

PROPOSED TOILET ROOM RENOVATIONS
LRHSD PROJECT NO. REF21-39-8312

SHAWNEE HIGH SCHOOL
600 TABERNACLE ROAD
MEDFORD, NJ 08055

LENAPE REGIONAL HIGH SCHOOL
SCHOOL DISTRICT

PREPARED FOR THE
LENAPE REGIONAL HIGH SCHOOL DISTRICT BOARD OF EDUCATION

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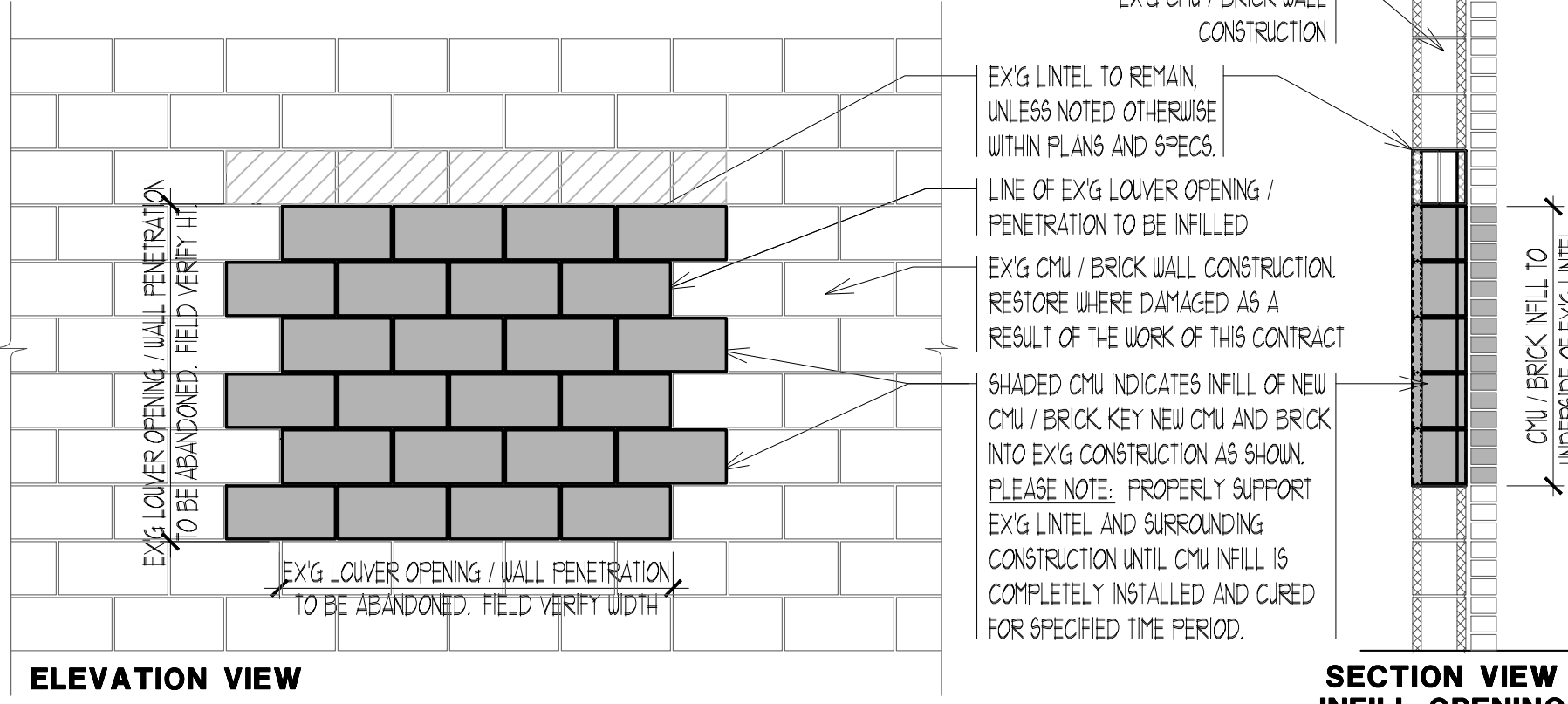
PLUMBING

- P-000 PLUMBING COVER SHEET
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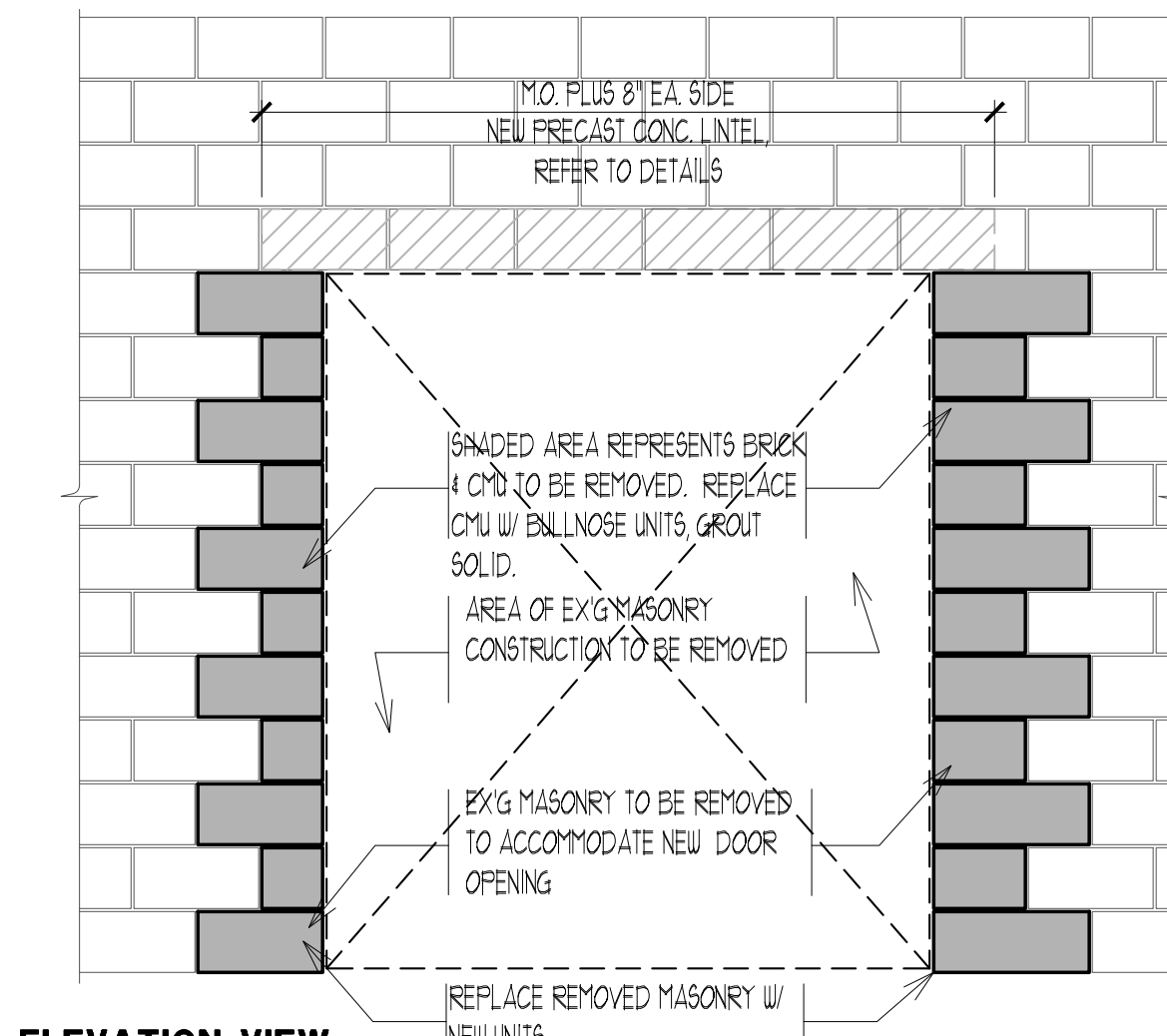
ELECTRICAL

- E-001 ELECTRICAL COVER SHEET
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- ED-102 ELECTRICAL DEMO ROOF PLANS
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- NOTE:
1. APPLIES TO LOWER AND OTHER WALL OPENINGS ABANDONED AS A RESULT OF THE WORK OF THIS CONTRACT. PRIME, PAINT CMU INLL WITH SPECIFIED FINISHES TO MATCH EX'G. BRICK FINISHES SHALL MATCH ADJACENT EXISTING BRICK.
 2. REFER TO ARCHITECT'S TECH-SPEC SECTION 04001, MASONRY RESTORATION AND REPOINTING, TYPICAL FOR PREP WORK AND CLEANING OF EXTERIOR FACINGS AS IDENTIFIED.

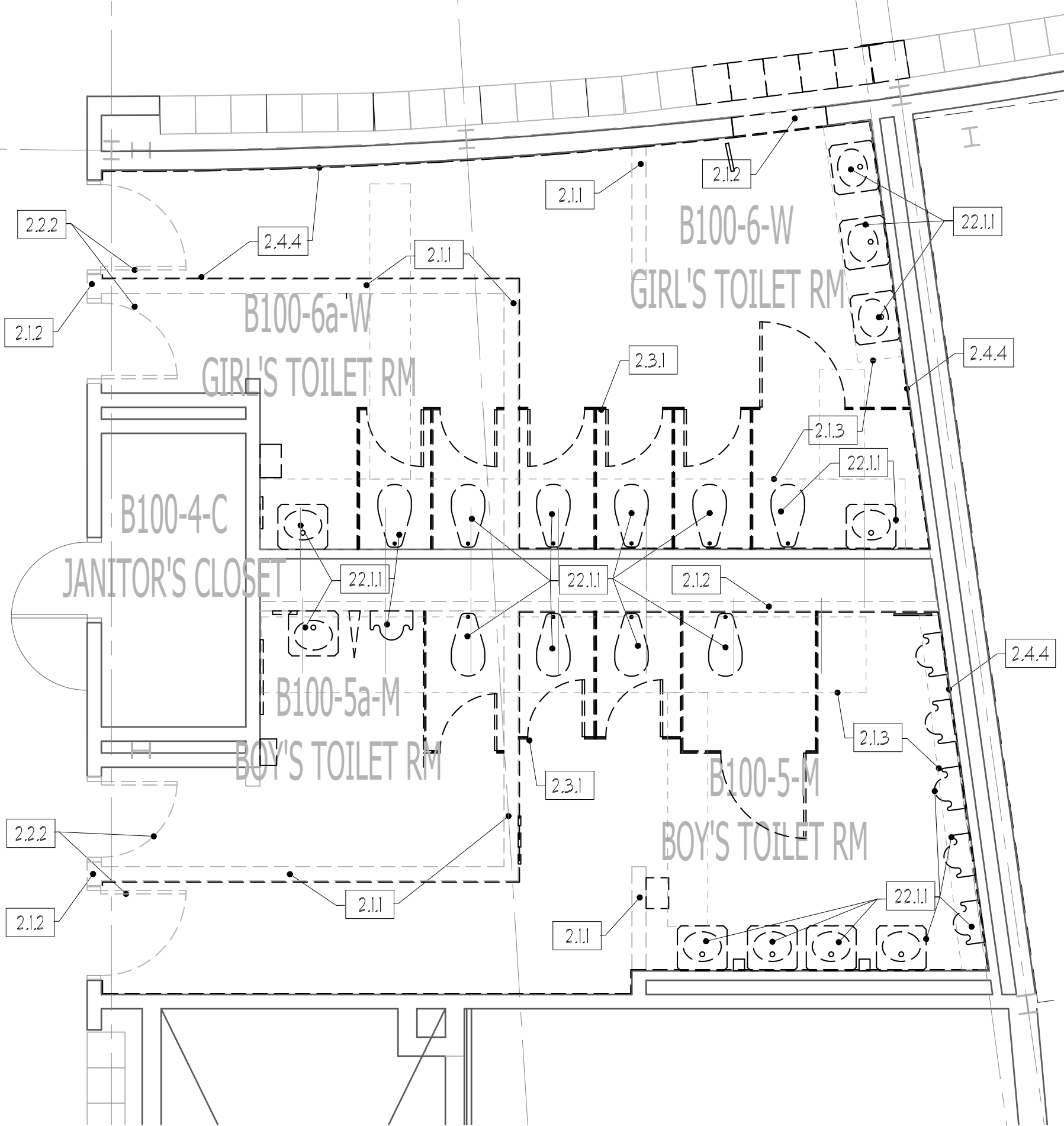


ELEVATION VIEW
INFILL EX'G OPENING

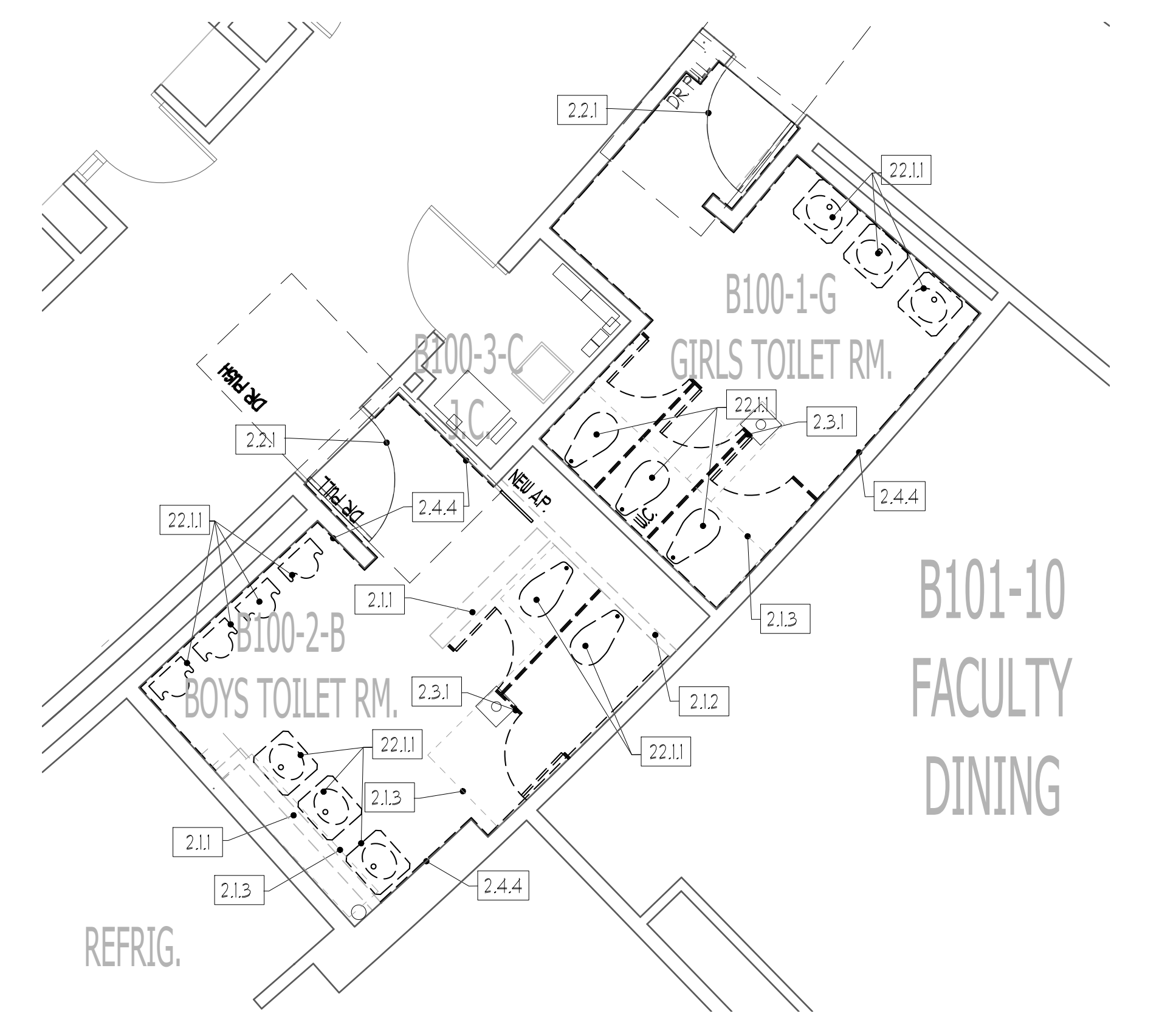


ELEVATION VIEW
NEW OPENING

3 EX'G & NEW OPENINGS
FIRST FL.



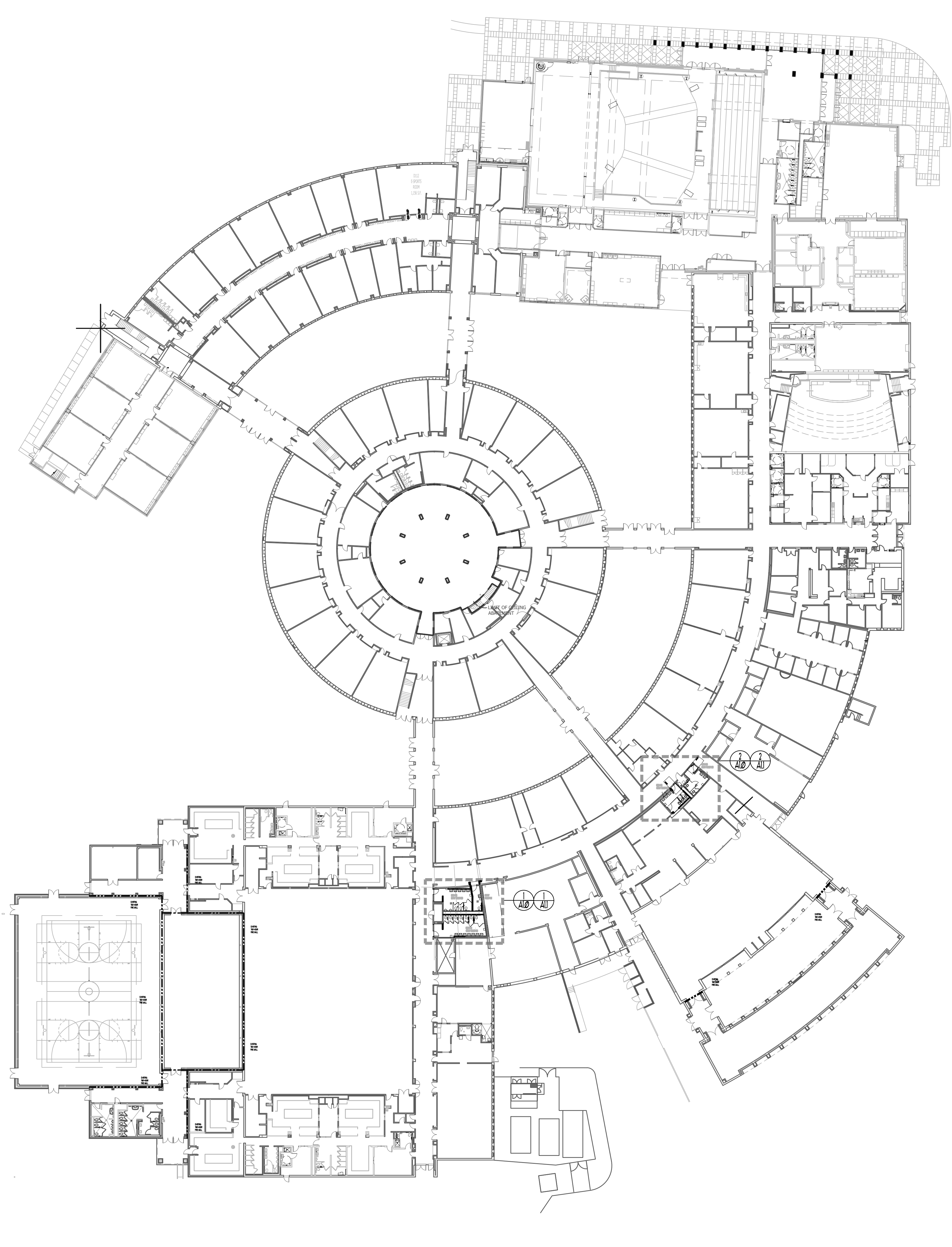
1 DEMO. FLOOR PLAN
FIRST FL.



2 DEMO. FLOOR PLAN
FIRST FL.

DRAWING KEY NOTES

- DEMOLITION NOTES:**
- 2.1.1 CONCRETE MASONRY: REMOVE MASONRY WALL IN ITS ENTIRETY.
 - 2.1.2 CONCRETE MASONRY: REMOVE CONCRETE MASONRY WALL AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION. TOOTH IN NEW MASONRY, PROVIDE NEW STRUCTURAL LINTEL WHERE INDICATED.
 - 2.1.3 INTERIOR CONCRETE CONSTRUCTION: REMOVE EXISTING CONCRETE SLABS AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION INDICATED. PRESENCE OF UNDERGROUND UTILITIES TO BE REVIEWED AND CONFIRMED.
 - 2.1.4 UNDERGROUND UTILITIES: LOCATE, PRESERVE AND PROTECT EXISTING UNDERGROUND UTILITIES THAT ARE NOT PROPOSED TO BE RE-USED. SEE MPE DRAWINGS.
 - 2.2.1 DOORS AND FRAMES: REMOVE EXISTING DOOR. FRAME TO REMAIN. SALVAGE HARDWARE, TURN OVER TO OWNER.
 - 2.2.2 DOORS AND FRAMES: REMOVE EXISTING DOOR AND FRAME. SALVAGE HARDWARE, TURN OVER TO OWNER.
 - 2.3.1 EXISTING TOILET PARTITIONS: TO BE REMOVED. ALL EX'G TR. ACCESSORIES TO BE REMOVED INCLUDING MIRRORS, VENDERS, DISPENSERS, GRAB BAR, AND DISPOSALS.
 - 2.3.2 EXISTING EQUIPMENT: REMOVE EXISTING EQUIPMENT INCLUDING HVAC, PLUMBING AND ELECTRICAL. COORDINATE WITH MPE DRAWINGS.
 - 2.3.3 EXISTING WALL MOUNTED ACCESSORIES: TO BE REMOVED AND DISPOSED OF. REMOVE ANCHORS, ADHESIVES. REPAIR WALL CONSTRUCTION. PREPARE TO NEW FINISHES.
 - 2.3.4 EXISTING LOOSE MATERIALS: TO BE REMOVED BY THE OWNER.
 - 2.4.1 EXISTING POURED FLOORING: REMOVE ALL EX'G EPOXY AND EPOXY LIKE FLOOR FINISHES. REMOVE ASSOCIATED BASE AND THRESHOLDS. PREPARE CONCRETE FOR PROPOSED FINISH. THIS WORK SHALL BE BY G.C. UNDER THE SCOPE OF THIS CONTRACT, TYPICAL ALL G.T. FLOORING AREAS.
 - 2.4.2 EXISTING WALL BASE: REMOVAL OF THE EXISTING VINYL WALL BASE AND MASTIC SHALL BE THE RESPONSIBILITY OF THE G.C. UNDER THE SCOPE OF THIS CONTRACT, TYPICAL ALL SPACES.
 - 2.4.3 EXISTING G.T. FLOOR: REMOVE THE EXISTING CERAMIC TILE FLOOR AND SETTING BED IN THEIR ENTIRETY. REMOVE ASSOCIATED BASE AND THRESHOLDS. PREPARE CONCRETE FOR PROPOSED FINISH. THIS WORK SHALL BE BY G.C. UNDER THE SCOPE OF THIS CONTRACT, TYPICAL ALL G.T. FLOORING AREAS.
 - 2.4.4 EXISTING G.T. WALLS: REMOVE THE EXISTING CERAMIC WALL TILE AND SETTING BED IN THEIR ENTIRETY. REMOVE ASSOCIATED BASE AND THRESHOLD. PREPARE EX'G WALLS FOR PROPOSED FINISH.
 - 2.5.0 CEILING: SEE SHEET A51
 - 22.1.1 PLUMBING DEMOLITION: REMOVE PLUMBING SYSTEMS, DEVICES AND ASSOCIATED PIPING AND FIXTURES INDICATED. REMOVE ALL URINALS, SINKS AND WATER CLOSETS. REFER TO THE CONTRACT PLUMBING DRAWINGS.
 - 22.1.2 ABANDONED PLUMBING CONSTRUCTION: REMOVE AND CAP ABANDONED PLUMBING FIXTURES, PIPING AND SERVICES, BOTH PRE-EXISTING AND THAT RESULTING FROM THE WORK OF THIS CONTRACT.
 - 23.1.1 MECHANICAL DEMOLITION: REMOVE MECHANICAL SYSTEMS INCLUDING MECHANICAL EQUIPMENT, DUCTWORK, DIFFUSERS AND ASSOCIATED PUMPS AND PIPING INDICATED. REFER TO THE CONTRACT MECHANICAL DRAWINGS.
 - 23.1.2 ABANDONED MECHANICAL CONSTRUCTION: REMOVE AND CAP ABANDONED MECHANICAL EQUIPMENT, DUCTWORK AND ACCESSORIES, BOTH PRE-EXISTING AND THAT RESULTING FROM THE WORK OF THIS CONTRACT.
 - 26.1.1 ELECTRICAL DEMOLITION: REMOVE ELECTRICAL DEVICES INCLUDING RECEPTACLES, DISCONNECTS, LIGHTING FIXTURES, CLOCK SPEAKER SYSTEMS. REFER TO THE CONTRACT ELECTRICAL DRAWINGS.
 - 26.1.2 ELECTRICAL DEMOLITION: REMOVE, SALVAGE EXISTING ELECTRICAL DEVICES AS INDICATED AND DIRECTED BY THE OWNER, TURN OVER TO OWNER.
 - 26.1.3 ABANDONED ELECTRICAL CONSTRUCTION: REMOVE AND CAP ABANDONED ELECTRICAL EQUIPMENT, DUCTWORK AND ACCESSORIES, BOTH PRE-EXISTING AND THAT RESULTING FROM THE WORK OF THIS CONTRACT.
- DEMO. TYP. NOTES FOR TOILET ROOMS AND ADJACENT SPACES:**
- | | | | | | |
|-------|-------|-------|--------|--------|--------|
| 2.1.2 | 2.3.1 | 2.4.1 | 22.1.1 | 23.1.1 | 26.1.1 |
| 2.1.3 | 2.3.2 | 2.4.2 | 22.1.2 | 23.1.2 | 26.1.2 |
| 2.1.4 | 2.3.3 | 2.4.3 | | | 26.1.3 |
| | 2.3.4 | 2.4.4 | | | |

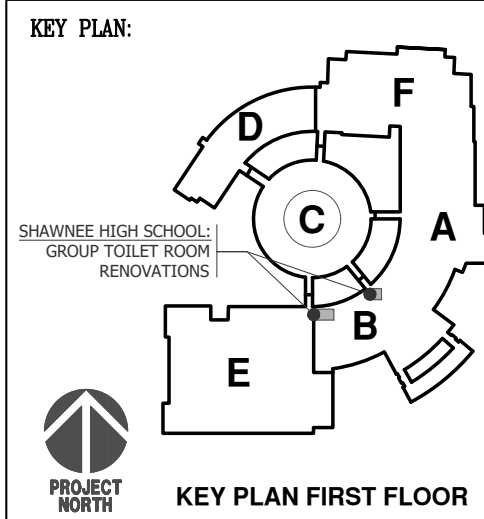


A OVER ALL FLOOR PLAN
FIRST FL.

N.T.S.

12-19-24	1	RELEASED FOR BID
DATE	No.	REVISION

LOT NO. 3
BURLINGTON COUNTY
LENAPE REGIONAL HIGH SCHOOL DISTRICT REF. #221-98-8312
GROUP TOILET ROOM RENOVATIONS
SHAWNEE HIGH SCHOOL
600 TABERNACLE ROAD, MEDFORD, NEW JERSEY 08055
MEDFORD TOWNSHIP



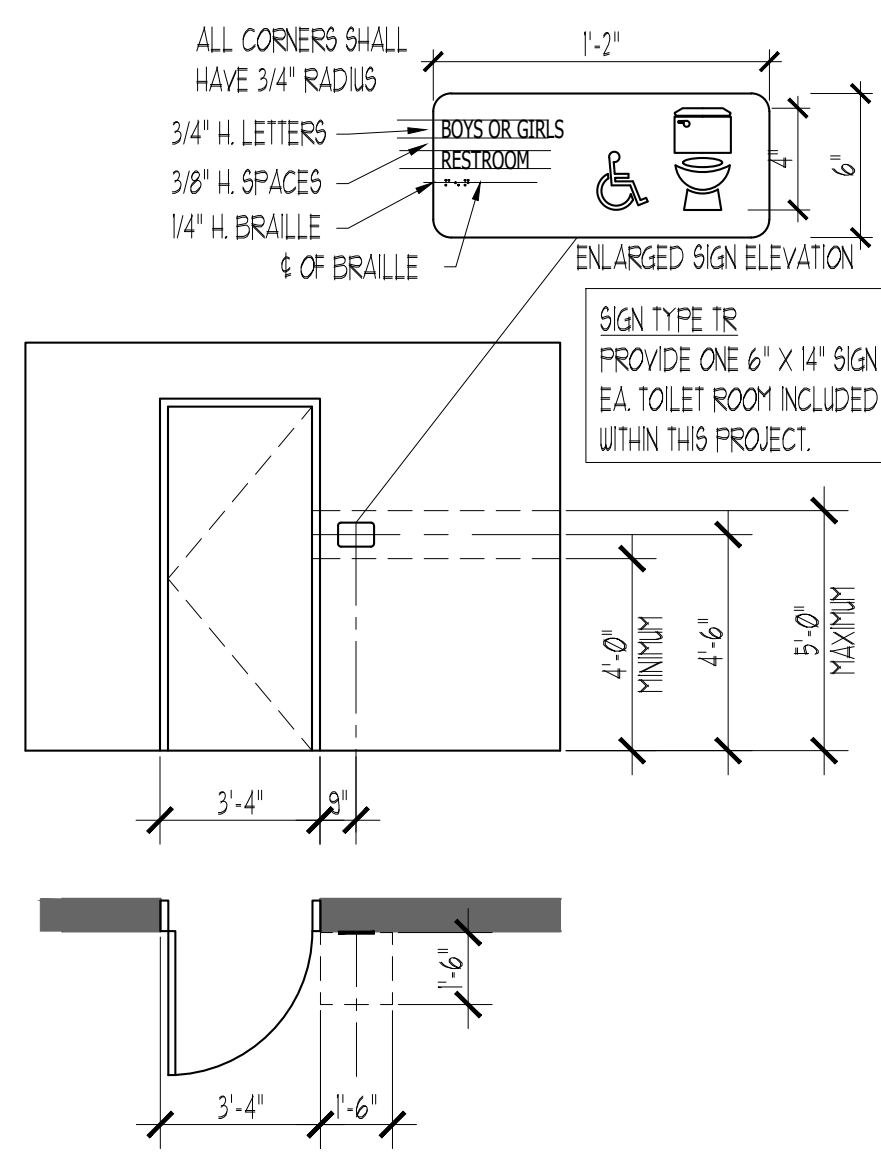
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SCALE: AS NOTED DRAWN BY: DCD
COMM. No.: 8312 CHECKED BY: DCD
DATE: MAY 13, 2024

OVERALL AND DEMO. PLANS

SHEET No.: **A10**

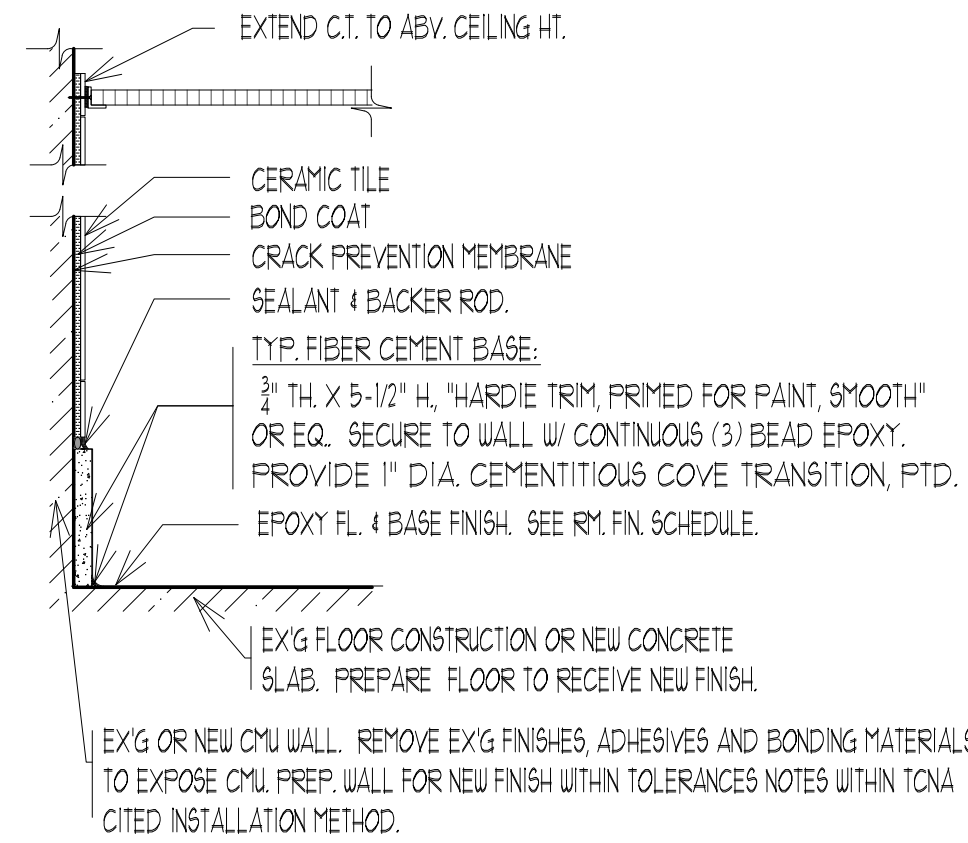
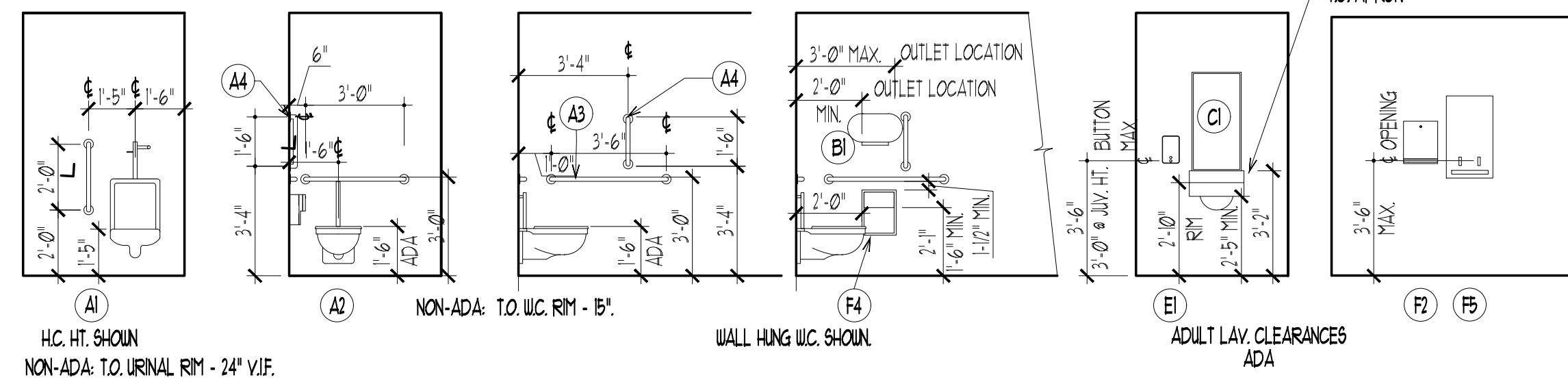
NOTE. COLOR, FONT AND SIGN FINISH TO MATCH EXISTING BUILDING SIGNAGE.



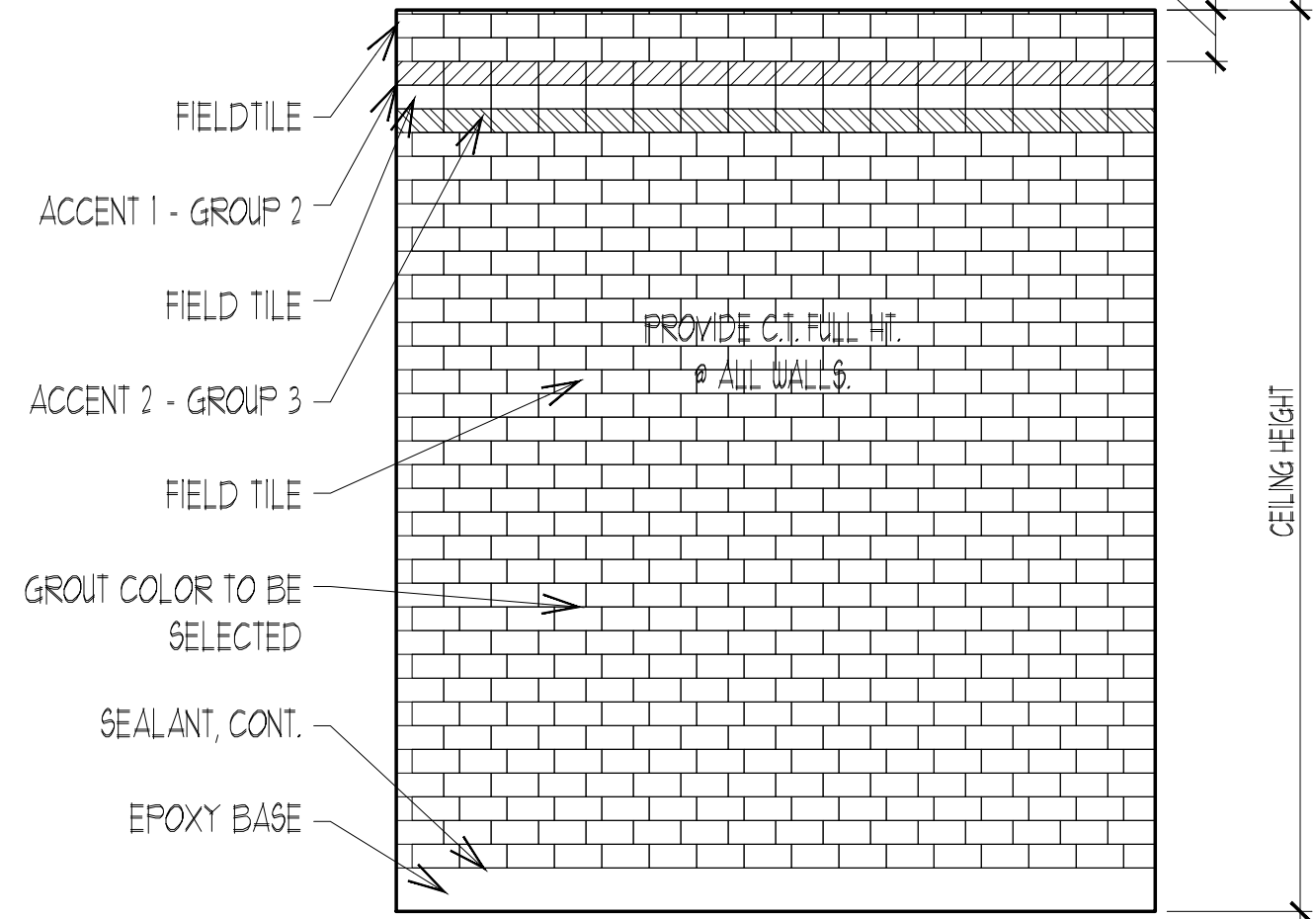
TOILET RM. ACCESSORY SCHEDULE

RM. NO.	ROOM NAME	GRAB BARS					TOILET TISSUE DISPENSER	MIRROR	SOAP DISPENSER	WASTE RECEPT.	TOWEL DISPENSER	SAN. NAP. DISPOSAL	SAN. NAP. DISPENSER
		A1	A2	A3	A4	A5	B1	C1	E1	H	F1	F4	F5
B100-1-G	GIRLS TR.	•	•	•	•	•	• (3)	• (3)	• (3)	•	•	• (3)	•
B100-2-B	BOYS TR.	•	•	•	•	•	• (2)	• (2)	• (2)	•	•	•	•
B100-5-G	GIRLS TR.	• (3)	•	•	• (3)	•	• (7)	• (7)	• (7)	•	•	• (7)	•
B100-6-B	BOYS TR.	•	•	•	•	•	• (3)	• (3)	• (3)	•	•	• (7)	•
B100-7	UNSEX TR.	•	•	•	•	•	• (3)	• (3)	• (3)	•	•	• (7)	•

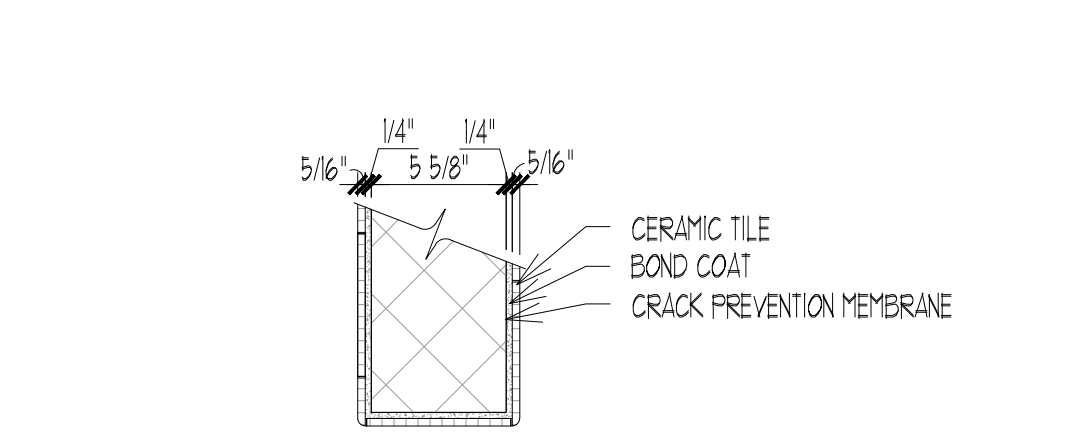
ACCESSORY MOUNTING HTS.



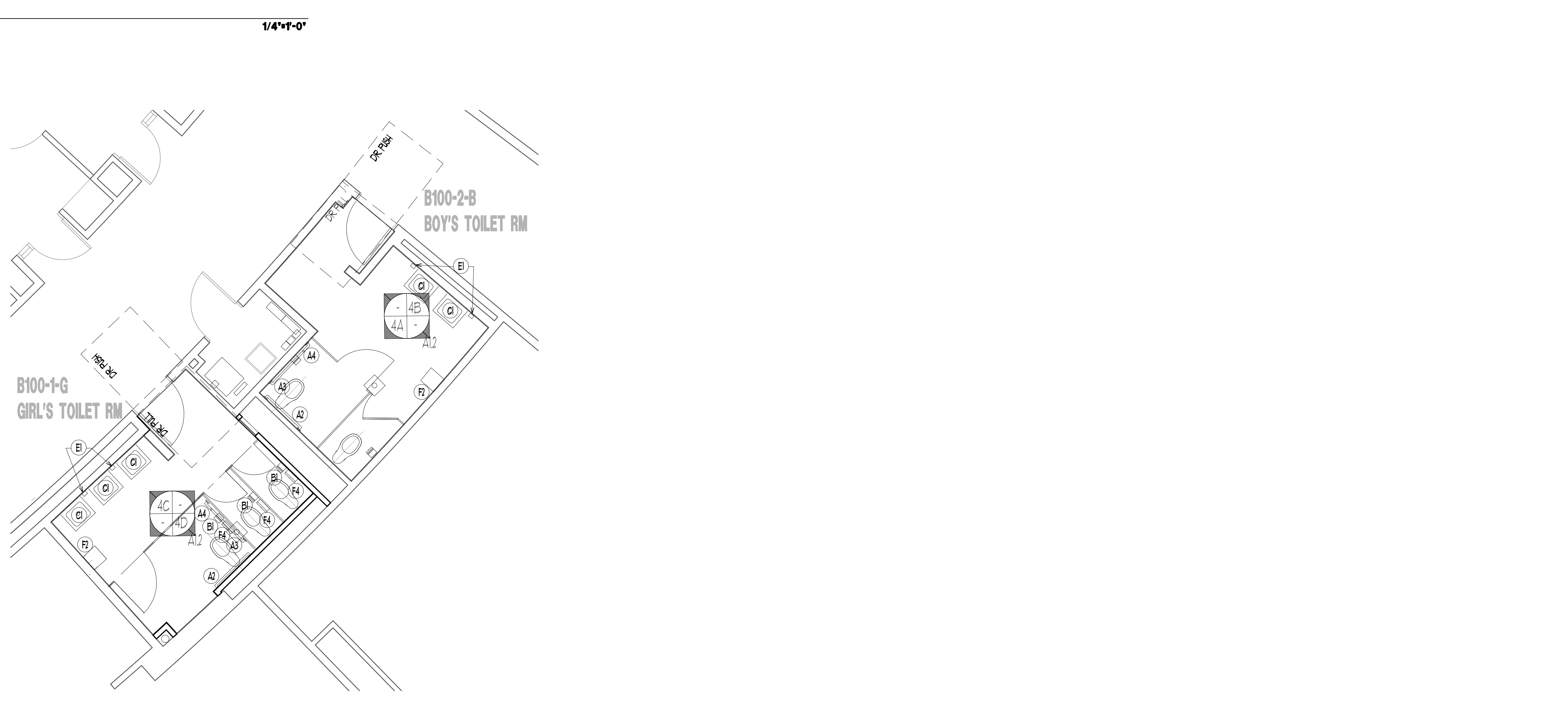
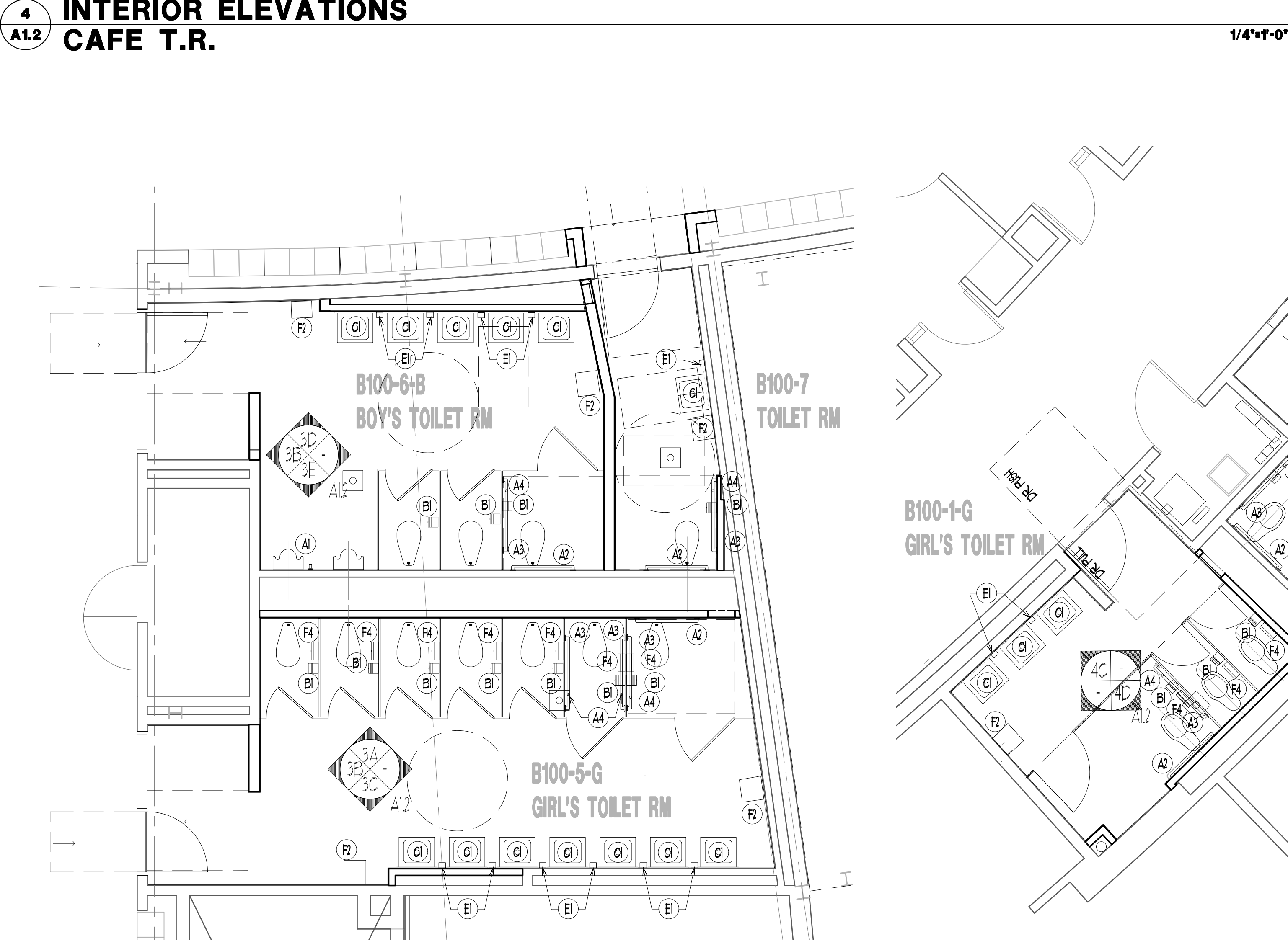
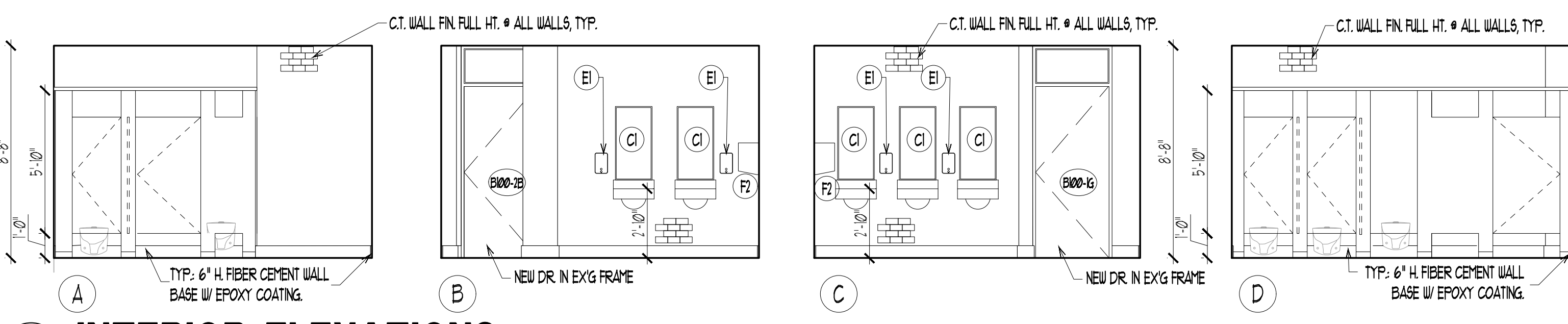
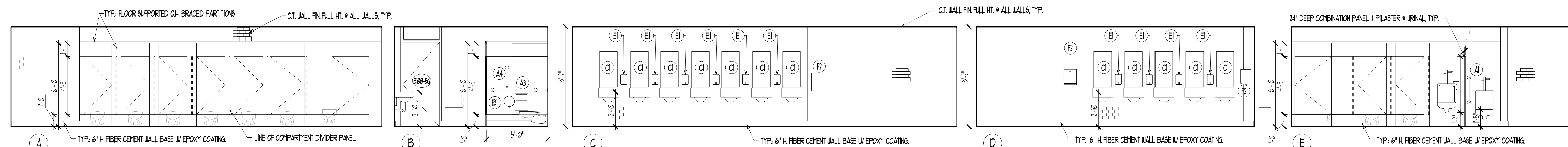
5 TCNA W2021 C.T. DETAIL
1-1/2"x1'-0"



6 C.T. ELEVATION - TYP.
1/2"x1'-0"



7 DETAIL: TYP. WALL TILE CORNER
1-1/2"x1'-0"



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BURLINGTON COUNTY
MEDFORD TOWNSHIP

Drawn: C. Dingler, AIA, President
New Jersey Architect No. 2101008800

Linda M. Vinzell, AIA, Secretary/Treasurer
New Jersey Architect No. 2101008800

KEY PLAN FIRST FLOOR

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SCALE: AS NOTED DRAWN BY: DCD
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DATE: MAY 13, 2024

SHEET TITLE:
ACCESSORIES AND DETAILS

SHEET No.: **A1.2**

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ABBREVIATIONS	
AC	AIR CONDITIONING UNIT
ACR	AIR CURTAIN
AD	ACCESS DOOR
AF	AIRFOIL
AFB	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AL	ACOUSTICAL LINING
AMD	AIR MEASURING DEVICE
AP	ACCESS PANEL
AS	AIR SEPARATOR
ATC	AUTOMATIC TEMPERATURE CONTROL
B	BOILER
BAS	BUILDING AUTOMATION SYSTEM
BD	BOILER BLOWDOWN
BD	BACKDRAFT DAMPER
BF	BOILER FEED UNIT
BFP	BACK FLOW PREVENTER
BFW	BOILER FEEDWATER
BFWP	BOILER FEEDWATER PUMP
BHP	BRAKE HORSEPOWER
BI	BACKWARD INCLINE
BD	BOTTOM OF DUCT
BDP	BOTTOM OF PIPE
BS	BOTTOM OF STEEL
BPS	BYPASS AIR DAMPER
BTD	BRITISH THERMAL UNIT
BTU	BRITISH THERMAL UNIT PER HOUR
BTUH	BRITISH THERMAL UNIT PER HOUR
BV	BUTTERFLY VALVE
C	CENTER LINE
CB	CONTINUOUS BOILER BLOWDOWN
CC	CEILING COIL
CD	CEILING DIFFUSER
CF	CHEMICAL FEED UNIT
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CI	CAST IRON
CIP	CLEAN IN PLACE
COMP	COMPRESSOR
CON	CONCENTRIC
COND	CONDENSATE
CP	CONDENSATE PUMP
CRU	COMPUTER ROOM
CS	AIR CONDITIONING UNIT
CT	COOLING TOWER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CV	CONSTANT VOLUME / CONTROL VALVE
CVB	CONSTANT VOLUME BOX
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
DA	DIRECT ACTING
DB	DRY BULB
DC	DUST COLLECTOR
DDC	DIRECT DIGITAL CONTROLS
DEH	DEHUMIDIFIER
DHWS/R	DOMESTIC HOT WATER SUPPLY / RETURN
DIA/φ	DIAMETER
DIFF	DIFFERENTIAL
DISCH	DISCHARGE
DL	DOOR LOUVER
DN	DOWN
DR	DRAIN
DWDI	DOUBLE WIDTH DOUBLE INLET
DX	DIRECT EXPANSION
D/L	DRILLING AND LOOPING
(E)	EXISTING TO REMAIN
EAT	ENTERING AIR TEMPERATURE
EBB	ELECTRIC BASEBOARD RADIATION
EC	EVAPORATIVE CONDENSOR
ECC	ECCENTRIC
EDH	ELECTRIC DUCT HEATER
EDR	EQUIVALENT DIRECT RADIATION
EF	EXHAUST FAN
EG	EXHAUST GRILLE
EGE	EMERGENCY GENERATOR EXHAUST
EH	ELECTRIC HEATER
EJ	EXPANSION JOINT
EMCS	ENERGY MONITORING CONTROL SYSTEM
EP	ELECTRIC-PNEUMATIC
ER	EXHAUST REGISTER
ERU	ENERGY RECOVERY UNIT
ES	END SWITCH
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
EWT	ENTERING WATER TEMPERATURE
EX	EXHAUST
(F)	FUTURE
°F	DEGREES FAHRENHEIT
F	FILTER
FC	FORWARD CURVED OR FLEX CONN.
FCU	FAN COIL UNIT
FCV	FLOW CONTROL VALVE
FD	FLOOR DRAIN OR FIRE DAMPER
FG	FIBERGLASS
FH	FUME HOOD
FHE	FUME HOOD EXHAUST
FLA	FULL LOAD AMPS
FM	FLOW METER
FOB	FLAT ON BOTTOM
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOT	FLAT ON TOP
FOV	FUEL OIL VENT
FPB	FAN POWERED BOX
PFM	FEET PER MINUTE
FFS	FEET PER SECOND
FRP	FIBERGLASS REINFORCED PIPE
FS	FLOW SWITCH
FT	FEET OR FLASH TANK
FT/WG	FEET WATER GAUGE
F&T	FLOAT & THERMOSTATIC TRAP
FTF	FINED TUBE RADIATION
FV	FACE VELOCITY
FZ	FREESTAT
GFH	GALLONS PER HOUR
GFPM	GALLONS PER MINUTE
GR	GRILLE OR GLYCOL RETURN
GRW	GRAVITY
GS	GLYCOL SUPPLY
GV	GATE VALVE
H	HUMIDISTAT
HC	HEATING COIL
HD	HEAD
HEPA	HIGH EFFICIENCY PARTICULATE ARRESTANCE FILTER
HL	HIGH LIMIT
HGA	HAND-OFF AUTOMATIC SELECTOR SWITCH
H/O	HAND-OFF SELECTOR SWITCH WITH FLOT LIGHT
HP	HORSEPOWER OR HEAT PUMP
HPC	HIGH PRESSURE CONDENSATE
HPD	HIGH PRESSURE DRIP
HPS	HEAT PUMP SUPPLY
HPT	HEAT PUMP RETURN
HRU	HEAT RECOVERY UNIT
HUM	HUMIDITY OR HUMIDIFIER
HV	HEATING & VENTILATING UNIT
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
HZ	HERTZ
ID	INSIDE DIAMETER
IL	INTERLOCK
IN	INCH
IN/WG	INCHES WATER GAUGE
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LB	POUND(S)
LB/HR	POUNDS PER HOUR
LD	LINEAR DIFFUSER
LF	LINEAR FEET
LH	LATEX HEAT
LPC	LOW PRESSURE CONDENSATE
LPD	LOW PRESSURE DRIP
LPS	LOW PRESSURE STEAM
LR	LINEAR RETURN
LRA	LOCKED ROTOR AMPS
LWR	LEAVING WATER TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MAU	MAKEUP AIR UNIT
MB	MIXING BOX
MBH	1000 BTU PER HOUR
MOD	MOTOR OPERATED DAMPER
MPS	MEDIUM PRESSURE STEAM RETURN
MPS	MEDIUM PRESSURE STEAM SUPPLY
MU	MAKE UP WATER
(N)	NEW
NC	NORMALLY CLOSED
NG	NATURAL GAS
NO	NORMALLY OPEN
NS	NOT TO SCALE
OA	OUTSIDE AIR
OAD	OUTSIDE AIR DAMPER
OAI	OUTSIDE AIR INTAKE
ORB	OPPOSED BLADE DAMPER
OC	OCCUPIED
OD	OUTSIDE DIAMETER
OED	OPEN END DUCT
OP	ORIFICE PLATE
OV	OUTLET VELOCITY
P	PUMP
PBD	PARALLEL BLADE DAMPER
PC	PUMPED CONDENSATE - PSIG
PD	PRESSURE DROP
PERF	PERFORATED
PH	PHASE
PHC	PREHEAT COIL
PNEU	PNEUMATIC
PRV	PRESSURE REDUCING VALVE
PSF	POUNDS PER SQUARE FOOT
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
PT	PRESSURE TRANSMITTER
PVC	POLYVINYL CHLORIDE
(R)	REMOVE EXISTING
RA	RETURN AIR OR REVERSE ACTING
RAD	RADIATION
RPC	RADIANT CEILING PANEL
RD	RETURN AIR DAMPER
RE	RELIEVE EXISTING
RE	RELIEF AIR
REFR	REFRIGERANT
RELD	RELIEF DAMPER
RF	RETURN AIR FAN
RG	RETURN AIR GRILLE
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RHG	REFRIGERANT HOT GAS
RL	REFRIGERANT LIQUID
RO	ROOF OPENING
RPM	REVOLUTIONS PER MINUTE
RR	RETURN AIR REGISTER
RS	REFRIGERANT SUCTION
RTU	ROOFTOP UNIT
RV	REFRIGERANT VENT
S	STEAM - PSIG
SA	SUPPLY AIR
SD	SMOKE DAMPER OR SUPPLY DIFFUSER
SDA	SOUND ATTENUATOR
SEF	SMOKE EXHAUST FAN
SF	SUPPLY AIR FAN
SG	SUPPLY AIR GRILLE
SH	SENSIBLE HEAT
SMD	SMOKE DETECTOR
SP	STATIC PRESSURE
SQ FT	SQUARE FEET
SR	SUPPLY AIR REGISTER
SRV	SAFETY RELIEF VALVE DISCHARGE
SRV	SAFETY RELIEF VALVE
SS	STAINLESS STEEL
STM	STEAM
SUCT	SUCTION
SWI	SINGLE WIDTH SINGLE INLET
S/R	SUPPLY AND RETURN
T	THERMOSTAT
T	TESTING AND BALANCING
TAD	TRANSFER AIR DUCT
TF	TERMINAL AIR FILTER
TEMP	TEMPERATURE
TH	TOTAL HEAT
TH	THERMOMETER
TOP	TOP OF DUCT
TOP	TOP OF PIPE
TOP	TOP OF STEEL
TP	TOTAL PRESSURE
TSP	TOTAL STATIC PRESSURE
TT	TEMPERATURE TRANSMITTER
UC	UNDERCUT
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
UNOC	UNOCCUPIED
UV	UNIT VENTILATOR
V	VENT OR VOLTS
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VB	VACUUM BREAKER
VD	MANUAL VOLUME DAMPER
VEL	VELOCITY
VF	VENTILATING FAN
VFD	VARIABLE FREQUENCY DRIVE
VI	VIBRATION ISOLATOR
VIB	VIBRATION
VW	VARIABLE INLET VANES
VP	VACUUM PUMP
VTR	VENT THROUGH ROOF
WB	WET BULB
WC	WATER COLUMN
WG	WATER GAUGE
WMS	WIRE MESH SCREEN
WP	WATERPROOF
XP	EXPLOSION PROOF

DUCTWORK SYMBOLS	
SYMBOL	DESCRIPTION
	SUPPLY/OUTSIDE AIR DUCT
	RETURN/EXHAUST AIR DUCT
	45° ENTRY TAKEOFF, RECTANGULAR TO RECTANGULAR
	90° TAKEOFF, RECTANGULAR TO ROUND, STRAIGHT
	90° TAKEOFF, RECTANGULAR TO ROUND, BELLMOUTH W/ MANUAL VOLUME DAMPER
	90° TAKEOFF, ROUND TO ROUND, STRAIGHT
	90° CONICAL TAKEOFF, ROUND TO ROUND
	45° LATERAL, ROUND TO ROUND
	45° CONICAL LATERAL, ROUND TO ROUND
	45° WYE, ROUND TO ROUND
	END OF DUCT (CAPPED)
	SIDEWALL AIR TERMINAL W/O/D (ARROWS DENOTE THROW DIRECTION)
	LINEAR DIFFUSER
	FIRE DAMPER - VERTICAL POSITION
	FIRE DAMPER - HORIZONTAL POSITION
	FLEXIBLE CONNECTION
	MANUAL VOLUME DAMPER
	MOTOR OPERATED DAMPER
	SMOKE DETECTOR (DUCT-MOUNTED)
	EXHAUST AIR DESIGNATION
	RETURN AIR DESIGNATION
	SUPPLY AIR DESIGNATION
SYMBOL	DESCRIPTION
	MANUAL BALANCING VALVE WITH PRESSURE TAPS SEE SPECIFICATIONS FOR TYPE
	GATE VALVE
	GLOBE VALVE
	BUTTERFLY VALVE
	PLUG VALVE
	VACUUM BREAKER
	CHECK VALVE
	ANGLE SHUTOFF VALVE SEE SPECIFICATIONS FOR TYPE
	ANGLE BALANCING/SHUTOFF VALVE SEE SPECIFICATIONS FOR TYPE
	TRIPLE DUTY VALVE
	COMBINATION BALANCING/SHUTOFF VALVE W/PRESSURE TAPS
	PRESSURE REDUCING VALVE
	SAFETY/RELIEF VALVE - PLAN AND ELEVATION
	PUMP - GENERIC
	PUMP - END SUCTION
	BASKET STRAINER - ELEVATION AND PLAN
	Y-STRAINER WITH PLUG
	Y-STRAINER WITH DRAIN VALVE
	PRESSURE GAUGE WITH GAUGE COCK
	PRESSURE GAUGE WITH GAUGE COCK AND BOURDON TUBE
	THERMOMETER
	PRESSURE/TEMPERATURE TEST FITTING
	FLOW METER
	PIPE UP AND DOWN
	TEE CONNECTION - STRAIGHT, DOWN, AND UP
	UNION
	END CAP
	BLIND FLANGE
	PIPE BELLOWS
	PIPE ANCHOR
	PIPE GUIDE (SLIDING)
	PIPE GUIDE (MOMENT)
	ELECTRICALLY HEAT TRACED PIPING
	AIR VENT - (MANUAL)
	AUTOMATIC AIR VENT
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	STEAM TRAP - FLOAT AND THERMOSTATIC
	STEAM TRAP - BUCKET
	STEAM TRAP - THERMOSTATIC
	STEAM TRAP - THERMODYNAMIC
	PITCH OF PIPE, RISE (R) DROP (D)
	EXPANSION LOOP AND SIZE

LINE DESIGNATIONS	
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
CWS	CONDENSER WATER SUPPLY
CWR	CONDENSER WATER RETURN
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
HPS	HEAT PUMP SUPPLY
HPR	HEAT PUMP RETURN
GS	GLYCOL SUPPLY
GR	GLYCOL RETURN
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
FOV	FUEL OIL VENT
G	NATURAL GAS
C	COIL CONDENSATE DRAIN
MU	MAKE UP WATER
RV	REFRIGERANT VENT
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
---	EXISTING PIPING/DUCTWORK TO REMAIN (WITH SERVICE DESIGNATION)
---	EXISTING PIPING/DUCTWORK TO BE REMOVED (WITH SERVICE DESIGNATION)
CONTROLS	
AUTOMATIC CONTROL DAMPER SYMBOLS:	
	OA = OUTSIDE AIR
	SA = SUPPLY AIR
	RA = RETURN AIR
	EA = EXHAUST AIR
	RS = RELIEF AIR
	BD = BACKDRAFT DAMPER
THERMOSTAT - DUCT MOUNTED	
	THERMOSTAT - WALL MOUNTED
	HUMIDISTAT - DUCT MOUNTED
	HUMIDISTAT - WALL MOUNTED
	FREESTAT (LOW TEMPERATURE DETECTOR)
	STATIC PRESSURE SENSOR - DUCT MOUNTED
	SPACE STATIC PRESSURE SENSOR
	AUTOMATIC CONTROL VALVE (2 - WAY)
	AUTOMATIC CONTROL VALVE (3 - WAY)
	SOLENOID VALVE
	FLOW SWITCH
	CO2 SENSOR
	CO2 DETECTOR
	SWITCH
MISC. DWG. SYMBOLS	
	POINT OF CONNECTION
	POINT OF DISCONNECT
	POINT OF CONNECTION FOR FUTURE WORK
	EQUIPMENT SYMBOL
	EQUIPMENT NUMBER OR FLOW (GPM, CFM, ETC.)
	DETAIL NUMBER
	DETAIL DRAWING NUMBER
	SECTION NUMBER
	SECTION DRAWING NUMBER
	PLAN NUMBER
	PLAN DRAWING NUMBER
	KEYED DEMOLITION NOTE
	KEYED NEW WORK NOTE

APPLICABLE CODES & STANDARDS	
THE FOLLOWING CODES AND STANDARDS APPLY TO THIS PROJECT:	
<ol style="list-style-type: none"> INTERNATIONAL BUILDING CODE (IBC) 2021, NJ EDITION. NAAC REHABILITATION SUB-CODE 5-23-6 INTERNATIONAL MECHANICAL CODE (IMC) 2021. INTERNATIONAL FUEL GAS CODE (IFGC) 2021. NATIONAL STANDARD PLUMBING CODE (NSPC) 2021 NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) 2020 	
GENERAL PROJECT NOTES	
THE FOLLOWING NOTES APPLY TO ALL "M" MECHANICAL DRAWINGS:	
<ol style="list-style-type: none"> ALL WORK SHALL FOLLOW THE REFERENCED APPLICABLE CODES AS ADOPTED AND MODIFIED BY THE STATE OF NEW JERSEY. ALL WORK CONTAINED WITHIN THE MECHANICAL DRAWINGS AND SPECIFICATIONS IS THE RESPONSIBILITY OF THE SINGLE PRIME CONTRACTOR UNLESS OTHERWISE NOTED. NOT ALL SYMBOLS, ABBREVIATIONS AND LINE DESIGNATIONS ARE NECESSARILY USED ON THIS PROJECT. ALL HVAC EQUIPMENT, DUCTWORK, PIPING, SUPPORTS AND ACCESSORY LOCATIONS AND ROUTING SHALL BE COORDINATED WITH ALL OTHER TRADES AND FIELD VERIFIED PRIOR TO INSTALLATION TO PROVIDE REQUIRED CLEARANCES FOR ALL OTHER SYSTEMS. SUPPLY, RETURN AND EXHAUST AIR OPENING LOCATIONS AND SIZES FOR ROOF MOUNTED MECHANICAL EQUIPMENT ARE SHOWN FOR DUCTWORK ROUTING ONLY. THE MECHANICAL CONTRACTOR SHALL VERIFY THE ACTUAL SIZES OF DUCT CONNECTIONS AND THE REQUIRED ROOF PENETRATIONS FOR THE ROOF MOUNTED EQUIPMENT AND COORDINATE THE FINAL LOCATION OF ROOF PENETRATIONS WITH THE GENERAL CONTRACTOR. THE CONTRACTOR PROVIDING MECHANICAL TRADE WORK SHALL INSTALL ALL ROOF MOUNTED MECHANICAL EQUIPMENT CURBS AND FLASHING AND COORDINATE WITH THE CONTRACTOR PROVIDING GENERAL TRADES PRIOR TO THE APPLICATION OF THE BUILDING ROOFING. THE CONTRACTOR PROVIDING MECHANICAL TRADE WORK SHALL ALSO INSTALL ALL NECESSARY ROOF CURB FLASHING-FLASHING TO ACHIEVE A WATERTIGHT ROOFING SEAL. DUCTWORK MAINS AND BRANCHES ARE SHOWN DIAGRAMMATICALLY AND FOR DESIGN CLARITY AND AT THE ROOM LEVEL ROUTING AND ARRANGEMENT IS SHOWN TO MINIMIZE NOISE CARRYOVER FROM MECHANICAL EQUIPMENT AND ADJOINING SPACES. CONTRACTOR MAY PROPOSE REROUTING, OFFSETS, RISERS AND DROPS AS NECESSARY TO CLEAR INSTALLED TRUSSES, JOISTS AND OTHER INTERFERENCES. FINAL DUCTWORK LAYOUT WILL BE APPROVED IN REQUIRED DUCTWORK SHOP DRAWING SUBMITTED PRIOR TO INSTALLATION. DEVIATIONS FROM APPROVED DUCTWORK SHOP DRAWING TO SUIT FIELD CONDITIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION. ALL PIPING/DUCTWORK/CONTROLS PENETRATING FIRE RATED PARTITIONS, WALLS AND CEILINGS SHALL BE SEALED ON BOTH SIDES USING AN APPROVED, UL LISTED FIRE SEALANT TO MATCH EXISTING WALL FIRE RATING. WHERE A PIPE/DUCT/CONTROL CONDUIT HAS BEEN REMOVED THAT PREVIOUSLY PENETRATED A FIRE RATED PARTITION, WALL OR CEILING, THE CONTRACTOR SHALL PATCH AND SEAL THE PENETRATION ON BOTH SIDES USING AN APPROVED, UL LISTED FIRE SEALANT TO MATCH EXISTING WALL FIRE RATING. ALL FIRESTOP SYSTEMS SHALL BE TESTED IN ACCORDANCE WITH ASTM E814. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL RE-APPLY FIREPROOFING IN TYPE AND THICKNESS TO MATCH EXISTING IN ANY AREAS WHERE EXISTING FIREPROOFING IS DAMAGED DUE TO DEMOLITION OR NEW WORK ACTIVITIES. REFER TO ARCHITECTURAL SPECIFICATIONS FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL COORDINATE THE REPLACEMENT OF MECHANICAL EQUIPMENT WITH THE FACILITIES STAFF AND THE OWNER IN ADDITION TO ALL OTHER WORK BEING COMPLETED UNDER SEPARATE CONTRACTS. ALL ITEMS BEING REMOVED AS PART OF THE UPGRADES SHALL BE REMOVED FROM THE PREMISES AND DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR IN REGARDS TO THE DISCONNECT AND RECONNECT OF ALL EQUIPMENT BEING REMOVED AND/OR REPLACED IN-KIND AS INDICATED ON THE CONTRACT DOCUMENTS. MECHANICAL CONTRACTOR SHALL FURNISH LOOSE MOTOR STARTERS AND DISCONNECT SWITCHES FOR INSTALLATION AND WIRING BY THE ELECTRICAL CONTRACTOR. ELECTRICAL COORDINATION: CONTRACTOR PROVIDING MECHANICAL TRADE WORK SHALL COORDINATE VOLTAGES FOR EACH PIECE OF EQUIPMENT BEFORE PURCHASING EQUIPMENT WITH CONTRACTOR PROVIDING ELECTRICAL TRADE WORK. HVAC TESTING & BALANCING (AIR & WATER) IS A PART OF THIS CONTRACT. CONTRACTOR SHALL SUBMIT SIGNED AND SEALED TEST & BALANCE REPORTS, REFER TO PROJECT BOOK SPECIFICATIONS FOR DETAILS. CONTRACTOR SHALL PROVIDE FLEXIBLE CONNECTIONS AT ALL DUCT CONNECTIONS TO EQUIPMENT. IF DUCT CONNECTION TO EQUIPMENT CANNOT BE MADE WITHOUT A HARD CONNECTION (E.G. MIXING BOX/FILTER BACK ASSEMBLY), CONTRACTOR SHALL PROVIDE FLEX CONNECTIONS FOR ALL DUCT CONNECTING WITH A HARD CONNECTION TO EQUIPMENT. ALL EXISTING WALLS, CEILINGS, ROOF, FLOORS AND OTHER FINISHED SURFACES DAMAGED OR MODIFIED SHALL BE REPAIRED TO MATCH ADJACENT UNDISTURBED AREA. PATCH AND REPAIR SHALL MATCH EXISTING ADJACENT SURFACES AS TO THICKNESS, TEXTURE, MATERIALS AND COLOR. ALL ABANDONED OPENINGS SHALL BE PATCHED AND REPAIRED TO MATCH ADJACENT UNDISTURBED AREA AND ARCHITECTURE. ALL ROOF PENETRATIONS SHALL BE PERFORMED SUCH THAT WARRANTY IS MAINTAINED. CONTRACTOR SHALL REMOVE, STORE AND RE-INSTALL ALL CEILING TILES AS REQUIRED TO ACCESS ABOVE CEILING AREAS TO ROUTE NEW PIPING OR INSTALL EQUIPMENT. CONTRACTOR SHALL SUPPLY MATCHING CEILING TILES FOR ANY BROKEN TILES THAT OCCUR DURING THE CONSTRUCTION. CONTRACTOR SHALL MODIFY SPRINKLER PIPING SYSTEMS AS REQUIRED TO ALLOW NEW EQUIPMENT INSTALLATION AND DUCTWORK MODIFICATIONS. WORK SHALL BE PERFORMED BY A CERTIFIED SPRINKLER CONTRACTOR. ALL NECESSARY STAGING AND MATERIAL STORAGE AREAS SHALL BE AS DIRECTED AND APPROVED BY THE OWNER. ALL SYSTEMS THAT NEED TO BE DRAINED SHALL BE COORDINATED WITH THE OWNER. ALL WORK SHALL BE PERFORMED TO NOT INTERFERE WITH THE NORMAL OPERATION OF THE FACILITIES. COORDINATE ANY NECESSARY SHUTDOWNS WITH THE FACILITY. MINIMIZE SHUTDOWNS TO LIMIT IMPACT OF INTERRUPTION OF COOLING, HEATING, DHW AND ELECTRICAL SERVICE TO THE FACILITY. CONTRACTOR SHALL TEMPORARILY RELOCATE ALL PIPING, ELECTRICAL CONDUITS, LIGHTING, CONTROLS, ETC., TO ACCOMMODATE WORK UNDER THIS CONTRACT. RESTORE TO INITIAL OPERATING CONDITION AND FUNCTION UPON COMPLETION OF WORK. EXISTING PIPING IN WORK AREA SMALLER THAN 2" AND CONDUITS SMALLER THAN 1" ARE NOT EXPLICITLY SHOWN. CONDUCT FIELD SURVEY AS REQUIRED TO DETERMINE EXISTING CONDITIONS. PROVIDE VALVED DRAINS ON ALL WATER PIPING SYSTEM LOW POINTS AND AS REQUIRED ON NEW EQUIPMENT. PROVIDE AIR VENTS AT PIPING SYSTEM HIGH POINTS AS REQUIRED FOR RELEASING AIR DURING STARTUP. NO PIPING SMALLER THAN 3/4" EXCEPT AS NOTED. PROVIDE WIRING AND RACEWAYS RELATED TO CONTROL OF MECHANICAL EQUIPMENT. RACEWAYS TO BE MINIMUM 3/4" RIGID CONDUIT. CONTRACTOR SHALL REFER TO SPECIFICATIONS FOR MATERIAL PIPE SIZE & MATERIAL TYPE BY SYSTEM. FOR SYSTEMS REQUIRING DISSIMILAR METALS CONTRACTOR SHALL PROVIDE GALVANIC CORROSION AND CATHODIC PROTECTION (DI-ELECTRIC UNION, DI-ELECTRIC FITTING, ETC.) IN ACCORDANCE WITH THE SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR CONDUCTING WALK-THROUGH OF SITE PRIOR TO SUBMITTING BID TO BE FAMILIAR WITH SITE CONDITIONS AND REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED CALCULATIONS (SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE OF NEW JERSEY) AND INSTALLATION INFORMATION TO SHOW COMPLIANCE WITH SEISMIC AND WIND FORCES IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE 2021, NJ EDITION. INFORMATION SHALL BE MADE AVAILABLE TO ENGINEER FOR REVIEW AND ALSO MADE AVAILABLE UPON REQUEST FOR SUBMISSION TO CODE ENFORCEMENT. PROVIDE ALL SUPPORT SYSTEMS, SUPPLEMENTAL STEEL, ANCHORS, PIPE HANGERS AND ENGINEERING DOCUMENTATION NECESSARY TO PROVIDE A COMPLETE CODE COMPLIANT SYSTEM. 	
SCOPE OF WORK INFORMATION	
PROJECT SCOPE OF WORK:	
<ol style="list-style-type: none"> ALL WORK CONTAINED WITHIN THE DRAWINGS AND SPECIFICATIONS IS THE RESPONSIBILITY OF THE SINGLE PRIME CONTRACTOR, UNLESS OTHERWISE NOTED. REFER TO INDIVIDUAL DRAWING SHEETS AND SPECIFICATIONS FOR SPECIFIC REQUIREMENTS. REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS OF THE PROJECT. REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR SPECIFIC MECHANICAL REQUIREMENTS AND COORDINATION. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR SPECIFIC ARCHITECTURAL REQUIREMENTS AND COORDINATION. REFER TO ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR SPECIFIC ELECTRICAL REQUIREMENTS AND COORDINATION. REFER TO PLUMBING DRAWINGS AND SPECIFICATIONS FOR SPECIFIC PLUMBING REQUIREMENTS AND COORDINATION. 	

DRAWING SHEET INDEX			ISSUE FOR BID
SHEET NO.	DRAWING NUMBER	DRAWING TITLE	
1	M-001	MECHANICAL LEAD SHEET	ISSUED
2	MD-101	MECHANICAL PARTIAL DEMOLITION PLANS - CAFÉ AND GYMNASIUM TOILET ROOMS	12/19/2024
3	MD-102	MECHANICAL PARTIAL DEMOLITION ROOF PLAN - CAFÉ AND GYMNASIUM TOILET ROOMS	12/19/2024
4	M-101	MECHANICAL PARTIAL NEW WORK PLANS - CAFÉ AND GYMNASIUM TOILET ROOMS	12/19/2024
5	M-102	MECHANICAL PARTIAL	

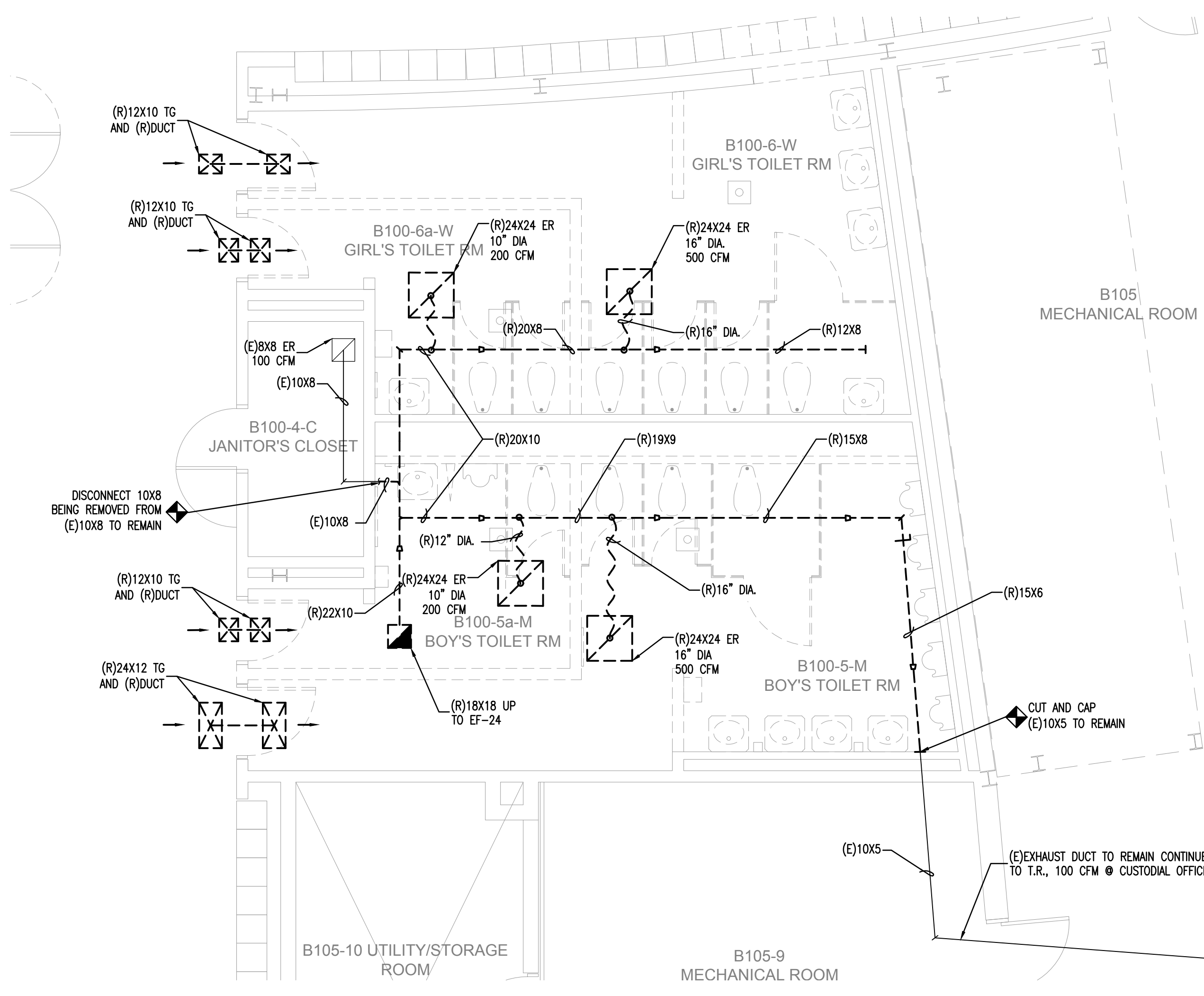
EQUIPMENT REPLACEMENT NOTES:

GENERAL NOTES:

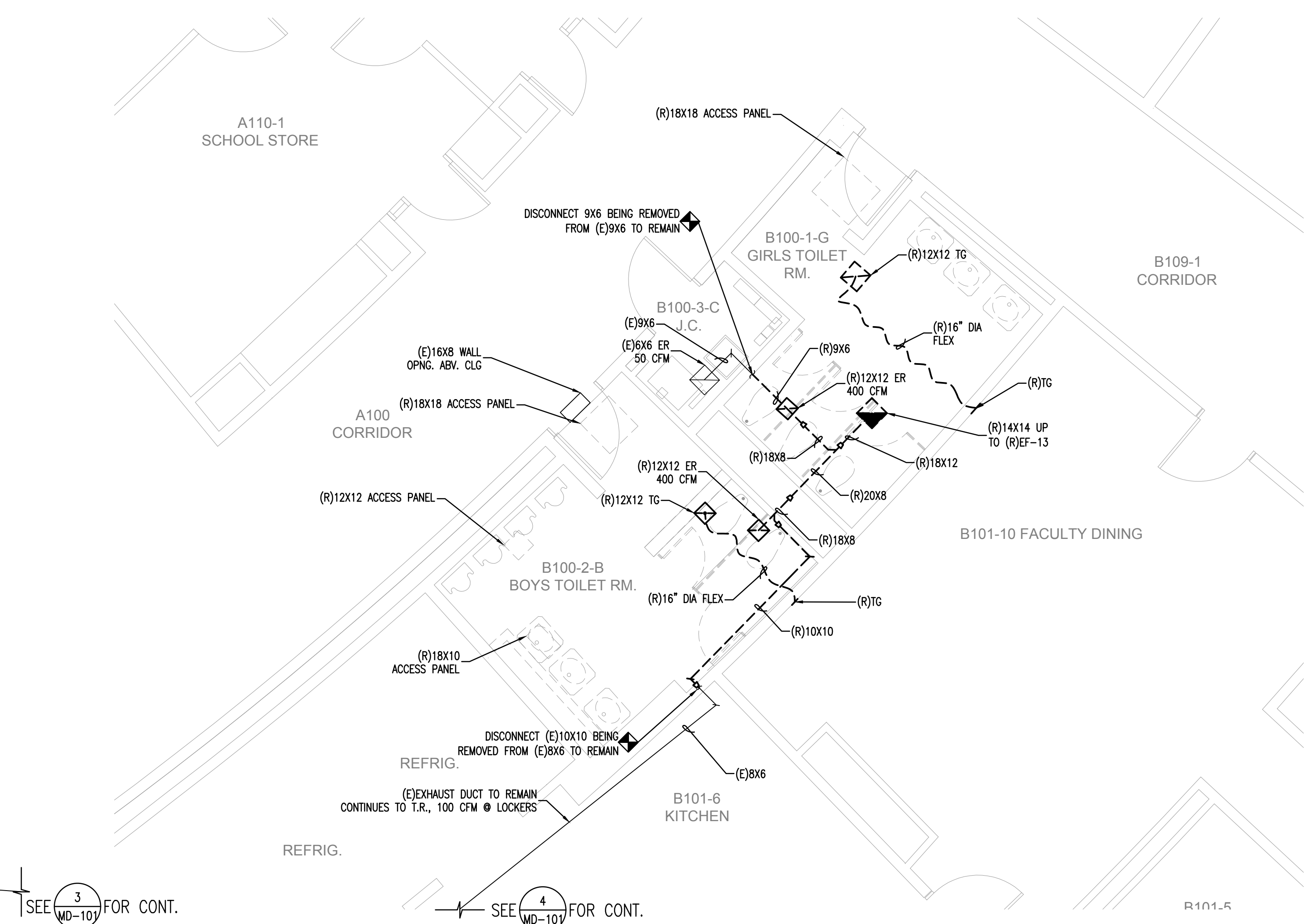
- REFER TO MECHANICAL LEAD SHEET, M-001 FOR "NOTES" THAT PERTAIN TO THE SCOPE OF THIS PROJECT.
- CONTRACTOR SHALL COORDINATE THE REPLACEMENT OF MECHANICAL EQUIPMENT WITH THE OWNER AND OTHER WORK BEING COMPLETED UNDER SEPARATE CONTRACTS. ALL ITEMS REMOVED FROM THE EQUIPMENT AS PART OF THE REPLACEMENT SHALL BE REMOVED FROM THE PREMISES AND DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS.
- CONTRACTOR SHALL COORDINATE AND SCHEDULE THE DRAINING OF ANY HYDRONIC SYSTEMS WITH THE FACILITIES MANAGER AND OWNER.
- CONTRACTOR SHALL SUBMIT TO ARCHITECT & ENGINEER PRODUCT DATA FOR ALL ITEMS THAT ARE TO BE INCLUDED IN THE REPLACEMENT FOR REVIEW PRIOR TO COMMENCING WORK.

SCOPE OF DEMOLITION NOTES:

- DEMOLISH AND REMOVE EXISTING EXHAUST FAN(S) IN ITS ENTIRETY, EXISTING CURBS TO REMAIN. SAFELY DISCONNECT AND SAFE OFF ELECTRICAL POWER IN ACCORDANCE WITH NEC CODES. REFER TO ELECTRICAL DRAWINGS FOR FURTHER ELECTRICAL REQUIREMENTS. DEMOLISH AND REMOVE ALL CONTROL WIRING AND CONDUIT BACK TO SOURCE. DISCONNECT DUCTWORK AND REMOVE ALL ASSOCIATED HANGERS AND APPURTENANCES.
- DEMOLISH AND REMOVE ALL DUCTWORK ASSOCIATED WITH EXISTING EXHAUST FANS. REMOVE ALL HANGERS, DAMPERS, EXHAUST GRILLES, ACCESSORIES, AND ALL ASSOCIATED APPURTENANCES.
- REMOVE EXISTING EXHAUST AND TRANSFER GRILLES. DEMOLISH ALL WHERE INDICATED ON PLANS AND EXHAUST DUCTWORK BETWEEN GRILLE AND FAN ON ROOF ABOVE. WHERE APPLICABLE, PATCH AND PAINT EXISTING SURFACES TO MATCH EXISTING.



1 MECHANICAL DEMO FLOOR PLAN - GYMNASIUM TOILET ROOMS
 MD-101 SCALE: 1/4" = 1'-0"
 SCALE BAR: 1/4"=1'-0"



2 MECHANICAL DEMO FLOOR PLAN - CAFETERIA TOILET ROOMS
 MD-101 SCALE: 1/4" = 1'-0"
 SCALE BAR: 1/4"=1'-0"



3 MECHANICAL DEMO FLOOR PLAN - CUSTODIAL OFFICE TOILET ROOM
 MD-101 SCALE: 1/4" = 1'-0"
 SCALE BAR: 1/4"=1'-0"



4 MECHANICAL DEMO FLOOR PLAN - LOCKERS TOILET ROOM
 MD-101 SCALE: 1/4" = 1'-0"
 SCALE BAR: 1/4"=1'-0"

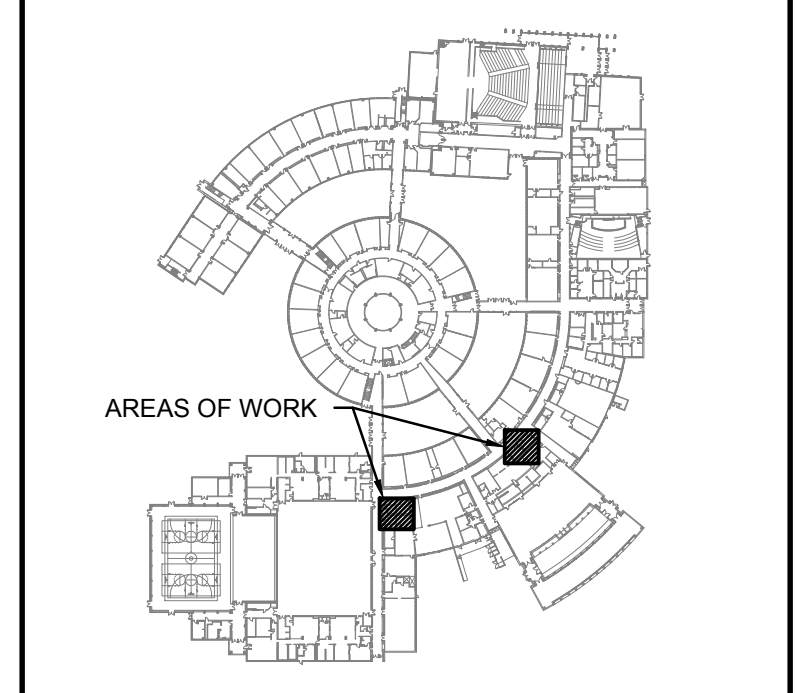
MEP ENGINEER:

CONCORD ENGINEERING
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No.	Date	Description
1	12/19/24	ISSUE FOR BID

REVISIONS:

KEY PLAN:



John A. Marchalava P. E.
 New Jersey P. E. No. 24GE0492500

Professional Engineer
 John A. Marchalava P. E.

PROJECT: REF21-39-8312

LRHSD - SHAWNEE HIGH SCHOOL PHASE 4 HVAC UPGRADES

600 TABERNALE RD
 MEDFORD, NEW JERSEY

DRAWING TITLE:

MECHANICAL DEMOLITION FLOOR PLANS

DRAWN BY: ARA	SCALE: AS NOTED	DWG. SIZE: 42x30
CHECKED BY: BTR	DRAWING NO. MD-101	REVISION
DATE: 12/19/2024		
PROJECT NO.: 8C22002		

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NEW WORK SYSTEM NOTES:

GENERAL NOTES:

- A. REFER TO MECHANICAL LEAD SHEET, M-001 FOR "NOTES" THAT PERTAIN TO THE SCOPE OF THIS PROJECT.
- B. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF NEW MECHANICAL EQUIPMENT WITH OTHER TRADES SO AS NOT TO AFFECT THE OPERATION OF EXISTING SYSTEMS. PARTICULAR ATTENTION SHALL BE GIVEN TO UTILITY SERVICES, ELECTRIC, WATER AND BUILDING UTILITIES.
- C. CONTRACTOR SHALL SUBMIT TO OWNER AND ENGINEER PRODUCT DATA FOR ALL ITEMS THAT ARE TO BE INCLUDED IN THE REPLACEMENT FOR REVIEW PRIOR TO COMMENCING WORK.
- D. CONTRACTOR SHALL PATCH, REPAIR, & PAINT AREAS OF EXISTING CONSTRUCTION WHERE EQUIPMENT HAS BEEN REMOVED. COORDINATE WITH ARCHITECT AND OWNER TO MATCH EXISTING CONSTRUCTION AND FINISHES.

SCOPE OF NEW WORK NOTES:

1. FURNISH AND INSTALL NEW EXHAUST FAN(S) WHERE INDICATED ON PLANS. PREPARE EXISTING ROOF CURB TO ACCEPT NEW EXHAUST FAN CURB ADAPTER. SAFELY CONNECT ELECTRICAL POWER IN ACCORDANCE WITH NEC GUIDELINES. REFER TO ELECTRICAL DRAWINGS FOR FURTHER ELECTRICAL REQUIREMENTS. PROVIDE ALL CONTROL WIRING AND CONDUIT REQUIRED FOR THE OPERATION OF EXHAUST FANS. CONNECT NEW DUCTWORK AND PROVIDE ALL ASSOCIATED HANGERS AND APPURTENANCES.
2. PROVIDE ALL NEW DUCTWORK ASSOCIATED AND CONNECT TO NEW EXHAUST FANS. PROVIDE ALL NEW HANGERS, DAMPERS, EXHAUST GRILLES, ACCESSORIES, AND ALL ASSOCIATED APPURTENANCES. SEE ARCHITECTURAL DRAWINGS FOR ROOF INFILL INFORMATION WHERE NEW DUCTWORK PENETRATES ROOF.
3. PROVIDE ALL NEW EXHAUST AND TRANSFER GRILLES. PROVIDE NEW TRANSFER DUCT AND EXHAUST AIR DUCT WHERE INDICATED ON PLANS. WHERE APPLICABLE, PATCH AND PAINT EXISTING SURFACES TO MATCH EXISTING.

MEP ENGINEER:



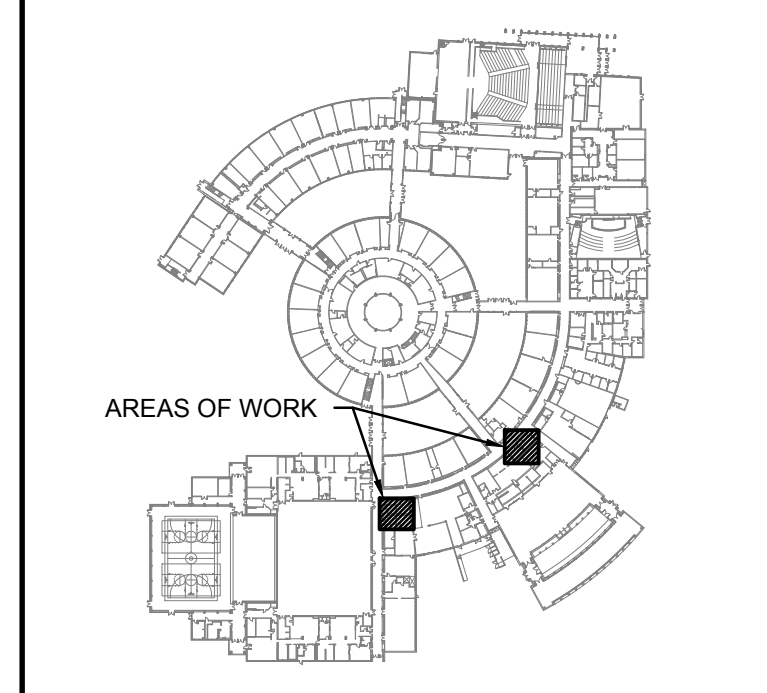
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No.	Date	Description
12/19/24	12/19/24	ISSUE FOR BID

REVISIONS:

No.	Date	Description
-----	------	-------------

KEY PLAN:



John A. Marchalava P. E.
 New Jersey P. E. No. 24GE04902500

Professional Engineer
 John A. Marchalava P. E.

PROJECT: REF21-39-8312

LRHSD - SHAWNEE HIGH SCHOOL PHASE 4 HVAC UPGRADES

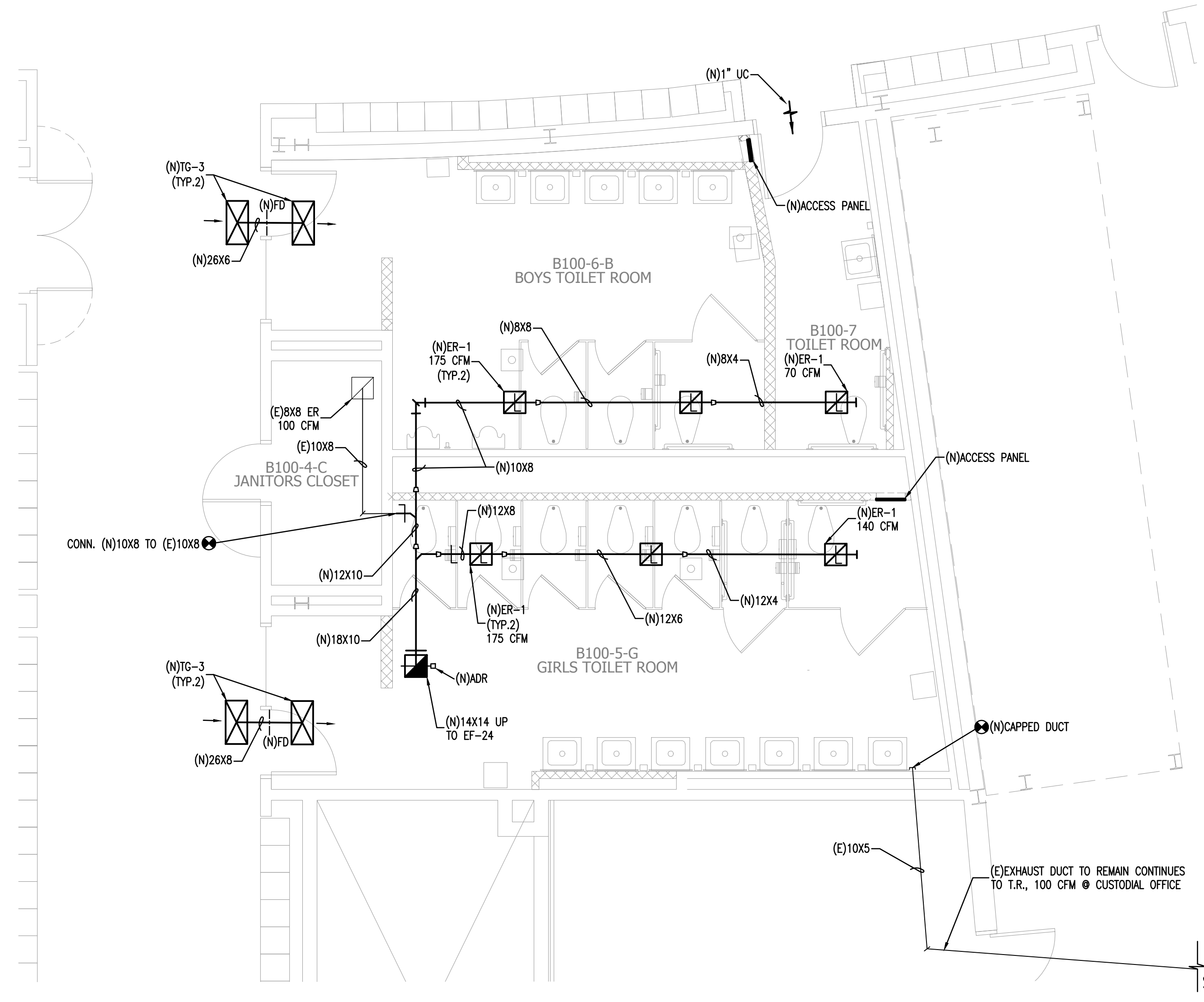
600 TABERNACLE RD
 MEDFORD, NEW JERSEY

DRAWING TITLE:

MECHANICAL NEW WORK FLOOR PLANS

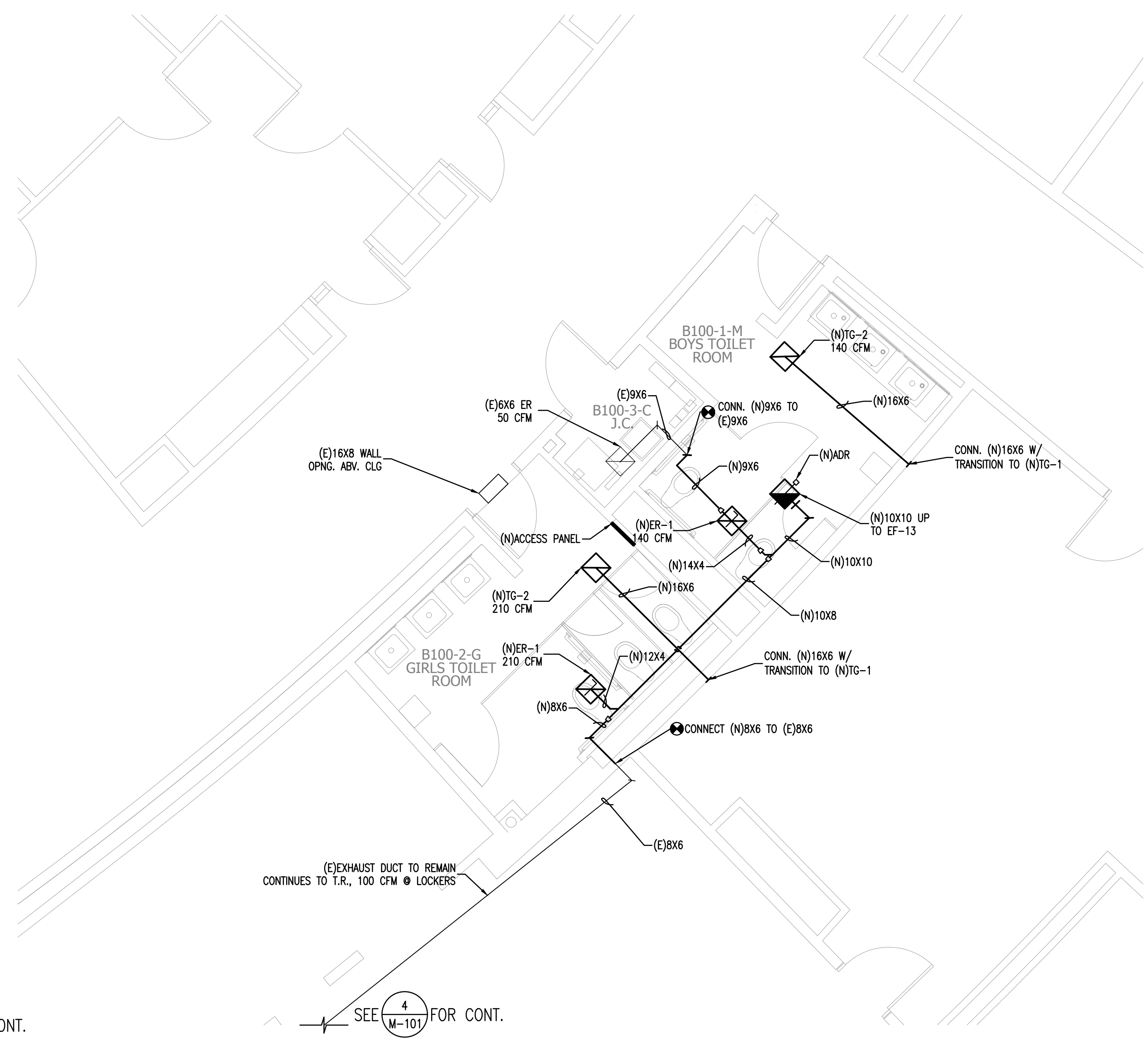
DRAWN BY: ARA	SCALE: AS NOTED	DWG. SIZE: 42x30
CHECKED BY: BTR	DRAWING NO. M-101	REVISION
DATE: 12/19/2024		
PROJECT NO.: 8C22002		

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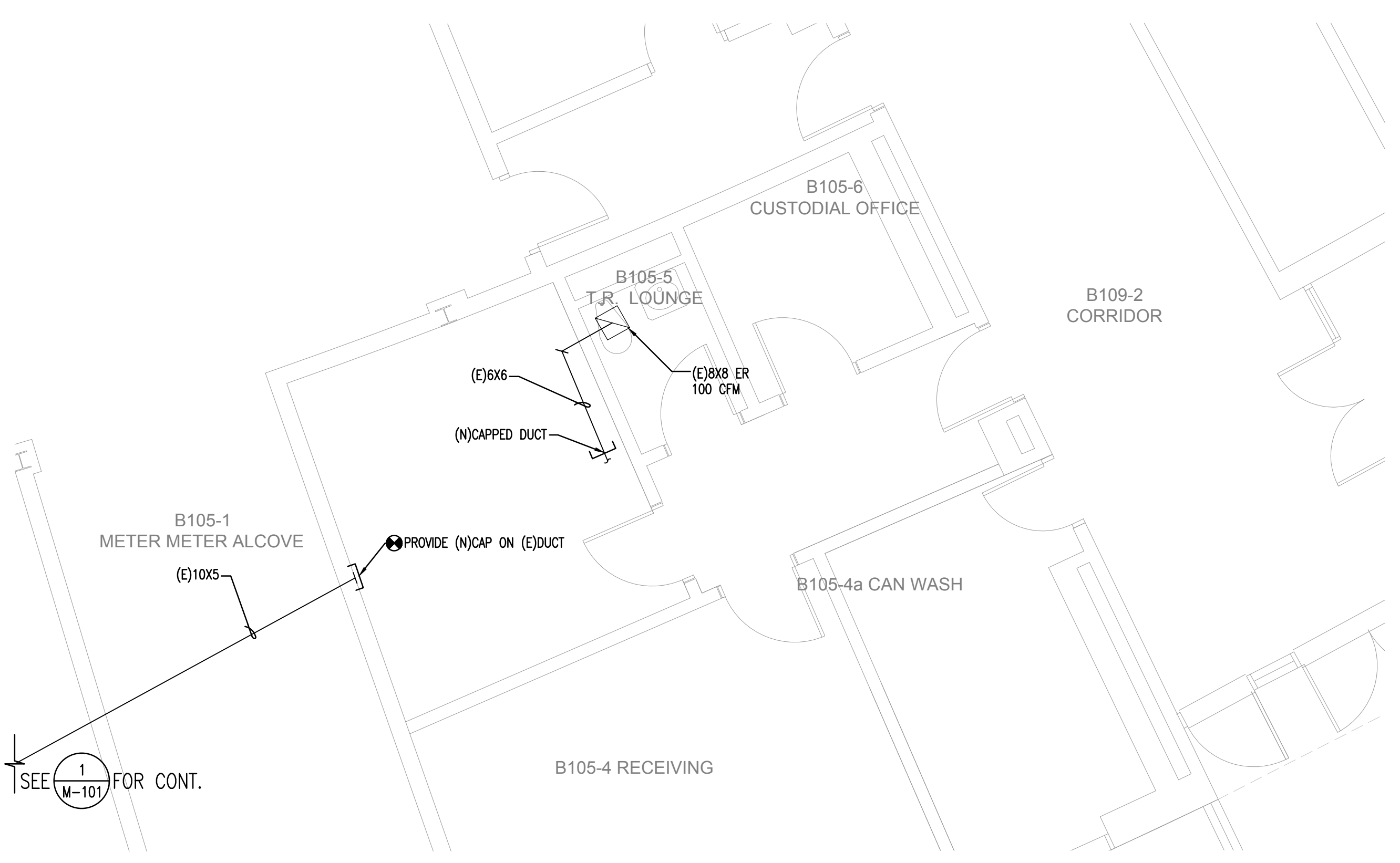
1 MECHANICAL NEW WORK FLOOR PLAN - GYMNASIUM TOILET ROOMS
 M-101 SCALE: 1/4" = 1'-0"
 SCALE BAR: 1/4"=1'-0"

SEE 3 FOR CONT.



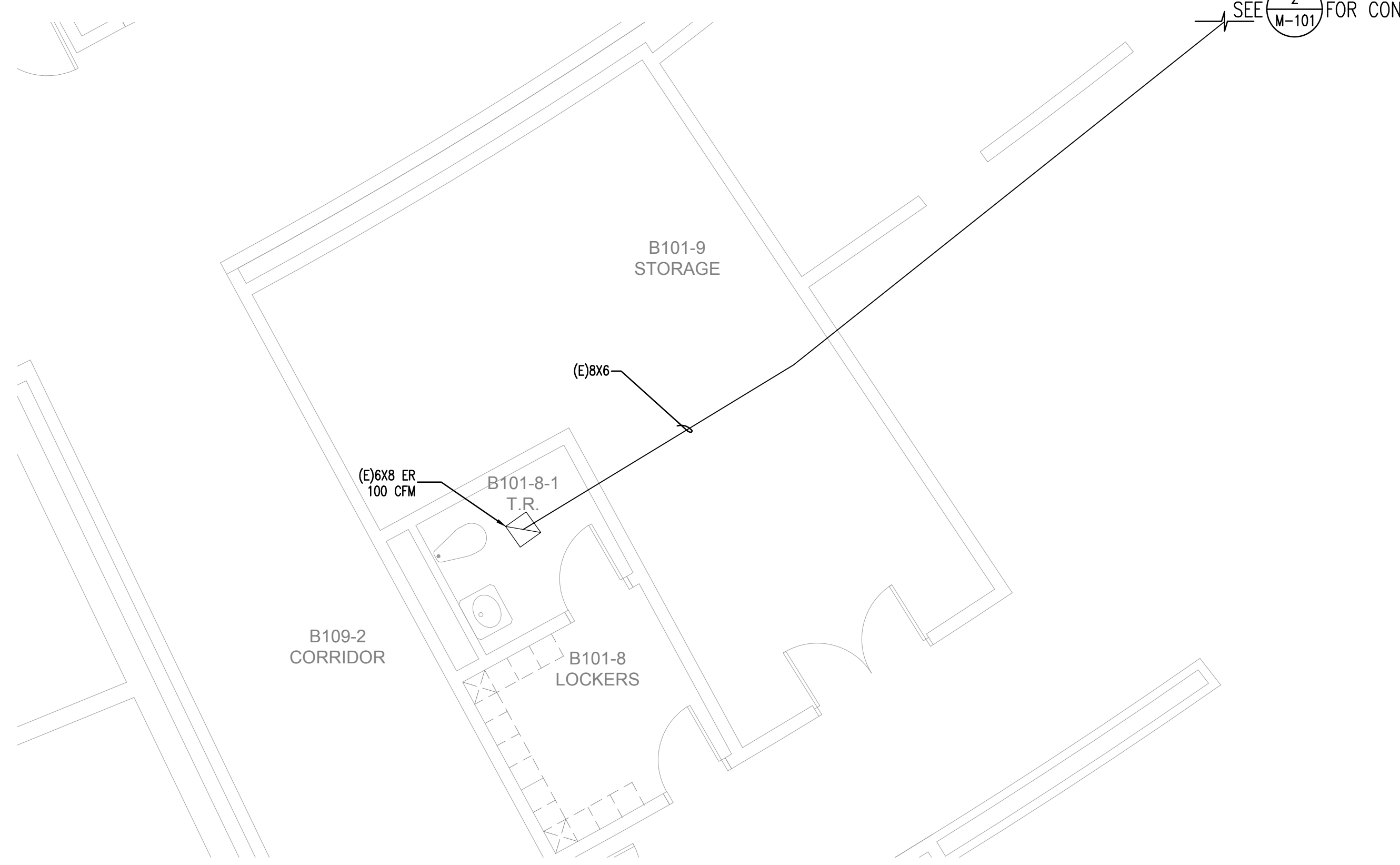
2 MECHANICAL NEW WORK FLOOR PLAN - CAFETERIA TOILET ROOMS
 M-101 SCALE: 1/4" = 1'-0"
 SCALE BAR: 1/4"=1'-0"

SEE 4 FOR CONT.



3 MECHANICAL NEW WORK FLOOR PLAN - CUSTODIAL OFFICE TOILET ROOM
 M-101 SCALE: 1/4" = 1'-0"
 SCALE BAR: 1/4"=1'-0"

SEE 1 FOR CONT.



4 MECHANICAL NEW WORK FLOOR PLAN - LOCKERS TOILET ROOM
 M-101 SCALE: 1/4" = 1'-0"
 SCALE BAR: 1/4"=1'-0"

SEE 2 FOR CONT.

NOTE:
 1. BALANCE EX. 6X8 TOILET ROOM ER 100 CFM, LOCATED AT THE STORAGE ROOM.

EXHAUST FAN SCHEDULE

SYMBOL	SERVICE	FAN TYPE	DRIVE TYPE	CFM	ESP IN WC	FAN RPM	MOTOR HP	BHP	ELECTRICAL		OPER WEIGHT (LBS)	SONES/dBA	BASIS OF DESIGN		NOTES
									V/PH/Hz	AMPS			MANUFACTURER	MODEL NUMBER	
EF-13	1st CAFE / BOYS B100-1-M & GIRLS B100-2-G TR'S	DOWNBLAST	DIRECT	500	0.5	1171	0.25	0.08	115/1/60	3.8	62	7.1/54	GREENHECK	G-099-VG	1,2,3,4,5,6,7
EF-24	1st GYM / BOYS B100-6-B, GIRLS B100-6-G, B100-7 TR'S	DOWNBLAST	DIRECT	1110	0.6	1022	0.50	0.21	115/1/60	8.2	82	7.2/54	GREENHECK	G-140-VG	1,2,3,4,5,6,7

- NOTES:**
- PROVIDE BIRDSCREEN
 - PROVIDE CURB ADAPTER TO MOUNT FAN TO EXISTING CURB. PROVIDE WEATHERTIGHT SEAL.
 - PROVIDE MOTORIZED BACKDRAFT DAMPER. INTERLOCK DAMPER OPERATION WITH EXHAUST FAN OPERATION. MOTORIZED DAMPER TO HAVE SAME VOLTAGE AS FAN
 - PROVIDE PREMIUM EFFICIENCY EC MOTOR (OR VARI-GREEN)
 - PROVIDE FACTORY MOUNTED PREWIRED DISCONNECT SWITCH RATED FOR THE APPROPRIATE LOCATION & APPLICATION.
 - PROVIDE SPEED CONTROLLER IF DIRECT DRIVE FAN. PROVIDE BELT TENSIONER IF BELT DRIVEN FAN.
 - PROVIDE CORROSION RESISTANT COATING.

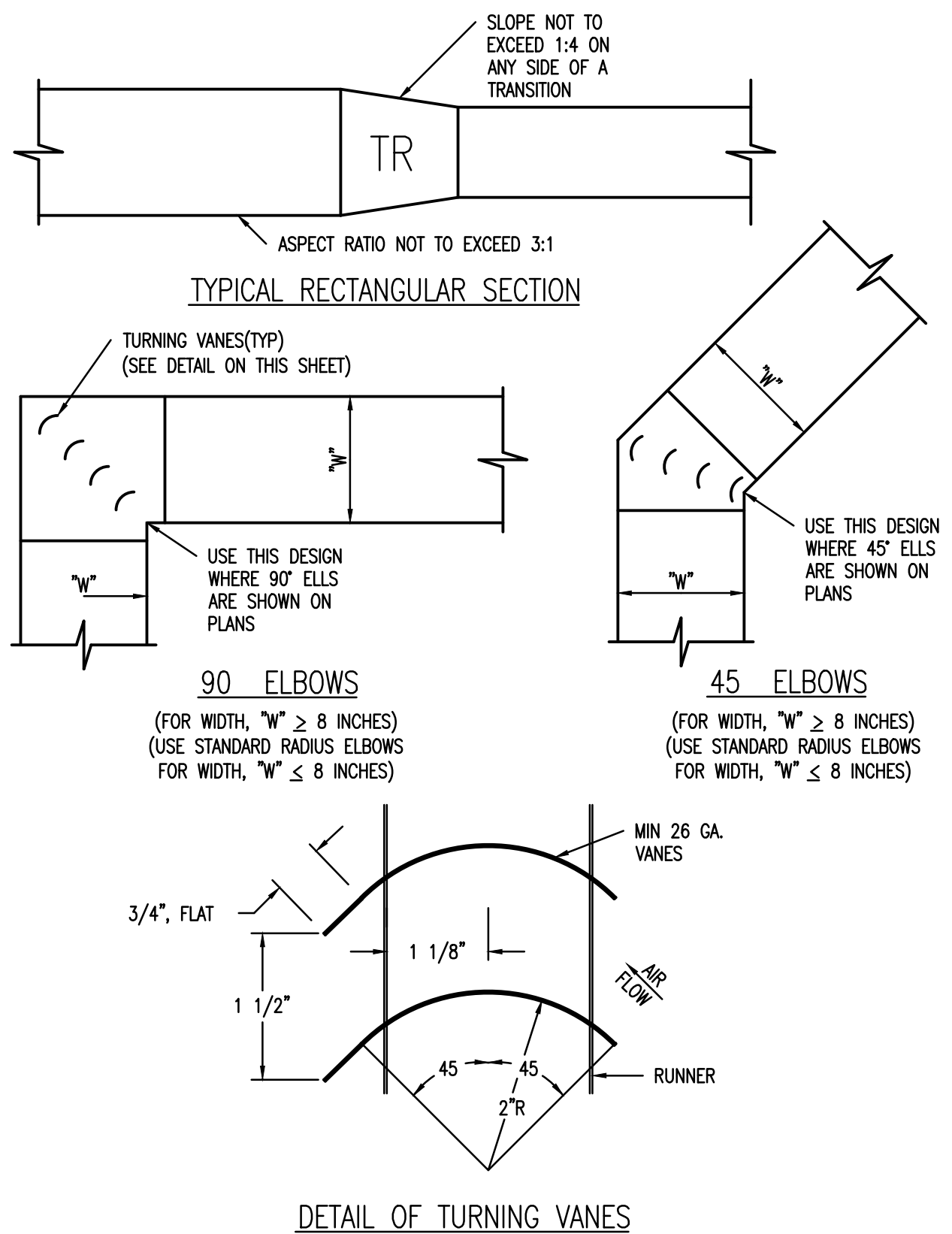
SHAWNEE HIGH SCHOOL - LRHSD - VENTILATION SCHEDULE

ROOM NUMBER	ROOM NAME	BREATHING ZONE OA CALCULATION VBZ= (Rp*Pz)+(Ra*Az)		ZONE OA CALCULATION VOZ = VBZ / EZ		EXHAUST CALCULATION		DESIGN AIRFLOWS			NOTES
		Az FLOOR AREA (SF)	Pz NO. OF PEOPLE (QTY)	VOZ ZONE OUTDOOR AIRFLOW (CFM)	NO. OF FIXTURES (QTY)	EA RATE (CFM / FIXTURE) OR (CFM/SF)	CALCULATED EXHAUST AIRFLOW (CFM)	OUTDOOR AIRFLOW (CFM)	EXHAUST AIRFLOW (CFM)	TRANSFER AIRFLOW (CFM)	
B100-1-M	LAVATORY - BOYS	147	-	-	2	70	140	-	140	140	-
B100-2-G	LAVATORY - GIRLS	144	-	-	3	70	210	-	210	210	-
TOTALS:		291						0	350	350	-
B100-5-G	LAVATORY - GIRLS	255	-	-	7	70	490	-	490	490	-
B100-6-B	LAVATORY - BOYS	354	-	-	5	70	350	-	350	350	-
B100-7	LAVATORY	81	-	-	1	70	70	-	70	70	-
TOTALS:		690						0	910	910	-

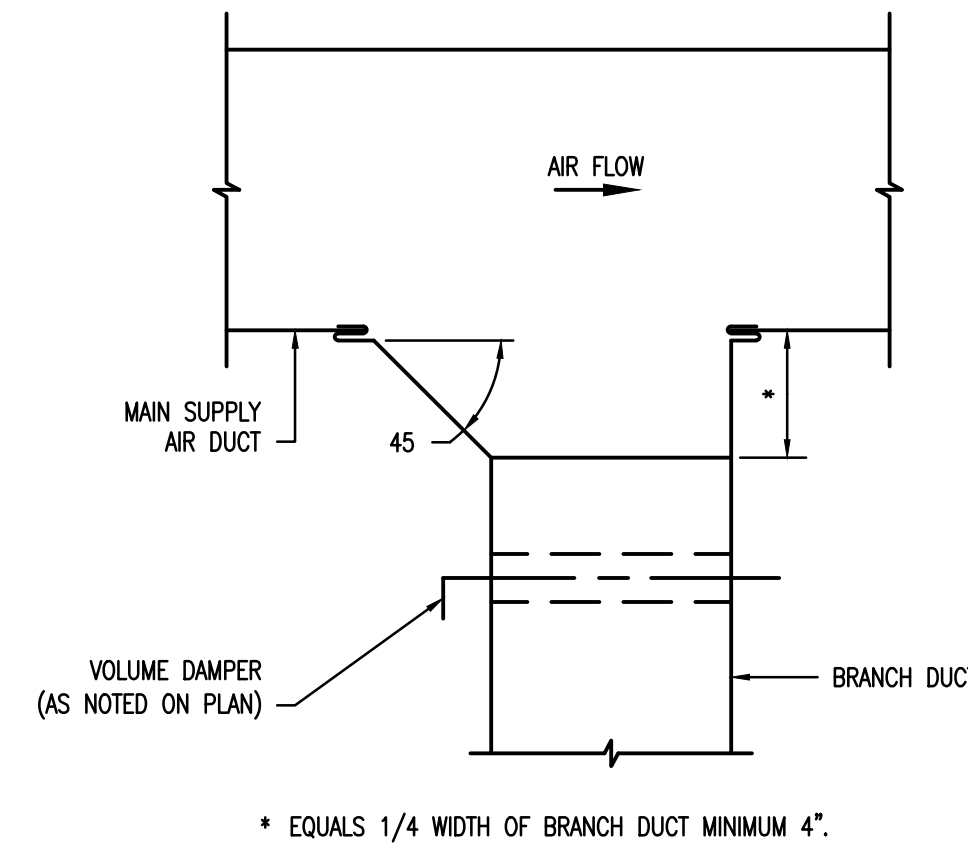
AIR TERMINAL DEVICE SCHEDULE

SYMBOL	SERVICE	TYPE	CFM RANGE	NECK SIZE	N.C. @ MAX CFM	FACE OVERALL DIMENSIONS WxL (IN.)	BASIS OF DESIGN	
							MANUFACTURER	MODEL NUMBER
ER-1	EXHAUST	DUCT MOUNT	0-300	10X10	23	12X12	PRICE	630
TG-1	TRANSFER	DUCT MOUNT	0-210	16X10	-	18X12	PRICE	630
TG-2	TRANSFER	DUCT MOUNT	141-550	14X14	-	16X16	PRICE	630
TG-3	TRANSFER	DUCT MOUNT	350-490	22X10	-	24X12	PRICE	530

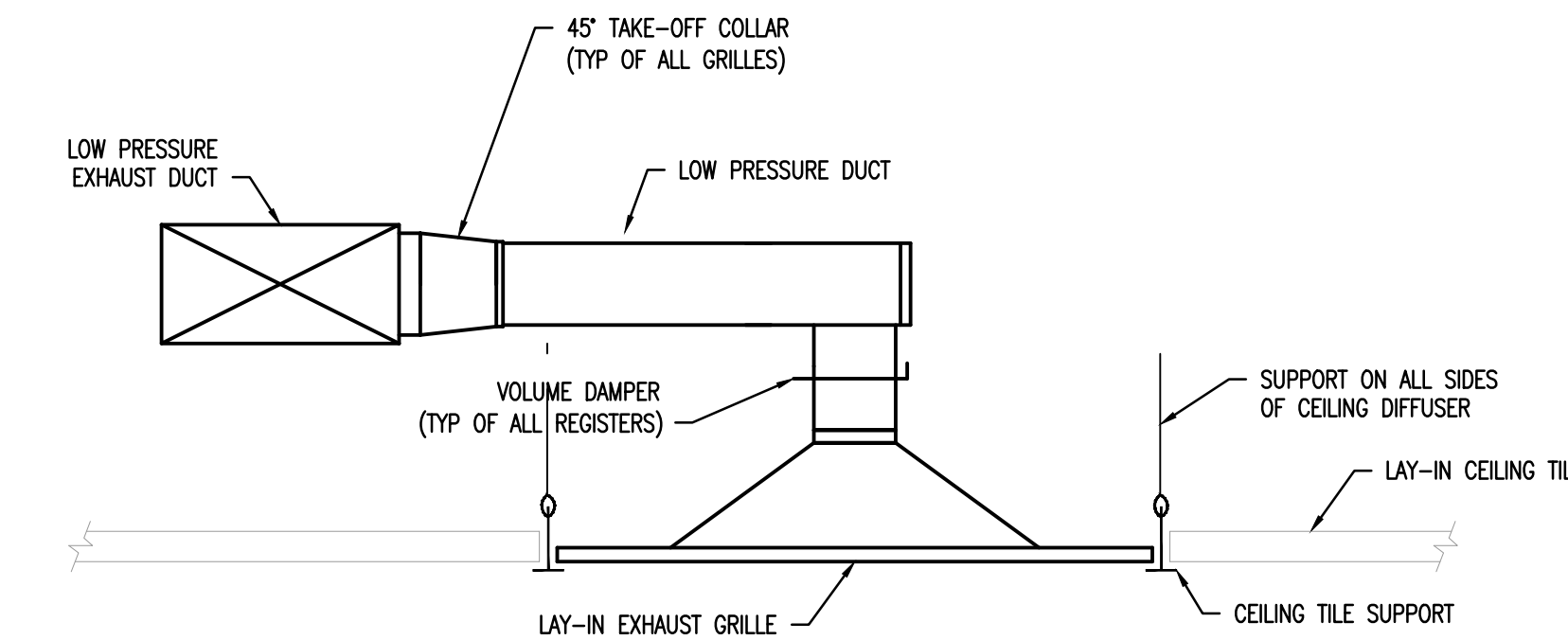
- NOTES:**
- REFER TO MECHANICAL DRAWINGS FOR LOCATIONS.
 - MOUNTING FRAME TYPE SHALL BE COORDINATED WITH THE CEILING/WALL CONSTRUCTION TYPE.
 - FLEXIBLE DUCTS CONNECTING TO THE DIFFUSERS SHALL BE FULL SIZE OF NECK DIAMETER AND NOT EXCEED 8' IN LENGTH.
 - DIFFUSERS SHALL BE 4-WAY BLOW UNLESS OTHERWISE INDICATED ON PLANS
 - PROVIDE SQUARE TO ROUND NECK ADAPTERS IF REQUIRED
 - ALL GRILLES MOUNTED IN CEILINGS, SOFFITS, OR WALLS SHALL HAVE BAKED WHITE ENAMEL FINISH OR COLOR AS SELECTED BY ARCHITECT. FINAL COLORS TO BE DETERMINED POST AWARD. ALL GRILLES MOUNTED ON GALVANIZED EXPOSED DUCTWORK SHALL BE ORDERED 'PRIMED TO BE PAINTED IN FIELD'
 - PROVIDE BUILT IN DAMPER (630D) FOR ALL EXHAUST GRILLES LOCATED WITHIN INACCESSIBLE CEILINGS



1 DUCT LAYOUT DETAILS
M-301 SCALE: N.T.S.

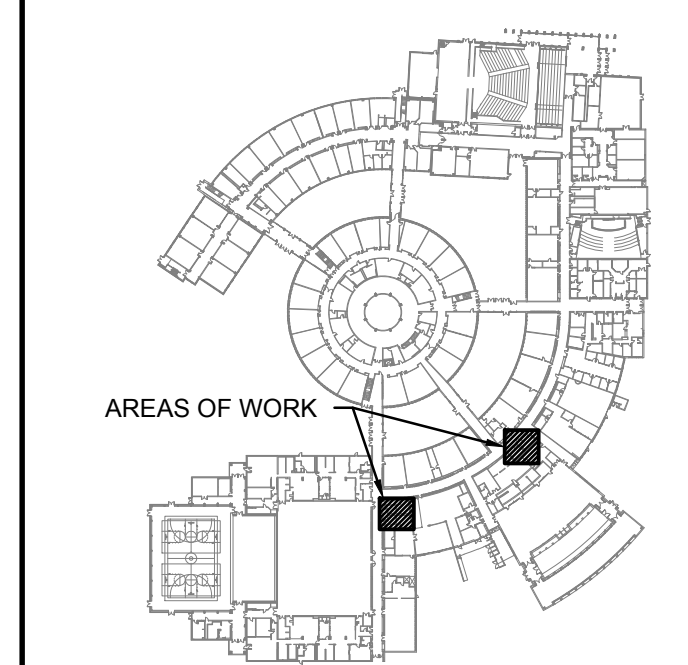


2 TYPICAL LOW PRESSURE RECTANGULAR DUCT TAKE-OFF DETAIL
M-301 SCALE: N.T.S.



3 BRANCH DUCT DETAIL
M-301 SCALE: N.T.S.

KEY PLAN:



John A. Marchalava P. E.
New Jersey P. E. No. 24GE0490250

Professional Engineer
John A. Marchalava P. E.

PROJECT: REF21-39-8312

LRHSD - SHAWNEE HIGH SCHOOL PHASE 4 HVAC UPGRADES

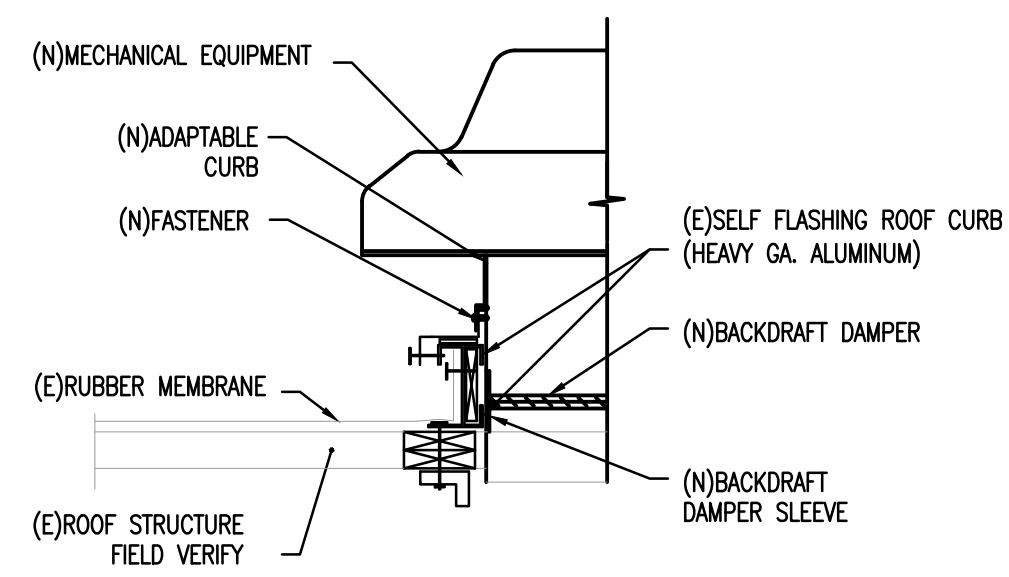
600 TABERNALE RD
MEDFORD, NEW JERSEY

DRAWING TITLE:
MECHANICAL SCHEDULES AND DETAILS

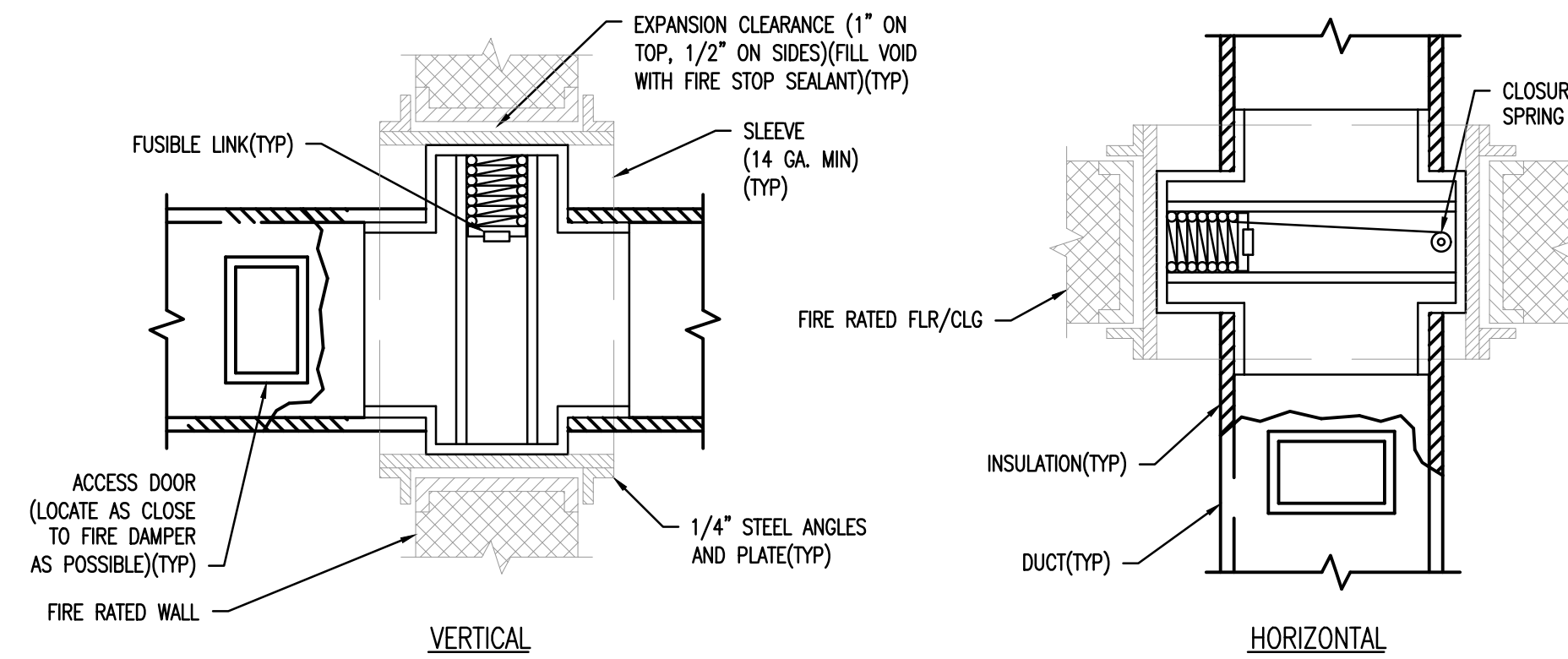
DRAWN BY: ARA	SCALE: AS NOTED	DWG SIZE: 42x30
CHECKED BY: BTR	DRAWING NO.	REVISION
DATE: 12/19/2024	M-301	
PROJECT NO.: 8C22002		

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4 FLAT ROOF CURB ADAPTER DETAIL
M-301 SCALE: N.T.S.



5 1-1/2 HOUR FIRE DAMPER DETAIL
M-301 SCALE: N.T.S.



- NOTES:**
- ALL FIRE, SMOKE, FIRE/SMOKE DAMPER INSTALLATIONS SHALL COMPLY WITH SMACNA AND NFPA STANDARDS.
 - CONTRACTOR SHALL PROVIDE CONTINUOUS FIRE-STOPPING AROUND ENTIRE FIRE DAMPER ASSEMBLY TO MAINTAIN RATING.
 - MINIMUM ACCESS DOOR SIZE SHALL BE 12X12, UNLESS OTHERWISE NOTED.

LEGEND	
	EXISTING COLD WATER PIPING
	NEW COLD WATER PIPING
	EXISTING HOT WATER PIPING
	NEW HOT WATER PIPING
	EXISTING SANITARY WASTE PIPING
	NEW SANITARY WASTE PIPING
	EXISTING SANITARY VENT PIPING
	NEW SANITARY VENT PIPING
	EXISTING GREASE WASTE PIPING
	NEW GREASE WASTE PIPING
	NEW GAS PIPING
	EXISTING PIPING TO BE REMOVED
	GRADE & FLOOR CLEANOUT
	FLOW DIRECTION
	PIPING DOWN/DROP @ ELBOW
	PIPING DOWN/DROP @ TEE
	PIPING RISE/UP @ ELBOW
	PIPING RISE/UP @ TEE
	P-TRAP
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	UNION
	CAPPED OFF PIPE
	BALL VALVE
	BACKFLOW PREVENTER
	SHOCK ABSORBER
	CHECK VALVE
	PRESSURE REGULATING/REDUCING VALVE
	BALANCING VALVE
	GAS COCK
	SOLENOID OPERATED AUTOMATIC GAS SHUT OFF VALVE
	WATER METER
	GAS METER
	MIXING VALVE
	FLOOR DRAIN
	FLOOR SINK
	POINT OF DEMOLITION TO EXISTING
	POINT OF CONNECTION TO EXISTING
	FOOD SERVICE EQUIPMENT IDENTIFICATION
	TROUGH DRAIN

PLUMBING DEMOLITION NOTES

- IT IS THE INTENT THAT ALL EXISTING PIPING, DUCTWORK, FIXTURES AND OTHER EQUIPMENT AND MATERIALS THAT INTERFERE WITH THE ALTERED EXISTING BUILDING ARRANGEMENTS AND NEW SYSTEMS BE REMOVED, RELOCATED, REROUTED OR ABANDONED. THE DRAWINGS GENERALLY INDICATE MAJOR ITEMS OF EXISTING MATERIALS AND EQUIPMENT THAT ARE TO BE REMOVED, RELOCATED, REROUTED OR ABANDONED BY EACH TRADE. IT IS NOT POSSIBLE TO INDICATE ALL RELATED ACCESSORIES, SPECIALTIES AND OTHER MINOR ITEMS. HOWEVER, THEIR REMOVAL, RELOCATIONS, REROUTING OR ABANDONMENT SHALL ALSO BE INCLUDED IN THIS CONTRACT AND SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
- EXISTING CONCEALED AND EXPOSED EQUIPMENT AND MATERIALS THAT WILL BECOME ABANDONED DUE TO NEW WORK SHALL BE REMOVED BACK TO ACTIVE RISER AND MAIN AND PROPERLY PLUGGED OR CAPPED BEHIND FINISHED SURFACES.
- ALL EXISTING PIPING TO BE DEMOLISHED MAY NOT BE SHOWN. CONTRACTOR SHALL DURING PRE-BID SITE VISIT DETERMINE EXTENT OF DEMOLITION AND INCLUDE COST OF THIS WORK IN BID. SHOULD A CONTRACTOR REQUIRE REMOVAL, RELOCATION OR REROUTING OF ANOTHER TRADE'S WORK THAT IS NOT INDICATED ON DRAWINGS, THE CONTRACTOR REQUIRING SUCH WORK SHALL BE RESPONSIBLE FOR THAT WORK, AND PAY ALL REQUIRED COSTS. ALL UNKNOWN BELOW SLAB PIPING ENCOUNTERED DURING INSTALLATION OF NEW WORK SHALL BE REMOVED AND CAPPED OFF AT ACTIVE MAIN OR BRANCH. ALLOWANCES SHALL BE MADE FOR THESE ITEMS IN BID PRICE.
- EXISTING EQUIPMENT AND MATERIALS THAT ARE TO REMAIN, BUT BECOME EXPOSED DUE TO NEW WORK, SHALL BE RELOCATED AND RECONNECTED AS DIRECTED BY ARCHITECT.
- ALL WORK INVOLVING ALTERATIONS TO EXISTING SYSTEMS, EQUIPMENT AND MATERIALS SHALL BE REVIEWED WITH ARCHITECT AND OWNER BEFORE BEGINNING WORK.
- REMOVED EQUIPMENT AND MATERIALS NOT DESIRED BY OWNER SHALL BECOME PROPERTY OF CONTRACTOR AND SHALL BE PROMPTLY REMOVED FROM SITE. EQUIPMENT AND MATERIALS DESIRED BY OWNER SHALL BE DELIVERED BY CONTRACTOR TO AN ON-SITE STORAGE LOCATION DESIGNATED BY OWNER.
- THE CONTRACTOR MUST SURVEY AND VERIFY LOCATIONS AND PHYSICAL SIZES OF ALL EXISTING ITEMS AND DETERMINE WHETHER RELOCATION OR REROUTING WILL BE REQUIRED. IF RELOCATION OR REROUTING IS REQUIRED, INCLUDING THAT OF ALL RELATED ACCESSORIES, SPECIALTIES AND OTHER MINOR ITEMS, THE CONTRACTOR SHALL INCLUDE ALL NECESSARY WORK AS PART OF HIS CONTRACT AND IT SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
- PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING AND CAPPING OF THE BUILDING'S EXISTING DOMESTIC WATER, SANITARY SEWER AND NATURAL GAS SERVICES AS SHOWN ON THE CONTRACT DRAWINGS. ALL REMAINING PLUMBING SYSTEMS INCLUDING PIPING, FIXTURE, EQUIPMENT, ETC., SHALL BE DEMOLISHED AND REMOVED BY OTHERS.
- PRIOR TO TERMINATION OF THE BUILDING'S EXISTING DOMESTIC WATER, SANITARY SEWER AND NATURAL GAS SERVICES, PLUMBING CONTRACTOR SHALL NOTIFY AND COORDINATE THIS WORK WITH EACH RESPECTIVE UTILITY COMPANY.
- PRIOR TO BID, CONTRACTOR SHALL FIELD INSPECT AND VERIFY SCOPE OF DEMOLITION WORK AND INCLUDE IN BID ALL COSTS ASSOCIATED WITH THE DISCONNECTION AND SAFING-OFF OF THE BUILDING'S EXISTING DOMESTIC WATER, SANITARY SEWER AND NATURAL GAS SERVICES.

GENERAL SPECIFICATIONS

- ALL PLUMBING SHALL COMPLY WITH THE 2021 EDITION OF THE NATIONAL STANDARD PLUMBING CODE AS ADOPTED BY THE STATE OF NEW JERSEY.
- CONTRACTOR SHALL PROVIDE AND PAY ALL FEES AND PERMITS.
- THE DRAWINGS ARE INTENDED TO SHOW APPROXIMATE AND RELATIVE LOCATIONS OF MATERIALS AND EQUIPMENT. DRAWINGS SHALL NOT BE SCALED TO DETERMINE EXACT POSITIONS AND CLEARANCES. BECAUSE OF DIAGRAMMATIC LAYOUT AND SMALL SCALE OF DRAWINGS, NOT ALL RISERS, DROPS, OFFSETS, VENTS, TRAPS AND RELATED SPECIALTIES ARE INDICATED. PROVIDE ALL SUCH PIPING, FITTINGS, VALVES AND SPECIALTIES REQUIRED IN SUCH CASES TO INSURE A COMPLETE AND PROPERLY OPERATING INSTALLATION IN ACCORDANCE WITH CODES AND WITHOUT EXTRA COST TO OWNER.
- WORK SHALL BE PERFORMED BY MECHANICS SKILLED IN PARTICULAR TRADE INVOLVED, THAT IS, PLUMBING WORK SHALL BE PERFORMED BY PLUMBERS, ELECTRICAL WORK SHALL BE PERFORMED BY ELECTRICIANS, MECHANICAL WORK PERFORMED BY STEAM FITTERS AND SHEET METAL MECHANICS.
- ALL WORK SHALL BE INSPECTED, TESTED AND APPROVED BY THE PROPER AUTHORITIES HAVING JURISDICTION. CERTIFIED COPIES OF THESE APPROVALS SHALL BE DELIVERED TO THE OWNER BEFORE FINAL PAYMENT.
- SLEEVES SHALL BE INSTALLED THROUGH FLOORS AND FIRE RATED WALLS. SLEEVES SHALL BE 2 PIPE SIZES LARGER THAN PIPE PASSING THRU AND SHALL BE SCHEDULE 40 STEEL PIPE. PROVIDE FIRE PROOF SEAL BETWEEN PIPES AND SLEEVES WHEN PASSING THRU FIRE RATED WALLS/FLOORS. SLEEVES PASSING THRU FLOORS SHALL BE EXTENDED 4" ABOVE FLOOR.
- ESCUTCHEON PLATES SHALL BE PROVIDED ON ALL PIPE WHICH PASS THROUGH WALL PARTITIONS, FLOORS OR CEILINGS. PLATES SHALL BE ONE PIECE, CHROME FINISHED BRONZE.
- COREDRILLING SHALL BE ACCOMPLISHED BY MECHANICAL MEANS IN A MANNER THAT WILL NOT AFFECT THE INTEGRITY OF THE STRUCTURE. AFTER INSTALLATION OF PIPING THRU THE COREDRILL, PACK THE ANNULAR SPACE WITH OAKUM OR FERROUS GLASS, LEAVING A MINIMUM OF TWO INCHES AT EACH END TO BE FILLED AND FINISHED WITH A "FIRE BARRIER" MATERIAL EQUAL TO 3M "PENETRATION SEALING SYSTEMS" SUCH AS "TOP-25 CAULK", "303 PUTTY" OR "TS-195 WRAP". APPLICATION OF "FIRE BARRIER" MATERIAL SHALL BE IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND APPLICABLE CODES.
- PROVIDE COPIES OF ALL TEST REPORTS TO OWNER.
- FLUSH VALVE/TANK HANDLES FOR HANDICAPPED WATER CLOSETS SHALL FACE WIDE SIDE OF STALL/ROOM.
- COORDINATE LOCATION OF ALL ABOVE CEILING PIPING WITH MECHANICAL, ELECTRICAL & FIRE PROTECTION CONTRACTORS PRIOR TO INSTALLATION.
- IF CONFLICT ARISES BETWEEN ITEMS SHOWN ON DRAWINGS AND ITEMS SPECIFIED, THE MOST STRINGENT ITEM SHALL BE USED.
- THE INSTALLATION OF ALL INSULATION SHALL BE PERFORMED BY AN EXPERIENCED CRAFTSMAN IN A NEAT WORKMAN-LIKE MANNER AND SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS FOR SERVICE INTENDED.
- ALL NEW PLUMBING FIXTURES SHALL MEET THE APPROPRIATE "ANSI" STANDARDS LISTED IN THE PLUMBING SUBCODE. USE OF SUBSTANDARD AND NON-CONFORMING FOREIGN MADE PRODUCTS IS PROHIBITED.
- ALL PLUMBING SYSTEMS AND VALVES SHALL BE LABELED FOR PROPER IDENTIFICATION. NAMEPLATES, METAL TAGS, & PLASTIC PIPE MARKERS SHALL BE IN ACCORDANCE WITH BROWAR IDENTIFICATION & SAFETY PRODUCTS, BROWAR INDUSTRIES, INC.
- INSULATE EXPOSED WASTE & WATER PIPING BELOW HANDICAPPED LAVATORIES WITH PLUMBEREX "PRO-EXTREME" FORM FIT INSULATING COVERS.
- HANDICAPPED FIXTURE HEIGHTS SHALL BE IN ACCORDANCE WITH ICC/ANSI A-117.1.
- ALL PLUMBING FIXTURES SHALL BE PROVIDED WITH CHROME PLATED SHUT OFF VALVES (ANGLE STOPS), CHROME PLATED SUPPLIES AND P-TRAPS.

HANGERS & SUPPORTS

- HANGERS AND ANCHORS SHALL BE SECURELY ATTACHED TO BUILDING CONSTRUCTION AT SUFFICIENTLY CLOSE INTERVALS TO SUPPORT PIPING AND ITS CONTENTS.
 - VERTICAL PIPING FOR CAST IRON SHALL BE SUPPORTED AT BASE AND AT EACH STORY HEIGHT BUT NOT MORE THAN 15 FOOT INTERVALS.
 - VERTICAL PIPING FOR COPPER SHALL BE SUPPORTED AT EACH STORY HEIGHT BUT NOT MORE THAN 10 FOOT INTERVALS.
 - VERTICAL PIPING FOR STEEL SHALL BE SUPPORTED AT BASE AND AT EVERY OTHER STORY HEIGHT BUT NOT MORE THAN 15 FOOT INTERVALS.
 - HORIZONTAL PIPING FOR CAST IRON SHALL BE SUPPORTED WITH MINIMUM ONE HANGER LOCATED WITHIN 18" OF EACH JOINT, AT CHANGES IN DIRECTION, AND AT EACH BRANCH CONNECTION. WHERE PIPE IS SUSPENDED BY NON-RIGID HANGERS MORE THAN 18" LONG PROVIDE LATERAL SUPPORT.
 - HORIZONTAL PIPING FOR COPPER SHALL BE SUPPORTED AT 6 FOOT INTERVALS FOR PIPE SIZES 1-1/4" AND SMALLER AND AT 10 FOOT INTERVALS FOR PIPE SIZES 1-1/2" AND LARGER. WHERE PIPE IS SUSPENDED BY NON-RIGID HANGERS MORE THAN 18" LONG PROVIDE LATERAL SUPPORT.
 - HORIZONTAL PIPING FOR STEEL SHALL BE SUPPORTED AT 12 FOOT INTERVALS FOR PIPE SIZES 1-1/4" AND SMALLER AND AT 12 FOOT INTERVALS FOR PIPE SIZES 1-1/2" AND LARGER. WHERE PIPE IS SUSPENDED BY NON-RIGID HANGERS MORE THAN 18" LONG PROVIDE LATERAL SUPPORT.
 - PLASTIC PIPE SHALL BE SUPPORTED AT INTERVALS OF NOT MORE THAN 4 FEET. AT END OF BRANCHES, AND CHANGES OF DIRECTION OR ELEVATION. SUPPORTS SHALL ALLOW FOR FREE MOVEMENT. VERTICAL PIPE SHALL BE MAINTAINED IN STRAIGHT ALIGNMENT. TRAP ARMS IN EXCESS OF 3 FEET SHALL BE SUPPORTED AS CLOSE TO TRAP AS POSSIBLE. CARE SHALL BE TAKEN NOT TO COMPRESS, DISTORT, CUT OR ABRASE PIPING.
- ALL SUPPORTS COMING IN CONTACT WITH COPPER PIPING SHALL BE PLASTIC COATED.
- INSTALL METAL SHIELDS ON HANGERS SUPPORTING INSULATED PIPE.
- PROVIDE HANGERS THAT ARE U.L.L. LISTED AND LABELED.
- ALL DOMESTIC WATER, STORM & SANITARY WASTE PIPE SUPPORTS SHALL BE IN ACCORDANCE WITH THE NATIONAL STANDARD PLUMBING CODE 2021 AS ADOPTED BY THE STATE OF NEW JERSEY.
- PLUMBING SYSTEMS SHALL BE INSTALLED SO AS TO PREVENT STRAINS & STRESSES WHICH WILL EXCEED STRUCTURAL STRENGTH OF PIPE. PROVISIONS SHALL BE MADE FOR EXPANSION & CONTRACTION OF PIPING. ALL HANGERS LOCATED OUTSIDE OR IN CORROSIVE AREAS SHALL BE GALVANIZED.
- ALL HANGERS ON GALVANIZED PIPE SHALL BE GALVANIZED.
- MINIMUM ROD DIAMETER FOR SINGLE RIGID SUPPORTS SHALL BE AS FOLLOWS:
 - FOR 1/4" THRU 2" PIPE: 3/8" DIAMETER
 - FOR 2 1/2" AND 3" PIPE: 1/2" DIAMETER
 - FOR 4" AND 5" PIPE: 5/8" DIAMETER
 - FOR 6" PIPE: 3/4" DIAMETER
 - FOR 8" THRU 12" PIPE: 7/8" DIAMETER
 - FOR 14" THRU 18" PIPE: 1" DIAMETER
 - RODS MAY BE REINFORCED ONE SIZE FOR DOUBLE ROD HANGERS (3/8" DIA MIN).
- LONG RUNS OF DOMESTIC WATER PIPING SHALL BE SECURED TO AVOID MOVEMENT DUE TO PRESSURE FLUCTUATIONS (WATER HAMMER).

ABBREVIATIONS

ABV CLG	ABOVE CEILING
BF	BARRED-FREE
BLW FLR	BELOW FLOOR
BT	BATHTUB
BFP	BACKFLOW PREVENTER
CI	CAST IRON
CO	CLEANOUT
CW	COLD WATER
CONT	CONTINUE
CFU	COLD WATER FIXTURE UNIT
DF	DRINKING FOUNTAIN
DFU	DRAINAGE FIXTURE UNIT
DN	DOWN
EC	ELECTRICAL CONTRACTOR
EW	ELECTRICAL WATER COOLER
E	EXISTING
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FM	FORCE MAIN
FN	FUNNEL
FPC	FIRE PROTECTION CONTRACTOR
FS	FLOOR SINK
FSEC	FOOD SERVICE CONTRACTOR
GAS	GENERAL CONTRACTOR
GI	GREASE INTERCEPTOR
GPM	GALLONS PER MINUTE
GW	GREASE WASTE
HB	HOSE BIBB
HC	HANDICAPPED ACCESSIBLE
HW	HOT WATER
HWU	HOT WATER FIXTURE UNIT
HWRU	HOT WATER RETURN
HW	INDIRECT WASTE
LAV	LAVATORY SINK
MC	MECHANICAL CONTRACTOR
MR	MOP RECEPTOR
MS	MOP SINK
MV	MIXING VALVE
N	NEW
PC	PLUMBING CONTRACTOR
P	PRESSURE REGULATING/REDUCING VALVE
RAC	RUN ABOVE CEILING
RD/ORD	ROOF DRAIN/OVERFLOW ROOF DRAIN
SN	SANITARY
SH	SHOWER
SK	SINK
SF	SQUARE FOOT
S/S	STAINLESS STEEL
T & P	TEMPERATURE & PRESSURE
TD	TRENCH DRAIN / TROUGH DRAIN
TW	TEMPERED WATER
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
V	VENT
VTR	VENT THRU ROOF
W/	WITH
WB	WASHING MACHINE SUPPLY & WASTE BOX
WC	WATER CLOSET
WOD	WALL CLEAN OUT
W/D	WASHER/DRYER
WH	WALL HYDRANT

SUBMITTAL NOTE:

- CONTRACTOR SHALL PROVIDE SUBMITTALS FOR ALL PIPING, VALVES, EQUIPMENT, ETC. IN ACCORDANCE WITH ARCHITECTURAL SPECIFICATIONS. NO WORK SHALL BEGIN UNTIL APPROVAL HAS BEEN OBTAINED FROM ARCHITECT/ENGINEER.
- CONTRACTOR SHALL SUBMIT COORDINATION DRAWINGS 1/4" SCALE MINIMUM FOR REVIEW AND APPROVAL AS STATED IN NOTE 1 ABOVE.

"AS BUILT" CONSTRUCTION DRAWINGS NOTES:

- CONTRACTOR SHALL PROVIDE (1) SET OF "AS-BUILT" DRAWINGS ON DISC IN PDF FORMAT TO ARCHITECT AND OWNER AT THE COMPLETION OF PROJECT.
- TWO (2) SETS OF "AS-BUILT" DRAWINGS ON BLACKLINE PRINTS SHALL BE SUPPLIED TO THE ARCHITECT FOR THE ARCHITECT'S AND ENGINEER'S USE AT THE PROJECT COMPLETION.

CONTINUITY OF EXISTING SYSTEMS

- ALL WORK SHALL BE PERFORMED AT SUCH TIME AND IN SUCH MANNER AS WILL LEAST INTERFERE WITH MAINTENANCE AND OPERATION OF OWNER'S ACTIVITIES. PROVISIONS SHALL BE MADE TO PERMIT OWNER'S USE OF ALL THE BUILDING AND OF EXISTING SYSTEMS AT ALL TIMES. PROVIDE TEMPORARY FACILITIES TO SECURE THESE CONDITIONS. REMOVE TEMPORARY FACILITIES WHEN PERMANENT WORK HAS BEEN PLACED INTO SERVICE.
- FULLY COORDINATE WITH ARCHITECT, OWNER AND ALL OTHER TRADES, ALL WORK INVOLVING SHUT-DOWN AND INTERRUPTION OF EXISTING SYSTEMS AND SERVICE.
- SHUT-DOWN OF EXISTING SERVICES WHERE REQUIRED TO INSTALL NEW SYSTEMS OR ALTER EXISTING SHALL BE PERFORMED IN A MANNER THAT WILL NOT INTERFERE WITH OWNER'S OPERATIONS. ALL COSTS FOR PERFORMING THIS WORK SHALL BE BORNE BY THE CONTRACTOR AND WITHOUT "EXTRA" COST TO THE OWNER.
- EXISTING SYSTEMS AND SERVICES THAT ARE TEMPORARILY DISCONNECTED, BUT ARE TO REMAIN IN USE, SHALL BE PERMANENTLY RECONNECTED AND RETURNED TO PROPER OPERATION.
- FULLY COORDINATE WITH ARCHITECT, OWNER AND OTHER TRADES TO ENSURE COMPLETE CONTINUITY OF ALL SYSTEMS AND SERVICES.

MEP ENGINEER:

CONCORD ENGINEERING

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No.	Date	ISSUE FOR BID	Description
	12/19/24	ISSUE FOR BID	
REVISIONS:			

KEY PLAN:

AREAS OF WORK

John A. Marchalava P. E.
New Jersey P. E. No. 2452499290

Professional Engineer
John A. Marchalava P. E.

PROJECT: REF21-39-8312

LRHSD - SHAWNEE HIGH SCHOOL PHASE 4 HVAC UPGRADES

600 TABERNALE RD
MEDFORD, NEW JERSEY

DRAWING TITLE:

PLUMBING COVER SHEET

DRAWN BY:	SCALE:	AS NOTED	DWG SIZE:	42x30
CHECKED BY:	JMS	DRAWING NO.:	P-000	REVISION:
DATE:	12/19/2024			
PROJECT NO.:	8C22002			

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PLUMBING DEMOLITION NOTES:

GENERAL NOTES:

1. REFER TO PLUMBING LEAD SHEET, P-000 FOR "NOTES" THAT PERTAIN TO THE SCOPE OF THIS PROJECT.
2. EXISTING CONCEALED AND EXPOSED EQUIPMENT AND MATERIALS THAT WILL BECOME ABANDONED DUE TO NEW WORK SHALL BE REMOVED BACK TO ACTIVE RISER AND MAIN AND PROPERLY PLUGGED OR CAPPED BEHIND FINISHED SURFACES.
3. WHERE PIPING PENETRATES AN EXISTING WALL OR SURFACE AND IS BEING ABANDONED IN PLACE, THE PIPING SHALL BE CUT BEYOND THE EXTERIOR SURFACE OF THE MATERIAL AND CAPPED. ONCE CAPPED, THE SURFACE SHALL BE PATCHED TO MATCH EXISTING SURFACES.
4. IN THE REMOVAL OF ANY PART OF A DRAINAGE OR WATER SYSTEM, DEAD ENDS SHALL BE AVOIDED EXCEPT WHERE NECESSARY TO EXTEND TO A CLEANOUT SO AS TO BE ACCESSIBLE.
5. CONTRACTOR SHALL VERIFY LOCATION, SIZE, AND ROUTING OF ALL PIPING PRIOR TO DEMOLITION. PLUMBING DRAWINGS ARE DIAGNOSTIC AND MAY NOT BE AN EXACT REPRESENTATION OF FIELD CONDITIONS.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING SHUTOFF VALVES FOR DOMESTIC AND NATURAL GAS PIPING TO ISOLATE THE AREA OF WORK PRIOR TO DEMOLITION.
7. REMOVED EQUIPMENT AND MATERIALS NOT DESIRED BY OWNER SHALL BECOME PROPERTY OF CONTRACTOR AND SHALL BE PROMPTLY REMOVED FROM SITE. EQUIPMENT AND MATERIALS DESIRED BY OWNER SHALL BE DELIVERED BY CONTRACTOR TO AN ON-SITE LOCATION DESIGNATED BY OWNER.

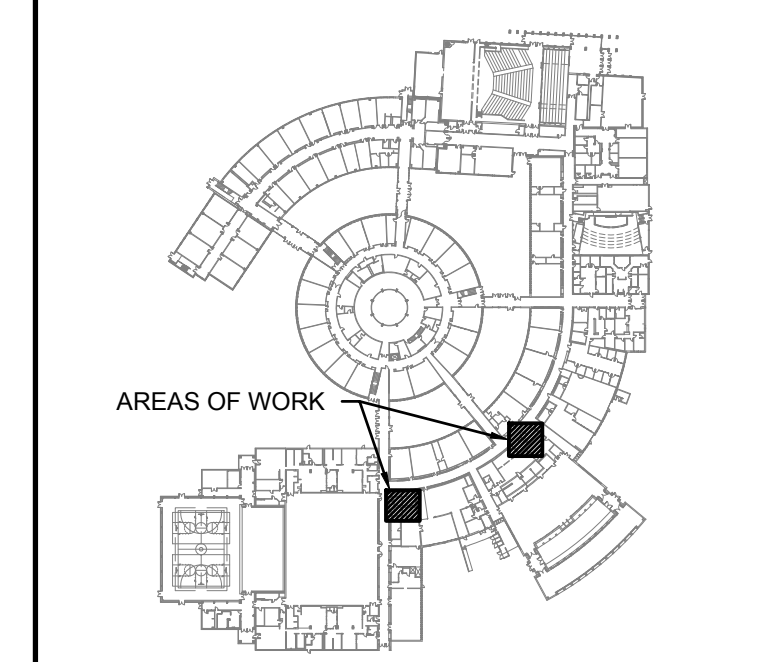
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No.	Date	ISSUE FOR BID	Description
1	12/19/24	ISSUE FOR BID	

REVISIONS:

KEY PLAN:



John A. Marchalava P. E.
 New Jersey P. E. No. 245E04992900

Professional Engineer
 John A. Marchalava P. E.

PROJECT: REF21-39-8312

LRHSD - SHAWNEE HIGH SCHOOL PHASE 4 HVAC UPGRADES

600 TABERNACLE RD
 MEDFORD, NEW JERSEY

DRAWING TITLE:

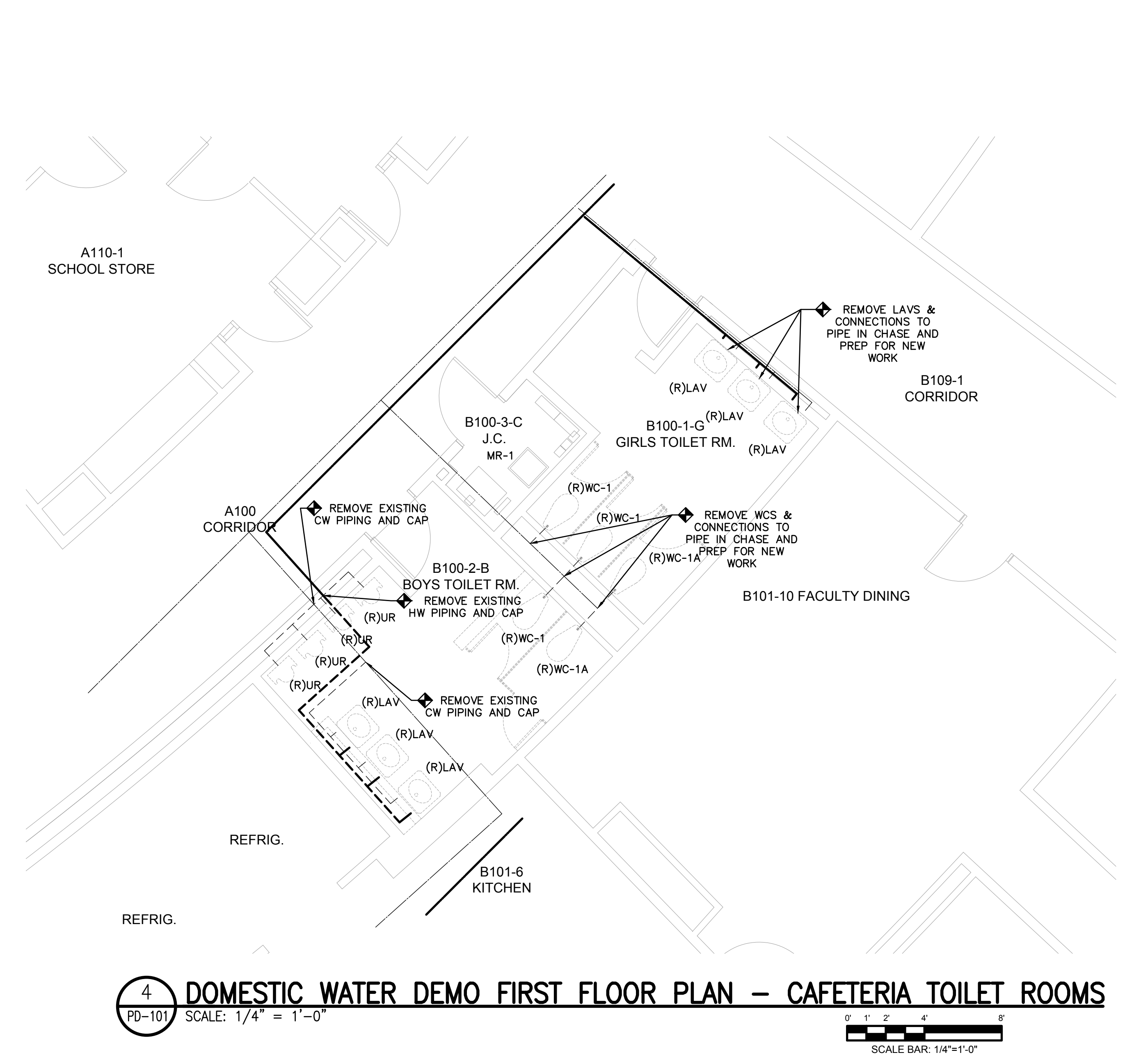
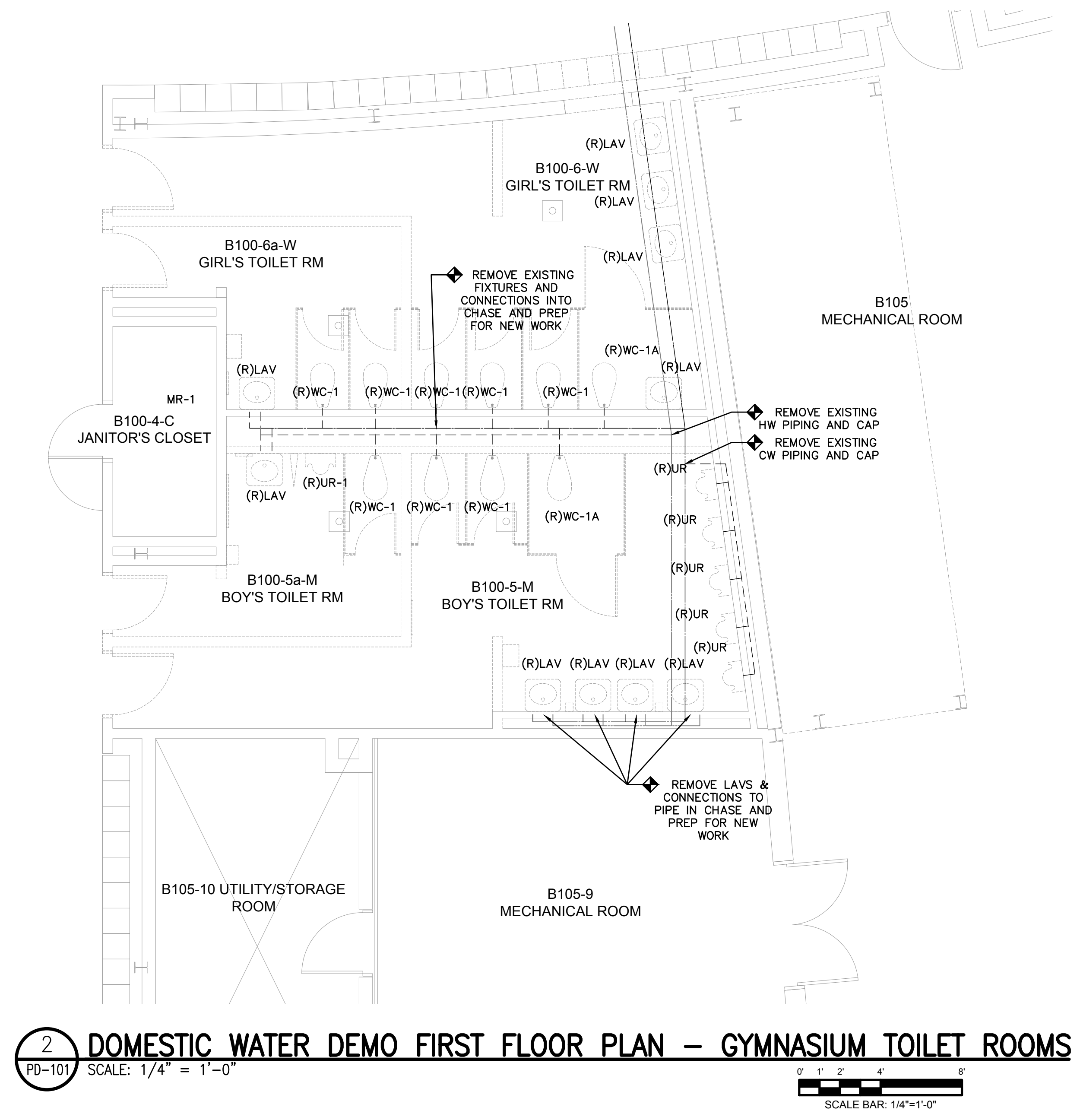
PLUMBING DEMOLITION
 FLOOR PLANS

DRAWN BY: SJM	SCALE: AS NOTED	DWG SIZE: 42x30
CHECKED BY: JMS	DRAWING NO.	REVISION
DATE: 12/19/2024	PD-101	
PROJECT NO.: 8C22002		

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1 SANITARY DEMO FIRST FLOOR PLAN – GYMNASIUM TOILET ROOMS
 PD-101 SCALE: 1/4" = 1'-0"
 SCALE BAR: 14"=1'-0"

2 SANITARY DEMO FIRST FLOOR PLAN – CAFETERIA TOILET ROOMS
 PD-101 SCALE: 1/4" = 1'-0"
 SCALE BAR: 14"=1'-0"



2 DOMESTIC WATER DEMO FIRST FLOOR PLAN – GYMNASIUM TOILET ROOMS
 PD-101 SCALE: 1/4" = 1'-0"
 SCALE BAR: 14"=1'-0"

4 DOMESTIC WATER DEMO FIRST FLOOR PLAN – CAFETERIA TOILET ROOMS
 PD-101 SCALE: 1/4" = 1'-0"
 SCALE BAR: 14"=1'-0"

- PLUMBING NEW WORK NOTES:**
- GENERAL NOTES:**
- REFER TO PLUMBING LEAD SHEET, P-000 FOR 'NOTES' THAT PERTAIN TO THE SCOPE OF THIS PROJECT.
 - EXISTING CONCEALED AND EXPOSED EQUIPMENT AND MATERIALS THAT WILL BECOME ABANDONED DUE TO NEW WORK SHALL BE REMOVED BACK TO ACTIVE RISER AND MAIN AND PROPERLY PLUGGED OR CAPPED BEHIND FINISHED SURFACES.
 - WHERE PIPING PENETRATES AN EXISTING WALL OR SURFACE AND IS BEING ABANDONED IN PLACE, THE PIPING SHALL BE CUT BEYOND THE EXTERIOR SURFACE OF THE MATERIAL AND CAPPED. ONCE CAPPED, THE SURFACE SHALL BE PATCHED TO MATCH EXISTING SURFACES.
 - IN THE REMOVAL OF ANY PART OF A DRAINAGE OR WATER SYSTEM, DEAD ENDS SHALL BE AVOIDED EXCEPT WHERE NECESSARY TO EXTEND TO A CLEANOUT SO AS TO BE ACCESSIBLE.
 - CONTRACTOR SHALL VERIFY LOCATION, SIZE, AND ROUTING OF ALL PIPING PRIOR TO DEMOLITION. PLUMBING DRAWINGS ARE DIAGRAMMATIC AND MAY NOT BE AN EXACT REPRESENTATION OF FIELD CONDITIONS.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING SHUTOFF VALVES FOR DOMESTIC AND NATURAL GAS PIPING TO ISOLATE THE AREA OF WORK PRIOR TO DEMOLITION.
 - REMOVED EQUIPMENT AND MATERIALS NOT DESIRED BY OWNER SHALL BECOME PROPERTY OF CONTRACTOR AND SHALL BE PROMPTLY REMOVED FROM SITE. EQUIPMENT AND MATERIALS DESIRED BY OWNER SHALL BE DELIVERED BY CONTRACTOR TO AN ON-SITE LOCATION DESIGNATED BY OWNER.

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No.	Date	Description
12/19/24		ISSUE FOR BID

REVISIONS:

KEY PLAN:

AREAS OF WORK

John A. Marchalava P. E.
New Jersey P. E. No. 2452499290

Professional Engineer
John A. Marchalava P. E.

PROJECT: REF21-39-8312

LRHSD - SHAWNEE HIGH SCHOOL PHASE 4 HVAC UPGRADES

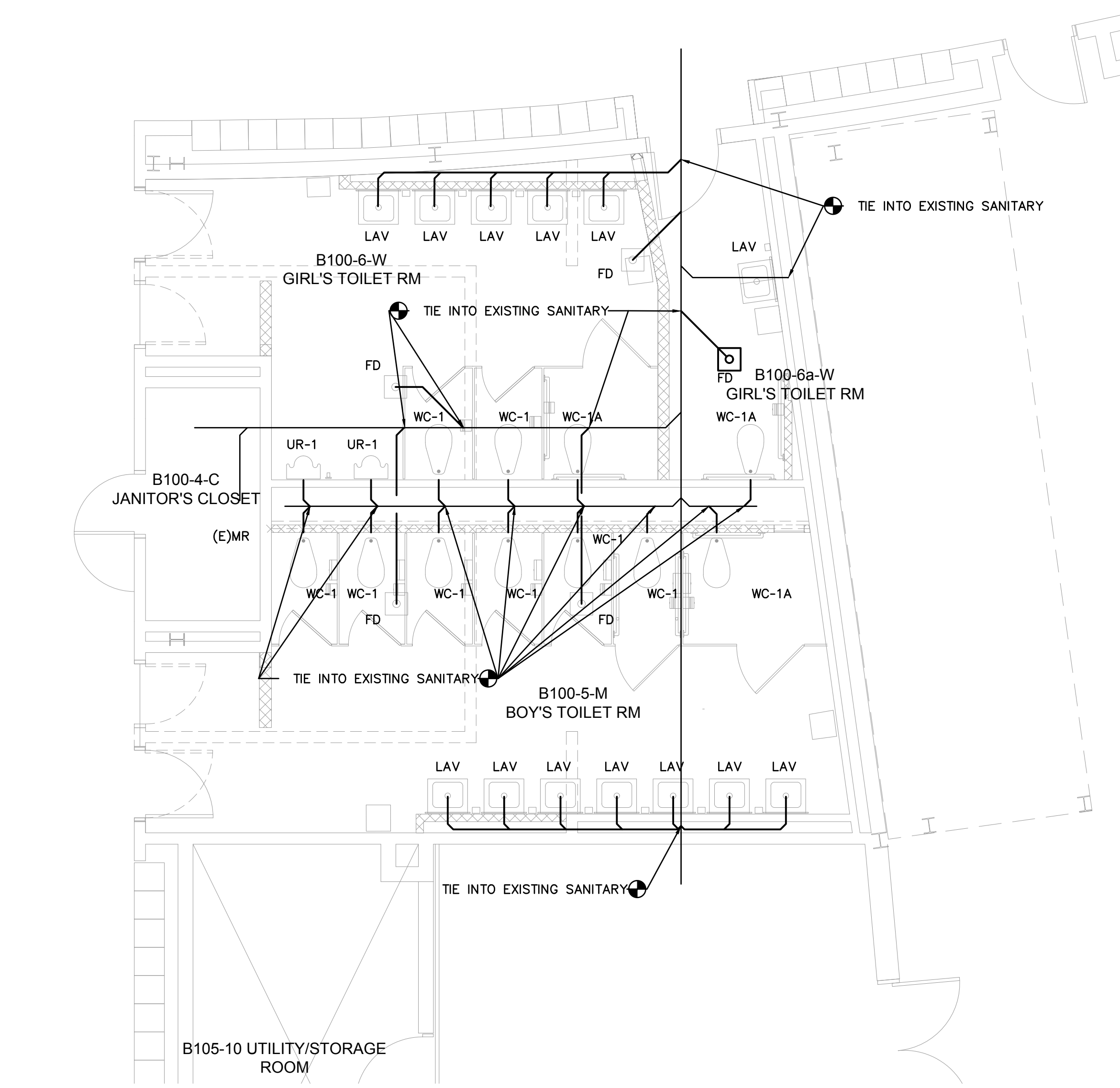
600 TABERNACLE RD
MEDFORD, NEW JERSEY

DRAWING TITLE:

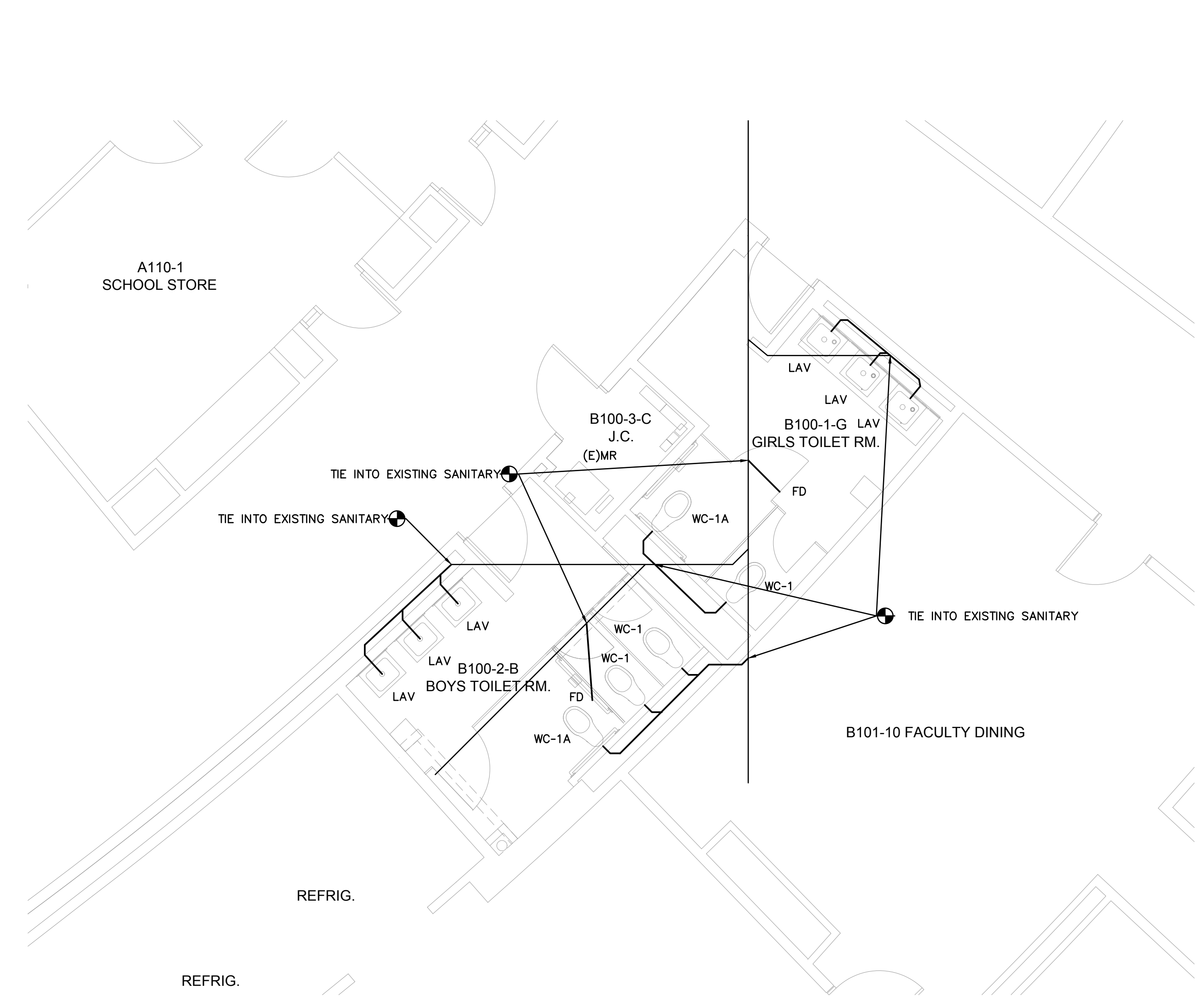
PLUMBING NEW WORK FLOOR PLANS

DRAWN BY: SJM	SCALE: AS NOTED	DWG SIZE: 42x30
CHECKED BY: JMS	DRAWING NO.	REVISION
DATE: 12/19/2024	P-101	
PROJECT NO.: 8C22002		

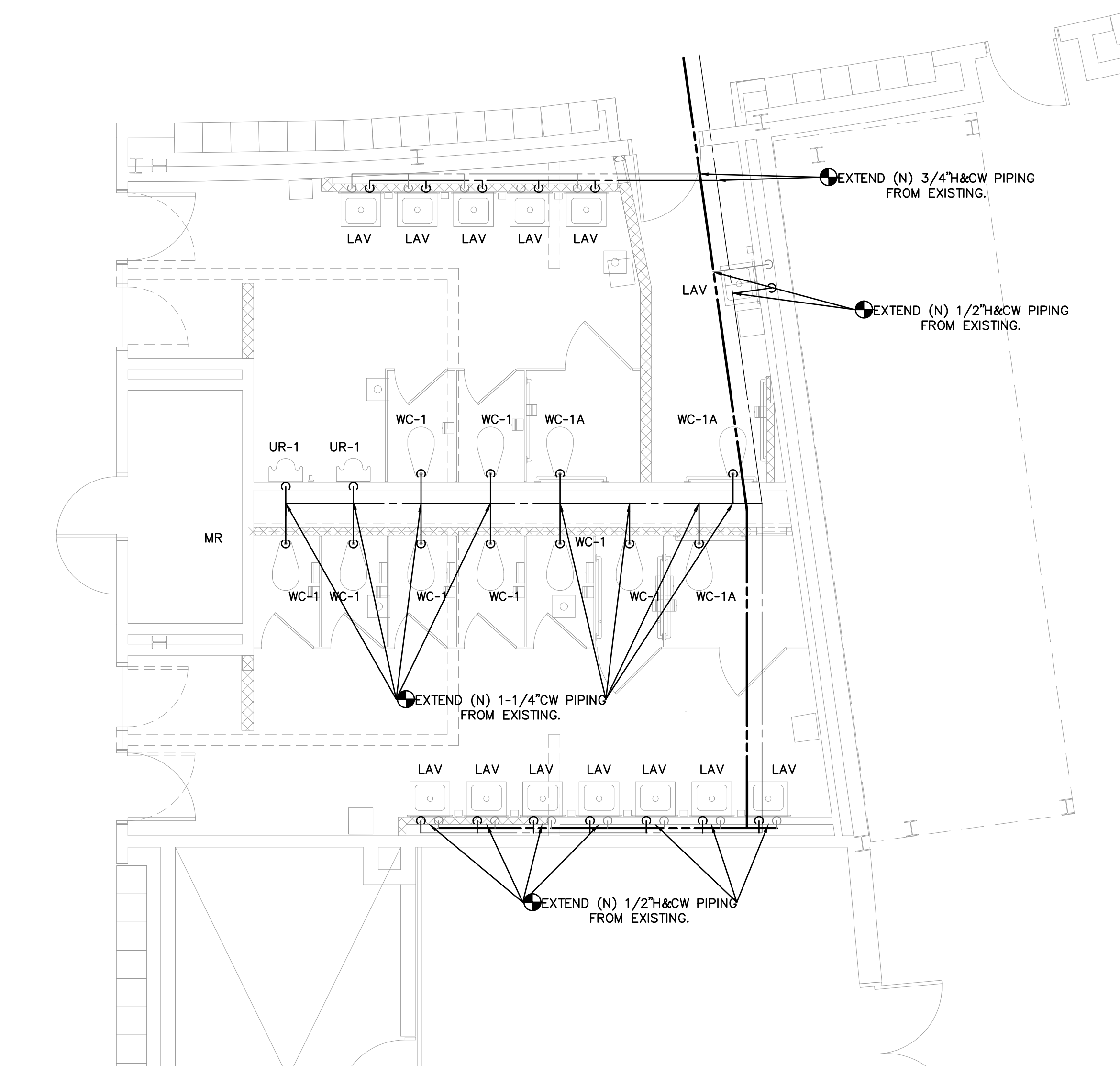
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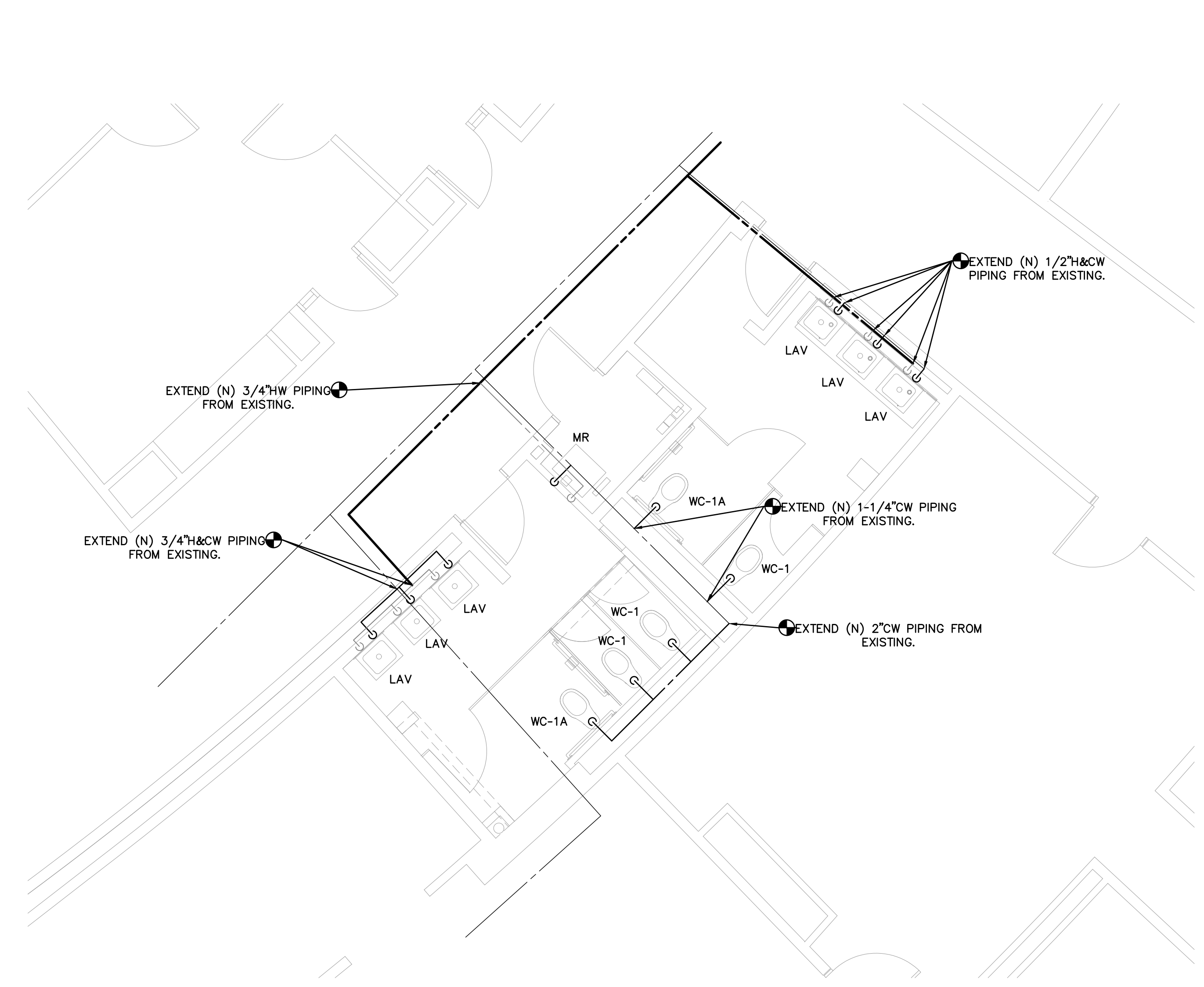
1 SANITARY NEW WORK FLOOR PLAN – NORTH B TOILET ROOMS
P-101 SCALE: 1/4" = 1'-0"
SCALE BAR: 1/4"=1'-0"



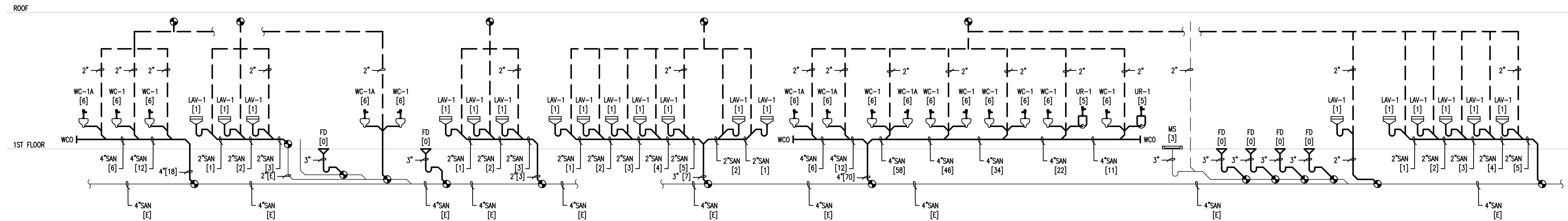
2 SANITARY NEW WORK FLOOR PLAN – D WING TOILET ROOMS
P-101 SCALE: 1/4" = 1'-0"
SCALE BAR: 1/4"=1'-0"



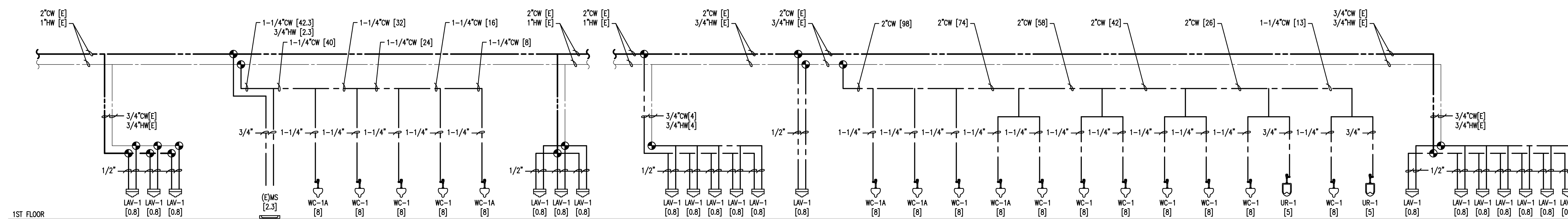
3 DOMESTIC WATER NEW WORK FLOOR PLAN – NORTH B TOILET ROOMS
P-101 SCALE: 1/4" = 1'-0"
SCALE BAR: 1/4"=1'-0"



4 DOMESTIC WATER NEW WORK FLOOR PLAN – D WING TOILET ROOMS
P-101 SCALE: 1/4" = 1'-0"
SCALE BAR: 1/4"=1'-0"



1 SANITARY RISER DIAGRAM – BOYS/GIRLS LOCKER ROOM
 P-301 SCALE: N.T.S.



2 DOMESTIC WATER RISER DIAGRAM – BOYS LOCKER ROOM
 P-301 SCALE: N.T.S.

MEP ENGINEER:

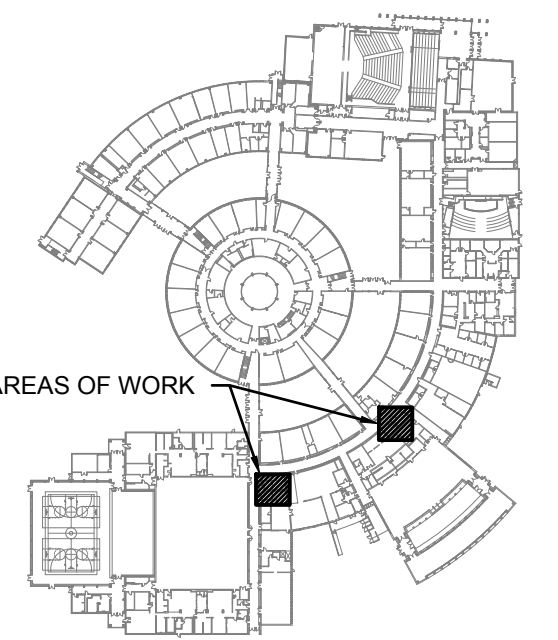


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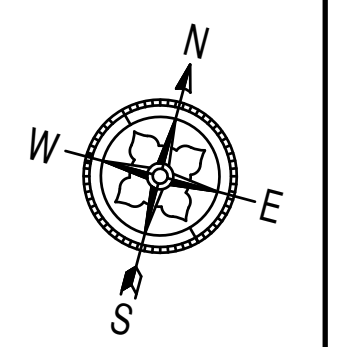
No.	Date	Description
12/19/24	12/19/24	ISSUE FOR BID

REVISIONS:

KEY PLAN:



John A. Marchalava P. E.
 New Jersey P. E. No. 245E049290



Professional Engineer
 John A. Marchalava P. E.

PROJECT: REF21-39-8312

LRHSD -
 SHAWNEE HIGH SCHOOL
 PHASE 4 HVAC UPGRADES

600 TABERNALE RD
 MEDFORD, NEW JERSEY

DRAWING TITLE:

PLUMBING RISER
 DIAGRAMS

DRAWN BY: SJM	SCALE: AS NOTED	DWG SIZE: 42x30
CHECKED BY: JMS	DRAWING NO. P-301	REVISION
DATE: 12/19/2024	PROJECT NO.: 8C22002	

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PROJECT CODES
APPLICABLE CODES INTERNATIONAL BUILDING CODE - NJ EDITION 2021 REHABILITATION SUBCODE - NJAC 5:23-6 NATIONAL ELECTRIC CODE 2020
MISC. DWG. SYMBOLS
POINT OF CONNECTION EQUIPMENT SYMBOL/PLAN NUMBER EQUIPMENT NUMBER OR FLOW (GPM, CFM, ETC.) / PLAN DRAWING NUMBER KEYED NEW WORK NOTE KEYED DEMOLITION NOTE
SYMBOLS
208/120V PANELBOARD - SURFACE MOUNTED 480/277V PANELBOARD - SURFACE MOUNTED 208/120V PANELBOARD - RECESSED IN WALL 480/277V PANELBOARD - RECESSED IN WALL UNFUSED SAFETY SWITCH - NO. INDICATES SWITCH AMPERE RATING FUSED SAFETY SWITCH - NOS. INDICATE SWITCH/FUSE AMPERE RATINGS FUSED COMBINATION MAGNETIC STARTER - NOS. INDICATE STARTER NEMA RATING & SWITCH/FUSE AMPERE RATINGS BRANCH CIRCUIT WIRING - CONCEALED HOME RUN TO PANELBOARD DUPLEX RECEPTACLE - 125V, 20A-MOUNTED 18" A.F.F. DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPTER PROTECTION - 125V, 20A-MOUNTED 18" A.F.F. QUADRUPLEX RECEPTACLE - 125V, 20A-MOUNTED 18" A.F.F. FIRE RATED POKE THROUGH - HUBBELL #PT75SDGYA OR APPROVED EQUAL JUNCTION BOX - WALL MOUNT OR ABOVE CEILING (TYPICAL FOR ALL JUNCTION BOX SYMBOLS) CEILING MOUNTED OCCUPANCY SENSOR 2X4 LIGHTING PANEL - RAB E2PAN2X4-40N OR APPROVED EQUAL - INDICATES FIXTURE TYPE 2X2 LIGHTING PANEL - RAB E2PAN2X2-40N OR APPROVED EQUAL 2X4 EMERGENCY LIGHTING PANEL - PROVIDE WITH INTEGRAL BATTERY BACKED DRIVER 2X2 EMERGENCY LIGHTING PANEL - PROVIDE WITH INTEGRAL BATTERY BACKED DRIVER DOWNLIGHTS - RAB #CSR-1-8-835-UNV-W OR APPROVED EQUAL WALL MOUNTED SINGLE POLE LIGHTING SWITCH. SUBSCRIPTS DENOTE THE FOLLOWING: K = KEYED M = MOTOR-RATED CEILING MOUNTED EXIT SIGN - REFER TO LIGHTING SCHEDULE FOR FURTHER INFORMATION WALL MOUNTED EXIT SIGN - REFER TO LIGHTING SCHEDULE FOR FURTHER INFORMATION FIRE ALARM CONTROL PANEL FIRE ALARM MANUAL PULL STATION CEILING MOUNTED SMOKE DETECTOR CEILING MOUNTED HEAT DETECTOR CEILING MOUNTED SPEAKER WALL MOUNTED SPEAKER FIRE ALARM STROBE - WALL MOUNTED FIRE ALARM STROBE - CEILING MOUNTED FIRE ALARM HORN STROBE - WALL MOUNTED HANDICAP DOOR ACCESS PUSH BUTTON

ABBREVIATIONS
A.F.F. ABOVE FINISHED FLOOR
ADC ABOVE DROP CEILING
C, CND CONDUIT
B.C. BELOW CEILING
DISC. DISCONNECT
DWG. DRAWING
EX. EXISTING
ER. EXISTING TO BE REMOVED
EWC. ELECTRIC WATER COOLER
ETR. EXISTING TO REMAIN
F.P.C. FIRE PROTECTION CONTRACTOR
G, GND. GROUND
GEN. GENERATOR
GFCI. GROUND FAULT CIRCUIT INTERRUPTER
K.E.C. KITCHEN EQUIPMENT CONTRACTOR
KW. KILOWATTS
KVA. KILOVOLT AMPERES
N.E.C. NATIONAL ELECTRIC CODE
PVC. POLYVINYL CHLORIDE CONDUIT, SCHEDULE 40
R. REMOVE
RE. RELOCATE
SW. SWITCH
TVSS. TRANSIENT VOLTAGE SURGE SUPPRESSOR
U.O.N. UNLESS OTHERWISE NOTED
UG, U/G. UNDERGROUND
W/. WITH
WG. WIRE GUARD
WP. WEATHERPROOF
PH. PHASE
V. VOLT
4W. FOUR WIRE
25A. 25 AMPERES

ELECTRICAL DEMOLITION NOTES
1. NOTES AND GRAPHIC REPRESENTATIONS SHALL NOT LIMIT THE EXTENT OF DEMOLITION REQUIRED. CONTRACTOR SHALL VISIT THE SITE, CAREFULLY EXAMINE EXISTING CONDITIONS AND SHALL PERFORM ALL DEMOLITION REQUIRED TO ACHIEVE THE FINAL DESIGN INTENT AS REQUIRED BY THE CONTRACT DOCUMENTS. EXTENT OF ALL DEMOLITION WORK SHALL BE COORDINATED WITH THE OWNER & ENGINEER. 2. ALL WORK REQUIRED TO REMAIN IN SERVICE BUT INTERFERING WITH THE ALTERATIONS SHALL BE RELOCATED AND RECONNECTED USING MATERIALS AND STANDARDS OF THIS CONTRACT. 3. ANY EQUIPMENT AND WIRING TO BE REMOVED SHALL BE DE-ENERGIZED PRIOR TO ANY DEMOLITION WORK. 4. EQUIPMENT INDICATED TO BE REMOVED SHALL BE TAKEN FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS AND ENVIRONMENTAL REGULATIONS. EQUIPMENT REQUIRED TO BE TURNED OVER TO THE OWNER SHALL BE PLACED IN A MUTUALLY ACCEPTABLE LOCATION. 5. PROCEDURE FOR FEEDERS AND BRANCH CIRCUITS TO BE RE-USED - REMOVE CONDUIT AND WIRING TO LOCATIONS WHICH AVOID CONFLICTS WITH NEW WORK. INSTALL JUNCTION BOXES, TAPE OFF CONDUCTORS AND IDENTIFY WITH PANEL AND CIRCUIT NUMBER. 6. ALL WORK SHALL BE PROPERLY IDENTIFIED AFTER DEMOLITION. UPDATE ALL PANEL SCHEDULES TO REFLECT EQUIPMENT AND CIRCUIT REMOVALS.

GENERAL ELECTRICAL NOTES
1. SOME LEGEND SYMBOLS AND ELECTRICAL PROJECT NOTES MAY NOT BE USED. SEE PLANS FOR APPLICABLE DEVICES. 2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND THE SPECIFICATION. 3. ALL CIRCUIT BREAKERS SERVING HVAC EQUIPMENT SHALL BE UL LISTED AS "HACK". 4. THE DRAWINGS ARE DIAGRAMMATIC. EXACT LOCATION OF EQUIPMENT, WIRING AND RACEWAYS SHALL BE DETERMINED BY CONTRACTOR SUBJECT TO ENGINEER APPROVAL. 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ELECTRICAL CHARACTERISTICS OF ALL NEW EQUIPMENT, MOTORS, ETC. BEFORE INSTALLING CABLING AND RACEWAY. IF THERE ARE ANY DISCREPANCIES BETWEEN THE ACTUAL RATING OF EQUIPMENT AT THE SITE AND THE DRAWINGS, THEN THE ENGINEER SHALL BE NOTIFIED. 6. ALL EMPTY CONDUITS SHALL HAVE A PULL STRING INSTALLED. 7. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF ALL OTHER CONTRACTORS ON SITE, IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT. 8. ALL PANELS, WIRING DEVICES, BOXES, AND ENCLOSURES LOCATED OUTDOORS SHALL BE NEMA 3R. ALL PANELS, WIRING DEVICES, BOXES, AND ENCLOSURES LOCATED INDOORS SHALL BE NEMA 1. 9. ALL FUSES IN DISCONNECT SWITCHES SHOWN SHALL BE CLASS RK-1, FAST ACTING, UNLESS RECOMMENDED OTHERWISE BY THE EQUIPMENT SUPPLIER/MANUFACTURER. 10. THE ELECTRICAL CONTRACTOR TO PROVIDE MOUNTING SUPPORTS FOR ALL DISCONNECT SWITCHES. USE P1000 UNISTRUT FOR ALL INDOOR SUPPORTS AND GALVANIZED P1000 UNISTRUT FOR ALL OUTDOOR SUPPORTS. 11. ALL RACEWAYS PENETRATING FIRE RATED PARTITIONS, WALLS, AND CEILINGS SHALL BE SEALED USING APPROVED FIRE RATED SEALANT TO MATCH THE REQUIRED WALL FIRE RATING. 12. THE ELECTRICAL CONTRACTOR SHALL SECURE FROM OTHER CONTRACTORS ON THE PROJECT: SHOP DRAWINGS TO VERIFY CHARACTERISTICS OF ALL EQUIPMENT TO BE WIRED. IF THE CONTRACTOR FINDS DISCREPANCIES BETWEEN THE SHOP DRAWINGS AND THE ELECTRICAL PLANS, THE ELECTRICAL CONTRACTOR SHALL NOTIFY THE ENGINEER PROMPTLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTIONS TO THE ELECTRICAL INSTALLATION IF THE DRAWING REVIEW IS NOT COMPLETED BY THE CONTRACTOR. 13. THE CONTRACTOR SHALL SUBMIT TO THE OWNER: CERTIFICATES OF INSPECTION FOR THE ELECTRICAL INSTALLATION FROM AN APPROVED INSPECTION AGENCY UPON COMPLETION OF ELECTRICAL WORK. 14. THE ENTIRE ELECTRICAL SYSTEM SHALL BE TESTED FOR PROPER GROUNDING AND OPERATION. TEST SHALL VERIFY THAT THE SYSTEM HAS NO SHORT CIRCUITS, OPENS, OVERLOADS, OR PANEL IMBALANCES. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND TEST INSTRUMENTS. ALL EQUIPMENT AND WIRING SYSTEMS SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE. 15. PRIOR TO FINAL ACCEPTANCE OF THE ELECTRICAL WORK, THE ELECTRICAL CONTRACTOR SHALL SUBMIT TO THE OWNER A WRITTEN STATEMENT GUARANTEEING ALL EQUIPMENT, MATERIALS, AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE PROJECT. UPON WRITTEN NOTICE TO THE CONTRACTOR DURING THE WARRANTY PERIOD, THE CONTRACTOR NO EXPENSE TO THE OWNER, SHALL REPAIR OR REPLACE ALL DEFECTIVE MATERIALS OR WORKMANSHIP. 16. ALL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATION MAINTENANCE, AND REPAIR. MINOR DEVIATIONS FROM THE PLANS MAY BE MADE TO ACCOMPLISH THIS, SUBJECT TO THE APPROVAL OF THE ENGINEER. 17. ALL MATERIALS AND EQUIPMENT FURNISHED FOR THIS PROJECT SHALL BE NEW, LISTED, AND APPROVED BY UL. 18. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS, LICENSES AND PAY UTILITY COMPANY FEES WHERE REQUIRED. 19. ALL FUSED AND NON-FUSED DISCONNECT SWITCHES SHALL HAVE: 600 VOLT RATING FOR 480 VOLT CIRCUITS & 250 VOLT RATING FOR 208 VOLT CIRCUITS. SIZE FUSES TO COMPLY WITH NAMEPLATE RATING OF EQUIPMENT SERVED. 20. ELECTRICAL CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY ELECTRICAL LIGHT AND POWER AS REQUIRED FOR THE PROJECT WORK OF ALL TRADES DURING CONSTRUCTION. 21. PROVIDE MODIFICATION OF THE FIRE ALARM SYSTEM TO ACCEPT NEW DEVICE. WIRE TO NEAREST INITIATOR DEVICE CIRCUIT. PROVIDE PROGRAMMING OF FIRE ALARM SYSTEM TO ACCEPT NEW DEVICE(S) AS NECESSARY. 21.1. CONTRACTOR TO ENSURE THAT NEW DEVICE(S) SHALL BE FULLY COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM. 21.2. PROVIDE FIRE ALARM CABLE IN CONDUIT AS NECESSARY IN ACCORDANCE WITH MANUFACTURER STANDARDS. 21.3. FIRE ALARM SYSTEM SHALL UNDERGO A 100% RE-ACCEPTANCE TEST IN ACCORDANCE WITH NFPA 72. 22. ELECTRICAL CONTRACTOR SHALL CONCEAL ALL NEW WIRING ASSOCIATED WITH NEW SWITCH LOCATIONS AND RECEPTACLES WITHIN EXISTING TILED MASONRY WALLS. CONTRACTOR SHALL INSTALL JUNCTION BOXES ABOVE DROP CEILINGS IN THE LOCATION OF THE NEW DEVICES AS NECESSARY TO ACCESS EXISTING MASONRY CELLS. PROVIDE APPROPRIATE WALL SEALANT MATCHING RATING OF EXISTING WALLS WHERE PENETRATIONS ARE MADE ABOVE DROP CEILINGS.

MOUNTING HEIGHT CHART - ELECTRICAL EQUIPMENT			
MOUNTING HEIGHT (AFF)	EQUIPMENT SYMBOL (OR REFER TO DESCRIPTION, NEXT COLUMN)	DESCRIPTION OF EQUIPMENT (DEVICES, OUTLETS, ETC.)	REMARKS
12'-0" U.O.N.		EXTERIOR WALL MOUNTED LIGHTING FIXTURES	SEE ARCHITECTURAL ELEVATIONS
10'-0"/8'-6"		BATTERY OPERATED EMERGENCY LIGHTING UNITS OR REMOTE MOUNTED HEADS	OR 1' BELOW CEILING WHICH EVER HEIGHT IS LOWER
8'-6"		PENDANT MOUNTED INDUSTRIAL AND STRIP LIGHTING FIXTURES	
8'-4"		WALL MOUNTED CLOCKS AND SPEAKERS	OR 6" BELOW CEILING WHICH EVER HEIGHT IS LOWER
7'-6"		TOP OF EXIT SIGNS (NOT MOUNTED ABOVE A DOOR)	
ENTIRE LENS NOT LESS THAN 80% & NOT GREATER THAN 96" AFF		FIRE ALARM NOTIFICATION DEVICES	
6'-6"		CENTERLINE OF INTERIOR WALL MOUNTED FIXTURES	
6'-0"		MAXIMUM ELEVATION OF DISCONNECT SWITCHES, STARTERS AND CONTACTORS	
4'-6"		MAXIMUM ELEVATION OF WALL MOUNTED PHONES	3'-6" FOR ADA DEVICES
4'-0"		WALL MOUNTED WIREMOLD	
3'-6"		WALL MOUNTED ELECTRICAL CONTROL DEVICES, SWITCHES, MANUAL MOTOR STARTERS	
OPERABLE PART OF PULL STATION NOT LESS THAN 3'-6" NOR MORE THAN 4'-0" AFF		WALL MOUNTED FIRE ALARM PULL STATION	
3'-0"		WALL MOUNTED RECEPTACLE IN MECHANICAL, ELECTRICAL, AND ELEVATOR ROOMS AND ON BUILDING EXTERIORS	
1'-6"		WALL MOUNTED RECEPTACLE, DATA OUTLET, TELEPHONE OUTLET OR SPECIAL RECEPTACLE	

1. MOUNTING HEIGHT OF EQUIPMENT LISTED SHALL BE AS INDICATED OR AS SPECIFIED ON THE DRAWINGS. ACTUAL MOUNTING HEIGHT MAY BE ADJUSTED TO FIELD CONDITIONS, INCLUDING THE WALL CONSTRUCTION ELEMENTS (BLOCKS, ETC.).
 2. MOUNTING HEIGHT INDICATED FOR THE CENTERLINE OF THE DEVICE OR OUTLET, OR TO THE CENTER OF THE OPERATING CONTROL DEVICE, UNLESS NOTED OTHERWISE. HEIGHTS INDICATED ARE APPLICABLE OVER GRADE, PLATFORM AND OTHER OPERATING LEVELS.
 3. RECEPTACLES OUTLETS SHALL BE 4" ABOVE COUNTERTOP, 6" ABOVE TABLE OR DESKTOP, OR AS NOTED ON ELECTRICAL OR ARCHITECTURAL LAYOUTS AND DETAILS.
 4. THIS CHART, INCLUDING THE NOTES, IS APPLICABLE EVEN IF THE MOUNTING HEIGHT IS SPECIFIED ON THE SYMBOL LIST.

DRAWING SHEET INDEX (PROJECT 8312)						
SHEET NO.	DRAWING NUMBER	DRAWING TITLE	SCALE	DATE	ISSUE	ISSUED FOR BID
1	E-001	ELECTRICAL LEAD SHEET	NTS	12/19/2024	X	
2	ED-101	ELECTRICAL PARTIAL DEMOLITION PLANS - CAFÉ AND GYMNASIUM TOILET ROOMS	1/4"=1'-0"		X	
3	ED-102	ELECTRICAL PARTIAL ROOF DEMOLITION PLANS - CAFÉ AND GYMNASIUM TOILET ROOMS	1/8"=1'-0"		X	
4	E-101	ELECTRICAL PARTIAL NEW WORK PLANS - CAFÉ AND GYMNASIUM TOILET ROOMS	1/4"=1'-0"		X	
5	E-102	ELECTRICAL PARTIAL ROOF NEW WORK PLANS - CAFÉ AND GYMNASIUM TOILET ROOMS	1/8"=1'-0"		X	
6	E-201	ELECTRICAL NEW WORK CEILING PLANS - CAFÉ AND GYMNASIUM TOILET ROOMS	1/4"=1'-0"		X	
7	E-301	ELECTRICAL DETAILS	NTS		X	

Maximum Wire Distances vs. Wire Size for 20A, 1 Phase Branch Cir

Voltage (V)	Load Amps	Wire Size (Copper)			
		#12	#10	#8	#6
120V	14	50	80	125	215
120V	12	55	100	150	225
120V	10	65	125	175	250
120V	5	125	200	-	-
277V	14	110	200	-	-
277V	12	125	225	-	-
277V	10	150	250	-	-
277V	5	300	-	-	-

* The above wire lengths are provided for reference only. Electric Contractor is responsible to confirm voltage drop is less than 3% for the actual branch circuit routing.

1 TYPICAL VOLTAGE DROP CALCULATIONS
 E-001 SCALE: NONE

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KEY PLAN:

John A. Marchalava P. E.
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PROJECT: REF21-39-8312

LRHSD - SHAWNEE HIGH SCHOOL PHASE 4 HVAC UPGRADES

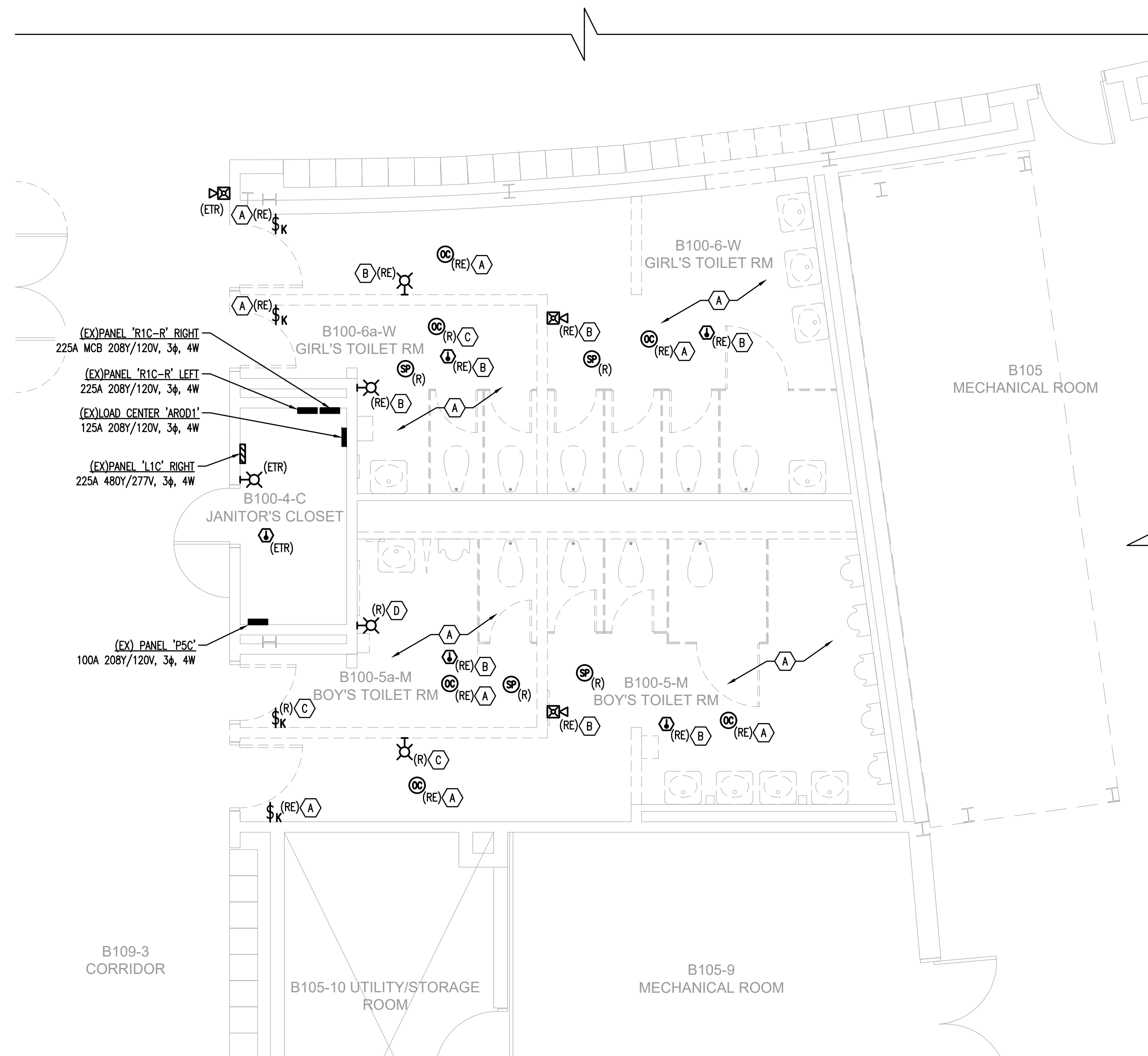
600 TABERNAACLE RD
 MEDFORD, NEW JERSEY

DRAWING TITLE:
 ELECTRICAL COVER SHEET

DRAWN BY: TJT	SCALE: AS NOTED	DWG SIZE: 42x30
CHECKED BY: LH	DRAWING NO. E-001	REVISION
DATE: 12/19/2024		
PROJECT NO.: 8C22002		

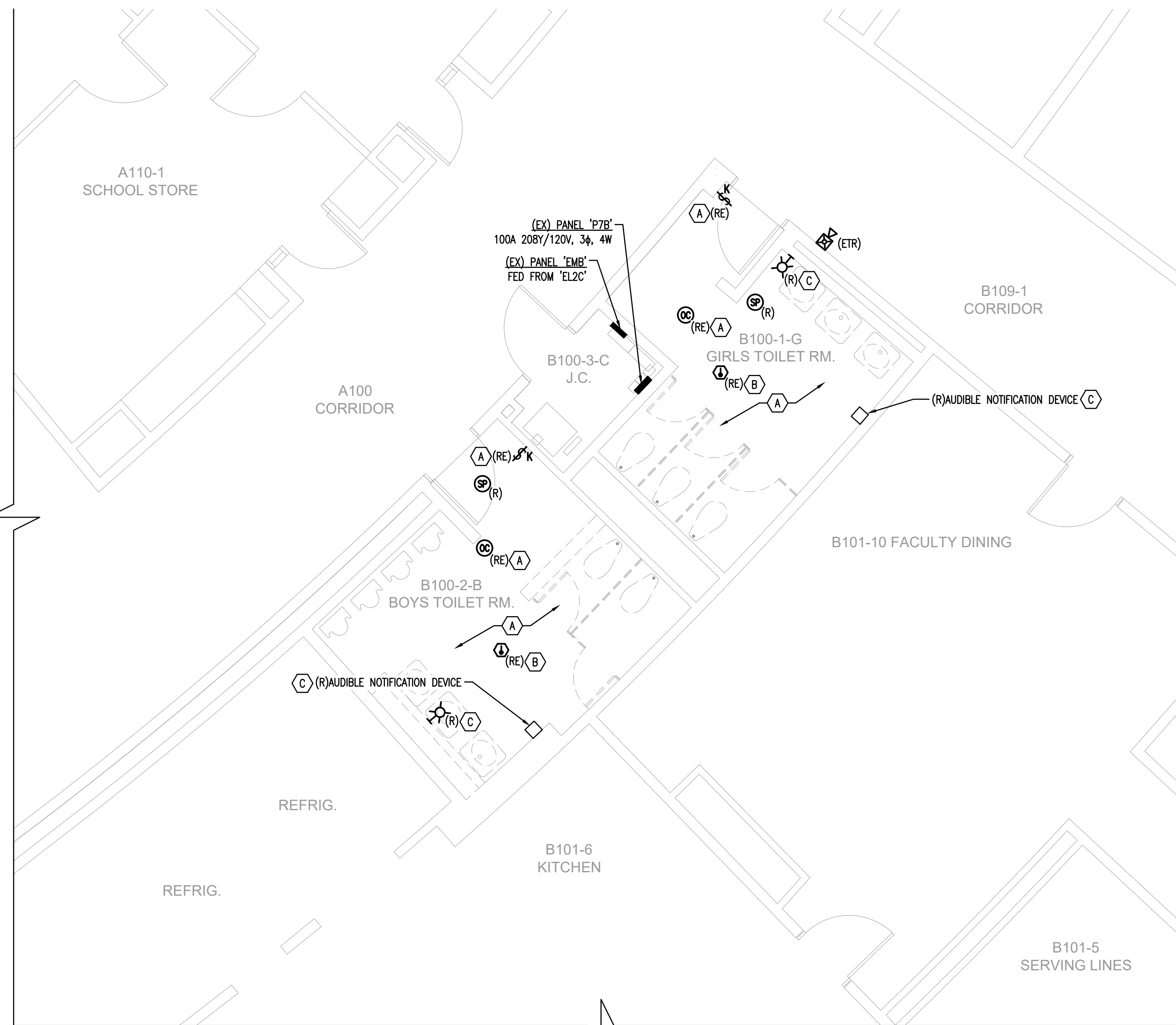
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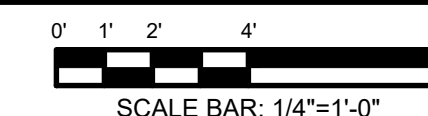
1 ELECTRICAL DEMOLITION PLAN - GYMNASIUM TOILET ROOMS

ED-101 SCALE: 1/4" = 1'-0"



2 ELECTRICAL DEMOLITION PLAN - CAFETERIA TOILET ROOMS

ED-101 SCALE: 1/4" = 1'-0"



DEMOLITION OF EXISTING SYSTEM NOTES:

GENERAL NOTES:

- REFER TO ELECTRICAL LEAD SHEET, E-001, FOR "NOTES" THAT PERTAIN TO THE SCOPE OF THIS PROJECT. REFER TO SPECIFICATIONS AND DETAILS FOR PROJECT DETAILS AND EXECUTION REQUIREMENTS.
- THE ELECTRICAL CONTRACTOR SHALL ACCOMPLISH COMPLETE ELECTRICAL DEMOLITION OF ALL ELECTRICAL EQUIPMENT/DEVICES ASSOCIATED WITH THE REMOVAL OF MECHANICAL EQUIPMENT IDENTIFIED ON PLAN.
- DEMOLITION OF THESE DEVICES SHALL INCLUDE, BUT NOT BE LIMITED TO, COMPLETE REMOVAL OF ALL BRANCH CIRCUIT POWER WIRING AND ASSOCIATED CONDUIT AND BOX SYSTEMS FROM THE AFFECTED MECHANICAL EQUIPMENT BACK TO THE PANEL OF ORIGIN. REMOVE EXISTING DISCONNECT SWITCHES, STARTERS AND OTHER ELECTRICAL EQUIPMENT ASSOCIATED WITH THE MECHANICAL EQUIPMENT AND SYSTEMS BEING DEMOLISHED.
- THE ELECTRICAL CONTRACTOR SHALL MAKE AN ON SITE INSPECTION OF THE PROJECT AREA TO DETERMINE A FULL SCOPE OF DEMOLITION WORK BEFORE SUBMITTING A PROPOSAL.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE APPROPRIATE FIRE RATED ABANDONMENT PLATES FOR ALL REMOVED FLOOR MOUNTED POKE THROUGH WIRING DEVICES.
- ALL DEMOLISHED MATERIAL SHALL BE REMOVED FROM THE SITE BY THE ELECTRICAL CONTRACTOR. THE CONTRACTOR IS TO RECYCLE WHEREVER POSSIBLE. COORDINATE ALL REMOVAL AND DISPOSAL WITH THE OWNER WHO RESERVES THE RIGHT TO SALVAGE ANY HVAC OR ELECTRICAL COMPONENTS.
- ALL POWER SHUT DOWNS MUST BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
- ALL DEMOLITION WORK SHALL BE DONE IN A SAFE AND ORDERLY MANNER AND IN ACCORDANCE WITH THE N.E.C., OSHA AND STATE REGULATIONS.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE REMOVAL OF EQUIPMENT WITH OTHER TRADES SO AS NOT TO AFFECT THE OPERATION OF EXISTING SYSTEMS.
- DO NOT DEMOLISH THE FOLLOWING ITEMS:
 - BRANCH CIRCUIT WIRING PASSING THROUGH THE AREA OF DEMOLITION BUT FEEDING OTHER WIRING DEVICES, LIGHT FIXTURES, AND OTHER EQUIPMENT NOT WITHIN THE SCOPE OF THE WORK.
 - EXISTING BRANCH CIRCUIT WIRING FOR HVAC EQUIPMENT TO REMAIN-UNLESS STATED ON MECHANICAL DEMOLITION PLAN.
- ELECTRICAL CONTRACTOR MAY RE-USE TO THE MAXIMUM EXTENT POSSIBLE ALL WIRING AND RACEWAY ASSOCIATED WITH EXISTING EQUIPMENT BEING REMOVED. RE-USE OF WIRING, RACEWAY AND BREAKERS LOCATED IN LOCAL PANELS IS PERMITTED AS LONG AS IT MEETS THE INSTALLATION REQUIREMENTS OF THE NEW EQUIPMENT BEING PROVIDED. PROVIDE MEGGER TESTING OF CABLES TO BE RE-USED PER ANSI/ NETA ATS-2021 STANDARDS.

DEMOLITION KEYED NOTES:

GENERAL DEMOLITION NOTES ARE INDICATED WITH THE FOLLOWING SYMBOL (E) AND ARE NUMBERED AS FOLLOWS:

- (A) EXISTING HARD CEILING AND ALL EXISTING LIGHT FIXTURES WITHIN SPACE ARE TO BE DEMOLISHED AND REMOVED. ELECTRICAL CONTRACTOR TO REMOVE EXISTING WIRING AND CONDUIT ASSOCIATED WITH DEMOLISHED ELECTRICAL FIXTURES BACK TO PANEL OF ORIGIN. EXISTING LIGHTING CONTROLS (SENSORS AND SWITCHES) ARE TO BE REMOVED DURING CONSTRUCTION AND REINTEGRATED FOR NEW LIGHT FIXTURES. ALL WIRING TO BE SUPPORTED BY J-HOOKS AND BRIDAL RINGS. REFER TO NEW WORK PLANS FOR NEW DROP CEILING INFORMATION.
- (B) EXISTING FIRE ALARM DEVICE TO BE REMOVED AND RELOCATED. ELECTRICAL CONTRACTOR TO EXTEND WIRING AND CONDUIT AS NECESSARY TO FACILITATE RELOCATION. SEE NOTE 21 ON ELECTRICAL LEAD SHEET FOR FIRE ALARM DEVICE DEMOLITION AND RELOCATION NOTES.
- (C) ELECTRICAL CONTRACTOR SHALL TURN OVER DEVICE TO DISTRICT FOR STORAGE STOCK.

MEP ENGINEER:

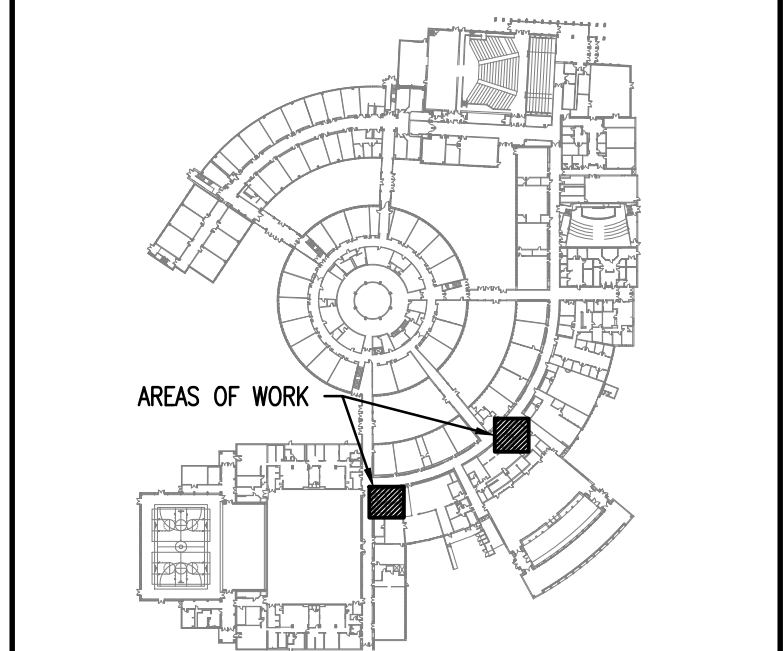


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No.	Date	Description
-	12/19/24	ISSUE FOR BID

REVISIONS:

KEY PLAN:



John A. Marchalava P. E.
New Jersey P. E. No. 24GE4992500

Professional Engineer
John A. Marchalava P. E.

PROJECT: REF21-39-8312

LRHSD - SHAWNEE HIGH SCHOOL PHASE 4 HVAC UPGRADES

600 TABERNACLE RD
MEDFORD, NEW JERSEY

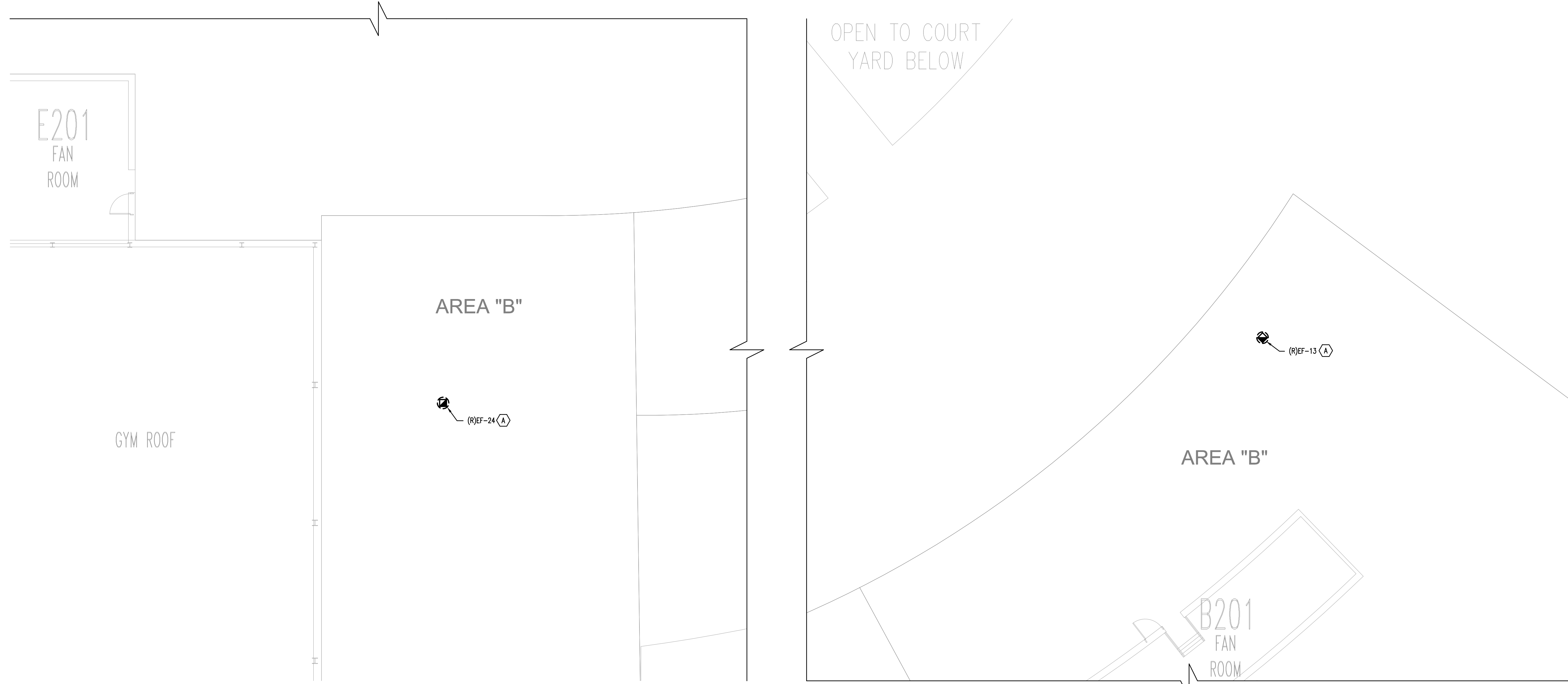
DRAWING TITLE:

ELECTRICAL DEMO FLOOR PLANS

DRAWN BY: T.J.T.	SCALE: AS NOTED	DWG SIZE: 42x30
CHECKED BY: L.H.	DRAWING NO. ED-101	REVISION
DATE: 12/19/2024		
PROJECT NO.: 8C22002		

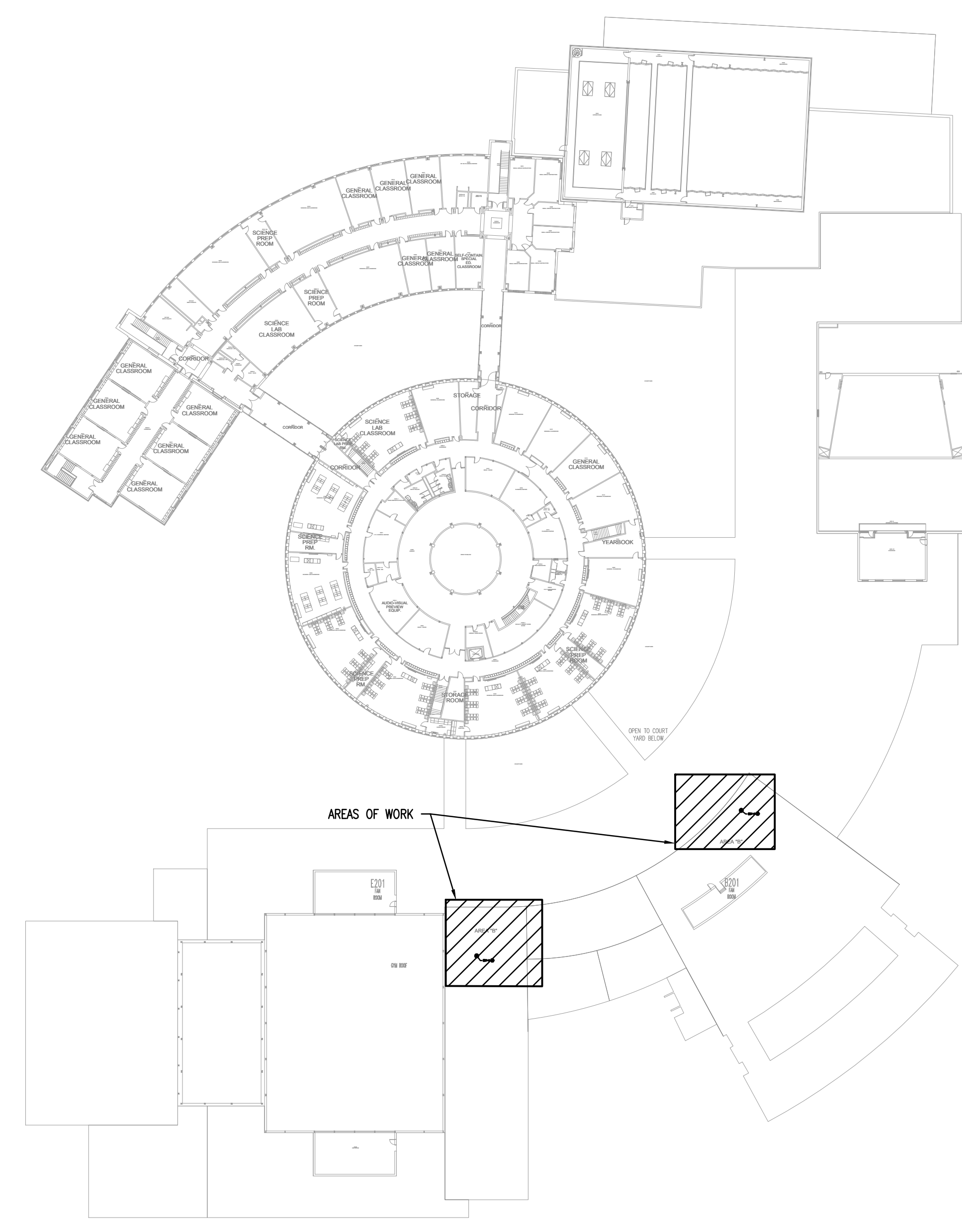
ALL WORK SHOWN IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR, UNLESS NOTED OTHERWISE.

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1 ELECTRICAL DEMO ROOF PLAN – GYMNASIUM TOILET ROOMS
 ED-102 SCALE: 1/8" = 1'-0"
 SCALE BAR: 1/8"=1'-0"

2 ELECTRICAL DEMO ROOF PLAN – CAFETERIA TOILET ROOMS
 ED-102 SCALE: 1/8" = 1'-0"
 SCALE BAR: 1/8"=1'-0"



3 ELECTRICAL DEMO ROOF KEY PLAN
 ED-102 SCALE: N.T.S.

DEMOLITION OF EXISTING SYSTEM NOTES:

GENERAL NOTES:

- REFER TO ELECTRICAL LEAD SHEET, E-001, FOR "NOTES" THAT PERTAIN TO THE SCOPE OF THIS PROJECT. REFER TO SPECIFICATIONS AND DETAILS FOR PROJECT DETAILS AND EXECUTION REQUIREMENTS.
- THE ELECTRICAL CONTRACTOR SHALL ACCOMPLISH COMPLETE ELECTRICAL DEMOLITION OF ALL ELECTRICAL EQUIPMENT/DEVICES ASSOCIATED WITH THE REMOVAL OF MECHANICAL EQUIPMENT IDENTIFIED ON PLAN.
- DEMOLITION OF THESE DEVICES SHALL INCLUDE, BUT NOT BE LIMITED TO, COMPLETE REMOVAL OF ALL BRANCH CIRCUIT POWER WIRING AND ASSOCIATED CONDUIT AND BOX SYSTEMS FROM THE AFFECTED MECHANICAL EQUIPMENT BACK TO THE PANEL OF ORIGIN. REMOVE EXISTING DISCONNECT SWITCHES, STARTERS AND OTHER ELECTRICAL EQUIPMENT ASSOCIATED WITH THE MECHANICAL EQUIPMENT AND SYSTEMS BEING DEMOLISHED.
- THE ELECTRICAL CONTRACTOR SHALL MAKE AN ON SITE INSPECTION OF THE PROJECT AREA TO DETERMINE A FULL SCOPE OF DEMOLITION WORK BEFORE SUBMITTING A PROPOSAL.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE APPROPRIATE FIRE RATED ABANDONMENT PLATES FOR ALL REMOVED FLOOR MOUNTED POKE THROUGH WIRING DEVICES.
- ALL DEMOLISHED MATERIAL SHALL BE REMOVED FROM THE SITE BY THE ELECTRICAL CONTRACTOR. THE CONTRACTOR IS TO RECYCLE WHEREVER POSSIBLE. COORDINATE ALL REMOVAL AND DISPOSAL WITH THE OWNER WHO RESERVES THE RIGHT TO SALVAGE ANY HVAC OR ELECTRICAL COMPONENTS.
- ALL POWER SHUT DOWNS MUST BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
- ALL DEMOLITION WORK SHALL BE DONE IN A SAFE AND ORDERLY MANNER AND IN ACCORDANCE WITH THE N.E.C., OSHA AND STATE REGULATIONS.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE REMOVAL OF EQUIPMENT WITH OTHER TRADES SO AS NOT TO AFFECT THE OPERATION OF EXISTING SYSTEMS.
- DO NOT DEMOLISH THE FOLLOWING ITEMS:
 - BRANCH CIRCUIT WIRING PASSING THROUGH THE AREA OF DEMOLITION BUT FEEDING OTHER WIRING DEVICES, LIGHT FIXTURES, AND OTHER EQUIPMENT NOT WITHIN THE SCOPE OF THE WORK.
 - EXISTING BRANCH CIRCUIT WIRING FOR HVAC EQUIPMENT TO REMAIN—UNLESS STATED ON MECHANICAL DEMOLITION PLAN.
- ELECTRICAL CONTRACTOR MAY RE-USE TO THE MAXIMUM EXTENT POSSIBLE ALL WIRING AND RACEWAY ASSOCIATED WITH EXISTING EQUIPMENT BEING REMOVED. RE-USE OF WIRING, RACEWAY AND BREAKERS LOCATED IN LOCAL PANELS IS PERMITTED AS LONG AS IT MEETS THE INSTALLATION REQUIREMENTS OF THE NEW EQUIPMENT BEING PROVIDED. PROVIDE MEGGER TESTING OF CABLES TO BE RE-USED PER ANSI/ NETA ATS-2021 STANDARDS.

DEMOLITION KEYED NOTES:

GENERAL: DEMOLITION NOTES ARE INDICATED WITH THE FOLLOWING SYMBOL (E) AND ARE NUMBERED AS FOLLOWS:

(A) DEMOLISH AND REMOVE EXISTING EXHAUST FAN. DISCONNECT AND REMOVE WIRING AND CONDUIT BACK TO POINT OF ORIGIN.

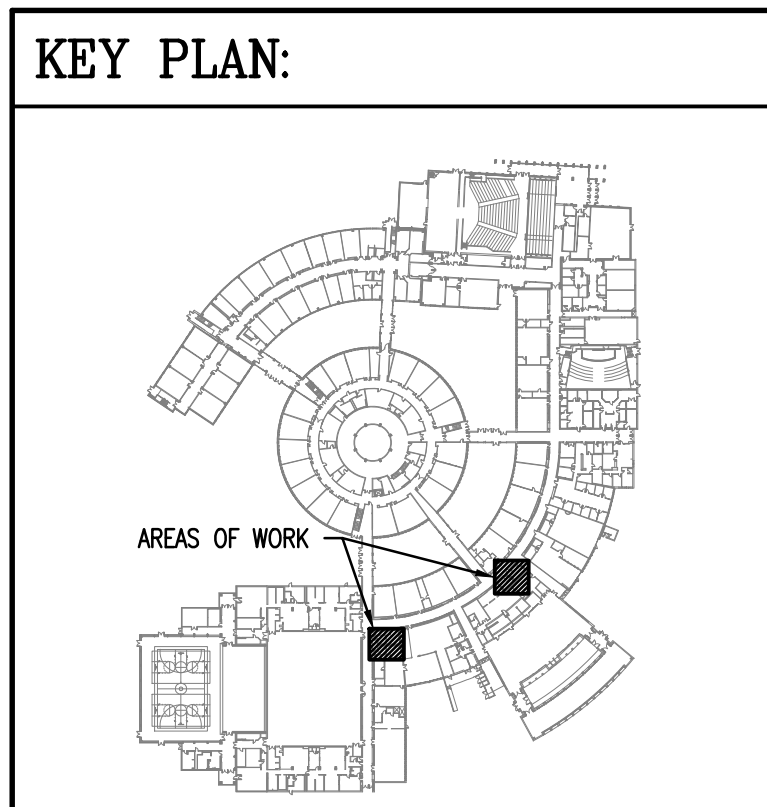
MEP ENGINEER:

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 New Jersey P. E. No. 24GE4992500

Professional Engineer
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PROJECT: REF21-39-8312

LRHSD - SHAWNEE HIGH SCHOOL PHASE 4 HVAC UPGRADES

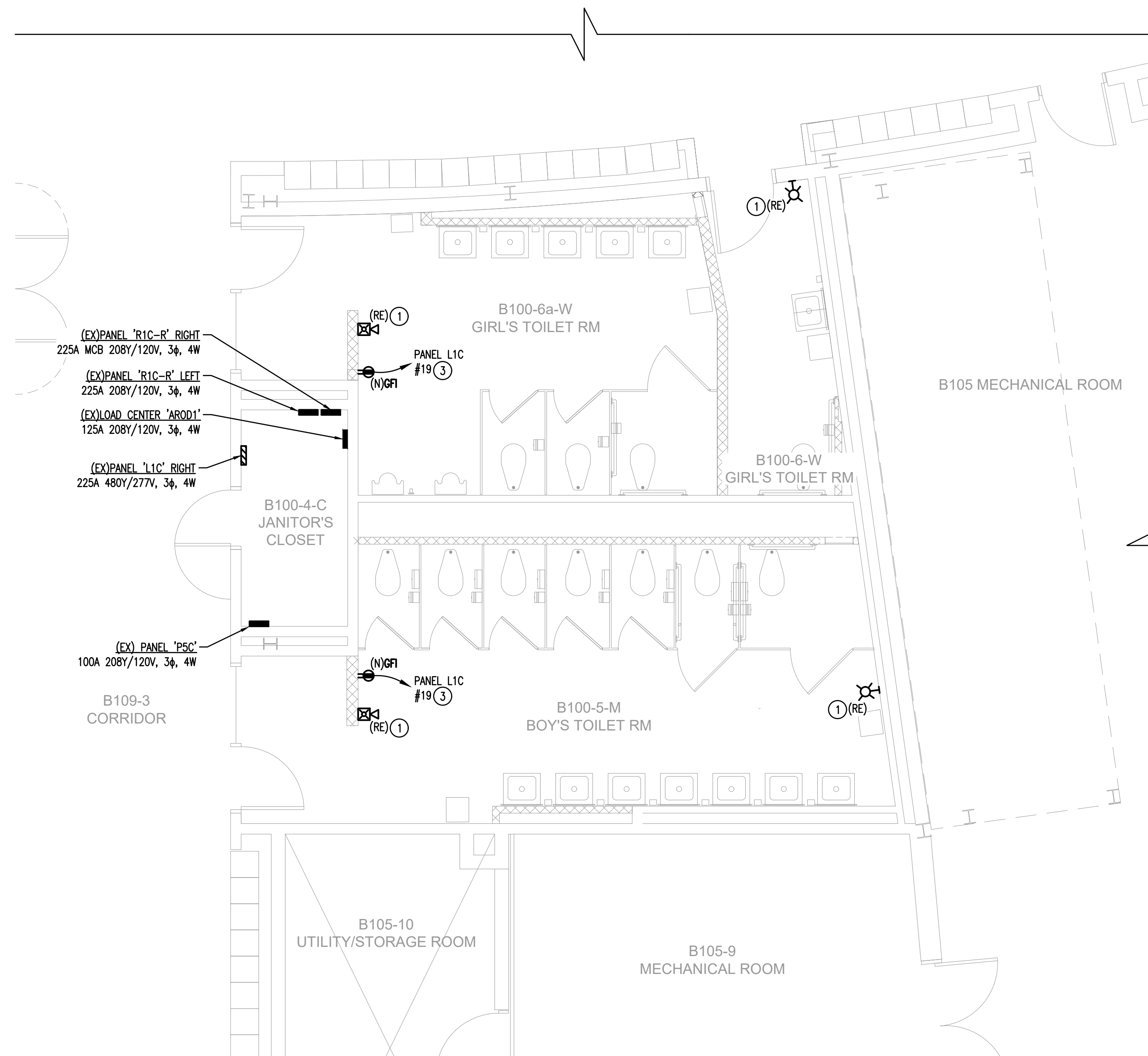
600 TABERNACLE RD
 MEDFORD, NEW JERSEY

DRAWING TITLE:

ELECTRICAL DEMO ROOF PLANS

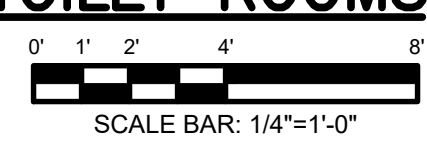
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CHECKED BY: LH	DRAWING NO. ED-102	REVISION
DATE: 12/19/2024		
PROJECT NO.: 8C22002		

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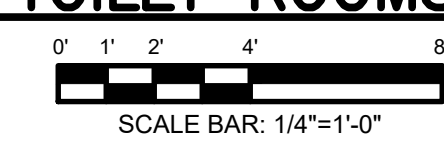
1 ELECTRICAL NEW WORK FLOOR PLAN – GYMNASIUM TOILET ROOMS

E-101 SCALE: 1/4" = 1'-0"



2 ELECTRICAL NEW WORK FLOOR PLAN – CAFETERIA TOILET ROOMS

E-101 SCALE: 1/4" = 1'-0"



NEW WORK SYSTEM NOTES:

1. GENERAL NOTES:
 - A. REFER TO ELECTRICAL LEAD SHEETS, E-001 FOR "NOTES" THAT PERTAIN TO THE SCOPE OF THIS PROJECT.
 - B. REFER TO BOOK SPECIFICATIONS FOR PROJECT DETAILS AND EXECUTION REQUIREMENTS.
 - C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE.
 - D. CONTRACTOR SHALL PROVIDE ALL REQUIRED CONDUITS, RACEWAYS, CONDUCTORS, AND OTHER EQUIPMENT NECESSARY TO PROVIDE A COMPLETE WORKING SYSTEM.
 - E. ELECTRICAL CONTRACTOR SHALL INSTALL ALL (N) EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND SHALL MAINTAIN ALL CLEARANCES AS NOTED WITHIN THE WRITTEN INSTRUCTIONS.
 - F. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL ELECTRICAL EQUIPMENT, WIRING AND RACEWAY, AND MAKE ALL CONNECTIONS TO/FROM PANELBOARDS, DISCONNECT SWITCHES, ADJUSTABLE SPEED DRIVES, MOTOR STARTERS, AND THE END USE EQUIPMENT NECESSARY FOR A FULLY OPERATIONAL SYSTEM. COORDINATE WITH MECHANICAL CONTRACTOR.
 - G. ALL RACEWAYS PENETRATING FIRE RATED PARTITIONS, WALLS, AND CEILINGS SHALL BE SEALED USING APPROVED FIRE RATED SEALANT TO MATCH THE REQUIRED WALL FIRE RATING.
 - H. ALL POWER SHUT DOWNS MUST BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
 - I. THE ELECTRICAL CONTRACTOR SHALL MAKE AN ON SITE INSPECTION TO DETERMINE THE FULL SCOPE OF WORK AND WORKING CONDITIONS BEFORE SUBMITTING A PROPOSAL.
 - J. ALL CIRCUIT BREAKERS SERVING HVAC EQUIPMENT SHALL BE UL LISTED AS "HACR".
 - K. THE DRAWINGS ARE DIAGNOSTIC. EXACT LOCATION OF EQUIPMENT, WIRING AND RACEWAYS SHALL BE DETERMINED BY CONTRACTOR SUBJECT TO ARCHITECT APPROVAL.
 - L. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ELECTRICAL CHARACTERISTICS OF ALL NEW EQUIPMENT, MOTORS, ETC. BEFORE INSTALLING CABLES AND RACEWAY. IF THERE ARE ANY DISCREPANCIES BETWEEN THE ACTUAL RATING OF EQUIPMENT AT THE SITE AND THE DRAWINGS, THEN THE ENGINEER SHALL BE NOTIFIED.
 - M. THE CONTRACTOR SHALL SUBMIT TO THE OWNER: CERTIFICATES OF INSPECTION FOR THE ELECTRICAL INSTALLATION FROM AN APPROVED INSPECTION AGENCY UPON COMPLETION OF ELECTRICAL WORK.
 - N. ALL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATION MAINTENANCE, AND REPAIR. MINOR DEVIATIONS FROM THE PLANS MAY BE MADE TO ACCOMPLISH THIS, SUBJECT TO THE APPROVAL OF THE ENGINEER.
 - O. THE ELECTRICAL CONTRACTOR SHALL USE MAXIMUM OF 6" OF FLEXIBLE CONDUIT FOR EQUIPMENT SUBJECT TO VIBRATION, NOISE TRANSMISSION, OR MOVEMENT, AND FOR ALL MOTORS. USE LIQUID TIGHT FLEXIBLE CONDUIT IN WET OR DAMP LOCATIONS. INSTALL SEPARATE GROUND CONDUCTOR ACROSS FLEXIBLE CONNECTIONS.
 - P. ALL WIRING SHALL BE COPPER CONDUCTOR WITH 600 VOLT TYPE THHN, OR THWN INSULATION IN CONDUIT. THE MINIMUM SIZE WIRE FOR POWER CIRCUITS SHALL BE #12 AWG. SOLID CONDUCTORS SHALL BE USED FOR NUMBER 10 AND 12; STRANDED CONDUCTORS SHALL BE USED FOR NUMBERS 8 AND LARGER. THE CONTRACTOR MAY USE METAL CLAD TYPE "MC" WHERE ALLOWED BY THE NATIONAL ELECTRICAL CODE AND APPROVED FOR USE BY THE AUTHORITIES HAVING JURISDICTION.
 - Q. ALL MATERIALS AND EQUIPMENT FURNISHED FOR THIS PROJECT SHALL BE NEW, LISTED, AND APPROVED BY UL.
 - R. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS, LICENSES AND PAY UTILITY COMPANY FEES.
 - S. ALL FUSED AND NON-FUSED DISCONNECT SWITCHES SHALL HAVE: 600 VOLT RATING FOR 480 VOLT CIRCUITS. SIZE FUSES TO COMPLY WITH NAMEPLATE RATING OF EQUIPMENT SERVED.
 - T. THE ELECTRICAL CONTRACTOR SHALL PROVIDE NEW TYPED PANEL SCHEDULES WITHIN THE SCOPE OF THIS PROJECT. THIS INCLUDES ALL PANELS EVEN IF ONLY A FEW CIRCUITS WERE CHANGED AS A RESULT OF THIS PROJECT. WHERE ACTUAL FIELD CONDITIONS REQUIRE DIFFERENT CIRCUIT NUMBERS THAN THOSE INDICATED ON PLANS THE CONTRACTOR SHALL ADVISE OWNER OF CHANGES ON REQUIRED AS-BUILT DRAWINGS.
 - U. THE ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO VERIFY EXISTING DEMAND LOADS ON EXISTING ELECTRICAL EQUIPMENT THAT IS BEING MODIFIED AS PART OF THIS SCOPE OF WORK AND ADVISE ENGINEER OF RECORD/OWNER WHERE THE EXISTING AND NEW EQUIPMENT LOADS EXCEED THE RATING OF THE EXISTING ELECTRICAL EQUIPMENT.
 - V. ELECTRICAL CONTRACTOR SHALL CONCEAL ALL NEW WIRING ASSOCIATED WITH NEW SWITCH LOCATIONS AND RECEPTACLES. WITHIN EXISTING TILED MASONRY WALLS CONTRACTOR SHALL INSTALL JUNCTION BOXES ABOVE DROP CEILINGS IN THE LOCATION OF THE NEW DEVICES AS NECESSARY TO ACCESS EXISTING MASONRY CELLS. PROVIDE APPROPRIATE WALL SEALANT MATCHING RATING OF EXISTING WALLS WHERE PENETRATIONS ARE MADE ABOVE DROP CEILINGS.

NEW WORK KEYED NOTES:

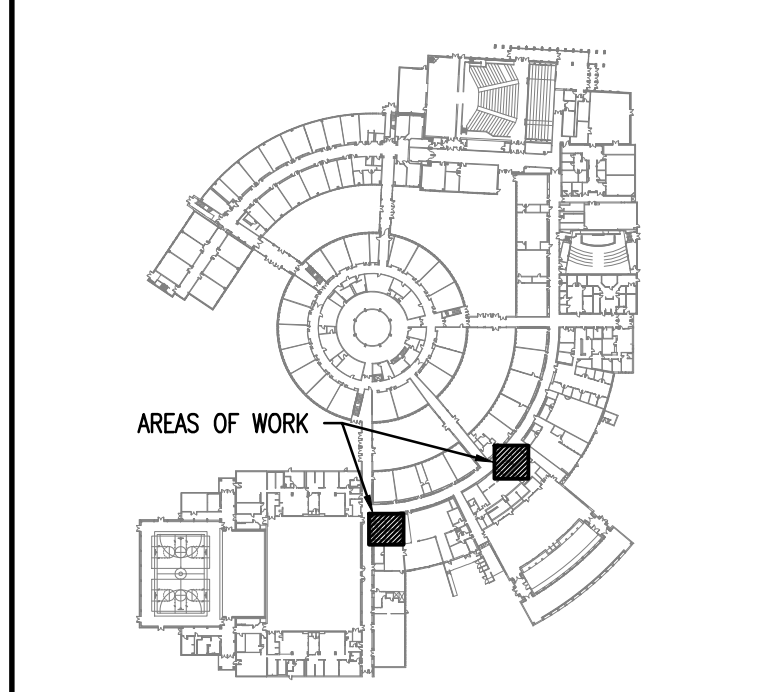
- GENERAL: NEW WORK NOTES ARE INDICATED WITH THE FOLLOWING SYMBOL (N) AND ARE NUMBERED AS FOLLOWS:
- ① ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WIRING AND RACEWAY AS NECESSARY TO THE FIRE ALARM DEVICE INTO EXISTING LOCAL POWER SUPPLY/BOOSTER PANEL CIRCUIT. EXISTING FIRE ALARM SYSTEM SHALL PASS A 100% RE-ACCEPTANCE TEST IN ACCORDANCE WITH NFPA 72 UPON COMPLETION OF INSTALLATION. REFER TO NOTE #21 ON E-001 FOR FIRE ALARM NOTES.
 - ② ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL (1) NEW 20A/1P CIRCUIT BREAKER IN PANEL P7B (CIRCUIT #29) TO POWER NEW GFI RECEPTACLES AS SHOWN ON PLANS. UTILIZE (2)#12 AND (1)#12G IN 3/4"Ø.
 - ③ ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL (1) NEW 20A/1P CIRCUIT BREAKER IN PANEL L1C (CIRCUIT #19) TO POWER NEW GFI RECEPTACLES AS SHOWN ON PLANS. UTILIZE (2)#12 AND (1)#12G IN 3/4"Ø.

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No.	Date	Description
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KEY PLAN:



John A. Marchalava P. E.
 New Jersey P. E. No. 24GE04992500

Professional Engineer
 John A. Marchalava P. E.

PROJECT: REF21-39-8312

LRHSD - SHAWNEE HIGH SCHOOL PHASE 4 HVAC UPGRADES

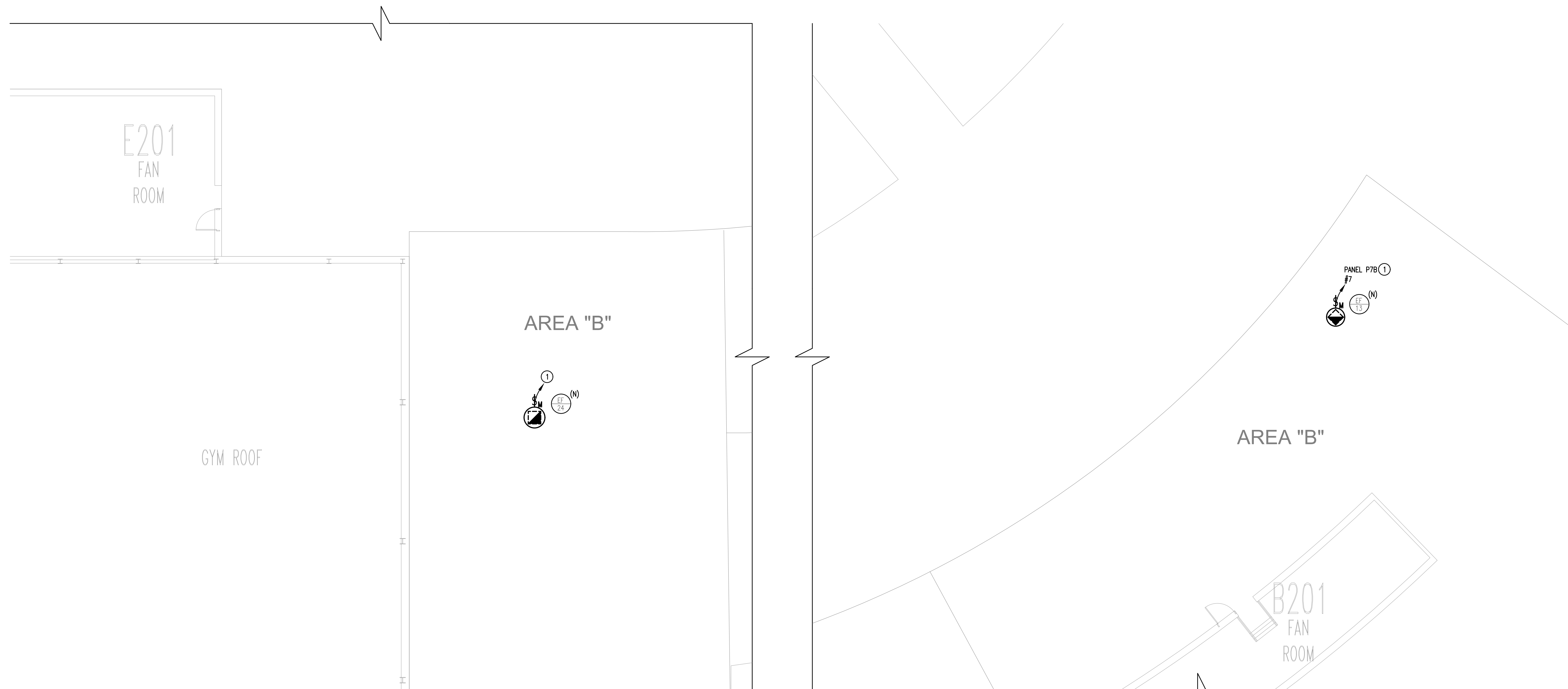
600 TABERNAACLE RD
 MEDFORD, NEW JERSEY

DRAWING TITLE:

ELECTRICAL NEW WORK PLANS

DRAWN BY: T.JT	SCALE: AS NOTED	DWG SIZE: 42x30
CHECKED BY: LH	DRAWING NO. E-101	REVISION
DATE: 12/19/2024		
PROJECT NO.: 8C22002		

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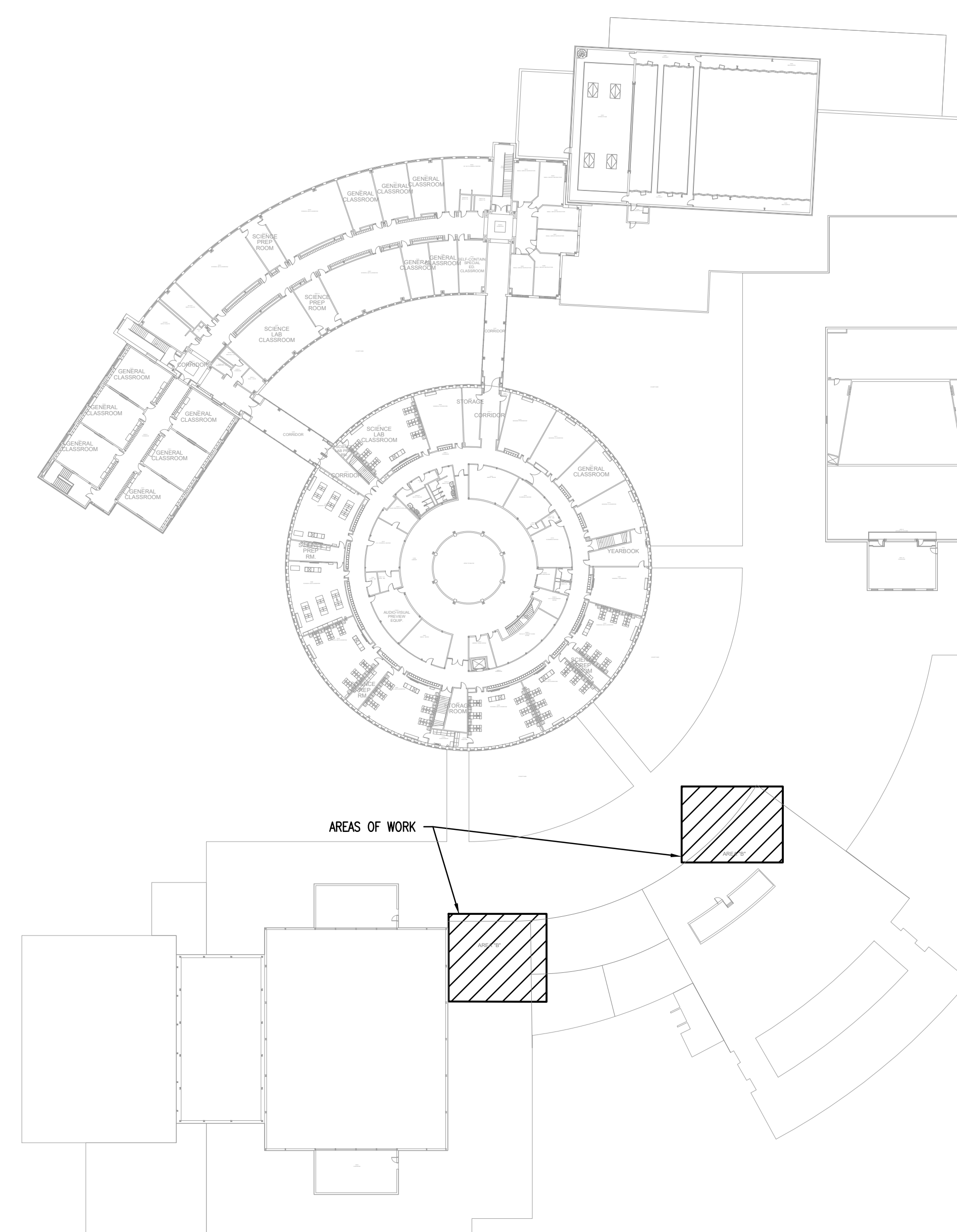
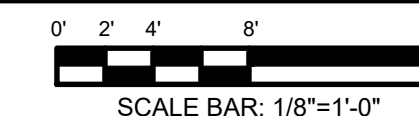
1 ELECTRICAL NEW WORK ROOF PLAN – GYMNASIUM TOILET ROOMS

E-102 SCALE: 1/8" = 1'-0"



2 ELECTRICAL NEW WORK ROOF PLAN – CAFETERIA TOILET ROOMS

E-102 SCALE: 1/8" = 1'-0"



3 ELECTRICAL NEW WORK ROOF KEY PLAN

E-102 SCALE: NT.S.



NEW WORK SYSTEM NOTES:

1. GENERAL NOTES:

- A. REFER TO ELECTRICAL LEAD SHEETS, E-001 FOR "NOTES" THAT PERTAIN TO THE SCOPE OF THIS PROJECT.
- B. REFER TO BOOK SPECIFICATIONS FOR PROJECT DETAILS AND EXECUTION REQUIREMENTS.
- C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE.
- D. CONTRACTOR SHALL PROVIDE ALL REQUIRED CONDUITS, RACEWAYS, CONDUCTORS, AND OTHER EQUIPMENT NECESSARY TO PROVIDE A COMPLETE WORKING SYSTEM.
- E. ELECTRICAL CONTRACTOR SHALL INSTALL ALL (N) EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND SHALL MAINTAIN ALL CLEARANCES AS NOTED WITHIN THE WRITTEN INSTRUCTIONS.
- F. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL ELECTRICAL EQUIPMENT, WIRING AND RACEWAY, AND MAKE ALL CONNECTIONS TO/FROM PANELBOARDS, DISCONNECT SWITCHES, ADJUSTABLE SPEED DRIVES, MOTOR STARTERS, AND THE END USE EQUIPMENT NECESSARY FOR A FULLY OPERATIONAL SYSTEM. COORDINATE WITH MECHANICAL CONTRACTOR.
- G. ALL RACEWAYS PENETRATING FIRE RATED PARTITIONS, WALLS, AND CEILINGS SHALL BE SEALED USING APPROVED FIRE RATED SEALANT TO MATCH THE REQUIRED WALL FIRE RATING.
- H. ALL POWER SHUT DOWNS MUST BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
- I. THE ELECTRICAL CONTRACTOR SHALL MAKE AN ON SITE INSPECTION TO DETERMINE THE FULL SCOPE OF WORK AND WORKING CONDITIONS BEFORE SUBMITTING A PROPOSAL.
- J. ALL CIRCUIT BREAKERS SERVING HVAC EQUIPMENT SHALL BE UL LISTED AS "HACR".
- K. THE DRAWINGS ARE DIAGNOSTIC. EXACT LOCATION OF EQUIPMENT, WIRING AND RACEWAYS SHALL BE DETERMINED BY CONTRACTOR SUBJECT TO ARCHITECT APPROVAL.
- L. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ELECTRICAL CHARACTERISTICS OF ALL NEW EQUIPMENT, MOTORS, ETC. BEFORE INSTALLING CABLING AND RACEWAY. IF THERE ARE ANY DISCREPANCIES BETWEEN THE ACTUAL RATING OF EQUIPMENT AT THE SITE AND THE DRAWINGS, THEN THE ENGINEER SHALL BE NOTIFIED.
- M. THE CONTRACTOR SHALL SUBMIT TO THE OWNER: CERTIFICATES OF INSPECTION FOR THE ELECTRICAL INSTALLATION FROM AN APPROVED INSPECTION AGENCY UPON COMPLETION OF ELECTRICAL WORK.
- N. ALL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATION MAINTENANCE, AND REPAIR. MINOR DEVIATIONS FROM THE PLANS MAY BE MADE TO ACCOMPLISH THIS, SUBJECT TO THE APPROVAL OF THE ENGINEER.
- O. THE ELECTRICAL CONTRACTOR SHALL USE MAXIMUM OF 6" OF FLEXIBLE CONDUIT FOR EQUIPMENT SUBJECT TO VIBRATION, NOISE TRANSMISSION, OR MOVEMENT, AND FOR ALL MOTORS. USE LIQUID TIGHT FLEXIBLE CONDUIT IN WET OR DAMP LOCATIONS. INSTALL SEPARATE GROUND CONDUCTOR ACROSS FLEXIBLE CONNECTIONS.
- P. ALL WIRING SHALL BE COPPER CONDUCTOR WITH 600 VOLT TYPE THHN, OR THWN INSULATION IN CONDUIT. THE MINIMUM SIZE WIRE FOR POWER CIRCUITS SHALL BE #12 AWG. SOLID CONDUCTORS SHALL BE USED FOR NUMBER 10 AND 12; STRANDED CONDUCTORS SHALL BE USED FOR NUMBERS 8 AND LARGER. THE CONTRACTOR MAY USE METAL CLAD TYPE "MC" WHERE ALLOWED BY THE NATIONAL ELECTRICAL CODE AND APPROVED FOR USE BY THE AUTHORITIES HAVING JURISDICTION.
- Q. ALL MATERIALS AND EQUIPMENT FURNISHED FOR THIS PROJECT SHALL BE NEW, LISTED, AND APPROVED BY UL.
- R. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS, LICENSES AND PAY UTILITY COMPANY FEES.
- S. ALL FUSED AND NON-FUSED DISCONNECT SWITCHES SHALL HAVE: 600 VOLT RATING FOR 480 VOLT CIRCUITS. SIZE FUSES TO COMPLY WITH NAMEPLATE RATING OF EQUIPMENT SERVED.
- T. THE ELECTRICAL CONTRACTOR SHALL PROVIDE NEW TYPED PANEL SCHEDULES WITHIN THE SCOPE OF THIS PROJECT. THIS INCLUDES ALL PANELS EVEN IF ONLY A FEW CIRCUITS WERE CHANGED AS A RESULT OF THIS PROJECT. WHERE ACTUAL FIELD CONDITIONS REQUIRE DIFFERENT CIRCUIT NUMBERS THAN THOSE INDICATED ON PLANS THE CONTRACTOR SHALL ADVISE OWNER OF CHANGES ON REQUIRED AS-BUILT DRAWINGS.
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NEW WORK KEYED NOTES:

GENERAL: NEW WORK NOTES ARE INDICATED WITH THE FOLLOWING SYMBOL (N) AND ARE NUMBERED AS FOLLOWS:

- 1 ELECTRICAL CONTRACTOR SHALL PROVIDE WIRING AND RACEWAY FROM EXISTING EXHAUST FAN CIRCUIT TO POWER NEW EXHAUST FAN. UTILIZE (2)#12 AND (1)#12S IN 3/4" C. CIRCUIT BREAKER SHALL BE 20A/1P, MODIFY EXISTING CIRCUIT BREAKER AS NECESSARY.

MEP ENGINEER:

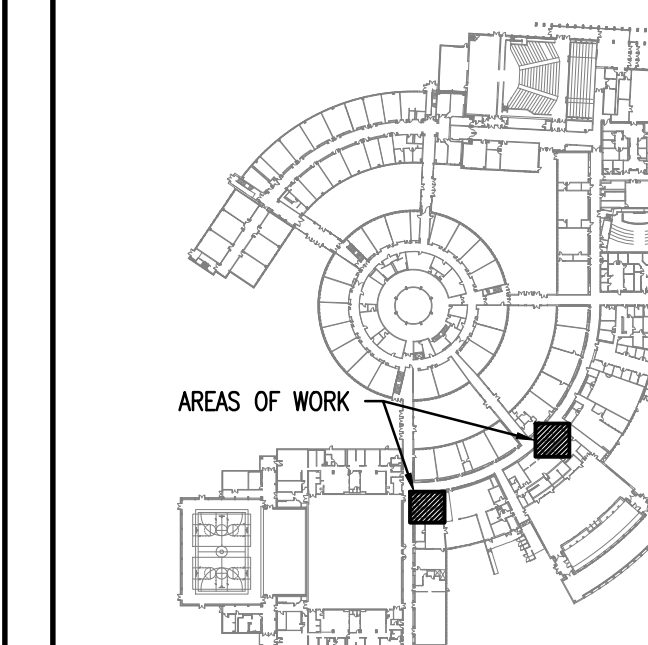


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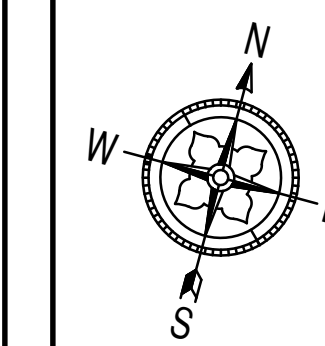
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REVISIONS:

KEY PLAN:



John A. Marchalava P. E.
New Jersey P. E. No. 24GE4992500



Professional Engineer
John A. Marchalava P. E.

PROJECT: REF21-39-8312

LRHSD - SHAWNEE HIGH SCHOOL PHASE 4 HVAC UPGRADES

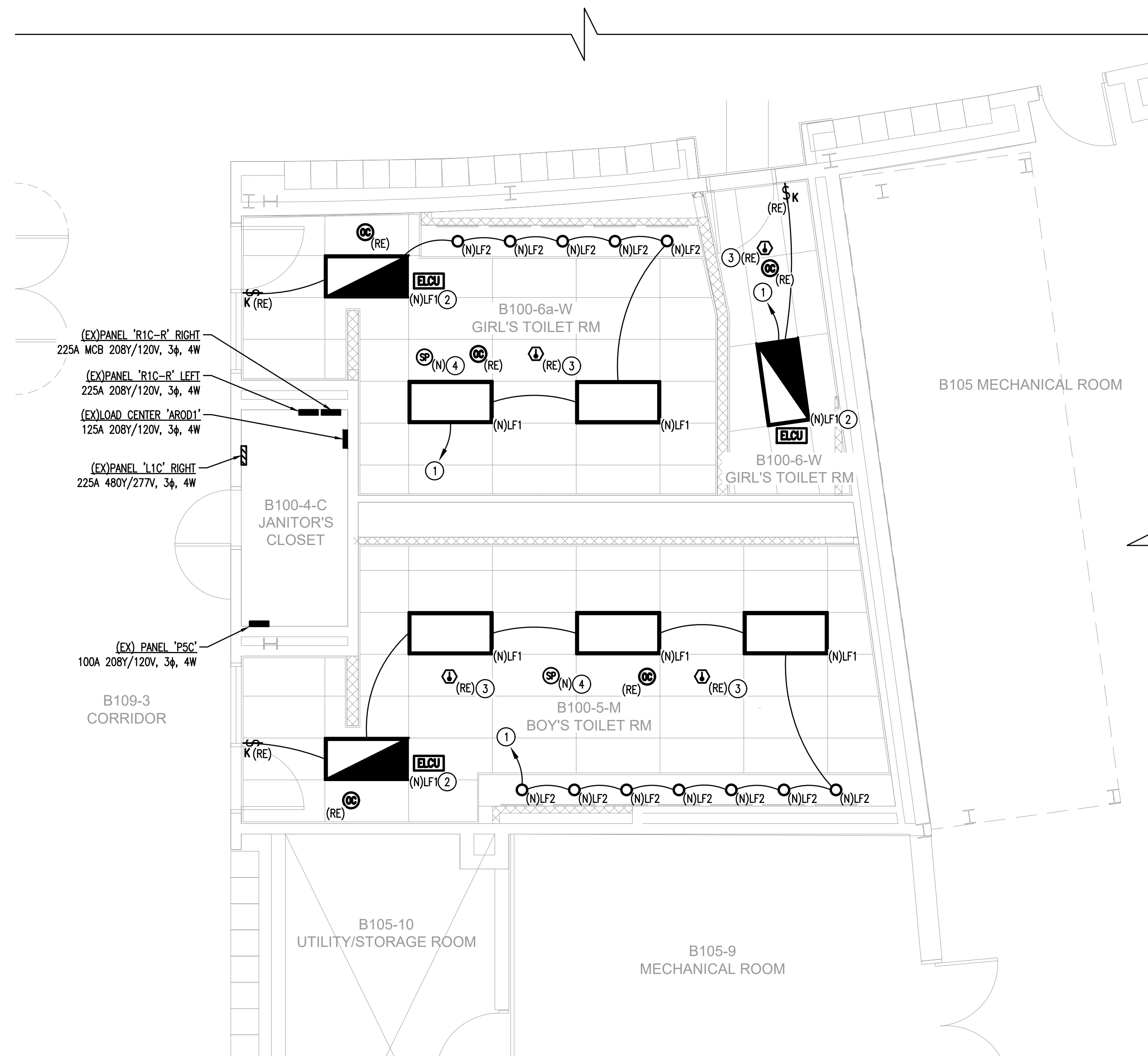
600 TABERNAACLE RD
MEDFORD, NEW JERSEY

DRAWING TITLE:

ELECTRICAL NEW WORK ROOF PLANS

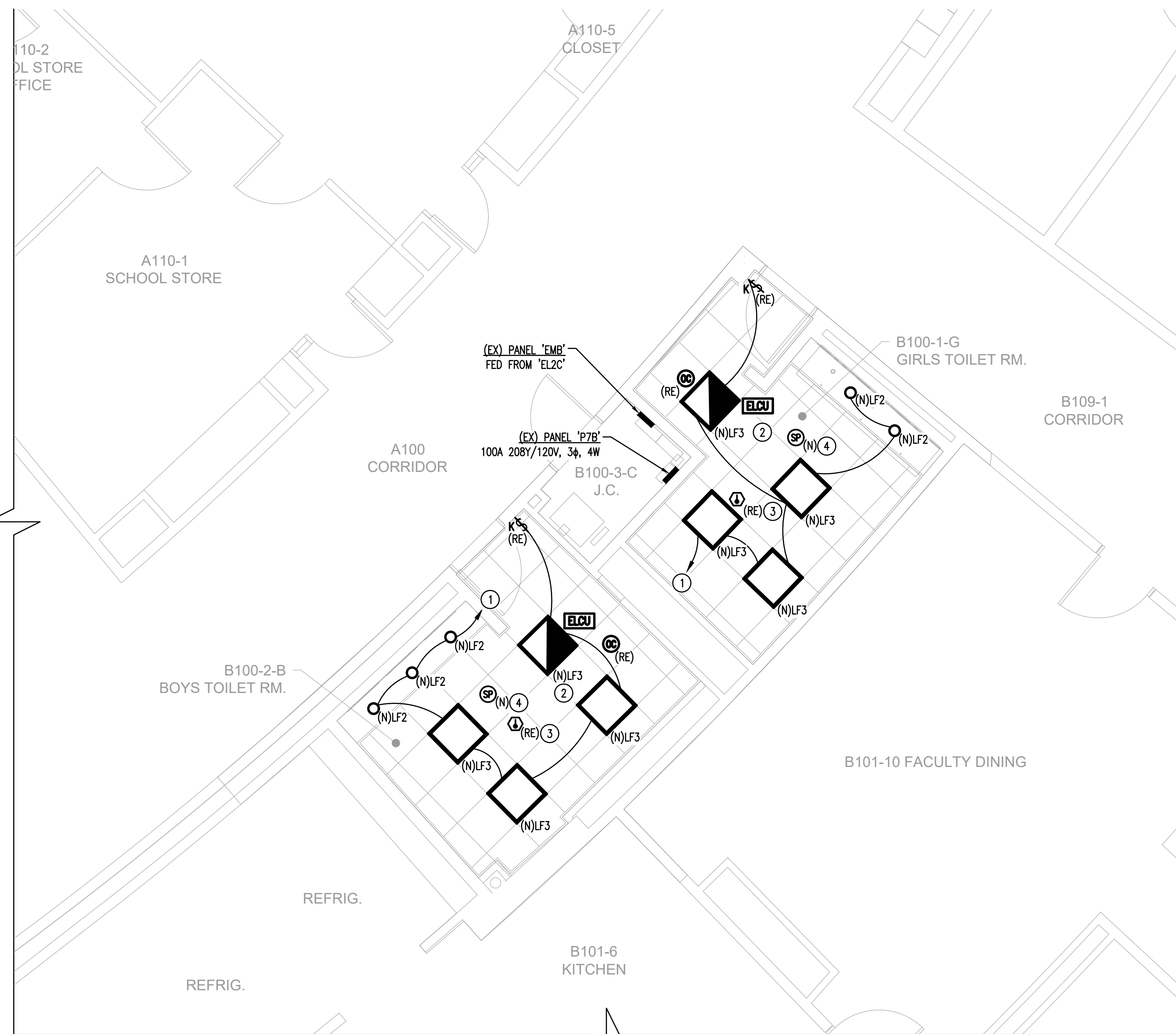
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CHECKED BY:	LH	DRAWING NO.:		REVISION:	
DATE:	12/19/2024			E-102	
PROJECT NO.:	8C22002				

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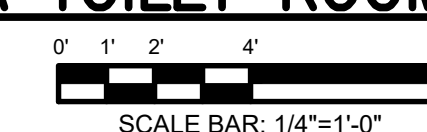
1 ELECTRICAL NEW WORK CEILING PLAN – GYMNASIUM TOILET ROOMS

E-201 SCALE: 1/4" = 1'-0"



2 ELECTRICAL NEW WORK CEILING PLAN – CAFETERIA TOILET ROOMS

E-201 SCALE: 1/4" = 1'-0"



NEW WORK SYSTEM NOTES:

1. GENERAL NOTES:
 - A. REFER TO ELECTRICAL LEAD SHEETS, E-001 FOR "NOTES" THAT PERTAIN TO THE SCOPE OF THIS PROJECT.
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 - D. CONTRACTOR SHALL PROVIDE ALL REQUIRED CONDUITS, RACEWAYS, CONDUCTORS, AND OTHER EQUIPMENT NECESSARY TO PROVIDE A COMPLETE WORKING SYSTEM.
 - E. ELECTRICAL CONTRACTOR SHALL INSTALL ALL (N) EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND SHALL MAINTAIN ALL CLEARANCES AS NOTED WITHIN THE WRITTEN INSTRUCTIONS.
 - F. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL ELECTRICAL EQUIPMENT, WIRING AND RACEWAY, AND MAKE ALL CONNECTIONS TO/FROM PANELBOARDS, DISCONNECT SWITCHES, ADJUSTABLE SPEED DRIVES, MOTOR STARTERS, AND THE END USE EQUIPMENT NECESSARY FOR A FULLY OPERATIONAL SYSTEM. COORDINATE WITH MECHANICAL CONTRACTOR.
 - G. ALL RACEWAYS PENETRATING FIRE RATED PARTITIONS, WALLS, AND CEILINGS SHALL BE SEALED USING APPROVED FIRE RATED SEALANT TO MATCH THE REQUIRED WALL FIRE RATING.
 - H. ALL POWER SHUT DOWNS MUST BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
 - I. THE ELECTRICAL CONTRACTOR SHALL MAKE AN ON SITE INSPECTION TO DETERMINE THE FULL SCOPE OF WORK AND WORKING CONDITIONS BEFORE SUBMITTING A PROPOSAL.
 - J. ALL CIRCUIT BREAKERS SERVING HVAC EQUIPMENT SHALL BE UL LISTED AS "HCR".
 - K. THE DRAWINGS ARE DIAGNOSTIC. EXACT LOCATION OF EQUIPMENT, WIRING AND RACEWAYS SHALL BE DETERMINED BY CONTRACTOR SUBJECT TO ARCHITECT APPROVAL.
 - L. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ELECTRICAL CHARACTERISTICS OF ALL NEW EQUIPMENT, MOTORS, ETC. BEFORE INSTALLING CABLING AND RACEWAY. IF THERE ARE ANY DISCREPANCIES BETWEEN THE ACTUAL RATING OF EQUIPMENT AT THE SITE AND THE DRAWINGS, THEN THE ENGINEER SHALL BE NOTIFIED.
 - M. THE CONTRACTOR SHALL SUBMIT TO THE OWNER: CERTIFICATES OF INSPECTION FOR THE ELECTRICAL INSTALLATION FROM AN APPROVED INSPECTION AGENCY UPON COMPLETION OF ELECTRICAL WORK.
 - N. ALL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATION MAINTENANCE, AND REPAIR. MINOR DEVIATIONS FROM THE PLANS MAY BE MADE TO ACCOMPLISH THIS, SUBJECT TO THE APPROVAL OF THE ENGINEER.
 - O. THE ELECTRICAL CONTRACTOR SHALL USE MAXIMUM OF 6" OF FLEXIBLE CONDUIT FOR EQUIPMENT SUBJECT TO VIBRATION, NOISE TRANSMISSION, OR MOVEMENT, AND FOR ALL MOTORS. USE LIQUID TIGHT FLEXIBLE CONDUIT IN WET OR DAMP LOCATIONS. INSTALL SEPARATE GROUND CONDUCTOR ACROSS FLEXIBLE CONNECTIONS.
 - P. ALL WIRING SHALL BE COPPER CONDUCTOR WITH 600 VOLT TYPE THHN, OR THWN INSULATION IN CONDUIT. THE MINIMUM SIZE WIRE FOR POWER CIRCUITS SHALL BE #12 AWG. SOLID CONDUCTORS SHALL BE USED FOR NUMBER 10 AND 12. STRANDED CONDUCTORS SHALL BE USED FOR NUMBERS 8 AND LARGER. THE CONTRACTOR MAY USE METAL CLAD TYPE "MC" WHERE ALLOWED BY THE NATIONAL ELECTRICAL CODE AND APPROVED FOR USE BY THE AUTHORITIES HAVING JURISDICTION.
 - Q. ALL MATERIALS AND EQUIPMENT FURNISHED FOR THIS PROJECT SHALL BE NEW, LISTED, AND APPROVED BY UL.
 - R. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS, LICENSES AND PAY UTILITY COMPANY FEES.
 - S. ALL FUSED AND NON-FUSED DISCONNECT SWITCHES SHALL HAVE: 600 VOLT RATING FOR 480 VOLT CIRCUITS. SIZE FUSES TO COMPLY WITH NAMEPLATE RATING OF EQUIPMENT SERVED.
 - T. THE ELECTRICAL CONTRACTOR SHALL PROVIDE NEW TYPEWRITTEN PANEL SCHEDULES WITHIN THE SCOPE OF THIS PROJECT. THIS INCLUDES ALL PANELS EVEN IF ONLY A FEW CIRCUITS WERE CHANGED AS A RESULT OF THIS PROJECT. WHERE ACTUAL FIELD CONDITIONS REQUIRE DIFFERENT CIRCUIT NUMBERS THAN THOSE INDICATED ON PLANS THE CONTRACTOR SHALL ADVISE OWNER OF CHANGES ON REQUIRED AS-BUILT DRAWINGS.
 - U. THE ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO VERIFY EXISTING DEMAND LOADS ON EXISTING ELECTRICAL EQUIPMENT THAT IS BEING MODIFIED AS PART OF THIS SCOPE OF WORK AND ADVISE ENGINEER OF RECORD/OWNER WHERE THE EXISTING AND NEW EQUIPMENT LOADS EXCEED THE RATING OF THE EXISTING ELECTRICAL EQUIPMENT.
 - V. ELECTRICAL CONTRACTOR SHALL CONCEAL ALL NEW WIRING ASSOCIATED WITH NEW SWITCH LOCATIONS AND RECEPTILES. WITHIN EXISTING FLEED MASONRY WALLS, CONTRACTOR SHALL INSTALL JUNCTION BOXES ABOVE DROP CEILINGS IN THE LOCATION OF THE NEW DEVICES AS NECESSARY TO ACCESS EXISTING MASONRY CELLS. PROVIDE APPROPRIATE WALL SEALANT MATCHING RATING OF EXISTING WALLS WHERE PENETRATIONS ARE MADE ABOVE DROP CEILINGS.

NEW WORK KEYED NOTES:

- GENERAL: NEW WORK NOTES ARE INDICATED WITH THE FOLLOWING SYMBOL (N) AND ARE NUMBERED AS FOLLOWS:
1. ELECTRICAL CONTRACTOR SHALL UTILIZE EXISTING LOCAL LIGHTING CIRCUIT TO POWER NEW LIGHT FIXTURES. PROVIDE ADDITIONAL WIRING AND CONDUIT AS NECESSARY.
 2. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL UL924 LISTED DEVICE FOR EMERGENCY FIXTURES TO ALLOW EMERGENCY FIXTURES TO TURN ON TO FULL BRIGHTNESS IN THE EVENT OF A POWER FAILURE.
 3. ELECTRICAL CONTRACTOR SHALL RELOCATE EXISTING FIRE ALARM DEVICES IN NEW TOILET ROOM. PROVIDE ALL WIRING AND RACEWAY AS NECESSARY TO TIE INTO EXISTING LOCAL POWER SUPPLY/BOOSTER PANEL CIRCUIT. EXISTING FIRE ALARM SYSTEM SHALL PASS A 100% RE-ACCEPTANCE TEST IN ACCORDANCE WITH NFPA 72 UPON COMPLETION OF INSTALLATION.
 4. ELECTRICAL CONTRACTOR SHALL EXTEND EXISTING SPEAKER WIRE IN KIND FROM EXISTING DEMO LOCATION TO NEW LOCATION AS INDICATED ON NEW WORK PLAN. PROVIDE NEW CEILING MOUNTED SPEAKER (TO MATCH EXISTING DISTRICT TYPE). PROVIDE FINAL INSTALLATION AND SPEAKER WIRE TAPS AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.

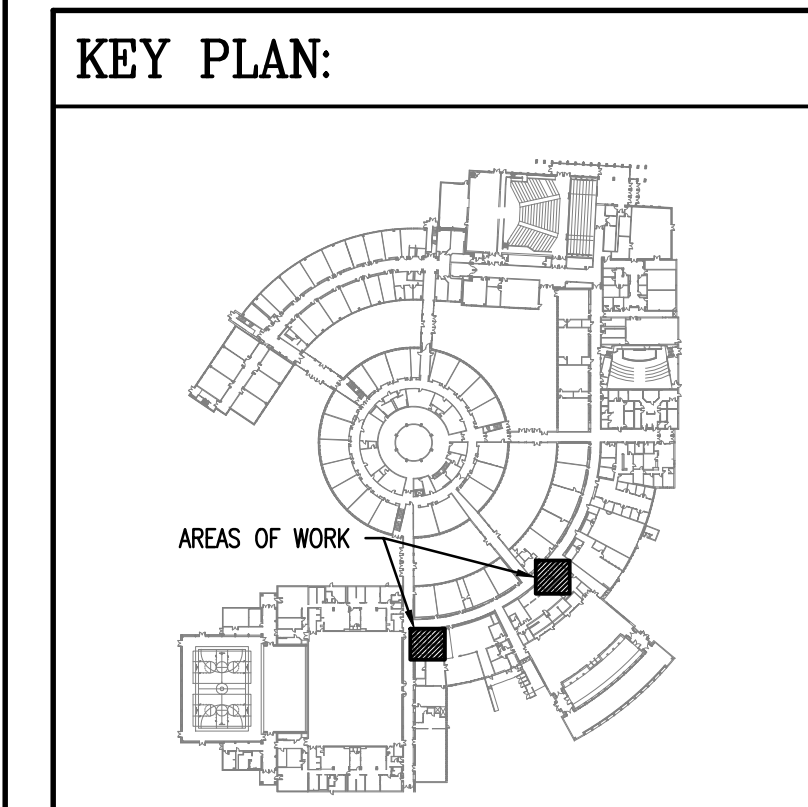
MEP ENGINEER:

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No.	Date	Description
-	12/19/24	ISSUE FOR BID

REVISIONS:



John A. Marchialava P. E.
New Jersey P. E. No. 24GE4992500

Professional Engineer
John A. Marchialava P. E.

PROJECT: REF21-39-8312

LRHSD - SHAWNEE HIGH SCHOOL PHASE 4 HVAC UPGRADES

600 TABERNAACLE RD
MEDFORD, NEW JERSEY

DRAWING TITLE:

ELECTRICAL NEW WORK
REFLECTED CEILING PLANS

DRAWN BY: T.JT	SCALE: AS NOTED	DWG SIZE: 42x30
CHECKED BY: LH	DRAWING NO.	REVISION
DATE: 12/19/2024	E-201	
PROJECT NO.: 8C22002		

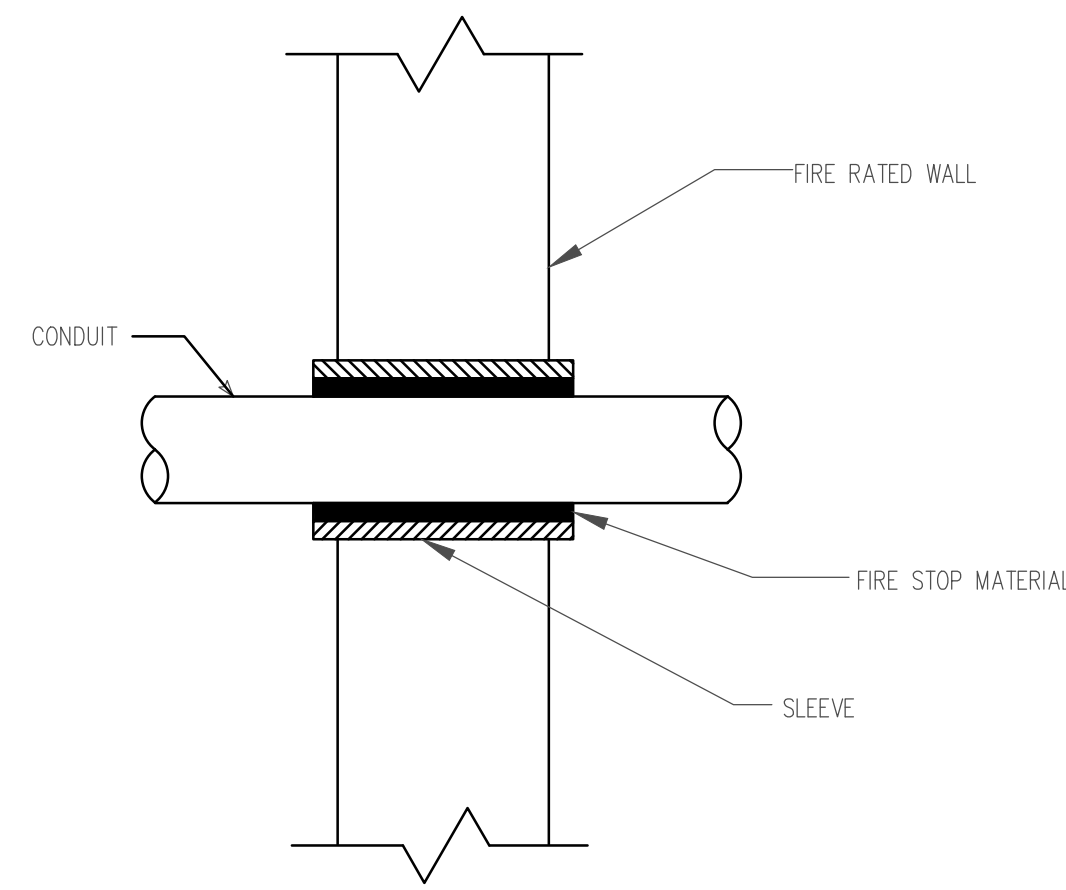
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GENERAL FIRE STOP NOTES

- REFER TO SECTION 260500 OF THE SPECIFICATIONS, FOR QUALITY CONTROL REQUIREMENTS, REFER TO THE QUALITY CONTROL PORTION OF THE SPECIFICATION.
- DETAILS SHOWN ON THIS DRAWING ARE TYPICAL DETAILS. IF FIELD CONDITIONS DO NOT MATCH REQUIREMENTS OF TYPICAL DETAILS, APPROVED ALTERNATE DETAILS SHALL BE UTILIZED. FIELD CONDITIONS AND DIMENSIONS NEED TO BE VERIFIED FOR COMPLIANCE WITH THE DETAILS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - MINIMUM AND MAXIMUM WIDTH OF JOINTS
 - TYPE AND THICKNESS OF FIRE-RATED CONSTRUCTION.
 - THE MINIMUM ASSEMBLY RATING OF THE FIRESTOP ASSEMBLY SHALL MEET OR EXCEED THE HIGHEST RATING OF THE ADJACENT CONSTRUCTION.
- IF ALTERNATE DETAILS MATCHING THE FIELD CONDITIONS ARE NOT AVAILABLE, MANUFACTURER'S ENGINEERING JUDGMENT DRAWINGS ARE ACCEPTABLE. DRAWINGS SHALL FOLLOW THE INTERNATIONAL FIRESTOP COUNCIL (IFC) GUIDELINES FOR EVALUATING FIRESTOP SYSTEMS ENGINEERING JUDGMENTS.

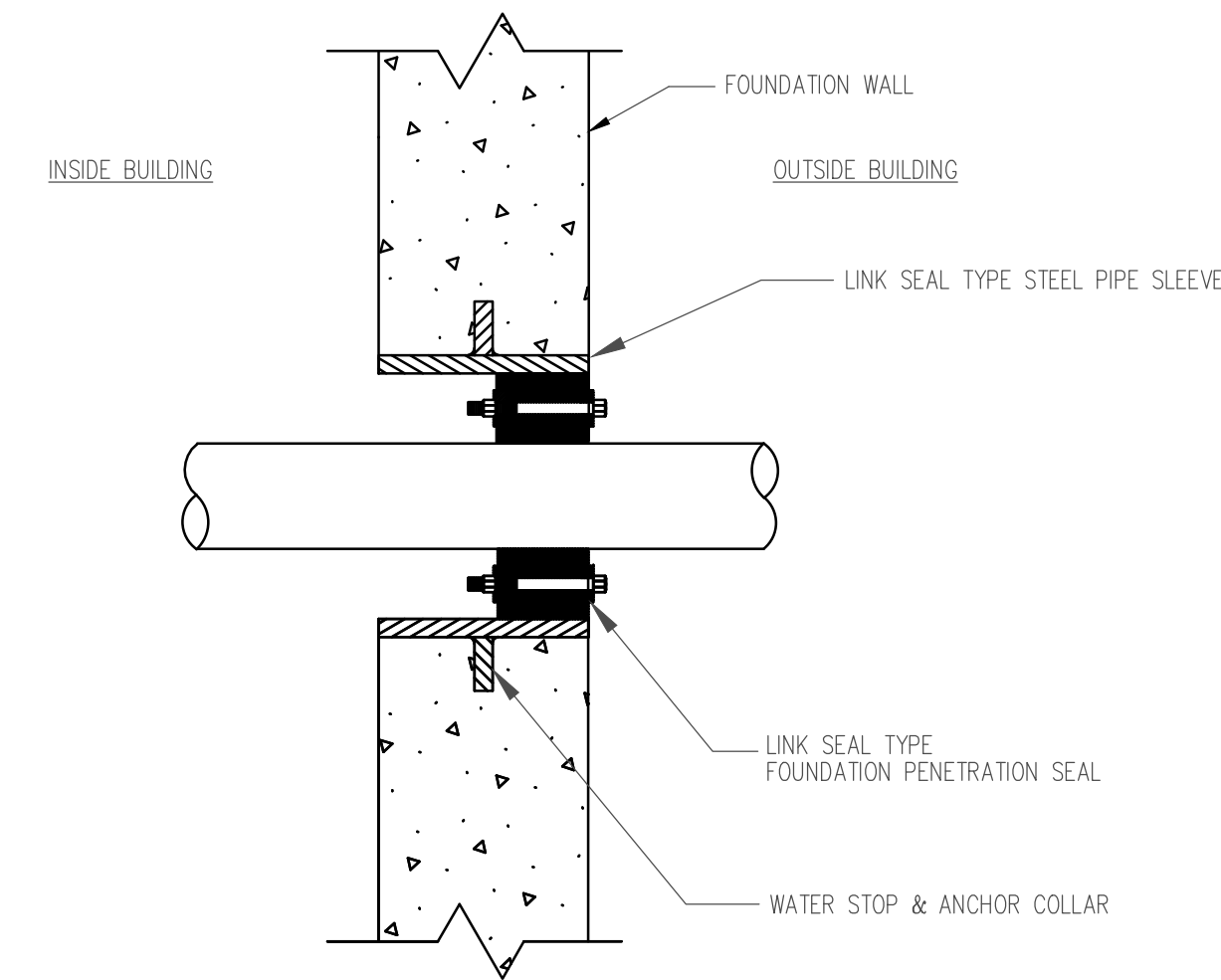
REFERENCES:

 - 2002 UNDERWRITER'S LABORATORIES FIRE RESISTANCE DIRECTORY, VOLUMES 1 & 2
 - NFPA 101 LIFE SAFETY CODE
 - NFPA 70 - NATIONAL ELECTRIC CODE 2020
 - ALL GOVERNING LOCAL AND REGIONAL BUILDING CODES
- FIRESTOP SYSTEM INSTALLATION MUST MEET REQUIREMENTS OF ASTM E-814 (UL 1479) TESTED ASSEMBLIES THAT PROVIDE A FIRE RATING EQUAL TO THAT OF CONSTRUCTION BEING PENETRATED.
- ALL RATED THROUGH-PENETRATION ASSEMBLIES SHALL BE PROMINENTLY LABELED WITH THE FOLLOWING INFORMATION:
 - ATTENTION: FIRE RATED ASSEMBLY
 - UL SYSTEM #
 - PRODUCT(S) USED
 - HOURLY RATING (F-RATING)
 - INSTALLATION DATE



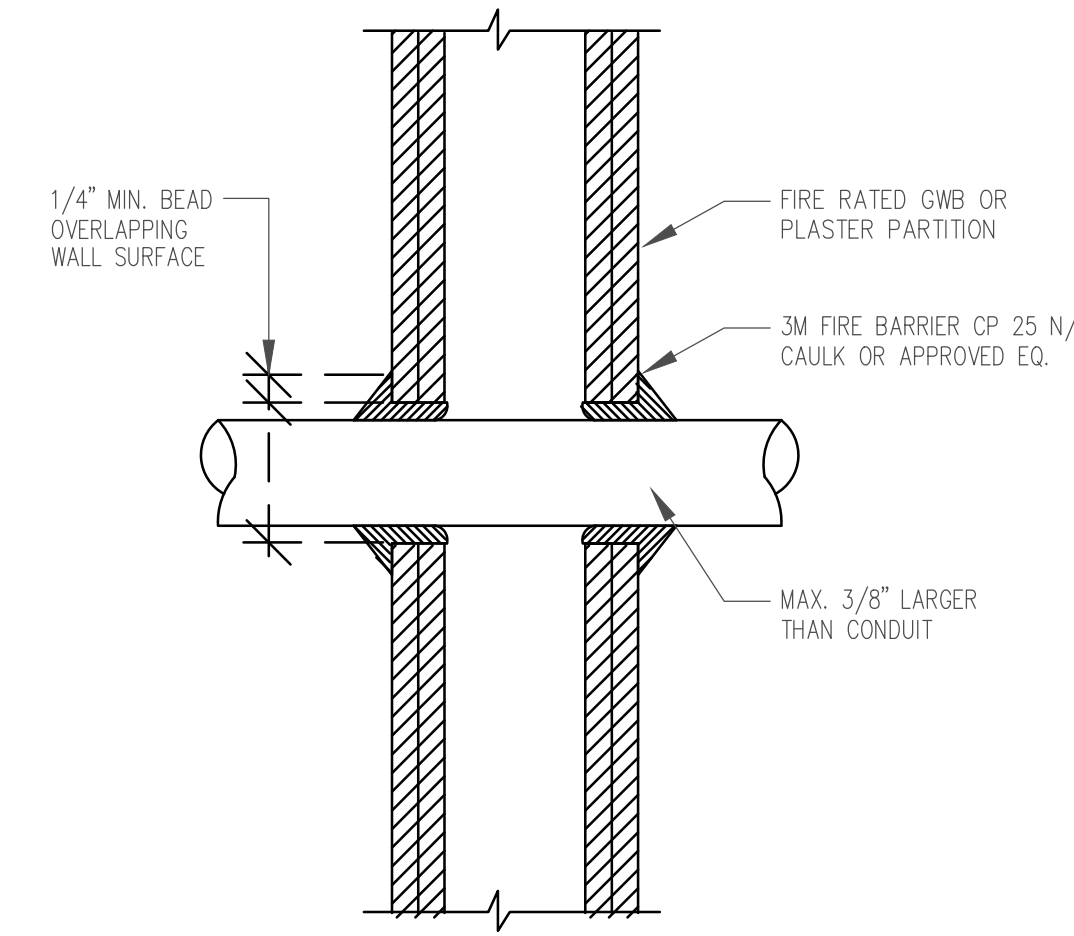
1 TYPICAL CONDUIT PENETRATION DETAIL #1
E-301 SCALE: NONE

- NOTES:
- USE THIS DETAIL WHERE CONDUITS PASS THRU FIRE RATED WALL.
 - WHERE CONDUITS PASS THRU FOUNDATION WALLS, FLOOR SLAB ON EARTH, ROOF, CONCRETE BEAM, BRICK WALL, OR WATER PROOF FLOORS, USE PIPE SLEEVES.
 - FIRESTOPPING OF CONDUIT PENETRATIONS SHALL UTILIZE THE CORRECT UL STANDARD FOR THE SPECIFIC WALL/FLOOR/CEILING TYPES AND RATINGS.



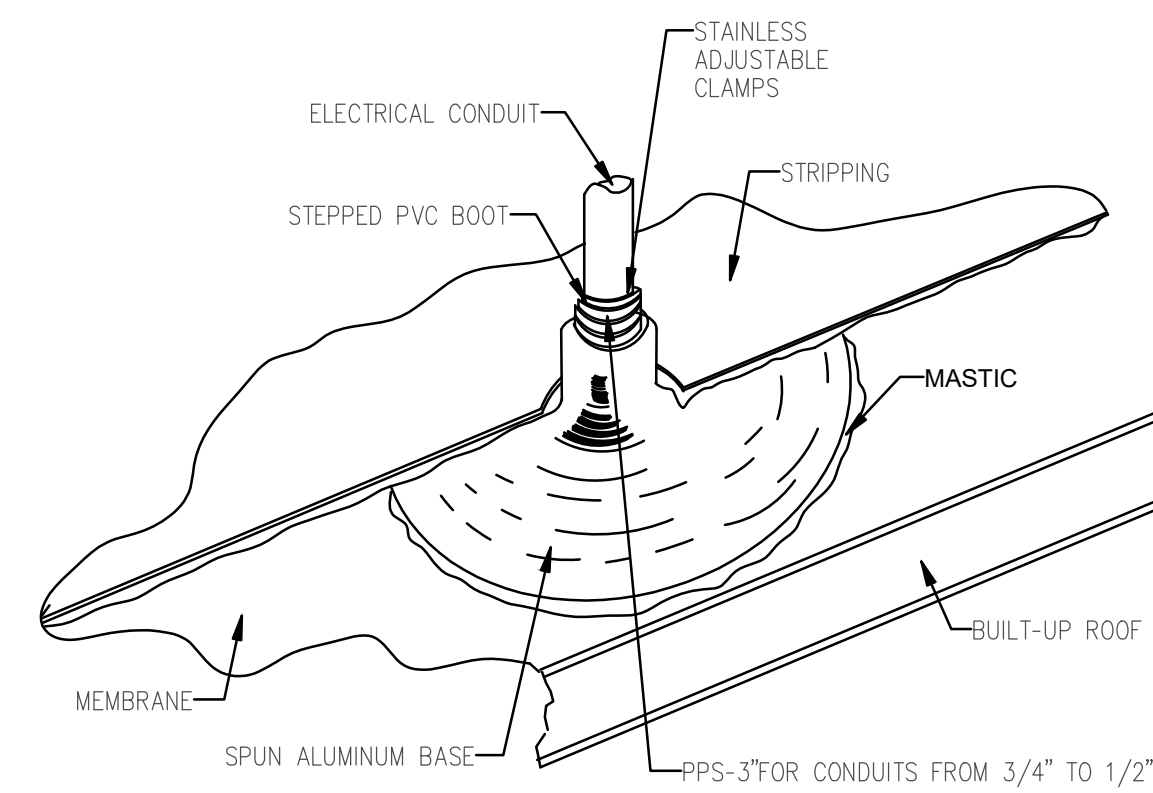
3 TYPICAL CONDUIT PENETRATION DETAIL #3
E-301 SCALE: NONE

- NOTES:
- FOR SLEEVE DIAMETER USE MANUFACTURER'S SIZE RECOMMENDATION.
 - FIRESTOPPING OF CONDUIT PENETRATIONS SHALL UTILIZE THE CORRECT UL STANDARD FOR THE SPECIFIC WALL/FLOOR/CEILING TYPES AND RATINGS.



2 TYPICAL CONDUIT PENETRATION DETAIL #2
E-301 SCALE: NONE

- NOTES:
- FIRESTOPPING OF CONDUIT PENETRATIONS SHALL UTILIZE THE CORRECT UL STANDARD FOR THE SPECIFIC WALL/FLOOR/CEILING TYPES AND RATINGS.



4 TYPICAL CONDUIT ROOF PENETRATION
E-301 SCALE: NONE

ALL WORK SHOWN IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR, UNLESS NOTED OTHERWISE.

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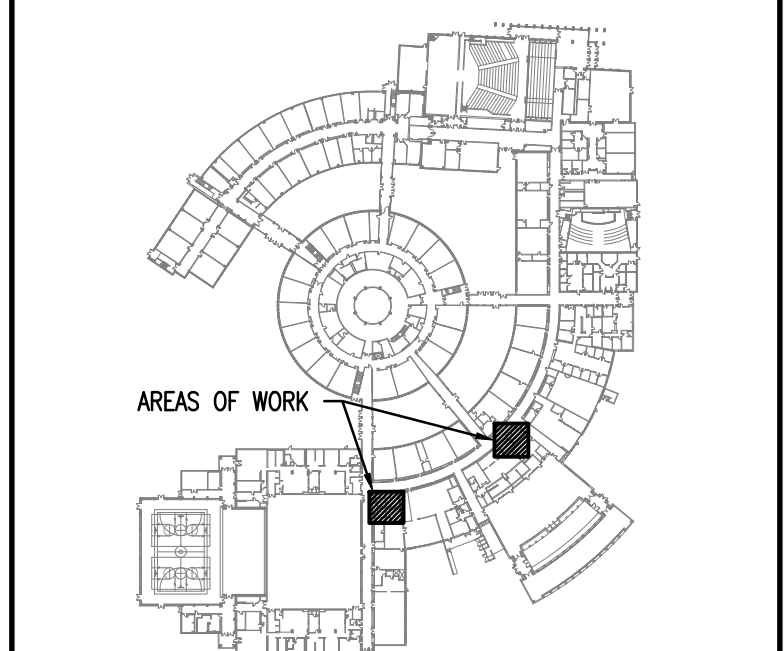
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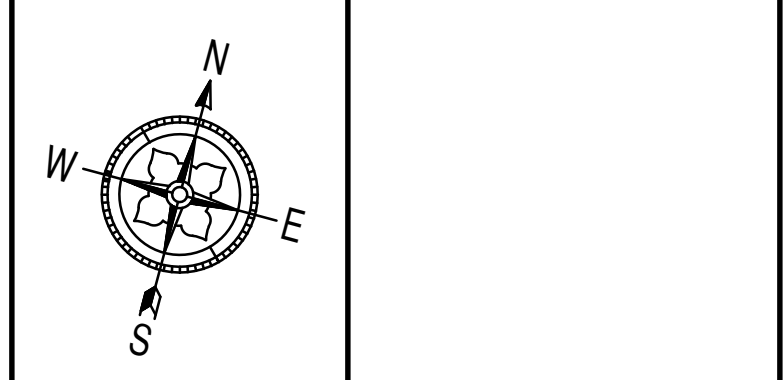
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KEY PLAN:



John A. Marchalava P. E.
New Jersey P. E. No. 24GE4992500



Professional Engineer
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