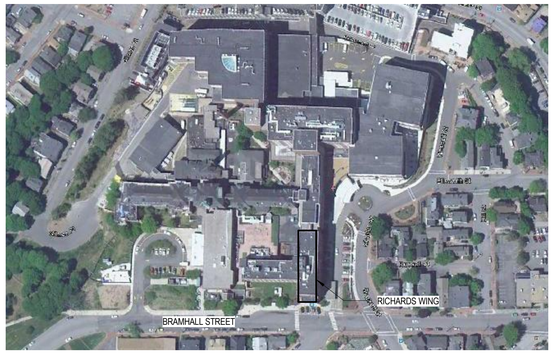
LIBRARY RENOVATION

MAINE MEDICAL CENTER
PORTLAND, ME

Issued for Constructon

May 10, 2012



MAINE MEDICAL CENTER LIBRARY
RICHARDS WING - 5TH FLOOR
22 BRAMHALL STREET
PORTLAND, ME

FITZEMEYER & TOCCI
ASSOCIATES, INC.
MECHANICAL / ELECTRICAL ENGINEERS

92 Montvale Avenue
Suite 4100
Stoneham, MA 02180
Tel: 781-481-0210, ext. 110
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Thoughtful
Practical
Engineering

CANAL 5 STUDIO
Architecture / Planning / Interior Design

207 553 2115
One Canal Plaza, Suite 888
Portland, Maine 04101

canal5studio.com

LIST OF DRAWINGS

CODE SUMMARY

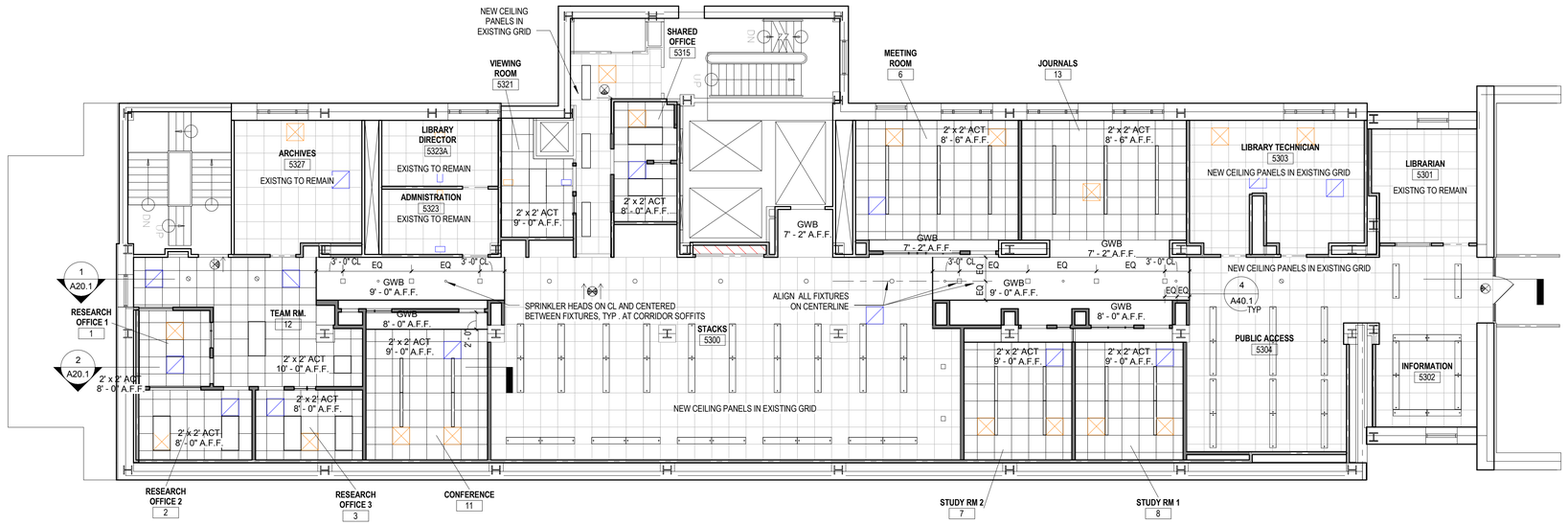
RENOVATED AREA:
FIFTH FLOOR RICHARDS WING: 4,720 S.F.

OCCUPANCY CLASSIFICATION
IBC 2009: GROUP I-2
NFPA 101 2009: HEALTHCARE

CONSTRUCTION TYPE:
IBC 2009: TYPE I-A: NON-CONBUSTIBLE

FIRE PROTECTION: FULLY SPRINKLERED

INTERIOR FINISH REQUIREMENTS:
IBC 2009: CLASS B*
NFPA 101 2009 CLASS B*
*with sprinkler system



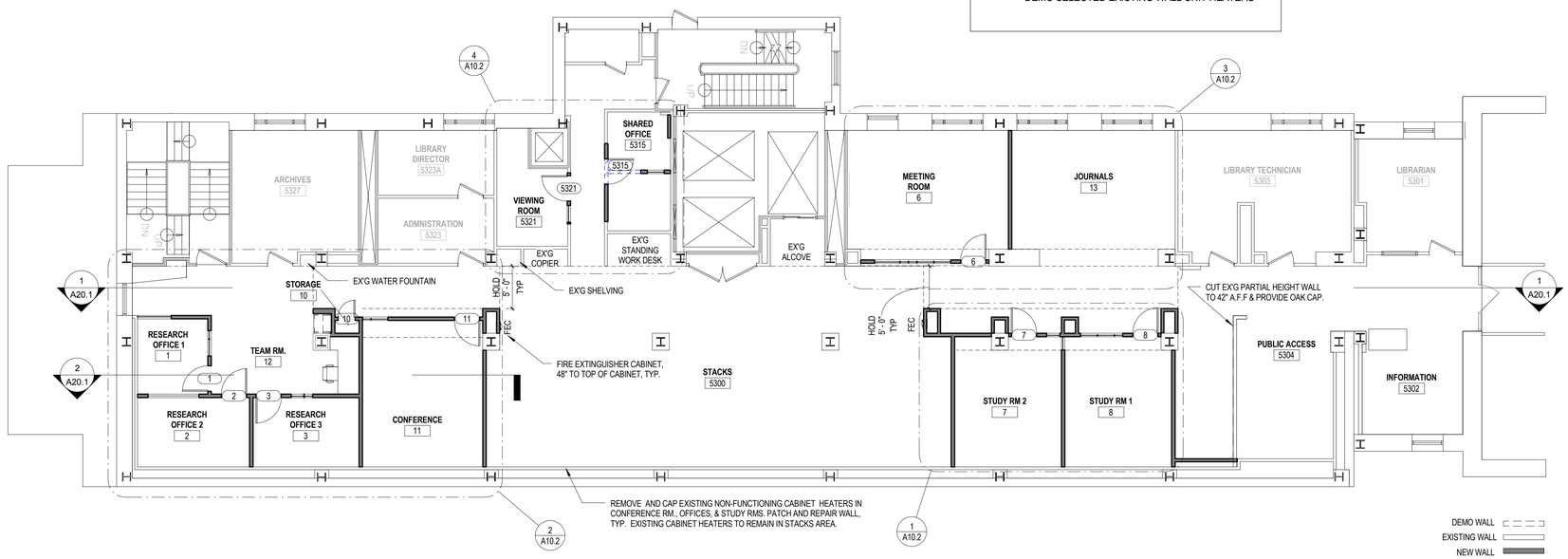
2 Ceiling Plan
1/8" = 1'-0"

GENERAL DEMOLITION NOTES:

1. ALL DEMOLITION WORK SHALL CONFORM TO ALL LOCAL, STATE AND NATIONAL SAFETY CODES.
2. MAINTAIN INTEGRITY OF ALL EXISTING FIRE RATED ASSEMBLIES TO REMAIN, INCLUDING ENCLOSURES AT COLUMNS, STAIRS AND SHAFTS.
3 PROTECT ALL EXISTING FINISHES, MILLWORK AND CONSTRUCTION TO REMAIN.
4. BEFORE STARTING WORK, THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS, INCLUDING DIMENSIONS AND ELEVATIONS. THE CONTRACTOR SHALL PREPARE A LIST OF EXISTING DAMAGED AREAS, DOCUMENTED BY DATED PHOTOGRAPHS AND SIGNED BY THE PERSON CONDUCTING THE INVESTIGATION TO BE PRESENTED TO THE OWNER FOR VERIFICATION PRIOR TO STARTING DEMOLITION.
5. CONTRACTOR SHALL COORDINATE DEMOLITION OPERATIONS WITH THE OWNER, AND PROCURE PRIOR APPROVAL FOR ALL DEMOLITION PROCEDURES, INCLUDING USE OF BUILDING FACILITIES, PLACEMENT OF DUMPSTERS, REFUSE REMOVAL, AND PHASING.
6. CONTRACTOR SHALL COORDINATE REMOVAL AND STORAGE OF ALL SALVAGED ITEMS WITH THE OWNER.
7. PROTECT AND MAINTAIN THE OPERATION OF ANY EXISTING SYSTEMS TO REMAIN FUNCTIONAL DURING THE PROJECT. PROCURE PRIOR APPROVAL FROM THE OWNER FOR ANY SHUTDOWNS REQUIRED.
8. CONTRACTOR TO VERIFY STRUCTURAL CONDITIONS BEFORE DEMOLITION BEGINS. PROVIDE TEMPORARY OR PERMANENT STRUCTURE AS REQUIRED.
9. MISC. EQUIPMENT OR FURNISHINGS SHALL BE STORED OR REMOVED AT THE DISCRETION OF THE OWNER.
10. REPAIR & PREPARE EXISTING WALLS, FLOORS, AND CEILINGS TO RECEIVE NEW FINISHES.
11. WHERE PLUMBING FIXTURES ARE REMOVED, EXISTING PIPING SHALL BE CAPPED OR REMOVED.
12. WHERE ELECTRICAL FIXTURES ARE REMOVED, EXISTING WIRING SHALL BE REMOVED BACK TO DISTRIBUTION PANEL OR ELEC. J-BOX. REFER TO ELECTRICAL DEMOLITION DRAWINGS.
13. AFTER DEMOLITION, ALL ABANDONED PENETRATIONS SHALL BE PATCHED AND FIRE PROTECTED ACCORDING TO CODE.
14. CONTRACTOR TO PROTECT AREAS TO REMAIN OPERATIONAL FROM DUST & DEBRIS. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND CLEANING ANY AREAS EXPOSED TO DUST OR DEBRIS FROM DEMOLITION ACTIVITIES.

DEMOLITION

- DEMO SELECTED EXISTING ATC CEILING AND GRID.
- DEMO SELECTED EXISTING CARPET.
- DEMO SELECTED EXISTING WALL UNIT HEATERS



1 Floor Plan
1/8" = 1'-0"

Wall Key
1/8" = 1'-0"

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Project Title

MMC LIBRARY RENOVATIONS

Portland, ME

CSS Project No. 11022

Project North

LICENSED ARCHITECT JAMES GAUTHIER NO. 3476 STATE OF MAINE

Mark	Date	Description
	11-17-2011	DESIGN DEVELOPMENT

Project Status

ISSUED FOR CONSTRUCTION

05.10.2012

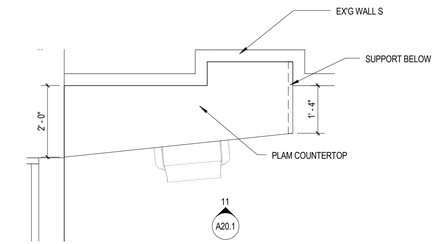
Drawing Title

FLOOR & CEILING PLANS

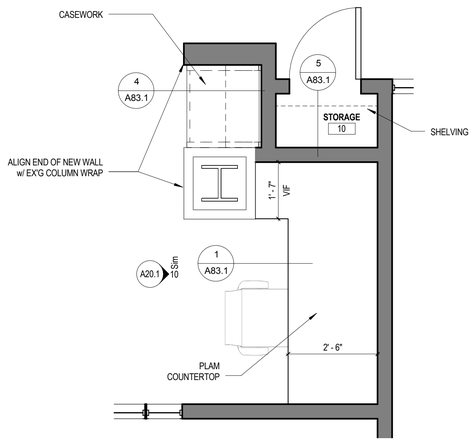
Scale: 1/8" = 1'-0"

Drawing Number

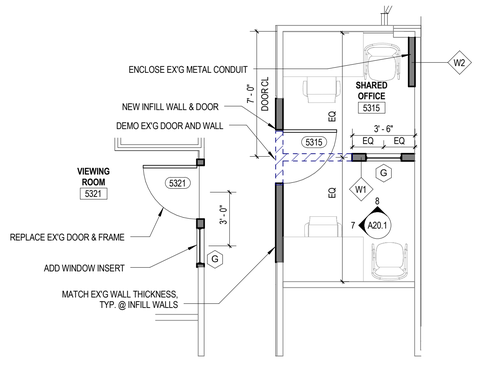
A10.1



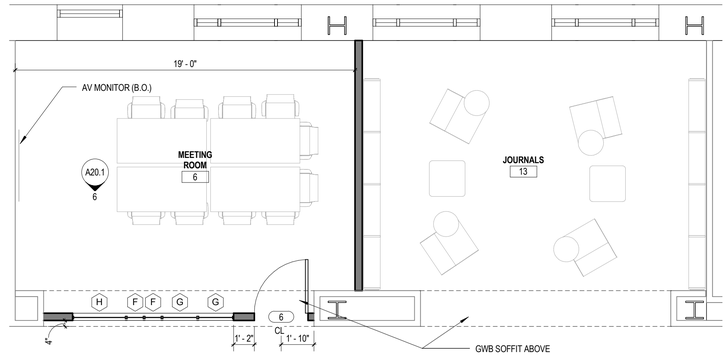
5 Enlarged Plan Research Work Station 1
1/2" = 1'-0"



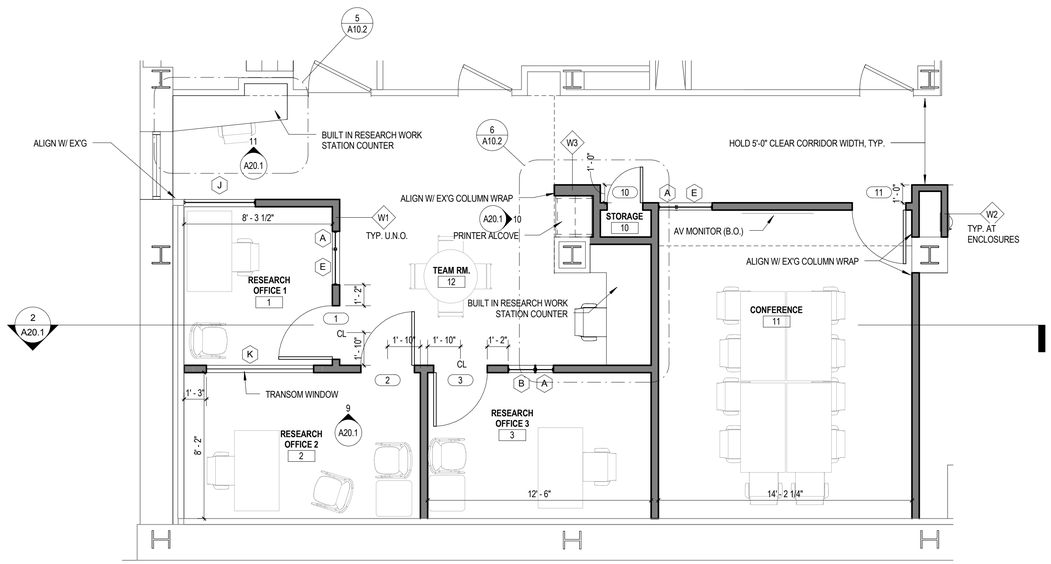
6 Enlarged Plan Research Work Station 2
1/2" = 1'-0"



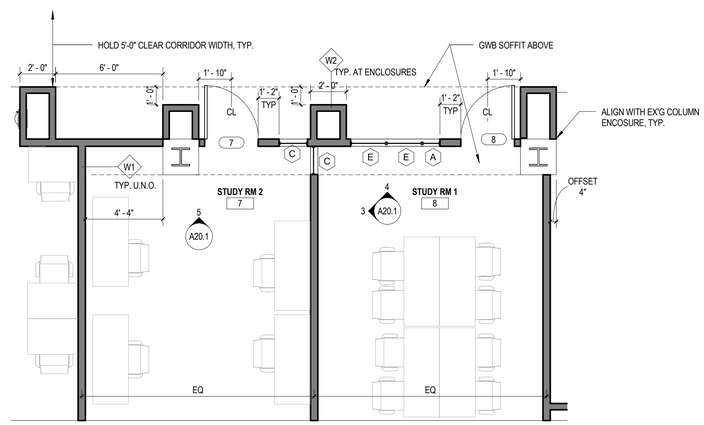
4 Enlarged Plan @ Shared Office
1/4" = 1'-0"



3 Enlarged Plan @ Meeting & Journal Rms.
1/4" = 1'-0"



2 Enlarged Plan @ Research Offices
1/4" = 1'-0"



1 Enlarged Plan @ Study Rooms
1/4" = 1'-0"

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JAMES GAUTHIER
NO. 3476
STATE OF MAINE

Mark	Date	Description
	11-17-2011	DESIGN DEVELOPMENT

Project Status

ISSUED FOR CONSTRUCTION

05.10.2012

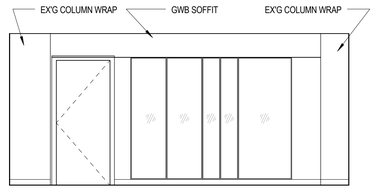
Drawing Title

ENLARGED PLANS

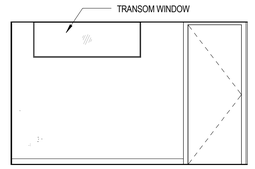
Scale: As indicated

Drawing Number

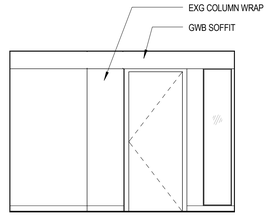
A10.2



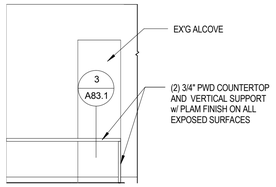
6 Meetng Rm North Elevation
1/4" = 1'-0"



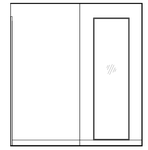
9 Research Office 2 South Elevation
1/4" = 1'-0"



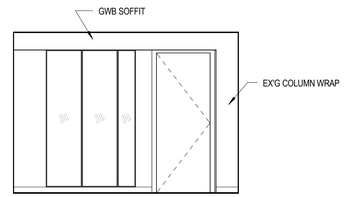
5 Study Rm 2 South Elevation
1/4" = 1'-0"



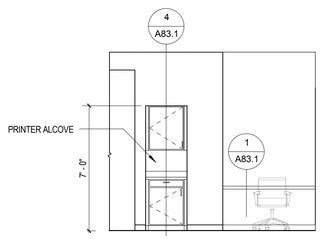
11 Research Work Station 1
1/4" = 1'-0"



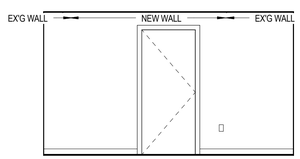
8 Shared Office South Elevation
1/4" = 1'-0"



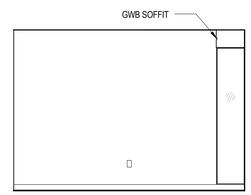
4 Study Rm 1 South Elevation
1/4" = 1'-0"



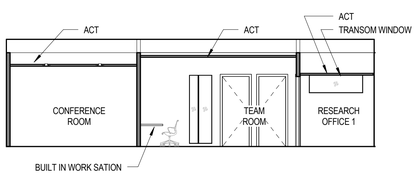
10 Team Rm West Elevation
1/4" = 1'-0"



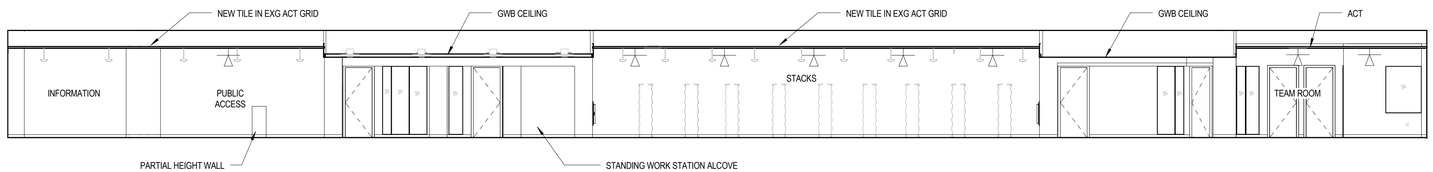
7 Shared Office East Elevation
1/4" = 1'-0"



3 Study Rm 1 East Elevation
1/4" = 1'-0"



2 Research Offices North Section/Elevation
1/8" = 1'-0"



1 Corridor North Section/Elevation
1/8" = 1'-0"

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Drawing Title

SECTIONS & ELEVATIONS

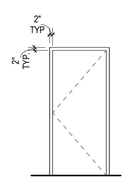
Scale: As indicated

Drawing Number

A20.1

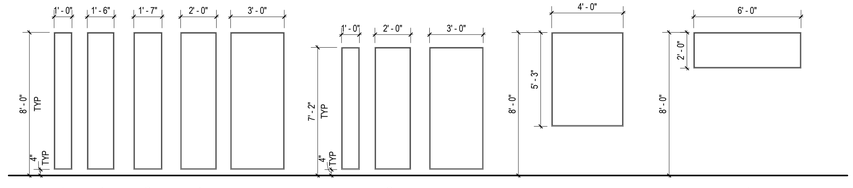
DOOR SCHEDULE

NO.	DOOR WIDTH	DOOR HT.	DOOR THK.	DOOR MATL.	FRAME MATL.	COMMENTS
1	3' - 0"	7' - 10"	0' - 1 3/4"	WD	HM	
2	3' - 0"	7' - 10"	0' - 1 3/4"	WD	HM	
3	3' - 0"	7' - 10"	0' - 1 3/4"	WD	HM	
6	3' - 0"	7' - 0"	0' - 1 3/4"	WD	HM	
7	3' - 0"	7' - 10"	0' - 1 3/4"	WD	HM	
8	3' - 0"	7' - 10"	0' - 1 3/4"	WD	HM	
10	2' - 0"	7' - 10"	0' - 1 3/4"	WD	HM	
11	3' - 0"	7' - 10"	0' - 1 3/4"	WD	HM	
5315	3' - 0"	7' - 0"	0' - 1 3/4"	WD	HM	
5321	3' - 0"	7' - 0"	0' - 1 3/4"	WD	HM	



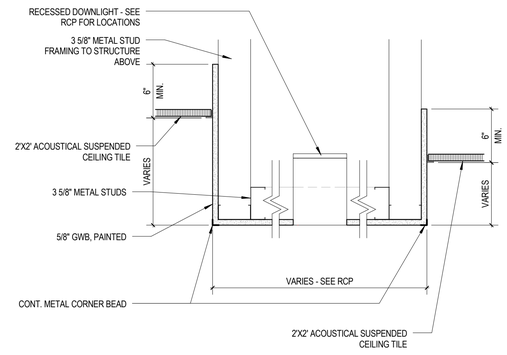
AA

DOOR TYPE



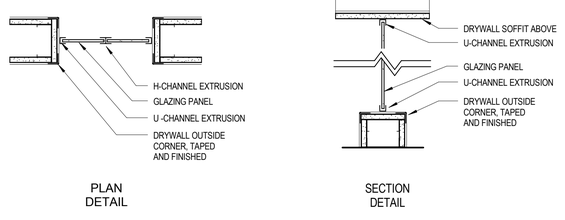
SITE BUILT WINDOW COMPONENT SIZES.

DOOR & WINDOW TYPES

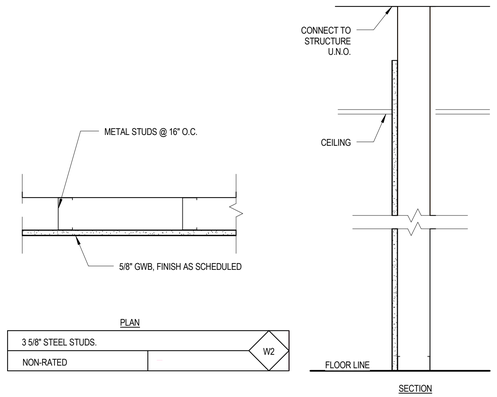


NOTE: SEE REFLECTED CEILING PLANS FOR ALL CEILING & SOFFIT HEIGHTS.

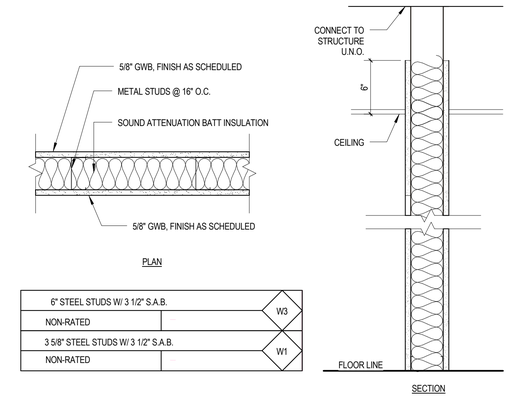
4 Ceiling Detail 1
1 1/2" = 1'-0"



3 Window Detail
1 1/2" = 1'-0"



2 Partition Type 222
1 1/2" = 1'-0"



1 Partition Type 223/226
1 1/2" = 1'-0"

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Project Title

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Portland, ME

CSS Project No. 11022

LICENSED ARCHITECT
JAMES GAUTHIER
NO. 3476
STATE OF MAINE

Mark	Date	Description
	11-17-2011	DESIGN DEVELOPMENT

Project Status

ISSUED FOR CONSTRUCTION

05.10.2012

Drawing Title

SCHEDULES & DETAILS

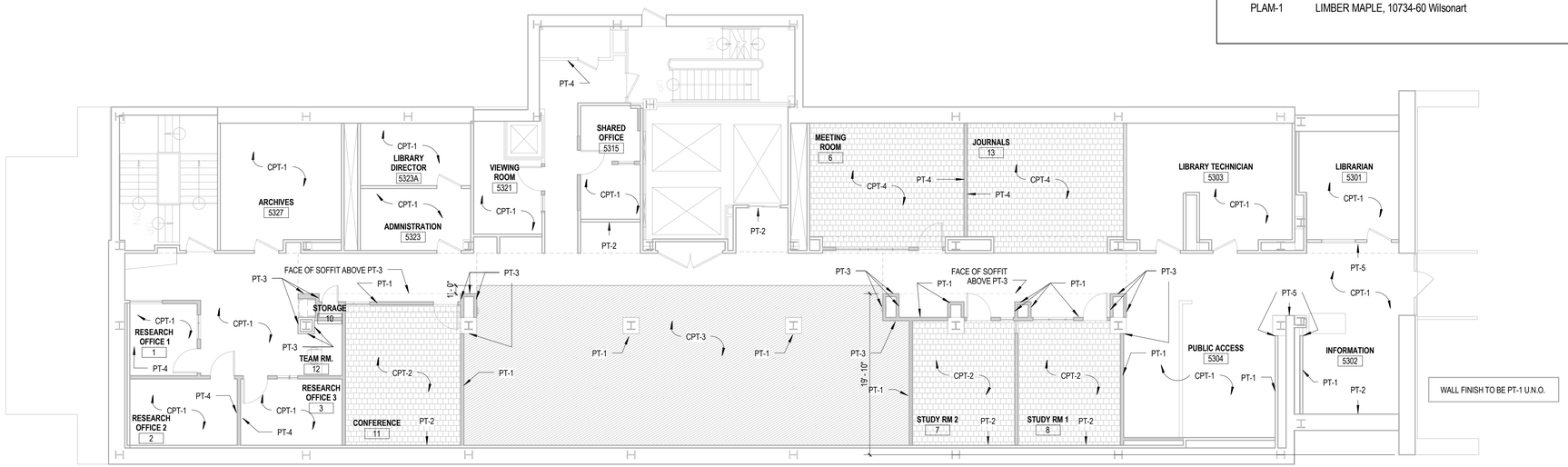
Scale: As indicated

Drawing Number

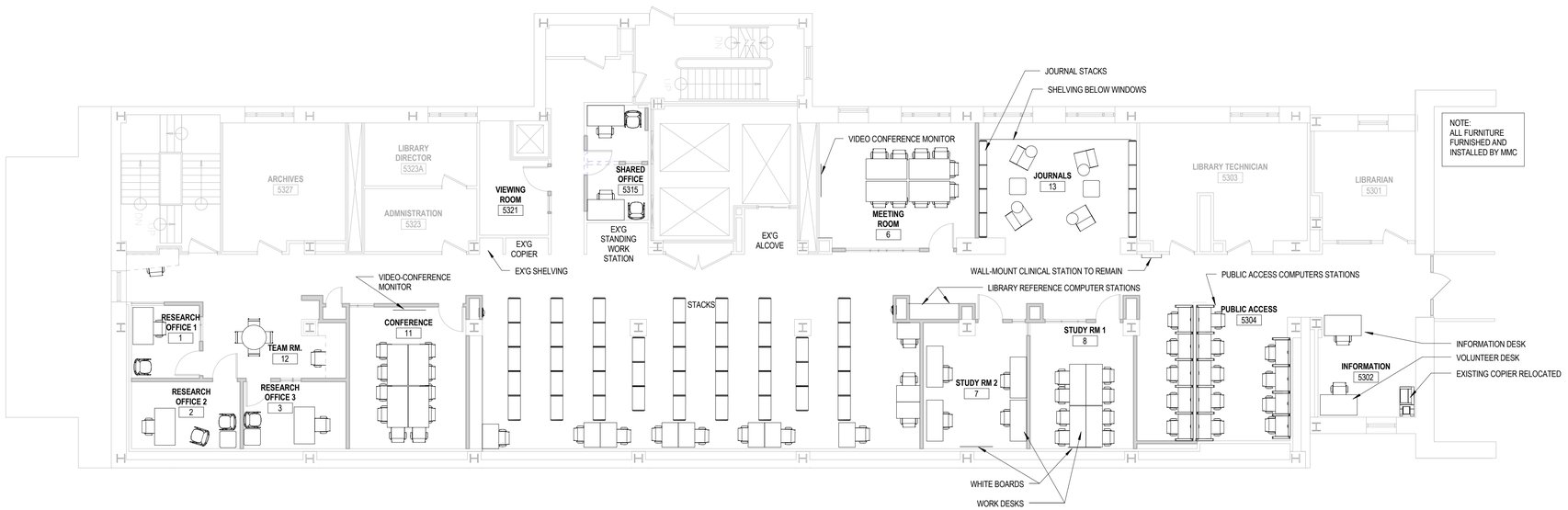
A40.1

FINISH LEGEND

PT-1	ANTIQUE WHITE
PT-2	YORK HARBOR YELLOW
PT-3	ALEUTIAN
PT-4	SALMON STREAM
PT-5	CHEMAYO SAGE
CPT-1	DIVIDE 03863, Hardwood 79018, Powerbond, Tandus
CPT-2	DIVIDE 03863, Firehouse 79007 ,Powerbond, Tandus
CPT-3	LINU STRATA II 02723, Brulee 60526, Powerbond,Tandus
CPT-4	DIVIDE 03863, Avenue 79015, Powerbond,Tandus
WB-1	283 TOAST, Johnsonite
PLAM-1	LIMBER MAPLE, 10734-60 Wilsonart



2 Finish Plan
1/8" = 1'-0"



1 Furniture Plan
1/8" = 1'-0"

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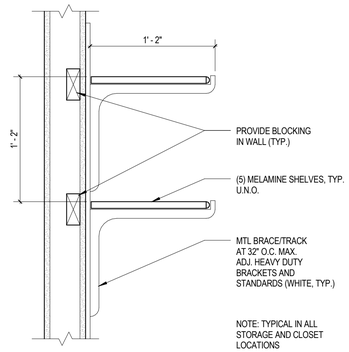
Drawing Title

FURNITURE & FINISH PLANS

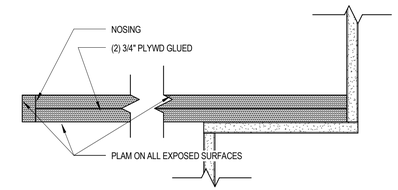
Scale: As indicated

Drawing Number

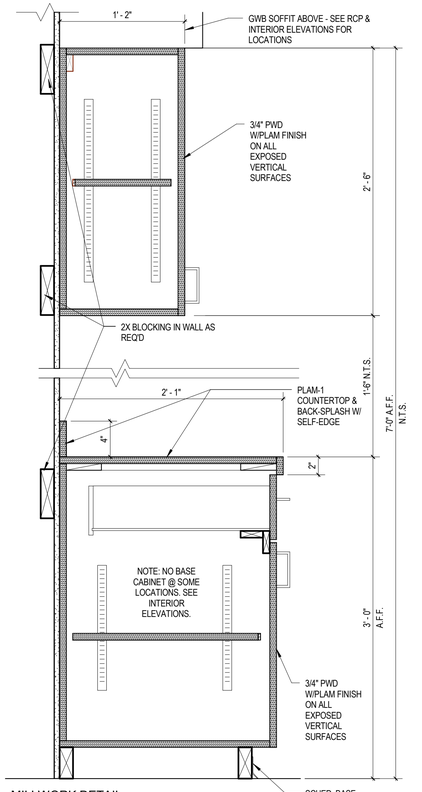
A80.1



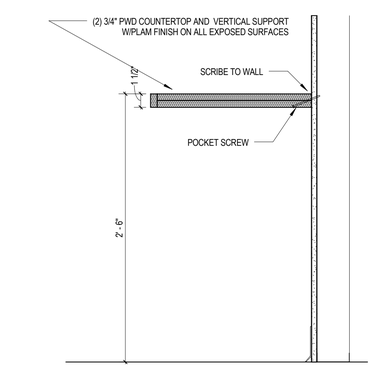
5 SHELF DETAIL
1 1/2" = 1'-0"



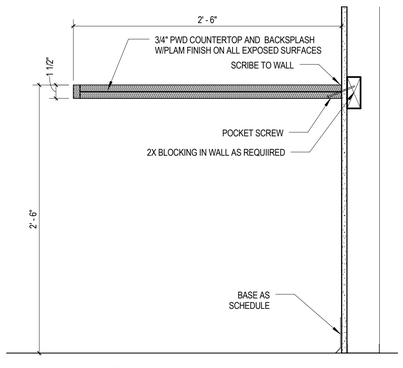
3 Millwork Detail @ Research Work Station 1
3" = 1'-0"



4 MILLWORK DETAIL
1 1/2" = 1'-0"



2 Millwork Section @ Research Work Station 1
1 1/2" = 1'-0"



1 Millwork Section @ Research Work Station 2
1 1/2" = 1'-0"

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05.10.2012

Drawing Title

MILLWORK DETAILS

Scale: As indicated

Drawing Number

A83.1

SCHEDULES

F - SPRINKLER SCHEDULE

Type Mark	Description	Manufacturer	Model	Orifice	Orifice Size	Pressure Class	Response	Flow	K-Factor
SP-1	CONCEALED CLG. PENDANT	RELIABLE	G4A	Standard	1/2"	Standard	Quick	30 GPM	5.6

VALVE LEGEND

	GV	GATE VALVE
	F.D.V.	FIRE DEPARTMENT VALVE
	F.V.C.	FIRE VALVE AND CABINET
	BV	BALL VALVE
	BFV	BUTTERFLY VALVE
	DV	DRAIN VALVE
	CV	CHECK VALVE
		UNION
	FLG	FLANGE
	PG	PRESSURE GAUGE
	FSW	FLOW SWITCH
		FIRE DEPARTMENT CONNECTION

PIPING LEGEND

FP	FP	FIRE PROTECTION
D	D.R.	DRAIN RISER
	FS	FLOW SWITCH
		FIRE HOSE CABINET (SURFACE MOUNTED)
		FIRE HOSE CABINET (RECESSED)
	SB	SLEEVE BEAM
		RUN-OUT OFF TOP
		RUN-OUT OFF BOTTOM
		PIPE UP
		PIPE DOWN
		CAP ON END OF PIPE
		PIPE BREAK

ABBREVIATIONS

CI	CAST IRON
CONTR	CONTRACTOR
CLDI	CEMENT LINED DUCTILE IRON
DN	DOWN
DWG	DRAWING
EA.	EACH
E.T.R.	EXISTING TO REMAIN
EX.	EXISTING
F.B.O.C.	FURNISHED BY OTHER CONTRACTOR
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
O.S.&Y.	OUTSIDE SCREW AND YOKE
PSI	POUNDS PER SQUARE INCH
RM	ROOM
TB	THRUST BLOCK
TS	TAMPER SWITCH

DRAWING NOTES

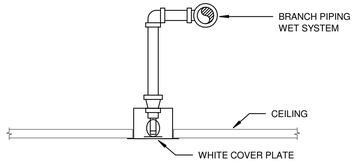
1	DEMOLITION NOTE
1	NEW WORK NOTE
XX	NEW WORK NOTE
	CONNECT TO EXISTING
	CAP EXISTING
	LIMIT OF DEMOLITION
1	DRAWING REVISION DESIGNATION
	REVISION CLOUD
	ELECTRICAL AREA - THE AREA INDICATED IS AN ELECTRICAL ZONE. DUCTWORK, PIPING, AND SYSTEMS SHALL NOT RUN THROUGH THIS ZONE. EXCEPTION:PIPES, DUCTS, AND EQUIPMENT DEDICATED TO SERVE THE ZONE ARE ALLOWED. COORDINATE WITH ELECTRICAL CONTRACTOR AND COMPLY WITH ALL CODE CLEARANCE REQUIREMENTS.

FIRE PROTECTION EQUIPMENT COORDINATION

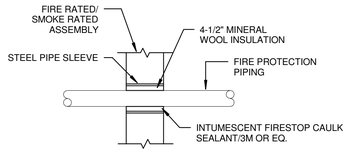
- FIRE PROTECTION CONTRACTOR SHALL REFER TO THE ARCHITECTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR LOCATIONS AND QUANTITIES OF EQUIPMENT RELEASED TO EACH TRADE.

FIRE PROTECTION DRAWING LIST

DWG NO.	DRAWING TITLE
FP0.0	FIRE PROTECTION LEGEND, DETAILS AND SCHEDULES
FP2.0	FIRE PROTECTION FIFTH FLOOR NEW WORK PLAN



CONCEALED PENDANT SPRINKLER HEAD DIAGRAM | N.T.S. | FP-



FIRESTOPPING METHOD BASED ON HILTI UL SYSTEM WL 1058. REFER TO MFG LITERATURE FOR SPECIFIC PRODUCT LIMITATIONS. SUBSTITUTE OTHER UL APPROVED FIRESTOPPING METHODS, IF NECESSARY, TO MEET REQUIREMENTS OF INSTALLATION

PIPE PENETRATION THRU FIRE RATED/SMOKE RATED ASSEMBLY | N.T.S. | FP-

GENERAL NOTES

1. FIRE PROTECTION SYSTEM AS SHOWN IS DIAGRAMMATIC AND FOR REFERENCE ONLY. DRAWINGS SHOW A SUGGESTED PIPING ROUTE ONLY. FIRE PROTECTION CONTRACTOR MAY ALTER PIPING ROUTE AND SPRINKLER HEAD LOCATIONS WITH APPROVAL OF ENGINEER.
2. SPKLR. LOCATIONS ARE FOR REFERENCE ONLY. FP CONTRACTOR SHALL INSURE THAT PROPOSED FIRE PROTECTION DESIGN MEETS ALL REQUIREMENTS OF NFPA-13 INCLUDING ADEQUATE COVERAGE OF SPRINKLERS.
3. FP CONTRACTOR SHALL INSTALL NEW PIPING TAKE-OFFS WHERE NECESSARY TO PROVIDE ADEQUATE COVERAGE OR TO AVOID SUSPENDED CEILING FRAMING.
4. ALL PIPING CUT DURING DEMO PHASE SHALL BE CAPPED WHETHER INDICATED ON DRAWING OR NOT.
5. SPRINKLER SYSTEM HYDRAULICALLY DESIGNED TO PROVIDE AT LEAST 0.10 GPM/SQ. FT FOR ALL AREAS, INCLUDING HYDRAULICALLY MOST REMOTE 1050 SQ. FT OF FLOOR AREA FOR LIGHT HAZARD OCC. OR AS REQUIRED BY OWNER'S INSURANCE UNDERWRITER.
6. THE CONTRACTOR SHALL FURNISH LABOR, MATERIALS, TOOLS AND OTHER EQUIPMENT REQUIRED TO INSTALL THE WORK SHOWN AND SPECIFIED. THE CONTRACTOR SHALL FURNISH AND INSTALL ITEMS NECESSARY FOR COMPLETE FP SYSTEM. MATERIALS SHALL BE NEW AND SHALL BEAR THE REGISTERED UL/FM MARK. WORK SHALL CONFORM WITH THE NATIONAL FP ASSOCIATION STANDARD 13 AND APPLICABLE FEDERAL, STATE AND LOCAL CODES. CONTRACTOR SHALL SECURE PERMITS AND PAY THE FEES REQUIRED TO CARRY OUT HIS WORK. THE CONTRACTOR SHALL FURNISH COPIES OF CERTIFICATES AND PERMITS TO THE ARCHITECT.
7. PIPE ROUTING IS SHOWN DIAGRAMMATICALLY ON FIRE PROTECTION DRG.'S SHALL BE ADJUSTED FOR ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL CLEARANCES AND LIMITATIONS AND FOR EQUIPMENT SELECTION. FURNISH AND INSTALL ALL ELEMENTS REQUIRED TO COMPLETE INTENDED PIPING SYSTEMS WHETHER OR NOT THESE ELEMENTS ARE SPECIFICALLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS.
8. CONSULT ALL DRAWINGS, NOTE ARCHITECTURAL DETAILS AND ALL CONDITIONS THAT MAY AFFECT THE WORK AND CARE FOR SAME, WHILE EXECUTING THE WORK UNDER THIS SECTION. COOPERATE AND COORDINATE WITH THE ARCHITECT, ALL OTHER TRADES, BUILDING MANAGEMENT AND THE OWNER.
9. ALL WORK SHALL CONFORM TO ALL APPLICABLE FED., STATE, AND LOCAL CODES AND REGULATIONS.
10. IN EVENT OF CONFLICT BETWEEN OR AMONG SPECIFIED REQUIREMENTS AND PERTINENT CODES OR REGULATIONS, MORE STRINGENT REQUIREMENTS SHALL GOVERN.
11. TAKE ALL MEASURES REQUIRED TO PROTECT OWNER'S PROPERTY AND EQUIPMENT DURING COURSE OF WORK, SHOULD DAMAGE TO OWNER'S PROPERTY OR EQUIP. OCCUR, REPAIR DAMAGE PROMPTLY AT NO COST TO OWNER.
12. INSTALL ALL EQUIPMENT AND MATERIALS IN STRICT CONFORMANCE WITH EQUIPMENT AND MATERIALS MANUFACTURERS' WRITTEN RECOMMENDATIONS.
13. LOCATE PIPES TO FALL WITHIN PARTITIONS, WALLS, OR ROOF CAVITIES AND TO PRECLUDE FURRING, OTHER THAN THAT SHOWN ON ARCHITECTURAL DRAWINGS.
15. ALL FP EQUIPMENT, VALVES, ETC. SHALL BE INSTALLED WITH CLEARANCE FOR SERVICING AS RECOMMENDED BY THE MANUFACTURER.

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STATE OF MAINE
SCOTT E. LECLAIR
No. 11519
LICENSED PROFESSIONAL ENGINEER

Mark	Date	Description

Project Status

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05/10/12

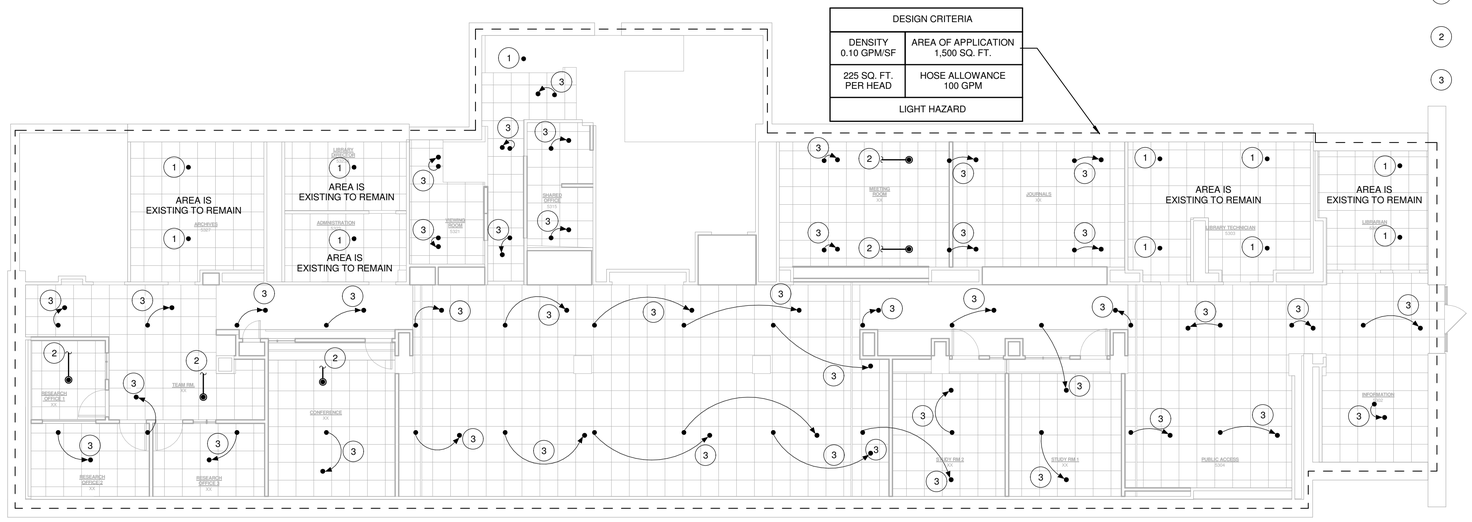
Drawing Title

FIRE PROTECTION LEGEND, DETAILS AND SCHEDULES

Scale: 12" = 1'-0"

Drawing Number

FP0.0



1 — 1 - Floor 5 Ceiling Fire Protection
FP2.0 — 1/8" = 1'-0"

FIRE PROTECTION NEW WORK NOTES

1. EXISTING SPRINKLER HEAD TO REMAIN.
2. EXTEND AND CONNECT NEW 1" FP PIPING TO NEAREST FP MAIN.
3. EXTEND EXISTING TEE TO NEW SPRINKLER HEAD AS INDICATED.

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Drawing Title

FIRE PROTECTION FIFTH FLOOR NEW WORK PLAN

Scale: As indicated

Drawing Number

FP2.0

PIPING LEGEND

HWS	HWS	HOT WATER SUPPLY
HWR	HWR	HOT WATER RETURN
RS	RS	REFRIGERANT SUCTION
RL	RL	REFRIGERANT LIQUID
RHG	RHG	REFRIGERANT HOT GAS
D	D	A.C. CONDENSATE DRAIN
	PC	PUMPED CONDENSATE
		PIPE OFF BOTTOM
		PIPE OFF TOP
		RUN-OUT OFF TOP
		RUN-OUT OFF BOTTOM
		PIPE UP
		PIPE DOWN
		STUB UP TO TERMINAL
		DIRECTION OF FLOW
		PIPE BREAK
		DRAIN PIPE PITCH AND FLOW

VALVE LEGEND

	IS	ISOLATION VALVE REFER TO DETAILS AND SPEC.
	GV	GATE VALVE
	GLV	GLOBE VALVE
	BLV	BALL VALVE
	BFV	BUTTERFLY VALVE
	DV	DRAIN VALVE
	SCV	SWING CHECK VALVE
	LCV	LIFT CHECK VALVE
	BC	BALANCE COCK
	BV	BALANCE VALVE
	PRV	PRESSURE REDUCING VALVE
	RV	RELIEF VALVE
	SC	SELF CONTAINED CONTROL VALVE
		UNION
	FLG	FLANGE
	PLS	PIPE LINE STRAINER
	BKS	BASKET STRAINER
	CRD	CONCENTRIC REDUCER (ENLARGER)
	ERD	ECCENTRIC REDUCER (ENLARGER)
	AN	PIPE ANCHOR
	GD	PIPE GUIDE
	EC	EXPANSION COMPENSATOR
	PFC	PIPE FLEXIBLE CONNECTION

DUCTWORK LEGEND

12"x8"	RECTANGULAR DUCTWORK - FIRST DIMENSION IS SIDE SHOWN (IN.)
12"Ø	ROUND DUCTWORK - DIMENSION IS DUCT DIAMETER (IN.)
	RECTANGULAR SUPPLY DUCTWORK UP
	RECTANGULAR SUPPLY DUCTWORK DOWN
	RECTANGULAR RETURN/EXHAUST DUCTWORK UP
	RECTANGULAR RETURN/EXHAUST DUCTWORK DOWN
	ROUND DUCTWORK UP
	ROUND DUCTWORK DOWN
	CAPPED DUCTWORK
	FLEXIBLE CONNECTION
	RECTANGULAR TRANSITION
	RECTANGULAR TO ROUND DUCTWORK TRANSITION
	MITERED ELBOW WITH TURNING VANES
UP	CHANGE OF ELEVATION UP IN DIRECTION OF AIRFLOW
DN	CHANGE OF ELEVATION DOWN IN DIRECTION OF AIRFLOW
	NEW SUPPLY DUCTWORK - SINGLE LINE
	NEW RETURN/EXHAUST DUCTWORK - SINGLE LINE
	EXISTING DUCTWORK TO BE REMOVED - SINGLE LINE
	RECTANGULAR SUPPLY DUCTWORK UP - SINGLE LINE
	RECTANGULAR SUPPLY DUCTWORK DOWN - SINGLE LINE
	RECTANGULAR RETURN/EXHAUST DUCTWORK UP - SINGLE LINE
	RECTANGULAR RETURN/EXHAUST DUCTWORK DOWN - SINGLE LINE
	ROUND DUCTWORK UP - SINGLE LINE
	ROUND DUCTWORK DOWN - SINGLE LINE
	FLEXIBLE DUCTWORK - SINGLE LINE (MAX. LENGTH 5'-0")
	DUCTWORK TRANSITION - SINGLE LINE
	ACOUSTICALLY LINED DUCTWORK - SINGLE LINE
	1/2" WIRE MESH SCREEN (ON OPEN END DUCT)

DAMPERS

M	ACD	MOTORIZED OR AUTOMATIC CONTROL DAMPER
SD	SD	SMOKE DAMPER
BD	BD	BACK DRAFT DAMPER
FD	FD	FIRE DAMPER
FS	FS	FIRE & SMOKE DAMPER
	VD	VOLUME DAMPER

CONTROL LEGEND

T	HEAT/COOL THERMOSTAT/SENSOR
T_R	REVERSE ACTING THERMOSTAT
$	SWITCH CONTROLLER
C	TIME CLOCK CONTROLLER
H	HUMIDITY SENSOR
TS	TEMPERATURE SENSOR
CO2	CARBON DIOXIDE SENSOR
EMS	ENERGY MANAGEMENT PANEL
DS	DUCT SMOKE DETECTOR
OE	OUTSIDE ENTHALPY SENSOR
	CONTROL LINE

DRAWING NOTES

SG-A, RG-A or EG-A 10"Ø, 12"x12" 200 TYP 3	SUPPLY/RETURN/EXHAUST REGISTER OR GRILLE TAG NECK SIZE OR LENGTH IF LINEAR DIFFUSER AIR VOLUME (CFM) QUANTITY
SD-A-# 10"Ø, 12"x12" 200 TYP 3	SUPPLY DIFFUSER TAG NECK SIZE OR LENGTH IF LINEAR DIFFUSER AIR VOLUME (CFM) QUANTITY
FTR-A 10'-0" 11.8	FIN TUBE RADIATION DESIGNATION ELEMENT LENGTH HEATING CAPACITY (MBH)
ACCU-1	EQUIPMENT TAG
1	REVISION NOTE
1	DEMOLITION WORK NOTE
1	NEW WORK NOTE
1	NEW WORK NOTE
	REVISION CLOUD
	ELECTRICAL AREA - THE AREA INDICATED IS AN ELECTRICAL ZONE. DUCTWORK, PIPING, AND SYSTEMS SHALL NOT RUN THROUGH THIS ZONE. EXCEPTION:PIPES, DUCTS, AND EQUIPMENT DEDICATED TO SERVE THE ZONE ARE ALLOWED. COORDINATE WITH ELECTRICAL CONTRACTOR AND COMPLY WITH ALL CODE CLEARANCE REQUIREMENTS.

EQUIPMENT TAGS

ACCU	AIR COOLED CONDENSING UNIT
ARC	AIR COOLED REFRIGERANT CONDENSER
CP	CONDENSATE PUMP
CUH	CABINET UNIT HEATER (STEAM OR WATER)
EB	ELECTRIC BASEBOARD
EG	EXHAUST GRILLE
FCU	FAN COIL UNIT
LU	LOUVER
P	PUMP
RG	RETURN GRILLE
SD	SUPPLY DIFFUSER
SG	SUPPLY GRILLE
SR	SUPPLY REGISTER
UH	UNIT HEATER

AIR DEVICE LEGEND

	SG	SIDEWALL SUPPLY REGISTER
	SD	SUPPLY DIFFUSER
	RG	RETURN GRILLE
	EG	EXHAUST REGISTER OR GRILLE
	EG/RG	SIDEWALL EXHAUST/RETURN REGISTER
	SD-?	SUPPLY AIR DIFFUSER 4-WAY BLOW
	SD-?	SUPPLY AIR DIFFUSER 3-WAY BLOW
	SD-?	SUPPLY AIR DIFFUSER 2-WAY BLOW
	SD/R	SUPPLY DIFFUSER OR REGISTER BELOW DUCT
	RG	RETURN REGISTER OR GRILLE BELOW DUCT
	EG	EXHAUST REGISTER OR GRILLE BELOW DUCT
		SUPPLY AIR
		RETURN OR EXHAUST AIR
U		UNDERCUT DOORWAY (BY G.C.)
DL		DOOR LOUVER (BY G.C.)

ABBREVIATIONS

ACC	AIR COOLED CONDENSER
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
ARCH.	ARCHITECT
AS	AIR SEPARATOR
ATC	AUTOMATIC TEMPERATURE CONTROL
BOD	BOTTOM OF DUCT
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
C	CLOSED
CAP	CAPACITY
CD	CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CO	CLEAN OUT
CONN.	CONNECT
CV	CONTROL VALVE
DB	DRY BULB TEMPERATURE (°F)
DDC	DIRECT DIGITAL CONTROL
DIA.	DIAMETER
DN	DOWN
DO	DIGITAL OUTPUT
DR	DRAIN
DSF	DESTRATIFICATION FAN
DWG	DRAWING
EA.	EACH
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
ECU	EVAPORATIVE CONDENSING UNIT
EF	EXHAUST FAN
EG	EXHAUST AIR GRILLE
EL	EXPANSION LOOP
EMS	ENERGY MANAGEMENT SYSTEM
ER	EXHAUST AIR REGISTER
EUH	ELECTRIC UNIT HEATER
EWT	ENTERING WATER TEMPERATURE
EX.	EXISTING
EXH	EXHAUST
FA	FREE AREA
FAI	FRESH AIR INTAKE
FPI	FINS PER INCH
FPM	FEET PER MINUTE
FSD	COMBINATION FIRE AND SMOKE DAMPER
FT	FEET
GAL	GALLONS
GC	GENERAL CONTRACTOR
GE	GENERAL EXHAUST
GPM	GALLONS PER MINUTE
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
IH	INTAKE HOOD
IN	INCHES
ID	INSIDE DIAMETER
KE	KITCHEN EXHAUST
KW	KILOWATTS
LAT	LEAVING AIR TEMPERATURE
LD	LOUVERED DOOR
MBH	THOUSANDS OF BRITISH THERMAL UNITS PER HOUR
MECH	MECHANICAL
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAT	OUTSIDE AIR TEMPERATURE
RG	RETURN AIR GRILLE
RR	RETURN AIR REGISTER
SA	SUPPLY AIR
SAT	SUPPLY AIR TEMPERATURE
SF	SQUARE FEET
SP	STATIC PRESSURE
SR	SUPPLY AIR REGISTER
TSTAT	THERMOSTAT
TYP	TYPICAL
UC	UNDERCUT DOOR
WM	WIRE MESH SCREEN

GENERAL NOTES

1. MECHANICAL WORK IS INDICATED DIAGRAMMATIC. EXACT LOCATIONS OF ALL COMPONENTS ARE TO BE DETERMINED IN THE FIELD (SPACING SUBJECT TO ARCHITECT'S REVIEW AND APPROVAL) TO AVOID CONFLICT WITH OTHER TRADES AND EXISTING SITE CONDITIONS.
2. THE CONTRACTOR SHALL VISIT AND CAREFULLY EXAMINE THE SITE TO IDENTIFY EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE WORK OF THIS SECTION. REPORT IN WRITING TO THE ARCHITECT CONDITIONS WHICH MIGHT ADVERSELY AFFECT WORK. NO EXTRA PAYMENT WILL BE PROVIDED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY CONSTRUED BY AN EXPERIENCED OBSERVER.
3. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF CEILING GRID, DIFFUSERS, AND GRILLES.
4. ALL INSTALLATIONS SHALL PERMIT AND PROVIDE ACCESSIBILITY FOR SERVICE AND REPLACEMENT OF ALL NEW EQUIPMENT AND EXISTING EQUIPMENT IMPACTED BY THIS WORK.
5. COORDINATE ALL OPENINGS IN FLOORS WITH STRUCTURAL DRAWINGS AND GENERAL CONTRACTOR.
6. ALL MECHANICAL EQUIPMENT, PIPING, AND DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF GOVERNING LOCAL, STATE, AND FEDERAL SEISMIC CODES. PARTICULAR ATTENTION SHALL BE MADE TO VIBRATION ISOLATION, ANCHORING, AND BALANCING REQUIREMENTS.
7. ALL DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH CODES AND STANDARDS SET FORTH IN NFPA, SMACNA, AND ASHRAE FOR LOW PRESSURE DUCTWORK SYSTEMS.
8. ALL EXPOSED DUCTWORK SHALL BE PAINTED TO MATCH CEILING. REFER TO ARCHITECTURAL DRAWINGS.
9. PROVIDE MANUAL VOLUME DAMPERS AT ALL BRANCH DUCTS FOR AIR BALANCING.
10. RUN-OUTS TO RETURN AND EXHAUST REGISTERS, OR GRILLES ABOVE GYP BOARD CEILINGS, SHALL BE RIGID DUCTED. NO FLEXIBLE DUCT WORK SHALL BE ALLOWED ON RETURN OR EXHAUST REGISTERS.
11. ALL DUCTS, PIPES, AND EQUIPMENT SHALL BE INDEPENDENTLY SUPPORTED FROM THE BUILDING STRUCTURE WITH PROPER ALLOWANCES FOR CONTRACTION, EXPANSION, AND VIBRATION ELIMINATION.
12. PROVIDE COPPER 3/4" AC CONDENSATE DRAIN RUN-OUTS TO FAN COIL UNITS (FCU) UNLESS NOTED OTHERWISE.
13. ROOM THERMOSTATS SHALL BE MOUNTED 4'-6" ABOVE FINISHED FLOOR UNLESS OTHERWISE SHOWN OR DIRECTED.
14. ALL DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR FREE AREA REQUIRED.
15. ALL DIFFUSER, REGISTER, AND GRILLE SIZES INDICATED ON FLOOR PLANS ARE NECK SIZE REQUIRED.
16. NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED ON THIS PROJECT.
17. COORDINATE ENTIRE INSTALLATION WITH THE WORK OF ALL OTHER TRADES PRIOR TO ANY FABRICATION OR INSTALLATIONS.

MECHANICAL DRAWING LIST

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STATE OF MAINE
SCOTT E. LECLAIR
No. 11519
REGISTERED PROFESSIONAL ENGINEER

Mark	Date	Description

Project Status

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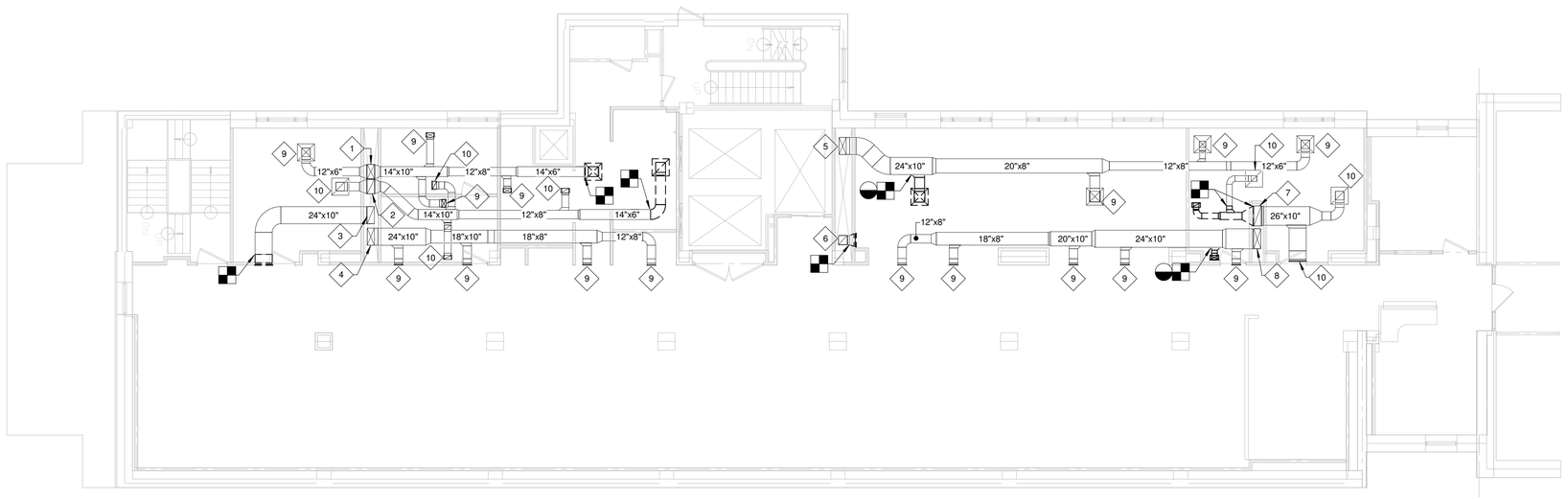
Drawing Title

MECHANICAL LEGEND

Scale: 12" = 1'-0"

Drawing Number

M0.0



1 | M1.0 5TH FLOOR DUCTWORK DEMOLTION PLAN
1/8" = 1'-0"

MECHANICAL DEMOLITION NOTES

1. (E) 20"x10" S.A. DN. IN SHAFT.
2. (E) 20"x10" R.A. DN. IN SHAFT.
3. (E) 24"x10" R.A. DN. IN SHAFT.
4. (E) 24"x10" S.A. DN. IN SHAFT.
5. (E) 24"x10" S.A. DN. IN SHAFT.
6. (E) 13"x12" R.A. DN. IN SHAFT.
7. (E) 28"x18" R.A. DN. IN SHAFT.
8. (E) 28"x18" S.A. DN. IN SHAFT.
9. EXISTING SUPPLY DIFFUSER SHALL REMAIN AND BE RE-BALANCED DURING NEW WORK PHASE.
10. EXISTING RETURN GRILLE SHALL REMAIN AND BE RE-BALANCED DURING NEW WORK PHASE.

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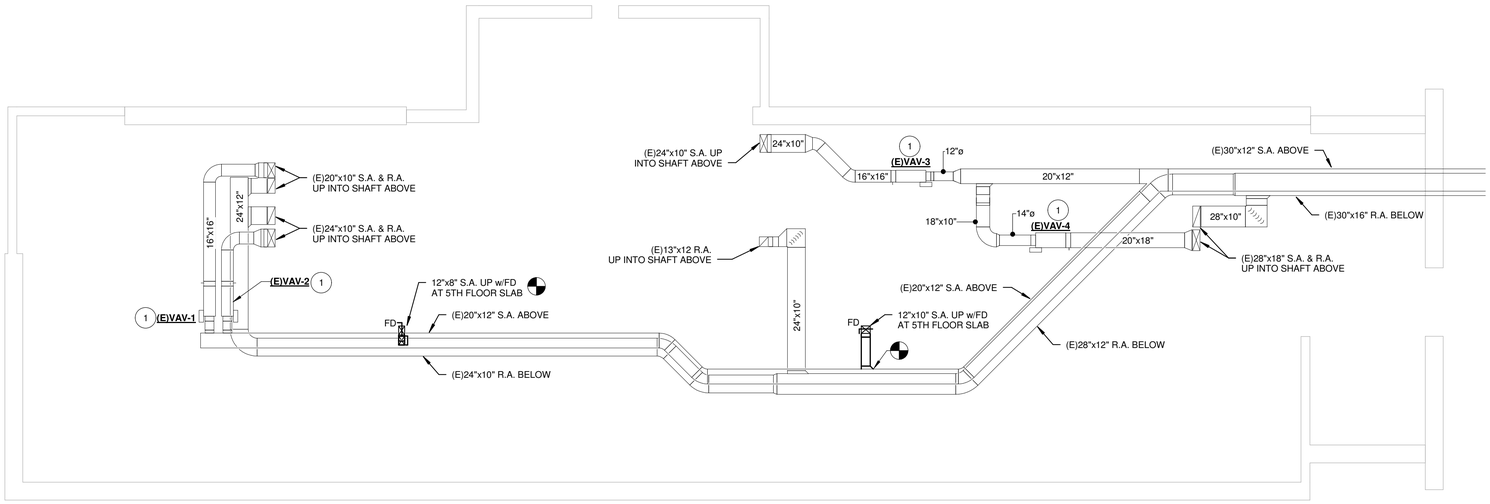
Drawing Title

MECHANICAL FIFTH FLOOR DUCTWORK DEMOLITION PLAN

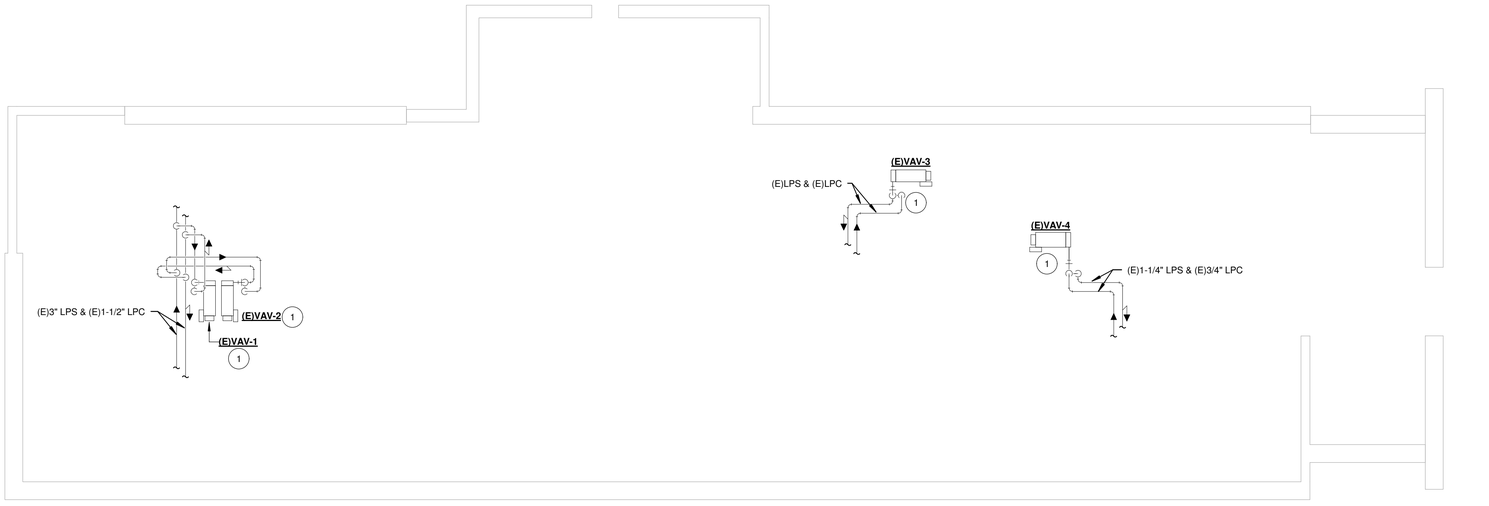
Scale: As indicated

Drawing Number

M1.0



1 M2.0 4-1/2 FLOOR NEW DUCTWORK PLAN
1/8" = 1'-0"



2 M2.0 4-1/2 FLOOR NEW PIPE PLAN
1/8" = 1'-0"

MECHANICAL NEW WORK NOTES

1. RE-BALANCE EXISTING STEAM RE-HEAT COIL AS INDICATED IN VAV SCHEDULE ON DWG. M3.0.

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Mark	Date	Description

Project Status

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05/10/12

Drawing Title

MECHANICAL FOURTH FLOOR NEW DUCTWORK AND PIPING PLAN

Scale: As indicated

Drawing Number

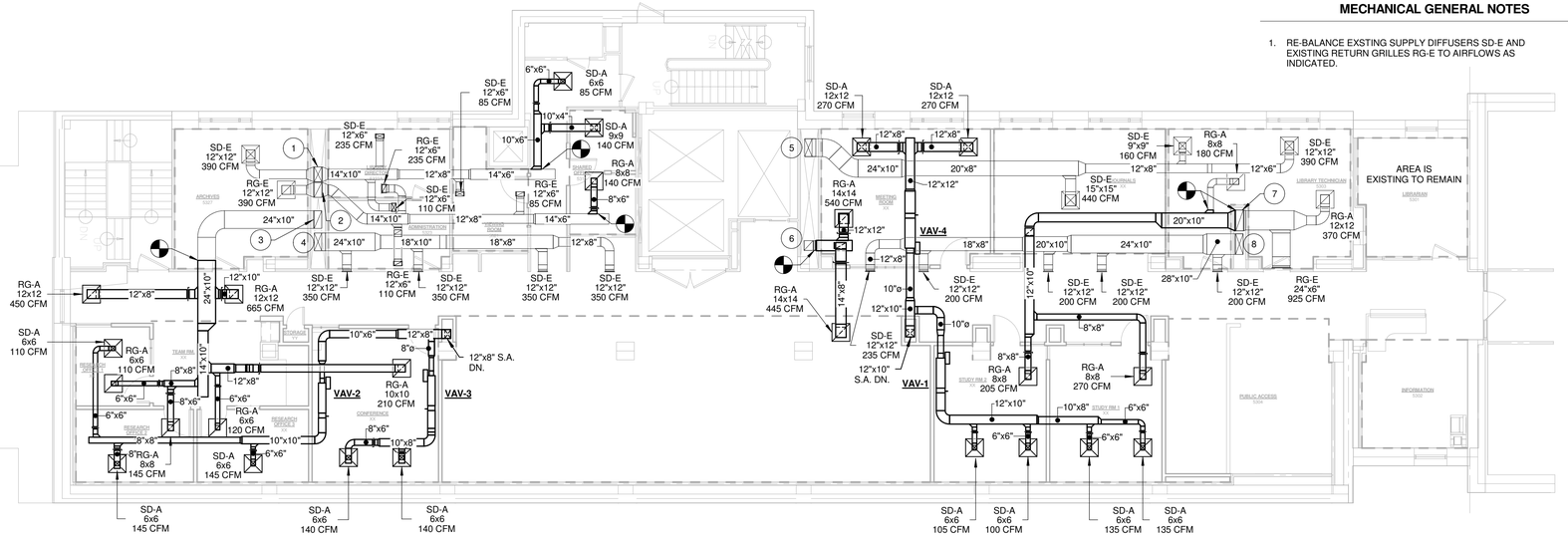
M2.0

MECHANICAL GENERAL NOTES

1. RE-BALANCE EXSTING SUPPLY DIFFUSERS SD-E AND EXISTING RETURN GRILLES RG-E TO AIRFLOWS AS INDICATED.

MECHANICAL NEW WORK NOTES

1. (E)20"x10" S.A. DN. IN SHAFT.
2. (E)20"x10" R.A. DN. IN SHAFT.
3. (E)24"x10" R.A. DN. IN SHAFT.
4. (E)24"x10" S.A. DN. IN SHAFT.
5. (E)24"x10" S.A. DN. IN SHAFT.
6. (E)13"x12" R.A. DN. IN SHAFT.
7. (E)28"x18" R.A. DN. IN SHAFT.
8. (E)28"x18" S.A. DN. IN SHAFT.



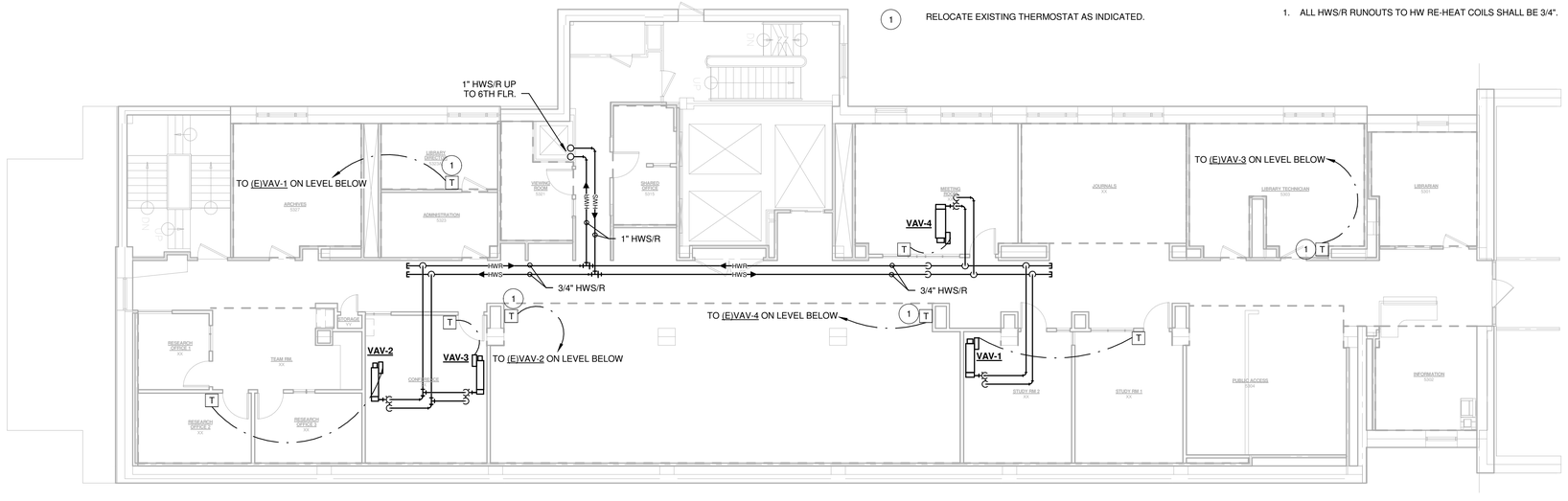
1 M2.1 5TH FLOOR NEW DUCTWORK PLAN
1/8" = 1'-0"

MECHANICAL NEW WORK NOTES

1. RELOCATE EXISTING THERMOSTAT AS INDICATED.

MECHANICAL GENERAL NOTES

1. ALL HWS/R RUNOUTS TO HW RE-HEAT COILS SHALL BE 3/4".



2 M2.1 5TH FLOOR NEW PIPE PLAN
1/8" = 1'-0"

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MECHANICAL FIFTH FLOOR NEW DUCTWORK AND PIPING PLAN

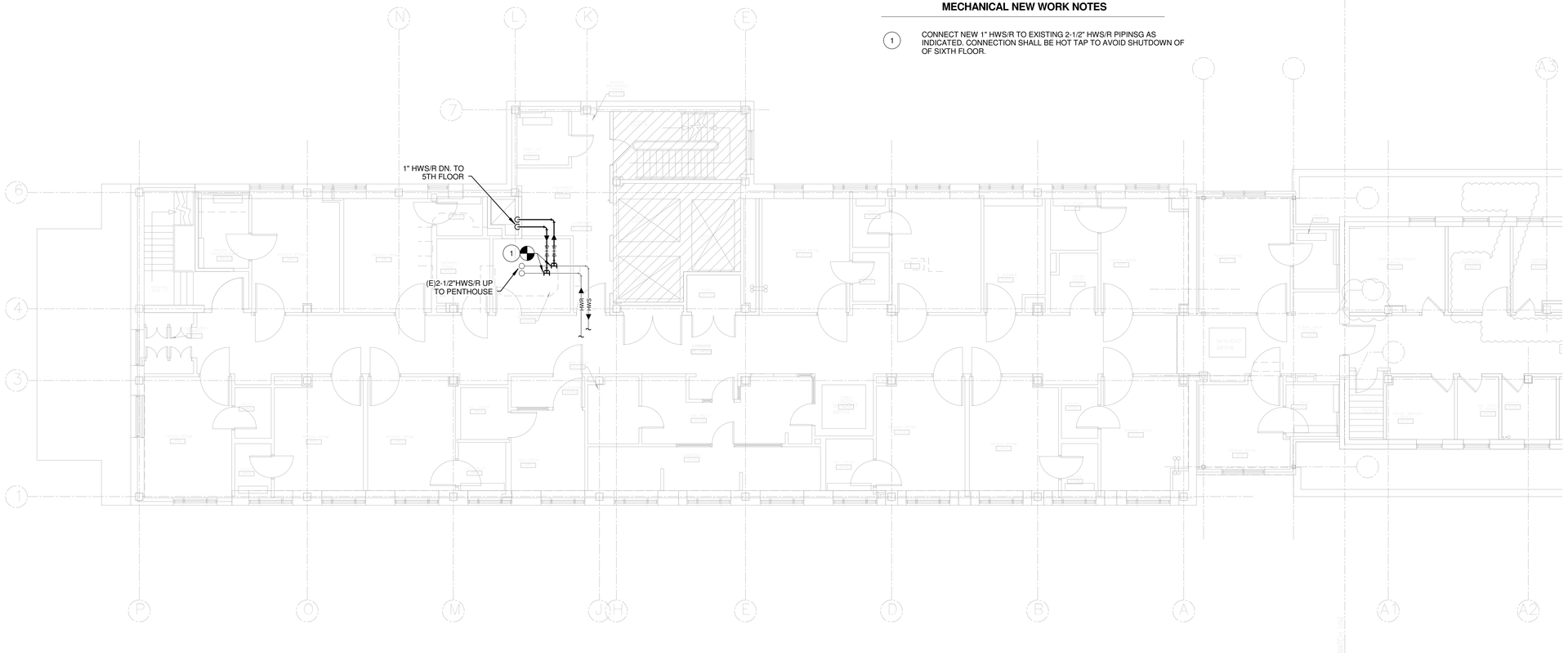
Scale: As indicated

Drawing Number

M2.1

MECHANICAL NEW WORK NOTES

1. CONNECT NEW 1" HWS/R TO EXISTING 2-1/2" HWS/R PIPINSG AS INDICATED. CONNECTION SHALL BE HOT TAP TO AVOID SHUTDOWN OF OF SIXTH FLOOR.



1 M2.2 6TH FLOOR NEW PIPING PLAN
1/8" = 1'-0"

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MECHANICAL SIXTH FLOOR NEW PIPE PLAN

Scale: As indicated

Drawing Number

M2.2

M - VAV TERMINAL SCHEDULE (V)

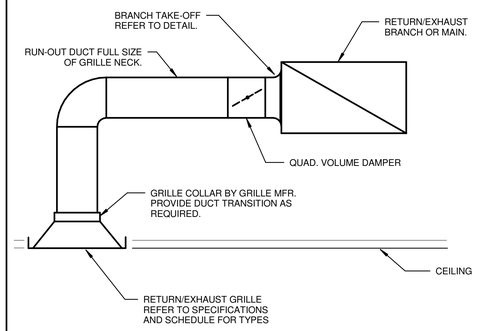
TAG	INLET DIA Ø IN	SP IN WG	DELTA P IN WG	SOUND		AIR FLOW			COIL										CONTROLS			BASIS OF DESIGN	
														WATER/GLYCOL				STEAM					
				DISCHARGE NC	RADIATED NC	MAX CFM	HEAT CFM	MIN CFM	TYPE /FLUID	TOTAL MBH	APD IN WC	EDB °F	LDB °F	EWT °F	LWT °F	GPM	WPD (FT)	LBS/HR	MIN PSI	TYPE	FURNISHED BY	ACCESSORIES	MFR	MODEL
(E)VAV-1	12					1060	695	695	STEAM	26.3		55	90					27.1	5	ATC	DDC	ETR	ETR	ETR
(E)VAV-2	12					1400	1100	1100	STEAM	41.6		55	90					42.8	5	ATC	DDC	ETR	ETR	ETR
(E)VAV-3	12					990	495	270	STEAM	18.9		55	90					19.5	5	ATC	DDC	ETR	ETR	ETR
(E)VAV-4	14					1035	650	650	STEAM	24.6		55	90					25.4	5	ATC	DDC	ETR	ETR	ETR
VAV-1	8	1	0.5	15	18	475	350	350	HW	13.2	0.3	55	90	180	160	1.6	1			ATC	DDC	SEE NOTES	TITUS	DESV
VAV-2	6	1	0.5	17	22	375	265	230	HW	10	0.3	55	90	180	160	1	0.3			ATC	DDC	SEE NOTES	TITUS	DESV
VAV-3	6	1	0.5	11	15	280	280	280	HW	10.6	0.12	55	90	180	160	1.1	0.3			ATC	DDC	SEE NOTES	TITUS	DESV
VAV-4	8	1	0.5	17	19	540	260	240	HW	9.9	0.12	55	90	180	160	1	0.7			ATC	DDC	SEE NOTES	TITUS	DESV

NOTES:
1. PROVIDE WITH INTEGRAL SOUND ATTENUATOR.
2. PROVIDE WITH HOT WATER HEATING COIL TO MEET REQUIRED PERFORMANCE.
3. PROVIDE WITH CONTROL POWER DISCONNECT.

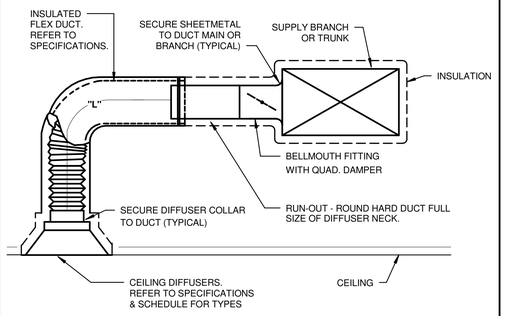
M - REGISTER, GRILLE AND DIFFUSER SCHEDULE (R-G-D)

TAG	SYSTEM	TYPE	MOUNTING	FACE TYPE	FACE BAR	MATERIAL	REMARKS	BASIS OF DESIGN	
								MFR	MODEL
SD-E	SUPPLY	ETR	CEILING	ETR	ETR	ETR		ETR	ETR
SD-A	SUPPLY	DIFFUSER	CEILING	24"x24" SQUARE	LOUVERED	ALUM.	SEE NOTES 1-3	TITUS	TDC-AA
RG-E	RETURN	ETR	CEILING	ETR	ETR	ETR		ETR	ETR
RG-A	RETURN	GRILLE	CEILING	24"x24" SQUARE	35° DEFLECTION	ALUM.	SEE NOTES 1-4	TITUS	350

NOTES:
1. SEE PLAN FOR NECK SIZES AND DISCHARGE PATTERNS.
2. COORDINATE COLOR WITH ARCHITECT.
3. PROVIDE WITH MOUNTING TYPE TO SUIT ARCHITECTURAL CEILING PLAN.
4. PROVIDE WITH BLANKING PLATE AS NECESSARY TO FIT ARCHITECTURAL CEILING GRID.

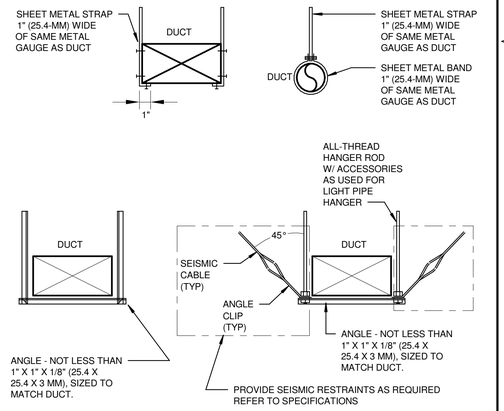


RETURN/EXHAUST GRILLES INSTALLATION DETAIL — NO SCALE — 15613-08

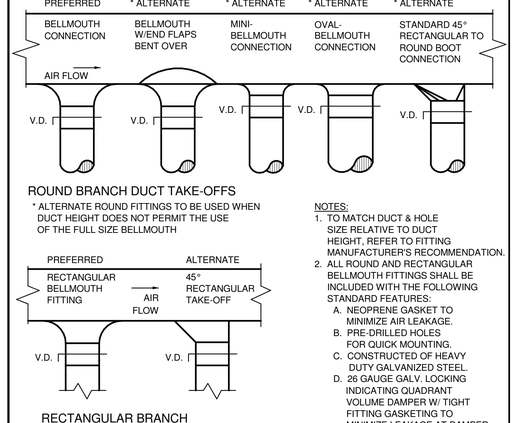


NOTES:
1. FASTEN INSULATED FLEX DUCT TO HARD DUCT AND DIFFUSER NECK WITH 22 GAUGE BAND CLAMPS AND 4 SHEETMETAL SCREWS AND SEAL. DO NOT USE PLASTIC ZIP-TIES.
2. MAXIMUM LENGTH OF INSULATED FLEX DUCT "L" = 5'-0"
3. PROVIDE DIFFUSER SAFETY CHAIN WHERE MOUNTED ABOVE 10'. SECURE TO STRUCTURE.

CEILING SUPPLY DIFFUSERS INSTALLATION DETAIL — NO SCALE — 15613-01a



SHEET-METAL DUCT HANGERS — NO SCALE — 15616-02



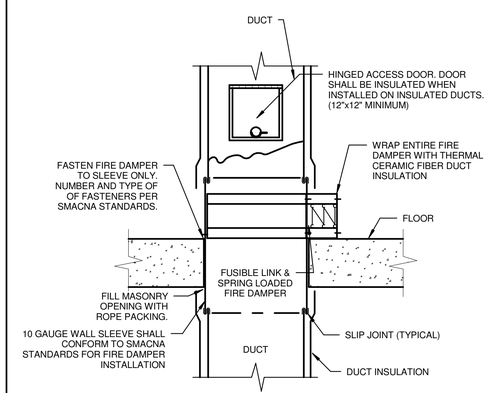
ROUND BRANCH DUCT TAKE-OFFS

* ALTERNATE ROUND FITTINGS TO BE USED WHEN DUCT HEIGHT DOES NOT PERMIT THE USE OF THE FULL SIZE BELLMOUTH

RECTANGULAR BRANCH DUCT TAKE-OFF

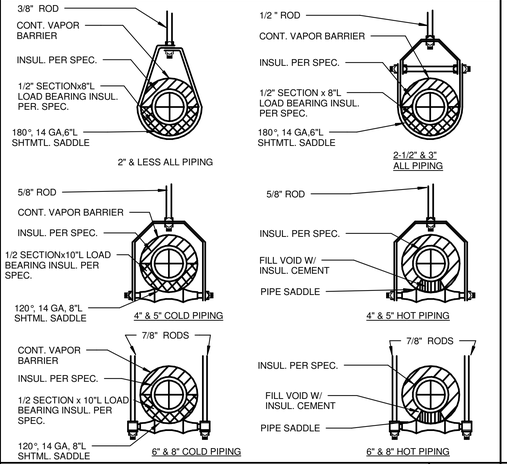
NOTES:
1. TO MATCH DUCT & HOLE SIZE RELATIVE TO DUCT HEIGHT, REFER TO FITTING MANUFACTURER'S RECOMMENDATION.
2. ALL ROUND AND RECTANGULAR BELLMOUTH FITTINGS SHALL BE INCLUDED WITH THE FOLLOWING STANDARD FEATURES:
   A. NEOPRENE GASKET TO MINIMIZE AIR LEAKAGE.
   B. PRE-DRILLED HOLES FOR QUICK MOUNTING.
   C. CONSTRUCTED OF HEAVY DUTY GALVANIZED STEEL.
   D. 26 GAUGE GALV. LOCKING INDICATING QUADRANT VOLUME DAMPER W/ TIGHT FITTING GASKETING TO MINIMIZE LEAKAGE AT DAMPER PIVOT POINTS.

BRANCH TAKE-OFFS — NO SCALE — 15613-14

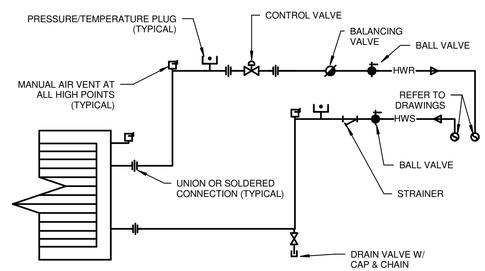


04/06/05

FLOOR FIRE DAMPER DETAIL — NO SCALE — 15603-06



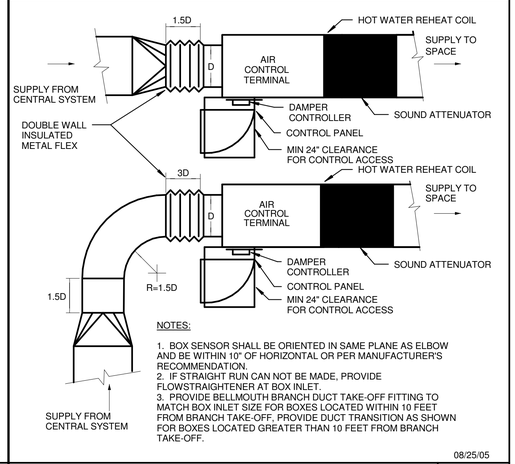
PIPE HANGER DETAIL — NO SCALE — 15617-05



NOTE:
1. POSITION PIPE HANGERS TO BEAR FULL WEIGHT OF PIPING. NO LOAD ON COIL BODY.
2. LOCATE UNIONS AND ARRANGE PIPING TO FACILITATE COIL REMOVAL AND TO AVOID BLOCKING ACCESS DOORS, CONTROL PANELS, FILTERS, VALVES, MOTORS, ETC...
3. CONTROL VALVE TO FAIL OPEN.
4. PROVIDE THREE WAY MODULATING VALVE AND BY-PASS WITH BALANCE COCK WHERE REQUIRED. REFER TO THE SPECIFICATIONS AND DRAWINGS FOR CONTROL VALVE TYPE.

11/17/05

TERMINAL HOT WATER COIL PIPING SCHEMATIC — NO SCALE — 15624-02a



NOTES:
1. BOX SENSOR SHALL BE ORIENTED IN SAME PLANE AS ELBOW AND BE WITHIN 10" OF HORIZONTAL OR PER MANUFACTURER'S RECOMMENDATION.
2. IF STRAIGHT RUN CAN NOT BE MADE, PROVIDE FLOWSTRAIGHTENER AT BOX INLET.
3. PROVIDE BELLMOUTH BRANCH DUCT TAKE-OFF FITTING TO MATCH BOX INLET SIZE FOR BOXES LOCATED WITHIN 10 FEET FROM BRANCH TAKE-OFF. PROVIDE DUCT TRANSITION AS SHOWN FOR BOXES LOCATED GREATER THAN 10 FEET FROM BRANCH TAKE-OFF.

08/25/05

AIR CONTROL TERMINAL W / H.W. REHEAT COIL DETAIL — NO SCALE — 15675-05

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Mark	Date	Description

Project Status

Issued for Construction

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Drawing Title

MECHANICAL SCHEDULES & DETAILS

Scale: 12" = 1'-0"

Drawing Number

M3.0

POWER PLAN LEGEND

- FLUSH MOUNTED PANELBOARD
- SURFACE MOUNTED PANELBOARD
- 60AS 40AF 3P — DISCONNECT SWITCH - NEMA 1 ENCLOSURE - FUSED 30A-3 POLE UNLESS OTHERWISE NOTED
  - "60AS" - DENOTES SWITCH AMPERAGE RATING
  - "40AF" - DENOTES FUSE AMPERAGE RATING
  - "3P" - DENOTES 3-POLE
  - "3R" - DENOTES NEMA 3R ENCLOSURE
- DISCONNECT SWITCH - NEMA 1 ENCLOSURE - UNFUSED
- MAGNETIC MOTOR STARTER - REFER TO "MECHANICAL/ ELECTRICAL/ PLUMBING" COORDINATION SCHEDULE.
- $M — MANUAL MOTOR STARTER WITH INTEGRAL THERMAL PROTECTION
- ECB 100AF 60AT 3P — ENCLOSED CIRCUIT BREAKER - NEMA 1 ENCLOSURE - AMPERAGE AND NO. OF POLES AS INDICATED.
  - 100AF - DENOTES CIRCUIT BREAKER FRAME
  - 60AT - DENOTES CIRCUIT BREAKER TRIP
  - NEMA 3R - DENOTES NEMA 3R ENCLOSURE
- J — JUNCTION BOX

"ATC" INDICATES CONNECTION FOR AUTOMATIC TEMPERATURE CONTROLS
"B" INDICATES JUNCTION BOX WITH BLANK COVER
"EWC" INDICATES CONNECTION TO ELECTRIC WATER COOLER
"EF"- INDICATES ELECTRONIC FAUCET
"MGAP"- DENOTES MEDICAL GAS ALARM PANEL (LOCAL) "MMGAP"- DENOTES MASTER MEDICAL GAS ALARM PANEL
"PS" INDICATES CONNECTION TO MOTORIZED PROJECTION SCREEN
"MD" INDICATES CONNECTION TO MOTORIZED DAMPER

- PP — POWER POLE

WIRING DEVICE LEGEND

- DUPLEX RECEPTACLE NEMA 5-20R NORMAL BRANCH CIRCUIT
- DOUBLE DUPLEX RECEPTACLE NEMA 5-20R NORMAL BRANCH CIRCUIT
- DUPLEX RECEPTACLE NEMA 5-20R EMERGENCY BRANCH CIRCUIT
- DOUBLE DUPLEX RECEPTACLE NEMA 5-20R EMERGENCY BRANCH CIRCUIT
- DUPLEX RECEPTACLE GFI TYPE NEMA 5-20R NORMAL BRANCH CIRCUIT
- DUPLEX RECEPTACLE GFI TYPE NEMA 5-20R EMERGENCY BRANCH CIRCUIT

RECEPTACLE TYPE DESIGNATIONS:

ALL RECEPTACLES ARE MOUNTED 18" AFF UNLESS OTHERWISE NOTED. ALL RECEPTACLES WITHIN PATIENT ACCESSIBLE AREAS SHALL BE TAMPERPROOF TYPE DEVICES.

- "C"- DENOTES MOUNTED 8" ABOVE WORK SURFACE OR COUNTER TOP
- "CM"- DENOTES RECEPTACLE MOUNTED 8" ABOVE WORK SURFACE OR COUNTER TOP FOR COFFEE MACHINE
- "D"- DENOTES DEVICE FED VIA DEDICATED BRANCH CIRCUITRY
- "MC"- DENOTES RECEPTACLE MOUNTED 8" ABOVE WORK SURFACE FOR MICROWAVE, COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH THE CASEWORK VENDOR AND ARCHITECT PRIOR TO INSTALLATION
- "TV"- DENOTES RECEPTACLE MOUNTED HIGH ON WALL FOR TELEVISION. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH THE ARCHITECT PRIOR TO INSTALLATION. PROVIDE TAMPERPROOF TYPE DEVICE IN PATIENT ACCESSIBLE AREAS
- "REF"- DENOTES RECEPTACLE MOUNTED AT 48" FOR FULL HEIGHT REFRIGERATOR
- "TP"- DENOTES TAMPER PROOF TYPE
- "UC"- DENOTES RECEPTACLE MOUNTED AT 18" IN CASEWORK FOR UNDERCABINET REFRIGERATOR

- CEILING MOUNTED RECEPTACLE
  - "CP"- DENOTES RECEPTACLE MOUNTED IN CEILING FOR PROJECTOR
- FLOOR MOUNTED DUPLEX RECEPTACLE NEMA 5-20R. PROVIDE RECTANGULAR METALLIC CAST IRON ADJUSTABLE FLOOR BOX WITH ALUMINUM COVERS. PROVIDE CARPET FLANGES AS REQUIRED.
  - "F"- DENOTES FLUSH FLOOR MOUNTED
  - "PT"- DENOTES 2 HOUR FIRE RATED POKE-THROUGH
- DUAL CHANNEL, METALLIC, SURFACE MOUNTED RACEWAY, MOUNTED 6" ABOVE WORK SURFACE OR AS DIRECTED BY ARCHITECT AND OWNER. RACEWAY TO BE FACTORY PRE-WIRED, WITH DUPLEX NEMA 5-20R RECEPTACLES 24" ON CENTER AND BLANK TELE/DATA LOCATIONS 24" ON CENTER, UNLESS OTHERWISE NOTED. DUAL COVER WIREMOLD AL4500 SERIES OR APPROVED EQUAL. HOMERUNS FOR WIREMOLD WITHIN 6'-0" OF SINKS SHALL BE CONNECTED TO A GFCI RECEPTACLE IN ORDER TO PROTECT THE BALANCE OF DEVICES DOWNSTREAM

ALL DEVICES TO BE HOSPITAL GRADE

MASTER CLOCK SYSTEM LEGEND

- C A C — CLOCK - CEILING MOUNTED, WALL MOUNTED RESPECTIVELY

LIGHTING PLAN LEGEND

- FR 1 a — LIGHTING FIXTURE AS DESIGNATED ON LIGHTING FIXTURE SCHEDULE
  - "1" - DENOTES PANELBOARD BRANCH CIRCUIT NUMBER
  - "a" - DENOTES FIXTURE CONTROLLED BY LOCAL SWITCH "a"
  - "FR" - DENOTES FIXTURE TYPE AS NOTED ON FIXTURE SCHEDULE.
  - "NIL" - DENOTES NIGHT LIGHT FIXTURE
  - - DENOTES LIGHT FIXTURE ON LIFE SAFETY BRANCH CIRCUIT
  - - DENOTES LIGHT FIXTURE ON CRITICAL BRANCH CIRCUIT
- EXIT SIGN - SHADED AREA INDICATES LOCATION AND QUANTITY OF FACES; DIRECTIONAL ARROWS AS INDICATED
- REMOTE EMERGENCY LIGHTING, SINGLE HEAD MOUNT 7'-6" AFF
- REMOTE EMERGENCY LIGHTING, DUAL HEAD MOUNT 7'-6" AFF
- EMERGENCY BATTERY UNIT, MOUNT 7'-6" AFF; NO OF EMERGENCY LIGHTING HEADS AS INDICATED.

SWITCHES LEGEND

- S_a — LOCAL SWITCH, SINGLE POLE
  - "a" - DENOTES LIGHT FIXTURE CONTROL
- S_3 — LOCAL SWITCH, 3-WAY, SINGLE POLE DOUBLE THROW
- S_4 — LOCAL SWITCH, 4-WAY, DOUBLE POLE, DOUBLE THROW
- S_D — DIMMER SWITCH, SINGLE POLE
- S_{LV} — LOW VOLTAGE SWITCH

(MOUNT 48" AFF UNO)

"MS" - DENOTES MASTER STATION OVERRIDE
"a" - DENOTES LOW VOLTAGE SWITCH CIRCUIT

- S_{OS} — OCCUPANCY SENSOR - WALL MOUNTED INTEGRAL, DUAL TECHNOLOGY, SINGLE POLE SWITCH. MOUNT 48" AFF UNLESS NOTED OTHERWISE. AS MANUFACTURED BY WATTSTOPPER
- OS — OCCUPANCY SENSOR - WALL MOUNTED INTEGRAL, DUAL TECHNOLOGY, DUAL RELAY SWITCH. MOUNT 48" AFF UNLESS NOTED OTHERWISE. AS MANUFACTURED BY WATTSTOPPER
- OS — OCCUPANCY SENSOR - WALL MOUNTED INTEGRAL, DUAL TECHNOLOGY, DUAL RELAY SWITCH, WITH INTEGRAL PHOTOCELL. MOUNT 48" AFF UNLESS NOTED OTHERWISE. AS MANUFACTURED BY WATTSTOPPER
- OS — OCCUPANCY SENSOR, CEILING MOUNTED, DUAL TECHNOLOGY AS MANUFACTURED BY WATTSTOPPER
- OS — OCCUPANCY SENSOR, CEILING PEDESTAL MOUNTED CORNER UNIT, DUAL TECHNOLOGY AS MANUFACTURED BY WATTSTOPPER

COMMUNICATIONS LEGEND

- COMBINATION VOICE/DATA OUTLET DEVICE PROVISIONS - MOUNTED 18"AFF, UNLESS NOTED OTHERWISE. (1 VOICE, 1 DATA UNLESS OTHERWISENOTED) WITH 1"C RUN CONCEALED WITHIN WALL TO ABOVE FINISHED CEILING AND TERMINATING WITHIN 6" OF CABLE TRAY
  - "C" - DENOTES MOUNTED 8" ABOVE WORK SURFACE
  - "H" - DENOTES MOUNTED HIGH ON WALL. HEIGHT COORDINATED WITH ARCHITECT
- VOICE ONLY OUTLET DEVICE PROVISIONS - MOUNTED 18" AFF, UNLESS NOTED OTHERWISE, WITH 1"C RUN CONCEALED WITHIN WALL TO ABOVE FINISHED CEILING AND TERMINATING WITHIN 6" OF CABLE TRAY
  - "C" - DENOTES MOUNTED 8" ABOVE WORK SURFACE
  - "W" - DENOTES MOUNTED 54" AFF
- DATA ONLY OUTLET DEVICE PROVISIONS - MOUNTED 18" AFF, UNLESS NOTED OTHERWISE, WITH 1"C RUN CONCEALED WITHIN WALL TO ABOVE FINISHED CEILING AND TERMINATING WITHIN 6" OF CABLE TRAY
  - "WAP" DENOTES WIRELESS ACCESS POINT 1"EMT TO WITHIN 6" OF NEAREST CABLE TRAY
  - "C" - DENOTES MOUNTED 8" ABOVE WORK SURFACE
  - "CAP"- DENOTES CEILING MOUNTED WIRELESS ACCESS POINT
- INFORMATION TECHNOLOGY (IT) OUTLET DEVICE PROVISIONS - CEILING MOUNTED WITH 1"C RUN CONCEALED WITHIN WALL TO ABOVE FINISHED CEILING AND TERMINATING WITHIN 6" OF CABLE TRAY

SYMBOLOGY INDICATE LOCATION ONLY. DEVICES AND WIRING TO BE PROVIDED BY OWNER'S VENDOR. REFER TO SPECIFICATION SECTION 'RACEWAY SUPPORT SYSTEM" FOR ADDITIONAL INFORMATION.

PUBLIC ADDRESS SYSTEM LEGEND

- S S — SPEAKER - CEILING OR WALL MOUNTED RESPECTIVELY

FIRE ALARM SYSTEM LEGEND

- FACC — FIRE ALARM COMMAND CENTER
- FACP — FIRE ALARM CONTROL PANEL
- FATB — FIRE ALARM TERMINAL BOX
- FAA — FIRE ALARM ANNUNCIATOR PANEL
- F — FIRE ALARM MASTERBOX
- F — FIRE ALARM WEATHERPROOF EXTERIOR FIRE BEACON
- K — FIRE ALARM KNOX BOX
- F — FIRE ALARM ADA COMPATIBLE MANUAL PULL STATION
- F $_C$ — FIRE ALARM ADA COMPATIBLE, WALL MOUNTED SPEAKER/ STROBE COMBINATION UNIT 90db OUTPUT, ADJUSTABLE CANDELA RATING, FACTORY SET AT 75cd, UNLESS NOTED OTHERWISE
  - "C" - DENOTES CEILING MOUNTED
  - "S" - DENOTES AUDIBLE ONLY DEVICE
- F $_V$ — FIRE ALARM ADA COMPATIBLE, WALL MOUNTED STROBE UNIT ADJUSTABLE CANDELA RATING, FACTORY SET AT 15cd
- S $_D$ — FIRE ALARM SMOKE DETECTOR, CEILING MOUNTED UNLESS NOTED OTHERWISE.
  - "D" - DENOTES DUCT SMOKE DETECTOR
  - "E" - DENOTES ELEVATOR RECALL
  - "HT" - DENOTES SMOKE/ HEAT DETECTOR COMBINATION UNIT
  - "S" - DENOTES SINGLE STATION SMOKE DETECTOR WITH INTEGRAL AUDIBLE SIGNALS
  - "H" - DENOTES HOSTILE ENVIRONMENT
- FIRE ALARM REMOTE LED INDICATOR
- RTS — FIRE ALARM REMOTE TEST STATION
- H $_R$ — FIRE ALARM HEAT DETECTOR; CEILING MOUNTED, 135° FIXED TEMPERATURE UNLESS NOTED OTHERWISE.
  - "R" - DENOTES RATE OF RISE
- CM — FIRE ALARM CONTROL MODULE
- MM — FIRE ALARM MONITORING MODULE
  - "FE" - DENOTES CONNECTION TO SELF MONITORING FOR FIRE EXTINGISHER CABINET
- IR — FIRE ALARM INTERFACE RELAY
- DH — FIRE ALARM ELECTRO-MAGNETIC DOOR HOLDER

WIRING METHODS

REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

NORMAL BRANCH CIRCUITS	THHN/THWN/XHHW CONDUCTORS IN EMT OR HOSPITAL GRADE AC CABLE
EMERGENCY SYSTEM (LIFE SAFETY AND CRITICAL) BRANCH CIRCUITS	THHN/THWN/XHHW CONDUCTORS IN EMT
FIRE ALARM SYSTEM WIRING	CONDUCTORS IN EMT

DEMOLITION LEGEND

- "X" — EXISTING ELECTRICAL DEVICE SHALL BE REMOVED
- "XR" — EXISTING ELECTRICAL DEVICE SHALL BE REMOVED AND RELOCATED
- "XL" — EXISTING ELECTRICAL DEVICE INDICATED IN NEW LOCATION
- "XN" — EXISTING ELECTRICAL DEVICE AND COVER PLATE ONLY SHALL BE REMOVED AND REPLACED WITH NEW; MAINTAIN EXISTING BOX, RACEWAY AND WIRING.
- "XM" — EXISTING ELECTRICAL DEVICE SHALL BE MAINTAINED

EXAMPLE

X XR XL XN XM

DEMOLITION GENERAL NOTES

1. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE FULL EXTENT OF THE SCOPE OF DEMOLITION. DISCONNECT AND MAKE SAFE ALL ELECTRICAL EQUIPMENT IDENTIFIED FOR REMOVAL ON THE ARCHITECTURAL, HVAC, PLUMBING AND FIRE PROTECTION PLANS. THE ELECTRICAL SCOPE MAY EXTEND BEYOND THE AREA DEFINED BY THE ARCHITECTURAL DEMOLITION LIMITS TO FULLY COMPLY WITH THE VARIOUS REQUIREMENTS DEFINED BY THESE NOTES.

2. THE ELECTRICAL DEMOLITION PLANS INDICATE THE GENERAL INTENT AND ARE NOT INTENDED TO SHOW ALL COMPONENTS AND ITEMS TO BE REMOVED OR RETAINED. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMISSION OF THIER BID TO BECOME FAMILIAR WITH THE ACTUAL WORKING CONDITIONS AND EXTENT OF WORK. DEVICES AND EQUIPMENT LOCATED ON WALLS AND/OR CEILINGS DESIGNATED TO BE REMOVED SHALL BE DISCONNECTED AND MADE SAFE. THE ELECTRICAL CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY UNANTICIPATED OR HIDDEN CONDITIONS ENCOUNTERED DURING DEMOLITION.

3. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ALL SYSTEMS OR BUILDING COMPONENTS DAMAGED DURING THE EXECUTION OF THE WORK. DAMAGE SHALL INCLUDE, BUT NOT BE LIMITED TO, THE DESTRUCTION OR DISPOSAL OF ITEMS INTENDED TO REMAIN OR BE SALVAGED.

4. THE ELECTRICAL CONTRACTOR SHALL CIRCUIT TRACE AND LABEL ALL EXISTING BRANCH CIRCUITS AND FEEDERS WITHIN OR ASSOCIATED WITH THE AREA OF DEMOLITION SCOPE PRIOR TO DE-ENERGIZING AND DISCONNECTION. ALL CIRCUITS WITHIN PANELBOARDS IDENTIFIED FOR REMOAVAL SHALL BE TRACED AND LABELLED TO ENSURE THAT NO AREA OUTSIDE THE DEMOLITION SCOPE LIMIT IS AFFECTED.

5. THE ELECTRICAL CONTRACTOR SHALL IDENTIFY ALL BRANCH CIRCUITS, FEEDERS AND SYSTEM COMPONENTS WHICH ARE TO REMAIN WITHIN THE AREA OF DEMOLITION SCOPE. THERE SHALL BE NO INTERRUPTION OF SERVICE TO ANY AREA OUTSIDE THE SCOPE LIMITS WITHOUT APPROVAL FROM THE OWNER'S REPRESENTATIVE. EXISTING EQUIPMENT TO REMAIN SHALL BE LEFT IN A CODE COMPLIANT CONDITION.

6. THE ELECTRICAL CONTRACTOR SHALL DE-ENERGIZE AND REMOVE ALL CONDUCTORS AND RACEWAYS TO THIER POINTS OF ORIGIN WITHIN THE AREA OF DEMOLITION SCOPE. ITEMS IDENTIFIED FOR DEMOLITION SHALL NOT BE ABANDONED IN PLACE. RACEWAYS THAT ENTER MASONRY WALLS AND FLOORS SHALL BE CUT FLUSH AT THE SURFACE FOR PATCHING BY OTHERS. ALL CIRCUIT BREAKERS ASSOCIATED WITH THE DEMOLITION SHALL BE DE-ENERGIZED AND LABELED SPARE.

7. THE ELECTRICAL CONTRACTOR SHALL TEMPORARILY SUPPORT ALL ITEMS TO REMAIN THAT ARE AFFECTED BY THE DEMOLITION OF BUILDING STRUCTURAL COMPONENTS (WALLS, CEILINGS, ETC.). TEMPORARILY SUPPORTED ITEMS SHALL BE PERMANENTLY SUPPORTED AND INSTALLED WHEN FINALIZED STRUCTURES ARE IN PLACE.

8. ALL REMOVED ITEMS SHALL BE LEGALLY DISPOSED OF UNLESS IDENTIFIED FOR REUSE. THE OWNER'S REPRESENTATIVE SHALL INSPECT ALL RETAINED ITEMS PRIOR TO PLACEMENT IN THE INDENTIFIED STORAGE LOCATION BY THE ELECTRICAL CONTRACTOR.

9. THE EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY FUNCTIONAL DURING THE ENTIRE DEMOLITION AND CONSTRUCTION PERIOD. REUSE OF EXISTING FIRE ALARM RACEWAYS SHALL NOT BE ALLOWED. ALL REQUIRED SYSTEM SHUTDOWNS SHALL BE COORDINATED WITH AND APPROVED BY THE OWNER'S REPRESENTATIVE AND THE AUTHORITY HAVING JURISDICTION. DEMOLITION OF THE EXISITNG SYSTEM SHALL NOT COMMENCE UNTIL THE NEW SYSTEM HAS BEEN COMPLETELY INSTALLED, TESTED AND APPROVED BY THE AUTHORITY HAVING JURISDICTION.

10. ALL DEMOLITION SCOPE ASSOCIATED WITH LOW VOLTAGE SYSTEMS INCLUDING BUT NOT LIMITED TO TELEPHONE, DATA, SECURITY, PAGING, CCTV, ETC. SHALL BE INCLUDED IN THIS CONTRACT.

11. REMOVED FLUORESCENT AND HID LAMPS AND BATTERIES SHALL BE RECYCLED BY A FACILITY APPROVED BY THE OWNER'S REPRESENTATIVE. A UNIFORM HAZARDOUS WASTE MANIFEST SHALL BE PREPARED FOR ALL DISPOSALS AND RETURNED WITH ALL APPLICABLE SIGNFFS PRIOR TO APPLICATION FOR FINAL PAYMENT.

12. ALL BALLASTS IN LIGHTING FIXTURES TO BE DISPOSED SHALL BE VERIFIED TO BE PCB FREE. ALL BALLASTS MANUFACTURED PRIOR TO 1979 AND NOT LABELED AS PCB FREE SHALL BE CONSIDERED TO CONTAIN PCBs. PROVIDE WRITTEN REPRESENTATION TO THE OWNER'S REPRESENTATIVE THAT CONFIRMS PCB FREE WASTE. WHERE PCB FREE WASTE CANNOT BE VERIFIED, BALLASTS SHALL BE RECYCLED BY A FACILITY APPROVED BY THE OWNER'S REPRESENTATIVE, WITH PCB COMPONENTS ELIMINATED BY A HIGH TEMPERATURE INCINERATION. A UNIFORM HAZARDOUS WASTE MANIFEST SHALL BE PREPARED FOR ALL DISPOSALS AND RETURNED WITH ALL APPLICABLE SIGNOFFS PRIOR TO APPLICATION FOR FINAL PAYMENT. ALL HANDLING SHALL CONFORM TO EPA REQUIREMENTS. PROVIDE BREAKOUT COST FOR THIS SCOPE.

ELECTRICAL DRAWING LIST

PROJECT GENERAL NOTES

1. THIS IS A STANDARD SYMBOL LIST. ALL DEVICE SYMBOLS AND ABBREVIATIONS MAY NOT NECESSARILY APPEAR ON THE FLOOR PLANS OR DETAIL SHEET. ONLY THOSE SYMBOLS INDICATED ON THE FLOORS PLANS ARE USED AND OTHERS SHOULD BE DISREGARDED.

2. THE CONTRACTOR SHALL FURNISH LABOR, MATERIALS, TOOLS AND OTHER EQUIPMENT REQUIRED TO INSTALL THE WORK SHOWN AND SPECIFIED. THE CONTRACTOR SHALL FURNISH AND INSTALL ITEMS NECESSARY FOR A COMPLETE ELECTRICAL SYSTEM. MATERIALS SHALL BE NEW AND SHALL BEAR THE REGISTERED UL MARK. WORK SHALL CONFORM WITH THE NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 70 (NEC), THE NATIONAL ELECTRICAL CODE (NEC), AND APPLICABLE FEDERAL, STATE AND LOCAL CODES. CONTRACTOR SHALL SECURE PERMITS AND PAY THE FEES REQUIRED TO CARRY OUT HIS WORK. THE CONTRACTOR SHALL FURNISH COPIES OF CERTIFICATES AND PERMITS TO THE ARCHITECT.

3. THE DRAWINGS AND SPECIFICATIONS INDICATE THE INTENT OF THE DESIGN AND SHALL BE CONSIDERED AS DIAGRAMMATIC ONLY. EXACT LOCATIONS FOR OUTLETS AND EQUIPMENT SHALL BE DETERMINED AT THE SITE AS WORK PROGRESSES. DIMENSIONS AND CONDITIONS SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR AT THE SITE. FINAL WORK SHALL BE DOCUMENTED ON AS BUILT RECORD DRAWINGS.

4. PIPING, CONDUITS AND EQUIPMENT OF ALL TRADES SHALL BE PROPERLY COORDINATED AND SET TO MAINTAIN THE CLEARANCES REQUIRED BY APPLICABLE FEDERAL, STATE AND LOCAL CODES.

5. CONDUIT RUNS CROSSING EXPANSION JOINTS SHALL HAVE EXPANSION OR EXPANSION DEFLECTION TYPE FITTINGS AS REQUIRED. VERIFY EXISTING JOINTS BY FIELD MEASUREMENTS.

6. RACEWAYS AND CABLE SHALL BE RUN CONCEALED IN FINISHED SPACES UNLESS OTHERWISE NOTED.

7. LOAD CENTERS, PANELBOARDS AND SWITCHBOARDS SHALL BE PROVIDED WITH DEDICATED SPACE EXTENDING FROM THE FLOOR TO THE STRUCTURAL CEILING WITH A WIDTH AND DEPTH THAT OF THE EQUIPMENT, INCLUDING ANY ADDITIONAL SPACE DESCRIBED IN OF THE NEC. NO PIPING, DUCTS OR EQUIPMENT FOREIGN TO THE ELECTRICAL EQUIPMENT OR ARCHITECTURAL APPURTENANCES SHALL BE PERMITTED TO BE INSTALLED IN, ENTER OR PASS THROUGH SUCH SPACE.

8. WIRING DEVICES SHALL BE MOUNTED IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE ARCHITECTURAL BARRIERS BOARD.

9. PANELBOARD SHALL BE MOUNTED SO THAT THE DISTANCE FROM THE TOP CIRCUIT BREAKER OPERATING HANDLE TO THE FLOOR SHALL NOT EXCEED 6'-6".

10. ALL RECEPTACLES INSTALLED IN UNFINISHED AREAS SHALL BE GFI TYPE, MOUNTED 4'-0" ABOVE FINISHED FLOOR.

11. EXIT SIGNS AND EMERGENCY LIGHTING UNITS SHALL BE UNSWITCHED.

12. ALL BRANCH CIRCUITS (LIGHTING AND POWER) SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR. COMMON NEUTRALS WILL NOT BE ALLOWED.

13. RECEPTACLES, SWITCHES, LIGHTING FIXTURES, SMOKE DETECTORS, ETC. INDICATE QUANTITY, EXACT LOCATIONS OF DEVICES SHALL BE DETERMINED IN THE FIELD AND COORDINATE WITH ARCHITECTURAL DRAWINGS.

14. OUTDOOR ELECTRICAL EQUIPMENT SHALL BE NEMA 3R TYPE, UNLESS OTHERWISE NOTED.

15. MOUNTING HEIGHTS SHALL BE AS INDICATED ON MOUNTING HEIGHT DETAIL.

16. CONTRACTOR SHALL VERIFY ALL DOORS SWINGS BEFORE INSTALLING SWITCH BOXES.

17. FOR EXACT LOCATION OF LIGHTING FIXTURES SEE REFLECTED CEILING PLAN DRAWINGS. FOR MOUNTING HEIGHT OF UNDER-COUNTER LIGHTING FIXTURES AND OTHER TASK LIGHTING, REFER TO ARCHITECTURAL ELEVATION DRAWINGS.

18. ELECTRICAL CONTRACTOR IS TO COORDINATE THE EXACT LOCATION OF LIGHTING FIXTURES IN MECHANICAL AND STORAGE AREAS WITH OTHER TRADES.

19. FOR EXACT LOCATION OF MECHANICAL EQUIPMENT (AC UNITS, FANS, PUMPS, ETC.) REFER TO RESPECTIVE TRADES DRAWINGS. FOR ELECTRICAL INFORMATION, REFER TO MEP COORDINATION SCHEDULE.

20. CURRENT CARRYING MATERIAL USED SHALL BE COPPER, INCLUDING PANELBOARD BUS MATERIALS AND TRANSFORMER WINDINGS.

21. FURNISH GROUNDING/ BONDING BUSHINGS ONTO ALL CONDUIT ENTERING/ LEAVING BOXES.

22. ALL GROUND CONDUCTORS SHALL BE GREEN, ISOLATED GROUND CONDUCTORS SHALL BE GREEN/ YELLOW STRIPPED, AND NEUTRAL CONDUCTORS SHALL BE WHITE.

23. UNLESS NOTED OTHERWISE, ALL DATA AND TELEPHONE CABLING IS BY OTHERS. ELECTRICAL DRAWINGS PROVIDE RACEWAY SYSTEMS ONLY AND INDICATE TEL/DATA OUTLET CONFIGURATIONS FOR REFERENCE ONLY.

24. MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEM SHALL BE COORDINATED WITH THE FIRM WHO HOLDS THE EXISTING SYSTEM MAINTENANCE CONTRACT. THE FIRM WHO HOLDS THE EXISTING SYSTEM MAINTENANCE CONTRACT SHALL MAKE ALL FINAL CONNECTIONS, AND PERFORM ALL PROGRAMMING AND TESTING. ALL COSTS ASSOCIATED WITH FINAL CONNECTIONS, PROGRAMMING AND TESTING SHALL BE INCLUDED UNDER THIS CONTRACT AND SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

25. THE ELECTRICAL CONTRACTOR SHALL CARRY ALL COSTS ASSOCIATED WITH DISABLING THE CONNECTIONS TO THE EXISTING MUNICIPAL LOOP DURING FINAL CONNECTIONS AND TESTING AND SHALL CARRY COSTS FOR RECONNECTION OF LOOP.

26. WHERE PANELS ARE INDICATED TO BE RELOCATED, THE ELECTRICAL CONTRACTOR SHALL TRACE OUT EACH CIRCUIT TO DETERMINE WHAT CIRCUITS FEED AREAS OUTSIDE THE SCOPE OF WORK. CIRCUITS WHICH MUST BE MAINTAINED ARE TO BE RE-ROUTED TO THE NEW PANEL LOCATION BY PROVIDING AN ADEQUATELY SIZED PULL BOX AND SPLICING AND EXTENDING THE CONDUCTORS.

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STATE OF MAINE
SCOTT E. LECLAIR
No. 11519
REGISTERED PROFESSIONAL ENGINEER
ELECTRICAL

Mark	Date	Description

Project Status

Issued for Construction
05/10/12

Drawing Title

ELECTRICAL LEGEND

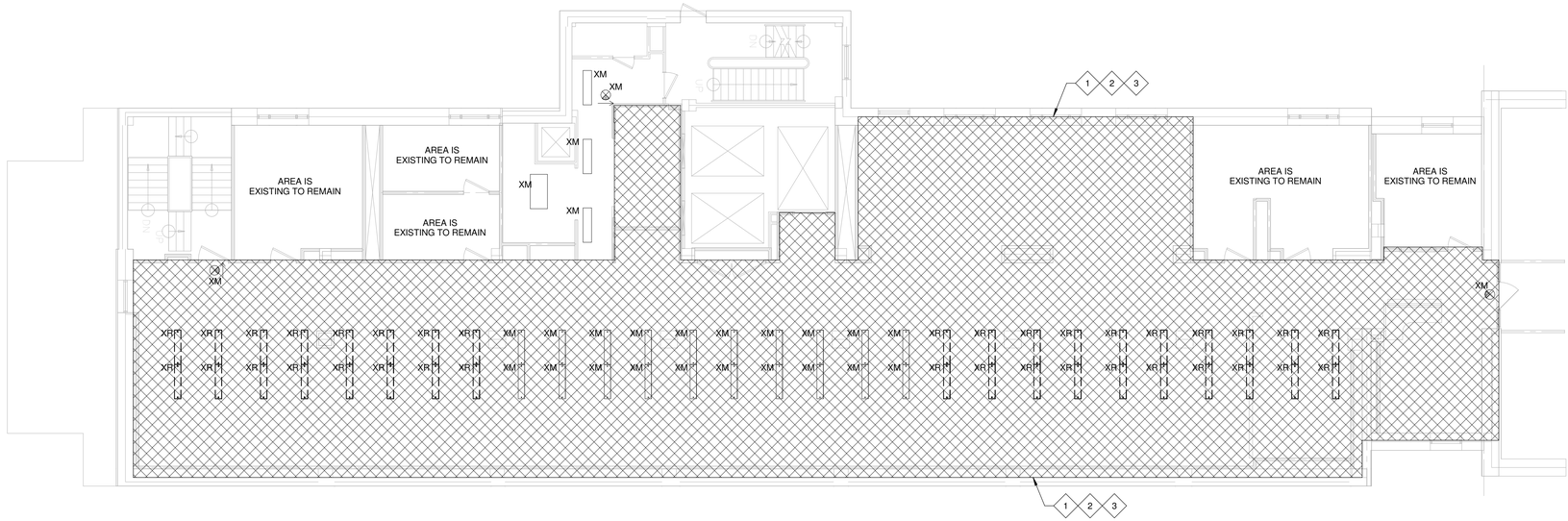
Scale: 12" = 1'-0"

Drawing Number

E0.0

LIGHTING DEMOLITION PLAN NOTES

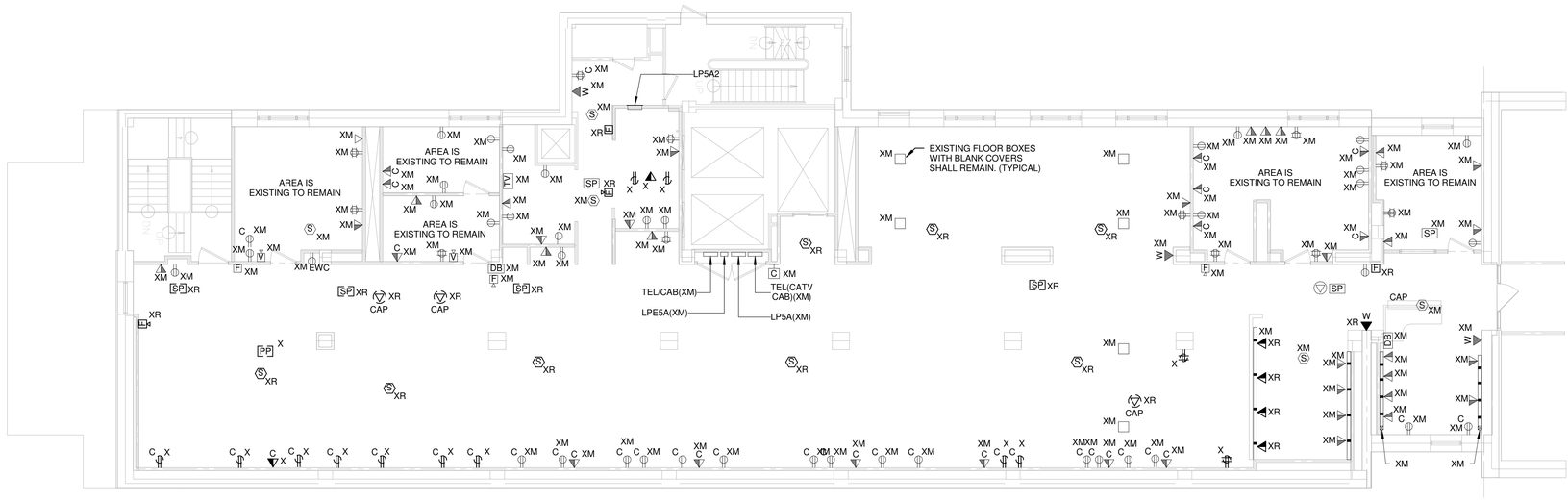
1. REFER TO GENERAL DEMOLITION NOTES ON DRAWING E0.1 FOR ADDITIONAL REQUIREMENTS.
2. WORK MAY BE REQUIRED OUTSIDE OF THE PROJECTS AREA OF RENOVATION. CONTRACTOR SHALL NOT ASSUME THAT AREA OF RENOVATION IS CONSIDERED THE SCOPE OF WORK AREA.
3. ALL EXISTING LIGHTING AND ASSOCIATED SWITCHING, NOT INDICATED TO REMAIN OR TO BE RELOCATED, SHALL BE REMOVED BACK TO ITS POINT OF ORIGIN. ANY ASSOCIATED CIRCUIT BREAKERS SHALL BE MAINTAINED FOR RE-USE IN THIS PROJECT UNLESS OTHERWISE NOTED.



1 E1.0 ELECTRICAL DEMOLITION LIGHTING PLAN
1/8" = 1'-0"

DEMOLITION PLAN NOTES

1. REFER TO GENERAL DEMOLITION NOTES ON DRAWING E0.1 FOR ADDITIONAL REQUIREMENTS.
2. WORK MAY BE REQUIRED OUTSIDE OF THE PROJECTS AREA OF RENOVATION. CONTRACTOR SHALL NOT ASSUME THAT AREA OF RENOVATION IS CONSIDERED THE SCOPE OF WORK AREA.
3. REFER TO NEW WORK PLANS FOR LOCATIONS OF RELOCATED DEVICES AND ADDITIONAL INFORMATION.



2 E1.0 ELECTRICAL DEMOLITION FLOOR PLAN
1/8" = 1'-0"

8' 4' 0 8' 16' 24'
SCALE: 1/8" = 1' - 0"

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Mark	Date	Description

Project Status

Issued for Construction

05/10/12

Drawing Title

ELECTRICAL FIFTH FLOOR DEMOLITION PLANS

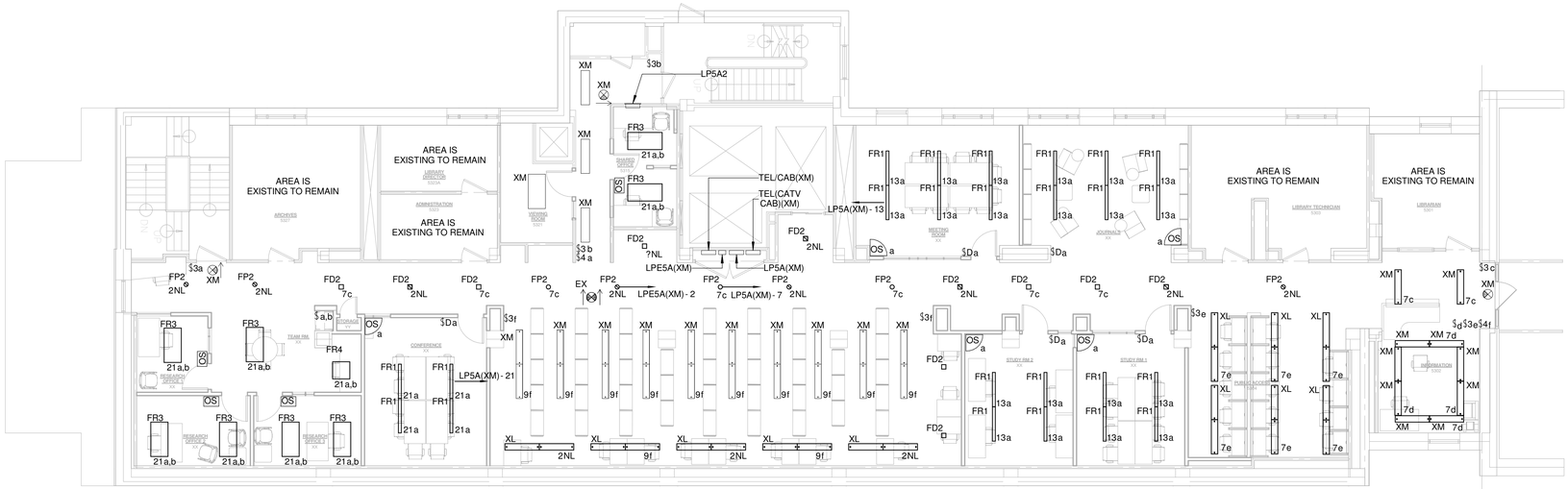
Scale: As indicated

Drawing Number

E1.0

LIGHTING PLAN NOTES

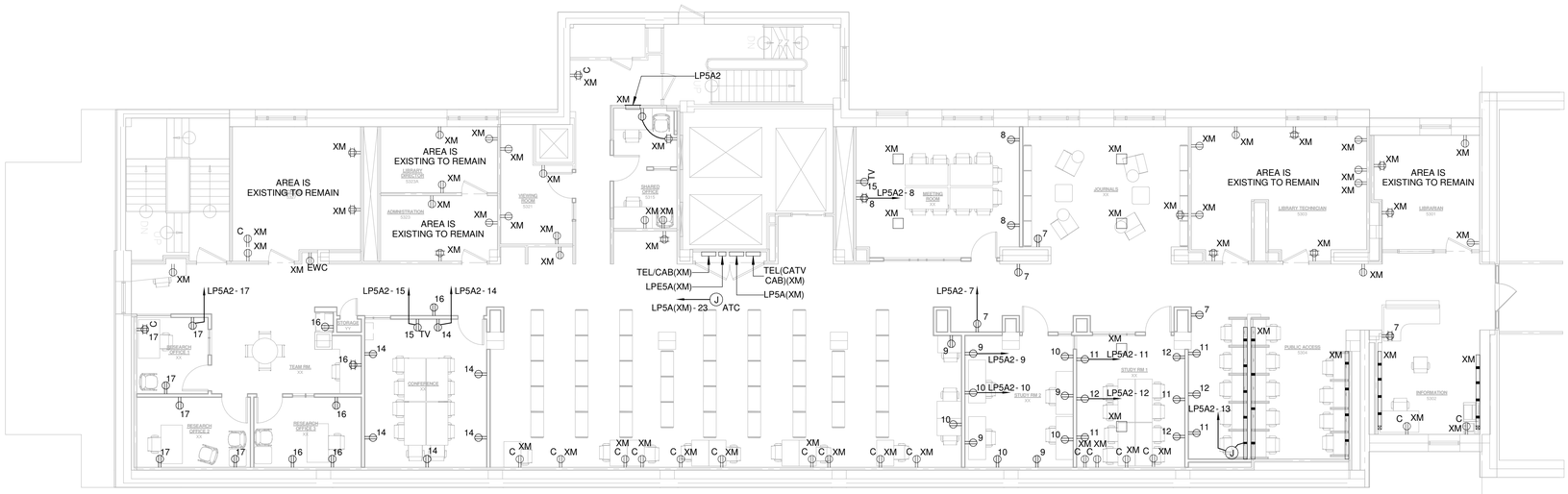
1. CIRCUIT NUMBERS ARE FOR DESCRIPTIVE PURPOSES ONLY. EXACT NUMBERS SHALL BE DETERMINED IN FIELD AND SHALL BE NOTED ON THE CONTRACTORS AS-BUILT DRAWINGS.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED AND INSTALLED FOR A MAXIMUM BRANCH CIRCUIT VOLTAGE DROP OF 3% FROM PANELBOARD. TOTAL VOLTAGE DROP FROM SERVICE ENTRY TO LAST DEVICE ON CIRCUIT SHALL NOT EXCEED 5%. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND OPTIONS.
3. EXIT SIGNS, FIXTURES DESIGNATED AS NIGHT LIGHTS, AND EMERGENCY BATTERY UNITS SHALL BE CONNECTED TO AN UNSWITCHED, CONSTANT "ON" SOURCE AS INDICATED.
4. FIXTURES SHOWN TO INCLUDE EMERGENCY BALLAST SHALL HAVE ADDITIONAL "CONSTANT ON" SOURCE.
5. FOR EXISTING PANELS INDICATED WITH NEW BRANCH CIRCUITS, PROVIDE NEW CIRCUIT BREAKERS WITHIN EXISTING PANEL. NEW BREAKERS SHALL MATCH THE EXISTING PANEL IN MANUFACTURER, TYPE AND AIC RATING .



1 E2.0 ELECTRICAL FIFTH FLOOR LIGHTING PLAN
1/8" = 1'-0"

POWER PLAN NOTES

1. CONTRACTOR SHALL COORDINATE MOUNTING HEIGHT OF ALL DEVICES WITH ARCHITECTS DRAWINGS PRIOR TO ROUGH IN.
2. CIRCUIT NUMBERS ARE FOR DESCRIPTIVE PURPOSES ONLY. EXACT NUMBERS SHALL BE DETERMINED IN FIELD AND SHALL BE NOTED ON THE CONTRACTORS AS-BUILT DRAWINGS.
3. BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED AND INSTALLED FOR A MAXIMUM BRANCH CIRCUIT VOLTAGE DROP OF 3% FROM PANELBOARD. TOTAL VOLTAGE DROP FROM SERVICE ENTRY TO LAST DEVICE ON CIRCUIT SHALL NOT EXCEED 5%. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND OPTIONS.
4. COORDINATE EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT WITH HVAC, PLUMBING, AND FIRE PROTECTION DRAWINGS.
5. ALL RECEPTACLES WITHIN 6' OF A SINK SHALL BE PROVIDED WITH GFCI PROTECTION.
6. ALL RECEPTACLES IN SPACES DESIGNATED AS "WAITING ROOM" SHALL BE TAMPERPROOF.
7. FOR EXISTING PANELS INDICATED WITH NEW BRANCH CIRCUITS, PROVIDE NEW CIRCUIT BREAKERS WITHIN EXISTING PANEL. NEW BREAKERS SHALL MATCH THE EXISTING PANEL IN MANUFACTURER, TYPE AND AIC RATING .



2 E2.0 ELECTRICAL FIFTH FLOOR POWER PLAN
1/8" = 1'-0"

8' 4' 0 8' 16' 24'
SCALE: 1/8" = 1' - 0"

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Issued for Construction

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Drawing Title

ELECTRICAL FIFTH FLOOR LIGHTING AND POWER PLANS

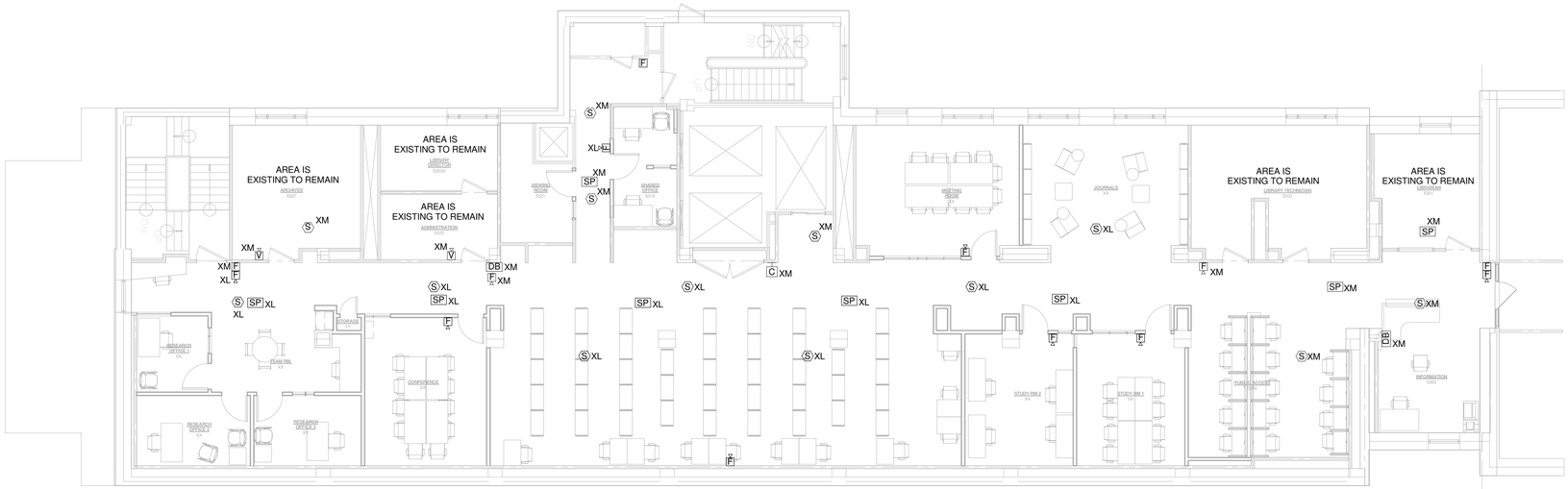
Scale: As indicated

Drawing Number

E2.0

LOW VOLTAGE PLAN NOTES

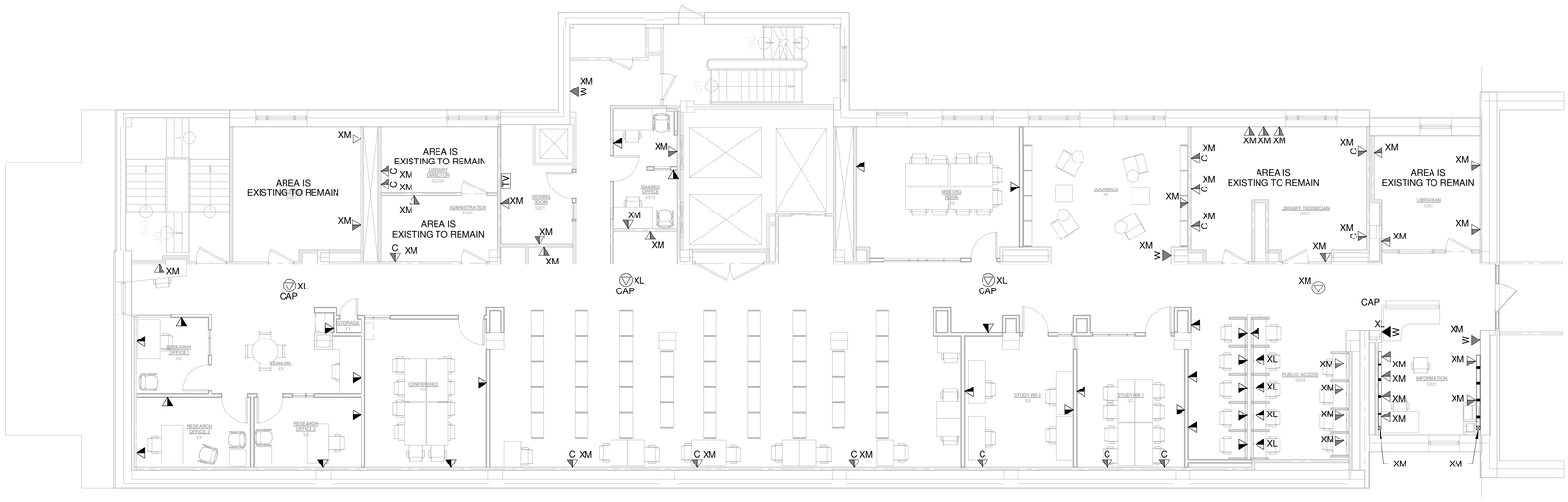
1. REFER TO DRAWING E0.1 FOR LEGEND AND GENERAL NOTES.
2. DEVICES SHALL BE INSTALLED AT MOUNTING HEIGHTS AND LOCATIONS AS INDICATED ON THE ARCHITECTURAL ELEVATIONS, PART PLANS, AND DETAILS. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR INFORMATION.
3. CONNECT NEW FIRE ALARM DEVICES TO THE EXISTING SYSTEM (FIELD VERIFY EXACT LOCATION OF FIRE ALARM TERMINAL CABINET.)
   - REPROGRAM SYSTEM AND ADD POWER SUPPLIES, SIGNAL MODULES, ETC. AS REQUIRED TO ACCOMODATE ADDITIONS. VERFIY EXISTING CAPACITY OF EXISTING NOTIFICATION CIRCUITS AND ADD ADDITIONAL BOOSTER PANELS AS REQUIRED TO ACCOMMODATE THE NEW DEVICES.
   - INSTALLATION SHALL CONFORM TO BUIILDING STANDARDS.
   - THE CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT AND FINAL CONNECTIONS, PROGRAMMING AND PERFORM ALLTESTING.
   - ALL VISUAL NOTIFICATION DEVICES, BOTH NEW AND EXISTING SHALL BE SYNCHRONIZED WITH THE EXISTING DEVICES.
   - THE EXISTING AREA IS SERVED BY THE JUNCTION BOXES AND SYSTEM RISERS LOCATED IN THE ELECTRIC CLOSET ADJACENT TO THE ELEVATOR BANK IN PAVILION C.
4. RELOCATE PUBLIC ADDRESS SPEAKERS TO NEW CEILING. COORDINATE THE EXACT LOCATION WITH THE ARCHITECT AND OWNER. MAINTAIN AND EXTEND EXISTING SPEAKER CIRCUIT WIRING AS REQUIRED TO ACCOMMODATE THE NEW LOCATION.



1 ELECTRICAL FIFTH FLOOR LOW VOLTAGE PLAN
E3.0 1/8" = 1'-0"

TELE/DATA PLAN NOTES

1. REFER TO DRAWING E0.1 FOR LEGEND AND GENERAL NOTES.
2. DEVICES SHALL BE INSTALLED AT MOUNTING HEIGHTS AND LOCATIONS AS INDICATED ON THE ARCHITECTURAL ELEVATIONS, PART PLANS, AND DETAILS. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR INFORMATION.
3. WIRELESS ACCESS POINTS SHALL BE RELOCATED TO NEW CEILING. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER'S IT DEPARTMENT. RELOCATE THE BACKBOX AND RACEWAY AS REQUIRED TO ACCOMMODATE THE NEW DEVICE LOCATION. RELOCATION OF THE DEVICE AND CABLING SHALL BE BY THE OWNER'S IT DEPARTMENT.



2 ELECTRICAL FIFTH FLOOR TELE/DATA PLAN
E3.0 1/8" = 1'-0"

8' 4' 0 8' 16' 24'

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

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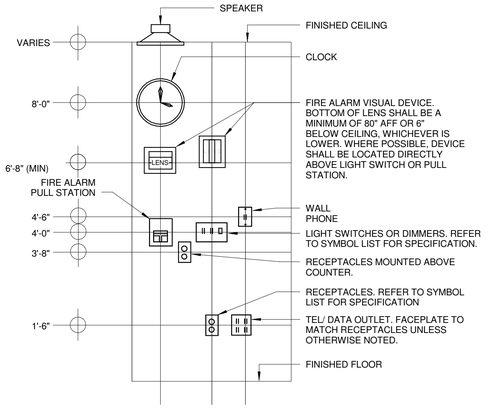
Drawing Title

ELECTRICAL FIFTH FLOOR LOW VOLTAGE AND TELE/DATA PLANS

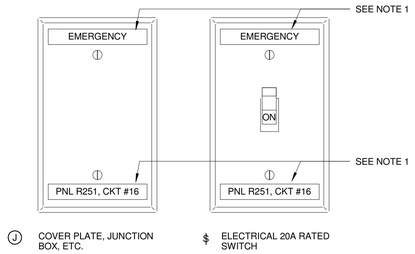
Scale: As indicated

Drawing Number

E3.0

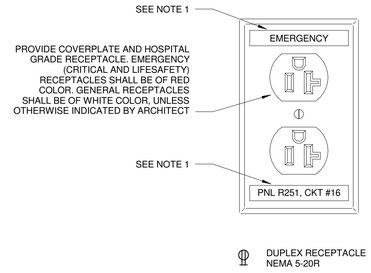


TYPICAL WALL DEVICE MOUNTING DETAIL — NO SCALE — 26.1019



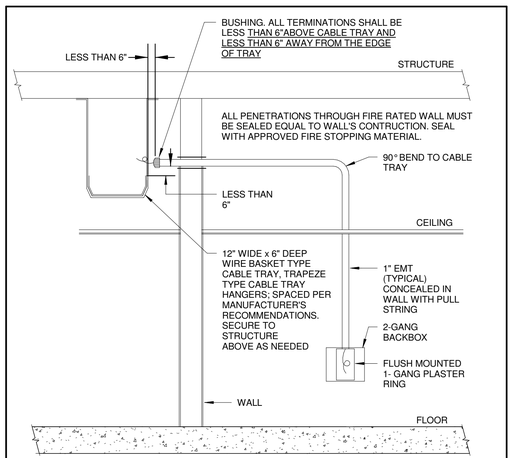
1. AT A MINIMUM, ELECTRICAL CONTRACTOR SHALL PROVIDE TYPED LABELS WITH PTOUCH MACHINE TO INDICATE PANEL NAME AND CIRCUIT NUMBER. PROVIDE 'EMERGENCY' TYPED LABEL FOR CIRCUITS CONNECTED TO EMERGENCY PANELS. COORDINATE EXACT NAMING WITH HOSPITAL PERSONNEL. IF FACILITY STANDARD IS ENGRAVED COVERPLATES, THE ELECTRICAL CONTRACTOR SHALL PROVIDE ENGRAVED COVERPLATES TO MATCH FACILITY REQUIREMENTS.

TYPICAL COVERPLATE AND SWITCH DETAIL — NO SCALE — 26.1004

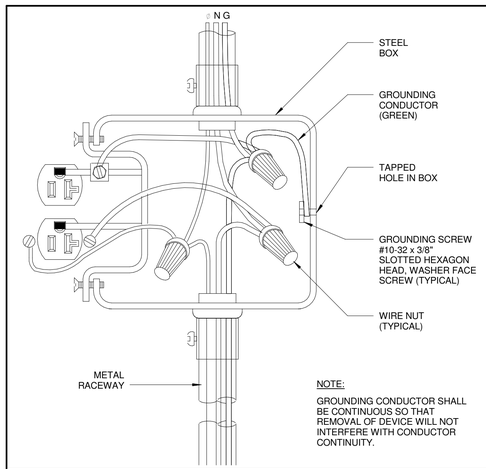


1. AT A MINIMUM, ELECTRICAL CONTRACTOR SHALL PROVIDE TYPED LABELS WITH PTOUCH MACHINE TO INDICATE PANEL NAME AND CIRCUIT NUMBER. PROVIDE 'EMERGENCY' TYPED LABEL FOR CIRCUITS CONNECTED TO EMERGENCY PANELS. COORDINATE EXACT NAMING WITH HOSPITAL PERSONNEL. IF FACILITY STANDARD IS ENGRAVED COVERPLATES, THE ELECTRICAL CONTRACTOR SHALL PROVIDE ENGRAVED COVERPLATES TO MATCH FACILITY REQUIREMENTS.

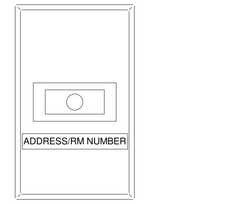
TYPICAL RECEPTACLE LABELING DETAIL — NO SCALE — 26.1001



TELECOMMUNICATIONS RACEWAY DETAIL — NO SCALE — 26.6510



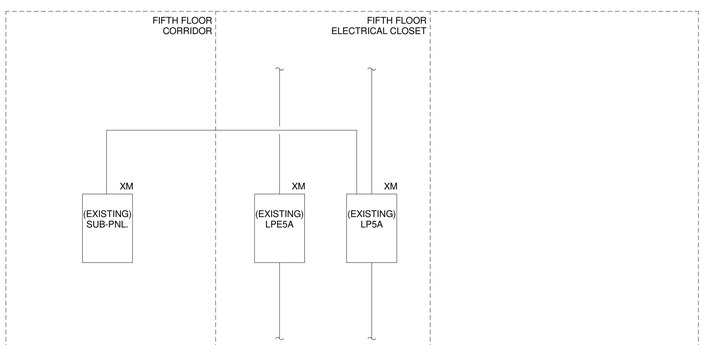
TYPICAL DEVICE WIRING DETAIL — NO SCALE — 26.1016



- SINGLE LED LIGHT REMOTE ALARM INDICATOR
- RTS REMOTE TEST STATION
- S SMOKE DETECTOR
- F SPEAKER/STROBE

1. AT A MINIMUM, ELECTRICAL CONTRACTOR SHALL PROVIDE TYPED LABELS WITH PTOUCH MACHINE TO INDICATE ADDRESS OF SMOKE DETECTOR WITHIN ENCLOSED ROOM OR ROOM NUMBER OR IF SYSTEMS IS ZONED. SAME TYPE OF LABELING SYSTEM SHALL BE APPLIED TO DEVICES LISTED ABOVE.

TYPICAL FIRE ALARM DEVICE LABELING DETAIL — NO SCALE — 26.1013



1 / E4.0 PARTIAL POWER RISER DIAGRAM — N.T.S.

E - LIGHTING FIXTURE SCHEDULE

MARK	DESCRIPTION	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN CAT. NUMBER	LAMPS QTY.	LAMPS WATTS	LAMPS TYPE	MOUNTING	VOLTAGE	NOTES
EX	LED EXIT SIGN	COOPER	LPX-6-R-W	-	-	LED	SURFACE	UNV	LF11
FD2	4.5" X 4.5" SQUARE COMPACT FLUORESCENT DOWNLIGHT	FOCAL POINT	CFL-ID,FC44-LAMP-SF-D44SFDNC DWH	1	32	COMPACT FLUORESCENT	RECESSED	UNV	
FP2	COMPACT FLUORESCENT DOWNLIGHT	KIORA	44-0922-WH-RF	1	70	COMPACT FLUORESCENT	SURFACE	UNV	
FR1	4" SLOT FLUORESCENT FIXTURE	FOCAL POINT	FSM4-FL1T5G2wh	1	28	T5	RECESSED	UNV	LF16
FR3	2X4 HIGH EFFICIENCY FLUORESCENT FIXTURE	COLUMBIA	EPC-24-LAMPS-G-SH-ESD	2	28	T5	RECESSED	UNV	LF14
FR4	2X2 HIGH EFFICIENCY FLUORESCENT	COLUMBIA	EPC-22-LAMPS-G-SH-ESD	2	14	T5	RECESSED	UNV	LF14
XM/XL-P	EXISTING 8' PENDANT FIXTURE			2	32	T8	PENDANT	UNV	CLEAN AND RELAMP FIXTURE

THE BASIS OF DESIGN FOR LIGHTING FIXTURES SHALL BE AS INDICATED ON THESE DOCUMENTS. ANY SUBSTITUTIONS AND/OR ALTERNATE MANUFACTURERS SHALL BE IDENTIFIED IN THE CONTRACTORS BID FOR THE PROJECT AND SHALL BE ACCOMPANIED WITH A FULL SUBMITTAL OF ALL PROPOSED SUBSTITUTIONS. THE ARCHITECT, OWNER, AND ENGINEER MUST PROVIDE APPROVAL FOR THE SUBSTITUTIONS FOR EQUIVALENT PERFORMANCE AND AESTHETIC APPEARANCE PRIOR TO THE SUBSTITUTIONS BEING ACCEPTED. EQUIVALENT FIXTURE PERFORMANCE SHALL BE DEMONSTRATED BY LIGHTING PERFORMANCE CALCULATIONS IF REQUESTED AND SHALL INCLUDE MEETING UTILITY COMPANY INCENTIVE PROGRAMS.

LIGHTING FIXTURE SCHEDULE NOTES:

(NOTES LF1 THROUGH LF11 ARE GENERAL NOTES AND APPLY TO ALL LIGHT FIXTURES).

LF1. FINAL MOUNTING HEIGHT, AND LOCATION SHALL BE AS DIRECTED BY ARCHITECT.

LF2. FLUORESCENT LIGHT FIXTURES TO BE EQUIPPED WITH ELECTRONIC BALLASTS.

LF3. CATALOG NUMBERS INDICATED ARE FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR FINAL FIXTURE COORDINATION AND INSTALLATION, REFER TO SPECIFICATIONS.

LF4. FLUORESCENT LAMPS SHALL BE LOW MERCURY LEVEL TYPE, MINIMUM 82 CRI, 3500°K, UNLESS SPECIFICALLY NOTED OTHERWISE.

LF5. RECESSED FIXTURES LOCATED WITHIN INSULATED CEILING OR WALL SHALL BE "IC" RATED.

LF6. FINAL FINISH/COLOR OF FIXTURE TO BE APPROVED IN WRITING BY ARCHITECT.

LF7. COORDINATE LIGHTING FIXTURE INSTALLATION AND TRIM KIT WITH CEILING TYPE INDICATED ON ARCHITECTURAL DRAWINGS.

LF8. COORDINATE TASK LIGHT FIXTURE INSTALLATION WITH CASEWORK AS DETAILED ON ARCHITECTURAL DRAWINGS.

LF9. ALL LAMPING AND BALLASTS MUST BE PROVIDED AS A MATCHING PAIR. I.E FROM THE SAME MANUFACTURER, BE ELIGIBLE FOR INCENTIVE PER LOCAL UTILITY INCENTIVE PROGRAMS AND MEET CEE GUIDELINES (CONSORTIUM OF ENERGY EFFICIENCY). ALL FLUORESCENT LAMPS SHALL BE 3500°K AND A MINIMUM OF 82CRI PER SPECIFICATION AND FACILITY STANDARD. LAMPS SHALL BE COMPATIBLE WITH BALLAST TYPE BEING PROVIDED.

LF10. COORDINATE EXACT FIXTURE MOUNTING REQUIREMENTS, LAMPING AND ADDITIONAL INFORMATION WITH ARCHITECT AND LIGHTING DESIGNER PRIOR TO INSTALLATION AND ORDERING.

(NOTES LF11 THROUGH LF-- ARE SPECIFIC NOTES-REFER TO NOTES COLUMN FOR WHICH FIXTURE THE NOTE APPLIES).

LF11. NUMBER OF FACES, DIRECTIONAL ARROWS AND MOUNTING AS SHOWN ON THE PLAN.

LF12. COORDINATE EXACT MOUNTING AND LOCATION IN THE FIELD WITH THE ARCHITECT PRIOR TO ORDERING AND INSTALLATION. ALL PENDANT LENGTHS, FIXTURE SUSPENSION LENGTHS, LAMP COVERS, TRACK AND LAMP HOLDER (HEAD) OPTIONS, COLORS, AND FINISHES BY ARCHITECT. PROVIDE ALL NECESSARY APPURTENANCES AND OPTIONS AS DIRECTED BY THE ARCHITECT FOR A COMPLETE INSTALLATION.

LF13. BALLASTS FOR FIXTURES CONTROLLED BY OCCUPANCY SENSORS, SWITCHING OR LOW VOLTAGE RELAY CONTROL PANELS SHALL BE PROGRAM START TYPE.

LF14. BALLASTS FOR FIXTURES CONTROLLED BY DUAL RELAY OCCUPANCY SENSORS THAT ARE INTENDED TO BE MULTI-LEVEL SWITCHED SHALL BE PROGRAM START STEPPED DIMMING TYPE.

LF15. PROVIDE REQUIRED NUMBER OR TYPE OF BALLASTS TO ACCOMMODATE LIGHTING FIXTURES WITH MULTI-LEVEL SWITCHING AS INDICATED ON FLOOR PLANS.

LF16. PROVIDE WITH DIMMING BALLAST WITH MINIMUM 1% DIMMING RANGE, LUTRON HI-LUME OR ECO-SYSTEM OR EQUIVALENT.

LF17. COORDINATE EXACT FIXTURE RUN LENGTH IN THE FIELD AND PROVIDE ALL REQUIRED CONNECTORS AND ACCESSORIES AS REQUIRED TO ACCOMMODATE THE TOTAL RUN LENGTH.

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Maine Medical Center
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CSS Project No. 11022

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No. 11519
LICENSED PROFESSIONAL ENGINEER

Mark	Date	Description

Project Status

Issued for Construction
05/10/12

Drawing Title

ELECTRICAL SCHEDULE AND DETAILS

Scale: 12" = 1'-0"

Drawing Number

E4.0