



SHEET LIST

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Missouri Innovation Campus - Second Floor Renovation

1101 NW INNOVATION PKWY
LEE'S SUMMIT, MO 64086

BID SET

October 22, 2020

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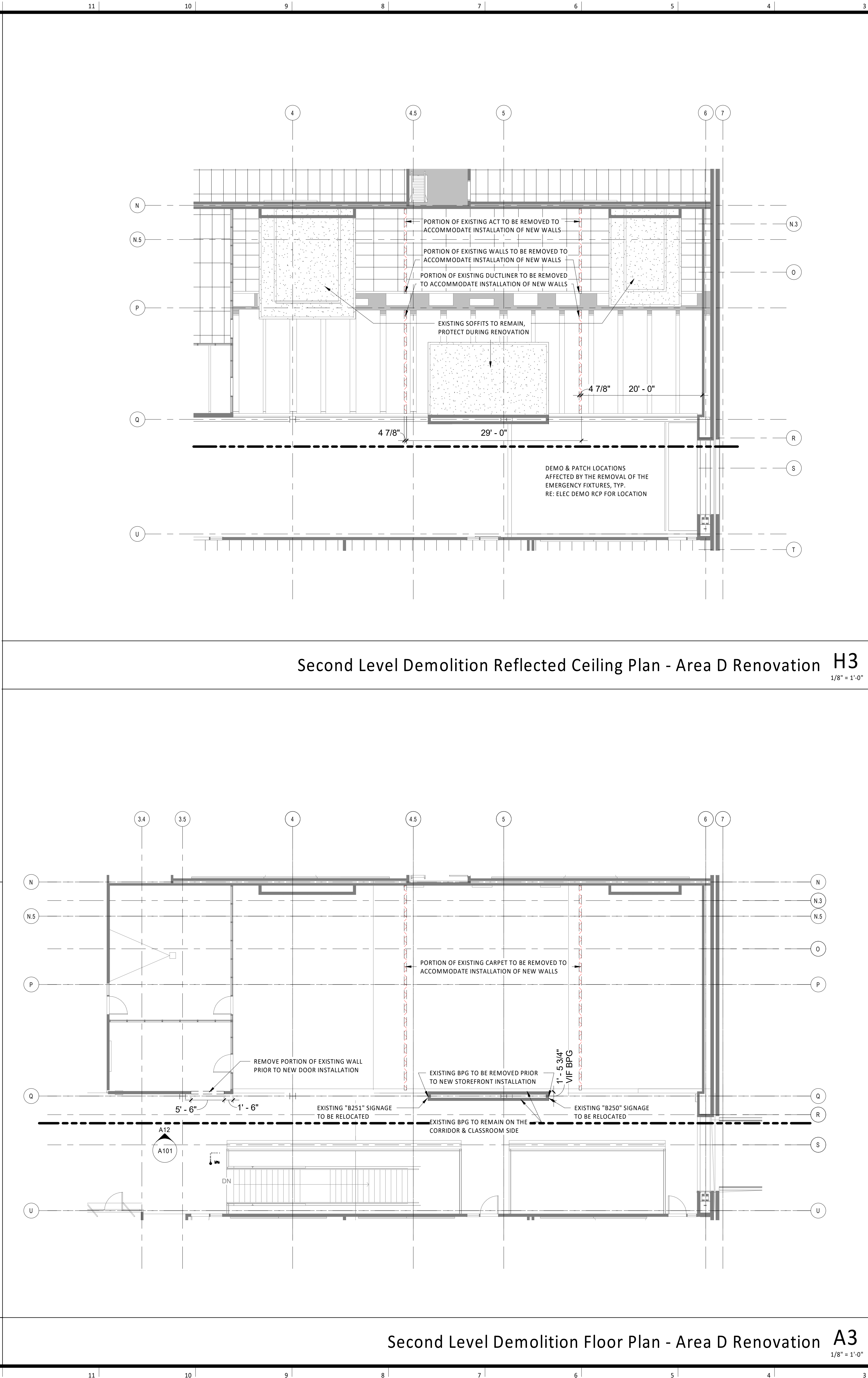
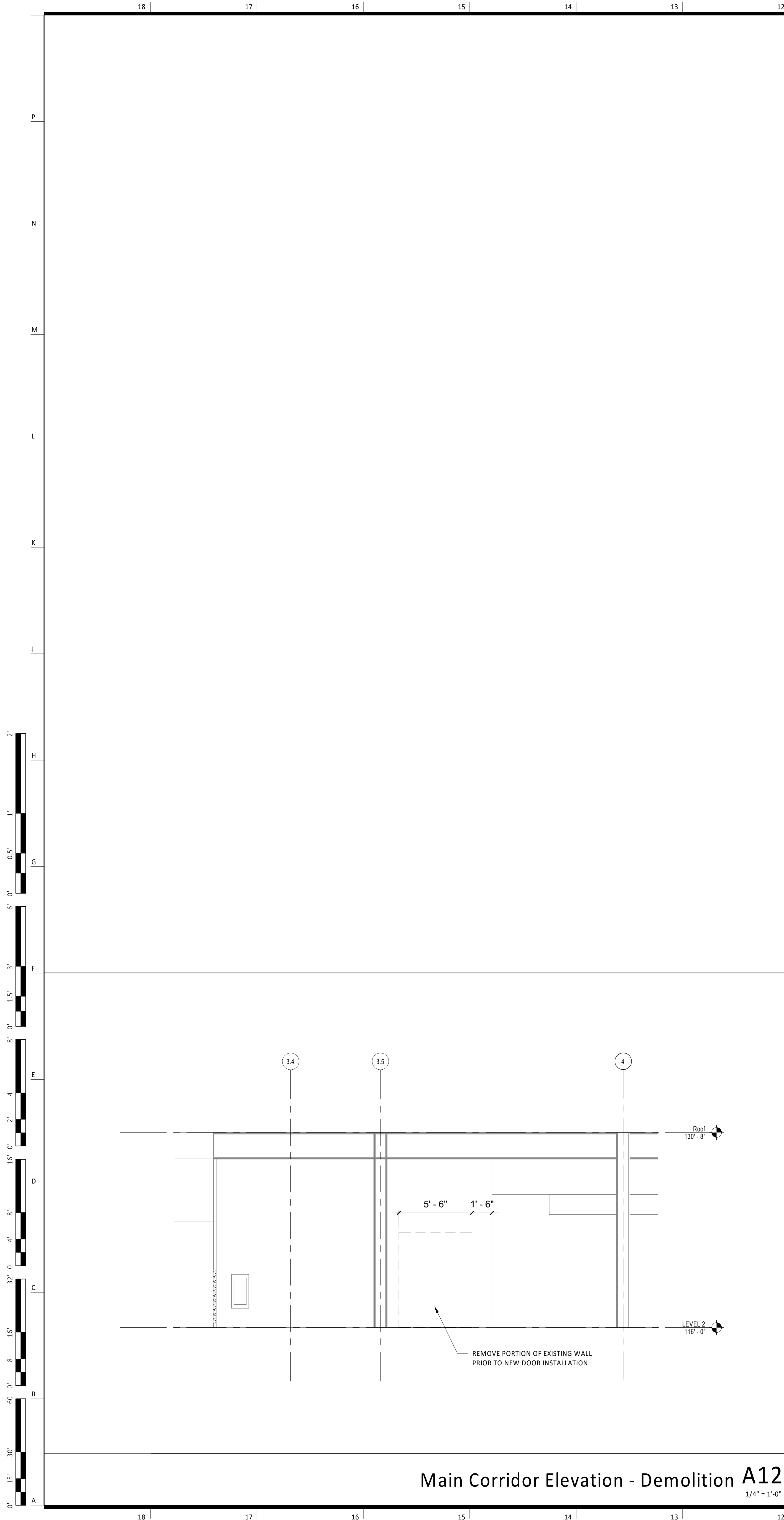
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**MIC SECOND FLOOR
RENOVATION**

0220-2100



General Notes:

- THIS DEMOLITION PLAN OUTLINES THE SCOPE OF THE WORK INVOLVED FOR THE DEMOLITION PHASE OF THIS PROJECT. CONTRACTOR SHALL ALSO REFER TO THE DRAWINGS FOR THE CONSTRUCTION OF THE NEW ADDITION FOR ADDITIONAL INFORMATION.
- EXISTING CONDITIONS INFORMATION WAS OBTAINED FROM DOCUMENTS AND INFORMATION SUPPLIED TO THE ARCHITECT. THE CONTRACTOR IS TO VERIFY EXACT LOCATIONS, SIZES, ELEVATIONS, ETC. AND REPORT ANY DISCREPANCIES TO THE ARCHITECT.
- IF SUSPECTED HAZARDOUS MATERIALS ARE ENCOUNTERED STOP WORK IMMEDIATELY AND NOTIFY OWNER. DO NOT RESUME WORK UNTIL DIRECTED BY THE OWNER.
- ALL FURNITURE WILL BE REMOVED OR RELOCATED BY THE OWNER AS NECESSARY PRIOR TO THE DEMOLITION WORK OF THIS PROJECT. CONTRACTOR SHALL COORDINATE WITH OWNER AS REQUIRED.
- REMOVE EXISTING CONSTRUCTION TO THE EXTENT INDICATED ON THE DRAWINGS. SHOULD ANY DAMAGE OCCUR TO ANY EXISTING CONSTRUCTION TO REMAIN ON SITE, THE CONTRACTOR SHALL REPAIR THE DAMAGE.
- CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO DEMOLITION ACTIVITIES.
- CONTRACTOR SHALL PROTECT ALL EXISTING CONSTRUCTION NOTED TO REMAIN FROM DAMAGE AND SOILING DURING DEMOLITION. REMOVE DEBRIS REGULARLY AS NECESSARY TO ELIMINATED INTERFERENCE WITH ROADS, STREET, WALKS, AND ALL OTHER ADJACENT FACILITIES.
- CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF TEMPORARY DUST AND NOISE PROOF PARTITION BETWEEN CONSTRUCTION AREA AND ADJACENT PROPERTIES AS NECESSARY.
- NOTIFY THE BUILDING OWNER OF ANY MATERIALS, FIXTURES, ETC. THAT ARE TO BE REMOVED THAT ARE DEEMED SALVAGEABLE TURN OVER ANY REQUESTED ITEMS TO THE BUILDING OWNER IN GOOD CONDITION.
- ALL DEMOLITION MATERIALS NOT CLAIMED BY THE OWNER, OR TO BE REUSES ARE TO BE DISPOSED OF OFF SITE AS PER LOCAL REGULATIONS AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
- MAINTAIN THE INTEGRITY OF ALL EXISTING RATED WALLS, FIRE SEAL ANY PENETRATIONS WITH U.L. APPROVED ASSEMBLY.
- WHEN UNANTICIPATED MECHANICAL, ELECTRICAL, OR STRUCTURAL ELEMENTS THAT CONFLICT WITH THE INTENDED FUNCTION OR DESIGN ARE ENCOUNTERED, DETERMINE THE NATURE AND EXTENT OF THE CONFLICT AND NOTIFY THE ARCHITECT IMMEDIATELY FOR RESOLUTION.
- PROTECT EXISTING SITE IMPROVEMENTS AND LANDSCAPING TO REMAIN. INCLUDING BUT NOT LIMITED TO EXISTING TREES AND OTHER VEGETATION INDICATED TO REMAIN IN PLACE AGAINST UNNECESSARY CUTTING, BREAKING, OR SKINNING OF ROOTS, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIAL OR EXCAVATED MATERIAL WITHIN DRIP LINES.
- CONTRACTOR SHALL PROVIDE TRAFFIC HANDLING MEASURES AS NECESSARY TO PROTECT THE GENERAL PUBLIC AT ALL TIMES, AND AS REQUIRED BY THE CITY.
- DO NOT INTERRUPT EXISTING UTILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION. PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES, AS ACCEPTABLE TO GOVERNING AUTHORITIES.
- WHEN UTILITY SERVICES ARE REQUIRED TO BE REMOVED, RELOCATED, OR ABANDONED, PROVIDE BYPASS CONNECTIONS TO MAINTAIN CONTINUITY OF SERVICE BEFORE PROCEEDING WITH DEMOLITION.
- CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT ALL UTILITY COMPANIES INCLUDING BUT NOT LIMITED TO THE FOLLOWING: ELECTRIC, GAS, WATER, TELEPHONE, STORM SEWER, AND SANITARY SEWER FOR FIELD LOCATION OF ALL UNDERGROUND AND OVERHEAD UTILITY LINES. PRIOR TO COMMENCEMENT WITH ANY DEMOLITION WORK, CONTRACTOR SHALL IDENTIFY ALL ELECTRICAL CIRCUITS SERVICING THE AREA INVOLVED WITH THIS DEMOLITION. THOSE CIRCUITS SHALL THEN BE LOCKED OUT AND TAGGED OUT IF THEY DO NOT SERVICE ANY OF THE REMAINING BUILDING. THOSE CIRCUITS WHICH ARE IDENTIFIED TO SERVICE BOTH THE AREA TO BE DEMOLISHED AND THE REMAINING BUILDING SHALL BE SPLIT SO AS TO KILL ALL ELECTRICAL POWER TO THE AREA TO BE DEMOLISHED WHILE MAINTAINING POWER TO THE REMAINDER OF THE BUILDING.
- CONTRACTOR TO PATCH/REPAIR ALL HOLES IN WALLS, FLOORS, &/OR CEILINGS, AS REQUIRED. PAINT TO MATCH ADJACENT WALL/CEILING.
- CONTRACTOR TO RE-LOCATE UTILITIES & EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW HVAC, ELECTRICAL & PLUMBING REQUIREMENTS FOR NEW RENOVATION WORK.
- REFER TO DEMOLITION PLUMBING PLANS FOR EXTENT OF CONCRETE SLAB TO BE REMOVED AND REPLACED FOR UNDER FLOOR PIPING INSTALLATION.
- FILL ALL EXISTING FLOOR AND WALL PENETRATIONS RESULTING FROM PIPING AND CONDUIT REMOVAL WITH NON-SHRINK GROUT, READY TO RECEIVE FINAL FLOOR OR WALL FINISH.
- EXISTING WALLS (OR PORTIONS OF WALLS) TO BE REMOVED SHALL BE CUT FLUSH WHERE INTERSECTING WITH WALLS TO REMAIN. REMAINING WALLS TO BE PATCHED AND FINISHED SMOOTH.
- NEW OPENING TO BE CUT IN EXISTING WALLS SHALL BE SAW-CUT AT LOCATIONS INDICATED TO THE HEIGHT AND WIDTH INDICATED. NEW LINTELS SHALL BE INSTALLED TO SUPPORT EXISTING WALL CONSTRUCTION ABOVE AS INDICATED ON THE DRAWINGS, OR IF NOT INDICATED, AS REQUIRED FOR NEW WALL CONSTRUCTION PER STRUCTURAL DRAWINGS.
- WHERE EXISTING INTERIOR WALLS ARE REPLACED OR REMOVED, REMOVE MEP SYSTEMS BACK TO PANEL OR MECHANICAL ROOM OR FARTHEST POSSIBLE POINT WITHOUT DISTURBING EXISTING CONSTRUCTION, REMOVE EXISTING MECHANICAL EQUIPMENT, RELOCATE POWER PER MEP DRAWINGS.
- REFER TO MEP DRAWINGS FOR DEMOLITION OF MEP SYSTEMS TO IDENTIFY WORK REQUIRED BY THIS CONTRACTOR WHICH MAY AFFECT DEMOLITION AND/OR REPAIRS OF ARCHITECTURAL ELEMENTS. COORDINATE WITH RELATED SUBS THE EXTENT OF ALL DEMOLITION WORK.
- PATCH FLOORS, WALLS CEILINGS WHICH REMAIN AT LOCATIONS WHERE PIPES, CONDUITS, ETC. ARE REMOVED AS REQUIRED TO MATCH EXISTING CONDITIONS OR FOR NEW FINISHES.
- PROTECT ALL EXISTING HORIZONTAL BLINDS TO REMAIN UNLESS NOTED OTHERWISE.
- WHERE EXISTING FINISH FLOOR IS REMOVED, PREPARE SURFACE TO RECEIVE NEW FLOORING.
- REMOVE ANY EXISTING VINYL MATERIALS IN ACCORDANCE WITH EPA STANDARDS. NOTIFY ARCHITECT & OWNER OF ANY ADDITIONAL ASBESTOS CONTAINING MATERIALS DISCOVERED BEFORE PROCEEDING WITH WORK, PROTECT INTERIOR CONSTRUCTION TO REMAIN DURING DEMOLITION AND CONSTRUCTION.

LEGEND:

- EXISTING WALL TO REMAIN
- WALL TO BE DEMOLISHED
- DEMOLISH
- DOOR TO BE DEMOLISHED
- SAWCUT AND DEMOLISH PARTIAL SLAB
- TOPPING SLAB TO BE DEMOLISHED

KEY PLAN

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REVISIONS

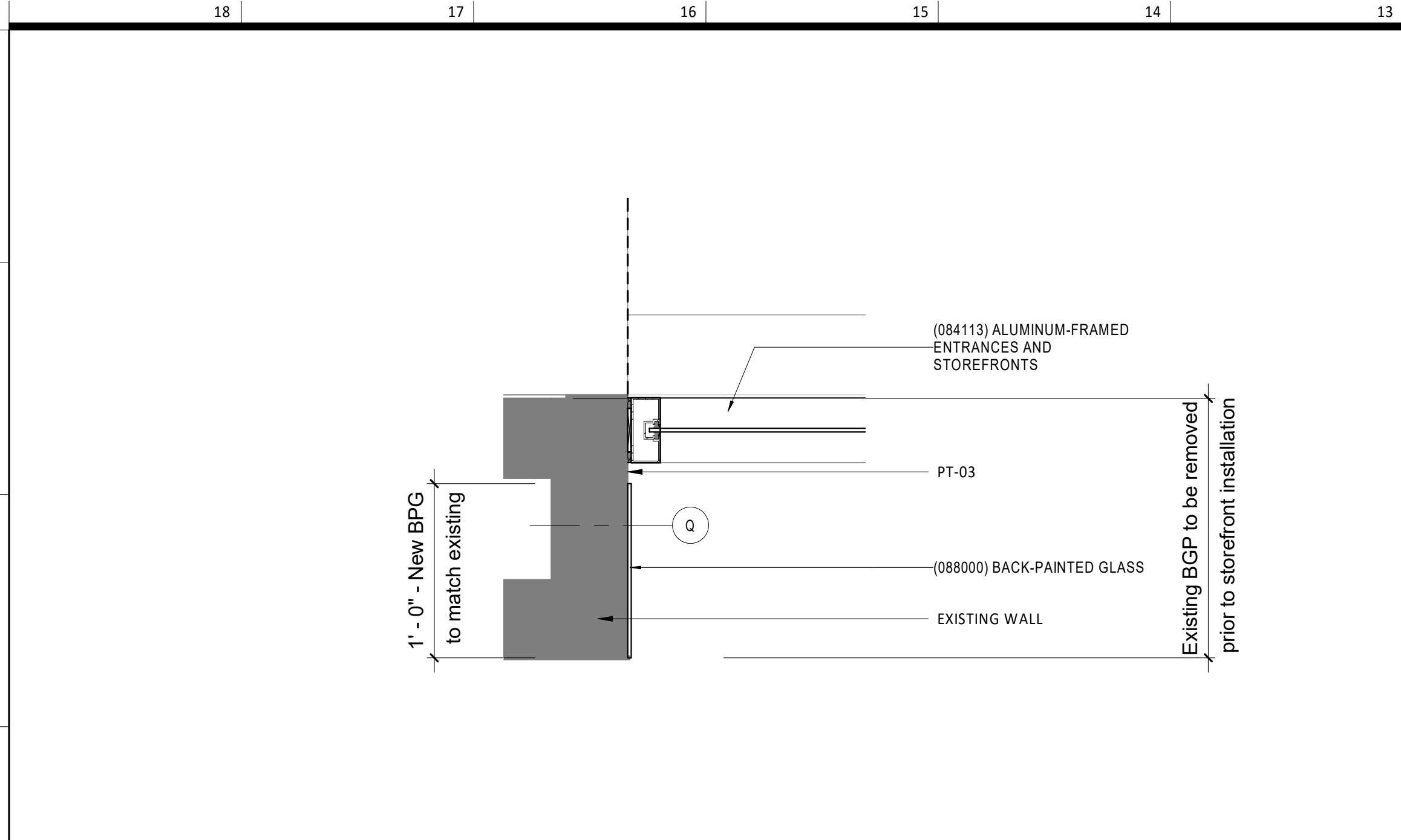
Number	DESCRIPTION	DATE
1	1101 NW INNOVATION PKWY LEE'S SUMMIT, MO 64086	

PROJECT NO: 0220-2100
DATE: October 22, 2020

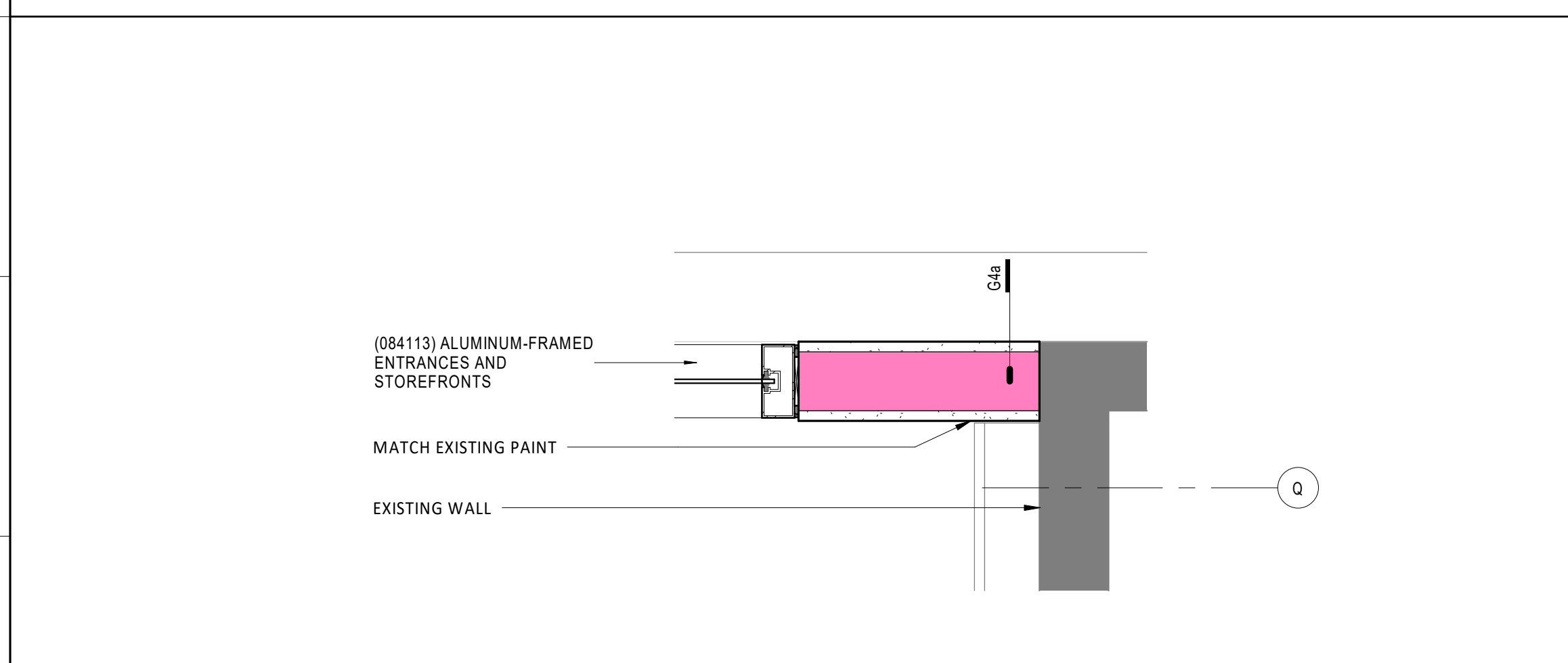
Second Level Renovation - Demolition Plans

A101

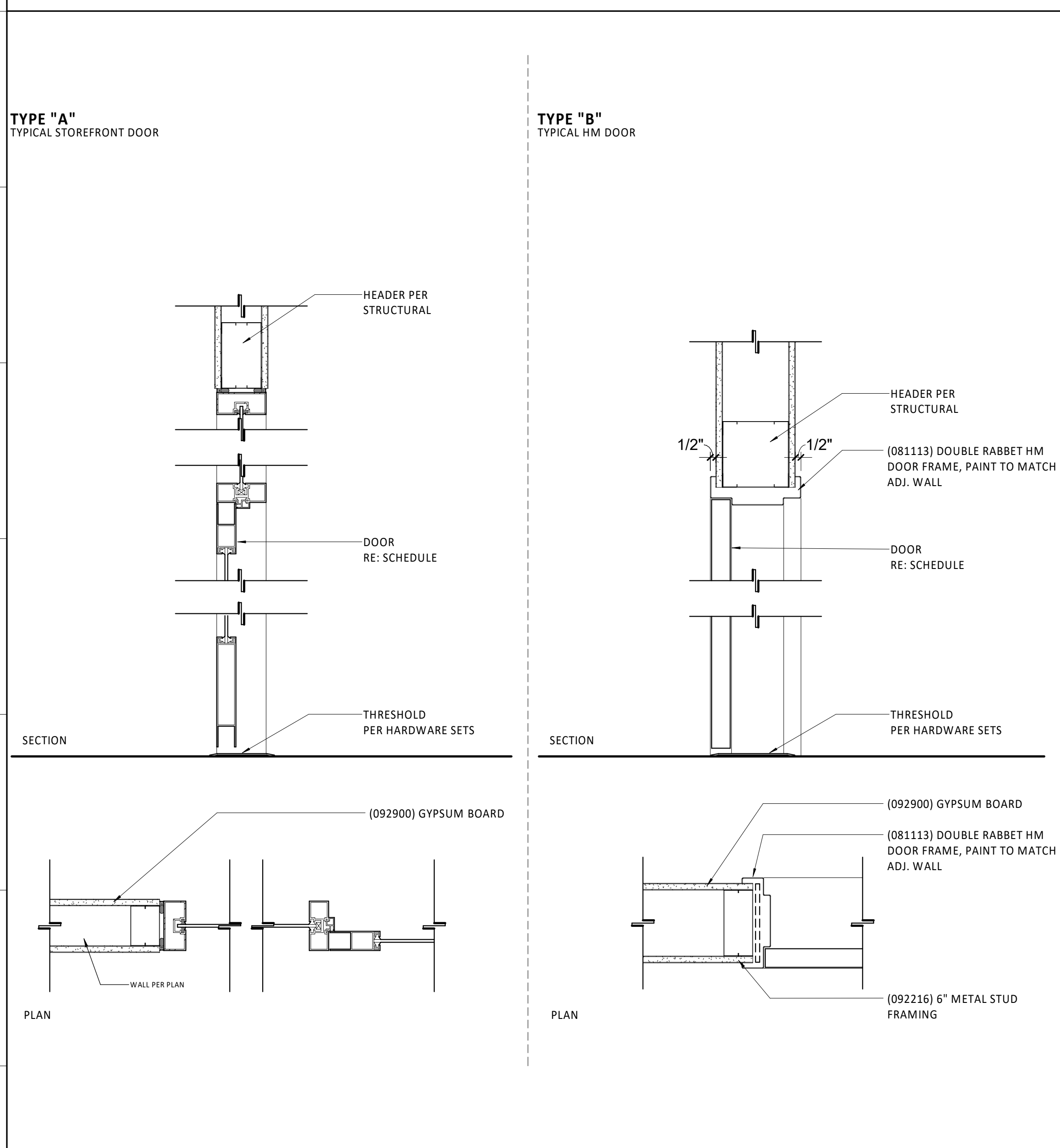
MIC SECOND FLOOR RENOVATION



Storefront Detail at Gypsum Wall/BPG L13
1 1/2" = 1'-0"



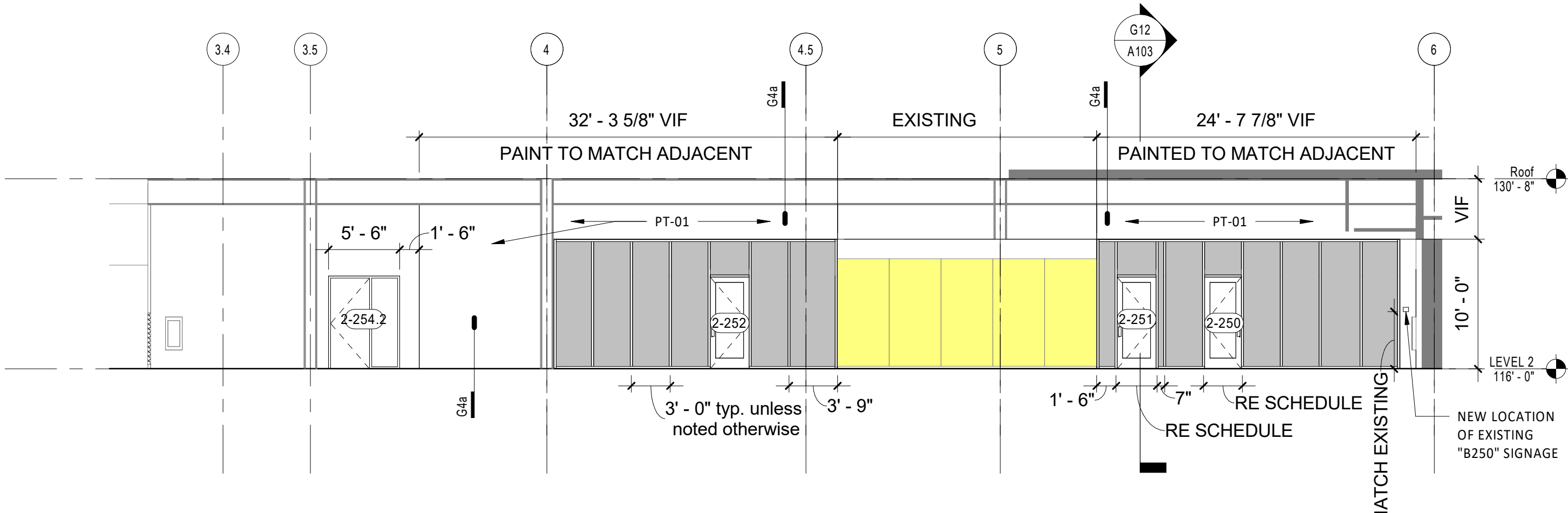
Storefront Detail at New Gypsum Wall H13
1 1/2" = 1'-0"



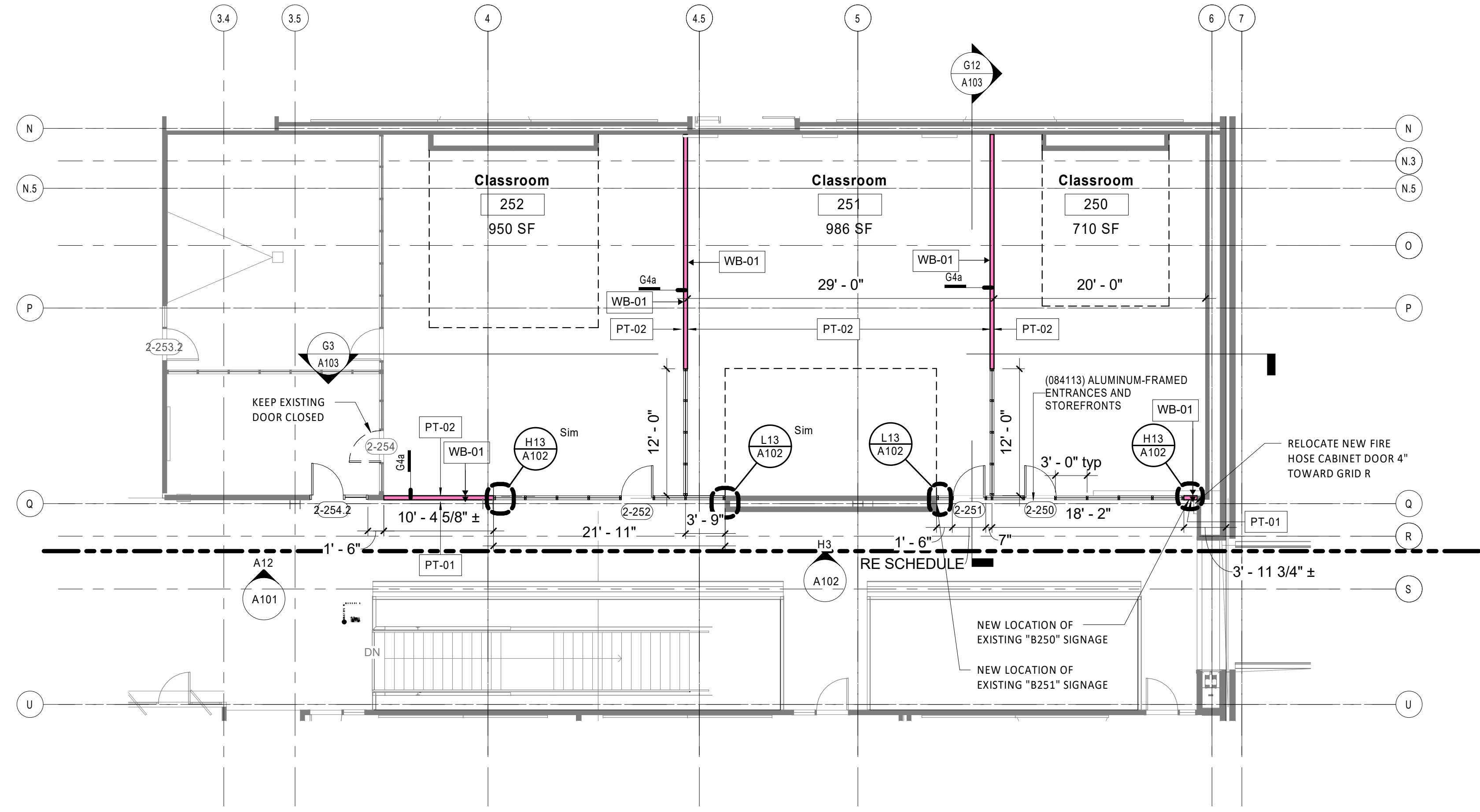
Door Details A13
1 1/2" = 1'-0"

Door Schedule												
Door No.	Assembly			Door Dimensions			Door		Frame			Comments
	Room	From:	To:	Type	Fire Rating	Detail Type	Door Panel Width	Door Panel Height	Door Panel Thickness	Material	Finish	
2-250	250	1		A			3'-0"	7'-0"	1 3/4"	AL	CA	Hardware: Match existing door 2-254
2-251	251	1		A			3'-0"	7'-0"	1 3/4"	AL	CA	Hardware: Match existing door 2-254
2-252	252	1		A			3'-0"	7'-0"	1 3/4"	AL	CA	Hardware: Match existing door 2-254
2-254.2			2	B			3'-0"	7'-0"	1 3/4"	WD	PT-01	Hardware: Match existing door 2-253.2

Finish Legend - Interior Renovation					
ID#	DESCRIPTION	MANUFACTURER	STYLE	COLOR/FINISH	COMMENTS
PT-01	PAINT	SHERWIN WILLIAMS	REF. SPECIFICATION	SW7070 SITE WHITE	RE LOCATION ON PLAN & ELEVATIONS
PT-02	PAINT	SHERWIN WILLIAMS	REF. SPECIFICATION	SW7066 GREY MATTERS	RE LOCATION ON PLAN & ELEVATIONS
PT-03	PAINT	SHERWIN WILLIAMS	REF. SPECIFICATION	SW7587 ANTIQUE RED	RE LOCATION ON DETAIL PLAN
WB-01	WALL BASE	MATCH EXISTING HEIGHT AND COLOR			



Main Corridor Elevation H3
1/8" = 1'-0"



Second Level Floor Plan - Area D Renovation A3
1/8" = 1'-0"

General Notes (Floor Plans):

- ALL WALL TYPES TO BE G4.1 UNLESS OTHERWISE NOTED.
- ALL WALL DIMENSIONS ARE TO FACE OF WALL UNLESS OTHERWISE NOTED.
- DOORS IN STUD WALLS NEAR PERPENDICULAR WALLS ARE LOCATED 4" OFF FACE OF PERPENDICULAR WALL UNLESS OTHERWISE NOTED.
- CONTRACTOR TO FIELD VERIFY ALL MEASUREMENTS AND CONDITIONS NEW AND EXISTING. NOTIFY THE ARCHITECT/OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
- ENLARGED PLANS MAY BE ROTATED OR MIRRORED COORDINATE WITH MAIN FLOOR PLAN.

General Notes (Door Schedule):

- THRESHOLDS SHALL COMPLY WITH ACCESSIBILITY REGULATIONS.
- EDGE CLEARANCES IN ACCORDANCE WITH AWI QUALITY STANDARDS.
- DOORS LOCATED IN CORNERS ARE TO HAVE THE INSIDE FACE OF JAMB LOCATED 4 INCHES FROM THE ADJACENT WALL FINISH (8 INCHES IN MASONRY WALLS) UNLESS NOTED OTHERWISE.
- PROVIDE BLOCKING AT ALL WALL MOUNTED DOOR STOPS.
- PROVIDE SAFETY GLAZING IN ALL DOORS AND ASSOCIATED ACTIVE/FIXED PANELS.
- PROVIDE SAFETY GLAZING IN FIXED OR OPERABLE PANELS WHERE WITHIN 24 INCHES OF EITHER EDGE OF A OPERABLE DOOR.
- PROVIDE SAFETY GLAZING IN FIXED OR OPERABLE PANELS WHERE WITHIN 18 INCHES FROM AND RAMP/STAIR LANDING OR HAND/GUARDRAIL.
- REFER TO "PROJECT MANUAL" FOR HARDWARE SETS AND ADDITIONAL DOOR REQUIREMENTS.

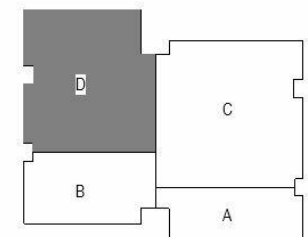
Finish Notes:

- ALL FINISH MATERIALS MUST MEET THE FLAME SPREAD RATINGS PER THE BUILDING CODE.
- REFER TO INTERIOR ELEVATIONS FOR SPECIFIC MATERIAL LOCATIONS.
- PAINT ALL EXPOSED DUCTWORK, CONDUIT, ELECTRICAL EQUIPMENT, ETC TO MATCH ADJACENT METAL DECK PAINT COLOR.
- PAINT ALL NON-FACTORY FINISHED EXPOSED METAL. REFER TO TYPICAL FLOORING TRANSITION DETAILS FOR ALL FLOORING MATERIALS.
- FLOORING TRANSITIONS AT DOORS SHOULD BE LOCATED UNDER THE DOOR IN THE CLOSED POSITION, UNLESS NOTED OTHERWISE.
- CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING FINISHED FLOORING SURFACES FROM DAMAGE DURING ALL CONSTRUCTION PHASES.
- REFER TO REFLECTED CEILING PLANS FOR CEILING HEIGHTS.
- CARPET PATTERNS TO RUN PARALLEL TO CORRIDOR, UNLESS NOTED OTHERWISE.

Glazing Schedule - Basic

Mark	Description
IGU-01	1" INSULATED GLASS

KEY PLAN



Missouri Innovation
Campus - Second Floor
Renovation

1101 NW INNOVATION PKWY

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Missouri License No.: 2018022991
Dennis Strait
Date: 10/07/2020
License No. A-7339

REVISIONS

Number DESCRIPTION DATE

PROJECT NO: 0220-2100
DATE: October 22, 2020

Second Level
Renovation - Floor Plan

A102

MIC SECOND FLOOR
RENOVATION

MECHANICAL SYMBOLS

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED.

V2.06

STANDARD MOUNTING HEIGHT

THERMOSTATS (USER ADJUSTABLE)(TOP OF DEVICE) 48" 48"

INSTALL DEVICES AT THE MOUNTING HEIGHTS SHOWN ABOVE UNO IN THE CONSTRUCTION DOCUMENTS. MOUNTING HEIGHTS LISTED ABOVE OR ELSEWHERE IN THE CONSTRUCTION DOCUMENTS ARE AFF OR AFG TO BOTTOM OF DEVICE UNO. ALL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH CURRENT ADA AND LOCAL REQUIREMENTS.

ANNOTATION

- MECHANICAL PLAN NOTE CALLOUT
- MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE)
- CONNECTION POINT OF NEW WORK TO EXISTING
- DETAIL REFERENCE. UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER
- SECTION CUT DESIGNATION

ABBREVIATIONS

A/C	AIR CONDITIONING	HWP	HEATING WATER PUMP
ACC	AIR COOLED CHILLER	N WC	INCHES OF WATER COLUMN
ACCU	AIR COOLED CONDENSING UNIT	L	LOUVER
AFC	ABOVE FINISHED CEILING	LAT	LEAVING AIR TEMPERATURE
AFB	ABOVE FINISHED FLOOR	LDB	LEAVING DRY BULB TEMPERATURE
AFG	ABOVE FINISHED GRADE	LP	LOW PRESSURE
AHJ	AUTHORITY HAVING JURISDICTION	LWB	LEAVING WET BULB TEMPERATURE
AHU	AIR HANDLING UNIT	LWT	LEAVING WATER TEMPERATURE
AI	ANALOG INPUT	MAU	MAKE-UP AIR UNIT
AO	ANALOG OUTPUT	MAX	MAXIMUM
AP	ACCESS PANEL	MBH	1000 BTU PER HOUR
APD	AIR PRESSURE DROP	MD	MOTORIZED DAMPER
AWG	AMERICAN WIRE GAUGE	MFR	MANUFACTURER
BAS	BUILDING AUTOMATION SYSTEM	MIN	MINIMUM
BB	BACKDRAFT DAMPER	N/A	NOT APPLICABLE
BD	BLOWDOWN	NBC	NORMALLY CLOSED
BFC	BELOW FINISHED CEILING	NO	NORMALLY OPEN
BFF	BELOW FINISHED FLOOR	NOM	NOMINAL
BFG	BELOW FINISHED GRADE	NC	NON-CRITERIA
BFP	BOILER FEED PUMP	NF	NON-FUSED
BHP	BRAKE HORSEPOWER	NIC	NOT IN CONTRACT
BI	BINARY INPUT	PCV	PRESSURE INDEP. CONTROL VALVE
BO	BINARY OUTPUT	QTY	QUANTITY
BOB	BOTTOM OF DUCT	RA	RETURN AIR
BOS	BOTTOM OF STRUCTURE	RC	ROOM CRITERIA
BTU	BRITISH THERMAL UNIT	RD	RETURN DUCT
CFM	CUBIC FEET PER MINUTE	REA	RELIEF AIR
CH	CHILLER	RF	RETURN FAN
CLG	COOLING	RFR	REFRIGERANT
CP	CONDENSATE PUMP	RH	RELATIVE HUMIDITY
CPT	CONTROL POWER	RH	ROOF HOOD
CRAC	COMPUTER ROOM AIR CONDITIONING UNIT	RPM	REVOLUTIONS PER MINUTE
CRU	COMPUTER ROOM UNIT	RTU	ROOFTOP UNIT
CT	COOLING TOWER	SA	SUPPLY AIR
CV	CONTROL VALVE	SCP	STEAM CONDENSATE PUMP
CWP	CONDENSER WATER PUMP	SD	SMOKE DUCT DETECTOR
CU	CONDENSING UNIT	SD	SUPPLY DUCT
CHWP	CHILLED WATER PUMP	SF	SUPPLY FAN
DB	DECIBELS	SH	SENSIBLE HEAT CAPACITY
DBA	DECIBEL AVERAGE	SOW	SCOPE OF WORK
DDC	DIRECT DIGITAL CONTROL	SP	STATIC PRESSURE
DI	DIGITAL INPUT	ST	STEAM TRAP
DISC	DISCONNECT	STM	STEAM
DN	DOWN	TBD	TO BE DETERMINED
DS	DUCT SILENCER	TC/C	TEMPERATURE CONTROLS
DX	DIRECT EXPANSION	TC	TEMPERATURE CONTROL
EA	EXHAUST AIR	TF	TRANSFER FAN
EAT	ENTERING	TFA	TO FLOOR ABOVE
ED	AIR TEMPERATURE	TFB	TO FLOOR BELOW
EDB	ENTERING DRY BULB	TH	TOTAL HEAT CAPACITY
EF	EXHAUST FAN	TSP	TOTAL STATIC PRESSURE
EFF	EFFICIENCY	TT	TEMPERATURE TRANSMITTAL
EMS	ENERGY MANAGEMENT SYSTEM	TYP	TYPICAL
ESP	EXTERNAL STATIC PRESSURE	UF	UNDERFLOOR
ETR	EXISTING TO REMAIN	UG	UNDERGROUND
EWB	ENTERING WET BULB	U/S	UNDERSLAB
EWT	ENTERING WATER TEMPERATURE	UH	UNIT HEATER
FCU	FAN COIL UNIT	UNO	UNLESS NOTED OTHERWISE
FFA	FROM FLOOR ABOVE	VAV	VARIABLE AIR VOLUME
FFB	FROM FLOOR BELOW	VEL	VELOCITY
FF	FINISHED FLOOR	VFD	VARIABLE FREQUENCY DRIVE
FPI	FEET PER INCH	VRV	VARIABLE REFRIGERANT VOLUME
FPM	FEET PER MINUTE	VRV	VARIABLE REFRIGERANT VOLUME
GPM	GALLONS PER MINUTE	W/	WITH
HOA	HAND-OFF-AUTOMATIC	W/O	WITHOUT
HP	HORSEPOWER	WB	WET BULB
HTG	HEATING	WC	WATER COLUMN
		WPD	WATER PRESSURE DROP
		XP	EXPLOSION PROOF

HVAC DUCTWORK AND ACCESSORIES

- LINEAR SLOT DIFFUSER
- INSULATED FLEXIBLE DUCT (MAX. 5'-0" LONG)
- BRANCH DUCT WITH 45° RECTANGLE-ROUND BRANCH FITTING AND MANUAL VOLUME DAMPER
- ELBOW WITH TURNING VANES
- BRANCH DUCT WITH BELL-MOUTH FITTING & MANUAL VOLUME CONTROL DAMPER
- RETURN, EXHAUST, OR OUTSIDE AIR DUCT UP
- RETURN, EXHAUST, OR OUTSIDE AIR DUCT DOWN
- SUPPLY AIR DUCT UP
- SUPPLY AIR DUCT DOWN
- EQUIPMENT WITH FLEXIBLE DUCT CONNECTION
- 10" (NECK SIZE) CSB-1 (TYPE) 300 CFM (CFM OF SUPPLY DIFFUSER OR REGISTER)
- 24x24 (NECK SIZE) CEG-1 (TYPE) 800 CFM (CFM OF EXHAUST GRILLE)
- MANUAL VOLUME DAMPER
- SQUARE TO ROUND TRANSITION
- DUCT MOUNTED SMOKE DETECTOR (SD=SUPPLY/RD=RETURN)
- ROUND DUCT TAG INDICATING DIAMETER
- RECTANGULAR DUCT TAG INDICATING INTERNAL DUCT DIMENSIONS.
- FLAT OVAL DUCT TAG INDICATING INTERNAL DUCT DIMENSIONS
- RISER DESIGNATION
- FIRE DAMPER
- FIRE SMOKE DAMPER
- SMOKE DAMPER
- VOLUME DAMPER
- MOTORIZED DAMPER
- BACKDRAFT DAMPER

ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE DIMENSIONS. REFER TO DUCTWORK SPECIFICATIONS FOR DUCTWORK INSULATION AND LINER INFORMATION.

HVAC CONTROL DEVICES

- HUMIDISTAT
- THERMOSTAT
- STATIC PRESSURE SENSOR
- TEMPERATURE SENSOR
- CARBON MONOXIDE SENSOR
- CARBON DIOXIDE SENSOR
- DIFFERENTIAL PRESSURE SENSOR
- FLOW SWITCH
- HUMIDITY SENSOR
- PULL STATION
- REMOTE TESTING STATION WITH INDICATING LIGHT
- STATIC PRESSURE
- TEMPERATURE SENSOR

PIPING SYMBOLS

- DIRECTION OF FLOW
- CONTROL VALVE
- THREE-WAY CONTROL VALVE
- SHUTOFF VALVE
- CHECK VALVE
- BALANCING VALVE WITH PRESSURE PORTS
- TRIPLE DUTY VALVE WITH PRESSURE PORTS
- STRAINER
- STRAINER WITH BLOWDOWN VALVE
- RELIEF / SAFETY VALVE
- SOLENOID VALVE
- PRESSURE REDUCING VALVE
- GAS PRESSURE REGULATOR
- THERMOSTATIC MIXING VALVE
- PIPE ANCHOR
- EXPANSION JOINT
- PIPE GUIDE
- PIPING SUPPORT
- F & T TRAP
- BUCKET TRAP
- THERMOSTATIC TRAP
- BACKFLOW PREVENTER
- PRESSURE GAUGE
- THERMOMETER
- PRESSURE AND TEMPERATURE TEST PLUG
- UNION
- FLANGE CONNECTION
- VACUUM RELIEF VALVE
- AUTOMATIC AIR VENT
- MANUAL AIR VENT
- PRESSURE / VACUUM SWITCH
- CLEANOUT
- CAP
- ELBOW UP
- ELBOW DOWN
- TEE UP
- TEE DOWN
- ELBOW UP WITH SHUT-OFF VALVE (SOV)
- ELBOW DOWN WITH SHUT-OFF VALVE (SOV)
- TEE UP WITH SHUT-OFF VALVE (SOV)
- TEE DOWN WITH SHUT-OFF VALVE (SOV)
- REDUCER
- RECIRCULATION PUMP
- P-TRAP
- GAS COCK
- TOP BEAM CLAMP
- TRAPEZE HANGER
- FLEXIBLE CONNECTION

PIPING LINETYPES

- CONDENSATE DRAIN (CD)
- AUXILIARY CONDENSATE DRAIN (ACD)
- NON-POTABLE WATER (NPW)
- NATURAL GAS (G)
- NATURAL GAS ON ROOF (G)
- MEDIUM PRESSURE NATURAL GAS (MPG)
- MEDIUM PRESSURE NATURAL GAS ON ROOF (MGP)
- FUEL OIL SUPPLY (FOS)
- FUEL OIL RETURN (FOR)
- FUEL OIL VENT (FOV)
- LIQUEFIED PETROLEUM GAS (LPG)
- BOILER FEED WATER (BFW)
- HIGH PRESSURE STEAM SUPPLY (HPS)
- HIGH PRESSURE STEAM CONDENSATE (HPC)
- LOW PRESSURE STEAM SUPPLY (LPS)
- LOW PRESSURE STEAM CONDENSATE (LPC)
- CONDENSATE PUMP DISCHARGE (PD)
- HEATING HOT WATER SUPPLY (HWS)
- HEATING HOT WATER RETURN (HWR)
- CHILLED WATER SUPPLY (CHWS)
- CHILLED WATER RETURN (CHWR)
- HOT / CHILLED WATER SUPPLY (HCS)
- HOT / CHILLED WATER SUPPLY (HCR)
- CONDENSER WATER SUPPLY (CWS)
- CONDENSER WATER RETURN (CWR)
- HEAT PUMP WATER SUPPLY (HPWS)
- HEAT PUMP WATER RETURN (HPWR)
- REFRIGERANT LIQUID (RL)
- REFRIGERANT DISCHARGE (HOT GAS) (RD)
- REFRIGERANT SUCTION (RS)
- REFRIGERANT DISCHARGE BYPASS (RDB)
- REFRIGERANT VENT (RV)

LINETYPE LEGEND

THROUGHOUT THE DRAWINGS DIFFERENT LINETYPES ARE USED IN COMBINATION WITH THE SYMBOLS TO INDICATE THE STATUS OF ITEMS AS EXISTING, TO BE DEMOLISHED, TO BE INCLUDED AS PART OF NEW WORK AND/OR ITEMS WHICH ARE ANTICIPATED TO BE PROVIDED IN THE FUTURE. THE STATUS OF ITEMS USING THESE LINETYPES ARE RELATIVE TO THE VIEW IN WHICH THEY APPEAR. PHASING SHOWN IN DRAWINGS IS NOT INTENDED TO FULLY DESCRIBE ALL NECESSARY CONSTRUCTION PHASING, WHICH IS DETERMINED BY THE CONTRACTOR AS PART OF THEIR RESPONSIBILITIES. ANY SUCH PHASES DESCRIBED IN THE CONSTRUCTION DOCUMENTS ARE GENERAL AND ONLY INTENDED TO INDICATE A BROAD ORDER FOR THE SAKE OF DESCRIBING THE PROJECT. THE FOLLOWING LINETYPES MAY BE USED ON ANY DEVICE, EQUIPMENT, NOTE, LINE, SHAPE, ETC.

EXISTING	NEW
DEMOLISH	FUTURE

GENERAL DEMOLITION NOTES:

- PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER AND/OR OWNER OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
- EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. COORDINATE NEW WORK AND DEMOLITION WITH OTHER DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- COORDINATE THE INSTALLATION OF THE MECHANICAL SYSTEMS WITH OTHER TRADES TO ENSURE A NEAT AND ORDERLY INSTALLATION. INSTALL DUCTWORK AND PIPING AS TIGHT TO STRUCTURE AS POSSIBLE. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS. COORDINATE INSTALLATION OF DUCTWORK AND PIPING TO AVOID CONFLICTS WITH ELECTRICAL PANELS, LIGHTING FIXTURES, ETC. ANY MODIFICATIONS REQUIRED DUE TO LACK OF COORDINATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
- WHERE SHUTDOWN OF EXISTING SYSTEMS IS REQUIRED DURING NEW WORK, COORDINATE SHUTDOWN TIME AND DURATION WITH THE OWNER TO MINIMIZE DOWNTIME. NOTIFY OWNER SEVEN (7) DAYS PRIOR TO INTERRUPTION OF SERVICE.
- DURING INSTALLATION OF NEW WORK, AVOID DAMAGING EXISTING SURFACES AND EQUIPMENT TO REMAIN. REPAIR DAMAGE CAUSED DURING CONSTRUCTION AT NO EXTRA COST TO THE OWNER.
- PROVIDE TEMPORARY BARRIERS TO CONTAIN DUST AND DEBRIS RESULTING FROM THE PERFORMANCE OF THE WORK TO THE AREA WHERE WORK IS BEING PERFORMED.
- ALL MECHANICAL EQUIPMENT SHOWN ON THE MECHANICAL PLANS SHALL BE PROVIDED BY DIVISION 23 UNLESS OTHERWISE NOTED.
- NEW MECHANICAL EQUIPMENT, DUCTWORK AND PIPING ARE SHOWN AT APPROXIMATE LOCATIONS. FIELD MEASURE FINAL DUCTWORK AND PIPING LOCATIONS PRIOR TO FABRICATION AND MAKE ADJUSTMENTS AS REQUIRED TO FIT THE DUCTWORK AND PIPING WITHIN THE AVAILABLE SPACE. VERIFY THAT FINAL EQUIPMENT LOCATIONS MEET MANUFACTURER'S RECOMMENDATIONS REGARDING SERVICE CLEARANCE AND PROPER AIRFLOW CLEARANCE AROUND EQUIPMENT.
- REFER TO ARCHITECTURAL DRAWINGS FOR RELATED CONSTRUCTION DETAILS AS APPLICABLE TO THE HVAC SYSTEM. VERIFY CHASES AND PENETRATIONS SHOWN ON ARCHITECTURAL DRAWINGS THAT ARE INTENDED FOR DUCTWORK AND PIPING MEET REQUIREMENTS.
- INDOOR AIR QUALITY MEASURES: PROTECT INSIDE OF (INSTALLED AND DELIVERED) DUCTWORK AND HVAC UNITS FROM EXPOSURE TO DUST, DIRT, PAINT AND MOISTURE. REPLACE INSULATION THAT HAS BECOME WET AT ANY TIME DURING CONSTRUCTION. DRYING THE INSULATION IS NOT ACCEPTABLE. SEAL ANY TEARS OR JOINTS OF INTERNAL FIBERGLASS INSULATION. REMOVE DEBRIS FROM CEILING/RETURN AIR FLENUM INCLUDING DUST. AN INDEPENDENT, PROFESSIONAL DUCT CLEANING COMPANY SHALL VACUUM CLEAN ANY DUCTWORK CONNECTED TO HVAC UNITS THAT WERE OPERATED DURING THE CONSTRUCTION PERIOD AFTER NEW FILTERS ARE INSTALLED AND PRIOR TO TURNING SYSTEM OVER TO THE OWNER. THE INTERNAL SURFACES AND ASSOCIATED COILS OF ANY HVAC UNITS THAT WERE OPERATED SHALL ALSO BE CLEANED.
- INSTALL DUCTWORK AND PIPING PARALLEL TO BUILDING COLUMN LINES UNLESS OTHERWISE SHOWN OR NOTED.
- OVERHEAD HANGERS AND SUPPORTS FOR EQUIPMENT, DUCTWORK AND PIPING SHALL BE FASTENED TO BUILDING JOISTS OR BEAMS. DO NOT ATTACH HANGERS AND SUPPORTS TO THE ABOVE FLOOR SLAB OR ROOF EXCEPT WHERE CONCRETE INSERTS IN CONCRETE SLABS ARE ALLOWED BY THE SPECIFICATIONS.
- COORDINATE LOCATION OF EQUIPMENT SUPPORTS WITH LOCATION OF EQUIPMENT ACCESS PANELS/DOORS TO ENABLE SERVICE OF EQUIPMENT AND/OR FILTER REPLACEMENT.
- SEAL PENETRATIONS THROUGH THE BUILDING COMPONENTS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. FIREPROOF PENETRATIONS THROUGH FIRE RATED COMPONENTS IN ACCORDANCE WITH U.L. REQUIREMENTS.
- COORDINATE THE EXACT MOUNTING SIZE AND FRAME TYPE OF DIFFUSERS, REGISTERS AND GRILLES WITH THE SUPPLIER TO MEET THE CEILING, WALL AND DUCT INSTALLATION REQUIREMENTS.
- ADJUST LOCATION OF CEILING DIFFUSERS, REGISTERS AND GRILLES AS REQUIRED TO ACCOMMODATE FINAL CEILING GRID AND LIGHTING LOCATIONS.
- LOCATE AND SET THERMOSTATS AND HUMIDISTATS AT LOCATIONS SHOWN ON PLANS. VERIFY EXACT LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION. INSTALL DEVICES WITH TOP OF DEVICE AT MAXIMUM 48" AFF TO MEET ADA REQUIREMENTS UNLESS NOTED OTHERWISE ON PLANS. PROVIDE INSULATED BACKING FOR THERMOSTATS MOUNTED ON EXTERIOR BUILDING WALLS. INSTALL WIRING IN CONDUIT PROVIDED BY DIVISION 26. AT A MINIMUM, PROVIDE CONDUIT IN THE WALL FROM THE JUNCTION BOX TO 6" ABOVE THE CEILING.
- COORDINATE THE LOCATION AND ELEVATION OF WALL-MOUNTED DEVICES WITH PRESENTATION BOARDS, DISPLAY CABINETS, SHELVES OR OTHER COMPONENTS SHOWN ON THE ARCHITECTURAL DRAWINGS THAT ARE TO BE INSTALLED UNDER OTHER DIVISIONS. CONTRACTOR WILL NOT BE REIMBURSED FOR RELOCATION OF WALL-MOUNTED DEVICES CAUSED BY A LACK OF COORDINATION.
- PROVIDE A MANUAL BALANCING DAMPER IN EACH DUCT TAKEOFF FROM SUPPLY, RETURN, OUTDOOR AND EXHAUST AIR DUCTS.
- PROVIDE A PREFABRICATED 45 DEGREE, HIGH EFFICIENCY, RECTANGULAR/ROUND BRANCH DUCT TAKEOFF FITTING FOR BRANCH DUCT CONNECTIONS AND TAKE-OFFS TO INDIVIDUAL DIFFUSERS, REGISTERS AND GRILLES. PROVIDE WITH INTEGRAL MANUAL BALANCING DAMPER AND LOCKING QUADRANT WHERE INDICATED ON PLANS.
- BRANCH DUCTWORK TO AIR OUTLETS SHALL BE SAME SIZE AS OUTLET NECK SIZE UNLESS OTHERWISE NOTED.
- REFER TO SPECIFICATIONS FOR DUCTWORK AND PIPING INSULATION REQUIREMENTS. DUCT SIZES ON MECHANICAL PLANS INDICATE CLEAR INSIDE AIRFLOW DIMENSIONS, INCREASE SHEET METAL SIZES ACCORDINGLY TO ACCOUNT FOR THICKNESS OF DUCT LINER.
- FLEXIBLE DUCTWORK SHALL NOT EXCEED 5'-0" IN LENGTH AND SHALL BE INSTALLED AND SUPPORTED TO AVOID SHARP BENDS AND SAGGING. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. EQUIREMENTS FOR GREASE DUCT ENCLOSURES.
- PROVIDE WALL MOUNTED LOUVERS AND DAMPERS WITH SUITABLE MOUNTING FRAME TO MATCH WALL CONSTRUCTION. COORDINATE WITH ARCHITECTURAL DRAWINGS.
- PROVIDE A NEW SET OF AIR FILTERS IN UNITS PRIOR TO TESTING, ADJUSTING AND BALANCING AND BEFORE TURNING SYSTEM(S) OVER TO OWNER.
- FIELD VERIFY THAT THE EXISTING EQUIPMENT INCLUDING ACCESSORIES BEING REUSED FOR THIS PROJECT IS NOT DAMAGED AND IS IN GOOD WORKING ORDER. REPORT ANY DEFICIENCIES TO THE OWNER OR ARCHITECT. SUBMIT TO THE OWNER AND ARCHITECT A WRITTEN REPORT DESCRIBING TESTS PERFORMED TO VERIFY OPERATION AND RESULTS OF THE TESTS.
- CLEAN EXISTING EQUIPMENT AND EQUIPMENT COMPONENTS BEING REUSED FOR THIS PROJECT. PROVIDE NEW FILTERS FOR EXISTING AIR HANDLING EQUIPMENT PRIOR TO STARTUP OF EQUIPMENT. NEW FILTERS SHALL BE COMPATIBLE WITH THE EXISTING EQUIPMENT AND EQUAL IN PERFORMANCE TO THE EXISTING FILTERS AT NEW CONDITION UNLESS OTHERWISE NOTED. CLEAN STRAINERS IN PIPING SYSTEMS PRIOR TO STARTING PUMPS.
- CLEAN THE EXTERIOR OF EXISTING COILS TO BE REUSED FOR THIS PROJECT. VACUUM BRUSH THE COIL IN THE DIRECTION OF THE FINS AND CLEAN THE COILS WITH COIL CLEANING FLUID. COMB ANY FINS BENT TO PROVIDE A STRAIGHT SURFACE FOR AIRFLOW.
- LUBRICATE EXISTING EQUIPMENT BEING REUSED FOR THIS PROJECT IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. OBTAIN INSTRUCTIONS FROM MANUFACTURER IF THEY ARE NOT AVAILABLE AT THE SITE.

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EXPIRES 12/31/2020



CARL J. HOLDEN
October 6 2020
LICENSE # PE-2020016283

REVISIONS

Number	DESCRIPTION	DATE
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PROJECT NO: 0220-2100
DATE: OCTOBER 5, 2020

MECHANICAL GENERAL NOTES AND LEGEND

M-000

MIC SECOND FLOOR RENOVATION

MECHANICAL DEMOLITION PLAN NOTES:
MD2 RELOCATE EXISTING SUPPLY DIFFUSER. RE-USE AS MUCH EXISTING DUCTWORK AS POSSIBLE. REFER TO NEW WORK PLAN FOR NEW LOCATION AND NEW DUCT PATHS PRIOR TO DEMO. REFER TO PLAN NOTE M1 ON M-102.D
MD3 RELOCATE AND RE-USE EXISTING BALANCING DAMPER. REFER TO NEW PLANS FOR LOCATION.
MD4 READ ALL AIRFLOWS PRIOR TO DOING ANY DEMO WORK.

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HVAC Level 2 DEMO
PLAN - AREA D

MD-102.D

MIC SECOND FLOOR
RENOVATION

1 HVAC Level 2 DEMO PLAN - AREA D
1/8" = 1'-0"

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MECHANICAL PLAN NOTES:

- M1 SALVAGE AND RELOCATE EXISTING SUPPLY DIFFUSER. EXTEND DUCTWORK TO NEW DIFFUSER AND RE-USE EXISTING DUCTWORK AS MUCH AS POSSIBLE.
M2 ADJUST EXISTING AIR DEVICES AS NECESSARY TO ALIGN IN NEW RCP.
M3 EVENLY SPACE SUPPLY DIFFUSERS BETWEEN THE TWO WALLS.
M5 BOTTOM OF GRILLE TO BE PLACED 11'-0" AFF.
M6 RELOCATE EXISTING BALANCING DAMPER TO AVOID NEW WALL.
M7 ELBOW DUCT UP AND LEAVE OPEN TO PLENUM.
M8 BOTTOM OF GRILLE TO BE PLACED 10'-0" AFF.
M9 PLACE BOTH RETURN GRILLED CENTERED IN SOFFIT.
M10 CANNOT USE FLEX DUCT FOR DIFFUSER CONNECTIONS WHERE DUCTWORK IS EXPOSED. (TYP)

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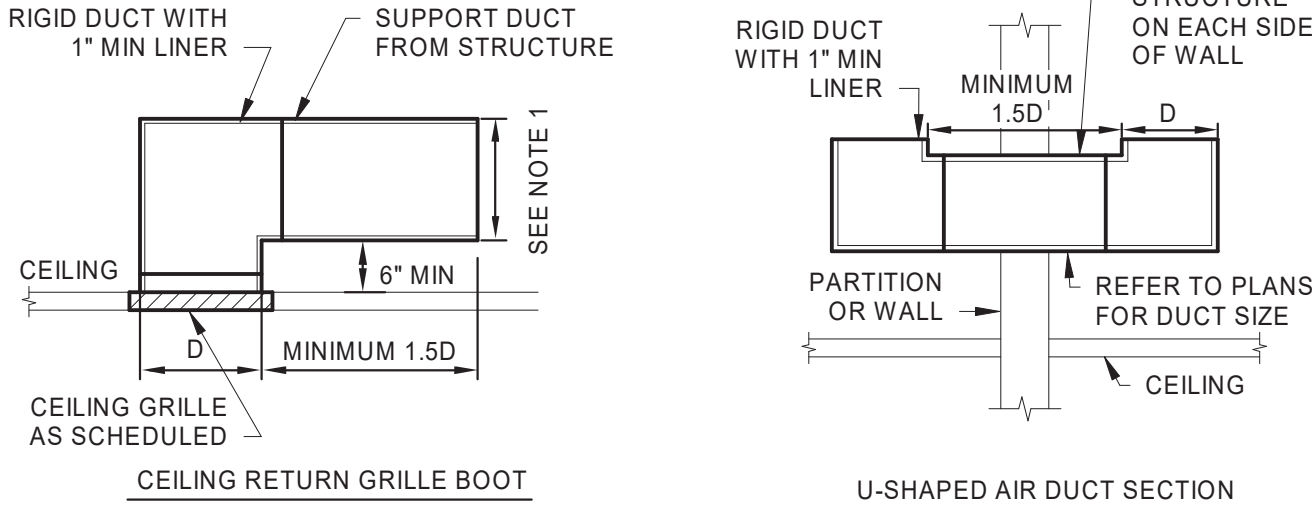
HVAC Level 2 PLAN -
AREA D

M-102.D

MIC SECOND FLOOR
RENOVATION

1 HVAC Level 2 PLAN - AREA D
1/8" = 1'-0"

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- NOTES:
1. REFER TO FLOOR PLAN FOR OUTLET DEPTH. WHEN NO DEPTH IS SHOWN, MINIMUM DEPTH SHALL BE AS REQUIRED TO LIMIT AIR VELOCITY TO 500 FPM WITH A MINIMUM SIZE OF 0.5D.

① RETURN/TRANSFER AIR DUCT DETAIL

GRILLE, REGISTER AND DIFFUSER SCHEDULE

MARK	MANUFACTURER	MODEL	FACE TYPE	MOUNTING LOCATION	FACE SIZE (IN)	MAX NC	MAX PRESS'DROP (IN W.C.)	NOTES
RG-1	PRICE	80	EGGCRATE	CEILING	24"x24"	25	0.05	A,C
RG-2	PRICE	530	LOUVERED	SIDEWALL	REFER TO PLANS	25	0.05	A,B,C

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES:

- A. PAINTABLE FINISH. COORDINATE WITH ARCHITECT ON COLOR.
- B. FRONT BLADES PARALLEL TO LONG DIMENSION.
- C. FRAME TYPE TO MATCH CEILING CONSTRUCTION. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLAN.

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PROJECT NO: 0220-2100
DATE: OCTOBER 5, 2020

MECHANICAL DETAILS
AND SCHEDULES

M-301

MIC SECOND FLOOR
RENOVATION

ELECTRICAL PLAN NOTES:
E2 EXISTING LIGHT FIXTURE/LIGHTING CONTROL DEVICE.
REFER TO E-102.D FOR NEW LOCATION.

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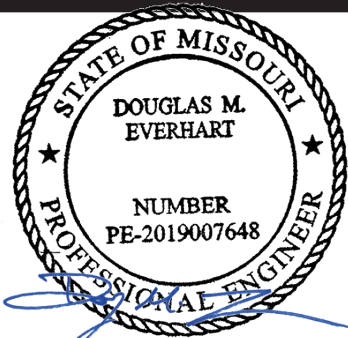
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DOUGLAS M. EVERHART
LICENSE # PE-2019007648

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Number	DESCRIPTION	DATE
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PROJECT NO: 0220-2100
DATE: OCTOBER 5, 2020

LIGHTING Level 2
DEMO RCP - AREA D

ED-102.D

MIC SECOND FLOOR
RENOVATION

1 LIGHTING Level 2 DEMO RCP - AREA D
1/8" = 1'-0"

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DOUGLAS M. EVERHART

ELECTRICAL PLAN NOTES:

E5 PRESERVE EXISTING HOMERUN DURING CONSTRUCTION.
EXTEND CIRCUIT TO NEW RECEPTACLES AS SHOWN ON
SHEET E-202.D.

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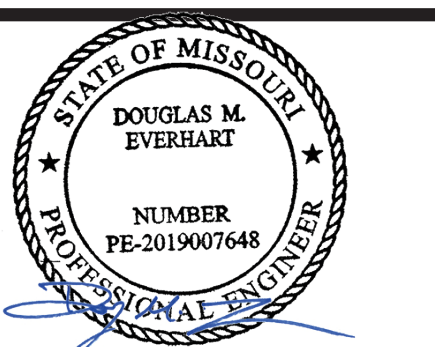
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PROJECT NO: 0220-2100
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**POWER Level 2 DEMO
PLAN - AREA D**

ED-202.D

**MIC SECOND FLOOR
RENOVATION**

1 POWER Level 2 DEMO PLAN - AREA D
1/8" = 1'-0"

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ELECTRICAL PLAN NOTES:
E1 NEW LOCATION FOR EXISTING LIGHT FIXTURE/LIGHTING CONTROL DEVICE. REFER TO ED-102.D FOR MORE INFORMATION.
E3 REUSE BRANCH CIRCUITING IN THE SPACE AND REZONE LIGHTING CONTROLS AS INDICATED.

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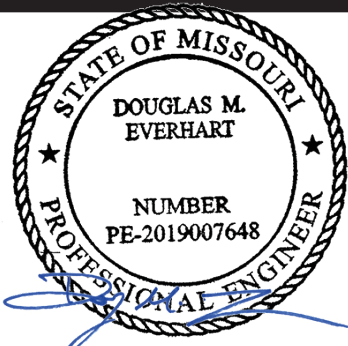
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PROJECT NO: 0220-2100
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LIGHTING Level 2 RCP -
AREA D

E-102.D

MIC SECOND FLOOR
RENOVATION

1 LIGHTING Level 2 RCP - AREA D
1/8" = 1'-0"

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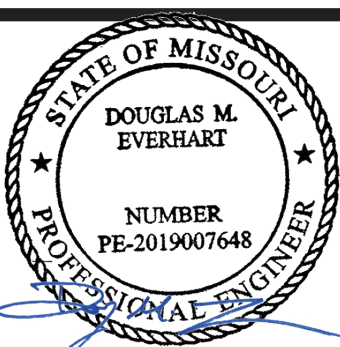
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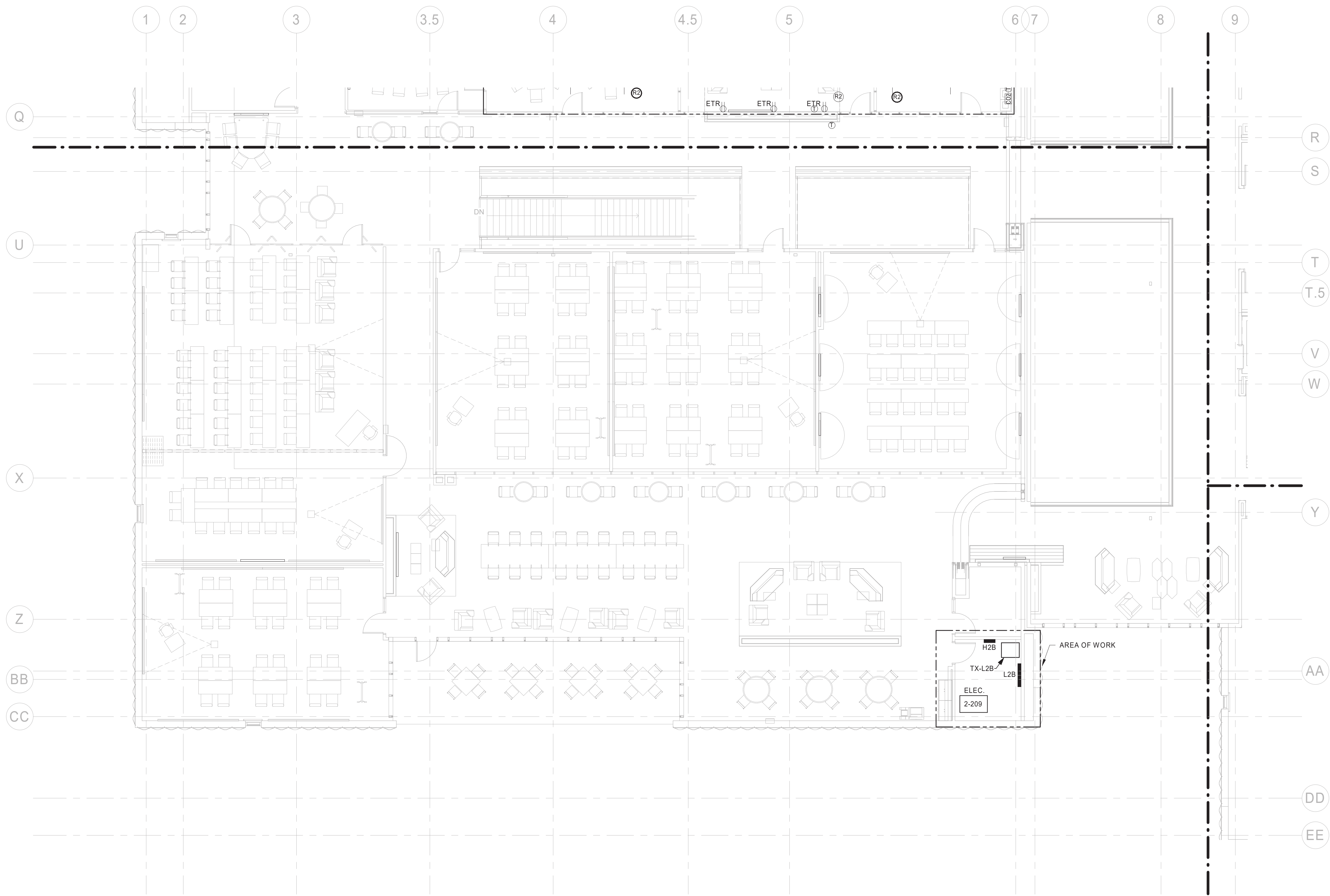
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PROJECT NO: 0220-2100
DATE: OCTOBER 5, 2020

POWER Level 2 PLAN -
AREA B

E-202.B

MIC SECOND FLOOR
RENOVATION



POWER Level 2 PLAN - AREA B
1/8" = 1'-0"

ELECTRICAL PLAN NOTES:
E6 EXTEND EXISTING CIRCUIT TO NEW RECEPTACLES. REFER TO DEMO SHEET ED-202.D FOR MORE INFORMATION.

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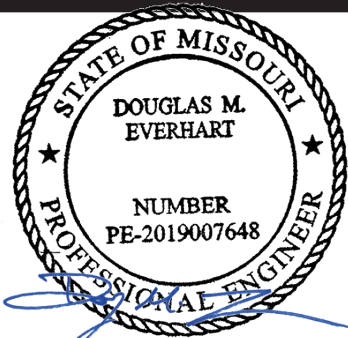
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0550023106
MO CORPORATE NO. E-5560
EXPIRES 12/31/2020



Oct 6 2020

DOUGLAS M. EVERHART
LICENSE # PE-2019007648

REVISIONS

Number	DESCRIPTION	DATE
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PROJECT NO: 0220-2100
DATE: OCTOBER 5, 2020

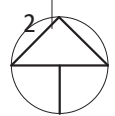
POWER Level 2 PLAN -
AREA D

E-202.D

MIC SECOND FLOOR
RENOVATION

1 POWER Level 2 PLAN - AREA D
1/8" = 1'-0"

PRINT DATE/TIME: 10/6/2020 12:12:41 PM



PANELBOARD: L2B (EXISTING)										FED FROM: TX-L2B					LINE-SIDE LUGS: MECHANICAL				
BUS AMPS: 250A										AIC RATING: REF. 1-LINE DIAGRAM FULLY RATED					EQUIPMENT GROUND BUS				
MAIN SIZE/TYPE: MLO										SERVES:									
VOLTS/PHASE: 208Y/120V, 3PH, 4W										MOUNTING: SURFACE									
SECTION: 1										LOCATION: ELECTRICAL ROOM, ROOM #.B209									
CKT NO.	DESCRIPTION	VOLTAMPS/PHASE			WIRE NO.	BKR AMP	P	P	BKR AMP	WIRE NO.	VOLTAMPS/PHASE			DESCRIPTION	CKT NO.				
		A	B	C							A	B	C						
1	EXISTING LOAD TO REMAIN	560			12	15	1	1	20	12	1,080			EXISTING LOAD TO REMAIN	2				
3	EXISTING LOAD TO REMAIN		90		12	20	1	1	20	12		1,620		EXISTING LOAD TO REMAIN	4				
5	EXISTING LOAD TO REMAIN			90	12	20	1	1	20	12			360	EXISTING LOAD TO REMAIN	6				
7	EXISTING LOAD TO REMAIN	900			12	20	1	1	20	12	720			EXISTING LOAD TO REMAIN	8				
9	EXISTING LOAD TO REMAIN		800		12	20	1	1	20	12		1,080		EXISTING LOAD TO REMAIN	10				
11	EXISTING LOAD TO REMAIN			200	10	20	1	1	20	12			1,440	EXISTING LOAD TO REMAIN	12				
13	EXISTING LOAD TO REMAIN	1,200			12	20	1	1	20	12	1,440			EXISTING LOAD TO REMAIN	14				
15	EXISTING LOAD TO REMAIN		1,200		10	20	1	1	20	12		1,080		EXISTING LOAD TO REMAIN	16				
17	EXISTING LOAD TO REMAIN			500	10	20	1	1	20	10			1,080	EXISTING LOAD TO REMAIN	18				
19	EXISTING LOAD TO REMAIN	500			10	20	1	1	20	10	1,080			EXISTING LOAD TO REMAIN	20				
21	EXISTING LOAD TO REMAIN		500		10	20	1	1	20	10		900		EXISTING LOAD TO REMAIN	22				
23	EXISTING LOAD TO REMAIN			500	10	20	1	1	20	10			900	EXISTING LOAD TO REMAIN	24				
25	EXISTING LOAD TO REMAIN	500			12	20	1	1	20	10	900			EXISTING LOAD TO REMAIN	26				
27	EXISTING LOAD TO REMAIN		500		12	20	1	1	20	10		1,080		EXISTING LOAD TO REMAIN	28				
29	EXISTING LOAD TO REMAIN			1,080	12	20	1	1	20	10			1,080	EXISTING LOAD TO REMAIN	30				
31	EXISTING LOAD TO REMAIN	1,080			12	20	1	1	20	12	1,080			EXISTING LOAD TO REMAIN	32				
33	MONITORS - 2-250 & 2-251		1,080		10	20	1	1	20	12		1,080		EXISTING LOAD TO REMAIN	34				
35	EXISTING LOAD TO REMAIN			540	10	20	1	1	20	12			1,440	EXISTING LOAD TO REMAIN	36				
37	EXISTING LOAD TO REMAIN	720			10	20	1	1	20	10	1,260			EXISTING LOAD TO REMAIN	38				
39	EXISTING LOAD TO REMAIN		1,080		10	20	1	1	20	12		1,080		EXISTING LOAD TO REMAIN	40				
41	EXISTING LOAD TO REMAIN			720	10	20	1	1	20	12			900	EXISTING LOAD TO REMAIN	42				
43	EXISTING LOAD TO REMAIN	360			10	20	1	1	20	12	1,260			EXISTING LOAD TO REMAIN	44				
45	EXISTING LOAD TO REMAIN		870		12	20	1	1	20	12		1,260		EXISTING LOAD TO REMAIN	46				
47	EXISTING LOAD TO REMAIN			1,200	12	20	1	1	20	10			660	EXISTING LOAD TO REMAIN	48				
49	EXISTING LOAD TO REMAIN	1,200			12	20	1	1	20	10	660			EXISTING LOAD TO REMAIN	50				
51	EXISTING LOAD TO REMAIN		1,080		12	20	1	1	20	10		660		EXISTING LOAD TO REMAIN	52				
53	EXISTING LOAD TO REMAIN			1,080	12	20	1	1	20	10			660	EXISTING LOAD TO REMAIN	54				
55	EXISTING LOAD TO REMAIN	180			12	20	2	1	20	10	660			EXISTING LOAD TO REMAIN	56				
57			180				1	1	20	10		660		EXISTING LOAD TO REMAIN	58				
59	RCPTS - 2-251, 2-252			900	10	20	1	1	20	10			660	EXISTING LOAD TO REMAIN	60				
61	SPARE				EX	1	1	20	10	660				EXISTING LOAD TO REMAIN	62				
63	SPARE				EX	1	1	20	10			900		EXISTING LOAD TO REMAIN	64				
65	SPARE				EX	1	1	20	10				900	EXISTING LOAD TO REMAIN	66				
67	SPARE				EX	1	1	20	10	720				EXISTING LOAD TO REMAIN	68				
69	SPARE				EX	1	1	20	10		1,260			EXISTING LOAD TO REMAIN	70				
71	SPARE				EX	1	1	20	10			720		EXISTING LOAD TO REMAIN	72				
73	SPARE				EX	1	1	20	12	360				EXISTING LOAD TO REMAIN	74				
75	EQUIPPED SPACE						1	1						EQUIPPED SPACE	76				
77	EQUIPPED SPACE						1	1						EQUIPPED SPACE	78				
79	EQUIPPED SPACE						1	1						EQUIPPED SPACE	80				
81	EQUIPPED SPACE						1	1						EQUIPPED SPACE	82				
83	EQUIPPED SPACE						1	1						EQUIPPED SPACE	84				
SUBTOTAL		7,200	7,380	6,810							11,880	12,660	10,800	SUBTOTAL					
TOTAL PHASE A - VA		19,080	LOAD		CONN. VA		DF		LOAD		CONN. VA		DF		TOTAL DEMAND				
AMPS		159	COOLING (C)		560		1.00		REFRIG (F)				1.00						
TOTAL PHASE B - VA		20,040	HEATING (H)		560		0		SIGN/DISP (D)				1.25						
AMPS		167	LIGHTING (L)		2,435		1.25		KITCHEN (K)				1.00						
TOTAL PHASE C - VA		17,610	RECEPTACLES (R)		47,880		1.0/5		EXISTING (E)				1.00						
AMPS		147	MOTORS (M)				1.00		LRG MOTOR		870		1.25						
TOTAL PNLBD - VA		56,730	SUPP HEAT (U)				1.00		SHOW WND (W)				1.25		37,651 VA				
AMPS		157	MISC EQUIP (Z)		4,020		1.00		LTG TRACK				1.00		105 A				
PANELBOARD NOTES																			
SINGLE SECTION PANELBOARD																			

PANELBOARD LEGEND	
ABBREVIATIONS	V1.00
AF	ARC FAULT CIRCUIT INTERRUPTER.
C#	CIRCUIT VIA LIGHTING CONTACTOR #.
CL	CIRCUIT VIA CURRENT LIMITING DEVICE.
D	DISCONNECT CIRCUITRY FOR REMOVED LOAD. UPDATE CIRCUIT DIRECTORY TO SPARE AND TURN OFF.
EM	EMERGENCY LIGHTING HANDLE-ON CLAMP.
EX	EXISTING.
F	FUTURE LOAD; NOTE AS SPARE AND TURN OFF.
FA	RED HANDLE-ON CLAMP.
GF	GROUND-FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER (5 mA).
GFEP	GROUND FAULT EQUIPMENT PROTECTION BREAKER (30 mA).
HT	PROVIDE HANDLE-TIE FOR MULTI-WIRE BRANCH CIRCUIT PER CODE.
IG	ISOLATED GROUND CIRCUIT.
L#	LIGHTING CONTROL SCHEME NUMBER.
LCK	HANDLE PADLOCKABLE-OFF DEVICE.
LO	HANDLE-ON CLAMP.
N	PROVIDE NEW CIRCUIT BREAKER.
OL	REFER TO ELECTRICAL ONE-LINE/RISER DIAGRAM.
PS	POWER-SWITCHING CIRCUIT BREAKER.
PSE	EMERGENCY POWER-SWITCHING CIRCUIT BREAKER.
R	REUSE EXISTING CIRCUIT BREAKER FOR NEW/REVISED LOAD.
RP	CIRCUIT VIA RELAY PANEL.
ST	SHUNT TRIP CIRCUIT BREAKER.
V	VERIFY EXISTING LOAD AND UPDATE DIRECTORY. IF UNUSED, NOTE AS SPARE AND TURN OFF.
VD	BRANCH CIRCUITRY HAS BEEN UPSIZED TO REDUCE VOLTAGE DROP. ADJUST GROUND WIRE SIZE PER CODE. PROVIDE LUG ADAPTORS IF REQUIRED.
Z	CORRECT/REPAIR EXISTING HAZARD TO MAKE CODE COMPLIANT INSTALLATION.
NOT ALL ABBREVIATIONS ARE USED.	

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2050023106
MO CORPORATE NO. E-5560
EXPIRES 12/31/2020



Oct 6 2020

DOUGLAS M. EVERHART
LICENSE # PE-2019007648

REVISIONS

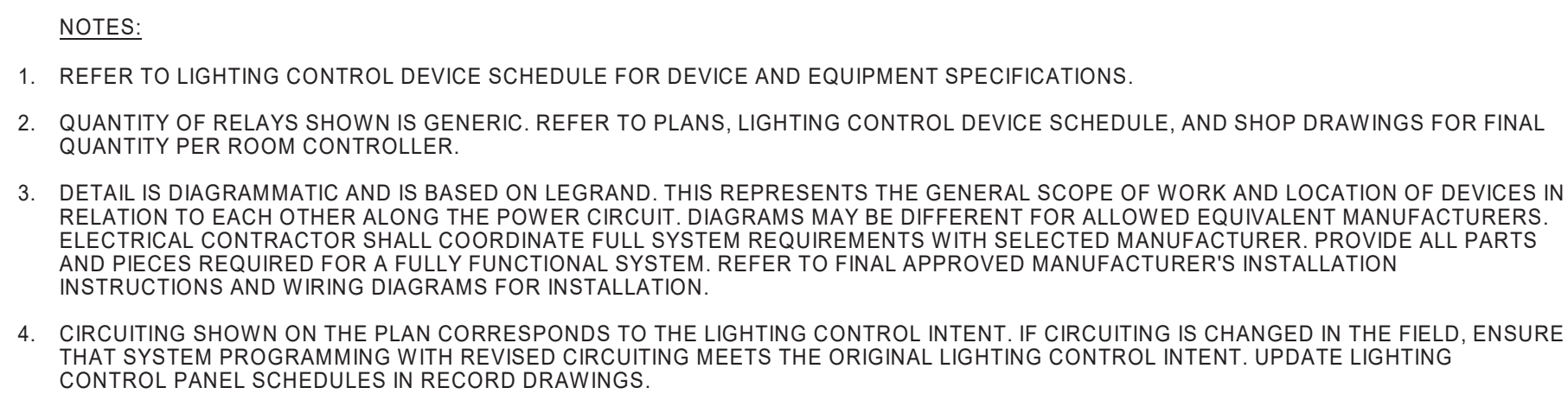
Number DESCRIPTION DATE

PROJECT NO: 0220-2100
DATE: OCTOBER 5, 2020

ELECTRICAL SCHEDULES AND ONE-LINE

E-600

MIC SECOND FLOOR RENOVATION



The diagram illustrates a 4-position 1P+N switch. On the left, a vertical 4-position indicator is shown with positions 1, 2, 3, and 4. To its right is a 4-position switch mechanism. The switch mechanism has a top section labeled "SWITCH TAG:" and a bottom section labeled "\$LV4:". The bottom section is divided into three columns: "BUTTON:", "LABEL:", and "ZONES:". The buttons are numbered 1 through 4, and the labels are "FULL ON", "A/V", "DIM ON", and "ALL OFF". The zones are "a.b - 100%", "a - 0%, b 50%", "a.b - 10%", and "a.b - 0% (OFF)".

SWITCH TAG:		
\$LV4:		
BUTTON:	LABEL:	ZONES:
1:	FULL ON	a.b - 100%
2:	A/V	a - 0%, b 50%
3:	DIM ON	a.b - 10%
4:	ALL OFF	a.b - 0% (OFF)

1 PROVIDE SUFFICIENT LENGTH TO MOVE CENTER OF LUMINAIRE IN A 5'-0"

2 RADIUS OF THE LOCATION SHOWN ON THE PLANS.
RMC OR EMT (UNLESS TYPE MC CABLE IS ALLOWED BY SPECIFICATIONS. IF MORE THAN 4 CURRENT CARRYING CONDUCTORS INCLUDING NEUTRALS, MC CABLE IS NOT ALLOWED).



NETWORK LIGHTING CONTROL SYSTEMS						
NETWORK OCCUPANCY SENSORS						
SYMBOL TAG	MANUFACTURER MODEL/SERIES	ALTERNATE MANUFACTURER ACUITY, ETC	DEVICE DESCRIPTION	COVERAGE (W X D) MAJOR TV Ø MINOR Ø Ø	VOLTAGE	NOTES
1	LEGAND LMPC-100-S		CEILING MOUNT PASSIVE INFRARED OCCUPANCY SENSOR. 360 DEGREE COVERAGE. DIGITAL (2) RJ45 PORTS. IR TRANSDUCER FOR WIRELESS SETUP. UP TO 40' MOUNTING HEIGHT.		24	
NETWORK ROOM CONTROLLERS (POWER PACK)						
SYMBOL TAG	MANUFACTURER MODEL/SERIES	ALTERNATE MANUFACTURER ACUITY, CRESTRON ETC, HUBBELL	DEVICE DESCRIPTION		VOLTAGE	NOTES
R2	LEGAND LMC-212 (0-10V)		DIGITAL ROOM CONTROLLER FOR ON/OFF/0-10V DIMMING CONTROL OF LIGHTING LOADS. (1) 20A LOAD INPUT. (2) RELAY OUTPUTS. 100mA SINK PER RELAY. MANUAL-, PARTIAL-, AND AUTO-ON MODES.		120V / 277	
NETWORK LIGHTING SWITCHES						
SYMBOL TAG	MANUFACTURER MODEL/SERIES	ALTERNATE MANUFACTURER ACUITY, CRESTRON ETC, HUBBELL	DEVICE DESCRIPTION		VOLTAGE	NOTES
LV4	LEGAND LMSW-100 SERIES		DIGITAL MULTI-1-BUTTON SWITCH FOR MANUAL ON/OFF AND SCENE CONTROL. EACH BUTTON CAN ALSO DIM DOWN/UP DOWN AND HAS INTEGRAL LED THAT ILLUMINATES WHEN LOAD IS ON. (2) RJ45 PORTS. IR TRANSDUCER FOR WIRELESS SETUP. SWITCH DESIGNATIONS VARY PER PROJECT; REFER TO LIGHTING PLANS AND/OR SWITCH SCHEDULE FOR PROGRAMMING.		24	1

A. OCCUPANCY SENSOR LAYOUT DESIGNED FROM BASIS-OF-DESIGN COVERAGE PATTERNS. IF SUBMITTING ALTERNATE PER EQUIVALENT MANUFACTURER COLUMN, ADJUST SENSOR QUANTITIES AND LOCATIONS PER MANUFACTURER-SPECIFIC SPACING CRITERIA.

B. PROVIDE A SHIP OR SHIP EQUIVALENT LAYOUT FOR EACH ROOM THAT INCLUDES THE LOCATION OF ALL PROJECT-SPECIFIC LAYOUTS. LAYOUT MUST INCLUDE SENSOR LOCATIONS, HEIGHTS, ORIENTATION, AND COVERAGE AREAS. SHOW COORDINATION WITH ALL OTHER CEILING DEVICES INCLUDING BUT NOT LIMITED TO HVAC SUPPLY AND RETURN GRILLES, SPRINKLERS, LIGHT FIXTURES, AND OTHER OWNER-PROVIDED CEILING MOUNTED DEVICES SUCH AS SPEAKERS, SECURITY CAMERAS, PROJECTORS, ETC. (SENSORS MAY BE ADVERSELY AFFECTED IF LOCATED TOO CLOSE TO OTHER UNMOUNTED DEVICES). ALSO PROVIDE SCHEDULED AND UNSCHEDULED WHEN APPlicable.

C. LIGHTING CONTROLS SHALL BE COMPLETELY SEPARATE OF ANY LIGHT FIXTURE PRICING.

D. VERIFY COORDINATE) FOR ALL WALL AND CEILING MOUNTED DEVICES WITH THE ARCHITECT.

E. ALL WALL SWITCH AND CEILING SENSORS SHALL HAVE AN ADJUSTABLE TIME DELAY RANGE OF 0-30 MIN. UNO. CONFIRM SENSOR SETTINGS WITH SEQUENCE OF OPERATIONS AND OWNER PRIOR TO SYSTEM COMMISSIONING.

F. PROVIDE COPIES OF OPERATION AND MAINTENANCE INSTRUCTIONS FOR ALL DEVICES TO OWNER.

G. PROVIDE A NEUTRAL CONDUCTOR TO ALL WALL SWITCH LOCATIONS PER NEC REQUIREMENTS.

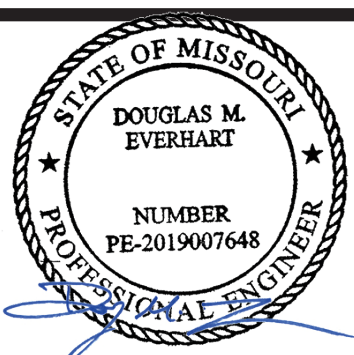
H. DO NOT SHARE NEUTRAL CONDUCTOR ON LOAD SIDE OF DIMMERS.

NOTES

1. PROVIDE ENGRAVED BUTTONS MATCHING "LABEL" COLUMN ON SWITCH ELEVATION. REFER TO SPECIFICATIONS FOR MORE INFORMATION.

1. Manual Control: Occupant can manually control lights via local switch(es). Digital four-button low voltage switch with capability of scene recall and dimming.
2. Occupancy: Occupant must manually turn on lights.
3. Vacancy: After 20 minutes, all controlled loads shall turn off.

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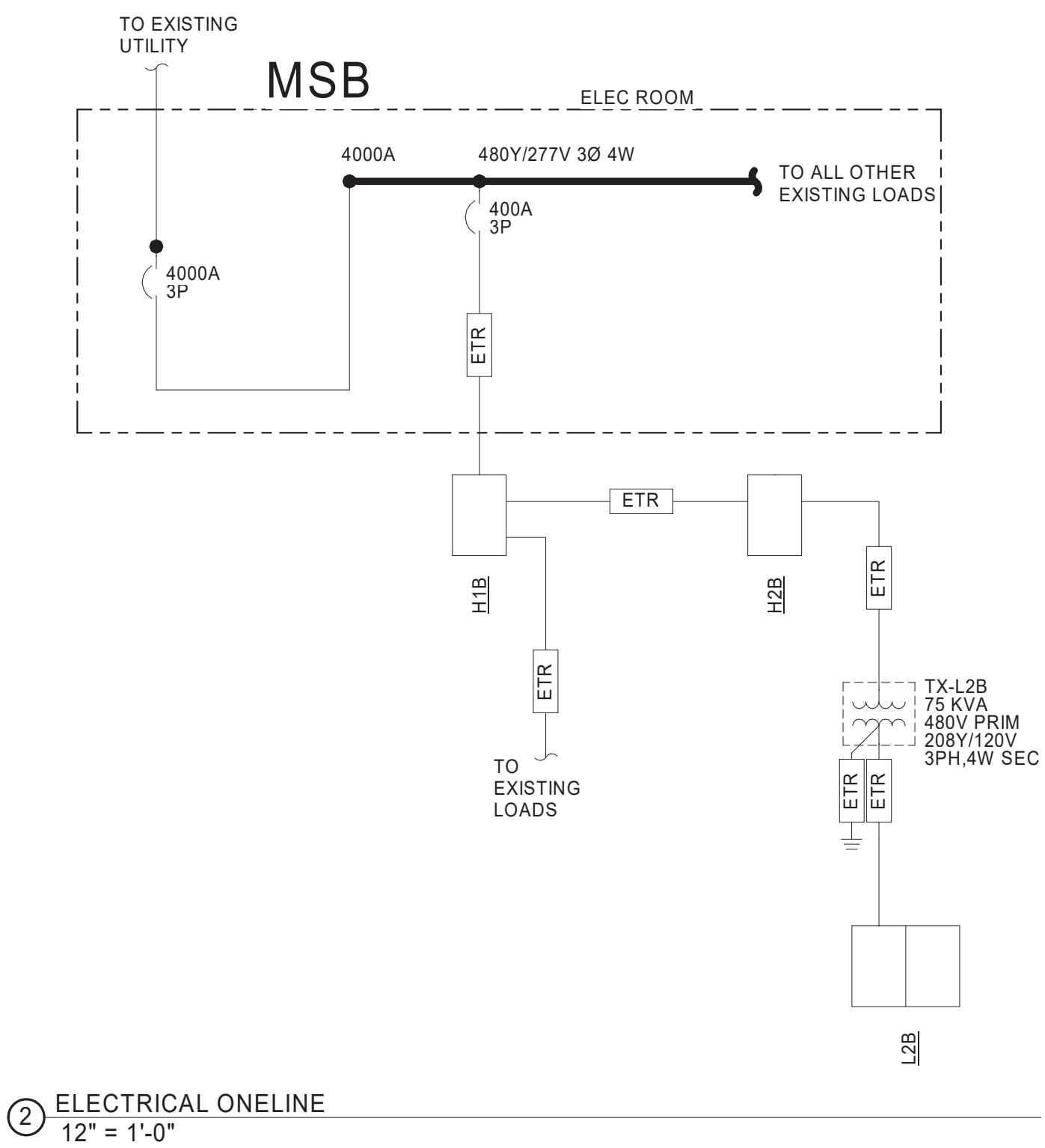
DOUGLAS M. EVERHART
LICENSE # PE-2019007648

Number	DESCRIPTION	DATE
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MIC SECOND FLOOR RENOVATION

PANELBOARD: L2B (EXISTING)					FED FROM: TX-L2B					LINE-SIDE LUGS: MECHANICAL					
BUS AMPS: 250A					AIC RATING: REF. 1-LINE DIAGRAM FULLY RATED					EQUIPMENT GROUND BUS					
MAIN SIZE/TYPE: MLO					SERVES:										
VOLTS/PHASE: 208Y/120V, 3PH, 4W					MOUNTING: SURFACE										
SECTION: 1					LOCATION: ELECTRICAL ROOM, ROOM #B209										
CKT NO.	DESCRIPTION	VOLTAMPS/PHASE			WIRE NO.	BKR AMP	P	P	BKR AMP	WIRE NO.	VOLTAMPS/PHASE			DESCRIPTION	CKT NO.
		A	B	C							A	B	C		
1	EXISTING LOAD TO REMAIN	560			12	15	1	1	20	12	1,080		EXISTING LOAD TO REMAIN	2	
3	EXISTING LOAD TO REMAIN		90		12	20	1	1	20	12		1,620	EXISTING LOAD TO REMAIN	4	
5	EXISTING LOAD TO REMAIN			90	12	20	1	1	20	12		360	EXISTING LOAD TO REMAIN	6	
7	EXISTING LOAD TO REMAIN	900			12	20	1	1	20	12	720		EXISTING LOAD TO REMAIN	8	
9	EXISTING LOAD TO REMAIN		800		12	20	1	1	20	12		1,080	EXISTING LOAD TO REMAIN	10	
11	EXISTING LOAD TO REMAIN			200	10	20	1	1	20	12		1,440	EXISTING LOAD TO REMAIN	12	
13	EXISTING LOAD TO REMAIN	1,200			12	20	1	1	20	12	1,440		EXISTING LOAD TO REMAIN	14	
15	EXISTING LOAD TO REMAIN		1,200		10	20	1	1	20	12		1,080	EXISTING LOAD TO REMAIN	16	
17	EXISTING LOAD TO REMAIN			500	10	20	1	1	20	10		1,080	EXISTING LOAD TO REMAIN	18	
19	EXISTING LOAD TO REMAIN	500			10	20	1	1	20	10	1,080		EXISTING LOAD TO REMAIN	20	
21	EXISTING LOAD TO REMAIN		500		10	20	1	1	20	10		900	EXISTING LOAD TO REMAIN	22	
23	EXISTING LOAD TO REMAIN			500	10	20	1	1	20	10		900	EXISTING LOAD TO REMAIN	24	
25	EXISTING LOAD TO REMAIN	500			12	20	1	1	20	10	900		EXISTING LOAD TO REMAIN	26	
27	EXISTING LOAD TO REMAIN		500		12	20	1	1	20	10		1,080	EXISTING LOAD TO REMAIN	28	
29	EXISTING LOAD TO REMAIN			1,080	12	20	1	1	20	10		1,080	EXISTING LOAD TO REMAIN	30	
31	EXISTING LOAD TO REMAIN	1,080			12	20	1	1	20	12	1,080		EXISTING LOAD TO REMAIN	32	
33	MONITORS - 2-250 & 2-251		1,080		10	20	1	1	20	12		1,080	EXISTING LOAD TO REMAIN	34	
35	EXISTING LOAD TO REMAIN			540	10	20	1	1	20	12		1,440	EXISTING LOAD TO REMAIN	36	
37	EXISTING LOAD TO REMAIN	720			10	20	1	1	20	10	1,260		EXISTING LOAD TO REMAIN	38	
39	EXISTING LOAD TO REMAIN		1,080		10	20	1	1	20	12		1,080	EXISTING LOAD TO REMAIN	40	
41	EXISTING LOAD TO REMAIN			720	10	20	1	1	20	12		900	EXISTING LOAD TO REMAIN	42	
43	EXISTING LOAD TO REMAIN	360			10	20	1	1	20	12	1,260		EXISTING LOAD TO REMAIN	44	
45	EXISTING LOAD TO REMAIN		870		12	20	1	1	20	12		1,260	EXISTING LOAD TO REMAIN	46	
47	EXISTING LOAD TO REMAIN			1,200	12	20	1	1	20	10		660	EXISTING LOAD TO REMAIN	48	
49	EXISTING LOAD TO REMAIN	1,200			12	20	1	1	20	10	660		EXISTING LOAD TO REMAIN	50	
51	EXISTING LOAD TO REMAIN		1,080		12	20	1	1	20	10		660	EXISTING LOAD TO REMAIN	52	
53	EXISTING LOAD TO REMAIN			1,080	12	20	1	1	20	10		660	EXISTING LOAD TO REMAIN	54	
55	EXISTING LOAD TO REMAIN	180			12	20	2	1	20	10	660		EXISTING LOAD TO REMAIN	56	
57			180				1	1	20	10		660	EXISTING LOAD TO REMAIN	58	
59	RCPTS - 2-251, 2-252			900	10	20	1	1	20	10		660	EXISTING LOAD TO REMAIN	60	
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71	SPARE				EX	1	1	1	20	10		720	EXISTING LOAD TO REMAIN	72	
73	SPARE				EX	1	1	1	20	12	360		EXISTING LOAD TO REMAIN	74	
75	EQUIPPED SPACE						1	1					EQUIPPED SPACE	76	
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81	EQUIPPED SPACE						1	1					EQUIPPED SPACE	82	
83	EQUIPPED SPACE						1	1					EQUIPPED SPACE	84	
SUBTOTAL		7,200	7,380	6,810							11,880	12,660	10,800	SUBTOTAL	
TOTAL PHASE A - VA		19,080	LOAD		CONN. VA		DF	LOAD		CONN. VA		DF	TOTAL DEMAND		
AMPS		159	COOLING (C)		560		1.00	REFRIG (F)				1.00			
TOTAL PHASE B - VA		20,040	HEATING (H)		560		0	SIGN/DISP (D)				1.25			
AMPS		167	LIGHTING (L)		2,435		1.25	KITCHEN (K)				1.00			
TOTAL PHASE C - VA		17,610	RECEPTACLES (R)		47,880		1.0/.5	EXISTING (E)				1.00			
AMPS		147	MOTORS (M)				1.00	LRG MOTOR		870		1.25			
TOTAL PN.LBD - VA		56,730	SUPP HEAT (U)				1.00	SHOW WND (W)				1.25	37,651 VA		
AMPS		157	MISC EQUIP (Z)		4,020		1.00	LTG TRACK				1.00	105 A		
PANELBOARD NOTES															
SINGLE SECTION PANELBOARD															

PANELBOARD LEGEND	
ABBREVIATIONS	V1.00
AF	ARC FAULT CIRCUIT INTERRUPTER
CL	CIRCUIT VIA LIGHTING CONTACTOR #
CL	CIRCUIT VIA CURRENT LIMITING DEVICE
D	DISCONNECT CIRCUITRY FOR REMOVED LOAD, UPDATE CIRCUIT DIRECTORY TO SPARE AND TURN OFF.
EM	EMERGENCY LIGHTING HANDLE-ON CLAMP.
EX	EXISTING
F	FUTURE LOAD; NOTE AS SPARE AND TURN OFF.
FA	RED/HANDLE-ON CLAMP
GF	GROUND-FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER (5 mA).
GFEP	GROUND FAULT EQUIPMENT PROTECTION BREAKER (30 mA).
HT	PROVIDE HANDLE-TIE FOR MULTI-WIRE BRANCH CIRCUIT PER CODE.
IG	ISOLATED GROUND CIRCUIT
L#	LIGHTING CONTROL SCHEME NUMBER.
LCK	HANDLE PADLOCKABLE-OFF DEVICE.
LO	HANDLE-ON CLAMP.
N	PROVIDE NEW CIRCUIT BREAKER
OL	REFER TO ELECTRICAL ONE-LINE/RISER DIAGRAM.
PS	POWER-SWITCHING CIRCUIT BREAKER
PSE	EMERGENCY POWER-SWITCHING CIRCUIT BREAKER
R	REUSE EXISTING CIRCUIT BREAKER FOR NEW/REVISED LOAD.
RP	CIRCUIT VIA RELAY PANEL
ST	SHUNT TRIP CIRCUIT BREAKER
V	VERIFY EXISTING LOAD AND UPDATE DIRECTORY, IF UNUSED, NOTE AS SPARE AND TURN OFF
VD	BRANCH CIRCUITRY HAS BEEN UPSIZED TO REDUCE VOLTAGE DROP. ADJUST GROUND WIRE SIZE PER CODE. PROVIDE LUG ADAPTORS IF REQUIRED.
Z	CORRECT/REPAIR EXISTING HAZARD TO MAKE CODE COMPLIANT INSTALLATION.
NOT ALL ABBREVIATIONS ARE USED.	



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EXPIRES 12/31/2020



Oct 22 2020
DOUGLAS M. EVERHART
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REVISIONS

Number	DESCRIPTION	DATE
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PROJECT NO: 0220-2100
DATE: OCTOBER 5, 2020

ELECTRICAL
SCHEDULES AND
ONE-LINE

E-600

MIC SECOND FLOOR
RENOVATION

FIRE PROTECTION GENERAL DEMOLITION NOTES:

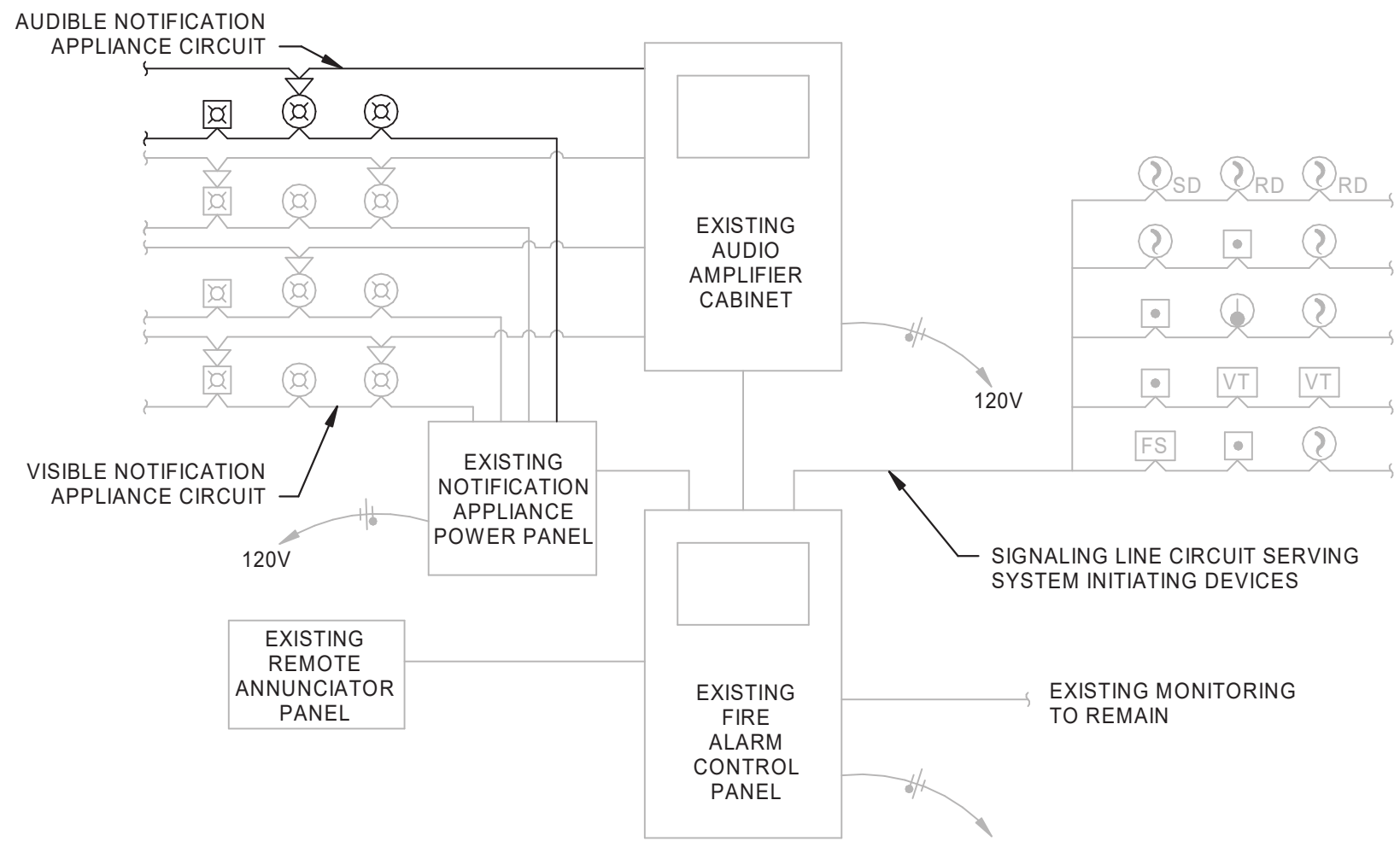
- COORDINATE ALL DEMOLITION WITH WHAT IS SHOWN ON ARCHITECTURAL PLANS. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
- COORDINATE NEW WORK AND DEMOLITION WITH OTHER DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER OR OWNER, AS DEFINED IN BID DOCUMENTS, OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID. ADDITIONAL COMPENSATION WILL NOT BE PAID FOR LACK OF SUCH DETERMINATION, FAMILIARIZATION, AND/OR ALLOWANCE.
- EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. COORDINATE NEW WORK AND DEMOLITION WITH OTHER DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- OWNER RETAINS RIGHTS OF SALVAGE FOR EQUIPMENT AND FIXTURES TO BE REMOVED. COORDINATE WITH THE OWNER THE EQUIPMENT AND FIXTURES TO BE SALVAGED AND THE LOCATION FOR STORAGE. AVOID DAMAGE TO EQUIPMENT DURING DEMOLITION WORK AND DURING TRANSPORT TO OWNER'S DESIGNATED STORAGE LOCATION. PROPERLY DISPOSE OF MATERIALS THAT ARE REMOVED AND ARE NOT REQUESTED TO BE SALVAGED BY THE OWNER.
- EQUIPMENT TO BE REMOVED SHALL BE KEPT FOR REINSTALLATION DURING THE CONSTRUCTION PHASE WHEN POSSIBLE AND/OR INDICATED ON THE DRAWINGS. AVOID DAMAGING EXISTING SURFACES AND EQUIPMENT TO REMAIN FOR NEW INSTALLATION. REPAIR ANY DAMAGE CAUSED DURING WORK AT NO EXTRA COST TO THE OWNER.
- SEAL PENETRATIONS THROUGH FLOORS, WALLS, CEILINGS AND ROOFS WHERE COMPONENTS ARE REMOVED AND WHERE THE EXISTING PENETRATION IS NOT USED FOR THE NEW INSTALLATION. REPAIR DAMAGED SURFACES TO MATCH ADJACENT AREAS OR AS INDICATED ON THE ARCHITECTURAL DRAWINGS.
- PERFORM ALL WORK ACCORDING TO THE PHASING SCHEDULE FOR THIS PROJECT. PROVIDE ALL TEMPORARY DESIGN AND/OR CONFIGURATIONS THAT MEET APPLICABLE CODE REQUIREMENTS AS NECESSARY TO CONFORM TO THE REQUIRED CONSTRUCTION PHASING OF THE PROJECT.
- ONLY THE PORTIONS OF THE BUILDING AFFECTED BY THE SCOPE OF THE PROJECT HAVE BEEN SHOWN. INFORMATION SHOWN AS EXISTING TO REMAIN IS NOT BEING MODIFIED AS A PART OF THIS PROJECT.
- ALL WORK SHALL BE PERFORMED SO AS TO NOT INTERRUPT SERVICE. THE CONTRACTOR SHALL PROPERLY NOTIFY THE BUILDING OWNER, LANDLORD, THE LEASER AND ADJACENT TENANTS AS APPLICABLE A MINIMUM OF 48 HOURS IN ADVANCE BEFORE PROCEEDING WITH THIS WORK.
- REMOVE ALL UNUSED AND DEMOLISHED EQUIPMENT AND ASSOCIATED MATERIALS FROM SITE. ABANDONING UNUSED PORTIONS WILL NOT BE ACCEPTABLE.
- SYSTEM(S) NOT ASSOCIATED WITH THE DEMOLITION SHALL BE LEFT IN SERVICE AS APPLICABLE.
- INSPECT EXISTING EQUIPMENT TO REMAIN TO VERIFY THAT EQUIPMENT IS OPERATING PROPERLY. NOTIFY OWNER OF DAMAGED AND/OR MALFUNCTIONING COMPONENTS.
- ALL SYSTEMS TO BE LEFT IN SERVICE PRIOR TO THE END OF EACH WORKDAY.

FIRE PROTECTION GENERAL NOTES:

- PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER AND/OR OWNER OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
- SYSTEM DESIGN, INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE WITH APPLICABLE NFPA STANDARDS. SYSTEM SHALL ALSO MEET ALL APPLICABLE BUILDING CODES, FIRE CODES AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND INSURANCE CARRIER. VERIFY REQUIREMENTS PRIOR TO BID SUBMITTAL.
- INFORMATION ON CONTRACT DOCUMENTS IS GENERAL INFORMATION AND FOR BID PURPOSES ONLY. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE FINAL SYSTEM DESIGN AND LAYOUT OF ALL COMPONENTS, COORDINATION WITH ALL OTHER TRADES, AND SYSTEM CALCULATIONS REQUIRED FOR APPROVAL BY THE AUTHORITY HAVING JURISDICTION, ENGINEER, AND OWNER'S INSURER.
- THE CONTRACTOR SHALL FOLLOW THE ENGINEER OF RECORD'S SYSTEM DESIGN AND LAYOUT OF ALL COMPONENTS EXCEPT WHERE MODIFICATION TO THE DESIGN IS NECESSARY. MODIFICATIONS SHALL BE REFLECTED IN THE CONTRACTOR'S SHOP DRAWINGS AND CALCULATIONS.
- DEVIATIONS FROM ENGINEER'S DESIGN WILL NOT BE CONSIDERED UNLESS A FORMALLY SUBMITTED RFI IS RECEIVED AND APPROVED.
- THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT AND LABOR REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM AS INDICATED IN THE DRAWINGS AND SPECIFICATIONS.
- WHERE EXISTING SYSTEMS ARE PRESENT, CONTRACTOR SHALL MODIFY, RELOCATE AND/OR PROVIDE ADDITIONAL EQUIPMENT AS REQUIRED FOR SCOPE OF WORK AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. COORDINATE WITH WALLS, CEILINGS, LIGHTS, DIFFUSERS, STRUCTURE, OBSTRUCTIONS, ETC. IN AREAS AFFECTED BY SCOPE OF WORK. NEW EQUIPMENT SHALL BE COMPATIBLE WITH EXISTING SYSTEMS. CONTRACTOR SHALL REMOVE ALL ABANDONED EQUIPMENT, COORDINATE SYSTEM MODIFICATIONS TO MINIMIZE SYSTEM IMPAIRMENT, AND PROVIDE FIRE WATCH AND/OR INTERIM FIRE PROTECTION MEASURES WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION, INSURANCE CARRIER OR OWNER.
- PROVIDE ADDITIONAL MATERIALS AND LABOR REQUIRED DUE TO LACK OF COORDINATION OR TO MEET AUTHORITY HAVING JURISDICTION AND INSURANCE CARRIER REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.
- FORWARD COMPLETED CERTIFICATE OF COMPLETION AND CONTRACTOR MATERIAL TEST CERTIFICATES TO THE OWNER.
- REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

FIRE PROTECTION SYMBOLS

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED. V2.02		
ABBREVIATIONS		FIRE ALARM
AFG ABOVE FINISHED FLOOR AFG ABOVE FINISHED GRADE CD CANDELA DI DUCTILE IRON ESFR EARLY SUPPRESSION FAST RESPONSE ETR EXISTING TO REMAIN FHC FIRE HOSE CABINET FP FIRE PROTECTION CONTRACTOR GC GALLONS PER MINUTE JB/J-BOX JUNCTION BOX MAX MAXIMUM MIN MINIMUM N/A NOT APPLICABLE	NIC NOT IN CONTRACT OC ON CENTER PIV POST INDICATOR VALVE PROV PROVIDE PRV PRESSURE REDUCING VALVE RD RETURN DUCT REV REVISION SD SUPPLY DUCT SF SQUARE FEET TYP TYPICAL UNO UNLESS NOTES OTHERWISE V VOLT(S) W WATTS WP WEATHERPROOF	FACP FIRE ALARM CONTROL PANEL/UNIT FACP RECESSED FIRE ALARM CONTROL PANEL/UNIT FACP FIRE ALARM ANNUNCIATOR PANEL FACP RECESSED FIRE ALARM ANNUNCIATOR PANEL AMP AMPLIFIER PANEL RPS REMOTE POWER SUPPLY RT REMOTE TEST STATION WITH INDICATING LIGHT RL REMOTE INDICATING LIGHT PS PRESSURE SWITCH LOW/HIGH FS WATERFLOW ALARM SWITCH VT CONTROL VALVE TAMPER SWITCH DH MAGNETIC DOOR HOLD OPEN DEVICE CM CONTROL MODULE MM MONITOR MODULE K FIRE DEPARTMENT KEY BOX F PULL STATION F FIREFIGHTER'S PHONE JACK D HEAT DETECTOR (E INDICATES ELEVATOR RECALL) I SMOKE DETECTOR (E INDICATES ELEVATOR RECALL) I SINGLE STATION SMOKE DETECTOR I PROJECTED BEAM SMOKE DETECTOR RD DUCT MOUNTED SMOKE DETECTOR (SD=SUPPLY/RD=RETURN) CO CARBON MONOXIDE DETECTOR AREA OF REFUGE 2-WAY COMMUNICATION SYSTEM F WALL MOUNTED AUDIBLE NOTIFICATION APPLIANCE #W INDICATES WATTAGE (VOICE EVACUATION SYSTEMS ONLY) V WALL MOUNTED VISIBLE NOTIFICATION APPLIANCE # INDICATES CANDELA V WALL MOUNTED AUDIBLE/VISIBLE NOTIFICATION APPLIANCE # INDICATES CANDELA #W INDICATES WATTAGE (VOICE EVACUATION SYSTEMS ONLY) V CEILING MOUNTED AUDIBLE NOTIFICATION APPLIANCE #W INDICATES WATTAGE (VOICE EVACUATION SYSTEMS ONLY) V CEILING MOUNTED VISIBLE NOTIFICATION APPLIANCE # INDICATES CANDELA #W INDICATES WATTAGE (VOICE EVACUATION SYSTEMS ONLY) END OF LINE RESISTOR ABORT SWITCH BELL
ANNOTATION		
FIRE PROTECTION PLAN NOTE CALLOUT		
CONNECTION POINT OF NEW WORK TO EXISTING		
DETAIL REFERENCE UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER		
SECTION CUT DESIGNATION		
FIRE SPRINKLERS		
UPRIGHT SPRINKLER		
PENDENT SPRINKLER		
CONCEALED SPRINKLER		
DRY PENDENT SPRINKLER		
DRY SIDEWALL SPRINKLER		
SIDEWALL SPRINKLER		
FIRE SPRINKLER PIPING		
FIRE PROTECTION (FP)		
SHUTOFF VALVE		
CHECK VALVE		
BACKFLOW PREVENTER		
CAP		
ELBOW UP		
ELBOW DOWN		
TEE UP		
TEE DOWN		
FIRE DEPARTMENT CONNECTION		
FIRE PUMP TEST HEADER		
INSPECTOR'S TEST CONNECTION / AUXILIARY DRAIN		
SPRINKLER RISER		
TOP BEAM CLAMP		
TRAPEZE HANGER		
STANDARD MOUNTING HEIGHTS		
AUDIBLE APPLIANCE (TOP OF APPLIANCE)		
FIRE ALARM ANNUNCIATOR PANEL (TOP OF DISPLAY)		
FIRE ALARM BELL (EXTERIOR) (CENTERLINE)		
FIRE ALARM CONTROL PANEL/UNIT (TOP OF DISPLAY)		
PULL STATION (TOP OF DEVICE)		
VISIBLE APPLIANCE (CENTERLINE)		
INSTALL DEVICES AT THE MOUNTING HEIGHTS SHOWN ABOVE UNO IN THE CONSTRUCTION DOCUMENTS. MOUNTING HEIGHTS LISTED ABOVE, OR ELSEWHERE IN THE CONSTRUCTION DOCUMENTS, ARE AFF OR AFG. UNO, ALL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH CURRENT ADA AND LOCAL REQUIREMENTS.		
EXISTING	NEW	
DEMOLISH	FUTURE	



RISER DIAGRAM IS SCHEMATIC IN NATURE. NOT ALL DEVICES ARE SHOWN. REFER TO PLANS FOR EQUIPMENT QUANTITIES AND LOCATIONS.
DUCT DETECTORS MAY HAVE INTEGRAL RELAYS FOR AIR HANDLING UNIT SHUT-DOWN AND FIRE/SMOKE DAMPER CONTROL. WIRING FOR THIS FUNCTION HAS NOT BEEN SHOWN. COORDINATE WITH MECHANICAL SYSTEM INSTALLER.
REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

FIRE ALARM RISER DIAGRAM - ADDRESSABLE SYSTEM (VOICE)

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EXPIRES 12/31/2020



Oct 6 2020
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LICENSE # PE-2018036637

REVISIONS

Number DESCRIPTION DATE

PROJECT NO: 0220-2100
DATE: OCTOBER 5, 2020

FIRE PROTECTION GENERAL NOTES AND LEGEND

FP-000

MIC SECOND FLOOR RENOVATION

FIRE PROTECTION PLAN NOTES:
F1 ADD/RELOCATE FIRE SPRINKLERS AS REQUIRED IN AREA OF WORK TO ACCOMMODATE NEW WALLS. SPRINKLERS SHALL BE SPACED TO ALL NEW WALLS IN ACCORDANCE WITH NFPA 13 REQUIREMENTS.
F2 MODIFY FIRE ALARM LAYOUT IN AREA OF WORK SHOWN IN ACCORDANCE WITH NFPA 72. ADD OR RELOCATE FIRE ALARM NOTIFICATION APPLIANCES AS NECESSARY TO MEET THE CANDELA RATING REQUIREMENTS PER CODE AND LAYOUT SHOWN.

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REVISIONS

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PROJECT NO: 0220-2100
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FIRE PROTECTION
Level 2 RCP - AREA D

FP-102.D

MIC SECOND FLOOR
RENOVATION

NOT IN SCOPE OF WORK

1 FIRE ALARM Level 2 RCP - AREA D
1/8" = 1'-0"

0 4' 8' 12'
3" SCALE: 1/8"=1'-0"

PRINT DATE/TIME: 10/6/2020 12:13:03 PM

MARK P. CHRISMAN