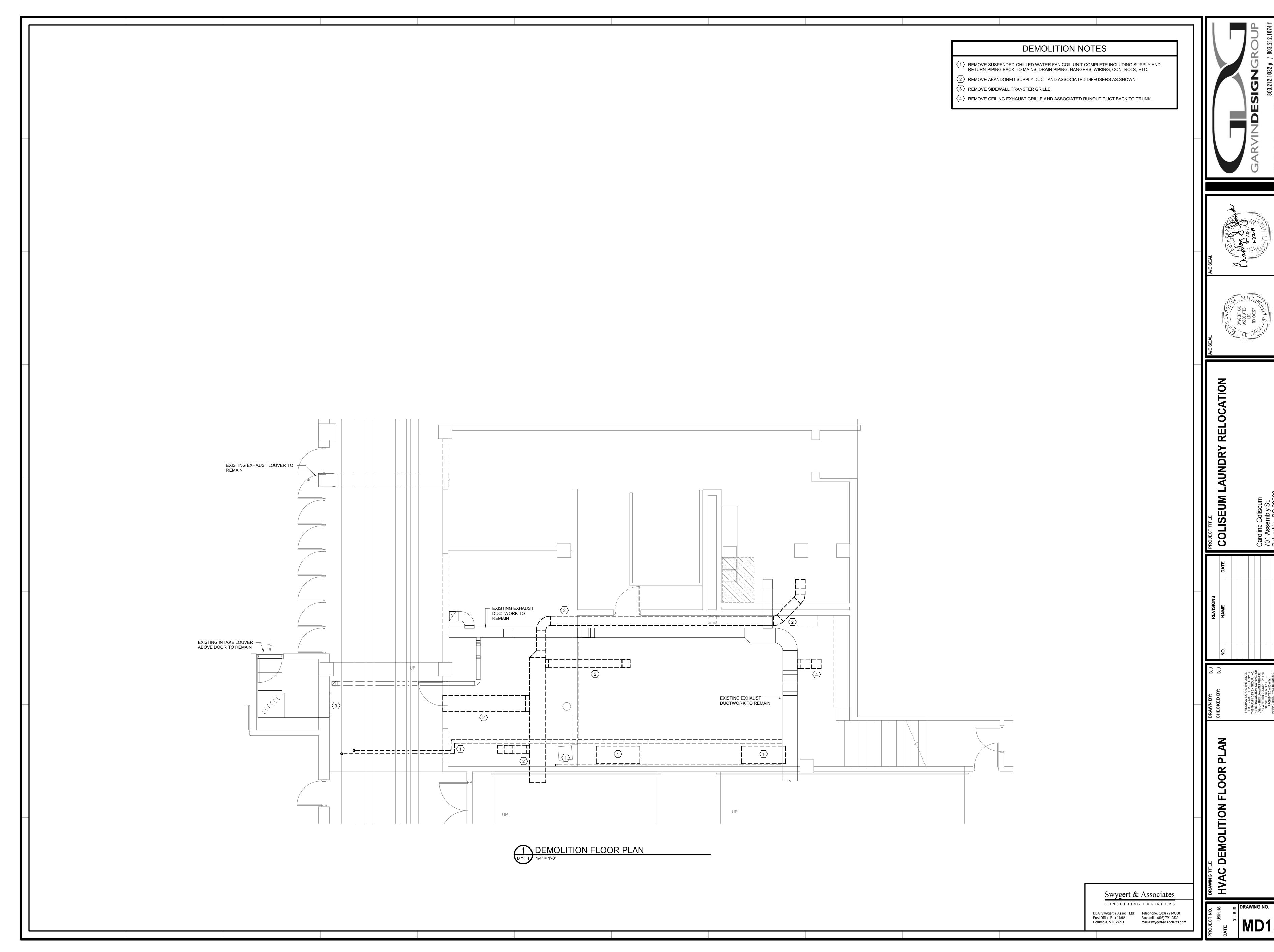
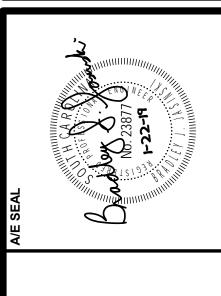
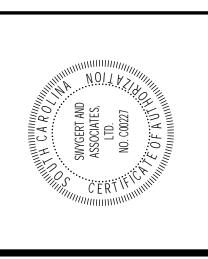
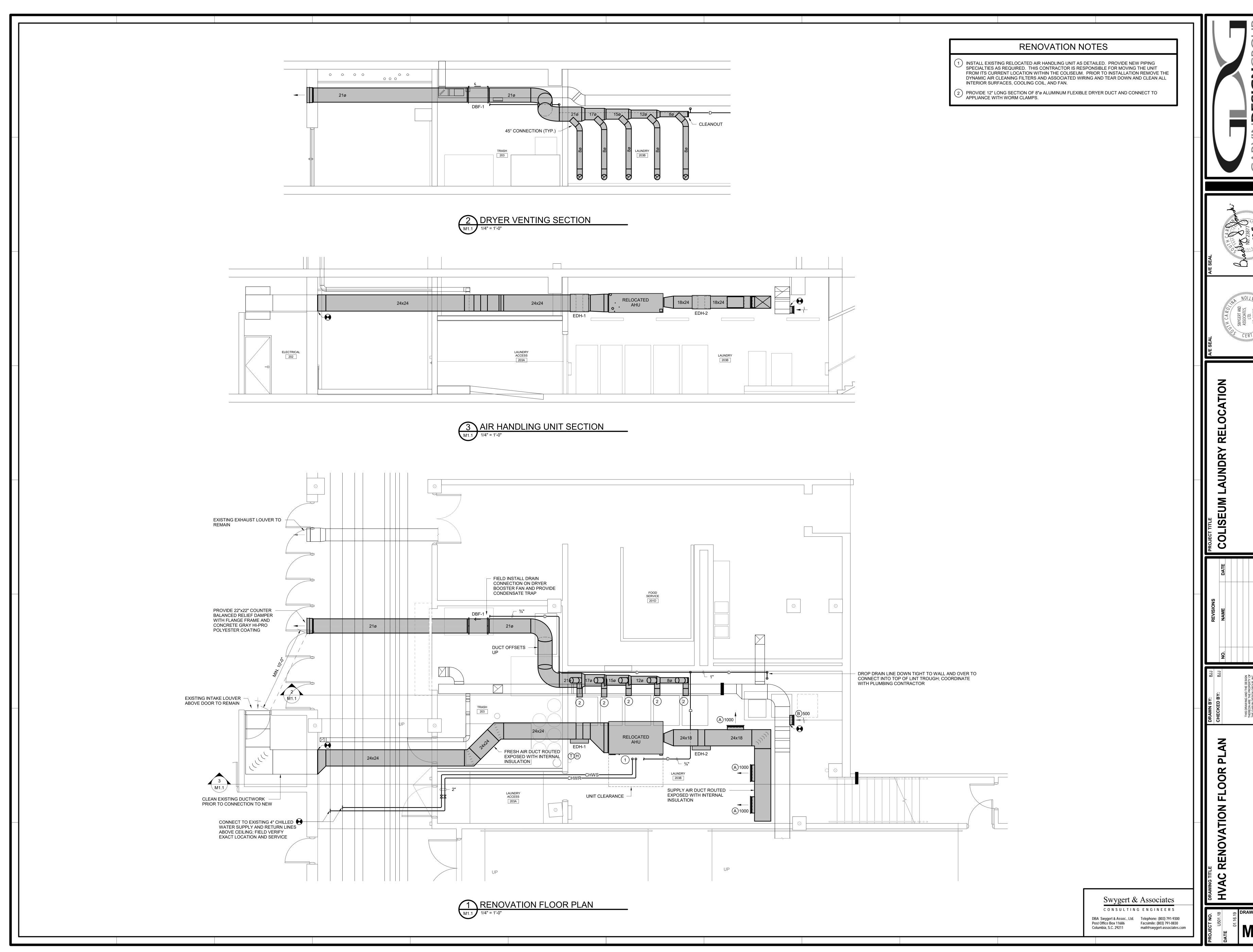


COLISEUM LAUNDRY
RELOCATION













	EXISTIN	G REL	OCATI	ED AI	R HA	NDLI	1G UNI	T (FOR	INF	ORMAT	ION ON	LY)
	TRANE	AIRFLOW	OUTDOOR	ESP	BRAKE	MOTOR		CC	DOLING (	COIL		
TAG	MODEL NO.	CFM	AIR-CFM	IN. WG	H.P.	H.P.	EADB/WB	LADB/WB	GPM	WTR. P.D.	MAX-FPM	REMARKS
										FT. WTR.		
X AHU	BCHC090G2	3,000	3,000	0.5	2.4	3	95.0/78.0	56.7/56.6	42.0	37.9	500	1
1. P	ROVIDE NEW 2"	THICK MER	V 8 PLEATEΓ	) FILTERS	IN PLACE	OF EXISTI	NG DYNAMIC	AIR CLEANER	FILTER	S. FIELD VERI	FY SIZES AND (	QUANTITIES.

		AIR D	ISTRIB	UTION	SCHED	ULE			
TAG	DESCRIPTION	MANUFACTURER	MODEL	FRAME	CFM	NECK SIZE	FACE SIZE	MAX NC	REMARKS
A	SIDEWALL SUPPLY	PRICE	620D	SURFACE	1,000	24"x16"	26"x18"	35	1,2,3
B	SIDEWALL EXHAUST	PRICE	630D	SURFACE	500	14"x10"	16"x12"	35	1,2,3
1. P	ROVIDE WITH STANDARD W	/HITE FINISH.							

SWITCH.

2. PROVIDE ALUMINUM CONSTRUCTION.

3. PROVIDE WITH OPPOSED BLADE BALANCING DAMPER.

ELECTRIC DUCT HEATER SCHEDULE										
TAG	MARKEL MODEL	KW	STAGES	DUCT SIZE (WxH)	REMARKS					
EDH-1	HF SERIES	33	3	24"x24"	1,2					
EDH-2	HF SERIES	19	2	24"x18"	1,2					

IS	OLATION A	ND SE	EISMI	C SCHEDUL	_E			
RISK CATEGORY = III SEISMIC DESIGN CATEGORY = D								
EQUIPMENT TAG	COMPONENT lp	ISOL <i>A</i> SPECIFI		SEISMIC REST. SPECIFICATION	ISOLATION DEFLECTION			
AIR HANDLING UNITS (SUSP.)	1.0	INTERI MANUFA		SPEC SC NOTE 1	2"			
INLINE FANS	1.0	SPE	EC D	SPEC SC	1"			

ANCHOR BOLTS FOR NON-ISOLATED AND INTERNALLY ISOLATED EQUIPMENT SHALL BE SIZED BY THE SEISMIC RESTRAINT SUPPLIER.

	DRYE	R BOO	STER	FAN S	CHED	ULE	
TAG	GREENHECK MODEL NO.	TYPE	CFM	ESP	MOTOR H.P./W.	SONES (MAX.)	REMARKS
DBF-1	EQD-15-VG	INLINE	3,750	0.5	2	17	1,2

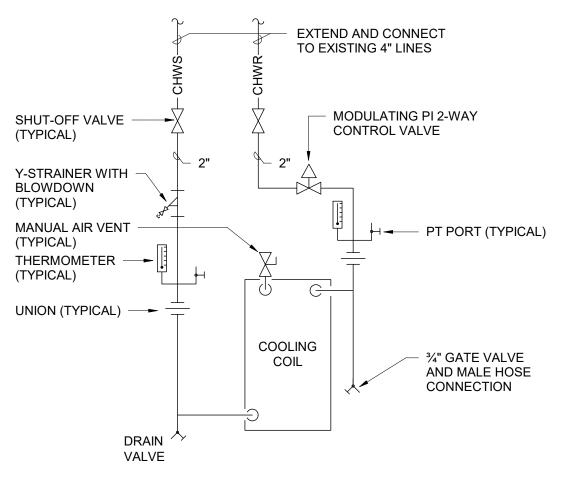
PROVIDE DIRECT DRIVE MIXED FLOW INLINE FAN WITH DISCONNECT SWITCH, CONCRETE GRAY PERMATECTOR COATING, DUCT COLLARS, AND FOUR BOLTED ACCESS DOORS. PROVIDE VARI-GREEN EC MOTOR WITH CONSTANT PRESSURE CONTROL AND INTEGRAL TRANSDUCER.

# **GENERAL NOTES**

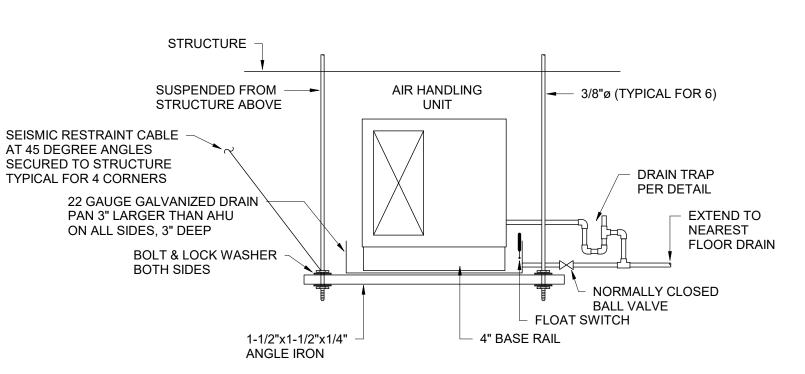
- 1. VISIT SITE PRIOR TO BIDDING. THIS CONTRACTOR SHALL DETERMINE DIFFICULTY OF INSTALLATION AND REFLECT THIS IN HIS BIDDING.
- 2. DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL DRAWINGS AND REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF DOORS, WINDOWS, AIR DISTRIBUTION, ETC.
- 3. THIS CONTRACTOR SHALL VERIFY ALL EXISTING ITEMS AND LOCATIONS IN THE FIELD.
- 4. ALL PIPING AND DUCTWORK LOCATIONS SHALL BE COORDINATED WITH WORK UNDER OTHER DIVISIONS OF THE SPECIFICATIONS TO AVOID INTERFERENCE.
- 5. EXISTING PIPE, DUCTWORK, CONDUIT, ETC. THAT INTERFERES WITH THE ROUTING OF NEW SYSTEMS SHALL BE RELOCATED. THIS CONTRACTOR SHALL INCLUDE THE COST OF SUCH IN HIS BID UNLESS NOTED OTHERWISE.
- 6. WATER SYSTEMS SHALL BE DRAINED AS REQUIRED FOR INSTALLATION OF WORK. UPON COMPLETION, SYSTEM SHALL BE FILLED WITH WATER AND VENTED OF ALL AIR.
- 7. ALL PIPING AND DUCTWORK INSULATION SHALL BE RUN CONTINUOUSLY THROUGH
- 8. ALL PIPING IS SHOWN DIAGRAMMATIC. HOWEVER, THIS CONTRACTOR SHALL PROVIDE ALL REQUIRED FITTINGS, PIPING AND INSULATION FOR ALL OFFSETS AND/OR CHANGES
- IN ELEVATION. 9. EXTEND ALL DRAIN LINES TO NEAREST FLOOR DRAIN OR AS INDICATED – SO ROUTED
- AS TO AVOID INTERFERENCE WITH PASSAGEWAYS AND MAINTENANCE. DRAINS FROM AIR HANDLING UNITS SHALL BE TRAPPED PER STATIC PRESSURE REQUIREMENTS.
- 10. ALL WATER PIPING SHALL PITCH DOWN IN DIRECTION OF FLOW ONE-INCH PER FIFTY FEET WITH MANUAL AIR VENTS AT ALL HIGH POINTS AND 3/4-INCH DRAIN VALVES WITH STANDARD HOSE CONNECTION AT ALL LOW POINTS.
- 11. ALL VALVES AND SPECIALTIES SHALL BE LINE SIZE UNLESS NOTED OTHERWISE, USING ECCENTRIC REDUCERS ON AUTOMATIC VALVES AS REQUIRED. 12. MINIMUM PIPE SIZE SHALL BE 3/4-INCH UNLESS INDICATED OTHERWISE.
- 13. ALL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE SPECIFICATIONS AND FURTHER SUPPORTS OR HANGERS SHALL BE PROVIDED TO PREVENT WEIGHT OF PIPING BEING PLACED ON EQUIPMENT.
- 14. ALL DUCTWORK SPECIFIED TO BE LINED SHALL BE INCREASED IN SIZE TO ALLOW FOR
- 15. PROVIDE FOR ACCESS TO ALL EQUIPMENT REQUIRING CLEANING OR ADJUSTMENT PER MANUFACTURER'S INSTRUCTIONS. PROVIDE FULL SPACE FOR COIL REMOVAL AND REPLACEMENT FOR ALL CHILLED WATER AIR HANDLING UNITS.
- 16. THIS CONTRACTOR SHALL PROVIDE ALL ITEMS OF MISCELLANEOUS STEEL AS REQUIRED FOR INSTALLATION OF ALL MECHANICAL ITEMS.
- 17. THIS CONTRACTOR SHALL DO ALL CONTROL WIRING. DIVISION 26 WILL DO ALL POWER WIRING. ALL WIRING SHALL BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE. CONTROL WIRING SHALL BE CONCEALED WITHIN WALL AND ALL CONTROL WIRING SHALL BE ROUTED IN EMT CONDUIT. DUCT DETECTORS PROVIDED BY DIVISION 26 SHALL BE INSTALLED BY DIVISION 23. POWER WIRING AND FIRE ALARM CONNECTIONS SHALL BE BY DIVISION 26. CONTROL WIRING FOR UNIT SHUTDOWN SHALL BE BY
- 18. LOCATE ALL SPACE CONTROL INSTRUMENTS 4'-0" ABOVE FINISHED FLOOR TO TOP OF DEVICE IN ACCORDANCE WITH ADA. COORDINATE LOCATIONS WITH ARCHITECTURAL ELEVATIONS TO AVOID ITEMS INCLUDING BUT NOT LIMITED TO CUSTOM FINISHES, FIXED CASEWORK, FURNITURE, AND DOOR SWINGS. IN THE EVENT OF CONFLICTS IN THE FIELD, THE CONTRACTOR SHALL BRING THIS TO THE ATTENTION OF THE A/E FOR FINAL APPROVAL OF LOCATION.
- 19. INSTRUMENT TEST HOLES SHALL BE LOCATED IN EACH SUPPLY DUCT OR ZONE DUCT, IN EACH RETURN AIR DUCT AND EACH OUTSIDE AIR DUCT
- 20. CORRECT SETTINGS ON ALL BALANCING FITTINGS SHALL BE PERMANENTLY MARKED. PROVIDE ORANGE FLAGGING RIBBON ON EACH DAMPER HANDLE FOR EASY IDENTIFICATION.
- 21. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ANY NECESSARY DISMANTLING OF EQUIPMENT TO BE REMOVED.
- 22. ITEMS REMOVED UNDER THIS CONTRACT SHALL BECOME THE PROPERTY OF THE CONTRACTOR, UNLESS NOTED OTHERWISE, AND SHALL BE DISPOSED OF PROPERLY.
- 23. THE HVAC SYSTEMS SHALL NOT BE OPERATED DURING HEAVY CONSTRUCTION OPERATIONS INCLUDING MASONRY, GYPSUM BOARD SANDING, HEAVY CLEANUP ACTIVITIES, OR OTHER ACTIVITIES THAT CREATE AIRBORNE PARTICLES OR DEBRIS. ALL SYSTEMS SHALL BE CLEAN OF CONSTRUCTION DEBRIS, DUST AND DIRT AT FINAL COMPLETION. DUCT CLEANING AND UNIT/COIL CLEANING SHALL BE PERFORMED AS

	LEGEND
SYMBOL	DESCRIPTION
¿—CHWS—-}	CHILLED WATER SUPPLY LINE
-CHWR—	CHILLED WATER RETURN LINE
□	DRAIN LINE
<b>├</b>	SHUTOFF VALVE
<u> </u>	STRAINER WITH BLOWDOWN
<b>⊱</b> —-	UNION
جے , <del>ص</del> ے	PIPE TURNS TO, AWAY
<del>ک ڳ ڳ </del>	THERMOMETER / PRESSURE GAGE
<del>ب آ ، </del> آ ـ ج	THERMOMETER WELL CAPPED / GAGE COCK
<b>├</b>	CONCENTRIC REDUCER
<b>├</b>	ECCENTRIC REDUCER
A 100	TYPE "A" DIFFUSER, 100 CFM
T	ZONE TEMPERATURE SENSOR
H	RELATIVE HUMIDITY SENSOR
69	CARBON DIOXIDE SENSOR
MBD	MANUAL OPPOSED BLADE BALANCING DAMPER
$\bowtie$	RECTANGULAR SUPPLY DUCTWORK
	RETURN AND FRESH AIR DUCTWORK
	EXHAUST DUCTWORK
48x24	48"x24" RECTANGULAR DUCT
◀	LOUVERED DOOR BY GENERAL CONTRACTOR
AFF	ABOVE FINISHED FLOOR

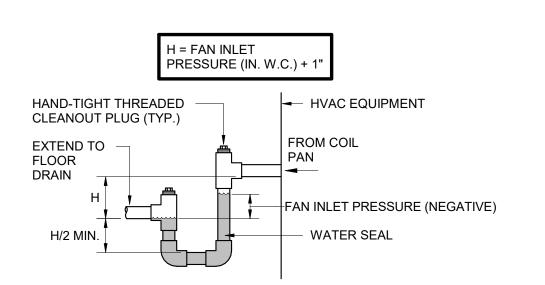
CONNECTION POINT OF NEW TO EXISTING







2 AIR HANDLING UNIT SUPPORT DETAIL M2.1 NO SCALE

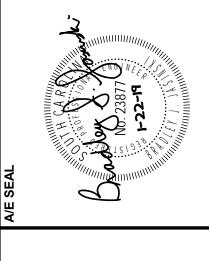


3 CONDENSATE DRAIN DETAIL

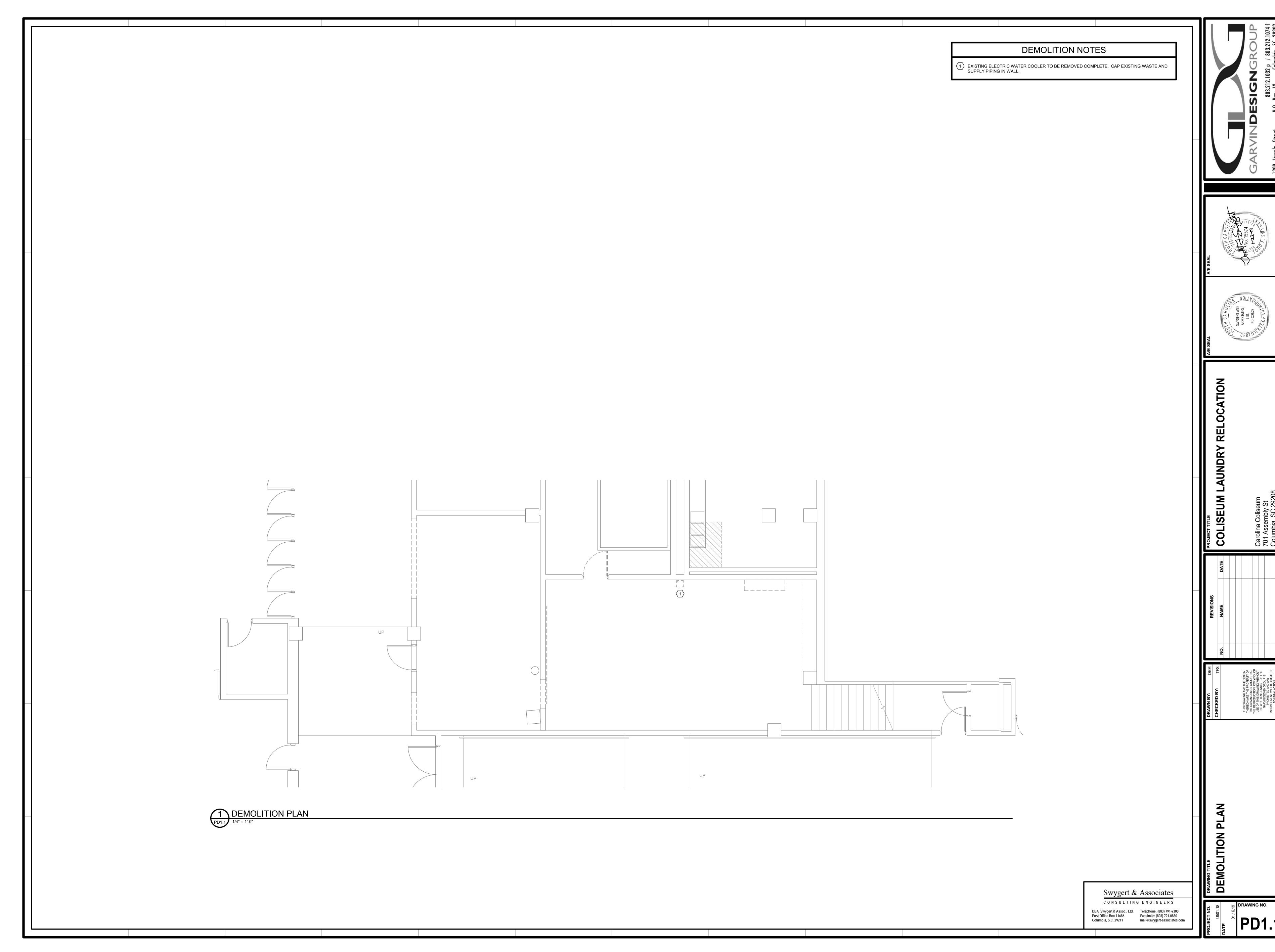
NO SCALE

Swygert & Associates CONSULTING ENGINEERS

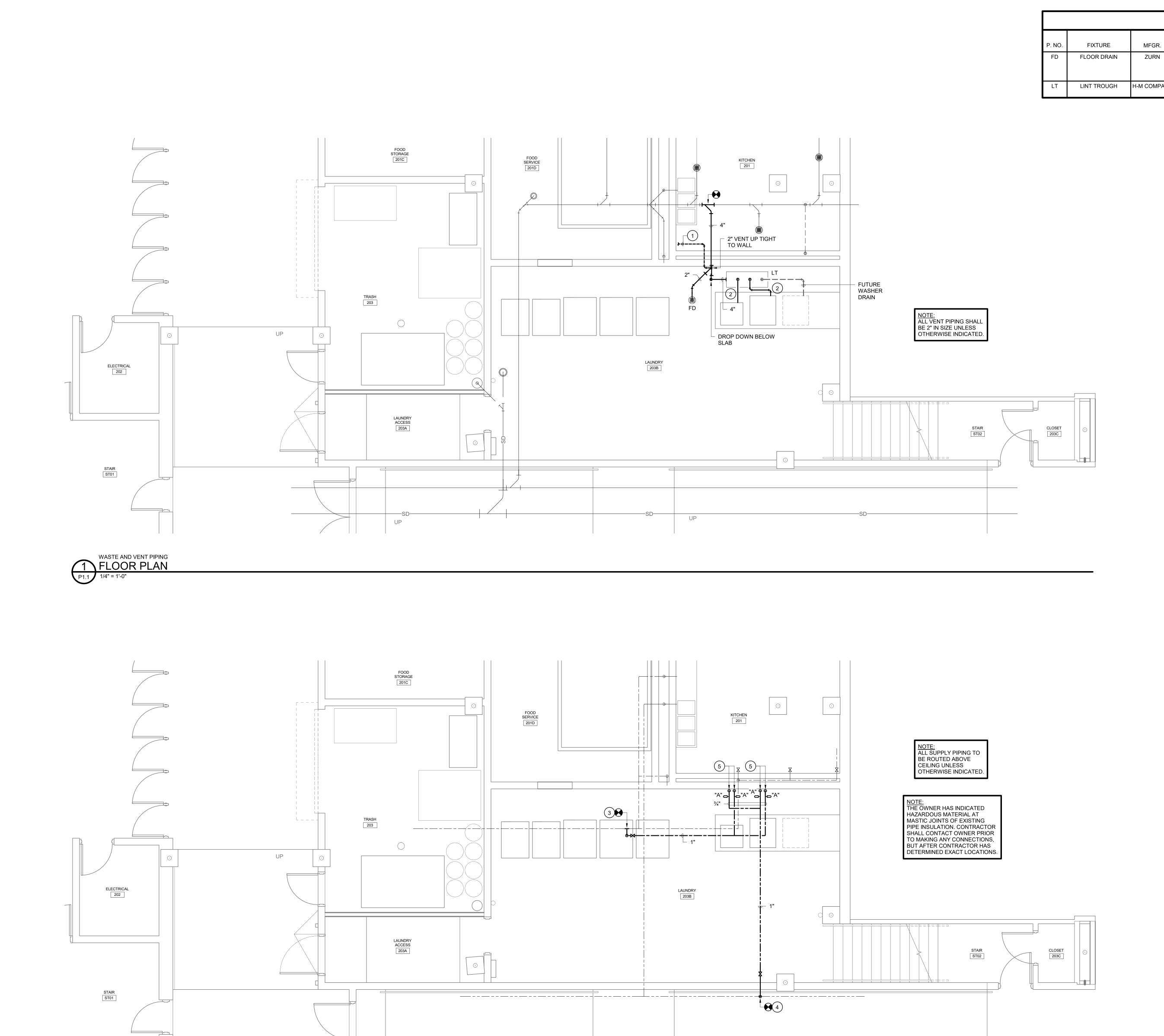
DBA Swygert & Assoc., Ltd. Telephone: (803) 791-9300 Post Office Box 11686 Facsimile: (803) 791-0830 Columbia, S.C. 29211 mail@swygert-associates.com



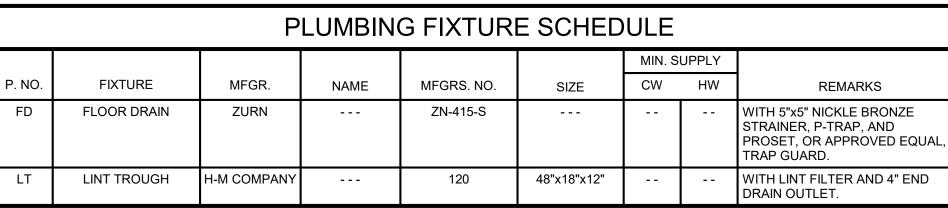








SUPPLY PIPING FLOOR PLAN 1/4" = 1'-0"



# **GENERAL NOTES**

- ALL WORK SHALL BE PERFORMED ACCORDING TO ALL LOCAL, STATE, NATIONAL CODES, AND THE 2015 INTERNATIONAL PLUMBING CODE.
- DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS, FIXTURE LOCATIONS, ETC.
- 3. EXCEPT WHERE PIPE SPACE IS PROVIDED OR UNLESS NOTED OTHERWISE, ALL SUPPLY, WASTE AND VENT RISERS SHALL BE RUN IN WALLS AND PARTITIONS.
- COORDINATE CLOSELY WITH ALL WORK DONE UNDER OTHER DIVISIONS OF THE
- 5. PROVIDE FOR ACCESS TO ALL EQUIPMENT REQUIRING CLEANING OR ADJUSTMENT.
- 6. ALL PIPING INSULATION SHALL BE RUN CONTINUOUSLY.

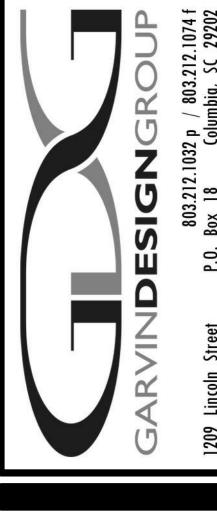
SPECIFICATIONS TO AVOID INTERFERENCE AND CONFLICT.

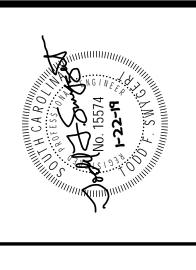
7. REMOVAL AND REPLACEMENT OF CEILING, AS REQUIRED FOR INSTALLATION OF NEW WORK, SHALL BE DONE BY THIS CONTRACTOR. ANY CEILING GRID OR TILE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT NO COST TO THE OWNER.

# NOTES TO SHEET

- 1 EXTEND AND CONNECT TO NEAREST SANITARY VENT LINE IN CHASE. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR CEILING REMOVAL AND REPLACEMENT IN EXISTING KITCHEN AREA AS REQUIRED.
- 2 PROVIDE INDIRECT DRAIN FROM WASHER TO LINT INTERCEPTOR. SUPPORT LINES WITH STANDOFF BRACKETS FROM FLOOR.
- 3 CONNECT TO EXISTING 1" DOMESTIC COLD WATER LINE ABOVE CEILING AT THIS APPROXIMATE LOCATION.
- 4 CONNECT TO EXISTING 11/4" DOMESTIC COLD WATER LINE ABOVE CEILING AT THIS APPROXIMATE LOCATION.
- (5) DOWN TIGHT TO WALL AND TERMINATE WITH THREADED HOSE VALVE WITH WHEEL HANDLE AT 4'-0" ABOVE FINISHED FLOOR.

	LEGEND
SYMBOL	DESCRIPTION
~	SANITARY WASTE LINE
۶	SANITARY VENT LINE
<b>─</b> - <b>─</b>	DOMESTIC COLD WATER LINE
<b>~ →</b>	DOMESTIC HOT WATER LINE
<b>⊱</b> SD <del></del>	EXISTING STORM DRAIN LINE
ۍ <sup>۱</sup> ۹۳ ح	SHOCK ARRESTOR (P.D.I. RATING OF "A")
<b>~</b>	SHUTOFF VALVE
جے <u>،</u> صے	PIPE TURNS TO, AWAY
$oldsymbol{\Theta}$	CONNECTION POINT OF NEW TO EXISTING







COLISEUM LAUNDRY RELOCATIO

NO. NAME DATE COLIS

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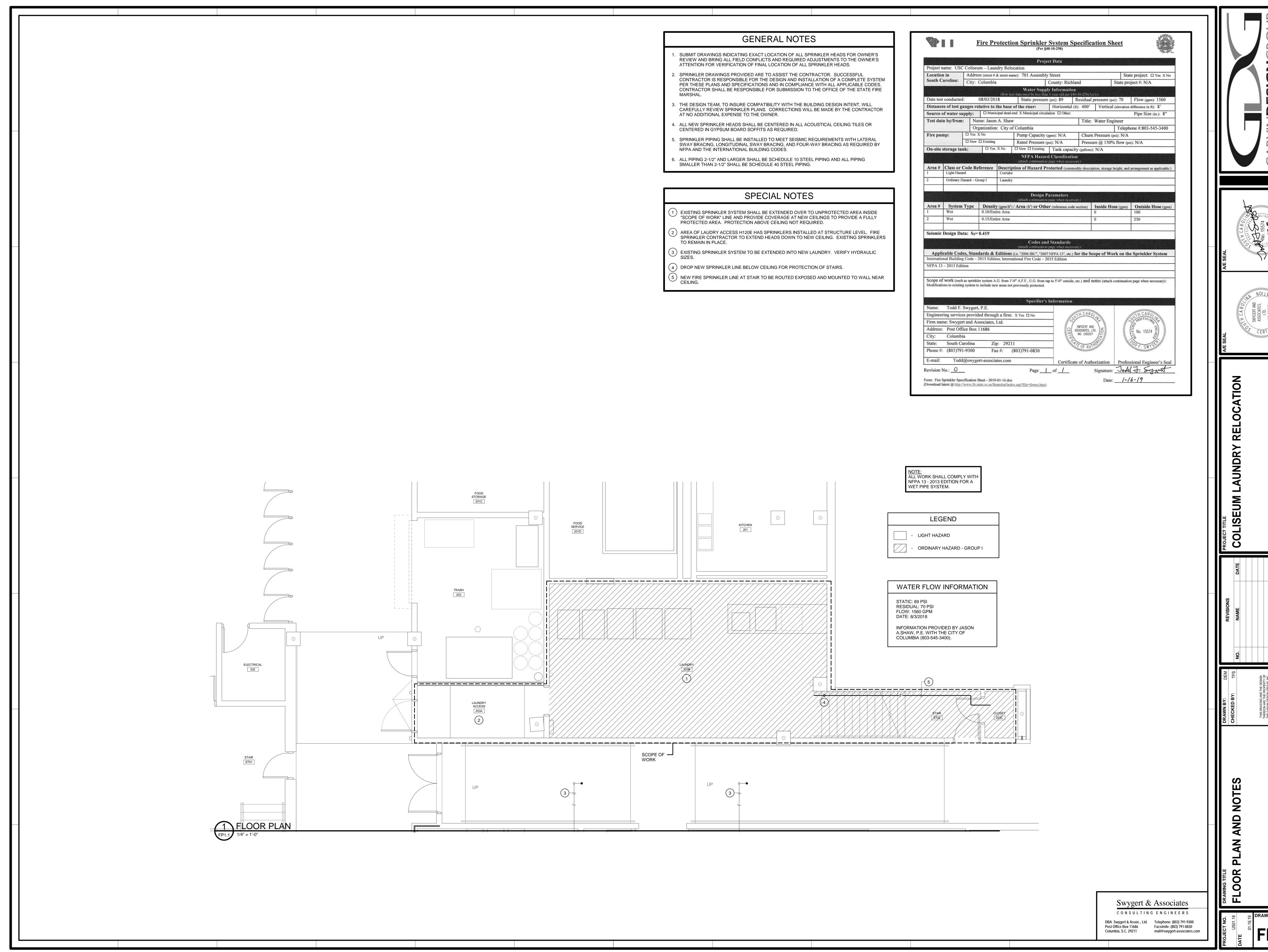
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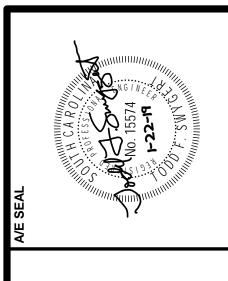
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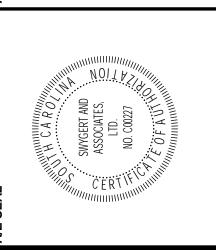
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DATE 01.16.19 DATE 01.16.19 DATE 01.16.19 DATE







## GENERAL "ELECTRICAL" NOTES

- BRANCH CIRCUIT WIRING SHALL BE NO. 12 AWG UNLESS NOTED OTHERWISE. WHERE CONDUCTOR AND RACEWAY SIZE ARE SHOWN AT HOMERUN, SUCH SIZE SHALL BE USED FOR THE ENTIRE CIRCUIT. EXCEPTION: FINAL CONNECTION TO DEVICES, IN OUTLET BOXES, IS NOT REQUIRED TO BE LARGER THAN NO.
- 20A/120V BRANCH CIRCUITS EXCEEDING 100' IN LENGTH FROM PANEL TO FARTHEST DEVICE OR FIXTURE SHALL USE NO. 10 CONDUCTORS AND 3/4"C.
- PRIOR TO ROUGH-IN, COORDINATE THE LOCATION AND MOUNTING HEIGHT OF ALL WALL AND CEILING MOUNTED DEVICES WITH THE ARCHITECTURAL ELEVATIONS, MILLWORK SHOP DRAWINGS, AND EXISTING CONDITIONS. IN THE EVENT OF A CONFLICT, NOTIFY THE ARCHITECT. MINOR ADJUSTMENTS IN DEVICE
- LOCATION, I.E. 5'-0" IN ANY DIRECTION SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER. RACEWAYS SHALL BE INSTALLED CONCEALED IN NEW WALL CONSTRUCTION ABOVE CEILINGS, BELOW FLOOR, AND IN OTHER CAVITIES TO THE GREATEST EXTENT POSSIBLE. WHERE EXPOSED RACEWAYS MUST BE USED, LAYOUT RACEWAYS TO MINIMIZE THE NUMBER OF VERTICAL RUNS.
- THE ARRANGEMENT, GROUPING, AND ROUTING OF BRANCH CIRCUITS SHALL BE PROVIDED AT THE CONTRACTOR'S DISCRETION IN ACCORDANCE WITH GENERALLY ACCEPTED PRACTICE FOR ELECTRICAL WORK,
- THE NATIONAL ELECTRICAL CODE REQUIREMENTS, LOCAL ORDINANCES, AND THE FOLLOWING: 5.1 A COMMON NEUTRAL SHALL NOT BE INSTALLED IN A HOMERUN FOR 2 OR 3 BRANCH CIRCUITS UNLESS
- DIRECTION IS PROVIDED BY THE ENGINEER IN WRITTING FOR A SPECIFIC APPLICATION. 5.2 MULTIPLE SINGLE—POLE BRANCH CIRCUITS (UP TO 3 HOTS, 3 NEUTRALS, 1 GROUND) RATED FOR 30—AMPS OR LESS MAY BE PULLED INTO A SINGLE RACEWAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING THE RACEWAYS AND DERATING CONDUCTORS PER NEC ARTICLE 310.15.
- 5.3 BRANCH CIRCUIT, FEEDER & COMMUNICATION CIRCUITS SHALL BE ROUTED OVERHEAD UNLESS PRIOR
- APPROVAL HAS BEEN GRANTED BY THE ARCHITECT AND ENGINEER. 5.4 A GROUND CONDUCTOR SHALL BE PROVIDED IN ALL RACEWAYS UNLESS NOTED OTHERWISE.
- 6 PROVIDE EXPANSION JOINT COUPLINGS ANYWHERE A CONDUIT PASSES THROUGH A BUILDING EXPANSION
- THE USE OF MC CABLE IS NOT ALLOWED. 8 SEAL ALL EXISTING AND NEW FIRE RATED WALL AND FLOOR PENETRATIONS IN THE CONSTRUCTION AREA
- 9 SEE THE ARCHITECTURAL DRAWINGS FOR ALL LOCATIONS OF FIRE RATED WALLS. 10 WHEREVER ON THE ELECTRICAL DRAWINGS THE WORD "PROVIDE" IS USED, IT SHALL BE INFERRED TO MEAN "FURNISH AND INSTALL".
- WHERE CARD READERS AND / OR DOOR CONTACTS ARE SHOWN ON DRAWINGS, COORDINATE WITH ACCESS CONTROL AND DOOR HARDWARE SUPPLIER TO ENSURE THAT ALL RACEWAYS AND BOXES FOR POWER. SIGNALING, AND DATA ARE PROVIDED TO CARD READER LOCATIONS, DOOR FRAME, POWER SUPPLIES, AND CABLE-TRAY.

#### GENERAL EXISTING CONDITION NOTES

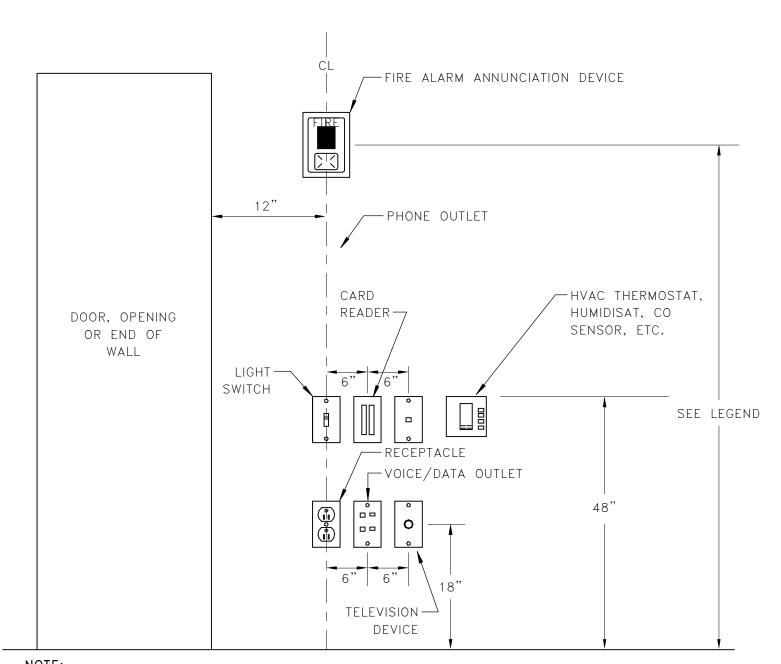
- AREAS OF WORK EXIST FOR THIS PROJECT WHICH ARE NOT ACCESSIBLE OR HAVE LIMITED ACCESS DURING DESIGN. AS SUCH CONTRACTOR SHALL VERIFY ALL UTILITIES IN AREA OF WORK BEFORE DEMOLITION OF ANY SERVICE. ANY ELECTRICAL COMPONENTS NOT SHOWN SHALL BE IDENTIFIED AND THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED AS SOON AS POSSIBLE. NO ELECTRICAL REWORK SHALL BE COMMENCED
- WITHOUT COORDINATION OF BOTH ARCHITECT AND ENGINEER. IN AREAS WHERE THE EXISTING CEILINGS ARE NOT SLATED TO BE REMOVED, THE CONTRACTOR SHALL WORK THRU THE EXISTING CEILINGS (SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR AREA OF WORK). THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY DAMAGED TILE OR GRID THAT IS A RESULT OF THEIR WORK.
- REFER TO ARCHITECTURAL PLANS FOR PHASING OF CONSTRUCTION.
- WHERE INSTALLATION REQUIRES CUTTING OR DRILLING OF THE EXISTING FLOOR SLAB, THE CONTRACTOR SHALL X-RAY THE EXISTING SLAB PRIOR TO WORK TO ENSURE THAT NO EXISTING UTILITIES OR STRUCTURAL ELEMENTS IN THE SLAB WILL BE COMPROMISED BY THE WORK. NOTIFY THE ARCHITECT/ENGINEER OF ANY CONFLICTS THAT WILL REQUIRE RELOCATING THE PROPOSED SLAB WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGED UTILITIES OR STRUCTURAL ELEMENTS CAUSED BY THE SLABlacksquareDEMOLITION.
- SUPPORT ALL EXISTING CONDUITS AND JUNCTION BOXES ABOVE THE CEILING PER NEC IN THE
- REMOVE ALL ABANDONED CONDUIT, WIRE, AND COMMUNICATION CABLES ABOVE THE CEILING IN THE CONSTRUCTION AREA.
- PROVIDE JUNCTION BOX COVER PLATES ON ALL EXISTING JUNCTION BOXES ABOVE THE CEILING IN THE CONSTRUCTION AREA.
- SUPPORT ALL EXISTING COMMUNICATION CABLES ABOVE THE CEILING IN THE CONSTRUCTION AREA WHERE INFORMATION SHOWN ON THESE DRAWINGS CONFLICTS WITH VERIFIED FIELD CONDITIONS, IT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER

### GENERAL "DEMOLITION" NOTES

- ALL ELECTRICAL EQUIPMENT TO BE REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER. THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIALS UNTIL RELEASED BY OWNER'S PROJECT MANAGER. MATERIALS THAT OWNER'S PROJECT MANAGER CHOOSES TO RETAIN SHALL BE DELIVERED BY THE CONTRACTOR TO A LOCATION DESIGNATED BY THE PROJECT MANAGER. ALL OTHER MATERIALS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR.
- REMOVE ALL EXPOSED ABANDONED COMMUNICATION CABLE FOUND DURING THE CONSTRUCTION PROCESS.
- SUPPORT ALL EXISTING REMAINING CABLE PER THE NEC. ELECTRICAL DEVICES NOT SHOWN ON WALLS TO BE DEMOLISHED SHALL BE DEMOLISHED AT NO ADDITIONAL
- ELECTRICAL DEVICES NOT SHOWN ON CEILINGS OR WALLS TO REMAIN SHALL REMAIN IN PLACE. PROTECT
- FROM DAMAGE DURING CONSTRUCTION ELECTRICAL DEVICES NOT SHOWN ON CEILINGS TO BE REMOVED SHALL BE TEMPORARILY DISCONNECTED AND REMOVED DURING DEMOLITION AND RE-INSTALLED ON NEW CEILING IN SAME LOCATION.

# GENERAL "POWER" NOTES

- ALL BRANCH CIRCUITS INDICATED ON THESE PLANS TO BE LARGER THAN NO. 12 AWG SHALL BE SIZED AS INDICATED FOR THE ENTIRE LENGTH OF THE CIRCUIT.
- PROVIDE AND INSTALL AN ENGRAVED LAMINATED PLASTIC NAMEPLATE ON EACH ITEM OF ELECTRICAL EQUIPMENT SERVING MECHANICAL EQUIPMENT WHICH MATCH MECHANICAL DESCIPTIONS, TO INDICATE THE DESIGNATION OF THE UNIT ON THE PLANS & THE BRANCH CIRCUIT SERVING THE EQUIPMENT.
- PROVIDE NEMA CONFIGURATION RECEPTACLES TO MATCH PLUGS ON EQUIPMENT FURNISHED. WHERE SPEED CONTROLLER IS INDICATED TO BE PROVIDED WITH FANS, IT SHALL BE PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
- PROVIDE LABEL ON INSIDE FACE OF COVER PLATE OF ALL RECEPTACLES, SWITCHES & WALL MOUNTED DEVICES INDICATING PANEL AND BRANCH CIRCUIT TO WHICH EACH DEVICE IS CONNECTED.



DEVICES SHOWN WITHIN 48" OF EACH OTHER ON ALL ELECTRICAL PLANS SHALL BE ALIGNED PER THIS DETAIL. IF DEVICES ARE SHOWN IN MIDDLE OF WALL, THEN CENTER DEVICES ON

1 DEVICE ALIGNMENT DETAIL \E0.1  $\sqrt{\text{SCALE}}$ : 12" = 1'-0"

#### GENERAL "LIGHTING" NOTES

- SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR THE EXACT LOCATION OF ALL CEILING MOUNTED LIGHTING
- 2 EXACT LOCATIONS OF LIGHTING FIXTURES IN MECHANICAL SPACES SHALL BE DETERMINED IN THE FIELD. DO NOT SUPPORT FIXTURES FROM DUCT OR PIPING. PROVIDE CHAIN OR TRAPEZE-TYPE HANGERS WHERE FIXTURES CAN NOT BE MOUNTED DIRECTLY TO CEILING.
- 3 LIGHTING FIXTURE CATALOG NUMBERS ARE INDICATIVE OF THE STYLE OF FIXTURE REQUIRED. CONTRACTOR SHALL PROVIDE FIXTURES WITH THE PROPER TRIM, VOLTAGE AND OPTIONS NECESSARY FOR INSTALLATION. 4 DOUBLE—FACED EXIT FIXTURES SHALL BE OF THE SAME MANUFACTURER & SERIES AS THE SINGLE TYPE
- SPECIFIED. REGARDLESS OF CATALOG NUMBER INDICATED IN SCHEDULE, PROVIDE BATTERY PACKS FOR ALL FIXTURES
- INDICATED ON THE DRAWINGS TO BE EMERGENCY TYPE. 6 ALL EXIT SIGNS SHALL BE CONNECTED TO LOCAL LIGHTING CIRCUIT AHEAD OF ALL SWITCHING.
- REGARDLESS OF CATALOG NUMBER INDICATED IN SCHEDULE, ALL EXIT SIGNS SHALL BE PROVIDED WITH A BATTERY PACK, SHALL BE WIRED AHEAD OF LOCAL SWITCH AND SHALL NOT BE SWITCHED. 8 REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING DETAILS OF LIGHT FIXTURE TO ACOUSTICAL CEILING
- SYSTEM AND STRUCTURE.

		EQUIPMENT	CONNECT	ION SCHE	DULE				
		ELECT	RICAL SUM	IMARY		DISCONNE	CT SUMMAF	RY	
UNIT I.D.	CONNECTION DESCRIPTION	VOLTAGE	# OF POLES	LOAD (VA)	FURN. BY	DISC. RATING	TRIP / FUSE	NEMA RATING	NOTES
AHU	RELOCATED UNIT	480 V	3	4489	EC	30 A	15 A	1	1
DBF-1	DRYER BOOSTER FAN	208 V	2	2496		30 A	М	1	2
DRYER 1	RELOCATED EQUIPMENT (UNI-MAC)	480 V	3	31500	EC	60 A	_	4	3
DRYER 2	RELOCATED EQUIPMENT (UNI-MAC)	480 V	3	31500	EC	60 A	_	4	3
DRYER 3	RELOCATED EQUIPMENT (ADC)	480 V	3	38400	EC	60 A	_	4	3
DRYER 4	RELOCATED EQUIPMENT (ADC)	480 V	3	38400	EC	60 A	_	4	3
DRYER 5 CKT 1	RELOCATED EQUIPMENT (CISSELL)	480 V	3	29098	EC	100 A	_	4	3
DRYER 5 CKT 2	RELOCATED EQUIPMENT (CISSELL)	208 V	2	450	EC	30 A	_	4	3
EDH-1	ELECTRIC DUCT HEATER	480 V	3	33000		60 A	М	1	2
EDH-2	ELECTRIC DUCT HEATER	480 V	3	19000		30 A	М	1	2
WASHER 1	RELOCATED EQUIPMENT (UNLABELED)	480 V	3	0	EC	30 A	_	4	3,4
WASHER 2	RELOCATED EQUIPMENT (UNI-MAT 35)	480 V	3	4200	EC	30 A	_	4	3

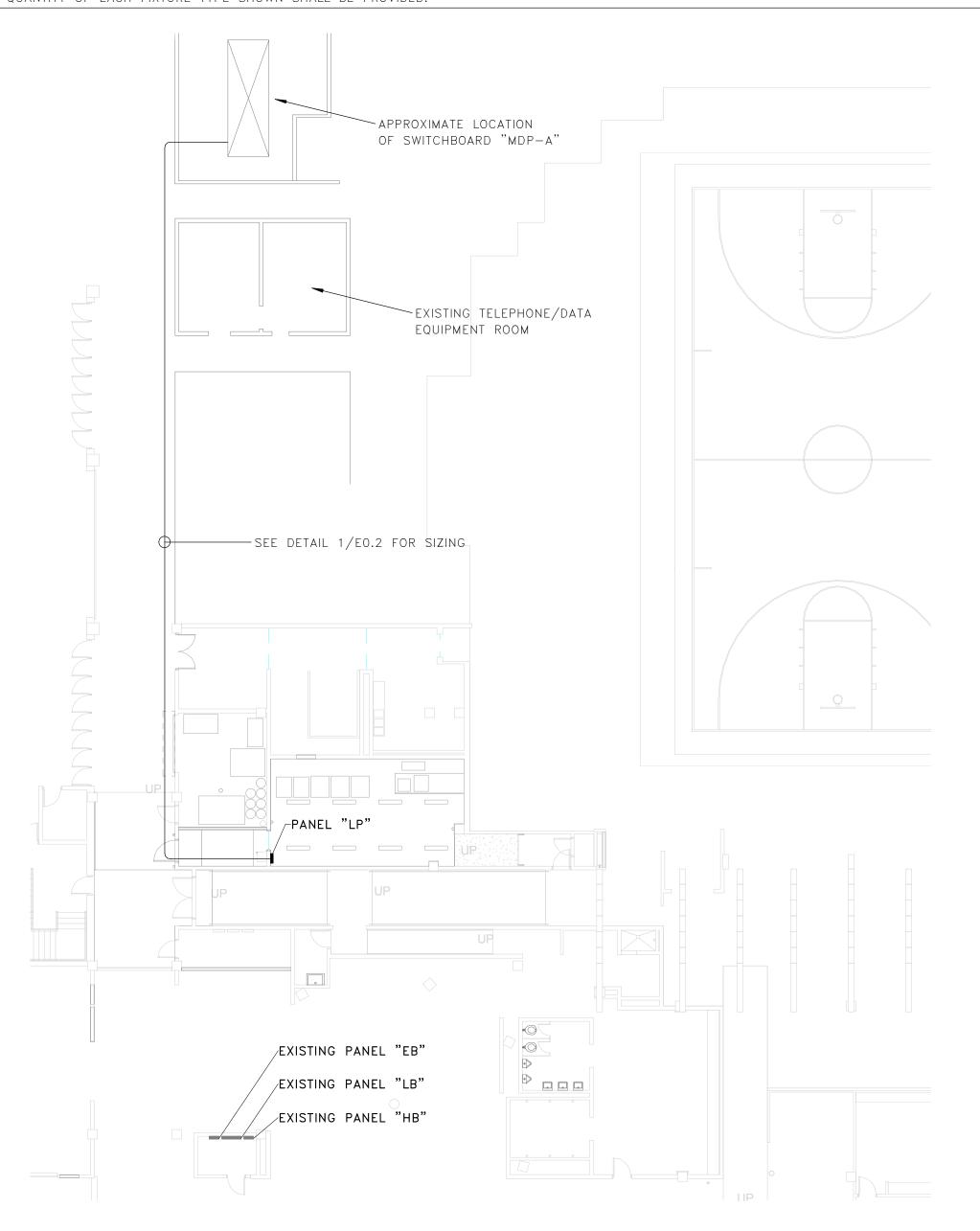
### EQUIPMENT CONNECTION SCHEDULE NOTES

- 1 ALL SWITCHES SHALL BE GENERAL DUTY TYPE, FUSIBLE UNLESS NOTED WITH "NF" (NON-FUSIBLE).
- 2 "M" DENOTES DISCONNECT SWITCH INTEGRAL WITH MECHANICAL EQUIPMENT.
- 3 PROVIDE FUSING PER EQUIPMENT MANUFACTURER'S SPECIFICATIONS.
- 4 EXISTING WASHER 1 SHALL BE CORD CONNECTED TO 20 AMP, 120V DUPLEX RECEPTACLE. 480V SWITCH SHALL BE FUTURE REPLACEMENT WASHER.

			1.10	SHT FIXTURE SCHEDU						
		FIVELDE		PHI FIXTURE SCHEDU		ANADINIO	F1 F07			
		FIXTURE S	SPECIFICATIONS		L	_AMPING		RICAL		
							FIXT.			
SYMBOL	TYPE	FIXTURE DESCRIPTION	MANUFACTURER	CAT. #	NO.	LAMP TYPE	LOAD	VOLTS	MOUNTING REMARKS	NOTES
	AE	4' LINEAR LED VAPORTIGHT FIXTURE WITH BATTERY PACK	HUBBELL	LXEM4-40ML-RFA-EU-ELL 14	_	LED, 4343L, 4000K	39	120 V	SURFACE	1,2,3
	В	4' LINEAR LED VAPORTIGHT FIXTURE PENDANT MOUNTED	HUBBELL	LXEM4-40ML-RFA-EU	_	LED, 4343L, 4000K	39	120 V	PENDANT AT 9'0"AFF	1,2,3
	BE	SAME AS TYPE "B" BUT WITH BATTERY	HUBBELL	LXEM4-40ML-RFA-EU-ELL 14	_	LED, 4343L, 4000K	39	120 V	PENDANT AT 9'0"AFF	1,2,3
	E	SEE DEMOLITION/RENOVATION NOTATION ON SHEET E0.1								
<b>⊗</b> H <b>⊗</b>	Χ	EXIT SIGN WITH BATTERY AND RED LETTERING	COMPASS	CER	_	LED	4	120 V	AS SHOWN ON PLAN	1,2,3

### LIGHT FIXTURE SCHEDULE NOTES

- 1 LUMENS LISTED IN SCHEDULE REPRESENT DELIVERED LUMENS OF FIXTURES. 2 SEE ARCHITECTURAL RCP AND ELEVATIONS FOR EXACT LOCATION AND MOUNTING HEIGHTS.
- 3 CONFIRM QUANTITIES OF FIXTURES SHOWN IN RCP MATCH QUANTITIES SHOWN ON ELECTRICAL PLANS PRIOR TO BID. IF NO DISCREPANCIES ARE NOTED PRIOR TO BID THE HIGHEST QUANTITY OF EACH FIXTURE TYPE SHOWN SHALL BE PROVIDED.



### 2 ELECTRICAL OVERALL PLAN $\boxed{\text{E0.1}/\text{SCALE: } 1/16" = 1'-0"}$

### ABBREVIATIONS DESCRIPTION

- (E) EXISTING
- AFC ABOVE FINISHED CEILING AFF ABOVE FINISHED FLOOR
- AFG ABOVE FINISHED GRADE AHU AIR HANDLING UNIT
- BAS BUILDING AUTOMATION SYSTEM BFC BELOW FINISHED CEILING
- BFG BELOW FINISHED GRADE BOD BOTTOM OF DEVICE
- CBB COMMUNICATIONS BACK BOARD cd CANDELA
- CLG CEILING ECB ENCLOSED CIRCUIT BREAKER
- EF EXHAUST FAN FACP FIRE ALARM CONTROL PANEL
- FCU FAN COIL UNIT FDS FUSED DISCONNECT SWITCH
- FSD FIRE/SMOKE DAMPER GBB GROUND BUSS BAR
- GFCI GROUND-FAULT CIRCUIT-INTERRUPTING GFI GROUND—FAULT INTERRUPTING GP GENERAL PURPOSE
- HP HEAT PUMP
- ICP IRRIGATION CONTROL PANEL IG ISOLATED GROUND
- J-BOX JUNCTION BOX LCS LIGHTING CONTROL SYSTEM
- NEC NATIONAL ELECTRIC CODE NFDS NON-FUSED DISCONNECT SWITCH
- C ON CENTER RFAP REMOTE FIRE ALARM ANNUNCIATOR PANEL
- RTU ROOF TOP UNIT SD SMOKE DETECTOR
- SPD SURGE PROTECTION DEVICE TGB TELEPHONE GROUNDING BUSS BAR
- UNO UNLESS OTHERWISE NOTED
- UTP UNSHIELDED TWISTED PAIR
- VFD VARIABLE FREQUENCY DRIVE
- W/ WITH
- WH WATER HEATER
- WP WEATHERPROOF
- XFMR TRANSFORMER

# ELECTRICAL DRAWING INDEX

- SHEET NAME
- EO.1 ELECTRICAL NOTES & LEGENDS EO.2 ELECTRICAL ONE-LINE DIAGRAM & PANELBOARD SCHEDULE

ELECTRICAL SYMBOL LEGEND

SYMBOL DESCRIPTION

COUNTER)

COUNTER)

MOUNTED)

JUNCTION BOX (WALL MTD)

JUNCTION BOX (FLOOR MOUNTED)

JUNCTION BOX (CEILING)

PUSH BUTTON CONTROL

LIGHT SWITCH, SINGLE POLE

LIGHT SWITCH, 3 WAY TYPE

LIGHT SWITCH, 4 WAY TYPE

LIGHT SWITCH, DIMMER TYPE

PHOTOCELL LIGHTING CONTROL

SINGLE RECEPTACLE (WALL MOUNTED @ 18"AFF)

DUPLEX RECEPTACLE (WALL MOUNTED @ 18"AFF)

DUPLEX RECEPTACLE (GFI TYPE @ 18"AFF)

DUPLEX RECEPTACLE (USB TYPE @ 18"AFF)

DUPLEX RECEPTACLE (@ 6" ABOVE COUNTER)

| DUPLEX RECEPTACLE (GFI TYPE @ 6" ABOVE

DUPLEX RECEPTACLE (USB TYPE @ 6" ABOVE

QUAD RECEPTACLE (GFI TYPE @ 18"AFF)

QUAD RECEPTACLE (USB TYPE @ 18"AFF)

QUAD RECEPTACLE (@ 6" ABOVE COUNTER)

QUAD RECEPTACLE (GFI TYPE @ 6" ABOVE

QUAD RECEPTACLE (USB TYPE @ 6" ABOVE

DUPLEX RECEPTACLE (CEILING MOUNTED)

DUPLEX RECEPTACLE (FLOOR MOUNTED)

QUADPLEX RECEPTACLE (CEILING MOUNTED)

QUADPLEX RECEPTACLE (FLOOR MOUNTED)

QUADPLEX REC/DATA COMBINATION (FLOOR

 $\nabla$  PHONE OR DATA OUTLET (WALL MOUNTED @ 18"AFF)

|TELEVISION / CATV OUTLET (WALL MOUNTED @ 18

TELEVISION / CATV OUTLET (CEILING MOUNTED)

LIGHT SWITCH, AUTOMATIC (CONNECT TO LCS)

LIGHT SWITCH, DIGITALLY TIMED (0-30 MINUTES)

MOTOR RATED SNAP SWITCH IN NEMA 1 ENCLOSURE

LOWER CASE SUBSCRIPT INDICATES SWITCH-LEG

LIGHTING CONTROL CALLOUT (REFER TO SCHEDULE)

KITCHEN EQUIPMENT CALLOUT (REFER TO SCHEDULE)

MULTI-LEVEL SWITCHING CONFIGURATION

OCCUPANCY SENSOR (CEILING MOUNTED)

CONDUIT CALLOUT (# INDICATES DIAMETER)

(REFER TO KEY NOTES ON SHEET

OCCUPANCY SENSOR (WALL MOUNTED)

ightharpoonup | Phone or data outlet (MTD above counter)

PHONE OR DATA OUTLET (FLOOR MOUNTED)

DUPLEX REC/DATA COMBINATION (FLOOR MOUNTED)

MULTI-PHASE RECEPTACLE (AS NOTED ON PLAN)

QUAD RECEPTACLE (WALL MOUNTED @ 18"AFF)

SYMBOL | DESCRIPTION

6" AFF)

7'-6" AFF)

AFF TOP OF BOX)

FIRE ALARM PULL STATION (WALL MOUNTED @ 48"

FIRE ALARM AUDIBLE DEVICE (WALL MOUNTED @ 7'-

FIRE ALARM VISUAL DEVICE (WALL MOUNTED @ 7'-6"

| FIRE ALARM AUDIBLE/VISUAL DEVICE (WALL MOUNTED @

FIRE ALARM AUDIBLE/VISUAL DEVICE (CEILING MOUNTED

REMOTE TEST STATION FOR DUCT MOUNTED DETECTORS

REMOTE TEST STATION FOR DUCT MOUNTED DETECTORS

FIRE ALARM AUDIBLE DEVICE (CEILING MOUNTED)

FIRE ALARM VISUAL DEVICE (CEILING MOUNTED)

SMOKE DETECTOR (WALL MOUNTED)

SMOKE DETECTOR (CEILING MOUNTED)

SMOKE DETECTOR (DUCT MOUNTED)

HEAT DETECTOR (CEILING MOUNTED)

HEAT DETECTOR (WALL MOUNTED)

(WALL MOUNTED)

(CEILING MOUNTED)

FIRE ALARM FLOW SWITCH

FIRE / SMOKE DAMPER

SECURITY CARD READER

SECURITY KEY PAD

CONTROL TYPE)

CABLE TRAY

 $\Box$ 

PRESSURE INDICATING VALVE

CCTV CAMERA (WALL MOUNTED)

SURGE PROTECTION DEVICE

SPEAKER (WALL MOUNTED)

| SPEAKER (CEILING MOUNTED)

ELECTRICAL METERING DEVICE

PANELBOARD (SURFACE MOUNTED)

PANELBOARD (RECESS MOUNTED)

CONTROL PANEL (RECESS MOUNTED)

DISCONNECT SWITCH, (NON PROTECTED)

REMOTE FEED-THRU GFCI DEVICE WITH

INDICATOR LIGHT. (NO RECEPTACLE)

DEMOLITION/RENOVATION NOTATION

IF NO ANNOTATION IS SHOWN ASSUME EXISTING TO REMAIN IN

PLACE FOR SOLID LINES AND DEMOLISH FOR DASHED LINES.

BE EXISTING TO REMAIN IN PLACE.

PORTIONS OF BRANCH CIRCUIT.

RN RELOCATED FIXTURE (NEW LOCATION).

DEVICES AND EQUIPMENT NOT SHOWN SHALL BE ASSUMED TO

EXISTING FIXTURE OR DEVICE TO REMAIN IN PLACE. REPLACE ANY BROKEN DEVICES OR PLATES; COLOR TO MATCH EXISTING.

ELECTRICAL CONTRACTOR. MAINTAIN CONTINUITY OF REMAINING

CONTRACTOR. EXISTING CIRCUIT SHALL BE RETAINED. PROVIDE

CONTRACTOR TO NEW LOCATION SHOWN ON RENOVATION PLAN.

R EXISTING FIXTURE OR DEVICE TO BE REMOVED BY THE

RE EXISTING DEVICE TO BE REMOVED BY THE ELECTRICAL

RR EXISTING FIXTURE TO BE RELOCATED BY THE ELECTRICAL

NEW DEVICE AS SHOWN ON RENOVATION PLANS.

MOTOR CONNECTION (AS NOTED)

DISCONNECT SWITCH, (REFER TO EQUIPMENT

CONTROL PANEL (SURFACE MOUNTED)

CONNECTION SCHEDULE)

CCTV CAMERA (CEILING MOUNTED)

Wi-Fi ACCESS POINT (CEILING MOUNTED)

ELECTRICAL UTILITY METER & C/T CABINET

ADDRESSABLE INTERFACE UNIT (MONITOR OR

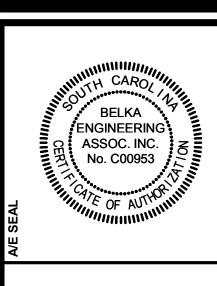
(T) | FIRE ALARM TAMPER SWITCH

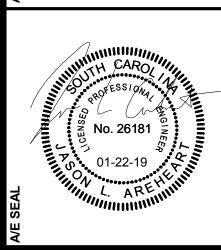
FIRE ALARM PRESSURE SWITCH

- E1.1 LIGHTING PLANS E2.1 POWER/SYSTEMS PLANS
- E3.1 MECHANICAL ELECTRICAL PLANS

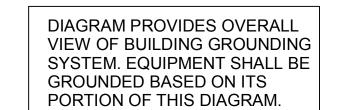


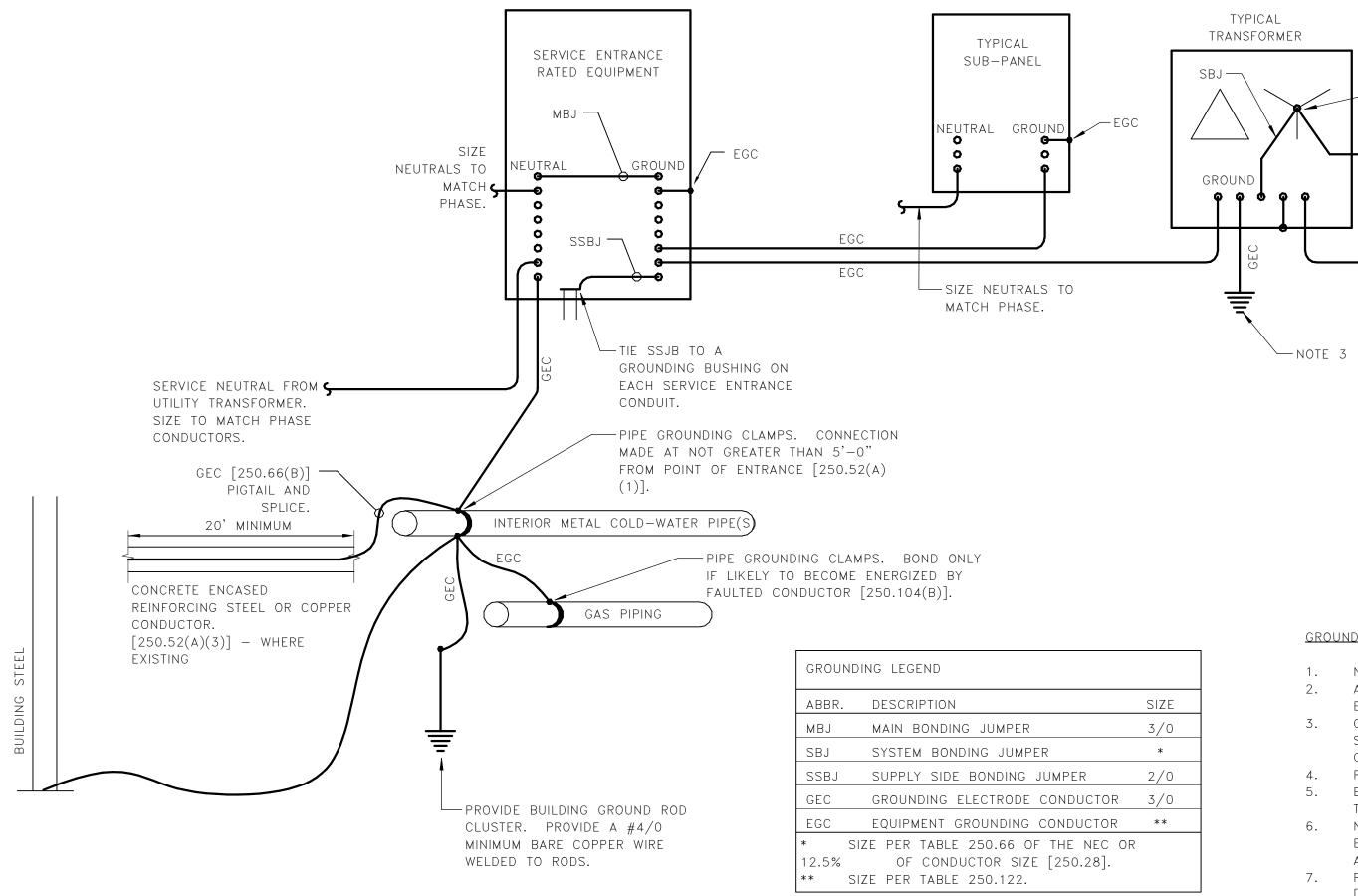
CONTACT: CLIFF STRINGFIELD 7 CLUSTERS COURT, SUITE 201 | COLUMBIA, SC | 29210 (803) 731-0650 p | (803) 960-6443 c CSTRINGFIELD@BEA-Consulting.com





ОШ Ŭ <del>R</del>





GROUNDING DETAIL

E0.2 NOT TO SCALE

**GROUNDING NOTES**:

NEUTRAL

— SIZE NEUTRALS TO MATCH PHASE.

METAL OUTLET BOX

GREEN HEX HEAD ---

[250.126]

[250.146]

GROUNDING SCREW

BOND BOX USING GROUNDING-

SCREW, DO NOT USE SHEET

METAL SCREW [250.8]

1. NUMBERS IN BRACKETS REFER TO SPECIFIC SECTIONS OF THE NATIONAL ELECTRICAL CODE.

TYPICAL

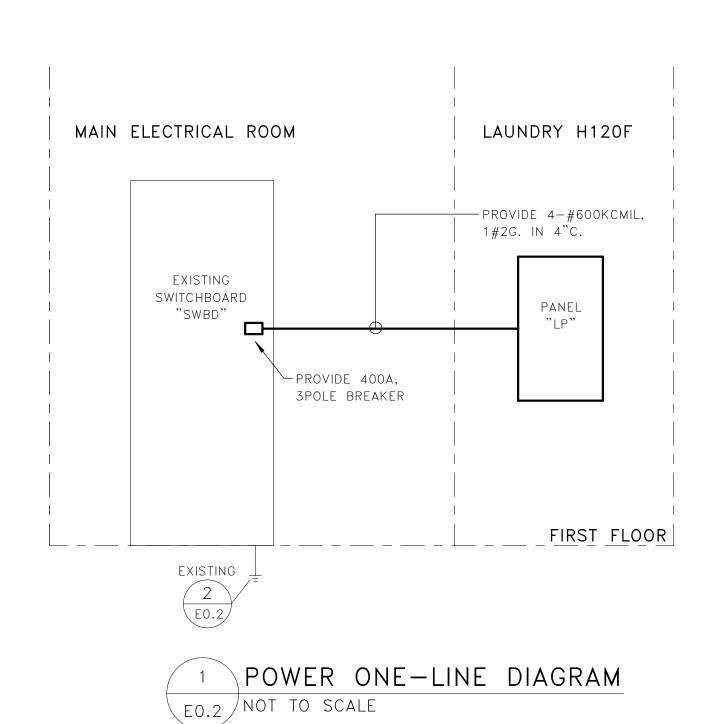
SECONDARY

PANEL

NEUTRAL GROUND

- 2. ALL UNDERGROUND OR OTHERWISE INACCESSIBLE GROUND CONNECTIONS AND SPLICES SHALL BE EXOTHERMICALLY WELDED [250.68].
- 3. GROUND ELECTRODE FOR SEPARATELY DERIVED SYSTEMS SHALL BE THE NEAREST METAL WATER PIPE OR STRUCTURAL METAL. IF EITHER IS NOT AVAILABLE, PROVIDE GROUNDING CONDUCTOR BACK TO MAIN GROUND BUS AT SERVICE ENTRANCE.
- 4. PROVIDE A GROUND WIRE IN ALL CONDUITS. 5. EARTH SHALL NOT BE USED AS THE SOLE GROUND RETURN PATH FOR ANY EQUIPMENT POWERED UNDER
- 6. NO ALUMINUM SHALL BE USED FOR GROUNDING WORK WITHOUT THE SPECIFIC WRITTEN PERMISSION OF THE ENGINEER. EXCEPTION: ALUMINUM BUILDING STRUCTURAL MATERIALS SHALL BE BONDED WITH LISTED
- ALUMINUM EQUIPMENT WITH ALUMINUM TO COPPER CONNECTORS FOR ROUTING COPPER EGC'S. 7. PROVIDE GROUNDING BUSHING ON BOTH ENDS OF ALL SERVICE ENTRANCE RACEWAYS, SIZE AS A GEC
- [250.80]. THIS INCLUDES RIGID STEEL ELBOWS ON PVC CONDUIT.
- 8. ALL METAL ENCLOSURES AND RACEWAYS SHALL BE BONDED TO GROUND [250.86]. FOR CIRCUITS OVER 250V PROVIDE BOND PER [250.97], STANDARD LOCKNUTS ARE NOT ACCEPTABLE.
- 9. PROVIDE EGC CONNECTED TO ANY JUNCTION BOX WHERE SPLICE IS MADE [250.148] OR WHERE A DEVICE IS INSTALLED.
- 10. PROVIDE BOND TO EXPOSED METAL ON ALL MOTORS, PUMPS, AND LIGHTING FIXTURES PER [250.112].

			ELECTR	ICAL DIST	RIBUTION	SYSTEM	
			# OF	MAINS		FED	
PANEL	DISTRIBUTION	PHASE	WIRES	TYPE	MCB	FROM	REMARKS
SWBD	480 V/3-0	3	4		5000 A		EXISTING, MANUFACTURER: WESTINGHOUSE
LP	480 V/3-0	3	4	MCB	400 A	SWBD	



		PANELBOARD: LP					UTION: HASES:	· ·	77 Wye			A.I.C. RATING: 28,860 MAINS RATING: 400 A				
		SUPPLIED FROM: SWBD				,	WIRES:	4				MCB RATING: 400 A				
		MOUNTING: SURFACE				ENCLO	SURE:	Type 1	1							
	WIRE SIZE CKT	DESCRIPTION	BKR	Р	<i>A</i>	4	E	3	(		Р	BKR DESCRIPTION	CKT	WIRE SIZE		
	1				1.5	9.7							2			
]	3-#10, 1-#10, 1-#10	AHU — LAUNDRY	25	3			1.5	9.7			3	100 DRYER #5 (CISSELL, CKT 1: HEAT)	4	3-#3, 1-#3, 1-#8		
	5								1.5	9.7			6			
	7				11.0	0.0							8			
]	3-#6, 1-#6, 1-#10	EDH-1	50	3			11.0	0.0			3	30 WASHER #1 (FUTURE)	10	3-#10, 1-#10, 1-#10		
	11								11.0	0.0			12			
	13				6.3	1.4							14			
_	3-#10, 1-#10, 1-#10	EDH-2	30	3			6.3	1.4			3	30 WASHER #2 (UNI-MAT 35)	16	3-#10, 1-#10, 1-#10		
	17								6.3	1.4			18			
_	19				10.5	0.0						11121711125 517152	20			
7	3-#3, 1-#3, 1-#8	DRYER #1 (UNI-MAC)	100	3			10.5	0.0				11121711125 517162	22			
L	23								10.5	0.0		PREPARED SPACE	24			
_	25				10.5	0.0						T KET / KED ST / KGE	26			
_	3-#6, 1-#6, 1-#10	DRYER #2 (UNI-MAC)	60	3			10.5	0.0				THEFTHE	28			
ŀ	29								10.5	0.0		PREPARED SPACE	30			
_	31			_	12.8	0.0	100					11121711125 017102	32			
		DRYER #3 (ADC)	60	3			12.8	0.0				11121711125 517162	34			
ŀ	35								12.8	0.0		7 1127 711125 - 01 7102	36			
_	37	_		_	12.8	0.0						PREPARED SPACE	38			
		DRYER #4 (ADC)	60	3			12.8	0.0	400			T KET / KED ST / KGE	40			
-	41					_	7.0		12.8	0.0			42			
ļ		TOTAL PER					76		76			CONNECTED KV		229.6		
L	NOTES:	TOTAL PER PHAS	SE AMPA	CITY:	27	<sup>′</sup> 6	27	<sup>7</sup> 6	2.	<sup>7</sup> 6		CONNECTED AMPACIT	<b>′:</b> ———	276		





