

INTERIOR RENOVATION TO THE

TRUMBULL POLICE DEPARTMENT

158 EDISON ROAD

TRUMBULL, CONNECTICUT

LIST OF DRAWINGS:

TITLE SHEET

CODE DRAWINGS

R-1.0 CODE INFORMATION

LOGISTICS DRAWINGS

SLP-1 OVERALL CONTRACTOR SITE LOGISTICS PLAN
T-1.1 TEMPORARY FACILITIES LOWER LEVEL PLAN

LANDSCAPING DRAWINGS

L-1.1 PARTIAL LANDSCAPING PLAN

ARCHITECTURAL DRAWINGS

D-1.1 DEMOLITION OVERALL LOWER LEVEL PLANS
A-0.1 ARCH. GENERAL INFORMATION AND ABBREVIATIONS
A-0.2 WALL AND FLOOR TYPES AND DETAILS
A-1.1 NEW WORK OVERALL LOWER LEVEL PLANS
A-2.1 CEILING DETAILS
A-5.1 MOUNTING HEIGHTS AND DETAILS
A-5.2 LARGE SCALE NEW WORK RESTROOM PLANS
A-6.1 MISC. DETAILS
A-6.2 MISC. DETAILS
A-7.0 OVERALL ROOF PLANS
A-9.1 DOOR INFORMATION AND DETAILS
A-10.1 CASEWORK ELEVATIONS AND SECTIONS
A-11.1 DETENTION CELL FRONT ELEVATIONS AND DETAILS
A-11.2 DETENTION CELL FRONT PLAN DETAILS
A-11.3 DETENTION DETAILS

FINISHES DRAWINGS

F-1.0 FINISH SCHEDULE
F-1.1 NEW WORK OVERALL LOWER LEVEL FINISH PLANS

PLUMBING DRAWINGS

P-0.1 COVER SHEET PLUMBING
P-0.2 GENERAL NOTES PLUMBING
PD-1.1 LOWER LEVEL DEMOLITION FLOOR PLAN - PLUMBING
P-1.1 LOWER LEVEL FLOOR PLAN - PLUMBING
P-3.0 SCHEDULES PLUMBING
P-3.1 SCHEDULES PLUMBING
P-4.0 DETAILS PLUMBING
P-5.0 SPECIFICATIONS PLUMBING

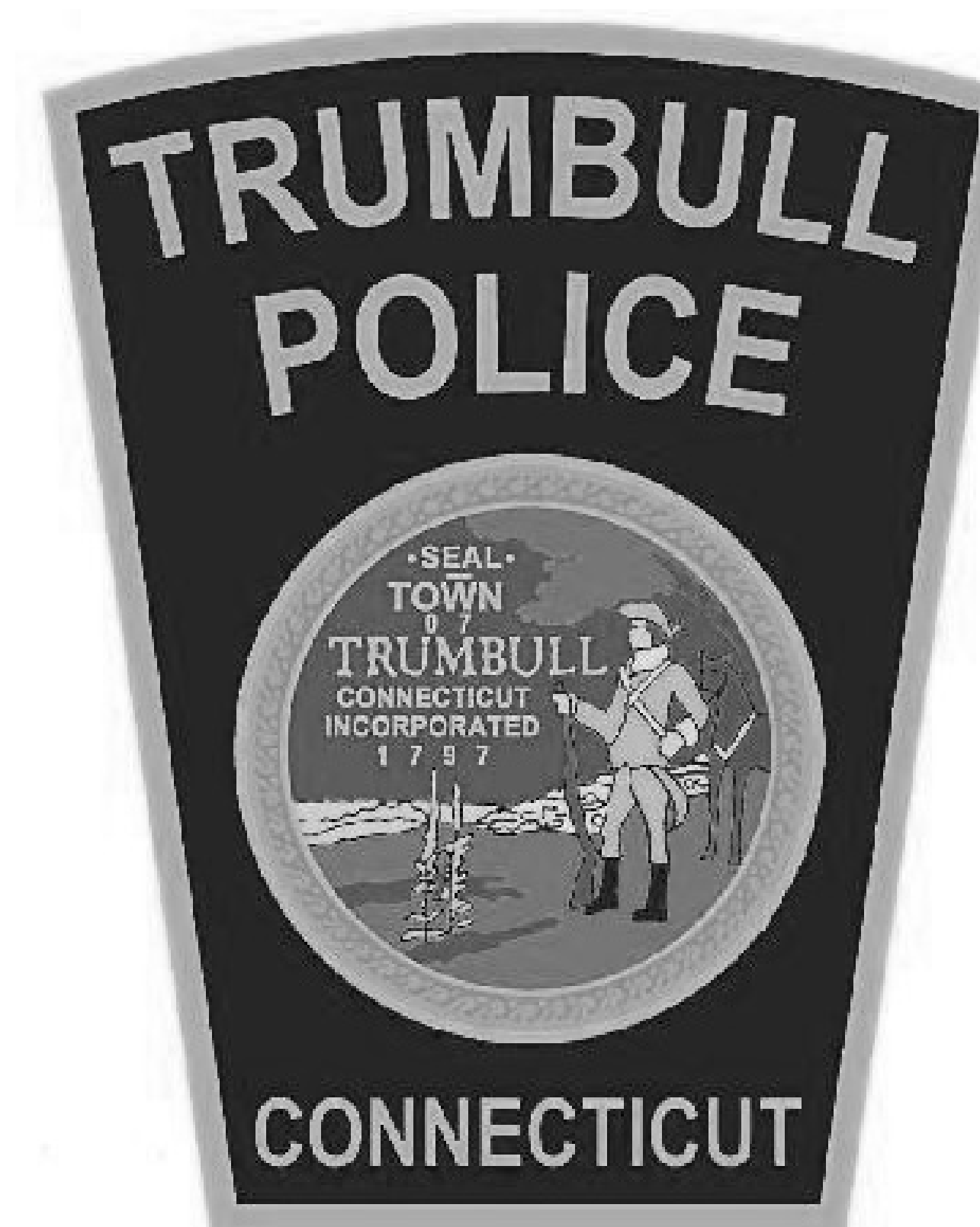
MECHANICAL DRAWINGS

M-0.1 COVER SHEET - MECHANICAL
M-0.2 NOTES, SYMBOLS, ABBREVIATIONS - MECHANICAL
M-0.3 FLOW AND CONTROL DIAGRAMS - MECHANICAL
MD-1.1 LOWER LEVEL DEMOLITION FLOOR PLAN - MECHANICAL
MD-1.2 ROOF DEMOLITION PLAN - MECHANICAL
M-1.1 LOWER LEVEL FLOOR PLAN - MECHANICAL
M-1.2 ROOF PLAN - MECHANICAL
M-3.1 SCHEDULES - MECHANICAL
M-4.1 DETAILS - MECHANICAL
M-4.2 DETAILS - MECHANICAL
M-5.1 SPECIFICATIONS - MECHANICAL
M-5.2 SPECIFICATIONS - MECHANICAL
M-5.3 SPECIFICATIONS - MECHANICAL

ELECTRICAL DRAWINGS

E-0.1 COVER SHEET - ELECTRICAL
E-0.2 LIGHTING FIXTURE SCHEDULE - ELECTRICAL
ED-1.1 LOWER LEVEL DEMOLITION FLOOR PLAN - ELECTRICAL
ED-1.2 ROOF DEMOLITION PLAN - ELECTRICAL
E-1.1 LOWER LEVEL FLOOR PLAN - ELECTRICAL
E-1.2 ROOF PLAN - ELECTRICAL
E-2.1 LOWER LEVEL REFLECTED CEILING PLAN - LIGHTING
E-6.1 DETAILS - ELECTRICAL
E-7.1 SPECIFICATIONS - ELECTRICAL

NOVEMBER 8, 2018



RFP 6320

ARCHITECT



JACUNSKI HUMES ARCHITECTS, LLC
15 MASSIRIO DRIVE, SUITE 101
BERLIN, CONNECTICUT 06037
TEL 860-828-9221 FAX 860-828-9223

P/M/E ENGINEER



Kohler Ronan, LLC
93 Lake Avenue
Danbury, CT 06810
tel: (203) 778-1017

INTERIOR DESIGNER



4D Design & Decorating, LLC
127 Park Road
West Hartford, CT 06119
tel: (860) 716-2363

GOVERNING BUILDING CODES:

INTERNATIONAL EXISTING BUILDING CODE	2015**
INTERNATIONAL PLUMBING CODE	2015**
INTERNATIONAL MECHANICAL CODE	2015**
INTERNATIONAL ENERGY CONSERVATION CODE	2015**
NATIONAL ELECTRICAL CODE (NFPA 70)	2017
FIRE CODE (NFPA 1)	2018
LIFE SAFETY CODE (NFPA 101)	2012
NATIONAL FUEL GAS CODE (NFPA 54)	2018
OSHA-TITLE 29/LABOR	LATEST
SECTION 504	1973
AMERICANS WITH DISABILITY ACT (ADA)	2010
HANDICAPPED ACCESSIBILITY (ICC ANSI A117.1)	2009
STATE HEALTH CODE	LATEST

** INCLUSIVE OF 2018 CONNECTICUT AMENDMENTS

BUILDING CODE INFORMATION

DATE OF ORIGINAL CONSTRUCTION - 1980 +/-

PROPOSED SCOPE IS AN INTERIOR RENOVATION OF A LOCKER ROOM AND HVAC WORK TO THE FIRING RANGE. NO ADDED SQUARE FOOTAGE. RECONFIGURATION OF SPACES IS CONTAINED WITHIN THE EXISTING LOCKER ROOM AND FITNESS AREA.

1.0 OCCUPANCY CLASSIFICATION (CHAPTER 3):

(PRIMARY)	B - BUSINESS
(SECONDARY)	S-2 - LOW-HAZARD STORAGE
(SECONDARY)	I-3 - INSTITUTIONAL


2.0 CONSTRUCTION TYPE (CHAPTER 6, SECTION 602.5):

MINIMUM TYPE REQUIRED:	II B - NONCOMBUSTIBLE
------------------------	-----------------------

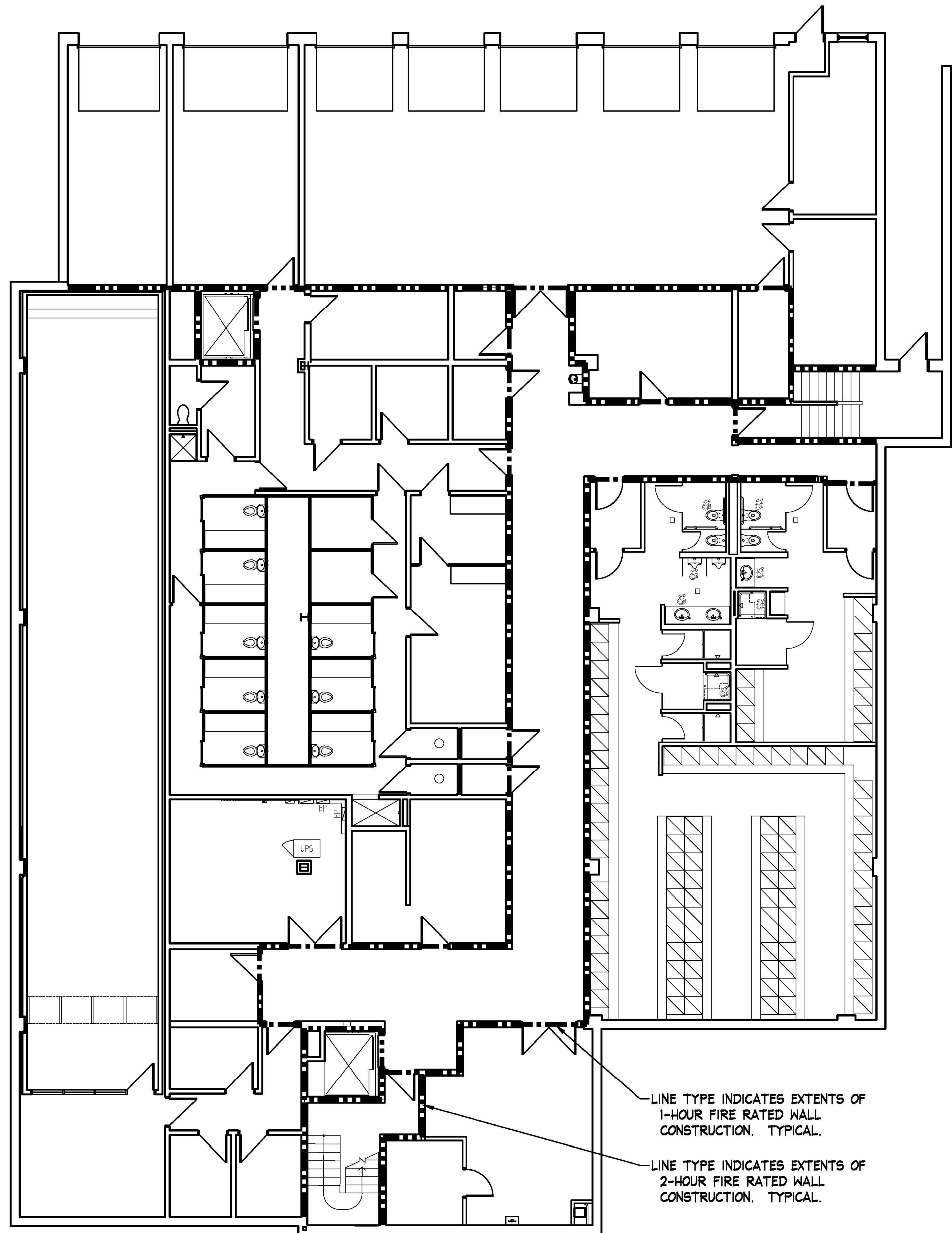
3.0 FIRE RESISTANCE RATED REQUIREMENTS FOR BUILDING ELEMENTS (TABLE 601):

CONSTRUCTION TYPE - II B	
1) STRUCTURAL FRAME	0 Hr(s)
2) BEARING WALLS - EXTERIOR	0 Hr(s)
- INTERIOR	0 Hr(s)
3) NONBEARING WALLS AND PARTITIONS - EXTERIOR	0 Hr(s) Table 602
4) NONBEARING WALLS AND PARTITIONS - INTERIOR	0 Hr(s)
5) FLOOR CONSTRUCTION	0 Hr(s)
6) ROOF CONSTRUCTION	0 Hr(s)

4.0 MODIFICATIONS: NONE

5.0 ACCESSIBLE BUILDING: ☒ DESIGNATED 
☐ NON-DESIGNATED

6.0 SPRINKLER PROTECTION: ☐ THROUGHOUT ENTIRE BUILDING
☐ LIMITED AREA



1 LOWER LEVEL FIRE RATED PARTITION PLAN
SCALE: 3/32" = 1'-0"

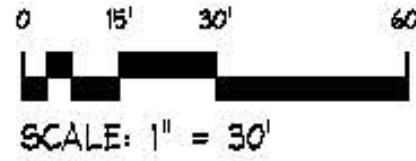
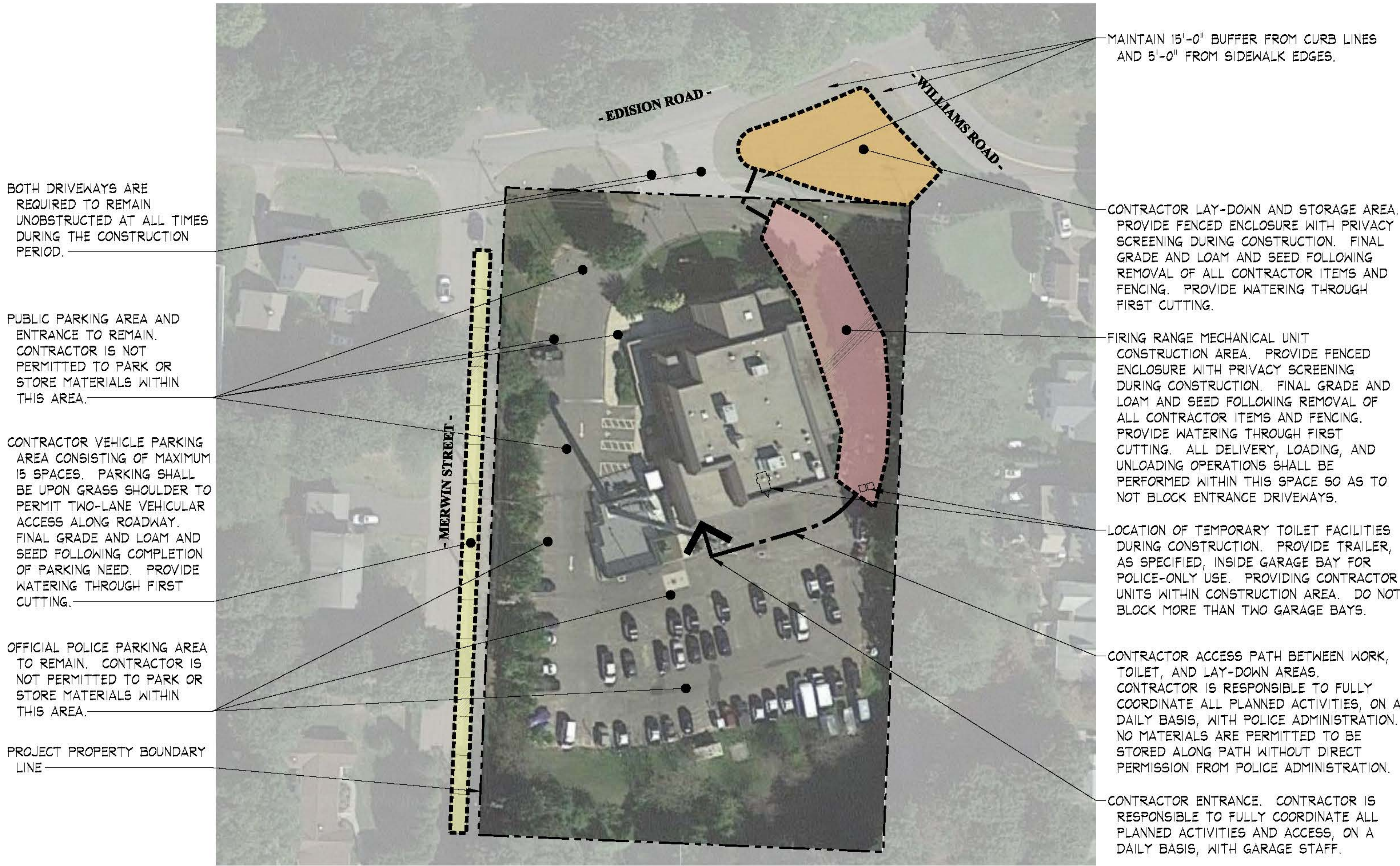
RFP 6320

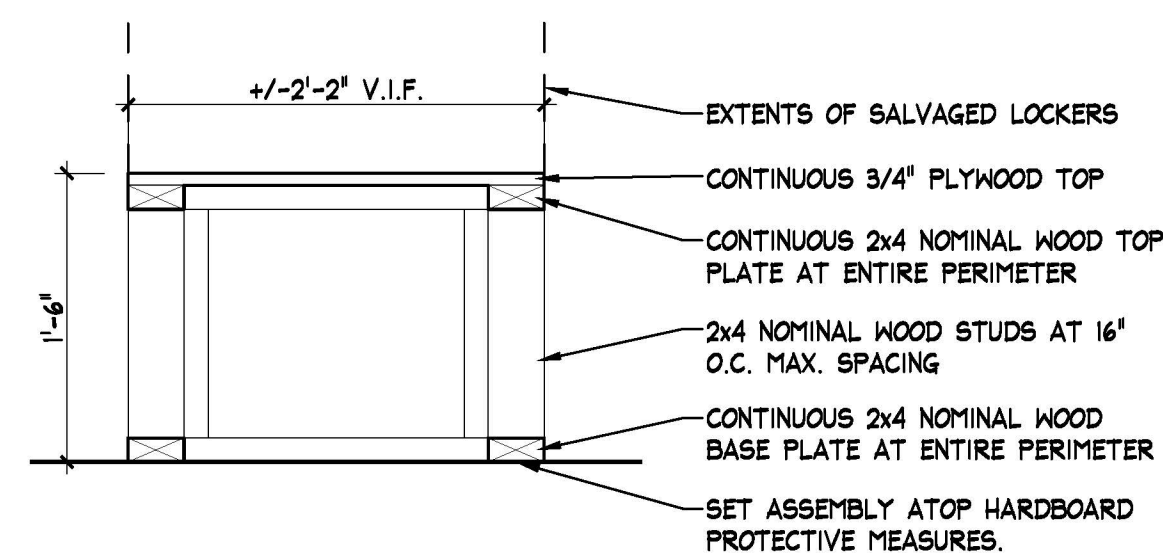
INTERIOR RENOVATION TO THE
TRUMBULL POLICE
DEPARTMENT
158 EDISON ROAD
TRUMBULL, CONNECTICUT

J J H
JACUNSKI HUMES
ARCHITECTS, LLC
15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

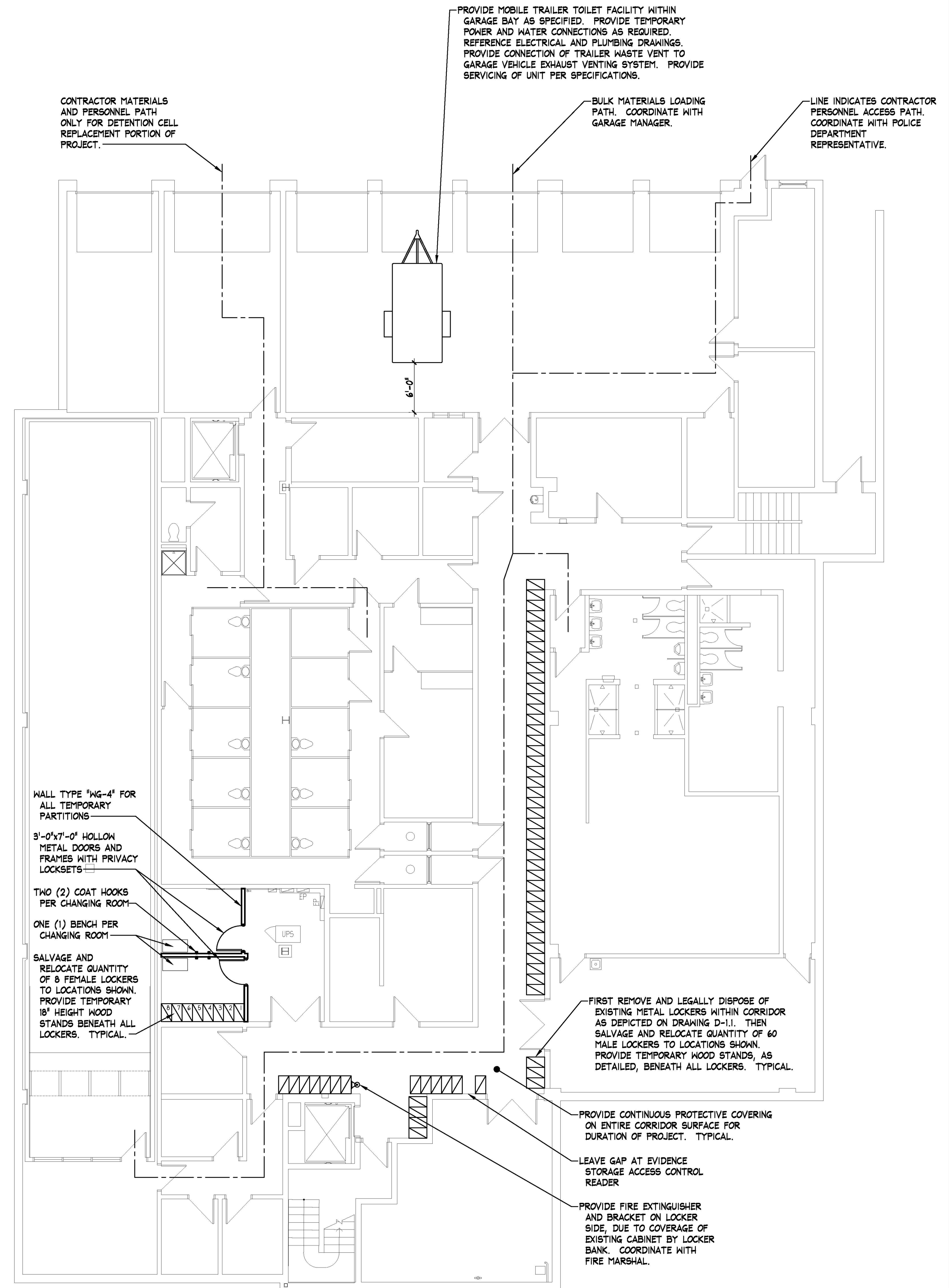
CODE
INFORMATION

PROJ. NO. JH1828	DRAWING NO. R-1.0
SCALE As Noted	
DATE NOVEMBER 8, 2018	





2 TEMPORARY LOCKER STAND DETAIL
SCALE: 1" = 1'-0"



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

1 LOWER LEVEL TEMPORARY FACILITIES PLAN
SCALE: 1/8" = 1'-0"

RFP 6320

INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**

158 EDISON ROAD TRUMBULL, CONNECTICUT

J J H
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

**TEMPORARY
FACILITIES
LOWER
LEVEL
PLAN**

PROJ. NO. JH1828
SCALE As Noted
DATE NOVEMBER 8, 2016

T-1.1

RFP 6320

INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**

158 EDISON ROAD TRUMBULL, CONNECTICUT

J J H
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

**PARTIAL
LANDSCAPING
PLAN**

PROJ. NO.	JH1828	DRAWING NO.
SCALE	As Noted	L-1.1
DATE	NOVEMBER 8, 2018	

LINE REPRESENTS APPROXIMATE EXTENTS OF
EXISTING VEGETATION TO REMAIN

LINE REPRESENTS APPROXIMATE EXTENTS OF
EXISTING CONCRETE CURBING TO REMAIN.
PROTECT DURING CONSTRUCTION
OPERATIONS.

APPROXIMATE EXTENTS OF NEW ELEVATED
DUCTWORK AND HVAC EQUIPMENT.
REFERENCE MECHANICAL AND ELECTRICAL
DRAWINGS. TYPICAL.

EXISTING ASPHALT DRIVE SURFACING TO
REMAIN. PROTECT DURING ANY
NON-RUBBER-TRACKED MACHINERY
OPERATIONS.

EXISTING GRASS AREA TO REMAIN.

HATCHING INDICATES EXTENTS OF NEW LOAM
AND SEED FOLLOWING COMPLETION OF ALL
CONSTRUCTION ACTIVITIES. GRADE FLUSH
TO CURB AND PROVIDE WATERING THROUGH
FIRST MOWING.

APPROXIMATE EXTENTS OF NEW
CAST-IN-PLACE REINFORCED CONCRETE
EQUIPMENT PAD PER DETAIL 5/A-6.1.
COORDINATE DIMENSIONAL REQUIREMENTS
WITH APPROVED HVAC UNIT
MANUFACTURER AND APPROVED
DUCTWORK SHOP DRAWINGS. TYPICAL.

PROVIDE PEA-GRAVEL SURFACING PER
DETAIL 5/A-6.1 BETWEEN MECHANICAL
PAD AND BUILDING FACE. PROVIDE
POLYMER LANDSCAPE EDGING
BETWEEN GRASS AREA AND PEA
GRAVEL BOTH ENDS. TYPICAL.

APPROXIMATE LOCATIONS OF
MECHANICAL UNIT SUPPORT POINTS.
REFERENCE MECHANICAL DRAWINGS
AND SPECIFICATIONS FOR
REQUIREMENTS. TYPICAL.

APPROXIMATE LINE OF TRANSITION
FROM NEW GRASS TO EXISTING
GRASS SURFACING. BLEND GRADES
PRIOR TO SEEDING. TYPICAL.

EXISTING GRASS AREA TO REMAIN.
EXISTING TREES TO REMAIN.

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

2 NEW WORK PARTIAL LANDSCAPING PLAN
SCALE: 1/8" = 1'-0"

LINE REPRESENTS APPROXIMATE EXTENTS OF
EXISTING VEGETATION TO REMAIN

LINE REPRESENTS APPROXIMATE EXTENTS OF
EXISTING CONCRETE CURBING TO REMAIN.
PROTECT DURING CONSTRUCTION
OPERATIONS.

LINE REPRESENTS APPROXIMATE EXTENTS OF
EXISTING VEGETATION. REMOVE EXISTING
VEGETATION AND ALL ASSOCIATED ROOT
STRUCTURES. DISPOSE OF OFF SITE IN
COMPLIANCE WITH ALL LOCAL, STATE, AND
FEDERAL REGULATIONS.

EXISTING ASPHALT DRIVE SURFACING TO
REMAIN. PROTECT DURING ANY
NON-RUBBER-TRACKED MACHINERY
OPERATIONS.

EXISTING GRASS AREA TO REMAIN.

STRIP TOPSOIL AND EXCAVATE TO DEPTHS
REQUIRED TO PROVIDE NEW CONCRETE PAD
AND LANDSCAPING SURFACING AS NOTED,
SPECIFIED, AND DETAILED. TYPICAL.

LINE REPRESENTS APPROXIMATE
EXTENTS OF EXISTING VEGETATION.
REMOVE EXISTING VEGETATION AND
ALL ASSOCIATED ROOT
STRUCTURES. DISPOSE OF OFF
SITE IN COMPLIANCE WITH ALL
LOCAL, STATE, AND FEDERAL
REGULATIONS.

REMOVE EXISTING TREE AND ALL
ASSOCIATED ROOT STRUCTURES.
DISPOSE OF OFF SITE IN
COMPLIANCE WITH ALL LOCAL,
STATE, AND FEDERAL
REGULATIONS.

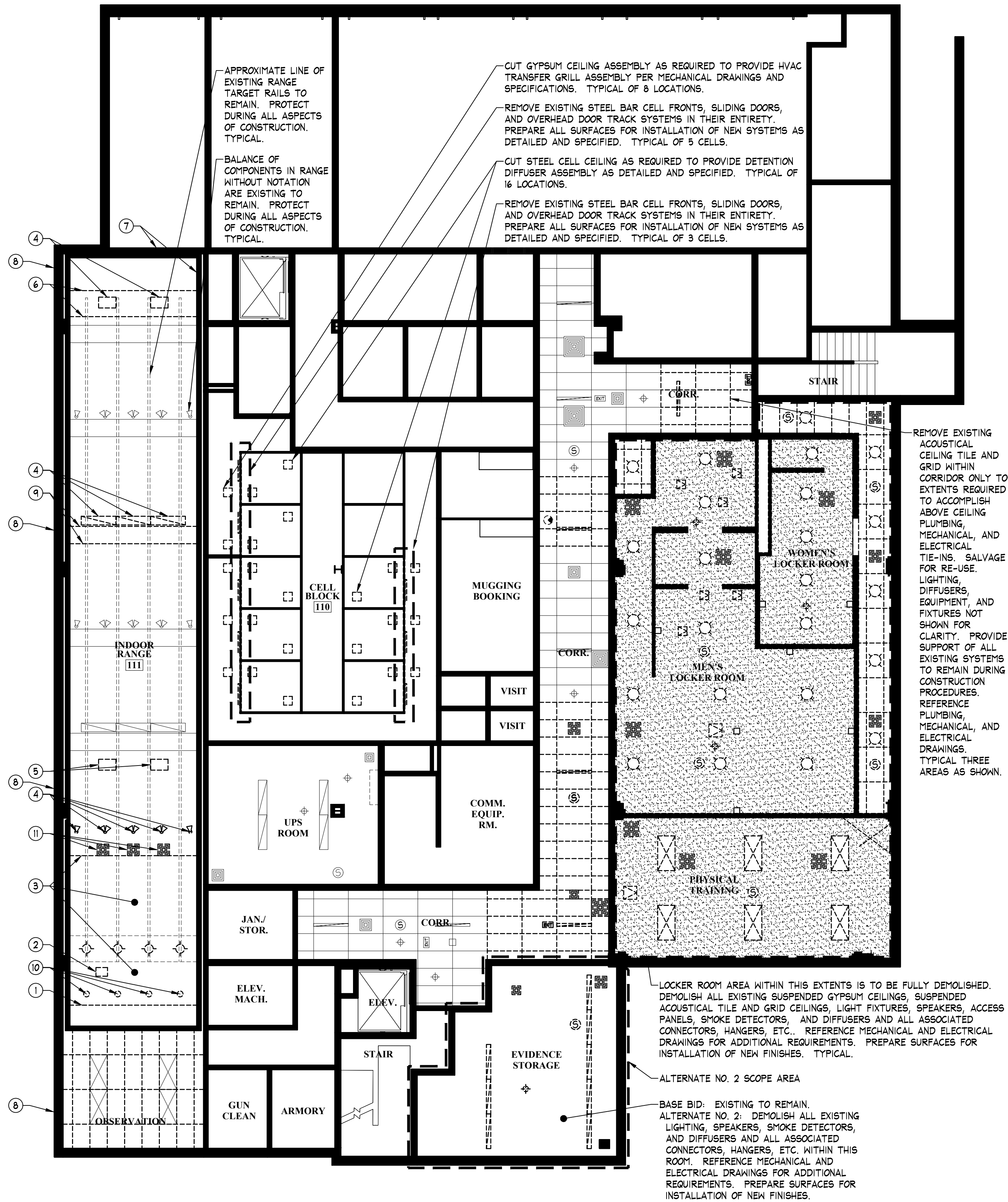
EXISTING GRASS AREA TO REMAIN.
EXISTING TREES TO REMAIN.

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

1 DEMOLITION PARTIAL LANDSCAPING PLAN
SCALE: 1/8" = 1'-0"

RANGE DEMOLITION REFLECTED CEILING PLAN KEY NOTE LEGEND:

1. REMOVE EXISTING CONCRETE PLANK IN AREA NEW SUPPLY DIFFUSER.
2. CORE CONCRETE PLANK TO EXTENTS REQUIRED TO ROUTE NEW SUPPLY DUCT THROUGH.
3. REMOVE EXISTING ACOUSTICAL CEILING SYSTEM AND ALL SUSPENSION COMPONENTS IN ITS ENTIRETY. PROVIDE NEW SUPPORT FOR ALL EXISTING REFRIGERANT LINES AND WIRING TO REMAIN ABOVE.
4. REMOVE AND SALVAGE EXISTING LIGHTING FOR RELOCATION. REFERENCE ELECTRICAL DRAWINGS AND NEW WORK REFLECTED CEILING PLAN FOR ADDITIONAL INFORMATION.
5. REMOVE EXISTING HVAC GRILL FROM PLANK CEILING. PREPARE SURFACES FOR INSTALLATION OF NEW COVER PLATE AS SPECIFIED.
6. REMOVE AND SALVAGE FOR REASSEMBLY EXISTING BULLET BACKSTOP ASSEMBLY TO PERMIT ACCESS TO INSTALL NEW DUCTING AND PATCH EXISTING WALL HOLE.
7. REMOVE EXISTING EXHAUST DUCTING AND PREPARE WALL OPENING FOR MASONRY INFILL.
8. DEMOLISH EXTERIOR WALL AND INTERIOR RANGE WALL TO EXTENTS REQUIRED TO INSTALL NEW LINTEL ASSEMBLY ABOVE AND ROUTE NEW DUCTING THROUGH. COORDINATE SIZE OF OPENING WITH MECHANICAL DRAWINGS.
9. REMOVE EXISTING STEEL Baffle IN ITS ENTIRETY.
10. REMOVE EXISTING LIGHTING AND PREPARE CONDUCTORS FOR CONNECTION TO NEW LIGHT FIXTURES PER ELECTRICAL DRAWINGS.
11. REMOVE EXISTING FAN BOX UNITS IN THEIR ENTIRETY. REFERENCE MECHANICAL AND ELECTRICAL DRAWINGS.



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

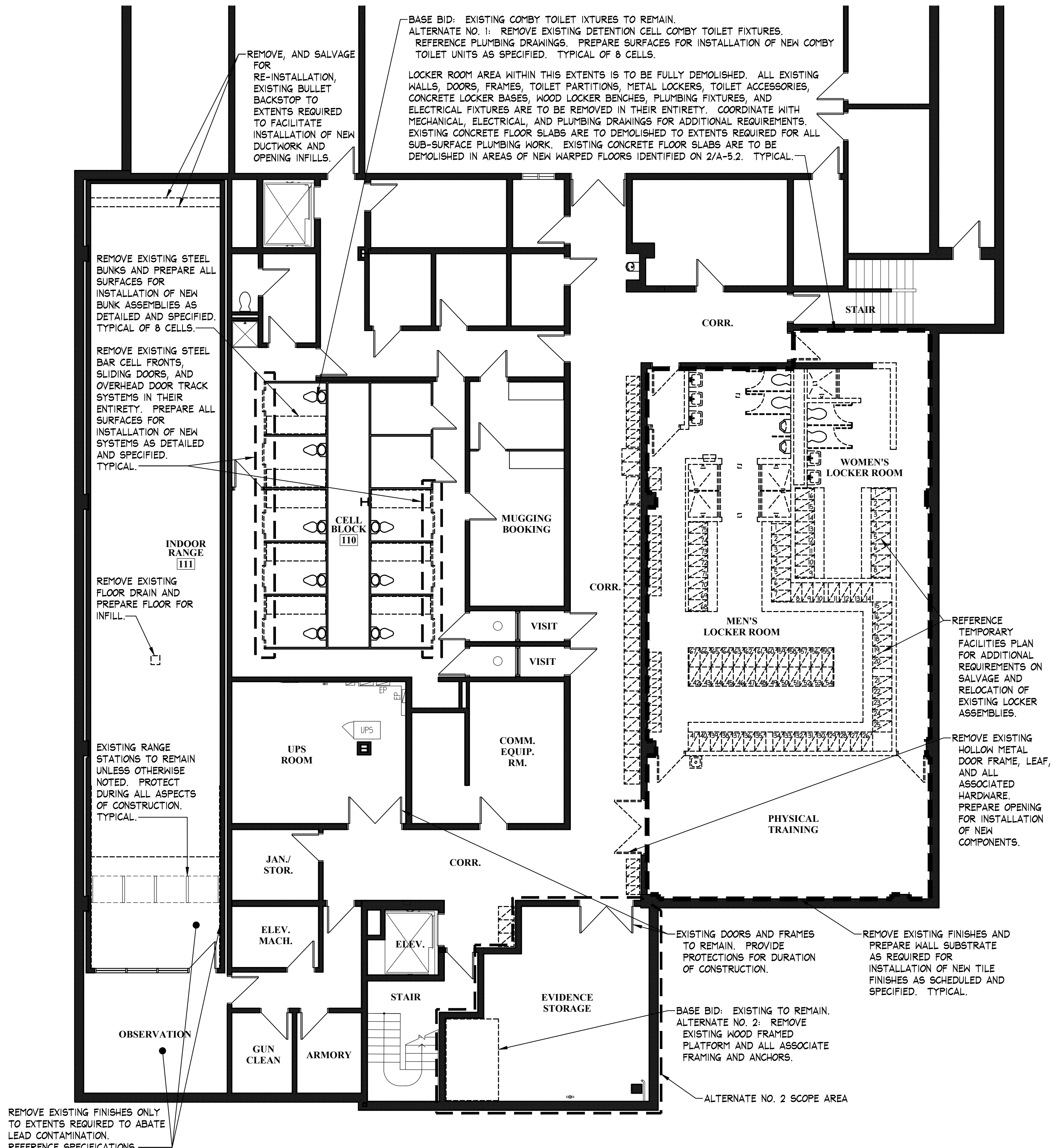
2 DEMOLITION OVERALL LOWER LEVEL REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"

TYPICAL DEMOLITION NOTES

1. ALL DEMOLITION WORK TO BE COORDINATED WITH CORRESPONDING NEW CONSTRUCTION.
2. ALL AREAS AFFECTED BY DEMOLITION TO BE RETURNED TO A STATE OF COMPLETION EQUAL TO OR GREATER THAN THE FINISHED STATE PRIOR TO DEMOLITION.
3. DEMOLITION CONTRACTOR TO BROOM CLEAN ALL DEMOLISHED AREAS PRIOR TO ANY COMMENCEMENT OF NEW CONSTRUCTION.
4. ALL AREAS TO BE DEMOLISHED TO BE VERIFIED IN THE FIELD, AND ANY INCONSISTENCIES ARE TO BE REPORTED TO THE OWNER AND ARCHITECT IMMEDIATELY.
5. DEMOLITION CONTRACTOR TO COORDINATE ARCHITECTURAL DEMOLITION WITH STRUCTURAL, MECHANICAL AND ELECTRICAL DEMOLITION. ANY INCONSISTENCIES ARE TO BE REPORTED TO THE ARCHITECT IMMEDIATELY.
6. REVIEW NEW OPENINGS IN ALL EXISTING WALLS, PRIOR TO DEMOLITION, FOR EXTENTS OF TEMPORARY AND PERMANENT SUPPORT REQUIREMENTS.
7. BLOCK ALL EXISTING RETURN AIR GRILLS AND OPEN DUCT ENDS WITH DUST TIGHT MEDIA, WITHIN THE CONSTRUCTION AREA, FOR DURATION OF CONSTRUCTION OPERATIONS. FOR INSTANCES OF SCOPE OF WORK ON DUCTING, REMOVE COVERS DURING WORK AND REPLACE AT COMPLETION OF WORK.
8. VERIFY THAT ALL INTERIOR PARTITIONS SCHEDULED TO BE REMOVED ARE NON-LOAD BEARING PARTITIONS.
9. COORDINATE DISCONNECTIONS, DEMOLITIONS, AND/OR BAGGING OF FIRE ALARM SYSTEMS WITH LOCAL FIRE MARSHALL PRIOR TO COMMENCEMENT OF ANY RELATED WORK.
10. G.C. TO COORDINATE ALL ROOF PENETRATION REQUIREMENTS WITH STRUCTURAL DRAWINGS. G.C. TO COORDINATE WITH WEATHER PREDICTIONS TO ENSURE OPEN/EXPOSED ROOF SUBSTRATES ARE NOT EXPOSED TO ABUNDANT WATER INFILTRATION. G.C. TO PROVIDE ADEQUATE WEATHER PROTECTION DURING ACTS OF INCLEMENT WEATHER DURING OPEN ROOF CONDITIONS.
11. G.C. IS RESPONSIBLE TO COORDINATE WITH HAZARDOUS MATERIALS INSPECTOR DURING ALL ASPECTS OF DEMOLITION TO ENSURE NO UNFORESEEN OR CONCEALED HAZARDOUS MATERIALS ARE DISTURBED WITHOUT PROPER ABATEMENT PROCEDURES.
12. SCOPE INDICATED ON DRAWING MAY NOT BE INDICATIVE OF ENTIRE DEMOLITION SCOPE. G.C. IS RESPONSIBLE TO COORDINATE DEMOLITION REQUIREMENTS FOR MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS, CONDUITS, CONDUCTORS, AND PIPING. G.C. IS TO PROVIDE ALL DEMOLITION, CORING, SAW CUTTING, AND SHORING, AS REQUIRED, TO INSTALL NEW SYSTEMS AND ASSEMBLIES NOTED.
13. NOT ALL DEMOLITION INDICATED IS PERMITTED TO BE PERFORMED AT BEGINNING OF PROJECT. COORDINATE PHASED DEMOLITION REQUIREMENTS WITH TEMPORARY FACILITIES PLAN.

HAZARDOUS MATERIALS NOTES

1. HAZARDOUS MATERIALS ARE KNOWN TO BE PRESENT. EXTENTS ARE NOTED WITHIN SPECIFICATIONS. G.C. TO COORDINATE EXTENTS OF DEMOLITION AND RECONSTRUCTION WITH ABATEMENT CONTRACTOR, OWNER'S REPRESENTATIVE, AND ALL SUB-CONTRACTORS PRIOR TO THE COMMENCEMENT OF WORK.
2. THIS DEMOLITION DRAWING DEPICTS THE KNOWN EXTENTS OF DEMOLITION WORK TO BE PERFORMED. IT IS THE RESPONSIBILITY OF THE G.C. TO COORDINATE WHICH SCOPE IS BEING PERFORMED BY THE ABATEMENT CONTRACTOR AND WHICH SCOPE IS BEING PERFORMED BY THEIR NON-ABATEMENT CONTRACTORS.



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

1 DEMOLITION OVERALL LOWER LEVEL FLOOR PLAN
SCALE: 1/8" = 1'-0"

RFP 6320

INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
158 EDISON ROAD
TRUMBULL, CONNECTICUT

JJH
JACUNSKI HUMES
ARCHITECTS, LLC
15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

**DEMOLITION
OVERALL
LOWER
LEVEL
PLANS**

PROJ. NO. JH182B
SCALE As Noted
DATE NOVEMBER 8, 2018
DRAWING NO. **D-1.1**

ABBREVIATIONS

WALL NOTES

A.F.F.	ABOVE FINISH FLOOR	F.R.	FIRE RETARDENT	R or RAD.	RADIUS
AC	ACOUSTIC, ACOUSTICAL	FFRRFg.	FIREPROOFING	RWC	RAIN WATER CONDUCTOR
ACM	ALUMINUM COMPOSITE MATERIAL	FIXT.	FIXTURE	RWL	RAIN WATER LEADER
ACT or ACT.	ACOUSTICAL TILE & GRID	FLASH	FLASHING	RECT.	RECTANGLE
ADDN	ADDITION	FLR.	FLOOR	REC.V.	RECEIVING
A/C	AIR COMPRESSOR	F.D.	FLOOR DRAIN	REF.	REFERENCE
A.H.U.	AIR HANDLING UNIT	FLR. FIN.	FLOOR FINISH	REFR.	REFRIGERATOR
ALT	ALTERNATE	FTG.	FOOTING	REINF.	REINFORCE, REINFORCING
ALUM.	ALUMINUM	FDN or FNDN	FOUNDATION	REQ. or REQ'D	REQUIRE, REQUIRED
ALF	ALUMINUM FRAME	F.H.M.	FULL-HEIGHT MIRROR WITH STAINLESS STEEL FRAME	REQMTS	REQUIREMENTS
ANST	AMERICAN NATIONAL STANDARDS INSTITUTE	F.H.	FURNISH, FURNISHED	REV.	REVISED, REVISION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	FURR.	FURRED, FURRING	R.	RISER
ADA	AMERICANS WITH DISABILITIES ACT			R.D.	ROOF DRAIN
ANCH	ANCHOR, ANCHORAGE			RM.	ROOM
AB	ANCHOR BOLTS			R.S.	ROOM SIGNAGE
4	AND			R.H.	ROBE HOOK
L	ANGLE			R.O.	ROUGH OPENING
ANOD.	ANODIZED	GA.	GAUGE		
APPR.	APPROXIMATELY	GALV.	GALVANIZED	S.N.D.	SANITARY NAPKIN DISPOSAL
APPROX.	APPROXIMATELY	G.C.	GENERAL TRADES CONTRACTOR	S.N.V.M.	SANITARY NAPKIN VENDING MACHINE
ARCH.	ARCHITECT, ARCHITECTURAL	GLAZ.	GLAZING	SCHED.	SCHEDULE
ASB.	ASBESTOS	G.B.	GRAB BAR	SCUPPER	SCUPPER
ASPH.	ASPHALT	G.F.G.I.	GROUND-FAULT CIRCUIT INTERRUPTOR	SECT.	SECTION
ASSY	ASSEMBLY	GWB or GYP BD.	GYP-SUM WALLBOARD	S.J.	SEISMIC JOINT
ASST.	ASSISTANT			SHT	SHEET
@	AT			S.G.	SHOWER CURTAIN & HOOKS
A.F.I.S.	AUTOMATED FINGERPRINT IDENTIFICATION SYSTEM	HMF or H.M.F.	HOLLOW METAL FRAME	S.G.R.	SHOWER CURTAIN ROD
AUTO	AUTOMATIC	HORIZ.	HORIZONTAL	SIM.	SIMILAR
		H.B.	HOSE BIB	S.D.L.	SOAP DISPENSER (SINK/LAVATORY MOUNTED)
		H.D.G.	HOT-DIPPED GALVANIZED	S.D.N.	SOAP DISPENSER (WALL MOUNTED)
				SVT	SOLID VINYL TILE
BM	BEAM	IN.	INCH, INCHES	S.T.C. or STC	SOUND TRANSMISSION CLASS
BRG	BEARING	INCL.	INCLUDE, INCLUDING	SPEC.	SPECIFICATIONS
BET or B/W	BETWEEN	INFO	INFORMATION	S.B.	SPLASH BLOCK
BEV.	BEVELED	I.D.	INSIDE DIAMETER	SQ.	SQUARE
BIT	BITUMINOUS	INSUL.	INSULATION	S.F. or SQ.FT.	SQUARE FEET
BLK	BLOCK	I.T. or IT	INTEGRATED TECHNOLOGY	S.S.	STAINLESS STEEL
BLKG.	BLOCKING	INT.	INTERIOR	STD	STANDARD
BD.	BOARD	INTOX.	INTOXILYZER	STL	STEEL
BOTT.	BOTTOM			STOR.	STORAGE
B.O.	BOTTOM OF	K.F.E.	KITCHEN FIRE EXTINGUISHER	STRUCT.	STRUCTURAL
B.E.J.	BRICK EXPANSION JOINT	K.F.	KICK PLATE	S.T.L.	STRUCTURAL STEEL
BLDG.	BUILDING	LAB	LABORATORY	SUSP.	SUSPEND, SUSPENSION
BUR.	BUILT-UP ROOFING	LAV.	LAVATORY	S.G.B.	SWING-UP GRAB BAR
		L.TG.	LIGHTING		
CAB.	CABINET	L.C.	LINE OF	TBD.	TACKBOARD
C.U.H.	CABINET UNIT HEATER	LKR. or LKRS	LOCKER, LOCKERS	THRU	THROUGH
CAP.	CAPACITY	L.F.	LOW POINT	T.S.S.	TILT-UP SHOWER SEAT (ADA COMPLIANT)
CLG.	CEILING			T.P.D.	TOILET PAPER DISPENSER
CH. or CLGHT.	CEILING HEIGHT			T&G	TOUNGE AND GROOVE
CEM.	CEMENT	MACH.	MACHINE	T.O.	TOP OF
CTR.	CENTER	MDP	MAIN ELECTRICAL DISTRIBUTION PANEL	T.O.P.	TOP OF PLATE
CL.	CENTERLINE	MAINT.	MAINTENANCE	T.O.SL	TOP OF SLAB
CER.T.	CERAMIC TILE	MANUF.	MANUFACTURED	T.O.ST.	TOP OF STEEL
C.B.D.	CHALK BOARD	MFR.	MANUFACTURER	T	TREAD
C	CLOSET	M.T.H.	MARBLE THRESHOLD	TRDR.	TRENCH DRAIN
CLO.	COLUMN	M.BD.	MARKER BOARD	TYP.	TYPICAL
COL.	CONCRETE	MAS.	MASONRY		
CONC.	CONCRETE	M.O.	MASONRY OPENING	UL.	UNDERWRITER'S LABORATORY INC.
CONF.	CONFERENCE	MAT.	MATERIAL	U/G REF.	UNDER-COUNTER REFRIGERATOR
CJ	CONTROL JOINT	MAX.	MAXIMUM	U.D.	UNIT DIMENSION
CONT.	CONTINUOUS	MECH.	MECHANICAL	U.H.	UNIT HEATER
CONTR.	CONTRACTOR	MET. or MTL.	METAL	U.V.	UNIT VENTILATOR
C.G.	CORNER GUARD	MEZZ.	MEZZANINE	U.O.N.	UNLESS OTHERWISE NOTED
CORR.	CORRIDOR	MM	MICROWAVE OVEN	U. or UR.	URINAL
CRS.	COURSE, COURSES	MIN.	MINIMUM		
		M.M.F.	MIRROR WITH STAINLESS STEEL FRAME	VTR	VENT THROUGH ROOF
DMPFG.	DAMP-PROOFING	MISC.	MISCELLANEOUS	V.I.F.	VERIFY IN FIELD
DEG.	DEGREE	MTD.	MOUNTED	V.G.B.	VERTICAL GRAB BAR
DEMO.	DEMOLITION			V.L.	VERTICAL RAIN LEADER
DEPT.	DEPARTMENT	NOM.	NOMINAL	VEST.	VESTIBULE
DET. or DTL.	DETAIL	N.S.O.	NON-SIMULTANEOUS OCCUPANCY	VGT	VINYL COMPOSITION TILE
DIA.	DIAMETER	N	NORTH	VET	VINYL ENHANCED TILE
DIM.	DIMENSION	N.I.G.	NOT IN CONTRACT		
D/W	DISHWASHER	N.I.S.	NOT IN SCOPE	W.C.	WATER CLOSET
DIST.	DISTANCE	N.T.S.	NOT TO SCALE	WP.	WATERPROOFING
DR	DOOR	NO. or #	NUMBER	W.W.F. or WWF	WELDED WIRE FABRIC
D.F.S.	DOOR FLOOR STOP			W.BD.	WHITE BOARD
D.M.S.	DOOR WALL STOP	OFF.	OFFICE	WIN. or WDM	WINDOW
DBL.	DOUBLE	O.C.	ON CENTER	W.	WITH
D.H.	DOUBLE-HUN	O.H.	OPPOSITE HAND	WD	WOOD
DN	DOWN	OSB	ORIENTED STRAND BOARD		
D/F	DOWN FLOW	O.D.	OUTSIDE DIAMETER		
D.S.	DOWNSPOUT				
DWG.	DRAWING	PTD.	PAINTED		
D.F.	DRINKING FOUNTAIN	PR.	PAIR		
		P.T.D.	PAPER TOWEL DISPENSER		
EA.	EACH	PASS.	PASSAGE		
ELEC.	ELECTRIC, ELECTRICAL	PERP.	PERPENDICULAR		
EMT	ELECTRICAL METAL TUBING	P.C.	PIPE COVERS (ADA COMPLIANT)		
ENG	ELECTRIC WATER COOLER	PLAS.	PLASTER		
EL. or ELEV.	ELEVATION	PLAM.	PLASTIC LAMINATE		
EMERG.	EMERGENCY	PL.	PLATE		
EGAP	EMERGENCY GENERATOR ANNUNCIATOR PANEL	PLBG. or PLUMB.	PLUMBING		
EPDM	ETHYLENE PROPYLENE DIENE MONOMER	PLYND	PLYWOOD		
EQ.	EQUAL	POLY	POLYETHYLENE		
EQUIP.	EQUIPMENT	P.V.C.	POLYVINYLCHLORIDE		
EXIST.	EXISTING	lbs.	POUNDS		
E.T.R.	EXISTING TO REMAIN	PWDR	POWDER		
EXP.	EXPANSION	PC	PRECAST		
E.J.	EXPANSION JOINT	P.E.J.	PRECAST EXPANSION JOINT		
EXT.	EXTERIOR	PREFAB	PREFABRICATED		
E.I.F.S.	EXTERIOR INSULATIVE FINISH SYSTEM	P.T.	PRESSURE TREATED		
XPS	EXTRUDED POLYSTYRENE	PTR	PRINTER		
		QTY.	QUANTITY		
FT	FEET, FOOT	Q.T.	QUARRY TILE		
F.R.G.P.	FIBER-REINFORCED GYPSUM PANELS				
F.G.	FIBERGLASS				
FIN.	FINISH, FINISHED				
FAAP	FIRE ALARM ANNUNCIATOR PANEL				
FACP	FIRE ALARM CONTROL PANEL				
F.E.	FIRE EXTINGUISHER				
F.E.G.	FIRE EXTINGUISHER IN CABINET				

1. FIRECODE GYPSUM BOARD IN A ONE OR TWO-HOUR RATED PARTITION MUST BEAR THE U.L. CLASSIFICATION.
2. ALL FIRE AND SMOKE RESISTANT SEPARATIONS ARE TO EXTEND TO THE UNDERSIDE OF FLOOR OR ROOF DECK ABOVE, TYPICAL.
3. FOR SMOKE RESISTANT SEPARATIONS PROVIDE FIRE SAFING AND SEALANT AT FLOOR, ROOF DECK AND ALL PENETRATIONS TO PREVENT THE PASSAGE OF SMOKE.
4. FOR ALL FIRE RATED PARTITIONS PROVIDE FIRE SAFING AND SEALANT AT FLOOR, ROOF DECK AND ALL PENETRATIONS TO PREVENT THE PASSAGE OF SMOKE AND FLAME. THE FIRE SAFING AND SEALANT SYSTEM MUST MAINTAIN THE RATINGS OF THE SEPARATION.
5. AT ALL NON-RATED PARTITIONS, FILL METAL DECK FLUTES WHERE PARTITIONS MEET THE STRUCTURE ABOVE WITH BATT, INSULATION.
6. AT ALL NON-RATED PARTITIONS, FILL ALL VOIDS BETWEEN PIPES, ELECTRICAL CONDUIT, DUCTWORK, ETC. WHERE THEY PENETRATE WALLS WITH BATT INSULATION.
7. PROVIDE SMOKE DAMPERS AT ALL MECHANICAL PENETRATIONS THROUGH ONE HOUR FIRE RATED SMOKE BARRIERS.
8. PROVIDE FIRE DAMPERS AT ALL MECHANICAL PENETRATIONS THROUGH TWO HOUR FIRE RATED PARTITIONS.
9. EXTEND ALL METAL STUD PARTITIONS TO THE UNDERSIDE OF DECK/ STRUCTURE, UNLESS OTHERWISE NOTED
10. ALL PARTITIONS, PART OF THE THERMAL ENVELOPE, SHALL BE FULLY AIR SEALED WITH SEALANT TO MITIGATE THE TRANSFERENCE OF AIR. THIS SHALL INCLUDE ALL SILL/SOLE PLATES, TOP PLATES, DISSIMILAR MATERIAL TRANSITIONS, PENETRATIONS, JOINTS, AND SHEATHING PERIMETERS. IN AREAS OF RATED PARTITIONS, SEALANT SHALL BE OF SUFFICIENT GRADE TO COMPLY WITH FIRE RATING REQUIREMENTS. TYPICAL.
11. CONTRACTOR IS TO PERMANENTLY INDICATE LOCATIONS OF RATED WALLS, AS SHOWN ON CODE PLANS, BY PAINTING STENCILS ON SAID WALLS, ABOVE CEILING, AS DETAILED.
12. CONTRACTOR IS TO PROVIDE HANDICAP RESTROOM SIGNAGE AT ALL RESTROOM ENTRANCE DOORS AS DETAILED.

GENERAL NOTES

1. CONTRACTOR TO TAKE AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB AND SHALL BE HELD RESPONSIBLE FOR THE SAME.
2. ALL NOTES AND DIMENSIONS DESIGNATED AS TYPICAL APPLY TO ALL SIMILAR CONDITIONS THROUGHOUT THE PROJECT.
3. ALL DIMENSIONS ARE TO FACE OF FOUNDATION AT EXTERIOR, FACE MASONRY, FACE OF METAL STUD AND CENTERLINE OF STRUCTURAL STEEL COLUMNS UNLESS OTHERWISE NOTED.
4. ROOFING CONTRACTOR TO VERIFY QUANTITY AND LOCATION OF ROOF PENETRATIONS, AND TO FLASH ACCORDING TO MANUFACTURERS' SPECIFICATIONS.
5. PROVIDE A 1" BULLNOSE AT ALL EXPOSED CONCRETE MASONRY UNIT CORNERS.
6. FOR MASONRY REINFORCEMENT SEE SPECIFICATIONS AND STRUCTURAL DRAWINGS.
7. ALL DOOR FRAME EDGES SHALL BE LOCATED 4" FROM WALL INTERSECTIONS UNLESS OTHERWISE NOTED.
8. SEE STRUCTURAL DRAWINGS AND FINISH PLANS FOR POSSIBLE LOCATIONS OF DEPRESSED STRUCTURAL CONCRETE SLABS.
9. THE REQUIREMENTS FOR SEISMIC LOADS HAVE BEEN INCORPORATED INTO THE DESIGN OF THE STRUCTURAL, MECHANICAL AND SUSPENDED CEILING SYSTEMS AS REQUIRED FOR THE NEW CONSTRUCTION.
10. FOR EXTERIOR MASONRY CONTROL JOINTS REFER TO THE EXTERIOR ELEVATION SHEETS.
11. FOR INTERIOR MASONRY EXPANSION JOINTS AND CONTROL JOINTS, JOINTS SHALL BE PLACED AS IDENTIFIED BY THE SPECIFICATION, PREFERABLY AT THE JUNCTION OF WALLS FIRST AND THEN BY THE REQUIRED DISTANCES. PROVIDE A CONTROL JOINT AT ALL EDGES WHERE MASONRY ABUTS STRUCTURAL STEEL.
12. ELECTRICAL CONTRACTOR TO COORDINATE PLACEMENT OF ELEC./ DATA OUTLETS AND SWITCHES WITH THE LOCATION OF CASEWORK. REFER TO CASEWORK DRAWINGS AND ELECTRICAL DRAWINGS.
13. ALL SPRINKLER PIPING TO BE LOCATED ABOVE FINISH CEILING UNLESS OTHERWISE NOTED.
14. SPRINKLER HEADS SHALL BE LOCATED IN THE CENTER OF CEILING PADS.
15. EXPOSED SPRINKLER INSTALLATIONS SHALL BE CAREFULLY COORDINATED IN THE FIELD TO AVOID CONFLICTS WITH LIGHTING AND OTHER CEILING MOUNTED EQUIPMENT.
16. ALL RATED DOORS SHALL HAVE POSITIVE LATCHING LOCK SETS OR LATCH SETS AND CLOSERS.
17. ALL DOOR LEVERS ON DOORS LEADING TO HAZARDOUS SPACES SHALL BE KNURLED.
18. ALL DOORS EXITING 100 OR MORE PERSONS SHALL HAVE PANIC EXIT DEVICES.
19. METAL STUD CONTRACTOR TO PROVIDE AND COORDINATE PLACEMENT OF METAL STUD SLIP TRACKS AT ALL STUD WALLS BUILT ON TOP OF OR UNDER STRUCTURAL STEEL BRACING FRAMES, TYPICAL.
20. PROVIDE AN ALUMINUM DIVIDER STRIP AT ALL DOOR THRESHOLDS WHERE TWO DIFFERENT FINISHES MEET UNLESS OTHERWISE NOTED.
21. METAL STUD CONTRACTOR TO PROVIDE AND COORDINATE PLACEMENT AND BLOCKING FOR ALL WALL MOUNTED ELEMENTS ON METAL STUD OR METAL FURRING WALL CONSTRUCTION. TYPICAL.
22. ALL PARTITIONS, CEILINGS, ROOFS, FENESTRATIONS, AND FLOORS, PART OF THE THERMAL ENVELOPE, SHALL BE FULLY AIR SEALED WITH SEALANT TO MITIGATE THE TRANSFERENCE OF AIR. THIS SHALL INCLUDE ALL SILL/SOLE PLATES, TOP PLATES, DISSIMILAR MATERIAL TRANSITIONS, PENETRATIONS, JOINTS, AND SHEATHING PERIMETERS. IN AREAS OF RATED PARTITIONS, SEALANT SHALL BE OF SUFFICIENT GRADE TO COMPLY WITH FIRE RATING REQUIREMENTS. TYPICAL.

RFP 6320

INTERIOR RENOVATION TO THE
TRUMBULL POLICE
DEPARTMENT
158 EDISON ROAD
TRUMBULL, CONNECTICUT

J J H H
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

ARCH.
GENERAL
INFORMATION
AND
ABBREVIATIONS

PROJ. NO.	JH1828	DRAWING NO.
SCALE	A-0.1	
DATE	NOVEMBER 8, 2018	

INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**

TRUMBULL, CONNECTICUT
158 EDISON ROAD

JJH
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

**WALL AND
FLOOR TYPES
AND DETAILS**

PROJ. NO.	JH1828	DRAWING NO.
SCALE	As Indicated	A-0.2
DATE	NOVEMBER 8, 2018	

WG-SERIES - GYPSUM BOARD (METAL STUD), ATTENUATION

WG-4
COMPOSITION: 5/8" GYPSUM BOARD, 3-5/8" METAL STUDS AT 16" ON-CENTER, 3-1/2" ACOUSTIC BATTEN INSULATION, 5/8" GYPSUM BOARD.
TOTAL THICKNESS: 4-7/8"
TOTAL HEIGHT: FROM FLOOR TO UNDERSIDE OF STRUCTURE ABOVE.
RATING: NONE

WG-4F
COMPOSITION: 5/8" GYPSUM BOARD, 3-5/8" METAL STUDS AT 16" ON-CENTER, 3-1/2" ACOUSTIC BATTEN INSULATION.
TOTAL THICKNESS: 4-1/4"
TOTAL HEIGHT: FROM FLOOR TO UNDERSIDE OF STRUCTURE ABOVE.
RATING: NONE

WG-6
COMPOSITION: 5/8" GYPSUM BOARD, 6" METAL STUDS AT 16" ON-CENTER, 5/8" GYPSUM BOARD.
TOTAL THICKNESS: 1-1/4"
TOTAL HEIGHT: FROM FLOOR TO UNDERSIDE OF STRUCTURE ABOVE.
RATING: NONE

WG-6F
COMPOSITION: 5/8" GYPSUM BOARD, 6" METAL STUDS AT 16" ON-CENTER.
TOTAL THICKNESS: 6-5/8"
TOTAL HEIGHT: FROM FLOOR TO UNDERSIDE OF STRUCTURE ABOVE.
RATING: NONE

FC-SERIES - CONCRETE

FC-E
COMPOSITION: FINISHES AS SCHEDULED, REINFORCED CONCRETE SLAB, VAPOR BARRIER, COMPACTED SUB-BASE, EXISTING VIRGIN SUB-GRADE.
TOTAL THICKNESS: V.I.F. - MIN. 1'-0"
RATING: AIR AND MOISTURE SEALED
NOTES: REFERENCE STRUCTURAL DRAWINGS, REFERENCE FLOOR FINISHES DRAWINGS AND SPECIFICATIONS FOR SLAB PREPARATION REQUIREMENTS.

WGA-SERIES - GYPSUM BOARD (METAL STUD), ATTENUATION

WGA-4
COMPOSITION: 5/8" GYPSUM BOARD, 3-5/8" METAL STUDS AT 16" ON-CENTER, 3-1/2" ACOUSTIC BATTEN INSULATION, 5/8" GYPSUM BOARD.
TOTAL THICKNESS: 4-7/8"
TOTAL HEIGHT: FROM FLOOR TO UNDERSIDE OF STRUCTURE ABOVE.
RATING: NONE

WGA-4F
COMPOSITION: 5/8" GYPSUM BOARD, 3-5/8" METAL STUDS AT 16" ON-CENTER, 3-1/2" ACOUSTIC BATTEN INSULATION.
TOTAL THICKNESS: 4-1/4"
TOTAL HEIGHT: FROM FLOOR TO UNDERSIDE OF STRUCTURE ABOVE.
RATING: NONE

WGA-6F
COMPOSITION: 5/8" GYPSUM BOARD, 6" METAL STUDS AT 16" ON-CENTER, 3-1/2" ACOUSTIC BATTEN INSULATION.
TOTAL THICKNESS: 6-5/8"
TOTAL HEIGHT: FROM FLOOR TO UNDERSIDE OF STRUCTURE ABOVE.
RATING: NONE

WFGA-SERIES - FIRE-RATED, GYPSUM BOARD (METAL STUD), ATTENUATION

WFGA-4(1)
COMPOSITION: 5/8" FIRE-CODE GYPSUM BOARD, 3-5/8" METAL STUDS AT 16" ON-CENTER, 3-1/2" ACOUSTIC BATTEN INSULATION, 5/8" FIRE-CODE GYPSUM BOARD.
TOTAL THICKNESS: 4-7/8"
TOTAL HEIGHT: FROM FLOOR TO UNDERSIDE OF STRUCTURE ABOVE.
RATING: 1-HOUR FIRE RATING (U.L. #J-465)

WFB-SERIES - FIRE-RATED, BLOCK

WFB-E(1)
COMPOSITION: U.L. CONCRETE MASONRY UNIT, HORIZONTAL REINFORCING AT 16" ON-CENTER VERTICALLY.
TOTAL THICKNESS: MATCH EXISTING (V.I.F.)
TOTAL HEIGHT: FROM FLOOR TO UNDERSIDE OF STRUCTURE ABOVE.
RATING: 6" NOMINAL THICKNESS OR LESS: 1-HOUR FIRE RATINGS (U.L. #J-906) 8" NOMINAL THICKNESS OR GREATER: 1-HOUR FIRE RATINGS (U.L. #J-905)

STUD AND SHEATHING PER APPLICABLE WALL TYPE
FIRE-SHIELD STRIPS AT FIRE RATED WALLS
CAULK JOINT. TYPICAL BOTH SIDES.
1/2" PRE-MANUFACTURED GYPSUM BOARD CONTROL JOINT ASSEMBLY. TYPICAL BOTH SIDES.
NOTE: REFER TO SPECIFICATIONS, DIMENSION FLOOR PLANS AND COLUMN DETAILS FOR LOCATIONS OF CONTROL JOINTS. OTHERWISE INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.

1 DETAIL - TYPICAL GYPSUM BOARD CONTROL JOINT
3" = 1'-0"

FLEXIBLE FIRESTOP SEALANT FLUSH WITH WALL PER UL DETAIL HN-D-0042
PROVIDE MINERAL WOOL FIRE SAFING TO MATCH RATING AT ALL RATED CONDITIONS. SEE PLANS.
GYPSUM STUD PARTITION AS SCHEDULED
BOTTOM OF UPPER DECK FLUTE
BOTTOM OF LOWER DECK FLUTE BEYOND

4 DETAIL - TYPICAL TOP OF FIRE-RATE STUD PARTITION
3" = 1'-0"

DOUBLE TRACK OPTION
BOTTOM OF STRUCTURE ABOVE
2" CONTINUOUS LEG SLIP TRACK MECHANICALLY ANCHORED TO STRUCTURE
2-1/2" STUD TRACK SET INTO SLIP TRACK ONLY WITH BUFFER FROM SLIP TRACK AS DIMENSIONED.
STUD SIZE AND WALL SHEATHING TYPE AND THICKNESS PER APPLICABLE WALL TYPE.

NOTE: ALL EXTERIOR AND FIRE RATED WALL FRAMING SHALL UTILIZE BOTH OPTIONS.

3 DETAIL - TYPICAL TOP OF STUD PARTITION SLIP TRACK
3" = 1'-0"

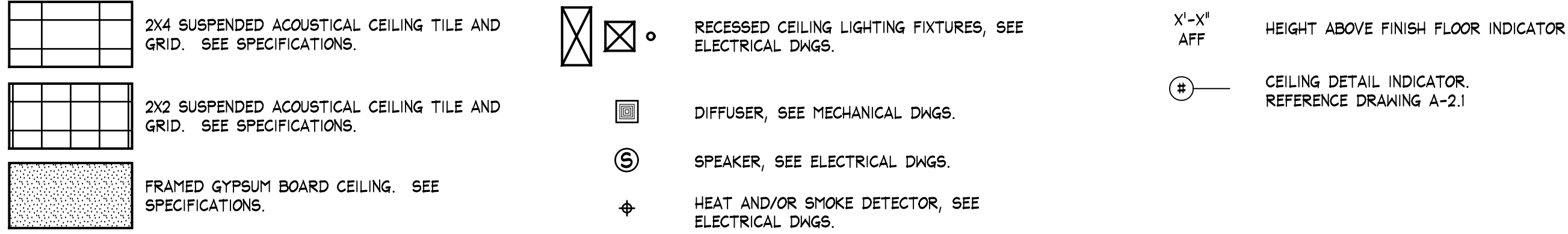
CHANNEL BRACED OPTION
BOTTOM OF STRUCTURE ABOVE
2" CONTINUOUS LEG SLIP TRACK MECHANICALLY ANCHORED TO STRUCTURE
2-1/2" STUD TRACK SET INTO SLIP TRACK ONLY WITH BUFFER FROM SLIP TRACK AS DIMENSIONED.
TOP-MOST SHEATHING FASTENERS INTO WALL STUDS ONLY WITH BUFFER FROM SLIP TRACK AS DIMENSIONED.
COLD-ROLLED CHANNEL ANCHORING CLIP AT EACH STUD.
CONTINUOUS COLD-ROLLED CHANNEL BRACING.
STUD SIZE AND WALL SHEATHING TYPE AND THICKNESS PER APPLICABLE WALL TYPE.

INTERIOR CMU PARTITION AS SCHEDULED
CONTINUOUS x FULL STUD WIDTH BUTYL TAPE BOND BREAK
CONTINUOUS SEALANT (BOTH SIDES)
CONTINUOUS TAPEABLE J-BEAD GYPSUM TERMINATION (BOTH SIDES)
FULL-HEIGHT LIGHT GAUGE METAL STUD, AS SPECIFIED, ANCHORED TO CMU PARTITION AT 16" O.C. WITH 3" EMBEDMENT EXPANSION ANCHOR WITH WASHER.
GYPSUM SHEATHING PER APPLICABLE WALL TYPE (BOTH SIDES)
PLAN SECTION DETAIL AT GYPSUM STUD PARTITION CONNECTION TO INTERIOR CMU PARTITION

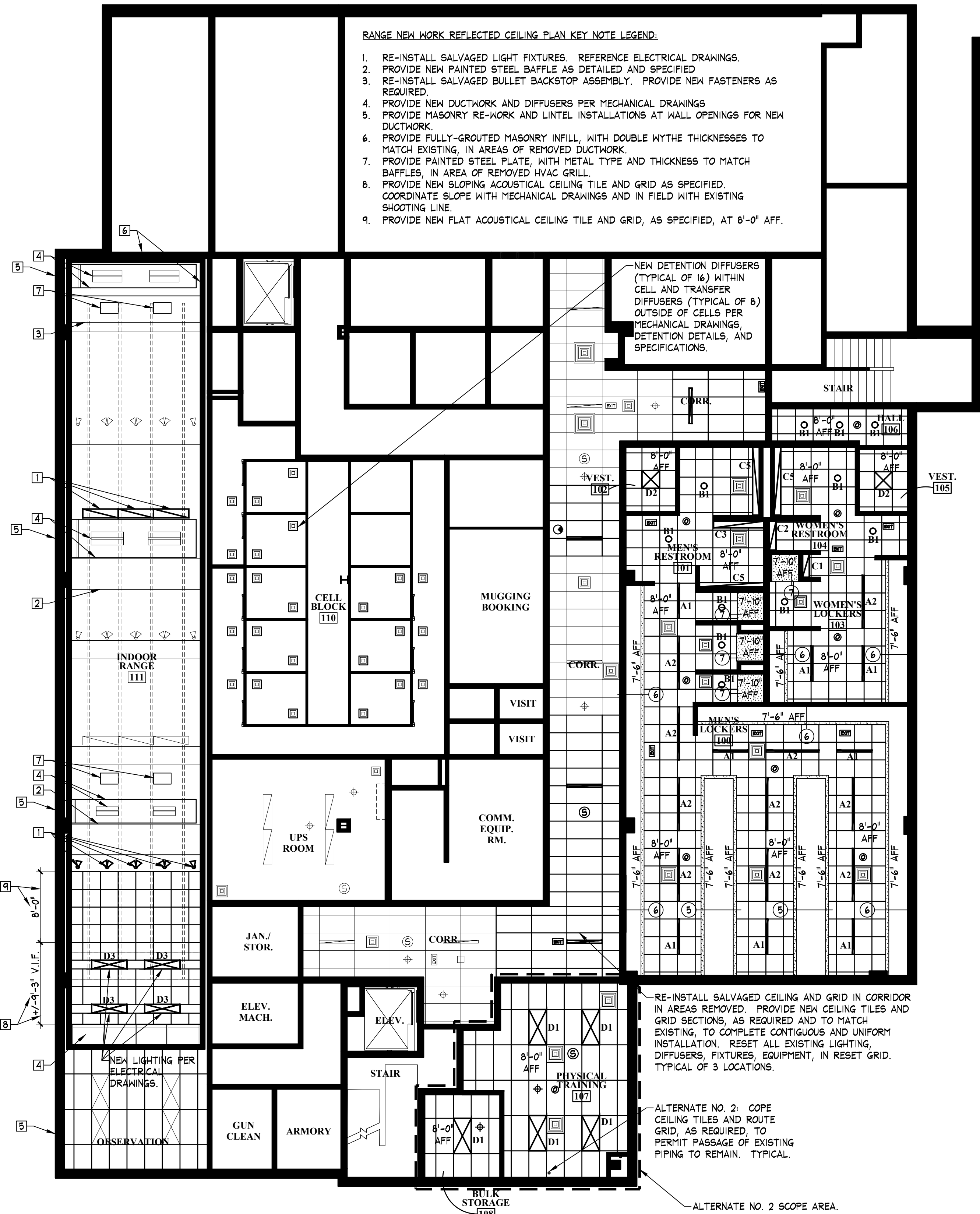
2 DETAIL - TYPICAL GYPSUM STUD PARTITION TO CMU PARTITION
3" = 1'-0"

EXTERIOR CMU PARTITION AS SCHEDULED
CONTINUOUS x FULL STUD WIDTH, R-5 MIN., POLYISOCYANURATE BOARD BOND BREAK
CONTINUOUS SEALANT (BOTH SIDES)
CONTINUOUS TAPEABLE J-BEAD GYPSUM TERMINATION (BOTH SIDES)
FULL-HEIGHT LIGHT GAUGE METAL STUD, AS SPECIFIED, ANCHORED TO CMU PARTITION AT 16" O.C. WITH 3" EMBEDMENT EXPANSION ANCHOR WITH WASHER.
GYPSUM SHEATHING PER APPLICABLE WALL TYPE (BOTH SIDES)
PLAN SECTION DETAIL AT GYPSUM STUD PARTITION CONNECTION TO EXTERIOR CMU PARTITION

REFLECTED CEILING PLAN LEGEND



- NOTE:
- ALL CEILING ARE TO BE 8'-0" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
 - SEE CODE PLAN FOR LOCATIONS OF ALL RATED CONSTRUCTION, TYPICAL.
 - COORDINATE ALL LIGHTING QUANTITIES AND LOCATIONS WITH THE ARCHITECT. REPORT ANY DISCREPANCIES BETWEEN CEILING AND ELECTRICAL AND/OR MECHANICAL DRAWINGS TO THE ARCHITECT IMMEDIATELY.



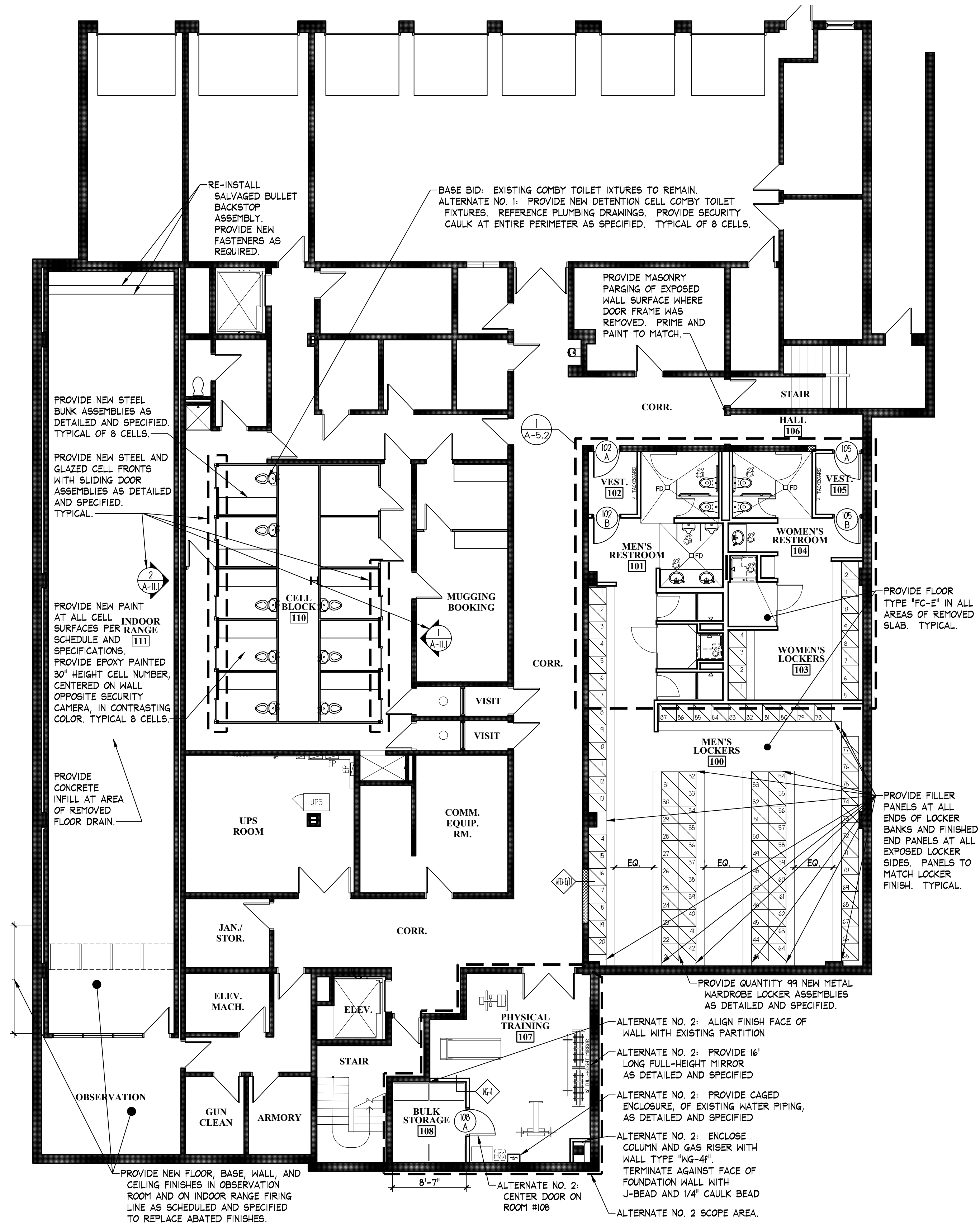
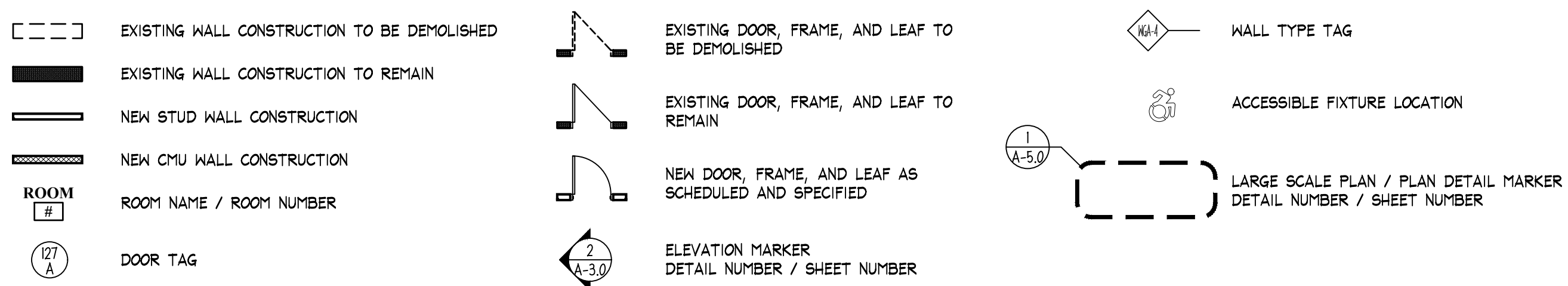
0 4' 8' 16'

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

2 NEW WORK OVERALL LOWER LEVEL REFLECTED CEILING PLAN

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

FLOOR PLAN LEGEND



0 4' 8' 16'

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

1 NEW WORK OVERALL LOWER LEVEL FLOOR PLAN

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

RFP 6320

INTERIOR RENOVATION TO THE

TRUMBULL POLICE
DEPARTMENT

TRUMBULL, CONNECTICUT

158 EDISON ROAD

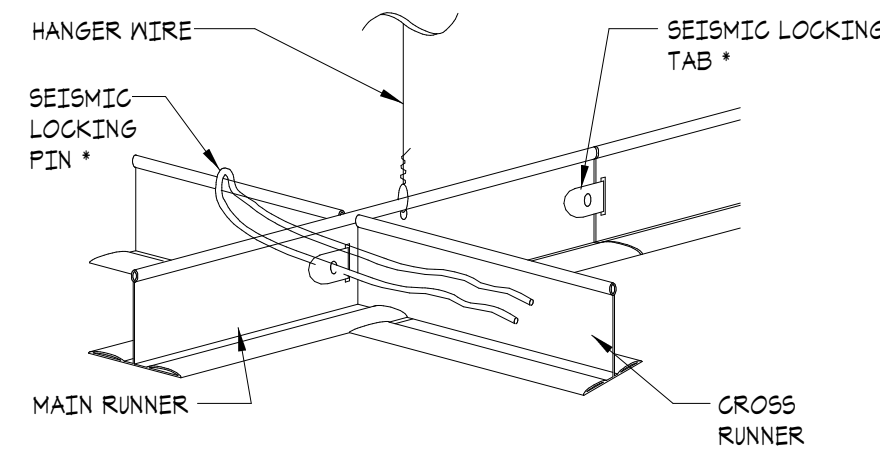
JHJH
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

NEW WORK
OVERALL
LOWER
LEVEL
PLANS

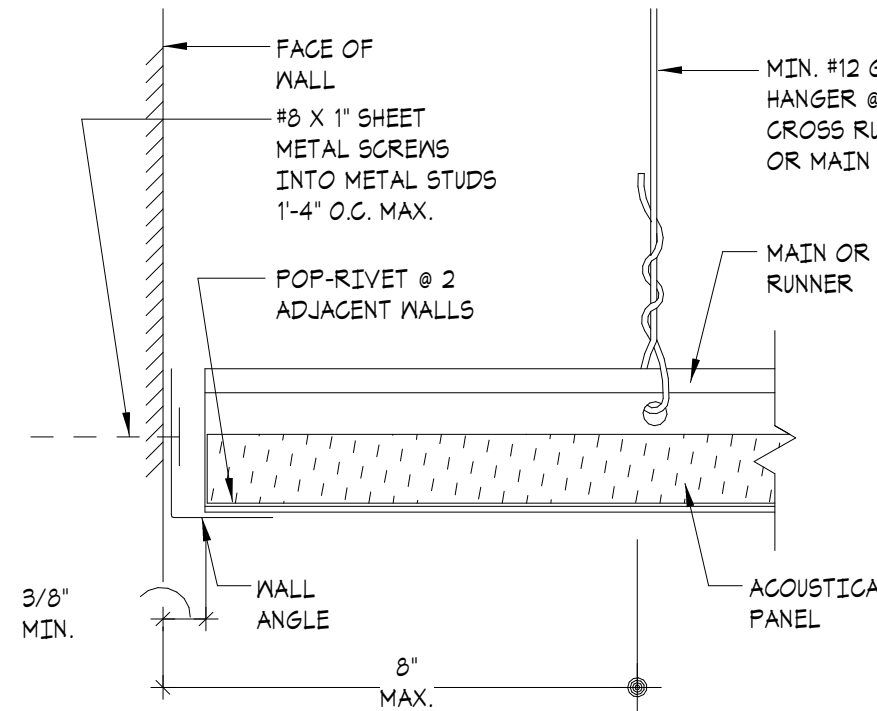
PROJ. NO. JH182B
SCALE As Noted
DATE NOVEMBER 8, 2018

DRAWING NO. A-1.1

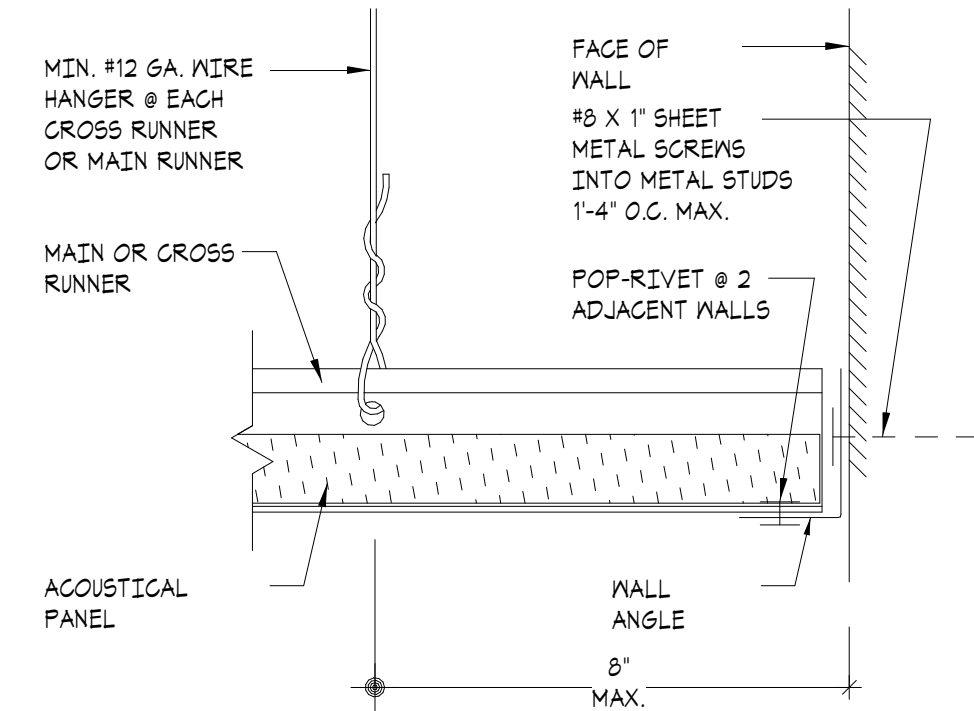


* SPLICES AND INTERSECTIONS OF RUNNERS SHALL BE FASTENED WITH MECHANICAL INTERLOCKING CONNECTORS SUCH AS POP RIVETS, SCREWS, PINS, PLATES, OR WITH BENT TABS, OR OTHER APPROVED CONNECTORS. DESIGN CONNECTORS FOR DESIGN LOAD (MIN. 60 LBS) OR ULTIMATE AXIAL TENSION OR COMPRESSION OF 2X DESIGN LOAD

4 SEISMIC CONNECTION DETAIL
1 1/2" = 1'-0"

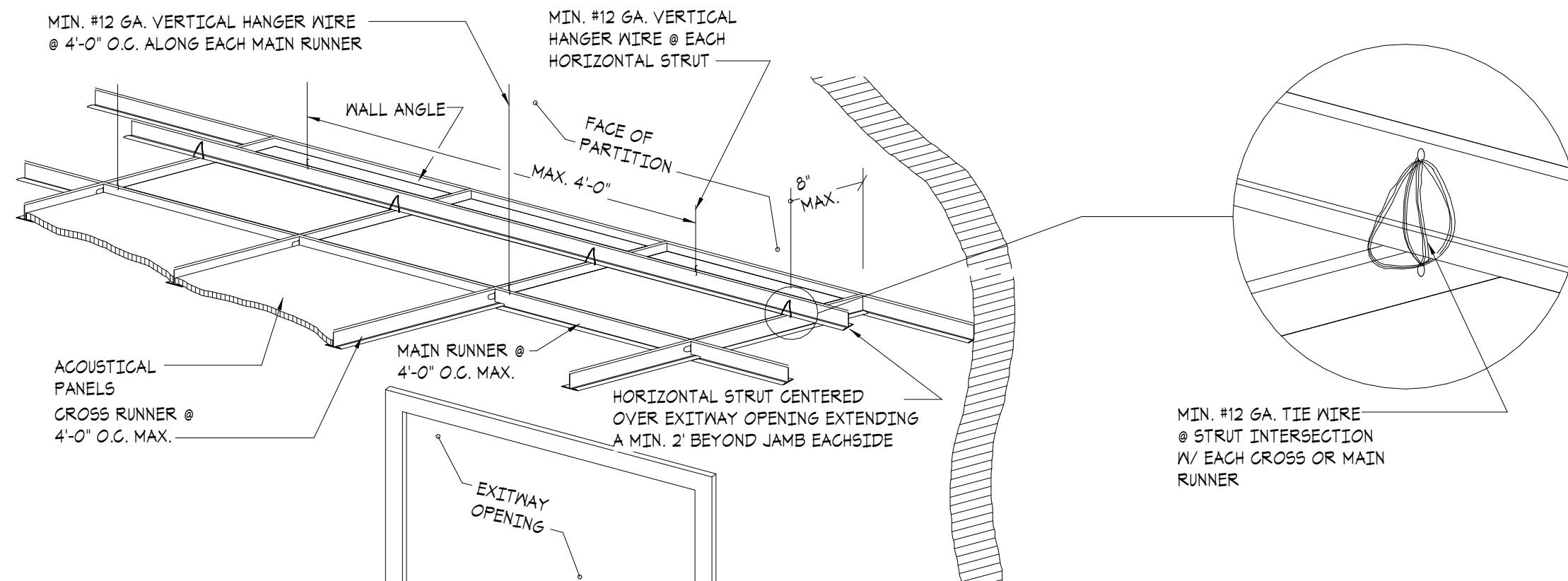


EXPANSION AT OPPOSITE WALLS



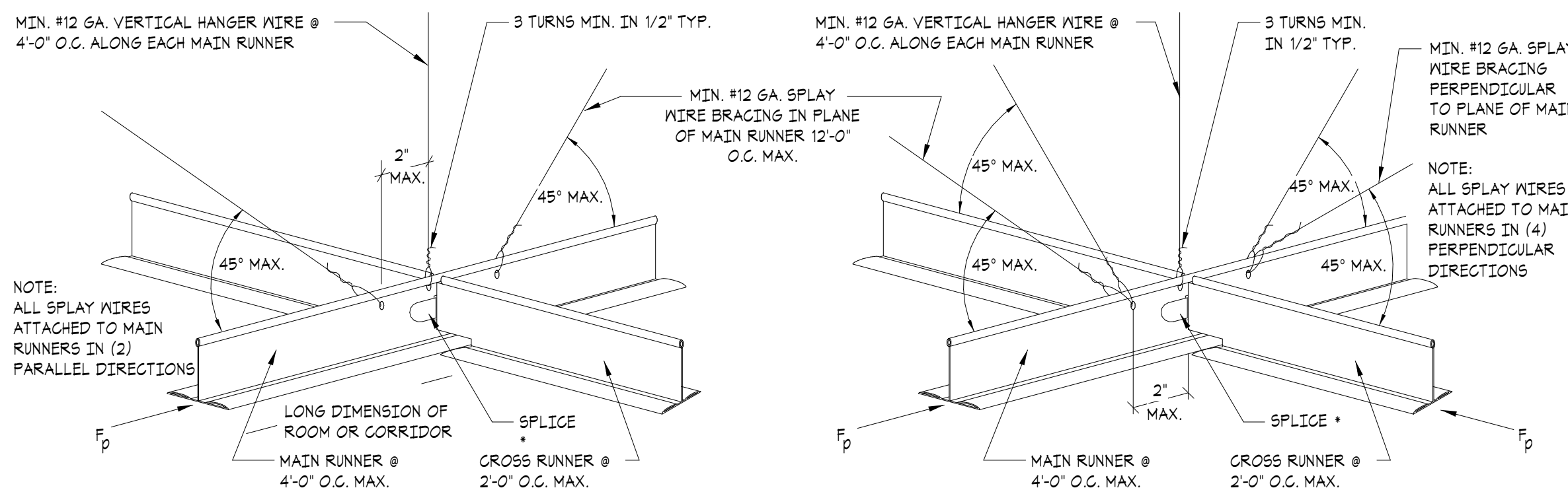
ATTACHED AT STARTER AND ONE ADJACENT WALL

3 SEISMIC WALL ANGLE DETAILS
1 1/2" = 1'-0"



NOTE: THIS STRUT IS NOT REQUIRED @ EXITS OCCURRING IN STARTER WALLS

2 SEISMIC STRUT AT EXIT WAYS DETAIL
1 1/2" = 1'-0"



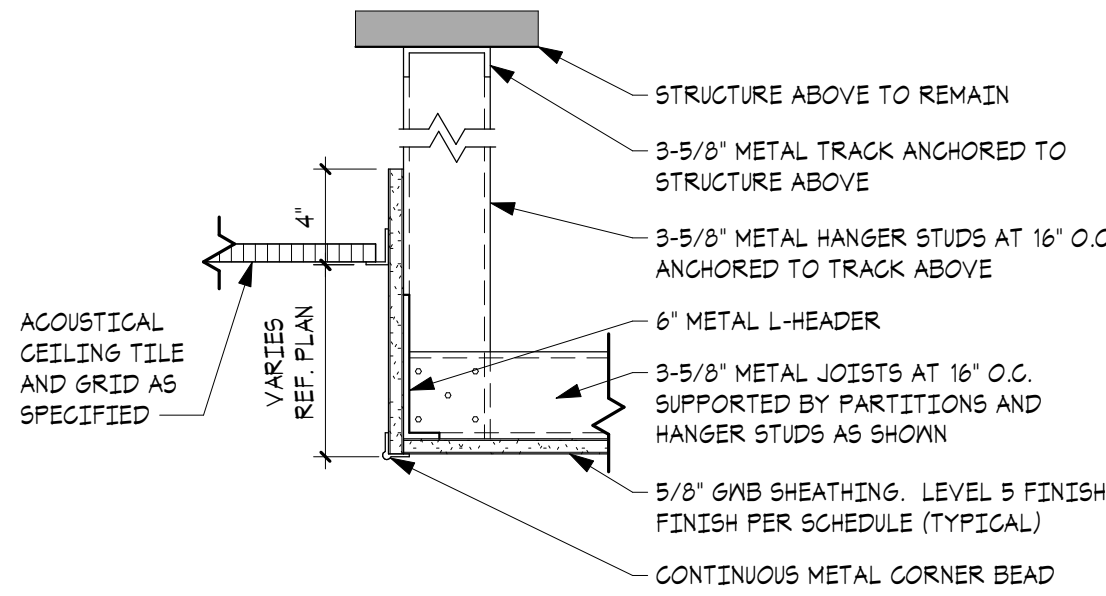
SPACES GREATER THAN 400 S.F.
ONE DIRECTION EXCEEDS 20'-0"

SPACES GREATER THAN 400 S.F.
TWO DIRECTIONS EXCEED 20'-0"

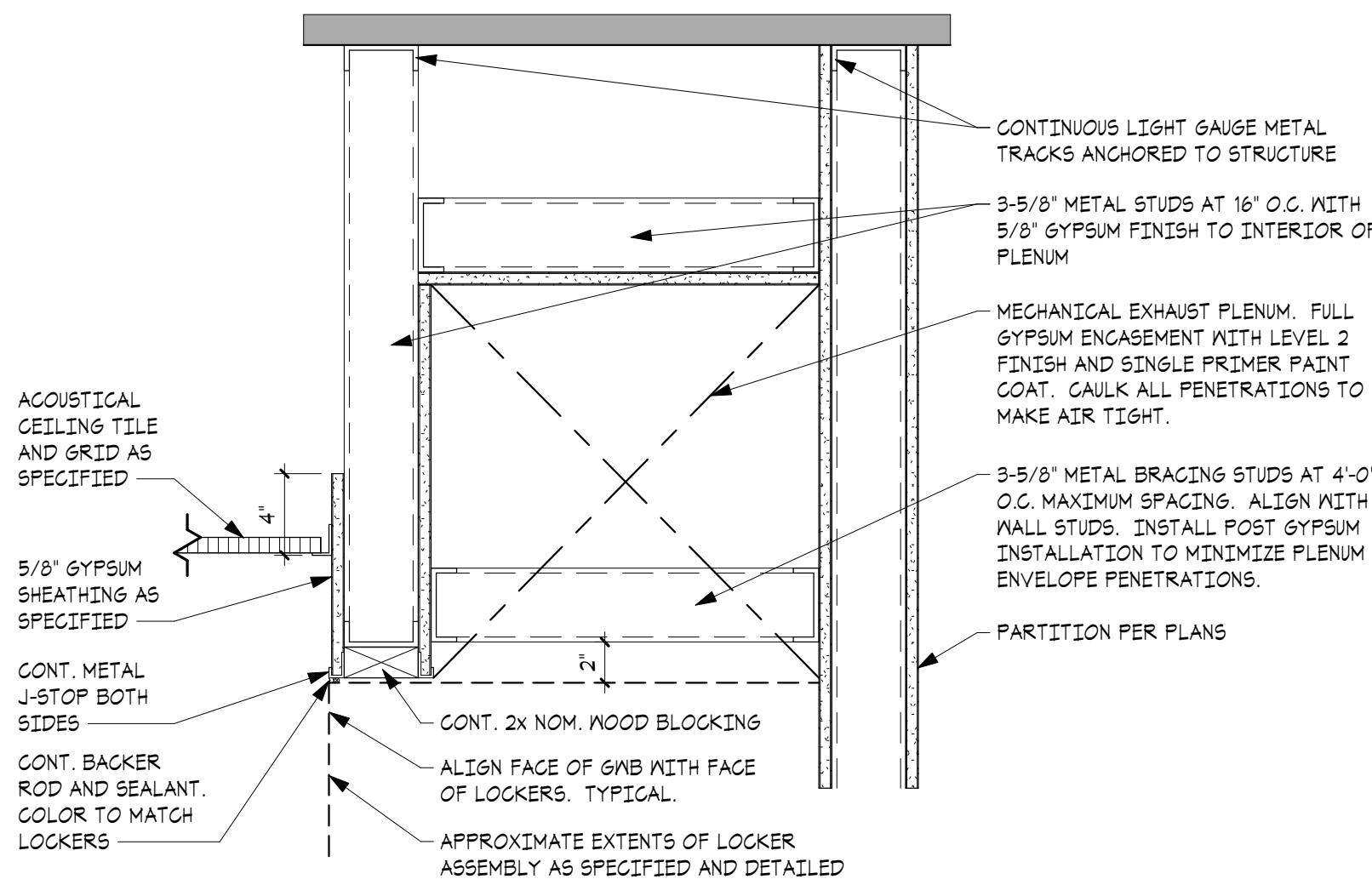
*REFER TO SEISMIC CONNECTION DETAIL

NOTE: CEILINGS OF 400 S.F. OR LESS, SURROUNDED BY WALLS THAT CONNECT DIRECTLY TO STRUCTURE ABOVE, ARE EXCLUDED FROM THESE DETAILS.

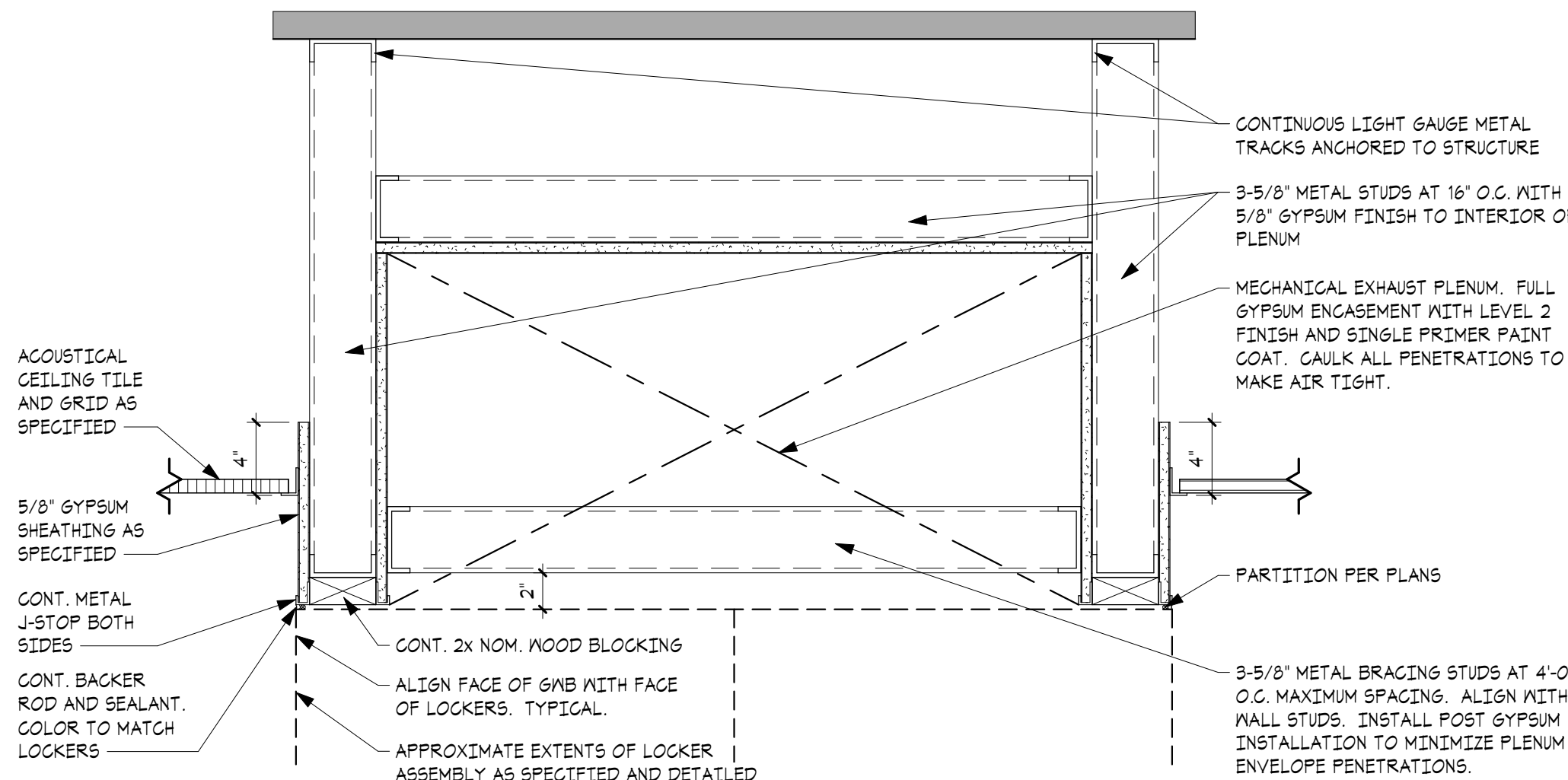
1 SEISMIC SPLAY BRACING DETAILS
1 1/2" = 1'-0"



7 CEILING - GYPSUM SOFFIT SECTION
1 1/2" = 1'-0"



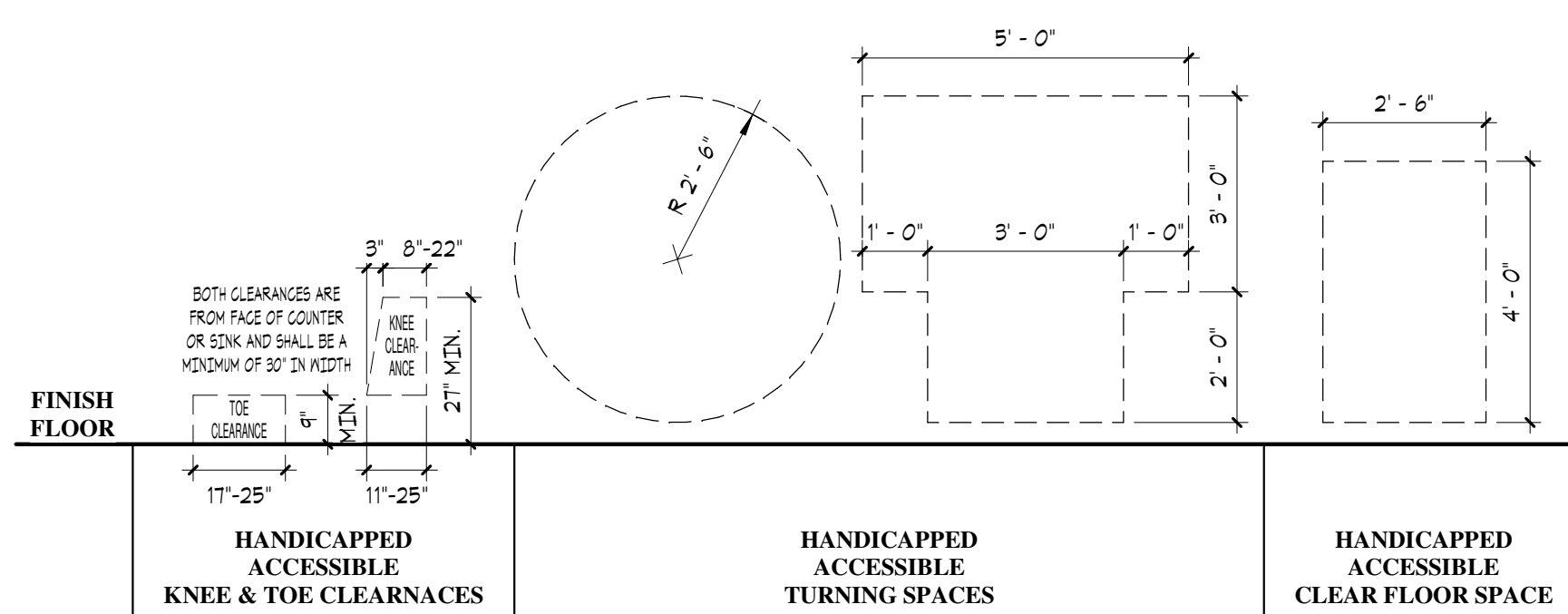
6 CEILING - LOCKER PLENUM SECTION
1 1/2" = 1'-0"

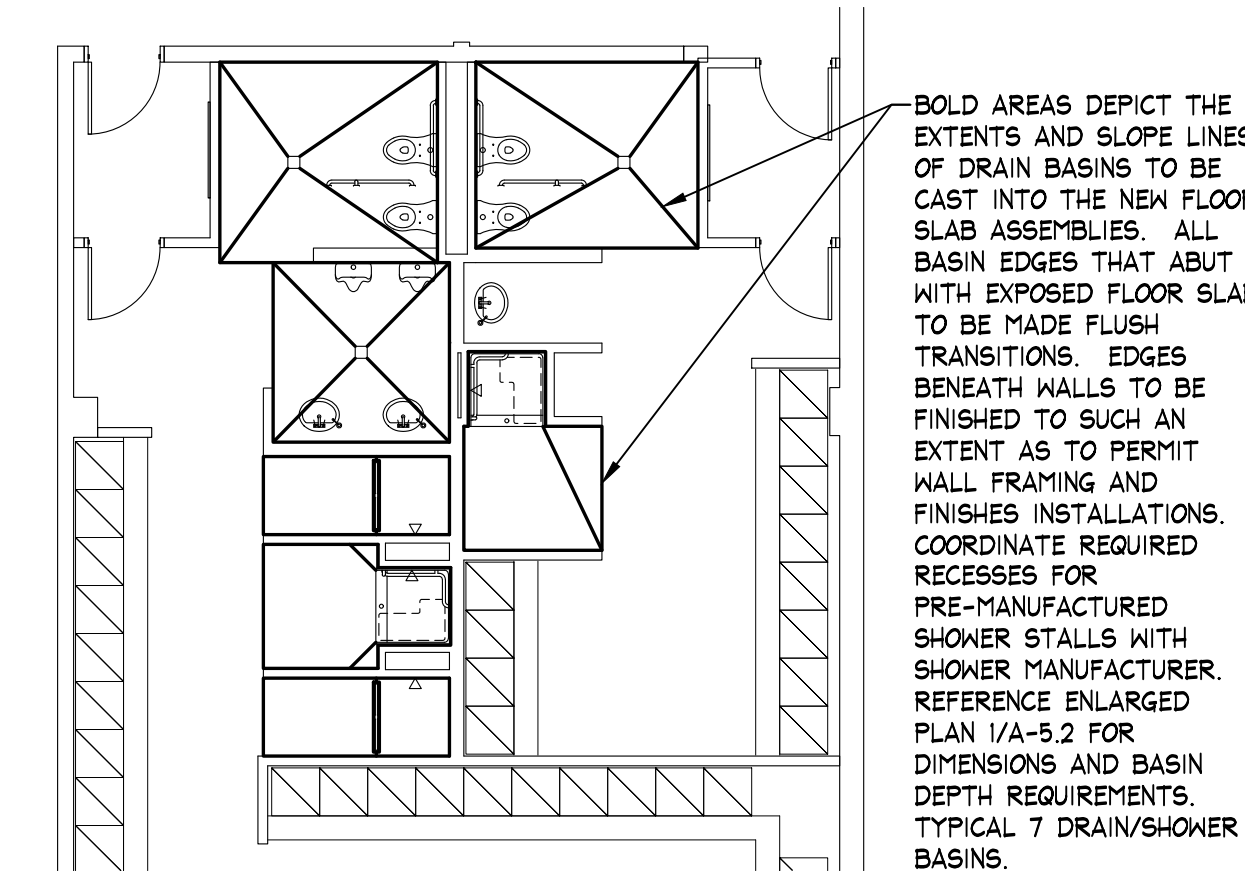
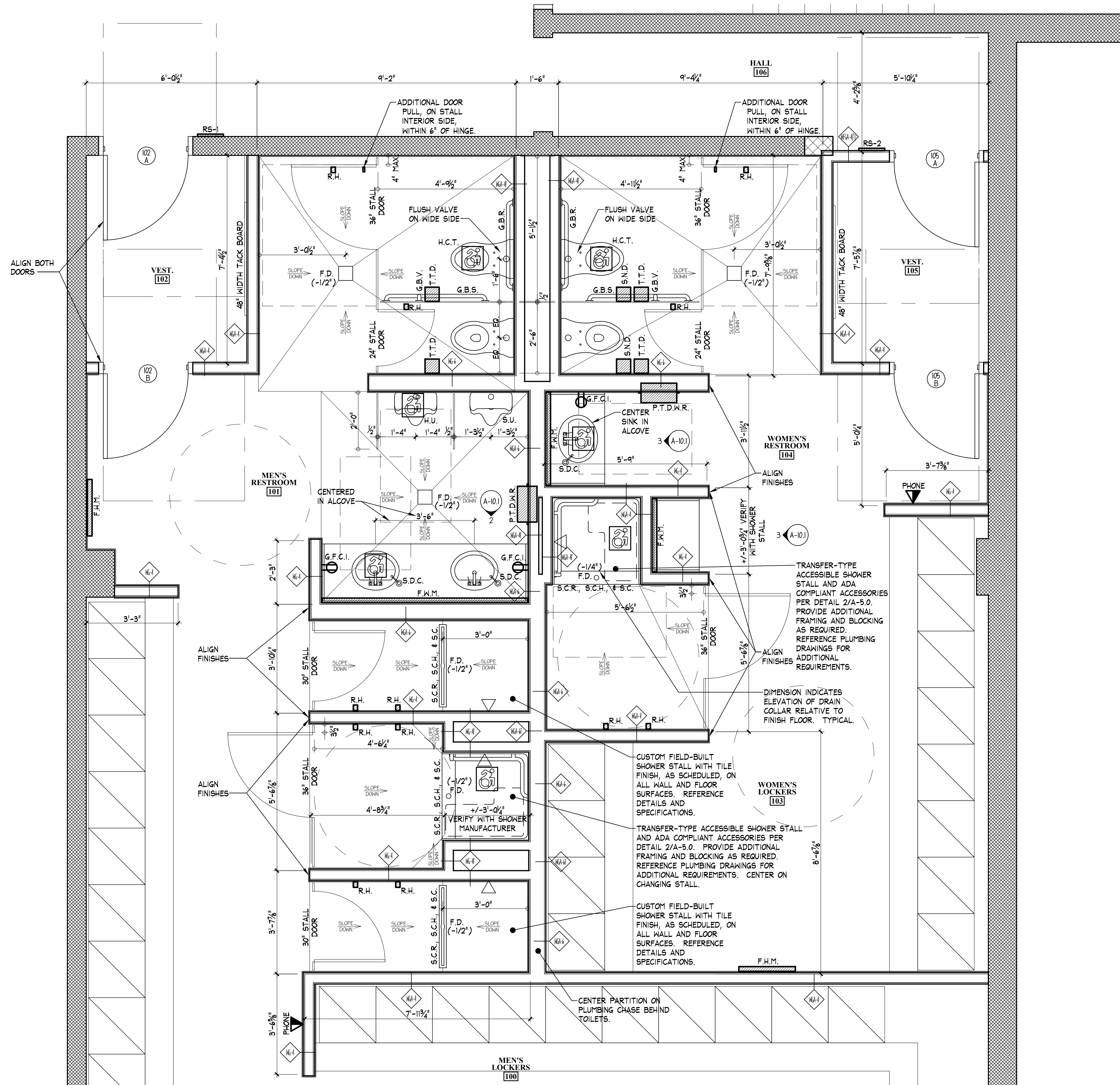


5 CEILING - BACK-TO-BACK LOCKER PLENUM SECTION
1 1/2" = 1'-0"



- # 1 TYPICAL ACCESSIBILITY REQUIREMENTS AND MOUNTING HEIGHTS





2 **WARPED AND DEPRESSED SLAB PLAN**
SCALE: 1/8" = 1'-0"

SYMBOLS LEGEND

CORR. 219	ROOM NAME TAG
W-4	WALL TAG
100 A	DOOR TAG
A-101 H	INTERIOR ELEVATION TAG
20	ACCESSIBLE FIXTURE TAG
TOILET ACCESSORY AS IDENTIFIED (REFERENCE SPECIFICATIONS)	
ELECTRICAL FIXTURE INDICATORS (REFERENCE ELECTRICAL DRAWINGS)	
FACE OF FINISH	DIMENSIONS TO FACE OF FINISH
FACE OF STUD	DIMENSIONS TO FACE OF STUD

ABBREVIATIONS

C.G.	CORNER GUARD
F.D.	FLOOR DRAIN (SEE PLBG. DWGS.)
F.H.M.	FULL-HEIGHT MIRROR
F.W.M.	FULL-WIDTH MIRROR
G.B.R.	GRAB BAR - REAR WALL
G.B.S.	GRAB BAR - SIDE WALL
G.F.C.I.	GROUND-FAULT CIRCUIT INTERRUPTOR (SEE ELEC. DWGS.)
H.C.T.	HANDICAPPED ACCESSIBLE TOILET (SEE PLBG. DWGS.)
H.U.	HANDICAPPED ACCESSIBLE URINAL (SEE PLBG. DWGS.)
L.A.V.	HANDICAPPED ACCESSIBLE LAVATORY (SEE PLBG. DWGS.)
M.W.F.	MIRROR WITH S.S. FRAME
P.C.	ADA COMPLIANT PIPE COVERS (SEE PLBG. DWGS.)
P.T.D.	FULLY RECESSED PAPER TOWEL DISPENSER AND WASTE RECEPTACLE
P.T.D.W.R.	SEMI-RECESSED PAPER TOWEL DISPENSER AND WASTE RECEPTACLE
R.H.	ROBE HOOK
RS-#	ROOM SIGNAGE (SEE DRAWING A-6.2)
S.C.	SHOWER CURTAIN
S.C.H.	SHOWER CURTAIN HOOKS
S.C.R.	SHOWER CURTAIN ROD
S.D.	SOAP DISPENSER (WALL-MOUNTED)
S.D.C.	SOAP DISPENSER (COUNTER-MOUNTED)
S.N.D.	SANITARY NAPKIN DISPOSAL
S.T.	STANDARD TOILET (SEE PLBG. DWGS.)
S.U.	STANDARD URINAL (SEE PLBG. DWGS.)
T.T.D.	TOILET TISSUE DISPENSER

GENERAL NOTES

- REFER TO PLUMBING DRAWINGS FOR ADDITIONAL FIXTURE INFORMATION.
- REFERENCE FINISH DRAWINGS FOR WALL FINISHES THAT MAY IMPACT ROUGH-IN LOCATIONS FROM DIMENSIONS SHOWN.
- REFERENCE SPECIFICATIONS FOR ADDITIONAL TOILET ACCESSORY INFORMATION.



1 **LARGE SCALE NEW WORK RESTROOM PLANS**
SCALE: 1/2" = 1'-0"

RFP 6320

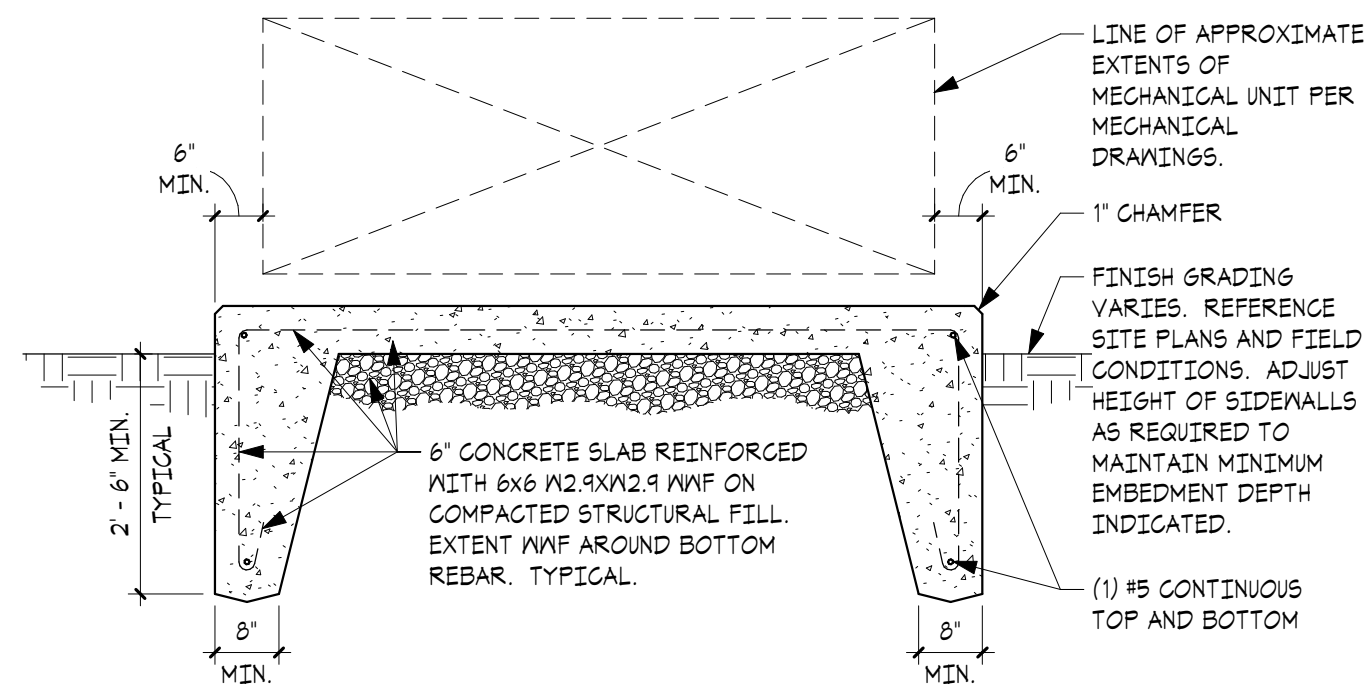
INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
158 EDISON ROAD
TRUMBULL, CONNECTICUT

J J H H
JACUNSKI HUMES
ARCHITECTS, LLC

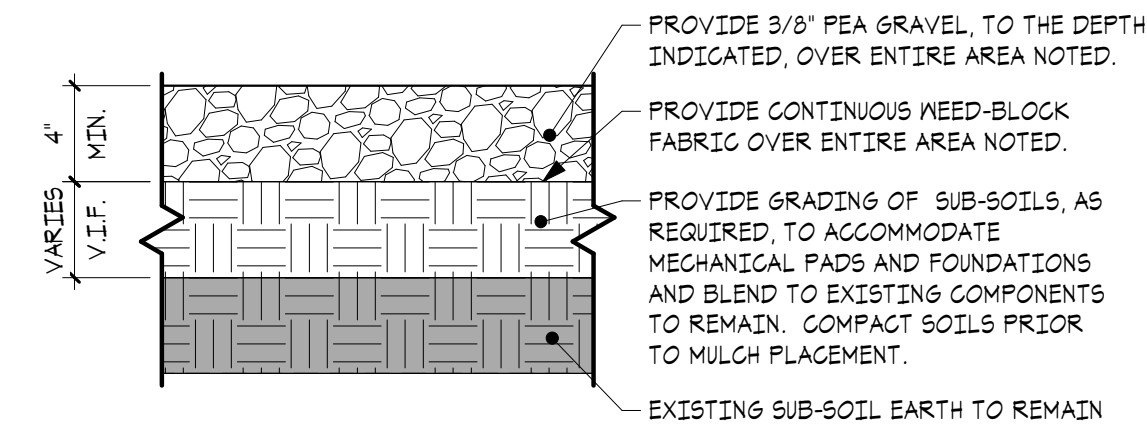
15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

**LARGE SCALE
NEW WORK
RESTROOM
PLANS**

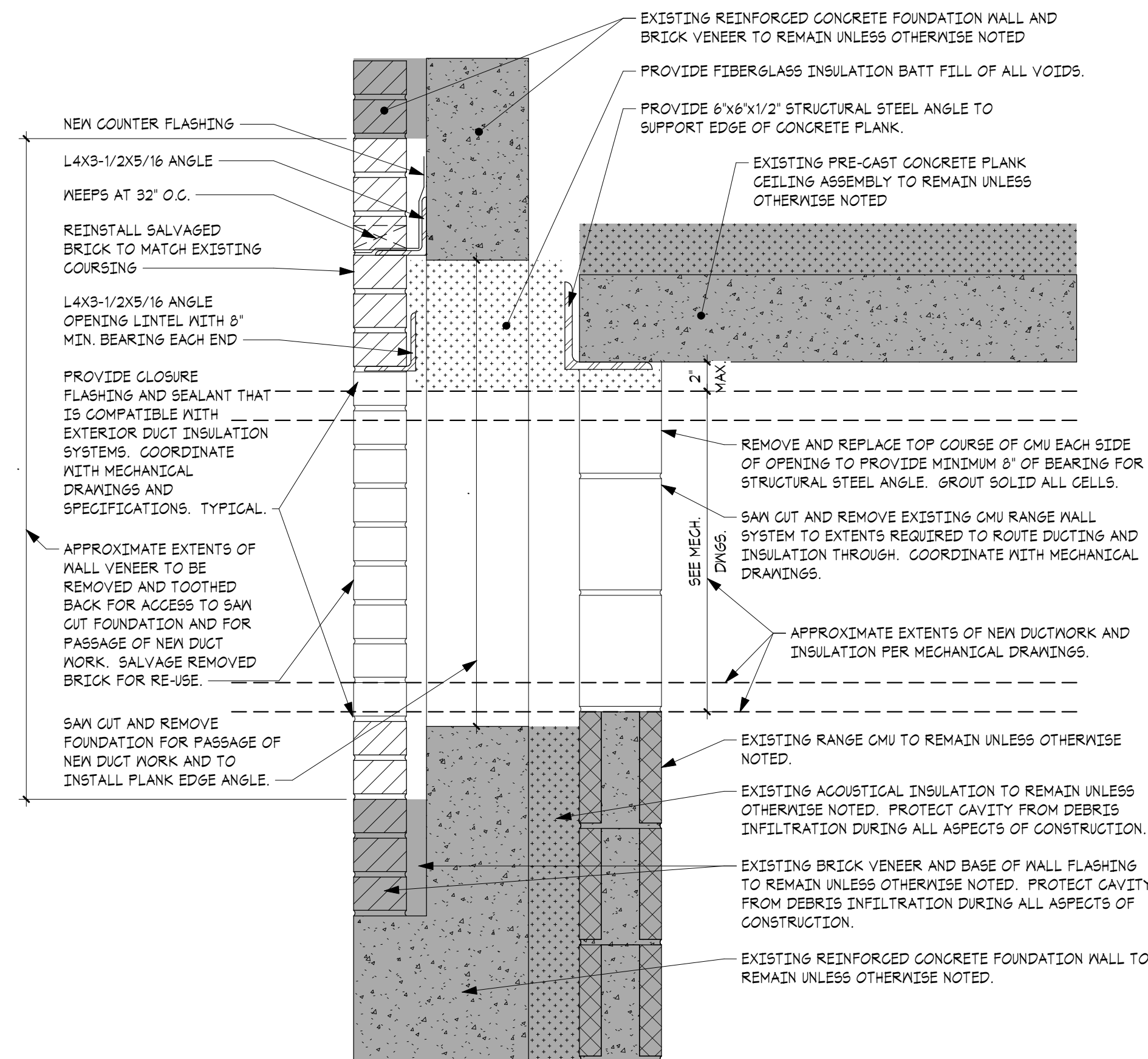
PROJ. NO.	JH182B	DRAWING NO.	
SCALE	As Noted		A-5.2
DATE	NOVEMBER 8, 2018		



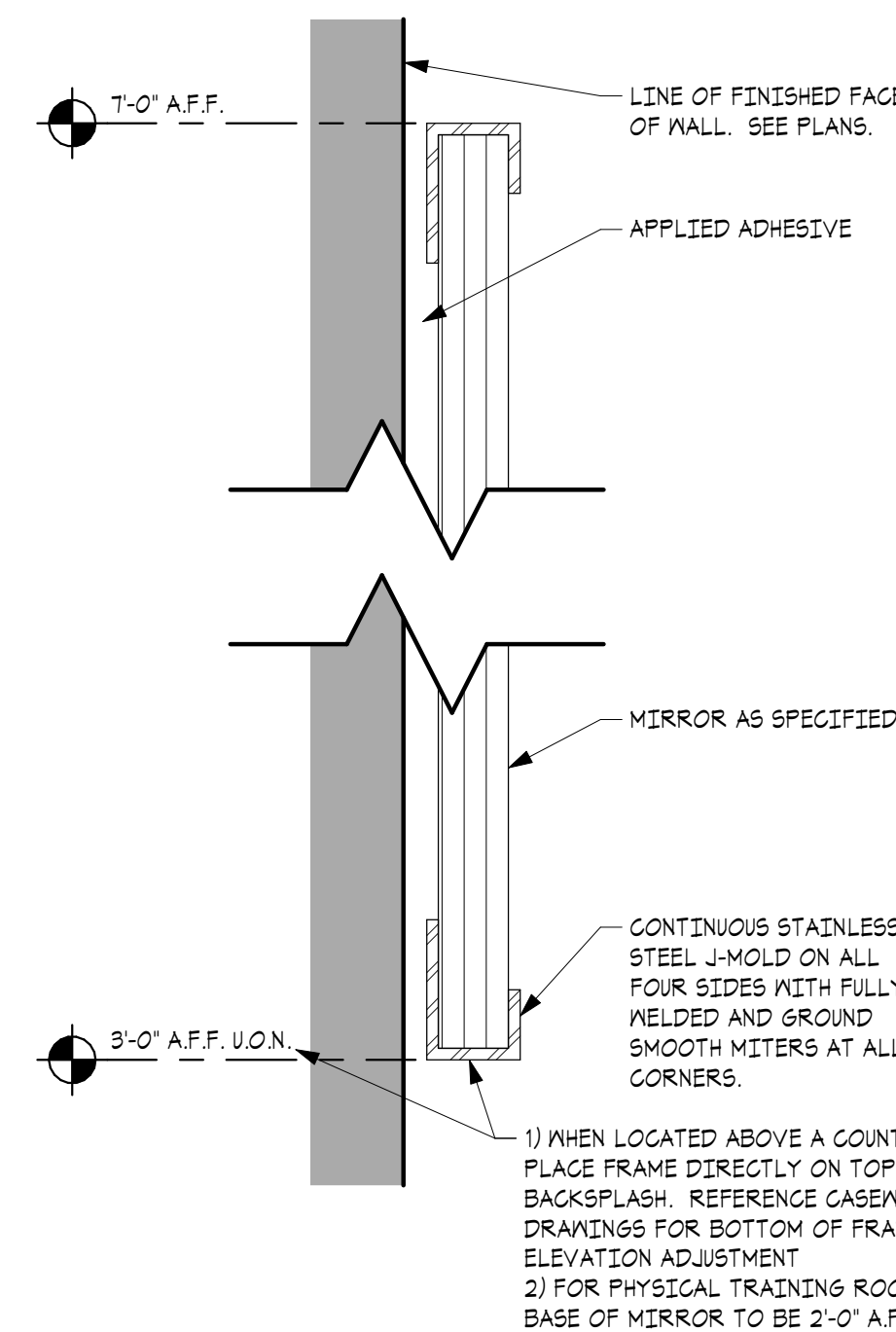
8 SITE - MECHANICAL SUPPORT PAD DETAIL
1/2" = 1'-0"



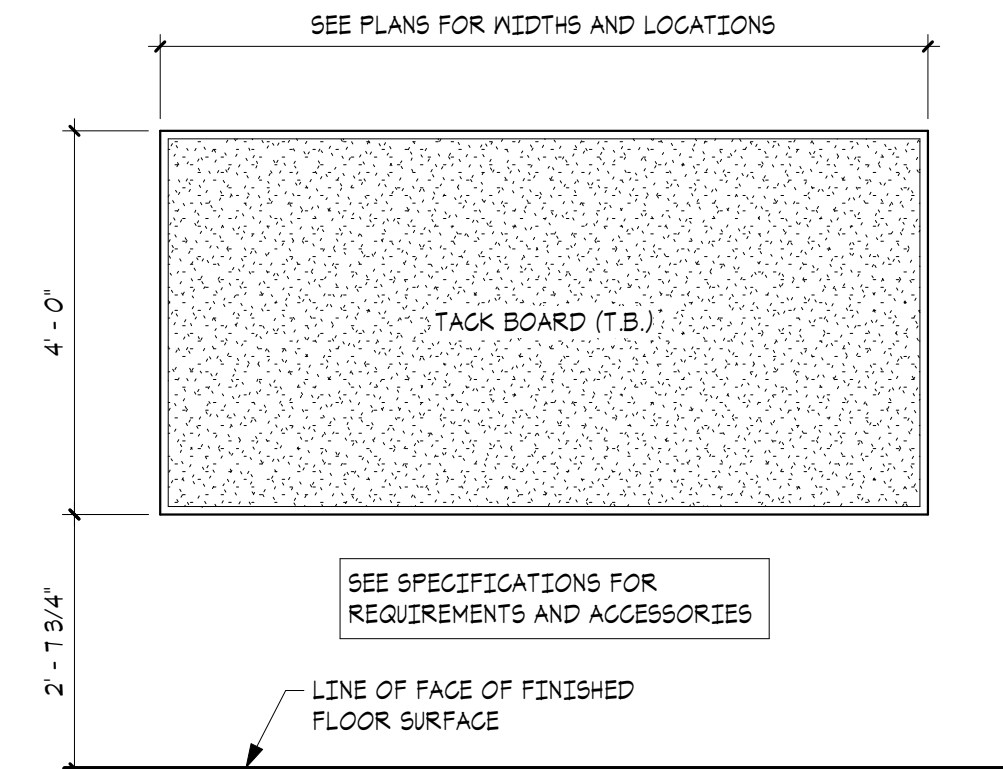
5 LANDSCAPE DETAIL AROUND GROUND-MOUNTED MECHANICAL EQUIPMENT
1 1/2" = 1'-0"



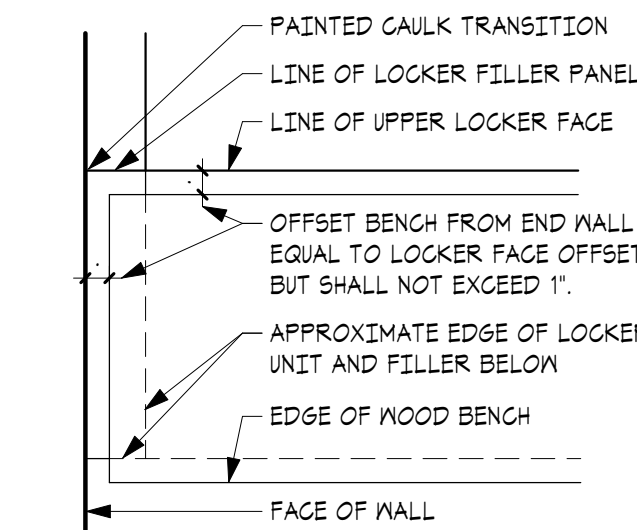
7 DETAIL - NEW EXTERIOR WALL RANGE HVAC OPENING LINTEL
1 1/2" = 1'-0"



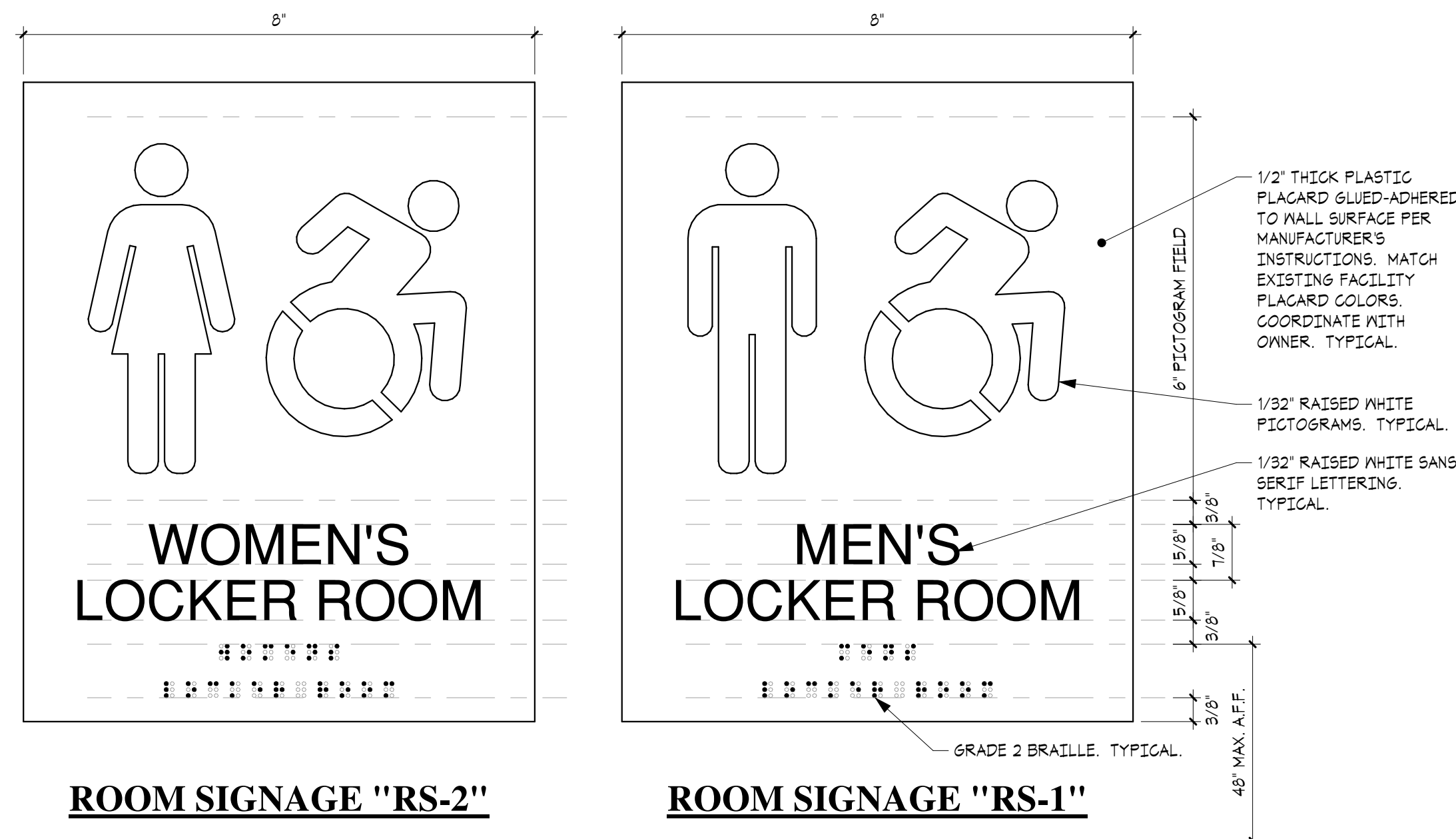
3 DETAIL - FULL WIDTH MIRROR SECTION
6" = 1'-0"



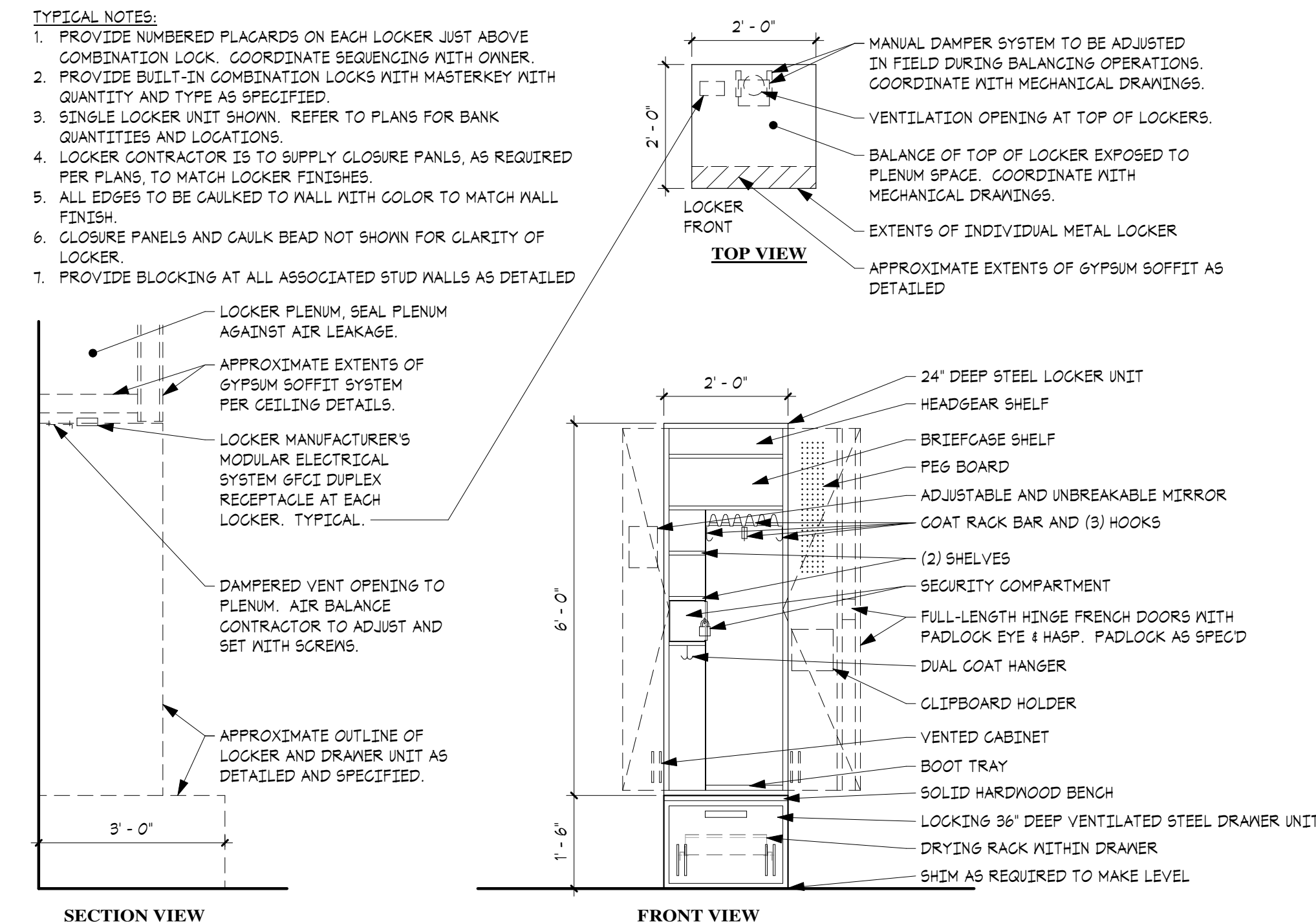
4 DETAIL - TACK BOARD ELEVATION
1/2" = 1'-0"



2 LOCKERS - WARDROBE BANK END PLAN DETAIL
1 1/2" = 1'-0"



6 SIGNAGE - LOCKER ROOMS
6" = 1'-0"



1 LOCKERS - WARDROBE (24" WIDTH)
1/2" = 1'-0"

RFP 6320

INTERIOR RENOVATION TO THE

TRUMBULL POLICE
DEPARTMENT

TRUMBULL, CONNECTICUT

158 EDISON ROAD

JJH
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

MISC.
DETAILS

PROJ. NO. JH1826
SCALE As indicated
DATE NOVEMBER 8, 2018

DRAWING NO.

A-6.1

RFP 6320

INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
158 EDISON ROAD
TRUMBULL, CONNECTICUT

JJH
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

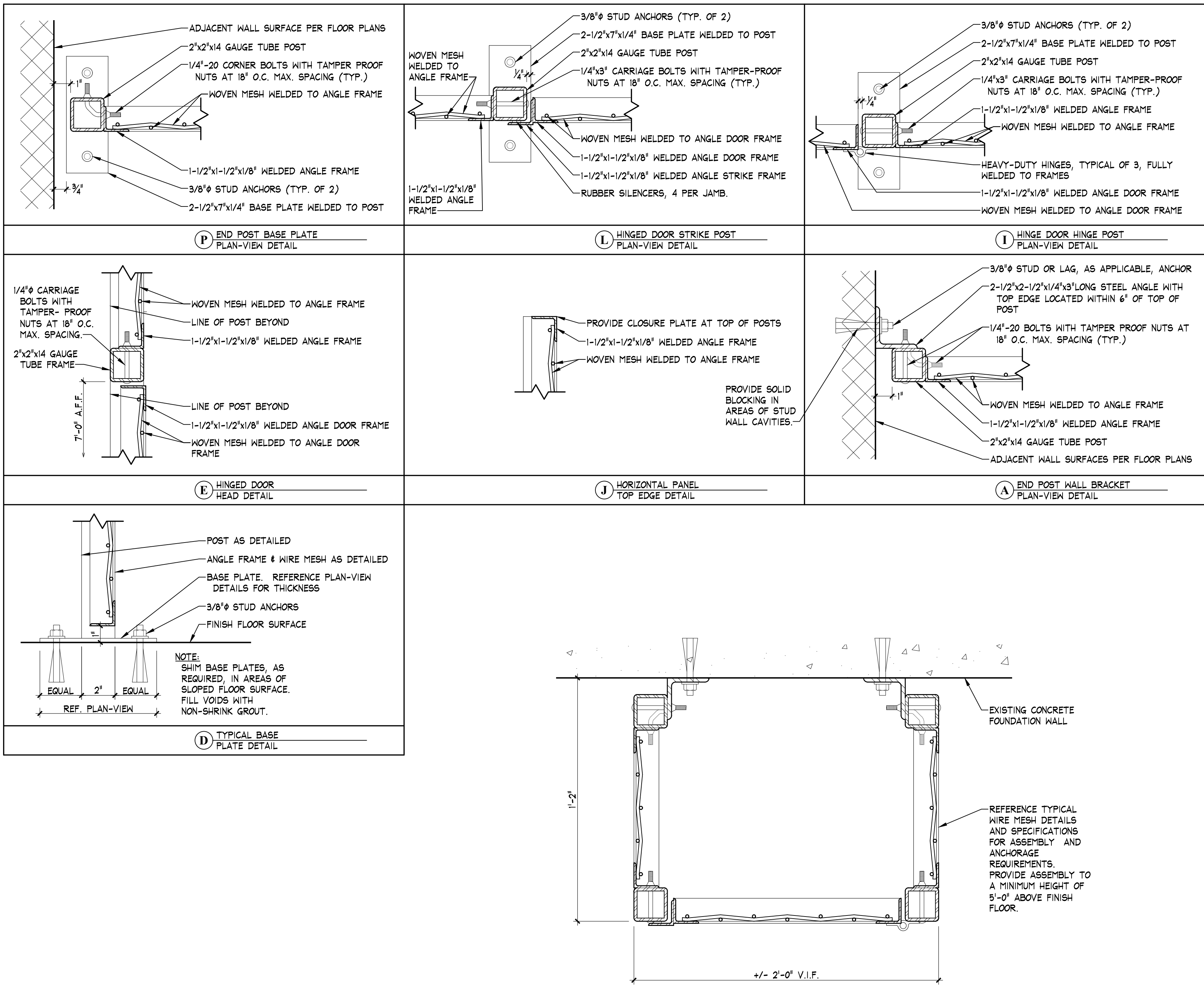
**MISC.
DETAILS**

PROJ. NO.
JH1828

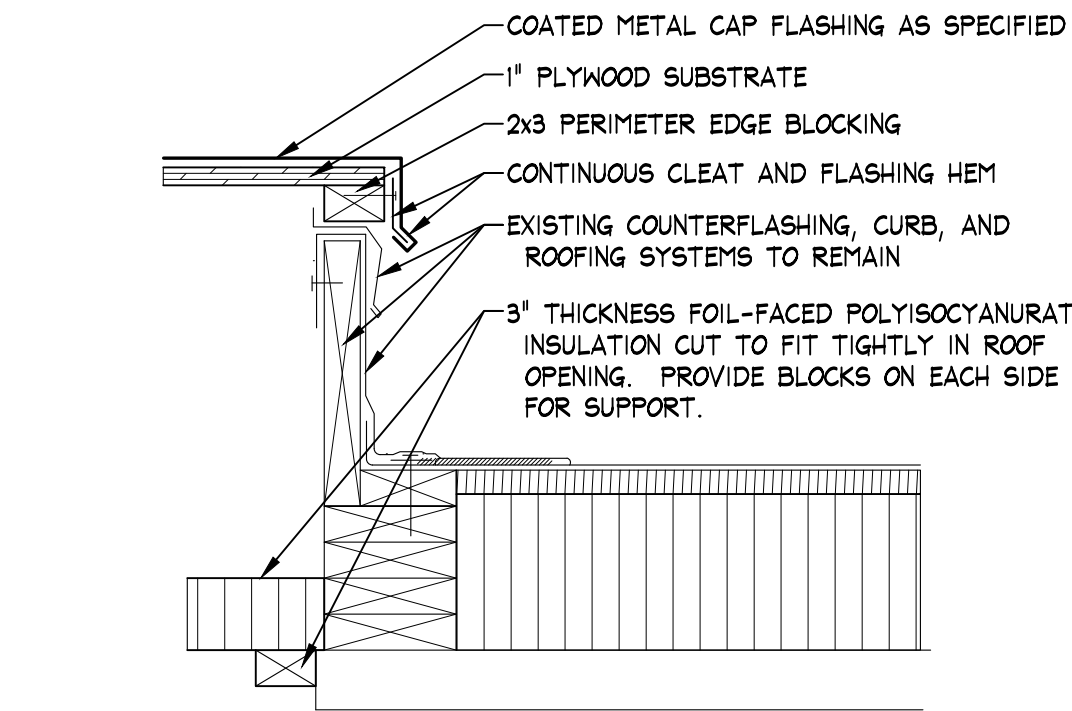
SCALE
As Noted

DATE
NOVEMBER 8, 2018

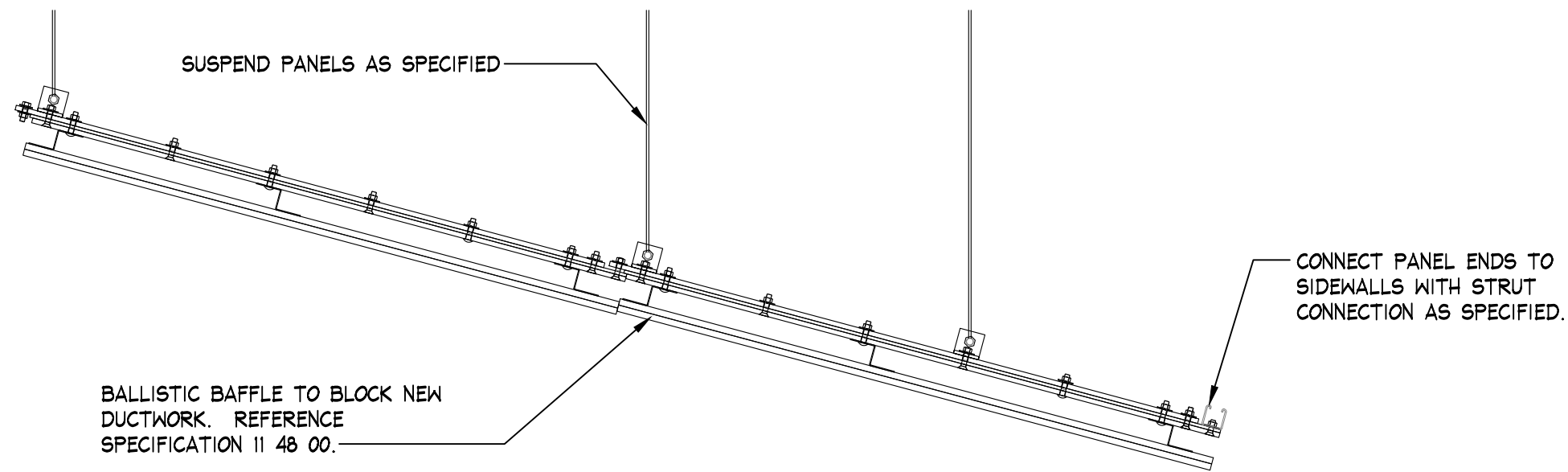
A-6.2




3 ALTERNATE NO. 2: ENLARGED DETAILS AT WATER PIPING CAGE
SCALE: 3" = 1'-0"



2 SECTION DETAIL AT INSULATED ROOF CURB CAP
SCALE: 1-1/2" = 1'-0"



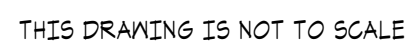
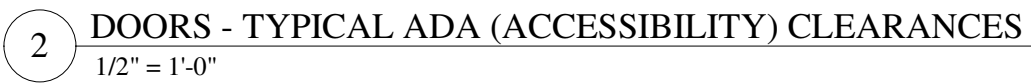
1 SECTION DETAIL AT FIRING RANGE BAFFLE (TYPICAL OF 1)
SCALE: 1" = 1'-0"



JH
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

PROJ. NO. JH1828	DRAWING NO.
SCALE As indicated	A-9.1
DATE NOVEMBER 8, 2018	



The diagram illustrates a cross-section of a door threshold assembly. Key components and dimensions include:

- ALIGN EDGE OF THRESHOLD WITH DOOR LEAF FACE:** Indicated by a dashed line and an arrow pointing to the top edge of the threshold.
- COORDINATE ORIENTATION WITH PLAN:** Indicated by a dashed line and an arrow pointing to the side of the threshold.
- DOOR LEAF AS SCHEDULED:** Indicated by an arrow pointing to the door leaf above the threshold.
- MARBLE THRESHOLD SET IN FULL MORTAR BED, TYPICAL:** Indicated by an arrow pointing to the marble threshold.
- STANDARD BEVEL AT CERAMIC TILE, RUBBER TILE, CUSHION BACKED CARPETING, AND ADJUST FINISHES OF 1/4" INSTALLED THICKNESS OR GREATER, TYPICAL:** Indicated by an arrow pointing to the bevel on the threshold.
- 1/2" MAX.:** Dimension for the height of the threshold.
- 3/4" U.O.N.:** Dimension for the height of the threshold.
- 3/8":** Dimension for the height of the threshold.
- 13/8":** Dimension for the width of the threshold.
- V.I.F.:** Dimension for the width of the threshold.
- 1/4":** Dimension for the width of the threshold.
- HOLLYWOOD BEVEL AT RESILIENT FLOORS, CARPETS, EPOXY, PAINTED, UNFINISHED FLOORS, AND ANY FINISHES OF LESS THAN 1/4" INSTALLED THICKNESS. TYPICAL:** Indicated by an arrow pointing to the bevel on the threshold.
- VERIFY DEPTH WITH FRAME THICKNESS AND PROVIDED CLOSERS AVAILABLE WIDTH:** Indicated by an arrow pointing to the bottom of the threshold.

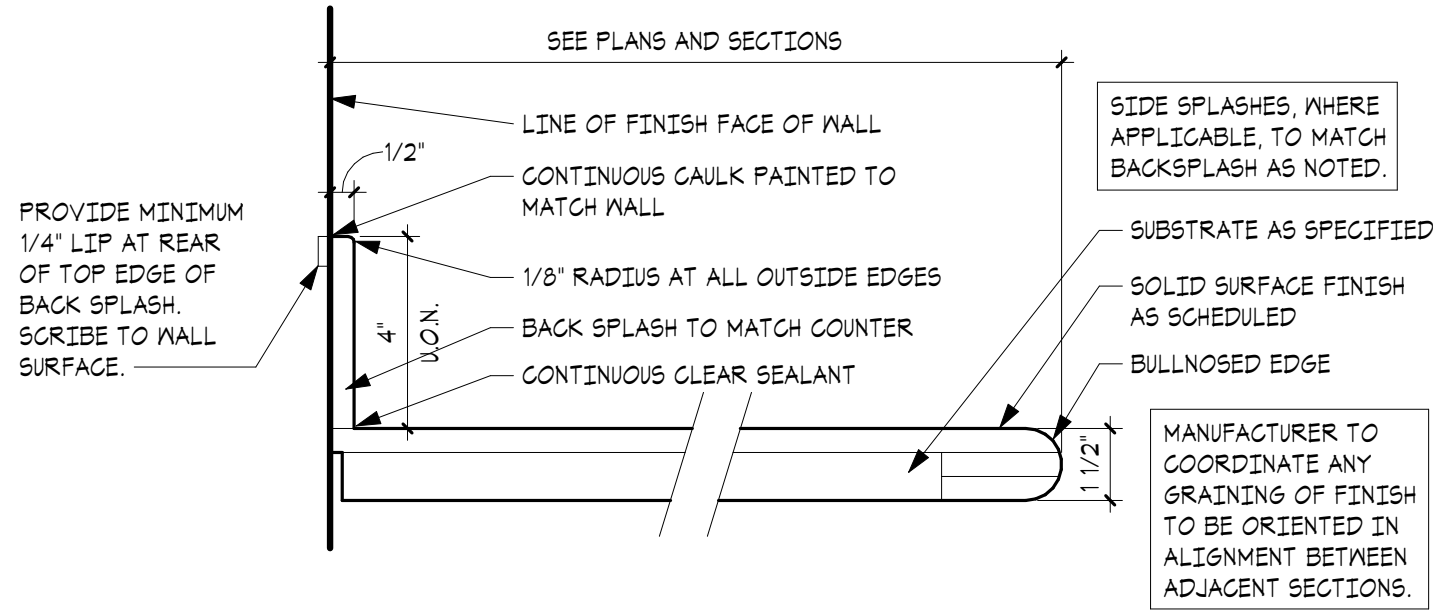
NOTE: CONTRACTOR IS TO VERIFY ADJACENT FLOORING CONDITIONS AT EACH MARBLE THRESHOLD AND COORDINATE REQUIRED BEVEL TYPES AND ORIENTATIONS. ALTERNATING EDGES DEPICTED ONLY FOR CLARITY OF ANTICIPATED CONDITIONS.

SCALE: 6" = 1'-0"

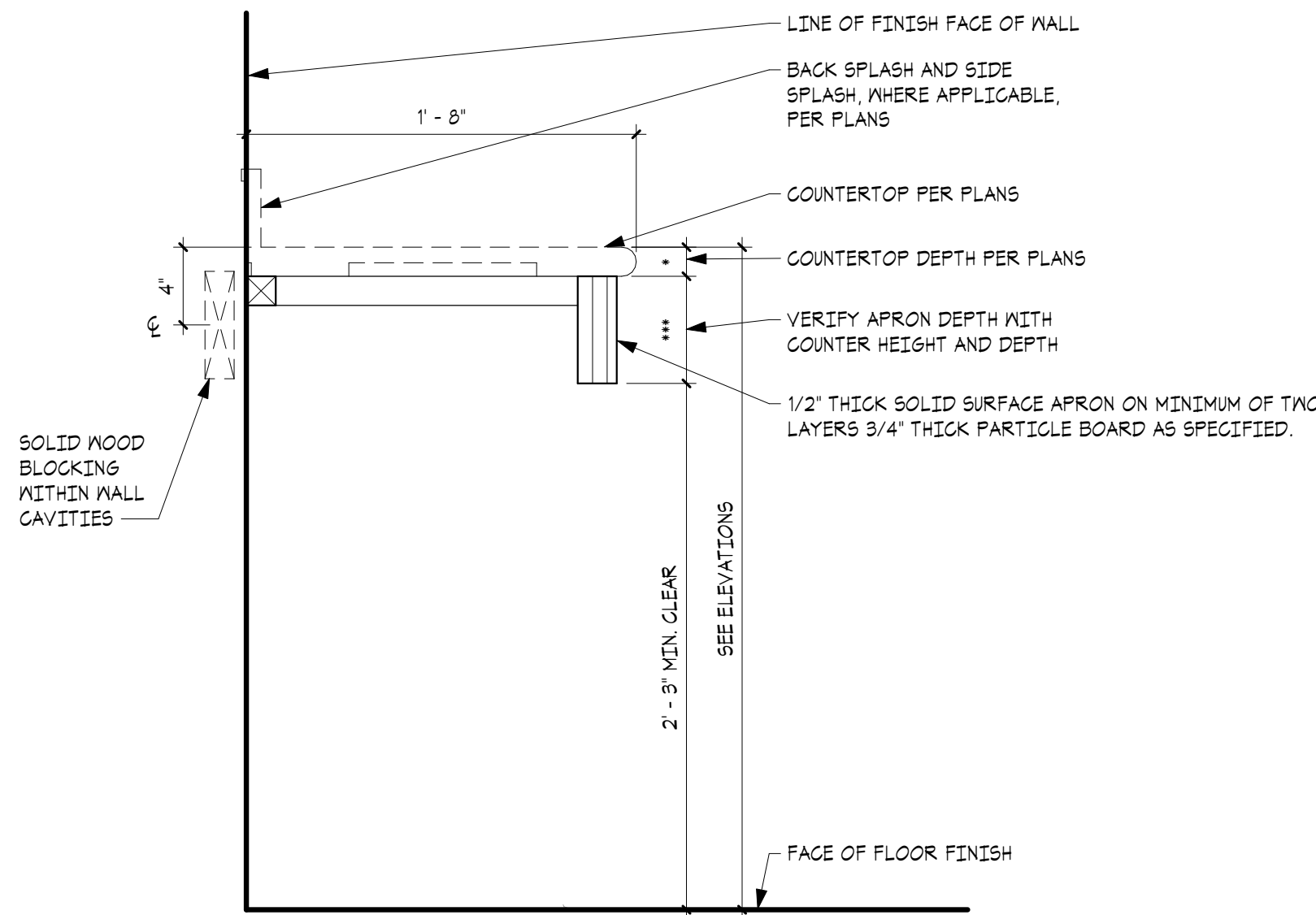
THIS DRAWING IS NOT TO SCALE

J2



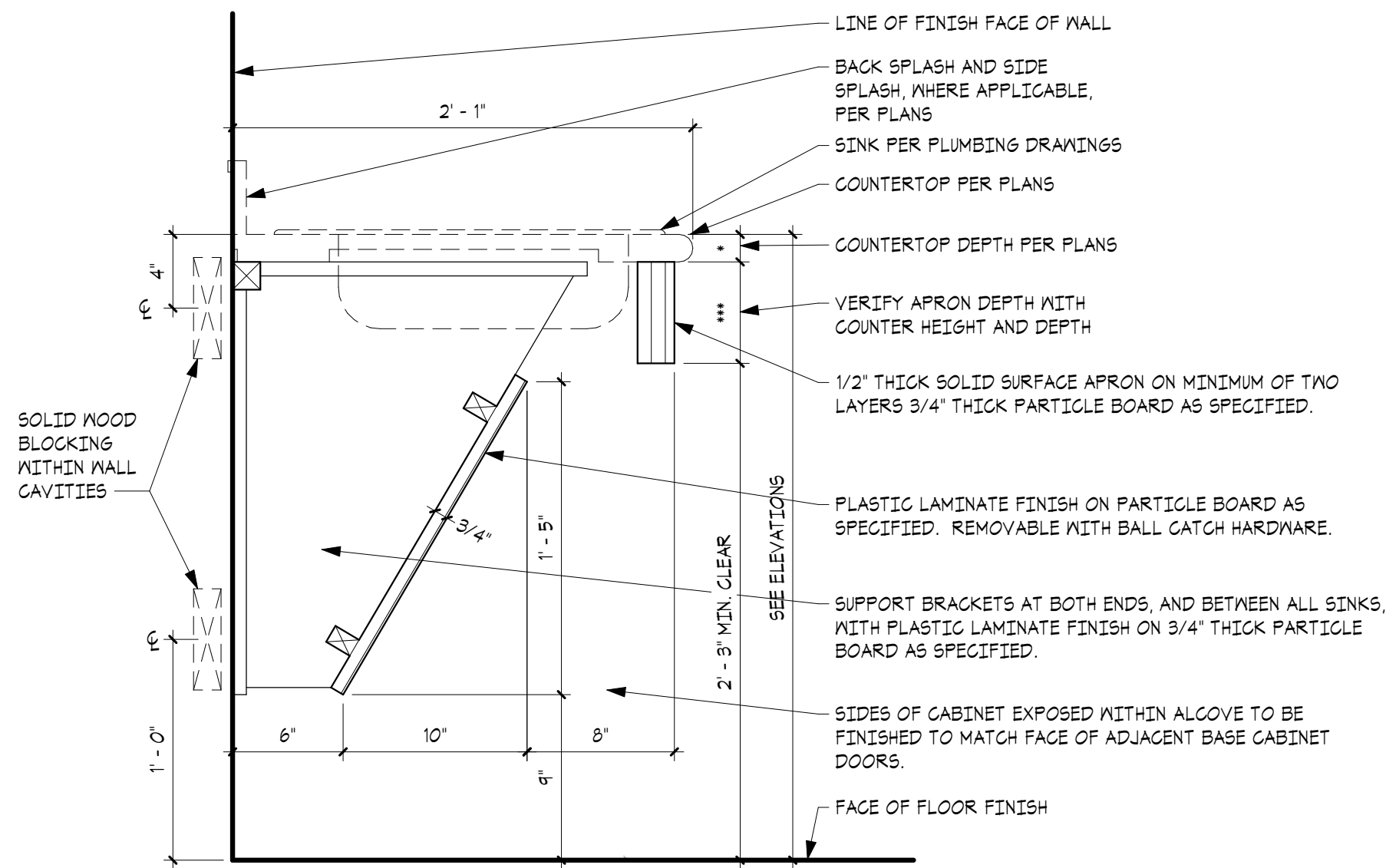


COUNTER SECTION "C-SSb"



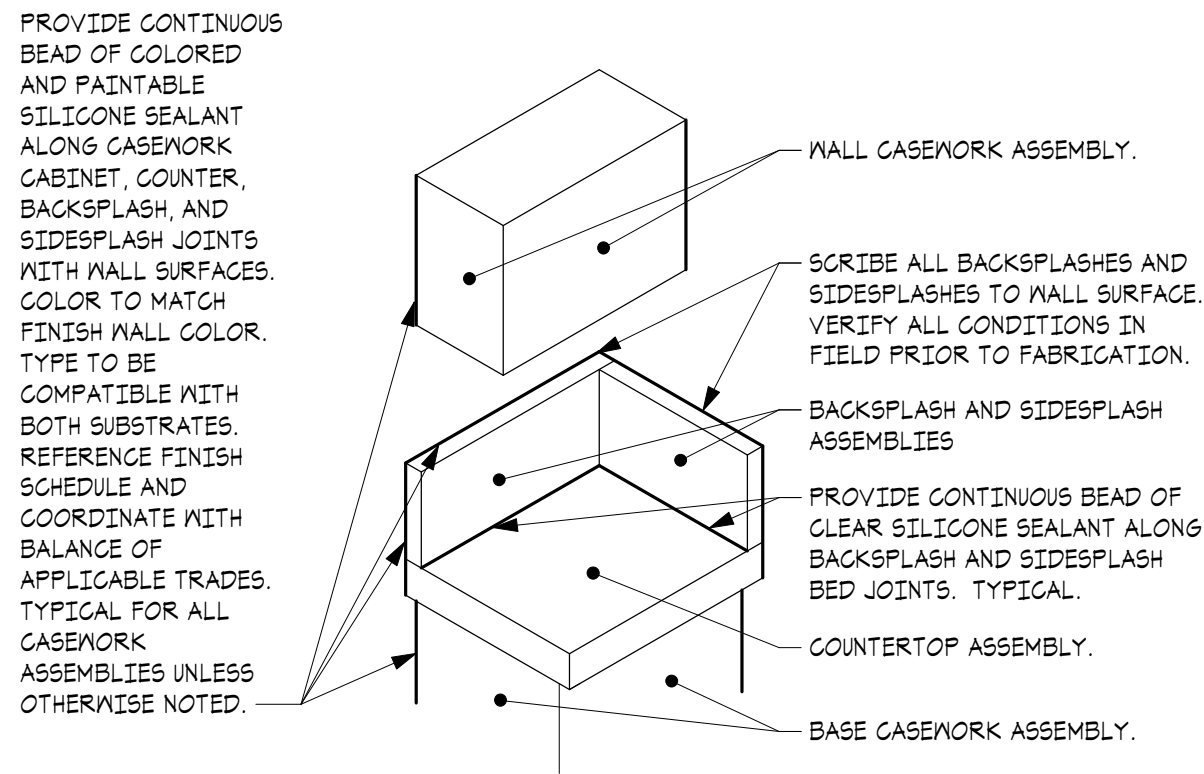
SECTION "BC-Lns"

LAVATORY COUNTER (OPEN BELOW, NO SINK)



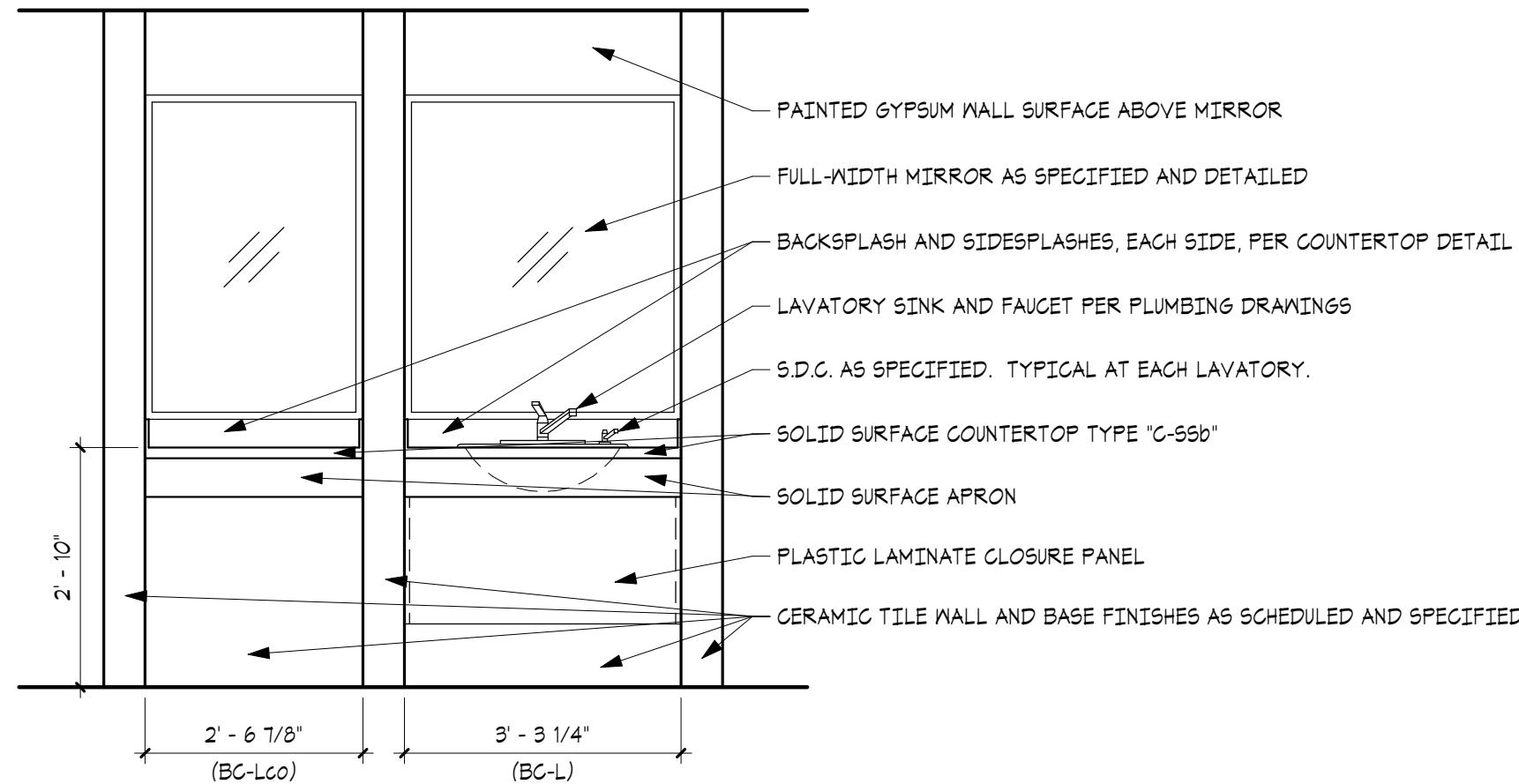
SECTION "BC-L"

LAVATORY COUNTER (OPEN BELOW)



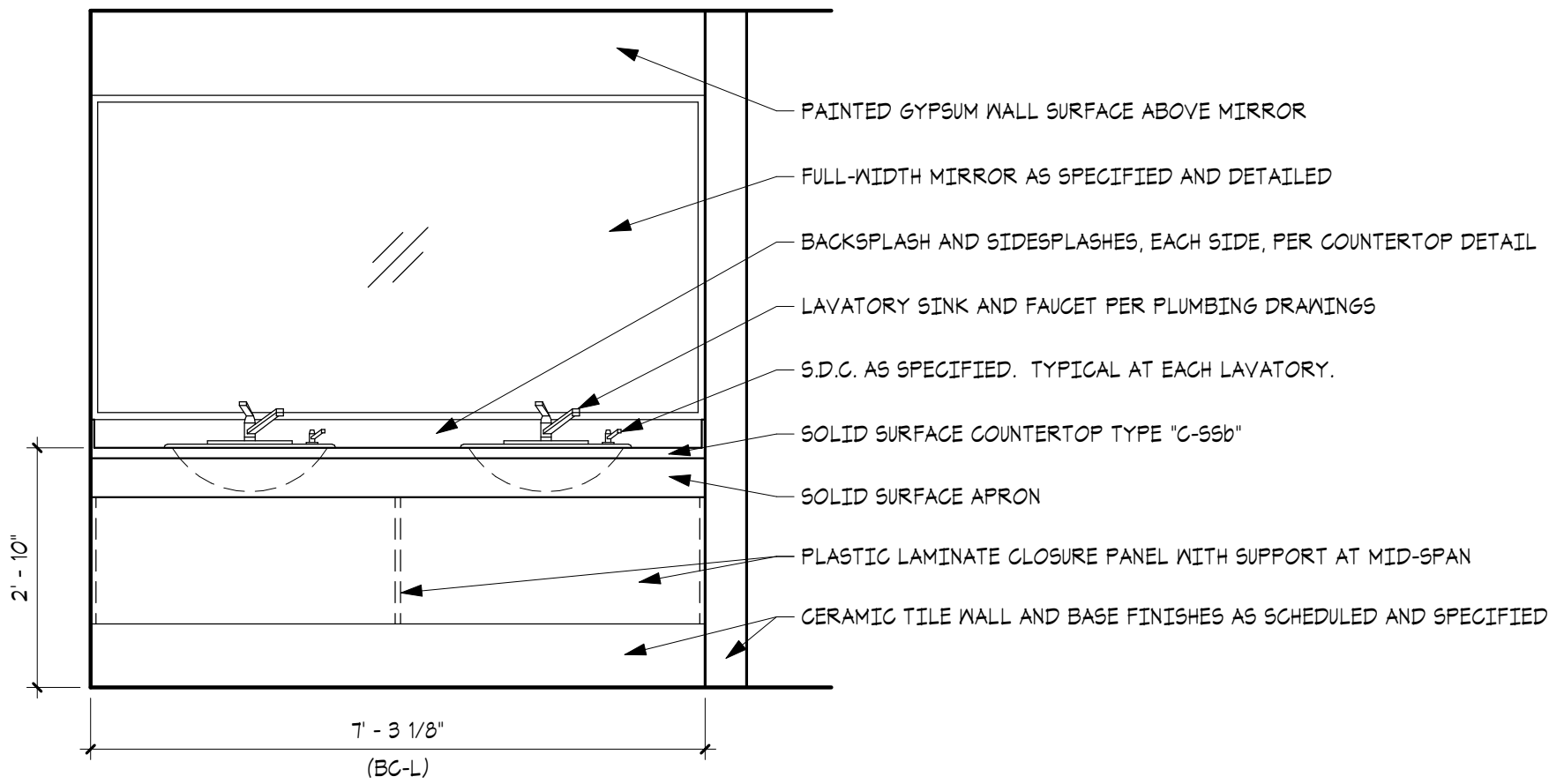
CASEWORK EDGE TREATMENTS

TYPICAL ALL CASEWORK ASSEMBLIES



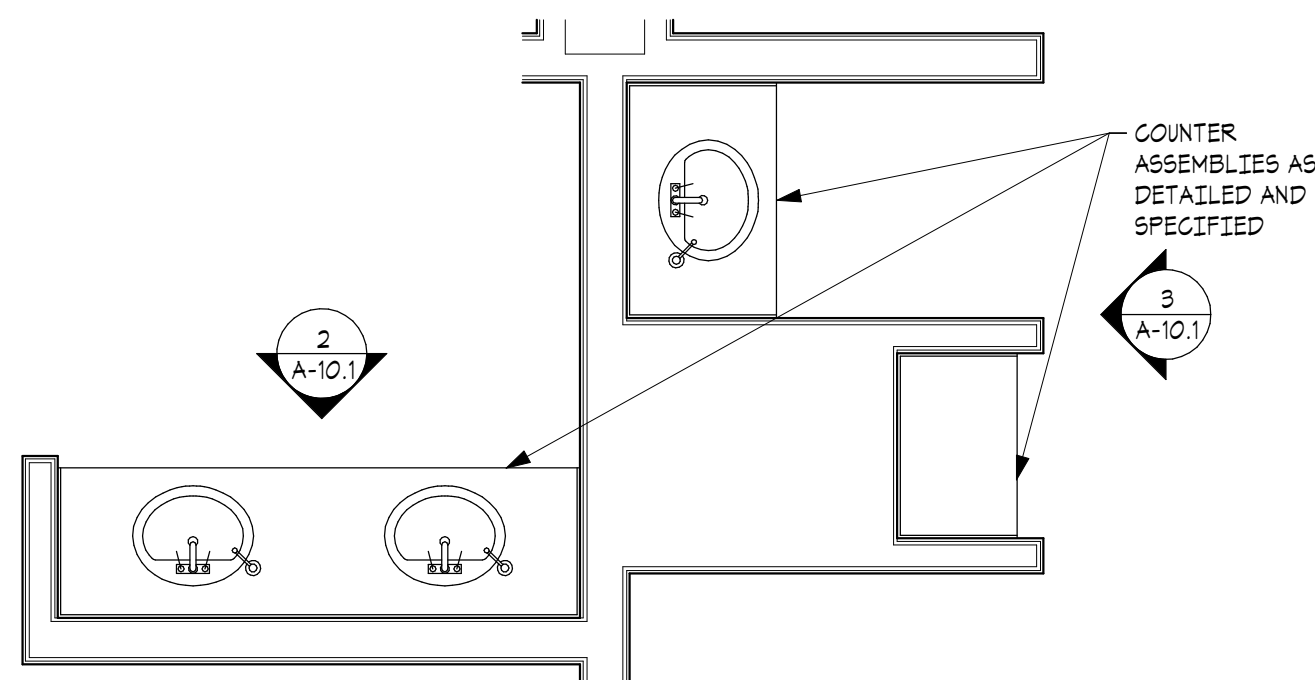
3 CASEWORK ELEVATION AT WOMEN'S RESTROOM #104

1/2" = 1'-0"



2 CASEWORK ELEVATION AT MEN'S RESTROOM #101

1/2" = 1'-0"



1 CASEWORK PLANS AT MEN'S RESTROOM #101 AND WOMEN'S RESTROOM #104

3/8" = 1'-0"

RFP 6320

INTERIOR RENOVATION TO THE

TRUMBULL POLICE
DEPARTMENT

TRUMBULL, CONNECTICUT

158 EDISON ROAD

JHJH
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

CASEWORK
ELEVATIONS
AND
SECTIONS

PROJ. NO.
JH1828

SCALE
As indicated.

DATE
NOVEMBER 8, 2018

A-10.1

RFP 6320

INTERIOR RENOVATION TO THE

TRUMBULL POLICE
DEPARTMENT

TRUMBULL, CONNECTICUT

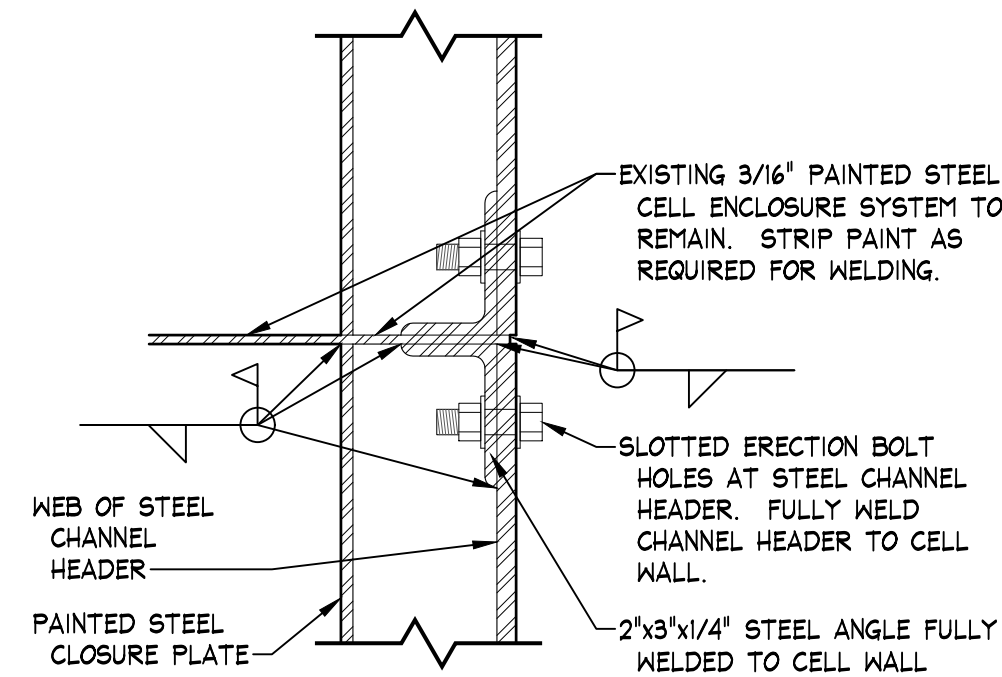
158 EDISON ROAD

JJH
JACUNSKI HUMES
ARCHITECTS, LLC

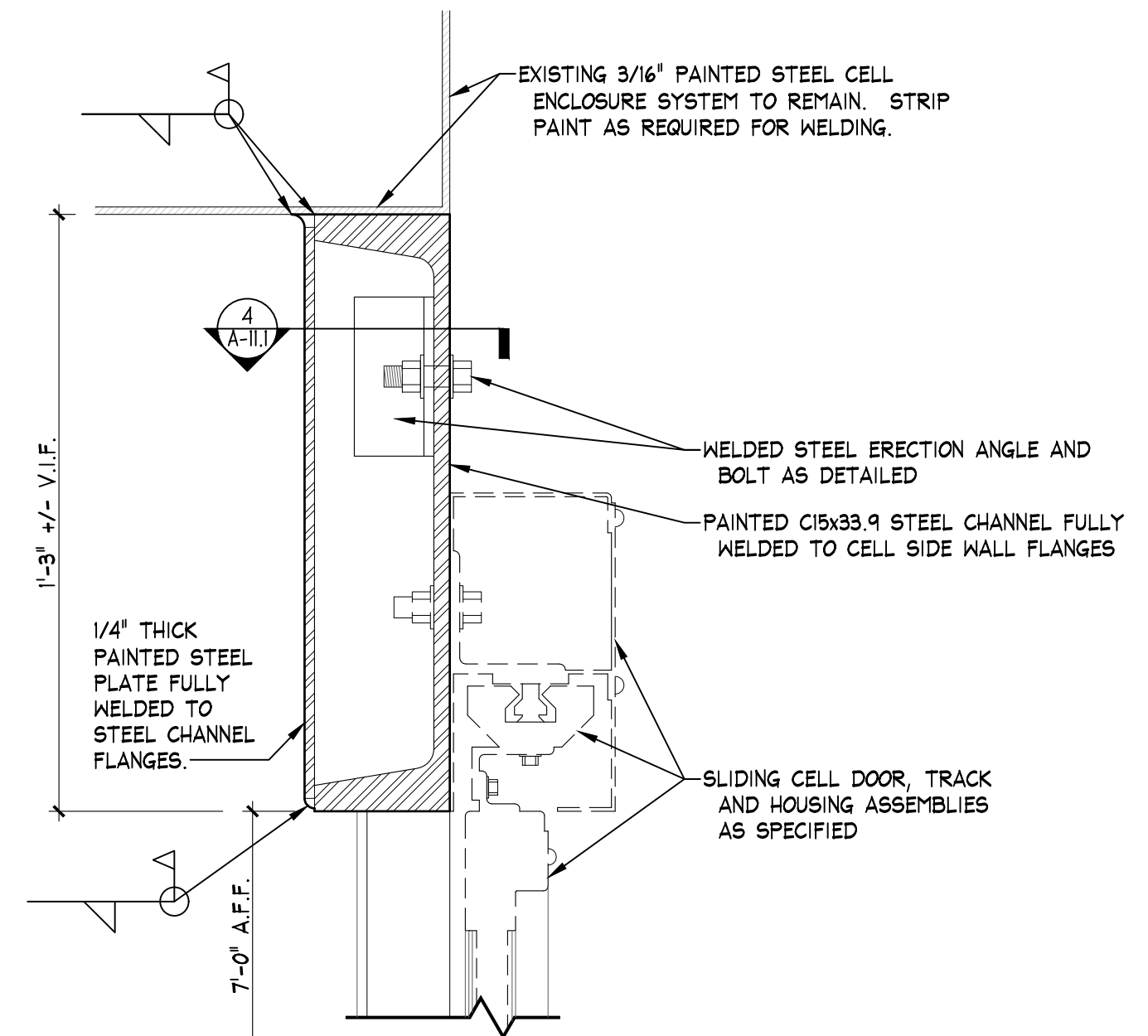
15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

DETENTION
CELL FRONT
ELEVATIONS
AND
DETAILS

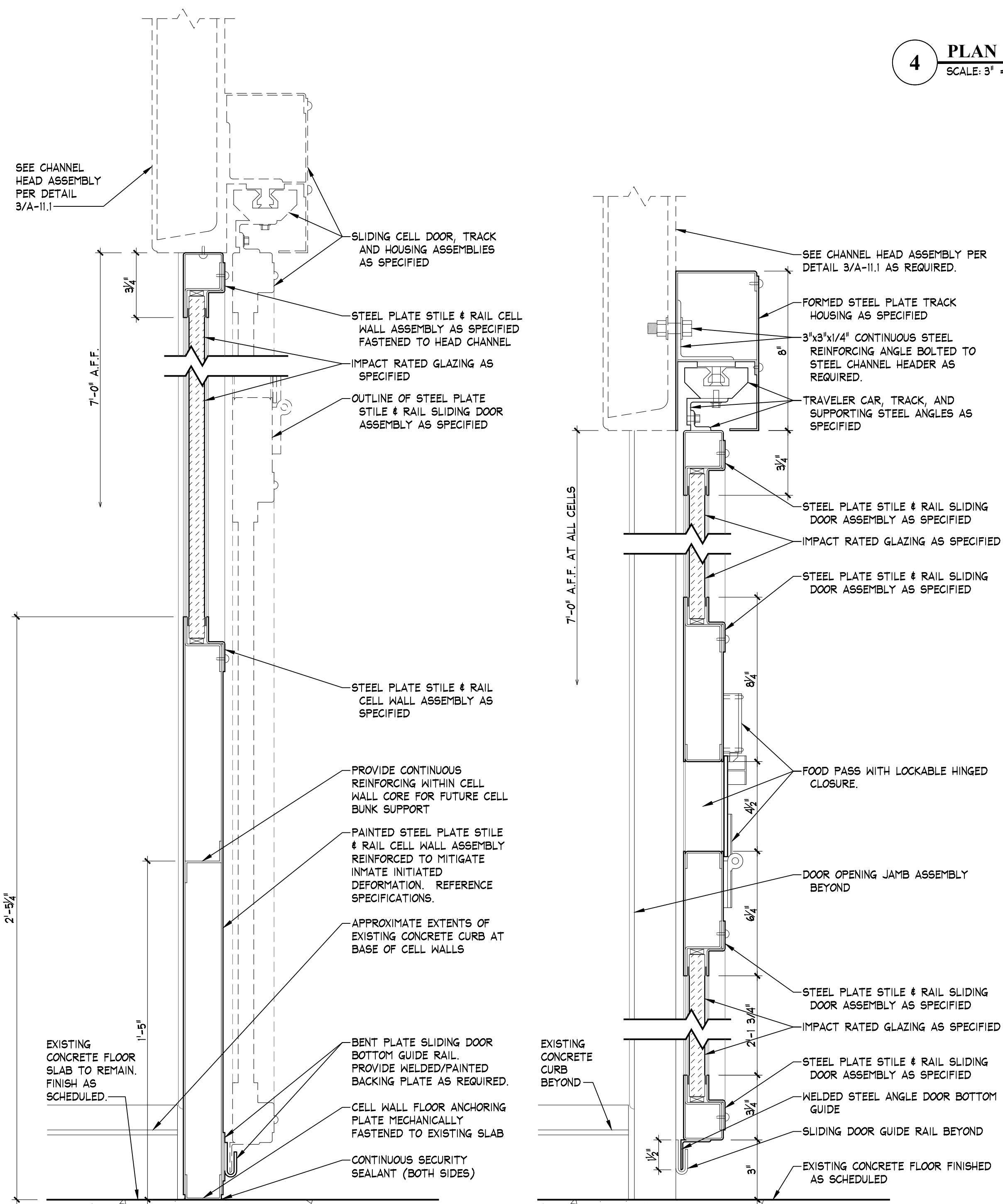
PROJ. NO. JH1828
SCALE As Noted
DATE NOVEMBER 8, 2018
DRAWING NO. A-11.1



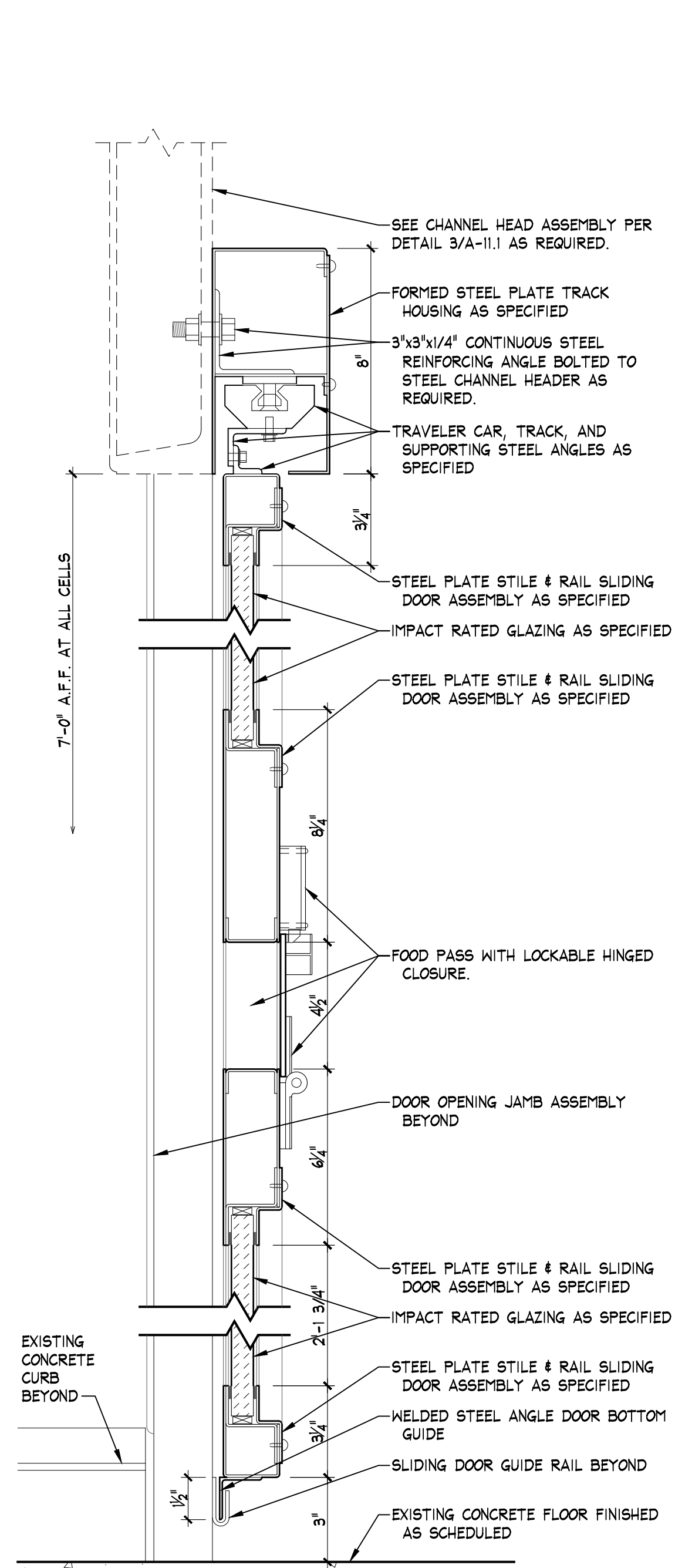
4 PLAN SECTION AT CELL FRONT HEADER ASSEMBLY SUPPORTS
SCALE: 3" = 1'-0"



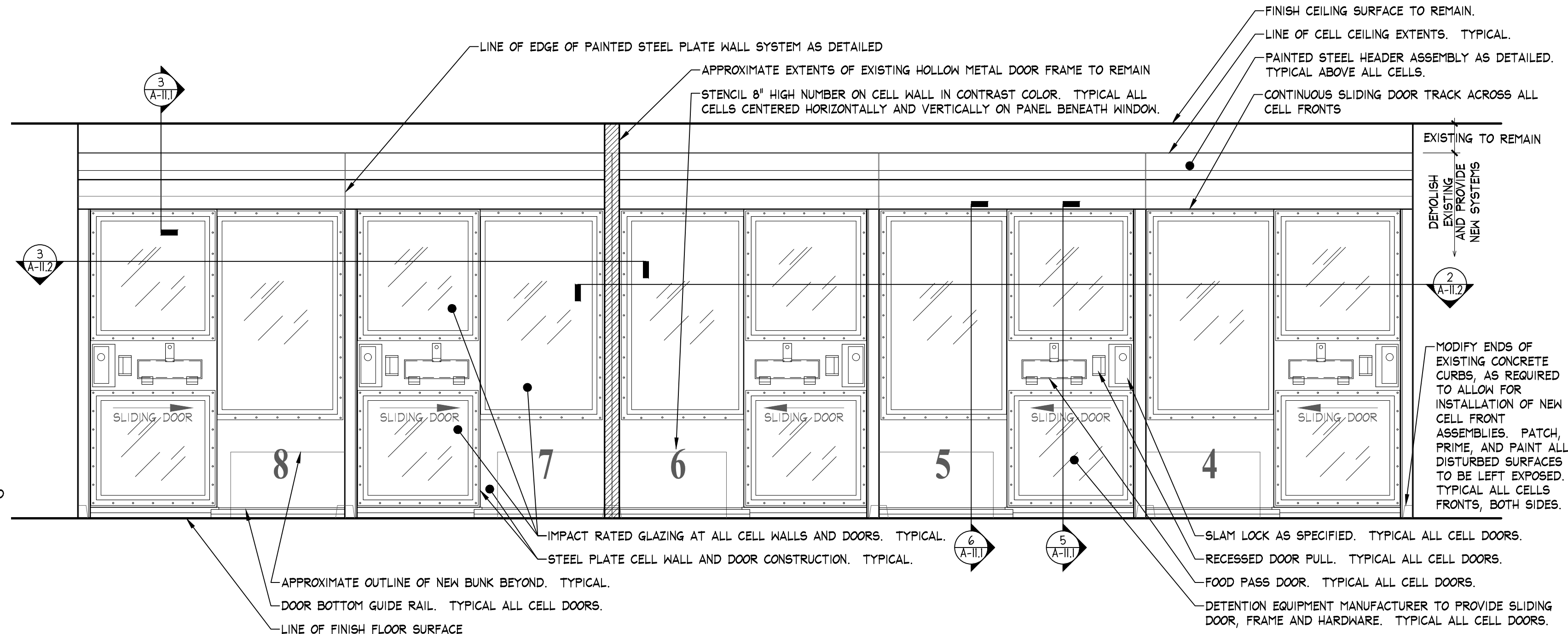
3 SECTION AT CELL FRONT HEADER ASSEMBLY
SCALE: 3" = 1'-0"



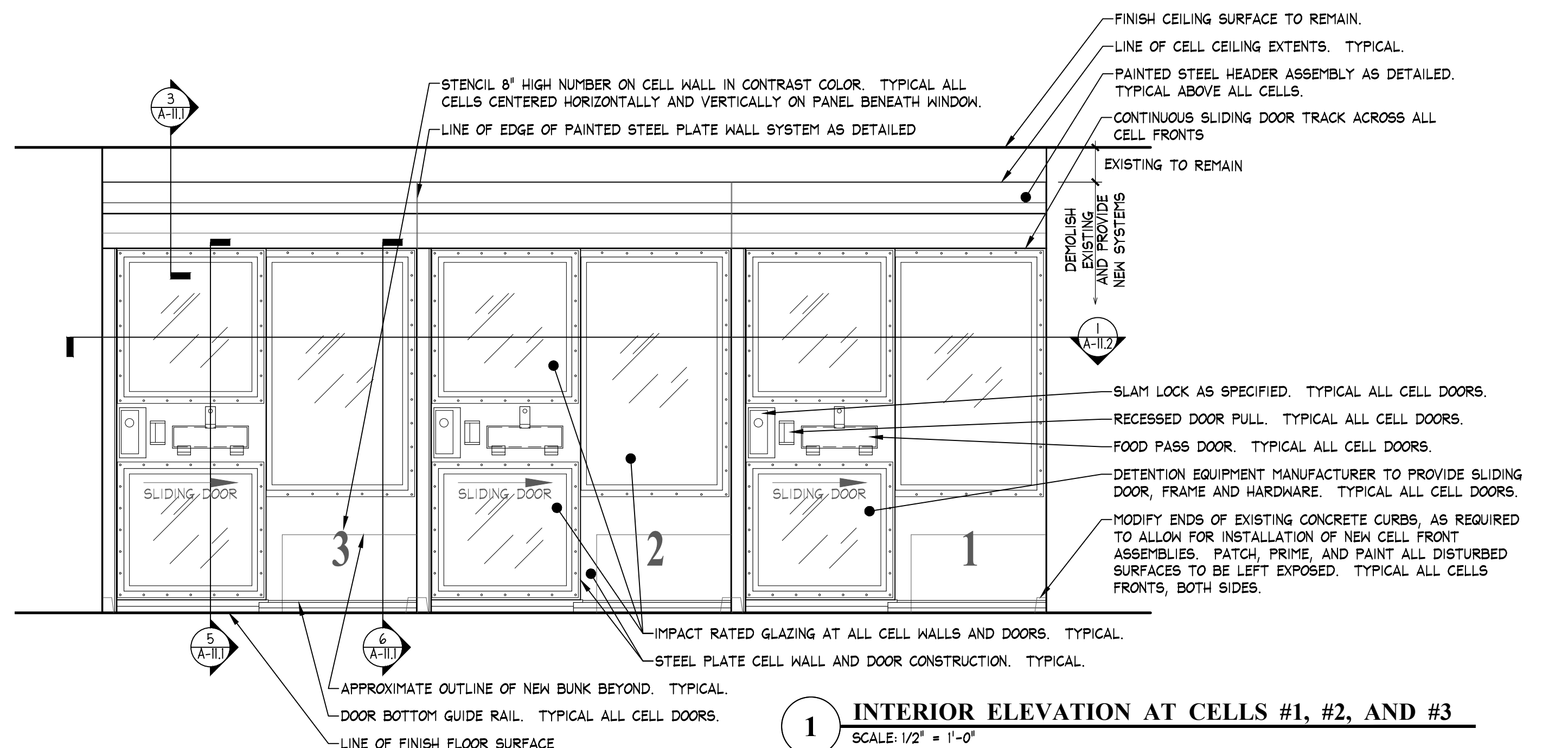
6 SECTION AT TYPICAL CELL FRONT
SCALE: 3" = 1'-0"



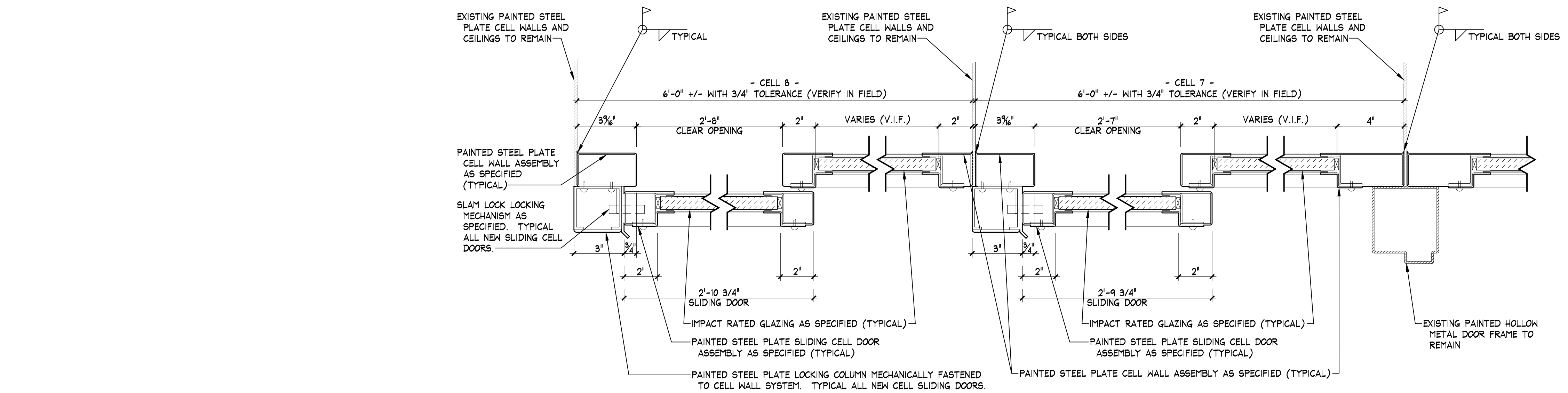
5 SECTION AT TYPICAL CELL DOOR
SCALE: 3" = 1'-0"



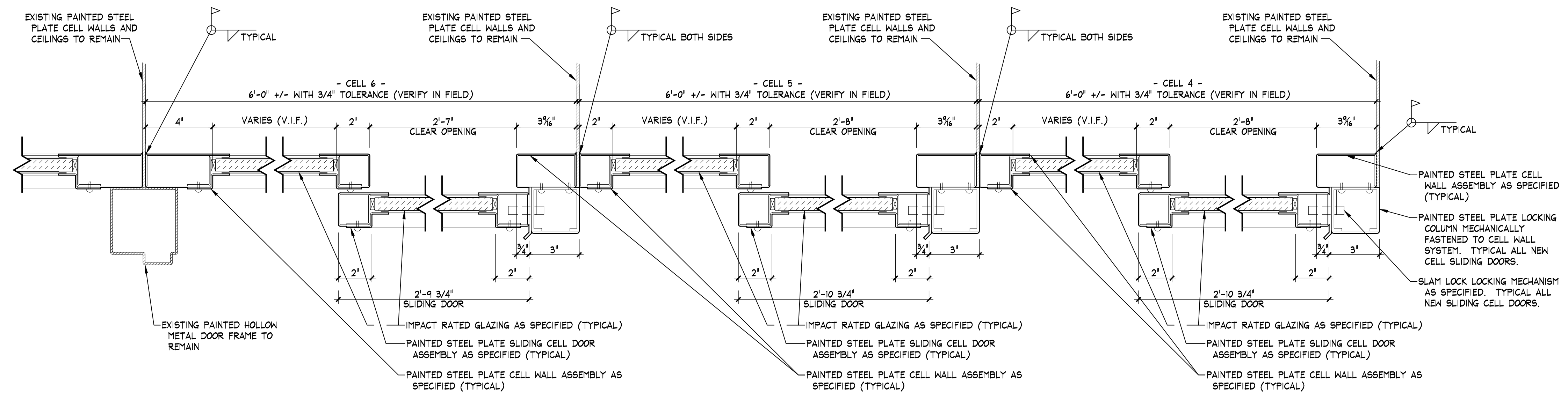
2 INTERIOR ELEVATION AT CELLS #4, #5, #6, #7, AND #8
SCALE: 1/2" = 1'-0"



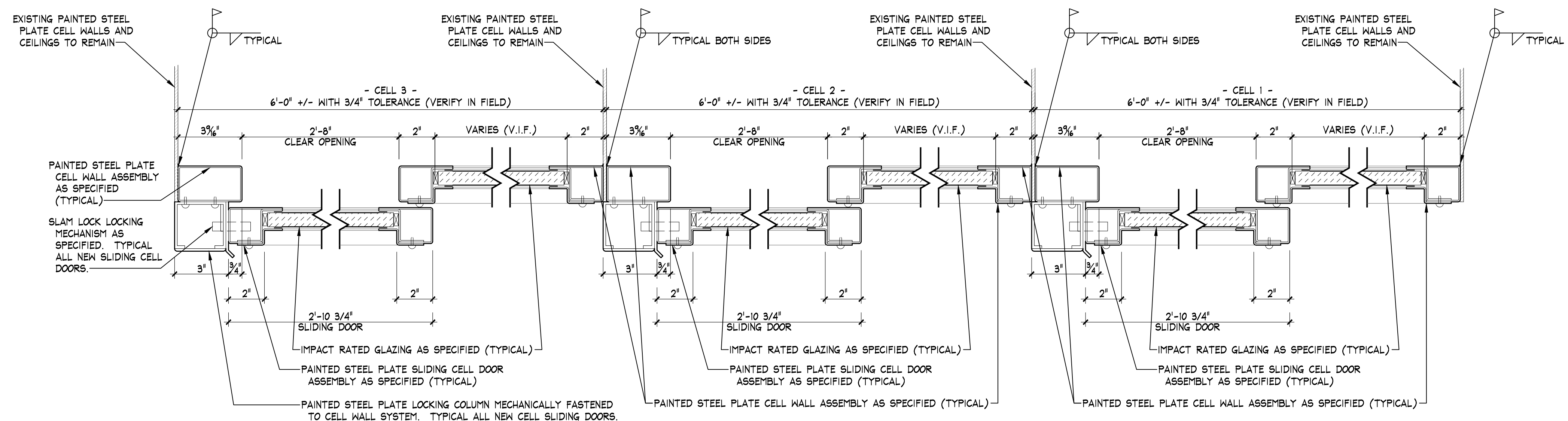
1 INTERIOR ELEVATION AT CELLS #1, #2, AND #3
SCALE: 1/2" = 1'-0"



3 PLAN SECTION DETAIL AT CELLS #7 AND #8 FRONTS
SCALE: 3" = 1'-0"



2 PLAN SECTION DETAIL AT CELLS #4, #5, AND #6 FRONTS
SCALE: 3" = 1'-0"



1 PLAN SECTION DETAIL AT CELLS #1, #2, AND #3 FRONTS
SCALE: 3" = 1'-0"

RFP 6320

INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**

TRUMBULL, CONNECTICUT

158 EDISON ROAD

J J H
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

**DETENTION
CELL FRONT
PLAN
DETAILS**

PROJ. NO. JH1828
SCALE As Noted
DATE NOVEMBER 8, 2018

A-11.2

INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
158 EDISON ROAD TRUMBULL, CONNECTICUT

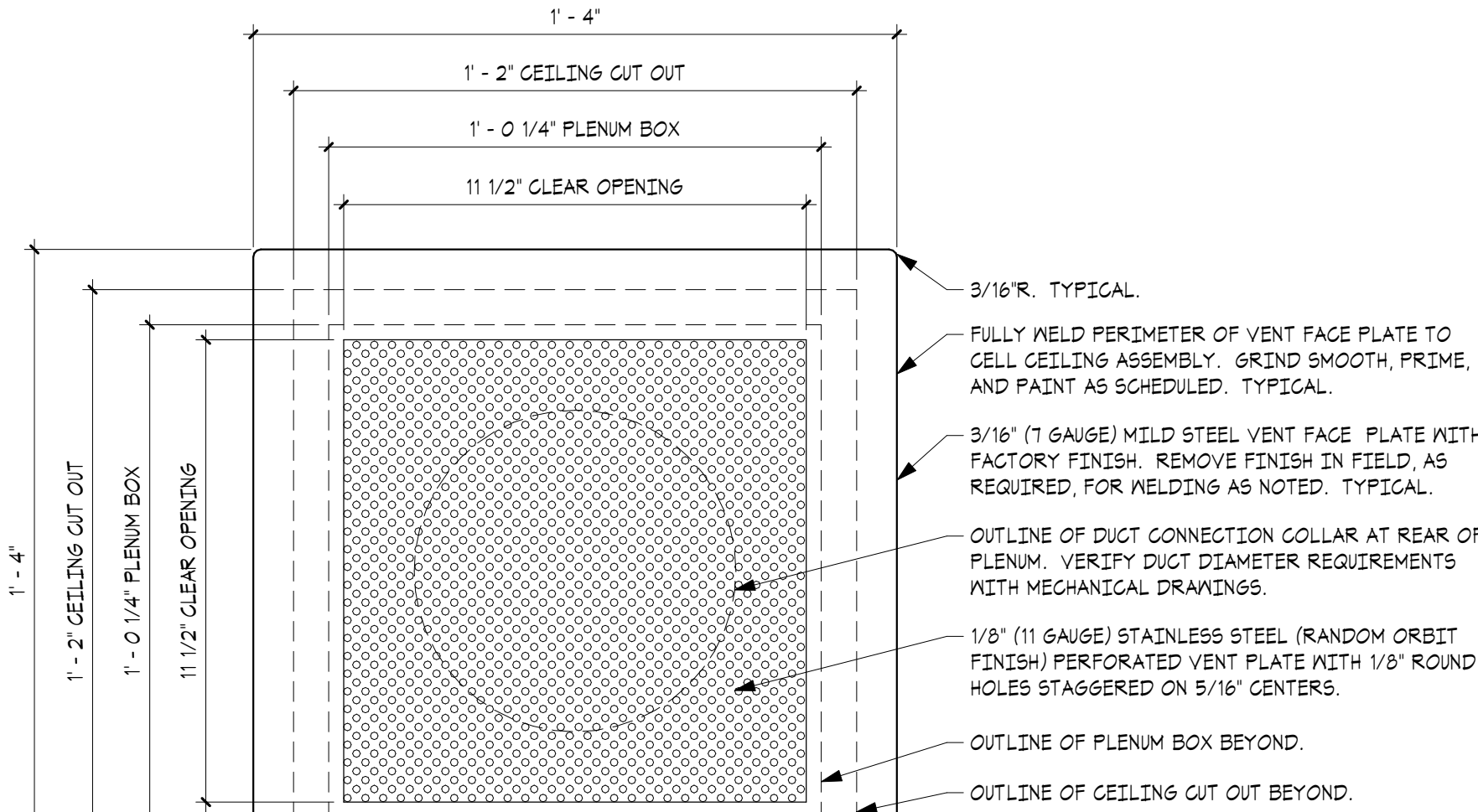
J J H H
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

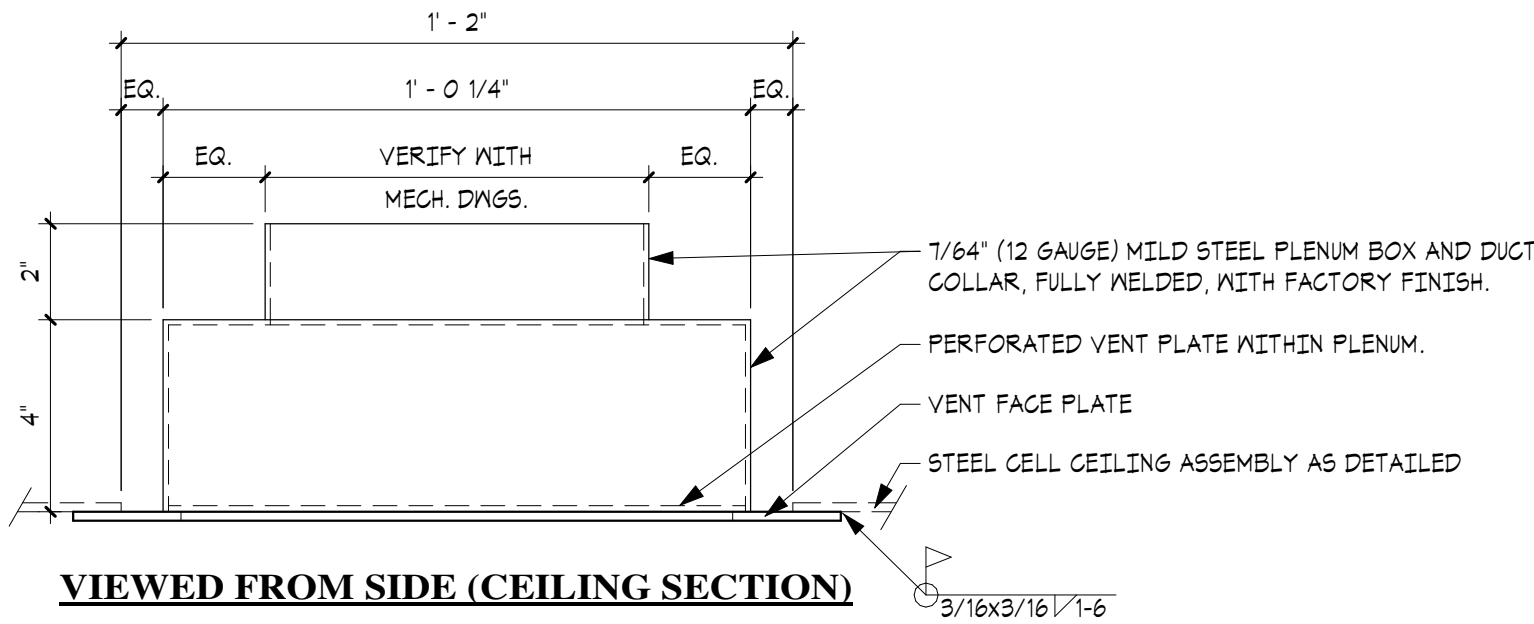
**DETENTION
DETAILS**

PROJ. NO.
JH1828
SCALE
As indicated
DATE
NOVEMBER 8, 2018

A-11.3

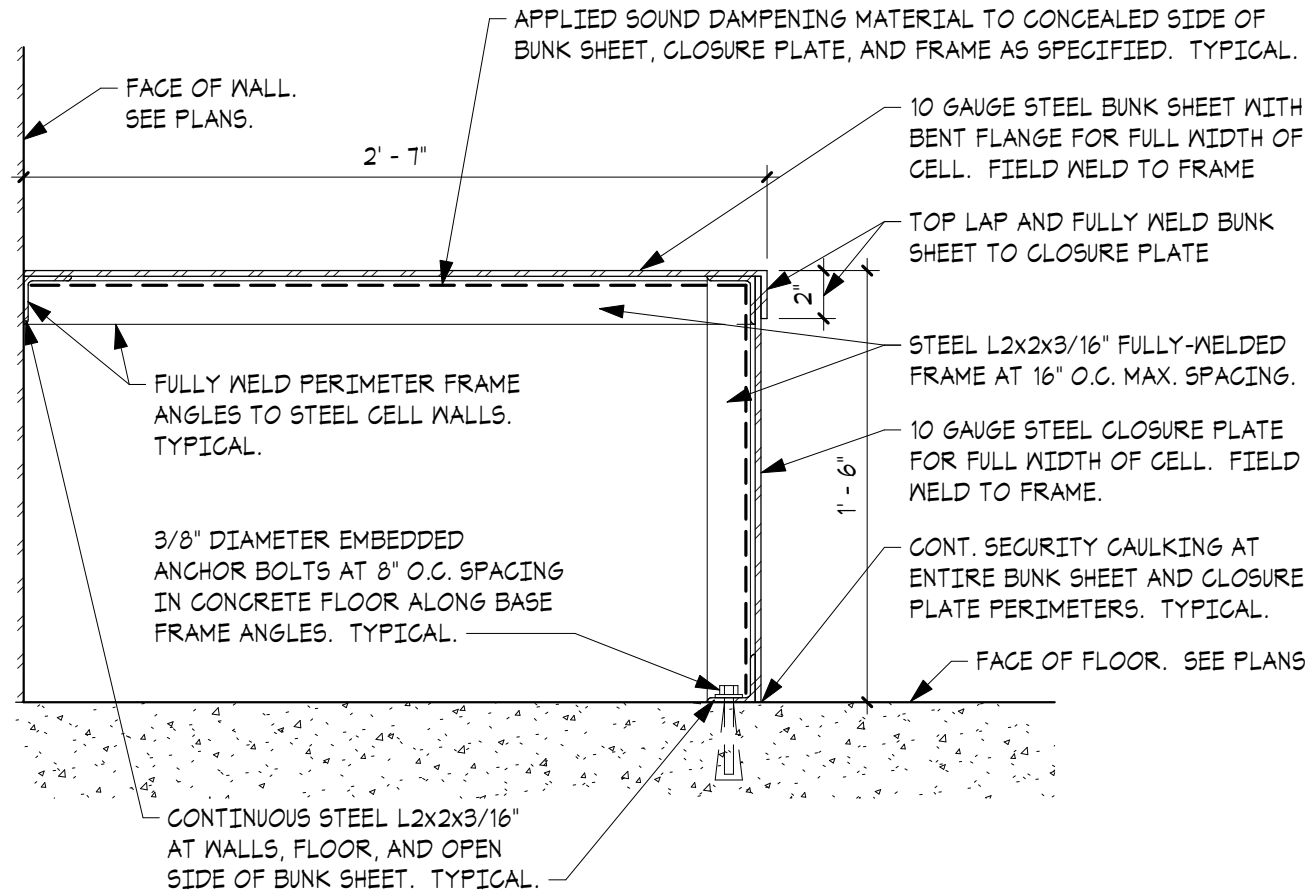


VIEWED FROM CELL INTERIOR



VIEWED FROM SIDE (CEILING SECTION)

2 DETENTION AREA - DETENTION DIFFUSER AT STEEL CELL CEILING
3" = 1'-0"



1 DETENTION AREA - CELL BUNK DETAIL (STEEL WALL)
1 1/2" = 1'-0"

Legend

X - #	Floor Finish
X - #	Base
X - #	Wall Finish
X - #	Door Frame Finish
B	BASE / RUBBER
CB	CERAMIC BASE
CC	CUBICLE CURTAIN
CONC	CONCRETE
CP	CEILING PAINT
CPT	CARPET TILE
CT	CERAMIC & PORCELAIN TILE
CWT	CERAMIC WALL TILE
D	DOOR FINISH
E	EPOXY FLOOR FINISH
EB	EPOXY BASE
EP	EPOXY WALL PAINT
ESD	ESD VINYL FLOOR
FRP	FIBER REINFORCED PANEL
LK	LOCKERS
M	WALK OFF MAT
MES	METAL EDGE STRIP
M. TH	MARBLE THRESHOLD
P	PAINT
PL	PLASTIC LAMINATE
R	RUBBER TILE
RRS	RESILIENT REDUCING STRIP
RSTR	RESILIENT STAIR/TREAD/RISER
SIC	SEALED CONCRETE
SHP	SEALED, HARDENED, POLISHED CONCRETE
	SEE DIV. 09480
SS	SOLID SURFACE MATERIAL
STN	STAIN - WATERBASE
SVT	SOLID VINYL TILE
TH	THRESHOLD
TP	TOILET PARTITIONS
TR	TRIM (PAINTED)
VCT	VINYL COMPOSITION TILE
VET	VINYL ENHANCED TILE
VP	VINYL PLANK
WDB	WOOD STRAIGHT BASE
WDC	WOOD CABINETRY
WB	WINDOW TREATMENT
WMP	WIRE MESH PARTITIONS
WP	SHEET WALL PROTECTION
WS	WINDOW SILLS
WW	WOOD WAINSCOT-BEADBOARD

Finish Key

CODE	MANUFACTURER	MATERIAL / STYLE	PATTERN	COLOR	REMARKS / SPECIFICATIONS
Flooring & Base					
SVT-1	AZROCK/TARKETT	SOLID VINYL TILE 16"X16"	CG-404	PUMICE	SVT IS PART OF THE BASE BID AND THE ALTERNATE.
CT-1	DALTILE	HAUT MONDE 12X24	HM07	ANTISTOAT CREAM	GT-1 MAPEI-CQ- DRIFTWOOD #105
CT-2	DALTILE	HAUT MONDE 2" X 2" MOSAIC	HM07	ANTISTOAT CREAM	GT-1 MAPEI-CQ- DRIFTWOOD #105
CT-3	DALTILE	KEYSTONES 2"X2"	D201	URBAN PUTTY	GT-1 MAPEI-CQ- DRIFTWOOD #105
RSF-1	SEE BELOW FOR ALTERNATE				
RT-1	BURKE RUBBER FLOORING ENDURA RUBBER-FLECKSIBLES	SCULPTURED SURFACE size: 18.125" x 18.125"	#010	SHALE GRAY	
Bases					
B-1	JOHNSONITE	RUBBER BASE - 4"	TA5	COLONIAL GREY	
B-2	SEE BELOW FOR ALTERNATE				
B-3	JOHNSONITE	RUBBER BASE - 4"	#82	BLACK PEARL	
CTB-1	DALTILE	HAUT MONDE 6"X12	HM07	ANTISTOAT CREAM	S-38C9T
CTB-2	DALTILE	KEYSTONES PORCELAIN-MB-5B	URBAN PUTTY	D201	2"x 2" built up base as required to patch
Walls- Interior					
EP-1	SHERWIN WILLIAMS	Epoxy Paint, Satin Finish Wall Paint	SW-6106	KILIM BEIGE	SEE NOTE # 7/ F-1.0
EP-2	SHERWIN WILLIAMS	Epoxy Paint, Satin Finish Wall Paint	XXXXX	TBD	FOR NUMBER STENCIL
P-1	SHERWIN WILLIAMS	Waterbased- Satin Finish Wall Paint	SW-7562	ROMAN COLUMN	GENERAL WALLS
P-2	SHERWIN WILLIAMS	Waterbased- Satin Finish Wall Paint	SW-6106	KILIM BEIGE	ALTERNATE #1-WALL COLOR
CWT-1	DALTILE	FORMULA 12"X 24"	FM98-POLISHED	PLANES TAUPE	GT-1 MAPEI CQ-BONE #15
CWT-2	DALTILE	KEYSTONES PORCELAIN 2"X2"	URBAN PUTTY	D201	
Door Frames / Misc.					
TR-1	SHERWIN WILLIAMS	Waterbase-Interior Semi-Gloss	SW-6106	KILIM BEIGE	INTERIOR DOOR FRAMES
TR-2	SHERWIN WILLIAMS	Waterbase-Interior Semi-Gloss	SW-XXXX	XXXXXXX	H.M. DOORS
Ceilings- Non-factory Fin.					
CP-1	SHERWIN WILLIAMS	STANDARD Ceiling Paint	Classic	White	Gypsum Board
CP-2	SHERWIN WILLIAMS	Epoxy ceiling paint on Metal Panel	SW-6106	KILIM BEIGE	at cell ceilings (SAME PAINT AS EP-1)
CP-3	SHERWIN WILLIAMS	Water Resistant Ceiling Paint	Classic	White	at shower rooms
MISC					
SS-1	DUPONT CORIAN	SOLID SURFACE	FOSSIL		
LK-1	LINCORA GROUP	LOCKER- PAINT COLOR	910-9032	SAND	
LK-2	LINCORA GROUP	LOCKER- PAINT COLOR	910-9005	PLATINUM	
PRODUCTS FOR ALTERNATE #2					
SVT-1	AZROCK/TARKETT	SOLID VINYL TILE 16"X16"	CG-404	PUMICE	SVT IS PART OF THE BASE BID AND ALTERNATE #2.
RB-2	JOHNSONITE	RUBBER BASE - 4"	#40	BLACK	ALTERNATE #2
RSF-1	BURKE FLOORING	ECO FITNESS	ECOLK24	MOCHA GRAY	ALTERNATE #2

General Notes

1	All interior faces of non-factory finished doors and door frames to be painted.
2	All floor finishes to extend to the wall, this includes going under casework.
3	In locker rooms, wall tile is tile up to lockers and not behind it. tile is layed out horizontally.
4	See Reflected Ceiling Plans for painted soffits & ceilings. All soffits & ceilings to receive paint. See options.
5	All receptacles, switches, etc as Ivory.
6	All new work marble thresholds to be travertine beige.
7	All new and existing steel cell construction to receive new epoxy paint coatings. New components include the cell fronts, bunks and diffusers. existing cell components include the wall and ceiling panels. All surfaces to view shuld receive new epoxy paint. Finish painting, as specified under section 09 90 00 Painting. NOTE: General Trades Contractor shall coordinate finish painting of the Detention Entrance System including requiring the Painting Contractor to be on the job-site DURING INSTALLATION OF THE DETENTION ENTRANCE SYSTEM to assure that the inaccessible portions of the door and fixed wall system are finish painted prior to hanging the doors. Finish Contractor shall start work two (2) days after written notification by Detention Equipment Contractor (11 19 00).

RFP 6320



4D Design & Decorating
DEANNA S. DEWEY, NCIDQ
Owner, Interior Designer
127 Park Road, West Hartford, CT 06110
Primary: 860-715-1353 email: 4Ddesign@comcast.net
web: www.4Ddesigndec.com

INTERIOR RENOVATION TO THE
TRUMBULL POLICE
DEPARTMENT
158 EDISON ROAD
TRUMBULL, CONNECTICUT



JACUNSKI HUMES
ARCHITECTS, LLC
15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

FINISH
SCHEDULE

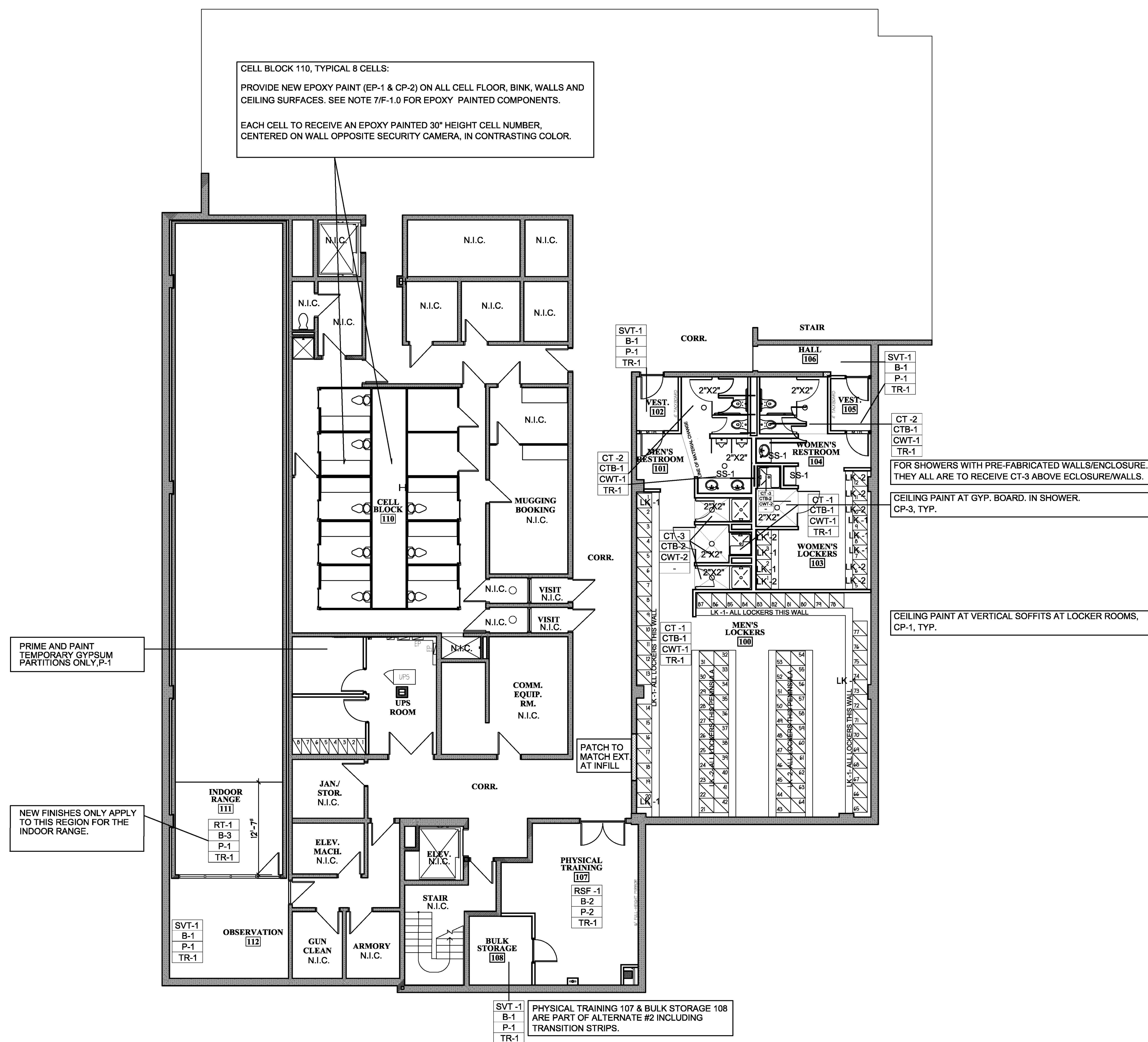
PROJ. NO.	JH1828	DRAWING NO.
SCALE	As Noted	F-1.0
DATE	NOVEMBER 8,2018	

4D Design & Decorating
DEANNA S. DEWEY, NCIDQ
Owner, Interior Designer
127 Park Road, West Hartford, CT 06119
Primary: 860-726-2363
email: 4Ddesign@comcast.net
www.4Ddesigner.com

JHI
JACUNSKI HUMES
ARCHITECTS, LLC

**NEW WORK
OVERALL
LOWER
LEVEL
FINISH PLANS**


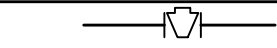
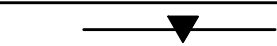

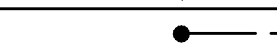
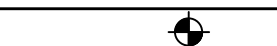

PROJ. NO. JH1828	DRAWING NO.
SCALE As Noted	F-1
DATE NOVEMBER 8, 2018	



GENERAL DEMOLITION NOTES

1. ALL EQUIPMENT, FIXTURES, PIPING ETC. TO BE REMOVED SHALL BE DISPOSED OF, TURNED OVER TO THE OWNER, OR SALVAGED AS DIRECTED BY THE OWNER. EQUIPMENT, FIXTURES, PIPING, DEVICES, ETC. SHALL NOT BE REMOVED FROM THE PREMISES WITH OUT THE OWNER'S APPROVAL.
2. ALL ABANDONED PIPING TO REMAIN SHALL BE PROPERLY PLUGGED, VALVED, CAPPED AND/OR BY PASSED SUCH THAT UPON COMPLETION OF WORK ALL ABANDONED SYSTEMS ARE PROPERLY CONCEALED, AND THAT EXISTING SYSTEMS TO REMAIN, REMAIN OPERATIONAL.
3. NO DEAD ENDS SHALL BE LEFT ON ANY PIPING SYSTEMS UPON COMPLETION OF WORK.
4. EXISTING EXPOSED PIPING SYSTEMS NOT TO BE REUSED, AND NOT SPECIFICALLY NOTED FOR REMOVAL SHALL BE COMPLETELY REMOVED. CONTRACTOR SHALL VERIFY PRIOR TO REMOVAL.
5. ALL SYSTEMS SHALL BE LEFT IN PERFECT WORKING ORDER UPON COMPLETION OF ALL NEW WORK.
6. ALL EXISTING EXPOSED, UNNECESSARY PIPING RELATED TO NEW WORK SHALL BE COMPLETELY REMOVED.
7. REROUTE OR REMOVE ALL EXISTING PIPING AND SYSTEMS WHERE NECESSARY TO AVOID NEW EQUIPMENT, STRUCTURAL, OR MASONRY WORK AS REQUIRED BY THE PROPOSED ALTERATIONS.
8. COORDINATE PLUMBING SERVICES SHUT DOWNS (H&OW, GAS, WASTE, VENT & STORM SYSTEMS) WITH THE BUILDING MANAGER AND UTILITY COMPANY.

PLUMBING LEGEND

SYMBOL OR ABBREVIATION	DESCRIPTION		
----	EXISTING PIPE/EQUIPMENT TO REMAIN		
---X---X---X---X---X---X---X---	EXISTING PIPE/EQUIPMENT TO BE REMOVED		
---G---	GAS PIPING (G)		
---S---	SANITARY PIPING ABOVE FINISHED FLOOR/SLAB (S, SAN.)		
---W---	WASTE PIPING ABOVE FINISHED FLOOR/SLAB (W)		
---S/UG---	SANITARY PIPING UNDER FINISHED FLOOR/SLAB (S, SAN.)		
---W/UG---	WASTE PIPING UNDER FINISHED FLOOR/SLAB (W)		
----V----	VENT PIPING (V)		
---CW---	DOMESTIC COLD WATER PIPING (CW)		
---HW---	DOMESTIC HOT WATER PIPING (HW)		
---HWC---	DOMESTIC HOT WATER RECIRC. PIPING (HWC)		
---+D---	PIPE DROP/DOWN (DN)		
---R---	PIPE RISE/UP		
	BALL VALVE		
	PLUG VALVE		
	BALANCING VALVE		
	CLEANOUT (CO), WALLPLATE CLEANOUT (WPCO)		
	DECKPLATE CLEANOUT (DPCO)		
	CONNECT TO EXISTING		
C.I.	CAST IRON	GEN.	GENERATOR
BLDG.	BUILDING	L#	LAVATORY - TYPE
CONN.	CONNECT	M1	MOP SINK
DR.	DRAIN	S#	SINK - TYPE
EEWC	EXISTING ELECTRIC WATER COOLER	STK.	STACK
EFD	EXISTING FLOOR DRAIN	TP	TRAP PRIMER
EL	EXISTING LAVATORY	TYP.	TYPICAL
ESK	EXISTING SINK	U#	URINAL - TYPE
ESS	EXISTING SERVICE SINK	V.I.F.	VERIFY IN FIELD
EU	EXISTING URINAL	V.T.R.	VENT THROUGH ROOF
EW	EXISTING WATER CLOSET	W#	WATER CLOSET - TYPE
EWC	ELECTRIC WATER COOLER	D#	FLOOR DRAIN - TYPE
EXIST.	EXISTING	GALV.	GALVANIZED
	DETAIL DESIGNATION SYMBOL		

PLUMBING DRAWING LIST

DRAWING NUMBER	DRAWING DESCRIPTION
P-0.1	DEMOLITION NOTES, LEGENDS & DRAWING LIST - PLUMBING
P-0.2	GENERAL NOTES - PLUMBING
PD-1.1	LOWER LEVEL DEMOLITION FLOOR PLAN- PLUMBING
P-1.1	LOWER LEVEL FLOOR PLAN - PLUMBING
P-3.0	SCHEDULES - PLUMBING
P-3.1	SCHEDULES - PLUMBING
P-4.0	DETAILS - PLUMBING
P-5.0	SPECIFICATIONS - PLUMBING

RFP 6320



93 Lake Avenue, Danbury, CT 06810
203.778.1017 F 203.778.1018
171 Madison Avenue,
New York, NY 10016
212.695.2422 F 212.695.2423
www.kohleronan.com
E-mail krce@kohleronan.com

INTERIOR RENOVATION TO THE
TRUMBULL POLICE
DEPARTMENT
158 EDISON ROAD
TRUMBULL, CONNECTICUT



JACUNSKI HUMES
ARCHITECTS, LLC
15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

COVER SHEET
PLUMBING

PROJ. NO. JH182B	DRAWING NO.
SCALE As Noted	P-0.1
DATE NOVEMBER 8, 2018	

GENERAL PLUMBING NOTES			
GENERAL			
LEAD-FREE STATEMENT SEVERAL PLUMBING FIXTURES DESCRIBED IN THIS SECTION FALL UNDER JURISDICTION OF THE FEDERAL REDUCTION OF LEAD IN DRINKING WATER ACT (42 USC 300g) WHICH MANDATES THAT EFFECTIVE JANUARY 4, 2014 THE WETTED SURFACES OF ANY VALVE, FITTING OR FIXTURE THAT COMES IN CONTACT WITH POTABLE WATER MUST HAVE A WEIGHTED-AVERAGE LEAD CONTENT OF NO MORE THAN 0.25 PERCENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PRODUCTS THAT ARE LEAD-FREE PRODUCTS AND MEET THE REQUIREMENTS OF SAFE DRINKING WATER ACT SECTION 1417 (E) (SECTION 9 OF NSF/ANSI STANDARD 61) AND AUTHORITIES HAVING JURISDICTION.			
WHEN A CONFLICT BETWEEN THE DRAWINGS, NOTES AND/OR SPECIFICATIONS OCCUR, THE MORE STRINGENT, AND/OR LARGER QUANTITY AND/OR MORE EXPENSIVE SHALL APPLY. THE REQUIREMENTS LISTED WITHIN NOTES OR SPECIFICATIONS SHALL BE REQUIRED, PROVIDED AND INSTALLED WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT.			
IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO PROVIDE FOR FINISHED WORK, TESTED AND READY FOR OPERATION.			
ITEMS AND SERVICES NOT SHOWN ON DRAWINGS OR SPECIFICATIONS BUT REQUIRED TO RENDER THE WORK COMPLETE AND READY FOR OPERATION, SHALL BE PROVIDED WITHOUT ADDITIONAL COST.			
WORK OF THIS SECTION SHALL BE GOVERNED BY THE CONTRACT DOCUMENTS. PROVIDE MATERIALS, LABOR, EQUIPMENT AND SERVICES NECESSARY TO FURNISH, DELIVER AND INSTALL ALL WORK AS SPECIFIED AND AS REQUIRED BY JOB CONDITIONS. WHERE A CONFLICT EXISTS BETWEEN THESE NOTES, THE DRAWINGS AND THE SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.			
DRAWINGS ARE DIAGRAMMATIC AND INDICATE A GENERAL ARRANGEMENT OF WORK AND ARE NOT TO BE CONSIDERED SUB-CONTRACTOR DOCUMENTS. IT IS THE INTENT OF THESE DOCUMENTS TO INCLUDE THE PROVISION AND INSTALLATION OF ALL NECESSARY WORK AND MATERIALS FOR COMPLETE, OPERATIONAL AND CODE COMPLIANT SYSTEMS BY THE CONTRACTOR. GENERAL DESIGN CONCEPTS INDICATED MUST BE FOLLOWED OR BETTERED. THE BID SHALL INCLUDE OFFSETS, ADDITIONAL PIPING, VALVES AND EQUIPMENT AND COMPONENTS AS REQUIRED TO MEET CONSTRUCTION CONDITIONS FOR PROPER OPERATION. DO NOT SCALE DRAWINGS. CONSULT ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SPACE CONDITIONS AND ADDITIONAL REQUIREMENTS.			
PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT GENERAL CONDITIONS AND WITH THE PROVISIONS OF ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND LAWS.			
WORK SHALL INCLUDE ALL INCIDENTALS, LABOR, MATERIAL, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, CONSUMABLE ITEMS, FEES, LICENSES, AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE WORK SHOWN ON THE DRAWINGS, SPECIFIED HEREIN AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.			
STORE MATERIALS INSIDE AND PROTECTED FROM DEBRIS, WEATHER AND MOISTURE.			
THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL POWER AND CONTROL WIRING REQUIRED FOR EQUIPMENT OPERATION REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THIS CONTRACTOR SHALL PROVIDE MOTOR STARTERS FOR INSTALLATION. COORDINATE REQUIREMENTS.			
PROVIDE AND INSTALL ALL MAKE-UP WATER DISTRIBUTION TO HVAC EQUIPMENT INCLUDING BACKFLOW PREVENTER.			
PROVIDE AND INSTALL INDIRECT CONDENSATE WASTE PIPING AND TRAP TO FLOOR DRAIN OR DRAIN RECEPTOR FROM ALL HVAC EQUIPMENT. PROVIDE ADDITIONAL FLOOR DRAINS WITH TRAP PRIMERS OR DRAIN RECEPTORS AS REQUIRED.			
PLUMBING DEVICES, FAUCETS, VALVES AND FITTINGS REQUIRED FOR SPECIALTY SERVICE EQUIPMENT SHALL BE PROVIDED BY THIS CONTRACTOR UNLESS OTHERWISE SPECIFIED. THIS CONTRACTOR SHALL PROVIDE AND INSTALL PIPING, CONNECTIONS, DEVICES, VALVES AND EQUIPMENT REQUIRED FOR PROPER OPERATION. COORDINATE REQUIREMENTS.			
ALTERATION WORK AND DEMOLITION			
ALL EQUIPMENT, FIXTURES, PIPING, ETC. TO BE REMOVED, SHALL BE DISPOSED OF, TURNED OVER TO THE OWNER, OR SALVAGED AS DIRECTED BY THE OWNER. EQUIPMENT, FIXTURES, PIPING, DEVICES, ETC. SHALL NOT BE REMOVED FROM THE PREMISES WITHOUT THE OWNER'S APPROVAL.			
UPON COMPLETION OF REMOVALS AND MODIFICATIONS, ALL PIPING TO REMAIN SHALL BE PROPERLY PLUGGED, VALVED, CAPPED AND/OR BY PASSED SUCH THAT UPON COMPLETION OF WORK ALL SYSTEMS TO REMAIN, REMAIN OPERATIONAL.			
NO DEAD ENDS SHALL BE LEFT ON ANY PIPING SYSTEMS UPON COMPLETION OF WORK.			
EXISTING EXPOSED PIPING SYSTEMS NOT TO BE REUSED, AND NOT SPECIFICALLY NOTED FOR REMOVAL SHALL BE COMPLETELY REMOVED.			
ALL SYSTEMS SHALL BE LEFT IN WORKING ORDER TO THE SATISFACTION OF THE OWNER UPON COMPLETION OF ALL NEW WORK.			
ALL EXISTING EXPOSED, UNNECESSARY PIPING RELATED TO NEW WORK SHALL BE COMPLETELY REMOVED.			
RE-ROUTE OR REMOVE ALL EXISTING PIPING AND SYSTEMS WHERE NECESSARY TO AVOID NEW EQUIPMENT, STRUCTURAL, OR MASONRY WORK AS REQUIRED BY THE PROPOSED ALTERATIONS.			
COORDINATION DRAWINGS			
DEVELOP AND SUBMIT COORDINATION DRAWINGS AS OUTLINED.			
SHEET METAL, PLUMBING AND FIRE PROTECTION SHOP DRAWINGS THAT HAVE BEEN COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW. DRAWINGS MUST BE RETURNED FROM ENGINEER EITHER "REVIEWED" OR "FURNISH AS CORRECTED" PRIOR TO BEING USED AS BASIS FOR COORDINATION DRAWINGS.			
AFTER SHEET METAL AND PIPING DRAWINGS HAVE BEEN REVISED PER ENGINEERS COMMENTS, REPRODUCIBLE COPIES SHALL BE SENT TO THE TRADES IN THE FOLLOWING SEQUENCE FOR THE INCLUSION OF THEIR WORK: -MECHANICAL SHEET METAL -PLUMBING PIPING -MECHANICAL PIPING -SPRINKLER PIPING -ELECTRICAL WORK			
AFTER ALL TRADES HAVE INCLUDED THEIR WORK ON THE COORDINATION DRAWING AND NOTED CONFLICTS, ALL TRADES SHALL MEET TO RESOLVE CONFLICTS AND AGREE TO ACCEPTABLE SOLUTIONS. EACH TRADE SHALL SIGN COORDINATION DRAWINGS. ITEMS NOT SHOWN ON COORDINATION DRAWING IS RESPONSIBILITY OF OMITTING CONTRACTOR AND CONTRACTOR IS SUBJECT TO ADDITIONAL COSTS INCURRED BY OTHER TRADES.			
THE ARCHITECT AND ENGINEER ARE NOT PART OF THE COORDINATION DRAWING PROCESS. THE ENGINEER WILL PROVIDE ASSISTANCE FOR NOTED CONFLICTS ONLY. COORDINATION DRAWINGS ARE NOT TO BE CONSIDERED PIPING OR DUCT SHOP DRAWINGS. THE CONTRACTOR IS REQUIRED TO SUBMIT INDIVIDUAL PIPING AND DUCTWORK SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. PIPING AND DUCTWORK SHOP DRAWINGS SHALL FOLLOW THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.			
SUBMIT FINAL SIGNED COORDINATION DRAWING TO ENGINEER FOR REVIEW. ENGINEER WILL REVIEW COORDINATION DRAWINGS FOR GENERAL ARRANGEMENT AND FOR NOTED CONFLICTS ONLY. SPECIFIC INSTALLATION REQUIREMENTS WILL BE REVIEWED ONLY IN INDIVIDUAL TRADE SHOP DRAWINGS.			
ANY WORK FABRICATED OR INSTALLED PRIOR TO SIGN OFF BY ALL TRADES WHICH IS DEEMED TO BE IN CONFLICT WITH COORDINATION DRAWINGS SHALL BE REMOVED AND RE-INSTALLED IN CONFORMANCE WITH COORDINATION DRAWINGS.			
EACH CONTRACTOR (MENTIONED ABOVE) IS RESPONSIBLE FOR THE COORDINATION OF HIS SUB-CONTRACTORS.			
THE OVERALL COORDINATION OF THE COORDINATION PROCESS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER IS NOT RESPONSIBLE FOR THE COORDINATION PROCESS. THE ENGINEER WILL RESPOND TO QUESTIONS THAT ARISE FROM THE COORDINATION PROCESS. DRAWINGS SUBMITTED WILL BE REVIEWED FOR CLEARLY IDENTIFIED CONFLICTS ONLY. SOLUTIONS TO CONFLICTS WILL NOT BEAR ADDITIONAL COST.			
SHOP DRAWINGS			
CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO BE APPROVED, REVISED, OR RESUBMITTED AS PER THE ENGINEERS COMMENTS, PRIOR TO CONSTRUCTION. INCLUDING BUT NOT LIMITED TO THE FOLLOWING: -PLUMBING FIXTURES -PIPING -BRAZING -THERMOSTATIC MIXING VALVES -CLEAN OUTS -PIPE SEALS -HANGERS/SUPPORTS -VALVES -DRAINS -FITTINGS -INSULATION			
AS BUILT DRAWINGS			
PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS REFLECTING AS INSTALLED CONDITIONS. AS-BUILT DRAWINGS SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS SHALL BE BOUND IN A COMPLETE AND CONSECUTIVE SET. SUPPLEMENTAL SKETCHES AND LOOSE PAPERWORK WILL NOT BE ACCEPTABLE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEERS COMMENTS TO PRODUCE A CLEAR AND CONCISE SET OF DRAWINGS. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC (AUTOCAD VERSION AS REQUIRED BY THE OWNER) VERSION. NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER.			
PROVIDE "AS-BUILT DRAWINGS" INDICATING IN A NEAT AND ACCURATE MANNER A COMPLETE RECORD OF ALL REVISIONS OF THE ORIGINAL DESIGN OF THE WORK. INDICATE THE FOLLOWING INSTALLED CONDITIONS: INCLUDE ALL CHANGES AND AN ACCURATE RECORD, ON REPRODUCTIONS OF THE CONTRACT DRAWINGS OR APPROPRIATE SHOP DRAWINGS, OF ALL DEVIATIONS, BETWEEN THE WORK SHOWN AND WORK INSTALLED.			
MAINS AND BRANCHES OF PIPING SYSTEMS, WITH VALVES AND CONTROL DEVICES LOCATED AND NUMBERED, CONCEALED UNIONS LOCATED, AND WITH ITEMS REQUIRING MAINTENANCE LOCATED (I.E. TRAPS, STRAINERS, EXPANSION COMPENSATORS, TANKS, ETC.). VALVE LOCATION DIAGRAMS, COMPLETE WITH VALVE TAG CHART.			
EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM PROMINENT BUILDING LINES.			
APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.			
CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED.			
SUBMIT FOR REVIEW BOUND SETS OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING INSTRUCTIONS.			
SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.			
HANGERS AND SUPPORT			
SEISMIC RESTRAINT: PROVIDE SEISMIC RESTRAINT AND EXPANSION OF ALL PLUMBING EQUIPMENT AND SYSTEMS IN ACCORDANCE WITH STATE AND FEDERAL BUILDING CODE REQUIREMENTS. SUBMIT SHOP DRAWINGS SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT INDICATING ALL NECESSARY COMPONENT CUTS, PLAN LOCATIONS AND CALCULATIONS FOR A COMPLETE SYSTEM.			
PROVIDE ALL NECESSARY STRUCTURAL MEMBERS INCLUDING ADDITIONAL STRUCTURAL SUPPORT TO SUPPORT PIPING AND EQUIPMENT. HANGERS AND SUPPORTS SHALL BE OF AN APPROVED DESIGN NECESSARY TO SUPPORT PIPING, EQUIPMENT AND TO KEEP PIPING IN PROPER ALIGNMENT AND PREVENT TRANSMISSION OF INJURIOUS THRUSTS AND VIBRATIONS. IN ALL CASES WHERE HANGERS, BRACKETS, ETC., ARE SUPPORTED FROM CONCRETE CONSTRUCTION, DO NOT WEAKEN CONCRETE OR PENETRATE WATERPROOFING. ALL HANGERS AND SUPPORTS SHALL BE CAPABLE OF SCREW ADJUSTMENT AFTER PIPING IS ERCTED. HANGERS SUPPORTING PIPING EXPANDING INTO LOOPS, BENDS AND OFFSETS SHALL BE SECURED TO THE BUILDING STRUCTURE IN SUCH A MANNER THAT HORIZONTAL ADJUSTMENT PERPENDICULAR TO THE RUN OF PIPING SUPPORTED MAY BE MADE TO ACCOMMODATE DISPLACEMENT DUE TO EXPANSION. ALL SUCH HANGERS SHALL BE FINALLY ADJUSTED BOTH IN THE VERTICAL AND HORIZONTAL DIRECTION, AS REQUIRED. HANGERS IN CONTACT WITH COPPER OR BRASS PIPE SHALL BE DIELECTRIC, COMPATIBLE WITH COPPER AND BRASS ALLOY OR PROVIDED WITH FELT SLEEVE.			
PROVIDE ADDITIONAL SUPPORT FOR PIPING AND EQUIPMENT WHEN DECK IS NOT CAPABLE OF SUPPORT.			
BEAM CLAMPS: -HANGERS SUPPORTED FROM STEEL SHALL BE CENTER LOADING BEAM CLAMPS FOR HANGERS SUPPORTING PIPING 2 INCHES. FOR PIPING 2-1/2 INCHES AND LARGER, 1 BEAM CLAMPS SHALL BE FORGED STEEL. "C" CLAMPS ARE NOT TO BE USED.			
PROVIDE AND INSTALL EXPANSION COMPENSATION FOR ALL PIPING. SUBMIT PLANS, CALCULATIONS AND EQUIPMENT DATA.			
PIPE SEALS			
SEAL ALL PIPING PASSING THROUGH ALL FIRE AND/OR SMOKE RATED PARTITIONS AND WALLS WITH A UL LISTED, APPROVED AND TESTED FIRE AND/OR SMOKE SEALING MATERIAL INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.			
ALL PIPING PENETRATING A SLAB ON GRADE OR FOUNDATION WALL BELOW GRADE AND IN CONTACT WITH EARTH SHALL BE PROVIDED WITH A POURED IN PLACE SCHEDULE 80 GALVANIZED STEEL WATER TIGHT SLEEVE WITH INTEGRAL WATER STOP AND SEAL EQUAL TO "LINK SEAL".			
FURNISH AND SET STEEL PIPE SLEEVES OF SCHEDULE 40 BLACK STEEL FOR ALL LOCATIONS OF INTERIOR PARTITIONS, WALLS AND FLOORS PROVIDING AT LEAST 1/2" CLEARANCE BETWEEN PIPE INSULATION AND SLEEVE OR PIPE AND SLEEVE. WALL SLEEVES SHALL BE SMOOTH CUT AND SET FLUSH WITH FINISHED WALLS. FLOOR SLEEVES SHALL EXTENDED 2" ABOVE THE FINISHED FLOOR.			
ALL PIPING THROUGH WALLS, FLOORS OR CEILINGS SHALL HAVE SLEEVES AND ESCUTCHEONS. PROVIDE A TWO PIECE CHROME ESCUTCHEON WHERE PIPING PASSES THROUGH WALLS OR FLOORS OF FINISHED SPACES.			
ACCESS DOOR SIZES SHALL BE: 12" X 12" AT EASILY ACCESSIBLE ITEMS			
PLUMBING FIXTURES			
PLUMBING FIXTURES SHALL BE NEW, COMPLETE WITH TRIMMINGS AND FITTINGS, INCLUDING FAUCETS, CARRIERS, SUPPLIES, STOPS, TRAPS, TAILPIECES, WASTE PLUGS, CASINGS, HANGERS, PLATES, BRACKETS, ANCHORS, SUPPORTS, HARDWARE AND FASTENING DEVICES. NOTE: ALL FIXTURES SHALL BE OF SAME MANUFACTURER. TRIMMINGS AND FITTINGS SHALL BE CONSTRUCT OF FORGED, CAST, ROLLED OR EXTRUDED BRASS OR BRONZE WITH MONEL AND OTHER SUITABLE NON-CORROSIVE PARTS. DESIGNED WITH EASILY RENEWABLE PARTS THAT ARE SUBJECT TO WEAR OR DETERIORATION. NO DIE CASTINGS AND STAMPINGS OTHER THAN BRASS OR STAINLESS STEEL. PROVIDE PLUMBING FIXTURES AND TRIM WITH ALL NECESSARY TRIM, DEVICES AND ACCESSORIES REQUIRED FOR PROPER OPERATIONS SPECIFICALLY NOTED OR NOT			
ESCUTCHEONS SHALL BE ONE-PIECE CHROME PLATED CAST BRASS OR STAINLESS STEEL.			
P-TRAPS SHALL BE ONE PIECE CHROME PLATED CAST BRASS WITH CLEANOUT PLUG.			
EXAMINE ROUGHING-IN WORK OF POTABLE WATER AND WASTE PIPING SYSTEMS TO VERIFY ACTUAL LOCATIONS OF PIPING CONNECTIONS PRIOR TO INSTALLING FIXTURES. CORRECT ANY INCORRECT LOCATION OF PIPING, AND UNSATISFACTORY CONDITIONS FOR INSTALLATION OF PLUMBING FIXTURES. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN A MANNER ACCEPTABLE TO THE ENGINEER. ALL ROUGH-IN TO PLUMBING FIXTURES SHALL CONFORM TO FIXTURE MANUFACTURER PUBLISHED ROUGH-IN DIMENSIONS, AND REQUIREMENTS.			
UPON COMPLETION OF INSTALLATION OF PLUMBING FIXTURES AND AFTER UNITS ARE WATER PRESSURIZED, TEST FIXTURES TO DEMONSTRATE CAPABILITY AND COMPLIANCE WITH REQUIREMENTS. CORRECT MALFUNCTIONING UNITS AT SITE, THEN RETEST TO DEMONSTRATE COMPLIANCE; OTHERWISE, REMOVE AND REPLACE WITH NEW UNITS AND PROCEED WITH RETESTING.			
CLEAN PLUMBING FIXTURES, TRIM, AND STRAINERS OF DIRT AND DEBRIS UPON COMPLETION OF INSTALLATION.			
ADJUST WATER PRESSURE AT DRINKING FOUNTAINS, FAUCETS, SHOWER VALVES, AND FLUSH VALVES TO PROVIDE PROPER FLOW STREAM AND SPECIFIED GPM.			
SET FIXTURES LEVEL AND UNIFORMLY, WITH CONNECTIONS AT RIGHT ANGLES TO WALL AND PROPERLY CENTERED. LAY OUT ROUGHING ACCURATELY AND IN COORDINATION WITH SPACE AND FINISH REQUIREMENTS.			
LOCATE WASTE OUTLETS AND WATER SUPPLIES AT CONSTANT HORIZONTAL LEVELS, WITH WASTE OUTLET CENTERED ON FIXTURE DRAIN CONNECTION AND WATER SUPPLIES SPACED EQUALLY TO RIGHT AND LEFT.			
DRAINS AND CLEANOUTS			
PROVIDE ALL POURED IN PLACE DRAINS AND CLEANOUTS WITH 24" X 24" FLASHING.			
PROVIDE A MANUFACTURED BRONZE OUTLET FITTING FOR ALL SECONDARY ROOF DRAIN OUTLETS.			
INSTALL EXTERIOR CLEANOUTS WITH A 18" SQUARE X 6" THICK CONCRETE APRON.			
COORDINATE FLOOR DRAIN LOCATIONS WITH RESPECT TO EQUIPMENT HOUSEKEEPING PADS. PLACE DRAINS SUCH THAT EDGE OF THE FLOOR GRATE EXTENDS NO FURTHER THAN 2 INCHES FROM THE SIDE OF THE PAD. CLEANOUT PLUGS SHALL BE BRASS OR PLASTIC, OR OTHER APPROVED MATERIALS. BRASS CLEANOUT PLUGS SHALL BE UTILIZED WITH METALLIC DRAIN, WASTE AND VENT PIPING ONLY, AND SHALL CONFORM TO ASTM A 74, ASME A123.1 OR ASME A112.36.2M. CLEANOUTS WITH PLATE-STYLE ACCESS COVERS SHALL BE FITTED WITH CORROSION-RESISTING FASTENERS. PLUGS SHALL HAVE RAISED SQUARE OR COUNTERSUNK SQUARE HEADS. COUNTERSUNK HEADS SHALL BE INSTALLED WHERE RAISED HEADS ARE A TRIP HAZARD. CLEANOUT PLUGS WITH BOROSILICATE GLASS SYSTEMS SHALL BE OF BOROSILICATE GLASS.			
CLEANOUTS SHALL BE LOCATED AT MINIMUM INTERVALS OF 50 FEET FOR PIPING NPS 4 AND SMALLER AND 100 FEET FOR LARGER PIPING.			
BUILDING SEWERS SHALL BE PROVIDED WITH CLEANOUTS LOCATED NOT MORE THAN 100 FEET APART MEASURED FROM THE UPSTREAM ENTRANCE OF THE CLEANOUT. FOR BUILDING SEWERS 8 INCHES AND LARGER, MANHOLES SHALL BE PROVIDED AND LOCATED NOT MORE THAN 200 FEET FROM THE JUNCTION OF THE BUILDING DRAIN AND BUILDING SEWER, AT EACH CHANGE IN DIRECTION AND AT INTERVALS OF NOT MORE THAN 400 FEET APART. MANHOLES AND MANHOLE COVERS SHALL BE OF AN APPROVED TYPE.			
CLEANOUTS SHALL BE INSTALLED AT EACH CHANGE OF DIRECTION OF THE BUILDING DRAIN OR HORIZONTAL WASTE OR SOIL LINES GREATER THAN 45 DEGREES (INCLUDING P-TRAPS). WHERE MORE THAN ONE CHANGE OF DIRECTION OCCURS IN A RUN OF PIPING, ONLY ONE CLEANOUT SHALL BE REQUIRED FOR EACH 40 FEET OF DEVELOPED LENGTH OF THE DRAINAGE PIPING.			
A CLEANOUT SHALL BE PROVIDED AT THE BASE OF EACH WASTE OR SOIL STACK.			
THERE SHALL BE A CLEANOUT NEAR THE JUNCTION OF THE BUILDING DRAIN AND THE BUILDING SEWER. THE CLEANOUT SHALL BE EITHER INSIDE OR OUTSIDE THE BUILDING WALL AND SHALL BE BROUGHT UP TO THE FINISHED GROUND LEVEL OR TO THE BASEMENT FLOOR LEVEL. AN APPROVED TWO-WAY CLEANOUT IS ALLOWED TO BE USED AT THIS LOCATION TO SERVE AS A REQUIRED CLEANOUT FOR BOTH THE BUILDING DRAIN AND BUILDING SEWER. THE CLEANOUT AT THE JUNCTION OF THE BUILDING DRAIN AND BUILDING SEWER SHALL NOT BE REQUIRED IF THE CLEANOUT ON A 3-INCH OR LARGER DIAMETER SOIL STACK IS LOCATED WITHIN A DEVELOPED LENGTH OF 10 FEET OF THE BUILDING DRAIN AND BUILDING SEWER CONNECTION.			
CONCEALED PIPING. CLEANOUTS ON CONCEALED PIPING OR PIPING UNDER A FLOOR SLAB OR IN A CRAWL SPACE OF LESS THAN 24 INCHES IN HEIGHT OR A PLENUM SHALL BE EXTENDED THROUGH AND TERMINATE FLUSH WITH THE FINISHED WALL, FLOOR OR GROUND SURFACE OR SHALL BE EXTENDED TO THE OUTSIDE OF THE BUILDING. CLEANOUT PLUGS SHALL NOT BE COVERED WITH CEMENT, PLASTER OR ANY OTHER PERMANENT FINISH MATERIAL. WHERE IT IS NECESSARY TO CONCEAL A CLEANOUT OR TO TERMINATE A CLEANOUT IN AN AREA SUBJECT TO VEHICULAR TRAFFIC, THE COVERING PLATE, ACCESS DOOR OR CLEANOUT SHALL BE OF AN APPROVED TYPE DESIGNED AND INSTALLED FOR THIS PURPOSE.			
MINIMUM SIZE. CLEANOUTS SHALL BE THE SAME NOMINAL SIZE AS THE PIPE THEY SERVE UP TO 4 INCHES. FOR PIPES LARGER THAN 4 INCHES NOMINAL SIZE, THE MINIMUM SIZE OF THE CLEANOUT SHALL BE 4 INCHES.			
CAST-IRON CLEANOUT SIZING SHALL BE IN ACCORDANCE WITH ASTM A 74 FOR HUB AND SPIGOT FITTINGS OR ASTM A 888 OR CISPI 301 FOR HUBLESS FITTINGS.			
ACCESS SHALL BE PROVIDED TO ALL CLEANOUTS.			
MISCELLANEOUS SPECIALTIES			
PROVIDE AND INSTALL ACCESS DOORS FOR EACH VALVE, CLEANOUT OR PLUMBING DEVICE REQUIRING ACCESS. ACCESS DOORS SHALL BE RIGID CONSTRUCTION WITH TWO HINGES AND A LATCH. IN PLENUM CEILINGS, PROVIDE FELT BETWEEN THE DOOR AND FRAME TO MAKE AN AIR TIGHT SEAL. ACCESS DOORS SHALL BE RATED TO THE SAME OR GREATER RATING OF THE PARTITION IN WHICH THEY ARE INSTALLED. ACCESS DOORS SHALL BE FLUSH MOUNTED, PRIME COATED WITH RUST INHIBITIVE PAINT, CONCEALED FRAME, FLUSH SCREW DRIVER OPERATED LOCKS WITH METAL CAMS AND ANCHORS AS REQUIRED.			
16" X 16" WHERE PARTIAL BODY ACCESS IS REQUIRED 24" X 24" WHERE FULL BODY ACCESS IS REQUIRED			
PROVIDE AND INSTALL DRIP PANS WITH WATER DETECTOR AND DRAIN FOR PIPING REQUIRED BY ACTUAL FIELD CONDITIONS WHERE PIPING PASSES OVER INCLUDING AREA WITHIN 3'-0" OF ELECTRICAL EQUIPMENT.			
DO NOT INSTALL AIR GAP BACKFLOW PREVENTERS IN CONCEALED SPACES OR IN AREAS WHERE SPLASHING WATER WILL DAMAGE FINISHES. PROVIDE AND INSTALL AN OVERSIZED COPPER FUNNEL WITH AIR GAP DIRECTLY BELOW RPD PRESSURE RELIEF PORT. PIPE FUNNEL TO SPILL AS AN INDIRECT WASTE TO AN APPROVED DRAIN LOCATION.			
INSTALL ELECTRONIC TRAP PRIMERS SERVING ALL DRAINS. INSTALL ALL TRAP PRIMER VALVES IN AN ACCESSIBLE LOCATION. PROVIDE AND INSTALL ACCESS PANELS AND DOORS WHERE REQUIRED TO GAIN ACCESS IN CONCEALED CONSTRUCTION.			
PIPING GENERAL			
NO PIPING SHALL BE COVERED UNTIL TESTED APPROVED BY THE AUTHORITIES HAVING JURISDICTION.			
ALL PIPING SHALL BE RUN PERPENDICULAR AND/OR PARALLEL TO FLOORS, INTERIOR WALLS, ETC. PIPING AND VALVES SHALL BE GROUPED NEATLY AND SHALL BE RUN AS TO MAXIMIZE HEADROOM OR PASSAGE CLEARANCE. ALL VALVES, CONTROLS AND ACCESSORIES CONCEALED IN FURRED SPACES AND REQUIRING ACCESS FOR OPERATION AND MAINTENANCE SHALL BE ARRANGED TO ASSURE THE USE OF A MINIMUM NUMBER OF ACCESS DOORS.			
ALL PIPE LINES MADE WITH SCREWED FITTINGS MUST BE PROVIDED WITH A SUFFICIENT NUMBER OF FLANGES AND/OR UNIONS TO ALLOW FOR EASY AND CONVENIENT DISMANTLING OF THE SYSTEM WITHOUT BREAKING FITTINGS.			
ALL PIPING SHALL RUN CONCEALED IN FURRED SPACES OF OCCUPIED AREAS OR CHASES. CONTRACTOR SHALL OBTAIN PERMISSION TO RUN ANY EXPOSED PIPES.			
CAP ALL PIPE AND EQUIPMENT OUTLETS DURING CONSTRUCTION AND KEEP LINES AND INSIDE OF EQUIPMENT FREE OF FOREIGN MATERIALS.			
PROVIDE FOR EXPANSION WITHOUT WARPING OR DISLOCATING LINES OR STRAINING CONNECTED EQUIPMENT. INSTALL PIPING TO CLEAR BUILDING CONSTRUCTION AND TO AVOID INTERFERENCE WITH OTHER WORK. THE CONTRACTOR SHALL PROVIDE AND INSTALL COMPLETE PIPING EXPANSION SYSTEM (INCLUDING SEISMIC JOINT EXPANSION) AND DEVICES AS REQUIRED FOR PROPER EXPANSION COMPENSATION STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT.			
THE DRAWINGS INDICATE SCHEMATICALLY THE SIZE AND LOCATION OF PIPING. PIPING SHALL BE SET UP AND DOWN AND OFFSET AS REQUIRED TO MEET CONSTRUCTION CONDITIONS.			
THIS CONTRACTOR SHALL INFORM HIMSELF FROM THE GENERAL CONSTRUCTION SPECIFICATIONS AND PLANS, OF THE EXACT DIMENSION OF FINISHED WORK AND OF THE HEIGHT OF FINISHED CEILINGS IN ALL ROOMS WHERE EQUIPMENT OR PIPES ARE TO BE PLACED AND ARRANGE HIS WORK IN ACCORDANCE WITH THE SCHEDULE OF INTERIOR FINISHES, AS INDICATED ON THE ARCHITECTURAL DRAWINGS.			
WATER PIPING SHALL BE RUN FREE OF TRAPS AND UNNECESSARY BENDS. ANY TRAPS FORMED SHALL BE PROVIDED WITH HOSE END DRAIN VALVES WITH THREADED CAP AND CHAIN TO COMPLETELY DRAIN THE SYSTEM.			
PROVIDE SECTION CUT-OFF VALVES ON ALL MAINS AND BRANCHES. PITCH AND VALVE ALL WATER PIPING FOR CONVENIENT DRAINAGE.			
WHEREVER DISSIMILAR METALS ARE JOINED TOGETHER AN APPROVED DIELECTRIC FITTING SHALL BE USED. THE DIELECTRIC FITTING SHALL BE A LISTED ASSEMBLY.			
RUN ALL SOIL, WASTE AND VENT PIPING SHOWN OR REQUIRED BY LOCAL CODES. PIPING SHOWN IS MINIMUM AND IN ACCORDANCE WITH STATE AND FEDERAL CODES. IF LOCAL CODES REQUIRE ADDITIONAL VENTING OR LARGER SIZES, PROVIDE AS REQUIRED.			
MAKE ALL CONNECTIONS THROUGH TRAPS. EACH TRAP TO BE VENTED, EITHER BY CIRCUIT, LOOP, OR INDIVIDUAL VENT, AS REQUIRED, BUT NOT LESS THAN SHOWN, OR AS REQUIRED BY LOCAL CODE.			
ALL UNDERGROUND PIPING SHALL BE LAID ON 6" SAND AND BACKFILLED WITH CLEAN FINE EARTH COMPACTED TO 12" ABOVE PIPE. COMPLETE BACKFILL WITH AVAILABLE EARTH FREE OF LARGE BOULDERS AND SHARP ROCKS. TAMP BACKFILL IN 6" ELEVATIONS AND OVERFILL TO ALLOW FOR SETTLEMENT.			
SET AND PROPERLY CONNECT ALL FIXTURES WITH HOT AND COLD WATER, VENT AND DRAINAGE PIPING, AS REQUIRED AND PROTECT FIXTURES UNTIL ACCEPTANCE AND TEST. CLEAN ALL FLUSH VALVES AFTER TWO WEEKS OF OPERATION.			
INSTALL THRUST BLOCKS FOR UNDERGROUND WATER PIPING AT ALL CHANGES IN DIRECTION BOTH HORIZONTALLY AND VERTICALLY. THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH OR EARTH. THRUST BLOCKS SHALL BE INSTALLED IN ACCORDANCE WITH THE DUCTILE IRON PIPE RESEACH ASSOCIATION (DIPRA) MANUAL "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AND LOCAL UTILITY COMPANY REQUIREMENTS.			
GAS PIPING			
INSTALL GAS PIPING, AND GAS PIPING SPECIALTIES IN ACCORDANCE WITH NFPA 54, NFPA 58, AND AUTHORITIES HAVING JURISDICTION.			
PROVIDE AND INSTALL INDEPENDENT GAS PRESSURE REGULATOR VENTS TO THE EXTERIOR AS REQUIRED IN NFPA 54/58 AND THE REGULATOR MANUFACTURERS REQUIREMENTS.			
LOCATE GAS PIPING WITH ADEQUATE SEPARATION BETWEEN ELECTRICAL CABLES, EQUIPMENT, AND CONDUIT.			
SLOPE GAS PIPING TO LOW POINTS WITHOUT TRAPS. PROVIDE DRIPS (PIPE TEE, NIPPLE, AND CAP) AT BOTTOM OF ALL VERTICAL RISERS AND DROPS.			
MAKE BRANCH CONNECTIONS TO MAINS FROM TOP OR SIDE, NOT FROM BOTTOM OF MAIN.			
PROVIDE AND INSTALL GAS SHUT-OFF VALVES FOR THE PROPER AND SAFE CONTROL OF THE SYSTEM.			
DO NOT LOCATE GAS VALVES IN SPACES USED AS AIR PLENUMS.			
VERIFICATION: BEFORE MAKING A GAS CONNECTION, VERIFY THAT EQUIPMENT IS COMPATIBLE WITH THE TYPE AND PRESSURE OF GAS BEING SUPPLIED.			
PURGING: PURGE GAS TO SAFE LOCATION.			

RFP 6320



93 Lake Avenue, Danbury, CT 06810
203.778.1017 F 203.778.1018
171 Madison Avenue,
New York, NY 10016
212.695.2422 F 212.695.2423
www.kohlerroman.com
E-mail: krce@kohlerroman.com

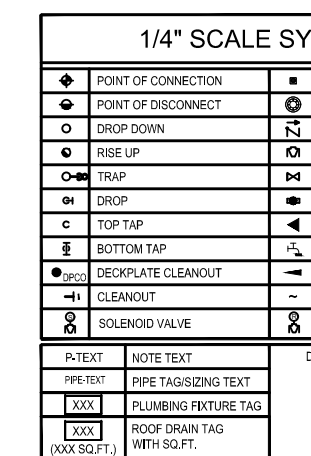
INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
TRUMBULL, CONNECTICUT
158 EDISON ROAD



15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

**GENERAL
NOTES
PLUMBING**

PROJ. NO.	JH182B	DRAWING NO.
SCALE	As Noted	P-0.2
DATE	NOVEMBER 8, 2018	



KR
KOHLER RONAN, LLC

93 Lake Avenue, Danbury, CT 06810
203.778.1017 F 203.778.1018

171 Madison Avenue,
New York, NY 10016
212.695.2422 F 212.695.2423

www.kohleronan.com
E-mail krcce@kohleronan.com

PROJ. NO. JH1828	DRAWING NO. <i>PD-1.1</i>
SCALE As Noted	
DATE NOVEMBER 8, 2018	



93 Lake Avenue, Danbury, CT 06810
203.778.1017 F 203.778.1018
171 Madison Avenue,
New York, NY 10016
212.695.2422 F 212.695.2423
www.kohlerroman.com
E-mail krce@kohlerroman.com

INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**

TRUMBULL, CONNECTICUT

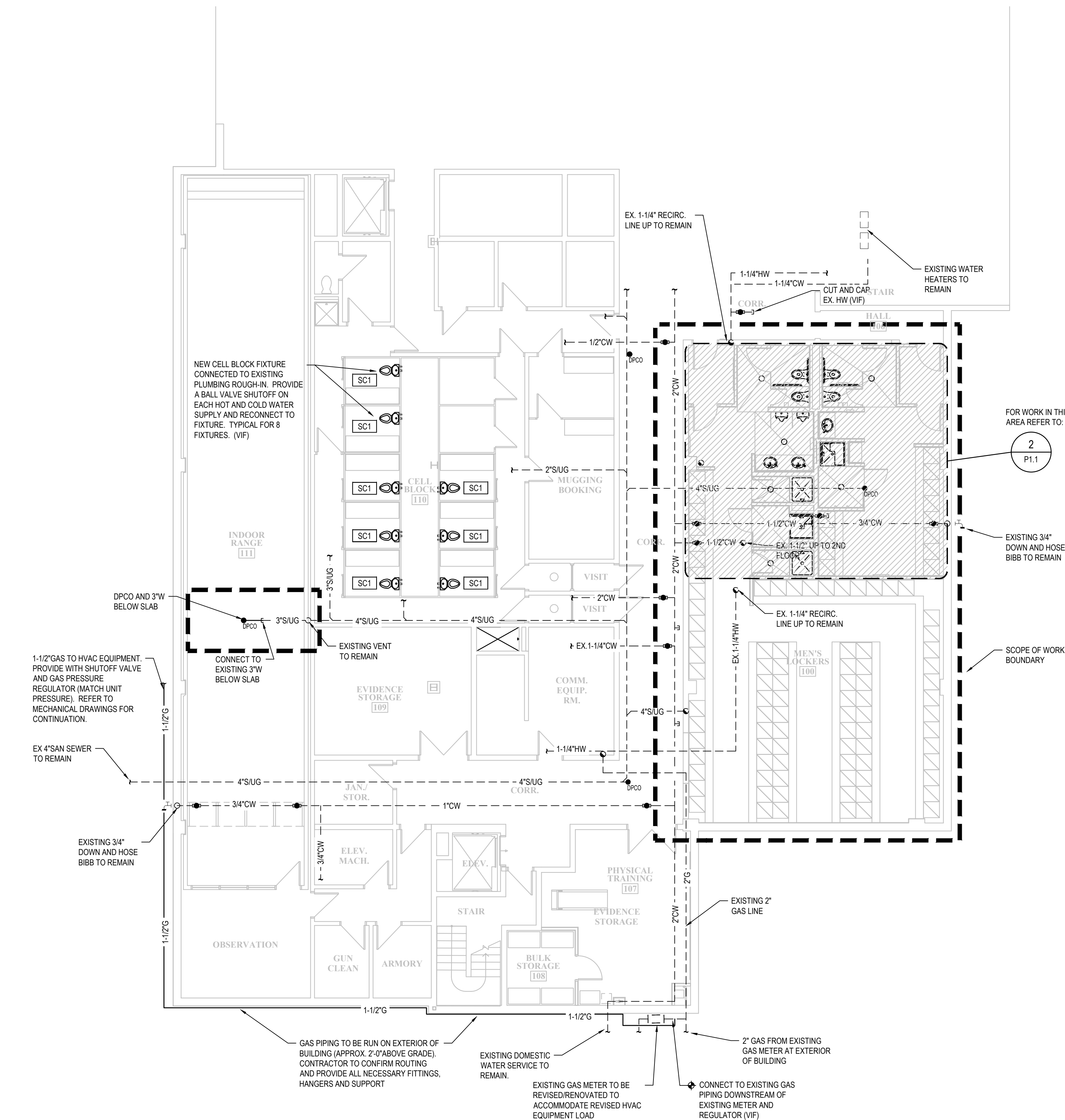
158 EDISON ROAD

J J H
JACUNSKI HUMES
ARCHITECTS, LLC

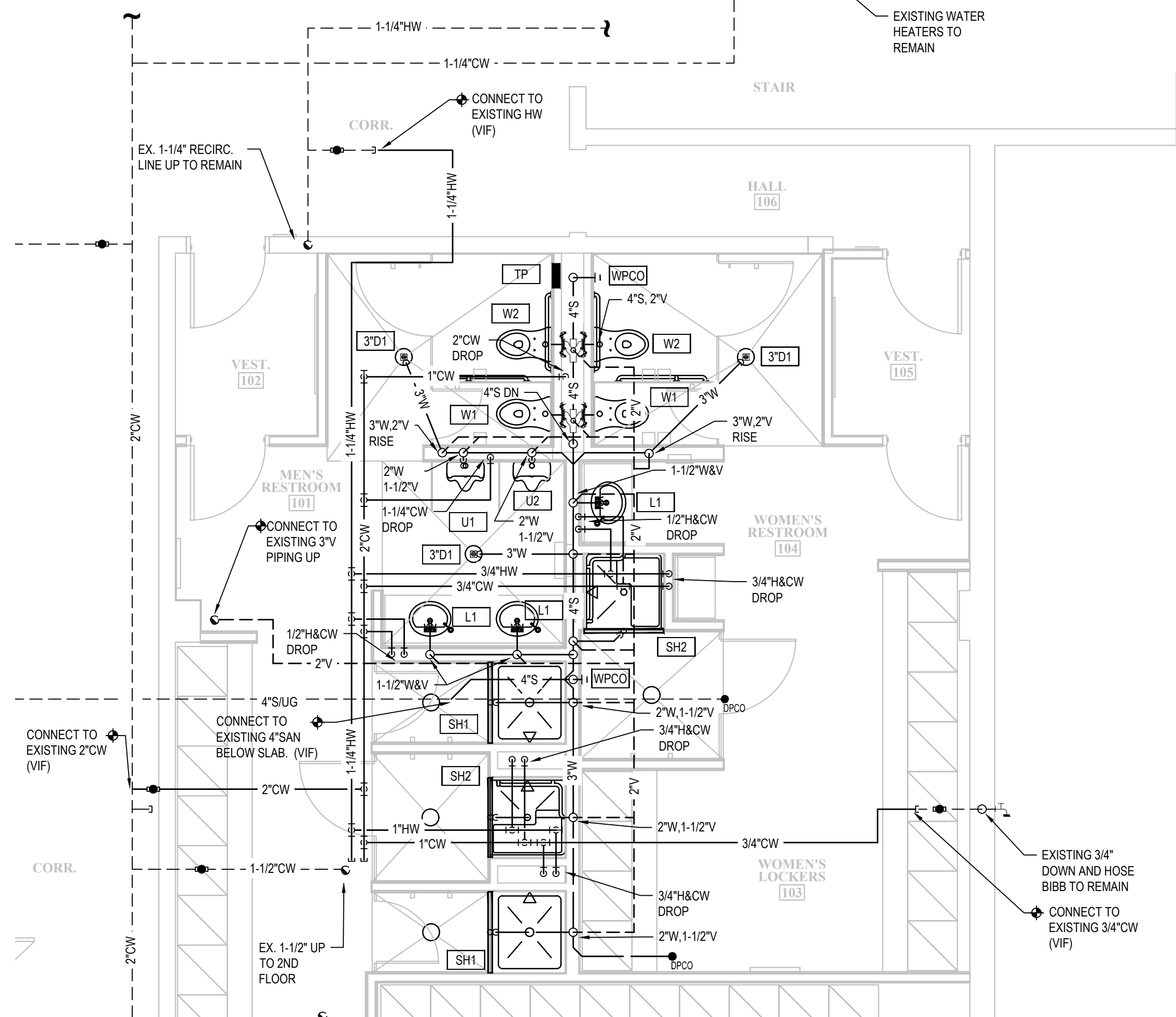
15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

**LOWER LEVEL
FLOOR PLAN -
PLUMBING**

PROJ. NO.	JH1828	DRAWING NO.
SCALE	As Noted	P-1.1
DATE	NOVEMBER 8, 2018	



1 LOWER LEVEL FLOOR PLAN
P-1.1 Scale: 1/8"=1'-0"



2 LOWER LEVEL PART PLAN
P-1.1 Scale: 1/4"=1'-0"

PIPE AND FITTING SCHEDULE								
DESCRIPTION	SIZE	PIPE		FITTING		REMARKS	ABBREV.	DESCRIPTION
		TYPE	SCHEDULE	TYPE	RATING			
SOIL, WASTE AND VENT ABOVE GROUND	ALL	CI - NH	SV	CI	SV	CHARLOTTE PIPE WITH HUSKY SD4000 COUPLINGS	AWWA	AMERICAN WATER WORKS ASSOCIATION
SOIL, WASTE AND VENT BELOW GROUND	ALL	CI - H&S	SV	CI	SV	-	CI	CAST IRON
DOMESTIC COLD WATER WITHIN BUILDING	2-1/2" AND BELOW	COPPER	TYPE L	CUS	STD	HARD TEMPERED	OLDI	CEMENT-LINED DUCTILE IRON
DOMESTIC HOT WATER PIPING	2-1/2" AND BELOW	COPPER	TYPE L	CUS	STD	HARD TEMPERED	CPVC	CHLORINATED POLYVINYL CHLORIDE
DOMESTIC COLD WATER WITHIN BUILDING	3" AND LARGER	COPPER	TYPE L	GJ	MJ	HARD TEMPERED	CUS	WROUGHT COPPER SOLDER (85/15)
DOMESTIC HOT WATER PIPING	3" AND LARGER	COPPER	TYPE L	GJ	MJ	HARD TEMPERED	DI	DUCTILE IRON
DOMESTIC HOT WATER RECIRCULATION PIPING	ALL	COPPER	TYPE L	CUS	STD	HARD TEMPERED	DIMJ	DUCTILE IRON MECHANICAL JOINT
INDIRECT WASTE AND CONDENSATE PIPING	ALL	COPPER	TYPE L	CUS	STD	HARD TEMPERED	GES	GROOVED END STEEL
DOMESTIC HOT & COLD WATER PIPING WITHIN BUILDING, BELOW SLAB	ALL	PEX				NO JOINTS ALLOWED BELOW SLAB	GJ	GROOVED JOINT SYSTEM FITTINGS/COUPLINGS
GAS PIPING	2" AND BELOW	STL-BLK	40	MIT	CLASS 150		GS	GALVANIZED STEEL
GAS PIPING	ABOVE 2"	STL-BLK	40	WE	SCHED 40		H&S	HUB AND SPIGOT
DOMESTIC WATER SERVICE PIPING	2-1/2" AND BELOW	COPPER	TYPE K	CUS	STD	SOFT TEMPERED - NO JOINTS ALLOWED BELOW SLAB	MJ	MECHANICAL JOINT
DOMESTIC WATER SERVICE PIPING	3" AND LARGER	OLDI	CLASS S2	DIMJ	250		MIT	MALLEABLE IRON THREADED
TRAP PRIMER PIPING	ALL	PEX				NO JOINTS ALLOWED BELOW SLAB	NH	NO HUB WIHEAVY DUTY 4-BAND HUSKY CLAMP
NOTE: NO-HUB OR TRANSITION COUPLINGS ARE NOT PERMITTED BELOW GRADE, BELOW SLABS OR BURIED IN CONTACT WITH EARTH.								

VALVE SCHEDULE											
DESCRIPTION	SIZE	TYPE							REMARKS	ABBREVIATIONS	
		GATE	GLOBE	CHECK	BALL	PLUG	BALAN.	CLASS		ABB.	DESCRIPTION
DOMESTIC COLD WATER	2" AND SMALLER	GVT	GLVT	CVT	BVT	--	--	125 PSI	--	BVT	BALL VALVE THREADED - 2-PIECE, FULL PORT, 400PSI, BRONZE
DOMESTIC HOT WATER	2" AND SMALLER	GVT	GLVT	CVT	BVT	--	CBV	125 PSI	--	CBV	CALIBRATED BALANCING VALVE, BRONZE
										CVF	CHECK VALVE FLANGED - IBBM
DOMESTIC COLD WATER	2-1/2" AND LARGER	GVF	--	CVF	--	--	--	125 PSI	--	CVT	CHECK VALVE THREADED - BRONZE
										GVF	GATE VALVE FLANGED - IBBM
DOMESTIC HOT WATER	2-1/2" AND LARGER	GVF	--	CVF	--	--	CBV	125 PSI	--	GVT	GATE VALVE THREADED - BRONZE
										GLVT	GLOBE VALVE THREADED - BRONZE
GAS	2" AND SMALLER	--	--	--	--	PGVT	--	125 PSI	--	PGVF	PLUG VALVE FLANGED - AGA APPROVED
										PGVT	PLUG VALVE THREADED - AGA APPROVED
GAS	2-1/2" AND OVER	--	--	--	--	PGVF	--	125 PSI	--	PRODUCTS INCLUDED IN THIS SECTION SHALL BE "LEAD FREE" IN ACCORDANCE WITH THE REQUIREMENTS OF THE "REDUCTION OF LEAD IN DRINKING WATER ACT".	
SOLENOID VALVE: UL LISTED, FM APPROVED FOR GAS SERVICE, EXPLOSION PROOF, TWO-WAY NORMALLY CLOSED. SOLENOID VALVE: ASCO 8044 SERIES W/ MANUAL RESET. (EMERGENCY GAS SHUT-OFF VALVE ASSEMBLY)											

PLUMBING CLEANOUT SCHEDULE				
TAG	TYPE	MANUFACTURER & MODEL NUMBER	DESCRIPTION	GENERAL CLEANOUT NOTES
DPCO	FLOOR CLEANOUT	JOSAM 55000-1-SD-22-41-VP SMITH 4100-NB-FC SERIES WATTS CO-200-RX-C-6 ZURN ZN-1400-HD-KC SERIES	ALL INTERIOR AREAS (EXCEPT CARPETED AREAS) ADJUSTABLE ROUND SCORIATED HEAVY DUTY NICKEL BRONZE SECURED TOP WITH FRAME, CAST IRON BODY, FLASHING FLANGE AND CLAMP, BRONZE PLUG. PROVIDE WITH VANDAL PROOF SCREWS. PROVIDE NICKEL BRONZE FRAME IN WET AREAS.	<ul style="list-style-type: none">INSTALL EXTERIOR CLEANOUTS WITH A 18" SQUARE X 6" THICK CONCRETE APRON.CLEANOUTS SHALL BE LOCATED AT MINIMUM INTERVALS OF 50 FEET FOR PIPING NPS 4 AND SMALLER AND 100 FEET FOR LARGER PIPING.BUILDING SEWERS SHALL BE PROVIDED WITH CLEANOUTS LOCATED NOT MORE THAN 100 FEET APART MEASURED FROM THE UPSTREAM ENTRANCE OF THE CLEANOUT.CLEANOUTS SHALL BE INSTALLED AT EACH CHANGE OF DIRECTION OF THE BUILDING DRAIN OR HORIZONTAL WASTE OR SOIL LINES GREATER THAN 45 DEGREES (INCLUDING P-TRAPS), WHERE MORE THAN ONE CHANGE OF DIRECTION OCCURS IN A RUN OF PIPING. ONLY ONE CLEANOUT SHALL BE REQUIRED FOR EACH 40 FEET OF DEVELOPED LENGTH OF THE DRAINAGE PIPING.A CLEANOUT SHALL BE PROVIDED AT THE BASE OF EACH WASTE OR SOIL STACK.THERE SHALL BE A CLEANOUT NEAR THE JUNCTION OF THE BUILDING DRAIN AND THE BUILDING SEWER. THE CLEANOUT SHALL BE EITHER INSIDE OR OUTSIDE THE BUILDING WALL AND SHALL BE BROUGHT UP TO THE FINISHED GROUND LEVEL OR TO THE ASSOCIATED FLOOR LEVEL.MINIMUM SIZE. CLEANOUTS SHALL BE THE SAME NOMINAL SIZE AS THE PIPE THEY SERVE UP TO 4 INCHES. FOR PIPES LARGER THAN 4 INCHES NOMINAL SIZE, THE MINIMUM SIZE OF THE CLEANOUT SHALL BE 4 INCHES.CLEARANCES: CLEANOUTS ON 6-INCH AND SMALLER PIPES SHALL BE PROVIDED WITH A CLEARANCE OF NOT LESS THAN 18 INCHES FOR RODDING. CLEANOUTS ON 8-INCH AND LARGER PIPES SHALL BE PROVIDED WITH A CLEARANCE OF NOT LESS THAN 36 INCHES FOR RODDING.PROVIDE CLEANOUT ON ALL HORIZONTAL RUNS GREATER THAN 3 FEET. FLOOR DRAINS, ROOF DRAINS AND FLOOR SINKS ARE NOT CONSIDERED AN ACCEPTABLE CLEANOUT.
DPCO	FLOOR CLEANOUT	JOSAM 55000-1-SD-14-22-41-VP SMITH 4100-NB-FC-Y SERIES WATTS CO-200-RC-6 ZURN ZN-1400-HD-KC-CM SERIES	CARPETED AREAS, ADJUSTABLE ROUND SCORIATED HEAVY DUTY NICKEL BRONZE SECURED TOP WITH FRAME, CARPET MARKER, CAST IRON BODY, FLASHING FLANGE AND CLAMP, BRONZE PLUG. PROVIDE WITH VANDAL PROOF SCREWS	
DPCO	FLOOR CLEANOUT	JOSAM 58670-S-VP-C04 SMITH 4250-M SERIES WATTS CO-300-MF-6 WITH CO-380 ZURN Z-1474-DG/Z1449 SERIES	EXTERIOR AREAS, ROUND FLANGED HOUSING WITH HEAVY DUTY SCORIATED DUCTILE IRON TOP, CLEANOUT FERRULE BODY WITH BRONZE PLUG. INSTALL CLEANOUTS WITH 18" SQUARE X 6" DEEP CONCRETE APRON IN NON-PAVED AREAS. PROVIDE WITH VANDAL PROOF SCREWS	
WPCO	WALL PLATE CLEANOUT COVER	JOSAM 58640-CO (1")-VP SERIES SMITH 4730-NB-UJ SERIES WATTS CO-300-S7-6 ZURN ZANB-1460-VP SERIES	PROVIDE AT CAST IRON CLEANOUTS WITH TAPERED BRONZE PLUG A 6" X 6" (OR 7" X 7") POLISHED NICKEL BRONZE SQUARE FRAME AND COVER SECURED WITH VANDAL PROOF SCREWS. *MATCH CLEANOUT TO FILED CONDITIONS, USE *-COT* OPTION, IF NECESSARY. MAKE ACCESS COVER SIZE APPROPRIATE TO CLEANOUT.	

PLUMBING DRAIN/EQUIPMENT SCHEDULE											
FIXTURE TAG	FIXTURE TYPE	FIXTURE MANUFACTURER MODEL, MODEL NO.	MATERIAL	DESCRIPTION	SUPPLY SIZE	TRAP SIZE	MINIMUM BRANCH SIZES				REMARKS
							WASTE/ SANITARY	VENT	COLD WATER	HOT WATER	
D1	6" SQUARE FLOOR DRAIN TOILET ROOMS	JOSAM 30000-S SERIES MIFAB F1100-C-S SERIES SMITH 2010 SERIES WADE 1100-G SERIES WATTS FD-100-M6-7 ZURN Z415S SERIES	CAST IRON	CAST IRON BODY, BOTTOM OUTLET, 6" X 6" SQUARE NICKEL BRONZE TOP, TRAP PRIMER CONNECTION, SEEPAGE PAN AND COMBINATION MEMBRANE FLASHING CLAMP	--	AS NOTED ON DWG.	--	--	--	--	
D2	SHOWER DRAIN - TILE BASE	PROLINE TRENCH DRAIN	STAINLESS STEEL	18 GAUGE 316L STAINLESS STEEL, FULLY SLOPED, LOW PROFILE 1" DEEP AND 1" WIDE TROUGH, 2" ID SCHEDULE 10 STAINLESS STEEL WASTE OUTLET	--	AS NOTED ON DWG.	--	--	--	--	
NOTE: PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS. SHOWER DRAINS INCORPORATING A CONSTANT AND REGULAR INDIRECT WASTE, ARE NOT REQUIRED TO INTEGRATE TRAP PRIMERS.											

RFP 6320






INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
158 EDISON ROAD
TRUMBULL, CONNECTICUT

J J H H
JACUNSKI HUMES
ARCHITECTS, LLC
15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

**SCHEDULES
PLUMBING**

PROJ. NO.	JH1828	DRAWING NO.
SCALE	As Noted	P-3.0
DATE	NOVEMBER 8, 2018	

INSULATION SCHEDULE					
SYSTEM	PIPE SIZE	PIPE INSULATION TYPE	PIPE INSULATION THICKNESS	FITTINGS, VALVES, FLANGES - INSULATION TYPE	REMARKS
DOMESTIC COLD WATER	ALL	MINERAL FIBER, ASJ, SSL	1"	MOLDED, PRE-FORMED MINERAL FIBER PVC JACKET	TYPE I
DOMESTIC HOT WATER	ALL	MINERAL FIBER, ASJ, SSL	1"	MOLDED, PRE-FORMED MINERAL FIBER PVC JACKET	TYPE I
DOMESTIC WATER UNDERGROUND & IN SLAB INSTALLATION	ALL	FLEXIBLE ELASTOMERIC, CLOSED CELL	1"	ARMAFLEX	
1. FIBERGLASS INSULATION: THERMAL CONDUCTIVITY .22 TO .28 BTU x IN./H x FT x °F W/ 100°F MEAN TEMP. THICKNESS BASED ON IECC 2012					
2. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS					
3. ALL EXPOSED INDOOR PIPING/TUBING AND FITTINGS WITHIN OCCUPIED SPACES, CORRIDORS, MECHANICAL ROOMS AND OTHER NON-CONCEALED LOCATIONS SHALL BE FITTED WITH PVC FITTING COVERS AND PVC PIPE COVERS FROM THE FLOOR LEVEL TO 12" ABOVE THE FINISHED FLOORS, PLATFORMS, AND MEZZANINES. PVC FITTING AND PIPE COVERS SHALL BE 25/50 FLAME AND SMOKE SPREAD RATED. COVERS AND JACKETING COLOR TO BE SELECTED BY ARCHITECT. PROVIDE TEMPLATE OF JACKET COLORS FOR THE ARCHITECT'S REVIEW.					
4. ALL ELBOWS; CONCEALED OR EXPOSED, SHALL BE INSULATED WITH PRE-MOLDED, FACTORY FORMED FIBROUS GLASS WITH 3.5 PCF MINIMUM DENSITY AS MANUFACTURED BY HAMFAB OR APPROVED EQUAL. ALL ELBOWS; CONCEALED OR EXPOSED, SHALL BE COVERED WITH PVC FITTING COVERS. PVC FITTING COVERS SHALL BE 25/50 FLAME AND SMOKE SPREAD RATED. COVER COLOR TO BE SELECTED BY ARCHITECT. PROVIDE TEMPLATE OF JACKET COLORS FOR THE ARCHITECT'S REVIEW.					
5. DIAPER AND LOOSE FILL STYLE INSULATION ON PIPE FITTINGS IS NOT ACCEPTABLE. ELBOWS WITHOUT PVC COVERS ARE NOT ACCEPTABLE.					

PLUMBING FIXTURE SCHEDULE											
FIXTURE TAG	FIXTURE TYPE	FIXTURE MANUFACTURER MODEL, MODEL NO.	MATERIAL	DESCRIPTION	MINIMUM BRANCH SIZES						REMARKS
					SUPPLY SIZE	TRAP SIZE	WASTE/ SANITARY	VENT	COLD WATER	HOT WATER	
W1 W2 (ADA) 	WATER CLOSET WALL HUNG FLUSH VALVE	WATER CLOSET: KOHLER KINGSTON K-4325 SEAT: KOHLER LUSTRA K-4670-C FLUSH VALVE: KOHLER WAVE K-7521	VITREOUS CHINA COLOR: AS SELECTED BY ARCHITECT	WATER CLOSET: STANDARD & A.D.A. COMPLIANT, 1.28 GPF LOW FLOW, ELONGATED, SIPHON JET, WITH 1-1/2" TOP SPUD. FLUSH VALVE: ELECTRONIC INFRARED SENSOR FLUSH VALVE WITH WAVE TECHNOLOGY AND 30-YEAR HYBRID ENERGY CELL SEAT: HEAVY DUTY SOLID PLASTIC ELONGATED OPEN FRONT, COMBINED CONCEALED CARRIER & SUPPORT.	1"	--	4"	2"	1-1/2"	--	--
U1 U2 (ADA) 	URINAL FLUSH VALVE	URINAL: KOHLER BARDON K-4991-ETSS FLUSH VALVE: KOHLER WAVE K-7528	VITREOUS CHINA COLOR: AS SELECTED BY ARCHITECT	STANDARD AND ADA COMPLIANT, 0.125 GPF LOW FLOW, WASHOUT URINAL. FLUSH VALVE: ELECTRONIC INFRARED SENSOR FLUSH VALVE WITH WAVE TECHNOLOGY AND 30-YEAR HYBRID ENERGY CELL.	3/4"	--	2"	1-1/2"	1-1/4"	--	--
L1	LAVATORY COUNTER MOUNTED	LAVATORY: KOHLER BRYANT OVAL K-2699-4 FAUCET: KOHLER TRITON BOWE K-400720-6AKL MIXING VALVE: ACORN STP7069 INSULATION KIT: TRUEBRO LAV GUARD 2	VITREOUS CHINA COLOR: AS SELECTED BY ARCHITECT	STANDARD & A.D.A. COMPLIANT, OVAL, 1-1/2" CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT PLUG, CHROME PLATED BRASS ANGLE STOPS WITH LOOSE KEY OPERATOR, AND GRID DRAIN. FAUCET: 4" CENTERSET FAUCET, CHROME PLATED 1.0 GPM, LAMINAR FLOW OUTLET, WRISTBLADE HANDLES PROVIDE THERMOSTATIC MIXING VALVE ON HOT WATER SUPPLY	3/8"	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	INSULATE TRAP & WATER PIPING BELOW LAVATORY WITH INSULATION KIT. PROVIDE EACH FAUCET WITH AN ASSE 1070 COMPLIANT MIXING VALVE FOR HOT WATER SUPPLY
SH1	SHOWER ASSEMBLY	SHOWER SYSTEM: SYMMONS TEMPTROL C-96-1-X-2.0-X-CHKS SHOWER HEAD: SYMMONS #4-137 MIXING VALVE: ACORN STP7069	BASE AND ENCLOSURE BY ARCHITECT	PRESSURE BALANCING SHOWER VALVE WITH ADJUSTABLE STOP SCREW TO LIMIT HANDLE TURN, SINGLE MODE 2.0 GPM SHOWER HEAD. TYPE D2 SHOWER DRAIN. PROVIDE THERMOSTATIC MIXING VALVE ON HOT WATER SUPPLY	1/2"	--	2"	1-1/2"	3/4"	3/4"	--
SH2 (A.D.A.) 	SHOWER ENCLOSURE AND ASSEMBLY	SHOWER ENCLOSURE: COMFORT DESIGNS SST 3838 TR. 75 RF MS ADA SHOWER VALVE: SYMMONS TEMPTROL C-96-500-830-V-2.0-CHKS SHOWER HEAD: SYMMONS #4-137 HAND SHOWER: SYMMONS #T-300-V MIXING VALVE: ACORN STP7069	SOLID SURFACE COLOR: AS SELECTED BY ARCHITECT	SHOWER ENCLOSURE, A.D.A. COMPLIANT 36"(I.D.) X 36"(I.D.), ONE PIECE SANITARY GRADE SOLID SURFACE SHOWER UNIT WITH REINFORCED 3/4" THRESHOLD & BASE. MOLDED ADA FOLD DOWN SEAT, (1) 18" X 33-1/2" X 1-1/2" L-GRAB BAR, (1) 24" X 1-1/2" STAINLESS STEEL GRAB BAR VERTICAL ON THE VALVE WALL, INTEGRAL FRONT TRENCH DRAIN. CHROME PLATED SHOWER AND HAND SHOWER SYSTEM WITH 30" SLIDE BAR, DUAL SEPARATE DUAL OUTLET DIVERTER VALVE, 5 FOOT FLEXIBLE METAL HOSE WITH INLINE VACUUM BREAKER, CHECK STOPS, 2.0 GPM SHOWER HEAD. PROVIDE THERMOSTATIC MIXING VALVE ON HW SUPPLY	1/2"	--	2"	1-1/2"	3/4"	3/4"	--
TP1	ELECTRONIC TRAP PRIMER	PRECISION PLUMBING PRODUCTS MPB-500 SERIES PROVIDE WITH CABINET & ACCESS DOOR BASED ON WALL CONDITIONS. COORDINATE ACCESS PANEL FINISH & LOCATION WITH ARCHITECT. (REFER TO PIPE & FITTING SCHEDULE FOR MATERIALS)		ELECTRONIC TRAP PRIMER ASSEMBLY: CONSISTING OF CIRCUIT BREAKER (MINIMUM 2 AMP), SWITCH, TIMER SOLENOID VALVE, 115V, MOUNT PER MANUFACTURER'S REQUIREMENTS & RECOMMENDATIONS. COORDINATE NUMBER OF OUTLETS AS REQUIRED BY QUANTITY OF DRAINS SERVED (1 - 4).	1/2	--	--	--	--	--	*NOTE: RECESSED OR SURFACE MOUNTED CABINET TYPE BASED ON WALL CONDITIONS. CONTRACTOR TO COORDINATE WITH ARCHITECT. INCLUDE ACCESS DOOR/PANELS.
SC1	CELL BLOCK COMBINED WATER CLOSET/ LAVATORY	ACORN PENAL-WARE LR1418-CT-2-04-M-MTP2-1.28 GPF-MTPPV-PHL-MT	14 GAGE 304 STAINLESS STEEL	LIGATURE RESISTANT 18" WIDE LAV/TOILET COMBY. PROVIDE HEMISPHERICAL CABINET DESIGN TO REDUCE RISK OF FIXTURE BEING USED AS A LIGATURE DEVICE. CONSTRUCTION SHALL BE SEAMLESS WELDED AND EXPOSED SURFACES SHALL HAVE A SATIN FINISH. PROVIDE OVAL SHAPED LAVATORY BOWL. FIXTURE SHALL HAVE AN AIR-CONTROL PNEUMATICALLY OPERATED, PUSHBUTTON VALVE. HEMISPHERICAL PENAL BUBBLER AND HEMISPHERICAL PENAL PUSHBUTTON. PROVIDE TOILET BOWL HOUSING TO PROHIBIT THE ATTACHMENT OF OBJECTS, CONCEALED BLOWOUT JET TYPE, ELONGATED BOWL, SELF DRAINING FLUSHING RIM, AND AN INTEGRAL CONTOURED SEAT. TOILET TRAP SHALL HAVE A MINIMUM 3-1/2" SEAL THAT SHALL PASS A 2-1/8" DIAMETER BALL AND SHALL BE FULLY ENCLOSED. CABINET INTERIOR SHALL BE SOUND-DEADENED WITH FIRE-RESISTANT MATERIAL. FIXTURE SHALL WITHSTAND LOADINGS OF 5,000 POUNDS WITHOUT PERMANENT DAMAGE.	1"	--	4"	2"	1-1/2"	--	INCLUDE TRAP PRIMER ON ONE FLUSH VALVE IN EACH TOILET ROOM EQUIPPED WITH FLOOR DRAIN.

RFP 6320



93 Lake Avenue, Danbury, CT 06810
203.778.1017 F 203.778.1018
171 Madison Avenue,
New York, NY 10016
212.695.2422 F 212.695.2423
www.kohleronan.com
E-mail krce@kohleronan.com

INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
158 EDISON ROAD
TRUMBULL, CONNECTICUT



JACUNSKI HUMES
ARCHITECTS, LLC
15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

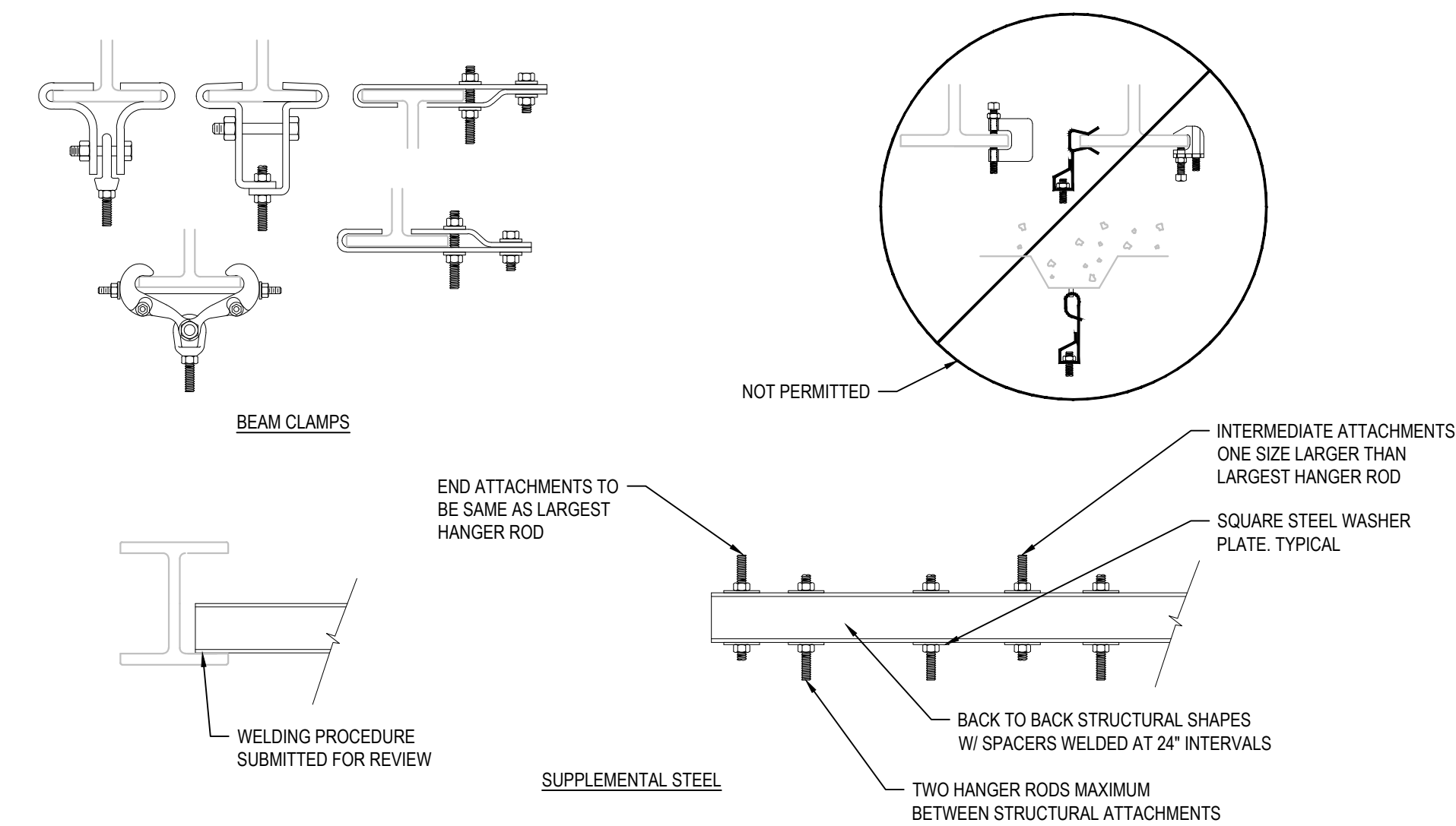
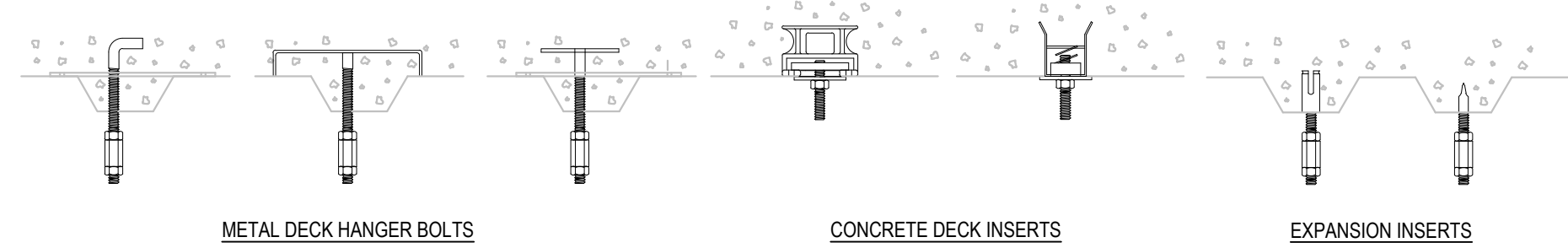
SCHEDULES
PLUMBING

PROJ. NO.
JH1828

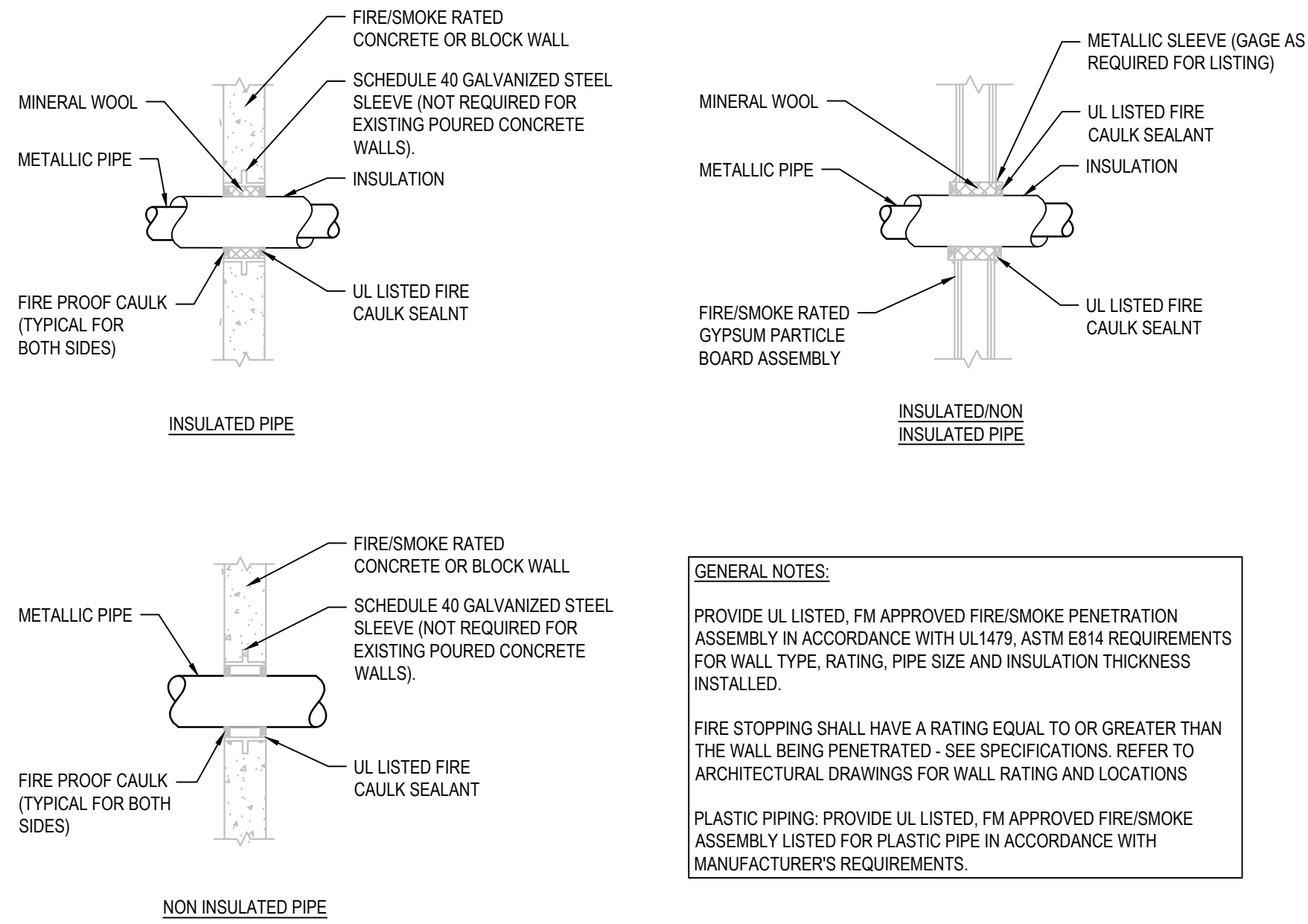
SCALE
As Noted

DATE
NOVEMBER 8, 2018

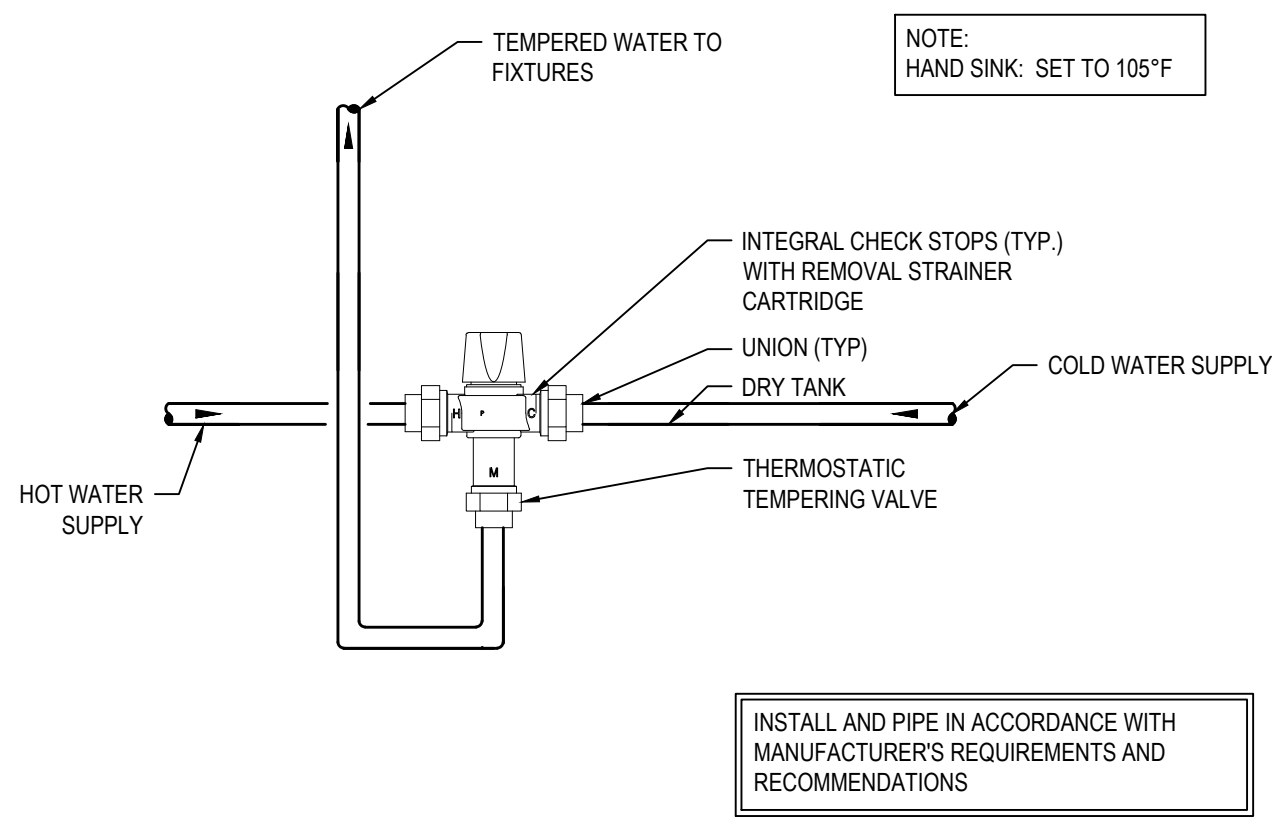
DRAWING NO.
P-3.1



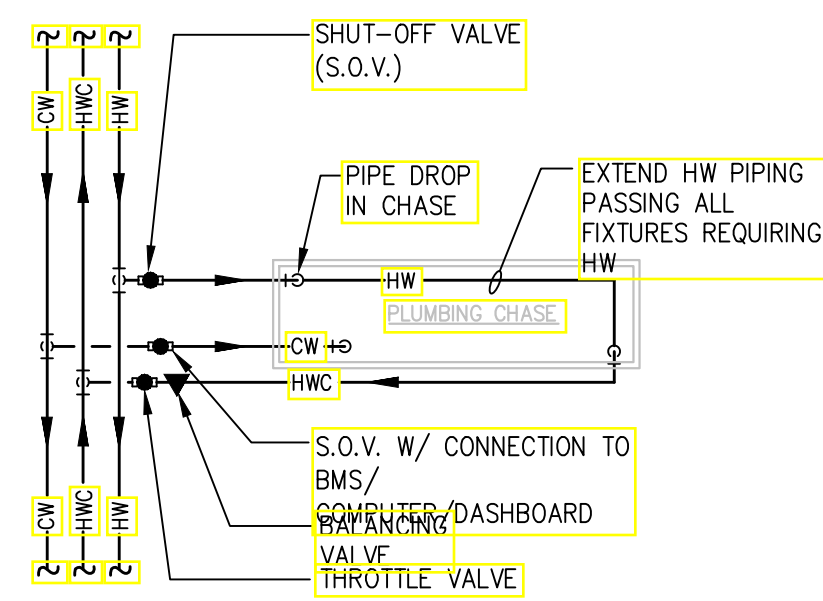
1 PIPE HANGER ATTACHMENT DETAIL
P-4.0 NOT TO SCALE



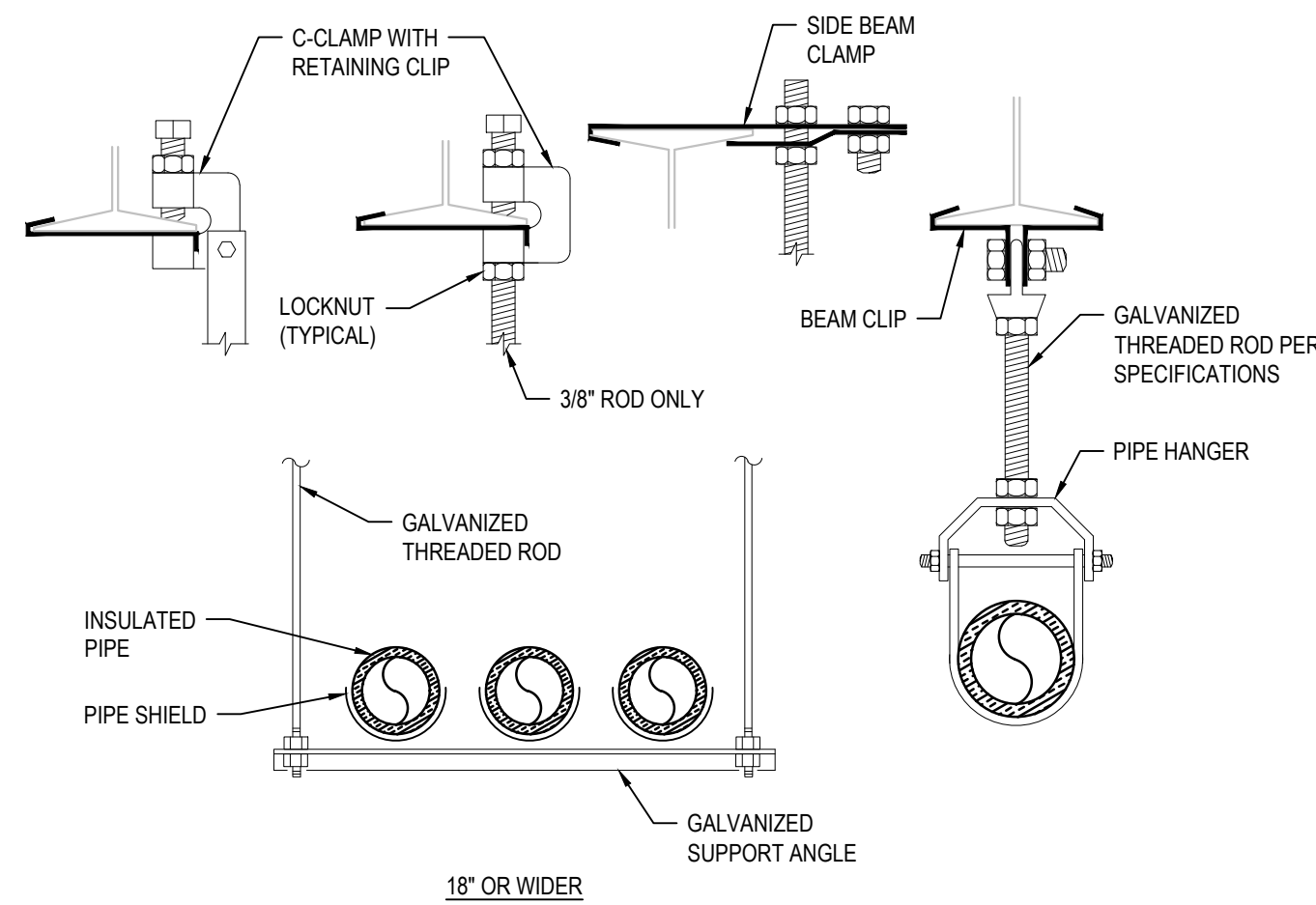
2 PIPE PENETRATION WITH FIRE/SMOKE SEAL
P-4.0 SCALE: N.T.S.



3 POU TMV
P-4.0 NOT TO SCALE



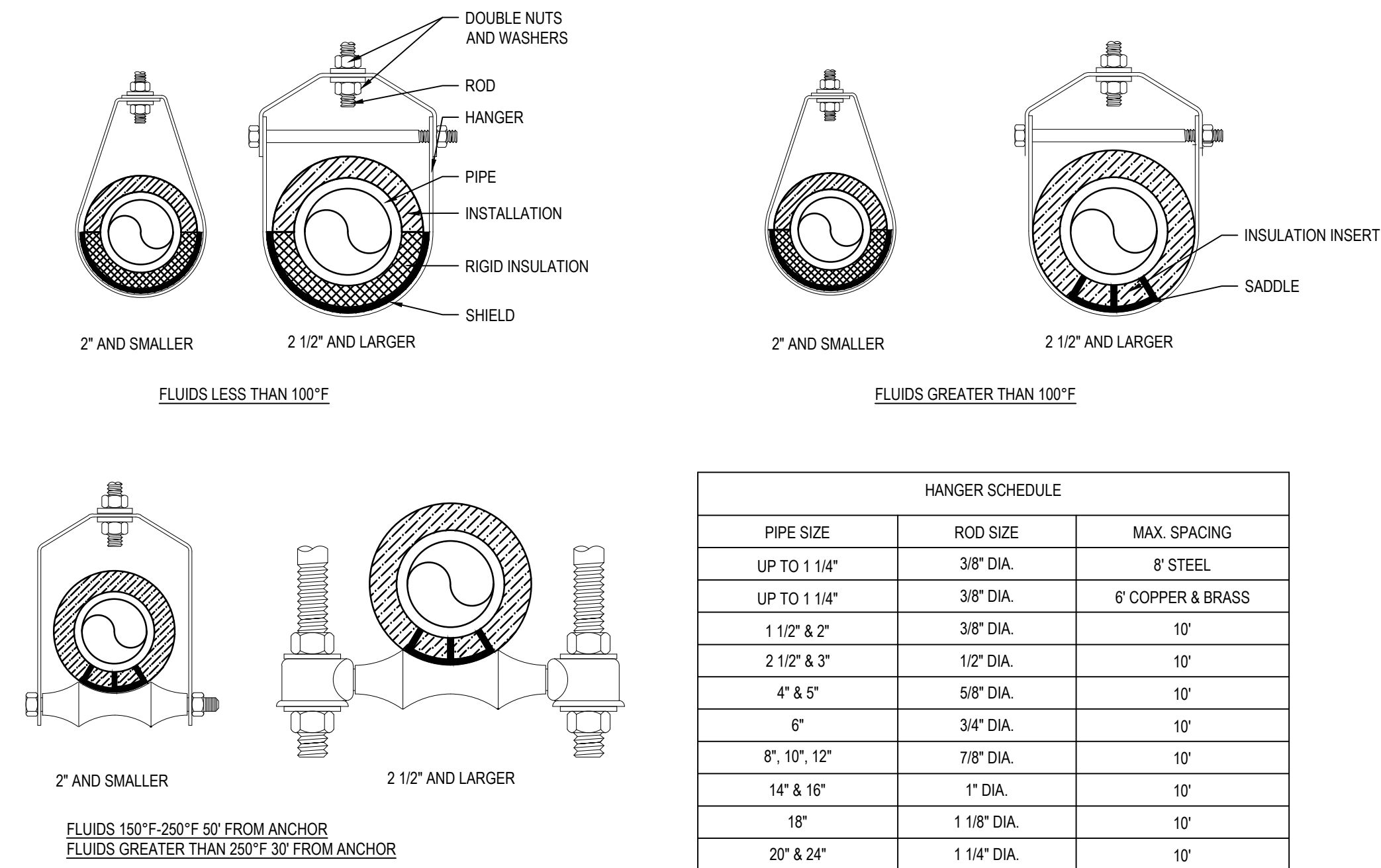
4 PIPING SCHEMATIC @ PLUMBING CHASE (TYP.)
P-4.0 NOT TO SCALE



PIPE SIZE	ROD DIAMETER	SUPPORT ANGLE OR EQUIVALENT CHANNEL	MAX SPACING STEEL PIPE	MAX SPACING COPPER PIPE	MAXIMUM AREA *
1/2" TO 1"	3/8"	1-1/2" X 1-1/2" X 1/8"	8'-0" O.C.	6'-0" O.C.	4 SQ. FT.
1-1/4" TO 2"	3/8"	1-1/2" X 1-1/2" X 1/8"	10'-0" O.C.	8'-0" O.C.	10 SQ. FT.
2-1/2" TO 4"	1/2"	2" X 2" X 1/4"	12'-0" O.C.	10'-0" O.C.	10 SQ. FT.

* REDUCE SPACING TO NEXT SMALLER INTERVAL IF PIPE AREA EXCEEDS MAXIMUM

5 PIPE SUPPORT DETAIL
P-4.0 NOT TO SCALE



HANGER SCHEDULE		
PIPE SIZE	ROD SIZE	MAX. SPACING
UP TO 1 1/4"	3/8" DIA.	8' STEEL
UP TO 1 1/4"	3/8" DIA.	6' COPPER & BRASS
1 1/2" & 2"	3/8" DIA.	10'
2 1/2" & 3"	1/2" DIA.	10'
4" & 5"	5/8" DIA.	10'
6"	3/4" DIA.	10'
8", 10", 12"	7/8" DIA.	10'
14" & 16"	1" DIA.	10'
18"	1 1/8" DIA.	10'
20" & 24"	1 1/4" DIA.	10'

6 PIPE HANGER DETAIL
P-4.0 NOT TO SCALE

RFP 6320



INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
158 EDISON ROAD
TRUMBULL, CONNECTICUT

**J J H
JACUNSKI HUMES
ARCHITECTS, LLC**
15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

**DETAILS
PLUMBING**

PROJ. NO. JH182B
SCALE As Noted
DATE NOVEMBER 8, 2018
DRAWING NO. **P-4.0**

PLUMBING SPECIFICATIONS

GENERAL

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT AS NECESSARY TO PROVIDE A COMPLETE INSTALLATION INCLUDING COORDINATION, SYSTEM CHECK OUT AND START UP ON EACH ITEM AND SYSTEM.

THIS CONTRACTOR SHALL INFORM HIMSELF FROM THE GENERAL CONSTRUCTION SPECIFICATIONS AND PLANS, OF THE EXACT DIMENSION OF FINISHED WORK AND OF THE HEIGHT OF FINISHED CEILINGS IN ALL ROOMS WHERE EQUIPMENT OR PIPES ARE TO BE PLACED AND ARRANGE HIS WORK IN ACCORDANCE WITH THE SCHEDULE OF INTERIOR FINISHES, AS INDICATED ON THE ARCHITECTURAL DRAWINGS.

MANUFACTURER'S QUALIFICATIONS: FIRMS REGULARLY ENGAGED IN THE MANUFACTURER OF FIXTURES, APPLIANCES, PIPES AND PIPE FITTINGS OF TYPES AND SIZES REQUIRED, WHOSE PRODUCTS HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR NOT LESS THAN 5 YEARS.

MATERIAL QUALIFICATIONS: SHALL CONFORM TO ALL LOCAL, STATE, AND NATIONAL/FEDERAL CODES AND REGULATIONS WHICH MAY APPLY AND NOTHING IN THESE SPECIFICATIONS SHALL BE INTERPRETED AS AN INFRINGEMENT OF SUCH CODES OR REGULATIONS.

WELDING: QUALIFY WELDING PROCEDURES, WELDERS, AND OPERATORS IN ACCORDANCE WITH ASME B31.1, OR ASME B31.9, AS APPLICABLE. CERTIFY WELDING OF PIPING WORK USING STANDARD PROCEDURE SPECIFICATIONS BY, AND WELDERS TESTED UNDER SUPERVISION OF, NATIONAL CERTIFIED PIPE WELDING BUREAU (NCPWB).

BRAZING: CERTIFY BRAZING PROCEDURES, BRAZERS, AND OPERATORS IN ACCORDANCE WITH ASME BOILER AND PRESSURE VESSEL CODE, SECTION IX, FOR SHOP AND JOB-SITE BRAZING OF PIPING WORK.

RELATED DOCUMENTS

DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 1 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

DEFINITIONS

FINISHED SPACES: SPACES OTHER THAN MECHANICAL AND ELECTRICAL EQUIPMENT ROOMS, FURRED SPACES, PIPE CHASES, UNHEATED SPACES IMMEDIATELY BELOW ROOF, SPACES ABOVE CEILINGS, UNEXCAVATED SPACES, CRAWL SPACES, AND TUNNELS.

EXPOSED, INTERIOR INSTALLATIONS: EXPOSED TO VIEW INDOORS. EXAMPLES INCLUDE FINISHED OCCUPIED SPACES AND MECHANICAL EQUIPMENT ROOMS.

EXPOSED, EXTERIOR INSTALLATIONS: EXPOSED TO VIEW OUTDOORS OR SUBJECT TO OUTDOOR AMBIENT TEMPERATURES AND WEATHER CONDITIONS. EXAMPLES INCLUDE ROOFTOP LOCATIONS.

CONCEALED, INTERIOR INSTALLATIONS: CONCEALED FROM VIEW AND PROTECTED FROM PHYSICAL CONTACT BY BUILDING OCCUPANTS. EXAMPLES INCLUDE ABOVE CEILINGS AND IN CHASES.

CONCEALED, EXTERIOR INSTALLATIONS: CONCEALED FROM VIEW AND PROTECTED FROM WEATHER CONDITIONS AND PHYSICAL CONTACT BY BUILDING OCCUPANTS BUT SUBJECT TO OUTDOOR AMBIENT TEMPERATURES. EXAMPLES INCLUDE INSTALLATIONS WITHIN UNHEATED SHELTERS.

QUALITY ASSURANCE

STEEL SUPPORT WELDING: QUALIFY PROCESSES AND OPERATORS ACCORDING TO AWS D1.1, "STRUCTURAL WELDING CODE-STEEL."

STEEL PIPE WELDING: QUALIFY PROCESSES AND OPERATORS ACCORDING TO ASME BOILER AND PRESSURE VESSEL CODE: SECTION IX, "WELDING AND BRAZING QUALIFICATIONS."

COMPLY WITH PROVISIONS IN ASME B31 SERIES, "CODE FOR PRESSURE PIPING."

CERTIFY THAT EACH WELDER HAS PASSED AWS QUALIFICATION TESTS FOR WELDING PROCESSES INVOLVED AND THAT CERTIFICATION IS CURRENT.

ELECTRICAL CHARACTERISTICS FOR PLUMBING EQUIPMENT: EQUIPMENT OF HIGHER ELECTRICAL CHARACTERISTICS MAY BE FURNISHED PROVIDED SUCH PROPOSED EQUIPMENT IS APPROVED IN WRITING AND CONNECTING ELECTRICAL SERVICES, CIRCUIT BREAKERS, AND CONDUIT SIZES ARE APPROPRIATELY MODIFIED. IF MINIMUM ENERGY RATINGS OR EFFICIENCIES ARE SPECIFIED, EQUIPMENT SHALL COMPLY WITH REQUIREMENTS.

DELIVERY, STORAGE, AND HANDLING

DELIVER PIPES AND TUBES WITH FACTORY-APPLIED END CAPS. MAINTAIN END CAPS THROUGH SHIPPING, STORAGE, AND HANDLING TO PREVENT PIPE END DAMAGE AND TO PREVENT ENTRANCE OF DIRT, DEBRIS, AND MOISTURE.

STORE PLASTIC PIPES PROTECTED FROM DIRECT SUNLIGHT. SUPPORT TO PREVENT SAGGING AND BENDING.

COORDINATION

PREPARE AND SUBMIT COORDINATION DRAWINGS. REFER TO OTHER DIVISION 15 SECTIONS FOR REQUIREMENTS.

CLOSELY SCHEDULE THE WORK SO THAT WORK WILL BE INSTALLED AT THE PROPER TIME WITHOUT DELAYING THE COMPLETION OF THE ENTIRE PROJECT.

WHERE THE WORK WILL BE INSTALLED IN CLOSE PROXIMITY TO THE WORK OF OTHER TRADES, OR WHERE THERE IS EVIDENCE THAT THE WORK WILL INTERFERE WITH THE WORK OF OTHER TRADES, ARRANGE SPACE CONDITIONS TO MAKE A SATISFACTORY ADJUSTMENT. IF WORK IS INSTALLED BEFORE COORDINATING WITH OTHER TRADES, MAKE NECESSARY CHANGES TO THE WORK TO CORRECT THE CONDITION WITHOUT ADDITIONAL COST TO THE OWNER.

PREPARE COMPLETE SET OF DRAWINGS SHOWING ALL NECESSARY SLAB OPENINGS AND STRUCTURAL SUPPORTS THAT REQUIRE STRUCTURAL FRAMING. DRAWINGS SHALL CLEARLY INDICATE SIZES AND LOCATION RELATIVE TO ESTABLISHED COLUMN LINES. DRAWINGS SHALL BE COMPLETED IN SUFFICIENT TIME TO ALLOW FOR STRUCTURAL STEEL FABRICATION SO AS NOT TO DELAY PROJECT SCHEDULE.

SHOP DRAWING SUBMISSIONS SHALL DEMONSTRATE A KNOWLEDGE OF THE WORK OF OTHER TRADES, AND SHALL SHOW THE LOCATIONS OF THE WORK OF OTHER TRADES WHICH AFFECTS THE WORK OF THIS CONTRACT.

ARRANGE FOR PIPE SPACES, CHASES, SLOTS, AND OPENINGS IN BUILDING STRUCTURE DURING PROGRESS OF CONSTRUCTION, TO ALLOW FOR PLUMBING INSTALLATIONS.

COORDINATE INSTALLATION OF REQUIRED SUPPORTING DEVICES AND SET SLEEVES IN POURED-IN-PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS AS THEY ARE CONSTRUCTED.

COORDINATE REQUIREMENTS FOR ACCESS PANELS AND DOORS FOR PLUMBING ITEMS REQUIRING ACCESS THAT ARE CONCEALED BEHIND FINISHED SURFACES. ACCESS PANELS AND DOORS ARE SPECIFIED IN DIVISION 8 SECTION "ACCESS DOORS AND FRAMES."

COORDINATION DRAWINGS

SHEET METAL, PLUMBING AND FIRE PROTECTION SHOP DRAWINGS THAT HAVE BEEN COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW. DRAWINGS MUST BE RETURNED FROM ENGINEER EITHER "REVIEWED" OR "FURNISH AS CORRECTED" PRIOR TO BEING USED AS BASIS FOR COORDINATION DRAWINGS.

AFTER SHEET METAL AND PIPING DRAWINGS HAVE BEEN REVISED PER ENGINEERS COMMENTS, REPRODUCIBLE COPIES SHALL BE SENT TO THE OTHERS TRADES IN THE FOLLOWING SEQUENCE FOR THE INCLUSION OF THEIR WORK.

PLUMBING CONTRACTOR
ELECTRICAL WORK
MECHANICAL PIPING

PRIOR TO INCLUSION OF SPRINKLER PIPING AND EQUIPMENT, CONTRACTOR SHALL HAVE SUBMITTED SPRINKLER PLANS AND CALCULATIONS TO ENGINEER FOR REVIEW AND TO RATING BUREAU FOR REVIEW.

AFTER ALL TRADES HAVE INCLUDED THEIR WORK ON THE COORDINATION DRAWING AND NOTED CONFLICTS, ALL TRADES SHALL MEET TO RESOLVE CONFLICTS AND AGREE TO ACCEPTABLE SOLUTIONS. EACH TRADE SHALL SIGN COORDINATION DRAWINGS. ITEMS NOT SHOWN ON COORDINATION DRAWING IS RESPONSIBILITY OF OMITTING CONTRACTOR AND CONTRACTOR IS SUBJECT TO ADDITIONAL COSTS INCURRED BY OTHER TRADES.

THE ARCHITECT AND ENGINEER ARE NOT PART OF THE COORDINATION DRAWING PROCESS. THE ENGINEER WILL PROVIDE ASSISTANCE RELATIVE TO ACCEPTABILITY OF INSTALLATIONS.

SUBMIT FINAL SIGNED COORDINATION DRAWING TO ENGINEER FOR REVIEW. ENGINEER WILL REVIEW FOR ACCEPTABILITY OF INSTALLATIONS.

ANY WORK FABRICATED OR INSTALLED PRIOR TO SIGN OFF BY ALL TRADES SHALL BE REMOVED AND RE-INSTALLED IN CONFORMANCE WITH COORDINATION DRAWINGS.

EACH CONTRACTOR (MENTIONED ABOVE) IS RESPONSIBLE FOR THE COORDINATION OF HIS SUB-CONTRACTORS.

THE OVERALL COORDINATION OF THE COORDINATION PROCESS IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE ENGINEER IS NOT RESPONSIBLE FOR THE COORDINATION PROCESS. THE ENGINEER WILL RESPOND TO QUESTIONS THAT ARISE FROM THE COORDINATION PROCESS. DRAWINGS SUBMITTED WILL BE REVIEWED FOR CLEARLY IDENTIFIED CONFLICTS ONLY. SOLUTIONS TO CONFLICTS WILL NOT BEAR ADDITIONAL COST.

AS BUILT DRAWINGS

PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS REFLECTING AS INSTALLED CONDITIONS. AS-BUILT DRAWINGS SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS SHALL BE BOUND IN A COMPLETE AND CONSECUTIVE SET. SUPPLEMENTAL SKETCHES AND LOOSE PAPERWORK WILL NOT BE ACCEPTABLE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEERS COMMENTS TO PRODUCE A CLEAR AND CONCISE SET OF DRAWINGS. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC (AUTO-CAD VERSION AS REQUIRED BY THE OWNER) VERSION. NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER.

PROVIDE "AS-BUILT DRAWINGS" INDICATING IN A NEAT AND ACCURATE MANNER A COMPLETE RECORD OF ALL REVISIONS OF THE ORIGINAL DESIGN OF THE WORK. INDICATE THE FOLLOWING INSTALLED CONDITIONS:

INCLUDE ALL CHANGES AND AN ACCURATE RECORD, ON REPRODUCTIONS OF THE CONTRACT DRAWINGS OR APPROPRIATE SHOP DRAWINGS, OF ALL DEVIATIONS, BETWEEN THE WORK SHOWN AND WORK INSTALLED.

MAINS AND BRANCHES OF PIPING SYSTEMS, WITH VALVES AND CONTROL DEVICES LOCATED AND NUMBERED, CONCEALED UNIONS LOCATED, AND WITH ITEMS REQUIRING MAINTENANCE LOCATED (I.E., TRAPS, STRAINERS, EXPANSION COMPENSATORS, TANKS, ETC.). VALVE LOCATION DIAGRAMS, COMPLETE WITH VALVE TAG CHART.

EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM PROMINENT BUILDING LINES.

APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.

CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED.

SUBMIT FOR REVIEW BOUND SETS OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING INSTRUCTIONS.

PIPE MATERIALS

REFER TO SCHEDULE ON DRAWING.

PIPE LABELS

DO NOT USE PIPE LABELS OR PLASTIC TAPES FOR BARE PIPES CONVEYING FLUIDS AT TEMPERATURES OF 125 DEG F (52 DEG C) OR HIGHER.

GENERAL REQUIREMENTS FOR MANUFACTURED PIPE LABELS: PREPRINTED, COLOR-CODED, WITH LETTERING INDICATING SERVICE, AND SHOWING FLOW DIRECTION.

PRETENSIONED PIPE LABELS: PRECOILED, SEMIRIGID PLASTIC FORMED TO COVER FULL CIRCUMFERENCE OF PIPE AND TO ATTACH TO PIPE WITHOUT FASTENERS OR ADHESIVE.

SELF-ADHESIVE PIPE LABELS: PRINTED PLASTIC WITH CONTACT-TYPE, PERMANENT-ADHESIVE BACKING.

PIPE LABEL CONTENTS: INCLUDE IDENTIFICATION OF PIPING SERVICE USING SAME DESIGNATIONS OR ABBREVIATIONS AS USED ON DRAWINGS, PIPE SIZE, AND AN ARROW INDICATING FLOW DIRECTION.

FLOW-DIRECTION ARROWS: INTEGRAL WITH PIPING SYSTEM SERVICE LETTERING TO ACCOMMODATE BOTH DIRECTIONS OR AS SEPARATE UNIT ON EACH PIPE LABEL TO INDICATE FLOW DIRECTION.

LETTERING SIZE: AT LEAST 1-1/2 INCHES HIGH.

VALVE TAGS

VALVE TAGS: STAMPED OR ENGRAVED WITH 1/4-INCH LETTERS FOR PIPING SYSTEM ABBREVIATION AND 1/2-INCH NUMBERS.

TAG MATERIAL: BRASS, 0.032-INCH MINIMUM THICKNESS, AND HAVING PREDRILLED OR STAMPED HOLES FOR ATTACHMENT HARDWARE.

FASTENERS: BRASS WIRE-LINK OR BEADED CHAIN; OR S-HOOK.

VALVE SCHEDULES: FOR EACH PIPING SYSTEM, ON 8-1/2-BY-11-INCH BOND PAPER. TABULATE VALVE NUMBER, PIPING SYSTEM, SYSTEM ABBREVIATION (AS SHOWN ON VALVE TAG), LOCATION OF VALVE (ROOM OR SPACE), NORMAL-OPERATING POSITION (OPEN, CLOSED, OR MODULATING), AND VARIATIONS FOR IDENTIFICATION. MARK VALVES FOR EMERGENCY SHUTOFF AND SIMILAR SPECIAL USES.

VALVE-TAG SCHEDULE SHALL BE INCLUDED IN OPERATION AND MAINTENANCE DATA.

PIPE HANGERS, SUPPORTS, SEISMIC RESTRAINT, AND VIBRATION ISOLATION

SEISMIC RESTRAINT: PROVIDE SEISMIC RESTRAINT OF ALL PLUMBING EQUIPMENT AND SYSTEMS IN ACCORDANCE WITH STATE BUILDING CODE REQUIREMENTS. SUBMIT SHOP DRAWINGS SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT INDICATING ALL NECESSARY COMPONENT CUTS, PLAN LOCATIONS AND CALCULATIONS FOR A COMPLETE SYSTEM. REFER TO OTHER DIVISION 15 REQUIREMENTS.

PROVIDE NECESSARY STRUCTURAL MEMBERS, HANGERS AND SUPPORTS OF APPROVED DESIGN TO KEEP PIPING IN PROPER ALIGNMENT AND PREVENT TRANSMISSION OF NUJURIOUS THRUSTS AND VIBRATIONS. IN ALL CASES WHERE HANGERS, BRACKETS, ETC., ARE SUPPORTED FROM CONCRETE CONSTRUCTION, DO NOT WEAKEN CONCRETE OR PENETRATE WATERPROOFING. ALL HANGERS AND SUPPORTS SHALL BE CAPABLE OF SCREW ADJUSTMENT AFTER PIPING IS ERECTED. HANGERS SUPPORTING PIPING EXPANDING INTO LOOPS, BENDS AND OFFSETS SHALL BE SECURED TO THE BUILDING STRUCTURE IN SUCH A MANNER THAT HORIZONTAL ADJUSTMENT PERPENDICULAR TO THE RUN OF PIPING SUPPORTED MAY BE MADE TO ACCOMMODATE DISPLACEMENT DUE TO EXPANSION. ALL SUCH HANGERS SHALL BE FINALLY ADJUSTED BOTH IN THE VERTICAL AND HORIZONTAL DIRECTION, AS REQUIRED. HANGERS IN CONTACT WITH COPPER OR BRASS PIPE SHALL BE DIELECTRIC, COMPATIBLE WITH COPPER AND BRASS ALLOY OR PROVIDED WITH FELT SLEEVE.

INSULATION

INSULATION

REFER TO SCHEDULE ON DRAWING.

ALL INSULATING MATERIALS SHALL COMPLY WITH THE FOLLOWING RATINGS:

FLAMESPREAD -25
SMOKE DEVELOPED -50
FUEL CONTRIBUTED -50

FIBERGLASS PIPING INSULATION (INTERIOR)
MOLDED FIBROUS GLASS WITH 3.5 POUNDS MINIMUM DENSITY, MAXIMUM K = .3 AT 200 DEGREE F, MEAN AND RATED TO 450 DEGREE F. THE INSULATION SHOULD BE SECTIONAL PIPE JACKETED WITH AN EMBOSSED VAPOR BARRIER LAMINATE.

MANUFACTURERS:

OWENS-CORNING, TYPE 25 ASJ
KNAUF - PIPE INSULATION WITH ASJ
CERTAINTED - TYPE 600 SNAP-ON WITH ASJ
MANVILLE - MICRO-LOK 650 WITH AP JACKET

D,TYPE G - FIBERGLASS INSULATION FOR VALVES, FITTINGS, FLANGES (VAPOR SEAL INSULATION).

MOLDED, FACTORY-FORMED FIBROUS GLASS WITH 3.5 PCF MINIMUM DENSITY, MAX. K = .3 AT 200F, MEAN, RATED TO 450 DEGREE F. ALL JOINTS TO BE SEALED WITH VAPOR BARRIER ADHESIVE AND WRAPPED WITH GLASS MESH TAPE. EACH FITTING TO BE FINISHED WITH TWO COATS OF BENJAMIN FOSTER 30-36 VAPOR SEAL.

VALVES

GENERAL: APPROVED MANUFACTURERS; NOBCO, APOLLO, STOCKHOLM.

REFER TO SCHEDULE ON DRAWING.

PIPE SLEEVES AND SEALS

MASONRY WALLS AND SLABS: SCHEDULE 40 GALVANIZED STEEL PIPE WITH INTEGRAL WATER STOP.

SLEEVE ADAPTERS: COATED CAST IRON, EQUIPPED WITH FLASHING CLAMP.

CONTRACTOR SHALL SEAL ALL PENETRATIONS THROUGH PARTITIONS, SLABS AND/OR CEILINGS WITH A U.L. APPROVED FIRE/SMOKE STOP TO MAINTAIN THE INTEGRITY OF THE RESPECTIVE RATING INCLUDING SMOKE TIGHT PARTITIONS.

CLEANOUTS

REFER TO SCHEDULE ON DRAWING.

PLUMBING FIXTURES

FIXTURES: NEW, COMPLETE WITH TRIMMINGS AND FITTINGS, INCLUDING FAUCETS, CARRIERS, SUPPLIES, STOPS, TRAPS, TAILPIECES, WASTE PLUGS, CASINGS, HANGERS, PLATES, BRACKETS, ANCHORS, SUPPORTS, HARDWARE AND FASTENING DEVICES.

STAINLESS STEEL: TYPE 302, 304, 316, OR 317, AS NOTED, SOUND DEADENED.

TRIMMINGS AND FITTINGS: CONSTRUCT OF FORGED, CAST, ROLLED OR EXTRUDED BRASS OR BRONZE WITH MONEL AND OTHER SUITABLE NON-CORROSIVE PARTS: DESIGNED WITH EASILY RENEWABLE PARTS THAT ARE SUBJECT TO WEAR OR DETERIORATION. NO DIE CASTINGS AND STAMPINGS OTHER THAN BRASS OR STAINLESS STEEL.

REFER TO SCHEDULE ON DRAWING.

MISCELLANEOUS PLUMBING SPECIALTIES

WATER HAMMER ARRESTORS: ALL STAINLESS STEEL, MECHANICAL-PNEUMATIC TYPE, HERMETICALLY SEALED BELLOWES, THREADED INLET, 150 PSI WWP. SIZE AND PLACEMENT DETERMINATION: PD-HM 201.

MANUFACTURER: PRECISION PLUMBING PRODUCTS SC SERIES.

AIR VENT: BRONZE BODY, STAINLESS STEEL TRIM AND FLOAT, THREADED INLET AND OUTLET, 150 PSI WWP.

MANUFACTURER: SARCO 13W SERIES.

ELECTRICAL HEAT TRACE (FREEZE PROTECTION): UL LISTED HEAT TRACE SYSTEM WITH (2) 16 AWG COPPER BUS WIRES ENCLOSED IN A POLYMER CORE. THE SYSTEM SHALL INCLUDE ALL POWER CONNECTIONS, SEALS, SPLICES, TEE KITS, AND FASTENING HARDWARE. CONTROLS SHALL BE THERMOSTATIC AMBIENT SENSING, AND ALL HEAT TRACE SHALL MAINTAIN 50 DEGREE F WITH A MINUS 10 DEGREE F AMBIENT TEMPERATURE. RUN TWO (2) PARALLEL HEAT TRACE LINES ALONG ALL PORTIONS OF THE PIPING SYSTEM, ONE ACTIVE AND ONE SPARE. COORDINATE ELECTRICAL POWER CONNECTION LOCATIONS IN ACCORDANCE WITH LAYOUT AND HEAT TRACE MANUFACTURERS' RECOMMENDATIONS.

MANUFACTURER: RAYCHEM XL SERIES

ACCESS DOORS IN WALLS AND CEILINGS

AT EACH VALVE, CLEANOUT OR PLUMBING DEVICE REQUIRING ACCESS, FURNISH AN ACCESS DOOR. RIGID CONSTRUCTION WITH TWO HINGES AND A LATCH. IN PLENUM CEILINGS, PROVIDE FELT BETWEEN THE DOOR AND FRAME TO MAKE AN AIR TIGHT SEAL. ACCESS DOORS SHALL BE FLUSH MOUNTED, PRIME COATED WITH RUST INHIBITIVE PAINT, CONCEALED FRAME, FLUSH SCREW DRIVER OPERATED LOCKS WITH METAL CAMS AND ANCHORS AS REQUIRED. REFER TO DIVISION 8 FOR ADDITIONAL REQUIREMENTS.

ACCESS DOOR SIZES SHALL BE:

12" X 12" AT EASILY ACCESSIBLE ITEMS.
18" X 18" WHERE PARTIAL BODY ACCESS IS REQUIRED.
24" X 24" WHERE FULL BODY ACCESS IS REQUIRED.

MANUFACTURER: MILCOR TYPE M SERIES, CESCO SERIES.

EXECUTION

GENERAL

THIS CONTRACTOR SHALL INFORM HIMSELF FROM THE GENERAL CONSTRUCTION SPECIFICATIONS AND PLANS, OF THE EXACT DIMENSION OF FINISHED WORK AND OF THE HEIGHT OF FINISHED CEILINGS IN ALL ROOMS WHERE EQUIPMENT OR PIPES ARE TO BE PLACED AND ARRANGE HIS WORK IN ACCORDANCE WITH THE SCHEDULE OF INTERIOR FINISHES, AS INDICATED ON THE ARCHITECTURAL DRAWINGS.

MANUFACTURER'S QUALIFICATIONS: FIRMS REGULARLY ENGAGED IN THE MANUFACTURER OF FIXTURES, APPLIANCES, PIPES AND PIPE FITTINGS OF TYPES AND SIZES REQUIRED, WHOSE PRODUCTS HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR NOT LESS THAN 5 YEARS.

MATERIAL QUALIFICATIONS: SHALL CONFORM TO ALL LOCAL, STATE, AND NATIONAL/FEDERAL CODES AND REGULATIONS WHICH MAY APPLY AND NOTHING IN THESE SPECIFICATIONS SHALL BE INTERPRETED AS AN INFRINGEMENT OF SUCH CODES OR REGULATIONS.

WELDING: QUALIFY WELDING PROCEDURES, WELDERS, AND OPERATORS IN ACCORDANCE WITH ASME B31.1, OR ASME B31.9, AS APPLICABLE. CERTIFY WELDING OF PIPING WORK USING STANDARD PROCEDURE SPECIFICATIONS BY, AND WELDERS TESTED UNDER SUPERVISION OF, NATIONAL CERTIFIED PIPE WELDING BUREAU (NCPWB).

BRAZING: CERTIFY BRAZING PROCEDURES, BRAZERS, AND OPERATORS IN ACCORDANCE WITH ASME BOILER AND PRESSURE VESSEL CODE, SECTION IX, FOR SHOP AND JOB-SITE BRAZING OF PIPING WORK.

COORDINATION OF WORK

CAREFULLY COORDINATE SPACE REQUIREMENTS WITH OTHER TRADES TO INSURE THAT ALL MATERIALS CAN BE INSTALLED IN SPACES ALLOTTED THERETO, INCLUDING FINISHED SUSPENDED CEILINGS.

PREPARE AND SUBMIT COORDINATION DRAWINGS.

ALTERATION WORK

ALL EQUIPMENT, FIXTURES, PIPING, ETC. TO BE REMOVED, SHALL BE DISPOSED OF, TURNED OVER TO THE OWNER, OR SALVAGED AS DIRECTED BY THE OWNER. EQUIPMENT, FIXTURES, PIPING, DEVICES, ETC. SHALL NOT BE REMOVED FROM THE PREMISES WITHOUT THE OWNERS APPROVAL.

WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE OWNERS AND PROJECT SCHEDULE AND PHASING. PROVIDE TEMPORARY SERVICES AND CONNECTIONS TO ACCOMMODATE THESE REQUIREMENTS. THE SHUTDOWN OR TRANSFERENCE OF SYSTEMS SHALL BE COORDINATED WITH THE OWNERS REQUIREMENTS.

ALL PIPING TO REMAIN SHALL BE PROPERLY PLUGGED, VALVED, CAPPED AND/OR BY PASSED SUCH THAT UPON COMPLETION OF WORK ALL ABANDON SYSTEMS ARE PROPERLY CONCEALED, AND THAT EXISTING SYSTEMS TO REMAIN, REMAIN OPERATIONAL.

NO DEAD ENDS SHALL BE LEFT ON ANY PIPING SYSTEMS UPON COMPLETION OF WORK.

EXISTING EXPOSED PIPING SYSTEMS NOT TO BE REUSED, AND NOT SPECIFICALLY NOTED FOR REMOVAL SHALL BE COMPLETELY REMOVED.

ALL SYSTEMS SHALL BE LEFT IN WORKING ORDER TO THE SATISFACTION OF THE OWNER UPON COMPLETION OF ALL NEW WORK.

ALL EXISTING EXPOSED, UNNECESSARY PIPING RELATED TO NEW WORK SHALL BE COMPLETELY REMOVED.

ALL PIPING NEW AND EXISTING TO REMAIN SHALL BE CONCEALED. RE-ROUTE OR REMOVE ALL EXISTING PIPING, AND SYSTEMS WHERE NECESSARY TO AVOID NEW EQUIPMENT, STRUCTURAL, MASONRY WORK OR AS REQUIRED BY THE PROPOSED ALTERATIONS.

PLUMBING FIXTURES

THE FIXTURES SHALL BE FURNISHED COMPLETE WITH CHROME PLATING ON EXPOSED PIPING OR TRIM. PROVIDE ANCHOR BOLTS, HANGERS, STRAINERS, FAUCETS AND OTHER INCIDENTAL ITEMS FURNISHED AS STANDARD. PROVIDE LOOSE KEY STOPS AT EVERY FIXTURE. ALL SUPPLY FITTINGS AND EXPOSED FIXTURE TRIM SHALL BE ALL BRASS, CHROME PLATED.

EXAMINE ROUGHING-IN WORK OF POTABLE WATER AND WASTE PIPING SYSTEMS TO VERIFY ACTUAL LOCATIONS OF PIPING CONNECTIONS PRIOR TO INSTALLING FIXTURES. CORRECT ANY INCORRECT LOCATION OF PIPING, AND OTHER UNSATISFACTORY CONDITIONS FOR INSTALLATION OF PLUMBING FIXTURES. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN A MANNER ACCEPTABLE TO THE ENGINEER. ALL ROUGH-IN TO PLUMBING FIXTURES SHALL CONFORM TO FIXTURE MANUFACTURER PUBLISHED ROUGH-IN DIMENSIONS, AND REQUIREMENTS.

UPON COMPLETION OF INSTALLATION OF PLUMBING FIXTURES AND AFTER UNITS ARE WATER PRESSURIZED, TEST FIXTURES TO DEMONSTRATE CAPABILITY AND COMPLIANCE WITH REQUIREMENTS. CORRECT MALFUNCTIONING UNITS AT SITE, THEN RETEST TO DEMONSTRATE COMPLIANCE; OTHERWISE, REMOVE AND REPLACE WITH NEW UNITS AND PROCEED WITH RETESTING.

INSPECT EACH INSTALLED UNIT FOR DAMAGE TO FINISH. IF DAMAGED, RESTORE AND MATCH FINISH TO ORIGINAL AT SITE TO THE SATISFACTION OF THE ARCHITECT/ENGINEER; OTHERWISE, REMOVE FIXTURE AND REPLACE WITH NEW UNIT. REMOVE CRACKED OR DENTED UNITS AND REPLACE WITH NEW UNITS.

CLEAN PLUMBING FIXTURES, TRIM, AND STRAINERS OF DIRT AND DEBRIS UPON COMPLETION OF INSTALLATION.

SET FIXTURES LEVEL AND UNIFORMLY, WITH CONNECTIONS AT RIGHT ANGLES TO WALL AND PROPERLY CENTERED. LAY OUT ROUGHING ACCURATELY AND IN COORDINATION WITH SPACE AND FINISH REQUIREMENTS. IF FIELD CUT-OUTS AND HOLES ARE REQUIRED USE PROPER CUTTING AND DRILLING TOOLS TO MAINTAIN INTEGRITY OF FINISHED SURFACE. PROVIDE CUT-OUT TEMPLATES FOR COUNTERTOP INSERT OR UNDERMOUNT ITEMS.

LOCATE WASTE OUTLETS AND WATER SUPPLIES AT CONSTANT HORIZONTAL LEVELS, WITH WASTE OUTLET CENTERED ON FIXTURE DRAIN CONNECTION AND WATER SUPPLIES SPACED EQUALLY TO RIGHT AND LEFT.

PENETRATIONS THROUGH FIRE SEPARATIONS

FIRE AND SMOKE SEAL: UL LISTED, APPROVED AND TESTED FIRE AND/OR SMOKE SEALING MATERIAL INSTALLED IN ALL FIRE AND/OR SMOKE RATED FLOOR AND PARTITIONS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

DISINFECTION OF POTABLE WATER SYSTEM

POTABLE WATER SYSTEMS SHALL BE DISINFECTED IN ACCORDANCE WITH STATE AND LOCAL CODES BUT BY NOT LESS THAN ONE OF THE FOLLOWING METHODS BEFORE IT IS PLACED IN OPERATION:

THE SYSTEM, OR PART THEREOF, SHALL BE FILLED WITH A SOLUTION CONTAINING 50 PARTS PER MILLION OF AVAILABLE CHLORINE AND ALLOWED TO STAND 24 HOURS BEFORE FLUSHING AND RETURNING TO SERVICE.

THE SYSTEM, OR PART THEREOF, SHALL BE FILLED WITH A SOLUTION CONTAINING 200 PARTS PER MILLION OF AVAILABLE CHLORINE AND ALLOWED TO STAND 3 HOURS BEFORE FLUSHING AND RETURNING TO SERVICE.

TESTS

GENERAL: TEST PLUMBING SYSTEMS TO SATISFACTION OF BUILDING OFFICIAL. DO NOT CLOSE IN, CONCEAL, OR COVER UP ANY PLUMBING WORK UNTIL IT HAS BEEN TESTED, INSPECTED, AND APPROVED.

FLUSH PIPING, PRIOR TO TESTING, TO REMOVE FOREIGN MATERIALS WHICH MAY HAVE ENTERED DURING COURSE OF INSTALLATION.

REPAIR ALL LEAKS, DEFECTS OR DAMAGE REVEALED BY THE RESULTS OF THE TESTING AND RE-TEST THE SYSTEM.

DO NOT INSULATE OR CONCEAL PIPING UNTIL THE SYSTEM HAS BEEN TESTED AND THE RESULTS APPROVED.

PERFORM TESTS IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION. NOTIFY ARCHITECT AND/OR ENGINEER.

RFP 6320



93 Lake Avenue, Danbury, CT 06810
203.778.1017 F 203.778.1018
171 Madison Avenue,
New York, NY 10016
212.695.2422 F 212.695.2423
www.kohlerroman.com
E-mail: krce@kohlerroman.com

INTERIOR RENOVATION TO THE

TRUMBULL POLICE

DEPARTMENT

TRUMBULL, CONNECTICUT

158 EDISON ROAD

J J H I
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

SPECIFI-
CATIONS
PLUMBING

-
-

PROJ. NO. JH1828
SCALE As Noted
DATE NOVEMBER 8, 2016

DRAWING NO.
P-5.0

GENERAL MECHANICAL NOTES		
<p><u>GENERAL</u></p> <p>1. WHEN A CONFLICT BETWEEN THE DRAWINGS, NOTES AND/OR SPECIFICATIONS OCCUR, THE MORE STRINGENT, AND/OR LARGER QUANTITY AND/OR MORE EXPENSIVE SHALL APPLY. THE REQUIREMENTS LISTED WITHIN NOTES OR SPECIFICATIONS SHALL BE REQUIRED, PROVIDED AND INSTALLED WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT.</p> <p>2. IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO PROVIDE FOR FINISHED WORK, TESTED AND READY FOR OPERATION.</p> <p>3. ITEMS AND SERVICES NOT SHOWN ON DRAWINGS OR SPECIFICATIONS BUT REQUIRED TO RENDER THE WORK COMPLETE AND READY FOR OPERATION, SHALL BE PROVIDED WITHOUT ADDITIONAL COST.</p> <p>4. WORK OF THIS SECTION SHALL BE GOVERNED BY THE CONTRACT DOCUMENTS. PROVIDE MATERIALS, LABOR, EQUIPMENT AND SERVICES NECESSARY TO FURNISH, DELIVER AND INSTALL ALL WORK AS SPECIFIED AND AS REQUIRED BY JOB CONDITIONS. WHERE A CONFLICT EXISTS BETWEEN THESE NOTES, THE DRAWINGS AND THE SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.</p> <p>5. DRAWINGS ARE DIAGRAMMATIC AND INDICATE A GENERAL ARRANGEMENT OF WORK AND ARE NOT TO BE CONSIDERED SUB-CONTRACTOR DOCUMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND ALL SUBCONTRACTORS TO INCLUDE THE PROVISIONS AND INSTALLATION OF ALL NECESSARY WORK AND MATERIALS FOR COMPLETE, OPERATIONAL AND CODE COMPLIANT SYSTEMS. GENERAL DESIGN CONCEPTS INDICATED MUST BE FOLLOWED OR BETTERED. THE BID SHALL INCLUDE OFFSETS, AND EQUIPMENT AND COMPONENTS AS REQUIRED TO MEET CONSTRUCTION CONDITIONS FOR PROPER OPERATION. DO NOT SCALE DRAWINGS. CONSULT ARCHITECTURAL DRAWINGS FOR SPACE CONDITIONS AND ADDITIONAL REQUIREMENTS.</p> <p>6. PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT GENERAL CONDITIONS AND WITH THE PROVISIONS OF ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND LAWS.</p> <p>7. WORK SHALL INCLUDE ALL INCIDENTALS, LABOR, MATERIAL, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, CONSUMABLE ITEMS, FEES, LICENSES, AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE WORK SHOWN ON THE DRAWINGS, SPECIFIED HEREIN AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.</p> <p>8. STORE MATERIALS INSIDE AND PROTECTED FROM DEBRIS, WEATHER AND MOISTURE.</p> <p>9. THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL POWER AND CONTROL WIRING REQUIRED FOR EQUIPMENT OPERATION NOT SPECIFICALLY PROVIDED BY OTHERS BUT REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THIS CONTRACTOR SHALL PROVIDE MOTOR STARTERS. COORDINATE REQUIREMENTS WITH DIVISION 26.</p> <p>10. COORDINATE ALL HVAC WORK AND EQUIPMENT WITH STRUCTURAL STEEL, FIRE PROTECTION PIPING, PLUMBING PIPING, LIGHT FIXTURES, ELECTRICAL EQUIPMENT AND OWNER'S EQUIPMENT.</p> <p>11. ALL EXISTING CONDITIONS AS INDICATED ARE APPROXIMATIONS OF EXACT CONDITIONS TO BE VERIFIED IN THE FIELD. CONTRACTOR SHALL VISIT THE SITE TO VERIFY THE CONSTRUCTION CONDITIONS BEFORE SUBMITTING BID.</p> <p>12. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL CEILING GRILLES, REGISTERS AND DIFFUSERS.</p> <p>13. PROVIDE VOLUME DAMPERS IN EACH BRANCH DUCTWORK SERVING REGISTERS, GRILLES AND DIFFUSERS WHETHER INDICATED OR NOT.</p> <p>14. PROVIDE CABLE OPERATED DAMPERS IN BRANCH DUCTWORK SERVING REGISTERS, GRILLES, AND DIFFUSERS IN INACCESSIBLE CEILING LOCATIONS WHETHER INDICATED OR NOT.</p> <p>15. LOCATE ALL BALANCING DAMPERS AT MAIN DUCTWORK ABOVE ACCESSIBLE CEILINGS, OR PROVIDE ACCESS DOORS.</p> <p>16. PROVIDE TRAPPED CONDENSATION DRAIN PIPING FROM COOLING COIL DRAIN PAN TO AN APPROVED POINT OF DISCHARGE WHETHER INDICATED OR NOT.</p> <p>17. PROVIDE FIRE DAMPERS, SMOKE DAMPERS AND COMBINATION FIRE/SMOKE DAMPERS AS REQUIRED TO MAINTAIN WALL & FLOOR RATINGS AS DEFINED IN ARCHITECTURAL DRAWINGS.</p> <p>18. PROVIDE PITCH CORRECTION CURBS FOR ALL MECHANICAL EQUIPMENT AS REQUIRED. ROOF MOUNTED EQUIPMENT TO BE INSTALLED PLUMB AND LEVEL ACCORDING TO EQUIPMENT MANUFACTURERS INSTALLATION INSTRUCTIONS.</p> <p>19. PROVIDE SEISMIC EXPANSION JOINTS AT ALL PIPING AND DUCTWORK PASSING THROUGH SEISMIC EXPANSION JOINTS.</p> <p>20. REFER TO THESE DRAWINGS AND DIVISION 7 FOR ADDITIONAL PENETRATION SEALING REQUIREMENTS. PENETRATIONS TO COMPLY WITH ASTM E84 & E814 AND APPROVED UL 1479 AND SPECIFIC UL ASSEMBLIES AS REQUIRED TO SUIT PENETRATION CONDITIONS.</p> <p>21. LOCATE ALL ROOF MOUNTED EQUIPMENT REQUIRING SERVICE A MINIMUM OF 10'-0" FROM EDGE OF ROOF. CONTRACTOR MUST COMPLY W/ THIS SET BACK.</p> <p>22. DO NOT RUN ANY MECHANICAL OR CONTROL SERVICES THROUGH RATED STAIR ENCLOSURES UNLESS SYSTEMS ARE DESIGNED AND DESIGNATED TO SERVICE STAIRS.</p> <p>23. COORDINATE ALL ROOF AND WALL PENETRATIONS W/ EXISTING CONDITIONS AND PROVIDE STRUCTURAL CONTRACTOR W/ WALL & ROOF OPENING SIZES.</p> <p>24. TEMPERATURE CONTROL CONTRACTOR (TCC) IS RESPONSIBLE FOR ALL CONTROL WIRING 120 VOLT AND LESS. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS, SHARED TRANSFORMERS ARE NOT ALLOWED. RUN POWER PER DIVISION 26 REQUIREMENTS.</p> <p>25. TCC SHALL EXTEND ALL POWER FOR DAMPER ACTUATORS, AND OTHER CONTROL DEVICES FROM LOCAL ELECTRICAL PANEL. DIVISION 26 TO SUPPLY POWER TO TCPS. REFER TO ELECTRICAL DRAWINGS FOR PANEL LOCATIONS.</p> <p>26. THE DRAWINGS AND SPECIFICATIONS ARE DIVIDED INTO SECTIONS TO MEET THE NEEDS OF THE ARCHITECT, THE ENGINEERS, AND THE DESIGN CONSULTANTS. THEY ARE NOT PREPARED AS INSTRUCTIONS TO THE CONTRACTOR FOR HOW TO BUY OUT OR SUBCONTRACT THE WORK. THE</p>	<p>CONTRACTOR IS RESPONSIBLE FOR ALL THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS, REGARDLESS OF WHERE IT IS SHOWN. FOR EXAMPLE, ELECTRICAL WORK IS SHOWN ON M-SERIES DRAWINGS AS WELL AS ON A-SERIES DRAWINGS AND P-SERIES DRAWINGS. MISCELLANEOUS METALS AND STRUCTURAL ELEMENTS ARE SHOWN ON A-SERIES DRAWINGS AS WELL AS ON M-SERIES DRAWINGS. TO AVOID OMITTING ANY COMPONENT OF THE PROJECT, REFER TO ALL THE CONTRACT DOCUMENTS IN THEIR ENTIRETY.</p> <p>27. CONTRACTOR TO PROVIDE INTERNAL MIXING BAFFLES IN AIR HANDLING UNITS, PLENUMS AND FAN COILS TO ALLOW PROPER MIXING OF OUTSIDE AIR AND RETURN AIR IN THE EVENT THERE IS INSUFFICIENT SPACE FOR MIXING TO PREVENT NUISANCE FREEZE STAT TRIPS. CONTRACTOR REVIEW DRAWING AND INSTALLATION AND PROVIDE BAFFLES AS REQUIRED.</p> <p>28. WHEREVER EXISTING SYSTEMS ARE ALTERED OR EXTENDED THE INTEGRITY OF THE SYSTEM IS TO BE MAINTAINED AND FUNCTION FULLY AS BEFORE. COORDINATE SCHEDULE FOR HOOK-UPS TO EXISTING SYSTEMS AND EQUIPMENT REMOVAL OR RELOCATION WITH THE OWNER AND PERFORM THIS WORK AT SUCH TIMES TO ENSURE THAT PERIODS OF SHUTDOWN WILL BE ACCEPTABLE TO THE OWNER.</p> <p>29. VERIFY EXACT LOCATION OF CONNECTION POINTS (NEW TO EXISTING) IN FIELD PRIOR TO CONSTRUCTION.</p> <p>30. RELOCATE EXISTING DUCTWORK AND/OR PIPE WORK IN EXISTING CEILING SPACES TO ACCOMMODATE ALL RENOVATIONS AND ADDITIONS.</p> <p>31. TAKE DOWN AND REINSTALL EXISTING CEILINGS IN ALL AREAS WHERE MECHANICAL WORK IS INDICATED AND EXISTING CEILINGS REMAIN. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN DRAWINGS FOR LOCATIONS WHERE EXISTING CEILINGS REMAIN. REPLACE CEILING TILES DAMAGED DURING WORK.</p> <p>32. PATCH ALL WALLS, FLOORS, CEILINGS, AND ROOFS TO MATCH EXISTING IN ALL CASES WHERE EXISTING WALLS, FLOORS, CEILINGS, AND ROOFS REMAIN AND HVAC DEMOLITION IS INDICATED.</p> <p>33. THIS PROJECT CONSISTS OF MULTIPLE PHASES OF CONSTRUCTION OVER A SPECIFIED TIME PERIOD. PROVIDE ALL WORK NECESSARY TO KEEP EXISTING SYSTEMS IN SAFE OPERATION. PROVIDE ISOLATION (SHUTOFF) VALVES AT ALL CONNECTION POINTS TO EXISTING SYSTEMS.</p> <p><u>ALTERATION WORK AND DEMOLITION</u></p> <p>1. ALL EQUIPMENT, DUCTWORK, PIPING, CONTROL DEVICES, ETC. TO BE REMOVED, SHALL BE DISPOSED OF, TURNED OVER TO THE OWNER, OR SALVAGED AS DIRECTED BY THE OWNER. EQUIPMENT, DUCTWORK, PIPING, CONTROL DEVICES, ETC. SHALL NOT BE REMOVED FROM THE PREMISES WITHOUT THE OWNER'S APPROVAL.</p> <p>2. UPON COMPLETION OF REMOVALS AND MODIFICATIONS, ALL DUCTWORK AND PIPING TO REMAIN SHALL BE PROPERLY VALVED, CAPPED AND/OR BY PASSED SUCH THAT UPON COMPLETION OF WORK ALL SYSTEMS TO REMAIN, REMAIN OPERATIONAL.</p> <p>3. NO DEAD ENDS SHALL BE LEFT ON ANY DUCTWORK OR PIPING SYSTEM UPON COMPLETION OF WORK.</p> <p>4. EXISTING DUCTWORK AND PIPING SYSTEMS NOT TO BE REUSED, AND NOT SPECIFICALLY NOTED FOR REMOVAL SHALL BE COMPLETELY REMOVED.</p> <p>5. ALL SYSTEMS SHALL BE LEFT IN WORKING ORDER TO THE SATISFACTION OF THE OWNER UPON COMPLETION OF ALL NEW WORK.</p> <p>6. ALL EXISTING UNNECESSARY DUCTWORK AND PIPING NOT RELATED TO NEW WORK SHALL BE COMPLETELY REMOVED.</p> <p>7. RE-ROUTE ALL EXISTING DUCTWORK, PIPING AND SYSTEMS WHERE NECESSARY TO AVOID NEW EQUIPMENT, STRUCTURAL, OR MASONRY WORK AS REQUIRED BY THE PROPOSED ALTERATIONS.</p> <p>8. WHERE PORTIONS OF EXISTING DUCT SYSTEMS ARE TO REMAIN CONTRACTOR SHALL TAKE AIRFLOW READINGS AT ALL AIR REGISTER, GRILLES AND DIFFUSERS ASSOCIATED WITH THE DUCT SYSTEM TO BE MODIFIED BEFORE COMMENCEMENT OF WORK AND AFTER ALTERATION WORK IS COMPLETE. AIR BALANCING WORK SHALL BE PERFORMED BY AN INDEPENDENT NEEB CERTIFIED COMPANY, NOT ASSOCIATED WITH THE CONTRACTOR. REPORTS ARE TO BE ISSUED TO THE OWNER AND ENGINEER AT BOTH OCCURRENCES. IF AS-BUILTS ARE AVAILABLE, DISCREPANCIES NOTED BETWEEN THE AS BUILT DRAWINGS AND THE INITIAL AIR FLOW READINGS ARE TO BE NOTED ON THE AIR FLOW REPORT. EXISTING AIR REGISTERS, GRILLES AND DIFFUSERS ARE TO BE BALANCED TO THE ORIGINAL READINGS AT COMPLETION OF WORK UNLESS OTHERWISE IDENTIFIED.</p> <p><u>SHOP DRAWINGS</u></p> <p>1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO BE REVIEWED BY THE ENGINEER PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED FOR DUCTWORK LAYOUT, PIPING LAYOUT, SHEET METAL SHOP STANDARDS AND ALL EQUIPMENT FURNISHED.</p> <p>2. ELECTRONIC DRAWING FILES SHALL BE GENERATED BY THE CONTRACTOR. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC VERSION (AUTOCAD VERSION AS REQUIRED BY THE OWNER) OR AUTOCAD VERSION 2010 IF NOT SPECIFIED.</p> <p>3. PRIOR TO THE SUBMISSION AND REVIEW OF SHEET METAL SHOP DRAWINGS, THE CONTRACTOR SHALL SUBMIT FOR REVIEW SHEET METAL SHOP STANDARDS. ANY SHEET METAL SHOP DRAWINGS SUBMITTED PRIOR TO THE SUBMISSION OF THE SHOP STANDARDS SHALL BE RETURNED "NOT REVIEWED".</p> <p><u>COORDINATION DRAWINGS</u></p> <p>1. ELECTRONIC DRAWING FILES SHALL BE GENERATED BY THE CONTRACTOR. IF REQUESTED, ELECTRONIC FILES OF THE MECHANICAL FLOOR PLANS, SECTIONS AND ELEVATIONS ONLY WILL BE MADE AVAILABLE. ELECTRONIC FILES WILL BE RELEASED ONLY UPON RECEIPT OF THE SIGNED AGREEMENT FOR TRANSFER OF ELECTRONIC FILE DATA, AGREEMENT FOR TRANSFER OF BUILDING INFORMATION MODEL AND ALL FEES INDICATED THEREIN.</p> <p>2. DEVELOP AND SUBMIT COORDINATION DRAWINGS AS OUTLINED.</p> <p>A. SHEET METAL AND PLUMBING SHOP DRAWINGS THAT HAVE BEEN COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW. DRAWINGS MUST BE RETURNED FROM ENGINEER EITHER "REVIEWED" OR "FURNISH AS CORRECTED" PRIOR TO BEING USED AS BASIS FOR COORDINATION DRAWINGS.</p>	<p>B. AFTER SHEET METAL DRAWINGS HAVE BEEN REVISED PER ENGINEERS COMMENTS, REPRODUCIBLE COPIES SHALL BE SENT TO THE TRADES IN THE FOLLOWING SEQUENCE FOR THE INCLUSION OF THEIR WORK:</p> <p>-MECHANICAL SHEET METAL -PLUMBING PIPING -ELECTRICAL WORK</p> <p>3. AFTER ALL TRADES HAVE INCLUDED THEIR WORK ON THE COORDINATION DRAWING AND NOTED CONFLICTS, ALL TRADES SHALL MEET TO RESOLVE CONFLICTS AND AGREE TO ACCEPTABLE SOLUTIONS. EACH TRADE SHALL SIGN COORDINATION DRAWINGS. ITEMS NOT SHOWN ON COORDINATION DRAWING IS RESPONSIBILITY OF OMITTING CONTRACTOR AND CONTRACTOR IS SUBJECT TO ADDITIONAL COSTS INCURRED BY OTHER TRADES.</p> <p>4. THE ARCHITECT AND ENGINEER ARE NOT PART OF THE COORDINATION DRAWING PROCESS. THE ENGINEER WILL PROVIDE ASSISTANCE FOR NOTED CONFLICTS ONLY. COORDINATION DRAWINGS ARE NOT TO BE CONSIDERED PIPING OR DUCT SHOP DRAWINGS. THE CONTRACTOR IS REQUIRED TO SUBMIT INDIVIDUAL PIPING AND DUCTWORK SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. PIPING AND DUCTWORK SHOP DRAWINGS SHALL FOLLOW THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.</p> <p>5. SUBMIT FINAL SIGNED COORDINATION DRAWING TO ENGINEER FOR REVIEW. ENGINEER WILL REVIEW COORDINATION DRAWINGS FOR GENERAL ARRANGEMENT AND FOR NOTED CONFLICTS ONLY. SPECIFIC INSTALLATION REQUIREMENTS WILL BE REVIEWED ONLY IN INDIVIDUAL TRADE SHOP DRAWINGS.</p> <p>6. ANY WORK FABRICATED OR INSTALLED PRIOR TO SIGN OFF BY ALL TRADES WHICH IS DEEMED TO BE IN CONFLICT WITH COORDINATION DRAWINGS SHALL BE REMOVED AND RE-INSTALLED IN CONFORMANCE WITH COORDINATION DRAWINGS.</p> <p>7. EACH CONTRACTOR (MENTIONED ABOVE) IS RESPONSIBLE FOR THE COORDINATION OF HIS SUB-CONTRACTORS.</p> <p>8. THE OVERALL COORDINATION OF THE COORDINATION PROCESS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER IS NOT RESPONSIBLE FOR THE COORDINATION PROCESS. THE ENGINEER WILL RESPOND TO QUESTIONS THAT ARISE FROM THE COORDINATION PROCESS. DRAWINGS SUBMITTED WILL BE REVIEWED FOR CLEARLY IDENTIFIED CONFLICTS ONLY. SOLUTIONS TO CONFLICTS WILL NOT BEAR ADDITIONAL COST.</p> <p><u>AS BUILT DRAWINGS</u></p> <p>1. PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS REFLECTING AS INSTALLED CONDITIONS. AS-BUILT DRAWINGS SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS SHALL BE BOUND IN A COMPLETE AND CONSECUTIVE SET. SUPPLEMENTAL SKETCHES AND LOOSE PAPERWORK WILL NOT BE ACCEPTABLE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEERS COMMENTS TO PRODUCE A CLEAR AND CONCISE SET OF DRAWINGS. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC VERSION (AUTO-CAD VERSION AS REQUIRED BY THE OWNER) OR AUTOCAD VERSION 2010 IF NOT SPECIFIED. NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER.</p> <p>2. PROVIDE "AS-BUILT DRAWINGS" INDICATING IN A NEAT AND ACCURATE MANNER A COMPLETE RECORD OF ALL REVISIONS OF THE ORIGINAL DESIGN OF THE WORK. INDICATE THE FOLLOWING INSTALLED CONDITIONS:</p> <ul style="list-style-type: none">• INCLUDE ALL CHANGES AND AN ACCURATE RECORD IN AUTOCAD DRAWING OR APPROPRIATE SHOP DRAWINGS, OF ALL DEVIATIONS, BETWEEN THE WORK SHOWN AND WORK INSTALLED.• EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM PROMINENT BUILDING LINES.• APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.• CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED. <p>3. SUBMIT FOR REVIEW BOUND SETS OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING INSTRUCTIONS.</p> <p>4. SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.</p> <p><u>HOUSEKEEPING PADS</u></p> <p>1. PROVIDE CONCRETE HOUSEKEEPING PADS FOR FLOOR-MOUNTED EQUIPMENT. COORDINATE EXACT LOCATIONS, DIMENSIONS, PIPING LOCATIONS, AND ANCHOR BOLT REQUIREMENTS. PROVIDE CONCRETE HOUSEKEEPING PADS UNDER ALL FLOOR MOUNTED EQUIPMENT. PADS SHALL BE CONSTRUCTED OF 3,000 PSI CONCRETE. PADS SHALL BE MINIMUM 4 INCHES HIGH (OR THE MINIMUM HEIGHT TO ACCOMMODATE THE CONDENSATE TRAP HEIGHT) UNLESS OTHERWISE NOTED, AND MINIMUM 4 INCHES WIDER THAN THE EQUIPMENT IN BOTH DIRECTIONS.</p> <p><u>HANGERS AND SUPPORT</u></p> <p>1. PROVIDE ALL NECESSARY STRUCTURAL MEMBERS INCLUDING ADDITIONAL STRUCTURAL SUPPORT TO SUPPORT PIPING AND EQUIPMENT. HANGERS AND SUPPORTS SHALL BE OF AN APPROVED DESIGN NECESSARY TO SUPPORT DUCTWORK, PIPING, EQUIPMENT AND TO KEEP IN PROPER ALIGNMENT AND PREVENT TRANSMISSION OF INJURIOUS THRUSTS AND VIBRATIONS. IN ALL CASES WHERE HANGERS, BRACKETS, ETC., ARE SUPPORTED FROM CONCRETE CONSTRUCTION, DO NOT WEAKEN CONCRETE OR PENETRATE WATERPROOFING. ALL HANGERS AND SUPPORTS SHALL BE CAPABLE OF SCREW ADJUSTMENT AFTER EQUIPMENT AND PIPING IS ERRECTED. HANGERS SUPPORTING PIPING EXPANDING INTO LOOPS, BENDS AND OFFSETS SHALL BE SECURED TO THE BUILDING STRUCTURE IN SUCH A MANNER THAT HORIZONTAL ADJUSTMENT PERPENDICULAR TO THE RUN OF PIPING SUPPORTED MAY BE MADE TO ACCOMMODATE DISPLACEMENT DUE TO EXPANSION. ALL SUCH HANGERS SHALL BE FINALLY ADJUSTED BOTH IN THE VERTICAL AND HORIZONTAL DIRECTION, AS REQUIRED. HANGERS IN CONTACT WITH COPPER OR BRASS PIPE SHALL BE DIELECTRIC, COMPATIBLE WITH COPPER AND BRASS ALLOY OR PROVIDED WITH FELT SLEEVE.</p> <p>2. PROVIDE ADDITIONAL SUPPORT FOR DUCTWORK AND EQUIPMENT WHEN DECK IS NOT CAPABLE OF SUPPORT.</p>

MECHANICAL DRAWING LIST	
DRAWING NUMBER	DRAWING DESCRIPTION
M-0.1	COVER SHEET - MECHANICAL
M-0.2	NOTES, SYMBOLS, ABBREVIATIONS - MECHANICAL
M-0.3	FLOW AND CONTROL DIAGRAMS - MECHANICAL
MD-1.1	LOWER LEVEL DEMOLITION FLOOR PLAN - MECHANICAL
MD-1.2	ROOF DEMOLITION PLAN - MECHANICAL
M-1.1	LOWER LEVEL FLOOR PLAN - MECHANICAL
M-1.2	ROOF PLAN - MECHANICAL
M-3.1	SCHEDULES - MECHANICAL
M-4.1	DETAILS - MECHANICAL
M-4.2	DETAILS - MECHANICAL
M-5.1	SPECIFICATIONS - MECHANICAL
M-5.2	SPECIFICATIONS - MECHANICAL
M-5.3	SPECIFICATIONS - MECHANICAL

PROJECT ALTERNATES
PROJECT ALTERNATE # 1: DETENTION CELL PLUMBING REFURBISHMENT SCOPE (REFER TO P-SERIES AND A-SERIES DRAWINGS FOR SCOPE)
PROJECT ALTERNATE # 2: NEW PHYSICAL TRAINING ROOM RELOCATION SCOPE

RFP 6320



93 Lake Avenue, Danbury, CT 06810
203.778.1017 F 203.778.1018
171 Madison Avenue,
New York, NY 10016
212.695.2422 F 212.695.2423
www.kohlerroman.com
E-mail krce@kohlerroman.com

INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
158 EDISON ROAD
TRUMBULL, CONNECTICUT



JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

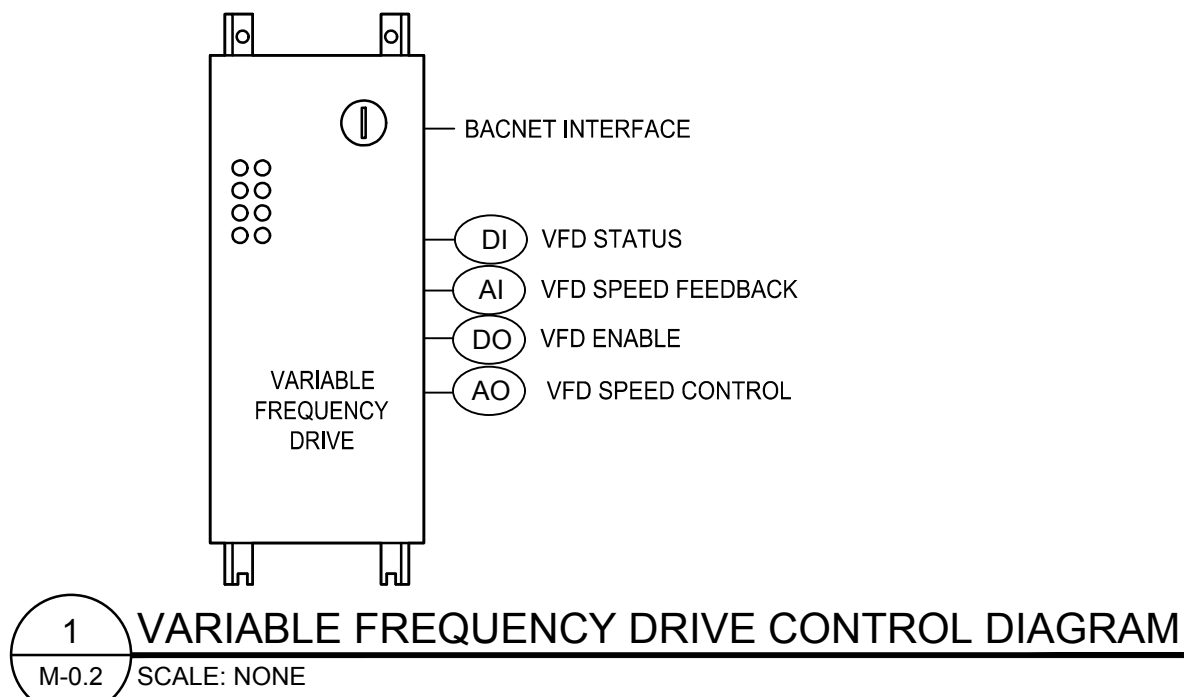
COVER SHEET -
MECHANICAL

PROJ. NO.	JH1828	DRAWING NO.
SCALE	As Noted	M-0.1
DATE	NOVEMBER 8, 2016	

GENERAL MECHANICAL SYMBOLS			
	EXISTING DUCTWORK TO REMAIN		THERMOSTAT
	EXISTING DUCTWORK TO BE REMOVED		TEMPERATURE SENSOR
	HIDDEN DUCTWORK		RELATIVE HUMIDITY SENSOR OR HUMIDISTAT
	SUPPLY DUCT UP / DOWN		SMOKE DETECTOR IN DUCT
	RETURN AIR DUCT UP / DOWN		STATIC PRESSURE SENSOR
	EXHAUST AIR DUCT UP / DOWN		SMOKE DAMPER
	DOUBLE LINE DUCTWORK WITH INDICATION OF INSIDE DIMENSIONS		FIRE DAMPER
	DOUBLE LINE DUCTWORK WITH INTERNAL ACOUSTICAL INSULATION AND INDICATION OF INSIDE DIMENSIONS		COMBINATION SMOKE & FIRE DAMPER
	ACCESS DOOR IN DUCT		MOTORIZED DAMPER
	FLEXIBLE DUCT CONNECTION		MANUAL VOLUME DAMPER / CABLE OPERATED DAMPER (COD)
	UNDERCUT DOOR		UNDERLINED TEXT DENOTES EQUIPMENT
	SUPPLY AIR FLOW		REFER TO SCHEDULES
	EXHAUST / RETURN AIR FLOW		DIFFUSER LEGEND
	MITERED ELBOW WITH TURNING VANES		LTR = TYPE DESIGNATION. REFER TO SCHEDULES
	DUCT TAKE-OFF		CFM = CFM QUANTITY
	VANE EXTRACTOR		# = BLOW ARRANGEMENT, 4-WAY BLOW IS TYPICAL UNLESS OTHERWISE NOTED
	CEILING DIFFUSER		3 = 3-WAY BLOW
	RETURN / EXHAUST GRILLE		2 = 2-WAY BLOW
	REFER TO SCHEDULE FOR SIZE & TYPE		1 = 1-WAY BLOW
			VARIABLE FREQUENCY DRIVE
			COMBINATION MOTOR STARTER / DISCONNECT
			TEMPERATURE CONTROL PANEL
			POINT OF CONNECTION
			POINT OF DEMOLITION
			OCCUPANCY SENSOR
			CARBON MONOXIDE SENSOR
			CARBON DIOXIDE SENSOR

GENERAL MECHANICAL ABBREVIATIONS					
ABV	ABOVE	FA	FACE AREA	NTS	NOT TO SCALE
AC	AIR COMPRESSOR	FC	FORWARD CURVE	OA	OUTSIDE AIR
ACC-#	AIR COOLED CONDENSER	F.C.	FLEX CONNECTION	OAT	OUTDOOR AIR TEMPERATURE
ACU-#	AIR CONDITIONING UNIT	FC-#	FAN COIL	OAI	OUTDOOR AIR INTAKE
ACCU-#	AIR COOLED CONDENSING UNIT	FCU-#	FAN COIL UNIT	ODB	OPPOSED BLADE DAMPER
AD	ACCESS DOOR	FD	FIRE DAMPER WITH ACCESS DOOR	OD	OUTSIDE DIMENSION
AF	AIRFOIL	FF	FINAL FILTER	O.E. T.D.	OPEN END TRANSFER DUCT
AFC	ADJUSTABLE FREQUENCY CONTROLLER	FIN FL	FINISH FLOOR	OED	OPEN END DUCT
AFF	ABOVE FINISHED FLOOR	FL	FLOOR	P-#	PUMP
AFMS	AIR FLOW MEASURING STATION	FLA	FULL LOAD AMPERES	PB	PUSH BUTTON
AHU-#	AIR HANDLING UNIT	FLEX	FLEXIBLE	PBD	PARALLEL BLADE DAMPER
AL	ACOUSTIC LINING	FO	FLAT OVAL	PD	PRESSURE DROP
ALD	AUTOMATIC LOUVER DAMPER	FPF	FINS PER FOOT	PF	PREFILTER
ALP	ACOUSTICALLY LINED PLENUM	FT	FEET	PH	PHASE
APD	AIR PRESSURE DROP	F.T.	FLOAT & THERMOSTATIC TRAP	PHC	PREHEAT COIL
AUTO	AUTOMATIC	FT-#	FIN TUBE RADIATION	PHI	POUND PER HOUR
B-#	BOILER	FV	FACE VELOCITY	PRV	PRESSURE REDUCING VALVE
BC	BACKWARD CURVED	GC	GENERAL CONTRACTOR	PSI	POUND PER SQUARE INCH
BD	BYPASS DAMPER	GH	GRAVITY INTAKE HOOD	RA	RETURN AIR
BMCS	BUILDING MANAGEMENT & CONTROL SYSTEM	GPH	GALLONS PER HOUR	RAD	RETURN AIR DAMPER
BTU	BRITISH THERMAL UNIT	GPM	GALLONS PER MINUTE	RAF-#	RETURN AIR FAN
BV	BYPASS VALVE	H-C	HEATING/COOLING	RAT	RETURN AIR TEMPERATURE
CH-#	CHILLER	H-#	HUMIDIFIER	REG	REGISTER
CHR	CHILLED WATER RETURN	H-O-A	HAND-OFF-AUTOMATIC	RH	RELATIVE HUMIDITY
CHS	CHILLED WATER SUPPLY	HC-#	HEATING COIL	RHC	REHEAT COIL
CAP	CAPACITY	HD	FEET OF HEAD	RLA	RATED LOAD AMPERES
CB-#	CONTROL BOX	HP	HORSEPOWER	RM	ROOM
CC-#	COOLING COIL	HGT	HEATING	RP	RELIEF PENTHOUSE
CD	CEILING DIFFUSER	HTR	HEATER	RPM	REVOLUTIONS PER MINUTE
CFM	CUBIC FEET PER MINUTE	HV-#	HEATING AND VENTILATING UNIT	RTU-#	ROOFTOP AIR CONDITIONING UNIT
CG	CEILING GRILLE	HVAC	HEATING, VENTILATING & AIR CONDITIONING	RV	RADIATION VALVE
CLG	CEILING	HX-#	HEAT EXCHANGER CONVERTOR	SA	SUPPLY AIR
C-#	CONNECTOR	IBT	INVERTED BUCKET TRAP	SAF-#	SUPPLY AIR FAN
C.O.D.	CABLE OPERATED DAMPER	ID	INSIDE DIMENSION	SAT	SUPPLY AIR TEMPERATURE
CP	CONDENSATE RECEIVER/PUMPING SYSTEM	IN	INCHES	SB	SECURITY BARS
CR	CEILING REGISTER	IP	INTAKE PENTHOUSE	VSC	VERTICAL SPLIT CASE
CT-#	COOLING TOWER	IV	INLET GUIDE VANES	HSC	HORIZONTAL SPLIT CASE
CTD	CEILING TRANSFER DUCT	KW	KILOWATT	SD	SMOKE DAMPER
CUH-#	CABINET UNIT HEATER	KWH	KILOWATT HOUR	SG	SUPPLY GRILLE
CV	CONTROL VALVE	IL	INLINE	SP	STATIC PRESSURE
D&T	DRIP AND TRAP	LAT	LEAVING AIR TEMPERATURE	SQ FT	SQUARE FOOT (AREA)
DB	DRY BULB	LD	LINEAR DIFFUSER	ST	SINGLE POLE SWITCH
DD	DIRECT DRIVE	LIN	LINEAR	T'STAT	THERMOSTAT
DDC	DIRECT DIGITAL CONTROL	LRA	LOCKED ROTOR AMPERES	TB	TERMINAL BOX
DIFF	DIFFUSER	LPR	LOW PRESSURE RETURN	TCP	TEMPERATURE CONTROL PANEL
DL	DOOR LOUVER	LPS	LOW PRESSURE SUPPLY	TD	TEMPERATURE DIFFERENCE
DN	DOWN	LVG	LEAVING	TEMP	TEMPERATURE
DP	DEWPOINT TEMPERATURE	LWT	LEAVING WATER TEMPERATURE	TG	AIR TRANSFER GRILLE
DR	DROP	MAN	MANUAL	TOT	TOTAL
DX	DIRECT EXPANSION	MAT	MIXED AIR TEMPERATURE	TN-HR	TON HOUR REFRIGERATION
EF-#	EXHAUST FAN	MAX	MAXIMUM	TR	TOP REGISTER
EAT	ENTERING AIR TEMPERATURE	MBH	1000 BTU'S	TRD	TRANSFER DUCT
EER	ENERGY EFFICIENCY RATIO	MCA	MINIMUM CIRCUIT AMPACITY	TT	THERMOSTATIC TRAP
EG	EXHAUST GRILLE	MD	MOTORIZED DAMPER	TYP	TYPICAL
EHC-#	ELECTRIC HEATING COIL	MER	MECHANICAL EQUIPMENT ROOM	UC	UNDERCUT DOOR
ENT	ENTERING	MEZZ	MEZZANINE	UH-#	UNIT HEATER HOT WATER
HEPA	HIGH EFFICIENCY PARTICULATE FILTER	NF	NET FREE AREA	UV-#	UNIT VENTILATOR
ER	EXHAUST REGISTER	NFA	NET FREE AREA	VO	VOLUME DAMPER
ES	END SUCTION	NIC	NOT IN THIS CONTRACT	VE	VOLUME EXTRACTOR
ESP	EXTERNAL STATIC PRESSURE	NO	NORMALLY OPEN	VFD	VARIABLE FREQUENCY DRIVE
ET-#	EXPANSION TANK			VI	VIBRATION ISOLATOR
ETR	EXISTING TO REMAIN			VSF	VARIABLE SPEED FAN SWITCH
EUH-#	ELECTRIC UNIT HEATER			W	WITH
EWIT	ENTERING WATER TEMPERATURE			WB	WET BULB
EXP-#	EXPANSION LOOP			WFM	WATER FLOW MEASURING STATION
EX	EXISTING			WMS	WIRE MESH SCREEN
EXH	EXHAUST			WPD	WATER PRESSURE DROP
EXT	EXTERNAL			WT	WEIGHT (LBS)
'F	DEGREES FAHRENHEIT			ZD	ZONE DAMPER
F&B	FACE & BYPASS DAMPER				

- ### MECHANICAL DEMOLITION NOTES
- COORDINATE PHASING OF DEMOLITION WITH C.M./G.C. AND PROPOSED CONSTRUCTION SCHEDULE TO MAINTAIN MECHANICAL SERVICES (HEATING, TEMPERATURE CONTROLS, EXHAUSTS, MAKE UP AIR ETC.) TO OCCUPIED AREAS OF THE BUILDING DURING CONSTRUCTION.
 - THE EXISTING FACILITY WILL BE OCCUPIED AND IN OPERATION DURING THE PERFORMANCE OF THE WORK.
 - WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING PIPING OR DUCTWORK WHICH MAY CAUSE DISRUPTION TO OCCUPIED FACILITIES, CONFER WITH THE OWNER, AND SCHEDULE A MUTUALLY AGREEABLE PERIOD OF INTERRUPTION.
 - WHERE REPLACEMENT, RELOCATION OR MODIFICATION OF EXISTING EQUIPMENT IS INDICATED, PROVIDE AND MAINTAIN ALL TEMPORARY SERVICES, CONNECTIONS, CONTROLS, AND ANY OTHER MATERIALS AND APPURTENANCES REQUIRED TO MAINTAIN SERVICES TO OCCUPIED AREAS.
 - NO WORK SHALL BE LEFT INCOMPLETE, NOR ANY HAZARDOUS SITUATION CREATED, WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS. AT NO TIME SHALL THE WORK INTERFERE WITH OR CUT OFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S PRIOR WRITTEN PERMISSION.
 - THE OWNER RESERVES THE RIGHT TO OPERATE ALL EXISTING MECHANICAL EQUIPMENT UNTIL THE NEW SYSTEMS COME ON LINE.
 - IT IS REQUIRED THAT THE WORK INDICATED AND/OR SPECIFIED SHALL BE CARRIED OUT WITH A MINIMUM OF INTERFERENCE TO THE ESTABLISHED OPERATIONS OF THE BUILDING.
 - REMOVED MATERIALS SHALL BE DISPOSED OF USING LICENSED CARTING SERVICE.
 - HAZARDOUS MATERIALS - SHALL BE DISPOSED OF BY AN EPA APPROVED, LICENSED DISPOSAL SERVICE. CONTRACTOR SHALL OBTAIN AND HAVE ON FILE, AFFIDAVIT, AND RECEIPTS STATING HOW AND WHERE THE WASTE WAS DISPOSED OF OR CONVERTED.
 - IT IS THE INTENTION OF THESE DEMO DRAWINGS TO INDICATE GENERAL SYSTEMS AND MATERIALS TO BE REMOVED. CONTRACTOR SHALL REMOVE ALL OBSOLETE PIPING, DUCTWORK, EQUIPMENT, CONTROLS, ETC. INDICATED OR NOT.
 - DUCTWORK, EQUIPMENT AND TERMINAL DEVICES HAVE BEEN TAKEN FROM FIELD OBSERVATION AND ARE TO BE USED FOR REFERENCE AND SHALL NOT BE CONSTRUED TO BE ACTUAL FIELD CONDITIONS. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL SYSTEMS PRIOR TO COMMENCEMENT OF DEMOLITION WORK.
 - ALL EQUIPMENT TO BE REMOVED SHALL BE DISPOSED OF PER OR STORED PER DIRECTION OF OWNER. ANY ITEM NOT RETAINED BY OWNER SHALL BE REMOVED FROM SITE AND DISCARDED IN AN APPROVED MANNER.
 - IT IS THE INTENTION OF THESE SPECIFICATION TO REMOVE ALL MATERIALS ABANDONED BY THE SCOPE OF THIS CONSTRUCTION PROJECT. NO OBSOLETE MATERIALS (I.E. HANGERS, SUPPORTS, INSULATION, DUCTWORK, ETC.) SHALL REMAIN.
 - DISCONNECT AND REMOVE ALL DUCTWORK AND ASSOCIATED SUPPLY, RETURN OR EXHAUST GRILLES INCLUDING BUT NOT LIMITED TO ALL HANGERS, SUPPORTS, VOLUME DAMPERS AND FLEXIBLE DUCTWORK.
 - CONTRACTOR SHALL PROVIDE TEMPORARY PROTECTION TO ANY EXPOSED OR UNCAPPED NEW OR EXISTING DUCTWORK TO REMAIN TO MINIMIZE DUST CONTAMINATION IN ANY AND ALL OF THE AIR SYSTEMS. THIS SHALL INCLUDE BUT IS NOT LIMITED TO TEMPORARY FILTERS, CAPS, ENCLOSURES, ETC.



RFP 6320



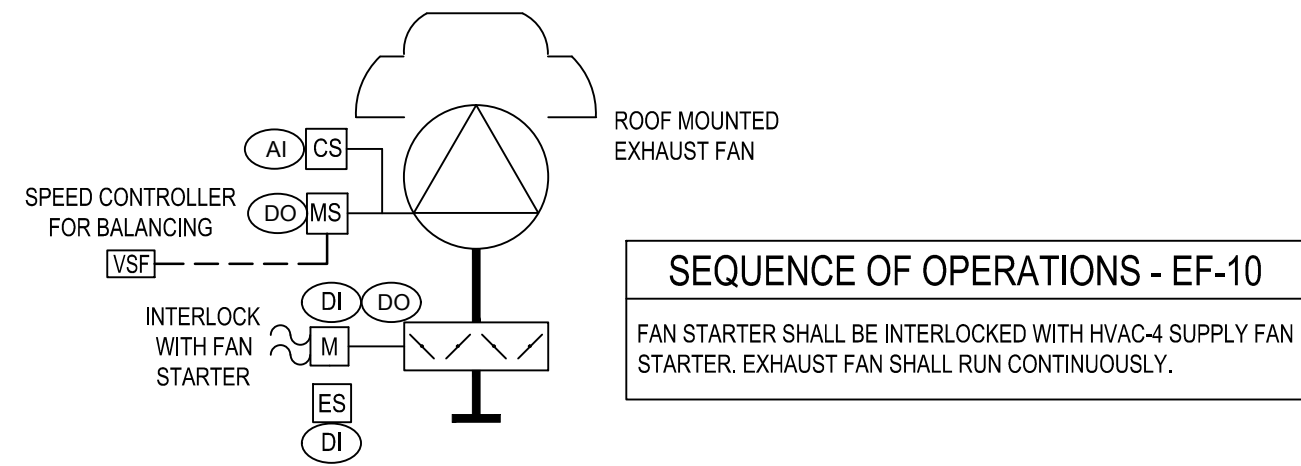
INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
158 EDISON ROAD
TRUMBULL, CONNECTICUT

J J H H
JACUNSKI HUMES
ARCHITECTS, LLC
15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

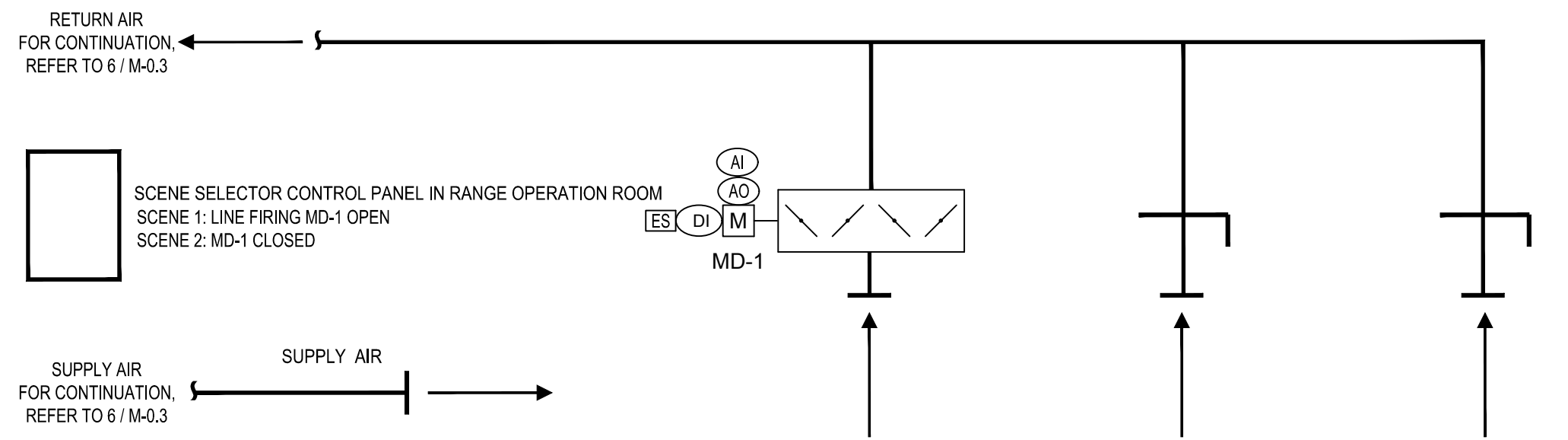
NOTES, SYMBOLS,
ABBREVIATIONS -
MECHANICAL

PROJ. NO.	JH182B	DRAWING NO.	
SCALE	As Noted		
DATE	NOVEMBER 8, 2018		

M-0.2



1 ROOF MOUNTED LOCKER ROOM EXHAUST FAN EF-10 CONTROL DIAGRAM
M-0.3 SCALE: NONE

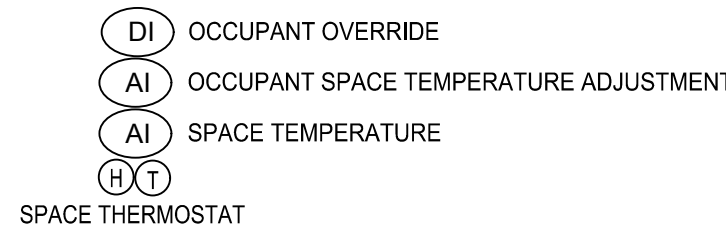


2 FIRING RANGE EXHAUST OPERATION - SCENE CONTROL
M-0.3 SCALE: NONE

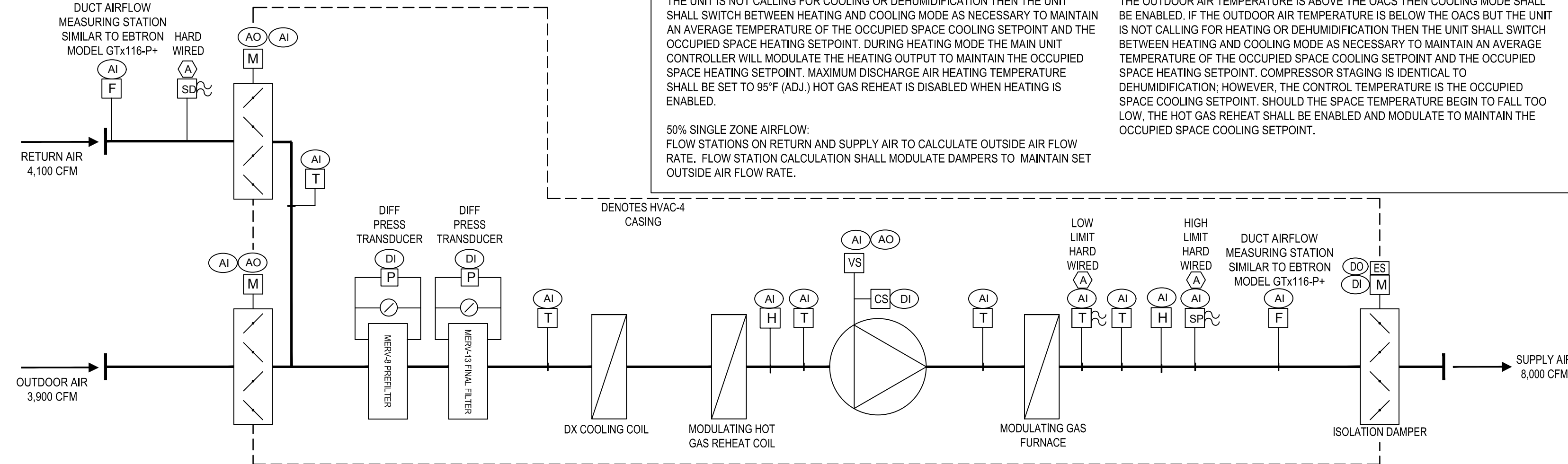
MECHANICAL CONTROLS SYMBOL LIST

(A)	ALARM
(AI)	DDC ANALOG INPUT POINT
(AO)	DDC ANALOG OUTPUT POINT
(CS)	CURRENT SENSOR
(DI)	DDC DIGITAL INPUT POINT
(DO)	DDC DIGITAL OUTPUT POINT
(DPT)	DIFFERENTIAL PRESSURE TRANSMITTER
(ES)	END SWITCH
(F)	FLOW MEASURING STATION
(H)	ROOM HUMIDISTAT / HUMIDITY SENSOR
(HL)	HUMIDITY SENSOR
(L)	HIGH LIMIT HUMIDISTAT
(M)	ELECTRONIC LIQUID LEVEL SENSOR
(MS)	DAMP/VALVE MOTOR
(P)	MOTOR STARTER
(SD)	PRESSURE SENSOR
(SP)	SMOKE DETECTOR: FURNISHED AND WIRED BY DIVISION 26 CONTRACTOR AND MOUNTED BY DIVISION 23 CONTRACTOR
(TCP)	STATIC PRESSURE SENSOR
(T)	TEMPERATURE CONTROL PANEL
(TH)	TEMPEROSTAT**
(T)	TEMPERATURE SENSOR (NO ADJUSTMENT)
(T)	TAMPER-PROOF TEMPERATURE SENSOR (FOR USE IN CELL BLOCKS)
(VFD)	VARIABLE FREQUENCY CONTROLLER *
(VSP)	VARIABLE SPEED FAN SWITCH
(V)	COIL
(V)	OPPOSED BLADE DAMPER
(V)	PUMP / FAN
(V)	DISCONNECT
(V)	HARDWIRED

ALL SYMBOLS MAY NOT BE USED IN THESE DOCUMENTS.
* REFER TO VARIABLE FREQUENCY CONTROLLER CONTROL DIAGRAM FOR REQUIRED CONTROL POINTS FOR ALL VFD & VS SYMBOLS INDICATED.
** REFER TO SPACE THERMOSTAT CONTROL DIAGRAM FOR REQUIRED CONTROL POINTS FOR ALL (T) SYMBOLS INDICATED.



3 SPACE THERMOSTAT CONTROL DIAGRAM
M-0.3 SCALE: NONE

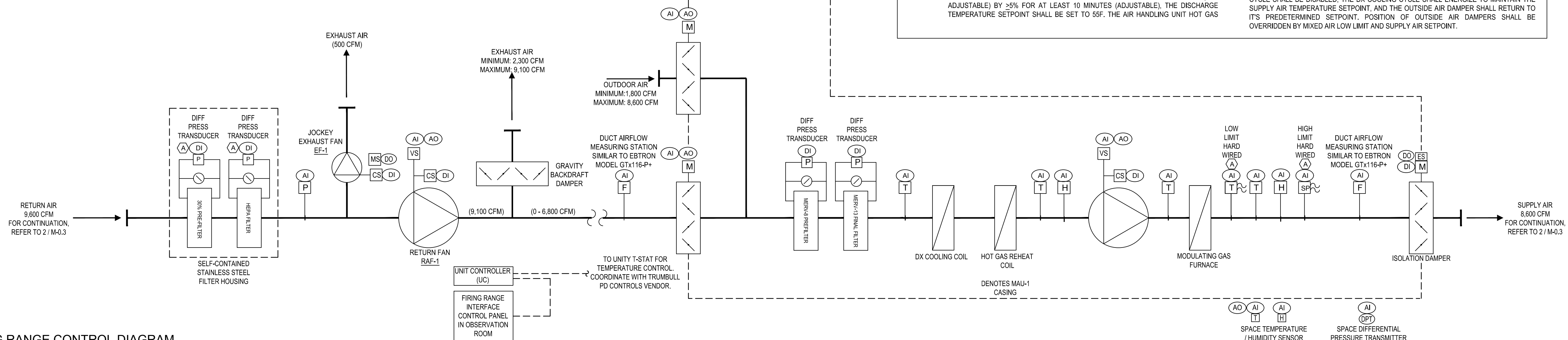


5 HVAC-4 FLOW AND CONTROL DIAGRAM
M-0.3 SCALE: NONE

4 GLOBAL OUTDOOR AIR SENSORS
M-0.3 SCALE: NONE

SEQUENCE OF OPERATIONS - MAU-1

- A. GENERAL**
- THE UNIT SHALL CYCLE ON AND OFF AT 50% (ADJ.) AIRFLOW BASED ON TEMPERATURE SETPOINT, AND MANUALLY VIA AN OPERATING INTERFACE IN THE OBSERVATION ROOM. TEMPERATURE SETPOINT ADJUSTMENT DURING NORMAL OPERATING MODE SHALL BE ACCOMPLISHED THROUGH UNITY CONTROLS WIFI ENABLED THERMOSTAT.
 - A CONTROL PANEL FOR MANUAL UNIT OPERATION SHALL BE PROVIDED IN THE FIRING RANGE OBSERVATION ROOM FOR FULL SPEED MANUAL OPERATION OF THE SYSTEM. THE UNIT SHALL RUN FOR A PREDETERMINED SET TIME BASED ON USERS REQUIREMENTS. THE CONTROLLER SHALL HAVE A TABLET STYLE INTERFACE WITH FUNCTIONS CLEARLY OUTLINED, AND VENTILATION STATUS CLEARLY DENOTED. DEFAULT SCENE SELECTION SHALL BE PER OWNERS DIRECTION. TEMPERATURE ADJUSTMENT SHALL BE AVAILABLE. CONTRACTOR TO FURNISH DDC UNIT CONTROLLER.
 - UNIT CONTROLLER VIA UNITY CONTROL THERMOSTAT SHALL MODULATE DX COOLING AND GAS HEATING TO MAINTAIN REQUIRED AHU DISCHARGE SET POINT TEMPERATURE AND SPACE HUMIDITY DURING UNOCCUPIED TIMES.
- B. UNOCCUPIED MODE**
- WHEN THE UNIT IS DISABLED, THE SUPPLY FAN SHALL BE OFF, RETURN FAN RAF-1 SHALL BE OFF, RETURN AIR AND OUTSIDE AIR DAMPERS SHALL BE CLOSED. UNIT MOUNTED JOCKEY EXHAUST FAN SHALL RUN CONTINUOUSLY TO PROVIDE EXHAUST FOR THE RANGE AREA.
- C. NORMAL OPERATING MODE - STANDBY**
- WHEN THE UNIT IS ENABLED BASED ON A CALL FROM A SPACE TEMPERATURE/HUMIDITY SENSOR, THE SUPPLY FAN SHALL START AT 50%(ADJ.) OF THE DESIGN AIRFLOW AFTER OUTSIDE AIR DAMPERS MODULATE OPEN. RETURN AIR FAN SHALL TRACK SUPPLY AIR FAN RPM AND MODULATE SPEED TO MAINTAIN A CONSTANT NEGATIVE AIRFLOW DIFFERENTIAL EQUIVALENT TO THE EXHAUST FLOW FOR EF-1. DEFAULT SCENE 1 ARRANGEMENT SHALL BE UTILIZED. ON A CALL FOR COOLING, THE DX CYCLE SHALL MODULATE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT (75°F ADJUSTABLE). ON A CALL FOR HEATING, THE GAS FURNACE SHALL MODULATE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT (70°F ADJUSTABLE). WHEN THE DISCHARGE TEMPERATURE HAS LOWERED TO 55°F AND THERE IS A FURTHER RISE IN SPACE TEMPERATURE, THE SUPPLY AIRFLOW SHALL INCREASE VIA THE VARIABLE FREQUENCY DRIVE. UPON A DROP IN SPACE TEMPERATURE THE SUPPLY AIRFLOW SHALL DECREASE AND THE DX COOLING DEENERGIZE. UPON A CALL FOR FURTHER HEATING, THE GAS FURNACE SHALL MODULATE TO MAINTAIN THE SPACE TEMPERATURE SENSOR SETPOINT.
 - WHEN THE SPACE HUMIDITY SENSOR EXCEEDS THE HUMIDITY SETPOINT (55% ADJUSTABLE) BY 25% FOR AT LEAST 10 MINUTES (ADJUSTABLE), THE DISCHARGE TEMPERATURE SETPOINT SHALL BE SET TO 55F, THE AIR HANDLING UNIT HOT GAS
- D. FIRING RANGE OPERATION**
- THE UNITY CONTROLS THERMOSTAT SHALL BE OVERRIDDEN BY THE SCENE SELECTOR CONTROL PANEL IN THE OBSERVATION ROOM DURING A CALL FOR FIRING RANGE OPERATION. THE UNIT SHALL OPERATE AT FULL SPEED VIA MANUAL OPERATION FROM THE INTERFACE CONTROL PANEL. AN INDICATOR LIGHT SHALL INDICATE UNIT FULL SPEED OPERATION. A SCENE SELECTOR SWITCH SHALL BE PROVIDED FOR RANGE OPERATION MODES AS INDICATED ON THE DRAWINGS.
 - SELECTOR SWITCH FOR RANGE MODES
 - PROVIDE A SELECTOR SWITCH TO DIRECT EXHAUST AIR DURING FULL SPEED OPERATION IN THE FOLLOWING MODES VIA MOTORIZED DAMPER MODULATION:
 - 2,400 CFM AIR EXHAUSTED VIA ½ DOWNRANGE EXHAUST OPENING, 3,600 CFM AIR EXHAUSTED VIA ¾ DOWNRANGE EXHAUST OPENING, AND 3,600 CFM AIR EXHAUSTED VIA BULLET BACKSTOP EXHAUST OPENING.
 - 3,600 CFM AIR EXHAUSTED VIA ½ DOWNRANGE EXHAUST OPENING, AND 3,600 CFM AIR EXHAUST VIA BULLET BACKSTOP EXHAUST OPENING.
- E. UNOCCUPIED MODE**
- OUTSIDE AIR DAMPERS SHALL BE CLOSED. RETURN AIR DAMPER AT UNIT SHALL BE CLOSED. RESET THE SPACE AIR TEMPERATURE SENSORS TO MAINTAIN SPACE TEMPERATURE AT 75 F (ADJUSTABLE) DURING A CALL FOR COOLING AND 60 F (ADJUSTABLE) DURING A CALL FOR HEATING.
 - SUPPLEMENTAL JOCKEY EXHAUST FAN SHALL RUN CONTINUOUSLY WHEN UNIT IS IN UNOCCUPIED MODE TO PROVIDE FOR CONTINUOUS FILTERED EXHAUST OF THE FIRING RANGE AREA.
- F. ENTHALPY ECONOMIZER**
- PROVIDE UNIT WITH AN ENTHALPY CONTROLLED ECONOMIZER. WHEN OUTSIDE AIR ENTHALPY IS LESS THAN RETURN AIR ENTHALPY AND A CALL FOR COOLING HAS BEEN INITIATED, A PID LOOP COMPARING ACTUAL SUPPLY TEMPERATURE TO ITS CALCULATED SETPOINT, SHALL MODULATE THE OUTSIDE AIR DAMPER AND RETURN AIR DAMPER. WHEN THE OUTDOOR ENTHALPY EXCEEDS THE RETURN AIR ENTHALPY, THE ECONOMIZER CYCLE SHALL BE DISABLED. THE DX COOLING CYCLE SHALL ENERGIIZE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT, AND THE OUTSIDE AIR DAMPER SHALL RETURN TO ITS PREDETERMINED SETPOINT. POSITION OF OUTSIDE AIR DAMPERS SHALL BE OVERRIDDEN BY MIXED AIR LOW LIMIT AND SUPPLY AIR SETPOINT.

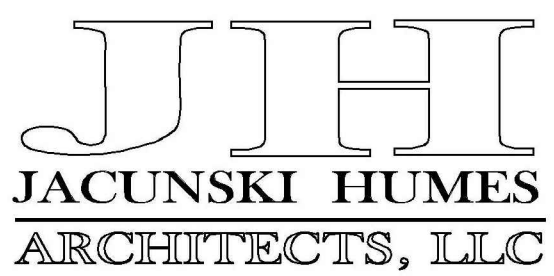


6 FIRING RANGE CONTROL DIAGRAM
M-0.3 SCALE: NONE

RFP 6320



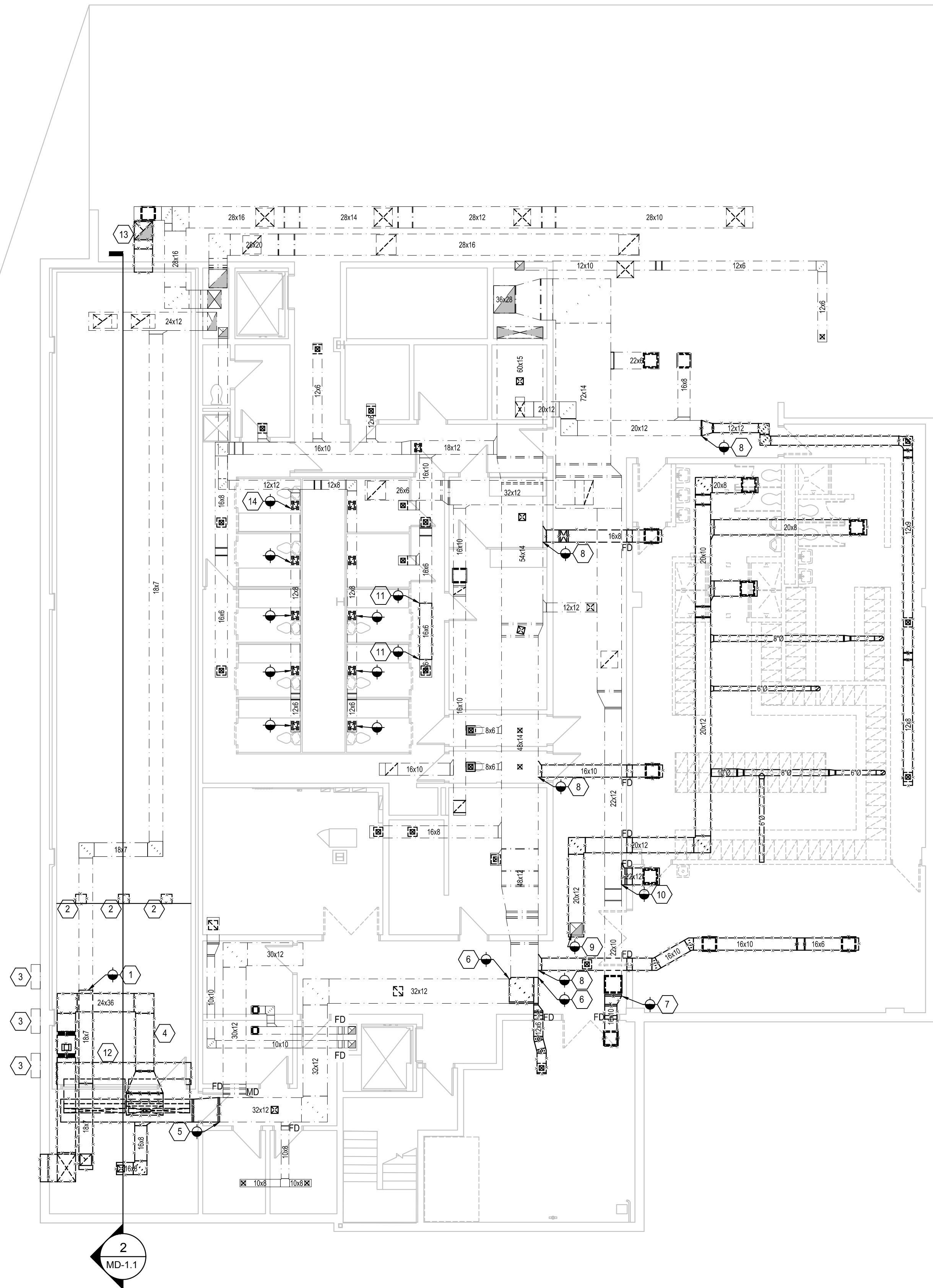
INTERIOR RENOVATION TO THE
TRUMBULL POLICE DEPARTMENT
TRUMBULL, CONNECTICUT
158 EDISON ROAD



15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

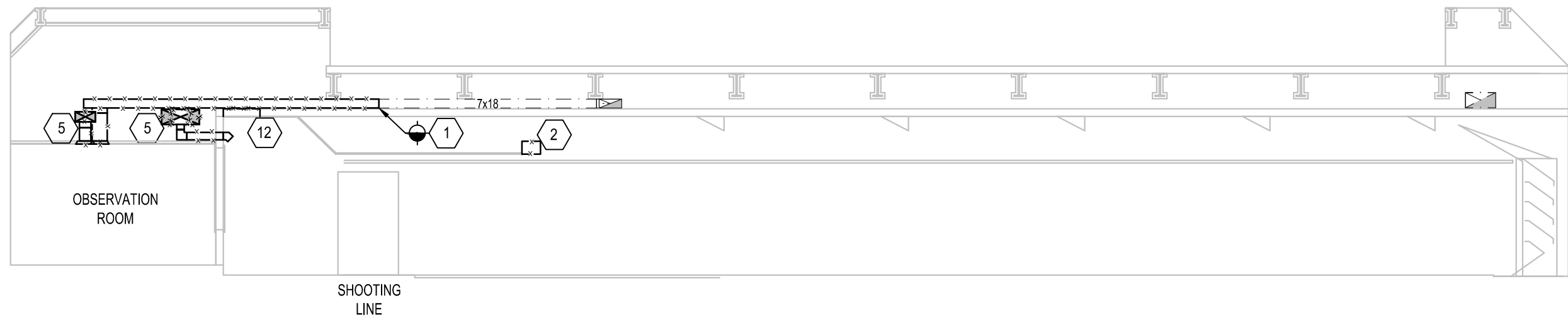
FLOW AND CONTROL DIAGRAMS - MECHANICAL

PROJ. NO.	JH182B	DRAWING NO.	
SCALE	As Noted		M-0.3
DATE	NOVEMBER 8, 2018		



1 LOWER LEVEL DEMOLITION FLOOR PLAN - MECHANICAL
MD-1.1 Scale: 1/8"=1'-0"

MECHANICAL DEMOLITION KEYNOTES	
1 REMOVE SECTION OF EXISTING EXHAUST DUCT, DUCT SUPPORTS, GRILLE, AND APPURTENANCES SERVING FIRING RANGE OBSERVATION ROOM AS REQUIRED TO FACILITATE INSTALLATION OF SUPPLY AND RETURN DUCTWORK SERVING NEW FIRING RANGE UNIT. EXISTING DUCTWORK TO REMAIN SHALL BE ABANDONED IN PLACE AND CAPPED. REFER TO ARCHITECTURAL DRAWINGS FOR SCOPE.	8 DISCONNECT AND REMOVE SECTION OF SUPPLY DUCT, SUPPORTS, LAY-IN DIFFUSERS, AND ALL APPURTENANCES AS INDICATED ON PLAN TO ACCOMMODATE NEW DUCT CONNECTIONS SERVING LOCKER ROOM. REFER TO M-1.1 FOR NEW DUCT LAYOUT.
2 COMPLETELY REMOVE EXISTING BOOSTER FANS AND ALL APPURTENANCES SERVING FIRING RANGE.	9 DISCONNECT AND REMOVE EXISTING EXHAUST DUCTWORK SERVING LOCKER ROOM BACK TO 18x18 EXHAUST RISER. EXHAUST RISER TO REMAIN. CONTRACTOR TO PROVIDE TEMPORARY CAP OVER OPEN END.
3 EXISTING EXTERIOR WALL MOUNTED HEAT PUMP CONDENSING UNITS TO REMAIN. SHIFT EXISTING REFRIGERANT PIPING IN CEILING CAVITY AS REQUIRED TO FACILITATE INSTALLATION OF NEW DUCTWORK.	10 DISCONNECT AND REMOVE SECTION OF RETURN DUCT, SUPPORTS, LAY-IN GRILLE, AND ALL APPURTENANCES AS INDICATED ON PLAN TO ACCOMMODATE NEW DUCT CONNECTIONS SERVING LOCKER ROOM. REFER TO M-1.1 FOR NEW DUCT LAYOUT.
4 COMPLETELY REMOVE EXISTING MAKEUP AIR FAN, DUCTWORK, SUPPORTS, WIRING AND CONTROLS, AND EXTERIOR LOUVER SERVING FIRING RANGE. PROVIDE TEMPORARY PATCHWORK OVER EXTERIOR PENETRATION.	11 DISCONNECT AND REMOVE SECTION OF SUPPLY DUCT AND SUPPORTS AT LOCATIONS INDICATED ON PLAN TO ACCOMMODATE ADDITION CEILING GRILLE AND DUCT SERVING CELL BLOCK. REFER TO M-1.1 FOR NEW DUCT LAYOUT.
5 DISCONNECT AND REMOVE SECTION OF SUPPLY DUCT, SUPPORTS, AND GRILLES SERVING FIRING RANGE AND OBSERVATION ROOM. CONTRACTOR TO CAP EXISTING SUPPLY DUCT AIRTIGHT.	12 REMOVE SECTION OF FLEXICORE CEILING TO ACCOMMODATE NEW RADIAL DIFFUSER AND DUCTWORK. COORDINATE WITH ARCHITECTURAL PLANS.
6 DISCONNECT AND REMOVE SECTION OF SUPPLY DUCT, SUPPORTS, LAY-IN DIFFUSER, AND ALL APPURTENANCES AS INDICATED ON PLAN TO ACCOMMODATE NEW DUCT CONNECTIONS SERVING PHYSICAL TRAINING ROOM. REFER TO M-1.1 FOR NEW DUCT LAYOUT. (PROJECT ALTERNATE # 2)	13 REMOVE EXISTING EXHAUST DUCT AT BACK OF RANGE UP TO EXISTING ROOF PENETRATION. SEAL WALL PENETRATION TO MATCH EXISTING CONSTRUCTION. DISCONNECT AND COMPLETELY REMOVE EXISTING EXHAUST FAN. EXISTING CURB TO REMAIN SHALL BE FITTED WITH INSULATED CAP.
7 DISCONNECT AND REMOVE SECTION OF RETURN DUCT, SUPPORTS, LAY-IN GRILLE, AND ALL APPURTENANCES AS INDICATED ON PLAN TO ACCOMMODATE NEW DUCT CONNECTIONS SERVING PHYSICAL TRAINING ROOM. REFER TO M-1.1 FOR NEW DUCT LAYOUT. (PROJECT ALTERNATE # 2)	14 DISCONNECT AND REMOVE EXISTING RETURN GRILLE INSIDE DETENTION CELL. TYPICAL FOR 8. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING DEMOLITION SCOPE.



2 EXISTING FIRING RANGE DEMOLITION SECTION - MECHANICAL
MD-1.1 Scale: 1/8"=1'-0"

RFP 6320



INTERIOR RENOVATION TO THE

TRUMBULL POLICE
DEPARTMENT

TRUMBULL, CONNECTICUT

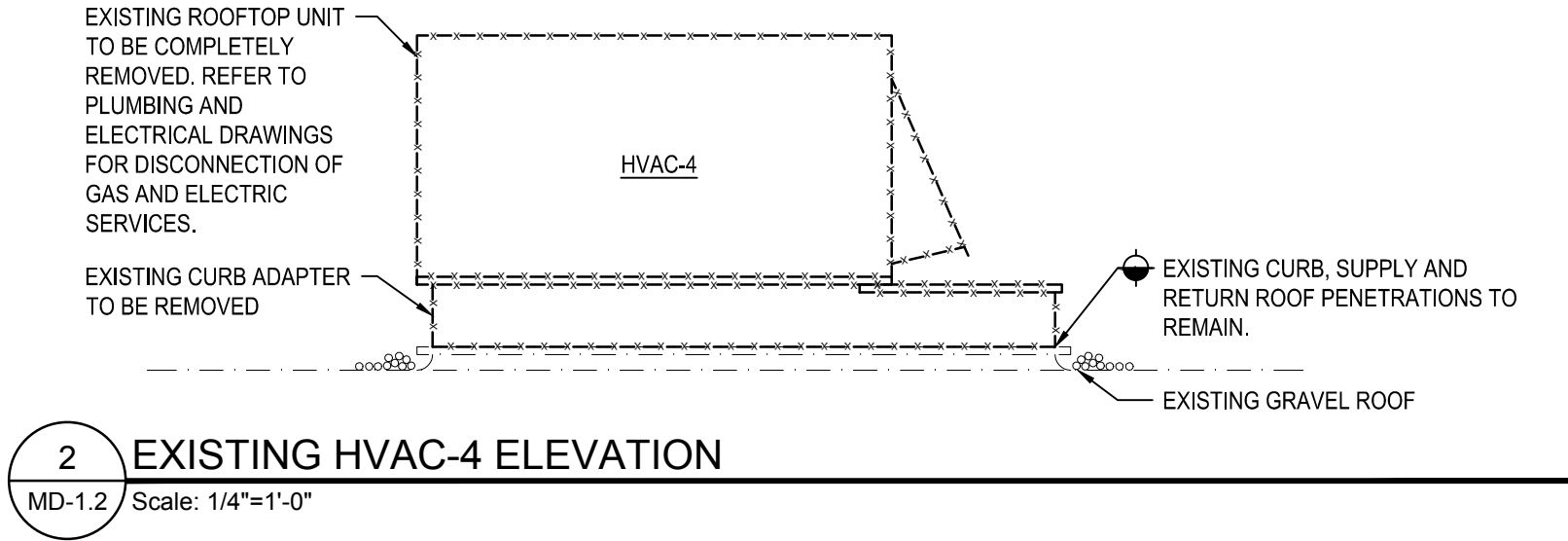
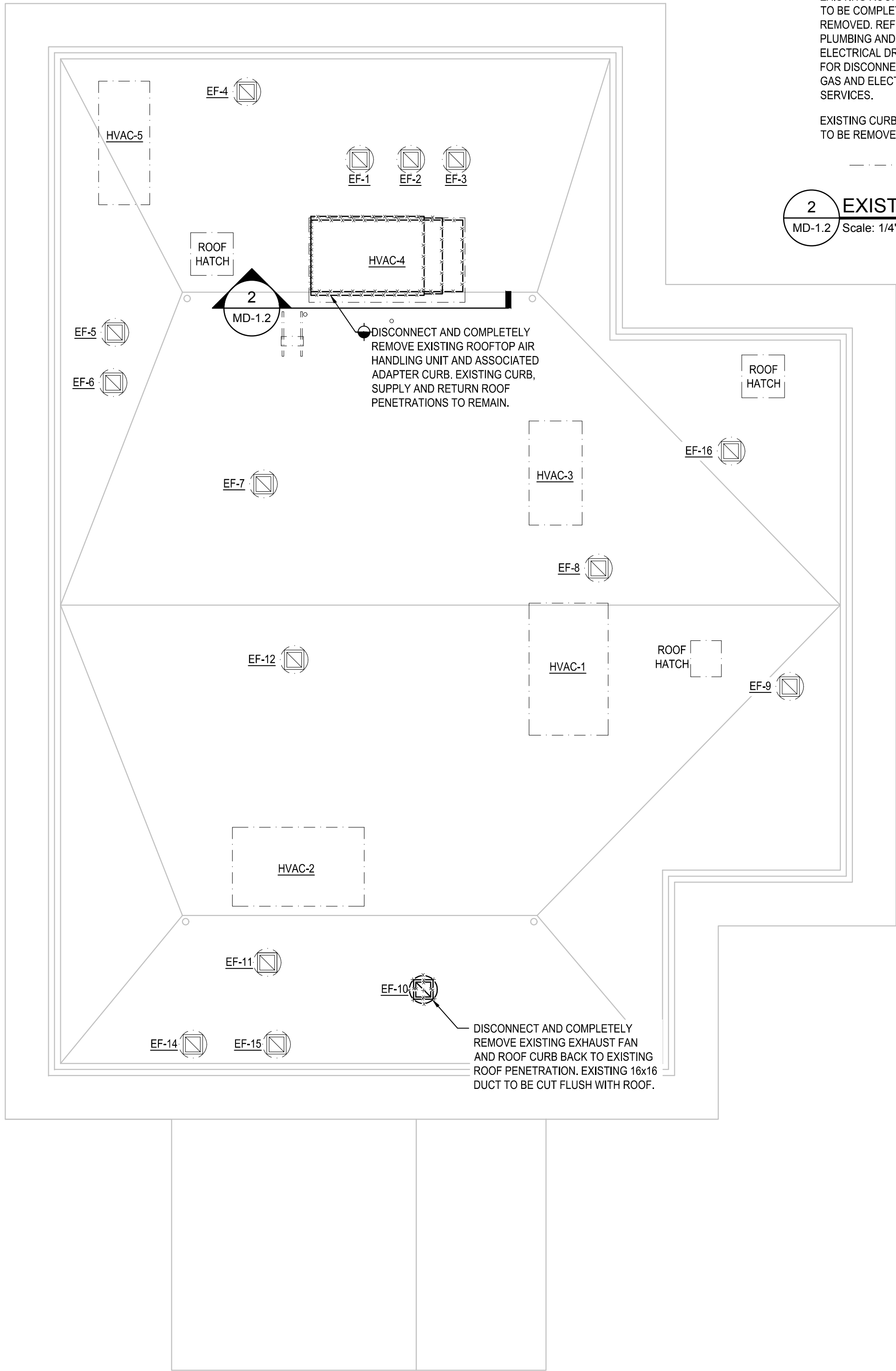
158 EDISON ROAD

J J H
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

LOWER LEVEL
DEMOLITION
FLOOR PLAN -
MECHANICAL

PROJ. NO.	JH1828	DRAWING NO.	MD-1.1
SCALE	As Noted	DATE	
NOVEMBER 8, 2018			



1 ROOF DEMOLITION PLAN - MECHANICAL
MD-1.2 Scale: 1/8"=1'-0"

RFP 6320



93 Lake Avenue, Danbury, CT 06810
203.778.1017 F 203.778.1018
171 Madison Avenue,
New York, NY 10016
212.695.2422 F 212.695.2423
www.kohlerroman.com
E-mail krce@kohlerroman.com

INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
158 EDISON ROAD TRUMBULL, CONNECTICUT

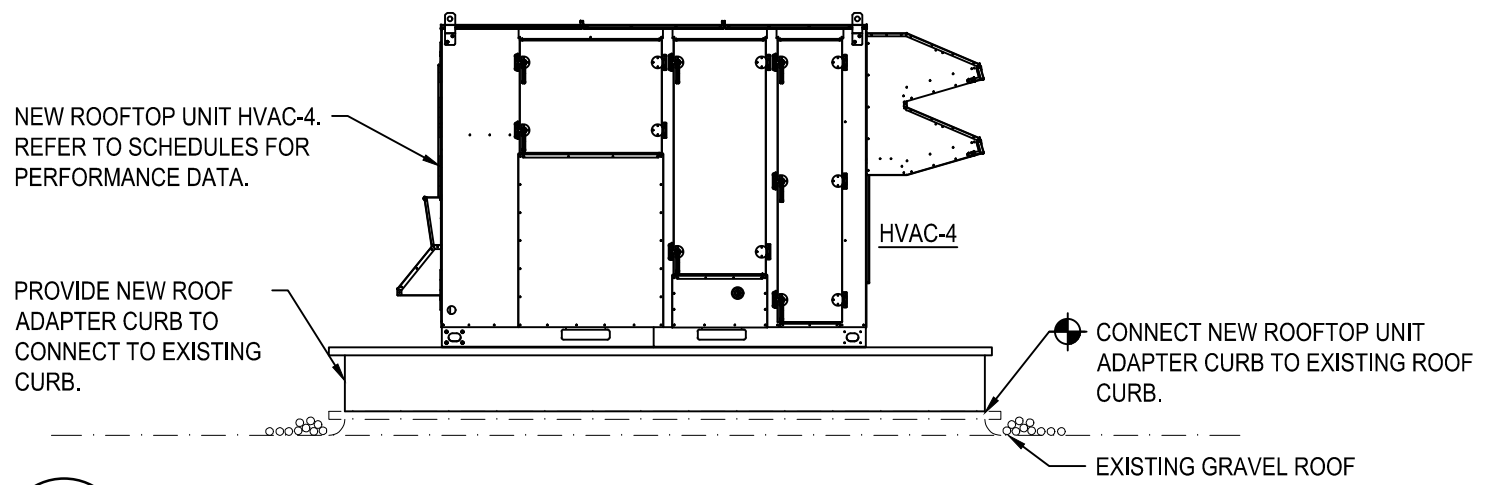
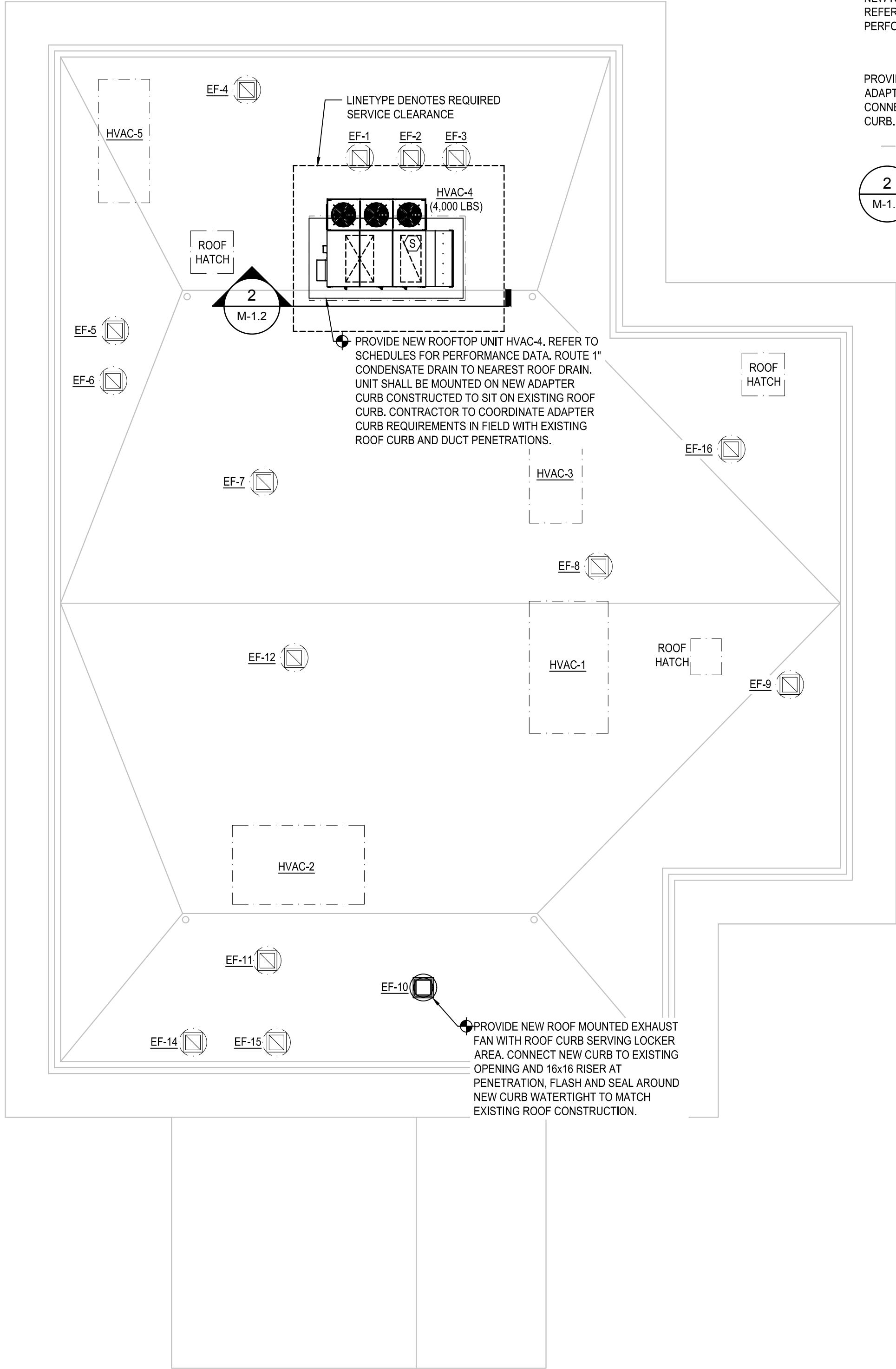


**JACUNSKI HUMES
ARCHITECTS, LLC**

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

ROOF DEMOLITION
PLAN -
MECHANICAL

PROJ. NO. JH1828	DRAWING NO. MD-1.2
SCALE As Noted	
DATE NOVEMBER 8, 2018	



1 ROOF PLAN - MECHANICAL
M-1.2 Scale: 1/8"=1'-0"

2 HVAC-4 ELEVATION
M-1.2 Scale: 1/4"=1'-0"

RFP 6320



INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
158 EDISON ROAD TRUMBULL, CONNECTICUT

J J H
JACUNSKI HUMES
ARCHITECTS, LLC
15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

**ROOF PLAN -
MECHANICAL**

PROJ. NO. JH1828	DRAWING NO. M-1.2
SCALE As Noted	
DATE NOVEMBER 8, 2018	

AIR HANDLING UNITS																												
SYMBOL	AREA SERVED	SUPPLY AIR	VENT. AIR	INDIRECT GAS FIRED FURNACE						DIRECT EXPANSION COOLING COIL						SUPPLY FAN DATA			ELECTRICAL				PRE-FILTER	FINAL FILTER	MAKE/MODEL	REMARKS		
				HEATING (MBH)		FUEL	% AFUE	AIR DATA			AMB. TEMP.	ENT. DB°	AIR WB°	LEAV. DB°	AIR WB°	CAPACITY MBH	REFRIG. TYPE	ESP	TOTAL CFM	MOTOR DATA H.P.	VOLTS	PH					UNIT MCA	UNIT MOP
				INPUT	OUTPUT			CFM	EAT	LAT																		
HVAC-4	BASEMENT LEVEL	8,000	3,900	400.0	320.0	NAT. GAS	80	8,000	50.0	87.0	95.0	81.3	67.9	55.4	55.4	315.9	R-410A	1.0"	8,000	7.5	208	3	143.2	-	MERV-8	MERV-13	TRANE HORIZON K-300	PROVIDE MOD. HOT GAS REHEAT
MAU-1	FIRING RANGE	8,600	1,800	300.0	240.0	NAT. GAS	80	8,600	56.9	82.7	95.0	79.2	66.8	55.2	54.8	319.5	R-410A	1.0"	8,600	10	208	3	145.9	175	MERV-8	MERV-13	GREENHECK RV-45-25	PROVIDE MOD. HOT GAS REHEAT

- NOTES:
- ALL FAN MOTORS SHALL BE INVERTER DUTY RATED FOR USE WITH A VARIABLE FREQUENCY DRIVES.
 - FANS SHALL BE SELECTED BASED ON THE PRESSURE DROP ACROSS DIRTY FILTERS
 - UNITS SHALL BE FURNISHED WITH FACTORY MOUNTED VARIABLE FREQUENCY DRIVE FOR THE SUPPLY FAN. VFD SHALL BE MOUNTED ON THE OUTSIDE OF THE UNIT IN A NEMA 3X ENCLOSURE FURNISHED WITH AN ELECTRONIC BYPASS WITH SERVICE SWITCH.
 - UNITS SHALL BE FURNISHED WITH FACTORY INSTALLED DISCONNECT SWITCH.
 - UNITS SHALL BE FURNISHED WITH WEATHERHOOD AND INTEGRAL BIRDSCREEN.
 - PROVIDE (1) SPARE SET OF FILTERS AND BELTS.
 - CONTRACTOR SHALL COORDINATE CONTROLS AND ELECTRICAL WIRING WITH TRUMBULL POLICE DEPARTMENT CONTROLS VENDOR.
 - UNITS SHALL BE PROVIDED WITH FACTORY MOUNTED AND WIRED 120V NEMA 3R RECEPTACLE

HVAC PIPING/TUBING MATERIAL, JOINTS & FITTINGS						
SYSTEM	PIPE SIZE	CONSTRUCTION	PIPING	FITTINGS	UNIONS	FLANGES
COOLING COIL CONDENSATE DRAINS	ALL	SOLDER JOINT CONSTRUCTION WITH THREADED ADAPTERS AS REQUIRED. 95-5 TIN/ANTIMONY SOLDER.	COPPER, TYPE L, HARD DRAWN, ANSI H23.1, ASTM B88.	CAST BRONZE OR WROUGHT COPPER, SOLDER ENDS, ANSI B16.9 OR ANSI B16.22.	BRONZE SOLDER ENDS, GROUND JOINTS, ANSI B16.19 OR ANSI B16.22.	USE UNIONS

HVAC DUCT/PLENUM MATERIAL			
APPLICATION	SUPPLY	RETURN	EXHAUST
TYPICAL (UNLESS OTHERWISE SPECIFIED)	G90 GALVANIZED STEEL	G90 GALVANIZED STEEL	G90 GALVANIZED STEEL
EXPOSED AND CONCEALED EXHAUST DUCTWORK AND PLENUMS SERVING TOILET ROOMS, SHOWER ROOMS, ALL EXPOSED DUCTWORK RUNNING THROUGH, OVER OR WITHIN SHOWER ROOMS.	3003 H-14 ALUMINUM	3003 H-14 ALUMINUM	3003 H-14 ALUMINUM
EXPOSED DUCTWORK LOCATED IN AND SERVING AIR-CONDITIONED SPACES TO BE FIELD PAINTED OTHER THAN DUCTWORK LOCATED IN SPACES REQUIRED TO BE ALUMINUM.	A60 GALVANNEALED STEEL	A60 GALVANNEALED STEEL	A60 GALVANNEALED STEEL
EXPOSED DUCTWORK LOCATED IN AND SERVING CONDITIONED SPACES OTHER THAN DUCTWORK LOCATED IN SPACES REQUIRED TO BE ALUMINUM OR TO BE FIELD PAINTED.	G90 GALVANIZED STEEL	G90 GALVANIZED STEEL	G90 GALVANIZED STEEL
EXPOSED DUCTWORK OUTDOOR, ABOVE GRADE	ALUMINUM	ALUMINUM	ALUMINUM

1. DUCT CONSTRUCTION SHALL MEET SMACNA METAL & FLEXIBLE 2005 3RD EDITION STANDARDS.

FANS															
UNIT NO	LOCATION	SYSTEM SERVED	TYPE	CFM	ESP	MAX BHP	FAN RPM	TIP SPEED	SOUND SONES	ELECTRICAL				MAKE/MODEL	REMARKS
										HP	VOLTS	PH	RPM		
RAF-1	GRADE	FIRING RANGE EXHAUST	INLINE	9,600	3.65"	8.26	1,731	12,235	11.0	10	208	3	1,725	GREENHECK GEI-224-100	PROVIDE INLET AND OUTLET SILENCERS
EF-1	GRADE	FIRING RANGE JOCKEY	CENTR.	500	0.50"	0.09	1,561	4,445	7.5	1/10	120	1	860	GREENHECK CUE-090-VG	
EF-10	ROOF	LOCKER ROOMS	CENTR.	2,400	0.75"	0.75	1,584	6,063	13.2	1	208	3	1,725	GREENHECK CUE-141-VG	

- NOTES:
- ALL FANS SHALL BE BALANCED TO AIRFLOW QUANTITY INDICATED ON PLANS AT INLETS AND OUTLETS.
 - FANS SHALL BE FURNISHED WITH SPEED CONTROLLER FOR BALANCING.
 - FAN MOTORS SHALL BE INVERTER DUTY RATED FOR USE WITH VARIABLE FREQUENCY DRIVES.

HIGH-EFFICIENCY FILTERS																
SERVES	LOCATION	TAG	CFM	SIZE		TYPE	CLASS	EFF	QUAN		VEL FPM	INITIAL SP	PRE FILTER		MAKE/MODEL	REMARKS
				H X W	DEPTH				H	W			DEPTH	TYPE		
FIRING RANGE EXHAUST	GRADE	BIBO-1	9,600	24 x 24	36.5	HEPA	-	99.97	2	3	400	1.0	4	MERV-8	AAF	SHALL UTILIZE ASTROCEL I HCX CORES

- NOTES:
- BIBO HOUSING SHALL BE CONSTRUCTED OF SEAM WELDED 14 GAUGE 304 STAINLESS STEEL TESTED TO +10" W.G.
 - DOORS SHALL BE WELDED LIFT-OFF TYPE WITH WELDED HANDLES AND DEEP CHAMBER FOR CONTAINMENT BAG.
 - EACH DOOR STANDING SEAL EDGE SHALL BE FITTED WITH HIGH INTEGRITY "U" SHAPED NEOPRENE GASKET SPECIFICALLY DESIGNED FOR CONTAINMENT SERVICE.
 - DOORS SHALL BE SECURED BY LARGE THREADED STAINLESS STEEL STUDS LOCATED ON THE HOUSING AND SPIN-ON THREADED KNOBS
 - PROVIDE WEATHER COVER FOR OUTSIDE SERVICE
 - PROVIDE (4) STATIC TAPS; ONE BEFORE AND AFTER PRE-FILTER, ONE BEFORE AND AFTER HEPA FILTER
 - FURNISH UNIT WITH ADDITIONAL (4) BAGS, (1) ADDITIONAL SECURITY STRAP, AND (1) ADDITIONAL CINCHING STRAP

REGISTERS, GRILLES, DIFFUSERS										
SYM	SERVICE	TYPE	MAKE	MODEL	MATERIAL	CFM	NECK SIZE	FACE SIZE	NC LEVEL	REMARKS
					FINISH					
A	SUPPLY	CD	PRICE	ASPD	ALUMINUM PER ARCHITECT	0-125 126-215 216-330 331-550	6" 8" 10" 12"	24" x 24"	SELECTION SHALL BE ≤ NC-30	
B	SUPPLY	LAM. FLOW DIFFUSER	RVD	RD-2400	-	2150	24" x 12"	48" x 24"	-	
C	X-FER / SUPPLY	CD	-	-	-	-	-	-	-	FURNISHED BY DETENTION EQUIPMENT CONTRACTOR
D	RETURN / EXHAUST	CR	PRICE	10	ALUMINUM PER ARCHITECT	0-1250	-	24" x 24"	SELECTION SHALL BE ≤ NC-30	
E	EXHAUST	CR	PRICE	10	ALUMINUM PER ARCHITECT	0-100	-	12" x 12"	SELECTION SHALL BE ≤ NC-30	
F	X-FER	CR	PRICE	10	ALUMINUM PER ARCHITECT	0-125	6"	12" x 12"	SELECTION SHALL BE ≤ NC-30	

VARIABLE FREQUENCY DRIVES								
ITEM	MANUFACTURER	MODEL	LOCATION	HORSEPOWER	VOLT/PHASE		EQUIPMENT SERVED	REMARKS
					IN	OUT		
VFD-1	AESA BROWN BOVERI	ACH550 + F267	OUTDOOR AT GRADE	REFER TO NOTE #1	208/3	208/3	RAF-1	FREE-STANDING WITH UNI-STRUT SUPPORTS. PROVIDE NEMA 4X ENCLOSURE

- NOTES:
- REFER TO EQUIPMENT SCHEDULES FOR HORSEPOWER REQUIREMENTS. THE CONTRACTOR SHALL COORDINATE FINAL VFD SIZING WITH RATED MOTOR AMPS INDICATED ON APPROVED SHOP DRAWINGS FOR THE EQUIPMENT SERVED.
 - ALL VFD'S SHALL BE PROVIDED WITH ELECTRONIC BYPASS AND SERVICE SWITCH.

HVAC VIBRATION-CONTROL

EQUIPMENT	BASE	ISOLATOR*	DEFLECTION
ROOF MOUNTED AIR HANDLING UNITS	RC	-	2"
BAG-IN / BAG-OUT FILTER HOUSING	18" HIGH EQUIPMENT RAILS	NP	-
INLINE FANS, FLOOR MOUNTED	-	FSN ***	1.5"
AHUS, FLOOR MOUNTED	HOUSEKEEPING PAD, BSF	NP	-
ROOF MOUNTED FANS	RC	-	-
DUCTWORK WITHIN 50FT OF CONNECTED VIBRATION-ISOLATED EQUIPMENT	-	HN	0.25"

- REMARKS:
- REFER TO SPECIFICATION SECTION 230548 - "VIBRATION AND SEISMIC CONTROLS FOR HVAC PIPING AND EQUIPMENT" FOR A DESCRIPTION OF EACH VIBRATION CONTROL DEVICE.
BSF - BASE, STEEL FRAME
PPC - FLEXIBLE PIPE CONNECTIONS
FNC - FLOOR NEOPRENE RESTRAINED MOUNTS
FSN - FLOOR SPRING AND NEOPRENE SPRING ISOLATOR
FSNTL - FLOOR SPRING AND NEOPRENE TRAVEL LIMITED RESTAINED SPRING ISOLATOR
HN - NEOPRENE HANGER
HSN - SPRING AND NEOPRENE HANGER
NP - NEOPRENE PAD
RC - ROOF CURB
 - PROVIDE SUPPLEMENTAL STEEL WITHIN THE ROOF CURB TO SUPPORT DUCTWORK INDEPENDENT FROM THE ROOF CURB.

- * IN ADDITION TO ANY INTERNAL VIBRATION ISOLATION.
** SYSTEM SHALL BE DESIGNED TO BE 90% EFFICIENT.
*** WHERE OUTDOORS ALL COMPONENTS SHALL BE CADMIUM PLATED

HVAC DUCT/PLENUM INSULATION			
SYSTEM	INSULATION TYPE	MINIMUM INSTALLED INSULATION VALUES	NOMINAL DENSITY
INDOOR DUCT/PLENUM CONCEALED SA, RA, OA; OTHER THAN PRE-MANUFACTURED LINEAR SUPPLY AND RETURN GRILLE PLENUMS.	MINERAL FIBER BLANKET	2" R-6.0	3/4 LB/FT ³
	MINERAL FIBER BOARD WITH REFLECTIVE VAPOR BARRIER.	2" R-6.0	3 LB/FT ³
INDOOR DUCT/PLENUM EXPOSED SA AND RA; LOCATED WITHIN THE AIR-CONDITIONED SPACE IT SERVES.	NONE; UNLESS OTHERWISE NOTED ON THE DRAWINGS OR IN THE SPECIFICATION.	-	-
DUCT LINING DUCTS/PLENUMS INSTALLED OUTDOORS, ATTICS, AND CRAWL SPACES SA AND RA, SA AND RA DUCTWORK WHERE INDICATED ON THE DRAWINGS AND IN THE SPECIFICATION, 15 FT UPSTREAM & DOWNSTREAM OF SUPPLY FANS, RETURN FANS WHETHER INDICATED OR NOT.	FIBROUS-GLASS DUCT LINER WITH CLEANABLE COMPOSITE COATING ON AIRSTREAM SIDE. METAL NOSING SHALL BE FURNISHED ON ALL LEADING EDGES. (REFER TO NOTES #1, #2, #4)	2" R-8.0	1.5 LB/FT ³
DUCT LINING DUCTS/PENUMS INSTALLED IN INDOOR SPACES; EXPOSED AND CONCEALED SA OR RA DUCTWORK WHERE INDICATED ON THE DRAWINGS AND IN THE SPECIFICATION, 15 FT UPSTREAM & DOWNSTREAM OF SUPPLY FANS.	FIBROUS-GLASS DUCT LINER WITH CLEANABLE COMPOSITE COATING ON AIRSTREAM SIDE. METAL NOSING SHALL BE FURNISHED ON ALL LEADING EDGES. (REFER TO NOTES #2, #4)	1-1/2" R-6.0	1.5 LB/FT ³
ABOVEGROUND, OUTDOOR DUCT/PLENUM CONCEALED OR EXPOSED SA, RA, AND OA.	MINERAL FIBER BOARD (REFER TO NOTE #1)	2" R-8.0	3 LB/FT ³

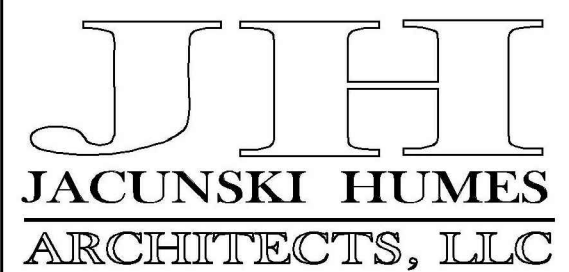
- ALL DUCTWORK INSTALLED OUTDOOR; PROVIDE A PRE-MANUFACTURED SELF ADHERING PRODUCT WITH AN UV RESISTANT, STUCCO EMBOSSED FACING. WATER VAPOR TRANSMISSION OF THE INSTALLED PRODUCT SHALL BE .020 PERMS OR LESS. PRODUCT SHALL BE SUITABLE FOR CONTINUOUS USE IN LOW TEMPERATURES OF -10°F. MANUFACTURERS SHALL BE SIMILAR TO FLEX-CLAD 400, MFM BUILDING PRODUCTS CORP. OR ALUMAGUARD 60, POLYGUARD PRODUCTS, INC.
- INSULATION TYPES INDICATED IN THE SCHEDULE SHALL USED UNLESS OTHERWISE INDICATED ON THE PLANS OR SPECIFICATIONS.
- CLOSED CELL, FIBER FREE, ANTI-MICROBIAL COATED, LOW VOC CERTIFIED, MOISTURE AND MOLD RESISTANT DUCT LININGS SHALL BE PROVIDED IN DUCTWORK AND EQUIPMENT WITHIN HOSPITAL AND HEALTHCARE FACILITIES AND ROOMS CLASSIFIED AS MOIST OR WET ENVIRONMENTS WHERE THIS SCHEDULE, DRAWINGS AND SPECIFICATION INDICATE DUCT LINING.
- DUCTWORK SHALL BE FIRE WRAPPED FROM THE APPLIANCE CONNECTION TO THE TERMINATION POINT.

OA = OUTDOOR AIR DUCTWORK
SA = SUPPLY AIR DUCTWORK
RA = RETURN AIR DUCTWORK
EA = EXHAUST AIR DUCTWORK

RFP 6320



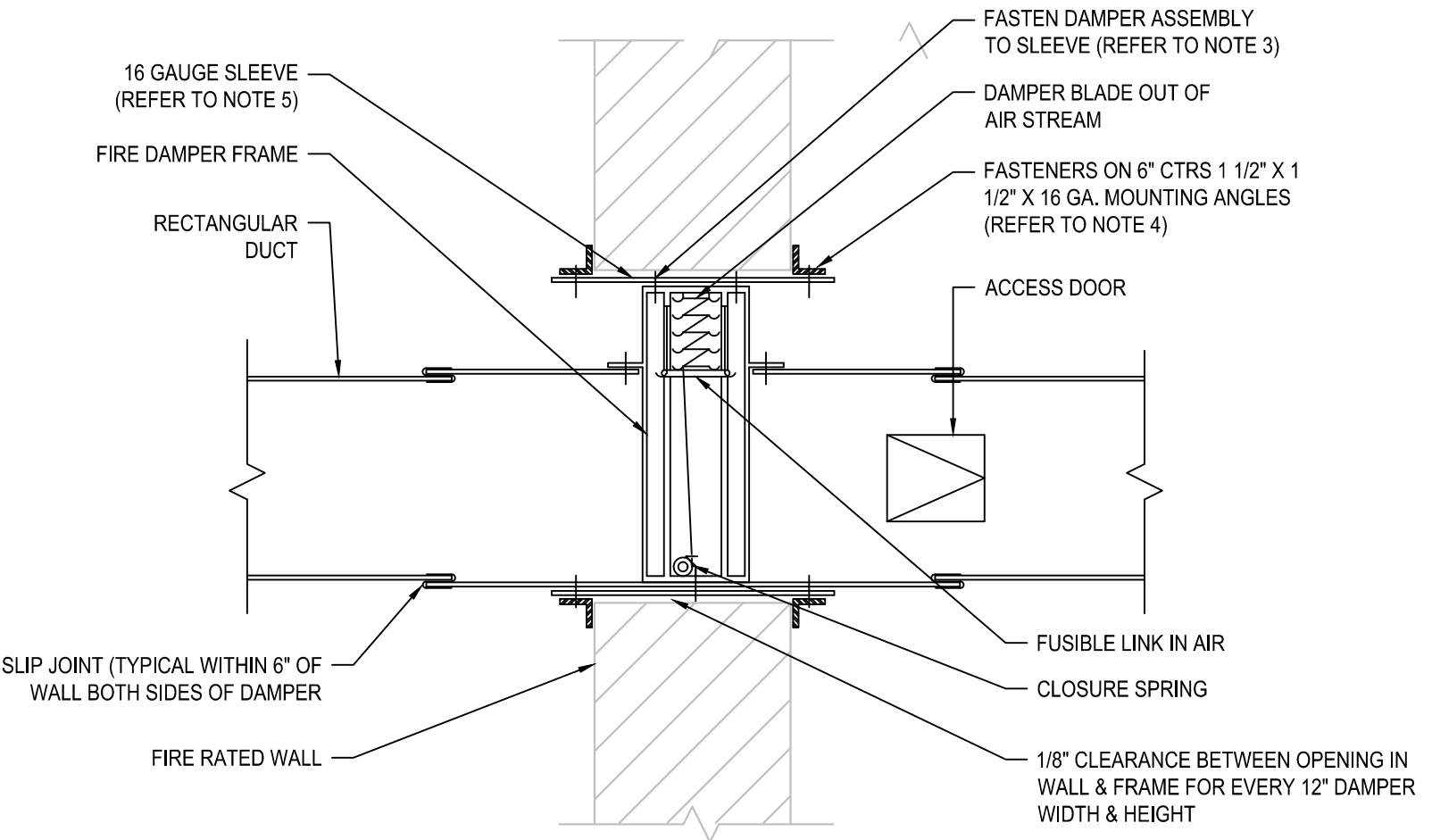
INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
TRUMBULL, CONNECTICUT
158 EDISON ROAD



15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

**SCHEDULES -
MECHANICAL**

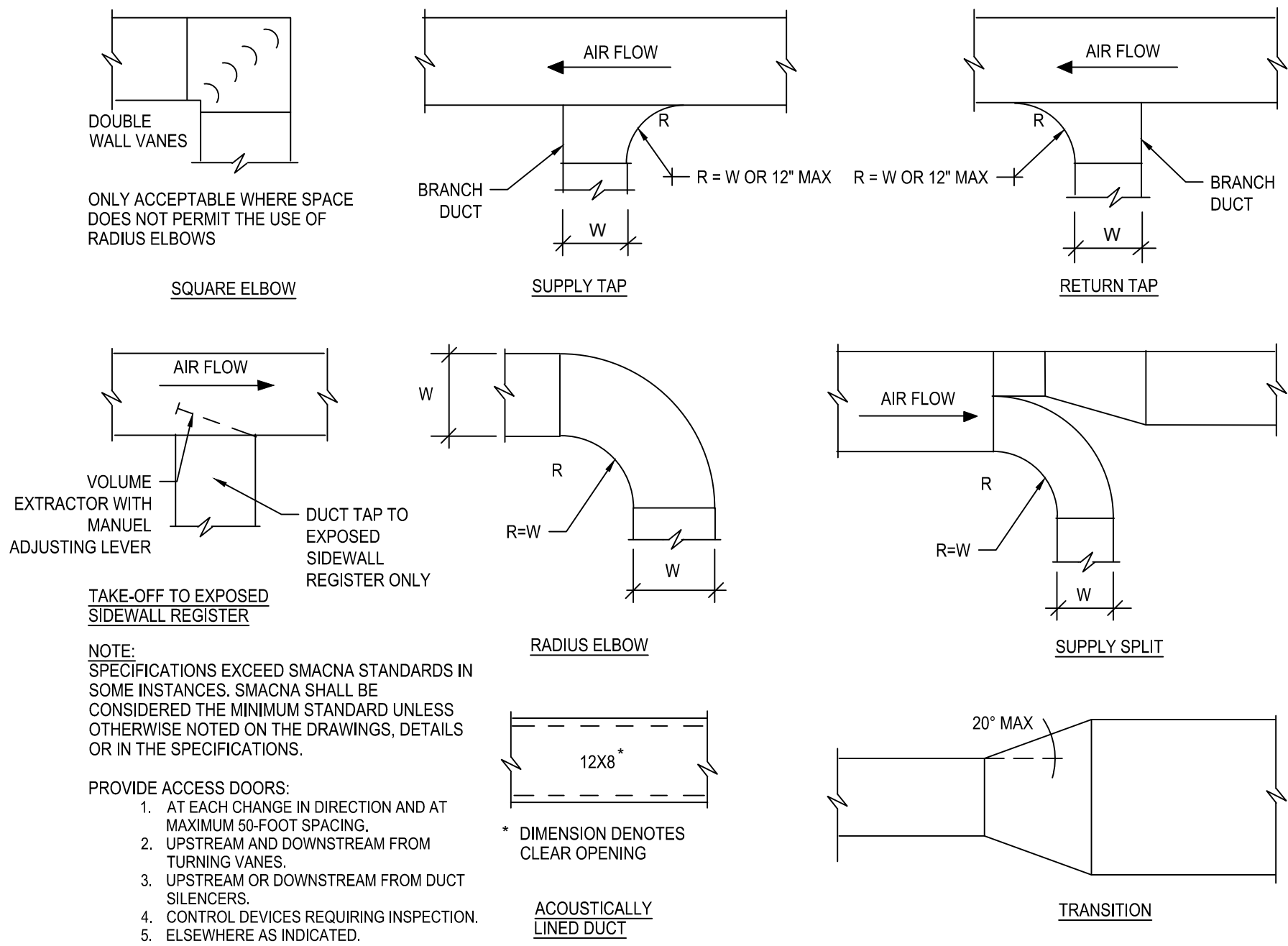
PROJ. NO. JH182B
SCALE As Noted
DATE NOVEMBER 8, 2018
DRAWING NO. **M-3.1**



- NOTES:
1. INSTALL ACCESS DOOR IN DUCT FOR DAMPER ACCESS. ACCESS DOORS SHALL BE DOUBLE WALL WHEN LOCATED IN INSULATED DUCTWORK.
 2. INSTALL IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND NFPA-90A.
 3. REFER TO SMACNA "FIRE, SMOKE AND RADIATION DAMPER INSTALLATION GUIDE FOR HVAC SYSTEMS" FOR FIRE DAMPER INSTALLATION DETAILS.
 4. MOUNTING ANGLES SHALL BE 2" X 2" X 16 GA. FOR DAMPERS 48" OR LARGER IN WIDTH OR HEIGHT.
 5. SLEEVE THICKNESS SHALL NOT BE LESS THAN THE GAUGE OF THE DUCT.
 6. INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE WITH U.L. 555.
 7. VERTICAL DAMPER INSTALLATION IS INDICATED. HORIZONTAL MOUNTING IS SIMILAR.
 8. PROVIDE ACCESS DOOR IN DRYWALL CEILINGS FOR DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS.
 9. PROVIDE FIRE DAMPERS AT ALL PENETRATIONS OF WALLS WITH FIRE RATED CONSTRUCTION. REFER TO ARCHITECTURAL DRAWINGS.
 10. PROVIDE 16 GAUGE SLEEVE FOR RECTANGULAR DUCTWORK 36"W BY 24"H MAXIMUM & ROUND DUCTWORK 24" DIAMETER MAXIMUM. PROVIDE 14 GAUGE SLEEVE FOR RECTANGULAR DUCTWORK OVER 36"W & 24"H & ROUND DUCTWORK OVER 24" DIAMETER FOR RIGID DUCT TO SLEEVE CONNECTIONS.

1 FIRE DAMPER DETAIL

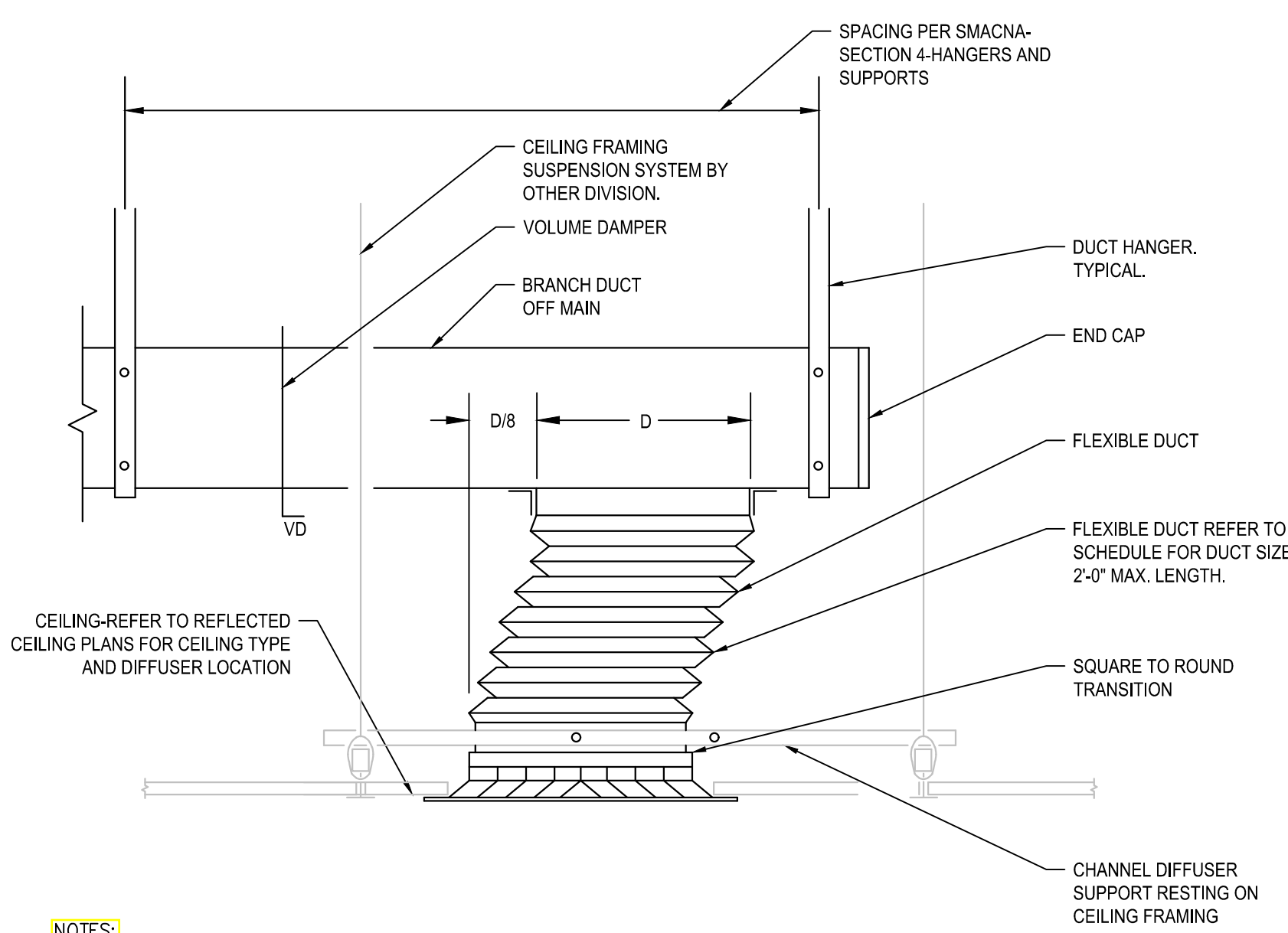
M-4.1 NOT TO SCALE



- NOTE:
1. CONCRETE PAD LENGTH, WIDTH AND LOCATION TO BE DETERMINED BY THE MECHANICAL CONTRACTOR BASED ON THE SUBMITTED EQUIPMENT.

2 CONCRETE PAD AT GRADE DETAIL

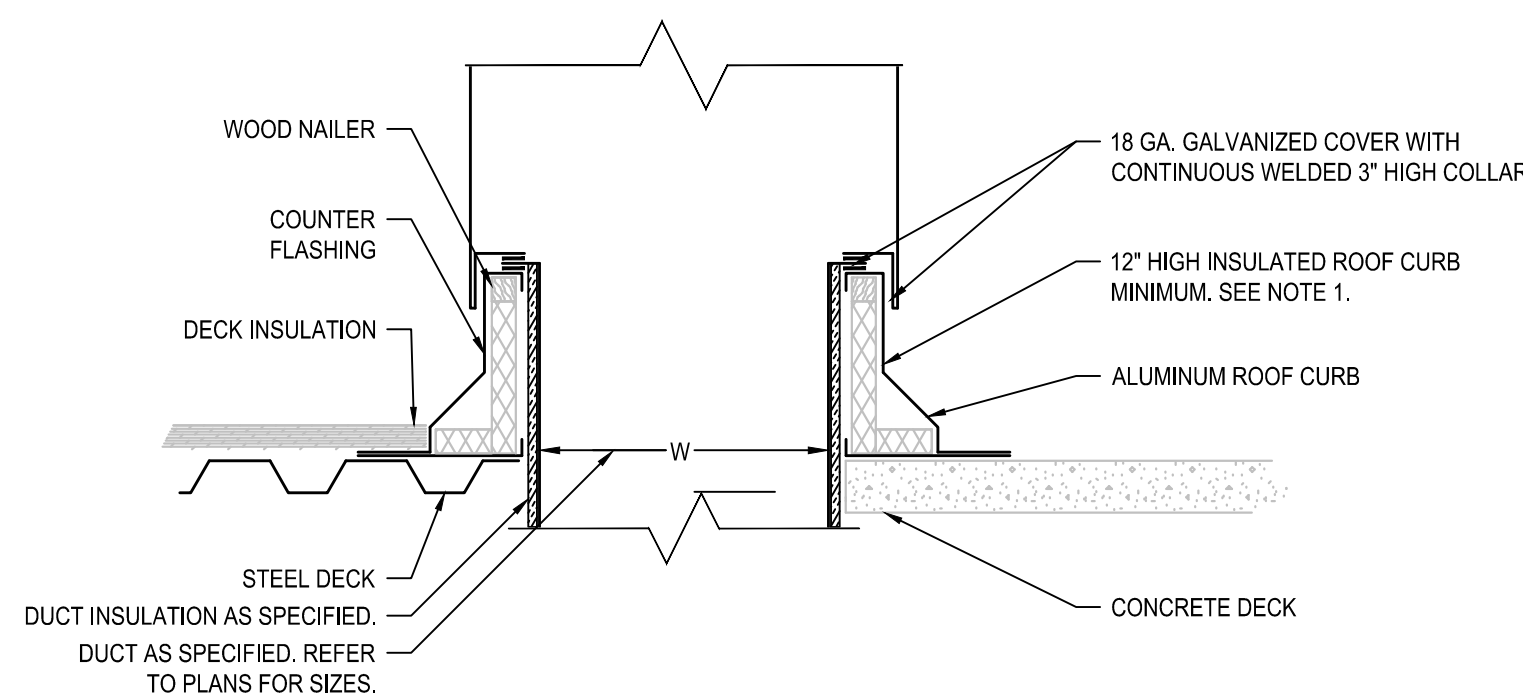
M-4.1 NOT TO SCALE



- NOTES:
1. PROVIDE DIFFUSER W/OPOSED BLADE CABLE OPERATED DAMPERS W/ IN-AIRSTREAM OPERATORS WHERE INSTALLED IN HARD INACCESSIBLE CEILING.
 2. OFFSET SHALL NOT EXCEED D/8\"/>

5 TYPICAL GRILLE/DIFFUSER DETAIL WITH FLEXIBLE DUCTWORK CONNECTION

M-4.1 NOT TO SCALE

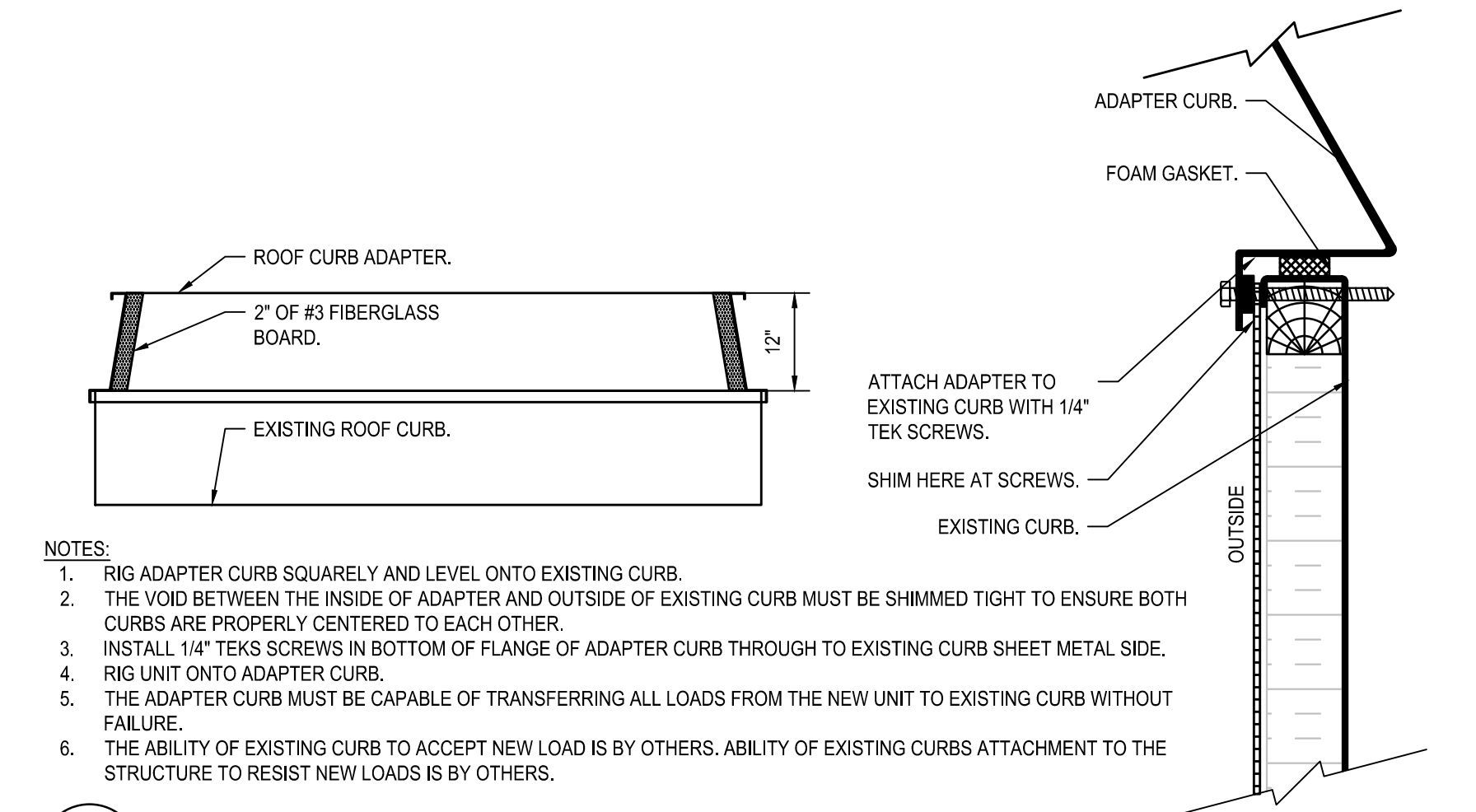


6 ROOF MOUNTED EXHAUST FAN DETAIL

M-4.1 NOT TO SCALE

4 DUCT CONSTRUCTION DETAIL

M-4.1 NOT TO SCALE



- NOTES:
1. RIG ADAPTER CURB SQUARELY AND LEVEL ONTO EXISTING CURB.
 2. THE VOID BETWEEN THE INSIDE OF ADAPTER AND OUTSIDE OF EXISTING CURB MUST BE SHIMMED TIGHT TO ENSURE BOTH CURBS ARE PROPERLY CENTERED TO EACH OTHER.
 3. INSTALL 1/4\"/>
 5. THE ADAPTER CURB MUST BE CAPABLE OF TRANSFERRING ALL LOADS FROM THE NEW UNIT TO EXISTING CURB WITHOUT FAILURE.
 6. THE ABILITY OF EXISTING CURB TO ACCEPT NEW LOAD IS BY OTHERS. ABILITY OF EXISTING CURBS ATTACHMENT TO THE STRUCTURE TO RESIST NEW LOADS IS BY OTHERS.

7 ROOF CURB ADAPTER DETAIL

M-4.1 NOT TO SCALE

8 DUCT PENETRATION THROUGH ROOF

M-4.1 NOT TO SCALE



- NOTES:
1. COORDINATE CURB STEP HEIGHT WITH ROOF DECK INSULATION THICKNESS.
 2. COORDINATE ROOF TYPE WITH ARCHITECTURAL DRAWINGS AND PROVIDE APPROPRIATE CURB TYPE AND PITCH.

RFP 6320



93 Lake Avenue, Danbury, CT 06810
203.778.1017 F 203.778.1018
171 Madison Avenue,
New York, NY 10016
212.695.2422 F 212.695.2423
www.kohlerroman.com
E-mail krce@kohlerroman.com

INTERIOR RENOVATION TO THE

TRUMBULL POLICE
DEPARTMENT

TRUMBULL, CONNECTICUT

158 EDISON ROAD

J J H
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

DETAILS -
MECHANICAL

PROJ. NO.

JH182B

DRAWING NO.

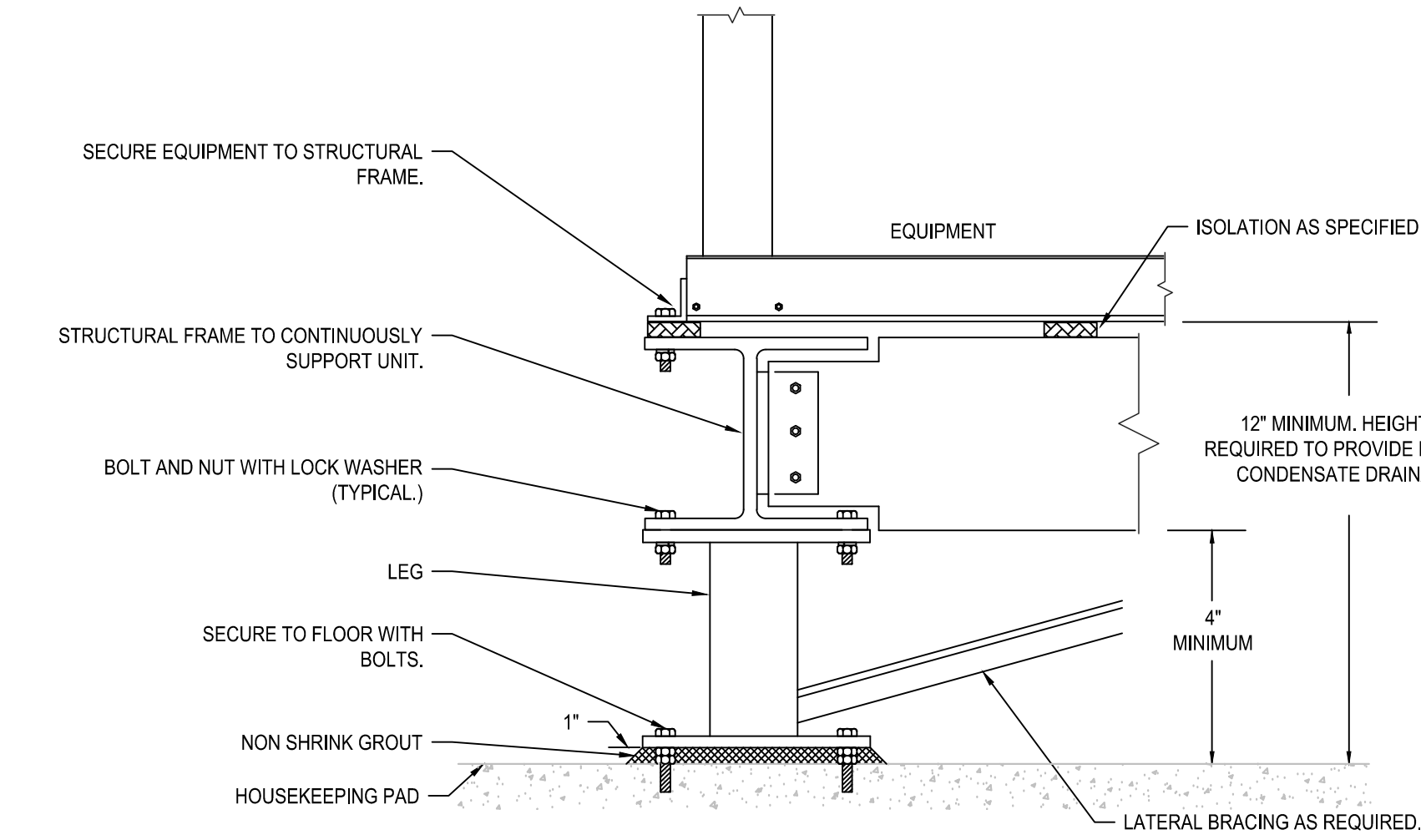
SCALE

As Noted

DATE

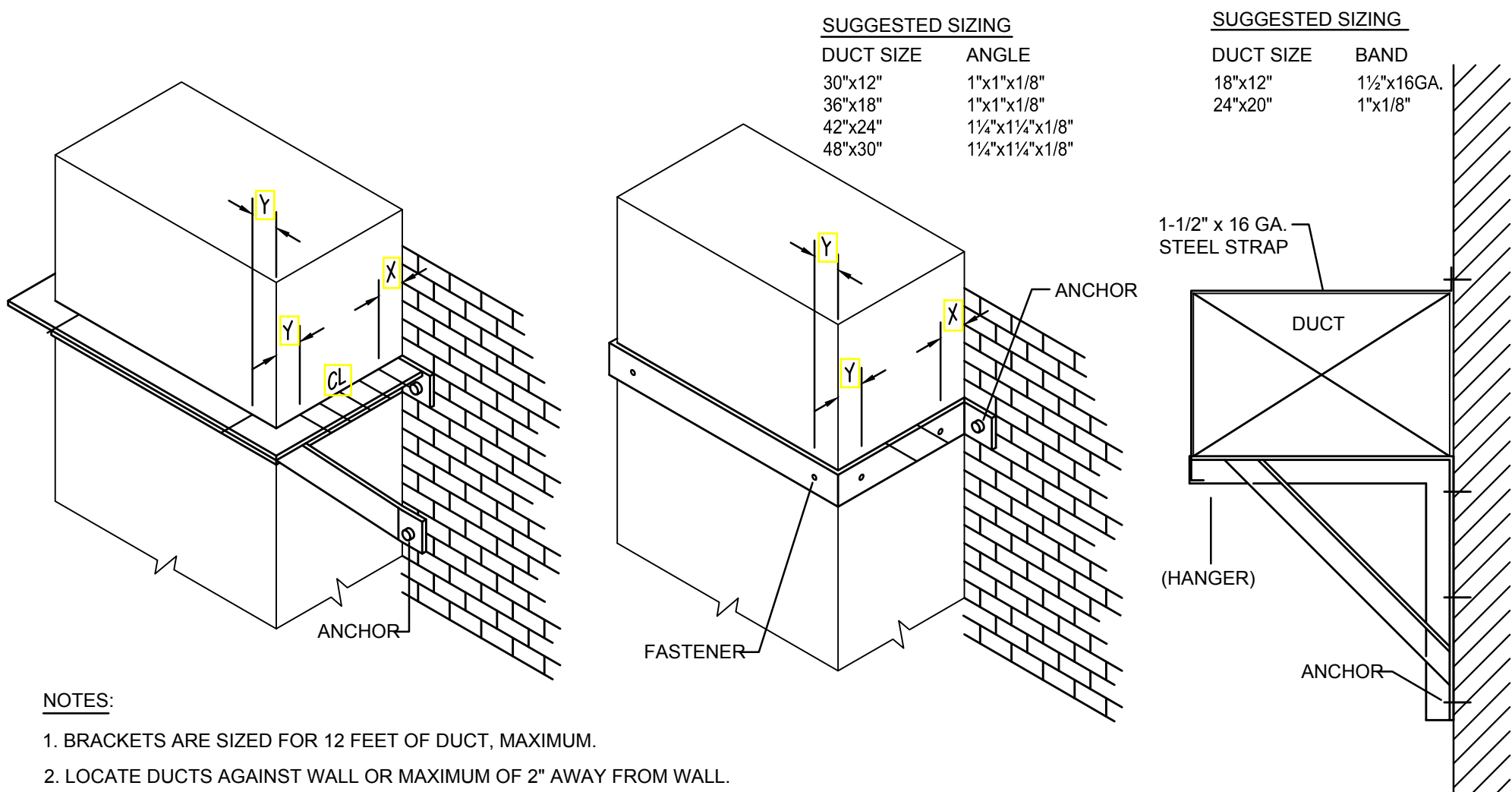
NOVEMBER 8, 2018

M-4.1



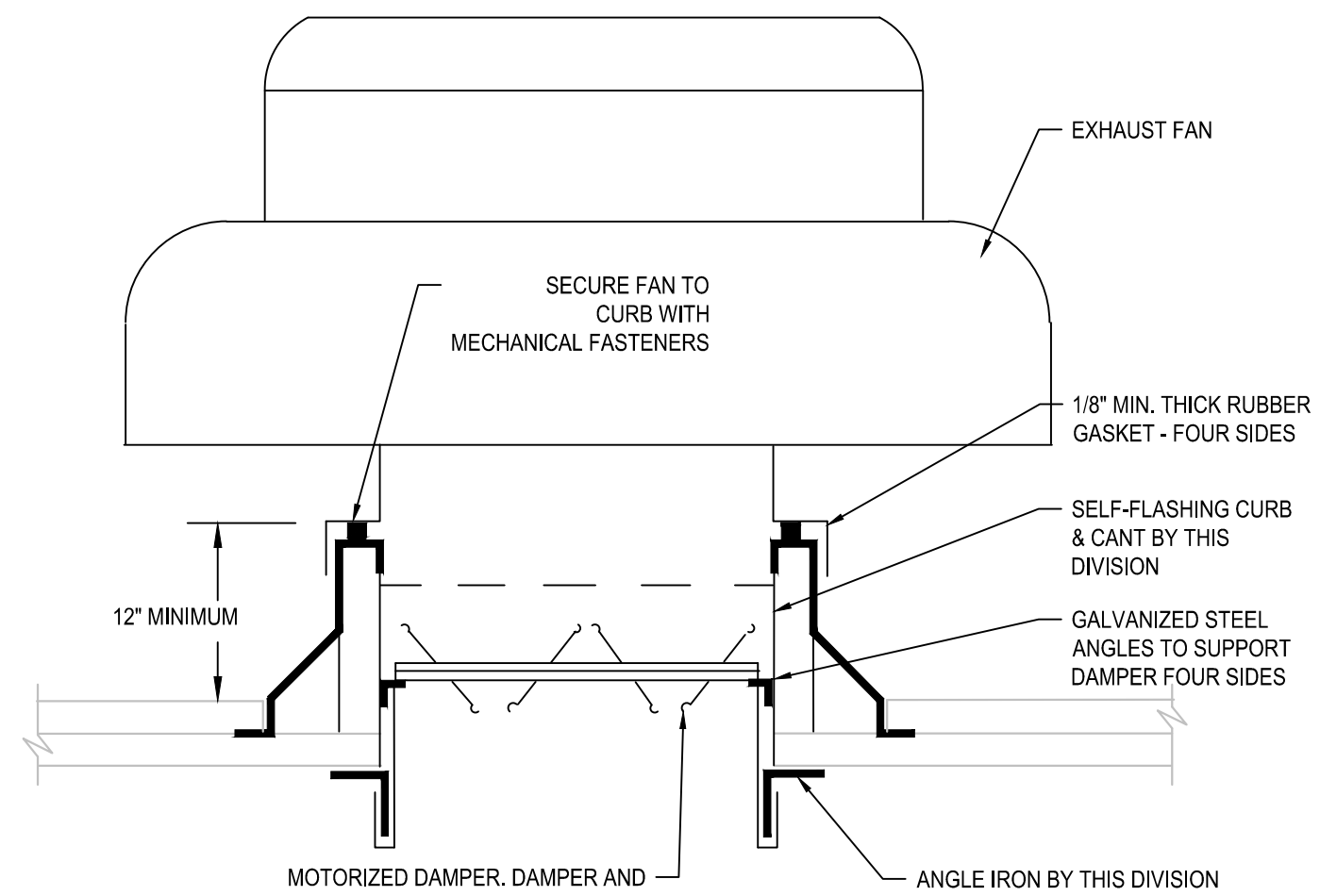
- NOTES:
1. STRUCTURAL FRAME MEMBERS SIZE AND QUANTITY OF LEGS TO PROVIDE MAXIMUM DEFLECTION OF LENGTH/360 AND NOT TO EXCEED 1/2 INCH.
 2. PROVIDE LATERAL BRACING AS REQUIRED BY UNIT MANUFACTURER.
 3. ALL FRAME COMPONENTS SHALL BE GALVANIZED OR SAND BLASTED PRIMED AND FINISH COATED WITH MACHINERY ENAMEL.
 4. BOLTS AND NUTS SHALL BE GALVANIZED OR CADMIUM PLATED.
 5. ALL EQUIPMENT SUPPORT STEEL SHALL BE BY THIS DIVISION.

1 EQUIPMENT SUPPORT DETAIL
M-4.2 NOT TO SCALE



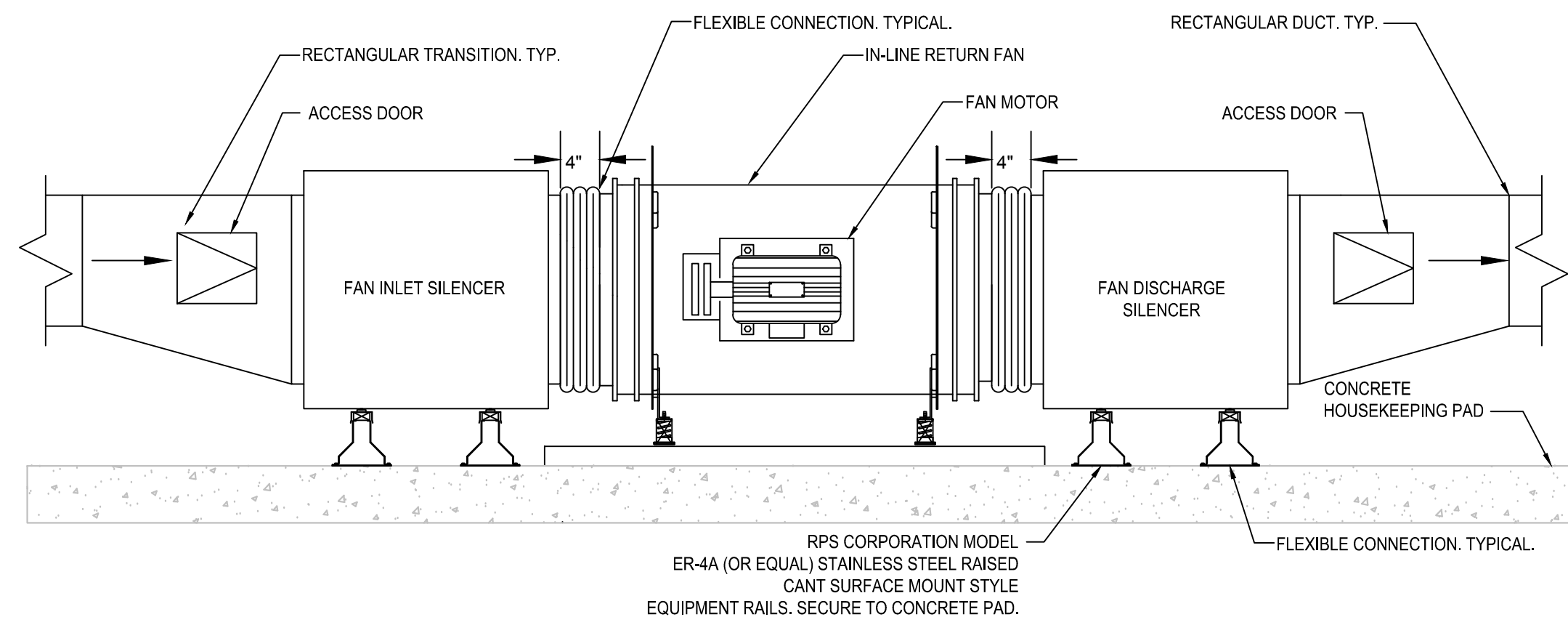
- NOTE:
1. ALL FASTENERS SHALL BE CADMIUM PLATED OR STAINLESS STEEL

2 EXPOSED PAD-MOUNTED DUCT INSTALLATION AND SUPPORT DETAIL
M-4.2 NOT TO SCALE

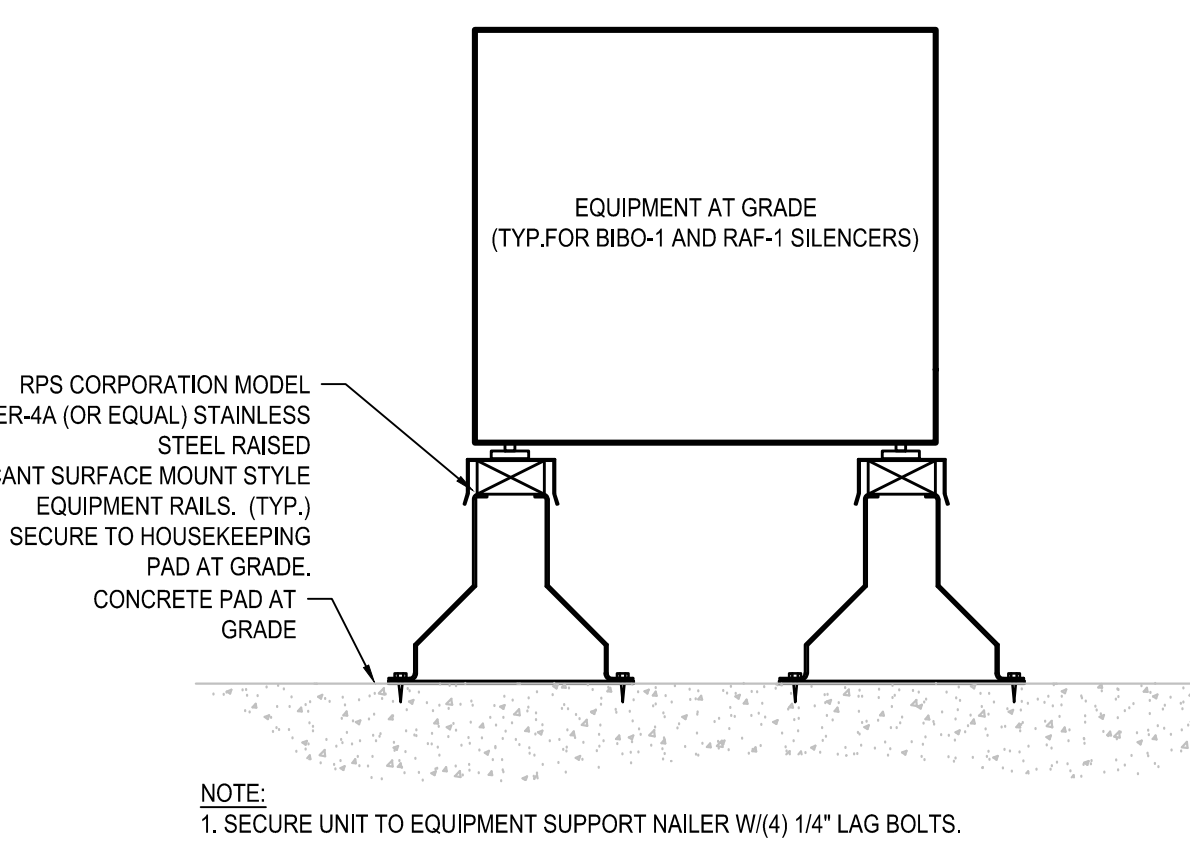


- MOTORIZED DAMPER, DAMPER AND ACTUATOR COMPONENTS SHALL BE INSTALLED TO ALLOW FULL ACCESS TO ALL COMPONENTS THROUGH REMOVAL OF THE FAN OR THROUGH ACCESS DOOR IN DUCT. DAMPER SHALL BE FURNISHED BY THE CONTROLS CONTRACTOR AND MEET THE REQUIREMENTS INDICATED IN THESE DRAWINGS.

3 DUCT MOUNTED JOCKEY FAN DETAIL
M-4.2 NOT TO SCALE

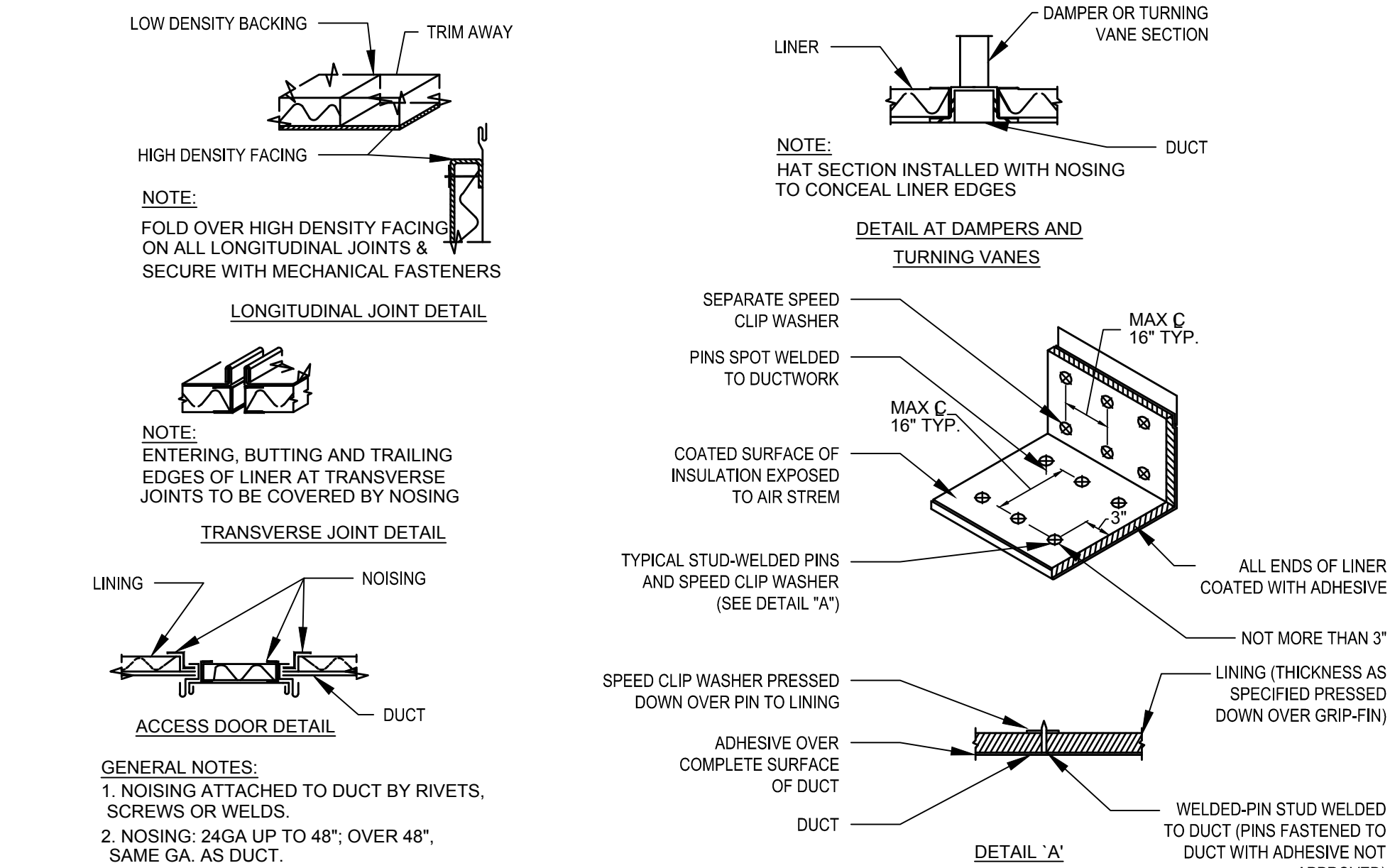


5 INLINE CENTRIFUGAL FAN INSTALLATION DETAIL
M-4.2 NOT TO SCALE

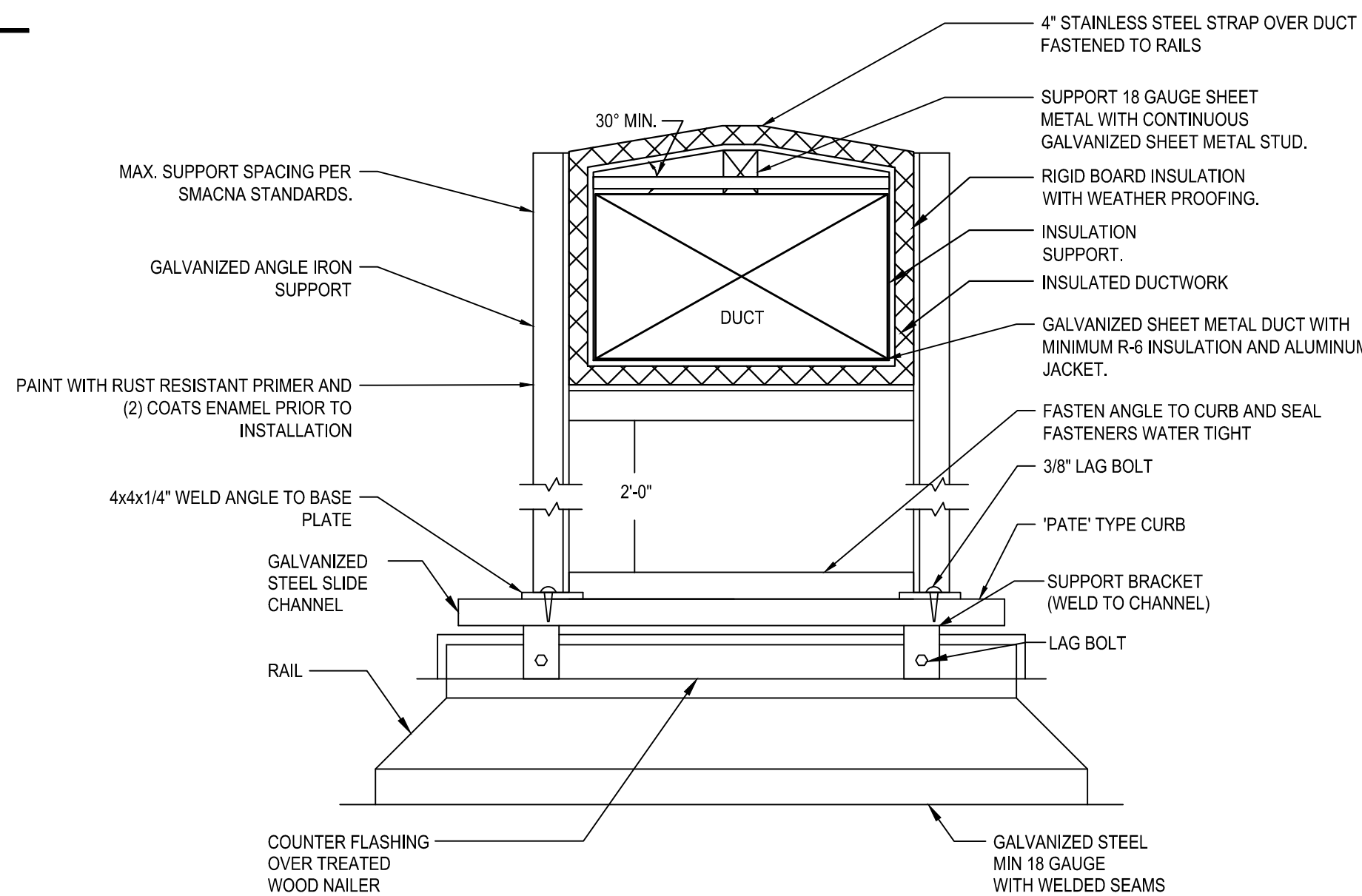


6 PAD MOUNTED EQUIPMENT SUPPORT DETAIL
M-4.2 NOT TO SCALE

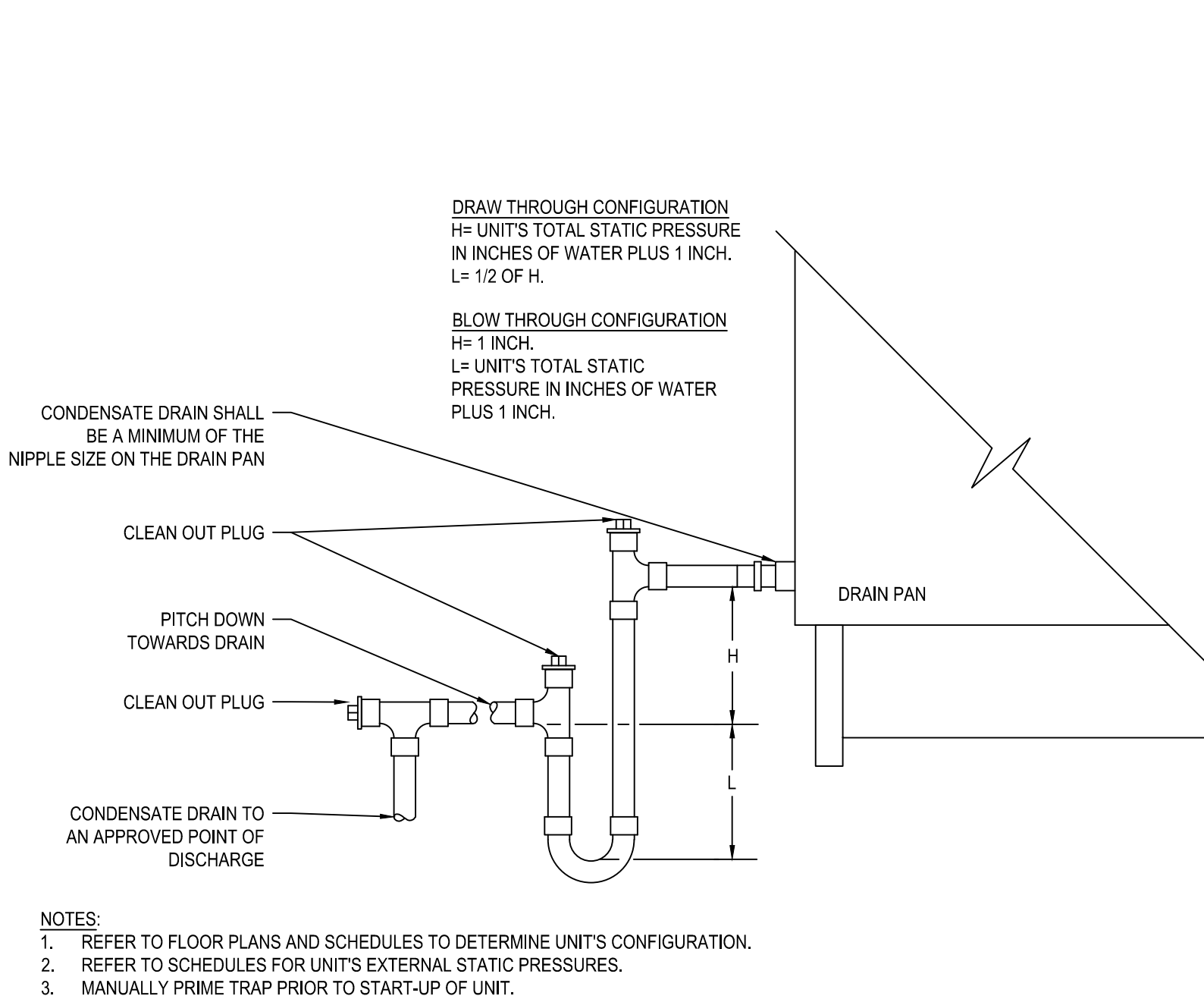
4 ROOF MOUNTED EXHAUST/RELIEF FAN DETAIL
M-4.2 NOT TO SCALE



7 ACOUSTIC LINING INSTALLTION DETAILS
M-4.2 SCALE: NONE



8 EXPOSED PAD MOUNTED DUCT INSTALLATION AND SUPPORT DETAIL
M-4.2 NOT TO SCALE



9 COOLING COIL DRAIN TRAP DETAIL
M-4.2 NOT TO SCALE

RFP 6320



INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
158 EDISON ROAD
TRUMBULL, CONNECTICUT

J J H H
JACUNSKI HUMES
ARCHITECTS, LLC
15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

**DETAILS -
MECHANICAL**

PROJ. NO.	JH182B	DRAWING NO.
SCALE	As Noted	M-4.2
DATE	NOVEMBER 8, 2018	

MECHANICAL SPECIFICATIONS

EQUIPMENT AND DUCTWORK IDENTIFICATION

CONSULT THE OWNER AS TO ANY LABELING STANDARDS INCLUDING NAMING CONVENTIONS, STANDARD LABELING MATERIALS AND LABELING COLOR CONVENTIONS. ALL NEW VALVE AND EQUIPMENT TAGS SHALL MATCH THE BUILDING STANDARD, WHERE NO STANDARD EXISTS, PROVIDE THE FOLLOWING:

ACTION SUBMITTALS:

PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.

SAMPLES: FOR COLOR, LETTER STYLE, AND GRAPHIC REPRESENTATION REQUIRED FOR EACH IDENTIFICATION MATERIAL AND DEVICE.

EQUIPMENT LABEL SCHEDULE: INCLUDE A LISTING OF ALL EQUIPMENT TO BE LABELED WITH THE PROPOSED CONTENT FOR EACH LABEL.

COORDINATION:

COORDINATE INSTALLATION OF IDENTIFYING DEVICES WITH COMPLETION OF COVERING AND PAINTING OF SURFACES WHERE DEVICES ARE TO BE APPLIED. COORDINATE INSTALLATION OF IDENTIFYING DEVICES WITH LOCATIONS OF ACCESS PANELS AND DOORS. INSTALL IDENTIFYING DEVICES BEFORE INSTALLING CEILINGS AND SIMILAR CONCEALMENT.

EQUIPMENT LABELS:

PLASTIC LABELS FOR EQUIPMENT:

MATERIAL AND THICKNESS: MULTILAYER, MULTICOLOR, PLASTIC LABELS FOR MECHANICAL ENGRAVING, 1/8" THICK, AND HAVING PREDRILLED HOLES FOR ATTACHMENT HARDWARE.

LETTER COLOR: WHITE.

BACKGROUND COLOR: BLACK.

MINIMUM LABEL SIZE: LENGTH AND WIDTH VARY FOR REQUIRED LABEL CONTENT, BUT NOT LESS THAN 5 BY 3 INCHES.

MINIMUM LETTER SIZE: 1 INCH FOR NAME OF UNITS IF VIEWING DISTANCE IS LESS THAN 24 INCHES, 2 INCH FOR VIEWING DISTANCES UP TO 72 INCHES, AND PROPORTIONATELY LARGER LETTERING FOR GREATER VIEWING DISTANCES. INCLUDE SECONDARY LETTERING TWO-THIRDS TO THREE-FOURTHS THE SIZE OF PRINCIPAL LETTERING.

FASTENERS: STAINLESS-STEEL RIVETS OR SELF-TAPPING SCREWS; ADHESIVE FOR LOCATIONS WERE SCREWS OR RIVETS WOULD VOID WARRANTY OF EQUIPMENT.

LABEL CONTENT: INCLUDE EQUIPMENT'S DRAWING DESIGNATION OR UNIQUE EQUIPMENT NUMBER, EQUIPMENT DESCRIPTION, AND ELECTRICAL PANEL DESIGNATION SERVING THE EQUIPMENT.

EQUIPMENT LABEL SCHEDULE: FOR EACH ITEM OF EQUIPMENT TO BE LABELED, ON 8-1/2-BY-11-INCH BOND PAPER, TABULATE EQUIPMENT IDENTIFICATION NUMBER AND IDENTIFY DRAWING NUMBERS WHERE EQUIPMENT IS INDICATED (PLANS, DETAILS, AND SCHEDULES), PLUS THE SPECIFICATION SECTION NUMBER AND TITLE WHERE EQUIPMENT IS SPECIFIED. EQUIPMENT SCHEDULE SHALL BE INCLUDED IN OPERATION AND MAINTENANCE DATA.

IDENTIFICATION FOR HVAC DUCTWORK:

DUCT LABELS

STENCILS: MINIMUM LETTER HEIGHT OF 2 INCHES FOR DUCTS, AND MINIMUM LETTER HEIGHT OF 1 INCH FOR ACCESS PANEL AND DOOR LABELS, EQUIPMENT LABELS, AND SIMILAR OPERATIONAL INSTRUCTIONS.

STENCIL MATERIAL: FIBERBOARD OR METAL.

PAINT: EXTERIOR, ACRYLIC ENAMEL IN COLORS AS INDICATED.

LABEL CONTENTS: INCLUDE IDENTIFICATION OF DUCT SERVICE USING SAME DESIGNATIONS AS USED ON DRAWINGS, DUCT SIZE, AND AN ARROW INDICATING FLOW DIRECTION.

EXECUTION

PREPARATION

CLEAN EQUIPMENT SURFACES OF SUBSTANCES THAT COULD IMPAIR BOND OF IDENTIFICATION DEVICES, INCLUDING DIRT, OIL, GREASE, RELEASE AGENTS, AND INCOMPATIBLE PRIMERS, PAINTS, AND ENCAPSULATIONS.

EQUIPMENT LABEL INSTALLATION

PERMANENTLY FASTEN LABELS ON EACH MAJOR ITEM OF MECHANICAL EQUIPMENT.

LOCATE EQUIPMENT LABELS WHERE ACCESSIBLE AND VISIBLE. WHERE EQUIPMENT IS LOCATED WITHIN FINISHED SPACES, EQUIPMENT LABELS SHALL NOT BE LOCATED ON THE FACE OF THE EQUIPMENT; WHERE POSSIBLE, THE LABEL SHALL BE LOCATED ON THE LEAST CONSPICUOUS SIDE.

ALL MOTOR DRIVEN EQUIPMENT, HVAC COMPONENTS, AND MAJOR ELECTRICAL BOXES SHALL BE INDIVIDUALLY NUMBERED. (EXAMPLE: FOR UNIT HEATERS, USE UH-1, UH-2, ETC., EVEN THOUGH BOTH UNITS ARE OF THE SAME SIZE AND TYPE.) ALL DESIGNATIONS SHALL BE UNIQUE, INTEGRATED WITH AND DISTINGUISHED FROM OTHER DESIGNATIONS.

THE CONTRACTOR SHALL MAKE IT POSSIBLE FOR THE PERSONNEL OPERATING AND MAINTAINING THE EQUIPMENT AND SYSTEMS IN THIS PROJECT TO READILY IDENTIFY THE VARIOUS PIECES OF EQUIPMENT, VALVES, PIPING, ETC. BY MARKING THEM. ALL ITEMS OF EQUIPMENT SUCH AS FANS, PUMPS, ETC., SHALL BE CLEARLY MARKED USING ENGRAVED NAMEPLATES AS HEREINAFTER SPECIFIED. THE ITEM OF EQUIPMENT SHALL INDICATE THE SAME NUMBER AS SHOWN ON THE DRAWINGS.

DUCT LABEL INSTALLATION

STENCILED DUCT LABEL: STENCILED LABELS, SHOWING SERVICE AND FLOW DIRECTION.

LETTERING AND ARROWS COLOR SHALL MEET THE OWNER'S STANDARDS. IF NO STANDARD EXISTS, CONFIRM THE FOLLOWING COLOR SCHEME IS ACCEPTABLE PRIOR TO COMMENCEMENT OF WORK:

BLUE: FOR OUTSIDE AIR SUPPLY DUCTS.

YELLOW: FOR HOT AIR SUPPLY DUCTS, COLD AIR SUPPLY DUCTS, AND COMBINED HOT/COLD AIR SUPPLY DUCTS.

GREEN: FOR EXHAUST, RELIEF, RETURN, AND MIXED AIR DUCTS.

LOCATE LABELS/STENCILS:

NEAR POINTS WHERE DUCTS ENTER INTO CONCEALED SPACES.

AT MAXIMUM INTERVALS OF 25 FEET IN EACH SPACE WHERE DUCTS ARE EXPOSED OR CONCEALED BY REMOVABLE CEILING SYSTEM.

AT ALL CHANGES OF DIRECTION.

BOTH SIDES OF PENETRATIONS THROUGH WALLS, FLOORS, CEILINGS, AND INACCESSIBLE ENCLOSURES.

NEAR MAJOR EQUIPMENT ITEMS AND OTHER POINTS OF ORIGINATION AND TERMINATION.

LABELING/STENCILING OF ALL EXPOSED DUCTWORK SHALL BE COORDINATED WITH THE ARCHITECT AND ENGINEER PRIOR TO THE COMMENCEMENT.

DUCTWORK

REFER TO "HVAC DUCT MATERIAL" SCHEDULE, FOR DUCT MATERIALS PER APPLICATION.

DUCT CONSTRUCTION, INCLUDING SHEET METAL THICKNESSES, SEAM AND JOINT CONSTRUCTION, REINFORCEMENTS, ELBOWS, TURNING VANES, AND HANGERS AND SUPPORTS, SHALL COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE" LATEST EDITION, AND PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA BASED ON PRESSURE & LEAKAGE CLASSES INDICATED IN THE "DUCT PRESSURE CLASS" SCHEDULE; UNLESS OTHERWISE NOTED. ROUND DUCTWORK SHALL BE SPIRAL SEAM. MINIMUM DUCT SHEET METAL THICKNESS SHALL BE 24 GAUGE.

LEAKAGE CLASS: RECTANGULAR SUPPLY-AIR DUCT: 6 CFM/100 SQ. FT. AT 1-INCH WG. FLEXIBLE SUPPLY-AIR DUCT: 6 CFM/100 SQ. FT. AT 1-INCH WIG.

DUCT ACCESS DOORS SHALL BE CONSTRUCTED OF DOUBLE WALL OF THE SAME OR GREATER GAUGE AS DUCTWORK. PROVIDE INSULATED ACCESS DOORS FOR IDENTIFIED DUCTWORK. GASKET ALL EDGES AIRTIGHT, SIZE ACCESS DOORS TO PERMIT MAINTENANCE. MINIMUM SIZE 15" x 15" OR AS LARGE AS AVAILABLE DUCT SPACE WILL ALLOW. ACCESS DOORS LESS THAN 12 INCHES SQUARE: PIANO HINGE AND LOCKS, ACCESS DOORS UP TO 18 INCHES SQUARE: TWO HINGES AND TWO LOCKS, SIMILAR TO VENTLOCK 100.

WATER-BASED JOINT AND SEAM SEALANT: APPLICATION BRUSH ON, SYNTHETIC RUBBER RESIN BASE, SOLVENT: TOLUENE AND HEPTANE, SOLIDS CONTENT: MINIMUM 80 PERCENT, SHORE A HARDNESS: MINIMUM 80, WATER RESISTANT, MOLD AND MILDEW RESISTANT, VOC: MAXIMUM 395 G/L, MAXIMUM STATIC-PRESSURE CLASS: 10-INCH WG, POSITIVE OR NEGATIVE SERVICE: INDOOR OR OUTDOOR. SUBSTRATE: COMPATIBLE WITH GALVANIZED SHEET STEEL (BOTH PVC COATED AND BARE), STAINLESS STEEL, OR ALUMINUM SHEETS.

FLANGED JOINT SEALANT: COMPLY WITH ASTM C 920.; GENERAL: SINGLE-COMPONENT, ACID-CURING, SILICONE, ELASTOMERIC, TYPE: S, GRADE: NS, CLASS: 25, USE: O.

FLANGE GASKETS: BUTYL RUBBER, NEOPRENE, OR EPDM POLYMER WITH POLYISOBUTYLENE PLASTICIZER.

MAKE CONNECTIONS TO EQUIPMENT WITH FLEXIBLE CONNECTORS OF FLAME-RETARDANT OR NONCOMBUSTIBLE FABRICS. MANUFACTURERS; DUCTMATE INDUSTRIES, INC., DURO DYNE INC., VENTFABRICS, INC., WARD INDUSTRIES, INC., A DIVISION OF HART & COOLEY, INC.

VOLUME DAMPERS: PROVIDE SOLID, SQUARE AXLES FULL LENGTH OF DAMPER BLADES, ZERO LEAK BEARINGS AT BOTH ENDS OF OPERATING SHAFT AND POSITIVE LOCKING QUADRANTS. PROVIDE STAND-OFFS FOR EXTERNALLY LINED DUCTS. DAMPER BLADES SHALL BE MINIMUM 22 GAUGE. DAMPER BLADES, END BEARINGS, LOCKING QUADRANTS SHALL BE SIMILAR TO ROSSI EVERLOCK OR ELGEN.

SEAL OPENING AROUND DUCTS THROUGH WALLS WITH MINERAL WOOL OR OTHER NON-COMBUSTIBLE MATERIAL.

SEAL ALL PENETRATIONS THROUGH FIRE SEPARATION WITH AN APPROVED UL LISTED ASSEMBLY AND FIRE STOPPING MATERIALS.

CONSTRUCT FLEXIBLE CONNECTIONS OF NEOPRENE-COATED FLAMEPROOF FABRIC CRIMPED INTO DUCT FLANGES FOR ATTACHMENT TO DUCT AND EQUIPMENT.

FLEXIBLE DUCT SHALL BE CONSTRUCTED OF TWO-PLY LAMINATE MECHANICALLY CORRUGATED BONDED ALUMINUM INNER CORE COVERED BY ONE INCH THICK FIBERGLASS INSULATION OF ONE POUND DENSITY. FIBERGLASS SHALL BE COVERED WITH A 2.5 MIL POLYETHYLENE VAPOR BARRIER. FLEXIBLE DUCT SHALL MEET THE LATEST REQUIREMENTS OF UL STANDARD 181, CLASS 1, FLEXIBLE AIR DUCT. DUCT TO BE RATED FOR 10 INCHES POSITIVE OR NEGATIVE PRESSURE. MANUFACTURERS; FLEXMASTER U.S.A., INC., MCGILL AIRFLOW LLC., WARD INDUSTRIES, INC., A DIVISION OF HART & COOLEY, INC.

DUCT LINING

REFER TO "HVAC DUCT INSULATION" SCHEDULE. FOR APPLICATIONS & VALUES.

FLEXIBLE ELASTOMERIC DUCT LINER: PREFORMED, CELLULAR, CLOSED-CELL, SHEET MATERIALS COMPLYING WITH ASTM C 534, TYPE II, GRADE 1; AND WITH NFPA 90A OR NFPA 90B.

MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:

AEROFLEX USA INC. AEROCCELL ARMACELL LLC SA DUCT LINER K-FLEX DUCTLINER

SURFACE-BURNING CHARACTERISTICS: MAXIMUM FLAME-SPREAD INDEX OF 25 AND MAXIMUM SMOKE-DEVELOPED INDEX OF 50 WHEN TESTED ACCORDING TO UL 723, CERTIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY.

LINEAR ADHESIVE: AS RECOMMENDED BY INSULATION MANUFACTURER AND COMPLYING WITH NFPA 90A OR NFPA 90B.

FOR INDOOR APPLICATIONS, ADHESIVE SHALL HAVE A VOC CONTENT OF 50 G/L OR LESS WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D (EPA METHOD 24).

INSULATION PINS AND WASHERS: CUPPED-HEAD, CAPACITOR-DISCHARGE-WELD PINS: COPPER-OR-ZINC-COATED STEEL PIN, FULLY ANNEALED FOR CAPACITOR-DISCHARGE WELDING, 0.135-INCH-DIAMETER SHANK, LENGTH TO SUIT DEPTH OF INSULATION INDICATED WITH INTEGRAL 1-1/2-INCH GALVANIZED CARBON-STEEL WASHER.

DUCT INSULATION

REFER TO "HVAC DUCT INSULATION" SCHEDULE. FOR APPLICATIONS & VALUES.

COMPLY WITH THE REQUIREMENTS OF THE INTERNATIONAL ENERGY CONSERVATION CODE. LATEST ADOPTED VERSION.

PRODUCTS SHALL NOT CONTAIN ASBESTOS, LEAD, MERCURY, OR MERCURY COMPOUNDS. ACCEPTABLE MANUFACTURERS INCLUDE: CERTAINTED CORP.; COMMERCIAL BOARD., FIBREX INSULATIONS INC.; FBX., JOHNS MANVILLE; 800 SERIES SPIN-GLAS, KNAUF INSULATION; INSULATION BOARD., MANSON INSULATION INC.; AK BOARD., OWENS CORNING., FIBERGLAS 700 SERIES.

PIPING, FITTINGS & PIPING ACCESSORIES

REFER TO "HVAC PIPING/TUBING MATERIAL, JOINTS & FITTINGS" SCHEDULE FOR PIPE MATERIALS, APPLICATION, RATINGS & FITTINGS.

DIELECTRIC FITTINGS: MANUFACTURERS, HART INDUSTRIES INTERNATIONAL, INC., WATTS REGULATOR CO.; A DIVISION OF WATTS WATER TECHNOLOGIES, INC

DESCRIPTION: COMBINATION FITTING OF COPPER-ALLOY AND FERROUS MATERIALS WITH THREADED, SOLDER-JOINT, PLAIN, OR WELD-NECK END CONNECTIONS THAT MATCH PIPING SYSTEM MATERIALS.

INSULATING MATERIAL: SUITABLE FOR SYSTEM FLUID, PRESSURE, AND TEMPERATURE. DIELECTRIC UNIONS: FACTORY-FABRICATED UNION ASSEMBLY, FOR 250-PSIG MINIMUM WORKING PRESSURE AT 180°F.

DIELECTRIC COUPLINGS: GALVANIZED-STEEL COUPLING WITH INERT AND NON-CORROSIVE THERMOPLASTIC

LINING; THREADED ENDS; AND 300-PSIG MINIMUM WORKING PRESSURE AT 225°F.

PIPE JOINT CONSTRUCTION

REAM ENDS OF PIPES AND TUBES AND REMOVE BURRS. REMOVE SCALE, SLAG, DIRT, AND DEBRIS FROM INSIDE AND OUTSIDE OF PIPE AND FITTINGS BEFORE ASSEMBLY.

SOLDERED JOINTS: APPLY ASTM B 813, WATER-FLUSHABLE FLUX, UNLESS OTHERWISE INDICATED, TO TUBE END. CONSTRUCT JOINTS ACCORDING TO ASTM B 828 OR CDA'S "COPPER TUBE HANDBOOK," USING LEAD-FREE SOLDER ALLOY COMPLYING WITH ASTM B 52.

ROOF MOUNTED EXHAUST FANS

BELT-DRIVEN CENTRIFUGAL FAN CONSISTING OF HOUSING, WHEEL, FAN SHAFT, BEARINGS, MOTOR AND DISCONNECT SWITCH, DRIVE ASSEMBLY, CURB BASE, AND ACCESSORIES. ACCEPTABLE MANUFACTURERS INCLUDE GREENHECK, COOK, AND EQUIVALENT PRODUCTS.

FAN WHEEL: ALUMINUM HUB AND WHEEL WITH BACKWARD-INCLINED BLADES.

BELT-DRIVEN DRIVE ASSEMBLY: RESILIENTLY MOUNTED TO THE HOUSING, WITH THE FOLLOWING FEATURES:

PULLEYS: CAST-IRON, ADJUSTABLE-PITCH.

SHAFT BEARINGS: PERMANENTLY LUBRICATED, PERMANENTLY SEALED, SELF-ALIGNING BALL BEARINGS.

FAN SHAFT: TURNED, GROUND, AND POLISHED STEEL DRIVE SHAFT KEYED TO WHEEL HUB.

FAN DRIVE AND MOTOR ISOLATED FROM EXHAUST AIR STREAM.

DISCONNECT SWITCH: NONFUSIBLE TYPE, (WITH INTERNAL MOTOR THERMAL OVERLOAD PROTECTION MOUNTED INSIDE FAN HOUSING), FACTORY-WIRED THROUGH AN INTERNAL ALUMINUM CONDUIT.

DAMPERS: COUNTERBALANCED, PARALLEL-BLADE, MOTORIZED DAMPERS MOUNTED IN CURB BASE, FACTORY SET TO CLOSE WHEN FAN STOPS.

BLADES: DIE-FORMED SHEET ALUMINUM.

FRAME: EXTRUDED ALUMINUM, WITH WATERPROOF, FELT BLADE SEALS.

LINKAGE: NONFERROUS METALS, CONNECTING BLADES TO COUNTER WEIGHT OR OPERATOR.

CLEANING, BALANCING AND ADJUSTMENT

THOROUGHLY CLEAN ALL NEW APPARATUS AND EQUIPMENT (AHUS, FANS, COILS, REPLACE FILTERS) PRIOR TO PLACING IN OPERATION. CALIBRATE COMPONENTS AND REPLACE FAULTY COMPONENTS AS REQUIRED.

AIR BALANCING SHALL BE PROVIDED UNDER THIS CONTRACT IN COMPLIANCE WITH THE BELOW. AIR BALANCING WORK SHALL BE PERFORMED BY AN INDEPENDENT NEEB CERTIFIED COMPANY, NOT ASSOCIATED WITH THE CONTRACTOR.

PROVIDE AIR READINGS BEFORE THE COMMENCEMENT OF WORK AS INDICATED ON THE CONTRACT DRAWINGS.

MARK EQUIPMENT SETTINGS, INCLUDING DAMPER CONTROL POSITIONS, DEVICES, TO SHOW FINAL SETTINGS AT COMPLETION OF BALANCING. PROVIDE MARKINGS WITH PAINT OR OTHER SUITABLE PERMANENT IDENTIFICATION MATERIALS.

TEST, ADJUST, AND BALANCE AIR DISTRIBUTION SYSTEMS TO PROVIDE AIR QUANTITIES INDICATED WITHIN PLUS 5 PERCENT.

SUBMIT A TEST REPORT INDICATING QUANTITY OF AIR AT EACH OUTLET AFTER BALANCING. LIST OBVIOUS NOISE AND AIR DRAFT PROBLEMS AND RECOMMENDED CORRECTIVE ACTION.

CUTTING, ALTERING AND PATCHING

PROVIDE ALL CUTTING, CHASING, DRILLING, ALTERING AND ROUGH PATCHING REQUIRED FOR THE WORK OF THIS DIVISION.

INCLUDING THE RESTORING OF EXISTING WORK CUT FOR OR DAMAGED BY INSTALLATION OF NEW WORK, AND WHERE PRESENT WORK IS REMOVED.

ALL MATERIALS AND WORKMANSHIP REQUIRED IN CONNECTION WITH CUTTING, ALTERING AND ROUGH PATCHING SHALL MATCH THE EXISTING WORK IN EVERY RESPECT.

DO ALL SHORING, BRACING, CUTTING, PATCHING, PIECING OUT, FILLING IN, REPAIRING AND REFINISHING OF ALL PRESENT WORK AS MADE NECESSARY BY THE ALTERATION AND THE INSTALLATION OF NEW WORK.

ALL HOLES AND OPENINGS OCCURRING IN THE EXISTING FLOORS AFTER EQUIPMENT, PARTITIONS, FLOORS, STEEL WORK, CONDUITS AND PIPES ARE REMOVED OR INSTALLED SHALL BE CLOSED UP WITH MATERIALS SIMILAR TO THE ADJACENT WORK.

THE SIZE AND LOCATION OF ITEMS REQUIRING AN OPENING, CHASE OR OTHER PROVISIONS TO RECEIVE IT SHALL BE GIVEN BY THE TRADE REQUIRING SAME IN AMPLE TIME TO AVOID UNDUE CUTTING OF ANY NEW WORK TO BE INSTALLED. THESE PROVISIONS SHALL NOT RELIEVE THE CONTRACTOR FROM KEEPING INFORMED AS TO THE REQUIRED OPENING, CHASES, ETC., NOR FROM RESPONSIBILITY FOR THE CORRECTNESS THEREOF, NOR FOR CUTTING AND REPAIRING AFTER THE NEW WORK IS IN PLACE.

INCLUDE ALL CUTTING, REPAIRING AND PATCHING IN CONNECTION WITH THE WORK THAT MAY BE REQUIRED TO MAKE THE SEVERAL PARTS COME TOGETHER PROPERLY AND FIT IT TO RECEIVE OR BE RECEIVED BY THE WORK OF OTHER TRADES, AS SHOWN ON THE DRAWINGS AND/OR SPECIFIED, OR REASONABLY IMPLIED BY THE DRAWINGS AND SPECIFICATIONS.

ALL REPAIRING, PATCHING, PIECING-OUT, FILLING-IN, RESTORING AND REFINISHING SHALL BE NEATLY DONE BY MECHANICS SKILLED IN THEIR TRADE TO LEAVE SAME IN CONDITION SATISFACTORY TO THE OWNER.

MATERIALS AND THEIR METHODS OF APPLICATION FOR PATCHING SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF THE SPECIFICATIONS.

MATERIALS AND WORKMANSHIP NOT COVERED BY THE SPECIFICATIONS AND ITEMS OF WORK EXPOSED TO VIEW ADJOINING EXISTING WORK; TO REMAIN SHALL; CONFORM TO SIMILAR MATERIALS AND WORKMANSHIP EXISTING IN OR ADJACENT TO THE SPACES TO BE ALTERED.

CUTTING, REPAIRING AND PATCHING SHALL INCLUDE ALL ITEMS SHOWN ON THE DRAWINGS, SPECIFIED IN THE SPECIFICATIONS OR REQUIRED BY THE INSTALLATION OF NEW WORK OR THE REMOVAL OF EXISTING WORK.

REMOVE PARTITIONS, WALLS, SUSPENDED CEILINGS, ETC., AS NECESSARY TO PERFORM THE REQUIRED ALTERATIONS OR NEW CONSTRUCTION WORK.

AVOID DAMAGE TO CONSTRUCTION AND FINISHES THAT ARE TO REMAIN.

PROTECT AND BE RESPONSIBLE FOR THE EXISTING BUILDING, FACILITIES AND IMPROVEMENTS.

ANY DISTURBANCE OR DAMAGE TO THE WORK, THE EXISTING BUILDING, AND IMPROVEMENTS, OR ANY IMPAIRMENTS OF FACILITIES RESULTING FROM THE CONSTRUCTION OPERATIONS, SHALL BE PROMPTLY RECTIFIED, WITH THE DISTURBED, DAMAGED, OR IMPAIRED WORK, RESTORED, REPAIRED OR REPLACED AT NO EXTRA COST.

ALL ALTERATIONS WHICH ARE NOT INDICATED ON THE DRAWINGS NOR SPECIFIED HEREIN BUT NECESSARY TO MAKE GOOD EXISTING WORK DISTURBED BY REASON OF THE WORK SHALL BE RESTORED TO A CONDITION SATISFACTORY TO THE OWNER.

DISTURBED CONCRETE AND /OR CEMENT FLOOR AREAS SHALL BE PATCHED WITH APPROVED TYPE LATEX MORTAR.

WHEN CEMENT MORTAR IS USED FOR PATCHING, THE SURFACES SHALL BE DEPRESSED A MINIMUM DEPTH OF 1".

TEMPORARY OPENINGS

ALL TEMPORARY OPENINGS CUT IN WALLS, FLOORS OR CEILINGS FOR PIPE OR DUCTWORK SHALL BE CLOSED OFF WITH TRANSITE OR AN EQUALLY NON-COMBUSTIBLE MATERIAL EXCEPT WHEN MECHANICS ARE ACTUALLY WORKING AT THE PARTICULAR OPENING.

SHUTDOWN OF EXISTING BUILDING SYSTEMS

DO NOT INTERRUPT EXISTING SERVICES OR SYSTEMS IN THE BUILDING UNLESS ABSOLUTELY NECESSARY. SUCH INTERRUPTIONS AND INTERFERENCES MUST BE MADE AS BRIEF AS POSSIBLE AND ONLY AFTER COORDINATION WITH THE OWNER. THE OWNER REQUIRES A MINIMUM OF SEVEN (7) DAYS NOTICE. OBTAIN PRIOR PERMISSION, IN WRITING.

WHERE THE WORK MAKES TEMPORARY INTERRUPTIONS UNAVOIDABLE, THEY SHALL BE MADE DURING OFF HOURS OR AS OTHERWISE DIRECTED BY THE OWNER.

ARRANGE TO WORK CONTINUOUSLY, INCLUDING OVERTIME, IF REQUIRED, TO ASSURE THAT SYSTEMS WILL SHUT DOWN ONLY DURING THE TIME ACTUALLY REQUIRED TO MAKE THE NECESSARY CONNECTIONS TO EXISTING WORK.

ELECTRICAL WORK

ELECTRICAL POWER SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

CONTROL WIRING SHALL BE BY THE HVAC CONTRACTOR. CONTROL WIRING SHALL BE DEFINED AS ANY 12V, 24V OR 120V WIRING INSTALLED FOR PURPOSED OTHER THAN PROVIDING PRIMARY ELECTRICAL POWER TO EQUIPMENT.

MOTOR STARTERS SHALL BE FURNISHED BY THE HVAC CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

EXECUTION

THE PLANS AND SPECIFICATIONS ARE INTENDED TO PROVIDE A GENERAL SCOPE OF WORK.

WORK COORDINATION AND JOB OPERATIONS: THE MECHANICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES, PROVIDING TIMELY INFORMATION ON HIS NEEDS AND RESPOND IN A TIMELY MANNER TO REQUESTS BY OTHERS.

MATERIALS AND WORKMANSHIP: ALL MATERIALS SHALL BE NEW AND WITHOUT DAMAGED PARTS. ALL WORK SHALL BE ACCOMPLISHED BY WORKMEN TRAINED IN THAT PARTICULAR FUNCTION OR TASK.

PROTECTION AND CLEANUP: ALL MATERIALS SHALL BE SUITABLY STORED DURING CONSTRUCTION TO PREVENT DAMAGE AND/OR DETERIORATION. KEEP THE SITE CLEAN OF DEBRIS DUE TO THESE OPERATIONS. CAPSEAL OR OTHERWISE PROTECT PIPING AND DUCTWORK FROM FOREIGN MATERIAL DURING CONSTRUCTION. AIR FILTERS UPSTREAM OF COILS SHALL BE CHANGED REGULARLY TO PREVENT BUILDUP OF MATERIAL ON COIL. FILTERS SHALL BE CHANGED AT LEAST WEEKLY OR WHEN FULLY LOADED.

SYSTEM STARTUP AND OPERATION: PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT TO PLACE THE HVAC SYSTEMS INTO OPERATION. MAINTAIN OPERATION DURING BALANCING AND INSTRUCTION PERIODS. INSURE ALL EQUIPMENT IS RUNNING PROPERLY WITH PROPER LUBRICATION, WITHOUT EXCESSIVE VIBRATION, AND PROPER ELECTRICAL CHARACTERISTICS. PROVIDE OWNER WITH ANY MANUALS, AIR BALANCE REPORTS PRODUCT MAINTENANCE SPECIFICATIONS, BROCHURES AND/OR DRAWINGS NEEDED FOR THE OPERATION AND MAINTENANCE OF NEW EQUIPMENT.

WARRANTY

THE CONTRACTOR SHALL WARRANTY ALL WORK FOR A PERIOD OF 12 MONTHS FROM ACCEPTANCE BY OWNER. DURING THIS WARRANTY PERIOD, CONTRACTOR SHALL RESPOND TO ALL CALLS FOR SERVICE, REPAIRS AND ADJUSTMENTS REQUIRED BY OWNER. CONTRACTOR SHALL INSTALL REPLACEMENT PARTS AND MATERIAL REQUIRED AT NO COST TO THE OWNER. ALL EQUIPMENT WARRANTIES SHALL BE TRANSFERRED TO OWNER AND SERVICED BY CONTRACTOR AS PART OF THIS CONTRACT.

HVAC INSTRUMENTATION & CONTROLS

QUALITY ASSURANCE

ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70, ARTICLE 100, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND MARKED FOR INTENDED USE.

COMPLY WITH ASHRAE 135 FOR DDC SYSTEM COMPONENTS.

COORDINATION:

COORDINATE LOCATION OF THERMOSTATS, HUMIDISTATS, AND OTHER EXPOSED CONTROL SENSORS WITH PLANS AND ROOM DETAILS BEFORE INSTALLATION.

COORDINATE EQUIPMENT WITH DIVISION 16 TO ACHIEVE COMPATIBILITY WITH EQUIPMENT THAT INTERFACES WITH THE LIGHTING SYSTEM.

COORDINATE EQUIPMENT WITH DIVISION 13 TO ACHIEVE COMPATIBILITY WITH EQUIPMENT THAT INTERFACES WITH THE FIRE ALARM SYSTEM.

COORDINATE SUPPLY OF CONDITIONED ELECTRICAL BRANCH CIRCUITS FOR CONTROL UNITS AND OPERATOR WORKSTATION.

COORDINATE EQUIPMENT WITH DIVISION 16 TO ACHIEVE COMPATIBILITY WITH STARTER COILS AND ANNUNCIATION DEVICES IN PANEL BOARDS.

MANUFACTURER:

CONTROL SYSTEM SHALL CONSIST OF SENSORS, INDICATORS, ACTUATORS, FINAL CONTROL ELEMENTS, INTERFACE EQUIPMENT, OTHER APPARATUS, ACCESSORIES, AND SOFTWARE CONNECTED TO DISTRIBUTED CONTROLLERS OPERATING IN MULTIUSER, MULTITASKING ENVIRONMENT ON TOKEN-PASSING NETWORK AND PROGRAMMED TO CONTROL MECHANICAL SYSTEMS. AN OPERATOR WORKSTATION PERMITS INTERFACE WITH THE NETWORK VIA DYNAMIC COLOR GRAPHICS WITH EACH MECHANICAL SYSTEM, BUILDING FLOOR PLAN, AND CONTROL DEVICE DEPICTED BY POINT-AND-CLICK GRAPHICS.

RFP 6320



93 Lake Avenue, Danbury, CT 06810
203.778.1017 F 203.778.1018

171 Madison Avenue,
New York, NY 10016
212.695.2422 F 212.695.2423

www.kohlerroman.com
E-mail krce@kohlerroman.com

INTERIOR RENOVATION TO THE

TRUMBULL POLICE

DEPARTMENT

TRUMBULL, CONNECTICUT

158 EDISON ROAD

J J H
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

SPECIFICATIONS -
MECHANICAL

PROJ. NO.

JH1828

DRAWING NO.

SCALE

As Noted

DATE

NOVEMBER 8, 2016

M-5.1

MECHANICAL SPECIFICATIONS

<p>PACKAGED DX SYSTEM: UNIT SHALL HAVE AN INTEGRAL COMPRESSOR(S) AND EVAPORATOR COIL LOCATED WITHIN THE WEATHER-TIGHT UNIT HOUSING. CONDENSER COILS AND APPURTENANT CONDENSER FAN ASSEMBLIES SHALL BE FACTORY INSTALLED AS INTEGRAL SUBASSEMBLIES OF THE UNIT AND MOUNTED ON THE EXTERIOR OF THE UNIT. UNIT CONDENSER FANS SHALL FEATURE SWEEP BLADE DESIGN RESULTING IN REDUCED SOUND LEVELS. CONDENSER FAN MOTORS SHALL BE THREE PHASE, EXTERNAL ROTOR, TYPE 56 FRAME, OPEN AIR OVER AND SHAFT UP. EACH CONDENSER FAN MOTOR SHALL HAVE A VENTED FRAME, RATED FOR CONTINUOUS DUTY AND BE EQUIPPED WITH AN AUTOMATIC RESET THERMAL PROTECTOR. LEAD CONDENSER FAN WILL HAVE AN ELECTRONICALLY COMMUTATED (EC) MOTOR THAT WILL MODULATE TO MAINTAIN A HEAD PRESSURE SET POINT. MOTORS SHALL BE UL RECOGNIZED AND CSA CERTIFIED. THE REFRIGERANT COMPRESSOR(S) SHALL BE DIGITAL HERMETIC SCROLL-TYPE AND SHALL BE EQUIPPED WITH LIQUID LINE FILTER DRIER, THERMOSTATIC EXPANSION VALVES (TXV'S), MANUAL RESET HIGH PRESSURE AND LOW PRESSURE CUTOUTS AND ALL APPURTENANT SENSORS, SERVICE PORTS AND SAFETY DEVICES. COMPRESSED REFRIGERANT SYSTEM SHALL BE FULLY CHARGED WITH R-410A REFRIGERANT. EACH COMPRESSOR SHALL BE FACTORY-EQUIPPED WITH AN ELECTRIC CRANKCASE HEATER TO BOIL OFF LIQUID REFRIGERANT FROM THE OIL.</p> <p>PACKAGED DX CONTROL AND DIAGNOSTICS: THE PACKAGED DX SYSTEM SHALL BE CONTROLLED BY AN ONBOARD DIGITAL CONTROLLER (DDC) THAT INDICATES BOTH OWNER-SUPPLIED SETTINGS AND FAULT CONDITIONS THAT MAY OCCUR. THE DDC SHALL BE PROGRAMMED TO INDICATE THE FOLLOWING FAULTS:</p> <p>GLOBAL ALARM CONDITION (ACTIVE WHEN THERE IS AT LEAST ONE ALARM)</p> <p>SUPPLY AIR PROVING ALARM</p> <p>DIRTY FILTER ALARM</p> <p>COMPRESSOR TRIP ALARM</p> <p>COMPRESSOR LOCKED OUT ALARM</p> <p>SUPPLY AIR TEMPERATURE LOW LIMIT ALARM SENSOR #1 OUT OF RANGE (OUTSIDE AIR TEMPERATURE) SENSOR #2 OUT OF RANGE (SUPPLY AIR TEMPERATURE) SENSOR #3 OUT OF RANGE (COLD COIL LEAVING AIR TEMPERATURE)]</p> <p>PHASE AND BROWNOUT PROTECTION: UNIT SHALL HAVE A FACTORY-INSTALLED PHASE MONITOR TO DETECT ELECTRIC SUPPLY PHASE LOSS AND VOLTAGE BROWN-OUT CONDITIONS. UPON DETECTION OF A FAULT, THE MONITOR SHALL DISCONNECT SUPPLY VOLTAGE TO ALL MOTORS.</p> <p>MOTORIZED DAMPERS / OUTDOOR AIR, RETURN AIR: AMCA CLASS 1A CERTIFIED MOTORIZED DAMPER OF [LOW LEAKAGE] [INSULATED LOW LEAKAGE] TYPE AND A LEAKAGE RATE OF 3 CFM/FT² @ 1 IN. WG. SHALL BE FACTORY INSTALLED.</p> <p>AMCA CLASS 1A MOTORIZED RECIRCULATING AIR DAMPER DESIGNED TO PERMIT 100% MAXIMUM RECIRCULATION OF RETURN AIR SHALL BE FACTORY INSTALLED.</p> <p>SERVICE RECEPTACLE: 120 VAC GFCI SERVICE OUTLET SHALL BE FACTORY-PROVIDED. UNIT CONTAINS A 120 VAC TRANSFORMER TO PROVIDE POWER TO SERVICE OUTLET.</p> <p>HAIL GUARDS: PROTECTS THE CONDENSING UNIT FROM DAMAGE DUE TO EXTREME WEATHER CONDITIONS SUCH AS HAIL AND FLYING DEBRIS.</p> <p>VAPOR TIGHT LIGHTS: PROVIDE SERVICE LIGHTS MOUNTED IN THE UNIT TO BE USED DURING TIMES OF ROUTINE MAINTENANCE. THE LIGHTS WILL BE FACTORY MOUNTED AND WIRED.</p> <p>BLOWER:</p> <p>BLOWER SECTION CONSTRUCTION SUPPLY AIR: DIRECT DRIVE MOTOR(S) AND BLOWER(S) SHALL BE ASSEMBLED ON A 14 GAUGE GALVANIZED STEEL PLATFORM AND SHALL BE EQUIPPED WITH 1.125 INCH THICK NEOPRENE VIBRATION ISOLATION DEVICES.</p> <p>BLOWER ASSEMBLIES: SHALL BE STATICALLY AND DYNAMICALLY BALANCED AND DESIGNED FOR CONTINUOUS OPERATION AT MAXIMUM RATED FAN SPEED AND HORSEPOWER.</p> <p>FAN: DIRECT DRIVE, AIRFOIL PLENUM FAN WITH STEEL WHEELS STATICALLY AND DYNAMICALLY BALANCED AND AMCA CERTIFIED FOR AIR AND SOUND PERFORMANCE.</p> <p>BLOWER SECTION MOTOR SOURCE QUALITY CONTROL: BLOWER PERFORMANCE SHALL BE FACTORY TESTED FOR FLOW RATE, PRESSURE, POWER, AIR DENSITY, ROTATION SPEED AND EFFICIENCY. RATINGS ARE TO BE ESTABLISHED IN ACCORDANCE WITH AMCA 210, "LABORATORY METHODS OF TESTING FANS FOR RATINGS."</p> <p>MOTORS:</p> <p>GENERAL: BLOWER MOTORS GREATER THAN ¼ HORSEPOWER SHALL BE "NEMA PREMIUM" UNLESS OTHERWISE INDICATED. COMPLIANCE WITH EPACT MINIMUM ENERGY-EFFICIENCY STANDARDS FOR SINGLE SPEED ODP AND TE ENCLOSURES IS NOT ACCEPTABLE. MOTORS SHALL BE HEAVY-DUTY, PERMANENTLY LUBRICATED TYPE TO MATCH THE FAN LOAD AND FURNISHED AT THE SPECIFIED VOLTAGE, PHASE AND ENCLOSURE. MOTORS SHALL BE 60 CYCLE, 3 PHASE 208 VOLTS.</p> <p>UNIT CONTROLS:</p> <p>THE UNIT SHALL BE CONSTRUCTED SO THAT IT CAN FUNCTION AS A STAND-ALONE HEATING AND COOLING SYSTEM CONTROLLED BY FACTORY-SUPPLIED CONTROLLERS, THERMOSTATS AND SENSORS, OR IT CAN BE OPERATED AS A HEATING AND COOLING SYSTEM WITH TEMPERATURE SETPOINT ADJUSTMENT VIA A UNITY CONTROLLER THERMOSTAT. THIS UNIT SHALL BE CONTROLLED BY A FACTORY-INSTALLED MICROPROCESSOR PROGRAMMABLE CONTROLLER (DDC) THAT IS CONNECTED TO VARIOUS OPTIONAL SENSORS. PROVIDE ALL SENSORS AND DEVICES REQUIRED FOR DUAL ENTHALPY ECONOMIZER.</p> <p>UNIT SHALL INCORPORATE A DDC CONTROLLER WITH INTEGRAL LCD SCREEN THAT PROVIDES TEXT READOUTS OF STATUS. DDC CONTROLLER SHALL HAVE A BUILT-IN KEYPAD TO PERMIT OPERATOR TO ACCESS READ-OUT SCREENS WITHOUT THE USE OF ANCILLARY EQUIPMENT, DEVICES OR SOFTWARE. DDC CONTROLLERS THAT REQUIRE THE USE OF EQUIPMENT OR SOFTWARE THAT IS NOT FACTORY-INSTALLED IN THE UNIT ARE NOT ACCEPTABLE. ALARM READOUTS CONSISTING OF FLASHING LIGHT CODES ARE NOT ACCEPTABLE. NOTE: SOME MANUFACTURERS ARE KNOWN TO INCORPORATE DDC CONTROLLERS THAT REQUIRE THE USE OF SEPARATELY-PURCHASED HANDHELD HARDWARE OR A PC AND/OR SOFTWARE TO VIEW OR CHANGE SETTINGS. OWNER-SPECIFIED VENTILATING CONDITIONS CAN BE INPUT BY MEANS OF PUSHBUTTONS.</p> <p>SUPPLY FAN SHALL BE CONFIGURED FOR SINGLE ZONE VAV</p> <p>OUTSIDE AIR / RETURN AIR DAMPER CONTROL SHALL BE PERFORMED BY THE UNIT CONTROLLER.</p> <p>ECONOMIZER CONTROL SHALL BE ENTHALPY CONTROLLED.</p> <p>DIRTY FILTER SENSOR SHALL BE FACTORY-INSTALLED.</p>	<p>VARIABLE FREQUENCY DRIVE (VFD) [UNIT SHALL HAVE FACTORY INSTALLED VARIABLE FREQUENCY DRIVE FOR MODULATION OF THE SUPPLY AIR BLOWER ASSEMBLY.</p> <p>AIRFLOW MONITORING REQUIRED IN THE RETURN AIR AND SUPPLY AIRSTREAMS.</p> <p>ROOM SENSOR SHALL BE PROVIDED AS A SHIPPED LOOSE ITEM. THE ROOM SENSOR SHALL AVERAGE 1 TEMPERATURE SENSOR AND 1 RELATIVE HUMIDITY SENSOR.</p> <p>FILTERS:</p> <p>UNIT SHALL HAVE PERMANENT 2 INCH (50.8 MM) ALUMINUM MESH FILTERS LOCATED IN THE OUTDOOR AIR INTAKE AND SHALL BE ACCESSIBLE FROM THE EXTERIOR OF THE UNIT. MERV 8 DISPOSABLE PLEATED FILTERS SHALL BE PROVIDED IN THE SUPPLY AIR STREAM. MERV 13 DISPOSABLE PLEATED FILTERS SHALL BE PROVIDED IN THE SUPPLY FINAL AIR STREAM.</p> <p>CONTROL DEVICES - INPUT DEVICES</p> <p>TEMPERATURE SENSORS GENERAL REQUIREMENTS: SENSORS AND TRANSMITTERS SHALL BE PROVIDED, AS OUTLINED IN THE INPUT/OUTPUT SUMMARY AND SEQUENCE OF OPERATIONS. THE TEMPERATURE SENSOR SHALL BE OF THE RESISTANCE TYPE, AND SHALL BE EITHER TWO-WIRE 1000 OHM NICKEL RTD, OR TWO-WIRE 1000 OHM PLATINUM RTD. THE FOLLOWING POINT TYPES (AND THE ACCURACY OF EACH) ARE REQUIRED, AND THEIR ASSOCIATED ACCURACY VALUES INCLUDE ERRORS ASSOCIATED WITH THE SENSOR, LEAD WIRE, AND A T O D CONVERSION: ROOM TEMPERATURE: ±0.5° F DUCT TEMPERATURE: ±0.5° F</p> <p>ROOM TEMPERATURE SENSORS ROOM SENSORS SHALL BE CONSTRUCTED FOR EITHER SURFACE OR WALL BOX MOUNTING.</p> <p>OUTSIDE AIR SENSORS OUTSIDE AIR SENSORS SHALL BE DESIGNED TO WITHSTAND THE ENVIRONMENTAL CONDITIONS TO WHICH THEY WILL BE EXPOSED. THEY SHALL ALSO BE PROVIDED WITH A SOLAR SHIELD. SENSORS EXPOSED TO WIND VELOCITY PRESSURES SHALL BE SHIELDED BY A PERFORATED PLATE THAT SURROUNDS THE SENSOR ELEMENT. TEMPERATURE TRANSMITTERS SHALL BE OF NEMA 3R CONSTRUCTION AND RATED FOR AMBIENT TEMPERATURES.</p> <p>DUCT MOUNT SENSORS DUCT MOUNT SENSORS SHALL MOUNT IN AN ELECTRICAL BOX THROUGH A HOLE IN THE DUCT, AND BE POSITIONED SO AS TO BE EASILY ACCESSIBLE FOR REPAIR OR REPLACEMENT. DUCT SENSORS SHALL BE INSERTION TYPE AND CONSTRUCTED AS A COMPLETE ASSEMBLY, INCLUDING LOCK NUT AND MOUNTING PLATE. FOR OUTDOOR AIR DUCT APPLICATIONS, A WEATHERPROOF MOUNTING BOX WITH WEATHERPROOF COVER AND GASKET SHALL BE USED.</p> <p>ACCEPTABLE MANUFACTURERS: ALERTON CONTROLS, SETRA.</p> <p>HUMIDITY SENSORS THE SENSOR SHALL BE A SOLID-STATE TYPE, RELATIVE HUMIDITY SENSOR OF THE BULK POLYMER DESIGN. THE SENSOR ELEMENT SHALL RESIST SERVICE CONTAMINATION. THE HUMIDITY TRANSMITTER SHALL BE EQUIPPED WITH NON-INTERACTIVE SPAN AND ZERO ADJUSTMENTS, A 2-WIRE ISOLATED LOOP POWERED, 4-20 MA, 0-100% LINEAR PROPORTIONAL OUTPUT. THE HUMIDITY TRANSMITTER SHALL MEET THE FOLLOWING OVERALL ACCURACY, INCLUDING LEAD LOSS AND ANALOG TO DIGITAL CONVERSION: 3% BETWEEN 20% AND 80% RH @ 77 DEG F UNLESS SPECIFIED ELSEWHERE. OUTSIDE AIR RELATIVE HUMIDITY SENSORS SHALL BE INSTALLED WITH A RAIN PROOF, PERFORATED COVER. THE TRANSMITTER SHALL BE INSTALLED IN A NEMA 3R ENCLOSURE WITH SEALTITE FITTINGS AND STAINLESS STEEL BUSHINGS. A SINGLE POINT HUMIDITY CALIBRATOR SHALL BE PROVIDED, IF REQUIRED, FOR FIELD CALIBRATION. TRANSMITTERS SHALL BE SHIPPED FACTORY PRE-CALIBRATED. DUCT TYPE SENSING PROBES SHALL BE CONSTRUCTED OF 304 STAINLESS STEEL, AND SHALL BE EQUIPPED WITH A NEOPRENE GROMMET, BUSHINGS, AND A MOUNTING BRACKET. ACCEPTABLE MANUFACTURERS: VERIS INDUSTRIES, AND MAMAC.</p> <p>BUILDING DIFFERENTIAL AIR PRESSURE APPLICATIONS (-1" TO +1" W.C.) THE DIFFERENTIAL PRESSURE TRANSMITTER SHALL BE OF INDUSTRIAL QUALITY AND TRANSMIT A LINEAR, 4 TO 20 MA OUTPUT IN RESPONSE TO VARIATION OF DIFFERENTIAL PRESSURE OR AIR PRESSURE SENSING POINTS. THE DIFFERENTIAL PRESSURE TRANSMITTER SHALL HAVE NON-INTERACTIVE ZERO AND SPAN ADJUSTMENTS THAT ARE ADJUSTABLE FROM THE OUTSIDE COVER AND MEET THE FOLLOWING PERFORMANCE SPECIFICATIONS: -1.00 TO +1.00 W.C. INPUT DIFFERENTIAL PRESSURE RANGES. (SELECT RANGE APPROPRIATE FOR SYSTEM APPLICATION) 4-20 MA OUTPUT. MAINTAIN ACCURACY UP TO 20 TO 1 RATIO TURNDOWN. REFERENCE ACCURACY: +0.2% OF FULL SPAN. ACCEPTABLE MANUFACTURERS: BAPI AND SETRA.</p> <p>CURRENT SENSOR/TRANSDUCER THE CURRENT SENSORS SHALL BE LOOP OR SELF-POWERED WITH SOLID-STATE CIRCUITRY AND A DRY CONTACT OUTPUT. IT SHALL CONSIST OF A CURRENT TRANSFORMER, A SOLID STATE CURRENT SENSING CIRCUIT, ADJUSTABLE TRIP POINT, SOLID STATE SWITCH, SPDT RELAY, AND AN LED INDICATING THE ON OR OFF STATUS. A CONDUCTOR OF THE LOAD SHALL BE PASSED THROUGH THE WINDOW OF THE DEVICE. IT SHALL ACCEPT OVER-CURRENT UP TO TWICE ITS TRIP POINT RANGE. ANALOG OUTPUT CURRENT SENSORS PROVIDING A SIGNAL CORRESPONDING TO ACTUAL AMPERAGE DRAW OF THE MONITORED LOAD. CURRENT SENSORS SHALL BE USED FOR FANS, PUMPS, AND OTHER MISCELLANEOUS MOTOR LOADS. CURRENT SENSORS SHALL BE CALIBRATED TO SHOW A POSITIVE RUN STATUS ONLY WHEN THE MOTOR IS OPERATING UNDER LOAD. A MOTOR RUNNING WITH A BROKEN BELT OR COUPLING SHALL INDICATE A NEGATIVE RUN STATUS.</p>	<p>AIR FILTER STATUS SWITCHES DIFFERENTIAL PRESSURE SWITCHES USED TO MONITOR AIR FILTER STATUS SHALL BE OF THE AUTOMATIC RESET TYPE WITH SPDT CONTACTS RATED FOR 2 AMPS AT 120VAC. A COMPLETE INSTALLATION KIT SHALL BE PROVIDED, INCLUDING: STATIC PRESSURE TOPS, TUBING, FITTINGS, AND AIR FILTERS. PROVIDE APPROPRIATE SCALE RANGE AND DIFFERENTIAL ADJUSTMENT FOR INTENDED SERVICE. ACCEPTABLE MANUFACTURERS: DWYER, CLEVELAND CONTROLS</p> <p>AIR FLOW SWITCHES DIFFERENTIAL PRESSURE FLOW SWITCHES SHALL BE BELLOWES ACTUATED MERCURY SWITCHES OR SNAP ACTING MICRO-SWITCHES WITH APPROPRIATE SCALE RANGE AND DIFFERENTIAL ADJUSTMENT FOR INTENDED SERVICE. ACCEPTABLE MANUFACTURERS: DWYER, CLEVELAND CONTROLS</p> <p>CONTROL DEVICES - OUTPUT DEVICES ELECTRONIC DAMPER ACTUATORS ELECTRONIC DAMPER ACTUATORS SHALL BE DIRECT SHAFT MOUNT. MODULATING AND TWO-POSITION ACTUATORS SHALL BE PROVIDED AS REQUIRED BY THE SEQUENCE OF OPERATIONS. DAMPER SECTIONS SHALL BE SIZED BASED ON ACTUATOR MANUFACTURER'S RECOMMENDATIONS FOR FACE VELOCITY, DIFFERENTIAL PRESSURE AND DAMPER TYPE. THE ACTUATOR MOUNTING ARRANGEMENT AND SPRING RETURN FEATURE SHALL PERMIT NORMALLY OPEN OR NORMALLY CLOSED POSITIONS OF THE DAMPERS, AS REQUIRED. ALL ACTUATORS (EXCEPT TERMINAL UNITS) SHALL BE FURNISHED WITH MECHANICAL SPRING RETURN UNLESS OTHERWISE SPECIFIED IN THE SEQUENCES OF OPERATIONS. ALL ACTUATORS SHALL HAVE EXTERNAL ADJUSTABLE STOPS TO LIMIT THE TRAVEL IN EITHER DIRECTION, AND A GEAR RELEASE TO ALLOW MANUAL POSITIONING. MODULATING ACTUATORS SHALL ACCEPT 24 VAC OR VDC POWER SUPPLY. CONSUME NO MORE THAN 15 VA, AND BE UL LISTED. THE CONTROL SIGNAL SHALL BE 2-10 VDC OR 4-20 MA, AND THE ACTUATOR SHALL PROVIDE A CLAMP POSITION FEEDBACK SIGNAL OF 2-10 VDC. THE FEEDBACK SIGNAL SHALL BE INDEPENDENT OF THE INPUT SIGNAL AND MAY BE USED TO PARALLEL OTHER ACTUATORS AND PROVIDE TRUE POSITION INDICATION. THE FEEDBACK SIGNAL OF ONE DAMPER ACTUATOR FOR EACH SEPARATELY CONTROLLED DAMPER SHALL BE WIRED BACK TO THE BMS HEAD END AND INDICATE DAMPER POSITION. TWO-POSITION OR OPEN/CLOSED ACTUATORS SHALL ACCEPT 24 OR 120 VAC POWER SUPPLY AND BE UL LISTED. ISOLATION, SMOKE, EXHAUST FAN, AND OTHER DAMPERS, AS SPECIFIED IN THE SEQUENCE OF OPERATIONS, SHALL BE FURNISHED WITH ADJUSTABLE END SWITCHES TO INDICATE OPEN/CLOSED POSITION OR BE HARD WIRED TO START/STOP ASSOCIATED FAN. TWO-POSITION ACTUATORS, AS SPECIFIED IN SEQUENCES OF OPERATIONS AS "QUICK ACTING," SHALL MOVE FULL STROKE WITHIN 20 SECONDS. ALL SMOKE DAMPER ACTUATORS SHALL BE QUICK ACTING. PROVIDE 5-YEAR WARRANTY. ACCEPTABLE MANUFACTURERS: BELIMO.</p> <p>CONTROL DAMPERS THE BMS CONTRACTOR SHALL FURNISH ALL AUTOMATIC DAMPERS. ALL AUTOMATIC DAMPERS SHALL BE SIZED FOR THE APPLICATION BY THE BMS CONTRACTOR. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING: RUSKIN COMPANY CD50, CD60, CDT1-50 GREENHECK FAN CORPORATION VCD-33, VCD-45 TAMCO 9000BF LOW-LEAKAGE RATING, WITH LINKAGE OUTSIDE AIRSTREAM, AND BEARING AMCA'S CERTIFIED RATINGS SEAL FOR BOTH AIR PERFORMANCE AND AIR LEAKAGE. FRAMES: HAT SHAPED. GALVANIZED-STEEL CHANNELS, 0.0625 INCH THICK EXCEPT OUTSIDE AIR DAMPERS SHALL BE 0.125 THICK EXTRUDED ALUMINUM AND REQUIRED TO BE THERMALLY BROKEN. MITERED AND WELDED CORNERS. BLADES: AIRFOIL SHAPE, MULTIPLE BLADE WITH MAXIMUM BLADE WIDTH OF 8 INCHES. PARALLEL- AND OPPOSED-BLADE DESIGN. GALVANIZED STEEL EXCEPT OUTDOOR AIR DAMPER BLADES SHALL BE ALUMINUM. 16 GAUGE THICKNESS (STEEL) OR 0.063 INCH THICKNESS (ALUMINUM). BLADE AXLES: 1/2-INCH- DIAMETER, GALVANIZED STEEL; BLADE-LINKAGE HARDWARE OF ZINC-PLATED STEEL AND BRASS; ENDS SEALED AGAINST BLADE BEARINGS. OPERATING TEMPERATURE RANGE: FROM MINUS 40 TO PLUS 200 DEG F. BEARINGS: MOLDED SYNTHETIC OR STAINLESS STEEL. ALL DAMPERS SHALL HAVE AXLES FULL LENGTH OF DAMPER BLADES AND BEARINGS AT BOTH ENDS OF OPERATING SHAFT. THRUST BEARINGS AT EACH END OF EVERY BLADE. PERFORMANCE DATA: TEMPERATURE RATING: WITHSTAND -72 TO 275 DEGREES F (-58 TO 135 DEGREES C). CLOSED POSITION: MAXIMUM PRESSURE OF 13 INCHES W.G. (3.2 KPA) @ A 12 INCH BLADE LENGTH. OPEN POSITION: MAXIMUM AIR VELOCITY OF 6,000 FEET PER MINUTE (1,829 MM/M).</p>	<p>LEAKAGE: MAXIMUM 5.2 CUBIC FEET PER MINUTE PER SQUARE FOOT (0.6 M³/MIN/M²) AT 4 INCHES W.G. (1 KPA) FOR SIZE 48 X 48 INCHES (1219 X 1219 MM). PRESSURE DROP: MAXIMUM 0.03 INCH W.G. (0.01 KPA) AT 1,500 FEET PER MINUTE (457 MM/M) ACROSS 24 INCH X 24 INCH (610 X 610 MM) DAMPER.</p> <p>BMS WIRING ALL CONDUIT, WIRING, ACCESSORIES AND WIRING CONNECTIONS REQUIRED FOR THE INSTALLATION OF THE BUILDING MANAGEMENT SYSTEM, AS HEREIN SPECIFIED, SHALL BE PROVIDED BY THE BMS CONTRACTOR UNLESS SPECIFICALLY SHOWN ON THE ELECTRICAL DRAWINGS UNDER DIVISION 26 ELECTRICAL. ALL WIRING SHALL COMPLY WITH THE REQUIREMENTS OF APPLICABLE PORTIONS OF DIVISION 26 AND ALL LOCAL AND NATIONAL ELECTRIC CODES, UNLESS SPECIFIED OTHERWISE IN THIS SECTION. ALL BMS WIRING MATERIALS AND INSTALLATION METHODS SHALL COMPLY WITH BMS MANUFACTURER RECOMMENDATIONS. THE SIZING, TYPE AND PROVISION OF CABLE, CONDUIT, CABLE TRAYS, AND RACEWAYS SHALL BE THE DESIGN RESPONSIBILITY OF THE BMS CONTRACTOR. IF COMPLICATIONS ARISE, HOWEVER, DUE TO THE INCORRECT SELECTION OF CABLE, CABLE TRAYS, RACEWAYS AND/OR CONDUIT BY THE BMS CONTRACTOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED IN REPLACING THE SELECTED COMPONENTS. CLASS 2 WIRING ALL CONTROLS WIRING (INCLUDING WIRING FOR METERS) SHALL BE PLENUM RATED, SHIELDED CABLE. ALL CLASS 2 (24VAC OR LESS) WIRING SHALL BE INSTALLED IN CONDUIT UNLESS OTHERWISE SPECIFIED. CONDUIT IS NOT REQUIRED FOR CLASS 2 WIRING IN CONCEALED ACCESSIBLE LOCATIONS. CLASS 2 WIRING NOT INSTALLED IN CONDUIT SHALL BE SUPPORTED EVERY 5' FROM THE BUILDING STRUCTURE UTILIZING METAL HANGERS DESIGNED FOR THIS APPLICATION. WIRING SHALL BE INSTALLED PARALLEL TO THE BUILDING STRUCTURAL LINES. ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS. CLASS 2 SIGNAL WIRING AND 24VAC POWER CAN BE RUN IN THE SAME CONDUIT. POWER WIRING 120VAC AND GREATER CANNOT SHARE THE SAME CONDUIT WITH CLASS 2 SIGNAL WIRING. PROVIDE FOR COMPLETE GROUNDING OF ALL APPLICABLE SIGNAL AND COMMUNICATIONS CABLES, PANELS AND EQUIPMENT SO AS TO ENSURE SYSTEM INTEGRITY OF OPERATION. GROUND CABLING AND CONDUIT AT THE PANEL TERMINATIONS. AVOID GROUNDING LOOPS.</p>
---	--	---	---

RFP 6320



93 Lake Avenue, Danbury, CT 06810
203.778.1017 F 203.778.1018
171 Madison Avenue,
New York, NY 10016
212.695.2422 F 212.695.2423
www.kohlerroman.com
E-mail krce@kohlerroman.com

INTERIOR RENOVATION TO THE

TRUMBULL POLICE
DEPARTMENT

TRUMBULL, CONNECTICUT

158 EDISON ROAD

J J H
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

SPECIFICATIONS -
MECHANICAL

PROJ. NO.

JH1828

DRAWING NO.

SCALE

As Noted

DATE

NOVEMBER 8, 2016



M-5.3

DEMOLITION AND REMOVALS
1. THE EXISTING FACILITY WILL BE OCCUPIED AND IN OPERATION DURING THE PERFORMANCE OF THE WORK.
2. WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING FEEDER OR BRANCH CIRCUIT SUPPLYING OCCUPIED FACILITIES, CONFER WITH THE OWNER, AND SCHEDULE A MUTUALLY AGREEABLE PERIOD OF INTERRUPTION.
3. WHERE REPLACEMENT, RELOCATION OR MODIFICATION OF EXISTING EQUIPMENT IS INDICATED, PROVIDE AND MAINTAIN ALL TEMPORARY FEEDERS, CONNECTIONS, CIRCUIT PROTECTION, AND ANY OTHER MATERIALS AND APPURTENANCES REQUIRED TO MAINTAIN SERVICES TO OCCUPIED AREAS.
4. NO WORK SHALL BE LEFT INCOMPLETE, NOR ANY HAZARDOUS SITUATION CREATED, WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS. AT NO TIME SHALL THE WORK INTERFERE WITH OR CUT OFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S PRIOR WRITTEN PERMISSION.
5. THE OWNER RESERVES THE RIGHT TO OPERATE ALL EXISTING ELECTRICAL AND MECHANICAL EQUIPMENT NOT INCLUDED IN THIS WORK, AND TO PERFORM ALL REQUIRED SERVICING AND REPAIRS TO SAME, AT ALL TIMES.
6. IT IS REQUIRED THAT THE WORK INDICATED AND/OR SPECIFIED SHALL BE CARRIED OUT WITH A MINIMUM OF INTERFERENCE TO THE ESTABLISHED OPERATIONS OF THE BUILDING.
7. REMOVE, ABANDON, REROUTE, OR RELOCATE ANY CONDUIT, WIRING, LIGHTING FIXTURES, OUTLETS, AND OTHER ELECTRICAL ITEMS, WHICH ARE LAID BARE IN THE COURSE OF, OR INTERFERE WITH, THE ALTERATIONS. REMOVE ALL EXPOSED OUTLETS, CONDUIT, AND BRANCH CIRCUIT WORK, WHICH INTERFERE WITH THE ALTERATIONS.
8. IT IS THE INTENTION OF THESE SPECIFICATIONS TO PROVIDE FOR THE CONTINUANCE OF ALL ELECTRICAL SERVICES PRESENTLY INSTALLED IN THE UNALTERED AREAS. PROVIDE ALL CONDUIT, WIRING, AND DEVICES NECESSARY TO MAINTAIN SERVICES TO THESE AREAS.
9. COMPARE THE PLANS WITH THE EXISTING CONDITIONS TO DETERMINE THE AMOUNT OF WORK AFFECTED. REMOVE ALL UNUSED EXPOSED CIRCUIT WORK, OUTLETS, FIXTURES AND THE LIKE NOT REQUIRED BY THE ALTERATIONS.
10. ALL MATERIALS REQUIRED TO BE REMOVED AND NOT REINSTALLED UNDER THIS DIVISION OF THE WORK, UNLESS OTHERWISE INDICATED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE SITE.
11. WHERE FEEDERS AND BRANCH CIRCUITS OR DEVICES AND EQUIPMENT ARE INDICATED TO BE REMOVED, CONDUCTORS AND CABLES SHALL BE COMPLETELY REMOVED BACK TO THEIR SOURCE. EXPOSED OR ACCESSIBLE CONDUITS SHALL BE REMOVED COMPLETELY. CONDUITS EMBEDDED IN CONCRETE OR MASONRY SHALL BE CUT OFF FLUSH AND THE SURFACE PATCHED SMOOTH AND LEVEL.
12. WHERE DEVICES AND/OR EQUIPMENT ARE INDICATED TO BE RELOCATED, CONDUCTORS AND RACEWAY SHALL BE EXTENDED TO THE NEW LOCATION AND RECONNECTED TO PROVIDE A COMPLETE WORKING SYSTEM. IF THERE ARE ASSOCIATED DEVICES WITH THE RELOCATED EQUIPMENT THEY SHALL BE RELOCATED AS WELL, UNLESS OTHERWISE NOTED, AND CONNECTED INTO THE SYSTEM.
13. REMOVED MATERIALS SHALL BE DISPOSED OF USING LICENSED CARTING SERVICE.
14. HAZARDOUS MATERIALS - CONTAINING PCB'S (BALLASTS), AND THE LIKE SHALL BE DISPOSED OF BY AN EPA APPROVED, LICENSED DISPOSAL SERVICE. CONTRACTOR SHALL OBTAIN AND HAVE ON FILE, AFFIDAVIT, AND RECEIPTS STATING HOW AND WHERE THE WASTE WAS DISPOSED OF OR CONVERTED.
15. CONTRACTOR SHALL REMOVE ALL ELECTRICAL EQUIPMENT IN OR ON WALLS THAT ARE TO BE REMOVED - MAINTAIN CONTINUITY OF ALL EXISTING BRANCH CIRCUITRY TO EXISTING ROOMS NOT BEING RENOVATED. REWIRE ALL EXISTING BRANCH CIRCUITS (THAT ARE TO REMAIN) AS REQUIRED. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS FOR WALLS BEING REMOVED - REFER TO CONSTRUCTION SCHEDULE FOR TIME DELAY.
16. CONDUIT IN EXISTING OR NEW CEILINGS THAT IS NOT INTENDED FOR REUSE SHALL BE REMOVED BACK TO THE PANEL FROM WHICH IT ORIGINATES.
17. CONDUCTORS THAT ARE NOT DEEMED REUSABLE SHALL BE REMOVED BACK TO THE NEAREST JUNCTION BOX. WIRE THE ENTIRE CIRCUIT IS TO BE REMOVED, THE CONDUCTORS SHALL BE REMOVED BACK TO THE PANELBOARD FROM WHICH THEY ORIGINATE.
18. OUTAGES OF EXISTING ELECTRICAL (LIGHTING, POWER, AND SIGNAL) SYSTEMS NECESSITATED BY WORK OF ALL TRADES SHALL BE IN ACCORDANCE WITH FIELD SCHEDULES BY THE GENERAL CONTRACTOR AND OWNER - INCLUDE ALL ELECTRIC WORK OVERTIME AND SUPERVISION TO COMPLY - CONTRACTOR SHALL OBTAIN OWNER'S GENERAL CONTRACTOR'S APPROVAL. PRIOR TO DISRUPTING EXISTING ELECTRICAL SYSTEM.
19. CONTRACTOR TO MAINTAIN CONTINUITY AND ACCESSIBILITY OF ALL EXISTING SYSTEMS AND SYSTEM EQUIPMENT FEEDERS WHICH MAY BE DISRUPTED FOR WORK OF ANY TRADE.
20. CONTRACTOR TO MAINTAIN CONTINUITY AND ACCESSIBILITY OF ALL EXISTING ELECTRICAL (POWER, LIGHTING, AND SIGNAL) SYSTEMS, EQUIPMENT FEEDERS AND BRANCH CIRCUITS ON FLOORS OR AREAS THAT ARE NOT AFFECTED BY DEMOLITION OR NEW CONSTRUCTION - REFER TO CONSTRUCTION SCHEDULE FOR ADDITIONAL INFORMATION.
21. ANY EXISTING ELECTRICAL WORK WHICH IS PULLED OUT OR CUT AWAY SHALL BE REMOVED FROM THE SITE AS DIRECTED BY THE GENERAL CONTRACTOR AND THE OWNER.
22. EXISTING ELECTRICAL EQUIPMENTS WHICH IS NOT TO BE REUSED SHALL BE REMOVED FROM DRYWALL PARTITIONS. ANY OPENING IN EXISTING PARTITIONS LEFT BY REMOVAL OF EXISTING ELECTRICAL EQUIPMENT SHALL BE PATCHED BY THIS CONTRACTOR WITH MATERIALS TO MATCH EXISTING.
23. FOR PURPOSES OF THE CONTRACT, WHAT IS NOTED OR SHOWN ON DRAWINGS INDICATES THE SCOPE OF WORK REQUIRED AND QUALITY OF MATERIALS REQUIRED.
24. CONTRACTOR TO EXAMINE ALL CONTRACT DOCUMENTS AND PERFORM ALL DEMOLITION BOTH FOR AREAS BEING RENOVATED AND FOR AREAS WHICH MUST BE REWORKED TO PERMIT THE INSTALLATION OF WORK BY THE VARIOUS TRADES.
25. CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE EXTENT OF DEMOLITION AND REMOVALS PRIOR TO THE SUBMISSION OF BIDS. NO CONSIDERATION SHALL BE GIVEN FOR FAILURE TO VISIT THE SITE.
26. CONTRACTOR SHALL UTILIZE ALL THE BREAKERS IN THE EXISTING PANELS THAT BECOME AVAILABLE WHEN BRANCH CIRCUITS ASSOCIATED WITH THEM ARE DISCONNECTED AND REMOVED DUE TO DEMOLITION OF THE ELECTRICAL WORK.

LIGHTING CONTROL SEQUENCE OF OPERATIONS		
SPACE TYPE	LIGHTING CONTROL STRATEGY	DETAIL / DRAWING
LOCKER ROOM LIGHTING	LOCKER ROOM LIGHTING SHALL BE CONTROLLED BY EITHER A WALL SWITCH OCCUPANCY SENSOR (AUTOMATIC ON / AUTOMATIC OFF AFTER 30 MINUTES), OR A LOW VOLTAGE SWITCH(ES) AND OCCUPANCY SENSOR(S) (AUTOMATIC ON / AUTOMATIC OFF AFTER 30 MINUTES). LOW VOLTAGE SWITCH SHALL NOT ALLOW THE OCCUPANT TO MANUALLY TURN OFF THE LIGHTING FIXTURES WITHIN THE SPACE. REFER TO THE RCPS FOR CONTROL TYPE.	4 / E-6.1
CLOSET, STORAGE, AND MISC. ROOM LIGHTING	STORAGE, CLOSET, AND ALL OTHER MISC. ROOM LIGHTING SHALL BE CONTROLLED BY EITHER A WALL SWITCH VACANCY SENSOR (MANUAL ON / AUTOMATIC OFF AFTER 30 MINUTES) AND VACANCY SENSOR(S) (MANUAL ON / AUTOMATIC OFF AFTER 30 MINUTES). REFER TO THE RCPS FOR CONTROL TYPE.	4 / E-6.1
HALL LIGHTING	HALL LIGHTING SHALL BE CONTROLLED BY AN OCCUPANCY SENSOR(S) (AUTOMATIC ON / AUTOMATIC OFF AFTER 30 MINUTES).	4 / E-6.1

LIGHTING FIXTURE NOTES
1. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL LIGHTING FIXTURES COMPLETE WITH MOUNTING HARDWARE, LAMPS, DRIVERS, TRANSFORMERS, ETC.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS AND ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL LIGHT FIXTURES.
3. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL CEILING TYPES AND/OR COORDINATE ALL FIXTURE TRIMS PRIOR TO PURCHASE OF LIGHT FIXTURES.
4. WHERE DRIVERS AND CONTROL MODULES ARE TO BE MOUNTED REMOTE FROM FIXTURE, CONTRACTOR SHALL PROVIDE ALL CONDUIT, WIRE, BOXES AND MOUNTING HARDWARE FOR SUCH EQUIPMENT. CONTRACTOR SHALL COORDINATE LOCATION WITH FINISHES AND MILLWORK IN SPACE. SUCH REMOTE MOUNTED EQUIPMENT SHALL BE NOTED ON SUBMITTAL AND PROPOSED LOCATION INDICATED ON MARKED-UP LAYOUT DRAWING FOR REVIEW BY ARCHITECT AND ENGINEER.

LIGHTING CONTROL NOTES
1. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL ALL LIGHTING FIXTURES, LIGHTING CONTROL DEVICES, LOW-VOLTAGE & 120V WIRING, RACEWAYS, TRANSFORMERS, ETC. REFER TO LIGHTING LIGHTING FIXTURE SCHEDULE AND LIGHTING CONTROL DIAGRAMS FOR ALL REQUIREMENTS AND SPECIFICATIONS ON LIGHT FIXTURES, EQUIPMENT, DEVICES AND WIRING TO BE PROVIDED.
2. FIXTURES DESIGNATED FOR USE AS EMERGENCY LIGHTING SHALL BE PROVIDED WITH ALL CONTROLS AND WIRING NECESSARY FOR AUTOMATIC ACTIVATION UPON LOSS OF POWER TO LIGHTING SERVING THE AREA. THE CONTROL MECHANISMS FOR ALL EMERGENCY LIGHTING FIXTURES SHALL BE ACCESSIBLE FROM FLOOR FOR MAINTENANCE, TESTING, AND VISUAL INDICATION OF STATUS OF EMERGENCY SYSTEM OPERATION. THE LOCATION OF SUCH DEVICES SHALL BE COORDINATED WITH THE ARCHITECT AND ENGINEER PRIOR TO INSTALLATION. SUBMIT LAYOUT DRAWING FOR REVIEW.

LIGHTING FIXTURE SCHEDULE					
TYPE	LAMP	VOLTAGE	LUMENS	MOUNTING	DESCRIPTION
	LED	120/277V	-	CEILING SURFACE	EDGE LIT LED EXIT SIGN, ALUMINUM HOUSING, RED STANDARD LETTER COLOR, MIRROR BACKGROUND, PROVIDE CHEVRONS AND SINGLE OR DOUBLE FACE AS INDICATED ON RCP, BATTERY BACKUP EVENLITE SOVEREIGN #SOV
	LED	120/277V	-	WALL SURFACE	EDGE LIT LED EXIT SIGN, ALUMINUM HOUSING, RED STANDARD LETTER COLOR, MIRROR BACKGROUND, SINGLE FACE, PROVIDE CHEVRONS AS INDICATED ON RCP, BATTERY BACKUP EVENLITE SOVEREIGN #SOV
A1	5.5W / FT LED	120/277V	650 LM / FT	CEILING SURFACE	4' FIXTURE, 3000K, MEDIUM OUTPUT, SATIN ACRYLIC SHIELDING, TEXTURED MATTE WHITE, T-BAR EXPOSED, 10% 0-10V DIMMING, #EMH BATTERY WHERE IDENTIFIED ON DRAWINGS PRUDENTIAL LIGHTING #AERO-LED3-MO-4'-SAL-TMW-UNV-SUR-X1-DM10
A2	5.5W / FT LED	120/277V	650 LM / FT	CEILING SURFACE	6' FIXTURE, 3000K, MEDIUM OUTPUT, SATIN ACRYLIC SHIELDING, TEXTURED MATTE WHITE, T-BAR EXPOSED, 10% 0-10V DIMMING, #EMH BATTERY WHERE IDENTIFIED ON DRAWINGS PRUDENTIAL LIGHTING #AERO-LED3-MO-6'-SAL-TMW-UNV-SUR-X1-DM10
B1	11W LED	120/277V	750 LM	CEILING RECESSED	6" SHALLOW ROUND DOWNLIGHT, 0-10V DIMMING, 93+ CRI, 3000K, SMOOTH STYLE, WHITE FINISH DMF LIGHTING #ORDH-N-IC-6S-70/DRD2M-7-9-30-A/DRD2T-R-6-S-WH
C1	8W / FT LED	120V	533 LM / FT	CEILING RECESSED	2' WALL WASH FIXTURE, 6" APERTURE, STANDARD OUTPUT, 3000K, TELESCOPING END, 0-10V DIMMING, RECESSED WALL TO WALL, ADJUSTMENT TRIM, GYP OR GRID FLAQUE, WHITE GAMMALUX LIGHTING #GPCAR6N-1SOLED30T-120V-ZTVL-2-N-RECWIAT/GFW-OP-WH
C2	8W / FT LED	120V	533 LM / FT	CEILING RECESSED	3' WALL WASH FIXTURE, 6" APERTURE, STANDARD OUTPUT, 3000K, TELESCOPING END, 0-10V DIMMING, RECESSED WALL TO WALL, ADJUSTMENT TRIM, GYP OR GRID FLAQUE, WHITE GAMMALUX LIGHTING #GPCAR6N-1SOLED30T-120V-ZTVL-3-N-RECWIAT/GFW-OP-WH
C3	8W / FT LED	120V	533 LM / FT	CEILING RECESSED	5' WALL WASH FIXTURE, 6" APERTURE, STANDARD OUTPUT, 3000K, TELESCOPING END, 0-10V DIMMING, RECESSED WALL TO WALL, ADJUSTMENT TRIM, GYP OR GRID FLAQUE, WHITE GAMMALUX LIGHTING #GPCAR6N-1SOLED30T-120V-ZTVL-5-N-RECWIAT/GFW-OP-WH
C4	8W / FT LED	120V	533 LM / FT	CEILING RECESSED	6' WALL WASH FIXTURE, 6" APERTURE, STANDARD OUTPUT, 3000K, TELESCOPING END, 0-10V DIMMING, RECESSED WALL TO WALL, ADJUSTMENT TRIM, GYP OR GRID FLAQUE, WHITE GAMMALUX LIGHTING #GPCAR6N-1SOLED30T-120V-ZTVL-6-N-RECWIAT/GFW-OP-WH
C5	8W / FT LED	120V	533 LM / FT	CEILING RECESSED	7' WALL WASH FIXTURE, 6" APERTURE, STANDARD OUTPUT, 3000K, TELESCOPING END, 0-10V DIMMING, RECESSED WALL TO WALL, ADJUSTMENT TRIM, GYP OR GRID FLAQUE, WHITE GAMMALUX LIGHTING #GPCAR6N-1SOLED30T-120V-ZTVL-7-N-RECWIAT/GFW-OP-WH
D1	24W LED	120/277V	3,000 LM	CEILING RECESSED	2' X 4' FIXTURE, FLAT WHITE STEEL DOOR, A12 .095 HP SHIELDING, 3000K, 10% 0-10V DIMMING, 1 DRIVER, #EL14W BATTERY WHERE IDENTIFIED ON DRAWINGS METALUX LIGHTING #24GR-LD5-30-F1-UNV-L830-CD-1
D2	20W LED	120/277V	2,400 LM	CEILING RECESSED	2' X 2' FIXTURE, FLAT WHITE STEEL DOOR, A12 .095 HP SHIELDING, 3000K, 10% 0-10V DIMMING, 1 DRIVER, #EL14W BATTERY WHERE IDENTIFIED ON DRAWINGS METALUX LIGHTING #22GR-LD5-24-F1-UNV-L830-CD-1
D3	24W LED	120/277V	2,400 LM	CEILING RECESSED	1' X 4' FIXTURE, FLAT WHITE STEEL DOOR, A12 .095 HP SHIELDING, 3000K, 10% 0-10V DIMMING, 1 DRIVER, #EL14W BATTERY WHERE IDENTIFIED ON DRAWINGS METALUX LIGHTING #14GR-LD5-24-F1-UNV-L830-CD-1

RFP 6320



93 Lake Avenue, Danbury, CT 06810
203.778.1017 F 203.778.1018
171 Madison Avenue,
New York, NY 10016
212.695.2422 F 212.695.2423
www.kohlerroman.com
E-mail krce@kohlerroman.com

INTERIOR RENOVATION TO THE
TRUMBULL POLICE
DEPARTMENT
158 EDISON ROAD
TRUMBULL, CONNECTICUT

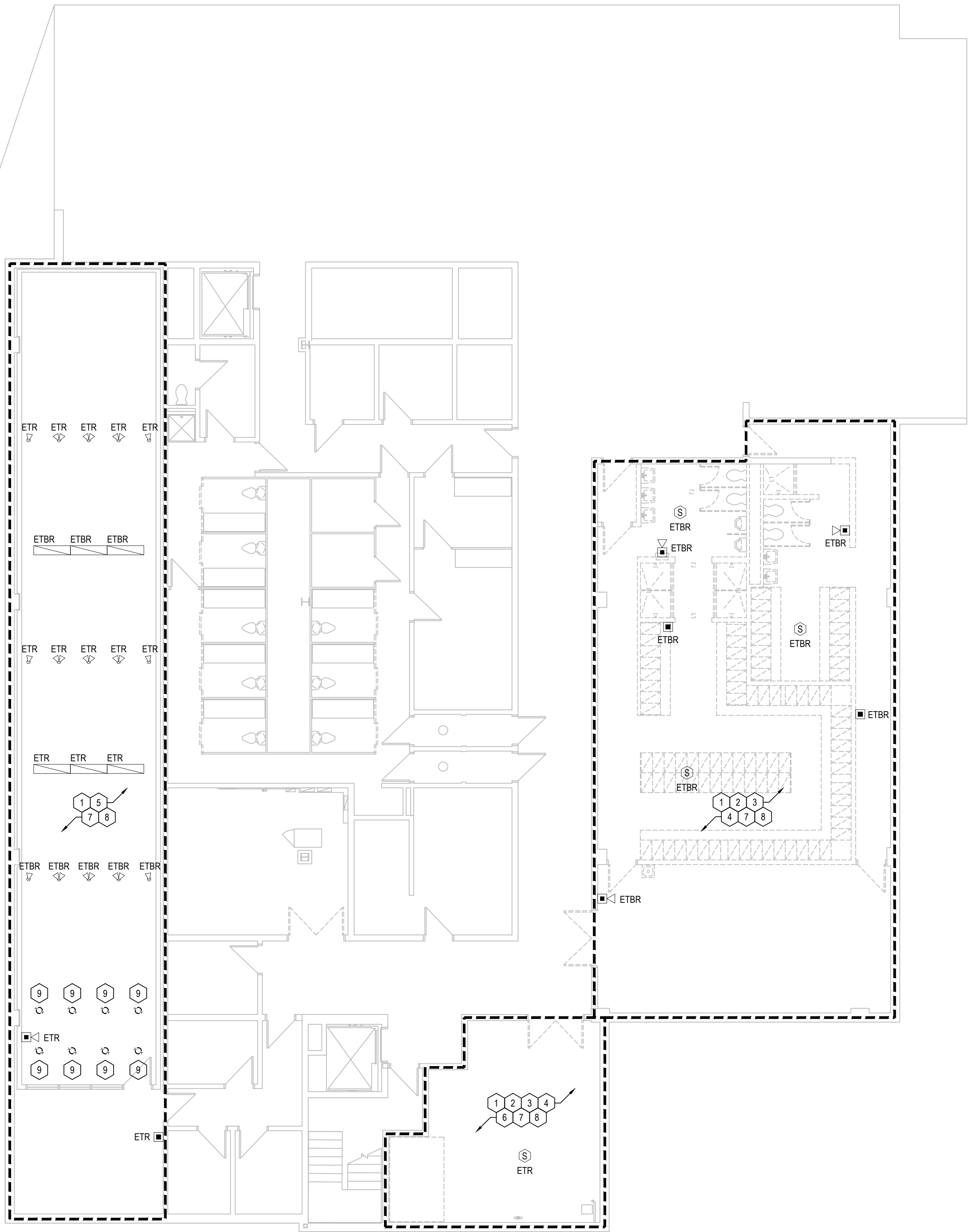


JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

LIGHTING FIXTURE
SCHEDULE -
ELECTRICAL

PROJ. NO. JH1828	DRAWING NO.
SCALE As Noted	E-0.2
DATE NOVEMBER 8, 2018	



DEMOLITION KEY NOTES

- 1 REFER TO ARCHITECTURAL DRAWINGS FOR EXACT EXTENT OF DEMOLITION WORK.
- 2 DISCONNECT AND REMOVE ALL EXISTING INTERIOR LIGHTING FIXTURES, CONTROLS, AND BACKBOXES. DISCONNECT EXISTING ASSOCIATED CONDUIT AND WIRING AND COIL IN CEILING FOR FUTURE REUSE (TYPICAL FOR ALL AREAS).
- 3 DISCONNECT AND REMOVE ALL EXISTING RECEPTACLES, BACKBOXES, CONDUIT AND WIRING BACK TO PANELBOARD (TYPICAL FOR ALL AREAS, U.O.N.).
- 4 DISCONNECT AND REMOVE ALL EXISTING TELEPHONE/DATA OUTLETS, JUNCTION BOXES, RACEWAYS AND WIRING BACK TO TELECOMMUNICATIONS BACKBOARD (TYPICAL FOR ALL AREAS). COORDINATE CABLE REMOVAL WITH OWNER.
- 5 DISCONNECT AND REMOVE ALL FINAL CONNECTIONS, DISCONNECT SWITCHES, OUTLETS, CONDUIT AND WIRING FOR HVAC EQUIPMENT BACK TO PANELBOARD (TYPICAL FOR ALL EQUIPMENT TO BE REMOVED).
- 6 DISCONNECT AND REMOVE ALL EXISTING HARDWIRED FIRE ALARM DEVICES, BACKBOXES, CONDUIT AND WIRING BACK TO RESPECTIVE FIRE ALARM TERMINAL CABINET OR NEXT ETR UPSTREAM DEVICE. SMOKE DETECTORS SHALL BE REMOVED PRIOR TO OTHER DEMOLITION SCOPE. (TYPICAL FOR ALL AREAS, U.O.N.).
- 7 PROVIDE TEMPORARY HEAT DETECTORS AND WIRING CONNECTED TO THE EXISTING FIRE ALARM SYSTEM DURING CONSTRUCTION. UPON COMPLETION OF NEW WORK, HEAT DETECTORS SHALL BE TURNED OVER TO OWNER.
- 8 MAINTAIN/RECONNECT ALL EXISTING BRANCH CIRCUIT WIRING DISTURBED DURING CONSTRUCTION BUT OUTSIDE OF NEW CONSTRUCTION AREA.
- 9 DISCONNECT AND REMOVE EXISTING INTERIOR LIGHTING FIXTURE AND BACKBOX. DISCONNECT EXISTING ASSOCIATED CONDUIT AND WIRING AND COIL IN CEILING FOR FUTURE REUSE.

RFP 6320



93 Lake Avenue, Danbury, CT 06810
203.778.1017 F 203.778.1018
171 Madison Avenue,
New York, NY 10016
212.695.2422 F 212.695.2423
www.kohler-ronan.com
E-mail krce@kohler-ronan.com

INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
158 EDISON ROAD
TRUMBULL, CONNECTICUT



**JACUNSKI HUMES
ARCHITECTS, LLC**

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

**LOWER LEVEL
DEMOLITION
FLOOR PLAN -
ELECTRICAL**

DEMOLITION KEY NOTES

- 1

REFER TO ARCHITECTURAL DRAWINGS FOR EXACT EXTENT OF DEMOLITION WORK.
- 2

DISCONNECT AND REMOVE ALL FINAL CONNECTIONS, DISCONNECT SWITCHES, AND WIRING SERVING HVAC EQUIPMENT BACK TO SOURCE. DISCONNECT CONDUIT. CONDUIT SHALL BE REUSED FOR NEW EQUIPMENT.

RFP 6320

K

R

KOHLER ROMAN, LLC

COMMERCIAL DIVISION

93 Lake Avenue, Danbury, CT 06810

203.778.1017 F 203.778.1018

171 Madison Avenue,

New York, NY 10016

212.695.2422 F 212.695.2423

www.kohlerroman.com

E-mail krce@kohlerroman.com

INTERIOR RENOVATION TO THE
**TRUMBULL POLICE
DEPARTMENT**
158 EDISON ROAD
TRUMBULL, CONNECTICUT

JH

JH

JH

JH

JACUNSKI HUMES

ARCHITECTS, LLC

15 MASSIRIO DRIVE

SUITE 101

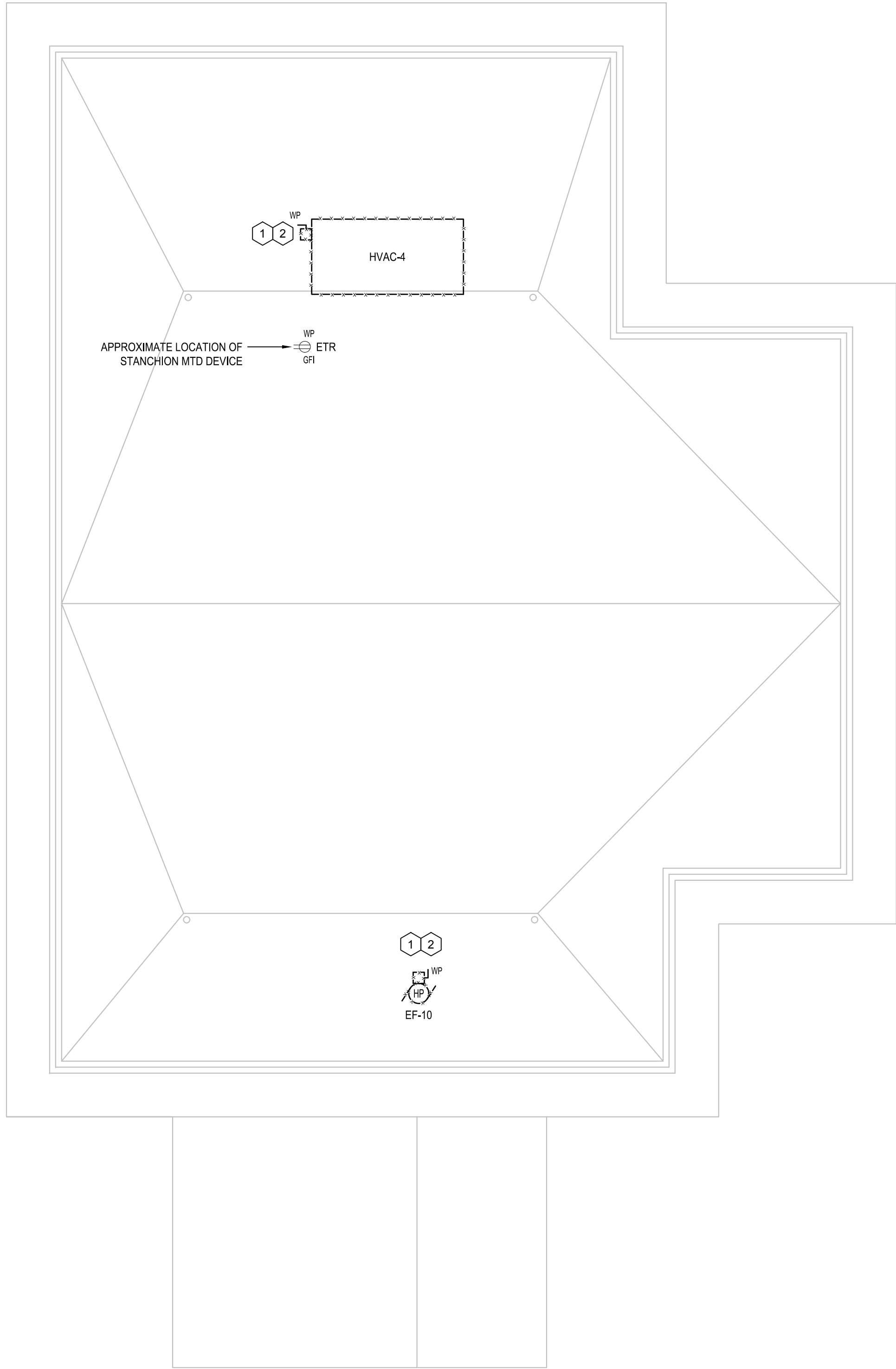
BERLIN, CT 06037

TEL 860-828-9221

FAX 860-828-9223

**ROOF DEMOLITION
PLAN - ELECTRICAL**

PROJ. NO.	JH1828	DRAWING NO.
SCALE	As Noted	ED-1.2
DATE	NOVEMBER 8, 2018	



1 ROOF DEMOLITION PLAN
ED-1.2 Scale: 1/8"=1'-0"

NOTES	
1.	EXTEND EXISTING FIRE ALARM BRANCH CIRCUITS TO EXISTING RELOCATED FIRE ALARM DEVICES. EXTEND EXISTING NEARBY FIRE ALARM BRANCH CIRCUITS TO NEW FIRE ALARM DEVICES. PROVIDE ALL NECESSARY HARDWARE AND PROGRAMMING (TYP FOR ALL FIRE ALARM DEVICES).
2.	REPLACE EXISTING 175A/3P CIRCUIT BREAKER LABELED "SPARE" IN NORMAL DISTRIBUTION SECTION OF MDP WITH 175SP CIRCUIT BREAKER TO ENERGIZE MAJ-1. CIRCUIT BREAKER SHALL BE COMPATIBLE WITH EXISTING SWITCHBOARD. CONNECT WITH 3#20 + #6G -2'C.
3.	PANELBOARD CIRCUIT NUMBERS ARE NOT TO INDICATE ACTUAL AVAILABLE CIRCUIT NUMBERS IN THE PANELBOARD, BUT SHOULD BE USED TO DELINEATE BETWEEN CIRCUITS. E.C. SHALL FIELD VERIFY AVAILABLE CIRCUITS AND UPDATE ALL PANELBOARD DIRECTORIES.
4.	PROVIDE 20A/1P GFCI CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD (TYP FOR BRANCH CIRCUITS A/1 THROUGH A/12).
5.	ALL BRANCH CIRCUITS SHALL BE 2#12 + G - 3/4" C. U.O.N.
6.	PROVIDE 20A/1P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD (TYP FOR ALL BRANCH CIRCUITS, U.O.N.).
7.	PROVIDE 60A/3P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD. CONNECT WITH 3#4 + #10G - 1-1/4'C.

K

93 Lake Avenue, Danbury, CT 06810
203.778.1017 F 203.778.1018

171 Madison Avenue,
New York, NY 10016
212.695.2422 F 212.695.2423

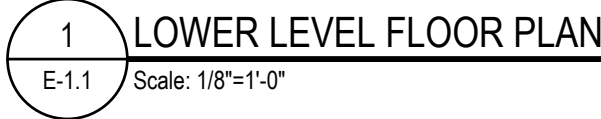
www.kohleron.com
E-mail krc@kohleron.com

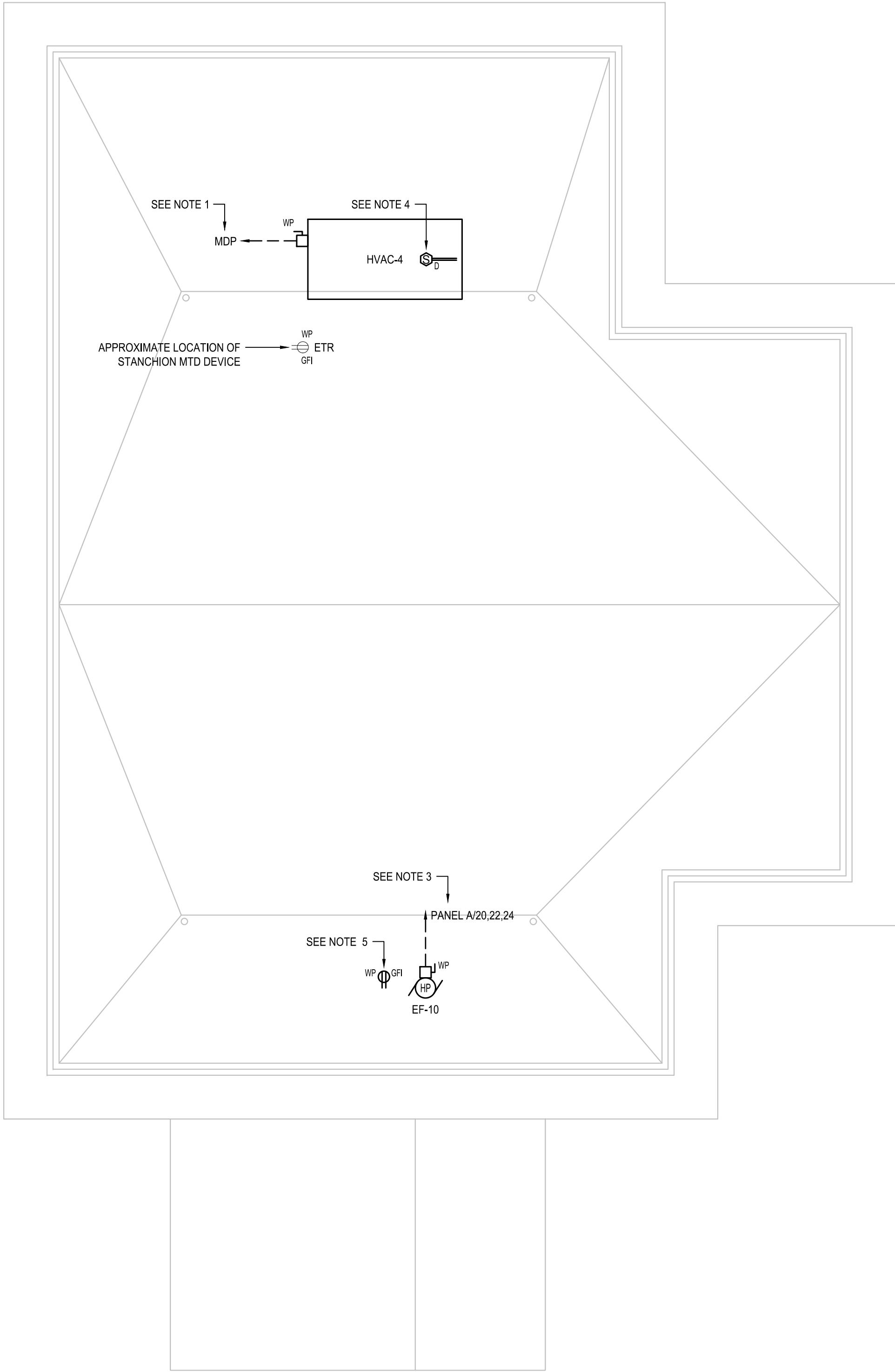
KOHLER RONAN, LLC
CONSULTING ENGINEERS

JHI
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

PROJ. NO. JH1828	DRAWING NO.
SCALE As Noted	<i>E-1.1</i>
DATE NOVEMBER 8, 2018	





- NOTES
1.

REPLACE EXISTING 125A/3P CIRCUIT BREAKER LABELED "BASEMENT A/C" IN NORMAL DISTRIBUTION SECTION OF MDP WITH 150/3P CIRCUIT BREAKER TO ENERGIZE HVAC-4. CIRCUIT BREAKER SHALL BE COMPATIBLE WITH EXISTING SWITCHBOARD. CONNECT WITH 3#1/0 + #6G. REUSE EXISTING CONDUIT PREVIOUSLY SERVING REMOVED UNIT. EXTEND CONDUIT AS REQUIRED.
2.

PANELBOARD CIRCUIT NUMBERS ARE NOT TO INDICATE ACTUAL AVAILABLE CIRCUIT NUMBERS IN THE PANELBOARD, BUT SHOULD BE USED TO DELINEATE BETWEEN CIRCUITS. E.C. SHALL FIELD VERIFY AVAILABLE CIRCUITS AND UPDATE ALL PANELBOARD DIRECTORIES.
3.

PROVIDE 20A/3P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD. CONNECT WITH 3#12 + G. REUSE EXISTING CONDUIT PREVIOUSLY SERVING REMOVED FAN. EXTEND CONDUIT AS REQUIRED.
4.

EXTEND EXISTING FIRE ALARM BRANCH CIRCUIT ON FLOOR BELOW TO NEW FIRE ALARM DEVICE. PROVIDE ALL NECESSARY HARDWARE AND PROGRAMMING.
5.

RECEPTACLE SHALL BE ENERGIZED BY EXISTING NEARBY BRANCH CIRCUIT SERVING CORRIDOR ON FLOOR BELOW. EXTEND CONDUIT AND WIRE AS REQUIRED.

K
R

KOHLER ROMAN, LLC
COMMERCIAL DIVISION

93 Lake Avenue, Danbury, CT 06810
203.778.1017 F 203.778.1018

171 Madison Avenue,
New York, NY 10016
212.695.2422 F 212.695.2423

www.kohlerroman.com
E-mail krce@kohlerroman.com

INTERIOR RENOVATION TO THE

TRUMBULL POLICE
DEPARTMENT

158 EDISON ROAD

TRUMBULL, CONNECTICUT

J J H
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

ROOF PLAN -
ELECTRICAL

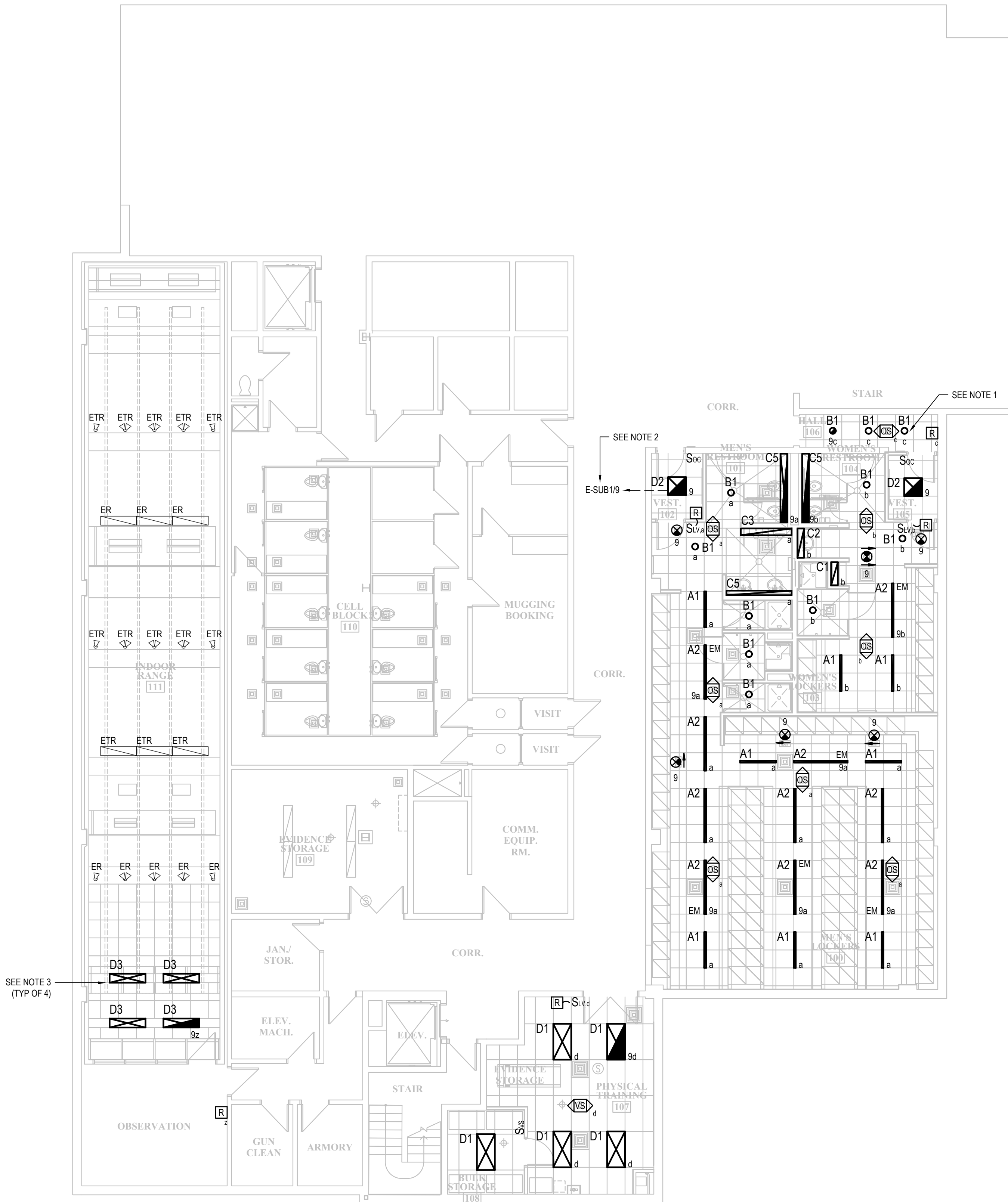
PROJ. NO.	JH1828	DRAWING NO.
SCALE	As Noted	E-1.2
DATE	NOVEMBER 8, 2018	

1 ROOF PLAN

E-1.2 Scale: 1/8"=1'-0"

NOTES

1. EXTEND EXISTING COILED LIGHTING BRANCH CIRCUITS TO NEW LIGHTING FIXTURE (TYP FOR ALL, U.O.N.).
2. PROVIDE 20A/1P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD, CONNECT WITH 2#12 - G - 3/4". UPDATE PANELBOARD DIRECTORY (TYP FOR ALL BRANCH CIRCUITS, U.O.N.).
3. EXTEND EXISTING COILED LIGHTING BRANCH CIRCUITS TO NEW LIGHTING FIXTURE. NEW LIGHTING FIXTURE SHALL BE CONTROLLED AS PER PREVIOUS LIGHTING FIXTURE. CONTROLS ARE EXISTING TO REMAIN (TYP FOR ALL, U.O.N.).



RFP 6320



INTERIOR RENOVATION TO THE

TRUMBULL POLICE
DEPARTMENT

TRUMBULL, CONNECTICUT

158 EDISON ROAD

JHH
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

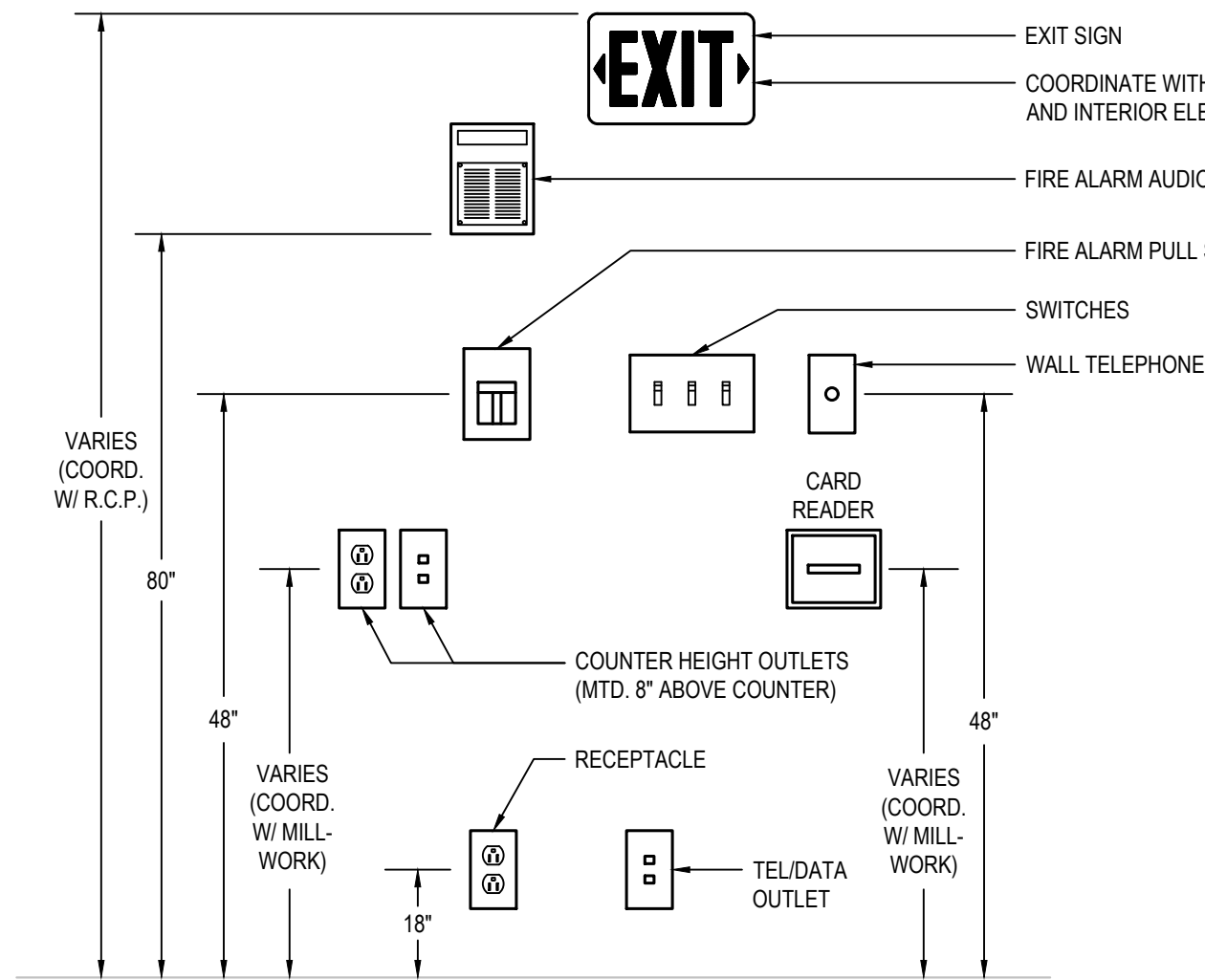
LOWER LEVEL
REFLECTED
CEILING PLAN -
LIGHTING

PROJ. NO.
JH1828
SCALE
As Noted
DATE
NOVEMBER 8, 2018

DRAWING NO.

E-2.1

1 LOWER LEVEL REFLECTED CEILING PLAN
E-2.1 Scale: 1/8"=1'-0"



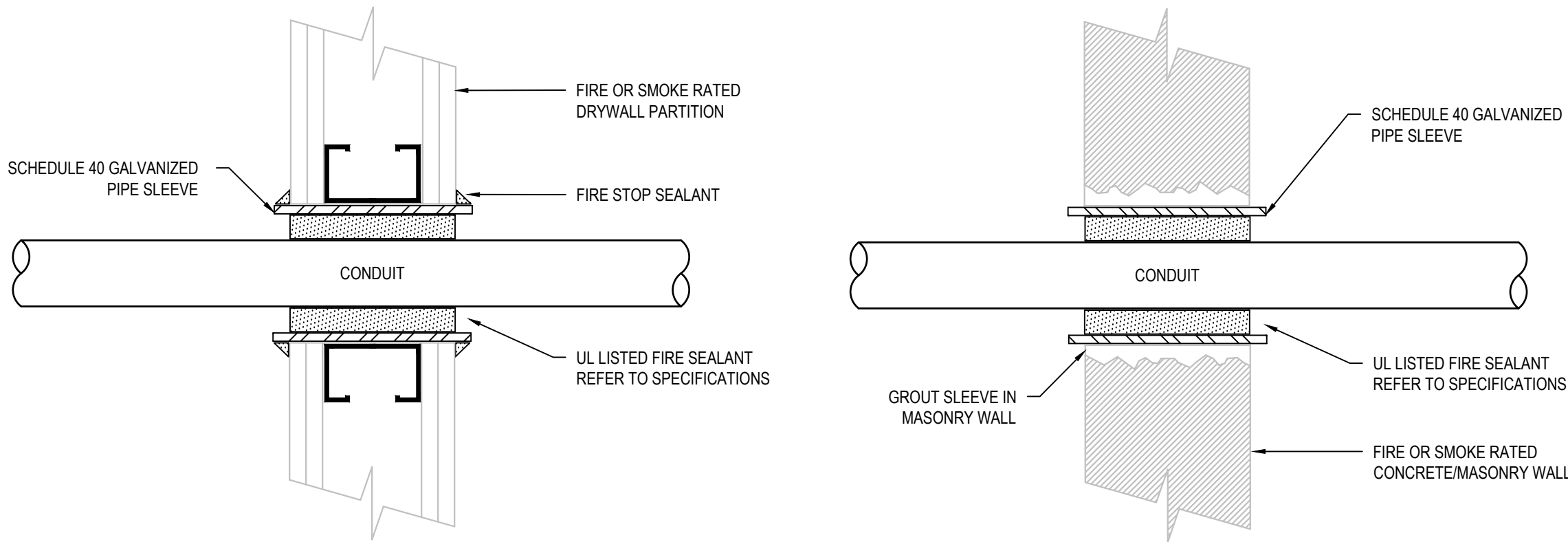
- NOTES:
1. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION AND MOUNTING HEIGHT OF ALL DEVICES.
 2. ALL MOUNTING HEIGHTS SHALL BE MEASURED FROM FIN. FLOOR TO CENTERLINE OF DEVICE (EXCEPT FOR EXIT SIGNS AND FIRE ALARM AUDIO/VISUAL DEVICES).
 3. DEVICES SHALL BE INSTALLED ON A COMMON VERTICAL CENTERLINE WHEREVER POSSIBLE.
 4. ALL DEVICES SHALL BE INSTALLED AT THE MOUNTING HEIGHTS INDICATED ON THIS DETAIL, UNLESS OTHERWISE NOTED. VERIFY ADA REQUIREMENTS PRIOR TO INSTALLATION OF ALL DEVICES.
 5. ALL WALL AND CEILING MOUNTED DEVICES SHALL BE LOCATED ACCORDING TO THE MANUFACTURERS INSTALLATION REQUIREMENTS AND RECOMMENDATIONS. THE OWNER AND THE ARCHITECT SHALL REVIEW THE FINAL ROOM LAYOUT FOR APPROVAL.

1 TYPICAL DEVICE MOUNTING HEIGHT DETAIL
E-6.1 SCALE: NONE

GENERAL NOTES:

PROVIDE UL LISTED FIRE/SMOKE PENETRATION ASSEMBLY IN ACCORDANCE W/ UL1479, ASTM E814 REQUIREMENTS FOR WALL TYPE, RATING, PIPE SIZE, INSTALLED.

FIRE STOPPING SHALL HAVE A RATING EQUAL TO OR GREATER THAN THE WALL BEING PENETRATED - SEE SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR WALL RATINGS AND LOCATIONS.



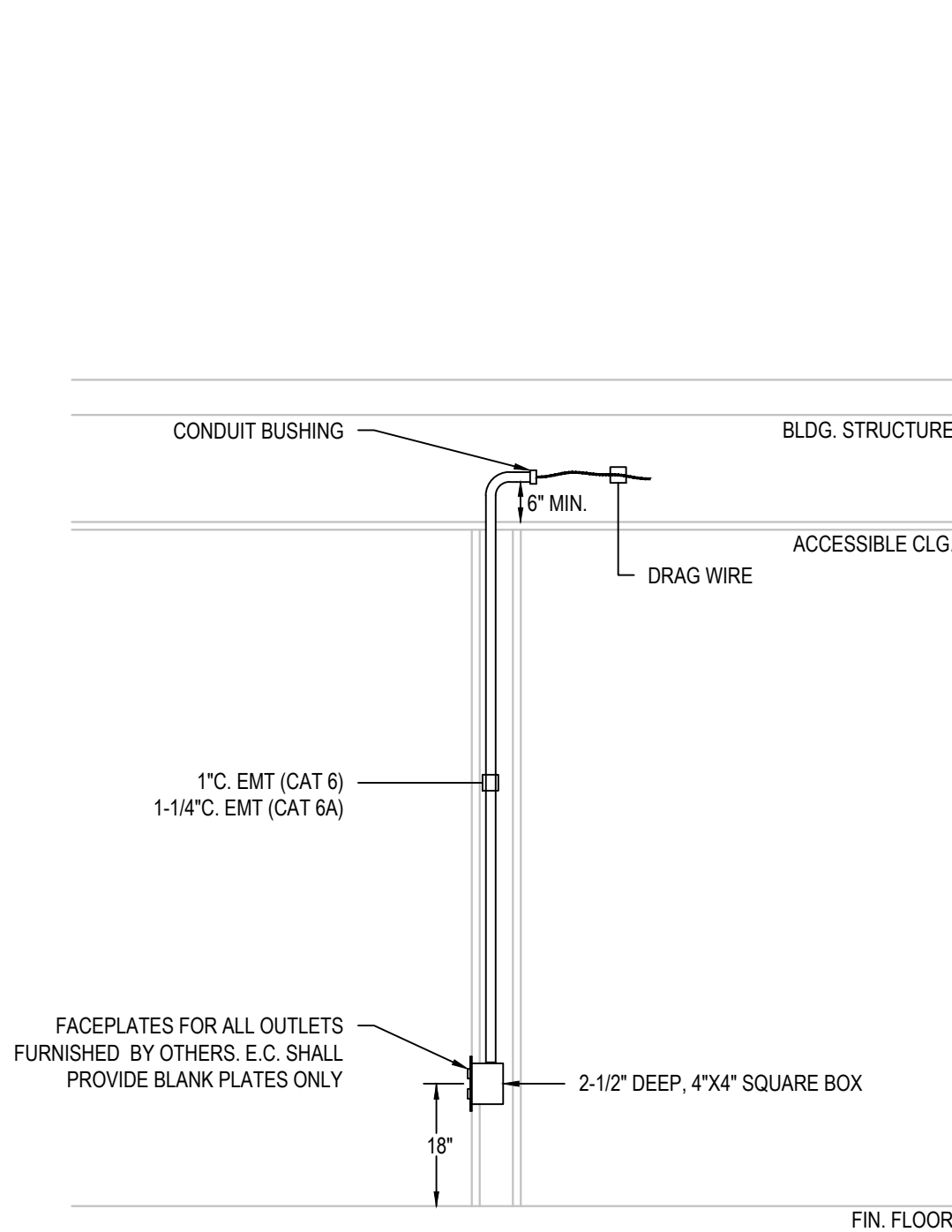
2 WALL PENETRATION W/ FIRE/SMOKE SEAL DETAIL
E-6.1 SCALE: NONE

NOTES

1. ALL LIGHTING CONTROL DEVICES ARE MANUFACTURED BY HUBBELL CONTROL SOLUTIONS. PROVIDE DEVICES SPECIFIED.
2. ELECTRICAL CONTRACTOR SHALL VERIFY QUANTITIES OF ALL DEVICES. NOT ALL DEVICES SHOWN ARE REQUIRED PER ROOM. REFER TO REFLECTED CEILING PLANS FOR ADDITIONAL DEVICES AND PROVIDE ACCORDINGLY. ALL ROOM CONTROLLERS SHALL BE LOCATED ABOVE ACCESSIBLE CEILINGS, DIRECTLY ABOVE SWITCHES.
3. PROVIDE ADDITIONAL 2 OUTPUT, 0-10V DIMMING ROOM CONTROLLERS AS REQUIRED TO SUPPORT ADDITIONAL LIGHTING ZONES OR DEVICES WITHIN A ROOM. A MAXIMUM OF 7 DEVICES SHALL BE ENERGIZED PER ROOM CONTROLLER. REFER TO REFLECTED CEILING PLANS FOR LIGHTING ZONES AND DEVICES.
4. LIGHTING ROOM CONTROLLER MAY BE PROGRAMMED FOR EITHER OCCUPANCY OR VACANCY MODE. REFER TO REFLECTED CEILING PLANS FOR CONTROL TYPE AND PROGRAM ACCORDINGLY.
5. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CAT5 CABLE WITH TERMINATION AS REQUIRED.
6. PROVIDE BLUETOOTH MODULE #NXBTR FOR PROGRAMMING.

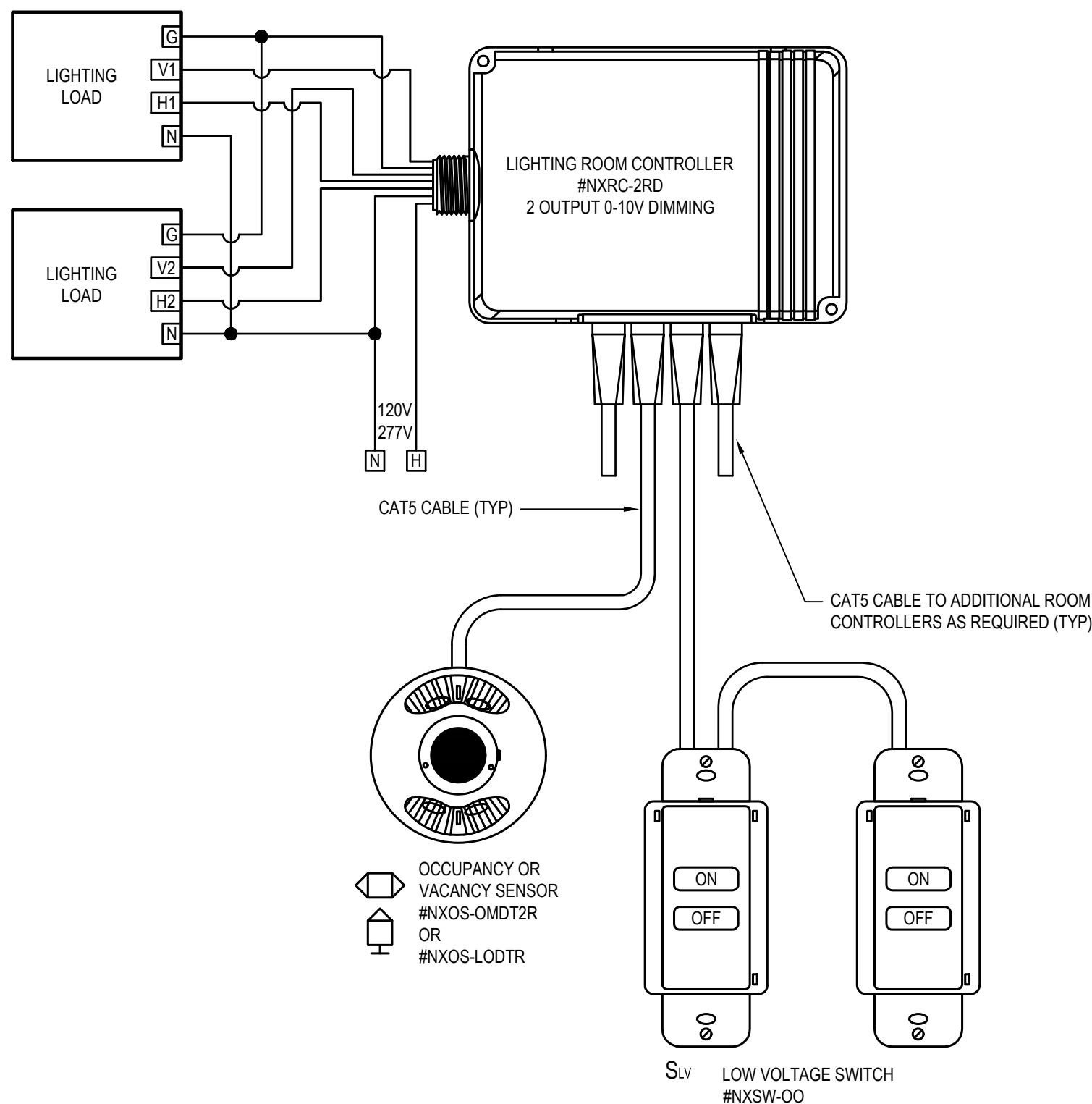
NOTES

1. CIRCUIT # 1 MONITOR THE 24 HOUR EMERGENCY PANEL POWER, ANY INTERRUPTION OF THE EMERGENCY POWER WILL GENERATE AN AUDIBLE ALARM AT THE EPC DEVICE (BY LVS).
2. CIRCUIT # 2 MONITORS UTILITY POWER AND PROVIDES POWER TO THE AUDIBLE DEVICE. ANY INTERRUPTION WILL CLOSE CONTACT X.
3. CIRCUIT # 3 SENSES WHEN ROOM SWITCH IS ON AND THEN CLOSES CONTACT X, PROVIDING POWER TO THE EMERGENCY LOAD.
4. (1) BYPASS RELAY SHALL BE PROVIDED PER LIGHTING ZONE WITH EMERGENCY LIGHTING FIXTURES. REFER TO REFLECTED CEILING PLANS FOR LIGHTING ZONES.
5. PROVIDE DIMMING BYPASS RELAY LVS #EPC-1-D FOR DIMMED LOADS.

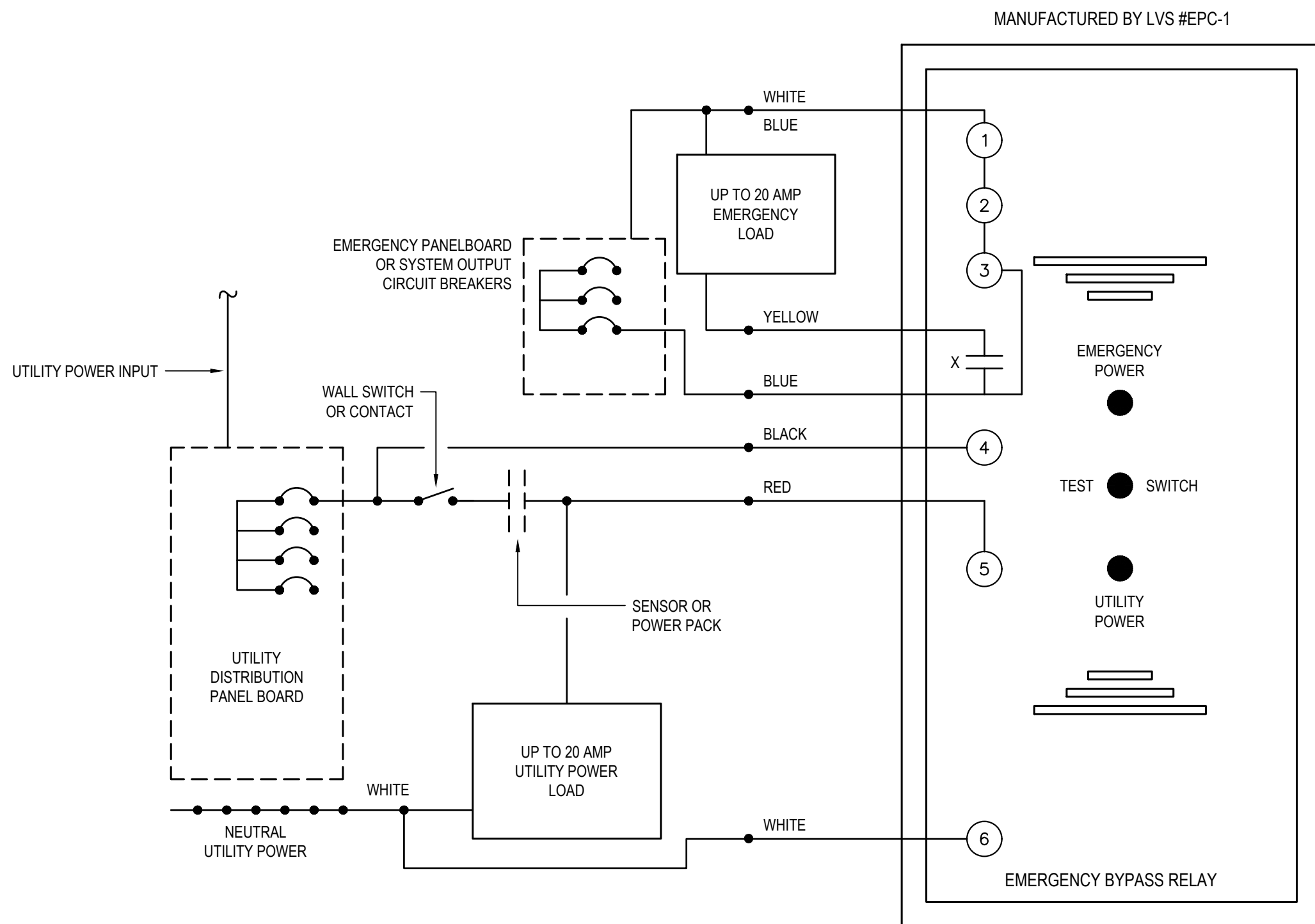


- NOTES:
1. REFER TO ARCHITECTURAL DRAWINGS FOR ALL BOX LOCATIONS AND COORDINATE WITH TELECOM VENDOR.

3 VOICE / DATA / AV OUTLET INSTALLATION DETAIL
E-6.1 SCALE: NONE



4 TYPICAL SWITCHED LIGHTING CONTROL DIAGRAM
E-6.1 SCALE: NONE



5 EMERGENCY LIGHTING BYPASS RELAY WIRING DIAGRAM
E-6.1 SCALE: NONE

RFP 6320



INTERIOR RENOVATION TO THE

TRUMBULL POLICE
DEPARTMENT

TRUMBULL, CONNECTICUT

158 EDISON ROAD

JH
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

DETAILS -
ELECTRICAL

PROJ. NO.

JH1828

SCALE

As Noted

DATE

NOVEMBER 8, 2018

DRAWING NO.

E-6.1

ELECTRICAL SPECIFICATIONS

GENERAL:

PROVIDE LABOR, MATERIALS, EQUIPMENT AND SERVICES FOR COMPLETE ELECTRICAL SYSTEMS FOR EXISTING AND NEW SYSTEMS AND AS REQUIRED BY APPLICABLE BUILDING CODES, NATIONAL ELECTRICAL CODES, INCLUDING OSHA, PAY ALL FEES, OBTAIN ALL PERMITS, CERTIFICATES AND ALL CONTROLLED INSPECTIONS. USE NEW U.L. APPROVED EQUIPMENT. INCLUDE ALL TEMPORARY LIGHT AND POWER DURING CONSTRUCTION.

PROVIDE ALL LABOR MATERIAL AND EQUIPMENT TO ACCOMPLISH ANY REQUIRED DEMOLITION OR REMOVAL WORK.

ALL EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. ALL MATERIALS SHALL BE OF THE BEST QUALITY FOR THE PURPOSE INTENDED. TRADE NAMES AND CATALOG NUMBERS ARE INTENDED TO INDICATE THIS GRADE AND QUALITY.

RENDER FULL COOPERATION TO OTHER TRADES WHERE WORK OF CONTRACTOR WILL BE INSTALLED IN CLOSE PROXIMITY TO WORK OF OTHER TRADES. THE CONTRACTOR SHALL ASSIST IN WORKING OUT SPACE CONDITIONS. VERIFY POWER REQUIREMENTS WITH ALL OTHER TRADES.

ON ACCEPTANCE OF CONTRACT, CONTRACTOR AGREES TO GUARANTEE ALL OF HIS WORK AND EQUIPMENT FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM DATE OF INITIAL OPERATION. MANUFACTURED EQUIPMENT SHALL CARRY FULL PERIOD OF MANUFACTURER'S GUARANTEE, AND SHALL NOT BE LESS THAN ONE (1) YEAR.

THE CONTRACTOR SHALL PERFORM ALL CUTTING NECESSARY FOR THE PROPER INSTALLATION OF ELECTRICAL WORK.

KEEP CONDUITS AND OTHER OPENINGS CLOSED TO PREVENT ENTRY OF FOREIGN MATTER. COVER FIXTURES, EQUIPMENT AND APPARATUS AND PROTECT AGAINST DIRT, WATER, CHEMICAL OR MECHANICAL DAMAGE BEFORE AND DURING THE CONSTRUCTION PERIOD UNTIL THE FINAL ACCEPTANCE. EQUIPMENT SHALL BE DELIVERED AND STORED AT SITE, PROPERLY PACKED AND CREATED UNTIL FINALLY INSTALLED.

FURNISH, INSTALL, SET AND LAMP NEW LIGHTING FIXTURES. INCLUDE ALL NECESSARY SUPPORTS AND HANGERS WHERE REQUIRED. ALL FIXTURES SHALL HAVE U.L. LABEL. LIGHTING FIXTURES SHALL BE AS INDICATED ON ARCHITECTURAL DRAWINGS AND SHALL BE MADE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.

IT IS THE INTENT OF THESE SPECIFICATIONS AND DRAWINGS TO CALL FOR AN INSTALLATION THAT IS COMPLETE IN EVERY RESPECT. IT IS NOT THE INTENT TO GIVE EVERY DETAIL ON THE DRAWINGS AND IN THE SPECIFICATION. IF AN ITEM OF WORK IS SHOWN ON THE DRAWINGS, IT SHALL BE CONSIDERED SUFFICIENT FOR INCLUSION IN THE CONTRACT. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIAL AND EQUIPMENT USUALLY FURNISHED OR NEEDED TO MAKE A COMPLETE INSTALLATION, WHERE SPECIFICALLY MENTIONED OR NOT.

SHOP DRAWINGS AND OTHER INFORMATION REQUIRED: PRIOR TO PURCHASING ANY EQUIPMENT OR MATERIALS, A MANUFACTURER'S LIST SHALL BE SUBMITTED FOR REVIEW. PRIOR TO ASSEMBLING OR INSTALLING THE WORK, THE FOLLOWING SHALL BE SUBMITTED FOR REVIEW:

CATALOG INFORMATION, FACTORY ASSEMBLY DRAWINGS AND FIELD INSTALLATION DRAWINGS AS REQUIRED FOR A COMPLETE EXPLANATION AND DESCRIPTION OF ALL ITEMS OR EQUIPMENT. THE PURPOSE FOR REVIEW SHOP DRAWINGS IS TO MAINTAIN INTEGRITY OF THE DESIGN. UNLESS THE CONTRACTOR CLEARLY INDICATED IN WRITING AND ON HIS LETTERHEAD, ANY CHANGES, SUBSTITUTIONS, DELETIONS OR ANY OTHER DIFFERENCES BETWEEN THE SUBMISSION AND CONTRACT DOCUMENTS, APPROVAL BY THE ENGINEER DOES NOT CONSTITUTE ACCEPTANCE. IT IS NOT TO BE ASSUMED THAT THE ENGINEER HAS READ THE TEXT NOR REVIEWED THE TECHNICAL DATA OF A MANUFACTURED ITEM AND ITS COMPONENTS EXCEPT WHERE THE VENDOR HAS POINTED OUT DIFFERENCES BETWEEN HIS PRODUCT AND THE SPECIFIED MODEL.

THE CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE CONSTRAINTS OF THE EXISTING AVAILABLE SPACE PERTAINING TO EQUIPMENT SIZE AND CONFIGURATION AND TO EXAMINE THE CONDITIONS UNDER WHICH THE EQUIPMENT WILL BE INSTALLED. CONTRACTOR SHALL AT THIS TIME REPORT ANY DISCREPANCIES OR QUESTIONS TO THE ARCHITECT/ENGINEER.

WHERE CONFLICTS OCCUR BETWEEN DRAWINGS AND SPECIFICATIONS, OR WITHIN EITHER DOCUMENT, THE CONTRACTOR SHALL ASK FOR AND OBTAIN A WRITTEN CLARIFICATION FROM THE ENGINEER PRIOR TO SUBMITTING HIS BID. OTHERWISE, THE ITEMS OR ARRANGEMENTS OF SUPERIOR QUALITY, GREATER QUANTITY OR HIGHER COST SHALL PREVAIL AND BE INCLUDED IN THE CONTRACT PRICE.

WHERE DEVICES AND/OR EQUIPMENT ARE INDICATED TO BE RELOCATED, CONDUCTORS AND RACEWAY SHALL BE EXTENDED TO THE NEW LOCATION AND RECONNECTED TO PROVIDE A COMPLETE WORKING SYSTEM. IF THERE ARE ASSOCIATED DEVICES WITH THE RELOCATED EQUIPMENT THEY SHALL BE RELOCATED AS WELL, UNLESS OTHERWISE NOTED, AND CONNECTED INTO THE SYSTEM.

WIRING DEVICES:

WIRING DEVICES SHALL BE "PREMIUM SPECIFICATION GRADE" MANUFACTURED BY LEVITON, HUBBELL, OR LEGRAND.

RECEPTACLES SHALL BE NEMA 5-20R, TWO-POLE, THREE-WIRE GROUNDING TYPE, WITH MOLDED NYLON BODY AND FACE, PREMIUM SPECIFICATION GRADE, RATED 20 AMPS AT 125 VOLTS. RECEPTACLES SHALL COME WITH A 10 YEAR LIMITED WARRANTY FROM THE MANUFACTURER. GROUND FAULT CIRCUIT INTERRUPTER (GFCI) RECEPTACLES SHALL BE 15 AMP, 125 VOLT DUPLEX, NEMA 5-15R, WITH 20 AMP, 125 VOLT FEED-THROUGH AND TRIP INDICATOR. RECEPTACLES MARKED "WP" SHALL BE WEATHER RESISTANT TYPE.

ALL OCCUPANCY/VACANCY SENSORS AND OCCUPANCY/VACANCY SWITCH SENSORS SHALL BE DUAL TECHNOLOGY TYPE. ALL OCCUPANCY/VACANCY SENSOR SWITCHES SHALL BE CAPABLE OF CONTROLLING 120 VOLT LOADS, WITH INTEGRAL SWITCH FOR MANUAL OVERRIDE TO "OFF", AND ADJUSTABLE TIME DELAY TO "OFF". REFER TO LIGHTING CONTROL DIAGRAMS FOR ADDITIONAL SPECIFICATIONS.

OCCUPANCY/VACANCY SWITCH SENSORS SHALL BE MODEL #LHMTS-1 AS MANUFACTURED BY HUBBELL CONTROL.

EMERGENCY BYPASS RELAY SHALL BE LVS REPC-1

DEVICE COLOR: WIRING DEVICE CATALOG NUMBERS IN SECTION TEXT DO NOT DESIGNATE DEVICE COLOR.

1. WIRING DEVICES CONNECTED TO NORMAL POWER SYSTEM: AS SELECTED BY ARCHITECT, UNLESS OTHERWISE INDICATED OR REQUIRED BY NFPA 70 OR DEVICE LISTING.

COVERPLATES SHALL BE SATIN-FINISHED STAINLESS STEEL OR AS SELECTED BY ARCHITECT.

RECEPTACLES: IDENTIFY PANELBOARD AND CIRCUIT NUMBER FROM WHICH SERVED. USE PRESS ON LABEL, BLACK LETTERING ON WHITE BACKGROUND ON FACE OF PLATE AND IN EASILY READABLE LOCATION INSIDE DEVICE BACKBOX, AND DURABLE WIRE MARKERS OR TAGS ON CONDUCTORS INSIDE OUTLET BOXES.

OUTLET BOXES:

PROVIDE GALVANIZED PRESSED STEEL OUTLET BOXES OF PROPER SIZE AND TYPE AS REQUIRED BY THE BUILDING CONDITIONS TO SERVE ALL INTERIOR OUTLETS FOR MOTOR CIRCUITS, LIGHTING, SWITCHES, RECEPTACLES, SIGNALS, AND THE LIKE.

LIGHTING:

REFER TO LIGHTING FIXTURE SCHEDULE FOR LIGHTING FIXTURE SPECIFICATIONS.

CONTRACTOR SHALL PERFORM A COORDINATION REVIEW BETWEEN THE SUBMITTED LIGHTING CONTROLS AND LIGHTING FIXTURES TO ENSURE THEY ARE COMPATIBLE WITH EACH OTHER. CONTRACTOR SHALL SUBMIT LETTER WITH SHOP DRAWINGS CONFIRMING COMPATIBILITY OF THE ABOVE.

TELECOMMUNICATIONS SERVICE AND RACEWAY SYSTEMS:

EMPTY CONDUIT SYSTEMS SHALL BE PROVIDED FOR TELECOMMUNICATIONS AND CABLE TELEVISION SYSTEMS. OUTLET DEVICES AND WIRING SHALL BE PROVIDED AND INSTALLED BY OTHERS.

THE EMPTY CONDUIT SYSTEM SHALL CONSIST OF ALL INTERIOR CONDUIT, PULL BOXES, OUTLET BOXES, BUSHED COVER PLATES AND OTHER MATERIALS TO LEAVE THE SYSTEM READY FOR INSTALLATION OF DEVICES.

FIRE ALARM AND SMOKE DETECTION SYSTEM:

WORK CONSISTS OF ADDITIONS AND EXTENSIONS TO AN EXISTING NOTIFIER FIRE ALARM SYSTEM, PRIOR TO STARTING WORK, ESTABLISH THAT SYSTEM IS IN PROPER WORKING ORDER. IF CONDITION EXISTS WHICH PREVENTS NORMAL OPERATION OF SPECIFIED ADDITIONS AND EXTENSIONS, BRING THIS FACT TO ARCHITECT'S ATTENTION PRIOR TO DOING WORK AFFECTING EXISTING SYSTEM.

WHERE WORK IS DONE WITHOUT SUCH NOTIFICATION, IT SHALL BE ASSUMED THAT CONNECTIONS HAVE BEEN MADE TO A WORKING SYSTEM, AND PERFORMANCE REQUIREMENTS AND GUARANTEE WILL APPLY TO ENTIRE SYSTEM.

ALL FIRE ALARM AND DETECTION SYSTEM WIRING SHALL BE TYPE NPLF IN EMT CONDUIT.

THE EXISTING FIRE ALARM AND SMOKE DETECTION SYSTEM CONSISTS OF A CENTRAL CONTROL PANEL FOR MONITORING AND CONTROL OF SMOKE DETECTING DEVICES, MANUAL ALARM SYSTEMS, WATER FLOW AND TAMPER SWITCHES, AUDIBLE AND VISUAL ALARM SYSTEMS, DOOR RELEASE, AND FAN SHUTDOWN SYSTEMS. PROVIDE ALL MODIFICATIONS AS REQUIRED TO ACCOMMODATE NEW DEVICES SHOWN ON PLANS OR INDICATED IN SPECIFICATION.

ALL NEW INITIATING DEVICES SHALL BE MULTIPLEXED ADDRESSABLE TYPES, COMPATIBLE WITH EXISTING SYSTEM.

SPEAKER/STROBE ALARM UNITS SHALL BE PROVIDED AND SHALL COMPLY WITH THE REQUIREMENTS OF NFPA 101, NFPA 72, AND THE AMERICANS WITH DISABILITIES ACT (ADA), AND SHALL THEREFORE HAVE A MINIMUM STROBE OUTPUT OF 15 /75 CANDELA.

AFTER DATE OF SUBSTANTIAL COMPLETION, CONTRACTOR SHALL TEST THE FIRE ALARM SYSTEM COMPLYING WITH TESTING AND VISUAL INSPECTION REQUIREMENTS IN NFPA 72. CONTRACTOR SHALL SUPPLEMENT AUDIBLE DEVICES TO MEET CODE SOUND LEVELS.

MECHANICAL EQUIPMENT CONNECTIONS:

ALL POWER CONNECTIONS TO HEATING, AIR CONDITIONING, AND PLUMBING EQUIPMENT, WHICH SHALL INCLUDE SUPPLYING AND MOUNTING OF SAFETY DISCONNECT SWITCHES, SHALL BE PROVIDED. INCLUDE THE MOUNTING OF MOTOR STARTERS, WHICH SHALL BE FURNISHED BY THE SUPPLIERS OF MECHANICAL EQUIPMENT.

SAFETY SWITCHES SHALL BE PROVIDED AND SHALL CONSIST OF METAL ENCLOSED, EXTERNALLY OPERATED FUSED, OR UNFUSED SAFETY SWITCHES OF SUCH TYPE AND SIZE AS REQUIRED TO PROTECT AND DISCONNECT THE LOAD FOR WHICH THEY ARE INTENDED.

WHERE WEATHERPROOF SWITCHES ARE INDICATED OR REQUIRED, NEMA 3R RAIN-TIGHT ENCLOSURES SHALL BE PROVIDED.

SUPPORTS:

PROVIDE SUPPORTS, BRANCHES AND HANGERS FOR THE INSTALLATION OF OUTLETS, CONDUITS, PANELS, STARTING AND CONTROL EQUIPMENT.

600 VOLT CABLE:

ALL WIRE NO. 10, 12, AND 14 AWG SHALL BE SOLID CONDUCTOR TYPE THHN/THWN; NO. 8 AWG THROUGH NO. 1 AWG SHALL BE STRANDED CONDUCTOR TYPE THHN/THWN; NO. 1/0 AWG AND LARGER SHALL BE STRANDED CONDUCTOR TYPE XHHW.

TYPE MC CABLE SHALL CONFORM TO UL AND NEC ARTICLE 330, AND SHALL BE CONSTRUCTED OF MINIMUM NO. 12 AWG STRANDED COPPER CONDUCTORS, WITH THHN INSULATION.

CONDUIT:

ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING:

ALL BRANCH CIRCUITS TO MECHANICAL EQUIPMENT, AND HOMERUNS SHALL BE INSTALLED IN EMT. FINAL CONNECTIONS TO MECHANICAL EQUIPMENT SHALL BE IN FLEXIBLE METALLIC CONDUIT.

ALL BRANCH CIRCUIT WORK RUN CONCEALED ABOVE INACCESSIBLE CEILINGS AND WITHIN STUD PARTITIONS OF FINISHED AREAS SHALL BE MC CABLE.

ALL BRANCH CIRCUIT WORK RUN ABOVE ACCESSIBLE CEILINGS OR IN AREAS WITHOUT CEILINGS SHALL BE INSTALLED IN EMT.

BRANCH CIRCUIT HOMERUNS FROM LAST J-BOX TO PANELBOARD SHALL BE EMT CONDUIT. J-BOX SHALL BE LOCATED IN AREA SERVED BY BRANCH CIRCUIT. DOWNSTREAM FROM J-BOX SHALL BE MC CABLE.

ELECTRICAL METALLIC TUBING (EMT) SHALL BE GALVANIZED STEEL, CONFORMING TO ANSI C80.3, UL 797, AND NEC ARTICLE 358. PROVIDE WITH COMPRESSION TYPE FITTINGS, COUPLINGS, AND CONNECTORS.

CONNECTORS FOR METAL CONDUIT SHALL BE INSULATED THROAT TYPE. PROVIDE GROUNDING BUSHINGS OR LOCKNUTS AT ALL METALLIC RACEWAY CONNECTIONS TO SHEET STEEL BOXES AND ENCLOSURES.

EXTERIOR CONDUIT SHALL BE LIQUIDTIGHT FLEXIBLE METAL CONDUIT.

GROUNDING:

A COMPLETE CONTINUOUS GROUNDING SYSTEM TO THOROUGHLY GROUND THE NON-CURRENT CARRYING METAL PARTS OF EVERY NEW PIECE OF INSTALLED EQUIPMENT SHALL BE PROVIDED. THE SYSTEM SHALL BE CONNECTED TO PROVIDE AN INDEPENDENT FAULT RETURN TO SOURCE.

FIRE-STOPPING:

FIRE STOPPING SHALL BE PROVIDED FOR ALL PENETRATIONS OF CONDUIT, WIREWAYS, ETC., THROUGH FIRE-RATED WALLS AND FLOORS AND OTHER FIRE-RATED SEPARATIONS AS FOLLOWS:

CONDUIT PENETRATION THROUGH POURED CONCRETE OR MANSORY WALLS SHALL BE GROUTED IN WITH CONCRETE AND PROVIDED WITH TIGHT FITTING ESCUTCHEON PLATES ON BOTH SIDES.

CONDUIT PENETRATIONS THROUGH FIRE-RATED DRY WALLS SHALL BE WITH SLEEVES THROUGH THE WALL FITTED WITH ESCUTCHEON PLATES ON BOTH SIDES WITH EXCESS OPENINGS FILLED WITH FIRE STOP MATERIAL SPECIFICALLY MANUFACTURED FOR THE PURPOSE.

EXCESS SPACE WITHIN CONDUIT SLEEVES OR STUBS THROUGH FLOOR SLAB OR WALLS WHERE LOW VOLTAGE CABLES PASS THROUGH SHALL BE FILLED WITH FIRESTOPPING MATERIAL SPECIFICALLY MANUFACTURED FOR THE PURPOSE.

ALL MATERIALS USED FOR FIRESTOPPING SHALL BE APPROVED FOR THE PURPOSE AND THE RATING OF THE WALL OR FLOOR AND ALL METHODS EMPLOYED SHALL MEET WITH THE APPROVAL OF THE LOCAL AUTHORITIES.

SLEEVE AND SLEEVE SEALS:

PROVIDE STEEL PIPE SLEEVES ASTM A 53/A 53M, TYPE E, GRADE B, SCHEDULE 40, ZINC COATED, PLAIN ENDS. PROVIDE SLEEVES FOR CONDUITS PENETRATING NON-FIRE-RATED GYPSUM BOARD ASSEMBLIES WITH GALVANIZED-STEEL SHEET.

PROVIDE SLEEVE-SEAL SYSTEMS MODULAR SEALING DEVICE, DESIGNED FOR FIELD ASSEMBLY, TO FILL ANNULAR SPACE BETWEEN SLEEVE AND RACEWAY OR CABLE.

PROVIDE MODULAR SEALING DEVICE, DESIGNED FOR FIELD ASSEMBLY, TO FILL ANNULAR SPACE BETWEEN SLEEVE AND RACEWAY OR CABLE. PROVIDE SEALING ELEMENTS (EDPM), PRESSURE PLATES (CARBON STEEL) AND CONNECTING BOLTS AND NUTS (CARBON STEEL).

PROVIDE SLEEVE-SEAL FITTINGS MANUFACTURED PLASTIC, SLEEVE-TYPE, WATERSTOP ASSEMBLY MADE FOR EMBEDDING IN CONCRETE SLAB OR WALL. UNIT SHALL HAVE PLASTIC OR RUBBER WATERSTOP COLLAR WITH CENTER OPENING TO MATCH PIPING OD.

PROVIDE SILICONE SEALANTS WITH SINGLE COMPONENT, SILICONE-BASED, NEUTRAL-CURING ELASTOMETRIC SEALANTS. SILICON FOAMS SHALL BE PROVIDED MULTICOMPONENT, SILICONE-BASED LIQUID ELASTOMERS.

INSTALLATION:

INSTALL WORK IN A NEAT AND WORKMAN LIKE MANNER.

CONTRACTOR SHALL BALANCE THE LOAD CONNECTED ON THE PANELBOARDS EQUALLY AMONG THE PHASES. MEASURED PHASE IMBALANCE SHALL NOT EXCEED 10%. AS INSTALLED CIRCUIT NUMBERS SHALL BE REFLECTED ON THE PANELBOARD DIRECTORIES.

CONTRACTOR SHALL SEAL ALL PENETRATIONS THROUGH PARTITIONS OR SLABS WITH A U.L. APPROVED SMOKE STOP TO MAINTAIN THE INTEGRITY OF THE RESPECTIVE FIRE RATING.

FOR EXACT LOCATIONS OF LIGHTING FIXTURES, RECEPTACLES, DATA AND TELEPHONE OUTLETS, REFER TO ARCHITECT'S DRAWINGS. COORDINATE ALL WORK WITH DATA AND TELEPHONE CONTRACTORS.

PRIOR TO FINAL ACCEPTANCE, CLEAN ALL LIGHTING FIXTURES, GLASSWARE, CABINETS, DEVICE PLATES AND OTHER ITEMS FURNISHED UNDER THIS CONTRACT.

AS-BUILT DRAWINGS:

PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS REFLECTING AS INSTALLED CONDITIONS. AS-BUILT DRAWINGS SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS SHALL BE BOUND IN A COMPLETE AND CONSECUTIVE SET. SUPPLEMENTAL SKETCHES AND LOOSE PAPERWORK WILL NOT BE ACCEPTABLE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEERS COMMENTS TO PRODUCE A CLEAR AND CONCISE SET OF DRAWINGS. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC (AUTO-CAD VERSION AS REQUIRED BY THE OWNER) VERSION. NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER.

TESTS:

TEST ALL WIRING, LIGHTING FIXTURES, SWITCHES, CONTROLLERS, STARTERS, MOTORS, ETC., WIRED UNDER THIS DIVISION. LEAVE FREE FROM GROUNDS, CROSSES, SHORTS, OPENS, ETC., AND LEAVE MATERIALS AND APPARATUS IN PROPER AND SATISFACTORY WORKING CONDITION.

PERFORM ADDITIONAL TESTS REQUIRED BY OWNER, ARCHITECT OR ANY OTHER AUTHORITIES HAVING JURISDICTION.

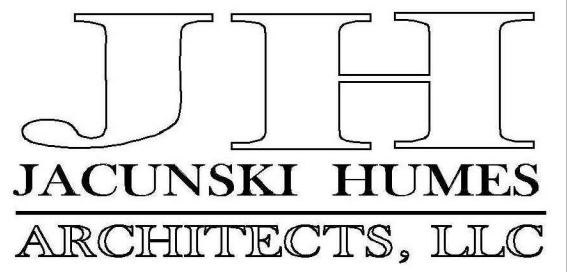
CORRECT OR REPLACE ANY CIRCUIT, MATERIAL OR EQUIPMENT WHICH IS FOUND TO BE DEFECTIVE BY THESE TESTS. CORRECT DEFECTS, WHETHER DUE TO FAULTY WORKMANSHIP OR MATERIAL FURNISHED, IN A MANNER ACCEPTABLE TO ENGINEER WITHOUT ADDITIONAL COST.

TEST FOR PROPER OPERATION OF EMERGENCY LIGHTING EQUIPMENT UNDER SIMULATED EMERGENCY CONDITIONS.

RFP 6320



INTERIOR RENOVATION TO THE
TRUMBULL POLICE
DEPARTMENT
TRUMBULL, CONNECTICUT
158 EDISON ROAD



15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

SPECIFICATIONS -
ELECTRICAL

PROJ. NO.	JH1828	DRAWING NO.
SCALE	As Noted	E-7.1
DATE	NOVEMBER 8, 2018	