

CITY OF MADISON

STATE STREET CAPITOL GARAGE GENERATOR REPLACEMENT CITY OF MADISON CONTRACT NO.9131

214 N Carroll St Madison, WI 53703

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EXISTING PROJECT CONDITIONS
INFORMATION PERTAINING TO EXISTING PROJECT CONDITIONS, SUCH AS LOCATIONS OF ARCHITECTURAL AND STRUCTURAL BUILDING COMPONENTS, MECHANICAL AND ELECTRICAL EQUIPMENT, PIPING, DUCTWORK, ROUGH-INS AND OTHER MISCELLANEOUS CONSTRUCTION, APPEARS ON PROJECT DRAWINGS. THIS INFORMATION IS BASED ON AVAILABLE RECORDS AS WELL AS INFORMATION COLLECTED WITH REASONABLE CARE AT THE PROJECT SITE. CONTRACTORS SHALL BE SOLELY RESPONSIBLE FOR VERIFYING DIMENSIONS AND RELATED INFORMATION AT THE PROJECT SITE PRIOR TO PROCURING ANY MATERIALS, PRODUCTS OR EQUIPMENT TO PERFORM THEIR WORK.



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PROJECT TITLE:
STATE STREET CAPITOL GARAGE
GENERATOR REPLACEMENT

214 N Carroll St
Madison, WI 53703

ISSUE:
1 11/05/2021 REVIEW SET
2 12/23/2021 PERMIT SET

BIDDING DOCUMENTS

PROJECT INFORMATION:

PROJECT NUMBER: 2021-5004
DATE: 12/23/2021
DRAWN BY: EKS
CHECKED BY: CWH
APPROVED BY: CWH
SCALE: AS NOTED

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:

G-001

FIRE EXTINGUISHER KEY:

- FOR FIRE EXTINGUISHERS < 40LBS:
 • TOP OF FIRE EXTINGUISHER SHALL NOT EXCEED MORE THAN 5'-0" ABOVE FINISH FLOOR.
 • BOTTOM OF FIRE EXTINGUISHER SHALL BE 4" MINIMUM ABOVE FINISH FLOOR.
- FOR FIRE EXTINGUISHERS ≥ 40LBS:
 • TOP OF FIRE EXTINGUISHER SHALL NOT EXCEED MORE THAN 3'-6" ABOVE FINISH FLOOR.
 • BOTTOM OF FIRE EXTINGUISHER SHALL BE 4" MINIMUM ABOVE FINISH FLOOR.
- FOR FIRE EXTINGUISHER CABINETS AND ADA COMPLIANCE:
 • CENTER CABINET PULL MAXIMUM 48" ABOVE FINISH FLOOR.
 • MAXIMUM 4" PROJECTION FOR SEMI-RECESSED WALL CABINETS.

REFER TO ICC A117.1-2009, OSHA 29 CFR 1910.157 AND NFPA-10 FOR ADDITIONAL INFORMATION.

- FE-1** NEW CLASS A (ORDINARY COMBUSTIBLES) WALL MOUNTED FIRE EXTINGUISHER.
FE-2 NEW CLASS B (FLAMMABLE LIQUIDS) WALL MOUNTED FIRE EXTINGUISHER.
FE-3 NEW CLASS C (ELECTRICAL EQUIPMENT) WALL MOUNTED FIRE EXTINGUISHER.
FE-4 NEW CLASS D (FLAMMABLE METALS) WALL MOUNTED FIRE EXTINGUISHER.
FE-5 NEW CLASS K (COOKING FIRES) WALL MOUNTED FIRE EXTINGUISHER.
FE-6 NEW CLASS ABC (MULTI-PURPOSE) WALL MOUNTED FIRE EXTINGUISHER.

LIST OF ABBREVIATIONS			
AC	- ACOUSTIC	HM	- HOLLOW METAL
ACT	- ACOUSTICAL TILE CEILING	MP	- METAL PANEL
AFF	- ABOVE FINISHED FLOOR	MTL	- METAL
ALUM	- ALUMINUM	NP	- NAPKIN DISPOSAL
BO	- BOTTOM OF	OC	- ON CENTER
BRG	- BEARING	PT	- PAINT
CARP	- CARPET	PF	- PREFINISHED
CMU	- CONCRETE MASONRY UNIT	RD	- ROOF DRAIN
CONC	- CONCRETE	RTU	- ROOF TOP UNIT
CJ	- CONTROL JOINT	S&V	- STAIN AND VARNISH
CO	- CLEAN OUT	SCHD	- SCHEDULE
CT	- CERAMIC TILE	SD	- SOAP DISPENSER
EPX	- EPOXY	STL	- STEEL
EQ	- EQUAL	TD	- TOWEL DISPENSER
ES	- EXPOSED STRUCTURE	TO	- TOP OF
EXIST	- EXISTING	TOE	- TOP OF EXISTING
FD	- FLOOR DRAIN	TP	- TOILET PAPER
FE	- FIRE EXTINGUISHER	V	- VARNISH
FEC	- FIRE EXTINGUISHER CABINET	VB	- VINYL BASE
FV	- FIELD VERIFY	VCT	- VINYL COMPOSITE TILE
GA	- GAUGE	VFGT	- VINYL FACED GYPSUM TILE
GB	- GYPSUM BOARD	WD	- WOOD
GL	- GLASS	WND	- WINDOW
		WR	- WASTE RECEPTACLE

BUILDING CODE DATA:

APPLICABLE CODE RESOURCE: WISCONSIN COMMERCIAL BUILDING CODE (BASED ON 2015 IBC)			
PRIMARY OCCUPANCY: IBC chapter 3	GROUP: S-2	NOTES:	
SECONDARY OCCUPANCY: IBC chapter 3	GROUP: N/A	• THIS PROJECT IS A LEVEL 2 ALTERATION, PER THE 2015 INTERNATIONAL EXISTING BUILDING CODE (IEBC)	
FIRE WALL(S) REQUIRED: IBC section 706	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	2 HOUR	• ALL AREAS BEYOND THE PROJECT LIMIT, AS DEFINED WITHIN THESE DRAWINGS, IS NOT IN SCOPE FOR THIS PROJECT AND HAS NOT BEEN EVALUATED FOR COMPLIANCE WITH APPLICABLE BUILDING CODES.
FIRE BARRIER(S) REQUIRED: IBC section 707	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	2 HOUR	
CLASSIFICATION OF CONSTRUCTION: IBC chapter 6	2		
SPRINKLER SYSTEM:	YES NFPA 13 <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	• THIS PARKING STRUCTURE DOES NOT CONTAIN ANY TOILET ROOMS, AS PERMITTED BY CODE.

DESIGN SPECIFICATIONS

- MINIMUM 28 DAY CONCRETE CYLINDER STRENGTH SHALL BE 3500 PSI
- REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60.
- CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 LIGHTWEIGHT UNITS. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS.
- MORTAR SHALL CONFORM TO ASTM C270 TYPE S
- STRUCTURAL STEEL PLATES, ANGLES, CHANNELS, AND OTHER ROLLED MEMBERS SHALL CONFORM TO ASTM A36, F_y = 36 KSI.
- CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION AND JOB SITE SAFETY.
- CONCRETE PROTECTION FOR REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", ACI 318-14.
- EXTERIOR EXPOSED CONCRETE SHALL BE AIR-ENTRAINED. AIR CONTENT SHALL BE 6 PERCENT (+/- 1/2 PERCENT).

CONCRETE

- CONCRETE PROTECTION FOR REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", ACI 318-14.
- EXTERIOR EXPOSED CONCRETE SHALL BE AIR-ENTRAINED. AIR CONTENT SHALL BE 6 PERCENT (+/- 1/2 PERCENT).

CONCRETE MASONRY

- CONCRETE MASONRY WALLS SHALL BE REINFORCED AT EVERY OTHER BED JOINT WITH [9 GAGE LADDER TYPE JOINT REINFORCEMENT.
- VERTICAL BARS SHOWN ON THE DESIGN DRAWINGS SHALL BE PLACED IN A CONTINUOUS UNOBSTRUCTED CMU CELL OF NOT LESS THAN 3 INCHES BY 4 INCHES.
- ALL DOOR AND WINDOW JAMBS SHALL BE GROUTED SOLID 8 INCHES WIDE UNLESS SHOWN OTHERWISE.

STRUCTURAL STEEL

- ALL WELDING SHALL COMPLY WITH AWS D1.1 USING E70XX ELECTRODES. ALL WELDING TO BE DONE BY AWS PREQUALIFIED WELDERS. CERTIFIED FOR WELDS MADE. PROVIDE CONTINUOUS MINIMUM SIZED WELDS PER AISC REQUIREMENTS, UNLESS NOTED OTHERWISE.
- ALL STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123, UNLESS OTHERWISE NOTED.

MISCELLANEOUS

- DIMENSIONS OF EXISTING CONSTRUCTION OR CONSTRUCTION IN PROGRESS SHALL BE VERIFIED AND COORDINATED PRIOR TO FABRICATION OF STRUCTURAL COMPONENTS.
- VERIFY AND COORDINATE WITH ALL CONTRACTORS. THE LOCATION OF ALL ARCHITECTURAL AND MECHANICAL APPURTENANCES AND OPENINGS.
- EXPANSION ANCHORS SHALL BE HILTI KWIK BOLT TZ OR APPROVED EQUAL.
- ADHESIVE ANCHORS SHALL BE HILTI HIT-HY 200.
- CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR THE STRUCTURAL STEEL PRIOR TO FABRICATION.



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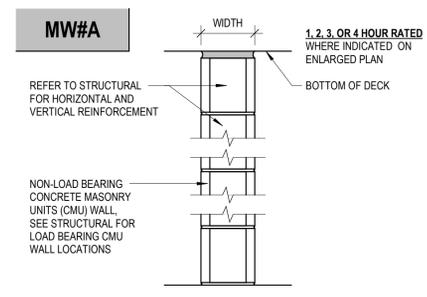
GENERAL INFORMATION AND
 BUILDING CODE DATA

SHEET NUMBER:

A-001

12/22/2021 1:57:08 PM

SYMBOLS LEGEND			
LINE	MATERIAL	REFERENCE	
— BEYOND	ALUMINUM	N	BREAK LINE
▨ BATT INSULATION	BRICK	North Indicator	SPAN DIRECTION INDICATOR
— CENTER, GRID	CONCRETE	A3 A-501	OPENING (FLOOR, ROOF OR WALL)
- - - DEMOLITION	CONCRETE MASONRY BLOCK	A1 A-301	ELEVATION INDICATOR
— EXISTING (HALFTONE)	EARTH	D1 A-301	ELEVATION VIEW INDICATOR
- - - HIDDEN	GRAVEL	C1	KEYED NOTE INDICATOR
- · - · MATCHLINE	DRY WALL, GROUT	A1 A-001	SECTION VIEW INDICATOR
— NEW (CUT)	WOOD	A1/A-001	VIEW INDICATOR
— NEW (PROJECTION)	STEEL	1	GRID INDICATOR
- - - OVERHEAD		1	EXISTING GRID INDICATOR
			REVISION CLOUD
			REVISION INDICATOR

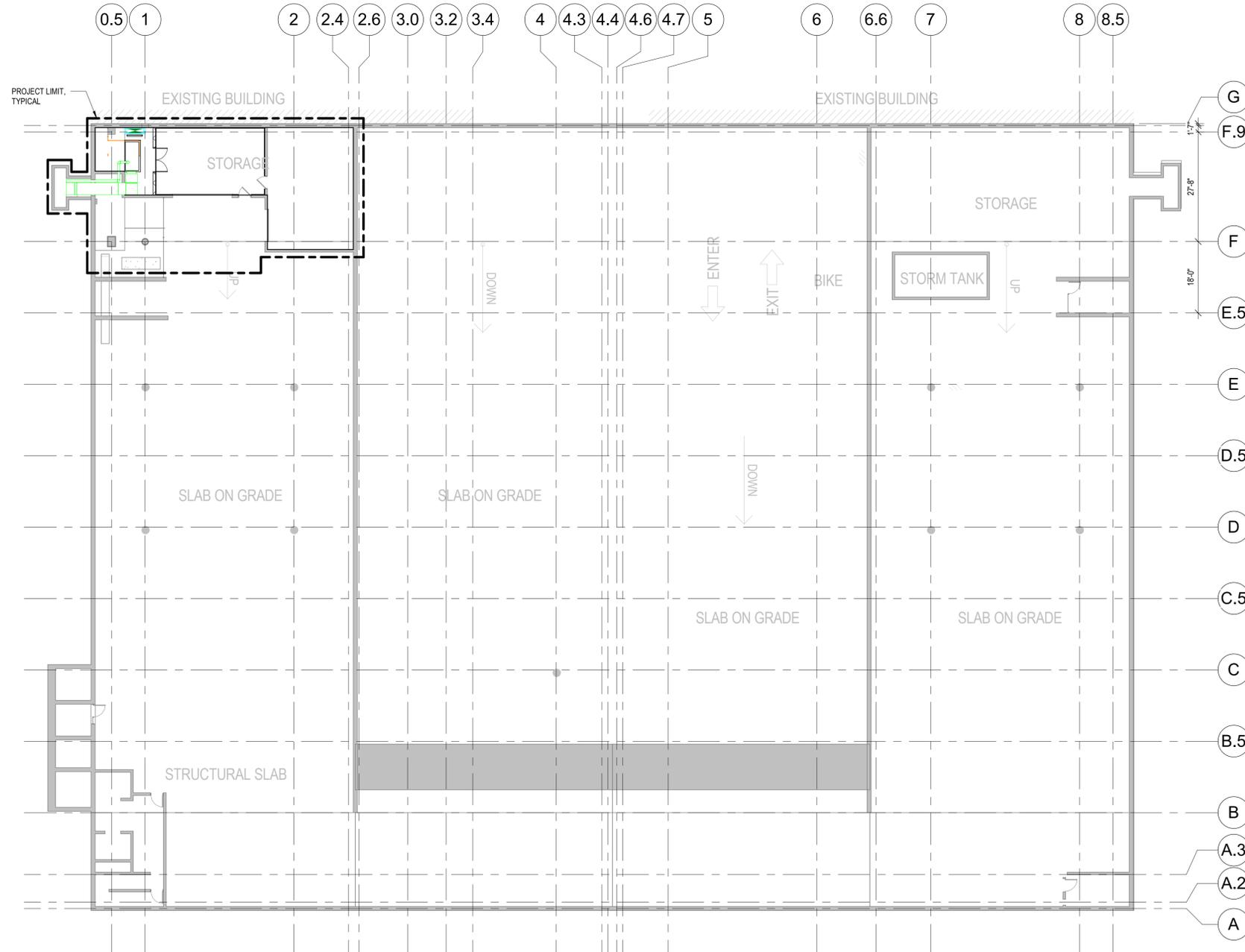


PARTITION #	DESCRIPTION	WIDTH	REF TEST
MW4A	4" CONC MASONRY UNIT	3'-5/8"	-
MW6A	6" CONC MASONRY UNIT	5'-5/8"	UL U906
MW8A	8" CONC MASONRY UNIT	7'-5/8"	UL U905
MW10A	10" CONC MASONRY UNIT	9'-5/8"	UL U907
MW12A	12" CONC MASONRY UNIT	11'-5/8"	UL U907

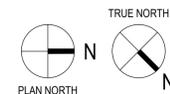
WALL TYPE
 1" = 1'-0"

C1	C2	C3	C4	C5
B1	B2	B3	B4	B5
A1	A2	A3	A4	A5

VIEW LOCATION LEGEND
 1 1/2" = 1'-0"

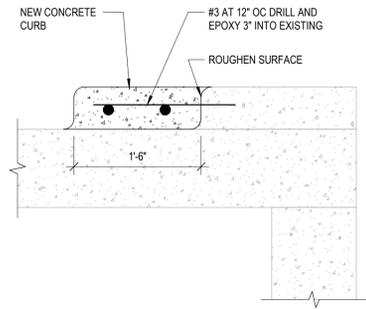


A2 OVERALL PLAN - LOWER LEVEL
 1/16" = 1'-0"

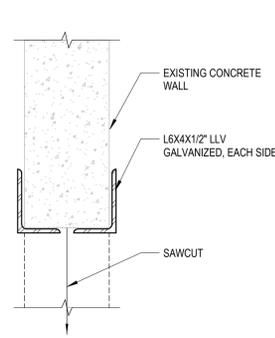




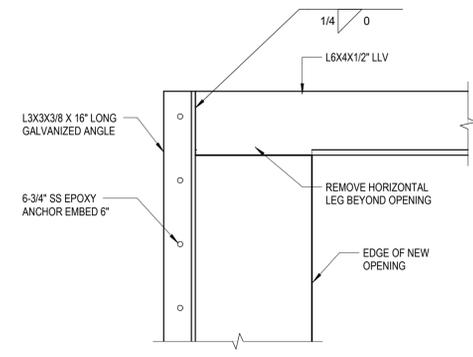
BIDDING DOCUMENTS



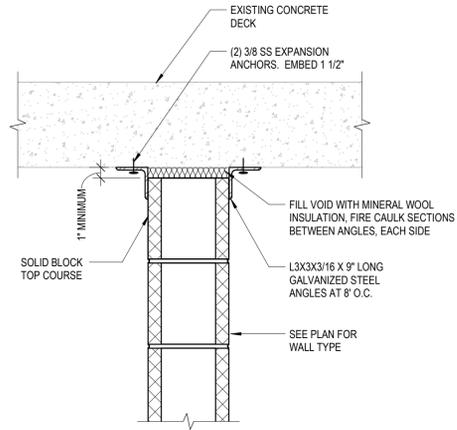
C1 CURB WIDENING SECTION
 1" = 1'-0"



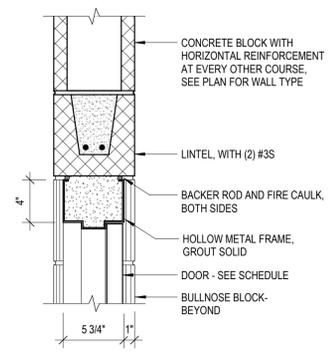
C2 DETAIL AT LINTEL
 1 1/2" = 1'-0"



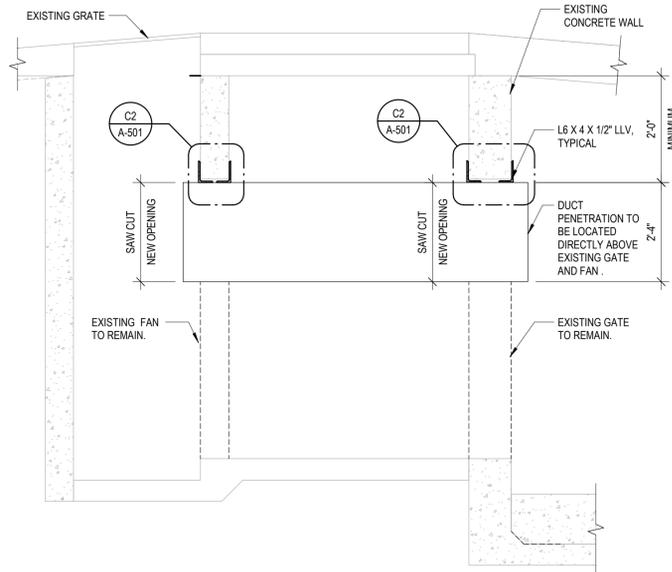
C3 LINTEL CONNECTION
 DETAIL AT PARALLEL WALL
 1 1/2" = 1'-0"



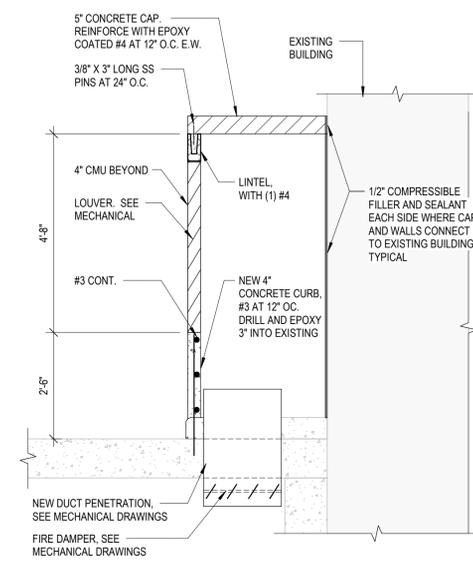
C4 TOP OF WALL DETAIL
 1 1/2" = 1'-0"



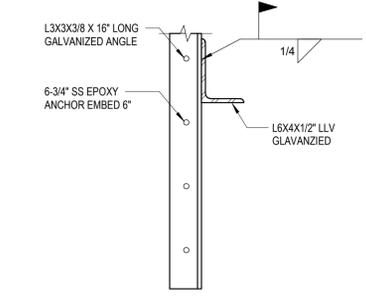
C5 HOLLOW METAL
 DOOR HEAD DETAIL
 1 1/2" = 1'-0"



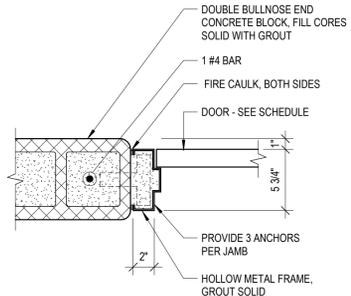
B1 SECTION AT EXISTING AREA WELL
 1/2" = 1'-0"



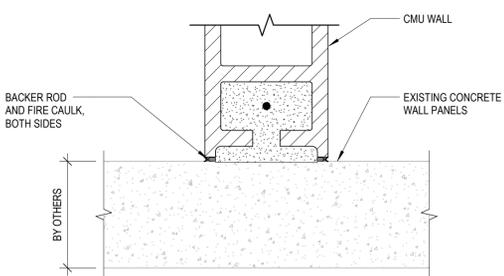
B3 DUCT PENETRATION
 SECTION
 1/2" = 1'-0"



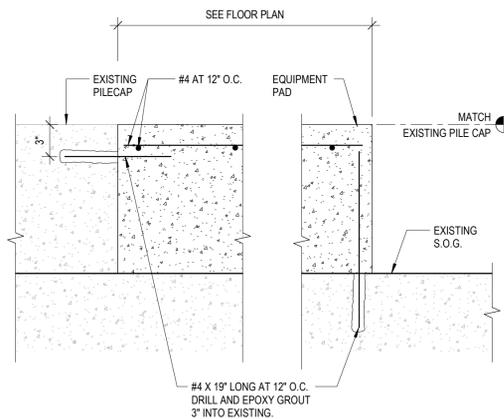
B4 LINTEL CONNECTION DETAIL
 AT PERPENDICULAR WALL
 1 1/2" = 1'-0"



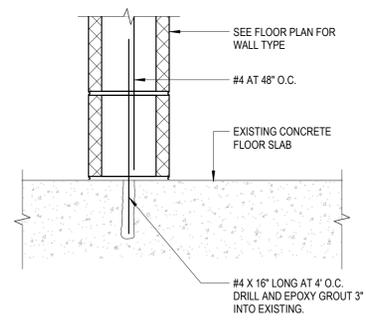
B5 HOLLOW METAL
 DOOR JAMB DETAIL
 1 1/2" = 1'-0"



A3 CMU TO EXISTING CONCRETE
 1 1/2" = 1'-0"



A4 DETAIL AT NEW GENERATOR PAD
 1 1/2" = 1'-0"



A5 INTERIOR CONCRETE
 BLOCK WALL BASE DETAIL
 1 1/2" = 1'-0"

MECHANICAL SYMBOLS AND ABBREVIATIONS

NOTE: NOT ALL SYMBOLS AND ABBREVIATIONS INDICATED HERE ARE USED IN THE DRAWINGS AND MAY NOT APPLY TO THIS PROJECT. ADDITIONAL SYMBOLS MAY BE INDICATED IN THE DRAWINGS.

MECHANICAL ABBREVIATIONS table listing various mechanical components and their abbreviations, such as AC (AIR CONDITIONING UNIT/AIR COMPRESSOR), B (BOILER), C (CONVECTOR), and others.

MECHANICAL SYSTEM ABBREVIATIONS table listing abbreviations for piping systems (e.g., CA - COMPRESSED AIR, CWS - CONDENSER WATER SUPPLY) and duct systems (e.g., EA - EXHAUST AIR, OA - OUTSIDE AIR).

GRILLE, REGISTER, AND DIFFUSER NOTATION table showing symbols for rectangular and round supply/return grilles, registers, and diffusers, along with their typical designations and mounting types.

MECHANICAL DUCTWORK SPECIALTIES table showing symbols for various ductwork components like manual volume dampers, fire dampers, and lined ductwork.

GENERAL SYMBOLS table listing symbols for revision clouds, view callouts, section views, elevation markers, and pipe/duct tags.

DUCTWORK FITTINGS & SYMBOLS table showing symbols for various ductwork fittings such as rectangular/round branch takeoffs, tees, eccentric and concentric transitions, and elbows.

MECHANICAL PIPING FITTINGS, VALVES, AND SPECIALTIES table listing symbols for balancing valves, ball valves, butterfly valves, check valves, gate valves, globe valves, isolation valves, pipe strainers, pressure reducing valves, pressure relief valves, pumps, triple duty valves, control valves, capped pipes, and flow sensors.

MECHANICAL CONTROLS table listing symbols for space thermostat/temperature sensors, space humidistats, pressure sensors, duct smoke detectors, speed switches, and starters.

VIEW ORGANIZATION table showing a grid of view identifiers (D1-D6, C1-C6, B1-B6, A1-A6).

MECHANICAL SHEET INDEX table listing sheet numbers and titles, such as M-001 (MECHANICAL SYMBOLS AND ABBREVIATIONS).



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SHEET TITLE:
MECHANICAL SYMBOLS AND
ABBREVIATIONS

SHEET NUMBER:

M-001

1

2

3

4

5

LOUVER (WPL) SCHEDULE								
NOTES:								
1. PROVIDE INTERNALLY MOUNTED INSECT SCREEN.								
TAG	SERVICE	WIDTH	HEIGHT	DEPTH	FREE AREA (SF)	MODEL	MANUFACTURER	NOTES
WPL-1	101 - GENERATOR ROOM	48"	48"	4"	7.00	FDS-402	GREENHECK	1

GENERAL PROJECT NOTES

- ALL WORK SHALL COMPLY WITH THE WISCONSIN BUILDING CODE AND ALL APPLICABLE STANDARDS.
- DIMENSIONS SHALL BE FIELD-VERIFIED AND COORDINATED PRIOR TO PROCUREMENT OR FABRICATION. COORDINATE THE WORK WITH OTHER TRADES INVOLVED. FIELD MODIFICATIONS SUCH AS OFFSETS IN PIPING OR DUCTWORK (INCLUDING DIVIDED DUCTWORK) NEEDED DUE TO OBSTRUCTIONS OR INTERFERENCES SHALL BE PROVIDED AT NO ADDITIONAL COST. FOR PROJECTS INVOLVING RENOVATION, COORDINATE NEW WORK WITH EXISTING ELEMENTS SUCH AS THE BUILDING STRUCTURE AND ARCHITECTURAL FEATURES, SPRINKLER PIPING, LIGHTS, PLUMBING, AND ELECTRICAL CONDUIT.
- DRAWINGS ARE DIAGRAMMATIC IN NATURE. COORDINATE EXACT LOCATION OF ALL CEILING MOUNTED EQUIPMENT SO ALL SERVICEABLE COMPONENTS CAN BE EASILY ACCESSED BY REMOVING CEILING TILES ONLY. REMOVAL OR RELOCATION OF LIGHTING FIXTURES FOR SERVICE ACCESS IS NOT ACCEPTABLE. THE CONTRACTOR SHALL RE-INSTALL EQUIPMENT THAT HAS INADEQUATE OR UNSAFE ACCESSIBILITY. PROVIDE ALL TRANSITIONS, TURNING VANES, ELBOWS, FITTINGS, ETC., TO ALLOW SMOOTH FLOWS. ALL SPLIT DUCT FITTINGS SHALL TRANSITION TO FULL SIZE OF THE SUM OF BOTH BRANCHES, UPSTREAM OF SPLIT. REFER TO TYPICAL DETAILS FOR PIPING AND INSTALLATION OF EQUIPMENT.
- PRIOR TO BID, COORDINATE ALL MECHANICAL WORK WITH ELECTRICAL WORK AND OTHER TRADES. SEE SPECIFICATIONS FOR REQUIREMENTS.
- GENERAL CONTRACTOR IS RESPONSIBLE TO HAVE QUALIFIED SUBCONTRACTORS PERFORMING ALL WORK. CONTRACTORS AND FOREMEN PERFORMING WORK UNDER THIS DIVISION SHALL MEET THE SPECIFIED MINIMUM QUALIFICATIONS AND LICENSE REQUIREMENTS. QUALIFICATIONS SHALL BE SUBMITTED FOR REVIEW BY A/E PRIOR TO SHOP DRAWING PHASE AND PRIOR TO ANY WORK BEING PERFORMED BY CONTRACTOR. NO PAYMENTS WILL BE AUTHORIZED BY ENGINEER FOR WORK PERFORMED BY SUBCONTRACTING FIRMS OR FOREMEN THAT DO NOT MEET THE MINIMUM QUALIFICATIONS.
- WHERE CROWDED LOCATIONS EXIST OR WHERE THERE IS A POSSIBILITY OF CONFLICT BETWEEN TRADES, CONTRACTOR SHALL PREPARE COMPOSITE DRAWINGS SHOWING THE EXACT LOCATION OF PIPES, DUCTS, CONDUIT AND EQUIPMENT. DRAWINGS SHALL BE BASED ON FIELD MEASUREMENTS AND, AFTER CONSULTATION AND AGREEMENT BETWEEN THE TRADES, SHALL BE APPROVED BY THE ARCHITECT/ENGINEER BEFORE INSTALLATION OF THE WORK.
- MECHANICAL CONTRACTOR SHALL COORDINATE WITH ENGINEER AND GENERAL CONTRACTOR ON REQUIREMENTS FOR STRUCTURAL SUPPORT AND FRAMING FOR ALL MECHANICAL EQUIPMENT AND SYSTEMS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND VERIFYING STRUCTURAL SUPPORT AND FRAMING.
- MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF EXISTING CONDITIONS AND COORDINATION WITH ALL OTHER TRADES, INCLUDING BUT NOT LIMITED TO STRUCTURAL, LIGHTING, ELECTRICAL, PLUMBING, AND OTHER EXISTING AND NEW WORK. VERIFY ALL EXISTING CONDITIONS IN FIELD PRIOR TO PURCHASING EQUIPMENT. ALL DISCREPANCIES OR POTENTIAL PROBLEMS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BIDDING. PROVIDE ADDITIONAL MATERIALS AND LABOR TO RELOCATE OR REPLACE MECHANICAL WORK AS REQUIRED TO ALLOW SPACE FOR THE WORK OF ALL TRADES.
- THE DRAWINGS INDICATE APPROXIMATE LOCATIONS BASED UPON INFORMATION OBTAINED WITHOUT REMOVING CEILING TILES OR WALLS. THEREFORE, THE CONTRACTOR SHALL INCLUDE IN THEIR BID CONTINGENCY COSTS TO ADDRESS CONFLICTS BETWEEN DESIGN AND EXISTING CONDITIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED BY OTHER TRADES DUE TO SUBSTITUTION OF OTHER THAN SCHEDULED EQUIPMENT. WHEN EQUIPMENT FURNISHED IS DIFFERENT THAN INDICATED, THE COST OF ADDITIONAL ELECTRICAL SERVICE, STRUCTURAL AND RELATED WORK SHALL BE PAID BY THIS CONTRACTOR.
- ALL SERVICES TO EXISTING BUILDINGS SHALL BE MAINTAINED DURING CONSTRUCTION UNLESS OTHERWISE INDICATED. IF NECESSARY, INTERRUPTIONS TO EXISTING SERVICES SHALL BE SCHEDULED FOR TIMES OTHER THAN NORMAL OPERATING HOURS (SUCH AS NIGHTS AND WEEKENDS). SUCH INTERRUPTIONS TO SERVICES SHALL NOT BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF THE OWNER'S REPRESENTATIVE AND PROPER COORDINATION WITH OTHER TRADES. PRE-WORK SHALL BE PERFORMED TO MAKE THE SHUTDOWN PERIOD AS BRIEF AS POSSIBLE.
- ALL CHANGES MADE IN THE FIELD SHALL BE RECORDED ON AS-BUILT DRAWINGS, SHOP DRAWINGS, AND MAINTENANCE MANUALS. NOTIFY ENGINEER OF ANY CONFLICTS PRIOR TO PURCHASING EQUIPMENT AND PRIOR TO CUTTING OPENINGS.
- SHOP DRAWINGS SHALL BE SUBMITTED AND REVIEWED FOR ALL MECHANICAL WORK INCLUDING, BUT NOT LIMITED TO, DUCTWORK, PIPING, EQUIPMENT, AND AIR DISTRIBUTION DEVICES PRIOR TO ANY FABRICATION OR INSTALLATION. ALL SHOP DRAWINGS SHALL BE SUBMITTED IN A FORMAT THAT IS IN STRICT ACCORDANCE WITH SPECIFICATIONS.
- LOCATE EQUIPMENT TO ACHIEVE MANUFACTURER'S RECOMMENDED ACCESS AND CLEARANCE FOR OPERATION AND MAINTENANCE. COORDINATE EQUIPMENT LOCATIONS WITH WORK OF OTHER TRADES. DO NOT INFRINGE ON THE OPERATION AND MAINTENANCE SPACES OF EQUIPMENT INSTALLED BY OTHER TRADES. WHERE CONFLICT OCCURS, COORDINATE WITH OTHER TRADES TO LOCATE OR RELOCATE EQUIPMENT TO RESOLVE CONFLICT AND MAINTAIN REQUIRED ACCESS.
- ALL CONNECTIONS TO EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURER'S CERTIFIED DRAWINGS. TRANSITIONS TO ALL EQUIPMENT SHALL BE VERIFIED AND PROVIDED FOR EQUIPMENT FURNISHED.
- ALL EQUIPMENT, PIPING AND VALVES SHALL HAVE SPECIFIED IDENTIFICATION LABELS AND AS INDICATED.
- DUCT OPENING TYPES THROUGH BUILDING CONSTRUCTION SHALL BE SUITED TO PRESERVE FLOOR, WALL, OR DUCT/PIPE SYSTEM RATINGS.
- COORDINATE DUCTWORK WITH EXISTING CEILING SUPPORT CABLES.
- DUCT CONSTRUCTION SHALL BE SHEET METAL AND IN ACCORDANCE WITH THE LATEST EDITION OF THE SAUNA HVAC DUCT CONSTRUCTION STANDARD. DUCT SIZES SHOWN ARE MINIMUM INSIDE CLEAR DIMENSIONS.
- ALL SUPPLY AIR DUCT BENDS FROM THE VERTICAL TO THE HORIZONTAL AND ANGLED TURNS OF DUCTWORK SHALL BE RADIUS ELBOWS. WHERE A RADIUS ELBOW WILL NOT FIT, ELBOW SHALL HAVE TURNING VANES INSTALLED.
- BEVELED TAKE-OFFS AND DAMPERS SHALL BE INSTALLED IN ALL BRANCH DUCTWORK LEADING FROM MAIN TRUNK LINES.
- COORDINATE DIFFUSER, GRILLE AND REGISTER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND EQUIPMENT OF ALL TRADES. VERIFY FINISH WITH ARCHITECT PRIOR TO PURCHASING GRILLES, REGISTERS, DIFFUSERS, LOUVERS AND OTHER AIR DISTRIBUTION DEVICES.
- PROVIDE AIR TURNING VANES IN ALL 90-DEGREE RECTANGULAR DUCT ELBOWS.
- SEE SPECIFICATIONS FOR GAUGES, THICKNESS, BRACING, REQUIREMENTS, ETC., OF DUCTWORK.
- LOCATE THERMOSTATS, TEMPERATURE SENSORS, HUMIDISTATS, AND HUMIDITY SENSORS AT 48" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. COORDINATE LOCATIONS WITH OTHER EQUIPMENT, FURNITURE, AND DOOR SWINGS.
- ALL EQUIPMENT, DUCTWORK, ETC., SHALL BE SUPPORTED AS DETAILED AND/OR SPECIFIED. PROVIDE ADDITIONAL SUPPORTS AS REQUIRED TO PROVIDE A VIBRATION-FREE, RIGID INSTALLATION.
- ALL BARE METAL SURFACES SHALL BE PRIMED TO PREVENT ANY RUST, INCLUDING, BUT NOT LIMITED TO, ANGLE FRAMING, UNIT SUPPORTS, MOUNTING HARDWARE, ETC. DAMPERS AND INSIDES OF DUCTS VISIBLE THROUGH GRILLES, REGISTERS AND DIFFUSERS SHALL BE PAINTED FLAT BLACK.
- ACCESS PANELS IN DUCTWORK AND CEILINGS SHALL BE PROVIDED WHERE REQUIRED FOR OPERATION, BALANCING OR MAINTENANCE OF ALL MECHANICAL EQUIPMENT. PROVIDE ACCESS PANELS AS REQUIRED FOR ALL VALVES, DAMPERS, CONTROLS, OR OTHER EQUIPMENT.
- PROVIDE FLEXIBLE DUCT CONNECTIONS ON ALL DUCTWORK CONNECTING TO EACH FAN, AIR HANDLING UNITS, AND FAN COIL UNITS.
- LOCATE ALL OUTSIDE AIR INTAKES A MINIMUM OF 10'-0" CLEAR FROM ALL PLUMBING VENTS AND EXHAUST AIR DISCHARGE LOCATIONS. LOWEST POINT OF EACH OUTSIDE AIR INTAKE ON ROOF SHALL BE A MINIMUM OF 24" ABOVE ROOF.
- PIPING, DUCTWORK, LEAK PROTECTION APPARATUS, OR OTHER EQUIPMENT FOREIGN TO ELECTRICAL SWITCHBOARDS, PANELBOARDS, DISTRIBUTION BOARDS, OR MOTOR CONTROL CENTERS SHALL NOT BE INSTALLED WITHIN THE REQUIRED SPACE FOR WORKING CLEARANCES OR DEDICATED SPACES OF THE ELECTRICAL EQUIPMENT, EXTENDING IN FRONT OF AND FROM FLOOR TO STRUCTURAL CEILING WITH A WIDTH AND DEPTH OF THE ELECTRICAL EQUIPMENT IN ACCORDANCE WITH NEC-110.26.
- GENERAL DEMOLITION NOTE: INFORMATION TAKEN FROM AVAILABLE RECORD DRAWINGS AND VISUAL FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
- ALL EQUIPMENT, DUCTWORK, ETC., TO BE REMOVED SHALL REMAIN PROPERTY OF THE OWNER OR DISPOSED OF LEGALLY, AS DIRECTED BY OWNER.



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PROJECT TITLE:
 STATE STREET CAPITOL GARAGE
 GENERATOR REPLACEMENT

BIDDING DOCUMENTS

214 N Carroll St
 Madison, WI 53703

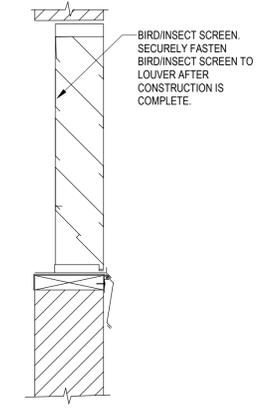
ISSUE:
 1 11/05/2021 REVIEW SET
 2 12/23/2021 PERMIT SET

PROJECT INFORMATION:
 PROJECT NUMBER: 2021-5004
 DATE: 12/23/2021
 DRAWN BY: BSP
 CHECKED BY: JLC
 APPROVED BY: JLC
 SCALE: AS NOTED

SHEET TITLE:
 MECHANICAL NOTES AND
 SCHEDULES

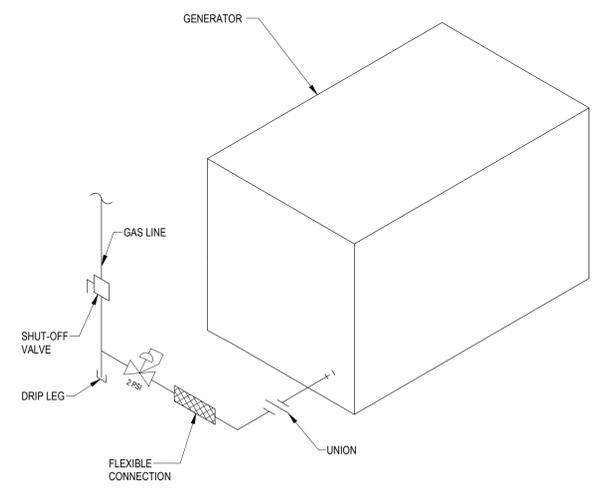
SHEET NUMBER:

M-002



NOTES:
 1. SEAL ALL CORNERS AND SEAMS WATERTIGHT USING SEALANT AND OR SOLDERING. REFER TO SPECIFICATION SECTION 23 31 00 FOR ACCEPTABLE SEALANTS.

B3 LOUVER DETAIL
 12" = 1'-0"



A3 NATURAL GAS CONNECTION TO EQUIPMENT
 NTS

12/22/2021 10:35:35 AM

1

2

3

4

5

EXISTING PROJECT CONDITIONS
 INFORMATION PERTAINING TO EXISTING PROJECT CONDITIONS, SUCH AS LOCATIONS OF ARCHITECTURAL AND STRUCTURAL BUILDING COMPONENTS, MECHANICAL AND ELECTRICAL EQUIPMENT, PIPING, DUCTWORK, ROUGH-INS AND OTHER MISCELLANEOUS CONSTRUCTION, APPEARS ON PROJECT DRAWINGS. THIS INFORMATION IS BASED ON AVAILABLE RECORDS AS WELL AS INFORMATION COLLECTED WITH REASONABLE CARE AT THE PROJECT SITE. CONTRACTORS SHALL BE SOLELY RESPONSIBLE FOR VERIFYING DIMENSIONS AND RELATED INFORMATION AT THE PROJECT SITE PRIOR TO PROCURING ANY MATERIALS, PRODUCTS OR EQUIPMENT TO PERFORM THEIR WORK.

- SHEET KEYNOTES**
- EXISTING EXHAUST FAN TO REMAIN, SHOWN FOR REFERENCE PURPOSES ONLY.
 - ROUTE FIREWRAPPED DUCT ABOVE EXISTING PENETRATION SERVING EXHAUST FAN, ROUTE AS HIGH AS POSSIBLE. PROVIDE NEW PENETRATION FOR NEW EXHAUST DUCTWORK. TERMINATE DUCTWORK WITH 1/2-INCH X 1/2-INCH SHEET METAL SCREEN.
 - CONNECT EXHAUST DUCT TO GENERATOR CONNECTION PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE HIGH TEMPERATURE FLEXIBLE CONNECTION TO UNIT.
 - CONNECT INTERNAL COMBUSTION ENGINE EXHAUST PIPE TO GENERATOR EXHAUST CONNECTION. ROUTE AS HIGH AS POSSIBLE. TERMINATE DUCTWORK WITH 1/2-INCH X 1/2-INCH SHEET METAL SCREEN.
 - GENERATOR SHOWN FOR REFERENCE PURPOSES ONLY. COORDINATE WITH E.C. FOR EXACT LOCATION.
 - TERMINATE BOTTOM OF INTAKE DUCTWORK WITH 1/2-INCH X 1/2-INCH SHEET METAL SCREEN.
 - ROUTE NEW GAS PIPING TO NEW GAS GENERATOR GAS CONNECTION. PROVIDE GAS PRESSURE REGULATOR, DRIP LEG, SHUT OFF VALVE, AND UNION.



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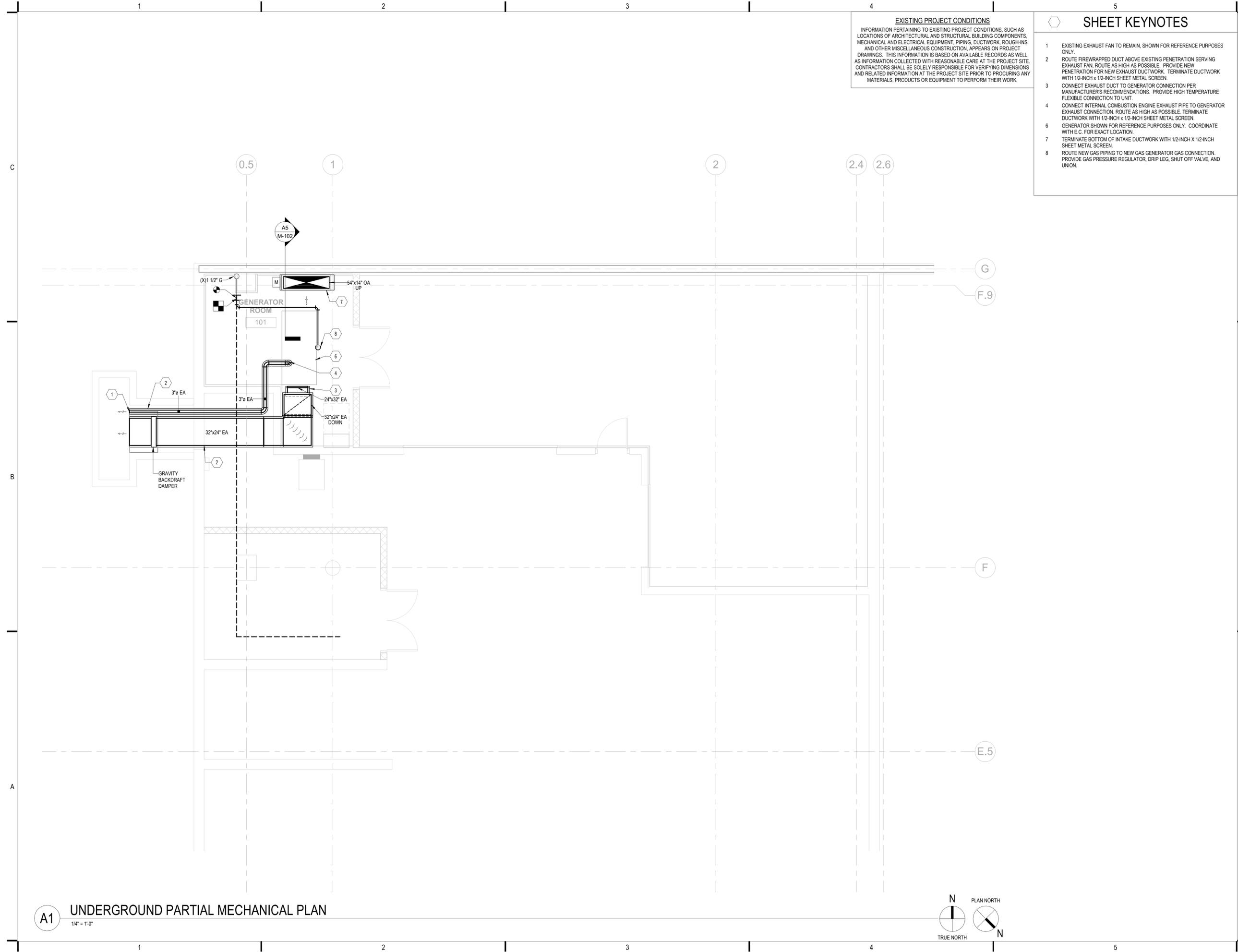
PROJECT INFORMATION:
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 DRAWN BY: BSP
 CHECKED BY: JLC
 APPROVED BY: JLC
 SCALE: AS NOTED

SHEET TITLE:
 UNDERGROUND LEVEL A
 MECHANICAL FLOOR PLAN

SHEET NUMBER:

M-101

BIDDING DOCUMENTS



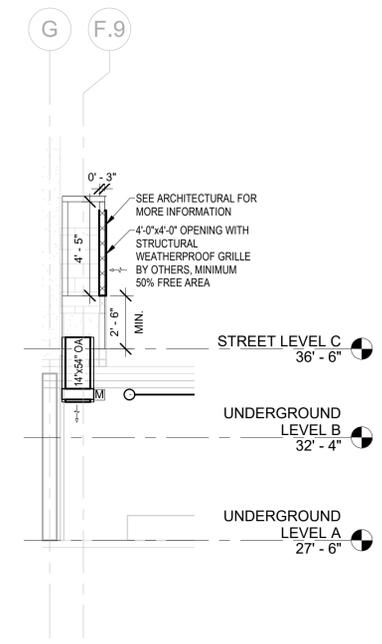
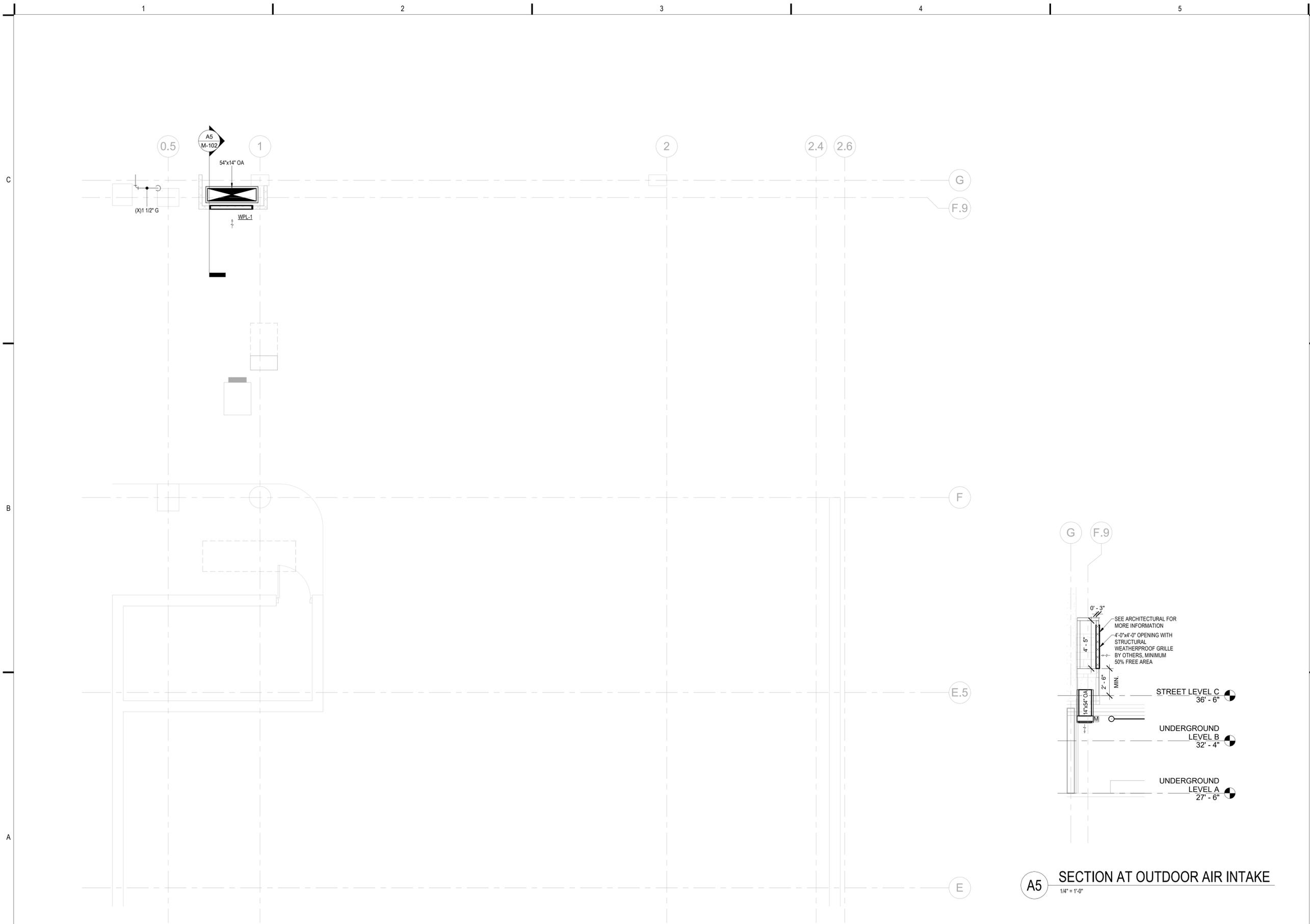
A1 UNDERGROUND PARTIAL MECHANICAL PLAN
 1/4" = 1'-0"

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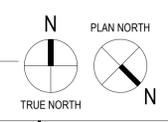


BIDDING DOCUMENTS

PROJECT NUMBER: 2021-5004
 DATE: 12/23/2021
 DRAWN BY: BSP
 CHECKED BY: JLC
 APPROVED BY: Approver
 SCALE: AS NOTED



A5 SECTION AT OUTDOOR AIR INTAKE
 1/4" = 1'-0"



A1 PARTIAL STREET LEVEL MECHANICAL PLAN
 1/4" = 1'-0"

12/22/2021 10:35:36 AM

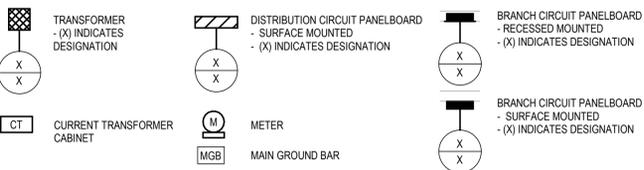
ELECTRICAL SYMBOLS AND ABBREVIATIONS

NOTE: NOT ALL SYMBOLS AND ABBREVIATIONS INDICATED HERE ARE USED IN DRAWINGS AND MAY NOT APPLY TO CURRENT PROJECT. ADDITIONAL SYMBOLS MAY BE INDICATED ON DRAWINGS. ALL LISTED MOUNTING HEIGHTS ARE TO CENTER OF BOX, UNLESS OTHERWISE INDICATED.

ELECTRICAL ABBREVIATIONS

1P - ONE POLE	KVA - KILOVOLT AMPERE
2P - TWO POLE	KVAR - KILOVOLT AMPERE REACTIVE
3P - THREE POLE	KW - KILOWATT
4P - FOUR POLE	LP - LIGHTING PANEL
1P, 1W - ONE POLE, ONE WIRE	LS - LIMIT SWITCH
1P, 2W - ONE POLE, TWO WIRE	LTG - LIGHTING
2P, 2W - TWO POLE, TWO WIRE	LV - LOW VOLTAGE
2P, 3W - TWO POLE, THREE WIRE	MC - MECHANICAL CONTRACTOR
3P, 2W - THREE POLE, TWO WIRE	MCA - MINIMUM CIRCUIT AMPS
3P, 3W - THREE POLE, THREE WIRE	MCC - MOTOR CONTROL CENTER
3P, 4W - THREE POLE, FOUR WIRE	MDP - MAIN DISTRIBUTION PANEL
4P, 4W - FOUR POLE, FOUR WIRE	MISC - MISCELLANEOUS
A - AMPERE	MH - MANHOLE
AC - ALTERNATING CURRENT	MLO - MAIN LUGS ONLY
AF - AMPERE FRAME	MTD - MOUNTED
AFF - ABOVE FINISHED FLOOR	MTG - MOUNTING
AFG - ABOVE FINISHED GRADE	MTS - MANUAL TRANSFER SWITCH
AIC - AMPERE INTERRUPTING CAPACITY	MW - MICROWAVE
ANSI - AMERICAN NATIONAL STANDARDS INSTITUTE	MV - MEDIUM VOLTAGE
AL - ALUMINUM	N/A - NOT APPLICABLE
AS - AMP SWITCH	NC - NORMALLY CLOSED
AT - AMP TRIP	NEC - NATIONAL ELECTRIC CODE
ARCH - ARCHITECT	NIC - NOT IN CONTRACT
ATS - AUTOMATIC TRANSFER SWITCH	NO - NORMALLY OPEN
A/V - AUDIO VISUAL	# - NUMBER
AWG - AMERICAN WIRE GRADE	NTS - NOT TO SCALE
B - PEDESTAL MOUNTED ON BENCH TOP	OSP - OUTSIDE PLANT
BF - BELOW FLOOR	P - POLE
BFC - BELOW FINISHED CEILING	PB - PULL BOX
BFF - BELOW FINISHED FLOOR	PC - PLUMBING SYSTEM CONTRACTOR
BFG - BELOW FINISHED GRADE	PH - PHASE
BLDG - BUILDING	PNL - PANEL OR PANELBOARD
C - CONDUIT	PP - POWER PANEL
CAM - CAMERA	PR - PAIR
CAT - CATALOG	PRI - PRIMARY
CATV - CABLE TELEVISION	PROJ - PROJECTOR
CB - CIRCUIT BREAKER	PVC - POLYVINYL CHLORIDE
CKT - CIRCUIT	REC - RECESSED
CLG - CEILING MOUNTED	RE / CKT - REUSE EXISTING CIRCUIT
CO - COPIER	REF - REFRIGERATOR
CT - CURRENT TRANSFORMER	RSC - RIGID STEEL CONDUIT
CU - COPPER	SC - SECURITY CONTRACTOR
CL - CENTERLINE	SEC - SECONDARY
DC - DIRECT CURRENT	SN - SOLID NEUTRAL
DR - DRYER	SP - SPARE
Δ - DELTA	SS - STAINLESS STEEL
DISC - DISCONNECT	ST - SHUNT TRIP
DW - DISHWASHER	STP - SHIELDED TWISTED PAIR
DWG - DRAWING	SUSP - SUSPENDED
E - EMERGENCY	SW - SWITCH
EC - ELECTRICAL CONTRACTOR	SWBD - SWITCHBOARD
EMT - ELECTRIC METALLIC TUBING	T - TAMPER RESISTANT SAFETY RECEPTACLE
ETR - EXISTING TO REMAIN	TBB - TELECOMMUNICATIONS BONDING BACKBONE
ER - EQUIPMENT ROOM	TC - TELEPHONE CABINET
ERL - EXISTING TO BE RELOCATED	TCI - TELECOMMUNICATIONS CABLING INSTALLER
ERLD - RELOCATED EQUIPMENT'S NEW LOCATION	TEL / DATA - TELEPHONE / DATA
EW - ELECTRIC WATER COOLER	TEL - TELEPHONE
EX - EXISTING	TELECOM - TELECOMMUNICATIONS
FA - FIRE ALARM	TELECOM - TELECOMMUNICATIONS GROUNDING BUSBAR
FLA - FULL LOAD AMPS	TMBG - TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
FO - FIBER OPTIC	TP - TWISTED PAIR
FPC - FIRE PROTECTION CONTRACTOR	TYP - TYPICAL
GC - GENERAL CONTRACTOR	UG - UNDERGROUND
GDS - GENERATOR DOCKING STATION	UTP - UNSHIELDED TWISTED PAIR
GFCI - GROUND FAULT CIRCUIT INTERRUPTER	UOI - UNLESS OTHERWISE INDICATED
GFPE - GROUND FAULT PROTECTION EQUIPMENT	V - VOLT
GND - GROUND	W - WATT
GRC - GALVANIZED RIGID CONDUIT	WA - WASHER
HH - HANDHOLE	WAP - WIRELESS ACCESS POINT
HP - HORSEPOWER	WP - WEATHERPROOF
HVAC - HEATING, VENTILATING, AND AIR CONDITIONING	XFMR - TRANSFORMER
HZ - HERTZ (CYCLE) PER SECOND	XR - XRAY
ISP - INDUSTRIAL PLANT	XY - XRAY VIEWER
IT - INFORMATION TECHNOLOGY	Y - WYE
JB - JUNCTION BOX	ZAM - ZONE ADAPTER MODULE

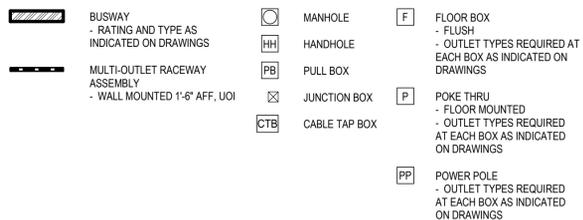
EQUIPMENT AND PANELBOARDS



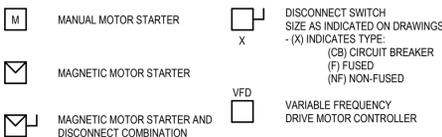
GENERAL SYMBOLS



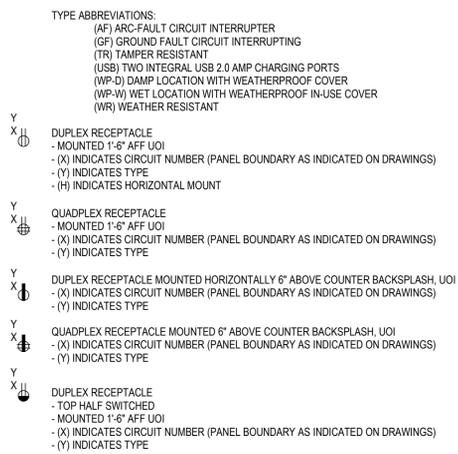
RACEWAYS AND BOXES



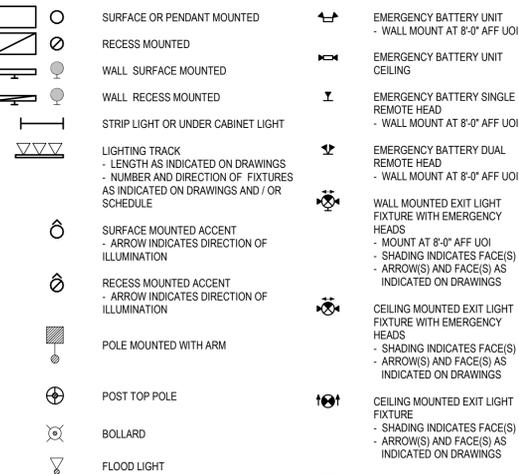
MOTOR STARTERS AND DISCONNECTS



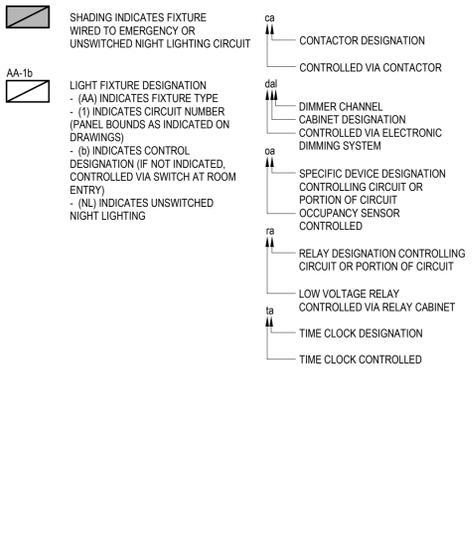
WIRING DEVICES



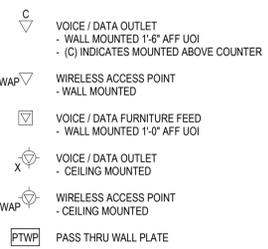
LIGHTING FIXTURES



LIGHTING FIXTURE DESIGNATIONS



VOICE / DATA - ROUGH-IN ONLY



ELECTRICAL SHEET INDEX

E-001	ELECTRICAL SYMBOLS, ABBREVIATIONS & SHEET INDEX
ED-101	ENLARGED LOWER LEVEL PLAN - ELECTRICAL DEMOLITION
E-101	LOWER LEVEL PLAN - OVERALL
E-400	ENLARGED PLANS
E-601	ELECTRICAL SCHEDULES
E-701	ELECTRICAL ONE-LINE POWER DIAGRAM



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LIGHTING CONTROL



VIEW LOCATION LEGEND

C1	C2	C3	C4	C5
B1	B2	B3	B4	B5
A1	A2	A3	A4	A5

PROJECT INFORMATION:

PROJECT NUMBER: 2021-5004
DATE: 12/23/2021
DRAWN BY: GB
CHECKED BY: DK
APPROVED BY: DW
SCALE: AS NOTED

SHEET TITLE:
ELECTRICAL SYMBOLS,
ABBREVIATIONS & SHEET INDEX

SHEET NUMBER:

E-001

1

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3

4

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C

B

A

GENERAL NOTES

1. ALL ELECTRICAL EQUIPMENT SHOWN ON THIS DEMOLITION PLAN IS 'EXISTING TO BE REMOVED' UNLESS NOTED OTHERWISE. IN ADDITION TO REMOVING DEVICES, REMOVE ALL ABANDONED ELECTRICAL CIRCUITS BACK TO THEIR SOURCE. REFER TO THE SPECIFICATIONS FOR ADDITIONAL ELECTRICAL DEMOLITION REQUIREMENTS.
2. IN GENERAL, DASHED WALLS ON THIS PLAN INDICATE EXISTING WALLS BEING DEMOLISHED. DO NOT RELY SOLELY ON ELECTRICAL DRAWINGS TO DETERMINE EXTENT OF GENERAL CONSTRUCTION DEMOLITION. REFER TO ARCHITECTURAL DEMOLITION PLANS FOR THE EXACT EXTENT OF GENERAL CONSTRUCTION DEMOLITION REQUIRED BY THIS CONTRACT.
3. REFER TO DEMOLITION DRAWINGS OF OTHER TRADES. WHERE MOTORS, CONTROL PANELS, AND OTHER LOADS THAT HAVE AN ELECTRICAL CONNECTION ARE BEING REMOVED, INCLUDE THE DISCONNECTION AND REMOVAL OF ASSOCIATED ELECTRICAL FEEDS, CIRCUITS, AND LOOSE CONTROL EQUIPMENT IN THIS CONTRACT.
4. ROOMS IDENTIFIED WITH 'ETR'; (EXISTING TO REMAIN) ARE ESSENTIALLY TO REMAIN UNCHANGED. ALTHOUGH THIS DESIGNATION IN A GIVEN ROOM REFERS TO THE STATUS OF BASIC ELECTRICAL DEVICES, THERE MAY BE SOME DEMOLITION WORK REQUIRED INVOLVING BACK-FEEDING EXISTING CIRCUITS, REMOVING CIRCUITS THAT ARE DE-ENERGIZED DUE TO DEMOLITION IN OTHER ROOMS, OR OTHER NECESSARY MODIFICATIONS. SEE ALL DOCUMENTS THAT MAKE UP THIS CONTRACT FOR THE TOTAL EXTENT OF WORK REQUIRED IN ALL SPACES.

KEYED NOTES THIS SHEET

- ① DEMOLISH EXISTING FEED TO EXISTING GENERATOR. EC TO COORDINATE WITH GC THE TRANSPORTATION OF THE EXISTING GENERATOR TO THE OVERTURE CENTER GARAGE AS DIRECTED BY OWNER.
- ② RELOCATE EXISTING LIGHT FIXTURE. SEE SHEET E-400 FOR NEW LOCATION.



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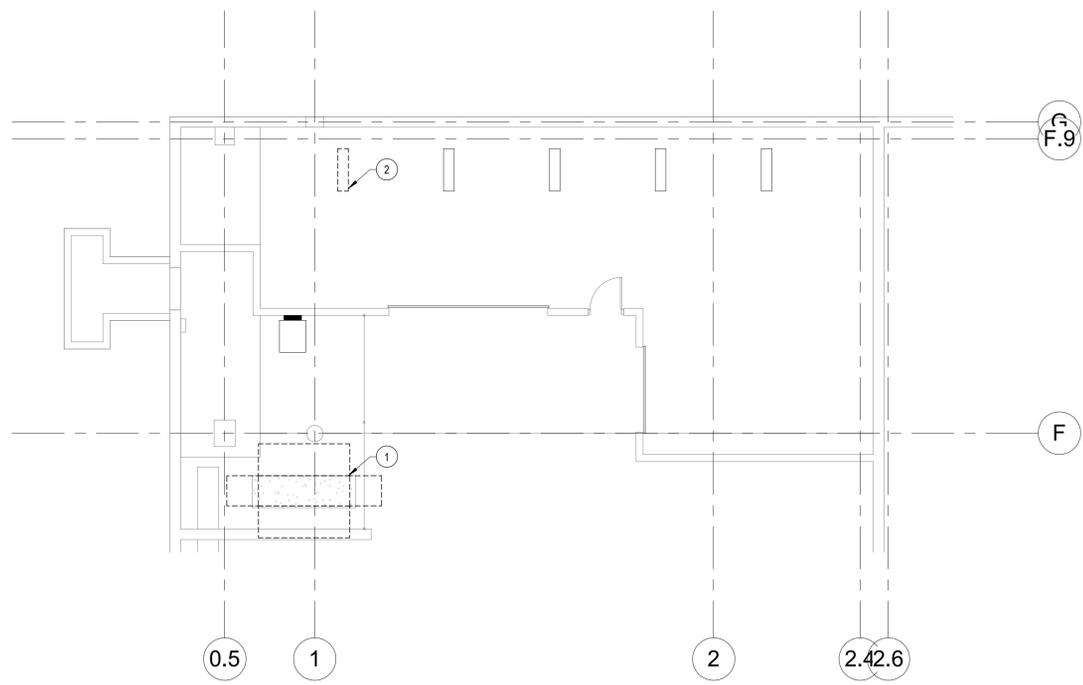
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SCALE: AS NOTED

SHEET TITLE:
ENLARGED LOWER LEVEL PLAN -
ELECTRICAL DEMOLITION

SHEET NUMBER:

ED-101



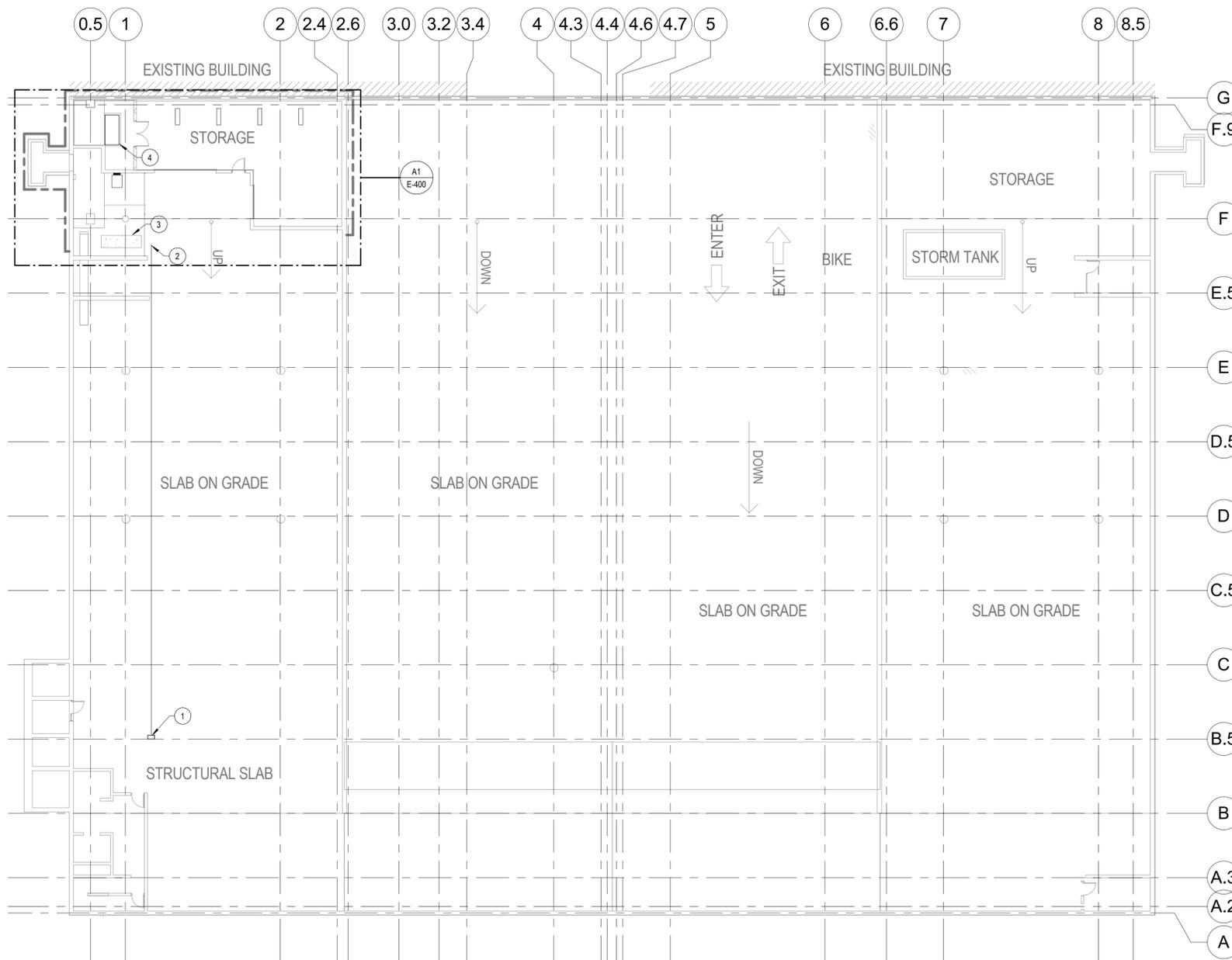
A1 ENLARGED LOWER LEVEL PLAN - ELECTRICAL DEMOLITION
1/8" = 1'-0"

12/22/2021 12:42:19 PM



KEYED NOTES THIS SHEET

- ① APPROXIMATE LOCATION OF EXISTING ATS/EM AND EXISTING MAIN SWITCHBOARD. ATS/EM IS LOCATED IN ELECTRICAL ROOM NEAR THE MAIN SWITCHBOARD.
- ② REUSE EXISTING CONDUIT UP TO PULL BOX LOCATED HERE. AFTER THIS POINT PROVIDE NEW CONUIT. PROVIDE NEW FEEDER ENTIRE RUN SEE ONE LINE DIAGRAM FOR MORE INFORMATION.
- ③ EXISTING LOCATION OF EXISTING GENERATOR.
- ④ LOCATION OF NEW GENERATOR.



BIDDING DOCUMENTS

12/22/2021 12:42:17 PM

A1 LOWER LEVEL PLAN - POWER & SYSTEMS
 1/16" = 1'-0"

1

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5

C

B

A

KEYED NOTES THIS SHEET

- ① NEW GENERATOR EGA SEE ONE LINE DIAGRAM ON SHEET E-701 FOR MORE INFORMATION.
- ② RELOCATED EXISTING LIGHT FIXTURE FROM SHEET ED-101. CONNECT THIS LIGHT AND NEW A1 LIGHT FIXTURE TO EXISTING CIRCUIT.
- ③ NEW ATSM SEE ONE LINE DIAGRAM ON SHEET E-701 FOR MORE INFORMATION.



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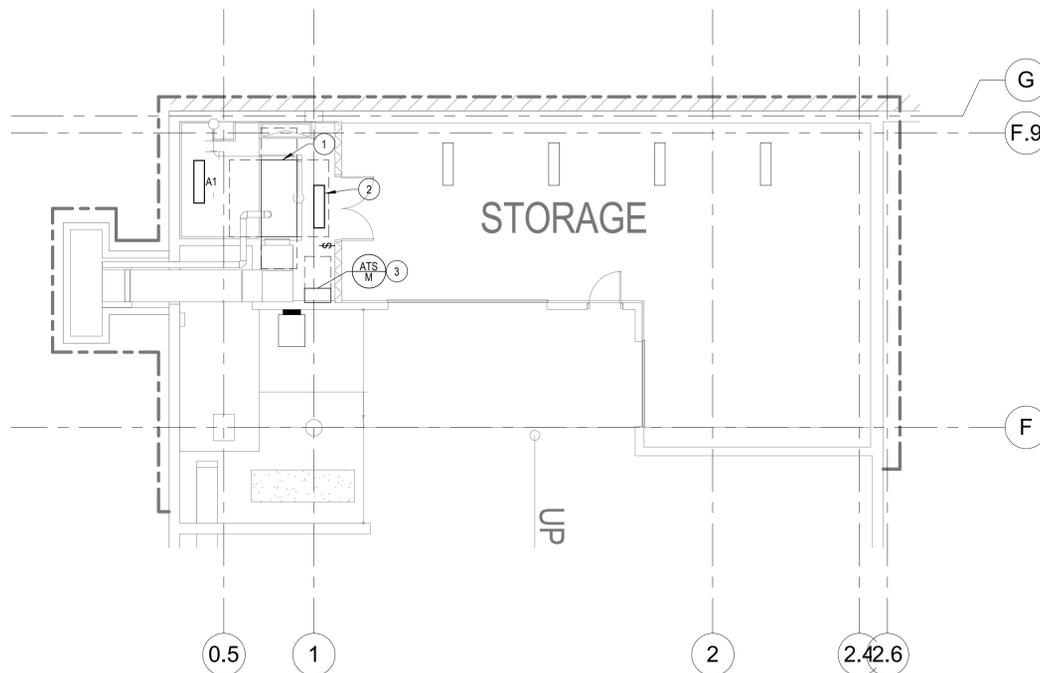
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SHEET TITLE:
 ENLARGED PLANS

SHEET NUMBER:

E-400



A1 ENLARGED LOWER LEVEL PLAN - POWER & LIGHTING
 1/8" = 1'-0"

12/22/2021 12:42:17 PM

LIGHT FIXTURE SCHEDULE

GENERAL NOTES:

- A. SEE SPECIFICATION SECTION FOR ADDITIONAL INFORMATION REGARDING FIXTURE AND INSTALLATION REQUIREMENTS.
- B. MANUFACTURERS LISTED AS ACCEPTABLE SHALL MEET ALL REQUIREMENTS AND FEATURES INDICATED. ACCEPTABLE MANUFACTURERS MUST MEET THE PHOTOMETRIC PERFORMANCE OF THE LISTED UNIT. ELECTRICAL CONTRACTOR SHALL ENSURE THE FIXTURE DEPTH / HEIGHT WILL COMPLY WITH ADA REQUIREMENTS AND WILL NOT INTERFERE WITH OTHER TRADES WITHIN THE CEILING CAVITY.
- C. ELECTRICAL CONTRACTOR SHALL COORDINATE T-GRID, WOOD AND SPECIALTY CEILING SYSTEMS WITH ARCHITECT PRIOR TO ORDERING.
- D. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED PARTS AND PIECES FOR A COMPLETE INSTALLATION.
- E. ALL REMOTE DRIVERS SHALL BE LOCATED IN AN ACCESSIBLE LOCATION THAT MEETS THE AMBIENT TEMPERATURE REQUIREMENTS OF THE DRIVER. ELECTRICAL CONTRACTOR SHALL VERIFY WITH SUBMITTED SHOP DRAWING WIRING DIAGRAMS THAT ALL DRIVER...

NOTES:

1.

TAG	PERFORMANCE & ELECTRICAL DATA				LIGHT FIXTURE PROPERTIES				MOUNTING				SEE NOTE
	LUMENS	KELVIN TEMP	LOAD	FIXTURE VOLTAGE	DESCRIPTION	MANUFACTURER	CATALOG SERIES	DEPTH OR HEIGHT	MATERIAL	TYPE	HEIGHT	HEIGHT TO	
A1	4000	4000	35 VA		4' LED WRAPAROUND	LA LIGHTING	3 WSE200 4K 4L TP WL 1 DRDM UNV 1 840	0' - 6"					

LIGHT FIXTURE SCHEDULE ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS INDICATED HERE ARE USED IN THE SCHEDULE AND MAY NOT APPLY TO CURRENT PROJECT.

MOUNTING MATERIAL

- B = BRICK
- C = CONCRETE
- CB = CONCRETE BASE
- DW = DRYWALL
- ES = EXPOSED STRUCTURE
- G = GROUND
- LG = LAY-IN GRID
- M = METAL
- PL = PLASTER
- S = STONE
- T = TILE
- V = VARIES
- W = WOOD

MOUNTING TYPE

- C = COVE
- CH = CHAIN - PROVIDE ACCESSORY KIT
- CA = CATENARY
- MP = MONOPOINT
- MPC = MULTIPORT CANOPY
- PC = PENDANT - CABLE
- PCH = PENDANT - CHAIN
- PRS = PENDANT - RIGID STEM
- PS = PENDANT - SWAG
- PO = POLE
- R = RECESSED
- S = SURFACE
- TC = TRACK - CABLE
- TMC = TRACK - MONORAIL - CURVED
- TMF = TRACK - MONORAIL - FLEXIBLE
- TMS = TRACK - MONORAIL - STRAIGHT
- W = WALL

SENSOR TYPE

- D = DAYLIGHT SENSOR
- MO = MULTI-LEVEL OCCUPANCY SENSOR
- N = NONE
- O = OCCUPANCY SENSOR
- P = PHOTOCELL



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 DATE: 12/23/2021
 DRAWN BY: GB
 CHECKED BY: DK
 APPROVED BY: DW
 SCALE: AS NOTED

SHEET TITLE:
 ELECTRICAL SCHEDULES

SHEET NUMBER:

E-601



1010 East Washington Avenue, Suite 202
Madison, WI 53703
608 / 242 1550
608 / 242 0787 fax

www.graef-usa.com

CLIENT:

CITY OF MADISON



Madison Municipal Building
215 Martin Luther King Blvd
Suite 109
Madison, Wisconsin 53703

PROJECT TITLE:

STATE STREET CAPITOL GARAGE
GENERATOR REPLACEMENT

BIDDING DOCUMENTS

214 N Carroll St
Madison, WI 53703

ISSUE:

- 1 11/05/2021 REVIEW SET
- 2 12/23/2021 PERMIT SET

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PROJECT NUMBER: 2021-5004
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SHEET TITLE:

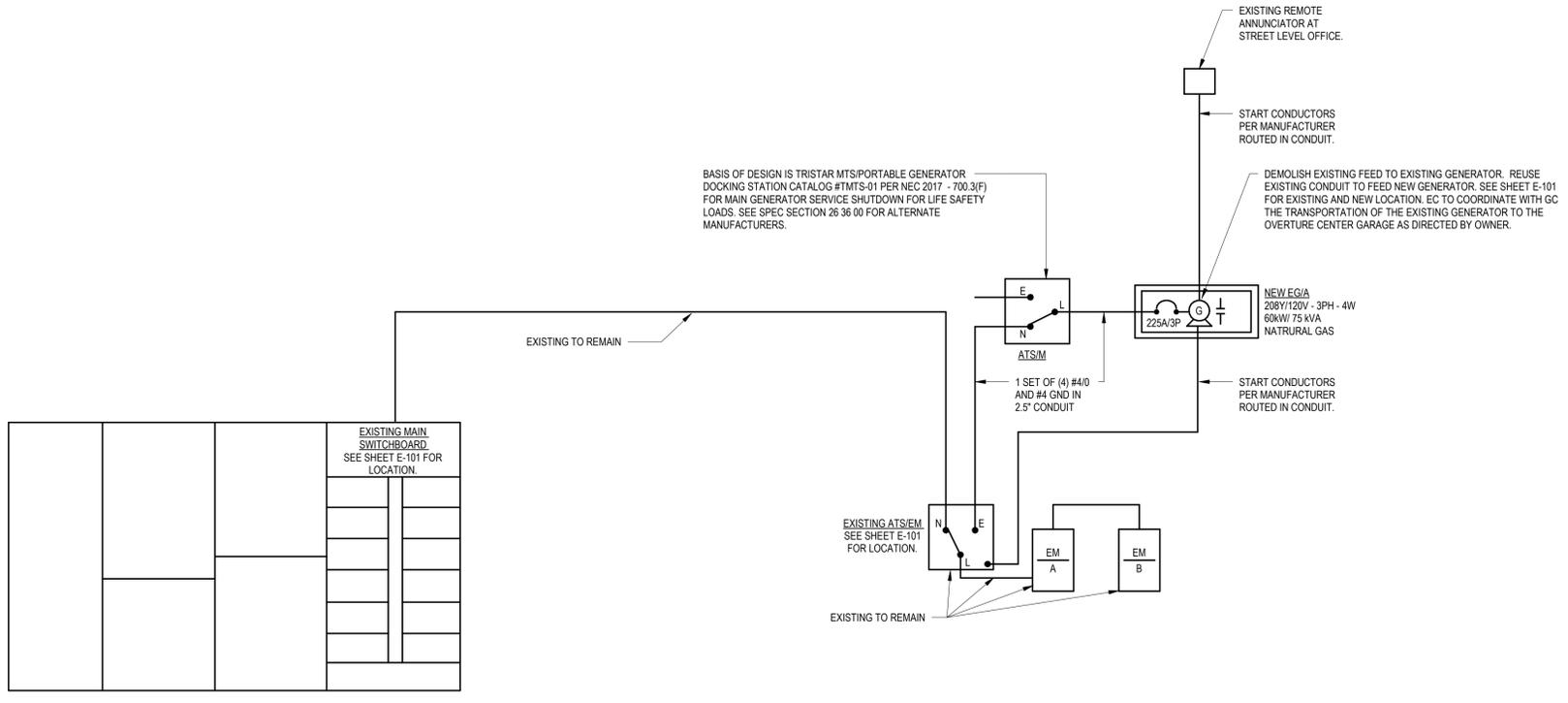
ELECTRICAL ONE-LINE POWER
DIAGRAM

SHEET NUMBER:

E-701

ONE LINE DIAGRAM SYMBOLS

- DISCONNECT SWITCH
SIZE AS INDICATED ON DRAWINGS
- (X) INDICATES TYPE:
(NONE) NON-FUSED
(F) FUSED
(CB) CIRCUIT BREAKER
- MANUAL MOTOR STARTER
- (X) INDICATES MOTOR CONTROLLED
- MAGNETIC MOTOR STARTER
- (X) INDICATES MOTOR CONTROLLED
- MAGNETIC MOTOR STARTER AND
DISCONNECT COMBINATION
- (X) INDICATES MOTOR CONTROLLED
- VARIABLE FREQUENCY DRIVE
- (X) INDICATES MOTOR CONTROLLED
- TRANSFER SWITCH
- KIRK KEY INTERLOCK SYSTEM
- GROUND CONNECTION TO SYSTEM
AND / OR EQUIPMENT
- LIGHTNING ARRESTER WITH
GROUND CONNECTION TO
PROTECT ALL PHASES
- POTHEAD
- STRESS CONE
- RESISTOR
- CAPACITOR
- PANELBOARD
- TOP DESIGNATES
PANELBOARD TYPE
- BOTTOM DESIGNATES
PANELBOARD ID
- CIRCUIT BREAKER
- (XA) INDICATES TRIP SIZE
- (XP) INDICATES NUMBER
OF POLES
- CIRCUIT BREAKER
- PRIMARY DRAW OUT
- (XAF) INDICATES FRAME SIZE
- (XAT) INDICATES TRIP SIZE
- CIRCUIT BREAKER
- LOW VOLTAGE DRAW OUT
- (XAF) INDICATES FRAME SIZE
- (XAT) INDICATES TRIP SIZE
- SHUNT TRIP
- MOTOR OPERATOR
FOR CIRCUIT BREAKERS
OR SWITCHES
- SWITCH
- FUSED CUTOUT
- SWITCH
- UN-FUSED CUTOUT
- CONTACT
- NORMALLY OPEN
- CONTACT
- NORMALLY CLOSED
- OVERLOAD RELAY
- FUSE
- (XA) INDICATES RATING
- GROUND FAULT
- GENERATOR
- TRANSFORMER
- DRY TYPE, UOI
IDENTIFICATION
- TRANSFORMER
- POTENTIAL
- TRANSFORMER
- CURRENT
- EMERGENCY POWER OFF



1 ONE-LINE POWER DIAGRAM

NOT TO SCALE