ADDENDUM NO. CC-2

to the
Bidding Documents

for

BCDM Architects
1015 North 98th Street, Suite 300
Omaha, Nebraska 68114

01 September 2016

NORTHEAST COMMUNITY COLLEGE WELLER BUILDING BASEMENT REMODEL
801 East Benjamin Avenue
Norfolk, NE 68702-0469
BCDM Project No. 3507-01

NOTE: ADDENDA MAY BE VIEWED AT WWW.ADTECHPLANS.COM

REMINDER: BID DATE AND TIME: September 7, 2016 AT 2:00 P.M.

NOTICE TO BIDDERS:

The Project Manual and Drawings for the above referenced project are hereby amended as follows:

PROJECT MANUAL

SECTION 08 71 00 FINISH HARDWARE
a. Remove this section and replace with Attached

SECTION 10 05 00 METAL LOCKERS
b. Add section Attached

DRAWINGS

SHEETS C1-1 Added to define revised sitework

SHEET A1-1
a. 6/A1-1 Lower Level Demolition Plan revisions:
   i. Revised door EB133-A (remove & replace door & adjacent masonry)
   ii. Revised site work
   iii. Revised width of sub-slab plumbing cuts
b. 1/A1-1 Lower Level Floor Plan revisions:
   i. Revised door EB133-A (new door & masonry tooth-in)
   ii. Revised site work
      1. Layout
      2. Bollards & curb at dumpster enclosure
   iii. Revised width of sub-slab plumbing cuts
   iv. Revised north end of Group Fitness room
   v. Lintel descriptions: (Paint)
      1. At Exterior walls: 5/16”X11” plate welded to bottom flange of W16x31, (1/4” fillet weld both sides: 3” @12”O.C.) 8” Min. Bearing
      2. At interior CMU walls: L5X31/2X5/16 LLV supporting each face of bottom of CMU with ¾” Thru-bolts at 24” o.c. (2 min) 8” Min. Bearing
c. 7/A1-1 Section Through Screen Wall:
   vi. Revised slab edge.

SHEET A4-1
a. Added 7/A4-1 Wiring Diagrams and responsibility matrix
b. Revised door hardware & door EB133-A

SHEET A5-1

a. Clarification: There are no fire walls on the lower level

M & E SHEETS

Refer to Mechanical & Electrical Addendum for corresponding disciplines

Attachments:
Mechanical & Electrical Addendum
Sheets: A1-1, C1-1, A4-1, M1.1, M3.1, P1.1, P2.2, E1-1, E2-1
SPECIFICATION SECTION 08 71 00
SPECIFICATION SECTION 10 05 00

END OF ADDENDUM

morrissey engineering inc

mechanical | electrical | lighting | technology | commissioning

addendum

addendum no. 2

date: September 1, 2016

bid date: September 7, 2016

project name: Northeast CC – Weller Building Basement Remodel

project no: 16160

This addendum is hereby made a part of the contract documents to the same extent as if it were originally included therein. Contract documents shall be considered modified or revised as hereinafter described.

mechanical items

1. Sheet M1.1 – Plan 1
    a. Service Desk B131-B: Revise location of VBR-1 thermostat.
    b. Group Fitness Classroom B130: Revise length of fabric ductwork to accommodate storage room.

2. Sheet M3.1
    a. Rooftop Unit Schedule: Revise Remark #14.

3. Sheet P1.1 – General
    a. Revise Key Note P124.

4. Sheet P1.1 – Plan 1
    a. Boiler Room B132: Provide two new floor sinks and associated waste & vent piping.
    b. Boiler Room B132: Revise main vent piping to accommodate new floor sinks.

5. Sheet P1.1 – Plan 2
    a. Boiler Room B132: Revise notes regarding plumbing scope of work.

6. Sheet P2.2 – Waste & Vent Riser Diagram
    a. Revise to reflect replacement of Boiler Room floor sinks.

7. Specification Section 23 73 13 Rooftop Air Handling Units
    a. Section 2.02, Item Q – Revise to “Manufacturer shall provide terminal strip connection for Temperature Control Contractor to control the unit’s sequence of operation according to Specification Section 23 09 90. All safety controls shall be by the Manufacturer.”

electrical items

1. Sheet E1.1 – Electrical
    a. Reconnect existing flow and tamper switch in Fire Suppression B131 to existing building fire alarm. See 1/E1.1 and 2/E1.1.

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b. Modify lighting layout in Men B134 and Women B135. See 2/E1.1.
c. Modify lighting control in Group Fitness Classroom B130 and provide lighting control for small storage within room. See 2/E1.1.
d. Provide card reader rough-ins and door rough-ins in Corridor B136. See 3/E1.1.

2. Sheet E2.1 – Electrical
   a. Provide card reader rough-ins and door rough-ins per details 6/E2.1 and 7/E2.1.

end of addendum

LEFT BINDING EDGE

8/25/2016 8:31:36 AM

LEGEND:

5" THICK CONCRETE SIDEWALK
CLASS 47B-3500 WITH TYPE 1PF CEMENT

STOOP
MIN. SLOPE 1%
MAX. SLOPE 2%
SEE ARCHITECTURAL DETAIL

HINGE SLAB
MIN. SLOPE 3%
MAX. SLOPE 5%
SEE ARCHITECTURAL DETAIL

REMOVE CONCRETE

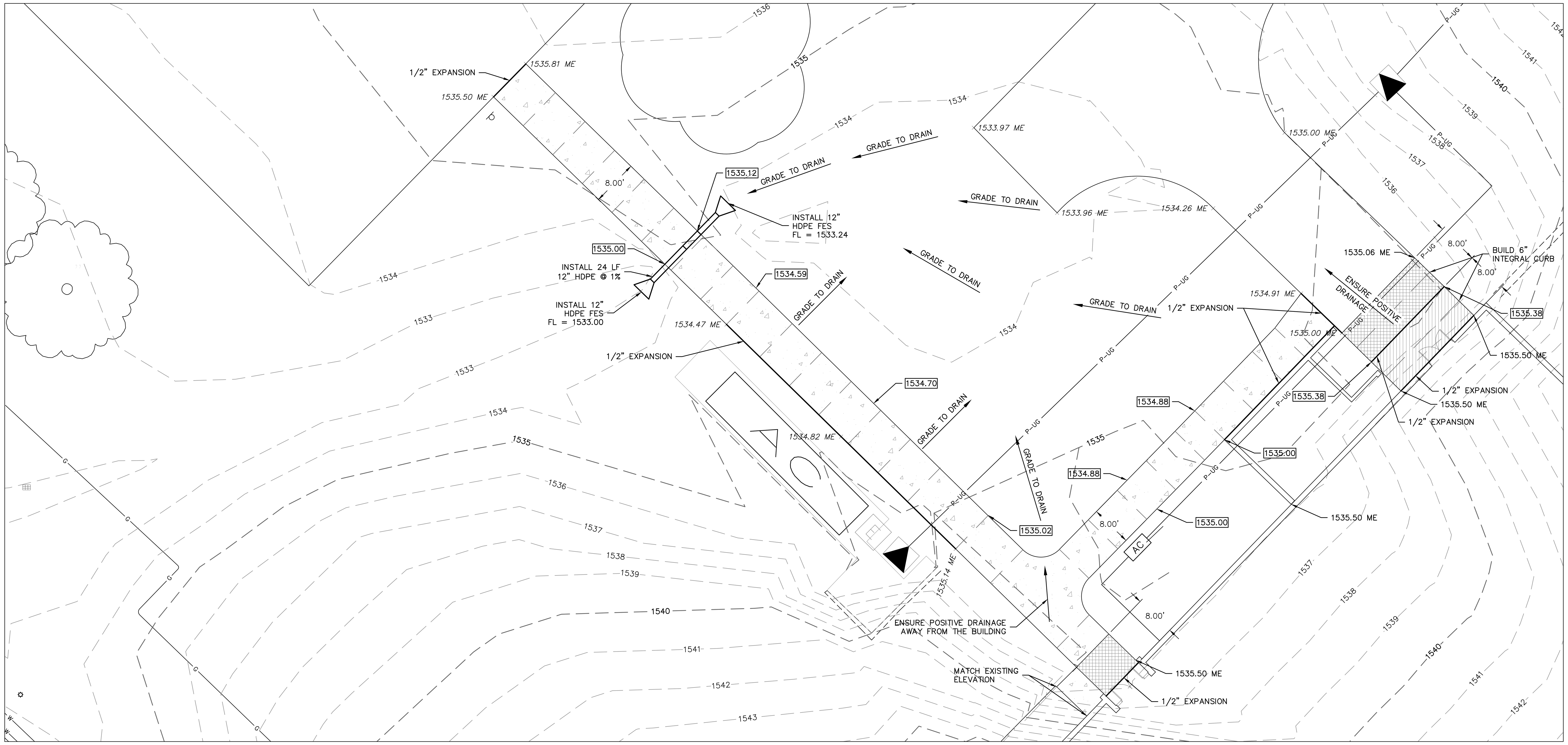
SAW JOINT

ME - MATCH EXISTING

FINISHED ELEVATION

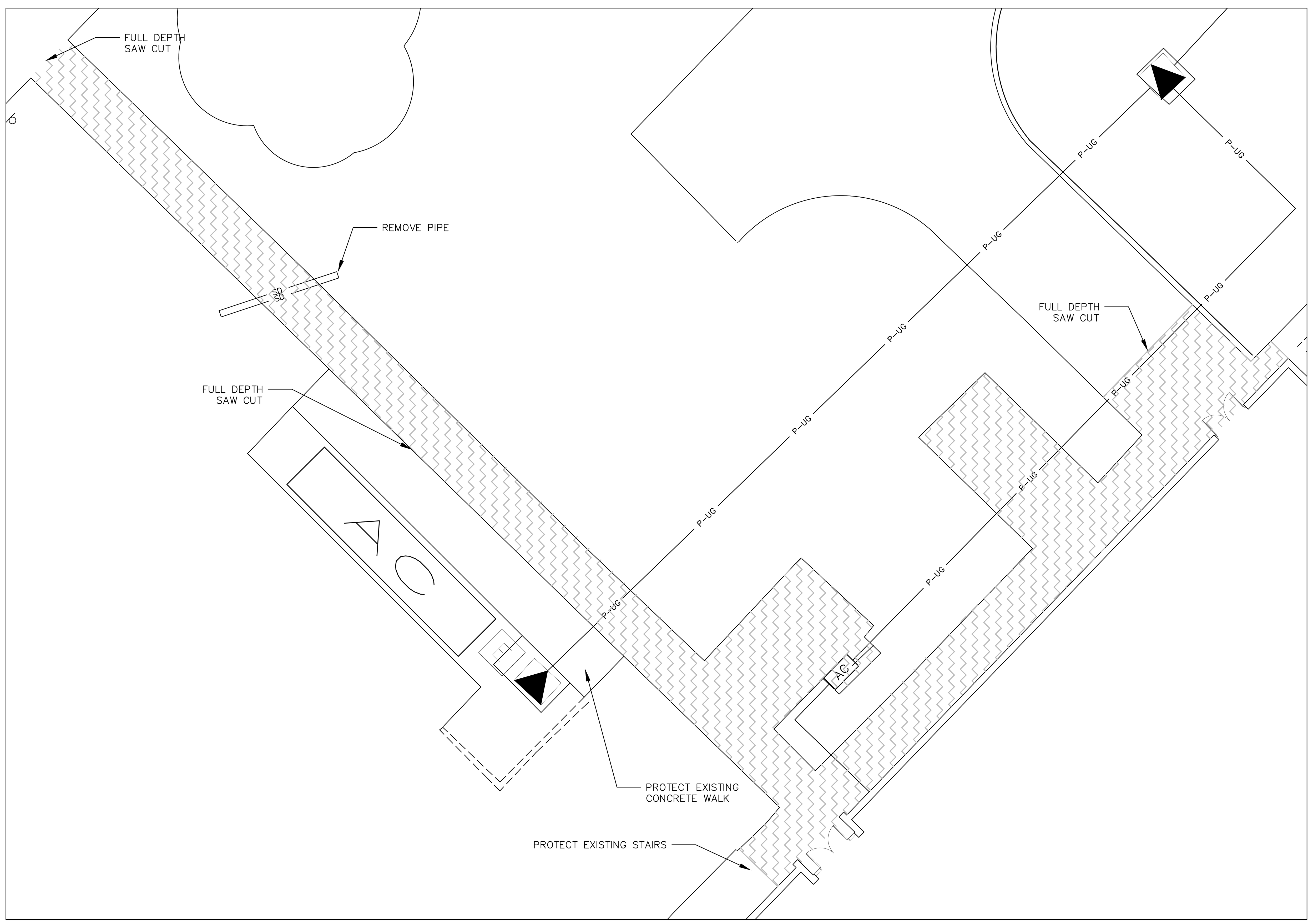
NOTES:

1. FIELD VERIFY ALL MATCH EXISTING ELEVATIONS.
2. SEED ALL DISTURBED AREAS. VERIFY SEED MIX WITH OWNER.



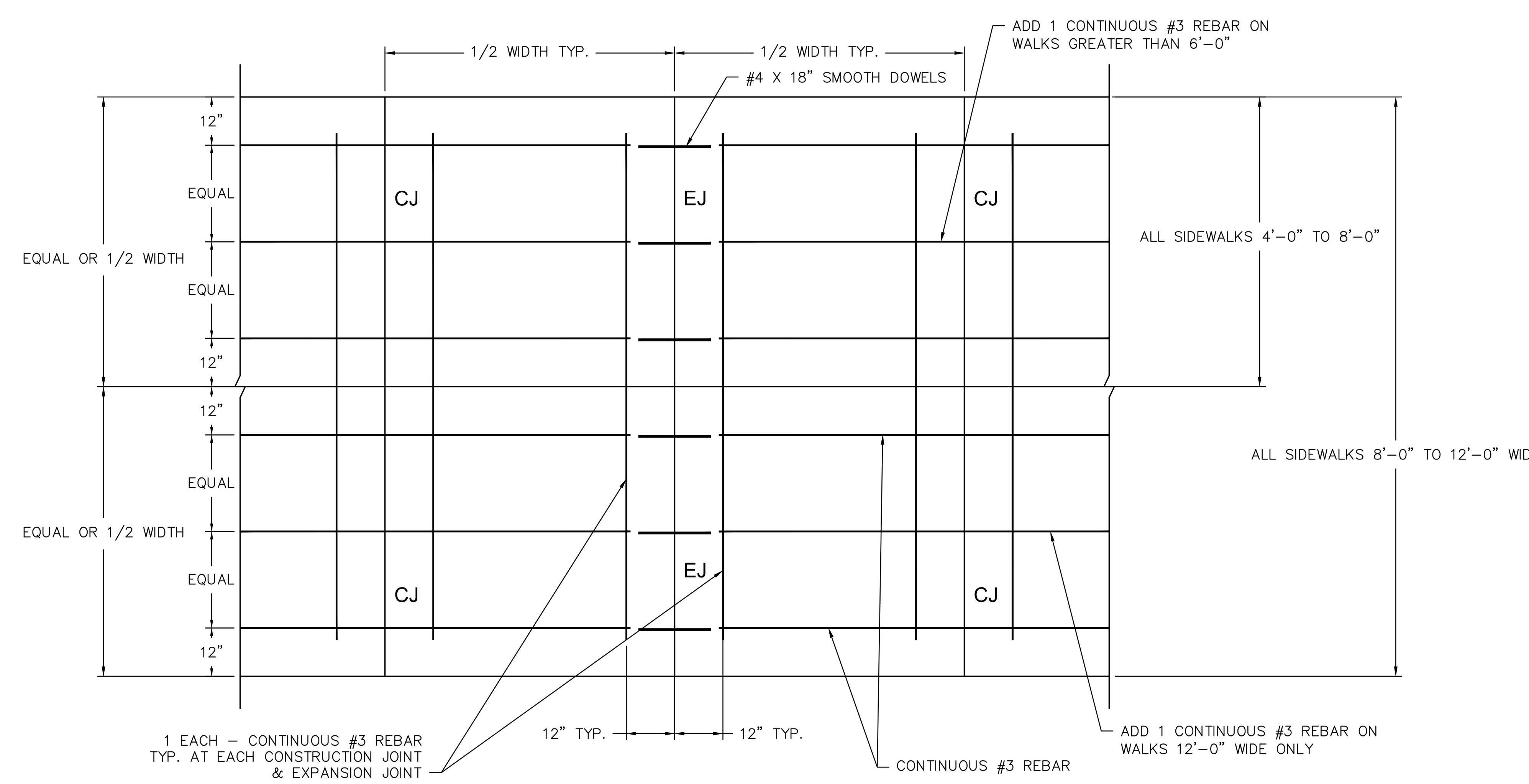
PROPOSED SITE PLAN
SCALE: 1" = 10'

TRUE NORTH PLAN NORTH



DEMOLITION SITE PLAN
SCALE: 1" = 10'

TRUE NORTH PLAN NORTH



NOTE:
1. THE DEPTH OF REINFORCING SHALL BE CENTERED IN THE CROSS SECTION OF THE SIDEWALK.
2. CONTRACTION JOINTS SHALL BE 1/8" WIDE SAWCUT TYPICAL - 1/4 DEPTH OF SLAB THICKNESS. DO NOT CUT REINFORCEMENT. PROVIDE NON-TRACKABLE SEALANT ON ALL CONTRACTION JOINTS.
3. MAX SPACING OF ½" EXPANSION JOINT SHALL BE 150 FEET UNLESS OTHERWISE SHOWN ON DRAWINGS OR AS DIRECTED BY THE ENGINEER. PROVIDE #4 X 18" SMOOTH DOWELS WITH GREASED SLEEVES. INSTALL CENTERED IN SLAB THICKNESS AND PROVIDE AT 24" O.C. - TYPICAL AT ALL EXPANSION JOINT LOCATIONS. PROVIDE NON-TRACKABLE SEALANT ON ALL EXPANSION JOINTS.
4. MAX SPACING OF CONTRACTION JOINTS SHALL BE EQUAL TO WIDTH OF SIDEWALK.
5. ALL REINFORCING SHALL BE SET ON STEEL REINFORCING CHAIRS. WET SETTING OF REINFORCING STEEL IS NOT ALLOWED.

TYPICAL SIDEWALK REINFORCEMENT DETAIL (4'-0" TO 12'-0")
SCALE: 1/2" = 1'-0"

No.	Description	By	Date

Revision Schedule

OLSSON® ASSOCIATES

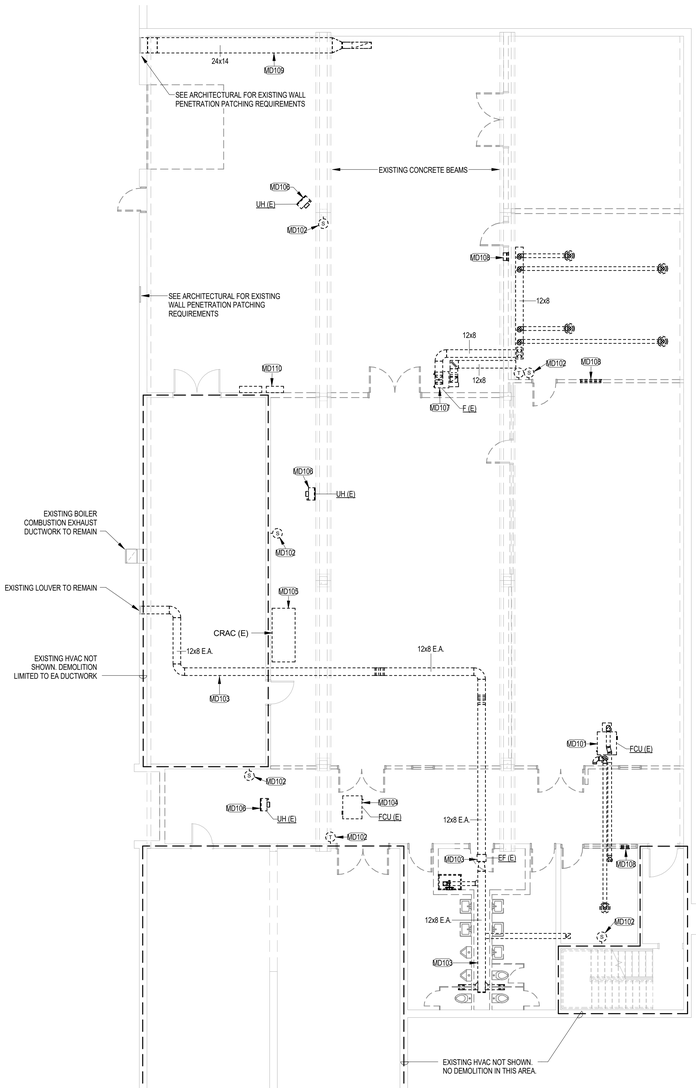
CONSTRUCTION DOCUMENTS
NORTHEAST CC - WELLER BUILDING BASEMENT REMODEL
801 EAST BENJAMIN AVENUE, NORFOLK, NE 68702-0469

bcdm

C1-1
AUGUST 29, 2016
BCDM NO. 3507-01

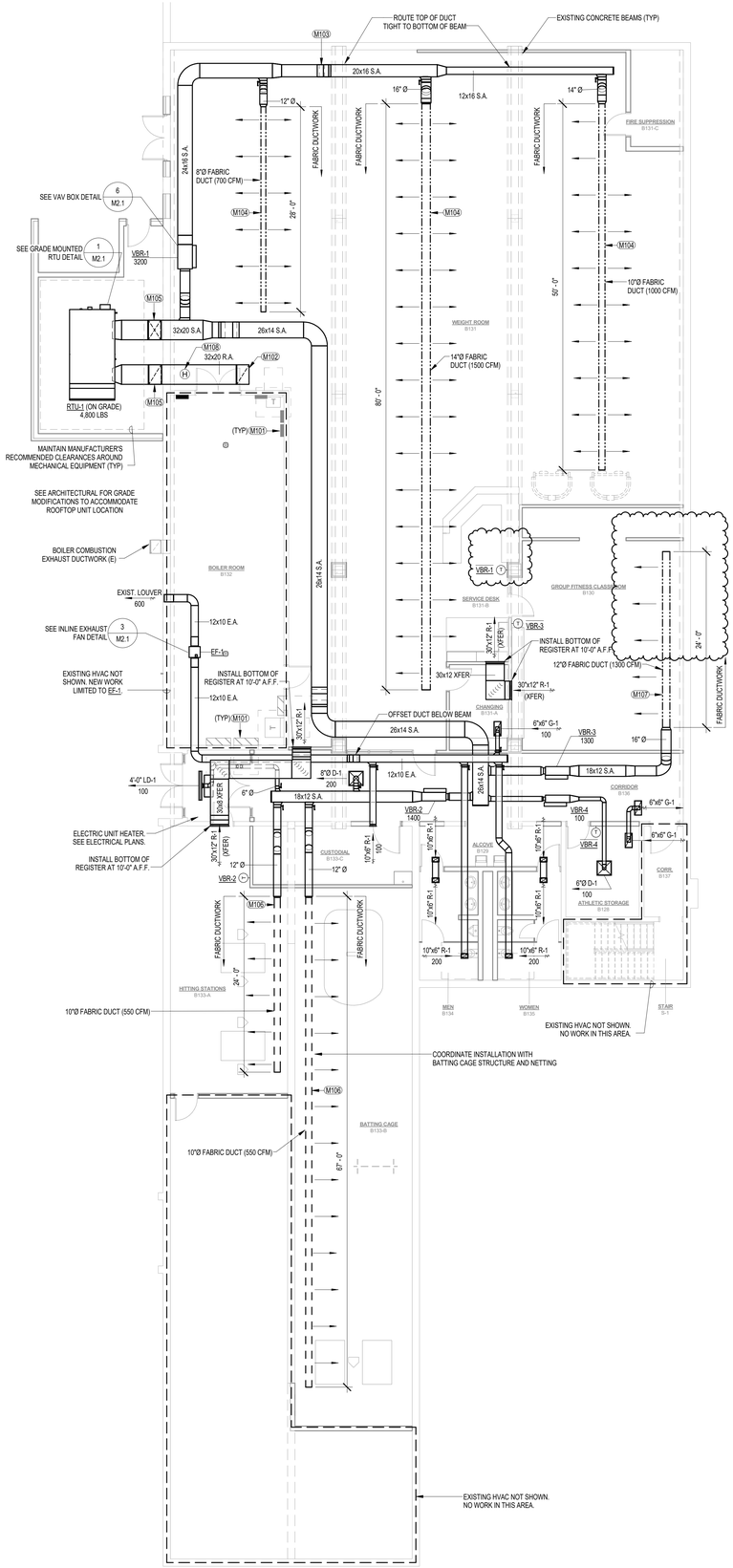
LEFT BINDING EDGE

9/1/2016 10:50:42 AM



2 LOWER LEVEL - HVAC DEMOLITION
1/8" = 1'-0"

PLAN NORTH | TRUE NORTH



1 LOWER LEVEL - HVAC
1/8" = 1'-0"

PLAN NORTH | TRUE NORTH

DEMOLITION GENERAL NOTES (PLAN 2)

1. ALL MECHANICAL ITEMS SHOWN ARE EXISTING. NOT ALL EXISTING MECHANICAL ITEMS ARE SHOWN. REMOVE ITEMS SHOWN DASHED.

2. FIELD VERIFY EXACT LOCATION OF ALL MECHANICAL EQUIPMENT, DUCT, AND PIPE. EQUIPMENT, DUCT, AND PIPE DISCOVERED ON SITE TO BE REMOVED BUT NOT INDICATED ON PLANS IS TO BE INDENTIFIED BY CONTRACTOR AND REMOVED AS DIRECTED BY THE ENGINEER.

3. HOLES CUT IN WALLS, FLOORS, AND CEILINGS TO PERMIT THE REMOVAL OF EQUIPMENT, PIPING, ETC. SHALL BE CAREFULLY MADE AND RESTRICTED TO THE SMALLEST PRACTICAL SIZE. PATCH ALL HOLES NOT REQUIRED FOR NEW WORK TO MATCH EXISTING. SEAL ALL HOLES AT EXTERIOR WALL WATER TIGHT.

4. THE OWNER RESERVES THE FIRST RIGHT OF SALVAGE OF ANY ITEMS REMOVED. CONTRACTOR SHALL REMOVE ALL UNWANTED MATERIALS FROM THE SITE. OWNER'S DUMPSTER OR OTHER TRASH RECEPTACLES ARE NOT TO BE UTILIZED.

5. THE OWNER WILL OCCUPY THE BUILDING DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE ALL SYSTEM SHUTDOWNS AND/OR ACCESS TO OCCUPIED AREAS WITH AN OWNER REPRESENTATIVE PRIOR TO COMMENCING WORK A MINIMUM OF 48 HOURS IN ADVANCE.

HAZARDOUS MATERIAL COORDINATION NOTES

1. WHENEVER THE CONTRACTOR ENCOUNTERS A MATERIAL WHICH COULD POSSIBLY BE HAZARDOUS, THE CONTRACTOR SHALL STOP WORK AND CONTACT THE OWNER IMMEDIATELY FOR DIRECTION. DO NOT DISTURB THE MATERIAL IN ITS LOCATION.

2. CONTRACTORS SHALL AND MUST COORDINATE REMOVAL OF ANY ITEMS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS WITH THE OWNER. REMOVAL OF ANY HAZARDOUS MATERIALS SHALL BE IN ACCORDANCE WITH ANY EPA REQUIREMENTS AS WELL AS ANY REQUIREMENTS OF ANY OTHER AGENCIES WITH JURISDICTION OVER SUCH WORK.

NEW WORK GENERAL NOTES (PLAN 1)

1. DO NOT ROUTE DUCTWORK ABOVE ELECTRICAL PANELS. MAINTAIN ALL CODE REQUIRED CLEARANCES. REFER TO ELECTRICAL PLANS FOR PANEL LOCATIONS.

2. SPACE IS LIMITED. COORDINATE DUCT ROUTING WITH ALL OTHER TRADES. OFFSET AND EXTEND DUCTWORK AND PIPING AS REQUIRED TO AVOID CONFLICTS.

3. LOCATE ALL DAMPERS IN ACCESSIBLE LOCATIONS. LOCATE DAMPERS ABOVE LAY-IN TILE CEILINGS WHERE POSSIBLE. PROVIDE ACCESS PANELS IN GYPSUM BOARD CEILINGS AS REQUIRED. COORDINATE ALL LOCATIONS WITH REFLECTED CEILING PLANS AND GENERAL CONTRACTOR.

4. UNLESS OTHERWISE NOTED, ALL RUN-OUTS TO DIFFUSERS / GRILLES SHALL MATCH RESPECTIVE DIFFUSER / GRILLE NECK SIZE. SEE DIFFUSER CONNECTION DETAIL 5, SHEET M2.1.

5. CONTRACTOR TO PROVIDE ALL LOW VOLTAGE AND LINE VOLTAGE CONTROL WIRING REQUIRED FOR COMPLETE OPERATION OF ALL MECHANICAL EQUIPMENT.

6. ALL ITEMS SHOWN LIGHT OR INDICATED AS '(E)' ARE EXISTING. ALL ITEMS SHOWN DARK ARE NEW.

7. ALL RUNOUTS TO DIFFUSER, REGISTERS, AND GRILLES SHALL HAVE VOLUME DAMPERS.

8. HOLES CUT IN WALLS, FLOORS, AND CEILINGS TO PERMIT THE INSTALLATION OF EQUIPMENT, PIPING, ETC. SHALL BE CAREFULLY MADE AND RESTRICTED TO THE SMALLEST PRACTICAL SIZE. PATCH ALL HOLES NOT REQUIRED FOR NEW WORK TO MATCH EXSITING.

9. UNLESS OTHERWISE NOTED, ALL DUCTOWRK SHALL BE ROUTED AS HIGH AS POSSIBLE. COORDINATE ROUTING WITH STRUCTURE, LIGHTS, ETC. PROVIDE ALL NECESSARY EXTENSIONS, OFFSETS, AND TRANSITIONS AS REQUIRED TO COMPLETE INSTALLATION. SEE DETAIL 4, SHEET M2.1 FOR DUCT FITTING DETAILS.

10. MAINTAIN MANUFACTURER'S REQUIRED CLEARANCE AROUND ALL MECHANICAL EQUIPMENT TO ALLOW PROPER OPERATION AND FOR EASY MAINTENANCE AND FILTER ACCESS.

KEYNOTES

M101 DO NOT ROUTE DUCTWORK ABOVE ELECTRICAL PANELS. FIELD VERIFY LOCATIONS OF ALL EXISTING PANELS. MAINTAIN ALL CODE REQUIRED CLEARANCES.

M102 FULL SIZE DUCT OPENING ON TOP OF RETURN AIR DUCT. COVER WITH MESH SCREEN.

M103 OFFSET DUCT DOWN BELOW BEAM USING MAXIMUM 30 DEGREE OFFSETS.

M104 FABRIC DUCT AIR DISTRIBUTION SHALL BE DESIGNED BY DUCT MANUFACTUER (DUCT SOX). CENTER LINE OF DUCT SHALL BE LOCATED APPROXIMATELY 10'-0" ABOVE FINISHED FLOOR. DISTRIBUTE AIRFLOW TO OCCUPIED SPACES ON BOTH SIDES OF DUCTWORK AS INDICATED ON PLAN. GENERAL DUCT CONFIGURATION SHALL MATCH CONFIGURATION INDICATED ON PLAN. INSTALL FABRIC DUCT SYSTEM PER MANUFACTUER'S RECOMMENDATIONS. PROVIDE ALL NECESSARY SUPPORTS, FITTINGS, AND ACCESSORIES AS REQUIRED FOR A COMPLETE SYSTEM. SEE DETAIL 7, SHEET M2.1.

M105 OFFSET DUCTWORK UP ALONG EXTERIOR OF THE BUILDING TO ELEVATION DIRECTLY BELOW EXISTING UPPER FLOOR STRUCTURE. CONTINUE DUCTWORK THROUGH EXISTING EXTERIOR WALL. PROVIDE OPENING IN EXTERIOR WALL PER ARCHITECTURAL REQUIREMENTS. SUPPORT VERTICAL DUCTWORK FROM BUILDING AS REQUIRED. SEAL EXTERIOR WALL PENETRATION WATER TIGHT.

M106 FABRIC DUCT AIR DISTRIBUTION SHALL BE DESIGNED BY DUCT MANUFACTUER (DUCT SOX). CENTER LINE OF DUCT SHALL BE LOCATED APPROXIMATELY 11'-0" ABOVE FINISHED FLOOR. DISTRIBUTE AIRFLOW TO OCCUPIED SPACES ON ONE SIDE OF DUCTWORK AS INDICATED ON PLAN. GENERAL DUCT CONFIGURATION SHALL MATCH CONFIGURATION INDICATED ON PLAN. INSTALL FABRIC DUCT SYSTEM PER MANUFACTUER'S RECOMMENDATIONS. PROVIDE ALL NECESSARY SUPPORTS, FITTINGS, AND ACCESSORIES AS REQUIRED FOR A COMPLETE SYSTEM. SEE DETAIL 7, SHEET M2.1.

M107 FABRIC DUCT AIR DISTRIBUTION SHALL BE DESIGNED BY DUCT MANUFACTUER (DUCT SOX). CENTER LINE OF DUCT SHALL BE LOCATED APPROXIMATELY 10'-0" ABOVE FINISHED FLOOR. DISTRIBUTE AIRFLOW TO OCCUPIED SPACES ON ONE SIDE OF DUCTWORK AS INDICATED ON PLAN. GENERAL DUCT CONFIGURATION SHALL MATCH CONFIGURATION INDICATED ON PLAN. INSTALL FABRIC DUCT SYSTEM PER MANUFACTUER'S RECOMMENDATIONS. PROVIDE ALL NECESSARY SUPPORTS, FITTINGS, AND ACCESSORIES AS REQUIRED FOR A COMPLETE SYSTEM. SEE DETAIL 7, SHEET M2.1.

M108 DUCT MOUNTED HUMIDITY SENSOR. PROVIDE 12" x 12" INSULATED DUCT ACCESS DOOR FOR MAINTENANCE.

KEYNOTES

MD101 REMOVE EXISTING CEILING HUNG AC UNIT. REMOVE ALL ASSOCIATED DUCTWORK, REGISTERS, SUPPORTS, HANGERS, PIPING AND CONTROL WIRING COMPLETE.

MD102 REMOVE EXISTING WALL MOUNTED SENSOR AND CONTROL WIRING COMPLETE.

MD103 REMOVE EXISTING EXHAUST FAN, REGISTERS, AND DUCTWORK BACK TO EXISTING LOUVER. EXISTING LOUVER TO REMAIN FOR REUSE.

MD104 REMOVE EXSTING CEILING HUNG AC UNIT COMPLETE. SEE PLUMBING SHEET P1.1 FOR ASSOCIATED PIPING DEMOLITION NOTES.

MD105 REMOVE EXHAUST LIEBERT AC UNIT AND TURN OVER TO OWNER. SEE PLUMBING SHEET P1.1 FOR ASSOCIATED PIPING DEMOLITION NOTES.

MD106 REMOVE EXISTING HOT WATER UNIT HEATER. SEE PLUMBING SHEET P1.1 FOR ASSOCIATED PIPING DEMOLITION NOTES.

MD107 REMOVE EXISTING FURNACE AND ALL ASSOCIATED DUCTWORK COMPLETE.

MD108 REMOVE EXISTING REGISTER MOUNTED ON WALL.

MD109 REMOVE EXISTING DUCTWORK COMPLETE. SEE ARCHITECTURAL PLANS FOR WALL PATCHING REQUIREMENTS.

MD110 REMOVE EXISTING LAB EQUIPMENT TEMPERATURE CONTROL DEVICES AND WIRING COMPLETE.

Revision Schedule

No.	Description	By	Date
1	Addendum 2		08/01/2016

CONSTRUCTION DOCUMENTS

NORTHEAST CC - WELLER BUILDING BASEMENT REMODEL

801 EAST BENJAMIN AVENUE, NORFOLK, NE 68701

BCDM architects

M1.1

August 9, 2016

BCDM NO. 3507-01

MEI PROJECT NO: 16160

morrissey engineering inc
mechanical | electrical | lighting | technology | commissioning
4940 North 118th Street
Omaha, NE 68164
P: 402.491.4144
www.morrisseyengineering.com

note:
do not scale drawings. verify all dimensions and clearances from architectural, structural, shop and other appropriate drawings or at site. lay out and coordinate all work prior to installation to provide clearances required for operation, maintenance, and codes and verify non-interference with other work. do not fabricate prior to verification of clearance for all trades.

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ROOFTOP UNIT SCHEDULE

GENERAL	PLAN TAG	RTU-1 (3)		
	MANUFACTURER	TRANE		
	MODEL NUMBER	OAGD210		
	SERVES	FITNESS CENTER		
	CONFIGURATION	HORIZONTAL (4)		
	MAXIMUM SIZE (LxW)(IN)	208" x 78" x 67" (5)		
	MAXIMUM WEIGHT (LBS.)	5,000 (18)		
	REMARKS	(1)		
AIRFLOW	TOTAL AIRFLOW (CFM)	6,000		
	TOTAL SP (IN. W.C.)	3.45" (16)		
	EXTERNAL SP (IN. W.C.)	1.5"		
	RETURN AIRFLOW (CFM)	4,200		
	MINIMUM OUTSIDE AIRFLOW (CFM)	1,800		
	ECONOMIZER OUTSIDE AIRFLOW (CFM)	6,000		
	REMARKS	-		
ELECTRICAL	VOLTS	460		
	PHASE	3		
	MAXIMUM FUSE SIZE (AMPS)	80		
	MINIMUM CIRCUIT AMPACITY (MCA)	61.4		
	REMARKS	(6)		
DX COOLING	AMBIENT AIR TEMPERATURE (F)	95°F		
	MINIMUM NET EER (ARI)	10.4		
	NOMINAL CAPACITY (TONS)	17.5		
	MIN. NET TOTAL COOLING (MBH)	175.3 (20)		
	MIN. NET SENSIBLE COOLING (MBH)	127.3 (20)		
	NO. OF COMPRESSORS	2		
	MINIMUM STEPS OF UNLOADING	(7)		
	REMARKS	(8) (19) (21)		
CONDENSER FAN	TYPE	PROP		
	SIZE	-		
	HP	3 @ 1 HP EACH		
SUPPLY FAN	TYPE	(9)		
	HP	2 @ 4 HP EACH		
	BHP	6.22 (2)		
EXHAUST FAN	TYPE	(9)		
	HP	1 @ 4 HP		
	BHP	0.75 (2)		
GAS FIRED HEATING	FUEL	NAT. GAS		
	INPUT	200		
	OUTPUT	160		
	EFFICIENCY	80%		
	REMARKS	(10)		
ACCESSORIES	ROOF CURB	(11)		
	FILTERS	(12)		
	ECONOMZER	(13)		
	THERMOSTAT	(14)		
	CONTROLS	(15)		
	REMARKS	(17)		

REMARKS

(1) PROVIDE COIL HAIL GUARDS, HINGED TOOL-LESS ACCESS PANELS, ASHRAE STD 62.1 COMPLIANT STAINLESS STEEL DRAIN PAN. SMOKE DETECTORS PROVIDED BY ELECTRICAL.

(2) BRAKE HP SHALL BE A MAXIMUM OF 85% OF NOMINAL MOTOR HP.

(3) TAG IS FOR BIDDING PURPOSES ONLY. LABEL UNIT CONSISTENT WITH EXISTING NUMBERING AND TEMPERATURE CONTROL SYSTEM NOMENCLATURE.

(4) VARIABLE VOLUME ROOFTOP UNIT WITH ENERGY RECOVERY WHEEL (ENTHALPY WHEEL), DX COOLING, HOT GAS REHEAT AND GAS-FIRED HEAT. SEE ENERGY RECOVERY UNIT SCHEDULE FOR ADDITIONAL INFORMATION.

(5) STANDARD UNIT DIMENSIONS. ADDITIONAL SPACE REQUIRED FOR ROOF CURB AND OTHER UNIT ACCESSORIES.

(6) SINGLE POINT POWER CONNECTION. PROVIDE INTEGRAL NON-FUSED DISCONNECT SWITCH.

(7) ONE FIXED CAPACITY SCROLL COMPRESSOR AND ONE INVERTER SCROLL COMPRESSOR WITH MODULATING CONTROL.

(8) R-410A REFRIGERANT.

(9) DIRECT DRIVE WITH EC MOTOR. SEE ENERGY RECOVERY SCHEDULE.

(10) STAINLESS STEEL HEAT EXCHANGER. FULLY MODULATING WITH 10:1 TURNDOWN. 10 YEAR WARRANTY.

(11) MANUFACTURER'S STANDARD 18" ROOF CURB SUITABLE FOR GRADE MOUNTING.

(12) 2" DISPOSABLE - MERV 7.

(13) 0 TO 100% COMPARATIVE ENTHALPY OUTSIDE AIR ECONOMIZER. PROVIDE FULL ~~ENTHALPY WHEEL BYPASS DURING ECONOMIZER OPERATION.~~

(14) DDC - SEE TEMPERATURE CONTROLS SPECIFICATIONS. MANUFACTURER SHALL PROVIDE TERMINAL STRIP CONNECTION FOR TEMPERATURE CONTROL CONTRACTOR TO CONTROL THE UNIT'S SEQUENCE OF OPERATION ACCORDING TO SPECIFICATION SECTION 230990. ALL SAFETY CONTROLS SHALL BE BY THE MANUFACTURER.

(15) INTEGRATED SOLID STATE CONTROLS WITH BLOWER AND LIMIT CONTROLS.

(16) VERIFY TOTAL STATIC PRESSURE WITH MANUFACTURER'S COMPONENETS. EXTERNAL STATIC PRESSURE DOES NOT INCLUDE FILTER, COOLING COIL, AND OTHER RTU ACCESSORIES. OVERALL ROOFTOP UNIT STATIC PRESSURE RATING SHALL ACCOMMODATE PRESSURE DROP VALUES OF A WET COIL. MID-LIFE FILTER, INTERNAL UNIT PRESSURE DRP[AND EXTERNAL STATIC PRESSURE INDICATED.

(17) PROVIDE POWERED EXHAUST.

(18) UNIT WEIGHT - DOES NOT INCLUDE ROOF CURB.

(19) PROVIDE 5 YEAR COMPRESSOR WARRANTY.

(20) INDICATED CAPACITIES ARE BASED ON 95°F AMBIENT TEMPERATURE AND 76°F DB / 64°F WB ENTERING COIL. SEE ENERGY RECOVERY UNIT SCHEDULE.

(21) UNIT SHALL HAVE DEHUMIDIFICATION CYCLE (FULLY MODULATING HOT GAS REHEAT) CAPABLE OF PROVIDING ROOM NEUTRAL AIR (70°F DB @ 60% RH - SUMMER, 70° DB - WINTER).

ENERGY RECOVERY UNIT SCHEDULE

GENERAL	PLAN TAG	RTU-1 (2)		
	MANUFACTURER	TRANE		
	MODEL NUMBER	OAGD210		
	SERVES	FITNESS CENTER		
	SIZE (LxWxH) (IN)	(1)		
	CONFIGURATION	(1)		
	REMARKS	-		
SUPPLY FAN	TOTAL / OUTSIDE AIR AIRFLOW (CFM)	6,000 / 1,800		
	EXTERNAL STATIC PRESSURE (IN. W.C.)	1.5"		
	MAXIMUM FAN RPM	1,915		
	MAXIMUM FAN BHP	6.22		
	REMARKS	(1)		
SUPPLY FAN MOTOR	RPM	1,750		
	HP	2 @ 4		
	VOLTS	460		
	PHASE	3		
EXHAUST FAN	TOTAL AIRFLOW (CFM)	1,620		
	EXTERNAL STATIC PRESSURE (IN. W.C.)	0.5"		
	MAXIMUM FAN RPM	1,185		
	MAXIMUM FAN BHP	0.75		
	REMARKS	(1)		
EXHAUST FAN MOTOR	RPM	1,750		
	HP	4.0		
	VOLTS	460		
	PHASE	3		
SUMMER AIR AIR	ENTERING AIR TEMP DB/WB (ºF)	95°F / 76°F		
	LEAVING AIR TEMP DB/WB (ºF)	79°F / 66° F		
	TOTAL CAPACITY (MBH)	68.4		
WINTER AIR	ENTERING AIR TEMP (ºF)	-20°F		
	LEAVING AIR TEMP (ºF)	58°F		
	TOTAL SENSIBLE CAPACITY (MBH)	175.8		

REMARKS

(1) SEE RTU SCHEDULE.

(2) ENERGY RECOVERY COMPONENTS ARE FACTORY INSTALLED WITHIN RTU-1, SCHEDULED INFORMATION DESCRIBES REQUIRED PERFORMANCE.

EXHAUST FAN SCHEDULE

GENERAL	PLAN TAG	EF-1 (1)		
	MANUFACTURER	GREENHECK		
	MODEL NUMBER	SQ-98-VG		
	SERVES	SEE PLANS		
	TYPE	(2)		
	MAXIMUM WEIGHT (LBS)	100		
	ROOF/WALL OPENING SIZE	-		
	ACCESSORIES	(3)		
FAN	AIRFLOW (CFM)	600		
	TOTAL SP (IN. W.C.)	0.60"		
	CLASS	-		
	WHEEL TYPE	B.I.		
	MINIMUM WHEEL DIA.	9.8"		
	MAXIMUM SONES	16.7		
	MAXIMUM FAN RPM	1,886		
	MAXIMUM FAN BHP	0.28		
MOTOR	RPM	2,200		
	HP	3/4		
	VOLTS	115		
	PHASE	1		
	TYPE	(4)		
	CONTROL DEVICE	(5)		
	REMARKS	-		

REMARKS

(1) TAG IS FOR BIDDING PURPOSES ONLY. LABEL UNIT CONSISTENT WITH EXISTING NUMBERING AND TEMPERATURE CONTROL SYSTEM NOMENCLATURE.

(2) INLINE DIRECT-DRIVE CENTRIFUGAL FAN WITH VARI-GREEN HIGH EFFICIENCY EC MOTOR.

(3) PROVIDE MOTORIZED DAMPER (VOLTAGE TO MATCH FAN), INSULATED HOUSING, VIBRATION ISOLATION HANGERS AND ELECTRICAL DISCONNECT.

(4) DIRECT DRIVE VARI-GREEN EC MOTOR.

(5) FAN SHALL BE PROVIDED SIGNAL (0 - 10 VOLT) FROM MOTOR MOUNTED DIAL TO EXHAUST SCHEDULED AIRFLOW. FAN SHALL BE ENABLE / DISABLED THROUGH THE DDC SYSTEM - SEE TEMPERATURE CONTROL SPECIFICATIONS.

VARIABLE AIR VOLUME TERMINAL UNIT SCHEDULE

GENERAL	PLAN TAG	VBR-1	VBR-2	VBR-3	VBR-4	
	MANUFACTURER	NAILOR IND.	NAILOR IND.	NAILOR IND.	NAILOR IND.	
	MODEL NUMBER	D30RE-16 (4)	D30RE-12 (4)	D30RE-12 (4)	D30RE-4 (4)	
	CONFIGURATION	SINGLE DUCT (5)	SINGLE DUCT (5)	SINGLE DUCT (5)	SINGLE DUCT (5)	
	MAXIMUM SIZE (LxWxH)(IN.)	31x28x13	31x18x13	31x18x13	31x10x10	
DUCT	INLET DIA. (IN.)	20" x 10" □	13" x 10" □	13" x 10" □	4"□	
	INLET DUCT (IN.)	22" x 12" □	14" x 12" □	14" x 12" □	6"□	
SOUND DATA	RADIATED SOUND (NC)	18 (2)	18 (2)	18 (2)	18 (2)	
	DISCHARGE SOUND (NC)	23 (2)	23 (2)	23 (2)	23 (2)	
AIRFLOW	AIRFLOW RANGE (CFM)	3,200	1,400	1,300	100	
	MINIMUM AIRFLOW (CFM)	475	325	325	30	
	INLET STATIC PRESSURE (IN. WC)	0.75	0.75	0.75	0.75	
	MAX. STATIC PRESSURE DROP (IN. WC)	0.50 (6)	0.50 (6)	0.50 (6)	0.50 (6)	
	REMARKS	-	-	-	-	
ELECTRIC HEATING COIL	HEATING AIRFLOW	1,000	400	700	30	
	HEATING CAPACITY (MBH)	51.2	13.6	40.9	17.1	
	HEATING CAPACITY (KW)	15	4	12	0.5	
	NUMBER OF STAGES	SCR	SCR	SCR	SCR	
	VOLTAGE / PHASE	480 / 3	480 / 3	480 / 3	480 / 3	
	MAXIMUM AIR PRESSURE DROP (" W.C.)	-	-	-	-	
	REMARKS	(5)	(5)	(5)	(5)	

REMARKS

(1) NOT USED.

(2) SOUND DATA BASED ON MAXIMUM SCHEDULED AIRFLOW.

(3) NOT USED.

(4) PROVIDE TERMINAL UNIT WITH HANGER BRACKETS, BOTTOM ACCESS PANEL, 1" CELLULAR INSULATION AND CONTROL ENCLOSURE WITH FACTORY WIRED 24 VOLT CONTROL TRANSFORMER FOR FIELD INSTALLED DDC COMPONENTS.

(5) COORDINATE LEFT OR RIGHT-HAND CONTROL ENCLOSURES WITH PLANS.

(6) AIR PRESSURE DROP DATA BASED ON MAXIMUM SCHEDULED AIRFLOW INCLUDING HEATING COIL (IF APPLICABLE).

DIFFUSER, REGISTER AND GRILLE SCHEDULE

PLAN TAG	LD-1	D-1	G-1	R-1	R-2			
MANUFACTURER	TITUS	TITUS	TITUS	TITUS	TITUS			
MODEL NUMBER	FL-10	OMNI	PAR	301RL	300RL			
FUNCTION	SUPPLY	SUPPLY	E.A. / XFER	E.A. / XFER	SUPPLY			
DESCRIPTION	(3)	FLAT PLATE	PERF. GRILLE	REGISTER	REGISTER			
DEFLECTION	ADJUSTABLE	360°	0°	SINGLE	DOUBLE			
MAX. STATIC PRESSURE (IN W.G.)	0.1"	0.1"	0.1"	0.1"	0.1"			
CONSTRUCTION MATERIAL	ALUMINUM	STEEL	STEEL	STEEL	STEEL			
FINISH	WHITE	WHITE	WHITE	WHITE	WHITE			
NECK SIZE (IN)	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS			
FACE SIZE (IN)	SEE PLANS	24"x24"	24"x12"	NECK + 1-3/4"	NECK + 1-3/4"			
ACCESSORIES	-	-	-	(4)	O.B.D.			
REMARKS	(1) (2)	(1) (2)	(1) (2)	(1) (2)	(1) (2)			

REMARKS

(1) VERIFY CEILING CONSTRUCTION PRIOR TO FURNISHING MATERIAL.

(2) NOISE CRITERIA (NC) SHALL BE LESS THAN 25 ON ALL DIFFUSERS, REGISTERS, AND GRILLES LOCATED IN OCCUPIED SPACES.

(3) FLOWBAR ARCHITECTURAL CEILING DIFFUSER, (2) 1" SLOTS, JET THROW PATTERN CONTROLLER, INSULATED PLENUM, AND LAY-IN-TILE CEILING BORDER TYPE.

(4) O.B.D. FOR EXHAUST APPLICATIONS. NO DAMPER FOR TRANSFER APPLICATIONS.

MECHANICAL SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	TYPICAL PIPING		
	PIPE TEE / PIPE ELBOW		UNION
	ELBOW DN / ELBOW UP		STRAINER WITH BLOWDOWN
	ISOLATION VALVE (BALL OR BUTTERFLY)		CHECK VALVE (ARROW INDICATES FLOW)
	BALANCING VALVE		AUTOMATIC CONTROL VALVE TWO-WAY / THREE WAY
	GATE VALVE		PRESSURE REGULATING VALVE (PRV)
	GLOBE VALVE		PRESSURE GAUGE
P.T.T.	PRESSURE/TEMPERATURE TEST PORT		THERMOMETER
	HYDRONIC HVAC PIPING		
HWS	HOT WATER SUPPLY PIPING	HPLS	HEAT PUMP LOOP PIPING SUPPLY PIPING
HWR	HOT WATER RETURN PIPING	HPLR	HEAT PUMP LOOP RETURN PIPING
CWS	CHILLED WATER SUPPLY PIPING	GWS	GLYCOL WATER SUPPLY PIPING
CWR	CHILLED WATER RETURN PIPING	GWR	GLYCOL WATER RETURN PIPING
CS	CONDENSER WATER SUPPLY PIPING		AIR VENT
CR	CONDENSER WATER RETURN PIPING	CD	COIL CONDENSATE DRAIN (SLOPE TO DRAIN)
	HVAC		
6x6 R-1 100	SIDEWALL SUPPLY REGISTER OR GRILLE — NECK SIZE (IN), TAG / AIRFLOW (CFM)	S	SENSOR
		T	THERMOSTAT
6x6 R-1 100	SIDEWALL RETURN OR EXHAUST REGISTER OR GRILLE — NECK SIZE (IN), TAG / AIRFLOW (CFM)	H	HUMIDISTAT
		M	MOTORIZED CONTROL DAMPER WITH ACTUATOR
6"□ D-1 100	SUPPLY AIR REGISTER — NECK SIZE (IN), TAG / AIRFLOW (CFM)	B.D.D.	BACKDRAFT DAMPER
		V.D.	VOLUME DAMPER
	SUPPLY AIR, OUTSIDE AIR OR MIXED AIR DUCT END OR RISER UP / RISER DN	F.R.D.	FIRE DAMPER WITH SLEEVE AND ACCESS DOOR
		M S.D.	SMOKE DAMPER WITH SLEEVE AND ACCESS DOOR
	RETURN AIR, EXHAUST AIR OR RELIEF AIR DUCT END OR RISER UP / RISER DN	M F.S.D.	FIRE/SMOKE DAMPER WITH SLEEVE AND ACCESS DOOR
		S.A.	SUPPLY AIR
12/8	RECTANGULAR DUCTWORK (WIDTH/DEPTH)(IN) (FIRST NUMBER IS SIDE SHOWN)	R.A.	RETURN AIR
		E.A.	EXHAUST AIR
12"□	ROUND DUCTWORK (DIAMETER)(IN) (SPIRAL DUCT IN EXPOSED AREAS)	RLF.A.	RELIEF AIR
		O.A.	OUTSIDE AIR
	TURNING VANES	M.A.	MIXED AIR

MEI PROJECT NO: 16160

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Revision Schedule

No.	Description	By	Date
1	Addendum 2		09/01/2016

CONSTRUCTION DOCUMENTS

NORTHEAST CC - WELLER BUILDING BASEMENT REMODEL

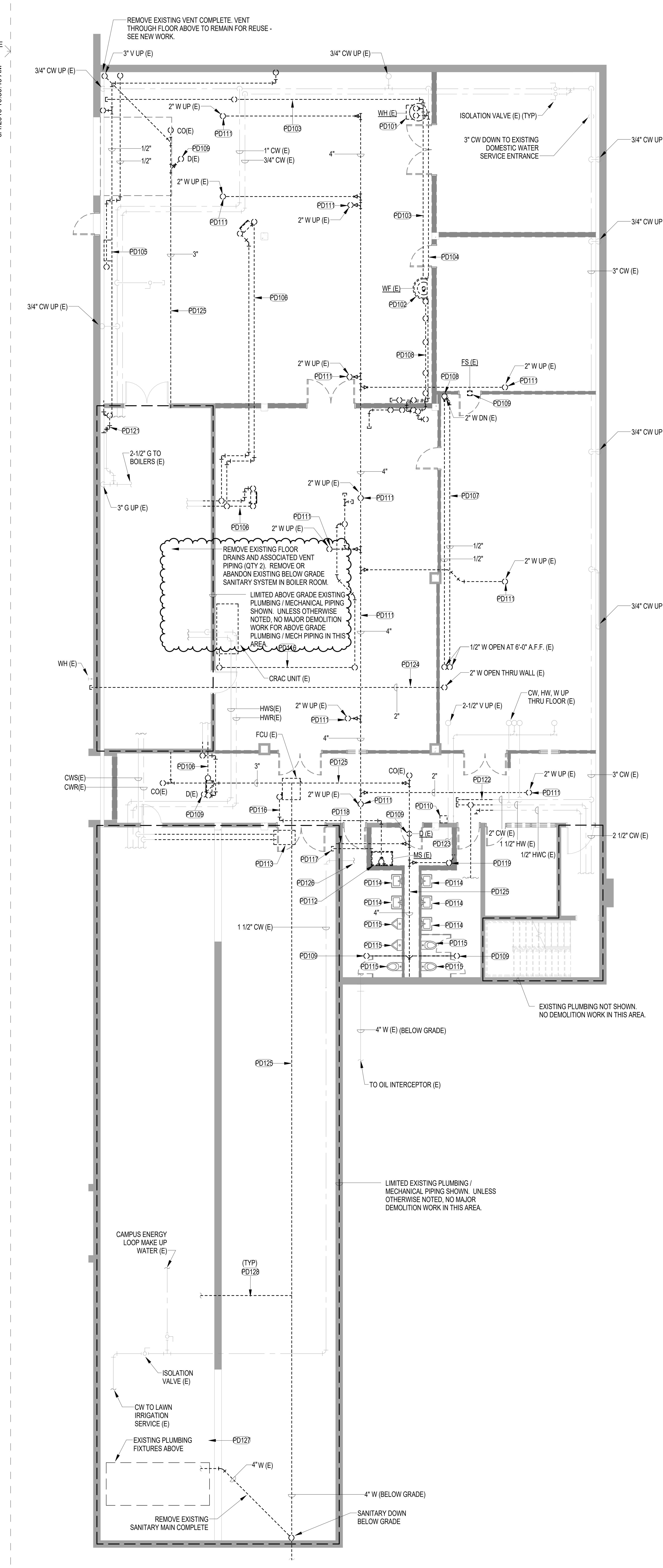
801 EAST BENJAMIN AVENUE, NORFOLK, NE 68701

BCDM architects

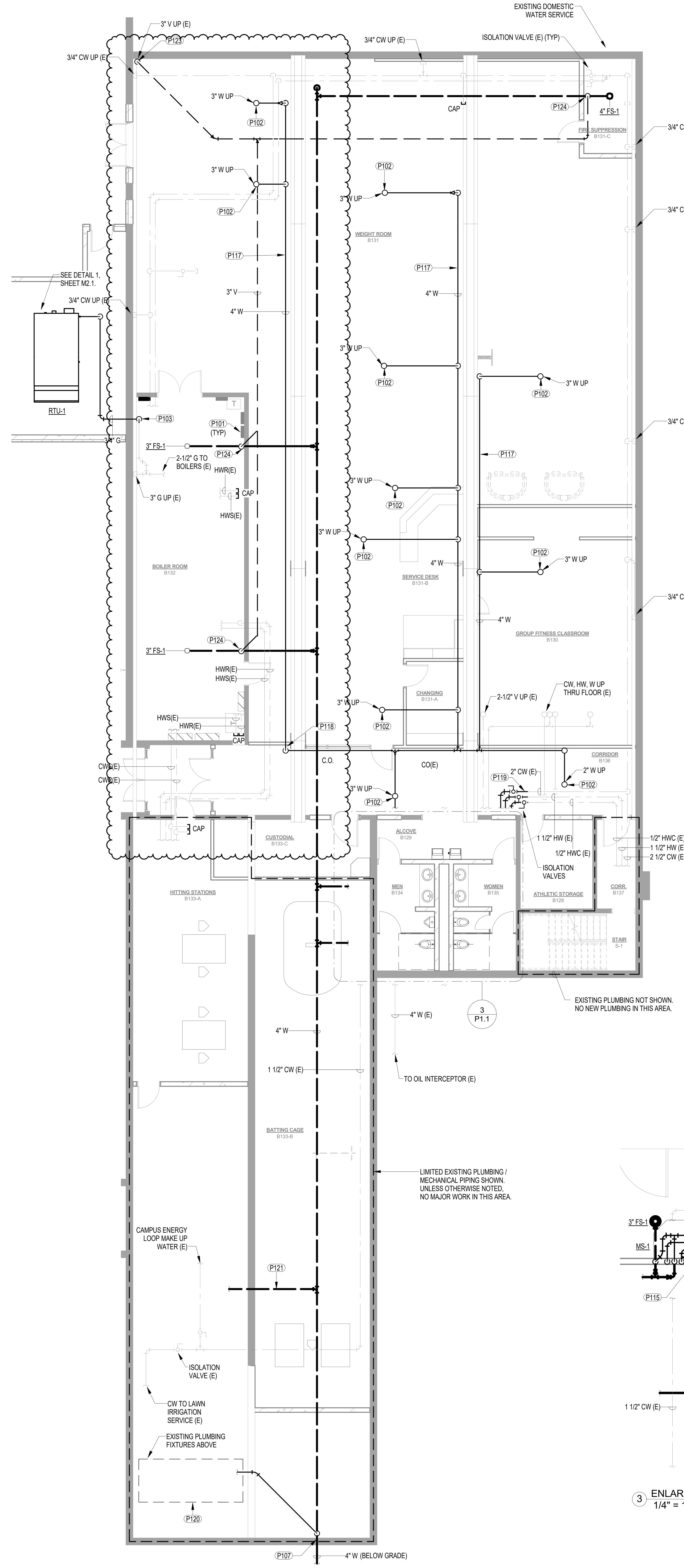
M3.1

August 9, 2016

BCDM NO. 3507-01



2 LOWER LEVEL - PLUMBING & MECHANICAL PIPING DEMOLITION
1/8" = 1'-0"



1 LOWER LEVEL - PLUMBING & MECHANICAL PIPING
1/8" = 1'-0"

DEMOLITION GENERAL NOTES (PLAN 2)

1. ALL PLUMBING SHOWN IS EXISTING. NOT ALL EXISTING PLUMBING IS SOHWN. REMOVE ALL PLUMBING SHOWN HATCHED.

2. EXISTING PLUMBING IS BASED ON APPROXIMATIONS FROM FIELD OBSERVATIONS. DRAWINGS ARE SCHEMATIC IN NATURE. NOT ALL EXISTING PLUMBING IS SHOWN. CONTACT SPECIFYING ENGINEER IF EXISTING CONDITIONS SIGNIFICANTLY VARY FROM THOSE SHOWN.

3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO NEW WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING REMOVAL AS REQUIRED TO ACCOMMODATE ACTUAL CONDITIONS.

4. PLAN WORK TO MINIMIZE SHUTDOWNS TO AREAS OUTSIDE OF AREA RENOVATION. COORDINATE ALL REQUIRED SHUTDOWNS WITH OWNER REPRESENTATIVE.

5. OWNER RESERVES THE FIRST SALVAGE RIGHTS TO ALL REMOVED PLUMBING. COMPLETELY REMOVE ALL UNWANTED MATERIALS FROM THE SITE.

6. HOLES CUT IN WALLS, FLOORS, AND CEILINGS TO PERMIT THE REMOVAL OF EQUIPMENT, PIPING, ETC. SHALL BE CAREFULLY MADE AND RESTRICTED TO THE SMALLEST PRACTICAL SIZE. PATCH ALL HOLES NOT REQUIRED FOR NEW WORK TO MATCH EXISTING.

HAZARDOUS MATERIAL COORDINATION NOTES

1. WHENEVER THE CONTRACTOR ENCOUNTERS A MATERIAL WHICH COULD POSSIBLY BE HAZARDOUS, THE CONTRACTOR SHALL STOP WORK AND CONTACT THE OWNER IMMEDIATELY FOR DIRECTION. DO NOT DISTURB THE MATERIAL IN ITS LOCATION.

2. CONTRACTORS SHALL AND MUST COORDINATE REMOVAL OF ANY ITEMS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS WITH THE OWNER. REMOVAL OF ANY HAZARDOUS MATERIALS SHALL BE IN ACCORDANCE WITH ANY EPA REQUIREMENTS AS WELL AS ANY REQUIREMENTS OF ANY OTHER AGENCIES WITH JURISDICTION OVER SUCH WORK.

NEW WORK GENERAL NOTES (PLAN 1)

1. DO NOT ROUTE PIPING ABOVE ELECTRICAL PANELS. MAINTAIN ALL CODE REQUIRED CLEARANCES.

2. PIPE ROUTING IS SHOWN FOR CLARITY AND GENERAL ROUTING INFORMATION. CONTRACTOR SHALL COORDINATE EXACT ROUTING WITH ALLTRADES. OFFEST AND TRANSITION PIPING AS REQUIRED TO AVOID CONFLICTS.

3. INSTALL ALL VALVES ABOVE ACCESSIBLE CEILINGS OR IN ACCESSIBLE LOCATIONS.

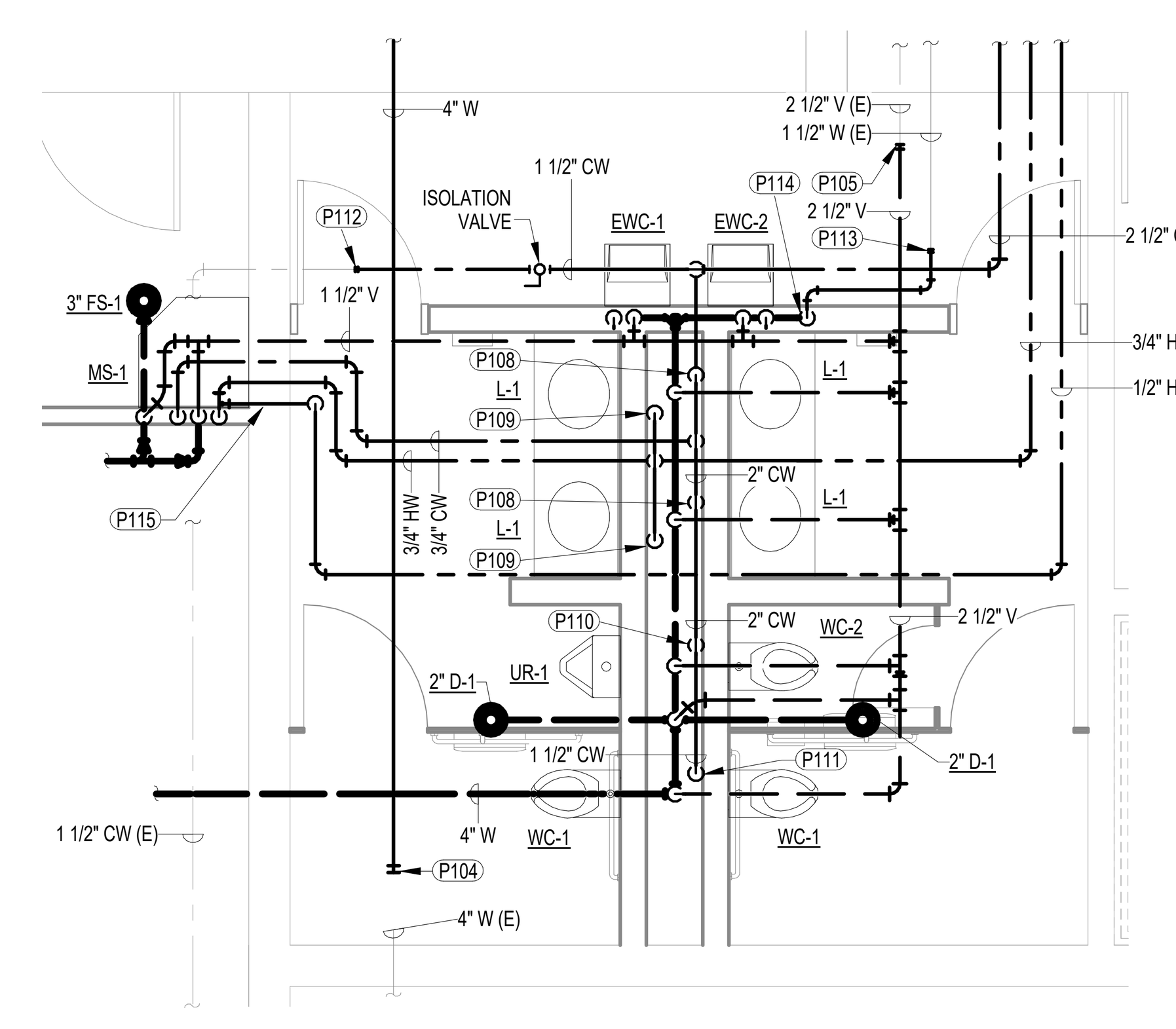
4. REFER TO WASTE AND VENT RISER DIAGRAM THIS SHEET FOR WASTE AND VENT SIZS.

5. WHENEVER POSSIBLE, DO NOT ROUTE WATER PIPING IN EXTERIOR WALLS. ROUTE PIPING ON WARM IN WINTER SIDE OF INSULATION AS REQUIRED. COORDINATE WITH GENERAL CONTRACTOR.

6. MAINTAIN MANUFACTURER'S REQUIRED CLEARNACE AROUND ALL MECHANICAL EQUIPMENT TO ALLOW PROPER OPERATION AND FOR EASY MAINTENANCE AND FILTER ACCESS.

7. COORDINATE LOCATION OF ALL UNDERGROUND PIPING WITH FOOTINGS. SLEEVE AS REQUIRED.

8. FIRE CAULK ALL PIPING PENETRATIONS THROUGH FIRE RATED WALLS. CAULK AROUND ALL PIPING PENETRATIONS THROUGH SOUND WALLS, REFER TO ARCHITECTURE REFLECTED CEILING PLAN.



3 ENLARGED PLAN - PLUMBING
1/4" = 1'-0"

SANITARY FIELD VERIFICATION (CONTRACTOR RESPONSIBILITY)

PRIOR TO COMMENCING WORK, THE PLUMBING CONTRACTOR SHALL FIELD VERIFY THE EXISTING BELOW GRADE SANITARY SYSTEM AND PROVIDE WRITTEN DOCUMENTATION OF EXISTING LOCATIONS, SIZES, INVERT ELEVATIONS, AND DIRECTION OF FLOW. RECORD INFORMATION ON THE EXISTING BELOW GRADE SANITARY SYSTEM WAS NOT AVAILABLE DURING DESIGN. EXISTING SYSTEM SHOWN ON PLAN IS BASED ON OBSERVABLE COMPONENTS (FLOOR DRAINS, CLEAN OUTS, ETC.). ADDITIONAL WORK / SCOPE BASED ON FIELD VERIFIED SANITARY SYSTEM SHALL BE PRESENTED, DISCUSSED, AND APPROVED PRIOR TO COMMENCING WORK.

KEYNOTES

P101 DO NOT ROUTE PIPING ABOVE ELECTRICAL PANELS. FIELD VERIFY LOCATIONS OF ALL EXISTING PANELS. SEE ELECTRICAL FOR LOCATIONS OF NEW PANELS. MAINTAIN ALL CODE REQUIRED CLEARANCES.
P102 2" WASTE UP TO NEW FLOOR DRAIN ON MAIN LEVEL - SEE PLAN 2, SEE SHEET P1.2.
P103 CONNECT NEW 3/4" NATURAL GAS PIPING TO EXISTING PIPING AT LOCATION SHOWN. DROP DOWN TIGHT TO WALL AND PENETRATE EXTERIOR WALL AT APPROXIMATELY 18" ABOVE GRADE.
P104 CONNECT NEW SANITARY PIPING TO EXISTING SANITARY PIPING. BOTTOM OF EXISTING PIPING LOCATED APPROXIMATELY 8'-9" A.F.F.
P105 CONNECT NEW VENT TO EXISTING. FIELD VERIFY EXACT LOCATION OF EXISTING PIPING.
P107 CONNECT NEW 4" BELOW GRADE SANITARY PIPING TO EXISTING 4" SANITARY PIPING. FIELD VERIFY EXACT LOCATION, INVERT AND DIRECTION OF FLOW OF BELOW GRADE PIPING.
P108 3/4" CW DOWN IN PLUMBING CHASE. 1/2" CW TO EACH LAVATORY.
P109 3/4" HW DOWN IN PLUMBING CHASE. 1/2" HW TO EACH LAVATORY.
P110 DROP 1-1/2" CW DOWN IN PLUMBING CHASE. PROVIDE 1-1/4" CW TO WATER CLOSET AND 1" CW TO URINAL.
P111 1-1/2" CW DOWN IN PLUMBING CHASE. 1-1/4" CW TO EACH WATER CLOSET.
P112 RECONNECT EXISTING 1-1/2" CW SERVING ENERGY LOOP MAKE UP WATER AND LAWN IRRIGATION SERVICE TO NEW PIPING.
P113 CONNECT NEW 1-1/2" W TO EXISTING. VERIFY EXACT LOCATION OF EXISTING PIPING IN FIELD.
P114 2" WASTE DOWN IN WALL TO BELOW GRADE.
P115 CONNECT 1/2" HWC TO 3/4" HW SERVING MOP SINK. PROVIDE BALANCE VALVE ACCESSIBLE IN JANITOR'S CLOSET. SET BALANCE VALVE TO 0.5 GPM.
P117 ROUTE NEW SANITARY MAIN AS HIGH AND AS TIGHT TO EXISTING CONCRETE BEAM AS POSSIBLE. SLOPE AS REQUIRED BY CODE.
P118 TRANSITION SANITARY BELOW EXISTING CONCRETE BEAMS. CONTINUE TO ROUTE AS HIGH AND AS TIGHT TO STRUCTURE AS POSSIBLE. MAINTAIN CODE REQUIRED SLOPE.
P119 CONNECT NEW CW, HW AND HWC MAINS TO EXISTING. PROVIDE ISOLATION VALVES AT CONNECTION POINT. FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING PIPING.
P120 PROVIDE NEW SANITARY PIPING TO SERVE MAIN LEVEL PLUMBING FIXTURES. PLUMBING FIXTURES TO REMAIN. INTENT IS TO REPLACE AS MUCH EXISTING SANITARY PIPING AS POSSIBLE. FIELD VERIFY EXACT QUANTITY OF MAIN LEVEL PLUMBING FIXTURES.
P121 PROVIDE NEW BRANCH SANITARY PIPING TO ALL EXISTING FLOOR DRAINS. FIELD VERIY EXACT SIZE, LOCATION AND QUANTITY OF EXISTING DRAINS.
P123 CONNECT NEW VENT TO EXISTING. FIELD VERIFY EXACT LOCATION OF EXISTING PIPING.
P124 ROUTE NEW VENT UP AS TIGHT TO WALL AS POSSIBLE. FIELD VERIFY AVAILABLE ROUTING PATH.

KEYNOTES

PD101 REMOVE EXISTING ELECTRIC DOMESTIC WATER HEATER AND TURNOVER TO OWNER REPRESENTATIVE.
PD102 REMOVE EXISTING WASHFOUNTAIN AND ASSOCIATED CW, HW, WASTE & VENT PIPING COMPLETE.
PD103 REMOVE EXISTING DOMESTIC HOT WATER PIPING ASSOCAITED WITH WATER HEATER SCHEDULED FOR REMOVAL (SEE KEYNOTE PD101) COMPLETE.
PD104 REMOVE EXISTING COLD WATER PIPING BACK TO LOCATION INDICATED AND CAP.
PD105 REMOVE EXISTING ABANDONED AIR COMPRESSOR AND ASSOCIATED PIPING COMPLETE. FIELD VERIFY AIR COMPRESSOR IS NOT ACTIVELY SERVING FLOOR ABOVE PRIOR TO DEMOLITION.
PD106 REMOVE EXISTING HEATING HOT WATER SUPPLY/RETURN PIPING BACK TO LOCATION INDICATED AND CAP.
PD107 REMOVE EXISTING ABANDONED PIPING COMPLETE.
PD108 REMOVE EXISTING PVC DRAIN PIPING BACK TO CONNECTION TO UNDERGROUND PIPING AND CAP BELOW FLOOR.
PD109 REMOVE EXISTING FLOOR DRAIN AND SANITARY PIPING BACK TO MAIN AND CAP (IF APPLICABLE).
PD110 REMOVE EXISTING ELECTRIC WATER COOLER AND ASSOCIATED CW, WASTE & VENT PIPING COMPLETE.
PD111 REMOVE EXISTING SANITARY PIPING (BRANCHES AND MAIN) SERVING FLOOR DRAINS ABOVE (SEE PLAN 1, SHEET P1.2) BACK TO LOCATION SHOWN AND PREPARE FOR CONNECTION TO NEW PIPING (SEE PLAN 2, SHEET P1.2).
PD112 REMOVE EXISTING MOP SINK COMPLETE. REMOVE EXISTING CW, HW, WASTE & VENT PIPING COMPLETE.
PD113 REMOVE EXISTING PUMP PACKAGE COMPLETE. REMOVE EXISTING ENERGY LOOP BRANCH PIPING BACK TO LOCATION INDICATED AND CAP. REMOVE ASSOCIATED HYDRONIC PIPING TO FAN COIL UNIT COMPLETE.
PD114 REMOVE EXISTING LAVATORY COMPLETE. REMOVE EXISTING CW, HW, WASTE & VENT PIPING COMPLETE.
PD115 REMOVE EXISTING WATER CLOSET/URINAL. REMOVE EXISTING CW, WASTE & VENT PIPING COMPLETE.
PD116 REMOVE EXISTING CONDENSATE DRAN PIPING COMPLETE.
PD117 REMOVE EXISTING ABANDONED DOMESTIC COLD WATER PIPING COMPLETE.
PD118 REMOVE EXISTING ABANDONED BELOW GRADE WASTE PIPING AND ASSOCIATE VENT COMPLETE.
PD119 REMOVE VERTICAL SECTION OF SANITARY PIPING GOING UNDERGROUND AND CAP UP HIGH. REMOVE BELOW GRADE SANITARY PIPING BACK TO MAIN AND CAP.
PD121 REMOVE EXISTING NATURAL GAS PIPING BACK TO LOCATION INDICATED AND PREPARE FOR CONNECTION TO NEW PIPING.
PD122 REMOVE EXISTING DOMESTIC COLD WATER, HOT WATER AND HOT WATER RECIRCULATION MAINS SERVING EXISING RESTROOM COMPLETE.
PD123 REMOVE EXISTING VENT SYSTEM SERVING EXISTING RESTROOM COMPLETE.
PD124 REMOVE EXISTING ABANDONED SANITARY COMPLETE. PATCH EXTERIOR WALL TO MATCH EXISTING.
PD125 REMOVE EXISTING SANITARY MAIN SHOWN DASHED COMPLETE. INTENT IS TO COMPLETELY REPLACE EXISTING BELOW GRADE SANITARY PIPING. EXISTING SANITARY PIPING LOCATED UNDERNEATH EXISTING EQUIPMENT TO REMAIN TO REMAIN AS-IS.
PD126 DISCONNECT EXISTING 1-1/2" CW SERVING CAMPUS ENERGY LOOP MAKE-UP AND LAWN IRRIGATION SERVICE FROM RESTROOM CW SYSTEM. REMOVE AS FAR BACK AS REQUIRED TO CONNECT TO NEW CW SYSTEM - SEE NEW WORK.
PD127 REMOVE EXISTING SANITARY PIPING SERVING MAIN LEVEL PLUMBING FIXTURES. PLUMBING FIXTURES TO REMAIN. INTENT IS TO REPLACE AS MUCH EXISTING SANITARY PIPING AS POSSIBLE. FIELD VERIFY EXACT QUANTITY OF MAIN LEVEL PLUMBING FIXTURES AND CONFIGURATION OF EXISTING SANITARY.
PD128 REMOVE EXISTING BRANCH SANITARY PIPING SERVING EXISTING FLOOR DRAINS - FIELD VERIFY EXACT LOCATION, SIZE AND QUANTITY OF EXISTING FLOOR DRAINS.

Revision Schedule			
No.	Description	By	Date
1	Addendum 2		09/01/2016

MEI PROJECT NO: 16160

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CONSTRUCTION DOCUMENTS
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801 EAST BENJAMIN AVENUE, NORFOLK, NE 68701

BCDM architects

P1.1
August 9, 2016
BCDM NO. 3507-01

LEFT BINDING EDGE

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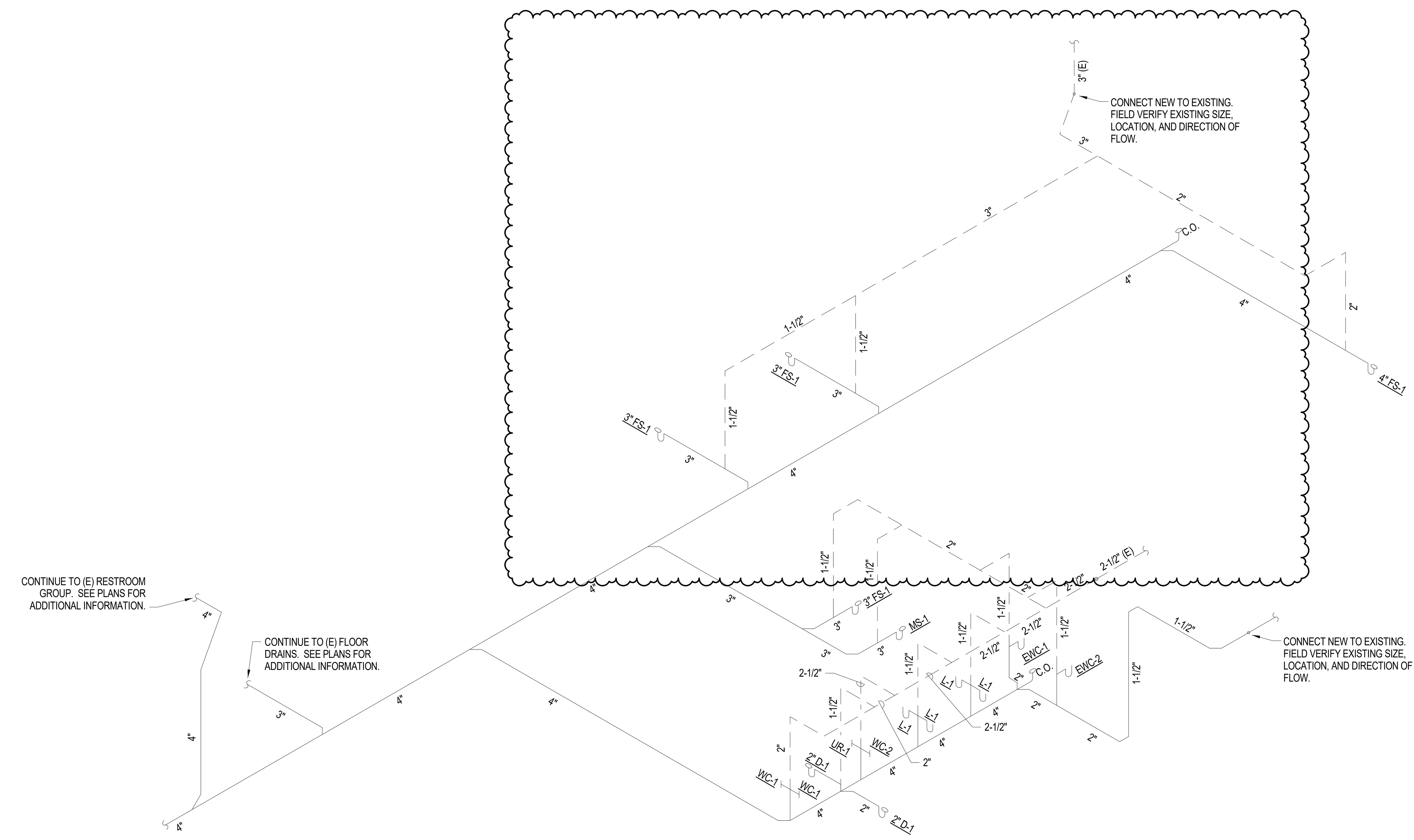

NOTES:
1. NOT ALL CLEANOUTS SHOWN. PROVIDE CLEANOUTS AS REQUIRED BY INTERNATIONAL PLUMBING CODE.
2. SEE PLUMBING FIXTURE SCHEDULE ON SHEET P3.1 FOR PIPE SIZES TO INDIVIDUAL FIXTURES.

Revision Schedule

No.	Description	By	Date
1	Addendum 2		09/01/2016

CONSTRUCTION DOCUMENTS

NORTHEAST CC - WELLER BUILDING BASEMENT REMODEL

801 EAST BENJAMIN AVENUE, NORFOLK, NE 68701

BCDM architects

P2.2

August 9, 2016

BCDM NO. 3507-01

MEI PROJECT NO: 16160

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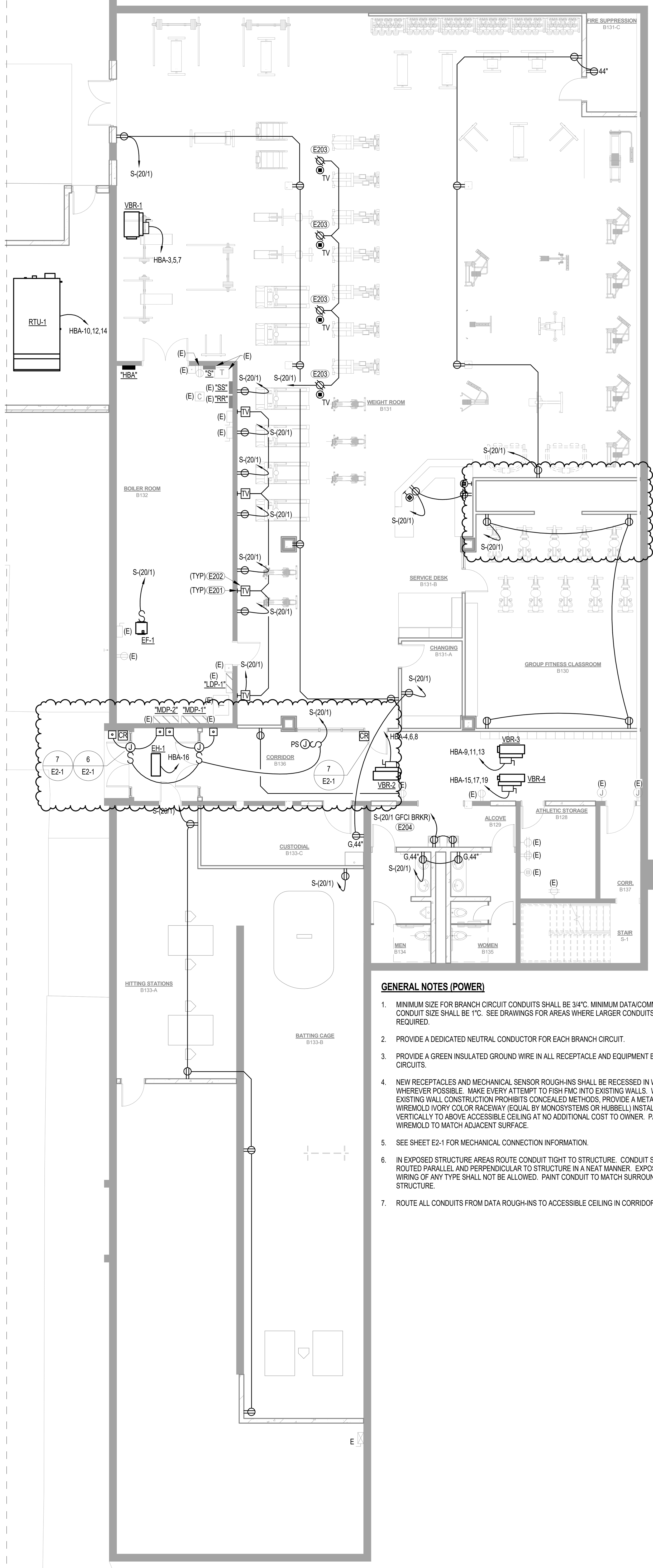
LEFT BINDING EDGE

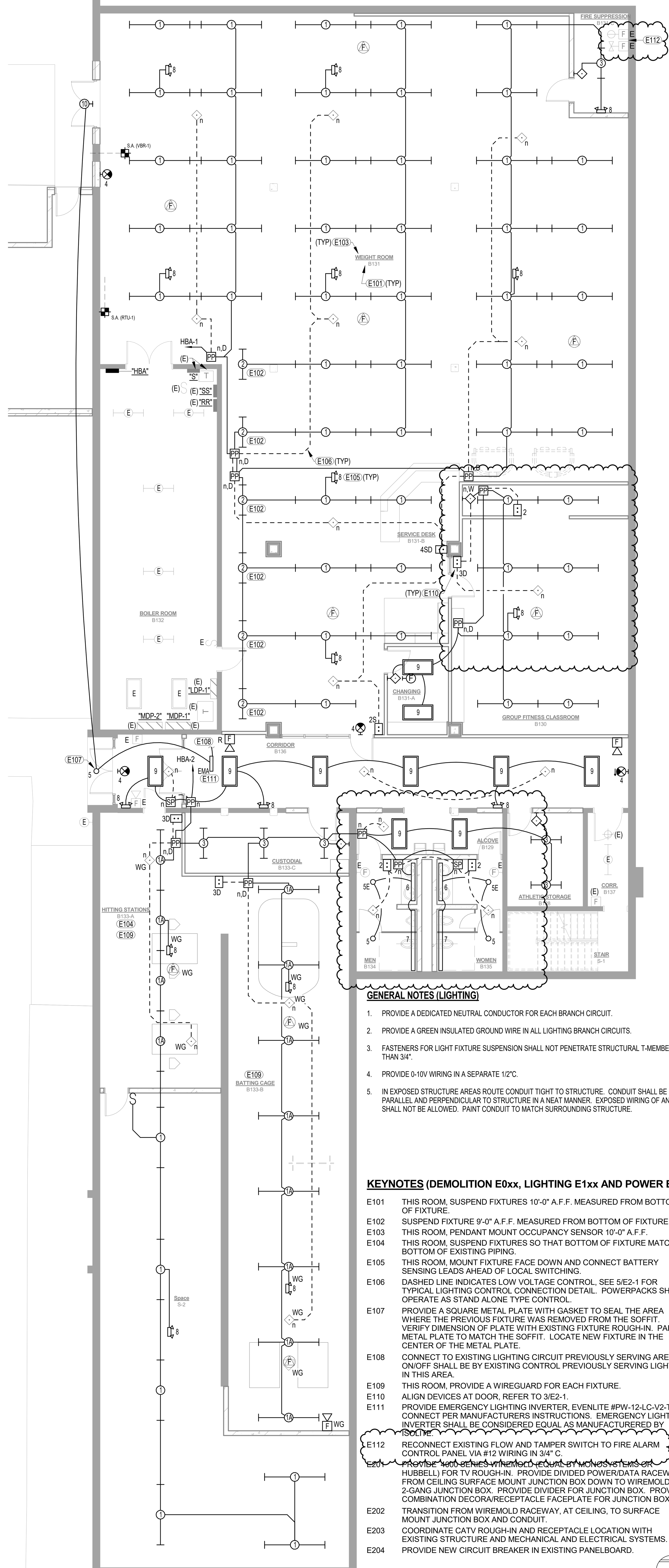


GENERAL NOTES (POWER)

1. MINIMUM SIZE FOR BRANCH CIRCUIT CONDUITS SHALL BE 3/4"C. MINIMUM DATA/COMMUNICATIONS CONDUIT SIZE SHALL BE 1"C. SEE DRAWINGS FOR AREAS WHERE LARGER CONDUITS ARE REQUIRED.
2. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT.
3. PROVIDE A GREEN INSULATED GROUND WIRE IN ALL RECEPTACLE AND EQUIPMENT BRANCH CIRCUITS.
4. NEW RECEPTACLES AND MECHANICAL SENSOR ROUGH-INS SHALL BE RECESSED IN WALLS WHEREVER POSSIBLE. MAKE EVERY ATTEMPT TO FISH FMC INTO EXISTING WALLS. WHERE EXISTING WALL CONSTRUCTION PROHIBITS CONCEALED METHODS, PROVIDE A METAL WIREMOLD IVORY COLOR RACEWAY (EQUAL BY MONOSYSTEMS OR HUBBELL) INSTALLED VERTICALLY TO ABOVE ACCESSIBLE CEILING AT NO ADDITIONAL COST TO OWNER. PAINT WIREMOLD TO MATCH ADJACENT SURFACE.
5. SEE SHEET E2-1 FOR MECHANICAL CONNECTION INFORMATION.
6. IN EXPOSED STRUCTURE AREAS ROUTE CONDUIT TIGHT TO STRUCTURE. CONDUIT SHALL BE ROUTED PARALLEL AND PERPENDICULAR TO STRUCTURE IN A NEAT MANNER. EXPOSED WIRING OF ANY TYPE SHALL NOT BE ALLOWED. PAINT CONDUIT TO MATCH SURROUNDING STRUCTURE.
7. ROUTE ALL CONDUITS FROM DATA ROUGH-INS TO ACCESSIBLE CEILING IN CORRIDOR B136.

TRUE NORTH PLAN NORTH

3 LOWER LEVEL - POWER
1/8" = 1'-0"



GENERAL NOTES (LIGHTING)

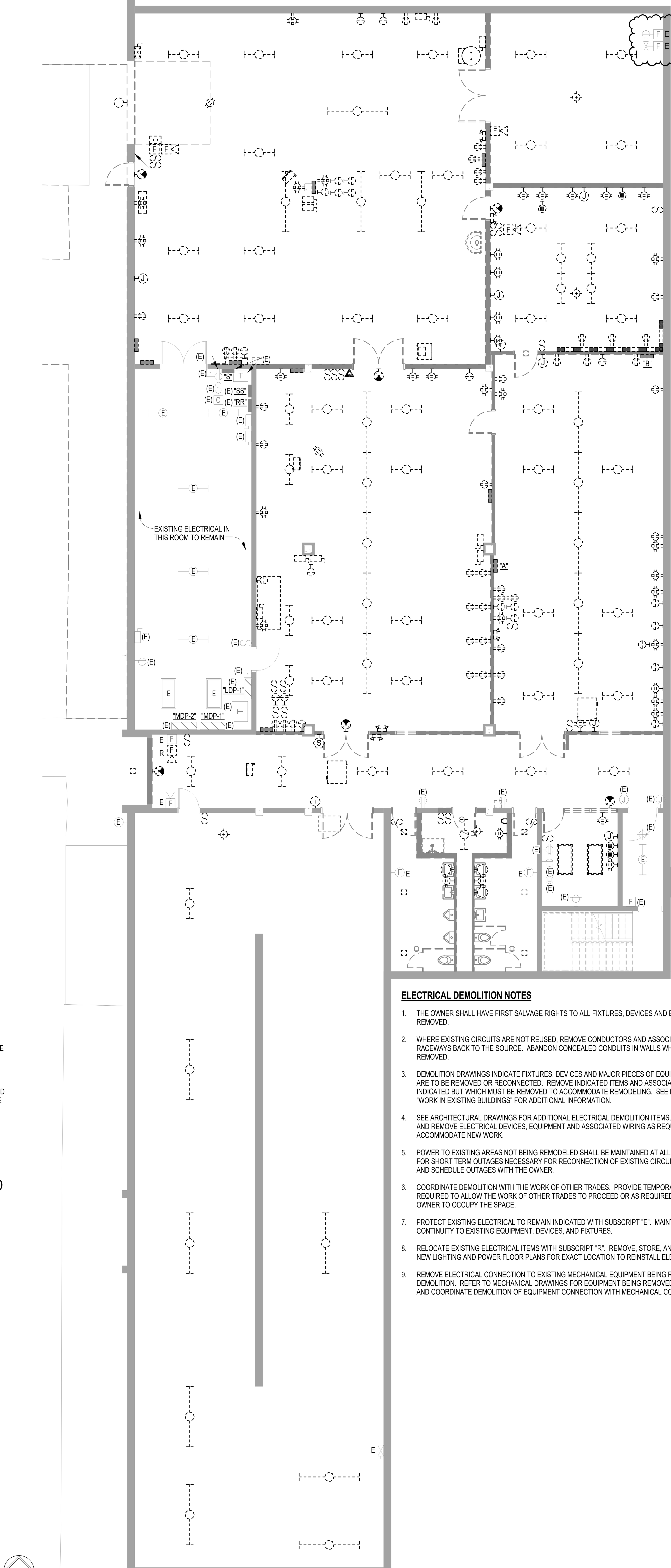
1. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT.
2. PROVIDE A GREEN INSULATED GROUND WIRE IN ALL LIGHTING BRANCH CIRCUITS.
3. FASTENERS FOR LIGHT FIXTURE SUSPENSION SHALL NOT PENETRATE STRUCTURAL T-MEMBER MORE THAN 3/4".
4. PROVIDE 0-10V WIRING IN A SEPARATE 1/2"C.
5. IN EXPOSED STRUCTURE AREAS ROUTE CONDUIT TIGHT TO STRUCTURE. CONDUIT SHALL BE ROUTED PARALLEL AND PERPENDICULAR TO STRUCTURE IN A NEAT MANNER. EXPOSED WIRING OF ANY TYPE SHALL NOT BE ALLOWED. PAINT CONDUIT TO MATCH SURROUNDING STRUCTURE.

KEYNOTES (DEMOLITION E0xx, LIGHTING E1xx AND POWER E2xx)

E101	THIS ROOM, SUSPEND FIXTURES 10'-0" A.F.F. MEASURED FROM BOTTOM OF FIXTURE.
E102	SUSPEND FIXTURE 9'-0" A.F.F. MEASURED FROM BOTTOM OF FIXTURE.
E103	THIS ROOM, PENDANT MOUNT OCCUPANCY SENSOR 10'-0" A.F.F.
E104	THIS ROOM, SUSPEND FIXTURES SO THAT BOTTOM OF FIXTURE MATCHES BOTTOM OF EXISTING PIPING.
E105	THIS ROOM, MOUNT FIXTURE FACE DOWN AND CONNECT BATTERY SENSING LEADS AHEAD OF LOCAL SWITCHING.
E106	DASHED LINE INDICATES LOW VOLTAGE CONTROL, SEE 5/E2-1 FOR TYPICAL LIGHTING CONTROL CONNECTION DETAIL. POWERPACKS SHALL OPERATE AS STAND ALONE TYPE CONTROL.
E107	PROVIDE A SQUARE METAL PLATE WITH GASKET TO SEAL THE AREA WHERE THE PREVIOUS FIXTURE WAS REMOVED FROM THE SOFFIT. VERIFY DIMENSION OF PLATE WITH EXISTING FIXTURE ROUGH-IN. PAINT METAL PLATE TO MATCH THE SOFFIT. LOCATE NEW FIXTURE IN THE CENTER OF THE METAL PLATE.
E108	CONNECT TO EXISTING LIGHTING CIRCUIT PREVIOUSLY SERVING AREA. ON/OFF SHALL BE BY EXISTING CONTROL PREVIOUSLY SERVING LIGHTING IN THIS AREA.
E109	THIS ROOM, PROVIDE A WIREGUARD FOR EACH FIXTURE.
E110	ALIGN DEVICES AT DOOR, REFER TO 3/E2-1.
E111	PROVIDE EMERGENCY LIGHTING INVERTER, EVENLITE #PW-12-LC-V2-TB. CONNECT PER MANUFACTURERS INSTRUCTIONS. EMERGENCY LIGHTING INVERTER SHALL BE CONSIDERED EQUAL AS MANUFACTURERED BY ISOLITE.
E112	RECONNECT EXISTING FLOW AND TAMPER SWITCH TO FIRE ALARM CONTROL PANEL VIA #12 WIRING IN 3/4" C.
E201	PROVIDE 4000 SERIES WIREMOLD (EQUAL BY MONOSYSTEMS OR HUBBELL) FOR TV ROUGH-IN. PROVIDE DIVIDED POWER/DATA RACEWAY FROM CEILING SURFACE MOUNT JUNCTION BOX DOWN TO WIREMOLD 2-GANG JUNCTION BOX. PROVIDE DIVIDER FOR JUNCTION BOX. PROVIDE COMBINATION DECORA/RECEPTACLE FACEPLATE FOR JUNCTION BOX.
E202	TRANSITION FROM WIREMOLD RACEWAY, AT CEILING, TO SURFACE MOUNT JUNCTION BOX AND CONDUIT.
E203	COORDINATE CATV ROUGH-IN AND RECEPTACLE LOCATION WITH EXISTING STRUCTURE AND MECHANICAL AND ELECTRICAL SYSTEMS.
E204	PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANELBOARD.

TRUE NORTH PLAN NORTH

2 LOWER LEVEL - LIGHTING
1/8" = 1'-0"



ELECTRICAL DEMOLITION NOTES

1. THE OWNER SHALL HAVE FIRST SALVAGE RIGHTS TO ALL FIXTURES, DEVICES AND EQUIPMENT REMOVED.
2. WHERE EXISTING CIRCUITS ARE NOT REUSED, REMOVE CONDUCTORS AND ASSOCIATED ACCESSIBLE RACEWAYS BACK TO THE SOURCE. ABANDON CONCEALED CONDUITS IN WALLS WHICH ARE NOT REMOVED.
3. DEMOLITION DRAWINGS INDICATE FIXTURES, DEVICES AND MAJOR PIECES OF EQUIPMENT WHICH ARE TO BE REMOVED OR RECONNECTED. REMOVE INDICATED ITEMS AND ASSOCIATED ITEMS NOT INDICATED BUT WHICH MUST BE REMOVED TO ACCOMMODATE REMODELING. SEE PROJECT MANUAL "WORK IN EXISTING BUILDINGS" FOR ADDITIONAL INFORMATION.
4. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL ELECTRICAL DEMOLITION ITEMS. DISCONNECT AND REMOVE ELECTRICAL DEVICES, EQUIPMENT AND ASSOCIATED WIRING AS REQUIRED TO ACCOMMODATE NEW WORK.
5. POWER TO EXISTING AREAS NOT BEING REMODELED SHALL BE MAINTAINED AT ALL TIMES EXCEPT FOR SHORT TERM OUTAGES NECESSARY FOR RECONNECTION OF EXISTING CIRCUITS. COORDINATE AND SCHEDULE OUTAGES WITH THE OWNER.
6. COORDINATE DEMOLITION WITH THE WORK OF OTHER TRADES. PROVIDE TEMPORARY POWER AS REQUIRED TO ALLOW THE WORK OF OTHER TRADES TO PROCEED OR AS REQUIRED TO ALLOW THE OWNER TO OCCUPY THE SPACE.
7. PROTECT EXISTING ELECTRICAL TO REMAIN INDICATED WITH SUBSCRIPT "E". MAINTAIN CIRCUIT CONTINUITY TO EXISTING EQUIPMENT, DEVICES, AND FIXTURES.
8. RELOCATE EXISTING ELECTRICAL ITEMS WITH SUBSCRIPT "R". REMOVE, STORE, AND REINSTALL, SEE NEW LIGHTING AND POWER FLOOR PLANS FOR EXACT LOCATION TO REINSTALL ELECTRICAL ITEMS.
9. REMOVE ELECTRICAL CONNECTION TO EXISTING MECHANICAL EQUIPMENT BEING REMOVEDY BY DEMOLITION. REFER TO MECHANICAL DRAWINGS FOR EQUIPMENT BEING REMOVED BY DEMOLISH AND COORDINATE DEMOLITION OF EQUIPMENT CONNECTION WITH MECHANICAL CONTRACTOR.

1 LOWER LEVEL DEMOLITION PLAN - ELECTRICAL
1/8" = 1'-0"

MEI PROJECT NO: 16160

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note:
do not scale drawings. verify all dimensions and clearances from architectural, structural, shop and other appropriate drawings or at site. lay out and coordinate all work prior to installation to provide clearances required for operation, maintenance, and codes and verify non-interference with other work. do not fabricate prior to verification of clearance for all trades.

PROFESSIONAL ARCHITECTURAL ENGINEER ANDREW W. LANG E-13760 08/09/2016 STATE OF NEBRASKA

Revision Schedule

No.	Description	By	Date
1	Addendum 2		09/01/2016

CONSTRUCTION DOCUMENTS

NORTHEAST CC - WELLER BUILDING BASEMENT REMODEL

801 EAST BENJAMIN AVENUE, NORFOLK, NE 68701

BCDM architects

E1-1

August 9, 2016
BCDM NO. 3507-01

LEFT BINDING EDGE

8/30/2016 1:56:17 PM

LIGHTING PANEL SCHEDULE

Panel: HBA
Rating: 225 A
Mounting: SURFACE
Type: -

A.I.C. Rating: 22,000
Voltage: 480/277 Wye
Phase: 3
Wire: 4
Remarks:

Circuit Description	OPT	R	P	CKT	A	B	C	CKT	P	R	OPT	Circuit Description
LTG-WEIGHTS,CLASSRM,CHANGE		20	1	1				2	1	20		LTG-HIT,BAT,MECH
				3				4				
VBR-1		25	3	5				6	3	20		VBR-2
				7				8				
				9				10				
VBR-3		20	3	11				12	3	80		RTU-1
				13				14				
				15				16	1	20		EH-1
VBR-4		20	3	17				18	1	20	--	SPARE
				19				20	1	20	--	SPARE
SPARE	--	20	1	21				22	1	20	--	SPARE
SPACE	--	--	--	23				24	--	--	--	SPACE
SPACE	--	--	--	25				26	--	--	--	SPACE
SPACE	--	--	--	27				28	--	--	--	SPACE
SPACE	--	--	--	29				30	--	--	--	SPACE
SPACE	--	--	--	31				32	--	--	--	SPACE
SPACE	--	--	--	33				34	--	--	--	SPACE
SPACE	--	--	--	35				36	--	--	--	SPACE
SPACE	--	--	--	37				38	--	--	--	SPACE
SPACE	--	--	--	39				40	--	--	--	SPACE
SPACE	--	--	--	41				42	--	--	--	SPACE

Notes:

MECHANICAL CONNECTION SCHEDULE

MARK	VOLTAGE	PHASE	DISCONNECT	BREAKER (NOTE 1)	WIRE AND CONDUIT
EF-1	120 V	3	TOGGLE SWITCH	20/1	2#12,#12G,.3/4"C.
EH-1	277 V	1		20/1	2#12,#12G,.3/4"C.
RTU-1	480 V	3	100/3	80/3	3#3,#8G,.1-1/4"C.
VBR-1	480 V	3	30/3	25/3	3#10,#10G,.3/4"C.
VBR-2	480 V	3	30/3	20/3	3#12,#12G,.3/4"C.
VBR-3	480 V	3	30/3	20/3	3#12,#12G,.3/4"C.
VBR-4	480 V	3	30/3	20/3	3#12,#12G,.3/4"C.

NOTES:

1. PROVIDE HACR RATED BREAKERS.

ELECTRICAL SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	LIGHTING		
	FLUORESCENT FIXTURE		POLE FIXTURE(S)
	NUMBER DENOTES FIXTURE TYPE, SEE CORRESPONDING NUMBER IN FIXTURE SCHEDULE		BOLLARD FIXTURE
	SHADING DENOTES FIXTURE CONNECTED TO EMERGENCY CIRCUIT OR WITH BATTERY		SINGLE POLE SWITCH
	FLUORESCENT STRIP FIXTURE		DOUBLE POLE SWITCH
	WALL BRACKET FIXTURE		3 - WAY SWITCH
			4 - WAY SWITCH
	CEILING FIXTURE		MOMENTARY CONTACT SWITCH
	WALL FIXTURE		WALL BOX DIMMER SWITCH -NUMBER INDICATES WATTAGE: "6"-600W, "10"-1000W, "20"-2000W)
	TRACK FIXTURE		
	EMERGENCY BATTERY PACK		CEILING MOUNTED MOTION SENSOR/SWITCH
	CEILING MOUNTED EXIT LIGHT WITH DIRECTIONAL ARROW - NUMBER INDICATES FIXTURE NUMBER IN SCHEDULE		WALL MOUNTED MOTION SENSOR/SWITCH
			ENTRY STATION, WALL SWITCH(ES)
	WALL OR END MOUNTED EXIT LIGHT WITH DIRECTIONAL ARROW - NUMBER INDICATES FIXTURE NUMBER IN SCHEDULE		OCCUPANCY SENSOR POWER PACK
	FIRE ALARM		
	FIRE ALARM SMOKE DETECTOR		FIRE ALARM HORN & STROBE COMBINATION
	FIRE ALARM HEAT DETECTOR		CEILING FIRE ALARM HORN & STROBE COMBINATION
	DUCT MOUNTED SMOKE DETECTOR		FIRE ALARM MAN-HORN & STROBE COMBINATION
	FIRE ALARM MANUAL PULL STATION		CEILING FIRE ALARM STROBE
	FIRE SPRINKLER VALVE TAMPER SWITCH		WALL FIRE ALARM STROBE
	FIRE SPRINKLER FLOW SWITCH		CEILING FIRE ALARM SPEAKER & STROBE
	FIRE ALARM CONTROL PANEL		WALL FIRE ALARM SPEAKER & STROBE COMBINATION
	FIRE ALARM ANNUNCIATOR PANEL		FIRE ALARM BELL
	FIRE ALARM MAGNETIC DOOR HOLDER		CEILING FIRE ALARM SPEAKER
	FIRE FIGHTERS PHONE JACK		WALL FIRE ALARM SPEAKER
	POWER		
	DUPLEX RECEPTACLE		FLOOR BOX - COMBINATION POWER & TELEPHONE
	"G" DENOTES GFCI TYPE		FLOOR BOX - COMBINATION POWER AND DATA
	TRIANGLE DENOTES ISOLATED GROUND TYPE		FLOOR BOX - COMBINATION POWER, TELEPHONE & DATA
	"H" DENOTES HOSPITAL GRADE TYPE		WALL CLOCK HANGER OUTLET
	"TR" DENOTES TAMPER RESISTANT TYPE		MULTI-OUTLET ASSEMBLY - LENGTH AS INDICATED
	DOUBLE SHADING DENOTES RED DEVICE		MOTOR - NUMBER DENOTES HORSEPOWER
	SINGLE SHADING DENOTES SPLIT WIRED DEVICE		DISCONNECT SWITCH
	HORIZONTAL MOUNTED DUPLEX RECEPTACLE		THERMAL ELEMENT SWITCH
	CEILING MOUNTED DUPLEX RECEPTACLE		SWITCH & FUSE
	FLOOR MOUNTED DUPLEX RECEPTACLE		SWITCH & FUSTAT
	DOUBLE DUPLEX RECEPTACLE		COMBINATION MAGNETIC STARTER/DISCONNECT
	SINGLE RECEPTACLE		MOTOR CONTROL PUSHBUTTON STATION
	DRYER RECEPTACLE NEMA 14-30 (125/250V 30A)		RELAY
	RANGE RECEPTACLE NEMA 14-50 (125/250V 50A)		
	WELDER RECEPTACLE NEMA 6-50 (250V 50A)		
	SPECIAL PURPOSE RECEPTACLE, (NEMA CONFIG. AS NOTED)		
	COMMUNICATION		
	TELEPHONE OUTLET		CEILING SPEAKER
	DATA OUTLET		WALL SPEAKER
	COMBINATION TELEPHONE/DATA OUTLET		WALL MICROPHONE OUTLET
	FLOOR TELEPHONE OUTLET		FLOOR MICROPHONE OUTLET
	FLOOR DATA OUTLET		VOLUME CONTROL
	FLOOR COMBINATION TELEPHONE/DATA OUTLET		CALL SWITCH
	TELEVISION/VIDEO OUTLET		INTERCOM OUTLET
	1" CONDUIT SLEEVE UNLESS NOTED ON PLANS		INTERCOM CONTROL PANEL
	GENERAL		
	LIGHTING PANEL		WALL MOUNTED JUNCTION BOX
	DISTRIBUTION PANEL		JUNCTION BOX ("F" INDICATES FLOOR, "C" INDICATES CEILING)
	TELEPHONE TERMINAL CABINET		PHOTOCELL
	BRANCH CIRCUIT EXPOSED		CONDUIT SEAL
	BRANCH CIRCUIT CONCEALED IN CEILING OR WALL		CIRCUIT DOWN
	BRANCH CIRCUIT CONCEALED IN FLOOR		CIRCUIT UP
	HOMERUN TO PANEL (QUANTITY OF ARROWS INDICATES QUANTITY OF CIRCUITS)		CONDUIT STUB-OUT
	SPECIAL PURPOSE HOMERUN AS INDICATED		CIRCUIT BREAK
	THERMOSTAT		CHIME
	BUZZER		BELL
(TYP.)	WHERE (TYP.) IS USED ON PLANS INDICATES A TYPICAL NOTE OR CONDITION		PUSH BUTTON
EP	SUBSCRIPT "EP" APPLIED TO ANY SYMBOL INDICATES EXPLOSION PROOF CLASS GROUP B DIVISION AS NOTED	RT	SUBSCRIPT "RT" APPLIED TO ANY SYMBOL INDICATES RAINTIGHT NEMA 3 OR EQUIVALENT
WP	SUBSCRIPT "WP" APPLIED TO ANY SYMBOL INDICATES WEATHERPROOF NEMA TYPE 4 OR EQUIVALENT	PD	SUBSCRIPT "PD" APPLIED TO ANY FLOOR OUTLET INDICATES PEDESTAL MOUNTED
E	SUBSCRIPT "E" ADDED TO ANY SYMBOL INDICATES EXISTING	P	SUBSCRIPT "P" ADDED TO ANY SYMBOL INDICATES PILOT LIGHT
K	SUBSCRIPT "K" ADDED TO ANY SYMBOL INDICATES KEY OPERATED	DL	SUBSCRIPT "DL" ADDED TO ANY SYMBOL INDICATES DIMR LOCATION

ELECTRIC HEAT SCHEDULE

MARK	MANUFACTURER	CATALOG NUMBER	WATTS	VOLTAGE	PHASE	LENGTH	REMARKS
EH-1	QMARK	EFF4007	4000 VA	277 V	1		NOTE 1

NOTES:

1. PROVIDE WITH INTEGRAL SERVICE DISCONNECT, INTEGRAL THERMOSTAT, AND T-BAR GRID MOUNTING KIT. OBSERVE ALL MANUFACTURERS RECOMMENDED CLEARANCES WHEN MOUNTING HEATER.

LUMINAIRE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	LIGHT SOURCE QTY.	LIGHT SOURCE SPECIFICATION	LIGHT SOURCE CCT	LIGHT SOURCE TYPE	ELECTRICAL WATTS	ELECTRICAL VOLTS	FINISH	MOUNTING	ACCEPTABLE MANUFACTURERS	REMARKS
1	8' LED SUSPENDED STRIPLIGHT	LITHONIA	TZL1D L96 6000LM FST 277 40K 80CRI WH	-	6000LM	4000K	LED	60 VA	277 V	WHITE	SUSPENDED	NOTE 1	
1A	8' LED SUSPENDED STRIPLIGHT, W/ WIREGUARD	LITHONIA	TZL1D L96 6000LM FST 277 40K 80CRI WH WGZ48(x2)	-	6000LM	4000K	LED	60 VA	277 V	WHITE	SUSPENDED	NOTE 1	
2	4' LED SUSPENDED STRIPLIGHT	LITHONIA	ZL1D L48 3000LM FST 277 40K 80CRI WH	-	3000LM	4000K	LED	33 VA	277 V	WHITE	SUSPENDED	NOTE 1	
3	4' LED SUSPENDED STRIPLIGHT	LITHONIA	ZL1N L48 FST 277 40K 80CRI WH	-	5000LM	4000K	LED	42 VA	277 V	WHITE	SUSPENDED/SURFACE	NOTE 1	
4	SINGLE FACE EXIT LIGHT	LITHONIA	LQC 1 R EL N	-	-	-	LED	1 VA	277 V	BRUSHED ALUMINUM	WALL	NOTE 1	
5	4" MATTE-DIFFUSE DOWNLIGHT	GOTHAM	EVO 40/15 4AR MWD LD 277 EZ10	-	1500LM	4000K	LED	17 VA	277 V	WHITE TRIM	RECESSED		
5E	4" MATTE-DIFFUSE DOWNLIGHT, W/ EM BATTERY	GOTHAM	EVO 40/15 4AR MWD LD 277 EZ10 EL	-	1500LM	4000K	LED	17 VA	277 V	WHITE TRIM	RECESSED		
6	5' RECESSED LINEAR	SELUX	L1R1 1A35 40 LW SF2 RC 05 WH 277 DIM	-	725LM/FT	4000K	LED	34 VA	277 V	WHITE	RECESSED	BIRCHWOOD, ALIGHT	
7	8' RECESSED LINEAR	SELUX	L1R1 1A35 40 LW SF2 RC 08 WH 277 DIM	-	725LM/FT	4000K	LED	68 VA	277 V	WHITE	RECESSED	BIRCHWOOD, ALIGHT	
8	EMERGENCY LIGHTING UNIT	LITHONIA	ELM2 LED SD	-	-	-	LED	2 VA	3 V	WHITE	SURFACE	NOTE 1	
9	2x4 LED	LITHONIA	2BLT4 48L ADSM 277 EZ1 LP840	-	4800LM	4000K	LED	45 VA	277 V	WHITE	RECESSED	NOTE 1	
10	EXTERIOR WALL SCONCE	LITHONIA	WST LED P2 40K VF 277 DDBXD	-	3000LM	4000K	LED	0 VA	277 V	BRONZE	WALL	NOTE 1	

GENERAL REQUIREMENTS

A.CONTRACTOR SHALL VERIFY CATALOG NUMBERS AND INSTALLATION REQUIREMENTS PRIOR TO ORDERING. NOTIFY ENGINEER OF ANY CONFLICTS WITH PROPOSED INSTALLATION.
B.LIGHT SOURCE TYPES: LED = LIGHT EMITTING DIODE
C. UNLESS NOTED OTHERWISE, REFER TO PLANS FOR SUSPENSION LENGTHS REQUIRED FOR ALL SUSPENDED LUMINAIRES.

LUMINAIRE SCHEDULE NOTES:

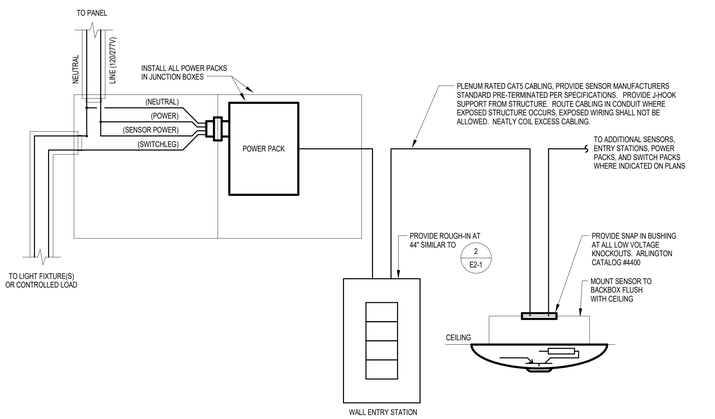
1. LUMINAIRE SHALL BE CONSIDERED EQUAL AS MANUFACTURED BY: ACUITY BRANDS, HUBBELL, COOPER, OR PHILIPS LIGHTING.
2. LUMINAIRE SHALL BE CONSIDERED EQUAL AS MANUFACTURED BY: GOTHAM, PATHWAY, PRESCOLITE, OR COOPER PORTFOLIO.
3. REFER TO PLANS FOR MOUNTING REQUIREMENTS SUCH AS WALL MOUNT, END MOUNT, CEILING MOUNT AND PROVIDE LUMINAIRES ACCORDINGLY. PROVIDE DIRECTIONAL CHEVRON ARROWS AS INDICATED ON PLANS.

LIGHTING CONTROL DEVICE SCHEDULE

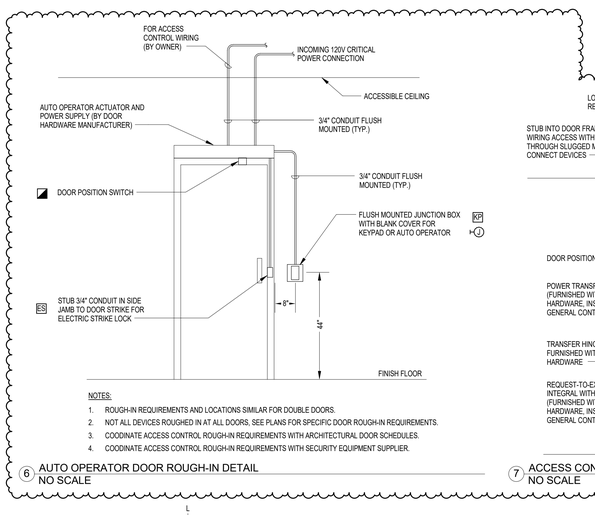
SYMBOL	MANUFACTURER	CATALOG NUMBER	DESCRIPTION
	SENSORSWITCH	CM PDT 10	LOW VOLTAGE CEILING SENSOR, STAND ALONE TYPE.
	SENSORSWITCH	nCM PDT 10	EXTENDED RANGE LOW VOLTAGE CEILING SENSOR, CONNECTED TO LIGHTING CONTROL NETWORK
	SENSORSWITCH	WSD PDT	LINE VOLTAGE SINGLE POLE WALL BOX OCCUPANCY SENSOR
RLD	SENSORSWITCH	nWSX PDT LV DX GY	LOW VOLTAGE WALL SWITCH OCCUPANCY SENSOR W/ RAISE AND LOWER DIMMING CONTROL
RLW	SENSORSWITCH	nWV PDT 16	WIDE VIEW LOW VOLTAGE CORNER/WALL SENSOR, CONNECTED TO LIGHTING CONTROL NETWORK
PPin	SENSORSWITCH	nPP 16	LIGHTING CONTROL NETWORK POWER PACK
PPinD	SENSORSWITCH	nPP 16 D	LIGHTING CONTROL NETWORK POWER PACK WITH 0-10V DIMMING CONTROL
PPem	SENSORSWITCH	nPP 16 ER	LIGHTING CONTROL NETWORK POWER PACK W/ UL924 EMERGENCY OPERATION
SPin	SENSORSWITCH	nSP 16	LIGHTING CONTROL NETWORK SWITCH PACK
2S	SENSORSWITCH	nPODM 2S GY	LIGHTING CONTROL NETWORK ENTRY STATION W/ TWO BUTTON SCENE CONTROL
3D	SENSORSWITCH	nPODM DX GY	LIGHTING CONTROL NETWORK ENTRY STATION W/ ON/OFF PUSH BUTTON AND RAISE/LOWER DIMMING CONTROL
4SD	SENSORSWITCH	nPODM 4S DX GY	LIGHTING CONTROL NETWORK ENTRY STATION W/ FOUR BUTTON SCENE CONTROL, ON AND OFF PUSH BUTTONS, AND RAISE/LOWER DIMMING CONTROL

NOTES:

1. PRODUCTS LISTED INDICATE BASIS OF DESIGN PRODUCTS. REFER TO SPECIFICATIONS FOR ACCEPTABLE EQUIVALENT MANUFCATURERS.

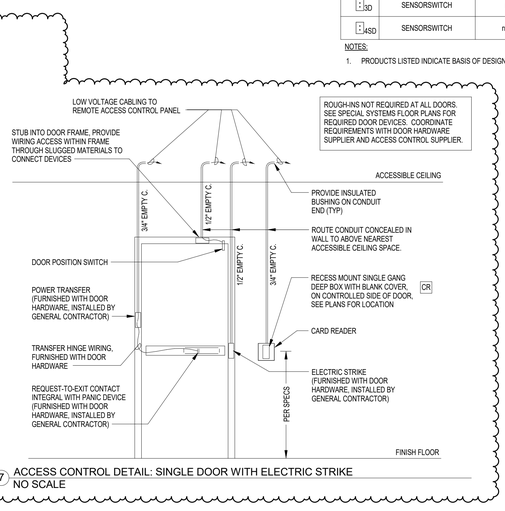


5 TYPICAL LIGHTING CONTROL (NETWORK TYPE) ROOM CONNECTION DETAIL
NOT TO SCALE



NOTES:
1. ROUGH-IN REQUIREMENTS AND LOCATIONS SIMILAR FOR DOUBLE DOORS.
2. NOT ALL DEVICES ROUGHED IN AT ALL DOORS, SEE PLANS FOR SPECIFIC DOOR ROUGH-IN REQUIREMENTS.
3. COODINATE ACCESS CONTROL ROUGH-IN REQUIREMENTS WITH ARCHITECTURAL DOOR SCHEDULES.
4. COODINATE ACCESS CONTROL ROUGH-IN REQUIREMENTS WITH SECURITY EQUIPMENT SUPPLIER.

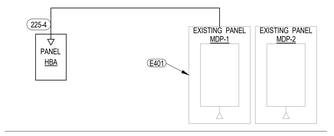
6 AUTO OPERATOR DOOR ROUGH-IN DETAIL
NO SCALE



7 ACCESS CONTROL DETAIL: SINGLE DOOR WITH ELECTRIC STRIKE
NO SCALE

FEEDER SCHEDULE

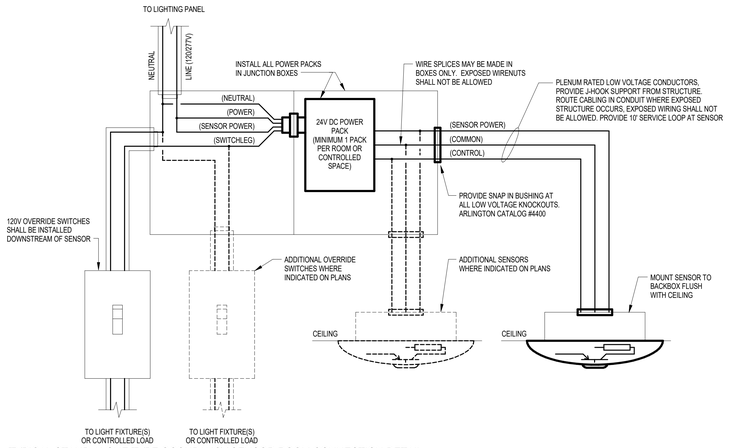
FEEDER	WIRE AND CONDUIT
225-4	4-#4/0, #4 G - 2-1/2"C.



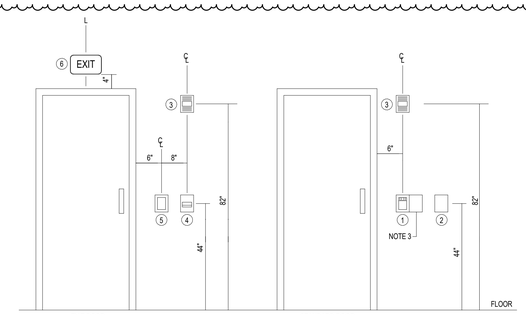
KEYNOTES

E401 PROVIDE NEW 225/3 CIRCUIT BREAKER IN EXISTING SQUARE-D PANEL MDP-1. CONNECT NEW PANEL HBA TO NEW CIRCUIT BREAKER.

1 POWER RISER DIAGRAM
NO SCALE



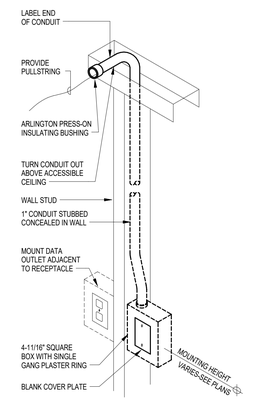
4 TYPICAL STAND ALONE TYPE OCCUPANCY SENSOR ROOM CONNECTION DETAIL
NOT TO SCALE



NOTES:
1. ALIGN DEVICES VERTICALLY AND HORIZONTALLY WHEREVER POSSIBLE.
2. NOT ALL DEVICE CONFIGURATIONS AND LOCATIONS ARE DEPICTED ON THIS DETAIL. ADDITIONAL CONFIGURATIONS MAY BE REQUIRED AND SHOULD BE COORDINATED WITH THE ENGINEER PRIOR TO ROUGH-IN. SEE FLOOR PLANS FOR INDIVIDUAL DOOR REQUIREMENTS.
3. WHERE MULTIPLE SWITCHES OR WALL BOX DIMMERS ARE GANGED TOGETHER, ALIGN FIRST GANG WITH DEVICES ABOVE AND ADD DEVICES TO THE RIGHT AS REQUIRED.
4. HORIZONTAL DIMENSIONS ARE TO BE MEASURED FROM OUTSIDE EDGE OF DOOR FRAME OR TRIM. WHERE SIDE LIGHT WINDOWS ARE PROVIDED AT DOORS, DIMENSIONS SHOULD BE MEASURED FROM OUTSIDE EDGE OR TRIM OF SIDE LIGHT WINDOW.

DEVICES
1. OCCUPANCY SENSOR, WALL SWITCH, OR WALL BOX DIMMER
2. THERMOSTAT ROUGH-IN
3. FIRE ALARM AUDIO/VISUAL INDICATING DEVICE
4. FIRE ALARM PULLSTATION
5. ACCESS CONTROL CARD READER ROUGH-IN
6. EXIT LIGHT

3 DEVICE ALIGNMENT DETAIL
NOT TO SCALE



2 DATA/COMM ROUGH-IN DETAIL
NOT TO SCALE

MEI PROJECT NO: 16160

morrissey engineering inc
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Revision Schedule

No.	Description	By	Date
1	Addendum 2		09/07/2016

CONSTRUCTION DOCUMENTS

NORTHEAST CC - WELLER BUILDING BASEMENT REMODEL

801 EAST BENJAMIN AVENUE, NORFOLK, NE 68701

BCDM architects

E2-1

August 5, 2016

BCDM NO. 3507-01

SECTION 08 7100
FINISH HARDWARE

A. GENERAL

RELATED WORK SPECIFIED ELSEWHERE

Steel Doors and Frames	Section 08 1113
Wood Doors	Section 08 1416
Access Doors	Section 08 3000
Aluminum Frames and Doors	Section 08 4313
Toilet Partitions Hardware	Section 10 2800

QUALITY ASSURANCE

SUPPLIER. The firm supplying hardware for this project shall employ a member of the American Society of Architectural Hardware Consultants, or a person of equivalent capability who is approved by the Architect. The Consultant shall be available during all phases of construction for consultation and technical assistance. The firms bidding on this project must understand all of the requirements of their jobsite work. If they aren't certified to perform all work associated with this contract then they need to make certain they make arraignments with people that are able to perform the technical aspects of this contract defined below.

1. All door hardware low voltage wires provided and installed by the access control/security contractor.
2. Door hardware power supplies provided by the door hardware subcontractor and installed by the electrician.

COORDINATION WITH STEEL DOOR AND FRAME SUPPLIER. The hardware supplier shall coordinate all hardware items to be installed in or on steel doors and frames with the supplier of those items to assure proper fit, reinforcing and operation.

ELECTRICAL SYSTEM ROUGH IN. There is to be a coordination meeting set up by the General Contractor, with the Architect, the Owner's representative, the aluminum frame subcontractor, the electrician, the metal door/frame and hardware subcontractor as well as the access controls contractor to review all electrical products being installed and to make certain everyone understands their role in the process. This meeting needs to be held very early in the construction process, before any frames are installed, to eliminate any conflicts during the installation phase. The General Contractor shall keep meeting minutes and distribute copies to the above described.

FIRE-RATED OPENINGS. Provide hardware for fire-rated openings in compliance with NFPA Standard No. 80 and local building code requirements. Provide only hardware which has been tested and listed by UL or FM for types and sizes of doors required and complies with requirements of door and door frame labels.

SUBMITTALS

HARDWARE SCHEDULE. Submit hardware schedule to the Architect/Engineer in accord with the General Conditions and Section 01330. The hardware schedule shall list the type, manufacturer's name and number, finish, size, function and location. All abbreviations and symbols used on the schedule shall be explained. Catalog cuts and information covering each item of hardware shall be attached to the hardware schedule. No hardware shall be ordered, or delivered to the job, until approval of the schedule has been received from the

Architect. Approval of the schedule does not relieve the hardware supplier of fulfilling all terms of the specifications.

MAINTENANCE MANUAL. Supply 2 copies of installation instructions, maintenance instructions for each operating item, maintenance instructions for finishes, and parts manuals for all locksets, closers, exit devices and other operating devices to the Prime Contractor for inclusion in the overall project maintenance manual.

INSTALLATION AND ADJUSTMENT TOOLS. Supply 2 complete sets of all installation and adjustment tools for transmittal to the Owner by the Prime Contractor for each different style, type and series of lockset, latch, lock, exit device, closer or other adjustable hardware item provided and installed at this project.

KEYING SCHEDULE. Verify keyway requirements and establish core mark, control, grand master, master, submaster divisions and individual passage keying requirements with the Owner's representative. Submit separate detailed schedule indicating clearly how the Owner's final instructions on keying of locks has been fulfilled.

SUBMITTAL SEQUENCE

SUBMIT SCHEDULE at earliest possible date particularly where acceptance of hardware schedule must precede fabrication of other work (e.g., steel doors and frames) which are critical in the project construction schedule. Include with schedule the product data, samples, shop drawings of other work affected by builders of hardware, and other information essential to the coordinated review of hardware schedule.

STEEL AND ALUMINUM DOORS AND FRAMES. Hardware for installation on steel and aluminum doors and frames is to be made to standard templates, and such templates, schedules and other pertinent information shall be delivered to the individual door and frame fabricators within 10 days after receipt of the approved finish hardware schedule. All steel and aluminum doors and frames shall be reinforced, drilled, and tapped by the fabricator for mortised hardware. Reinforcement for surface-applied hardware shall be by the fabricators. Drilling and tapping shall be done in the field by the hardware installer for surface applied hardware items.

PRODUCT HANDLING

PACKAGING AND MARKING. Package hardware in individual containers on a set by set basis with set numbers which correspond to the approved hardware schedule. Each set shall contain each item of hardware required for that set including necessary screws, keys and installation instructions, and installation templates for spotting mortising tools. Two or more identical sets may be packaged in the same container. Mark each container clearly with hardware set numbers. All keys shall be tagged according to their corresponding locks and delivered to the Owner or his authorized representative as described hereinafter. All construction keys shall be delivered to the Prime Contractor or his authorized representative.

TEMPLATES

FURNISH HARDWARE TEMPLATES to each fabricator of doors, frames and other work to be factory-prepared for the installation of finish hardware. Upon request, check the shop drawings of such other work, to confirm that adequate provisions are made for the proper installation of hardware.

WARRANTY

See Closeout Submittals for additional warranty requirements. Provide one-year warranty for all door hardware items provided in this Project except where otherwise indicated. Provide 10 year warranty for door closers. Provide lifetime warranty on all door hinges. Provide minimum 7 year warranty on cylindrical locks. For exit devices, provide warranty for minimum of 36 months from the date of placing the product in operation, or 42 months from the date of shipment. Provide 2 year limited warranty on power door operator.

B. PRODUCTS

HARDWARE

FINISH HARDWARE shall be as hereinafter specified and scheduled. Provide additional items of hardware which are necessary to make a complete workable and workmanlike installation even though such items are not herein specifically scheduled. Such miscellaneous items shall be equal in quality and finish to items which are specified.

APPROVED PRODUCTS. Brands and models designated in this Section are intended to define the exact standards of quality, function and design required. Substitution in the brands noted as acceptable shall be equivalent in every respect. Substitutions, other than as below noted, will not be permitted unless given prior approval via addendum, as described in the Instructions to Bidders.

ITEM	SPECIFIED	ACCEPTABLE
Hinges	Ives	Stanley,Hager, McKinney
Continuous Hinges	Ives	Pemko
Locks	Best	No Substitutions
Cylinders	Best	No Substitutions
Exit Devices	Von Duprin	No Substitutions
Closers	LCN 4000 Series	Stanley QDC 100 Series
Operator	LCN 4642	Besam Swingmaster Series 450 or Stanley MagicForce
Actuators	LCN	Wikk Industries, Sedco
Overhead Stops	Glynn Johnson	Rixon, ABH
Flat Goods and Stops	Ives	Rockwood,Trimco
Push Plate	8200 4” x 16” 630	
Pull Plate	8303 4” x 16” 630	
Kick Plates	8” x 2” L.D.W. X .050 630	
Wall Stop	WS 406/407 630	
Weatherproofing*	Zero	NGP, Pemko and Reese
Wall Magnets	Rixson	
Power Supply	Von Duprin	No Substitutions

*PROVIDE 797B PERIMETER GASKET AT FIRE RATED DOORS. PROVIDE APPROPRIATE MEETING STILE STRIP AT PAIRS.

CONTINUIOUS HINGES shall be installed with the barrel of the hinge extended down to within 1/8” of the top of the threshold to prevent gaps in sealing the opening.

KEYING

ALL LOCKS shall be provided with keyed alike construction cores; supply minimum of 6 construction core pass keys to the Contractor.

CONVERSION TO FINAL KEYING from construction keying to permanent building keying shall be performed by the Owner. The Hardware Subcontractor shall be available to assist the Owner as necessary. Permanent key cores shall be shipped directly to the Owner uncombinated with blank keys. Three (3) blank key shall be provided per core. Owner shall perform combinating and installation of the permanent key cores. The cost of all cylinders and keys shall be provided by the following.

Reference Bid Package #7 for steel doors and frames.
Reference Bid package #8 for aluminum frames and doors.

KEYING ARRANGEMENTS will be coordinated directly between the Best Lock representative and the Owner for all locks.

MISCELLANEOUS REQUIREMENTS

FINISHES. Hardware shall have the following BHMA Standard finishes:

1. 626 for all items unless otherwise specified.
2. 689 for exposed surfaces of door closers unless otherwise specified.
3. Similar finishes for all other items unless otherwise noted.

ALL DOORS OVER 36-INCHES WIDE shall require 5-inch high butts. All doors shall be provided with 3 hinges.

MOUNTING OF CLOSERS. Closers on all doors shall be mounted with sex bolts and finishing washers. Grommet nuts will not be acceptable. Provide mounting plates where required.

CLOSERS shall be of the parallel arm configuration where possible. Closer arms shall be heavy duty type for all closers.

DOOR SILENCERS AT STEEL AND ALUMINUM FRAMES. All steel and aluminum frames shall receive Glynn Johnson GJ64 silencers as required. Provide 3 silencers on strike jambs of frames of single swing doors and 2 silencers on heads of frames of double-swing doors.

OVERHEAD STOPS. Provide overhead stops wherever wall conditions will not allow use of standard wall stops.

DEADSTOP ANGLES for closers and overhead stops shall be accurately determined to prevent doors from contacting adjoining walls or other doors while still affecting the hold-open point at the greatest possible angle.

ACTUATORS: Wall-Mounted, Push-plate control system. Provide flush mounted 4 ¾" square. All switches shall be direct wire control. Engrave wall plate with universal handicapped symbol and label "Push to Open". Provide push-plate switches on both sides of each opening as shown on the Drawings (2 switches per door). Exterior wall plates shall be weatherproof.

OPERATORS shall be connected to the building management system to shunt the exterior actuator when the building is locked and not in use and when the latch for the exit hardware is in the extended position. Control at the exterior actuator shall be engaged upon activation by the building management system through latch retraction of the exit hardware (LX monitoring). The interior actuator will remain active when the building is locked and not in use and when pushed will retract the latch on the exit hardware prior to opening the door.

C. EXECUTION

PRE-ORDER MEETING. There is to be a coordination meeting set up by the General Contractor, with the Architect, the hardware installer, the Owner's representative and the hardware manufacturer to review all products prior to ordering. This meeting needs to be held very early in the construction process, and after the shop drawings have been submitted and reviewed by the Architect. The General Contractor shall keep meeting minutes and distribute copies to above the described.

PRE-INSTALLATION MEETING. There is to be a coordination meeting set up by the General Contractor, with the Architect, the hardware installer, the Owner's representative and the hardware manufacturer to review all products being installed. This meeting needs to be held very early in the construction process, before any hardware is installed, to eliminate any conflicts during the installation phase. The General Contractor shall keep meeting minutes and distribute copies to above the described.

POST-INSTALLATION REVIEW. The General Contractor shall notify the Architect, Owner's representative and the hardware manufacturer upon completion of the hardware installation to review the work. The hardware manufacturer shall review and document the work and distribute copies to the above described.

HARDWARE LOCATIONS

HARDWARE LOCATIONS (height above finish floor) shall be in accordance with the Steel Door Institute Standards except for the following modifications:

Leversets/Latchsets	36-inches to centerline of lever
Exit Devices	40-inches to centerline of push pad
Pull Plates	36-inches to bottom of pull plate
Push Bars	40-inches to centerline of bar
Push Plates	34-inches to bottom of plate

INSTALLATION OF HARDWARE - GENERAL

INSTALL EACH HARDWARE ITEM in compliance with the manufacturer's instructions and recommendations. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, coordinate removal, storage and reinstallation or application of surface protections with finishing work specified in the Division 9 sections. Do not install surface-mounted items until finishes have been completed on the substrate.

SET UNITS LEVEL, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.

DRILL, TAP AND COUNTERSINK units for surface applied hardware and other items which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards and manufacturer's recommendations.

INSTALLATION OF WEATHERSTRIPPING AND SEALS

PROVIDE METAL FASTENERS of type which will not work loose as a result of normal door use, and which are compatible with metal of the stripping, and the frame or the door. Provide only smooth exposed fastener heads, which do not constitute a snagging hazard to clothing of building occupants.

SET UNITS PLUMB AND LEVEL, accurately centered at optimum location for maintaining a permanent seal.

ADJUST DOORS, FRAMES AND HARDWARE, as necessary, to achieve proper operation of seals and stripping.

INSTALLATION OF THRESHOLDS

ON CONCRETE, MASONRY and similar substrates, install lead-shield anchors, accurately placed to receive machine screw anchors at locations pre-drilled and evenly spaced in threshold units (spaced not more than 12-inches o.c.).

SCREW THRESHOLDS TO SUBSTRATE with No. 10 or larger flat head machine screws, of the proper type and length of bronze or stainless steel which will provide for permanent anchorage and will not corrode in contact with threshold metal or shield anchor.

SET THRESHOLDS in a bed of sealant as scheduled in Section 07900 to completely fill concealed voids and exclude moisture from every source. Do not plug drainage holes or block weeps. Remove excess sealant and clean all adjacent surfaces.

SET THRESHOLD UNITS level and accurately aligned with outside edges of frames and door bottom edge, and at proper elevation for door operation and full and positive seal to threshold stop. Shim, if necessary, for full continuous support of threshold at each edge and intermediate legs, if any. Use non-corrosive shims of metal or plastic (no wood), set in adhesive or otherwise anchored against dislocation from impact of traffic upon threshold.

ADJUST AND CLEAN

ADJUST AND CHECK each operating item of hardware and each door, to ensure proper operation or function of every unit. Replace any unit which cannot be adjusted to operate freely and smoothly as intended for the application made.

HARDWARE SCHEDULE

BID PACKAGE #7 DOORS, FRAMES AND FINISH HARDWARE (Hardware Groups 1 through 8). Also include cost of cylinder and keys.

Hardware Group No. 01 - COORDINATE WITH ELECTRICAL AND ACCESS CONTROL

For use on mark/door #(s):
B131

Each To Have:

Qty		Description	Catalog Number	Finish	Mfr
3	EA	HW HINGE	5BB1HW 4.5 X 4.5	652	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
1	EA	ELEC PANIC HARDWARE	EL-HD-99-NL-990/697PULL	626	VON
1	EA	RIM CYLINDER	AS REQUIRED	626	BES
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1	EA	CARD READER	BY ACCESS CONTROL		
1	EA	DOOR CONTACT	679-05HM	BLK	SCE
1	EA	POWER SUPPLY	(SHARE WITH OPENING B136A.1)	LGR	VON

POINT-TO-POINT WIRING DIAGRAM PROVIDED BY HARDWARE DISTRIBUTOR.

Operational Description

Free Egress at all times. Pressing Push Bar retracts latchbolts. Trim always locked, entrance by trim when key retracts latchbolt from pull side. Control contact electrically retracts the latchbolt, either for momentary unlatching, or for extended periods of time. Dogging by hex key locks down the pushbar or crossbar so the latchbolt remains retracted.
Self-Closing.
Automatically Opens & Closes Door.
Door unlocked by valid credential at reader. .
Door Position Switch monitors whether the door is open or closed.

Hardware Group No. 02

For use on mark/door #(s):
B128

Each To Have:

Qty	Description	Catalog Number	Finish	Mfr
3 EA	HW HINGE	5BB1HW 4.5 X 4.5	652	IVE
1 EA	OFFICE LOCK	93K 7T 15D	626	BES
1 EA	SURFACE CLOSER	4111 EDA	689	LCN
1 EA	KICK PLATE	8400 8” X 2” LDW B4E	630	IVE
1 EA	WALL STOP	WS406/407CVX	630	IVE

Hardware Group No. 03

For use on mark/door #(s):
B134 B135

Each To Have:

Qty	Description	Catalog Number	Finish	Mfr
3 EA	HW HINGE	5BB1HW 4.5 X 4.5	652	IVE
1 EA	PUSH PLATE	8200 4" X 16"	630	IVE
1 EA	PULL PLATE	8303 4" X 16"	630	IVE
1 EA	SURFACE CLOSER	4111 EDA	689	LCN
1 EA	KICK PLATE	8400 8" X 2" LDW B4E	630	IVE
1 EA	WALL STOP	WS406/407CVX	630	IVE

Hardware Group No. 04

For use on mark/door #(s):
B130

Each To Have:

Qty	Description	Catalog Number	Finish	Mfr
3 EA	HW HINGE	5BB1HW 4.5 X 4.5	652	IVE
1 EA	CLASSROOM LOCK	93K 7R 15D	626	BES
1 EA	OH STOP & HOLDER	GJ90H	630	GLY

Hardware Group No. 05

For use on mark/door #(s):
B131-A

Each To Have:

Qty	Description	Catalog Number	Finish	Mfr
3 EA	HW HINGE	5BB1HW 4.5 X 4.5	652	IVE
1 EA	PRIVACY LOCK	93K 7L 15D	626	BES
1 EA	WALL STOP	WS406/407CVX	630	IVE

Hardware Group No. 06

For use on mark/door #(s):
B131-C B133

Each To Have:

Qty	Description	Catalog Number	Finish	Mfr
3 EA	HW HINGE	5BB1HW 4.5 X 4.5	652	IVE
1 EA	STORAGE LOCK	93K 7D 15D	626	BES
1 EA	KICK PLATE	8400 8" X 2" LDW B4E	630	IVE
1 EA	SURFACE CLOSER	4111 SCUSH	689	LCN

Hardware Group No. 07

For use on mark/door #(s):
B133-C

Each To Have:

Qty	Description	Catalog Number	Finish	Mfr
3 EA	HW HINGE	5BB1HW 4.5 X 4.5	652	IVE
1 EA	DORMITORY LOCK	93K 7T 15D	626	BES
1 EA	KICK PLATE	8400 8” X 2” LDW B4E	630	IVE
1 EA	SURFACE CLOSER	4111 SCUSH	689	LCN

Hardware Group No. 08

For use on mark/door #(s):
B133-A

Each To Have:

Qty	Description	Catalog Number	Finish	Mfr
3 EA	HW HINGE	5BB1HW 4.5 X 4.5	652	IVE
1 EA	CLASSROOM LOCK	93K 7R 15D	626	BES
1 EA	KICK PLATE	8400 8” X 2” LDW B4E	630	IVE
1 EA	SURFACE CLOSER	4111 SCUSH	630	LCN
1 EA	WALL STOP	WS407CVX	630	IVE

BID PACKAGE #8 ALUMINUM FRAMING, GLASS AND GLAZING (Hardware Groups 9 through 11). Also include cost of cylinder and keys

Hardware Group No. 09 - COORDINATE WITH ELECTRICAL AND ACCESS CONTROL

For use on mark/door #(s):
B136A.1

Each To Have:

Qty		Description	Catalog Number	Finish	Mfr
2	EA	CONT. HINGE	224HD EPT	313AN	IVE
2	EA	POWER TRANSFER	EPT10	SP313	VON
1	EA	KEYED REMOVABLE MULLION	KR4954-STAB-MT54	SP313	VON
1	EA	ELEC PANIC HARDWARE	LX-RX-LC-EL-HD-99-DT-990/697PULL	626	VON
1	EA	ELEC PANIC HARDWARE	LX-RX-LC-EL-HD-99-NL-990/697PULL	626	VON
1	EA	MORTISE CYL.	AS REQUIRED	626	BES
1	EA	RIM CYLINDER	AS REQUIRED	626	BES
2	EA	OH STOP	100S	SP313	GLY
1	EA	SURFACE CLOSER	4111 EDA	695	LCN
1	EA	SURF. AUTO OPERATOR	4642	695	LCN
2	EA	ACTUATOR, WALL MOUNT	8310-853T	630	LCN
1	EA	MULLION SEAL	8780N	N	ZER
1	EA	CARD READER	BY ACCESS CONTROL		
2	EA	DOOR CONTACT	679-05HM	BLK	SCE
1	EA	POWER SUPPLY	PS914 900-BBK 900-4RL-FA (SHARE POWER SUPPLY WITH OPENING B131)	LGR	VON

ALL WEATHER SEAL PRODUCTS (JAMB, ASTRAGAL, SWEEP & THRESHOLD) BY DOOR MANUFACTURER. POINT-TO-POINT WIRING DIAGRAM PROVIDED BY HARDWARE DISTRIBUTOR.

Operational Description
Mullion removable by key.
Free Egress at all times. Pressing Push Bar retracts latchbolts. Dummy trim, entrance by trim when latchbolt is in retracted position. Control contact electrically retracts the latchbolt, either for momentary unlatching, or for extended periods of time. One internal SPDT switch monitors the latchbolt position. A second internal SPDT switch monitors the depression of the pushbar or crossbar. Dogging by hex key locks down the pushbar or crossbar so the latchbolt remains retracted.
Free Egress at all times. Pressing Push Bar retracts latchbolts. Trim always locked, entrance by trim when key retracts latchbolt from pull side. Control contact electrically retracts the latchbolt, either for momentary unlatching, or for extended periods of time. One internal SPDT switch monitors the latchbolt position. A second internal SPDT switch monitors the depression of the pushbar or crossbar. Dogging by hex key locks down the pushbar or crossbar so the latchbolt remains retracted.
Self-Closing.
Automatically Opens & Closes Door.
Door unlocked by valid credential at reader. .
Door Position Switch monitors whether the door is open or closed.

Hardware Group No. 10 - COORDINATE WITH ACCESS CONTROLS

For use on mark/door #(s):
B131.1

Each To Have:

Qty		Description	Catalog Number	Finish	Mfr
2	EA	CONT. HINGE	224HD EPT	313AN	IVE
1	EA	KEYED REMOVABLE MULLION	KR4954-STAB-MT54	SP313	VON
1	EA	PANIC HARDWARE	HD-99-DT-990/697PULL	626	VON
1	EA	PANIC HARDWARE	HD-99-NL-990/697PULL	626	VON
1	EA	MORTISE CYL.	AS REQUIRED	626	BES
1	EA	RIM CYLINDER	AS REQUIRED	626	BES
2	EA	OH STOP	100S	SP313	GLY
2	EA	SURFACE CLOSER	4111 EDA	695	LCN
1	EA	MULLION SEAL	8780N	N	ZER
2	EA	DOOR CONTACT	679-05HM	BLK	SCE

ALL WEATHER SEAL PRODUCTS (JAMB, ASTRAGAL, SWEEP & THRESHOLD) BY DOOR MANUFACTURER.

Operational Description
Mullion removable by key.
Free Egress at all times. Pressing Push Bar retracts latchbolts. Dummy trim, entrance by trim when latchbolt is in retracted position. Dogging by hex key locks down the pushbar or crossbar so the latchbolt remains retracted.
Free Egress at all times. Pressing Push Bar retracts latchbolts. Trim always locked, entrance by trim when key retracts latchbolt from pull side. Dogging by hex key locks down the pushbar or crossbar so the latchbolt remains retracted.
Self-Closing.
Automatically Opens & Closes Door.
Door Position Switch monitors whether the door is open or closed.

Hardware Group No. 11 – COORDINATE WITH ELECTRICAL AND ACCESS CONTROL

For use on mark/door #(s):
B136A

Each To Have:

Qty		Description	Catalog Number	Finish	Mfr
2	EA	CONT. HINGE	224HD	313AN	IVE
2	EA	DUMMY PUSH BAR	330-DT-697	626	VON
1	EA	SURFACE CLOSER	4111 SCUSH	695	LCN
1	EA	SURF. AUTO OPERATOR	4642	695	LCN
2	EA	ACTUATOR, WALL MOUNT	8310-853T	630	LCN

Operational Description
Free Egress at all times. Dummy Push Bar.
Self-Closing. Templating allows Spring CUSH Arm to stop the door's swing between 85 and 110 degrees.
Automatically Opens & Closes Door.

END OF SECTION

SECTION 10500
METAL LOCKERS

A. GENERAL

RELATED WORK SPECIFIED ELSEWHERE

Concrete Bases	Section 03310
Wood Blocking and Trim	Section 06100
Painting of Wood Scribes	Section 09900

SUBMITTALS

SHOP DRAWINGS. Submit shop drawings to the Architect/Engineer in accord with the General Conditions and Section 01300.

COLOR SAMPLES. Submit samples of paint colors applied to steel in accord with the General Conditions and Section 01300.

WARRANTY

THE MANUFACTURER shall submit 2 copies of a written warranty in which he/she agrees to repair or replace any part (except finish and locks) which malfunctions due to defects in materials or workmanship within 10 years of the date of Substantial Completion of the project.

B. PRODUCTS

LOCKERS

GENERAL. Locker room lockers shall have perforated or metal mesh doors, backs and partitions as specified below. Backs shall be unperforated on lockers which are located against a wall. End panels or partitions shall also be unperforated where they would permit view into corners or sidewalls. Stainless steel lock strikes shall be provided on all Type A lockers. Lock location shall be recessed on all Superior lockers.

LOCKERS shall be 15W by 72H by 12D, 2-tier lockers with continuous 4-inch high sloped tops, corner filler panels, hip ends and 16-gauge pan reinforced finished end panels at exposed peninsula ends. Type E lockers shall be equipped with one shelf approximately 9-inches below the top, one double prong ceiling hook, and 3 single prong wall hooks. Lockers shall be designed for quiet operation, and shall be of one of the following types and manufacturers:

Quiet Lockers	Interior Steel Equipment Company
Quiet lockers	Lyon Metal Products, Inc.
Mondrian Lockers	Republic Steel Corporation.

BUILT-IN LOCKS for lockers shall be of the following type and manufacture:

No. 1690	Master Lock Company

NUMBERS. All lockers shall include the manufacturer's standard numbering plates. Numbering layout shall be as shown on the Drawings.

C. EXECUTION

INSTALLATION

ASSEMBLE AND INSTALL LOCKERS in accord with the manufacturer's instructions. Installation shall be plumb and level. Adjust doors and latches for smooth operation without binding. Filler panels, as may be required to fit within wall-to-wall dimensions as constructed, shall be located only at ends of locker banks. Fillers located at mid-points of locker banks will not be acceptable.

END OF SECTION