# Weston Building Committee Special Meeting Agenda October 27, 2022 at 7:00 PM

#### Meeting to be held in person at Town Hall Commission Room

- 1) Call to order
- 2) Update on the WHS Old Gym air handler replacement project
- 3) Discussion about School Capital Projects approved in FY '23 budget
- 4) Update on the Senior Center bathroom renovation project
- 5) Update on the Town Hall basement records room project
- 6) Update on the Drinking Water Projects (Ravenwood & School/Town)
- 7) Introduction of Police Locker Rooms and Bathrooms Project
- 8) Review and approval of meeting minutes
- 9) Adjournment

- 1) Call to order
- Update on the WHS Old Gym air handler replacement project



#### Fwd: Building Committee Meeting this Thursday night

1 message

Jonathan Luiz <jluiz@westonct.gov>
To: Michael DelMastro <michaeldelmastro@westonps.org>

Tue, Oct 25, 2022 at 8:34 PM

Hi Mike,

I would appreciate it greatly if you would provide an update to the Building Committee this Thursday night about the WHS Old Gym Air Handler Replacement Project. Please join remotely.

Sincerely, Jonathan

------ Forwarded message ------

From: **Jonathan Luiz** <jluiz@westonct.gov> Date: Mon, Oct 24, 2022 at 8:26 PM

Subject: Building Committee Meeting this Thursday night

To: Joseph Stromwall@westonct.gov>, Richard Wolf <rwolf@westonct.gov>, Edmond Warchick <ewarchick@gmail.com>, Megan

Loucas <meganloucas@gmail.com>, <coprio@aol.com>, Michael DelMastro <michaeldelmastro@westonps.org>, <jack@

energyconsultingservices.com>, Al Fazi <alfazi@att.net>, Al Fazi <afazi@westonct.gov>

Cc: Edwin Henion <ehenion@westonpolice.com>

#### Good Evening,

We are set for a Building Committee meeting to be held this Thursday, October 27th at 7 pm in the Town Hall Commission Room. If you can't attend in person, then let me know so I can try to make arrangements for you to participate remotely.

Attached you will find the agenda. The backup will be ready tomorrow.

Sincerely, Jonathan Luiz Weston Town Administrator

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Sincerely, Jonathan Luiz Weston Town Administrator



3) Discussion about School Capital Projects approved in FY '23 budget

WHS: C-5 Air Handler Replacement	70,411
District-Wide Security Initiatives	54,920
WHS, WMS, WIS, and HES Core Building: Duct Work Cleaning, Tri-annual	265,000
WIS: Add Double Extension Door to Gym	25,000
WIS: Tennis Court Repairs	50,525
WMS: Replace/Rebuild as New 16 Heating and Cooling Pumps Feeding Entire School & Pool	65,000
WIS and WHS: Fire Panel Replacement	125,000
WHS: HVAC for Weight Room & Dance Studio	90,000
HES: Reline Chimney, North House and Core	30,000
HES/WMS: Hire Consultant for Bathroom Renovations	40,000
WHS: Hire Consultant to Mirror C & D Wings to E Wing	50,000
HES: Hire Consultant for North House HVAC	50,000
WMS: 7th & 8th Student Locker Replacement	110,000
HES: Repoint Brick, North House	72,000

4) Update on the Senior Center bathroom renovation project

# **Senior Center Bathroom Project**

- Total budget of \$79,000 (\$31,000 from ARPA & \$48,000 from Capital).
- 3/8/22 Payments to Architect Rob Sanders: \$1,797.50.
- 7/13/22 Purchase Order in the amount of \$66,950.06 for renovation of three bathrooms
- 10/24/22 Purchase Order in the amount of \$2,057.98 for new doors and frames for two bathrooms
- Non-committed funds as of 10/25/22: \$8,194.46

5) Update on the Town Hall basement records room project



**Date:** 10/21/2022

Project Name: Town of Weston - Basement Records
Project Address: 56 Northfield Rd City, State Zip Weston CT 06883

KR Project No: 22088

**Drawing List:** 100% CD for Owner's Review

Trade	Drawing No.	Description
Mechanical	M001	Cover Sheet - Mechanical
	M002	Symbols and Flow and Controls - Mechanical
	MD101	Demo Basement Floor Plan - Mechanical
	M101	Basement Floorplan - Mechanical
	M401	Schedules - Mechanical
	M501	Details - Mechanical
	M700	Specifications - Mechanical
	M701	Specifications - Mechanical
Electrical	E001	Cover Sheet - Electrical
	ED101	Basement Demolition Plan - Electrical
	E101	Basement Floor Plan - Electrical
	E501	Panel Schedules - Electrical
	E701	Specifications - Electrical

# **GENERAL MECHANICAL NOTES**

#### GENERA

- 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.
- 2. IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO PROVIDE FOR FINISHED WORK, TESTED AND READY FOR OPERATION.
- 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.
- 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
- 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, 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.
- 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.
- 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.
- 8. STORE MATERIALS INSIDE AND PROTECTED FROM DEBRIS, WEATHER AND MOISTURE.
- 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.
- 10. COORDINATE ALL HVAC WORK AND EQUIPMENT WITH STRUCTURAL STEEL, FIRE PROTECTION PIPING, PLUMBING PIPING, LIGHT FIXTURES, ELECTRICAL EQUIPMENT AND OWNER'S EQUIPMENT.
- 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.
- 12. PROVIDE TRAPPED CONDENSATION DRAIN PIPING FROM COOLING COIL DRAIN PAN TO AN APPROVED POINT OF DISCHARGE WHETHER INDICATED OR NOT. REFER TO PLUMBING PLANS FOR FLOOR DRAIN LOCATIONS.
- 13. RUN REFRIGERATION PIPING FROM AIR COOLED CONDENSING UNITS TO RESPECTIVE DX COOLING COILS. ROUTE AND SIZE PIPING PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
- 14. ALL HWS AND HWR PIPING SERVING RADIATION SHALL BE CONCEALED IN WALLS OR FLOORS UNLESS OTHERWISE NOTED.
- 15. PROVIDE FIRE DAMPERS, SMOKE DAMPERS AND COMBINATION FIRE/SMOKE DAMPERS AS REQUIRED TO MAINTAIN WALL & FLOOR RATINGS AS DEFINED IN ARCHITECTURAL DRAWINGS.
- 16. PROVIDE STAINLESS STEEL DRIP PANS WITH LEAK DETECTION FOR ALL SUSPENDED EQUIPMENT WITH COOLING COILS. LEAK DETECTION ALARM TO DE-ENERGIZE UNIT.
- 17. PENETRATIONS TO COMPLY WITH ASTM E84 & E814 AND APPROVED UL 1479 AND SPECIFIC UL ASSEMBLIES AS REQUIRED TO SUIT PENETRATION CONDITIONS.
- 18. LOCATE ALL ROOF MOUNTED EQUIPMENT REQUIRING SERVICE A MINIMUM OF 10'-0" FROM EDGE OF ROOF. CONTRACTOR MUST COMPLY W/ THIS SET BACK.
- 19. DO NOT RUN ANY MECHANICAL OR CONTROL SERVICES THROUGH RATED STAIR ENCLOSURES UNLESS SYSTEMS ARE DESIGNED AND DESIGNATED TO SERVICE STAIRS.
- 20. COORDINATE ALL ROOF AND FLOOR PENETRATIONS W/ STRUCTURAL DWGS AND PROVIDE STRUCTURAL CONTRACTOR W/ FLOOR, WALL & ROOF OPENING SIZES.
- 21. TEMPERATURE CONTROL CONTRACTOR (TCC) IS RESPONSIBLE FOR ALL CONTROL WIRING 120 VOLT AND LESS. EXTEND POWER FOR VAV BOXES FROM JUNCTION BOXES PROVIDED BY DIVISION 26. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS.
- 22. 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 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 FP-SERIES DRAWINGS AS WELL AS ON M-SERIES DRAWINGS AND E-SERIES DRAWINGS. MISCELLANEOUS METALS AND STRUCTURAL ELEMENTS ARE SHOWN ON A-SERIES DRAWINGS AS WELL AS ON S-SERIES DRAWINGS. STRUCTURAL SUPPORTS ARE REQUIRED BY THE FP DRAWINGS. TO AVOID OMITTING ANY COMPONENT OF THE PROJECT, REFER TO ALL THE CONTRACT DOCUMENTS IN THEIR ENTIRETY.
- 23. 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.
- 24. VERIFY EXACT LOCATION OF CONNECTION POINTS (NEW TO EXISTING) IN FIELD PRIOR TO CONSTRUCTION.
- 25. RELOCATE EXISTING DUCTWORK AND/OR PIPE WORK IN EXISTING CEILING SPACES TO ACCOMMODATE ALL RENOVATIONS AND ADDITIONS.
- 26. 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.
- 27. 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.
- 28. 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.
- ALTERATION WORK AND DEMOLITION
- 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.

- 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.
- 3. NO DEAD ENDS SHALL BE LEFT ON ANY DUCTWORK OR PIPING SYSTEM UPON COMPLETION OF WORK.
- 4. EXISTING DUCTWORK AND 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.
- 6. ALL EXISTING UNNECESSARY DUCTWORK AND PIPING NOT RELATED TO NEW WORK SHALL BE COMPLETELY REMOVED.
- 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.

#### SHOP DRAWINGS

- 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.
- 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 20108 IF NOT SPECIFIED.
- 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".

#### AS BUILT DRAWINGS

- 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 2018 IF NOT SPECIFIED. 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 IN AUTOCAD DRAWING 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.
- 3. SUBMIT FOR REVIEW BOUND SETS OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING
- 4. SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.

# HOUSEKEEPING PADS

- 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 4 INCHES HIGH (OR THE MINIMUM HEIGHT TO ACCOMMODATE THE CONDENSATE TRAP HEIGHT), AND MINIMUM 4 INCHES WIDER THAN THE EQUIPMENT IN BOTH DIRECTIONS.
- COORDINATE FLOOR DRAIN LOCATIONS WITH RESPECT TO EQUIPMENT HOUSEKEEPING PADS. PLACE DRAINS SUCH THAT EDGE OF THE FLOOR GRATE EXTENDS NO CLOSER THAN 2 INCHES FROM THE SIDE OF THE PAD. FLOOR DRAINS TO BE COORDINATED WITH PLUMBING CONTRACTOR.

# HANGERS AND SUPPORT

- 1. SEISMIC RESTRAINT: PROVIDE SEISMIC RESTRAINT AND EXPANSION OF ALL MECHANICAL 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.
- 2. 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 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.
- 3. PROVIDE ADDITIONAL SUPPORT FOR DUCTWORK PIPING AND EQUIPMENT WHEN DECK IS NOT CAPABLE OF SUPPORT.
- 4. BEAM CLAMPS HANGERS SUPPORTED FROM STEEL SHALL BE CENTER LOADING BEAM CLAMPS FOR HANGERS SUPPORTING PIPING 2-1/2 INCHES AND LARGER. FOR PIPING 2 INCHES AND SMALLER, I BEAM CLAMPS, WITH RETAINING STRAPS, SHALL BE FORGED STEEL. "C" CLAMPS ARE NOT TO BE USED.
- 5. PROVIDE AND INSTALL EXPANSION COMPENSATION FOR ALL PIPING. SUBMIT PLANS, CALCULATIONS AND EQUIPMENT DATA.

# MECHANICAL DRAWING LIST

DRAWING NUMBER	DRAWING DESCRIPTION
M001	COVER SHEET - MECHANICAL
M002	SYMBOLS AND FLOW AND CONTROLS - MECHANICAL
MD101	DEMO BASEMENT FLOOR PLAN - MECHANICAL
M101	BASEMENT FLOOR PLAN - MECHANICAL
M401	SCHEDULES - MECHANICAL
M501	DETAILS - MECHANICAL
M700	SPECIFICATIONS - MECHANICAL
M701	SPECIFICATIONS - MECHANICAL

# 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.
- 2. THE EXISTING FACILITY WILL BE OCCUPIED AND IN OPERATION DURING THE PERFORMANCE OF
- 3. 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.
- 4. 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.
- 5. 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.
- 6. THE OWNER RESERVES THE RIGHT TO OPERATE ALL EXISTING MECHANICAL EQUIPMENT UNTIL THE NEW SYSTEMS COME ON LINE.
- 7. 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.
- 8. REMOVED MATERIALS SHALL BE DISPOSED OF USING LICENSED CARTING SERVICE.
- 9. 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.
- 10. 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.
- 11. 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.
- 12. 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.
- 13. 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.

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No. Date Description

Issue/Revisions

Weston Town
Hall Basement
Alterations

56 Norfield Road Weston, CT 06883

COVER SHEET - MECHANICAL

Scale	NTS
Date	October 21, 2022
Drawn By	KN
Checked By	KR

Drawing Number

M00

# MECHANICAL CONTROLS SYMBOL LIST

$\overline{\Box}$	
A	ALARM
(AI)	DDC ANALOG INPUT POINT
AO	DDC ANALOG OUTPUT POINT
MS	MOTOR STARTER
T	THERMOSTAT
T	TEMPERATURE SENSOR
	COIL
	OPPOSED BLADE DAMPER
	PUMP / FAN
	DISCONNECT
$\approx$	HARDWIRED

ALL SYMBOLS MAY NOT BE USED IN THESE DOCUMENTS.

<sup>\*</sup> REFER TO VARIABLE FREQUENCY CONTROLLER CONTROL DIAGRAM FOR REQUIRED CONTROL POINTS FOR ALL VFD & VS SYMBOLS INDICATED.

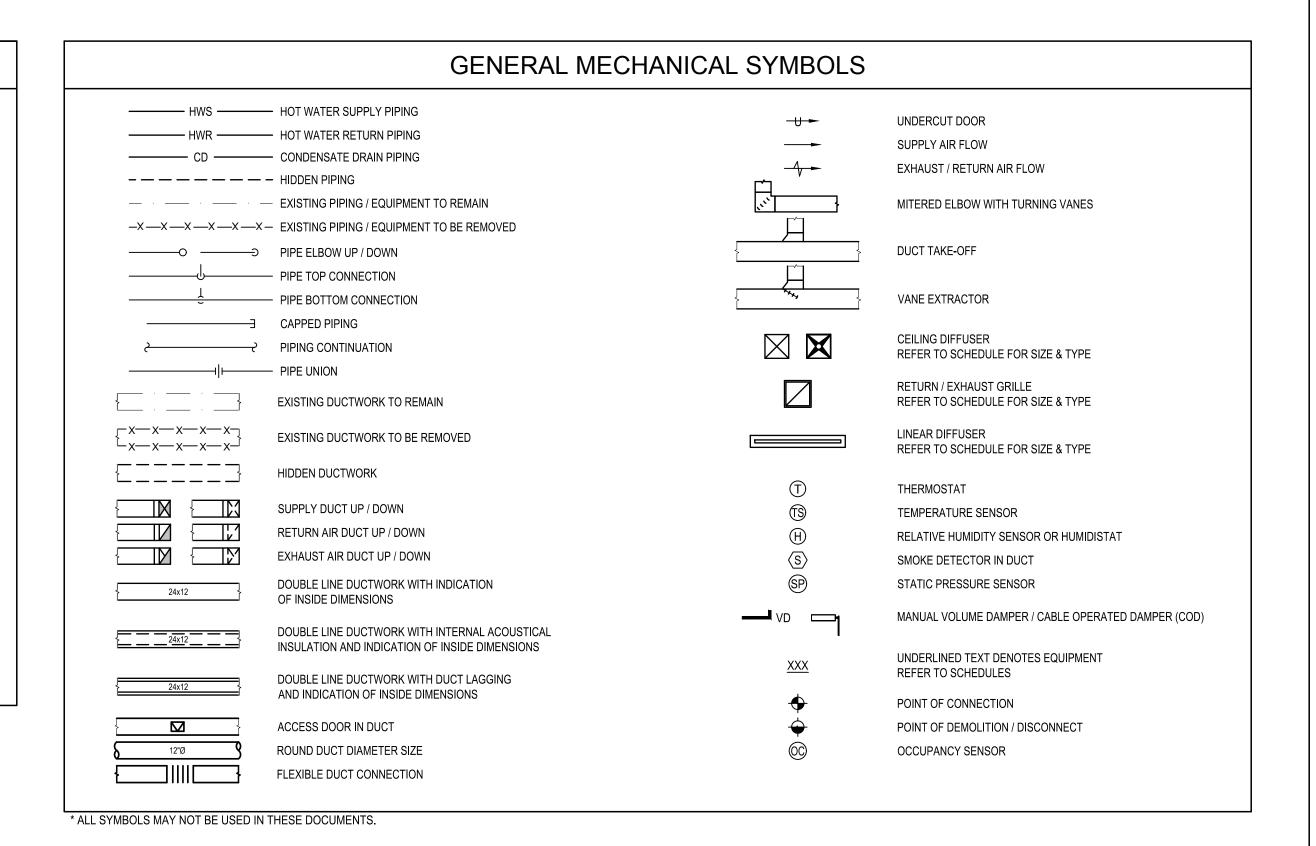
GENERAL MECHANICAL ABBREVIATIONS						
ABV	ABOVE	MAX	MAXIMUM			
ACC-#	AIR COOLED CONDENSER	MBH	1000 BTU'S			
ACU-#	AIR CONDITIONING UNIT	MCA	MINIMUM CIRCUIT AMPACITY			
ACCU-#	AIR COOLED CONDENSING UNIT	MD	MOTORIZED DAMPER			
AUTO	AUTOMATIC	MIN	MINIMUM			
CFM	CUBIC FEET PER MINUTE	MTR	MOTOR			
CLG	CEILING	NC	NOISE CRITERIA			
C.O.D.	CABLE OPERATED DAMPER	NTS	NOT TO SCALE			
CP	CONDENSATE RECEIVER/PUMPING SYSTEM	OA	OUTSIDE AIR			
CTD	CEILING TRANSFER DUCT	OAT	OUTDOOR AIR TEMPERATURE			
D&T	DRIP AND TRAP	PD	PRESSURE DROP			
DB	DRY BULB	PH	PHASE			
DIFF	DIFFUSER	PSI	POUND PER SQUARE INCH			
DL	DOOR LOUVER	RA	RETURN AIR			
DN	DOWN	RAT	RETURN AIR TEMPERATURE			
DP	DEWPOINT TEMPERATURE	REG	REGISTER			
EF-#	EXHAUST FAN	RH	RELATIVE HUMIDITY			
EAT	ENTERING AIR TEMPERATURE	RHC	REHEAT COIL			
EER	ENERGY EFFICIENCY RATIO	RLA	RATED LOAD AMPERES			
EHC-#	ELECTRIC HEATING COIL	RM	ROOM			
ENT	ENTERING	RP	RELIEF PENTHOUSE			
ESP	EXTERNAL STATIC PRESSURE	RPM	REVOLUTIONS PER MINUTE			
ETR	EXISTING TO REMAIN	SA	SUPPLY AIR			
EX	EXISTING	SAF-#	SUPPLY AIR FAN			
EXH	EXHAUST	SAT	SUPPLY AIR TEMPERATURE			
EXT	EXTERNAL	SG	SUPPLY GRILLE			
°F	DEGREES FAHRENHEIT	SP	STATIC PRESSURE			
FA	FACE AREA	SQ FT	SQUARE FOOT (AREA)			
FLA	FULL LOAD AMPERES	T'STAT	THERMOSTAT			
FT	FEET	TEMP	TEMPERATURE			
GPH	GALLONS PER HOUR	TOT	TOTAL			
GPM	GALLONS PER MINUTE	TYP	TYPICAL			
H-#	HUMIDIFIER	UH-#	UNIT HEATER HOT WATER			
HP	HORSEPOWER	UV-#	UNIT VENTILATOR			
IN	INCHES	VFD	VARIABLE FREQUENCY DRIVE			
KW	KILOWATT	W/	WITH			
KWH	KILOWATT HOUR	WB	WET BULB			
LAT	LEAVING AIR TEMPERATURE	WMS	WIRE MESH SCREEN			
LWT	LEAVING WATER TEMPERATURE	WT	WEIGHT (LBS)			
		70	ZONE DANDED			

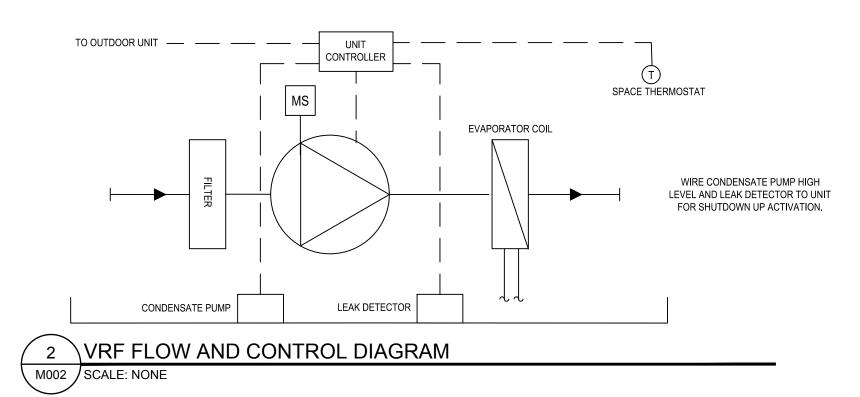
\* ALL ABBREVIATIONS MAY NOT BE USED IN THESE DOCUMENTS.



ZONE DAMPER







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10/21/2022 Owner Review

No. Date Description

Issue/Revisions

Weston Town
Hall Basement
Alterations

56 Norfield Road Weston, CT 06883

Drawing Title

SYMBOLS & FLOW & CONTROLS -MECHANICAL

Scale NTS

Date October 21, 2022

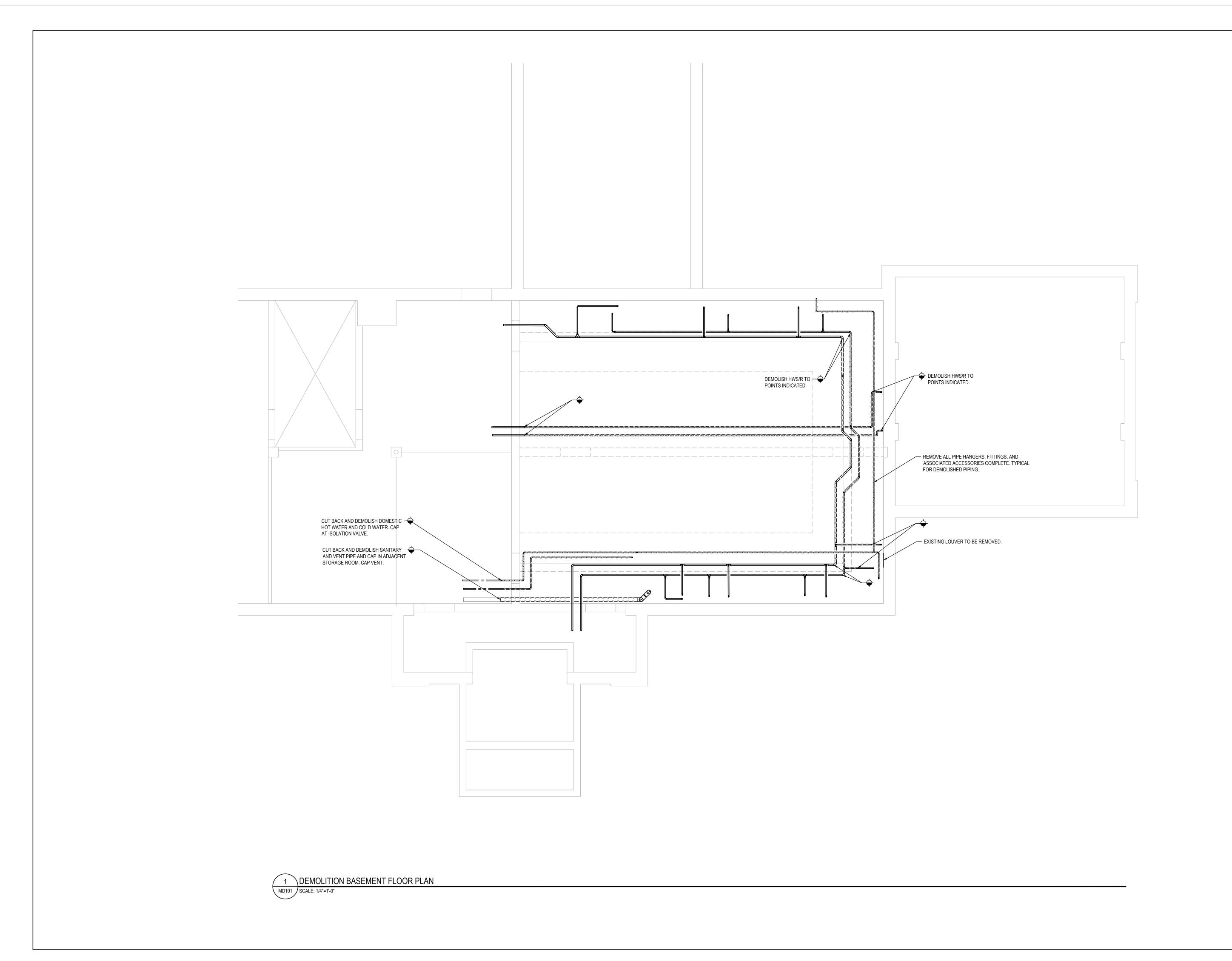
Drawn By KN

Checked By KR

Job Number 21273.00

Drawing Number

M002





KOHLER RONAN, LLC
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10/21/2022 Owner Review

Date Description

Issue/Revisions

1 |

Weston Town
Hall Basement
Alterations

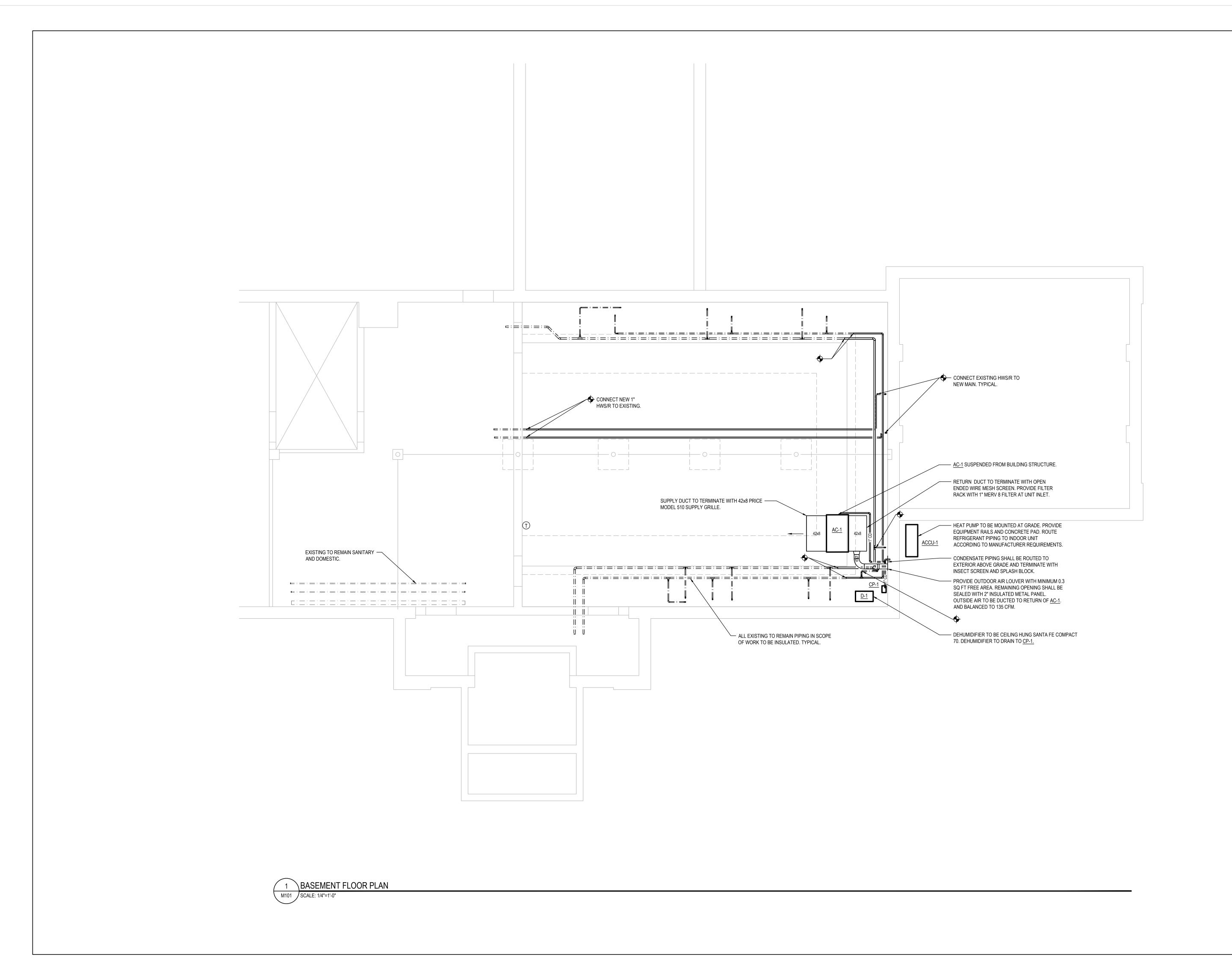
56 Norfield Road Weston, CT 06883

Drawing Title

DEMOLITION
BASEMENT FLOOR
PLAN - MECHANICAL

Scale	1/4"=1'-0"
Date	October 21, 2022
Drawn By	KN
Checked By	KR
Job Number	21273.00







No. Date Description

Issue/Revisions

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Weston Town
Hall Basement
Alterations

56 Norfield Road Weston, CT 06883

Drawing Title

BASEMENT FLOOR PLAN -MECHANICAL

Scale	1/4"=1'-0"
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awing Number

HVAC PIPING/TUBING INSULATION								
			CELLULAR GLASS		FLEXIBLE ELASTOMERIC		FIBERGLASS	
SYSTEM	TEM LOCATION PIPE		THICKNESS, IN.	CONDUCTIVITY, k	THICKNESS, IN.	CONDUCTIVITY, k	THICKNESS, IN.	CONDUCTIVITY, k
CONDENSATE & EQUIPMENT	INDOOR	ALL	-	-	1/2"	0.25	1/2"	0.23
DRAIN, BELOW 60°F	OUTDOOR ABOVE GRADE	NOT REQUIRED	-	-	-	-	-	-
HEATING HOT WATER, BOILER	INDOOR	1-1/4" & SMALLER	-	-	-	-	1-1/2"	0.25
FEEDWATER, STEAM BOILER CONDENSATE DRAIN,		1-1/2" & LARGER	-	-	-	-	2"	0.25
l	OUTDOOR ABOVE GRADE	ALL	3"	0.33	-	-	-	-
REFRIGERANT (COOLING ONLY) SUCTION, HOT GAS, & VAPOR, PIPING/TUBING	INDOOR	ALL	-	-	1"	0.25	1"	0.23
REFRIGERANT (HEAT PUMP) SUCTION, HOT GAS, VAPOR, & LIQUID PIPING/TUBING	OUTDOOR ABOVE GRADE	ALL	-	-	1"	0.25	-	-

BLANKS (-) INDICATE INSULATION TYPE SHALL NOT BE USED.

THICKNESS BASED ON INSULATION HAVING A THERMAL CONDUCTIVITY (K) NOT EXCEEDING VALUES NOTED IN TABLE ABOVE (BTU PER INCH/H•FT²• °F). FOR ALL OTHER K VALUES CONTRACTOR TO PERFORM AND SUBMIT CALCULATIONS OUTLINED IN APPLICABLE ENERGY CONSERVATION CODE TO PROVE OTHER INSULATION THICKNESSES.

- 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. 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.
- 2. 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.
- 3. DIAPER AND LOOSE FILL STYLE INSULATION ON PIPE FITTINGS IS NOT ACCEPTABLE. ELBOWS WITHOUT PVC COVERS ARE NOT ACCEPTABLE.
- 4. PIPING 1-1/4" AND BELOW LOCATED IN PARTITIONS WITHIN CONDITIONED SPACES MAY HAVE INSULATION REDUCED BY 1" THICKNESS FROM SCHEDULED VALUES ABOVE, BUT NOT BE LESS THAN 1" IN THICKNESS.
- 5. ALL OUTDOOR PIPING/TUBING SHALL BE FITTED WITH A PRE-MANUFACTURED ALUMINUM JACKET PRODUCT. 0.024" ALUMINUM JACKET LOCK-ON OR SLIP-ON TYPE JACKETING TO BE COVERED WITH ACRYLIC COATING ON THE OUTER SURFACE AND A BAKED EPOXY MOISTURE BARRIER ON THE INNER SURFACE. MANUFACTURER SHALL BE SIMILAR TO CHILDERS PRODUCTS, DIVISION OF ITW; METAL JACKETING SYSTEMS. ALL EXPOSED JOINTS IN THE JACKET PRODUCT SHALL BE INSTALLED IN SUCH A WAY AS TO PREVENT THE INFILTRATION OF MOISTURE AND WATER.

HVAC DUCT/PLENUM MATERIAL							
APPLICATION SUPPLY RETURN EXHAUST							
TYPICAL (UNLESS OTHERWISE SPECIFIED)	G90 GALVANIZED STEEL	G90 GALVANIZED STEEL	G90 GALVANIZED STEEL				
OUTDOOR AIR, COMBUSTION AIR INTAKE DUCT AND PLENUM	3003 H-14 ALUMINUM	-	-				

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

DUCT PRESSURE CLASS				
APPLICATION	PRESSURE CLASS			
OUTDOOR AIR DUCTWORK	2" W.G.			
SUPPLY AIR DUCTWORK FROM MAIN AND/OR TERMINAL UNIT TO AIR OUTLET.	2" W.G.			
RETURN AIR DUCTWORK	2" W.G.			

- LEAKAGE CLASS SHALL BE DETERMINED PER ASHRAE 90.1-2010 REQUIREMENTS. PRESSURE CLASS SHALL BE DEFINED PER SMACNA THIRD EDITION - 2015.
- 3. DUCTWORK, JOINTS, SEALING, AND FITTINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA THIRD EDITION - 2015.

	HVAC PIPING/TUBING MATERIAL, JOINTS & FITTINGS							
SYSTEM	SYSTEM PIPE SIZE CONSTRUCTION		PIPING	FITTINGS	UNIONS	FLANGES		
HOT WATER, GLYCOL AND HEATING BRINE	2" AND SMALLER	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.	CAST BRONZE, CLASS 150, SOLDER TYPE, ANSI B16.24.		
SUPPLY AND RETURN, VENTS AND DRAINS	2 1/2" AND LARGER	BUTT WELDED CONSTRUCTION WITH FLANGED CONNECTIONS TO VALVES AND EQUIPMENT AS REQUIRED.	BLACK STEEL, SCHEDULE 40, SEAMLESS, ASTM A53, GRADE B.	STEEL, CLASS 150, BUTT WELD ENDS, ANSI B16.9, ASTM A234.	STEEL, CLASS 150, WELD TYPE, ANSI B16.5, ASTM 181, GRADE 1.	STEEL, CLASS 150, WELD TYPE, ANSI B16.5, ASTM A234, GRADE WPA.		
COOLING COIL	2" AND SMALLER	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		
CONDENSATE DRAINS	2 1/2" AND LARGER	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		
REFRIGERANT SUCTION, HOT GAS AND	2" AND SMALLER	BRAZED JOINT CONSTRUCTION. AWS A5.8 FILLER METAL.	COPPER, ACR TUBING, STRAIGHT LENGTHS, DRAWN H58, ASTM B 280.	WROUGHT COPPER, BRAZED ENDS, ANSI B16.22.	WROUGHT COPPER, BRAZED ENDS, ANSI B16.22.	USE UNIONS		
LIQUID PIPING AND TUBING	2 1/2" AND LARGER	BRAZED JOINT CONSTRUCTION. AWS A5.8 FILLER METAL.	COPPER, ACR TUBING, STRAIGHT LENGTHS, DRAWN H58, ASTM B 280.	WROUGHT COPPER, BRAZED ENDS, ANSI B16.22.	WROUGHT COPPER, BRAZED ENDS, ANSI B16.22.	USE UNIONS		

	CONDENSATE PUMPS											
UNIT	UNIT LOCATION		RECE	RECEIVER		PUMP DATA		ELECTRICAL		MAKE/MODEL	REMARKS	
NO	LOCATION	SERVED	GALLONS MATERIAL GPH LIFT QUAN HP VOLTS PH	WARL/WODLL	TALIVIATA							
CP-1	REFER TO DRAWINGS	DEHUMIDIFIER	0.5	ABS	25	10	1	1/50	115	1	LITTLE GIANT VCMA-15	

							S	PLIT HEA	AT PUN	IP UNIT	S						
	INDOOR UNIT DATA OUTDOOR UNIT																
UNIT NO.	LOCATION	CFM	MBH COOL	MBH HEAT	VOLT	Ø	HZ	MAKE / MODEL	UNIT NO.	CAPACITY (MBH)	VOLT	Ø	HZ	HSPF	SEER	MAKE / MODEL	REMARKS
AC-1	REFER TO DRAWINGS	460 MIN 740 MAX	24.0	25.0	208	1	60	MITSUBISHI PEAD-A24AA7	ACCU-1	24	208	1	60	10.4	16.6	MITSUBISHI PUZ-HA24NHA1	

- 1. ALL SPLIT SYSTEMS SHALL BE FURNISHED WITH LOCKING DISCONNECT SWITCH FOR INDOOR UNIT, CONDENSER FUSED DISCONNECT SWITCH. ALL SPLIT SYSTEMS SHALL BE FURNISHED WITH SUPPORTS FOR INDOOR, 7 DAY PROGRAMMABLE CONTROLLER AND CONDENSATE LIFT PUMP.
- 3. ALL SPLIT SYSTEMS SHALL SHALL UTILIZE R-410A REFRIGERANT.

4. ALL SPLIT SYSTEMS SHALL BE FURNISHED WITH ALL EQUIPMENT REQUIRED FOR LOW AMBIENT OPERATION.

5. ALL SPLIT SYSTEMS SHALL BE PROVIDED WITH SINGLE POINT POWER CONNECTIONS UNLESS OTHERWISE NOTED ON THE DRAWINGS. POWER SHALL BE ROUTED FROM THE OUTDOOR (CONDENSING) UNITS TO THE INDOOR UNIT PER THE MANUFACTURERS RECOMMENDATIONS. M.C. TO COORDINATE WITH E.C.

	HVAC VIBRATION-CONTROL					
EQUIPMENT	BASE	ISOLATOR*	DEFLECTION			
CONDENSING UNITS (GRADE AND ROOF MOUNTED)	24" HIGH EQUIPMENT RAILS	NP	0.2"			
SUSPENDED INLINE FANS	-	HSN	1.5"			
INDOOR AHU'S, CEILING MOUNTED	-	HSN	1.2"			
PIPING WITHIN 50FT OF CONNECTION TO ANY PIECE OF EQUIPMENT WITH A MOTOR	-	HSN	1.2"			
DUCTWORK IN MECHANICAL ROOMS OR WITHIN 50FT OF CONNECTED VIBRATION-ISOLATED EQUIPMENT	-	HN	0.25"			
PIPE CONNECTION TO ANY PIECE OF EQUIPMENT ON SPRING ISOLATION	-	FPC	-			

- 1. REFER TO SPECIFICATION SECTION 230548 "VIBRATION AND SEISMIC CONTROLS FOR HVAC PIPING AND EQUIPMENT" FOR A DESCRIPTION OF EACH VIBRATION CONTROL DEVICE.
- FPC FLEXIBLE PIPE CONNECTIONS
- HN NEOPRENE HANGER HSN - SPRING AND NEOPRENE HANGER
- NP NEOPRENE PAD
- 2. SEISMIC ANCHORS, SUPPORTS AND BRACING EQUIPMENT SHALL BE PROVIDED. THE DESIGN OF ALL COMPONENTS SHALL BE SUBMITTED SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF THE PROJECT INDICATING ALL NECESSARY COMPONENT CUT SHEETS, PLAN LOCATIONS AND CALCULATIONS FOR A COMPLETE SYSTEM.
- 3. 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.

HVAC DUC	HVAC DUCT/PLENUM INSULATION					
SYSTEM	INSULATION TYPE	MINIMUM INSULATION VALUES	NOMINAL DENSITY			
INDOOR DUCT/PLENUM EXPOSED SA, RA, OA, AND EA: LOCATED IN MECHANICAL ROOMS, OTHER NON-OCCUPIED SPACES, NON-AIR CONDITIONED SPACES, OTHER THAN ATTICS AND CRAWL SPACES, OR PASSING THROUGH AIR CONDITIONED SPACES.	MINERAL FIBER BOARD WITH VAPOR BARRIER.	1-1/2" R-6.0	3 LB/FT³			
INDOOR DUCT/PLENUM EXPOSED SA, RA, OA, AND EA: LOCATED IN MECHANICAL ROOMS, OTHER NON-OCCUPIED SPACES, NON-AIR CONDITIONED SPACES, OTHER THAN ATTICS AND CRAWL SPACES, OR PASSING THROUGH AIR CONDITIONED SPACES.	MINERAL FIBER BOARD WITH VAPOR BARRIER.	1-1/2" R-6.0	3 LB/FT³			

- 1. INSULATION TYPES INDICATED IN THE SCHEDULE SHALL USED UNLESS OTHERWISE INDICATED ON THE PLANS OR SPECIFICATIONS.
- 2. CLOSED CELL, FIBER FREE, ANTI-MICROBIAL COATED, LOW VOC CERTIFIED, MOISTURE AND MOLD RESISTANT DUCT LINING 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.

OA = OUTDOOR AIR DUCTWORK

SA = SUPPLY AIR DUCTWORK. FOR DOAS: SUPPLY TO DIFFUSERS. RA = RETURN AIR DUCTWORK. FOR DOAS: RETURN FROM GRILLES TO UNIT.

EA = EXHAUST AIR DUCTWORK, FOR DOAS: EXHAUST FROM UNIT TO OUTDOORS.

EXHAUST DOWNSTREAM OF AUTOMATIC OR BAROMETRIC DAMPERS TO OUTDOORS, EXHAUST OF SHOWER ROOMS OR OTHER HUMID ENVIRONMENTS FROM GRILLE TO OUTDOORS.

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CONSULTING ENGINEERS
E-mail krce@kohlerronan.com 10/21/2022 Owner Review Date Description Issue/Revisions

Danbury, CT 06810

Weston Town Hall Basement Alterations

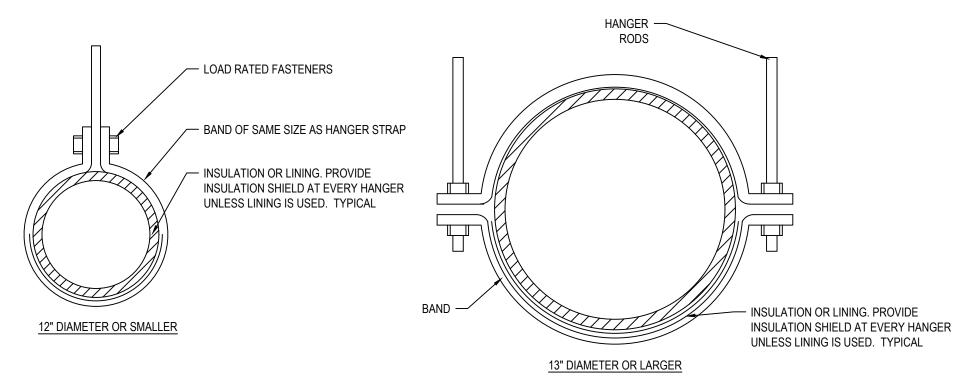
> 56 Norfield Road Weston, CT 06883

Drawing Title

Scale	NTS
Date	October 21, 2022
Drawn By	
Checked By	
Job Number	21273.00

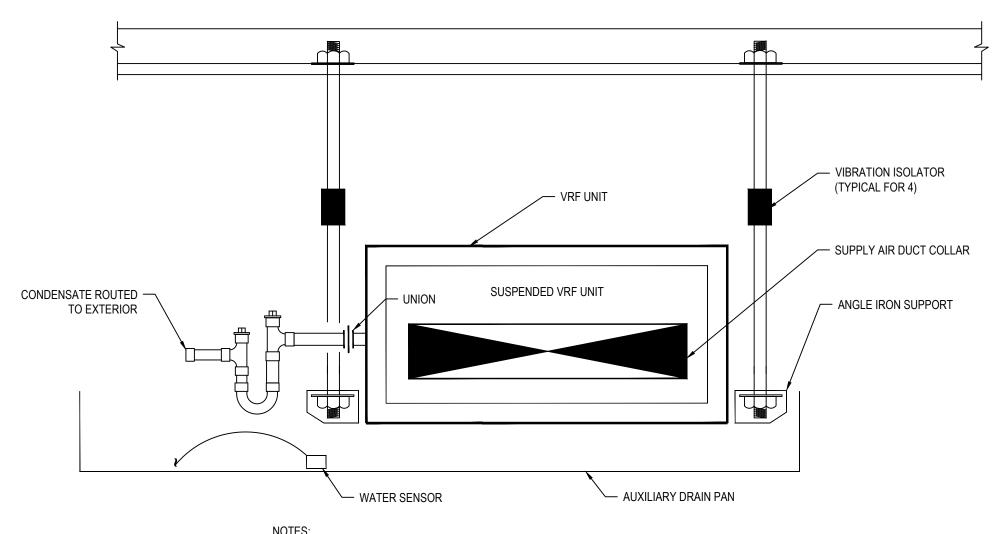
Drawing Number

HANGER STRAPS OR RODS					
MAX. DUCT DIA. IN. (MM)	QUANTITY / SIZE IN. (MM)	MAX. LOAD LBS. (KG)	MAX. SPACING FT. (M)		
12 (650)	ONE 1 (25) x 22 GA STRAP	260 (119)	10 (3.05)		
36 (900)	TWO 3/8 (10) DIA RODS	420 (190)	10 (3.05)		
50 (1250)	TWO 3/8 (10) DIA RODS	700 (317)	10 (3.05)		
60 (1500)	TWO 3/8 (10) DIA RODS	1320 (598)	10 (3.05)		
84 (2100)	TWO 3/8 (10) DIA RODS	2500 (1133)	10 (3.05)		

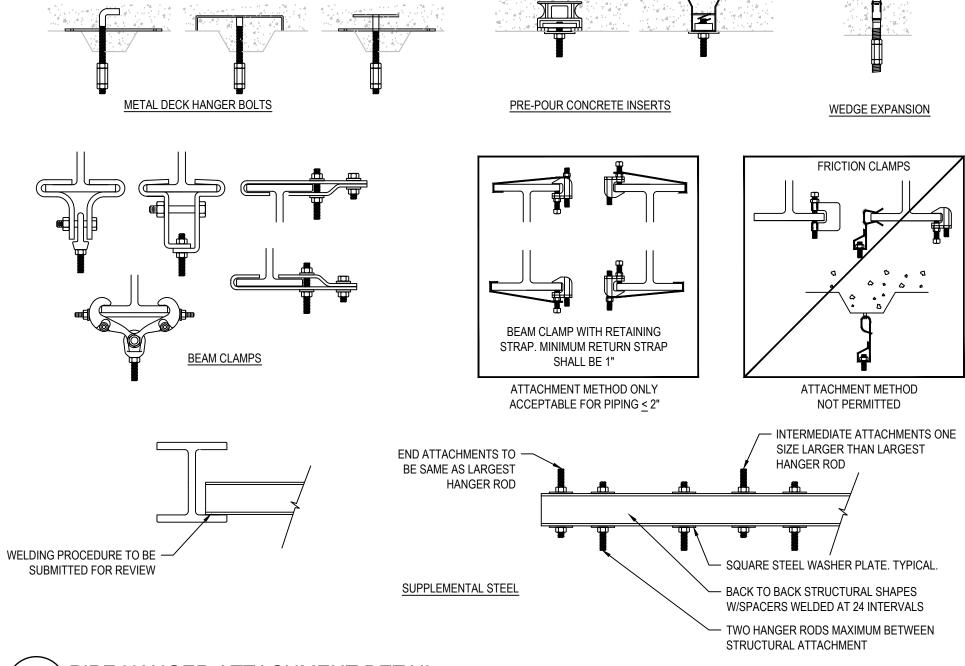


NOTE:
TABULATED DATA FROM SMACNA
ALLOWS FOR DUCT REINFORCING AND
INSULATION, BUT NO EXTERNAL LOAD.

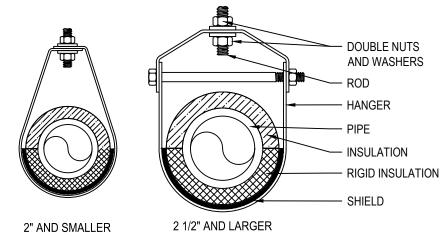
# 1 ROUND DUCTWORK HANGER DETAILS M501 NOT TO SCALE

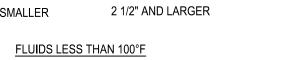


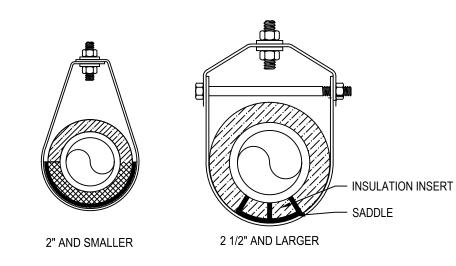
- 1. PROVIDE AUXILIARY DRAIN PAN UNDER VRF UNIT.
- MAKE PAN 3" LARGER THAN FC UNIT ON ALL FOUR (4) SIDES INCLUDING CONDENSATE PUMP.
- 3. MAKE UPSTANDING SIDES 1 1/2" WITH 1/2" HEM TURNED DOWN.
- 4. USE 16 GA. STAINLESS STEEL WITH SOLDERED CORNERS FOR WATER-TIGHTNESS.
- 5. WATER SENSOR AND CABLE SHALL BE PROVIDED TO SHUT OFF UNIT IN EVENT LEAK IS DETECTED. LEAK DETECTOR SHALL SEND SIGNAL TO BMS UPON DETECTION OF MOISTURE.
- 6. AUXILIARY DRAIN PAN SHALL BE INDEPENDENTLY



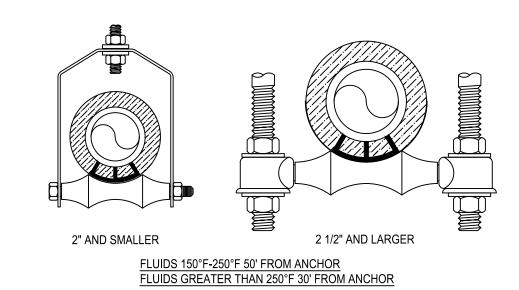
\PIPE HANGER ATTACHMENT DETAIL M501 NOT TO SCALE







FLUIDS GREATER THAN 100°F

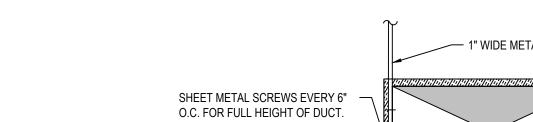


4 PIPE HANGER DETAIL

M501 NOT TO SCALE

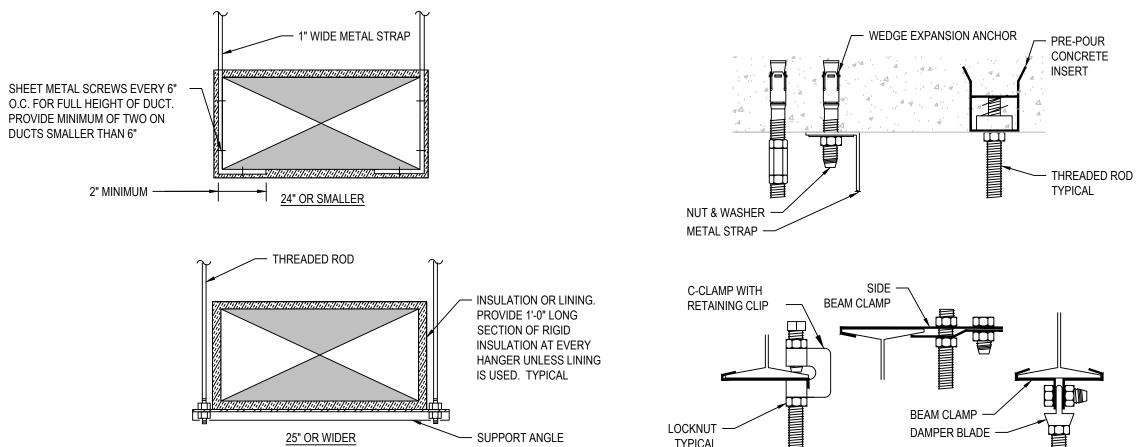
	HANGER SCHEDULE	
PIPE SIZE	ROD SIZE	MAX. SPACING
UP TO 1 1/4"	3/8" DIA.	8' STEEL
UP TO 1 1/4"	3/8" DIA.	6' COPPER & BRASS
1 1/2" & 2"	3/8" DIA.	10'
2 1/2" & 3"	1/2" DIA.	10'
4" & 5"	5/8" DIA.	10'
6"	3/4" DIA.	10'
8", 10", 12"	7/8" DIA.	10'
14" & 16"	1" DIA.	10'
18"	1 1/8" DIA.	10'
20" & 24"	1 1/4" DIA.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

SUPPORTED FROM THE STRUCTURE. 3 AIR HANDLING UNIT SUPPORT DETAIL M501 NOT TO SCALE



DUCT WIDTH	SUPPORT ANGLE OR EQUIV. CHANNEL	ROD DIA.	MAXIMUM SPACING	MAXIMUM AREA *
25" TO 30"	1 1/2" X 1 1/2" X 1/8"	3/8"	8'-0" O.C.	4 SQ. FT.
31" TO 42"	1 1/2" X 1 1/2" X 1/8"	3/8"	6'-0" O.C.	10 SQ. FT.
43" TO 60"	1 1/2" X 1 1/2" X 1/8"	1/2"	6'-0" O.C.	10 SQ. FT.
61" TO 84"	2" X 2" X 1/4"	1/2"	4'-0" O.C.	-
85" AND UP	2" X 2" X 1/4"	1/2"	4'-0" O.C.	-

\* REDUCE SPACING TO NEXT SMALLER INTERVAL IF DUCT AREA EXCEEDS MAXIMUM



5 DUCT SUPPORT DETAIL

Weston Town Hall Basement Alterations

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KOHLER RONAN, LLC
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Drawing Title DETAILS -MECHANICAL

NTS
October 21, 2022
21273.00

Drawing Number

# SHOP DRAWINGS

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.

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.

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".

SUBMITTALS WILL BE REVIEWED FOR CONFORMANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS. THE ENGINEER'S REVIEW STAMP WILL BE AFFIXED TO SUBMITTALS. ONE OF THE FOLLOWING ACTIONS WILL BE TAKEN:

REVIEWED: NO COMMENTS, CORRECTIONS, OR MARKS HAVE BEEN MADE TO THE SUBMITTAL. RE-REVIEW BY THE ENGINEER IS NOT REQUIRED. THE SUBMITTAL IS IN GENERAL CONFORMANCE WITH THE DESIGN CONCEPT. CONSTRUCTION, FABRICATION AND/OR MANUFACTURE CAN PROCEED SUBJECT TO THE PROVISION THAT THE WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. FINAL ACCEPTANCE OF THE WORK SHALL BE CONTINGENT UPON SUCH COMPLIANCE.

FURNISH AS CORRECTED: COMMENTS, CORRECTIONS, OR MARKS MADE. RE-REVIEW IS NOT REQUIRED. SUBMISSION IS IN GENERAL CONFORMANCE WITH THE DESIGN CONCEPT SUBJECT TO NOTATIONS ON THE RETURNED SUBMITTAL. CONSTRUCTION, FABRICATION, AND/OR MANUFACTURER CAN PROCEED SUBJECT TO THE PROVISIONS THAT THE WORK SHALL BE CARRIED OUT IN COMPLIANCE WITH ALL ANNOTATIONS AND/OR CORRECTIONS INDICATED ON THE RETURNED SUBMITTAL AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. FINAL ACCEPTANCE OF THE WORK SHALL BE CONTINGENT ON SUCH COMPLIANCE.

REVISE AND RESUBMIT: SIGNIFICANT ISSUES/DISCREPANCIES/INCOMPLETE INFORMATION WAS PROVIDED IN THE SUBMITTAL. REVISE OR PREPARE A NEW SUBMITTAL IN ACCORDANCE WITH THE NOTATIONS AND CONTRACT DOCUMENTS. RESUBMIT WITHOUT DELAY.

REJECTED: SUBMITTAL DOES NOT MEET CONTRACT DOCUMENT INTENT. REVISE OR PREPARE A NEW SUBMITTAL IN ACCORDANCE WITH THE NOTATIONS AND CONTRACT DOCUMENTS. RESUBMIT WITHOUT DELAY.

A SUBMITTAL REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. APPROVAL OF A SPECIFIC ITEM SHALL NOT INCLUDE APPROVAL OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. THE CONTRACTOR IS RESPONSIBLE FOR: DIMENSIONS TO BE CONFIRMED AND CORRELATED AT THE JOBSITE; INFORMATION THAT PERTAINS SOLELY TO THE FABRICATION PROCESSES OR TO THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION; COORDINATION OF HIS OR HER WORK WITH THAT OF ALL OTHER TRADES; AND FOR PERFORMING ALL WORK IN A SAFE AND SATISFACTORY MANNER.

# EQUIPMENT, DUCTWORK, & PIPING 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.

VALVE NUMBERING SCHEME.

VALVE SCHEDULES: FOR EACH PIPING SYSTEM TO INCLUDE IN MAINTENANCE MANUALS.

# 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 AND PIPING:

# 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.

#### 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 BEADED CHAIN WITH S-HOOK OR JACK CHAIN WITH S-HOOK.

VALVE TAG CONTENTS: INCLUDE IDENTIFICATION OF PIPING SERVICE USING SAME DESIGNATIONS OR ABBREVIATIONS AS USED ON DRAWINGS, VALVE NUMBER AND SERVICE.

EXAMPLE: HWS ISOLATION

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.

VALVE-TAG SCHEDULE SHALL BE FRAMED BEHIND GLASS AND LOCATED IN EACH MECHANICAL ROOM.

#### 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:
ROUND SUPPLY-AIR DUCT: 3 CFM/100 SQ. FT. AT 1-INCH WG.
FLAT-OVAL SUPPLY-AIR DUCT: 3 CFM/100 SQ. FT. AT 1-INCH WG.
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 WG.

DUCT ACCESS DOORS SHALL BE CONSTRUCTED OF DOUBLE WALL OF THE SAME OR GREATER GAUGE AS DUCTWORK. PROVIDE INSULATED ACCESS DOORS FOR INSULATED 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 60 PERCENT, SHORE A HARDNESS: MINIMUM 60, 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 R-6 FIBERGLASS INSULATION. 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.

# <u>DUCT INSULATION</u>

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: CERTAINTEED 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 FLANGES: FACTORY-FABRICATED COMPANION-FLANGE ASSEMBLY, FOR 150- OR 300-PSIG MINIMUM WORKING PRESSURE AS REQUIRED TO SUIT SYSTEM PRESSURES.

DIELECTRIC COUPLINGS: GALVANIZED-STEEL COUPLING WITH INERT AND NON-CORROSIVE THERMOPLASTIC LINING; THREADED ENDS; AND 300-PSIG MINIMUM WORKING PRESSURE AT 225°F.

PE JOINT CONSTRUCTION

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

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 32.

BRAZED JOINTS: CONSTRUCT JOINTS ACCORDING TO AWS'S "BRAZING HANDBOOK," "PIPE AND TUBE" CHAPTER, USING COPPER-PHOSPHORUS BRAZING FILLER METAL COMPLYING WITH AWS A5.8.

THREADED JOINTS: THREAD PIPE WITH TAPERED PIPE THREADS ACCORDING TO ASME B1.20.1. CUT

THREADS FULL AND CLEAN USING SHARP DIES. REAM THREADED PIPE ENDS TO REMOVE BURRS AND

RESTORE FULL ID. JOIN PIPE FITTINGS AND VALVES AS FOLLOWS:

APPLY APPROPRIATE TAPE OR THREAD COMPOUND TO EXTERNAL PIPE THREADS UNLESS DRY
SEAL THREADING IS SPECIFIED.

DAMAGED THREADS: DO NOT USE PIPE OR PIPE FITTINGS WITH THREADS THAT ARE CORRODED OR DAMAGED. DO NOT USE PIPE SECTIONS THAT HAVE CRACKED OR OPEN WELDS. WELDED JOINTS: CONSTRUCT JOINTS ACCORDING TO AWS D10.12/D10.12M, USING QUALIFIED PROCESSES AND WELDING OPERATORS ACCORDING TO PART 1 "QUALITY ASSURANCE" ARTICLE. FLANGED JOINTS: SELECT APPROPRIATE GASKET MATERIAL, SIZE, TYPE, AND THICKNESS FOR SERVICE APPLICATION. INSTALL GASKET CONCENTRICALLY POSITIONED. USE SUITABLE LUBRICANTS

Y-PATTERN STRAIN

ON BOLT THREADS.

Y-PATTERN STRAINERS:

BODY: ASTM A 126, CLASS B, CAST IRON WITH BOLTED COVER AND BOTTOM DRAIN CONNECTION.

END CONNECTIONS: THREADED ENDS FOR NPS 2 AND SMALLER; FLANGED ENDS FOR NPS 2-1/2 AND LARGER.

STRAINER SCREEN: UP TO 3", 1/16" MESH, 4" AND ABOVE, 1/8" MESH STARTUP STRAINER, AND PERFORATED STAINLESS-STEEL BASKET WITH 50 PERCENT FREE AREA.

CWP RATING: 125 PSIG.

MANUAL AIR VENTS:

MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING: AMTROL, INC., ARMSTRONG PUMPS, INC., BELL & GOSSETT DOMESTIC PUMP; A

BODY: BRONZE INTERNAL PARTS: NONFERROUS

DIVISION OF ITT INDUSTRIES., TACO.

OPERATOR: SCREWDRIVER OR THUMBSCREW
INLET CONNECTION: NPS 1/2., DISCHARGE CONNECTION: NPS 1/8., CWP
RATING: 150 PSIG.

MAXIMUM OPERATING TEMPERATURE: 225 °F.

AUTOMATIC AIR VENTS:

MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF
THE FOLLOWING: AMTROL, INC., ARMSTRONG PUMPS, INC., BELL & GOSSETT DOMESTIC PUMP; A
DIVISION OF ITT INDUSTRIES., TACO.

BODY: BRONZE OR CAST IRON
INTERNAL PARTS: NONFERROUS
OPERATOR: NONCORROSIVE METAL FLOAT
INLET CONNECTION: NPS 1/2., DISCHARGE CONNECTION: NPS 1/4., CWP

RATING: 150 PSIG.

MAXIMUM OPERATING TEMPERATURE: 240°F.

PIPE HANGERS:

INSTALL THE FOLLOWING PIPE ATTACHMENTS:

ADJUSTABLE STEEL CLEVIS HANGERS FOR INDIVIDUAL HORIZONTAL PIPING LESS THAN 20 FEET LONG

ADJUSTABLE ROLLER HANGERS AND SPRING HANGERS FOR INDIVIDUAL HORIZONTAL PIPING 20 FEET OR LONGER.

PIPE ROLLER: MSS SP-58, TYPE 44 FOR MULTIPLE HORIZONTAL PIPING 20 FEET OR LONGER,

SUPPORTED
ON A TRAPEZE.
SPRING HANGERS TO SUPPORT VERTICAL RUNS.

PROVIDE COPPER-CLAD HANGERS AND SUPPORTS FOR HANGERS AND SUPPORTS IN DIRECT

WITH COPPER PIPE.

INSTALL HANGERS FOR STEEL AND COPPER PIPING ACCORDING TO THE "PIPE HANGER DETAIL"

# GENERAL DUTY VALVES

HANGER SCHEDULE.

INSTALL SHUTOFF-DUTY VALVES AT EACH BRANCH CONNECTION TO SUPPLY MAINS, AND AT SUPPLY CONNECTION TO EACH PIECE OF EQUIPMENT.

INSTALL BALANCING VALVES AT EACH BRANCH CONNECTION SERVING MORE THAN ONE DEVICE TO RETURN MAIN. BALANCING VALVES SHALL BE SIZED FOLLOWING THE MANUFACTURES REQUIREMENTS.

INSTALL BALANCING VALVES IN THE RETURN PIPE OF EACH HEATING OR COOLING TERMINAL. BALANCING VALVES SHALL BE SIZED FOLLOWING THE MANUFACTURES REQUIREMENTS.

INSTALL PRESSURE-REDUCING VALVES AT MAKEUP-WATER CONNECTION TO REGULATE SYSTEM FILL

INSTALL VALVES WITH UNIONS OR FLANGES AT EACH PIECE OF EQUIPMENT ARRANGED TO ALLOW SERVICE, MAINTENANCE, AND EQUIPMENT REMOVAL WITHOUT SYSTEM SHUTDOWN.

LOCATE VALVES FOR EASY ACCESS AND PROVIDE SEPARATE SUPPORT WHERE NECESSARY.

INSTALL VALVES IN HORIZONTAL PIPING WITH STEM AT OR ABOVE CENTER OF PIPE.

INSTALL VALVES IN POSITION TO ALLOW FULL STEM MOVEMENT.

INSTALL CHAIN WHEELS ON WHEEL ACTUATED OPERATORS FOR BUTTERFLY, GATE, GLOBE AND PLUG VALVES NPS 4 AND LARGER AND >83 INCHES ABOVE FLOOR. EXTEND CHAINS TO 60 INCHES ABOVE FINISHED FLOOR.

INSTALL CHECK VALVES FOR PROPER DIRECTION OF FLOW AND AS FOLLOWS:
INSTALL SWING CHECK VALVES: IN HORIZONTAL POSITION WITH HINGE PIN LEVEL.
CENTER-GUIDED AND PLATE-TYPE CHECK VALVES: IN HORIZONTAL OR VERTICAL POSITION, BETWEEN FLANGES.
LIFT CHECK VALVES: WITH STEM UPRIGHT AND PLUMB.

GENERAL REQUIREMENTS FOR VALVE APPLICATIONS, IF VALVE APPLICATIONS ARE NOT INDICATED, USE THE FOLLOWING:

SHUTOFF SERVICE: FULL PORT BALL WITH STAINLESS STEEL TRIM, BUTTERFLY, OR PLUG VALVES. BALANCING VALVE: USE BELL & GOSSETT CIRCUIT SETTER OR APPROVED EQUAL BUTTERFLY VALVE DEAD-END SERVICE: LUG TYPE.

Dan 203 171 Nev 212

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KOHLER RONAN, LLC
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10/21/2022 Owner Review
No. Date Description

Issue/Revisions

Weston Town
Hall Basement
Alterations

56 Norfield Road Weston, CT 06883

SPECIFICATIONS

- MECHANICAI

Scale NTS

Date October 21, 2022

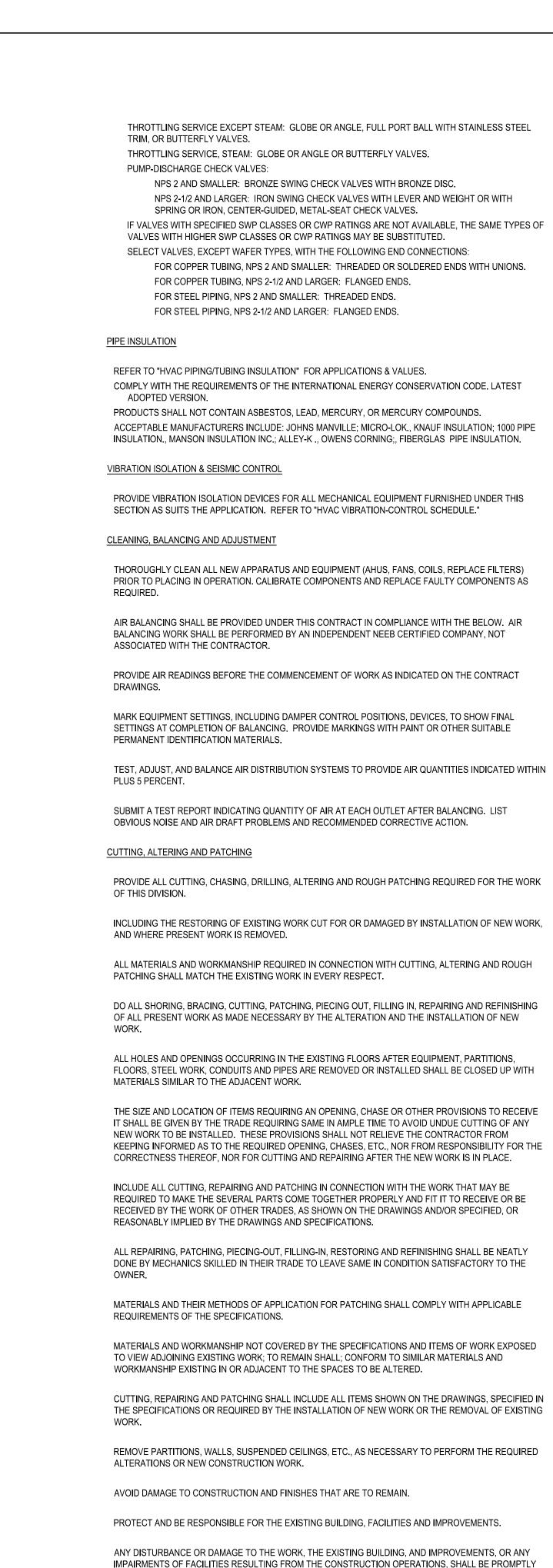
Drawn By KN

Checked By KR

Job Number 21273.00

Drawing Number

M70



# 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.

ALL HOLES IN MASONRY FLOORS AND WALLS ARE TO BE CORE DRILLED.

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. CAP/SEAL 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 18 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 LO

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

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

# MANUFACTURER:

RECTIFIED, WITH THE DISTURBED, DAMAGED, OR IMPAIRED WORK, RESTORED, REPAIRED OR REPLACED

CONTROLS SHALL BE PROVIDED BY VRF UNIT MANUFACTURER AND CONSIST OF A PROGRAMMABLE THERMOSTAT.



No. Date Description

Issue/Revisions

S

Weston Town
Hall Basement
Alterations

56 Norfield Road Weston, CT 06883

SPECIFICATIONS

Scale NTS

Date October 21, 2022

Drawn By KN

Checked By KR

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M70

# **GENERAL NOTES**

#### <u>GENERAL</u>

- 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.
- 2. THE DRAWINGS AND SPECIFICATIONS ARE DIVIDED INTO SECTIONS TO MEET THE NEEDS OF 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 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 AND E-SERIES DRAWINGS.

## WIRING & RACEWAY:

- THE DRAWINGS SHOW THE GENERAL LAYOUT AND TYPICAL DETAILS. PROVIDE COMPLETE SYSTEMS. DRAWINGS ARE BASED ON THE SPECIFIED EQUIPMENT. RACEWAY LAYOUTS, BOXES, AND WIRING OF THE SYSTEMS ARE SUBJECT TO APPROVED SHOP DRAWINGS.
- 2. ENSURE THAT ITEMS TO BE FURNISHED FIT THE SPACE AVAILABLE. MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS, AND PROVIDE SUCH SIZES AND SHAPES OF EQUIPMENT THAT FINAL INSTALLATION SHALL SATISFY THE INTENT OF THE DRAWINGS AND SPECIFICATIONS.
- 3. LOCATIONS OF OUTLETS, SWITCHES, APPLIANCES, ETC. AS SHOWN ON ELECTRICAL PLANS ARE APPROXIMATE; COORDINATE WITH MECHANICAL PLANS AND DETAILS, AND WITH JOB CONDITIONS. INSTALL SWITCHES WITH "OFF" POSITION DOWN. INSTALL RECEPTACLES WITH GROUNDING POLE IN THE UP POSITION FOR VERTICAL MOUNTING AND AT LEFT FOR HORIZONTAL MOUNTING.
- 4. LOCATE AND INSTALL ELECTRICAL EQUIPMENT, JUNCTION AND PULL BOXES, SWITCHES, CONTROLS, AND OTHER APPARATUS REQUIRING MAINTENANCE, INSPECTION, AND OPERATION SO AS TO BE READILY ACCESSIBLE.

#### RACEWAY INSTALLATION:

1. UNLESS OTHERWISE INDICATED, EXACT ROUTING OF RACEWAYS SHALL BE DETERMINED BY THE CONTRACTOR TO SUIT PROJECT REQUIREMENTS AND FIELD CONDITIONS.

#### WIRING INSTALLATION:

DO NOT USE WIRE SMALLER THAN NO. 12 AWG FOR ANY POWER OR LIGHTING CIRCUIT. USE LARGER SIZES WHERE INDICATED, AS REQUIRED BY CODES, AND AS FOLLOWS:

```
30 AMPERE CIRCUIT: NO. 10
40 AMPERE CIRCUIT: NO. 8
50 AMPERE CIRCUIT: NO. 6
60 AMPERE CIRCUIT: NO. 4
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A. MINIMUM HOMERUN AND BRANCH CIRCUIT WIRING SIZES AND MAXIMUM HOMERUN CONDUIT FILL FOR 120 VOLT, 20 AMPERE CIRCUITS SHALL BE AS FOLLOWS:

	<u>CIRCUIT</u>	HOME RUN	CONDUIT SIZ
LENGTH	WIRE SIZE	WIRE SIZE	(8 WIRES/CC
0' TO 50'	#12	#12	3/4"
51' TO 100'	#12	#10	3/4"
101' TO 200'	#10	#8	1"

# GREATER THAN 200' - REQUEST DIRECTION FROM ENGINEER.

NOTE: PROVIDE DERATING PER CODE WHEN INSTALLING MORE THAN 3 CURRENT CARRYING CONDUCTORS IN CONDUIT.

- 2. DO NOT USE WIRE SMALLER THAN NO. 14 AWG FOR CONTROL CIRCUITS UNLESS OTHERWISE RECOMMENDED BY THE EQUIPMENT OR SYSTEM MANUFACTURER ON WIRING SHOP DRAWINGS, AND SO APPROVED BY THE ENGINEER.
- 3. WHERE GREATER THAN THREE (3) CURRENT-CARRYING CONDUCTORS ARE INSTALLED IN ANY ONE CONDUIT OR CABLE, CONDUCTORS MUST BE DERATED AND SIZES INCREASED, IF NEEDED, TO ACCOMMODATE CONDUCTOR DERATING AS REQUIRED BY NEC ARTICLE 310.
- 4. CONDUCTORS SHALL BE COMPLETELY INSTALLED AND CONNECTED. PROVIDE ALL TERMINALS, LUGS, AND CONNECTORS TO SUIT THE APPLICATION, AND IN COMPLIANCE WITH EQUIPMENT MANUFACTURERS' RECOMMENDATIONS.
- 5. UNDER NO CIRCUMSTANCES SHALL ANY SWITCH OR CIRCUIT BREAKER BREAK A NEUTRAL CONDUCTOR.
- 6. THE CIRCUIT NUMBERS INDICATED ON THE DRAWINGS ARE INTENDED AS A GUIDE FOR PROPER CONNECTION OF CIRCUITS AT PANELBOARDS; HOWEVER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE FINAL CIRCUITING WORK FULFILLS THE FOLLOWING CONDITIONS:
- A. LOADS ON PANELBOARD BUSSES SHALL BE PHASE-BALANCED AS EVENLY AS POSSIBLE.
- 7. PROVIDE SEPARATE NEUTRALS FOR EACH CIRCUIT. WHERE MULTIPLE CIRCUITS ARE INSTALLED IN THE SAME RACEWAY OR ENCLOSURE, IDENTIFY NEUTRALS WITH CORRESPONDING BRANCH CIRCUIT PHASE CONDUCTOR NUMBERS.

# GROUNDING INSTALLATION:

# EQUIPMENT GROUNDING

- A. INSTALL AN INSULATED GROUND CONDUCTOR, RUN IN THE RACEWAY WITH THE PHASE CONDUCTORS, FOR EACH FEEDER SERVING: PANELBOARDS, LIGHTING DIMMER BOARDS, MOTOR CONTROL CENTERS, MOTORS, EQUIPMENT AND APPLIANCES UNLESS OTHERWISE NOTED.
- B. INCLUDE AN INSULATED GROUND CONDUCTOR IN ALL CONDUIT RUNS CONTAINING SECTIONS OF FLEXIBLE CONDUIT UNLESS OTHERWISE NOTED.
- C. INCLUDE AN INSULATED GROUND CONDUCTOR IN ALL BRANCH CIRCUIT RACEWAYS OR CABLES UNLESS OTHERWISE NOTED.

#### MECHANICAL EQUIPMENT WIRING:

- UNLESS OTHERWISE INDICATED OR SPECIFIED HEREIN, ALL HVAC EQUIPMENT IS FURNISHED UNDER OTHER DIVISIONS AND INSTALLED UNDER THIS DIVISION. COORDINATE INSTALLATION AND LOCATIONS WITH OTHER DIVISION CONTRACTORS.
- 2. POWER WIRING FROM THE INDICATED SOURCE TO THE HVAC EQUIPMENT, INCLUDING ANY LOCAL DISCONNECT SWITCHES PROVIDED AND INSTALLED BY THIS DIVISION, AND ALL ASSOCIATED LUGS, TERMINALS, AND CONNECTIONS, IS THE WORK OF THIS DIVISION.
- 3. CONTROL CIRCUIT WIRING IS GENERALLY FURNISHED AND INSTALLED UNDER OTHER DIVISIONS, EXCEPT THAT ANY SUCH WIRING SHOWN ON ELECTRICAL DRAWINGS IS WORK OF THIS DIVISION.
- 4. COOPERATE AND COORDINATE WITH THE OTHER TRADES IN THE INSTALLATION, CONNECTION, AND TESTING OF MECHANICAL EQUIPMENT. PERFORM WORK OF THIS SECTION IN ACCORDANCE WITH EQUIPMENT MANUFACTURERS' INSTRUCTIONS.

#### COORDINATION DRAWINGS:

- 1. DEVELOP AND SUBMIT COORDINATION DRAWINGS AS OUTLINED.
- A. SHEET METAL, SHOP DRAWINGS THAT HAVE BEEN COORDINATED 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.
- B. 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 -MECHANICAL PIPING -ELECTRICAL WORK

- 2. 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.
- 3. THE ENGINEER IS 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.
- 4. 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.
- 5. 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.
- 6. EACH CONTRACTOR (MENTIONED ABOVE) IS RESPONSIBLE FOR THE COORDINATION OF HIS SUB-CONTRACTORS.
- 7. 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.

# AS BUILT DRAWINGS

- 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 (AUTO-CAD VERSION AS REQUIRED BY THE OWNER) VERSION. NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER
- 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:
- A. 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.
- B. EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM PROMINENT BUILDING
- C. APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.
- D. CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED.
- E. SUBMIT FOR REVIEW BOUND SETS OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING INSTRUCTIONS.
- F. SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.

ELECTRICAL DRAWING LIST		
ELECTRICAL DRAWING LIST		
DRAWING DESCRIPTION		
COVER SHEET - ELECTRICAL		
BASEMENT DEMOLITION FLOOR PLAN - ELECTRICAL		
BASEMENT FLOOR PLAN - ELECTRICAL		
PANEL SCHEDULES - ELECTRICAL		
SPECIFICATIONS - ELECTRICAL		

	ELECTRICAL ABBREVIATIONS
A	AMPERES
AFF	ABOVE FINISHED FLOOR
С	CONDUIT
C/B	CIRCUIT BREAKER
CKT	CIRCUIT
E.C.	ELECTRICAL CONTRACTOR
ER	EXISTING RELOCATED
ETBR	EXISTING TO BE RELOCATED
ETR	EXISTING TO REMAIN
G	GROUND
JB	JUNCTION BOX
MLO	MAIN LUG ONLY
MTD	MOUNTED
PNL	PANEL
TW/SH	TWISTED SHIELD
U.O.N.	UNLESS OTHERWISE NOTED
V	VOLTS
VA	VOLT-AMPERES
WP	WEATHER PROOF

A#a	LIGHTING FIXTURE, UPPERCASE LETTER INDICATES TYPE, # = CIRCUIT, LOWERCASE LETTER = LIGHTING ZONE (TYP)
Sa	SINGLE POLE SWITCH, LETTER = LIGHTING ZONE (TYP)
Sm	DISCONNECT SWITCH - TOGGLE TYPE, MOTOR RATED WITH THERMAL OVERLOAD, 1HP, 20A, 1P., U.O.N.
SLV	SINGLE POLE ILLUMINATED SWITCH
<b>√</b> VS <b>&gt;</b>	CEILING MOUNTED DUAL TECHNOLOGY 360° VACANCY SENSOR
φ	DUPLEX CONVENIENCE RECEPTACLE - 18" AFF U.O.N.
₽GFI	DUPLEX GROUND FAULT INTERRUPTING RECEPTACLE - 18" AFF U.O.N.
J	WALL MOUNTED JUNCTION BOX
마 <u>#</u>	NON-FUSED DISCONNECT SWITCH, # = SWITCH SIZE
\$	SMOKE DETECTOR
[-]	SURFACE MOUNTED PANELBOARD AND CLEARANCE
[_]	FLUSH MOUNTED PANELBOARD AND CLEARANCE
	CONDUCTOR
	UNDERGROUND CONDUCTOR
	EXISTING CONDUCTOR TO REMAIN
xxxx	EXISTING CONDUCTOR, EQUIPMENT, OR DEVICE TO BE DISCONNECTED AND REMOVED
— — ×/#	BRANCH CIRCUIT HOMERUN (X = PANELBOARD, # = CIRCUIT NO.)

**ELECTRICAL SYMBOLS** 

	ER RONAN, LLC ULTING ENGINEERS	93 Lake Avenue Danbury, CT 06810 203.778.1017 F 203.778.1018 171 Madison Avenue New York, NY 10016 212.695.2422 F 212.695.2422 www.kohlerronan.com E-mail krce@kohlerronan.con
	10/21/202	22 Owner Review
No.	Date	Description
Issue	/Revision	S

	LIGHTING CONTROL SEQUENCE OF OPERATIONS	
SPACE TYPE	LIGHTING CONTROL STRATEGY	DETAIL / DRAWING
STORAGE ROOM LIGHTING	LIGHTING SHALL BE CONTROLLED BY A LOW VOLTAGE SWITCH AND VACANCY SENSOR(S) (MANUAL ON / AUTOMATIC OFF AFTER 20 MINUTES).	2 / E501

				LIGHTING F	FIXTURE SCHEDULE
TYPE	LAMP	VOLTAGE	LUMENS	MOUNTING	DESCRIPTION
А	44W LED	120/277V	5,764 LM	CEILING SURFACE	4' INDUSTRIAL MICROSTRIP FIXTURE, 5000K TEMPERATURE, 80 CRI, 0-10V DIMMING - KEYSTONE #KT-MSLED44-4-850-VDIM-P
1	2W LED	120/277V	- LM	WALL SURFACE	DUAL HEAD EMERGENCY LIGHTING BATTERY PACK, WHITE THERMOPLASTIC HOUSING, MONTHLY SELF DIAGNOSTICS - LITHONIA #EU2C

Weston Town Hall Basement Alterations

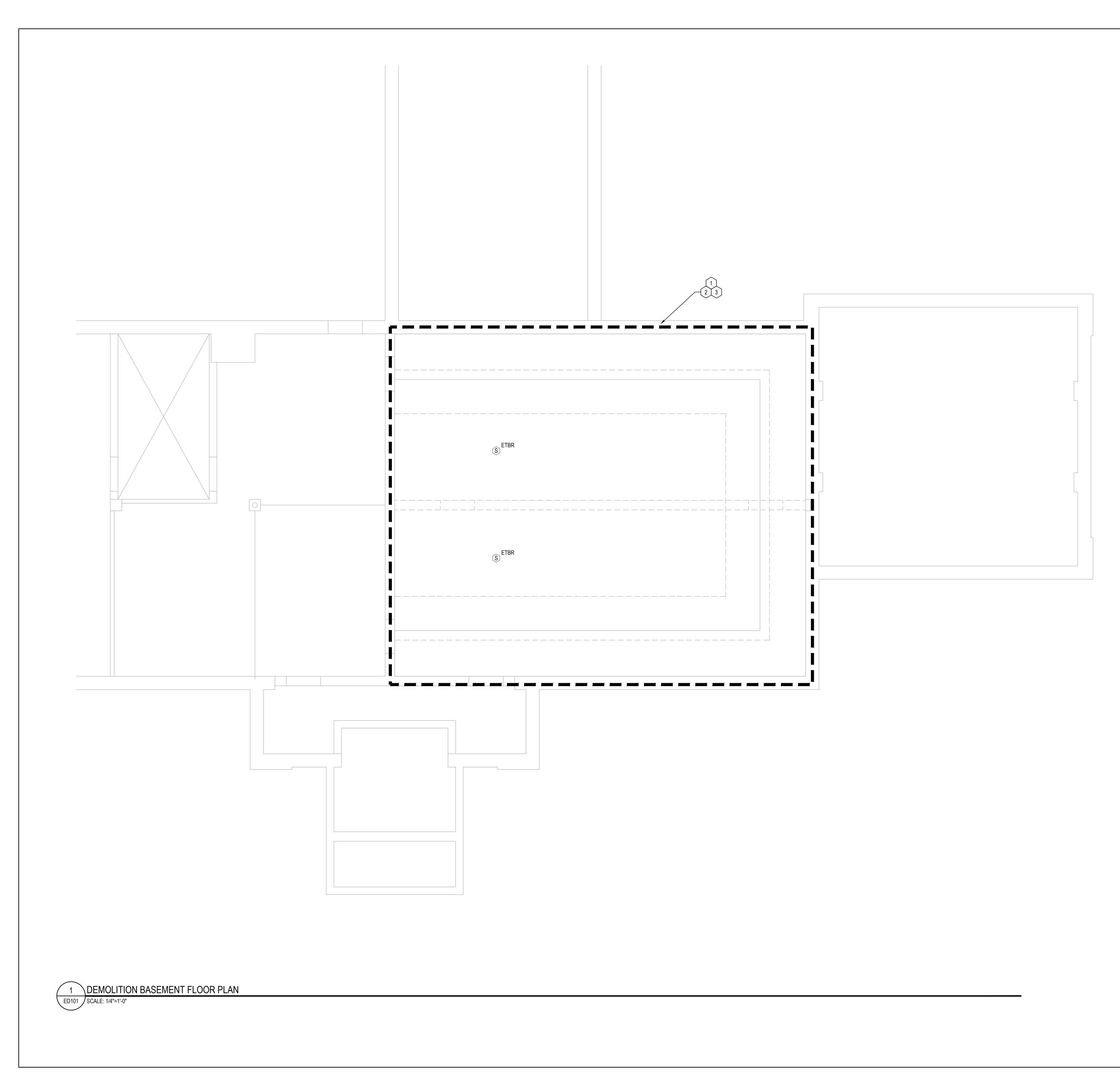
> 56 Norfield Road Weston, CT 06883

COVER SHEET ELECTRICAL

Scale	NTS
Date	October 21, 2022
Drawn By	CC
Checked By	JOC
Ioh Number	21273.00

Drawing Number

E001

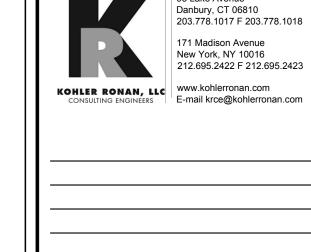


# DEMOLITION KEY NOTES

- DISCONNECT AND REMOVE ALL EXISTING INTERIOR LIGHTING FIXTURES, SWITCHES, BACKBOXES, CONDUIT AND WIRING BACK TO PANELBOARD OR UPSTREAM ETR LIGHTING FIXTURE.
- ELECTRICAL CONTRACTOR SHALL MAINTAIN/RECONNECT ALL EXISTING BRANCH CIRCUIT WIRING DISTURBED DURING CONSTRUCTION BUT OUTSIDE OF NEW CONSTRUCTION AREA.
- CONTRACTOR SHALL RETRAIN EXISTING RACEWAYS AND LOW VOLTAGE CABLE SUCH THAT IT CAN BE SUPPORTED TIGHT TO THE CEILING.

# DEMOLITION AND REMOVALS

- 1. THE EXISTING FACILITY WILL BE OCCUPIED AND IN OPERATION DURING THE PERFORMANCE OF THE
- 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.
- 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.
- 3. 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.
- 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, OR IF APPLICABLE, BACK TO UPSTREAM ETR DEVICE. 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.
- 16. CONDUCTORS THAT ARE NOT DEEMED REUSABLE SHALL BE REMOVED BACK TO THE NEAREST JUNCTION BOX. WHERE THE ENTIRE CIRCUIT IS TO BE REMOVED, THE CONDUCTORS SHALL BE REMOVED BACK TO THE PANELBOARD FROM WHICH THEY ORIGINATE.
- 17. 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.
- 18. CONTRACTOR TO MAINTAIN CONTINUITY AND ACCESSIBILITY OF ALL EXISTING SYSTEMS AND SYSTEM EQUIPMENT FEEDERS WHICH MAY BE DISRUPTED FOR WORK OF ANY TRADE.
- 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.
- 20. FOR PURPOSES OF THE CONTRACT, WHAT IS NOTED OR SHOWN ON DRAWINGS INDICATES THE SCOPE OF WORK REQUIRED AND QUALITY OF MATERIALS REQUIRED.
- 21. 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.
- 22. CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE EXTENT OF DEMOLITION, REMOVALS AND EXACT LOCATION OF DETAIL 2/E101 PRIOR TO THE SUBMISSION OF BIDS. NO CONSIDERATION SHALL BE GIVEN FOR FAILURE TO VISIT THE SITE.
- 23. CONTRACTOR SHALL UTILIZE ALL THE CIRCUIT 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.



10/21/2022 Owner Review

Issue/Revisions

Weston Town Hall Basement

> 56 Norfield Road Weston, CT 06883

Alterations

BASEMENT
DEMOLITION FLOOR
PLAN - ELECTRICAL

 Scale
 1/4"=1'-0"

 Date
 October 21, 2022

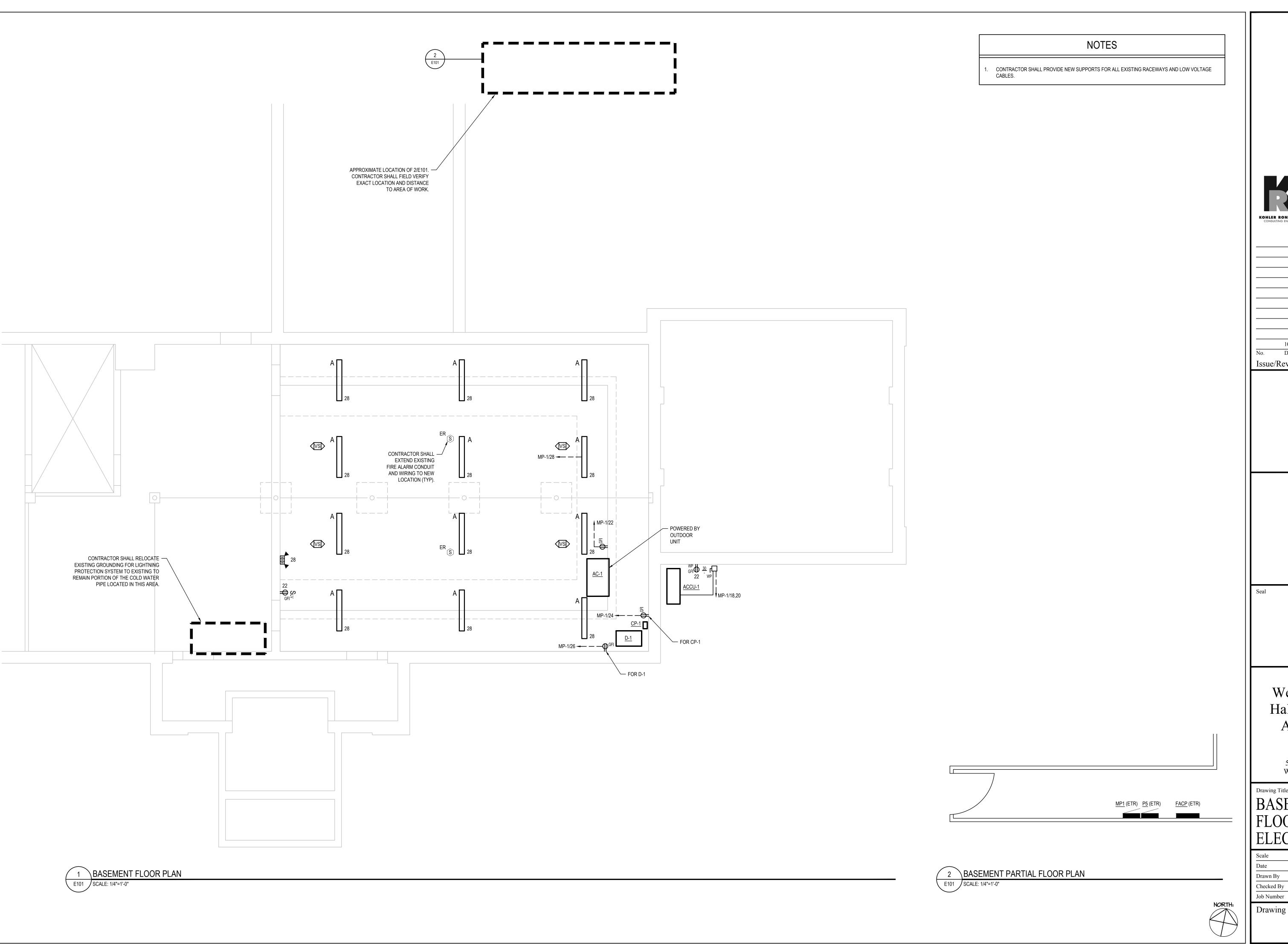
 Drawn By
 - 

 Checked By
 -

Job Number 21273.00

Drawing Number







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 KOHLER RONAN, LLC consulting engineers www.kohlerronan.com E-mail krce@kohlerronan.com

10/21/2022 Owner Review Issue/Revisions

> Weston Town Hall Basement Alterations

> > 56 Norfield Road Weston, CT 06883

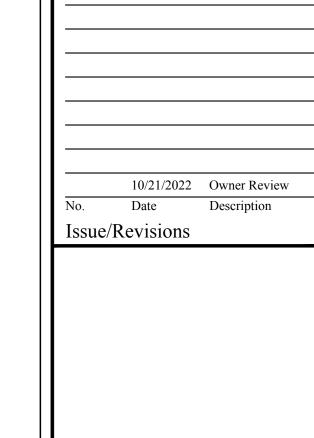
Drawing Title BASEMENT FLOOR PLAN -ELECTRICAL

1/4"=1'-0" October 21, 2022 Drawn By 21273.00

Drawing Number

	/120V, 3 PHASE, 4 RA.I.C.	WIRE				M	IP1 (ETI	R)					200A N 225A E	
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3	EXISTING LO	AD	-	20	2					1	20	-	EXISTING LOAD	4
5	EXISTING LO	AD	-	20	1					1	20	-	EXISTING LOAD	6
7	EXISTING LO	AD	-	20	1					1	20	-	EXISTING LOAD	8
9	EVICTING LO	A.D.		00	0					1	20	-	EXISTING LOAD	10
11	EXISTING LO	AD	-	20	2					1	20	-	EXISTING LOAD	12
13	EVICTING LO	A.D.		20							00		EVICTING LOAD	14
15	EXISTING LOA	AD	-	20	2					2	20	-	EXISTING LOAD	16
17	EXISTING LO	AD	-	20	1				1768		0.5	0440 4400 2/480	* * * * * * * * * * * * * * * * * * * *	18
19	EXISTING LO	AD	-	20	1	1768				2	25	2#10 + #10G - 3/4"C	* ACCU-1	20
21	EXISTING LO	AD	-	20	1		540			1	20	2#12 + G - 3/4"C	STORAGE RECEP	22
23	EXISTING LO	AD	-	20	1				180	1	20	2#12 + G - 3/4"C	CP-1	24
25	EXISTING LO	AD	-	20	1	612				1	20	2#12 + G - 3/4"C	D-1	26
27	EXISTING LO	AD	-	20	1		530			1	20	2#12 + G - 3/4"C	STORAGE LIGHTING	28
29	EXISTING LO	AD	-	20	1					1	20	-	SPARE	30
31	EVICTING LO	A.D.		30						1	20	-	SPARE	32
33	EXISTING LO	AD	-	30	2					1	20	-	SPARE	34
35	EVICTING LO	<b>A.D.</b>		20						1	20	-	SPARE	36
37	EXISTING LOA	AU	_	30	2					1	20	-	SPARE	38
39	EXISTING LO	AD	-	20	1					1	20	-	SPARE	40
41	EXISTING LO	AD	-	20	1					1	20	-	SPARE	42
S	URFACE MTD		LOAD PER PHASE			2,380	1,070	1	,948			CTOR SHALL REPLACE		
	NEMA 1		TOTAL =				5,398 VA	*		CIF	RCUIT E	BREAKER WITH NEW 25	A/2P CIRCUIT BREAKER.	

	LOAD SERVED	WIRE & CONDUIT	TRIP	POLE	LOAI	) in volt-ampe	ERES	POLE	TRIP	WIRE & CONDUIT	LOAD SERVED	
	LOAD SERVED	WIRE & CONDOIL	F	PO	ØA	ØB	ØC	- B	l E	WIRE & CONDOIL	LOAD SERVED	
1 3	EXISTING LOAD	-	100	2				2	100	-	EXISTING LOAD	
5 7	EXISTING LOAD	-	60	2				2	60	-	EXISTING LOAD	
9	EXISTING LOAD	-	20	1							EVIOTING LOAD	
11	EXISTING LOAD	-	20	1				2	30	-	EXISTING LOAD	
13	EXISTING LOAD	-	20	1				1	20	-	EXISTING LOAD	
15	EXISTING LOAD	-	20	1				1	20	-	EXISTING LOAD	
17	EXISTING LOAD	-	20	1				1	20	-	EXISTING LOAD	
19	EXISTING LOAD	-	20	1				1	20	-	EXISTING LOAD	
21	EXISTING LOAD	-	20	1				1	20	-	EXISTING LOAD	
23	EXISTING LOAD	-	20	1				1	20	-	EXISTING LOAD	
25	EXISTING LOAD	-	20	1				1	20	-	EXISTING LOAD	
27	SPARE	-	20	1				1	20	-	EXISTING LOAD	
29	SPARE	-	20	1				1	20	-	EXISTING LOAD	
31	SPARE	-	20	1				1	20	-	EXISTING LOAD	
33	SPARE	-	20	1				1	20	-	SPARE	
35	SPARE	-	20	1				1	20	-	SPARE	
37	SPARE	-	20	1				1	20	-	SPARE	
39	SPARE	-	20	1				1	20	-	SPARE	
41								1	20	-	SPARE	
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47	SPARE	_	20	2				1	20	-	SPARE	
49	0.711							1	20	-	SPARE	
51	SPARE	_	20	2				1	20	-	SPARE	
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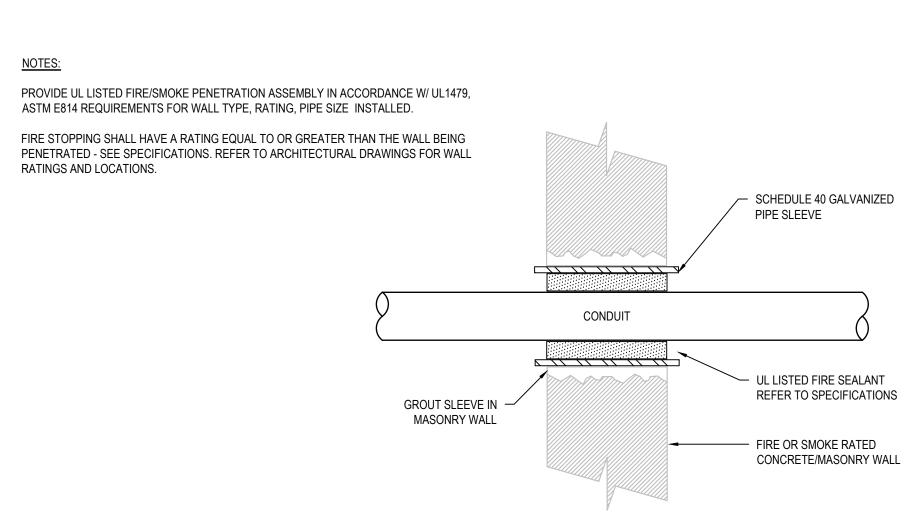


93 Lake Avenue Danbury, CT 06810

KOHLER RONAN, LLC
CONSULTING ENGINEERS

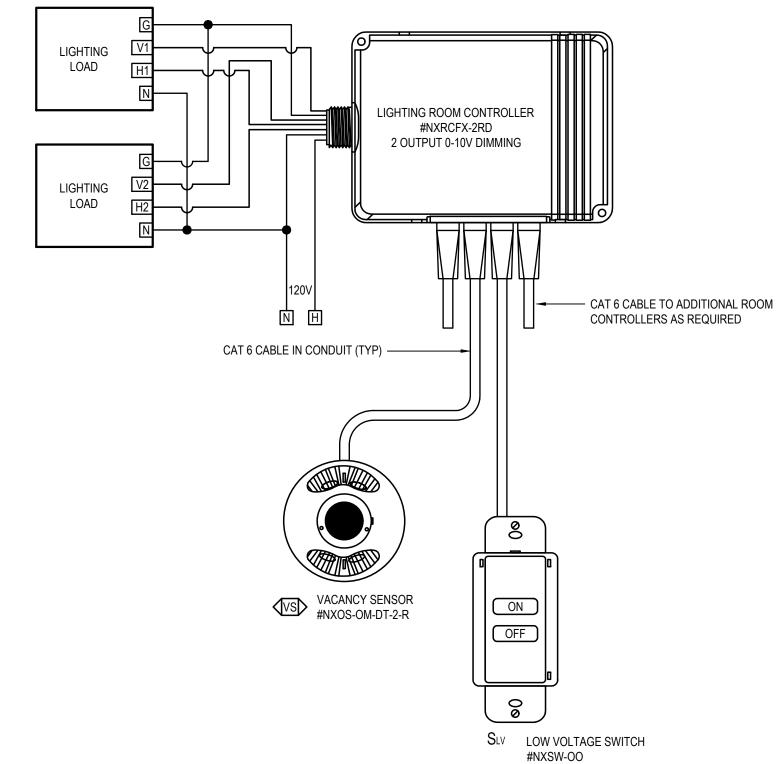
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203.778.1017 F 203.778.1018



1 WALL PENETRATION W/ FIRE/SMOKE SEAL DETAIL

E501 SCALE: NONE



# NOTES

- 1. ALL LIGHTING CONTROL DEVICES ARE MANUFACTURED BY HUBBELL CONTROL SOLUTIONS AND SHALL BE PROVIDED WITH A 5 YEAR WARRANTY. PROVIDE DEVICES SPECIFIED OR EQUIVALENT.
- 2. ELECTRICAL CONTRACTOR SHALL VERIFY QUANTITIES OF ALL DEVICES. NOT ALL DEVICES SHOWN ARE REQUIRED PER ROOM. REFER TO LIGHTING PLANS FOR ADDITIONAL DEVICES AND PROVIDE ACCORDINGLY. ALL ROOM CONTROLLERS SHALL BE LOCATED ABOVE ACCESSIBLE CEILINGS, DIRECTLY ABOVE SWITCHES.
- 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 LIGHTING PLANS FOR LIGHTING ZONES AND DEVICES.
- 4. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CAT 6 CABLE WITH TERMINATIONS.
- 5. PROVIDE BLUETOOTH MODULE #NXBTC FOR PROGRAMMING.

2 SWITCHED LIGHTING CONTROL DIAGRAM

Weston Town
Hall Basement
Alterations

56 Norfield Road Weston, CT 06883

PANEL
SCHEDULES
ELECTRICAL

Scale NTS

Date October 21, 2022

Drawn By CC

Checked By JOC

Job Number 21273.00

Drawing Number

E501

# ELECTRICAL SPECIFICATIONS

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 THAT 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 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 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 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.

# **EQUIPMENT IDENTIFICATION:**

ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH ITS NAME, AND THE NAME AND CIRCUIT NUMBER OF THE SOURCE EQUIPMENT ENERGIZING IT.

# PANELBOARDS:

PANELBOARDS CIRCUIT BREAKER RATINGS SHALL BE AS INDICATED ON PANELBOARD SCHEDULES. WHERE SHORT CIRCUIT RATINGS ARE NOT INDICATED, RATINGS SHALL MATCH EXISTING PANELBOARDS. PROVIDE WARNING LABELS ON PANELBOARD COVERS.

FURNISH AND INSTALL UPDATED TYPEWRITTEN DIRECTORIES FOR ALL PANELBOARDS.

ALL CIRCUIT BREAKERS SERVING AIR CONDITIONING OR MOTOR LOADS SHALL BE TYPE "HACR".

# WIRING DEVICES:

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

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

MAINTAINED CONTACT SWITCHES SHALL BE 20A, RATED 125 VAC, "QUIET" TYPE, SINGLE POLE, THREE OR FOUR WAY.

VACANCY SENSORS SHALL BE DUAL TECHNOLOGY TYPE. ALL SENSORS SHALL BE CAPABLE OF CONTROLLING 120/277 VOLT ELECTRONIC BALLAST LOADS. SENSORS SHALL HAVE ADJUSTABLE TIME DELAY TO "OFF".

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

. WIRING DEVICES CONNECTED TO NORMAL POWER SYSTEM: AS REQUIRED BY NFPA 70 OR DEVICE LISTING.

# COVERPLATES SHALL BE SATIN-FINISHED STAINLESS STEEL.

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.

PROVIDE CAST METAL OUTLET BOXES OF PROPER SIZE AND TYPE AS REQUIRED BY THE BUILDING

CONDITIONS TO SERVE ALL EXTERIOR OUTLETS FOR MOTOR CIRCUITS, LIGHTING, SWITCHES, RECEPTACLES, SIGNALS, AND THE LIKE.

#### CATEGORY 6 TWISTED PAIR CABLE:

PROVIDE A WHITE THERMOPLASTIC FOUR-PAIR, BALANCED-TWISTED PAIR CABLE, CERTIFIED TO MEET TRANSMISSION CHARACTERISTICS OF CATEGORY 6 CABLE AT FREQUENCIES UP TO 250MHZ. CABLE SHALL COMPLY WITH NEMA WC 66/ICEA S-116-732 AND TIA-568.2-D FOR CATEGORY 6 CABLES. CABLE SHALL BE PLENUM RATED WHERE REQUIRED. CONDUCTORS SHALL BE 100-OHM, 23 AWG SOLID COPPER. SHIELDING/SCREENING SHALL BE FTP. COORDINATE CABLE COLOR WITH BUILDING OWNER PRIOR TO PROCUREMENT.

TWISTED PAIR CABLE HARDWARE SHALL COMPLY WITH THE REQUIREMENTS OF CATEGORY 6. COMPLY WITH TIA-568.2-D, IDC TYPE, WITH MODULES DESIGNED FOR PUNCH-DOWN CAPS OR TOOLS. CABLES SHALL BE TERMINATED WITH CONNECTING HARDWARE OF SAME CATEGORY OR HIGHER. OBTAIN TWISTED PAIR CABLE HARDWARE FROM SAME MANUFACTURER AS TWISTED PAIR CABLE, FROM SINGLE SOURCE.

VISUALLY INSPECT JACKET MATERIALS FOR NRTL CERTIFICATION MARKINGS. INSPECT CABLING TERMINATIONS FOR COMPLIANCE WITH COLOR-CODING FOR PIN ASSIGNMENTS, AND INSPECT CABLING CONNECTIONS FOR COMPLIANCE WITH TIA-568.1-E.

TEST TWISTED PAIR CABLING FOR DC LOOP RESISTANCE, SHORTS, OPENS, INTERMITTENT FAULTS, AND POLARITY BETWEEN CONDUCTORS. TEST CABLES AFTER TERMINATION BUT NOT CROSS-CONNECTION. REMOVE AND REPLACE CABLING WHERE TEST RESULTS INDICATE THAT THEY DO NOT COMPLY WITH SPECIFIED REQUIREMENTS. END-TO-END CABLING WILL BE CONSIDERED DEFECTIVE IF IT DOES NOT PASS TESTS AND INSPECTIONS.

CABLE SHALL BE MANUFACTURED BY BELDEN CDT NETWORKING DIVISION/NORDX OR EQUIVALENT.

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. IF LETTER IS NOT SUBMITTED THE LIGHTING AND LIGHTING CONTROL SHOP DRAWINGS SHALL BE AUTOMATICALLY REJECTED.

#### FIRE ALARM AND SMOKE DETECTION SYSTEM:

WHERE WORK CONSISTS OF EXTENSIONS TO AN EXISTING 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 ENGINEERS 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 FPLP IN EMT CONDUIT.

THE EXISTING FIRE ALARM AND SMOKE DETECTION SYSTEM CONSISTS OF AN EDWARDS EST3 CENTRAL CONTROL PANEL FOR MONITORING AND CONTROL OF SMOKE DETECTING DEVICES, MANUAL ALARM SYSTEMS, AUDIBLE AND VISUAL ALARM SYSTEMS, PROVIDE ALL MODIFICATIONS AND PROGRAMMING AS REQUIRED TO ACCOMMODATE NEW DEVICES SHOWN ON PLANS OR INDICATED IN SPECIFICATION.

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, 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, STARTING AND CONTROL EQUIPMENT.

MC CABLE SHALL BE SUPPORTED AND SECURED BY PRODUCTS UL LISTED FOR THE PURPOSE. CABLE TIES SHALL NOT BE ALLOWED FOR SUPPORTING MC CABLE BUT SHALL BE ALLOWED FOR BUNDLING. THE USE OF MISCELLANEOUS WIRE TO SECURE OR SUPPORT MC CABLE FOR ANY REASON SHALL NOT BE ALLOWED.

# 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 VIBRATING EQUIPMENT SHALL BE IN FLEXIBLE METAL CONDUIT.

ALL BRANCH CIRCUIT WORK SHALL BE INSTALLED IN EMT. FINAL CONNECTIONS TO VIBRATING EQUIPMENT SHALL BE IN FLEXIBLE METAL CONDUIT.

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.

# **GROUNDING & BONDING:**

EQUIPMENT GROUNDING CONDUCTOR APPLICATION: COMPLY WITH NFPA 70, AS AMENDED BY STATE AND LOCAL CODES, FOR SIZES AND QUANTITIES OF EQUIPMENT GROUNDING CONDUCTORS EXCEPT WHERE SPECIFIC TYPES, LARGER SIZES OR MORE CONDUCTORS ARE INDICATED.

# NONFUSIBLE SWITCHES:

TYPE HD, HEAVY DUTY, SINGLE THROW, 240V OR 600V, 1200A AND SMALLER: UL 98 AND NEMA KS 1, HORSEPOWER RATED, LOCKABLE HANDLE WITH CAPABILITY TO ACCEPT THREE PADLOCKS, AND INTERLOCKED WITH COVER IN CLOSED POSITION.

#### **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 MASONRY WALLS SHALL BE GROUTED IN WITH CONCRETE AND PROVIDED WITH TIGHT FITTING ESCUTCHEON PLATES ON BOTH SIDES.

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

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 ELASTROMERS.

# **INSTALLATION**:

INSTALL WORK IN A NEAT AND WORKMAN LIKE MANNER.

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

CONTRACTOR SHALL COORDINATE ALL LOW VOLTAGE WORK WITH DATA AND TELEPHONE CONTRACTORS.

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

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.

TEST ALL WIRING, LIGHTING FIXTURES, SWITCHES, HVAC EQUIPMENT, 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 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.



Danbury, CT 06810 203.778.1017 F 203.778.1018 171 Madison Avenue 212.695.2422 F 212.695.2423

10/21/2022 Owner Review Date Description

Issue/Revisions

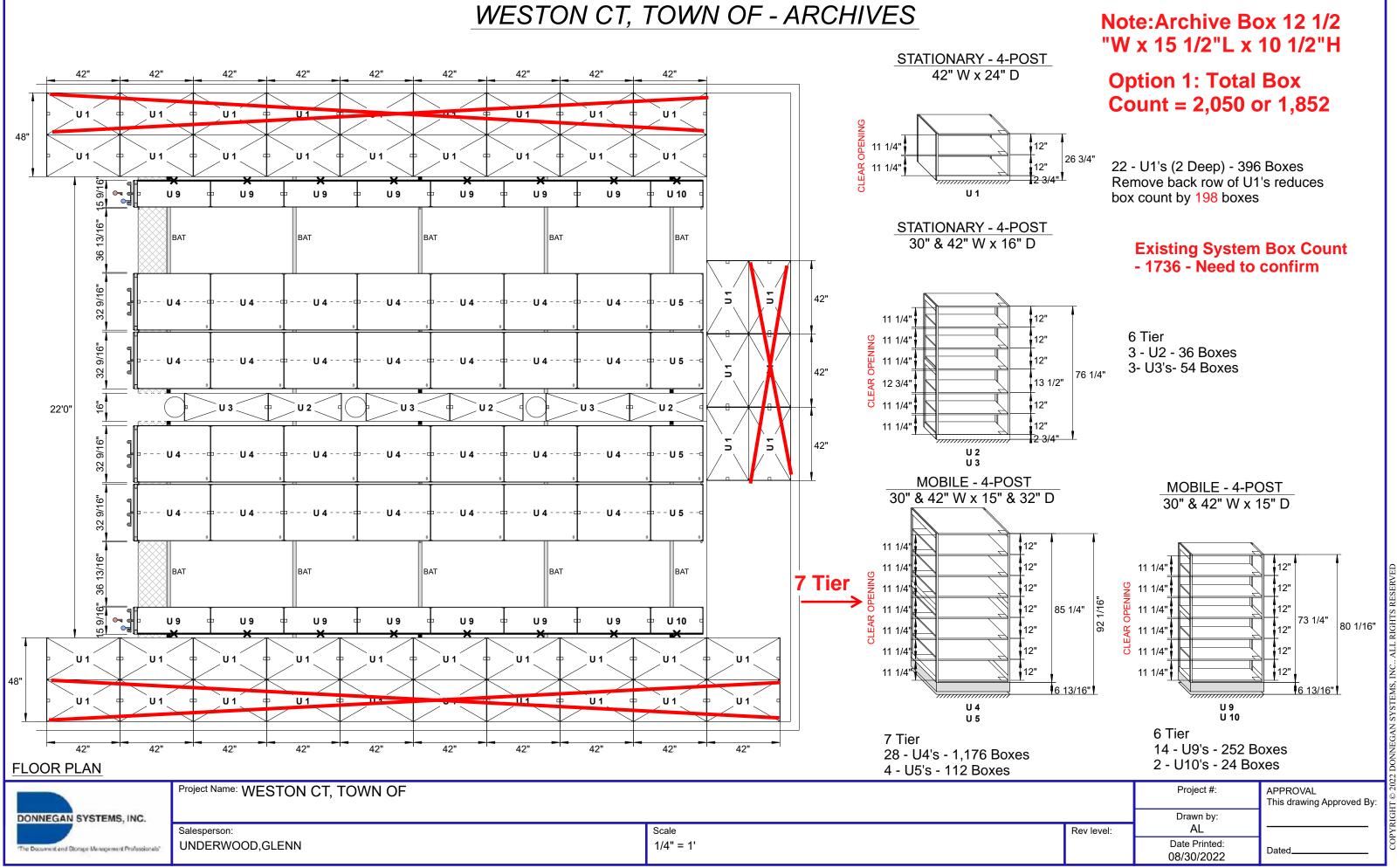
Weston Town Hall Basement Alterations

> 56 Norfield Road Weston, CT 06883

Drawing Title **SPECIFICATIONS** 

NTS October 21, 2022 CC Drawn By JOC Checked By 21273.00 Job Number

Drawing Number



6) Update on the Drinking Water Projects (Ravenwood & School/Town)

# **Ravenwood Water System**

- 1) Take old pressure tank off line. This includes **new boosters, VFD** controls, piping and fittings as needed. Removal of old/deteriorated boosters and compressor controls and starters.
- 2) Install new wireless alarm system and radio controls at this site.
- 3) Set up a meter pit on Ravenwood Drive for sampling purposes. The installation is on target for a November installation.

# **School / Municipal Water System**

- 1) Take old pressure tank off line. This includes reconfiguration of 2 existing booster pumps, 2 booster VFD's, 2 tanks with manifolds, piping and labor. Add new compressor controls and starters.
- 2) Install new wireless alarm system at this site and get rid of old equipment.

7) Introduction of Police Locker Rooms and Bathrooms Project

# **DESIGN AGREEMENT**

# LOCKER ROOM IMPROVEMENTS WESTON POLICE DEPARTMENT WESTON, CT

The following provisions shall constitute an Agreement between the Town of Weston, 56 Norfield Road, Weston, CT, ("Owner") acting by and through its Town Administrator, Jonathan Luiz, and Jacunski Humes Architects, LLC, 15 Massirio Drive, Suite 101, Berlin, CT 06037, hereinafter referred to as "Consultant", effective as of the 21<sup>st</sup> day of October 2022. In consideration of the mutual covenants contained herein, the parties agree as follows:

#### Article 1: Scope of Work:

The Consultant shall furnish all equipment, labor and materials necessary to fulfill tasks as outlined within Article 1. The Consultant shall perform in full the following services:

#### **Description of Tasks to be Performed:**

#### Weston Police Department Locker Room Improvements

- Provide all services as outlined within Scope of Services and Fee Proposal for Locker Room Improvements, Weston Police Facility, 56 Norfield Road, Weston, CT, dated September 30, 2022 (Attachment A).
- 2. Agreement shall include all services as outlined within Attachment A from Schematic Design through Bid Phase. It shall be noted that the Owner has not secured funding for construction or Construction Administration Phase services and the Consultant is not to proceed for these services until authorized at a later date as Additional Services.
- 3. Services shall include all consultants as listed within Attachment A. Those not listed, and determined by the Consultant to be required, shall be provided as an additional service.
- 4. Scope of interior improvements to be substantially similar to Proposed Locker Room Layout", dated August 8, 2022, as prepared by Consultant (Attachment B).

5. Project Budget estimate has been determined by the Owner to be substantially similar to Schematic Construction Cost Estimate Summary, dated 8/15/22, as prepared by the Consultant (Attachment C). Consultant does not guarantee market conditions at the time of bidding and acknowledges that the budget prepared is an estimated cost based upon the information available at the time of preparing the estimate, including contingencies for estimating.

#### Article 2: Time of Performance:

The Consultant shall carry out the project as specified in Article 1 above beginning on the date of the Owner's written Notice to Proceed, and shall complete all items as listed above according to the schedule of the Owner. It is anticipated that the entire project will take approximately five (5) weeks to complete the Construction Document Phase as set forth in Article 1 and another five (5) weeks to obtain competitive bids from General Contractors. However, the Consultant and Owner acknowledge and understand that time is of the essence in regards to receiving the competitive bids for construction.

#### Article 3: Compensation

The Owner shall pay the Consultant for the performance of the work outlined in Article 1 above the Lump Sum Fixed Fee amount of Forty Eight Thousand Dollars and no cents (\$48,000.00). The Owner shall independently fund and obtain a pre-construction survey to identify the presence of hazardous materials within the areas of interior improvements. The Consultant shall include this information within their bidding documents.

Billing to the Owner will be monthly based on percentages that were completed by presentation of the monthly invoice to the Owner for their review and recommendation for payment. As of the date of this agreement, there is zero dollars (\$0.00) due the Consultant.

Design Agreement Locker Room Improvements Weston Police Department, Weston, CT

Total Lump Sum Fixed Fee amount shall be further invoiced as follows:

•	Schematic Design Phase:	\$6,000.00
•	Design Development Phase:	9,000.00
•	Construction Document Phase:	\$30,000.00
•	Bid Phase	\$3,000.00
	Total Lump Sum, Fixed Fee:	\$48,000.00

Final payment shall be due upon thirty (30) days of submission of invoice following Owner's receipt of all deliverables as described in Article 1.

#### **Article 4: Contract Documents:**

The following documents form the Contract and all are as fully a part of the Contract as if attached to the Agreement or repeated herein:

- 1. This Agreement.
- 2. Amendments, changes, or other revisions mutually agreed upon between the parties.

#### Article 5: Availability of Funds:

The compensation provided by this Agreement is subject to the availability and appropriation of funds. The Consultant shall not commence work until Owner notifies Consultant in writing to proceed with the project.

#### Article 6: Assignment:

The Consultant shall not make any assignment nor subcontract any portion of this agreement without the prior approval of the Owner. The Consultant intends to contract the services of M/E/P engineering, Interior Design, and Hardware Consulting services to complete this Agreement.

#### Article 7: Contract Termination:

The Owner may suspend or terminate this Agreement by providing the Consultant with ten (10) days written notice for reasons outlined as follows:

- 1. Failure of the Consultant, for any reason, to fulfill in a timely and proper manner its obligations under this Agreement.
- 2. Violation of any of the provisions of this Agreement by the Consultant.
- 3. A determination by the Owner that the Consultant has engaged in fraud, waste, mismanagement, misuse of funds, or criminal activity regarding the implementation of the Agreement.
- 4. Termination for the Owner's convenience without cause. Owner shall be responsible for all costs incurred by the Consultant up to the notice of termination for the purposes of this Agreement only. No additional termination compensation will be paid for by the Owner.

#### Article 8: Applicable Law:

The Consultant agrees to comply with all applicable laws, regulations, or ordinances of the State of Connecticut effecting the successful completion of this Agreement. The Consultant shall comply with all applicable laws, ordinances, rules, regulations, and orders pertaining to the protection of work, property, persons, and employees.

Design Agreement Locker Room Improvements Weston Police Department, Weston, CT

#### **Article 9: Indemnification:**

The Consultant shall comply with the regulations of all applicable laws, rules, and regulations in connection with the services of the Consultant, and shall defend, exonerate, indemnify and hold harmless the Owner's officers, agents, and all employees (1) from and against any damages, expenses, or claims arising from any alleged violations of said laws, rules and regulations by the Consultant, and (2) from and against any local taxes or contributions imposed or required under the Social Security, Worker's Compensation, and Income Tax Laws, including reasonable attorney's fee and cost. Further, the Consultant shall defend, exonerate, indemnify and hold harmless the Owner with respect to any damages, expenses, or claims arising from or in connection with any of the work performed or to be performed under this Agreement, including reasonable attorney's fee and cost. This shall not be construed as a limitation of the Consultant's liability under the Contract or as otherwise provided by law.

#### Article 10: Amendments:

All amendments, change orders, or any changes to the provisions specified in this Agreement can only occur when mutually agreed upon by the Owner and Consultant. Further, such amendments, change orders, or changes shall be in writing and signed by officials with authority to bind the Owner and Consultant. Additionally, all amendments, change orders and changes shall be approved by the Owner's funding source prior to execution by the Owner and Consultant. No amendment, change order, or change to the Agreement provisions shall be made until after the written execution of the amendment, change order, or change to the Agreement by both parties.

Design Agreement Locker Room Improvements Weston Police Department, Weston, CT

#### Article 11: Insurance:

The Consultant shall be responsible to and shall indemnify (pursuant to Article 9) the Owner for any property damage or bodily injury caused by it, any of its subcontractors, employees, representatives, or agents in the performance of, or as a result of, the work under this Agreement, including reasonable attorney's fee and cost. The Consultant hereby certifies that they are insured for workers compensation, property damage, personal and product liability including professional liability, errors and omissions comprehensive general liability, and motor vehicle liability, and shall maintain in full force and effect all insurance for the duration of this Agreement. Prior to the commencement of any work under this Agreement, the Consultant shall name the Owner as an additional insured in the Consultant's comprehensive general liability and motor vehicle liability coverage. The Consultant shall provide the Owner with Certificates of Insurance for coverage as stated in amounts of coverage that is acceptable to the Owner in its sole discretion, prior to commencement of Consultant's obligations herein.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed on the day and year first above written.

Jacunski Humes Architects, LLC 15 Massirio Drive, Suite 101 Berlin, CT 06037

Brian W. Humes, AIA

Member

Duly Authorized

Town of Weston 56 Norfield Road Weston, CT 0883

Jonathan Luiz

Town Administrator
Duly Authorized

END OF DESIGN AGREEMENT

September 30, 2022

Mr. Jonathan Luiz, Town Administrator Weston Town Hall 56 Norfield Road Weston, CT 06883

Re: Locker Room Improvements
Weston Police Facility
56 Norfield Road
Weston, CT

Dear Mr. Luiz:

Jacunski Humes Architects, LLC (JHA) is pleased to submit a Scope of Services and Proposed Fee to provide Architectural / Engineering Services related to the proposed Weston Police Department Locker Room Renovations for the Town of Weston.

### Scope of Services

JHA will provide Architectural, Interior Design, Mechanical, Electrical, Plumbing Engineering, and Hardware Consulting Services for the interior renovations to existing locker rooms located within the Weston Police Department located at 56 Norfield Road, Weston, CT. Locker Room Improvements to be substantially similar to Drawing A-1, dated August 8, 2022, as prepared by Jacunski Humes Architects, LLC and titled: Locker Room Renovation to the Weston Police Facility, 56 Norfield Road, Weston, Connecticut. It is further understood that the current total Capital Project Budget established by the Town of Weston is \$764,925. Current market fluctuations may impact the proposed budget as the project scope, schedule, and construction type is determined. In summary, JHA, and our listed professional consultants, will provide the following services:

- Provide architectural / engineering designer services from schematic design phase through construction administration and project closeout.
- Design plans to provide for the needs of the Town of Weston Police Department, as further described within Drawing A-1, dated August 8, 2022 (attache).
- Project cost shall be substantially similar to cost estimate titled Locker Room Renovation to the Police Facility, dated August 15, 2022, as prepared by Jacunski Humes Architects, LLC (attached).
- Work in conjunction with Town of Weston Boards and Commissions who have jurisdictional approval of the project, and designated representatives of the Town of Weston, to achieve project goals and obtain required local permits.

#### Schematic Design Phase

- Visit the site to observe existing conditions and obtain available information. 1.
- Prepare, with the input of the Owner, an updated improvement floor plan to fix 2. and describe the programmatic needs of the locker rooms.
- Prepare schematic design documents incorporating Owner's input. 3.
- Attend meetings with the Owner to obtain existing information and review 4. schematic design documents
- Obtain Owner's approval to proceed to Design Development / Construction 5. Document Phase.

# Design Development / Construction Document Phase

- Engage professional consultants and review project goals, objectives, and budget. 1.
- Develop design development documents and recommendations for Owner's review. 2.
- Attend meetings with the Owner to review design development submission. 3.
- Obtain Owner's approval to proceed to construction document phase. 4.
- With Owner's approval, prepare 100% final construction plans and specifications 5. for competitive public bidding.
- 6. Attend meeting with the Owner to review final bid documents.
- Incorporate "alternate" bid options (up to a total of three) as directed by the 7.
- Prepare applications and assist in obtaining required local approvals. 8.

# **Bidding Phase**

- Attend a pre-bid conference to assist with questions / presentation. 1.
- 2. Answer contractor questions during bid phase.
- Prepare any necessary addenda and clarifications. 3.
- Evaluate and make recommendations to the Owner based upon bids received. 4.

#### Construction Administration:

Attend a pre-construction meeting with the Owner and selected General Contractor. 1.

SUITE 101

- Review submittals of shop drawings for conformance with specifications. 2.
- Respond to RFI's and answer contractor questions during construction. 3.
- Attend bi-weekly job meetings /site visits (2 per month, minimum), including a 4 report to review the work completed by the contractor per the construction documents, as required by the CT State Building Code.
- Perform a final inspection and prepare project punchlist(s). 5.
- Review record drawings based on contractors submitted redline drawings. 6.

# Proposed Architectural / Engineering Fees:

Design Firm	Discipline	Fee
Jacunski Humes Architects, LLC	Architectural Design	\$30,000.00
Kohler Ronan Consulting Engineers	M/E/P/ IT Engineer	\$23,000.00
4D Design & Decorating	Interior Design	\$ 5,000.00
P.J. Hawley Associates	Hardware Consultant	\$ 2,000.00
Total		\$60,000.00

The architectural / engineering fee stated above will be invoiced monthly, based on a lump sum, percent complete basis, by phase. Invoicing for each phase will be established as follows:

Phase Description	% Fee	Fee by Phase
Schematic Design	10%	\$6,000.00
Design Development	15%	\$9,000.00
Construction Documents	50%	\$30,000.00
Bid Phase	5%	\$3,000.00
Construction Administration	20%	\$12,000.00
Total	100%	\$60,000.00

Typical reimbursable expenses, such as travel, draft printing, courier services, postage, and computer media are included within the Lump Sum, Fixed Fee indicated above. Any Additional Services incurred by the Architect, or design professionals, on behalf of the project will be invoiced at cost +15%.

## Assumptions:

- Professional services for fire protection engineering, structural engineering, site / civil engineering, professional cost estimating, lighting / acoustic consultants, hazardous materials surveys, or geotechnical engineering are not anticipated or made part of this Fee Proposal.
- Attendance at all board meetings / public meetings for required permitting and Owner's required approvals of the project are included in the fees listed above.
- Design Team will have no responsibilities associated with identifying or testing for hazardous materials / asbestos associated with the scope of this project.
- Project designed to conform to CT State Building Codes in effect at the time of permitting and the Americans with Disabilities Act Accessibility Guidelines (ADAAG).
- Town of Weston to provide independent testing services, including services of a Special Inspector, to satisfy the requirements of the CT State Building Code for materials testing and inspectional services, if required within the scope of renovations.
- The Town of Weston shall provide professional cost estimating services, if necessary.

SUITE 101

#### Additional Services:

- Expansion of the scope of this project beyond this Fee Proposal and associated drawing A-1, dated August 8, 2022.
- Preparation of revisions to the contract documents after submission of the contract documents for competitive bidding purposes and caused by significant design changes initiated by the Owner or Owner's agents.
- Value engineering services after Owner's approval to proceed to Construction Document Phase.
- Printing costs for the Owner's purposes of obtaining permits, for Owner's use in project marketing, or for use in competitive bidding, including any necessary fees for obtaining necessary permits.
- Costs for additional insurance beyond that already in effect at the time of contract signing.
- Designer services related to the Owner's selection and procurement of furniture, fixtures, and equipment (FF&E) for each facility.
- Costs for any additional consultants beyond the scope included within this Fee Proposal.

#### Standard Terms and Conditions:

The above stated services will be provided in accordance with AIA Document, Standard Form of Agreement Between Architect and Owner.

I thank you for the opportunity to outline this proposal for your consideration. If you have any questions or need additional information, please feel free to contact me.

Very Truly Yours,

Brian W. Humes, AIA

Jacunski Humes Architects, LLC

W/ encl: Drawing A-1, dated August 8, 2022, as prepared by Jacunski Humes Architects,

LLC

Project Cost Estimate, dated August 15, 2022, as prepared by Jacunski Humes

Architects, LLC

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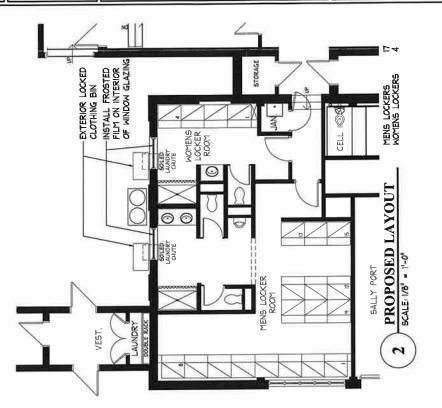
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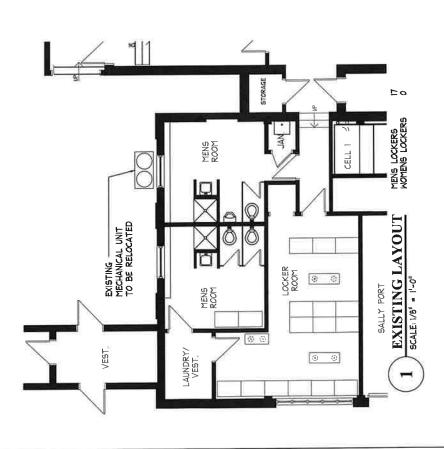
PROPOSED LOCKER ROOM LAYOUT 15 MASSIRIO DIUVE SUTTE 101 BERLIN, CT 06037 TEL 860-828-9221 FAX 860-828-9223

A-ISCALE: 1'-0'

DATE: AUG. B, 2022

ATTACHMENT B





#### Locker Room Renovation to the Police Facility

#### Weston, Connecticut

Schematic Construction Cost Estimate Summary

	Police Station	Locker Reno
ITEM	TOTAL	S/SF for Building
1 Sitework Preparation	\$0	N/A
2 Site Excavation	\$0	N/A
3 Site Utilities	\$0	N/A
4 Site Paving, Concrete and Curbing	\$0	N/A
5 Site Amenities	\$0	N/A
6 Landscaping	\$0	N/A
7 Subtotal Sitework	\$0.00	N/A
8 Building Demolition	\$7,184	\$6.5
9 Building Excavation	\$0	\$0.0
0 Concrete	\$0	\$0.0
1 Masonry	\$0	\$0.0
2 Structural Steel	\$0	\$0.0
3 Miscellaneous Metal	\$8,750	\$7.9
4 Rough Carpentry	\$10,000	\$9.1
5 Finish Carpentry	\$13,406	\$12.2
6 Moisture Protection/Roofing	\$0	\$0.0
7 Insulation	SO SO	\$0.0
8 Windows, Glass and Metal Panels	\$2,950	\$2.6
9 Doors, Frames and Hardware	\$10,750	\$9.7
0 Drywall	\$39,188	\$35.7
11 Acoustical Ceiling	\$6,265	\$5.7
2 Flooring and Tile	\$66,698	\$60.7
3 Painting	\$29,678	\$27.0
4 Specialties/Accessories	\$46,969	\$42.8
5 Appliances	\$0	\$0.0
6 Elevator	\$0	\$0.0
7 Plumbing	\$69,306	\$63.1
8 Fire Protection	None	
9 HVAC	\$68,260	\$62.2
0 Electric	\$60,212	\$54.8
1 Integrated Technology	\$21,950	\$20.0
2 Subtotal Building	\$457,872.48	\$420.5
3		
4 Total for Sitework and Building	\$457,872	N/.
5		
6 General Conditions	\$85,206	\$0.0
7 OH and Fee (3.5%)	\$19,008	\$14.7
8		
9 Subtotal	\$562,086	\$435.2
0		
Performance and Payment Bond (1%)	\$5,621	\$4.3
2 Subtotal	\$567,707	\$439.6
13		
4 Estimating Contingency (10%)	\$56,771	\$21.9
5 Construction Contingency	By Owner	By Own
Subtotal	\$624,478	\$461.6
7		
8		

#### NOTES:

- 1. Pricing is based upon prevailing wage.
- 2. The estimate assumes project will be bid in the Fall of 2023
- 3. The estimate assume the construction is built in 1 phase with a total duration of 4 months.

## Locker Room Renovation to the Police Facility

# Weston, Connecticut Schematic Construction Cost Estimate Summary

SOFT COSTS	
	Police Station Locker Res
ITEM	TOTAL
	SEASON TO SERVED
1 Land Acquisition Costs	\$0
2 Furniture, Fixtures, Equipment & Design	\$0
3 Architectural/Engineering Fees	\$60,000
4 Construction Supervision / Clerk	\$0
5 Independent Materials Testing / Inspections	\$0
6 Land Surveying Services (A-2/T-2)	\$0
7 Geotechnical Engineering	\$0
8 Traffic Study	SO SO
9 Telephone / Data System Expansion	S0
10 Building Equipment / AV Systems	\$0
11 Relocation / Moving Expenses	\$10,000
12 Printing, Advertising	\$0
13 Legal Fees / Bonding Costs	\$0
14 Restroom Trailer Rental	\$8,000
15 Subtotal	\$78,000
16 Project Contingency (10%)	\$62,448
17	
SOFT COST TOTAL	\$140,447.78

TOTAL PROJECT COSTS	
HARD COSTS	\$624,477.80
SOFT COSTS	\$140,447.78
TOTAL	\$764,925.58

REVENUE SOURCES:	
STEAP Grant	\$500,000.00
Town General Fund	\$264,925.58
Additional Appropriation Required	\$0.00

8) Review and approval of meeting minutes

# Weston Building Committee Special Meeting Minutes September 7, 2022 at 7:30 PM Meeting held in person at Town Hall Commission Room

- 1) Call to order: Chairman Richard Wolf called the meeting to order at 7:30 pm with the other members present: Joe Stromwall, David Coprio, Edmond Warchick, Megan Loucas, Jack Davidoff. Town Administrator Jonathan Luiz was also present.
- 2) Update on the WHS Old Gym air handler replacement project: An update was not available at this time. This will be provided at a future meeting by school staff.
- 3) Update on the WIS Window Sill Repair Project: Chairman Wolf provided an update on this project, which has been completed on time.
- 4) Update on the Town Hall basement records room project: J. Luiz provided updated drawings from DiSalvo Engineers. He said that he will share these with the company that will design the shelving system. He explained that Kohler Ronan is working on the mechanical and electrical design.
- 5) Discussion about new projects: Richard Wolf discussed the Sr. Center bathroom renovation project. J. Luiz will coordinate a project kick-off meeting with Richard and the general contractor.
- 6) Adjournment: The meeting adjourned.

# 9) Adjournment