



CERTIFICATE OF APPROPRIATENESS
Minor Works

CERTIFICATE NUMBER: 16-25 **DATE ISSUED:** 5/17/16

ISSUED TO: **Brian K. Fifolt**
Urban Architectural Group

NAME OF LANDMARK: **Parks-Cramer Building**

ADDRESS OF LANDMARK: **2000 South Boulevard**
Charlotte, N.C.

TAX PARCEL NUMBER: **12103109**


ADDRESS OF APPLICANT: **1242 Mann Drive, Suite 200**
Matthews, NC 28105

APPLICANT'S TELEPHONE NUMBER: 704-841-1899

The Historic Landmarks Commission has reviewed the proposed activity and has found the following aspects to be in compliance with the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings and, therefore, has found them to be appropriate:

Interior upfit as shown on the attached plans.

This Certificate of Appropriateness is valid for a period of six (6) months from the date of issuance. Failure to procure a building or demolition permit with a six-month period will be considered as a failure to comply with this Certificate, and the Certificate will become invalid. If a building or demolition permit is not required, the approved activity must be completed within a six-month period from the date of issuance. This Certificate can be renewed by the Historic Landmarks Commission upon written request for the applicant with a valid reason for failure to comply with the six-month deadline. This Certificate in no way removes the responsibility of the owner of a structure in a local historic district to obtain a Certificate of Appropriateness from the Charlotte Historic District Commission.

By: , Preservation Planner, Charlotte-Mecklenburg Landmarks Commission.



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EXISTING SPRINKLER LINES AND HEADS ARE TO REMAIN AS IS, EXISTING SPRINKLERS PROVIDE SUFFICIENT COVERAGE.

PROJECT NAME: ALTON LANE UNIT 175
PROJECT DESCRIPTION: ALTERATION FOR RETAIL
PROJECT LOCATION: 2000 South Blvd, Suite 175Charlotte,
North Carolina 28203

GENERAL CONTRACTOR SHALL VISIT THE PREMISES AND VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF CONSTRUCTION AND SHALL REPORT ALL DISCREPANCIES TO ARCHITECT.

NO SUBCONTRACTORS SHOULD BE PROVIDED WITH A PARTIAL SET OF PLANS FOR EITHER BIDDING OR CONSTRUCTION PURPOSES WITHOUT FIRST HAVING AMPLE TIME TO REVIEW A COMPLETE SET OF CONSTRUCTION DOCUMENTS. ONLY HAVING A PARTIAL SET OF PLANS WILL NOT BE ACCEPTED AS AN EXCUSE FOR DELAYS, INCOMPLETE WORK OR CHANGE ORDERS.

Architectural			
CV1	COVER SHEET	●	
CV2	APPENDIX B / BUILDING CODE SUMMARY	●	
A1.0	LIFE SAFETY PLAN AND PARTITION TYPES	●	
A1.1	FLOOR PLAN	●	
A8.1	REFLECTED CEILING PLAN	●	
A9.1	DOOR DETAILS & SCHEDULE & FINISH SCHEDULE	●	
A10.1	FINISH FLOOR PLAN	●	
Plumbing			
P1.0	PLUMBING SANITARY WASTE, VENT & POTABLE WATER FLOOR PLAN	●	
Mechanical			
M0.0	MECHANICAL GENERAL NOTES & LEGEND	●	
M0.1	MECHANICAL SCHEDULES & DETAILS	●	
M1.0	MECHANICAL FLOOR PLAN – EXISTING AND NEW WORK	●	
Electrical			
E0.0	ELECTRICAL SPECS, NOTES, & LEGEND	●	
E1.0	ELECTRICAL POWER FLOOR PLAN	●	
E2.0	ELECTRICAL LIGHTING FLOOR PLAN	●	
E3.0	ELECTRICAL DETAILS & SCHEDULES	●	



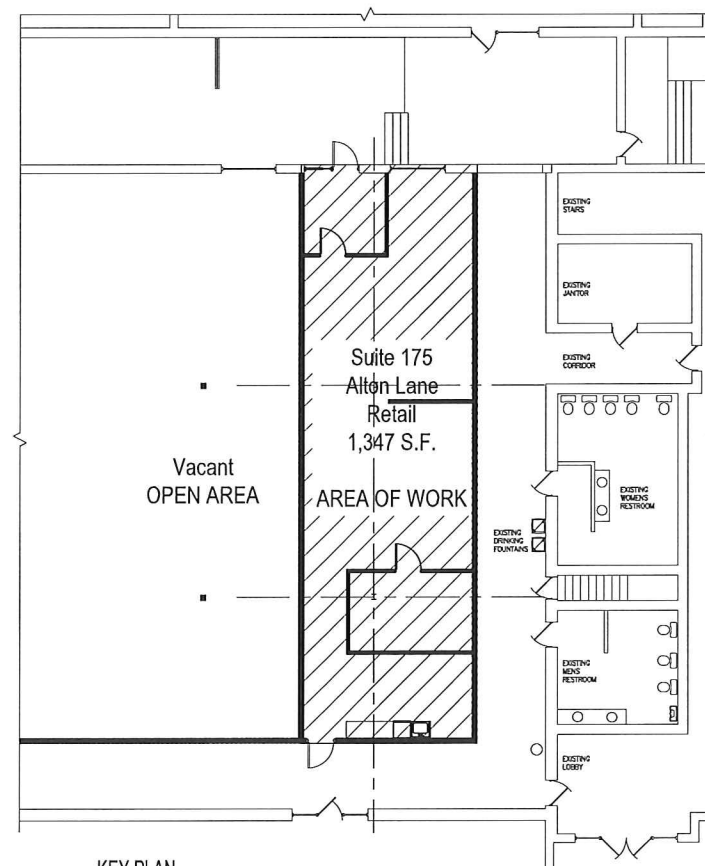
2000 South Blvd, Ste 175
Charlotte, NC 28203

Date:	May 16, 2016
Project Number:	2016-33
Issued For:	
Construction Only:	05.16.16

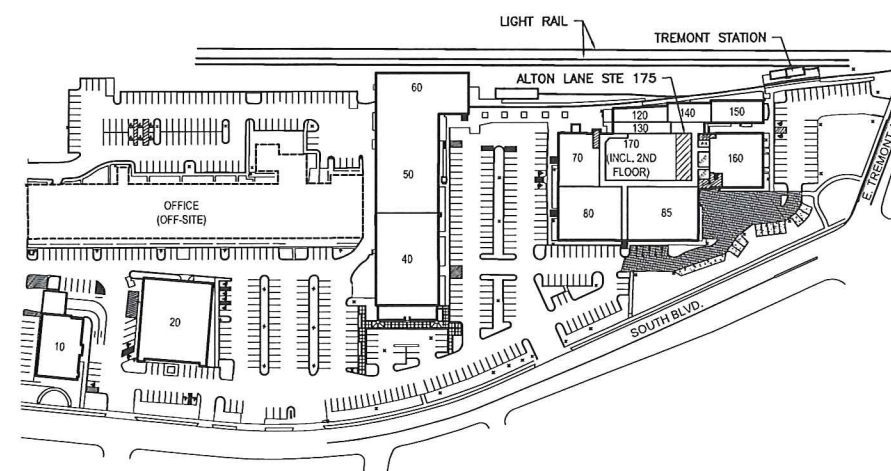
COVER SHEET

CV1

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KEY PLAN
Not To Scale



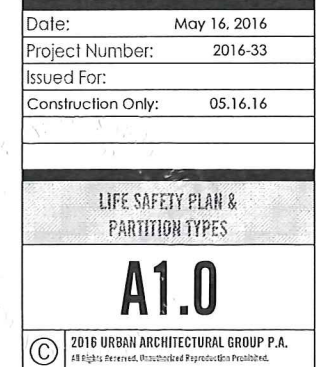
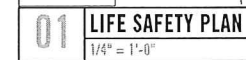
KEY SITE PLAN
Not To Scale

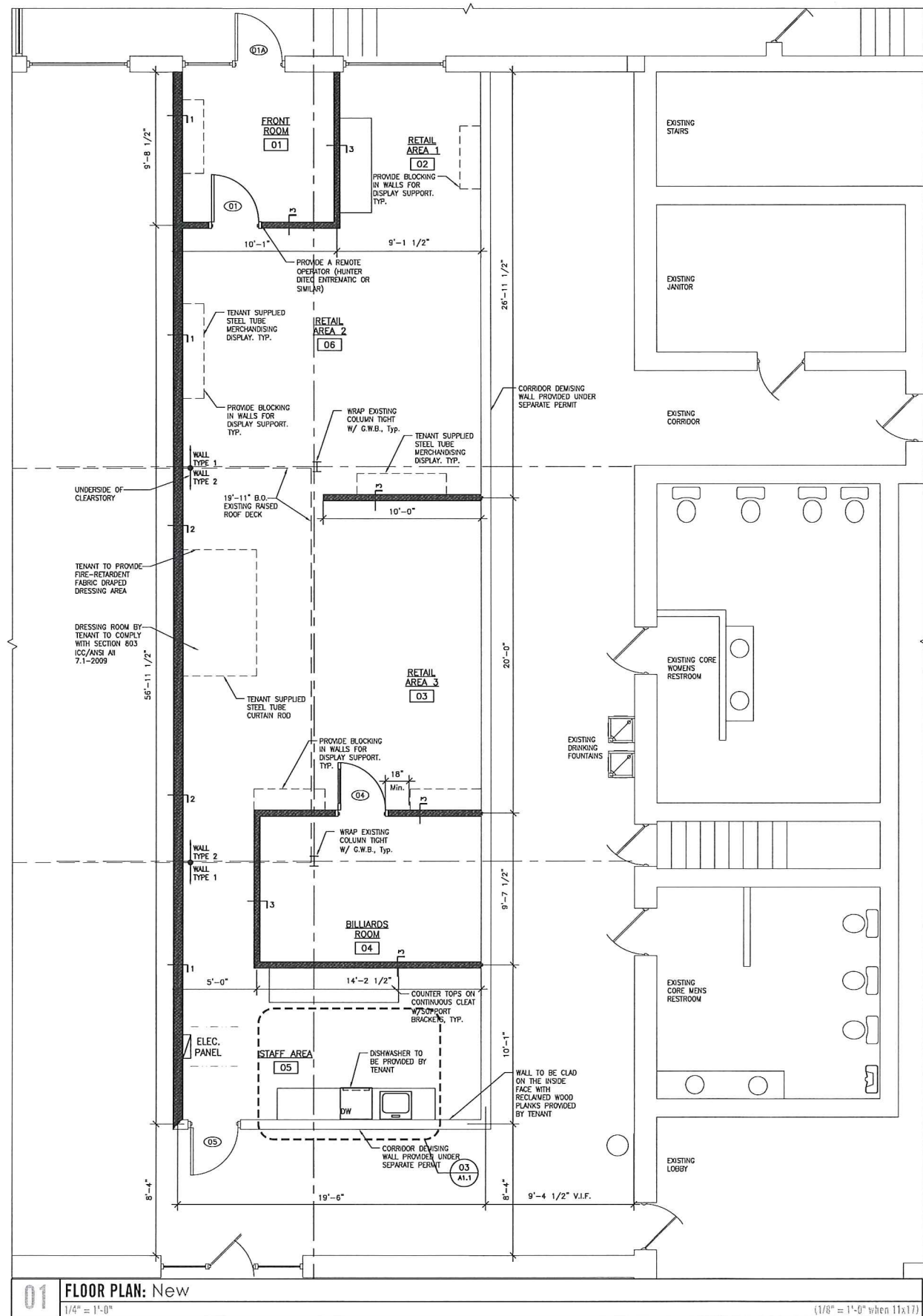
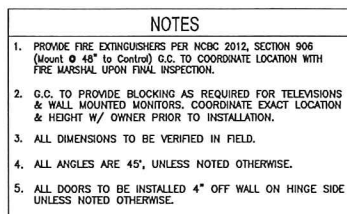
 — DETAIL NO. ON SHEET
 — DETAIL TARGET
 — SHEET DETAIL IS FOUND ON
 — ELEVATION/SECTION TARGET
 — DOOR NUMBER
 — WINDOW SYMBOL TAG
 — ROOM NAME & NO.
 — COLUMN LINE IDENTIFICATION
 — INTERIOR WALL TYPE

1. Do not score drains. If dimensions are in question, obtain clarification from architect.
2. Contractor is to verify all existing conditions before beginning construction.
3. All dimensions are from the centerline of new walls and from the face of existing walls.
4. Use moisture resistant G.W.B. in toilets and all wet areas.
5. Provide blocking as required for masonry, and misc. hardware.
6. All concealed blocking to meet Section 603, NC 2012
6. Provide fire treated wood blocking when required by code.
7. All concealed blocking to meet Section 603, NC 2012.
8. All wood blocking, framing, or wood material which is exposed to weather or dampness, or is to be in contact with concrete or masonry shall be pressure treated.
9. To verify compatibility of materials with each other and with wood products.
9. General Contractor shall install all work according to local, state, and federal codes.
9. General Contractor shall verify all utility locations before beginning construction.
10. Provide Tactel Exl Signage at each exit per 703 ANSI A117.1-2009.
- See 02/A1.1 for detail.

1. THESE DRAWINGS DO NOT CONTAIN COMPLETE SPECIFICATIONS, DETAILS AND INFORMATION REQUIRED FOR THE INTERIOR FINISHES OF THE PROJECT. ADDITIONAL INFORMATION SHALL BE OBTAINED FROM THE OWNER.
2. G.C. TO SUBMIT SAMPLES OF ALL INTERIOR FINISHES FOR OWNER APPROVAL.

1. PROVIDE FIRE EXTINGUISHERS PER 2012 NBC, SECTION 906 (MOUNT @ 48" TO CONTROL). G.C. TO COORDINATE LOCATION WITH FIRE MARSHAL UPON FINAL INSPECTION.
2. PROVIDE TACTILE EXIT SIGNAGE & RESTROOM SIGNAGE PER 2012 NBC SECTIONS 1011.3, 1110, E107 & ICC/ANSI A117.1-2009 SECTION 703. SEE A1.0, GENERAL NOTE 10 & SHEET A1.1, DETAIL 02.
3. ALL LIFE SAFETY SYSTEMS (SPRINKLER, FIRE ALARM, EGRESS LIGHTING, & EXIT SIGNS) SHALL BE MAINTAINED DURING CONSTRUCTION.





LIGHTING PLAN LEGEND

▽

 TRACK LIGHTING

⊗

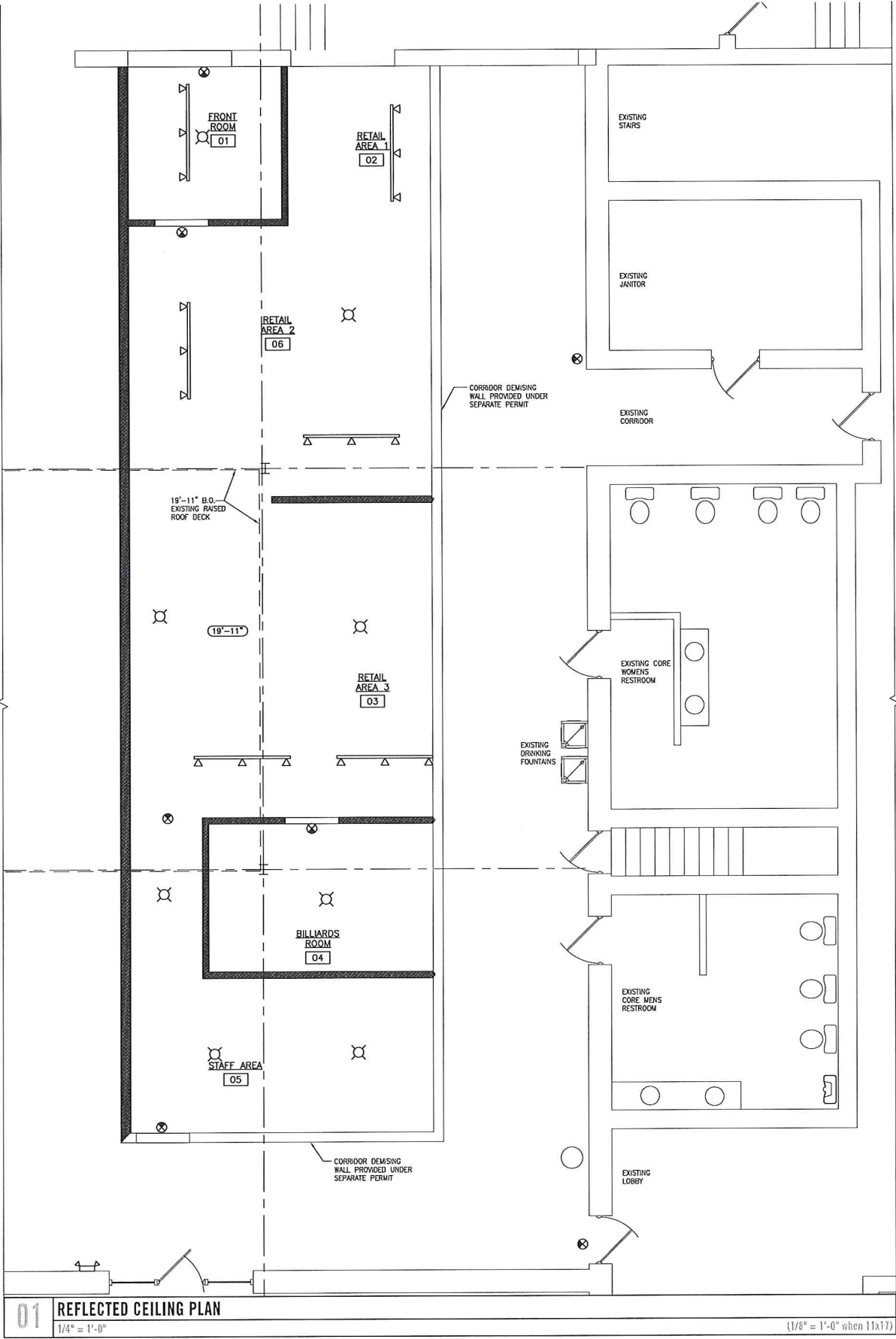
 EXIT LIGHT

⊗

 PENDANT LIGHT

14'-3"

 EXPOSED CEILING HEIGHT, TYPICAL UNLESS NOTED OTHERWISE

NOTES:
1. SEE MECHANICAL DRAWINGS FOR TYPE & EXACT LOCATIONS OF DIFFUSERS.
2. SEE ELECTRICAL DRAWINGS FOR TYPE & EXACT LOCATIONS OF EMERGENCY LIGHTING.LAYOUT NOTE:
Ceiling grid in rooms to be centered in each direction, typ., U.N.O.

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05-16-16

URBAN ARCHITECTURAL GROUP P.A.
REGISTERED ARCHITECTURAL COMPANY
50866
NORTH CAROLINA
MATTHEWS, NC

ALTON LANE
SUITE 175
Alteration

2000 South Blvd, Ste 175
Charlotte, NC 28203

Date:	May 16, 2016
Project Number:	2016-33
Issued For:	
Construction Only:	05.16.16
REFLECTED CEILING PLAN	
A8.1	
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1. All exit doors to be operable from the inside without the use of a key, tool, special knowledge of effort. All hardware must have direct opening requirement less than one operation per 1008.1.9 (2012 NC BUILDING CODE)
2. Door handles, pulls, latches, locks and other operable parts accessible doors shall have a shape that is easy to grasp with one hand and does not require tight grasping, pinching or twisting of the wrist to operate. Operable parts of such hardware shall be 34" minimum and 48" maximum above the floor per 404.2.6 and 404.2.7 ANSI A117-1-2009.
3. Provide visible plastic sign on or adjacent to door stating: "THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS" in 1" high white letters on dark background.
4. G.C. to review all hardware sets with owner before installation.
5. Provide Transition Strips at all flooring material changes.
6. All pocket doors & bi-fold doors must provide a 32" clear opening at the fully open position, which must keep the operating hardware exposed and usable from both sides.

ALL NEW HARDWARE TO BE LEVER ADA ACCEPTABLE
ALL THRESHOLDS TO MEET ADA SPECIFICATIONS

Privacy Set: (Restroom) Privacy locksets are locked with an inside push-button. Turning the inside knob or lever releases the lock. A small screwdriver can be used as an emergency key, from the outside if necessary.

Entrance Lock: (Entry) Entrance locked by pushing and turning button and unlocked by key until the inside button is manually unlocked. They are also available with pushbutton locking, in which pushing the button locks the outside knob or lever until it is unlocked by key or by turning the inside knob or lever. The inside knob or lever is always free for immediate exit.

Storeroom Lock: Storeroom locksets always have the inside knob/lever unlocked. The outside knob or lever is fixed, and the latch is retracted by the key from the outside.

[illegible]

ALUM	- ALUMINUM
WD	- WOOD
HM	- HOLLOW METAL
SCWD	- SOLID CORE WOOD
HCWD	- HOLLOW CORE WOOD



2000 South Blvd, Ste 175
Charlotte, NC 28203

FINISH SCHEDULE									
ROOM NO.	ROOM TYPE	FLOOR	BASE	WALLS		CEILING			REMARKS
				MATERIAL	FINISH	MATERIAL	FINISH	HEIGHT	
01	FRONT ROOM	CONC	WB-1	GWB	PNT-1/ RCW-1	EXPOSED	EXPOSED	14'-3"	
02	RETAIL AREA 1	CONC	WB-1	GWB	PNT-3/ RCW-1	EXPOSED	EXPOSED	14'-3"	
03	RETAIL AREA 2	CONC	WB-1	GWB	PNT-2	EXPOSED	EXPOSED	14'-3"	
04	RETAIL AREA 3	CONC	WB-1	GWB	PNT-1	EXPOSED	EXPOSED	14'-3"/ 19'-11"	
05	BILLIARDS ROOM	CONC	WB-1	GWB	PNT-3	EXPOSED	EXPOSED	14'-3"	
06	STAFF AREA	CONC	WB-1	GWB	PNT-1	EXPOSED	EXPOSED	14'-3"	

NOTES:
1. WALLS SHALL BE A SMOOTH, WASHABLE, & NON-ABSORBENT FINISH (I.E. EPOXY PAINT).
2. ALL INTERIOR FINISH MATERIALS TO MEET A.S.T.M. CLASS B FOR FLAME SPREAD. SEE CHART BELOW.
3. G.C. TO PROVIDE FINISH SELECTION SAMPLES FOR MATERIALS SCHEDULE TO BE SELECTED AND/OR APPROVED BY OWNER PRIOR TO PURCHASE & INSTALLATION.

FINISHES		
RCW-1	Reclaimed Wood	MFR: Alton Lane Supplied COLLECTION: N/A COLOR: Wood
CONC	Sealed Concrete Floor	MFR: To Be Selected
WB-1	Wood Base (6")	MFR: To Be Selected By Landlord COLOR: PNT-4
PNT-1	Point - Walls	MFR: Sherwin Williams COLOR: HG-SW2466 Requisite Gray COLOR: Eg-Shel - MATTE FINISH
PNT-2	Point - Walls	MFR: Sherwin Williams COLOR: SW-6244 Naval FINISH: Eg-Shel - MATTE FINISH
PNT-3	Point - Walls	MFR: Sherwin Williams COLOR: HG-SW-1061 Remington Red FINISH: Eg-Shel - MATTE FINISH
PNT-4	Point - Trim	MFR: Sherwin Williams COLOR: SW4001 Fundamental White COLORS: Semi Gloss
PNT-5	Point - H.M. Frames	MFR: Sherwin Williams COLOR: SW 4001 Fundamental White FINISH: Semi Gloss
PLAN-1	Plastic Laminate Counter Tops	MFR: To Be Selected COLOR: To Be Selected
OAK-1	Oak Counter Top Vertical Cabinet Faces	MFR: To Be Selected COLOR: To Be Selected

NOTES:
1. GC To Confirm/Verify Finish Selections By landlord vs Tenant.

NOTES:
1. SEE CHART BELOW FOR THE MINIMUM FLAMESPREAD CLASSIFICATION.
2. RESTROOM FLOOR FINISH MATERIALS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE. THE INTERSECTIONS OF SUCH FLOORS WITH WALLS SHALL HAVE A SMOOTH, HARD, NONABSORBENT VERTICAL BASE THAT EXTENDS AT LEAST 4" PER 2012 NBC, SECTION 1210.1. FLOOR SURFACES TO COMPLY WITH ICC/ANSI A117.1-2009 SECTION 302.
3. WALLS WITHIN 2 FEET OF WATER CLOSETS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE OF A HEIGHT OF NO LESS THAN 4 FEET ABOVE THE FLOOR OR AS NOTED ON PLAN PER 2012 NBC, SECTION 1210.2.

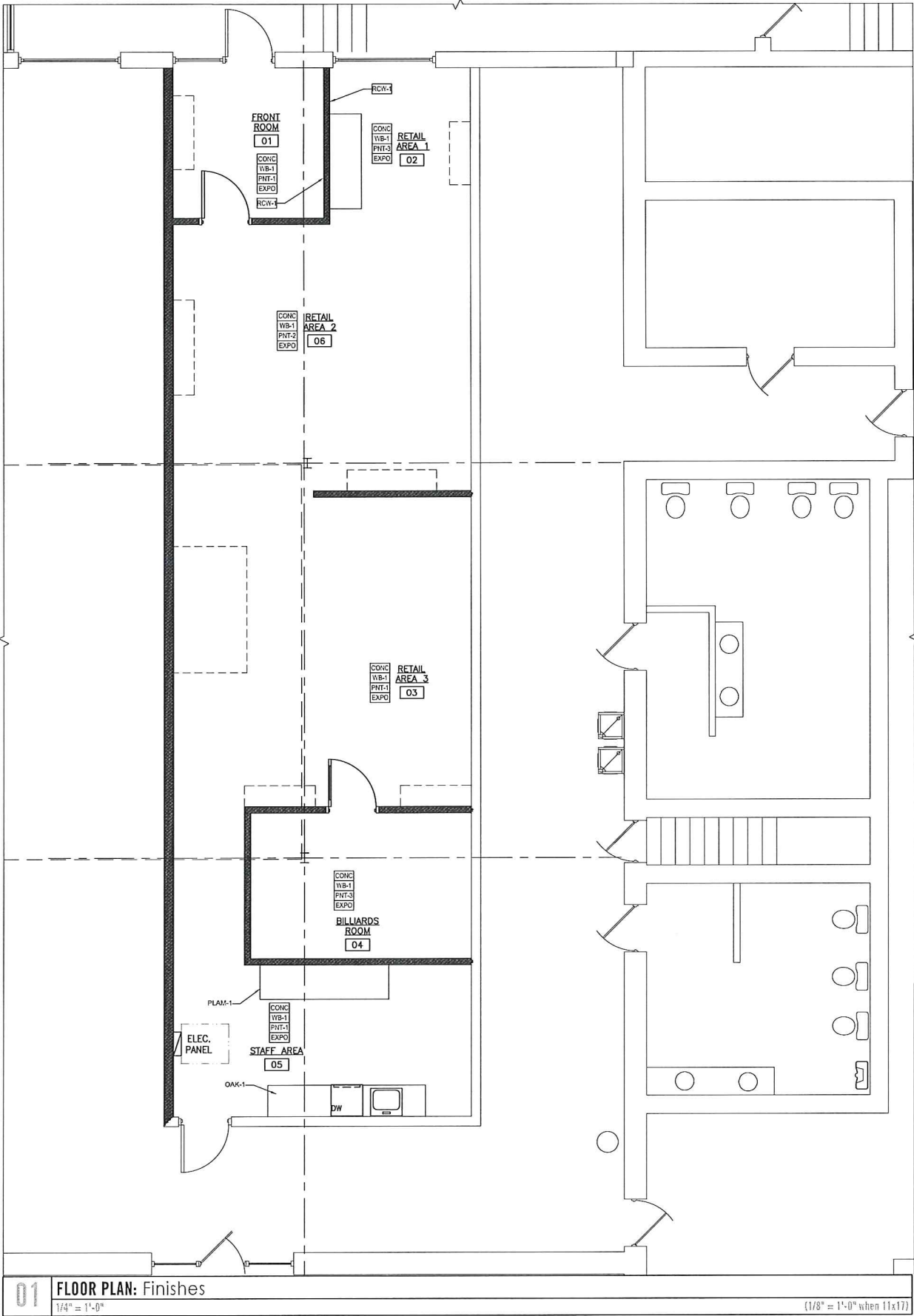
TABLE E013 INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY *						
GROUP	SPRINKLERED †			NONSPRINKLERED		
	Wall enclosure and exit passageway*	Corridors	Rooms and enclosed spaces*	Wall enclosure and exit passageway*	Corridors	Rooms and enclosed spaces*
A-1 & A-2	B	B	C	A	A ¹	B ¹
A-3† A-4, A-5	B	B	C	A	A ¹	C
B-1, B-4	B	C	C	A	B	C
F	C	C	C	B	C	C
N	B	B	C ¹	A	A	B
I-1	B	C	C	A	B	B
I-2	B	B	B ¹	A	A	B
I-3	A	A ¹	C	A	A	B
I-4	B	B	B ¹	A	A	B
R-2	C	C	C	B	B	C
R-3	C	C	C	C	C	C
S	C	C	C	B	B	C
U	No Restrictions			No Restrictions		

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m².
a. Class C interior finish materials shall be permitted for wallcovering or painting of not more than 1,000 square feet of applied surface area in the grade lobby where applied directly to a noncombustible base or over burning epoxy applied to a noncombustible base and fireprotected as required by Section 903.1.1.1.
b. In wall enclosure of buildings less than three stories in height of other than Group I-3, Class B interior finish for nonsprinklered buildings and Class C interior finish for sprinklered buildings shall be permitted.
c. Requirements for rooms and enclosed spaces shall be based upon spaces enclosed by partitions. Where a fire-resistance rating is required for structural elements, the enclosing partitions shall extend from the floor to the ceiling. Partitions that do not comply with this shall be considered enclosing spaces and the rooms or spaces on both sides shall be considered area. In determining the applicable requirements for rooms and enclosed spaces, the specific occupancy thereof shall be the governing factor regardless of the group classification of the building or structure.
d. Lobby areas in A-1, A-2, and A-3 occupancies shall not be less than Class B materials.
e. Class C interior finish materials shall be permitted in places of assembly with an occupied load of 300 persons or less. For places of worship, used used for ceremonial purposes, lectures, dining, or choral chanting shall be permitted.
f. Class B material required where building exceeds the above.
g. Class C interior finish materials shall be permitted in administrative spaces.
h. Class C interior finish materials shall be permitted in rooms with a capacity of four persons or less.
i. Class B interior finish materials shall be permitted in rooms with a capacity of four persons or less.
j. Class B interior finish materials shall be permitted in rooms with a capacity of four persons or less.
k. Finish materials as provided for in other sections of this code.
l. Apply when the exit enclosure, exit passageway, corridor or rooms and enclosed spaces are protected by a sprinkler system installed in accordance with Section 903.1.1.1 or Section 903.1.2.

FINISH PLAN LEGEND

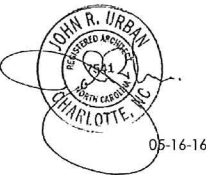
X → FLOORING
X → BASE
X → PAINT COLOR
X → CEILING

NOTE:
1. ALL PAINTED FINISHES TO BE VERIFIED WITH TENANT PRIOR TO PURCHASE AND APPLICATION.
2. ALL RECLAIMED WOOD TO BE PROVIDED BY ALTON LANE'S SUPPLIER.



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Seals:



ALTON LANE SUITE 175 Alteration

2000 South Blvd, Ste 175
Charlotte, NC 28203

Date: May 16, 2016
Project Number: 2016-33
Issued For:
Construction Only: 05.16.16

FINISH FLOOR PLAN

A10.1

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PUMP SCHEDULE							
PLAN MARK	SERVICE/LOCATION	TYPE	FLOW (GPM)	HEAD (FT.)	RPM	HP	NOTES
DRAIN PUMP DP	BAR SINK	ABOVE FLOOR	35	20	3450	1/3	1, 2
NOTES: 1. DESIGN BASIS: LIBERTY MODEL 404 OR ENGINEERS APPROVED EQUAL. 2. 115V, SINGLE PHASE 1/3 HP							

PLUMBING FIXTURE SCHEDULE				
PLAN MARK	MINIMUM ROUGH-IN SIZES			
	WST & VENT	CW	HW	DESCRIPTION
KS KITCHEN SINK	2"	1-1/2"	3/4"	DAYTON D23321 DOUBLE COMPARTMENT BOWL SELF RIMMING STAINLESS STEEL FAUCET MONTERREY 6409.170 GOOSENECK SPOUT WITH LEVER HANDLES, ELKAY CHROME CRUMB CUP BASKET STRAINER AND CHROME PLATED BRASS TAILPIECE. MCGUIRE 1-1/2" 17 GAUGE CHROME-PLATED CAST BRASS P-TRAP W/CLEANOUT PLUG. MCGUIRE 1/2"x3/8" CHROME-PLATED CAST BRASS FLEXIBLE SUPPLY KITS, WITH WHEEL HANDLE ANGLE STOPS.
	6			

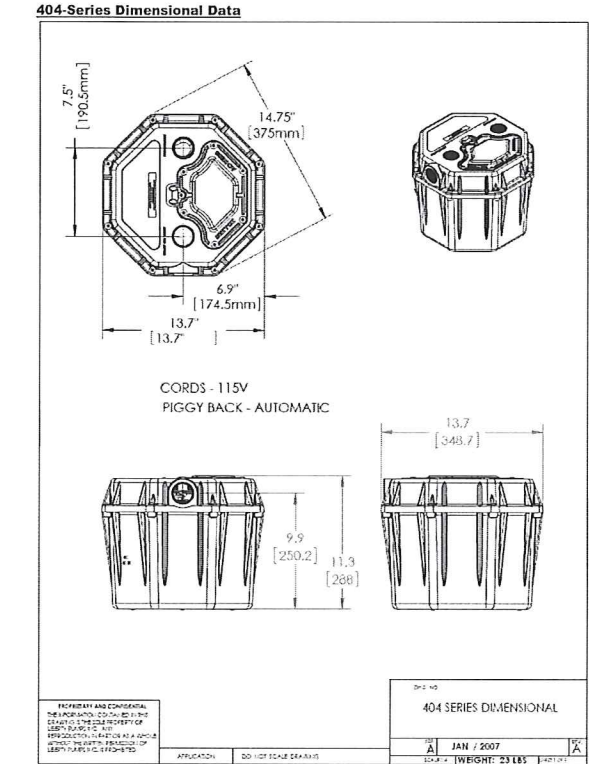
PLUMBING MATERIALS	
1.	DOMESTIC HOT & COLD WATER PIPING ABOVE GRADE SHALL BE TYPE L HARD DRAWN COPPER TUBING CONFORMING TO ASTM B-88 WITH SWEAT JOINTS AND CAST OR WROUGHT FITTINGS. ALL JOINTS SHALL BE MADE WITH LEAD FREE SOLDER. TYPE M COPPER OR CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE/TUBE AND FITTINGS MAY BE SUBMITTED FOR OWNER APPROVAL AS A DEDUCTIVE ALTERNATE.
2.	SANITARY WASTE & VENT PIPING ABOVE GROUND SHALL BE SCHEDULE 40 PVC PRESSURE RATED PIPE WITH SOLVENT JOINTS. PVC PIPING SHALL NOT BE LOCATED IN RETURN AIR PLENUM SPACES UNLESS WRAPPED WITH A MATERIAL THAT SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.

PLUMBING NOTES	
1.	ALL PLUMBING EQUIPMENT AND INSTALLATIONS SHALL CONFORM WITH THE REQUIREMENTS OF THE 2012 NORTH CAROLINA PLUMBING CODE (NPC) - THE 2012 NORTH CAROLINA BUILDING CODE, THE 2012 NORTH CAROLINA ENERGY CONSERVATION CODE, STATE AND LOCAL AMENDMENTS, UNDERWRITERS LABORATORIES (OR ETI) AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.
2.	REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND ELEVATIONS OF ALL PLUMBING FIXTURES.
3.	ALL PIPING ABOVE GRADE SHALL BE PROPERLY SUPPORTED FROM THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR BE SUPPORTED FROM CEILING TILES.
4.	WATER PIPING ROUTED ABOVE CEILING AND IN EXTERIOR WALLS SHALL BE ROUTED ON HEATED SIDE (UNDERSIDE) OF CEILING INSULATION AND HEATED SIDE (INSIDE) OF WALL INSULATION.
5.	ALL PLUMBING EQUIPMENT, SANITARY, AND WATER PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND THE LOCAL AHJ REQUIREMENTS.
6.	SANITARY AND DRAINAGE PIPING 2" AND SMALLER SHALL BE SLOPED AT 1/4" PER FOOT MINIMUM, PIPING 3" AND LARGER SHALL BE SLOPED AT 1/8" PER FOOT MINIMUM.
7.	PROVIDE ACCESS PANELS IN NON-ACCESSIBLE CEILINGS AND IN WALL STRUCTURE TO ALLOW ADEQUATE ROOM FOR MAINTENANCE OF EQUIPMENT AND BALANCING OF SYSTEMS. ACCESS PANELS IN CEILING AND WALLS SHALL BE PROVIDED WHERE SHOWN ON THE DRAWINGS OR NECESSARY TO ACCESS VALVES, ETC.
8.	LOCATE ALL SECTIONAL OR MAIN CONTROL VALVES WITHIN 1'-0" FROM ACCESS PANELS, CEILING TILES, OR OTHER POINTS OF ACCESS.
9.	ALL COLD WATER, HOT WATER AND DRAIN PIPING AT ADA FIXTURES SHALL BE INSULATED WITH HAND-LAY GUARD MODELS 102 AND 105 INSULATION KITS.
10.	ALL PLUMBING EQUIPMENT, PIPING, INSULATION, ETC. INSTALLED IN HVAC PLENUM SPACES SHALL MEET CODE REQUIREMENTS FOR FLAME SPREAD AND SMOKE-DEVELOPED INDEX.
11.	ALL PLUMBING EQUIPMENT AND SYSTEMS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY THE OWNER.
12.	ALL PIPE PENETRATIONS OF FIRE AND/OR SMOKE RATED ASSEMBLIES SHALL BE FIRE STOPPED AS REQUIRED TO RESTORE THE ASSEMBLY TO ITS ORIGINAL INTEGRITY. FIRE BARRIER PRODUCTS SHALL BE AS MANUFACTURED BY 3M COMPANY, CP25 CAULK, CS195 COMPOSITE PANEL, TS195 WRAP/SINK, TREMO, HILT, METACALK, NELSON, OR PSS 7900 SERIES SYSTEMS AS RECOMMENDED BY MANUFACTURER FOR PARTICULAR APPLICATIONS, OR EQUIVALENT SYSTEM AS APPROVED BY LOCAL CODE OFFICIALS. T-RATINGS SHALL BE MAINTAINED BY DOUBLE WRAPPING PENETRATIONS 4'-0" ABOVE FLOOR PENETRATIONS WITH A FIRE WRAP. WRAP MUST EQUAL T-RATING.

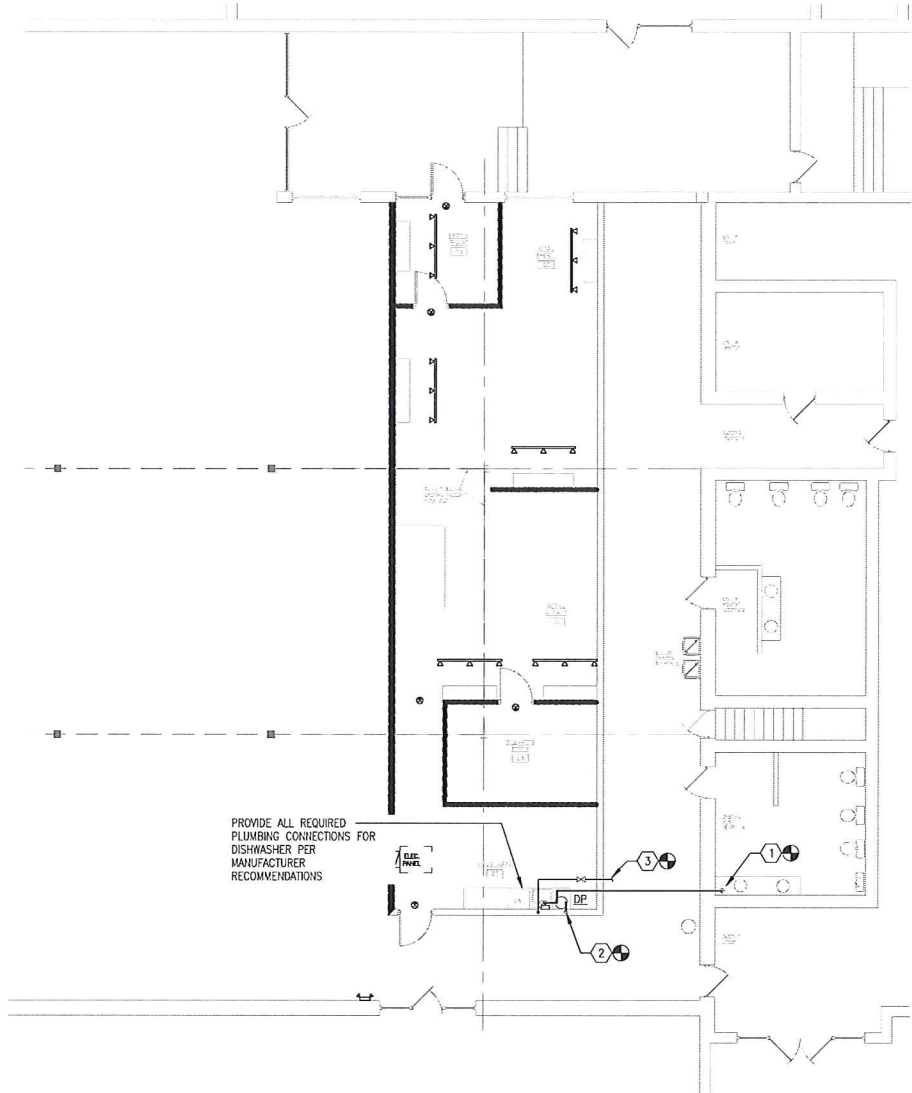
PLUMBING LEGEND		
SYMBOL	ABBREVIATION	DESCRIPTION
---	CW	COLD WATER PIPING
DN	DN	PIPING TURNING DOWN
(E)	(E)	EXISTING
POC	POC	POINT OF CONNECTION TO EXISTING
UP	UP	PIPING TURNING UP
WCO	WCO	WALL CLEAN OUT
⊗		SHUT OFF VALVE

KEY NOTES:

- CONNECT NEW 2" SANITARY LINE CONNECTED TO THE DRAINAGE SYSTEM. THIS LINE SHALL CONNECT TO THE BUILDING SEWER OR SHALL CONNECT TO WYE FITTING IN THE BUILDING DRAIN A MINIMUM OF 10 FEET FROM THE BASE OF ANY SOIL STACK, WASTE STACK OR FIXTURE DRAIN. WHERE THE DISCHARGE LINE CONNECTS INTO HORIZONTAL DRAINAGE PIPING, THE CONNECTOR SHALL BE MADE THROUGH A WYE FITTING INTO THE TOP OF THE DRAINAGE PIPING. THIS LINE MAY CONNECT TO A VERTICAL PIPE THAT MEETS THE ABOVE CRITERIA. VERIFY EXACT LOCATION AND DIRECTION OF FLOW PRIOR TO PERFORMING ANY WORK.
- VENT FROM DRAIN PUMP MUST BE VENTED TO THE EXTERIOR OF BUILDING INDEPENDENTLY.
- CONNECT NEW 3/4" CW LINE TO EXISTING 3/4" OR LARGER WATER LINE. VERIFY EXACT LOCATION PRIOR TO PERFORMING ANY WORK.



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PROVIDE ALL REQUIRED PLUMBING CONNECTIONS FOR DISHWASHER PER MANUFACTURER RECOMMENDATIONS

1 PLUMBING SANITARY WASTE, VENT & POTABLE WATER FLOOR PLAN
SCALE: 1/8" = 1'-0"



ARCHITECTURAL GROUP
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Raleigh, North Carolina 27603
www.urbanarchitect.com

Seals:























ALTON LANE
SUITE 175
Alteration

2000 South Blvd, Ste 175
Charlotte, NC 28203

Date:	
Project Number:	2016-35
Issued For:	
Construction Only:	05.16.16
PLUMBING SANITARY WASTE, VENT & POTABLE WATER FLOOR PLAN	
P1.0	
2016 URBAN ARCHITECTURAL GROUP P.A. 2016 Urban Architectural Group P.A.	

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT METHOD OF COMPLIANCE:		
Prescriptive <input checked="" type="checkbox"/>	Performance <input type="checkbox"/>	Energy Cost Budget <input type="checkbox"/>
Thermal Zone : 3A		
Exterior Design Conditions		
Winter dry bulb : 18°F		
Summer dry bulb : 93°F		
Interior Design Conditions		
Winter dry bulb : 70°F		
Summer dry bulb : 75°F		
Relative humidity : 55% (UN-CONTROLLED)		
Building Heating Load: EXISTING SPACE		
Building Cooling Load: EXISTING SPACE		
Mechanical Spacing Conditioning System		
Unitary :		
Description of Unit : SPLIT HEAT PUMP – ELECTRIC HEAT		
Heating Efficiency : EXISTING EQUIPMENT		
Cooling Efficiency : EXISTING EQUIPMENT		
Heat Output of Unit : EXISTING EQUIPMENT		
Cooling Output of Unit : EXISTING EQUIPMENT		
Boiler :		
Total Boiler Output: If oversized, state reason: N/A		
Chiller :		
Total Chiller Capacity: If oversized, state reason: N/A		
Unit Equipment Efficiencies : EXISTING EQUIPMENT		
Equipment schedules with Motors (Mechanical Systems)		
Motor Horsepower : EXISTING EQUIPMENT		
Number of Phases : EXISTING EQUIPMENT		
Minimum Efficiency : EXISTING EQUIPMENT		
Motor Type : EXISTING EQUIPMENT		
Number (f) of Poles : EXISTING EQUIPMENT		
Designer Statement :		
To the best of my knowledge and belief, the design of this building complies with the Mechanical Systems, Service Systems and Equipment Requirements of the 2012 North Carolina State Energy Codes.		
SIGNED:		
NAME: SUI FAN TANG, P.E.		
TITLE: MECHANICAL ENGINEER		

MECHANICAL LEGEND	
MARK	DESCRIPTION
AF	ABOVE FINISHED FLOOR
B00	BACKDRAFT DAMPER
BFC	BELOW FINISHED CEILING
	DIFFUSER TYPE "S" BALANCED FOR 400 CFM
DB	DRY BULB (°F.)
14"x12"	DUCT SIZE IN INCHES (RECTANGULAR)
8"ø	DUCT SIZE IN INCHES (ROUND)
14"x12"ø	DUCT SIZE IN INCHES (DOUBLE-WALL FLAT OVAL)
EH	ELECTRIC HEATER
EAT	ENTERING AIR TEMPERATURE (°F.)
	EXHAUST AIR
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE (IN. W.G.)
FD	FIRE DAMPER
FD(EX)	EXISTING FIRE DAMPER
FSD	COMBINATION FIRE / SMOKE DAMPER
IN. W.G.	INCHES WATER COLUMN
LAT.	LEAVING AIR TEMPERATURE (°F.)
MVD	MANUAL VOLUME DAMPER
OBD	OPPOSED BLADE DAMPER
O.A.	OUTSIDE AIR (°F.)
R.A.	RETURN AIR
	RETURN OR EXHAUST DUCT OR OUTLET
	EXISTING LOW-PRESSURE SUPPLY, RETURN OR EXHAUST DUCT
	NEW LOW-PRESSURE SUPPLY, RETURN OR EXHAUST DUCT
	EXISTING MEDIUM PRESSURE SUPPLY DUCT AT A VELOCITY OF 1800 F.P.M.
	NEW MEDIUM PRESSURE SUPPLY DUCT AT A VELOCITY OF 1800 F.P.M.
	DUCT TRANSITION
S.A.	SUPPLY AIR
S.F.	SUPPLY FAN
	SUPPLY OR OUTSIDE AIR DUCT OR OUTLET
	THERMOSTAT, HUMIDISTAT, SENSOR OR SMOKE DETECTOR
W.G.	WATER COLUMN
W.B.	WET BULB (°F.)
M.C.	MECHANICAL CONTRACTOR
G.C.	GENERAL CONTRACTOR
E.C.	ELECTRICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
S.P.C.	SPRINKLER CONTRACTOR
	CEILING DIFFUSER W/FLEX DUCT
	CEILING RETURN GRILLE W/FLEX DUCT
	MANUAL VOLUME DAMPER
	CEILING RADIATION DAMPER U.L. 555C LISTED
	FIRE DAMPER
	FIRE / SMOKE DAMPER
	MOTORIZED DAMPER
	HVAC EQUIPMENT
	MECHANICAL EQUIPMENT DESIGNATION
	1" UNDERCUT DOOR

HVAC NOTES & SPECIFICATIONS

- ALL MECHANICAL EQUIPMENT AND INSTALLATIONS SHALL CONFORM WITH THE REQUIREMENTS OF THE 2012 NORTH CAROLINA MECHANICAL CODE, THE 2012 NORTH CAROLINA BUILDING CODE, THE 2012 NORTH CAROLINA ENERGY CONSERVATION CODE, STATE AND LOCAL AMENDMENTS, NFPA 90A, 101, UNDERWRITERS LABORATORIES (OR ETL) AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.
 - THE LOCATIONS, ARRANGEMENT AND EXTENT OF EQUIPMENT, PIPING, SUPPORTS, DEVICES, CONDUIT, AND OTHER APPURTENANCES RELATED TO THE INSTALLATION OF THE MECHANICAL AND ELECTRICAL WORK SHOWN ARE APPROXIMATE. THE DRAWINGS ARE DIAGNOMATIC. DO NOT SCALE THE DRAWINGS, BUT REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS OF BUILDING COMPONENTS. SHOULD A CONFLICT EXIST BETWEEN THE ARCHITECTURAL AND ENGINEERING DRAWINGS REGARDING DIMENSIONS, SCALE, ETC., NOTIFY THE ARCHITECT IMMEDIATELY.
 - MATERIALS, EQUIPMENT OR LABOR NOT INDICATED, BUT WHICH CAN BE REASONABLY INFERRED TO BE NECESSARY FOR A COMPLETE INSTALLATION SHALL BE PROVIDED. THE DRAWINGS AND SPECIFICATIONS DO NOT UNDERTAKE TO INDICATE EVERY ITEM OF MATERIAL, EQUIPMENT OR LABOR REQUIRED TO PROVIDE A SAFE, COMPLETE AND PROPERLY OPERATING SYSTEM.
 - PRIOR TO PURCHASING ANY MATERIALS OR STARTING ANY WORK, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, DUCTWORK SIZES AND LOCATIONS, EQUIPMENT, ETC. SHOWN ON THE DRAWINGS OR AFFECTING THIS WORK AND SHALL REPORT ANY DEVIATIONS TO THE ARCHITECT.
 - SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ARCHITECT PRIOR TO ORDERING, PURCHASING, OR FABRICATING ANY MECHANICAL EQUIPMENT. SHOP DRAWINGS SHALL INCLUDE: ALL EQUIPMENT SCHEDULED OR SPECIFIED ON THE DRAWINGS; DUCTWORK DRAWN TO 1/4" SCALE OR THE SCALE SHOWN ON THE DRAWINGS.
 - ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
 - ALL MECHANICAL EQUIPMENT AND SYSTEMS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY OWNER.
 - PORTIONS OF DUCTWORK AND PIPE INSULATION VISIBLE THROUGH AIR DISTRIBUTION DEVICES IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.
 - Mount top of thermostats 48" AFF UNLESS NOTED OTHERWISE. PROVIDE CLEAR LOCKING GUARD ASSEMBLIES FOR ALL PUBLIC AREA THERMOSTATS. COORDINATE THERMOSTAT LOCATIONS WITH OTHER TRADES. ALL THERMOSTATS SHALL BE ADA COMPLIANT.
 - UNLESS OTHERWISE NOTED, ALL EXISTING EQUIPMENT, DUCTWORK, DIFFUSERS, ETC. SHOWN AS BEING REMOVED AS PART OF THIS CONTRACT SHALL BECOME THE PROPERTY OF THE HVAC CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT SITE PRIOR TO PROJECT COMPLETION.
 - ALL WORK SHALL BE COORDINATED AND PERFORMED WITH PRIOR APPROVAL FROM THE OWNER TO SUIT HIS OPERATING CONDITIONS.
 - ANY EXISTING WALL, FLOOR, OR CEILING SURFACE THAT IS DISTURBED DURING THE COURSE OF THE HVAC WORK SHALL BE REPAIRED TO MATCH NEW AND/OR EXISTING CONDITIONS.
 - CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL EQUIPMENT, DUCTWORK, PIPING, ETC. TO FIT WITHIN THE SPACE ALLOWED BY THE ARCHITECTURAL AND STRUCTURAL CONDITIONS. CUTTING OR OTHERWISE ALTERING ANY STRUCTURAL MEMBERS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.
 - ALL PIPE AND DUCT PENETRATIONS OF FIRE AND/OR SMOKE-RATED ASSEMBLIES SHALL BE FIRE-STOPPED AS REQUIRED TO RESTORE THE ASSEMBLY TO ITS ORIGINAL INTEGRITY. FIRE BARRIER PRODUCTS SHALL BE AS MANUFACTURED BY TREMO, HILTI, 3M, STI OR APPROVED EQUAL.
 - PROVIDE ACCESS PANELS IN NON-ACCESSIBLE CEILINGS AND IN WALL STRUCTURE TO ALLOW ADEQUATE ROOM FOR MAINTENANCE OF EQUIPMENT AND BALANCING OF SYSTEMS. ACCESS PANELS IN CEILING AND WALLS SHALL BE PROVIDED WHERE SHOWN ON THE DRAWINGS OR NECESSARY TO ACCESS DAMPERS, VALVES, ETC. COORDINATE EXACT LOCATION OF ALL ACCESS PANELS WITH THE ARCHITECT DURING THE SHOP DRAWING PROCESS.
 - ALL MECHANICAL EQUIPMENT SHALL BE LABELED WITH A SEMI-RIGID PLASTIC LAMINATE NAMEPLATE WITH 2" HIGH WHITE LETTERS ON A BLACK BACKGROUND SECURELY AFFIXED TO THE EQUIPMENT. THE NAMEPLATE SHALL SHOW THE EQUIPMENT TAG USED ON THESE DRAWINGS.
 - REFER TO ARCHITECTURAL PLANS FOR ALL FURDOWN CEILING AREAS. CONTRACTOR SHALL ADVISE ARCHITECT AND ENGINEER OF ANY CONFLICTS BETWEEN ARCHITECTURAL AND MECHANICAL DRAWINGS.
 - REFER TO ARCHITECTURAL PLANS FOR FLOOR AND CEILING ASSEMBLY UL RATINGS AND DETAILS.
 - ALL MATERIALS EXPOSED WITHIN HVAC PLENUMS SHALL HAVE A FLAME-SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED RATING INDEX OF NOT MORE THAN 50 UNLESS OTHERWISE ALLOWED BY CODE.
 - THE FIRE SPRINKLER CONTRACTOR SHALL INSTALL AND LOCATE ALL FIRE SPRINKLER PIPING TO PREVENT PIPING FROM THE POTENTIAL OF FREEZING. THE FIRE SPRINKLER CONTRACTOR IS REQUIRED TO NOTIFY THE ARCHITECT AND COORDINATE WITH THE MECHANICAL AND ELECTRICAL CONTRACTORS IF HEATING IS REQUIRED.
- TESTING, ADJUSTING AND BALANCING**
- AFTER CONSTRUCTION, THE ENTIRE HVAC SYSTEM SHALL BE TESTED, ADJUSTED, AND BALANCED TO DELIVER THE AIR QUANTITIES SHOWN ON THE DRAWINGS. SUBMIT CERTIFIED (AABC OR HEBB) TEST AND BALANCE REPORT TO THE ARCHITECT FOR APPROVAL.
- MECHANICAL/ELECTRICAL COORDINATION:**
- CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL DRAWINGS PRIOR TO ORDERING EQUIPMENT OR SUBMITTING SHOP DRAWINGS, AND SHALL FURNISH EQUIPMENT WIRED FOR THE VOLTAGES SHOWN THEREIN. SHOP DRAWING SUBMITTALS SHALL CLEARLY STATE THAT THE ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT HAS BEEN COORDINATED WITH THE ELECTRICAL CONTRACT DOCUMENTS AND THE ELECTRICAL CONTRACTOR.
 - ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE INSTALLED WITH DISCONNECT SWITCHES AT EACH PIECE OF EQUIPMENT. COORDINATE SWITCH TYPE (FUSED OR NON-FUSED) WITH EQUIPMENT CHARACTERISTICS, MANUFACTURER'S RECOMMENDATIONS AND THE ELECTRICAL DRAWINGS.
 - ALL REQUIRED CONTROL WIRING (INCLUDING POWER WIRING REQUIRED FOR CONTROL PANELS, DEVICES, ETC.) NOT SHOWN ON THE ELECTRICAL DRAWINGS SHALL BE INCLUDED AS PART OF THE MECHANICAL WORK. WIRING IN HVAC PLENUM SPACES SHALL BE INSTALLED ACCORDING TO CODE REQUIREMENTS.
 - UNLESS NOTED OTHERWISE, TRANSFORMERS, CONTROLS AND CONTROL WIRING REQUIRED FOR ALL MECHANICAL SYSTEMS SHALL BE FURNISHED WITH THE EQUIPMENT IT SERVES AND INSTALLED BY THE MECHANICAL CONTRACTOR. MOTOR STARTERS FOR HVAC EQUIPMENT SHALL BE FURNISHED WITH THE MOTOR OR APPARATUS WHICH IT OPERATES. MOTOR STARTER INSTALLATION SHALL BE BY THE DIVISION 26 CONTRACTOR.
- AIR DISTRIBUTION:**
- SUPPLY AND RETURN DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEETMETAL IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS, LATEST EDITION. ALL JOINTS AND SEAMS IN ALL SHEETMETAL DUCTWORK SHALL BE SEALED WITH DUCT SEALER.
 - ALL OPEN ENDED DUCTS AND FAN OUTLETS SHALL HAVE 1/2" X 1/2" HARDWARE CLOTH AFFIXED TO THE OPENING.
 - EXHAUST DUCTWORK SHALL BE GALVANIZED SHEET METAL CONSTRUCTED TO SMACNA STANDARDS AND SHALL NOT BE INSULATED UNLESS NOTED OTHERWISE.
 - ALL DUCTWORK SHALL BE SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR CEILING STRUCTURE. DUCT SUPPORTS AND ATTACHMENT TO STRUCTURE SHALL BE PER SMACNA STANDARDS.
 - FLEXIBLE DUCTWORK SHALL BE THERMAFLEX N-KE (U.L. 181 LISTED, CLASS 1 FLEXIBLE AIR DUCT) OR EQUAL. PROVIDE MINIMUM INSULATION VALUE OF R-6, R-8 WHEN LOCATED OUTSIDE THE THERMAL ENVELOPE OF THE BUILDING, OR GREATER WHERE REQUIRED BY APPLICABLE ENERGY CODE. AIR CONNECTORS ARE NOT ACCEPTABLE. FLEX DUCT DIAMETER SHALL MATCH DEVICE NECK DIAMETER. PROVIDE ROUND GALVANIZED STEEL DUCT RUNOUTS TO MAINTAIN A MAXIMUM FLEXIBLE DUCT LENGTH OF 10'-0" FLEXIBLE DUCTWORK SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE AND SHALL BE ROUTED AND SUPPORTED WITHOUT FORMING CRUMPS OR OTHER AIR FLOW RESTRICTIONS. PROVIDE SQUARE TO ROUND ADAPTERS OR BOOTS TO CONNECT TO AIR DEVICE NECK WHEN REQUIRED.
 - ROUND AND FLEXIBLE SUPPLY AIR DUCTWORK SHALL BE CONNECTED TO MAIN DUCTS WITH A SPIN-IN FITTING WITH SCOOP AND BALANCING DAMPER (EXCEPT WHERE INSTALLED ABOVE INACCESSIBLE CEILINGS, THE DAMPER SHALL BE OMITTED AND PROVIDED IN THE AIR DEVICE NECK).
 - TAPE, BED AND SEAL AIR TIGHT ALL PENETRATIONS FROM RETURN AIR PLENUMS TO NON RETURN AIR PLENUMS THAT ARE REQUIRED DUE TO DUCTWORK, PIPING OR OTHER ITEMS.
 - DUCTWORK DIMENSIONS SHOWN ON THE DRAWINGS ARE INSIDE CLEAR DIMENSIONS.
 - EXTERNAL STATIC PRESSURE (ESP) DOES NOT INCLUDE COIL, CASING OR FILTER PRESSURE DROP.
 - INSTALL FIRE DAMPERS IN ALL RATED WALLS AND FLOOR PENETRATIONS. FIRE DAMPERS SHALL BE THE DYNAMIC TYPE WITH BLADES OUT OF THE MAINSTREAM WHERE POSSIBLE. ALL FIRE DAMPERS SHALL COMPLY WITH THE REQUIREMENTS OF U.L. 555. REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RATED ASSEMBLIES.
 - INSTALL SMOKE DAMPERS IN ALL DUCT PENETRATIONS THROUGH SMOKE RATED WALLS. WHERE DUCTS PENETRATE WALLS AND ARCHITECTURAL SHAFTS THAT CARRY BOTH FIRE AND SMOKE RATINGS, THE DAMPERS INSTALLED SHALL BE COMBINATION FIRE AND SMOKE DAMPERS. ALL SMOKE DAMPERS SHALL COMPLY WITH THE REQUIREMENTS OF U.L. 555S. ALL COMBINATION FIRE AND SMOKE DAMPERS SHALL COMPLY WITH THE REQUIREMENTS OF U.L. 555 AND U.L. 555S.
 - DUCT ACCESS DOORS: PROVIDE ACCESS DOORS IN DUCTWORK AT EACH FIRE, COMBINATION FIRE/SMOKE AND SMOKE DAMPER LOCATION.
 - LOCATIONS OF GRILLES, REGISTERS, AND DIFFUSERS SHOWN ON THE DRAWINGS ARE APPROXIMATE. COORDINATE EXACT LOCATIONS WITH LIGHTS, CEILING GRID, ETC. AND ARCHITECTURAL REFLECTED CEILING PLAN.
 - WHERE BALANCING DAMPERS CANNOT BE ACCESSED FROM BELOW THE CEILING, PROVIDE A REMOTE OPERATED DAMPER/ YOUNG REGULATOR OR EQUAL.
 - FLEXIBLE DUCT CONNECTORS SHALL BE USED TO CONNECT DUCTWORK AND PLENUMS TO FAN-ROTATING EQUIPMENT; DURYOTNE EXCELON OR APPROVED EQUAL. FABRICS, COATING AND ADHESIVES SHALL BE TESTED IN ACCORDANCE WITH UL 701 AND HAVE A FLAME SPREAD/ SMOKE DEVELOPED RATING OF 25/50.
- INSULATION:**
- DUCT INSULATION:
 - DUCT WRAP SHALL BE UL LISTED FIBERGLASS BLANKET INSULATION WITH FOIL VAPOR BARRIER. JOHNS MANVILLE LUMPLITE XG OR EQUAL. PUNCTURES AND TEARS IN THE FOIL JACKET SHALL BE PATCHED WITH FOIL TAPE TO MAINTAIN THE INTEGRITY OF THE VAPOR BARRIER. INSULATE SHEET METAL DUCTWORK IN THE THICKNESSES AND DENSITIES AS LISTED BELOW:
 - SHEET METAL SUPPLY AND OUTSIDE AIR DUCTWORK: 2" THICK, 1 LB/FT3 DENSITY, R-6 MINIMUM INSTALLED.
 - SHEET METAL RETURN DUCTWORK IN NON-AIR CONDITIONED AREAS (SUCH AS INTERSTITIAL SPACES AND FLOOR/CEILING ASSEMBLIES): 2" THICK, 1 LB/FT3 DENSITY, R-6 MINIMUM INSTALLED.
 - DUCT LINER FOR ACOUSTICS: LINE ALL SHEETMETAL DUCTWORK A MINIMUM OF 10'-0" (OR AS INDICATED) UPSTREAM AND DOWNSTREAM OF ALL VAV TERMINAL UNITS. DUCT LINER SHALL BE 1/2" THICK, (MINIMUM R-8 OR GREATER WHERE REQUIRED BY APPLICABLE ENERGY CODE). JOHNS MANVILLE UNACOUSTIC RC OR EQUAL. THE LEADING EDGE OF THE DUCT LINER SHALL HAVE A SHEETMETAL NOSING. LINED DUCTWORK DOES NOT REQUIRE ADDITIONAL EXTERIOR INSULATION WHERE LINER MEETS REQUIRED R-VALUES.
 - EXTERIOR DUCTWORK SHALL BE LINED WITH 2" THICK DUCT LINER BOARD (MINIMUM R-8). JOHNS MANVILLE PERMACOTE ® UNACOUSTIC R-300 OR EQUAL. COAT THE EXTERIOR OF THE ENTIRE DUCT WITH RUST INHIBITIVE PAINT. PAINTING BY MECHANICAL. SUBMIT COLOR CHART TO ARCHITECT DURING THE SUBMITTAL PHASE.
- DEMOLITION:**
- FURNISH ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO REMOVE AND/OR MAKE-SAFE THE EXISTING EQUIPMENT, PIPE, FITTINGS, VALVES AND APPURTENANCES INDICATED ON THE DRAWINGS, AND NOT REQUIRED FOR THE PROPER OPERATION OF THE NEW HVAC SYSTEM. REMOVAL WILL BE CONSISTENT WITH THE FINAL CONFIGURATION OF THE NEW SYSTEMS AS INDICATED AND AS REQUIRED BY THE ARCHITECT. THE EQUIPMENT AND PIPING IDENTIFIED SHALL BE REMOVED FROM THEIR PRESENT LOCATIONS AND SHALL BE REMOVED FROM THE SITE OR STORED AS SPECIFIED HEREINAFTER.
 - PERFORM ALL WORK REQUIRED TO TIE-IN THE NEW WORK TO THE EXISTING SYSTEMS AND TO ADAPT THE EXISTING SYSTEMS TO THE NEW WORK. REFER TO THE ENGINEER'S DRAWINGS FOR THE INTENDED FINAL HVAC SYSTEM CONFIGURATION.
 - BEFORE REMOVAL OF ANY ELECTRICALLY OPERATED EQUIPMENT, COORDINATE CAREFULLY TO ASSURE THAT POWER AND CONTROL WIRING HAS BEEN DISCONNECTED AND/OR LOCKED OUT, TAGGED OUT AND MADE-SAFE.
 - IT SHOULD BE NOTED THAT SOME HVAC SYSTEMS ARE TO REMAIN. IF ANY OF THESE SYSTEMS ARE DAMAGED DURING THE PROGRESS OF CONSTRUCTION OR DEMOLITION, THEY SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ARCHITECT WITHOUT INCURRING ADDITIONS TO THE CONTRACT.
 - PRIOR TO THE ORDERING OR PURCHASING OF ANY EQUIPMENT OR MATERIALS OR THE LAYOUT OR INSTALLATION OF ANY NEW WORK, THE CONTRACTOR SHALL EXAMINE THE PREMISES AND VERIFY ANY AND ALL OF THE EXISTING CONDITIONS UNDER WHICH HE WILL BE OBLIGED TO OPERATE, OR THAT WILL IN ANY MANNER AFFECT THE WORK UNDER THIS CONTRACT.
 - UNLESS SPECIFICALLY NOTED TO BE REMOVED, EXISTING EQUIPMENT, PIPING, DUCTWORK, ETC. IS TO REMAIN. ANY EQUIPMENT, PIPING OR APPURTENANCES REMOVED WHICH ARE NECESSARY FOR THE OPERATION OF THE EXISTING SYSTEM SHALL BE REPLACED TO THE SATISFACTION OF THE ARCHITECT WITHOUT INCURRING ADDITIONS TO THE CONTRACT.
 - WHEN ENCOUNTERED IN WORK, PROTECT, BRACE, AND SUPPORT EXISTING, ACTIVE SERVICES AS NECESSARY FOR PROPER EXECUTION OF THE WORK. RELOCATE EXISTING, ACTIVE SERVICES ENCOUNTERED AS NECESSARY OR AS SHOWN ON THE CONTRACT DOCUMENTS. DO NOT PREVENT OR DISTURB OPERATION OF ACTIVE SERVICES THAT ARE TO REMAIN. NOTIFY ALL UTILITY COMPANIES OR MUNICIPAL AGENCIES HAVING JURISDICTION PRIOR TO MODIFYING SERVICES.
 - WHERE WORK MAKES TEMPORARY SHUTDOWN OF SERVICES UNAVOIDABLE, SHUT DOWN AT NIGHT OR AT SUCH TIMES AS APPROVED BY THE OWNER, WHICH WILL CAUSE THE LEAST INTERFERENCE WITH SCHEDULED OPERATIONS. ARRANGE WORK TO ASSURE THAT SERVICES WILL BE SHUT DOWN ONLY DURING TIME ACTUALLY REQUIRED TO MAKE THE CONNECTION TO THE EXISTING WORK.
 - ALL DUCTWORK, PIPE, FITTINGS, TUBING, INSULATION, HANGERS AND SUPPORTS, ETC. THAT ARE DEMOLISHED OR DAMAGED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UPON REMOVAL. THE MATERIALS SHALL BE REMOVED IMMEDIATELY FROM THE SITE AND SHALL NOT BE REUSED.
 - ANY EXISTING PROPERTY DAMAGED BY THE CONTRACTOR WHILE PERFORMING ANY WORK SHALL BE REPLACED WITH NEW MATERIALS TO MATCH EXISTING CONDITIONS; HOWEVER, ANY EXISTING INSULATION THAT IS DAMAGED SHALL BE REPLACED AS SPECIFIED FOR NEW INSULATION.
 - WHEREVER PIPING IS REMOVED FOR DISPOSITION, ADJACENT PIPE AND HEADERS THAT ARE TO REMAIN IN SERVICE SHALL BE BLANKED OFF OR PLUGGED AND THEN ANCHORED IN AN APPROVED MANNER. PIPING PASSING THROUGH FLOORS THAT IS TO BE REMOVED SHALL BE CUT OR GROUND FLUSH WITH THE FLOOR AND FILLED WITH GROUT FLUSH WITH ADJACENT FLOOR.
 - EQUIPMENT TO BE RETAINED BY THE OWNER SHALL BE CAREFULLY REMOVED FROM THE PRESENT LOCATION, CLEANED, PACKAGED AND IMMEDIATELY STORED AT A PLACE ON-SITE AS DESIGNATED BY THE OWNER.
 - THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS AGAINST DAMAGING THE MATERIAL AND EQUIPMENT TO BE STORED. THE CONTRACTOR SHALL REPAIR ALL DAMAGE RESULTING FROM HIS OPERATIONS, AS DIRECTED BY AND TO THE SATISFACTION OF THE ARCHITECT. ITEMIZED LISTS OF MATERIALS REMOVED AND STORED SHALL BE RECORDED AND SUBMITTED TO THE OWNER AT THE COMPLETION OF CONSTRUCTION. THE LIST SHALL INCLUDE A PHYSICAL DESCRIPTION OF ALL ITEMS, HOW THEY ARE PACKAGED AND WHERE THEY ARE STORED.
 - WHERE WORK UNDER THIS PROJECT REQUIRES EXTENSION, RELOCATION, RECONNECTION OR MODIFICATIONS TO EXISTING EQUIPMENT OR SYSTEMS, THE EXISTING EQUIPMENT OR SYSTEMS SHALL BE RESTORED TO THEIR ORIGINAL AND OPERATING CONDITION.
 - WHERE PIPES, CONTROL DEVICES AND WIRING WHICH ARE TO REMAIN IN SERVICE, BUT ARE DISCONNECTED FOR THE REMOVAL OR RELOCATION OF EQUIPMENT OR BECAUSE OF BUILDING ALTERATIONS, THEY SHALL BE RECONNECTED.
 - ALL THERMOSTATS AND TEMPERATURE SENSORS THAT ARE TO REMAIN IN SERVICE SHALL BE REMOVED AND STORED IN A SAFE PLACE OR COVERED IN PLASTIC AND PROTECTED FROM CONSTRUCTION/DEMOLITION. PRIOR TO CONSTRUCTION, CATALOG ALL EXISTING THERMOSTATS TO BE REUSED AND VERIFY PROPER OPERATION. NOTIFY THE ARCHITECT AT THIS TIME OF ANY INOPERABLE THERMOSTATS. ANY THERMOSTATS DAMAGED OR FOUND TO BE INOPERABLE AT TURNOVER SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST.

SHEET INDEX

SHEET	TITLE
MO.0	MECHANICAL GENERAL NOTES AND LEGEND
MO.1	MECHANICAL SCHEDULES AND DETAILS
MO.0	MECHANICAL FLOOR PLAN – EXISTING AND NEW WORK



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Seals:

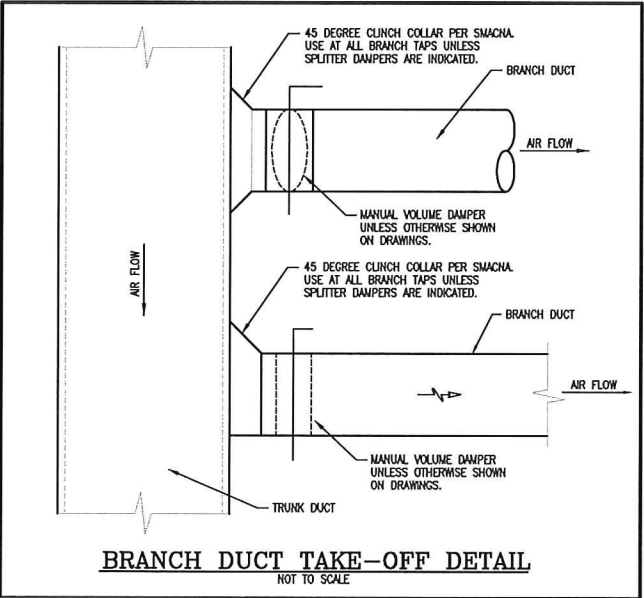
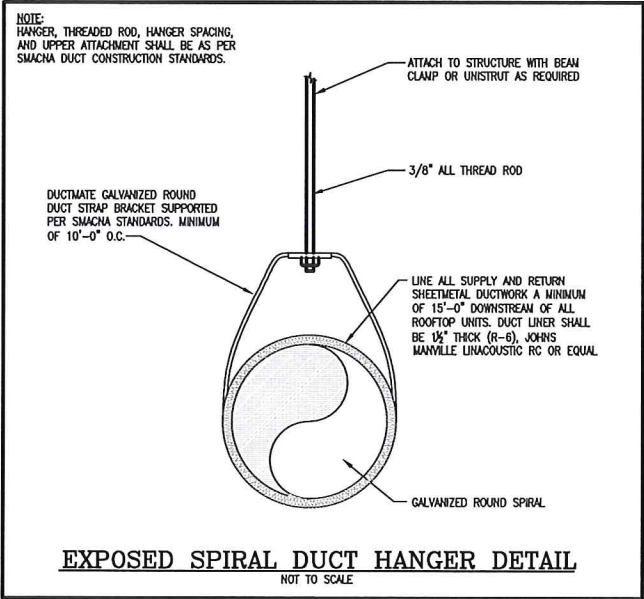
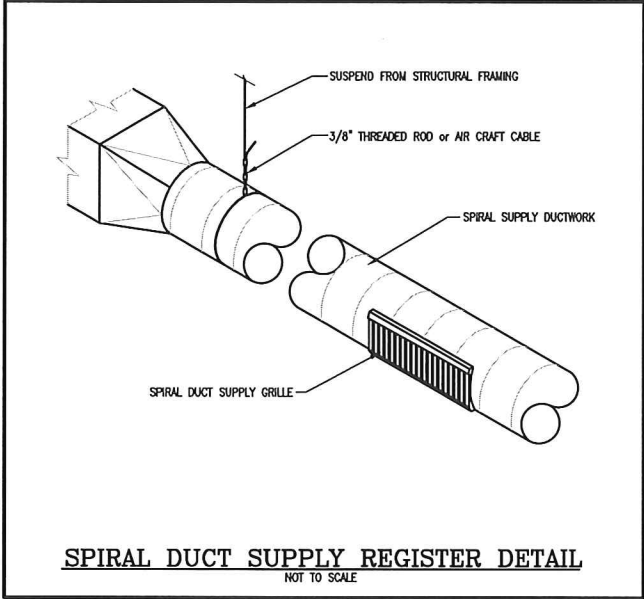


ALTON LANE
SUITE 175
Alteration

2000 South Blvd, Ste 175
Charlotte, NC 28203

Date:	
Project Number:	2016-33
Issued For:	
Construction Only:	05.16.16





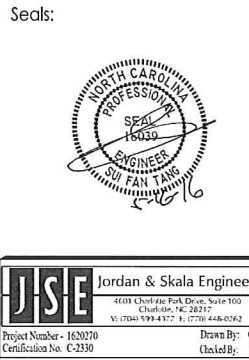
DIFFUSER & REGISTER SCHEDULE									
TAG	MODEL	CFM	MAX. HC	DUTY	NECK	SIZE	DAMPER	MATERIAL	DESCRIPTION
XS	---	SEE DWGS	25	SUPPLY	SEE DWGS	SEE DWGS	NO	STEEL	EXISTING GRILLE
XR	---	SEE DWGS	25	RETURN	SEE DWGS	SEE DWGS	NO	STEEL	EXISTING GRILLE
A	4004P	SEE DWGS	25	SUPPLY	SEE DWGS	SEE DWGS	NO	STEEL	2,4

NOTES:
A. REFER TO ARCHITECTURAL DRAWINGS FOR TYPE OF CEILING AND/OR SUSPENSION SYSTEM.
B. FINISH SHALL BE OF THE TYPE AND COLOR SELECTED BY ARCHITECT. SUBMIT FINISH CHART WITH SHOP DRAWINGS.

DESCRIPTION:
1. PLAQUE FACE DIFFUSER.
2. PROVIDE WITH VOLUME DAMPER.
3. PROVIDE FRAME FOR LAY-IN CEILING.
4. SPIRAL DUCT GRILLE.
5. PROVIDE WITH SAME NECK SIZE AS SUPPLY.
6. PROVIDE WITH VOLUME DAMPER.

SELECTIONS ARE BASED ON PRODUCTS MANUFACTURED BY: METAL AIR.
EQUAL PRODUCTS: TITUS, TUTTLE & BAILEY, PRICE, CARNES OR ENGINEER APPROVED.

2012 North Carolina Mechanical Code Outside Air Ventilation Calculation Table														
Alton Lane Suite 175				Table 403.3.2.1.2 - Zone Air Distribution Effectiveness (Ez)						0.80				
Building Spaces	Occupant Density #/1000 sq. ft.	People			Zone SF			Calculations					(cfm/ft)	(Exh)
		(Pz)	(Rp)	(Pc)	(Az)	(Ra)	(Ac)	(Vbz=Pc*Ac)	(Voz=Vbz/Ez)	(Vpz)	(Zp=Voz/Vpz)	Zone CFM Fractions		
Front Room - 01	10	1	5	4.652	93.04	0.06	6	10.23	12.79	265.00	0.05	0.00	0.00	
Retail Area - 02	15	6	7.5	46	406.80	0.12	49	94.68	118.23	1,145.00	0.10	0.00	0.00	
Retail Area - 03	15	6	7.5	47	419.05	0.12	50	97.43	121.79	795.00	0.15	0.00	0.00	
Billiards Room - 04	20	3	7.5	19	129.21	0.18	23	42.64	53.30	295.00	0.18	0.00	0.00	
Staff Area - 05	25	5	5	23	181.68	0.06	11	33.61	42.01	500.00	0.08	0.00	0.00	
Totals		20.44		139.65	1,229.78		138.84	278.49	348.12	3,000.00			0.00	
		(Pzt)		(Pct)	(Act)		(Act)							
Total # People Expected (Pzt)							20.44							
Max # People Expected (Pmax)							20.44							
People Diversity (Pd= Pmax/Pzt)							1.00							
OA w/Diversity (OAd=Pd*Pct)							139.65							
Total OA to Zone (OAt=OAd*Act) (Un Corrected)							278.49							
Table 403.3.2.3.2 Correction Factor (Ev) 1/							0.9							
Vent Effectiveness Zone Fraction for Peak OA Zone (Zp Maximum)								0.18						
Total OA CFM Required								309.44 CFM						
Total Exhaust Air								0.00 CFM						
Outside Air Supplied								320.00 CFM						



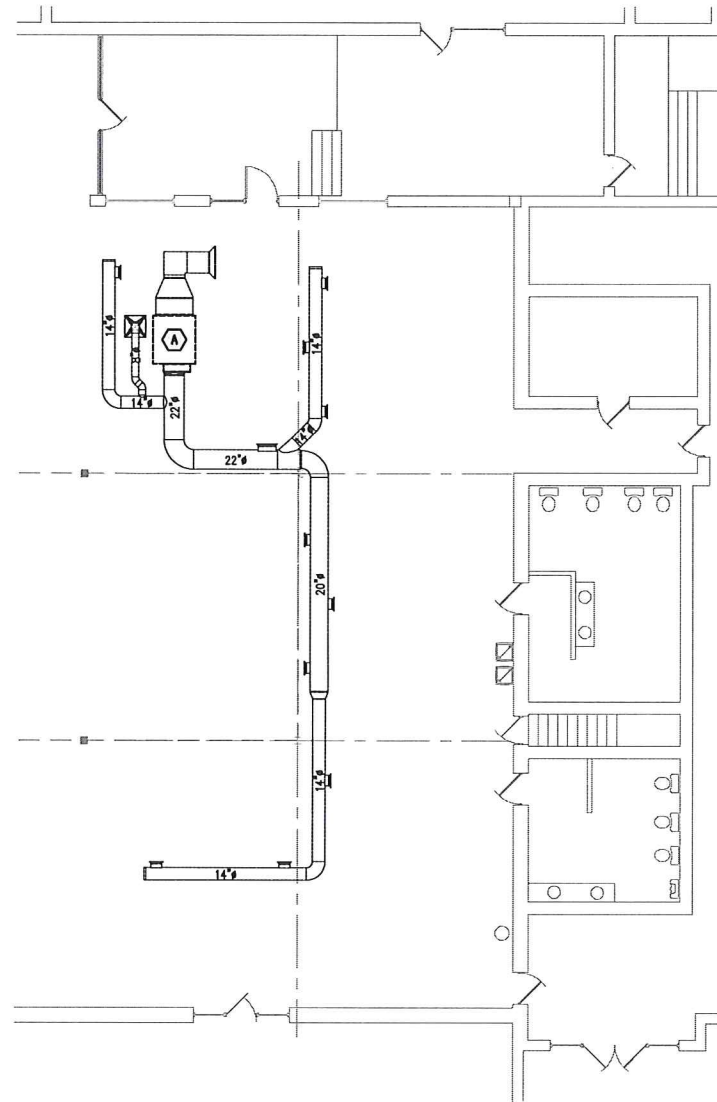
ALTON LANE SUITE 175 Alteration

2000 South Blvd, Ste 175
Charlotte, NC 28203

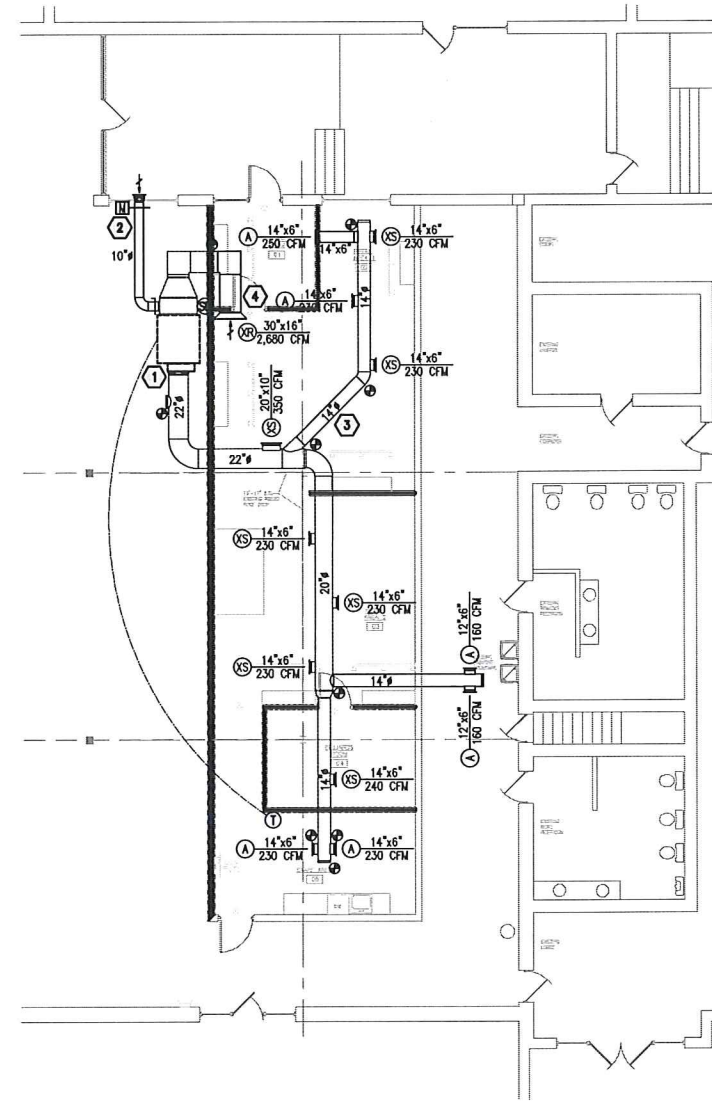
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MO.1	
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1. REFER TO SHEET M0.0 FOR MECHANICAL GENERAL NOTES AND LEGEND.
2. REFER TO SHEET M0.1 FOR MECHANICAL SCHEDULES AND DETAILS.
3. ALL WORK SHOWN ON THIS SHEET IS NEW WORK TO AN EXISTING BUILDING. COORDINATE ALL WORK WITH BUILDING OWNER AND OTHER TENANTS. VERIFY IF AFTER HOURS WORK MAY BE REQUIRED TO COMPLETE ANY CONNECTIONS OR TIE-IN TO EXISTING MECHANICAL SYSTEMS.

A EXISTING TRANE ODYSSEY TWO900J SHALL REMAIN AS INSTALLED. MECHANICAL CONTRACTOR SHALL SEAL UNIT TO AVOID CONSTRUCTION DERRIS FROM COLLECTING IN UNIT. AFTER CONSTRUCTION UNIT SHALL BE CLEANED AND REPAIRED TO INSURE PROPER WORKING OPERATION OF UNIT FOR TENANT.



1 MECHANICAL FLOOR PLAN - EXISTING
SCALE: 1/8" = 1'-0"



2 MECHANICAL FLOOR PLAN - NEW WORK
SCALE: 1/8" = 1'-0"

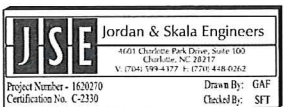
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3. ALL WORK SHOWN ON THIS SHEET IS NEW WORK TO AN EXISTING BUILDING. COORDINATE ALL WORK WITH BUILDING OWNER AND OTHER TENANTS. VERIFY IF AFTER HOURS WORK MAY BE REQUIRED TO COMPLETE ANY CONNECTIONS OR TIE-IN TO EXISTING MECHANICAL SYSTEMS.

- ① EXISTING TRUNE ODYSSEY TWO09003 HEAT PUMP WITH ELECTRIC HEAT AND ROOF MOUNTED CONDENSING UNIT SHALL REMAIN AS INSTALLED.
- ② OUTSIDE AIR DUCT WITH MOTORIZED DAMPER AND MANUAL VOLUME DAMPER, SET AT AIR QUANTITY REQUIRED AS INDICATED ON CHART SHOWN ON SHEET NO.1.
- ③ PROMOTE NEW SECTION OF ROUND DUCT TO RELOCATE EXISTING DUCT BRANCH AS INDICATED, FIELD VERIFY SIZE PRIOR TO CONSTRUCTION AND INSTALLATION.
- ④ EXTEND EXISTING RETURN DUCT AS INDICATED, VERIFY EXIST SIZE OF DUCT PRIOR TO CONSTRUCTION AND INSTALLATION OF RETURN DUCT EXTENSION.



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SPECIFICATIONS

I. SCOPE

- A. INSTALL ALL ELECTRICAL WORK COVERED BY THESE SPECIFICATIONS AND APPROVED DRAWINGS. PROVIDE ALL MATERIAL, LABOR, TRANSPORTATION, TOOLS, SUPERVISION, ETC., NECESSARY TO COMPLETE THE TOTAL ELECTRICAL JOB. ALL ITEMS NOT SPECIFICALLY MENTIONED HEREIN WHICH ARE OBVIOUSLY NECESSARY TO MAKE A COMPLETE WORKING INSTALLATION SHALL BE PROVIDED.
- B. ELECTRICAL COMPONENTS INCLUDING BUT NOT LIMITED TO CONDUCTOR SIZE, OVERCURRENT PROTECTIVE DEVICE AND DISCONNECT SWITCHES ARE BASED ON POWER REQUIREMENTS FOR EQUIPMENT SPECIFIED AS SHOWN ON THE CONTRACT DOCUMENTS. PRIOR TO INSTALLING WORK, CONTRACTOR SHALL COORDINATE ELECTRICAL REQUIREMENTS WITH EQUIPMENT OF ALL TRADES REQUIRING ELECTRICAL CONNECTIONS.
- C. FINAL CONNECTIONS TO EQUIPMENT SHALL BE PER MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS AND INSTRUCTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH ACTUAL EQUIPMENT SUPPLIED.
- D. VERIFY EXACT LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES, PIPING AND RACEWAY SYSTEMS PRIOR TO TRENCHING. PROVIDE NECESSARY TRENCHING, BACKFILL, EXCAVATION, SUPPORTS, SERVICES (CONDUIT AND/OR WIRE), PULLBOXES, TRANSFORMER PADS, SAWCUTTING AND PATCHING, CONCRETE/PAVING, ETC. AS REQUIRED. CONTRACTOR SHALL OBTAIN AND VERIFY EXACT UTILITY COMPANY DRAWINGS AND REQUIREMENTS.
- E. EXAMINATION OF BIDDING DOCUMENTS

1. EACH BIDDER SHALL EXAMINE THE BIDDING DOCUMENTS CAREFULLY AND MAKE WRITTEN REQUEST TO THE ARCHITECT FOR INTERPRETATION OR CORRECTION OF ANY DISCREPANCIES, AMBIGUITY, INCONSISTENCY OR ERROR THEREIN. ANY INTERPRETATION OR CORRECTION WILL BE ISSUED BY THE ARCHITECT AS AN ADDENDUM. ONLY WRITTEN INTERPRETATION OR CORRECTIONS BY ADDENDUM SHALL BE BINDING. CONTRACTOR SHALL INCLUDE IN HIS BID, LABOR, MATERIALS AND METHODS OF CONSTRUCTION FOR COMPLETE INSTALLATION. AFTER AWARD OF CONTRACT, NO ALLOWANCE OR EXTRA COMPENSATION WILL BE MADE IN BEHALF OF THE CONTRACTOR DUE TO HIS FAILURE TO MAKE THE WRITTEN REQUESTS AS DESCRIBED ABOVE.
2. FAILURE TO REQUEST CLARIFICATION OF ANY INADEQUACY, OMISSION OR CONFLICT WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY. THE SIGNED OF THE CONTRACT WILL BE CONSIDERED IMPLICITLY DENOTING THAT THE CONTRACTOR HAS A THOROUGH COMPREHENSION OF THE FULL INTENT AND SCOPE OF THE WORKING DRAWINGS AND SPECIFICATIONS.

II. CODES AND FEES

- A. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ENFORCED EDITION OF THE NATIONAL ELECTRICAL CODE AND ALL LOCAL AND STATE CODES AND REGULATIONS. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED BY THE BUILDING AND SAFETY CODES AND ORDINANCES, AND THE RULES AND REGULATIONS OF ANY LEGAL BODY HAVING JURISDICTION.

III. WORKMANSHIP

- A. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF ELECTRICAL EQUIPMENT. COORDINATE DEVICE LOCATIONS WITH DOOR SWINGS, CABINETS, COUNTERS, ETC., AS INDICATED ON THE ARCHITECTURAL DRAWINGS. DO NOT SCALE ELECTRICAL PLANS. OBTAIN DIMENSIONS FOR LAYOUT OF EQUIPMENT FROM ARCHITECTURAL PLANS UNLESS INDICATED ON ELECTRICAL PLANS.
- B. COORDINATE WITH ALL OTHER TRADES AND SUBCONTRACTORS PERFORMING WORK ON THIS PROJECT. MINOR OFFSETS IN LOCATIONS OF FIXTURES, DEVICES, ETC. SHALL BE MADE TO AVOID CONFLICTS WITH OTHER TRADES. SUCH MODIFICATIONS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO THE WORK BEING PERFORMED.
- C. MOUNTING HEIGHTS, UNLESS OTHERWISE NOTED, ARE TO THE CENTER LINE OF THE EQUIPMENT AND/OR DEVICE EXCEPT THE MOUNTING HEIGHT OF SUSPENDED LIGHT FIXTURES WHICH IS TO THE BOTTOM OF FIXTURE.
- D. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WORK PROVIDED UNDER THIS SECTION OR FACTORY WIRING IN EQUIPMENT PROVIDED UNDER THIS SECTION.

IV. SUBSTITUTIONS

- A. ALL COST INCURRED BY THE ACCEPTANCE OF SUBSTITUTIONS SHALL BE BORNE BY THE CONTRACTOR. PROOF FOR THE EQUALITY OF SUBSTITUTIONS SHALL BE BY THE CONTRACTOR.

V. U.L. LISTING

- A. ALL ELECTRICAL ITEMS COVERED BY THIS SPECIFICATION SHALL BE U.L. LABELED AND LISTED FOR THEIR SPECIFIC USE.

VI. ELECTRICAL SERVICE

- A. THE ELECTRICAL CONTRACTOR SHALL PAY ALL COSTS REQUIRED BY THE LOCAL UTILITY COMPANY PROVIDING SERVICES INDICATED. ELECTRICAL CONTRACTOR SHALL COORDINATE METERING, TRANSFORMER PAD, CONNECTION POINTS AND GROUNDING WITH UTILITY COMPANY.
- B. ALL SERVICE ENTRANCE EQUIPMENT INCLUDING BUT NOT LIMITED TO ANY MAIN DISCONNECT SWITCH SHALL BE LISTED AND LABELED AS "SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT".

VII. WARRANTY

- A. WORK SHALL BE WARRANTED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER.

VIII. SPECIFICATIONS

A. GROUNDING

1. THE BUILDING ELECTRICAL SYSTEMS SHALL BE SOLIDLY GROUNDED. ALL NON-CURRENT CARRYING METAL PARTS OF THE ELECTRICAL SYSTEM, I.E., RACEWAYS, EQUIPMENT ENCLOSURES, FRAMES, JUNCTION AND OUTLET BOXES AND OTHER CONDUCTIVE ITEMS IN CLOSE PROXIMITY WITH ELECTRICAL CIRCUITS, SHALL BE GROUNDED TO PROVIDE A LOW IMPEDANCE PATH FOR POTENTIAL GROUND FAULTS.
2. EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL RACEWAYS AND CABLES.
3. THE NEUTRAL AND GROUND BUS SHALL BE BONDED TOGETHER AT ALL SERVICE EQUIPMENT.

B. RACEWAYS AND CONDUITS

1. CONDUITS INSTALLED IN DIRECT CONTACT WITH GRADE OR WITHIN CONCRETE SLABS SHALL BE SCHEDULE 40 PVC. CONDUITS CONCEALED WITHIN WALLS AND ABOVE CEILINGS, AND EXPOSED IN INDOOR AREAS SHALL BE ELECTRICAL METALLIC TUBING (E.M.T.). COUPLINGS SHALL BE STEEL SET SCREW TYPE FOR INDOOR LOCATIONS, AND COMPRESSION TYPE FOR OUTDOOR AND WET LOCATIONS. CONDUIT SHALL BE INTERMEDIATE OR GALVANIZED RIGID STEEL IN AREAS WHERE SUBJECT TO ABUSE.
2. CONDUITS SHALL BE RUN PARALLEL OR AT RIGHT ANGLES TO WALLS, CEILINGS, AND STRUCTURAL MEMBERS.
3. LIQUID TIGHT FLEXIBLE METAL OR NON-METALLIC CONDUIT SHALL BE USED FOR OUTDOOR EXPOSED CONNECTIONS TO GROUND- OR ROOF-MOUNTED EQUIPMENT.
4. ALL RACEWAYS SHALL BE INSTALLED CONCEALED EXCEPT IN UNFINISHED SPACES OR WHERE INDICATED ON THE DRAWINGS.
5. FASTENERS AND SUPPORTS SHALL BE AS MANUFACTURED BY GEDNEY, EFCOR OR EQUAL. SUPPORTING DEVICES SHALL BE THOSE AS MANUFACTURED FOR A SPECIFIC PURPOSE. NAILS, WIRE OR PIPE STRAP SHALL NOT BE USED.
6. PROVIDE FLEXIBLE EXPANSION CONDUIT FITTINGS ON ALL CONDUIT CROSSING EXPANSION JOINTS. SEE ARCHITECTURAL PLANS FOR EXPANSION JOINT LOCATION.

C. CONDUCTORS

1. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER, 90°C, THHN/THWN INSULATION.
2. CONDUCTORS SHALL BE #12AWG MINIMUM FOR 20A CIRCUITS, AND #14AWG MINIMUM FOR 15A CIRCUITS.
3. UNLESS NOTED OTHERWISE, SERVICE AND FEEDER CONDUCTORS SHALL BE COPPER, THHN/THWN-2 INSULATION. WHERE APPROVED, ALUMINUM CONDUCTORS SHALL BE COMPACT, AA-8000 SERIES, XHHW-2, 90°C.
4. WIRE NO. 8 AWG AND LARGER SHALL BE STRANDED, NO. 10 AND SMALLER SHALL BE SOLID.
5. ALL BRANCH CIRCUIT AND FEEDER CONDUCTORS, NO. 8 AWG AND SMALLER, SHALL BE COLOR CODED AS FOLLOWS (WHERE APPROVED BY THE AUTHORITY HAVING JURISDICTION):

120/208 VOLT SYSTEM

- PHASE A - BLACK
PHASE B - RED
PHASE C - BLUE
NEUTRAL - WHITE
GROUND - GREEN

6. MC CABLE SHALL BE LIMITED TO BRANCH CIRCUITS CONCEALED IN WALLS AND ABOVE CEILINGS, AND MAY NOT BE RUN DIRECTLY INTO SURFACE MOUNTED EQUIPMENT. ALL CIRCUIT HOMERUNS FROM THE PANELBOARD TO THE FIRST BRANCH CIRCUIT DEVICE SHALL BE ROUTED IN CONDUIT.
7. SIZES INDICATED ARE FOR INSTALLATION IN A MAXIMUM 30 DEGREE C AMBIENT.

D. OUTLET/JUNCTION BOXES

1. ALL OUTLET/JUNCTION BOXES SHALL BE GALVANIZED STEEL. THERMOPLASTIC BOXES SHALL BE ACCEPTABLE FOR USE WHERE NM CABLE IS APPROVED.
2. WALL AND CEILING OUTLET BOXES SHALL BE 4" SQUARE, WITH A DEPTH OF 2 1/2". CEILING BOXES SHALL BE 4" OCTAGONAL WHERE REQUIRED DUE TO NUMBER OF WIRES.
3. WHERE BOXES ARE INSTALLED BACK-TO-BACK IN WALLS AND LOCATED LESS THAN 24" APART, MOLDABLE PUTTY PADS SHALL BE INSTALLED TO MAINTAIN THE REQUIRED FIRE RATING.

E. PANELBOARDS

1. PANELBOARDS SHALL HAVE BOLT-IN CIRCUIT BREAKERS AND ALUMINUM BUSSING. WHERE APPLICABLE, LOAD CENTERS SHALL HAVE PLUG-IN BREAKERS AND ALUMINUM BUSSING.
2. OVERCURRENT PROTECTIVE DEVICES SHALL BE AUTOMATIC TRIP THERMAL MAGNETIC TYPE WITH QUICK-MAKE QUICK-BREAK FOR BOTH MANUAL AND AUTOMATIC OPERATION. ALL MULTIPOLE BREAKERS SHALL BE COMMON TRIP; HANDLE TIES WILL NOT BE ACCEPTED.
3. DISCONNECT SWITCHES SHALL BE MANUFACTURED BY GENERAL ELECTRIC, SIEMENS, SQUARE "D" OR EATON/CUTLER HAMMER.
4. TYPEWRITTEN DIRECTORIES AND PANELBOARD DESIGNATION PLATES SHALL BE PROVIDED BY THE CONTRACTOR FOR ALL PANELBOARDS. PANELBOARD DESIGNATIONS SHALL BE PHENOLIC-ENGRAVED, ALSO BEARING THE EQUIPMENT NAME WHERE ITS POWER SUPPLY ORIGINATES (IF PANELBOARD IS SERVED BY A FEEDER).
5. WIRE TERMINATION PROVISIONS FOR PANELBOARDS, CIRCUIT BREAKERS, SAFETY SWITCHES AND ALL OTHER ELECTRICAL APPARATUS SHALL BE LISTED AS SUITABLE FOR 75 DEGREE C. MINIMUM.

F. LIGHTING FIXTURES

1. UNLESS INDICATED ON DRAWINGS, BALLASTS PROVIDED WITH FIXTURES SHALL BE ETL-CBM APPROVED, HIGH POWER FACTOR, WITH U.L. LABEL. ALL BALLASTS FOR RAPID START LAMPS SHALL BE PREMIUM CLASS P.
2. FIXTURES RECESSED IN T-BAR CEILING SHALL BE SUPPORTED INDEPENDENTLY OF CEILING SYSTEM, WITH TWO (2) NUMBER TWELVE (12) HANGER WIRES UP TO STRUCTURE. SECURE HANGER WIRES TO CORNERS OF FIXTURE. CLIP FIXTURE TO GRID ON TWO SIDES WITH FACTORY FURNISHED CLIPS. FINAL CONNECTION TO FIXTURE SHALL BE MADE WITH A FLEXIBLE U.L. APPROVED ASSEMBLY.
3. INDOOR FLUORESCENT FIXTURES WITH BALLASTS AND DOUBLE-ENDED SOCKETS SHALL HAVE INTERNAL DISCONNECT PER NEC REQUIREMENTS.

G. WIRING DEVICES

COMMERCIAL GRADE

1. DUPLEX RECEPTACLES SHALL BE RATED 20 AMP, HUBBELL CRS362 OR APPROVED EQUAL.
2. TOGGLE SWITCHES SHALL BE 20 AMP, HUBBELL CS1221 OR APPROVED EQUAL.
3. DIMMER SWITCHES SHALL BE SLIDER TYPE, LUTRON VARED SERIES.
4. DEVICE PLATES SHALL BE NYLON (UNLESS NOTED OTHERWISE).
5. COLOR OF DEVICES AND DEVICE PLATES SHALL BE AS DETERMINED BY ARCHITECT.

H. DISCONNECT SWITCHES

1. SAFETY-TYPE DISCONNECT SWITCHES SHALL BE HEAVY DUTY WITH QUICK-MAKE, QUICK-BREAK MECHANISM WITH INTERLOCKING COVER WHICH NORMALLY CANNOT BE OPENED WHEN THE SWITCH IS IN THE "ON" POSITION. SWITCH SHALL HAVE PROVISIONS FOR PAD-LOCKING IN THE OPEN OR CLOSED POSITION.
2. FUSIBLE DISCONNECT SWITCHES SHALL HAVE REJECTION-TYPE FUSEHOLDERS. FUSES SHALL BE NON-RENEWABLE, DUAL ELEMENT TIME-DELAY "RK1" OR RK5", OR AS SPECIFIED OTHERWISE.
3. ACCEPTABLE MANUFACTURERS: EATON/CUTLER HAMMER, G.E., SIEMENS OR SQUARE D.

I. FIRE ALARM SYSTEM

1. PROVIDE A COMPLETE, U.L. LISTED, ADDRESSABLE FIRE ALARM SYSTEM IN ACCORDANCE WITH THESE SPECIFICATIONS, AND ALL APPLICABLE CODES.
2. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT FOR A COMPLETE FIRE ALARM SYSTEM, INCLUDING THE FOLLOWING:
- A) ENGINEERED DRAWINGS, CALCULATIONS, AND MATERIAL SUBMITTALS APPROVED BY AUTHORITY HAVING JURISDICTION.
- B) COORDINATION OF WORK IN THIS SECTION WITH ALL TRADES.
- C) COMPLETE MONITORING SERVICE CONNECTION TO TELEPHONE BACKBOARD.
- D) INSPECTIONS AND TESTS.
- E) ONE (1) YEAR WARRANTY

J. PENETRATIONS

1. ALL PENETRATIONS THROUGH RATED WALLS, FLOORS AND /OR CEILINGS SHALL BE SEALED WITH THE APPROPRIATELY RATED FIRE-SEALING MATERIAL BY SM COMPANY, THOMAS & BETTS, METACALUK, OR APPROVED EQUAL.

K. SUBMITTALS

1. PANELBOARDS, WIRING DEVICES, SWITCHES AND DISCONNECTS, LIGHTING FIXTURES, AND FUSE SUBMITTALS SHALL BE REQUIRED, AND ARE TO INCLUDE MANUFACTURER'S DATA, TEST REPORTS, PERFORMANCE DATA AND CERTIFICATIONS.

L. RENOVATIONS AND ADDITIONS

1. WORK REQUIRING INTERRUPTION OF ELECTRICAL POWER, WHICH WOULD ADVERSELY AFFECT THE NORMAL OPERATION OF THE OWNER'S PROPERTY, SHALL BE DONE AT A TIME OTHER THAN NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE CONSIDERED EIGHT A.M. TO FIVE P.M. MONDAY THROUGH FRIDAY. SCHEDULE ALL OUTAGES WITH THE OWNER AND ARCHITECT PRIOR TO SHUTDOWN.
2. PRIOR TO SUBMITTING BIDS ON THE PROJECT, VISIT THE SITE TO BECOME AWARE OF EXISTING CONDITIONS WHICH MAY AFFECT THE COST OF THE PROJECT.
3. WHERE WORK UNDER THIS PROJECT REQUIRES EXTENSION, RELOCATION, RECONNECTION OR MODIFICATION TO EXISTING EQUIPMENT OR SYSTEMS, THE EQUIPMENT OR SYSTEMS SHALL BE RESTORED TO OPERATING CONDITION. EXTEND NEW HOMERUNS OR CIRCUIT EXTENSIONS WHERE REQUIRED. DISCONNECT AND REMOVE ALL EQUIPMENT INDICATED TO BE DEMOLISHED, INCLUDING OUTLET BOXES, DEVICES, RACEWAYS AND CONDUCTORS.
4. CARE SHALL BE EXERCISED IN THE REMOVAL AND STORAGE OF EQUIPMENT INDICATED TO BE RELOCATED, REMOVED AND/OR REUSED. PRIOR TO PLACING BACK INTO SERVICE, EXISTING EQUIPMENT SHALL BE CLEANED AND/OR RELAMPED. MARRED OR CHIPPED SURFACES SHALL BE TOUCHED-UP. DISPOSE OF ANY MATERIAL NOT WISHED TO BE KEPT BY THE OWNER.
5. PROVIDE ALL CORING, CUTTING AND PATCHING TO EXISTING WALLS, FLOORS, ETC. REQUIRED FOR THE REMOVAL OF EXISTING WORK OR THE INSTALLATION OF NEW WORK.

M. COMMUNICATIONS CONDUIT/BOXES

1. TWO (1) 4" SCHEDULE 40 PVC CONDUITS SHALL EXTEND FROM THE PUBLIC RIGHT-OF-WAY TO THE MAIN TELECOMMUNICATIONS ROOM OR ENTRANCE FACILITY.
2. THE NUMBER OF BENDS IN A CONDUIT SECTION RUN SHALL NOT EXCEED TWO (2) 90-DEGREE BENDS OR EQUIVALENT OF SWEEPS AND RADIUS BENDS.
3. IN AREAS WITH NON-ACCESSIBLE CEILINGS, TELEPHONE CONDUITS SHALL BE CONTINUOUS FROM THE OUTLET BOX TO THE TELEPHONE EQUIPMENT BACKBOARD AND TERMINATED WITH A NYLON GROMMET.
4. EACH HORIZONTAL HOME-RUN CONDUIT CAN SERVE FROM ONE (1) TO THREE (3) OUTLET BOXES. FOR ONE (1) OUTLET BOX, A 3/4" CONDUIT SHALL BE USED, MINIMUM.
5. THE DIMENSIONS OF THE OUTLET BOX SHALL BE 4" X 4" SQUARE WITH A MINIMUM DEPTH OF 2-1/8". BOXES SHALL BE EQUIPPED WITH SINGLE DEVICE ADAPTERS (OR TWO-DEVICE ADAPTERS WHERE NEEDED), WHERE INSTALLED IN PLASTER, GYPSUM BOARD, TILE, ETC., ADAPTERS SHALL BE RAISED TO COMPENSATE FOR THE THICKNESS OF THE WALL FINISH.

ELECTRICAL SYMBOL LEGEND		
SYMBOL	DESCRIPTION	HEIGHT
\$ / \$ ₂ / \$ ₄	SINGLE POLE SINGLE THROW / THREE-WAY /FOUR-WAY TOGGLE SWITCH (NOTE L-1)	46"
\$ ₆ / \$ ₂ / \$ ₁	MOTOR RATED SWITCH / KEYED SWITCH / TIMER SWITCH	46"
⌀ / ⌀ ₂	DIMMER SWITCH (NOTE L-1) / THREE-WAY DIMMER SWITCH (NOTE L-1)	46"
Ⓢ / Ⓢ / Ⓢ	SINGLE / DUPLEX / QUAD RECEPTACLE OUTLET (NOTE L-1)	18"
Ⓢ / Ⓢ / Ⓢ	GFCI DUPLEX / GFCI DUPLEX ABOVE COUNTER / GFCI QUAD RECEPTACLE (NOTE L-1)	18"/43"
Ⓢ / Ⓢ / Ⓢ	DUPLEX / QUAD / GFCI QUAD RECEPTACLE OUTLET ABOVE COUNTER MOUNTED (NOTE L-1)	43"
Ⓢ / Ⓢ / Ⓢ	JUNCTION BOX, CEILING/WALL/FLOOR MOUNTED	
	ARROWHEAD INDICATES HOMERUN. X-1,3,5 ADJACENT TO HOMERUN. ARROWHEADS INDICATES HOMERUN TO PANEL X. CIRCUIT NUMBERS 1,3, AND 5.	
	INDICATES CIRCUIT CONTINUATION OF CIRCUITS 3 AND 5 OF PANEL X.	
	MARKS ACROSS RACEWAY SYMBOLS INDICATE THE NUMBER OF #12 CONDUCTORS (2 PHASE, 1 NEUTRAL) UNLESS OTHERWISE NOTED. NO MARKS INDICATES TWO #12 CONDUCTORS. EQUIPMENT GROUNDING CONDUCTORS ARE NOT INDICATED BY MARKS.	
	RACEWAY/CABLE CONCEALED IN WALL AND/OR ABOVE CEILING	
	RACEWAY INSTALLED EXPOSED	
	GROUNDING CONNECTION (SYSTEM AND/OR EQUIPMENT)	
○ / ◇ / ◻	LIGHTING FIXTURE RECESSED / SURFACE MOUNTED/ OVERHEAD/WALL MOUNTED	
—+—+—+—	LIGHT TRACK AND LIGHT TRACK FIXTURES	
Ⓢ / Ⓢ	EXIT SIGN, CEILING/WALL MOUNTED. SHADED QUADRANT INDICATES FACE(S). PROVIDE ARROWS PER PLANS.	
	EMERGENCY LIGHTING FIXTURE	
	PANELBOARD - WALL MOUNTED (RECESSED) / WALL MOUNTED (SURFACE)	
	MOTOR	
	FUSIBLE DISCONNECT SWITCH, RATING/POLES/NEMA ENCLOSURE/FUSE RATING	
	CURRENT TRANSFORMER CABINET	
	POWER METER AND SOCKET	
Ⓢ / Ⓢ	FIRE ALARM HORN/STROBE, WALL MOUNTED (NOTE L-3, L-4)	
Ⓢ / Ⓢ	FIRE ALARM CONTROL PANEL, SURFACE/RECESSED	
Ⓢ / Ⓢ / Ⓢ	COMBINATION TELEPHONE/DATA OUTLET, WALL MOUNTED/ABOVE COUNTER (NOTE L-1, L-2) / FLOOR	18"/43"
Ⓢ / Ⓢ / Ⓢ	TELEVISION OUTLET WALL MOUNTED (NOTE L-1) / CEILING MOUNTED / FLOOR MOUNTED	18"
Ⓢ / Ⓢ / Ⓢ	DUCT MOUNTED SMOKE DETECTOR / REMOTE TEST STATION / REMOTE INDICATOR LIGHT	
LEGEND NOTES		
L-1 MOUNTING HEIGHTS NOTED ARE TO THE CENTER OF DEVICE ABOVE FINISHED FLOOR, UNLESS NOTED OTHERWISE.		
L-2 STUB 3/4" CONDUIT 6" ABOVE ACCESSIBLE CEILING AND TERMINATE WITH NYLON GROMMET.		
L-3 WHERE FIRE ALARM VISUAL DEVICES ARE WALL-MOUNTED, THE ENTIRE LENS SHALL BE MOUNTED A MINIMUM OF 80" AFF AND NOT GREATER THAN 96" AFF. TOPS OF WALL-MOUNTED AUDIBLE-ONLY DEVICES SHALL NOT BE LESS THAN 90" AFF AND NOT LESS THAN 6" BELOW FINISHED CEILING.		
L-4 AUDIBLE SIGNAL OF FIRE ALARM DEVICES LOCATED IN SLEEPING ROOMS SHALL BE 520HZ.		

DRAWING INDEX	
SHEET NO.	TITLE
E0.00	ELECTRICAL SPECIFICATIONS, NOTES & LEGENDS
E1.00	ELECTRICAL POWER FLOOR PLAN
E2.00	ELECTRICAL LIGHTING FLOOR PLAN
E3.00	ELECTRICAL DETAILS & SCHEDULES



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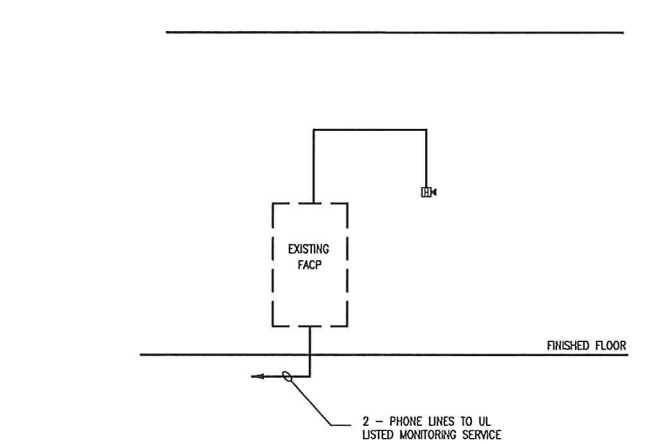


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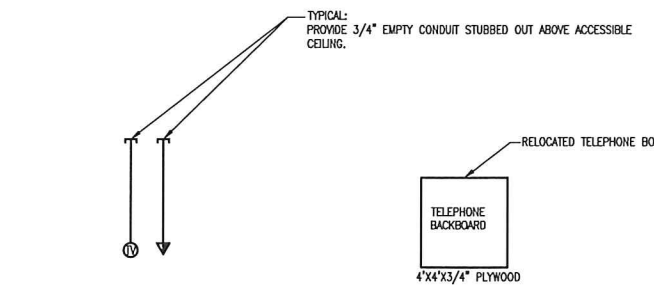
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ELECTRICAL SPECS, NOTES, & LEGEND	
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FIRE ALARM SYSTEM SEQUENCE MATRIX															
	ACTIVATE COMMON ALARM SIGNAL INDICATOR	ACTIVATE AUDIBLE ALARM SIGNAL	ACTIVATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTIVATE AUDIBLE SUPERVISORY INDICATOR	ACTIVATE COMMON TROUBLE SIGNAL INDICATOR	ACTIVATE AUDIBLE TROUBLE SIGNAL	ACTIVATE GENERAL EVACUATION SIGNAL	DISPLAY CHANGE OF STATUS	ACTIVATE EXTERNAL HORNS/STROBES	TRANSMIT FIRE ALARM SIGNAL TO CENTRAL STATION	TRANSMIT SUPERVISORY SIGNAL TO CENTRAL STATION	TRANSMIT TROUBLE SIGNAL TO CENTRAL STATION	RETURN ELEVATOR TO ALTERNATE FLOOR	RETURN ELEVATOR TO FIRST FLOOR	SHUNT TRIP AFTER ELEVATOR REACHES DESIGNATED FLOOR
MANUAL FIRE ALARM PULL BOXES	X	X					X	X	X	X					
NOTIFICATION DEVICE SHORT CIRCUIT					X	X	X				X				X
OPEN CIRCUIT					X	X	X				X				X
GROUND FAULT					X	X	X				X				X
FIRE ALARM A.C. POWER FAILURE					X	X	X				X				X
FIRE ALARM SYSTEM LOW BATTERY					X		X				X				X

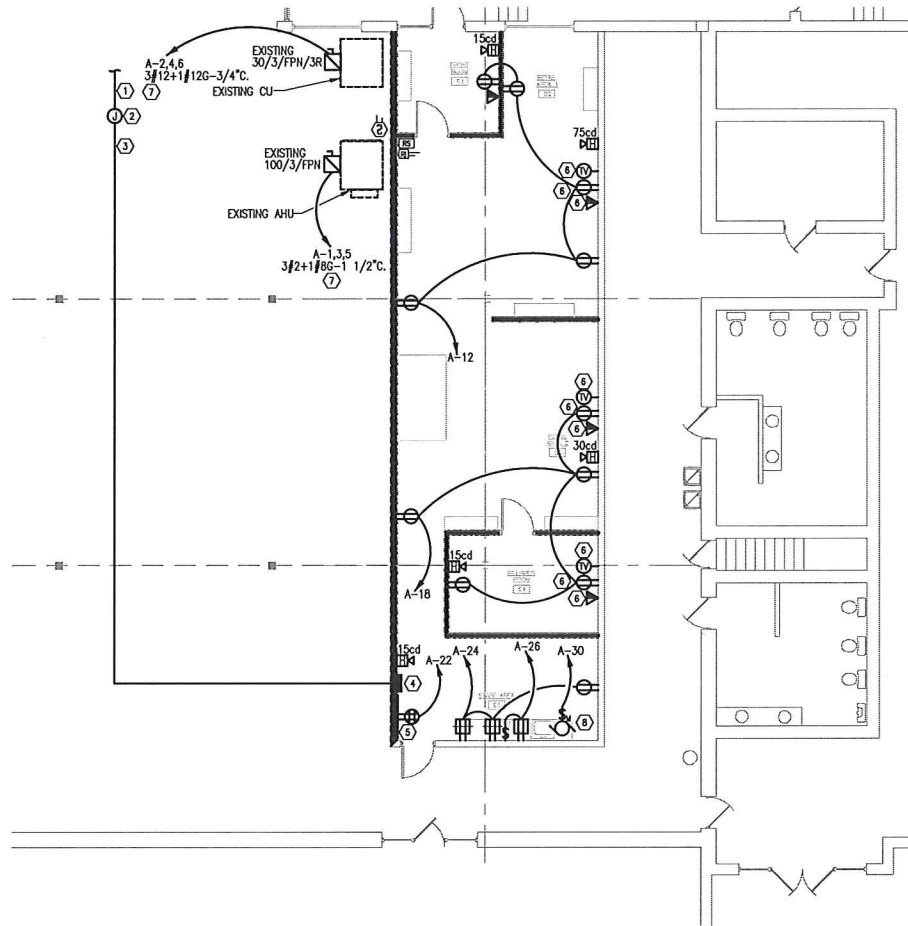


3 EXISTING PARTIAL FIRE ALARM RISER DIAGRAM
SCALE: NOT TO SCALE

- NOTES:
1. FIRE ALARM CONTROL PANEL "FACP" IS EXISTING. UPON COMPLETION OF WORK, SYSTEM SHALL BE CERTIFIED BY THE LOCAL FIRE MARSHALL.
 2. PROVIDE ALL DEVICES, CABLING, RACEWAY, MODULES, BATTERIES, ETC. FOR A COMPLETE AND WORKING SYSTEM.



2 PARTIAL TELE/DATA RISER DIAGRAM
SCALE: NOT TO SCALE



1 ELECTRICAL POWER FLOOR PLAN
SCALE: 1/8" = 1'-0"

- KEY NOTES
- 1 EXISTING PANEL "A" FEEDER CONDUIT AND CONDUCTORS FEED FROM EXISTING METER CENTER. SEE POWER RISER DIAGRAM FOR EXTENSION OF EXISTING FEEDER CONDUIT AND CONDUCTOR REQUIREMENTS.
 - 2 INSTALL CEILING MOUNTED JUNCTION BOX FOR INTERCEPTION OF EXISTING PANEL FEEDERS.
 - 3 NEW CONDUIT AND CONDUCTORS OVER TO RELOCATED PANEL "A". FIELD VERIFY EXACT ROUTING WITH OWNER PRIOR TO CONDUIT ROUGH-IN.
 - 4 EXISTING PANEL "A" SHOWN IN RELOCATED POSITION.
 - 5 TELEPHONE EQUIPMENT BOARD.
 - 6 COORDINATE EXACT LOCATION IN FIELD WITH TENANT PRIOR TO CONDUIT ROUGH-IN.
 - 7 EXTEND EXISTING CONDUIT AND CONDUCTORS TO NEW PANEL LOCATION AS REQUIRED.
 - 8 DRAIN PUMP COORDINATE EXACT LOCATION PRIOR TO CONDUIT ROUGH-IN.

ELECTRICAL GENERAL NOTES

- G1 PROJECT DESIGN IS BASED UPON THE 2014 EDITION OF THE NATIONAL ELECTRICAL CODE.
- G2 WHEN CONDUCTOR OR CONDUIT SIZE IS INDICATED FOR BRANCH CIRCUIT HOMERUN, THE CONDUCTOR AND CONDUIT SIZE INDICATED SHALL BE USED FOR THE COMPLETE CIRCUIT.
- G3 REFER TO THE APPROPRIATE DRAWINGS (INCLUDING ARCHITECTURAL DRAWINGS) FOR THE EXACT LOCATION OF EQUIPMENT INSTALLED UNDER OTHER DIVISIONS OF THE DOCUMENTS WHICH REQUIRE ELECTRICAL SERVICE.
- G4 CAPITAL LETTER BESIDE LIGHTING SYMBOL INDICATES FIXTURE TYPE. REFER TO LIGHTING FIXTURE SCHEDULE FOR FIXTURE SELECTION.
- G5 EQUIPMENT GROUNDING CONDUCTORS ARE TO BE INCLUDED IN ALL RACEWAYS AND CABLES.
- G6 ANY CABLE ROUTED TO A WALL SWITCH CONTROLLING LIGHTING SHALL CONTAIN A GROUNDING CONDUCTOR (NEUTRAL), IN ADDITION TO AN EQUIPMENT GROUNDING CONDUCTOR. EXCEPTION: SWITCHES IN ROOMS WITH ACCESSIBLE CEILINGS GIVING ACCESS TO OPEN WALL CAVITIES.
- G7 CONTRACTOR SHALL ENSURE TO THE GREATEST EXTENT POSSIBLE THAT LOADS ON THE ELECTRICAL DISTRIBUTION SYSTEM ARE PHASED-BALANCED.

RENOVATION AND DEMOLITION NOTES

1. ATTENTION IS DRAWN TO THE FACT THAT THIS PROJECT INVOLVES RENOVATION OF AN EXISTING FACILITY.
2. CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS. VERIFY LOCATIONS, CONDUIT ROUTING, SYSTEM COMPONENTS ETC. BEFORE SUBMITTING A BID. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT BEFORE THE BID DATE.
3. SCHEDULING FOR REQUIRED SHUTDOWNS AND OTHER DISTURBANCES TO THE BUILDING SHALL BE COORDINATED WITH THE OWNER OR BUILDING MANAGEMENT PRIOR TO BEGINNING WORK.
4. ANY EQUIPMENT AND/OR MATERIALS REMOVED FROM SERVICE BECOMES THE PROPERTY OF THE CONTRACTOR UNTIL IT HAS BEEN PLACED BACK INTO SERVICE OR UNTIL IT HAS BEEN DISPOSED OF. EQUIPMENT PLACED BACK INTO SERVICE SHALL BE IN GOOD WORKING CONDITION. TRANSPORTATION AND DISPOSAL OF DEMOLISHED EQUIPMENT AND MATERIALS SHALL BE TO AN APPROPRIATE DISPOSAL LOCATION OFF PROJECT SITE.
5. OWNER SHALL BE GIVEN THE FIRST RIGHT OF REFUSAL FOR DEMOLISHED MATERIALS AND EQUIPMENT.
6. CONTRACTOR SHALL PATCH AND PREPARE WALLS FOR SCHEDULED FINISH WHERE EQUIPMENT AND DEVICES ARE REMOVED FROM WALLS THAT ARE TO BE RETAINED.
7. EXISTING CIRCUITS INDICATED ARE DIAGRAMMATIC ONLY. VERIFY EXACT ROUTING OF EXISTING CONDUIT RUNS AND NUMBERS OF CONDUCTORS AND EXTEND EXISTING CIRCUITS TO NEW PANELBOARD LOCATIONS AS REQUIRED TO ACCOMPLISH DESIGN INTENT.
8. CONTRACTOR SHALL PROPERLY CAP, SEAL, OR TERMINATE EXISTING TO REMAIN SYSTEMS THAT ARE PARTIALLY DEMOLISHED.
9. IN THE COURSE OF REMOVING EXISTING LIGHT FIXTURES, CONTRACTOR SHALL NOT DISPOSE OF LAMPS AS GENERAL DEBRIS. SPECIAL CARE SHALL BE TAKEN NOT TO BREAK LAMPS. SPECIAL CONTAINERS WILL BE PROVIDED FOR THE COLLECTION OF CERTAIN BALLASTS. IF A BALLAST IS LABELED INDICATING THAT IT CONTAINS NO PCB'S, THEN IT MAY BE DISPOSED OF AS GENERAL DEBRIS. OTHERWISE, THE BALLAST SHALL BE PLACED IN CONTAINERS FOR PCB'S AND SHALL BE SET ASIDE FOR HANDLING BY OWNER.
10. CONTRACTOR SHALL MAINTAIN CONTINUITY OF POWER CIRCUITS TO EXISTING-TO-REMAIN/IN-USE EQUIPMENT. COORDINATE WORK WITH OWNER TO MINIMIZE IMPACT TO OWNER'S OPERATION.
11. IN THE EVENT THERE IS REMOVAL OF EXISTING ELECTRICAL EQUIPMENT, DEVICES, CONDUIT, WIRING, ETC. THE CONTRACTOR SHALL REMOVE ASSOCIATED WIRING BACK TO THE SOURCE OF FEED UNLESS OTHERWISE NOTED. WHERE A PORTION OF A BRANCH CIRCUIT IS TO BE MAINTAINED, REMOVE CIRCUITING BACK TO LAST ENERGIZED DEVICE.
12. CONTRACTOR SHALL MAINTAIN AND RESTORE ANY INTERRUPTED CONDUITS AND/OR CIRCUITING PASSING THROUGH RENOVATED AREAS AND SERVICING OTHER AREAS.
13. RE-USE EXISTING BRANCH CIRCUIT CONDUITS WHERE POSSIBLE. ALL UNUSED CONDUIT SHALL BE REMOVED FROM THE JOB SITE UNLESS DIRECTED OTHERWISE BY THE ARCHITECT/OWNER.
14. UPDATE DIRECTORIES IN EXISTING PANELBOARDS TO REFLECT CHANGES, DELETIONS AND ADDITIONS FOR THE RENOVATION.



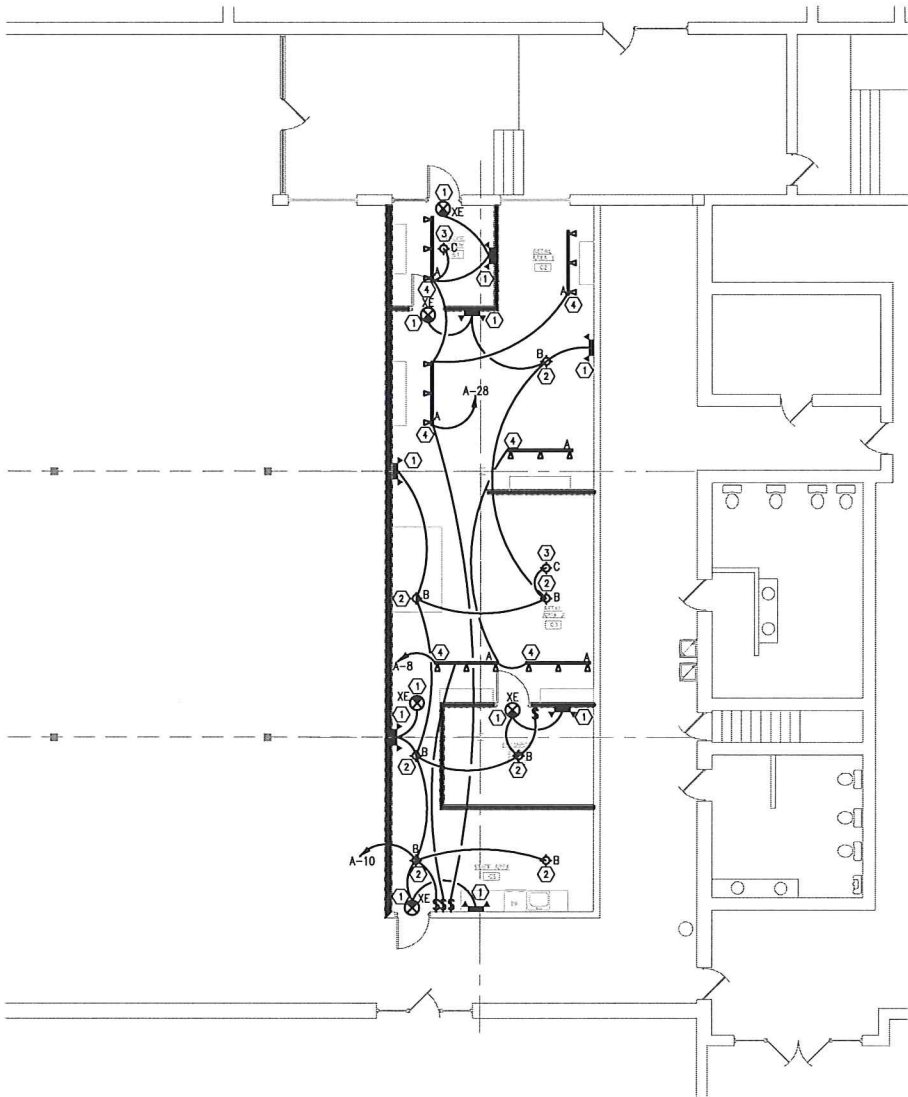
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ELECTRIC POWER FLOOR PLAN	
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1 ELECTRICAL LIGHTING FLOOR PLAN

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

KEY NOTES

1. CONNECT EXIT SIGNS AND EMERGENCY EGRESS LIGHTING FIXTURES TO LOCAL BRANCH CIRCUIT CONDUCTORS AS SHOWN AHEAD OF ALL CONTROLS.
2. PENDANT MOUNTED FLUORESCENT LIGHTING FIXTURE SUPPLIED BY THE OWNER AND INSTALLED BY THE ELECTRICAL CONTRACTOR, CONTRACTOR SHALL CLEAN, RE-LAMP AND TEST PRIOR TO INSTALLATION. PROVIDE ALL MOUNTING HARDWARE AS REQUIRED. COORDINATE EXACT LOCATION IN FIELD WITH TENANT PRIOR TO CONDUIT ROUGH-IN.
3. PENDANT MOUNTED ANTLER CHANDELER LIGHTING FIXTURE SUPPLIED BY THE TENANT AND INSTALLED BY THE ELECTRICAL CONTRACTOR, CONTRACTOR SHALL CLEAN, RE-LAMP AND TEST PRIOR TO INSTALLATION. PROVIDE ALL MOUNTING HARDWARE AS REQUIRED. COORDINATE EXACT LOCATION IN FIELD WITH TENANT PRIOR TO CONDUIT ROUGH-IN.

4. PROVIDE TRACK WITH CURRENT LIMITING SWITCH (360 WATTS) EQUAL TO LITHONIA #17A51.

INTERIOR LIGHTING FIXTURE SCHEDULE

NOTES: 1. PRICING FOR LIGHTING FIXTURES SHALL BE SEPARATE FROM PRICING FOR LIGHTING CONTROLS (OCC SENSORS, RELAY CONTROLS, DIMMING).
2. INTERIOR LIGHTING FIXTURES SHALL BE PRICED SEPARATELY FROM EXTERIOR LIGHTING FIXTURES.
3. ALL FLUORESCENT FIXTURES SHALL BE EQUIPPED WITH PROGRAM-START BALLASTS. MULTI-LAMP BALLASTS SHALL BE PARALLEL-WIRED.
4. FLUORESCENT FIXTURES WITH BALLASTS AND DOUBLE-ENDED LAMPS SHALL HAVE AN INTERNAL DISCONNECT PER NEC REQUIREMENTS.

TYPE	DESCRIPTION	MANUFACTURER CATALOG NO.	LAMPS	NOTES
A	TRACK LIGHTING.	PROVIDED BY OWNER, INSTALLED BY ELECTRICAL CONTRACTOR.	50 WATTS (HEAD) MAX.	
B	PENDANT LIGHTING FIXTURE.	PROVIDED BY OWNER, INSTALLED BY ELECTRICAL CONTRACTOR.	64 WATTS MAX.	
C	ANTLER CHANDELER LIGHTING FIXTURE.	PROVIDED BY TENANT, INSTALLED BY ELECTRICAL CONTRACTOR.	100 WATTS MAX.	
XE	L.E.D. EXIT SIGN WITH POLYCARBONATE HOUSING, RED LETTERS.	SURELITES LPX-6-R PRESCOUTE NV3-R-AC-WH PHILIPS CHLORIDE VERW LITHONIA LQMSW3R	L.E.D.	PROVIDE UNIT WITH SELF-CONTAINED BATTERY.
E	COMMERCIAL GRADE 6 VOLT TWIN-HEAD BATTERY LIGHT, NOMINAL 500 LUMEN, SURFACE MOUNTED.	SURELITES CC-2 DUAL-LITE EZ-2 PHILIPS CHLORIDE VU6L LITHONIA ELW2	INCLUDED	

NORTH CAROLINA STATE BUILDING CODE

2012 EDITION

ELECTRICAL SYSTEM AND EQUIPMENT METHOD OF COMPLIANCE:

ENERGY CODE: ☒ PRESCRIPTIVE ☐ PERFORMANCE

BUILDING METHOD ☒ TENANT METHOD ☐

LIGHTING SCHEDULE

LAMP TYPE REQUIRED IN FIXTURE: SEE SCHEDULE THIS SHEET
NUMBER OF LAMPS IN THE FIXTURE: SEE SCHEDULE THIS SHEET
BALLAST TYPE USED IN FIXTURE: SEE SCHEDULE THIS SHEET
NUMBER OF BALLAST IN FIXTURE: SEE SCHEDULE THIS SHEET
TOTAL WATTAGE PER FIXTURE: SEE SCHEDULE THIS SHEET

TOTAL INTERIOR WATTAGE SPECIFIED vs. ALLOWED: 1,548W. vs 1,630W.
TOTAL EXTERIOR WATTAGE SPECIFIED vs. ALLOWED: N/A

EQUIPMENT SCHEDULES WITH MOTORS
(NOT USED FOR MECHANICAL SYSTEMS):
N/A

ADDITIONAL PRESCRIPTIVE COMPLIANCE:

- ☒ 506.2.1 MORE EFFICIENT MECHANICAL EQUIPMENT
- ☐ 506.2.2 REDUCED LIGHTING POWER DENSITY
- ☐ 506.2.3 ENERGY RECOVERY VENTILATION SYSTEMS
- ☐ 506.2.4 HIGHER EFFICIENCY SERVICE WATER HEATING
- ☐ 506.2.5 ON-SITE SUPPLY OF RENEWABLE ENERGY
- ☐ 506.2.6 AUTOMATIC DAYLIGHTING CONTROL SYSTEMS

DESIGNER STATEMENT: 1

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE NORTH CAROLINA STATE BUILDING CODE.

SIGNED:
NAME: MARCUS SANDERS
DATE: 5/5/2016



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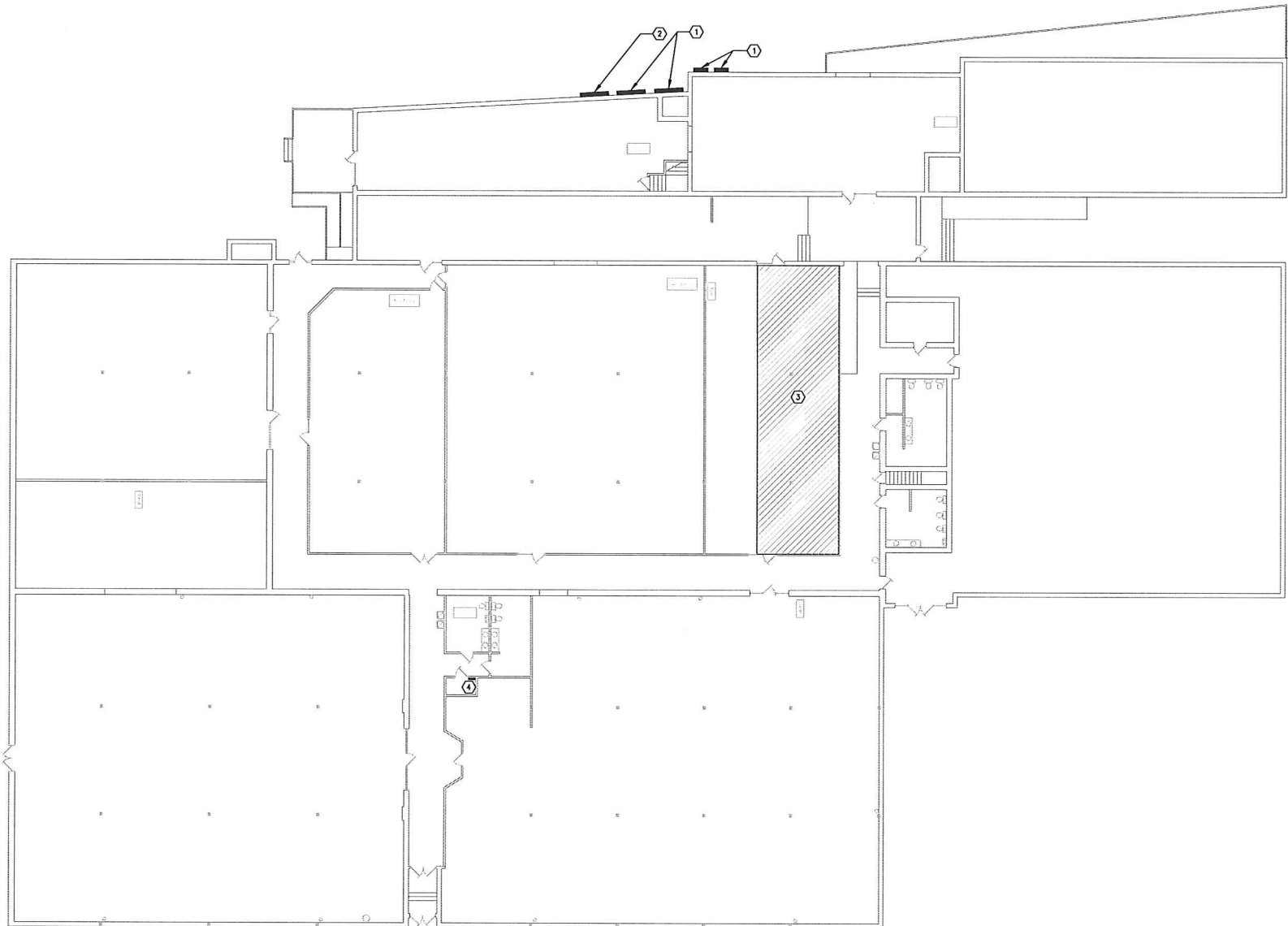
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ELECTRIC LIGHTING FLOOR PLAN	
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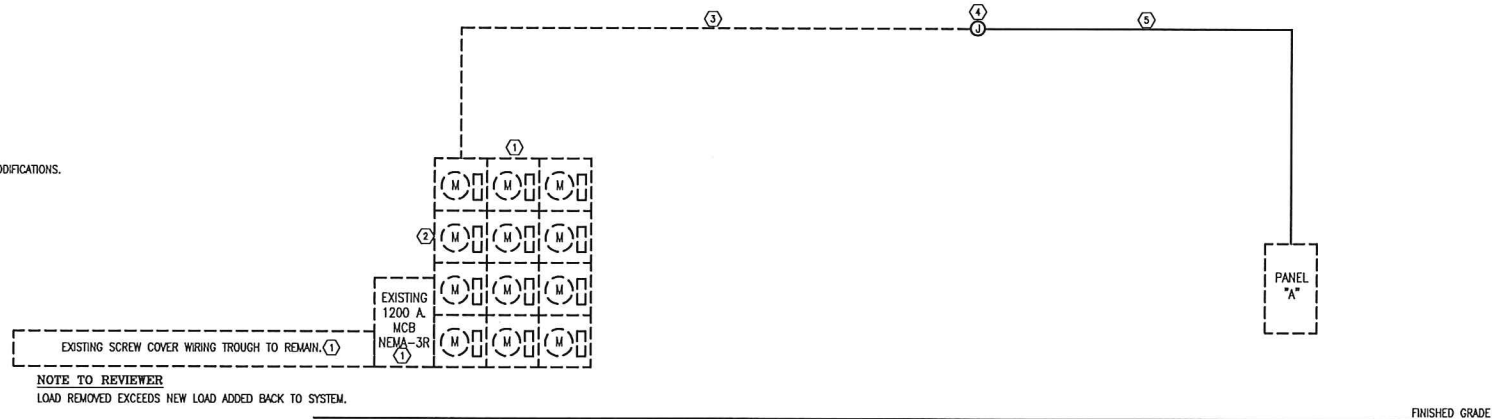


1 OVERALL BUILDING PLAN

SCALE: NONE

KEY NOTES

- EXISTING SERVICE EQUIPMENT TO REMAIN, NO CHANGE REQUIRED UNDER THIS PERMIT.
- EXISTING METER CENTER TO REMAIN, SEE POWER RISER DIAGRAM FOR REQUIRED SERVICE MODIFICATIONS.
- AREA OF PROPOSED NEW WORK.
- EXISTING FIRE ALARM CONTROL PANEL.



1 EXISTING POWER RISER DIAGRAM

SCALE: NONE

POWER RISER DIAGRAM NOTES

- EQUIPMENT SHOWN DASHED IS EXISTING TO REMAIN.
- EXISTING METER AND 200 AMP MAIN CIRCUIT BREAKER SERVING EXISTING PANEL "A" TO REMAIN.
- EXISTING 4#3/0+1#66-2" C. TO REMAIN.
- INTERCEPT EXISTING CONDUIT AND CONDUCTORS AT CEILING HEIGHT, INSTALL NEW JUNCTION BOX FOR EXTENSION OF EXISTING CONDUIT AND CONDUCTORS, SIZE JUNCTION AS REQUIRED TO ACCOMMODATE NEW CONDUCTORS.
- NEW 4#3/0+1#66-2" C. TO RELOCATED PANEL "A", FIELD EXACT ROUTING WITH BUILDING OWNER PRIOR TO CONDUIT ROUGH-IN.

PANELBOARD SCHEDULE - "A (EXISTING RELOCATED)"																												
MAIN: 200A MLO				VOLTAGE: 208/120										PHASE: 3				WIRE: 4				MOUNTING: SURFACE				A/C: EXIST.		
CKT	TRIP	#	POLE	DESCRIPTION	LOAD (KVA)										LOAD (KVA)										DESCRIPTION	TRIP	POLE	#
					LTG	REC	MTR	A/C	HTG	KIT	MISC	A	B	C	LTG	REC	MTR	A/C	HTG	KIT	MISC							
1	100/3			EXISTING AHU							7.5											1.8	EXISTING CU	20/3	2			
3	----			----							7.5											1.8	----	----	4			
5	----			----							7.5											1.8	----	----	6			
7	----			SPACE											1.0									20/1	8			
9	----			SPACE											0.6									20/1	10			
11	20/1			SPARE												1.0								20/1	12			
13	----			SPACE																				----	14			
15	----			SPACE												1.0								----	16			
17	20/1			SPARE													1.0							20/1	18			
19	20/1			SPARE																	0.2			20/1	20			
21	20/1			SPARE																	1.0			20/1	22			
23	20/1			SPARE												0.6								20/1	24			
25	20/1			SPARE																		0.8		20/1	26			
27	20/1			SPARE												1.0								20/1	28			
29	20/1			SPARE																	0.8			20/1	30			
31	20/1			SPARE																				20/1	32			
33	20/1			SPARE																				20/1	34			
35	20/1			SPARE																				----	36			
37	20/1			SPARE																				----	38			
39	----			SPACE																				----	40			
41	----			SPACE																				----	42			
LIGHTING (KVA):					3.6	0.0	0.0	0.0	0.0	0.0	22.8				3.6	2.6	0.0	0.0	0.0	0.0	8.2	CONNECTED LOAD (KVA):					37.2	
RECEPTACLES (KVA):					2.6																	DEMAND LOAD (KVA):					37.2	
MOTORS (KVA):					0.0																	CONNECTED LOAD (AMPS):					103.2	
A/C (KVA):					0.0																	DEMAND LOAD (AMPS):					103.2	
HEATING (KVA):					0.0																							
KITCHEN (KVA):					0.0																							
MISCELLANEOUS (KVA):					31.0																	AMPCAPACITY REQUIRED:					105.7	
NOTES: BREAKERS PROTECTING MULTI-WIRE BRANCH CIRCUITS SHALL BE FIELD-EQUIPPED WITH A MANUALLY OPERATED HANDLE-TIE DEVICE TO ENSURE THAT ALL UNGROUNDED CONDUCTORS ARE SIMULTANEOUSLY DISCONNECTED PER NEC 240.15																												



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