Town of Colchester
Colchester Senior Center

VOLUME 2 of 2

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Colchester, Connecticut 06415

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ISSUED FOR BID

September 9, 2022

ABBREVIATIONS

A.C.T.	ACOUSTICAL CEILING TILE
ADJ.	ADJUSTABLE
ALUM.	ALUMINUM
A.B.	ANCHOR BOLT
APPROX.	APPROXIMATE
ARCH.	ARCHITECTURAL
A.C.P.	ASBESTOS CEMENT PIPE
ASPH.	ASPHALT
AVG.	AVERAGE
BSMT.	BASEMENT
BRG.	BEARING
BIT.	BITUMINOUS
BLK.	BLOCK
BD.	BOARD
B.S.	BOTH SIDES
BRK.	BRICK
BLDG.	BUILDING
C.I.	CAST IRON
C.I.P.	CAST IN PLACE CONCRETE
C.B.	CATCH BASIN
C.B.R.	CATCH BASIN TO BE REMOVED
CLG.	CEILING
℄	CENTER LINE
C. BD.	CHALK BOARD
C.O.	CLEAN OUT
COL.	COLUMN
CONC.	CONCRETE
C.M.U.	CONCRETE MASONRY UNIT
CONF.	CONFERENCE
CONT.	CONTINUOUS, CONTINUE
CONTR.	CONTRACTOR
C.J.	CONTROL JOINT
C.C.	CURB CUT
DET.	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DR.	DOOR
DN.	DOWN
DWG.	DRAWING
EA.	EACH
E.F. / E.W.	EACH FACE / EACH WAY
ED.	EDUCATION
E / ELEC.	ELECTRICAL
EL. / ELEV.	ELEVATION
EMER.	EMERGENCY
ENCL.	ENCLOSURE
ENT.	ENTRANCE
EP.	EPOXY PAINT
EQ.	EQUAL
EXAM.	EXAMINATION
EXIST.	EXISTING
EXP.	EXPANSION
E.J.	EXPANSION JOINT
EXT.	EXTERIOR
F.S.	FAR SIDE
FIN.	FINISH, FINISHED
F.F.	FINISHED FLOOR
FIXT.	FIXTURE
FL.	FLOOR
F.P.	FOLDING PARTITION
FT.	FOOT
FTG.	FOOTING
FDN.	FOUNDATION
G.	GAS
GA.	GAUGE
GEN.	GENERAL
G.C.	GENERAL CONTRACTOR
GYP.	GYPSUM
GYP. BD.	GYPSUM BOARD
H.C.	HANDICAPPED
HDWR.	HARDWARE
HD.	HEADED
HGT.	HEIGHT
H.P.	HIGH POINT
H.M.	HOLLOW METAL
HORZ.	HORIZONTAL, HORIZONTALLY
H.B.	HOSE BIB
HR.	HOUR
HYD.	HYDRANT
INSUL.	INSULATION, INSULATED
INT.	INTERIOR
INV.	INVERTED
JAN.	JANITOR
K.P.	KICK PLATE
LAM.	LAMINATE
L.F.	LINEAR FOOT
LG.	LONG
LOC.	LOCATION
L.P.	LOW POINT
LTG.	LIGHTING
M.H.	MANHOLE
MAS.	MASONRY
M.O.	MASONRY OPENING
MAX.	MAXIMUM
MECH.	MECHANICAL
MIN.	MINIMUM
M.	MINUTE
MISC.	MISCELLANEOUS
MTD.	MOUNTED
N.S.	NEAR SIDE
NOM.	NOMINAL
N.A.	NOT APPLICABLE
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO.	NUMBER
OCC.	OCCUPANT
O.C.	ON CENTER
OPNG.	OPENING
O.D.	OUTSIDE DIMENSION
PTD.	PAINTED
P.C.B.	PAINTED CONCRETE BLOCK
P.G.B.	PAINTED GYPSUM BOARD
PL.	PLATE
PLUMB.	PLUMBING
PREP.	PREPARATION, PREPARE
P.T.	PRESSURE TREATED
PROJ. MAN	PROJECT MANUAL
P.V.C.	POLYVINYL CHLORIDE
RAD.	RADIUS
R.C.P.	REINFORCED CONCRETE PIPE
RCP	REFLECTED CEILING PLAN
REINF.	REINFORCEMENT
REQD.	REQUIRED
R.	RISER
R.D.	ROOF DRAIN
R.H.	ROOF HATCH
R.L.	ROOF LEADER
RM.	ROOM
SAN.	SANITARY
SCHED.	SCHEDULE
S.C.	SEALED CONCRETE
SECT.	SECTION
S.W.	SHEAR WALL
S.W.F.	SHEAR WALL FOOTING
SIM.	SIMILAR
S.O.G.	SLAB ON GRADE
SPEC.	SPECIFICATIONS
SQ.	SQUARE
SQ. FT.	SQUARE FEET
STL.	STEEL
S.F.	STEP FOOTING
S.	STORM
S.S.	SOLID SURFACE
STRUCT.	STRUCTURAL
SUSP.	SUSPENDED, SUSPENSION
TECH.	TECHNOLOGY
T.	TELEPHONE
T&B	TOP AND BOTTOM
T.O.	TOP OF
T.O.F.	TOP OF FRAME
T/S	TOP OF SLAB
T.O.S.	TOP OF STEEL
T/W	TOP OF WALL
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
V.I.F.	VERIFY IN FIELD
VERT.	VERTICAL
V.B.	VINYL BASE
V.C.T.	VINYL COMPOSITE TILE
W.	WATER
W.C.J.	WALL CONTROL JOINT
W.W.F.	WELDED WIRE FABRIC
W.W.M.	WELDED WIRE MESH
W/	WITH
WD.	WOOD
@	AT

SYMBOL LEGEND

- 101 / A — DOOR NUMBER
- ? — WINDOW TYPE
- ? — ROOM NAME / ? — ROOM NUMBER
- ? — PARTITION TYPE
- — CONSTRUCTION NOTE
- X — GLAZING TYPE
- 2 / A101 — EXTERIOR ELEVATION NUMBER / SHEET NUMBER
- 2 / A101 — INTERIOR ELEVATION NUMBER / SHEET NUMBER
- 2 / A101 — BUILDING SECTION NUMBER / SHEET NUMBER
- 2 / A101 — WALL SECTION NUMBER / SHEET NUMBER
- — REFERENCE POINT
- X — REVISION MARK

GRAPHIC LEGEND

- CONCRETE
- CONCRETE MASONRY UNITS
- BRICK
- STONE
- METALS
- COMPACTED GRAVEL
- EARTH
- PLYWOOD
- ACOUSTICAL TILE
- WOOD FRAMING - THROUGH MEMBER
- WOOD FRAMING - INTERRUPTED MEMBER
- FINISHED WOOD
- BATT INSULATION
- RIGID INSULATION
- GYPSUM BOARD
- NEW SINGLE DOOR
- NEW DOUBLE DOOR

GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS & DIMENSIONS PRIOR TO FABRICATION, FURNISHING AND INSTALLATION OF ANY MATERIALS, EQUIPMENT AND WORK.
2. ALL MATERIALS & EQUIPMENT SHOWN ARE NEW TO BE PROVIDED BY CONTRACTOR UNLESS OTHERWISE NOTED.
3. ALL EXISTING UTILITIES & EQUIPMENT LOCATIONS ARE APPROXIMATE - CONTRACTOR SHALL FIELD VERIFY AND/OR COORDINATE EXACT LOCATIONS.
4. CONTRACTOR ASSUMES ALL RESPONSIBILITY DURING CONSTRUCTION TO PROTECT MATERIALS AND EQUIPMENT. ANY & ALL DAMAGED ITEMS & EQUIPMENT DURING CONSTRUCTION SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.
5. ALL DOOR HARDWARE SHALL BE PROVIDED TO COMPLY WITH ADA, ANSI AND ALL OTHER APPLICABLE CODES.
6. ALL NEW EXPOSED/VISIBLE DECKING, BEAMS, COLUMNS, JOISTS AND OTHER STRUCTURAL COMPONENTS SHALL BE PAINTED UNLESS OTHERWISE NOTED.
7. ALL CONTRACTORS SHALL REVIEW DRAWINGS AND PROJECT MANUAL. IF THERE IS A DISCREPANCY BETWEEN THE TWO OR ANY OTHER PARTS OF THE DOCUMENTS, THE HIGHER VALUE (IN DOLLARS) SHALL PREVAIL AS THE SCOPE OF WORK THAT WILL BE PRICED UNLESS OTHERWISE DIRECTED IN WRITING BY THE ARCHITECT DURING THE BIDDING PERIOD.

LIST OF DRAWINGS

VOLUME 1

GENERAL INFO AND CODE DRAWINGS

CIVIL DRAWINGS

ARCHITECTURAL DRAWINGS

STRUCTURAL DRAWINGS

WALL PARTITION NOTES

1. AT SMOKE RATED WALLS, SEAL ALL DUCT, PIPE AND OTHER PENETRATIONS WITH SAFING INSULATION/PUTTY ASSEMBLY TO RESIST PASSAGE OF SMOKE AND TO MAINTAIN MINIMUM STC RATING INDICATED. SEE ALSO CODE PLANS, M/E/P/FP DRAWINGS AND PROJECT MANUAL FOR ADDITIONAL INFORMATION
2. AT WALLS NOT REQUIRED TO BE SMOKE RATED, SEAL ALL DUCT, PIPE AND OTHER PENETRATIONS WITH ACOUSTICAL MINERAL WOOL AND PROVIDE NON-COMBUSTIBLE SEALANT AT PERIMETER OF PENETRATION ON BOTH FACES OF WALL AS REQUIRED TO MAINTAIN STC RATING INDICATED
3. USE MOLD AND MOISTURE RESISTANT DRYWALL AT ALL TOILET ROOM WALLS AND BEHIND FRP
4. REFER TO STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND GAUGES OF ALL STRUCTURAL STEEL AND COLD FORMED METAL FRAMED WALLS. REFER TO DIVISION 9 SPECIFICATIONS FOR ALL NON-STRUCTURAL METAL FRAMING GAUGES.

VOLUME 2

GENERAL INFO DRAWINGS

FIRE PROTECTION DRAWINGS

PLUMBING DRAWINGS

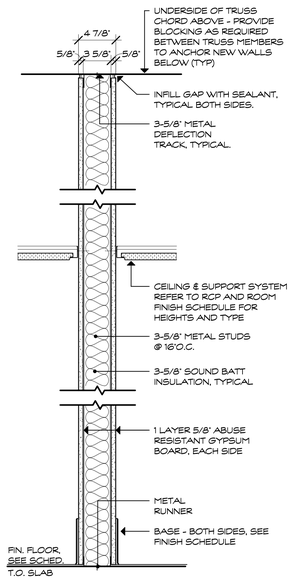
MECHANICAL DRAWINGS

ELECTRICAL DRAWINGS

TECHNOLOGY DRAWINGS

FOOD SERVICE DRAWINGS

PARTITION TYPES

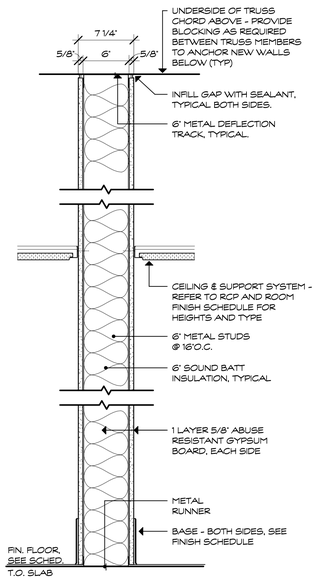


TYPE 1A — SEE WALL PARTITION NOTES ON THIS SHEET

STC RATING: 47 MINIMUM

TYPE 1B — SEE WALL PARTITION NOTES ON THIS SHEET

OMIT ONE LAYER OF GWB ON CHASE SIDE



TYPE 2A — SEE WALL PARTITION NOTES ON THIS SHEET

STC RATING: 50 MINIMUM

TYPE 2B — SEE WALL PARTITION NOTES ON THIS SHEET

OMIT ONE LAYER OF GWB ON CHASE SIDE

TYPE 2C — SEE WALL PARTITION NOTES ON THIS SHEET

WALL EXTENDS UP TO ROOF STRUCTURE ABOVE
STC RATING: 50 MINIMUM

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GENERAL INFORMATION AND DRAWING LIST

Date: SEPTEMBER 09, 2022
Scale: As indicated
Drawn By: C. NARDI
Project Number: 20.003
Drawing Number: G001

FIRE PROTECTION GENERAL NOTES

GENERAL

UTILIZE CONCEALED PENDENT SPRINKLERS AND PIPING IN AREAS WITH FINISHED CEILINGS, AND EXPOSED PIPING AND UPRIGHT SPRINKLERS IN AREAS WITHOUT CEILINGS. CONCEALED SPRINKLER HEADS LOCATED IN ACOUSTICAL TILES TO UTILIZE FLEX-HOSE PIPING UP TO A MAXIMUM LENGHT OF 6'. PROVIDE & INSTALL SPRINKLERS UNDER & ABOVE ALL OBSTRUCTIONS IN ACCORDANCE WITH NFPA 13.

PROVIDE AND PROPERLY INSTALL A COMPLETE ENGINEERED LISTED KITCHEN HOOD EXTINGUISHING SYSTEM. PROVIDE AND INSTALL ANSUL R-102 WET CHEMICAL FIRE SUPPRESSION SYSTEM IN ACCORDANCE WITH NFPA 17A AND NFPA 96.

EACH RISER CHECK VALVE ASSEMBLY (RCA) SHALL HAVE A CONTROL VALVE WITH TAMPER SWITCH, A CHECK VALVE, A WATERFLOW SWITCH AND A DRAIN CONNECTION. ACTIVATION OF A TAMPER SWITCH SHALL RESULT AS A TROUBLE INDICATION AT THE FIRE ALARM CONTROL PANEL AND THE FIRE ALARM ANNUNCIATOR PANEL.

ACTIVATION OF A FLOW SWITCH SHALL RESULT AS AN 'ALARM' INDICATION AT THE FIRE ALARM CONTROL PANEL AND THE FIRE ALARM ANNUNCIATOR PANEL. THE SPRINKLER CONTRACTOR SHALL EXAMINE ALL CONTRACT DOCUMENTS AND SHALL VERIFY ALL CONDITIONS IN THE FIELD. THE SPRINKLER

FIRE PROTECTION PLANS ARE INTENDED TO INDICATE TOTAL COVERAGE AND MAY OR MAY NOT INDICATE ALL SPRINKLER HEADS. SPRINKLER HEADS INDICATED ON DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE NOT BE COUNTED FOR BID (IT IS NOT THE INTENT OF THESE DRAWINGS TO SHOW ENTIRE PIPING LAYOUT, PROPOSED MAINS AND DEVICES INDICATED ONLY). THE CONTRACTOR SHALL PROVIDE A COMPLETE SPRINKLER SYSTEM WITH COMPLETE SPRINKLER COVERAGE, INDICATED OR NOT. ITEMS AND SERVICES NOT SHOWN ON DRAWINGS OR SPECIFICATIONS BUT REQUIRED TO RENDER THE WORK COMPLETE, IN ACCORDANCE WITH NFPA, INSURANCE COMPANY REQUIREMENTS AND OWNERS, READY FOR OPERATION, SHALL BE PROVIDED AND INSTALLED. THE CONTRACTOR SHALL PROVIDE COMPLETE SPRINKLER COVERAGE AS REQUIRED INCLUDING BUT NOT LIMITED TO, CRAWL SPACES, CONCEALED COMBUSTIBLE SPACES, SHAFTS, AND ALL CLOSETS.

DRAWINGS ARE DIAGRAMMATIC AND INDICATE A GENERAL ARRANGEMENT OF WORK AND ARE NOT TO BE CONSIDERED SUBCONTRACTOR DOCUMENTS. IT IS THE INTENT OF THESE DOCUMENTS TO INCLUDE THE PROVISION AND INSTALLATION OF ALL NECESSARY WORK AND MATERIALS FOR COMPLETE, OPERATIONAL AND CODE COMPLIANT SYSTEMS BY THE CONTRACTOR. GENERAL DESIGN CONCEPTS INDICATED MUST BE FOLLOWED OR BETTERED. THE BID SHALL INCLUDE OFFSETS, ADDITIONAL PIPING, VALVES AND EQUIPMENT AND COMPONENTS AS REQUIRED TO MEET CONSTRUCTION CONDITIONS FOR PROPER OPERATION. DO NOT SCALE DRAWINGS. COORDINATE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SPACE CONDITIONS AND ADDITIONAL REQUIREMENTS.

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.

THE CONTRACTOR SHALL COORDINATE SPRINKLER HEAD LOCATIONS WITH THE LATEST ARCHITECTURAL REFLECTED CEILING PLANS. ANY DISCREPANCIES SHALL BE BROUGHT BACK TO THE ARCHITECT/ ENGINEER. DO NOT SCALE DRAWINGS FOR DIMENSIONS NOT INDICATED, REFER TO ARCHITECT FOR RESOLUTION FOR ANY DIMENSIONS NOT INDICATED.

IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO PROVIDE FOR FINISHED WORK, TESTED AND READY FOR OPERATION.

THE DESIGN OF ALL FIRE SUPPRESSION SYSTEMS WILL BE IN ACCORDANCE WITH THE LOCAL AND STATE BUILDING CODE, NFPA 13, FM GLOBAL. USE ONLY UL/FM SPRINKLERS, MATERIALS AND DEVICES, UNLESS NOTED OTHERWISE.

CONCEALED SPRINKLERS AND PIPING SHALL BE INSTALLED IN AREAS WITH FINISHED CEILINGS. AREAS WITH EXPOSED CONSTRUCTION SHALL HAVE EXPOSED PIPING AND SPRINKLERS (CUSTOM COLOR)

THE SPRINKLER CONTRACTOR IS REQUIRED TO VISIT THE SITE AT THE TIME OF BID, TO EXAMINE CONDITIONS AND BECOME FAMILIAR WITH THE JOB, NOTING DEGREE OF DIFFICULTY IN GETTING EQUIPMENT (INCLUDING LIFTS AND SCAFFOLDS) IN AND OUT OF THE BUILDING. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER IN WRITING PRIOR TO SUBMITTING A BID.

NOTIFY PROPER AUTHORITIES (INCLUDING BUT NOT LIMITED TO, THE LOCAL A.H.J., INSURANCE COMPANY, ETC.) OF ANY FIRE PROTECTION SHUT DOWNS. SCHEDULE ALL WORK TO MINIMIZE THE LENGTH OF TIME THAT THE FIRE PROTECTION SYSTEM(S) WILL BE OUT OF SERVICE. RETURN THE SPRINKLER SYSTEM BACK IN SERVICE AT THE END OF EACH WORKING DAY. IF A FIRE WATCH IS REQUIRED BY THE LOCAL A.H.J. BUILDING MANAGER, ETC. IT SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. FIRE WATCH SCHEDULING AND PERSONNEL SHALL BE COORDINATED WITH THE LOCAL A.H.J. BUILDING MANAGER AND INSURANCE COMPANY.

ARRANGE PIPING TO FACILITATE FLUSHING. PROVIDE READILY ACCESSIBLE DRAIN AND FLUSHING CONNECTIONS AS REQUIRED BY NFPA 13. PROVIDE AND INSTALL AUXILIARY DRAINS WITH PROVISIONS FOR COMPLETE DRAINAGE. PIPE ALL DRAINS TO AN APPROVED LOCATION.

INSPECTOR'S TEST CONNECTIONS, DRAIN VALVES AND CONTROL VALVES SHALL BE READILY ACCESSIBLE AND INSTALLED NOT OVER +/-7'-0" ABOVE THE FINISHED FLOOR. PROVIDE ALL VALVES WITH IDENTIFICATION SIGNS. SUPERVISORY SWITCHES SHALL BE ON ALL CONTROL VALVES. PIPE ALL DRAIN PIPING, INSPECTOR'S TEST CONNECTIONS, ETC. TO THE EXTERIOR. ENSURE DRAINAGE DOES NOT CAUSE DAMAGE TO BUILDING OR SITE.

INSTALL A PRESSURE GAUGE WITH A BLEEDER MAINTENANCE VALVE AT THE TOP OF ALL RISERS.

PROVIDE A HEAD GUARD ON SPRINKLERS IN AREAS SUBJECT TO MECHANICAL DAMAGE (I.E. SPRINKLERS IN MECHANICAL ROOMS, ETC.)

REFER TO ADDITIONAL NOTES ON ARCHITECTURAL DRAWINGS.

THE CONTRACTOR SHALL COORDINATE SPRINKLER WORK WITH THE OWNER'S PHASING SCHEDULE PRIOR TO COMMENCEMENT OF ANY WORK. ALL PHASED SECTIONS OF WORK SHALL COMPLY WITH THE OWNERS SCHEDULE AND BE TESTED, INSPECTED, READY FOR OPERATION IN ACCORDANCE WITH NFPA, OWNERS INSURANCE COMPANY AND A.H.J. REQUIREMENTS.

THE CONTRACTOR SHALL PROVIDE COMPLETE SIGNED AND SEALED (BY LICENSED STATE OF CONNECTICUT P.E.) DRAWINGS INDICATING ALL PIPING AND SPRINKLER HEADS. CONTRACTOR SHALL SECURE AND PAY COSTS OF PERMITS, CERTIFICATES, LICENSES, INSPECTIONS AND APPROVALS.

INSTALL SPRINKLERS BELOW DUCTS, AND/OR COMBINATIONS OF DUCTS/EQUIPMENT IN ACCORDANCE WITH THE OBSTRUCTION REQUIREMENTS OF NFPA 13.

PROVIDE SPRINKLER PROTECTION IN ORDER TO AVOID ALL OBSTRUCTIONS N ACCORDANCE WITH NFPA 13, INCLUDING: LIGHTING, CEILING FIXTURES, STRUCTURAL MEMBERS, ETC. WITHIN ALL HAZARD OCCUPANCIES.

ALL DRAIN PIPING AND ANY PIPING SUBJECT TO ALTERNATE WETTING AND DRYING SHALL BE GALVANIZED.

ALL SYSTEM COMPONENTS SHALL BE CAPABLE OF WITHSTANDING A MINIMUM WORKING
PRESSURE OF 175 PSI.

THE CONTRACTOR SHALL SEAL AROUND ALL NEW PENETRATIONS THROUGHOUT THE BUILDING WITH SEALANT OF FIRE AND/OR SMOKE RETARDANT TYPE EQUAL IN FIRE RATING TO THE STRUCTURE BEING PENETRATED. SEALANT SHALL BE A UL LISTED ASSEMBLY.

WORK OF THIS SECTION SHALL BE GOVERNED BY THE CONTRACT DOCUMENTS. PROVIDE MATERIALS, LABOR, EQUIPMENT AND SERVICES NECESSARY TO FURNISH, DELIVER AND INSTALL ALL WORK AS SPECIFIED AND AS REQUIRED BY JOB CONDITIONS. WHERE A CONFLICT EXISTS BETWEEN THESE NOTES, THE DRAWINGS AND THE SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT GENERAL CONDITIONS AND WITH THE PROVISIONS OF ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND LAWS.

WORK SHALL INCLUDE ALL INCIDENTALS, LABOR, MATERIAL EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, CONSUMABLE ITEMS, FEES, LICENSES, AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE WORK SHOWN ON THE DRAWINGS, SPECIFIED HEREIN AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.

STORE MATERIALS INSIDE AND PROTECTED FROM DEBRIS, WEATHER AND MOISTURE.

THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL POWER AND CONTROL WIRING REQUIRED FOR EQUIPMENT OPERATION NOT SPECIFICALLY PROVIDED BY OTHERS BUT REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THIS CONTRACTOR SHALL PROVIDE MOTOR STARTERS FOR INSTALLATION BY OTHERS. COORDINATE REQUIREMENTS.

COORDINATION DRAWINGS

DEVELOP AND SUBMIT COORDINATION DRAWINGS AS OUTLINED.

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

AFTER SHEET METAL AND PIPING DRAWINGS HAVE BEEN REVISED PER ENGINEERS COMMENTS, REPRODUCE SETS AND SUBMIT TO THE TRADES IN THE FOLLOWING SEQUENCE FOR THE INCLUSION OF THEIR WORK:

-MECHANICAL SHEET METAL
-PLUMBING PIPING
-MECHANICAL PIPING
-SPRINKLER PIPING
-ELECTRICAL WORK

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

THE ARCHITECT AND ENGINEER ARE NOT PART OF THE COORDINATION DRAWING PROCESS. THE ENGINEER WILL PROVIDE ASSISTANCE FOR NOTED CONFLICTS ONLY. COORDINATION DRAWINGS ARE NOT TO BE CONSIDERED PIPING OR DUCT SHOP DRAWINGS. THE CONTRACTOR IS REQUIRED TO SUBMIT INDIVIDUAL PIPING AND DUCTWORK SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. PIPING AND DUCTWORK SHOP DRAWINGS SHALL FOLLOW THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.

SUBMIT FINAL SIGNED COORDINATION DRAWING TO ENGINEER FOR REVIEW. ENGINEER WILL REVIEW COORDINATION DRAWINGS FOR GENERAL ARRANGEMENT AND FOR NOTED CONFLICTS ONLY. SPECIFIC INSTALLATION REQUIREMENTS WILL BE REVIEWED ONLY IN INDIVIDUAL TRADE SHOP DRAWINGS.

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.

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

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

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

AS BUILT DRAWINGS

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

INCLUDE ALL CHANGES OF ALL DEVIATIONS BETWEEN THE WORK INDICATED AND THE WORK INSTALLED INCLUDING APPROVED CONTRACT MODIFICATIONS AND SUBSTITUTIONS.

INDICATE VALVES AND CONTROL DEVICES LOCATED AND NUMBERED COORDINATED WITH SUBMITTED VALVE CHARTS.
SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.

PROVIDE AND INSTALL ACCESS DOORS FOR EACH VALVE, DRAIN, OR FIRE PROTECTION DEVICE REQUIRING ACCESS. ACCESS DOORS SHALL BE RSD CONSTRUCTION WITH TWO HINGES AND A LATCH. IN PLENUM CEILINGS, PROVIDE FELT BETWEEN THE DOOR AND FRAME TO MAKE AN AIR TIGHT SEAL. ACCESS DOORS SHALL BE RATED TO THE SAME OR GREATER RATING OF THE PARTITION IN WHICH THEY ARE INSTALLED. ACCESS DOORS SHALL BE FLUSH MOUNTED, PRIME COATED WITH RUST INHIBITIVE PAINT, CONCEALED FRAME, FLUSH SCREW DRIVER OPERATED LOCKS WITH METAL CAMS AND ANCHORS AS REQUIRED.

ACCESS DOOR SIZES SHALL BE:
12" X 12" AT EASILY ACCESSIBLE ITEMS
18" X 18" WHERE PARTIAL BODY ACCESS IS REQUIRED
24" X 24" WHERE FULL BODY ACCESS IS REQUIRED

HOUSEKEEPING PADS

PROVIDE CONCRETE HOUSEKEEPING PADS FOR FLOOR-MOUNTED EQUIPMENT. REFERENCE S-301 FOR HOUSE KEEPING PAD.
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, AND 4 INCHES WIDER THAN THE EQUIPMENT IN BOTH DIRECTIONS.

HANGERS AND SUPPORT
SPRINKLER PIPING IN A SUBSTANTIAL MANNER FROM BUILDING STRUCTURE, AND INDEPENDENT OF THE CEILING SYSTEM. PROVIDE EARTHQUAKE/SEISMIC BRACING
IN ACCORDANCE WITH NFPA 13 AND THE LOCAL CODE. DO NOT USE SPRINKLER PIPING OR HANGERS TO SUPPORT NON-SYSTEM COMPONENTS.

SEISMIC RESTRAINT: PROVIDE SEISMIC RESTRAINT AND EXPANSION OF ALL FIRE PROTECTION EQUIPMENT AND SYSTEMS IN ACCORDANCE WITH APPLICABLE NFPA STANDARDS, OWNERS INSURANCE COMPANY, STATE, FEDERAL AND LOCAL BUILDING CODE REQUIREMENTS. SUBMIT SHOP DRAWINGS SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT INDICATING ALL NECESSARY COMPONENT CUTS, PLAN LOCATIONS AND CALCULATIONS FOR A COMPLETE SYSTEM.

PROVIDE ALL NECESSARY STRUCTURAL MEMBERS INCLUDING ADDITIONAL STRUCTURAL SUPPORT TO SUPPORT PIPING AND EQUIPMENT. HANGERS AND SUPPORTS SHALL BE OF AN APPROVED DESIGN NECESSARY TO SUPPORT PIPING, EQUIPMENT AND TO KEEP PIPING IN PROPER ALIGNMENT AND PREVENT TRANSMISSION OF INJURIOUS THRUSTS AND VIBRATIONS. IN ALL CASES WHERE HANGERS, BRACKETS, ETC., ARE SUPPORTED FROM CONCRETE CONSTRUCTION, DO NOT WEAKEN CONCRETE OR PENETRATE WATERPROOFING. ALL HANGERS AND SUPPORTS SHALL BE CAPABLE OF SCREW ADJUSTMENT AFTER PIPING IS 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.

PROVIDE ADDITIONAL SUPPORT FOR PIPING AND EQUIPMENT WHEN DECK IS NOT CAPABLE OF SUPPORT.

BEAM CLAMPS - HANGERS SUPPORTED FROM STEEL SHALL BE CENTER LOADING BEAM CLAMPS FOR HANGERS SUPPORTING PIPING 2 INCHES. FOR PIPING 2-1/2 INCHES AND LARGER, I BEAM CLAMPS SHALL BE FORGED STEEL. 'C' CLAMPS ARE PERMITTED ONLY WHEN PROVIDED WITH RESTRAINING STRAP. BAR JOIST HANGERS SHOULD BE UTILIZED WHEN HANGING FROM BAR JOIST CONSTRUCTION.

ALL HANGERS AND SUPPORTS SHALL BE HOT DIPPED GALVANIZED. ALL THREADED ROD AND HARDWARE SHALL BE HOT DIPPED GALVANIZED.

PROVIDE AND INSTALL EXPANSION COMPENSATION FOR ALL PIPING. SUBMIT PLANS, CALCULATIONS AND EQUIPMENT DATA.

FIRE PROTECTION DESIGN CRITERIA

FIRE PROTECTION CONTRACTOR SHALL OBTAIN RECENT AREA FLOW TEST RESULTS (WITHIN ONE YEAR OF START OF CONSTRUCTION) OR SHALL ARRANGE WITH THE WATER UTILITY FOR A NEW WATER FLOW TEST

WATER SERVICE CONNECTION TO BE COORDINATED WITH TOWN OF COLCHESTER WATER DEPARTMENT

SPRINKLER SYSTEMS SHALL BE HYDRAULICALLY CALCULATED BASED ON THE FOLLOWING CRITERIA INCLUDE ANY/ALL FIRE MARSHAL AND OWNER REQUIREMENTS:

CONTRACTOR RESPONSIBLE FOR DOCUMENTING SIZE AND LENGTH OF EXISTING FIRE PROTECTION WATER SUPPLY INCLUDING VALVING, ETC. AS NECESSARY IN ORDER TO PERFORM HYDRAULIC CALCULATIONS

THE FIRE PROTECTION WATER SERVICE SHALL BE CONNECTED TO AN EXISTING SPRINKLER FIRE MAIN. THE FIRE PROTECTION CONTRACTOR SHALL CONDUCT A CURRENT FLOW TEST FOR USE IN THE HYDRAULIC CALCULATIONS AND DOCUMENT THE RESULTS.

WATER SERVICE CONNECTION TO BE COORDINATED WITH TOWN OF COLCHESTER WATER DEPARTMENT

USE THE FOLLOWING FOR BID:

DATE:	MONTH DAY, YEAR @ TIME (WATER COMPANY)
LOCATION:	HYDRANT 1 @ LEBANON AVE HYDRANT 2 @ MILL STREET
STATIC:	63 PSI
RESIDUAL:	60 PSI
FLOW:	874 GPM

WHERE DISTRIBUTION PIPING CAN BE RUN ON WARM SIDE OF BUILDING INSULATION, AND SPACE TO BE PROTECTED IS NOT EXPOSED TO FREEZING:

LIGHT HAZARD AREAS
OFFICES, HALLWAYS, LOBBYS, ETC.
MINIMUM DENSITY OF 0.10 GPM/SQ.FT. OVER THE MOST REMOTE 1500 SQ.FT.
PLUS 100 GPM FOR HOSE DEMAND, MAXIMUM COVERAGE PER SPRINKLER HEAD IS 196 SQ.FT.

ORDINARY HAZARD (GROUP 1) AREAS
MECHANICAL ROOMS, ELECTRICAL ROOMS, ETC.
MINIMUM DENSITY OF 0.15 GPM/SQ.FT OVER THE MOST REMOTE 1500 SQ.FT.
PLUS 250 GPM FOR HOSE DEMAND, MAXIMUM COVERAGE PER SPRINKLER HEAD IS 130 SQ.FT.

ORDINARY HAZARD (GROUP 1) AREAS
STORAGE ROOMS
MINIMUM DENSITY OF 0.20 GPM/SQ.FT. OVER THE MOST REMOTE 1500 SQ.FT.
PLUS 250 GPM FOR HOSE DEMAND, MAXIMUM COVERAGE PER SPRINKLER HEAD IS 130 SQ.FT.

WHERE DISTRIBUTION PIPING IS RUN ON WARM SIDE OF BUILDING INSULATION, BUT SPACE TO BE PROTECTED IS EXPOSED TO FREEZING

PROVIDE DRY SPRINKLER HEADS TO PROTECT SPACE EXPOSED TO FREEZING, EXTENDED FROM WET PIPE SYSTEMS.

WHERE DISTRIBUTION PIPING AND SPACE TO BE PROTECTED ARE EXPOSED TO FREEZING:

PROVIDE DRY PIPE SPRINKLER SYSTEM, ALL PENDENT AND SIDEWALL HEADS SHALL BE DRY TYPE.

PROTECTION OF EGRESS CORRIDORS WITHN WORK ZONES

FIRE PROTECTION CONTRACTOR SHALL MAINTAIN SUPERVISED AUTOMATIC SPRINKLER PROTECTION OF ALL EGRESS CORRIDORS WITHN WORK ZONES AT ALL TIMES

FIRE PROTECTION SYMBOL LEGEND

SYMBOL	DESCRIPTION
	BALL VALVE
	CHECK VALVE
	GATE VALVE
	REDUCED PRESSURE BACKFLOW PREVENTER
	HYDRANT
	PRESSURE GUAGE
	ALARM BELL
	FIRE DEPARTMENT CONNECTION (FDC)
	REDUCED PRESSURE DETECTOR ASSEMBLY
	OSY VALVE
	POINT OF NEW CONNECTION
	POINT OF DISCONNECTION
AF	ANTIFREEZE CHARGING LOOP
SEJ	SEISMIC EXPANSION JOINT
	TEST AND DRAIN VALVE
FS	FLOW SWITCH
PS	PRESSURE SWITCH
TS	TAMPER SWITCH
	PIPE DOWN
	PIPE UP
	CAPPED PIPE
	PIPE OR EQUIPMENT TO BE DEMOLISHED

SPRINKLER SYMBOL LEGEND

SYMBOL	DESCRIPTION
	UPRIGHT
	PENDENT
	PENDENT - CONCEALED
	DRY UPRIGHT
	DRY PENDENT
	DRY PENDENT - SEMI RECESSED
	DRY PENDENT - RECESSED
	DRY PENDENT - CONCEALED
	SIDEWALL
	SIDEWALL - RECESSED
	DRY SIDEWALL
	DRY SIDEWALL - RECESSED
	EXPOSED UPRIGHT OFF 1 SPRIG-UP FED FROM HEAD BELOW

NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT PERTAIN TO THIS PROJECT.

FIRE PROTECTION PIPING SYSTEM LEGEND

NAME	DESCRIPTION
UGM	UNDERGROUND PIPING MAIN
FDC	UNDERGROUND FIRE DEPARTMENT CONNECTION
T/D	TEST / DRAIN
T	TEST
STP	STAND PIPE
SPR	SPRINKLER
PA	PRE ACTION
SP	WET SPRINKLER
FDC	FIRE DEPARTMENT CONNECTION
EQP	EQUIPMENT
DRY	DRY PIPE
DR	DRAIN
AF	ANTIFREEZE

FIRE PROTECTION DRAWING LIST

DRAWING NUMBER	DRAWING DESCRIPTION
FP001	GENERAL NOTES - FIRE PROTECTION
FP100	FLOOR PLAN - FIRE PROTECTION
FP101	ATTIC PLAN - FIRE PROTECTION
FP200	SECTIONS - FIRE PROTECTION
FP201	SECTIONS - FIRE PROTECTION
FP202	SECTIONS -FIRE PROTECTION
FP203	ISOMETRIC PLAN - FIRE PROTECTION
FP300	SCHEDULES - FIRE PROTECTION
FP400	DETAILS - FIRE PROTECTION

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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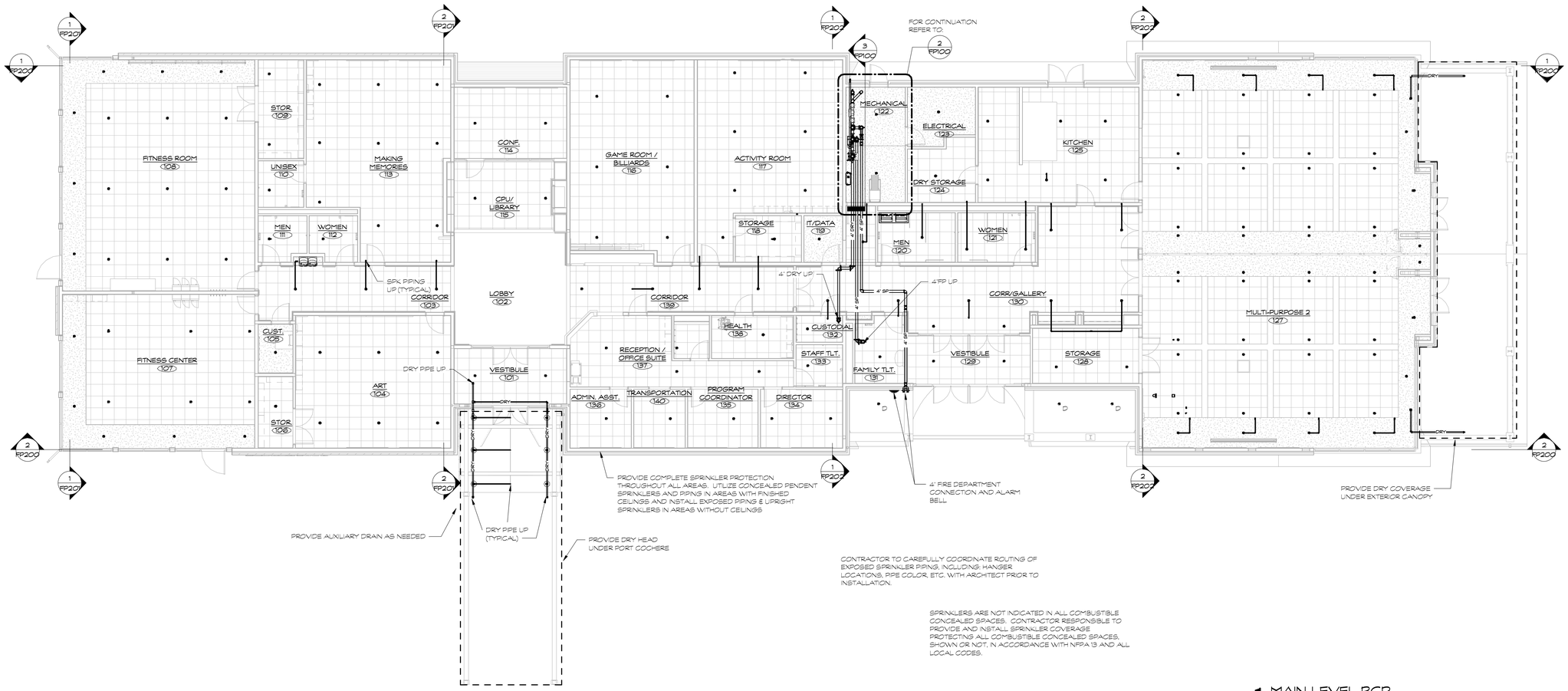
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

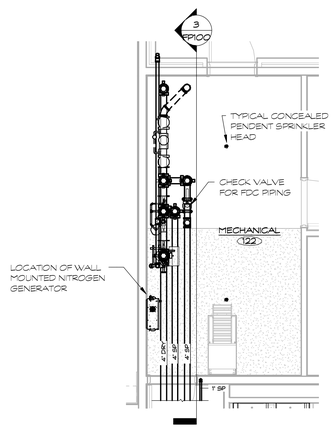
Drawing Title:
GENERAL NOTES - FIRE PROTECTION

Date: SEPTEMBER 09, 2022
Scale: 12" = 1'-0"
Drawn By: MPB
Project Number: 20.003
Drawing Number: FP001

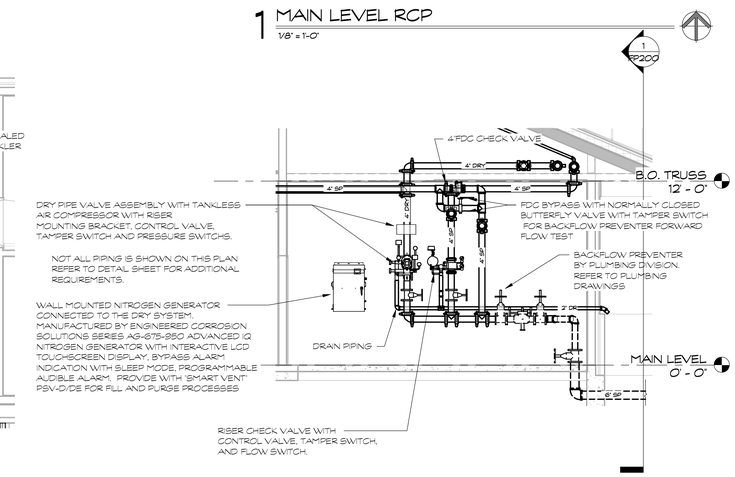


CONTRACTOR TO CAREFULLY COORDINATE ROUTING OF EXPOSED SPRINKLER PIPING, INCLUDING: HANGER LOCATIONS, PIPE COLOR, ETC. WITH ARCHITECT PRIOR TO INSTALLATION.

SPRINKLERS ARE NOT INDICATED IN ALL COMBUSTIBLE CONCEALED SPACES. CONTRACTOR RESPONSIBLE TO PROVIDE AND INSTALL SPRINKLER COVERAGE PROTECTING ALL COMBUSTIBLE CONCEALED SPACES, SHOWN OR NOT, IN ACCORDANCE WITH NFPA 13 AND ALL LOCAL CODES.



2 WATER SERVICE ROOM
1/4" = 1'-0"



3 WATER SERVICE ROOM SECTION
1/4" = 1'-0"

1 MAIN LEVEL RCP
1/8" = 1'-0"

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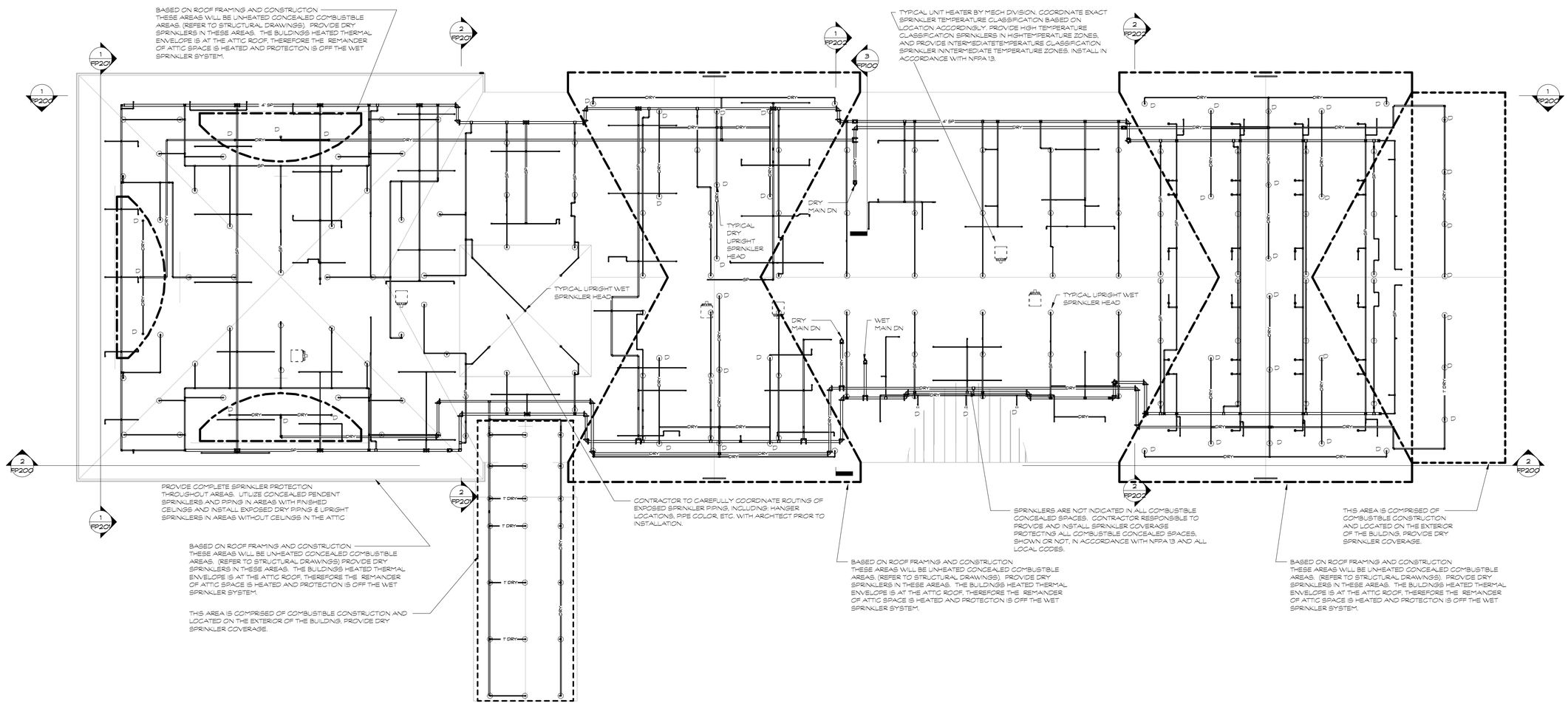
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
FLOOR PLAN - FIRE PROTECTION

Date: SEPTEMBER 09, 2022
Scale: As indicated
Drawn By: MPB
Project Number: 20.003
Drawing Number: FP100



1 ATTIC LEVEL FIRE PROTECTION

1/8" = 1'-0"

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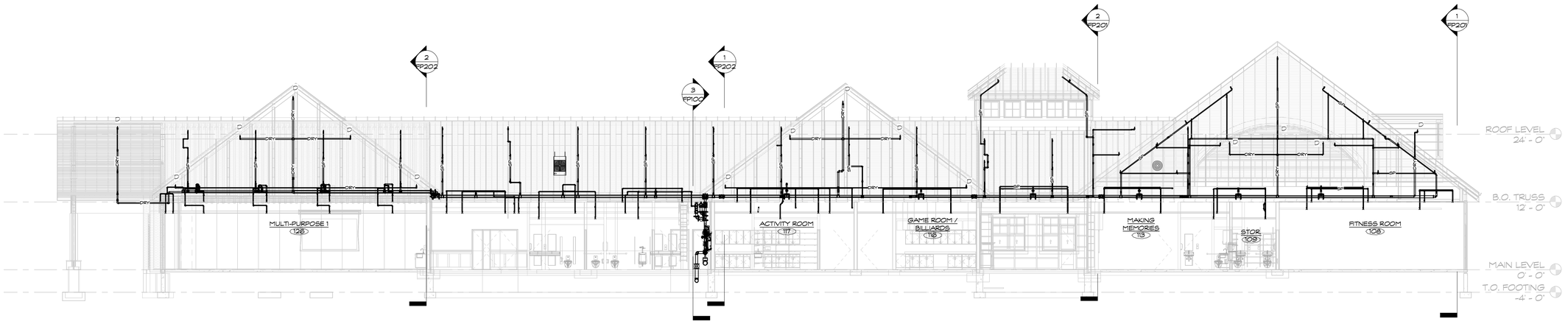
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

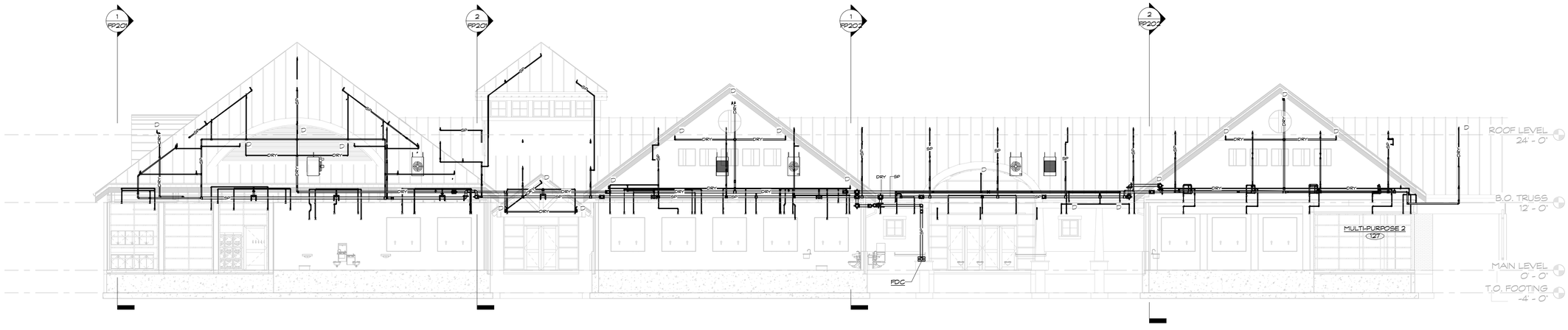
Drawing Title:
ATTIC PLAN - FIRE PROTECTION

Date: SEPTEMBER 09, 2022
Scale: 1/8" = 1'-0"
Drawn By: MPB
Project Number: 20.003

Drawing Number: FP101



1 EAST SECTION
1/8" = 1'-0"



2 WEST SECTION
1/8" = 1'-0"

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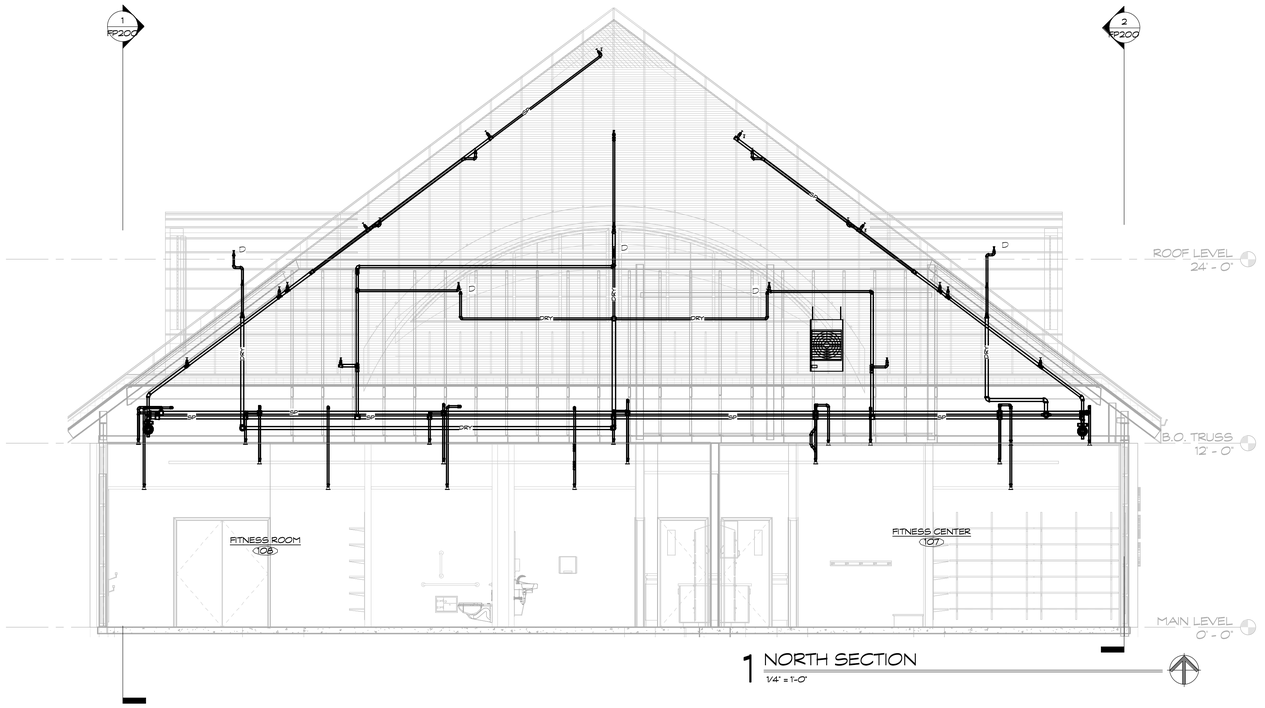
	ISSUED FOR BID	09/09/2022	

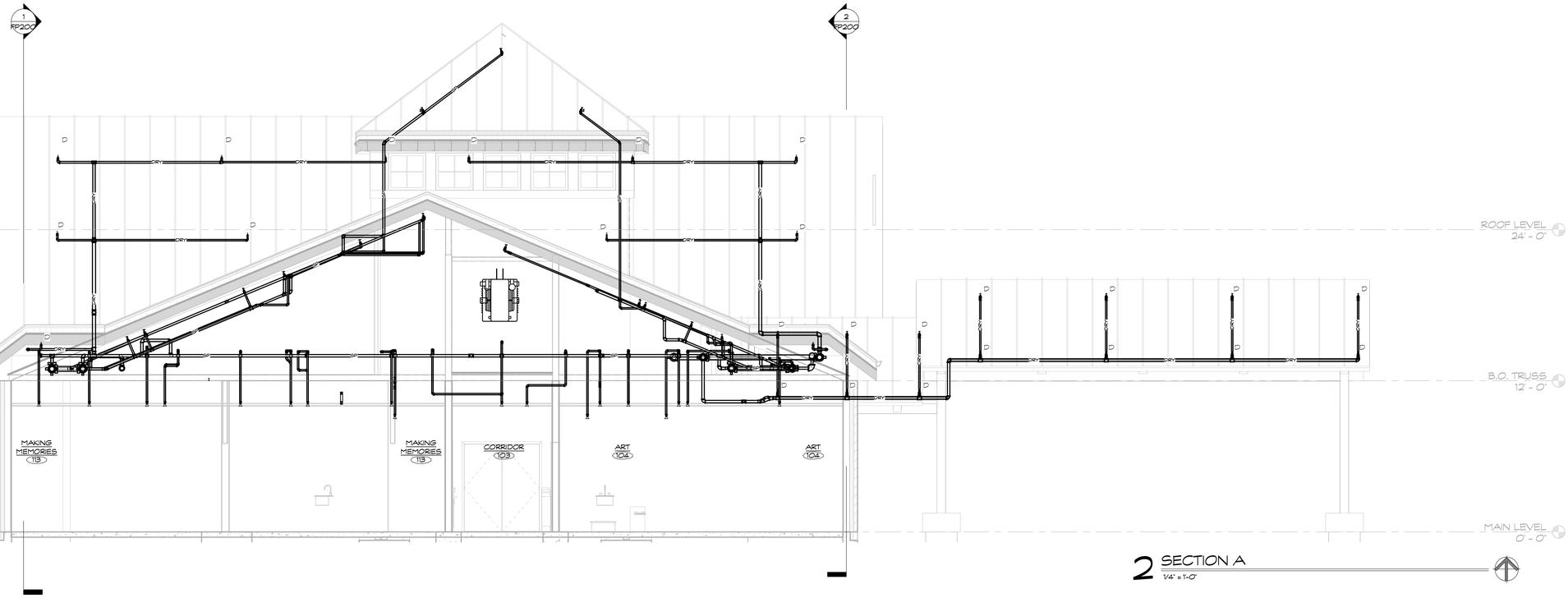
Drawing Title:
SECTIONS - FIRE PROTECTION

Date: SEPTEMBER 09, 2022
Scale: 1/8" = 1'-0"
Drawn By: MPB
Project Number: 20.003

Drawing Number:
FP200



1 NORTH SECTION
1/4" = 1'-0"



2 SECTION A
1/4" = 1'-0"

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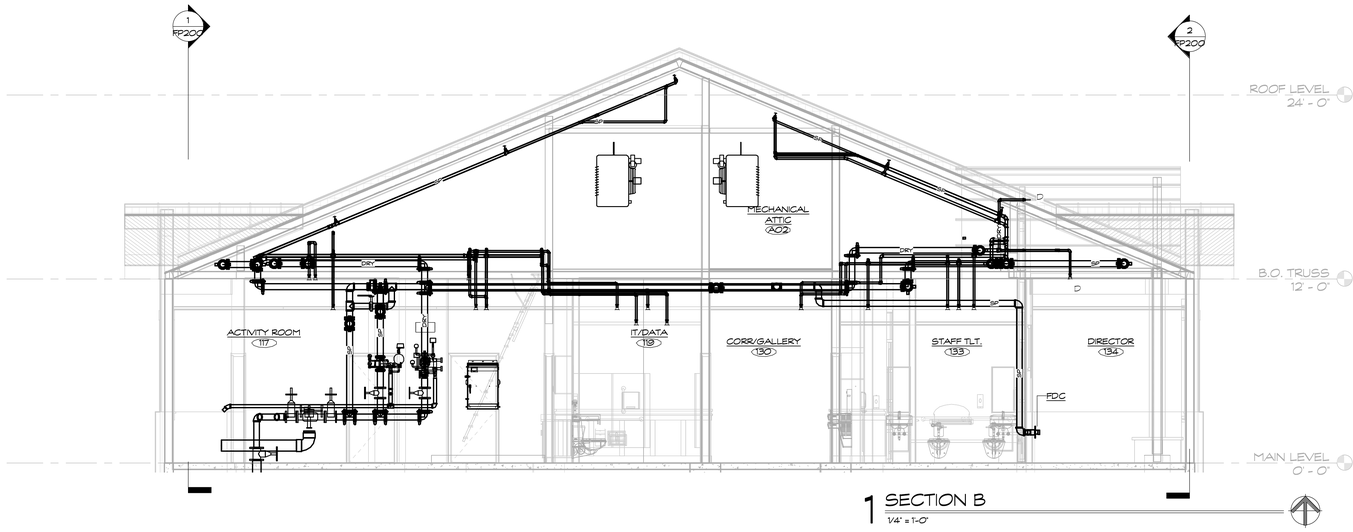
	ISSUED FOR BID	09/09/2022	

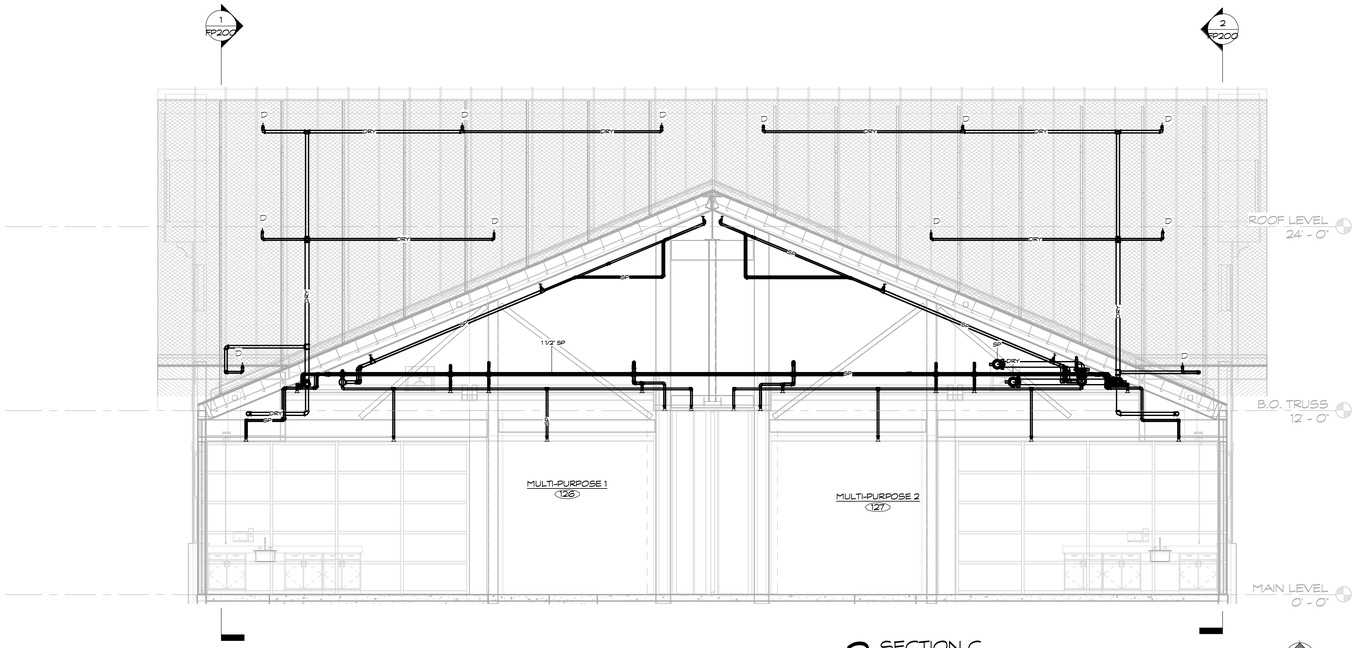
Drawing Title:
SECTIONS - FIRE PROTECTION

Date: SEPTEMBER 09, 2022
Scale: 1/4" = 1'-0"
Drawn By: MPB
Project Number: 20.003

Drawing Number: FP201



1 SECTION B
1/4" = 1'-0"



2 SECTION C
1/4" = 1'-0"

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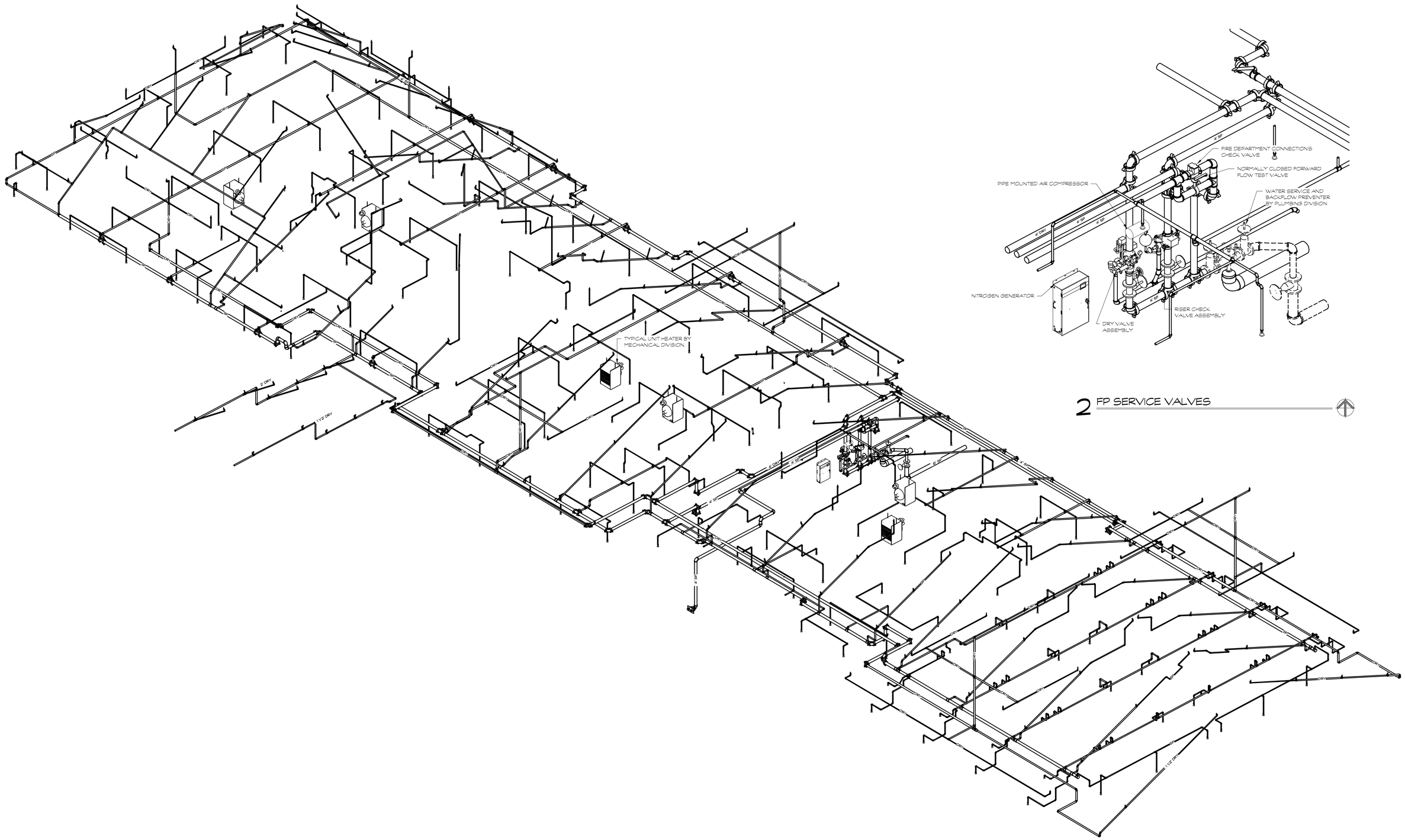
	ISSUED FOR BID	09/09/2022	

Drawing Title:
SECTIONS -FIRE PROTECTION

Date: SEPTEMBER 09, 2022
Scale: 1/4" = 1'-0"
Drawn By: MPB
Project Number: 20.003

Drawing Number:
FP202



1 ISOMETRIC VIEW

2 FP SERVICE VALVES

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	ISSUED FOR BID	09/09/2022	

Drawing Title:
ISOMETRIC PLAN - FIRE PROTECTION

Date: SEPTEMBER 09, 2022
Scale:
Drawn By: MPB
Project Number: 20.003
Drawing Number: FP203

PIPE AND FITTING SCHEDULE

DESCRIPTION	SIZE	PIPE		FITTING		REMARKS
		TYPE	SCHEDULE	TYPE	RATING	
UNDERGROUND FIRE PROTECTION SERVICE PIPING	ALL	CLDI	CLASS 52	DMJ	250	--
WET SPRINKLER PIPING	2" AND SMALLER	STL-BLK	40	MIT	STD	--
WET SPRINKLER PIPING	2-1/2" AND LARGER	STL-BLK	10	GRV	STD	--
DRY SPRINKLER PIPING WITH NITROGEN GEN.	2" AND SMALLER	STL-BLK	40	MIT	STD	GALVANIZED NOT REQ. WITH NITROGEN GEN.
DRY SPRINKLER PIPING WITH NITROGEN GEN.	2-1/2" AND LARGER	STL-BLK	40	GRV	STD	GALVANIZED NOT REQ. WITH NITROGEN GEN.
DRY SPRINKLER PIPING W/O NIT. GEN.	2" AND SMALLER	GALV.	40	MIT	STD	ALL FITTINGS MUST BE GALVANIZED.
DRY SPRINKLER PIPING W/O NIT. GEN.	2-1/2" AND LARGER	GALV.	40	GRV	STD	ALL FITTINGS MUST BE GALVANIZED
DRAIN PIPING	ALL	GALV.	40	MIT/GRV	STD	ALL FITTINGS MUST BE GALVANIZED
FIRE DEPARTMENT CONNECTION PIPING	ALL	GALV.	40	MIT/GRV	STD	ALL FITTINGS MUST BE GALVANIZED
FIRE PUMP ROOM PIPING	ALL	STL-BLK	40	FL/GRV	STD	ALL PIPING PAINTED IN ACCORDANCE WITH NFPA (COORDINATE WITH ARCHITECT)

NOTES:
1. ALL PIPE ON THE SUCTION SIDE OF THE FIRE PUMP SHALL BE FLANGED TYPE CONNECTIONS AND FITTINGS.

2. ALL EXPOSED PIPING AND FITTINGS WITHIN FINISHED AREAS SHALL BE CUSTOM PAINTED IN ACCORDANCE WITH NFPA, OWNERS PAINTING REQUIREMENTS AND COORDINATED WITH ARCHITECT.

3. ALL PIPING IN RETURN AIR CEILING PLENUM INSTALLATIONS SHALL BE UL LISTED FOR THIS APPLICATION

ABBREVIATIONS	DESCRIPTION	ABBREVIATIONS	DESCRIPTION
CI	CAST IRON	GRV	GROOVED JOINT SYSTEM FITTINGS/COUPLINGS
CLDI	CEMENT LINED DUCTILE IRON	GALV.	GALVANIZED STEEL
CUS	WROUGHT COPPER SOLDER (95-5)	MIT	MALLEABLE IRON THREADED
DI	DUCTILE IRON	STD	STANDARD
DMJ	DUCTILE IRON MECHANICAL JOINT	STL-BLK	BLACK STEEL
FL	FLANGED		

SPRINKLER HEAD SCHEDULE

TYPE	STYLE	RESPONSE	COVERAGE	COLOR	DISCHARGE COEFFICENT (K)	ORIFICE	TEMP.	MANUFACTURE		REMARKS
								MODEL	SIN	
PENDENT	CONCEALED	QUICK	STANDARD	WHITE	5.6K	1/2"	155°F	VICTAULIC		--
								V38	V3802	
DRY PENDENT	CONCEALED	QUICK	STANDARD	WHITE	5.6K	1/2"	155°F	VICTAULIC		--
								V33	V3302	
PENDENT	EXPOSED	QUICK	STANDARD	BRASS	5.6K	1/2"	155°F	VICTAULIC		--
								V27	V2708	
SIDE WALL	EXPOSED	QUICK	STANDARD	BRASS	5.6K	1/2"	155°F	VICTAULIC		--
								V27	V2710	
DRY SIDEWALL	RECESSED	QUICK	STANDARD	CHROME '	5.6K	1/2"	155°F	VICTAULIC		--
								V38	V3810	
PENDENT	INSTITUTIONAL	QUICK	STANDARD	WHITE PLATE '	5.6K	1/2"	155°F	TYCO		--
								RAVEN	TY3281	
UPRIGHT	EXPOSED	QUICK	STANDARD	BRASS	5.6K	1/2"	155°F	VICTAULIC		SEE NOTE 5
								V27	V2704	
UPRIGHT	EXPOSED	QUICK	STANDARD	BRASS	5.6K	1/2"	175°F - 225°F (INT. TEMP)	VICTAULIC		SEE NOTE 5
								V27	V2704	
UPRIGHT	EXPOSED	QUICK	STANDARD	BRASS	5.6K	1/2"	250°F - 300°F (HIGH TEMP)	VICTAULIC		SEE NOTE 5
								V27	V2704	

NOTES:
1. FINAL COLORS TO BE SELECTED BY ARCHITECT.

2. IN AREAS WITH FINISHED CEILINGS CONCEALED, PENDENT SPRINKLER HEADS AND CONCEALED PIPING SHALL BE UTILIZED, UNLESS OTHERWISE INDICATED ON PLANS

3. IN AREAS WITHOUT CEILINGS, EXPOSED UPRIGHT SPRINKLER HEADS AND EXPOSED PIPING SHALL BE UTILIZED. UL LISTED HEAD GUARDS SHALL BE PROVIDED IN AREAS SUBJECT TO DAMAGE (I.E. MECHANICAL ROOMS, GYMS, ETC..)

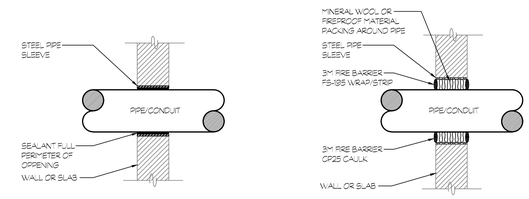
4. FLEXIBLE SPRINKLER HEADS ASSEMBLIES SHALL BE 6' IN LENGTH, UL LISTED AND HAVE A STAINLESS STEEL BRAID SIMILAR TO VICTAULIC 'VICFLEX' AGB BRAIDED SERIES. FLEXIBLE SPRINKLER ASSEMBLIES EQUIVALENT LENGTH MUST BE TAKING IN ACCOUNT WHEN PRODUCING HYDRAULIC CALCULATIONS.

5. PROVIDE HIGH-TEMPERATURE CLASSIFICATION SPRINKLERS IN HIGH-TEMPERATRUE ZONES, AND PROVIDE INTERMEDIATE-TEMPERATURE CLASSIFICATION SPRINKLER IN INTERMEDIATE TEMPERATURE ZONES ADJACENT TO FINALIZED UNIT HEATER LOCATION (BY MECH DIV.). INSTALL IN ACCORDANCE WITH NFPA 13.

VALVE SCHEDULE

DESCRIPTION	SIZE	TYPE				CLASS	REMARKS
		OSEY	BUTTERFLY	CHECK	BALL		
UNDERGROUND FIRE PROT. SERVICE	ALL	OSEYF	BFVF	CVF	BVF	175PSI	--
WET SPRINKLER PIPING	2" AND SMALLER	OSEYT	BFVT	CVT	BVT	175PSI	--
WET SPRINKLER PIPING	2-1/2" AND LARGER	OSEYG	BFVG	CVG	BVG	175PSI	--
DRY SPRINKLER PIPING	2" AND SMALLER	OSEYT	BFVT	CVT	BVT	175PSI	--
DRY SPRINKLER PIPING	2-1/2" AND LARGER	OSEYG	BFVG	CVG	BVG	175PSI	--
DRAIN PIPING	ALL	--	--	--	BVT	175PSI	--
FIRE DEPARTMENT CONNECTION PIPING	ALL	--	--	CVG	--	175PSI	--
FIRE PUMP ROOM PIPING	ALL	OSEYF	BFVF	CVF	--	175PSI	ALL VALVES SHALL BE IN ACCORDANCE WITH NFPA 20

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
BVF	BALL VALVE FLANGED - FULL PORT, BRONZE	CVF	CHECK VALVE FLANGED
BVG	BALL VALVE GROOVED - FULL PORT, BRONZE	CVG	CHECK VALVE GROOVED
BVT	BALL VALVE THREADED - 2-PIECE, FULL PORT, 400PSI, BRONZE	CVT	CHECK VALVE THREADED - BRONZE
BFVF	BUTTERFLY VALVE FLANGED	OSEYF	OSEY RAISING STEM VALVE FLANGED
BFVG	BUTTERFLY VALVE GROOVED	OSEYG	OSEY RAISING STEM VALVE GROOVED
BFVT	BUTTERFLY VALVE THREADED	OSEYT	OSEY RAISING STEM VALVE THREADED



SLEEVES AT NON-RATED WALLS

SLEEVES AT RATED WALLS

GENERAL NOTES:

PROVIDE UL LISTED, FM APPROVED FIRE/SMOKE PENETRATION ASSEMBLIES IN ACCORDANCE WITH UL1479, ASTM E184 REQUIREMENTS FOR WALL TYPE, RATING AND PIPE SIZES.

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

FOR WALL PENETRATIONS AT RATED WALLS SEE SPECIFICATION SECTIONS 'SEALANTS' AND 'FIRESTOPPING'

PIPE PENETRATION DETAIL

NOT TO SCALE

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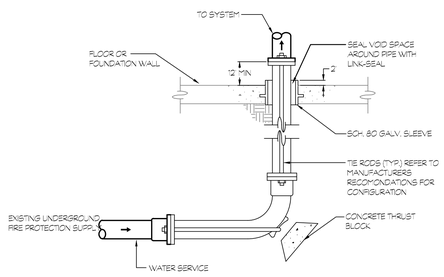
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

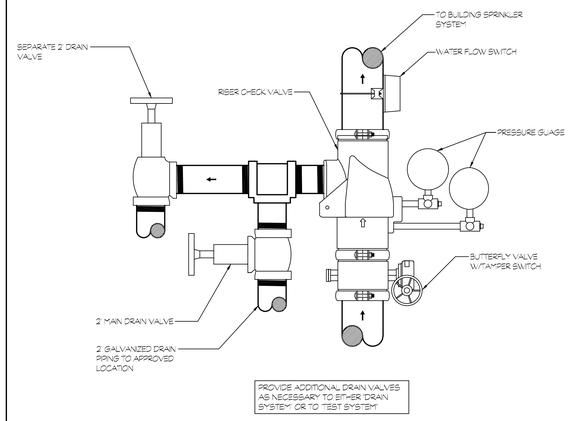
Drawing Title:
SCHEDULES -
FIRE PROTECTION

Date: SEPTEMBER 09, 2022
Scale: NONE
Drawn By: MSB
Project Number: 20.003

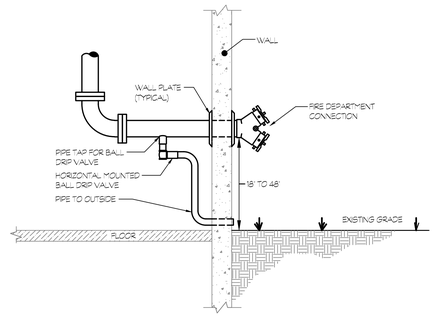
Drawing Number: FP300



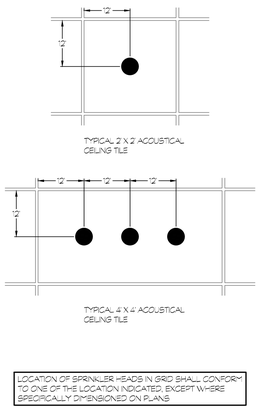
WATER SERVICE ENTRY DETAIL
NOT TO SCALE



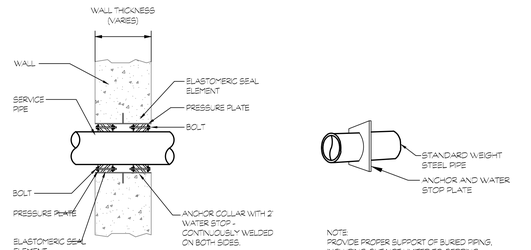
RISER CHECK VALVE ASSEMBLY
NOT TO SCALE



WALL MOUNTED FIRE DEPARTMENT CONNECTION
NOT TO SCALE

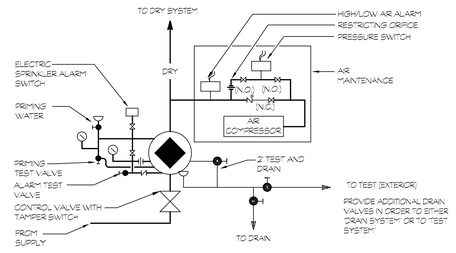


SUSPENDED CEILING SPRINKLER HEAD LOCATION DETAIL
NOT TO SCALE

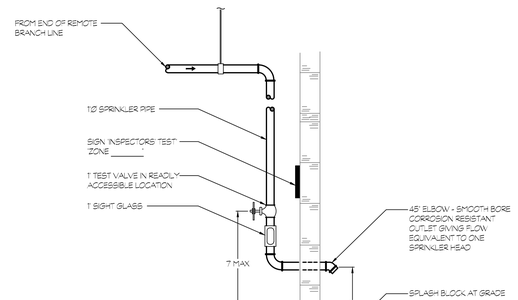


NOTE
PROVIDE PROPER SUPPORT OF BURIED PIPING, INCLUDING, BUT NOT LIMITED TO, BEDDING, COMPACTION, SUPPORT TO PREVENT PIPE MOVEMENT. PROVIDE PIPE WITH SWING JOINT FITTING.

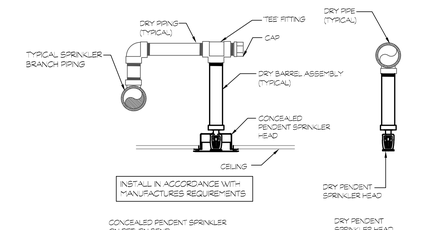
EXTERIOR PIPE PENETRATION WITH SLEEVE DETAIL
NOT TO SCALE



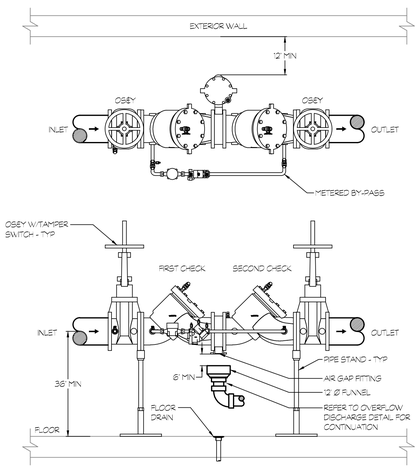
DRY PIPE VALVE SCHEMATIC
NOT TO SCALE



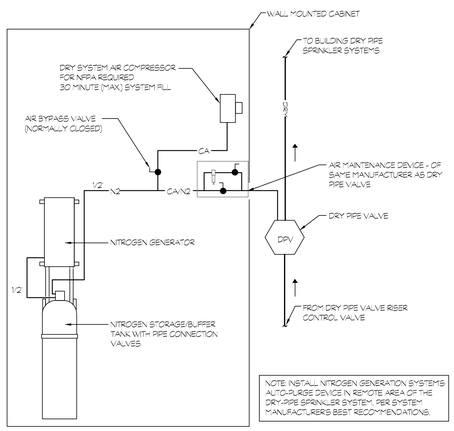
INSPECTORS TEST CONNECTION DETAIL
NOT TO SCALE



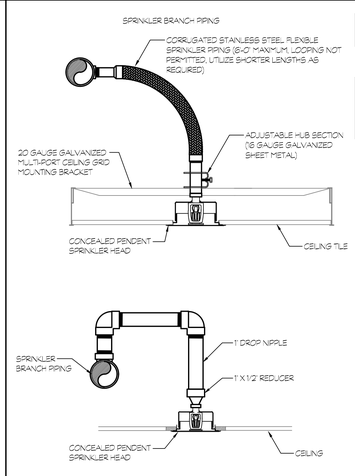
TYPICAL DRY BARREL SPRINKLER HEAD
NOT TO SCALE



BACKFLOW PREVENTION DETAIL
NOT TO SCALE



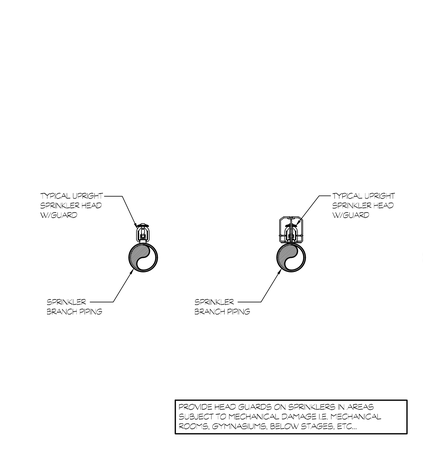
NITROGEN GENERATION SYSTEM SCHEMATIC
NOT TO SCALE



CONTRACTOR SHALL PROVIDE ALL PIPING, FITTINGS, HANGERS, ETC., AS REQUIRED TO PROVIDE A COMPLETE SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13

CONTRACTOR SHALL UTILIZE CONCEALED PENDENT SPRINKLERS AND PIPING IN AREAS WITH FINISHED CEILINGS, AND EXPOSED PIPING AND UPRIGHT SPRINKLERS IN AREAS WITHOUT CEILINGS. PROVIDE AND INSTALL SPRINKLERS UNDER AND ABOVE ALL OBSTRUCTIONS IN ACCORDANCE WITH NFPA 13.

CONCEALED PENDENT SPRINKLER HEAD DETAILS
NOT TO SCALE



EXPOSED SPRINKLER HEAD DETAILS
NOT TO SCALE

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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Drawing Title:
DETAILS - FIRE PROTECTION

Date: SEPTEMBER 09, 2022
Scale: NONE
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Project Number: 20.003
Drawing Number: FP400

PLUMBING GENERAL NOTES

GENERAL

THE INTENT OF THESE CONTRACT DOCUMENTS (SPECIFICATIONS AND DRAWINGS) IS FOR THE CONTRACTOR TO FURNISH AND INSTALL COMPLETE PLUMBING SYSTEMS. ALL SYSTEMS SHALL BE COMPLETE IN ALL RESPECTS. OPERATING, TESTED, ADJUSTED, APPROVED BY THE AUTHORITIES HAVING JURISDICTION AND READY FOR BENEFICIAL USE BY THE OWNER.

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.

ITEMS AND SERVICES NOT SHOWN ON DRAWINGS OR SPECIFICATIONS BUT REQUIRED TO RENDER THE WORK COMPLETE AND READY FOR OPERATION, SHALL BE PROVIDED WITHOUT ADDITIONAL COST.

WORK OF THIS SECTION SHALL BE GOVERNED BY THE CONTRACT DOCUMENTS. PROVIDE MATERIALS, LABOR, EQUIPMENT AND SERVICES NECESSARY TO FURNISH, DELIVER AND INSTALL ALL WORK AS SPECIFIED AND AS REQUIRED BY JOB CONDITIONS. WHERE A CONFLICT EXISTS BETWEEN THESE NOTES, THE DRAWINGS AND THE SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

DRAWINGS ARE DIAGRAMMATIC AND INDICATE A GENERAL ARRANGEMENT OF WORK AND ARE NOT TO BE CONSIDERED SUB-CONTRACTOR DOCUMENTS. IT IS THE INTENT OF THESE DOCUMENTS TO INCLUDE THE PROVISION AND INSTALLATION OF ALL NECESSARY WORK AND MATERIALS FOR COMPLETE, OPERATIONAL AND CODE COMPLIANT SYSTEMS BY THE CONTRACTOR. GENERAL DESIGN CONCEPTS INDICATED MUST BE FOLLOWED OR BETTERED. THE BID SHALL INCLUDE OFFSETS, ADDITIONAL PIPING, VALVES AND EQUIPMENT AND COMPONENTS AS REQUIRED TO MEET CONSTRUCTION CONDITIONS FOR PROPER OPERATION. DO NOT SCALE DRAWINGS. CONSULT ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SPACE CONDITIONS AND ADDITIONAL REQUIREMENTS.

PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT GENERAL CONDITIONS AND WITH THE PROVISIONS OF ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND LAWS.

WORK SHALL INCLUDE ALL INCIDENTALS, LABOR, MATERIAL, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, CONSUMABLE ITEMS, FEES, LICENSES, AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE WORK SHOWN ON THE DRAWINGS, SPECIFIED HEREIN AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM..

ALL EQUIPMENT, MATERIALS AND RELATED SYSTEMS COMPONENTS SHALL BE NEW UNLESS SPECIFICALLY NOTED OTHERWISE.

STORE MATERIALS INSIDE AND PROTECTED FROM DEBRIS, WEATHER AND MOISTURE.

THIS CONTRACTOR SHALL COORDINATE ALL POWER AND CONTROL WIRING REQUIRED FOR EQUIPMENT OPERATION REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM WITH ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL PROVIDE MOTOR STARTERS FOR INSTALLATION. COORDINATE REQUIREMENTS.

PROVIDE AND INSTALL ALL MAKE-UP WATER DISTRIBUTION TO HVAC EQUIPMENT INCLUDING BACKFLOW PREVENTER.

PROVIDE AND INSTALL INDIRECT CONDENSATE WASTE PIPING AND TRAP TO FLOOR DRAIN OR DRAIN RECEPTOR FROM ALL HVAC EQUIPMENT. PROVIDE ADDITIONAL FLOOR DRAINS WITH TRAP PRIMERS OR DRAIN RECEPTORS AS REQUIRED.

PLUMBING DEVICES, FAUCETS, VALVES AND FITTINGS REQUIRED FOR SPECIALTY SERVICE EQUIPMENT (IE. KITCHEN, LAB,ETC) SHALL BE PROVIDED BY THIS CONTRACTOR UNLESS OTHERWISE SPECIFIED. THIS CONTRACTOR SHALL PROVIDE AND INSTALL PIPING, CONNECTIONS, DEVICES, VALVES AND EQUIPMENT REQUIRED FOR PROPER OPERATION. COORDINATE REQUIREMENTS.

KITCHENS AND SIMILAR SPECIALTY AREAS: ALL VISIBLY EXPOSED WATER SUPPLY PIPING, STOPS, COCKS, AND WASTES WHICH ARE VISIBLE SHALL BE CHROME PLATED.

REPAIR AND/OR REPLACE AT NO COST TO OWNER ALL EQUIPMENT AND MATERIALS DAMAGED DURING CONSTRUCTION.

COORDINATION

THE CONTRACTOR SHALL OBTAIN AND REVIEW ALL CONTRACT DOCUMENTS, INCLUDING PROJECT MANUAL, PLANS AND SPECIFICATIONS OF ALL TRADES BEFORE SUBMITTING BID. REFER TO SPECIFICATIONS, PROJECT MANUAL AND PLANS, INCLUDING ALL EQUIPMENT SCHEDULES FOR INFORMATION. CONTRACTOR SHALL WALK THROUGH BUILDING PRIOR TO SUBMITTING BID WHEN AVAILABLE.

ALL OF THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLIMENTARY TO FORM A TOTAL DESIGN PACKAGE. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER TO DETERMINE WHICH TRADE CONTRACTOR IS RESPONSIBLE FOR VARIOUS PORTIONS OF THE WORK.

ALL WORK AND ACTION DEPICTED AND DESCRIBED SHALL BE PERFORMED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.

THE PLUMBING CONTRACTOR SHALL VERIFY THESE DRAWINGS WITH EXISTING FIELD CONDITIONS AND SHALL COORDINATE WITH CIVIL ENGINEER LOCATIONS AND ELEVATIONS OF PLUMBING SERVICE LINES BEFORE PROCEEDING WITH CONSTRUCTION. THE UTILITY SERVICE LINES SHOWN ON THE DRAWINGS ARE FOR REFERENCE & BUILDING PERMIT ONLY. REFER TO CIVIL ENGINEERS DRAWINGS FOR UTILITY SERVICE LINES LAY-OUT & DETAILS.

CONTRACTORS SHALL COORDINATE THEIR WORK WITH ALL OWNER-FURNISHED EQUIPMENT, INCLUDING REQUIRED SERVICE CONNECTIONS, RECEPTACLES, ETC. BEFORE INSTALLATION.

THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. THE CONTRACTOR SHALL COORDINATE LOCATIONS OF EQUIPMENT WITH ALL TRADES BEFORE STARTING CONSTRUCTION. ANY MODIFICATIONS TO THE EQUIPMENT LAYOUT REQUIRED FOR INSTALLATION ARE TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER. COORDINATE ALL PIPING AND CONDUITS LEAVING THE BUILDING WITH THE SITE CONTRACTOR BEFORE INSTALLATION.
LOCATION AND SIZES OF ALL FLOOR, WALL AND ROOF PENETRATIONS SHALL BE COORDINATED WITH ALL OTHER TRADES INVOLVED.

DEVELOP AND SUBMIT COORDINATION DRAWINGS AS OUTLINED.

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

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

-MECHANICAL SHEET METAL
-PLUMBING PIPING
-MECHANICAL PIPING
-SPRINKLER PIPING
-ELECTRICAL WORK

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

THE ARCHITECT AND ENGINEER ARE NOT PART OF THE COORDINATION DRAWING PROCESS. THE ENGINEER WILL PROVIDE ASSISTANCE FOR NOTED CONFLICTS ONLY. COORDINATION DRAWINGS ARE NOT TO BE CONSIDERED PIPING OR DUCT SHOP DRAWINGS. THE CONTRACTOR IS REQUIRED TO SUBMIT INDIVIDUAL PIPING AND DUCTWORK SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. PIPING AND DUCTWORK SHOP DRAWINGS SHALL FOLLOW THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.

SUBMIT FINAL SIGNED COORDINATION DRAWING TO ENGINEER FOR REVIEW. ENGINEER WILL REVIEW COORDINATION DRAWINGS FOR GENERAL ARRANGEMENT AND FOR NOTED CONFLICTS ONLY. SPECIFIC INSTALLATION REQUIREMENTS WILL BE REVIEWED ONLY IN INDIVIDUAL TRADE SHOP DRAWINGS.

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

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

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

SHOP DRAWINGS

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO BE APPROVED, REVISED, OR RESUBMITTED AS PER THE ENGINEERS COMMENTS, PRIOR TO CONSTRUCTION. INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

-PLUMBING FIXTURES	-CLEAN OUTS	-DRAINS
-PIPING	-PIPE SEALS	-COMPRESSORS
-FITTINGS	-BRAZING	-HANGERS/SUPPORTS
-INSULATION	-EXPANSION TANKS	-WATER HEATERS
-PUMPS	-VALVES	-THERMOSTATIC MIXING VALVES

AS BUILT DRAWINGS

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

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

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

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

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

CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED.

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

SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.

HOUSEKEEPING PADS

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, AND 4 INCHES WIDER THAN THE EQUIPMENT IN BOTH DIRECTIONS.
REFER TO DRAWING S-301 FOR HOUSEKEEPING PADS.
COORDINATE FLOOR DRAIN LOCATIONS WITH RESPECT TO EQUIPMENT HOUSEKEEPING PADS. PLACE DRAINS SUCH THAT EDGE OF THE FLOOR GRATE EXTENDS NO FURTHER THAN 2 INCHES FROM THE SIDE OF THE PAD.

HANGERS AND SUPPORT

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

PROVIDE ALL NECESSARY STRUCTURAL MEMBERS INCLUDING ADDITIONAL STRUCTURAL SUPPORT TO SUPPORT PIPING AND EQUIPMENT. HANGERS AND SUPPORTS SHALL BE OF AN APPROVED DESIGN NECESSARY TO SUPPORT PIPING, EQUIPMENT AND TO KEEP PIPING IN PROPER ALIGNMENT AND PREVENT TRANSMISSION OF INJURIOUS THRUSTS AND VIBRATIONS. IN ALL CASES WHERE HANGERS, BRACKETS, ETC., ARE SUPPORTED FROM CONCRETE CONSTRUCTION, DO NOT WEAKEN CONCRETE OR PENETRATE WATERPROOFING. ALL HANGERS AND SUPPORTS SHALL BE CAPABLE OF SCREW ADJUSTMENT AFTER PIPING IS 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.

PROVIDE ADDITIONAL SUPPORT FOR PIPING AND EQUIPMENT WHEN DECK IS NOT CAPABLE OF SUPPORT.

BEAM CLAMPS - HANGERS SUPPORTED FROM STEEL SHALL BE CENTER LOADING BEAM CLAMPS FOR HANGERS SUPPORTING PIPING 2 INCHES. FOR PIPING 2-L/2 INCHES AND LARGER, I BEAM CLAMPS SHALL BE FORGED STEEL. "C" CLAMPS ARE NOT TO BE USED.

PROVIDE AND INSTALL EXPANSION COMPENSATION FOR ALL PIPING. SUBMIT PLANS, CALCULATIONS AND EQUIPMENT DATA.

BAND IRON, TIE WIRE, METAL STRAPPING OR WIRE STRAPPING SHALL NOT BE PERMITTED TO SUPPORT PIPING OR EQUIPMENT.

PIPE SEALS

SEAL ALL PIPING PASSING THROUGH ALL FIRE AND/OR SMOKE RATED PARTITIONS AND WALLS WITH A UL LISTED, APPROVED AND TESTED FIRE AND/OR SMOKE SEALING MATERIAL INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

ALL PIPING PENETRATING A SLAB ON GRADE OR FOUNDATION WALL BELOW GRADE AND IN CONTACT WITH EARTH SHALL BE PROVIDED WITH A POURED IN PLACE SCHEDULE 80 GALVANIZED STEEL WATER TIGHT SLEEVE WITH INTEGRAL WATER STOP AND SEAL EQUAL TO 'LINK SEAL'.

FURNISH AND SET STEEL PIPE SLEEVES OF SCHEDULE 40 BLACK STEEL FOR ALL LOCATIONS OF INTERIOR PARTITIONS, WALLS AND FLOORS PROVIDING AT LEAST 1/2" CLEARANCE BETWEEN PIPE INSULATION AND SLEEVE OR PIPE AND SLEEVE. WALL SLEEVES SHALL BE SMOOTH CUT AND SET FLUSH WITH FINISHED WALLS. FLOOR SLEEVES SHALL EXTENDED 2" ABOVE THE FINISHED FLOOR.

ALL PIPING THROUGH WALLS, FLOORS OR CEILINGS SHALL HAVE SLEEVES AND ESCUTCHEONS. PROVIDE A TWO PIECE CHROME ESCUTCHEON WHERE PIPING PASSES THROUGH WALLS OR FLOORS OF FINISHED SPACES.

PLUMBING FIXTURES

PLUMBING FIXTURES SHALL BE NEW, COMPLETE WITH TRIMMINGS AND FITTINGS, INCLUDING FAUCETS, CARRIERS, SUPPLIES, STOPS, TRAPS, TAILPIECES, WASTE PLUGS, CASINGS, HANGERS, PLATES, BRACKETS, ANCHORS, SUPPORTS, HARDWARE AND FASTENING DEVICES. NOTE: ALL FIXTURES SHALL BE OF SAME MANUFACTURER. TRIMMINGS AND FITTINGS SHALL BE CONSTRUCT OF FORGED, CAST, ROLLED OR EXTRUDED BRASS OR BRONZE WITH MONEL AND OTHER SUITABLE NON-CORROSIVE PARTS: DESIGNED WITH EASILY RENEWABLE PARTS THAT ARE SUBJECT TO WEAR OR DETERIORATION. NO DIE CASTINGS AND STAMPINGS OTHER THAN BRASS OR STAINLESS STEEL. PROVIDE PLUMBING FIXTURES AND TRIM WITH ALL NECESSARY TRIM, DEVICES AND ACCESSORIES REQUIRED FOR PROPER OPERATIONS SPECIFICALLY NOTED OR NOT

ESCUTCHEONS SHALL BE ONE-PIECE CHROME PLATED CAST BRASS OR STAINLESS STEEL.

P-TRAPS SHALL BE ONE PIECE CHROME PLATED CAST BRASS.

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

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

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

ADJUST WATER PRESSURE AT DRINKING FOUNTAINS, FAUCETS, SHOWER VALVES, AND FLUSH VALVES TO PROVIDE PROPER FLOW STREAM AND SPECIFIED GPM.

SET FIXTURES LEVEL AND UNIFORMLY, WITH CONNECTIONS AT RIGHT ANGLES TO WALL AND PROPERLY CENTERED. LAY OUT ROUGHING ACCURATELY AND IN COORDINATION WITH SPACE AND FINISH REQUIREMENTS.

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

REFER TO THE ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION AND MOUNTING HEIGHTS OF EQUIPMENT. COLORS SHALL BE COORDINATED WITH THE ARCHITECT. CONTACT ARCHITECT FOR CLARIFICATION IF INFORMATION IS NOT CONTAINED IN THE DRAWINGS.

DRAINS AND CLEANOUTS

PROVIDE ALL POURED IN PLACE DRAINS AND CLEANOUTS WITH 24" X 24" FLASHING.

PROVIDE A MANUFACTURED BRONZE OUTLET FITTING FOR ALL SECONDARY ROOF DRAIN OUTLETS.

INSTALL EXTERIOR CLEANOUTS WITH A 18" SQUARE X 6" THICK CONCRETE APRON.

COORDINATE FLOOR DRAIN LOCATIONS WITH RESPECT TO EQUIPMENT HOUSEKEEPING PADS. PLACE DRAINS SUCH THAT EDGE OF THE FLOOR GRATE EXTENDS NO FURTHER THAN 2 INCHES FROM THE SIDE OF THE PAD. CLEANOUT PLUGS SHALL BE BRASS OR PLASTIC, OR OTHER APPROVED MATERIALS. BRASS CLEANOUT PLUGS SHALL BE UTILIZED WITH METALLIC DRAIN, WASTE AND VENT PIPING ONLY, AND SHALL CONFORM TO ASTM A 74, ASME A112.3.1 OR ASME A112.36.2M. CLEANOUTS WITH PLATE-STYLE ACCESS COVERS SHALL BE FITTED WITH CORROSION-RESISTING FASTENERS. PLUGS SHALL HAVE RAISED SQUARE OR COUNTERSUNK SQUARE HEADS. COUNTERSUNK HEADS SHALL BE INSTALLED WHERE RAISED HEADS ARE A TRIP HAZARD. CLEANOUT PLUGS WITH BOROSILICATE GLASS SYSTEMS SHALL BE OF BOROSILICATE GLASS.

PROVIDE TRAP PRIMERS FOR EACH FLOOR DRAIN. CONNECT TRAP PRIMER TO NEAREST COLD WATER MAIN. PROVIDE ISOLATION VALVE AND EXTEND TO FLOOR DRAIN AS REQUIRED.

CLEANOUTS SHALL BE LOCATED AT MINIMUM INTERVALS OF 50 FEET FOR PIPING NPS 4 AND SMALLER AND 100 FEET FOR LARGER PIPING.

BUILDING SEWERS SHALL BE PROVIDED WITH CLEANOUTS LOCATED NOT MORE THAN 100 FEET APART MEASURED FROM THE UPSTREAM ENTRANCE OF THE CLEANOUT. FOR BUILDING SEWERS 8 INCHES AND LARGER, MANHOLES SHALL BE PROVIDED AND LOCATED NOT MORE THAN 200 FEET FROM THE JUNCTION OF THE BUILDING DRAIN AND BUILDING SEWER, AT EACH CHANGE IN DIRECTION AND AT INTERVALS OF NOT MORE THAN 400 FEET APART. MANHOLES AND MANHOLE COVERS SHALL BE OF AN APPROVED TYPE.

CLEANOUTS SHALL BE INSTALLED AT EACH CHANGE OF DIRECTION OF THE BUILDING DRAIN OR HORIZONTAL WASTE OR SOIL LINES GREATER THAN 45 DEGREES (INCLUDING P-TRAPS). WHERE MORE THAN ONE CHANGE OF DIRECTION OCCURS IN A RUN OF PIPING, ONLY ONE CLEANOUT SHALL BE REQUIRED FOR EACH 40 FEET OF DEVELOPED LENGTH OF THE DRAINAGE PIPING.

A CLEANOUT SHALL BE PROVIDED AT THE BASE OF EACH WASTE OR SOIL STACK.

THERE SHALL BE A CLEANOUT NEAR THE JUNCTION OF THE BUILDING DRAIN AND THE BUILDING SEWER. THE CLEANOUT SHALL BE EITHER INSIDE OR OUTSIDE THE BUILDING WALL AND SHALL BE BROUGHT UP TO THE FINISHED GROUND LEVEL OR TO THE BASEMENT FLOOR LEVEL. AN APPROVED TWO-WAY CLEANOUT IS ALLOWED TO BE USED AT THIS LOCATION TO SERVE AS A REQUIRED CLEANOUT FOR BOTH THE BUILDING DRAIN AND BUILDING SEWER. THE CLEANOUT AT THE JUNCTION OF THE BUILDING DRAIN AND BUILDING SEWER SHALL NOT BE REQUIRED IF THE CLEANOUT ON A 3-INCH OR LARGER DIAMETER SOIL STACK IS LOCATED WITHIN A DEVELOPED LENGTH OF 10 FEET OF THE BUILDING DRAIN AND BUILDING SEWER CONNECTION.

CONCEALED PIPING. CLEANOUTS ON CONCEALED PIPING OR PIPING UNDER A FLOOR SLAB OR IN A CRAWL SPACE OF LESS THAN 24 INCHES IN HEIGHT OR A PLENUM SHALL BE EXTENDED THROUGH AND TERMINATE FLUSH WITH THE FINISHED WALL, FLOOR OR GROUND SURFACE OR SHALL BE EXTENDED TO THE OUTSIDE OF THE BUILDING. CLEANOUT PLUGS SHALL NOT BE COVERED WITH CEMENT, PLASTER OR ANY OTHER PERMANENT FINISH MATERIAL. WHERE IT IS NECESSARY TO CONCEAL A CLEANOUT OR TO TERMINATE A CLEANOUT IN AN AREA SUBJECT TO VEHICULAR TRAFFIC, THE COVERING PLATE, ACCESS DOOR OR CLEANOUT SHALL BE OF AN APPROVED TYPE DESIGNED AND INSTALLED FOR THIS PURPOSE.

MINIMUM SIZE. CLEANOUTS SHALL BE THE SAME NOMINAL SIZE AS THE PIPE THEY SERVE UP TO 4 INCHES. FOR PIPES LARGER THAN 4 INCHES NOMINAL SIZE, THE MINIMUM SIZE OF THE CLEANOUT SHALL BE 4 INCHES.

CAST-IRON CLEANOUT SIZING SHALL BE IN ACCORDANCE WITH ASTM A 74 FOR HUB AND SPIGOT FITTINGS OR ASTM A 888 OR CISPI 301 FOR HUBLESS FITTINGS.

ACCESS SHALL BE PROVIDED TO ALL CLEANOUTS.

PROVIDE CONDENSATE DRAINAGE, COMPLETE WITH CONDENSATE REMOVAL PUMP, FOR EACH COOLING COIL. CONDENSATE PUMP DISCHARGE SHALL BE CONNECTED VIA INDIRECT WASTE CONNECTION TO BUILDING SANITARY/WASTE PIPING SYSTEM. COORDINATE PUMP WIRING WITH PROJECT ELECTRICIAN. IF GRAVITY DRAINAGE IS POSSIBLE WITHIN THE CONSTRAINTS OF PIPING PITCH, CONCEALMENT ABOVE CEILINGS, AND ONLY AFTER COMPLETE COORDINATION WITH STRUCTURE AND OTHER TRADES, THE CONTRACTOR MAY SUBMIT SKETCH PROPOSALS FOR GRAVITY ROUTING FOR REVIEW/APPROVAL.

MISCELLANEOUS SPECIALTIES

ALL EQUIPMENT, VALVES, STRAINERS, UNIONS, TRAPS, FLANGES AND OTHER APPURTENANCES REQUIRING ACCESS SHALL BE LOCATED IN ACCESSIBLE LOCATIONS. WHEN A PIECE OF EQUIPMENT MUST BE LOCATED ABOVE AN INACCESSIBLE CEILING OR WALL THEN THE APPROPRIATE ACCESS DOOR SHALL BE PROVIDED. SUCH EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO CLEANOUTS, WATER HAMMER ARRESTORS AND VALVES. THESE SHALL BE COORDINATED WITH THE ARCHITECT. ACCESS DOORS SHALL BE RIGID CONSTRUCTION WITH TWO HINGES AND A LATCH. IN PLENUM CEILINGS, PROVIDE FELT BETWEEN THE DOOR AND FRAME TO MAKE AN AIR TIGHT SEAL. ACCESS DOORS SHALL BE RATED TO THE SAME OR GREATER RATING OF THE PARTITION IN WHICH THEY ARE INSTALLED. ACCESS DOORS SHALL BE FLUSH MOUNTED, PRIME COATED WITH RUST INHIBITIVE PAINT, CONCEALED FRAME, FLUSH SCREW DRIVER OPERATED LOCKS WITH METAL CAMS AND ANCHORS AS REQUIRED.

ACCESS DOOR SIZES SHALL BE:
12" X 12" AT EASILY ACCESSIBLE ITEMS
16" X 16" WHERE PARTIAL BODY ACCESS IS REQUIRED
24" X 24" WHERE FULL BODY ACCESS IS REQUIRED

ACCESS DOOR LOCATION AND SIZE TO BE COORDINATED WITH LGMF CONTRACTOR AND GENERAL CONTRACTOR.

PROVIDE AND INSTALL DRIP PANS WITH WATER DETECTOR AND DRAIN FOR PIPING REQUIRED BY ACTUAL FIELD CONDITIONS WHERE PIPING PASSES OVER INCLUDING AREA WITHIN 3'-0" OF ELECTRICAL EQUIPMENT.

DO NOT INSTALL AIR GAP BACKFLOW PREVENTERS IN CONCEALED SPACES OR IN AREAS WHERE SPLASHING WATER WILL DAMAGE FINISHES. PROVIDE AND INSTALL AN OVERSIZED COPPER FUNNEL WITH AIR GAP DIRECTLY BELOW RPD PRESSURE RELIEF PORT. PIPE FUNNEL TO SPILL AS AN INDIRECT WASTE TO AN APPROVED DRAIN LOCATION.

INSTALL ELECTRONIC TRAP PRIMERS SERVING ALL DRAINS. INSTALL ALL TRAP PRIMER VALVES IN AN ACCESSIBLE LOCATION. PROVIDE AND INSTALL ACCESS PANELS AND DOORS WHERE REQUIRED TO GAIN ACCESS IN CONCEALED CONSTRUCTION.

PROVIDE FLEXIBLE CONNECTIONS IN ALL PIPING SYSTEMS CONNECTED TO PUMPS AND OTHER EQUIPMENT WHICH REQUIRES VIBRATION ISOLATION, EXCEPT WATER COILS. FLEXIBLE CONNECTIONS SHALL BE PROVIDED AS CLOSE TO THE EQUIPMENT AS POSSIBLE.

PIPING GENERAL

NO PIPING SHALL BE COVERED UNTIL TESTED APPROVED BY THE AUTHORITIES HAVING JURISDICTION.

ALL PIPING SHALL BE RUN PERPENDICULAR AND/OR PARALLEL TO FLOORS, INTERIOR WALLS, ETC. PIPING AND VALVES SHALL BE GROUPED NEATLY AND SHALL BE RUN AS TO MAXIMIZE HEADROOM OR PASSAGE CLEARANCE. ALL VALVES, CONTROLS AND ACCESSORIES CONCEALED IN FURRED SPACES AND REQUIRING ACCESS FOR OPERATION AND MAINTENANCE SHALL BE ARRANGED TO ASSURE THE USE OF A MINIMUM NUMBER OF ACCESS DOORS.

ALL PIPE LINES MADE WITH SCREWED FITTINGS MUST BE PROVIDED WITH A SUFFICIENT NUMBER OF FLANGES AND/OR UNIONS TO ALLOW FOR EASY AND CONVENIENT DISMANTLING OF THE SYSTEM WITHOUT BREAKING FITTINGS.

ALL PIPING SHALL RUN CONCEALED IN FURRED SPACES OF OCCUPIED AREAS OR CHASES. CONTRACTOR SHALL OBTAIN PERMISSION TO RUN ANY EXPOSED PIPES.

CAP ALL PIPE AND EQUIPMENT OUTLETS DURING CONSTRUCTION AND KEEP LINES AND INSIDE OF EQUIPMENT FREE OF FOREIGN MATERIALS.

PROVIDE FOR EXPANSION WITHOUT WARPING OR DISLOCATING LINES OR STRAINING CONNECTED EQUIPMENT. INSTALL PIPING TO CLEAR BUILDING CONSTRUCTION AND TO AVOID INTERFERENCE WITH OTHER WORK. THE CONTRACTOR SHALL PROVIDE AND INSTALL COMPLETE PIPING EXPANSION SYSTEM (INCLUDING SEISMIC JOINT EXPANSION) AND DEVICES AS REQUIRED FOR PROPER EXPANSION COMPENSATION STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT.

THE DRAWINGS INDICATE SCHEMATICALLY THE SIZE AND LOCATION OF PIPING. PIPING SHALL BE SET UP AND DOWN AND OFFSET AS REQUIRED TO MEET CONSTRUCTION CONDITIONS.

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

WATER PIPING SHALL BE RUN FREE OF TRAPS AND UNNECESSARY BENDS. ANY TRAPS FORMED SHALL BE PROVIDED WITH HOSE END DRAIN VALVES WITH THREADED CAP AND CHAIN TO COMPLETELY DRAIN THE SYSTEM.

PROVIDE SECTION CUT-OFF VALVES ON ALL MAINS AND BRANCHES. PITCH AND VALVE ALL WATER PIPING FOR CONVENIENT DRAINAGE.

UNIONS AND/OR FLANGES SHALL BE INSTALLED AT EACH PIECE OF EQUIPMENT, IN BYPASSES AND IN LONG PIPING RUNS (100 FEET OR MORE) TO PERMIT DISASSEMBLY FOR ALTERATION AND REPAIRS.

WHEREVER DISSIMILAR METALS ARE JOINED TOGETHER AN APPROVED DIELECTRIC FITTING SHALL BE USED. THE DIELECTRIC FITTING SHALL BE A LISTED ASSEMBLY.

RUN ALL SOIL, WASTE AND VENT PIPING SHOWN OR REQUIRED BY LOCAL CODES. PIPING SHOWN IS MINIMUM AND IN ACCORDANCE WITH STATE AND FEDERAL CODES. IF LOCAL CODES REQUIRE ADDITIONAL VENTING OR LARGER SIZES, PROVIDE AS REQUIRED.

MAKE ALL CONNECTIONS THROUGH TRAPS. EACH TRAP TO BE VENTED, EITHER BY CIRCUIT, LOOP, OR INDIVIDUAL VENT, AS REQUIRED, BUT NOT LESS THAN SHOWN, OR AS REQUIRED BY LOCAL CODE.

ALL UNDERGROUND PIPING SHALL BE LAID ON 6" SAND AND BACKFILLED WITH CLEAN FINE EARTH COMPACTED TO 12" ABOVE PIPE. COMPLETE BACKFILL WITH AVAILABLE EARTH FREE OF LARGE BOULDERS AND SHARP ROCKS. TAMP BACKFILL IN 6" ELEVATIONS AND OVERFILL TO ALLOW FOR SETTLEMENT.
PROVIDE DETECTABLE TAPE INSTALLED MINIMUM 12" ABOVE UNDERGROUND PIPE.
SET AND PROPERLY CONNECT ALL FIXTURES WITH HOT AND COLD WATER, VENT AND DRAINAGE PIPING, AS REQUIRED AND PROTECT FIXTURES UNTIL ACCEPTANCE AND TEST. CLEAN ALL FLUSH VALVES AFTER TWO WEEKS OF OPERATION.

INSTALL THRUST BLOCKS FOR UNDERGROUND WATER PIPING AT ALL CHANGES IN DIRECTION BOTH HORIZONTALLY AND VERTICALLY. THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH OR EARTH. THRUST BLOCKS SHALL BE INSTALLED IN ACCORDANCE WITH THE DUCTILE IRON PIPE RESEACH ASSOCIATION (DIPRA) MANUAL "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AND LOCAL UTILITY COMPANY REQUIREMENTS.

GAS PIPING

INSTALL GAS PIPING, AND GAS PIPING SPECIALTIES IN ACCORDANCE WITH NFPA 54, AND AUTHORITIES HAVING JURISDICTION.

PROVIDE AND INSTALL INDEPENDENT GAS PRESSURE REGULATOR VENTS TO THE EXTERIOR AS REQUIRED IN NFPA 54 AND THE REGULATOR MANUFACTURERS REQUIREMENTS.

LOCATE GAS PIPING WITH ADEQUATE SEPARATION BETWEEN ELECTRICAL CABLES, EQUIPMENT, AND CONDUIT.

SLOPE GAS PIPING TO LOW POINTS WITHOUT TRAPS. PROVIDE DRIPS (PIPE TEE, NIPPLE, AND CAP) AT BOTTOM OF ALL VERTICAL RISERS AND DROPS.

MAKE BRANCH CONNECTIONS TO MAINS FROM TOP OR SIDE, NOT FROM BOTTOM OF MAIN.

PROVIDE AND INSTALL GAS SHUT-OFF VALVES FOR THE PROPER AND SAFE CONTROL OF THE SYSTEM.

DO NOT LOCATE GAS VALVES IN SPACES USED AS AIR PLENUMS.

VERIFICATION: BEFORE MAKING A GAS CONNECTION, VERIFY THAT EQUIPMENT IS COMPATIBLE WITH THE TYPE AND PRESSURE OF GAS BEING SUPPLIED.

PURGING: PURGE GAS TO SAFE LOCATION, DEVELOP A PURGE PLAN TO BE SUBMITTED AND AND APPROVED BY THE LOCAL AHJ PRIOR TO PURGING.

ALL EXTERIOR GAS PIPING AND ACCESSORIES TO BE PAINTED YELLOW. ALL INTERIOR EXPOSED GAS PIPING TO BE PAINTED YELLOW.

PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION
	BALANCING VALVE
	BALL VALVE
	BACKWATER VALVE
	CHECK VALVE
	GAS VALVE
	PRESSURE RELIEF VALVE
	THERMOSTATIC MIXING VALVE
	GATE VALVE
	SUPPLY VALVE
	METER
	BACKFLOW PREVENTER
	FLOOR CLEANOUT
	YARD CLEANOUT
	FLOOR DRAIN
	FLOOR DRAIN WITH FUNNEL
	FLOOR SINK WITH FULL GRATE
	FLOOR SINK WITH HALF GRATE
	FLOOR SINK WITH THREE-QUARTER GRATE
	HUB DRAIN
HB	HOSE BIBB
	POINT OF NEW CONNECTION
	POINT OF DISCONNECTION
	VENT THROUGH ROOF
	RECIRCULATION PUMP
	WATER HAMMER ARRESTOR
TP	TRAP PRIMER
	"P" TRAP
WH	WALL HYDRANT
	PIPE DOWN
	PIPE UP
	CAPPED PIPE
	CLEANOUT PLUG
	UNION
	DIRECTION OF FLOW
XXX	PLUMBING FIXTURE
XXX-A	ADA COMPLIANT PLUMBING FIXTURE

PLUMBING DRAWING LIST

DRAWING NUMBER	DRAWING DESCRIPTION
P001	GENERAL NOTES - PLUMBING
P101	OVERALL PLANS - PLUMBING
P102	ATTIC PLAN - PLUMBING
P201	PARTIAL PLANS - PLUMBING
P202	KITCHEN PLAN - PLUMBING
P300	SCHEDULES - PLUMBING
P400	DETAILS - PLUMBING
P401	DETAILS - PLUMBING

PLUMBING PIPING SYSTEM LEGEND

NAME	DESCRIPTION
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER SUPPLY
140°	DOMESTIC 140°F HOT WATER SUPPLY
	DOMESTIC HOT WATER RETURN
S	SANITARY WASTE
S	SANITARY WASTE BELOW SLAB
KW	KITCHEN WASTE BELOW SLAB
KV	KICTCHEN VENT
V	SANITARY VENT
ST	STORM DRAIN
ST	STORM DRAIN BELOW SLAB
OS	OVERFLOW STORM
G	NATURAL GAS
G	NATURAL GAS BELOW SLAB
CD	CONDENSATE DRAIN
FM	FORCE MAIN
FM	FORCE MAIN BELOW SLAB
IW	INDIRECT WASTE
GW	GREASE WASTE
GW	GREASE WASTE BELOW SLAB

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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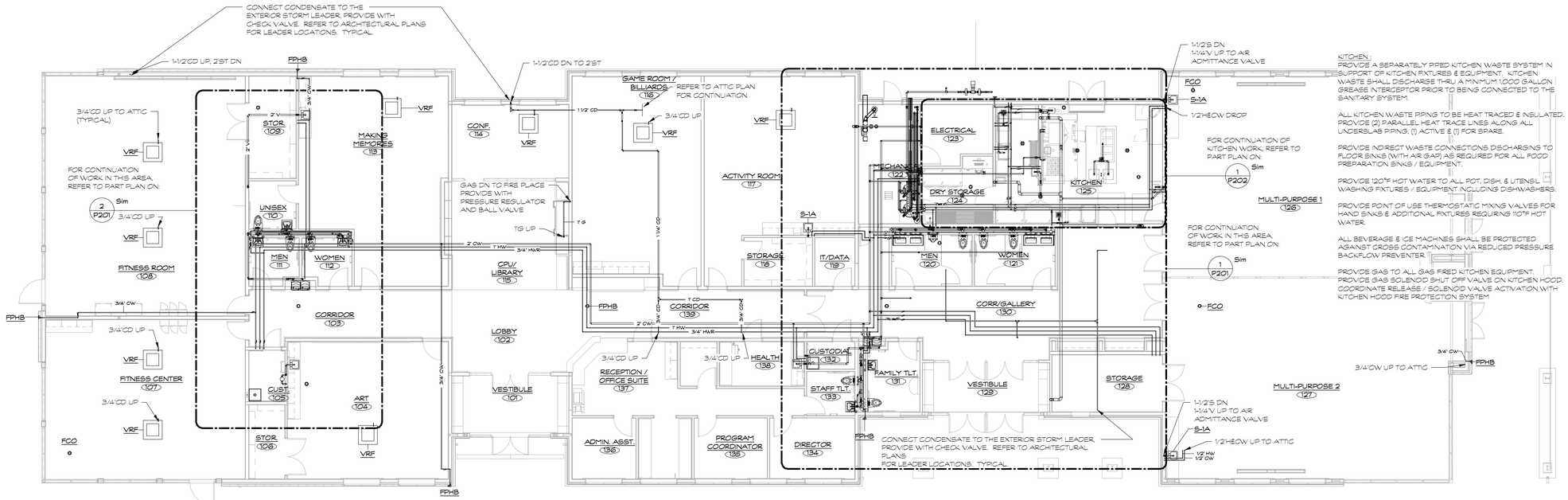
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

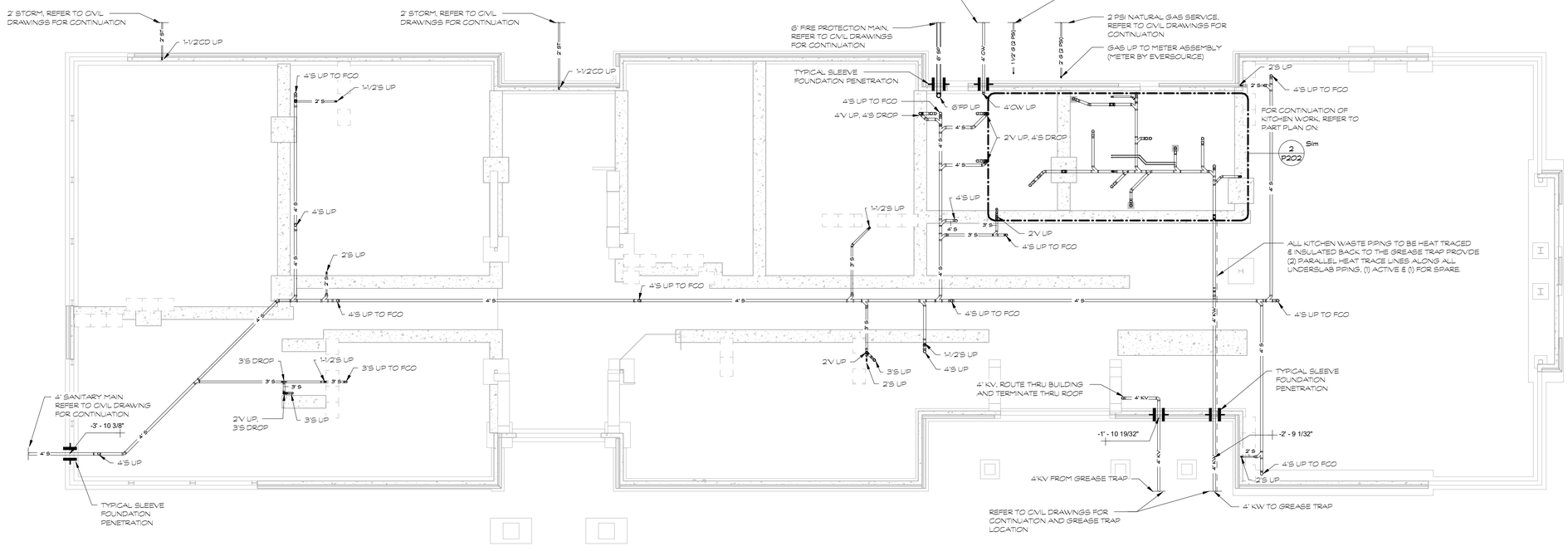
Drawing Title: GENERAL NOTES - PLUMBING

Date: SEPTEMBER 09, 2022
Scale: 12" = 1'-0"
Drawn By: MPB
Project Number: 20.003

Drawing Number: P001



1 OVERALL FLOOR PLAN
1/8" = 1'-0"



2 UNDERSLAB PLAN
1/8" = 1'-0"

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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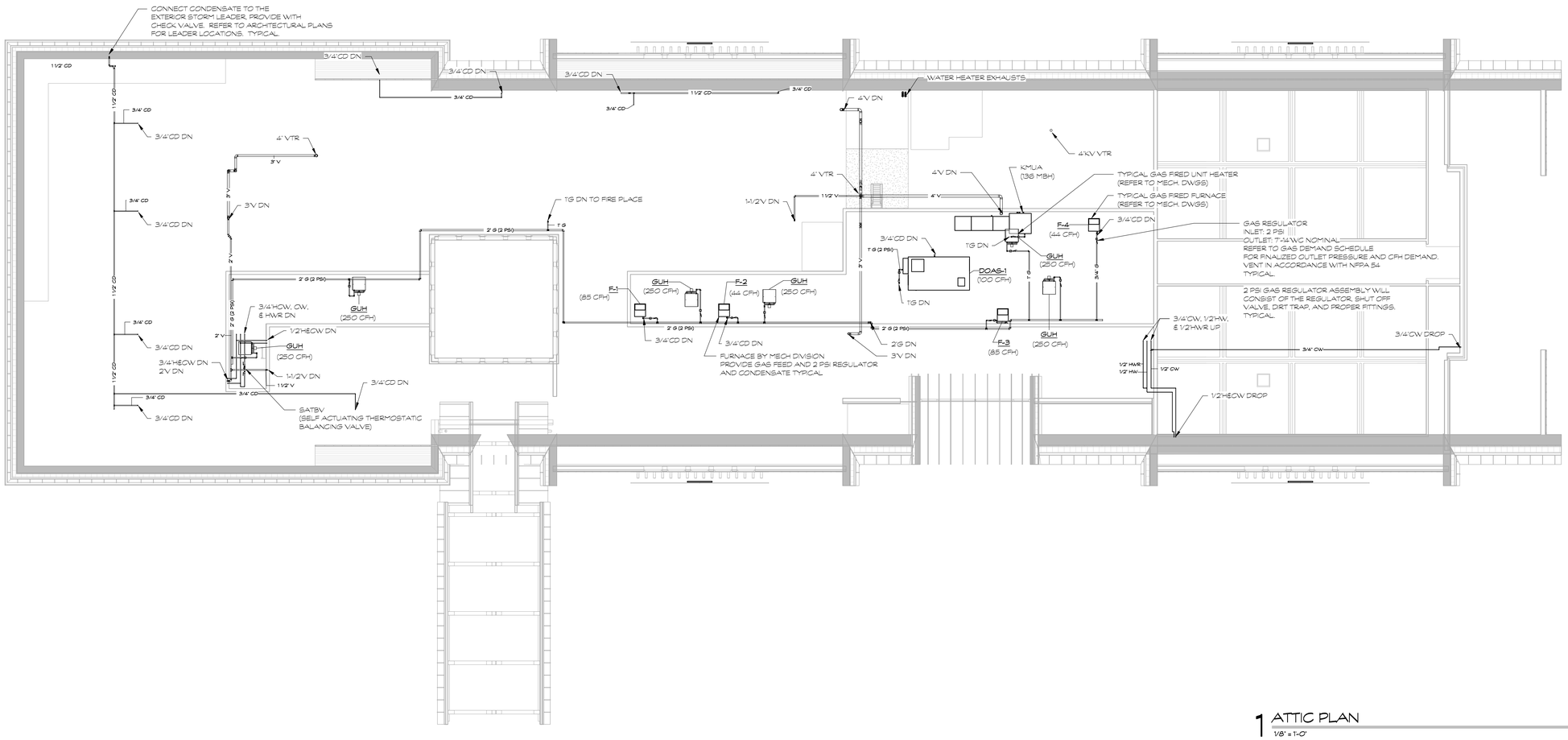
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
OVERALL PLANS - PLUMBING

Date: SEPTEMBER 09, 2022
Scale: 1/8" = 1'-0"
Drawn By: MPB
Project Number: 20.003

Drawing Number:
P101



1 ATTIC PLAN
1/8" = 1'-0"

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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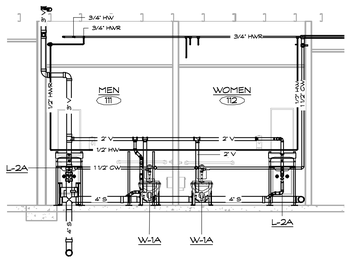
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

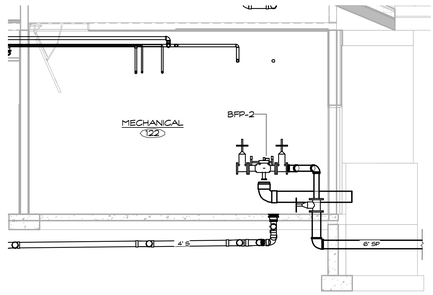
Drawing Title:
ATTIC PLAN - PLUMBING

Date: SEPTEMBER 09, 2022
Scale: 1/8" = 1'-0"
Drawn By: MPB
Project Number: 20.003

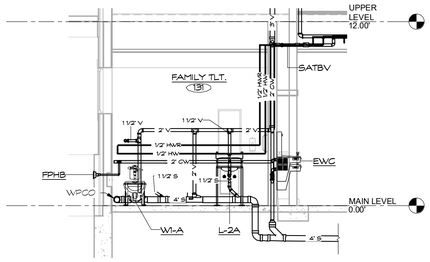
Drawing Number:
P102



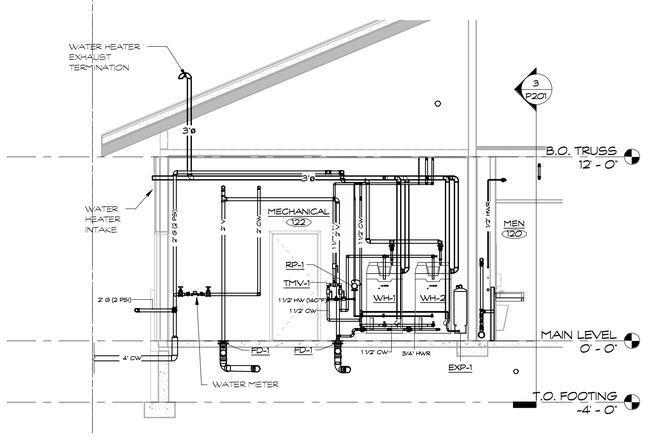
7 MEN 111 & WOMEN 112 SECTION
1/4" = 1'-0"



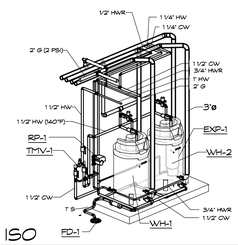
6 FIRE SERVICE ENTRY SECTION
1/4" = 1'-0"



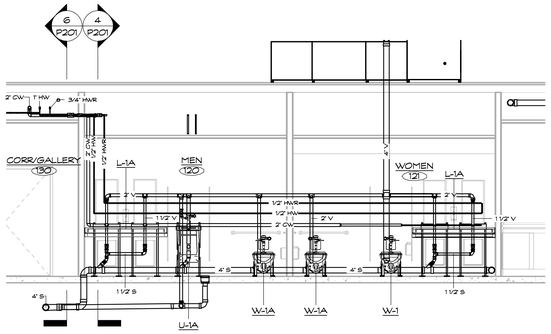
5 (A) FAMILY TLT. 131 SECTION
1/4" = 1'-0"



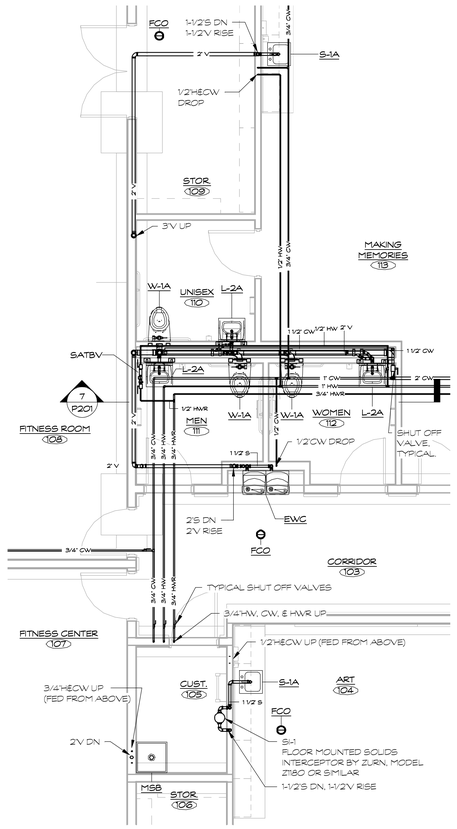
4 MECHANICAL ROOM 122 SECTION
1/4" = 1'-0"



8 water heater ISO

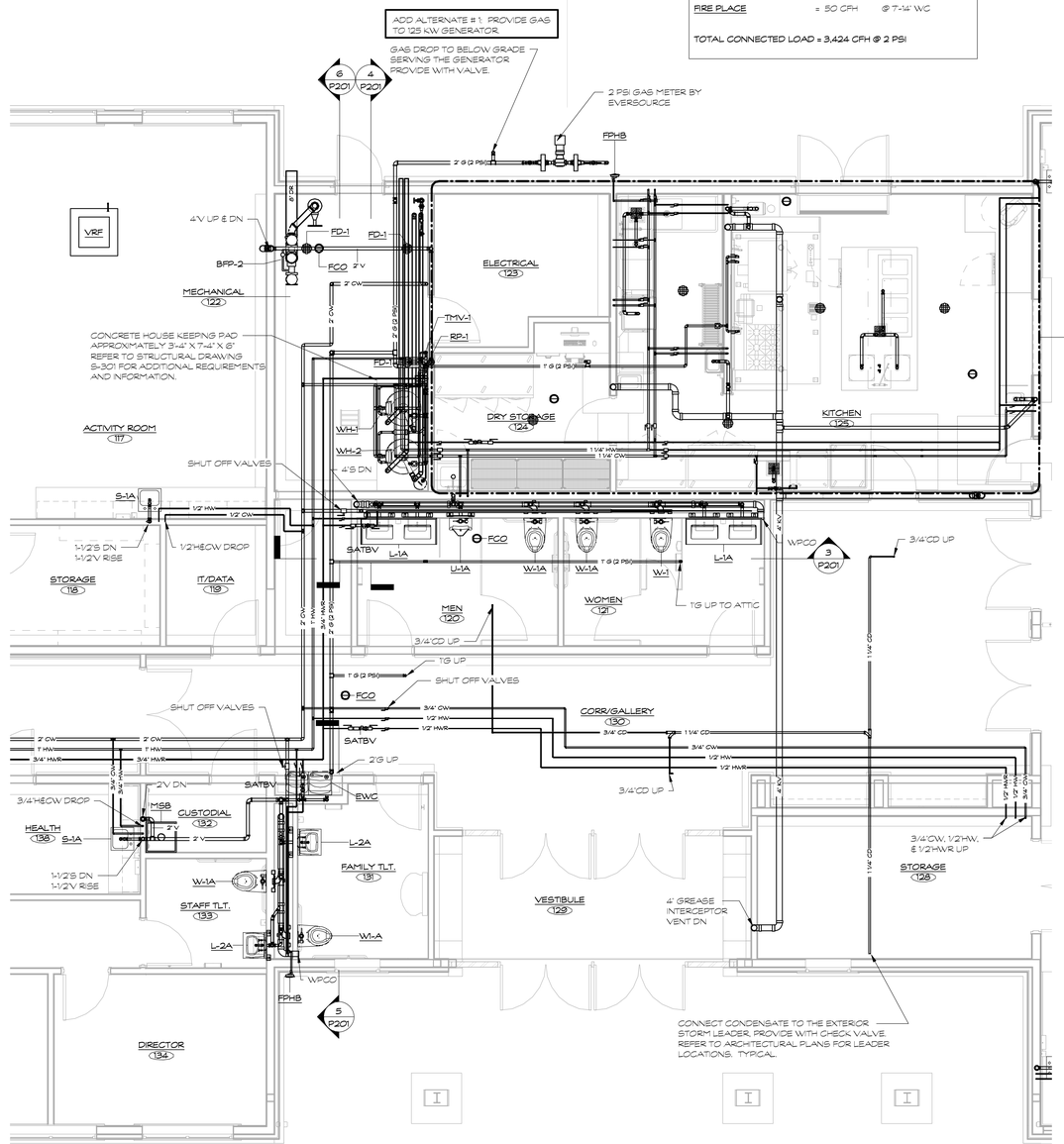


3 MEN 120 & WOMEN 121 SECTION
1/4" = 1'-0"



2 PART PLAN WEST
1/4" = 1'-0"

MECHANICAL		
DOAS-1	=	100 CFH @ 6" - 1.4" WC
F-1	=	85 CFH @ 6" - 1.4" WC
F-2	=	44 CFH @ 6" - 1.4" WC
F-3	=	85 CFH @ 6" - 1.4" WC
F-4	=	44 CFH @ 6" - 1.4" WC
GUH-1	=	250 CFH @ 6" - 1.4" WC
GUH-2	=	250 CFH @ 6" - 1.4" WC
GUH-3	=	250 CFH @ 6" - 1.4" WC
GUH-4	=	250 CFH @ 6" - 1.4" WC
GUH-5	=	250 CFH @ 6" - 1.4" WC
GUH-6	=	250 CFH @ 6" - 1.4" WC
SUB TOTAL = 1778 CFH		
PLUMBING		
WH-1	=	120 CFH @ 3.5" - 1.4" WC
WH-2	=	120 CFH @ 3.5" - 1.4" WC
SUBTOTAL = 240 CFH		
KITCHEN		
GAS RANGE	=	230 CFH @ 7"-9" WC
DOUBLE OVEN	=	100 CFH @ 7"-9" WC
KMAU (MAKE UP AIR UNIT)	=	136 CFH @ 7"-9" WC
SUB TOTAL = 466 CFH		
125 KW GENERATOR	=	950 CFH (ADD ALT #1) @ 7-1/4"WC
FIRE PLACE	=	50 CFH @ 7-1/4" WC
TOTAL CONNECTED LOAD = 3,424 CFH @ 2 PSI		



1 PART PLAN EAST
1/4" = 1'-0"

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Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
PARTIAL PLANS - PLUMBING

Date: SEPTEMBER 09, 2022
Scale: 1/4" = 1'-0"
Drawn By: MPB
Project Number: 20.003
Drawing Number: P201

KITCHEN :
PROVIDE A SEPARATELY PIPED KITCHEN WASTE SYSTEM IN SUPPORT OF KITCHEN FIXTURES & EQUIPMENT. KITCHEN WASTE SHALL DISCHARGE THRU A MINIMUM 1,000 GALLON GREASE INTERCEPTOR PRIOR TO BEING CONNECTED TO THE SANITARY SYSTEM.

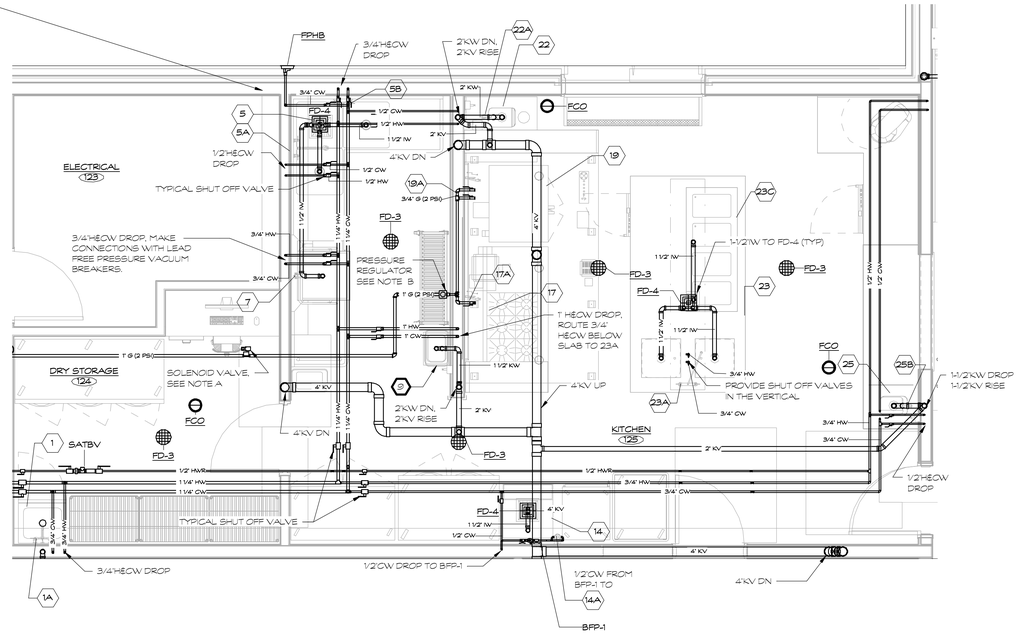
ALL KITCHEN WASTE PIPING TO BE HEAT TRACED & INSULATED. PROVIDE (2) PARALLEL HEAT TRACE LINES ALONG ALL UNDERSLAB PIPING, (1) ACTIVE & (1) FOR SPARE.

PROVIDE INDIRECT WASTE CONNECTIONS DISCHARGING TO FLOOR SINKS (WITH AIR GAP) AS REQUIRED FOR ALL FOOD PREPARATION SINKS / EQUIPMENT.

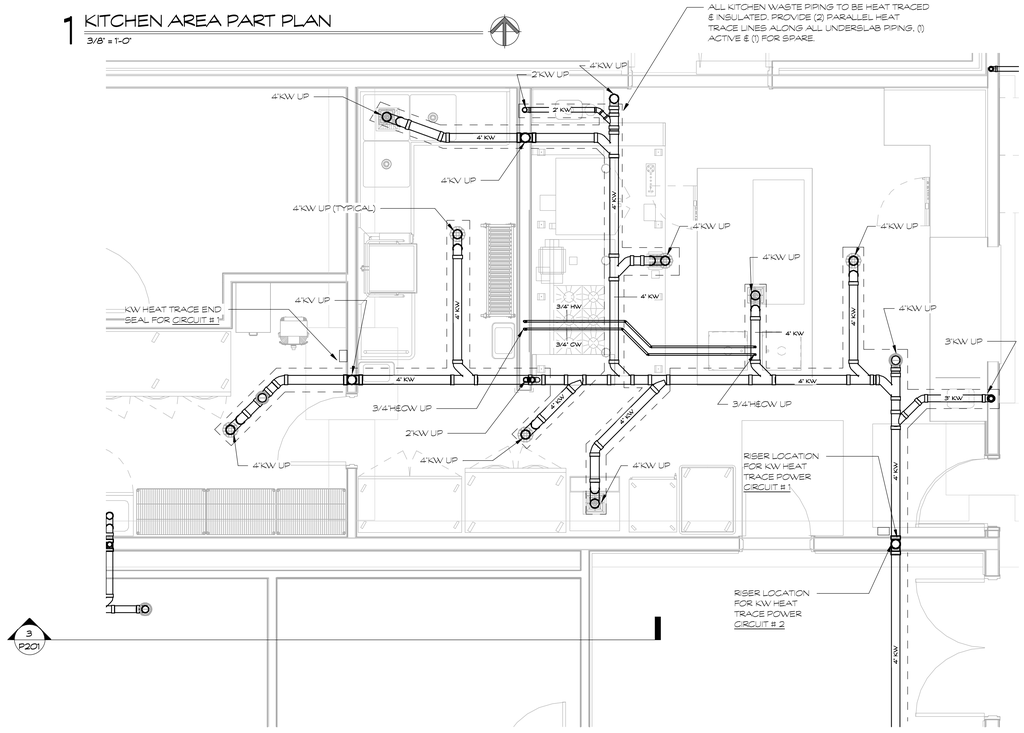
PROVIDE 120°F HOT WATER TO ALL POT, DISH, & UTENSIL WASHING FIXTURES / EQUIPMENT INCLUDING DISHWASHERS.

PROVIDE POINT OF USE THERMOSTATIC MIXING VALVES FOR HAND SINKS & ADDITIONAL FIXTURES REQUIRING 110°F HOT WATER.

UNLESS OTHER WISE NOTED, ALL HOT AND OR COLD WATER CONNECTIONS TO KITCHEN FIXTURES SHALL BE MADE THROUGH LEAD FREE PRESSURE VACUUM BREAKERS.



1 KITCHEN AREA PART PLAN
3/8" = 1'-0"



2 KITCHEN UNDERSLAB PLAN
3/8" = 1'-0"

KITCHEN EQUIPMENT SCHEDULE

REFER TO FOOD SERVICE PLANS FOR ADDITIONAL REQUIREMENTS

ITEM NO.	QTY	EQUIPMENT CATEGORY	HOT WATER SIZE (IN)	COLD WATER SIZE (IN)	DIRECT DRAIN SIZE (IN)	INDIRECT DRAIN SIZE (IN)	GAS SIZE (IN)	MBTUH	REMARKS
1	1	MOP SINK CABINET			2				
1A	1	FAUCET, UTILITY, WALL MOUNT	1/2	1/2					
5	1	CORNER SINK, 3-COMPARTMENT				(3) 1-1/2			
5A	1	PRE-RINSE FAUCET, WALL MOUNTED	1/2	1/2					
5B	1	FAUCET, WALL MOUNTED	1/2	1/2					
7	1	DISHWASHER	3/4	3/4		1-1/2			PROVIDE WITH 2X BFP-1
9	1	HAND SINK, WALL MOUNT	1/2	1/2					PROVIDE WITH TMV-2
14	1	ICE MAKER		1/2		1/2			PROVIDE WITH BFP-1
14A	1	FILTER, ICE MAKER							PROVIDE WITH BFP-1
17	1	GAS RANGE					1	278	
17A	1	SAFETY HOSE GAS CONNECTOR							
19	1	DOUBLE-DECK CONVECTION OVEN					3/4 - 3/4	50\50	
19A	1	SAFETY HOSE GAS CONNECTOR							
22	1	COUNTER WITH HAND SINK				1-1/2			
22A	1	FAUCET, ELECTRONIC	1/2	1/2					
23	1	TABLE WITH PREP SINK							
23A	1	FAUCET, DECK MOUNT	1/2	1/2					
23C	1	DROP IN, HOT / COLD WELL				1			
25	1	WORK TABLE WITH HAND SINK	1/2	1/2	1-1/2				
25B	1	FAUCET, ELECTRONIC	1/2	1/2					

A — PROVIDE GAS DISTRIBUTION TO KITCHEN EQUIPMENT. LISTED GAS SOLENOID VALVE TO BE FURNISHED BY THE KITCHEN EQUIPMENT SUPPLIER AND INSTALLED BY PLUMBING CONTRACTOR. VALVE SHALL BE INTERLOCKED WITH HOOD SYSTEM FIRE PROTECTION SYSTEM. REFER TO KITCHEN EQUIPMENT DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. PROVIDE ALL CONNECTIONS & CONNECTION LOCATIONS PER KITCHEN EQUIPMENT CONTRACTOR DOCUMENTS. EMERGENCY GAS SHUT-OFF SYSTEM TO BE INTERFACED WITH EXHAUST HOOD FIRE SUPPRESSION 'ANSUL' SYSTEM, PER THE LATEST ADOPTED EDITION OF NFPA 14,14A & 96. REFER TO ELECTRICAL & FIRE PROTECTION DIVISIONS. COORDINATE EXACT LOCATION OF GAS CONNECTION(S) TO UNITS/EQUIPMENT PRIOR TO INSTALLATION. WITH EQUIPMENT SUPPLIER. PROVIDE NECESSARY VALVING & DEVICES. LISTED 1 GAS SOLENOID VALVE TO BE FURNISHED BY THE KITCHEN EQUIPMENT CONSULTANT AND INSTALLED BY PLUMBING CONTRACTOR. LOCATE UNDER KITCHEN HOOD. COORDINATE CONNECTION OF SOLENOID VALVE TO HOOD FIRE SUPPRESSION SYSTEM.

B — GAS REGULATOR

INLET: 2 PSI

OUTLET: 7-14 WC NOMINAL

REFER TO GAS DEMAND SCHEDULE FOR FINALIZED OUTLET PRESSURE AND CFH DEMAND.
VENT IN ACCORDANCE WITH NFPA 54 TYPICAL.

2 PSI GAS REGULATOR ASSEMBLY WILL CONSIST OF THE REGULATOR, SHUT OFF VALVE, DIRT TRAP, AND PROPER FITTINGS. TYPICAL

Project Title:
Colchester Senior Center
Town of Colchester
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KITCHEN PLAN - PLUMBING

Date: SEPTEMBER 09, 2022
Scale: As Indicated
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PIPE AND FITTING SCHEDULE

DESCRIPTION	SIZE	PIPE TYPE	PIPE SCHEDULE	FITTING TYPE	FITTING RATING	REMARKS
SOIL, WASTE AND VENT ABOVE GROUND	ALL	CI-NH	SV	CI	SV	4 BAND FOR 4" AND SMALLER 6 BAND FOR LARGER THEN 4"
SOIL, WASTE AND VENT BELOW GROUND	ALL	CI-H&S	SV	CI	SV	--
STORM ABOVE GROUND	ALL	CI-NH	SV	CI	SV	4 BAND FOR 4" AND SMALLER 6 BAND FOR LARGER THEN 4"
STORM BELOW GROUND	ALL	CI-H&S	SV	CI	SV	--
DOMESTIC COLD WATER WITHIN BUILDING	ALL	COPPER	TYPE L	CUS	STD	HARD TEMPERED
DOMESTIC HOT WATER WITHIN BUILDING	ALL	COPPER	TYPE L	CUS	STD	HARD TEMPERED
DOMESTIC HOT WATER RECIRCULATION WITHIN BUILDING	ALL	COPPER	TYPE L	CUS	STD	HARD TEMPERED
INDIRECT WASTE AND CONDENSATE PIPING	ALL	COPPER	TYPE L	CUS	STD	HARD TEMPERED
DOMESTIC HOT & COLD WATER PIPING WITHIN BUILDING, BELOW SLAB	ALL	COPPER	TYPE K	CUS	STD	SOFT TEMPERED, NO JOINTS BELOW SLAB
DOMESTIC WATER SERVICE PIPING	2-1/2" AND SMALLER	COPPER	TYPE K	CUS	STD	SOFT TEMPERED, NO JOINTS BELOW SLAB
DOMESTIC WATER SERVICE PIPING	3" AND LARGER	CLDI	CLASS 52	DIMJ	250	--
GAS PIPING	2" AND SMALLER	STL-BLK	SCH. 40	MIT	CLASS 150	--
GAS PIPING	2-1/2" AND LARGER	STL-BLK	SCH. 40	WE	SCH. 40	--

NOTES:
1. TRANSITION COUPLINGS AND NO-HUB PIPE SHALL NOT BE INSTALLED BELOW SLAB OR IN ANY BURIED CONDITIONS IN CONTACT WITH EARTH

2. ALL PIPING IN RETURN AIR CEILING PLENUM INSTALLATIONS SHALL BE UL LISTED FOR THIS APPLICATION

3. MECHANICAL JOINTS ARE ALLOWED FOR SERVICE PURPOSED ONLY IN WALLS AND CEILINGS BUT MUST BE READILY ACCESSIBLE. 25/50 PVDF IS UL LISTED FOR RETURN AIR CEILING PLENUM ISTALLATIONS

ABBREVIATIONS	DESCRIPTION	ABBREVIATIONS	DESCRIPTION
AWWA	AMERICAN WATER WORKS ASSOCATION	MIT	MALLEABLE IRON THREADED
CI	CAST IRON	NH	NO HUB W/SUPER DUTY HUSKY SD 4000 CLAMP
CLDI	CEMENT LINED DUCTILE IRON	PEX	PEX PIPING
CPVC	CHLORINATED POLYVINYL CHLORIDE	PF	PRESSURE FITTING
CUS	WROUGHT COPPER SOLDER (95/5)	PVDF	POLYVINYLIDENE FLUORIDE PIPING
DI	DUCTILE IRON	POLY-PRO	POLYPROPYLENE PIPING
DIMJ	DUCTILE IRON MECHANICAL JOINT	STD	STANDARD
GES	GROOVED END STEEL	STL-BLK	BLACK STEEL
GJ	GROOVED JOINT SYSTEM FITTINGS/COUPLINGS	SV	SERVICE WEIGHT
GS	GALVANIZED STEEL	TJ	THREADED JOINTS
H&S	HUB AND SPIGOT	WE	BUT WELD
MJ	MECHANICAL JOINT		

VALVE SCHEDULE

DESCRIPTION	SIZE	TYPE: GATE	TYPE: GLOBE	TYPE: CHECK	TYPE: BALL	TYPE: PLUG	TYPE: BALANCE	CLASS	REMARKS
DOMESTIC COLD WATER	3" AND SMALLER	GVT	GLVT	CVT	BVT	--	--	125PSI	--
DOMESTIC HOT WATER	3 AND SMALLER	GVT	GLVT	CVT	BVT	--	CBV	125PSI	--
BACKFLOW PREVENTER	2" AND SMALLER	--	--	--	BVT	--	--	125PSI	--
BACKFLOW PREVENTER	2-1/2" AND LARGER	GVF	--	--	--	--	--	125PSI	--
GAS	2" AND SMALLER	--	--	--	--	PGVT	--	125PSI	--
GAS	2-1/2" AND LARGER	--	--	--	--	PGVF	--	125PSI	--

NOTES:
1. SOLENOID VALVE: UL LISTED, FM APPROVED FOR GAS SERVICE, EXPLOSION PROOF, TWO -WAY NORMALLY CLOSED. ASCO 8044 SERIES W/MANUAL RESET. (EMERGENCY GAS SHUT-OFF VALVE ASSEMBLY)

2. CALIBRATED PRESSURE RELIEF VALVE: INSTALL A MINIMUM OF 12" ABOVE WATER HEATER AND PIPE DISCHARGE TO ADEQUATE LOCATION. WATTS MODEL 540C

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
BVA	BALL VALVE COMPRESSED AIR - 3-PIECEI, FULL PORT, BRONZE	CVF	CHECK VALVE FLANGED - IMMB
BVF	BALL VALVE FLANGED - FULL PORT, BRONZE	CVT	CHECK VALVE THREADED - BRONZE
BVT	BALL VALVE THREADED - 2-PIECE, FULL PORT, 400PSI, BRONZE	GVF	GATE VALVE FLANGED - IMMB
CBV	CALIBRATED BALANCING VALVE - BRONZE	GVT	GATE VALVE THREADED - BRONZE
CPRV	CALIBRATED PRESSURE RELIEF VALVE	PGVF	PLUG VALVE FLANGED - AGA APPROVED
		PGVT	PLUG VALVE THREADED - AGA APPROVED

INSULATION SCHEDULE

SYSTEM	PIPE SIZE	INSULATION TYPE	INSULATION THICKNESS	FITTINGS, VALVES, FLANGES INSULATION TYPE	REMARKS
DOMESTIC COLD WATER	ALL	MINERAL FIBER, ASJ, SSL	1"	MOLDED, PRE-FORMED MINERAL FIBER WITH PVC JACKET	TYPE 1
DOMESTIC HOT WATER	< 1-1/2	MINERAL FIBER, ASJ, SSL	1"	MOLDED, PRE-FORMED MINERAL FIBER WITH PVC JACKET	TYPE 1
DOMESTIC HOT WATER	> 1-1/2	MINERAL FIBER, ASJ, SSL	1 1/2"	MOLDED, PRE-FORMED MINERAL FIBER WITH PVC JACKET	TYPE 1
DOMESTIC WATER UNDERGROUND & INSLAB	ALL	CLOSED CELL	1"	ARMAFLEX	--
KITCHEN WASTE UNDERGROUND	ALL	CELLULAR GLASS (FOAM GLASS)	2"	CELLULAR GLASS (FOAM GLASS) RIGID NON-COMPRESSIBLE WATERPROOF THERMAL INSULATION WITH WATERPROOF COVERING	HEAT TRACED
KITCHEN WASTE ABOVE GROUND	ALL	MINERAL FIBER, ASJ, SSL	1"	MOLDED, PRE-FORMED MINERAL FIBER WITH PVC JACKET	TYPE 1
CONDENSATE	ALL	MINERAL FIBER, ASJ, SSL	1/2"	MOLDED, PRE-FORMED MINERAL FIBER WITH PVC JACKET	TYPE 1
INTERIOR ROOF DRAIN PIPING	ALL	MINERAL FIBER, ASJ, SSL	1"	MOLDED, PRE-FORMED MINERAL FIBER WITH PVC JACKET	TYPE 1 INCLUDE ROOF DRAIN BODY

NOTES:
1. FIBERGLASS INSULATION: THERMAL CONDUCTIVITY .22 TO .28BTU x IN./H x FT x °F W/ 100°F MEAN TEMP. THICKNESS BASED ON ASHRAE 90.1, 1999 6.2.4.5

2. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

3. ALL KITCHEN WASTE SHALL BE HEAT TRACED FROM FIXTURE TO THE GREASE INTERCEPTOR

PLUMBING FIXTURE/EQUIPMENT SCHEDULE

MARK	FIXTURE, MODEL NUMBER AND DESCRIPTION REFER TO ARCHITECTURAL PLANS FOR ALL MOUNTING HEIGHTS	ROUGH-IN: WASTE/ SANITARY	ROUGH-IN: VENT	ROUGH-IN: CW	ROUGH-IN: HW
W-1 W-1A	WATER CLOSET, STANDARD AND ADA COMPLIANT (WHEN INSTALLED AT PROPER HEIGHT). SLOAN ELONGATED WALL MOUNTED WATER CLOSET, MODEL ST-2469-STG, 1.6 GPF, VITREOUS CHINA WITH SLOAN TEC GLAZE, 1-1/2" REAR OUTLET, SIPHON JET TOILET WITH WALL SUPPLY. SLOAN CX SENSOR FLUSH VALVE, CX 8158-1.6-OR, CONCEALED WITH FRONT ACCESS PLATE, HARD WIRED, PROVIDE WITH TRANSFORMER EL-451, 6 VAC. CHURCH 295CT/295SSCT OPEN FRONT SEAT. PROVIDE ALL ITEMS REQUIRED FOR COMPLETE INSTALLATION.	4"	2"	1"	--
U-1 U-1A	URINAL, WALL HUNG, STANDARD AND ADA COMPLIANT (WHEN INSTALLED AT PROPER HEIGHT) SLOAN SU-1019-STG, VITREOUS CHINA WITH SLOAN TEC GLAZE, 3/4"INLET SPUD REAR WALL SUPPLY WASHDOWN URINAL WITH FULLY ENCLOSED P-TRAP. SLOAN CX SENSOR FLUSH VALVE MODEL CX 8198-0.125-OR, .0125 GPF. CONCEALED WITH FRONT ACCESS PLATE, HARD WIRED, PROVIDE WITH TRANSFORMER EL-451, 6 VAC PROVIDE ALL ITEMS REQUIRED FOR COMPLETE INSTALLATION.	2"	2"	3/4"	--
L-1A	LAVATORY, ADA, SOLID SURFACE APRON (REFER TO ARCHITECTURAL PLANS) SLOAN OPTIMA SENSOR FAUCET, HARD WIRED, 0.5 GPM, MODEL EAF-100-HLT-ISM-CP-0.5 GPM-AER-IR-IQ-FCT. 1-1/2" CHROME PLATED CAST BRASS P-TRAP , SUPPLIES, BRASS ANGLE STOPS WITH LOOSE KEY OPERATION, GRID DRAIN, ETC. FOR COMPLETE INSTALLATION. COORDINATE MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION. PROVIDE WITH TMV-2 ASSE 1070.	1-1/2"	1-1/2"	1/2"	1/2"
L-2A	LAVATORY, WALL HUNG, SLOAN SS-3103, VITREOUS CHINA WALL MOUNT LAVATORY, SINGLE HOLE. FAUCET SLOAN OPTIMA SENSOR FAUCET, HARD WIRED, 0.5 GPM, MODEL EAF-100-HLT-ISM-CP-0.5 GPM-AER-IR-IQ-FCT. 1-1/2" CHROME PLATED CAST BRASS P-TRAP , SUPPLIES, BRASS ANGLE STOPS WITH LOOSE KEY OPERATION, GRID DRAIN, ETC. FOR COMPLETE INSTALLATION. COORDINATE MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION. PROVIDE WITH TMV-2 ASSE 1070. PROVIDE WITH TRUEBRO LAV SHIELD.	1-1/2"	1-1/2"	1/2"	1/2"
S-1A	ADA SINK, JUST US-ADA-1821-A, UNDERMOUNT 19x16x5.5 WITH REAR OFFSET DRAIN (COORDINATE LEFT OR RIGHT BASED ON LAYOUT). FACUET: ELKAY 4" CENTERSET EXPOSED DECK MOUNT FAUCET WITH ARC SPOUT AND 4" LEVER HANDLES. 1.5 GPM, CHROME-PLATED BRASS MATERIAL, QUARTER TURN CERAMIC DISC VALVE. FAUCET REQUIRES 3 HOLES. PROVIDE OFFSET TAIL PIECE, 1-1/2" CHROME PLATED CAST BRASS P-TRAP , SUPPLIES, BRASS ANGLE STOPS WITH LOOSE KEY OPERATION, GRID DRAIN, ETC. FOR COMPLETE INSTALLATION.	1-1/2"	1-1/2"	1/2"	1/2"
EWC	ELKAY EZH2O BOTTLE FILLING STATION WITH MECHANICALLY ACTIVATED, BI-LEVEL ADA COOLER FILTERED REFRIGERATED STAINLESS. CHILLING CAPACITY OF 8.0 GPH OF 50°F DRINKING WATER, BASED ON 80° F INLET WATER AND 90° F AMBIENT. FEATURES SHALL INCLUDE ANTIMICROBIAL, FILTERED, GREEN TICKER, HANDS FREE, LAMINAR FLOW, MECHANICALLY ACTIVATED, REAL DRAIN, VISUAL FILTER MONITOR. FURNISHED WITH FLEXI-GUARD SAFETY BUBBLER. ELECTRONIC BOTTLE FILLER SENSOR WITH MECHANICAL FRONT AND SIDE BUBBLER PUSHBAR ACTIVATION. PRODUCT SHALL BE WALL MOUNT, SERVING 2 STATIONS. UNIT SHALL BE CERTIFIED TO UL 399 AND CAN/CSA C22.2 NO. 120. UNIT SHALL BE LEAD-FREE DESIGN WHICH IS CERTIFIED TO NSF/ANSI 61 & 372 (LEAD FREE) AND MEETS FEDERAL AND STATE LOW-LEAD REQUIREMENTS.	1-1/2"	1-1/2"	1/2"	--
MSB	MOP SINK, FIAT MSB2424, MOLDED STONE, 24x24x12, SERVICE FAUCET PLATE #830-AA, HOSE AND HOSE BRACKET PLATE #832- AA, BUMPER GUARD PLATE #E-77-AA, SS MOP HANGER #889-CC, MOP SINK DRAIN GASKET #QDC3XH, WALL GUARDS #MSG24, WITH INTEGRAL DRAIN. PROVIDE TRAP, SUPPLIES, STOPS, ETC FOR COMPLETE INSTALLATION.	3"	2"	3/4"	3/4"
FPHB	FREEZE PROOF HOSE BIBB, WOODFORD MODEL MB67, CAST BRONZE NON-FREEZE WALL HYDRANT WITH STAINLESS STEEL HINGED LOCKING COVER, 3/4"HPT OUTLEST, INTERGRAL DOUBLE CHECK BACKFLOW PREVENTER PRESSURE RELIEF VALVE, AND 3/4" FEMALE & 1" MALE NPT INLER CONNECTION	--	--	3/4"	--
SA	WATER HAMMER ARRESTOR, PRECISION PLUMBING PRODUCTS (PPP.) SC SERIES, 1/2"-1", SIZE PER MANUFACTURE RECOMMENDATIONS AND REQUIREMENTS	--	--	3/4"	--

NOTES:
1. LAVATORY & WATER COOLERS SUPPLY SHALL BE BRASS W/ BRASS ANGLE STOPS FOR 1/2" WATER SUPPLY LINES, W/ LOOSE KEY (W/CAP), AND WALL FLANGE. ALL COMPONENTS SHALL BE POLISHED CHROME FINISH. MANUFACTURER: BRASS CRAFT OR APPROVED EQUAL.

2. CAST BODY "P" TRAP 1-1/2" x 1-1/2" WITH HEAVY CAST J-BEND & FLAT CLEANOUT PLUG, SLIP NUTS AND WALL FLANGE. ALL COMPONENTS SHALL BE POLISHED CHROME FINISH. MANUFACTURER: BRASS CRAFT OR APPROVED EQUAL.

3. STRAINERS SHALL BE FURNISHED WITH FIXTURES AS REQUIRED. FOR H/C LAVATORY OR SINKS PROVIDE OFFSET TAILPIECE.

4. PROVIDE TRUEBRO MODEL 103 (WHITE), ANTIMICROBAL HANDI LAV-GUARDS INSTALLATION KIT FOR ALL WHEELCHAIR LAVATORY & SINKS FOR WATER SUPPLIES & WASTE LINE.

5. PROVIDE WATER SUPPLY & "P" TRAP & OPTIONAL WATER FILTERS FOR ELECTRIC WATER COOLERS AS PER MANUFACTURERS RECOMMENDATIONS.

6. THE PLUMBING FIXTURES VENDOR SHALL COORDINATE WITH THE PLUMBING AND GENERAL CONTRACTOR ALL PLUMBING FIXTURES ROUGH IN DIMENSIONS BEFORE CONSTRUCTION BEGIN.

7. UNLESS SHOWN ABOVE, PLUMBING FIXTURES MANUFACTURER, TRIM COLOR AND FINISH SHALL BE FURNISHED AS DIRECTED BY OWNER/ARCHITECT.

8. REFER TO ARCHITECTURAL DRAWINGS FOR STANDARD, A.D.A MOUNTING AND CHILD HEIGHTS. REFER TO ARCHITECTURAL FOR LOCATION OF A.D.A COMPLIANT SHOWER SEAT AND SHOWER BARS

9. CONTRACTOR TO PROVIDE AN EXTRA 10% OF BATTERIES, AERATORS, CARTRIDGE, ETC...

10. ALL HARD WIRED FAUCETS TO A HAVE BOX MOUNTED TRANSFORMER ABOVE CEILING. REFER TO ELECTRICAL DOCUMENTS FOR LOCATIONS AND CONNECTION POINT.

DRAIN SCHEDULE

MARK	FIXTURE, MODEL NUMBER AND DESCRIPTION	ROUGH-IN: TRAP	ROUGH-IN: WASTE	ROUGH-IN: VENT
FD-1	FLOOR DRAIN (MECHANICAL ROOM). WATTS FD-320-Y, HEAVY DUTY CAST IRON BODY, BOTTOM OUTLET. 9" DIAMETER CAST IRON TOP, TRAP PRIMER CONNECTION, SEEPAGE PAN AND COMBINATION MEMBRANE FLASHING CLAMP	AS NOTED ON DRWGS.	AS NOTED ON DRWGS.	AS NOTED ON DRWGS.
FD-2	FLOOR DRAIN (TOILET ROOM). WATTS FD-1100-A5, HEAVY DUTY CAST IRON BODY, BOTTOM OUTLET. 6"X6" SQUARE NCKEL BRONZE TOP, TRAP PRIMER CONNECTION, SEEPAGE PAN AND COMBINATION MEMBRANE FLASHING CLAMP	AS NOTED ON DRWGS.	AS NOTED ON DRWGS.	AS NOTED ON DRWGS.
FD-3	FLOOR SINK (KITCHEN). WATTS FS-790-FC-5-6-150, 14 GAUGE 304 STAINLESS STEEL, BOTTOM OUTLET. 12"X12"X8" DEEP, CAST STAINLESS STEEL GRATE, DOME BOTTOM STRAINER, SEEPAGE PAN AND COMBINATION MEMBRANE FLASHING CLAMP STAINLESS STEEL SEDIMENT BUCKET, 1/2 GRATE FOR INDIRECT WASTE	AS NOTED ON DRWGS.	AS NOTED ON DRWGS.	AS NOTED ON DRWGS.
FD-4	FLOOR SINK (KITCHEN). WATTS FS-790-FC-5-6-175, 14 GAUGE 304 STAINLESS STEEL, BOTTOM OUTLET. 12"X12"X8" DEEP, CAST STAINLESS STEEL GRATE, DOME BOTTOM STRAINER, SEEPAGE PAN AND COMBINATION MEMBRANE FLASHING CLAMP STAINLESS STEEL SEDIMENT BUCKET, 3/4 GRATE FOR INDIRECT WASTE	AS NOTED ON DRWGS.	AS NOTED ON DRWGS.	AS NOTED ON DRWGS.

NOTES:
1. PROVIDE TRAP PRIMERS FOR ALL DRAINS. DRAINS INCORPORATING A CONSTANT AND REGULAR WASTE ARE NOT REQUIRED TO INTERGRATE TRAP PRIMERS (I.E. SHOWER DRAINS, KITCHEN DRAINS, ETC).

TRAP PRIMER INSERT, WADE 4405. ELASTOMERIC, NORMALLY CLOSED TRAP GUARD DEVICE UTILIZES A NORMALLY CLOSED SEAL TO PREVENT EVAPORATION OF THE TRAP SEAL AND ALSO PROTECT AGAINST SEWER GASES FROM BACKING UP INTO HABITABLE AREAS. IT OPENS WITH FLUID AND ALLOWS LIQUID DRAINAGE TO FLOW THROUGH INTO THE BUILDING DRAIN.

2.TRANSITION COUPLINGS AND NO-HUB PIPE SHALL NOT BE INSTALLED BELOW SLAB OR IN ANY BURIED CONDITIONS IN CONTACT WITH EARTH

CLEANOUT SCHEDULE

MARK	FIXTURE, MODEL NUMBER AND DESCRIPTION	TRAP SIZE	REMARKS
FCO	FLOOR CLEANOUT (ALL INTERIOR AREAS EXCEPT CARPETED AREAS). WATTS CO-200-RX-C-6, ADJUSTABLE ROUND SCORIATED HEAVY DUTY NICKEL BRONZE SECURED TOP WITH FRAME, CAST IRON BODY, FLASHING FLANGE AND CLAMP, BRONZE PLUG. PROVIDE WITH VANDAL PROOF SCREWS. PROVIDE NICKEL BRONZE FRAME IN WET AREAS.	AS NOTED ON DWG.	--
FCO	FLOOR CLEANOUT (CARPETED AREAS). WATTS CO-200-RC-6, ADJUSTABLE ROUND SCORIATED HEAVY DUTY NICKEL BRONZE SECURED TOP WITH FRAME, CARPET MARKER, CAST IRON BODY, FLASHING FLANGE AND CLAMP, BRONZE PLUG. PROVIDE WITH VANDAL PROOF SCREWS.	AS NOTED ON DWG.	--
YCO	FLOOR CLEANOUT (EXTERIOR AREAS). WATTS CO-300-MF-6 WITH CO-380 ROUND FLANGED HOUSING WITH HEAVY DUTY SCORIATED DUCTILE IRON TOP, CLEANOUT FERRULE BODY WITH BRONZE PLUG. INSTALL CLEANOTUS WITH 18"SQUARE X 6" DEEP CONCRETE APRON IN NON-PAVED AREAS. PROVIDE WITH VANDAL PROOF SCREWS.	AS NOTED ON DWG.	--
WCO	WALL PLATE CLEANOUT COVER. WATTS CO-590-RD, PROVIDE AT CAST IRON CLEANOUTS WITH COUNTERSUNK BRASS PLUG AND STAINLESS STEEL COVER SECURED WITH VANDAL PROOF SCREWS.	--	--

NOTES:
1. TRANSITION COUPLINGS AND NO-HUB PIPE SHALL NOT BE INSTALLED BELOW SLAB OR IN ANY BURIED CONDITIONS IN CONTACT WITH EARTH

2. PROVIDE ALL POURED IN PLACE CLEANOUTS WITH 24"X24" FLASHING

GAS WATER HEATER SCHEDULE

MARK	MAKE & MODEL	TYPE	STORAGE	RECOVERY @ TEMP. RISE	MIXING VALVE	GAS: PRESSURE	GAS: INPUT (MBH)	REMARKS
WH-1	AO SMITH CYCLONE MXI BTH-120(A)	CONDENSING	60 GALLONS	138 GPH @ 100°F	TMV-1	3.5" - 14" WC	120	SEE NOTES
WH-2	AO SMITH CYCLONE MXI BTH-120(A)	CONDENSING	60 GALLONS	138 GPH @ 100°F	TMV-1	3.5" - 14" WC	120	SEE NOTES

NOTES:

1. PROVIDE WITH CONDENSATE NEUTRALIZATION KIT BTH-120-300 KIT P/N 100289339
2. PROVIDE WITH DIRECT-VENT INTAKE AND EXHAUST PIPE TERMINATIONS, POLYPROPYLENE VENT - PVC NOT ALLOWED-
3. PROVIDE THERMAL EXPANSION TANK (EXP-1), AMTROL ST-35CL, 10 GALLON
4. INSTALL WATER HEATER IN ACCORDANCE WITH BUILDING CODE - PLUMBING & MECHANICAL (WITH LATEST AMENDMENTS) CODES,ENERGY CODE, AND APPLICABLE STANDARDS AND
5. MANUFACTURERS RECOMMENDATIONS.
6. PROVIDE BRASS DRAIN VALVE, & ALL REQUIRED OPTIONS TO COMPLETE THE INSTALLATION.

THERMOSTATIC MIXING VALVE SCHEDULE

MARK	EQUIPMENT BEING SERVED (I.E. WATER HEATER, ETC...)	AREA SERVED	FLOW RATE @ 10PSI DIFFERENTIAL	MINIMUM FLOW RATE GPM	INLET TEMP.	OUTLET TEMP.	INLET SIZE	OUTLET SIZE	MANUFACTURER / MODEL	REMARKS
TMV-1	WH-1 & WH-2	BUILDING	30 GPM	4 GPM	140°F	120°F	3/4"	1"	POWERS / LFMM432	ASSE 1017
TMV-2	LAVATORIES / HAND WASHING	BUILDING	1 GPM	0.25 GPM	120°F	85°F - 110°F	1/2"	1/2"	POWERS / LFG480	ASSE 1070

NOTES:
1. MAXIMUM PRESSURE DIFFERENTIAL SHALL BE 10PSI FOR MIXING VALVE

2. WITH DIAL THERMOMETER, ADJUSTABLE SET POINT, INTEGRAL STRAINER CHECKSTOPS ON INLETS, PROVIDE SHUTOFFS/UNIONS AT ALL CONNECTIONS

3. MINIMUM LOW RATE WHEN VALVE IS INSTALLED AT OR NEAR HOT WATER SOURCE WITH RECIRCULATED TEMPERED WATER AND CONTINUOUSLY OPERATING CIRCULATION PUMP.

PUMP SCHEDULE

MARK	LOCATION	SERVICE	PUMP TYPE	FLUID	GPM	HEAD	ELECTRICAL: WATTS	ELECTRICAL: VOLTAGE	ELECTRICAL: PHASE	ELECTRICAL: RPM	MANUFACTURER / MODEL	REMARKS
RP-1	WATER SERVICE ROOM	HOT WATER RECIRCULATION	INLINE CIRCULATOR	WATER	5	10	44	120	1	1590-4830	TACO / 007E-SU	

BACKFLOW PREVENTER SCHEDULE

MARK	SIZE	LOCATION	SERVICE	BODY MATERIAL	TEMPERATURE RANGE	MAX. WORKING PRESSURE	MANUFACTURER / MODEL	REMARKS
BFP-1	1/2"	KITCHEN	DOMESTIC WATER	LEAD FREE CAST COPPER SILICON ALLOY	33°F - 140°F	175 PSI	WATTS / LF919-QT-S	REDUCED PRESSURE ZONE ASSEMBLY
BFP-2	6"	WATER SERVICE ROOM	FIRE PROTECTION	STAINLESS STEEL	33°F - 140°F	175 PSI	WATTS / 994RPDA	REDUCED PRESSURE DETECTOR ASSEMBLY

ELECTRIC HEAT TRACE

GREASE WASTE / KITCHEN WASTE (INTERIOR): FLOW AND TEMPERATURE MAINTENANCE, 12XL2-CT CABLE 208-277V, 12 WT/FT. 30 AMP. (CONFIRM FINALIZED LENGTH PRIOR TO ORDERING)

GREASE WASTE / KITCHEN WASTE (EXTERIOR): FLOW AND TEMPERATURE MAINTENANCE, 12XL2-CT CABLE 208-277V, 12 WT/FT. 30 AMP. (CONFIRM FINALIZED LENGTH PRIOR TO ORDERING)

GENERAL: ELECTRIC HEAT TRACE, MANUFACTURED BY RAYCHEM, XL-TRACE SERIES, SELF-REGULATING CABLE. THE SELF-REGULATING HEATING CABLE SHALL CONSIST OF TWO (2) 16 AWG NICKEL-COPPER BUS WIRES EMBEDDED IN PARALLEL IN A SELF-REGULATING POLYMER CORE THAT VARIES ITS POWER OUTPUT TO RESPOND TO TEMPERATURE ALL ALONG ITS LENGTH, ALLOWING THE HEATING CABLE TO BE CUT TO LENGTH IN THE FIELD. CABLE SHALL HAVE TYPE 'CT JACKETING. THE SYSTEM SHALL INCLUDE ALL POWER CONNECTIONS, SEALS, SPLICES, TEE KITS AND FASTENING HARDWARE. CONTROLS SHALL BE THERMOSTATIC AMBIENT SENSING, AND ALL FREEZE PROTECTION HEAT TRACE SHALL MAINTAIN 40°F WITH A -10°F AMBIENT TEMPERATURE. FLOW MAINTENANCE SHALL MAINTAIN 110°F. PROVIDE (2) PARALLEL HEAT TRACE LINES ALONG ALL PIPING , (1) ACTIVE AND (1) FOR SPARE FOR BELOW GRADE RUNS. COORDINATE WITH ELECTRICAL CONTRACTOR AND MANUFACTURES REQUIREMENTS AND RECOMMENDATIONS.

CONTROLLER: nVENT RAYCHEM 460 SINGLE POINT ELECTRONIC CONTROLLER, PROVIDE ONE PER EACH HEAT TRACE RUN. PROVIDE WITH DRY CONTACT / RELAY TO INTERFACE WITH BMS FOR REMOTE MONITORING AND ALARM.

PIPE HANGER SPACING TABLE

PIPE MATERIAL	PIPE SIZES (INCHES)	HORIZONTAL PIPE MAX. HANGER DISTANCE (FT)	VERTICAL PIPE MAX. HANGER DISTANCE (FEET)
COPPER & COPPER ALLOY TUBING	1-1/4" & SMALLER	6'-0"	10'-0"
COPPER & COPPER ALLOY TUBING	1-1/2" & LARGER	10'-0"	10'-0"
COPPER & COPPER ALLOY PIPE	ALL	12'-0"	10'-0"
CAST IRON PIPE	ALL	5'-0" *	15'-0"
STEEL PIPE	ALL	12'-0"	15'-0"
STAINLESS STEEL DRAINAGE	ALL	10'-0"	10'-0 **
CPVC PIPE OR TUBING	1" & SMALLER	3'-0"	10'-0 **
CPVC PIPE OR TUBING	1-1/4" & LARGER	4'-0"	10'-0 **
PVC PIPE	ALL	4'-0"	10'-0 **

NOTES:
* MAXIMUM HORIZONTAL SPACING OF CAST IRON PIPE HANGERS SHALL BE INCREASED TO 10'-0" WHERE 10'-" LENGTHS OF PIPE ARE USED

** MIDSTORY GUIDE FOR SIZES 2" AND SMALLER

NOT ALL PIPE MATERIALS ON THIS TABLE WILL PERTAIN TO THIS PROJECT

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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Drawing Title: SCHEDULES - PLUMBING

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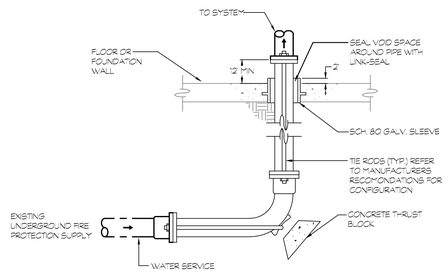
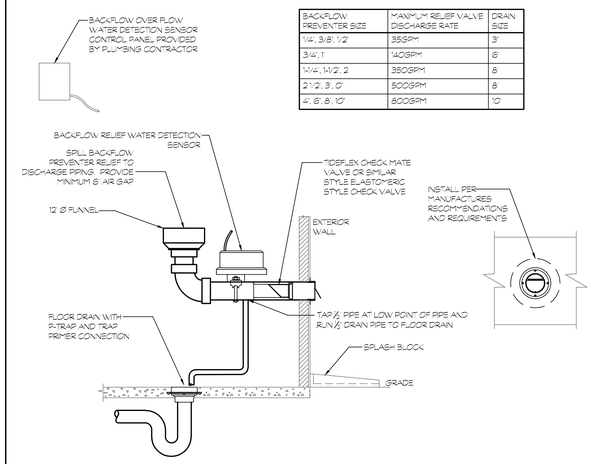


WATER SERVICE ENTRY DETAIL

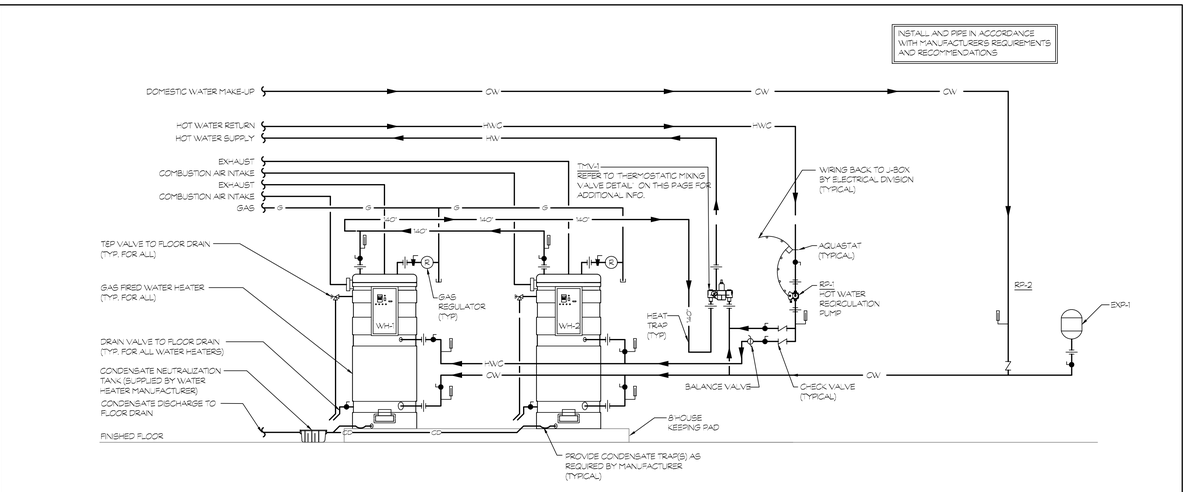
NOT TO SCALE



BACKFLOW PREVENTER SIZE	MAXIMUM RELIEF VALVE DISCHARGE RATE	DRAIN SIZE
¼", 3/8", ½"	35GPM	3"
¾", 1"	140GPM	6"
1¼", 1½", 2"	350GPM	8"
2 ½", 3", 0"	500GPM	8"
4", 6", 8", 10"	800GPM	10"

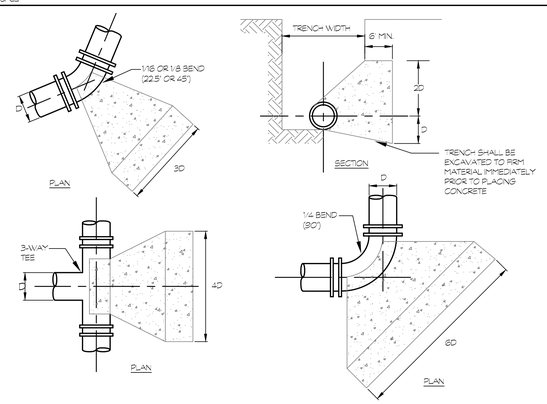
BACKFLOW PREVENTION OVERFLOW PIPING DETAIL

NOT TO SCALE



GAS FIRED WATER HEATER PIPING DETAIL

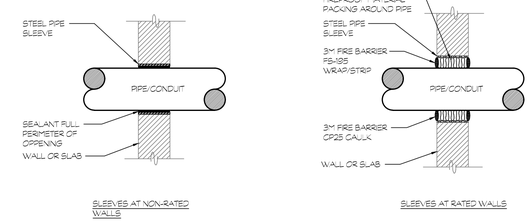
NOT TO SCALE



NOTES:
1. THRUST BLOCKS SHALL BE INSTALLED IN ACCORDANCE WITH THE DUCTILE IRON PIPE RESEACH ASSOCIATION (DIPRA) MANUAL, "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AND LOCAL UTILITY COMPANY REQUIREMENTS.
2. ALL ELBOWS, BENDS, AND CAPS SHALL BE BRACED WITH CONCRETE THRUST BLOCKS. JOINTS SHALL NOT BE ENCASED IN CONCRETE.
3. THRUST BLOCK SIZING BASED ON 150 PSI WATER PRESSURE AND 2000 PSI SOIL BEARING CAPACITY.
4. CONCRETE TO BE PLACED AGAINST UNDISTURBED MATERIAL OR SPECIAL FOUNDATION AS ORDERED BY ENGINEER.

THRUST BLOCK DETAIL

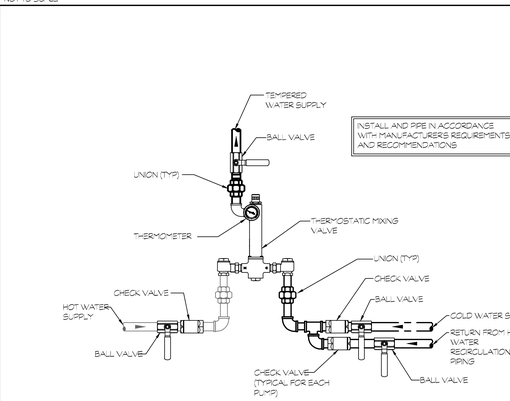
NOT TO SCALE



NOTE
PROVIDE PROPER SUPPORT OF BURIED PIPING, INCLUDING, BUT NOT LIMITED TO, BEDDING, COMPACTION, SUPPORT TO PREVENT PIPE MOVEMENT. PROVIDE PIPE WITH SWING JOINT FITTING.

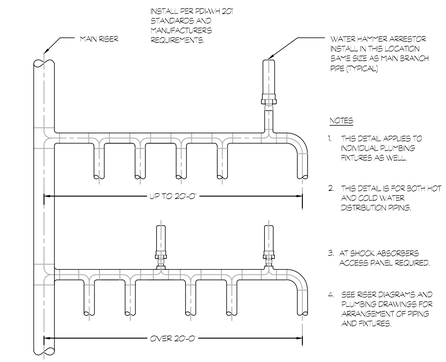
EXTERIOR PIPE PENETRATION WITH SLEEVE DETAIL

NOT TO SCALE



THERMOSTATIC MIXING VALVE DETAIL

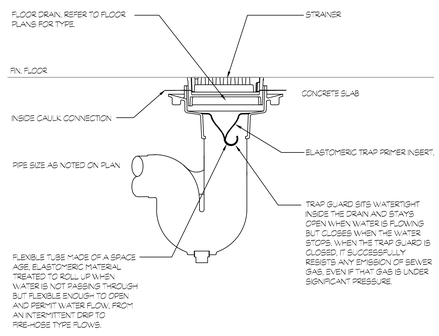
NOT TO SCALE



NOTES
1. THIS DETAIL APPLIES TO INDIVIDUAL PLUMBING FIXTURES AS WELL.
2. THIS DETAIL IS FOR BOTH HOT AND COLD WATER DISTRIBUTION PIPING.
3. AT SHOCK ABSORBERS ACCESS PANEL REQUIRED.
4. SEE RISER DIAGRAMS AND PLUMBING DRAWINGS FOR ARRANGEMENT OF PIPING AND FIXTURES.

WATER HAMMER ARRESTOR DETAIL

NOT TO SCALE



TRAP SEAL MAINTENANCE DEVICE

NOT TO SCALE

GENERAL NOTES:

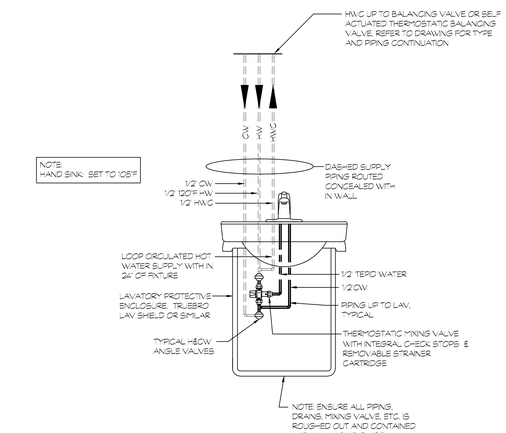
PROVIDE UL LISTED, FM APPROVED FIRE/SMOKE PENETRATION ASSEMBLIES IN ACCORDANCE WITH UL479, ASTM E184 REQUIREMENTS FOR WALL TYPE, RATING AND PIPE SIZES.

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

FOR WALL PENETRATIONS AT RATED WALLS SEE SPECIFICATION SECTIONS "SEALANTS" AND "FIRESTOPPING"

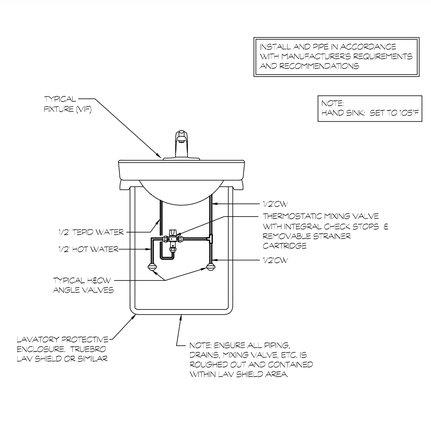
PIPE PENETRATION DETAIL

NOT TO SCALE



POINT OF USE THERMOSTATIC MIXING VALVE DETAIL @ PUBLIC LAV

NOT TO SCALE



POINTOF USE THERMOSTATIC MIXING VALVE DETAIL

NOT TO SCALE

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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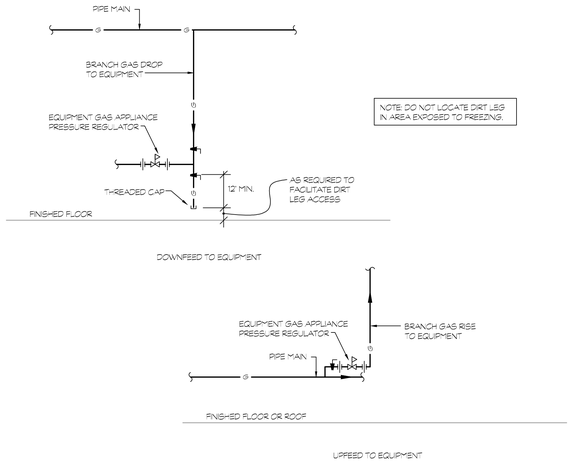
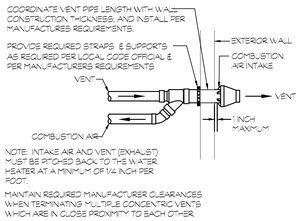


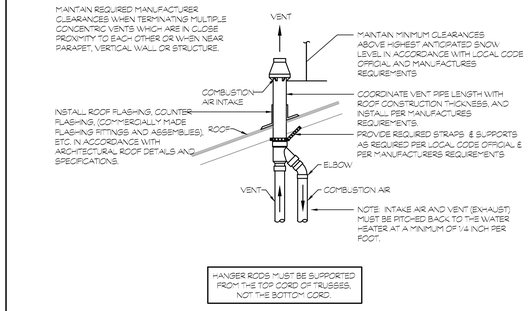
TYPICAL DIRT LEG DETAIL

NOT TO SCALE



SIDEWALL CONCENTRIC VENT TERMINATION DETAIL

NOT TO SCALE



CONCENTRIC VENT VERTICAL TERMINATION DETAIL

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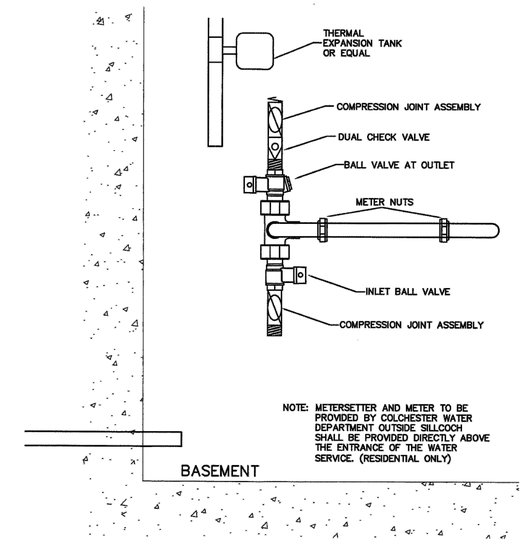
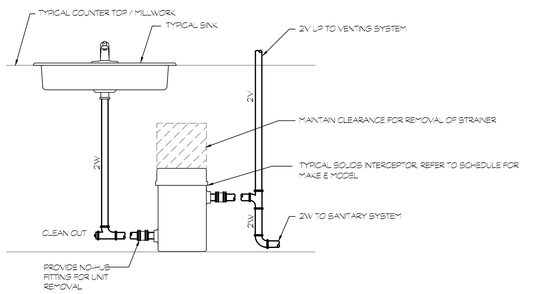


TYPICAL WATER METER INSTALLATION

NOT TO SCALE



POINT OF USE SOLIDS INTERCEPTOR DETAIL

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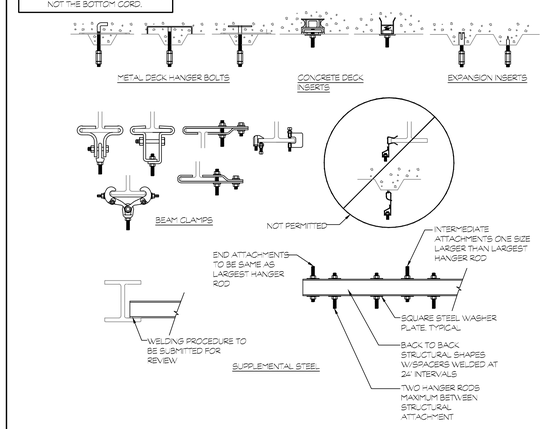
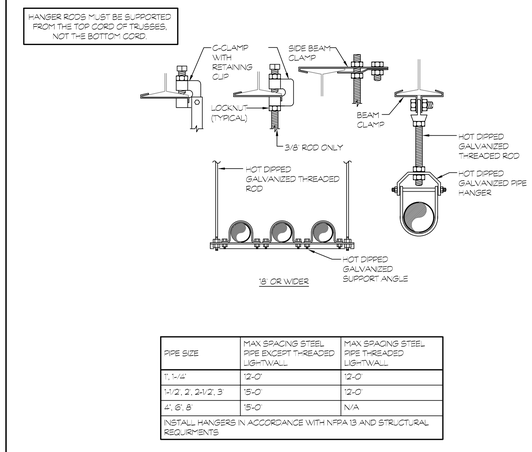


PIPE HANGER ATTACHMENT DETAIL

NOT TO SCALE



PIPE SIZE	MAX SPACING STEEL PIPE EXCEPT THREADED LIGHTWALL	MAX SPACING STEEL PIPE THREADED LIGHTWALL
1", 1-1/4"	12'-0"	12'-0"
1-1/2", 2", 2-1/2", 3"	15'-0"	12'-0"
4", 6", 8"	15'-0"	N/A
INSTALL HANGERS IN ACCORDANCE WITH NFPA 13 AND STRUCTURAL REQUIREMENTS		

PIPE SUPPORT DETAIL

NOT TO SCALE

COLCHESTER WATER DEPT REQUIRES A VENDOR FROM THE APPROVED LIST TO PERFORM A PRESSURE AND LEAKAGE TEST ALONG WITH CHLORINATION AND A NEGATIVE COLIFORM TEST WHICH IS COLLECTED BY THE COLCHESTER WATER DEPT AND PAID FOR BY THE CONTRACTOR.

COLCHESTER WATER DEPARTMENT APPROVED CONTRACTORS LIST PRESSURE AND LEAKAGE TESTING/DISINFECTION/WATER MAIN TAPPING

1. SUPERIOR PRODUCTS DISTRIBUTERS INC, 251 WEST THAMES ST, NORWICH,CT 860-8883997
2. THE JACK FARRELLY COMPANY, 97 OLD POQUONOCK ROAD, BLOOMFIELD, CT. PHONE 1-800-423-0712
3. NORTHEAST PIPELINE SERVICES, 156 OLD TURNPIKE ROAD, SOUTHINGTON, CT. 06489 PHONE 860-621-6921
4. YANKEE WATER, 177 KENSINGTON ROAD, BERLIN, CT. 06489 PHONE 860-828-4543
5. JMS CONNECTIONS, INC., 360 OLD WATERBURY RD., BRISTOL, CT 06010 PHONE:860583-5672
6. E.P. 36 CLARK RD, VERNON, CT 06066, 860-875-7116
7. WATER AND SEWER SERVICES, INC, SMITHFIELD, RI 02917, 401-231-0007

WATER SERVICE LINE POLICY

DEFINITIONS:

WATER SERVICE LINE: PIPE LINE EXTENDING FROM THE POTABLE WATER SOURCE TO THE INTERIOR OF A BUILDING.

UTILITY SERVICE LINE: THE PIPING THAT EXTENDS FROM THE WATER DISTRIBUTION MAIN, TO THE RIGHT OF WAY ENDING AT THE CURB STOP VALVE.

CUSTOMER SERVICE LINE: THE PIPING THAT EXTENDS FROM THE WATER CURB STOP TO THE INTERIOR OF A BUILDING. ALSO, INCLUDES THE CURB BOX (ACCESS POINT FROM GRADE TO THE CURB STOP).

WATER SERVICE MATERIALS

SIZE 4" CONCRETE LINED ASPHALTIC COATED DUCTILE IRON CLASS 52

UNIONS, CURBSTOPS, CORPORATION STOPS SHALL BE MUELLER 110 STYLE COMPRESSION MADE BY MUELLER OR FORD AND MEET CURRENT AWWA STANDARDS FOR LEAD CONTENT.

ALL SERVICE LINES TO BE INSTALLED IN ACCORDANCE WITH COLCHESTER WATER DEPT STANDARD CONSTRUCTION DETAIL.

SERVICE LINES SHALL BE SIZED BASED ON DEMAND (PROVIDED BY CUSTOMERS ENGINEER) AND/OR THE DISCRETION OF THE WATER DEPARTMENT. SERVICE LINES WILL NOT EXCEED THE LENGTH OF A SINGLE ROLL OF LINE MATERIAL, UNLESS DUCTILE IRON PIPE IS UTILIZED. IF A SINGLE LINE CANNOT BE UTILIZED, OR IS LONGER THAN 100FT OF DUCTILE IRON PIPE, THEN A METER PIT MUST BE INSTALLED AFTER THE CURB STOP.

IF DUCTILE IRON PIPE IS UTILIZED, THE LINE WILL BE PRESSURE AND LEAKAGE TESTED AND CHLORINATED BY A CWD APPROVED CONTRACTOR, THEN SAMPLED FOR COLIFORM BY CWD.

TOWN OF COLCHESTER WATER DEPT NOTES

NOT TO SCALE

NOTES

1. ALL MATERIALS SHALL CONFORM WITH THE COLCHESTER WATER DEPARTMENT MATERIAL SPECIFICATIONS.
2. WATER MAINS SHALL BE MINIMUM CLASS 52 CEMENT-LINED DUCTILE IRON PIPE WITH PUSH-ON JOINTS, IN ACCORDANCE WITH AWWA C104, C111 AND C150. MAINS SHALL BE INSTALLED IN ACCORDANCE WITH AWWA C600 AND THE COLCHESTER WATER DEPARTMENT STANDARD DETAILS.
3. HYDRANTS SHALL BE OPEN LEFT, 3-WAY HYDRANTS, WITH A 5-1/4" VALVE AND MECHANICAL JOINT CONNECTIONS IN ACCORDANCE WITH AWWA C502. ACCEPTABLE MANUFACTURERS ARE MUELLER CENTURION
4. GATE VALVES SHALL BE OPEN RIGHT, RESILIENT SEAT GATE VALVES WITH MECHANICAL JOINT CONNECTIONS, IN ACCORDANCE WITH AWWA C500. ACCEPTABLE MANUFACTURERS OF GATE VALVES ARE LISTED IN THE COLCHESTER WATER DEPARTMENT MATERIAL SPECIFICATIONS.
5. ALL FITTINGS SHALL BE MECHANICAL JOINT, CEMENT-LINED DUCTILE IRON CLASS 52 OR GREATER, IN ACCORDANCE WITH AWWA C153. ACCEPTABLE MANUFACTURERS OF FITTINGS ARE LISTED IN THE COLCHESTER WATER DEPARTMENT MATERIAL SPECIFICATIONS.
6. CORPORATIONS AND CURB STOPS SHALL BE COMPRESSION TYPE AND BE MANUFACTURED BY EITHER MUELLER OR FORD.
7. CURB BOXES SHALL BE MINIMUM 2-1/2" DIAMETER CAST IRON, BUFFALO TYPE. GATE BOXES SHALL BE MINIMUM 5-1/4" DIAMETER CAST IRON, SLIDE TYPE. EACH OF THESE SHALL BE NORTH AMERICAN MADE. ACCEPTABLE MANUFACTURERS ARE LISTED IN THE COLCHESTER WATER DEPARTMENT MATERIAL SPECIFICATIONS.
8. SERVICE CONNECTIONS: ALL SERVICE CONNECTIONS SHALL BE A MINIMUM OF 1-INCH DIAMETER TYPE K COPPER TUBING AND SHALL BE CONSTRUCTED OF CONTINUOUS TUBING (NO JOINTS, CONNECTIONS, COUPLINGS, ETC.) WHEREVER POSSIBLE. SERVICE LINES IN EXCESS OF 150 FEET IN LENGTH FOR ALL TYPES OF USES, OR SERVICES FOR ANY NON-RESIDENTIAL/NON-POTABLE USE, INCLUDING BUT NOT LIMITED TO FIRE PROTECTION, PROCESS/INDUSTRIAL USE, COMMERCIAL USE, IRRIGATION, OR OTHER SUCH APPLICATIONS ARE SUBJECT TO PRE-APPROVAL BY COLCHESTER WATER DEPARTMENT AND/OR ADDITIONAL REQUIREMENTS INCLUDING BUT NOT LIMITED TO LARGER SIZE PIPING, ALTERNATE PIPING MATERIALS/INSTALLATION, HYDROSTATIC TESTING AND/OR DISINFECTION, METER PIT INSTALLATION, OR OTHER SPECIAL CONDITIONS AS MAY BE REQUIRED. INSTALLATION OF A 3/4-INCH SERVICE CONNECTION IS ONLY PERMITTED FOR RENEWAL OF CERTAIN EXISTING 3/4-INCH CONNECTIONS.
9. DISINFECTION AND PRESSURE TESTING - UPON COMPLETION, ALL MAINS, SERVICES AND OTHER PIPING AND APPURTENANCES SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA C600, AND DISINFECTED BY THE CONTINUOUS FEED METHOD AND IN ACCORDANCE WITH AWWA C651 BY AN INDEPENDENT PARTY APPROVED BY COLCHESTER WATER DEPARTMENT.
10. SHOP DRAWINGS FOR ALL MATERIALS TO BE USED ON THE JOB SHALL BE SUBMITTED TO THE COLCHESTER WATER DEPARTMENT FOR APPROVAL.
11. AS-BUILT DRAWINGS WILL BE SUPPLIED TO THE COLCHESTER WATER DEPARTMENT WITHIN 90 DAYS AFTER ACCEPTANCE OF THE MAIN BY COLCHESTER WATER DEPARTMENT.
12. THE MINIMUM DEPTH OF ROAD BASE MATERIAL AND PAVEMENT INSTALLED OVER ANY WATER MAIN TRENCH, INCLUSIVE OF ANY CUTBACKS, SHALL BE THE LARGEST OF THE FOLLOWING:
    A. FOR EXISTING ROADS - THE DEPTH OF EXISTING ROAD BASE AND PAVEMENT, OR SIX (6) INCHES OF COMPACTED ROAD BASE AND THREE (3) INCHES OF NEW PAVEMENT,
    B. FOR NEWLY CONSTRUCTED ROADS - DEPTHS SHOWN ON PLANS APPROVED BY THE LOCAL P&Z COMMISSION, STATE D.O.T., OR OTHER GOVERNING AUTHORITY, OR SIX (6) INCHES OF COMPACTED ROAD BASE AND THREE (3) INCHES OF NEW PAVEMENT.
13. CONCRETE THRUST BLOCKS, EITHER POURED OR PLACED (PRECAST SOLID BRICK), MAY BE REQUIRED BY COLCHESTER WATER DEPARTMENT IN ADDITION TO, OR POSSIBLY IN THE PLACE OF, PUSH ON JOINT PIPE RESTRAINT OR MEGALUG RETAINER GLANDS, BASED ON SPECIFIC CONDITIONS. ANY SUCH REQUIREMENTS WOULD BE NOTED DURING THE PLAN REVIEW PHASE.
14. REMOTE READER LOCATION SHALL BE ON THE FRONT OF THE BUILDING NOT LESS THAN 3 FEET FROM GRADE NO MORE THAN 5 FEET FROM GRADE. ADVANCE NOTICE OF SHEET ROCKING SHALL BE PROVIDED TO C.W.D FOR READER WIRE INSTALLATION.

TOWN OF COLCHESTER WATER DEPT DETAIL

NOT TO SCALE

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

SILVER / PETRUCELLI + ASSOCIATES
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3190 Whitney Avenue, Hamden, CT 06518-2340
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Project Number: 20.003

SYMBOL LEGEND

(NOT ALL SYMBOLS ARE USED)

P	PRESSURE/TEMPERATURE PORT	OR	PIPE UNION		MECHANICAL NOTE REFERENCE, NUMBER INDICATES NOTE
T	TEMPERATURE GAUGE/ TEMPERATURE INDICATOR	AV	AIR VENT, AUTOMATIC	- C_F	CUBIC FEET PER MINUTE
	PRESSURE GAUGE		AIR VENT, MANUAL		DUCT STATIC PRESSURE
	BUTTERFLY VALVE	OR	PUMP OR FAN	VD	VOLUME DAMPER
	SHUT-OFF VALVE		STRAINER	BD	BACKDRAFT DAMPER
	ANGLE GATE VALVE		STRAINER, BLOW OFF	SPS	DUCT STATIC PRESSURE SENSOR
	GLOBE VALVE		1" DOOR UNDERCUT	MD	MOTORIZED DAMPER
	BALL OR BUTTERFLY VALVE		RETURN GRILLE		SUPPLY OR OUTSIDE AIR DUCT UP OR CSD
	ANGLE GLOBE VALVE	T	THERMOSTAT OR SPACE TEMPERATURE SENSOR		SUPPLY OR OUTSIDE AIR DUCT DOWN
M	TWO WAY MOTORIZED CONTROL VALVE	P	PRESSURE SENSOR		RETURN OR EXHAUST DUCT UP OR CRG/CRR
M	THREE WAY MOTORIZED CONTROL VALVE		DIRECTION OF FLOW		RETURN OR EXHAUST DUCT DOWN
	CHECK VALVE		METER	FC	FLEXIBLE CONNECTION
	OS & Y	DIA. OR ø	DIAMETER		DUCT TRANSITION
	SAFETY RELIEF VALVE (PRESS. & TEMP.)	OR	THERMOMETER		RECTANGULAR TO ROUND TRANSITION
	DRAIN VALVE W/ HOSE COUPLING W/CAP		PIPE TEE, OUTLET UP		DUCT WORK, DIRECTION OF FLOW
	CAP		PIPE ELBOW, TURNED UP		POSITIVE PRESSURE DUCT
	PIPE CONNECTION BOTTOM		PIPE TEE, OUTLET DOWN		NEGATIVE PRESSURE DUCT
	PIPE CONNECTION TOP	HWS	HOT WATER SUPPLY	R	CHANGE OF ELEVATION, RISE (R) DROP (D)
	PIPE COUPLING (JOINT)	HWR	HOT WATER RETURN		LINED DUCT WORK
	ELBOW, 90°	CWS	CONDENSER WATER SUPPLY		SINGLE LINE LINED DUCT WORK
	PIPE ELBOW, TURNED DOWN	CWR	CONDENSER WATER RETURN		DIRECTION OF SUPPLY OR OUTSIDE AIR
	PIPE TEE		POINT OF CONNECTION		DIRECTION OF RETURN OR EXHAUST AIR
	CALIBRATED BALANCING VALVE		RETURN OR EXHAUST DUCT UP		AIR TERMINAL UNIT
H	HUMIDISTAT/HUMIDITY SENSOR		SUPPLY OR OUTSIDE AIR DUCT UP	S	DUCT SMOKE DETECTOR
H	DUCT MOUNTED HUMIDITY SENSOR	SD	SMOKE DAMPER	FD	FIRE DAMPER WITH ACCESS DOOR AS REQUIRED
CO2	DUCT MOUNTED CARBON DIOXIDE SENSOR	FSD	COMBINATION FIRE AND SMOKE DAMPER		DUCT ACCESS DOOR
HWS	HOT WATER SUPPLY	45 CHWS	45°F CHILLED WATER SYSTEM SUPPLY	57 CHWS	57°F CHILLED WATER SYSTEM SUPPLY
HWR	HOT WATER RETURN	45 CHWR	45°F CHILLED WATER SYSTEM RETURN	57 CHWR	57°F CHILLED WATER SYSTEM RETURN
	PIPE ANCHOR		PIPE GUIDE		

ABBREVIATIONS

(NOT ALL SYMBOLS ARE USED)

(###)	CFM	FA	FACE AREA	NO	NORMALLY OPEN
ABV	ABOVE	FBO	FURNISHED BY OTHERS	NTS	NOT TO SCALE
AC	AIR COMPRESSOR		INSTALLED BY HVAC SUBCONTRACTOR	OA	OUTSIDE AIR
ACU–#	AIR CONDITIONING UNIT	FC	FORWARD CURVE	OAT	OUTDOOR AIR TEMPERATURE
AD	ACCESS DOOR	FCU	FAN COIL UNIT	OAI	OUTDOOR AIR INTAKE
AF	AIRFOIL	FD	FIRE DAMPER WITH ACCESS DOOR	OBD	OPPOSED BLADE DAMPER
AFC	ADJUSTABLE FREQUENCY CONTROLLER	FF	FINAL FILTER	OD	OUTSIDE DIMENSION
AFF	ABOVE FINISHED FLOOR	FIBO	FURNISHED AND INSTALLED BY OTHERS	O.E. T.D.	OPEN END TRANSFER DUCT
AFMS	AIR FLOW MEASURING STATION	FIN FL	FINISH FLOOR	P–#	PUMP
AHU–#	AIR HANDLING UNIT	FL	FLOOR	PB	PUSH BUTTON
AL	ACOUSTIC LINING	FLA	FULL LOAD AMPERES	PBD	PARALLEL BLADE DAMPER
ALD	AUTOMATIC LOUVER DAMPER	FLEX	FLEXIBLE	PD	PRESSURE DROP
APD	AIR PRESSURE DROP	FPF	FINS PER FOOT	PF	PREFILTER
AUTO	AUTOMATIC	FPV	FAN POWERED VAV BOX	PH	PHASE
B–#	BOILER	FT	FEET	PHC	PREHEAT COIL
BC	BACKWARD CURVED	F.T.	FLOAT & THERMOSTATIC TRAP	PPH	POUND PER HOUR
BD	BELT DRIVE	FTR	FIN TUBE RADIATION	PRV	PRESSURE REDUCING VALVE
BMCS	BUILDING MANAGEMENT & CONTROL SYSTEM	FV	FACE VELOCITY	PSI	POUND PER SQUARE INCH
IBT	INVERTED BUCKET TRAP	GC	GENERAL CONTRACTOR	RA	RETURN AIR
BTU	BRITISH THERMAL UNIT	GIH	GRAVITY INTAKE HOOD	RAF–#	RETURN AIR FAN
C–#	CHILLER	GPH	GALLONS PER HOUR	RAT	RETURN AIR TEMPERATURE
CAP	CAPACITY	GPM	GALLONS PER MINUTE	RE	RELOCATE EXISTING
CB–#	CHILLED BEAM	GWLS	GEOTHERMAL WATER LOOP SUPPLY	REG	REGISTER
CC–#	COOLING COIL	GWLR	GEOTHERMAL WATER LOOP RETURN	RH	RELATIVE HUMIDITY
CD	CEILING DIFFUSER	H/C	HEATING/COOLING	RHC	REHEAT COIL
CFM	CUBIC FEET PER MINUTE	H–#	HUMIDIFIER	RM	ROOM
CG	CEILING GRILLE	H–O–A	HAND–OFF–AUTOMATIC	RP	RADIANT PANEL
CLG	CEILING	HC–#	HEATING COIL	RPM	REVOLUTIONS PER MINUTE
CONV–#	HOT WATER CONVECTOR	hd	FEET OF HEAD	RS	RISE
CP	CONDENSATE RECEIVER/PUMPING SYSTEM	HP	HORSEPOWER	RTU–#	ROOFTOP AIR CONDITIONING UNIT
CR	CEILING REGISTER	HTG	HEATING	SA	SUPPLY AIR
CT–#	COOLING TOWER	HTR	HEATER	SAF–#	SUPPLY AIR FAN
CTD	CEILING TRANSFER DUCT	HV–#	HEATING AND VENTILATING UNIT	SAT	SUPPLY AIR TEMPERATURE
CUH–#	CABINET UNIT HEATER HOT WATER	HVAC	HEATING, VENTILATING & AIR CONDITIONING	SB	SECURITY BARS
CV	CONTROL VALVE			VSC	VERTICAL SPLIT CASE
CW	COLD WATER	HX–#	HEAT EXCHANGER CONVERTOR	HSC	HORIZONTAL SPLIT CASE
D&T	DRIP AND TRAP	ID	INSIDE DIMENSION	SD	SMOKE DAMPER
dB	DECIBELS	IN	INCHES	SG	SUPPLY GRILLE
DB	DRY BULB	IV	INLET GUIDE VANES	SP	STATIC PRESSURE
DD	DIRECT DRIVE	IL	INLINE	SQ FT	SQUARE FOOT (AREA)
DDC	DIRECT DIGITAL CONTROL	KW	KILOWATT	ST	SINGLE POLE SWITCH
DIFF	DIFFUSER	KWH	KILOWATT HOUR		W/THERMAL OVERLOAD
DL	DOOR LOUVER	LAT	LEAVING AIR TEMPERATURE	SWR	SIDE WALL REGISTER
DN	DOWN	LD	LINEAR DIFFUSER	T'STAT	THERMOSTAT
DOAS	DEDICATED OUTDOOR AIR SYSTEM	LIN	LINEAR	TD	TEMPERATURE DIFFERENCE
DP	DEWPOINT TEMPERATURE	LRA	LOCKED ROTOR AMPERES	TEMP	TEMPERATURE
DR	DROP	LPR	LOW PRESSURE RETURN	TG	AIR TRANSFER GRILLE
DTWS	DUAL TEMPERATURE WATER SUPPLY	LPS	LOW PRESSURE SUPPLY	TOT	TOTAL
DTWR	DUAL TEMPERATURE WATER RETURN	LVG	LEAVING	TN–HR	TON HOUR REFRIGERATION
DX	DIRECT EXPANSION	LWT	LEAVING WATER TEMPERATURE	TRD	TRANSFER DUCT
EF–#	EXHAUST FAN	MAN	MANUAL	TT	THERMOSTATIC TRAP
EAT	ENTERING AIR TEMPERATURE	MAT	MIXED AIR TEMPERATURE	TYP	TYPICAL
EER	ENERGY EFFICIENCY RATIO	MAX	MAXIMUM	UC	UNDERCUT DOOR
EG	EXHAUST GRILLE	MBH	1000 BTU'S	UH–#	UNIT HEATER HOT WATER
EHC–#	ELECTRIC HEATING COIL	MCA	MINIMUM CIRCUIT AMPACITY	UV–#	UNIT VENTILATOR
ENT	ENTERING	MD	MOTORIZED DAMPER	VAV–#	VARIABLE AIR VOLUME
HEPA	HIGH EFFICIENCY PARTICULATE FILTER	MER	MAXIMUM FUSE SIZE	VD	VOLUME DAMPER
ER	EXHAUST REGISTER	MEZZ	MEZZANINE	VE	VOLUME EXTRACTOR
ES	END SUCTION	MIN	MINIMUM	VFD	VARIABLE FREQUENCY DRIVE
ESP	EXTERNAL STATIC PRESSURE	MFS	MECHANICAL EQUIPMENT ROOM	VI	VIBRATION ISOLATOR
ET–#	EXPANSION TANK	MOT	MOTOR	VSF	VARIABLE SPEED FAN SWITCH
EUH–#	ELECTRIC UNIT HEATER	MUA	MAKE–UP AIR	W/	WITH
EWT	ENTERING WATER TEMPERATURE	MV	MOTORIZED VALVE	WB	WET BULB
EXT	EXTERNAL	NC	NORMALLY CLOSED	WFM	WATER FLOW MEASURING STATION
EX	EXISTING	NC	NOISE CRITERIA	WMS	WIRE MESH SCREEN
EXH	EXHAUST	NFA	NET FREE AREA	WPD	WATER PRESSURE DROP
F°	DEGREES FAHRENHEIT	NIC	NOT IN THIS CONTRACT	WT	WEIGHT (LBS)
F&B	FACE & BYPASS DAMPER			ZD	ZONE DAMPER

GENERAL

1. THE INTENT OF THESE CONTRACT DOCUMENTS IS FOR THE CONTRACTOR TO FURNISH AND INSTALL COMPLETE MECHANICAL AND ELECTRICAL SYSTEMS. THESE MECHANICAL AND ELECTRICAL SYSTEMS INCLUDE PLUMBING, FIRE PROTECTION, HVAC, ELECTRICAL AND ALL ASSOCIATED SPECIAL SYSTEMS. ALL SYSTEMS SHALL BE COMPLETE IN ALL RESPECTS. OPERATING, TESTED, ADJUSTED, APPROVED BY THE AUTHORITIES HAVING JURISDICTION AND READY FOR BENEFICIAL USE BY THE OWNER.
2. THE CONTRACTOR SHALL OBTAIN AND REVIEW ALL CONTRACT DOCUMENTS, INCLUDING PROJECT MANUAL, PLANS AND SPECIFICATIONS OF ALL TRADES BEFORE SUBMITTING BID. REFER TO SPECIFICATIONS, PROJECT MANUAL AND PLANS, INCLUDING ALL EQUIPMENT SCHEDULES FOR MECHANICAL AND ELECTRICAL INFORMATION. CONTRACTOR SHALL WALK THROUGH BUILDING PRIOR TO SUBMITTING BID.
3. ALL OF THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLIMENTARY TO FORM A TOTAL DESIGN PACKAGE. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER TO DETERMINE WHICH TRADE CONTRACTOR IS RESPONSIBLE FOR VARIOUS PORTIONS OF THE WORK.
4. ALL WORK AND ACTION DEPICTED AND DESCRIBED SHALL BE PERFORMED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.
5. PROVIDE SUPPORT/BRACING OF EQUIPMENT AND BUILDING SERVICES FOR SEISMIC RESTRAINT AS REQUIRED BY CODE.
6. OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS.
7. ALL EQUIPMENT, MATERIALS AND RELATED SYSTEMS COMPONENTS SHALL BE NEW UNLESS SPECIFICALLY NOTED OTHERWISE.
8. REPAIR AND/OR REPLACE AT NO COST TO OWNER ALL EQUIPMENT AND MATERIALS DAMAGED DURING CONSTRUCTION.
9. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. THE CONTRACTOR SHALL COORDINATE LOCATIONS OF EQUIPMENT WITH ALL TRADES BEFORE STARTING CONSTRUCTION. ANY MODIFICATIONS TO THE EQUIPMENT LAYOUT REQUIRED FOR INSTALLATION ARE TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
10. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION OF LIGHT FIXTURES AND MOUNTING HEIGHTS OF EQUIPMENT. INCLUSIVE OF RECEPTACLES, SWITCHES, THERMOSTATS, ETC. ALL SUCH EQUIPMENT AND COLORS SHALL BE COORDINATED WITH THE ARCHITECT. CONTACT ARCHITECT FOR CLARIFICATION OF MOUNTING REQUIREMENTS, IF INFORMATION IS NOT CONTAINED IN THE DRAWINGS.
11. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE APPLICABLE CODES IN THE ORDINANCES AND THE REGULATORY AGENCIES HAVING JURISDICTION.
12. ALL EQUIPMENT SHALL BE LOCATED IN ACCESSIBLE LOCATIONS. WHEN A PIECE OF EQUIPMENT MUST BE LOCATED ABOVE AN INACCESSIBLE CEILING OR WALL THEN THE APPROPRIATE ACCESS DOOR SHALL BE PROVIDED. THESE SHALL BE COORDINATED WITH THE ARCHITECT.
13. WHEN CONFLICTS OCCUR BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS IT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. THE CONTRACTOR SHALL CARRY AS PART OF THE BID THE LARGER QUANTITY AND/OR MORE EXPENSIVE ITEM(S).
14. CONTRACTORS SHALL COORDINATE THEIR WORK WITH ALL OWNER–FURNISHED EQUIPMENT, INCLUDING REQUIRED SERVICE CONNECTIONS, RECEPTACLES, ETC. BEFORE INSTALLTION.
15. CONTRACTORS SHALL PROVIDE ALL REQUIRED SLEEVES AND SEALS FOR PIPES OR CONDUIT PENETRATING WALLS OR FLOOR SLABS WITH FIRE STOPPING SEALANT WHERE REQUIRED.
16. ALL FLOOR MOUNTED MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE INSTALLED ON A CONCRETE HOUSEKEEPING PAD. REFER TO STRUCTURAL DRAWINGS AND DETAIL S–301.
17. ELECTRICAL CONDUITS & BOXES TO BE CONCEALED IN WALLS OR ABOVE CEILING WHEREVER POSSIBLE.
18. COORDINATE ALL PIPING AND CONDUITS LEAVING THE BUILDING WITH THE SITE CONTRACTOR(S) BEFORE INSTALLATION.
19. PROVIDE VIBRATION ISOLATION FOR ALL MECHANICAL EQUIPMENT.
20. PROVIDE VIBRATION ISOLATORS FOR ALL PIPING SUPPORTS CONNECTED TO AND WITHIN 50 FEET OF ISOLATED EQUIPMENT THROUGHOUT MECHANICAL EQUIPMENT ROOMS.
21. LOCATE ALL TEMPERATURE, PRESSURE AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE OR DUCT UP/DOWN STREAM AS RECOMMENDED BY THE MANUFACTURER FOR GOOD ACCURACY.
22. PROVIDE ACCESS PANELS FOR INSTALLATION IN WALLS AND CEILINGS, WHERE REQUIRED, TO SERVICE DAMPERS, VALVES, SMOKE DETECTORS AND OTHER CONCEALED MECHANICAL EQUIPMENT.
23. ALL EQUIPMENT, PIPING, DUCT WORK SHALL BE SUPPORTED AS DETAILED, SPECIFIED AND REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION.
24. LOCATION AND SIZES OF ALL FLOOR, WALL AND ROOF PENETRATIONS SHALL BE COORDINATED WITH ALL OTHER TRADES INVOLVED.
25. CONTRACTOR IS RESPONSIBLE FOR ALL MODIFICATIONS TO SYSTEMS BASED ON SUBSTITUTION OF EQUIPMENT DIFFERENT THAN BASIS OF DESIGN.

HVAC

1. PIPING AND DUCT WORK LAYOUTS AS INDICATED ON THE DRAWINGS ARE DIAGRAMATIC; PROVIDE ADDITIONAL TRANSITIONS AND OFFSETS AS REQUIRED FOR COORDINATION WITH BUILDING CONSTRUCTION AND THE WORK OF OTHER TRADES.
2. PROVIDE VOLUME DAMPERS, THROTTLING VALVES AND ISOLATION VALVES AS SPECIFIED AND AS INDICATED ON THE DRAWINGS.
3. PROVIDE FIRE DAMPERS AT DUCT PENETRATIONS OF FIRE RATED PARTITIONS.
4. PROVIDE SMOKE DETECTORS ON THE SUPPLY AND RETURN SIDE OF ALL AIR HANDLING EQUIPMENT 2000 CFM AND OVER.
5. PROVIDE SMOKE DAMPERS AND ASSOCIATED SMOKE DETECTORS AT DUCT PENETRATIONS OF SMOKE BARRIERS AND ON THE SUPPLY AND RETURN SIDE OF AIR HANDLING UNITS 15,000 CFM AND OVER.
6. ALL MOTORS AND EQUIPMENT SHALL BE OF EFFICIENCIES THAT ARE ELIGIBLE FOR UTILITY COMPANY ENERGY INCENTIVE PROGRAMS.
7. THE AUTOMATIC TEMPERATURE CONTROL SYSTEM SHALL BE COMPLETE IN ALL REGARDS, TESTED AND CAPABLE OF ACHIEVING THE SEQUENCES OF OPERATION. ALL DEVICES SHALL BE UNDER SYSTEM CONTROL. ALL ZONES SHALL BE THERMOSTATICALLY CONTROLLED WHETHER OR NOT A THERMOSTAT, SENSOR OR CONTROLLER IS INDICATED.
8. MAINTAIN MANUFACTURER'S RECOMMENDED MINIMUM CLEARANCES FOR INSTALLATION OF EQUIPMENT.
9. NOT USED
10. FLEX DUCT RUNS SHALL NOT BE LONGER THAN 5 FT.
11. PROVIDE VOLUME DAMPERS AT ALL SUPPLY DIFFUSERS, RETURN GRILLES AND EXHAUST GRILLES.
12. NOT USED
13. NOT USED
14. ALL DUCTWORK DIMENSIONS, AS SHOWN ON THE DRAWINGS, ARE INTERNAL CLEAR DIMENSIONS AND DUCT SIZE SHALL BE INCREASED TO COMPENSATE FOR DUCT LINING THICKNESS.
15. PROVIDE ALL 90 DEGREE SQUARE ELBOWS WITH DOUBLE RADIUS TURNING VANES UNLESS OTHERWISE INDICATED. ELBOWS SHALL BE UNVANED SMOOTH RADIUS CONSTRUCTION WITH A RADIUS EQUAL TO 1–1/2 TIMES THE WIDTH OF THE DUCT. PROVIDE ACCESS DOORS UPSTREAM OF ALL ELBOWS WITH TURNING VANES.
16. COORDINATE DIFFUSER, REGISTER AND GRILLE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS, LIGHTING AND OTHER CEILING ITEMS.
17. NOT USED
18. PROVIDE FLEXIBLE CONNECTIONS IN ALL DUCTWORK SYSTEMS CONNECTED TO AIR HANDLING UNITS, FANS AND OTHER EQUIPMENT WHICH REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS SHALL BE AT THE POINT OF CONNECTION TO THE EQUIPMENT UNLESS OTHERWISE INDICATED.
19. ALL DUCTWORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN DUCTS, INCLUDING DIVIDED DUCTS AND TRANSITIONS AROUND OBSTRUCTIONS, SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
20. PROVIDE ACCESS DOORS IN DUCTWORK TO PROVIDE ACCESS FOR ALL SMOKE DETECTORS, FIRE DAMPERS, SMOKE DAMPERS, VOLUME DAMPERS, COILS AND OTHER ITEMS LOCATED IN DUCTWORK WHICH REQUIRE SERVICE OR INSPECTION.
21. PROVIDE ACCESS DOORS IN DUCTWORK FOR OPERATION, ADJUSTMENT AND MAINTENANCE OF ALL FANS, VALVES AND MECHANICAL EQUIPMENT.
22. PROVIDE FLEXIBLE DUCT CONNECTIONS TO ALL MECHANICAL AIR MOVING DEVICES.
23. PROVIDE AUXILLARY CONDENSATE PANS FOR COOLING COILS. DISCHARGE SECONDARY CONDENSATE PIPING TO VISIBLE LOCATION.
24. SEISMICALLY RESTRAIN ALL MECHANICAL EQUIPMENT AS REQUIRED PER CODE. CONTRACTOR SHALL OBTAIN SERVICES OF REGISTERED PROFESSIONAL ENGINEER TO PROVIDE ANALYSIS AND CALCULATIONS IN DETERMING EQUIPMENT TO BE RESTRAINED.
25. BMS CONTRACTOR SHALL PROVIDE WEB ACCESS TO ENGINEER FOR MONITORING OF BUILDING POST CONSTRUCTION.
26. PROVIDE 1", NON–POROUS DUCT LINING ON FIRST 15 FT OF SUPPLY AND RETURN DUCTS INTO ALL AIR HANDLING EQUIPMENT, ROOF TOP UNITS, FURNACES AND SPLIT SYSTEMS.

PIPING (HVAC)

1. UNLESS OTHERWISE NOTED, ALL PIPING IS OVERHEAD, TIGHT TO UNDERSIDE OF STRUCTURE OR SLAB, WITH SPACE FOR INSULATION IF REQUIRED.
2. INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.
3. UNIONS AND/OR FLANGES SHALL BE INSTALLED AT EACH PIECE OF EQUIPMENT, IN BYPASSES AND IN LONG PIPING RUNS (100 FEET OR MORE) TO PERMIT DISASSEMBLY FOR ALTERATION AND REPAIRS.
4. ALL PIPING WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN PIPING AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
5. PROVIDE FLEXIBLE CONNECTIONS IN ALL PIPING SYSTEMS CONNECTED TO PUMPS AND OTHER EQUIPMENT WHICH REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS SHALL BE PROVIDED AS CLOSE TO THE EQUIPMENT AS POSSIBLE.
6. PAINT ALL EXPOSED GAS PIPING YELLOW.
7. PROVIDE PIPING ANCHORS AND GUIDES FOR ALL ROOF MOUNTED PIPING.
8. SEISMICALLY RESTRAIN ALL PIPNG AS REQUIRED PER CODE. CONTRACTOR SHALL OBTAIN SERVICES OF REGISTERED PROFESSIONAL ENGINEER TO PROVIDE ANALYSIS AND CALCULATIONS IN DETERMING PIPING TO BE RESTRAINED.
9. CONTRACTOR SHALL ENGAGE SERVICES OF PROFESSIONAL ENGINEER WITH EXPERTISE IN SEISMIC, VIBRATION AND ISOLATION CONTROLS. ENGINEER SHALL DETERMINE ALL LOCATIONS, TYPES AND REQUIREMENTS OF SEISMIC CONTROLS, PIPING EXPANSION AND VIBRATION CONTROLS.
10. INSULATE ALL PIPING INCLUDED BUT NOT LIMITED TO REFRIGERANT PIPING, CONDENSATE PIPING, HOT WATER SUPPLY AND RETURN, STEAM SUPPLY AND CONDENSATE RETURN. PIPING INSULATION THICKNESS SHALL CONFORM TO THE CURRENT INTERNATIONAL ENERGY CODE.

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

SILVER / PETRUCELLI + ASSOCIATES
Architects / Engineers / Interior Designers
3190 Whitney Avenue, Hamden, CT 06518-2340
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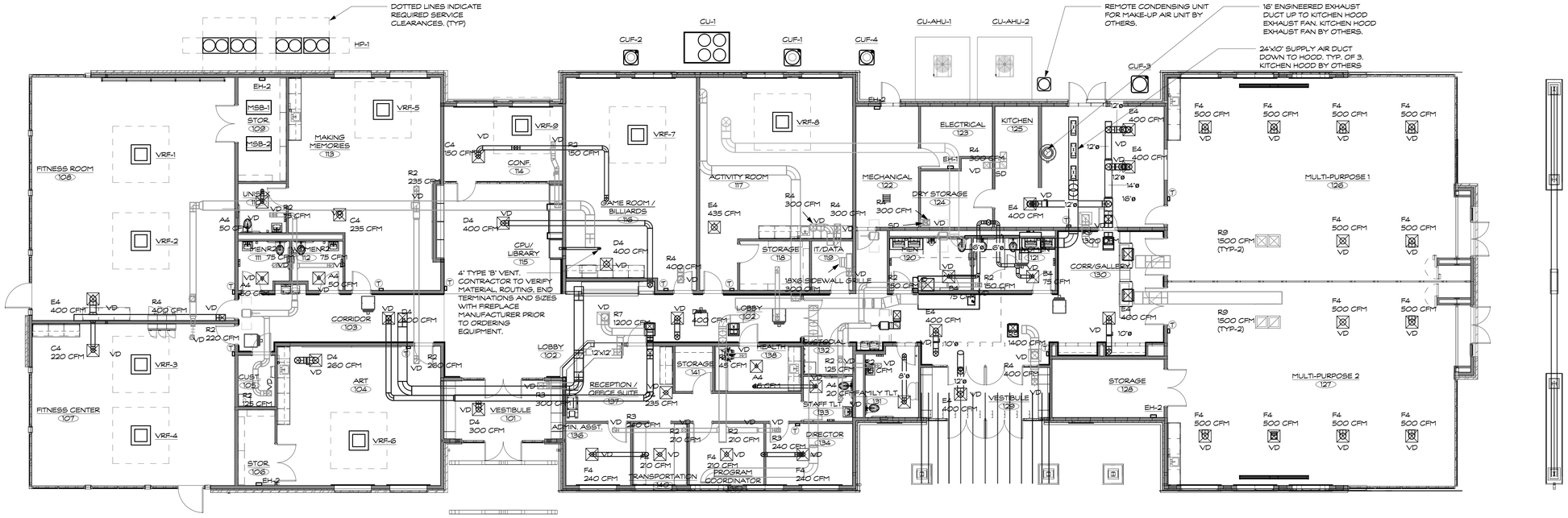
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
Mechanical General Notes

Date: SEPTEMBER 09, 2022
Scale: NONE
Drawn By: MJC
Project Number: 20.003
Drawing Number: M000



1 MAIN LEVEL DUCT PLAN
1/8" = 1'-0"

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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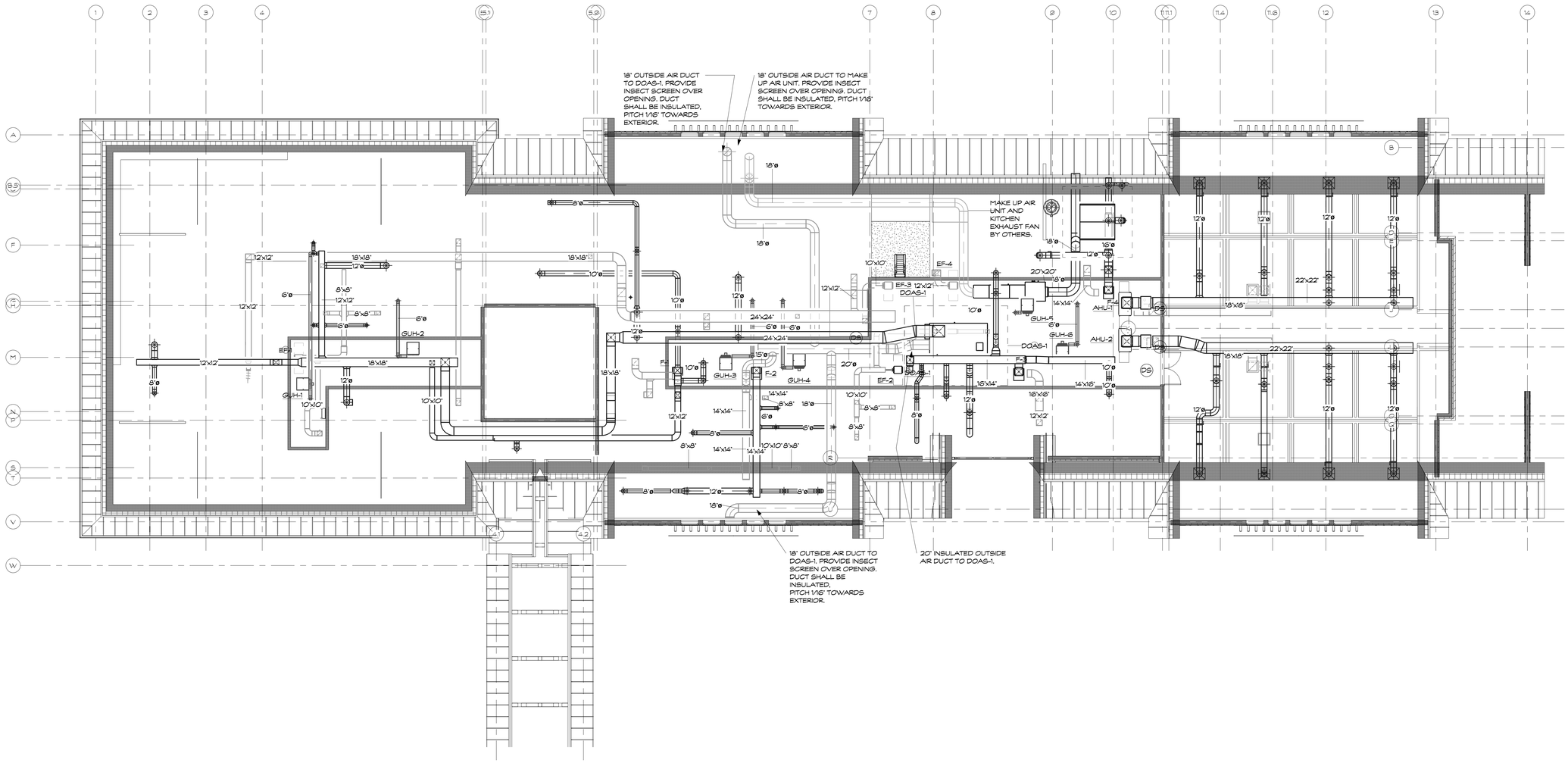
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
MAIN LEVEL MECHANICAL PLAN

Date: SEPTEMBER 09, 2022
Scale: 1/8" = 1'-0"
Drawn By: Author
Project Number: 20.003

Drawing Number:
M100



1 ATTIC LEVEL DUCT PLAN
1/8" = 1'-0"

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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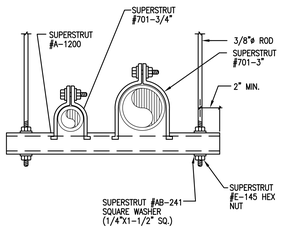
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
ATTIC LEVEL MECHANICAL PLAN

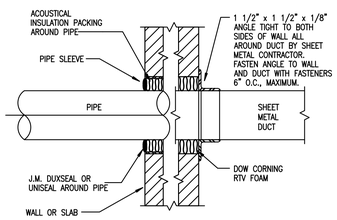
Date: SEPTEMBER 09, 2022
Scale: 1/8" = 1'-0"
Drawn By: Author
Project Number: 20.003

Drawing Number: M101



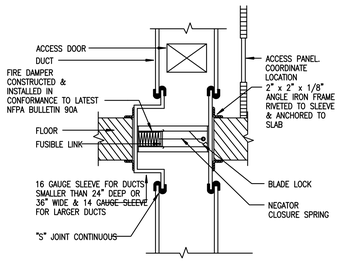
TRAPEZZE PIPE HANGING DETAIL

NOT TO SCALE



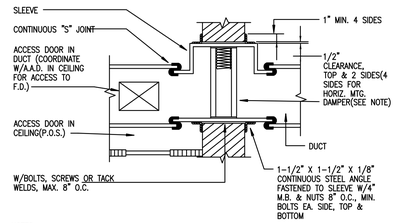
ACOUSTIC CAULKING OF DUCTS AND PIPES

NOT TO SCALE



FIRE DAMPER DETAIL

NOT TO SCALE

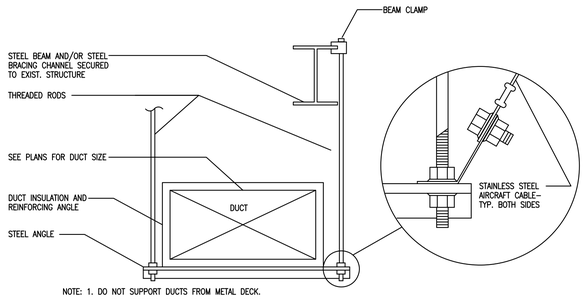


NOTES:

1. DAMPER STYLE & SLEEVE CONFIGURATION IS GOVERNED BY MAINTAINING A MAX. .06 STATIC PRESSURE @ 2500 F.P.M. FACE VELOCITY.
2. DEPTH OF DAMPER TO BE COORDINATED WITH WALL THICKNESS.
3. INSTALLATIONS & MATERIALS PER U.L. 555.

VERTICAL FIRE DAMPER DETAIL

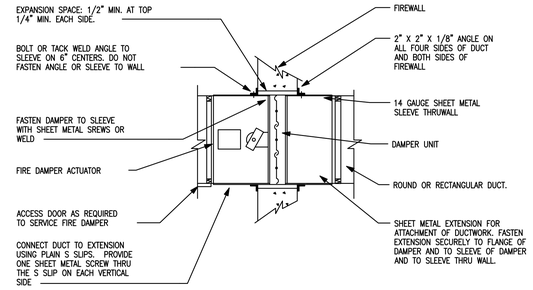
NOT TO SCALE



NOTE: 1. DO NOT SUPPORT DUCTS FROM METAL DECK.
2. SIZE SUPPORT STEEL MEMBERS AS REQ'D.

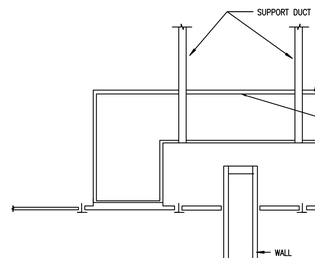
TYPICAL DUCT SUPPORT DETAIL

NOT TO SCALE



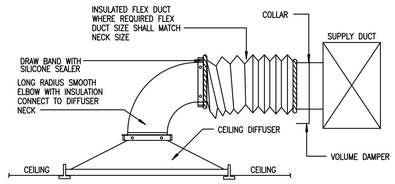
SMOKE/FIRE DAMPER DETAIL

NOT TO SCALE



TRANSFER GRILLE DETAIL

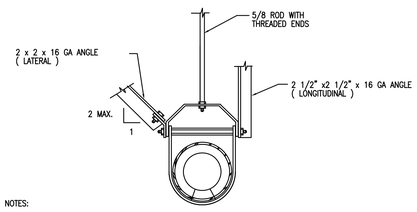
NOT TO SCALE



NOTE:
PROVIDE AN ELBOW WITH THE SAME SIZE AS THE NECK OF DIFFUSER TO ACHIEVE REQUIRED ACOUSTICAL PERFORMANCE.

DIFFUSER CONNECTION DETAIL

NOT TO SCALE

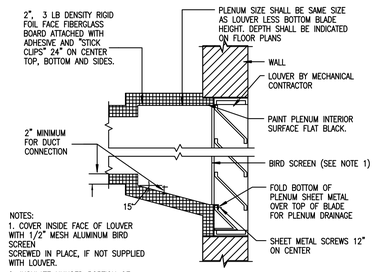


NOTES:

1. PROVIDE LONGITUDINAL AND LATERAL BRACING ON PIPING 2 1/2" AND GREATER, GAS PIPING 1" I.D. AND GREATER AND PIPING IN BOILER AND MECHANICAL ROOMS 1 1/4" AND GREATER, WHERE SUSPENDED 12" OR MORE FROM SUPPORTING STRUCTURE.
2. PROVIDE SIMILAR BRACING ON ALL DUCTWORK WITH CROSS-SECTIONAL AREA OF 6 SF OR GREATER OR DIAMETER OF 28 IN. OR GREATER WHERE SUSPENDED 12" OR MORE FROM SUPORTING STRUCTURE.
3. MAKE END CONNECTIONS TO EXISTING STRUCTURAL STEEL WITH 1/2" BOLTS OR TO CONCRETE DECK PER CONNECTION TO CONCRETE DETAIL ABOVE.

PIPE HANGER DETAIL

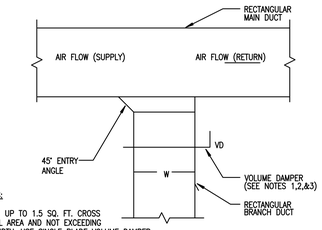
NOT TO SCALE



NOTES:
1. COVER INSIDE FACE OF LOUVER WITH 1/2" MESH ALUMINUM BIRD SCREEN SCREWED IN PLACE, IF NOT SUPPLIED WITH LOUVER.
2. INSULATE UNUSED PORTION OF LOUVER WITH 1 1/2" GLASS FIBER INSULATING BOARD.
3. SEAL ALL PLENUM SEAMS WATERTIGHT WITH SILICONE SEALANT.
4. TYPICAL FOR SUPPLY AND EXHAUST PLENUMS.
5. PROVIDE ACCESS DOOR IN PLENUM. DOOR SHALL BE FIELD COORDINATED FOR ACCESS. DOOR SIZE SHALL BE 36" HIGH x 18" WIDE. REFER TO SPEC FOR DOOR CONSTRUCTION.

LOUVER INSTALLATION DETAIL

NOT TO SCALE

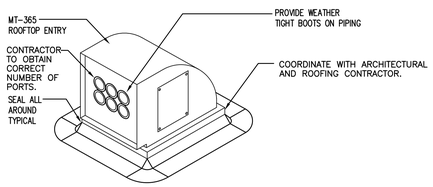


NOTES:

1. UP TO 1.5 SQ. FT. CROSS SECTIONAL AREA AND NOT EXCEEDING 24" IN WIDTH, USE SINGLE BLADE VOLUME DAMPER.
2. FOR CROSS SECTIONAL AREAS FROM 1.5 TO 3.0 SQ. FT. AND NOT EXCEEDING 24" IN WIDTH, USE 3 SINGLE BLADE VOLUME DAMPERS INDIVIDUALLY OPERATED TO FUNCTION IN AN OPPOSED MANNER.
3. FOR CROSS SECTIONAL AREAS GREATER THAN 3.0 SQ. FT. AND/OR EXCEEDING 24" IN WIDTH, USE GANG OPERATED OPPOSED BLADE VOLUME DAMPER AND FRAME ASSEMBLY.

RECTANGULAR DUCT TAKEOFF DETAIL

NOT TO SCALE



REFRIGERANT PIPING ROOF ENCLOSURE

NOT TO SCALE

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

SILVER / PETRUCELLI + ASSOCIATES
Architects / Engineers / Interior Designers
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Drawing Title:
Mechanical Details

Date: SEPTEMBER 09, 2022
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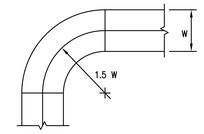
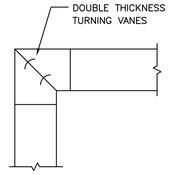
M500



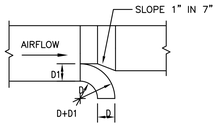
FULL RADIUS ELBOW

SUPPLY AND RETURN DUCTS



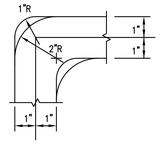
SQUARE ELBOW

SUPPLY AND RETURN DUCTS



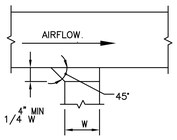
TAKE–OFF

SUPPLY DUCTS ONLY



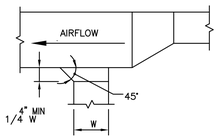
TYP. TURNING VANE

SUPPLY AND RETURN DUCTS



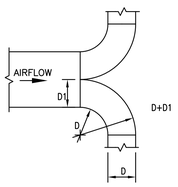
TAKE–OFF

SUPPLY DUCTS ONLY



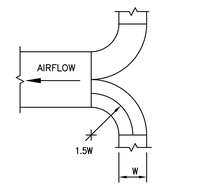
SQUARE ELBOW

SUPPLY AND RETURN DUCTS



LONG RADIUS TEE

SUPPLY DUCTS ONLY

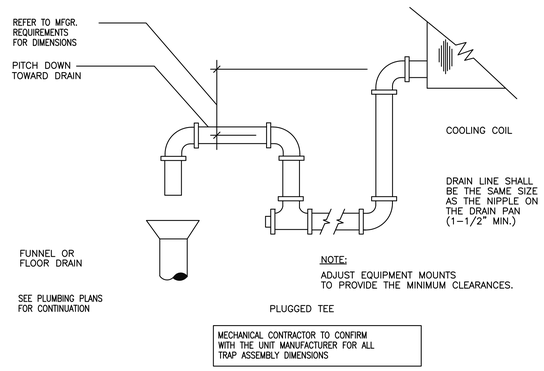


LONG RADIUS TEE

RETURN DUCTS ONLY

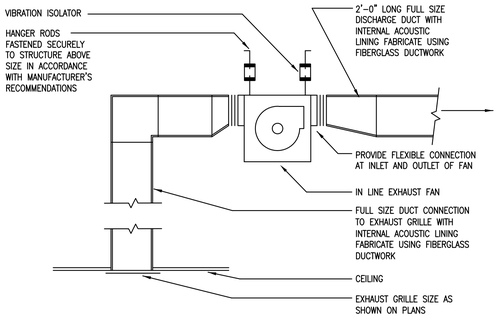
TYPICAL DUCT DETAILS

NOT TO SCALE



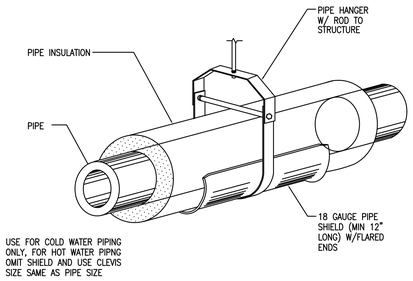
TRAP ASSEMBLY DETAIL

NOT TO SCALE



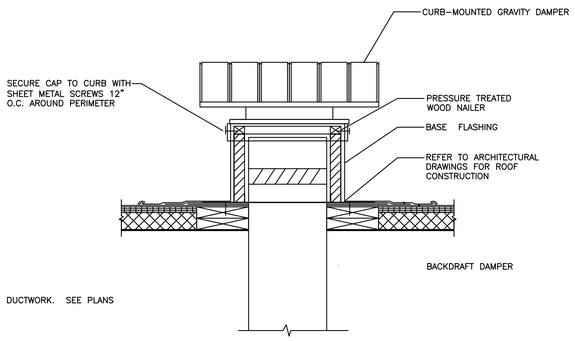
INLINE EXHAUST FAN

NOT TO SCALE



TYPICAL PIPE HANGER DETAIL

NOT TO SCALE

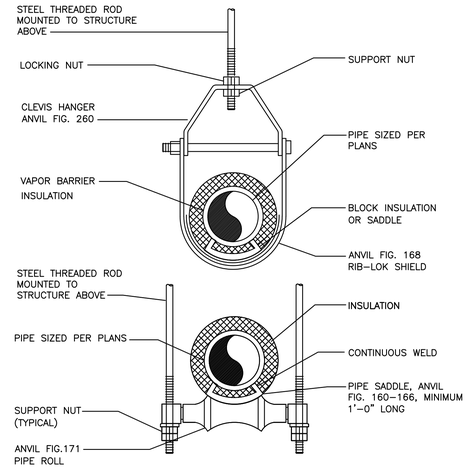


NOTE:

1. DRAWING AS SHOWN ARE FOR INFORMATION ONLY. CONTRACTOR SHALL PROVIDE ALL NECESSARY SUPPORT AS REQUIRED TO SECURE AND SEISMICALLY SUPPORT THE ROOF CURB TO THE STRUCTURE.
2. ALL INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
3. COORDINATE SEALING AND WATERPROOFING WITH THE ROOFING CONTRACTOR.
4. ROOF CURB, FLASHING AND ROOF CAP SHALL BE EPOXY COATED TO MATCH THE COLOR OF THE ROOF.

GRAVITY VENTILATOR DETAILS

NOT TO SCALE



PIPE HANGING DETAIL

NOT TO SCALE

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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	ISSUED FOR BID	09/09/2022	

Drawing Title:
MECHANICAL DETAILS

Date: SEPTEMBER 09, 2022
Scale: NONE
Drawn By: MJC
Project Number: 20.003

Drawing Number:
M501

VRV HEAT PUMP SYSTEMS

TAG	MFGR	AREA SERVED	IDU MODEL	CFM/ESP (IN WG)	SC (BTUH)	TC (BTUH)	LDB/LDB (°F)	HEATING (BTUH)	LDB (°F)	V/ø	MCA/MOCP	WEIGHT
VRF-1	LENNOX	FITNESS ROOM	V33B048H4-3P	1217/0.12	33,803	47,463	53.9/50.5	53,618	110	208/1	2.4/15	70
VRF-2	LENNOX	FITNESS ROOM	V33B048H4-3P	1217/0.12	33,803	47,463	53.9/50.5	53,618	110	208/1	2.4/15	70
VRF-3	LENNOX	FITNESS CENTER	V33B036H4-3P	1120/0.12	25,351	35,597	58.7/56.6	41,703	104.4	208/1	2.3/15	70
VRF-4	LENNOX	FITNESS CENTER	V33B036H4-3P	1120/0.12	25,351	35,597	58.7/56.6	41,703	104.4	208/1	2.3/15	70
VRF-5	LENNOX	MAKING MEMORIES	V33B030H4-3P	965/0.12	21,127	29,665	59.4/57.0	33,759	102.3	208/1	1.7/15	70
VRF-6	LENNOX	ART	V33B036H4-3P	1120/0.12	25,351	35,597	58.7/56.6	41,703	104.4	208/1	2.3/15	70
VRF-7	LENNOX	GAME ROOM	V33B048H4-3P	1217/0.12	33,803	47,463	53.9/50.5	53,618	110.7	208/1	2.4/15	70
VRF-8	LENNOX	ACTIVITY	V33B048H4-3P	1217/0.12	33,803	47,463	53.9/50.5	53,618	110.7	208/1	2.4/15	70
VRF-9	LENNOX	CONFERENCE	V33B030H4-3P	965/0.12	21,127	29,665	59.4/57.0	33,759	102.3	208/1	1.7/15	70

PROVIDE WITH:
MULTISELECTOR BOXES
V33 INDOOR UNIT PANEL
LVM TOUCHSCREEN COMPONENT – 15" OPTION (QTY-9)
VRF LENNOX BAS – SOFTWARE
VRF LVM/BACNET GATEWAY – HARDWARE
TOUCHSCREEN PROGRAMMABLE CONTROLLERS FOR EACH SPACE
POWER SUPPLY CABLES
COMMUNICATIONS CABLES
PIPING
CONDENSATE PUMP

HEAT PUMPS

		COOLING CAP (MBH)	HEATING CAP (MBH)	OAT (°F)	V/ø	MCA/MOCP	EER/IEER	COP (47°F/17°F)	WEIGHT (LBS)
HP-1									
MODULE 1	LENNOX VRB168H4M-3Y	168,000	180,000	93.4	208/3	69.5/80	11.3/21.9	3.45/2.3	1118
MODULE 2	LENNOX VRB192H4M-3Y	192,000	206,000	93.4	208/3	69.5/80	11.2/21.3	3.32/2.28	1118

MULTISELECTOR BOX

TAG	MFGR	MODEL	WEIGHT	V/ø	MCA/MOCP
MSB-1	LENNOX	VBMSBB04-3P	84	208/1	0.38/15
MSB-2	LENNOX	VBMSBB08-3P	121	208/1	0.75/15

OUTSIDE AIR MAKEUP UNITS

		FAN PERFORMANCE				ELECTRICAL		D/X COOLING COIL					HEATING (NATURAL GAS)					ENERGY WHEEL PERFORMANCE – SUMMER								ENERGY WHEEL PERFORMANCE – WINTER							
																		OUTDOOR AIR		SUPPLY AIR		RETURN AIR		EXHAUST AIR		OUTDOOR AIR		SUPPLY AIR		RETURN AIR		EXHAUST AIR	
TAG	MODEL	SA (CFM)	TSP (IN WG)	EA (CFM)	TSP (IN WG)	V/ø	MCA/MOCP	SC (MBH)	TC (MBH)	EDB/EWB	LDB/LWB	FV (FPM)	INPUT (MBH)	OUT (MBH)	EDB/LDB	TEMP RISE	TURNDOWN	DB	WB	DB	WB	DB	WB/RH	DB	WB	DB	WB	DB	WB	DB	WB/RH	DB	WB
DOAS-1	GREENHECK RVE-40-41D-SDX-C-D1	3100	2.8	3100	1.8	208/3	20.1/25	98.2	158.6	80.2/67.7	51.4/50.7	1498	100	80	48.2/72.1	23.9	16:1	91.5	76.3	80.2	67.7	75.0	62.5/50	86.1	72	3.1	1.3	48.2	40.9	72.0	55.8/35	25.2	24.1

PROVIDE ENERGY RECOVERY WHEEL, NON FUSED DISCONNECT, UNIT CONTROLS, NETWORK PROTOCOL – BACNETMSTP, VFD FOR SUPPLY FAN AND EXHAUST FAN, ENERGY WHEEL ECONOMIZER CONTROL, DIRTY FILTER SENSOR, FROST CONTROL, OUTDOOR AIR DAMPER, FAN ISOLATION, SERVICE OUTLET, UNOCCUPIED RECIRC DAMPER, CONDENSATE OVERFLOW SWITCH, SPARE FILTERS, SPARE ENERGY WHEEL BELT, SPARE ENERGY WHEEL SEGMENTS, SPARE FAN BELTS.

PROVIDE SECONDARY CONDENSATE DRAIN PAN WITH FLOAT ALARM TO DEACTIVATE UNIT ON PRESENCE OF WATER.

MOUNT UNIT ON 1" WAFFLE PAD.

DOAS CONDENSING UNITS

		ASSOCIATED DOAS	CAP (TONS)	OAT	V/ø	MCA	MOCP	QTY COMPR	STAGES
CU-1	LENNOX ELS180S4D-230-3	DOAS-1	15	95	208/3	63	80	1	2

PROVIDE WITH LOW AMBIENT CONTROL, HEAVY GAUGE GALVANIZED STEEL CABINET, COPPER TUBE/ALUMINUM FIN COILS, R410, SCOLL COMPRESSOR, HI CAPACITY DRIER FACTORY INSTALLED IN LIQUID LINE, LOW PRESSURE SWITCH.

GRAVITY VENTILATORS

TAG	MODEL/MFGR	THROAT	CURB CAP	SP (IN WG)	CFM
GRV-1	GREENHECK FABRAHOOD – FGI	42X42	48X48	0.03	5500
GRV-1	GREENHECK FABRAHOOD – FGR	42X42	48X48	0.043	5500

PROVIDE WITH 16" TALL, INSULATED ROOF CURB AND BACKDRAFT DAMPER.

EXHAUST FANS

TAG	MODEL	AREA SERVED	CFM	SP (IN WG)	V/ø	HP	WEIGHT
EF-1	GREENHECK SQ-90-VG	NORTH	425	0.25	115/1	1/4	45
EF-2	GREENHECK SQ-95-VG	SOUTH	575	0.25	115V/1	1/4	45
EF-3	GREENHECK SQ-80-VG	IT CLOSET	300	0.25	115V/1	1/4	45
EF-4	GREENHECK SQ-80-VG	DRY STORAGE	300	0.25	115V/1	1/4	45

INLINE FANS: INLET AND OUTLET GUARDS, MOTOR COVER, BELT GUARD, BACKDRAFT DAMPER, ECM MOTOR, MOTOR STARTER, CONTROL DAMPER.

EF-3/4 SHALL BE CONTROLLED OFF OF REVERSE ACTING THERMOSTAT.

MEETING ROOM MULTIPURPOSE AIR HANDLING UNITS

		AIRFLOW			COOLING	ELECTRICAL				GAS FIRED DUCT FURNACE						
TAG	AHU	AREA SERVED	SA (CFM)	OA (CFM)	ESP/TSP	SC/TC	V/ø	MCA	MOCP	WEIGHT	MODEL	INPUT	OUTPUT	TEMP RISE	EFF (%)	HP	V/ø
AHU-1	TRANE TWE090A3BAA	MULTIPURPOSE 1	3000	840	1.00"	71.6/90.5	208/3	7	15	360	GLPD015CNG2000A	150	124	65	83	1/2	208/3
AHU-2	TRANE TWE090A3BAA	MULTIPURPOSE 1	3000	840	1.00"	71.6/90.5	208/3	7	15	360	GLPD015CNG2000A	150	124	65	83	1/2	208/3

PROVIDE 1" WAFFLE PAD FOR MOUNTING, CO2 CONTROL, MERV 13 FILTERS, SECONDARY CONDENSATE PAN WHICH DISABLES SYSTEM ON DETECTION OF CONDENSATE IN PAN.

PROVIDE DUCT FURNACE WITH ELECTRONIC MODULATING GAS CONTROL, 409 STAINLESS STEEL HEAT EXCHANGER, FAN TIME DELAY CONTROL, STAINLESS STEEL BURNERS, 409 STAINLESS STEEL FLUE COLLECTOR, 409 STAINLESS STEEL DRIP PAN, AIR FLOW PROVE SWITCH.

MULTIPURPOSE ROOM CONDENSING UNITS

TAG	CONDENSING UNIT	ASSOCIATED AHU	CAP (TONS)	OAT	V/ø	MCA	MOCP	QTY COMPR
CU-AHU-1	TRANE TTA090A3DAB	AHU-1	7.5	95	208/3	32	40	2
CU-AHU-2	TRANE TTA090A3DAB	AHU-2	7.5	95	208/3	32	40	2

PROVIDE WITH HAIL GUARDS, DUAL COMPRESSORS, ANTI SHORT CYCLE TIMER.

TRANE IS THE BASIS OF DESIGN. SUBSTITUTE MANUFACTURERS MUST PROVIDE CONDENSING UNITS WITH (2) COMPRESSORS.

NATURAL GAS FIRED FURNACES

				AIRFLOW			COOLING	GAS OUTPUT			ELECTRICAL			
TAG	FURNACE	CASED COIL	AREA SERVED	SA (CFM)	OA (CFM)	ESP/TSP	SC/TC	HIGH (MBH)	LOW (MBH)	AFUE	V/ø	MCA	MOCP	WEIGHT
F-1	LENNOX EL296UH090XE48C	CX35-48C-6F-20	LOBBY	1485	160	0.5/0.7	33.8/45.3	85	55	96	120/1	<12	15	225
F-2	LENNOX EL296UH045XV36B	CX35-30B-6F-20	RECEPTION	1255	200	0.5/0.7	25.2/29.5	44	29	96	120/1	<12	15	180
F-3	LENNOX EL296UH090XE48C	CX35-48C-6F-20	CORRIDOR	1485	225	0.5/0.7	33.8/45.3	85	55	96	120/1	<12	15	225
F-4	LENNOX EL296UH045XV36B	CX35-30B-6F-20	KITCHEN	1255	55	0.5/0.7	25.2/29.5	44	29	96	120/1	<12	15	180

PROVIDE WITH CONCENTRIC VENT KIT, CONDENSATE FREEZE PROTECT KIT, NEUTRALIZER KIT, TRAP KIT, DUCT MOUNTED D/X COIL, ECM MOTOR, FILTER, CO2 CONTROL, MANUFACTURES RECOMMENDED FLUES. CONTRACTOR TO VERIFY WITH MFGR FOR SIZE AND MATERIAL OF FLUES.
PROVIDE SECONDARY DRAIN PAN WITH FLOAT ALARM TO DISABLE UNIT ON DETECTION OF CONDENSATE.
MOUNT UNIT ON 1" WAFFLE PAD.

FURNACE CONDENSING UNITS

TAG	CONDENSING UNIT	ASSOCIATED FURNACE	CAP (TONS)	OAT	V/ø	MCA	MOCP	QTY COMPR	STAGES
CUF-1	LENNOX EL16XC1-047-230	F-1	4	95	208/1	22	35	1	1
CUF-2	LENNOX EL16XC1-030-230	F-2	2.5	95	208/1	17	25	1	1
CUF-3	LENNOX EL16XC1-047-230	F-3	4	95	208/1	22	35	1	1
CUF-4	LENNOX EL16XC1-030-230	F-4	2.5	95	208/1	17	25	1	1

PROVIDE WITH LOW AMBIENT CONTROL, HEAVY GAUGE GALVANIZED STEEL CABINET, COPPER TUBE/ALUMINUM FIN COILS, R410, SCOLL COMPRESSOR, HI CAPACITY DRIER FACTORY INSTALLED IN LIQUID LINE, LOW PRESSURE SWITCH.

ELECTRIC WALL HEATERS

TAG	MODEL/MFGR	V/ø	AMPS	WATTS	BTUH
EH-1	QMARK CWH1101DSF	120/1	8.4/4.2	1000/500	3413/1706
EH-2	QMARK CWH1208DSF	208/1	9.6/4.8	2000/1000	6826/3413

PROVIDE WITH SURFACE MOUNTING FRAME, TAMPER RESISTANT FRONT COVER AND UNIT MOUNTED THERMOSTAT.

GAS FIRED UNIT HEATERS

TAG	MODEL/MFGR	V/ø	HP	INPUT (MBH)	OUTPUT (MBH)	CFM	TEMP RISE
GUH-1,2,3,4,5,6	MODINE PDP 250	115/1	1/3	250	207.5	120/1	120/1

PROVIDE WITH FINGER PROOF FAN GUARD, TWO STAGE GAS VALVE, BLOWER MOTOR, BMS CAPABILITES, INTEGRAL THERMOSTAT, GAS PRESSURE REGULATOR, VIBRATION ISOLATION, BELT GUARD, CONTRACTOR TO VERIFY WITH NFGR FOR SIZE AND MATERIAL FOR FLLUES.PS

REGISTERS, GRILLES AND DIFFUSERS

TAG	SIZE	TYPE	NECK ø	CFM	MAX TOTAL PRESSURE (IN. WG)	MAX NC	MANUFACTURER & MODEL NO.
A	6X6	CEILING DIFFUSER	6"	0–120	0.131	21	PRICE 4 WAY ADJUSTABLE SUPPLY DIFFUSER
B	9X9	CEILING DIFFUSER	6"	121–155	0.103	21	PRICE 4 WAY ADJUSTABLE SUPPLY DIFFUSER
C	12X12	CEILING DIFFUSER	8"	156–245	0.080	20	PRICE 4 WAY ADJUSTABLE SUPPLY DIFFUSER
D	12X12	CEILING DIFFUSER	12"	246–390	0.092	20	PRICE 4 WAY ADJUSTABLE SUPPLY DIFFUSER
E	15X15	CEILING DIFFUSER	12"	391–471	0.085	22	PRICE 4 WAY ADJUSTABLE SUPPLY DIFFUSER
F	18X18	CEILING DIFFUSER	14"	472–640	0.080	22	PRICE 4 WAY ADJUSTABLE SUPPLY DIFFUSER
G	18X18	CEILING DIFFUSER	16"	641–977	0.109	29	PRICE 4 WAY ADJUSTABLE SUPPLY DIFFUSER
R1	6X6	RETURN GRILLE		0.–105	0.050	20	PRICE EGG CRATE RETURN/EXHAUST GRILLE
R2	8X8	RETURN GRILLE		106–260	0.073	20	PRICE EGG CRATE RETURN/EXHAUST GRILLE
R3	10X10	RETURN GRILLE		261–355	0.054	20	PRICE EGG CRATE RETURN/EXHAUST GRILLE
R4	12X12	RETURN GRILLE		356–530	0.054	20	PRICE EGG CRATE RETURN/EXHAUST GRILLE
R5	14X14	RETURN GRILLE		531–735	0.054	20	PRICE EGG CRATE RETURN/EXHAUST GRILLE
R6	16X16	RETURN GRILLE		736–810	0.054	20	PRICE EGG CRATE RETURN/EXHAUST GRILLE
R7	20X20	RETURN GRILLE		811–1285	0.054	20	PRICE EGG CRATE RETURN/EXHAUST GRILLE
R8	22X22	RETURN GRILLE		1286–1570	0.054	20	PRICE EGG CRATE RETURN/EXHAUST GRILLE
R9	24X24	RETURN GRILLE		1600	0.054	20	PRICE EGG CRATE RETURN/EXHAUST GRILLE

1. PROVIDE BORDER FOR LAY-IN OR SURFACE MOUNT AS REQUIRED.
2. DUCT RUNOUTS SHALL BE AS INDICATED ON PLAN.
3. AIR PATTERN INDICATED ON PLAN.

DIFFUSER LEGEND: TAG — CFM — PATTERN: 1-WAY, 2-WAY, 3-WAY, 4-WAY

LEGEND: TAG — CFM — NO PATTERN ON RETURN GRILLES, NO PATTERN ON SIDEWALL GRILLES

4. PROVIDE MFGR'S SQUARE TO ROUND TRANSITION FOR DIFFUSERS, FLEX DUCT SHALL NOT EXCEED 5'. PROVIDE 2" PLENUM & DUCT CONNECTION BEHIND RETURNS UNLESS OTHERWISE NOTED.
5. PROVIDE AIR VOLUME DAMPERS FOR EACH SUPPLY, AS REQUIRED.

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Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
Mechanical Schedules

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M900

GENERAL NOTES

GENERAL:

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. ALL WORK AND ACTION DEPICTED AND DESCRIBED SHALL BE PERFORMED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.
3. REPAIR AND/OR REPLACE AT NO COST TO OWNER ALL EQUIPMENT AND MATERIALS DAMAGED DURING CONSTRUCTION.
4. ALL EQUIPMENT SHALL BE LOCATED IN ACCESSIBLE LOCATIONS. WHEN A PIECE OF EQUIPMENT MUST BE LOCATED ABOVE AN INACCESSIBLE CEILING OR WALL, THEN THE APPROPRIATE ACCESS DOOR SHALL BE PROVIDED. THESE SHALL BE COORDINATED WITH THE ARCHITECT.

WIRING & RACEWAY:

1. 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 ARCHITECTURAL AND 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 RIGHT FOR HORIZONTAL MOUNTING.
4. LOCATE AND INSTALL ELECTRICAL EQUIPMENT, JUNCTION AND PULL BOXES, PANELBOARDS, SWITCHES, CONTROLS, AND OTHER APPARATUS REQUIRING MAINTENANCE, INSPECTION, AND OPERATION SO AS TO BE READILY ACCESSIBLE.

RACEWAY INSTALLATION:

1. IN ALL ARCHITECTURALLY FINISHED SPACES, CONDUITS AND CABLES SHALL BE RUN CONCEALED IN HUNG OR FURRED CEILINGS, SLABS, MASONRY, AND PARTITIONS, UNLESS OTHERWISE INDICATED. SAW CUTTING AND FINISHED PATCHING SHALL BE REQUIRED IN EXISTING SLABS AND MASONRY WALLS. IN UNFINISHED SPACES, RACEWAYS MAY BE RUN EXPOSED.
2. UNLESS OTHERWISE INDICATED, EXACT ROUTING OF RACEWAYS SHALL BE DETERMINED BY THE CONTRACTOR TO SUIT PROJECT REQUIREMENTS AND FIELD CONDITIONS.
3. PROVIDE SEPARATE RACEWAYS, JUNCTION BOXES, PULL BOXES AND WIREWAYS FOR ALL EMERGENCY SYSTEM WIRING.
4. CONTRACTORS SHALL PROVIDE ALL REQUIRED SLEEVES AND SEALS FOR PIPES OR CONDUIT PENETRATING WALLS OR FLOOR SLABS WITH UL LISTED FIRE STOPPING SEALANT WHERE REQUIRED.
5. ELECTRICAL CONDUITS AND BOXES TO BE CONCEALED IN WALLS OR ABOVE CEILING WHEREVER POSSIBLE. WHERE SURFACE CONDUIT IS REQUIRED IT MUST MATCH THE WALL COLOR THAT IT IS BEING ATTACHED TO. REFER TO RACEWAY & BOX SPECIFICATION FOR FURTHER DETAILS.

WIRING INSTALLATION:

1. 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. 6

A. MINIMUM HOMERUN AND BRANCH CIRCUIT WIRING SIZES AND MAXIMUM HOMERUN CONDUIT FILL FOR 120 VOLT, 20 AMPERE CIRCUITS SHALL BE AS FOLLOWS:

LENGTH	CIRCUIT WIRE SIZE	HOME RUN WIRE SIZE	CONDUIT SIZE (3 WIRES/CONDUIT)
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 ARCHITECT.

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 ARCHITECT.
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 PANELS. HOWEVER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE FINAL CIRCUITING WORK FULFILLS THE FOLLOWING CONDITIONS:

A. LOADS ON PANEL BUSSES SHALL BE PHASE-BALANCED AS EVENLY AS POSSIBLE.

GROUNDING INSTALLATION:

1. 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.

RACEWAYS FOR TELECOMMUNICATION SYSTEMS:

1. PROVIDE EMPTY CONDUIT SYSTEMS FOR TELECOMMUNICATION WORK. REFER TO 'T' SERIES DRAWINGS FOR SIZE OF CONDUIT AND BACK BOXES REQUIRED.
2. PROVIDE MINIMUM INSIDE BENDING RADIUS OF 10 TIMES CONDUIT INSIDE DIAMETER FOR TELECOMMUNICATIONS RACEWAYS.
3. WHEN COMPLETED THE CONDUIT SYSTEMS SHALL BE READY FOR THE INSTALLATION OF WIRING AND EQUIPMENT.
4. FROM EACH OUTLET PROVIDE AN EMPTY EMT CONDUIT ROUTED INTO THE CEILING CAVITY OR TO THE CLOSEST TELECOMMUNICATIONS CLOSET. PROVIDE A DRAG LINE IN EACH RUN AND TERMINATE IN A BUSHED ELBOW.

MECHANICAL EQUIPMENT WIRING:

1. UNLESS OTHERWISE INDICATED OR SPECIFIED HEREIN, ALL MOTORS, MOTOR STARTERS, MOTOR CONTROLLERS, VARIABLE SPEED/FREQUENCY DRIVES, AND ASSOCIATED CONTROL DEVICES ARE FURNISHED AND INSTALLED UNDER DIVISION 23 AND WIRED BY DIVISION 26. COORDINATE INSTALLATION AND LOCATIONS WITH OTHER DIVISION CONTRACTORS.
2. POWER WIRING FROM THE INDICATED SOURCE TO THE STARTER/CONTROLLER/DRIVE UNIT, AND FROM THE STARTER/CONTROLLER/DRIVE UNIT TO THE MOTOR, 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 FURNISHED AND INSTALLED UNDER DIVISION 23, EXCEPT THAT ANY SUCH WIRING SHOWN ON ELECTRICAL DRAWINGS IS WORK OF THIS DIVISION.
4. PROVIDE 120 VOLT POWER TO ALL TEMPERATURE CONTROL PANELS (TCPS) SUPPLIED AND INSTALLED BY DIVISION 23. USE EMERGENCY POWER SOURCES WHEN AVAILABLE. COORDINATE ALL POWER REQUIREMENTS AND PANEL LOCATIONS WITH DIVISION 23 TEMPERATURE CONTROLS CONTRACTOR.
5. 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, PLUMBING AND FIRE PROTECTION SHOP DRAWINGS THAT HAVE BEEN COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW. DRAWINGS MUST BE RETURNED FROM ENGINEER EITHER REVIEWED OR FURNISH AS CORRECTED PRIOR TO BEING USED AS BASIS FOR COORDINATION DRAWINGS.

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
-PLUMBING PIPING
-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 ARCHITECT AND ENGINEER ARE NOT PART OF THE COORDINATION DRAWING PROCESS. THE ENGINEER WILL PROVIDE ASSISTANCE FOR NOTED CONFLICTS ONLY. COORDINATION DRAWINGS ARE NOT TO BE CONSIDERED PIPING OR DUCT SHOP DRAWINGS. THE CONTRACTOR IS REQUIRED TO SUBMIT INDIVIDUAL PIPING AND DUCTWORK SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. PIPING AND DUCTWORK SHOP DRAWINGS SHALL FOLLOW THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.
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 (PDF 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

B. DRAWINGS, OF ALL DEVIATIONS, BETWEEN THE WORK SHOWN AND WORK INSTALLED.

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

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

E. CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED.

F. SUBMIT FOR REVIEW BOUND SET'S OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING INSTRUCTIONS.

G. SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.

3.

ELECTRICAL LEGEND

(NOT ALL SYMBOLS ARE USED)

- DISTRIBUTION PANEL, 480/277 VOLT OR 120/208 VOLT
- ELECTRICAL PANEL, 480/277 VOLT
- ELECTRICAL PANEL, 120/208 VOLT
- PANELBOARD FLUSH MOUNTED
- PANELBOARD SURFACE MOUNTED
- NON-FUSED DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH
- MOTOR STARTER, COORDINATE EXACT REQUIREMENTS WITH MOTOR FURNISHED
- WALL MOUNTED JUNCTION BOX, ACCORDING TO NEC REQUIREMENTS
- CEILING MOUNTED JUNCTION BOX, ACCORDING TO NEC REQUIREMENTS
- FLOOR MOUNTED JUNCTION BOX, ACCORDING TO NEC REQUIREMENTS
- TYPICAL RECESSED/SURFACE MOUNTED LIGHT FIXTURE; LETTER INDICATES FIXTURE TYPE
- RECESSED/SURFACE MOUNTED LIGHT FIXTURE WITH EMERGENCY BATTERY UNIT
- RECESSED DOWN LIGHT TYPE FIXTURE, LETTER INDICATES FIXTURE TYPE
- RECESSED DOWN LIGHT FIXTURE WITH EMERGENCY BATTERY UNIT
- WALL MOUNTED LIGHT FIXTURE; LETTER INDICATES FIXTURE TYPE
- WALL MOUNTED LIGHT FIXTURE WITH EMERGENCY BATTERY UNIT
- CEILING/WALL/END MOUNTED EXIT SIGN, SHADING INDICATES DIRECTION OF FIXTURE FACE, ARROW INDICATES DIRECTION OF CHEVRON. PROVIDE UNSWITCHED POWER FROM AREA LIGHTING CIRCUIT
- DOUBLE FACE EXIT SIGN
- TWIN HEAD EMERGENCY LIGHT WITH INTEGRAL BATTERY FOR 90 MINUTE EMERGENCY LIGHTING
- SINGLE POLE SWITCH, MOUNT AT 48" AFF
- 3-WAY SWITCH, MOUNT AT 48" AFF
- 4-WAY SWITCH, MOUNT AT 48" AFF
- DUAL TECHNOLOGY, MOTION SENSOR SWITCH, MOUNT AT 48" AFF
- COMBINATION DIMMER & DUAL TECHNOLOGY MOTION SENSOR SWITCH, MOUNT AT 48" AFF
- DIMMING SWITCH, MOUNT AT 48" AFF, COMPATIBLE WITH LOAD CONTROLLER
- 4-BUTTON PRESET (HIGH-MED-LOW-OFF) WITH RAISE-LOWER BUTTONS, MOUNT AT 48" AFF, DEFAULT (ON) IS "MEDIUM" SETTING WITH ACTIVATION OF OCCUPANCY SENSOR.
- KEYED SINGLE POLE OR 3-WAY SWITCH, MOUNT AT 48" AFF
- SINGLE POLE SWITCH WITH PILOT LIGHT
- MULTI LOCATION DIMMING SWITCH, MOUNT AT 48" AFF, COMPATIBLE WITH LOAD CONTROLLER
- CEILING MOUNTED OCCUPANCY SENSOR (DUAL TECHNOLOGY TYPE) WITH 360° COVERAGE
- CEILING MOUNTED OCCUPANCY SENSOR (ULTRASONIC TYPE) WITH 360° COVERAGE
- CEILING MTD DUAL TECHNOLOGY OCCUPANCY SENSOR (ULTRASONIC/PASSIVE INFRARED TYPE) W/360° COVERAGE
- DUPLEX RECEPTACLE, MOUNT AT 18" AFF UNLESS OTHERWISE SPECIFIED
- SINGLE RECEPTACLE, MOUNT AT 18" AFF UNLESS OTHERWISE SPECIFIED
- QUAD RECEPTACLE, MOUNT AT 18" AFF UNLESS OTHERWISE SPECIFIED
- DUPLEX RECEPTACLE MOUNTED 6" ABOVE COUNTER/COMPUTER SHELF TO BOTTOM OF DEVICE, OR 48" TO CENTER OF OUTLET NOT LOCATED ABOVE A COUNTER UNLESS OTHERWISE SPECIFIED. 'HH' DENOTES DEVICE TO BE HORIZONTALLY MOUNTED
- QUAD RECEPTACLE MOUNTED 6" ABOVE COUNTER TO BOTTOM OF DEVICE, OR 48" TO CENTER OF OUTLET NOT LOCATED ABOVE A COUNTER UNLESS OTHERWISE SPECIFIED
- RECEPTACLE WITH OUTDOOR RATED IN-USE COVER PLATE, PROVIDE FLUSH MOUNTED BOX
- GFI GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLE
- USB DUPLEX RECEPTACLE WITH TWO INTEGRAL POWERED USB OUTLETS
- PT DUPLEX RECEPTACLE FOR POWER ASSISTED TABLE
- TR TAMPER RESISTANT DUPLEX RECEPTACLE
- SPECIAL OUTLET CONFIGURATION, SEE NEMA #
- CEILING MOUNTED DUPLEX RECEPTACLE, PROVIDE FLUSH MOUNTED BOX
- FLOOR MOUNTED DUPLEX RECEPTACLE, 'CT' INDICATES COUNTER TOP TYPE RECEPTACLE (SURFACE MOUNTED). SEE SPECIFICATION FOR DETAILS
- FLOOR MOUNTED SINGLE RECEPTACLE, SEE SPECIFICATION FOR DETAILS
- FLOOR MOUNTED DOUBLE DUPLEX RECEPTACLE, 'BT' INDICATES BENCH TOP MOUNTED, SEE SPECIFICATION FOR DETAILS
- FLOOR MOUNTED SPECIAL RECEPTACLE SEE NEMA # AND SPECIFICATION FOR DETAILS
- CR CEILING MOUNTED DUPLEX RECEPTACLE SERVING ADJACENT CORD REEL
- 2#12 BRANCH CIRCUIT HOMERUN (VOLTAGE, BRANCH CIRCUIT POLES)
- LIGHTING CONTROL WIRING
- FIRE ALARM MANUAL PULL STATION - 48 AFF U.O.N.
- FIRE ALARM AUDIO/VISUAL DEVICE - 80 AFF U.O.N.; 'SG' INDICATES SECURITY GRADE WIRE GUARD
- FIRE ALARM STROBE LIGHT - 80 AFF U.O.N.; 'SG' INDICATES SECURITY GRADE WIRE GUARD
- SMOKE DETECTOR
- HEAT DETECTOR
- DUCT MOUNTED IONIZATION SMOKE DETECTOR
- SD SMOKE DAMPER, ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL AN ADDRESSABLE DUCT SMOKE DETECTOR TO TIE INTO FIRE ALARM SYSTEM IN ADDITION TO 120V CONNECTION FROM LOCAL NORMAL CIRCUIT. COORDINATE LOCATION OF DAMPERS WITH MECHANICAL DRAWINGS
- FSD FIRE/SMOKE DAMPER, ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL AN ADDRESSABLE DUCT SMOKE DETECTOR TO TIE INTO FIRE ALARM SYSTEM IN ADDITION TO 120V CONNECTION FROM LOCAL NORMAL CIRCUIT. COORDINATE LOCATION OF DAMPERS WITH MECHANICAL DRAWINGS
- FIRE ALARM MAGNETIC DOOR HOLD OPEN
- FACP FIRE ALARM CONTROL PANEL
- FANN FIRE ALARM REMOTE ANNUNCIATOR PANEL
- CO CARBON MONOXIDE DETECTOR
- EPO EMERGENCY POWER OFF SWITCH (EPO)
- 2-BUTTON CONTROL STATION (START - STOP)
- 3-BUTTON OVERHEAD DOOR CONTROL STATION (RAISE - STOP - LOWER)
- GH '120VAC CONNECTION TO GENERATOR BLOCK HEATER (FURNISHED BY GENERATOR MANUFACTURER)
- GC '120VAC CONNECTION TO GENERATOR BATTERY CHARGER (FURNISHED BY GENERATOR MANUFACTURER)
- PHOTOCELL

ELECTRICAL LEGEND CONTINUED

- PROJ '120VAC CONNECTION TO MOTORIZED PLATFORM MOUNTED PROJECTOR PLATFORM AND PROJECTOR SHALL BE WIRED TO THE SAME CIRCUIT. COORDINATE EXACT LOCATION AND POWER REQUIREMENTS OF PLATFORM & PROJECTOR WITH ARCHITECT AND APPROVED SHOP DRAWING
- DL '120VAC CONNECTION TO ELECTRIC DOOR LOCK. POWER OPERATOR FURNISHED BY DOOR HARDWARE VENDOR, WIRED BY ELECTRICAL CONTRACTOR. REFER TO DETAILS ON 'T' SERIES DRAWING, ALONG WITH DOOR HARDWARE SCHEDULE
- MPS '120VAC CONNECTION TO MOTORIZED PROJECTION SCREEN. CONFIRM MOUNTING HEIGHT AND POWER REQUIREMENT WITH APPROVED VENDER SHOP DRAWING. ALSO PROVIDE A JUNCTION BOX AND CONDUIT PER MANUFACTURERS REQUIREMENTS FOR RAISE/LOWER SWITCH FURNISHED BY VENDER, INSTALLED BY ELECTRICAL CONTRACTOR
- FFSS '120VAC CONNECTION TO KITCHEN HOOD FIRE SUPPRESSION SYSTEM FURNISHED AND INSTALLED BY KITCHEN VENDOR, WIRED BY ELECTRICAL CONTRACTOR. ALSO ELECTRICAL CONTRACTOR SHALL CONNECT SUPPRESSION SYSTEM TO BUILDING FIRE ALARM SYSTEM.
- HOOD '120VAC CONNECTION TO KITCHEN HOOD (LIGHTS & CONTROLS), FURNISHED AND INSTALLED BY KITCHEN VENDOR, WIRED BY ELECTRICAL CONTRACTOR
- PAO '120VAC CONNECTION TO POWER ASSISTED DOOR OPERATOR AND ASSOCIATED PUSH PLATE CONTROLLERS, FURNISHED BY DOOR HARDWARE VENDOR, WIRED BY ELECTRICAL CONTRACTOR. REFER TO DOOR HARDWARE SCHEDULE
- PB POWER ASSISTED DOOR PUSH PLATE OPERATOR
- TP '120VAC CONNECTION TO TRAP PRIMER, INSTALLED BY PLUMBING CONTRACTOR WIRED BY E.C.
- HT 208V-1Ø CONNECTION TO KITCHEN HEAT TRACE CONTROL PANEL, FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR
- FV '120VAC CONNECTION TO ELECTRONIC FLUSH VALVE (HARD WIRED) FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR
- EF '120VAC CONNECTION TO ELECTRONIC SENSOR FAUCET (PLUG-IN TRANSFORMER) FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR
- GSV '120VAC CONNECTION TO GAS SOLENOID VALVE, FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR. VALVE SHALL ALSO BE CONNECTED TO THE FIRE ALARM SYSTEM, ACTIVATION OF THE FIRE ALARM WILL CLOSE THE VALVE AND STOP GAS FLOW TO THE DEVICE.
- CC CEILING MOUNTED JUNCTION BOX W/HARD WIRED DROP CORD CONNECTED
- '120VAC CONNECTION TO ELECTRIC HAND DRYER (FURNISHED BY OWNER)
- CALL-FOR-AID CORRIDOR LIGHT/BUZZER, MOUNT MINIMUM 7'-6" AFF (BETWEEN TOP OF DOOR & CEILING)
- CALL-FOR-AID SWITCH, MOUNT AT 36" AFF WITH PULL CORD HANGING DOWN TO 6" AFF

ABBREVIATIONS

A	AMPERES
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
C	CONDUIT
C/B	CIRCUIT BREAKER
CFW	COLD FOOD WELL
CKT	CIRCUIT
CR	CASH REGISTER
EC	ELECTRICAL CONTRACTOR
ETBR	EXISTING TO BE REMOVED & RELOCATED
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EX	EXISTING TO REMAIN
EXP	EXPLOSION-PROOF
REM	EXISTING TO BE REMOVED
HFW	HOT FOOD WELL
HT	HEAT TRACE
JB	JUNCTION BOX
M/B	MAIN BREAKER
MLO	MAIN LUG ONLY
MTD	MOUNTED
OHD	OVER HEAD DOOR
PNL	PANELBOARD
RELOC	RELOCATED EXISTING DEVICE/FIXTURE
SG	SNEEZE GUARD
UCR	UNDER COUNTER REFRIGERATOR
U.O.N.	UNLESS OTHERWISE NOTED
WP	WEATHERPROOF

Project Title:
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15 Louis Lane
Colchester, CT 06415

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SYMBOLS, NOTES & ABBREVIATIONS - ELECTRICAL

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LIGHTING FIXTURE SCHEDULE

DESIGNATION	DESCRIPTION	MANUFACTURER/ MODEL NUMBER	LAMP			ELECTRICAL			NOTES
			TYPE	COLOR TEMP	NO	DRIVER	VOLTAGE	WATTS	
A1	2X2 RECESSED DIRECT/INDIRECT FLAT CENTER BASKET LED FIXTURE WITH FROSTED ACRYLIC LENS & WHITE REFLECTOR (3334 LUMEN PACKAGE)	COLUMBIA LIGHTING #LCAT22-35MLG-R-EDU	LED	3500K		DIMMING	120	25.9	
A1E	SAME AS TYPE 'A1' EXCEPT WITH 90 MINUTE SELF TEST EMERGENCY BATTERY	COLUMBIA LIGHTING #LCAT22-35MLG-R-EDU-ELL14ST	LED	3500K		DIMMING	120	25.9	(6)
A2	SAME AS TYPE 'A' EXCEPT LUMEN OUTPUT (4580 LUMEN PACKAGE)	COLUMBIA LIGHTING #LCAT22-35VLG-R-EDU	LED	3500K		DIMMING	120	40.4	
A2E	SAME AS TYPE 'A2' EXCEPT WITH 90 MINUTE SELF TEST EMERGENCY BATTERY	COLUMBIA LIGHTING #LCAT22-35VLG-R-EDU-ELL14ST	LED	3500K		DIMMING	120	40.4	
A3	SAME AS TYPE 'A' EXCEPT LUMEN OUTPUT (2740 LUMEN PACKAGE)	COLUMBIA LIGHTING #LCAT22-35LWG-R-EDU	LED	3500K		DIMMING	120	20.6	
B1	2X2 RECESSED MOUNTED FLAT PANEL LED LIGHT FIXTURE W/FROSTED-TEXTURED LENS, ALUMINUM FRAME & WHITE FINISH (3338 LUMEN PACKAGE)	COLUMBIA LIGHTING #CFP22-40/30/2835	LED	3500K		DIMMING	120	30	
B1E	SAME AS TYPE 'B1' EXCEPT WITH 90 MINUTE SELF TEST EMERGENCY BATTERY	COLUMBIA LIGHTING #CFP22-40/30/2835-EL14ST	LED	3500K		DIMMING	120	30	(6)
B2	SAME AS TYPE 'B1' EXCEPT LUMEN OUTPUT (4281 LUMEN PACKAGE)	COLUMBIA LIGHTING #CFP22-40/30/2835	LED	3500K		DIMMING	120	40	
B2E	SAME AS TYPE 'B2' EXCEPT WITH 90 MINUTE SELF TEST EMERGENCY BATTERY	COLUMBIA LIGHTING #CFP22-40/30/2835-EL14ST	LED	3500K		DIMMING	120	40	(6)
B3	SAME AS TYPE 'B1' EXCEPT LUMEN OUTPUT (2876 LUMEN PACKAGE)	COLUMBIA LIGHTING #CBT22-LS35	LED	3500K		DIMMING	120	25	
C1	6" DIA. RECESSED LED OPEN DOWN LIGHT FIXTURE WITH SEMI-SPECULAR CLEAR REFLECTOR & FLANGE (1586 LUMEN PACKAGE)	PRESCOLITE LIGHTING #LTR-6RD-H-SL15L-DMI-LTR-6RD-T-SL35K8WD-SS	LED	3500K		DIMMING	120	18.7	
C1E	SAME AS TYPE 'C1' EXCEPT WITH 90 MINUTE EMERGENCY BATTERY WITH REMOTE TEST SWITCH & INDICATOR LIGHT	PRESCOLITE LIGHTING #LTR-6RD-H-SL15L-DMI-EMR-LTR-6RD-T-SL35K8WD-SS	LED	3500K		DIMMING	120	18.7	(6)
C2	SAME AS TYPE 'C1' EXCEPT LUMEN OUTPUT (2265 LUMEN PACKAGE)	PRESCOLITE LIGHTING #LTR-6RD-H-ML20L-DMI-LTR-6RD-T-SL35K8WD-SS	LED	3500K		DIMMING	120	22.7	
C3	SAME AS TYPE 'C1' EXCEPT LUMEN OUTPUT (726 LUMEN PACKAGE)	PRESCOLITE LIGHTING #LTR-6RD-H-SL06L-DMI-LTR-6RD-T-SL35K8WD-SS	LED	3500K		DIMMING	120	7.8	
C3E	SAME AS TYPE 'C3' EXCEPT WITH 90 MINUTE EMERGENCY BATTERY WITH REMOTE TEST SWITCH & INDICATOR LIGHT	PRESCOLITE LIGHTING #LTR-6RD-H-SL06L-DMI-EMR-LTR-6RD-T-SL35K8WD-SS	LED	3500K		DIMMING	120	7.8	(6)
C4	SAME AS TYPE 'C1' EXCEPT LUMEN OUTPUT (1104 LUMEN PACKAGE)	PRESCOLITE LIGHTING #LTR-6RD-H-SL10L-DMI-LTR-6RD-T-SL35K8WD-SS	LED	3500K		DIMMING	120	12	
C4E	SAME AS TYPE 'C3' EXCEPT WITH 90 MINUTE EMERGENCY BATTERY WITH REMOTE TEST SWITCH & INDICATOR LIGHT	PRESCOLITE LIGHTING #LTR-6RD-H-SL10L-DMI-EMR-LTR-6RD-T-SL35K8WD-SS	LED	3500K		DIMMING	120	12	(6)
D	27.5" DIA. PENDANT MOUNTED LED WITH OPAL MATTE ACRYLIC BOWL, BRUSHED CHROME FINISH & 5 CABLE/ROD MOUNTING SYS (5280 LUMEN PACKAGE)	SCOTT ARCHITECTURAL LIGHTING #S2221-L60-35K-BC-36-MULTI-CABLE PENDANT MOUNT	LED	3500K		DIMMING	120	60	
D1	20.5" DIA. PENDANT MOUNTED LED ANTIQUE BOWL LIGHT FIXTURE W/OPAL DIFFUSER & BRONZE METAL FINISH (100W/LUMEN PACKAGE)	ELITE LIGHTING #ECH-PL-1041	LED	3500K	3	DIMMING	120	100	
E1	SINGLE FACE WALL/CEILING MOUNTED LED EXIT SIGN WITH INTERNATIONAL SYMBOL OF ACCESSIBILITY, RED LETTERS AND WHITE HOUSING	ASTRALITE INC. #EANY-HC-CT-1-R-W-EM	LED	NA		ELECTRONIC	120/277	3.8	(1) (6) (7)
E2	SINGLE FACE WALL/CEILING MOUNTED SELF-DIAGNOSTIC LED EXIT SIGN WITH RED LETTERS AND WHITE PASTIC HOUSING	DUAL/LITE #SESRWEI	LED	NA		ELECTRONIC	120/277	3.8	(1) (6)
E3	DOUBLE FACE CEILING MOUNTED SELF-DIAGNOSTIC LED EXIT SIGN WITH RED LETTERS AND WHITE PASTIC HOUSING	DUAL/LITE #SEDRWEI	LED	NA		ELECTRONIC	120/277	3.8	(1) (6)
E4	RECESSED CEILING MOUNTED EMERGENCY BATTERY SYSTEM (35W OUTPUT) FOR LED LOADS WITH NI-CAD BATTERY & REMOTE TEST SWITCH	DUAL/LITE #LP935-T-RTSLP	LED	NA		ELECTRONIC	120/277	44.4	(6)

LIGHTING FIXTURE SCHEDULE - CONTINUED

DESIGNATION	DESCRIPTION	MANUFACTURER/ MODEL NUMBER	LAMP			ELECTRICAL			NOTES
			TYPE	COLOR TEMP	NO	DRIVER	VOLTAGE	WATTS	
F	4FT. SURFACE/PENDANT MOUNTED LED STRIP LIGHT FIXTURE W/CURVED FROSTED ACRYLIC LENS & WHITE FINISH (4500 LUMEN PACKAGE)	COLUMBIA LIGHTING #MPS4-40ML-CW-EU	LED	4000K		ELECTRONIC	120	31.6	
FE	SAME AS TYPE 'F' EXCEPT WITH 90 MINUTE SELF TEST EMERGENCY BATTERY	COLUMBIA LIGHTING #MPS4-40ML-CW-EU-ELL14ST	LED	4000K		ELECTRONIC	120	31.6	(6)
G	4" DIA. RECESSED LED OPEN WALL WASH LIGHT FIXTURE WITH SEMI-SPECULAR REFLECTOR & WHITE FLANGE (1000 LUMEN PACKAGE)	PRESCOLITE LIGHTING #LTR-4RD-H-SL10L-DMI-LTR-4RW-T-SL35K8WW-SS-WT	LED	4000K		DIMMING	120	12	
H	SURFACE MTD FULL CUT-OFF LED WALL-PACK LIGHT FIXTURE W/TYPE 3 DIST., DARK BRONZE FINISH & OCC/PHOTO CELL CONTROL (1355 LUMEN PACKAGE)	HUBBELL LIGHTING #RWL1-48L-10-4K7-3-UNV-DBT	LED	4000K		ELECTRONIC	120	10.1	
HE	SAME AS TYPE 'H' EXCEPT WITH 90 MINUTE EMERGENCY BATTERY	HUBBELL LIGHTING #RWL1-48L-10-4K7-3-UNV-DBT-E	LED	4000K		ELECTRONIC	120	10.1	(6)
H1	SAME AS TYPE 'H' EXCEPT LUMEN OUTPUT (5500 LUMEN PACKAGE)	HUBBELL LIGHTING #RWL1-48L-45-4K7-3-UNV-DBT	LED	4000K		ELECTRONIC	120	45	
H1E	SAME AS TYPE 'H1' EXCEPT WITH 90 MINUTE EMERGENCY BATTERY	HUBBELL LIGHTING #RWL1-48L-45-4K7-3-UNV-DBT-E	LED	4000K		ELECTRONIC	120	45	(6)
H2	SAME AS TYPE 'H' EXCEPT LUMEN OUTPUT (1962 LUMEN PACKAGE)	HUBBELL LIGHTING #RWL1-48L-15-4K7-3-UNV-DBT	LED	4000K		ELECTRONIC	120	14.5	
H2E	SAME AS TYPE 'H2' EXCEPT WITH 90 MINUTE EMERGENCY BATTERY	HUBBELL LIGHTING #RWL1-48L-15-4K7-3-UNV-DBT-E	LED	4000K		ELECTRONIC	120	14.5	(6)
H3	SAME AS TYPE 'H1' EXCEPT DISTRIBUTION (TYPE 4W)	HUBBELL LIGHTING #RWL1-48L-45-4K7-4W-UNV-DBT	LED	4000K		ELECTRONIC	120	45	
H3E	SAME AS TYPE 'H3' EXCEPT WITH 90 MINUTE EMERGENCY BATTERY	HUBBELL LIGHTING #RWL1-48L-45-4K7-4W-UNV-DBT-E	LED	4000K		ELECTRONIC	120	45	(6)
J	SMALL SEMI-CIRCULAR LED SCONCE WITH OPAL GLASS DIFFUSER AND CHROME ACCENT BAND (1000 LUMEN PACKAGE)	KUZCO LIGHTING #WS83209-CH (PONDI)	LED	3000K		DIMMING	120	14	
K	3' SQ. - 8FT. LONG SURFACE MTD LINEAR LED DOWN LIGHT FIXTURE W/FLUSH FROSTED ACRYLIC LENS & BLACK FINISH (400 LM/FT - 3200 LUMENS TOTAL)	AXIS LIGHTING #TB3WDLED-400-80-40-SO-8-BLK-UNV-DP-1-B	LED	4000K		ELECTRONIC	120	31.4	
KE	SAME AS TYPE 'K' EXCEPT WITH 90 MINUTE EMERGENCY BATTERY	AXIS LIGHTING #TB3WDLED-400-80-40-SO-8-BLK-UNV-DP-1-B	LED	4000K		ELECTRONIC	120	31.4	(6)
L	SMALL LED COVE LIGHT FIXTURE WITH ANGLED MOUNTING BRACKET (20 DEGREE), LENGTH AS INDICATED ON PLAN (2.2W/FT - 220 LUMENS/FT)	TEMPO LIGHTING #C3R-CL-1-22-35LG-X / C3A-MTGBRKT-SURF-20 / (2) PWR-UNV-EM-100-Z / SSD-120	LED	3500K		DIMMING	120	2.2/FT	
M	57" LONG PENDANT MOUNTED 3 LAMP "POOL TABLE" LIGHT FIXTURE WITH DARK BLUE GLASS SHADES AND BRUSHED NICKEL FINISH (SCREW-IN BULBS)	Z-LITE LIGHTING #2306-3BN-ARDB	LED	3500K		DIMMING	120	180	
N	12' LONG SINGLE CIRCUIT SURFACE MOUNTED TRACK LIGHT FIXTURE WITH WHITE FINISH AND 4 SMALL LED SPOT LIGHT HEADS	MKS LIGHT #85074-MKS MKS/TRXA/12/WH-85021-MKS MKS/TRXA/LC/WH-85024-MKS MKS/TRXA/EC/WH & (4) 69518-MKS MKS/TRX/HA/15W/930/WH/40K	LED	4000K		DIMMING	120	15	
P	4' SQ. SURFACE MTD DIRECT/INDIRECT LINEAR LED LIGHT FIXTURE W/FLUSH FROSTED ACRYLIC LENS & WHITE FINISH (625 LM/FT UP & 375 LM/FT DOWN)	AXIS LIGHTING #TB4WDILED-625-375-80-35-SLA-SO-5(8)-W-UNV-DP-2	LED	3500K		DIMMING	120	158.1	
Q	8FT. LONG EXTERIOR LED COVE LIGHT FIXTURE WITH 20 DEGREE ANGLED MOUNTING BRACKET (2.5W/FT - 338 LUMENS/FT)	TEMPO LIGHTING #C4X-24DC-4545-0-2-40WH-9 / C4XA-RMTG-20-WH / PWR-UNV-EM-060 / SSD-120	LED	4000K		ELECTRONIC	120	22.5	
R	3 HEAD RECESSED LED ADJUSTABLE MICRO DOWN LIGHT FIXTURE WITH WHITE TRIM & MATTE SILVER REFLECTOR & CLEAR LENS (580 LUMEN PACKAGE)	LIGHTHEADED LIGHTING #MMA-3-T-01-SS-CL-L48-35-9002-RT-DTM-700-1-A-P-120-MMA-3-T-FP	LED	3500K		DIMMING	120	6	

LIGHT FIXTURE NOTES:

1. PROVIDE WITH FEATURES & ACCESSORIES NECESSARY FOR UNIVERSAL MOUNTING AND DIRECTIONAL ARROW KNOCKOUTS. ARROWS ON PLANS INDICATE DIRECTION OF CHEVRONS, SHADING INDICATES QUANTITY AND LOCATIONOF FIXTURE FACE.
2. ALL EXTERIOR FIXTURES AND INTERIOR FIXTURES IN UNHEATED SPACES SHALL BE CAPABLE OF OPERATING IN COLD TEMPERATURES (ZERO DEGREE FARENHEIGHT).
3. ALL ELECTRONIC DRIVERS SHALL HAVE A MAXIMUM TOTAL HARMONIC DISTORTION BETWEEN TEN & FIFTEEN PERCENT (10-15%).
4. ALL INTERIOR FIXTURES SHALL BE FURNISHED WITH 3500K COLOR LED's, AND ALL EXTERIOR LED's SHALL BE 4000k.
5. FURNISH ALL ADDITIONAL MATERIALS AND ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION AND BE FULLY OPERATIONAL.
6. FURNISH WITH NICKEL CADMIUM BATTERY FOR A MINIMUM OF 90 MINUTES OF EMERGENCY LIGHTING OPERATION.
7. FIXTURE SHALL BE ONE LONG SIGN WITH THE WORDING "EXIT" AND THE CT APPROVED HANDICAP SYMBOL ADJACENT TO IT.
8. NOT USED.
9. ALL EQUALS MUST BE APPROVED BY THE ARCHITECT/ENGINEER OF RECORD BY A POINT BY POINT CALCULATION. IES FILES HAVE TO BE PROVIDED FOR EACH ALTERNATE FIXTURE. THERE WILL BE NO EXCEPTIONS GRANTED. ANY ALTERNATES SUBMITTED MUST NOT CONSUME MORE THEN THE WATTAGE SHOWN ON THE FIXTURE SCHEDULE. THERE WILL BE NO EXCEPTIONS GRANTED. ALTERNATE FIXTURES MAY VARY SLIGHTLY IN APPEARANCE & AESTHETICS PROVIDED THEY MEET THE PERFORMANCE REQUIREMENTS SHOWN ON FIXTURE SCHEDULE (FINAL APPROVAL BY LIGHTING DESIGNER AND ARCHITECT). POINT BY POINT CALCULATIONS NEED TO BE PERFORMED AND APPROVED PRIOR TO PRODUCT SUBMITTAL PACKAGE SUBMISSION.

   ALL SUBSTITUTED DRIVERS OFFERED MUST BE LESS THAN OR EQUAL TO WATTAGES SHOWN ON EACH TYPE FIXTURE, NO SUBSTITUTED DRIVER WILL BE ACCEPTED THAT DOESNT MEET THIS REQUIREMENT.
10. CONTRACTOR TO INCLUDE IN THEIR BASE BID THE FOLLOWING EXTRA MATERIAL:
    - 1 PIECE - DAY LIGHT/OCCUPANCY SENSOR
    - 1 PIECE - EXTERIOR MOTION SENSOR
    - 2 PIECES - POWER PACKS - DUAL CIRCUIT
    - 2 PIECES - WALL SWITCH WITH J-BOX (TOGGLE & DIMMER)
    - 2 PIECES - JUNCTION BOXES INSTALLED (EACH SIZE)
    - 2 PIECES - ROOM CONTROLLER
    - 1 PIECE - EXIT SIGN

Project Title:
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	ISSUED FOR BID	09/09/2022	

Drawing Title: LIGHT FIXTURE SCHEDULE

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Scale: 12" = 1'-0"
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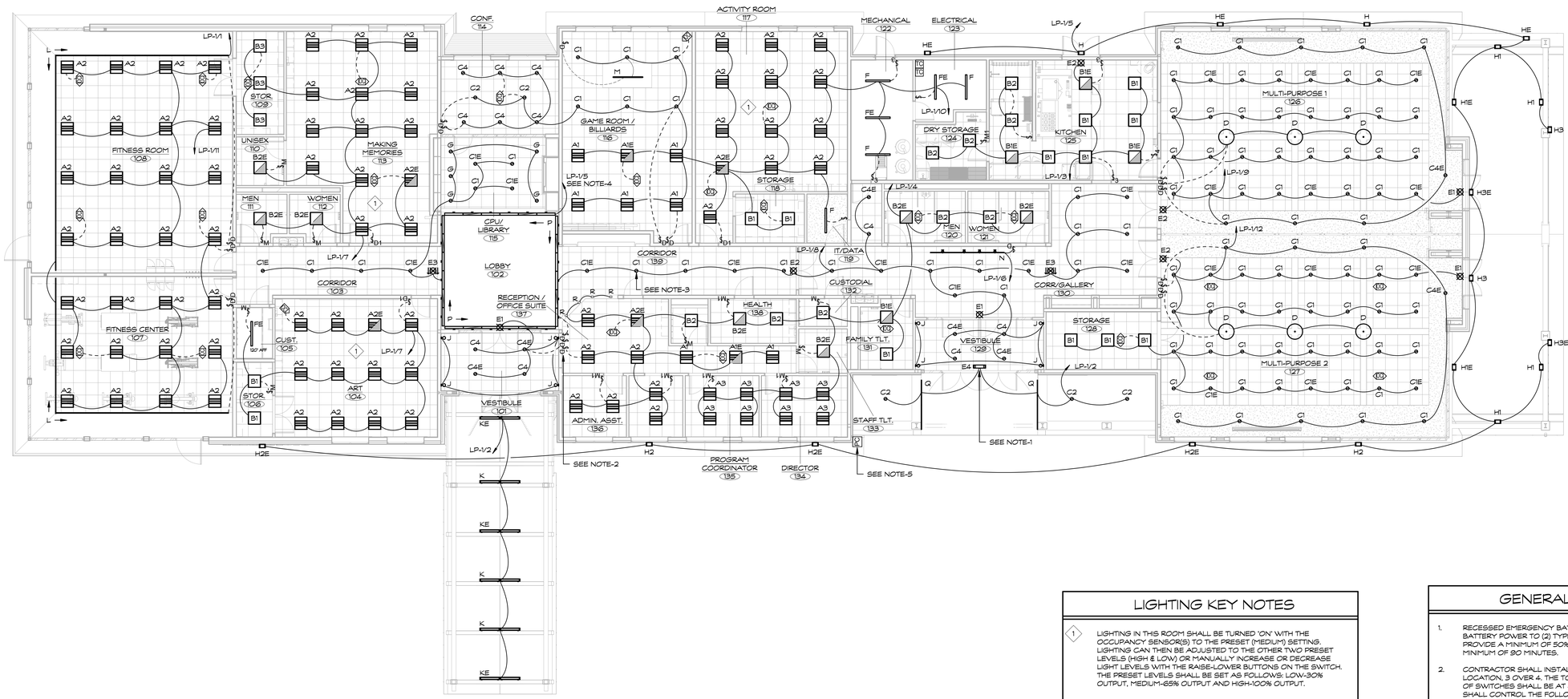
Project Number: 20.003

Drawing Number: E002



1 MAIN LEVEL LIGHTING PLAN
1/8" = 1'-0"

LIGHTING KEY NOTES

1. LIGHTING IN THIS ROOM SHALL BE TURNED 'ON' WITH THE OCCUPANCY SENSOR(S) TO THE PRESET (MEDIUM) SETTING. LIGHTING CAN THEN BE ADJUSTED TO THE OTHER TWO PRESET LEVELS (HIGH & LOW) OR MANUALLY INCREASE OR DECREASE LIGHT LEVELS WITH THE RAISE-LOWER BUTTONS ON THE SWITCH. THE PRESET LEVELS SHALL BE SET AS FOLLOWS: LOW-30% OUTPUT, MEDIUM-65% OUTPUT AND HIGH-100% OUTPUT.

GENERAL NOTES

1. RECESSED EMERGENCY BATTERY SHALL PROVIDE EMERGENCY BATTERY POWER TO (2) TYPE 'Q' LIGHT FIXTURES. THIS SHALL PROVIDE A MINIMUM OF 50% OUTPUT OF BOTH FIXTURES FOR A MINIMUM OF 90 MINUTES.
2. CONTRACTOR SHALL INSTALL (7) DIMMER SWITCHES IN THIS LOCATION, 3 OVER 4. THE TOP OF THE HANDLE OF THE UPPER ROW OF SWITCHES SHALL BE AT 48". THE UPPER ROW OF SWITCHES SHALL CONTROL THE FOLLOWING LIGHTS (SWITCH #1 - ALL 2x2s IN RECEPT./OFFICE, SWITCH #2 -ALL CORRIDOR & BOTH VESTIBULE DOWN LIGHTS PLUS TYPE C1 & C1E IN THE LIBRARY, SWITCH #3 - TYPE 'J' FIXTURES IN BOTH VESTIBULES), THE LOWER ROW OF SWITCHES SHALL CONTROL THE FOLLOWING LIGHTS (SWITCH #1 - TYPE 'P' UPLIGHTS, SWITCH #2 - TYPE 'F' DOWNLIGHTS, SWITCH #3 - TYPE 'G' FIXTURES IN LIBRARY 115, SWITCH #4 - TYPE 'R' MICRO DOWN LIGHTS IN SOFFIT OF RECEPTION DESK).
3. ALL CORRIDOR & VESTIBULE DOWN LIGHTS, VESTIBULE SCONCES AND DOWN LIGHT PORTION OF TYPE 'P' FIXTUES ARE TO BE ENERGIZED (TURNED ON/OFF) BY A TIME CLOCK LOCATED IN THE ELECTRICAL ROOM. THE LIGHTS SHOULD COME ON 30 MINUTES BEFORE THE BUILDING IS SCHEDULED TO OPEN AND TURN OFF 30 MINUTES AFTER THE BUILDING IS SCHEDULED TO CLOSE (COORDINATE EXACT TIMES WITH OWNER). THE LIGHT OUTPUT OF THESE FIXTURES ARE TO BE CONTROLLED BY DIMMER SWITCHES LOCATED IN THE RECEPT./OFFICE AS INDICATED IN NOTE #2 ABOVE.
4. THE UP LIGHT PORTION OF THE TYPE 'P' FIXTURES SHALL BE ENERGIZED (TURNED ON/OFF) BY A DAY LIGHT SENSOR AND TIME LOCK. THE DAY LIGHT SENSOR SHALL BE LOCATED IN THE LOBBY TOWER BELOW THE WINDOWS WHICH WILL TURN THE LIGHTS ON. THE TIME CLOCK WILL BE LOCATED IN THE ELECTRICAL ROOM WHICH WILL TURN THE LIGHTS OFF AT A PRESET TIME (CONFIRM WITH OWNER).
5. CONTRACTOR SHALL INSTALL PHOTOCELL TO THE FACE OF THE ROOF OVERHANG TO CONTROL (TURN ON) THE TYPE 'C2' & 'Q' LIGHT FIXTURES OUTSIDE OF VESTIBULE 129, TYPE 'K' & 'KE' OUTSIDE OF VESTIBULE 101 AND POLE MOUNTED SITE LIGHT FIXTURES. THESE LIGHTS WILL BE TURNED OFF BY A SECOND OUTPUT OF THE TIME CLOCK SERVING THE TYPE 'P' UPLIGHTS.

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FLOOR PLAN - LIGHTING

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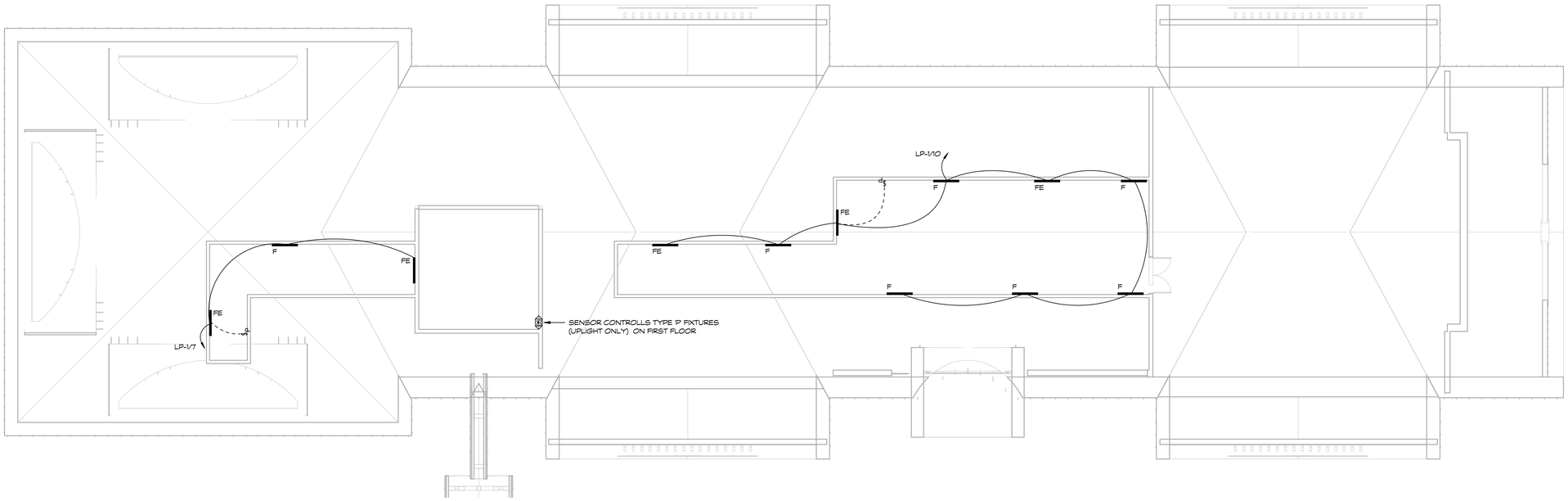

1 ATTIC LEVEL LIGHTING PLAN

1/8" = 1'-0"

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ATTIC PLAN - LIGHTING

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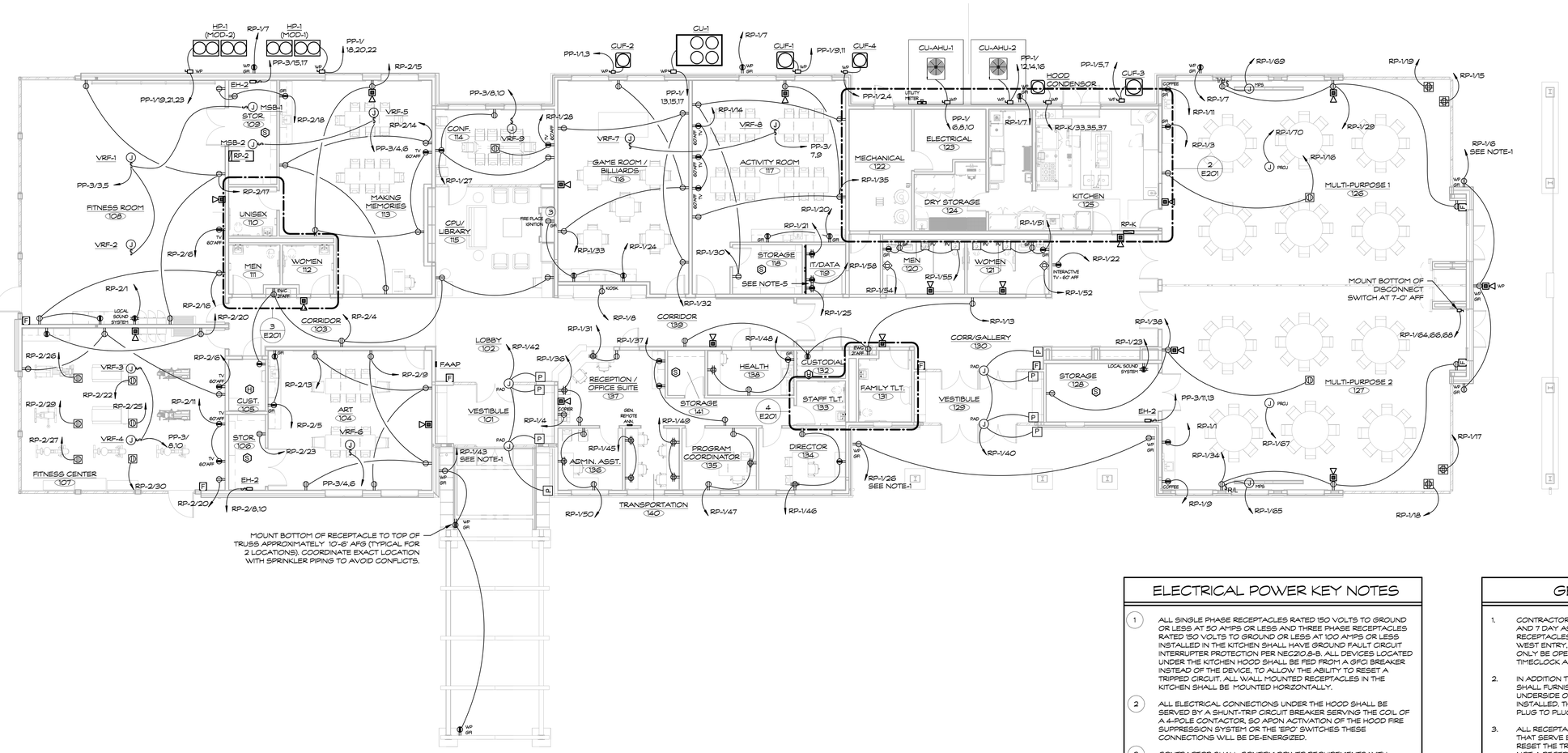
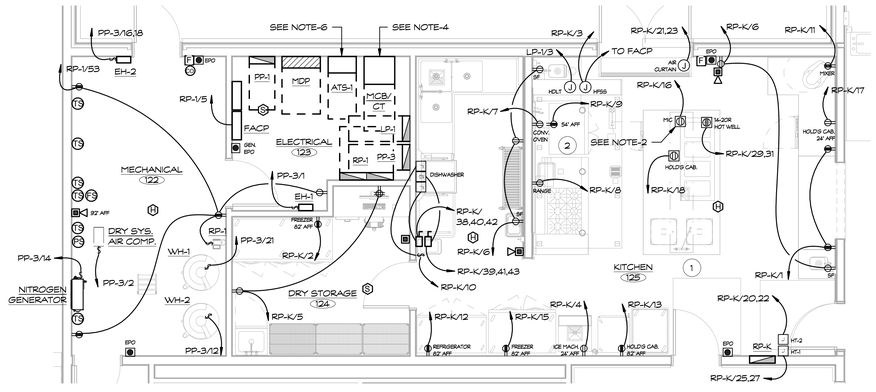
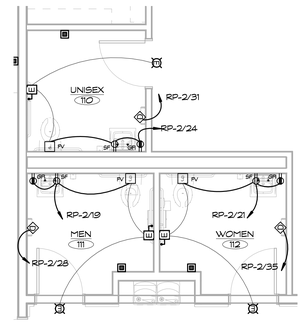


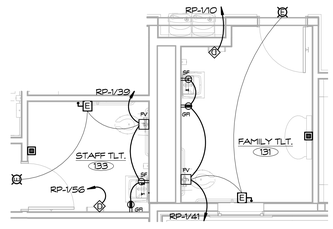
1 MAIN LEVEL POWER PLAN
1/8" = 1'-0"



2 ENLARGED PLAN - KITCHEN/ELEC./MECH.
1/4" = 1'-0"



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



4 ENLARGED STAFF TOILET PLAN
1/4" = 1'-0"

ELECTRICAL POWER KEY NOTES

1. ALL SINGLE PHASE RECEPTACLES RATED 150 VOLTS TO GROUND OR LESS AT 50 AMPS OR LESS AND THREE PHASE RECEPTACLES RATED 150 VOLTS TO GROUND OR LESS AT 100 AMPS OR LESS INSTALLED IN THE KITCHEN SHALL HAVE GROUND FAULT CIRCUIT INTERRUPTER PROTECTION PER NEC210.8-B. ALL DEVICES LOCATED UNDER THE KITCHEN HOOD SHALL BE FED FROM A GFCI BREAKER INSTEAD OF THE DEVICE, TO ALLOW THE ABILITY TO RESET A TRIPPED CIRCUIT. ALL WALL MOUNTED RECEPTACLES IN THE KITCHEN SHALL BE MOUNTED HORIZONTALLY.
2. ALL ELECTRICAL CONNECTIONS UNDER THE HOOD SHALL BE SERVED BY A SHUNT-TRIP CIRCUIT BREAKER SERVING THE COIL OF A 4-POLE CONTACTOR, SO APON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM OR THE 'EPO' SWITCHES THESE CONNECTIONS WILL BE DE-ENERGIZED.
3. CONTRACTOR SHALL CONFIRM POWER REQUIREMENTS WITH APPROVED FIRE PLACE SUBMITTAL. IF A POWER VENTILATOR (EXHAUST) FAN IS REQUIRED, POWER BOTH THE IGNITION RECEPTACLE AND THE FAN FROM A DEDICATED 20 AMP - 1 POLE CIRCUIT BREAKER IN PANEL 'RP-1'.

GENERAL NOTES

1. CONTRACTOR SHALL FURNISH AND INSTALL A 6-POLE CONTACTOR AND 7 DAY ASTRONOMICAL TIME CLOCK TO CONTROL EXTERIOR RECEPTACLES AT FOUR LOCATIONS (MAIN ENTRY PORCO, SOUTH-WEST ENTRY, COVERED PORCH AREA & PATIO). RECEPTACLES WILL ONLY BE OPERATIONAL DURING SET HOURS CONTROLLED BY TIMECLOCK AN CONTACTOR.
2. IN ADDITION TO THE FLOOR RECEPTACLE SHOWN, CONTRACTOR SHALL FURNISH AND INSTALL A MATCHING RECEPTACLE TO THE UNDERSIDE OF THE SHELF WHERE THE MICROWAVE IS TO BE INSTALLED. THIS RECEPTACLE SHALL HAVE A SIX FOOT CORD & PLUG TO PLUG INTO THE FLOOR RECEPTACLE.
3. ALL RECEPTACLES IN THE KITCHEN THAT REQUIRE GFCI PROTECTION THAT SERVE EQUIPMENT THAT CAN NOT BE EASILY MOVED TO RESET THE TRIP SHALL BE SERVED BY A GFCI PROTECTED BREAKER NOT A RECEPTACLE.
4. CONTRACTOR SHALL FURNISH AND INSTALL A SIGN MOUNTED ON OR ADJACENT TO THE SERVIE ENTRANCE MAIN SWITCH, INDICATING THE GENERATOR AND ITS LOCATION PER NEC 700.7.
5. CONTRACTOR SHALL COORDINATE LOCATION OF OUTLETS WITH NETWORK CABINET, CONFIRM WITH I.T. CONTRACTOR IF THE PREFERD LOCATION IS WITHIN THE CABINET OR BELOW IT AND INSTALL THEM IN THAT LOCATION.
6. CONTRACTOR SHALL LEAVE SPACE BETWEEN 'MCB' AND 'MDP' IF GENERATOR ADD ALTERNATE IS NOT APPROVED, ALLOWING FOR FUTURE ATS TO BE INSTALLED IN THIS LOCATION.

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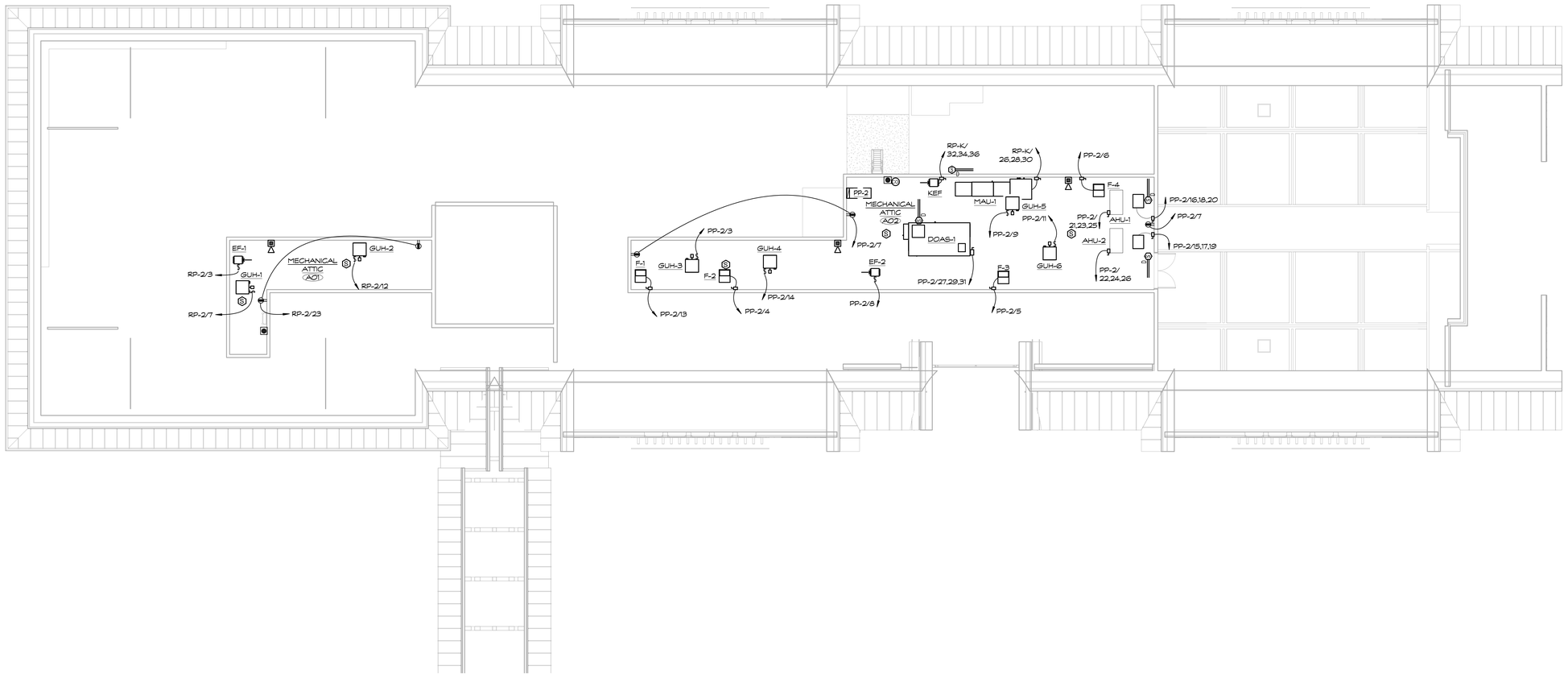

1 ATTIC LEVEL POWER PLAN

1/8" = 1'-0"

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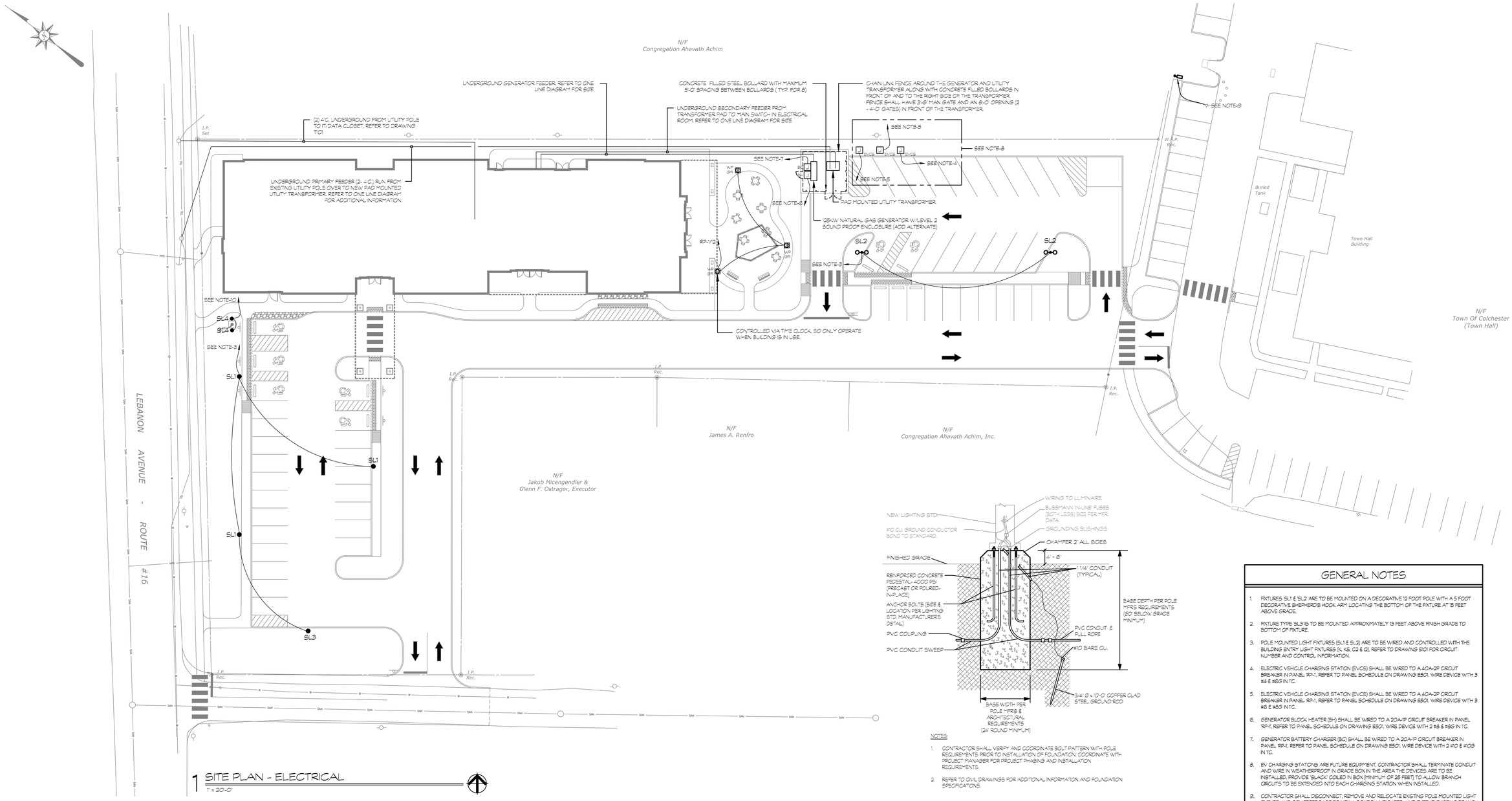

1 SITE PLAN - ELECTRICAL
1" = 20'-0"

NOTES:

1. CONTRACTOR SHALL VERIFY AND COORDINATE BOLT PATTERN WITH POLE REQUIREMENTS PRIOR TO INSTALLATION OF FOUNDATION. COORDINATE WITH PROJECT MANAGER FOR PROJECT PHASING AND INSTALLATION REQUIREMENTS.
2. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION AND FOUNDATION SPECIFICATIONS.

POLE LIGHT FOUNDATION DETAIL
SCALE: NONE
2 / E501

SITE LIGHTING FIXTURE SCHEDULE

DESIGNATION	DESCRIPTION	MANUFACTURER/ MODEL NUMBER	LAMP			ELECTRICAL			DISTRIBUTION
			TYPE	COLOR TEMP	NO	DRIVER	VOLTAGE	WATTS	
SL1	POLE MTD FULL CUT-OFF LED BELL SHAPED AREA LIGHT FIXTURE WITH SPUN ALUMINUM HOUSING, BLACK FINISH & DECORATIVE SHEPPARD'S HOOK ARM (9,948 LUMEN PACKAGE)	STERNBERG LIGHTING 1A-152LED-R-24L40T4-MDL014-SV1-BKT ARM: S1WW3-BKT POLE: 8318PS-188-RCC-BKT	LED	4000K	--	DIMMING	MULTI	80	TYPE IV
SL2	SAME AS TYPE SL1 EXCEPT WITH TWIN ARM MOUNT	STERNBERG LIGHTING 2A-152LED-R-24L40T4-MDL014-SV1-BKT ARM: S1WW3-BKT POLE: 8318PS-188-RCC-BKT	LED	4000K	--	DIMMING	MULTI	80	TYPE IV
SL3	SAME AS TYPE SL1 EXCEPT WITH 120° HOUSE SIDE SHIELD	STERNBERG LIGHTING 1A-152LED-R-24L40T4-MDL014-SV1-HSS-BKT ARM: S1WW3-BKT POLE: 8318PS-188-RCC-BKT	LED	4000K	--	DIMMING	MULTI	80	TYPE IV
SL4	FLUSH GROUND MOUNTED 'WELL' TYPE FLAG POLE LIGHT FIXTURE WITH SEALED LENS, BLUETOOTH APP FOR AIMING AND BRONZE FINISH (1800 LUMEN PACKAGE)	KIM LIGHTING LTVB2-PFANF-BL-4K-UV-SR-RCA82	LED	4000K	--	ELECTRONIC	MULTI	22	NARROW FLOOD

GENERAL NOTES

1. FIXTURES SL1 & SL2 ARE TO BE MOUNTED ON A DECORATIVE 12 FOOT POLE WITH A 5 FOOT DECORATIVE SHEPHERD'S HOOK ARM LOCATING THE BOTTOM OF THE FIXTURE AT 15 FEET ABOVE GRADE.
2. FIXTURE TYPE SL3 IS TO BE MOUNTED APPROXIMATELY 13 FEET ABOVE FINISH GRADE TO BOTTOM OF FIXTURE.
3. POLE MOUNTED LIGHT FIXTURES (SL1 & SL2) ARE TO BE WIRED AND CONTROLLED WITH THE BUILDING ENTRY LIGHT FIXTURES (K, KE, C2 & Q). REFER TO DRAWING E101 FOR CIRCUIT NUMBER AND CONTROL INFORMATION.
4. ELECTRIC VEHICLE CHARGING STATION (EVCS) SHALL BE WIRED TO A 40A-2P CIRCUIT BREAKER IN PANEL 'RP-1'. REFER TO PANEL SCHEDULE ON DRAWING E501. WIRE DEVICE WITH 3 #4 & #8G IN 1".
5. ELECTRIC VEHICLE CHARGING STATION (EVCS) SHALL BE WIRED TO A 40A-2P CIRCUIT BREAKER IN PANEL 'RP-1'. REFER TO PANEL SCHEDULE ON DRAWING E501. WIRE DEVICE WITH 3 #8 & #8G IN 1".
6. GENERATOR BLOCK HEATER (BH) SHALL BE WIRED TO A 20A/1P CIRCUIT BREAKER IN PANEL 'RP-1'. REFER TO PANEL SCHEDULE ON DRAWING E501. WIRE DEVICE WITH 2 #8 & #8G IN 1".
7. GENERATOR BATTERY CHARGER (BC) SHALL BE WIRED TO A 20A/1P CIRCUIT BREAKER IN PANEL 'RP-1'. REFER TO PANEL SCHEDULE ON DRAWING E501. WIRE DEVICE WITH 2 #10 & #10G IN 1".
8. EV CHARGING STATIONS ARE FUTURE EQUIPMENT. CONTRACTOR SHALL TERMINATE CONDUIT AND WIRE IN WEATHERPROOF N GRADE BOX IN THE AREA THE DEVICES ARE TO BE INSTALLED. PROVIDE 'SLACK' COILED IN BOX (MINIMUM OF 25 FEET) TO ALLOW BRANCH CIRCUITS TO BE EXTENDED INTO EACH CHARGING STATION WHEN INSTALLED.
9. CONTRACTOR SHALL DISCONNECT, REMOVE AND RELOCATE EXISTING POLE MOUNTED LIGHT FIXTURE AND CONCRETE BASE TO NEW LOCATION INDICATED, AND EXTEND EXISTING BRANCH CIRCUIT FROM EXISTING LOCATION TO NEW. NEW CONDUIT AND WIRING SHALL MATCH EXISTING.
10. FLUSH GROUND MOUNTED FLAG POLE LIGHT FIXTURES (SL4) ARE TO BE WIRED ON THE SAME BRANCH CIRCUIT AS THE POLE MOUNTED LIGHTS. THEY ARE TO ONLY BE CONTROLLED BY THE PHOTO CELL MOUNTED ON THE BUILDING (ON AT DUSK AND OFF AT DAWN). REFER TO DRAWING E101 FOR CIRCUIT INFORMATION AND LOCATION OF PHOTO CELL.

Project Title:
Colchester Senior Center
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Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
SITE PLAN - ELECTRICAL

Date: SEPTEMBER 09, 2022
Scale: 1" = 20'-0"
Drawn By: SEC
Project Number: 20.003

Drawing Number:
E301

SEQUENCE OF OPERATION

A. THE SYSTEMALARM OPERATION SUBSEQUENT TO THE ALARM ACTIVATION OF ANY MANUAL STATION, AUTOMATIC DETECTION DEVICE, OR SPRINKLER FLOW SWITCH IS TO BE AS FOLOWS:

1. ALL AUDIBLE ALARM INDICATING APPLIANCES SHALL SOUND AN ALARM SIGNAL UNTIL SILENCED BY THE ALARM SILENCE SWITCH AT THE CONTROL PANEL.
2. ALL VISUAL ALARM INDICATING APPLIANCES (XENON STROBES) SHALL DISPLAY A CONTINUOUS PATTERN UNTIL EXTINGUISHED BY THE ALARM SILENCE SWITCH.
3. ALL DOORS NORMALLY HELD OPEN BY DOOR CONTROL DEVICES SHALL RELEASE.
4. A SUPERVISED SIGNAL TO NOTIFY AN APPROVED CENTRAL STATION SHALL BE ACTIVATED.
5. ALL AIR HANDLING SYSTEMS AND EXHAUST FANS LARGER THAN 2000 CFM, SHALL BE AUTOMATICALLY SHUTDOWN.
6. FIRE ALARM SYSTEM SHALL PROVIDE A GENERAL ALARM SIGNAL TO THE BMS SYSTEM WITH INDICATION THRU THE FACP OF THE STATUS OF EACH DAMPER.
7. FIRE ALARM SYSTEM SHALL BE PROVIDED WITH AN INTERFACE TO ALL LOCAL SOUND/PAGING SYSTEMS TO MUTE THE SYSTEM DURING A FIRE ALARM.
8. UPON RESTORATION OF THE FIRE ALARM SYSTEM THE FOLLOWING AN ALARM THE SYSTEM SHALL PROVIDE A SIGNAL TO THE BMS FOR SYSTEM RESET.
9. ALARMS SHALL BE DISPLAYED ON THE PANEL DISPLAY. THE ALARM LED SHALL FLASH ON THE CONTROL PANEL UNTIL THE ALARM HAS BEEN ACKNOWLEDGED AT THE CONTROL PANEL. ONCE ACKNOWLEDGED, THIS SAME LED SHALL LATCHON. A SUBSEQUENT ALARM RECEIVED FROM ANOTHER ZONE AFTER ACKNOWLEDGED SHALL FLASH THE ALARM LED ON THE CONTROL PANEL AND THE PANEL DISPLAL SHALL SHOW THE NEW ALARM INFORMATION. A PULSING ALARM TONE SHALL OCCUR WITHIN THE CONTROL PANEL AND THE REMOTE ANNUNCIATOR UNTIL ACKNOWLEDGED.

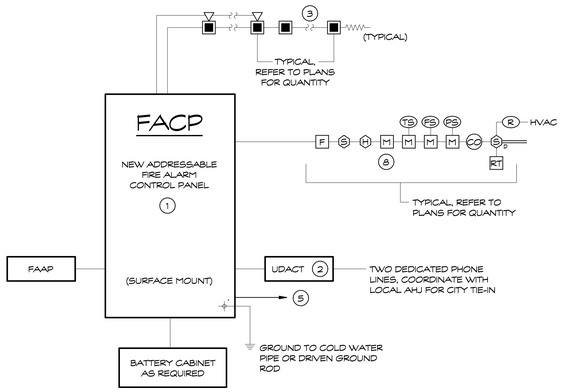
B. THE CONTROL PANEL SHALL HAVE A DEDICATED SUPERVISORY SERVICE LED AND A DEDICATED SUPERVISORY SERVICE ACKNOWLEDGE SWITCH.

C. ALARM AND TROUBLE CONDITIONS SHALL BE IMMEDIATELY DISPLAYED ON THE CONTROL PANEL FRONT ALPHANUMERIC DISPLAY. IF MORE ALARMS OR TROUBLES ARE IN THE SYSTEM THE OPERATOR MAY SCROLL TO DISPLAY NEW ALARMS.

D. THE SYSTEM SHALL HAVE AN ALARM LIST KEY THAT WILL ALLOW THE OPERATOR TO DISPLAY ALL ALARMS, TROUBLES, AND SUPERVISORY SERVICE CONDITIONS WITH THE TIME OF OCCURANCE.

E. THE ACTIVATION OF ANY STANDPIPE OR SPRINKLER VALVE TAMPER SWITCH SHALL ACTIVATE THE SYSTEM SUPERVISORY SERVICE AUDIBLE SIGNAL AND ILLUMINATE THE LED AT THE CONTROL PANEL.

1. ACTIVATING THE SUPERVISORY SERVICE ACKNOWLEDGE SWITCH WILL SILENCE THE SUPERVISORY AUDIBLE SIGNAL WHILE MAINTAINING THE SUPERVISORY SERVICE LED ON INDICATING THE TAMPER CONTACT IS STILL IN THE OFF-NORMAL STATE.
2. RESTORING THE VALVE TO THE NORMAL POSITION SHALL CAUSE THE SUPERVISORY SERVICE LED TO EXTINGUISH THUS INDICATING RESTORATION TO NORMAL POSITION.



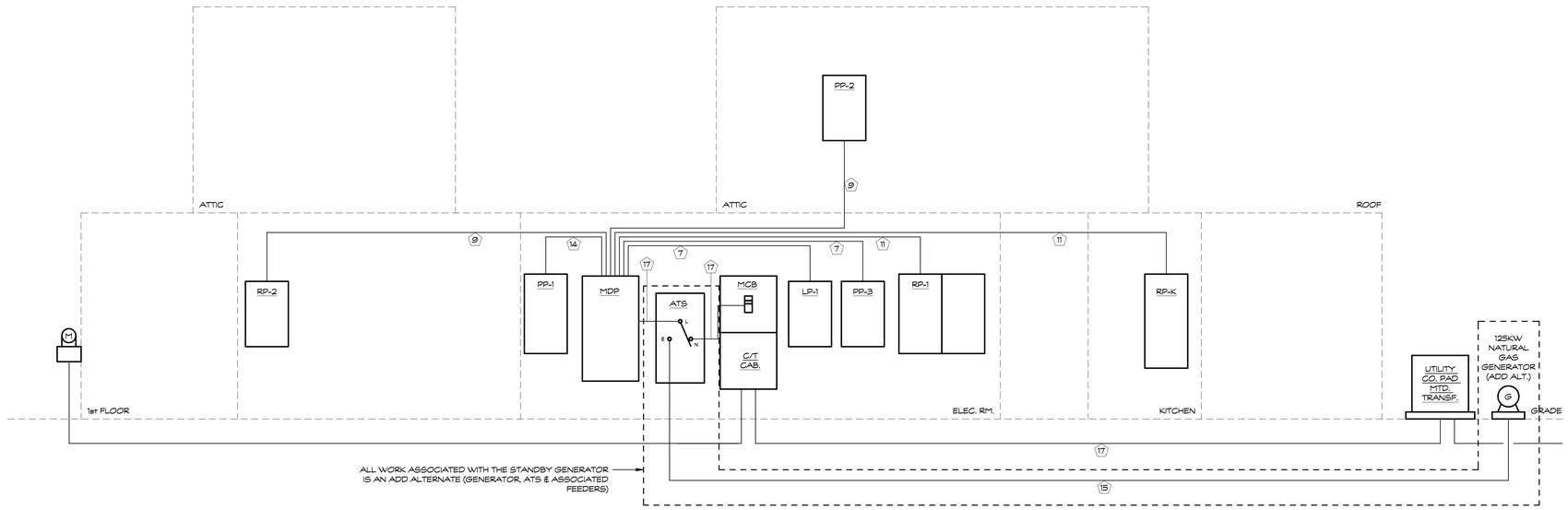
FIRE ALARM RISER DIAGRAM — 2 / E401
SCALE: NONE

NOTES:

1. REFER TO SPECIFICATIONS (283111) FOR SYSTEM REQUIREMENTS.
2. PANEL WILL BE FURNISHED WITH AUTO-DIALER FOR FIRE SERVICE NOTIFICATION. PROVIDE TWO DEDICATED PHONE LINES FROM THE D-MARK.
3. PROVIDE WIRING AS REQUIRED TO ALLOW FOR SILENCING OF AUDIBLE DEVICES WITH STROBES STILL ACTIVE. ALL STROBES SHALL BE SYNCHRONIZED TO EACH OTHER.
4. SEPERATE BUILDING INTO A MINIMUM OF TWO LOGICAL ZONES, REFER TO ZONE SCHEDULE FOR MORE SPECIFIC INFORMATION.
5. PROVIDE A 120V-20A DEDICATED BRANCH CIRCUIT WITH BREAKER LOCK, FED GENERATOR PANEL IF AVAILABLE.
6. ALL WIRING SHALL BE PER SPECIFICATIONS AND MANUFACTURER'S REQUIREMENTS.
7. FURNISH DEVICES WITH ALL NECESSARY MATERIALS AND ACCESSORIES FOR A COMPLETE INSTALLATION TO BE FULLY OPERATIONAL.
8. FURNISH AND INSTALL MONITORING MODULE FOR MONITORING ALARM CONTACTS IN THE FOLLOWING: (1) STANDBY GENERATOR, (1) KITCHEN HOOD SUPPRESSION SYSTEM.
9. CONTRACTOR SHALL COORDINATE LOCATION OF ALL DUCT SMOKE DETECTORS, SMOKE DAMPERS AND FIRE/SMOKE DAMPERS WITH MECHANICAL CONTRACTOR, ALL DEVICES SHALL BE WIRED TO THE FIRE ALARM SYSTEM.
10. MOUNT BOTTOM OF NOTIFICATION DEVICES 80" AFF OR 6" BELOW CEILING, WHICH EVER IS LOWER. MOUNT TOP OF PULL STATION DEVICES AT 48" AFF.
11. PROVIDE FRAMED BUILDING LAYOUT ADJACENT TO REMOTE ANNUNCIATOR PANEL.
12. REFER TO ELECTRICAL & MECHANICAL PLANS TO CONFIRM DEVICE QUANTITES, ALL FIRE ALARM WORK SHALL BE INCLUDED IN THE BASE BID.

FIRE ALARM ZONE SCHEDULE

ZONE #	DESCRIPTION
1	FIRST FLOOR - NORTH SIDE
2	FIRST FLOOR - SOUTH SIDE
3	ATTIC - NORTH SIDE
4	ATTIC - SOUTH SIDE
5	SPARE
6	SPARE
7	SPARE
8	SPARE



ONE LINE DIAGRAM — 1 / E401
SCALE: NONE

CONDUCTOR AND CONDUIT SIZING TABLE - 3 PHASE

NOTE	CIRCUIT BREAKER	CONDUCTOR (THWN/THHN) (3PH, 3W) WITH GROUND	CONDUCTOR (THWN/THHN) (3PH, 4W) WITH GROUND	CONDUIT SIZE	NOTE	CIRCUIT BREAKER	CONDUCTOR (THWN/THHN) (3PH, 3W) WITH GROUND	CONDUCTOR (THWN/THHN) (3PH, 4W) WITH GROUND	CONDUIT SIZE
1	20 AMP	3 #12 & 1 #12 GND	4 #12 & 1 #12 GND	3/4"	11	225 AMP	3 #4/0 & 1 #4 GND	4 #4/0 & 1 #4 GND	2 1/2"
2	25,30 AMP	3 #10 & 1 #10 GND	4 #10 & 1 #10 GND	3/4"	12	250 AMP	3 #250KCMIL & 1 #4 GND	4 #250KCMIL & 1 #4 GND	3"
3	35,40,45,50 AMP	3 #8 & 1 #10 GND	4 #8 & 1 #10 GND	1"	13	300 AMP	3 #350KCMIL & 1 #4 GND	4 #350KCMIL & 1 #4 GND	3 1/2"
4	60 AMP	3 #6 & 1 #10 GND	4 #6 & 1 #10 GND	1"	14	400 AMP	3 #600KCMIL & 1 #3 GND	4 #6 & 1 #10 GND	4"
5	70,80 AMP	3 #4 & 1 #8 GND	4 #4 & 1 #8 GND	1 1/4"	15	500 AMP	(2 SETS) @ 3 #250KCMIL & 1 #2 GND	(2 SETS) @ 4 #250KCMIL & 1 #2 GND	(2) 3"
6	90 AMP	3 #3 & 1 #8 GND	4 #3 & 1 #8 GND	1 1/2"	16	600 AMP	(2 SETS) @ 3 #350KCMIL & 1 #1 GND	(2 SETS) @ 4 #350KCMIL & 1 #1 GND	(2) 3 1/2"
7	100 AMP	3 #2 & 1 #6 GND	4 #2 & 1 #6 GND	1 1/2"	17	800 AMP	(2 SETS) @ 3 #600KCMIL & 1 #1/0 GND	(2 SETS) @ 4 #600KCMIL & 1 #1/0 GND	(2) 4"
8	125 AMP	3 #1 & 1 #6 GND	4 #1 & 1 #6 GND	2"	18	1000 AMP	(3 SETS) @ 4 #400KCMIL & 1 #2/0 GND	(3 SETS) @ 4 #400KCMIL & 1 #2/0 GND	(3) 3 1/2"
9	150 AMP	3 #1/0 & 1 #6 GND	4 #1/0 & 1 #6 GND	2"	19	1200 AMP	(3 SETS) @ 3 #600KCMIL & 1 #3/0 GND	(3 SETS) @ 4 #600KCMIL & 1 #3/0 GND	(3) 4"
10	200 AMP	3 #3/0 & 1 #6 GND	4 #3/0 & 1 #6 GND	2 1/2"	20	1600 AMP	(4 SETS) @ 3 #600KCMIL & 1 #4/0 GND	(4 SETS) @ 4 #600KCMIL & 1 #4/0 GND	(4) 4"

CONDUCTOR NOTES:

1. ALL VALUES BASED ON COPPER CONDUCTORS.
2. FEEDERS
   UPGRADE WIRE TO MAINTAIN MAXIMUM OF 2% VOLTAGE DROP.
   BRANCH CIRCUITS
   UPGRADE WIRE TO MAINTAIN MAXIMUM OF 3% VOLTAGE DROP.
3. NUMBER OF WIRES SHALL BE DETERMINED WITH EQUIPMENT ELECTRICAL NAMEPLATE CHARACTERISTICS.
4. WHERE NEUTRALS ARE REQUIRED, IT SHALL MATCH FEEDER CONDUCTOR SIZE.
5. USE CONDUCTOR (THWN/THHN) (3PH, 3W) WITH GROUND PRIMARY FEEDER FOR TRANSFORMERS.

Project Title:
Colchester Senior Center
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Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
ONE LINE DIAGRAM - ELECTRICAL & FIRE ALARM

Date: SEPTEMBER 09, 2022
Scale: NONE
Drawn By: SEC
Project Number: 20.003
Drawing Number: E401

Switchboard: MDP

Location: ELECTRICAL 123 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 65,000
Supply From: | **Phases:** 3 | **Mains Type:** MLO
Mounting: WALL | **Wires:** 4 | **Mains Rating:** 800 A
Enclosure: | **MCB Rating:** 800 A

Notes:

CKT	Circuit Description	# of Poles	Frame Size	Trip Rating	Load	Remarks
1	PP-1	3	400 A	400 A	111984 VA	
2	PP-2	3	225 A	150 A	24312 VA	
3	RP-1	3	225 A	225 A	62569 VA	
4	RP-2	3	225 A	150 A	30343 VA	
5	RP-K	3	225 A	225 A	53526 VA	
6	LP-1	3	100 A	100 A	12088 VA	
7	PP-3	3	100 A	100 A	14729 VA	
8	Spare	3	225 A	225 A	0 VA	
9	Spare	3	100 A	100 A	0 VA	
10	Space	3	--	--	--	
11	Space	3	--	--	--	
12	Space	3	--	--	--	
13						
14						
15						
16						
17						
18						
19						
20						
				Total Conn. Load:	309551 VA	
				Total Amps:	859 A	

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Appliance - Dwelling Unit	12075 VA	75.00%	9056 VA		
Lighting	8609 VA	125.00%	10761 VA	**Total Conn. Load:**	309551 VA
Other	28500 VA	101.82%	29020 VA	**Total Est. Demand:**	305906 VA
Power	243772 VA	100.00%	243772 VA	**Total Conn.:**	859 A
Receptacle	16596 VA	80.13%	13298 VA	**Total Est. Demand:**	849 A

Notes:

Branch Panel: PP-1

Location: ELECTRICAL 123 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 22,000
Supply From: MDP | **Phases:** 3 | **Mains Type:** MLO
Mounting: Surface | **Wires:** 4 | **Mains Rating:** 400 A
Enclosure: Type 1 | **MCB Rating:**

Notes:

CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	CUF-2		25 A	2	1768	1768					2	25 A		CUF-4	2
3	--	--	--	--			1768	1768			--	--	--	--	4
5	CUF-3		35 A	2					2288	3840	3	40 A		CU-AHU-1	6
7	--	--	--	--	2288	3840					--	--	--	--	8
9	CUF-1		35 A	2			2288	3840			--	--	--	--	10
11	--	--	--	--					2288	3840	3	40 A		CU-AHU-2	12
13	CU-1		80 A	3	7560	3840					--	--	--	--	14
15	--	--	--	--			7560	3840			--	--	--	--	16
17	--	--	--	--					7560	8340	3	80 A		HP-1 (MOD-1)	18
19	HP-1 (MOD-2)		80 A	3	8340	8340					--	--	--	--	20
21	--	--	--	--			8340	8340			--	--	--	--	22
23	--	--	--	--					8340						24
25															26
27															28
29															30
31															32
33															34
35															36
37															38
39															40
41															42
			Total Load:		37744 VA		37744 VA		36496 VA						
			Total Amps:		316 A		316 A		304 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	111984 VA	100.00%	111984 VA		
				Total Conn. Load:	111984 VA
				Total Est. Demand:	111984 VA
				Total Conn. Current:	311 A
				Total Est. Demand Current:	311 A

Notes:

Branch Panel: PP-2

Location: MECHANICAL ATTIC A02 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 22,000
Supply From: MDP | **Phases:** 3 | **Mains Type:** MLO
Mounting: Surface | **Wires:** 4 | **Mains Rating:** 125 A
Enclosure: Type 1 | **MCB Rating:**

Notes:

CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	Spare		20 A	1	0	0					1	15 A		Spare	2
3	GUH-3		15 A	1			864	1440			1	15 A		F-2	4
5	F-3		15 A	1					1440	1440	1	15 A		F-4	6
7	Receptacles		20 A	1	540	696					1	15 A		EF-2	8
9	GUH-5		15 A	1			864								10
11	GUH-6		15 A	1					864						12
13	F-1		15 A	1	1440	864					1	15 A		GUH-4	14
15	Duct Furnace (1/2 HP)		15 A	3			264	264			3	15 A		Duct Furnace (1/2 HP)	16
17	--	--	--	--					264	264	--	--	--	--	18
19	--	--	--	--	264	264					--	--	--	--	20
21	AHU-1		15 A	3			840	840			3	15 A		AHU-2	22
23	--	--	--	--					840	840	--	--	--	--	24
25	--	--	--	--	840	840					--	--	--	--	26
27	DOAS-1		25 A	3			2412								28
29	--	--	--	--					2412						30
31	--	--	--	--	2412										32
33															34
35															36
37															38
39															40
41															42
			Total Load:		8160 VA		7788 VA		8364 VA						
			Total Amps:		68 A		65 A		70 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	4152 VA	105.20%	4368 VA		
Power	20160 VA	100.00%	20160 VA	**Total Conn. Load:**	24312 VA
				Total Est. Demand:	24528 VA
				Total Conn. Current:	67 A
				Total Est. Demand Current:	68 A

Notes:

Branch Panel: PP-3

Location: ELECTRICAL 123 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 22,000
Supply From: MDP | **Phases:** 3 | **Mains Type:** MLO
Mounting: Surface | **Wires:** 4 | **Mains Rating:** 100 A
Enclosure: Type 1 | **MCB Rating:** 1 A

Notes:

CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	EH-1		15 A	1	1000	1176					1	20 A		Dry System Air Comp.	2
3	VRF-1, VRF-2 & MSB-1		15 A	2			540	557			2	15 A		VRF-5, VRF-6 & MSB-2	4
5	--	--	--	--					540	557	--	--	--	--	6
7	VRF-7 & VRF-8		15 A	2	354	656					2	15 A		VRF-3, VRF4 & VRF-9	8
9	--	--	--	--			354	656			--	--	--	--	10
11	EH-2		15 A	2					1040	700	1	15 A		WH-2	12
13	--	--	--	--	1040	700					1	15 A		Nitrogen Generator	14
15	EH-2		15 A	2			1040	1040			2	15 A		EH-2	16
17	--	--	--	--					1040	1040	--	--	--	--	18
19	Spare		20 A	1	0	0					2	15 A		Spare	20
21	WH-1		15 A	1			700	0			--	--	--	--	22
23										0	1	15 A		Spare	24
25															26
27															28
29															30
			Total Load:		4926 VA		4887 VA		4917 VA						
			Total Amps:		41 A		41 A		41 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	14729 VA	103.53%	15249 VA		
				Total Conn. Load:	14729 VA
				Total Est. Demand:	15249 VA
				Total Conn. Current:	41 A
				Total Est. Demand Current:	42 A

Notes:

Branch Panel: LP-1

Location: ELECTRICAL 123 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 22,000
Supply From: MDP | **Phases:** 3 | **Mains Type:** MLO
Mounting: Surface | **Wires:** 4 | **Mains Rating:** 100 A
Enclosure: Type 1 | **MCB Rating:**

Notes:

CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	Cove & Track Lighting		20 A	1	244	1098					1	20 A		Lighting	2
3	Lighting		20 A	1			649	971			1	20 A		Lighting	4
5	Lighting		20 A	1					892	900	1	20 A		Track Lighting	6
7	Lighting		20 A	1	1412	1487					1	20 A		Lighting	8
9	Lighting		20 A	1			950	1325			1	20 A		Lighting	10
11	Lighting		20 A	1					1120	1040	1	20 A		Lighting	12
13	Spare		20 A	1	0	0					1	20 A		Spare	14
15															16
17															18
19															20
21															22
23															24
			Total Load:		4242 VA		3895 VA		3952 VA						
			Total Amps:		35 A		32 A		33 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	8609 VA	125.00%	10761 VA		
Other	2430 VA	107.20%	2605 VA	**Total Conn. Load:**	12088 VA
Power	1050 VA	100.00%	1050 VA	**Total Est. Demand:**	14415 VA
				Total Conn. Current:	34 A
				Total Est. Demand Current:	40 A

Notes:

Project Title:
Colchester Senior Center
Town of Colchester
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Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
PANEL SCHEDULES - ELECTRICAL

Date: SEPTEMBER 09, 2022
Scale:
Drawn By: SEC
Project Number: 20.003

Drawing Number:
E501

Branch Panel: RP-1

Location: ELECTRICAL 123
Supply From: MDP
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000
Mains Type: MLO
Mains Rating: 225 A
MCB Rating: 1 A

Notes:

CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	Receptacle		20 A	1	180	540					1	20 A		Exterior Patio Recept.	2
3	Receptacle		20 A	1			180	1000			1	20 A		Recept. (Copier)	4
5	FACP		20 A	1					500	540	1	20 A		Exterior Recept.	6
7	Exterior Recept.		20 A	1	720	840					1	20 A		Recept. (Kiosk)	8
9	Recept. (Coffee Maker)		20 A	1			1500	1725			1	20 A		Hand Dryer	10
11	Recept. (Coffee Maker)		20 A	1					1500	1800	1	20 A		Gen. Block Heater	12
13	Receptacles		20 A	1	1044	1080					1	20 A		Recept. (TV's)	14
15	Receptacles		20 A	1			360	360			1	20 A		Receptacles	16
17	Receptacles		20 A	1					360	360	1	20 A		Receptacles	18
19	Receptacles		20 A	1	360	360					1	20 A		Receptacles	20
21	Receptacles		20 A	1			360	360			1	20 A		Recept. (TV)	22
23	Receptacles		20 A	1					360	540	1	20 A		Receptacles	24
25	Receptacles		20 A	1	360	360					1	20 A		Exterior Recept.	26
27	Receptacles		20 A	1			540	540			1	20 A		Receptacles	28
29	Receptacles		20 A	1					540	540	1	20 A		Receptacles	30
31	Receptacles		20 A	1	540	540					1	20 A		Receptacles	32
33	Receptacles		20 A	1			540	540			1	20 A		Receptacles	34
35	Receptacles		20 A	1					540	540	1	20 A		Receptacles	36
37	Receptacles		20 A	1	540	540					1	20 A		Receptacle	38
39	Recept., C.F.A., SF & FV		20 A	1			540	600			1	20 A		Junction Box (PAD)	40
41	Recept., C.F.A., SF & FV		20 A	1					540	600	1	20 A		Junction Box (PAD)	42
43	Exterior/Portico Recept.		20 A	1	540	600					1	20 A		Gen. Battery Charger	44
45	Receptacles		20 A	1			720	720			1	20 A		Receptacles	46
47	Receptacles		20 A	1					720	720	1	20 A		Receptacles	48
49	Receptacles		20 A	1	720	720					1	20 A		Receptacles	50
51	Recept., SF & FV's		20 A	1			720	1725			1	20 A		Hand Dryer	52
53	Receptacles		20 A	1					765	1725	1	20 A		Hand Dryer	54
55	Recept., SF & FV's		20 A	1	720	1725					1	20 A		Hand Dryer	56
57	EVC Station		40 A	2			3120	360			1	20 A		Receptacle	58
59	--	--	--	--					3120	3120	2	40 A		EVC Station	60
61	EVC Station		40 A	2	3120	3120					--	--	--	--	62
63	--	--	--	--			3120	480			3	20 A		Motorized Partition	64
65	JB (Mot. Screen)		20 A	1					900	480	--	--	--	--	66
67	JB (Projector & Platform)		20 A	1	500	480					--	--	--	--	68
69	JB (Mot. Screen)		20 A	1			900	500			1	20 A		JB (Projector & Platform)	70
71															72
73															74
75															76
77															78
79															80
81															82
83															84
			Total Load:		20249 VA		21510 VA		20810 VA						
			Total Amps:		169 A		180 A		174 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	1985 VA	106.30%	2110 VA		
Power	52964 VA	100.00%	52964 VA	**Total Conn. Load:**	62569 VA
Appliance - Dwelling Unit	6900 VA	75.00%	5175 VA	**Total Est. Demand:**	60969 VA
Receptacle	720 VA	100.00%	720 VA	**Total Conn. Current:**	174 A
				Total Est. Demand Current:	169 A

Notes:

Branch Panel: RP-2

Location: STOR. 109
Supply From: MDP
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000
Mains Type: MLO
Mains Rating: 225 A
MCB Rating:

Notes:

CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	Recept.(Sound Sys.)		20 A	1	360	540					1	20 A		Power	2
3	EF-1		15 A	1			696	1224			1	20 A		Receptacles	4
5	Receptacles		20 A	1					360	720	1	20 A		Recept. (TV's)	6
7	GUH-1		15 A	1	864	1040					2	15 A		EH-2	8
9	Receptacles		20 A	1			540	1040			--	--	--	--	10
11	Recept. (TV's)		20 A	1					720	864	1	15 A		GUH-2	12
13	Receptacles		20 A	1	540	540					1	20 A		Receptacles	14
15	Receptacles		20 A	1			900	540			1	20 A		Receptacles	16
17	Receptacles		20 A	1					540	540	1	20 A		Receptacles	18
19	Recept., C.F.A., SF & FV		20 A	1	540	540					1	20 A		Power	20
21	Recept., C.F.A., SF & FV		20 A	1			540	1650			1	20 A		Floor Recept. (Tread.)	22
23	Receptacles		20 A	1					540	540	1	20 A		Recept., C.F.A., SF & FV	24
25	Floor Recept. (Tread.)		20 A	1	1650	1650					1	20 A		Floor Recept. (Elipt.)	26
27	Floor Recept. (RC)		20 A	1			1650	1725			1	20 A		Hand Dryer	28
29	Floor Recept. (UBE)		20 A	1					1650	1650	1	20 A		Floor Recept. (SB)	30
31	Hand Dryer		20 A	1	1725										32
33															34
35	Hand Dryer		20 A	1					1725						36
37															38
39															40
41															42
			Total Load:		9989 VA		10505 VA		9849 VA						
			Total Amps:		83 A		88 A		82 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	4504 VA	111.55%	5024 VA		
Power	10584 VA	100.00%	10584 VA	**Total Conn. Load:**	30343 VA
Appliance - Dwelling Unit	5175 VA	100.00%	5175 VA	**Total Est. Demand:**	30823 VA
Receptacle	10080 VA	99.60%	10040 VA	**Total Conn. Current:**	84 A
				Total Est. Demand Current:	86 A

Notes:

Branch Panel: RP-K

Location: KITCHEN 125
Supply From: MDP
Mounting: Recessed
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000
Mains Type: Shunt Trip Breaker
Mains Rating: 225 A
MCB Rating: 225 A

Notes:

CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	Receptacles		20 A	1	360	732					1	15 A		Recept. (Freezer)	2
3	JB (HFSS)		20 A	1			500	840			1	15 A		Recept. (Ice Mach.)	4
5	Receptacles		20 A	1					540	900	1	20 A		Receptacles	6
7	Recept. (Conv. Oven)		15 A	1	924	960					1	15 A		Recept. (Range)	8
9	Recept. (Conv. Oven)		15 A	1			924	1014			1	15 A		Dishwasher	10
11	Recept. (Mixer)		15 A	1					960	1044	1	15 A		Recept. (Refrig.)	12
13	Recept. (Hold'g Cab.)		20 A	1	1920	0					1	15 A		Spare	14
15	Recept. (Freezer)		15 A	1			1128	1608			1	20 A		Recept. (Microwave)	16
17	Recept. (Hold'g Cab.)		20 A	1					1692	1692	1	20 A		Recept. (Hold'g Cab.)	18
19	Spare		20 A	1	0	900					2	30 A		JB (HT-2)	20
21	JB (Air Curtain)		20 A	2			146	900			--	--	--	--	22
23	--	--	--	--					146	0	1	20 A		Spare	24
25	JB (HT-1)		30 A	2	1200	660					3	15 A		MAU-1	26
27	--	--	--	--			1200	660			--	--	--	--	28
29	Recept. (Hot Well)		20 A	2					1248	660	--	--	--	--	30
31	--	--	--	--	1248	780					3	15 A		KEF	32
33	Hood Condensor		20 A	3			1740	780			--	--	--	--	34
35	--	--	--	--					1740	780	--	--	--	--	36
37	--	--	--	--	1740	3192					3	35 A		Dishwasher	38
39	Dishwasher		35 A	3			3228	3192			--	--	--	--	40
41	--	--	--	--					3228	3192	--	--	--	--	42
43	--	--	--	--	3228										44
45															46
47															48
49															50
51															52
53															54
55															56
57															58
59															60
			Total Load:		17844 VA		17860 VA		17822 VA						
			Total Amps:		149 A		149 A		149 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	700 VA	125.00%	875 VA		
Power	47030 VA	100.00%	47030 VA	**Total Conn. Load:**	53526 VA
Receptacle	5796 VA	100.00%	5796 VA	**Total Est. Demand:**	53701 VA
				Total Conn. Current:	149 A
				Total Est. Demand Current:	149 A

Notes:
ALL BREAKERS SERVING HEAT TRACE EQUIPMENT SHALL BE GFI TYPE BREAKERS.

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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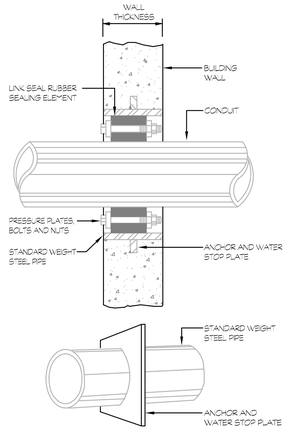
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
PANEL SCHEDULES - ELECTRICAL

Date: SEPTEMBER 09, 2022
Scale:
Drawn By: SEC
Project Number: 20.003

Drawing Number: E502

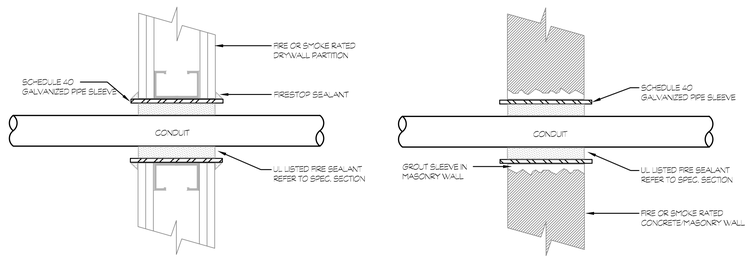


1 WATER-TIGHT WALL SLEEVE
NTS

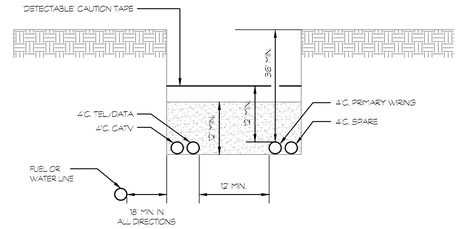
GENERAL NOTES:

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

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



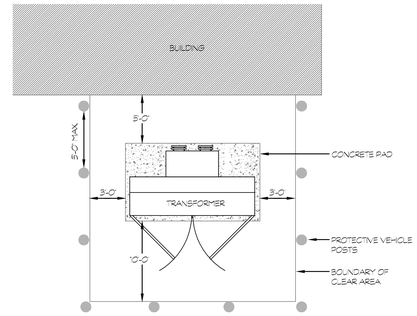
2 WALL PENETRATION W/FIRE-SMOKE SEAL DETAIL
NTS



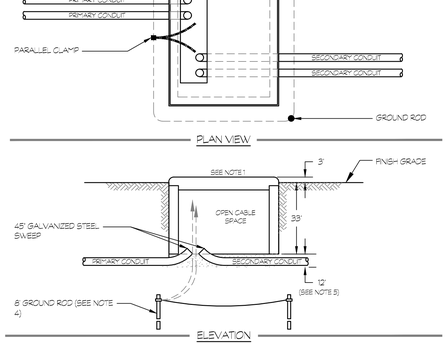
INSTALLATION IN TRENCH:
(ALL CONDUIT SHALL BE INSTALLED AT A DEPTH OF AT LEAST 40 INCHES IN THE FOLLOWING ORDER)

1. ENSURE THAT THE BOTTOM OF THE TRENCH IS WELL-TAMPED AND FREE OF ROCKS.
2. INSTALL THE CONDUIT.
3. INSTALL OTHER UTILITY CABLES OR CONDUITS IN THE TRENCH.
4. BACKFILL WITH 12 INCHES OF SAND.
5. INSTALL DETECTABLE WARNING TAPE 12 INCHES OVER THE CONDUIT.
6. FILL IN THE REMAINDER OF THE TRENCH WITH NATIVE BACKFILL

3 TRENCH DETAIL
NTS



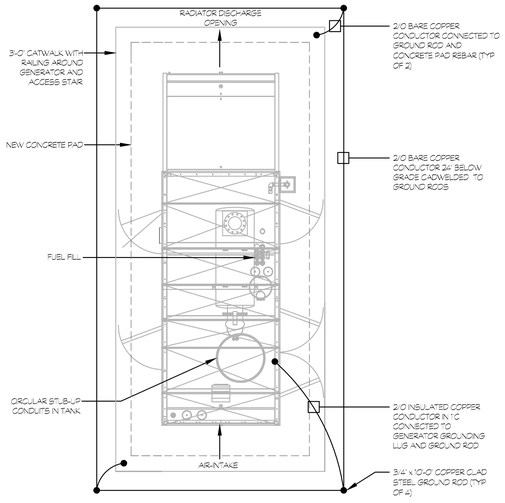
4 TYPICAL PAD MOUNTED TRANSFORMER
NTS



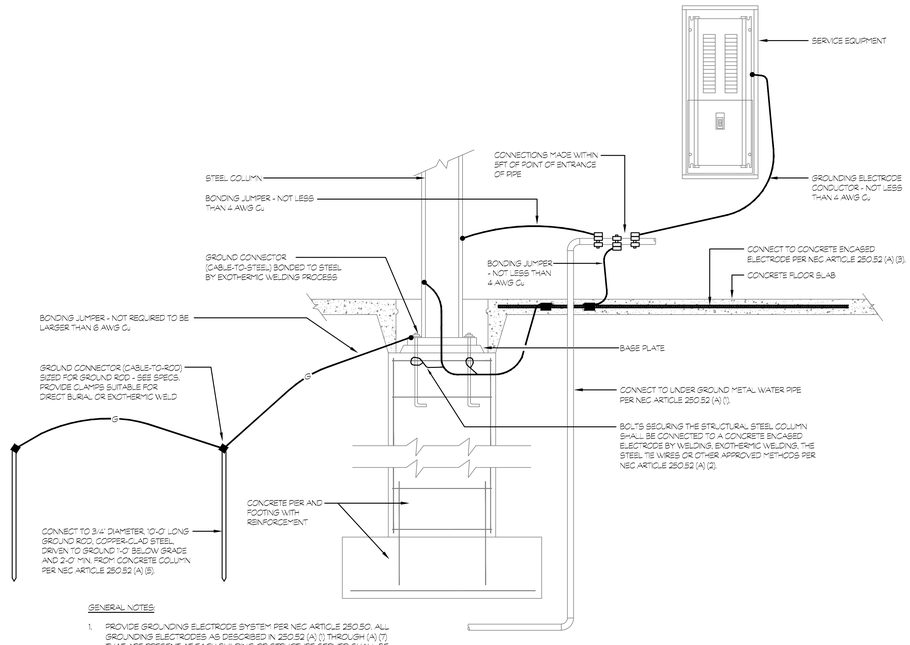
NOTES:

1. 75-300 kVA INSTALL 78" X 54" X 36" PAD PER SPC P-05, P-08.
   500-1500 kVA INSTALL 78" X 70" X 36" PAD PER SPC P-07, P-08.
2. PRIMARY CABLE.
   A. INSTALL CABLES IN CONDUIT A MINIMUM OF 30" BELOW GRADE.
   B. LOOP CABLES IN CABLE VAULT BEFORE MAKING CONNECTIONS.
3. SECONDARY CABLE.
   LEAVE SLACK FOR FUTURE RECONNECTING TO TRANSFORMERS WITH HIGHER SECONDARY TERMINALS.
4. COPPERWELD GROUND RODS: INSTALL IN TRENCH AND CONNECT A BARE 1/0 COPPER CONDUCTOR FROM RODS THROUGH PAD OPENING AND EXTENDING 5 FT. ABOVE PAD.
5. THE EXCAVATION FOR THE PAD SHALL BE CARRIED TO A DEPTH OF 12" BELOW THE BOTTOM OF THE PAD WALLS. THE BACKFILL UNDER THE PAD WALLS SHALL BE A CLEAN GRAVEL, FREE OF FOREIGN MATTER AND CONSTRUCTION DEBRIS, AND IN ACCORDANCE WITH CONN D.O.T. SPEC. M.02.06 GRADING 'A'. BACKFILL SHALL BE PLACED IN 6" LAYERS AND COMPACTED WITH MECHANICAL TAMPERS TO NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY STANDARD COMPACTION TESTS, AASHTO T180 OR ASTM D698.

5 PRECAST CONCRETE TRANSFORMER PAD DETAIL
NTS



6 GENERATOR GROUNDING DETAIL
NTS



GENERAL NOTES:

1. PROVIDE GROUNDING ELECTRODE SYSTEM PER NEC ARTICLE 250.50. ALL GROUNDING ELECTRODES AS DESCRIBED IN 250.52 (A) (1) THROUGH (A) (7) THAT ARE PRESENT AT EACH BUILDING OR STRUCTURE SERVED SHALL BE BONDED TOGETHER TO FORM THE GROUNDING ELECTRODE SYSTEM.

7 TYPICAL GROUNDING DETAIL
NTS

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
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Drawing Title:
DETAILS - ELECTRICAL

Date: SEPTEMBER 09, 2022
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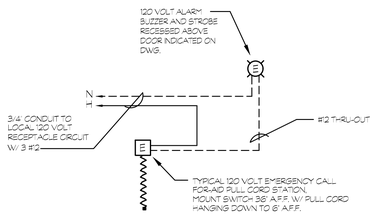
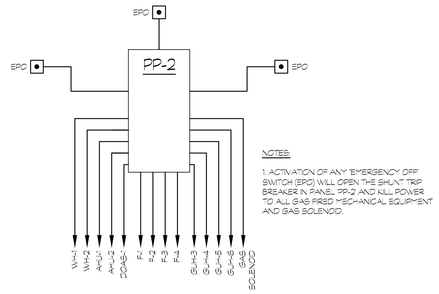
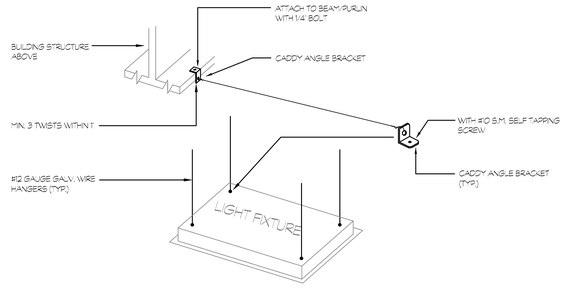
Project Number: 20.003
Drawing Number: E601



1 HANDICAPPED CALL-FOR-AID SYSTEM
NTS

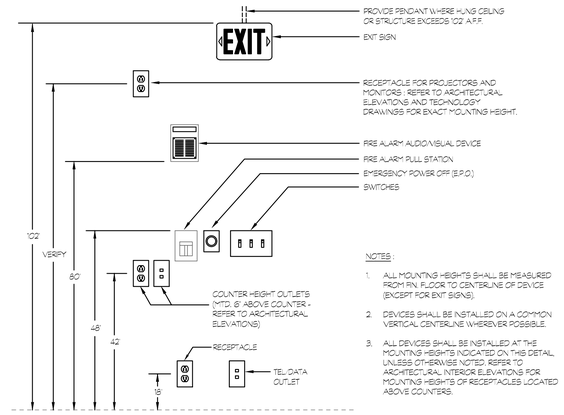


2 GAS FIRED EQUIPMENT E.P.O. WIRING DIAGRAM - ATTIC A202
NTS

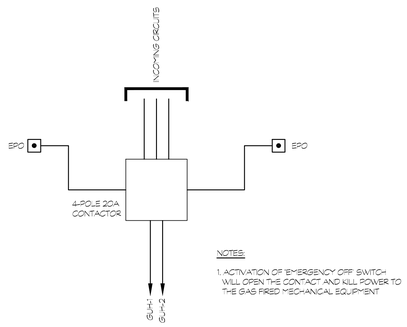


1. ALL LIGHTING FIXTURES SHALL BE SECURED TO THE STRUCTURE BY THE ELECTRICAL CONTRACTOR.
2. FLUSH OR RECESSED LIGHT FIXTURES LESS THAN 56 POUNDS SHALL HAVE 2 - 12 GA SLACK SAFETY WIRES FROM DIAGONAL CORNERS TO BUILDING STRUCTURE BY TRADE CONTRACTOR.
3. FLUSH OR RECESSED LIGHT FIXTURES MORE THAN 56 POUNDS SHALL HAVE 4 - 12 GA SLACK SAFETY WIRES FROM DIAGONAL CORNERS TO BUILDING STRUCTURE BY TRADE CONTRACTOR.
4. SECURE SURFACE MOUNTED LIGHT FIXTURES W/ MINIMUM OF 2 - POSITIVE CLAMPING DEVICES OF 14 GA. MINIMUM STEEL AND W/ 12 GA. WIRE TO BUILDING STRUCTURE.

3 TYPICAL LAY-IN GRID LIGHTING FIXTURE SUPPORT/MOUNTING DETAIL
NTS



4 TYPICAL DEVICE MOUNTING HEIGHT DETAIL
NTS



5 GAS FIRED EQUIPMENT E.P.O. WIRING DIAGRAM - ATTIC A201
NTS

Project Title:
Colchester Senior Center
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Project Number: 20.003

Drawing Number:
E602

SECURITY LEGEND

(NOT ALL SYMBOLS ARE USED)

- FIXED DOME CAMERA - WALL MOUNTED - EXTERIOR WITH 2-GANG 2 1/2" DEEP OUTLET BOX, ¾" C., CAT 6 PLENUM RATED CABLE, RJ45 PLUG - CAT 6, HUBBELL #SB3WX PORT (USE INDOOR/OUTDOOR RATED CABLING FOR ALL EXTERIOR CAMERAS) [AXIS #P3227-LVE OR APPROVED EQUAL]
- FIXED DOME CAMERA - CEILING MOUNTED - INTERIOR WITH 2-GANG 2 1/2" DEEP OUTLET BOX, ¾" C., CAT 6 PLENUM RATED CABLE, RJ45 PLUG - CAT 6, HUBBELL #SB1WX PORT (USE INDOOR/OUTDOOR RATED CABLING FOR ALL EXTERIOR CAMERAS), [AXIS #P3227-LV OR APPROVED EQUAL]
- 180 FIXED DOME CAMERA W/180 DEGREE VIEW - CEILING MOUNTED - INTERIOR WITH 2-GANG 2 1/2" DEEP OUTLET BOX, ¾" C., CAT 6 PLENUM RATED CABLE, RJ45 PLUG - CAT 6, HUBBELL #SB1WX PORT (USE INDOOR/OUTDOOR RATED CABLING FOR ALL EXTERIOR CAMERAS), [AXIS #Q3709-PVE OR APPROVED EQUAL]
- ACCESS CONTROL CARD READER WITH 2-GANG 2 1/2" DEEP OUTLET BOX, ¾" C., CAT 6 PLENUM RATED CABLE, RJ45 PLUG - CAT 6, DATA - BELDEN #7856AFJ, COMPOSITE PLENUM RATED CABLE, MTD 48" AFF UNLESS OTHERWISE NOTED
- DOOR CONTACT - INTRUSION DETECTION WITH ½" FLEX CONNECTION, #22-2C PLENUM RATED CABLE (ALL NEW DEVICES SHALL MATCH AND BE COMPATIBLE WITH EXISTING SECURITY SYSTEM)
- MOTION SENSOR - CORNER/WALL MOUNTED WITH 1-GANG 2 1/2" DEEP OUTLET BOX, ¾" C., #14-4C PLENUM RATED CABLE (ALL NEW DEVICES SHALL MATCH AND BE COMPATIBLE WITH EXISTING SECURITY SYSTEM)

ALL SECURITY DEVICES AND CAMERAS WILL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AS A SEPARATE PRICE. CONTRACTOR SHALL PROVIDE AND INSTALL HEAD-END EQUIPMENT, OPERATING SOFTWARE AND RECORDING EQUIPMENT. ALL CAT 6 CABLE USED FOR SECURITY DEVICES SHALL BE A DIFFERENT COLOR THAN THE REST OF THE CAT 6 CABLE USED FOR COMMUNICATION DEVICES.

AUDIO VISUAL/LOCAL SOUND SYSTEM LEGEND

(NOT ALL SYMBOLS ARE USED)

- S — LOCAL SOUND SYSTEM SPEAKER. CONTRACTOR SHALL PROVIDE SPEAKER, ENCLOSURE AND RECESSED/SURFACE MOUNT TO STRUCTURE. INSTALL CABLE FROM SPEAKER TO AMPLIFIER PER MANUFACTURERS REQUIREMENTS.
- MIC — MICROPHONE OUTLET WITH 3.5mm JACK & FEMALE XLR JACK, CUSTOM DEVICE PLATE AND CABLING FROM EACH JACK BACK TO AMPLIFIER.
- LSS — LOCAL SOUND SYSTEM, WITH AMPLIFIER, MIXER, CD PLAYER AND AUXILIARY INPUTS. SYSTEM FOR MULTI-PURPOSE ROOMS SHALL HAVE A PARTITION TO ALLOW EACH ROOM TO OPERATE INDEPENDENTLY OR AS ONE ROOM.
- AV — AV OUTLET WITH 2 1/8" DEEP TWO GANG OUTLET BOX WITH 1/2 DEVICE RING, (2) 1 1/2" CONDUIT, MTD 18" AFF UNLESS OTHERWISE NOTED. CABLES SHALL TERMINATE ONTO A1 FACEPLATE LOCATED ADJACENT/BEHIND THE PROJECTOR.
- AV1 — AV OUTLET WITH 2 1/8" DEEP TWO GANG OUTLET BOX WITH 1/2 DEVICE RING, (2) 1 1/2" CONDUIT, MTD ADJACENT/BEHIND PROJECTOR (REFER TO FLOOR PLAN FOR LOCATION). HDMI CABLE ((2)S #4137I - DECORA WALL PLATE) SHALL TERMINATE FROM FACEPLATE 'AV' TO THIS FACEPLATE.

COMMUNICATIONS LEGEND

(NOT ALL SYMBOLS ARE USED)

- W — WALL OUTLET WITH 1-GANG 2 1/2" DEEP OUTLET BOX, 1-GANG DEVICE RING, ¾" C., CAT 6 PLENUM RATED CABLE, RJ45 JACK - CAT 6, WALL PHONE MOUNTING PLATE, MTD 48" AFF
- 1D — 1 DATA OUTLET WITH 4" x 4" x 2 1/8" DEEP OUTLET BOX, 1-GANG DEVICE RING, ¾" C., CAT 6 PLENUM RATED CABLE, RJ45 JACK - CAT 6, DATA - FACE PLATE, MTD 18" AFF UNLESS OTHERWISE NOTED
- 2D — 2 DATA OUTLET WITH 4" x 4" x 2 1/8" DEEP OUTLET BOX, 1-GANG DEVICE RING, ¾" C., 2 - CAT 6 PLENUM RATED CABLE, 2 - RJ45 JACK - CAT 6, DATA - FACE PLATE, MTD 18" AFF UNLESS OTHERWISE NOTED
- 3D — 3 DATA OUTLET WITH 4" x 4" x 2 1/8" DEEP OUTLET BOX, 1-GANG DEVICE RING, 1" C., 3 - CAT 6 PLENUM RATED CABLE, 3 - RJ45 JACK - CAT 6, DATA - FACE PLATE, MTD 18" AFF UNLESS OTHERWISE NOTED
- 4D — 4 DATA OUTLET WITH 4" x 4" x 2 1/8" DEEP OUTLET BOX, 1-GANG DEVICE RING, 1" C., 4 - CAT 6 PLENUM RATED CABLE, 4 - RJ45 JACK - CAT 6, DATA - FACE PLATE, MTD 18" AFF UNLESS OTHERWISE NOTED
- 1V1D — 1 VOICE - 1 DATA OUTLET WITH 4" x 4" x 2 1/8" DEEP OUTLET BOX, 1-GANG DEVICE RING, 3/4" C., 2 - CAT 6 PLENUM RATED CABLE, 2 - RJ45 JACK - CAT 6, DATA - FACE PLATE, MTD 18" AFF UNLESS OTHERWISE NOTED
- 1V2D — 1 VOICE - 2 DATA OUTLET WITH 4" x 4" x 2 1/8" DEEP OUTLET BOX, 1-GANG DEVICE RING, 1 C., 3 - CAT 6 PLENUM RATED CABLE, 3 - RJ45 JACK - CAT 6, DATA - FACE PLATE, MTD 18" AFF UNLESS OTHERWISE NOTED
- 2V2D — 2 VOICE - 2 DATA OUTLET WITH 4" x 4" x 2 1/8" DEEP OUTLET BOX, 1-GANG DEVICE RING, 1 C., 4 - CAT 6 PLENUM RATED CABLE, 4 - RJ45 JACK - CAT 6, DATA - FACE PLATE, MTD 18" AFF UNLESS OTHERWISE NOTED
- 1V — 1 VOICE OUTLET WITH 4" x 4" x 2 1/8" DEEP OUTLET BOX, 1-GANG DEVICE RING, ¾" C., CAT 6 PLENUM RATED CABLE, RJ45 JACK - CAT 6, DATA - FACE PLATE, MTD 18" AFF UNLESS OTHERWISE NOTED
- 2V — 2 VOICE OUTLET WITH 4" x 4" x 2 1/8" DEEP OUTLET BOX, 1-GANG DEVICE RING, ¾" C., 2 - CAT 6 PLENUM RATED CABLE, 2 - RJ45 JACK - CAT 6, DATA - FACE PLATE, MTD 18" AFF UNLESS OTHERWISE NOTED
- 3V — 3 VOICE OUTLET WITH 4" x 4" x 2 1/8" DEEP OUTLET BOX, 1-GANG DEVICE RING, 1" C., 3 - CAT 6 PLENUM RATED CABLE, 3- RJ45 JACK - CAT 6, DATA - FACE PLATE, MTD 18" AFF UNLESS OTHERWISE NOTED
- #V #D — FLOOR BOX WITH CONDUIT AND WIRE AS REQUIRED (FLOOR BOX SHALL BE SIZED TO ACCOMMODATE BOTH POWER AND TECHNOLOGY CABLE. # - DENOTES QUANTITY OF CABLES)
- AP — WIRELESS ACCESS POINT - CEILING MTD WITH 4" SQUARE BOX, CAT 6 PLENUM RATED CABLE, RJ45 JACK - CAT 6, HUBBELL #SB2BKP PORT, 20 FT. SERVICE LOOP (FOR EXTERIOR MTD APs, USE INDOOR/OUTDOOR RATED CABLE.) 1 WEATHERPROOF SLEEVE & WEATHERPROOF COVER PLATE), PROVIDE QUANTITY OF (2) CAT 6 CABLES WHERE NOTED
- AP — WIRELESS ACCESS POINT - WALL MTD WITH 4" SQUARE BOX, CAT 6 PLENUM RATED CABLE, RJ45 JACK - CAT 6, WALL MTD PHONE PLATE, 20 FT. SERVICE LOOP (FOR EXTERIOR MTD APs, USE INDOOR/OUTDOOR RATED CABLE.) 1 WEATHERPROOF SLEEVE & WEATHERPROOF COVER PLATE), PROVIDE QUANTITY OF (2) CAT 6 CABLES WHERE NOTED
- TV — NETWORK OUTLET - INTERACTIVE MONITOR / TV WITH 4" x 4" x 2 1/8" DEEP OUTLET BOX, 1-GANG DEVICE RING, ¾" C., CAT 6 PLENUM RATED CABLE, RJ45 JACK - CAT 6, DATA - FACE PLATE, MTD 60" AFF UNLESS OTHERWISE NOTED

ALL PHONES, PHONE HEADEND, NETWORK SWITCHES AND COMMUNICATION HEADEND EQUIPMENT WILL BE FURNISHED AND INSTALLED BY OWNERS APPROVED VENDOR. ALL INFRASTRUCTURE (CONDUIT, BACK BOXES, DEVICES AND WIRING) SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR ALONG WITH WALL MOUNTED NETWORK CABINET. ALL TERMINATIONS WILL BE MADE BY THE OWNERS APPROVED VENDOR. ALL CAT 6 CABLE USED FOR NETWORK DEVICES SHALL BE A ONE COLOR, THE COLOR SHALL BE DIFFERENT THAN THE COLOR USED FOR SECURITY DEVICES.

ABBREVIATIONS

3.5mm	3.5MM JACK PLUG (AUDIO)
AFF	ABOVE FINISHED FLOOR
A/C	ABOVE COUNTER
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AWG	AMERICAN WIRE GAUGE
BICSI	BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL
BNC	BAYONET NEIL-CONCELMAN
C	CONDUIT (S)
DEMARC	DEMARCATION
DPDT	DOUBLE POLE DOUBLE THROW
EIA	ELECTRONICS INDUSTRIES ALLIANCE
EMT	ELECTRICAL METALLIC TUBING
FACP	FIRE ALARM CONTROL PANEL
F	FACSIMILE (FAX)
HDMI	HIGH DEFINITION MEDIA INTERFACE
LAN	LOCAL AREA NETWORK
MER	MAIN EQUIPMENT ROOM
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
OFE	OWNER FURNISHED EQUIPMENT
PA	PUBLIC ADDRESS
PBX	PRIVATE BRANCH EXCHANGE
PC	PERSONAL COMPUTER
PoE	POWER OVER ETHERNET
PP	PATCH PANEL
PVC	POLYVINYL CHLORIDE CONDUIT
QYT	QUANTITY
STP	SHIELDED TWISTED PAIR
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TGB	TELECOMMUNICATIONS GROUNDING BUSSBAR
TIA	TELECOMMUNICATIONS INDUSTRIES ASSOCIATIONS
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSSBAR
TR	TELECOMMUNICATIONS ROOM
TV	TELEVISION
TYP	TYPICAL
UPS	UNINTERRUPTIBLE POWER SUPPLY
USB	UNIVERSAL SERIAL BUS
UTP	UNSHIELDED TWISTED PAIR
VGA	VIDEO GRAPHICS ARRAY
VoIP	VOICE OVER INTERNET PROTOCOL
W	WALL TELEPHONE (VOICE)
WAN	WIDE AREA NETWORK
WAO	WORK AREA OUTLET
WAP	WIRELESS (DATA) ACCESS POINT
WG	WIRE GUARD
WP	WEATHERPROOF
XFMR	TRANSFORMER
XMTR	TRANSMITTER

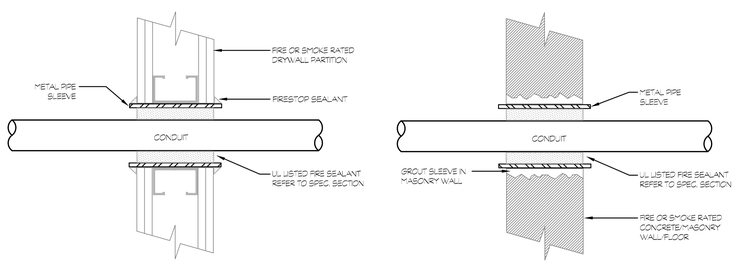
GENERAL NOTES

1. DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT.
2. ALL COMMUNICATIONS OUTLETS MUST COINCIDE WITH ELECTRICAL POWER DRAWINGS AND SECURITY DEVICES. THE CONTRACTOR MUST COORDINATE ALL LOCATIONS OF THE ELECTRICAL OUTLETS WITH THE DATA OUTLETS.
3. LABEL ALL CABLES WITHIN 12" OF THE FINAL TERMINATION.
4. CONTRACTOR SHALL MAINTAIN THE TWIST OF THE INDIVIDUAL PAIRS TO WITHIN 1/2" OF FINAL TERMINATION FOR ALL CATEGORY 3 OR HIGHER CABLE.
5. USE ONLY HOOK AND LOOP CABLE TIES (VELCRO) FOR CABLES RATED CATEGORY 3 OR HIGHER.
6. ALL CABLES RUN IN CEILING AREAS SHALL BE PROPERLY SUPPORTED WITH CONDUIT OR J-HOOKS MOUNTED TO SLAT AT MINIMUM OF 5' INTERVALS. NO CABLE SHALL REST OR TOUCH CEILING ASSEMBLIES. CABLES SHALL NOT BE INSTALLED EXPOSED ON OPEN CEILING AREAS.
7. ALL LABELS SHALL BE MACHINE PRINTED. NO HAND LETTERED CABLES SHALL BE USED.
8. USE ONLY PLENUM RATED CABLES.
9. DO NOT RUN TELECOMMUNICATIONS CABLES PARALLEL TO POWER CABLES. CROSS POWER CABLES ONLY AT RIGHT ANGLES.
10. MAINTAIN 8" DISTANCE FROM ALL LIGHTING TRANSFORMERS.
11. COLOR AND STYLE OF COMMUNICATIONS FACE PLATES SHALL MATCH ELECTRICAL FACE PLATES AND BE COORDINATED WITH AND CONFIRMED BY THE ARCHITECT.
12. OBTAIN AND EXTEND TO OWNER ALL AVAILABLE MANUFACTURER AND SYSTEM WARRANTEES. CABLING TEST RESULTS MUST BE SUBMITTED TO MANUFACTURER AND THE MANUFACTURER'S EXTENDED WARRANTY FOR MATERIAL AND WORKMANSHIP SHALL BE OBTAINED BY THE CONTRACTOR.
13. SPLICING CABLES IS NOT PERMITTED EXCEPT AS SPECIFICALLY NOTED.
14. DEVICE CABLING SHALL BE TERMINATED WITHIN THE INDICATED DATA ROOMS AND SHALL BE TERMINATED ONTO A 19" RACK MOUNTED, RJ45, 24 PORT, CATEGORY 6 RATED PATCH PANEL.
15. THE FOLLOWING CABLING SHALL BE TERMINATED ONTO ITS OWN DISCRETE AND SEPARATE CATEGORY 6 RATED, RACK MOUNTED PATCH PANELS. REFER TO RACK ELEVATION DETAILS.
    - ALL STUDENT AND CLASSROOM SPACES
    - ALL ADMINISTRATION AREAS AND OFFICES
    - ALL WIRELESS APS
    - ALL VIDEO SURVEILLANCE CAMERAS
16. SPEAKER CABLING SHALL BE INSTALLED FROM THE SPEAKER AND/OR SPEAKER ARRAY WITHIN EACH ROOM TO THE DATA ROOM INDICATED WITHIN THE PA WIRING DIAGRAMS.
17. LOCATIONS OF EQUIPMENT FOR ALL OTHER TRADES SHALL BE COORDINATED BEFORE CONSTRUCTION.
18. CONTRACTOR SHALL COORDINATE LAYOUT LOCATIONS AND CLEARANCE OF ALL EQUIPMENT WITH OTHER TRADES AND ATTAIN OWNER'S APPROVAL PRIOR TO CONSTRUCTION.
19. CONTRACTOR SHALL COORDINATE ALL RACEWAYS, LOCATIONS, AND POWER REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
20. ALL COMMUNICATIONS OUTLETS MUST COINCIDE WITH ELECTRICAL POWER DRAWINGS.
21. ALL VOICE AND DATA OUTLETS THAT DO NOT HAVE AN ELECTRICAL OUTLET WITHIN 3FTSHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT ARCHITECT, CONSTRUCTION MANAGER, AND TECHNOLOGY CONSULTANT PRIOR TO THE TIME OF INSTALLATION.
22. PLACEMENT OF ALL SECURITY VIDEO SURVEILLANCE CAMERAS MUST BE APPROVED BY THE SECURITY CONSULTANT AND/OR OWNER PRIOR TO CONSTRUCTION.
23. ALL DEVICES SHOWN ON THESE PLANS MUST BE COORDINATED AND APPROVED BY THE ARCHITECT. THE INSTALLATION CONTRACTOR SHALL DEPICT ALL DEVICES ONTO ELEVATION SUBMITTALS BEFORE INSTALLATION. ANY DEVICE THAT IS NOT APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION MAY BE REQUIRED TO BE RELOCATED AS DIRECTED BY THE ARCHITECT AND CORRECTED BY THE CONTRACTOR WITH NO ADDITIONAL CHARGE TO THE PROJECT.
24. ALL PATHWAYS, INCLUDING ALL WALL AND CEILING PENETRATIONS ARE REQUIRED TO INSTALL CABLING TO THE END DEVICE AND SHALL BE COORDINATED BETWEEN THE LOW VOLTAGE AND SECURITY CONTRACTOR AND THE ELECTRICAL CONTRACTOR AND SHALL BE INCLUDED AS PART OF THIS SECTION.
25. ALL CABLING SHALL BE LABELED AT BOTH ENDS.
26. SEISMIC PERFORMANCE: ALL WALL MOUNTED DEVICES SHALL BE MOUNTED, SECURED AND INSTALLED IN ACCORDANCE WITH SEI/ASCE 7 AND SHALL ADDITIONALLY WITHSTAND THE EFFECTS OF ANY MOTIONS WITHIN THE BUILDING AS DETERMINED BY SEI/ASCE 7.
27. THE TERM 'WITHSTAND' MEANS THE UNITS WILL REMAIN IN PLACE WITHOUT SEPARATION OF ANY PARTS FROM THE DEVICE WHEN SUBJECTED TO SEISMIC FORCES SPECIFIED AND THE UNIT WILL BE FULLY OPERATIONAL AFTER THE SEISMIC EVENT.
28. ALL CONDUIT ARE TO BE INSTALLED TO ABOVE ACCESSIBLE CEILING UNLESS OTHERWISE NOTED.

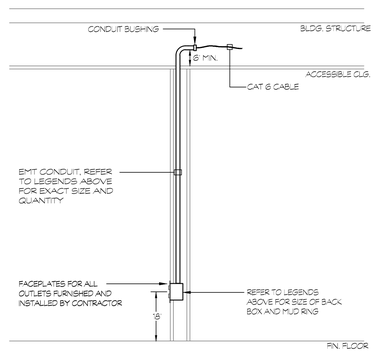
GENERAL NOTES:

PROVIDE UL LISTED FIRE/SMOKE PENETRATION ASSEMBLY IN ACCORDANCE W/ UL#79, ASTM E814 REQUIREMENTS FOR WALL TYPE, RATING, PIPE SIZE INSTALLED.

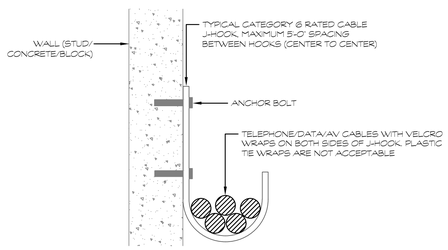
FIRE STOPPING SHALL HAVE A RATING EQUAL TO OR GREATER THAN THE WALL/FLOOR BEING PENETRATED - SEE SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR WALL/FLOOR RATINGS AND LOCATIONS.



1 WALL/FLOOR PENETRATION W/FIRE-SMOKE SEAL DETAIL
NTS



2 VOICE / DATA / AV OUTLET INSTALLATION DETAIL
NTS



NOTES:

1. J-HOOKS SHALL BE SIZED TO ACCOMMODATE TWICE AS MANY CABLES REQUIRED TO BE SUPPORTED INCLUDING AN ADDITIONAL 40% HEADROOM.

3 J-HOOK INSTALLATION DETAIL
NTS

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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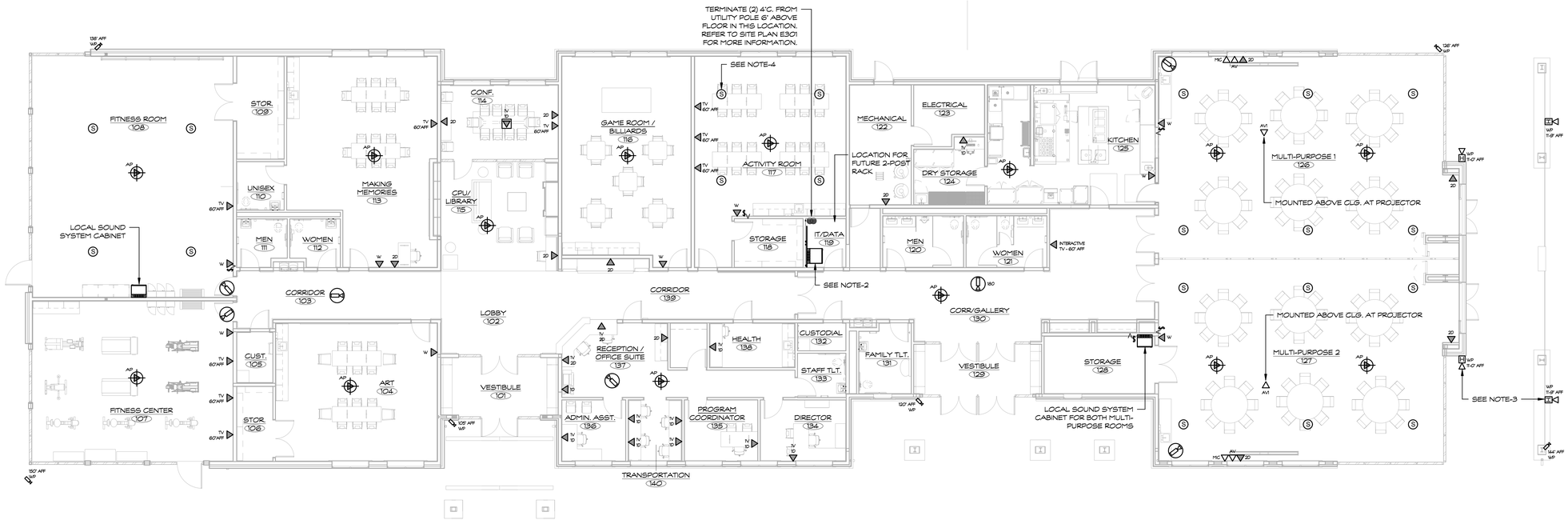
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
SYMBOLS, NOTES, ABBREVIATIONS & DETAILS - TECHNOLOGY

Date: SEPTEMBER 09, 2022
Scale: NONE
Drawn By: SEC
Project Number: 20.003
Drawing Number: T001



1 MAIN LEVEL COMM PLAN
1/8" = 1'-0"

GENERAL NOTES

1. INCOMING CONDUITS (2-4") FOR LOW VOLTAGE SYSTEMS (VOICE, DATA, FIRE ALARM, TV, ETC.), TERMINATE MINIMUM OF SIX INCHES ABOVE FLOOR. REFER TO SITE PLAN (E301) TO SEE WHERE CONDUITS ARE TERMINATED (POLE #XXXX).
2. CONTRACTOR SHALL FURNISH AND INSTALL A WALL MOUNTED NETWORK CABINET WITH (2) 48 PORT PATCH PANELS FOR NETWORK DROPS AND A 24 PORT PATCH PANEL FOR SECURITY CONNECTIONS. THE PANEL SHALL BE SIZED TO ACCOMMODATE EQUIPMENT LISTED ABOVE AND ALLOW ROOM FOR OWNER FURNISHED SWITCHES, SERVER(S), UPS, ETC.
3. THE (4) EXTERIOR MOUNTED SPEAKERS ARE TO BE WIRED TO THE LOCAL SOUND SYSTEM SERVING THE TWO MULTI-PURPOSE ROOMS. THESE SPEAKERS SHALL BE ON THERE OWN ZONE AND CONTROLED FROM A VOLUME SWITCH LOCATED NEXT TO THE SOUND SYSTEM CABINET.
4. THE RECESSED CEILING SPEAKERS IN THIS ROOM ARE TO BE INTERCONNECTED WITH THE (3) TV's IN THIS ROOM VIA 1X4 SPLITTER AND HDMI AUDIO EXTRACTOR. THE TV SPEAKERS AND THE CEILING SPEAKERS ARE ALL TO BE SYNCD TOGETHER. LOCATE THE SPLITTER AND EXTRACTOR ON A SHELF IN THE WALL CABINETS ON THE SOUTH SIDE OF THE ROOM.

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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	ISSUED FOR BID	09/09/2022	

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FLOOR PLAN - TECHNOLOGY

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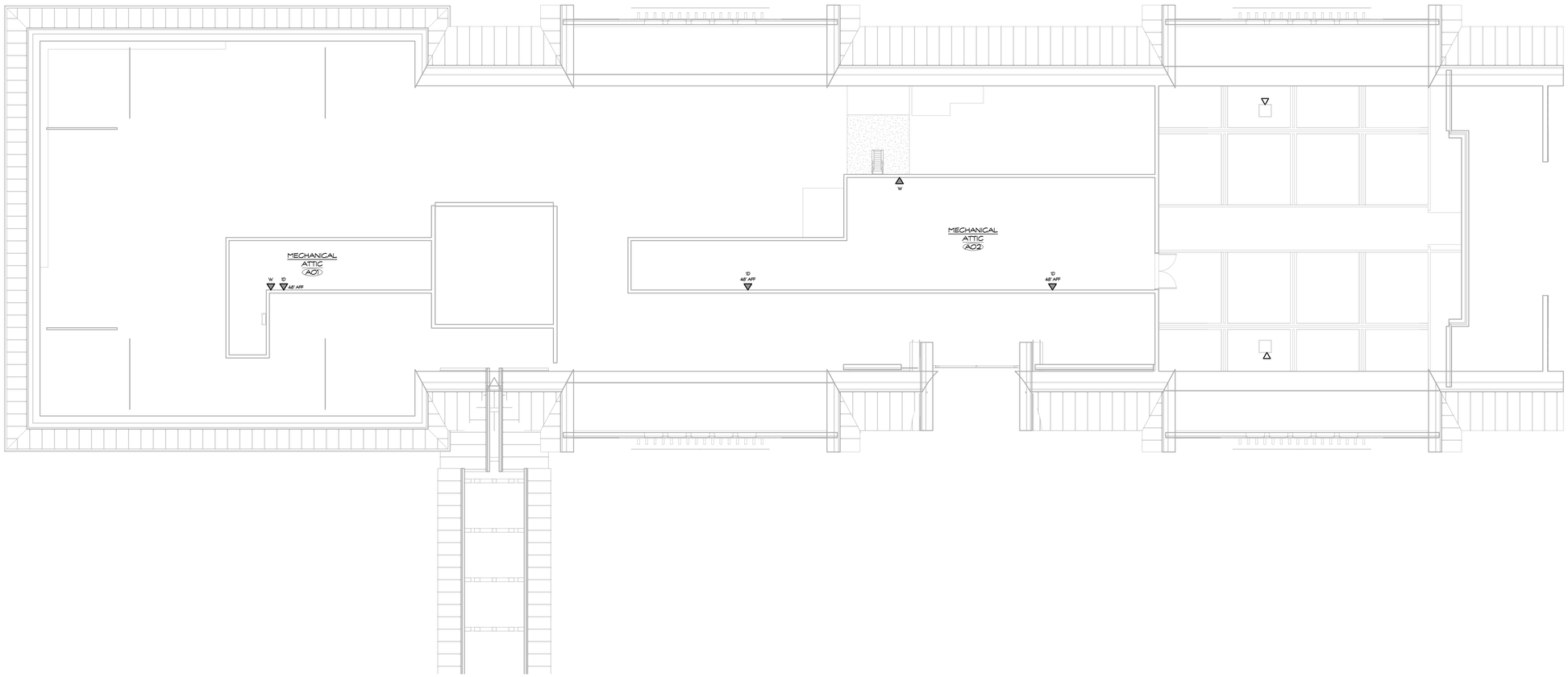

1 ATTIC LEVEL COMM PLAN
1/8" = 1'-0"

Project Title:
Colchester Senior Center
Town of Colchester
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Colchester, CT 06415

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Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
ATTIC PLAN - TECHNOLOGY

Date: SEPTEMBER 09, 2022
Scale: 1/8" = 1'-0"
Drawn By: SEC
Project Number: 20.003

Drawing Number:
T102

FOODSERVICE EQUIPMENT SCHEDULE

ITEM NO.	QTY	EQUIPMENT CATEGORY	FURNISHED BY: KEC	FURNISHED BY: VENDOR / OWNER	FURNISHED BY: GC	INSTALLED BY: K.E.C	INSTALLED BY: VENDOR/OWNER	INSTALLED BY: G.C	MANUFACTURER	MODEL NUMBER	PLUG	DIRECT	VOLTS	PHASE	AMPS	KW	HP	NEMA	HOT WATER SIZE (IN)	HOT WATER GPH	COLD WATER SIZE (IN)	CHILLED WATER SUPPLY	CHILLED WATER RETURN	DOMESTIC WATER	DIRECT DRAIN SIZE (IN)	INDIRECT DRAIN SIZE (IN)	GAS SIZE (IN)	MBTUH	HVAC EXHAUST CFM	HVAC EXHAUST SPWG	HVAC MAKE-UP CFM	HVAC MAKE-UP SPWG	EQUIPMENT REMARKS
1	1	MOP SINK CABINET	X	-	-	X	-	-	ADVANCE TABCO	9-OPC-84															2"								
1A	1	FAUCET, UTILITY, WALL MOUNT	X	-	-	-	-	X	ADVANCE TABCO	K-240									1/2		1/2												
2	1	REFRIGERATOR, REACH-IN	X	-	-	X	-	-	TRUE	T-49-HC	X		115	1	8.7		1/2	5-15P															
3	3	SHELVING, METAL, 24"X36"	X	-	-	X	-	-	METRO	EZ2436NK3																							
4	1	SPARE NUMBER	-	-	-	-	-	-	-	-																							
5	1	CORNER SINK, 3-COMPARTMENT	X	-	-	X	-	-	ADVANCE TABCO	94-K2-24D																(3)1-1/2							
5A	1	PRE-RINSE FAUCET, WALL MOUNT	X	-	-	-	-	X	T&S BRASS	B-0133-A12-08									1/2	1.4	1/2												
5B	1	FAUCET, WALL MOUNT	X	-	-	-	-	X	T&S BRASS	B-0231									1/2	23.1	1/2												
5C	1	POT RACK, WALL MOUNT	X	-	-	X	-	-	FABRICATOR	CUSTOM																							
6	1	SHELVING, PLASTIC	X	-	-	X	-	-	FABRICATOR	CUSTOM																							
7	1	DISHWASHER, DOOR TYPE, HIGH TEMP VENTLESS ELECTRIC	X	-	-	X	-	-	HOBART	AM16VLT-ADV		X	208/240	3	26.9 26.6				3/4	0.4	3/4					1-1/2							
8	1	CLEAN DISHTABLE	X	-	-	X	-	-	ADVANCE TABCO	DTC-S70-36L																							
9	1	HAND SINK, WALL MOUNT	X	-	-	X	-	-	ADVANCE TABCO	7-PS-61	X		115	1	5.0			5-15P	1/2		1/2				1 1/2"								
9A	1	PAPER TOWEL DISPENSER	-	X	-	-	X	-	BY VENDOR	BY VENDOR																							
9B	1	SOAP DISPENSER	-	X	-	-	X	-	BY VENDOR	BY VENDOR																							
9C	1	WASTE RECEPTACLE	X	-	-	X	-	-	RUBBERMAID	FG354060BLA																							
10	1	SPARE NUMBER	-	-	-	-	-	-	-	-																							
11	1	WASTE RECEPTACLE	X	-	-	X	-	-	RUBBERMAID	FG354060BLA																							
12	1	REACH-IN REFRIGERATOR	X	-	-	X	-	-	TRUE	STG3R-3S	X		115	1	6.1		1/2	5-15P															
13	1	REACH-IN FREEZER	X	-	-	X	-	-	TRUE	STG2F-2S	X		115	1	9.4		3/4	5-15P															
14	1	ICE MAKER	X	-	-	X	-	-	MANITOWOC ICE	UDF0240A-161	X		115	1	7.0			5-15P			3/8					1/2							
14A	1	FILTER, ICE MAKER	X	-	-	-	-	X	3M PURIFICATION	ICE120-S																							CONNECT WITH ICE MAKER #14
15	1	HOT HOLDING CABINETS	X	-	-	X	-	-	ALTO-SHAAM	1200-UP	X		120	1	16.0	1.9		5-20P															
16	1	WORK TABLE	X	-	-	X	-	-	FABRICATOR	CUSTOM																							
17	1	GAS RANGE	X	-	-	X	-	-	VULCAN	60SC-6B-24G	X		115	1	8.0			5-15P									1	278					
17A	1	SAFETY HOSE GAS CONNECTOR	X	-	-	-	-	X	DORMONT	16100KIT2S48PS																							
18	1	PORTABLE HOLDING CABINET	X	-	-	X	-	-	HATCO	FSHC-7-1	X		120	1	14.1	1.697		5-15P															
19	1	DOUBLE-DECK CONVECTION OVEN	X	-	-	X	-	-	VULCAN-HART	VC44GD	X		120 120	1	7.7 7.7		1/2	5-15P									3/4 3/4	50 50					
19A	1	SAFETY HOSE GAS CONNECTOR	X	-	-	-	-	X	DORMONT	16100KIT2S48PS																							
20	1	SPARE NUMBER	-	-	-	-	-	-	-	-																							
21	1	EXHAUST HOOD - LEFT	X	-	-	X	-	-	CAPTIVEAIRE	6024ND-2-PSP-F																			2250	0.00	1800		REFER TO CAPTIVEAIR DRAWINGS FOR MECHANICAL DETAILS & SPECIFICATIONS
21A	1	FIRE SUPRESSION SYSTEM	X	-	-	X	-	-	ANSUL	R-102																							REFER TO CAPTIVEAIR DRAWINGS FOR MECHANICAL DETAILS & SPECIFICATIONS
21B	1	SUPPLY FAN	-	-	X	-	-	X	BY GC	BY GC																							REFER TO CAPTIVEAIR DRAWINGS FOR MECHANICAL DETAILS & SPECIFICATIONS
21C	1	EXHAUST FAN	-	-	X	-	-	X	BY GC	BY GC																							REFER TO CAPTIVEAIR DRAWINGS FOR MECHANICAL DETAILS & SPECIFICATIONS
21D	1	MANIFOLD, GAS	X	-	-	X	-	-	CAPTIVEAIRE	MG																							
21E	1	WALL FLASHING	X	-	-	X	-	-	STAINLESS STEEL	FABRICATOR																							
22	1	COUNTER W/ HAND SINK	X	-	-	X	-	-	FABRICATOR	STAINLESS STEEL															3 1/2"								
22A	1	FAUCET, ELECTRONIC	X	-	-	-	-	X	T&S BRASS	EC-3100-120X	X		115	1	5.0			5-15P	1/2	2.2	1/2												
22B	1	PAPER TOWEL DISPENSER	-	X	-	-	X	-	BY VENDOR	BY VENDOR																							
22C	1	SOAP DISPENSER	-	X	-	-	X	-	BY VENDOR	BY VENDOR																							
22D	1	WASTE RECEPTACLE	X	-	-	X	-	-	RUBBERMAID	FG354060BLA																							
23	1	TABLE W/ PREP SINKS	X	-	-	X	-	-	FABRCIATOR	CUSTOM																(2) 1 1/2							PROVIDE A SINK COVER PER SINK
23A	1	FAUCET, DECK MOUNT	X	-	-	-	-	X	T&S BRASS	B-0220									1/2	28.6	1/2												
23B	1	SHELF, TABLE MOUNT, SOLID	X	-	-	X	-	-	FABRCIATOR	CUSTOM																							
23C	1	Drop-In, Hot Well	X	-	-	X	-	-	LTI	QSCHP-4-H	X		120/208	1	12.0			14-20P								1							
23D	1	COMMERCIAL MICROWAVE OVEN	X	-	-	X	-	-	PANASONIC	NE-1025F	X		120	1	13.4			5-15P															
24	1	MIXER	X	-	-	X	-	-	HOBART	HL120-1	X		100/120	1	8.0		1/2	5-15P															
25	1	WORK TABLE	X	-	-	X	-	-	FABRICATOR	CUSTOM															3 1/2"								
25A	1	SHELF, WALL MOUNT	X	-	-	X	-	-	FABRICATOR	CUSTOM																							
25B	1	FAUCET, ELECTRONIC	X	-	-	-	-	X	T&S BRASS	EC-3100-120X	X		115	1	5.0			5-15P	1/2	2.2	1/2												
25C	1	PAPER TOWEL DISPENSER	-	X	-	-	X	-	BY VENDOR	BY VENDOR																							
25D	1	SOAP DISPENSER	-	X	-	-	X	-	BY VENDOR	BY VENDOR																							
25E	1	WASTE RECEPTACLE	X	-	-	X	-	-	RUBBERMAID	FG354060BLA																							
26	1	WORK CABINET W/ HAND SINK AND PASS-THRU SHELF	X	-	-	X	-	-	FABRICATOR	STAINLESS STEEL																							
27	1	PORTABLE HOLDING CABINET	X	-	-	X	-	-	HATCO	FSHC-7-1	X		120	1	14.1			5-15P															
28	2	CORNER GUARD	X	-	-	X	-	-	ADVANCE TABCO	CG-48																							
29	1	AIR CURTAIN, UNHEATED	X	-	-	X	-	-	MARS	LPV272-1UD-OB		X	208/230	1	1.4																		
30-99	1	SPARE NUMBER	-	-	-	-	-	-	-	-																							

1 FOODSERVICE EQUIPMENT SCHEDULE

BASE BID INCLUDES ALL ITEMS

*** DEDUCT ALTERNATE REMOVE ITEMS AS FOLLOWED - #2, (1) #3, #16, #18, #24, #26

Project Title:

Colchester Senior Center
Town of Colchester
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Colchester, CT 06415

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Drawing Title:

FOODSERVICE EQUIPMENT SCHEDULE

Date: September 09, 2022

Scale:

Drawn By: Author

Project Number: 20.003

Drawing Number: FS000

GENERAL NOTES

A. THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE FULL SET OF CONSTRUCTION DOCUMENTS AS APPLICABLE.

B. THE DRAWINGS AND SPECIFICATIONS, AND ALL COPIES THEREOF, ARE LEGAL INSTRUMENTS OF SERVICE FOR THE USE BY THE OWNER AND AUTHORIZED REPRESENTATIVES ON THE DESIGNATED PROPERTY ONLY. OTHER USE, WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE OWNER, RJS ASSOCIATES, OR THE PROJECT ARCHITECT, IS PROHIBITED.

C. SPECIFICATIONS, DETAILS AND SCHEDULES, WHICH MAY BE BOUND SEPARATELY AND REFERENCED BY PROJECT NAME, ARE PART OF THESE CONTRACT DOCUMENTS. DRAWINGS BY CONSULTING PROFESSIONALS, INCLUDING FOOD SERVICE CONSULTANTS, ARE SUPPLEMENTARY AND SUBORDINATE TO THE ARCHITECTURAL DRAWINGS AND ARE PART OF THESE CONTRACT DOCUMENTS AS MAY BE APPLICABLE.

D. THE KITCHEN EQUIPMENT CONTRACTOR SHALL NOTIFY THE FOOD SERVICE CONSULTANT IMMEDIATELY OF ANY OMISSIONS OR DISCREPANCIES BETWEEN THE FOOD SERVICE DRAWINGS, ARCHITECTURAL DRAWINGS, CONSULTING PROFESSIONALS DRAWINGS, SPECIFICATIONS OR EXISTING CONDITIONS. SHOULD THERE BE AN OMISSION OR DISCREPANCY BETWEEN SAID DRAWINGS AND SPECIFICATIONS, IT SHALL BE BROUGHT TO THE FOOD SERVICE CONSULTANT'S ATTENTION IN WRITING FOR CLARIFICATION PRIOR TO BIDDING, EXECUTION OR INSTALLATION OF SAID WORK.

E. ALL WORK SHALL CONFORM TO ALL RULES AND REGULATIONS OF FEDERAL, STATE AND LOCAL GOVERNMENT AGENCIES AND JURISDICTIONS HAVING AUTHORITY OF THE PROJECT, INCLUDING STATE AND FEDERAL ACCESSIBILITY REQUIREMENTS.

F. THE KITCHEN EQUIPMENT CONTRACTOR SHALL NOTIFY THE FOOD SERVICE CONSULTANT IMMEDIATELY IF INFORMATION IS NOT SHOWN OR IS UNCLEAR.

G. THE KITCHEN EQUIPMENT CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS PRIOR TO STARTING WORK AND REPORT ANY DISCREPANCIES IN WRITING TO THE FOOD SERVICE CONSULTANT. ANY WORK INSTALLED IN CONFLICT WITH HE FOOD SERVICE DRAWINGS SHALLBE CORRECTED AT THE KITCHEN EQUIPMENT CONTRACTOR'S EXPENSE.

H. THE KITCHEN EQUIPMENT CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS FOR ALL WORK.

I. THE KITCHEN EQUIPMENT CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SCHEDULING AND COORDINATING THE WORK FOR ALL UTILITIES AND SERVICES RELATED TO THIS WORK.

J. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED TO BE CONSTRUCTION STANDARDS. QUESTIONS REGARDING THE SAME, OR THEIR EXACT MEANING, SHALL BE DIRECTED TO THE FOOD SERVICE CONSULTANT.

K. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE. DO NOT SCALE DRAWINGS. THE KITCHEN EQUIPMENT CONTRACTOR SHALL, AT THE MINIMUM, BE RESPONSIBLE FOR THE ACCURATE PLACEMENT AND CONFIGURATION OF THE EQUIPMENT WITHIN ITS SCOPE ON THE SITE.

L. ALL EXTERIOR WALL DIMENSIONS ARE TO FACE OF STUD, CONCRETE OR MASONRY, UNLESS OTHERWISE NOTED.

M. ALL INTERIOR WALL DIMENSIONS ARE TO FACE OF GYPSUM BOARD AT METAL STUD WALLS, OR TO FACE OF MASONRY OR CONCRETE, UNLESS OTHERWISE NOTED.

N. FINISH FLOOR ELEVATIONS ARE TO TOP OF CONCRETE SLAB, UNLESS OTHERWISE NOTED.

O. FLOOR TO CEILING HEIGHT DIMENSIONS ARE TO FINISHED SURFACES, UNLESS OTHERWISE NOTED.

P. ALL DOOR SIZES SHOWN ON SCHEDULE ARE OPENING SIZES. ALLOWANCE FOR THRESHOLDS, ETC. SHALL BE DEDUCTED. FRAMES SHALL BE REINFORCED WHERE REQUIRED, FOR CLOSERS, STOPS AND HARDWARE.

Q. THE KITCHEN EQUIPMENT CONTRACTOR SHALL VERIFY LOCATION OF ALL STIFFENERS, BRACES, BLOCKING, BACKING, HANGERS, BACK-UP PLATES AND SUPPORTING BRACKETS REQUIRED FOR THE INSTALLATION OF THE CASEWORK, FIXTURES AND ALL WALL-MOUNTED OR SUSPENDED KITCHEN EQUIPMENT, OR MISCELLANEOUS EQUIPMENT OR FURNISHINGS THAT ARE CONTAINED IN THIS WORK.

R. THE KITCHEN EQUIPMENT CONTRACTOR SHALL VERIFY EXACT SIZES AND LOCATIONS OF ALL ITEMS WITHIN HIS SCOPE, INCLUDING, BUT NOT LIMITED TO; EQUIPMENT CURBS, BASE STRUCTURES, AS WELL AS POWER, WATER, DRAIN, GAS INSTALLATIONS AND LOCATIONS. ALL ITEMS SHALL BE VERIFIED WITH EQUIPMENT MANUFACTURERS BEFORE PROCEEDING WITH THE WORK. CHANGES TO ACCOMMODATE THE FIELD CONDITIONS OR APPROVED SUBSTITUTIONS SHALL BE MADE WITHOUTADDITIONAL CHARGE TO THE OWNER OR RJS ASSOCIATES.

S. ALL PIPES, CONDUITS, WIRES AND DUCTS SHALL BE CONCEALED FROM VIEW UNLESS OTHERWISE NOTED.

T. HIDDEN CONDITIONS: THE KITCHEN EQUIPMENT CONTRACTOR IS TO CONTACT THE FOOD SERVICE CONSULTANT IMMEDIATELY UPON UNCOVERING ANY HIDDEN CONDITION. THE FOOD SERVICE CONSULTANT IS TO PROVIDE DIRECTION.

U. CLEAN UP: DAILY REMOVAL OF CONSTRUCTION DEBRIS RELATED TO THIS WORK.

GENERAL PROJECT NOTES

PROJECT SPECIFICATIONS FORM A PART OF THESE GENERAL NOTES.

A. THESE DRAWINGS TO BE USED IN CONJUNCTION WITH THE FULL SET OF CONSTRUCTION DOCUMENTS AS APPLICABLE.

B. THE KITCHEN EQUIPMENT CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION OF CUSTOM FABRICATED KITCHEN EQUIPMENT. THE ARCHITECT AND RJS ASSOCIATES SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.

C. DO NOT SCALE THE DRAWINGS.

D. NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER THESE GENERAL NOTES AND THE TYPICAL DETAILS.

E. ALL SPECIFICATIONS AND CODES NOTED SHALL BE THE LATEST APPROVED EDITIONS AND REVISIONS OF THE GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THIS PROJECT.

F. SEE THE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING: SIZE AND LOCATION OF WINDOW AND DOOR OPENINGS. SIZES AND LOCATIONS OF INTERIOR AND EXTERIOR NONBEARING PARTITIONS. SIZES AND LOCATIONS OF CONCRETE CURBS, CONVENIENCE FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHANGES IN LEVELS, CHAMFERS, GROOVES, INSERTS, ETC. SIZE AND LOCATION OF FLOOR AND ROOF OPENINGS. FLOOR AND ROOF FINISHES. STAIR FRAMING AND DETAILS. DIMENSIONS NOT SHOWN ON THE FOOD SERVICE DRAWINGS. CEILING ASSEMBLIES AND HEIGHTS EXTERIOR WALL ASSEMBLIES.

G. SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR THE FOLLOWING: PIPES, SLEEVES, HANGERS, TRENCHES, WALL, FLOOR AND ROOF OPENINGS, DUCT PENETRATIONS, ETC. EXCEPT ASSHOWN OR NOTED. CONVENIENCE FLOOR SINKS.ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL, OR PLUMBING FIXTURES. SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES, ANCHOR BOLTS FOR MOUNTS.BEVERAGE CONDUIT RUNS AND PULL BOXES, UNLESS INCLUDED IN RJS FOOD SERVICE DRAWINGS.

GENERAL PROJECT NOTES CONT.

H. SEE INTERIOR DESIGN DRAWINGS FOR THE FOLLOWING: CEILING PATTERNS, MATERIALS, FINISHES, DECORATIVE LIGHT FIXTURES, LOCATIONS AND ADDITIONAL CEILING INFORMATION. DIMENSIONS AND ALL INTERIOR WALL ELEVATIONS. DETAILS OF BOOTHS, BAR, COUNTER AND BUILT-INS.

I. SEE RJS ASSOCIATES FOOD SERVICE SPECIAL CONDITIONS DRAWINGS FOR WALL BACKING INFORMATION, SLAB DEPRESSIONS, BEVERAGE CONDUIT ROUTING, BULK CO2 FILL BOX, ETC.

J. SEE ELECTRICAL RJS ASSOCIATES FOOD SERVICE DRAWINGS FOR WALL MOUNTED EQUIPMENT OUTLETS, SWITCHES AND DETAILS.

K. SEE PLUMBING RJS ASSOCIATES FOOD SERVICE DRAWINGS FOR INFORMATION ON FLOOR SINKS, FLOOR DRAINS AND NEW EQUIPMENT LAYOUT AT KITCHEN, SCULLERIES AND SERVICE STATIONS.

L. THE CONTRACT RJS ASSOCIATES FOOD SERVICE DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED DESIGN. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION.

M. THE KITCHEN EQUIPMENT CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE FOOD SERVICE EQUIPMENT, WORKING AND ADJACENT SPACES DURING CONSTRUCTION.

N. NOTIFY RJS ASSOCIATES FOOD SERVICE CONSULTANT WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, WALLS, ETC.

O. KITCHEN EQUIPMENT CONTRACTOR SHALL INVESTIGATE THE SITE DURING ALL PHASES OF CONSTRUCTION. IF ANY BURIED STRUCTURES, CESSPOOLS, CISTERNS, FOUNDATIONS, UTILITIES, ETC. ARE FOUND, RJS ASSOCIATES SHALL BE NOTIFIED IMMEDIATELY.

P. KITCHEN EQUIPMENT CONTRACTOR SHOP DRAWINGS SUBMITTED TO RJS+ASSOCIATES SHALL CONSIST OF (5) HARD-COPY SETS, AND (1) ELECTRONIC CAD FILE.

Q. IT SHALL BE THE RESPONSIBILITY OF THE OWNER AND/OR THE GENERAL CONTRACTOR TO INSURE THAT ALL OF THE CONSULTANTS AND SUB- CONTRACTORS RECEIVE COPIES OF ANY AND ALL ADDENDUMS OR CHANGES TO THE CONSTRUCTION DOCUMENTS OR FIELD CONDITIONS WHICH ARE MADE PRIOR TO AND DURING CONSTRUCTION.

R. KITCHEN EQUIPMENT CONTRACTOR SHALL BE RESPONSIBLE FOR ALL GENERAL CLEAN-UP AND DISPOSAL OF ALL TRASH, CARTONS, CRATES, DEBRIS, ETC. AFTER FINAL INSTALLATION OF ALL FIXTURES AND EQUIPMENT, UNLESS OTHERWISE NOTED, INCLUDING FINAL NON-SANITARY CLEANING.

S. ALL BASE CONSTRUCTION, MECHANICAL, PLUMBING, ELECTRICAL, WIRING AND CONDUIT REQUIREMENTS RELATED TO EQUIPMENT AS INDICATED ON RJS ASSOCIATES CONSTRUCTION DOCUMENTS ARE TO BE COMPLETED BY THE GENERAL CONTRACTOR AND/OR SUB-CONTRACTORS.

T. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL HAVE INCLUDED IN HIS SCOPE, ALL WORK NECESSARY TO PROPERLY COORDINATE AND FACILITATE THE INSTALLATION OF ALL FOOD SERVICE EQUIPMENT BY THE KITCHEN EQUIPMENT CONTRACTOR, INCLUDING THE INSTALLATION OF ALL RELATED ITEMS REQUIRED. THIS WORK SHALL INCLUDE ALL NECESSARY CORE DRILLING AND SLEEVES THROUGH WALLS, CEILINGS, FLOORS, COLUMNS AND BEAMS FOR THE PASSAGE OF ALL UTILITIES AND REFRIGERATION LINES. THIS WORK SHALL ALSO INCLUDE ALL EMPTY CONDUITS, ALL EQUIPMENT PADS/CURBS, ALL PLUMBING AND ELECTRICAL REQUIREMENTS AS DESCRIBED ON RJS ASSOCIATES FOOD SERVICE CONSTRUCTION DOCUMENTS, ALL DUCT SHAFTS AND WALL BACKING.

U. THE LAST DATED REVISION VOIDS ALL PREVIOUS FOOD SERVICE CONSTRUCTION DOCUMENTS CONTAINED IN THIS SET.

V. GENERAL CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ALL SUPPLIERS AND/OR SUB-CONTRACTORS UPON COMPLETION OF ANY APPLICABLE ROUGH-IN OR OTHER WORK IN ORDER TO FACILITATE THE VERIFICATION OF ALL ROUGH-IN LOCATIONS AND/OR EQUIPMENT DIMENSIONS AS REQUIRED.

DESIGN DRAWINGS

A. DESIGN DRAWINGS ARE DIAGRAMMATIC AND ARE ONLY INTENDED TO DEFINE THE BASIC FUNCTIONS REQUIRED. PROVIDE ALL WORK, MATERIAL, ETC. NECESSARY TO ACCOMPLISH THESE REQUIREMENTS. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND ARE PART OF THE WORK INCLUDED: HOWEVER, NO CHANGES THAT ALTER THE DESIGN INTENT OR FUNCTION OF THE WORK WILL BE PERMITTED. DO NOT SCALE THE DRAWINGS.

B. IF A CONFLICT OCCURS BETWEEN THE DESIGN DRAWINGS AND SPECIFICATIONS, THE MOST STRINGENT SHALL APPLY.

SUBMITTALS

A. SHOP DRAWINGS:
PRIOR TO FABRICATION OR DELIVERY OF ANY MATERIAL AND/OR EQUIPMENT TO THE JOB-SITE, SUBMIT FIVE (5) HARD COPIES AND ONE (1) ELECTRONIC CAD FILE COMPLETELY ILLUSTRATING AND DESCRIBING ALL MATERIAL AND EQUIPMENT TO BE FABRICATED. ANY PIECE OF MATERIAL OR EQUIPMENT PLACED ON THE JOB WITHOUT PRIOR APPROVAL WILL BE SUBJECT TO REMOVAL.

B. RECORD DRAWINGS:
MAINTAIN ACCURATE CONTINUOUS RECORDS OF ANY AND ALL CHANGES FROM THE CONTRACT DOCUMENTS AND SHOP DRAWINGS. UPON COMPLETION OF THE PROJECT, DELIVER TO THE OWNER, ONE (1) SET OF LEGIBLE AND REPRODUCIBLE COPIES OF THESE RECORD DRAWINGS, PLUS ONE (1) COMPLETE ELECTRONIC CAD FILE, INCLUDING "AS-BUILT" FABRICATION SHOP DRAWINGS.

C. GUARANTEE:
UPON COMPLETION OF THE PROJECT, DELIVER TO THE OWNER ONE (1) YEAR GUARANTEE OF THE FOOD SERVICE EQUIPMENT, MATERIAL AND WORK PERFORMED.

D. MANUAL AND OPERATING INSTRUCTIONS:

1. UPON COMPLETION OF THE PROJECT, THE KITCHEN EQUIPMENT CONTRACTOR SHALL DELIVER TO THE OWNER THREE (3) HARD BOUND "OWNER'S MANUAL'S" AND ONE (1) ELECTRONIC COPY. INCLUDE IN THE MANUAL, INSTRUCTIONS SPECIFICALLY PREPARED FOR THE EQUIPMENT AND SYSTEMS PROVIDED, ALONG WITH ALL PAPERS, DESCRIPTIONS, PARTS LISTS, INSTRUCTIONS, WARRANTIES, ETC. WHICH WERE DELIVERED WITH THE MATERIALS AND EQUIPMENT UTILIZED IN THE PROJECT. IDENTIFY EACH ITEM BY DESIGNATION APPEARING ON THE DRAWINGS.

2. AT THE TIME DESIGNATED, PROVIDE A SUITABLE OPERATOR, MECHANIC OR ENGINEER TO REVIEW THE SYSTEM WITH OWNER'S REPRESENTATIVE TO THOROUGHLY FAMILIARIZE THE OWNER WITH THE OPERATIONS AND MAINTENANCE OF THE SYSTEM.

HEALTH DEPT. NOTES

1. ALL FOOD SERVICE EQUIPMENT, FABRICATED ITEMS, AND THEIR INSTALLATION SHALL MEET NATIONAL SANITATION FOUNDATION (N.S.F.) REQUIREMENTS.
2. ALL STATIONARY EQUIPMENT AND FIXTURES TO BE SEALED TO THE WALL OR ADJACENT EQUIPMENT. USE ALUMINUM COLOR AT STAINLESS STEEL AND CLEAR AT ALL OTHER.
3. ALL SINKS IN THE FOOD FACILITY MUST BE PROVIDED WITH HOT WATER (MIN. 110 DEG. F.) AND COLD RUNNING WATER UNDER PRESSURE AND WILL HAVE A PREMIXING FAUCET CAPABLE OF SUPPLYING WARM WATER FOR A MINIMUM OF 10 SECONDS.
4. A HAND SINK IS PROVIDED IN EACH FOOD PREPARATION AREA WITH SINGLE SERVICE TOWEL AND SOAP DISPENSER.
5. 3-COMPARTMENT SINKS ARE PROVIDED WITH MIXING VALVE FAUCETS CAPABLE OF REACHING EACH COMPARTMENT.
6. A MIN. OF 20 FOOT CANDLES (215 LUX) OF LIGHT, MEASURED 30" OFF THE FLOOR TO BE PROVIDED IN ALL FOOD PREPARATION, PACKAGING, AND PROCESSING AREAS.
7. A MIN. OF 10 FOOT CANDLES (108 LUX) OF LIGHT, MEASURED 30" OFF THE FLOOR TO BE PROVIDED IN ALL FOOD & UTENSIL STORAGE ROOMS, TOILET, AND DRESSING ROOMS.
8. A MIN. OF 20 FOOT CANDLES (215 LUX) OF LIGHT, MEASURED 30" OFF THE FLOOR TO BE PROVIDED IN ALL AREAS DURING GENERAL CLEANUP ACTIVITIES.
9. ALL SHELVING OVER WET AREAS (SINKS, MOP SINKS, ETC.) WILL BE STAINLESS STEEL.
10. SHATTER SHIELDS OR SHATTERPROOF LIGHT BULBS TO BE PROVIDED FOR ALL LIGHTS ABOVE FOOD PREPARATION, WORK, AND STORAGE AREAS.
11. ALL PLUMBING, ELECTRICAL, AND GAS LINES SHALL BE CONCEALED WITHIN THE BUILDING STRUCTURE TO AS GREAT AN EXTENT AS POSSIBLE.
12. FLOOR SINKS UNDER EQUIPMENT MUST BE 50% EXPOSED AND EASILY ACCESSIBLE FOR CLEANING AND SERVICING.
13. ALL EXHAUST HOODS TO BE A MIN. 22 GA. STAINLESS STEEL, U.L. LISTED, AND CONSTRUCTED AND INSTALLED TO ALL U.L. AND N.F.P.A. SPECIFICATIONS. EXHAUST DUCTS TO BE A MIN. 16 GA. STEEL. (TYPE 1 HOOD DUCTS TO HAVE WELDED SEAMS)
14. ALL FLOOR TILE TO BE SMOOTH UNDER ALL EQUIPMENT, AND WALKWAYS TO HAVE A LIGHT TEXTURE ONLY.
15. ALL 3-COMPARTMENT SINKS TO HAVE A MIN. COMPARTMENT SIZE OF 18" X 18" X 12" DEEP, WITH A MIN. 18" DRAIN BOARD ON EACH END. PROVIDE WITH 8" HIGH INTEGRAL BACK SPLASH AT ALL WALLS. (SEE FOOD SERVICE SPECIFICATIONS FOR SIZES OF EACH ITEM.)
16. SUPPORT ROOMS ARE FOR STORAGE AND UTENSIL WASHING ONLY. NO VEGETABLE WASHING OR FOOD PREP. TO BE DONE

FOOD SERVICE NOTES

1. REQUIREMENTS SHOWN ARE FOR ONE ITEM, TO DERIVE TOTAL MULTIPLY BY QUANTITY SHOWN.
2. ELECTRICAL CONTRACTOR SHALL PROVIDE MAG. STARTERS. DISCONNECT SWITCHES, INTERLOCKS AND THERMO-OVERLOAD PROTECTION WHERE REQUIRED.
3. PLUMBING CONTRACTOR SHALL PROVIDE STOP VALVES AHEAD OF ALL OPERATING HANDLES AND FAUCETS.
4. SEE EQUIPMENT PLUMBING AND ELECTRICAL ROUGH-IN DRAWINGS FOR ADDITIONAL INFORMATION
5. ELECTRICAL POWER TO COOKING EQUIPMENT, WHERE REQUIRED, SHALL BE PROVIDED THRU A SHUNT-TRIP SYSTEM FOR FIRE FUEL SHUT-OFF. ELECTRICAL CONTRACTOR SHALL WIRE CONTROL CIRCUIT TO MICRO SWITCH PROVIDED BY KITCHEN EQUIPMENT CONTRACTOR ON HOOD FIRE PROTECTION SYSTEM.
6. GAS SUPPLY TO ALL COOKING EQUIPMENT, WHERE REQUIRED, SHALL BE PROVIDED WITH AN ELECTRIC VALVE FOR FIRE-FUEL SHUT-OFF. VALVE TO BE SUPPLIED BY THE "K.E.C." AND INSTALLED BY THE "P.C." K.E.C. SHALL CONNECT VALVE TO THE HOOD FIRE PROTECTION SYSTEM FOR AUTOMATIC SHUT-OFF.
7. ALL WALK-IN BOX COILS REQUIRE CONNECTIONS TO SOLENOID VALVE, T-STAT, T-CLOCK AND MOTORS AND CONTROL WIRING TO THE REMOTE COMPRESSOR. ALL CONNECTIONS TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
8. ALL WALK-IN BOX FIXTURES TO BE PROVIDED BY THE "K.E.C." INSTALLATION AND WIRING TO BE PROVIDED BY THE "E.C." WITH ALL CONDUIT RUN ON EXTERIOR (TOP) OF BOX.
9. VACUUM BREAKERS WHEN USED, TO BE MINIMUM OF SIX INCHES ABOVE THE FLOOD LEVEL RIM WITH NO SHUT OFF DEVICES BEYOND THE DISCHARGE OF THE VACUUM BREAKER.
10. WALL BACKING PROVIDED BY GENERAL CONTRACTOR.
11. PLUMBING CONTRACTOR TO SUPPLY GREASE TRAP AS REQUIRED BY CODE.
12. ALL COOKING EQUIPMENT UNDER EXHAUST HOODS ARE EITHER ON CASTERS WITH FLEXIBLE UTILITY QUICK DISCONNECTS OR FIXED ON S/S LEGS.
13. ALL NEW EXHAUST HOODS WILL BE CONSTRUCTED TO MEET THE FOLLOWING STANDARDS: NSF, UL AND NFPA-96. ALL NEW HOODS TO BEAR UL CLASSIFIED LABEL WITHOUT DAMPERS IN EXHAUST VENT COLLARS. HOODS ARE DESIGNED TO MEET OR EXCEED 50 FPM CAPTURE VELOCITY AT THE COOKING SURFACE EDGE AND HAVE A 6" MIN. OVERHANG AT ALL EXPOSED COOKING AREAS.
14. BACK SPLASHES OF EQUIPMENT SHALL BE SEALED TO WALLS WITH CLEAR SILICONE CAULK IN A NEAT WORKMAN LIKE MANNER.

SHEET NOTES

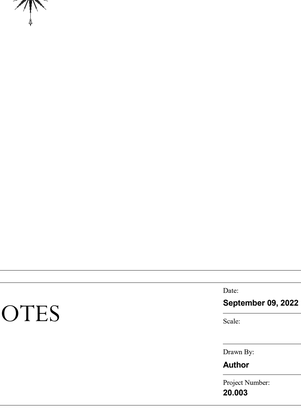
THIS PLAN REPRESENTS A FOOD SERVICE LAYOUT OF CULINARY, BEVERAGE, SYSTEMS AND RELATED EQUIPMENT FOR THE CONVENIENCE OF OWNER / OPERATOR, ARCHITECTS, MECHANICAL, ELECTRICAL AND PLUMBING ENGINEERS, CONTRACTORS, KITCHEN EQUIPMENT FABRICATORS, KITCHEN EQUIPMENT CONTRACTORS AND OTHER RELATED TRADES. THE BASE PLAN HAS BEEN MADE AVAILABLE FROM INFORMATION PROVIDED BY OTHER, NOT LIMITED TO MEASUREMENTS, ELECTRONIC BACKGROUNDS, GRID LINES AND EXISTING OR PROPOSED BUILDING SYSTEMS, NOT LIMITED TO (PLUMBING, STRUCTURAL, CONCRET, DUCTWORK, ELECTRICAL AND MECHANICAL). GENERAL CONTRACTOS, SUBCONTRACTOS, KITCHEN EQUIPMENT DEALERS, CONTRACTORS, INSTALLERS, RELATED AND NON-RELATED CONTRACTORS, ARE RESPONSIBLE FOR SECURING AND OBTAINING THEIR OWN MEASUREMENTS AND SPECIFIC INFOMATION. INFORMATION INDICATED ON THESE LANS ARE GENERALLY FOR FOOD SERVICE EQUIPMENT AND ARE INTENDED AS REFERENCE ONLY. RJS | BARBER IS NOT RESPONSIBLE FOR THE ENGINEER OR INTEGRATION OF RELATION ENGINEERING AON DISCIPLINES THROUGHOUT THE FULL SET OF CONSTRUCTION DOCUMENTS SPECIFIC TO THE FOOD SERVICE EQUIPMENT IN RELATION TO THE STRUCTURAL, ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL TRADES, UNLESS OTHERWISE SPECIFICALLY PROVIDED FOR IN THE PLANS AND SPECIFICATIONS. RJS+ ASSOCIATES ASSUMES NO RESPONSIBILITY FOR WORK DONE BY ANY AND ALL ARCHITECTS, ENGINEERS, CONSULTANTS OR CONTRACTORS, OR FOR ANY CHANGES MADE NECESSARY BY LOCAL, STATE, OR NATIONAL BUILDING CODES, ORDINANCES, STRUCTURAL CONDITIONS, OR BY THE SUBSTITUTION OR CHANGES IN EQUIPMENT SHOWN ON THIS PLAN(S). CONTRACTORS ARE TO MAKE ALLOWANCES FOR INTERNAL AND EXTERNAL FINAL CONNECTIONS ON THE FOOD SERVICE EQUIPMENT, WASTE PIPING, VALVES, BACK-FLOW PREVENTION, TRAPS, DRAIN GRATES, FLUID / GAS REGULATORS, FAUCETS, STEAM TRAPS, STARTING SWITCHES AND MOTORS, EXCEPT WHERE SPECIFICALLY NOTED IN THE FOOD SERVICE SPECIFICATIONS, SECTION 11400.

ABBREVIATIONS

(E)	EXSITING
(X)	EXISTING TO BE REMOVED
(R)	RELOCATE
NIC	NOT IN CONTRACT
U.O.N.	UNLESS OTHERWISE NOTED
FBO	FURNISHED BY OTHERS
FF & E	FIXTURES FURNISHINGS AND EQUIPMENT
AFF	ABOVE FINISHED FLOOR
ST.ST.	STAINLESS STEEL
KEC	KITCHEN EQUIPMENT CONTRACTOR

REFERENCE SYMBOLS

THE FOLLOWING SYMBOLS MAY BE USED IN THE DRAWINGS:



Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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GENERAL NOTES

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ELECTRICAL REQUIREMENTS

GENERAL NOTES:

A. ALL WORK INDICATED ON THE ELECTRICAL ROUGH-IN PLAN MUST BE COMPLETED BY OTHER THAN THE KITCHEN EQUIPMENT CONTRACTOR AND MUST COMPLY WITH ALL LOCAL CODES AND REGULATIONS.

B. A CATALOG OF MANUFACTURERS EQUIPMENT SPECIFICATION SHEETS IS INCLUDED AS AN INTEGRAL PORTION OF THIS SUBMITTAL, WE SUGGEST THEREFORE THAT ALL TRADES REVIEW THE REQUIREMENTS AS INDICATED REGARDING EACH MANUFACTURER.

C. CROSS REFERENCE ALL INFORMATION PER ROUGH-IN DRAWINGS WITH EQUIPMENT SCHEDULE DRAWINGS.

D. THE ELECTRICAL ROUGH-IN PLAN IS PROVIDED FOR INFORMATION ONLY, IS BASED ON A 60 HERTZ, UNLESS OTHERWISE NOTED. ELECTRICAL SYSTEM AND IS INTENDED TO SHOW FOOD SERVICE FIXTURES AND EQUIPMENT OUTLET TYPES, LOCATIONS, LOADS AND CONNECTION POSITIONS ONLY. FURNISH ANY ADDITIONAL OUTLETS AS REQUIRED BY LOCAL CODES OR REQUESTED BY OWNER. REFER TO ARCHITECTURAL OR ELECTRICAL ENGINEERING PLANS FOR ANY ADDITIONALELECTRICAL REQUIREMENTS.

E. REFER TO APPROVED SHOP DRAWINGS FOR SUPPLEMENTAL ELECTRICAL CONNECTIONS AND INSTALLATION REQUIREMENTS FOR THE FOOD SERVICE EQUIPMENT INDICATED ON THIS PLAN.

F. ELECTRICAL REQUIREMENTS FOR EXISTING AND OWNER OR PURVEYOR PROVIDED EQUIPMENT MUST BE VERIFIED WITH THE ACTUAL EQUIPMENT SUPPLIED. THESE PLANS ARE MINIMUM GUIDELINES ONLY AND MUST BE VERIFIED. CONTACT OWNER OR EQUIPMENT PROVIDER FOR LOCATION OR SPECIFICATIONS FOR THIS EQUIPMENT.

G. EXPOSED ELECTRICAL SERVICES STUBBED UP OUT OF THE FLOOR MUST BE PROTECTED AND INSTALLED IN A MANNER WHICH WILL PREVENT DAMAGE FROM WATER OR IF HIT BY PORTABLE KITCHEN EQUIPMENT, HEAVILY LOADED CARTS OR FLOOR CLEANING EQUIPMENT.

H. PRIOR TO THE INSTALLATION OF THE FOOD SERVICE EQUIPMENT, THE ELECTRICAL CONTRACTOR MUST CONFIRM THAT ELECTRICAL WIRING HAS BEEN PULLED THROUGH JUNCTION BOXES.

ELECTRICAL CONTRACTORS NOTES:

ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND FOR INSTALLING OF THE FOLLOWING, AND FOR MAKING ALL FINAL CONNECTIONS TO FOOD SERVICE EQUIPMENT AS SHOWN ON THIS PLAN UNLESS OTHERWISE NOTED.

A. ELECTRICAL CONTRACTORS SHALL FURNISH ALL LABOR AND MATERIALS TO MAKE ALL FINAL CONNECTIONS AND SHALL INCLUDE ALL ITEMS REQUIRED BY APPLICABLE LAWS.

B. ELECTRICAL CONTRACTORS TO CROSS REFERENCE ROUGH-IN DRAWINGS, STAINLESS STEEL FABRICATION, WALK-IN DRAWINGS, EXHAUST HOOD DRAWINGS AND MILLWORK DETAIL DRAWINGS.

C. ALL WIRING, WIRING CONDUITS, JUNCTION BOXES, ELECTRICAL OUTLETS, SWITCHES, COVER PLATES, PLUG MOLDING, ETC. AS SHOWN ON PLAN AND NOT PROVIDED BY OTHERS. RUN ALL OF THE ELECTRICAL SERVICE LINES IN WALLS OR CONCEALED WHEREVER POSSIBLE. ALL EXPOSED SERVICES, COMPONENTS AND CONNECTIONS TO BE VAPOR TIGHT.

D. ALL DISCONNECTS OR OTHER DEVICES AS REQUIRED BY LOCAL CODES. DO NOT LOCATE DISCONNECTS OR OTHER DEVICES (OTHER THAN JUNCTION BOX CONNECTIONS OR CORD AND PLUG RECEPTACLES) BEHIND COOKING EQUIPMENT OR BELOW EXHAUST HOOD ASSEMBLIES.

E. ALL SHUNT-TRIP CIRCUIT BREAKERS OR DISCONNECTS FOR FIRE SUPPRESSION SYSTEM SHUT-OFF OF ALL ELECTRICAL BELOW AND IN EXHAUST HOODS AND VENTILATORS, INTERWIRED WITH FIRE SUPPRESSION SYSTEM, AS REQUIRED BY N.F.P.A. STANDARDS AND ANY LOCAL CODES AND REGULATIONS.

F. ALL RECEPTACLES, OUTLETS AND CORD AND PLUG ASSEMBLIES TO BE NEMA SIZED, UL APPROVED AND RATED FOR THE SERVICE INDICATED ON THESE PLANS.

G. ALL WIRING TO AND INTERWIRING BETWEEN THE FOLLOWING:
1. EXHAUST HOOD/VENTILATOR COMPARTMENTS.
2. ELECTRICIAN TO SIZE AND SUPPLY STARTER MOTORS FOR EXHAUST HOOD FANS.
3. ELECTRICAL SERVICES TO CONTROL PANELS. EXACT REQUIREMENTS FOR THE NUMBER OF WIRES AND ELECTRICAL SERVICE MUST BE VERIFIED WITH THE APPROVED SHOP DRAWINGS AND COMPLY WITH LOCAL CODES AND REGULATIONS BY ELECTRICAL CONTRATOR.
4. CONTROL WIRING FROM CONTROL PANEL TO EACH HOOD SECTION FOR DAMPERS, SOLENOIDS AND LIGHTS BY ELECTRICAL CONTRATOR
5. CONTROL WIRING FROM CONTROL PANEL TO EXHAUST AND SUPPLY FANS. THESE FANS SHALL BE ELECTRICALLY INTERLOCKED BY ELECTRICAL CONTRACTOR.
6. FIRE SYSTEMS CONTROL INTERWIRING BETWEEN FIRE SUPPRESSION SYSTEMS, CONTROL PANELS AND REMOTE SHUT-OFFS BY ELECTRICAL CONTRACTOR.
7. CONTROL WIRING FROM CONTROL PANEL TO EACH REMOTE DETERGENT PUMP AS APPLICABLE BY ELECTRICAL CONTRACTOR.

H. ALL REQUIRED MATERIALS TO MAKE FINAL CONNECTIONS TO ALL FOOD SERVICE EQUIPMENT SHOWN ON THIS PLAN BY ELECTRICAL CONTRACTOR.

I. AVOID LOCATING ELECTRICAL PANELS BEHIND FOOD SERVICE EQUIPMENT. REFER TO EQUIPMENT PLANS FOR THE LOCATIONS OF EQUIPMENT THAT DOES NOT APPEAR ON THIS ELECTRICAL ROUGH-IN PLAN.

J. AN ISOLATED CIRCUIT WITH A CLEAN EARTH GROUND FOR ALL OWNER PROVIDED POINT-OF-SALE EQUIPMENT, CREDIT CARD SCANNERS AND VALIDATION MACHINES. VERIFY ELECTRICAL REQUIREMENTS WITH THE OWNER AND EQUIPMENT, BY ELECTRICAL CONTRACTOR.

K. INTERCONNECT WASTE PULPER CONTROL PANEL WITH THE PULPER, EXTRACTOR AND REMOTE STOP-START STATIONS, AS PER MANUFACTURERS SPECIFICATIONS, BY ELECTRICAL CONTRACTOR.

GENERAL ELECTRICAL NOTES

(THESE NOTES SUPPLEMENT THE MASTER SPECIFICATIONS AND ARE RELATED TO WORK SURROUNDING FOOD SERVICE.)

B. DEFINITION: THE WORD "PROVIDE" MEANS: FURNISH, INSTALL FEED, CONNECT WITH ALL ACCESSORIES AND ANCILLARY EQUIPMENT FOR A COMPLETE OPERATING INSTALLATION BY THE APPROPRIATE TRADE, AS NOTED.

C. CODES: WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES AND ORDINANCES.

D. COMPLETE INSTALLATION: ELECTRICAL CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, ACCESSORIES, ETC. NECESSARY TO ACCOMPLISH A COMPLETE ELECTRICAL SYSTEM IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS PERFORMED BY APPLICABLE TRADES.

E. GROUNDING: ELECTRICAL CONTRACTOR TO GROUND ALL EQUIPMENT AND SYSTEM NEUTRALS IN ACCORDANCE WITH THE CODE. PROVIDE CODE SIZE EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDERS AND BRANCH CIRCUIT RACEWAYS. WHERE ISOLATED GROUNDS ARE INDICATED, PROVIDE INSULATED CONDUCTOR.

F. CIRCUITING: ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CIRCUITING IN CONDUIT. EMT WITH STEEL INSULATED THROAT SET-SCREW FITTINGS MAY BE USED IN DRY INTERIOR LOCATIONS. PVC WITH WRAPPED RIGID ELBOWS AND RISERS SHALL BE USED IN CONCRETE AND BELOW GRADE. RGS OR IMC CIRCUITING SHALL BE CONCEALED. WHERE CONCEALMENT IS IMPRACTICAL, AND WITH THE SPECIFIC APPROVAL OF THE ENGINEER, SURFACE RACEWAY AND OUTLETS MAY BE INSTALLED, FINISHED TO MATCH ADJACENT SURFACES. METAL-CLAD CABLE (TYPE MC) MAY BE USED PER THE FOLLOWING:
1. LIMITED SINGLE-CIRCUIT, DEAD-END FEEDS IN DRY LOCATIONS, WITHIN ACCESSIBLE ATTIC SPACES.
2. FLEXIBLE "WHIPS" FROM JUNCTION BOXES TO RECESSED AND SUSPENDED LIGHTING FIXTURES.
3. CIRCUITING WITHIN CASEWORK AND OTHER "TIGHT" CONDITIONS. WHERE APPROVED FOR INSTALLATION, TYPE MC CABLE SHALL BE SUPPORTED VERTICALLY 5' O.C., HORIZONTALLY 3' O.C., AND WITHIN 12" OF OUTLET JUNCTION BOXES.
4. PLASTIC BUSHINGS SHALL BE INSTALLED AT ALL TERMINATIONS.

G. WIRING: ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WIRE IN COPPER, STRANDED IN SIZES #8 AWG AND LARGER. INSULATION SHALL BE TYPE THW, THWN OR THHN.

H. EXISTING CONDITIONS: ELECTRICAL AND FOOD SERVICE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIARIZED WITH ALL EXISTING AND PROPOSED CONDITIONS WHICH MAY AFFECT THE COURSE OF HIS WORK PRIOR TO SUBMITTING A BID ON THIS PROJECT. NO EXTRAS WILL BE ALLOWED FOR FAILURE TO COMPLY WITH THIS REQUIREMENT.

I. PERMITS: ELECTRICAL CONTRACTOR SHALL OBTAIN FOR ALL BUILDING AND WORKING PERMITS AND INSPECTION FEES FOR THIS PROJECT, AS APPLICABLE TO SPECIFIC TRADE.

J. UTILITY SERVICES: ELECTRICAL CONTRACTOR SHALL PROVIDE POWER AND COMMUNICATIONS SYSTEM SERVICES IN ACCORDANCE WITH THE REQUIREMENTS OF THE SERVING UTILITIES. PROVIDE EXCAVATION, RACEWAY, STRUCTURE, GROUNDING, ETC. AS DIRECTED. POWER SERVICES AND DISTRIBUTION SYSTEM AIC RATING SHALL EXCEED MAXIMUM AVAILABLE FAULT CURRENT THROUGH UTILITY SERVICE TRANSFORMER. CONTACT SERVIING UTILITIES AND OBTAIN THEIR REQUIREMENTS PRIOR TO BID. (UTILITY SERVICE AND LINE EXTENSION CHARGES PAID BY OTHERS).

K. FIRE STOPPING: ELECTRICAL CONTRACTOR SHALL PROVIDE FIRE STOPPING AT ALL PENETRATIONS OF FIRE-RATED ASSEMBLIES. FIRE STOP ASSEMBLIES SHALL BE UL LISTED AND APPROVED BY CODE ENFORCING AUTHORITIES BY APPROPRIATE TRADES.

L. FUSES AND CIRCUIT BREAKERS: FUSES AND CIRCUIT BREAKERS SHALL BE SIZED PER ACTUAL NAMEPLATE OF EQUIPMENT SERVED. CIRCUIT BREAKERS SHALL BE RATED FOR THEIR RESPECTIVE APPLICATION (MOTOR CIRCUIT PROTECTOR, GROUND FAULT CIRCUIT INTERRUPTER, ARC FAULT CIRCUIT INTERRUPTER, ETC.). FUSES SHALL BE DUAL-ELEMENT CURRENT-LIMITING, AND SHALL BE INTERCHANGEABLE BETWEEN FRAME SIZES WITH STANDARD FACTORY FUSE REDUCERS.

M. EQUIPMENT STANDARDS: ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND OF THE HIGHEST QUALITY AVAILABLE ("SPECIFICATION GRADE"). LIGHTING FIXTURES SHALL HAVE ELECTRONIC BALLASTS AND ACRYLIC LENSES. FOOD SERVICE EQUIPMENT SHALL BE FACTORY-ASSEMBLED COMMERCIAL-GRADE, CONFIGURED PER SERVING UTILITY STANDARDS.

N. GUARANTEE: THE ELECTRICAL CONTRACTOR SHALL GUARANTEE THE COMPLETE ELECTRICAL SYSTEM, AND ALL PORTIONS THEREOF, SHALL BE GUARANTEED TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. PROMPTLY REMEDY SUCH DEFECTS AND ANY SUBSEQUENT DAMAGE CAUSED BY THE DEFECTS OR REPAIR THEREOF AT NO EXPENSE TO THE OWNER. LIGHT BULBS ARE EXEMPT FROM THIS GUARANTEE, BUT SHALL BE NEW AND UNUSED AT THE TIME OF FINAL ACCEPTANCE.

O. SUBMITTALS: SUBMIT COPIES AS REQUIRED, OF FACTORY SHOP DRAWINGS FOR ALL LIGHTING FIXTURES, SWITCHGEAR, PANELS, MOTOR CONTROL, WIRING DEVICES, ETC. PROPOSED FOR THIS PROJECT. PROPOSED ALTERNATES SHALL BE EQUAL OR SUPERIOR TO SPECIFIED ITEMS IN ALL RESPECTS. DETERMINATION OF EQUALITY RESTS SOLELY WITH ELECTRICAL ENGINEER.

P. LOCATIONS: INDICATED LOCATIONS OF ALL OUTLETS AND EQUIPMENT ARE SUBJECT TO CHANGE. SHIFT/RELOCATE/RECONFIGURE ANY OUTLET, EQUIPMENT OR CONNECTION POINT UP TO 10' AS DIRECTED BY ELECTRICAL ENGINEER, AT NO ADDED COST.

Q. IDENTIFICATION: ELECTRICAL CONTRACTOR SHALL IDENTIFY ALL EQUIPMENT, SWITCHBOARD CIRCUITS AND ELECTRICALLY- CONNECTED EQUIPMENT WITH ENGRAVED NAMEPLATES. NAMEPLATES SHALL BE FASTENED WITH A MINIMUM OF TWO (2) SCREWS. PANEL DIRECTORIES SHALL BE TYPED.

R. PANELBOARDS: PANELS SHALL HAVE FLUSH MONO-FLAT TRIM, PIANO HINGED DOORS AND COVER (DOOR IN DOOR) WITH LOCKABLE MASTER-KEYED FLUSH CATCHES AND BOLT-ON CIRCUIT BREAKERS. FLUSH MOUNTED PANELS SHALL HAVE EMPTY CONDUITS STUBBED TO ACCESSIBLE SPACE:

(1) 1" CONDUIT FOR EACH (4) SPARE/SPACE CIRCUITS.

GENERAL ELECTRICAL NOTES

(CONTINUED)

S. TAMPER-PROOF: ALL EQUIPMENT AND CIRCUITING ACCESSIBLE BY THE PUBLIC SHALL BE DEMONSTRATED TO BE TAMPER-PROOF AND VANDAL RESISTANT. OPENABLE DEVICES AND EQUIPMENT SHALL BE PADLOCKABLE.

T. SUPPORTS AND HANGERS: SUPPORT AND ALIGN ALL RACEWAYS, CABINETS, BOXES, BACK-BOXES, FIXTURES AND EQUIPMENT FROM STRUCTURE. SECURE ALL SUPPORTING METHODS BY MEANS OF TOGGLE BOLTS IN HOLLOW MASONRY, EXPANSION BOLTS IN SOLID MASONRY, CONCRETE PRESET INSERTS OR EXPANSION BOLTS IN CONCRETE, MACHINE SCREWS OR BOLTS ON METAL SURFACES, AND WOOD SCREWS ON WOOD CONSTRUCTION. ALL SUPPORTING SYSTEMS AND COMPONENTS SHALL BE RATED FOR FIVE (5) TIMES THE ACTUAL LOAD.

U. ADDITIONAL SYSTEMS AND EQUIPMENT CONNECTIONS: IN ADDITION TO EQUIPMENT POWER FEEDERS AND CONNECTIONS INDICATED ON THE ELECTRICAL DRAWINGS, PROVIDE 120V CONTROL POWER CONNECTIONS TO SMOKE/FIRE DAMPERS, VAV BOXES, TEMPERATURE CONTROL PANELS, DOOR-HOLDING/LATCHING DEVICES, ETC., AS INDICATED IN THE MECHANICAL DRAWINGS AND SPECIFICATIONS.

ITEM CIRCUT	POWER SOURCE	NO. PER
FIRE/SMOKE DAMPER	EMERGENCY	5
VAV TERMINAL (NO FAN)	NORMAL	7
TEMP CONTROL PANEL	EMERGENCY	1
DOOR HOLDING/LATCHING	DEVICE	4

V. 24-HOUR OPERATION: IF APPLICABLE, CONDUCT WORK TO MINIMIZE DISRUPTION OF OWNER'S ONGOING 24-HOUR OPERATIONS. PROVIDE BARRICADES, NOISE ABATEMENT AND DUST CONTAINMENT MEASURES TO ENSURE THE SAFETY AND COMFORT OF PATRONS, STAFF AND WORKERS. INTERRUPTIONS OF EXISTING POWER , COMMUNICATIONS OR FIRE ALARM SYSTEMS SHALL BE MOMENTARY IN NATURE, EACH SUCH OUTAGE (OR OPERATION WHICH MAY POSE RISK OF AN ACCIDENTAL OUTAGE) SHALL BE SCHEDULED 48 HOURS IN ADVANCE.

FOOD SERVICE ELECTRICAL SYSTEM NOTES

1. THESE DRAWINGS INDICATE ELECTRICAL FEEDS ONLY TO FOOD SERVICE EQUIPMENT AND SYSTEMS. SEE KITCHEN DRAWINGS (FS-SERIES) PREPARED BY THE FOOD SERVICE CONSULTANT FOR EXPLANATIONS OF LOADS, SYMBOLS MOUNTING HEIGHTS, ETC. - AND FOR ADDITIONAL ELECTRICAL REQUIREMENTS NOT INDICATED ON THESE DRAWINGS, INCLUDING: EXTENSIONS TO EQUIPMENT FROM OUTLET BOXES, SPECIALTY RECEPTACLES, CORD SETS, MULTIPLE CONNECTIONS FROM SINGLE OUTLETS, POWER AND CONTROL INTERCONNECTIONS FROM COMPRESSOR RACK TO FIELD EQUIPMENT AND MISCELLANEOUS POWER AND CONTROL INTERCONNECTIONS.
2. SEE OVERALL FOOD SERVICE DRAWINGS FOR DESCRIPTIONS OF EQUIPMENT AND SYSTEMS.
3. ALL CONDUIT STUB-UPS, AS INDICATED ON THE KITCHEN EQUIPMENT DRAWINGS, SHALL BE ROUTED BELOW FINISHED FLOOR, 3/4" MIN, UNLESS OTHERWISE NOTED AS LARGER.
4. ALL RECEPTACLES WITHIN 6FT OF SINKS OR WATER USE AREAS SHALL BE 'GFCI' TYPE.
5. ALL DEVICE COVER PLATES SHALL BE STAINLESS STEEL.
6. PROVIDE "TAYMAC" #S1/2G SERIES WEATHERPROOF RECESSED RECEPTACLE COVERS FOR ALL ABOVE COUNTER RECEPTACLES IN BAR AND SINK AREAS.
7. FINAL CONNECTION TO ALL KITCHEN EQUIPMENT SHALL BE MADE WITH 'SEAL-TITE' FLEXIBLE CONDUIT.
8. ALL EQUIPMENT LOCATED BELOW EXHAUST HOODS WITHIN FOOD PREPARATION AREAS SHALL BE SERVED BY SHUNT-TRIP TYPE CIRCUIT BREAKERS INTERLOCKED WITH THE HOOD FIRE SUPPRESSION SYSTEM. UPON ACTIVATION OF THE FIRE SYSTEM, THE SHUNT-TRIP CIRCUIT BREAKERS SHALL TRIP TO THE 'OFF' POSITION.
9. KITCHEN HOOD EXHAUST FANS AND MAKE-UP AIR UNITS SHALL BE INTERLOCKED AND THE CONTROL CIRCUITS SHALL BE ROUTED THROUGH DRY CONTACTS PROVIDED IN THE FIRE PROTECTION SYSTEM. PROVIDE ADDITIONAL RELAYS AS REQUIRED.
10. PROVIDE 120V SERVICE AND CONNECTIONS TO GAS SOLENOID VALVES. INTERCONNECT WITH HOOD CONTROL AND FIRE SUPPRESSION SYSTEMS.
11. SUPPLEMENTAL TASK LIGHTING: PROVIDE (15) 24" LONG LOCAL AND UNDERCOUNTER TASK LIGHTS, COMPLETE WITH LAMPS, INTEGRAL SWITCH, CORD SET AND/OR LOCAL OUTLET AS REQUIRED. "ALKCO" # SF300 SERIES. LOCATE AS DIRECTED FOR SUPPLEMENTAL TASK LIGHTING, OR AS REQUIRED TO PROVIDE 50 FOOT-CANDLE LIGHT LEVELS. RETURN EXCESS TO OWNER.
12. PROVIDE RACEWAY SYSTEMS FOR REFRIGERATION AND BEVERAGE SERVICE LINES AS DIRECTED IN FOOD SERVICE DRAWINGS (ALL LONG-RADIUS SWEEPS). PROVIDE PULL CANS AND GUTTERS AS REQUIRED. ASSEMBLE ALL RACEWAY SYSTEM JOINTS WITH SILICONE CAULK, TO PROVIDE A CONTINUOUS WATERTIGHT ASSEMBLY.

ABBREVIATIONS

(E)	EXISTING
(X)	EXISTING TO BE REMOVED
(R)	RELOCATE
NIC	NOT IN CONTRACT
U.O.N.	UNLESS OTHERWISE NOTED
+	ABOVE FINISHED FLOOR
DN+	DOWN FROM CEILING TO HEIGHT ABOVE FINISHED FLOOR
FBO	FURNISHED BY OTHERS
FF & E	FIXTURES, FURNISHINGS & EQUIPMENT
E.C.	ELECTRICAL CONTRACTOR
C	CONDUIT (WITH PULL CORD IF OTHERWISE EMPTY)
C.O.	CONDUIT ONLY
CONN	CONNECTION
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
JB	JUNCTION BOX
SR	SINGLE RECEPTACLE
DR	DUPLEX RECEPTACLE
BP	BREAKER PANEL
PI	PLUG IN
HP	HORSEPOWER
GRD/GND	GROUND
V	VOLTS
KW	KILOWATT (Watt x 1000)
A	AMP
P/W	PHASE / WIRE
K.E.C	KITCHEN EQUIPMENT CONTRACTOR
G.C	GENERAL CONTRACTOR

REFERENCE SYMBOLS

THE FOLLOWING SYMBOLS MAY BE USED IN THE DRAWINGS:

ELECTRICAL LEGEND

SYMBOLS		ABBREVIATIONS	
J	JUNCTION BOX (J-BOX)	A	AMPERES
□	EQUIPMENT INTERCONNECTION BY E.C.	AFF	ABOVE FINISHED FLOOR
●	ELECTRICAL ROUGH-IN	BTC	BRANCH TO CONNECTION POINT & CONNECT EQUIPMENT
⊖	SINGLE ELECTRICAL OUTLET (SCO)	CONV.	CONVENIENCE OUTLET 120V 1PH 20.0A
⊜	DUPLEX ELECTRICAL OUTLET (DOC)	D.C	DIRECT CONNECTION
⊜	FOURPLEX ELECTRICAL OUTLET (QCO)	DN	DOWN FROM ABOVE
⊙	STUB UP FROM FF (TERMINATED CONDUIT)	E.C	ELECTRICAL CONTRACTOR
▷	TELEPHONE OUTLET	HP	HORSE POWER
D	DATA LINE CONNECTION	K.E.C.	KITCHEN EQUIPMENT CONTRACTOR
F	FLOURESCENT LIGHT FIXTURE	KW	KILOWATTS
◌	INCANDESCENT LIGHT FIXTURE	PH	PHASE
▨	BREAKER PANELBOARD	U.C.	UNDER COUNTER
$	SWITCH AS NOTED	V	VOLTS
⊡	FLOOR BOX (FL. BOX)	W	WATTS

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ELECTRICAL NOTES

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PLUMBING REQUIREMENTS

GENERAL NOTES:

A. ALL WORK INDICATED ON THE PLUMBING ROUGH-IN PLAN MUST BE COMPLETED BY OTHER THAN THE KITCHEN EQUIPMENT CONTRACTOR AND MUST COMPLY WITH ALL LOCAL CODES AND RESTRICTIONS.

B. THE PLUMBING ROUGH-IN PLAN IS INTENDED TO SHOW PIPE SIZES, ROUGH-IN HEIGHTS AND LOCATIONS AND CONSUMPTION RATES FOR FOOD SERVICE EQUIPMENT ONLY. ANY ADDITIONAL PLUMBING REQUIREMENTS ARE THE RESPONSIBILITY OF THE PLUMBING ENGINEER AND MUST COMPLY WITH ANY APPLICABLE CODES AND REGULATIONS.

C. REFER TO THE APPROVED SHOP DRAWINGS FOR THE SUPPLEMENTAL COORDINATION AND INSTALLATION REQUIREMENTS FOR THE FOOD SERVICE EQUIPMENT INDICATED ON THE PLANS.

D. ALL SERVICES FOR THE EXISTING AND OWNER OR PURVEYOR PROVIDED EQUIPMENT MUST BE VERIFIED WITH THE EQUIPMENT. ANY UTILITIES INDICATED ON THE PLANS ARE MINIMUM GUIDELINES ONLY AND MUST BE VERIFIED WITH THE EQUIPMENT. CONTACT EQUIPMENT PROVIDER FOR THE LOCATION OF, OR SPECIFICATIONS FOR, THIS EQUIPMENT.

E. PRIOR TO THE INSTALLATION OF THE FOOD SERVICE EQUIPMENT, THE KITCHEN EQUIPMENT CONTRACTOR MUST CONFIRM THAT THE WATER, GAS AND/OR STEAM LINES WERE PREVIOUSLY PRESSURE TESTED, FLUSHED FREE OF FOREIGN MATTER, VALVED OFF AND TAGGED WITH THE APPROPRIATE LABELS.

PLUMBING CONTRACTOR NOTES:

PLUMBING CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE FOLLOWING, AND FOR MAKING ALL FINAL CONNECTIONS TO THE FOOD SERVICE EQUIPMENT UNLESS OTHERWISE NOTED.

A. INSTALL AND COMPLETE HAND SINK ASSEMBLIES. VERIFY COMPLIANCE WITH LOCAL CODES AND REGULATIONS.

B. INSTALL A FLOOR TYPE MOP BASIN COMPLETE WITH MIXING VALVE SERVICE FAUCET, VACUUM BREAKER AND WALL MOUNTED MOP HANGING RACK. FAUCET TO BE MOUNTED 36" ABOVE FINISHED FLOOR.

C. INSTALL HOSE BIBB ASSEMBLY WITH A FAUCET WITH GARDEN HOSE THREAD, MIXING VALVE AND VACUUM BREAKER WHERE SHOWN ON THESE FOOD SERVICE PLUMBING ROUGH-IN DRAWINGS.

D. PRESSURE REDUCING OR REGULATING VALVES, FAUCETS AND WATER INLETS, IN-LINE WATER FILTERS AND VACUUM BREAKERS, NOT OTHERWISE SUPPLIED TO FOOD SERVICE EQUIPMENT, AS REQUIRED BY LOCAL CODES AND MANUFACTURERS SPECIFICATIONS.

E. WASTE LINES, DIRECT AND INDIRECT, SHALL BE A MINIMUM 1" DIA. REGARDLESS OF CONNECTION SIZE, TO BE PITCHED DOWNWARD AND TO HAVE ADEQUATE CLEAN-OUT PROVISIONS.

F. AREA DRAINS AND FLOOR SINKS COMPLETE WITH TOP GRATES INDICATED AND REMOVABLE SEDIMENT BUCKET. FLOOR SINK TOP TO BE SET FLUSH WITH THE FINISHED FLOOR. VERIFY COMPLIANCE WITH LOCAL CODES AND REGULATIONS.

G. GREASE TRAPS AS REQUIRED. INSTALL GREASE TRAPS OUTSIDE OF BUILDING WHENEVER POSSIBLE. INSTALLATION WITHIN THE BUILDING MUST COMPLY WITH LOCAL CODES AND REGULATIONS. NOTIFY RJS ASSOCIATES WHEN INSTALLATION MUST BE WITHIN ANY OF THE KITCHEN AREAS.

H. ALL REQUIRED MATERIALS TO MAKE FINAL CONNECTIONS TO ALL FOOD SERVICE EQUIPMENT INDICATED ON THESE PLANS.

NOTES CONCERNING PLUMBING ROUGH-INS:

A. FURNISH AND INSTALL ALL WATER, WASTE, GAS AND STEAM LINES AND SIZE SERVICE TO PROVIDE FULL FLOW VOLUME FOR ALL EQUIPMENT SUPPLIED BY RESPECTIVE MAINS AND BRANCHES. PROVIDE STOP VALVES AND TAG ROUGH-INS WITH THE APPROPRIATE IDENTIFYING LABELS. SERVICE LINES STUBBED OUT OF WALLS, UP FROM FINISHED FLOORS OR A CONCRETE CURB A MINIMUM OF 2". VENT PIPES MUST BE CONCEALED IN WALLS OR COLUMN CHASE. USE A LOOP-VENT OR AIR GAP ASSEMBLY FOR ISLAND FIXTURES. ALL FLOOR PENETRATIONS MUST BE SEALED WATERTIGHT.

B. WASTE LINES SHOWN ARE DESIGNED TO COMPLY WITH THE BEST KNOWN AND GENERALLY ACCEPTED HEALTH AND SANITARY CONDITIONS AND CODES. PLUMB LINES TO ENSURE NO INTERFERENCE WITH THE INTENDED USE OR SERVICING OF FOOD SERVICE EQUIPMENT. RUN LINES BELOW THE EQUIPMENT AT THE HIGHEST POSSIBLE ELEVATION ABOVE FINISHED FLOOR. NO LINES ARE TO LAY ON THE FLOOR. VERIFY COMPLIANCE WITH LOCAL CODES AND REGULATIONS.

C. SUPPLY 140°F HOT WATER TO EQUIPMENT. INSULATE WATER AND STEAM LINES TO CONFORM WITH THE ACCEPTED PRACTICE. IT IS RECOMMENDED THAT EXPOSED PIPES AND FITTINGS ABOVE A WORKING HEIGHT OF 34" BE CHROME PLATED OR COVERED WITH A STAINLESS STEEL SLEEVE.

D. SIZE FUEL GAS SERVICE LINES TO PROVIDE THE REQUIRED BTU RATING INDICATED FOR THE EQUIPMENT, AT A LOW PRESSURE OF APPROXIMATELY 7" TO 9" WATER COLUMN. INSTALL AUTOMATIC MECHANICAL SHUT-OFF VALVES, FURNISHED BY FIRE SUPPRESSION SYSTEM CONTRACTOR, IN GAS SUPPLY LINES TO EQUIPMENT UNDER EXHAUST HOOD ASSEMBLIES. VERIFY COMPLIANCE WITH LOCAL CODES AND REGULATIONS

PLUMBING REQUIREMENTS

NOTES CONCERNING PLUMBING CONNECTIONS:

A. ALL WATER, GAS AND STEAM SERVICES FOR PORTABLE AND COUNTER TOP EQUIPMENT MUST BE CONNECTED TO THE EQUIPMENT WITH COMMERCIAL TYPE FLEXIBLE HOSE AND QUICK DISCONNECT FITTINGS. HOSES MUST BE COVERED WITH A FIRE RESISTANT PLASTIC OR POLY COATING. GAS ASSEMBLIES MUST BE A.G.A. APPROVED FOR COMMERCIAL KITCHEN EQUIPMENT.

B. WATER TO STEAM PRODUCING EQUIPMENT MUST HAVE A WATER HARDNESS NO GREATER THAN 2.0 GRAINS AND A PH LEVEL BETWEEN 7.0 TO 7.5. WATER USED FOR COOLING WATER TO CONDENSING UNITS OR COMPRESSORS MUST BE TREATED TO INHIBIT THE FORMATION OF DEPOSITS IN THE CONDENSING TUBES.

C. STEAM THAT COMES IN DIRECT CONTACT WITH FOOD, FOOD HOLDING EQUIPMENT OR WAREWASHING EQUIPMENT MUST BE POTABLE STEAM.

D. INTERPIPE HOT WATER SUPPLY LINES BETWEEN BOOSTER HEATER AND WAREWASHING EQUIPMENT.

E. INTERPIPE WATER LINES BETWEEN WATER WASH VENTILATOR ASSEMBLIES AND CONTROL PANELS. REFER TO MANUFACTURERS SPECIFICATIONS FOR EXACT REQUIREMENTS.

F. MANIFOLD WASTE AND WASTE CONNECTIONS FOR INDIVIDUAL SECTIONS OF WATER WASH VENTILATORS TO A MAIN DRAIN CONNECTION. VERIFY CODE COMPLIANCE.

G. INTERCONNECT WASTE PULPER, EXTRACTOR AND SCRAP TROUGH AS PER MANUFACTURERS SPECIFICATIONS.

H. INSTALL IN-LINE WATER FILTERS AS FURNISHED BY KITCHEN EQUIPMENT CONTRACTOR.

PLUMBERS NOTES:

A. PLUMBING CONTRACTORS TO OBTAIN ALL NECESSARY PERMITS AND INSTALLATION IS TO BE IN COMPLETE ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL CODES.

B. PLUMBING CONTRACTORS SHALL FURNISH ALL LABOR AND MATERIALS TO MAKE ALL FINAL CONNECTIONS AND SHALL INCLUDE ALL ITEMS REQUIRED BY APPLICABLE LAWS.

C. A CATALOG OF MANUFACTURERS EQUIPMENT SPECIFICATION SHEETS IS INCLUDED AS AN INTEGRAL PORTION OF THIS SUBMITTAL, WE SUGGEST THEREFORE THAT ALL TRADES REVIEW THE REQUIREMENTS AS INDICATED REGARDING EACH MANUFACTURER.

D. CROSS REFERENCE ALL INFORMATION PER ROUGH-IN DRAWINGS WITH THE EQUIPMENT SCHEDULE DRAWINGS.

E. PLUMBING CONTRACTORS TO CROSS REFERENCE ROUGH-IN DRAWINGS, STAINLESS STEEL FABRICATION, EXHAUST HOOD DRAWINGS AND MILLWORK DETAIL DRAWINGS.

F. ALL VENT LOCATIONS AND RUNS TO BE LOCATED BY MECHANICAL ENGINEER.

G. ALL FUNNEL FLOOR DRAINS, FLOOR SINKS AND/OR FLOOR DRAINS UTILIZED FOR THE DRAINAGE OF FOOD SERVICE EQUIPMENT SHALL BE SELF-PRIMING.

H. PLUMBING CONTRACTOR TO PROVIDE ALL INDIRECT DRAINS FROM EQUIPMENT TO FLOOR SINK DRAINS.

I. ALL PLUMBING TO BE INSTALLED AS TO PRECLUDE ANY POSSIBILITY OF BACK SIPHONAGE.

J. ALL INDIRECT DRAINS ARE TO BE AIR-GAPPED 1 1/2 x DIAMETER OF PIPE, ABOVE FLOOR DRAINS (OR PER LOCAL CODE).

K. PLUMBING CONTRACTOR TO PROVIDE REQUIRED PRESSURE REGULATING VALVES FOR HOT WATER LINE TO DISHWASHER RINSE CONNECTION AND ALL OTHER EQUIPMENT REQUIRING REGULATORS.

L. PLUMBER IS NOT RESPONSIBLE FOR SUPPLYING FAUCETS UNLESS SPECIFIED.

M. PLUMBER TO PROVIDE MIXING VALVE AT WATER HEATER SO THAT A MINIMUM OF 140° WATER IS DELIVERED TO BOOSTER HEATER, OR AS DESIGNED BY MECHANICAL ENGINEER.

ADDITIONAL NOTES:

1. GENERAL CONTRACTOR TO PROTECT ALL FLOOR DRAINS, FLOOR SINKS, AND ANY PLUMBING STUB UPS DURING CONSTRUCTION.

PLUMBING SYMBOLS

THE FOLLOWING SYMBOLS MAY BE USED IN THE DRAWINGS:

PLUMBING LEGEND

SYMBOLS		ABBREVIATIONS	
●	HOT WATER	AFF	ABOVE FINISHED FLOOR
○	COLD WATER	BTC	BRANCH TO CONNECT
○	DRAIN CONNECTION	CW	COLD WATER
⊘	DIRECT DRAIN	DN	DOWN FROM ABOVE
○	WATER CONNECTION	DR	DRAIN
⊠	FLOOR SINK HALF GRATE	FD	FLOOR DRAIN
◎	FLOOR DRAIN AS NOTED	FS	FLOOR SINK
◉	FUNNEL DRAIN AS NOTED	FT	FLOOR TROUGH
◔	GAS LINE	GPH	GALLONS PER HOUR
⊕	GAS CONNECTION	GPM	GALLONS PER MINUTE
◔	CHILLED WATER	HD	HUB DRAIN
∿	FLEX CONNECT HOSE	HW	HOT WATER
	INDIRECT WASTE LINE	P	PLUMBING
⌒	PLUMBING INTERCONNECTION	PSI	POUNDS PER SQUARE INCH
◎	STUB UP FROM FIN FLOOR	DW	DIRECT WASTE
		IW	INDIRECT WASTE
		CWS	CHILLED WATER SUPPLY
		CWR	CHILLED WATER RETURN

PROJECT ABBREVIATIONS

(E)	EXISTING
(X)	EXISTING TO BE REMOVED
(R)	RELOCATE
NIC	NOT IN CONTRACT
U.O.N.	UNLESS OTHERWISE NOTED
FBO	FURNISHED BY OTHERS
FF & E	FIXTURES FURNISHINGS AND EQUIPMENT
(+)	ABOVE FINISHED FLOOR
DN (+)	DOWN FROM CEILING TO HEIGHT ABOVE ABOVE FINISHED FLOOR
CONN	CONNECTION
CW	COLD WATER
W	140 DEGREE HOT WATER
MW	MIXED WATER
DW	DIRECT WASTE
IW	INDIRECT WASTE
CR	CONDENSATE RETURN
FD	FLOOR DRAIN
GPM	GALLONS PER MINUTE
GT	GREASE TRAP
G	GAS
MBTUH	1000 BTU/HR
TWR	TOWER WATER RETURN
TWS	TOWER WATER SUPPLY
PD	PRESSURE DROP
P.C.	PLUMBING CONTRACTOR
VC	VALVE COMPARTMENT
CFM	CUBIC FEET PER MINUTE
FPM	FEET PER MINUTE
SR	STEAM RETURN
SS	STEAM SUPPLY
K.E.C	KITCHEN EQUIPMENT CONTRACTOR
GC	GENERAL CONTRACTOR

Project Title:
Colchester Senior Center
Town of Colchester
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Colchester, CT 06415

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PLUMBING NOTES

Date: September 09, 2022
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GENERAL MECHANICAL NOTES

(THESE NOTES SUPPLEMENT THE MASTER SPECIFICATIONS)

CONDITIONS

A. GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, SPECIAL CONDITIONS, AND OTHER RELATED PORTIONS OF DIVISION 1 APPLY TO THIS SECTION.

REGULATIONS, CODES, PERMITS AND INSPECTIONS

A. COMPLY WITH ALL NATIONAL, STATE, COUNTY AND CITY CODES, ORDINANCES, ETC. HAVING JURISDICTION, INCLUDING RULES AND REQUIREMENTS OF UTILITY SERVING AGENCIES.

B. INCORPORATE ALL CODES, ORDINANCES, ETC. INTO THE BASE BID AND INSTALLATION OF THE WORK. NO ADDITIONAL FUNDS WILL BE ALLOCATED FOR WORK REQUIRED TO CONFORM TO REGULATIONS AND REQUIREMENTS AND/OR TO OBTAIN APPROVAL OF WORK.

C. OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND LICENSES. WHEN REQUIRED BY CODE, ALL WORK MUST BE INSPECTED AND APPROVED BY LOCAL AUTHORITIES. PRIOR TO FINAL APPROVAL, FURNISH ARCHITECT WITH CERTIFICATES OF INSPECTION AND APPROVALS BY LOCAL AUTHORITIES.

D. IN ADDITION, THE LATEST EDITION OF THE FOLLOWING PUBLISHED STANDARDS SHALL BE ADHERED TO:

1. STANDARD BUILDING CODE
2. STANDARD PLUMBING CODE
3. STANDARD MECHANICAL CODE
4. APPLICABLE NFPA STANDARDS
5. ASHRAE GUIDES
6. SMACNA DUCT CONSTRUCTION STANDARDS
7. NATIONAL ELECTRIC CODE
8. HEALTH CODES
9. NATIONAL FIRE CODE

DUCTWORK

A. PROVIDE A COMPLETE SYSTEM OF DUCTWORK, FABRICATED AND INSTALLED IN STRICT ACCORDANCE WITH THE ASHRAE GUIDES AND WITH SMACNA DUCT CONSTRUCTION STANDARDS. THE DUCT SYSTEM SHALL BE CONSTRUCTED AS SHOWN ON THE MECHANICAL DRAWINGS. CHANGES IN ARRANGEMENT OR IN DUCT SIZES SHALL BE MADE ONLY AFTER WRITTEN ACCEPTANCE IS OBTAINED FROM THE MECHANICAL CONSULTING ENGINEER.

DUCTWORK INSTALLATION

A. CONSTRUCT DUCTWORK WITH MATERIAL, GAUGES, JOINTS, WELDS, BRACING AND SUPPORTS IN ACCORDANCE WITH APPLICABLE RECOMMENDATIONS OF ASHRAE AND SMACNA WITH ADDITIONAL BRACING AS REQUIRED.

B. FOOD SERVICE EXHAUST DUCTWORK SHALL BE RIGIDLY CONSTRUCTED, LIQUID AND AIR-TIGHT. JOINTS SHALL BE TIGHTLY FITTED AND WELDED WITH NO VOIDS. ALL DUCTWORK, SEALING PRODUCTS SHALL CONFORM TO THE UMC AND UL-181 AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.

TESTING AND BALANCING

A. THE TESTS SHALL INCLUDE ALL FANS, VOLUME DAMPERS, AIR DEVICES, ETC. NORMALLY INCLUDED AS A PART OF THE AIR DISTRIBUTION AND TRANSMISSION SYSTEM.

B. A COMPLETE BALANCING REPORT SHALL BE DONE BY AN INDEPENDENT BALANCING COMPANY AND SHALL BE SUBMITTED TO THE CONSULTING ENGINEER UPON COMPLETION.

PLUMBING AND PIPING SPECIFICATIONS

GENERAL PRODUCTS

A. FURNISH AND INSTALL NEW EQUIPMENT AND MATERIALS. ITEMS OF EQUIPMENT USED FOR THE SAME PURPOSE SHALL BE BY THE SAME MANUFACTURER.

A. SYSTEMS SHALL BE COMPLETE AND OPERABLE. ANY ACCESSORIES REQUIRED FOR OPERATION OF THE SYSTEMS SHALL BE INCLUDED AS AN ITEM OF EQUIPMENT. WHERE POSSIBLE, ALL VALVES SHALL BE CONCEALED WITHIN FIXTURE OR EQUIPMENT.

PIPING MATERIALS

A. WATER PIPING BURIED BELOW GRADE SHALL BE TYPE "K" COPPER TUBING WITH WROUGHT COPPER FITTINGS WITH SILVER SOLDER.

B. DOMESTIC AND CHILLED WATER PIPING ABOVE GRADE SHALL BE TYPE "L" HARD DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS AND NO-.LEAD 95/5 SOLDER.

C. NATURAL GAS PIPING ABOVE GRADE THAT IS 2.5" AND SMALLER SHALL BE SCHEDULE 40 ASTM, A-53 BLACK STEEL SCREWED PIPE WITH BLACK BANDED 150C/O MALLEABLE IRON THREADED FITTINGS. PIPING 3" AND LARGER SHALL BE BUTT-WELDED WITH FACTORY MADE WROUGHT STEEL BUTT WELDING FITTINGS.

D. CONDENSATE DRAIN PIPING SHALL BE TYPE "M" HARD COPPER WITH WROUGHT COPPER FITTINGS AND NO-LEAD 95/5 SOLDER.

E. GAS VALVES SHALL BE BRONZE BODY, BRONZE TAPERED PLUG, NON-LUBRICATED TEFLON PACKING, THREADED ENDS. GAS VALVES ARE PROVIDED BY KITCHEN EQUIPMENT CONTRACTOR. GAS VALVE SUPPORTING FIRE PROTECTION SHALL BE COMPATIBLE TO FIRE CONTROL LOGIC AS DESIGNED BY MECHANICAL ENGINEER.

F. PIPE SUPPORTS SHALL BE AS REQUIRED BY LATEST EDITION OF THE UPC.

GENERAL MECHANICAL NOTES

(CONTINUED)

PIPING SPECIALTIES

INSTALLATION

A. CONCEAL ALL PIPING IN WALLS, FURRED SPACES, PIPE SPACES, OR ABOVE SUSPENDED CEILINGS, AS SHOWN ON THE DRAWINGS. GROUP PIPING WHEREVER PRACTICAL, AND INSTALL UNIFORMLY IN STRAIGHT PARALLEL LINES, SQUARELY WITH BUILDING LINES, AS APPLICABLE.

B. SUPPORT HORIZONTAL PIPING WITH PIPE HANGERS. DO NOT USE PERFORATED METAL STRAP. ARRANGE PIPING SO THAT THERMALEXPANSION DOES NOT CAUSE STRESS. INSTALL AND SECURE PIPING SO THAT HOT AND COLD LINES AND LINES OF DISSIMILAR METALS ARE NOT IN CONTACT. ALLOW FOR THERMAL EXPANSION AS REQUIRED.

C. VERIFY ALL EQUIPMENT DIMENSIONS AND REQUIREMENTS FOR ROUGH-IN WORK. COORDINATE BETWEEN KITCHEN EQUIPMENT CONTRACTOR AND PLUMBING CONTRACTOR.

D. PERFORM ALL WORK IN ACCORDANCE WITH THE BEST TRADE PRACTICES. INSTALL ALL MATERIALS AND EQUIPMENT SQUARELY WITH THE BUILDING LINES. PROVIDE RIGID, PERMANENT BASES AND SUPPORTS FOR ALL WORK. CONSTRUCT AND BRACE EQUIPMENT, PIPING, ETC. SO THAT THERE WILL BE NO VIBRATION AND/OR RATTLING WHEN THE SYSTEM IS IN OPERATION.

STRUCTURAL HANGARS

A. HANGERS SUPPORTED BY METAL DECKING ONLY, OR METAL DECKING WITH INSULATED FILL, SHALL BE ATTACHED WITH STEEL BARS, 3/8" ROUND X 12" 11/2" X FLAT 12" PLACED PERPENDICULAR TO FLUTES. ONLY LIGHT DUCTWORK (12" X 16" MAX), PIPING (1 1/2" ROUND PIPING MAX), OR CEILINGS MAY BE HUNG FROM SUCH INSTALLATIONS. HANGERS MUST BE TWO (2) FLUTES APART WHERE THEY OCCUR ON THE SAME DECK SPAN.

B. HANGARS SUPPORTED BY METAL DECK WITH STRUCTURAL CONCRETE FILL SHALL BE INSTALLED USING ICBO APPROVED ANCHORAGE SYSTEMS. SUCH HANGARS SHALL BE USED TO SUPPORT DUCTWORK (54" X 16" MAX), PIPING (4" ROUND MAX) OR CEILINGS. HANGERS MUST BE AT LEAST TWO (2) FLUTES APART WHERE THEY OCCUR ON THE SAME DECK SPAN. LARGER DUCTWORK OR PIPING SHALL BE SUPPORTED BY STRUCTURAL BEAMS OR COLUMNS.

CONCRETE

A. FORMS FOR CONCRETE CURBS AND DEPRESSIONS SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBER SHOWN ON DRAWINGS

B. DRY PACK OR GROUT UNDER BASE PLATES, SILL PLATES, ETC. SEE SPECIFICATIONS.

C. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH SLAB ON GRADE, CONCRETE ON STEEL DECK, FRAMED CONCRETE FLOORS AND WALLS DO NOT REQUIRE SLEEVES, UNLESS OTHERWISE INDICATED IN THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN CONCRETE IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH BEAMS OR COLUMNS UNLESS SPECIFICALLY DETAILED.

D. EXCEPT FOR SLAB ON GRADE AND CONCRETE ON STEEL DECK, EMBEDDED ELECTRICAL CONDUITS OR MECHANICAL PIPES (OTHER THAN THOSE PASSING THROUGH) OUTSIDE DIAMETER SHALL NOT EXCEED 30 PERCENT OF THE SLAB THICKNESS AND SHALL BE PLACED BETWEEN THE TOP AND BOTTOM REINFORCING, UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATIONS OF ELECTRICAL CONDUITS OR MECHANICAL PIPES SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS ARE PROVIDED. FOR SLAB ON GRADE, UNLESS OTHERWISE DETAILED, NO PIPES OR CONDUITS SHALL BE PLACED WITHIN THE INDICATED CONCRETE SLAB THICKNESS AND SHALL BE LOCATED BELOW THE SLAB.

VENTILATION REQUIREMENTS

GENERAL NOTES:

A. ALL WORK INDICATED ON THE BUILDING CONDITIONS AND VENTILATION PLAN MUST BE COMPLETED BY OTHER THAN THE KITCHEN EQUIPMENT CONTRACTOR AND MUST COMPLY WITH ALL LOCAL CODES AND RESTRICTIONS.

B. THE BUILDING CONDITIONS AND VENTILATION PLAN IS INTENDED TO SHOW SPECIAL BUILDING AND VENTILATION REQUIREMENTS FOR THE FOOD SERVICE EQUIPMENT ONLY. ANY ADDITIONAL BUILDING CONDITIONS OR VENTILATION REQUIREMENTS ARE THE RESPONSIBILITY OF THE ARCHITECT OR MECHANICAL ENGINEER AND MUST COMPLY WITH ANY APPLICABLE CODES AND REGULATIONS. REFER TO ARCHITECTURAL/ENGINEERING PLANS.

C. REFER TO THE APPROVED SHOP DRAWINGS FOR THE SUPPLEMENTAL COORDINATION AND INSTALLATION REQUIREMENTS FOR THE FOOD SERVICE EQUIPMENT INDICATED ON THE PLANS.

D. REQUIREMENTS INDICATED ON THE PLANS FOR THE EXISTING AND OWNER OR PURVEYOR PROVIDED EQUIPMENT ARE MINIMUM GUIDELINES ONLY AND MUST BE VERIFIED WITH THE EQUIPMENT. FURNISH SERVICES AND MAKE ALL FINAL CONNECTIONS AS REQUIRED. CONTACT EQUIPMENT PROVIDER FOR THE LOCATION OF, OR SPECIFICATIONS FOR, THIS EQUIPMENT.

E. PRIOR TO THE INSTALLATION OF THE FOOD SERVICE EQUIPMENT THE KITCHEN EQUIPMENT CONTRACTOR MUST CONFIRM THAT:
1. THE WALLS, CEILINGS AND FLOORS IN THE KITCHEN, FOOD PREPARATION, WAREWASHING OR BAR AREAS ARE SMOOTH, EASILY CLEANABLE NONABSORBENT AND DURABLE. WALLS AND CEILINGS SHALL BE LIGHT IN COLOR.
2. THE CEILINGS ARE INSTALLED AND FINISHED.
3. THE WALLS ARE INSTALLED AND FINISHED.
4. THE FLOORING HAS BEEN INSTALLED AND WASHED CLEAN.
5. ANY NECESSARY MACHINERY IS AVAILABLE FOR UNLOADING EQUIPMENT AND TO COORDINATE WITH THE APPLICABLE TRADESMEN ANY DOOR OR WINDOW OPENINGS OR PASSAGES FOR THE DELIVERY OF THE FOOD SERVICE EQUIPMENT.

VENTILATION REQUIREMENTS CONT.

F. THE MOUNTED HEIGHT FOR THE BOTTOM EDGE OF THE HOODS TO BE 6'-8" ABOVE THE FINISHED FLOOR OR PER LOCAL CODE REQUIREMENTS.

MECHANICAL CONTRACTOR NOTES

MECHANICAL ENGINEER IS RESPONSIBLE FOR SPECIFYING THE FOLLOWING. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND THE INSTALLING OF THE FOLLOWING, AND FOR MAKING FINAL CONNECTIONS TO THE FOOD SERVICE EQUIPMENT UNLESS OTHERWISE NOTED.

A. THE INSULATION FOR ALL COOKING EQUIPMENT EXHAUST HOODS AND DUCTS AS REQUIRED BY LOCAL CODES.

B. THE HORIZONTAL DUCTWORK FOR ALL DISH/UTENSIL WASHERS. ALL DUCTS MUST HAVE WATER TIGHT JOINTS AND BE GRADED BACK TO THE MACHINE. (DO NOT USE ALUMINUM DUCTS.)

C. BALANCED SUPPLY AND EXHAUST AIR IN KITCHEN AREAS TO CONTAIN COOKING ODORS AND PROVIDE A COMFORTABLE WORKING ENVIRONMENT. TEMPER MAKE-UP AIR SUPPLY IN ALL KITCHEN AREAS, ESPECIALLY SUPPLY AIR THROUGH EXHAUST HOODS. VERIFY AND COMPLY WITH ALL APPLICABLE CODES.

D. THE DUCT COLLARS ON EXHAUST HOODS MAY BE OVERSIZED TO INCREASE EFFICIENCY. PROVIDE ALL TRANSITIONS TO DUCTS AS REQUIRED AND MAKE ALL FINAL CONNECTIONS ON ALL HOODS. VERIFY AND COMPLY WITH ALL APPLICABLE CODES.

E. ALL EXHAUST HOOD ASSEMBLIES, DUCTING, COMPONENTS, ETC. SHALL BE UMC TYPE 1 ASSEMBLY, EXCEPT AT WAREWASHING AREAS OR AS OTHERWISE NOTED. VERIFY THAT VENTILATION REQUIREMENTS ARE IN COMPLIANCE WITH LOCAL CODES AND REGULATIONS.

F. SUGGESTED MINIMUM VENTILATION REQUIREMENTS:

A)	KITCHEN AREAS:	45 TO 60 AIR CHANGES /HOUR
B)	SERVICE AREAS:	45 TO 60 AIR CHANGES/HOUR
C)	PREP AREAS:	45 TO 60 AIR CHANGES/HOUR
D)	WASHING AREA:	45 TO 60 AIR CHANGES/HOUR
E)	STORAGE ROOMS:	3 AIR CHANGES/HOUR
F)	OFFICES:	4 AIR CHANGES/HOUR
G)	CONDENSING UNITS:	1000 CFM/HP (AIR-COOLED)
		200 CFM/HP (WATER-COOLED)

G. PROVIDE DOUBLE-WALLED GAS/VENT FLUE TO THE ATMOSPHERE AS REQUIRED BY LOCAL CODES. ANY FLUE OF EXCESSIVE LENGTH, WITH BENDS OR OTHER RESTRICTIONS MUST BE PROVIDED WITH A BOOSTER EXHAUST FAN INTERWIRED TO OPERATE WITH THE EQUIPMENT BEING VENTED. BOOSTER FAN SHALL PROVIDE 0" S.P. AT CONNECTION TO EQUIPMENT.

H. ALL REQUIRED MATERIALS TO MAKE THE FINAL CONNECTIONS TO ALL CONTRACTOR PROVIDED KITCHEN EQUIPMENT.

VENTILATION REQUIREMENTS

(CONTINUED)

GENERAL CONTRACTOR REQUIREMENTS

THE ARCHITECT IS RESPONSIBLE FOR SPECIFYING THE FOLLOWING: THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE FOLLOWING UNLESS OTHERWISE NOTED.

A. THE IN-WALL REINFORCING OR WALL BACKING FOR ALL WALL MOUNTED, RECESSED OR SEMI-RECESSED EQUIPMENT OR CONTROL PANELS.

B. A 6" HIGH SOLID CONCRETE PAD WITH TROWEL-SMOOTH AND LEVEL FINISH.

C. AN EASILY VISIBLE PERMANENT BENCHMARK INDICATING FINISHED FLOOR LEVEL.

D. ANY FIRE RELATED MATERIALS FOR EXHAUST VENT DUCTS, VENT STACKS, AND ANY HEAT PRODUCING FOOD SERVICE EQUIPMENT. VERIFY COMPLIANCE WITH LOCAL CODES AND REGULATIONS.

E. THE COVED BASES AT ALL VERTICAL INTERSECTIONS OF ALL KITCHEN FLOORS.

F. ALL CONDUITS FOR REFRIGERATION OR DRINK LINES SHALL HAVE A SMOOTH INTERIOR FINISH, A MINIMUM RADIUS OF 24" AT ALL BENDS AND A MINIMUM 16" X 18" X 12" DEEP ACCESSIBLE PULL BOX ON ALL CONDUIT RUNS IN EXCESS OF 95'-0", IN ALL FLOORS OR CONCEALED SPACES. THE TOTAL OF ALL BENDS BETWEEN PULL BOXES NOT TO EXCEED 180°. STUB CONDUIT ENDS OUT 2" FROM WALLS OR 2" ABOVE FINISHED FLOORS. VERIFY COMPLIANCE WITH ALL LOCAL CODES AND REGULATIONS.

G. ALL HOLES OR SLEEVES THROUGH FLOORS, WALLS AND CEILINGS, AS REQUIRED FOR THE INSTALLATION OF REFRIGERATION, DRINK, ELECTRICAL OR PLUMBING LINES AS SHOWN ON THESE PLANS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING HOLES AND SLEEVES AFTER INSTALLATION OF THE LINES.

H. ALL PADS OR CURBS FOR FOOD SERVICE EQUIPMENT AND/OR ROOF OR SERVICE AREA MOUNTED COMPRESSOR RACKS. VERIFY COMPLIANCE WITH LOCAL CODES AND REGULATIONS.

I. ALL OPENINGS IN WALLS AS INDICATED ON THESE PLANS FOR ANY RECESSED OR SEMI-RECESSED CONTROL PANELS.

J. SLOPE ALL FLOORS TO FLOOR SINKS, FLOOR DRAINS OR FLOOR TROUGHS. VERIFY COMPLIANCE WITH LOCAL CODES.

K. A MINIMUM OF 150 LBS. PER SQUARE FOOT FLOOR LOADING, OR HIGHER AS REQUIRED BY LOCAL CODES.

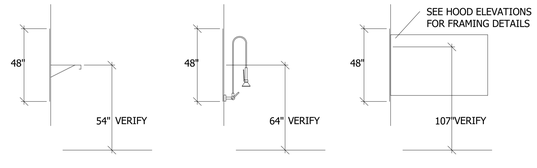
L. RECOMMENDED FINISHED CEILING HEIGHTS IN KITCHEN AREAS AND FOR SPECIFIC FOOD SERVICE EQUIPMENT ARE AS FOLLOWS:

1. KITCHEN AREAS WITH HOODS: 9'-0"
2. GENERAL AREAS: 8'-0"
3. ICE MACHINE AREAS: 9'-0"

ADEQUATE SPACE IS NEEDED ABOVE THE FINISHED CEILINGS FOR MECHANICAL AND ELECTRICAL WORK, ESPECIALLY FOR EXHAUST HOOD DUCTING. PLEASE NOTIFY RJS+ASSOCIATES IF HEIGHTS ARE LESS THAN RECOMMENDED MINIMUMS.

WALL BACKING DETAILS

NOT-TO-SCALE



WALL BACKING DETAIL — OVERSHELVES

WALL BACKING DETAIL — PRE-RINSE

WALL BACKING DETAIL — EXHAUST HOOD

NOTES:
1. ALL DIMENSIONS ARE FROM ℄TO ℄FINISHED FLOOR
2. ALL WALL BACKINGS TO BE PLYWOOD SECURELY ATTACHED TO WALL STUDS

ABBREVIATION

(E)	EXISTING
(X)	EXISTING TO BE REMOVED
(R)	RELOCATE
NIC	NOT IN CONTRACT
U.O.N.	UNLESS OTHERWISE NOTED
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TWR	TOWER WATER RETURN
TWS	TOWER WATER SUPPLY
PD	PRESSURE DROP
CFM	CUBIC FEET PER MINUTE
FPM	FEET PER MINUTE
SR	STEAM RETURN
SS	STEAM SUPPLY

MECHANICAL SYMBOLS

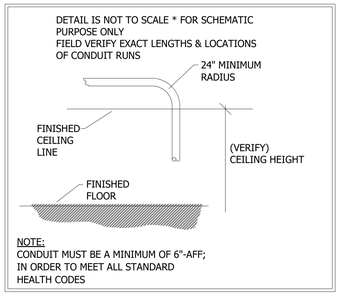
THE FOLLOWING SYMBOLS MAY BE USED IN DRAWINGS

MECHANICAL LEGEND	
S Y M B O L S	
	RETURN AIR DIFFUSER
	SUPPLY AIR DIFFUSER
	SUPPLY AIR LINEAR DIFFUSER
	FLOOR DEPRESSION
	MASONRY PAD
	NON-COMBUSTIBLE WALL MATERIAL (VERIFY REQUIREMENTS WITH LOCAL CODES)
	FINISHED WALL OPENING
	SUPPLY DUCT
	EXHAUST DUCT
	DIRECT CONNECT FLUE (VERIFY REQUIREMENTS WITH LOCAL CODES)
	AIR MOVEMENT / HEAT REMOVAL (VERIFY REQUIREMENTS WITH LOCAL CODES)
	REFER TO INDICATED NOTE

CONDUIT NOTES:

1. CONDUIT TO BE PROVIDED BY GENERAL CONTRACTOR
2. CONDUIT RUNS ABOVE CEILING MUST HAVE A SMOOTH INTERIOR WITH MINIMUM INSIDE DIMENSION OF SIX INCHES, AND HAVE ONLY ONE (1) 24" MINIMUM RADIUS SWEEP BEND AT EACH END
3. DURING CONSTRUCTION, CONDUIT TO BE FINISHED AT 24"-AFF. TO BE CONSTRUCTED WITH INTERNALLY SMOOTH, LEAK TIGHT JOINTS.
4. CONDUIT TO BE CAPPED AND SEALED AT BOTH ENDS DURING CONSTRUCTION. INSTALLER TO TRIM EXPOSED ENDS.
5. AFTER PRODUCT LINES ARE INSTALLED, THE OPEN ENDS OF THE CONDUIT ARE TO BE FILLED AND SEALED (WATERTIGHT) APPROXIMATELY 2 TO 4 INCHES AT EACH END.

CONDUIT SCHEMATIC - ABOVE CEILING



NOTE:
CONDUIT MUST BE A MINIMUM OF 6"-AFF; IN ORDER TO MEET ALL STANDARD HEALTH CODES

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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MECHANICAL NOTES

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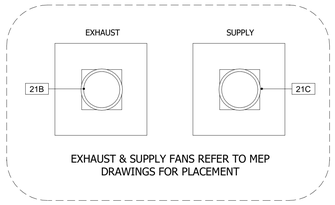


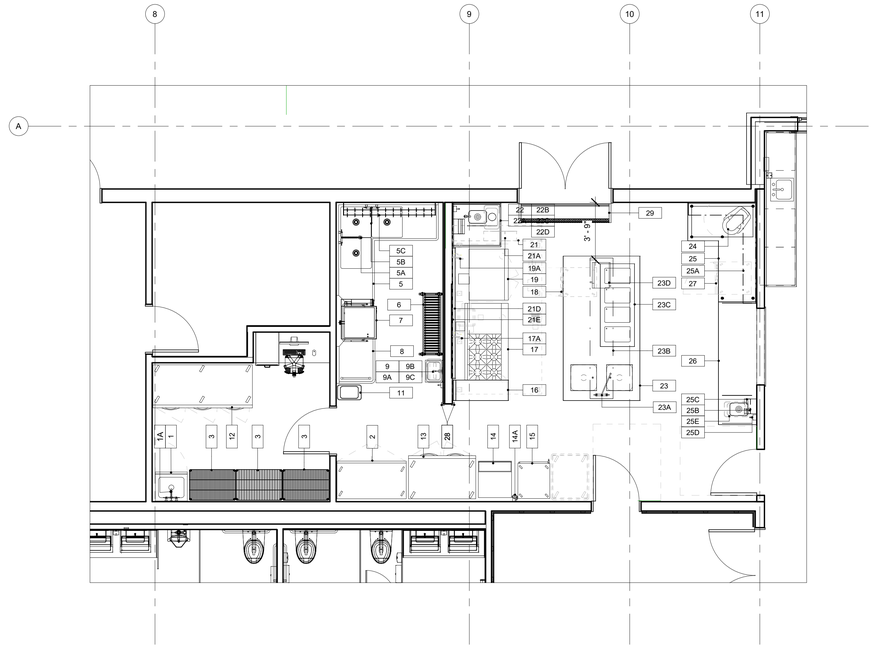
2 EXHAUST AND SUPPLY FANS
1/4" = 1'-0"

FOODSERVICE EQUIPMENT PLAN & SCHEDULE

ITEM NO.	QTY	EQUIPMENT CATEGORY	MANUFACTURER	MODEL NUMBER	EQUIPMENT REMARKS
1	1	MOP SINK CABINET	ADVANCE TABCO	9-OPC-84	
1A	1	FAUCET, UTILITY, WALL MOUNT	ADVANCE TABCO	K-240	
2	1	REFRIGERATOR, REACH-IN	TRUE	T-49-HC	
3	3	SHELVING, METAL, 24"X36"	METRO	EZ2436NK3	
4	1	SPARE NUMBER	-	-	
5	1	CORNER SINK, 3-COMPARTMENT	ADVANCE TABCO	94-K2-24D	
5A	1	PRE-RINSE FAUCET, WALL MOUNT	T&S BRASS	B-0133-A12-08	
5B	1	FAUCET, WALL MOUNT	T&S BRASS	B-0231	
5C	1	HOT KACK, WALL MOUNT	FABRICATOR	CUSTOM	
6	1	SHELVING, PLASTIC	FABRICATOR	CUSTOM	
7	1	DISHWASHER, DOOR TYPE, HIGH TEMP VENTLESS ELECTRIC	HOBART	AM16VLT-ADV	
8	1	CLEAN DISHTABLE	ADVANCE TABCO	DTC-5-T0-36L	
9	1	HAND SINK, WALL MOUNT	ADVANCE TABCO	7-PS-61	
9A	1	PAPER TOWEL DISPENSER	BY VENDOR	BY VENDOR	
9B	1	SOAP DISPENSER	BY VENDOR	BY VENDOR	
9C	1	WASTE RECEPTACLE	RUBBERMAID	FG354060BLA	
10	1	SPARE NUMBER	-	-	
11	1	WASTE RECEPTACLE	RUBBERMAID	FG354060BLA	
12	1	REACH-IN REFRIGERATOR	TRUE	STG1R-3S	
13	1	REACH-IN FREEZER	TRUE	STG2F-2S	
14	1	ICE MAKER	MANITOWOC ICE	UDF0240A-161	
14A	1	FILTER, ICE MAKER	3M PURIFICATION	ICE120-S	CONNECT WITH ICE MAKER #14
15	1	HOT HOLDING CABINETS	ALTO-SHAAM	1200-UP	
16	1	WORK TABLE	FABRICATOR	CUSTOM	
17	1	GAS RANGE	VULCAN	60SC-6B-24G	
17A	1	SAFETY HOSE GAS CONNECTOR	DORMONT	16100KIT2S48PS	
18	1	PORTABLE HOLDING CABINET	HATCO	FSHC-7-1	
19	1	DOUBLE-DECK CONVECTION OVEN	VULCAN-HART	VC44GD	
19A	1	SAFETY HOSE GAS CONNECTOR	DORMONT	16100KIT2S48PS	
20	1	SPARE NUMBER	-	-	
21	1	EXHAUST HOOD - LEFT	CAPTIVEAIRE	6024ND-2-PSP-F	REFER TO CAPTIVEAIR DRAWINGS FOR MECHANICAL DETAILS & SPECIFICATIONS
21A	1	FIRE SUPRESSION SYSTEM	ANSUL	R-102	REFER TO CAPTIVEAIR DRAWINGS FOR MECHANICAL DETAILS & SPECIFICATIONS
21B	1	SUPPLY FAN	BY GC	BY GC	REFER TO CAPTIVEAIR DRAWINGS FOR MECHANICAL DETAILS & SPECIFICATIONS
21C	1	EXHAUST FAN	BY GC	BY GC	REFER TO CAPTIVEAIR DRAWINGS FOR MECHANICAL DETAILS & SPECIFICATIONS
21D	1	MANIFOLD, GAS	CAPTIVEAIRE	MG	
21E	1	WALL FLASHING	STAINLESS STEEL	FABRICATOR	
22	1	COUNTER W/ HAND SINK	FABRICATOR	STAINLESS STEEL	
22A	1	FAUCET, ELECTRONIC	T&S BRASS	EC-3100-120X	
22B	1	PAPER TOWEL DISPENSER	BY VENDOR	BY VENDOR	
22C	1	SOAP DISPENSER	BY VENDOR	BY VENDOR	
22D	1	WASTE RECEPTACLE	RUBBERMAID	FG354060BLA	
23	1	TABLE W/ PREP SINKS	FABRICATOR	CUSTOM	PROVIDE A SINK COVER PER SINK
23A	1	FAUCET, DECK MOUNT	T&S BRASS	B-0220	
23B	1	SHELF, TABLE MOUNT, SOLID	FABRICATOR	CUSTOM	
23C	1	Drop-In, Hot Well	LTI	QSCHP-4-H	
23D	1	COMMERCIAL MICROWAVE OVEN	PANASONIC	NE-1025F	
24	1	MIXER	HOBART	HL120-1	
25	1	WORK TABLE	FABRICATOR	CUSTOM	
25A	1	SHELF, WALL MOUNT	FABRICATOR	CUSTOM	
25B	1	FAUCET, ELECTRONIC	T&S BRASS	EC-3100-120X	
25C	1	PAPER TOWEL DISPENSER	BY VENDOR	BY VENDOR	
25D	1	SOAP DISPENSER	BY VENDOR	BY VENDOR	
25E	1	WASTE RECEPTACLE	RUBBERMAID	FG354060BLA	
26	1	WORK CABINET W/ HAND SINK AND PASS-THRU SHELF	FABRICATOR	STAINLESS STEEL	
27	1	PORTABLE HOLDING CABINET	HATCO	FSHC-7-1	
28	2	CORNER GUARD	ADVANCE TABCO	CG-48	
29	1	AIR CURTAIN, UNHEATED	MARS	LPV272-1UD-OB	
30-99	1	SPARE NUMBER	-	-	

BASE BID INCLUDES ALL ITEMS

*** DEDUCT ALTERNATE REMOVE ITEMS AS FOLLOWED - #2, (1) #3, #16, #18, #24, #26



1 KITCHEN FOODSERVICE EQUIPMENT PLAN
1/4" = 1'-0"

HEALTH DEPT. NOTES

1. ALL FOOD SERVICE EQUIPMENT, FABRICATED ITEMS,AND THEIR INSTALLATION SHALL MEET NATIONAL SANITATION FOUNDATION (N.S.F.) REQUIREMENTS.
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5. 3-COMPARTMENT SINKS ARE PROVIDED WITH MIXING VALVE FAUCETS CAPABLE OF REACHING EACH COMPARTMENT.
6. A MIN. OF 20 FOOT CANDLES (215 LUX) OF LIGHT, MEASURED 30" OFF THE FLOOR TO BE PROVIDED IN ALL FOOD PREPARATION, PACKAGING, AND PROCESSING AREAS.
7. A MIN. OF 10 FOOT CANDLES (108 LUX) OF LIGHT, MEASURED 30" OFF THE FLOOR TO BE PROVIDED IN ALL FOOD & UTENSIL STORAGE ROOMS, TOILET, AND DRESSING ROOMS.
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10. SHATTER SHIELDS OR SHATTERPROOF LIGHT BULBS TO BE PROVIDED FOR ALL LIGHTS ABOVE FOOD PREPARATION, WORK, AND STORAGE AREAS.
11. ALL PLUMBING, ELECTRICAL, AND GAS LINES SHALL BE CONCEALED WITHIN THE BUILDING STRUCTURE TO AS GREAT AN EXTENT AS POSSIBLE.
12. FLOOR SINKS UNDER EQUIPMENT MUST BE 50% EXPOSED AND EASILY ACCESSIBLE FOR CLEANING AND SERVICING.
13. ALL EXHAUST HOODS TO BE A MIN. 22 GA. STAINLESS STEEL, U.L. LISTED, AND CONSTRUCTED AND INSTALLED TO ALL U.L. AND N.F.P.A. SPECIFICATIONS. EXHAUST DUCTS TO BE A MIN. 16 GA. STEEL. (TYPE 1 HOOD DUCTS TO HAVE WELDED SEAMS).
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16. SUPPORT ROOMS ARE FOR STORAGE AND UTENSIL WASHING ONLY. NO VEGETABLE WASHING OR FOOD PREP. TO BE DONE

FOOD SERVICE NOTES

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2. ELECTRICAL CONTRACTOR SHALL PROVIDE MAG. STARTERS. DISCONNECT SWITCHES, INTERLOCKS AND THERMO-OVERLOAD PROTECTION WHERE REQUIRED.
3. PLUMBING CONTRACTOR SHALL PROVIDE STOP VALVES AHEAD OF ALL OPERATING HANDLES AND FAUCETS.
4. SEE EQUIPMENT PLUMBING AND ELECTRICAL ROUGH-IN DRAWINGS FOR ADDITIONAL INFORMATION
5. ELECTRICAL POWER TO COOKING EQUIPMENT, WHERE REQUIRED, SHALL BE PROVIDED THRU A SHUNT-TRIP SYSTEM FOR FIRE FUEL SHUT-OFF. ELECTRICAL CONTRACTOR SHALL WIRE CONTROL CIRCUIT TO MICRO SWITCH PROVIDED BY KITCHEN EQUIPMENT CONTRACTOR ON HOOD FIRE PROTECTION SYSTEM.
6. GAS SUPPLY TO ALL COOKING EQUIPMENT, WHERE REQUIRED, SHALL BE PROVIDED WITH AN ELECTRIC VALVE FOR FIRE-FUEL SHUT-OFF. VALVE TO BE SUPPLIED BY THE "K.E.C." AND INSTALLED BY THE "P.C." K.E.C. SHALL CONNECT VALVE TO THE HOOD FIRE PROTECTION SYSTEM FOR AUTOMATIC SHUT-OFF.
7. VACUUM BREAKERS WHEN USED, TO BE MINIMUM OF SIX INCHES ABOVE THE FLOOD LEVEL RIM WITH NO SHUT OFF DEVICES BEYOND THE DISCHARGE OF THE VACUUM BREAKER.
8. WALL BACKING PROVIDED BY GENERAL CONTRACTOR.
9. PLUMBING CONTRACTOR TO SUPPLY GREASE TRAP AS REQUIRED BY CODE.
10. ALL COOKING EQUIPMENT UNDER EXHAUST HOODS ARE EITHER ON CASTERS WITH FLEXIBLE UTILITY QUICK DISCONNECTS OR FIXED ON S/S LEGS.
11. ALL NEW EXHAUST HOODS WILL BE CONSTRUCTED TO MEET THE FOLLOWING STANDARDS: NSF, UL AND NFPA-96. ALL NEW HOODS TO BEAR UL CLASSIFIED LABEL WITHOUT DAMPERS IN EXHAUST VENT COLLARS. HOODS ARE DESIGNED TO MEET OR EXCEED 50 FPM CAPTURE VELOCITY AT THE COOKING SURFACE EDGE AND HAVE A 6" MIN. OVERHANG AT ALL EXPOSED COOKING AREAS.
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SHEET NOTES

THIS PLAN REPRESENTS A FOOD SERVICE LAYOUT OF CULINARY, BEVERAGE, SYSTEMS AND RELATED EQUIPMENT FOR THE CONVENIENCE OF OWNER / OPERATOR, ARCHITECTS, MECHANICAL, ELECTRICAL AND PLUMBING ENGINEERS, CONTRACTORS, KITCHEN EQUIPMENT FABRICATORS, KITCHEN EQUIPMENT CONTRACTORS AND OTHER RELATED TRADES. THE BASE PLAN HAS BEEN MADE AVAILABLE FROM INFORMATION PROVIDED BY OTHER, NOT LIMITED TO MEASUREMENTS, ELECTRONIC BACKGROUNDS, GRID LINES AND EXISTING OR PROPOSED BUILDING SYSTEMS, NOT LIMITED TO (PLUMBING, STRUCTURAL, CONCRETE, DUCTWORK, ELECTRICAL AND MECHANICAL). GENERAL CONTRACTORS, SUBCONTRACTORS, KITCHEN EQUIPMENT DEALERS, CONTRACTORS, INSTALLERS, RELATED AND NON-RELATED CONTRACTORS, ARE RESPONSIBLE FOR SECURING AND OBTAINING THEIR OWN MEASUREMENTS AND SPECIFIC INFORMATION. INFORMATION INDICATED ON THESE PLANS ARE GENERALLY FOR FOOD SERVICE EQUIPMENT AND ARE INTENDED AS REFERENCE ONLY. RJS + ASSOCIATES IS NOT RESPONSIBLE FOR THE ENGINEER OR INTEGRATION OF RELATION ENGINEERING AND DISCIPLINES THROUGHOUT THE FULL SET OF CONSTRUCTION DOCUMENTS SPECIFIC TO THE FOOD SERVICE EQUIPMENT IN RELATION TO THE STRUCTURAL, ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL TRADES, UNLESS OTHERWISE SPECIFICALLY PROVIDED FOR IN THE PLANS AND SPECIFICATIONS. RJS + ASSOCIATES ASSUMES NO RESPONSIBILITY FOR WORK DONE BY ANY AND ALL ARCHITECTS, ENGINEERS, CONSULTANTS OR CONTRACTORS, OR FOR ANY CHANGES MADE NECESSARY BY LOCAL, STATE, OR NATIONAL BUILDING CODES, ORDINANCES, STRUCTURAL CONDITIONS, OR BY THE SUBSTITUTION OR CHANGES IN EQUIPMENT SHOWN ON THIS PLAN(S). CONTRACTORS ARE TO MAKE ALLOWANCES FOR INTERNAL AND EXTERNAL FINAL CONNECTIONS ON THE FOOD SERVICE EQUIPMENT, WASTE PIPING, VALVES, BACK-FLOW PREVENTION, TRAPS, DRAIN GRATES, FLUID / GAS REGULATORS, FAUCETS, STEAM TRAPS, STARTING SWITCHES AND MOTORS, EXCEPT WHERE SPECIFICALLY NOTED IN THE FOOD SERVICE SPECIFICATIONS, SECTION 114000.

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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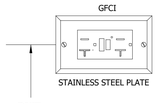
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
FOODSERVICE EQUIPMENT PLAN & SCHEDULE

Date: September 09, 2022
Scale: 1/4" = 1'-0"
Drawn By: Author
Project Number: 20.003

Drawing Number: FS100



FOOD SERVICE RECEPTACLE

MOUNT RECEPTACLES HORIZONTALLY
IN FOOD SERVICE AREAS

NOTE:

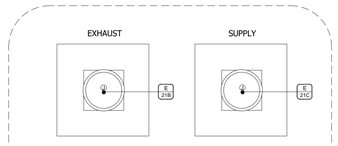
1. FOODSERVICE OUTLETS SHOWN AS A SUGGESTED MINIMUM. ELECTRICAL ENGINEER IS RESPONSIBLE FOR SPECIFYING CONVENIENCE OUTLET LOCATION & SIZING AS REQUIRED BY LOCAL CODES AND REGULATIONS.

ELECTRICAL LEGEND

SYMBOLS		ABBREVIATIONS	
J	JUNCTION BOX (J-BOX)	A	AMPERES
□	EQUIPMENT INTERCONNECTION BY E.C.	AFF	ABOVE FINISHED FLOOR
●	ELECTRICAL ROUGH-IN	BTC	BRANCH TO CONNECTION POINT & CONNECT EQUIPMENT
	SINGLE ELECTRICAL OUTLET (SOD)	CONV.	CONVENIENCE OUTLET 120V 1PH 20.0A
	DUPLEX ELECTRICAL OUTLET (DOC)	D.C.	DIRECT CONNECTION
	FOURPLEX ELECTRICAL OUTLET (QCO)	DN	DOWN FROM ABOVE
	STUB UP FROM FF (TERMINATED CONDUIT)	E.C.	ELECTRICAL CONTRACTOR
	TELEPHONE OUTLET	HP	HORSE POWER
D	DATA LINE CONNECTION	K.E.C.	KITCHEN EQUIPMENT CONTRACTOR
F	FLOURESCENT LIGHT FIXTURE	KW	KILOWATTS
	INCANDESCENT LIGHT FIXTURE	PH	PHASE
	BREAKER PANELBOARD	U.C.	UNDER COUNTER
$	SWITCH AS NOTED	V	VOLTS
	FLOOR BOX (FL. BOX)	W	WATTS

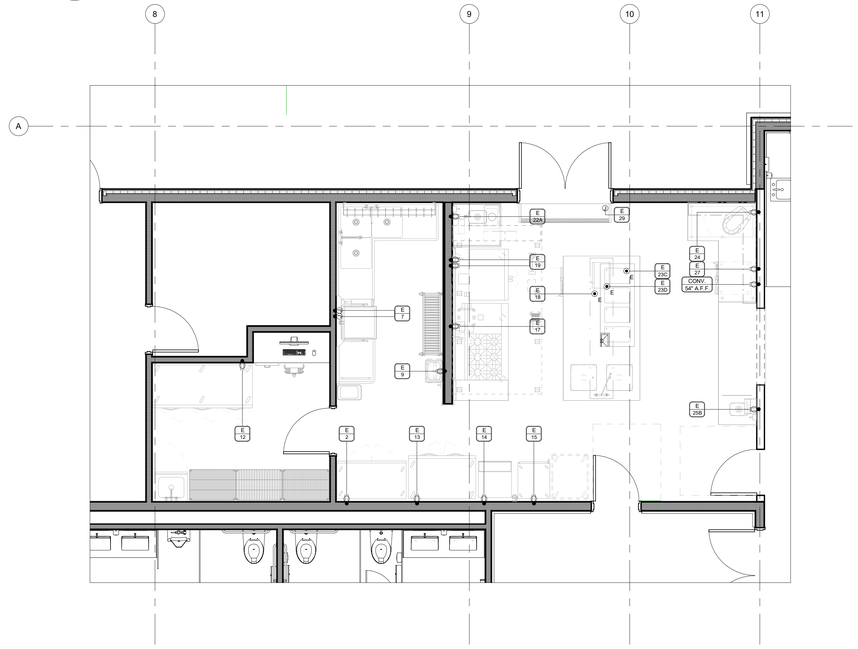
NOTE:

ROUGH-IN DIMENSIONS ARE BASED ON ELECTRONIC BACKGROUNDS PROVIDED BY SILVER PETRUCELLI + ASSOCIATES, DATED 03/25/2022. RJS+ ASSOCIATES DOES NOT WARRANT THE ACCURACY OF THE BACKGROUNDS OR THE DIMENSIONS REFERENCED ON RJS+ ASSOCIATES DRAWINGS. THESE DIMENSIONS ARE PROVIDED AS A CONVENIENCE. IT IS THE RECCOMENDATION OF RJS+ ASSOCIATES THAT THE KITCHEN EQUIPMENT, ELECTRICAL, MECHANICAL, PLUMBING AND GENERAL CONTRACTORS AS APPLICABLE, CREATE THEIR REFERENCE DIMENSIONED ROUGH-IN DRAWINGS. IT IS FURTHER RECOMMENDED THAT FIELD VERIFICATION BE PERFORMED BY THE APPLICABLE CONTRACTORS PRIOR TO POURING OF ANY SLABS OR FABRICATION OF CUSTOM EQUIPMENT.



EXHAUST & SUPPLY FANS REFER TO MEP
DRAWINGS FOR PLACEMENT

2 EXHAUST AND SUPPLY FANS - ELECTRICAL
1/4" = 1'-0"



1 KITCHEN FOODSERVICE EQUIPMENT ELECTRICAL ROUGH-IN PLAN
1/4" = 1'-0"

FOODSERVICE ELECTRICAL ROUGH-IN SCHEDULE

ITEM NO.	QTY	Description	PLUG	DIRECT	VOLTS	PHASE	CYCLE	AMPS	KW	HP	NEMA	ELECTRICAL AFF (IN)	ELEC REMARKS
2	1	REFRIGERATOR, REACH-IN	X		115	1	60	8.7		1/2	5-15P	82	
7	1	DISHWASHER, DOOR TYPE, HIGH TEMP VENTLESS ELECTRIC		X	208/240	3	60	26.9 26.6				72	
9	1	HAND SINK, WALL MOUNT	X		115	1	60	5.0			5-15P	24	
12	1	REACH-IN REFRIGERATOR	X		115	1	60	6.1		1/2	5-15P	82	
13	1	REACH-IN FREEZER	X		115	1	60	9.4		3/4	5-15P	82	
14	1	ICE MAKER	X		115	1	60	7.0			5-15P	24	
15	1	HOT HOLDING CABINETS	X		120	1	60	16.0	1.9		5-20P	82	
17	1	GAS RANGE	X		115	1	60	8.0			5-15P	24	
18	1	PORTABLE HOLDING CABINET	X		120	1	60	14.1	1.697		5-15P	UP	
19	1	DOUBLE-DECK CONVECTION OVEN	X		120 120	1	60	7.7 7.7		1/2	5-15P	24 54	
22A	1	FAUCET, ELECTRONIC	X		115	1	60	5.0			5-15P	24	
23C	1	Drop-In, Hot Well	X		120/208	1	60	12.0			14-20P	UP	
23D	1	COMMERCIAL MICROWAVE OVEN	X		120	1	60	13.4			5-15P	UP	
24	1	MIXER	X		100/120	1	60	8.0		1/2	5-15P	54	
25B	1	FAUCET, ELECTRONIC	X		115	1	60	5.0			5-15P	24	
27	1	PORTABLE HOLDING CABINET	X		120	1	60	14.1			5-15P	24	
29	1	AIR CURTAIN, UNHEATED		X	208/230	1	60	1.4				DN	

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Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

SILVER / PETRUCELLI + ASSOCIATES
Architects / Engineers / Interior Designers

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Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
FOODSERVICE EQUIPMENT ELECTRICAL PLAN & SCHEDULE

Date: September 09, 2022
Scale: 1/4" = 1'-0"
Drawn By: Author
Project Number: 20.003

Drawing Number: FS200

NOTE:

1. FOODSERVICE FLOOR DRAINS SHOWN AS A SUGGESTED MINIMUM. PLUMBING ENGINEER IS RESPONSIBLE FOR SPECIFIYING CONVENIENCE DRAIN LOCATION & SIZING AS REQUIRED BY LOCAL CODES AND REGULATIONS.

FLOOR SINKS DIMENSIONED ON SHEET FS-1.7.2

PLUMBING GENERAL NOTES

1. SEE PLUMBING DRAWINGS FOR CONVENIENCE AND FLOOR DRAIN LOCATION AND SIZING AS REQUIRED BY LOCAL CODES AND REGULATIONS.
2. SEE EQUIPMENT PLAN AND SCHEDULE FOR ADDITIONAL INFORMATION.
3. P.C. TO PROVIDE ALL ROUGH-IN AND FINAL CONNECTIONS TO ALL EQUIPMENT SHOWN HEREIN.
4. SOLID & THICK LINE DOTS REPRESENTS ROUGH-IN LOCATION. (FURNISHED BY P.C.)

   DOTTED LINE REPRESENTS FINAL CONNECTION. (FURNISHED BY P.C.)

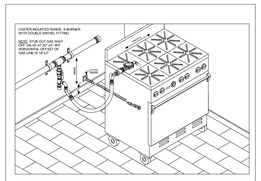
   CIRCLE REPRESENTS CONNECTION TO EQUIPMENT. (FURNISHED BY P.C.)
5. PLUMBING CONTRACTOR (P.C.) TO KEEP ALL PLUMBING LINES CLEAR OF WALLBACKING AREAS.
6. P.C. TO PROVIDE AND INSTALL REGULATORS AS REQUIRED.
7. P.C. TO VERIFY PLUMBING REQUIREMENTS AND LOCATIONS FOR EQUIPMENT SUPPLIED BY OTHERS.

PLUMBING LEGEND

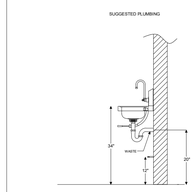
SYMBOLS		ABBREVIATIONS	
●	HOT WATER	AFF	ABOVE FINISHED FLOOR
○	COLD WATER	BTC	BRANCH TO CONNECT
○	DRAIN CONNECTION	CW	COLD WATER
◇	DIRECT DRAIN	DN	DOWN FROM ABOVE
○	WATER CONNECTION	DR	DRAIN
	FLOOR SINK - HALF GRATE	FD	FLOOR DRAIN
	FLOOR DRAIN - AS NOTED	FS	FLOOR SINK
	FUNNEL DRAIN - AS NOTED	FT	FLOOR TROUGH
	GAS LINE	GPH	GALLONS PER HOUR
	GAS CONNECTION	GPM	GALLONS PER MINUTE
	HOT WATER	HD	HUB DRAIN
	FLEX HOSE CONNECT	HW	HOT WATER
	INDIRECT WASTE LINE	P	PLUMBING
	PLUMBING INTERCONNECTION	PSI	POUNDS PER SQUARE INCH
	STUB UP FROM FLOOR	DW	DIRECT WASTE
		IW	INDIRECT WASTE
		CWS	CHILLED WATER SUPPLY
		CWR	CHILLED WATER RETURN

NOTE:

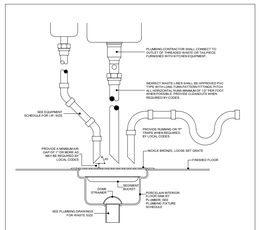
ROUGH-IN DIMENSIONS ARE BASED UPON ELECTRONIC BACKGROUNDS PROVIDED BY SILVER PETRUCELLI + ASSOCIATES, DATED **03/25/2022**. RJS + ASSOCIATES DOES NOT WARRANT THE ACCURACY OF THE BACKGROUNDS OR THE DIMENSIONS REFERENCED ON RJS ASSOCIATES DRAWINGS. THESE DIMENSIONS ARE PROVIDED AS A CONVENIENCE. IT IS THE RECOMMENDATION OF RJS ASSOCIATES THAT THE KITCHEN EQUIPMENT, ELECTRICAL, MECHANICAL, PLUMBING AND GENERAL CONTRACTORS AS APPLICABLE, CREATE THEIR REFERENCE DIMENSIONED ROUGH-IN DRAWINGS. IT IS FURTHER RECOMMENDED THAT FIELD VERIFICATION BE PERFORMED BY THE APPLICABLE CONTRACTORS PRIOR TO POURING OF ANY SLABS OR FABRICATION OF CUSTOM EQUIPMENT.



2 DISCONNECT GAS HOSE DETAIL
FS300 N.T.S.

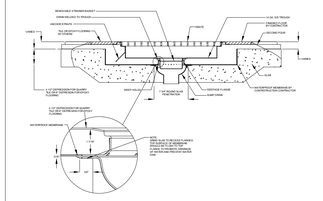


3 HAND SINK CONNECTION DETAIL
FS300 N.T.S.



4 FLOOR SINK DETAIL
FS300 N.T.S.

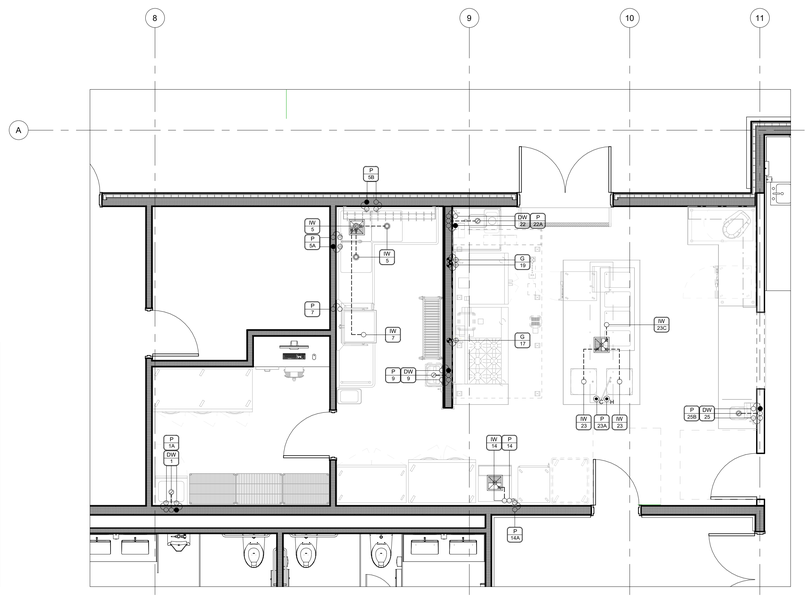
NOTE:
PROVIDE NICKEL OR BRONZE FUNNEL IN APPLICATIONS OF MULTIPLE LINES OR HIGH VOLUME FLOW RATES. WHERE SPACE ALLOWS.



5 SLAB PENETRATION DETAIL
FS300 N.T.S.

FOODSERVICE PLUMBING ROUGH-IN SCHEDULE

ITEM NO.	QTY	EQUIPMENT CATEGORY	HOT WATER SIZE (IN)	HOT WATER GPH	HOT WATER AFF (IN)	COLD WATER SIZE (IN)	COLD WATER AFF (IN)	CHILLED WATER SUPPLY	CHILLED WATER RETURN	DOMESTIC WATER	DIRECT DRAIN SIZE (IN)	DIRECT DRAIN AFF (IN)	INDIRECT DRAIN SIZE (IN)	GAS SIZE (IN)	MBTUH	HVAC EXHAUST CFM	HVAC EXHAUST SP/WG	HVAC MAKE-UP CFM	HVAC MAKE-UP SP/WG	PLUMBING REMARKS
1	1	MOP SINK CABINET										20								
1A	1	FAUCET, UTILITY, WALL MOUNT	1/2		18	1/2	18													
5	1	CORNER SINK, 3-COMPARTMENT											(3)1-1/2							
5A	1	PRE-RINSE FAUCET, WALL MOUNT	1/2		18	1/2	18													
5B	1	FAUCET, WALL MOUNT	1/2		18	1/2	18													
7	1	DISHWASHER, DOOR TYPE, HIGH TEMP VENTLESS ELECTRIC	3/4		18	3/4	18						1-1/2							
9	1	HAND SINK, WALL MOUNT	1/2		18	1/2	18				1 1/2	20								
14	1	ICE MAKER				3/8	18						1/2							
14A	1	FILTER, ICE MAKER																		
17	1	GAS RANGE												1	278					
19	1	DOUBLE-DECK CONVECTION OVEN												3/4 3/4	50 50					
22	1	COUNTER W/ HAND SINK									3 1/2	20								
22A	1	FAUCET, ELECTRONIC	1/2		18	1/2	18													
23A	1	FAUCET, DECK MOUNT	1/2		18	1/2	18													
23C	1	Drop-In, Hot Well											1							
25B	1	FAUCET, ELECTRONIC	1/2		18	1/2	18													



1 KITCHEN FOODSERVICE EQUIPMENT PLUMBING ROUGH-IN PLAN
1/4" = 1'-0"

HEALTH DEPT. NOTES

1. ALL FOOD SERVICE EQUIPMENT, FABRICATED ITEMS,AND THEIR INSTALLATION SHALL MEET NATIONAL SANITATION FOUNDATION (N.S.F.) REQUIREMENTS.
2. ALL STATIONARY EQUIPMENT AND FIXTURES TO BE SEALED TO THE WALL OR ADJACENT EQUIPMENT. USE ALUMINUM COLOR AT STAINLESS STEEL AND CLEAR AT ALL OTHER.
3. ALL SINKS IN THE FOOD FACILITY MUST BE PROVIDED WITH HOT WATER (MIN. 110 DEG. F.) AND COLD RUNNING WATER UNDER PRESSURE AND WILL HAVE A PREMIXING FAUCET CAPABLE OF SUPPLYING WARM WATER FOR A MINIMUM OF 10 SECONDS.
4. A HAND SINK IS PROVIDED IN EACH FOOD PREPARATION AREA WITH SINGLE SERVICE TOWEL AND SOAP DISPENSER.
5. 3-COMPARTMENT SINKS ARE PROVIDED WITH MIXING VALVE FAUCETS CAPABLE OF REACHING EACH COMPARTMENT.
6. A MIN. OF 20 FOOT CANDLES (215 LUX) OF LIGHT, MEASURED 30" OFF THE FLOOR TO BE PROVIDED IN ALL FOOD PREPARATION, PACKAGING, AND PROCESSING AREAS.
7. A MIN. OF 10 FOOT CANDLES (108 LUX) OF LIGHT, MEASURED 30" OFF THE FLOOR TO BE PROVIDED IN ALL FOOD & UTENSIL STORAGE ROOMS, TOILET, AND DRESSING ROOMS.
8. A MIN. OF 20 FOOT CANDLES (215 LUX) OF LIGHT, MEASURED 30" OFF THE FLOOR TO BE PROVIDED IN ALL AREAS DURING GENERAL CLEANUP ACTIVITIES.
9. ALL SHELVING OVER WET AREAS (SINKS, MOP SINKS, ETC.) WILL BE STAINLESS STEEL.
10. SHATTER SHIELDS OR SHATTERPROOF LIGHT BULBS TO BE PROVIDED FOR ALL LIGHTS ABOVE FOOD PREPARATION, WORK, AND STORAGE AREAS.
11. ALL PLUMBING, ELECTRICAL, AND GAS LINES SHALL BE CONCEALED WITHIN THE BUILDING STRUCTURE TO AS GREAT AN EXTENT AS POSSIBLE.
12. FLOOR SINKS UNDER EQUIPMENT MUST BE 50% EXPOSED AND EASILY ACCESSIBLE FOR CLEANING AND SERVICING.
13. ALL EXHAUST HOODS TO BE A MIN. 22 GA. STAINLESS STEEL, U.L. LISTED, AND CONSTRUCTED AND INSTALLED TO ALL U.L. AND N.F.P.A. SPECIFICATIONS. EXHAUST DUCTS TO BE A MIN. 16 GA. STEEL. (TYPE 1 HOOD DUCTS TO HAVE WELDED SEAMS).
14. ALL FLOOR TILE TO BE SMOOTH UNDER ALL EQUIPMENT, AND WALKWAYS TO HAVE A LIGHT TEXTURE ONLY.
15. ALL 3-COMPARTMENT SINKS TO HAVE A MIN. COMPARTMENT SIZE OF 18" X 18" X 12" DEEP, WITH A MIN. 18" DRAIN BOARD ON EACH END. PROVIDE WITH 8" HIGH INTEGRAL BACK SPLASH AT ALL WALLS. (SEE FOOD SERVICE SPECIFICATIONS FOR SIZES OF EACH ITEM.)
16. SUPPORT ROOMS ARE FOR STORAGE AND UTENSIL WASHING ONLY. NO VEGETABLE WASHING OR FOOD PREP. TO BE DONE

FOOD SERVICE NOTES

1. REQUIREMENTS SHOWN ARE FOR ONE ITEM, TO DERIVE TOTAL MULTIPLY BY QUANTITY SHOWN.
2. ELECTRICAL CONTRACTOR SHALL PROVIDE MAG. STARTERS. DISCONNECT SWITCHES, INTERLOCKS AND THERMO-OVERLOAD PROTECTION WHERE REQUIRED.
3. PLUMBING CONTRACTOR SHALL PROVIDE STOP VALVES AHEAD OF ALL OPERATING HANDLES AND FAUCETS.
4. SEE EQUIPMENT PLUMBING AND ELECTRICAL ROUGH-IN DRAWINGS FOR ADDITIONAL INFORMATION
5. ELECTRICAL POWER TO COOKING EQUIPMENT, WHERE REQUIRED, SHALL BE PROVIDED THRU A SHUNT-TRIP SYSTEM FOR FIRE FUEL SHUT-OFF. ELECTRICAL CONTRACTOR SHALL WIRE CONTROL CIRCUIT TO MICRO SWITCH PROVIDED BY KITCHEN EQUIPMENT CONTRACTOR ON HOOD FIRE PROTECTION SYSTEM.
6. GAS SUPPLY TO ALL COOKING EQUIPMENT, WHERE REQUIRED, SHALL BE PROVIDED WITH AN ELECTRIC VALVE FOR FIRE-FUEL SHUT-OFF. VALVE TO BE SUPPLIED BY THE "K.E.C." AND INSTALLED BY THE "P.C." K.E.C. SHALL CONNECT VALVE TO THE HOOD FIRE PROTECTION SYSTEM FOR AUTOMATIC SHUT-OFF.
7. VACUUM BREAKERS WHEN USED, TO BE MINIMUM OF SIX INCHES ABOVE THE FLOOD LEVEL RIM WITH NO SHUT OFF DEVICES BEYOND THE DISCHARGE OF THE VACUUM BREAKER.
8. WALL BACKING PROVIDED BY GENERAL CONTRACTOR.
9. PLUMBING CONTRACTOR TO SUPPLY GREASE TRAP AS REQUIRED BY CODE.
10. ALL COOKING EQUIPMENT UNDER EXHAUST HOODS ARE EITHER ON CASTERS WITH FLEXIBLE UTILITY QUICK DISCONNECTS OR FIXED ON S/S LEGS.
11. ALL NEW EXHAUST HOODS WILL BE CONSTRUCTED TO MEET THE FOLLOWING STANDARDS: NSF, UL AND NFPA-96. ALL NEW HOODS TO BEAR UL CLASSIFIED LABEL WITHOUT DAMPERS IN EXHAUST VENT COLLARS. HOODS ARE DESIGNED TO MEET OR EXCEED 50 FPM CAPTURE VELOCITY AT THE COOKING SURFACE EDGE AND HAVE A 6" MIN. OVERHANG AT ALL EXPOSED COOKING AREAS.
12. BACK SPLASHES OF EQUIPMENT SHALL BE SEALED TO WALLS WITH CLEAR SILICONE CAULK IN A NEAT WORKMAN LIKE MANNER.

SHEET NOTES

THIS PLAN REPRESENTS A FOOD SERVICE LAYOUT OF CULINARY, BEVERAGE, SYSTEMS AND RELATED EQUIPMENT FOR THE CONVENIENCE OF OWNER / OPERATOR, ARCHITECTS, MECHANICAL, ELECTRICAL AND PLUMBING ENGINEERS, CONTRACTORS, KITCHEN EQUIPMENT FABRICATORS, KITCHEN EQUIPMENT CONTRACTORS AND OTHER RELATED TRADES. THE BASE PLAN HAS BEEN MADE AVAILABLE FROM INFORMATION PROVIDED BY OTHER, NOT LIMITED TO MEASUREMENTS, ELECTRONIC BACKGROUNDS, GRID LINES AND EXISTING OR PROPOSED BUILDING SYSTEMS, NOT LIMITED TO (PLUMBING, STRUCTURAL, CONCRETE, DUCTWORK, ELECTRICAL AND MECHANICAL). GENERAL CONTRACTORS, SUBCONTRACTORS, KITCHEN EQUIPMENT DEALERS, CONTRACTORS, INSTALLERS, RELATED AND NON-RELATED CONTRACTORS, ARE RESPONSIBLE FOR SECURING AND OBTAINING THEIR OWN MEASUREMENTS AND SPECIFIC INFORMATION. INFORMATION INDICATED ON THESE PLANS ARE GENERALLY FOR FOOD SERVICE EQUIPMENT AND ARE INTENDED AS REFERENCE ONLY. RJS + ASSOCIATES IS NOT RESPONSIBLE FOR THE ENGINEER OR INTEGRATION OF RELATION ENGINEERING AND DISCIPLINES THROUGHOUT THE FULL SET OF CONSTRUCTION DOCUMENTS SPECIFIC TO THE FOOD SERVICE EQUIPMENT IN RELATION TO THE STRUCTURAL, ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL TRADES, UNLESS OTHERWISE SPECIFICALLY PROVIDED FOR IN THE PLANS AND SPECIFICATIONS. RJS + ASSOCIATES ASSUMES NO RESPONSIBILITY FOR WORK DONE BY ANY AND ALL ARCHITECTS, ENGINEERS, CONSULTANTS OR CONTRACTORS, OR FOR ANY CHANGES MADE NECESSARY BY LOCAL, STATE, OR NATIONAL BUILDING CODES, ORDINANCES, STRUCTURAL CONDITIONS, OR BY THE SUBSTITUTION OR CHANGES IN EQUIPMENT SHOWN ON THIS PLAN(S). CONTRACTORS ARE TO MAKE ALLOWANCES FOR INTERNAL AND EXTERNAL FINAL CONNECTIONS ON THE FOOD SERVICE EQUIPMENT, WASTE PIPING, VALVES, BACK-FLOW PREVENTION, TRAPS, DRAIN GRATES, FLUID / GAS REGULATORS, FAUCETS, STEAM TRAPS, STARTING SWITCHES AND MOTORS, EXCEPT WHERE SPECIFICALLY NOTED IN THE FOOD SERVICE SPECIFICATIONS, SECTION 114000.

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

SILVER / PETRUCELLI + ASSOCIATES
Architects / Engineers / Interior Designers

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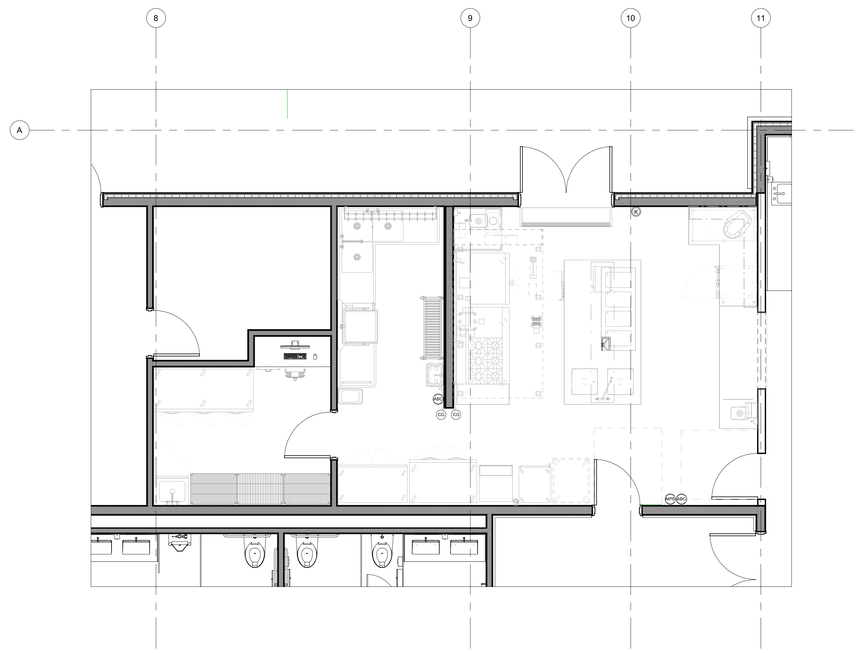
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
FOODSERVICE EQUIPMENT PLUMBING PLAN & SCHEDULE

Date: **September 09, 2022**
Scale: **1/4" = 1'-0"**
Drawn By: **Author**
Project Number: **20.003**
Drawing Number: **FS300**

LEGEND

SYMBOLS		ABBREVIATIONS	
(R)	REFRIGERATION CONNECTION	FS	FLOOR SINK
U	UTILITY CONNECTION	FT	FLOOR TROUGH
(CG)	CORNER GUARD	MPS	MANUAL PULL STATION
(K)	K-CLASS PORTABLE FIRE EXTINGUISHER	DN	DOWN FROM ABOVE
ABC	K-CLASS PORTABLE FIRE EXTINGUISHER		
●	UTILITY STUB UP FROM F/N FLOOR		
●	BEVERAGE CONDUIT STUB UP		



1 KITCHEN FOODSERVICE EQUIPMENT LIFE SAFETY PLAN
1/4" = 1'-0"

Project Title:
Colchester Senior Center
Town of Colchester
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Colchester, CT 06415

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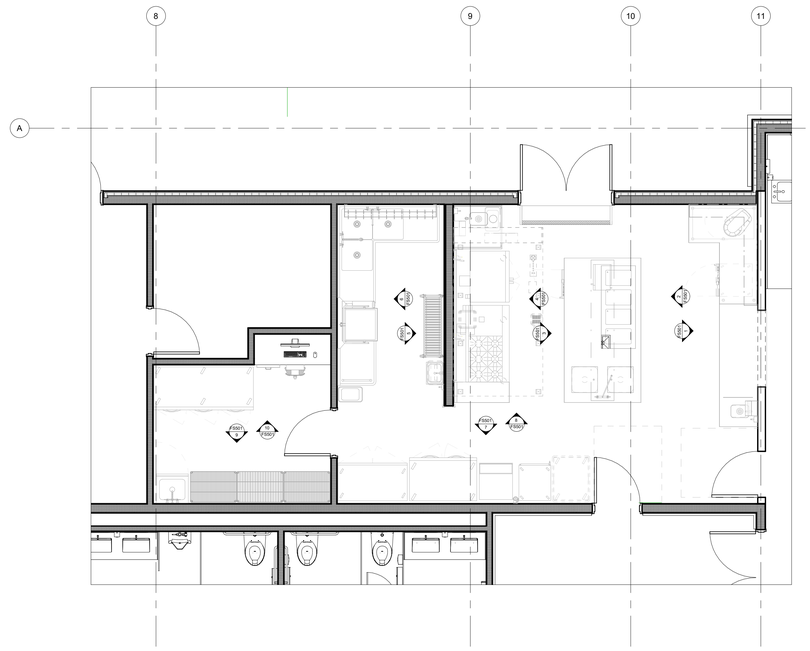
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
FOODSERVICE EQUIPMENT
LIFE SAFETY PLAN

Date: **September 09, 2022**
Scale: **1/4" = 1'-0"**
Drawn By: **Author**
Project Number: **20.003**
Drawing Number: **FS400**



1 KITCHEN FOODSERVICE EQUIPMENT ELEVATION REFERENCE PLAN
1/4" = 1'-0"

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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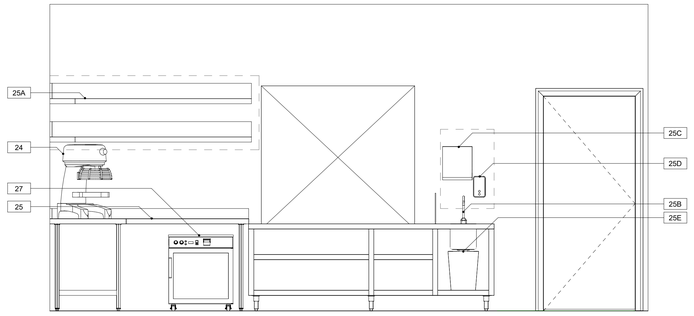
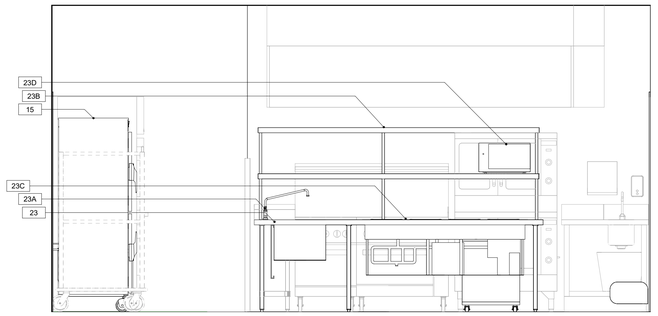
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
FOODSERVICE EQUIPMENT ELEVATIONS REFERENCE PLAN

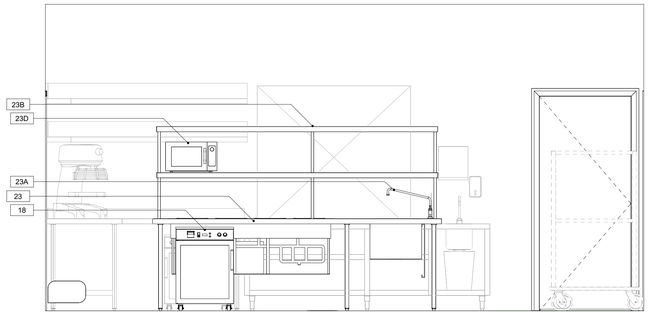
Date: **September 09, 2022**
Scale: **1/4" = 1'-0"**
Drawn By: **Author**
Project Number: **20.003**
Drawing Number: FS500



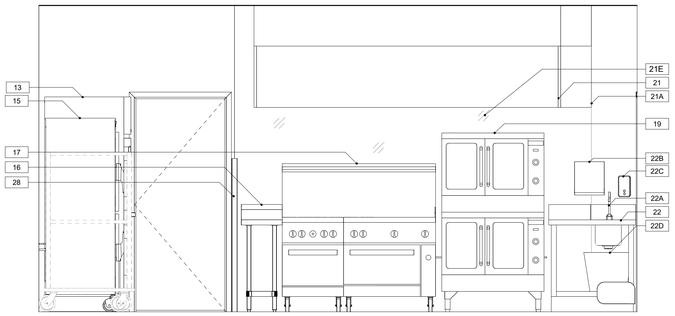
1 PREP AREA
1/2" = 1'-0"



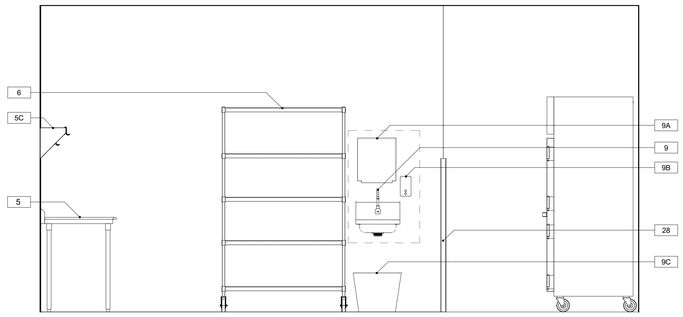
2 PREP AREA
1/2" = 1'-0"



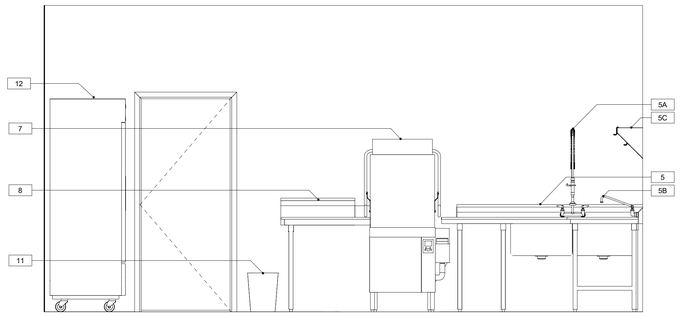
3 PREP AREA
1/2" = 1'-0"



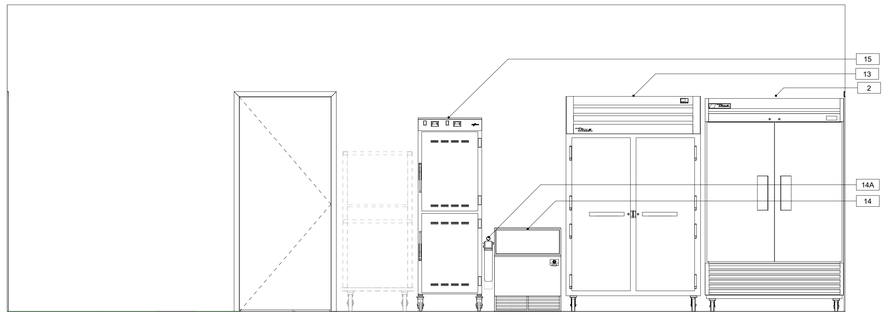
4 COOKLINE
1/2" = 1'-0"



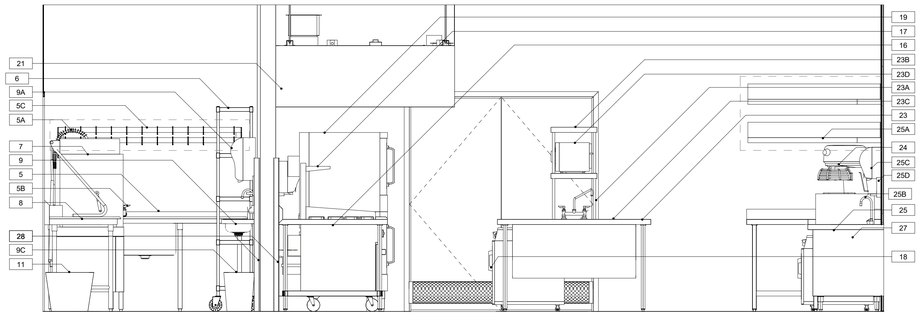
5 DISHWASHING
1/2" = 1'-0"



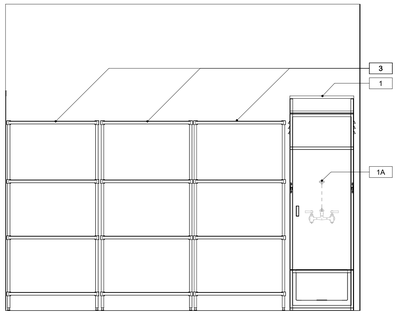
6 DISHWASHING
1/2" = 1'-0"



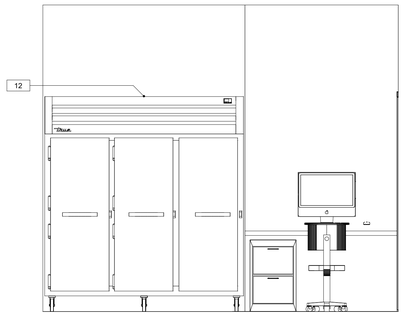
7 KITCHEN ELEVATION
1/2" = 1'-0"



8 KITCHEN ELEVATION
1/2" = 1'-0"



9 STORAGE AREA
1/2" = 1'-0"



10 OFFICE AREA
1/2" = 1'-0"

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Town of Colchester
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Colchester, CT 06415

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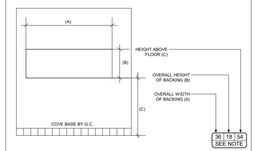
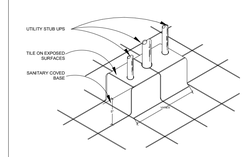
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
FOODSERVICE EQUIPMENT ELEVATIONS

Date: **September 09, 2022**
Scale: **1/2" = 1'-0"**
Drawn By: **Author**
Project Number: **20.003**
Drawing Number: FS501



2 / FS600 EQUIPMENT WALL BACKING DETAIL
N.T.S.



3 / FS600 UTILITY CURB DETAIL
N.T.S.

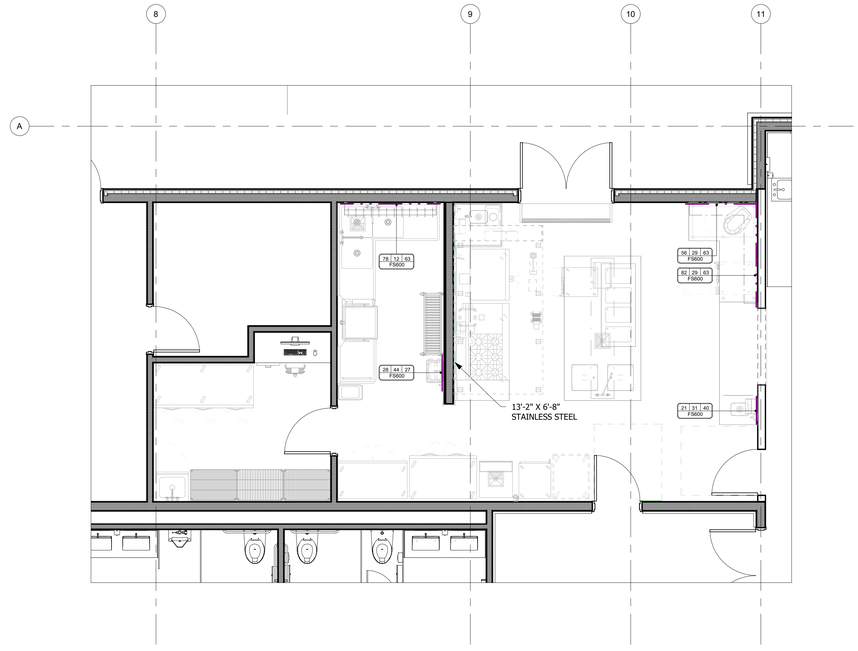
SYMBOLS

WALL BACKING FOR EQUIPMENT ABOVE 36" (BY KITCHEN EQUIPMENT CONTRACTOR)

WALL FLASHING (BY KITCHEN EQUIPMENT CONTRACTOR)

NOTE:

ROUGH-IN DIMENSIONS ARE BASED ON ELECTRONIC BACKGROUNDS PROVIDED BY SILVER PETRUCELLI + ASSOCIATES, DATED 03/25/2022. RJS+ ASSOCIATES DOES NOT WARRANT THE ACCURACY OF THE BACKGROUNDS OR THE DIMENSIONS REFERENCED ON RJS+ ASSOCIATES DRAWINGS. THESE DIMENSIONS ARE PROVIDED AS A CONVENIENCE. IT IS THE RECCOMENDATION OF RJS+ ASSOCIATES THAT THE KITCHEN EQUIPMENT, ELECTRICAL, MECHANICAL, PLUMBING AND GENERAL CONTRACTORS AS APPLICABLE, CREATE THEIR REFERENCE DIMENSIONED ROUGH-IN DRAWINGS. IT IS FURTHER RECOMMENDED THAT FIELD VERIFICATION BE PERFORMED BY THE APPLICABLE CONTRACTORS PRIOR TO POURING OF ANY SLABS OR FABRICATION OF CUSTOM EQUIPMENT.



1 KITCHEN FOODSERVICE EQUIPMENT SPECIAL CONDITIONS PLAN
1/4" = 1'-0"

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

SILVER / PETRUCELLI + ASSOCIATES
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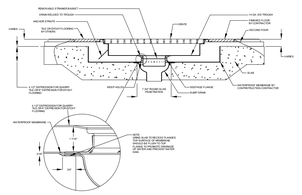
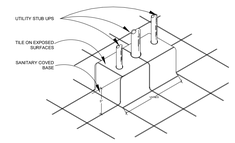
Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
FOODSERVICE EQUIPMENT
SPECIAL CONDITIONS PLAN

Date: **September 09, 2022**
Scale: **1/4" = 1'-0"**
Drawn By: **Author**
Project Number: **20.003**
Drawing Number: **FS600**



2 / FS601 SLAB PENETRATION DETAIL
N.T.S.



3 / FS601 UTILITY CURB DETAIL
N.T.S.

NOTE:

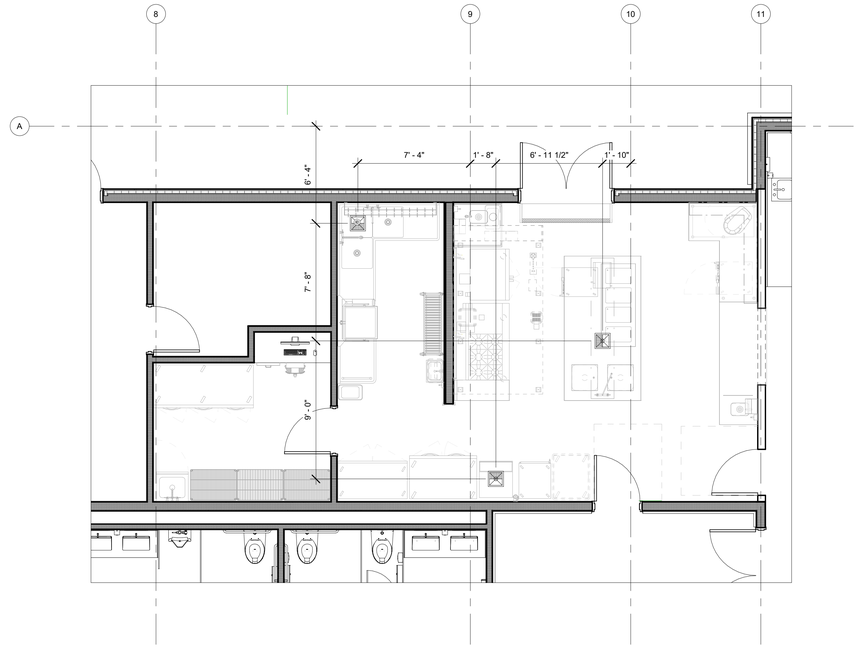
UTILITY CURBS SHALL BE UTILIZED IN KITCHEN AND DISHWASHING AREAS TO FACILITATE THE CLEANING OF FLOORS IN WET AREAS. CONTRACTOR SHALL GROUP AND CONSOLIDATE THE STUB-UPS INTO GROUPS WHERE POSSIBLE TO MINIMIZE THE NUMBER OF CURBS.

NOTE:

LINE RUNS & LOCATION OF ROOF TOP EQUIPMENT FOR SCHEMATIC PURPOSES ONLY. VERIFY EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND SITE CONDITIONS.

NOTE:

ROUGH-IN DIMENSIONS ARE BASED ON ELECTRONIC BACKGROUNDS PROVIDED BY SILVER PETRUCELLI + ASSOCIATES, DATED 03/25/2022. RJS+ ASSOCIATES DOES NOT WARRANT THE ACCURACY OF THE BACKGROUNDS OR THE DIMENSIONS REFERENCED ON RJS+ ASSOCIATES DRAWINGS. THESE DIMENSIONS ARE PROVIDED AS A CONVENIENCE. IT IS THE RECCOMENDATION OF RJS+ ASSOCIATES THAT THE KITCHEN EQUIPMENT, ELECTRICAL, MECHANICAL, PLUMBING AND GENERAL CONTRACTORS AS APPLICABLE, CREATE THEIR REFERENCE DIMENSIONED ROUGH-IN DRAWINGS. IT IS FURTHER RECOMMENDED THAT FIELD VERIFICATION BE PERFORMED BY THE APPLICABLE CONTRACTORS PRIOR TO POURING OF ANY SLABS OR FABRICATION OF CUSTOM EQUIPMENT.



1 KITCHEN FOODSERVICE EQUIPMENT SLAB PENETRATION PLAN
1/4" = 1'-0"

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

SILVER / PETRUCELLI + ASSOCIATES
Architects / Engineers / Interior Designers

3190 Whitney Avenue, Hamden, CT 06518-2340
Tel. 203 230 9007 Fax. 203 230 8247
silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

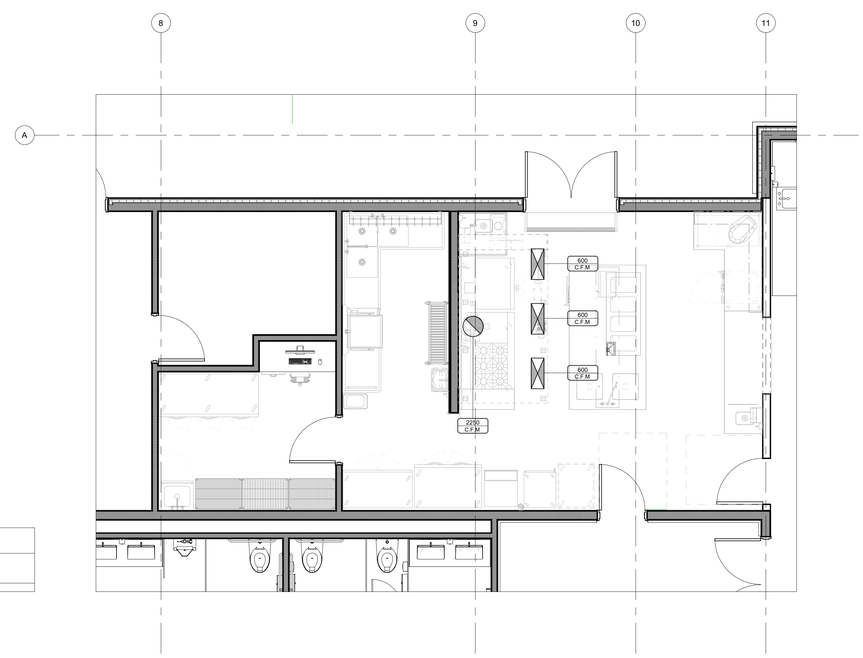
Drawing Title:
FOODSERVICE EQUIPMENT SLAB PENETRATIONS PLAN

Date: September 09, 2022
Scale: 1/4" = 1'-0"
Drawn By: Author
Project Number: 20.003

Drawing Number:
FS601

EXHAUST CFM SCHEDULE

ITEM NO.	QTY	EQUIPMENT CATEGORY	HVAC EXHAUST DUCT SIZE (IN)	HVAC EXHAUST CFM	HVAC EXHAUST SPWG	HVAC EXHAUST AFF (IN)	HVAC MAKE-UP CFM	HVAC MAKE-UP SPWG	HVAC MAKE-UP AFF (IN)	HVAC REMARKS
21	1	EXHAUST HOOD - LEFT	4x14	1975	.839					



1 KITCHEN FOODSERVICE EQUIPMENT CFM PLAN
1/4" = 1'-0"

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

SILVER / PETRUCELLI + ASSOCIATES
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silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
FOODSERVICE EQUIPMENT CFM PLAN

Date: **September 09, 2022**
Scale: **1/4" = 1'-0"**
Drawn By: **Author**
Project Number: **20.003**
Drawing Number: **FS700**

HOOD INFORMATION – JOB#5401627

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW
1		6024 ND-2-PSP-F	CAPTIVEAIRE	10' 0"	600 DEG	I	HEAVY	225	2250			4"	16"	2250	1611	-0.737"	1800	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

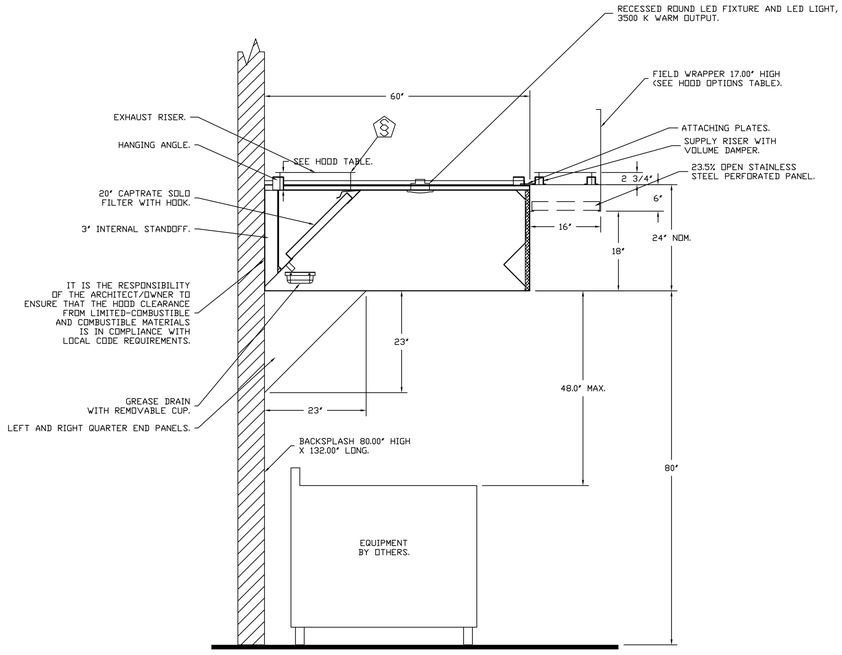
HOOD NO	TAG	FILTER(S) TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1		CAPTRATE SOLO FILTER	7	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO	LEFT	12"x60"x24"	TANK FS	4.0/4.0	DCV-1111	1 LIGHT 1 FAN	YES	914 LBS

HOOD OPTIONS

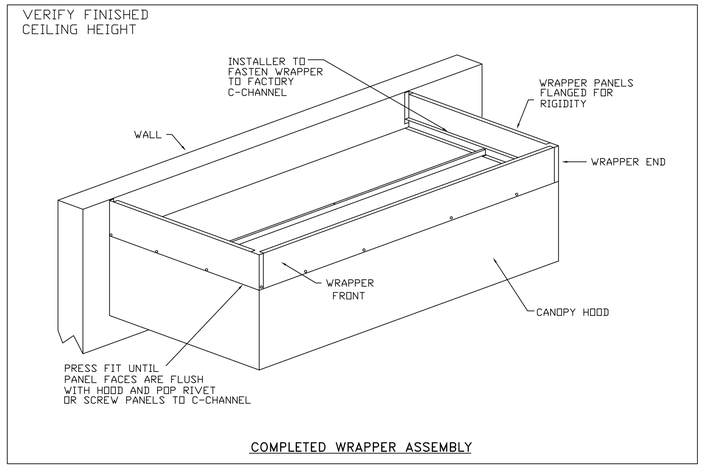
HOOD NO	TAG	OPTION
1		FIELD WRAPPER 17.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00" HIGH X 132.00" LONG 430 SS VERTICAL.
		RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.

PERFORATED SUPPLY PLENUM(S)

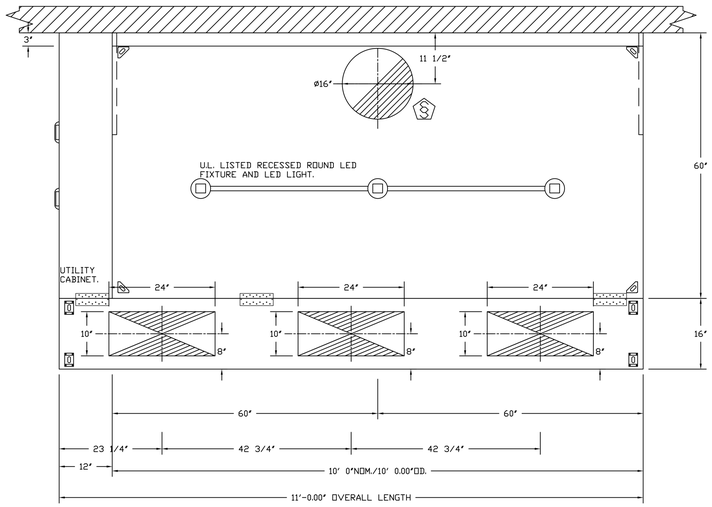
HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG	DIA	CFM	SP
1		Front	132"	16"	6"	MUA	10"	24"		600	0.194"
						MUA	10"	24"		600	0.194"
						MUA	10"	24"		600	0.194"



SECTION VIEW – MODEL 6024ND-2-PSP-F HOOD – #1



COMPLETED WRAPPER ASSEMBLY



PLAN VIEW – HOOD #1
10' 0.00" LONG 6024ND-2-PSP-F

CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted ☐
Approved with NO Exception Taken ☐
Revise and Resubmit ☐
SIGNATURE _____
Your Title _____ Date _____

FOR QUESTIONS, CALL THE
New England Office
REGION 37
PHONE: (413) 594-8390
EMAIL: reg37@captivealre.com

REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
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CAPTIVE-AIRE
New England Office
450 Cottage Street, Suite 4, Springfield, MA. 01104 PHONE: (413) 594-8390 FAX: (919) 227-5956 EMAIL: reg37@captivealre.com
www.captivealre.com

Colchester Senior Center
COLCHESTER, CT, 06415

DATE: 3/29/2022
DWG.#: 5401627
DRAWN BY: TSH-37
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 1

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
FOODSERVICE EQUIPMENT
HOOD DETAILS

Date: **September 09, 2022**
Scale:
Drawn By: **Author**
Project Number: **20.003**
Drawing Number: **FS800**

SECTION 23 38 13 13

SPECIFICATIONS
TAG: Commercial Kitchen Ventilation Hoods, Listed Commercial Kitchen Hoods

PART 1 - GENERAL

1.1 SUMMARY

A. The ND2 series is a Type I, wall canopy hood for use over 600°F cooking surface temperatures. The aerodynamic design includes a mechanical baffle and performance enhancing lip for exceptional capture and containment.

B. The hood shall have the size, shape, and performance specified on drawings.

1.2 SUBMITTALS

A. The manufacturer assumes no liability for the use or results of use from this document. Specifications are to be reviewed by the engineer to confirm the project's requirements and meet Federal, State, and Local codes and regulations.

B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.

C. The manufacturer shall supply complete computer generated submittal drawings, including hood section view(s) and hood plan view(s). These drawings must be available to the engineer, architect, and owner for their use in construction, operation, and maintenance.

1.3 QUALITY ASSURANCE

A. This hood is ETL-listed to standard UL710, ULC710, and ULC-S646 when installed in accordance with these installation instructions and National Fire Protection Association Standard "NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations."

B. Built-in compliance with NSF/ANSI Standard 2.

C. The hood shall be ETL Listed as:

1. "Exhaust Hood Without Exhaust Damper."
2. ETL Sanitation Listed and built in accordance with NFPA 96.
3. The ETL label shall list temperature rating(s) and minimum CFM/ft rating(s).

1.4 WARRANTY

A. All units shall be provided with the following standard warranty:

1. This equipment is warranted to be free from defects in materials and workmanship, under normal use and service, for a period of 2-years from date of shipment.

B. The manufacturer shall not be liable for incidental and consequential losses and damages potentially attributable to malfunctioning equipment. Should any part of the equipment prove to be defective in material or workmanship within the 2-year warranty period, upon examination by the manufacturer, such part will be repaired or replaced by manufacturer at no charge. The buyer shall pay all labor costs incurred in connection with such repair or replacement. Equipment shall not be returned without manufacturer's prior authorization, and all returned equipment shall be shipped by the buyer, freight prepaid to a destination determined by the manufacturer.

C. Refer to Manufacturer's Operation, Installation, and Maintenance (OIM) Manual for detailed descriptions of what is/is not covered and contact information for warranty claims.

PART 2 - PRODUCTS

2.1 GENERAL

A. Construction shall be dependent on the structural application to minimize distortion and other defects. All seams, joints, and penetrations of the hood enclosure to the lower outermost perimeter, which directs and captures grease-laden vapor and exhaust gases, shall have a liquid-tight continuous external weld in accordance with NFPA 96.

B. Duct sizes, CFM, and static pressure requirements shall be as shown on drawings. Static pressure requirements shall be precise and accurate; air velocity and volume information shall be accurate within 1-ft increments along the length of the ventilator.

2.2 CONSTRUCTION

A. Construction shall be type 430 stainless steel.

B. Double wall insulated front to eliminate condensation and increase rigidity on wide sizes. The insulation shall have a flexural modulus of 475 EI, meet UL 181 requirements and be in accordance with NFPA 90A and 90B.

C. Hood shall be equipped with a minimum of four connections for hanger rods. Hood lengths greater than 12'will have added hangers.

D. Exhaust duct collar to be 4"high with flange.

E. The grease drain system shall be an enclosed integral part of the hood back and have slopes with an exposed, removable 1/2 grease cup to facilitate cleaning.

F. An integral baffle to direct grease laden vapors toward the exhaust filter bank.

G. Hood shall be furnished with UL classified filters, supplied in size and quantity as required by ventilator.

H. All seams shall be welded and have stainless steel on exposed surfaces.

2.3 LIGHTING

A. Recessed round LED fixture and LED light, 3500K Warm output.

2.4 FILTERS

A. Stainless Steel Captrate Solo filter with hook, ETL Listed. Particulate capture efficiency: 85% efficient at 9 microns, 76% efficient at 5 microns.

2.5 OPTIONS

A. Fire Suppression System: UL 300 fire suppression system.

B. Optional perforated supply plenum shall provide make-up air discharged below the cooking equipment.

1. Perforated diffuser plates shall be included in the design to provide even air distribution.
2. Unexposed surfaces shall be constructed of aluminized steel. Plenum shall be insulated to prevent condensation.
3. Perforated Supply Plenum (PSP)

C. Hood Mounted Utility Cabinet - Cabinet can store listed fire suppression system, listed components, pre-wired electrical controls.

2.6 ACCESSORIES

A. End Panel(s) maximize hood performance and eliminate the effects of cross drafts in the kitchen. Units constructed of stainless steel and sized according to hood width and cooking equipment. Exposed edges hemmed for safety and rigidity. Selected panels:

1. Quarter End Panel

B. Splash panel(s) selected:

1. Backsplash

C. Wrapper(s) may be installed from the factory or field installed. Wrapper(s) selected:

1. Wrapper

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions under which the system is installed. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

3.2 INSTALLATION

A. Install in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual, and all applicable building codes.

SPECIFICATION: CAPTRATE• GREASE-STOP• SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

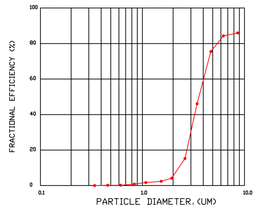
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

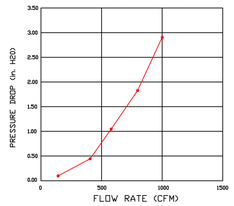
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 10 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.

SYSTEM DESIGN VERIFICATION (SDV)

IF ORDERED, CAS SERVICE WILL PERFORM A SYSTEM DESIGN VERIFICATION (SDV) ONCE ALL EQUIPMENT HAS HAD A COMPLETE START UP PER THE OPERATION AND INSTALLATION MANUAL. TYPICALLY, THE SDV WILL BE PERFORMED AFTER ALL INSPECTIONS ARE COMPLETE.

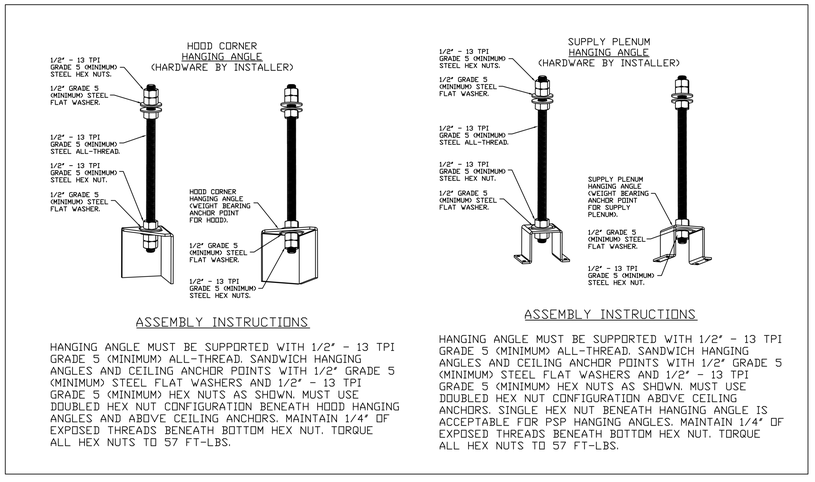
ANY FIELD RELATED DISCREPANCIES THAT ARE DISCOVERED DURING THE SDV WILL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND CORRESPONDING TRADES ON SITE. THESE ISSUES WILL BE DOCUMENTED AND FORWARDED TO THE APPROPRIATE SALES OFFICE. IF CAS SERVICE HAS TO RESOLVE A DISCREPANCY THAT IS A FIELD ISSUE, THE GENERAL CONTRACTOR WILL BE NOTIFIED AND BILLED FOR THE WORK. SHOULD A RETURN TRIP BE REQUIRED DUE TO ANY FIELD RELATED DISCREPANCY THAT CANNOT BE RESOLVED DURING THE SDV, THERE WILL BE ADDITIONAL TRIP CHARGES.

DURING THE SDV, CAS SERVICE WILL ADDRESS ANY DISCREPANCY THAT IS THE FAULT OF THE MANUFACTURER. SHOULD A RETURN TRIP BE REQUIRED, THE GENERAL CONTRACTOR AND APPROPRIATE SALES OFFICE WILL BE NOTIFIED. THERE WILL BE NO ADDITIONAL CHARGES FOR MANUFACTURER DISCREPANCIES.

CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted ☐
Approved with NO Exception Taken ☐
Revise and Resubmit ☐
SIGNATURE _____
Your Title _____ Date _____

FOR QUESTIONS, CALL THE:
NORTHEAST SALES DIVISION
450 COTTAGE STREET SPRINGFIELD, MA 01104
PHONE: (888) 594-8390
FAX: (919) 227-5956
CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH
NFPA #96 - 2014 EDITION
ETL LISTED TO UL-710 REQUIREMENTS
IMC 2015



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

CAPTIVE-AIRE
New England Office
450 Cottage Street, Suite 4, Springfield, MA, 01104 PHONE: (413) 594-8390 FAX: (919) 227-5956 EMAIL: reg37@captiveaire.com
www.captiveaire.com

Colchester Senior Center
COLCHESTER, CT, 06415

DATE: 3/29/2022
DWG.#: 5401627
DRAWN BY: TSH-37
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 2

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

SILVER / PETRUCELLI + ASSOCIATES
Architects / Engineers / Interior Designers
3190 Whitney Avenue, Hamden, CT 06518-2340
Tel. 203 230 9007 Fax. 203 230 8247
silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
FOODSERVICE EQUIPMENT
HOOD DETAILS

Date: September 09, 2022
Scale:
Drawn By: Author
Project Number: 20.003
Drawing Number: FS801

EXHAUST FAN INFORMATION – JOB#5401627

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF	1	DU180HFA	CAPTIVEAIRE	2250	1.250	1121	TEFC,PREMIUM	1.500	0.9720	3	208	6.5	520 FPM	184	13.6

CONDENSER DETAILS

FAN UNIT NO	TAG	FAN UNIT MODEL #	CONDENSER NO	TONNAGE	VOLTAGE	PHASE	FREQUENCY	MCA	RLA	MAX FUSE SIZE	MIN WIRE SIZE	SEER
2	KMUA	A1-D.500-15D-MPU	1	3	208-230	3 PHASE	60 HZ	14.5 AMPS	11.9 AMPS	20 AMPS	14 AWG	14

MUA FAN INFORMATION – JOB#5401627

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
2	KMUA	1	A1-D.500-15D-MPU	15MF-1-MDD	A1-D.500	1100	1800	0.500	2045	DDP,PREMIUM	1.500	1.3200	3	208	4.4	5.5A	15A	1054	21

COILS – JOB#5401627

FAN UNIT NO	TAG	COIL TYPE	DESIGN CFM	COOLING										
				ENTERING DB TEMP	ENTERING WB TEMP	LEAVING DB TEMP	LEAVING WB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	TOTAL CAPACITY	SENSIBLE CAPACITY	LATENT CAPACITY
2	KMUA	DX	1800	86.0°F	72.0°F	75.2°F	67.2°F	---	---	---	---	30.9 MBH	20.4 MBH	10.5 MBH

GAS FIRED MAKE-UP AIR UNIT(S)

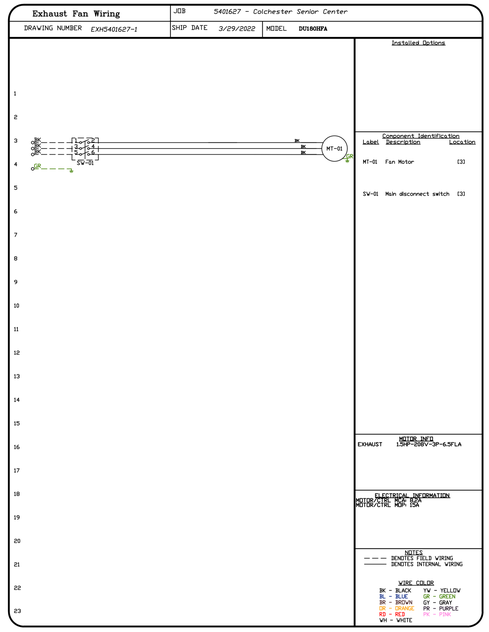
FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2	KMUA	136239	125340	66°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

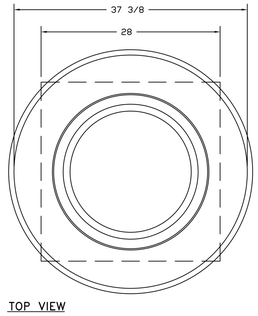
FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
2	KMUA	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	LOW FIRE START
		1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	3 TON SINGLE CIRCUIT MODULAR PACKAGED COOLING OPTION FOR SIZE 1 DF/EH MUA (1,100 TO 1,800 CFM), 208V/230V, 3 PHASE. COOLING THERMOSTAT OR PROGRAMMABLE STAT REQUIRED FOR PROPER OPERATION
		1	DOWNTURN PLENUM FOR SIZE 1 DX COIL MODULE
		1	COOLING THERMOSTAT AND RELAY (NOT REQUIRED FOR EVAP)
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY
		1	2 YEAR PARTS WARRANTY

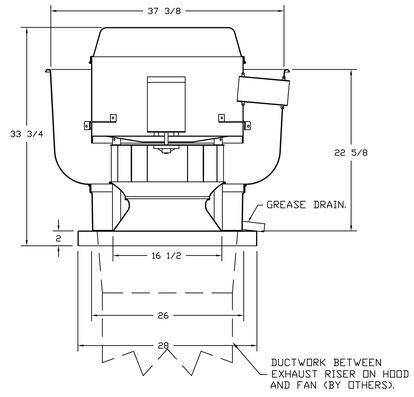
CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF	37 LBS	CURB	26.500"W X 26.500"L X 20.000"H 6.000:12.000 PITCH ALONG LENGTH, RIGHT VENTED.
2	# 2		85 LBS	RAIL	6.000"W X 21.000"L X 20.000"H 6.000:12.000 PITCH ALONG LENGTH, RIGHT.
2	# 2	KMUA	85 LBS	CURB	21.000"W X 71.000"L X 20.000"H 6.000:12.000 PITCH ALONG WIDTH, RIGHT INSULATED.





FAN #1 DU180HFA - EXHAUST FAN (KEF)



FEATURES:

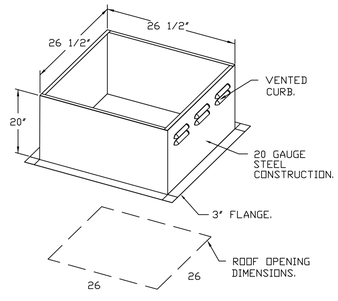
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

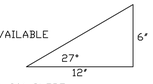
ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

GREASE BOX.
FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS.
2 YEAR PARTS WARRANTY.



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.



SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.

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DESCRIPTION	DATE:
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Colchester Senior Center
COLCHESTER, CT, 06415

DATE: 3/29/2022

DWG.#: 5401627

DRAWN BY: TSH-37

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 3

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

SILVER / PETRUCELLI + ASSOCIATES
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Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
FOODSERVICE EQUIPMENT
HOOD DETAILS

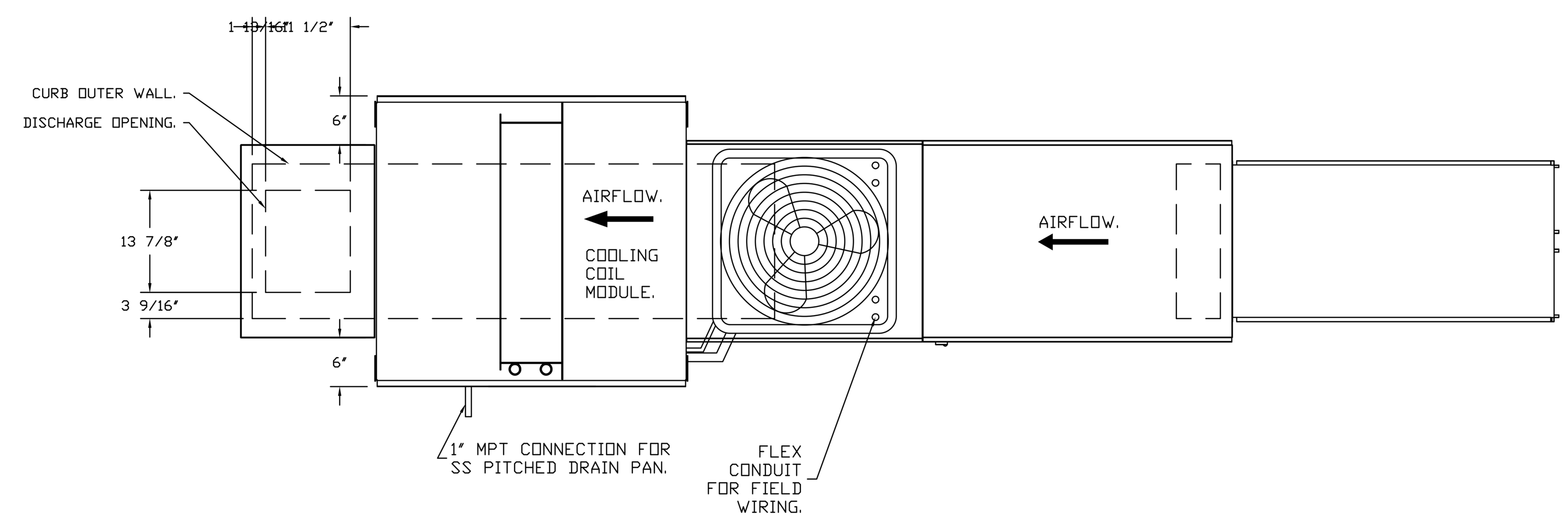
Date: **September 09, 2022**
Scale:
Drawn By: **Author**
Project Number: **20.003**
Drawing Number: **FS802**

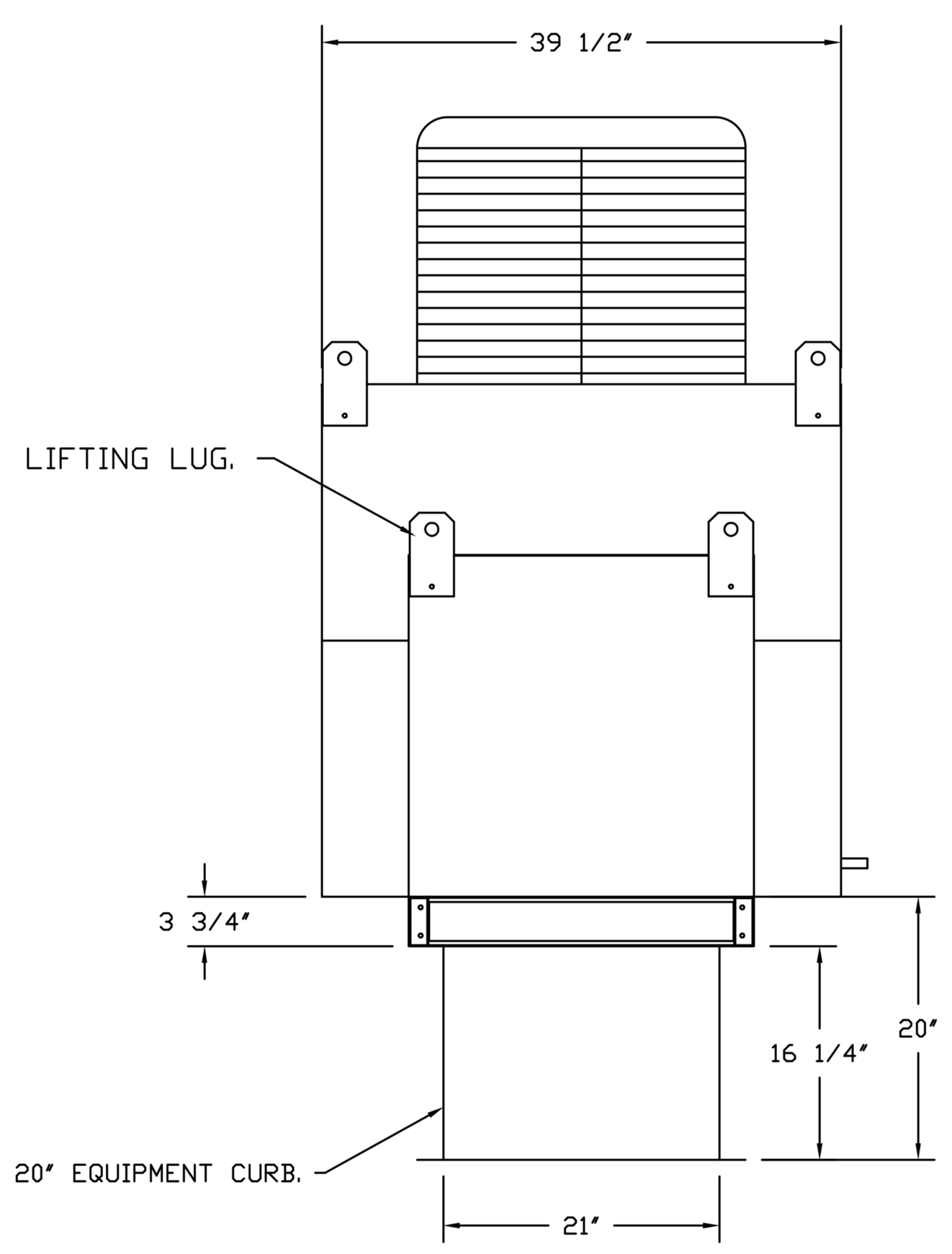
FAN #2 A1-D.500-15D-MPU - HEATER (KMUA)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 15" MIXED FLOW DIRECT DRIVE FAN.
2. INTAKE HOOD WITH EZ FILTERS.
3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
5. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE.
6. LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
7. MOTORIZED BACK DRAFT DAMPER 16" X 18" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, TFB120S ACTUATOR INCLUDED.
8. 3 TON, SINGLE CIRCUIT MODULAR PACKAGED COOLING OPTION FOR SIZE 1 DF/EH MODULAR PACKAGED UNIT. INCLUDES CONDENSER, DX COIL, FILTER/DRYER KIT, THERMAL EXPANSION VALVE, R410A REFRIGERANT, AND REFRIGERANT PIPING. (1,100 TO 1,800 CFM) WHEN ORDERED WITH OPPOSITE AIRFLOW CONDENSERS ACCESS AND COIL PIPING WILL REMAIN IN STANDARD POSITION. DRAIN AND SLEDS WILL MOVE TO THE OPPOSITE SIDE. ANY OTHER CHANGE WILL REQUIRE CLI. CONDENSERS REQUIRE SEPARATE 208V, 3 PHASE POWER SUPPLY UNLESS ORDERED WITH SINGLE POINT CONNECTION. COIL = 2EZ1001N.
9. DOWNTURN PLENUM FOR SIZE 1 COOLING COIL MODULE - REQUIRED FOR DOWN DISCHARGE COOLING COIL APPLICATIONS.
10. DX COOLING INTAKE AIR THERMOSTAT AND RELAYS MOUNTED IN UNIT - SET POINT FOR THERMOSTAT SHOULD BE 85°F.
11. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
12. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER/MPU SECTION).
13. 2 YEAR PARTS WARRANTY

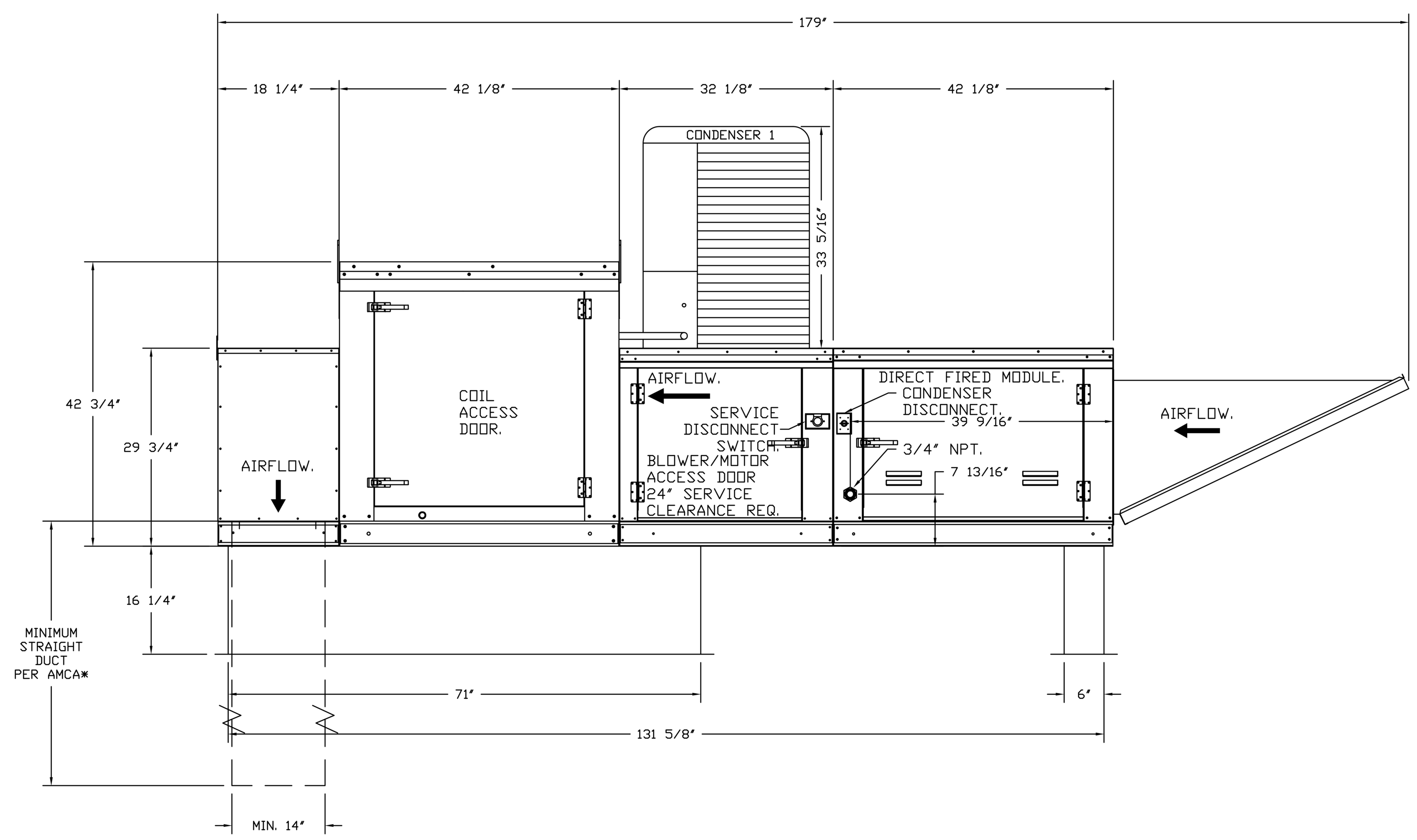
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 14" x 14".

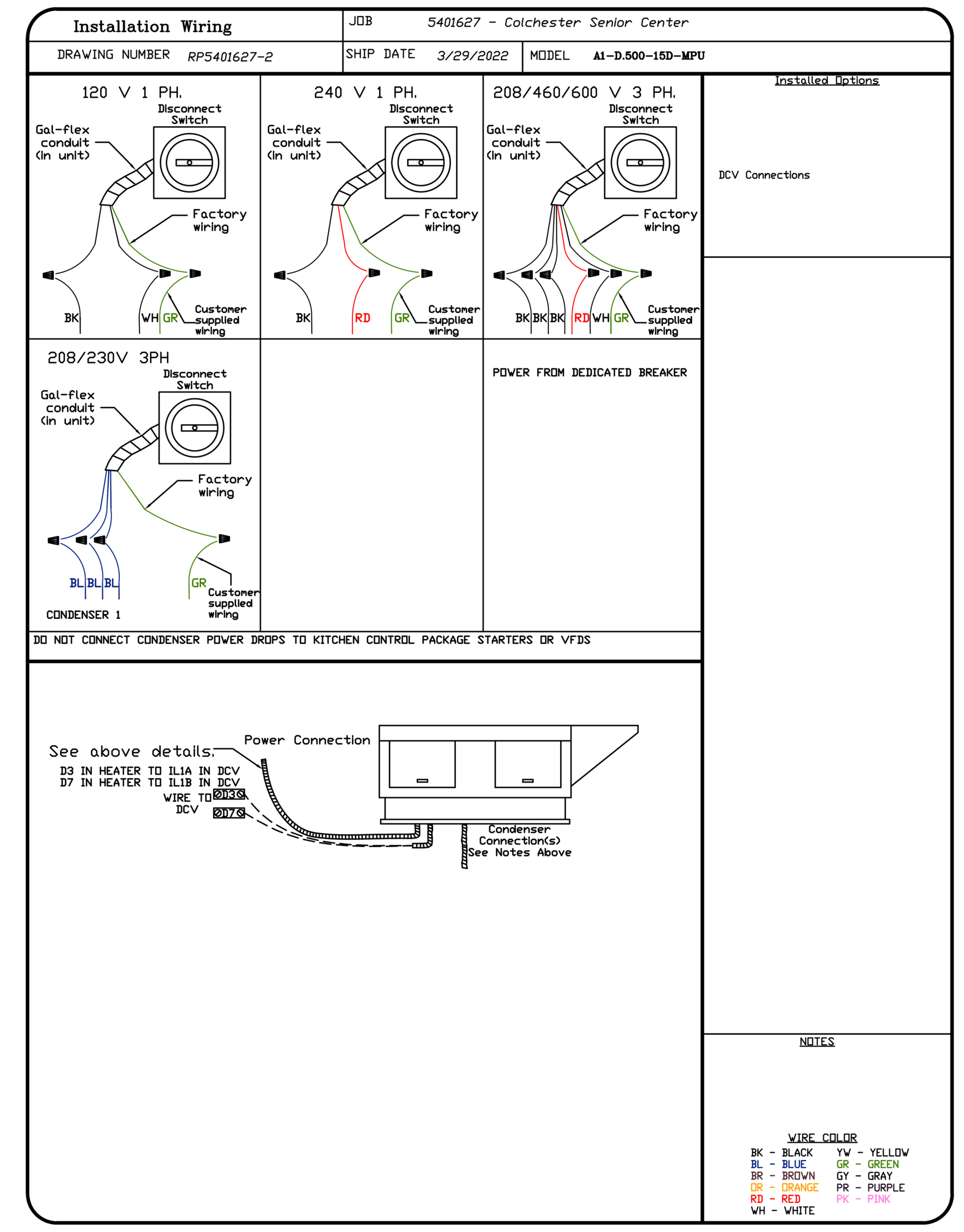
SUPPLY SIDE HEATER INFORMATION:

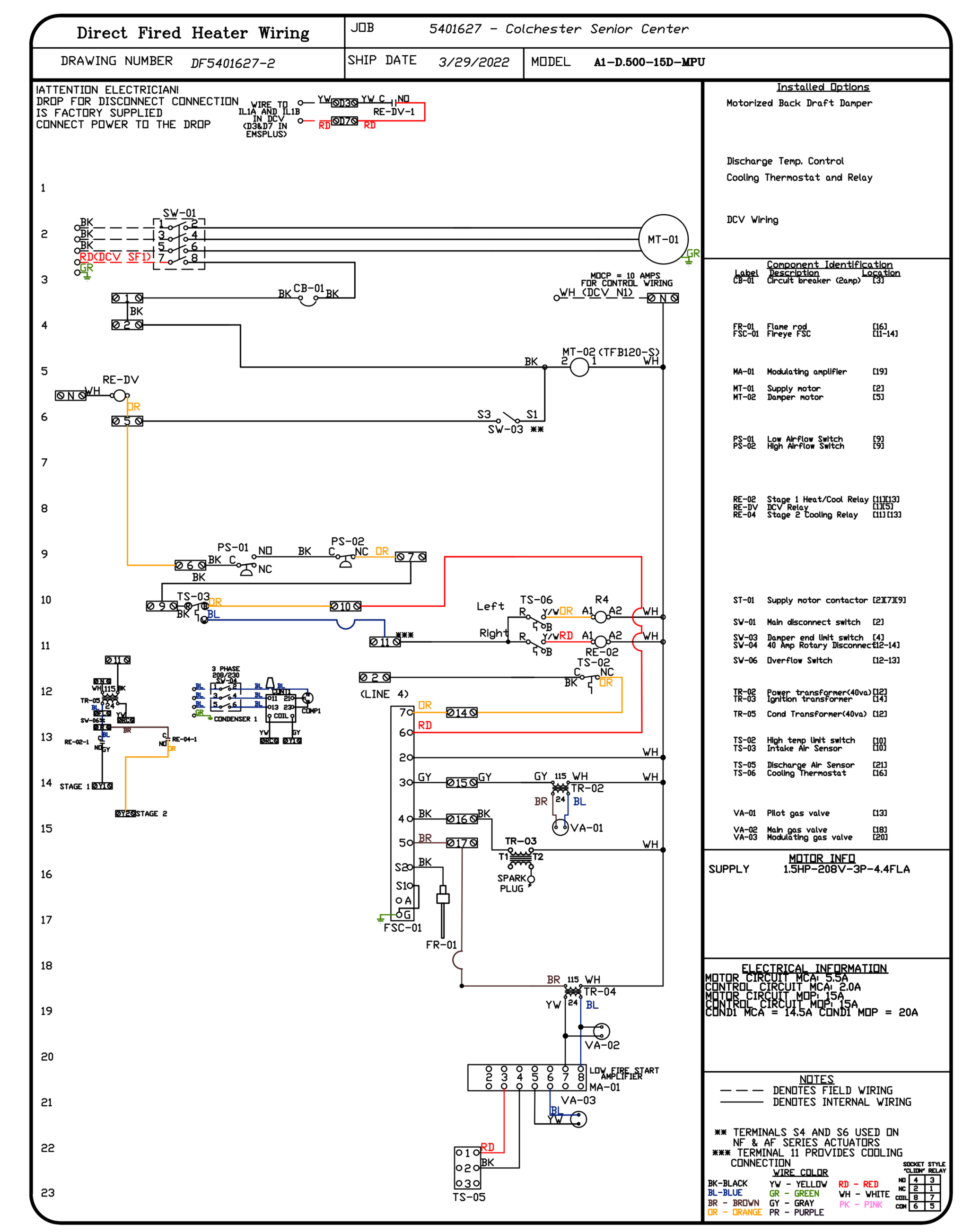
WINTER TEMPERATURE = 9°F. TEMP. RISE = 66°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 126919.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 137955.
OUTPUT BTUs AT ALTITUDE OF 346 FT. = 125340.
INPUT BTUs AT ALTITUDE OF 346 FT. = 136239.











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Revise and Resubmit ☐
SIGNATURE ____________
Your Title ____________ Date ____________

REVISIONS

DESCRIPTION	DATE:

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Colchester Senior Center
COLCHESTER, CT, 06415

DATE: 3/29/2022
DWG.#: 5401627
DRAWN BY: TSH-37
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 4

Project Title:
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Town of Colchester
15 Louis Lane
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Revision:	Description:	Date:	Revised By:
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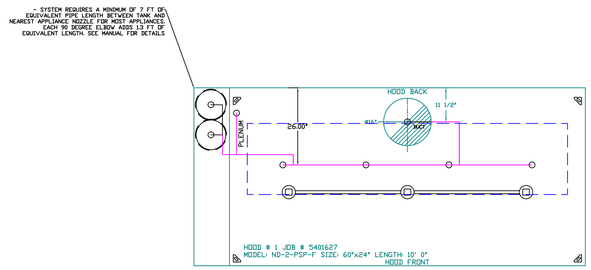
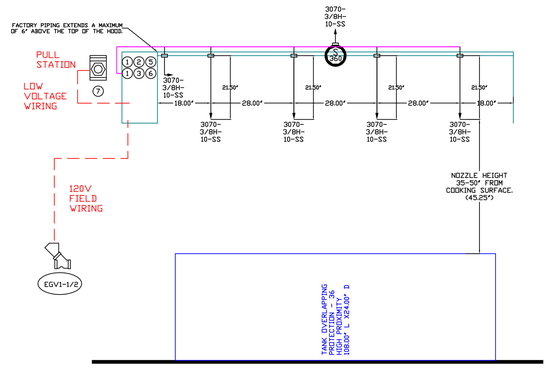
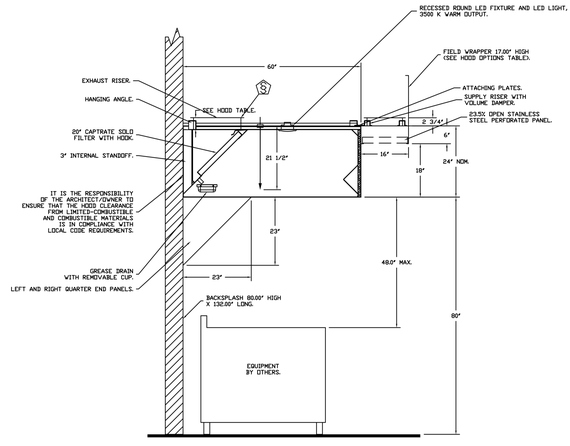
Drawing Title:
FOODSERVICE EQUIPMENT
HOOD DETAILS

Date: September 09, 2022
Scale:
Drawn By: Author
Project Number: 20.003
Drawing Number: FS803







SECTION VIEW – MODEL 6024ND-2-PSP-F HOOD – #1

NOTES
- FIELD PIPE DROPS AS SHOWN
- PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.

- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.

JOB #: 5401627.
JOB NAME: COLCHESTER SENIOR CENTER.

SYSTEM SIZE: TANK-SP-2 TOTAL FP REQUIRED: 24.
HOOD # 1 10' 0.00" LONG x 60" WIDE x 24" HIGH.
RISER # 1 SIZE: 16" DIA.
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

LEGEND – FIRE CABINET TANK SYSTEM

1 4 GALLON TANK.
2 PRIMARY ACTUATOR RELEASE.
3 SECONDARY ACTUATOR RELEASE.
4 PRESSURE SUPERVISION SWITCH.
5 PRIMARY HOSE ASSEMBLY.
6 SECONDARY HOSE ASSEMBLY.
7 REMOTE MANUAL ACTUATION DEVICE.

SECTION 21 23 00
WET- CHEMICAL FIRE-EXTINGUISHING SYSTEMS
TAG: TANK Fire Suppression

PART 1- GENERAL
1.1 SUMMARY
A. TANK Fire Suppression is a pre-engineered, stored-pressure wet chemical solution extinguishing system.

1.2 SUBMITTALS
A. The manufacturer assumes no liability for the use or results of use from this document. Specifications are to be reviewed by the engineer to confirm the requirements of the project and meet Federal, State, and Local codes.
B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.

1.3 QUALITY ASSURANCE
A. TANK Fire Suppression System shall be UL & ULC listed in accordance with UL300, UL1254, ULCORD-C1254.6.
B. Microprocessor-based control board shall be ETL Listed to UL Standard 864 and CAN/ ULC-S527-11.
C. TANK Fire Suppression System intended for installation and for use in accordance with the National Fire Protection Association Standards:
1. Wet Chemical Extinguishing Systems, NFPA 17A
2. National Electrical Code, NFPA 70
3. National Fire Alarm & Signaling Code, NFPA 72
D. New York City and FDNY approved under CDAA 5870.
E. California State Fire Marshal (CFSM), Listing No. 7085-2199:0502.

1.4 WARRANTY
A. All units shall be provided with the following standard warranties:
1. TANK Fire Suppression System is warranted to be free from defects in materials and workmanship, under normal use and service, for a period of 60-months from date of shipment.
B. Warranty does not cover consumable products such as batteries and nitrogen.
C. The manufacturer shall not be liable for incidental and consequential losses and damages potentially attributable to malfunctioning equipment. Should any part of the equipment prove to be defective in material or workmanship within the 60-month warranty period, upon examination by the manufacturer, such part will be repaired or replaced by manufacturer at no charge. The buyer shall pay all labor costs incurred in connection with such repair or replacement. Equipment shall not be returned without manufacturer's prior authorization, and all returned equipment shall be shipped by the buyer; freight prepaid to a destination determined by the manufacturer.

D. Refer to Manufacturer's Operation, Installation, and Maintenance (OIM) Manual for detailed descriptions of what is/is not covered and contact information for warranty claims.

PART 2- PRODUCTS
2.1 GENERAL
A. A pre-engineered, fixed pipe, automatic wet chemical agent fire suppression system for protection of all hazard areas associated with cooking operations, including exhaust hoods, plenums, ductwork, and cooking appliances.

2.2 COMPONENTS
A. Exhaust hood fire system components to be factory installed.
B. Cylinder and Valve Assembly
1. The cylinders shall have a tin-nickel alloy plated brass valve with pressure gauge.
2. Wet chemical agent shall be contained in one or more stored pressure DOT/TC rated steel cylinder and valve assemblies.
3. Each cylinder is factory-filled with liquid fire suppressant and pressurized to 200 PSIG at 70°F.
C. Distribution Nozzles
1. Nozzles shall be located to protect the exhaust ducts, plenums, and all cooking appliances requiring protection.
2. All nozzles shall be equipped with a metal blow off cap. The cap prevents contamination from entering the pipe network and is designed to pop-off upon system discharge, allowing agent to flow to the protected hazard area.
3. All nozzles shall incorporate a stamped part number to easily identify nozzle type.
D. Distribution Systen
1. The distribution system shall consist of Copper, Schedule 40 black iron, chrome-plated or stainless-steel pipe and fittings. All exposed piping and fittings must be chrome-plated or stainless steel.
2. Fittings shall be minimum class 150. Galvanized fittings shall not be used.
E. Suppression System
1. The system control equipment shall be capable of all functions associated with automatically and manually discharging the wet chemical agent from all cylinder and valve assemblies, including automatic shutdown of the heat source or fuel and electrical power to all protected areas upon system discharge.
2. Liquid Fire Suppressant shall be Aqueous Potassium Carbonate (APC).
3. All mechanical components of the actuator kit shall be enclosed.
4. The actuator kit shall be capable of automatic or manual activation means.
5. Supervisory Pressure Switch added to monitor operating system pressure.
6. For manual activation, an electrically operated manual release shall be used to actuate the system manually.
7. For automatic activation, the system will be activated by a Firestat (heat) detector.

F. Electrical
1. Electrical Division to provide shunt trip breakers at main power panel, or disconnects, as designated by the Electrical Engineer; interconnection provided at hood control panel for the signal to shut down all electricity in and under the exhaust hood. Shunt trips/disconnects to accomplish shut off of electricity in the event of fire system activation by others.
2. Printed circuit board with microprocessor-based controller that provides all the necessary monitoring, timing, and supervision functions required for the reliable operation of the fire system.
3. Independent supervised loops incorporate redundancy and fault detection.
4. Real-time cloud-based monitoring connection provided with system by ownership.
5. Primary power supply, with battery backup for power loss.
6. All wiring must be in accordance to NFPA 70 and the Authority Having Jurisdiction (AHJ).
7. Electric gas valve provided for equipment below exhaust hood. Coordinate size and installation with Plumbing Division.
8. All wiring is to be in accordance with the applicable manufacturer's instructions for the fire alarm control panel, gas shut-off valve, manual reset relay, and contractor supplied shut-off devices.

PART 3- EXECUTION
3.1 EXAMINATION
A. Examine areas and conditions under which the system is installed. Do not proceed with work until unsatisfactory conditions have been corrected in manner acceptable to Installer.

3.2 APPLICATION
A. Wet chemical-based fire suppression system for use in commercial kitchens. It can be mounted in the integral cabinet located at the end of the hood or offered as a wall mount package.

3.3 INSTALLATION
A. As part of this item, provide wall mounted type K handheld portable fire extinguisher, placard, and mounting bracket as required in the immediate vicinity of each cooking area, per NFPA-96 and NFPA-10. Additional fire extinguishers as required in the kitchen area are to be specified by the Architect and provided by the General Contractor.
B. Install in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual, and all applicable building codes.
C. Six-month and twelve-month inspections, servicing, and replacement of components as per NFPA 96 to be provided by the General Contractor or Owner.

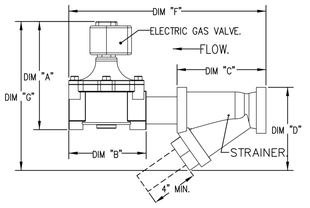
VALVE SIZE MUST BE VERIFIED

GAS VALVES AND STRAINERS

	GAS VALVE SIZING						GAS VALVE DIMENSIONS							INSTALLATION	PART NUMBERS		
	TYPE	SIZE	VOLTAGE	MIN. INLET PRESSURE	MAX. INLET PRESSURE	FLOW AT 1 IN.W.C. DROP NATURAL GAS	FLOW AT 1 IN.W.C. DROP PROPANE	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "F"	DIM "G"	MOUNTING ORIENTATION	GAS VALVE PART NUMBER	STRAINER PART NUMBER	GAS VALVE/STRAINER KIT
GAS VALVE FOR FS#1	ELECTRICAL	1-1/2"	120 VAC	0 PSI (0 IN.W.C.)	5 PSI (138 IN.W.C.)	2,406,000 BTU/HR	1,561,219 BTU/HR	7-5/8"	6-3/8"	5-3/4"	6-3/16"	14-1/8"	12-5/16"	HORIZONTAL/ VERTICAL	8214275	441TK67	(SC)EGV1-1/2

ALL GAS VALVES/STRAINERS
PROPER CLEARANCE MUST BE PROVIDED IN ORDER TO SERVICE THE STRAINERS A MINIMUM OF 4" CLEARANCE DISTANCE MUST BE PROVIDED AT THE BASE OF THE STRAINER CUSTOMER MUST VERIFY BTU CONSUMPTION AS WELL AS PRESSURE RATING SPECIFIC GRAVITY OF NATURAL GAS = 0.64, SPECIFIC GRAVITY OF LP = 1.52.

CALCULATIONS
TO CALCULATE GAS FLOW FOR OTHER THAN 1 IN.W.C. PRESSURE DROP
NEW BTU/HR = (BTU/HR AT 1 IN.W.C. PRESSURE DROP) X NEW PRESSURE DROP^0.5
TO CALCULATE GAS FLOW FOR OTHER THAN 0.64 SPECIFIC GRAVITY
NEW BTU/HR = (BTU/HR AT 0.64) X (0.64 / NEW SPECIFIC GRAVITY)^0.5



FIRE SYSTEM INFORMATION – JOB#5401627

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		TANK FS	4.0/4.0	24	FIRE CABINET LEFT	LEFT, HOOD 1

GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		SC ELECTRICAL	1.500	CAPTIVEAIRE SYSTEMS

FIRE SYSTEM PARTS LIST KEY

FIRE SYSTEM NO	TAG	KEY NUMBER - PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1		0 - 0 - 12-FZ8021-32144-DT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. ND, CLOSE ON TEMP RISE AT 360°F.	1	0
		0 - 0 - 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5" BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	2	0
		0 - 0 - 87-300030-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	8	0
		0 - 0 - 986944115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	4	0
		0 - 0 - A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 - 0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	6	0
		0 - 0 - TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	2	0
		34 - 34 - A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT, RED COLOR.	1	0

CUSTOMER APPROVAL TO MANUFACTURE:

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DATE: 3/29/2022
DWG.#: 5401627
DRAWN BY: TSH-37
SCALE: 1/2" = 1'-0"
MASTER DRAWING
SHEET NO. 5

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
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Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
FOODSERVICE EQUIPMENT
HOOD DETAILS

Date: **September 09, 2022**
Scale:
Drawn By: **Author**
Project Number: **20.003**
Drawing Number: **FS804**

JOB NO 5401627 | MODEL NUMBER DCV-1111 | JOB NAME Colchester Senior Center | SCHEMATIC TYPE INSTALL | DATE 3/29/2022 | DWG NO ECP #1-3

DESCRIPTION OF OPERATION: Fire System #1 TANK FS - 4.0/4.0. Tank-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood prewire panel.

TANK PROTECTION ELECTRICAL DETAIL

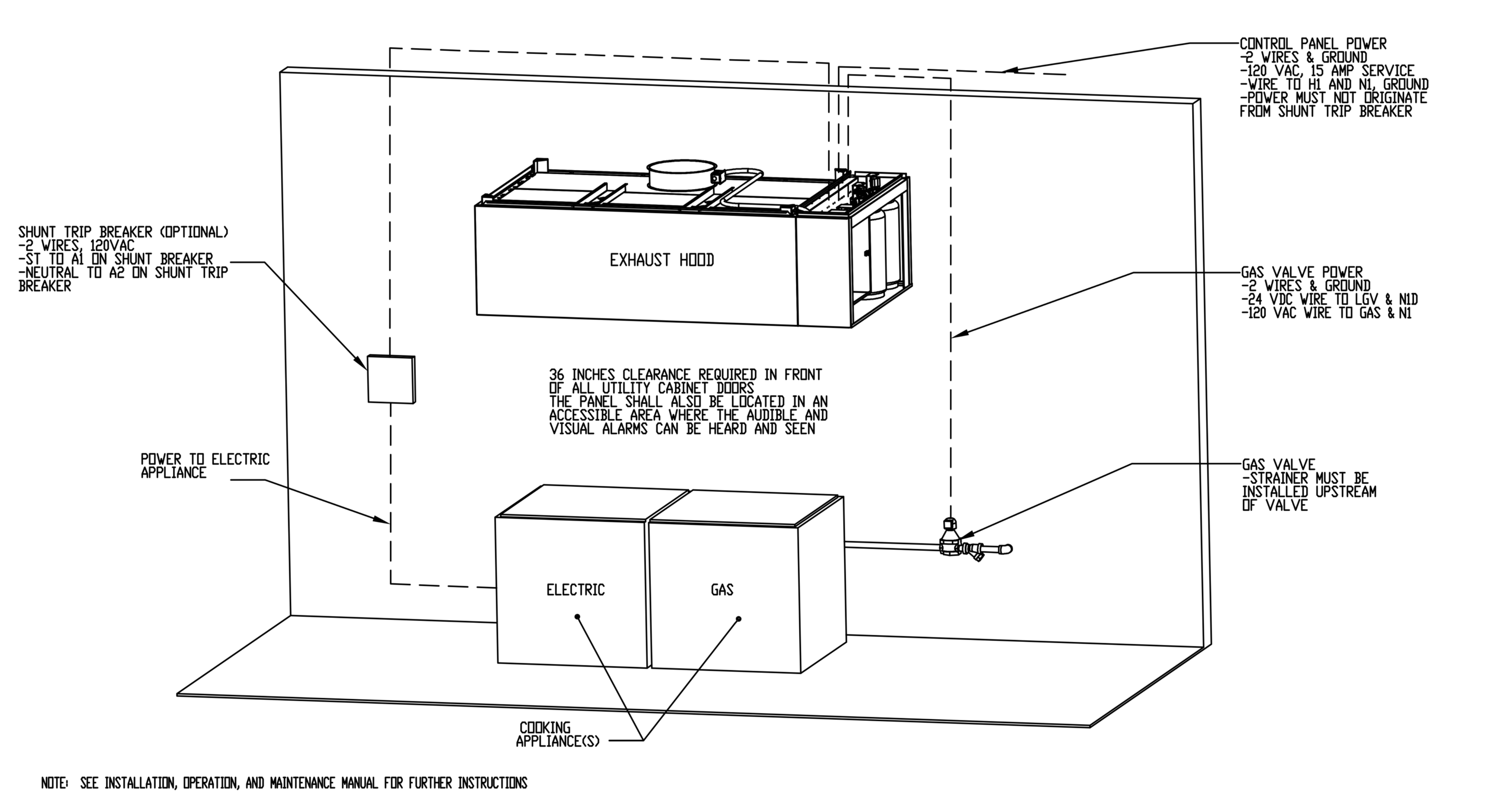
02/10/2021 Rev. 2

FS-1: MASTER

ELECTRICIAN:
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
4. WIRE UDS APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)
5. WIRE GAS VALVE

ELECTRICAL CONTRACTOR REQUIREMENT

ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & N1	BREAKER COIL (A1 & A2)	120 VAC	< 4 AMPS	ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL
CONTROL PANEL POWER	H1 & N1 + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER
UDS APPLIANCE KILL SWITCH (OPTIONAL)	KTS & N1	KTS & N1	120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES
REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL)	AU1, AU2	SOLENOID	120 VAC	< 6 AMPS	120V TO AU1, AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL
GAS VALVE	LGV & N1D (IF 24 VDC) GAS & N1 (IF 120 VAC)	RED/RED/GREEN	24 VDC OR 120 VAC	< 1.0 AMPS	IF 24 VDC - 2 WIRES & GROUND, N1D TO RED, LGV TO RED, AND GREEN TO GROUND IF 120 VAC - 2 WIRES & GROUND GAS TO RED, N1 TO RED, AND GREEN TO GROUND



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO 5401627 | MODEL NUMBER DCV-1111 | JOB NAME Colchester Senior Center | SCHEMATIC TYPE INSTALL | DATE 3/29/2022 | DWG NO ECP #1-4

DESCRIPTION OF OPERATION: Fire System #1 TANK FS - 4.0/4.0. Tank-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood prewire panel.

TANK PROTECTION LOW-VOLTAGE DETAIL

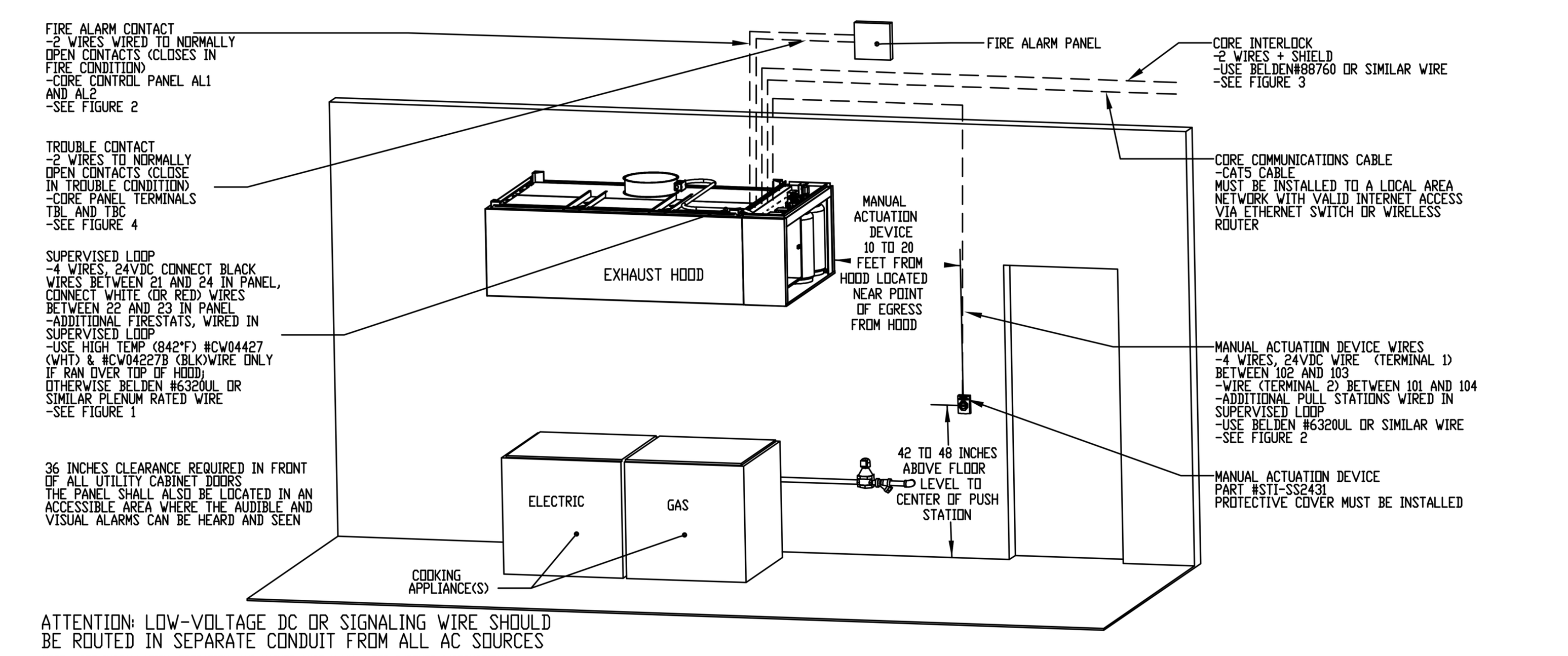
02/10/2021 Rev. 2

FS-1: MASTER

ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. COMPLETE FINAL HOOKUP OF SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST

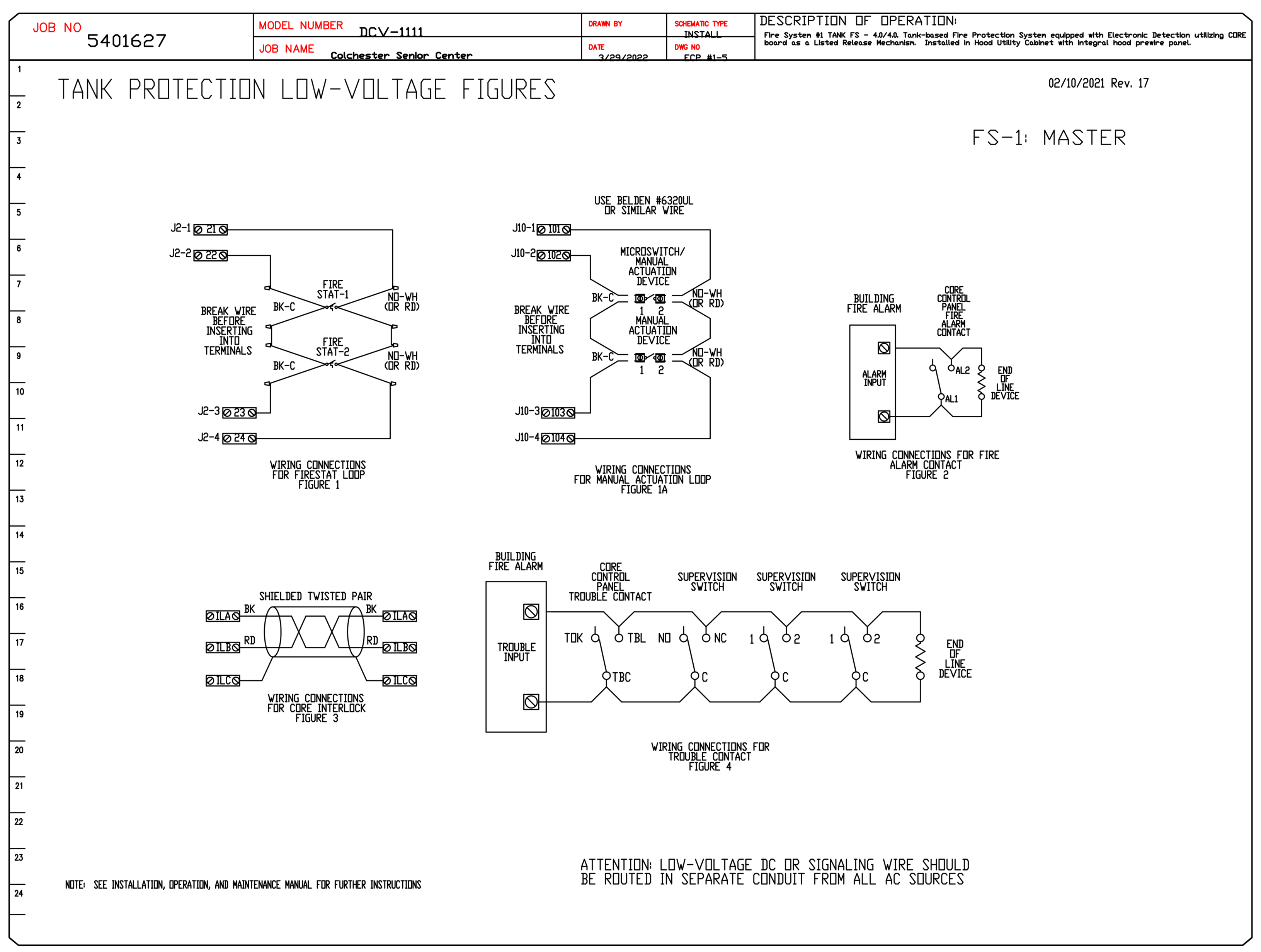
ALARM CONTRACTOR REQUIREMENT

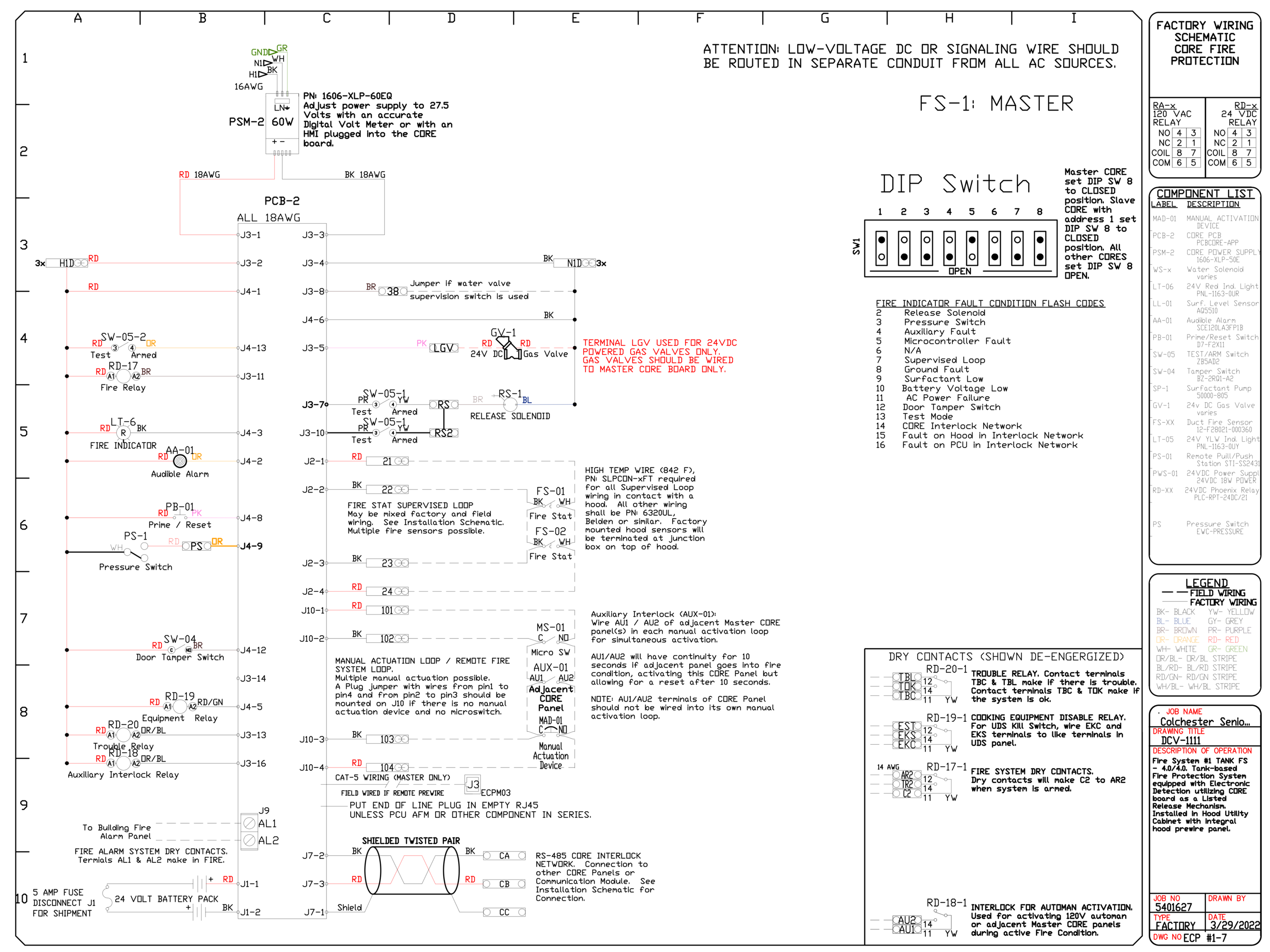
ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 1.0 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED IF SURFACE MOUNTED, USE COVER EXTENSION STI-6531B
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 1.0 AMPS	WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23 WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24 HIGH TEMP (842°F) #CW04427 (WHT) & #CW04427B (BLK)WIRE OR SIMILAR ONLY IF RAN OVER TOP OF HOOD; OTHERWISE BELDEN #6320UL OR SIMILAR PLENUM RATED WIRE; SEE FIGURE 1
FIRE ALARM CONTACT	AL1, AL2	VARIES	50V MAX (AC/DC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL
CORE INTERLOCK(S)	ILA, ILB, ILC	ILA, ILB, ILC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (1) ILA, TO CORE SYSTEM (2) ILA. CORE SYSTEM (1) ILB, TO CORE SYSTEM (2) ILB. CORE SYSTEM (1) ILC, TO CORE SYSTEM (2) ILC. USE BELDEN# 88760 OR SIMILAR WIRE
TROUBLE CONTACT	TBC, TBL, TOK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<1.0 AMPS	TYPICAL CONNECTION CAT5 CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION



ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES.

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS





REVISIONS

DESCRIPTION	DATE

CAPTIVEAIRE
New England Office
450 Cottage Street, Suite 4, Springfield, MA, 01104 PHONE: (413) 594-8390 FAX: (919) 227-5956 EMAIL: reg37@captiveaire.com
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Colchester Senior Center
COLCHESTER, CT, 06415

DATE: 3/29/2022

DWG.#: 5401627

DRAWN BY: TSH-37

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 6

CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted ☐
Approved with NO Exception Taken ☐
Revise and Resubmit ☐
SIGNATURE ____________
Your Title ____________ Date ________

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

SILVER / PETRUCELLI + ASSOCIATES
Architects / Engineers / Interior Designers
3190 Whitney Avenue, Hamden, CT 06518-2340
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silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
FOODSERVICE EQUIPMENT
HOOD DETAILS

Date: September 09, 2022
Scale:
Drawn By: Author
Project Number: 20.003
Drawing Number: FS805

EXHAUST FAN INFORMATION – JOB#5555427

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF	1	DU180HFA	CAPTIVEAIRE	2250	1.250	1121	TEFC,PREMIUM	1.500	0.9720	3	208	6.5	520 FPM	184	13.6

CONDENSER DETAILS

FAN UNIT NO	TAG	FAN UNIT MODEL #	CONDENSER NO	TONNAGE	VOLTAGE	PHASE	FREQUENCY	MCA	RLA	MAX FUSE SIZE	MIN WIRE SIZE	SEER
2	KMUA	A1-D.500-15D-MPU	1	3	208-230	3 PHASE	60 HZ	14.5 AMPS	11.9 AMPS	20 AMPS	14 AWG	14

MUA FAN INFORMATION – JOB#5555427

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
2	KMUA	1	A1-D.500-15D-MPU	15MF-1-MOD	A1-D.500	1100	1800	0.500	2004	ODP,PREMIUM	1.500	1.2500	3	208	4.4	5.5A	15A	1058	20

COILS – JOB#5555427

FAN UNIT NO	TAG	COIL TYPE	DESIGN CFM	COOLING										HEATING								
				ENTERING DB TEMP	ENTERING WB TEMP	LEAVING DB TEMP	LEAVING WB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	TOTAL CAPACITY	SENSIBLE CAPACITY	LATENT CAPACITY	ENTERING DB TEMP	LEAVING DB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	STEAM PRESSURE	TOTAL CAPACITY	SENSIBLE CAPACITY
2	KMUA	DX	1800	86.0°F	72.0°F	75.2°F	67.2°F	---	---	---	---	30.9 MBH	20.4 MBH	10.5 MBH	---	---	---	---	---	---	---	---	---

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2	KMUA	136239	125340	66°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
2	KMUA	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	LOW FIRE START
		1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	3 TON SINGLE CIRCUIT MODULAR PACKAGED COOLING OPTION FOR SIZE 1 DF/EH MUA (1,100 TO 1,800 CFM), 208V/230V, 3 PHASE. COOLING THERMOSTAT OR PROGRAMMABLE STAT REQUIRED FOR PROPER OPERATION
		1	COOLING THERMOSTAT AND RELAY (NOT REQUIRED FOR EVAP)
		1	INSULATION OPTION FOR VBANK FILTER SECTION
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY
		1	DF1 INDOOR HANGING OPTION - INCLUDES 2 HSA125 HANGING SPRING ISOLATORS PER UNI-STRUT
		1	SHIP CONDENSER LOOSE - SINGLE CONDENSER, THREE PHASE - CONDENSER DISCONNECT SHIPPED LOOSE
		1	2 YEAR PARTS WARRANTY

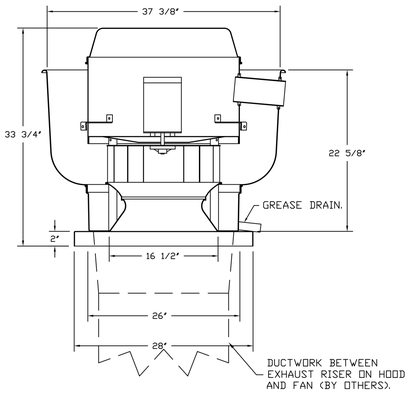
FAN ACCESSORIES

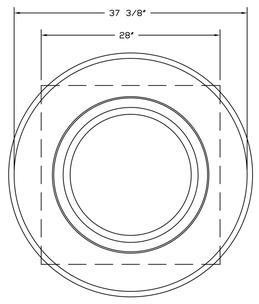
FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	KEF	YES						
2	KMUA				YES		YES	

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF	37 LBS	CURB	26.500"W X 26.500"L X 20.000"H 6.000:12.000 PITCH ALONG LENGTH, RIGHT VENTED.

FAN #1 DU180HFA - EXHAUST FAN (KEF)





TOP VIEW

FEATURES:

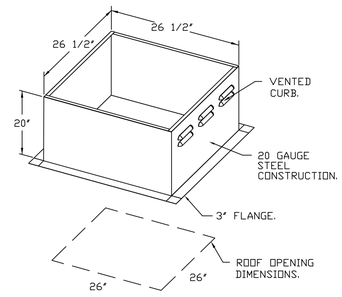
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

GREASE BOX.
FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS.
2 YEAR PARTS WARRANTY.



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Colchester Senior Center Inline MUA
COLCHESTER, CT, 06415

DATE: 7/13/2022

DWG.#: 5555427

DRAWN BY: TSH-37

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 1

Project Title:
Colchester Senior Center
Town of Colchester
15 Louis Lane
Colchester, CT 06415

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Revision:	Description:	Date:	Revised By:
	ISSUED FOR BID	09/09/2022	

Drawing Title:
FOODSERVICE EQUIPMENT
HOOD DETAILS

Date: **September 09, 2022**
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Drawn By: **Author**
Project Number: **20.003**
Drawing Number: **FS806**