-7) VAV-3	- 1.5 7.2	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑨	EWUH-8 (VESTIBULE A101)	- 4.0 19.2	30AF/30AT, 2P	3/4"Ø, 3#10+1#10G		
⑩	EWUH-9 (VESTIBULE A101)	- 4.0 19.2	30AF/30AT, 2P	3/4"Ø, 3#10+1#10G		
⑪	EWUH-10 (VESTIBULE A100)	- 4.0 19.2	30AF/30AT, 2P	3/4"Ø, 3#10+1#10G		
⑫	EWUH-11 (VESTIBULE A100)	- 4.0 19.2	30AF/30AT, 2P	3/4"Ø, 3#10+1#10G		
⑬	EWUH-5 (CORRIDOR C160)	- 3.0 14.4	30AF/30AT, 2P	3/4"Ø, 3#10+1#10G		
⑭	(HVAC-7) VAV-4	- 1.5 7.2	60AT/60AT, 3P	-		
⑮	SPARE	- - -	60AT/60AT, 3P	-		
⑯	SPACE	- - -	-	-		
CONNECTED LOAD:		77.6 214				
DEMAND LOAD:		62.1 172				

MECHANICAL DISTRIBUTION PANEL - (MDP-C)						
MOUNTING: WALL		SERVICE: 200A, 208/120V, 3Ø, 4W, COPPER BUS		ENCLOSURE: NEMA 1		
LOCATION: 1ST FLOOR - ELECT. RM #A196A		MANUFACTURERS: EATON OR EQUAL BY SQUARE D, OR SIEMENS		RATING: 65,000 AIC		
DESIGNATION	LOAD DESCRIPTION	LOAD	BREAKER FRAME/TRIP	FEEDER/CONDUIT	REMARKS	
		TON KVA FLA				
①	MAIN BREAKER	- - -	200AF/200AT, 3P	2 1/2"Ø, 4#3/0+1#6G		
②	EUH-1	- 5.0 24.0	30AF/30AT, 2P	3/4"Ø, 3#10+1#10G		
③	EWUH-1	- 3.0 14.4	30AF/30AT, 2P	3/4"Ø, 3#10+1#10G		
④	EWUH-2	- 3.0 14.4	30AF/30AT, 2P	3/4"Ø, 3#10+1#10G		
⑤	EWUH-3	- 3.0 14.4	30AF/30AT, 2P	3/4"Ø, 3#10+1#10G		
⑥	(HVAC-2) VAV-1	- 2.0 9.6	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑦	(HVAC-2) VAV-2	- 2.0 9.6	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑧	(HVAC-2) VAV-3	- 2.0 9.6	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑨	(HVAC-3) VAV-1	- 2.5 12.0	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑩	(HVAC-3) VAV-2	- 2.5 12.0	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑪	(HVAC-3) VAV-3	- 1.5 7.2	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑫	(HVAC-3) VAV-4	- 1.5 7.2	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑬	SPARE	- - -	30AF/30AT, 3P	-		
⑭	SPARE	- - -	20AF/20AT, 3P	-		
⑮	ELEVATOR (20HP)	- 22.4 62.1	100AF/100AT, 3P	1 1/2"Ø, 3#1 +1#8G		
⑯	SPACE	- - -	-	-		
CONNECTED LOAD:		50.5 140				
DEMAND LOAD:		44.4 123				

MECHANICAL DISTRIBUTION PANEL - (MDP-D)						
MOUNTING: WALL		SERVICE: 600A, 208/120V, 3Ø, 4W, COPPER BUS		ENCLOSURE: NEMA 1		
LOCATION: 2ND FLOOR - ELECT. RM #D296A		MANUFACTURERS: EATON OR EQUAL BY SQUARE D, OR SIEMENS		RATING: 65,000 AIC		
DESIGNATION	LOAD DESCRIPTION	LOAD	BREAKER FRAME/TRIP	FEEDER/CONDUIT	REMARKS	
		TON KVA FLA				
①	MAIN BREAKER	- - -	600AF/600AT, 3P	2 SETS-3"Ø, 4#350MCM+1#1G		
②	HVAC-1	6 12.6 35.0	60AF/50AT, 3P	1"Ø, 3#6+1#10G		
③	HVAC-2	10 22.3 62.0	100AF/80AT, 3P	1 1/2"Ø, 3#3+1#8G		
④	HVAC-3	10 22.3 62.0	100AF/80AT, 3P	1 1/2"Ø, 3#3+1#8G		
⑤	HVAC-13	6 12.6 35.0	60AF/50AT, 3P	1"Ø, 3#6+1#10G		
⑥	HVAC-14	12.5 31.8 88.3	100AF/100AT, 3P	1 1/2"Ø, 3#3+1#8G		
⑦	HVAC-15	10 22.3 62.0	100AF/80AT, 3P	1 1/2"Ø, 3#3+1#8G		
⑧	HVAC-16	5 12.0 33.0	60AF/45AT, 3P	1"Ø, 3#6+1#10G		
⑨	EWH-6	- 3.0 14.4	30AF/30AT, 2P	3/4"Ø, 3#10+1#10G		
⑩	EWH-7	- 3.0 14.4	30AF/30AT, 2P	3/4"Ø, 3#10+1#10G		
⑪	(HVAC-14) VAV-1	- 2.5 12.0	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑫	(HVAC-14) VAV-2	- 2.5 12.0	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑬	(HVAC-14) VAV-3	- 2.5 12.0	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑭	(HVAC-15) VAV-1	- 2.0 9.6	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑮	(HVAC-15) VAV-2	- 2.0 9.6	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑯	(HVAC-15) VAV-3	- 1.5 7.2	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑰	(HVAC-15) VAV-4	- 1.5 7.2	20AF/20AT, 2P	3/4"Ø, 3#12+1#12G		
⑲	SPACE	- - -	-	-		
⑳	SPACE	- - -	-	-		
㉑	SPACE	- - -	-	-		
CONNECTED LOAD:		156 432				
DEMAND LOAD:		125 346				

NOOR INTERNATIONAL ACADEMY  
 4050 COOLIDGE HLY  
 TROY, MI 48098  
 586-365-5000

NOOR INTERNATIONAL ACADEMY  
 4050 COOLIDGE HLY  
 TROY, MI 48098



E600 LIGHTING CONTROL DIAGRAMS - FOR REFERENCE ONLY  
SCALE: NONE



DRAWN: IH  
DESIGNED: GA  
SCALE : AS SHOWN  
FILE NAME : 2201\_E600  
JOB #: 22010  
SHEET TITLE  
LIGHTING CONTROL DIAGRAMS SHEET #

.600

NOOR INTERNATIONAL ACADEMY  
4050 COOLIDGE HLY  
TROY, MI 48098  
586-365-5000

NOOR INTERNATIONAL ACADEMY  
4050 COOLIDGE HLY  
TROY, MI 48098

ISSUED FOR	DATE
PROGRESS	7-26-22
PROGRESS	8-2-22
100% COORDINATION	8-12-22
PERMITS	8-17-22

ARCHITECTURAL DESIGN

RESIDENTIAL  
COMMERCIAL  
INDUSTRIAL

G.A.V. ASSOCIATES, INC.  
24001 ORCHARD LAKE, STE. 180A  
FARMINGTON HILLS, MI 48336  
PH: (248) 985-9101  
WEB: WWW.GAVASSOCIATES.COM



NOOR INTERNATIONAL  
ACADEMY  
4050 COOLIDGE HLY  
TROY, MI 48098  
586-365-5000

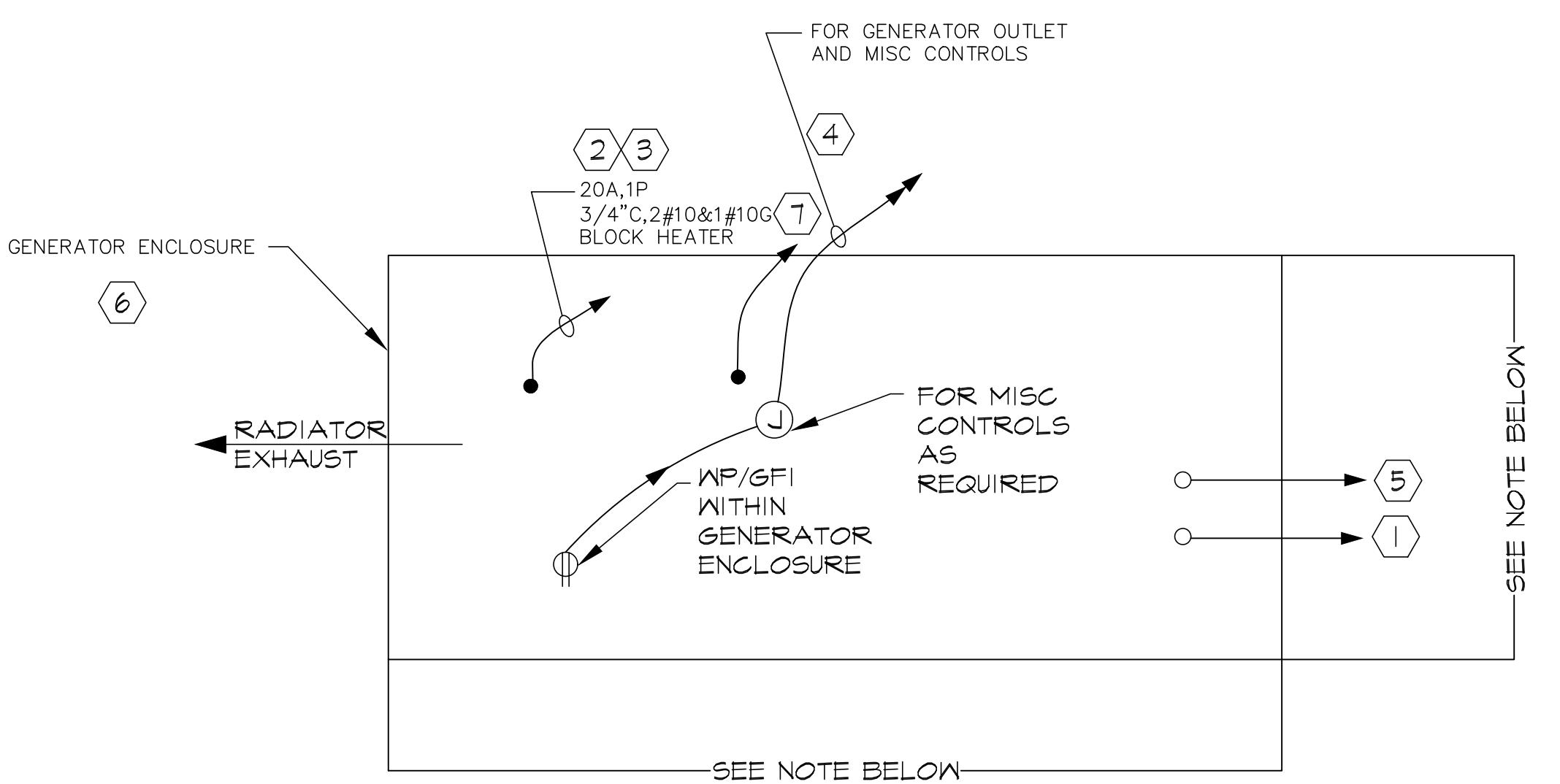
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4050 COOLIDGE HLY  
TROY, MI 48098

DRAWN:	DESIGNED:	CHECKED:
IH	IH	SA
SCALE : AS SHOWN		
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JOB # : 22010		
SHEET TITLE		
ELECTRICAL DETAILS		
SHEET #		

111-700

KEY NOTES:

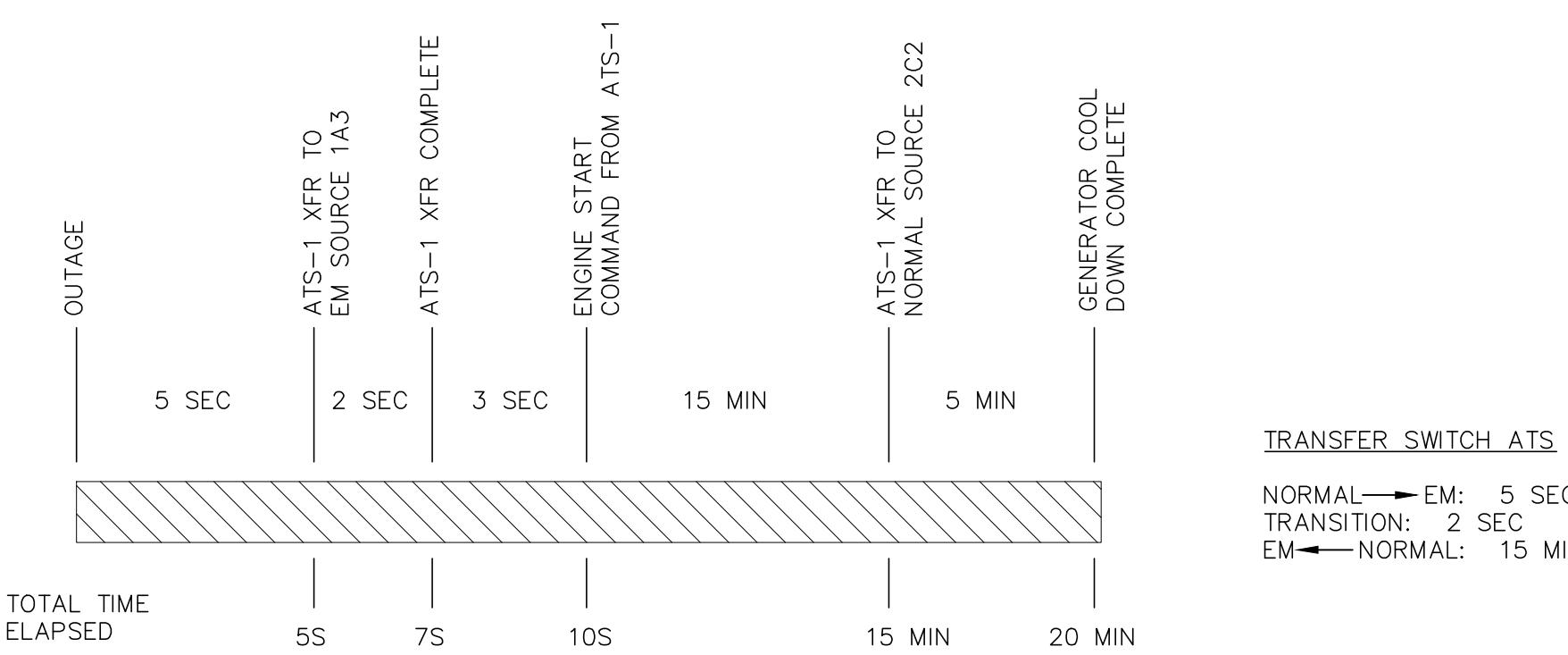
- (1) ROUTE CONDUITS FOR FEEDER AND ATS AND ACCESSORIES UNDERGROUND.
- (2) MODIFY ENGINE HEATER BRANCH CIRCUIT AND OVERCURRENT PROTECTION PER MANUFACTURERS APPROVED SUBMITTALS. TYPICAL FOR OTHER SERVICES/CONDUIT AND WIRING TO GENERATOR.
- (3) FOLLOW SAME CONDUIT ROUTING AND INSTALLATION REQUIREMENTS AS FOR FEEDER TO ATS. TYPICAL FOR ALL CONDUITS BETWEEN GENERATOR AND BUILDING.
- (4) PROVIDE 120V 20A DEDICATED BRANCH CIRCUITS FROM A NEARBY PANEL.
- (5) PROVIDE 2" CONDUIT AND WIRING FOR CONNECTION TO GENERATOR REMOTE DERANGEMENT PANEL. VERIFY FINAL LOCATION OF PANEL THE FIELD WITH THE OWNER.
- (6) DETERMINE FINAL PAD SIZE BASED ON APPROVED GENERATOR/SKID AND ENCLOSURE SUBMITTALS. SIZES ARE BASED ON KOHLER GENERIC CUT SHEET WITH 0' ON EACH SIDE ADDITIONAL FOR ENCLOSURE AND ARE APPROXIMATE ONLY.
- (7) PROVIDE 120V 20A DEDICATED BRANCH CIRCUIT FROM A NEARBY PANEL FOR BATTERY CHARGER.



**ENLARGED EMERGENCY GENERATOR PLAN**

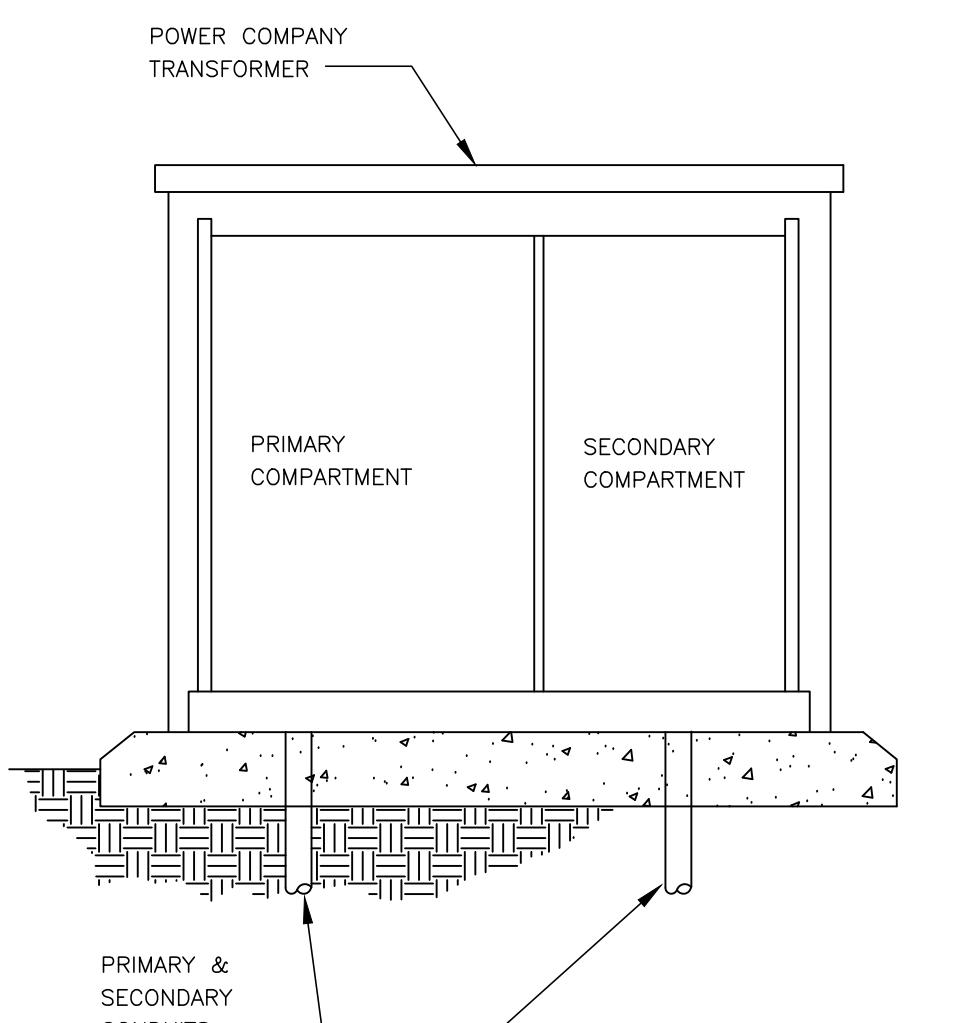
SCALE: AS NOTED

NOTE: VERIFY EXACT DIMENSION W/SELECTED MANUFACTURER



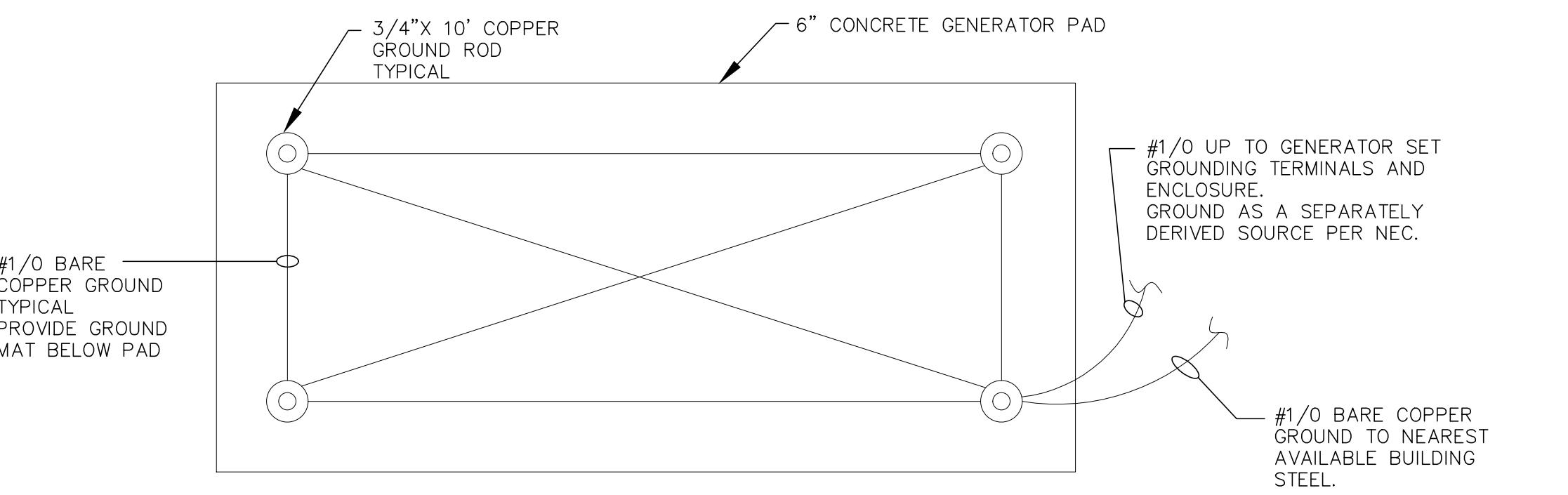
**AUTOMATIC TRANSFER SWITCH (ATS) SEQUENCE OF OPERATIONS**

N.T.S



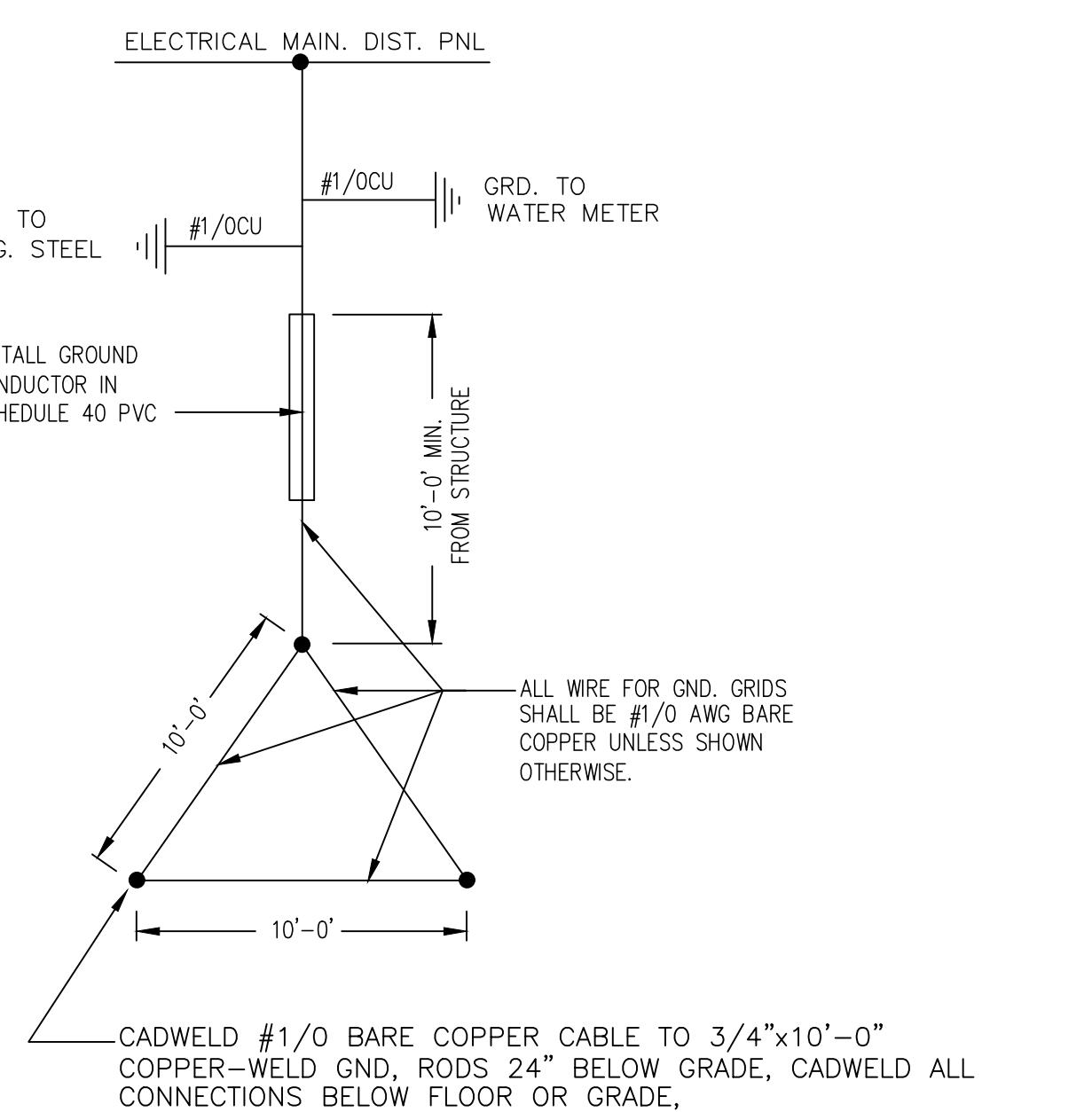
**UTILITY TRANSFORMER DETAIL**

N.T.S



**GENERATOR PAD AND GROUND MAT PLAN DETAIL**

N.T.S



**SERVICE ENTRANCE GROUND ROD GRID DETAIL**

N.T.S

