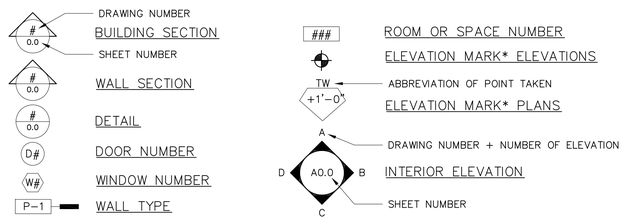
ROMBOUT FIRE DISTRICT - NEW FIRE STATION 2

1548 NYS ROUTE 52
FISHKILL, NY

DRAWING LIST

TITLE	
TS	TITLESHEET, GENERAL SPECIFICATION NOTES, GENERAL PROJECT NOTES
CS	CODE SHEET
CIVIL	
C1	COVER SHEET
C2	EXISTING CONDITIONS, DEMOLITION PLAN
C3	SITE PLAN
C4	GRADING PLAN
C5	UTILITY PLAN
C6	APPARATUS MANEUVERING PLAN
C7	EROSION AND SEDIMENT CONTROL DETAILS
C8	CONSTRUCTION DETAILS
C9	CONSTRUCTION DETAILS
C10	SEWAGE DISPOSAL SYSTEM CONSTRUCTION DETAILS
C11	OFFSITE UTILITY CONNECTION PLAN
C12	WATER SERVICE DETAILS
C13	WORK ZONE TRAFFIC CONTROL NOTE: PROFILE
C14	WATER MAIN CONNECTION PLAN
ESP.1	ELECTRICAL: SITE PLAN
SIGNAL LIGHT DRAWINGS	
–	COVER SHEET
IND–01	INDEX AND ABBREVIATIONS
LEG–01	POINT LEGEND
LEG–02	LINE LEGEND
GNN–01	GENERAL NOTES
WZN–01	WORK ZONE TRAFFIC CONTROL NOTES
TSN–01	TRAFFIC SIGNAL NOTES
TSD–01	TRAFFIC SIGNAL DETAILS
TSP–01	TRAFFIC SIGNAL PLAN
TSP–01A	TRAFFIC SIGNAL PLAN
TSP–01B	TRAFFIC SIGNAL PLAN
TSP–01C	TRAFFIC SIGNAL PLAN
STRUCTURAL	
S001	GENERAL NOTES & TYPICAL DETAILS
S101	ROOF FRAMING PLAN
S201	MEZZANINE FRAMING PLAN
S202	ROOF FRAMING PLAN
S301	BRACED FRAME AND SHEAR WALLS PLAN
S401	FOUNDATION SECTIONS
S501	STRUCTURAL SECTIONS
S502	STRUCTURAL SECTIONS
ARCHITECTURAL	
A100	PROPOSED FIRST FLOOR PLAN
A101	MEZZANINE PLAN
A102	FIRST FLOOR REFLECTED CEILING PLAN
A103	MEZZANINE REFLECTED CEILING PLAN
A104	PROPOSED ROOF PLAN
A110	LARGE SCALE FLOOR PLANS
A111	LARGE SCALE FLOOR PLAN
A200	EXTERIOR ELEVATIONS
A201	EXTERIOR ELEVATIONS
A300	BUILDING SECTION & WALL SECTIONS
A301	BUILDING SECTIONS
A302	WALL SECTIONS & STEEL STAIR SECTION
A303	WALL SECTIONS & STEEL STAIR DETAILS
A400	INTERIOR ELEVATIONS
A401	INTERIOR ELEVATIONS
A500	DETAILS
A501	DETAILS
A502	DETAILS
A503	DETAILS
A504	DETAILS
A600	SCHEDULES
A601	SCHEDULES
MECHANICAL & ELECTRICAL	
MEP100	MECHANICAL & ELECTRICAL: SITE PLAN
MEP101	MECHANICAL & ELECTRICAL: SITE PLAN DETAILS
FIRE PROTECTION	
FP100	FIRE PROTECTION: PROPOSED FIRST FLOOR PLAN
FP101	FIRE PROTECTION: PROPOSED MEZZANINE
FP500	FIRE PROTECTION: DETAILS
FP501	FIRE PROTECTION: DETAILS
FP502	FIRE PROTECTION: DETAILS
FP600	FIRE PROTECTION: EQUIPMENT SCHEDULES
MECHANICAL	
M100	MECHANICAL: PROPOSED FIRST FLOOR PLAN
M101	MECHANICAL: PROPOSED MEZZANINE
M102	MECHANICAL: PROPOSED ROOF PLAN AND SECTION A
M200	MECHANICAL: FIRST FLOOR HEATING PLAN
M300	MECHANICAL: FIRST FLOOR HYDRONIC PIPING PLAN
M301	MECHANICAL: MEZZANINE HYDRONIC HEATING PLAN
M500	MECHANICAL: DETAILS
M501	MECHANICAL: DETAILS
M502	MECHANICAL: DETAILS
M503	MECHANICAL: DETAILS
M504	MECHANICAL: DETAILS
M505	MECHANICAL: DETAILS
M506	MECHANICAL: DETAILS
M507	MECHANICAL: DETAILS
M600	MECHANICAL: EQUIPMENT SCHEDULES
M601	MECHANICAL: EQUIPMENT SCHEDULES
M602	MECHANICAL: EQUIPMENT SCHEDULES
ELECTRICAL	
E100	ELECTRICAL: PROPOSED FIRST FLOOR PLAN
E101	ELECTRICAL: PROPOSED MEZZANINE
E200	ELECTRICAL: FIRST FLOOR REFLECTED CEILING PLAN
E201	ELECTRICAL: MEZZANINE REFLECTED CEILING PLAN
E500	ELECTRICAL: DETAILS
E600	ELECTRICAL: EQUIPMENT SCHEDULES
E601	ELECTRICAL: EQUIPMENT SCHEDULES
PLUMBING	
P100	PLUMBING: PROPOSED FIRST FLOOR PLAN
P101	PLUMBING: PROPOSED MEZZANINE
P500	PLUMBING DETAILS
P501	PLUMBING DETAILS
P502	PLUMBING DETAILS
P503	PLUMBING DETAILS
P504	PLUMBING DETAILS
P600	PLUMBING: EQUIPMENT SCHEDULES
P601	PLUMBING: EQUIPMENT SCHEDULES

SYMBOLS

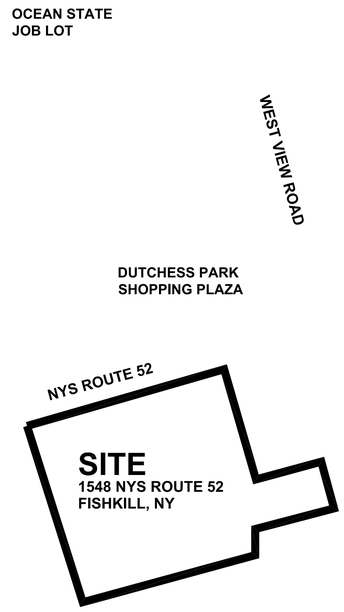


ABBREVIATIONS

A.B.	ANCHOR BOLT	FIN FL	FINISHED FLOOR	PARTN	PARTITION
AC	ACOUSTICAL	FD	FLOOR DRAIN	P+D	PLUMBING AND DRAINAGE
ACT	ACOUSTICAL CEILING TILE	FGL	FIBERGLASS	POLY	POLYURETHANE
ADJ	ADJACENT	FL	FLOOR	P	PROPERTY LINE
AFF	ABOVE FINISH FLOOR			PT	PRESSURE TREATED
ALUM	ALUMINUM	GA	GAGE/GAUGE	PTD	PAINTED
ANOD	ANODIZED	GALV	GALVANIZED		
A.P.	ACCESS PANEL	GC	GENERAL CONTRACTOR	R	RISER OR RADIUS
ARCH	ARCHITECT	GL	GLASS	RDL	ROOF DRAIN LEADER
ASPH	ASPHALT	GWB	GYPSUM WALL BD	REINF	REINFORCED
APPROX	APPROXIMATE			REQD	REQUIRED
@	AT	HC	HUNG CEILING	RM	ROOM
		HDW	HARDWARE		
BLDG	BUILDING	HM	HOLLOW METAL	SC	SOLID CORE
BLK	BLOCK	HOR	HORIZONTAL	SECT	SECTION
BOT	BOTTOM	HP	HIGH POINT	SIM	SIMILAR
B/O	BOTTOM OF	H+V	HEATING AND VENTILATION	SPEC	SPECIFICATION
BRK	BRICK			STL	STEEL
		INSUL	INSULATION	SAD	SADDLE
CBL	CONCRETE BLOCK			STOR	STORAGE
CLG	CEILING	JAN	JANITOR		
C.T.	CERAMIC TILE	JT	JOINT	T	TREAD OR TOP
CMU	CONCRETE MASONRY UNIT			TEL	TELEPHONE
CONC	CONCRETE	LAM	LAMINATE	T&G	TONGUE AND GROOVE
CONT	CONTINUOUS			THK	THICK
C.J.	CONTROL JOINT	MAS	MASONRY	T/O	TOP OF
℄	CENTERLINE	MATL	MATERIAL	TW	TOP OF WALL
CB	CATCH BASIN	MECH	MECHANICAL	TYP	TYPICAL
		MIN	MIN		
DIA./ ø	DIAMETER	M.O.	MASONRY OPENING	VB	VAPOR BARRIER
DN	DOWN	MAX	MAXIMUM	VERT	VERTICAL
DR	DRAIN	MTL	METAL		
DWG	DRAWING			W	WIDE
		N.I.C.	NOT IN CONTRACT	WH	WEEP HOLE
ELEC	ELECTRIC	NTS	NOT TO SCALE	WST	WAINSCOT
EL/ELEV	ELEVATION	NO.	NUMBER	WWF	WELDED WIRE FABRIC
EQUIP	EQUIPMENT			W/	WITH
EXIST	EXISTING	OPNG	OPENING	WD	WOOD
EXP JT	EXPANSION JOINT	O.C.	ON CENTER	A.A.	
EXT	EXTERIOR				

LOCATION PLAN

SCALE: NTS



GENERAL PROJECT NOTES

1. CONTRACTOR TO VERIFY ALL CONDITIONS AND MEASUREMENTS BEFORE CONSTRUCTION.
2. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL LOCATIONS, DIMENSIONS AND GRADES REQUIRED BY THE CONTRACT DRAWINGS. HE SHALL TAKE HIS OWN MEASUREMENTS AT THE SITE, VERIFYING THEM WITH THE DRAWINGS OF THE BUILDING AND WILL BE HELD RESPONSIBLE FOR THE PROPER FIT OF COMPLETED WORK IN POSITION.
3. DRAWINGS SHOULD NOT BE SCALED. USE DIMENSIONS.
4. THOSE ITEMS NOT NOTED BUT IMPLIED AS NECESSARY FOR THE PERFORMANCE OF THE CONTRACT ARE CONSIDERED PART OF THE WORK.
5. ALL MATERIAL AND WORKMANSHIP IS TO BE GUARANTEED BY THE CONTRACTOR TO BE FREE OF DEFECTS FOR A PERIOD OF ONE YEAR. THE CONTRACTOR AGREES TO CORRECT WITHOUT CHARGE SUCH CONDITIONS AS MAY OCCUR DURING THE GUARANTEE PERIODS.
6. ALL WORK IS TO BE EXECUTED BY MECHANICS SKILLED IN THEIR TRADES.
7. ALL CHANGES AND/OR SUBSTITUTIONS ARE TO BE APPROVED IN WRITING BEFORE BEING INCORPORATED INTO THE WORK.
8. THE GC IS TO COORDINATE ALL WORK WITH ALL TRADES AND ALL TRADES TO COOPERATE WITH EACH OTHER TO FACILITATE THE PROGRESS OF THE ENTIRE JOB.
9. CONTRACTOR IS TO REMOVE ALL RUBBISH FROM THE SITE RESULTING FROM HIS WORK DURING THE PROGRESS OF CONSTRUCTION AND SHALL LEAVE THE PREMISES IN ACONDITION SATISFACTORY TO THE OWNER PRIOR TO THE FINAL PAYMENT.
10. ALL MATERIALS AND ASSEMBLIES SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS.
11. IF THE DRAWINGS AND SPECIFICATIONS DISAGREE, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING PRIOR TO COMMENCEMENT OF WORK FOR A RESOLUTION.
12. A COPY OF THE APPROVED PERMIT PLANS SHALL BE KEPT ON SITE AT ALL TIMES.
13. EVIDENCE OF WORKERS COMPENSATION SHALL BE KEPT ON FILE.
14. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH OSHA REGULATIONS.
15. STEP FOOTING AS NEEDED TO INSURE 4'–0" MIN. COVERAGE FOR FROST PROTECTION.
16. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL HAVING A MINIMUM SAFE PRESUMPTIVE BEARING CAPACITY OF 2 TONS PER S.F.
17. FOUNDATIONS MAY NOT BE PLACED ON FROZEN BEARING MATERIAL.
18. ALL ELECTRICAL WORK TO BE U.L. APPROVED AND FOLLOW N.E.C. AND ALL APPLICABLE CODES.
19. ALL CONSTRUCTION WILL CONFORM TO THE BUILDING CODE OF NEW YORK STATE.

NOTES

No.	REVISION/SUBMISSION	DATE
3		
2		
1		

Mechanical/Electrical/Plumbing Engineer

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CONSULTING ENGINEERS, D.P.C.
223 MAIN STREET, GOSHEN NY 10924
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www.GerardAssociates.com info@GerardAssociates.com
GA21063

Structural Engineer

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200 Fisher Drive Avon, Connecticut
phone 860.677.4570 fax 860.676.0814

Liscum McCormack VanVoorhis LLP
ARCHITECTURE PLANNING INTERIORS
181 CHURCH STREET
POUGHKEEPSIE, NEW YORK 12601
PHONE 845-452-2268 FAX 845-452-3752

PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING
TITLESHEET, GENERAL SPECIFICATION NOTES, GENERAL PROJECT NOTES, ABBREVIATIONS AND SYMBOLS

SEAL

DRAWN BY	PROJECT NUMBER
LR/KS	18142
CHECKED BY	DATE
RV	11/30/2022

DRAWING NUMBER
TS

FILE P:\2000\JOB # - JOB NAME\

PROJECT CODE DESIGN CRITERIA

DESIGN CRITERIA

FLOOR LIVE LOAD	UNIFORM: 100 PSF CONCENTRATED: 1,000 LBS
GROUND SNOW LOAD	Pg = 40 PSF
FLAT ROOF SNOW LOAD	Pf (0.7 Ce Ct I Pg) = 28PSF
SNOW EXPOSURE FACTOR	Ce = 1.0
THERMAL FACTOR	Ct = 1.0
IMPORTANCE FACTOR	I = 1.0
UNBALANCED SNOW LOAD	1.5 Ce 28 = 42PSF
WIND LOAD	BASIC WIND SPEED 90MPH
WIND IMPORTANCE FACTOR	Iw = 1.00
BUILDING CATEGORY	I
WIND EXPOSURE	EXPOSURE B
DESIGN PRESSURE	20 PSF
COMPONENTS & CLADDING	
WALL PRESSURE	22 PSF
WALL CORNER PRESSURE	28 PSF
ROOF PRESSURE	−24 PSF
ROOF EDGE PRESSURE	−40 PSF
SEISMIC USE GROUP	I
SPECTRAL RESPONSE COEFFICIENTS SDS & SD1	.28 & .16
SITE CLASS	D
BASIC SEISMIC-FORCE RESISTING SYSTEM	LIGHT FRAME BEARING WALLS TBL 1617.6

SPECIAL INSPECTIONS (1704.1) - TO BE PROVIDED:

1. SOIL BEARING CAPACITY TESTING FOR FOOTINGS AND FILL BENEATH SLAB
2. SLUMP & CYLINDRICAL TESTING OF CONCRETE TO INSURE PROPER CONSISTENCY FOR FOOTINGS
3. ANCHOR BOLT AND TIE DOWNS.
4. ROOF TRUSS INSTALLATION

ALL FIELD TESTING TO BE PERFORMED BY:
ADVANCED TESTING COMPANY INC. 3348 ROUTE 208
CAMPBELL HALL, NEW YORK 10916
PHONE 845-496-1600, FAX 845-496-1398

PROJECT CODE CONFORMANCE

CODE CONFORMANCE

OCCUPANCY (304.1)	BUSINESS "B"
OCCUPANCY (309.1)	STORAGE "S-2"
HEIGHT IN FEET (504.3/504.4)	1 STORY
CONSTRUCTION TYPE	TYPE IIB - 75 FT. MAX 1 STORY - 36'- 11" FT. PROVIDED
ALLOWABLE AREA OF BUILDING (506.2)	104,000 SQ. FT. MAX. 12,975 SQ. FT. PROVIDED
FIRE RESISTANCE RATING (601)	TYPE IIB - 0 HR.
AUTOMATIC SPRINKLER SYSTEM (903.2.10.1)	REQUIRED PROVIDED
OCCUPANT LOAD (1004.5)	BUSINESS GROSS AREA 150 SQ. FT./OCCUPANT = 20 MAX STORAGE GROSS AREA 200 SQ. FT./OCCUPANT = 50 MAX
EGRESS (1006.3.2)	NUMBER OF EXITS REQUIRED (2) NUMBER OF EXITS PROVIDED (3) "B" NUMBER OF EXITS PROVIDED (2) "S2"
EXIT TRAVEL DISTANCE (1017.2)	300 FEET MAX.

FIRE ALARM AND DETECTION SYSTEMS (907.2)
CONTRACTOR IS TO PROVIDE AN AUTOMATIC FIRE DETECTION SYSTEM FOR BUILDING. DETECTORS WILL RECEIVE PRIMARY POWER FROM BUILDING WIRING AND WILL BE EQUIPPED WITH BATTERY BACKUP. DETECTORS TO BE INTERCONNECTED AND TIED INTO THE BUILDINGS SECURITY SYSTEM.

A MANUAL FIRE ALARM SYSTEM AND A AUTOMATIC SMOKE/HEAT DETECTION SYSTEM IS NOT REQUIRED FOR OCCUPANT LOAD LESS THAN 500. (907.2.7)
ALL CEILING AND WALL FINISHES ARE TO BE CLASS B FLAME SPREAD 26-75 SMOKE-DEVELOPED 0-450

EXITS SIGNS ARE TO BE PROVIDED FOR BUILDING AS INDICATED

GENERAL SPECIFICATION NOTES

PLANS COMPLY TO THE 2020 RESIDENTIAL BUILDING CODE OF NEW YORK STATE. CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL PERMANENT CONNECTIONS HAVE BEEN MADE. IT IS THE CONTRACTORS RESPONSIBILITY TO IDENTIFY ALL DISCREPANCIES AND NOTIFY THE OWNER/ARCHITECT AT THE TIME THEY ARE NOTED. DIMENSIONS TAKE PRECEDENCE OVER SCALED DRAWINGS.

CODES:
ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION SHALL BE FOLLOWED
1. 2020 BUILDING CODE OF NEW YORK STATE.
2. 2020 MECHANICAL CODEOF NEW YORK STATE.
3. 2020 PLUMBING CODE OF NEW YORK STATE.
4. 2020 FUEL GAS CODE OF NEW YORK STATE.
5. 2020 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE.

GENERAL NOTES: ALL CONTRACTS

1. IN THE EVENT OF INCONSISTENCIES WITHIN OR BETWEEN PARTS OF THE CONTRACT DOCUMENTS, OR BETWEEN THE CONTRACT DOCUMENTS AND APPLICABLE STANDARDS, CODES AND ORDINANCES, THE CONTRACTOR SHALL
   (1) PROVIDE THE BETTER QUALITY OR GREATER QUANTITY OF WORK OR
   (2) COMPLY WITH THE MORE STRINGENT REQUIREMENT; EITHER OR BOTH IN ACCORDANCE WITH THE ARCHITECT'S INTERPRETATION.
2. G.C. SHALL PROVIDE A COORDINATED CONSTRUCTION SCHEDULE.
3. VERIFY ALL DIMENSIONS IN FIELD FOR FIT OF UNITS SPECIFIED. MODIFY DIMENSIONS ON SHOP DRAWING AS REQUIRED, PRIOR TO SUBMITTAL OR RELEASE FOR PURCHASE OR FABRICATION.
4. IT IS RECOMMENDED THAT EACH CONTRACTOR ATTEND THE PRE−BID SITE MEETING TO FULLY ACQUAINT HIMSELF WITH THE CONDITIONS AS THEY EXIST.
5. THE DESIGN OF THE PROJECT IS IN ACCORDANCE WITH THE 2020 BUILDING CODE OF NEW YORK STATE.
6. ALL OF THE CONTRACTORS SHALL COOPERATE IN THE PLACING OF ANCHOR BOLTS, PLATES, SLOTS, CHASES, INSERTS, SLEEVES, ETC., AS REQUIRED BY OTHER CONTRACTORS. CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND ERECTION, AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO STARTING WORK.
7. CONTRACTORS SHALL VERIFY & ASSUME RESPONSIBILITY FOR VERIFYING ALL EXISTING OR AS−BUILT CONDITIONS AND INCLUDE INFORMATION IN SHOP DRAWINGS PRIOR TO SUBMITTAL TO A & E.
8. EACH CONTRACTOR TO BE RESPONSIBLE FOR APPLIED FINISHES FOR THEIR WORK.
9. IN AREA OF WORK EACH CONTRACTOR TO BE RESPONSIBLE FOR ALL ADJACENT FINISHED WORK OF OTHER TRADES. EACH CONTRACTOR IS TO PROTECT HIS OWN WORK.
10. G.C. SHALL COORDINATE WORK OF ANY ALTERNATES.
11. ALL CONTRACTORS ARE TO COORDINATE THEIR WORK IN ACCORDANCE WITH DRAWINGS.
12. ALL PENETRATIONS THROUGH RATED WALLS & CORRIDOR WALLS ARE TO BE FIRE−STOPPED BY TRADE MAKING PENETRATION, WITH APPROVED MATERIALS PER DRAWINGS AND SPECIFICATIONS.
13. EACH CONTRACTOR SHALL INCLUDE IN HIS BID ALL WORK SHOWN, SPECIFIED, REQUIRED AND/OR IMPLIED ON THE DRAWINGS AND SPECIFICATIONS FOR A COMPLETE, OPERATIONAL AND FUNCTIONING SYSTEM.
14. WORK SHOWN ON THE DRAWINGS AND NOT DESCRIBED IN THE SPECIFICATIONS OR SPECIFIED AND NOT DRAWN, BUT WHICH IS REASONABLY IMPLIED, EVIDENTLY NECESSARY OR USUALLY PROVIDED TO COMPLETE THE WORK, SHALL BE INCLUDED AS IF BOTH SHOWN AND SPECIFIED.
15. ALL DIMENSIONS SHOWN ON DRAWINGS ARE SUBJECT TO VERIFICATION OF ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD TO INSURE PROPER AND ACCURATE FIT OF MATERIALS AND ITEMS TO BE INSTALLED.
16. THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL EVALUATE AND SATISFY THEMSELVES AS TO THE CONDITIONS AND LIMITATIONS UNDER WHICH THE WORK IS TO BE PERFORMED, INCLUDING, WITHOUT LIMITATION, (1) THE LOCATION, CONDITION, LAYOUT AND NATURE OF THE PROJECT SITE AND SURROUNDING AREAS; (2) GENERALLY PREVAILING CLIMATIC CONDITIONS; (3) ANTICIPATED LABOR SUPPLY AND COSTS; (4) AVAILABILITY AND COST OF MATERIALS, TOOLS AND EQUIPMENT; AND (5) OTHER SIMILAR ISSUES. THE OWNER ASSUMES NO RESPONSIBILITY OR LIABILITY FOR THE PHYSICAL CONDITION OR SAFETY OF THE PROJECT SITE OR ANY IMPROVEMENTS LOCATED ON THE PROJECT SITE. THE OWNER SHALL NOT BE REQUIRED TO MAKE ANY ADJUSTMENT IN EITHER THE CONTRACT SUM OR CONTRACT TIME IN CONNECTION WITH ANY FAILURE BY THE CONTRACTOR OR ANY SUBCONTRACTOR TO COMPLY WITH THE REQUIREMENTS.
17. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE CONTRACT DOCUMENTS WITH EACH OTHER AND THE INFORMATION FURNISHED BY THE OWNER, AND SHALL AT ONCE REPORT TO THE ARCHITECT ERRORS, INCONSISTENCIES OR OMISSIONS DISCOVERED. THE CONTRACTOR SHALL NOT BE LIABLE TO THE OWNER, OR ARCHITECT FOR DAMAGE RESULTING FROM ERRORS, INCONSISTENCIES OR MISSIONS IN THE CONTRACT DOCUMENTS UNLESS THE CONTRACTOR RECOGNIZED SUCH ERROR, INCONSISTENCY OR OMISSION AND KNOWINGLY FAILED TO REPORT IT TO THE ARCHITECT. IF THE CONTRACTOR PERFORMS ANY CONSTRUCTION ACTIVITY KNOWING IT INVOLVES A RECOGNIZED ERROR, INCONSISTENCY OR OMISSION IN THE CONTRACT DOCUMENTS WITHOUT SUCH NOTICE TO THE ARCHITECT, THE CONTRACTOR SHALL ASSUME APPROPRIATE RESPONSIBILITY FOR SUCH PERFORMANCE AND SHALL BEAR AN APPROPRIATE AMOUNT OF THE ATTRIBUTABLE COSTS FOR CORRECTION.
18. WHERE EQUIPMENT LINES OR PIPING AND/OR CONDUIT ARE SHOWN DIAGRAMMATICALLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION AND ORDERLY ARRANGEMENT OF THE VARIOUS LINES OF PIPING AND CONDUIT INCLUDED IN THE WORK OF HIS CONTRACT. HE SHALL COORDINATE THE WORK OF SEVERAL CONTRACTORS AND PREVENT ALL INTERFERENCE'S BETWEEN EQUIPMENT, LINES OF PIPING, ARCHITECTURAL FEATURES, AND AVOID ANY UNSIGHTLY ARRANGEMENTS IN THE EXPOSED AREAS.
19. ALL WORK SHALL BE EXECUTED IN A THOROUGH, SUBSTANTIAL, WORKMANLIKE MANNER, IN COMPLETE ACCORDANCE WITH THE MANUFACTURER'S MOST RECENT RECOMMENDATIONS UNLESS OTHERWISE SPECIFIED OR PERMITTED BY THE ARCHITECT.
20. A SUFFICIENT FORCE OF COMPETENT WORKMEN, FOREMEN, AND SUPERINTENDENTS SHALL BE EMPLOYED AT ALL TIMES TO PERMIT THE WORK TO BE PURSUED WITH DILIGENCE UNTIL COMPLETION.

HEALTH & SAFETY GENERAL NOTES: ALL CONTRACTS

1. THE OCCUPIED PORTION OF THE BUILDING SHALL ALWAYS COMPLY WITH THE MINIMUM REQUIREMENTS NECESSARY TO MAINTAIN A CERTIFICATE OF OCCUPANCY.
2. GENERAL SAFETY AND SECURITY FOR CONSTRUCTION PROJECT.
   (a) ALL CONSTRUCTION MATERIALS SHALL BE STORED IN A SAFE AND SECURE MANNER.
   (b) FENCES AROUND CONSTRUCTION SUPPLIES OR DEBRIS SHALL BE INSTALLED AND MAINTAINED BY G.C.
   (c) CONSTRUCTION FENCE GATES SHALL ALWAYS BE LOCKED UNLESS A WORKER IS IN ATTENDANCE TO PREVENT UNAUTHORIZED ENTRY.
   (d) DURING EXTERIOR RENOVATION WORK, OVERHEAD PROTECTION SHALL BE PROVIDED BY G.C. FOR ANY SIDEWALKS OR AREAS IMMEDIATELY BENEATH THE WORK SITE OR SUCH AREAS SHALL BE FENCED OFF AND PROVIDED WITH WARNING SIGNS TO PREVENT ENTRY.
   (e) ALL WORKERS SHALL BE REQUIRED TO WEAR PHOTO−IDENTIFICATION BADGES AT ALL TIMES FOR IDENTIFICATION AND SECURITY PURPOSES WHILE WORKING AT OCCUPIED SITES.
3. PROPER VENTILATION WILL BE MAINTAINED IN ALL AREAS DURING CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ACTIVITIES AND MATERIALS WHICH RESULT IN "OFF−GASSING" OF VOLATILE ORGANIC COMPOUNDS SUCH AS GLUES, PAINTS, FURNITURE, CARPETING, WALL COVERING, DRAPERY, ETC., ARE SCHEDULED, CURED OR VENTILATED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS BEFORE A SPACE CAN BE OCCUPIED.

NOTES

No.	REVISION/SUBMISSION	DATE
3		
2		
1		

Mechanical/Electrical/Plumbing Engineer
GERARD ASSOCIATES
CONSULTING ENGINEERS, D.P.C.
223 MAIN STREET, GOSHEN NY 10924
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GA21063

Structural Engineer
SZEWCZAK ASSOCIATES
CONSULTING ENGINEERS
200 Fisher Drive Avon, Connecticut
phone 860.677.4570 fax 860.676.0814

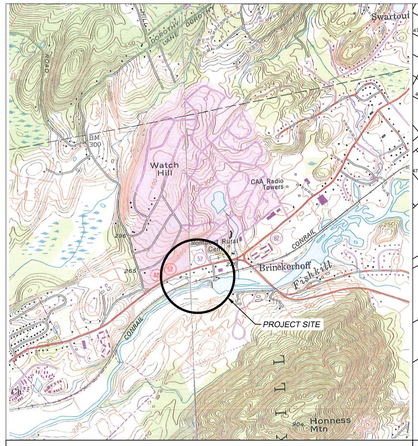
Liscum McCormack VanVoorhis LLP
ARCHITECTURE PLANNING INTERIORS
181 CHURCH STREET
POUGHKEEPSIE, NEW YORK 12601
PHONE 845-452-2268 FAX 845-452-3752

PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING
CODE NOTES AND GENERAL SPECIFICATION NOTES

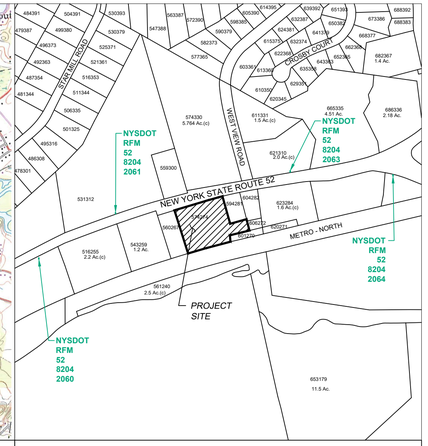
SEAL	DRAWN BY	PROJECT NUMBER
	LR/KS	18142
	CHECKED BY	DATE
	RV	11/30/2022
	DRAWING NUMBER	
	CS	

FILE P:\2000\JOB # - JOB NAME\



AREA MAP: SCALE: 1"=2000'

AERIAL MAP IMAGERY TAKEN FROM USGS TOPOGRAPHIC MAP



LOCATION MAP: SCALE: 1"=400'

TAKEN FROM TOWN OF FISHKILL TAX MAP

TOWN OF FISHKILL PLANNING BOARD

Approved by Resolution of the Planning Board of the Town of Fishkill, New York, on the _____ day of _____ 20_____, subject to all requirements and conditions of said Resolution. Any change, erasure, modification or revision of this Plat, as approved, shall void this approval.

Signed this_____ day of _____,20_____, by

_____
Chairman

DUTCHESS COUNTY DEPARTMENT OF HEALTH
POUGHKEEPSIE, NEW YORK

OWNER'S CONSENT NOTE

WE, THE UNDERSIGNED OWNERS OF THE PROPERTY SHOWN HEREON, HEREBY CERTIFY THAT WE ARE FAMILIAR WITH THIS MAP, ITS CONTENTS AND DETAILS, AND HEREBY AGREE TO THE TERMS AND CONDITIONS EXPRESSED HEREON.

DANIEL J. SILVESTRI, COMMISSIONER *DATE*
ROMBOUT FIRE DISTRICT
501 CEDAR HILL ROAD
FISHKILL, NEW YORK 12524

SITE DATA:

TAX ID No.:	133089-6256-04-574274
TOTAL AREA:	1.85 ACRES
ZONE:	GB, GENERAL BUSINESS DISTRICT
TOTAL AREA OF DISTURBANCE = 1.7 ACRES	

SITE DIMENSIONS	REQUIRED	PROPOSED
MIN LOT AREA (SQUARE FEET):	15,000	80,681
MIN LOT WIDTH (FEET):	75	282
MIN LOT DEPTH (FEET):	150	257
MIN FRONT SETBACK (FEET): (FROM C/L OF THE STREET)	50	111
MIN FRONT SETBACK (FEET): (FROM THE FRONT LOT LINE)	35	75
MIN SIDE SETBACK (FEET):	NONE	57
MIN REAR SETBACK (FEET):	30	76
MAX BUILDING HEIGHT: (STORIES) (FEET)	2 1/2 35	2 <35
MAX BUILDING COVERAGE AND AND PAVED AREA (% OF LOT AREA):	75%	54%
FLOOR AREA RATIO:	0.4	0.16

ADJACENT PROPERTY OWNERS:

Seymour M. Arkawy
1505 Route 52
Fishkill, NY 12524
For Property:133089006256000453131200000

Blue Seal Feeds Inc
2905 North Highway 61
Muscatine, IA 52761
For Property:133089006256000463027100000

J C N Properties LLC
1538 Route 52
Fishkill, NY 12524
For Property:133089006256000456026700000

Hudson Valley Commercial
32 Spring Rd
Poughkeepsie, NY 12601
For Property:133089006256000426528860000

Metropolitan Transportation
2 Broadway
New York, NY 10004
For Property:133089006256000483625100000

John W. Whitefield
10 Old Country Pl
Hopewell Junction, NY 12533
For Property:133089006256000456124000000

Anthony DiSiena, Trustee
30 Cunningham Dr
Lagrangeville, NY 12540
For Property:133089006256000466042820000

Seymour M. Arkawy
1505 Route 52
Fishkill, NY 12524
For Property:133089006256000461133100000

Seymour M. Arkawy
1505 Route 52
Fishkill, NY 12524
For Property:133089006256000455930000000

Rombout Cemetery
1571 Route 52
Fishkill, NY 12524
For Property:133089006256000462131000000

ANK Realty Inc
66 Prospect St
Poughkeepsie, NY 12601
For Property:133089006256000451625500000

Blue Seal Feeds Inc
2905 North Highway 61
Muscatine, IA 52761
For Property:133089006256000462328400000

Robert Chiuli
1577 Route 52
Fishkill, NY 12524
For Property:133089006256000466027200000

Blue Seal Feeds Inc
2905 North Highway 61
Muscatine, IA 52761
For Property:133089006256000460127000000

OSJ of Fishkill LLC
375 Commerce Park Rd
North Kingstown, RI 02852
For Property:133089006256000457433000000

Frederick W. Stiefel
1510 1st Ave 101
Bradenton, FL 34205
For Property:133089006256000457427400000

Anthony DiSiena, Trustee
30 Cunningham Dr
Lagrangeville, NY 12540
For Property:133089006256000459428100000

Nenni Construction Co Inc
7 Hiko Pl
Fishkill, NY 12524
For Property:133089006256000454325900000

Robert Chiuli
1577 Route 52
Fishkill, NY 12524
For Property:133089006256000458726800000

Toll Van Wyck LLC
42 Old Ridgebury Ct Fl 2nd
Danbury, CT 06810
For Property:133089006256001847917600000

Ballistic Bodyworks LLC
12 Pardy Ln
Fishkill, NY 12524
For Property:133089006256000463424500000

Jean B. Hoose, Trustee
1249 Hustis Dr
Fishkill, NY 12524
For Property:133089006256000065317900000

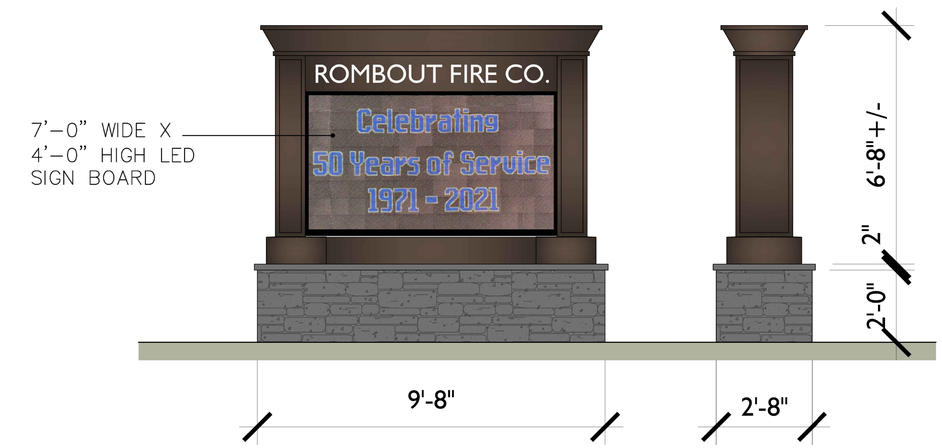
SHEET INDEX

CIVIL
C1 – COVER SHEET (SHEET 1 OF 14)
C2 – EXISTING CONDITIONS, DEMOLITION PLAN (SHEET 2 OF 14)
C3 – SITE PLAN (SHEET 3 OF 14)
C4 – GRADING PLAN (SHEET 4 OF 14)
C5 – UTILITY PLAN (SHEET 5 OF 14)
C6 – APPARATUS MANEUVERING PLAN (SHEET 6 OF 14)
C7 – EROSION AND SEDIMENT CONTROL DETAILS (SHEET 7 OF 14)
C8 – CONSTRUCTION DETAILS (SHEET 8 OF 14)
C9 – CONSTRUCTION DETAILS (SHEET 9 OF 14)
C10 – SEWAGE DISPOSAL SYSTEM CONSTRUCTION DETAILS (10 OF 14)
C11 – OFFSITE UTILITY CONNECTION PLAN (11 OF 14)
C12 – WATER SERVICE DETAILS (12 OF 14)
C13 – WORK ZONE TRAFFIC CONTROL NOTES. PROFILE (13 OF 14)
C14 – WATER MAIN CONNECTION PLAN (14 OF 14)

ELECTRICAL
ESP-1 – ELECTRICAL: SITE LIGHTING PLAN

LANDSCAPE
L1 – PLANTING PLAN
L2 – PLANT TABLE AND SPECIFICATIONS

ARCHITECTURE
SHEET 1 – BUILDING NORTH ELEVATION; BUILDING EAST ELEVATION
SHEET 2 – BUILDING SOUTH ELEVATION; BUILDING WEST ELEVATION



DARK BRONZE METAL DECORATIVE FRAME



RANDOM CUT AND TUMBLED SQUARE & RECTANGULAR GRANITE

MONUMENT SIGN

LAWRENCE J. PAGGI, PE, PC
CONSULTING ENGINEERING
43 BROAD STREET
FISHKILL, NEW YORK 12524
TELEPHONE: (845) 897-2375
Civil, Sanitary & Site Engineering Site Planning Environmental Assessment

STATE OF NEW YORK
LAWRENCE J. PAGGI
065155
LICENSED PROFESSIONAL ENGINEER

NO.	REVISIONS	BY	DATE
1.	ISSUED FOR BID		11/30/22

DRAWN BY: AB
CHECKED BY: LJP
Concept Preliminary Final Construction

ROMBOUT FIRE DISTRICT
FIRE STATION 2
1548 ROUTE 52, TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK
COVER SHEET

DATE: FEBRUARY 24, 2021
SCALE: 1" = 20'
JOB NUMBER: 21-01
SHEET NUMBER: C1

NOTES:

1. NO TREE REMOVAL SHALL OCCUR FROM APRIL 1 TO NOVEMBER 1 TO MITIGATE POTENTIAL IMPACT ON THE INDIANA BAT.

TRUE NORTH AT THE 74°30' MERIDIAN OF WEST LONGITUDE

NYS ROUTE 52

RIM: 222.57'
INV.(A)=219.97' 18" CPP
INV.(B)=219.87' 18" CPP

PAVEMENT MARKING TO BE MODIFIED

APPROXIMATE LOCATION OF EXISTING 125# 6" GAS MAIN (EXACT LOCATION TO BE FIELD VERIFIED)

RIM: 222.26'
INV.(A)=219.64' 18" CPP
INV.(B)=219.64' 18" CPP

EXISTING TRAFFIC LIGHT POST TO BE REPLACED AND RELOCATED (REFER TO TRAFFIC ENGINEER PLANS)

APPROXIMATE LOCATION OF EXISTING 3/4" GAS LINE (EXACT LOCATION TO BE FIELD VERIFIED)

PAVEMENT MARKING TO BE RELOCATED

PORTION OF DOUBLE YELLOW LINE TO BE REMOVED

RIM: 221.02'
INV.=217.87' 18" RCP

"FOR SALE"

D.R.1: N77° 00' 00"W, 257.00'

PORTION OF EXISTING CURB TO BE REMOVED TO FACILITATE CONSTRUCTION OF NEW ENTRANCE AND INSTALLATION OF NEW CONCRETE CURB; NEW CONSTRUCTION IS SUBJECT TO N.Y.S.D.O.T. APPROVAL

N72° 01' 18"E

RIM: 221.04'
INV.(A)=216.39' 18" CMP
INV.(B)=216.89' 18" CMP
INV.(C)=216.64' 18" RCP

ASPHALT DRIVEWAY

N21° 08' 54"W

D.R.1: S02° 55' 00"E, 257.34'

FIRST 50 FEET OF THE EXISTING DRIVEWAY TO BE PRESERVED AND USED AS ANTI-TRACKING PAD DURING CONSTRUCTION

EXISTING ASPHALT PAVEMENT TO BE REMOVED

LOCATION OF EXISTING CISTERN (REFER TO STRUCTURAL DRAWINGS)

LANDS N/F OF
ANTHONY DISIENA & LENA DISIENA AS CO-TRUSTEES OF
THE DISIENA FAMILY TRUST
DOCUMENT # 02 2019 7892
(MAP REFERENCE 1, LOT B)
TAX ID:133089-6256-04-594281-0000

SEE GENERAL NOTE NO. 6

IRON ROD FOUND

M.R.1: N77°00'00"E 25.0'

WHITE LINE

N72°01'18"E 25.00'

CONC CURB

257.00'

160.00'

M.R.1: N12° 20' 00"W, 160.0'

LANDS N/F OF
ANTHONY DISIENA & LENA DISIENA AS CO-TRUSTEES OF
THE DISIENA FAMILY TRUST
DOCUMENT # 02 2019 8360
(MAP REFERENCE 1, LOT A)
TAX ID:133089-6256-04-604282-0000

WELL

EXISTING WELL TO BE CAPPED AND REMAIN FOR POTENTIAL FUTURE GEOTHERMAL USE

S17° 18' 42"E

M.R.1: S78° 06' 35"W, 93.37'

N73° 07' 53"E

93.37'

EXISTING WELL TO BE CAPPED AND REMAIN FOR POTENTIAL FUTURE GEOTHERMAL USE

M.R.1: N10° 20' 15"W
46.13'

S15° 18' 57"E

BOX WIRE FENCE

20' SERVICE

M.R.1: S03° 35' 00"E, 50.00'
S08° 33' 42"E 50.00'

LANDS N/F OF
ROBERT CHIULI
DOCUMENT # 02 2017 4123
TAX ID: 133089-6256-04-606272-0000

FLOOD BOUNDARY BASED ON 220 FLOOD ELEVATION TAKEN FROM FIRM MAP NUMBER 36027C0486E EFFECTIVE DATE 5/2/12

WOOD POST

M.R.1: S83° 53' 00"W, 110.80'

110.80'

CL 134846

IRON PIPE FOUND

M.R.3: M.R.1: S06°22'00"E, 38.50'

S11° 20' 27"E 35.00'

APPARENT CORE

S78° 54' 18"W

GATE POST

LANDS N/F OF
BLUE SEAL FEEDS, INC.
LIBER 1938 PAGE 6
(MAP REFERENCE 2, PARCEL A)
TAX ID:133089-6256-04-601270-0000

(LOCATION OF PARCEL GRAPHICALLY DEPICTED IN RELATION TO BLOCK GARAGE AS SHOWN IN MAP REFERENCE 2)

LANDS N/F OF
METROPOLITAN TRANSPORTATION
DOCUMENT # 02 2020 1916
(MAP REFERENCE 3)
TAX ID:133089-6256-04-836251-0000

RAILROAD TRACKS

D.R.1: S77° 38' 59"W 90.00'

M.R.1: S84° 00' 00"W, 145.90'

145.90'

18" MAPLE
14" MAPLE
12" MAPLE
12" STUMP
8" MAPLE
20" TWIN MAPLE
14" MAPLE

LANDS N/F OF
ION PROPERTIES, LLC.
DOCUMENT # 02 2000 9652
TAX ID:133089-6256-04-560267-0000

3" PVC
RIM: 222.02'
INV.(A)=219.92' 3" PVC
INV.(B)=219.72' 8" CMP

1 STORY WOOD FRAME HOUSE

8" CMP

257.34'

VINYL FENCE

+ 218.0

0 20 40 Feet
1 INCH = 20 FT.

LEGEND

- BENCHMARK
- IRON ROD
- IRON PIPE
- SANITARY MANHOLE
- CATCH BASIN
- COMMUNICATION MANHOLE
- UNKNOWN MANHOLE
- WATER WELL
- ELECTRIC METER
- UTILITY POLE WITH LIGHT
- UTILITY POLE
- GUY WIRE
- TRAFFIC CONTROL SIGNAL POLE
- SIGN
- WOOD POST
- MAILBOX
- DECIDUOUS TREE
- CONIFEROUS TREE
- BUILDING LINE
- + 213.7 SPOT ELEVATION
- 219 MINOR CONTOUR
- 220 MAJOR CONTOUR
- ST STORM LINE
- SS SANITARY LINE
- OVERHEAD POWER LINE
- VINYL FENCE
- WIRE FENCE
- PROPERTY LINE
- ADJOINING PROPERTY LINE

BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON WAS TAKEN FROM A PLAN ENTITLED "PREPARED FOR ROMBOUT FIRE DISTRICT BOUNDARY AND TOPOGRAPHIC SURVEY OF LANDS OF FREDERICK W. STIEFEL & A PORTION OF LANDS OF ROBERT CHIULI", PREPARED BY MJ ENGINEERING AND LAND SURVEYING, P.C., DATED MARCH 29, 2021.

CONTRACTOR SHALL CONTACT "DIG SAFELY NEW YORK" PRIOR TO COMMENCING CONSTRUCTION. 1-800-962-7962.

CONTRACTOR SHALL BE RESPONSIBLE FOR THE MARK OUT OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION.

LAWRENCE J. PAGGI, PE, PC
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Civil, Sanitary & Site Engineering
Site Planning
Environmental Assessment

STATE OF NEW YORK
LAWRENCE J. PAGGI
065155
LICENSED PROFESSIONAL ENGINEER

NO.	REVISIONS	BY	DATE
1.	ISSUED FOR BID	AB	11/30/22

DRAWN BY: AB
CHECKED BY: LJP
Concept Preliminary Final Construction

ROMBOUT FIRE DISTRICT
FIRE STATION 2
1548 ROUTE 52, TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK
EXISTING CONDITIONS, DEMOLITION PLAN.

DATE: FEBRUARY 24, 2021
SCALE: 1" = 20'
JOB NUMBER: 21-01
SHEET NUMBER: C2

PARKING REQUIREMENTS:

TOWN OF FISHKILL TOWN CODE DOES NOT PROVIDE REQUIREMENTS RELATIVE TO THE MINIMUM AMOUNT OF PARKING SPACES FOR A FIRE HOUSE.

PARKING SPACES PROPOSED – 12, INCLUDING 1 ACCESSIBLE PARKING SPACE (ROMBOUT FIRE DISTRICT STATION 2 HAS, ON AVERAGE, SIX (6) VOLUNTEERS)

TRUE NORTH AT THE 74°30' MERIDIAN OF WEST LONGITUDE

NYS ROUTE 52

PROPOSED 20' WIDE UTILITY EASEMENT

NEW UTILITY POLE

RIM: 222.97' INV.(A)=219.97' 18" CPP INV.(B)=219.87' 18" CPP

PROPOSED PAVEMENT MARKING

EXISTING TRAFFIC LIGHT POST

RIM: 222.26' INV.(A)=219.64' 18" CPP INV.(B)=219.64' 18" CPP

EXISTING UTILITY POLE

CONC CURB

WHITE LINE

YELLOW LINE

SEE GENERAL NOTE NO. 6

IRON ROD FOUND

N72°01'18"E 25.00'

LANDS N/F OF ANTHONY DISIENA & LENA DISIENA AS CO-TRUSTEES OF THE DISIENA FAMILY TRUST DOCUMENT # 02 2019 7892 (MAP REFERENCE 1, LOT B) TAX ID:133089-6256-04-594281-0000

EXISTING TRAFFIC LIGHT POST TO BE REPLACED AND RELOCATED (REFER TO TRAFFIC ENGINEER PLANS)

257.00'

160.00'

EXISTING WELL TO BE CAPPED AND REMAIN FOR POTENTIAL FUTURE GEOTHERMAL USE

20.0'

WELL

PROPOSED 20' WIDE UTILITY EASEMENT

LANDS N/F OF ANTHONY DISIENA & LENA DISIENA AS CO-TRUSTEES OF THE DISIENA FAMILY TRUST DOCUMENT # 02 2019 8360 (MAP REFERENCE 1, LOT A) TAX ID:133089-6256-04-604282-0000

PROPOSED PAVEMENT MARKING

PROPOSED MONUMENT SIGN

R25.0'

R45.0'

12' WIDE ACCESS TO THE PUMP STATION (CAMBRIDGE PERMEABLE PAVERS; REFER TO DETAIL ON C12)

PROPOSED BLACK VINYL COATED CHAIN LINK FENCE AND 14' WIDE GATE

PROPOSED 6'X11' CONCRETE GENERATOR PAD

NEW UTILITY POLE

PROPOSED CONCRETE PAD FOR TRANSFORMER

"FOR SALE"

RIM: 221.02' INV.=217.87' 18" RCP

77.0'

62.5'

END OF CONCRETE CURB

24.0'

PROPOSED 30-FOOT FLAGPOLE

TAPER CURB FROM 6" TO FLUSH

PROPOSED MOUNTABLE CONCRETE CURB (REFER TO N.Y.S.D.O.T. MOUNTABLE CONCRETE CURB DETAIL)

PROPOSED CONCRETE CURB

PROP. NO PARKING ANY TIME SIGN (TYP.)

8.0'

8.0'

PROP. DROP CURB

INFILTRATION BASIN #1

R35.0'

35' FRONT YARD SETBACK

N21°08'54"W

ASPHALT DRIVEWAY

PROPOSED PAVED AREA

PROP. ACCESSIBLE PARKING SIGN (TYP.)

10.0'

24.0'

24.0'

S17°18'42"E

93.37'

N73°07'53"E

EXISTING WELL TO BE CAPPED AND REMAIN FOR POTENTIAL FUTURE GEOTHERMAL USE

46.13'

S15°18'57"E

BOX WIRE FENCE

EXISTING PROPERTY LINE TO BE REMOVED

RIM: 221.04' INV.(A)=216.39' 18" CMP INV.(B)=216.89' 18" CMP INV.(C)=216.64' 18" RCP

18" CMP

18" RCP

CONC CURB

R50.0'

R25.0'

TAPER CURB FROM 6" TO FLUSH

LANDS N/F OF JCN PROPERTIES, LLC. DOCUMENT # 02 2000 9652 TAX ID:133089-6256-04-560267-0000

PROPOSED FIRE HYDRANT (FOR FLUSHING ONLY)

3" PVC

RIM: 222.02' INV.(A)=219.92' 3" PVC INV.(B)=219.72' 8" CMP

1 STORY WOOD FRAME HOUSE

8" CMP

257.34'

VINYL FENCE

PROPOSED CONCRETE CURB

24.0'

24.0'

10.0'

TAPER CURB FROM 6" TO FLUSH

PROPOSED 6'X8' CONCRETE GENERATOR PAD

PROPOSED CONCRETE PAD FOR TRANSFORMER

TYP., HEAT PUMP UNITS (REFER TO MECHANICAL ENGINEER PLANS)

42.0'

PROP. 5' WIDE CONCRETE SIDEWALK

TAPER CURB FROM 6" TO FLUSH

INFILTRATION BASIN #2

WOOD POST

R60.0'

S08°33'42"E 50.00'

LANDS N/F OF ROBERT CHIULI DOCUMENT # 02 2017 4123 TAX ID: 133089-6256-04-606272-0000

110.80'

134846

IRON PIPE FOUND

S78°54'18"W

LANDS N/F OF BLUE SEAL FEEDS, INC. LIBER 1938 PAGE 6 (MAP REFERENCE 2, PARCEL A) TAX ID:133089-6256-04-601270-0000

GATE POST

S11°20'27"E 35.00'

APPARENT GORE

(LOCATION OF PARCEL GRAPHICALLY DEPICTED IN RELATION TO BLOCK GARAGE AS SHOWN IN MAP REFERENCE 2)

30' REAR YARD SETBACK

145.90'

S77°38'59"W 90.00'

S76°45'40"W

PROPOSED SIREN MOUNTED ON 25-FOOT POLE

LANDS N/F OF METROPOLITAN TRANSPORTATION DOCUMENT # 02 2020 1916 (MAP REFERENCE 3) TAX ID:133089-6256-04-836251-0000

RAILROAD TRACKS

0 20 40 Feet

1 INCH = 20 FT.

LEGEND

- BENCHMARK
- IRON ROD
- IRON PIPE
- SANITARY MANHOLE
- CATCH BASIN
- COMMUNICATION MANHOLE
- UNKNOWN MANHOLE
- WATER WELL
- ELECTRIC METER
- UTILITY POLE WITH LIGHT
- UTILITY POLE
- GUY WIRE
- TRAFFIC CONTROL SIGNAL POLE
- SIGN
- WOOD POST
- MAILBOX
- DECIDUOUS TREE
- CONIFEROUS TREE
- BUILDING LINE
- ST — STORM LINE
- SS — SANITARY LINE
- OHP — OVERHEAD POWER LINE
- VINYL FENCE
- WIRE FENCE
- PROPERTY LINE
- ADJOINING PROPERTY LINE

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Civil, Sanitary & Site Engineering Site Planning Environmental Assessment

STATE OF NEW YORK · LAWRENCE J. PAGGI · 065155 · SEE PROFESSIONAL ENGINEER

NO.	REVISIONS	BY	DATE
1.	ISSUED FOR BID		11/30/22

DRAWN BY: AB
CHECKED BY: LJP
Concept / Preliminary / Final / Construction

ROMBOUT FIRE DISTRICT FIRE STATION 2

1548 ROUTE 52, TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

SITE PLAN

DATE: FEBRUARY 24, 2021
SCALE: 1" = 20'
JOB NUMBER: 21-01
SHEET NUMBER: C3

LEGEND:

PROPOSED CONDITIONS:

- 223 — PROPOSED CONTOUR
- CB1 — PROPOSED CATCH BASIN AND STORM LINE
- DB1 — PROPOSED 12" NYLOPLAST DRAIN BASIN
- W — PROPOSED WATER SERVICE LINE
- S — PROPOSED SANITARY SEWER GRAVITY LINE
- FM — PROPOSED SANITARY FORCE MAIN
- SF — TEMPORARY SILT FENCE
- DT1 — DEEP TEST LOCATION
- PT1 — PERCOLATION TEST LOCATION

NOTE:

* – PROPOSED SEDIMENT TRAP AND OIL/WATER SEPARATOR ARE NOT REVIEWED BY THE DUTCHESS COUNTY HEALTH DEPARTMENT.

TRUE NORTH AT THE 74°30' MERIDIAN OF WEST LONGITUDE

NYS ROUTE 52

POINT "B" BEGIN UPWARD CURVATURE OF BORING PATH (SEE PROFILE ON C13)

POINT "A" ACHIEVE MIN. 5' DEPTH AND BEGIN HORIZONTAL TRAJECTORY OF BORE PATH (SEE PROFILE ON C13)

DRILL RIG LOCATION AND BORING ENTRY POINT

AREA TO BE EXCAVATED FOLLOWING PIPE BORING TO ACHIEVE FINAL DEPTH OF 8" HDPE DR9 (5' MIN.) AND 4" HDPE DR11 (5' MIN.) AMERICAN SHORING SERIES 790 SINGLE SIDE RAIL SHEET SHORING SYSTEM TO BE USED (SPECIFICATIONS AND DETAILS ATTACHED)

PROPOSED 12" HDPE CONNECTION TO EXISTING CB; CATCH BASIN PENETRATION TO BE PROVIDED BY CORING; USE NON SHRINK GROUT FOR 12" HDPE CONNECTION.

PROPOSED PAVEMENT SAW-CUT

EXISTING TRAFFIC LIGHT POST TO BE REPLACED AND RELOCATED (REFER TO TRAFFIC ENGINEER PLANS)

TEMPORARY CONCRETE WASHOUT AREA

FLARED END SECTION AND RIP RAP OUTLET PROTECTION

INFILTRATION BASIN #1

STORMWATER PIPE TRENCH AREA – AREA OF FULL DEPTH PAVEMENT RESTORATION (REFER TO NYSDOT PAVEMENT RESTORATION DETAIL ON C8)

AREA OF EXISTING CURB TO BE REMOVED AND REPLACED (REFER TO NYSDOT CURB AND SHOULDER DETAIL ON C8)

PROPOSED LIMITS OF DISTURBANCE (AREA OF DISTURBANCE IS 1.8 ACRES)

PROPOSED FIRE HYDRANT AND VALVE ASSEMBLY (FOR FLUSHING ONLY)

PROPOSED VALVE BOX

PROPOSED PUMP STATION

PROPOSED MH2

PROPOSED GENERATOR AND TRANSFER SWITCH

PROPOSED OIL/WATER SEPARATOR*

PROPOSED SEDIMENT TRAP*

PROPOSED MH1

EXISTING WELL TO BE CAPPED AND REMAIN FOR POTENTIAL FUTURE GEOTHERMAL USE

EXISTING WELL TO BE CAPPED AND REMAIN FOR POTENTIAL FUTURE GEOTHERMAL USE

8' WIDE MAINTENANCE ACCESS ROAD TO INFILTRATION BASIN

BOX WIRE FENCE

FLARED END SECTION AND RIP RAP OUTLET PROTECTION

INFILTRATION BASIN #2 AND FLOOD STORAGE AREA POS1

FLOOR ELEVATION – 224.0

1 STORY WOOD FRAME HOUSE

PROPOSED PEA GRAVEL DIAPHRAGM 350 LF, WIDTH=5' DEPTH=5.6'

90' WIDE RIP RAP EMERGENCY SPILLWAY INVERT ELEVATION=217.0

VINYL FENCE

RAILROAD TRACKS

SEE GENERAL NOTE NO. 6

IRON ROD FOUND

IRON PIPE FOUND

GATE POST

APPARENT GORE

LANDS N/F OF ANTHONY DISIENA & LENA DISIENA AS CO-TRUSTEES OF THE DISIENA FAMILY TRUST DOCUMENT # 02 2019 7892 (MAP REFERENCE 1, LOT B) TAX ID:133089-6256-04-594281-0000

LANDS N/F OF ANTHONY DISIENA & LENA DISIENA AS CO-TRUSTEES OF THE DISIENA FAMILY TRUST DOCUMENT # 02 2019 8360 (MAP REFERENCE 1, LOT A) TAX ID:133089-6256-04-604282-0000

LANDS N/F OF JCN PROPERTIES, LLC. DOCUMENT # 02 2000 9652 TAX ID:133089-6256-04-560267-0000

LANDS N/F OF BLUE SEAL FEEDS, INC. LIBER 1938 PAGE 6 (MAP REFERENCE 2, PARCEL A) TAX ID:133089-6256-04-601270-0000

LANDS N/F OF ROBERT CHIULI DOCUMENT # 02 2017 4123 TAX ID: 133089-6256-04-606272-0000

LANDS N/F OF METROPOLITAN TRANSPORTATION DOCUMENT # 02 2020 1916 (MAP REFERENCE 3) TAX ID:133089-6256-04-836251-0000

(LOCATION OF PARCEL GRAPHICALLY DEPICTED IN RELATION TO BLOCK, GARAGE AS SHOWN IN MAP REFERENCE 2)

1 INCH = 20 FT.

LEGEND

- BENCHMARK
- IRON ROD
- IRON PIPE
- SANITARY MANHOLE
- CATCH BASIN
- COMMUNICATION MANHOLE
- UNKNOWN MANHOLE
- WATER WELL
- ELECTRIC METER
- UTILITY POLE WITH LIGHT
- UTILITY POLE
- GUY WIRE
- TRAFFIC CONTROL SIGNAL POLE
- SIGN
- WOOD POST
- MAILBOX
- DECIDUOUS TREE
- CONIFEROUS TREE
- BUILDING LINE
- ST — STORM LINE
- SS — SANITARY LINE
- OH — OVERHEAD POWER LINE
- VINYL FENCE
- WIRE FENCE
- PROPERTY LINE
- ADJOINING PROPERTY LINE
- 219 — MINOR CONTOUR
- 220 — MAJOR CONTOUR

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Civil, Sanitary & Site Engineering Site Planning Environmental Assessment

STATE OF NEW YORK LAWRENCE J. PAGGI 065155 LICENSED PROFESSIONAL ENGINEER

NO.	REVISIONS	DRAWN BY	CHECKED BY
1.	ISSUED FOR BID	AB	LJP

Concept Preliminary Final Construction

BY	DATE
	11/30/22

ROMBOUT FIRE DISTRICT FIRE STATION 2

1548 ROUTE 52, TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

GRADING PLAN

DATE: FEBRUARY 24, 2021
SCALE: 1" = 20'
JOB NUMBER: 21-01
SHEET NUMBER: C4

LEGEND:

PROPOSED CONDITIONS:

- CB1 — PROPOSED CATCH BASIN AND STORM LINE
- DB1 — PROPOSED 12" NYLOPLAST DRAIN BASIN
- W — PROPOSED WATER SERVICE LINE
- S — PROPOSED SANITARY SEWER GRAVITY LINE
- FM — PROPOSED SANITARY FORCE MAIN

NOTES:

1. BACKFLOW PREVENTION DEVICE AND PRESSURE REDUCING VALVE (PRV) SHALL BE INSTALLED ON THE WATER SERVICE LINE. THE LOCATION, TYPE AND SCHEMATIC OF THE BACKFLOW PREVENTION DEVICE AND PRV SHALL BE PROVIDED ON THE BUILDING MECHANICAL PLANS SUBMITTED WITH THE APPLICATION FOR BUILDING PERMIT.
2. WATER AND SEWER LINES WILL BE DIRECTIONAL DRILLED UNDER NYS ROUTE 52 AND MAJORITY OF THE DUTCHESS PARK SHOPPING CENTER AND OFFICE COMPLEX.
3. OFFSITE WATER LINE AND SMITH & LOVELESS PUMP STATION WILL BE DEDICATED TO THE TOWN OF FISHKILL.

TRUE NORTH AT THE 74°30' MERIDIAN OF WEST LONGITUDE

MATCH LINE A-A
SHEET C11

NYS ROUTE 52

EXISTING CB (REFER TO NOTE 4 ON SHEET C11)
PROPOSED 500 LF 4-INCH DR11 SEWER FORCE MAIN
EXISTING UTILITY POLE
NEW UTILITY POLE PER CH G&E
NEW OVERHEAD 3ø PRIMARY SHOWN FOR SCHEMATIC PURPOSE (REFER TO MEP PLANS)
EXISTING TRAFFIC LIGHT POST
APPROXIMATE LOCATION OF EXISTING 125# 6" GAS MAIN (EXACT LOCATION TO BE FIELD VERIFIED)
RIM: 222.87' INV.(A)=219.97' 18" CPP INV.(B)=219.87' 18" CPP
RIM: 222.26' INV.(A)=219.64' 18" CPP INV.(B)=219.64' 18" CPP
8" HDPE DR9 WATER MAIN (FOR DESIGN REFER TO C14)
10' ± MIN.
PROPOSED UTILITY EASEMENT
8" DIP CLASS 52 WATER MAIN (FOR DESIGN REFER TO C14)
8" DIP CLASS 52 WATER STUB
SEE GENERAL NOTE NO. 6
IRON ROD FOUND
LANDS N/F OF ANTHONY DISIENA & LENA DISIENA AS CO-TRUSTEES OF THE DISIENA FAMILY TRUST DOCUMENT # 02 2019 7892 (MAP REFERENCE 1, LOT B) TAX ID:133089-6256-04-594281-0000
LANDS N/F OF ANTHONY DISIENA & LENA DISIENA AS CO-TRUSTEES OF THE DISIENA FAMILY TRUST DOCUMENT # 02 2019 8360 (MAP REFERENCE 1, LOT A) TAX ID:133089-6256-04-604282-0000
NEW GAS LATERAL TO GENERATOR FOR PUMP STATION SHOWN FOR SCHEMATIC PURPOSE (REFER TO MEP PLANS)
PROPOSED S&L INC. EVERLAST SERIES 1000 PUMP STATION, RIM=223.3 INV.IN(VALVE PIT DRAIN)=216.0 INV.IN=215.7, INV.OUT=217.5
4'ø AREA RESERVED FOR POTENTIAL FUTURE ODOR CONTROL EQUIPMENT
PROPOSED GENERATOR AND TRANSFER SWITCH
NEW UTILITY POLE PER CH G&E
PADMOUNT TRANSFORMER SHOWN FOR SCHEMATIC PURPOSE (REFER TO MEP PLANS)
PROPOSED DRY 6" SDR-35 GRAVITY SEWER FOR FUTURE CONNECTION TO GAS STATION; CAP END; MAGNETIC LOCATOR TO BE INSTALLED IN THE PIPE TRENCH
PROPOSED 1000-GAL. OIL/WATER SEPARATOR* RIM=222.8 INV.IN=216.7, INV.OUT=216.4
PROPOSED 1000-GAL SEDIMENT TRAP* RIM=222.9 INV.IN=217.1 INV.OUT=216.8
PROPOSED 48"x60" PRECAST CONCRETE VALVE BOX
PROPOSED 8" DIP CLASS 52 WATER LINE CONNECT TO 8" DIP CLASS 52 WATER STUB
PROPOSED 8"X6" REDUCER
PROPOSED 6" DIP CLASS 52 WATER LINE
EXISTING WELL TO BE CAPPED AND REMAIN FOR POTENTIAL FUTURE GEOTHERMAL USE
EXISTING WELL TO BE CAPPED AND REMAIN FOR POTENTIAL FUTURE GEOTHERMAL USE
EXISTING TRAFFIC LIGHT POST TO BE REPLACED AND RELOCATED (REFER TO TRAFFIC ENGINEER PLANS)
CB3, TG=221.5 INV.OUT=219.5
CB1 (OCS) TG=221.5 INV.OUT=218.5
EX. MH402 (VERIZON)
RIM: 221.02' INV.=217.87' 18" RCP
PROP. INV.IN=218.0
36 LF 12" HDPE @ 1.39%
85 LF, 12"ø DURASLOT DRAIN @ 0.1% (HDPE PIPE WITH ALUMINUM SLOT RATED FOR H-20 LOADING BY ADS OR EQUAL)
CB2, TG=222.0 INV.IN=219.4 INV.OUT=219.3
16 LF 12" HDPE @ 0.5%
INV.OUT=219.2
INFILTRATION BASIN #1
FLARED END SECTION AND RIP RAP OUTLET PROTECTION
"FOR SALE"
CONC CURB
ASPHALT DRIVEWAY
APPROXIMATE LOCATION OF EXISTING 15-4" PLASTIC DUCTS (EXACT LOCATION TO BE FIELD VERIFIED)
RIM: 221.04' INV.(A)=216.39' 18" CMP INV.(B)=216.89' 18" CMP INV.(C)=216.64' 18" RCP
EXTENDED GAS LINE SHOWN FOR SCHEMATIC PURPOSE (REFER TO MEP PLANS)
2" DOMESTIC WATER SERVICE LINE AND 2" GATE VALVE
PROPOSED FIRE HYDRANT AND VALVE ASSEMBLY (FOR FLUSHING ONLY)
6" DIP CLASS 52 FIRE PROTECTION WATER LINE AND 6" GATE VALVE
3" PVC
RIM: 222.02' INV.(A)=219.92' 3" PVC INV.(B)=219.72' 8" CMP
1 STORY WOOD FRAME HOUSE
22'±
6" CMP
VINYL FENCE
PADMOUNT TRANSFORMER SHOWN FOR SCHEMATIC PURPOSE (REFER TO MEP PLANS)
LANDS N/F OF JCN PROPERTIES, LLC. DOCUMENT # 02 2000 9652 TAX ID:133089-6256-04-560267-0000
WELL
WELL
WELL

EROSION AND SEDIMENT CONTROL SEQUENCING SCHEDULE:

THE TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 1.7 ACRE.

1. *CONDUCT PRECONSTRUCTION CONFERENCE AT THE PROJECT LOCATION WITH THE OPERATOR AND THE PROJECT ENGINEER TO REVIEW THE REQUIREMENTS OF GP-0-20-001, INCLUDING POSTING OF THE REQUIRED DOCUMENTATION AND LOCATION WHERE THE SWPPP WILL BE MAINTAINED ON SITE.*
2. *A CERTIFIED PROFESSIONAL WITH EXPERIENCE DESIGNING EROSION AND SEDIMENT CONTROLS SHALL MONITOR THE SITE TO DETERMINE THAT THE PROPER EROSION AND SEDIMENT CONTROLS ARE PROPERLY MAINTAINED IN ACCORDANCE WITH DEC PERMIT.*
3. *WEEKLY INSPECTIONS SHALL BE MADE FOR COMPLIANCE OF THE SWPPP, AND REPORTS ISSUED TO THE TOWN AS REQUIRED BY GP-0-20-001.*
4. *DUST ONSITE SHALL BE MINIMIZED BY SPRAYING WATER ON DRY AREAS OF THE SITE. IF THE MAJORITY OF MUD OR DIRT IS NOT REMOVED FROM EXITING TRAFFIC, HOSE BIBS SHALL BE PROVIDED AT CONSTRUCTION TRAFFIC POINTS AND VEHICLE TIRES SHALL BE WASHED BEFORE EXITING ON PUBLIC ROADS. SILT FROM THIS WASHING OPERATION SHALL BE INTERCEPTED AND TRAPPED BEFORE WASH WATER IS ALLOWED TO BE DISCHARGED OFFSITE. THE USE OF OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION IS PROHIBITED.*
5. *THE FIRST 50 FEET OF THE EXISTING DRIVEWAY TO THE SITE SHALL BE PRESERVED AS ANTI-TRACKING PAD DURING CONSTRUCTION. USE EXISTING PARKING AREA AS STAGING AREA AND EQUIPMENT AND MATERIAL STORAGE AREA. STABILIZE ENTRANCE TO THE PROJECT SITE BY INSTALLING STONE PER THE CONSTRUCTION ACCESS DETAIL WHEN EXITING VEHICLES MUST TRAVEL ALONG UNPAVED AREAS. STABILIZE ADJACENT DISTURBED SOIL AREAS WITH VEGETATION.*
6. *INSTALL SILT FENCE ALONG THE DOWNHILL PERIMETER OF PLANNED LAND DISTURBANCE IN THE LOCATIONS INDICATED ON THE GRADING AND EROSION AND SEDIMENT CONTROL PLAN. INSTALL CATCH BASIN INSERT IN THE EXISTING CATCH BASIN LOCATED AT THE NORTHWEST CORNER OF THE PROJECT SITE. CATCH BASIN INSERT SHALL BE ULTRA-DRAIN GUARD TRASH AND DEBRIS MODEL PART #9227 AS MANUFACTURES BY ULTRATECH OR APPROVED EQUAL.*
7. *DEMOLISH EXISTING BUILDINGS AND EXISTING PAVEMENT IN THE LOCATION OF THE NEW BUILDING CONSTRUCTION. ALL DEMOLITION MATERIAL IS TO BE TAKEN OFF SITE TO AN APPROPRIATE LANDFILL OR RECYCLING CENTER.*
8. *COMMENCE SITE CONSTRUCTION ACTIVITIES INCLUDING CLEARING & GRADING OF THE PROPOSED AREA OF DISTURBANCE AS REQUIRED. STABILIZE HARDSCAPE AREAS BY INSTALLING ITEM 4 BASE COURSE. VEGETATE DISTURBED SOIL AREAS NOT TO BE SUBJECT TO ADDITIONAL DISTURBANCE WITHIN 14 DAYS.*
9. *SILT FENCE SHOULD BE INSTALLED AROUND ANY TEMPORARY SOIL STOCKPILES OR GRAVEL BAGS IF SOIL STOCKPILES INSTALLED ON IMPERVIOUS SURFACE. IF THESE STOCKPILES ARE NOT TO BE USED WITHIN 14 DAYS THEY SHOULD BE TEMPORARILY SEEDED AND MULCHED.*
10. *EXCAVATE AREAS FOR INFILTRATION BASINS. ALL AREAS WHICH DRAIN TO INFILTRATION BASINS SHALL BE COMPLETELY STABILIZED BEFORE INFILTRATION BASINS CONSTRUCTION IS COMPLETED. INFILTRATION BASIN CONSTRUCTION IS TO BE INITIATED DURING A PERIOD WHEN NO PRECIPITATION IS IN FORECAST WITH SUFFICIENT DURATION TO COMPLETE INSTALLATION OF THESE ITEMS. INSTALL SILT FENCE UPSTREAM OF THE PROPOSED INFILTRATION BASIN IN THE LOCATION SHOWN ON GRADING AND EROSION AND SEDIMENT CONTROL PLAN.*
11. *BUILDING CONSTRUCTION MAY COMMENCE AFTER ABOVE OUTLINED WORK IS COMPLETED. INSTALL BUILDING FOOTING/FOUNDATION AND INSTALL GAS, WATER AND SEWER LINES BELOW PAVED AREAS TO BUILDING. VEGETATE DISTURBED SOIL AREAS NOT TO BE SUBJECT TO ADDITIONAL DISTURBANCE WITHIN 14 DAYS.*
12. *REMOVE REMAINING PAVEMENT AND CONCRETE CURB. ALL DEMOLITION MATERIAL IS TO BE TAKEN OFF SITE TO AN APPROPRIATE LANDFILL OR RECYCLING CENTER. ROUGH GRADE THE PROJECT SITE TO THE LINES AND GRADES INDICATED ON THE GRADING PLAN.*
13. *CONSTRUCT PROPOSED STORMWATER COLLECTION SYSTEM AS INDICATED ON THE GRADING AND UTILITY PLAN AND CONSTRUCTION DETAILS. INSTALL CATCH BASIN INSERTS IN THE PROPOSED CATCH BASINS. CATCH BASIN INSERTS SHALL BE ULTRA-DRAIN GUARD TRASH AND DEBRIS MODEL PART #9227 AS MANUFACTURES BY ULTRATECH OR APPROVED EQUAL. PROTECT DURASLOT FROM SEDIMENT DURING THE INSTALLATION. THE CATCH BASINS SUMP SHALL BE MONITORED AND CLEANED WHEN SEDIMENT ACCUMULATION HAS REACHED 50% OF STORAGE CAPACITY.*
14. *UPON COMPLETION OF THE BUILDING FOOTING/FOUNDATION AND SITE UTILITIES, CONSTRUCT CURBING NECESSARY TO DIRECT RUNOFF INTO CATCH BASINS. INSTALL ASPHALT BINDER TO WITHIN 20 FEET OF PROPOSED BUILDING AND STABILIZE AREAS NOT TO BE SUBJECT TO ADDITIONAL DISTURBANCE WITHIN 14 DAYS.*
15. *UPON COMPLETION OF BUILDING EXTERIOR, INSTALL THE BALANCE OF THE BINDER AND INSTALL FINAL PAVEMENT.*
16. *PRIOR TO FINALIZING CONSTRUCTION OF INFILTRATION BASIN ALL CATCH BASINS AND DRAINAGE LINES SHALL BE CLEANED OF ALL SILT AND SEDIMENT.*
17. *ALL EROSION CONTROL MEASURES EMPLOYED DURING CONSTRUCTION SHALL COMPLY WITH THE STANDARDS FOUND IN NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, LATEST EDITION.*
18. *ALL DISTURBED AREAS WHICH ARE TO BE LANDSCAPED SHALL BE IMMEDIATELY STABILIZED BY SEEDING AND MULCHING USING PERMANENT SEEDING PROCEDURE. SLOPES EQUAL TO OR STEEPER THAN 3H:1V SHALL BE STABILIZED WITH NORTH AMERICAN GREEN "C125" DOUBLE NET EROSION CONTROL BLANKET (INSTALL PER MANUFACTURER'S RECOMMENDATIONS).*
19. *FULL SOIL RESTORATION SHALL BE APPLIED IN ALL DISTURBED IMPERVIOUS AREAS THAT PROPOSED TO HAVE PERVIOUS COVER IN ACCORDANCE WITH THE SOIL RESTORATION REQUIREMENTS IN TABLE 5.3 OF THE NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL.*
20. *UPON COMPLETION OF ALL SITE CONSTRUCTION AND ONCE FINAL SITE STABILIZATION IS ACHIEVED FOR 80% OF THE DISTURBED SOIL SURFACE, ALL SEDIMENT BARRIERS ARE TO BE REMOVED. ANY AREAS DISTURBED BY THESE REMOVAL OPERATIONS SHALL BE IMMEDIATELY SEEDED AND MULCHED IN CONFORMANCE WITH THE PERMANENT SEEDING PROCEDURES.*
21. *REMOVE TEMPORARY CONSTRUCTION ACCESS ONLY PRIOR TO FINAL STABILIZATION IN THIS AREA.*

EROSION CONTROL MAINTENANCE PLAN - DURING CONSTRUCTION:

PERMANENT AND TEMPORARY VEGETATION:

INSPECT ALL AREAS THAT HAVE RECEIVED VEGETATION EVERY SEVEN DAYS & AFTER EVERY RUNOFF-PRODUCING RAINFALL. ANY VEGETATED AREA THAT HAS ERODED AS A RESULT OF RUNOFF SHALL BE FERTILIZED, RESEEDED AND MULCHED TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

STABILIZED CONSTRUCTION ENTRANCE:

INSPECT THE ENTRANCE PAD EVERY SEVEN DAYS & AFTER EVERY RUNOFF-PRODUCING RAINFALL. CHECK FOR MUD, SEDIMENT BUILD-UP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING WET WEATHER. RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL. WASH AND REPLACE STONE AS NEEDED. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF-SITE BY VEHICLES. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. REMOVE TEMPORARY CONSTRUCTION ENTRANCE AS SOON AS THEY ARE NO LONGER NEEDED TO PROVIDE ACCESS TO THE SITE.

SILT FENCE:

INSPECT FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RUNOFF-PRODUCING RAINFALL. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE FENCE BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE FENCE. IF FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF FENCE IMMEDIATELY.

SOIL STOCKPILE:

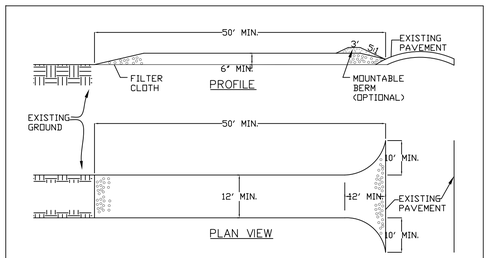
INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE OR HAY BALE) AND VEGETATION FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RUNOFF-PRODUCING RAINFALL. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE SEDIMENT CONTROL BARRIER BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE SEDIMENT CONTROL BARRIER. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO DECOMPOSE, OR IN ANYWAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCK PILE. REMOVE THE SEDIMENT CONTROL BARRIER WHEN THE SOIL STOCKPILE HAS BEEN REMOVED.

DUST CONTROL:

SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ANY ONE TIME DURING THE COURSE OF WORK. APPLY TEMPORARY SOIL STABILIZATION PRACTICES SUCH AS MULCHING, SEEDING, AND SPRAYING (WATER). STRUCTURAL MEASURES (MULCH, SEEDING) SHALL BE INSTALLED IN DISTURBED AREAS BEFORE SIGNIFICANT BLOWING PROBLEMS DEVELOP. WATER SHALL BE SPRAYED AS NEEDED. REPEAT AS NEEDED, BUT AVOID EXCESSIVE SPRAYING, WHICH COULD CREATE RUNOFF AND EROSION PROBLEMS.

CONCRETE WASHOUT:

CONCRETE WASHOUT FACILITIES SHALL BE INSPECTED DAILY. DAMAGED OR LEAKING FACILITIES SHALL BE DEACTIVATED AND REPAIR OR REPLACED IMMEDIATELY. ACCUMULATED HARDENED MATERIAL SHALL BE REMOVED WHEN 75% OF THE STORAGE CAPACITY OF THE STRUCTURE FILLED.DISPOSE OF THE HARDENED MATERIAL OFF-SITE IN A CONSTRUCTION/DEMOLITION LANDFILL. THE PLASTIC LINER SHALL BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.



CONSTRUCTION SPECIFICATION

1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.

2. LENGTH – NOT LESS THAN 50 FEET

3. THICKNESS – NOT LESS THAN SIX (6) INCHES.

4. WIDTH – TWELVE (12) FOOT MINIMUM. BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.

5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.

6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.

7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

POST-CONSTRUCTION MAINTENANCE SCHEDULE

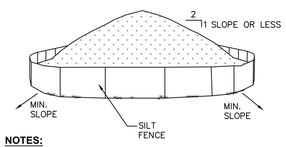
- *CATCH BASINS –*

CATCH BASINS SHOULD BE INSPECTED ANNUALLY AND AFTER MAJOR STORM EVENTS (e.g., AFTER EACH EVENT WHERE 3 INCHES OF RAINFALL IS EXCEEDED IN A 24-HOUR PERIOD). DEBRIS AND EACH EVENT WHERE 3 INCHES OF RAINFALL IS EXCEEDED IN A 24-HOUR PERIOD). DEBRIS AND LITTER SHOULD BE REMOVED FROM THE BASINS DURING THESE INSPECTIONS. SEDIMENT WILL HAVE TO BE REMOVED FROM THE BASINS EITHER MANUALLY OR BY VACUUM TRUCK WHEN 10% OF THE AVAILABLE CAPACITY HAS BEEN USED (e.g., FOR 12" SUMP, WHEN THE DEPTH OF SEDIMENT EXCEEDS 1.2"). IN ADDITION, THE STRUCTURES SHOULD BE REPAIRED AND/OR REPLACED ON AN AS-NEEDED BASIS.

- *INFILTRATION BASIN –*

– VEGETATION ON THE BASIN SIDE SLOPES AND FLOOR SHALL BE MAINTAINED IN DENSE AND VIGOROUS GROWING CONDITION FOR THE PERIOD OF 1 YEAR AFTER CONSTRUCTION HAS BEEN COMPLETED. IF A MINIMUM COVERAGE OF 50% IS NOT ACHIEVED AFTER THE SECOND GROWING SEASON, A REINFORCEMENT PLANTING IS REQUIRED.

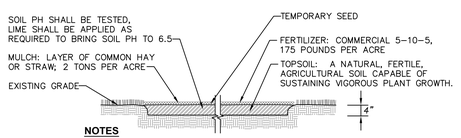
– MAINTENANCE OF THE INFILTRATION BASIN SHALL BE IN ACCORDANCE WITH APPENDIX G OF THE NEW YORK STATE STORM WATER MANAGEMENT DESIGN MANUAL.



NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V: 2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.

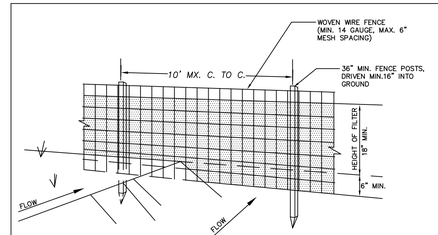
TEMPORARY SOIL STOCKPILE DETAIL
NO SCALE



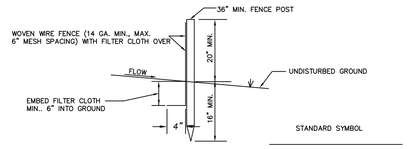
NOTES

1. TOPSOIL, SEED, MULCH, AND FERTILIZE DISTURBED SOIL AREAS THAT WILL BE LEFT EXPOSED FOR 14 DAYS OR MORE.

TEMPORARY TOPSOIL, FERTILIZER, SEED & MULCH DETAIL
NO SCALE



PERSPECTIVE VIEW



SECTION

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE

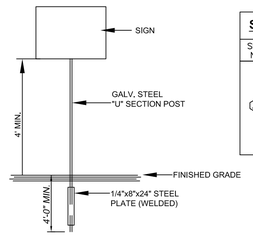
POSTS: STEEL EITHER T OR U TYPE OR 3.5 SQ. INCH. HARDWOOD

FENCE: WOVEN WIRE, 14 GA. 6" MAX. MESH OPENING

FILTER CLOTH: FILTER X, MIRAFI 100X, STABLINKA 1140N OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

SILT FENCE
NO SCALE



SINGLE POST SIGN MOUNTING
NOT TO SCALE

SIGN SCHEDULE

SIGN NO.	SIGN FACE	MIN SIZE	COLORS	
			BCK GRND	LEGEND
A	STORMWATER MANAGEMENT PRACTICE – Infiltration Basin (I-2) Project Identification – SPDES NY_____ Must Be Maintained In Accordance With O&M Plan DO NOT REMOVE OR ALTER	18"x24"	WHITE	GREEN

SIGN SCHEDULE
NOT TO SCALE

PERMANENT SEEDING PROCEDURE FOR AREAS DISTURBED DURING CONSTRUCTION:

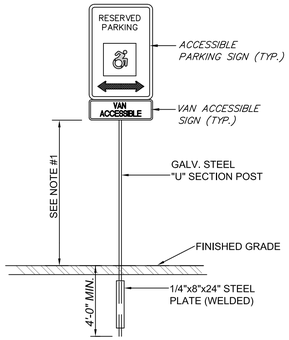
SITE PREPARATION – *IF SEEDING DOES NOT OCCUR WITHIN 24 HOURS OF FINAL GRADING, SOIL SHALL BE SCARIFIED.*

SOIL AMENDMENTS – *LIME TO pH OF 6.0 AND FERTILIZE WITH 600 lbs. OF 5-10-10 OR EQUIVALENT PER ACRE. FERTILIZERS TO BE APPLIED IN CONFORMANCE WITH ALL APPLICABLE LAWS, RULES AND REGULATIONS PERTAINING TO APPLICATION OF FERTILIZER.*

SEED MIXTURE – *EMPIRE BERDSFOOT TREFOIL OR COMMON WHITE CLOVER 8 lbs. PER ACRE (ADD INOCULANT IMMEDIATELY PRIOR TO SEEDING)*
– *TALL FESCUE 20 lbs. PER ACRE*
– *REDTOP OR PERENNIAL RYE GRASS 5 lbs. PER ACRE.*

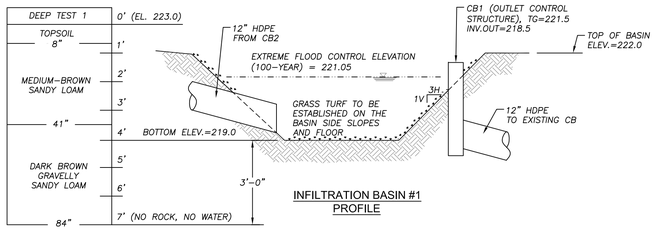
METHOD OF SEEDING – *ANY METHOD WHICH ACHIEVES COMPLETE AND UNIFORM DISTRIBUTION AND GOOD SOIL TO SEED CONTACT WILL BE ALLOWED. MULCH*

MULCH – *HAY OR STRAW APPLIED AT 2 TONS PER ACRE AND COVERING APPROXIMATELY 90% OF SEEDED AREA.*

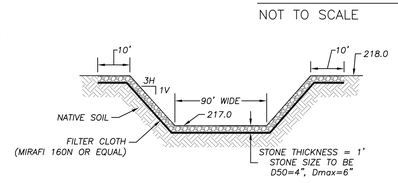


NOTES:
1. SIGN MOUNTING HEIGHT SHALL BE A MINIMUM OF 7'. MINIMUM MOUNTING HEIGHT MAY BE ADJUSTED ONLY IN ACCORDANCE WITH PROVISIONS OUTLINED IN "NYCRR, CHAPTER V-UNIFORM TRAFFIC CONTROL DEVICES".
2. SIGN POST SHALL BE IN ACCORDANCE W / NYSDOT STANDARD SPECS SECTION 730.

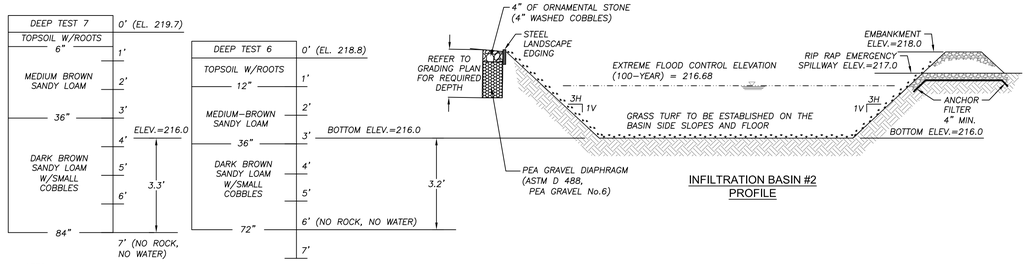
SINGLE POST SIGN MOUNTING
NOT TO SCALE



INFILTRATION BASIN #1 PROFILE



CROSS SECTION
RIP RAP EMERGENCY SPILLWAY DETAIL
NO SCALE



INFILTRATION BASIN #2 PROFILE

NOTES:

AREA OF THE PROPOSED INFILTRATION BASIN SHALL BE IMMEDIATELY STABILIZED USING APPROPRIATE TECHNIQUES WHICH MEET THE DESIGN CRITERIA DESCRIBED IN THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, WHICH INCLUDE THE FOLLOWING:

(a) GRADE TO FINISHED SLOPES.
(b) APPLY FULL SOIL RESTORATION IN ALL DISTURBED AREAS THAT PROPOSED TO HAVE PERVIOUS COVER IN ACCORDANCE WITH THE SOIL RESTORATION REQUIREMENTS IN TABLE 5.3 OF THE NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL.
(c) SCARIFIED.
(d) TOPSOILED WITH NOT LESS THAN FOUR INCHES OF SUITABLE TOPSOIL MATERIAL
(e) BOTTOM AND SIDE SLOPES OF THE INFILTRATION BASIN SHALL BE SEEDED WITH LANDSCAPING OR CONTRACTOR SEED-MIX AT THE RATE OF NOT LESS THAN FIVE POUNDS PER 1,000 SQUARE FEET.
(f) MULCHED WITH NOT LESS THAN ONE INCH AND NOT MORE THAN THREE INCHES OF STRAW (TWO TONS PER ACRE) AND ANCHORED IN A SUITABLE MANNER.

INFILTRATION BASIN DETAIL
NOT TO SCALE

OPERATION AND MAINTENANCE REQUIREMENTS FOR INFILTRATION BASIN:

- *FERTILIZE AND LIME AS NEEDED TO MAINTAIN DENSE VEGETATION. FERTILIZER TO BE APPLIED IN ACCORDANCE WITH NYS NUTRIENT RUNOFF LAW.*
- *MOW AS REQUIRED DURING THE GROWING SEASON TO MAINTAIN GRASS HEIGHTS AT 4 INCHES TO 6 INCHES.*
- *REMOVE ANY SEDIMENT OR DEBRIS BUILDUP BY HAND IF POSSIBLE WHEN THE DEPTH REACHES 2 INCHES.*
- *INSPECT FOR POOLS AND STANDING WATER. RE-GRADE TO RESTORE DESIGN GRADE AND RE-VEGETATE.*
- *USE OF HEAVY EQUIPMENT FOR MOWING AND REMOVING PLANTS/DEBRIS SHOULD BE AVOIDED TO MINIMIZE SOIL COMPACTION. DISTURBED AREAS SHOULD BE STABILIZED WITH SEED AND MULCH.*
- *VEGETATION SHALL BE MAINTAINED IN DENSE AND VIGOROUS GROWING CONDITION BY THE CONTRACTOR FOR THE PERIOD OF 1 YEAR AFTER CONSTRUCTION HAS BEEN COMPLETED AND BY THE OWNER THERE AFTER. IF A MINIMUM COVERAGE OF 50% IS NOT ACHIEVED AFTER THE SECOND GROWING SEASON, A REINFORCEMENT PLANTING IS REQUIRED.*

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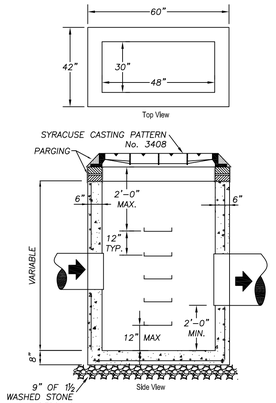
STATE OF NEW YORK · LAWRENCE J. PAGGI · 065155 · LICENSED PROFESSIONAL ENGINEER

NO.	REVISIONS	DRAWN BY	CHECKED BY	PRELIMINARY	FINAL
1.	ISSUED FOR BID	LJP	LJP		BY / DATE 11/30/22

ROMBOUT FIRE DISTRICT
FIRE STATION 2
1548 ROUTE 52, TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

EROSION AND SEDIMENT CONTROL DETAILS

DATE: JUNE 22, 2021
SCALE: NOTED
JOB NUMBER: 21-01
SHEET NUMBER: C7
7 OF 14

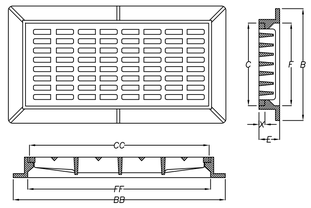


NOTE:

1. BASE AND RISER SECTIONS SHALL BE PRECAST & MONOLITHICALLY POURED.
2. CATCH BASIN SHALL BE PRECAST CONCRETE DESIGNED FOR H-20 VEHICULAR LOADING AND 25% IMPACT.
3. FRAME AND GRATE SHALL BE DESIGNED FOR H-20 VEHICULAR LOADING & 25% IMPACT.
4. CONCRETE SHALL BE 4,000 PSI AT TIME OF DELIVERY.
5. ALL BASINS SHALL HAVE 2'-0" MINIMUM SUMPS.
6. PROVIDE PROPER LIP AND/OR ANCHORING IN CASES OF HIGH GROUND WATER TO PREVENT FLOATATION.
7. LADDER RUNGS CONFORMING TO N.Y.S.D.O.T. SPEC. No. 725-02.01
8. ALL PIPES SHALL BE LAID OR CUT FLUSH WITH THE INSIDE OF THE BASIN WALL & SHALL BE FIRMLY PARGED IN PLACE, BOTH INSIDE AND OUTSIDE.
9. BRICK FRAME & GRATE TO GRADE TO MATCH BOTH CROWN OF ROAD & SLOPE OF ROAD. A MAX. OF TWO (2) CONCRETE BRICKS OR ONE (1) 6" SOLID BLOCK WILL BE PERMITTED, PARGED INSIDE & OUTSIDE.
10. ALL PENETRATIONS INTO THE PROPOSED STORM DRAINAGE STRUCTURE SHALL BE GROUTED ON THE INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF THE STRUCTURE.

PRECAST CONCRETE CATCH BASIN

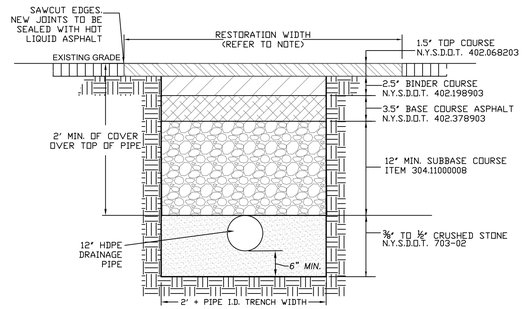
NOT TO SCALE



PATERN NUMBER	DIMENSIONS IN INCHES							
	B	BB	C	CC	E	F	FF	X
3408	36	55½	30	48¼	5	30¼	48½	1¼

HEAVY DUTY INLET FRAMES AND BICYCLE TYPE GRATES

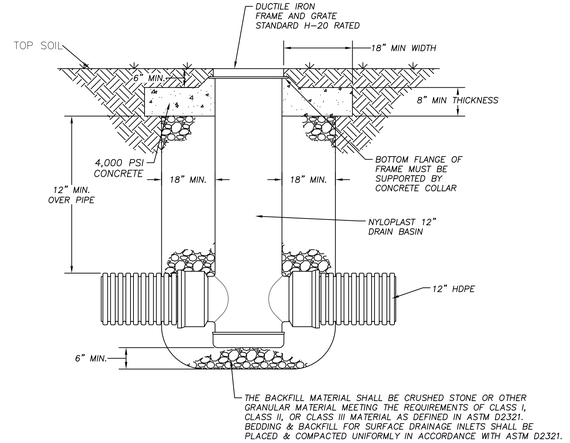
NOT TO SCALE



1. *EACH LIFT TO BE TESTED IN AT LEAST 2 LOCATIONS FOR COMPACTION.
2. TRENCH TO BE PLATED OVERNIGHT.
3. THE PAVEMENT ALONG SIDE OF THE UTILITY TRENCH MUST BE SAW CUT AT LEAST 1 FOOT BACK FROM THE TOP EDGE OF TRENCH ON BOTH SIDES.
4. THE PAVEMENT MUST BE REPLACED IN KIND. IF CONCRETE EXISTS, DOWELS MUST BE INSTALLED 12 INCHES ON CENTER, EXTENDING INTO THE EXISTING CONCRETE AT LEAST 6 INCHES, AND EXTENDING INTO NEW CONCRETE PATCH AT LEAST 6 INCHES. DOWELS SHALL BE 3/4-INCH DIAMETER REBAR.

N.Y.S.D.O.T. PAVEMENT RESTORATION DETAIL

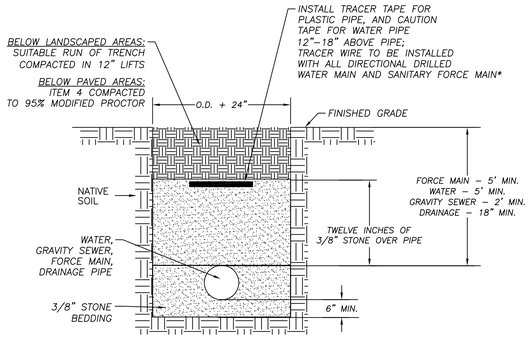
NOT TO SCALE



THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

NYLOPLAST TURF TRAFFIC INSTALLATION

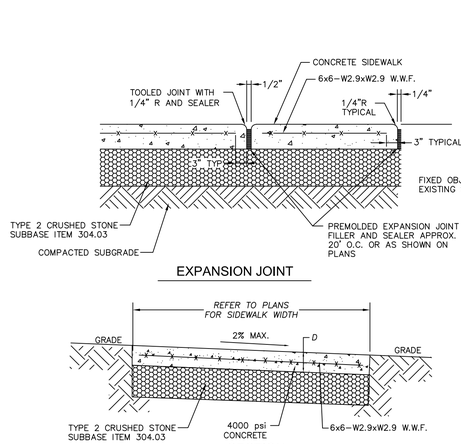
NOT TO SCALE



* - TRACER WIRE TO BE A TRACE-SAFE WATER BLOCKING TRACER WIRE BY NEPTCO OR APPROVED EQUAL.

STANDARD UTILITY TRENCH DETAIL

NOT TO SCALE

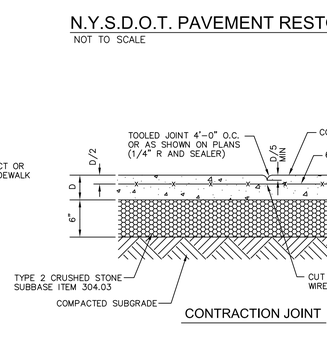


EXPANSION JOINT

SECTION

CONCRETE SIDEWALK DETAIL

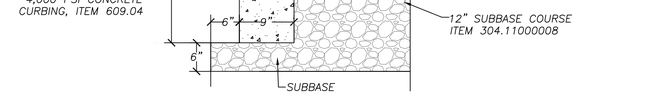
NOT TO SCALE



CONTRACTION JOINT

NOTES:

1. ALL EXPOSED SURFACES TO HAVE BROOMED TEXTURE.
2. JOINTS SHALL NOT BE SAW CUT.
3. THICKNESS OF SIDEWALK (D) TO BE 4".

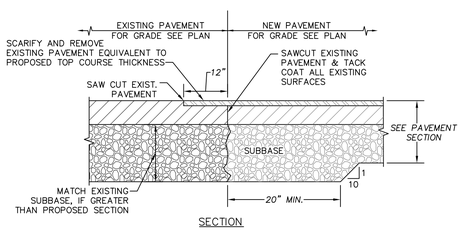


NOTES:

1. ONLY PROPOSED PAVEMENT REPLACEMENT WITHIN NYSDOT RIGHT-OF-WAY WILL RECEIVE THE SPECIFIED PAVEMENT COURSE.
2. CONCRETE USED IN CURBING AND SIDEWALK SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS AND BE AIR ENTRAINED WITH AN ADMIXTURE PRODUCING AN AIR CONTENT BETWEEN 5% AND 7% BY VOLUME.
3. PROVIDE EXPANSION JOINTS EVERY 20'.

N.Y.S.D.O.T. CURB AND SHOULDER DETAIL

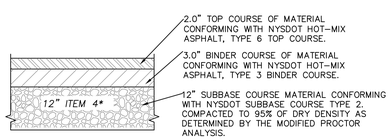
NOT TO SCALE



SECTION

PAVEMENT TRANSITION DETAIL

NOT TO SCALE



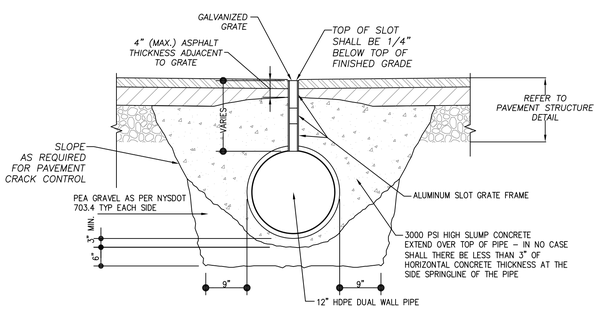
* - IN LIEU OF 12" ITEM 4, 3" OF GRADED GRAVEL MAY BE INSTALLED OVER 9" OF R.O.B. GRAVEL.

AS A MINIMUM THE FOUNDATION MATERIAL SHALL CONFORM TO THE FOLLOWING GRADATION (PERCENT PASSING BY WEIGHT):

- 100% PASSING 2 INCH;
- 30% TO 65% PASSING 1/4 INCH;
- 5% TO 40% PASSING #40;
- LESS THAN 10% PASSING #200.

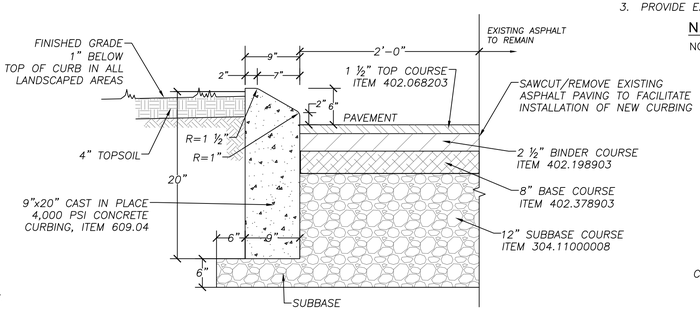
PAVEMENT STRUCTURE DETAIL

NOT TO SCALE



DURASLOT DRAIN INSTALLATION DETAIL

NOT TO SCALE

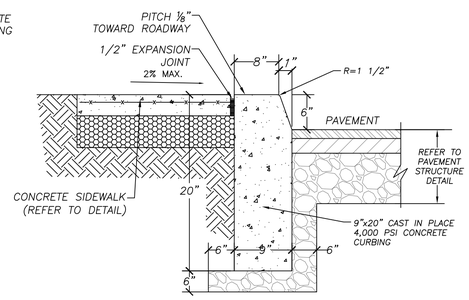


NOTES:

1. ONLY PROPOSED PAVEMENT REPLACEMENT WITHIN NYSDOT RIGHT-OF-WAY AND FIRST 60' OF THE PROPOSED ENTRANCE DRIVE TO THE PROJECT SITE WILL RECEIVE THE SPECIFIED PAVEMENT COURSE.
2. CONCRETE USED IN CURBING AND SIDEWALK SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS AND BE AIR ENTRAINED WITH AN ADMIXTURE PRODUCING AN AIR CONTENT BETWEEN 5% AND 7% BY VOLUME.
3. PROVIDE EXPANSION JOINTS EVERY 20'.

N.Y.S.D.O.T. MOUNTABLE CURB AND PAVEMENT DETAIL

NOT TO SCALE



NOTES:

1. CONCRETE USED IN CURBING SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS AND BE AIR ENTRAINED WITH AN ADMIXTURE PRODUCING AN AIR CONTENT BETWEEN 5% AND 7% BY VOLUME.
2. PROVIDE EXPANSION JOINTS EVERY 20'.

CONCRETE CURB DETAIL

NOT TO SCALE

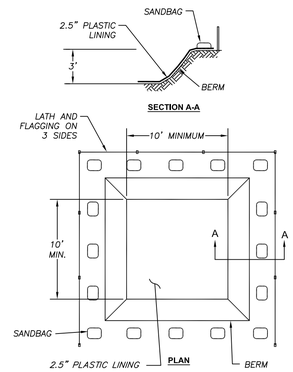
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Site Planning
Environmental Assessment

STATE OF NEW YORK
LAWRENCE J. PAGGI
065155
LICENSED PROFESSIONAL ENGINEER

NO.	REVISIONS	DRAWN BY	CHECKED BY	PRELIMINARY	FINAL
1.	ISSUED FOR BID	LJP	LJP	BY	DATE 11/30/22

ROMBOUT FIRE DISTRICT
FIRE STATION 2
1548 ROUTE 52, TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK
SITE CONSTRUCTION DETAILS

DATE: JUNE 22, 2021
SCALE: NOTED
JOB NUMBER: 21-01
SHEET NUMBER: C8



TEMPORARY CONCRETE WASH OUT AREA DETAIL

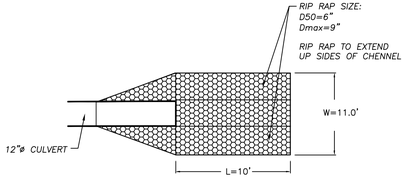
NOT TO SCALE

DEEP TEST PITS PERFORMED IN AREA OF INFILTRATION BASINS ON WEDNESDAY 05/05/21 BY LAWRENCE J. PAGGI, P.E., P.C.

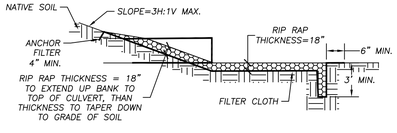
DEEP TEST No.	DEEP TEST DEPTH	EXISTING SOIL DESCRIPTION
DEEP TEST 1	7 FT.	0 – 8" TOPSOIL 8" – 3.5' MEDIUM–BROWN SANDY LOAM 3.5' – 7' DARK BROWN GRAVELLY SANDY LOAM NO ROCK, NO WATER
DEEP TEST 2	6 FT.	0 – 5" ASPHALT 5" – 3' MEDIUM–BROWN CLAYEY GRITTY LOAM 3' – 6' DARK BROWN GRAVELLY, SANDY LOAM NO ROCK, NO WATER
DEEP TEST 3	6 FT.	0 – 5" ASPHALT 5" – 2.5' MEDIUM–BROWN CLAYEY GRITTY LOAM 2.5' – 6' DARK BROWN GRAVELLY, SANDY LOAM NO ROCK, NO WATER
DEEP TEST 4	6 FT.	0 – 12" TOPSOIL (0–5" ASPHALT ON WEST SIDE OF TEST LOCATION) 12" – 6' MEDIUM TO DARK BROWN SANDY LOAM NO ROCK, NO WATER
DEEP TEST 5	6 FT.	0 – 12" TOPSOIL 12" – 18" MEDIUM–BROWN CLAYEY LOAM 18" – 6' LIGHT TO DARK BROWN SANDY GRAVELLY LOAM WITH SOME SMALL CLAY VEINS NO ROCK, NO WATER
DEEP TEST 6	6 FT.	0 – 12" TOPSOIL WITH ROOTS 12"–3' MEDIUM TO DARK BROWN SANDY LOAM 3' – 6' DARK BROWN SANDY LOAM WITH SOME SMALL COBBLES NO ROCK, NO WATER
DEEP TEST 7	7 FT.	0 – 6" TOPSOIL WITH ROOTS 6" – 3' MEDIUM BROWN SANDY LOAM 3' – 7' DARK BROWN SANDY LOAM WITH SMALL COBBLES NO ROCK, NO WATER

PERCOLATION TEST RESULTS – PERFORMED 05/05/21 BY LAWRENCE J. PAGGI, P.E., P.C.

TEST HOLE No.	TEST HOLE DEPTH	WATER DROP IN INCHES OVER ONE MINUTE	
		RUN 1	RUN 2
PT1	6 FT.	12–INCHES	12–INCHES
PT2	5 FT.	12–INCHES	12–INCHES
PT3	5 FT.	24–INCHES	24–INCHES
PT4	4 FT.	24–INCHES	24–INCHES
PT5	4 FT.	24–INCHES	24–INCHES
PT6	5 FT.	24–INCHES	24–INCHES
PT7	6 FT.	24–INCHES	24–INCHES



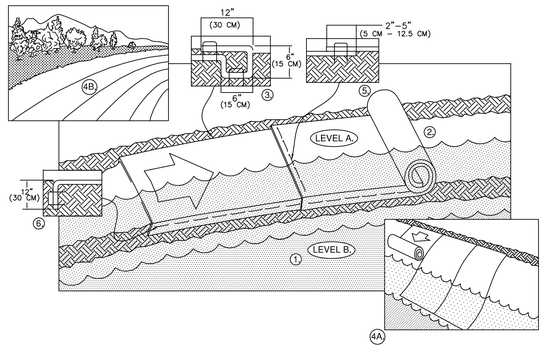
PLAN VIEW



SECTION

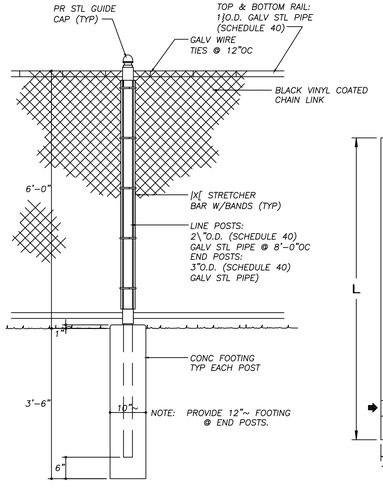
RIP RAP END SECTION DETAIL

NOT TO SCALE



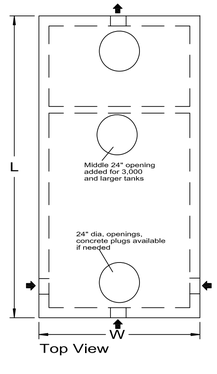
1. FOR EASIER INSTALLATION, LOWER WATER FROM LEVEL A TO LEVEL B BEFORE INSTALLATION.
2. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
   NOTE: WHEN USING CELL–O–SEED, DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPERSIDE DOWN.
3. BEGIN AT THE TOP OF THE SHORELINE BY ANCHORING THE IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF BACK OVER SEED AND COMPACTED SOIL. SECURE OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE .
4. ROLL RECP's EITHER (A.) DOWN THE SHORELINE FOR LONG BANKS, (TOP TO BOTTOM) OR (B.) HORIZONTALLY ACROSS THE SHORELINE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM*, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
5. THE EDGES OF ALL HORIZONTAL AND VERTICAL SEAMS MUST BE STAPLED WITH APPROXIMATELY 2" – 5" (5 CM – 12.5 CM) OVERLAP.
   NOTE:
   * SEAM OVERLAP SHOULD BE SHINGLED ACCORDING TO PREDOMINANT EROSIVE ACTION.
6. THE EDGE OF THE AT OR BELOW NORMAL WATER LEVEL MUST BE ANCHORED BY PLACING THE IN A 12" (30 CM) DEEP X 6" (15 CM) WIDE ANCHOR TRENCH. ANCHOR THE WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART IN THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING (STONE OR SOIL MAY BE USED AS BACKFILL.)
   NOTE:
   * IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.

NORTH AMERICAN GREEN "BioNet C125" DOUBLE NET COCONUT BLANKET INSTALLATION DETAIL



CHAIN LINK FENCE DETAIL

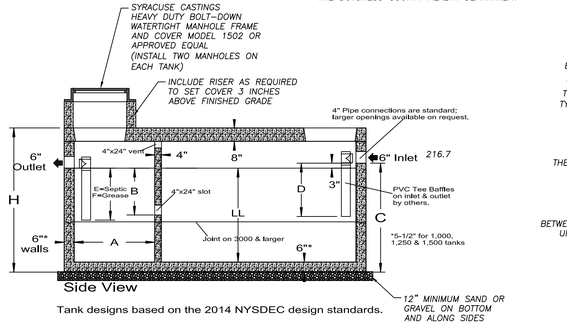
NOT TO SCALE



Gallons	L	W	H	LL	A	B	C	D	E	F
1,000	10'-9"	5'-11"	4'-8"	35"	38"	16"	43"	21"	18"	23"

- USE FOR SEDIMENT TANK* AND OIL WATER SEPARATOR*

* – PROPOSED SEDIMENT TRAP AND OIL/WATER SEPARATOR ARE NOT REVIEWED BY THE DUTCHESS COUNTY HEALTH DEPARTMENT

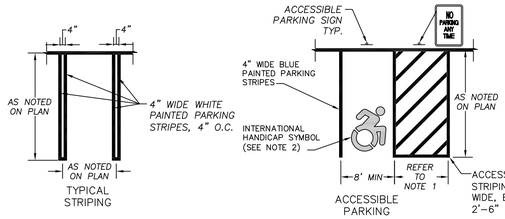


Tank designs based on the 2014 NYSDEC design standards.

NOTES:

- *THE INLET/OUTLET PIPES SHALL BE WATERTIGHT.*
- *ALL COMMERCIAL TANKS SHALL BE CERTIFIED AS MEETING REQUIRED STANDARDS FOR ALLOWABLE LEAKAGE BY A PROFESSIONAL ENGINEER.*

SPECIFICATIONS	PRECAST TRAFFIC DUTY 1000 GALLONS SEPTIC TANK AND GREASE TRAP
Concrete Min. Strength: 4,000 psi at 28 days Reinforcement: #4 & #5 Rebar / ASTM A615 Air Entrainment: 6% Construction Joint: Butyl Rubber Sealant Pipe Connection: Polylok Seal or as needed Load Rating: HS20-44 + 30% / ASTM C857	

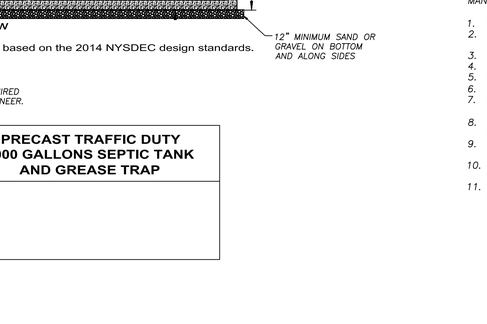


NOTES:

1. *ACCESS AISLES SERVING CAR SHALL BE 60 INCHES WIDE MINIMUM. ACCESS AISLES SERVING VAN PARKING SPACE SHALL BE 96 INCHES WIDE MINIMUM.*
2. *ALL DIMENSIONS SHALL BE IN ACCORDANCE WITH ADA STANDARD AND CURRENT ZONING AND SITE REGULATIONS.*
3. *PAINTED ACCESSIBLE PARKING SYMBOL TO BE IN ACCORDANCE W/ ADA STANDARDS.*
4. *SLOPE OF PAVEMENT SURFACE IN HANDICAP PARKING AREA SHALL NOT EXCEED 2% IN ANY DIRECTION.*
5. *SEE PLAN FOR ACTUAL LOCATION OF SIGNAGE.*

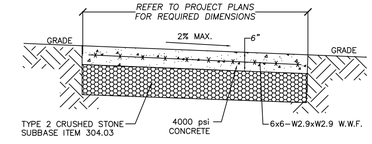
PAVEMENT MARKING DETAIL
PARKING STRIPING

NOT TO SCALE



CURB CUT RAMPS

NOT TO SCALE



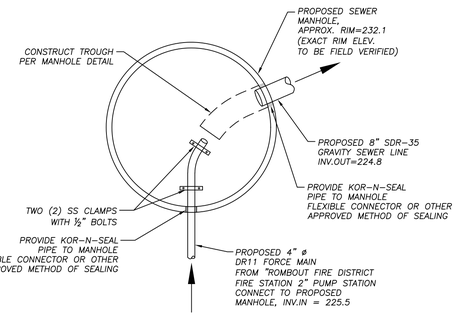
SECTION

NOTES:

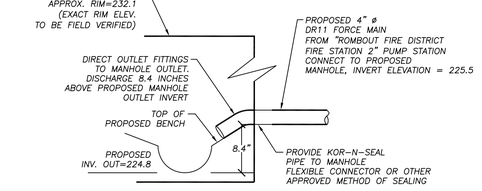
1. *CONCRETE SLAB – MONOLITHIC, MIN. 6" THICKNESS W/IMBEDDED 6"X6"/ W2.9xW2.9 WELDED WIRE FABRIC (W.W.F.), 4000 P.S.I. WITH FIBER MESH REINFORCING.*
2. *SOIL – SOIL BEARING CAPACITY TO BE AT LEAST 2,500 P.S.F.*
3. *SLOPE IN CONCRETE APRON AREA SHALL NOT EXCEED 2% IN ANY DIRECTION.*

CONCRETE PAD DETAIL

NOT TO SCALE



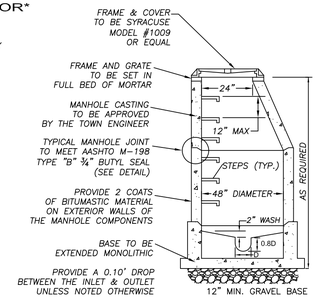
PLAN

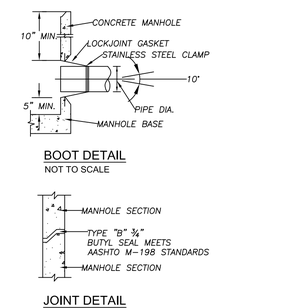


SECTION VIEW

PROPOSED FORCE MAIN CONNECTION TO MANHOLE DETAIL

NOT TO SCALE





BOOT DETAIL

NOT TO SCALE

JOINT DETAIL

NOT TO SCALE

MANHOLE NOTES:

1. *PIPE CONNECTION TO BE STANDARD "LOCKJOINT" BOOT 5" OFF BASE OF MANHOLE (SEE DETAIL).*
2. *CONCRETE STRENGTH OF MANHOLE COMPONENTS TO BE 5000 PSI @ 28 DAYS IN ACCORDANCE WITH ASTM C–478–86.*
3. *STEEL REINFORCMENT OF MANHOLE COMPONENTS TO MEET ASTM A 615–A497 REQUIREMENTS.*
4. *LOADING OF MANHOLE COMPONENTS TO MEET H–20 REQUIREMENTS.*
5. *CONCRETE USED IN MANHOLE COMPONENTS TO CONTAIN 6% AIR ENTRAINMENT.*
6. *4" MAXIMUM FROM MANHOLE TO PIPE JOINT.*
7. *MANHOLE FRAMES, COVERS & STEPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM A–48 CLASS 30B STANDARDS FOR GRAY IRON.*
8. *24" SANITARY SEWER MANHOLE COVERS ARE TO BE LABELED WITH THE WORDS "SANITARY SEWER" AND TO HAVE NON–PENETRATING PICK HOLES.*
9. *ALL SITE SANITARY SEWER MANHOLES ARE TO BE INSTALLED IN ACCORDANCE WITH TOWN REGULATIONS AND INSPECTED BY THE TOWN SEWER DEPARTMENT PRIOR TO BACKFILLING.*
10. *ALL NEW SANITARY SEWER UTILITIES ARE TO BE HYDROSTATICALLY OR VACUUM TESTED TO MEET STANDARD SPECIFICATIONS.*
11. *SHOP DRAWINGS SHALL INDICATE THAT MANHOLE STRUCTURE AND FRAME AND COVER WILL BE SUITABLE FOR H–20 TRAFFIC LOADING.*

MANHOLE DETAIL

NOT TO SCALE

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Environmental Assessment

STATE OF NEW YORK · LAWRENCE J. PAGGI · 065155 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY	CHECKED BY	PRELIMINARY	FINAL
LJP	LJP		■

NO.	REVISIONS	BY	DATE
1.	ISSUED FOR BID		11/30/22

ROMBOUT FIRE DISTRICT FIRE STATION 2

1548 ROUTE 52, TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

CONSTRUCTION AND SDS DETAILS

DATE: JUNE 22, 2021
SCALE: NOTED
JOB NUMBER: 21–01

SHEET NUMBER: C9

NOTES:

1. THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY ACCEPTED STANDARDS IN EFFECT AT THE TIME OF CONSTRUCTION WHICH INCLUDE:

   "NEW YORK STATE DESIGN STANDARDS FOR INTERMEDIATE SIZED WASTEWATER TREATMENT SYSTEMS", NYSDEC.

   "RECOMMENDED STANDARDS FOR SEWAGE TREATMENT WORKS, (TEN STATES)."

   "RECOMMENDED STANDARDS FOR WATER WORKS, (TEN STATES)."

   "RURAL WATER SUPPLY, NEW YORK STATE DEPARTMENT OF HEALTH."

   "NEW YORK STATE DEPARTMENT OF HEALTH AND DUTCHESS COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION POLICIES, PROCEDURES AND STANDARDS"

   "DUTCHESS COUNTY AND NEW YORK STATE SANITARY CODES"

   "DUTCHESS COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION CERTIFICATE OF APPROVAL LETTER."

2. THIS PLAN IS APPROVED AS MEETING THE APPROPRIATE AND APPLIED TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES FOR ARRANGEMENT OF SEWAGE DISPOSAL AND WATER SUPPLY FACILITIES.

3. UPON COMPLETION OF THE FACILITIES, THE FINISHED WORKS SHALL BE INSPECTED, TESTED, AND CERTIFIED COMPLETE TO THE DC EHSD BY THE NEW YORK STATE LICENSED PROFESSIONAL ENGINEER SUPERVISING CONSTRUCTION. NO PART OF THE FACILITIES SHALL BE PLACED INTO SERVICE UNTIL ACCEPTED BY THE DC EHSD.

4. APPROVAL OF ANY PLAN(S) OR AMENDMENT THERETO SHALL BE VALID FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF APPROVAL. FOLLOWING THE EXPIRATION OF SAID APPROVAL, THE PLAN(S) SHALL BE RE-SUBMITTED TO THE COMMISSIONER OF HEALTH FOR CONSIDERATION FOR RE-APPROVAL. RE-SUBMISSION OR REVISED SUBMISSION OF PLANS AND/OR ASSOCIATED DOCUMENTS SHALL BE SUBJECT TO COMPLIANCE WITH THE TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES IN EFFECT AT THE TIME OF THE RE-SUBMISSION.

5. NO CELLAR, FOOTING, FLOOR, GARAGE, COOLER OR ROOF DRAINS SHALL BE DISCHARGED INTO THE SEWAGE COLLECTION SYSTEM.

6. ALL BUILDINGS SHALL BE CONSTRUCTED AT AN ELEVATION HIGH ENOUGH TO ENSURE GRAVITY FLOW TO THE SEWAGE COLLECTION SYSTEM.

7. ALL REQUIRED EROSION & SEDIMENT CONTROL AND STORM WATER POLLUTION PREVENTION WATER QUALITY & QUANTITY CONTROL STRUCTURES, PERMANENT AND TEMPORARY, ARE SHOWN ON THE PLANS.

9. THE DC EHSD SHALL BE NOTIFIED SIXTY DAYS PRIOR TO ANY CHANGE IN USE; USE CHANGES MAY REQUIRE RE-APPROVAL BY THE DCDOH.

10. NO BUILDINGS ARE TO BE OCCUPIED AND THE NEW WATER SYSTEM SHALL NOT BE PLACED INTO SERVICE, UNTIL A "COMPLETED WORKS APPROVAL" IS ISSUED UNDER SECTION 5-1.22(D) OF PART 5 OF THE NEW YORK STATE SANITARY CODE (10NYCRR5).

11. NO BUILDINGS ARE TO BE OCCUPIED AND THE NEW WASTEWATER COLLECTION SYSTEM SHALL NOT BE PLACED INTO SERVICE UNTIL, A "CERTIFICATE OF CONSTRUCTION COMPLIANCE" IS ISSUED UNDER SECTION 19.7 OF ARTICLE 19 OF THE DUTCHESS COUNTY SANITARY CODE.

12. ALL SERVICE LINES ARE THE RESPONSIBILITY OF THE OWNER UP TO THE PROPERTY LINE. THE WATER AND SEWER COMPANIES SHALL BE RESPONSIBLE FOR ALL VALVES AND PIPES WHICH ARE NOT ON OWNER'S PROPERTY.

13. IT SHALL BE DEMONSTRATED BY THE CONTRACTOR TO THE DC EHSD FIELD INSPECTOR AND/OR DESIGN PROFESSIONAL THAT ALL TANKS ARE SEALED, WATERTIGHT AND ACCEPTABLE FOR USE. THIS SHALL REQUIRE, AT A MINIMUM, THE FILLING OF THE TANKS WITH WATER TO OBSERVE IF IT IS SEALED, WATERTIGHT AND ACCEPTABLE FOR USE. THE TANKS MUST ALSO MEET ANY LOCAL TESTING REQUIREMENTS, INCLUDING POSSIBLE ELECTRICAL AND SAFETY STANDARDS.

14. EXISTING WELLS SHALL BE ABANDONED IN CONFORMANCE WITH AWWA A100. PRIOR TO ABANDONING THE WELL A WELL ABANDONMENT PERMIT SHALL BE OBTAINED FROM THE DUTCHESS COUNTY HEALTH DEPARTMENT. A NEW YORK STATE LICENSED ENGINEER SHALL CERTIFY THE WELL ABANDONMENT TO THE DUTCHESS COUNTY HEALTH DEPARTMENT.

SEWER LINE NOTES:

GRAVITY SEWER PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM D 3034 "STANDARD SPECIFICATION FOR TYPE PSM POLYVINYL CHLORIDE (PVC), SEWER PIPE AND FITTINGS", SDR-35. JOINTS SHALL BE MADE WITH AN INTEGRAL BELL, BELL AND SPIGOT RUBBER GASKETED JOINT. GASKETS SHALL CONFORM TO ASTM F 477 AND SHALL MEET ASTM D 3212, "STANDARD SPECIFICATION FOR JOINTS FOR DRAIN AND SEWER PLASTIC PIPES USING FLEXIBLE ELASTOMERIC SEAL."

PRESSURE SEWER PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM D 3035 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) PLASTIC PIPE (DR) AND ASTM F 2620 " STANDARD PRACTICE FOR HEAT FUSION JOINING OF POLYETHYLENE PIPE AND FITTINGS.

PE PIPE OR FITTINGS TO BE JOINED TO EACH OTHER BY HEAT FUSION OR WITH MECHANICAL FITTINGS. MECHANICAL CONNECTIONS MUST BE RESTRAINED WITH "MEGA-LUG" RESTRAINED JOINTS OR APPROVED EQUAL. THE LENGTH OF RESTRAINED PIPE FOR EACH JOINT SHALL BE DICTATED BY THE CERTIFYING ENGINEER AT THE TIME OF INSTALLATION.

REQUIRED TESTING:

FORCE MAIN –

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESSURE TESTING THE NEW FORCE MAIN UP TO THE POINT OF CONNECTION TO THE EXISTING MANHOLE IN CONFORMANCE WITH THE LATEST EDITION OF AWWA C600, UNLESS A CONTINUOUS LENGTH OF PIPE IS INSTALLED WITH NO JOINTS OR FITTINGS. THE NEW PIPE WILL BE TEMPORARILY CAPPED AND TESTED IF NECESSARY. THIS PRESSURE TEST SHALL BE WITNESSED BY THE APPLICANTS ENGINEER.

THE PROPOSED PRESSURE SEWER PIPE FROM THE PUMP STATION TO EXISTING MANHOLE SHALL BE HYDROSTATICALLY TESTED AT A PRESSURE EQUAL TO THE WORKING PRESSURE PLUS 50 PSI.
THE TEST SHALL BE A MINIMUM DURATION OF 2 HOURS, DURING WHICH THE PRESSURE SHALL NOT BE ALLOWED TO VARY MORE THAN ±5 PSI. UPON SUCCESSFUL TESTING THE CONNECTION TO THE EXISTING MANHOLE SHALL BE COMPLETED.

PRECAST CONCRETE STRUCTURE –

ALL NEWLY CONSTRUCTED STRUCTURES SHALL BE TESTED FOR LEAKAGE PRIOR TO BEING PLACED IN SERVICE. AN EXFILTRATION OR INFILTRATION TEST SHALL BE PERFORMED ON EACH STRUCTURE IN ACCORDANCE WITH ASTM C1227. THE TYPE OF TEST PERFORMED SHALL BE BASED ON THE GROUNDWATER CONDITIONS SURROUNDING THE STRUCTURE TO BE TESTED, AND SHALL BE APPROVED BY THE ENGINEER.

AFTER ALL PIPE CONNECTIONS HAVE BEEN PLUGGED, CONCRETE STRUCTURES SHALL BE TESTED FOR A MINIMUM TWENTY FOUR HOUR TEST DURATION.

FOR THE EXFILTRATION TEST, SEAL THE STRUCTURE, FILL WITH WATER AND LET STAND FOR 24 HOURS. REFILL THE STRUCTURE. THE STRUCTURE IS APPROVED IF WATER LEVEL IS HELD FOR 1 HOUR.

SEWER MANHOLE –

ALL NEWLY CONSTRUCTED MANHOLES SHALL BE TESTED FOR LEAKAGE PRIOR TO BEING PLACED IN SERVICE. AN EXFILTRATION OR INFILTRATION TEST SHALL BE PERFORMED ON EACH MANHOLE IN ACCORDANCE WITH ASTM C969. THE NEGATIVE AIR PRESSURE (VACUUM) TEST SHALL BE PERFORMED IN ACCORDANCE WITH ASTM C1244. THE TYPE OF TEST PERFORMED SHALL BE BASED ON THE GROUNDWATER CONDITIONS SURROUNDING THE MANHOLE TO BE TESTED, AND SHALL BE APPROVED BY THE ENGINEER.

AFTER ALL PIPE CONNECTIONS HAVE BEEN PLUGGED, MANHOLES SHALL BE TESTED FOR A MINIMUM TWENTY HOUR TEST DURATION.

FOR THE INFILTRATION TEST, MEASURED LEAKAGE SHALL NOT EXCEED 0.1 GALLONS PER HOUR PER FOOT OF MANHOLE DIAMETER PER FOOT OF HEAD.

FOR THE EXFILTRATION TEST, THE TEST MANHOLE SHALL FIRST BE FILLED WITH WATER. ANY DROP IN WATER LEVEL SHALL BE CONVERTED TO AN EXFILTRATION RATE. EXFILTRATION SHALL NOT EXCEED 0.1 GALLONS PER HOUR PER FOOT OF MANHOLE DIAMETER PER FOOT OF HEAD.

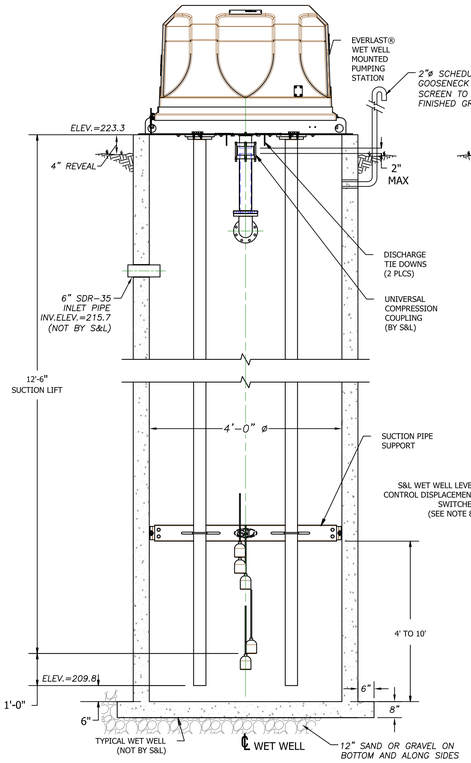
VACUUM TESTING OF MANHOLE:
THIS TEST METHOD IS ONLY APPLICABLE TO PRE-CAST CONCRETE MANHOLES. TESTING SHALL BE IN STRICT ACCORDANCE WITH ASTM TESTING STANDARDS OUTLINED IN ASTM C1244.

ALL LIFTING HOLES AND EXTERIOR JOINTS SHALL BE FILLED AND POINTED WITH AN APPROVED NON-SHRINKING MORTAR. NO STANDING WATER SHALL BE ALLOWED IN THE MANHOLE EXCAVATION WHICH MAY AFFECT THE ACCURACY OF THE TEST. ALL PIPES AND OTHER OPENINGS INTO THE MANHOLE SHALL BE SUITABLY PLUGGED IN SUCH A MANNER AS TO PREVENT DISPLACEMENT OF THE PLUGS WHILE THE VACUUM IS DRAWN. INSTALLATION AND OPERATION OF THE VACUUM EQUIPMENT AND INDICATING DEVICES SHALL BE IN ACCORDANCE WITH EQUIPMENT SPECIFICATIONS AND INSTRUCTIONS PROVIDED BY MANUFACTURER.

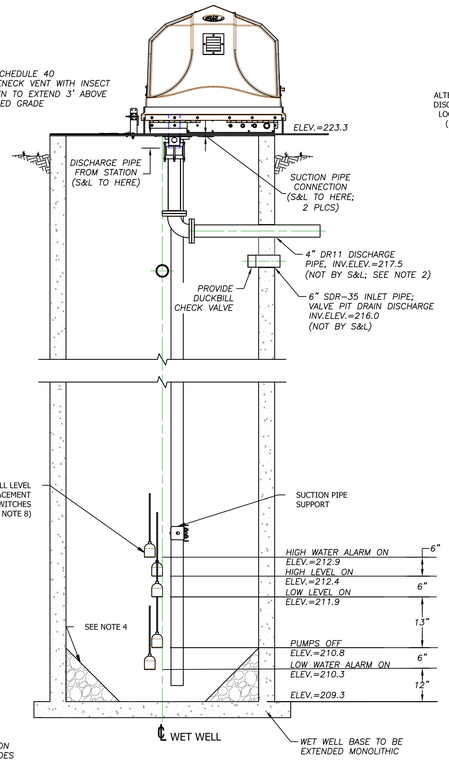
THE TEST HEAD MAY BE PLACED IN THE CONE SECTION OF THE MANHOLE. THE RIM-CONE JOINT IS NOT TESTED. A VACUUM OF 10 INCHES OF MERCURY SHALL BE DRAWN. THE TIME FOR THE VACUUM TO DROP TO 9 INCHES OF MERCURY SHALL BE RECORDED. ACCEPTANCE SHALL BE DEFINED AS WHEN THE TIME TO DROP TO 9 INCHES OF MERCURY MEETS, OR EXCEEDS THE THE VALUES INDICATED IN TABLE 1 OF ASTM SPECIFICATION C1244-11.

ANY MANHOLE WHICH FAIL TO PASS THE LEAKAGE TEST SHALL BE REPAIRED OR REPLACED TO THE ENGINEER'S SATISFACTION.

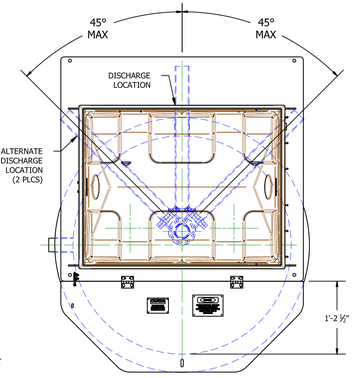
A CERTIFICATION OF THE SEWER SYSTEM CONSTRUCTION COMPLIANCE TO APPROVED PLANS FROM A PROFESSIONAL ENGINEER, LICENSED IN NEW YORK STATE, INCLUDING RESULTS FROM THE TESTS LISTED ABOVE MUST BE SUBMITTED TO THE DCHD. A PERMISSION TO OPERATE MUST BE RECEIVED FROM THE DCHD PRIOR TO PLACING THE SEWER SYSTEM INTO SERVICE.



FRONT SECTIONAL ELEVATION



SIDE SECTIONAL ELEVATION



PLAN VIEW

NOTES:

1. IF THE INVERT ELEVATION AT THE DISCHARGE END OF THE FORCE MAIN IS BELOW THE INVERT ELEVATION OF THE FORCE MAIN AT THE POINT OF LEAVING THE WET WELL, OR IF THE DISCHARGE FORCE MAIN IS LESS THAN 200 FEET IN LENGTH, A PRIMING LOCK LOOP MAY BE REQUIRED TO BE INSTALLED TO PROVIDE A "TRAP" IN THE FORCE MAIN. SEE DRAWING 87B761 FOR PRIMING LOCK LOOP AND ADDITIONAL STATION INSTALLATION DETAILS.

2. DISCHARGE AND SUCTION PIPES TYPICALLY ARE 4-INCH, 6-INCH OR 8-INCH DEPENDING ON THE PROJECT REQUIREMENTS. FLANGED INCREASER FITTINGS CAN BE PROVIDED TO ACCOMMODATE LARGER DIAMETER DISCHARGE AND SUCTION PIPES TO THE STATION FOR INCREASED FLOW REQUIREMENTS.

3. THE WET WELL VOLUME AS DEFINED BETWEEN THE LOW LEVEL "ON" AND THE PUMPS "OFF" SETTINGS SHOULD BE EQUAL TO, OR GREATER THAN, THE PUMPING RATE PER MINUTE OF THE STATION SO THE STATION WILL OPERATE FOR AT LEAST ONE MINUTE PER CYCLE.

4. PROVIDE 45° SLOPE IN WET WELL AS REQUIRED. ENSURE THE GROUT DOES NOT CONFLICT WITH, RESTRICT OR BLOCK THE OPENINGS OF, THE SUCTION PIPES.

5. SUCTION PIPE MATERIAL RECOMMENDED TO BE SCHEDULE 80 PVC OR CPVC. A SUCTION PIPE SUPPORT KIT IS PROVIDED BY S&L, TO BE INSTALLED BY OTHERS AS SHOWN. THE SIZE AND MOUNTING WILL VARY BASED ON PROJECT REQUIREMENTS.

6. 20 FT MAXIMUM SUCTION LIFT IS AVAILABLE UP TO A MAXIMUM OF 85°F AND 1000 FT OF ALTITUDE. THE ALLOWABLE SUCTION LIFT WILL BE DERATED FOR TEMPERATURES ABOVE 85°F AND 1000 FT OF ALTITUDE.

7. MINIMUM OF 1/2-IN OF GROUT OR MASTIC SPACER ON THE TOP OF THE WET WELL LIP FOR IS REQUIRED FOR STATIONS WITH A 4' WET WELL OPENING TO AVOID CLASHES BETWEEN THE PUMP STATION HARDWARE AND THE WET WELL STRUCTURE.

8. THE TOTAL NUMBER OF CONTROL DISPLACEMENT SWITCHES (FLOATS) WILL VARY BASED ON REQUIREMENTS.

9. THE WET WELL (INCLUDING INLET, INVERT, CAP AND/OR GROUT), SUCTION PIPES, DISCHARGE FORCE MAIN AND DISCHARGE FORCE MAIN RESTRAINT ARE NOT PROVIDED BY S&L.

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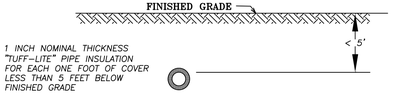
SHEET 1 OF 1

					DRAWN BY: F.J.G.M.	DATE: 3/27/2008	ALLOWABLE TOLERANCES	FOR	EVERLAST® PUMP STATIONS TYPICAL WET WELL LAYOUT AND CONTROL LEVEL SETTINGS
					CHECKED BY: A.C.M.	DATE: 3/31/2008	FRACTIONS -		
					APPROVED BY: C.G.M.	DATE: 3/31/2008	DECIMALS -		
A	N2021-52	1/13/2021	CAS	RDW	SCALE:	CODE:	ANGLES -	SIZE	U/M EA WT.
LET	ECN NO	DATE	BY	APP'D				FILE NAME 87B721.dwg	PLOT SCALE 1:1
ORIGINAL ISSUE	N2008-23		© Smith & Loveless, Inc. 2021					MFG ID# 87B721	REV A

THIRD ANGLE PROJECTION

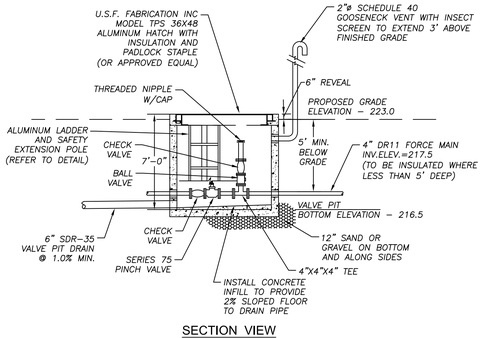
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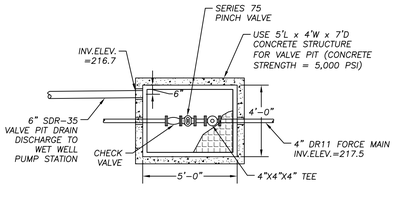


1 INCH NOMINAL THICKNESS "TUFF-LITE" PIPE INSULATION FOR EACH ONE FOOT OF COVER LESS THAN 5 FEET BELOW FINISHED GRADE

INSULATION DETAIL
NOT TO SCALE



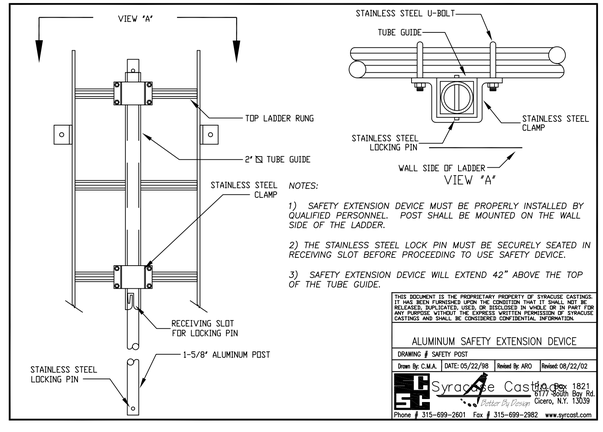
SECTION VIEW



PLAN VIEW

1. PRECAST CONCRETE VALVE PIT SHALL BE DESIGNED FOR AASHTO HS-20 LOADING.
2. CONCRETE STRENGTH = 5,000 PSI.
3. ANY JOINTS WHITHIN THE PRECAST CHAMBER SHALL BE MADE WATER TIGHT AND GRADE SHALL BE PITCHED AWAY FROM THE VALVE PIT IN ALL DIRECTIONS.
4. CAST-IN-PLACE FLEXIBLE PIPE CONNECTORS SHALL BE INSTALLED IN THE PRECAST CONCRETE CHAMBER AT EACH POINT ON ENTRY AND EXIT FOR ALL PIPES.
5. ALUMINUM HATCH SHALL BE LABELED WITH CONFINED SPACE ENTRY SAFETY WARNING LABEL.

VALVE PIT DETAIL
NO SCALE



NOTES:

1) SAFETY EXTENSION DEVICE MUST BE PROPERLY INSTALLED BY QUALIFIED PERSONNEL. POST SHALL BE MOUNTED ON THE WALL SIDE OF THE LADDER.

2) THE STAINLESS STEEL LOCK PIN MUST BE SECURELY SEATED IN RECEIVING SLOT BEFORE PROCEEDING TO USE SAFETY DEVICE.

3) SAFETY EXTENSION DEVICE WILL EXTEND 42" ABOVE THE TOP OF THE TUBE GUIDE.

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ALUMINUM SAFETY EXTENSION DEVICE

DRAWING # SAFETY POST

Drawn By: C.M.A. | DATE: 05/22/98 | Revised By: ARO | Revised: 08/22/02

Syracuse Castings Inc. 1821
5777 South Bay Rd.
Cicero, N.Y. 13039
Phone # 315-699-2601 Fax # 315-699-2982 www.syrcast.com

LAWRENCE J. PAGGI, PE, PC
CONSULTING ENGINEERING
43 BROAD STREET
FISHKILL, NY 12524
PHONE: (845) 897-2375
Civil, Sanitary & Site Engineering
Site Planning
Environmental Assessment

STATE OF NEW YORK
LAWRENCE J. PAGGI
065155
LICENSED PROFESSIONAL ENGINEER

NO.	REVISIONS	BY	DATE
1.	ISSUED FOR BID	L.JP	11/30/22

DRAWN BY: L.JP | CHECKED BY: L.JP | PRELIMINARY | FINAL

ROMBOUT FIRE DISTRICT
FIRE STATION 2
1548 ROUTE 52, TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

SEWAGE DISPOSAL SYSTEM CONSTRUCTION DETAILS

DATE: JUNE 22, 2021
SCALE: NOTED
JOB NUMBER: 21-01
SHEET NUMBER: C10

10 OF 14

NOTES:

1. THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON THE USGS 3 COUNTY 2014 LiDAR COLLECTION (NEW YORK COUNTIES OF ULSTER, DUTCHESS AND ORANGE) PUBLISHED BY THE NYS GIS CLEARINGHOUSE. THIS INFORMATION SHOULD BE CONSIDERED APPROXIMATE AND IS INTENDED FOR GENERAL INFORMATION ONLY. THE RIM AND INVERT ELEVATIONS SHOWN HEREON, AND USED FOR DESIGN, WERE TAKEN FROM AN UNDATED PLAN OF RECORD TITLED, PARTIAL AS BUILT OF DPSD IN DUTCHESS PARK SHOPPING CENTER.
2. AERIAL IMAGERY INFORMATION SHOWN HEREON IS BASED ON A PLAN ENTITLED "PROPOSED WATER & SEWER EXTENSION" PREPARED BY CLARK, PATTERSON AND LEE ARCHITECTURE, ENGINEERING AND PLANNING FOR THE TOWN OF FISHKILL. DATED FEBRUARY 1, 2021.
3. SEWER LINES WILL BE DIRECTIONAL DRILLED UNDER NYS ROUTE 52 AND MAJORITY OF THE DUTCHESS PARK SHOPPING CENTER AND OFFICE COMPLEX.
4. LOCATIONS OF THE EXISTING CATCH BASINS ARE BASED ON SITE OBSERVATION AND MEASUREMENTS PERFORMED BY LAWRENCE J. PAGGI, P.E., P.C. ON MARCH 15, 2022.

ASSUMED LOCATION OF EXISTING 8" TRANSITE (A.C.) WATER MAIN (EXACT LOCATION TO BE FIELD VERIFIED); ASSUMED WATER MAIN ELEVATION IS 5' BELOW EXISTING GRADE (ELEVATION TO BE FIELD VERIFIED)

EXISTING 8" TRANSITE (A.C.) SEWER MAIN @ 0.46%

EXISTING MANHOLE RIM=232.1 INV.EL.=222.8 (EXISTING) INV.IN(PROPOSED)=224.2

MANHOLE PENETRATION TO BE PROVIDED BY CORING AND FITTING WITH KOR-N-SEAL PIPE TO MANHOLE FLEXIBLE CONNECTOR OR OTHER APPROVED METHOD OF SEALING

EXISTING MANHOLE RIM=232.1 INV.EL.=223.4

EXISTING MANHOLE RIM=232.0 INV.EL.=223.1

PROPOSED 56 LF 8" SDR-35 @ 1.0% GRAVITY SEWER LINE TO BE CONNECTED TO EXISTING MANHOLE (PROPOSED SEWER LINE ELEVATION TO BE FIELD VERIFIED, MINIMUM REQUIRED VERTICAL SEPARATION OF 18" TO BE PROVIDED BETWEEN THE EXISTING WATER MAIN AND PROPOSED SEWER LINE)

PROPOOSED MANHOLE APPROX. RIM=231.0 INV.IN=225.5 INV.OUT=224.8 (EXACT RIM EL. TO BE FIELD VERIFIED)

PROPOSED 20' WIDE UTILITY EASEMENT

EXISTING CB REFER TO NOTE 4

EXISTING CB REFER TO NOTE 4

PROPOSED 500 LF 4-INCH DR11 SEWER FORCE MAIN

EXISTING CB REFER TO NOTE 4

EXISTING UTILITY POLE

8" HDPE DR-9 WATER MAIN (REFER TO C5 AND C14)

10.0'

10' MIN.

MATCH LINE A-A

SHEET C5

RIM: 222.57'
INV.(A)=219.97' 18" CPP
INV.(B)=219.87' 18" CPP

APPROXIMATE LOCATION OF EXISTING GAS LINE; EXACT LOCATION TO BE FIELD VERRIFIED

CONC CURB

WHITE LINE

YELLOW LINE

NOTE NO. 6

232 230 228 226 224

0 20 40 Feet

1 INCH = 20 FT.

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FISHKILL, NEW YORK 12524
TELEPHONE: (845) 897-2375

Civil, Sanitary & Site Engineering Site Planning Environmental Assessment

STATE OF NEW YORK
LAWRENCE J. PAGGI
065155
LICENSED PROFESSIONAL ENGINEER

NO.	REVISIONS	BY	DATE
1.	ISSUED FOR BID		11/30/22

DRAWN BY: AB
CHECKED BY: LJP
Concept Preliminary Final Construction

ROMBOUT FIRE DISTRICT FIRE STATION 2

1548 ROUTE 52, TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

OFFSITE UTILITY CONNECTION PLAN

DATE: FEBRUARY 24, 2021
SCALE: 1" = 20'
JOB NUMBER: 21-01

SHEET NUMBER: C11

SHEET 11 OF 14

WATER MAIN NOTES:

PROPOSED WATER PIPE SHALL BE CLASS 52 MINIMUM DUCTILE IRON AND IPS HDPE DR9 OR APPROVED EQUAL.

PE PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM D 3035 ASTM/AWWA C901 AND ASTM F 714/AWWA C906 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) PLASTIC PIPE (DR) AND ASTM F 2620 " STANDARD PRACTICE FOR HEAT FUSION JOINING OF POLYETHYLENE PIPE AND FITTINGS.

PE PIPE OR FITTINGS TO BE JOINED TO EACH OTHER BY HEAT FUSION OR WITH MECHANICAL FITTINGS. MECHANICAL CONNECTIONS MUST BE RESTRAINED WITH "MEGA-LUG" RESTRAINED JOINTS OR APPROVED EQUAL. THE LENGTH OF RESTRAINED PIPE FOR EACH JOINT SHALL BE DICTATED BY THE CERTIFYING ENGINEER AT THE TIME OF INSTALLATION.

THE INSTALLATION OF THE WATER MAIN SHALL BE INSPECTED BY THE APPLICANTS ENGINEER, WHO SHALL BE RESPONSIBLE FOR CERTIFICATION OF CONSTRUCTION COMPLIANCE TO THE DUTCHESS COUNTY HEALTH DEPARTMENT. THE CONTRACTOR SHALL NOT BACKFILL ANY PORTION OF THE MAIN WITHOUT THE APPROVAL OF THE CERTIFYING ENGINEER. THE CERTIFYING ENGINEER SHALL BE A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESSURE TESTING THE WATER MAIN IN CONFORMANCE WITH THE LATEST EDITION OF AWWA C600-10.
THIS PRESSURE TEST SHALL BE JOINTLY WITNESSED BY THE APPLICANTS ENGINEER AND THE TOWN OF FISHKILL ENGINEER.

PRESSURE AND LEAKAGE TEST –

TEST PRESSURE SHALL BE 225 PSI, AND NOT BE LESS THAN 1.5 TIMES WORKING PRESSURE AT THE HIGHEST POINT ALONG THE TEST SECTION (EXISTING WATER LINE PRESSURE AT THE LOCATION OF THE PROPOSED TAPPING IS 140 PSI).
TEST PRESSURE SHALL NOT EXCEED PIPE OR THRUST-RESTRAINT DESIGN PRESSURES.
THE HYDROSTATIC TEST SHALL BE AT LEAST A 2-H DURATION.
TEST PRESSURE SHALL NOT VARY BY MORE THAN ±5 PSI FOR DURATION OF THE TEST.

ALLOWABLE LEAKAGE –

NO PIPE INSTALLATION WILL BE ACCEPTED IF THE LEAKAGE IS GREATER THAN THAT DETERMINED BY THE FOLLOWING FORMULA:
IN INCH-POUND UNITS,

$$L = \frac{SD\sqrt{P}}{148{,}000}$$

WHERE:
L=ALLOWABLE LEAKAGE, IN GALLONS PER HOUR,
S=LENGTH OF PIPE TESTED, IN FEET,
D=NOMINAL DIAMETER OF THE PIPE, IN INCHES,
P=AVERAGE TEST PRESSURE DURING THE LEAKAGE TEST, IN POUND PER SQUARE INCH.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISINFECTING THE NEW WATER MAIN SUBSEQUENT TO AN ACCEPTABLE PRESSURE TEST. THE METHOD OF DISINFECTION SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF AWWA C651-14 WITH THE EXCEPTION THAT THE "SLUG" AND "TABLET" METHODS SHALL NOT BE ALLOWED. TWO SETS OF SAMPLES SHALL BE COLLECTED FOR: CHLORINE RESIDUAL, TOTAL COLIFORM, AND HETEROTROPIC PLATE COUNT.

PROCEDURE FOR CHLORINATING THE MAIN:

WATER ENTERING THE NEW MAIN SHALL RECEIVE A DOSE OF CHLORINE FED AT A CONSTANT RATE SUCH THAT THE WATER WILL HAVE NOT LESS THAN 25 MG/L FREE CHLORINE. THE CHLORINATED WATER SHALL BE RETAINED IN THE MAIN FOR AT LEAST 24 H, DURING WHICH TIME ALL VALVES AND HYDRANTS IN THE TREATED SECTION SHALL BE OPERATED TO ENSURE DISINFECTION OF THE APPURTENANCES. AT THE END OF THIS 24-H PERIOD, THE TREATED WATER IN ALL PORTIONS OF THE MAIN SHALL HAVE A RESIDUAL OF NOT LESS THAN 10 MG/L FREE CHLORINE.

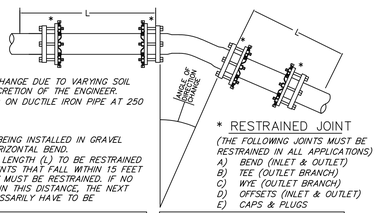
AFTER THE RETENTION PERIOD, THE HEAVILY CHLORINATED WATER SHALL BE FLUSHED UNTIL THE FREE CHLORINE RESIDUAL IS LESS THAN 4 MG/L. AFTER FINAL FLUSHING TWO CONSECUTIVE SETS OF ACCEPTABLE SAMPLES, TAKEN AT LEAST 24 HOURS APART SHALL BE COLLECTED FROM THE NEW MAIN AND TESTED FOR TOTAL COLIFORM BACTERIA. THE CHAIN OF CUSTODY FOR THE WATER MAIN BACTERIA SAMPLES MUST INDICATE THE FIELD CHLORINE RESIDUAL IN ORDER TO BE CONSIDERED VALID. THE RESULTS SHALL BE SUBMITTED WITH THE ENGINEER'S CERTIFICATION. THE CERTIFICATION MUST INCLUDE A DESCRIPTION OF THE DISINFECTION PROCEDURES USED INCLUDING SPECIFIC DATES, TIMES AND INTERMEDIATE CHLORINE RESIDUALS.

ALL DIP WATER PIPE AND FITTINGS SHALL BE INSTALLED IN CONFORMANCE WITH THE LATEST EDITION OF AWWA C600 AND THE DUCTILE IRON PIPE RESEARCH ASSOCIATION INSTALLATION GUIDE FOR DUCTILE IRON PIPE.

ALL DIP PIPE AND FITTINGS SHALL BE CLASS 52 MINIMUM DUCTILE IRON PIPE, PUSH ON OR MECHANICAL JOINT, CONFORMING TO AWWA C110, AWWA C111, AWWA C150, AWWA C151 AND AWWA C153. ALL JOINTS AND FITTINGS SHALL BE RESTRAINED WITH THE USE OF THE FIELD LOK 350 GASKETS OR MEGA-LUGS OR APPROVED EQUAL.

THE VALVES SHALL BE MUELLER A-2360 RESILIENT WEDGE GATE VALVES CONFORMING TO AWWA C509 (OR EQUAL APPROVED BY THE TOWN OF FISHKILL WATER DEPARTMENT AND THE CERTIFYING ENGINEER).

THE HYDRANT SHALL BE MUELLER SUPER CENTURION 250 HYDRANT CONFORMING TO AWWA C-502 AND UL/FM APPROVED (OR EQUAL APPROVED BY THE TOWN OF FISHKILL WATER DEPARTMENT AND THE CERTIFYING ENGINEER). THE HYDRANT INSTALLATION SHALL BE ANCHORED VIA RESTRAINED FITTINGS. ALL OTHER BENDS SHALL BE ANCHORED VIA RESTRAINED JOINTS IN LIEU OF THRUST BLOCKING. RESTRAINING GLANDS SHALL BE "MEGA-LUG" (OR EQUAL). ALL RODDING SHALL BE COATED WITH TWO COATS OF BITUMINOUS MATERIAL. THE LENGTH OF RESTRAINED PIPE FOR EACH JOINT SHALL BE DICTATED BY THE CERTIFYING ENGINEER AT THE TIME OF INSTALLATION. INSTALLED HYDRANT MUST BE FLOW TESTED PRIOR TO ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY. THE TOWN WATER AND ENGINEERING DEPARTMENTS MUST BE NOTIFIED PRIOR TO TESTING AND RESULTS TO BE PROVIDED TO THE TOWN.



NOTES:

1. MINIMUM LENGTH (L) MAY CHANGE DUE TO VARYING SOIL CONDITIONS OR AT THE DISCRETION OF THE ENGINEER.
2. VALUES FOR "L" ARE BASED ON DUCTILE IRON PIPE AT 250 PSI PRESSURE.

EXAMPLE:
A 12 INCH DUCTILE IRON PIPE BEING INSTALLED IN GRAVEL SOIL, ENTERS A 45 DEGREE HORIZONTAL BEND. FROM THE CHART THE MINIMUM LENGTH (L) TO BE RESTRAINED IS 15 FEET. THEREFORE ALL JOINTS THAT FALL WITHIN 15 FEET BEFORE AND AFTER THE ELBOW MUST BE RESTRAINED. IF NO JOINTS ARE ENCOUNTERED WITHIN THIS DISTANCE, THE NEXT CLOSEST JOINT DOES NOT NECESSARILY HAVE TO BE RESTRAINED.

* RESTRAINED JOINT

(THE FOLLOWING JOINTS MUST BE RESTRAINED IN ALL APPLICATIONS)
A) BEND (INLET & OUTLET)
B) TEE (OUTLET BRANCH)
C) WYE (OUTLET BRANCH)
D) OFFSETS (INLET & OUTLET)
E) CAPS & PLUGS

THRUST RESTRAINING DATA
Approximate thrust at fittings per 250 psi pressure (lbs. force)

NOM. PIPE SIZE inches	FITTING 90° ELBOW	FITTING 45° ELBOW	CLOSED VALVES, AND DEAD ENDS
3	3,500	2,100	2,800
4	6,300	3,850	4,550
6	14,000	8,050	10,150
8	25,150	14,350	17,800
10	39,150	22,000	27,600
12	55,900	31,800	39,500
16	X	X	X

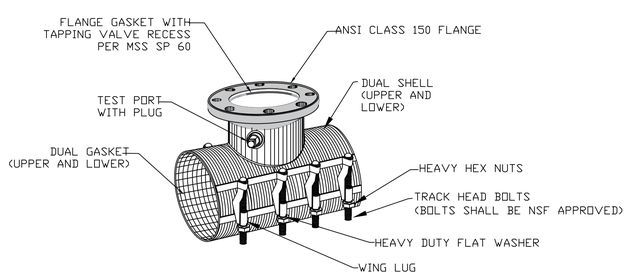
L-MINIMUM LENGTH TO BE RESTRAINED ON EACH SIDE OF FITTING (FT)

NOM. PIPE SIZE inches	GRAVEL ELBOWS (DEG) 11 1/4°	22 1/2°	45°	90°	CLOSED VALVES, AND DEAD ENDS
3	1	2	5	12	33
4	2	3	6	15	39
6	2	4	8	20	56
8	3	6	12	28	73
10	3	7	14	33	89
12	4	7	15	37	104
16	5	10	21	50	X

MECHANICAL JOINT RESTRAINT SHALL BE INCORPORATED IN THE DESIGN OF THE FOLLOWER GLAND AND SHALL INCLUDE A RESTRAINING MECHANISM WHICH, WHEN ACCUATED, IMPARTS MULTIPLE WEDGING ACTION AGAINST THE PIPE, INCREASING ITS RESISTANCE AS THE PRESSURE INCREASES. FLEXIBILITY OF THE JOINT SHALL BE MAINTAINED AFTER BURIAL. GLANDS SHALL BE MANUFACTURED OF DUCTILE IRON CONFORMING TO ASTM A 536-80. RESTRAINING DEVICES SHALL BE OF DUCTILE IRON HEAT TREATED TO A MINIMUM HARDNESS OF 370BHN. DIMENSIONS OF THE GLAND SHALL BE SUCH THAT IT CAN BE USED WITH THE STANDARDIZED MECHANICAL JOINT BELL AND TEE-HEAD BOLTS CONFORMING TO ANSI/AWWA A21.11 AND ANSI/AWWA C153/A21.53 OF LATEST REVISION. TWIST OFF NUTS SHALL BE USED TO INSURE PROPER ACTUATING OF THE RESTRAINING DEVICES. THE MECHANICAL JOINT RESTRAINT DEVICE SHALL HAVE A WORKING PRESSURE OF AT LEAST 250 PSI FOR 6" THRU 16" DIAMETERS, WITH A MINIMUM SAFETY FACTOR OF 2:1 AND SHALL BE EBAA IRON, INC. "MEGALUG" OR APPROVED EQUAL.

PIPE JOINT RESTRAINT INFORMATION

NO SCALE

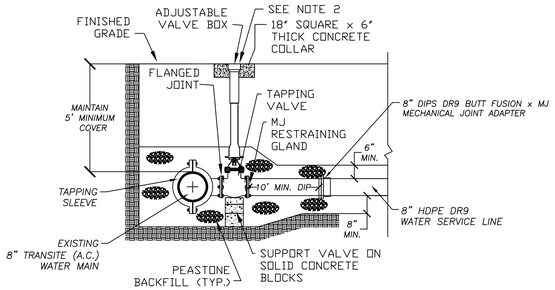


NOTES:

1. TAPPING SLEEVES SHALL BE 8" x 8" TPS TRIPLE TAP STAINLESS STEEL TAPPING SLEEVE APPROVED BY THE TOWN OF FISHKILL WATER SYSTEM OPERATOR. TAPPING SLEEVE SHALL BE NSF/ANSI STANDARD 61 APPROVED.
2. FLANGE SHALL BE ANSI CLASS 150 WITH AN ALLOWABLE MAXIMUM WORKING PRESSURE OF UP TO 260 PSI.
3. PIPE SURFACES SHALL BE CLEANED THOROUGHLY TO PERMIT A GOOD SEAL PRIOR TO INSTALLATION.

STAINLESS STEEL TAPPING SLEEVE DETAIL

NOT TO SCALE

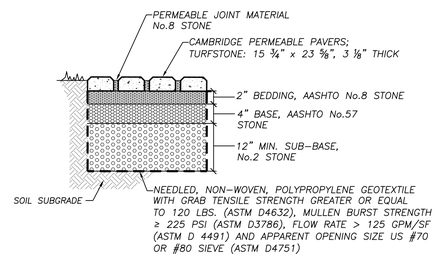


NOTES:

1. TAPPING OF THE EXISTING WATER MAIN SHALL BE PERFORMED BY THE QUALIFIED CONTRACTOR ACCEPTABLE TO THE TOWN OF FISHKILL WATER SYSTEM OPERATOR.
2. PROVIDE TWO LAYERS OF 15# ASPHALT FELT ROOFING PAPER BETWEEN VALVE BOX AND CONCRETE COLLAR TO PREVENT CONCRETE FROM ADHERING TO RISER.
3. ALL JOINTS AND FITTINGS TO BE MECHANICALLY RESTRAINED.

WET TAP CONNECTION DETAIL

NOT TO SCALE

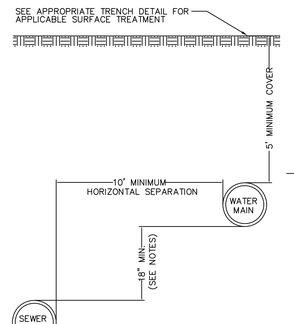




CAMBRIDGE PERMEABLE PAVERS
TURFSTONE: 15 ¾" x 23 ⅝", 3 ⅛" THICK

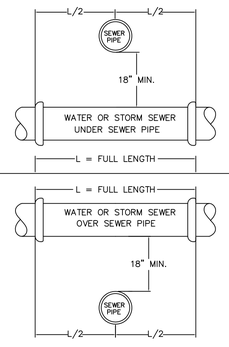
TYPICAL PERMEABLE PAVERS DETAIL

NOT TO SCALE



NOTES: (HORIZONTAL SEPARATION)

1. PROPOSED OR EXISTING WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SANITARY SEWER MAIN OR FORCE MAIN. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET, A WATER MAIN MAY BE LAID CLOSER THAN 10 FEET TO A SEWER IF:
   IT IS LAID IN A SEPARATE TRENCH, AND THE ELEVATION OF THE CROWN OF THE SEWER IS AT LEAST 18" BELOW THE BOTTOM OF THE WATER MAIN,
2. APPROVAL OF THE DESIGN ENGINEER AND HEALTH DEPARTMENT WILL BE REQUIRED FOR ANY AREAS ENCOUNTERED DURING CONSTRUCTION THAT CANNOT MEET THE MINIMUM REQUIRED SEPARATION DISTANCE OF 10 FEET.



NOTES: (VERTICAL SEPARATION)

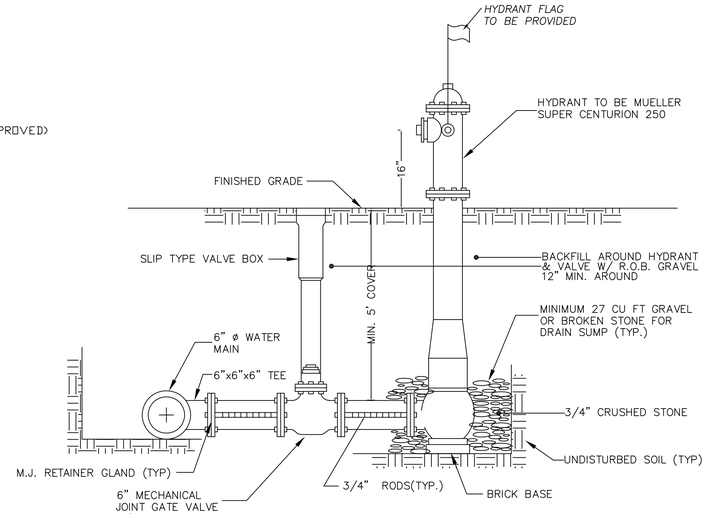
1) NORMAL CONDITIONS: WHENEVER A WATER MAIN MUST CROSS OVER A SANITARY SEWER MAIN OR FORCE MAIN, THE PIPES SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL SEPARATION BETWEEN THEM OF AT LEAST 18 INCHES, AS MEASURED FROM THE BOTTOM OF THE HIGHER PIPE TO THE CROWN OF THE LOWER PIPE.

2) WATER MAIN CROSSING UNDER SANITARY SEWER MAIN OR FORCE MAIN:
a. VERTICAL SEPARATION OF 18 INCHES MUST BE PROVIDED.
b. ADEQUATE STRUCTURAL SUPPORT MUST BE PROVIDED FOR THE SEWER MAIN TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING.
c. A FULL LENGTH OF WATER MAIN PIPE MUST BE CENTERED AT THE POINT OF CROSSING. NO JOINTS WILL BE PERMITTED AT THE POINT OF CROSSING.
d. AT THE DISCRETION OF THE ENGINEER, THE SEWER MAINS SHALL BE RE-CONSTRUCTED OF MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS AND PRESSURE TESTED TO ASSURE WATER TIGHTNESS PRIOR TO BACKFILLING.

HORIZONTAL SEPARATIONS, AND WATER, STORM SEWER, SEWER MAIN AND FORCE MAIN CROSSINGS

WATER, STORM SEWER, SANITARY SEWER SEPARATION DETAIL

NO SCALE



NOTES:

1. ALL 6" PIPE SHALL BE BED ON 1/2" CRUSHED STONE AS PER NYSDOT TABLE 701.04 SIZE DESIGNATION 1.
2. MAIN PUMP NOZZLE TO POINT TOWARDS STREET, UNLESS OTHERWISE NOTED ON THE PLAN OR AS PER ENGINEER.
3. THE HYDRANT DRAINS MUST BE PLUGGED.
4. THE BARREL MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER.

HYDRANT DETAIL

NO SCALE

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Civil, Sanitary & Mechanical Engineering Site Planning Environmental Assessment

STATE OF NEW YORK · LAWRENCE J. PAGGI · 065155 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY	CHECKED BY	FINAL
LJP	LJP	■
NO.	REVISIONS	DATE
1.	ISSUED FOR BID	11/30/22

PRELIMINARY

ROMBOUT FIRE DISTRICT
FIRE STATION 2
1548 ROUTE 52, TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

WATER SERVICE DETAILS

DATE: JUNE 22, 2021
SCALE: NOTED
JOB NUMBER: 21-01
SHEET NUMBER: C12

WORK ZONE TRAFFIC CONTROL NOTES:

1. GENERAL NOTES

A. WORK ZONE TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 619 – WORK ZONE TRAFFIC CONTROL – OF THE NYSDOT STANDARD SPECIFICATIONS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, NYSDOT STANDARD SHEETS 619 SERIES, AND ANY PROVISIONS CONTAINED IN THESE PLANS.

B. THE TYPICAL DETAILS DEPICTED ON THE STANDARD SHEETS, THE TRAFFIC CONTROL PLANS, AND IN THE MUTCD REFLECT THE MINIMUM REQUIREMENTS. ADDITIONAL SIGNS AND/OR TRAFFIC CONTROL DEVICES MAY BE REQUIRED AS ORDERED BY THE ENGINEER (AOBE), COST TO BE INCLUDED IN THE PRICE BID FOR THE APPROPRIATE ITEMS. IF AT ANY TIME THE ENGINEER DETERMINES THAT TRAFFIC IS NOT BEING PROPERLY MAINTAINED WITHIN A WORK ZONE, THE CONTRACTOR SHALL IMMEDIATELY CORRECT THE INDICATED DEFICIENCY, AOBE.

C. THE CONTRACTOR MUST SUBMIT TO THE ENGINEER, IN WRITING, PROPOSED REVISIONS TO THE TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL BY THE NYSDOT/TOWN FIVE (5) WORKING DAYS PRIOR TO THE PLANNED IMPLEMENTATION OF SUCH PROPOSED REVISIONS, EXCEPT FOR CHANGES THAT ALTER THE BASIC CONCEPT OF THE TRAFFIC CONTROL PLAN. SUCH CONCEPTUAL CHANGES MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BY THE TOWN THIRTY (30) WORKING DAYS PRIOR TO IMPLEMENTATION OF SUCH REVISIONS.

D. THE CONTRACTOR SHALL PROVIDE THE ENGINEER, IN WRITING, WITH THE NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF STAFF WHO ARE AUTHORIZED TO SECURE LABOR, MATERIALS, AND EQUIPMENT FOR EMERGENCY REPAIRS OUTSIDE NORMAL WORKING HOURS. THE ENGINEER WILL PROVIDE THE SUBMITTED INFORMATION TO NYSDOT, REGIONAL MANAGEMENT, THE NEW YORK STATE POLICE, THE RESIDENT ENGINEER, THE TOWN, AND THE LOCAL POLICE.

E. PRIOR TO THE START OF ANY WORK OPERATIONS, ALL RELATED WORK FOR PROPOSED WORK ZONE TRAFFIC CONTROL, AOBE, SHALL BE COMPLETE. THIS INCLUDES BUT IS NOT LIMITED TO, ALL SIGNS, SIGNALS, PAVEMENT MARKINGS, BARRIERS, DELINEATION (CONES, DRUMS, ETC.) FLAGGERS, PAVEMENT MODIFICATIONS, AND ANY OTHER RELATED WORK.

F. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SAFE AND ADEQUATE INGRESS AND EGRESS TO AND FROM INTERSECTING HIGHWAYS, HOMES AND COMMERCIAL ESTABLISHMENTS AT ALL TIMES TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH ITEM 619.01 SECTION 619–3.02(C) OF NYSDOT STANDARD SPECIFICATIONS.

G. THE TRANSPORTATION MANAGEMENT CENTER (TMC) SHALL BE NOTIFIED BEFORE ANY WORK IS STARTED ON A STATE HIGHWAY. THE NOTIFICATION AND COORDINATION WITH THE TMC SHALL BE MADE THRU THE NYSDOT REPRESENTATIVE ASSIGNED TO THE PROJECT (DOT INSPECTOR OR RESIDENCY).

2. STANDARD SHEETS 619-10, 11, AND 12 CRITERIA

THE CONTRACTOR SHALL REFER TO THE FOLLOWING CRITERIA WHILE UTILIZING THE NYSDOT STANDARD SHEETS:

A. PRECONSTRUCTION POSTED SPEED LIMIT: 45 MPH

B. TYPE OF ROADWAY: CONVENTIONAL ROAD

C. SETTING: URBAN

3. TIME / DATE RESTRICTIONS

A. THERE SHALL BE NO TEMPORARY LANE CLOSURES ON THE FOLLOWING HOLIDAY DATES AND TIMES:

6:00 AM DEC 30 (2021) TO 6:00 AM JAN 3 (2022)
6:00 AM MAY 27 TO 6:00 AM MAY 31
6:00 AM JULY 1 TO 6:00 AM JULY 5
6:00 AM SEPT 2 TO 6:00 AM SEPT 6
6:00 AM NOV 24 TO 6:00 AM NOV 28
6:00 AM DEC 23 TO 6:00 AM DEC 27

6:00 AM DEC 30 (2022) TO 6:00 AM JAN 3 (2023)
6:00 AM MAY 26 TO 6:00 AM MAY 30
6:00 AM JULY 1 TO 6:00 AM JULY 5
6:00 AM SEPT 1 TO 6:00 AM SEPT 5
6:00 AM NOV 22 TO 6:00 AM NOV 27
6:00 AM DEC 22 TO 6:00 AM DEC 26

B. THERE SHALL BE NO TEMPORARY LANE CLOSURES ON RT 52 BETWEEN THE FOLLOWING HOURS:
MONDAY THROUGH FRIDAY7 AM TO 9 AM
4 PM TO 6 PM

C. THE CONTRACTOR SHALL NOT BEGIN WARMING UP EQUIPMENT BEFORE THE SCHEDULED START TIMES, NOR KEEP THE EQUIPMENT RUNNING AFTER THE SCHEDULED QUIT TIMES. MAINTENANCE OF EQUIPMENT ON SITE WHICH REQUIRES THE EQUIPMENT TO BE RUNNING SHALL BE APPROVED BY THE ENGINEER IF THE MAINTENANCE IS PERFORMED OUTSIDE THE WORK HOUR RESTRICTIONS.

D. THERE SHALL BE NO WORK OPERATIONS ALLOWED BEFORE SUNRISE OR AFTER SUNSET WITHOUT APPROVAL OF THE NYSDOT/ENGINEER AND AN APPROVED LIGHTING PLAN. THE LIGHTING PLAN SHALL BE APPROVED PRIOR TO THE START OF WORK BY THE NYSDOT.

4. WORK ZONE REQUIREMENTS

A. THE MINIMUM WIDTH OF TRAVEL LANES WITHIN THE WORK ZONE IS 10 FEET.

B. WORK ZONES ON OPPOSITE SIDES OF THE ROAD SHALL NOT OVERLAP. A WORK ZONE IS DEFINED AS THAT AREA IN WHICH TRAFFIC IS RESTRICTED BECAUSE OF CONSTRUCTION ACTIVITIES, OR THAT AREA WHICH INVOLVES A DROP–OFF WITHIN 10 FEET OF THE EDGE OF PAVEMENT.

5. CONSTRUCTION VEHICLES, EQUIPMENT, AND MATERIALS

A. THE CLEAR ROADSIDE AREA IS DEFINED AS THE AREA WITHIN 10 FEET OF THE EDGE OF THE TRAVEL WAY.

B. CONTRACTOR VEHICLES NOT IN USE AND PRIVATE VEHICLES OWNED BY CONTRACTOR'S EMPLOYEES SHALL NOT BE PARKED IN THE CLEAR ROADSIDE AREA, OR ANY OTHER LOCATION CONSIDERED BY THE ENGINEER TO BE A HAZARD. THIS REQUIREMENT IS NOT LIMITED TO THE CONTRACT LIMITS.

C. NO MATERIAL IS TO BE STORED WITHIN THE CLEAR ROADSIDE AREA WITHOUT THE APPROVAL OF THE ENGINEER.

D. VEHICLES BELONGING TO THE CONTRACTOR OR THE CONTRACTOR'S EMPLOYEES SHALL NOT BE PARKED IN A MANNER WHICH OBSTRUCTS SIGNS, BARRIERS, BARRICADES, OR OTHER TRAFFIC CONTROL DEVICES.

E. VEHICLES BELONGING TO THE CONTRACTOR OR THE CONTRACTOR'S EMPLOYEES SHALL NOT BE PARKED IN A MANNER WHICH INTERFERES WITH ACCESS TO ABUTTING PROPERTIES.

F. THE CONTRACTOR SHALL PLAN AND INCORPORATE ACCESS POINTS INTO THE WORK ZONE SUCH THAT, TO THE EXTENT PRACTICAL, THE CONTRACTOR'S VEHICLES ENTERING AND LEAVING THE WORK ZONE SHALL NOT IMPEDE THE MOVEMENT OF THROUGH TRAFFIC IN THE ADJACENT OPEN LANES.

6. CHANNELIZING DEVICES

A. WHERE POSSIBLE ALL CHANNELIZING AND GUIDING DEVICES ARE TO BE PLACED SO AS TO PROVIDE A MINIMUM 1 FOOT LATERAL CLEARANCE TO THE TRAVELED WAY.

B. THE CONTRACTOR SHALL NOT MIX CHANNELIZATION DEVICES IN A LINEAR CLOSURE OR TAPER I.E. CONES, VERTICAL PANELS AND DRUMS SHALL NOT BE USED IN THE SAME TAPER OR CLOSURE. HOWEVER, DIFFERENT CHANNELIZATION DEVICES MAY BE USED IN DIFFERENT AREAS OF A PROJECT.

C. REFLECTORIZED PLASTIC DRUM DELINEATORS SHALL BE USED AT HAZARDOUS LOCATIONS DETERMINED BY THE ENGINEER. DELINEATORS SHALL REMAIN IN PLACE UNTIL SATISFACTORY PROTECTION IS PROVIDED. DELINEATORS SHALL BE SPACED AT A DISTANCE NOT TO EXCEED 25 FEET, OR AS DIRECTED BY THE ENGINEER.

7. FLAGGING AND TRAFFIC CONTROL

A. THE USE OF TEMPORARY SIGNALS AS A SUBSTITUTE FOR FLAGGERS WILL NOT BE ALLOWED ON THIS PROJECT.

B. FLAGGER SIGNS SHALL NOT BE USED FOR BRIEF PERIODS OF INCIDENTAL FLAGGING, AOBE. FLAGGER SIGNS SHALL NOT BE VISIBLE WHEN FLAGGERS ARE NOT BEING USED.

C. WHEN A SIDE ROAD OR DRIVEWAY INTERSECTS THE ROADWAY WITHIN A WORK ZONE TRAFFIC CONTROL AREA, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES AND/OR FLAGGERS SHALL BE PLACED AS NEEDED. ADDITIONAL FLAGGERS SHALL BE LOCATED AS NEEDED AT ALL INTERSECTIONS AND COMMERCIAL DRIVEWAYS LOCATED WITHIN OR NEAR THE ACTIVE WORK SPACE.

8. SIGNS AND DEVICES

A. DIAMOND–SHAPED ADVANCE WARNING SIGNS SHALL BE USED FOR ALL ADVANCE WARNING SIGNS SHOWN IN PART 6 OF THE MUTCD. COLOR REQUIREMENTS SHALL BE BLACK TEXT ON ORANGE BACKGROUND.

B. THE CORRECT SPACING OF SIGNS, EITHER PERMANENT OR TEMPORARY MUST BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH THE MUTCD UNLESS SHOWN OTHERWISE ON THE PLANS. ALL SIGNS INCLUDING GUIDE SIGNS SHALL INDICATE ACTUAL CONDITIONS AT ALL TIMES AND SHALL BE COVERED, MOVED, REMOVED, OR CHANGED IMMEDIATELY AS ORDERED BY THE ENGINEER.

C. THE LOCATION OF THE SIGNS SHOWN ON THE WORK ZONE TRAFFIC CONTROL PLANS AND DETAILS MAY BE ADJUSTED BASED ON SIGHT DISTANCE AND OTHER CONSIDERATIONS. THE FINAL LOCATIONS OF SIGNS ARE SUBJECT TO APPROVAL OF THE ENGINEER.

D. ANY EXISTING SIGNS, INCLUDING OVERHEAD SIGNS, WHICH CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL SIGNS LAYOUT SHALL BE COVERED, REMOVED, STORED OR RESET, AS APPROVED BY THE ENGINEER. ALL APPROPRIATE EXISTING SIGNS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND/OR LOCATION UNLESS OTHERWISE REPLACED IN THIS CONTRACT.

E. SIGNS AT OR NEAR INTERSECTIONS SHALL BE PLACED SO THAT THEY DO NOT OBSTRUCT A MOTORIST'S LINE OF SIGHT.

F. ALL WARNING AND REGULATORY SIGNS SHALL BE POSTED ON BOTH SIDES OF ONE–WAY STREETS. IN CASES WHERE LANE RESTRICTIONS REDUCE THE TRAVEL LANE TO ONE LANE, SIGNS SHALL BE POSTED ON THE RIGHT SIDE OF THE ACTIVE TRAVEL LANE, UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

G. EXPRESSWAY SIZE SIGNING SHALL BE USED ON ALL MULTI–LANE HIGHWAYS. CONVENTIONAL HIGHWAY SIZE SIGNING SHALL BE USED AT ALL OTHER LOCATIONS.

9. NOTIFICATION AND EMERGENCY ACCESS

A. THE CONTRACTOR IS REQUIRED TO CONTACT THE APPROPRIATE SCHOOL AND EMERGENCY SERVICES ORGANIZATIONS WITH RESPECT TO THE EFFECT OF ROAD WORK, TRAVEL LANE REDUCTIONS, AND DETOURS ON OPERATIONS. THIS CONTACT SHALL BE MADE AS CONDITIONS CHANGE AND AT LEAST TWO WEEKS PRIOR TO IMPLEMENTING EACH TRAFFIC PHASE AND/OR DETOUR TO ALLOW ADEQUATE TIME FOR THE ORGANIZATIONS TO COORDINATE AND MAKE NECESSARY ADJUSTMENTS TO RESPONSE SCHEDULES AND ROUTES.

B. THE CONTRACTOR IS REQUIRED TO CONTACT THE APPROPRIATE TRANSIT OFFICIALS IN RESPECT TO THE EFFECT OF ROAD ALTERATIONS ON BUS OPERATIONS. THIS SHOULD BE DONE FOUR WEEKS IN ADVANCE OF ANY CHANGES IN TRAFFIC PATTERNS OR IMPLEMENTATION OF WORK ZONES SO THAT THERE WILL BE ADEQUATE TIME FOR TRANSIT OFFICIALS TO NOTIFY PERSONNEL OF THE EFFECTS TO SCHEDULES AND ROUTES. THE CONTRACTOR SHALL MAKE PROVISIONS FOR THE SAFE INGRESS AND EGRESS OF PASSENGERS AT EXISTING OR TEMPORARILY RELOCATED BUS STOPS.

10. BICYCLISTS AND PEDESTRIANS

A. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN AND BICYCLE TRAFFIC THROUGH OR AROUND EACH WORK AREA FOR THE DURATION OF THE CONSTRUCTION. MATERIAL, EQUIPMENT OR OTHER SUCH BARRIERS SHALL NOT BE PLACED OR PARKED IN SUCH A MANNER AS TO OBSTRUCT PEDESTRIAN OR BICYCLE TRAFFIC OR TO PRESENT A SAFETY HAZARD TO THE NON–MOTORIZED PUBLIC. WHERE PEDESTRIAN TRAFFIC MUST BE RELOCATED OFF THE EXISTING FACILITY, WALKWAYS SHALL BE CLEARLY MARKED AND HAVE A LOGICAL START AND TERMINUS.

B. THE CONTRACTOR SHALL PROVIDE, DELINEATE AND MAINTAIN A USABLE TRAVEL PATH FOR PEDESTRIANS EITHER THROUGH OR AROUND WORK ZONES FOR THE DURATION OF THIS PROJECT. THE TRAVEL PATH SHALL COMPLY WITH THE CONTINUOUS PASSAGE PROVISIONS OF THE CURRENT AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG). THE CONTRACTOR MAY UTILIZE ANY COMBINATION OF THE FOLLOWING TO PROVIDE THE USABLE TRAVEL PATH; EXISTING SIDEWALKS/SHOULDERS; TEMPORARY SIDEWALKS/SHOULDERS; FINAL SIDEWALKS/SHOULDERS; AND EXISTING OR TEMPORARY SIDEWALK CURB RAMPS. THE USABLE TRAVEL PATH SHALL BE CLEARLY MARKED AND STAGED BETWEEN INTERSECTING ROADS TO ENSURE SAFE PEDESTRIAN CROSSING AND ACCESSIBILITY. PEDESTRIAN ACCESS TO RESIDENTIAL AND COMMERCIAL PROPERTIES SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION.

C. ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL AND REMOVE TEMPORARY SIDEWALK AND CURB RAMPS, INCLUDING THE RESTORATION OF DISTURBED AREAS, SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 608.020102, ASPHALT CONCRETE SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS.

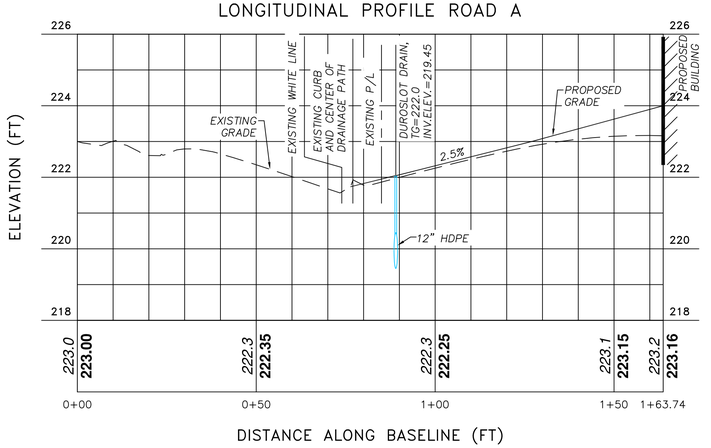
D. FOR LOCATIONS WHERE EXISTING SIDEWALK WAS REMOVED OR NEW SIDEWALKS ARE PROPOSED, THE CONTRACTOR SHALL PROVIDE A SURFACE MEETING ADAAG REQUIREMENTS WITHIN TWO WEEKS (14 CALENDAR DAYS) OF EXISTING SIDEWALK REMOVAL OR CURB INSTALLATION, WHICHEVER IS LESS. THE CONTRACTOR MAY ALLOW PEDESTRIAN TRAFFIC TO USE THE COMPACTED SURFACE FOR A MAXIMUM OF TWO WEEKS (14 CALENDAR DAYS). AFTER THE TWO WEEK PERIOD THE CONTRACTOR MUST PROVIDE A PAVED SURFACE (FINAL OR TEMPORARY) MEETING THE ADAAG REQUIREMENTS. IF THE CONTRACTOR CHOOSES NOT TO PLACE THE FINAL SIDEWALK SURFACE, NO SEPARATE PAYMENT WILL BE MADE FOR THE TEMPORARY SURFACE. THE CONTRACTOR MUST ALSO PROVIDE CURB RAMPS IN ACCORDANCE WITH ADAAG REQUIREMENTS. IF THE CONTRACTOR CHOOSES TO PROVIDE THE FINAL SIDEWALK SURFACE AFTER THE TWO WEEK PERIOD, A TEMPORARY CURB RAMP MAY BE INSTALLED. THE COST OF THIS TEMPORARY RAMP IS TO BE INCLUDED IN THE PRICE BID FOR BASIC WORK ZONE TRAFFIC CONTROL. FAILURE TO PROVIDE THIS PAVED SURFACE WILL RESULT IN THE ASSESSMENT OF LIQUIDATED DAMAGES AS DEFINED IN THE SPECIAL NOTES.

E. ANY CONSTRUCTION ACTIVITY THAT RESULTS IN THE BREAKAGE OF SLABS OR THE REMOVAL OF SEGMENTS OF EXISTING SIDEWALK SERVING AS THE USABLE TRAVEL PATH SHALL BE REPAIRED IMMEDIATELY USING ASPHALT CONCRETE MEETING THE REQUIREMENTS OF SECTION 608 OF THE STANDARD SPECIFICATIONS. THE REPAIRED SURFACE SHALL BE IN CONFORMANCE WITH THE CRITERIA OUTLINED ABOVE, AS WELL AS THOSE CONTAINED IN THE ADAAG. SIDEWALK REPAIRS DUE TO REQUIRED CONSTRUCTION ACTIVITIES SHALL BE PAID FOR UNDER 608.020102, ASPHALT CONCRETE SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS. SIDEWALK THAT IS DAMAGED BY CARELESS CONSTRUCTION ACTIVITIES OR PRACTICES SHALL BE IMMEDIATELY REPAIRED, AOBE, AT NO COST TO THE TOWN OR STATE.

F. TEMPORARY SAFETY FENCING SHALL BE PLACED ALONG ANY SIDEWALK ADJACENT TO ANY EXCAVATION OR VERTICAL DROP–OFF OVER 6 INCHES. SAFETY FENCING SHALL BE CONTINUOUS PLASTIC FLUORESCENT ORANGE SUPPORTED BY METAL OR WOOD POSTS. THE FENCING SHALL BE A MINIMUM OF 4 FEET IN HEIGHT AND MAY INCLUDE A TOP AND BOTTOM RAIL TO PROVIDE ADDITIONAL SUPPORT, AOBE. THE SAFETY FENCE SHALL CONFORM TO SECTION 107–05 OF THE STANDARD SPECIFICATIONS. ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL AND REMOVE TEMPORARY SAFETY FENCING SHALL BE INCLUDED IN THE PRICE BID FOR BASIC WORK ZONE TRAFFIC CONTROL, ITEM 619.01.

G. THE CONTRACTOR SHALL PROVIDE A USABLE TRAVEL PATH AT ALL BUS STOP LOCATIONS TO PROVIDE SAFE ACCESS TO AND FROM THE BUS.

LONGITUDINAL PROFILE ROAD A

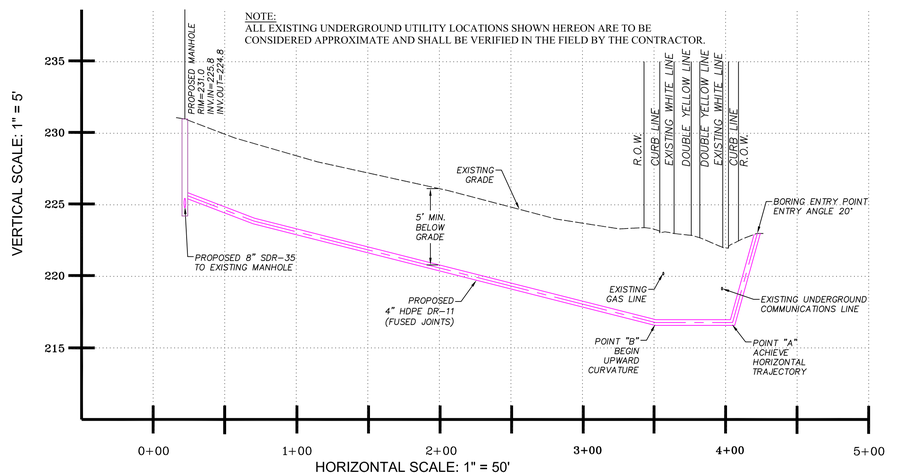


VERTICAL SCALE: 1" = 2'

HORIZONTAL SCALE: 1" = 20'

DRIVEWAY PROFILE

DIRECTIONAL DRILLING PROFILE



DIRECTIONAL DRILLING PROFILE

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LAWRENCE J. PAGGI
065155
LICENSED PROFESSIONAL ENGINEER

DRAWN BY	CHECKED BY
AB	LJP

NO.	REVISIONS	BY	DATE
1.	ISSUED FOR BID		11/30/22

BY: Concept ☐ Preliminary ☐ Final ☐ Construction

ROMBOUT FIRE DISTRICT FIRE STATION 2

1548 ROUTE 52, TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

WORK ZONE TRAFFIC CONTROL NOTES. PROFILE.

DATE: MARCH 16, 2022
SCALE: 1" = 20'
JOB NUMBER: 21–01

SHEET NUMBER: C13

0 20 40 Feet

1 INCH = 20 FT.

ASSUMED LOCATION OF EXISTING 8" TRANSITE (A.C.) WATER MAIN (EXACT LOCATION TO BE FIELD VERIFIED); ASSUMED WATER MAIN ELEVATION IS 5' BELOW EXISTING GRADE (ELEVATION TO BE FIELD VERIFIED)

EXISTING 8" TRANSITE (A.C.) SEWER MAIN @ 0.46%

EXISTING MANHOLE RIM=232.1 INV.EL =222.8 (EXISTING) INV.IN(PROPOSED)=224.2

EXISTING MANHOLE RIM=232.1 INV.EL.=223.4

EXISTING MANHOLE RIM=232.0 INV.EL.=223.1

PROPOSED WET TAP CONNECTION TO EXISTING WATER MAIN (STAINLESS STEEL TAPPING SLEEVE)

10' MIN.

PROPOSED 20' WIDE UTILITY EASEMENT

EXISTING CB REFER TO NOTE 5

EXISTING CB REFER TO NOTE 5

13.5'

4.0-INCH DR11 SEWER FORCE MAIN FROM ROMBOUT PUMP STATION (REFER TO C5 AND C11)

PROPOSED 420 LF 8" HDPE DR-9 WATER LINE

EXISTING CB REFER TO NOTE 5

10.0'

EXISTING UTILITY POLE

RIM: 222.57'
INV.(A)=219.97' 18" CPP
INV.(B)=219.87' 18" CPP

RIM: 222.26'
INV.(A)=219.64' 18" CPP
INV.(B)=219.64' 18" CPP

APPROXIMATE LOCATION OF EXISTING GAS LINE; EXACT LOCATION TO BE FIELD VERRIFIED

TRANSITION FROM 8" HDPE DR9 TO 8" DIP CLASS 52

PROPOSED 8" DIP CLASS 52 WATER LINE

PROPOSED 8" GATE VALVE AND END CAP

PROPOSED 8"X8"X8" CROSS

PROPOSED 8" GATE VALVE AND END CAP

PROPOSED 8" DIP CLASS 52 STUB (REFER TO C5)

SEE GENERAL NOTE NO. 6

IRON ROD FOUND

LANDS N/F OF ANTHONY DISIENA & LENA DISIENA AS CO-TRUSTEES OF THE DISIENA FAMILY TRUST DOCUMENT # 02 2019 7892 (MAP REFERENCE 1, LOT B) TAX ID:133089-6256-04-594281-0000

LANDS N/F OF ANTHONY DISIENA & LENA DISIENA AS CO-TRUSTEES O THE DISIENA FAMILY TRUST DOCUMENT # 02 2019 8360 (MAP REFERENCE 1, LOT A)

NYS ROUTE 52

CONC CURB

WHITE LINE

YELLOW LINE

18" CPP

5T

236

238

224

230

228

226

OF WEST LONGITUDE

NOTES:

1. THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON THE USGS 3 COUNTY 2014 LIDAR COLLECTION (NEW YORK COUNTIES OF ULSTER, DUTCHESS AND ORANGE) PUBLISHED BY THE NYS GIS CLEARINGHOUSE. THIS INFORMATION SHOULD BE CONSIDERED APPROXIMATE AND IS INTENDED FOR GENERAL INFORMATION ONLY. THE RIM AND INVERT ELEVATIONS SHOWN HEREON, AND USED FOR DESIGN, WERE TAKEN FROM AN UNDATED PLAN OF RECORD TITLED, PARTIAL AS BUILT OF DPSD IN DUTCHESS PARK SHOPPING CENTER.
2. AERIAL IMAGERY INFORMATION SHOWN HEREON IS BASED ON A PLAN ENTITLED "PROPOSED WATER & SEWER EXTENSION" PREPARED BY CLARK, PATTERSON AND LEE ARCHITECTURE, ENGINEERING AND PLANNING FOR THE TOWN OF FISHKILL. DATED FEBRUARY 1, 2021.
3. WATER LINE WILL BE DIRECTIONAL DRILLED UNDER NYS ROUTE 52 AND MAJORITY OF THE DUTCHESS PARK SHOPPING CENTER AND OFFICE COMPLEX.
4. PROPOSED WATER LINE WILL BE DEDICATED TO THE TOWN OF FISHKILL.
5. LOCATIONS OF THE EXISTING CATCH BASINS ARE BASED ON SITE OBSERVATION AND MEASUREMENTS PERFORMED BY LAWRENCE J. PAGGI, P.E., P.C. ON MARCH 15, 2022.

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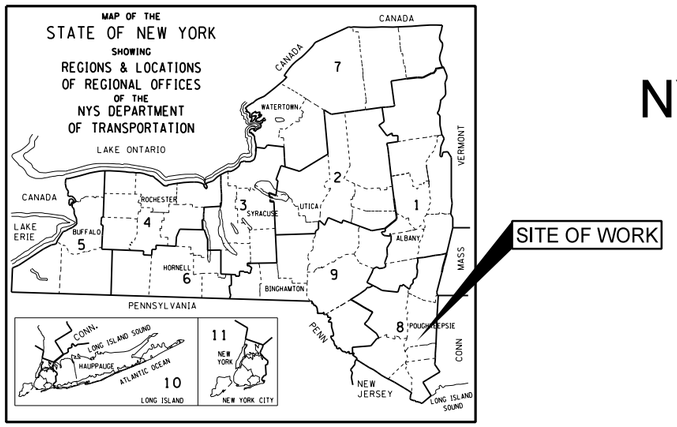
Concept Preliminary Final Construction

NO.	REVISIONS	BY	DATE
1.	ISSUED FOR BID		11/30/22

DRAWN BY: AB
CHECKED BY: LJP

ROMBOUT FIRE DISTRICT
FIRE STATION 2
1548 ROUTE 52, TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK
WATER MAIN CONNECTION PLAN

DATE: MAY 18, 2022
SCALE: 1" = 20'
JOB NUMBER: 21-01
SHEET NUMBER: C14
SHEET 14 OF 14



OFF-SITE SIGNAL IMPROVEMENTS
NY ROUTE 52/ROMBOUT FIRE STATION #2
TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

PREPARED FOR:

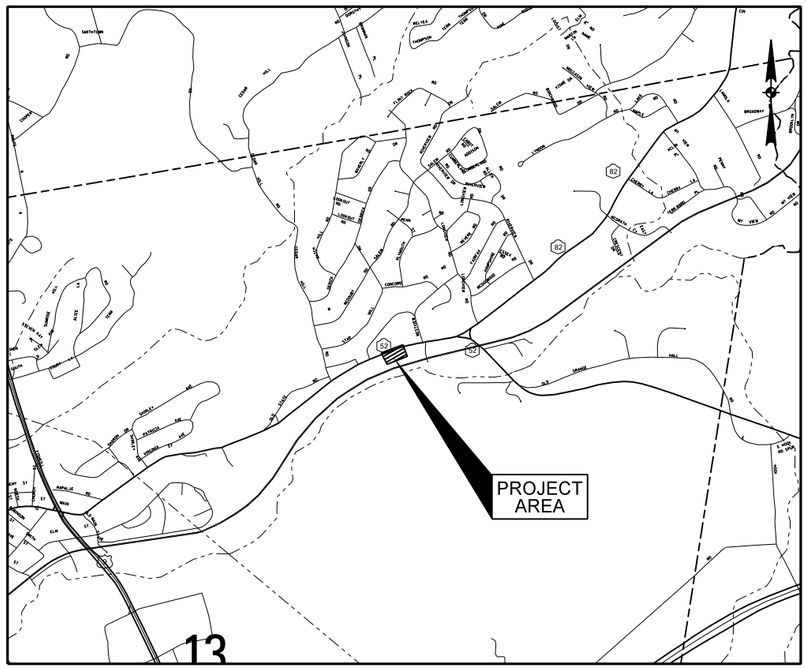
ROMBOUT FIRE DISTRICT
901 MAIN STREET
FISHKILL, NY 12524

THE LATEST REVISIONS OF THE NYSDOT STANDARD SHEETS MAINTAINED BY THE DEPARTMENT, WHICH ARE CURRENT ON THE DATE OF ADVERTISEMENT FOR BIDS, SHALL BE CONSIDERED TO BE IN EFFECT. ALL PAY ITEMS AND WORK CONTAINED IN THE CONTRACT AND ANY ADDITIONAL PAY ITEMS AND WORK ENCOUNTERED DURING THE COURSE OF THE CONTRACT SHALL BE SUBJECT TO THE APPLICABLE STANDARD SHEET(S) UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.

ALL WORK CONTEMPLATED UNDER THIS CONTRACT IS TO BE COVERED BY AND IN CONFORMITY WITH THE NYSDOT STANDARD SPECIFICATIONS (US CUSTOMARY) MAINTAINED BY THE DEPARTMENT WHICH ARE CURRENT ON THE DATE OF ADVERTISEMENT FOR BIDS EXCEPT AS MODIFIED BY THESE PLANS OR BY CHANGES SET FORTH IN THE CONTRACT DOCUMENTS.

CONTRACT PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH NYSDOT POLICIES AND GUIDELINES.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



PROJECT LOCATION
NOT TO SCALE

PREPARED AND RECOMMENDED BY:

DONALD D. ADAMS, P.E. DATE:
LIC. NO. 071963

Creighton Manning
CREIGHTON MANNING ENGINEERING, LLP
2 WINNERS CIRCLE - ALBANY - NEW YORK - 12205
P: (518) 446-0396 F: (518) 446-0397 WWW.CMELLP.COM

SUBMISSION: FINAL			NOVEMBER 2022
FED. ROAD REG. NO.	STATE	SHEET NO.	TOTAL SHEETS
1	N.Y.	1	12
CAPITAL PROJECT IDENTIFICATION NO.		N/A	CM# 121-286

DESIGN SUPERVISOR D. ADAMS JOB MANAGER D. REYNOLDS DESIGNED BY D. KARKOTSKY CHECKED BY D. REYNOLDS ESTIMATED BY B. POZZI DRAFTED BY K. DETRICK CHECKED BY M. MORRISSEY
FILE NAME = N:\Projects\2021\121-286 Paggi - Rombout Fire Signal\Working\CADD\dgn\121-286_cph_cvr.dgn
DATE/TIME = 11/29/2022
USER = dkarkotsky

ALIGNMENT	
ABBR.	DESCRIPTION
AH	AHEAD
AZ	AZIMUTH
BK	BACK
℄	BASELINE
BRG	BEARING
℄	CENTERLINE
CS	CURVE TO SPIRAL
e	SUPERELEVATION RATE (CROSS SLOPE)
EQ	EQUALITY
EXT	EXTERNAL
HCL	HORIZONTAL CONTROL LINE
HSD	HEADLIGHT SIGHT DISTANCE
L	LENGTH OF CIRCULAR CURVE
LS	LENGTH OF SPIRAL
LVC	LENGTH OF VERTICAL CURVE
E	CENTER CORRECTION OF VERTICAL CURVE
ML	MAIN LINE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
POL	POINT ON LINE
PSD	PASSING SIGHT DISTANCE
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS
SC	SPIRAL TO CURVE
SSD	STOPPING SIGHT DISTANCE
ST	SPIRAL TO TANGENT
STA	STATION
T	TANGENT LENGTH
TGL	THEORETICAL GRADE LINE
TS	TANGENT TO SPIRAL
VC	VERTICAL CURVE

TOPOGRAPHY (DRAINAGE)	
ABBR.	DESCRIPTION
BB	BOTTOM OF BANK (STREAM)
BC	BOTTOM OF CURB
BO	BOTTOM OF OPENING
CAP	CORRUGATED ALUMINUM PIPE
CB	CATCH BASIN
CIP	CAST IRON PIPE
℄ STRM	CENTERLINE OF STREAM
CMP	CORRUGATED METAL PIPE
CP	CONCRETE PIPE
CSP	CORRUGATED STEEL PIPE
CULV	CULVERT
DIA	DIAMETER
DMH	DRAINAGE MANHOLE
DS	DRAINAGE STRUCTURE PIPE
D'XING	DITCH CROSSING
EHW	EXTREME HIGH WATER
EL	ELEVATION
ELEV	ELEVATION
ELW	EXTREME LOW WATER
ES	END SECTION
HW	HEADWALL
INV	INVERT
MH	MANHOLE
MHW	MEAN HIGH WATER
OHW	ORDINARY HIGH WATER
OLW	ORDINARY LOW WATER
RCP	REINFORCED CONCRETE PIPE
SICPP	SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE
TB	TOP OF BANK (STREAM)
TC	TOP OF CURB
TG	TOP OF GRATE
VCP	VITRIFIED CLAY PIPE

TOPOGRAPHY (MISCELLANEOUS)	
ABBR.	DESCRIPTION
ABUT	ABUTMENT
AOBE	AS ORDERED BY ENGINEER
ASPH	ASPHALT
BDY	BOUNDARY
BLDG	BUILDING
BM	BENCH MARK
CC	CENTER TO CENTER
CONC	CONCRETE
CONST	CONSTRUCTION
CR	COUNTY ROAD
D	DEED DISTANCE
DM	DIRECT MEASUREMENT
DWY	DRIVEWAY
EP	EDGE OF PAVEMENT
ES	EDGE OF SHOULDER
FEE	FEE ACQUISITION
FEE WO/A	FEE ACQUISITION WITHOUT ACCESS
FP	FENCE POST
FD	FOUNDATION
FL	FENCE LINE
GAR	GARAGE
GR	GRAVEL
HO	HOUSE
HWY	HIGHWAY
IP	IRON PIN OR IRON PIPE
MB	MAILBOX
MON	MONUMENT
N&W	NAIL AND WASHER
OG	ORIGINAL GROUND
O/H	OVERHEAD
P	PARCEL
PAV'T	PAVEMENT
PE	PERMANENT EASEMENT
PED POLE	PEDESTRIAN POLE
ℙ	PROPERTY LINE
POR	PORCH
RR	RAILROAD
RTE	ROUTE
ROW	RIGHT OF WAY
RW	RETAINING WALL
SH	STATE HIGHWAY
SHLDR	SHOULDER
SPK	SPIKE
ST	STREET
STK	STAKE
STY	STORY
SW	SIDEWALK
TE	TEMPORARY EASEMENT
TO	TEMPORARY OCCUPANCY
U/G	UNDERGROUND
WW	WING WALL

UTILITIES	
ABBR.	DESCRIPTION
E	ELECTRIC
EMH	ELECTRIC MANHOLE
G	GAS
GP	GUY POLE
GSB	GAS SERVICE BOX (HOUSE LINE)
GV	GAS VALVE (MAIN LINE)
HYD	HYDRANT
LP	LIGHT POLE
LPG	LOW PRESSURE GAS
PP	POWER POLE
SA	SANITARY SEWER
SMH	SANITARY MANHOLE
ST	STORM SEWER
T	TELEPHONE
TCB	TRAFFIC CONTROL BOX
TELBOX	TELEPHONE BOX
TEL P	TELEPHONE POLE
TMH	TELEPHONE MANHOLE
CTV	CABLE TELEVISION
W	WATER
WSB	WATER SERVICE BOX (HOUSE LINE)
WV	WATER VALVE (MAIN LINE)

SUBSURFACE EXPLORATION	
ABBR.	DESCRIPTION
REPLACE ABBREVIATION "AB" WITH:	
AH	HAND AUGER
CP	CONE PENTROMETER
DA	2¼ INCHES CASED DRILL HOLE
DM	DRILLING MUD
DN	4 INCHES CASED DRILL HOLE
FH	HOLLOW FLIGHT AUGER
PA	POWER AUGER
PH	PROBE
PT	PERCOLATION TEST HOLE
RP	1 INCH SAMPLER (RETRACTABLE PLUG)
	TO BE DEFINED AT THE TIME OF EXPLORATION
SP	SEISMIC POINT
TP	TEST PIT
ABBREVIATION "C" IN CATEGORIES: DA, DM, DN, AND FH WITH:	
B	BRIDGE
C	CUT
D	DAM
F	FILL
K	CULVERT
W	WALL
X	TO BE USED IF ONE OF THE ABOVE CANNOT BE DEFINED AT THE TIME THE EXPLORATION IS MADE

STANDARD SYMBOL (PLANS)	ITEM PAYMENT UNIT: ESTIMATE OF QUANTITIES SHEET	EQUIVALENT NOMENCLATURE: (SPECS/PROPOSAL)
"	-	INCHES
'	LF	LINEAR FEET
mi	MI	MILES
ft^2	SF	SQUARE FEET
YD^2	SY	SQUARE YARD
AC	AC	ACRES
YD^3	CY	CUBIC YARD
GAL	GAL	GALLON
lb	LB	POUND
TON	TON	TON

INDEX		TOTAL NUMBER OF SHEETS: 12
SHEET NUMBER	DESCRIPTION	DRAWING NUMBER
1	COVER	COVER
2	INDEX AND ABBREVIATIONS	IND-01
3	POINT LEGEND	LEG-01
4	LINE LEGEND	LEG-02
5	GENERAL NOTES	GNN-01
6	WORK ZONE TRAFFIC CONTROL NOTES	WZN-01
7	TRAFFIC SIGNAL NOTES	TSN-01
8	TRAFFIC SIGNAL DETAILS	TSD-01
9-12	TRAFFIC SIGNAL PLAN	TSP-01 TO TSP-01C

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REVISION | DATE | BY | NO.

Creighton Manning

PREPARED FOR: ROMBOUT FIRE DISTRICT
901 MAIN STREET
FISHKILL, NY 12524

DESIGNED: D.J.K. | DRAWN BY: K.H.D. | CHECKED: D.P.R.

OFF-SITE SIGNAL IMPROVEMENTS
NY ROUTE 52/ROMBOUT FIRE STATION #2
TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

INDEX AND ABBREVIATIONS

DATE: NOVEMBER 2022 | CM No.: 121-286 | SCALE: AS NOTED

IND-01

SHEET NUMBER 2 of 12

ALIGNMENT

CELL	NAME	DESCRIPTION
	ACC	CENTER OF CURVATURE
	ACOGO	COGO
	ACS	CURVE TO SPIRAL
	ADPI_P	DETOUR, POINT OF INTERSECT.
	ADPL_P	DETOUR, POINT ON LINE
	AEQN	EQUATION
	AEQNAHD	EQUATION AHEAD
	AEQNBK	EQUATION BACK
	AEVT	EVENT STATION
	APC	POINT OF CURVATURE
	APCC	POINT OF COMPOUND CURVATURE
	API	POINT OF INTERSECTION
	APOB	POINT OF BEGINNING
	APOC	POINT OF CURVATURE
	APOE	POINT OF END
	APOL	POINT ON LINE
	APOS	POINT ON SPIRAL
	APOT	POINT ON TANGENT
	APOVC	POINT ON VERTICAL CURVE
	APOVT	POINT ON VERTICAL TANGENT
	APORC	POINT ON REVERSE CURVE
	APT	POINT OF TANGENCY
	APVC	POINT OF VERTICAL CURVATURE
	APVCC	POINT OF VERT. CMPND CURVE
	APVI	POINT OF VERT. INTERSECTION
	APVRC	POINT OF VERT. REVERSE CURVE
	APVT	POINT OF VERTICAL TANGENCY
	ASC	SPIRAL TO CURVE
	ASPI	SPIRAL POINT OF INTERSECTION
	ASTS	SPIRAL TO SPIRAL
	AST	SPIRAL TO TANGENT
	ATS	TANGENT TO SPIRAL
	AVEVT	VERTICAL EVENT POINT
	AVHIGH	VERTICAL HIGH POINT
	AVLOW	VERTICAL LOW POINT

BRIDGE

	BSC	BRIDGE, SCUPPER

CONTROL

	CBP	BASELINE, POINT
	CBPOL	BASELINE, POINT ON LINE
	CBSP	BASELINE, SPUR POINT
	CBTP	BASELINE, TIE POINT
	CPBM	BENCHMARK
	CPH	POINT, HORIZ. PHOTOGRAMMETRY
	CPSM	POINT, SURVEY MARKER, PERM.
	CPSV	POINT, VERT., PHOTOGRAMMETRY

DRAINAGE

CELL	NAME	DESCRIPTION
	DINV	INVERT
	DS	STRUCTURE, RECTANGULAR
	DSI	STRUCTURE, INVERT
	DSM	STRUCTURE, MANHOLE
	DSMTXX_P	STRUCTURE, MANHOLE, TYPE "XX" "XX" = 48, 60, 72, 96
	DSR	STRUCTURE, ROUND
	DST"X"CB_P	STRUCTURE, RECT., WITH CURB TYPE "X" "X" = F, G, N, O, P, R
	DST"X"_P	STRUCTURE, RECT., TYPE "X" "X" = I, K, L, M, O, P, U

ENVIRONMENTAL

CULV	EIOP_P	STR., INLET, OUTLET PROT.
GB	EIPGB_P	STR., INLET PROT., GRAVEL BAG
H/S	EIPHS_P	STR., INLET PROT., HAY/STRAW
PRFB	EIPP_P	STR., INLET PROT., PREFAB.
SF	EIPSF_P	STR., INLET PROT., SILT FENCE
	ERCB	RISER, CONCRETE BOX
	ETRS_P	TRAP, SEDIMENT
	EWFG	WETLAND FLAG

GEOTECHNICAL

	GDH	DRILL HOLE

LANDSCAPE

	LELS	ELEVATION, SPOT
P	LFP	FLAG POLE
	LMB	MAILBOX
	LPB	PAPER BOX
	LPST	POST, SINGLE
	LRB	ROCK, BOULDER
	LSHC	SHRUB, CONIFEROUS
	LSHD	SHRUB, DECIDUOUS
	LTC	TREE, CONIFEROUS
	LTD	TREE, DECIDUOUS
	LTS	TREE, STUMP
	LTW_P	TREE, WELL OR WALL
	LUKP	UNKNOWN POINT

ITS

CELL	NAME	DESCRIPTION
	IANT_P	ANTENNAS
A	IASCTS	ACCOU. SPEED/COUNT SNSR.S
P	ICABPAD	CABINET & PAD
	ICCTV	CCTV SITE
CDPD	ICDPD	CDPD TRANSCEIVER
	ICELLT	CELL PHONE TOWER
	ICJB	CONDUIT JACK OR BORING
	ICNTLCAB	CONTROLLER CABINET
	ICPB	COMMUNICATION PULL BOX
	ICTD	CONDUIT TURNING DOWN
	ICTU	CONDUIT TURNING UP
	ICVTRT	COMM. VEH. ROAD TRANSCEIVER
	IDEFAULT	DEFAULT
EZ	IEZR	E-ZPASS READER
EZ-T	IEZTR	TRANSMITTAL READER
XC	IFOXCAB	FIBER OPTIC X-CONNECT CABINET
	IFUSSPL	FUSION SPLICE
	IHARADV	HAR ADVISORY SIGN
H	IHARST	HAR SITE
LC	ILC	LOAD CENTER
	IMECSPL	MECHANICAL SPLICE
PM	IMSCS	PORT. SPEED & COUNT SENSOR
M	IMSCTS	MICRO SPEED & COUNT SENSOR
M	IMT	MICROWAVE TRANSCEIVER
VMS	IOVHVMS	PERM. OVERHEAD VMS
PA	IPASCS	PORT. ACCOU. SPD & CNT. SENSOR
	IPEDS	PEDESTRIAN SIGNAL HEAD
	IPSS	PAVEMENT SURFACE SENSOR
PVMS	IPVMS	PERM. VMS
RM	IRM	RAMP METER
RWIS	IRWIS	RDWY WEATHER INFO. SENSOR
	ISP	SOLAR PANEL
SS	ISST	SPREAD SPECT. TRANSCEIVER
TC	ITDB	TELEPHONE DEMARCATION BLK
TP	ITP	SUBSURFACE TEMP. PROBE
	IVTRT	VEHICLE TO RDWY TRANSCEIVER
WIM	IWIMD	WEIGHT IN MOTION DETECTOR
WVR	IWVR	WIRELESS VIDEO REPEATER
V	IWVRC	WIRELESS VIDEO RECEIVER
V	IWVTT	WIRELESS VIDEO TRANSMITTER

ROW MAPPING

CELL	NAME	DESCRIPTION
	MDL1P	DEED LINE, TYPE 1
	MDL2P	DEED LINE, TYPE 2
	MDL3P	DEED LINE, TYPE 3
	MDL4P	DEED LINE, TYPE 4
	MDL5P	DEED LINE, TYPE 5
	MEEP	EASEMENT, EXISTING
A	MEPAP_P	EASEMENT, PERM., APPROX.
	MEPP_P	EASEMENT, PERM., BACK LINE
	MEPSP_P	EASEMENT, PERM., SHAPE
A	MFAP_P	FEE ACQUISITION, APPROX.
	MFP_P	FEE ACQUISITION, BACK LINE
	MFSP_P	FEE ACQUISITION, SHAPE
	MHBAP	HIGHWAY BNDRY., APPROX.
	MHBCP	HISTORICAL, BLDG. CORNERS
	MHBP	HIGHWAY BNDRY, PT.
	MJCP	PT., JURIS. CITY
	MPBC	PT., BUILDING CORNER
	MPCC	PT., CROSS CUT
	MPDH	PT., DRILL HOLE
	MPF	PT., FENCE LOCATION
	MPIP	PT., IRON PIPE
	MPIR	PT., IRON ROD
	MPM	PT., MONUMENT
	MPMM	PT., MONUMENT, MISC.
	MPN	PT., NAIL
	MPRS	PT., RAILROAD SPIKE
	MPSP	PT., SPIKE
	MPST	PT., STAKE
	MPTW	PT., TREE W/ WIRE
	MPWL	PT., WALL LOCATION

ROW ACQUISITION

M1 P1 FEE	MFS_P_T	FEE ACQUISITION
M1 P1 PE	MEPS_P_T	EASEMENT, PERMANENT
M1 P1 TE	METS_P_T	EASEMENT, TEMPORARY
M1 P1 TO	METS_P_T	OCCUPANCY, TEMPORARY
M1 P1 FEE WO/A	MFS_P_T	FEE ACQUISITION W/O ACCESS

ROADWAY

	RES_P	ELEVATION, SPOT
	RGA	GUIDE RAIL, ANCHOR
	RGP	GUIDE POST, SINGLE

SIGNS

CELL	NAME	DESCRIPTION
	S	SINGLE POST
	S_P	SINGLE POST, PROPOSED
	SB_P	BACK TO BACK, PROPOSED
	SDEL	DELINEATORS
	SPM	PARKING METER
RFM	SRM	REFERENCE MARKERS
	SRSC3	SHLD, CTY, 123 DIG.
	SRSC4	SHLD, CTY, 4 DIG.
	SRSCT2	SHLD, CTY TOUR, 1-2 DIG.
	SRSCT4	SHLD, CTY TOUR, 3-4 DIG.
	SRSI	SHLD, INTERSTATE
	SRSN2	SHLD, NATIONAL, 2 DIG.
	SRSN3	SHLD, NATIONAL, 3 DIG.
	SRSS2	SHLD, STATE, 2 DIG.
	SRSS3	SHLD, STATE, 3 DIG.
	SRSS4	SHLD, STATE, 4 DIG.

TRAFFIC CONTROL

	TCBJ	BOX, JUNCTION
	TCBP	BOX, PULL BOX
	TCBS	BOX, SPLICE
	TCMC	MICROCOMPUTER CABINET
	TCPP	PED POLE
	TCSH	SIGNAL HEADS
	TCSP	SIGNAL POLE

TRAFFIC WORK ZONE

	TWZAP_P	ARROW PANEL
	TWZAPC_P	ARROW PANEL, CAUTION MODE
	TWZAPT_P	ARROW PANEL, TRAILER OR SUPPORT
	TWZBCD_P	BARRICADE (TYPE III)
	TWZCMS_P	CHANGEABLE MESSAGE SIGN (PVMS)
	TWZFLG_P	FLAGGER
	TWZFT_P	FLAG TREE
	TWZIA_P	IMPACT ATTENUATOR / CRASH CUSHION (TEMPORARY)
	TWZLUM_P	LUMINAIRE (TEMPORARY)
	TWZSDT_P	SYMBOL, DIRECTION OF TRAFFIC
	TWZSDTD_P	SYMBOL, DIRECTION OF TEMPORARY TRAFFIC DETOUR
	TWZSGN_P	SIGN (TEMPORARY)
	TWZSIG_P	SIGNAL, TRAFFIC OR PEDESTRIAN (TEMPORARY)
	TWZWL_P	WARNING LIGHT
	TWZWV_P	WORK VEHICLE
	TWZWVA_P	WORK VEHICLE WITH TRUCK MOUNTED ATTENUATOR

UTILITIES

CELL	NAME	DESCRIPTION
E	UEB	ELECTRIC, BOX
E	UEM	ELECTRIC, METER
E	UEMH	ELECTRIC, MANHOLE
	UEPT	ELECTRIC, POLE, TRANS.
G	UGM	GAS, METER
G	UGMH	GAS, MANHOLE
	UGLM	GAS, LINE MARKER
FP	UGP	GAS/FUEL PUMP
	UGV	GAS, VALVE
	UGVT	GAS, VENT
	ULP	LIGHTING, POLE
	ULPM	LIGHTING, POLE, MEDIAN
	ULPP	LIGHTING, POLE, PED.
	UMFC	MISC. FILLER CAP
	UOLM	OIL, LINE MARKER
	UP	POLE, WITH UTILITY
	UPD	POLE, DEAD (NO UTILITY)
	UPL	POLE, WITH LIGHT
S	USMH	SANITARY SEWER MANHOLE
P	UTB	TELEPHONE, BOOTH
	UTLM	TELEPHONE, LINE MARKER
T	UTMH	TELEPHONE, MANHOLE
	UTVLM	CABLE TV, LINE MARKER
C	UTVPB	CABLE TV, PULL BOX
	UUB	UNKNOWN, BOX
	UUJB	UNKNOWN, JUNCTION BOX
	UUMH	UNKNOWN, MANHOLE
	UUPB	UNKNOWN, PULL BOX
	UUVL	UNKNOWN, VALVE
	UUVT	UNKNOWN, VENT
	UUW	UNKNOWN, WELL
	UWFH	WATER, FIRE HYDRANT
W	UWM	WATER, METER
W	UWMH	WATER, MANHOLE
	UWV	WATER, VALVE
W	UWW	WATER, WELL

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OFF-SITE SIGNAL IMPROVEMENTS
NY ROUTE 52/ROMBOUT FIRE STATION #2
TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

POINT LEGEND

DATE: NOVEMBER 2022 | CM No.: 121-286 | SCALE: AS NOTED

LEG-01

SHEET NUMBER 3 of 12

ALIGNMENT

STYLE	NAME	DESCRIPTION
	AC	CONTROL (CENTERLINE)
	AD_P	DETOUR
	AT_P	TRANSITION CONTROL
BRIDGE		
	BR	RAIL
	BSHT	SHEET PILING
CONTROL		
℄	CB	BASELINE
	CBPR	BASELINE, PROJECTION
DRAINAGE		
ST	DCP	CULVERT PIPE
ST	DCP_P	CULVERT PIPE (DIR)
	DDG_P	DITCH, GRASS LINED
	DDP_P	DITCH, PAVED INVERT
	DDS_P	DITCH, STONE LINED
	DFL_P	FLOW LINE
	DSSD	SLOTTED DRAIN
UD	DUD_P	UNDERDRAIN
ENVIRONMENTAL		
FL	EBLHS	BALE, STRAW
	ECT	CURTAIN, TURBIDITY
	EDMC	DAM, COFFER TYPE
	EDMEC_P	DAM, EARTHEN, CHECK
	EDMPC_P	DAM, PREFAB, CHECK
	EDMSC_P	DAM, STONE, CHECK
	EFNS	FENCE, SILT
x	EFNSV	FENCE, SILT & VEGETATION
x	EFNV	FENCE, VEGETATION
AA	EWAA_P	WETLAND, ADJACENT AREA
FW	EWF	WETLAND, FEDERAL
FW SW	EWFS	WETLAND, FEDERAL AND STATE
SW	EWM	WETLAND, MITIGATION AREA
SW	EWS	WETLAND, STATE

LANDSCAPE

STYLE	NAME	DESCRIPTION
	LABL	AREA, BRUSH LINE
	LAHR	AREA, HEDGE ROW
	LAPB	AREA, PLANTING BED
	LAWA	AREA, WOODED AREA OUTLINE
	LAWE	AREA, WATERS EDGE
	LCUT_P	CUT LIMIT
	LFILL_P	FILL LIMIT
	LFNC	FENCE
	LTRC	TREE ROW, CONIFEROUS
	LTRD	TREE ROW, DECIDUOUS
	LWH	WALL, H PILE
	LWR	WALL, RETAINING
	LWS	WALL, STONE
ROW MAPPING		
	MDL	DEED LINE
PE	MEE	EASEMENT, EXISTING
PE	MEP_P	EASEMENT, PERMANENT
APE	MEPA_P	EASEMENT, PERMANENT, APPROX.
TE	MET_P	EASEMENT, TEMPORARY
ATE	META_P	EASEMENT. TEMPORARY, APPROX.
FEE	MF_P	FEE ACQUISITION, W/ ACCESS
AFEE	MFA_P	FEE ACQUISITION, APPROXIMATE
	MFS_P	FEE ACQUISITION, SHAPE
FEE W/OA	MFWOA_P	FEE ACQUISITION, W/O ACCESS
	MHA	HISTORICAL, ACQUISITION
HB	MHB	HIGHWAY BOUNDARY
AHB	MHBA	HIGHWAY BOUNDARY, APPROX.
	MHBW	HWY BOUNDARY, FACE OF WALL
HB W/OA	MHBWOA	HIGHWAY BOUNDARY, W/O ACCESS
	MJC	JURISDICTION, CITY
	MJCY	JURISDICTION, COUNTY
	MJHD	JURISDICTION, HISTORIC DISTRICT
	MJLL	JURIS., (GREAT, MILITARY) LOT LINE
	MJN	JURISDICTION, NATION
	MJPB	JURISDICTION, PUBLIC LANDS
	MJS	JURISDICTION, STATE
	MJT	JURISDICTION, TOWN
	MJV	JURISDICTION, VILLAGE
	MPL	PROPERTY LOT LINE
	MPLA	PROPERTY LOT LINE, APPROXIMATE
	MSL	SUB LOT LINE

ROADWAY

STYLE	NAME	DESCRIPTION
CZ	RCZ_P	CLEAR ZONE
	RG	GUIDE RAIL, MISCELLANEOUS
	RGB	GUIDE RAIL, BOX BEAM
	RGBM	GUIDE RAIL, BOX BEAM, MEDIAN
	RGC	GUIDE RAIL, CABLE
	RGCB	GUIDE RAIL, CONCRETE BARRIER
	RGP_P	GUIDE POST
	RGW	GUIDE RAIL, W BEAM
	RGWM	GUIDE RAIL, W BEAM, MEDIAN
	RPB	PARKING BUMPER
	RRC	RAIL ROAD, CATENARY
3R	RRER	RAIL ROAD, 3RD RAIL
	RRPLS_P	RAIL, PHOTO, LARGE SCALE
	RRPSS	RAIL, PHOTO, SMALL SCALE
	RRS	RUMBLE STRIP
	RRSLS_P	RAIL, SURVEY, LARGE SCALE
	RRSSS	RAIL, SURVEY, SMALL SCALE
SIGNS		
	SBLB	BILLBOARDS
	SM	MULTIPLE POST
	SSO	STRUCTURE, OVERHEAD
	SSOC	STRUCTURE, OVHD. CANTILEVER
STRIPING		
	STB•	BROKEN LINE
	STDB•	DOUBLE BROKEN LINE
	STDL•	DOTTED LINE LONG
	STDS•	DOTTED LINE SHORT
	STFB•	FULL BARRIER LINE
	STH•	HATCH LINE
	STPB•	PARTIAL BARRIER LINE
	STRCT	ROUNDABOUT, CAT TRACKS
	STRYL	ROUNDABOUT, YIELD LINE
	STSB	STOP BAR
	STSE•	SOLID, EDGE
	STXL•	X WALK, LADDER LINE
		• = W (WHITE) OR Y (YELLOW)
TRAFFIC CONTROL		
	TCSW	SIGNAL, SPAN WIRE
TRAFFIC WORK ZONE		
	TWZBT_P	BARRIER, TEMPORARY
	TWZBTWL_P	BARRIER, TEMPORARY, W/ WARNING LIGHTS
	TWZCD_P	CHANNELIZING DEVICE
	TWZPMRC_P	PAVEMENT MARKING REMOVAL OR COVERING

UTILITIES

STYLE	NAME	DESCRIPTION
C	UC	CONDUIT, UNDERGROUND
]C[	UCH	CONDUIT, HANGING
OC	UCO	CONDUIT, OVERHEAD
E	UE	ELECTRIC LINE, UNDERGROUND
]E[	UEH	ELECTRIC LINE, HANGING
OE	UEO	ELECTRIC LINE, OVERHEAD
OET	UETO	ELECTRIC TRANSMISSION, OVERHEAD
	UESS	ELECTRIC, SUBSTATIONS
FO	UFO	FIBER OPTIC, UNDERGROUND
]FO[	UFOH	FIBER OPTIC, HANGING
OFO	UFOO	FIBER OPTIC, OVERHEAD
G	UG	GAS, UNDERGROUND
]G[	UGH	GAS, HANGING
OG	UGO	GAS, OVERHEAD
IC	UIC	INFORM CABLE, UNDERGROUND
]IC[	UICH	INFORM CABLE, HANGING
O	UO	OIL LINE, UNDERGROUND
]O[	UOH	OIL LINE, HANGING
	UPBP	POLE, BRACE, PUSH BRACE
	UPGW	POLE, GUY WIRE
SA	USA	SANITARY SEWER, UNDERGROUND
]SA[	USAH	SANITARY SEWER, HANGING
SAF	USAF	SANITARY SEWER, FORCE MAIN, UGND
]SAF[	USAFH	SANITARY SEWER, FORCE MAIN, HANG
T	UT	TELEPHONE, UNDERGROUND
]T[	UTH	TELEPHONE, HANGING
OT	UTO	TELEPHONE, OVERHEAD
CTV	UTV	CABLE TV, UNDERGROUND
]CTV[	UTVH	CABLE TV, HANGING
OCTV	UTVO	CABLE TV, OVERHEAD
UU	UUU	UNKNOWN, UNDERGROUND
]UU[	UUH	UNKNOWN, HANGING
OUU	UUO	UNKNOWN, OVERHEAD
W	UW	WATER LINE, UNDERGROUND
]W[	UWH	WATER LINE, HANGING
OW	UWO	WATER LINE, OVERHEAD

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PREPARED FOR: ROMBOUT FIRE DISTRICT
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FISHKILL, NY 12524

DESIGNED: D.J.K. | DRAWN BY: K.H.D. | CHECKED: D.P.R.

OFF-SITE SIGNAL IMPROVEMENTS
NY ROUTE 52/ROMBOUT FIRE STATION #2
TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

LINE LEGEND

DATE: NOVEMBER 2022 | CM No.: 121-286 | SCALE: AS NOTED

LEG-02

SHEET NUMBER 4 of 12

GENERAL NOTES:

1. UNLESS OTHERWISE NOTED ALL ITEM NUMBERS FOR SPECIFIC WORK TASKS RELATE TO THE NEW YORK STATE STANDARD SPECIFICATIONS.
2. THE CONTRACTOR SHALL EXAMINE AND VERIFY IN THE FIELD ALL EXISTING AND GIVEN CONDITIONS, ELEVATIONS AND DIMENSIONS SHOWN ON THE PLANS. IF FIELD CONDITIONS AND DIMENSIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL MAKE APPROPRIATE CHANGES TO THOSE SHOWN ON THE PLANS, AS APPROVED BY THE ENGINEER. ALL FIELD CONDITIONS AND DIMENSIONS SHALL BE NOTED ON THE AS-BUILT DRAWINGS SUBMITTED FOR APPROVAL.
3. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT, DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF CONSTRUCTION WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH FIELD CONDITIONS.
4. NO ADDITIONAL PAYMENT SHALL BE MADE FOR WORK CALLED FOR BY NOTES ON THE PLAN, IN THE SPECIFICATIONS, OR UNDER THE HEADING "GENERAL NOTES" UNLESS PAYMENT IS SPECIFICALLY INDICATED BY ITEM NUMBER. THE COST OF WORK FOR WHICH NO PAYMENT IS INDICATED SHALL BE INCLUDED IN THE LUMP UNIT BID PRICE FOR THE VARIOUS ITEMS IN THE CONTRACT.
5. THE CONTRACTOR IS ADVISED THAT ADDITIONAL NOTES WILL BE FOUND ON SUBSEQUENT SHEETS OF THE PLANS AND SUCH NOTES, WHILE PERTAINING TO THE SPECIFIC DRAWINGS THEY ARE PLACED ON, ALSO SUPPLEMENT THE GENERAL NOTES LISTED HEREIN.
6. IF THE ENGINEER NOTIFIES THE CONTRACTOR OF ANY HAZARDOUS CONSTRUCTION PRACTICES, ALL OPERATIONS IN THE AFFECTED AREA SHALL BE DISCONTINUED AND IMMEDIATE ACTION SHALL BE TAKEN TO CORRECT THE SITUATION TO THE SATISFACTION OF THE ENGINEER BEFORE WORK IS RESUMED.
7. ALL EXISTING PAVEMENT AND SHOULDER SURFACES THAT ARE TO BE RESURFACED SHALL BE CLEANED IN ACCORDANCE WITH SECTION 633 (CONDITIONING OF EXISTING PAVEMENT) OF THE NYSDOT STANDARD SPECIFICATIONS.
8. ALL EXISTING TRAFFIC SIGNS REMOVED BY THE CONTRACTOR WITH A NYSDOT STICKER ON THE BACK OF THE PANEL SHALL BECOME THE PROPERTY OF THE NYSDOT. SIGNS WILL BE STORED AND LOCAL STATE RESIDENCY NOTIFIED FOR PICKUP. ALL OTHER EXISTING SIGNS SHALL BECOME THE PROPERTY OF THE TOWN OF FISHKILL.
9. ALL WORK SHALL BE DONE IN STRICT COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES, STANDARDS, ORDINANCES, RULES, AND REGULATIONS.
10. THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF EXISTING EDGE OF PAVEMENT ALONG ALL RIGHTS-OF-WAY.
11. SUBMITTALS, CATALOG CUTS, SAMPLES, AND SHOP DRAWINGS MUST BE RECEIVED, REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ORDERING OR FABRICATION OF MATERIALS AND PRIOR TO INSTALLATION OF MATERIALS. FAILURE TO DO SO MAY RESULT IN TIME DELAYS. THE CONTRACTOR WILL NOT BE ENTITLED TO COMPENSATION FOR SAID TIME DELAYS, REMOVALS, OR REPLACEMENTS.

ENVIRONMENTAL NOTES:

1. ALL DISTURBED UNPAVED AREAS WITHIN THE DESIGNATED WORK LIMITS SHALL BE GRADED, FERTILIZED, SEEDED AND MULCHED AS SPECIFIED UNDER SECTION 610 (GROUND VEGETATION - PREPARATION, ESTABLISHMENT AND MANAGEMENT) OF THE NYSDOT STANDARD SPECIFICATIONS.
2. DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE INTO THE WATERS OF NEW YORK STATE, NOR SHALL WASHINGS FROM REDI-MIX TRUCKS, MIXERS OR OTHER DEVICES BE ALLOWED TO ENTER ANY WETLAND OR WATERS. DESIGNATED WASH OUT AREAS TO BE APPROVED BY THE ENGINEER IN CHARGE.

UTILITY NOTES:

1. LOCATION OF UTILITIES, PUBLIC AND/OR PRIVATE, INDICATED ON THE PLANS AS EXISTING AND/OR TO BE CONSTRUCTED ARE APPROXIMATE ONLY. THEIR EXACT LOCATION SHALL BE DETERMINED IN THE FIELD. ADDITIONAL UTILITY LINES, WHETHER ABANDONED OR IN SERVICE, MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT HIS OR HER OPERATIONS, AND TAKE NECESSARY PRECAUTIONS SUCH THAT INTERFERENCE WITH OR DAMAGE TO THESE OR OTHER FACILITIES DURING THE COURSE OF CONSTRUCTION IS PREVENTED.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CALL "DIG SAFELY" (1-800-962-7962) TO HAVE UNDERGROUND UTILITIES LOCATED.
3. EXPLORATORY EXCAVATIONS SHALL BE PERFORMED AS NEEDED BY THE CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO WORK IN CONGESTED UTILITY AREAS. ALL TEST PITS IDENTIFIED ON THESE DRAWINGS ARE TO BE COMPLETED AND TEST PIT LOGS SUBMITTED TO THE ENGINEER WITHIN FOURTEEN (14) DAYS FOLLOWING NOTICE TO PROCEED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
4. THE QUALITY OF THE UNDERGROUND UTILITY INFORMATION ON THE PLANS IS QUALITY LEVEL "D". FOUR SEPARATE QUALITY LEVELS OF SUBSURFACE UTILITY FACILITY INFORMATION ARE GENERALLY RECOGNIZED AND ARE AS FOLLOWS:
   - QUALITY LEVEL A (QLA): QUALITY LEVEL A IS THE HIGHEST DEGREE OF ACCURACY. THE INFORMATION SHOWN ON THE PLANS HAS BEEN OBTAINED BY THE ACTUAL EXPOSURE (OR VERIFICATION OF PREVIOUSLY EXPOSED AND SURVEYED UTILITY FACILITIES) OF SUBSURFACE UTILITIES, USING (TYPICALLY) MINIMALLY INTRUSIVE EXCAVATION EQUIPMENT TO DETERMINE THEIR PRECISE HORIZONTAL AND VERTICAL POSITIONS, AS WELL AS THEIR OTHER UTILITY FACILITY ATTRIBUTES. (SHOWN AS QLA)
   - QUALITY LEVEL B (QLB): QUALITY LEVEL B IS THE SECOND HIGHEST DEGREE OF ACCURACY. THE INFORMATION SHOWN ON THE PLANS HAS BEEN OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS (I.E., UNDERGROUND CAMERAS, RADAR, SONAR, TONE OUTS, ETC.) TO IDENTIFY THE EXISTENCE AND APPROPRIATE HORIZONTAL POSITION OF SUBSURFACE UTILITY FACILITIES, QUALITY LEVEL B DATA ARE REPRODUCIBLE BY SURFACE GEOPHYSICS AT ANY POINT OF THEIR DEPICTION. THE INFORMATION WAS SURVEYED TO APPLICABLE TOLERANCES AND REDUCED ONTO THE PLANS. NO EXCAVATIONS WERE PERFORMED. (SHOWN AS QLB)
   - QUALITY LEVEL C (QLC): QUALITY LEVEL C IS THE THIRD HIGHEST DEGREE OF ACCURACY. THE INFORMATION SHOWN ON THE PLANS HAS BEEN OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D INFORMATION. (SHOWN AS QLC)
   - QUALITY LEVEL D (QLD): QUALITY LEVEL D IS THE LOWEST DEGREE OF ACCURACY. THE INFORMATION SHOWN ON THE PLANS WAS DERIVED SOLELY FROM EXISTING NYSDOT AND/OR UTILITY COMPANY RECORDS OR RECOLLECTIONS. (SHOWN AS QLD)

SURVEY NOTES:

1. BASE MAPPING AND RIGHT-OF-WAY INFORMATION PREPARED BY LAWRENCE J. PAGGI, PE, PC, LOCATED AT 43 BROAD STREET, FISHKILL, NY 12524 (PH. 845-897-2375).

RIGHT OF WAY NOTES:

1. ALL WORK TO BE PERFORMED UNDER THIS CONTRACT WILL BE WITHIN THE PUBLIC RIGHT-OF-WAY (ROW) IN ACCORDANCE WITH SECTION 105-15 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR IS TO ASSURE HIMSELF THAT ALL WORK IS BEING PERFORMED WITHIN THE ROW, INCLUDING BUT NOT LIMITED TO VEHICLE ACCESS; STORAGE OF EQUIPMENT, MATERIALS, DEBRIS AND WASTE; LANDSCAPING; VEGETATION REMOVAL AND MANAGEMENT; GRADING, SEEDING AND THE INSTALLATION OF TURF; AND THE INSTALLATION OF ANY FENCES OR PROTECTIVE BARRIER.
2. IF THE CONTRACTOR IS UNABLE TO IDENTIFY THE LIMITS OF THE RIGHTS-OF-WAY WHEN THE CONTRACT CALLS FOR WORK IN THOSE VICINITIES, THE CONTRACTOR MUST CONTACT THE PROJECT ENGINEER FOR DEFINITIVE BOUNDARY DETERMINATIONS BEFORE ANY WORK MAY BE INITIATED AT THOSE LOCATIONS (STANDARD SPECIFICATIONS SECTIONS 105-10 AND 625).
3. IN ACCORDANCE WITH SECTION 105-15 OF THE STANDARD SPECIFICATIONS, RELEASES FOR ANY NON-ESSENTIAL CONTRACT WORK OUTSIDE OF THE EXISTING RIGHTS-OF-WAY, INCLUDING PLANTINGS, LANDSCAPING OR DRIVEWAY ENHANCEMENT, WILL BE PROVIDED BY THE PROJECT ENGINEER AND IN NO INSTANCE ARE TO BE SECURED BY THE CONTRACTOR. THE CONTRACTOR SHALL NOT INVADE UPON PRIVATE PROPERTIES, LANDS OR BUILDINGS OUTSIDE OF THE RIGHTS-OF-WAY FOR ANY REASON WITHOUT FIRST SECURING WRITTEN PERMISSION FROM THE PROPERTY OWNER (STANDARD SPECIFICATIONS SECTION 105-15).
4. THE CONTRACTOR WILL BE HELD LIABLE FOR ANY DAMAGES DONE. ANY SUCH INJURIES OR DAMAGES SHALL BE SATISFACTORY REPAIRED OR ITEMS PLACED AT THE CONTRACTOR'S EXPENSE (STANDARD SPECIFICATIONS SECTION 107-08).

ACCESS AND NOTIFICATION NOTES:

1. THE CONTRACTOR SHALL PROVIDE SAFE AND ADEQUATE ACCESS INTO OR THROUGH THE WORK SITE BY EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN ALL TRAFFIC IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE NYS SUPPLEMENT, AND EFFORTS SHALL BE COORDINATED WITH THE ENGINEER, AND/OR THE NYSDOT. TEMPORARY PAVEMENT SHALL BE PLACED WITHIN 48 HOURS OF COMPLETION OF EXCAVATION AND BACKFILL OPERATIONS WITHIN THE PAVEMENT LIMITS.
3. THE CONTRACTOR SHALL NOTIFY THE STATE AND/OR TOWN 72 HOURS PRIOR TO ANY STREET OR LANE CLOSURES OR ANY WORK AFFECTING TRAFFIC SIGNALS.
4. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL COMMERCIAL AND RESIDENTIAL PROPERTIES AT ALL TIMES TO THE SATISFACTION OF THE ENGINEER. RAMPING CONSTRUCTION TO PROVIDE ACCESS MAY BE CONSTRUCTED WITH SUBBASE MATERIAL EXCEPT THAT TEMPORARY ASPHALT CONCRETE SHALL BE PLACED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE PEDESTRIAN ACCESS AT ALL TIMES.
5. THE CONTRACTOR SHALL NOTIFY ALL RESIDENTS AND BUSINESSES LOCATED IN THE WORK ZONE 72 HOURS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. SUCH NOTICES WILL BE FURNISHED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER AND/OR THE NYSDOT.

PROJECT SPECIFIC NOTES:

1. THE CONTRACTOR SHALL NOT BEGIN WARMING UP HIS OR HER EQUIPMENT BEFORE 7:00 AM, NOR KEEP THE EQUIPMENT RUNNING AFTER 8:00 PM. MAINTENANCE OF EQUIPMENT ON SITE WHICH REQUIRES THE EQUIPMENT TO BE RUNNING SHALL BE APPROVED BY THE ENGINEER IF THE MAINTENANCE IS PERFORMED OUTSIDE THE WORK HOUR RESTRICTIONS.
2. THE CONTRACTOR SHALL SECURE A JOINT NYSDOT HIGHWAY WORK PERMIT WITH THE ROMBOUT FIRE DISTRICT AS CO-APPLICANT. THE CONTRACTOR SHALL SECURE THE BONDS AND PAY ALL NYSDOT PERMIT FEES.
3. THESE DRAWINGS ARE INTENDED TO INDICATE ONLY THE SIGNAL WORK THAT IS LOCATED WITHIN THE STATE RIGHT-OF-WAY. FOR ALL OTHER HIGHWAY WORK LOCATED WITHIN THE STATE RIGHT-OF-WAY, OR WORK LOCATED OUTSIDE THE STATE RIGHT-OF-WAY, REFER TO THE PLANS PREPARED BY LAWRENCE J. PAGGI, PE, PC.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

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USER = dkarkotsky
PLOT = NYSDOT_ONE_PDF.pltcfg

DATE: 9/26/2022

NO.	REVISION	DATE	BY

Creighton Manning

PREPARED FOR: ROMBOUT FIRE DISTRICT
901 MAIN STREET
FISHKILL, NY 12524

OFF-SITE SIGNAL IMPROVEMENTS
NY ROUTE 52/ROMBOUT FIRE STATION #2
TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

GENERAL NOTES

DESIGNED: D.J.K. | DRAWN BY: K.H.D. | CHECKED: D.P.R.
SCALE: AS NOTED | CM No.: 121-286 | DATE: NOVEMBER 2022

GNN-01

SHEET NUMBER 5 of 12

WORK ZONE TRAFFIC CONTROL NOTES:

1. GENERAL NOTES

A. WORK ZONE TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 619 - WORK ZONE TRAFFIC CONTROL - OF THE NYSDOT STANDARD SPECIFICATIONS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, NYSDOT STANDARD SHEETS 619 SERIES, AND ANY PROVISIONS CONTAINED IN THESE PLANS.

B. THE TYPICAL DETAILS DEPICTED ON THE STANDARD SHEETS, THE TRAFFIC CONTROL PLANS, AND IN THE MUTCD REFLECT THE MINIMUM REQUIREMENTS. ADDITIONAL SIGNS AND/OR TRAFFIC CONTROL DEVICES WAY BE REQUIRED AS ORDERED BY THE ENGINEER (AOBE), COST TO BE INCLUDED IN THE PRICE BID FOR THE APPROPRIATE ITEMS. IF AT ANY TIME THE ENGINEER DETERMINES THAT TRAFFIC IS NOT BEING PROPERLY MAINTAINED WITHIN A WORK ZONE, THE CONTRACTOR SHALL IMMEDIATELY CORRECT THE INDICATED DEFICIENCY, AOBE.

C. THE CONTRACTOR MUST SUBMIT TO THE ENGINEER, IN WRITING, PROPOSED REVISIONS TO THE TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL BY THE NYSDOT/TOWN FIVE (5) WORKING DAYS PRIOR TO THE PLANNED IMPLEMENTATION OF SUCH PROPOSED REVISIONS, EXCEPT FOR CHANGES THAT ALTER THE BASIC CONCEPT OF THE TRAFFIC CONTROL PLAN. SUCH CONCEPTUAL CHANGES MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BY THE TOWN THIRTY (30) WORKING DAYS PRIOR TO IMPLEMENTATION OF SUCH REVISIONS.

D. THE CONTRACTOR SHALL PROVIDE THE ENGINEER, IN WRITING, WITH THE NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF STAFF WHO ARE AUTHORIZED TO SECURE LABOR, MATERIALS, AND EQUIPMENT FOR EMERGENCY REPAIRS OUTSIDE NORMAL WORKING HOURS. THE ENGINEER WILL PROVIDE THE SUBMITTED INFORMATION TO NYSDOT, REGIONAL MANAGEMENT, THE NEW YORK STATE POLICE, THE RESIDENT ENGINEER, THE TOWN, AND THE LOCAL POLICE.

E. PRIOR TO THE START OF ANY WORK OPERATIONS, ALL RELATED WORK FOR PROPOSED WORK ZONE TRAFFIC CONTROL, AOBE, SHALL BE COMPLETE. THIS INCLUDES BUT IS NOT LIMITED TO, ALL SIGNS, SIGNALS, PAVEMENT MARKINGS, BARRIERS, DELINEATION (CONES, DRUMS, ETC.) FLAGGERS, PAVEMENT MODIFICATIONS, AND ANY OTHER RELATED WORK.

F. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SAFE AND ADEQUATE INGRESS AND EGRESS TO AND FROM INTERSECTING HIGHWAYS, HOMES AND COMMERCIAL ESTABLISHMENTS AT ALL TIMES TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH ITEM 619.01 SECTION 619-3.02(C) OF NYSDOT STANDARD SPECIFICATIONS.

G. THE TRANSPORTATION MANAGEMENT CENTER (TMC) SHALL BE NOTIFIED BEFORE ANY WORK IS STARTED ON A STATE HIGHWAY. THE NOTIFICATION AND COORDINATION WITH THE TMC SHALL BE MADE THRU THE NYSDOT REPRESENTATIVE ASSIGNED TO THE PROJECT (DOT INSPECTOR OR RESIDENCY).

2. STANDARD SHEETS 619-10, 11, AND 12 CRITERIA

THE CONTRACTOR SHALL REFER TO THE FOLLOWING CRITERIA WHILE UTILIZING THE NYSDOT STANDARD SHEETS:

A. PRECONSTRUCTION POSTED SPEED LIMIT: 45 MPH

B. TYPE OF ROADWAY: CONVENTIONAL ROAD

C. SETTING: URBAN

3. TIME / DATE RESTRICTIONS

A. THERE SHALL BE NO TEMPORARY LANE CLOSURES ON THE FOLLOWING HOLIDAY DATES AND TIMES:

2022	2023
6:00 AM DEC 30 (2021) TO 6:00 AM JAN 3 (2022)	6:00 AM DEC 30 (2022) TO 6:00 AM JAN 3 (2023)
6:00 AM MAY 27 TO 6:00 AM MAY 31	6:00 AM MAY 26 TO 6:00 AM MAY 30
6:00 AM JULY 1 TO 6:00 AM JULY 5	6:00 AM JULY 1 TO 6:00 AM JULY 5
6:00 AM SEPT 2 TO 6:00 AM SEPT 6	6:00 AM SEPT 1 TO 6:00 AM SEPT 5
6:00 AM NOV 24 TO 6:00 AM NOV 28	6:00 AM NOV 22 TO 6:00 AM NOV 27
6:00 AM DEC 23 TO 6:00 AM DEC 27	6:00 AM DEC 22 TO 6:00 AM DEC 26

B. THERE SHALL BE NO TEMPORARY LANE CLOSURES ON RT 52 BETWEEN THE FOLLOWING HOURS:
MONDAY THROUGH FRIDAY 7 AM TO 9 AM
4 PM TO 6 PM

C. THE CONTRACTOR SHALL NOT BEGIN WARMING UP EQUIPMENT BEFORE THE SCHEDULED START TIMES, NOR KEEP THE EQUIPMENT RUNNING AFTER THE SCHEDULED QUIT TIMES. MAINTENANCE OF EQUIPMENT ON SITE WHICH REQUIRES THE EQUIPMENT TO BE RUNNING SHALL BE APPROVED BY THE ENGINEER IF THE MAINTENANCE IS PERFORMED OUTSIDE THE WORK HOUR RESTRICTIONS.

D. THERE SHALL BE NO WORK OPERATIONS ALLOWED BEFORE SUNRISE OR AFTER SUNSET WITHOUT APPROVAL OF THE NYSDOT/ENGINEER AND AN APPROVED LIGHTING PLAN. THE LIGHTING PLAN SHALL BE APPROVED PRIOR TO THE START OF WORK BY THE NYSDOT.

4. WORK ZONE REQUIREMENTS

A. THE MINIMUM WIDTH OF TRAVEL LANES WITHIN THE WORK ZONE IS 10 FEET.

B. WORK ZONES ON OPPOSITE SIDES OF THE ROAD SHALL NOT OVERLAP. A WORK ZONE IS DEFINED AS THAT AREA IN WHICH TRAFFIC IS RESTRICTED BECAUSE OF CONSTRUCTION ACTIVITIES, OR THAT AREA WHICH INVOLVES A DROP-OFF WITHIN 10 FEET OF THE EDGE OF PAVEMENT.

5. CONSTRUCTION VEHICLES, EQUIPMENT, AND MATERIALS

A. THE CLEAR ROADSIDE AREA IS DEFINED AS THE AREA WITHIN 10 FEET OF THE EDGE OF THE TRAVEL WAY.

B. CONTRACTOR VEHICLES NOT IN USE AND PRIVATE VEHICLES OWNED BY CONTRACTOR'S EMPLOYEES SHALL NOT BE PARKED IN THE CLEAR ROADSIDE AREA, OR ANY OTHER LOCATION CONSIDERED BY THE ENGINEER TO BE A HAZARD. THIS REQUIREMENT IS NOT LIMITED TO THE CONTRACT LIMITS.

C. NO MATERIAL IS TO BE STORED WITHIN THE CLEAR ROADSIDE AREA WITHOUT THE APPROVAL OF THE ENGINEER.

D. VEHICLES BELONGING TO THE CONTRACTOR OR THE CONTRACTOR'S EMPLOYEES SHALL NOT BE PARKED IN A MANNER WHICH OBSTRUCTS SIGNS, BARRIERS, BARRICADES, OR OTHER TRAFFIC CONTROL DEVICES.

E. VEHICLES BELONGING TO THE CONTRACTOR OR THE CONTRACTOR'S EMPLOYEES SHALL NOT BE PARKED IN A MANNER WHICH INTERFERES WITH ACCESS TO ABUTTING PROPERTIES.

F. THE CONTRACTOR SHALL PLAN AND INCORPORATE ACCESS POINTS INTO THE WORK ZONE SUCH THAT, TO THE EXTENT PRACTICAL, THE CONTRACTOR'S VEHICLES ENTERING AND LEAVING THE WORK ZONE SHALL NOT IMPEDE THE MOVEMENT OF THROUGH TRAFFIC IN THE ADJACENT OPEN LANES.

6. CHANNELIZING DEVICES

A. WHERE POSSIBLE ALL CHANNELIZING AND GUIDING DEVICES ARE TO BE PLACED SO AS TO PROVIDE A MINIMUM 1 FOOT LATERAL CLEARANCE TO THE TRAVELED WAY.

B. THE CONTRACTOR SHALL NOT MIX CHANNELIZATION DEVICES IN A LINEAR CLOSURE OR TAPER I.E. CONES, VERTICAL PANELS AND DRUMS SHALL NOT BE USED IN THE SAME TAPER OR CLOSURE. HOWEVER, DIFFERENT CHANNELIZATION DEVICES MAY BE USED IN DIFFERENT AREAS OF A PROJECT.

C. REFLECTORIZED PLASTIC DRUM DELINEATORS SHALL BE USED AT HAZARDOUS LOCATIONS DETERMINED BY THE ENGINEER. DELINEATORS SHALL REMAIN IN PLACE UNTIL SATISFACTORY PROTECTION IS PROVIDED. DELINEATORS SHALL BE SPACED AT A DISTANCE NOT TO EXCEED 25 FEET, OR AS DIRECTED BY THE ENGINEER.

7. FLAGGING AND TRAFFIC CONTROL

A. THE USE OF TEMPORARY SIGNALS AS A SUBSTITUTE FOR FLAGGERS WILL NOT BE ALLOWED ON THIS PROJECT.

B. FLAGGER SIGNS SHALL NOT BE USED FOR BRIEF PERIODS OF INCIDENTAL FLAGGING, AOBE. FLAGGER SIGNS SHALL NOT BE VISIBLE WHEN FLAGGERS ARE NOT BEING USED.

C. WHEN A SIDE ROAD OR DRIVEWAY INTERSECTS THE ROADWAY WITHIN A WORK ZONE TRAFFIC CONTROL AREA, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES AND/OR FLAGGERS SHALL BE PLACED AS NEEDED. ADDITIONAL FLAGGERS SHALL BE LOCATED AS NEEDED AT ALL INTERSECTIONS AND COMMERCIAL DRIVEWAYS LOCATED WITHIN OR NEAR THE ACTIVE WORK SPACE.

8. SIGNS AND DEVICES

A. DIAMOND-SHAPED ADVANCE WARNING SIGNS SHALL BE USED FOR ALL ADVANCE WARNING SIGNS SHOWN IN PART 6 OF THE MUTCD. COLOR REQUIREMENTS SHALL BE BLACK TEXT ON ORANGE BACKGROUND.

B. THE CORRECT SPACING OF SIGNS, EITHER PERMANENT OR TEMPORARY MUST BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH THE MUTCD UNLESS SHOWN OTHERWISE ON THE PLANS. ALL SIGNS INCLUDING GUIDE SIGNS SHALL INDICATE ACTUAL CONDITIONS AT ALL TIMES AND SHALL BE COVERED, MOVED, REMOVED, OR CHANGED IMMEDIATELY AS ORDERED BY THE ENGINEER.

C. THE LOCATION OF THE SIGNS SHOWN ON THE WORK ZONE TRAFFIC CONTROL PLANS AND DETAILS WAY BE ADJUSTED BASED ON SIGHT DISTANCE AND OTHER CONSIDERATIONS. THE FINAL LOCATIONS OF SIGNS ARE SUBJECT TO APPROVAL OF THE ENGINEER.

D. ANY EXISTING SIGNS, INCLUDING OVERHEAD SIGNS, WHICH CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL SIGNS LAYOUT SHALL BE COVERED, REMOVED, STORED OR RESET, AS APPROVED BY THE ENGINEER. ALL APPROPRIATE EXISTING SIGNS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND/OR LOCATION UNLESS OTHERWISE REPLACED IN THIS CONTRACT.

E. SIGNS AT OR NEAR INTERSECTIONS SHALL BE PLACED SO THAT THEY DO NOT OBSTRUCT A MOTORIST'S LINE OF SIGHT.

F. ALL WARNING AND REGULATORY SIGNS SHALL BE POSTED ON BOTH SIDES OF ONE-WAY STREETS. IN CASES WHERE LANE RESTRICTIONS REDUCE THE TRAVEL LANE TO ONE LANE, SIGNS SHALL BE POSTED ON THE RIGHT SIDE OF THE ACTIVE TRAVEL LANE, UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

G. EXPRESSWAY SIZE SIGNING SHALL BE USED ON ALL MULTI-LANE HIGHWAYS. CONVENTIONAL HIGHWAY SIZE SIGNING SHALL BE USED AT ALL OTHER LOCATIONS.

9. NOTIFICATION AND EMERGENCY ACCESS

A. THE CONTRACTOR IS REQUIRED TO CONTACT THE APPROPRIATE SCHOOL AND EMERGENCY SERVICES ORGANIZATIONS WITH RESPECT TO THE EFFECT OF ROAD WORK, TRAVEL LANE REDUCTIONS, AND DETOURS ON OPERATIONS. THIS CONTACT SHALL BE MADE AS CONDITIONS CHANGE AND AT LEAST TWO WEEKS PRIOR TO IMPLEMENTING EACH TRAFFIC PHASE AND/OR DETOUR TO ALLOW ADEQUATE TIME FOR THE ORGANIZATIONS TO COORDINATE AND MAKE NECESSARY ADJUSTMENTS TO RESPONSE SCHEDULES AND ROUTES.

B. THE CONTRACTOR IS REQUIRED TO CONTACT THE APPROPRIATE TRANSIT OFFICIALS IN RESPECT TO THE EFFECT OF ROAD ALTERATIONS ON BUS OPERATIONS. THIS SHOULD BE DONE FOUR WEEKS IN ADVANCE OF ANY CHANGES IN TRAFFIC PATTERNS OR IMPLEMENTATION OF WORK ZONES SO THAT THERE WILL BE ADEQUATE TIME FOR TRANSIT OFFICIALS TO NOTIFY PERSONNEL OF THE EFFECTS TO SCHEDULES AND ROUTES. THE CONTRACTOR SHALL MAKE PROVISIONS FOR THE SAFE INGRESS AND EGRESS OF PASSENGERS AT EXISTING OR TEMPORARILY RELOCATED BUS STOPS.

10. BICYCLISTS AND PEDESTRIANS

A. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN AND BICYCLE TRAFFIC THROUGH OR AROUND EACH WORK AREA FOR THE DURATION OF THE CONSTRUCTION. MATERIAL, EQUIPMENT OR OTHER SUCH BARRIERS SHALL NOT BE PLACED OR PARKED IN SUCH A MANNER AS TO OBSTRUCT PEDESTRIAN OR BICYCLE TRAFFIC OR TO PRESENT A SAFETY HAZARD TO THE NON-MOTORIZED PUBLIC. WHERE PEDESTRIAN TRAFFIC MUST BE RELOCATED OFF THE EXISTING FACILITY, WALKWAYS SHALL BE CLEARLY MARKED AND HAVE A LOGICAL START AND TERMINUS.

B. THE CONTRACTOR SHALL PROVIDE, DELINEATE AND MAINTAIN A USABLE TRAVEL PATH FOR PEDESTRIANS EITHER THROUGH OR AROUND WORK ZONES FOR THE DURATION OF THIS PROJECT. THE TRAVEL PATH SHALL COMPLY WITH THE CONTINUOUS PASSAGE PROVISIONS OF THE CURRENT AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG). THE CONTRACTOR MAY UTILIZE ANY COMBINATION OF THE FOLLOWING TO PROVIDE THE USABLE TRAVEL PATH; EXISTING SIDEWALKS/SHOULDERS; TEMPORARY SIDEWALKS/SHOULDERS; FINAL SIDEWALKS/SHOULDERS; AND EXISTING OR TEMPORARY SIDEWALK CURB RAMPS. THE USABLE TRAVEL PATH SHALL BE CLEARLY MARKED AND STAGED BETWEEN INTERSECTING ROADS TO ENSURE SAFE PEDESTRIAN CROSSING AND ACCESSIBILITY. PEDESTRIAN ACCESS TO RESIDENTIAL AND COMMERCIAL PROPERTIES SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION.

C. ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL AND REMOVE TEMPORARY SIDEWALK AND CURB RAMPS, INCLUDING THE RESTORATION OF DISTURBED AREAS, SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 608.020102, ASPHALT CONCRETE SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS.

D. FOR LOCATIONS WHERE EXISTING SIDEWALK WAS REMOVED OR NEW SIDEWALKS ARE PROPOSED, THE CONTRACTOR SHALL PROVIDE A SURFACE MEETING ADAAG REQUIREMENTS WITHIN TWO WEEKS (14 CALENDAR DAYS) OF EXISTING SIDEWALK REMOVAL OR CURB INSTALLATION, WHICHEVER IS LESS. THE CONTRACTOR MAY ALLOW PEDESTRIAN TRAFFIC TO USE THE COMPACTED SURFACE FOR A MAXIMUM OF TWO WEEKS (14 CALENDAR DAYS). AFTER THE TWO WEEK PERIOD THE CONTRACTOR MUST PROVIDE A PAVED SURFACE (FINAL OR TEMPORARY) MEETING THE ADAAG REQUIREMENTS. IF THE CONTRACTOR CHOOSES NOT TO PLACE THE FINAL SIDEWALK SURFACE, NO SEPARATE PAYMENT WILL BE MADE FOR THE TEMPORARY SURFACE. THE CONTRACTOR MUST ALSO PROVIDE CURB RAMPS IN ACCORDANCE WITH ADAAG REQUIREMENTS. IF THE CONTRACTOR CHOOSES TO PROVIDE THE FINAL SIDEWALK SURFACE AFTER THE TWO WEEK PERIOD, A TEMPORARY CURB RAMP MAY BE INSTALLED. THE COST OF THIS TEMPORARY RAMP IS TO BE INCLUDED IN THE PRICE BID FOR BASIC WORK ZONE TRAFFIC CONTROL. FAILURE TO PROVIDE THIS PAVED SURFACE WILL RESULT IN THE ASSESSMENT OF LIQUIDATED DAMAGES AS DEFINED IN THE SPECIAL NOTES.

E. ANY CONSTRUCTION ACTIVITY THAT RESULTS IN THE BREAKAGE OF SLABS OR THE REMOVAL OF SEGMENTS OF EXISTING SIDEWALK SERVING AS THE USABLE TRAVEL PATH SHALL BE REPAIRED IMMEDIATELY USING ASPHALT CONCRETE MEETING THE REQUIREMENTS OF SECTION 608 OF THE STANDARD SPECIFICATIONS. THE REPAIRED SURFACE SHALL BE IN CONFORMANCE WITH THE CRITERIA OUTLINED ABOVE, AS WELL AS THOSE CONTAINED IN THE ADAAG. SIDEWALK REPAIRS DUE TO REQUIRED CONSTRUCTION ACTIVITIES SHALL BE PAID FOR UNDER 608.020102, ASPHALT CONCRETE SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS. SIDEWALK THAT IS DAMAGED BY CARELESS CONSTRUCTION ACTIVITIES OR PRACTICES SHALL BE IMMEDIATELY REPAIRED, AOBE, AT NO COST TO THE TOWN OR STATE.

F. TEMPORARY SAFETY FENCING SHALL BE PLACED ALONG ANY SIDEWALK ADJACENT TO ANY EXCAVATION OR VERTICAL DROP-OFF OVER 6 INCHES. SAFETY FENCING SHALL BE CONTINUOUS PLASTIC FLUORESCENT ORANGE SUPPORTED BY METAL OR WOOD POSTS. THE FENCING SHALL BE A MINIMUM OF 4 FEET IN HEIGHT AND WAY INCLUDE A TOP AND BOTTOM RAIL TO PROVIDE ADDITIONAL SUPPORT, AOBE. THE SAFETY FENCE SHALL CONFORM TO SECTION 107-05 OF THE STANDARD SPECIFICATIONS. ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL AND REMOVE TEMPORARY SAFETY FENCING SHALL BE INCLUDED IN THE PRICE BID FOR BASIC WORK ZONE TRAFFIC CONTROL, ITEM 619.01.

G. THE CONTRACTOR SHALL PROVIDE A USABLE TRAVEL PATH AT ALL BUS STOP LOCATIONS TO PROVIDE SAFE ACCESS TO AND FROM THE BUS.

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PLOT = NYSDOT_CME_PDF.pltcfg

DATE: 9/26/2022

NO.	REVISION	DATE	BY

Creighton Manning

PREPARED FOR: ROMBOUT FIRE DISTRICT
901 MAIN STREET
FISHKILL, NY 12524

OFF-SITE SIGNAL IMPROVEMENTS
NY ROUTE 52/ROMBOUT FIRE STATION #2
TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

WORK ZONE TRAFFIC CONTROL NOTES

DATE: NOVEMBER 2022 | CM No.: 121-286 | SCALE: AS NOTED | DESIGNED: D.J.K. | DRAWN BY: K.H.D. | CHECKED: D.P.R.

WZN-01

SHEET NUMBER 6 of 12

TRAFFIC SIGNAL NOTES:

1. ALL TRAFFIC SIGNAL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH NEW YORK STATE STANDARD SHEETS 680-01 THRU 680-17 INCLUSIVE, AS APPLICABLE, EXCEPT AS MODIFIED BELOW OR IN THE CONTRACT PLANS.
2. WHERE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) SPECIFICATION EQUIPMENT IS TO BE INSTALLED, SUCH EQUIPMENT SHALL MEET ALL REQUIREMENTS OF N.E.M.A. SPECIFICATION TS2-2003 AS AMENDED.
3. UNLESS OTHERWISE NOTED, NYSDOT SHALL HAVE MAINTENANCE JURISDICTION OVER ALL SIGNALS IN THIS CONTRACT UPON COMPLETION OF THEIR INSTALLATION AND OFFICIAL ACCEPTANCE.
4. ALL MATERIALS CATALOG CUT SHEETS MUST BE SUBMITTED TO THE E.I.C. FOR REVIEW AND ACCEPTANCE PRIOR TO INSTALLATION.
5. THE CONTRACTOR SHALL HAVE ALL CONVENTIONAL, N.E.M.A. OR INTERSECTION FLASHER EQUIPMENT (TO BE INSTALLED), INSPECTED BY NYSDOT SIGNAL MAINTENANCE FORCES BEFORE THE SIGNAL IS ENERGIZED. THE CONTRACTOR SHALL MAINTAIN EACH SIGNAL IN CONTINUOUS OPERATION AS SPECIFIED BY THE TABLE OF OPERATIONS FOR 30 DAYS BEFORE SEEKING FINAL ACCEPTANCE.
6. UPON COMPLETION OF WORK AT AN INTERSECTION, NYSDOT TRAFFIC SIGNAL MAINTENANCE PERSONNEL WILL PERFORM AN INSPECTION OF THE SIGNAL SYSTEM. AT THE TIME OF THE INSPECTION, THE CONTRACTOR SHALL UNBAG THE NEW SIGNAL HEADS AND SHALL PROVIDE ACCESS TO ALL PULLBOXES FOR INSPECTION PURPOSES. THE CONTRACTOR SHALL BE NOTIFIED OF ANY DEFECTS FOUND DURING THE INSPECTION, AND WILL MAKE THE NECESSARY CORRECTIONS BEFORE THE INTERSECTION WILL BE ACCEPTED. THE CONTRACTOR SHALL PROVIDE SUFFICIENT PERSONNEL AND TRAFFIC CONTROL DEVICES TO SAFELY MAINTAIN TRAFFIC THROUGH THE INTERSECTION WHILE THE INSPECTION IS BEING PERFORMED. THE SIGNAL HEADS SHALL BE REBAGGED SHOULD THE INSPECTION FAIL.
7. WORK ZONE TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 619 - WORK ZONE TRAFFIC CONTROL - OF THE NYSDOT STANDARD SPECIFICATIONS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND ANY PROVISIONS CONTAINED IN THE PLANS. THE CONTRACTOR SHALL INSTALL SIGNS ON ALL LEGS OF AN INTERSECTION PRIOR TO WORKING AT THAT INTERSECTION.
8. THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN A TRAFFIC SIGNAL SHALL INCLUDE MAINTAINING VEHICLE DETECTORS ON A VEHICLE ACTUATED INSTALLATION. IF A VEHICLE DETECTOR BECOMES INOPERATIVE, THE CONTRACTOR SHALL REPAIR IT, REPLACE IT, OR, IF A NEW COMPATIBLE DETECTOR IS CALLED FOR IN THE PLANS, THE CONTRACTOR, WITH THE PERMISSION OF THE E.I.C., MAY CONNECT THE NEW DETECTOR INTO THE EXISTING SYSTEM.
9. ALL INTERSECTION IMPROVEMENTS SHOWN ON THE PLANS, INCLUDING LANE DESIGNATION SIGNS, TURNING LANES, CHANNELIZATION, PAVEMENT MARKINGS, ETC., SHALL BE IN PLACE BEFORE THE NEW SIGNAL SYSTEM IS PLACED INTO OPERATION. THE CONTRACTOR SHALL WORK WITH THE E.I.C. AND THE REGIONAL TRAFFIC ENGINEER TO COORDINATE THESE OPERATIONS.
10. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY THAT WILL BE SUPPLYING POWER TO THE TRAFFIC SIGNAL EQUIPMENT AT EACH INTERSECTION WITHIN 30 DAYS OF THE CONTRACT AWARD. THE CONTRACTOR SHALL MEET ALL REQUIREMENTS OF THE NEW YORK BOARD OF FIRE UNDERWRITERS IN THEIR SIGNAL INSTALLATIONS AND EACH INSTALLATION MUST PASS A FIRE UNDERWRITERS INSPECTION BEFORE SERVICE CONNECTION WILL BE MADE BY THE UTILITY COMPANY. THE COST OF THE INSPECTION SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS TRAFFIC SIGNAL ITEMS.
11. IF IT IS DISCOVERED THAT THE MINIMUM CLEARANCES FROM PRIMARY AND/OR SECONDARY POWER CONDUCTORS AS REQUIRED BY SECTION 23 OF THE NATIONAL ELECTRICAL SAFETY CODE (ANSI STANDARD C2-1997) AND LOCAL UTILITY CODES CANNOT BE ACHIEVED, THE UTILITY COMPANY OWNING SUCH CONDUCTORS SHALL BE NOTIFIED IN WRITING OF THE PROBLEM. NO FURTHER WORK SHALL BE DONE UNTIL SAID POWER LINES HAVE BEEN RELOCATED OR MODIFIED TO PROVIDE THE PROPER CLEARANCES.
12. UNDER NO CONDITION SHALL THE CONTRACTOR MAKE THE SERVICE CONNECTION; ALL SERVICE CONNECTIONS SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANY.
13. POWER SHALL BE SUPPLIED TO THE SIGNALS VIA A 1 NPS STEEL CONDUIT TO BE PAID UNDER ITEM 680.520103 CONDUIT, METAL STEEL, ZINC COATED, 1 NPS. THE UNIT PRICE BID SHALL INCLUDE THE COST OF INSTALLING THE CONDUIT AND WEATHER HEAD AS WELL AS THE COST OF ATTACHING THE METER SOCKET (TO BE FURNISHED UNDER ITEM 680.90920008) TO THE SIGNAL POLE.
14. THE LOCATIONS OF ALL UNDERGROUND OBJECTS HAVE NOT BEEN SHOWN ON THE PLANS. THE CONTRACTOR SHALL DETERMINE THE EXISTING CONDITIONS AND SUPPORT AND PROTECT ALL LINES ENCOUNTERED IN THE TRENCHING AND EXCAVATION OPERATIONS.
15. WHERE UNFORESEEN UNDERGROUND UTILITIES MAKE IT NECESSARY TO RELOCATE SIGNAL POLES 5 FEET OR MORE FROM THEIR ORIGINAL LOCATIONS AS SHOWN ON THE CONTRACT PLANS, THE CONTRACTOR SHALL NOTIFY THE E.I.C. AND SEEK ALTERNATE LOCATIONS FROM THE DESIGNER. SPAN WIRE POLE CAPACITIES WILL ALSO REQUIRE VERIFICATION FROM THE DESIGNER.
16. WHERE SOUND BEDROCK IS ENCOUNTERED DURING POLE EXCAVATION OPERATIONS, AND THE DEPTH OF SOIL OVER THE ROCK IS ONE THIRD OR LESS THAN THE "MINIMUM EMBEDMENT" LENGTH GIVEN IN THE TABLE ON STANDARD SHEET 680-01, THEN THE FOOTING LENGTH MAY BE DECREASED SO AS TO PROVIDE AN EMBEDMENT INTO THE ROCK EQUAL TO THE FOOTING DIAMETER PLUS 2' (600mm). FOR DEEPER OVERBURDENS, THE FOOTING LENGTH MAY BE DECREASED TO PROVIDE AN EMBEDMENT INTO THE ROCK EQUAL TO THE FOOTING DIAMETER. IF THE RESULTING DEPTH IS LESS THAN THE LENGTH OF THE ANCHOR BOLTS, THE CONTRACTOR SHALL DRILL INTO THE ROCK TO THE LENGTH OF THE ANCHOR BOLTS PLUS 6" (150 mm) (AS MEASURED FROM THE GROUND SURFACE) AND SHALL ANCHOR THE BOLTS INTO THE ROCK WITH AN APPROVED ADHESIVE ANCHORING SYSTEM.
17. FOR NEW SIGNAL POLE INSTALLATIONS, THE CONCRETE POLE FOUNDATION SHALL CURE FOR A MINIMUM OF 7 DAYS BEFORE THE SIGNAL POLE IS ERECTED, AND FOR A MINIMUM OF 14 DAYS BEFORE THE MAST ARM AND SIGNAL HEADS ARE INSTALLED.
18. ALL ANCHOR BASES FOR TRAFFIC SIGNAL SPAN WIRE POLES SHALL BE EQUIPPED WITH ANCHOR BOLT COVERS.
19. ALL TRAFFIC SIGNAL POLES SHALL BE INSTALLED SO THAT THE POLES SHALL HAVE A MINIMUM RAKE OF 1/4 OF THE DIAMETER OF THE SIGNAL POLE MEASURED AT ITS BASE AFTER LOADING.
20. THE MAST ARM POLE FOOTING SHALL BE DETERMINED BY THE BASE PLATE BOLT CIRCLE OF THE POLES, AND THE FOOTING MOMENT PER STANDARD SHEET 680-01. THE FOOTINGS SHALL BE CONSTRUCTED AS PER STANDARD SHEET 680-01.
21. ALL NEW AND EXISTING SIGNAL SYSTEMS THAT ARE TO BE UPDATED WITH NEW SIGNAL CONTROLLERS SHALL BE EQUIPPED WITH A RAINTIGHT DISCONNECT BOX (ITEM 680.94000015) AND AN ELECTRICAL DISCONNECT GENERATOR TRANSFER SWITCH (ITEM 680.94998008) WHICH SHALL BE INSTALLED BETWEEN THE METER SOCKET AND THE CONTROLLER. THE SERVICE CABLE SHALL BE RUN FROM THE CHASE NIPPLE IN THE BACK OF THE DISCONNECT BOX INTO THE SIGNAL POLE AND THEN THROUGH THE LARGE L.B. CONDULET INTO THE CONTROLLER CABINET.
22. WHERE A FIRE HOUSE SIGNAL IS TO BE INSTALLED, THE WIRE FROM THE FIRE HOUSE TO THE CONTROLLER SHALL BE SUPPLIED BY THE RESPECTIVE FIRE COMPANY. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE OFFICIALS OF THE FIRE COMPANY OF THE TYPE AND QUANTITIES OF WIRE THAT WILL BE REQUIRED. THE CONTRACTOR SHALL INSTALL THIS WIRE AND MAKE THE NECESSARY CONNECTIONS TO THE CONTROLLER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE CONTROLLER. IF UNDERGROUND CONNECTION IS DESIRED, THE FIRE COMPANY SHALL PERFORM THE WORK.
23. WHERE ONE CONDUIT IS TOO SMALL TO PERMIT THE PASSAGE OF THE REQUIRED SIGNAL WIRING, TWO OR MORE CONDUITS SHALL BE USED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE NUMBER OF CONDUITS NEEDED.
24. ALL HOLES FOR L.B. CONDULETS, THIMBLEBOLTS, AND POLE-MOUNTED SIGNAL AND/OR PEDESTRIAN HEADS SHALL BE DRILLED. THE USE OF CUTTING TORCHES IS NOT PERMITTED UNLESS WRITTEN PERMISSION IS GRANTED IN ADVANCE BY THE REGIONAL TRAFFIC ENGINEER.
25. EACH PHASE SHALL HAVE ITS OWN GROUND WIRE.
26. A CARD SHALL BE PLACED ON THE INSIDE DOOR OF EACH CONTROLLER CABINET LISTING ALL THE COMPONENT PARTS BY SERIAL NUMBER, THE DATE OF INSTALLATION, AND DATE OF OFFICIAL OPERATION. WHERE STATE MICROCOMPUTERS ARE TO BE USED, THIS WILL BE DONE BY STATE MAINTENANCE FORCES.
27. ON ALL SIGNAL HEAD ASSEMBLIES ALL FEMALE THREADED CONNECTING HARDWARE SHALL HAVE TWO SET SCREWS AND ALL THREADED PIPE NIPPLES SHALL HAVE TAPERED THREADS.
28. THE BOTTOMS OF ALL TRAFFIC SIGNAL HEADS SHALL BE LOCATED AT LEAST 17.0' (5.2 m) ABOVE THE PAVEMENT SURFACE.
29. ONCE TRAFFIC SIGNAL HEAD ASSEMBLIES HAVE BEEN INSTALLED AND ADJUSTED IN THE FIELD TO THE SATISFACTION OF NYSDOT TRAFFIC MAINTENANCE PERSONNEL, THE CONTRACTOR SHALL APPLY A BEAD OF SILICONE SEALANT AROUND THE SERRATED LOCK RING AT ALL LOCATIONS WHERE VERTICAL PIPE NIPPLES ARE ATTACHED TO THE TOP SURFACES OF BOTH TRAFFIC SIGNAL SECTIONS AND PIPE CROSS BODIES TO PREVENT WATER INFILTRATION INTO THE SIGNAL ASSEMBLY.
30. ALL MAST ARM POLE BASES SHALL HAVE ONE UNUSED CONDUIT IN THE BASE, WHICH WILL BE RUN TO THE NEAREST PULLBOX.
31. ALL POLES SHALL BE EQUIPPED WITH A GROUNDING TERMINAL LOCATED ON THE OPPOSITE SIDE OF THE POLE FROM THE HANDHOLE. GROUNDING TERMINALS LOCATED ADJACENT TO THE HANDHOLE ARE UNACCEPTABLE.
32. THE LOCATION AND ORIENTATION OF THE POLE MOUNTED CONTROLLER SHALL BE BASED ON THE FOLLOWING:
    A. PROVIDING ACCESS TO THE CONTROLLER FROM WITHIN THE RIGHT OF WAY.
    B. PROVIDING PROTECTION TO THE CONTROLLER FROM SNOW PLOWS, AND ERRANT VEHICLES.
    C. PREVENTING THE CONTROLLER FROM OVERHANGING THE SIDEWALK OR PRESENTING A HAZARD TO PEDESTRIANS.
    D. PROVIDING VISIBILITY OF THE SIGNAL HEADS DURING MAINTENANCE OPERATIONS. THE CABINET SHALL BE INSTALLED SO THAT THE BOTTOM OF THE CABINET IS 18" (450 mm) ABOVE THE STANDING PAD.
33. ALL SIGNAL WIRE CONNECTIONS TO THE SIGNAL HEADS SHALL BE MADE DIRECTLY TO THE TERMINAL BLOCK(S) INSIDE OF EACH SIGNAL HEAD ASSEMBLY; PIGTAILS AND EXPOSED SPLICES SHALL NOT BE PERMITTED. WHERE TWO SIGNAL HEADS ARE TO BE WIRED FROM THE SAME CABLE, THE SIGNALS SHALL BE DAISY CHAINED WITH ONE LENGTH OF WIRE RUNNING FROM THE CONTROLLER ENTERING THE FIRST SIGNALS WEATHER HEAD AND A SECOND LENGTH LEAVING THE WEATHER HEAD AND RUNNING TO THE OTHER SIGNALS WEATHER HEAD.
34. LEAD-INS FROM ALL TRAFFIC SIGNAL DETECTORS SHALL BE TAGGED OR DIAGRAMMED IN THE CONTROLLER CABINET TO IDENTIFY THE DETECTOR THEY SERVE.
35. NO SPLICES SHALL BE ALLOWED IN THE SIGNAL CONTROL CABLE.
36. UNLESS OTHERWISE NOTED, ALL TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED SHALL BECOME THE PROPERTY OF THE OWNER OF THE SIGNALS.
37. ALL SIGNAL POLES TO BE REMOVED SHALL BE REMOVED AS DESCRIBED BELOW UNLESS OTHERWISE SHOWN ON THE PLANS (ALL WORK AND MATERIALS TO BE INCLUDED IN PRICE BID FOR ITEM 680.790000001):
    A. EMBEDDED POLES SHALL BE CUT OFF A MINIMUM OF 6" (150 mm) BELOW GRADE.
    B. ANCHOR BASE POLES SHALL BE REMOVED FROM THEIR BASE AND ANCHOR BOLTS SHALL BE CUT OFF A MINIMUM DEPTH OF 6" (150 mm) BELOW GRADE.
    C. THE FOUNDATION SHALL BE CHIPPED DOWN TO A MINIMUM DEPTH OF 6" (150 mm) BELOW GRADE.
    D. ALL HOLES IN THE BASE SHALL BE FILLED WITH CONCRETE AND THE AREA SHALL BE RESTORED TO A CONDITION MATCHING ADJACENT AREAS, OR AS ORDERED BY THE ENGINEER.
38. IN AREAS WHERE CABINET BASES ARE TO BE REMOVED, THE DISTURBED GROUND SHALL BE RESTORED TO A CONDITION MATCHING ADJACENT AREAS.
39. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN AND BICYCLE TRAFFIC THROUGH OR AROUND EACH PROJECT LOCATION FOR THE DURATION OF THE CONSTRUCTION. MATERIAL, EQUIPMENT OR OTHER SUCH BARRIERS SHALL NOT BE PLACED OR PARKED IN SUCH A MANNER AS TO OBSTRUCT PEDESTRIAN OR BICYCLE TRAFFIC OR TO PRESENT A SAFETY HAZARD TO THE NON-MOTORIZED PUBLIC. WHERE PEDESTRIAN TRAFFIC MUST BE RELOCATED OFF THE EXISTING FACILITY, WALKWAYS SHALL BE CLEARLY MARKED AND HAVE A LOGICAL START AND TERMINUS.

NYSDOT SPECIFIC NOTES:

1. THE REGIONAL TRAFFIC ENGINEER (RTE) SHALL DETERMINE THE HOURS DURING WHICH LANES MAY BE CLOSED TO INSTALL THE TRAFFIC SIGNAL. THE ENGINEER WILL COORDINATE THE TIME RESTRICTION SCHEDULE WITH THE REGIONAL TRAFFIC ENGINEER AT LEAST 1 WEEK PRIOR TO COMMENCING WORK.
2. NO WORK SHALL BE PERFORMED AT THIS LOCATION WITHOUT NOTIFYING THE NYSDOT SIGNAL MAINTENANCE SHOP AT (845) 431-5770 TWO WEEKS IN ADVANCE OF THE PROPOSED COMMENCEMENT OF WORK. 14 DAY ADVANCE NOTICE SHALL ALSO BE PROVIDED TO REQUEST A SIGNAL INSPECTION.
3. UNDER ITEM 680.80324515, THE CONTRACTOR SHALL PICK UP THE STATE SUPPLIED (MODEL 2070 CONTROLLER PURCHASED FROM THE STATE BY THE SIGNAL PERMITTEE) CONTROLLER, CABINET, SWITCH PACKS, AND CONFLICT AND CURRENT MONITORS FROM THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION 8 SIGNAL SHOP AND INSTALL THE EQUIPMENT AT THE SITE OF THE PROPOSED SIGNAL.
4. PRIOR TO REMOVING THE EXISTING TRAFFIC SIGNAL, THE CURRENT OWNER SHALL BE CONTACTED AND SHALL AGREE TO THE REMOVAL OF THE TRAFFIC SIGNAL AND HOW THE TRAFFIC SIGNAL EQUIPMENT SHALL BE DISPOSED OF. THE SIGNAL CONTROLLER CABINET SHALL BE RETURNED TO NYSDOT.

PROJECT SPECIFIC NOTES:

1. ITEM 680.810107 TO BE SUPPLIED AS DARK GREEN.
2. THE RED INDICATION OF THE SIGNAL HEADS ON EACH APPROACH SHALL BE LEVEL WITH EACH OTHER.
3. UNDER ITEM 680.05010007, THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL COMPONENTS FOR THE VIDEO IMAGING VEHICLE DETECTION SYSTEM WITH DVR CAPABILITIES ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. THE SYSTEM PROVIDED MUST BE ON THE NYSDOT APPROVED PRODUCT LIST (APL), AND SHOP DRAWINGS MUST BE SUBMITTED FOR NYSDOT APPROVAL. THE COST OF SETTING UP VEHICLE DETECTION ZONES IN ACCORDANCE WITH THE TRAFFIC SIGNAL PLANS, TABLE OF OPERATIONS AND TRAFFIC SIGNAL TIMINGS SHALL BE INCLUDED IN THIS ITEM. SEE DWG. TSP-01 AND TSP-01A FOR DETECTION ZONE LAYOUT AND INPUTS.

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NO.	REVISION	DATE	BY

Creighton Manning

PREPARED FOR: ROMBOUT FIRE DISTRICT
901 MAIN STREET
FISHKILL, NY 12524

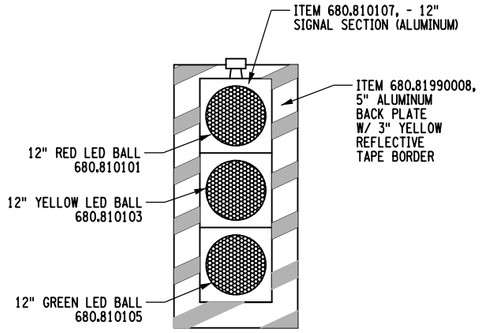
OFF-SITE SIGNAL IMPROVEMENTS
NY ROUTE 52/ROMBOUT FIRE STATION #2
TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

TRAFFIC SIGNAL NOTES
SIGNAL NO. D-163PS
NYS RTE 52 (ROMBOUT FIRE STATION #2)

DESIGNED: D.J.K. | DRAWN BY: K.H.D. | CHECKED: D.P.R.
DATE: NOVEMBER 2022 | CM No.: 121-286 | SCALE: AS NOTED

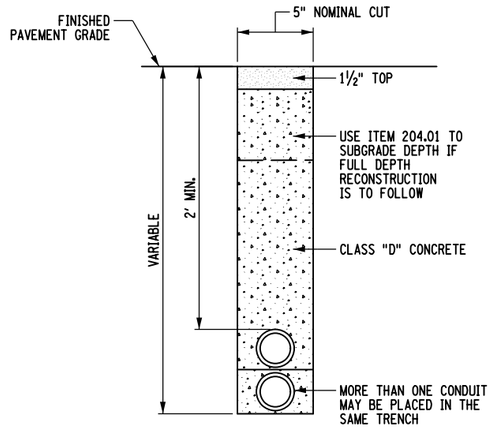
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SHEET NUMBER 7 of 12



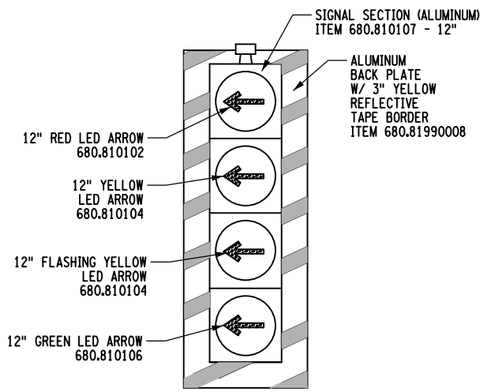
TYPICAL THREE SECTION HEAD ASSEMBLY

(NOT TO SCALE)



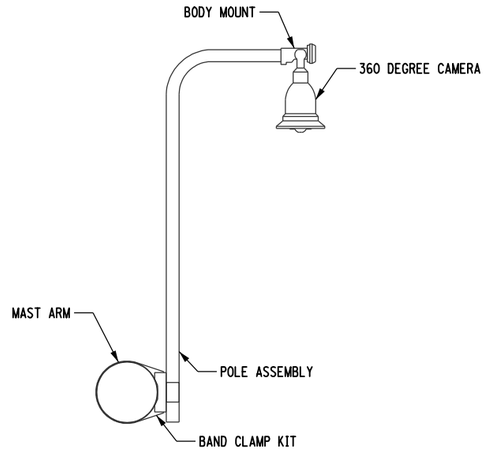
ALTERNATE CONDUIT EXCAVATION
BACKFILL AND PAVEMENT REPLACEMENT

(USING ROTARY PAVEMENT CUTTER)
(NOT TO SCALE)



TYPICAL FOUR SECTION LEFT-TURN HEAD ASSEMBLY

(NOT TO SCALE)



VIDEO DETECTION CAMERA DETAIL - MAST ARM MOUNT
ITEM 680.05010007

(NOT TO SCALE)

NOTES:

1. ALL MOUNTING HARDWARE SHALL BE PROVIDED BY THE MANUFACTURER AND SHALL BE PAID FOR UNDER ITEM 680.05010007.
2. ALL EQUIPMENT SHALL MEET THE CONTRACT SPECIFICATIONS. STYLE OF CAMERA AND HARDWARE MAY VARY BY MANUFACTURER.
3. THE VIDEO DETECTION SYSTEM INSALLED UNDER ITEM 680.05010007 SHALL BE CONNECTED TO THE CONTROLLER THROUGH THE SDLC CONNECTOR (INPUTS 33 TO 64).
4. THE CONTRACTOR SHALL PROGRAM THE VIDEO DETECTION ZONES AS SHOWN ON THE PLANS.
5. THE VIDEO DETECTION SYSTEM SHALL BE INSTALLED AND ENABLED PRIOR TO DISABLING THE EXISTING DETECTION SYSTEM. THE VIDEO DETECTION SYSTEM SHALL BE USED TO ACTUATE THE SIGNAL DURING CONSTRUCTION STAGES.

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NO.	REVISION	DATE	BY

Creighton Manning

PREPARED FOR: ROMBOUT FIRE DISTRICT
901 MAIN STREET
FISHKILL, NY 12524

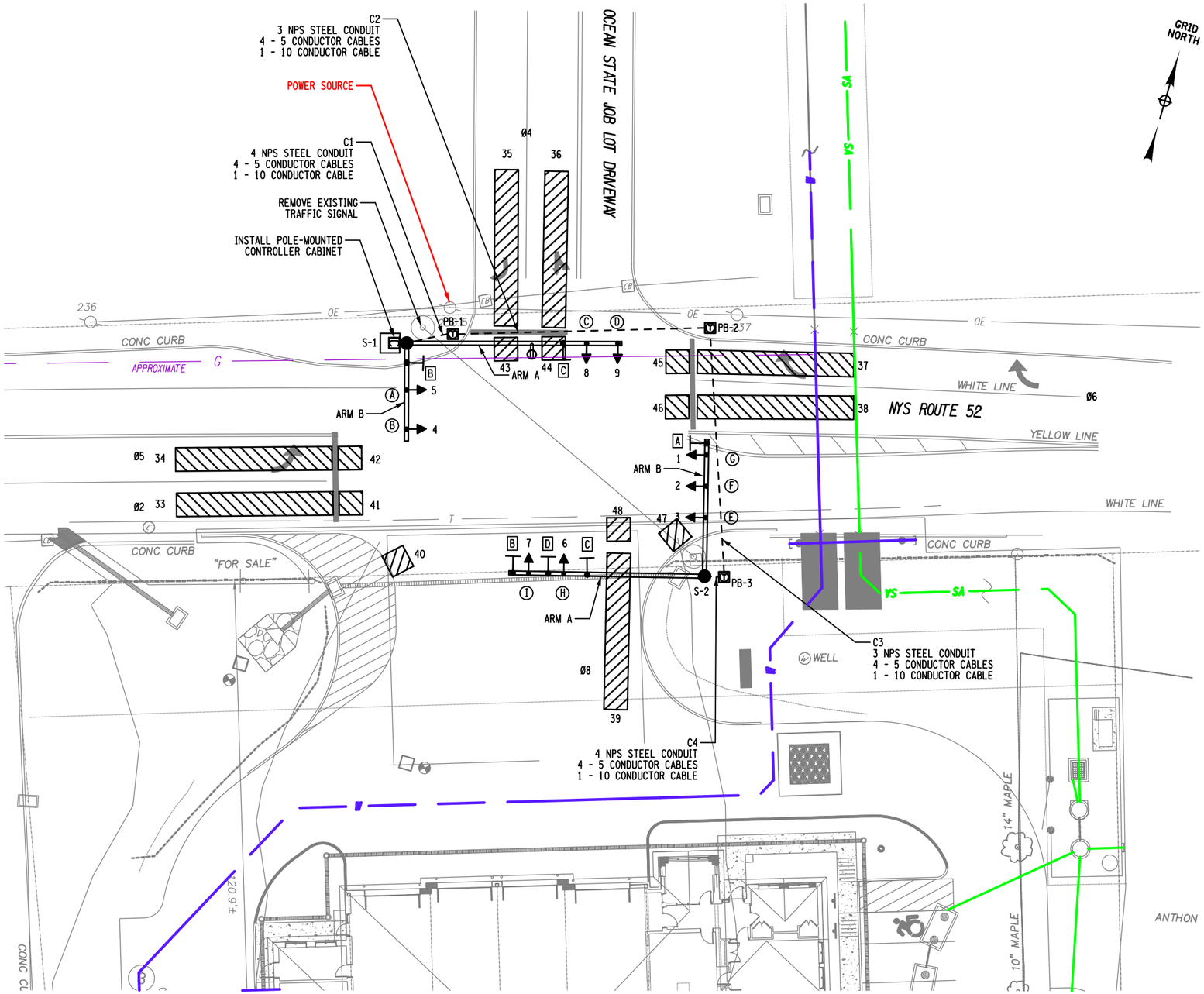
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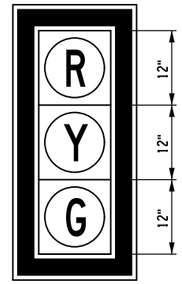
TRAFFIC SIGNAL DETAILS
SIGNAL NO. D-163PS
NYS RTE 52 (ROMBOUT FIRE STATION #2)

DESIGNED: D.J.K. | DRAWN BY: K.H.D. | CHECKED: D.P.R.
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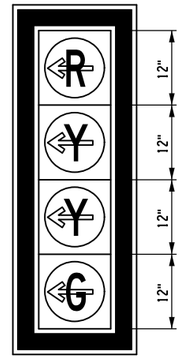
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SHEET NUMBER 8 of 12





2-9



1

NOTE:

ALL FACES SHALL HAVE 5" BACKPLATES.

SIGNAL FACES

(NOT TO SCALE)

NOTES:

1. 360 DEGREE CAMERA VIDEO DETECTION SYSTEM TO BE PAID UNDER ITEM 680.05010007.
2. VIDEO DETECTION INPUTS USE SDLC PORT (INPUTS 33 TO 64).
3. CAMERA MOUNTING HARDWARE HAS A HEIGHT OF APPROXIMATELY 10 FEET.

TRAFFIC SIGNAL LEGEND	
	PULL BOX
	MICROCOMPUTER CABINET
	SIGNAL HEAD
	SIGNAL POLE
A	OVERHEAD SIGN
	TRAFFIC SIGNAL CONDUIT
	VIDEO DETECTION CAMERA
	VIDEO DETECTION ZONE

15 0 15 30 45 60′

1" = 30′

DATE: 9/26/2022

NO.	REVISION	DATE	BY

Creighton Manning

PREPARED FOR: ROMBOUT FIRE DISTRICT
901 MAIN STREET
FISHKILL, NY 12524

OFF-SITE SIGNAL IMPROVEMENTS
NY ROUTE 52/ROMBOUT FIRE STATION #2
TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

TRAFFIC SIGNAL PLAN
SIGNAL NO. D-163PS
NYS RTE 52 (ROMBOUT FIRE STATION #2)

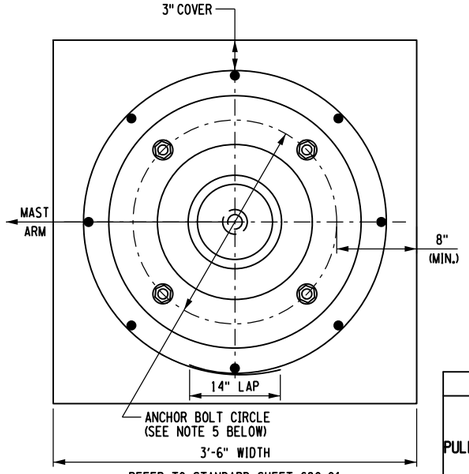
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TSP-01

SHEET NUMBER 9 of 12

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REFER TO STANDARD SHEET 680-01 TO DETERMINE SHAPE OF FOUNDATION

TOP VIEW SQUARE FOOTING DETAIL

(NOT TO SCALE)

TRAFFIC SIGNAL POLES SHALL MEET THE REQUIREMENTS OF ITEMS 680.632055 AND 680.632150, WITH THE FOLLOWING EXCEPTIONS AND/OR MODIFICATIONS:

1. THE DESIGN LOADING FOR EACH TRAFFIC SIGNAL POLE SHALL BE AS SHOWN ON DRAWING NUMBERS TSP-01B AND TSP-01C.
2. THE COMBINED STRESS RATIO SHALL BE A MAXIMUM OF 0.90 FOR EACH COMPONENT OF EACH TRAFFIC SIGNAL POLE, INCLUDING THE ANCHOR BOLTS.
3. ALL ANCHOR BOLTS SHALL BE GRADE 36 OR 55 AND SHALL MEET THE REQUIREMENTS OF SECTION 724-03 OF THE STANDARD SPECIFICATIONS.
4. ANCHOR BOLTS SHALL BE DESIGNED BY THE SIGNAL POLE FABICATOR. THE ANCHOR BOLT SIZE AND EMBEDMENT SHALL BE SPECIFIED IN THE SHOP DRAWINGS FOR THE SIGNAL POLES. DESIGN COMPUTATIONS FOR THE ANCHOR BOLTS SHALL ACCOMPANY THE SHOP DRAWINGS.

   ANCHOR BOLTS ARE TO BE ANCHORED USING DOUBLE NUTS AND PLATES OR THREADED PLATES.

   ANCHOR BOLTS SHALL BE SIZED AND DESIGNED (ANCHOR BOLT DIAMETER AND EMBEDMENT LENGTH) TO ACCOMMODATE A 90 FT-KIP AND A 120 FT-KIP MOMENT (SEE FOUNDATION TABLE ON STANDARD SHEET 680-01 FOR L6 AND L8 SIGNAL POLE FOUNDATIONS). THE DIAMETER OF THE HOLE IN THE BASE PLATE FOR THE ANCHOR BOLT SHALL BE 1/4" LARGER THAN THE ANCHOR BOLT.
5. THE SIGNAL POLE FABRICATOR SHALL DETERMINE THE ANCHOR BOLT CIRCLE BY DESIGNING THE SIGNAL POLES TO MEET THE SPECIFIED DESIGN LOADING, THEN ADDING 2 INCHES TO THE ANCHOR BOLT CIRCLE. FOR EXAMPLE, IF A POLE WITH A 10" DIAMETER TUBE IS NEEDED BASED ON THE SPECIFIED DESIGN LOADING AND THIS 10" TUBE RESULTS IN A BASE PLATE WITH A 16" ANCHOR BOLT CIRCLE, THEN THE FINAL DESIGN SHOULD PROVIDE A BASE PLATE WITH WITH AN 18" ANCHOR BOLT CIRCLE. THIS WILL PROVIDE THE OPTION OF REPLACING THE PROPOSED TRAFFIC SIGNAL POLE WITH A LARGER POLE ON THE SAME FOUNDATION, SHOULD FUTURE NEEDS WARRANT A LARGER CAPACITY POLE.

   TO DOCUMENT THE ABOVE, THE SIGNAL POLE MANUFACTURER SHALL PROVIDE TRAFFIC SIGNAL POLE CALCULATIONS FOR BOTH THE SPECIFIED DESIGN LOADING WITH ORIGINAL ANCHOR BOLT CIRCLE AND FOR THE SPECIFIED DESIGN LOADING WITH THE 2" LARGER ANCHOR BOLT CIRCLE. THIS COST OF PROVIDING THE TRAFFIC SIGNAL POLE CALCULATIONS SHALL BE INCLUDED IN THE PRICE BID FOR THE TRAFFIC SIGNAL POLE ITEMS).
6. THE SIGNAL POLE MANUFACTURER SHALL FABRICATE A 3" HIGH X 4" WIDE X 1/8" THICK GALVANIZED STEEL PLATE WITH A MINIMUM OF TWO POSTS FOR EMBEDMENT IN EACH CONCRETE TRAFFIC SIGNAL POLE FOUNDATION. THE FOLLOWING INFORMATION SHALL BE STAMPED ON THE FOUNDATION PLATE IN 1/2" LETTERS TO SUCH A DEPTH AS TO BE CLEARLY VISIBLE THROUGH SUBSEQUENT GALVANIZING:
7. REFER TO STANDARD SHEET 680-01 TO DETERMINE FOOTING SHAPE (CIRCULAR OR SQUARE) NECESSARY GIVEN THE MAST ARM LENGTHS.

DESIRED INFORMATION	
FOOTING TYPE	L6
MAXIMUM FOOTING MOMENT	90 FT-KIPS
YEAR OF INSTALLATION	2022

DESIRED INFORMATION	
FOOTING TYPE	L8
MAXIMUM FOOTING MOMENT	120 FT-KIPS
YEAR OF INSTALLATION	2022

TABLE OF CABLES

ROUTE FROM	ROUTE THROUGH	ROUTE TO	CABLE DESCRIPTION	* OF CABLES	680.730514 5 C, 14 AWG	680.731014 10 C, 14 AWG
CONTROLLER	S-1	SIGNAL HEAD A	14/5C-A-X/X	1	65	
CONTROLLER	S-1	SIGNAL HEAD B	14/5C-B-X/X	1	76	
CONTROLLER	S-1	SIGNAL HEAD C	14/5C-C-X/X	1	101	
CONTROLLER	S-1	SIGNAL HEAD D	14/5C-I-X/X	1	109	
CONTROLLER	C1, PB-1, C2, PB-2, C3, PB-3, C4, S-2	SIGNAL HEAD E	14/5C-E-X/X	1	240	
CONTROLLER	C1, PB-1, C2, PB-2, C3, PB-3, C4, S-2	SIGNAL HEAD F	14/5C-F-X/X	1	249	
CONTROLLER	C1, PB-1, C2, PB-2, C3, PB-3, C4, S-2	SIGNAL HEAD G	14/10C-G-X/X	1		245
CONTROLLER	C1, PB-1, C2, PB-2, C3, PB-3, C4, S-2	SIGNAL HEAD H	14/5C-H-X/X	1	263	
CONTROLLER	C1, PB-1, C2, PB-2, C3, PB-3, C4, S-2	SIGNAL HEAD I	14/10C-I-X/X (SEE NOTE 1)	1		259
				TOTAL (LF)	1103	504

NOTE:

1. THE CONTRACTOR SHALL WIRE SIGNAL HEAD I WITH A 10 CONDUCTOR WIRE IN ORDER TO ALLOW FOR POTENTIAL FUTURE REPLACEMENT OF HEAD I WITH A 5-SECTION HEAD.

TABLE OF PULLBOXES

PULLBOX NO.	LOCATION NORTHING	LOCATION EASTING	ELEV. OF TOP COVER	680.510501 RECTANGULAR 26X18 RC
PB-1	663551.2723	988106.8947	FLUSH	1
PB-2	663614.0078	988126.7960	FLUSH	1
PB-3	663635.2300	988066.6443	FLUSH	1
			TOTAL (EA)	3

TABLE OF CONDUITS

CONDUIT NO.	LOCATION FROM	LOCATION TO	680.520108 3 NPS STEEL	680.520110 4 NPS STEEL
C1	S-1	PB-1		13
C2	PB-1	PB-2	70	
C3	PB-2	PB-3	67	
C4	PB-3	S-2		6
		TOTAL (LF)	137	19

TABLE OF INPUTS 33 THROUGH 64

SIGNAL NO. / SDLC CHANNEL	D-163PS FUNCTION	NY RT 52 AT ROMBOUT FIRE STATION #2 DETECTION ZONE NO.	SIZE	REMARKS
33	Ø2	33	6' X 40'	PRESENCE
34	Ø5	34	6' X 40'	PRESENCE
35	Ø4	35	6' X 40'	PRESENCE
36	Ø6	36	6' X 40'	PRESENCE
37	Ø6	37	6' X 40'	PRESENCE
38	Ø6	38	6' X 40'	PRESENCE
39	Ø8	39	6' X 40'	PRESENCE
40	Ø2	40	6' X 6'	EBR COUNT
41	Ø2	41	6' X 6'	EBT COUNT
42	Ø5	42	6' X 6'	EBL COUNT
43	Ø4	43	6' X 6'	SBR COUNT
44	Ø4	44	6' X 6'	SBL/T COUNT
45	Ø6	45	6' X 6'	WBR COUNT
46	Ø6	46	6' X 6'	WBL/T COUNT
47	Ø8	47	6' X 6'	NBR COUNT
48	Ø8	48	6' X 6'	NBL/T COUNT

TABLE OF SIGNAL HEADS

HEAD	BRACKET	FACES	MODULES 680.810101 RED BALL	680.810102 RED ARROW	680.810103 YELLOW BALL	680.810104 YELLOW ARROW	680.810105 GREEN BALL	680.810106 GREEN ARROW	SECTION 680.810107 TRAFFIC SIGNAL SECTION, TYPE I 12 INCH	680.81990008 TRAFFIC SIGNAL BACKPLATE, 5 INCH
A	680.81230008	5	1		1		1		3	1
B	680.81230008	4	1		1		1		3	1
C	680.81230008	8	1		1		1		3	1
D	680.81230008	9	1		1		1		3	1
E	680.81230008	3	1		1		1		3	1
F	680.81230008	2	1		1		1		3	1
G	680.81230008	1		1		2		1	4	1
H	680.81230008	6	1		1		1		3	1
I	680.81230008	7	1		1		1		3	1
		TOTAL (EA)	8	1	8	2	8	1	28	9

TABLE OF OVERHEAD SIGNS

ITEM NO.	LOCATION NO.	TEXT	MUTCD NO.	SIZE	TYPE OF MOUNT	QUANTITY
680.8207	A	ONLY	R3-5L	30" x 36" 7.5 SF	O.H. TYPE G	1
680.8207	B	ONLY	R3-5R	30" x 36" 7.5 SF	O.H. TYPE G	2
680.8207	C	NY 52	D3-1	66" x 24" 11.0 SF	O.H. TYPE G	2
680.8207	D		R3-6L	30" x 36" 7.5 SF	O.H. TYPE G	1

TABLE OF OPERATIONS

PHASE	FACES 1	2	3	4	5	6	7	8	9
Ø2	←FY-	G	G	R	R	R	R	R	R
Ø5	←G-	R	R	R	R	R	R	R	R
Ø6	←R-	R	R	G	G	R	R	R	R
Ø2 + Ø5	←G-	G	G	R	R	R	R	R	R
Ø2 + Ø6	←FY-	G	G	G	G	R	R	R	R
Ø4	R	R	R	R	R	G	G	R	R
Ø8	R	R	R	R	R	R	R	G	G
Ø4 + Ø8	R	R	R	R	R	G	G	G	G
FLASHING OPERATION	←FR-	FY	FY	FY	FY	FR	FR	FR	FR
DISPLAY									
ALL LENSES SHALL BE 12" DIA. (300 mm)	←Y→ R Y ←R→ G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G

NOTE: ALL SIGNAL HEADS SHALL BE EQUIPPED WITH 5-INCH BACKPLATES WITH 3-INCH REFLECTIVE BORDER.

OPERATIONS LEGEND

Ø = PHASE

R = CIRCULAR RED — Y = CIRCULAR YELLOW — G = CIRCULAR GREEN
←R→ = LEFT RED ARROW — ←Y→ = LEFT YELLOW ARROW — ←G→ = LEFT GREEN ARROW
FR = FLASHING RED — FY = FLASHING YELLOW

TABLE OF SIGNAL POLES

POLE NO.	LOCATION NORTHING	LOCATION EASTING	ELEV. OF FOOTING CAP	ITEM NUMBER	MOUNTING HEIGHT (FT)	ARM LENGTH	FOUNDATION MIN. CODE	FOUNDATION QTY. (CY)	FOUNDATION ANCHOR BOLT DIAMETER	FOUNDATION ANCHOR BOLT LENGTH
S-1	663540.5828	988101.3670	FLUSH	680.632055	20	55	L6	3.4		
S-2	663630.3723	988065.4531	FLUSH	680.632150	21	50	L8	3.9		
							TOTAL (CY)	7.3	SEE NOTE 2	

NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE FINAL GROUND AND PAVEMENT ELEVATIONS AND VERIFY THAT THE CLEARANCE FROM THE PAVEMENT AT ITS HIGHEST POINT ALONG THE MAST ARM TO THE BOTTOM OF THE SIGNAL HEAD IS A MINIMUM OF 16'-6" PRIOR TO ORDERING THE MAST ARM POLES.
2. ANCHOR BOLT MEASUREMENTS ARE TO BE COMPLETED BY THE ENGINEER FOR AS-BUILT RECORD PLANS.

ESTIMATE OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QUANTITY
206.03	CONDUIT EXCAVATION AND BACKFILL INCLUDING SURFACE RESTORATION	LF	156
206.05	TEST PIT EXCAVATION	EA	2
619.1612	MAINTAIN TRAFFIC SIGNAL EQUIPMENT (REQUIREMENT B)	INTM	3
680.05010007	360 DEGREE CAMERA VIDEO DETECTION SYSTEM	EA	1
680.5001	POLE EXCAVATION AND CONCRETE FOUNDATION	CY	7.3
680.510501	PULLBOX-RECTANGULAR, 26 X 18 INCH, REINFORCED CONCRETE	EA	3
680.520108	CONDUIT, METAL STEEL, ZINC COATED, 3"	LF	137
680.520110	CONDUIT, METAL STEEL, ZINC COATED, 4"	LF	19
680.632055	TRAFFIC SIGNAL POLE, DUAL MAST ARM, 20 FEET MOUNTING HEIGHT, 55 FEET ARM LENGTH	EA	1
680.632150	TRAFFIC SIGNAL POLE, DUAL MAST ARM, 21 FEET MOUNTING HEIGHT, 50 FEET ARM LENGTH	EA	1
680.730514	SIGNAL CABLE 5 CONDUCTORS, 14 AWG	LF	1103
680.731014	SIGNAL CABLE 10 CONDUCTORS, 14 AWG	LF	530
680.78020008	REMOVE EXISTING OVERHEAD TRAFFIC SIGNAL CABLE AND APPURTENANCES	EA	1
680.78030008	REMOVE EXISTING TRAFFIC SIGNAL HEADS	EA	5
680.78040008	REMOVE TRAFFIC SIGNAL SPAN WIRE ASSEMBLY	EA	1
680.80324515	INSTALL MICROCOMPUTER CABINET	EA	1
680.810101	TRAFFIC SIGNAL MODULE - 12 INCH, RED BALL, LED	EA	8
680.810102	TRAFFIC SIGNAL MODULE - 12 INCH, RED ARROW, LED	EA	1
680.810103	TRAFFIC SIGNAL MODULE - 12 INCH, YELLOW BALL, LED	EA	8
680.810104	TRAFFIC SIGNAL MODULE - 12 INCH, YELLOW ARROW, LED	EA	2
680.810105	TRAFFIC SIGNAL MODULE - 12 INCH, GREEN BALL, LED	EA	8
680.810106	TRAFFIC SIGNAL MODULE - 12 INCH, GREEN ARROW, LED	EA	1
680.810107	TRAFFIC SIGNAL SECTION - TYPE I, 12 INCH	EA	28
680.81230008	TRAFFIC SIGNAL BRACKET ASSEMBLY - 1 WAY MAST ARM MOUNT (CABLE TYPE)	EA	9
680.81990008	TRAFFIC SIGNAL BACK PLATES WITH YELLOW REFLECTIVE TAPE	EA	9
680.8207	OVERHEAD SIGN ASSEMBLY, TYPE G	EA	6
680.90920008	ELECTRIC METER SOCKET, 200 AMP, SINGLE PHASE, 240/120 VOLT W/ BYPASS SWITCH FOR SIGNAL INSTALLATIONS	EA	1
680.94000008	TRAFFIC SIGNAL SERVICE ENTRANCE	EA	1
680.94998008	INSTALL ELECTRICAL DISCONNECT GENERATOR TRANSFER SWITCH - STATE SUPPLIED	EA	1
680.95020615	SERVICE CABLE 2 CONDUCTOR NO. 06 AWG	LF	142
680.99020010	REMOVE STEEL ANCHOR BASE TRAFFIC SIGNAL POLE	EA	2
683.08020104	3G/4G LTE GATEWAY MODEM W/ANTENNA	EA	1

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NO.	REVISION	DATE	BY

Creighton Manning

PREPARED FOR: ROMBOUT FIRE DISTRICT
901 MAIN STREET
FISHKILL, NY 12524

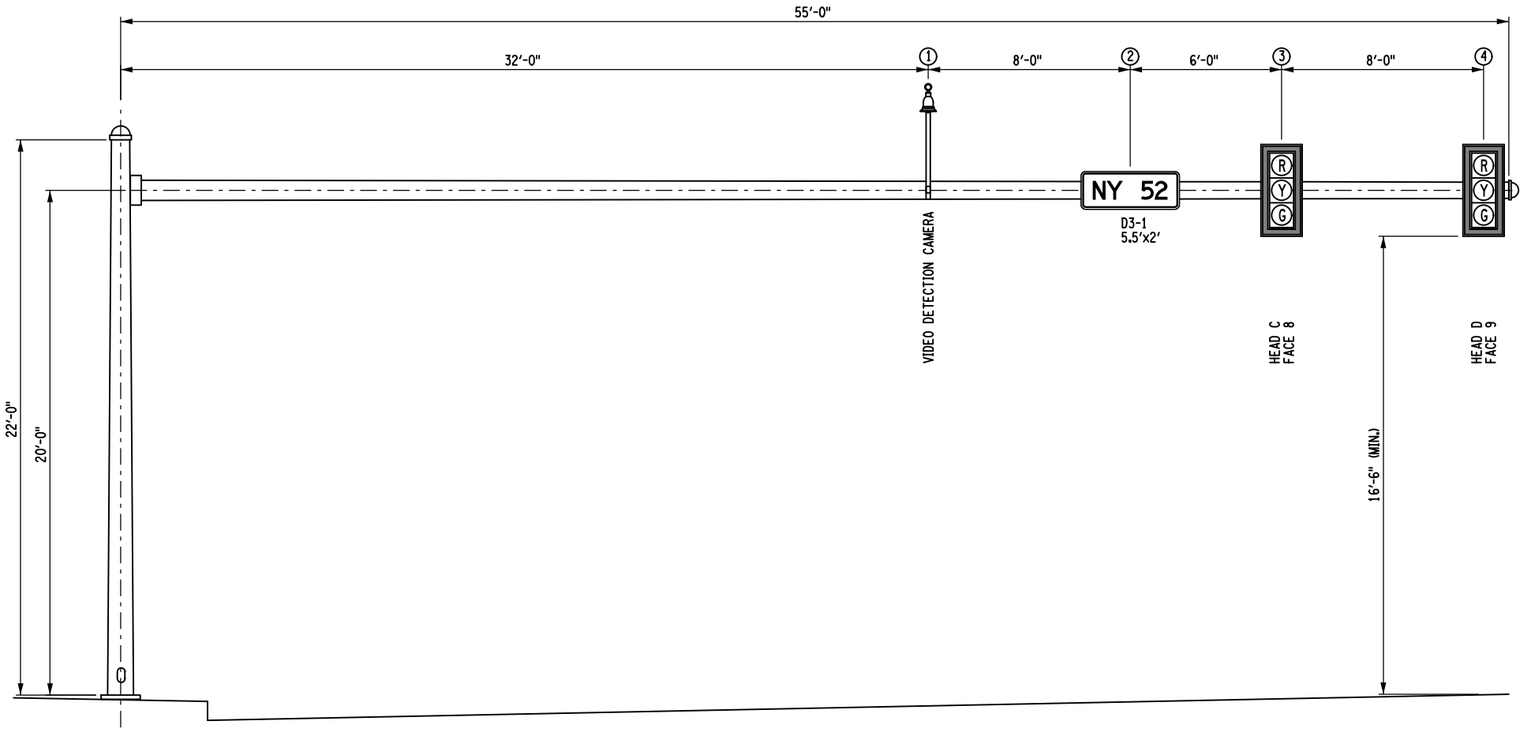
D.P.R. | CHECKED: | K.H.D. | DRAWN BY: | D.J.K. | DESIGNED: | AS NOTED | SCALE: | 121-286 | CM No.: | NOVEMBER 2022 | DATE:

OFF-SITE SIGNAL IMPROVEMENTS
NY ROUTE 52/ROMBOUT FIRE STATION #2
TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

TRAFFIC SIGNAL PLAN
SIGNAL NO. D-163PS
NYS RTE 52 (ROMBOUT FIRE STATION #2)

TSP-01A

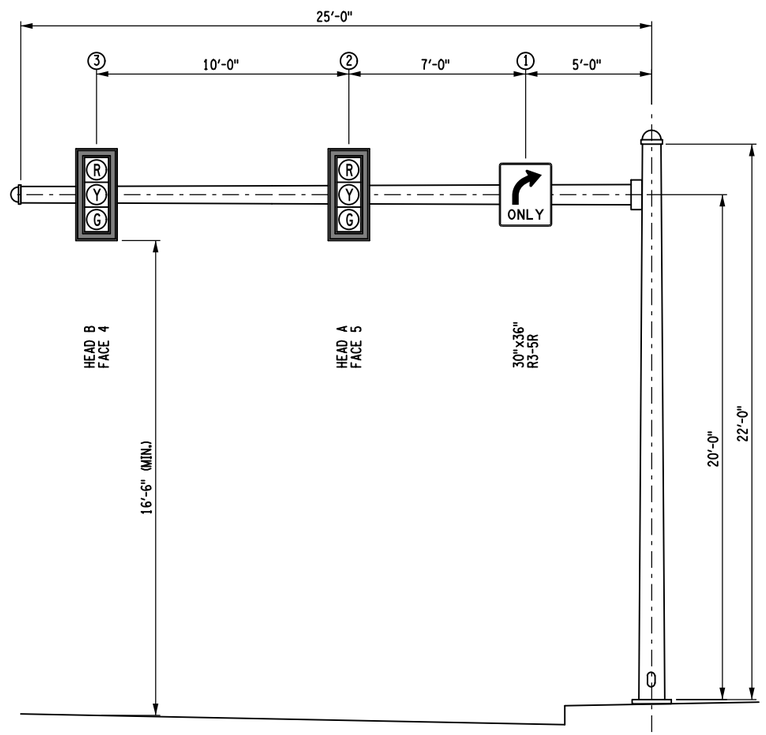
SHEET NUMBER 10 of 12



S-1 MAST ARM A - DESIGN LOADING
(NOT TO SCALE)

S-1 MAST ARM A LOAD TABLE					
LOAD	TYPE	NO. OF 1' SECTIONS	DEAD LOAD (lb)	PROJECTED WIND AREA (SF)	PROJECTED ICE AREA (SF)
1	VIDEO DETECTION CAMERA	N/A	26.25	1.24	4
2	STREET SIGN	N/A	40	11	11
3	SIGNAL	3	53.55	8.16	20.88
4	SIGNAL	3	53.55	8.16	20.88

S-1 MAST ARM B LOAD TABLE					
LOAD	TYPE	NO. OF 1' SECTIONS	DEAD LOAD (lb)	PROJECTED WIND AREA (SF)	PROJECTED ICE AREA (SF)
1	SIGN	N/A	33	7.5	7.5
2	SIGNAL	3	53.55	8.16	20.88
3	SIGNAL	3	53.55	8.16	20.88



S-1 MAST ARM B - DESIGN LOADING
(NOT TO SCALE)

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PREPARED FOR: ROMBOUT FIRE DISTRICT
901 MAIN STREET
FISHKILL, NY 12524

DESIGNED: D.J.K. | DRAWN BY: K.H.D. | CHECKED: D.P.R.

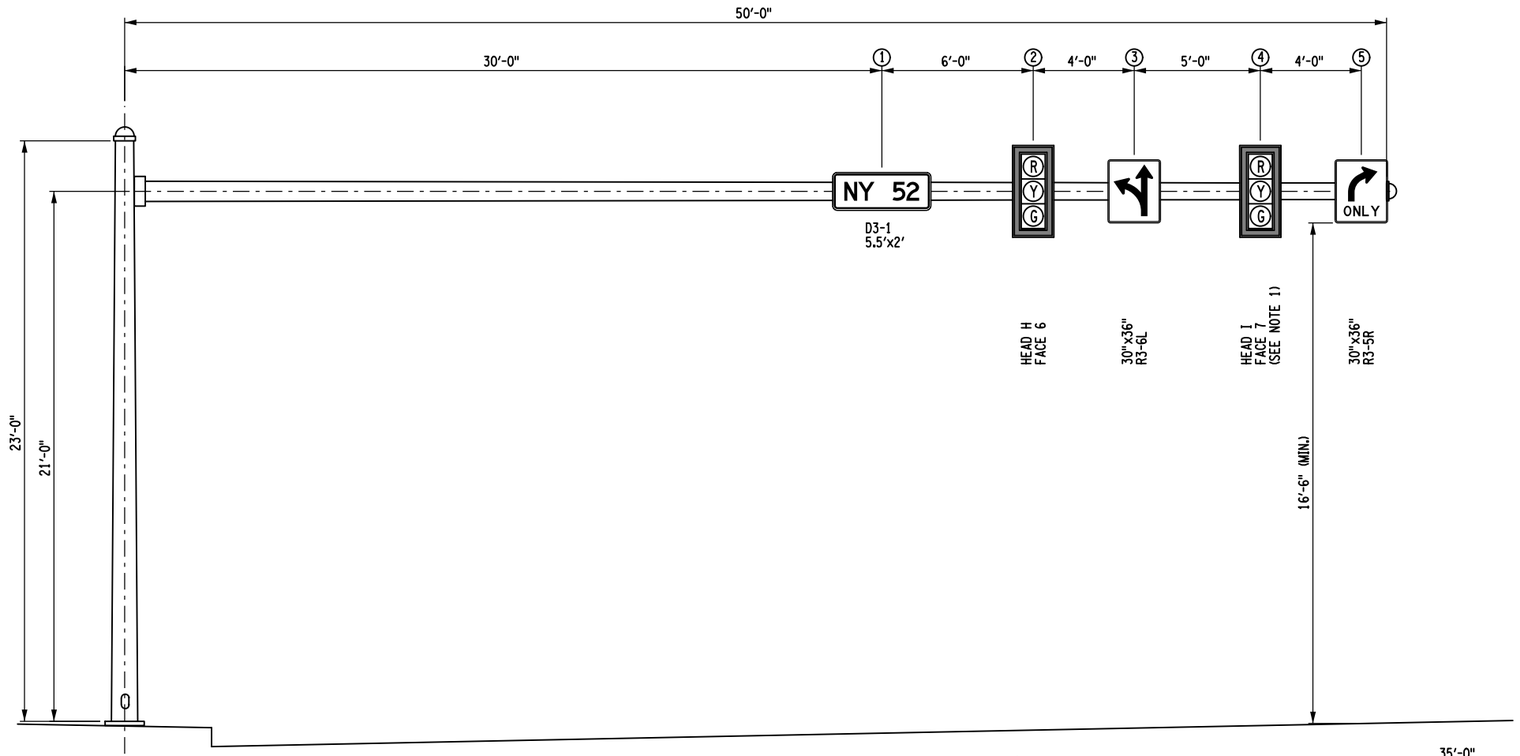
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TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

TRAFFIC SIGNAL PLAN
SIGNAL NO. D-163PS
NYS RTE 52 (ROMBOUT FIRE STATION #2)

DATE: NOVEMBER 2022 | CM No.: 121-286 | SCALE: AS NOTED

TSP-01B

SHEET NUMBER 11 of 12



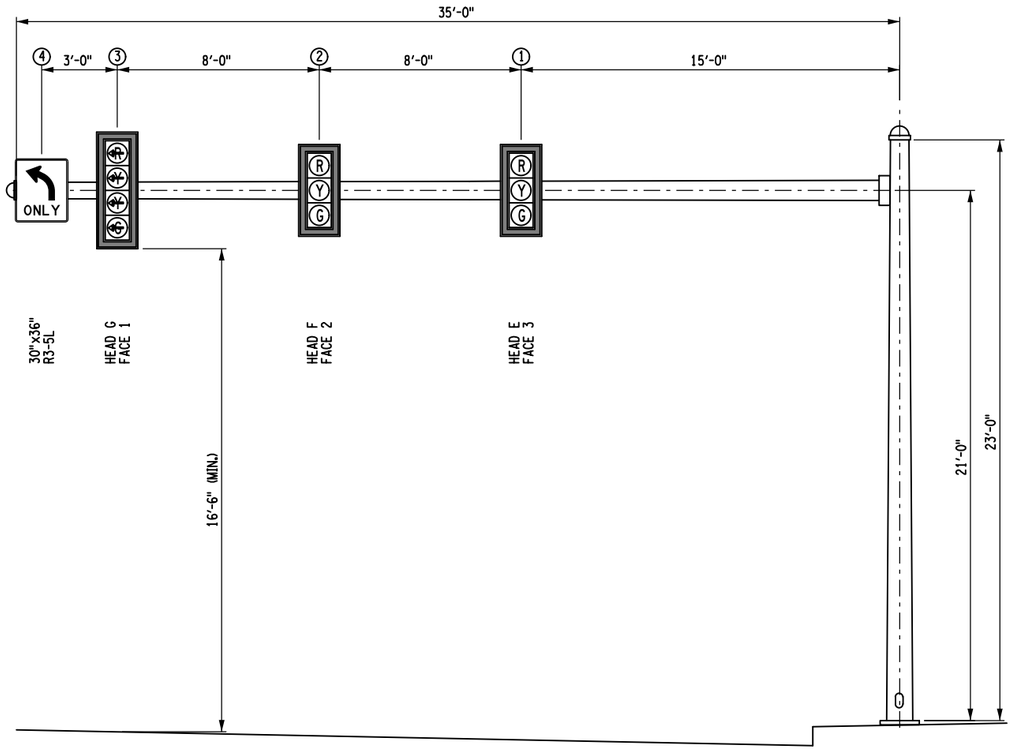
S-2 MAST ARM A - DESIGN LOADING
(NOT TO SCALE)

S-2 MAST ARM A LOAD TABLE					
LOAD	TYPE	NO. OF 1' SECTIONS	DEAD LOAD (lb)	PROJECTED WIND AREA (SF)	PROJECTED ICE AREA (SF)
1	STREET SIGN	N/A	40	11	11
2	SIGNAL	3	53.55	8.16	20.88
3	SIGN	N/A	33	7.5	7.5
4	SIGNAL	3	104.6	12.85	33.3
5	SIGN	N/A	33	7.5	7.5

NOTE:

1. S-2 MAST ARM A SHALL BE DESIGNED TO ACCOMMODATE A FUTURE 5-SECTION HEAD TO REPLACE LOAD 4.

S-2 MAST ARM B LOAD TABLE					
LOAD	TYPE	NO. OF 1' SECTIONS	DEAD LOAD (lb)	PROJECTED WIND AREA (SF)	PROJECTED ICE AREA (SF)
1	SIGNAL	3	53.55	8.16	20.88
2	SIGNAL	3	53.55	8.16	20.88
3	SIGNAL	4	66.45	10.34	26.76
4	SIGN	N/A	33	7.5	7.5



S-2 MAST ARM B - DESIGN LOADING
(NOT TO SCALE)

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NO.	REVISION	DATE	BY

Creighton Manning

PREPARED FOR: ROMBOUT FIRE DISTRICT
901 MAIN STREET
FISHKILL, NY 12524

OFF-SITE SIGNAL IMPROVEMENTS
NY ROUTE 52/ROMBOUT FIRE STATION #2
TOWN OF FISHKILL
DUTCHESS COUNTY, NEW YORK

TRAFFIC SIGNAL PLAN
SIGNAL NO. D-163PS
NYS RTE 52 (ROMBOUT FIRE STATION #2)

DESIGNED: D.J.K. | DRAWN BY: K.H.D. | CHECKED: D.P.R.
DATE: NOVEMBER 2022 | CM No.: 121-286 | SCALE: AS NOTED

TSP-01C

SHEET NUMBER 12 of 12

STRUCTURAL GENERAL NOTES

A. GENERAL

1. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION AND DETAILS. ALSO, SEE STRUCTURAL SPECIFICATIONS.
2. THE STRUCTURE HAS BEEN DESIGNED TO BE SELF–SUPPORTING AND STABLE AFTER THE CONSTRUCTION OF THE BUILDING HAS BEEN COMPLETED. THE STABILITY OF THE STRUCTURE PRIOR TO TOTAL COMPLETION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. JOBSITE SAFETY AND CONSTRUCTION PROCEDURES ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. LACK OF COMMENT BY THE ENGINEER IS NOT TO BE INTERPRETED AS APPROVAL OF THOSE ASPECTS OF WORK.

B. DESIGN AND LOADING

1. ALLOWABLE UNIT STRESSES AND DESIGN CRITERIA ARE IN ACCORDANCE WITH THE FOLLOWING:
   A) "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" ACI 318–14.
   B) "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AISC 360–16.
   C) LATEST EDITION OF "NEW YORK STATE BUILDING CODE" (2018 INTERNATIONAL BUILDING CODE).
2. SPECIAL LOADS:
   A) THE CONTRACTOR SHALL MAKE PROVISIONS FOR TEMPORARY CONSTRUCTION LOADS WHICH WILL OCCUR DURING THE ERECTION OF THE BUILDING.
3. ALLOWABLE PRESUMPTIVE SOIL BEARING PRESSURE: 2 TONS/SF
4. DESIGN STRESSES AND MATERIAL:

A)	CONCRETE (28–DAY STRENGTH, NORMAL WEIGHT)	3,000 PSI
B)	REINFORCING STEEL	ASTM A–615, FY = 60 KSI
C)	WELDED–WIRE	ASTM A–185, FY = 60 KSI
D)	MISCELLANEOUS STRUCTURAL STEEL	ASTM A36, FY = 36 KSI
E)	STRUCTURAL WIDE FLANGES	ASTM A992, FY = 50 KSI
F)	STRUCTURAL STEEL PIPES	ASTM A–53, GRADE B, FY = 35 KSI
G)	STRUCTURAL STEEL TUBES	ASTM A–500, GRADE B, FY = 46 KSI
H)	BOLTS: 3/4 – INCH DIAMETER	ASTM A–325
I)	HOLLOW CONCRETE MASONRY UNITS	ASTM C90 GRADE N–1
J)	MORTAR	ASTM C270 TYPE S
K)	WELDING ELECTRODES	E–70XX
L)	HOT DIPPED GALVANIZING – FABRICATED PRODUCTS	ASTM A–123
M)	HOT DIPPED GALVANIZING – HARDWARE	ASTM A–153

C. FOUNDATION

1. ALL FOUNDATION EXCAVATIONS SHALL BE TO REQUIRED ELEVATION OR UNDISTURBED SOIL. ALL FOUNDATIONS EXCAVATIONS SHALL BE TO SOUND GROUND.
2. BOTTOM OF EXTERIOR FOOTING TO BE A MINIMUM 3'–6" BELOW FINISHED GRADE. ALL FOOTINGS SHALL BE A MINIMUM OF 1'–6" BELOW EXISTING GRADE, UNLESS ON STRUCTURAL FILL.
3. STRUCTURAL FILL SHALL BE APPROVED STRUCTURAL GRAVEL COMPACTED IN 8" LAYERS TO 95% OF MODIFIED OPTIMUM DENSITY.
4. ALL FOUNDATION EXCAVATIONS AND STRUCTURAL FILL SHALL BE TESTED AND INSPECTED TO ENSURE THE ALLOWABLE SOIL BEARING PRESSURE AND DENSITY OF FOUNDATION BEARING MATERIALS.
5. BOTH SIDES OF FOUNDATION WALLS SHALL BE BACKFILLED SIMULTAN–EOUSLY TO PREVENT OVERTURNING OR LATERAL MOVEMENT OF WALLS.
6. DO NOT BACKFILL AGAINST RETAINING BASEMENT WALLS UNTIL CONCRETE HAS ACHIEVED 75% OF 28 DAY SPECIFIED STRENGTH.

D. CONCRETE WORK AND REINFORCING

1. ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 301 LATEST EDITION.
2. WALL FOOTING ARE TO BE 12 INCHES DEEP WITH 6–INCH PROJECTIONS, UNLESS OTHERWISE NOTED.
3. ALL FOUNDATION WALLS ARE TO BE KEYED TO FOOTINGS.
4. SLABS ARE TO BE KEYED TO SUPPORTING WALLS.
5. WHERE VERTICAL REINFORCING BARS ARE CALLED FOR IN WALLS, AT COLUMN LOCATIONS OR PIERS, SUCH BARS ARE TO BE DOWELED INTO FOOTINGS.
6. POCKET WALLS WHERE NECESSARY FOR COLUMNS AND SLABS.
7. PROVIDE MINIMUM OF 2 INCHES COVER AROUND COLUMN BASE PLATES.
8. REINFORCING TO BE LAPPED 36 BAR DIAMETERS AT ALL CORNERS, SPLICES, DOWELS, ETC.
9. PROVIDE TWO (2) #5 BARS ON ALL SIDES AND DIAGONALLY AT CORNERS OF OPENINGS THROUGH CONCRETE WALLS. BARS TO EXTEND 2'–0" BEYOND EDGE OF OPENING.
10. UNLESS OTHERWISE NOTED, ALL FOUNDATION WALLS ARE TO BE REIN–FORCED WITH TWO (2) #5 BARS, CONTINUOUS TOP AND BOTTOM.
11. HORIZONTAL WALL CONSTRUCTION JOINTS WILL NOT BE PERMITTED, EXCEPT WHERE SHOWN.
12. ALL JOINTS IN STRUCTURAL SLABS SHALL BE MADE AT CENTER OF SPAN WITH VERTICAL BULKHEADS AND HORIZONTAL KEYS, UNLESS OTHERWISE SHOWN OR APPROVED.
13. AIR–ENTRAIN ALL EXPOSED CONCRETE.
14. PADS ARE REQUIRED FOR ALL FLOOR STANDING EQUIPMENT. COORDINATE SIZE AND LOCATION OF EQUIPMENT PADS WITH MECHANICAL AND ELECT–RICAL CONTRACTORS.
15. THE GENERAL CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS, INCLUDING DIMENSIONS AND LOCATIONS, OF ALL OPENINGS, EMBEDDED ITEMS, ETC., FOR MECHANICAL AND ELECTRICAL TRADES.
16. COVER FOR REINFORCING:

A)	CONCRETE PLACED ON EARTH	3"
B)	FORMED CONCRETE EXPOSED TO GROUND OR WEATHER:	
	1) #6 BARS OR LARGER	2"
	2) #5 BARS OR SMALLER	1–1/2"
C)	FORMED CONCRETE NOT EXPOSED TO GROUND OR WEATHER:	3/4"

E. STEEL

1. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF "THE AISC SPECIFICATIONS FOR THE DESIGN FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
2. FABRICATE AND ERECT ALL BEAMS WITH MILL CAMBER UP.
3. PROVIDE WEB STIFFENER PLATES FOR BEAMS CONTINUOUS OVER COLUMNS OR BELOW SUPPORTED COLUMNS.
4. WHEREVER WELDING IS EMPLOYED, EITHER IN FABRICATION OR ERECTION ALL SUCH WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS IN COMPLETE ACCORD WITH THE "STRUCTURAL WELDING CODE – STEEL" OF THE AMERICAN WELDING CODE.
5. PROVIDE ANGLE FRAMES FOR ROOF DRAIN SUMP PANS AND ALL OTHER NEW FLOOR AND ROOF OPENINGS 12–INCHES OR GREATER. ANGLE FRAMES TO BE L5 x 3–1/2 x 1/4" – TYPICAL.
6. FURNISH LOOSE ANGLE LINTELS, UNLESS OTHER LINTELS ARE SPECIFIC–ALLY INDICATED. FOR ALL OPENINGS IN MASONRY WALLS FOR DOORS, WINDOWS, DUCTS, PASS–THROUGHS, ETC. FOR EACH FOUR (4) INCHES OF MASONRY, FURNISH ONE ANGLE AS FOLLOWS:

SPAN	LINTEL
UP TO 4'–6"	L3–1/2 X 3–1/2 X 5/16
4'–6" TO 5'–6"	L4 X 3–1/2 X 5/16
5'–6" TO 6'–6"	L5 X 3–1/2 X 5/16
6'–6" TO 7'–6"	L6 X 3–1/2 X 3/8

   FOR SIX (6") INCH WALLS, USE TWO (2) ANGLES WITH 2–1/2–INCH LEGS OUTSTANDING. FOR FOUR (4") INCH WALLS, USE ST3 X 6.25. MINIMUM SIX (6") INCH LONG BEARING FOR ALL LINTELS.

   FOR EIGHT (8") CMU BEARING WALLS WITH OPENINGS 7'–6" TO 10'–0" WIDE, USE TWO (2) L6 X 3–1/2 X 1/2 ANGLES, BACK–TO–BACK, WITH A 3/8" X 7–5/8" WIDE PLATE WELDED TO THE BOTTOM OF THE ANGLES.
7. PROVIDE SHOP COAT OF PAINT.
8. SUBMIT SHOP DRAWINGS, INCLUDING LINTEL SCHEDULE AND SHOP PAINT.

F. METAL DECK

1. PERMANENT METAL FLOOR DECK: 1–1/2–INCH DEEP, 20–GAUGE, GALVANIZED COMPOSITE METAL FLOOR DECK.
2. ROOF DECK: 1–1/2–INCH DEEP, 22–GAUGE, WIDE RIB, TYPE 'B' GALVANIZED METAL DECK.
3. AT STRUCTURAL STEEL SUPPORT – WELD DECK AT 12" O.C. WITH 5/8–INCH DIAMETER PUDDLE WELDS AT EVERY STEEL SUPPORT AND PERIMETER SUPPORT PARALLEL TO DECK SPAN.
4. ALL ROOF DECK SHALL BE FASTENED AT 6" O.C. WITHIN 15' OF ANY ROOF EDGE TRANSITION.
5. SIDE LAPS SHALL BE FASTENED AT MID–SPAN, USING SELF TAPPING SHEET METAL SCREWS.

G. MASONRY CONSTRUCTION

1. ALL MASONRY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (ACI 530–02/ASCE 5–02).
2. ALL MASONRY SHALL BE LAID IN RUNNING BOND.
3. MORTAR SHALL BE TYPE S CONFORMING TO ASTM C270.
4. GROUT SHALL CONFORM TO ASTM C476 WITH A MINIMUM CEMENT CONTENT OF 7.0 SACKS OF PORTLAND CEMENT PER CUBIC YARD.
5. PROVIDE BOND BEAMS OR REINFORCED GROUTED UNITS WITH 2–#5 HORI–ZONTAL CONTINUOUS REINFORCEMENT IN ALL MASONRY WALLS AT:
   A) THE BOTTOM AND TOP OF WALL OPENINGS AND SHALL EXTEND NOT LESS THAN 24 INCHES NOR LESS THAN 40 BAR DIAMETER PAST THE OPENING
   B) STRUCTURALLY CONNECTED ROOF LEVELS AND AT THE TOP OF WALLS
   C) AT THE BOTTOM OF THE WALL OR IN THE TOP OF THE FOUNDATIONS WHEN DOWELED TO THE WALL.
   D) AT MAXIMUM SPACING OF 10 FEET UNLESS UNIFORMLY DISTRIBUTED JOINT REINFORCEMENT IS PROVIDED.
6. PROVIDE MINIMUM OF ONE #5 CONTINUOUS VERTICAL REINFORCEMENT IN ALL MASONRY WALLS AT:
   A) MINIMUM OF 48 INCHES ON CENTER UNLESS OTHERWISE NOTED
   B) ALL SIDES AND EDGES OF MASONRY OPENINGS AND SHALL EXTEND NOT LESS THAN 24 INCHES NOR LESS THAN 40 BAR DIAMETER PAST THE OPENING
7. ALL MASONRY CELLS CONTAINING REINFORCING SHALL BE FILLED SOLID WITH GROUT. GROUT SHALL BE SAME TYPE AS MORTAR.
8. ALL VERTICAL MASONRY REINFORCEMENT SHALL BE DOWELED (12 INCHES) MINIMUM INTO SUPPORTING FOUNDATION WALL OR FOOTING, UNLESS OTHER–WISE NOTED.
9. REINFORCEMENT SHALL BE HELD IN PLACE USING POSITIONERS AT THE START, END AND SPLICES OF EACH BAR. PROVIDE ADDITIONAL SUPPORTS AT INTERVALS NOT GREATER THAN 192 BAR DIAMETERS OR 10'–0".
10. SPLICE REINFORCEMENT A MINIMUM LAP OF 48 BAR DIAMETERS OR 12 INCHES, WHICHEVER IS GREATER.
11. SINGLE WYTHE JOINT REINFORCEMENT TO BE TRUSS TYPE, 3/16" DIAMETER SIDE RODS WITH 9 GAGE CROSS TIES CONFORMING TO ASTM A82, PLACED HORIZONTALLY WITH A MAXIMUM VERTICAL SPACING OF 16 INCHES. WIRE REINFORCEMENT TO BE GALVANIZED.
12. CONCRETE MASONRY UNITS SHALL BE OF SIZE AND SHAPE INDICATED ON PLANS. TYPICAL 8 INCH THICK UNIT SHALL BE 8X8X16 MODULAR WITH TWO CELLS AND SHALL HAVE A NET/GROSS AREA RATIO OF 53%.
13. DO NOT USE ADMIXTURES CONTAINING CHLORIDES, NITRITES OR NITRATES.
14. ALL HORIZONTAL BOND BEAM REINFORCEMENT SHALL BE CONTINUOUS AT MASONRY CONTROL JOINTS.

H. FIELD MEASUREMENTS

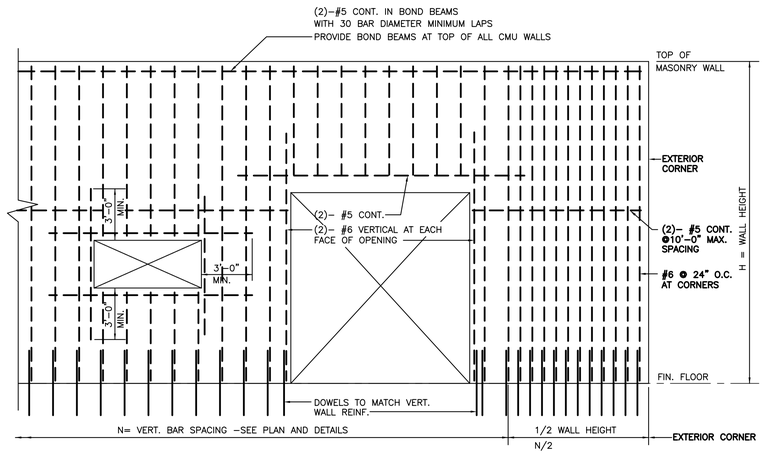
1. CONTRACTOR SHALL VERIFY IN THE FIELD ALL MEASUREMENTS, CONDI–TIONS AND ELEVATIONS NECESSARY FOR HIS WORK AND SHALL ASSUME RESPONSIBILITY FOR THEIR ACCURACY.

STRUCTURAL LOADS

1. LIVE LOAD:
   A) FLOOR LIVE LOADS UNIFORM:
      –STORAGE MEZZ 125 psf
   B) ROOF LIVE LOAD – 20psf
   C) ROOF SNOW LOAD – GROUND SNOW LOAD Pg= 30 psf
      – FLAT ROOF SNOW LOAD Pf= 28 psf
      – SNOW EXPOSURE FACTOR Ce= 1.0
      – SNOW THERMAL FACTOR Ct= 1.1
      – SNOW IMPORTANCE FACTOR Is= 1.2
      – SNOW BUILD–UP (Lu=140') Pm= 102 psf
2. LATERAL LOADS:
   A) WIND LOADS
      –ULTIMATE DESIGN WIND SPEED 130 mph
      –BUILDING RISK CATEGORY IV
      –WIND EXPOSURE CATEGORY B
      –INTERNAL PRESSURE COEFF. ±0.18

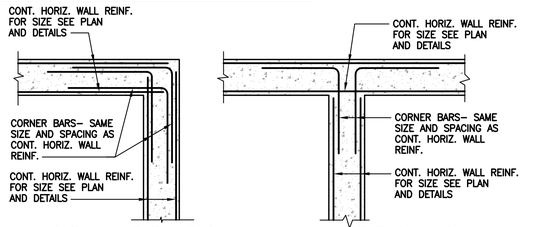
COMPONENT WIND LOADS: (ULTIMATE LD–20 SF)	TYPICAL psf	TRANSITIONS psf	CORNERS psf
–WALLS	29/–32	---	29/–38
–ROOF	16/–27	16/–45	16/–67

   B) SEISMIC LOADS
      –SPECTRAL RESPONSE ACCELERATIONS Ss=0.227, S1=0.057
      –SPECTRAL RESPONSE COEFFICIENTS Sds=0.242, Sd1=0.091
      –RISK CATEGORY IV
      –SEISMIC IMPORTANCE FACTOR 1.5
      –SEISMIC DESIGN CATEGORY C
      –SOIL SITE CLASS D
      –BASIC STRUCTURAL SYSTEM – BUILDING FRAME
      –SEISMIC RESISTING SYSTEM – "STEEL NOT DETAILED FOR SEISMIC RESISTANCE"
      –RESPONSE MODIFICATION FACTOR R=3.0
      –DEFLECTION AMPLIFICATION FACTOR Cd=3.0
      –BASIC STRUCTURAL SYSTEM – BEARING WALL
      –SEISMIC RESISTING SYSTEM – "INTERMEDIATE REINF. MASONRY SHEAR WALLS"
      –RESPONSE MODIFICATION FACTOR R=3.5
      –DEFLECTION AMPLIFICATION FACTOR Cd=2.25
      –ANALYSIS PROCEDURE – EQUIVALENT FORCE



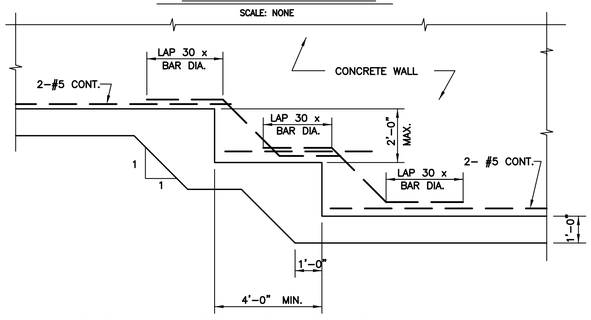
TYPICAL MASONRY WALL REINFORCEMENT

NOT TO SCALE



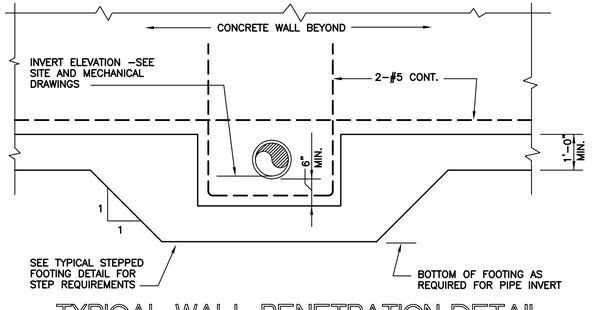
TYPICAL CONCRETE WALL CORNER BAR DETAILS

SCALE: NONE



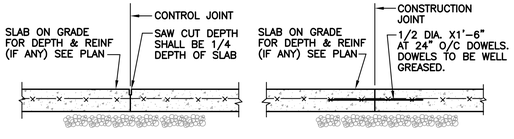
TYPICAL STEPPED FOOTING DETAIL

SCALE: NONE



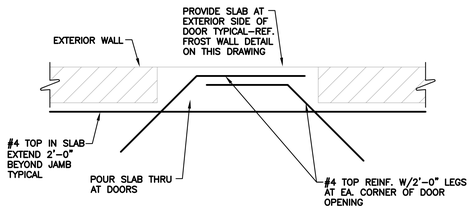
TYPICAL WALL PENETRATION DETAIL

SCALE: NONE



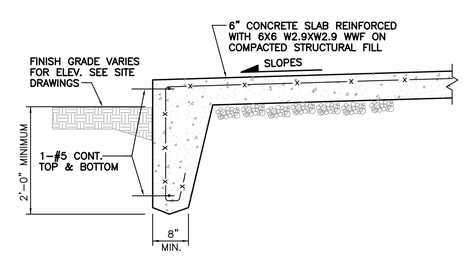
TYPICAL CONTROL JOINT DETAILS IN CONCRETE SLAB ON GRADE

SCALE: NONE



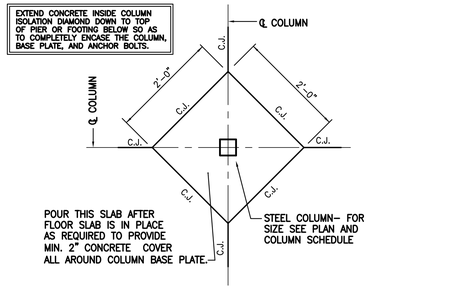
TYPICAL SLAB DETAIL AT EXTERIOR DOORS

SCALE : NONE



TYPICAL FROST WALL DETAIL

SCALE: NONE



TYPICAL ISOLATION JOINT AT COLUMN DETAIL

SCALE: NONE

NOTES

No.	REVISION/SUBMISSION	DATE
1		
2		
3		

Mechanical/Electrical/Plumbing Engineer

Structural Engineer

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

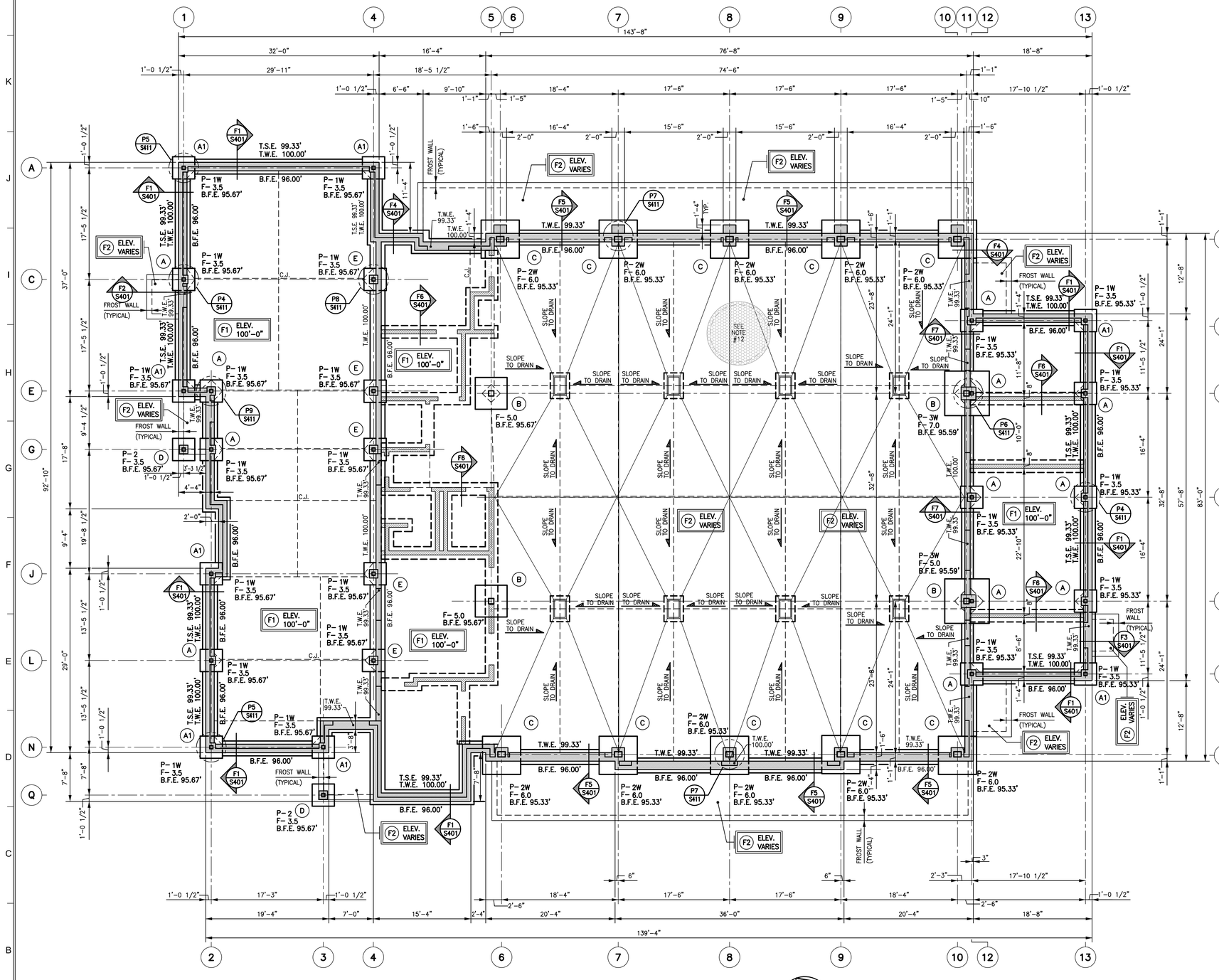
DRAWING
GENERAL NOTES & TYPICAL DETAILS

SEAL

DRAWN BY	PROJECT NUMBER
JWK	18142
CHECKED BY	DATE
TSG	11/30/2022

DRAWING NUMBER
S001

FILE P:\2000\JOB # - JOB NAME\



FOUNDATION PLAN

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

PIER SCHEDULE

DESIGNATION	SIZE	REINFORCING		REMARKS
		VERTICAL	HORIZONTAL	
P-1	16" X 16"	4-#6	#3 @ 12"	
P-2	24" X 24"	4-#7	#3 @ 12"	
P-3	20" X 28"	6-#7	#3 @ 12" #3 INT. TIE	

NOTES:

1. ALL VERTICAL PIER REINFORCING SHALL BE DOWELED INTO FOOTING.
2. ALL PIER SIZES INDICATED ARE MINIMUM EFFECTIVE PIER SIZES REQUIRED. FOR ACTUAL PIER SIZE REQUIRED – SEE ARCHITECTURAL DRAWINGS.
3. SUFFIX "...W" INDICATES THAT PIER SHALL BE PLACED MONOLITHIC WITH FOUNDATION WALL.
4. ADDITIONAL FOUR TIES SPACED AT 3" O.C. SHALL BE ADDED AT TOP OF COLUMN PIER.

FOOTING SCHEDULE

DESIGNATION	SIZE – W X L X D	REINFORCING (EACH WAY – BOTTOM)
F-3.0	3'-0" X 3'-0" X 1'-4"	3-#6
F-3.5	3'-6" X 3'-6" X 1'-4"	3-#6
F-4.0	4'-0" X 4'-0" X 1'-4"	4-#6
F-4.5	4'-6" X 4'-6" X 1'-4"	5-#6
F-5.0	5'-0" X 5'-0" X 1'-4"	7-#6
F-5.5	5'-6" X 5'-6" X 1'-6"	8-#6
F-6.0	6'-0" X 6'-0" X 1'-8"	9-#6
F-6.5	6'-6" X 6'-6" X 1'-8"	8-#7
F-7.0	7'-0" X 7'-0" X 1'-9"	9-#7
F-100	3'-0" X 5'-0" X 2'-0"	3-#6 LONG & 5-#6 SHORT
F-101	4'-0" X 4'-0" X 2'-0"	4-#6 EACH WAY

NOTES:

1. (F1) INDICATES 6" CONCRETE SLAB REINFORCED WITH (2)-LAYERS OF 6X6-W2.9XW2.9 W.W.F. ON 12" MINIMUM LAYER OF COMPACTED STRUCTURAL FILL. SEE ARCHITECTURAL DRAWINGS FOR VAPOR RETARDER REQUIREMENTS.
2. (F2) INDICATES 8" CONCRETE SLAB REINFORCED WITH 6X6-W4.0XW4.0 W.W.F. TOP AND #4@12" O.C. E.W. BOTTOM ON 12" MINIMUM LAYER OF COMPACTED STRUCTURAL FILL.
3. B.F.E. INDICATES BOTTOM OF FOOTING ELEVATION. "B.F.E. . . ." INDICATES BOTTOM OF FOOTING ELEVATION TO MATCH EXISTING ADJACENT FOOTING ELEVATION.
4. T.W.E. INDICATES TOP OF WALL ELEVATION. DROP TOP OF WALL ELEVATION TO 8" BELOW FINISH FLOOR ELEVATION AT ALL DOOR OPENINGS – U.O.N.
5. T.S.E. INDICATES TOP OF MASONRY SHELF ELEVATION.
6. C.J. INDICATES CONTROL JOINT IN CONCRETE SLAB – SEE TYPICAL DETAIL ON DRAWING S001.
7. F.S. INDICATES FOOTING STEP – SEE TYPICAL DETAIL ON DRAWING S001.
8. WHERE UTILITY LINES (i.e. SANITARY, WATER, ETC.) PENETRATE FOUNDATION WALL DROP BOTTOM OF FOOTING ELEVATION AS REQUIRED TO ALLOW UTILITY LINE TO PASS THRU FOUNDATION WALL. COORDINATE LOCATION AND ELEVATIONS WITH MECHANICAL AND SITE REQUIREMENTS.
9. DO NOT AIR-ENTRAIN INTERIOR SLABS ON GRADE.
10. GENERAL CONTRACTOR SHALL COORDINATE EXACT REQUIREMENTS FOR SLAB DEPRESSIONS. SEE TYPICAL DETAIL ON THIS DRAWING AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
11. (*) INDICATES SUPPORT COLUMN – SEE COLUMN SCHEDULE ON DRAWING S201.
12. REMOVE EXISTING CISTERN AND ALL DISTURBED SOILS LOCATED WITHIN THE BUILDING FOOTPRINT AND REPLACE WITH COMPACTED STRUCTURAL FILL–CONTRACTOR TO VERIFY EXTENTS IN FIELD. SEE GEOTECHINCAL REPORT FOR ADDTIONAL RECOMMENDATIONS AND REQUIREMENTS.

NOTES

No.	REVISION/SUBMISSION	DATE
3		
2		
1		

Mechanical/Electrical/Plumbing Engineer

Structural Engineer

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING
FOUNDATION
PLAN

SEAL

DRAWN BY	PROJECT NUMBER
JWK	18142
CHECKED BY	DATE
TSG	11/30/2022

DRAWING NUMBER
S101

FILE P:\2000\JOB # - JOB NAME\

COLUMN SCHEDULE

LEVEL \ COLUMN NO.	A	A1	B	B1	C	D	E
TOP OF CMU ROOF			3'-0"	3'-0"	1'-4"		
ELEVATION 120'-0"							
8'-0"							
TOP OF STEEL LOW ROOF	0"	0"				2'-0"	0"
ELEVATION 112'-0"							
12'-0"							
TOP OF SLAB FIRST FLOOR							
ELEVATION 100'-0"							
	HSS5x5x1/4	HSS5x5x1/4	HSS10x10x3/8	HSS10x10x5/8	HSS14x10x3/8	HSS5x5x1/4	HSS5x5x1/4
	6 3/4"	6 3/4"	6 3/4"	6 3/4"	6 3/4"	6 3/4"	6 3/4"
CAP PLATE	W.C.	W.C.	W.C.	W.C.	11"x3/4"x16"	W.C.	W.C.
BASE PLATE	OFFSET 9"x3/4"x11"	OFFSET 9"x3/4"x9"	OFFSET 14"x3/4"x16"	OFFSET 14"x3/4"x16"	14"x1-1/4"x22"	11"x3/4"x11"	11"x3/4"x11"
ANCHOR RODS	(4)-3/4"ø	(4)-3/4"ø	(4)-3/4"ø	(4)-3/4"ø	(6)-1"ø	(4)-3/4"ø	(4)-3/4"ø

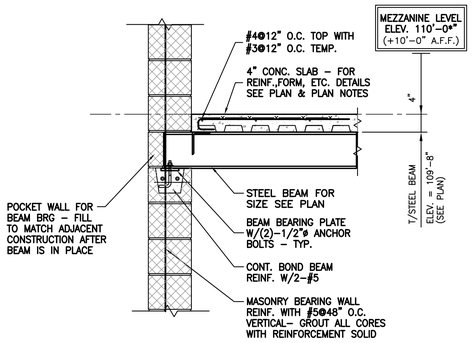
COLUMN SCHEDULE NOTES

1. AT EACH COLUMN PROVIDE A 1/4" THICK LEVELING PLATE (SAME SIZE AS BASE PLATE) ON MINIMUM OF 1" NON-SHRINK GROUT PAD AND (4)-3/4"ø ANCHOR RODS, UNLESS SHOWN OTHERWISE.
2. ALL DIMENSIONS SHOWN ARE GIVEN TO TOP OF CAP PLATES AND TO BOTTOM OF BASE PLATES.
3. W.C. INDICATES 1/4" THICK WEATHER CAP.
4. WELD ALL BASE PLATE COLUMNS TO BASE PLATES WITH CONTINUOUS FULL PROFILE 1/4" FILLET WELD.
5. R.L. INDICATES RAIN LEADERS.
6. SEE ANCHOR ROD SCHEDULE ON THIS DRAWING.

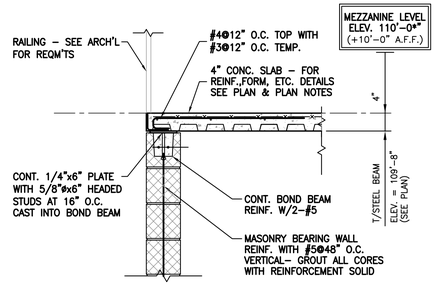
ANCHOR ROD SCHEDULE

DIAMETER	L_e	PLATE WASHER	REMARKS
3/4"ø	1'-0"	1/4" x2 1/2"	
1"ø	1'-4"	3/8" x 3"	SEE NOTE #5

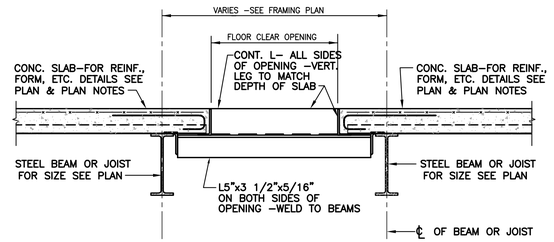
NOTES:
1. ALL ANCHOR RODS SHALL BE ASTM F1554 GRADE 36 WITH WELDABILITY SUPPLEMENT "S1" UNLESS OTHERWISE NOTED.
2. PROVIDE PLATE WASHERS AND NUTS FOR ALL RODS.
3. ALL RODS SHALL BE FREE OF SCALE, DIRT OR OIL.
4. PROVIDE MINIMUM 4" THREAD LENGTH.
5. PLATE WASHER SHALL BE WELDED IN PLACE TO COLUMN BASE PLATES AT ALL BRACE FRAME LOCATIONS.



SECTION S1 / S201
SCALE: 3/4" = 1'-0"

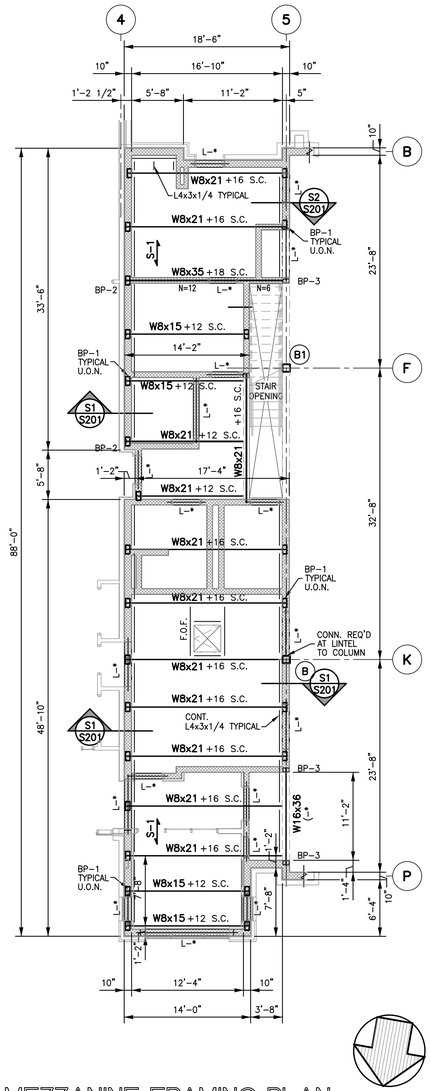


SECTION S2 / S201
SCALE: 3/4" = 1'-0"



TYPICAL (F.O.F.) FLOOR OPENING FRAME DETAIL

SCALE: 3/4" = 1'-0"



MEZZANINE FRAMING PLAN

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

NOTES:
1. TOP OF SLAB SHALL BE AT ELEVATION 110'–0" (+10'–0" A.F.F.), UNLESS OTHERWISE SHOWN.
2. TOP OF STEEL SHALL BE AT ELEVATION 109'–8" (+9'–8" A.F.F.), UNLESS OTHERWISE SHOWN THUS (+...) OR (–...) INDICATING DISTANCE ABOVE OR BELOW ELEVATION 109'–8".
3. S–1 → INDICATES 4" CONCRETE SLAB (TOTAL DEPTH) 2 1/2" CONCRETE TOPPING REINF. WITH 6X6–W2.9XW2.9 W.W.F. ON 1–1/2" DEEP, 20 GAGE, GALVANIZED COMPOSITE METAL FLOOR DECK.
4. NUMBER SHOWN AFTER BEAM SIZE (I.E. ..... + 36 S.C.) INDICATES NUMBER OF 3/4"ø DIAMETER X 3" HIGH, STUD TYPE, HEADED SHEAR CONNECTORS TO BE WELDED TO BEAM TOP FLANGE. SHEAR CONNECTORS TO BE SPACED UNIFORMLY ALONG TOP OF BEAM, UNLESS NOTED "N=**" INDICATING QUANTITY OF EQUAL SPACED SHEAR CONNECTORS TO BE APPLIED ALONG PARTIAL BEAM LENGTH.
5. PROVIDE FLOOR OPENING FRAME (F.O.F.) FOR ALL OPENINGS IN NEW CONCRETE SLAB LARGER THAN 12" IN ANY DIRECTION PER DETAIL ON THIS DRAWING.
6. "BP–*" INDICATES GROUTED STEEL BEARING PLATE. SEE BEARING PLATE SCHEDULE ON THIS DRAWING.
7. "L–*" INDICATES NEW STEEL LINTEL. SEE GENERAL NOTES ON THIS DRAWING FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

LINTEL SCHEDULE

MARK	MASONRY OPENING	LINTEL SIZE	REMARKS
L*	2'–6" < L < 4'–6"	L 3 1/2"X3 1/2"X 5/16"	
L*	4'–6" < L < 5'–6"	L 4"X3 1/2"X5/16"	
L*	5'–6" < L < 6'–6"	L 5"X3 1/2"X5/16"	
L*	6'–6" < L < 7'–6"	L 6"X3 1/2"X3/8"	
L*	7'–6" < L < 8'–6"	L 7"X4"X3/8"	
L*	8'–6" < L < 10'–0"	W8X15	+ 5/16"x** CONT. PLATE
L*	10'–0" < L < 14'–0"	W8X24	+ 5/16"x** CONT. PLATE

NOTES:
1. FOR EACH FOUR (4") INCHES OF MASONRY FURNISH ONE LINTEL ANGLE AS INDICATED.
2. ALL SPANS INDICATED ARE CLEAR MASONRY OPENING.
3. PROVIDE MIN. OF EIGHT (8") INCHES OF BEARING AT ALL LINTELS

BEARING PLATE SCHEDULE

BEARING PLATE MARK	SIZE	REMARKS
BP–1	4"x1/2"x10"	
BP–2	6"x1/2"x13"	
BP–3	9"x1/2"x9"	

NOTES:
1. PROVIDE BEARING PLATE AT ALL BEAMS BEARING ON MASONRY AND/OR CONCRETE WALLS. ALL BEARING PLATES SHALL BE "BP–1" UNLESS OTHERWISE NOTED.
2. PROVIDE POCKETS AS REQUIRED FOR ALL BEAMS BEARING ON WALLS. FILL ALL BEAM POCKETS SOLID TO MATCH ADJACENT CONSTRUCTION AFTER BEAM IS IN PLACE.
3. PROVIDE (2)–1/2"ø ANCHOR BOLTS AT EACH BEARING PLATE BEARING ON MASONRY AND (4)–3/4"ø ANCHOR BOLTS AT EACH BEARING PLATE BEARING ON CONCRETE.
4. PROVIDE MINIMUM OF 1" NON–SHRINK GROUT UNDER ALL BEARING PLATES.
5. GROUT SOLID MINIMUM OF TWO (2) COURSES, 24" WIDE DIRECTLY BELOW BEAM BEARING ON MASONRY WALLS.

CONCRETE SLAB SCHEDULE

SLAB MARK	CONC. TOPPING T1 (INCHES)	METAL DECK T2 (INCHES)	LIVE LOAD (PSF)	REINFORCING	CONCRETE WT (PCF)	CONCRETE Fc (PSI)	REMARKS
S–1	2 1/2"	1 1/2"	125	6X6–W2.9XW2.9 W.W.F.	145	3000	

NOTES:
1. ALL WELDED WIRE FABRIC AND STEEL REINFORCING SHALL BE SUPPORTED AT ALL STRUCTURAL FRAMING MEMBERS ON CONTINUOUS CHAIR SUPPORTS.
2. PROVIDE #4 @ 12" O.C. TOP HOOKED BARS AT ALL FORMED SLAB EDGES WITH #3 @ 12" O.C. CONTINUOUS TEMP. REINFORCING. – TYPICAL U.O.N.
3. PROVIDE #4 X 6'–0" @ 12" O.C. TOP ACROSS ALL GIRDERS WITH #3 @ 12" O.C. TEMPERATURE REINFORCING. – TYPICAL UNLESS OTHERWISE NOTED.
4. METAL FLOOR FORM SHALL BE COMPOSITE, GALVANIZED, FLOOR DECK, GAGE AS REQUIRED FOR LOADING (20 GA. – MIN). SEE GENERAL NOTES AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.TYPICAL – UNLESS OTHERWISE NOTED.

NOTES

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Mechanical/Electrical/Plumbing Engineer

Structural Engineer

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PROJECT
NEW FIRE STATION FOR
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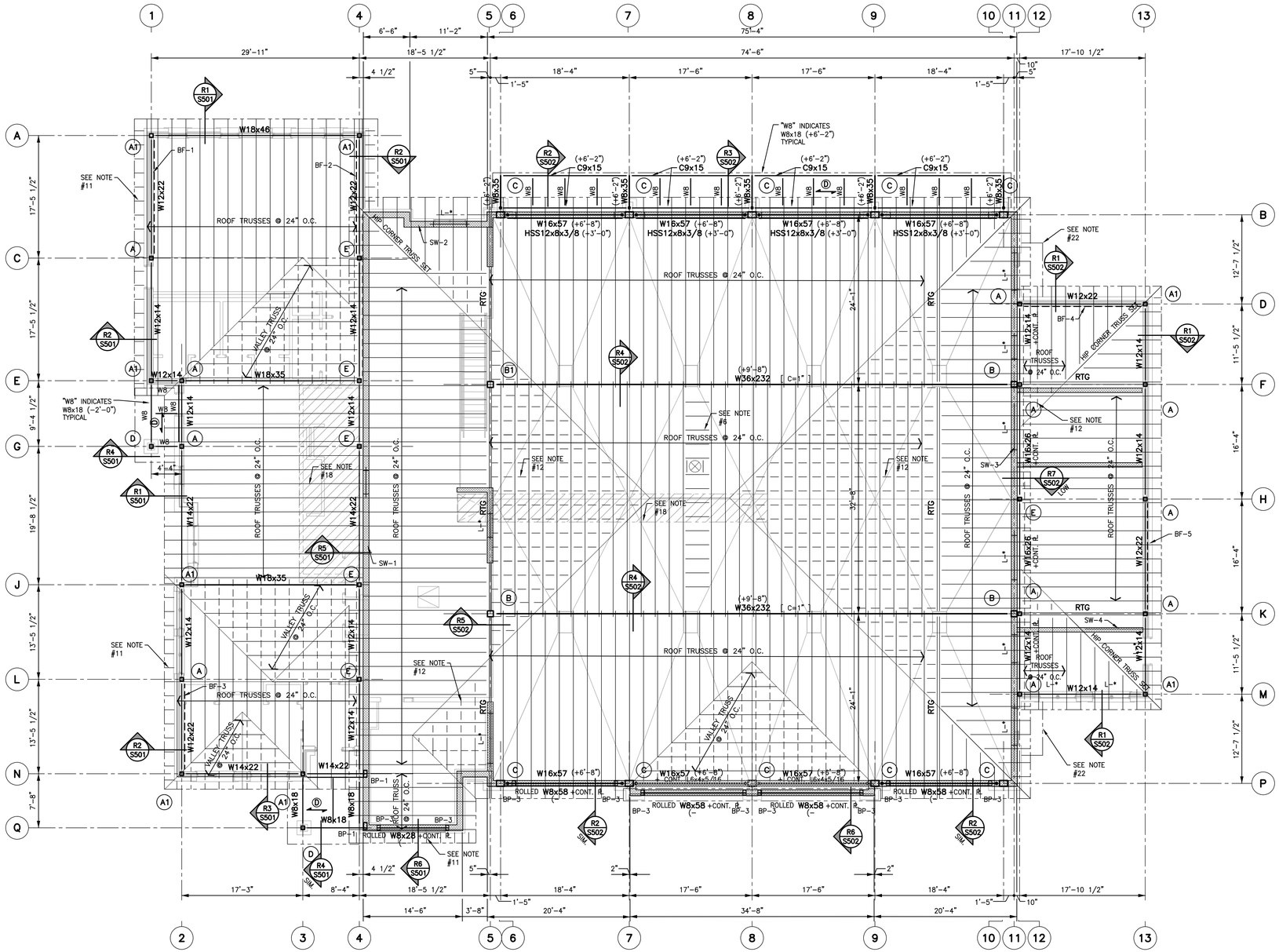
DRAWING
MEZZANINE
FRAMING PLAN

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ROOF FRAMING PLAN

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

NOTES:

1. TOP OF STEEL SHALL BE AT ELEVATION 112'-0" (+12'-0" A.F.F.) UNLESS NOTED (+...) OR (-...) INDICATING DISTANCE ABOVE OR BELOW ELEVATION OF 112'-0".
2. ROOF SHEATHING SHALL BE F.R.T. EXTERIOR GRADE PLYWOOD WITH INTERMEDIATE CLIPS AND THICKNESS AS FOLLOWS:
   A) SLOPES GREATER THAN 3 ON 12 – 5/8" PLYWOOD
   B) SLOPES LESS THAN 3 ON 12 – 3/4" PLYWOOD
3. "RT–•" INDICATES NEW MANUFACTURED COLD FORMED STEEL TRUSS SPACED NO GREATER THAN 24" O.C.. TRUSS ERECTOR SHALL PROVIDE TEMPORARY AND PERMANENT BRACING OF TRUSSES AS REQUIRED UNTIL PERMANENT ROOFING SYSTEM IS COMPLETE.
4. PROVIDE HURRICANE ANCHORS AT ALL TRUSS AND RAFTER SUPPORTS PER TRUSS SUPPLIER REQUIREMENTS
5. COORDINATE ALL MECHANICAL EQUIPMENT (DUCTS, CHIMNEY, LOUVERS, HATCH OPENINGS, ETC.) PENETRATIONS WITH ROOF FRAMING. PROVIDE MULTIPLE MEMBER FRAMING AT ALL FRAMING SPACING REQUIREMENTS GREATER THAN 48" O.C. ON ALL SIDES OF OPENINGS. ALSO SEE NOTE #7.
6. PROVIDE LADDER FRAMING AT 24" O.C. AT TOP AND BOTTOM CHORDS OF ALL TRUSSES WHERE SPACING EXCEEDS 24" O.C. WITH 600S162–43 RAFTERS. ALL FRAMING SHALL HAVE JOIST HANGERS EACH END.
7. "VT– " INDICATES VALLEY TRUSS SET TO BE TRUSS MANUFACTURERS STANDARD VALLEY TRUSS WITH CONTINUOUS TOP AND BOTTOM CHORDS. COORDINATE CONFIGURATION WITH ARCHITECTURAL AND MECHANICAL REQUIREMENTS – TYPICAL.
8. PROVIDE MULTIPLE TRUSSES AND REDUCED TRUSS SPACING AS REQUIRED AT ALL MECHANICAL EQUIPMENT, FOLDING PARTITIONS, SHEDDING SNOW LOCATIONS AND CEILING/ROOF TRANSITIONS.
9. PROVIDE ADDITIONAL TRUSSES AS REQUIRED AT ALL ATTIC PARTITIONS – SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS AND ADDITIONAL REQUIREMENTS.
10. PROVIDE JOIST HANGERS AT ALL RAFTERS AND ROOF TRUSSES FRAMED INTO SUPPORTING MEMBER.
11. PROVIDE 600S162–43 @ 24" O.C. OUTLOOKERS AT ALL RAKE ENDS TYPICAL UNLESS OTHERWISE NOTED.
12. PROVIDE ADDITIONAL 600S162–43 @ 24" O.C. INFILL ROOF FRAMING IN THE PLANE OF THE TRUSS ROOF AT ALL STEP–DOWN ROOF TRUSSES TYPICAL UNLESS OTHERWISE NOTED.
13. COLD FORMED METAL TRUSS AND ROOF RAFTER FRAMING SHALL BE OF PROFILES AND CONFIGURATIONS TO PROVIDE CONTINUOUS ROOF PROFILE AS INDICATED ON ARCHITECTURAL DRAWINGS. COORDINATE INSTALLATION OF COLD FORMED METAL TRUSS AND ROOF RAFTER FRAMING WITH SUPPORT MEMBERS INDICATED.
14. ROOF FRAMING NOT OTHERWISE SHOWN OR INDICATED SHALL BE 1200S200–68 @ 24" O.C. WITH 800S200–43 @ 24" O.C. CEILING JOISTS.
15. (*) INDICATES SUPPORT COLUMN – SEE COLUMN SCHEDULE ON DRAWING S201.
16. "BF–•" INDICATES STEEL BRACE FRAME LOCATION – FOR ADDITIONAL DETAILS AND REQUIREMENTS SEE DRAWING S301.
17. "SW–•" INDICATES MASONRY SHEAR WALL LOCATION – FOR ADDITIONAL DETAILS AND REQUIREMENTS SEE DRAWING S301.
18. ROOF TRUSS WEB CONFIGURATION TO BE CLEAR OF CATWALK/MECHANICAL ACCESS AREAS–CONTRACTOR TO COORD. ADD'L REQUIREMENTS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
19. (D) INDICATES 1–1/2" DEEP, 22 GAGE, WIDE RIB (TYPE "B"), GALVANIZED METAL ROOF DECK.
20. "RTG" INDICATES CFS ROOF TRUSS GIRDER – FOR ADDITIONAL DETAILS AND REQUIREMENTS SEE DRAWING S301.
21. "BP–•" INDICATES STEEL BEARING PLATE – FOR REQUIREMENTS SEE SCHEDULE ON DRAWING S201. PROVIDE BEARING PLATES AT ALL BEAMS BEARING ON MASONRY WALLS TYPICAL.
22. CONTRACTOR TO COORDINATE INSTALLATION OF PRE–FABRICATED AWNING STRUCTURES (BY OTHERS).

NOTES

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DRAWING
ROOF
FRAMING PLAN

SEAL

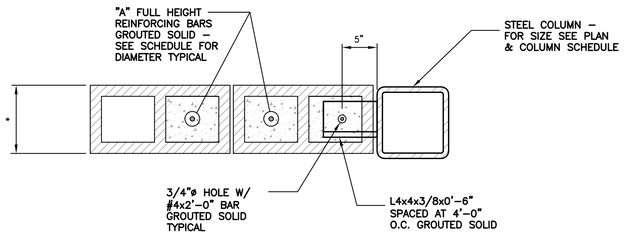
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COLD-FORMED STEEL TRUSS NOTES:

1. BASIC ROOF SNOW = 40 PSF. SNOW LOAD DISTRIBUTION AND COEFFICIENTS TO BE DETERMINED USING THE BUILDING CODE OF STATE OF NEW YORK.
2. TRUSS BRACING IS REQUIRED AS OUTLINED IN STRUCTURAL GENERAL NOTES AND AS INDICATED AND REQUIRED IN NOTE #6.
3. ROOF TRUSSES ARE TO BE DESIGNED FOR ANY REACTIONS RESULTING FROM ADDITIONAL MEMBERS SUPPORTED BY ROOF TRUSSES.
4. BOTTOM CHORD TO BE DESIGNED FOR A MINIMUM LOADING OF 10 PSF.
5. ALL TRUSS DESIGNS SHALL BE PREPARED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF NEW YORK. ALL SUBMISSIONS SHALL BEAR REGISTRATION SEAL OF DESIGN ENGINEER.
6. ALL TRUSS SUBMITTALS SHALL INCLUDE THE FOLLOWING:
   - A. ALL TRUSS LOCATIONS, SPACING, BEARING DETAILS, MEMBER SIZES, PITCH, SPANS AND DIMENSIONS.
   - B. SIZE, GAGE AND YIELD STRESS OF LIGHT GAGE METAL MEMBERS.
   - C. LOADING CONDITIONS
   - D. NOMINAL SIZES AND LOCATIONS OF CONNECTOR PLATES AT ALL JOINTS.
   - E. ACTUAL AXIAL LOADS IN EACH MEMBER.
   - F. CAMBER REQUIREMENTS.
   - G. ATTACHMENT REQUIREMENTS (SIZE, NUMBER AND SPACING OF WELDS AND/OR SCREWS)
   - H. LOCATION OF PERMANENT LATERAL BRACING.
   - I. LOCATION OF TEMPORARY LATERAL BRACING AS REQUIRED FOR ERECTION.
   - J. MANUFACTURER'S DATA OR FABRICATOR'S SHOP DRAWING FOR METAL TRUSS HANGERS, CLIPS AND ANCHORS AND THEIR LOCATIONS.
7. TRUSS SUPPLIER SHALL SUBMIT DETAILED TRUSS LAYOUT DRAWINGS SHOWING ALL TRUSS LOCATIONS AND DETAILED BEARING CONDITIONS FOR ALL TRUSS END CONDITIONS INCLUDING ALL STIFFENER AND END RESTRAINT REQUIREMENTS, INCLUDING. FIELD INSTALLED HANGERS AND HURRICANE ANCHORS.
8. PROVIDE PIGGY-BACK TRUSSES AS REQUIRED.
9. PROVIDE MULTIPLE TRUSSES AS REQUIRED FOR LOADING AND BEARING.
10. TRUSS SUPPLIER SHALL PROVIDE ALL REQUIRED HANGERS, ANCHORS, AND CLIPS RATED FOR ANTICIPATED TRUSS OR BEAM END REACTIONS. FRAMING INTO AND/OR SUPPORTED BY ALL TRUSSES. HURRICANE RESTRAINT ANCHORS SHALL BE SUPPLIED AT ALL SUPPORT AND BEARING LOCATIONS OF ALL ROOF TRUSSES.
11. TRUSSES SHALL BE DESIGNED FOR BOTTOM CHORD LIVE LOAD OF 125 PSF IN MECHANICAL PLATFORM AREAS – SEE ARCH'L AND MECH'L DRAWINGS FOR EXTENTS.

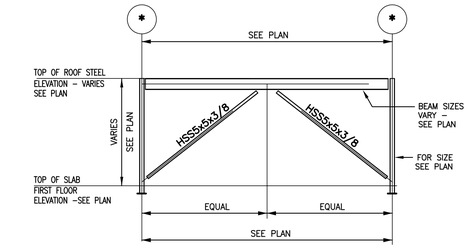


TYPICAL END CONNECTION DETAIL AT SHEAR WALLS

SCALE: NONE

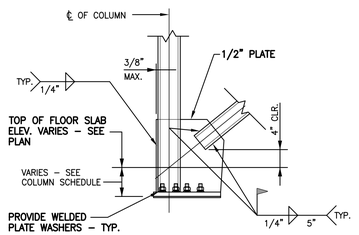
MASONRY SHEAR WALL NOTES:

1. SEE PROJECT SPECIFICATIONS AND STRUCTURAL GENERAL NOTES ON DRAWING S001 FOR ADDITIONAL MASONRY REQUIREMENTS.
2. ALL REINFORCEMENT SHALL BE GROUTED SOLID. PROVIDE MATCHING VERTICAL REINFORCING DOWELS FROM FOUNDATIONS.
3. SHEAR WALLS SHALL BE CONSTRUCTED AS "INTERMEDIATE SHEAR WALLS".
4. A SINGLE VERTICAL #5 REINFORCING BAR SHALL BE LOCATED WITHIN 8" & 16" OF THE ENDS OF ALL 8" CMU WALLS AND A DOUBLE #5 REINFORCING BAR LOCATED SIMILARLY AT 12" CMU WALLS.
5. PROVIDE CONTINUOUS 3/16"ø WIRE "LADUR" TYPE JOINT REINFORCEMENT AT 16" O.C. VERTICAL IN ALL SHEAR WALLS TYPICAL.
6. TOPS OF ALL WALLS SHALL HAVE A GROUTED BOND BEAM.
7. ALL MASONRY SHEARS WALLS SHALL BE REINFORCED WITH #5@48" O.C. MINIMUM UNLESS OTHERWISE NOTED.

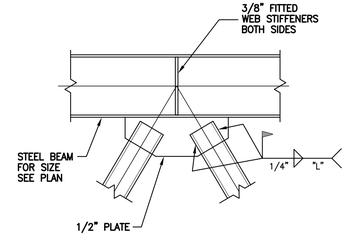


TYPICAL BRACED FRAME ELEVATION

SCALE: NONE



TYPICAL BRACE DETAIL AT COLUMN BASE



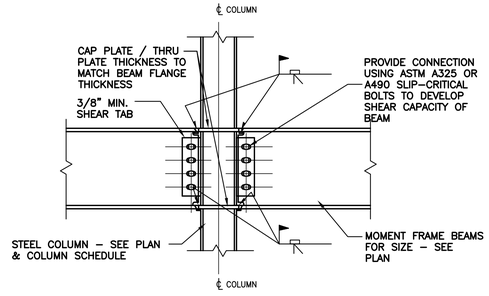
TYPICAL BRACE DETAIL AT BEAM UNDERSIDE

TYPICAL BRACE DETAILS

SCALE: NONE

BRACED FRAME NOTES:

1. ALL END CONNECTIONS SHALL BE DESIGNED FOR THE FORCES INDICATED WITHOUT STRESS INCREASE.
2. ALL GUSSETS SHALL BE 3/8" THICK MINIMUM PLATES.
3. ALL COLUMN BASES WITH BRACE GUSSET PLATE CONNECTION SHALL CONSIST OF A MINIMUM (4)–3/4" DIAMETER ANCHOR BOLTS – TYPICAL U.O.N.



TYPICAL BEAM TO COLUMN MOMENT CONNECTION

SCALE: NONE

NOTES

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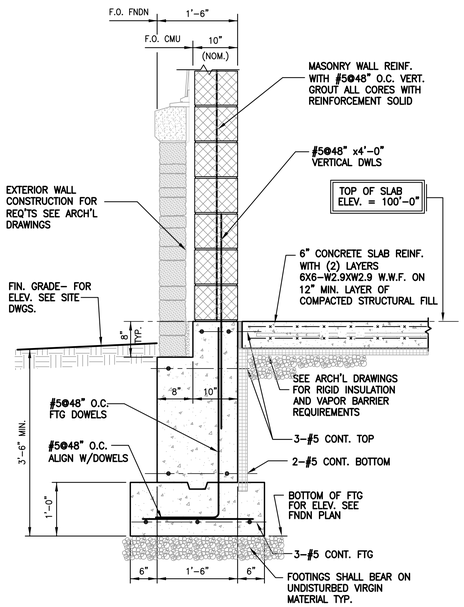
DRAWING
BRACED FRAME AND
SHEAR WALL DETAILS

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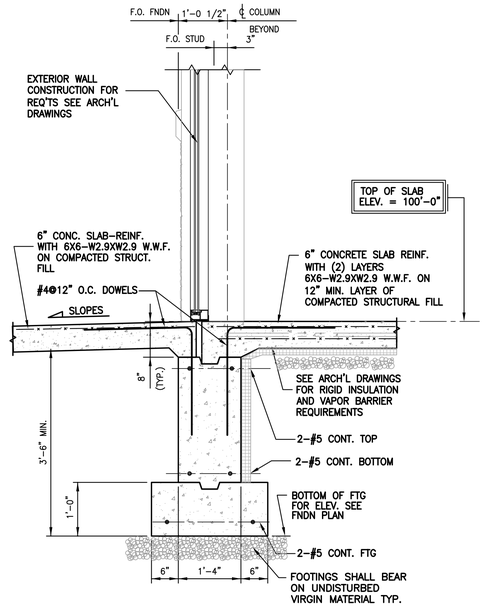
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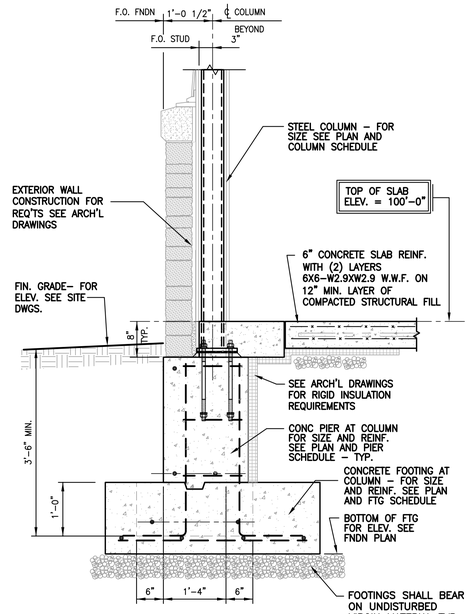
TYPICAL SECTION – CMU WALLS

SECTION F4 / S401
SCALE: 3/4" = 1'-0"



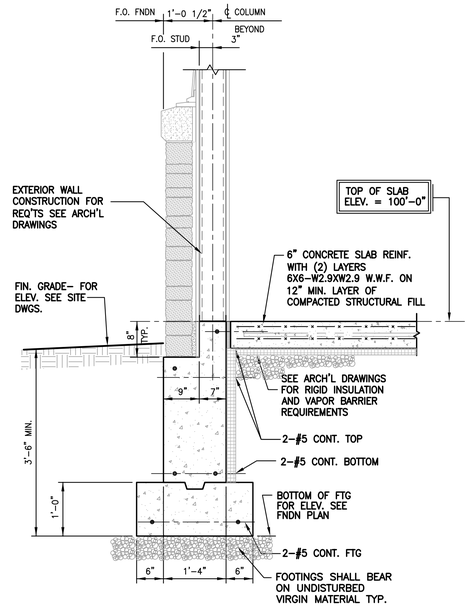
SECTION AT DOORS – CFS WALLS

SECTION F3 / S401
SCALE: 3/4" = 1'-0"



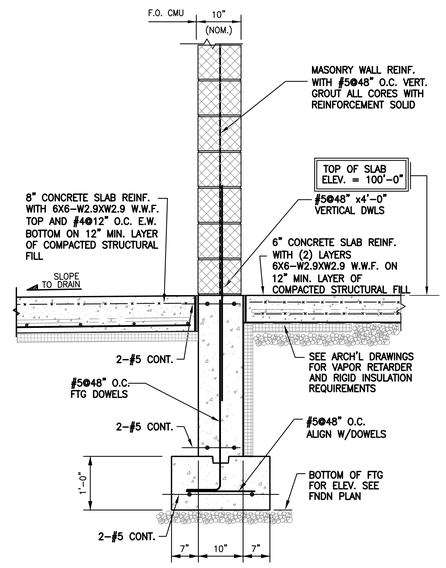
SECTION AT COLUMNS

SECTION F2 / S401
SCALE: 3/4" = 1'-0"



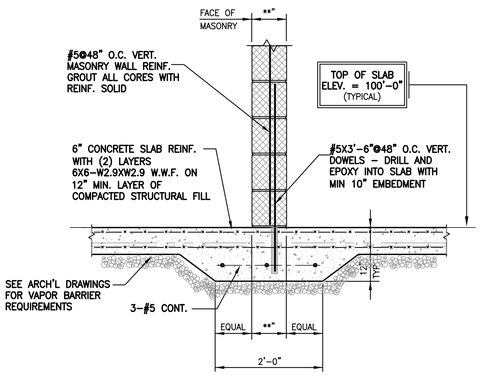
TYPICAL SECTION – CFS WALLS

SECTION F1 / S401
SCALE: 3/4" = 1'-0"



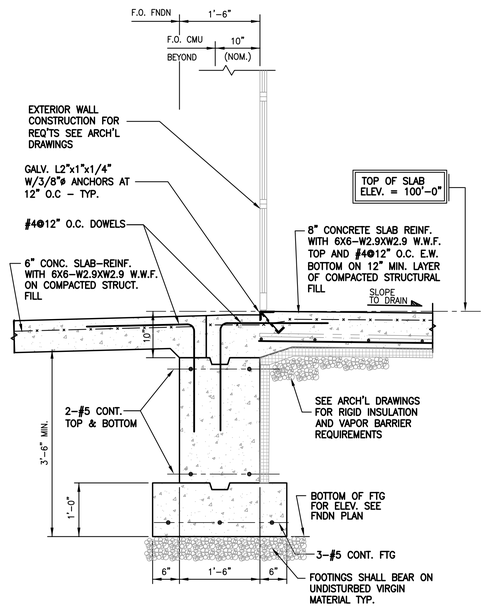
INTERIOR CMU SHEAR WALLS

SECTION F7 / S401
SCALE: 3/4" = 1'-0"



INTERIOR CMU WALLS

SECTION F6 / S401
SCALE: 3/4" = 1'-0"



SECTION AT OVERHEAD DOORS

SECTION F5 / S401
SCALE: 3/4" = 1'-0"

NOTES

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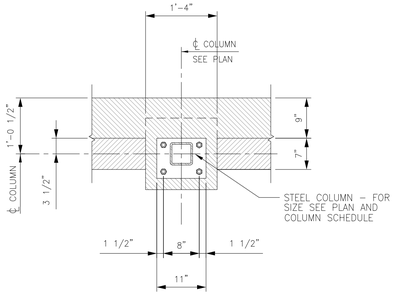
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DRAWING
FOUNDATION
SECTIONS

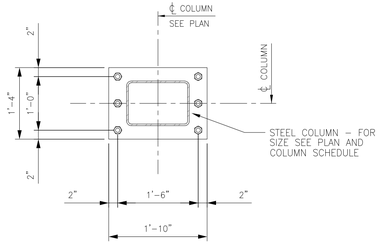
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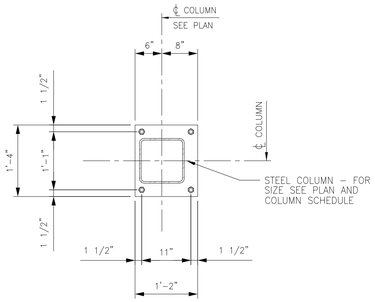
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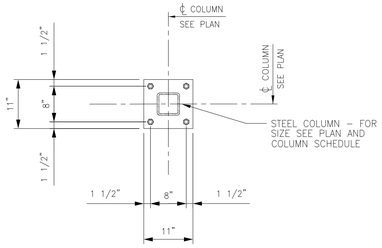
"HSS5x5" OFFSET COLUMN BASE



"HSS14x10" COLUMN BASE



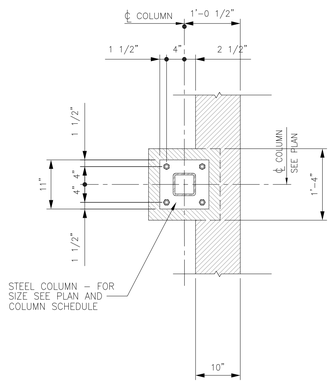
"HSS10x10" COLUMN BASE



"HSS5x5" COLUMN BASE

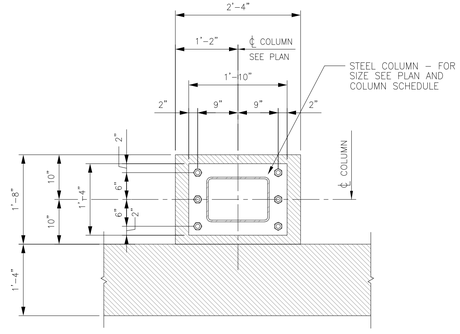
PLAN DETAIL P4 / S411

SCALE: 3/4" = 1'-0"



PLAN DETAIL P3 / S411

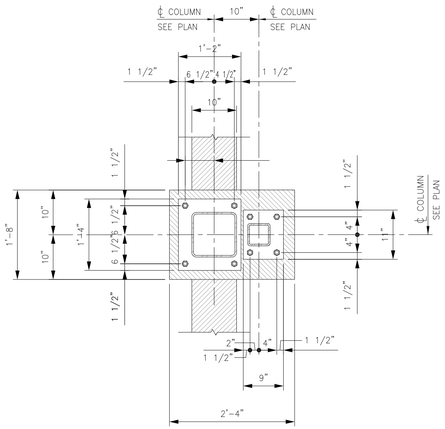
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"HSS14x10" COLUMN BASE

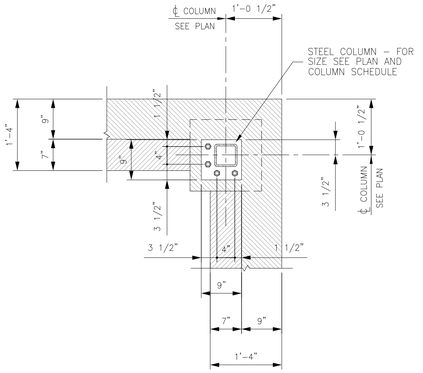
PLAN DETAIL P2 / S411

SCALE: 3/4" = 1'-0"



PLAN DETAIL P1 / S411

SCALE: 3/4" = 1'-0"



"HSS5x5" CORNER COLUMN BASE

PLAN DETAIL P8 / S411

SCALE: 3/4" = 1'-0"

PLAN DETAIL P7 / S411

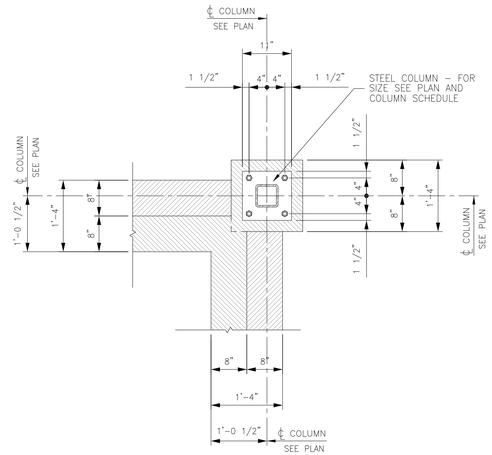
SCALE: 3/4" = 1'-0"

PLAN DETAIL P6 / S411

SCALE: 3/4" = 1'-0"

PLAN DETAIL P5 / S411

SCALE: 3/4" = 1'-0"



PLAN DETAIL P9 / S411

SCALE: 3/4" = 1'-0"

NOTES

No.	REVISION/SUBMISSION	DATE
3		
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1		

Mechanical/Electrical/Plumbing Engineer

Structural Engineer

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

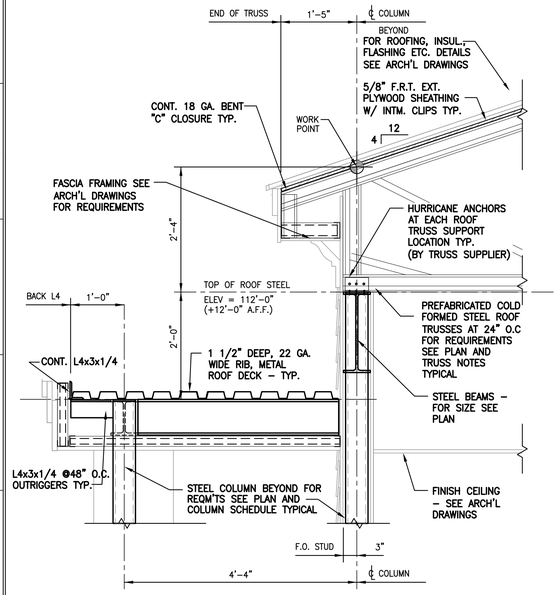
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FOUNDATION
PLAN DETAILS

SEAL

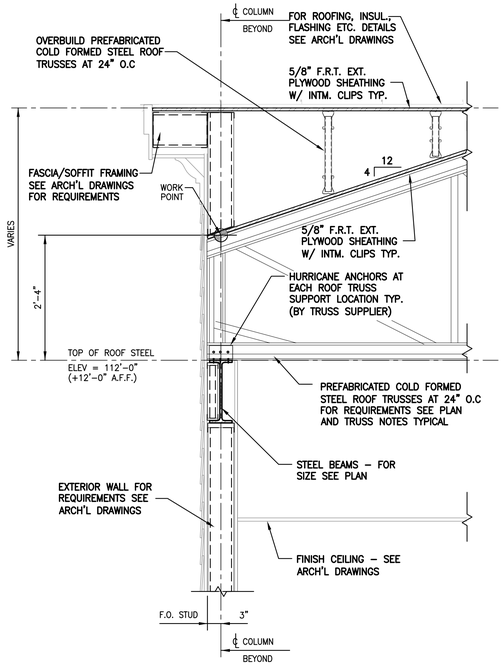
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JWK	18142
CHECKED BY	DATE
TSG	11/30/2022

DRAWING NUMBER
S411

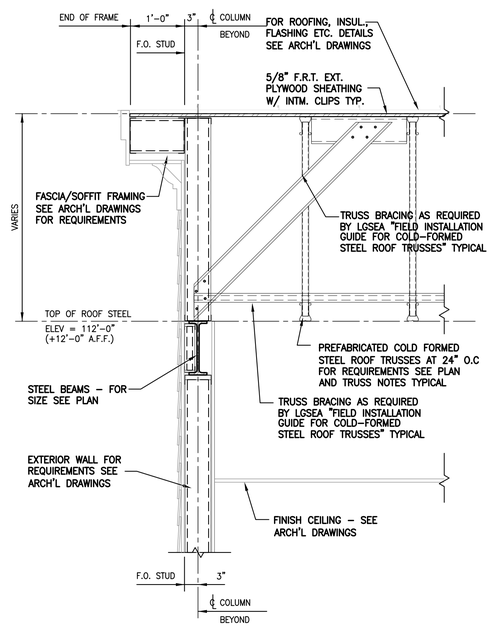
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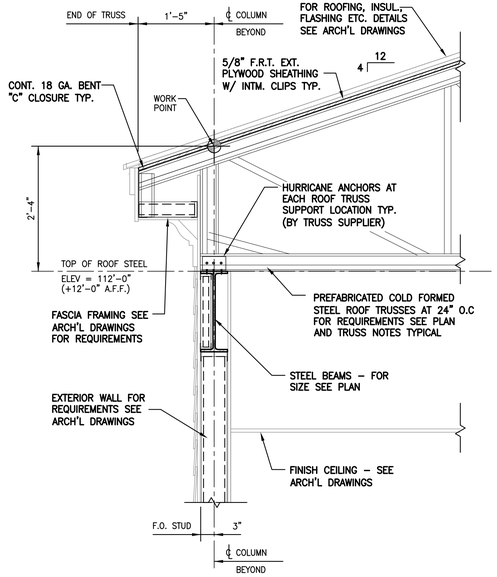
SECTION R4
SCALE: 3/4" = 1'-0" S501



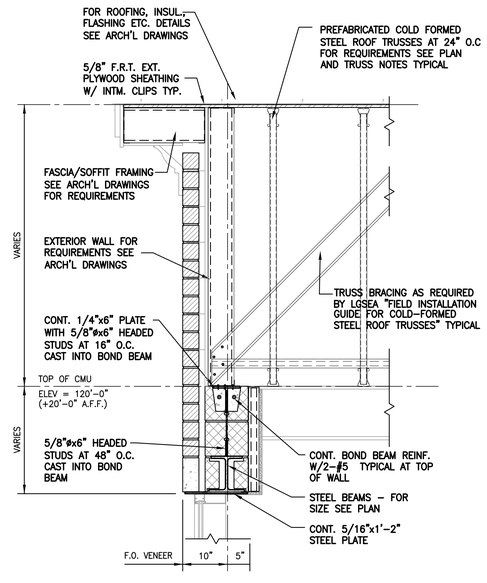
SECTION R3
SCALE: 3/4" = 1'-0" S501



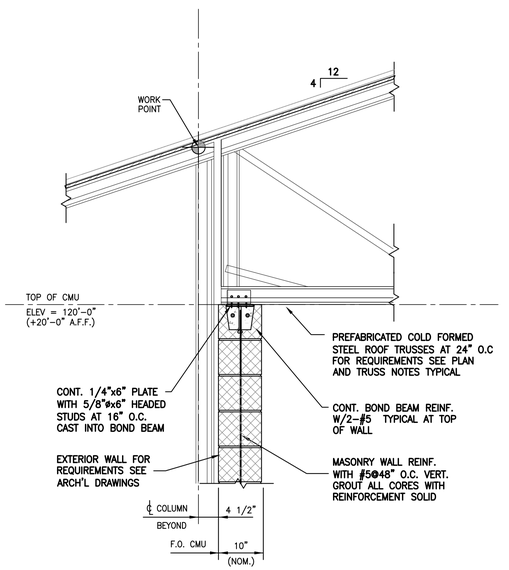
SECTION R2
SCALE: 3/4" = 1'-0" S501



SECTION R1
SCALE: 3/4" = 1'-0" S501



SECTION R6
SCALE: 3/4" = 1'-0" S501



SECTION R5
SCALE: 3/4" = 1'-0" S501

NOTES

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1		
2		
3		

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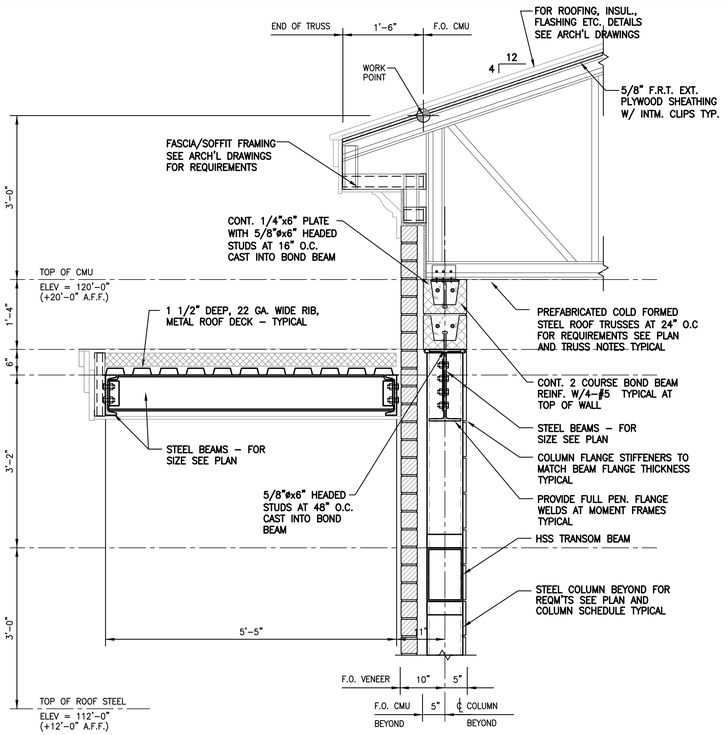
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STRUCTURAL
SECTIONS

SEAL

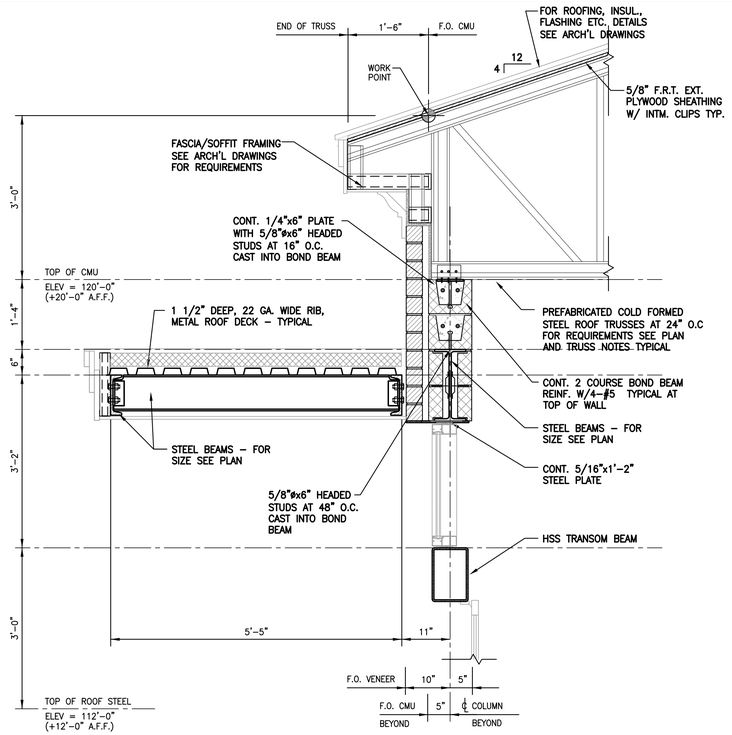
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JWK	18142
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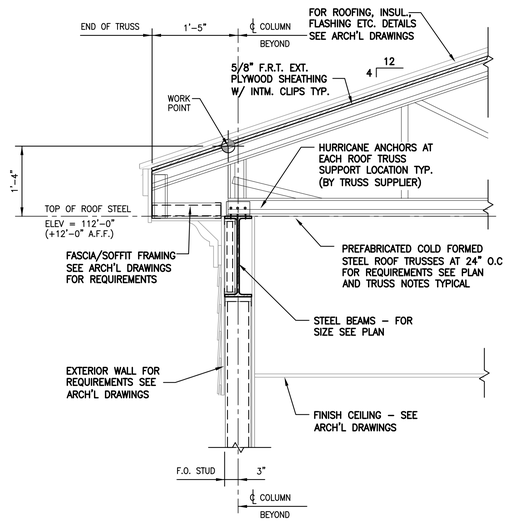
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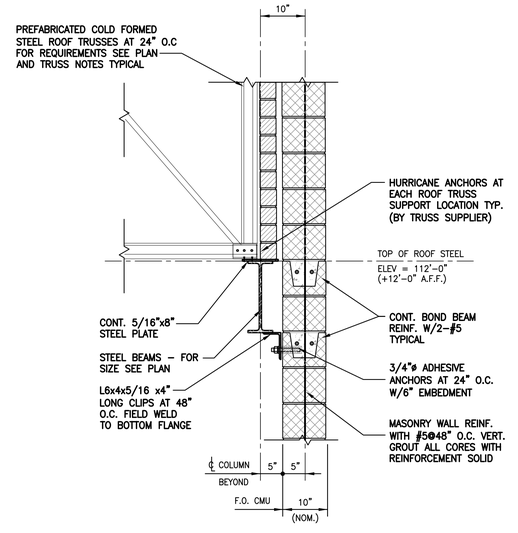
SECTION R3 / S502
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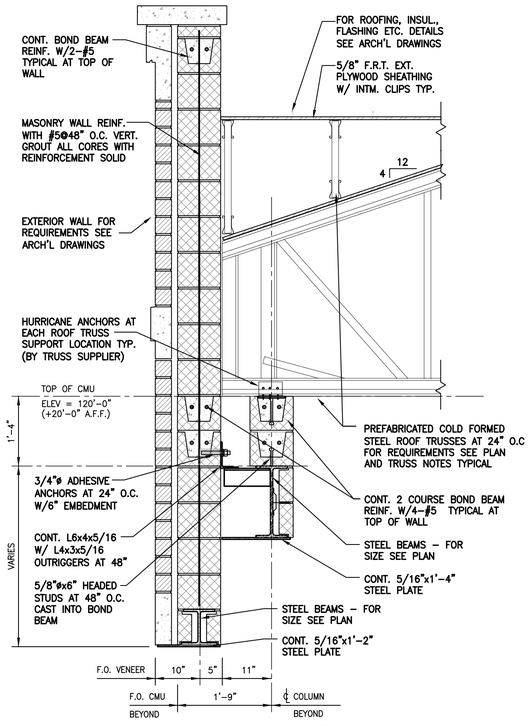
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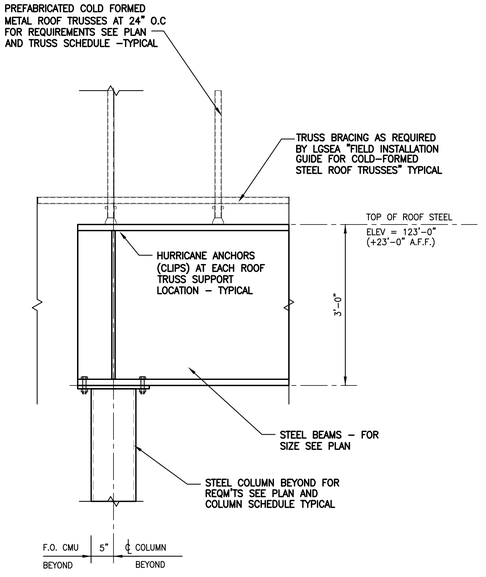
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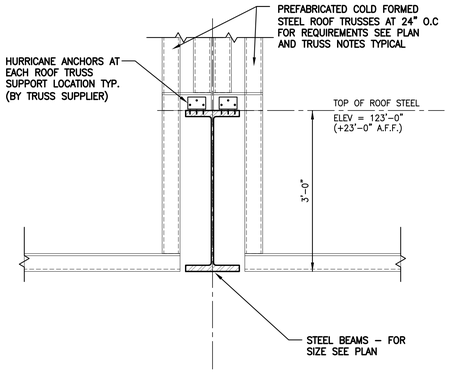
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SCALE: 3/4" = 1'-0"



SECTION R6 / S502
SCALE: 3/4" = 1'-0"



SECTION R5 / S502
SCALE: 3/4" = 1'-0"



SECTION R4 / S502
SCALE: 3/4" = 1'-0"

NOTES

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

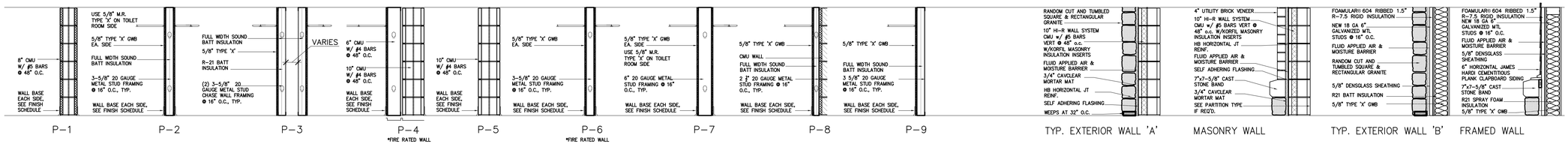
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SECTIONS

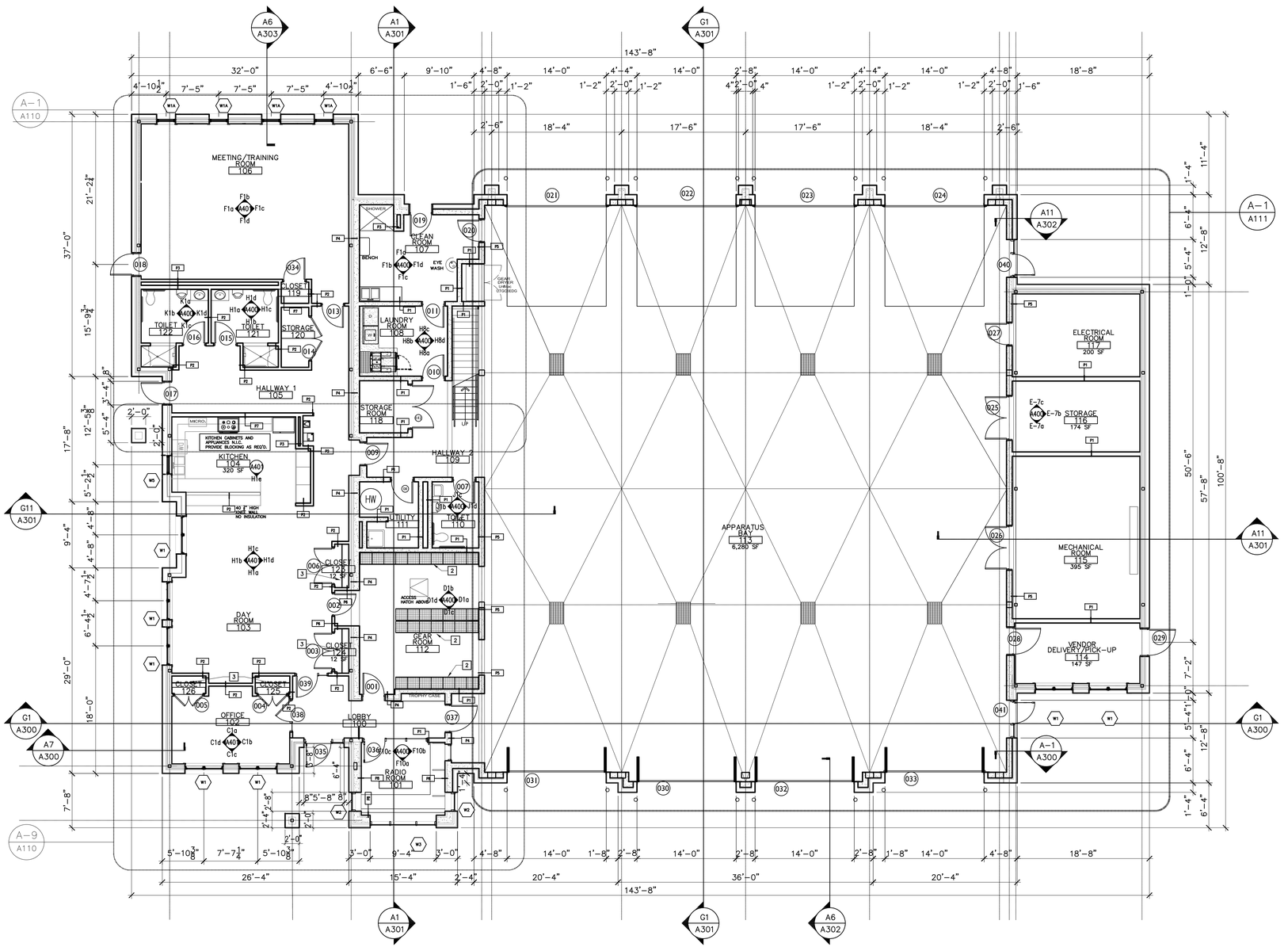
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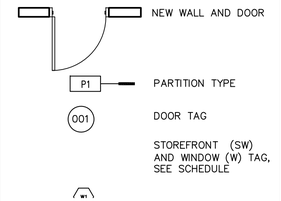
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S502

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NOTES LEGEND



KEY NOTES

1. CONTRACTOR TO PROVIDE & INSTALL NEW FIRE EXTINGUISHER AND CABINET. USE A CABINET THAT FITS THE APPROPRIATE WALL TYPE. SEE PLAN SYMBOL FE & DET. 1 & 2/A600
2. 'GEAR GRID' WALL MOUNTED LOCKERS (888) 643-6694 – GEARGRID.COM 20" W x 20" D x 74 1/2" H (2) SHELVES AND (3) HOOKS PER LOCKER 20 GA. NAME PLATE, STEEL HORIZONTAL HANGING ROD, 1/4" STAINLESS STEEL HANGER, RED POWDER COAT FINISH

GENERAL NOTES

1. CONTRACTOR TO PROVIDE AND INSTALL FLOOR MOUNTED TOILET AND WALL MOUNTED SINK FIXTURES.
2. CONTRACTOR TO PAINT ALL EXPOSED GYPSUM BOARD, SHAFTWALL, AND METAL FRAMES VERIFY IN FIELD.
3. CONTRACTOR TO PROVIDE ELECTRICAL CONNECTIONS AS REQUIRED. SEE ELECTRICAL DRAWINGS.
4. PROVIDE AND INSTALL ALL DUCTWORK AND GRILLES INTO ROOMS. SEE MEP DRAWINGS
5. PROVIDE AND INSTALL ALL ELECTRICAL WORK PER NEC. SEE ELECTRICAL DRAWINGS.
6. ALL FURNITURE TO BE PROVIDED BY OWNER.

No.	REVISION/SUBMISSION	DATE
3		
2		
1		

Mechanical/Electrical/Plumbing Engineer
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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING
PROPOSED FIRST FLOOR PLAN

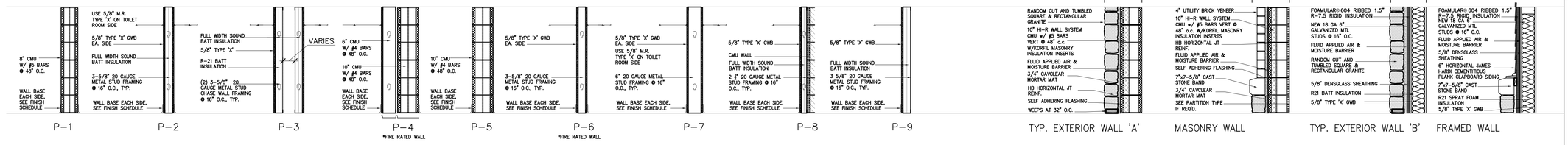
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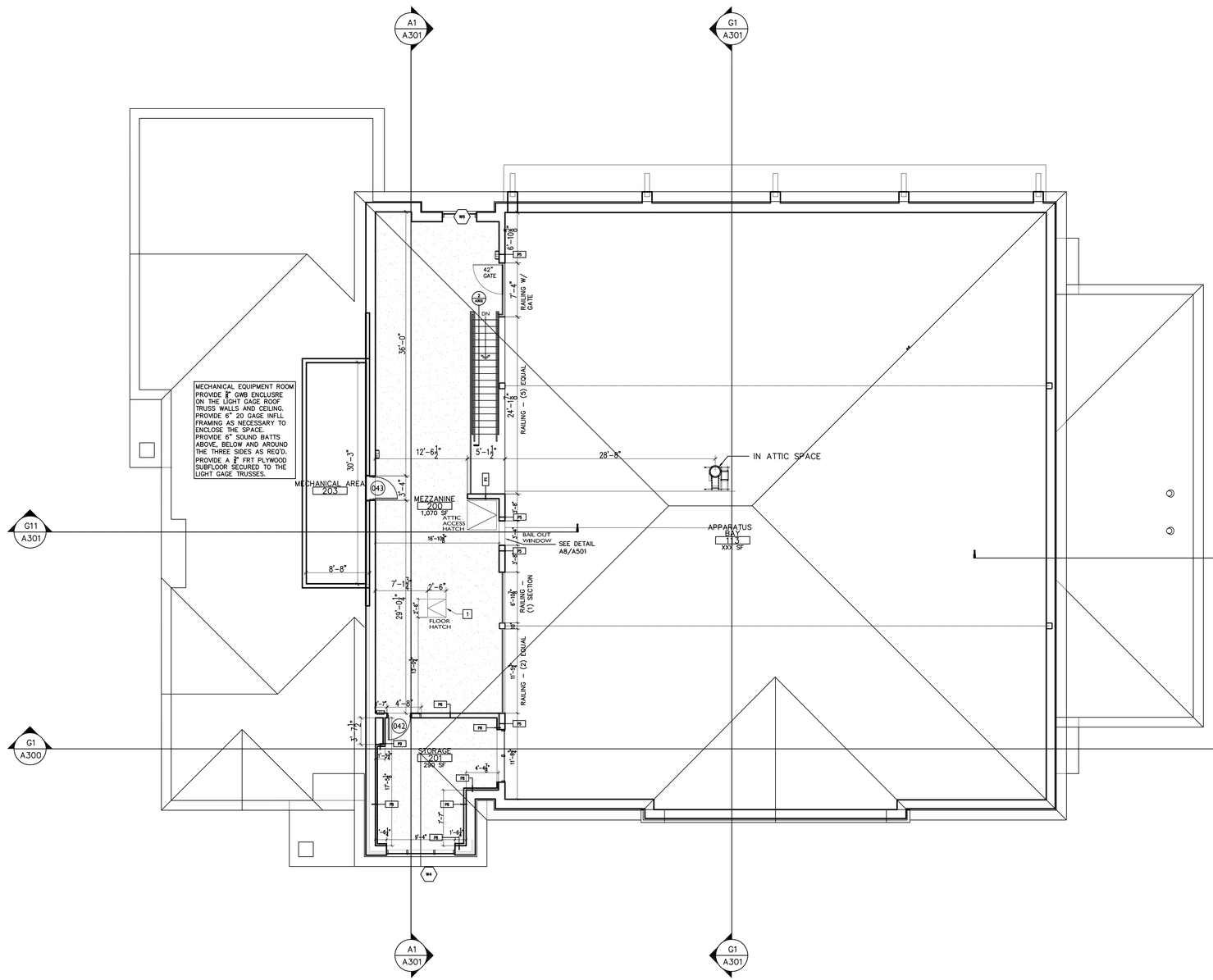
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DRAWING NUMBER
A100

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A1 FIRST FLOOR PLAN
1/8" = 1'-0"





A1 MEZZANINE FLOOR PLAN
1/8"= 1'-0"

NOTES

LEGEND

NEW WALL AND DOOR

P1 — PARTITION TYPE

001 — DOOR TAG

W1 — STOREFRONT (SW) AND WINDOW (W) TAG, SEE SCHEDULE

GENERAL NOTES

1 30"SQUARE MANHOLE FRAME AND COVER, ASTM-A36 CARBON STEEL LAY IN DIAMOND PLATE COVER, NON-SKID SURFACE, ONE (1) ½"X 1"PICK HOLE FOR EASY REMOVAL, HEAVY DUTY FRAME, ALL WELDED CONSTRUCTION, 4"DEEP CARBON STEEL SKIRT FOR 4"TOTAL HEIGHT, FOUR (4) CHANNEL STYLE CONCRETE ANCHORS, PAINTED BLACK, MADE IN USA.

No.	REVISION/SUBMISSION	DATE
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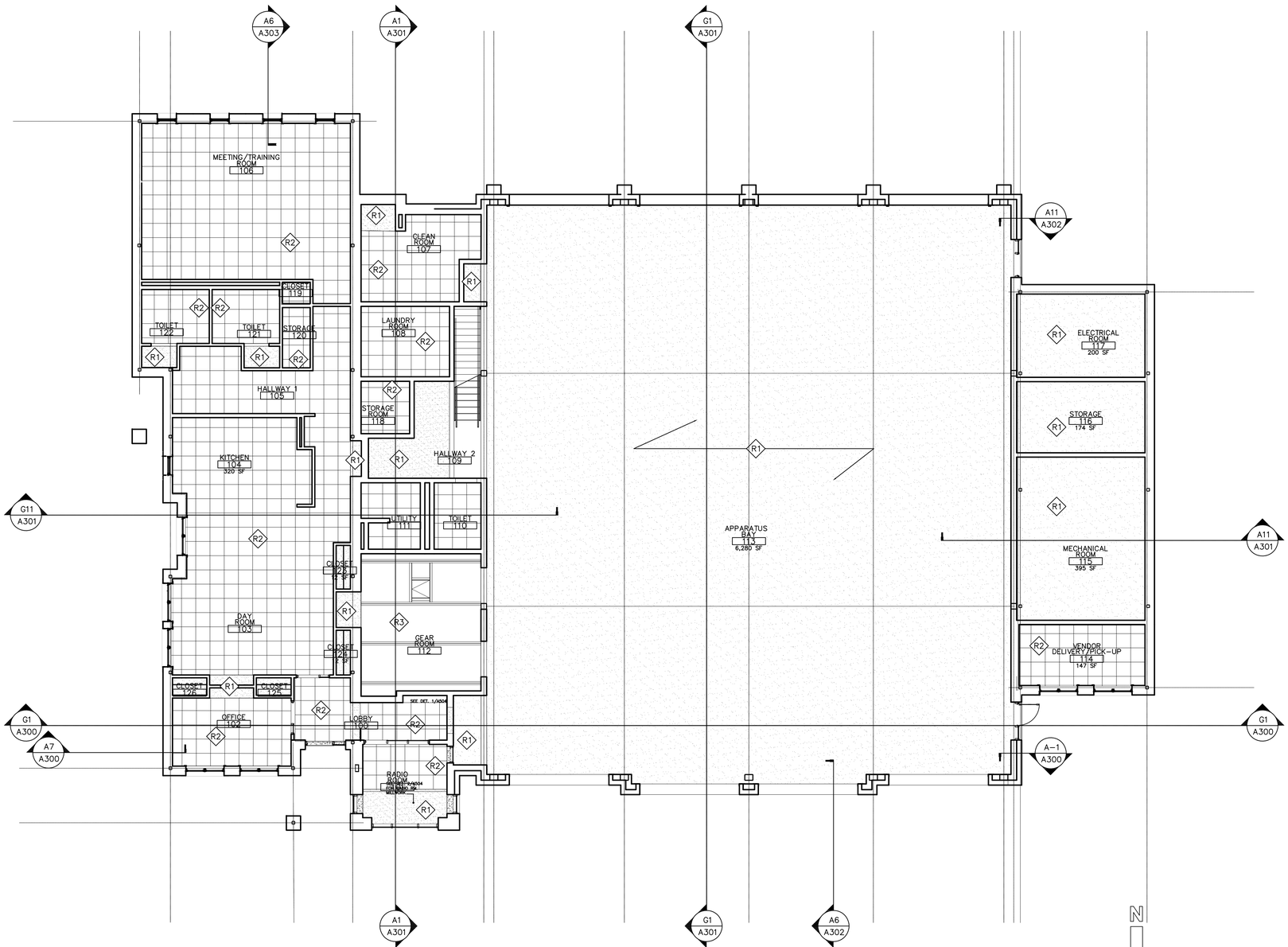
Liscum McCormack VanVoorhis LLP
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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING
PROPOSED MEZZANINE

SEAL	DRAWN BY	PROJECT NUMBER
	LR/KS	18142
	CHECKED BY	DATE
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	DRAWING NUMBER	
	A101	

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A1 FIRST FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"

SEE CEILING DETAILS DWG. A500

NOTES

LEGEND

- 24 X 24 SUSPENDED GRID & TILES
- GYP BOARD
- 2X2 LED RECESSED LIGHT FIXTURE

RCP KEY NOTES

- R1 5/8" TYPE 'X' GWB CEILING – PAINT AS PER FINISH SCHEDULE
- R2 PROVIDE ACT AND GRID.
- R3 OPEN TO STRUCTURE ABOVE.

No.	REVISION/SUBMISSION	DATE
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PROJECT
NEW FIRE STATION FOR
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NYS ROUTE 52, FISHKILL, NY

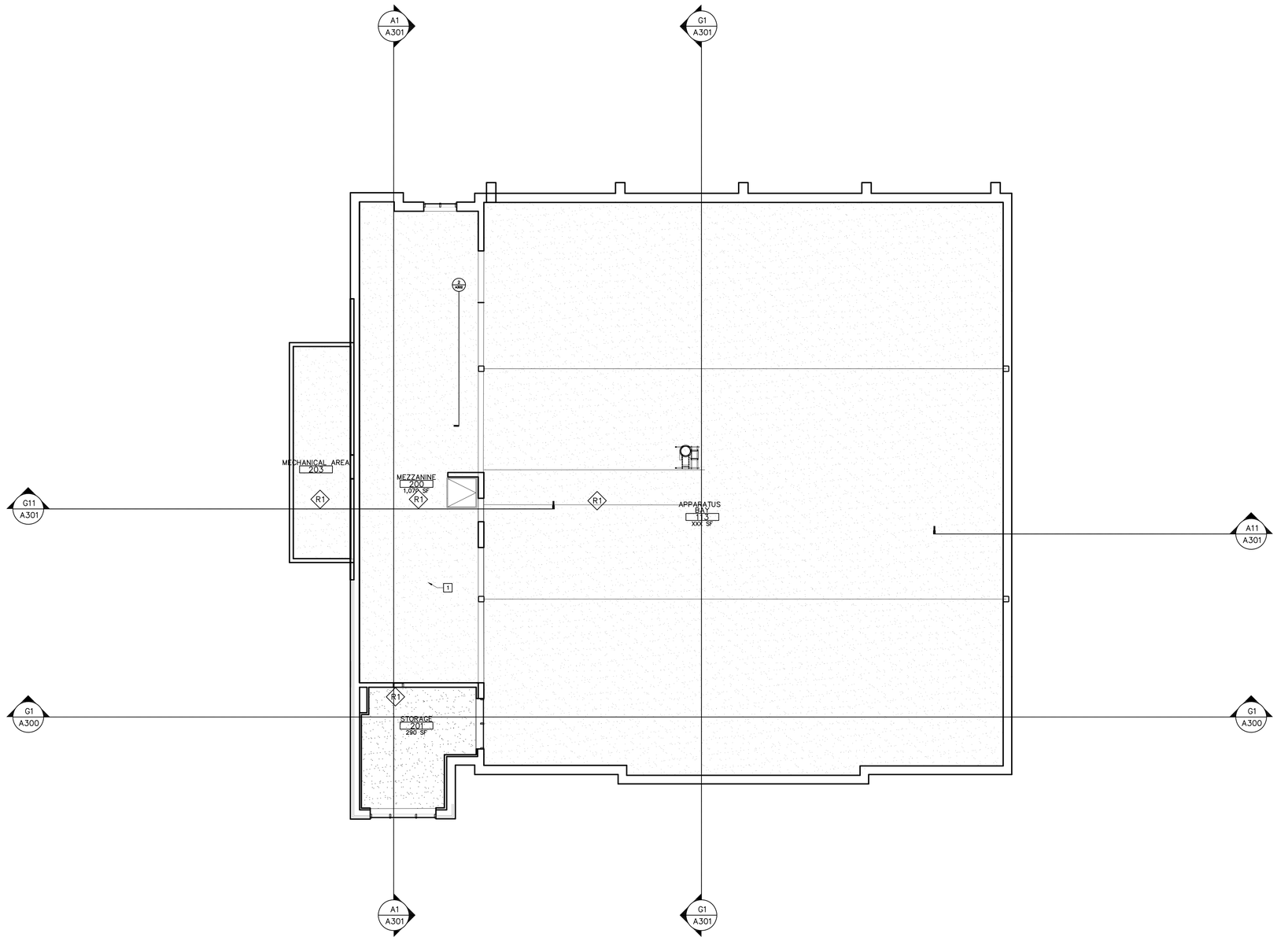
DRAWING
FIRST FLOOR
REFLECTED CEILING PLAN

SEAL

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DRAWING NUMBER
A102

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A1 MEZZANINE REFLECTED CEILING PLAN
1/8" = 1'-0"

NOTES

LEGEND

- 24 X 24 SUSPENDED GRID & TILES
- GYP BOARD
- 2X2 LED RECESSED LIGHT FIXTURE
- LED PENDANT LIGHT FIXTURE
- EXIT SIGN

RCP KEY NOTES

- R1 — 5/8" TYPE 'X' GWB CEILING – PAINT AS PER FINISH SCHEDULE
- R2 — PROVIDE ACT AND GRID.
- R3 — OPEN TO STRUCTURE ABOVE.

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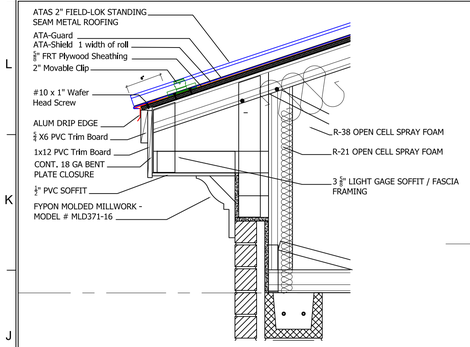
DRAWING
MEZZANINE
REFLECTED CEILING PLAN

SEAL

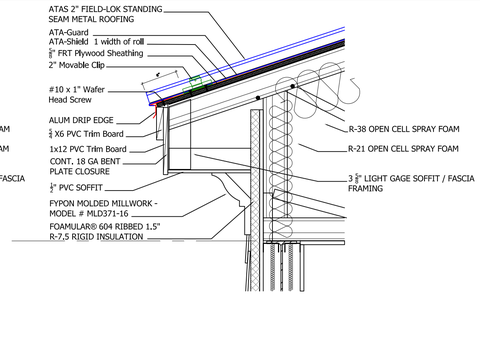
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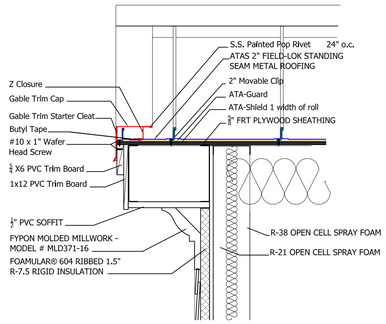
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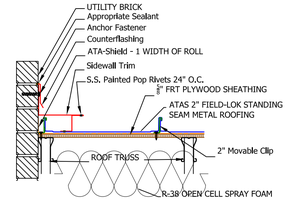
1 EAVE DETAIL @ MASONRY WALL
1" = 1'-0"



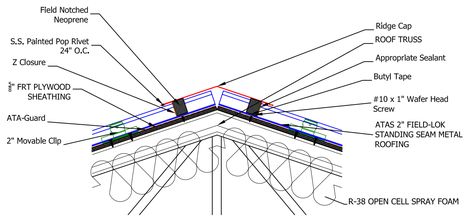
2 EAVE DETAIL @ FRAMED WALL
1" = 1'-0"



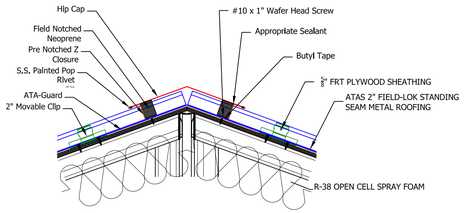
3 GABLE EAVE DETAIL
1" = 1'-0"



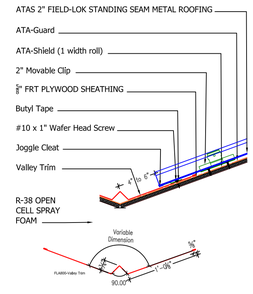
4 SIDEWALL FLASHING DETAIL
1" = 1'-0"



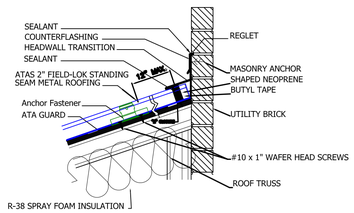
5 RIDGE DETAIL
1" = 1'-0"



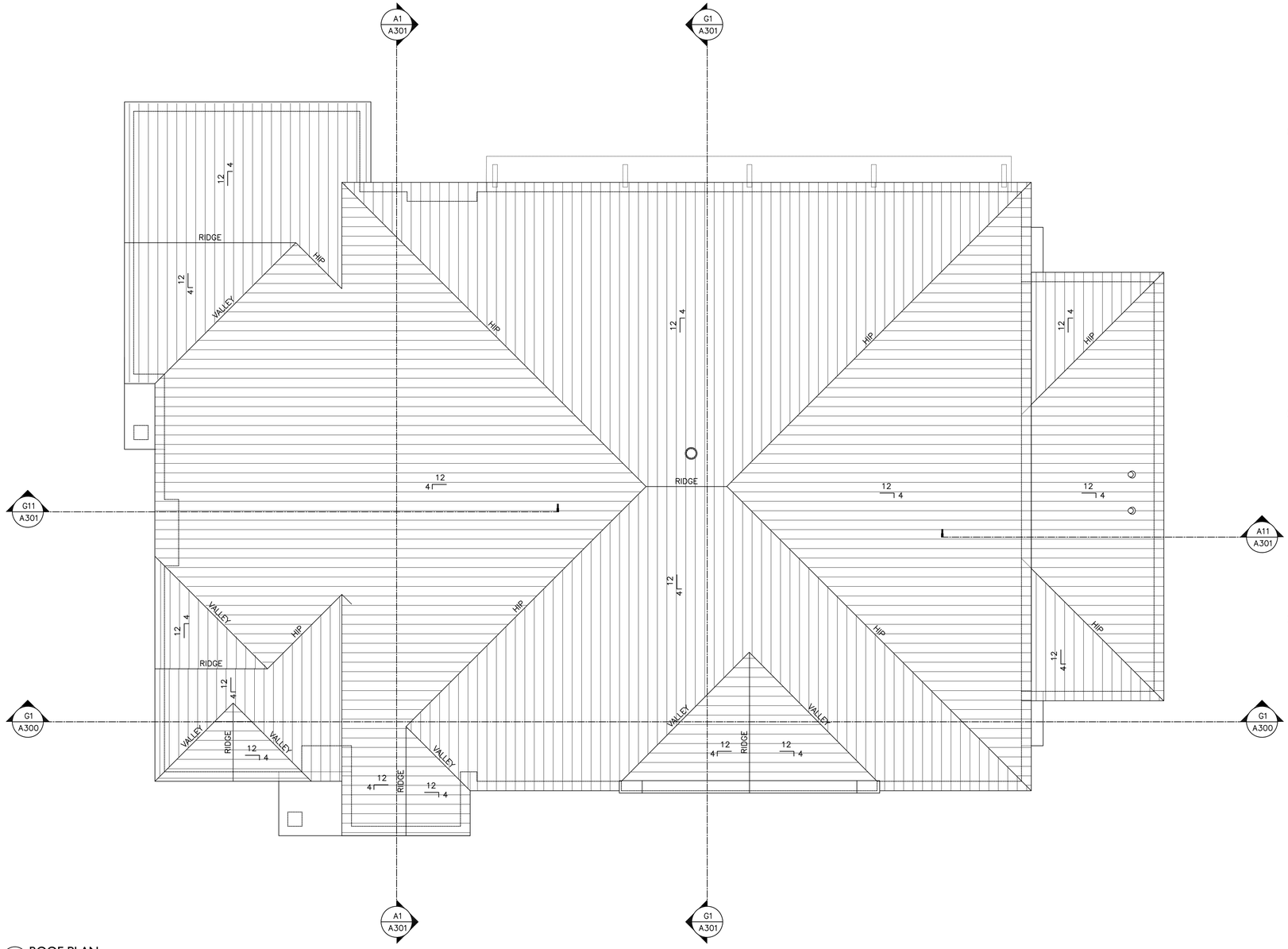
6 HIP DETAIL
1" = 1'-0"



7 VALLEY DETAIL
1" = 1'-0"



8 HEADWALL FLASHING DETAIL
1" = 1'-0"



A1 ROOF PLAN
1/8" = 1'-0"

NOTES ROOF PLAN KEY NOTES

1. STANDING SEAM ROOFING BY ATAS INTERNATIONAL INC. – 2" FIELD-LOK SMOOTH #01 CLASSIC BRONZE – OR EQUAL.
2. PROVIDE A BASE LAYER OF "ICE AND WATER SHIELD" AT ALL EAVES AND VALLEYS UNDER ROOFING, W/ EAVE WIDTH TO BE A MIN. OF 36" COVERAGE FROM A CONTINUOUS ALUM. DRIP EDGE.
3. 60 MIL. SINGLE PLY ADHEARED EPDM ROOFING. APPLY OVER A PROTECTION BOARD AS REQUIRED BY MANUF.
4. –
5. PROVIDE STEP FLASHING WHERE ALL VERTICAL SERFACES ARE IN CONTACT WITH THE ROOF. (BLIND FLASHING WHERE REQ'D)
6. 6" ALUMINUM OGEE GUTTER & DOWNSPOUT W/ CONDUCTOR HEAD COLOR – DK BRONZE

GENERAL NOTES

No.	REVISION/SUBMISSION	DATE
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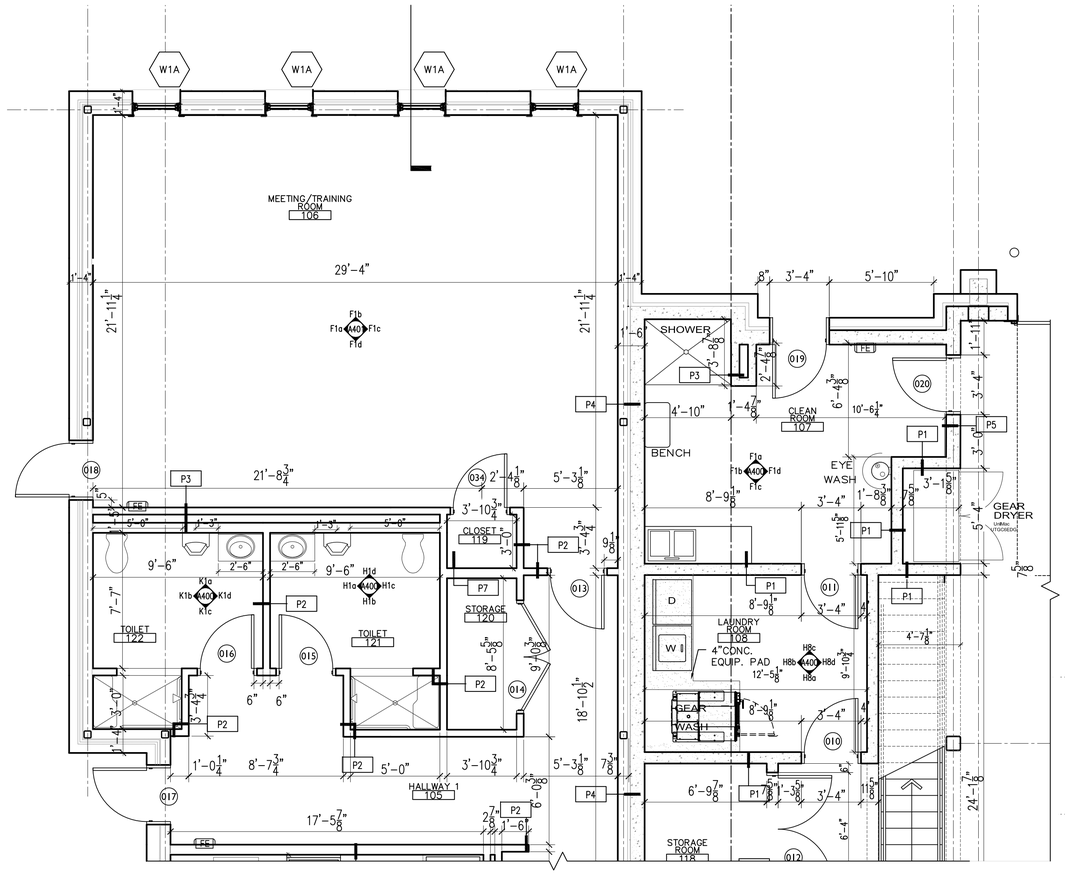
PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING
PROPOSED ROOF PLAN

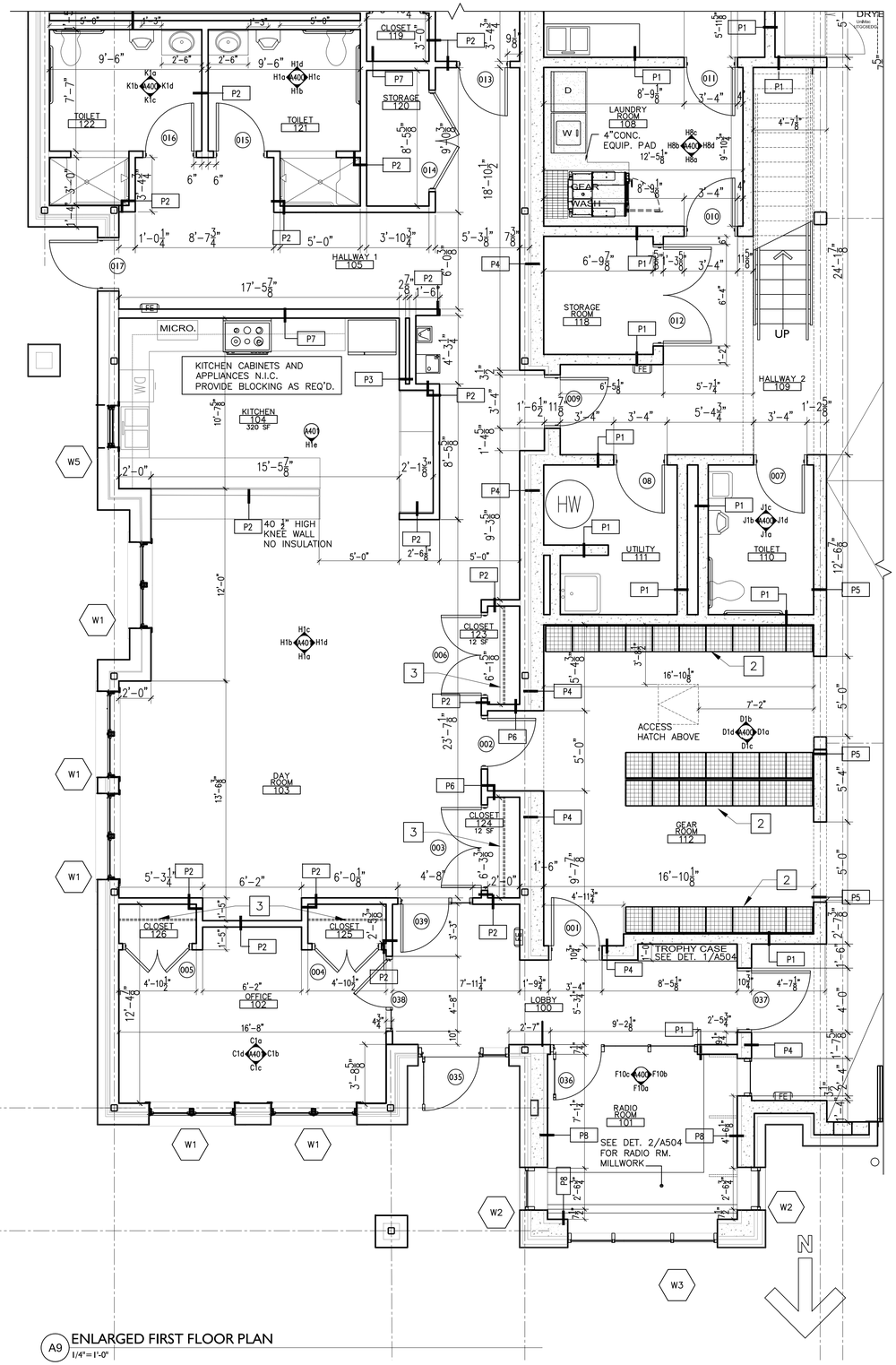
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DRAWING NUMBER: A104	

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A1 ENLARGED FIRST FLOOR PLAN
1/4"= 1'-0"



A9 ENLARGED FIRST FLOOR PLAN
1/4"= 1'-0"

NOTES LEGEND

- NEW WALL AND DOOR
- P1 — PARTITION TYPE
- 001 — DOOR TAG
- STOREFRONT (SW) AND WINDOW (W) TAG, SEE SCHEDULE

KEY NOTES

1. CONTRACTOR TO PROVIDE & INSTALL NEW FIRE EXTINGUISHER AND CABINET. USE A CABINET THAT FITS THE APPROPRIATE WALL TYPE. SEE PLAN SYMBOL (FE) & DET. 1 & 2/A600
2. 'GEAR GRID' WALL MOUNTED LOCKERS (888) 643-6694 – GEARGRID.COM 20" W x 20" D x 74 ½" H (2) SHELVES AND (3) HOOKS PER LOCKER 20 GA. NAME PLATE, STEEL HORIZONTAL HANGING ROD, ½" STAINLESS STEEL HANGER, RED POWDER COAT FINISH
3. SEE DET. 3/A504

GENERAL ALTERATION NOTES

1. CONTRACTOR TO PROVIDE AND INSTALL FLOOR MOUNTED TOILET AND WALL MOUNTED SINK FIXTURES.
2. CONTRACTOR TO PAINT ALL EXPOSED GYPSUM BOARD, SHAFTWALL, AND METAL FRAMES VERIFY IN FIELD.
3. CONTRACTOR TO PROVIDE ELECTRICAL CONNECTIONS AS REQUIRED. SEE ELECTRICAL DRAWINGS.
4. PROVIDE AND INSTALL ALL DUCTWORK AND GRILLES INTO ROOMS. SEE MEP DRAWINGS
5. PROVIDE AND INSTALL ALL ELECTRICAL WORK PER NEC. SEE ELECTRICAL DRAWINGS.
6. ALL FURNITURE TO BE PROVIDED BY OWNER.

No.	REVISION/SUBMISSION	DATE
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PROJECT
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NYS ROUTE 52, FISHKILL, NY

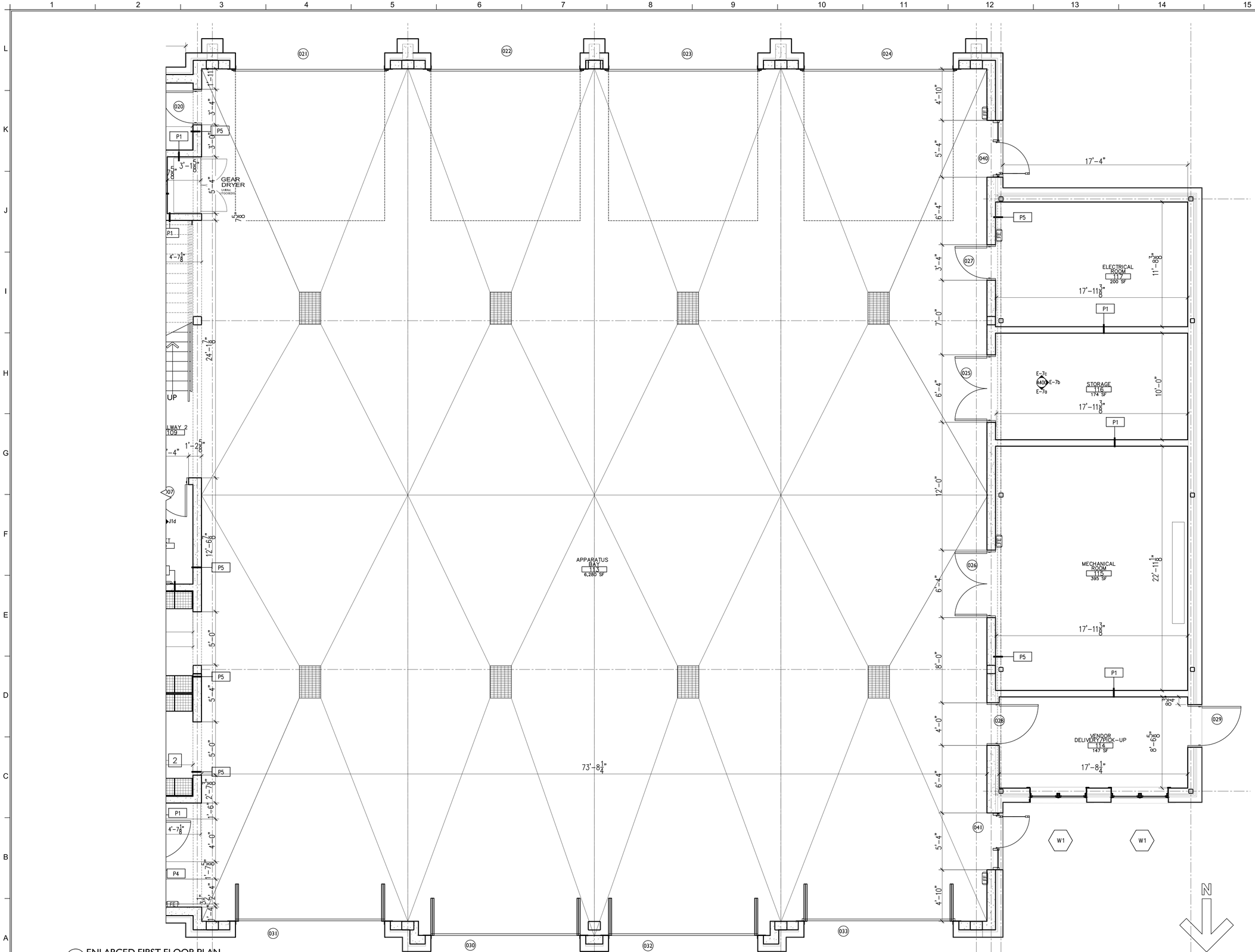
DRAWING
LARGE SCALE FLOOR PLANS

SEAL

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RV	11/30/2022

DRAWING NUMBER
A110

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A1 ENLARGED FIRST FLOOR PLAN
1/4"= 1'-0"

NOTES LEGEND

NEW WALL AND DOOR

P1 — PARTITION TYPE

001 — DOOR TAG

STOREFRONT (SW) AND WINDOW (W) TAG, SEE SCHEDULE

KEY NOTES

1. CONTRACTOR TO PROVIDE & INSTALL NEW FIRE EXTINGUISHER AND CABINET. USE A CABINET THAT FITS THE APPROPRIATE WALL TYPE. SEE PLAN SYMBOL (FE) & DET. 1 & 2/A600
2. 'GEAR GRID' WALL MOUNTED LOCKERS (888) 643-6694 – GEARGRID.COM 20" W x 20" D x 74 3/4" H (2) SHELVES AND (3) HOOKS PER LOCKER 20 GA. NAME PLATE, STEEL HORIZONTAL

GENERAL ALTERATION NOTES

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2. CONTRACTOR TO PAINT ALL EXPOSED GYPSUM BOARD, SHAFTWALL, AND METAL FRAMES VERIFY IN FIELD.
3. CONTRACTOR TO PROVIDE ELECTRICAL CONNECTIONS AS REQUIRED. SEE ELECTRICAL DRAWINGS.
4. PROVIDE AND INSTALL ALL DUCTWORK AND GRILLES INTO ROOMS. SEE MEP DRAWINGS
5. PROVIDE AND INSTALL ALL ELECTRICAL WORK PER NEC. SEE ELECTRICAL DRAWINGS.
6. ALL FURNITURE TO BE PROVIDED BY OWNER.

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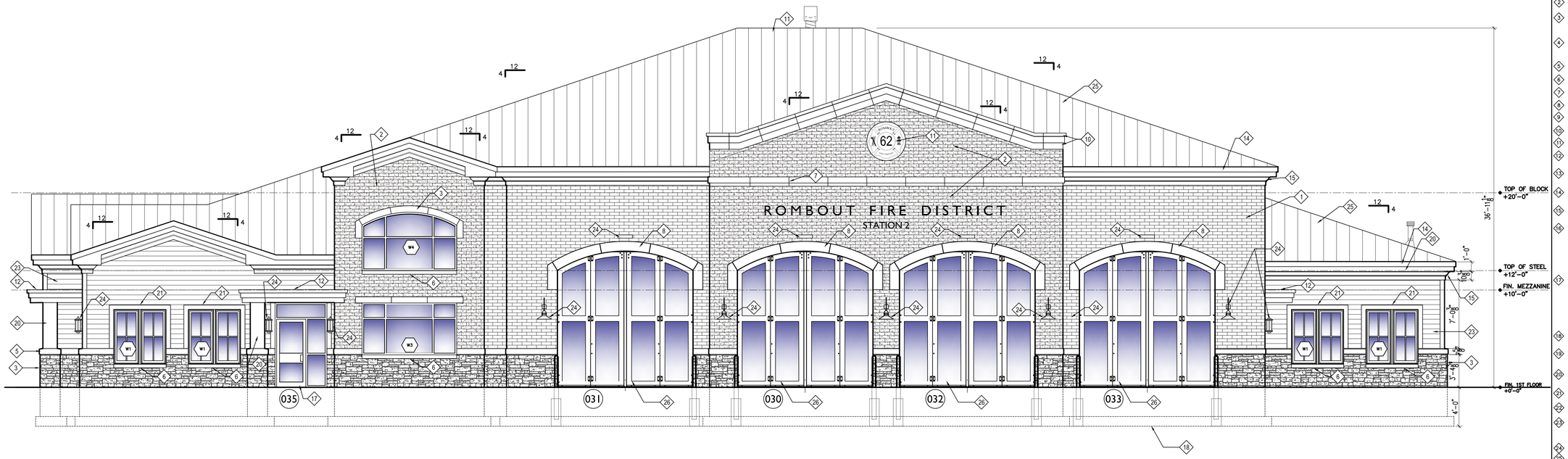
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LARGE SCALE FLOOR PLAN

SEAL

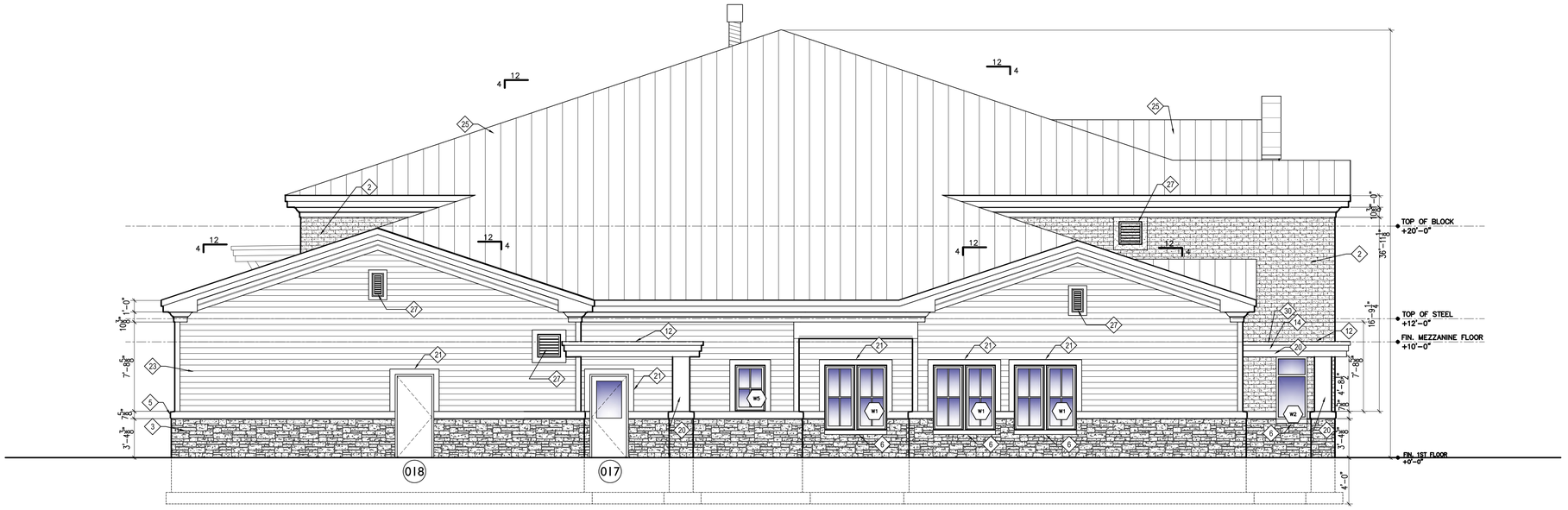
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RV	11/30/2022

DRAWING NUMBER
A111

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G1 NORTH ELEVATION
3/16"=1'-0"



A1 EAST ELEVATION
3/16"=1'-0"

NOTES KEY NOTES

1. BELDEN BRICK – 12 x 4 x 4 UTILITY COLOR – ENGLISH GRAY VELOUR
2. BELDEN BRICK – 12 x 4 x 4 UTILITY COLOR – CARBON BLACK SMOOTH
3. RANDOM CUT & TUMBLED SQUARE & RECTANGULAR GRANITE ALTERNATE – ROCK CAST – CHISEL FACED MASONRY UNITS 23-5/8" x 7-5/8" x 3-5/8" VENEER; COLOR – PEWTER
4. ROCK CAST–DECORATIVE CAST STONE SHAPES – COORDINATE WITH ELEVATIONS & DETAILS ON DWG. SEE A501. COLOR – PEWTER
5. DECORATIVE CAST STONE WATERTABLE – SEE 10/A501
6. DECORATIVE CAST STONE SILL – SEE 7/A501, 9/A501
7. DECORATIVE CAST STONE BAND – SEE 3/A501
8. DECORATIVE CAST STONE HEAD – SEE 6/ A501, 8/A501
9. DECORATIVE CAST STONE EYEBROW DOOR HEAD – SEE 5/A501
10. DECORATIVE CAST STONE CORNICE – SEE 1/A501, 2/A501
11. DECORATIVE CAST STONE MEDALLION – SEE 4/A501
12. 60 MIL SINGLE PLY ADHEARED EPDM ROOFING. APPLY OVER A PROTECTION BOARD AS REQUIRED BY MANUF.
13. PROVIDE BLIND FLASHING WHERE ALL VERTICAL SERFACES ARE IN CONTACT WITH THE ROOF.
14. 5/4x8 PVC FASCIA OVER 1x12 FASCIA – COLOR BENJAMIN MOORE HC–171.
15. FYPON MOLDED MILLWORK – MODEL # MLD371–16 COLOR–BENJAMIN MOORE HC–171 WICKHAM GRAY
16. ANDERSEN 400 SERIES ENERGY EFFICIENT INSULATED LOW–E GLASS – EXTERIOR COLOR TO BE DARK BRONZE ANODIZED ALUMINUM CLAD – INTERIOR TO BE MIXED GRAIN FIR. ALL MUNTINS TO BE 1 1/4" MODERN DIVDED LIGHTS WITH THE INTERIOR AND EXTERIOR FACE TO MATCH THE WINDOW FINISH. PROVIDE TRU–SCENE INSECT SCREEN W/ DARK BRONZE FRAME FOR ALL DOUBLE HUNG WINDOWS.
17. DOORS INDICATED ON DRAWINGS SHALL BE SERIES 350 W/ PANELINE EXT DEWCE AS MANUFACTURED BY KAWNEER COMPANY, INC. STOREFRONT DOOR AND WINDOW FRAMING INDICATED ON DRAWINGS SHALL BE TRIFAB 601 AS MANUFACTURED BY KAWNEER COMPANY, INC. THE FRAME MEMBERS SHALL HAVE A NOMINAL FACE DIMENSION OF 2" OVERALL DEPTH SHALL BE 6". ALL STOREFRONT TO RECEIVE A DARK ANODIZED BRONZE FINISH #40.
18. LINE OF FOOTING – SEE STRUCTURAL DRAWINGS FOR BOTTOM OF FOOTING ELEVATION.
19. LINE OF GRADE VARIES – SEE SITE DRAWINGS FOR FINISHED GRADE ELEVATIONS.
20. PVC COLUMN WRAP – 1x6 PVC TRIM BOARD OVER 1/2" PVC SHEET GOOD. – BENJAMIN MOORE HC–171
21. 5/4x6 AZEK TRIM . – BENJAMIN MOORE HC–171.
22. 6" ALUMINUM OGEE GUTTER & DOWNSPOUT W/ CONDUCTOR HEAD COLOR – DK BRONZE
23. "HARDI PLANK" CEMENTIOUS SIDING, 6" HORIZONTAL CLAPBOARD PROFILE BY JAMES HARDI OR EQUAL INSTALLED AS PER MANF. INSTRUCTIONS. COLOR – PEARL GRAY
24. LIGHT FIXTURE – COORDINATE WITH ELECTRICAL DRAWINGS.
25. ATAS 2" FIELD–LOK STANDING SEAM METAL ROOFING – COLOR CLASSIC BRONZE. PROVIDE "ATA SHIELD" W/ "ATA–GUARD" UNDERLAYMENT PROTECTION MATERIAL, W/ EAVE WIDTH TO BE A MIN. OF 36" COVERAGE FROM THE DRIP EDGE.
26. FOUR FOLD FIRE STATION DOORS BY DOOR ENGINEERING – A SENNECA COMPANY. PROVIDE INSULATED TEMPERED GLASS. See specifications
27. LOUVER – SEE MECHANICAL DRAWINGS
28. 8" LIGHT WEIGHT T.S. ROOF BRACES – PAINTED
29. ALUMINUM DOOR SYSTEMS SERIES 521 – DARK BRONZE ANODIZED BY THE OVERHEAD DOOR CORPORATION. PROVIDE INSULATED TEMPERED GLASS AND MONITORED PHOTO–EYES FOR PRIMARY SAFETY. PROVIDE OPERATOR MODEL RHX W/ A PUSH BUTTON OPERATOR.
30. 5/4x4 AZEK FASCIA OVER 2x SUB–FASCIA. – COLOR BENJAMIN MOORE HC–171.

No.	REVISION/SUBMISSION	DATE
3		
2		
1		

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

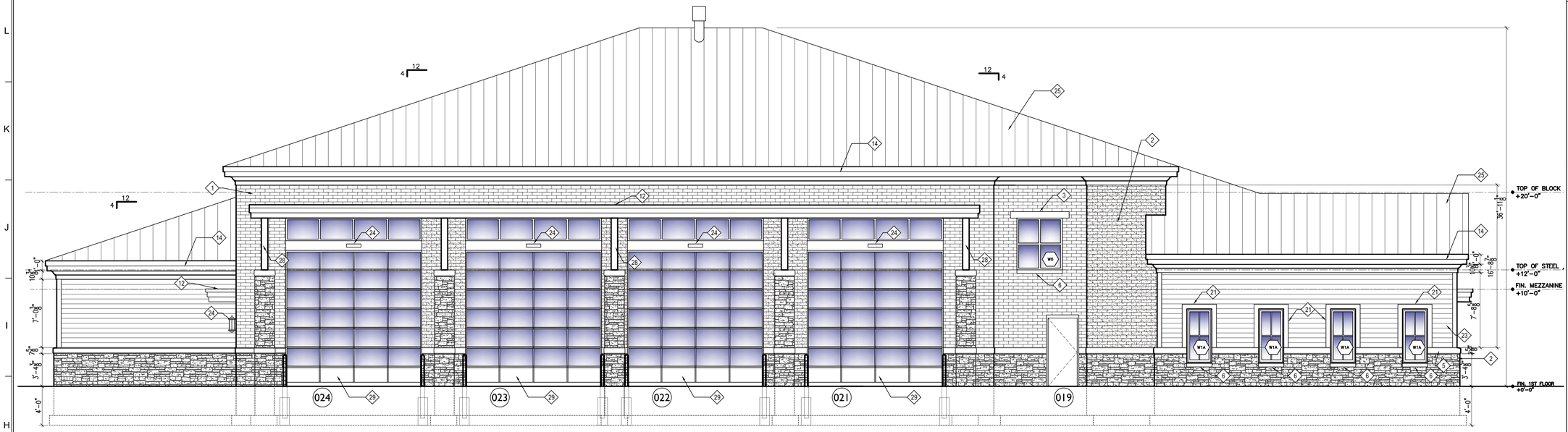
DRAWING
EXTERIOR
ELEVATIONS

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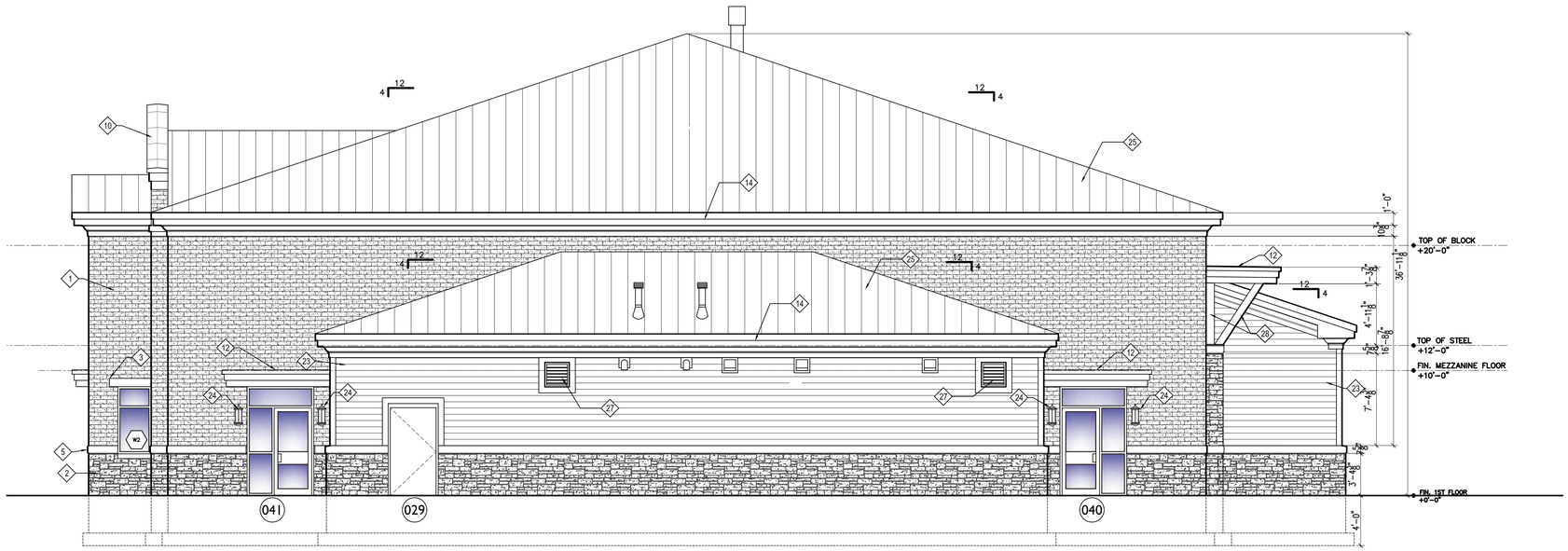
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A200

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G1 SOUTH ELEVATION
3/16"=1'-0"



A1 WEST ELEVATION
3/16"=1'-0"

NOTES KEY NOTES

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7. DECORATIVE CAST STONE BAND – SEE 3/A501
8. DECORATIVE CAST STONE HEAD – SEE 6/ A501, 8/A501
9. DECORATIVE CAST STONE EYEBROW DOOR HEAD – SEE 5/A501
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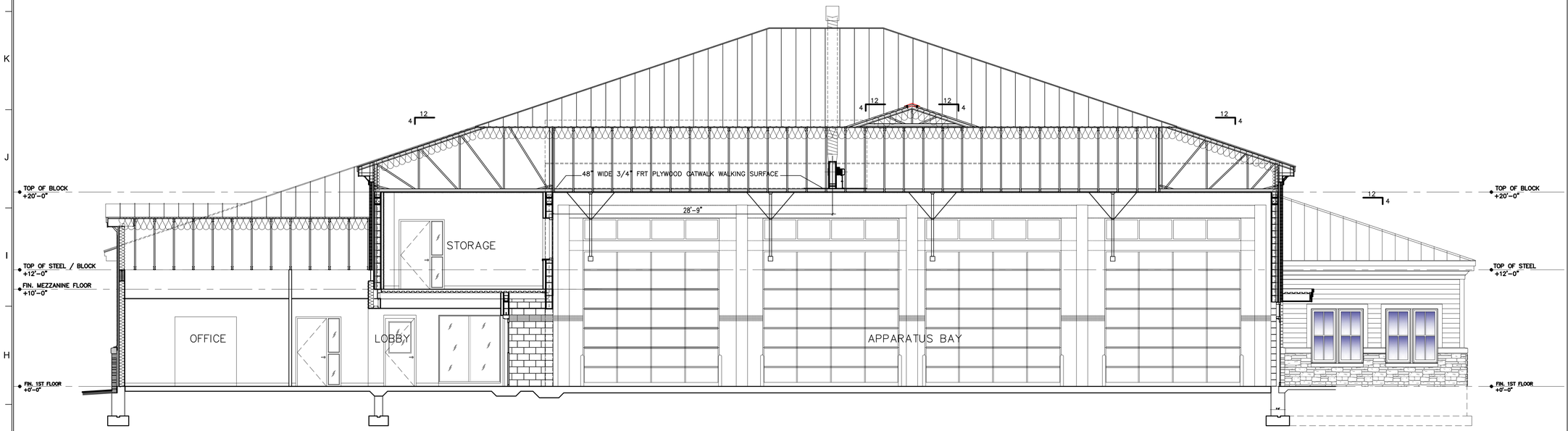
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SEAL

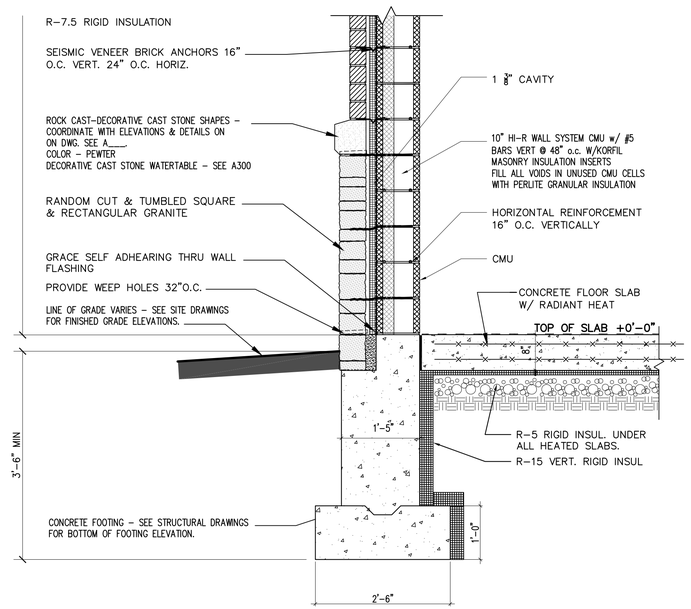
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LR/KS	18142
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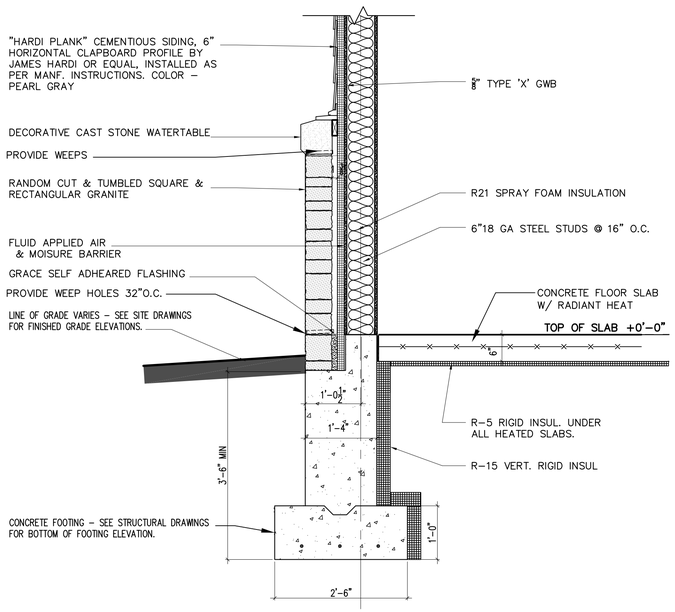
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G1 BUILDING SECTION
3/16"= 1'-0"



A1 WALL SECTION - MASONRY
3/4"= 1'-0"



A7 WALL SECTION - METAL STUD
3/4"= 1'-0"

NOTES

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ARCHITECTURE PLANNING INTERIORS
181 CHURCH STREET
POUGHKEEPSIE, NEW YORK 12601
PHONE 845-452-2268 FAX 845-452-3752

PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

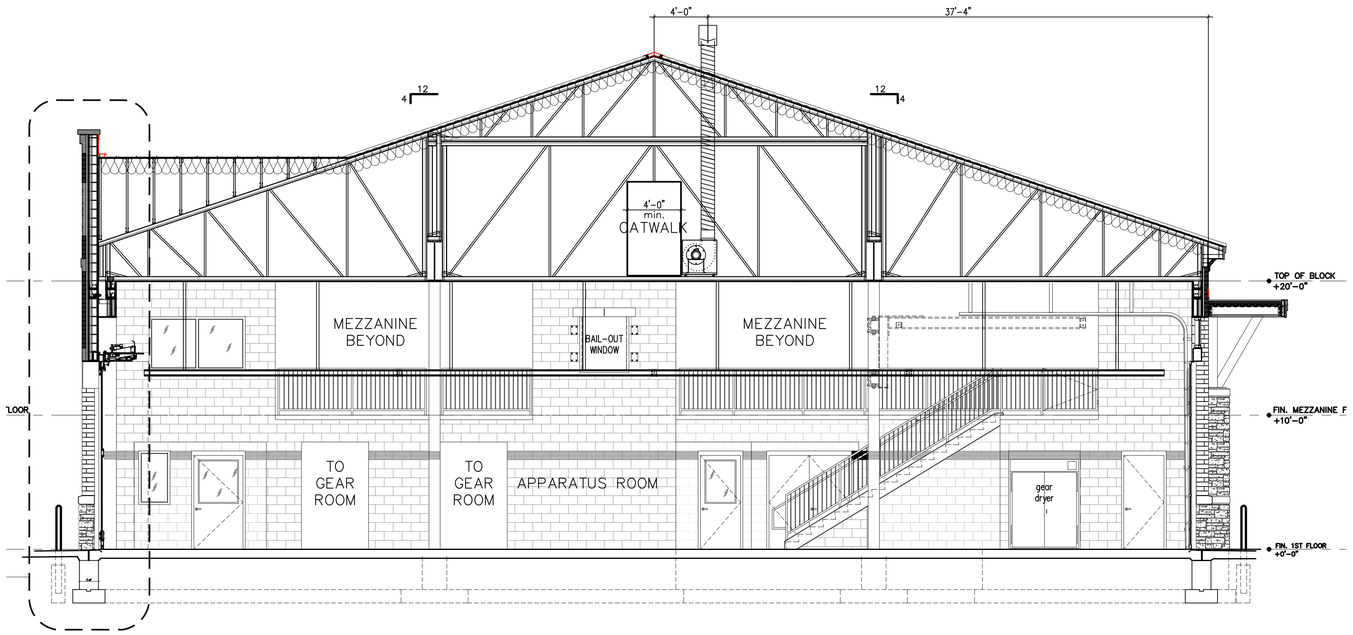
DRAWING
BUILDING SECTION & WALL SECTIONS

SEAL

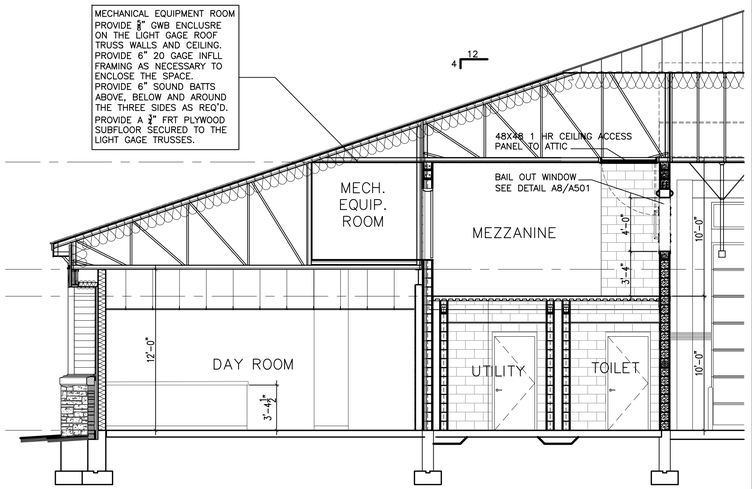
DRAWN BY	PROJECT NUMBER
LR/KS	18142
CHECKED BY	DATE
RV	11/30/2022

DRAWING NUMBER
A300

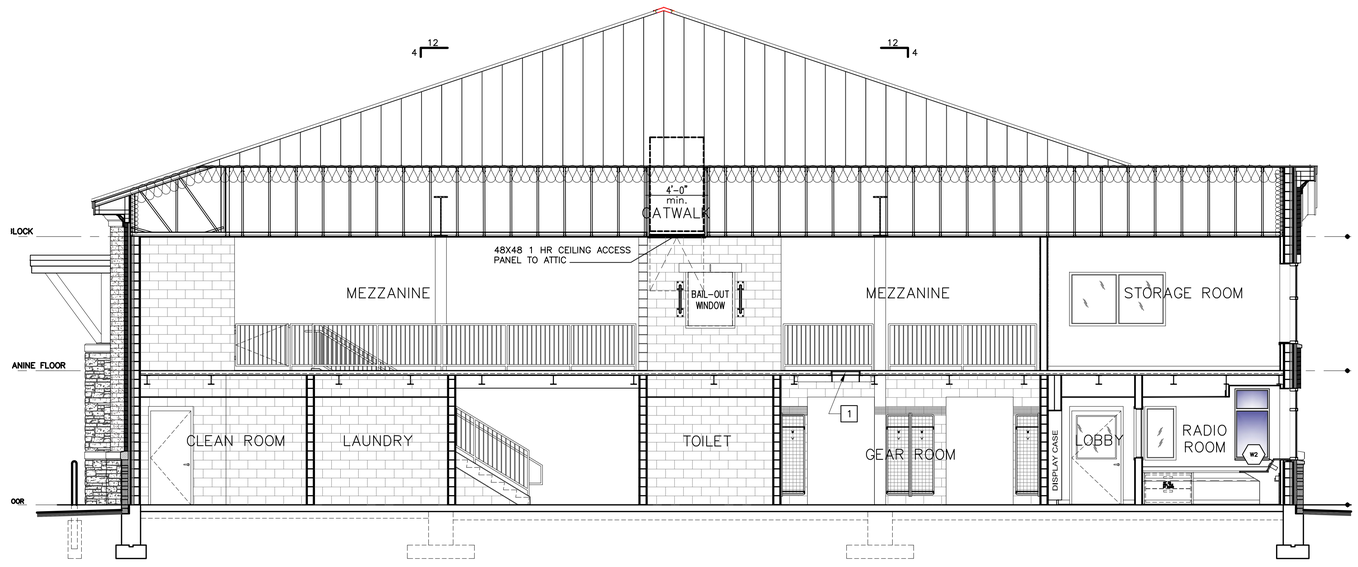
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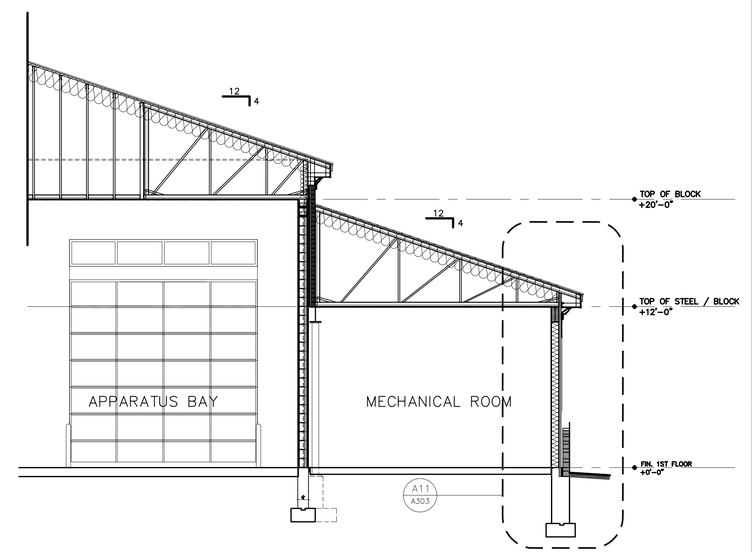
G1 BUILDING SECTION
3/16"=1'-0"



G11 BUILDING SECTION
3/16"=1'-0"



A1 BUILDING SECTION
3/16"=1'-0"



A11 BUILDING SECTION
3/16"=1'-0"

NOTES

1 30"SQUARE MANHOLE FRAME AND COVER, ASTM-A36 CARBON STEEL LAY IN DIAMOND PLATE COVER, NON-SKID SURFACE, ONE (1) ½"X 1"PICK HOLE FOR EASY REMOVAL, HEAVY DUTY FRAME, ALL WELDED CONSTRUCTION, 4"DEEP CARBON STEEL SKIRT FOR 4"TOTAL HEIGHT, FOUR (4) CHANNEL STYLE CONCRETE ANCHORS, PAINTED BLACK, MADE IN USA.

No.	REVISION/SUBMISSION	DATE
3		
2		
1		

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NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
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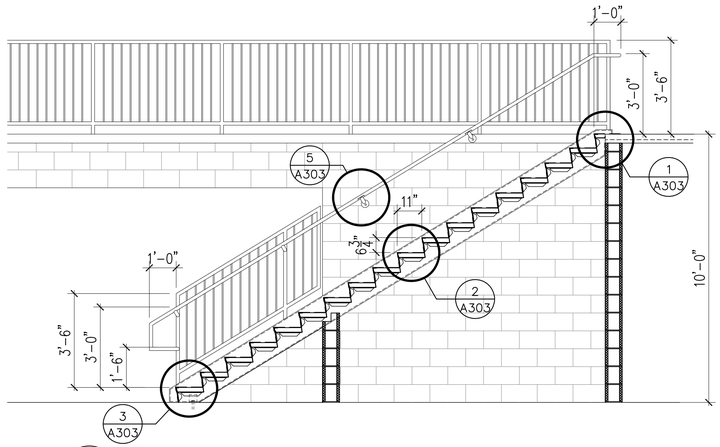
DRAWING
BUILDING SECTIONS

SEAL

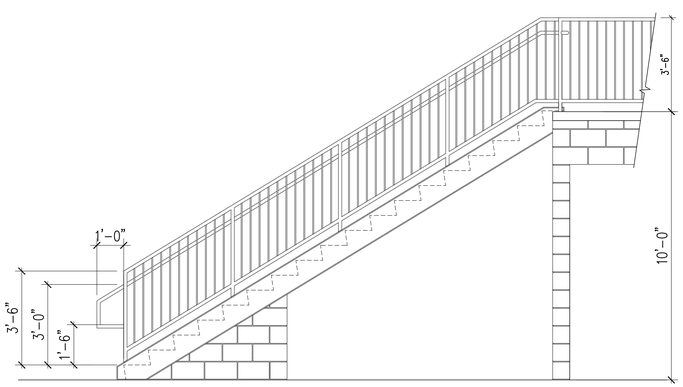
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LR/KS	18142
CHECKED BY	DATE
RV	11/30/2022

DRAWING NUMBER
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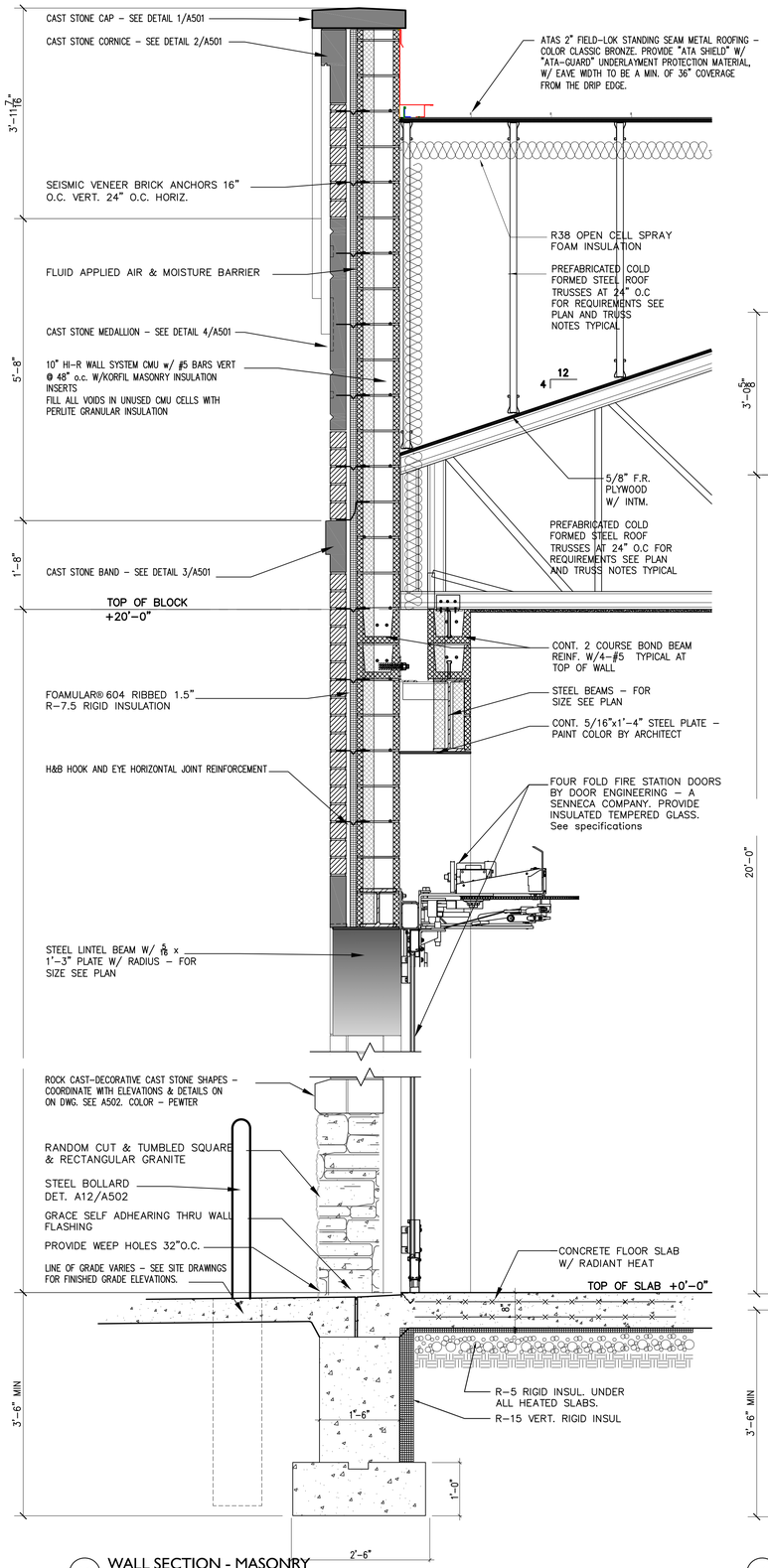
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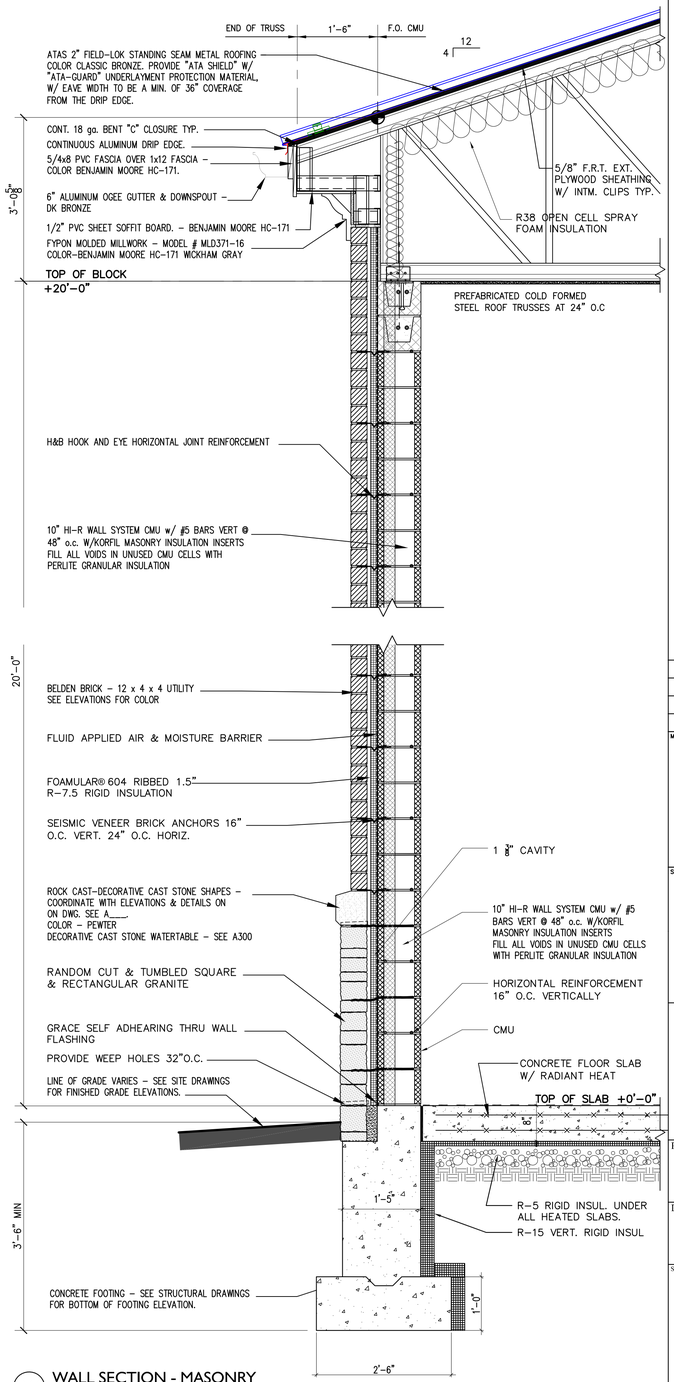
2 A502 MEZZANINE STAIR SECTION
3/8" = 1'-0"



1 A502 MEZZANINE STAIR ELEVATION
3/8" = 1'-0"



A6 WALL SECTION - MASONRY
3/4"= 1'-0"



A11 WALL SECTION - MASONRY
3/4"= 1'-0"

NOTES

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

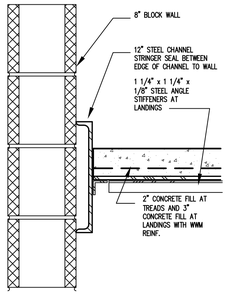
DRAWING
BUILDING SECTIONS
STEEL STAIR SECTIONS

SEAL

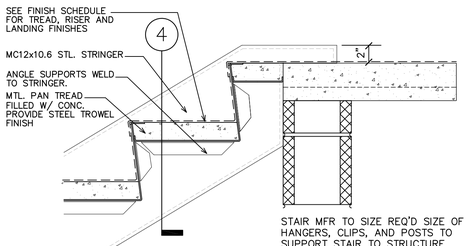
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LR/KS	18142
CHECKED BY	DATE
RV	11/30/2022

DRAWING NUMBER
A302

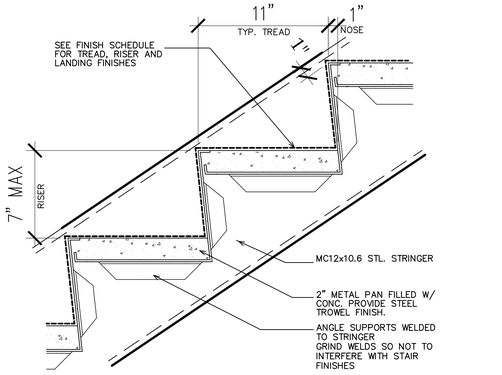
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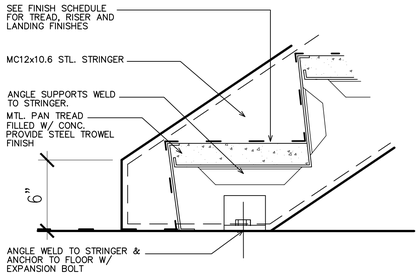
4 A5.0 STRINGER DETAIL
3" = 1'-0"



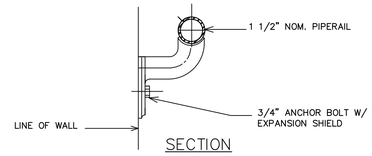
1 A502 TOP LANDING DETAIL
3" = 1'-0"



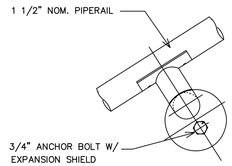
2 A502 TREAD DETAIL
3" = 1'-0"



3 A5.0 BOTTOM LANDING DETAIL
3" = 1'-0"

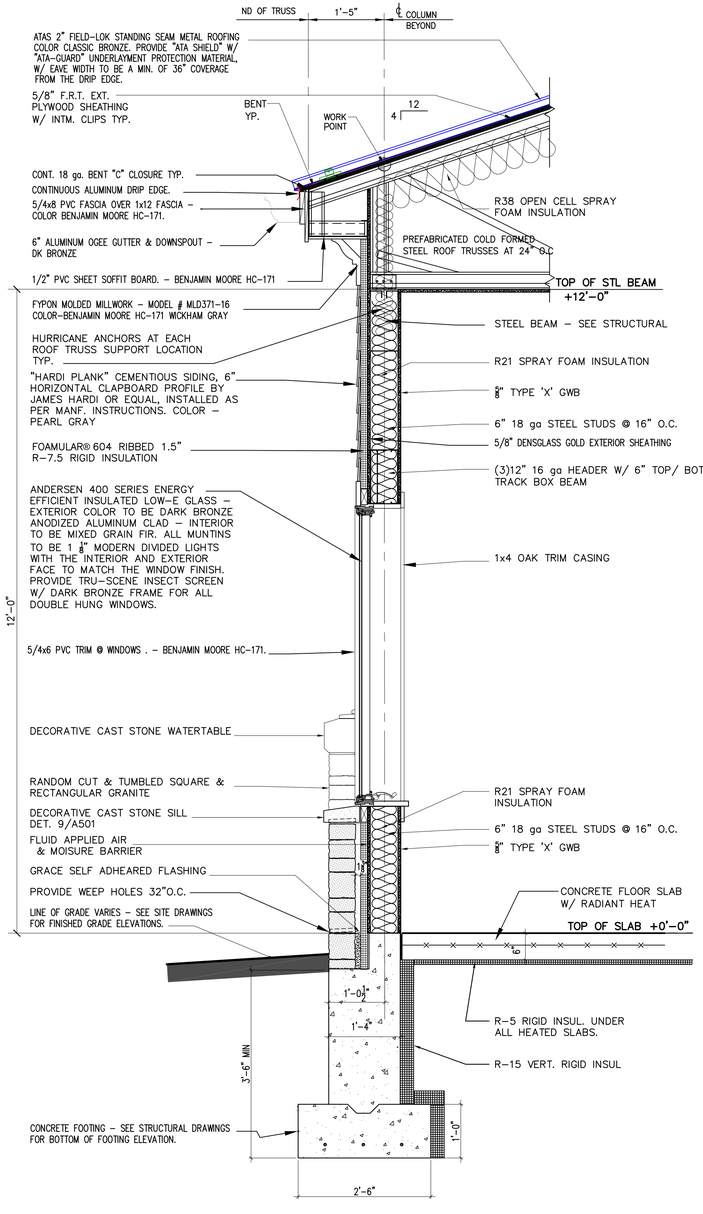


SECTION

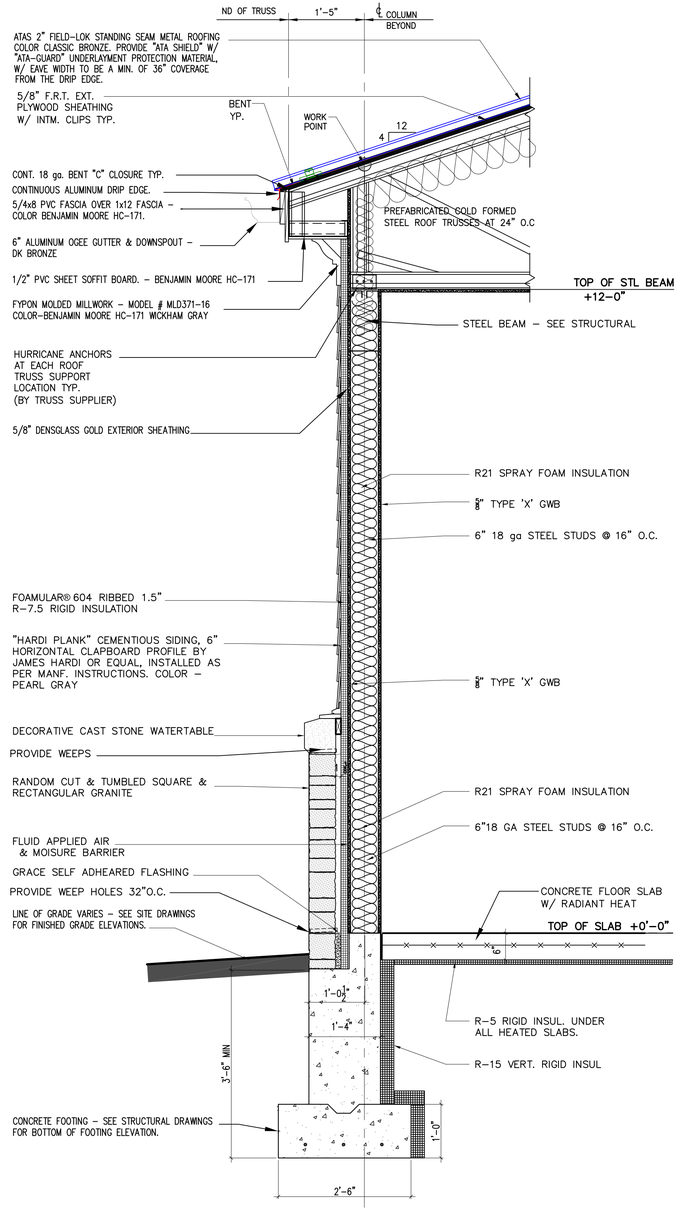


ELEVATION

5 A502 WALL CONNECTIONS
3" = 1'-0"



A6 WALL SECTION - METAL STUD
3/4"=1'-0"



A11 WALL SECTION - METAL STUD
3/4"=1'-0"

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ROMBOUT FIRE DISTRICT - STATION 2
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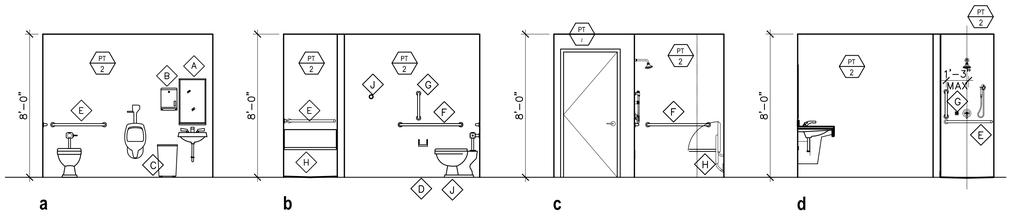
DRAWING
BUILDING SECTIONS
STEEL STAIR DETAILS

SEAL

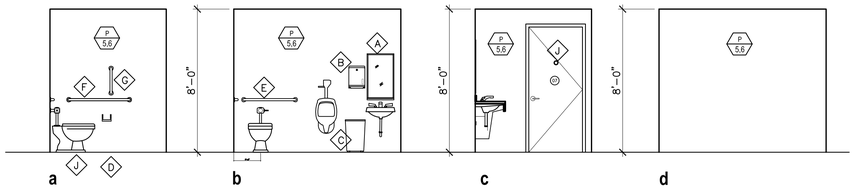
DRAWN BY	PROJECT NUMBER
LR/KS	18142
CHECKED BY	DATE
RV	11/30/2022

DRAWING NUMBER
A303

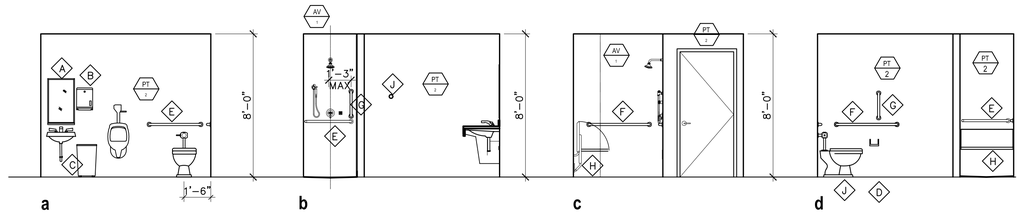
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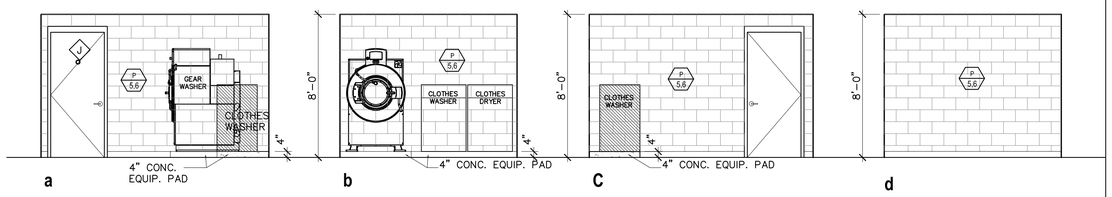
J1 INTERIOR ELEVATION - TOILET 122
1/4"=1'-0"



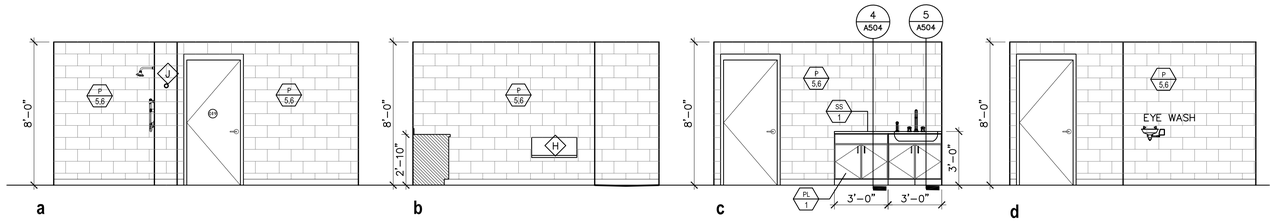
J10 INTERIOR ELEVATION - TOILET 110
1/4"=1'-0"



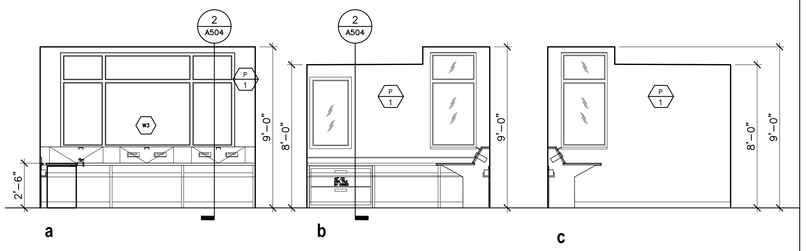
H1 INTERIOR ELEVATION - TOILET 121
1/4"=1'-0"



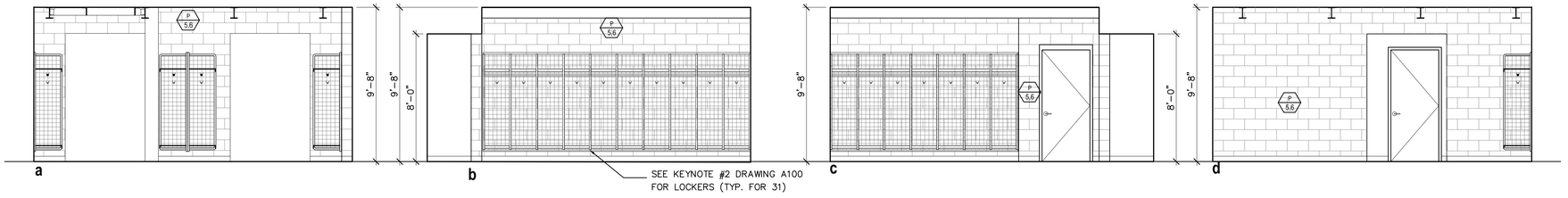
E8 INTERIOR ELEVATION - LAUNDRY ROOM 108
1/4"=1'-0"



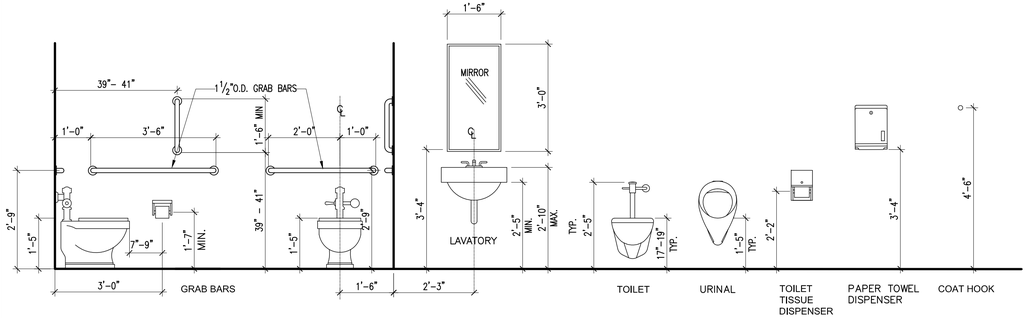
F1 INTERIOR ELEVATION - CLEAN ROOM 107
1/4"=1'-0"



F10 INTERIOR ELEVATION - RADIO ROOM 101
1/4"=1'-0"



D1 INTERIOR ELEVATION - GEAR ROOM 112
1/4"=1'-0"

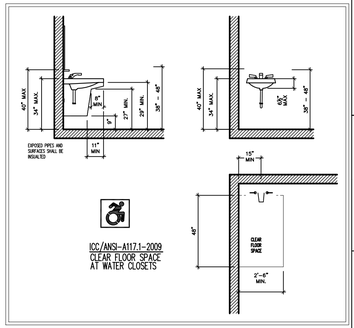


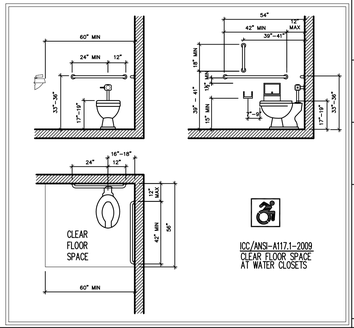
TOILET ROOM ACCESSORIES SCHEDULE

SYMBOL	ITEM	MANUFACTURER / MODEL NO.
A	24" X 36" MIRROR	BOBRICK - B-293 FIXED POSITION TILT MIRROR W/STAINLESS STEEL FRAME
B	SURFACE MOUNTED PAPER TOWEL DISPENSER	BOBRICK / B-72860
C	WASTE RECEPTACLE	SUPPLIED BY OWNER
D	SURFACE MOUNTED TOILET PAPER DISPENSER	BOBRICK / B-2888
E	36" GRAB BAR	AJW ARCHITECTURAL PRODUCTS - 1-1/2" DIA. HEAVY DUTY GRAB BAR W/ PEENED FINISH
F	42" GRAB BAR	AJW ARCHITECTURAL PRODUCTS - 1-1/2" DIA. HEAVY DUTY GRAB BAR W/PEENED FINISH
G	18" VERTICAL GRAB BAR	AJW ARCHITECTURAL PRODUCTS - 1-1/2" DIA. HEAVY DUTY GRAB BAR W/PEENED FINISH
H	SHOWER SEAT	BOBRICK SOLID PHENOLIC FOLDING SHOWER SEAT MODEL# B-519
J	SINGLE ROBE HOOK	BOBRICK / B-6707

NOTE:
1.) GENERAL CONTRACTOR TO PROVIDE AND INSTALL ALL TOILET ROOM ACCESSORIES UNLESS NOTED OTHERWISE.
2.) GENERAL CONTRACTOR TO PROVIDE AND INSTALL ALL BLOCKING (METAL OR FIRE RATED) AS REQUIRED FOR THE PROPER INSTALLATION OF ALL ACCESSORIES.
3.) GC TO PROVIDE PIPING COVERS UNDER EXPOSED LAVATORIES.

ANSI DETAILS





NOTES

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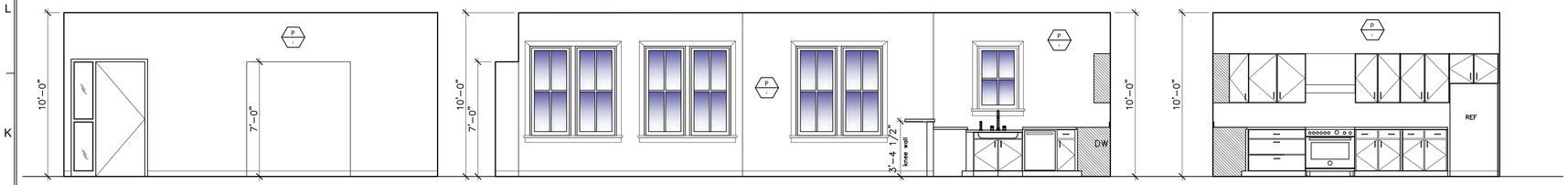
DRAWING
INTERIOR ELEVATIONS

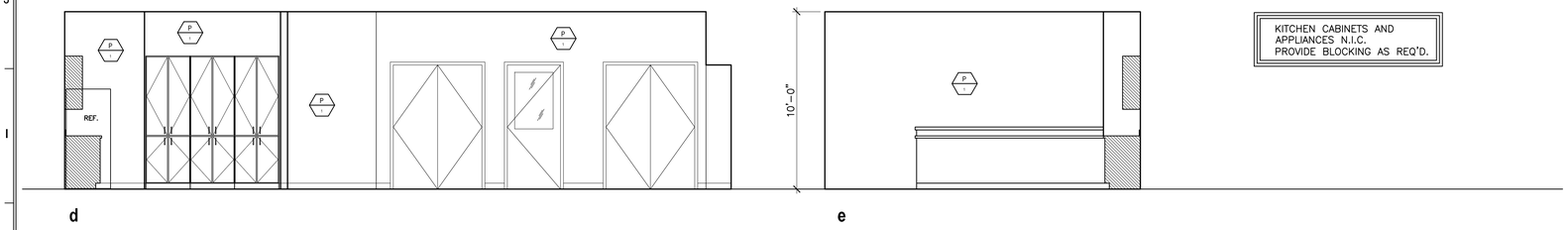
SEAL

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LR/KS	18142
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DRAWING NUMBER
A400

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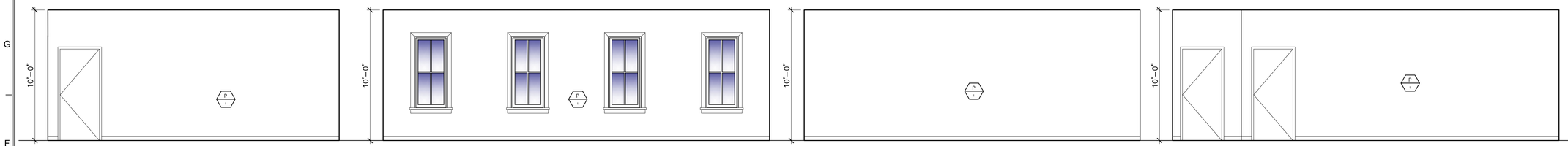




KITCHEN CABINETS AND APPLIANCES N.I.C. PROVIDE BLOCKING AS REQ'D.

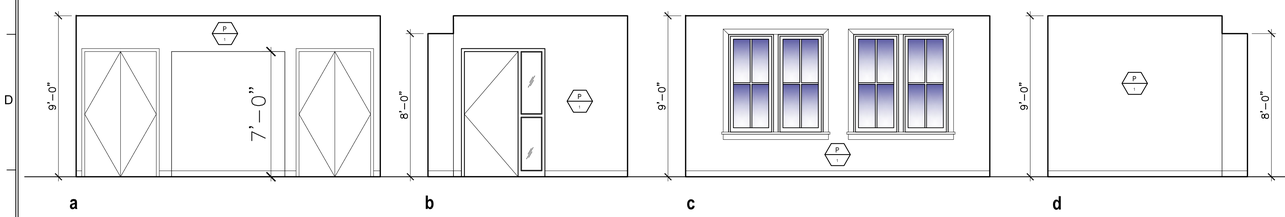
H1 INTERIOR ELEVATION - DAY ROOM 103 / KITCHEN 104

1/4"=1'-0"



F1 INTERIOR ELEVATION - MEETING / TRAINING 106

1/4"=1'-0"



C1 INTERIOR ELEVATION -OFFICE 102

1/4"=1'-0"

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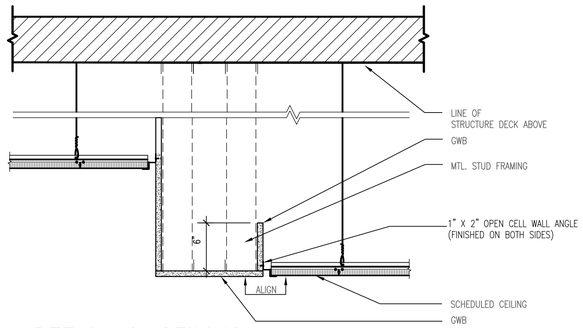
DRAWING
INTERIOR ELEVATIONS

SEAL

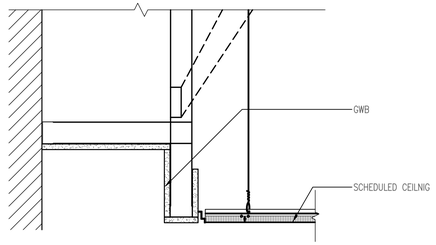
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LR/KS	18142
CHECKED BY	DATE
RV	11/30/2022

DRAWING NUMBER
A401

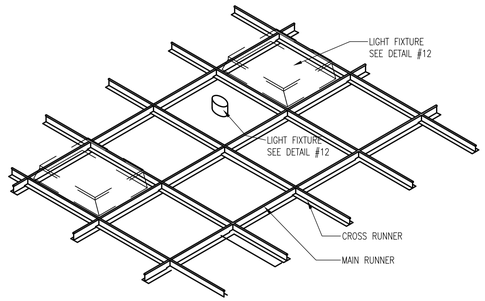
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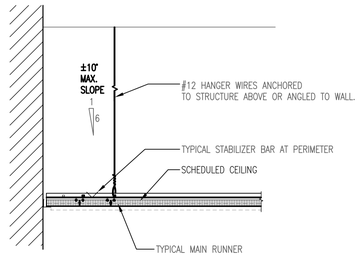
11 DETAIL @ CEILING
1-1/2" = 1'-0"



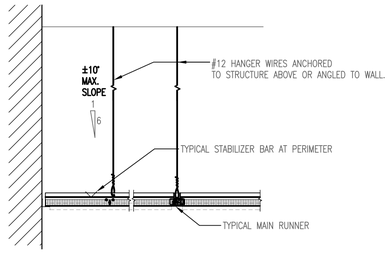
7 DETAIL @ RADIO RM. CEILING
1-1/2" = 1'-0"



3 ACT CEILING GRID SYSTEM
1-1/2" = 1'-0"

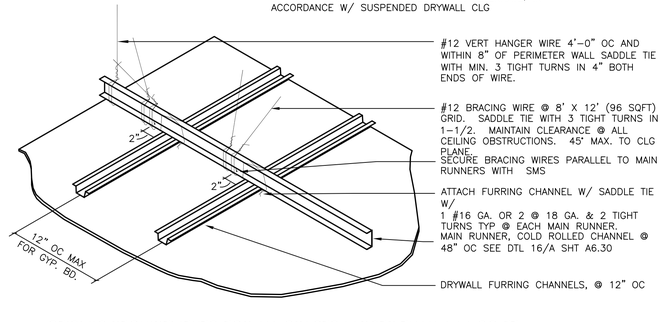


10 ACT SYSTEM MAIN MEMBER
1-1/2" = 1'-0"



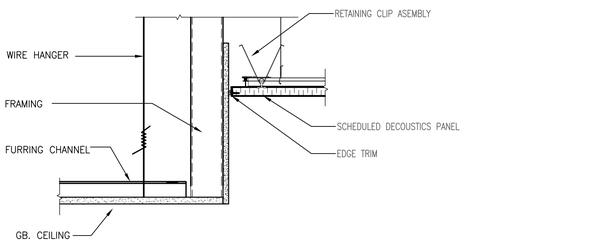
6 ACT SYSTEM CROSS MEMBER
1-1/2" = 1'-0"

NOTES:
1. ALL GYP BD & PLASTER CEILINGS SHALL BE PROVIDED WITH SWAY BRACING
2. ALL WIRES SHOULD BE TAUT WITHOUT CAUSING THE CEILING TO UPLIFT.
3. JOIST STUDS MAY BE USED AS AN ALTERNATE, IN ACCORDANCE W/ SUSPENDED DRYWALL CLG

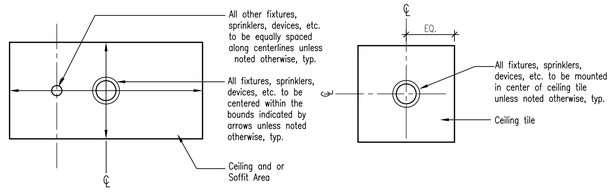


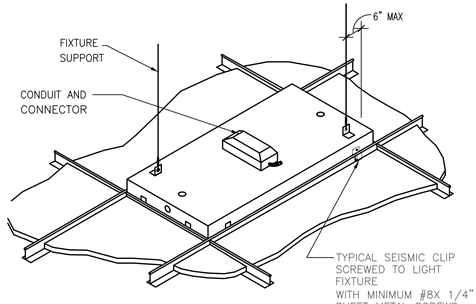
SEISMIC REQUIREMENTS FOR ALL SPACES LARGER THAN 144 SQ FT.
HANGER WIRES SHALL BE 12 GA.
ONE SET OF FOUR SPLAY WIRES SHALL BE INSTALLED FOR EACH 144 SQ. FT. UNLESS OTHER SPECIALLY DESIGNED AND DETAILED BRACING IS PROVIDED. THE FIRST SET OF SPLAY WIRES SHALL BE 4'-0" FROM ANY WALL OR PERIMETER. WIRES SHALL BE TAUT WITHOUT THE CAUSE OF CEILING TO LIFT. ATTACH TEES TO 2 ADJACENT WALLS IN EACH SPACE ALLOW 1/4" CLEARANCE BETWEEN END OF TEE AND REMAINING WALLS.

2 SUSPENSION SYSTEM FOR GB. CEILING
1-1/2" = 1'-0"



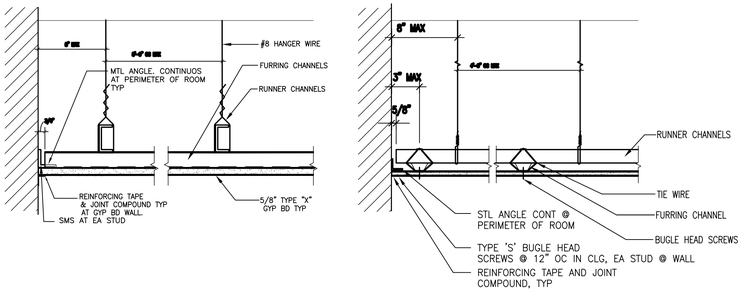
9 DETAIL @ CLG.
1-1/2" = 1'-0"





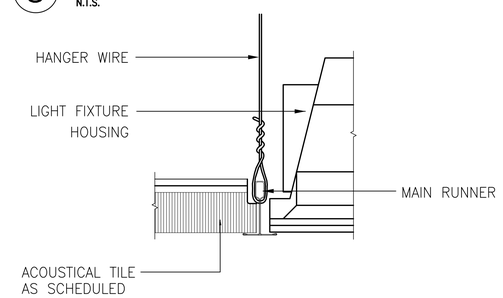
SEISMIC REQUIREMENTS FOR ALL SPACES LARGER THAN 144 SQ FT.
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ONE SET OF FOUR SPLAY WIRES SHALL BE INSTALLED FOR EACH 144 SQ. FT. UNLESS OTHER SPECIALLY DESIGNED AND DETAILED BRACING IS PROVIDED. THE FIRST SET OF SPLAY WIRES SHALL BE 4'-0" FROM ANY WALL OR PERIMETER. WIRES SHALL BE TAUT WITHOUT THE CAUSE OF CEILING TO LIFT. ATTACH TEES TO 2 ADJACENT WALLS IN EACH SPACE ALLOW 1/4" CLEARANCE BETWEEN END OF TEE AND REMAINING WALLS.

1 LIGHT FIXTURE @ ACT CEILING
1-1/2" = 1'-0"



_PARALLEL TO WALL _PERPENDICULAR TO WALL

8 GWB CEILING RUNNERS
1-1/2" = 1'-0"



5 TYP. LIGHT FIXTURE PLACEMENT
N.T.S.

4 LIGHT FIXTURE @ ACT CEILING
1-1/2" = 1'-0"

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

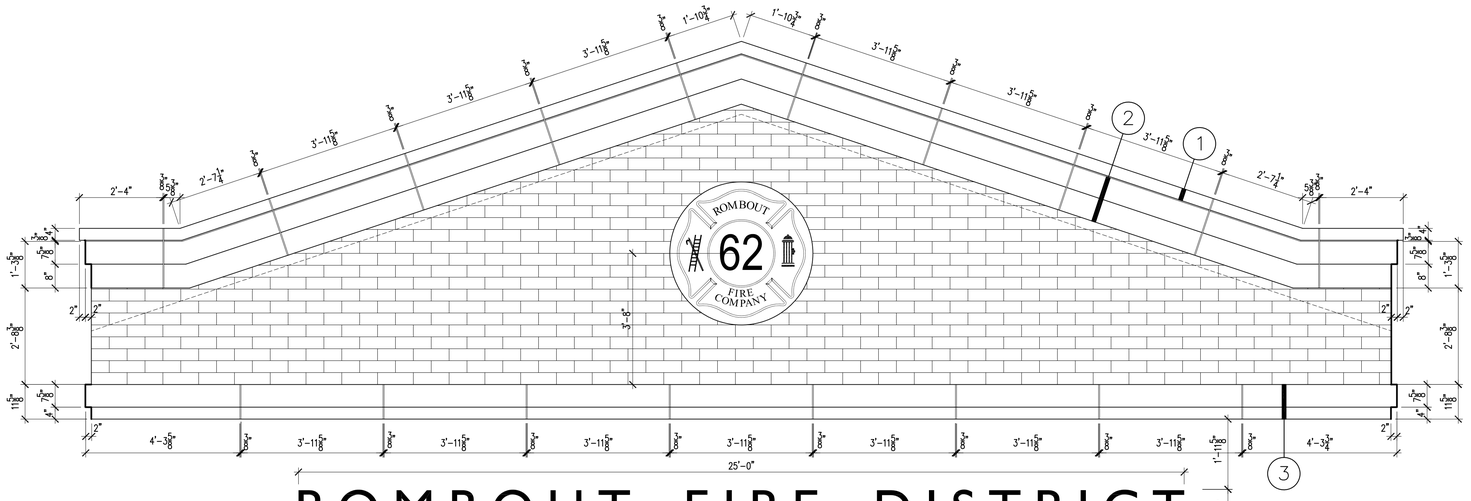
DRAWING
DETAILS

SEAL

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LR/KS	18142
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DRAWING NUMBER
A500

FILE P:\2000\JOB # - JOB NAME\



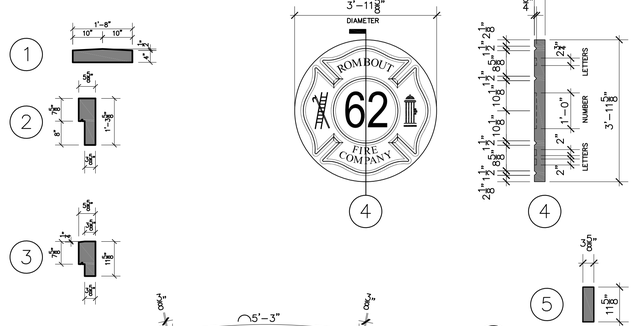
ROMBOUT FIRE DISTRICT

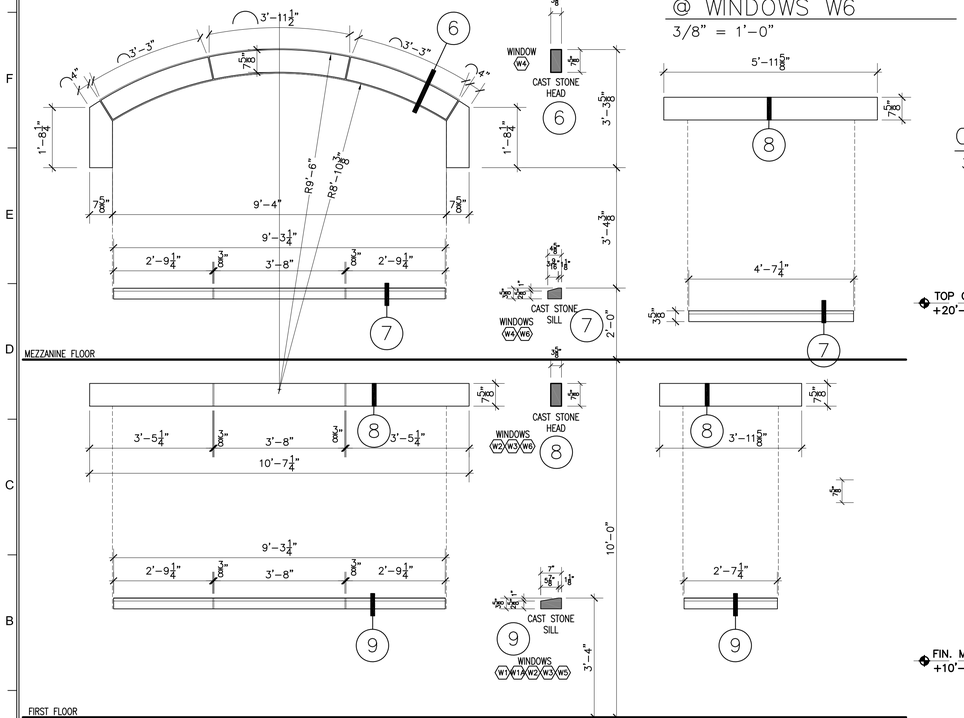
STATION 2

12" ARCHITECTURAL (PRISMATIC FACE)
OXIDIZED BRONZE LETTERING
FLUSH MOUNTED BY GEMINI, INC. OR EQUAL.
1-800-538-8377

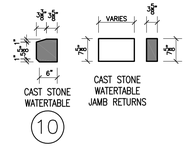
8" ARCHITECTURAL (PRISMATIC FACE)
OXIDIZED BRONZE LETTERING
FLUSH MOUNTED BY GEMINI, INC.
OR EQUAL.

CAST STONE DETAILS AT FRONT PEDIMENT
3/8" = 1'-0"





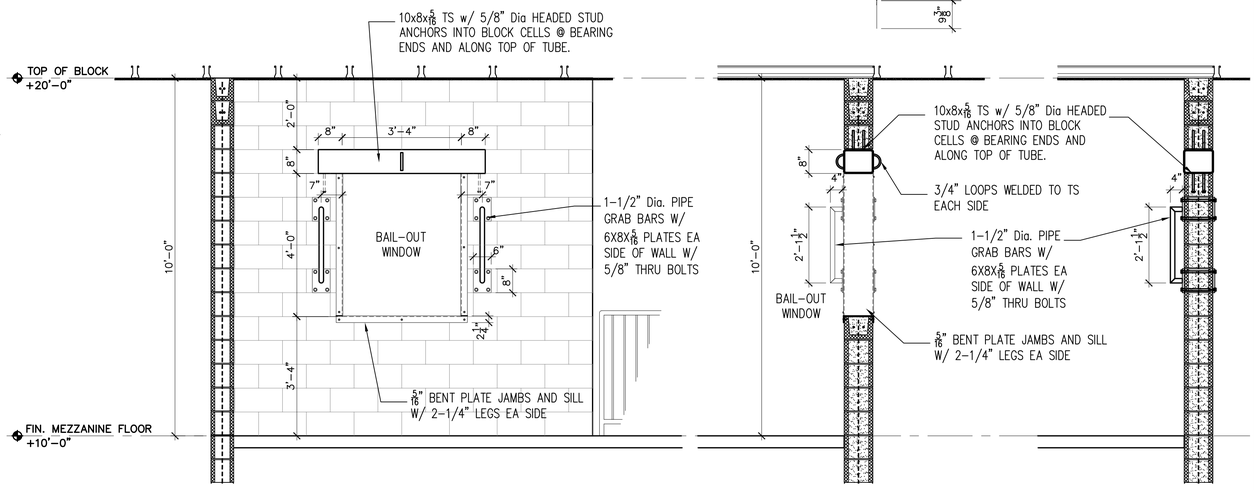
CAST STONE DETAILS @ WINDOWS W6
3/8" = 1'-0"



10

CAST STONE WATERTABLE
3/8" = 1'-0"

CAST STONE DETAILS @ FRONT OVERHEAD DOORS
3/8" = 1'-0"



CAST STONE DETAILS @ WINDOWS W3 & W4
3/8" = 1'-0"

CAST STONE DETAILS @ WINDOWS W2
3/8" = 1'-0"

A7 / A501 MEZZANINE BAIL OUT WINDOW DETAIL
3/8" = 1'-0"

NOTES

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

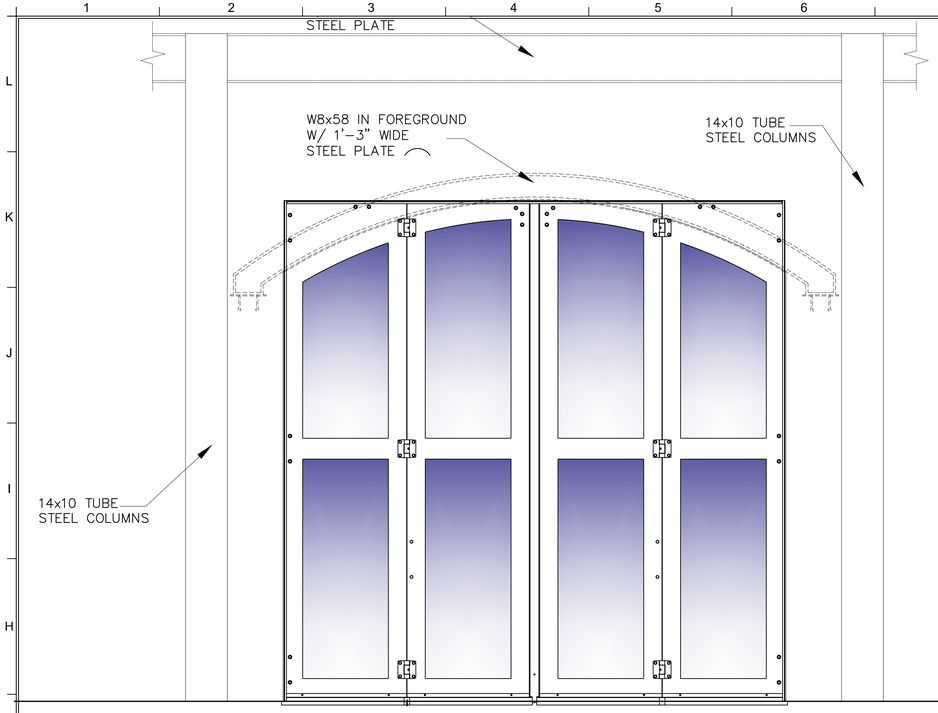
DRAWING
DETAILS

SEAL

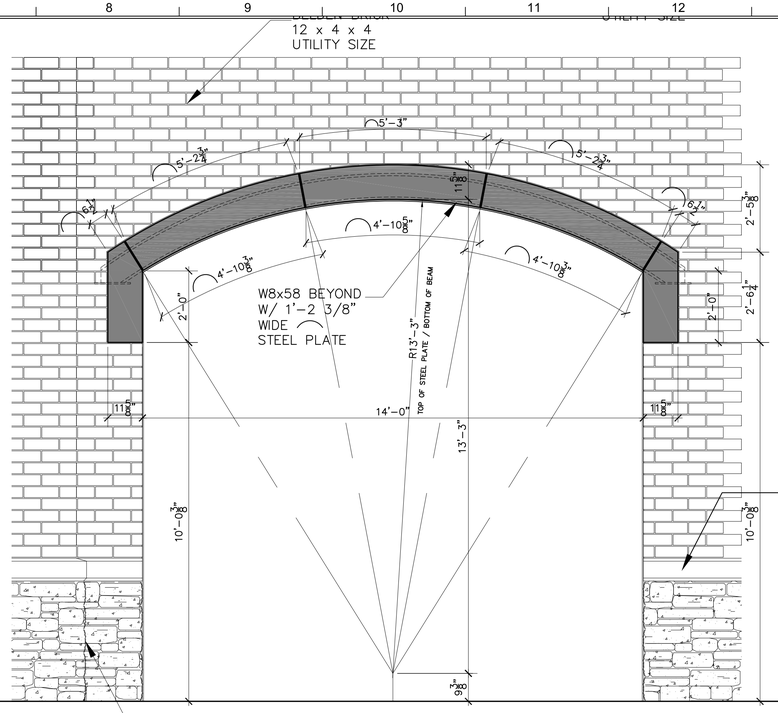
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DRAWING NUMBER
A501

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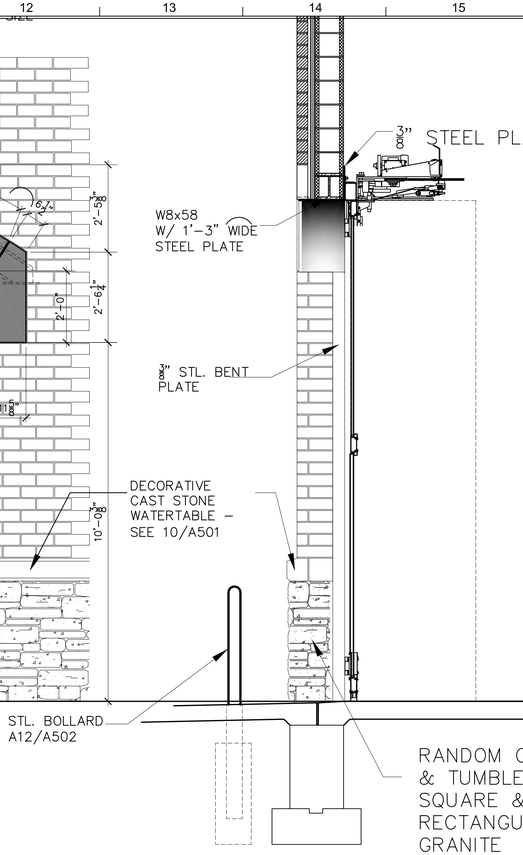


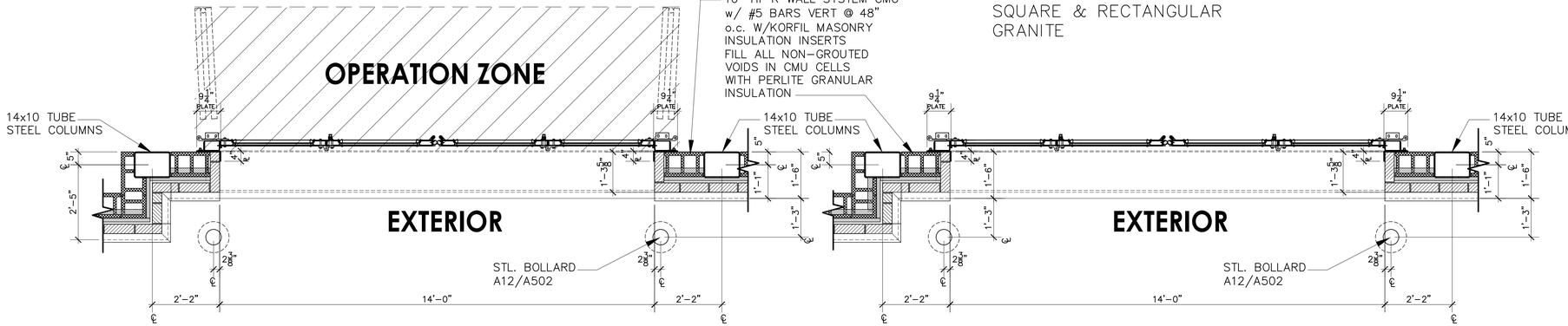
EXTERIOR



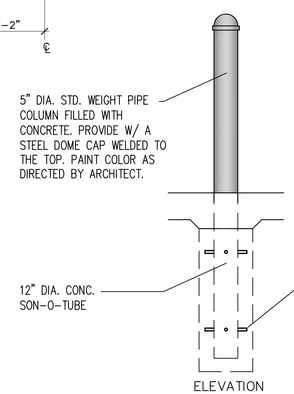
EXTERIOR

RANDOM CUT & TUMBLED
SQUARE & RECTANGULAR
GRANITE

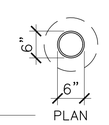




DETAILS @ APPARATUS BAY FRONT DOORS
3/8" = 1'-0"



ELEVATION



PLAN

A12 BOLLARD DETAIL
3/4" = 1'-0"

NOTES

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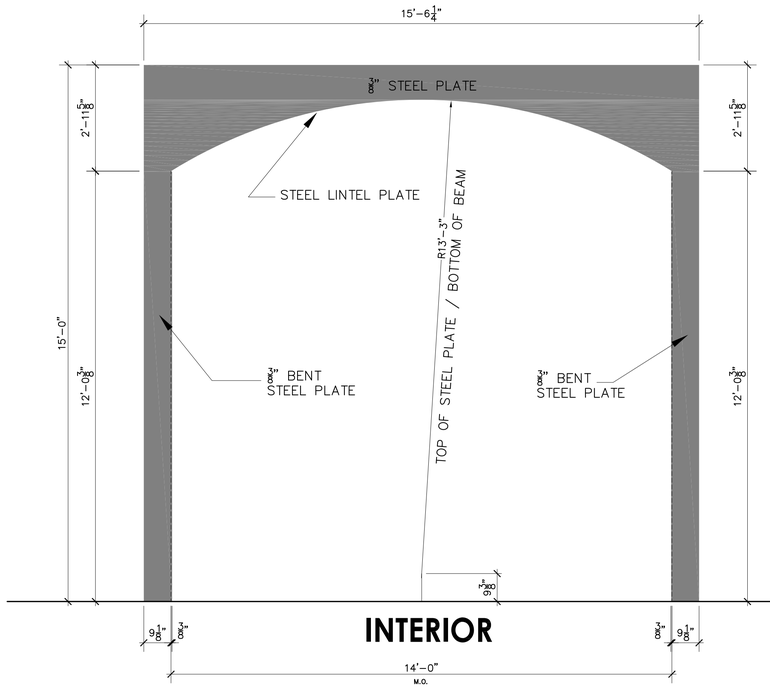
PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING
DETAILS

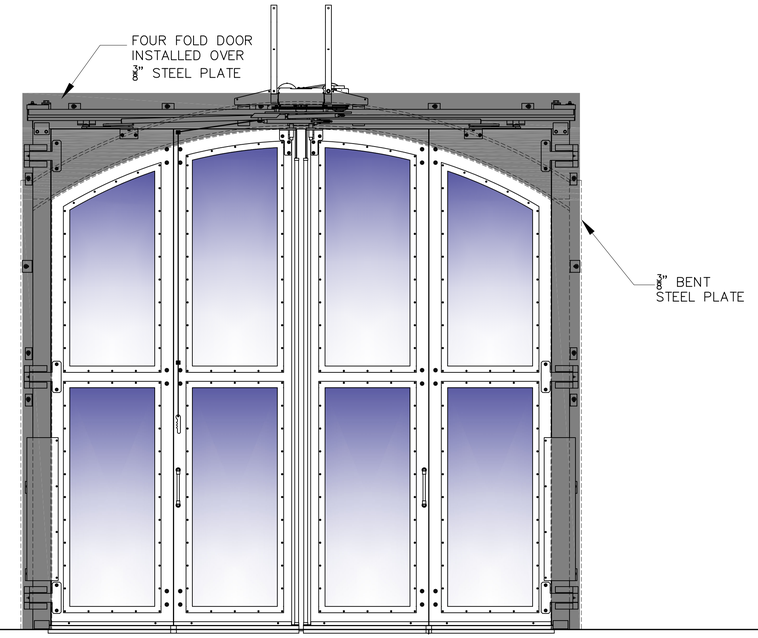
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	LR/KS	18142
	CHECKED BY	DATE
	RV	11/30/2022

DRAWING NUMBER
A502

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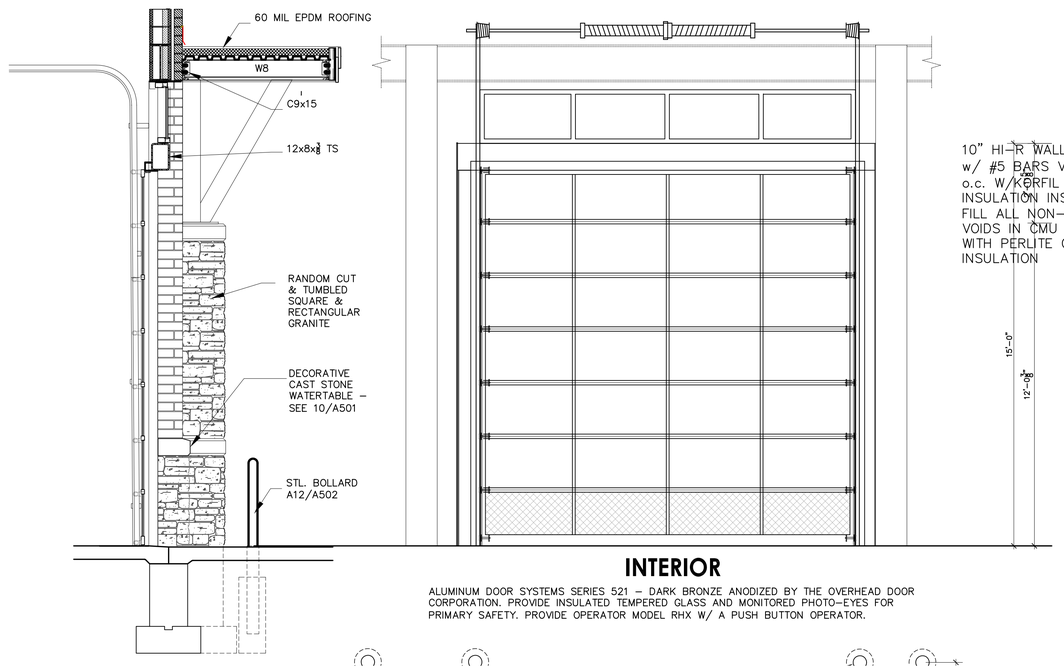


INTERIOR



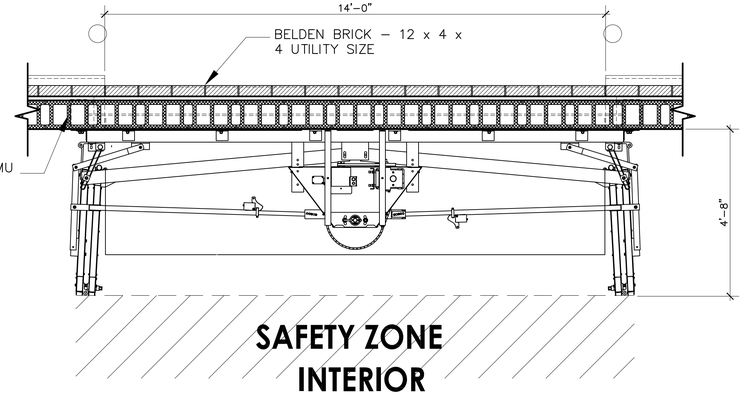
INTERIOR

FOUR FOLD FIRE STATION DOORS BY DOOR ENGINEERING – A SENNECA COMPANY. PROVIDE INSULATED TEMPERED GLASS.
See specifications

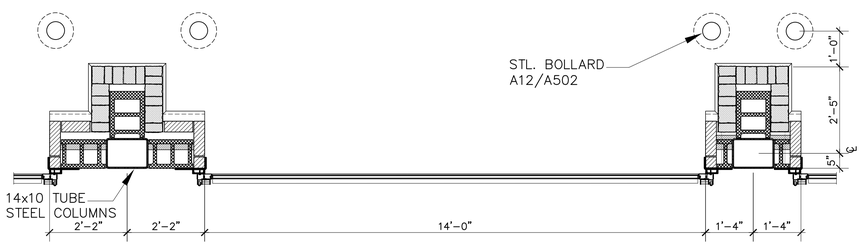


INTERIOR

ALUMINUM DOOR SYSTEMS SERIES 521 – DARK BRONZE ANODIZED BY THE OVERHEAD DOOR CORPORATION. PROVIDE INSULATED TEMPERED GLASS AND MONITORED PHOTO-EYES FOR PRIMARY SAFETY. PROVIDE OPERATOR MODEL RHX W/ A PUSH BUTTON OPERATOR.



SAFETY ZONE
INTERIOR



PARATUS BAY REAR O.H. DOORS

NOTES

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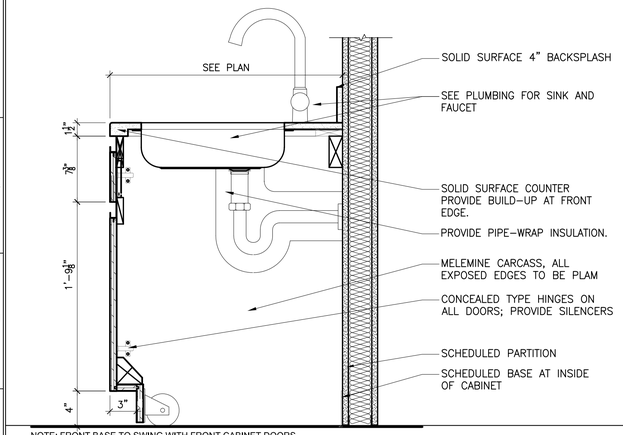
DRAWING
DETAILS

SEAL

DRAWN BY	PROJECT NUMBER
LR/KS	18142
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RV	11/30/2022

DRAWING NUMBER
A503

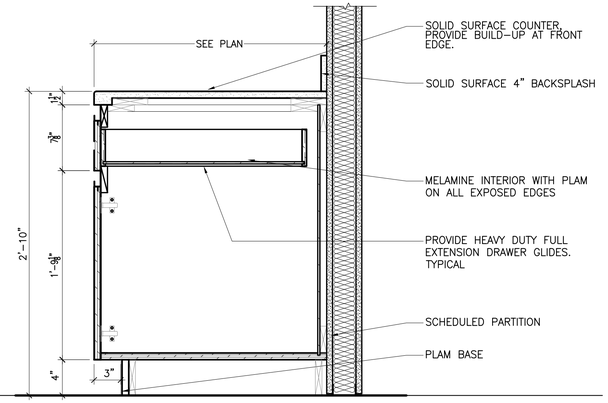
FILE P:\2000\JOB # - JOB NAME\



NOTE: FRONT BASE TO SWING WITH FRONT CABINET DOORS.

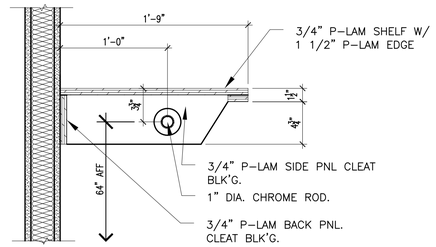
5 SINK BASE CABINET

1 1/2" = 1'-0"



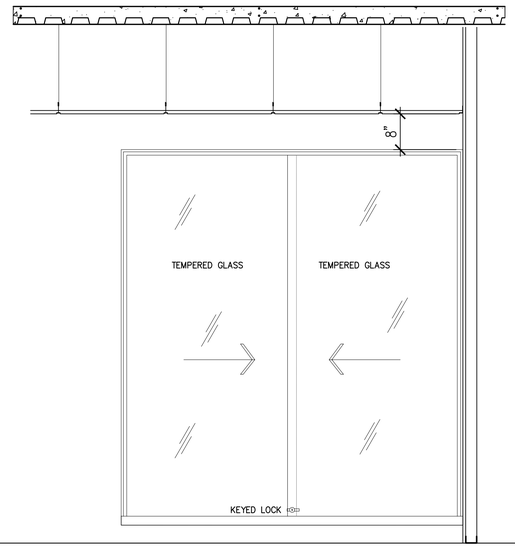
4 BASE CABINET WITH DRAWER

1 1/2" = 1'-0"

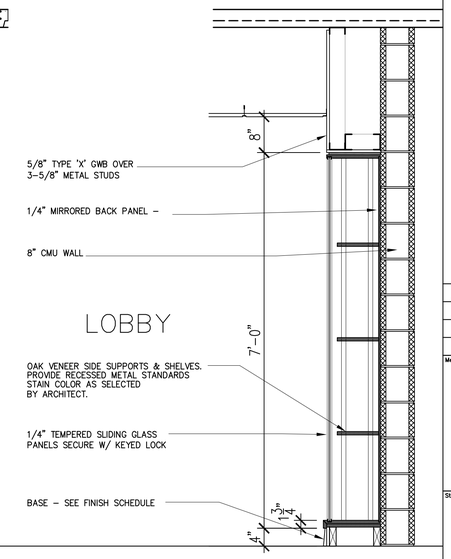


3 CLOSET ROD AND SHELF

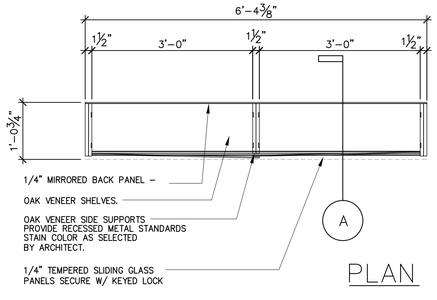
1 1/2" = 1'-0"



ELEVATION



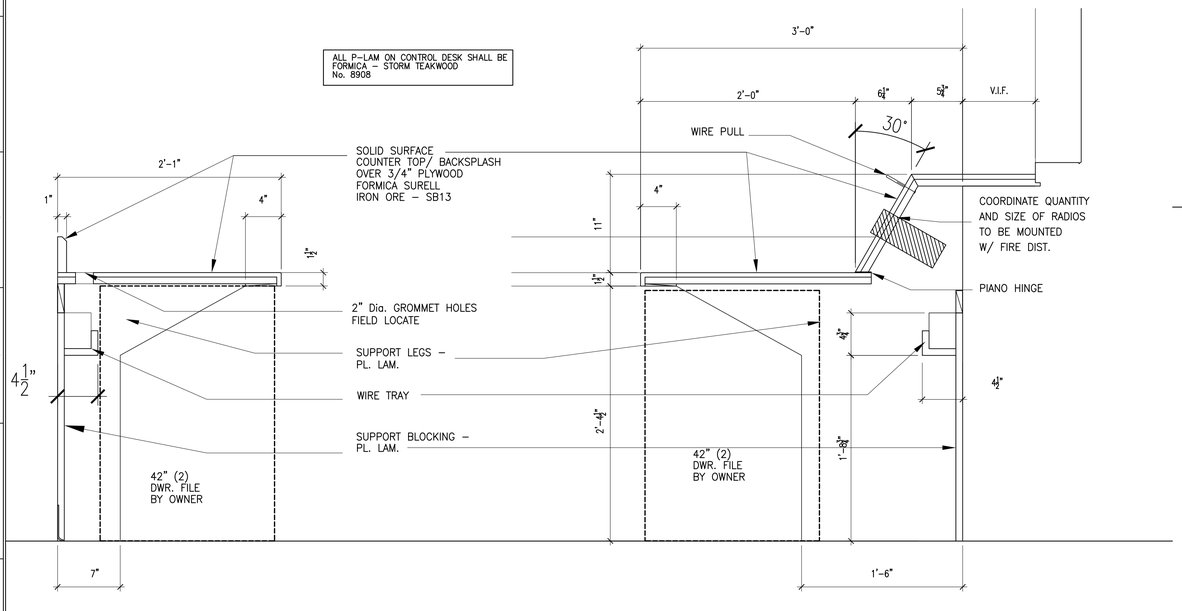
SECTION A



PLAN

1 LOBBY TROPHY CASE - MILLWORK

1 1/2" = 1'-0"



2 RADIO ROOM 101 - MILLWORK

1 1/2" = 1'-0"

NOTES

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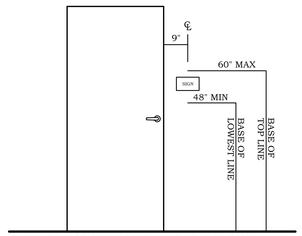
DRAWING
DETAILS

SEAL

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LR/KS	18142
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RV	11/30/2022

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A504

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1. ALL SIGNAGE SHALL COMPLY WITH THE UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS) AND AMERICANS WITH DISABILITIES ACCESSIBILITY GUIDELINES (ADAG). SIGNAGE BY OTHERS

ADA SIGNAGE MOUNTING LOCATION





INSTALL ABOVE EACH FIRE EXTINGUISHER



REQUIRED SIGNAGE

TRUSS SIGN FOR ENTRY DOORS



TRUSS SIGN REQUIREMENTS

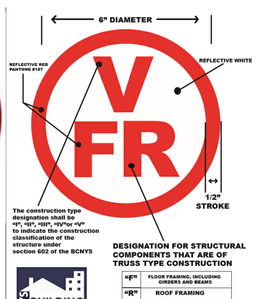
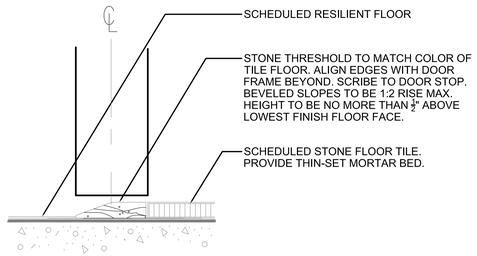


TABLE I-1264
TRUSS IDENTIFICATION SIGN LOCATIONS

Sign Location	Sign Placement
Exterior building entrance doors, exterior exit discharge doors, and exterior roof access doors to a stairway	Attached to the door, or attached to a sidelight or the face of the building, not more than 12 inches (305 mm) horizontally from the latch side of the door jamb, and not less than 42 inches (1067 mm) nor more than 60 inches (1524 mm) above the adjoining walking surface.
Multiple contiguous exterior building entrance or exit discharge doors	Attached at each end of the row of doors and at a maximum horizontal distance of 12 feet (3.65M) between signs, and not less than 42 inches (1067 mm) nor more than 60 inches (1524 mm) above the adjoining walking surface



1 TILE TO RESILIENT FLOOR TRANSITION

3" = 1'-0"

FINISH SCHEDULE

SYMBOL	ITEM	MANUFACTURER	No.	NAME	REMARKS
ACT-1	ACOUSTIC CEILING TILE	USG	808	SANDRIFT CLIMA-PLUS	2X2
PT-1	PORCELAIN TILE	DALTILE	AM34	JET SETTER DUSK	UNPOLISHED 12 x 24 TILE (FLOOR)
PT-2	PORCELAIN TILE	DALTILE	RM90	RIVER RAPIDS	POLISHED 6 x 24 FIELD (WALL)
PB-1	PORCELAIN BASE	DALTILE	S-43C9	RIVER RAPIDS	3 x 12 BULLNOSE (MATCH WALL TILE)
CG-1	CORNER GUARD	CONSTRUCTION SPECIALTIES	SM-20N	#262 DRIFTWOOD	FULL HEIGHT
P-1	PAINT	SHERWIN WILLIAMS	SW 7056	RESERVED WHITE	EGG SHELL, GENERAL WALL COLOR
P-2	PAINT	SHERWIN WILLIAMS	SW 7017	DORIAN GRAY	SEMI GLOSS, HM DOOR & FRAMES
P-3	PAINT	SHERWIN WILLIAMS	SW 7007	CEILING BRIGHT WHITE	FLAT, SOFFITS & GYP. BD. CEILINGS
P-4	PAINT	SHERWIN WILLIAMS	SW 7068	GRIZZLE GRAY	SEMI GLOSS, PIPE RAILINGS/STRINGERS
P-5	FLEK PAINT	ZOLATONE	POLOMYX	PWQ-28235	WALL UP TO 6'-8"
P-6	FLEK PAINT	ZOLATONE	POLOMYX	PLX-01060	WALL FROM 6'-8" TO CEILING
PL-1	PLASTIC LAMINATE	FORMICA	No. 8842	WEATHERED ASH	BASE CABINETS
RF-1	RUBBER FLOORING	NORA BY INTERFACE	ART. 3167	5505 CONCRETE	NORAMENT PADO 39.53" x 39.53"
RF-2	RUBBER FLOORING	NORA BY INTERFACE	ART. 3167	5355 PALAZZO	NORAMENT CASTELLO 39.53" x 39.53"
RF-3	RUBBER FLOORING	NORA BY INTERFACE	ART. 3167	5356 DOMUS	NORAMENT CASTELLO 39.53" x 39.53"
RF-4	RUBBER FLOORING	NORA BY INTERFACE	ART. 1880	5109 ORION	NORAMENT SATURA 39.53" x 39.53"
RB-1	RUBBER BASE	NORA BY INTERFACE	ART. 820	6286 GUNSMOKE	WALL BASE ~4"
SS-1	SOLID SURFACE	SILESTONE	MYTHOLOGY	BLANCO NORTE14	RESTROOM C-TOPS, 3/4" THK MINIMUM

FINISH SCHEDULE NOTES:

1. SUSPENSION SYSTEM FOR ACT CEILINGS TO BE USG DX EXPOSED TEE GRID, IN WHITE.
2. PROVIDE & INSTALL TRANSITION STRIP @ LOCATIONS OF FLOOR MATERIAL CHANGES, CONCRETE/EPOXY TO RF, ETC..
3. SEE MILLWORK DETAILS & INTERIOR ELEVATIONS FOR PLASTIC LAMINATE ASSIGNMENT.
4. ALL CONCRETE FLOORS TO BE SEALED, COORD W/ FINISH MANUF. REQ'S.
5. PROVIDE & INSTALL MARBLE ADA THRESHOLD @ TOILET ROOM LOCATIONS WITH FLOOR TRANSITIONS TO PT-1
6. PROVIDE SCHLUTTER TILE ACCESSORY TRIMS FOR INSIDE AND OUTSIDE TILE INTERSECTIONS AS REQUIRED FOR A FINISHED INSTALLATION

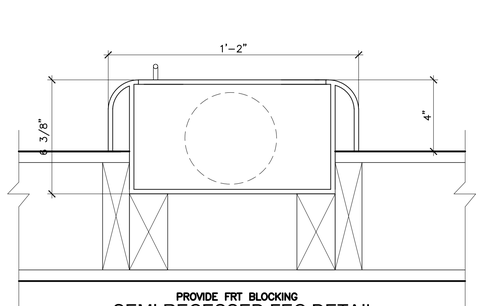
FINISH LEGEND:

ACT = ACOUSTICAL CEILING TILE
ALUM = ALUMINUM
C = CARPET TILE
CMU = CONCRETE MASONRY UNIT
CT = CERAMIC TILE
GL = GLASS
GWB = GYPSUM WALL BOARD
H.M. = HOLLOW METAL
IMP = INSULATED METAL PANEL
M = WALK-OFF MAT
MFR = MANUFACTURER
P = PAINT
S = CONCRETE SEALER
UNFIN = UNFINISHED
VCT = VINYL COMPOSITION TILE
WAB = WET AREA BACKING BOARD
WD = WOOD

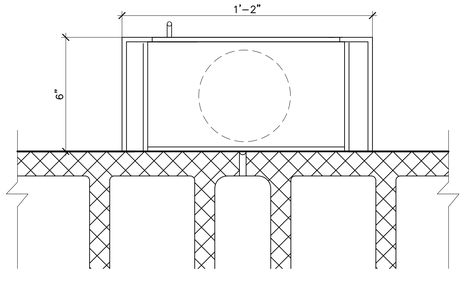
ROOM FINISH SCHEDULE

LOCATION		FLOOR			WALL		CEILING			
NUMBER	ROOM	MATERIAL	FINISH	BASE	MATERIAL	FINISH	MATERIAL	FINISH	HEIGHT	REMARKS
100	LOBBY	CONC.	RF-1	RB-1	GWB	P-1	ACT-1/GYP BD	MFR/P-3	9'-0"&8'-0"	
101	RADIO ROOM	CONC.	RF-1	RB-1	GWB	P-1	ACT-1	MFR	8'-0"	
102	OFFICE	CONC.	RF-1	RB-1	GWB	P-1	ACT-1	MFR	9'-0"	
103	DAY ROOM	CONC.	RF-2, RF-3	RB-1	GWB	P-1	ACT-1	MFR	9'-0"	
104	KITCHEN	CONC.	RF-2, RF-3	RB-1	GWB	P-1	ACT-1	MFR	9'-0"	
105	HALLWAY 1	CONC.	RF-3	RB-1	GWB	P-1	ACT-1	MFR	9'-0"	
106	MEETING/TRAINING ROOM	CONC.	RF-4	RB-1	GWB	P-1	ACT-1	MFR	9'-0"	
107	CLEAN ROOM	CONC.	SEALED CONC.	–	CMU	P-5,P-6	ACT-1, GYP BD	MFR	8'-0"	SEE FINISH SCHEDULE NOTE #4 WATER RESISTANT GYP BD AT SHOWER CEILING
108	LAUNDRY ROOM	CONC.	SEALED CONC.	–	CMU	P-5,P-6	ACT-1	MFR	8'-0"	
109	HALLWAY 2	CONC.	SEALED CONC.	–	CMU	P-5,P-6	GYP BD	P-3	9'-0"	
110	TOILET	CONC.	SEALED CONC.	–	CMU	P-5,P-6	ACT-1	MFR	8'-0"	
111	UTILITY	CONC.	SEALED CONC.	–	CMU	P-5,P-6	ACT-1	MFR	8'-0"	
112	GEAR ROOM	CONC.	SEALED CONC.	–	CMU	P-5,P-6	OPEN, STL DECK	P-3	9'-8"	
113	APPARATUS BAY	CONC.	SEALED CONC.	–	CMU	P-5,P-6	GYP BD	P-3	20'-0"	
114	VENDOR DELIVERY/PICK-UP	CONC.	SEALED CONC.	–	CMU	P-5,P-6	ACT-1	MFR	9'-0"	
115	MECHANICAL ROOM	CONC.	SEALED CONC.	–	CMU	P-5,P-6	GYP BD	MFR	12'-0"	
116	STORAGE	CONC.	SEALED CONC.	–	CMU	P-5,P-6	GYP BD	MFR	12'-0"	
117	ELECTRICAL ROOM	CONC.	SEALED CONC.	–	CMU	P-5,P-6	GYP BD	MFR	12'-0"	
118	STORAGE	CONC.	SEALED CONC.	–	CMU	P-5,P-6	ACT-1	MFR	8'-0"	SEE FINISH SCHEDULE NOTE #4
119	CLOSET	CONC.	RF-2	RB-1	GWB	P-1	ACT-1	MFR	9'-0"	
120	STORAGE	CONC.	RF-2	RB-1	GWB	P-1	ACT-1	MFR	9'-0"	
121	TOILET	CONC.	PT-1	PB-1	GWB	P-1	ACT-1, GYP BD	MFR	9'-0"	WATER RESISTANT GYP BD AT SHOWER AREA
122	TOILET	CONC.	PT-1	PB-1	GWB	P-1	ACT-1, GYP BD	MFR	9'-0"	WATER RESISTANT GYP BD AT SHOWER AREA
123	CLOSET	CONC.	RF-2	RB-1	GWB	P-1	ACT-1	MFR	9'-0"	
124	CLOSET	CONC.	RF-2	RB-1	GWB	P-1	ACT-1	MFR	9'-0"	
125	CLOSET	CONC.	RF-1	RB-1	GWB	P-1	GYP BD	P-3	9'-0"	
126	CLOSET	CONC.	RF-1	RB-1	GWB	P-1	GYP BD	P-3	9'-0"	
200	MEZZANINE	CONC.	SEALED CONC.	–	CMU	P-6	GYP BD	P-3	10'-0"	SEE FINISH SCHEDULE NOTE #4
201	STORAGE	CONC.	SEALED CONC.	–	CMU	P-6	ACT-1	MFR	9'-0"	SEE FINISH SCHEDULE NOTE #4

SEMI RECESSED FIRE EXTINGUISHER CABINET MODEL TO BE JL INDUSTRIES AMBASSADOR MODEL 1017-F-10. FIRE EXTINGUSHER TO BE SENTINAL 5 OR EQUAL.



1 SEMI RECESSED FEC DETAIL
1 1/2" = 1'-0"



2 SURFACE MTD FEC DETAIL
1 1/2" = 1'-0"

NEW SURFACE MTD FIRE EXTINGUISHER CABINET MODEL TO BE JL INDUSTRIES AMBASSADOR MODEL 1013-F-10. FIRE EXTINGUSHER TO BE SENTINAL 5 OR EQUAL.

NOTES

No.	REVISION/SUBMISSION	DATE
3		
2		
1		

Mechanical/Electrical/Plumbing Engineer
GERARD ASSOCIATES
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ARCHITECTURE PLANNING INTERIORS
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POUGHKEEPSIE, NEW YORK 12601
PHONE 845-452-2268 FAX 845-452-3752

PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING
SCHEDULES

SEAL

DRAWN BY	PROJECT NUMBER
LR/KS	18142
CHECKED BY	DATE
RV	11/30/2022

DRAWING NUMBER
A600

FILE P:\2000\JOB # - JOB NAME\

STOREFRONT NOTES:

1) DOORS INDICATED ON DRAWINGS SHALL BE SERIES 350 W/ PANELINE EXIT DEVICE AS MANUFACTURED BY KAWNEER COMPANY, INC. STOREFRONT DOOR AND WINDOW FRAMING INDICATED ON DRAWINGS SHALL BE TRIFAB 601 AS MANUFACTURED BY KAWNEER COMPANY, INC. THE FRAME MEMBERS SHALL HAVE A NOMINAL FACE DIMENSION OF 2" OVERALL DEPTH SHALL BE 6". ALL STOREFRONT TO RECEIVE A DARK ANODIZED BRONZE FINISH #40.

2) ALL EXTERIOR STOREFRONT DOORS TO HAVE LOCKING MECHANISMS OPERATED BY AN ELECTRONIC KEYPAD ACCESS CONTROL SYSTEM. COORDINATE WITH THE FIRE DEPARTMENT.

3) ALL HINGES, LOCKS, LATCHES, EXIT DEVICES, CLOSERS, STOPS, HOLDERS, THRESHOLDS, PUSH PULLS, ETC. SHALL BE AS REQUIRED TO MAKE A COMPLETE AND SECURE INSTALLATION.

4) EXTERIOR GLAZING SHALL BE 1" INSULATED LOW-E GLASS.

DOOR NOTES:

1) SEE FLOOR PLANS FOR SWING DIRECTION OF HINGED DOORS.

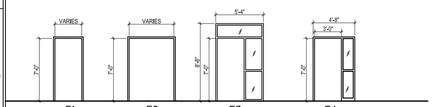
2) ALL S.C. WOOD DOORS ARE TO BE MANUFACTURED BY MOHAWK OR EQUAL. WOOD SPECIES TO BE PLAIN SLICED CHERRY, COLOR TO BE PREFINISHED BROWN.

DOOR AND FRAME SCHEDULE

LOCATION		DOOR						FRAME			FIRE RATING LABEL	HARD WARE SET NO	NOTES
MARK	ROOM	SIZE WD	SIZE HGT	SIZE THK	TYPE	MATL	FINISH	TYPE	MATL	FINISH			
1	GEAR ROOM 112	3'-0"	7'-0"	1 3/4"	D1	SC WD	STAIN	F1	HM	P-3	1 HR	15	--
2	DAY ROOM 103	3'-0"	7'-0"	1 3/4"	D2	SC WD	STAIN	F1	HM	P-3	--	15	--
3	CLOSET 124	5'-0"	7'-0"	1 3/4"	D6	SC WD	STAIN	F2	HM	P-3	--	12	--
4	CLOSET 125	4'-0"	7'-0"	1 3/4"	D6	SC WD	STAIN	F2	HM	P-3	--	12	--
5	CLOSET 126	4'-0"	7'-0"	1 3/4"	D6	SC WD	STAIN	F2	HM	P-3	--	12	--
6	CLOSET 123	5'-0"	7'-0"	1 3/4"	D6	SC WD	STAIN	F2	HM	P-3	1 HR	12	--
7	TOILET 110	3'-0"	7'-0"	1 3/4"	D1	HM	PAINT	F1	HM	P-3	--	11	--
8	UTILITY 111	3'-0"	7'-0"	1 3/4"	D1	HM	PAINT	F1	HM	P-3	--	13	--
9	HALLWAY 2	3'-0"	7'-0"	1 3/4"	D2	SC WD	STAIN	F1	HM	P-3	1 HR	5	--
10	LAUNDRY ROOM 108	3'-0"	7'-0"	1 3/4"	D1	HM	PAINT	F1	HM	P-3	--	13	--
11	LAUNDRY ROOM 108	3'-0"	7'-0"	1 3/4"	D1	HM	PAINT	F1	HM	P-3	--	15	--
12	CLOSET 118	6'-0"	7'-0"	1 3/4"	D6	HM	PAINT	F2	HM	P-3	--	12	--
13	HALLWAY 1	3'-0"	7'-0"	1 3/4"	D2	SC WD	STAIN	F1	HM	P-3	--	15	--
14	STORAGE 120	6'-0"	7'-0"	1 3/4"	D6	SC WD	STAIN	F2	HM	P-3	--	12	--
15	TOILET 121	3'-0"	7'-0"	1 3/4"	D1	SC WD	STAIN	F1	HM	P-3	--	11	--
16	TOILET 122	3'-0"	7'-0"	1 3/4"	D3	SC WD	STAIN	F1	HM	P-3	--	11	--
17	HALLWAY 1	3'-0"	7'-0"	1 3/4"	D4	ALUM	MANF	F1	HM	P-3	--	1	EXTERIOR DOOR
18	MEETING/TRAINING ROOM 106	3'-0"	7'-0"	1 3/4"	D4	HM	PAINT	F1	HM	P-3	--	2	EXTERIOR DOOR
19	CLEAN ROOM 107	3'-0"	7'-0"	1 3/4"	D4	HM	PAINT	F1	HM	P-3	--	3	EXTERIOR DOOR
20	CLEAN ROOM 107	3'-0"	7'-0"	1 3/4"	D1	HM	PAINT	F1	HM	P-3	--	15	--
21	APPARATUS BAY 113	14'-0"	14'-0"	2"	OD2	ALUM	MANF	F5	--	MANF	--	16	EXTERIOR FOURFOLD DOOR
22	APPARATUS BAY 113	14'-0"	14'-0"	2"	OD2	ALUM	MANF	F5	--	MANF	--	16	EXTERIOR FOURFOLD DOOR
23	APPARATUS BAY 113	14'-0"	14'-0"	2"	OD2	ALUM	MANF	F5	--	MANF	--	16	EXTERIOR FOURFOLD DOOR
24	APPARATUS BAY 113	14'-0"	14'-0"	2"	OD2	ALUM	MANF	F5	--	MANF	--	16	EXTERIOR FOURFOLD DOOR
25	STORAGE 116	6'-0"	7'-0"	1 3/4"	D6	HM	PAINT	F2	HM	P-3	--	6	--
26	MECHANICAL ROOM 115	6'-0"	7'-0"	1 3/4"	D6	HM	PAINT	F2	HM	P-3	--	6	--
27	ELECTRICAL 117	3'-0"	7'-0"	1 3/4"	D4	HM	PAINT	F1	HM	P-3	--	16	--
28	VENDOR DELIVERY/PICK-UP 114	3'-8"	7'-0"	1 3/4"	D4	HM	PAINT	F1	HM	P-3	--	9	--
29	VENDOR DELIVERY/PICK-UP 114	3'-8"	7'-0"	1 3/4"	D1	HM	PAINT	F1	HM	P-3	--	4	EXTERIOR DOOR
30	APPARATUS BAY 113	14'-0"	14'-0"	2"	OD1	ALUM	MANF	F6	--	MANF	--	16	EXTERIOR OVERHEAD DOOR
31	APPARATUS BAY 113	14'-0"	14'-0"	2"	OD1	ALUM	MANF	F6	--	MANF	--	16	EXTERIOR OVERHEAD DOOR
32	APPARATUS BAY 113	14'-0"	14'-0"	2"	OD1	ALUM	MANF	F6	--	MANF	--	16	EXTERIOR OVERHEAD DOOR
33	APPARATUS BAY 113	14'-0"	14'-0"	2"	OD1	ALUM	MANF	F6	--	MANF	--	16	EXTERIOR OVERHEAD DOOR
34	CLOSET 119	3'-0"	7'-0"	1 3/4"	D1	SC WD	STAIN	F1	HM	P-3	--	14	
35	LOBBY 100	3'-0"	7'-0"	1 3/4"	D3	ALUM/GL	MANF	F3	ALUM	MANF		1	EXTERIOR STOREFRONT DOOR
36	RADIO ROOM 101	3'-0"	7'-0"	1 3/4"	D2	SC WD	HM	F3	HM	P-3		13	STOREFRONT
37	LOBBY 100	3'-0"	7'-0"	1 3/4"	D2	SC WD	HM	F3	HM	P-3	1 HR	5	STOREFRONT
38	OFFICE 102	3'-0"	7'-0"	1 3/4"	D1	SC WD	STAIN	F4	HM	P-3		7	STOREFRONT
39	DAY ROOM 103	3'-0"	7'-0"	1 3/4"	D1	SC WD	STAIN	F4	HM	P-3		5	STOREFRONT
40	APPARATUS BAY 113	3'-0"	7'-0"	1 3/4"	D3	ALUM/GL	MANF	F3	ALUM	MANF		1	EXTERIOR STOREFRONT DOOR
41	APPARATUS BAY 113	3'-0"	7'-0"	1 3/4"	D3	ALUM/GL	MANF	F3	ALUM	MANF		1	EXTERIOR STOREFRONT DOOR
42	STORAGE 201	3'-0"	7'-0"	1 3/4"	D1	HM	PAINT	F1	HM	P-3		14	MEZZANINE STORAGE
43	MECHANICAL ROOM 201	3'-0"	* 5'-0" CUSTOM	1 3/4"	D1	HM	PAINT	F1	HM	P-3	1 HR	8	* VERIFY HEIGHT IN FIELD - MECHANICAL EQUIPMENT ACCESS DOOR

NOTE: WOOD VENEER DOORS SHALL BE PLAIN SLICED NATURAL MAPLE, STAIN FINISH TO BE SELECTED FROM MANUFACTURER'S SAMPLES

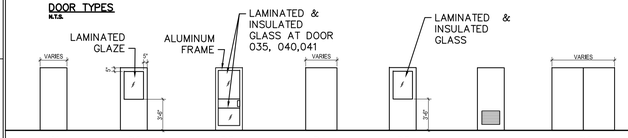
FRAME TYPES
N.T.S.



F1 SINGLE HINGED DOOR FRAME
F2 DOUBLE HINGED DOOR FRAME
F3 SINGLE HINGED STOREFRONT BY KAWNEER
F4 SINGLE HINGED DOOR FRAME w/SIDELIGHT

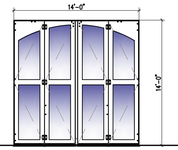
HOLLOW METAL FRAMES:
DRYWALL / STUD PARTITIONS = 2" HEAD
MASONRY PARTITIONS = 4" HEAD

DOOR TYPES
N.T.S.

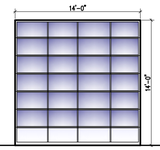


D1 INTERIOR SOLID CORE WOOD DOOR; SINGLE HINGED
D2 INTERIOR SOLID CORE WOOD DOOR W/ LIGHT; SINGLE HINGED
D3 SINGLE HINGED STOREFRONT DOOR BY KAWNEER
D4 EXTERIOR INSULATED METAL DOOR SINGLE HINGED
D5 EXTERIOR INSULATED METAL DOOR W/ LIGHT SINGLE HINGED
D6 INTERIOR METAL DOOR DOUBLE HINGED

NOTE: WOOD VENEER DOORS SHALL BE PLAIN SLICED NATURAL MAPLE, STAIN FINISH TO BE SELECTED FROM MANUFACTURER'S SAMPLES



OD1 FOUR FOLD FIRE STATION DOORS BY DOOR ENGINEERING - A SENNECA COMPANY COLOR: DARK BRONZE



OD2 ALUMINUM DOOR SYSTEMS SERIES 521 - DARK BRONZE ANODIZED BY THE OVERHEAD DOOR CORPORATION. PROVIDE INSULATED TEMPERED GLASS AND MONITORED PHOTO-EYES FOR PRIMARY SAFETY. PROVIDE OPERATOR MODEL RHX W/ A PUSH BUTTON OPERATOR.

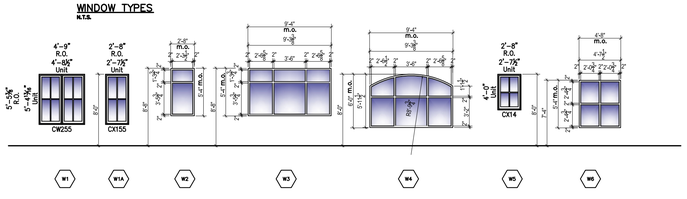
WINDOW SCHEDULE

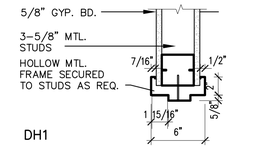
TYPE	ROUGH OPEN.	DESCRIPTION	HEAD HT	FRAME MAT'L	FINISH	GLAZING	MANUFACURER AND MODEL	REMARKS
W-1	4'-9" x 5'-5⅜"	CASEMENT	8'-0" AFF	ALUM CLAD / WD.	MANF/DK BRONZE	LOW E INSULATED	ANDERSON WINDOWS	INTERIOR WOOD FINISH MAPLE
W-1A	2'-8" x 5'-5⅜"	CASEMENT	8'-0" AFF	ALUM CLAD / WD.	MANF/DK BRONZE	LOW E INSULATED	ANDERSON WINDOWS	INTERIOR WOOD FINISH MAPLE
W-2		FIXED	8'-8" AFF	ALUM.	MANF/DK BRONZE	LOW E INSULATED	KAWNEER STOREFRONT	
W-3		FIXED	8'-8" AFF	ALUM.	MANF/DK BRONZE	LOW E INSULATED	KAWNEER STOREFRONT	
W-4		FIXED	8'-0" AFF	ALUM.	MANF/DK BRONZE	LOW E INSULATED	KAWNEER STOREFRONT	
W-5	2'-8" x 4'-0½"	CASEMENT	8'-0" AFF	ALUM CLAD / WD.	MANF/DK BRONZE	LOW E INSULATED	ANDERSON WINDOWS	INTERIOR WOOD FINISH MAPLE
W-6		FIXED	7'-4" AFF	ALUM.	MANF/DK BRONZE	LOW E INSULATED	KAWNEER STOREFRONT	

WINDOW SCHEDULE NOTES:
1. GLASS TO BE TEMPERED.

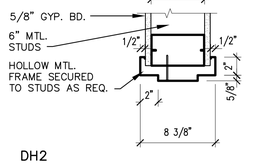
STAIN FINISH TO BE SELECTED FROM MANUFACTURER'S SAMPLES

WINDOW TYPES
N.T.S.

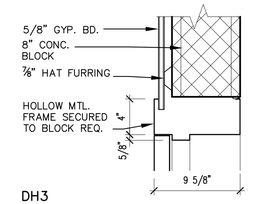




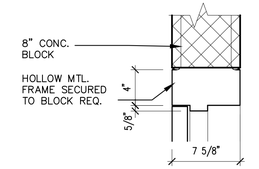
DH1



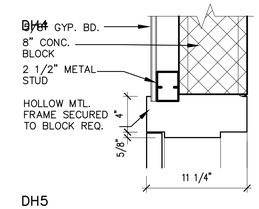
DH2



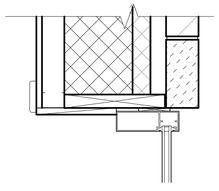
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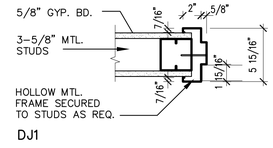
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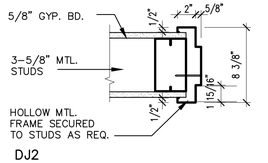
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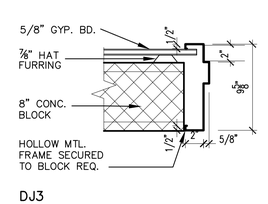
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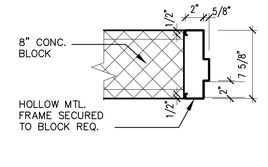
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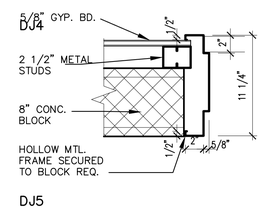
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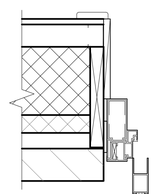
DJ3



DJ4



DJ5



DJ6

NOTES

DOOR SCHEDULE LEGEND:

A.A. ALUM=ALUMINUM
H.M. =HOLLOW METAL
POLY=POLYURETHANE
S.C.WOOD=SOLID CORE WOOD
ST.=STAIN
P. =PAINT
WD=WOOD
GL=GLASS

No.	REVISION/SUBMISSION	DATE
3		
2		
1		

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

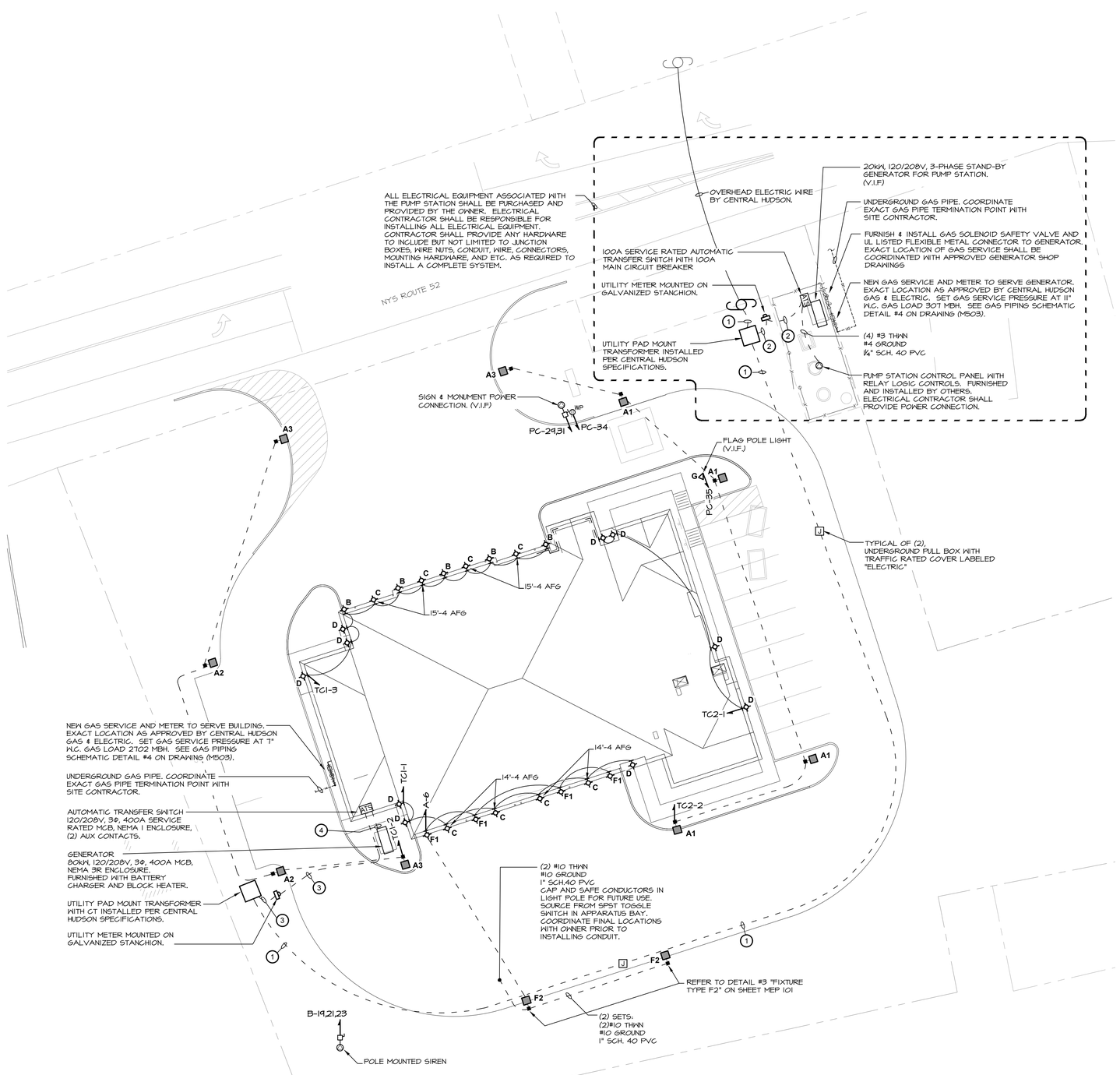
DRAWING
SCHEDULES

SEAL

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LR/KS	18142
CHECKED BY	DATE
RV	11/30/2022

DRAWING NUMBER
A601

FILE P:\2000\JOB # - JOB NAME\



1 MECHANICAL & ELECTRICAL: SITE PLAN
1"=20'-0"

WIRE & CONDUIT SCHEDULE (SERVICE ENTRANCE)			
TAG	FEEDER SIZE	WIRING AND CONDUIT	DESCRIPTION
1	PRIMARY CONDUCTORS	(3) #2 - 15kV ALUMINUM WITH FULL CONCENTRIC NEUTRAL, 4" PVC UNDERGROUND	CABLE SIZE AND TYPE SHALL BE APPROVED BY UTILITY CO.
2	100A, 3-PHASE	(4) #1 THWN ALUMINUM, 2" SCH. 80 PVC, UNDERGROUND	SERVICE ENTRANCE CONDUCTORS
3	400A, 3-PHASE	(4) 500mcm THWN, 3½" SCH. 80 PVC UNDERGROUND	SERVICE ENTRANCE CONDUCTORS
4	400A, 3-PHASE	(4) 500mcm THWN, #3 GROUND, 3" SCH. 40 PVC UNDERGROUND	GENERATOR CONDUCTORS

No.	REVISION/SUBMISSION	DATE

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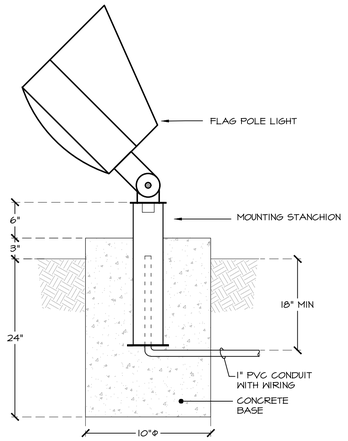
DRAWING
MECHANICAL & ELECTRICAL: SITE PLAN

SEAL

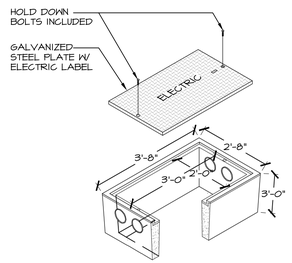
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JT/GH	11-30-22

DRAWING NUMBER
MEP100

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1 FLAG POLE LIGHT DETAIL
NOT TO SCALE



PRODUCT	DESCRIPTION
BOX	REINFORCED CONCRETE W/ THIN WALL KNOCKOUTS
LID	GALVANIZED STEEL CHECKER PLATE W/HOLD DOWN BOLTS WITH ELECTRIC LABEL

2 ELECTRIC MANHOLE DETAIL
NOT TO SCALE

ELECTRICAL FIXTURE SCHEDULE

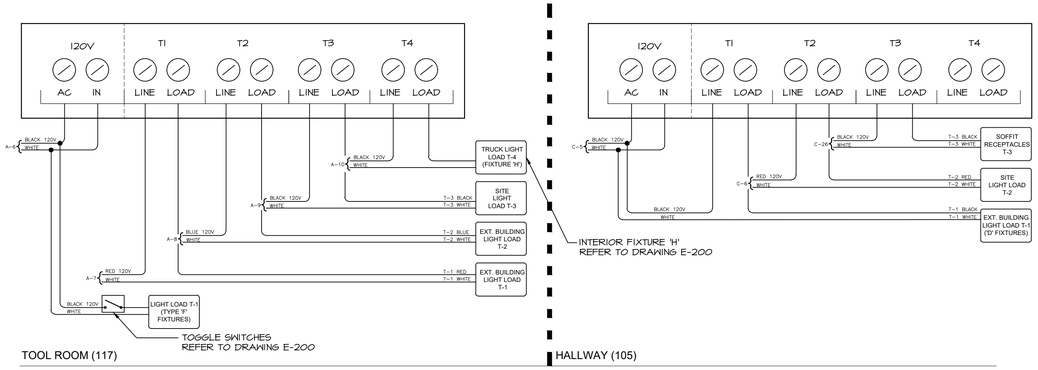
DESIGNATION	FIXTURE MANUFACTURER	CATALOG #	POLE DESIGNATION	SOURCE	LUMENS	WATTS	VOLTAGE	DISTRIBUTION TYPE	DISCRIPTION
A1	ARCHITECTURAL AREA LIGHTING	UCM2-SR-STR-xxx-36L-260-3KT-3-DBS-SLA20-CL-SF-UNV	ARCHITECTURAL AREA LIGHTING RSA-A-10-40-A-xx-DBS	L.E.D.	3409	31.52	120V	III	24"ø ROUND FIXTURE, MOUNTED ON 10'-0", 4" ROUND ALUM. POLE AND 1½" ARM MOUNTED ON TOP OF POLE, 3000°K, DARK BRONZE. REFER TO DETAIL
A2	ARCHITECTURAL AREA LIGHTING	UCM2-SR-STR-xxx-36L-260-3KT-3-DBS-SLA20-CL-HS-SF-UNV	ARCHITECTURAL AREA LIGHTING RSA-A-10-40-A-xx-DBS	L.E.D.	3409	31.52	120V	III	24"ø ROUND FIXTURE WITH BACK LIGHT SHIELD, MOUNTED ON 10'-0", 4" ROUND ALUM. POLE AND 1½" ARM MOUNTED ON TOP OF POLE, 3000°K, DARK BRONZE. REFER TO DETAIL
A3	ARCHITECTURAL AREA LIGHTING	UCM2-SR-STR-xxx-36L-260-3KT-4K-DBS-SLA20-CL-SF-UNV	ARCHITECTURAL AREA LIGHTING RSA-A-10-40-A-xx-DBS	L.E.D.	3449	31.52	120V	IV	24"ø ROUND FIXTURE, MOUNTED ON 10'-0", 4" ROUND ALUM. POLE AND 1½" ARM MOUNTED ON TOP OF POLE, 3000°K, DARK BRONZE. REFER TO DETAIL
B	ARCHITECTURAL AREA LIGHTING	UCM2-SR-STR-xxx-36L-260-3KT-4K-DBS-SF-UNV	NA	L.E.D.	3447	31.52	120V	IV	EXTERIOR WALL MOUNTED FIXTURE, 3000°K, DARK BRONZE, MOUNTED 8'-0" AFG
C	KIM LIGHTING	XDS-D-24L-30-3KT-4M-UNV-DBS	NA	L.E.D.	3267	30	120V	IV	EXTERIOR WALL MOUNTED FIXTURE, 3000°K, DARK BRONZE.
D	PROGRESS LIGHTING	P5846-108	NA	(1) MEDIUM BASE L.E.D. BULBS	800	9	120V	NA	11¾" TALL WALL MOUNTED FIXTURE, OIL RUBBED BRONZE FINISH, 3000°K. SHALL BE POWER THROUGH 250H CENTRAL EMERGENCY BACKUP INVERTER. MOUNTED 8'-0" AFG.
F1	HUBBELL	RFL4-I16L-120 3KT-W-UNV-T-DBS	NA	L.E.D.	14647	120	120V	NA	EXTERIOR WALL MOUNTED FLOOD LIGHT WITH KNUCKLE, 3000°K, DARK BRONZE. MOUNTED 14'-4" AFG.
F2	HUBBELL	RFL4-I16L-120 4KT-W-UNV-K-DBS	ARCHITECTURAL AREA LIGHTING RSA-A-10-40-A-TA-DBS	L.E.D.	14647	120	120V	NA	EXTERIOR POLE MOUNTED FLOOD LIGHT WITH KNUCKLE. MOUNTED ON 10'-0", 4" ROUND ALUM. POLE WITH 2⅜" TENON MOUNT, 4000°K, DARK BRONZE. REFER TO DETAIL.
G	HUBBELL	RFL2-44L-25-4KT -M-UNV-K-DBS	NA	L.E.D.	3203	26	120V	NA	EXTERIOR FLAG POLE LIGHT WITH KNUCKLE. 4000°K, DARK BRONZE. REFER TO DETAIL.

FIXTURES NOTES:

1. ELECTRICAL CONTRACTOR SHALL PROVIDE ADDITIONAL 'F2' TYPE FIXTURE PER OWNER'S REQUEST. CONFIRM QUANTITIES WITH OWNER PRIOR TO ORDERING.

NOTES:

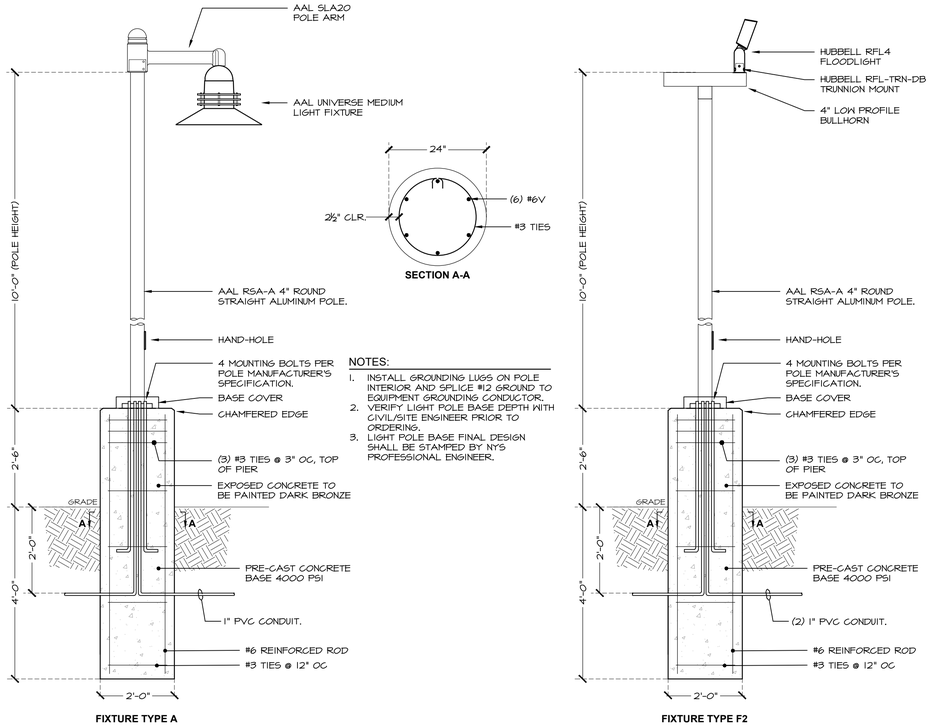
1. CONTRACTOR SHALL VERIFY ALL FIXTURE MOUNTING TYPES, LOCATIONS, AND HEIGHTS IN FIELD.
2. CONTRACTOR SHALL VERIFY ALL FIXTURE FINISH AND COLOR SELECTION WITH ARCHITECT PRIOR TO PURCHASE. FIXTURE FINISH AND COLOR SELECTION SHALL BE FROM MANUFACTURERS FULL RANGE OF STANDARD AND CUSTOM COLORS.



NOTES:

1. ALL FIXTURES SHOWN, WITH THE EXCEPTION OF TYPE F, SHALL BE CONTROLLED THROUGH DIGITAL ASTRONOMICAL TIME CLOCK. TIME CLOCK CONFIGURATION SHALL BE SET BY OWNER.
2. TYPE F FIXTURES SHALL BE CONTROLLED THROUGH MANUAL TOGGLE SWITCH.

3 LIGHTING CONTROL - TIME CLOCK
NOT TO SCALE



NOTES:

1. INSTALL GROUNDING LUGS ON POLE INTERIOR AND SPLICE #2 GROUND TO EQUIPMENT GROUNDING CONDUCTOR.
2. VERIFY LIGHT POLE BASE DEPTH WITH CIVIL/SITE ENGINEER PRIOR TO ORDERING.
3. LIGHT POLE BASE FINAL DESIGN SHALL BE STAMPED BY NYS PROFESSIONAL ENGINEER.

4 POLE MOUNT LIGHT DETAIL
NOT TO SCALE

No.	REVISION/SUBMISSION	DATE

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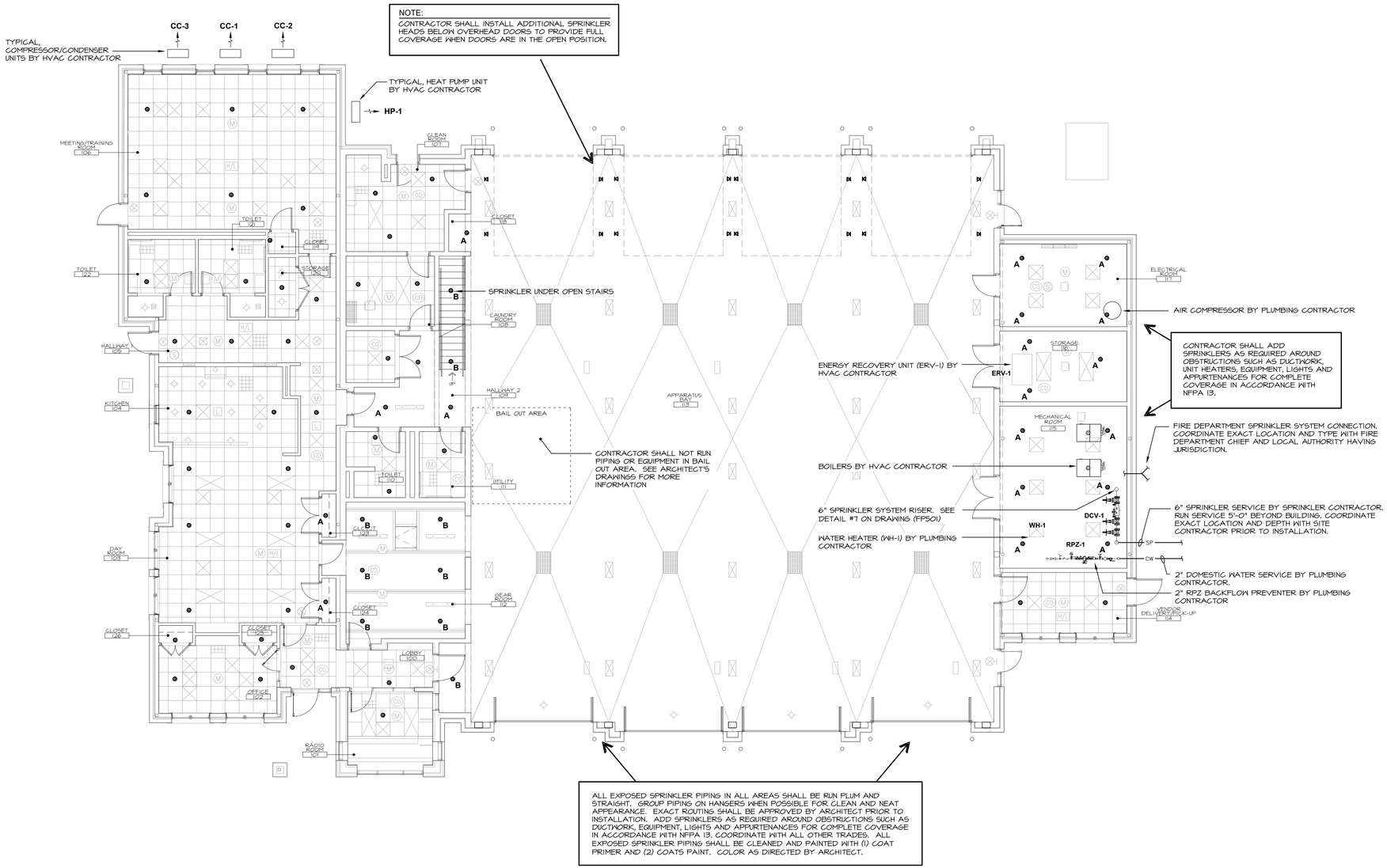
DRAWING
MECHANICAL & ELECTRICAL: SITE PLAN DETAILS

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RL/KC	18142
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1 FIRE PROTECTION: FIRST FLOOR PLAN
1/8" = 1'-0"

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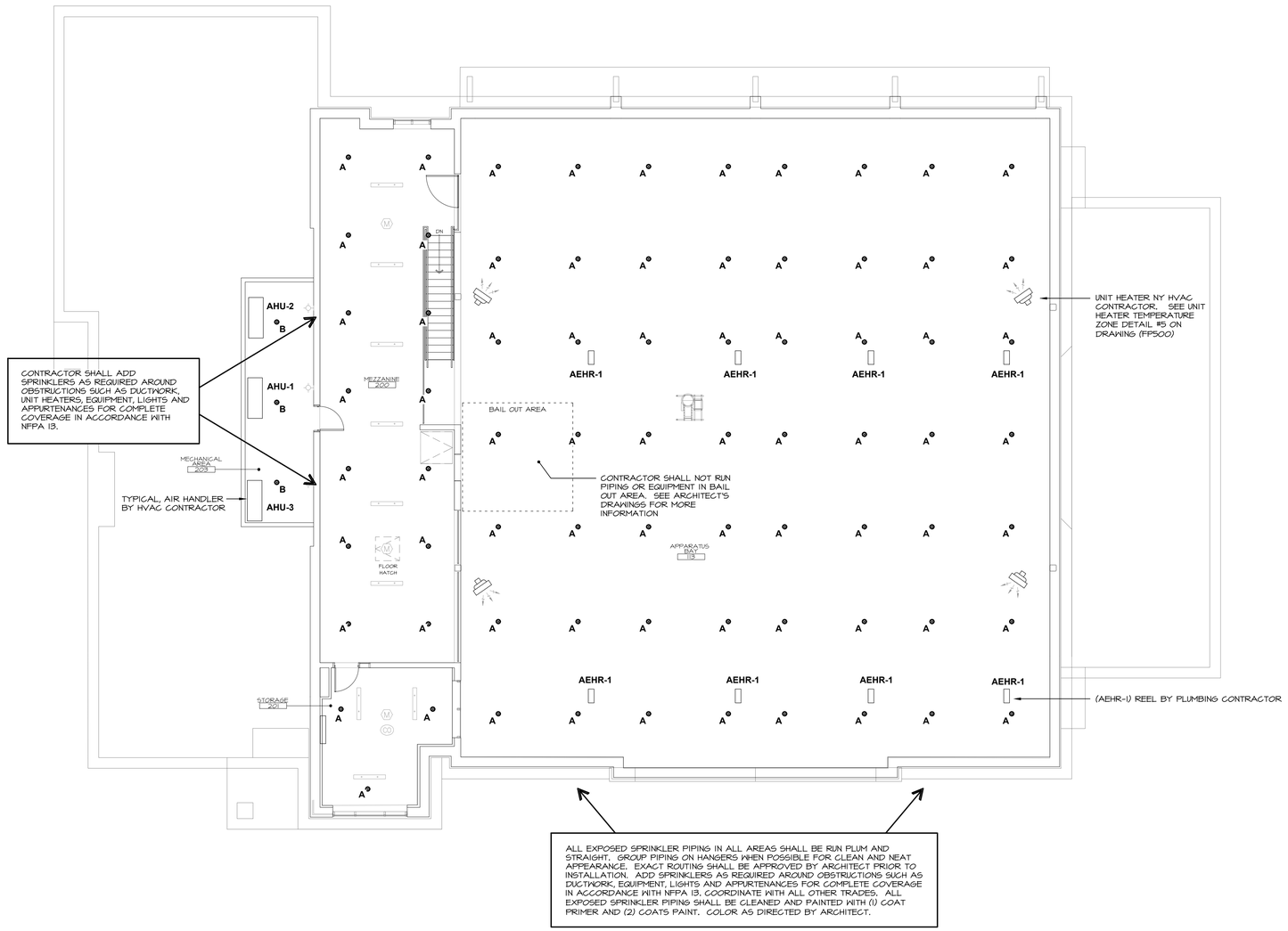
DRAWING
FIRE PROTECTION: PROPOSED FIRST FLOOR PLAN

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
FP100

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1 FIRE PROTECTION: MEZZANINE FLOOR PLAN
1/8" = 1'-0"

No.	REVISION/SUBMISSION	DATE

Mechanical/Electrical/Plumbing Engineer

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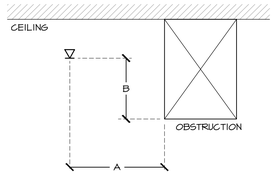
DRAWING
FIRE PROTECTION:
PROPOSED MEZZANINE

SEAL

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RL/KG	18142
CHECKED BY	DATE
JT/GH	11-30-22

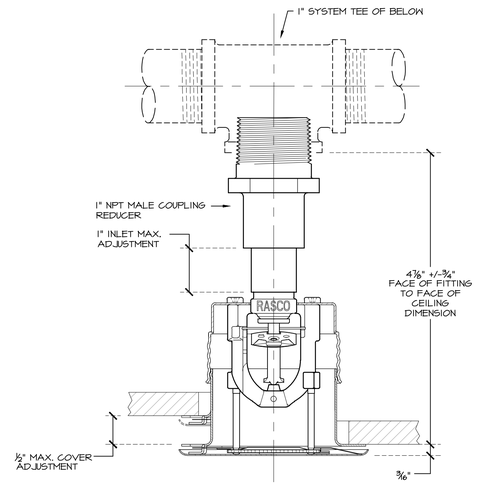
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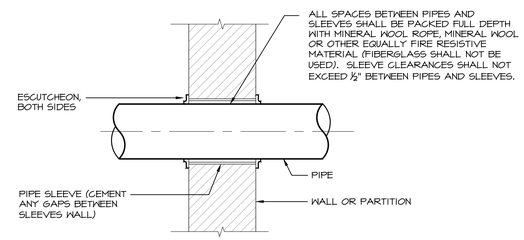


POSITIONING OF SPRINKLERS	
DISTANCE FROM SPRINKLERS TO SIDE OF OBSTRUCTION (A)	MAXIMUM ALLOWABLE DISTANCE OF DEFLECTOR ABOVE BOTTOM OF OBSTRUCTION (IN) (B)
LESS THAN 1 FT.	0
1 FT. TO LESS THAN 1 FT. 6 IN.	2½"
1' FT. 6 IN. TO LESS THAN 2 FT.	3⅛"
2 FT. TO LESS THAN 2 FT. 6 IN.	5½"
2 FT. 6 IN. TO LESS THAN 3 FT.	7½"
3 FT. TO LESS THAN 3 FT. 6 IN.	9½"
3 FT. 6 IN. TO LESS THAN 4 FT.	12
4 FT. TO LESS THAN 4 FT. 6 IN.	14
4 FT. 6 IN. TO LESS THAN 5 FT.	16½"
5 FT. TO LESS THAN 5 FT. 6 IN.	18
5 FT. 6 IN. TO LESS THAN 6 FT.	20
6 FT. TO LESS THAN 6 FT. 6 IN.	24
6 FT. 6 IN. TO LESS THAN 7 FT.	30
7 FT. TO LESS THAN 7 FT. 6 IN.	35

1 SPRINKLER HEAD HORIZONTAL OBSTRUCTION CHART
NOT TO SCALE



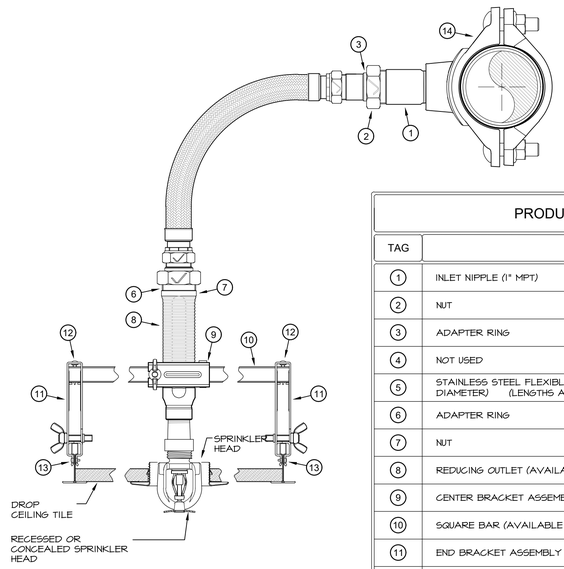
2 CONCEALED SPRINKLER HEAD DETAIL
NOT TO SCALE



NOTE:

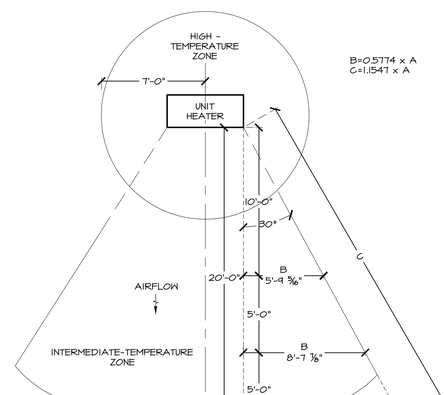
THIS DETAIL ALSO APPLICABLE TO INTERIOR NON-WATER PROOF FLOOR CONSTRUCTION. FOR WATER PROOF FLOOR CONSTRUCTION AND OTHER CONSTRUCTION - SEE SPECIFICATIONS.

3 FIRE RATED PARTITION AND WALL PENETRATION DETAIL
NOT TO SCALE

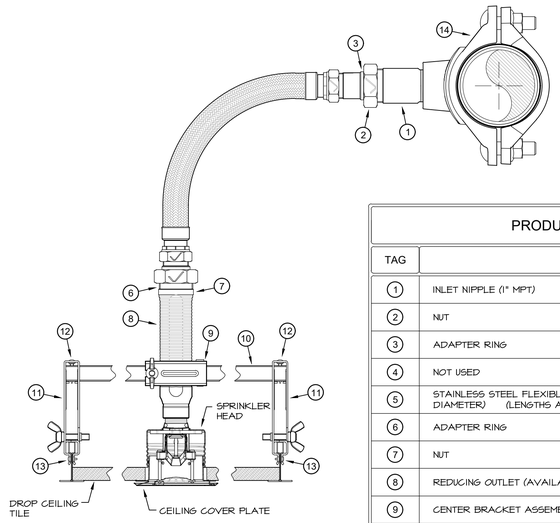


PRODUCT LEGEND	
TAG	DESCRIPTION
1	INLET NIPPLE (1" MPT)
2	NUT
3	ADAPTER RING
4	NOT USED
5	STAINLESS STEEL FLEXIBLE UNBRAIDED HOSE (1/8" NOMINAL DIAMETER) (LENGTHS AVAILABLE 31", 36", 48", 60", & 72")
6	ADAPTER RING
7	NUT
8	REDUCING OUTLET (AVAILABLE 1/2" OR 3/4" FMPT)
9	CENTER BRACKET ASSEMBLY
10	SQUARE BAR (AVAILABLE IN 24" AND 48" LENGTHS)
11	END BRACKET ASSEMBLY
12	SHEET METAL SCREW
13	#8 X 1/2-INCH SELF-TAPPING SCREW
14	MECHANICAL-T OUTLET

4 TYPICAL FLEXIBLE HOSE SPRINKLER ASSEMBLIES FOR PENDANT HEADS
NOT TO SCALE

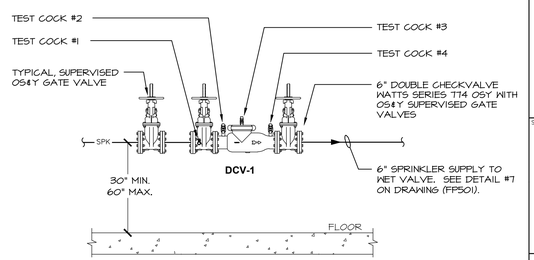


5 SPRINKLER TEMPERATURE ZONES AT UNIT HEATERS
NOT TO SCALE



PRODUCT LEGEND	
TAG	DESCRIPTION
1	INLET NIPPLE (1" MPT)
2	NUT
3	ADAPTER RING
4	NOT USED
5	STAINLESS STEEL FLEXIBLE UNBRAIDED HOSE (1/8" NOMINAL DIAMETER) (LENGTHS AVAILABLE 31", 36", 48", 60", & 72")
6	ADAPTER RING
7	NUT
8	REDUCING OUTLET (AVAILABLE 1/2" OR 3/4" FMPT)
9	CENTER BRACKET ASSEMBLY
10	SQUARE BAR (AVAILABLE IN 24" AND 48" LENGTHS)
11	END BRACKET ASSEMBLY
12	SHEET METAL SCREW
13	#8 X 1/2-INCH SELF-TAPPING SCREW
14	MECHANICAL-T OUTLET

6 TYPICAL FLEXIBLE HOSE SPRINKLER ASSEMBLIES FOR CONCEALED PENDANT SPRINKLERS
NOT TO SCALE



NOTE:

SUPPORT PIPING AND DOUBLE CHECK VALVE BACKFLOW PREVENTER OFF FLOOR WITH PIPE STANCHIONS AND ANCHOR TO FLOOR.

REQUIRED CLEARANCES (DOUBLE CHECKVALVE)

1. FRONT OF CHECKVALVE (2'-6") MINIMUM
2. BEHIND DOUBLE CHECKVALVE (12") MINIMUM
3. BACKFLOW PREVENTER MINIMUM (2'-6") ABOVE FINISHED FLOOR
4. BACKFLOW PREVENTER MAXIMUM (5'-0") ABOVE FINISHED FLOOR
5. ABOVE DOUBLE CHECKVALVE (24") MINIMUM
6. ABOVE BACKFLOW PREVENTER VALVES MINIMUM (12")

7 SPRINKLER SYSTEM BACKFLOW PREVENTER
NOT TO SCALE

No.	REVISION/SUBMISSION	DATE

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PROJECT
NEW FIRE STATION FOR ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

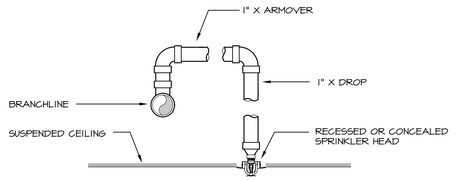
DRAWING
FIRE PROTECTION: DETAILS

SEAL

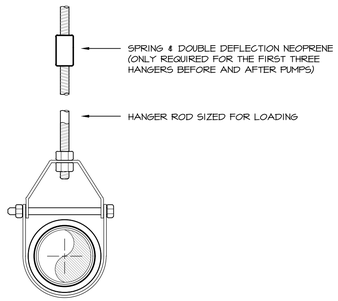
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JT/GH	11-30-22

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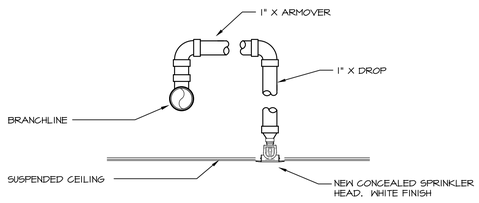
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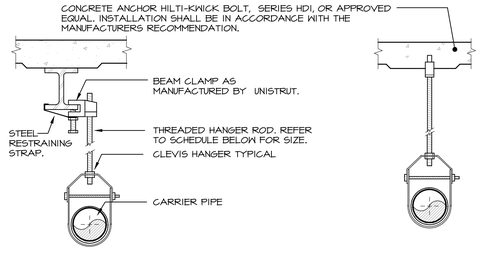
1 TYPICAL ARM-OVER RECESSED HEAD DETAIL
NOT TO SCALE



2 HANGER DETAIL
NOT TO SCALE



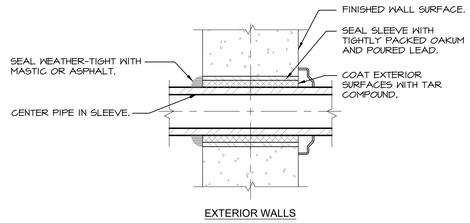
3 TYPICAL ARM-OVER CONCEALED HEAD
NOT TO SCALE



PIPE HANGER SCHEDULE					
PIPE DIA.	3/4"-2"	2 1/2"-3"	4"-5"	6"	8"-12"
HANGER DIA.	3/8"	1/2"	5/8"	3/4"	7/8"

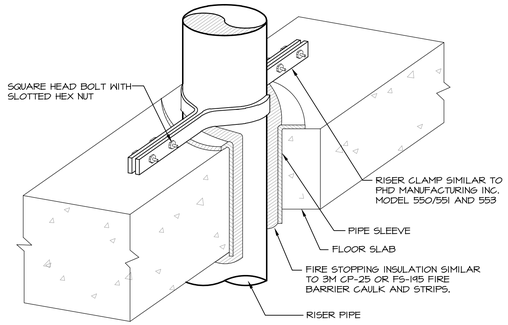
NOTES:
1. CLEVIS HANGERS WITH WELDED INSULATION SHIELDS SIMILAR TO RAUCH FIG. 1005H ON ALL PIPES LARGER THAN 1".
2. ALL PIPE HANGERS SHALL BE GALVANIZED STEEL OR FACTORY PAINTED BLACK WITH ENAMEL.

4 PIPE HANGER DETAIL
NOT TO SCALE

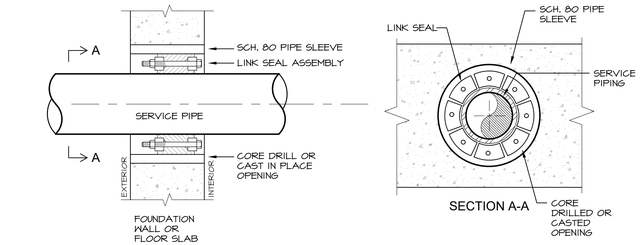


NOTE:
1. PIPE SLEEVE FOR EXTERIOR WALL ABOVE GRADE.

5 EXTERIOR WALL PIPE PENETRATION DETAIL
NOT TO SCALE

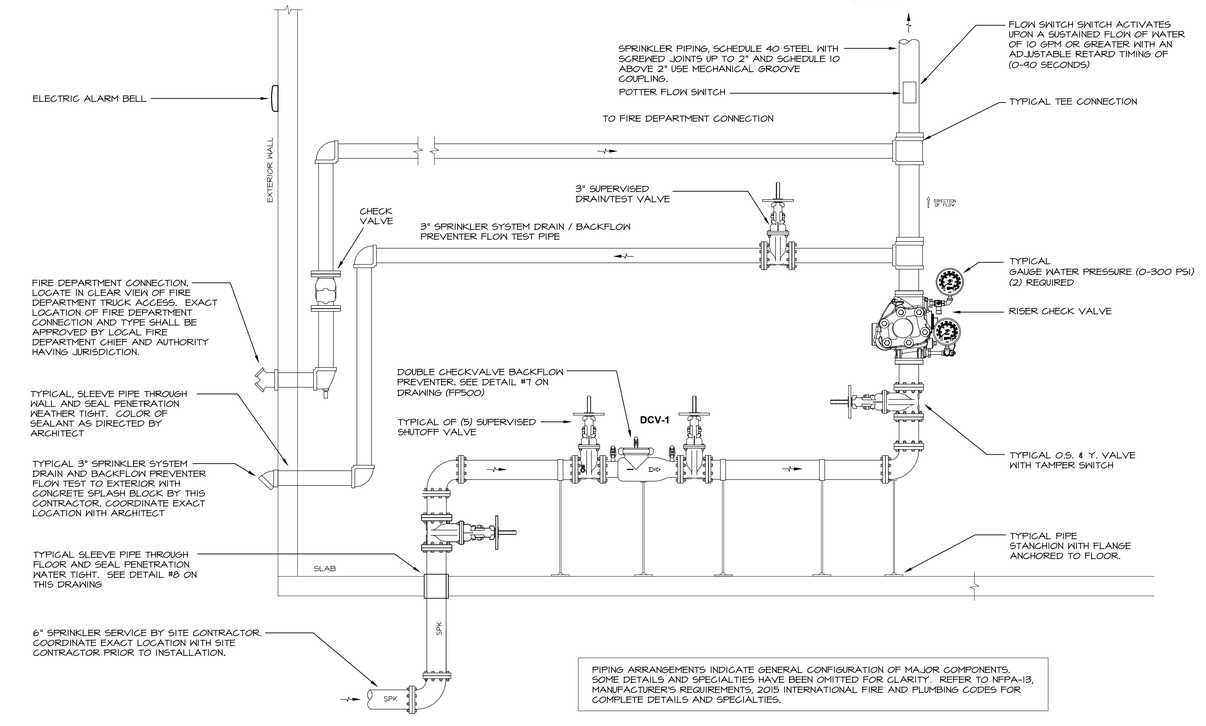


6 PIPE PENTRATION THROUGH FLOOR DETAIL
NOT TO SCALE



NOTES:
1. SEAL ASSEMBLY BASED ON THUNDERLINE MODEL "C" LINK-SEAL MODULAR SEAL, WITH EPDM SEAL ELEMENT, COMPOSITE PRESSURE PLATES, STEEL WITH 2-PART ZINC DICHROMATE & ORGANIC COATED NUTS AND BOLTS RATED FOR AN OPERATING TEMPERATURE RANGE OF -40°F TO +250°F.
2. USE LINK SEAL AT ALL LOCATIONS WHERE PIPES PENETRATE NEW OR EXISTING FOUNDATION WALLS AND SLABS ON GRADE.

8 LINK SEAL DETAIL
NOT TO SCALE



PIPING ARRANGEMENTS INDICATE GENERAL CONFIGURATION OF MAJOR COMPONENTS. SOME DETAILS AND SPECIALTIES HAVE BEEN OMITTED FOR CLARITY. REFER TO NFPA-13, MANUFACTURER'S REQUIREMENTS, 2015 INTERNATIONAL FIRE AND PLUMBING CODES FOR COMPLETE DETAILS AND SPECIALTIES.

7 WET PIPE SPRINKLER SYSTEM RISER SCHEMATIC
NOT TO SCALE

No.	REVISION/SUBMISSION	DATE

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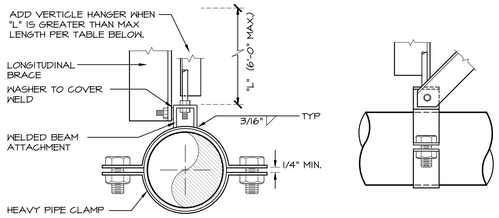
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FP501

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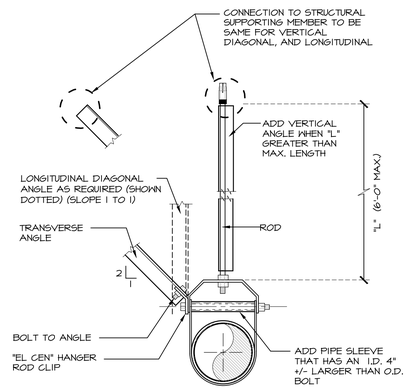
BRACE SPACING	PIPE	ROD	MAX. ROD LENGTH	VERT. HANGERS	TRANSVERSE HANGERS	BOLT
80'	2½"	½"	25"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
80'	3"	½"	25"	2 X 2 X 16ga	2½" X 2½ X 16ga	⅜"
80'	4"	⅝"	31"	2 X 2 X 16ga	2½" X 2½ X 16ga	⅜"
80'	6"	¾"	37"	2 X 2 X 16ga	2½" X 2½ X 16ga	⅜"
80'	8"	⅞"	43"	2 X 2 X 16ga	2½" X 2½ X 16ga	⅜"

1 LONGITUDINAL SEISMC BRACING
NOT TO SCALE

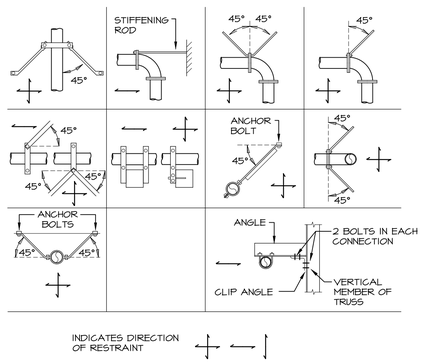
SEISMIC EQUIPMENT AND PIPE HANGER DESIGN

THE FIRE PROTECTION SYSTEM SHALL COMPLY WITH THE NEW YORK STATE UNIFORM FIRE PROTECTION AND BUILDING CODE SECTION 1613 AND APPLICABLE PROVISIONS OF ASCE 7 (ARCHITECTURAL, MECHANICAL AND ELECTRICAL COMPONENT SEISMIC DESIGN REQUIREMENTS).
SPRINKLER CONTRACTOR SHALL HIRE NY'S LICENSED PROFESSIONAL ENGINEER TO DESIGN AND PREPARE SHOP DRAWINGS WITH CALCULATIONS FOR EACH PIPE SUPPORT, CONDUIT SUPPORT, MULTIPLE PIPE SUPPORT, TRAPEZE AND SEISMIC RESTRAINT. SUBMIT SHOP DRAWINGS WITH CALCULATIONS TO ENGINEER FOR RECORD AND TO LOCAL AUTHORITY HAVING JURISDICTION FOR APPROVAL.

SEISMIC REQUIREMENTS:
BUILDING USE CATEGORY - IV
SIESMIC DESIGN CATEGORY - C

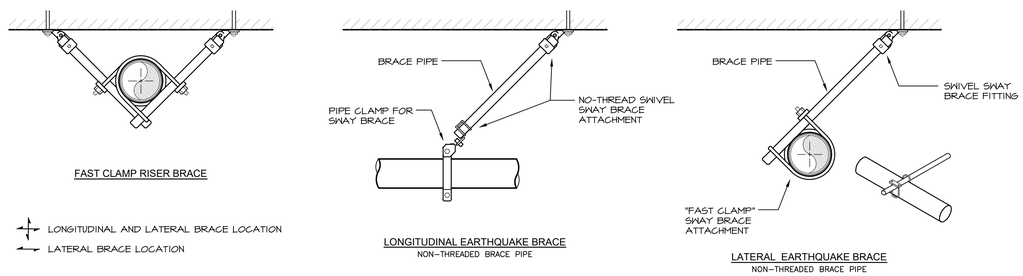


BRACE SPACING	PIPE	ROD	MAX. ROD LENGTH	VERT. HANGERS	TRANSVERSE HANGERS	BOLT
40'	2½"	½"	25"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
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40'	8"	⅞"	43"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"



2 SEISMIC SWAY BRACING (GENERAL)
NOT TO SCALE

4 TRANSVERSE SEISMIC PIPE BRACING
NOT TO SCALE



3 SEISMIC HANGER DETAILS
NOT TO SCALE

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GENERAL SPRINKLER NOTES

1. SPRINKLER CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE AND OPERATIVE AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM, INCLUDING MAIN VALVES AND TIE-INS WITH FIRE ALARM SYSTEM AS NECESSARY TO COMPLY WITH NFPA 13 SPRINKLER SYSTEM.
2. ALL SPRINKLER SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH 2020 FIRE PROTECTION CODE, BUILDING CODE, PLUMBING CODE OF NEW YORK STATE, NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 13, 72, AND ALL APPLICABLE LOCAL CODES.
3. SPRINKLER CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPING, VALVES, SPRINKLER HEADS, TESTS, HANGERS, FITTINGS AND MISCELLANEOUS COMPONENTS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE SPRINKLER SYSTEM COMPLETE, OPERABLE, AND IN ACCORDANCE WITH APPLICABLE CODES AND GENERALLY ACCEPTED INDUSTRY STANDARDS.
4. SPRINKLER CONTRACTOR SHALL COORDINATE LOCATIONS OF ALL PIPING, SPRINKLER HEADS AND EQUIPMENT WITH OTHER PRIME CONTRACTORS TO AVOID CONFLICTS.
5. SPRINKLER CONTRACTOR SHALL SEAL AROUND ALL PIPE PENETRATIONS THROUGH FIRE RATED WALLS AND CEILINGS WITH HILTI INTUMESCENT FIRE STOP MATERIALS TO MAINTAIN FIRE AND SMOKE RATINGS.
6. SPRINKLER CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIAL INSTALLED UNDER THIS CONTRACT FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER, AND AGREES TO REPLACE DEFECTIVE WORK AT NO ADDITIONAL COST TO OWNER DURING THE GUARANTEE PERIOD.
7. SPRINKLER CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING ALL EQUIPMENT, SPRINKLER HEADS AND PIPING WITH SIGNED & SEALED HYDRAULIC CALCULATIONS TO ENGINEER AND LOCAL FIRE INSPECTOR FOR APPROVAL PRIOR TO INSTALLATION.
8. DEMONSTRATE NEW SPRINKLER SYSTEM TO OWNER AND REVIEW MAINTENANCE PROCEDURES. SUBMIT (2) EQUIPMENT MANUALS TO ENGINEERS. PROVIDE CHROME PLATED ESCUTCHEON PLATES WHERE PIPES PASS THROUGH WALL, FLOORS, AND CEILINGS IN FINISHED AREAS.
9. SPRINKLER CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF ALL PIPING IN FINISHED AREAS TO ENSURE CONCEALMENT OF ALL PIPING IN WALLS, FLOORS AND CEILINGS.
10. SPRINKLER CONTRACTOR SHALL PAY FOR ALL PERMITS AND INSPECTIONS FEES REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
11. SPRINKLER CONTRACTOR SHALL NOT DRILL OR CUT ANY STRUCTURAL MEMBERS WITHOUT PERMISSION OF ARCHITECT.
12. SPRINKLER CONTRACTOR IS RESPONSIBLE FOR CUTTING, PATCHING AND PAINTING ASSOCIATED WITH SPRINKLER WORK. SEE ARCHITECT'S SPECIFICATIONS AND GENERAL CONDITIONS FOR APPROVED MATERIALS AND METHODS.
13. EXACT LOCATION OF FIRE DEPARTMENT CONNECTION, TYPE AND SPRINKLER SYSTEM TEST/DRAIN SHALL BE APPROVED BY LOCAL FIRE DEPARTMENT CHIEF, LOCAL FIRE INSPECTOR OR AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION.
14. SPRINKLER CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OBSERVE ALL CLEARANCES.
15. ALL CONTROL WIRING SHALL BE IN ACCORDANCE WITH N.E.C. ELECTRICAL CODE AND ALL LOCAL CODES. ALL CONDUCTORS SHALL BE COPPER. 120V/1 ~ MINIMUM CONDUCTOR SIZE #12. 24V MINIMUM CONDUCTOR SIZE #18. SEE ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR APPROVED MATERIALS AND INSTALLATION METHODS.
16. SPRINKLER CONTRACTOR SHALL OBSERVE CLEARANCES TO OBSTRUCTIONS.
17. SPRINKLER CONTRACTOR SHALL CHAIN CONTROL VALVE IN THE OPEN POSITION.
18. SPRINKLER CONTRACTOR SHALL FURNISH SHOP DRAWINGS INDICATING LOCATIONS OF ALL EQUIPMENT AND DEVICES.
19. SPRINKLER CONTRACTOR SHALL FURNISH & INSTALL SPRINKLER CABINET WITH MINIMUM SIX SPARE SPRINKLER HEADS AND WRENCH. INCLUDE SEPARATE CABINET WITH SPRINKLERS AND WRENCH FOR EACH TYPE OF HEAD ON PROJECTION IN ACCORDANCE WITH NFPA 13.
20. SPRINKLER CONTRACTOR SHALL FURNISH & INSTALL KNOX BOX AND EXTERIOR INDICATING LIGHTS AS REQUIRED BY AUTHORITY HAVING JURISDICTION.
21. SPRINKLER CONTRACTOR SHALL FURNISH COORDINATED SHOP DRAWINGS INDICATING LOCATIONS OF ALL EQUIPMENT AND DEVICES INSTALLED IN CEILINGS. THESE DRAWINGS SHALL BE APPROVED BY ALL CONTRACTORS PRIOR TO INSTALLING ANY EQUIPMENT IN CEILINGS. CONTRACTORS THAT DO NOT FOLLOW SHOP DRAWINGS SHALL BEAR ALL COSTS FOR RELOCATING DEVICES AND EQUIPMENT IN CONFLICT WITH OTHER EQUIPMENT.
22. SPRINKLER CONTRACTOR SHALL PROVIDE ACCESS DOORS FOR ALL VALVES CONCEALED IN INACCESSIBLE CEILINGS AND WALLS. SEE ARCHITECTS SPECIFICATIONS FOR APPROVED MANUFACTURERS AND TYPES. ACCESS DOORS SHALL HAVE (1) PRIME COAT AND (2) COATS OF FINISHED PAINT, COLOR AS DIRECTED BY ARCHITECT. ACCESS DOOR SHALL HAVE APPROPRIATE FIRE RATING TO MAINTAIN INTEGRITY OF CEILING AND WALL.
23. SPRINKLER CONTRACTOR MAY USE EXTENDED COVERAGE SPRINKLER HEADS WHERE PRESSURE AND FLOW PERMIT BASED ON HYDRAULIC CALCULATIONS.
24. SPRINKLER CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING SPRINKLER PIPING EQUIPMENT AND HEAD LOCATIONS WITH HYDRAULIC CALCULATIONS. COORDINATE SPRINKLER HEAD LOCATIONS WITH OTHER CONTRACTORS TO AVOID CONFLICTS. RELOCATE SPRINKLER HEADS TO MEET FIELD CONDITIONS. SHOP DRAWINGS SHALL SHOW SPRINKLER PIPE SIZES, PIPE HANGER REQUIREMENTS, FIRESTOPPING AND NECESSARY DETAILS REQUIRED FOR BUILDING DEPARTMENT AND INSURANCE CARRIER APPROVAL. HYDRAULIC CALCULATIONS SHALL BE BASED ON RESIDUAL FLOW TEST PERFORMED BY THIS CONTRACTOR. SUBMIT SHOP DRAWINGS WITH HYDRAULIC CALCULATION TO ENGINEER FOR APPROVAL. SHOP DRAWINGS THEN SHALL BE SUBMITTED TO BUILDING DEPARTMENT, LOCAL FIRE DEPARTMENT AND INSURANCE CARRIER FOR APPROVAL.
25. WHEN INSTALLING SPRINKLER HEADS, THE SPRINKLER CONTRACTOR SHALL PROVIDE THE SHORTEST HYDRAULIC PIPE LENGTH BETWEEN THE FINAL SPRINKLER HEAD LOCATION AND THE BRANCH LINE CONNECTION.
26. SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINING AND FILLING THE NEW SYSTEM AS REQUIRED FOR COMPLETION OF WORK.
27. PROVIDE (2) 2½ GALLON PRESSURIZED WATER AND (1) 10 POUND ABC DRY CHEMICAL EXTINGUISHERS FOR EMERGENCY USE DURING CONSTRUCTION.
28. SPRINKLER SYSTEM PIPING SHALL BE ALTERED AS NEEDED TO ACCOMMODATE CEILING HEIGHTS, DUCTWORK, LIGHTS AND OTHER PIPING. PROVIDE ALL REQUIRED PIPING AND FITTINGS AS NEEDED TO OFFSET SPRINKLER SYSTEM TO AVOID STRUCTURAL, ARCHITECTURAL, MECHANICAL AND ELECTRICAL INTERFERENCES, WHETHER SHOWN ON THE DRAWINGS OR NOT.
29. SPRINKLER HEADS INSTALLED IN HUNG CEILING WILL BE POSITIONED WITH TOLERANCE OF ½" OF THE CENTERLINE OF THE TILES. INSTALL SPRINKLER HEADS TIGHT TO THE BOTTOM OF THE HUNG CEILING, WITH CARE THAT THE FINISH IS NOT DAMAGED. WHEN CONCEALED TYPE SPRINKLER HEADS ARE USED, THE COVER PLATES SHALL BE FLUSH WITH THE CEILING PLANE, TOLERANCE GREATER THAN 1/8" IS UNACCEPTABLE.
30. SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING START-UP OF ALL NEW EQUIPMENT, CONTROLS, AND ETC. TO ENSURE CORRECT OPERATION OF INSTALLED DEVICES.
31. SPRINKLER CONTRACTOR SHALL PROVIDE OWNER WITH CATALOG DATA, OPERATING INSTRUCTIONS, MAINTENANCE INSTRUCTIONS, AND RECORD (AS-BUILT) DRAWINGS OF ALL COMPLETED WORK.
32. SPRINKLER CONTRACTOR SHALL PROVIDE ADDITIONAL SPRINKLER HEADS AROUND ALL OBSTRUCTIONS SUCH AS LIGHTS, EQUIPMENT, COLUMNS, AND ETC. AS REQUIRED TO PROVIDE COMPLETE COVERAGE IN ACCORDANCE WITH NFPA 13.
33. ALL NEW HOLES IN WALLS AND FLOORS SHALL BE CORE DRILLED BY THIS CONTRACTOR. PRIOR TO CORE DRILLING FLOORS, RADAR SCAN FLOOR SLABS. USE CAUTION WHEN CORE DRILLING TO AVOID DAMAGE TO EQUIPMENT, SYSTEMS, STRUCTURE AND ETC. ANY ITEMS DAMAGED AS A RESULT OF CORE DRILLING SHALL BE REPAIRED BY THIS CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
34. SPRINKLER CONTRACTOR SHALL PROVIDE ALL REQUIRED SIGNAGE FOR FIRE PROTECTION SYSTEM.

SPRINKLER SYSTEM TESTS

1. HYDROSTATIC - 200 PSI FOR 2 HOURS WITHOUT LOSS OF PRESSURE.
2. SYSTEM OPERATIONAL TESTS - WATER FLOW DETECTING DEVICES.
3. MAIN DRAIN VALVE - STATIC AND RESIDUAL PRESSURES.
4. SPRINKLER CONTRACTOR SHALL PERFORM ALL SPRINKLER SYSTEM TESTS REQUIRED BY LOCAL FIRE INSPECTOR OR AUTHORITY HAVING JURISDICTION.
5. ALL TESTS SHALL BE WITNESSED BY LOCAL FIRE INSPECTOR OR AUTHORITY HAVING JURISDICTION. SUBMIT REPORT ON ALL TESTS TO LOCAL FIRE INSPECTOR AND ENGINEER FOR APPROVAL.

SPRINKLER SYSTEM REQUIREMENTS

OCCUPANCY CLASSIFICATIONS

1. NFPA 13 LIGHT HAZARD OCCUPANCY: OFFICE, DAY ROOM & MEETING
2. NFPA 13 ORDINARY GROUP 1: BOILER ROOM, APPARATUS ROOM, KITCHEN AND STORAGE AREAS.

WET SPRINKLER SERVICE REQUIREMENTS

1. NFPA 13 ORDINARY HAZARD GROUP 1:
   - A. MINIMUM WATER SUPPLY (1500 SQFT. x .15 GPM/SQFT.) 225 GPM
   - B. TOTAL COMBINED INSIDE AND OUTSIDE HOSE STREAMS. 250 GPM
   - MINIMUM 475 GPM

FINAL FLOW BASED ON APPROVED HYDRAULIC CALCULATIONS

SPRINKLER SYSTEM REQUIREMENTS

1. MINIMUM PRESSURE AT SPRINKLER HEAD SHALL BE 7 PSI UNLESS NOTED OTHERWISE.
2. FLOW VELOCITY IN PIPING SHALL NOT EXCEED 20 FPS.
3. EQUIVALENT FITTING LENGTHS USED IN HYDRAULIC CALCULATIONS SHALL BE IN ACCORDANCE WITH NFPA 13.
4. LIGHT HAZARD MAXIMUM SPRINKLER HEAD PROTECTION AREA: 225 SQFT.
5. ORDINARY GROUP 1 & 11 MAXIMUM SPRINKLER HEAD PROTECTION AREA: 130 SQFT.
6. MAXIMUM FLOOR AREA PROTECTION LIMIT: LIGHT & ORDINARY HAZARD 52,000 SQFT.

CAMO STATIC WATER PRESSURE NYS ROUTE 52

STATIC: 140 PSI

SPRINKLER CONTRACTOR SHALL HIRE INDEPENDENT COMPANY TO PERFORM RESIDUAL FLOW TEST ON MUNICIPAL WATER SYSTEM. SPRINKLER SYSTEM HYDRAULIC CALCULATIONS SHALL BE BASED ON FLOW TEST RESULTS.

FIRE PROTECTION EQUIPMENT SCHEDULE

SYMBOL	MANUFACTURER	CATALOG #	DESCRIPTION
◀	TYCO	SERIES TY-FRB	SIDEWALL SPRINKLER, QUICK RESPONSE, K=5.6 - "INTERMEDIATE" TEMPERATURE CLASSIFICATION (175°F). RECESSED WHITE ESCUTCHEON PLATE.
⊙	TYCO	SERIES RFII	CONCEALED PENDENT SPRINKLER, QUICK RESPONSE, K=5.6 -"ORDINARY" TEMPERATURE CLASSIFICATION (155°F). COLOR WHITE.
⊙A	TYCO	SERIES TY-FRB	PENDENT SPRINKLER, RECESSED ESCUTCHEON, QUICK RESPONSE, K=5.6 -"INTERMEDIATE" TEMPERATURE CLASSIFICATION (175°F). CHROME OR COLOR ESCUTCHEON AND SPRINKLER HEAD AS DIRECTED BY ARCHITECT.
⊙B	TYCO	SERIES TY-FRB	UPRIGHT/PENDANT SPRINKLER, QUICK RESPONSE, K=5.6 -"INTERMEDIATE" TEMPERATURE CLASSIFICATION (175°F). NATURAL BRASS, CHROME OR COLOR AS DIRECTED BY OWNER. WITH METAL WIRE GUARD
_____	_____	_____	SPRINKLER PIPING ABOVEGROUND, SCHEDULE 40 STEEL WITH SCREWED JOINTS UP TO 2" AND SCHEDULE 10 ABOVE 2" USE MECHANICAL GROOVE COUPLING.
DCV-1	WATTS	774	6" DOUBLE CHECKVALVE ASSEMBLY WITH UL/FM APPROVED OS&Y SUPERVISED GATE VALVES. APPROVED BY UNIVERSITY OF SOUTHERN CALIFORNIA.

NOTES:

1. SPRINKLER HEADS SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE METAL WIRE GUARDS WHERE SPRINKLERS ARE SUBJECT TO DAMAGE.
3. ALL HEAT GENERATING EQUIPMENT WHICH CAN AFFECT THE TEMPERATURE RATING OF THE SPRINKLER HEADS SHALL BE CLEARLY IDENTIFIED ON THE SHOP DRAWINGS. COORDINATE HEATING EQUIPMENT LOCATIONS WITH MECHANICAL PLANS.
4. SPRINKLER CONTRACTOR SHALL FURNISH & INSTALL SHIELDS ON SPRINKLERS THAT CANNOT BE SUFFICIENTLY SPACED TO AVOID DISCHARGE INTERACTION.
5. FINAL K-FACTOR OF SPRINKLER HEADS BASED UPON HYDRAULIC CALCULATION REQUIREMENTS.

No.	REVISION/SUBMISSION	DATE

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PROJECT

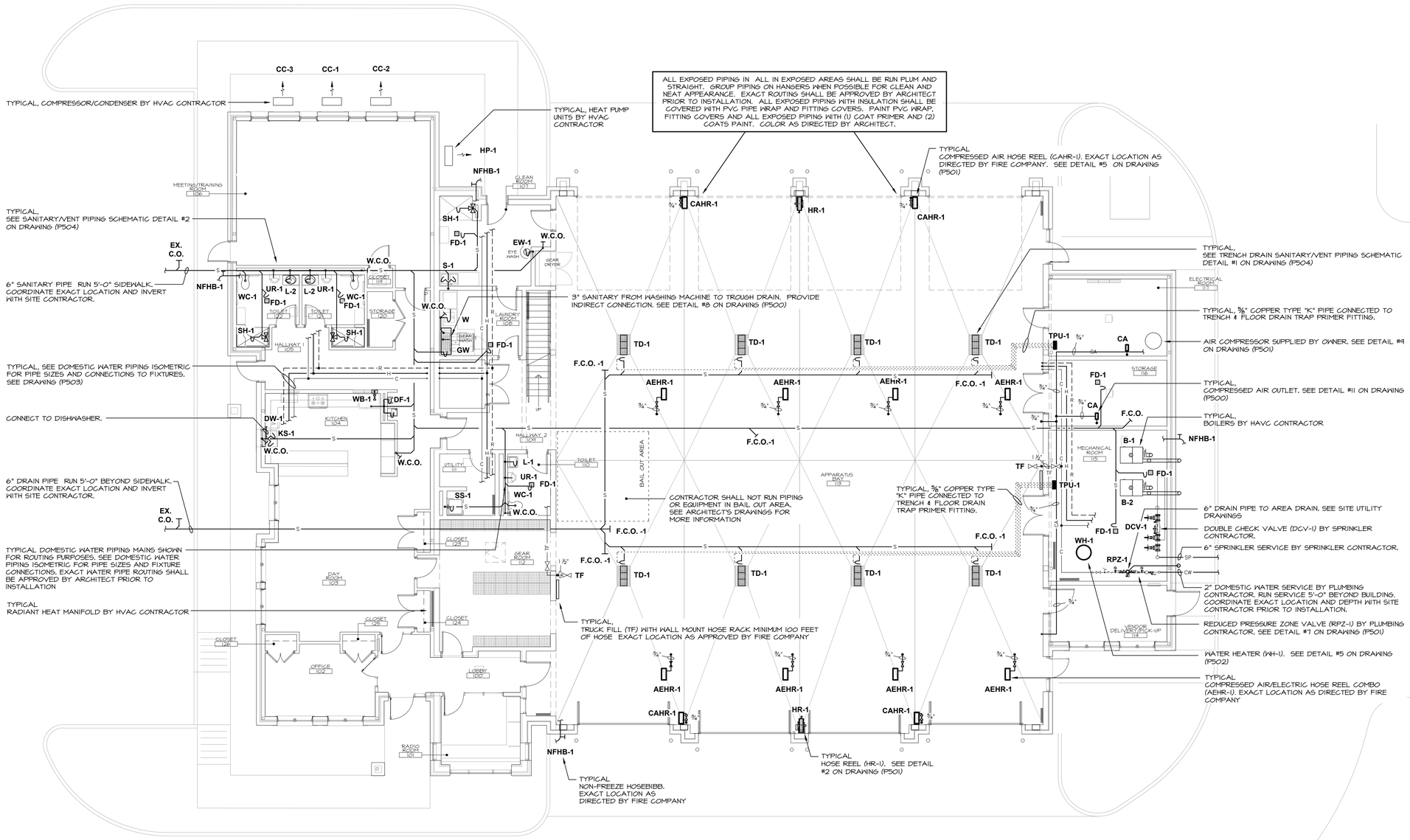
NEW FIRE STATION FOR ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING

FIRE PROTECTION:
EQUIPMENT SCHEDULES

SEAL	DRAWN BY	PROJECT NUMBER
	RL/KG	18142
	CHECKED BY	DATE
	JT/GH	11-30-22
	DRAWING NUMBER	
	FP600	

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1 PLUMBING: FIRST FLOOR PLAN
1/8" = 1'-0"

No.	REVISION/SUBMISSION	DATE

Mechanical/Electrical/Plumbing Engineer

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PHONE 845-452-2268 FAX 845-452-3752

PROJECT
NEW FIRE STATION FOR ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

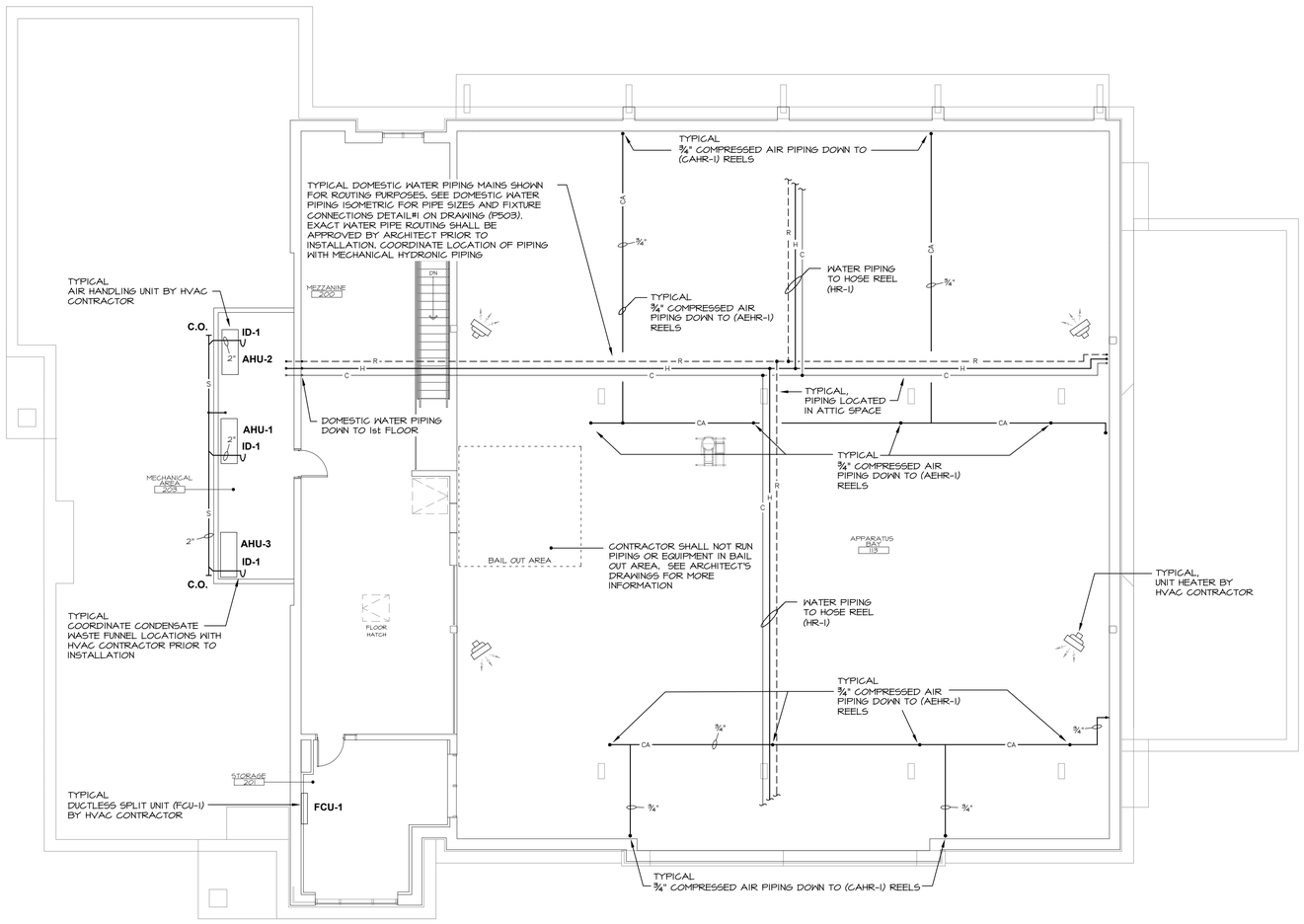
DRAWING
PLUMBING:
PROPOSED FIRST FLOOR PLAN

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
P100

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1 PLUMBING: MEZZANINE FLOOR PLAN
1/8" = 1'-0"

No.	REVISION/SUBMISSION	DATE

Mechanical/Electrical/Plumbing Engineer

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ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

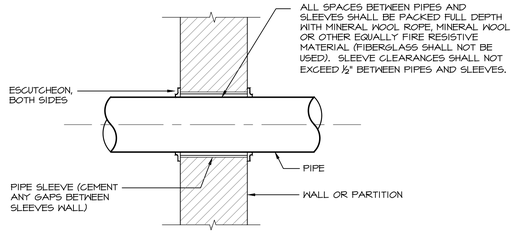
DRAWING
PLUMBING:
PROPOSED MEZZANINE

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
P101

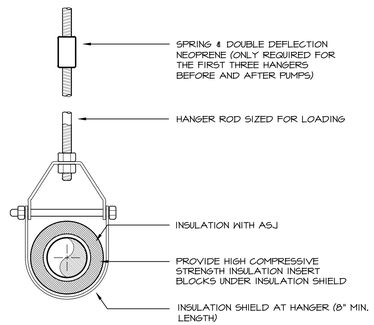
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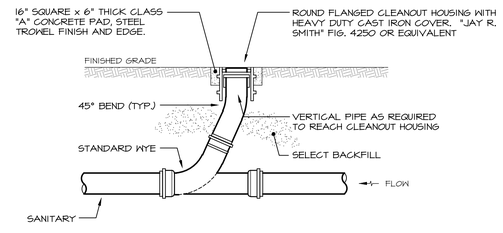
NOTE:

THIS DETAIL ALSO APPLICABLE TO INTERIOR NON-WATER PROOF FLOOR CONSTRUCTION. FOR WATER PROOF FLOOR CONSTRUCTION AND OTHER CONSTRUCTION - SEE SPECIFICATIONS.

1 FIRE RATED PARTITIONS & WALLS
NOT TO SCALE



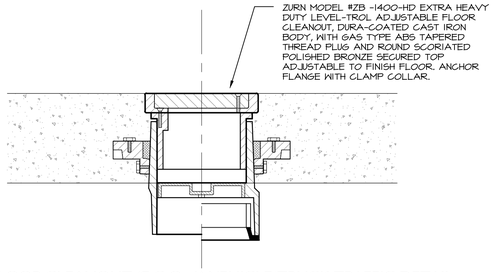
2 PIPE HANGER DETAIL
NOT TO SCALE



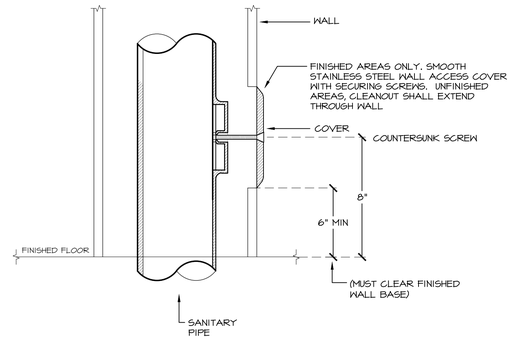
NOTES:

1. SANITARY SEWER PIPING AND FITTINGS SHALL BE OF THE MATERIAL INDICATED ON THE PLANS.
2. CLEANOUT LOCATION SHALL BE AS SHOWN ON PLANS.

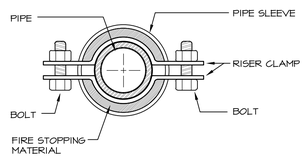
3 EXTERIOR CLEANOUT (EX C.O.) DETAIL
NOT TO SCALE



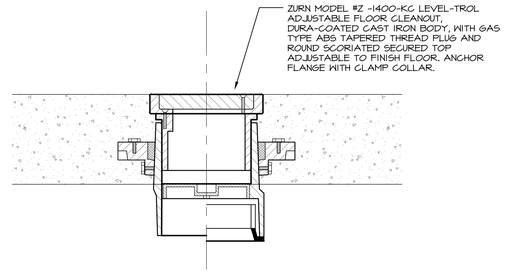
4 INTERIOR FLOOR CLEANOUT (F.C.O.-1) VEHICLE/TRUCK TRAFFIC DETAIL
NOT TO SCALE



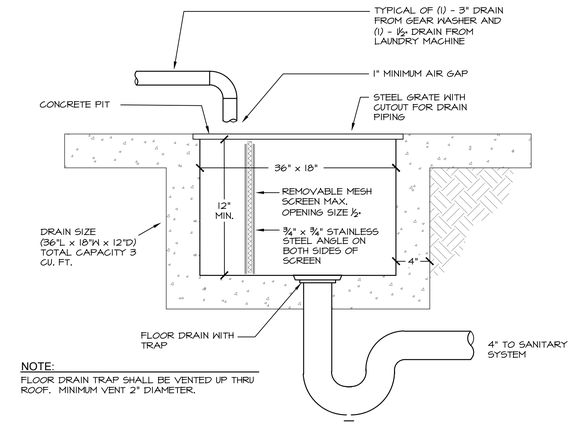
5 WALL CLEANOUT DETAIL
NOT TO SCALE



6 SUPPORT ANCHOR PIPE RISERS
NOT TO SCALE



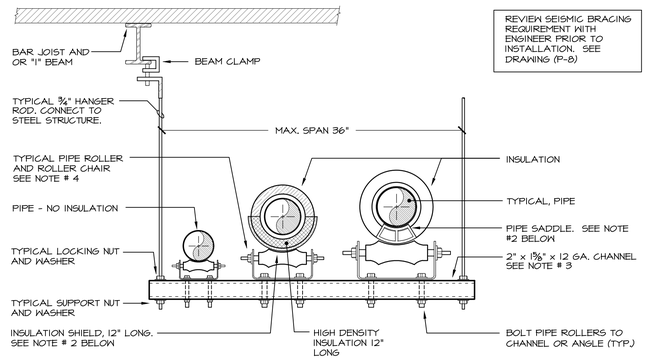
7 INTERIOR FLOOR CLEANOUT (F.C.O.) PEDESTRIAN TRAFFIC DETAIL
NOT TO SCALE



NOTE:

FLOOR DRAIN TRAP SHALL BE VENTED UP THRU ROOF. MINIMUM VENT 2" DIAMETER.

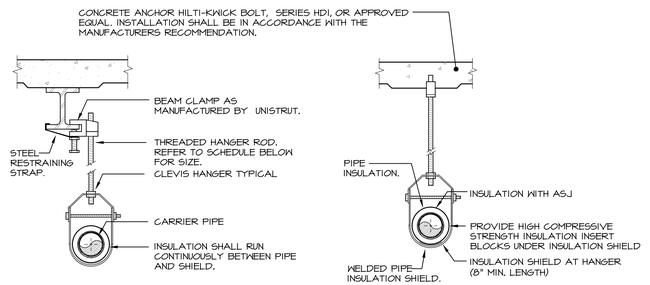
8 TROUGH DETAIL
NOT TO SCALE



NOTES:

1. ATTACH HANGERS TO THE STEEL STRUCTURE ABOVE.
2. PROVIDE INSULATION SHIELD OR PIPE SADDLE BASED ON THE PIPING SYSTEM AND PIPE SIZE AS INDICATED IN THE SPECIFICATIONS.
3. TRAPEZE TYPE HANGER SHALL BE USED FOR A MAXIMUM 1,000 LB UNIFORM LOAD.
4. ELIMINATE PIPE ROLLERS AND ROLLER CHAIRS AT ANCHOR POINTS

9 TRAPEZE TYPE HANGER INSTALLATION DETAIL
NOT TO SCALE

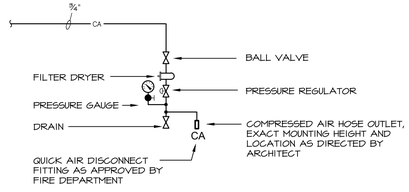


PIPE HANGER SCHEDULE					
PIPE DIA.	3/4"-2"	2 1/2"-3"	4"-5"	6"	8"-12"
HANGER DIA.	3/8"	1/2"	5/8"	3/4"	7/8"

NOTES:

1. CLEVIS HANGERS WITH WELDED INSULATION SHIELDS SIMILAR TO RAUCH FIG. 1009SH ON ALL PIPES LARGER THAN 1".
2. FOR PIPES 1" OR SMALLER, A BAND HANGER WITH INSULATION SHIELD MAY BE USED SIMILAR TO RAUCH FIG. NO. 1ASH.
3. FOR NON-INSULATED PIPE, INSULATION SHIELDS MAY BE OMITTED.
4. ALL PIPE HANGERS SHALL BE GALVANIZED STEEL OR FACTORY PAINTED BLACK WITH ENAMEL.
5. FOR NON FERROUS PIPING WITHOUT INSULATION, ALL HANGERS SHALL BE COPPER PLATED OR FURNISHED WITH A DI-ELECTRIC BETWEEN PIPE AND HANGERS.
6. WHERE EXISTING BUILDING STRUCTURAL COMPONENTS HAVE FIREPROOF MATERIAL, ANY AREA THAT IS DISTURBED OR DAMAGED AS A RESULT OF HANGER INSTALLATION SHALL BE PATCHED WITH UL AND FM APPROVED FIREPROOFING TO MATCH EXISTING.

10 PIPE HANGER DETAIL
NOT TO SCALE



11 COMPRESSED AIR OUTLET DETAIL
NOT TO SCALE

No.	REVISION/SUBMISSION	DATE

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PROJECT

NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING

PLUMBING:
DETAILS

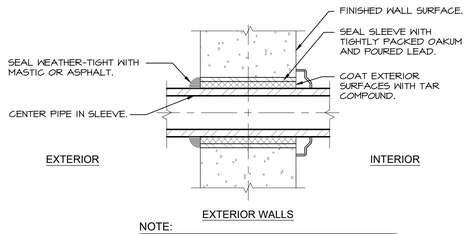
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DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER

P500

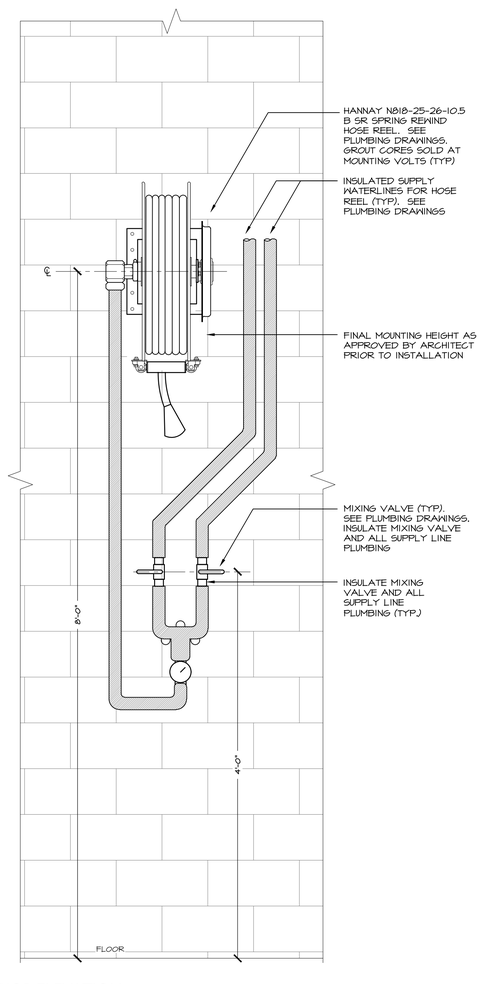
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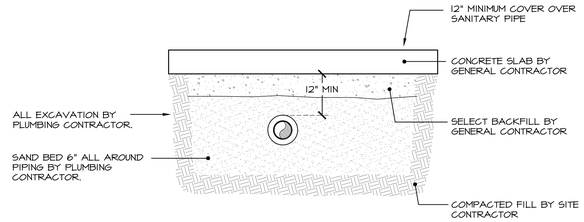
NOTE:

1. PIPE SLEEVE FOR EXTERIOR WALL ABOVE GRADE.

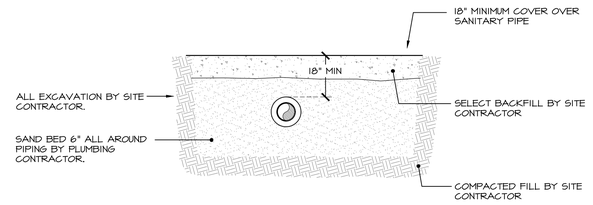
1 EXTERIOR WALL PIPE PENETRATION DETAIL
NOT TO SCALE



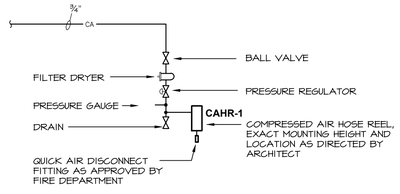
2 HOSE REEL INTERIOR ELEVATION
NOT TO SCALE



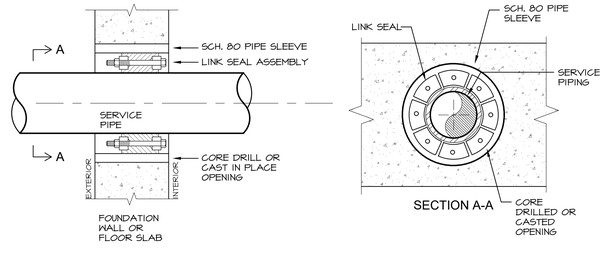
3 INSIDE BUILDING SANITARY PIPING DETAIL
NOT TO SCALE



4 OUTSIDE BUILDING SANITARY PIPING DETAIL
NOT TO SCALE



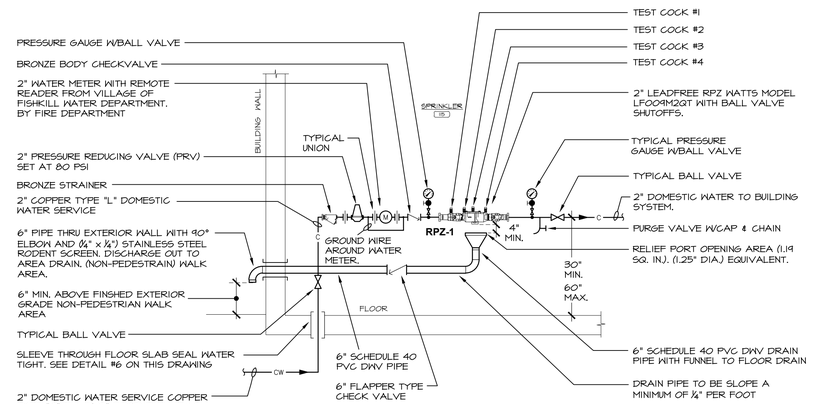
5 COMPRESSED HOSE REEL DETAIL
NOT TO SCALE



NOTES:

1. SEAL ASSEMBLY BASED ON THUNDERLINE MODEL "C" LINK-SEAL MODULAR SEAL, WITH EPDM SEAL ELEMENT, COMPOSITE PRESSURE PLATES, STEEL WITH 2-PART ZINC DICHROMATE & ORGANIC COATED NUTS AND BOLTS RATED FOR AN OPERATING TEMPERATURE RANGE OF -40°F TO +250°F.
2. USE LINK SEAL AT ALL LOCATIONS WHERE PIPES PENETRATE NEW OR EXISTING FOUNDATION WALLS AND SLABS ON GRADE.

6 LINK SEAL DETAIL
NOT TO SCALE



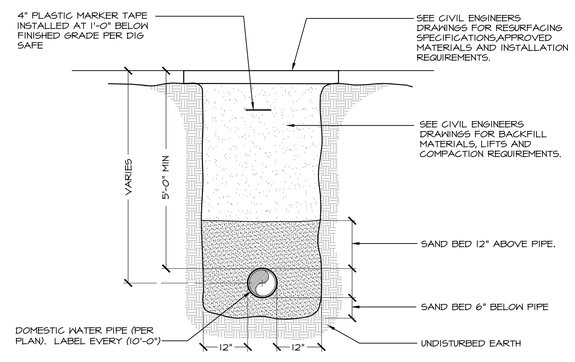
REQUIRED CLEARANCES (RPZ)

1. FRONT OF RPZ (2'-6") MINIMUM
2. BEHIND RPZ (12") MINIMUM
3. DISCHARGE PORT (1'-6") MINIMUM ABOVE FINISHED FLOOR
4. BACKFLOW PREVENTER MINIMUM (2'-6") ABOVE FINISHED FLOOR
5. BACKFLOW PREVENTER MAXIMUM (5'-0") ABOVE FINISHED FLOOR
6. ABOVE BACKFLOW PREVENTER MINIMUM (24")
7. ABOVE BACKFLOW PREVENTER VALVES MINIMUM (12")

NOTES:

- ROOM IS ADEQUATELY HEATED AND LIGHTED
- SUPPORT PIPING AND BACKFLOW PREVENTER OFF FLOOR / WALL WITH PIPE STANCHIONS (RODS) AND ANCHOR TO FLOOR / WALL.

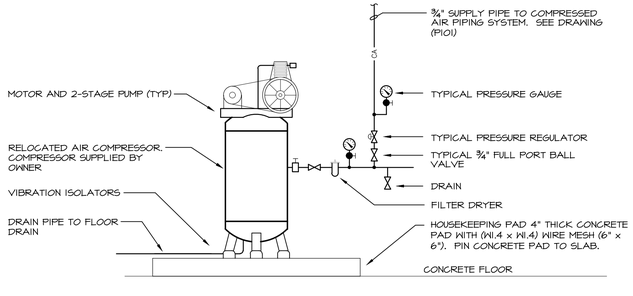
7 DOMESTIC WATER SERVICE DETAIL
NOT TO SCALE



NOTES:

1. INSTALL CONTINUOUS DETECTABLE MARKING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND PIPING. LOCATE TAPE 12" BELOW FINISHED GRADE, DIRECTLY OVER PIPING, EXCEPT 6" BELOW SUBGRADE UNDER PAVEMENTS & SLAB.
2. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.
3. 5'-0" MIN COVER SHALL BE APPLIED TO WATER MAIN.

8 WATER PIPING TRENCH DETAIL
NOT TO SCALE



9 AIR COMPRESSOR DETAIL
NOT TO SCALE

No.	REVISION/SUBMISSION	DATE

Mechanical/Electrical/Plumbing Engineer

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PROJECT
NEW FIRE STATION FOR ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

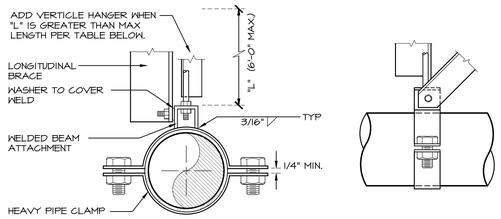
DRAWING
PLUMBING: DETAILS

SEAL

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RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

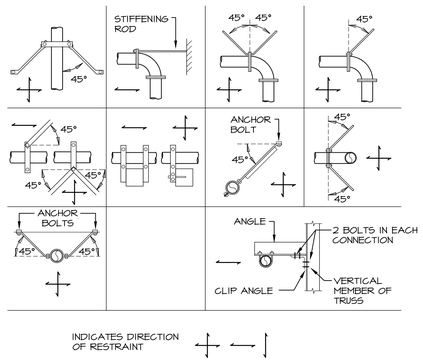
DRAWING NUMBER
P501

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BRACE SPACING	PIPE	ROD	MAX. ROD LENGTH	VERT. HANGERS	TRANSVERSE HANGERS	BOLT
80'	2½"	½"	25"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
80'	3"	½"	25"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
80'	4"	⅝"	31"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
80'	6"	¾"	37"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
80'	8"	⅞"	43"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"

1 LONGITUDINAL SEISMC BRACING
NOT TO SCALE



2 SEISMIC SWAY BRACING (GENERAL)
NOT TO SCALE

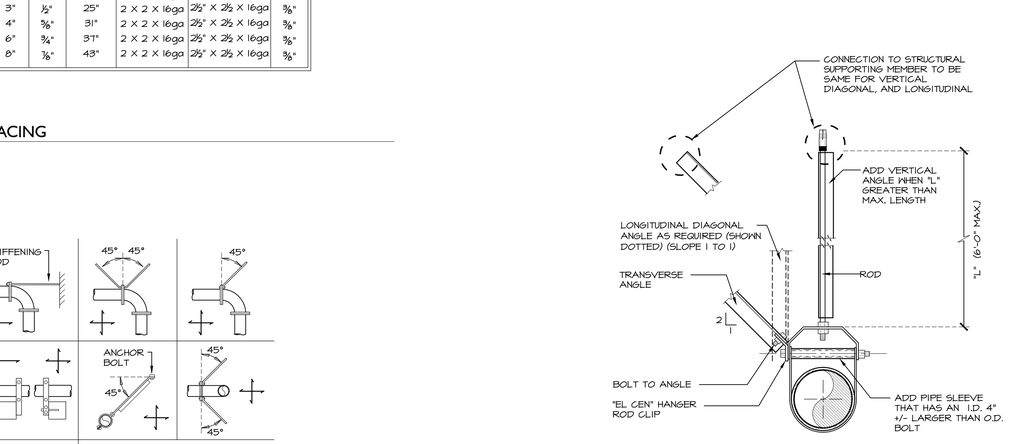
SEISMIC EQUIPMENT AND PIPE HANGER DESIGN

THE PLUMBING SYSTEM SHALL COMPLY WITH THE NEW YORK STATE UNIFORM FIRE PROTECTION AND BUILDING CODE SECTION 1613 AND APPLICABLE PROVISIONS OF ASCE 7 (ARCHITECTURAL, MECHANICAL AND ELECTRICAL COMPONENT SEISMIC DESIGN REQUIREMENTS).
PLUMBING CONTRACTOR SHALL HIRE NYS LICENSED PROFESSIONAL ENGINEER TO DESIGN AND PREPARE SHOP DRAWINGS WITH CALCULATIONS FOR EACH EQUIPMENT SUPPORT, PIPE SUPPORT, MULTIPLE PIPE SUPPORT, TRAPEZE AND SEISMIC RESTRAINT. SUBMIT SHOP DRAWINGS WITH CALCULATIONS TO ENGINEER FOR RECORD AND TO LOCAL AUTHORITY HAVING JURISDICTION FOR APPROVAL.

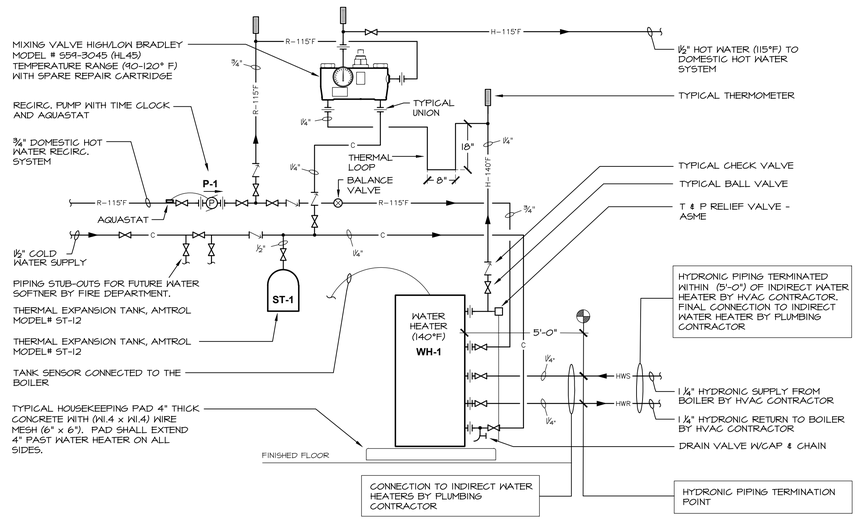
SEISMIC REQUIREMENTS:
BUILDING USE CATEGORY - IV
SIESMIC DESIGN CATEGORY - C

BRACE SPACING	PIPE	ROD	MAX. ROD LENGTH	VERT. HANGERS	TRANSVERSE HANGERS	BOLT
40'	2½"	½"	25"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
40'	3"	½"	25"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
40'	4"	⅝"	31"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
40'	6"	¾"	37"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
40'	8"	⅞"	43"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"

4 TRANSVERSE SEISMIC PIPE BRACING
NOT TO SCALE



3 SEISMIC HANGER DETAILS
NOT TO SCALE



NOTE:
HVAC CONTRACTOR SHALL RUN HYDRONIC PIPING FROM BOILER TO (5'-0" TO INDIRECT WATER HEATER). PLUMBING CONTRACTOR SHALL MAKE FINAL HYDRONIC PIPING CONNECTIONS TO INDIRECT HEATER. COORDINATE HYDRONIC PIPING TERMINATION POINT WITH HVAC CONTRACTOR.

5 WATER HEATER (WH-1) DETAIL
NOT TO SCALE

No.	REVISION/SUBMISSION	DATE

Mechanical/Electrical/Plumbing Engineer

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PROJECT
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NYS ROUTE 52, FISHKILL, NY

DRAWING
PLUMBING: DETAILS

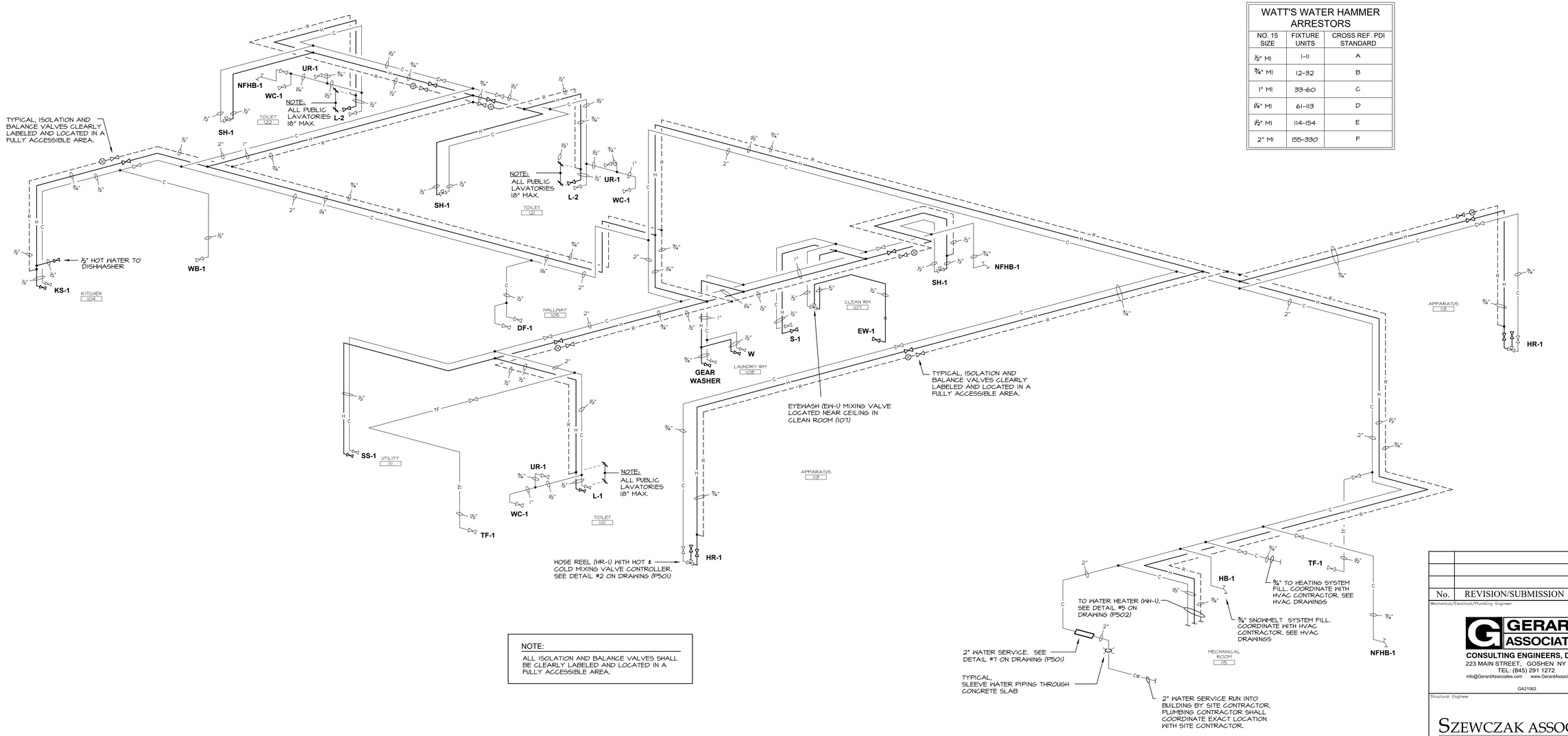
SEAL

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RL/KC	18142
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JT/GH	11-30-22

DRAWING NUMBER
P502

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WATT'S WATER HAMMER ARRESTORS		
NO. 15 SIZE	FIXTURE UNITS	CROSS REF. PDI STANDARD
½" MI	1-11	A
¾" MI	12-32	B
1" MI	33-60	C
1¼" MI	61-113	D
1½" MI	114-154	E
2" MI	155-330	F



NOTE:

ALL ISOLATION AND BALANCE VALVES SHALL BE CLEARLY LABELED AND LOCATED IN A FULLY ACCESSIBLE AREA.

1 DOMESTIC WATER PIPING ISOMETRIC
NOT TO SCALE

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

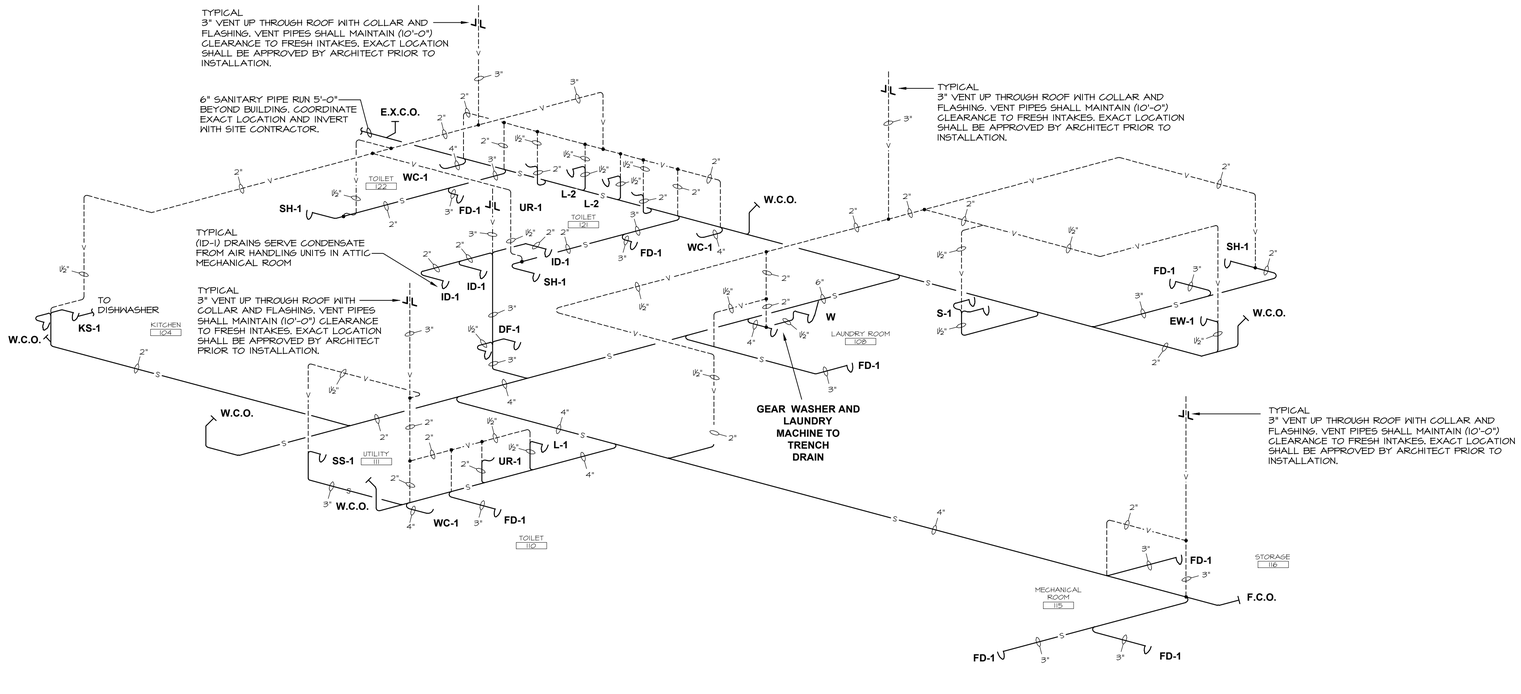
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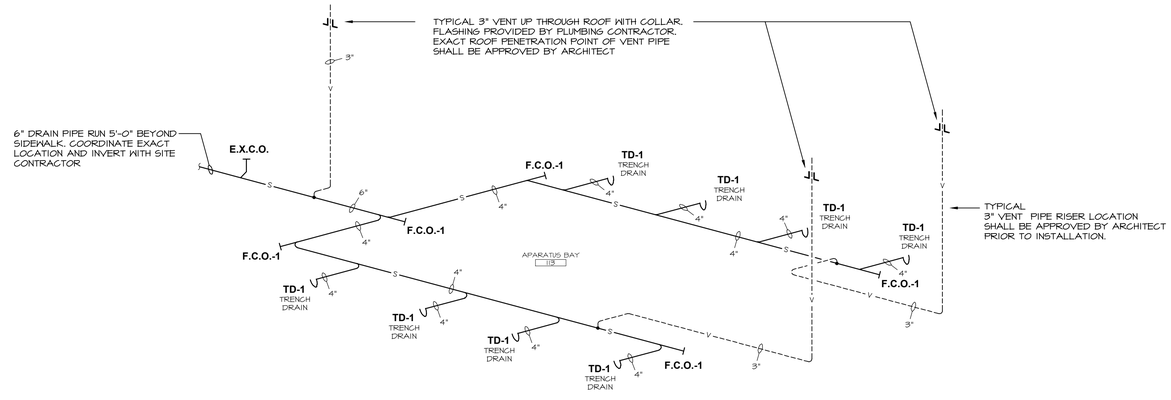
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1 SANITARY/VENT PIPING SCHEMATIC
NOT TO SCALE



2 TRENCH DRAIN SANITARY/VENT PIPING SCHEMATIC
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No.	REVISION/SUBMISSION	DATE

Mechanical/Electrical/Plumbing Engineer

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PLUMBING NOTES:

1. ALL PLUMBING WORK SHALL BE INSTALLED IN ACCORDANCE WITH 2020 PLUMBING, FIRE, MECHANICAL, FUEL GAS, BUILDING, ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE, ALL LOCAL CODES AND GENERALLY ACCEPTED STANDARDS.
2. PLUMBING CONTRACTOR SHALL PROVIDE ALL FIXTURES, PIPING, VALVES, ACCESS DOORS, HANGERS, FITTINGS AND MISCELLANEOUS COMPONENTS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE PLUMBING SYSTEMS COMPLETE, OPERABLE, AND IN ACCORDANCE WITH APPLICABLE CODES AND GENERALLY ACCEPTED INDUSTRY STANDARDS.
3. PLUMBING CONTRACTOR SHALL COORDINATE LOCATIONS OF ALL PIPING AND EQUIPMENT WITH OTHER TRADES TO AVOID CONFLICTS. ROUGHING-IN DIMENSIONS OF FIXTURES MUST BE COORDINATED WITH GENERAL CONTRACTOR. SEE ARCHITECT'S DRAWINGS FOR EXACT LOCATIONS AND ELEVATIONS OF PLUMBING FIXTURES.
4. ALL PIPE OPENINGS THROUGH PARTITIONS, FLOORS AND CEILINGS SHALL HAVE PIPE SLEEVES. FOR PIPE PENETRATING FIRE RATED PARTITIONS, CEILINGS AND FLOORS THE PLUMBING CONTRACTOR SHALL SEAL AROUND ALL PIPE PENETRATIONS WITH HILTI INTUMESCENT FIRE STOP MATERIAL BETWEEN THE PIPE AND SLEEVE TO MAINTAIN FIRE AND SMOKE RATINGS.
5. PLUMBING CONTRACTOR SHALL PITCH ALL SANITARY PIPING UNDER 3" A MINIMUM OF ¼" PER FOOT. SANITARY PIPING 3" AND ABOVE MAY BE PITCHED A MINIMUM OF ⅛" PER FOOT.
6. PLUMBING CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIAL INSTALLED UNDER THIS CONTRACT FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER AND AGREES TO REPLACE DEFECTIVE WORK (INCLUDING ALL REQUIRED LABOR AND MATERIAL) AT NO ADDITIONAL COST TO OWNER DURING THE GUARANTEE PERIOD.
7. PLUMBING CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL EQUIPMENT, PIPING, INSULATION, VALVES AND PLUMBING FIXTURES TO OWNER AND ARCHITECT FOR APPROVAL. DEMONSTRATE NEW PLUMBING SYSTEMS TO OWNERS AND REVIEW MAINTENANCE PROCEDURES.
8. PROVIDE CHROME PLATED ESCUTCHEON PLATES WHERE PIPES PASS THROUGH WALLS, FLOORS AND CEILINGS IN FINISHED AREAS.
9. PLUMBING CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF ALL PIPING IN FINISHED AREAS WITH GENERAL CONTRACTOR TO ENSURE CONCEALMENT OF ALL PIPING IN WALLS, FLOORS, CEILINGS AND UNDER VANITIES. PIPING IN APPARATUS AND ANCILLARY AREAS MAY BE SURFACE MOUNTED. COORDINATE WITH ARCHITECT.
10. PLUMBING CONTRACTOR SHALL LOCATE ALL PIPING ON THE WARM SIDE OF BUILDING INSULATION ENVELOPE.
11. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ALL CONTROL WIRING (24V) AND (120V) FOR SYSTEMS SHOWN ON PLUMBING DRAWINGS AND TRANSFORMERS, CONDUIT, JUNCTION BOXES, CONDUCTORS, THERMOSTATS, APPURTENANCES AND ALL NECESSARY EQUIPMENT TO MAKE SYSTEMS COMPLETE AND OPERABLE.
12. ALL CONTROL WIRING SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (LATEST ADOPTED ADDITION) AND ALL LOCAL CODES. ALL CONDUCTORS SHALL BE COPPER WITH THHN INSULATION. 120V/1 - MINIMUM CONDUCTOR SIZE # 12. 24V - MINIMUM CONDUCTOR SIZE # 18.
13. PLUMBING CONTRACTOR SHALL PAY FOR ALL PERMITS AND INSPECTIONS FEES REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
14. PLUMBING CONTRACTOR SHALL PROVIDE ACCESS DOORS FOR ALL VALVES CONCEALED IN WALLS/CEILINGS. ACCESS DOORS SHALL HAVE APPROPRIATE FIRE RATING TO MAINTAIN INTEGRITY OF WALL/CEILING. ACCESS DOORS TO BE INSTALLED BY GENERAL CONTRACTOR.
15. PLUMBING CONTRACTOR SHALL NOT DRILL OR CUT ANY STRUCTURAL MEMBERS WITHOUT PERMISSION OF ARCHITECT, OR STRUCTURAL ENGINEER.
16. PLUMBING CONTRACTOR IS RESPONSIBLE FOR INSULATING ALL DOMESTIC HOT, RECIRCULATION AND COLD WATER PIPING. SEE PLUMBING INSULATION SCHEDULE ON THIS DRAWING.
17. ALL DOMESTIC WATER PIPING CONNECTIONS TO PLUMBING EQUIPMENT SHALL BE COPPER TYPE "L".
18. ALL NEW PIPES ARE TO BE SUPPORTED FROM STRUCTURE, NOT FROM OTHER PIPING OR DUCTWORK.
19. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINING AND REFILLING SYSTEMS AS REQUIRED FOR COMPLETION OF WORK.
20. CONNECTIONS TO UTILITIES AND SERVICES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE. THE PLUMBING CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS, INVERT ELEVATIONS, AND SIZES OF PLUMBING SERVICES IN FIELD, AND SHALL CONNECT NEW PLUMBING SERVICES AS INDICATED ON DRAWINGS.
21. PROVIDE DIELECTRIC FITTINGS OR COUPLINGS WHEREVER DISSIMILAR METALS ARE JOINED.
22. PROVIDE SHUTOFF VALVES AT ALL FIXTURES AND EQUIPMENT ON COLD WATER, HOT WATER, AND GAS SUPPLY PIPES.
23. ALL WORK SHALL BE PROPERLY TESTED, BALANCED, AND CLEANED AND DISINFECTED. SUBMIT REPORT STATING COMPLETION.
24. A CLEANOUT SHALL BE LOCATED AT ALL CHANGES IN DIRECTION AND AT THE BASE OF EACH STACK AND LEADER.
25. ALL MOTOR STARTERS AND DISCONNECT SWITCHES FOR PLUMBING EQUIPMENT SHALL BE FURNISHED BY THE PLUMBING CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED. DISCONNECT SWITCHES FURNISHED BY THE PLUMBING CONTRACTOR FOR PLUMBING EQUIPMENT SHALL BE HEAVY DUTY TYPE.
26. FIXTURE (GENERAL):
    A. FIXTURE SHALL BE COMPLETE WITH REQUIRED TRIM, INCLUDING BUT NOT LIMITED TO: SUPPORTS, FAUCETS, SUPPLIES, STOP VALVES, 17 GAUGE WASTE TAILPIECES, TRAPS, SEATS, FLUSHOMETER, VACUUM BREAKER, BOLTS, GASKETS CHROME PLATED ESCUTCHEONS, CAST BRASS FLOOR FLANGE AND BOLT CAPS. ALL SCREWS SHALL BE VALDELPROOF.
    B. EXPOSED METAL TRIM AND ROUGHING SHALL BE CHROME PLATED NICKEL BRASS, CHROME PLATED CAST BRASS 'P' TRAPS WITH SCREW PLUG CLEANOUT, SLIP-JOINT INLET AND FEMALE CAST SWIVEL THREADED ELBOW OUTLET. CHROME PLATED BRASS NIPPLE AT WALL WITH CHROME PLATED ESCUTCHEON. SWING SPOUTS SHALL HAVE 140° SWING LIMIT STOPS.
29. PIPE TESTING:
    A. UPON COMPLETION OF THE ENTIRE SANITARY DRAIN AND VENT SYSTEM, THE PLUMBING CONTRACTOR SHALL PERFORM AN AIR TEST WITNESSED BY AUTHORITY HAVING JURISDICTION. AIR SHALL BE FORCED INTO THE SYSTEM UNTIL THERE IS A UNIFORM GAUGE PRESSURE OF 5 PSI OR SUFFICIENT TO BALANCE A 10 INCH COLUMN OF MERCURY. THIS TEST SHALL BE HELD FOR A PERIOD OF AT LEAST 15 MINUTES.
    B. WATER SUPPLY SYSTEM TEST SHALL BE DONE ON COMPLETION OF A SECTION OF OR THE ENTIRE WATER SUPPLY SYSTEM, THE SYSTEM, OR THE PORTION COMPLETED, SHALL BE TESTED AND PROVED TIGHT UNDER A WATER PRESSURE NOT LESS THAN THE WORKING PRESSURE OF THE SYSTEM; OR, BY AN AIR TEST OF NOT LESS THAN 50 PSI. TEST PRESSURE SHALL BE HELD FOR A MINIMUM OF 15 MINUTES. THE WATER UTILIZED FOR TESTS SHALL BE OBTAINED FROM A POTABLE SOURCE OF SUPPLY.
    C. REFER TO INTERNATIONAL PLUMBING CODE FOR ADDITIONAL TESTING REQUIREMENTS.
30. DOMESTIC WATER PIPING DISINFECTION:
    A. ALL OPEN ENDS OF PIPING, VALVES AND EQUIPMENT SHALL BE PLUGGED EXCEPT WHEN ACTUAL WORK IS BEING PERFORMED, TO MINIMIZE ACCUMULATION OF DIRT AND DEBRIS.
    B. THE PLUMBING CONTRACTOR SHALL DISINFECT WATER PIPING BEFORE IT IS PLACED IN SERVICE.
    C. THE PLUMBING CONTRACTOR SHALL FURNISH ALL EQUIPMENT AND MATERIALS NECESSARY TO DO THE WORK OF DISINFECTING, AND SHALL PERFORM THE WORK IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN THE AWWA C651 OR AWWA C652 OR AS DESCRIBED BELOW.
    D. SYSTEM OR PART THEREOF SHALL BE FILLED WITH A WATER/CHLORINE SOLUTION CONTAINING AT LEAST 50 PARTS PER MILLION OF CHLORINE AND THE SYSTEM OR PART THEREOF SHALL BE ALLOWED TO STAND FOR 24 HOURS.
    E. DURING THE DISINFECTION PERIOD, CARE SHALL BE EXERCISED TO PREVENT CONTAMINATION OF WATER IN THE STREET MAIN OR THE ACTIVE WATER PIPING WITHIN THE BUILDING.
    F. FOLLOWING REQUIRED STANDING TIME, THE SYSTEM SHALL BE FLUSHED WITH CLEAN POTABLE WATER UNTIL THE CHLORINE IS PURGED FROM THE SYSTEM.
31. PIPING AND EQUIPMENT IDENTIFICATION:
    A. PLUMBING CONTRACTOR TO PROVIDE OPTI-CODE LABELS FOR ALL NEW PIPING. LABELS SHALL INDICATE SERVICE AND FLOW DIRECTION. LETTERS AND ARROWS INDICATING FLOW SHALL BE 2 1/2" HIGH, PLACED EVERY 10' AND SHALL BE WHITE ON A GREEN BACKGROUND AND SHALL CONFORM TO ANSI AND OSHA STANDARDS. LABELS SHALL BE AFFIXED OVER INSULATION ONLY.
    B. VALVE SERVICE IDENTIFICATION TAGS: NUMBER 19 B&S GAGE BRASS, WITH 1/4" HIGH VALVE SERVICE ABBREVIATED LETTERING ON ONE LINE OVER 1/2" HIGH VALVE SERVICE CHART NUMBER, BOTH DEEP STAMPED AND BLACK FILLED; AND WITH 3/16" TOP HOLE FOR BRASS "S" HOOK OR BRASS JACK CHAIN FASTENER.
    C. PROVIDE VALVE SERVICE IDENTIFICATION CHART MOUNTED IN LOCATION COORDINATED WITH OWNER'S REPRESENTATIVE. FRAME SHALL BE SATIN FINISHED EXTRUDED ALUMINUM WITH RIGID CLEAR PLASTIC GLAZING, SIZE TO FIT 8-1/2" x 11" VALVE CHART.
    D. EQUIPMENT SHALL HAVE 3" HIGH BLACK LAMACOID NAME PLATES WITH WHITE ENGRAVED LETTERS PERMANENTLY FASTENED TO ALL NEW EQUIPMENT.
32. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING START-UP OF ALL NEW EQUIPMENT, CONTROLS, AND ETC. TO ENSURE CORRECT OPERATION OF INSTALLED DEVICES.
33. PLUMBING CONTRACTOR SHALL PROVIDE OWNER WITH CATALOG DATA, OPERATING INSTRUCTIONS, MAINTENANCE INSTRUCTIONS, AND RECORD (AS-BUILT) DRAWINGS OF ALL COMPLETED WORK.
34. PLUMBING CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CUTTING, PATCHING, AND PAINTING ASSOCIATED WITH PLUMBING WORK WITH THE GENERAL CONTRACTOR, WHO SHALL PERFORM THE WORK AT PLUMBING CONTRACTORS COST. ALL FLOORS AND WALLS WHERE A PIPE HAS BEEN REMOVED AND NOT REPLACED SHALL BE PATCHED BY THE GENERAL CONTRACTOR, PLUMBING CONTRACTOR SHALL COORDINATE LOCATION AND PAY ALL COSTS.

PIPE HANGER SCHEDULE

PIPE SIZE (INCHES)	MAXIMUM HORIZONTAL SPACING (FEET)				SINGLE STEEL ROD HANGER SIZE (INCHES)		HANGER TYPE STEEL	MAXIMUM VERTICAL SPACING (FEET)			
	COPPER TUBE	CAST IRON	STEEL PIPE	CPVC PIPE	TUBING	PIPING		COPPER TUBE	CAST IRON	STEEL PIPE	CPVC PIPE
½"	6	5	8 (5)	3	¼"	⅜"	BAND	10	15	15	10
¾"	6	5	8 (5)	3	¼"	⅜"	BAND	10	15	15	10
1"	6	5	8 (5)	3	¼"	⅜"	BAND	10	15	15	10
1¼"	6	5	9 (5)	4	¼"	⅜"	CLEVIS	10	15	15	10
1½"	6	5	9 (5)	4	¼"	⅜"	CLEVIS	10	15	15	10
2"	10	5	10 (5)	4	¼"	⅜"	CLEVIS	10	15	15	10
2½"	10	5	12 (5)	4	⅜"	½"	CLEVIS	10	15	15	10
3"	10	5	12 (5)	4	⅜"	½"	CLEVIS	10	15	15	10
4"	10	5	12 (5)	4	½"	⅝"	CLEVIS	10	15	15	10
5"	10	5	12 (5)	4	½"	⅝"	CLEVIS	10	15	15	10
6"	10	5	12 (5)	4	½"	¾"	CLEVIS	10	15	15	10
8"	10	5	12 (5)	4	⅝"	⅞"	CLEVIS	10	15	15	10
10"	10	5	12 (5)	4	⅝"	⅞"	CLEVIS	10	15	15	10
12"	10	5	12 (5)	4	⅝"	⅞"	CLEVIS	10	15	15	10

NOTES:
1. MAXIMUM HORIZONTAL SPACING OF CAST-IRON PIPE HANGERS SHALL BE INCREASED TO 10 FEET WHERE 10 FOOT LENGTHS OF PIPE ARE INSTALLED.
2. INSTALL HANGER OR SUPPORT CLOSE TO THE POINT OF CHANGE OF DIRECTION IN ALL PIPE RUNS.
3. INSTALL ADDITIONAL HANGERS ON SUPPORTS AT CONCENTRATED LOADS.
4. SUPPORT ALL BRANCH PIPING OVER 5'-0" IN LENGTH.
5. ½" GAS PIPING SHALL BE SUPPORTED EVERY 6'-0". ¾" AND 1" GAS PIPING SHALL BE SUPPORTED EVERY 8'-0". 1¼" AND LARGER GAS PIPING SHALL BE SUPPORTED EVERY 10'-0".
6. SUPPORT VERTICAL PIPING AT EVERY FLOOR.

SERVICE WATER PIPING INSULATION - COMMERCIAL
(THICKNESS IN INCHES)

PIPING ON RETURN CIRCULATION HOT WATER SYSTEMS SHALL BE INSULATED WITH 1 INCH OF INSULATION HAVING A CONDUCTIVITY NOT EXCEEDING 0.28 BTU PER INCH/H x FT² x °F (1.94 W PER 25 MM/M² x K). THE FIRST 8 FEET OF PIPING IN NONCIRCULATING SYSTEMS SERVED BY EQUIPMENT WITHOUT INTEGRAL HEAT TRAPS SHALL BE INSULATED WITH 0.5 INCH OF MATERIAL HAVING A CONDUCTIVITY NOT EXCEEDING 0.28 BTU PER INCH/H x FT² x °F (1.94 W PER 25 MM/M² x K).

PIPE HANGER SCHEDULE

PIPE SIZE INCHES	SPACING - FEET SCHEDULE 40 PVC PIPE WATER	ROD SIZE STEEL INCHES	HANGER TYPE STEEL
¾	4	¼"	CLEVIS HANGER
1	4.5	¼"	CLEVIS HANGER
1¼	5	¼"	CLEVIS HANGER
1½	5	⅜"	CLEVIS HANGER
2	5	⅜"	CLEVIS HANGER
2½	6	⅜"	CLEVIS HANGER
3	6	⅜"	CLEVIS HANGER
4	6.5	½"	CLEVIS HANGER

PLUMBING PIPE INSULATION SCHEDULE

SERVICE	INSULATION THICKNESS (INCHES) PIPE SIZE (INCHES)	
	BELOW 1½"	1½" AND OVER
COLD WATER	½"	½"
HOT WATER	1"	1½"
HOT WATER RECIRCULATION	1"	1½"
HORIZONTAL / VERTICAL STORM PIPING	1"	1"

NOTES:
1. PIPE COVERING SHALL BE FIBERGLASS PIPE INSULATION WITH: FIRE RETARDANT VAPOR BARRIER JACKET, 0.23 K-FACTOR AT 75°F MEAN TEMPERATURE, FLAME SPREAD = 25, SMOKE DEVELOPED = 50.
2. FITTINGS AND VALVES SHALL BE PROVIDED WITH PREMOLDED FITTING COVERS WITH PVC JACKETING OVAL IN THICKNESS AND MATERIAL TO ADJOINING PIPE INSULATION.

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PLUMBING EQUIPMENT SCHEDULE

SYMBOL	MANUFACTURER	CATALOG #	DESCRIPTION
—— S ——	————	————	SANITARY PIPING, SCHEDULE 40 PVC, PVC FITTINGS WITH SOLVENT WELDED JOINTS BELOW GRADE. SCHEDULE 40 PVC WITH SOLVENT WELDED JOINTS 6" ABOVE GRADE.
— —V— —	————	————	VENT PIPING, SCHEDULE 40 PVC, PVC FITTINGS WITH SOLVENT WELDED JOINTS BELOW GRADE AND SCHEDULE 40 PVC WITH SOLVENT WELDED JOINTS 6" ABOVE GRADE.
—— C ——	————	————	DOMESTIC COLD WATER PIPING, COPPER TYPE "L" WITH LEADFREE SOLDER JOINTS ABOVE GRADE AND COPPER TYPE "K" FOR UNDERGROUND PIPING 3" OR LESS. NO JOINTS PERMITTED BELOW GRADE. INSULATE UNDERGROUND WITH 1" THICK ELASTOMERIC INSULATION. INSULATE ALL ABOVE GROUND PIPING WITH ½" THICK FIBERGLASS PIPE INSULATION WITH VAPOR PROOF JACKET, TAPED JOINTS AND PVC FITTING COVERS. EXPOSED PIPING IN FINISHED AREAS OR AS NOTED SHALL BE COVERED WITH PVC PIPE COVER AND PAINTED. (1) - COAT PRIMER, (2) COATS - PAINT. COLOR AS DIRECTED BY ARCHITECT
—— H ——	————	————	DOMESTIC HOT WATER PIPING, COPPER TYPE "L" WITH LEADFREE SOLDER JOINTS ABOVE GRADE AND COPPER TYPE "K" FOR UNDERGROUND PIPING. NO JOINTS PERMITTED BELOW GRADE. INSULATE UNDERGROUND PIPING UP TO 1 ½" DIA WITH 1" AND PIPING ABOVE 1 ½" DIA USE 1 ½" THICK ELASTOMERIC INSULATION. INSULATE ALL ABOVE GROUND PIPING UP TO 1 ½" DIA WITH 1" AND PIPING ABOVE 1 ½" DIA USE 1 ½" THICK FIBERGLASS PIPE INSULATION WITH VAPOR PROOF JACKET, TAPED JOINTS AND PVC FITTING COVERS. EXPOSED PIPING IN FINISHED AREAS OR AS NOTED SHALL BE COVERED WITH PVC PIPE COVER AND PAINTED. (1) - COAT PRIMER, (2) COATS - PAINT. COLOR AS DIRECTED BY ARCHITECT
—— R ——	————	————	DOMESTIC HOT WATER RECIRCULATION PIPING, COPPER TYPE "L" WITH LEADFREE SOLDER JOINTS ABOVE GRADE AND COPPER TYPE "K" FOR UNDERGROUND PIPING. NO JOINTS PERMITTED BELOW GRADE. INSULATE UNDERGROUND PIPING UP TO 1 ½" DIA WITH 1" AND PIPING ABOVE 1 ½" DIA USE 1 ½" THICK ELASTOMERIC INSULATION. INSULATE ALL ABOVE GROUND PIPING UP TO 1 ½" DIA WITH 1" AND PIPING ABOVE 1 ½" DIA USE 1 ½" THICK FIBERGLASS PIPE INSULATION WITH VAPOR PROOF JACKET, TAPED JOINTS AND PVC FITTING COVERS. EXPOSED PIPING IN FINISHED AREAS OR AS NOTED SHALL BE COVERED WITH PVC PIPE COVER AND PAINTED. (1) - COAT PRIMER, (2) COATS - PAINT. COLOR AS DIRECTED BY ARCHITECT
—— CW ——	————	————	DOMESTIC WATER SERVICE PIPING, COPPER TYPE "L" WITH LEADFREE SOLDER JOINTS ABOVE GRADE AND COPPER TYPE "K" FOR UNDERGROUND PIPING DUCTILE IRON PIPE: AWWA C151, FITTINGS: DUCTILE IRON, STANDARD THICKNESS, JOINTS: AWWA C111, RUBBER GASKET WITH ¼ INCH DIAMETER RODS. INSULATE ALL ABOVE GROUND PIPING WITH ½" THICK FIBERGLASS PIPE INSULATION WITH VAPOR PROOF JACKET, TAPED JOINTS AND PVC FITTING COVERS.
—— TF ——	————	————	TRUCKFILL WATER PIPING, COPPER TYPE "L" WITH LEAD FREE SOLDER JOINTS ABOVE GRADE. INSULATE ALL PIPING WITH ½" THICK FIBERGLASS PIPE INSULATION WITH VAPOR PROOF JACKET, TAPED JOINTS AND PVC FITTING COVERS. EXPOSED PIPING IN FINISHED AREAS OR AS NOTED SHALL BE COVERED WITH PVC PIPE COVER AND PAINTED. (1) - COAT PRIMER, (2) COATS - PAINT. COLOR AS DIRECTED BY ARCHITECT
—— CA ——	————	————	COMPRESSED AIR PIPING, SCHEDULE 40 GALVANIZED STEEL WITH SCREWED JOINTS AND FITTINGS A120 STANDARD WEIGHT.
CA	————	————	COMPRESSED AIR QUICK DISCONNECT FITTING. COORDINATE EXACT SIZE AND TYPE WITH FIRE DEPARTMENT.
TF	————	————	TRUCK FILL 2" BALL VALVE WITH 1 ½" HOSE ADAPTER FITTING, CAP & CHAIN AS APPROVED BY FIRE DEPARTMENT PRIOR TO INSTALLATION. FURNISH & INSTALL WALL HOSE RACK TO HOLD MAXIMUM 75 FEET OF 1 ½" HOSE ADJACENT TO TRUCK FILL. EXACT HEIGHT AND LOCATION AS APPROVED BY FIRE DEPARTMENT PRIOR TO INSTALLATION.
⋈	NIBCO	————	BALL VALVE, BRONZE BODY, FULL PORT.
—U	————	————	TRAP
HR-1	HANNY	818-25-26B	WATER HOSE REEL, HEAVY-DUTY SERIES 800, ¾" ID HOSE - 70 FEET LENGTH FLEX TROL, 1000 PSI, ¾" HOSE CONNECTION WITH MOUNTING BRACKETS, HOSE INLET KIT, HOSE STOP KIT AND NOZZLE (AS SELECTED BY FIRE COMPANY). EXACT LOCATION AND MOUNTING HEIGHT AS DIRECTED BY ARCHITECT.
	T&S BRASS	MV-07TI-12N-BV	WASHDOWN STATION ¾" HOT & COLD WITH CHECKVALVES, BALL VALVES, STAINLESS STEEL HOSE RACK, ¾" OUTLET HOSE CONNECTION.
CAHR-1	HANNY	NT16-19-20-10.5J	COMPRESSED AIR HOSE REEL, HEAVY-DUTY SERIES NT00, ⅜" ID HOSE - 50 FEET LENGTH, 3000 PSI, ½" HOSE CONNECTION WITH MOUNTING BRACKETS, HOSE INLET KIT, HOSE STOP KIT AND QUICK DISCONNECT AIR FITTING (AS SELECTED BY FIRE COMPANY). EXACT LOCATION AND MOUNTING HEIGHT AS DIRECTED BY ARCHITECT.
SA	ZURN	Z-1700 SERIES	WATER HAMMER ARRESTER, STAINLESS STEEL CONSTRUCTION, PRESSURIZED COMPRESSION CHAMBER, COMPLIANT WITH PDI STANDARD WH-201.
WC-1	AMERICAN STANDARD	3043.001	MADERA RIGHT HEIGHT EL 1.28 ELONGATED FLUSH VALVE TOILET, VITREOUS CHINA, DIRECT-FED SIPHON JET, 1½" TOP SPUD INLET, OPEN FRONT SEAT WITH COVER. COLOR AS DIRECTED BY ARCHITECT. INSTALL IN ACCORDANCE WITH ANSI A117.1 AND ADA STANDARDS FOR HANDICAP ACCESSIBILITY. COLOR BY ARCHITECT.
	SLOAN	111-1.28 ES-S	EXPOSED SENSOR OPERATED WATER CLOSET FLUSHOMETER, LOW CONSUMPTION (1.28 GPF) WITH EL-154 TRANSFORMER (120 VAC / 24 VAC).
UR-1	AMERICAN STANDARD	6509.001	WASHBROOK URINAL CONSTRUCTED OF VITREOUS CHINA, TOP SPUD LOW CONSUMPTION (0.5 GPF). COLOR AS DIRECTED BY ARCHITECT.
	SLOAN	186-0.5 ES-S	EXPOSED SENSOR OPERATED URINAL FLUSHOMETER, LOW CONSUMPTION (0.5 GPF) WITH EL-154 TRANSFORMER (120 VAC / 24 VAC).
L-1	AMERICAN STANDARD	0355.012	LUCERNE WALL HUNG LAVATORY VITREOUS CHINA, 4" CENTERS FAUCET HOLES, FLOOR MOUNTED CONCEALED ARM SUPPORT CARRIER, CHROME OFFSET GRID DRAIN WITH OVERFLOW AND 17 GAUGE TRAP, CHROME WATER SUPPLIES AND KEY OPERATED STOPS, IPS TRUEBRO LAV GUARD INSULATION KIT. INSTALL IN ACCORDANCE WITH ANSI A117.1 AND ADA STANDARDS FOR HANDICAP ACCESSIBILITY.
	ZURN	Z1231	CONCEALED ARM SUPPORT CARRIER FOR WALL LAVATORIES.
	SLOAN	ETF-600	OPTIMA ELECTRONIC HAND WASHING FAUCET 0.5 GPM VANDAL RESISTANT SPRAY HEAD. SENSOR ACTIVATED WITH 4" DECK PLATE, SOLID BRASS SOLENOID, PLUG-IN TRANSFORMER 120 VAC / 12 VDC. THERMOSTATIC MIXING VALVE, KEY OPERATED STOPS, 17 GAUGE P-TRAP W/CLEANOUT AND GRID STRAINER. INSTALL IN ACCORDANCE WITH ANSI A117.1 AND ADA STANDARDS FOR HANDICAP ACCESSIBILITY - 120 VAC/24 VAC.
L-2	AMERICAN STANDARD	0476.028	AQUALYN COUNTERTOP LAVATORY VITREOUS CHINA, 4" CENTERS FAUCET HOLES, CHROME OFFSET GRID DRAIN WITH OVERFLOW AND 17 GAUGE TRAP, CHROME WATER SUPPLIES AND KEY OPERATED STOPS, IPS TRUEBRO LAV GUARD INSULATION KIT. INSTALL IN ACCORDANCE WITH ANSI A117.1 AND ADA STANDARDS FOR HANDICAP ACCESSIBILITY.
	SLOAN	ETF-600	OPTIMA ELECTRONIC HAND WASHING FAUCET 0.5 GPM VANDAL RESISTANT SPRAY HEAD. SENSOR ACTIVATED WITH 4" DECK PLATE, SOLID BRASS SOLENOID, PLUG-IN TRANSFORMER 120 VAC / 12 VDC. THERMOSTATIC MIXING VALVE, KEY OPERATED STOPS, 17 GAUGE P-TRAP W/CLEANOUT AND GRID STRAINER. INSTALL IN ACCORDANCE WITH ANSI A117.1 AND ADA STANDARDS FOR HANDICAP ACCESSIBILITY - 120 VAC/24 VAC.
SH-1	SYMMONS	SAFETYMIX I-IIT-FS	SHOWER VALVE, PRESSURE BALANCING, LEVERTROL LEVER DIVERTER, SUPER SHOWER HEAD, FSB HAND SPRAY UNIT WITH 60" FLEXIBLE HOSE, 30" SLIDE BAR, WALL CONNECTION, IN-LINE VACUUM BREAKER, INTEGRAL STOPS, 2.0 GPM RESTRICTOR, LEVER HANDLE CONTROL, ADA COMPLIANT. INSTALL IN ACCORDANCE WITH ANSI A117.1 AND ADA STANDARDS FOR HANDICAP ACCESSIBILITY. SEE ARCHITECTURAL DRAWINGS
	ZURN	415	FLOOR DRAIN, DURA COATED, 5" x 5" SQUARE NICKEL BRONZE TYPE "S" STRAINER, 2" OUTLET.
FD-1	ZURN	415	FLOOR DRAIN, DURA COATED, 6" x 6" SQUARE NICKEL BRONZE TYPE "S" STRAINER, 3" OUTLET.
	PROSET	TRAP GUARD	TRAP GUARD FOR EMERGENCY FLOOR
TD-1	JAY R SMITH	2710 SERIES	TRENCH DRAIN, DUCO CAST IRON COATED, (12" x 12") 3 - SECTIONS, END PLATES WITH HEAVY DUTY DUCTILE IRON GRATE - M. EPOXY COATED COLOR AS DIRECTED BY ARCHITECT. SEDIMENT BUCKET. 4" OUTLET.
EW-1	GUARDIAN	61814	WALL MOUNT EMERGENCY EYE WASH. STAINLESS STEEL BOWL, TWO GS-PLUS SPRAY HEADS WITH STAINLESS STEEL BOWL COVER (BC). ½" NPT SUPPLY AND ¼" NPT DRAIN WITH ELBOW AND PIPE EXTENDED 6" ABOVE APPARATUS ROOM FLOOR. FC20 REGULATES EACH SPRAY HEAD FLOW TO 1.6 GPM. INSTALL IN ACCORDANCE WITH ANSI A117.1 AND ADA STANDARDS FOR HANDICAP ACCESSIBILITY.
		G3600LF TMV	EMERGENCY EYE WASH MIXING VALVE, FACTORY SET TO 85°F, HIGH TEMPERATURE LIMIT SET TO 90°F, 3.5 GPM @ 15 PSI DROP. MIXING VALVE WILL CLOSE DOWN ON FAILURE OF COLD WATER. SPECIAL INTERNAL COLD WATER BYPASS. COMPLIANCE WITH ANSI Z 358.1

PLUMBING EQUIPMENT SCHEDULE CONT'

SYMBOL	MANUFACTURER	CATALOG #	DESCRIPTION
SS-1	AMERICAN STANDARD	7645.000	AKRON SERVICE SINK, ENAMELED CAST IRON, WITH WALL HANGER, RIM GUARD, 3" CAST IRON P-TRAP AND CLEANOUT. COLOR AS DIRECTED BY ARCHITECT.
		8344.112	EXPOSED YOKE WALL MOUNTED UTILITY FAUCET WITH METAL HANDLES, VACUUM BREAKER, TOP BRACE AND INTEGRAL STOPS.
DF-1	ELKAY	EHWM2117C	TWO LEVEL SOFT SIDES HEAVY DUTY STAINLESS STEEL DRINKING FOUNTAIN WITH WALL PLATE, INTEGRAL P-TRAP, BOTTOM PLATES. INSTALL IN ACCORDANCE WITH ANSI A117.1 AND ADA STANDARDS FOR HANDICAP ACCESSIBILITY. FIXTURE AS SELECTED BY OWNER
NFHB-1	WOODFORD	67	3/4" WALL HYDRANT NON-FREEZE, SELF-DRAINING, VANDAL RESISTANT INTEGRAL VACUUM BREAKER, KEY OPERATED, CHROME FINISH.
C.O.	————	————	CLEANOUT
F.C.O.	————	————	FLOOR CLEANOUT PEDESTRIAN TRAFFIC SEE DETAIL #7 ON DRAWING (P500)
F.C.O.-1	————	————	FLOOR CLEANOUT VEHICLE/TRUCK TRAFFIC (SEE DETAIL #4 ON DRAWING (P500)
W.C.O.	————	————	WALL CLEANOUT SEE DETAIL #5 ON DRAWING (P500)
EX.C.O.	————	————	EXTERIOR CLEANOUT SEE DETAIL #3 ON DRAWING (P500)
TPU-1	MIFAB	MI-300-625 -120	ELECTRONIC TRAP SEAL PRIMER SYSTEM WITH ENCLOSURE, AIR GAP, SOLENOID VALVE, ADJUSTABLE TIMER AND MI-DU DISTRIBUTION UNIT (MI-DI-625) WITH (5) ⅜" PIPE CONNECTIONS, CAP UNUSED PIPE CONNECTIONS - 120V/1. MOUNT UNIT AS DIRECTED IN FIELD BY ARCHITECT
TP-1	MIFAB	M-500, MI-DU MI-GAP	TRAP SEAL PRIMER WITH DISTRIBUTION UNIT TO SERVE UP TO FOUR (4) FLOOR DRAINS AND AIR GAP FITTING (MI-GAP).
WB-1	OATEY	12K	WALL BOX WITH BRASS VALVE & COPPER CONNECTION.
EW-1	GUARDIAN	61814	WALL MOUNT EMERGENCY EYE WASH. STAINLESS STEEL BOWL, TWO GS-PLUS SPRAY HEADS WITH STAINLESS STEEL BOWL COVER (BC). ½" NPT SUPPLY AND ¼" NPT DRAIN WITH ELBOW AND PIPE EXTENDED 6" ABOVE APPARATUS ROOM FLOOR. FC20 REGULATES EACH SPRAY HEAD FLOW TO 1.6 GPM. INSTALL IN ACCORDANCE WITH ANSI A117.1 AND ADA STANDARDS FOR HANDICAP ACCESSIBILITY.
		G3600LF TMV	EMERGENCY EYE WASH MIXING VALVE, FACTORY SET TO 85°F, HIGH TEMPERATURE LIMIT SET TO 90°F, 3.5 GPM @ 15 PSI DROP. MIXING VALVE WILL CLOSE DOWN ON FAILURE OF COLD WATER. SPECIAL INTERNAL COLD WATER BYPASS. COMPLIANCE WITH ANSI Z 358.1
WH-1	VISESSMANN	300 V EVIB-79	VITOCELL INDIRECT WATER HEATER, 79 GAL. STORAGE, RECOVERY: 236 GPH @ 90° RISE INPUT: 177 MBH @ 13.2 GPM (MIN). 194°F E.W.T.
ST-1	AMTROL	ST-12V	THERM-X-TROL DOMESTIC HOT WATER SYSTEM THERMAL EXPANSION TANK, MAXIMUM WORKING PRESSURE 150 (PSIG)
P-1	GRUNDFOS	UP 15-42BT	DOMESTIC HOT WATER RECIRCULATION PUMP, BRONZE BODY WITH AQUASTAT AND "UP" TIMER. 8 GPM @ 10 FEET OF HEAD 1/25 HP - 120V/1
ID-1	————	————	INDIRECT WASTE FUNNEL DRAIN PVC. 2" OUTLET.
	RECTORSEAL	97046	SURESEAL PLUS 2" DRAIN TRAP SEAL/CHECK VALVE.

No.	REVISION/SUBMISSION	DATE

Mechanical/Electrical/Plumbing Engineer

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

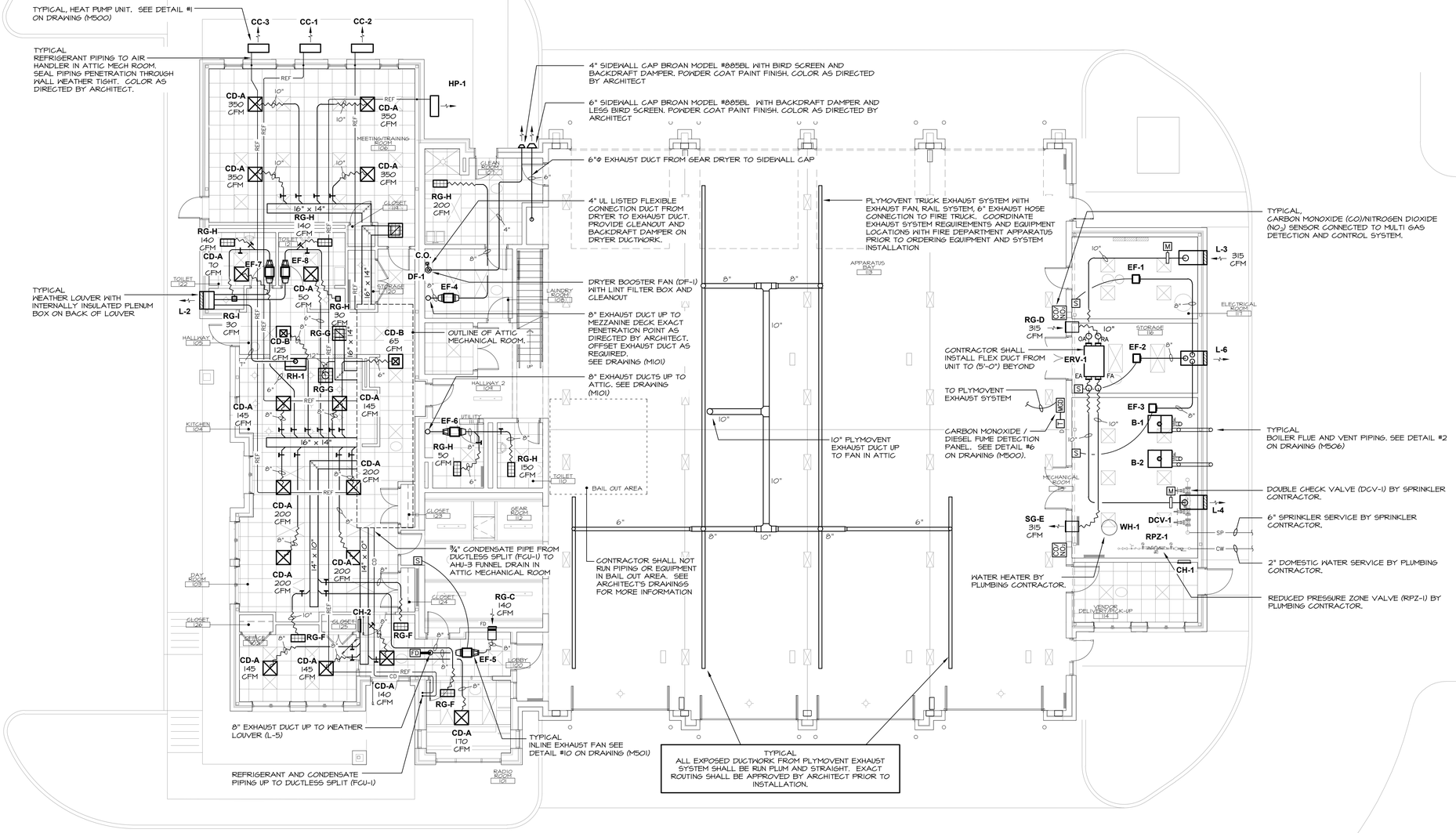
DRAWING
PLUMBING:
EQUIPMENT SCHEDULES

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
P601

FILE H:\2021\GA21063



1 MECHANICAL: FIRST FLOOR PLAN
1/8"= 1'-0"

No.	REVISION/SUBMISSION	DATE

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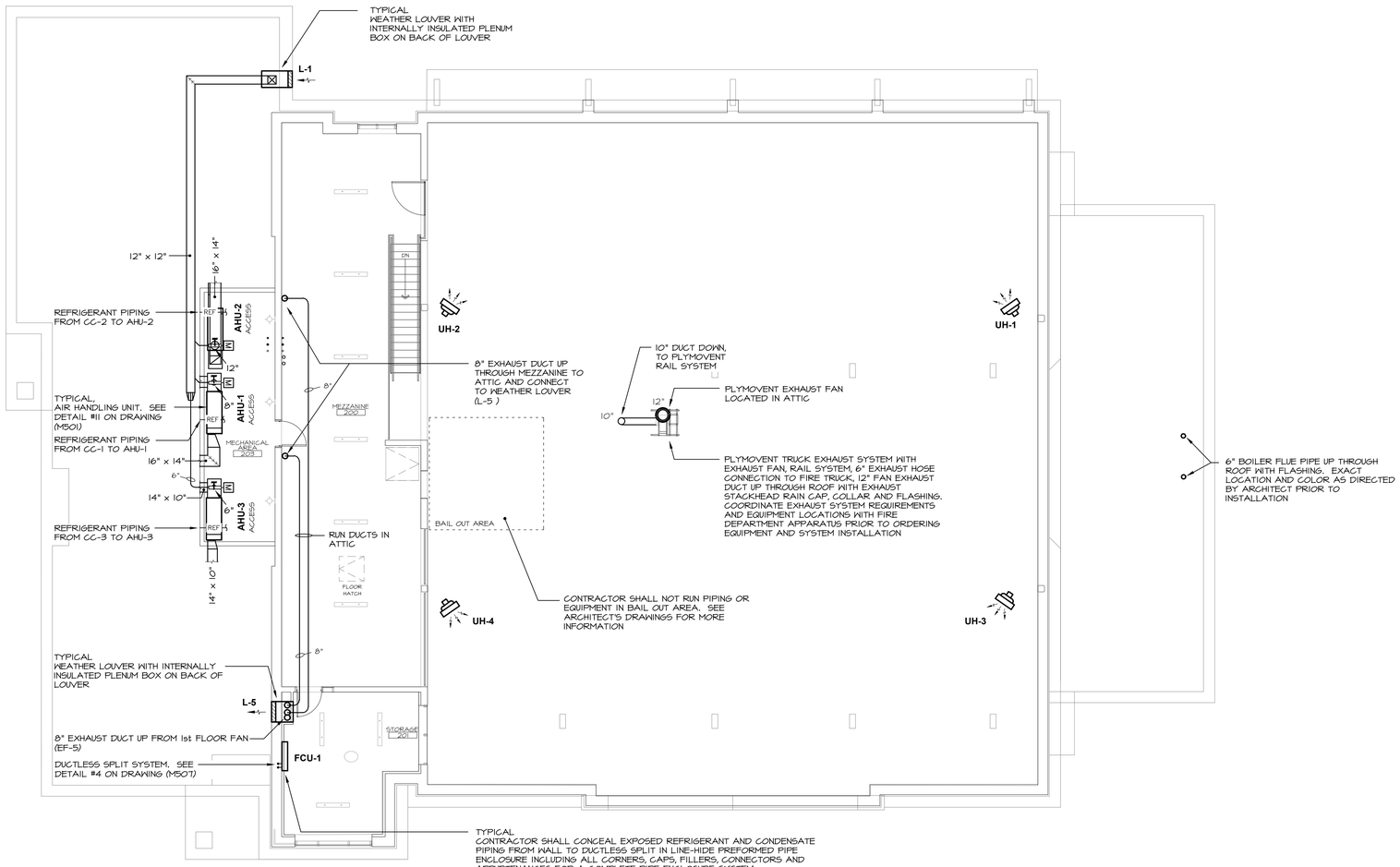
DRAWING
MECHANICAL:
PROPOSED FIRST FLOOR PLAN

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
M100

FILE H:\2021\GA21063



1 MECHANICAL: MEZZANINE FLOOR PLAN
1/8"= 1'-0"

No.	REVISION/SUBMISSION	DATE

Mechanical/Electrical/Plumbing Engineer

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GA2106.3

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PROJECT
NEW FIRE STATION FOR
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NYS ROUTE 52, FISHKILL, NY

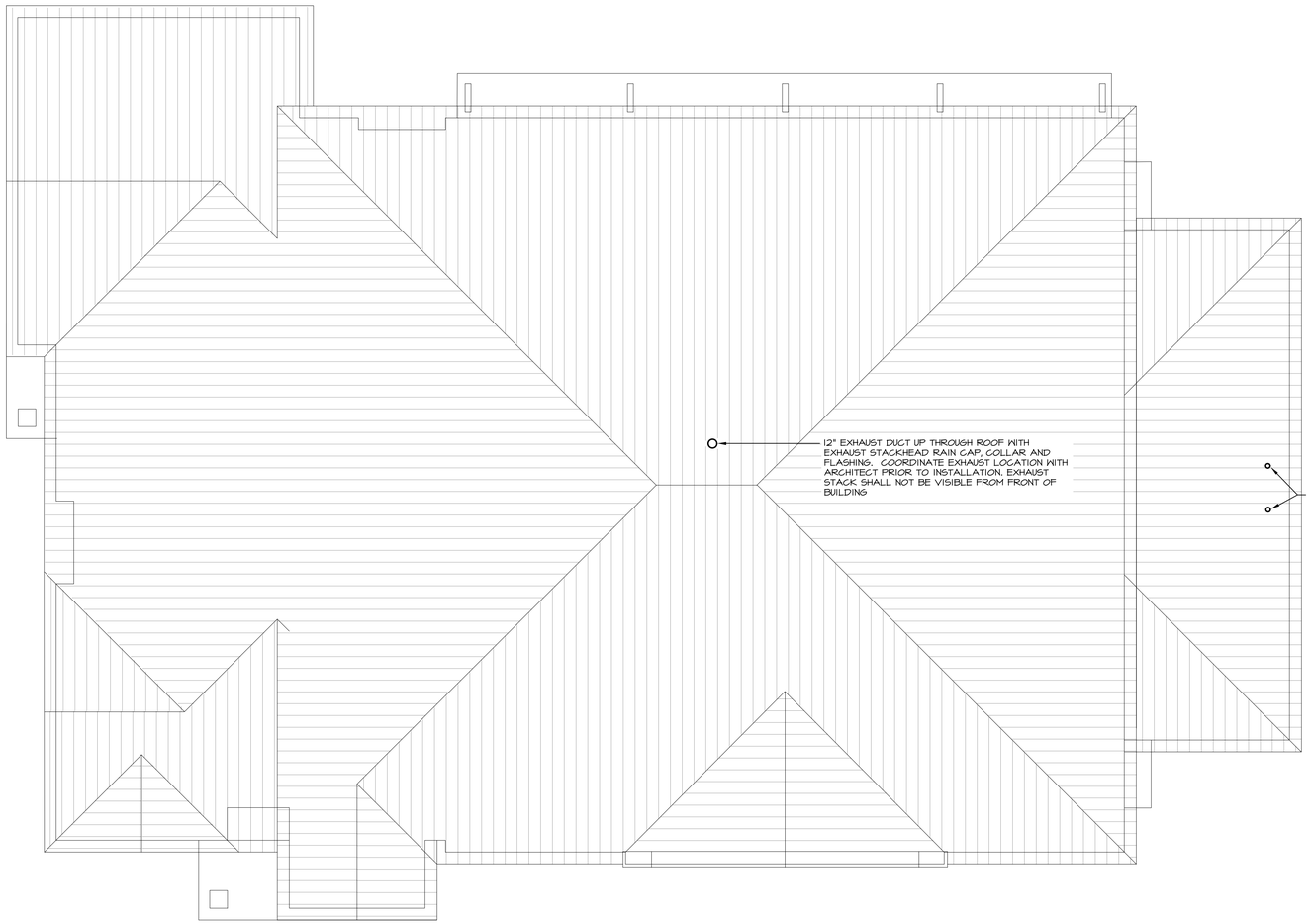
DRAWING
MECHANICAL:
PROPOSED MEZZANINE

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
M101

FILE H:\2021\GA2106.3



1 MECHANICAL: PROPOSED ROOF PLAN
1/8" = 1'-0"

No.	REVISION/SUBMISSION	DATE

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PROJECT
NEW FIRE STATION FOR ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

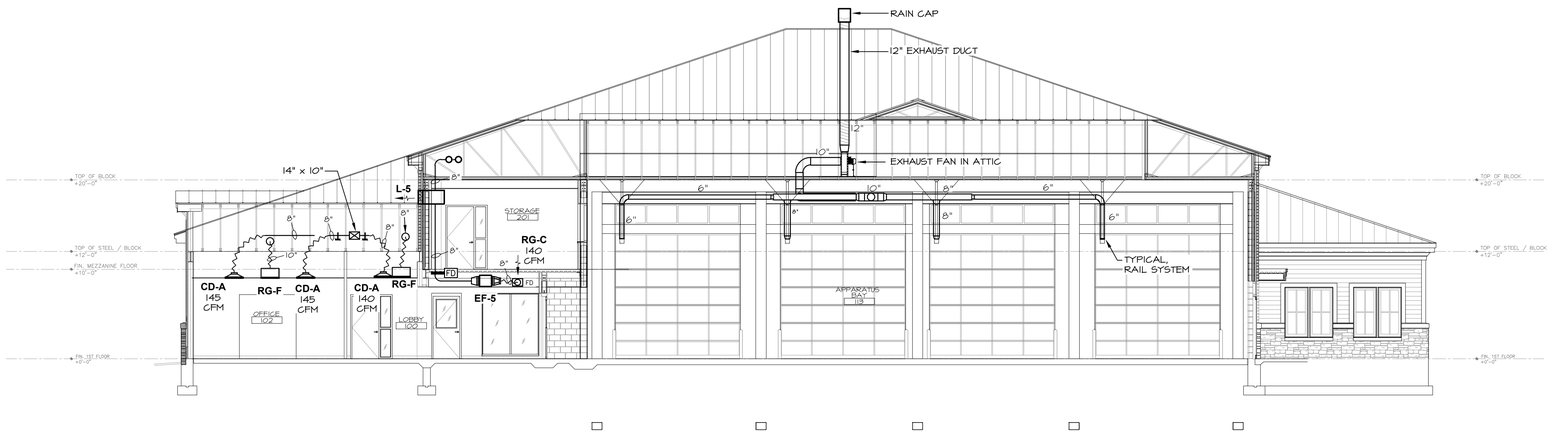
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MECHANICAL:
PROPOSED ROOF PLAN

SEAL

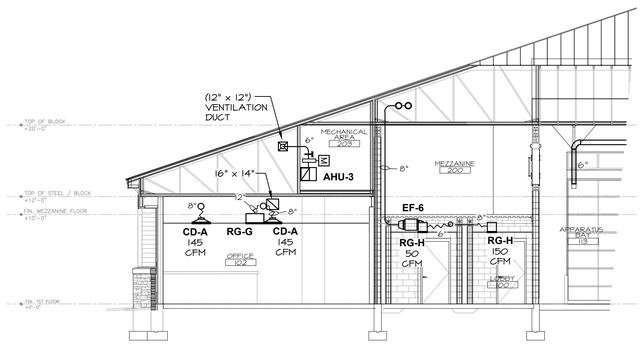
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RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
M102

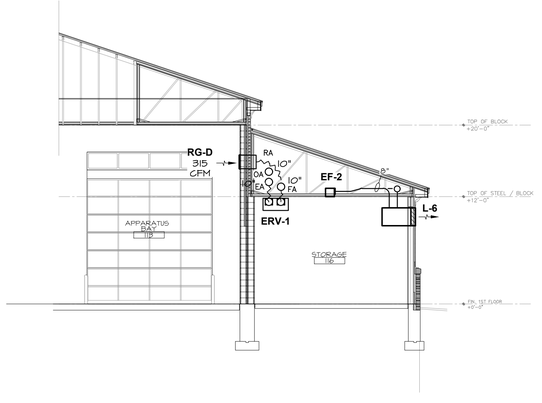
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1 MECHANICAL: SECTION A
1/8" = 1'-0"



2 MECHANICAL: SECTION B
1/8" = 1'-0"



3 MECHANICAL: SECTION C
1/8" = 1'-0"

No.	REVISION/SUBMISSION	DATE

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

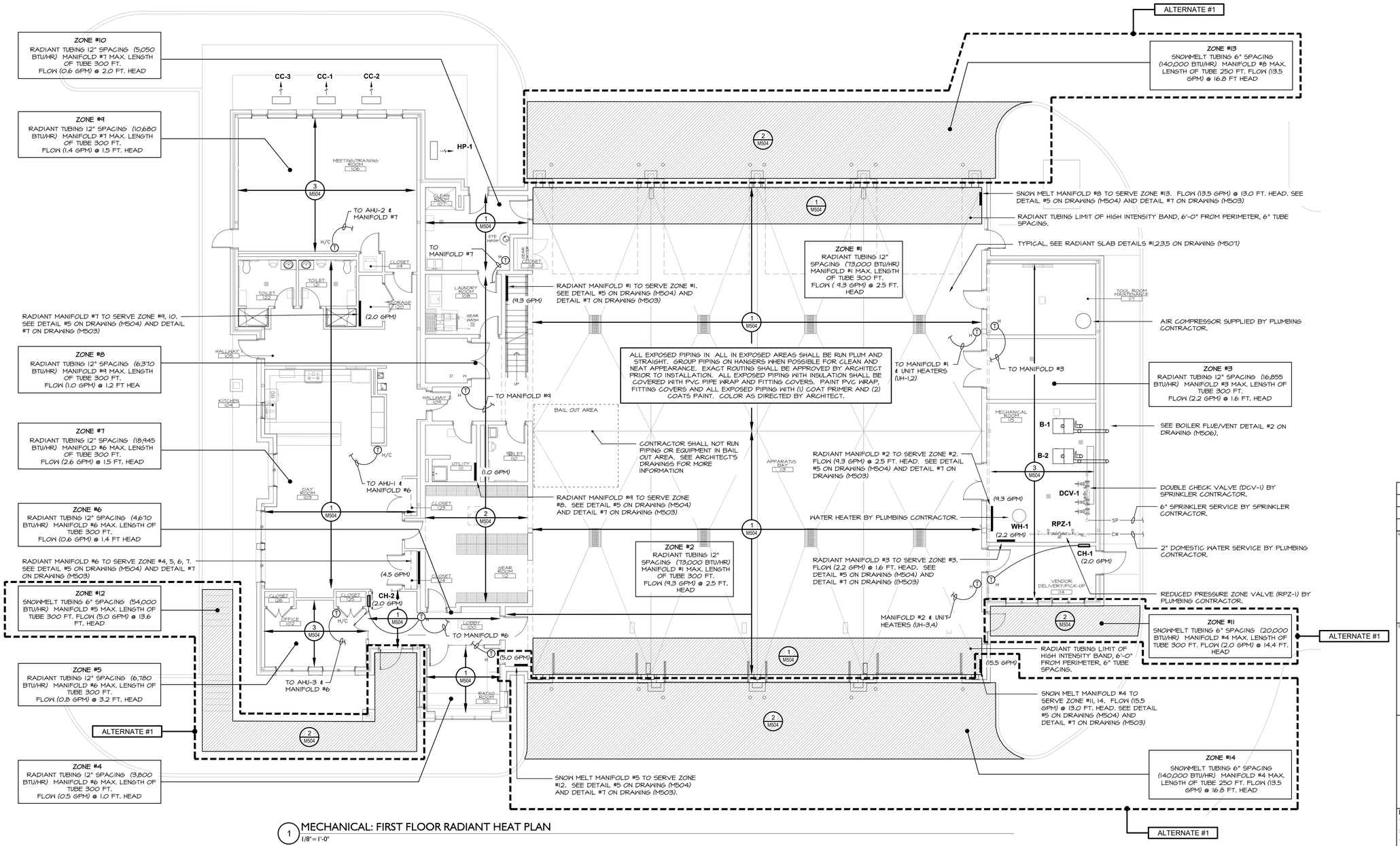
DRAWING
MECHANICAL:
PROPOSED SECTIONS

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
M103

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1 MECHANICAL: FIRST FLOOR RADIANT HEAT PLAN
1/8"= 1'-0"

No.	REVISION/SUBMISSION	DATE

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PROJECT
NEW FIRE STATION FOR ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

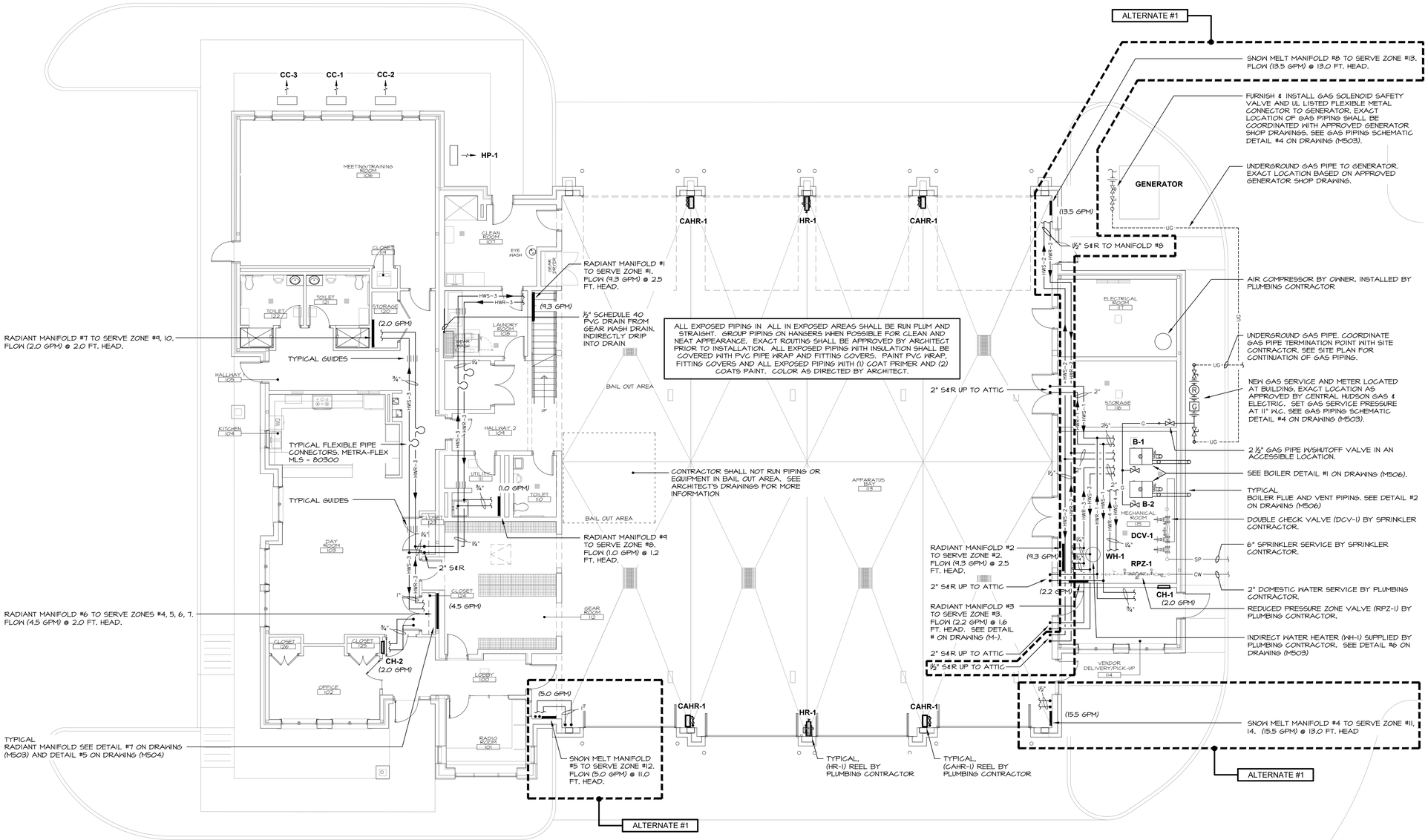
DRAWING
MECHANICAL: FIRST FLOOR RADIANT HEAT PLAN

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
M200

FILE H:\2021\GA21063



1 MECHANICAL: FIRST FLOOR HYDRONIC PIPING PLAN
1/8" = 1'-0"

No.	REVISION/SUBMISSION	DATE

Mechanical/Electrical/Plumbing Engineer

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

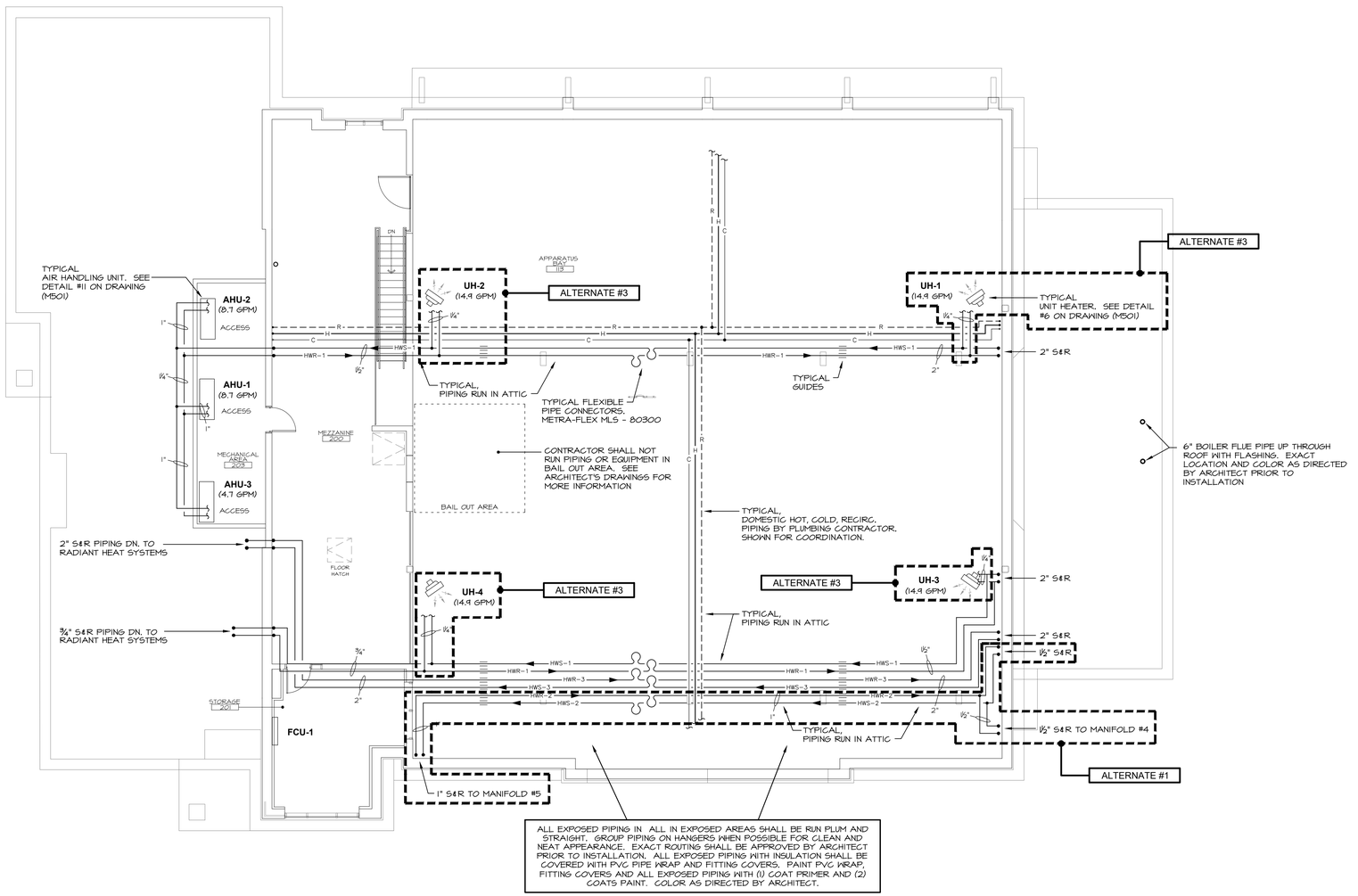
DRAWING
MECHANICAL:
FIRST FLOOR HYDRONIC PIPING PLAN

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
M300

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1 MECHANICAL: MEZZANINE HYDRONIC PIPING PLAN
1/8" = 1'-0"

No.	REVISION/SUBMISSION	DATE

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PROJECT
NEW FIRE STATION FOR ROMBOUT FIRE DISTRICT - STATION 2
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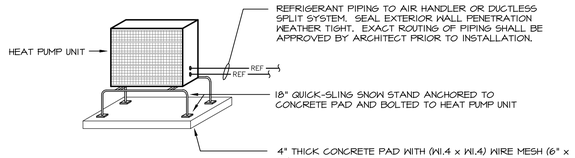
DRAWING
MECHANICAL:
MEZZANINE HYDRONIC PIPING PLAN

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
M301

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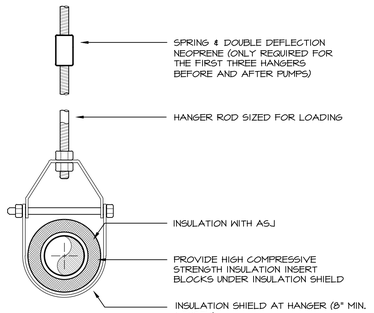


NOTE:

REFRIGERANT PIPING SHALL BE COPPER TUBING TYPE ACR HARD DRAWN. WROUGHT COPPER FITTINGS, SILVER BRAZE JOINTS. SIZE REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS BASED ON ELEVATION AND LENGTH. INSULATE SUCTION LINE WITH 1 ½" ELASTROMETRIC CELLULAR FOAM. CONCEAL REFRIGERATION PIPING ABOVE CEILING OR IN SOFFITS. SEAL EXTERIOR WALL PENETRATION WEATHER TIGHT. COLOR AS DIRECTED BY ARCHITECT.

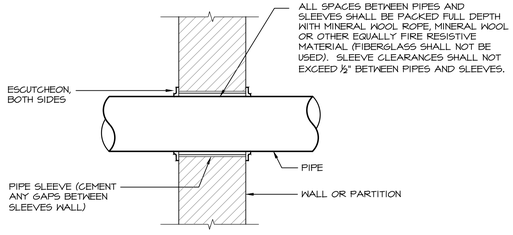
1 HEAT PUMP UNIT DETAIL - (CC-1, 2, 3 - HP-1)

NOT TO SCALE



2 PIPE HANGER DETAIL

NOT TO SCALE

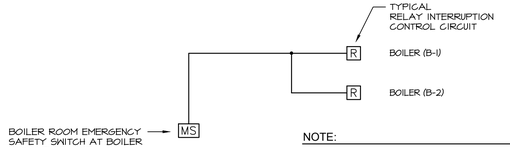


NOTE:

THIS DETAIL ALSO APPLICABLE TO INTERIOR NON-WATER PROOF FLOOR CONSTRUCTION. FOR WATER PROOF FLOOR CONSTRUCTION AND OTHER CONSTRUCTION - SEE SPECIFICATIONS.

3 FIRE RATED PARTITION AND WALL PENETRATION DETAIL

NOT TO SCALE

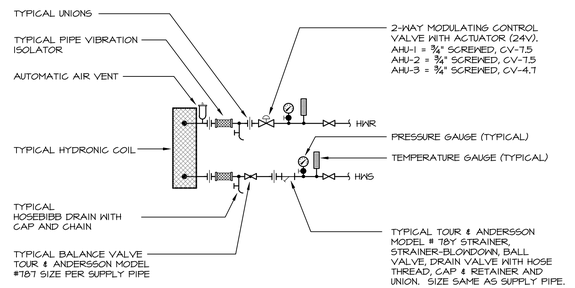


NOTE:

UPON ACTIVATION OF BOILER ROOM EMERGENCY SAFETY SWITCH, POWER TO THE CONTROL CIRCUIT RELAY SHALL BE INTERRUPTED, DE-ENERGIZING THE PRIMARY CONTROL CIRCUIT TO THE BOILERS.

4 BOILER ROOM EMERGENCY SHUTDOWN STATION SCHEMATIC

NOT TO SCALE

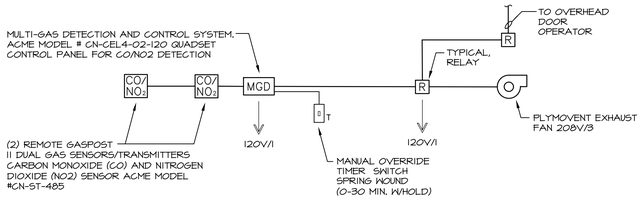


NOTES:

1. LOCATE ALL COIL UNIONS CLOSE TO, AND CLEAR OF, COIL. ARRANGE PIPING SO AS NOT TO NOT INTERFERE WITH COIL REMOVAL.
2. DETAIL 15 TYPICAL FOR AIR HANDLING UNITS.
3. PROVIDE FLEXIBLE CONNECTION FOR THOSE COILS MOUNTED IN UNITS ON VIBRATION ISOLATORS.

5 AIR HANDLER HYDRONIC COIL CONNECTION DETAIL

NOT TO SCALE

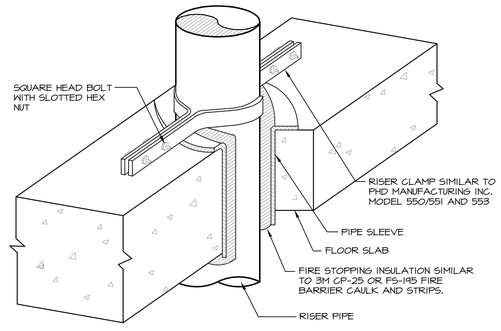


NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL A MULTI-GAS DETECTION CONTROL SYSTEM WITH REMOTE DUAL GAS SENSORS/TRANSMITTERS CARBON MONOXIDE (CO) AND NITROGEN DIOXIDE (NO2) AND MANUAL OVERRIDE TIMER SWITCH, INCLUDING ALL CONDUITS, CONDUCTORS, RELAYS, JUNCTION BOXES, SENSORS, APPURTENANCES AND ALL NECESSARY EQUIPMENT TO MAKE SYSTEMS COMPLETE AND OPERABLE.
2. CONTRACTOR SHALL HIRE MANUFACTURER'S REPRESENTATIVE TO FURNISH COMPLETE EQUIPMENT, WIRING DIAGRAMS WITH SYSTEM OPERATING DESCRIPTION FOR ENGINEER'S APPROVAL. MANUFACTURER'S REPRESENTATIVE SHALL INSPECT SYSTEM INSTALLATION AND TEST ALL SENSORS AND OPERATION OF SYSTEM. SUBMIT REPORT ON FINDINGS TO ENGINEER FOR REVIEW.
3. ELEVATION OF SENSORS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND GENERALLY ACCEPTED INDUSTRY STANDARDS.

6 CARBON MONOXIDE (CO)/NITROGEN DIOXIDE (NO2) FUEL DETECTION SYSTEM

NOT TO SCALE



NOTES:

1) HOLES FOR PENETRATIONS SHALL BE CORE DRILLED.

7 VERTICAL PIPE SUPPORT DETAIL

NOT TO SCALE

No.	REVISION/SUBMISSION	DATE

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PROJECT

NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING

MECHANICAL:
DETAILS

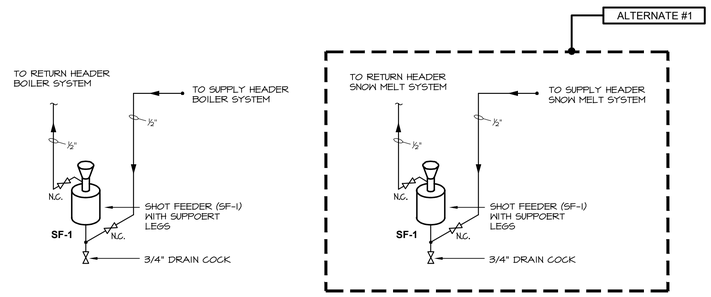
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CHECKED BY	DATE
JT/GH	11-30-22

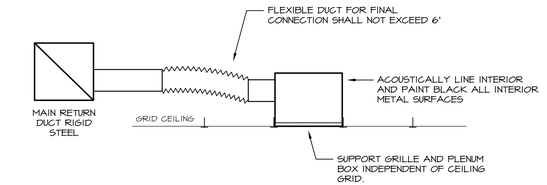
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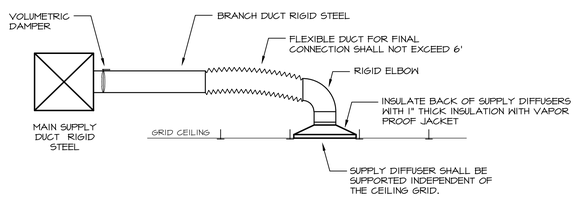
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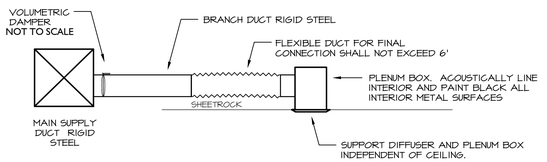
1 SHOT FEEDER (SF-1) PIPING DETAIL
NOT TO SCALE



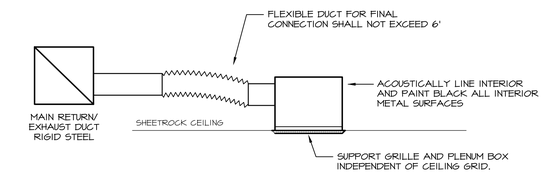
2 RETURN GRILLE LAY-IN DETAIL
NOT TO SCALE



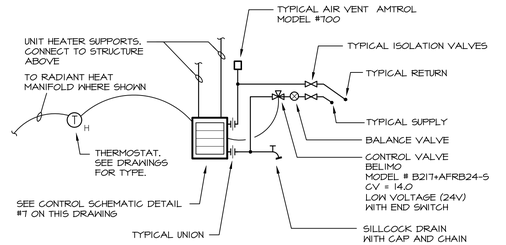
3 SUPPLY DIFFUSER LAY-IN DETAIL
NOT TO SCALE



4 SUPPLY DIFFUSER SURFACE MOUNT DETAIL
NOT TO SCALE



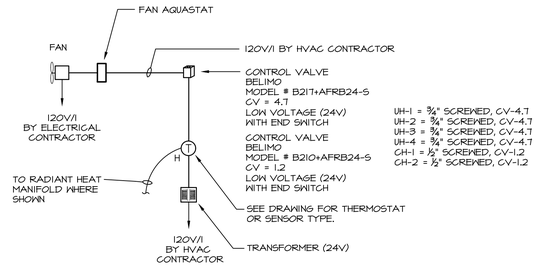
5 RETURN GRILLE SURFACE MOUNT DETAIL
NOT TO SCALE



NOTE:
EXACT ELEVATION OF UNIT HEATER SHALL BE DETERMINED IN FIELD AND APPROVED BY ARCHITECT/ENGINEER PRIOR TO INSTALLATION.

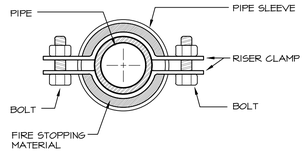
UH-1 = ¾" SCREWED, CV-14.0
UH-2 = ¾" SCREWED, CV-14.0
UH-3 = ¾" SCREWED, CV-14.0
UH-4 = ¾" SCREWED, CV-14.0

6 UNIT HEATER DETAIL
NOT TO SCALE

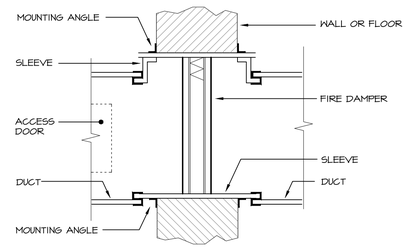


UH-1 = ¾" SCREWED, CV-4.7
UH-2 = ¾" SCREWED, CV-4.7
UH-3 = ¾" SCREWED, CV-4.7
UH-4 = ¾" SCREWED, CV-4.7
CH-1 = ½" SCREWED, CV-1.2
CH-2 = ½" SCREWED, CV-1.2

7 CABINET/UNIT HEATER CONTROL SCHEMATIC
NOT TO SCALE



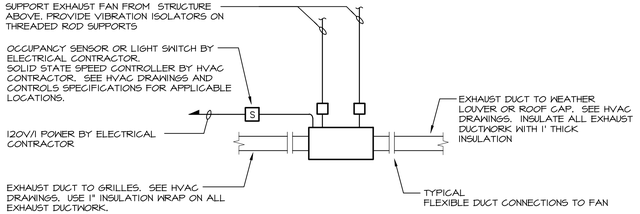
8 SUPPORT ANCHOR PIPE RISERS
NOT TO SCALE



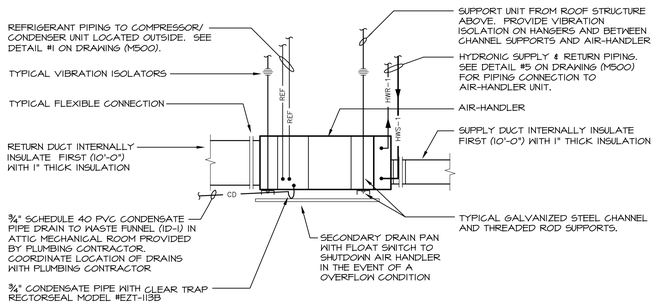
INSTALLATION REQUIREMENTS

1. REQUIREMENTS FOR AN APPROVED INSTALLATION INCLUDE THE FOLLOWING: OPENINGS IN THE FLOOR OR WALL SHALL BE ⅛" PER FOOT LARGER THAN DAMPER DIMENSIONS (⅜" LARGER PER FOOT FOR STAINLESS). MINIMUM CLEARANCE OF ¼" REQUIRED FOR ANY INSTALLATION.
2. SLEEVE GAGE SHALL BE AT LEAST EQUAL TO THE GAGE OF THE DUCT AS DEFINED BY THE APPROPRIATE SMACNA DUCT CONSTRUCTION STANDARD, AS DESCRIBED IN NFPA90A. WHEN ONE OR MORE OF THE FOLLOWING DUCT CONNECTIONS ARE USED, PLAIN S SLIP, HEMMED S SLIP, STANDING S SLIP, REINFORCED STANDING S SLIP, INSIDE SLIP JOINT, OR DOUBLE S SLIP.
3. IF ANY OTHER DUCT SLEEVE CONNECTIONS ARE USED, THE SLEEVE SHALL BE MINIMUM 16 GAGE FOR DAMPERS UP TO 36" (W) x 24" (H) AND 14 GAGE IF WIDTH EXCEEDS 36" OR HEIGHT EXCEEDS 24".
4. MOUNTING ANGLES SHALL BE MINIMUM OF 1½" x 1½" x 14" GAGE AND BOLTED. TACK WELDED PR SCREWED TO SLEEVE AT MAXIMUM SPACING OF 12" AND WITH MINIMUM OF TWO CONNECTIONS IN EACH SIDE, TOP AND BOTTOM. MOUNTING ANGLES SHALL OVERLAP WALL A MINIMUM OF ONE INCH ON ALL FOUR SIDES.
5. DAMPER SHALL BE BOLTED, TACK WELDED, OR SCREWED TO SLEEVE ON SAME SPACING AS ANGLES. SLEEVES SHALL NOT EXTEND MORE THAN 6" OUTSIDE OF WALL.
6. IF GAP BETWEEN DUCT/SLEEVE AND CONSTRUCTION IS 1" OR LESS, PACK SPACE WITH FIREPROOF FIBROUS MATERIAL AND SEAL BOTH SIDES WITH NON-HARDENING FIREPROOF SEALER. IF GAP EXCEEDS 1", WRAP DUCT WITH 1" THICK FIREPROOF FIBROUS MATERIAL AND FILL REMAINING SPACE WITH GROUT.

9 FIRE DAMPER DETAIL
NOT TO SCALE



10 INLINE EXHAUST FAN DETAIL
NOT TO SCALE



NOTE:
THIS DETAIL CONTAINS THE BASIC ELEMENTS AND EQUIPMENT FOR HORIZONTAL AIR-HANDLER UNITS. THE CONFIGURATION OF DUCTS AND CONNECTIONS TO AIR-HANDLER UNITS WILL VARY. SEE HVAC DRAWINGS.

VENTILATION SCHEDULE	
AIR HANDLER	VENTILATION CFM
AHU-1	120
AHU-2	470
AHU-3	60

11 HORIZONTAL AIR HANDLING UNIT DETAIL
NOT TO SCALE

No.	REVISION/SUBMISSION	DATE

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

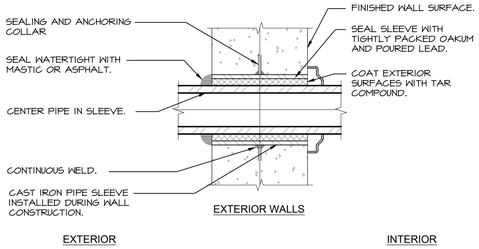
DRAWING
MECHANICAL: DETAILS

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JT/GH	11-30-22

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M501

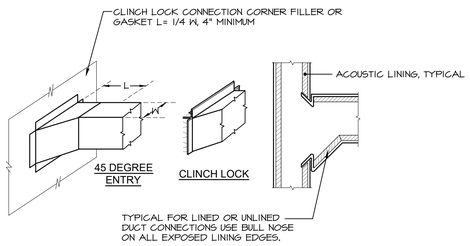
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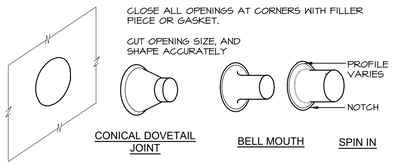


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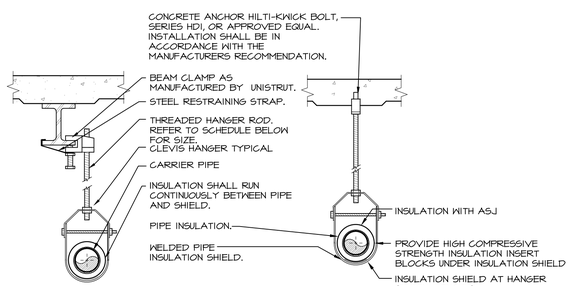
1. PIPE SLEEVE FOR EXTERIOR WALL ABOVE GRADE.

1 EXTERIOR WALL PIPE PENETRATION DETAIL
NOT TO SCALE





2 DUCT BRANCH CONNECTION DETAIL
NOT TO SCALE

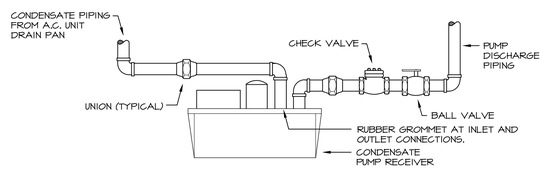


PIPE HANGER SCHEDULE					
PIPE DIA.	3/4"-2"	2 1/2"-3"	4"-5"	6"	8"-12"
HANGER DIA.	3/8"	1/2"	5/8"	3/4"	7/8"

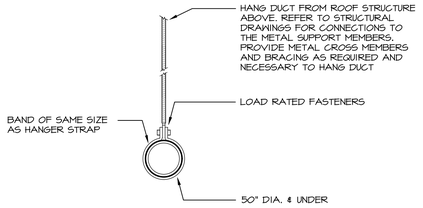
NOTES:

1. CLEVIS HANGERS WITH WELDED INSULATION SHIELDS SIMILAR TO RAUCH FIG. 1OOSH ON ALL PIPES LARGER THAN 1".
2. FOR PIPES 1" OR SMALLER, A BAND HANGER WITH INSULATION SHIELD MAY BE USED SIMILAR TO RAUCH FIG. NO. 1ASH.
3. FOR NON-INSULATED PIPE, INSULATION SHIELDS MAY BE OMITTED.
4. ALL PIPE HANGERS SHALL BE GALVANIZED STEEL OR FACTORY PAINTED BLACK WITH ENAMEL.
5. FOR NON FERROUS PIPING WITHOUT INSULATION, ALL HANGERS SHALL BE COPPER PLATED OR FURNISHED WITH A DI-ELECTRIC BETWEEN PIPE AND HANGERS.
6. WHERE EXISTING BUILDING STRUCTURAL COMPONENTS HAVE FIREPROOF MATERIAL, ANY AREA THAT IS DISTURBED OR DAMAGED AS A RESULT OF HANGER INSTALLATION SHALL BE PATCHED WITH UL AND FM APPROVED FIREPROOFING TO MATCH EXISTING.

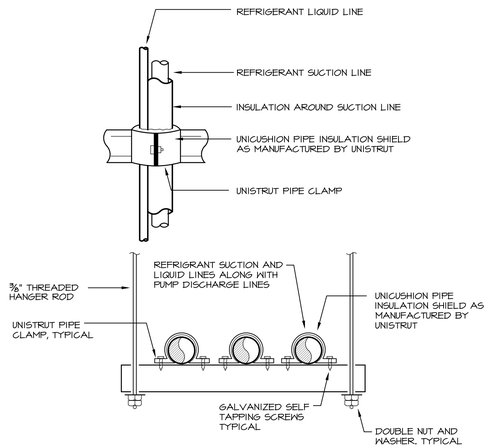
3 PIPE HANGER DETAIL
NOT TO SCALE



4 CONDENSATE PUMP PIPING SCHEMATIC
NOT TO SCALE



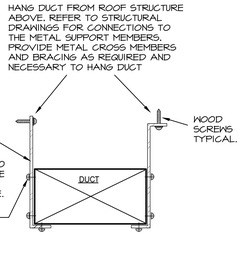
5 CONCEALED ROUND DUCT HANGER DETAIL
NOT TO SCALE



NOTES:

1. LIQUID AND SUCTION LINES MAY BE ROUTED TOGETHER FOR CONVENIENCE, BUT MUST BE COMPLETELY INSULATED FROM EACH OTHER. DO NOT SOLDER LIQUID AND SUCTION LINES TOGETHER. DO NOT ALLOW METAL TO METAL CONTACT.
2. LINES SHOULD BE INSTALLED WITH AS FEW BENDS AS POSSIBLE, ALLOWING SERVICE ACCESS TO THE INDOOR COIL.
3. USE LONG RADIUS ELBOWS WHEREVER POSSIBLE, EXCEPT IN OIL RETURN TRAPS, WHERE SHORT RADIUS ELBOWS SHOULD BE USED.
4. SLOPE HORIZONTAL SUCTION LINES 1 INCH EVERY 20 FEET TOWARD THE OUTDOOR UNIT.

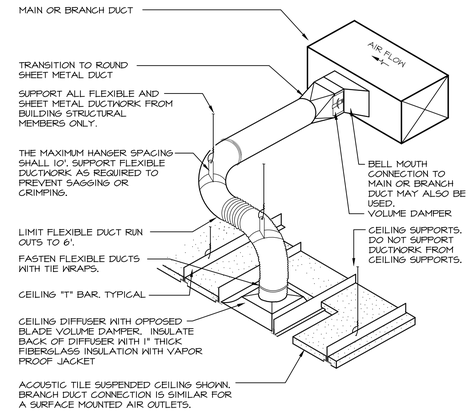
6 REFRIGERANT PIPE SUPPORT DETAIL
NOT TO SCALE



NOTES:

1) FOR DUCTS OVER 44" WIDE, THE STRAP HANGER SHALL BE TURNED UNDER THE BOTTOM OF THE DUCT.

7 DUCT HANGER DETAIL
NOT TO SCALE



8 FLEXIBLE DUCT CONNECTION DETAIL
NOT TO SCALE

No.	REVISION/SUBMISSION	DATE

Mechanical/Electrical/Plumbing Engineer

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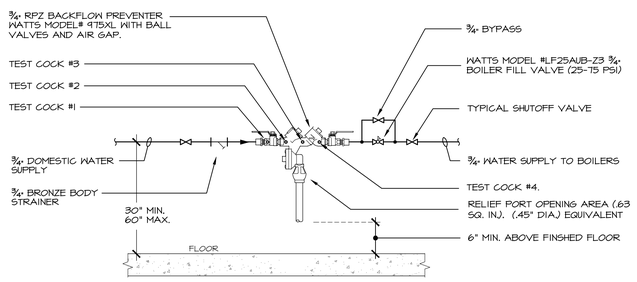
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PROJECT
NEW FIRE STATION FOR ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING
MECHANICAL: DETAILS

SEAL	DRAWN BY	PROJECT NUMBER
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	JT/GH	11-30-22
	DRAWING NUMBER	
	M502	

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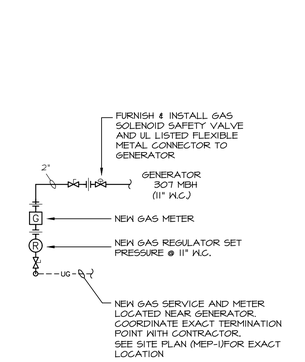


REQUIRED CLEARANCES (RPZ)

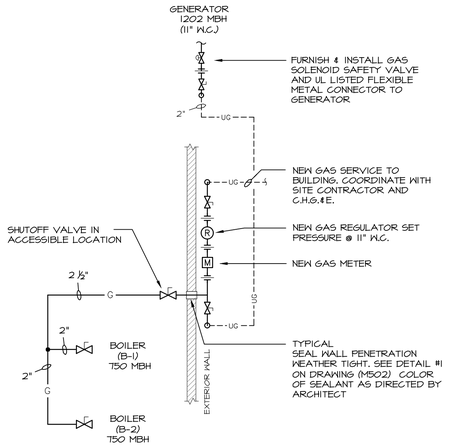
1. FRONT OF RPZ (2'-6") MINIMUM
2. BEHIND RPZ (8") MINIMUM
3. DISCHARGE PORT (1'-6") MINIMUM ABOVE FINISHED FLOOR
4. BACKFLOW PREVENTER MINIMUM (2'-6") ABOVE FINISHED FLOOR
5. BACKFLOW PREVENTER MAXIMUM (5'-0") ABOVE FINISHED FLOOR
6. CLEAR SPACE ABOVE BACKFLOW PREVENTER MINIMUM (2'-0")

1 BOILER WATER FEEDER DETAIL

NOT TO SCALE



PUMP STATION GENERATOR GAS PIPING SCHEMATIC



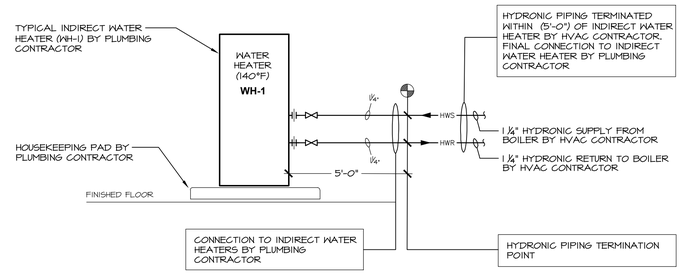
BUILDING GAS PIPING SCHEMATIC

GAS PIPING SCHEMATICS NOTES:

1. ALL GAS PIPING SHALL BE INSTALLED IN ACCORDANCE WITH 2020 MECHANICAL, BUILDING, FIRE, PLUMBING, FUEL GAS AND ENERGY CONSERVATION CODE OF NEW YORK STATE, NFPA 54, ALL LOCAL CODES AND GENERALLY ACCEPTED STANDARDS, CENTRAL HUDSON GAS & ELECTRIC STANDARDS (C.H.G.&E.).
2. CONTRACTOR SHALL PAINT ALL GAS PIPING. CLEAN PIPING AND APPLY (1) COAT RUST INHIBITING PRIMER AND (2) COATS EXTERIOR PAINT. COLOR AS DIRECTED BY ARCHITECT. SEE ARCHITECTS DRAWINGS AND SPECIFICATIONS FOR APPROVED MATERIALS AND METHODS OF INSTALLATION.
3. CONTRACTOR SHALL INSTALL GAS SERVICE @ 11" W.C. TO SERVE BUILDING AND GAS SERVICE @11" W.C. TO SERVE PUMP STATION GENERATOR. GAS METER BY CENTRAL HUDSON GAS & ELECTRIC STANDARDS (C.H.G.&E.). COORDINATE EXACT LOCATION OF METERS WITH CENTRAL HUDSON GAS & ELECTRIC PRIOR TO INSTALLATION OF ANY GAS PIPING.
4. CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH NEW GAS SERVICE. OWNERS REPRESENTATIVE SHALL APPLY FOR GAS SERVICE AND SCHEDULE INSTALLATION.
5. CONTRACTOR SHALL PAY FOR ALL GAS PIPING AND EQUIPMENT.
6. CONTRACTOR IS RESPONSIBLE FOR ALL GAS PIPING EXCAVATION, BEDDING, BACKFILL, COMPACTION AND RESURFACING TO MATCH EXISTING FOR NEW GAS SERVICE.
7. ENTIRE INSTALLATION SHALL BE IN ACCORDANCE WITH CENTRAL HUDSON GAS & ELECTRIC STANDARDS (C.H.G.&E.). ROAD AND SIDEWALK PATCHING/RESURFACING SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPALITY AND NYS STATE REQUIREMENTS.
8. GAS PIPE TESTING.
   A. TEST MEDIUM SHALL BE AIR, NITROGEN, CARBON DIOXIDE, OR AN INERT GAS. OXYGEN SHALL NOT BE USED.
   B. ABOVE GROUND PIPING SYSTEMS WITH A WORKING PRESSURE OF 2 PSIG SHALL BE TESTED AT A PRESSURE OF 5 PSIG FOR A DURATION OF ½ HOUR FOR EACH 500 CUBIC FEET OF PIPE VOLUME BUT SHALL NOT BE LESS THAN 30 MINUTES.

4 GAS PIPING SCHEMATICS

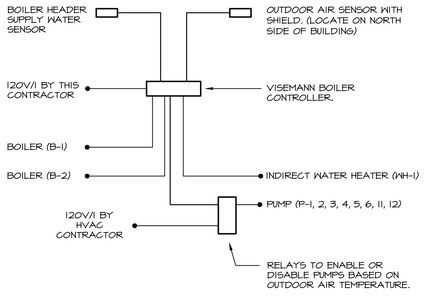
NOT TO SCALE



NOTE:
HVAC CONTRACTOR SHALL RUN HYDRONIC PIPING FROM BOILER TO (5'-0" TO INDIRECT WATER HEATER). PLUMBING CONTRACTOR SHALL MAKE FINAL HYDRONIC PIPING CONNECTIONS TO INDIRECT HEATER. COORDINATE HYDRONIC PIPING TERMINATION POINT WITH HVAC CONTRACTOR.

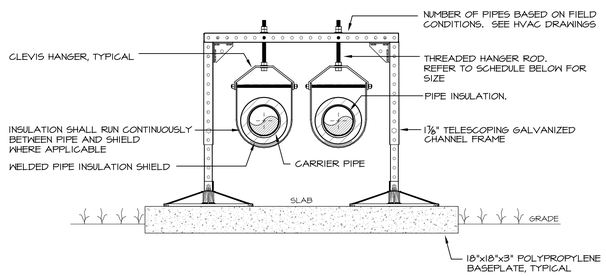
6 WATER HEATER (WH-1) DETAIL

NOT TO SCALE



3 BOILER CONTROLLER SCHEMATIC

NOT TO SCALE



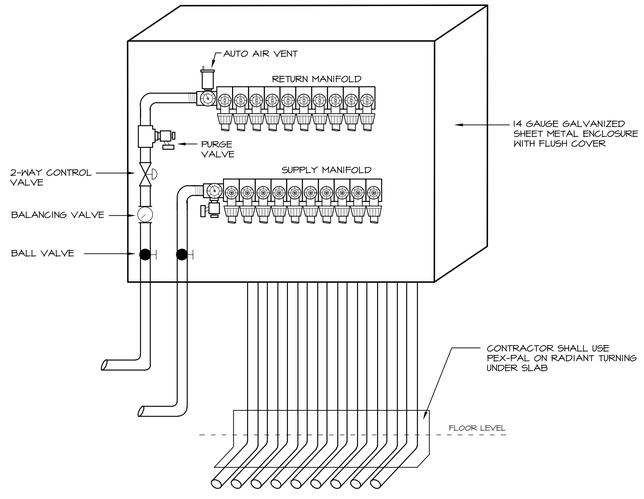
PIPE HANGER SCHEDULE						
PIPE DIA.	1/2"-1"	1¼"-3"	4"-5"	6"	8"-12"	
HANGER DIA.	3/8"	1/2"	5/8"	3/4"	7/8"	

NOTES:

1. PIPE SUPPORT SYSTEM SHALL BE BASED ON PHP SYSTEMS/DESIGN MODEL NUMBER PSE-CUSTOM OR PSE-2-2 DEPENDING ON NUMBER OF PIPES SUPPORTED.
2. CLEVIS HANGERS WITH WELDED INSULATION SHIELDS SIMILAR TO RAUCH FIG. 1005H ON ALL PIPES R4 LARGER THAN 1".
3. BOTTOM OF PIPE ELEVATION SHALL BE MIN. OF 2'-0" ABOVE GRADE. PIPING SHALL BE INSTALLED AS TO ELIMINATE ANY UNNECESSARY OFFSETS UP OR DOWN.
4. FOR PIPES 1" OR SMALLER, A BAND HANGER WITH INSULATION SHIELD MAY BE USED SIMILAR TO RAUCH FIG. NO. 1ASH.
5. FOR NON-INSULATED PIPE, INSULATION SHIELDS MAY BE OMITTED. FOR NON FERROUS PIPING WITHOUT INSULATION, ALL HANGERS SHALL BE COPPER PLATED OR FURNISHED WITH A DI-ELECTRIC BETWEEN PIPE AND HANGERS.
6. ALL PIPE SUPPORT COMPONENTS SHALL BE GALVANIZED STEEL OR FACTORY PAINTED BLACK WITH ENAMEL.
7. THIS CONTRACTOR SHALL VERIFY SIZE AND NUMBER OF PIPES TO BE SUPPORTED BASED ON FINAL LAYOUT.

5 PIPE SUPPORT AT GRADE DETAIL

NOT TO SCALE



NOTES:

1. HVAC CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON RADIANT PIPING LAYOUT PREPARED BY RADIANT TUBING MANUFACTURER AND EQUIPMENT FOR ENGINEER'S REVIEW.
2. HVAC CONTRACTOR SHALL INSTALL ALL RADIANT HEAT PIPING AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. EXACT LOCATIONS OF RADIANT PIPE MANIFOLDS SHALL BE APPROVED BY ARCHITECT IN FIELD PRIOR TO INSTALLATION. COORDINATE INSTALLATION OF ALL RADIANT PIPING THROUGH WALLS AND INSTALLED IN SLABS WITH GENERAL CONTRACTOR.
4. CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS SHOWING EXACT LOCATIONS OF RADIANT PIPE AND MANIFOLDS.
5. FURNISH AND INSTALL ACCESS DOORS FOR MANIFOLD SERVICING. PAINT ACCESS DOORS WITH (1) COAT PRIMER, (2) COATS FINISH PAINT. COLOR AS DIRECTED BY ARCHITECT. MATCH ACCESS DOOR RATING TO WALL CONSTRUCTION.
6. RADIANT TUBING SHALL BE ⅝" he-PEX CROSS-LINKED POLYETHYLENE TUBING WITH AN OXYGEN DIFFUSION BARRIER. MAXIMUM OPERATING TEMPERATURE 180°F AS MANUFACTURED BY UPONOR OR EQUAL.
7. CONTRACTOR SHALL SLEEVE RADIANT PIPING THAT PENETRATES OR COMES IN CONTACT WITH SHARP EDGES, ABRASIVE SURFACES AND THROUGH WALLS.
8. SEE DETAIL #4 ON DRAWING (M504) AND DRAWING (M507) FOR RADIANT PIPE INSTALLATION DETAILS.

7 RADIANT MANIFOLD PIPING SCHEMATIC

NOT TO SCALE

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PROJECT
NEW FIRE STATION FOR ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

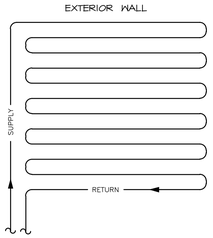
DRAWING
MECHANICAL: DETAILS

SEAL

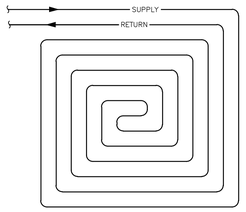
DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
M503

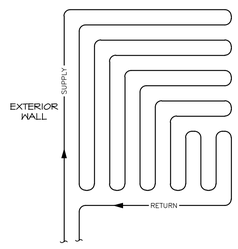
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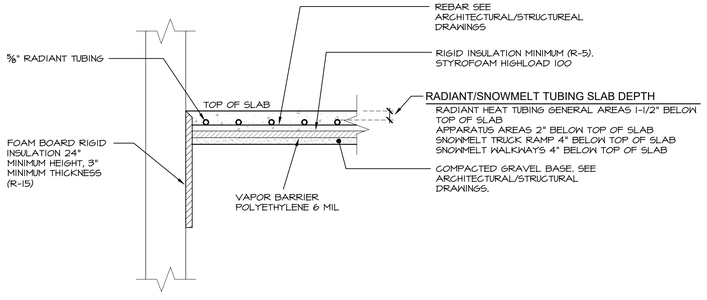
1 RADIANT TUBING - SINGLE WALL
NOT TO SCALE



2 RADIANT TUBING - COUNTERFLOW
NOT TO SCALE



3 RADIANT TUBING - DOUBLE EXTERIOR WALL
NOT TO SCALE



NOTES:

FURNISH & INSTALL A MINIMUM OF R-5 INSULATION BELOW THE RADIANT AND SNOW MELT TUBING AND ON THE SIDES OF THE SNOW MELT SYSTEMS.

4 RADIANT PIPE SLAB DETAIL
NOT TO SCALE

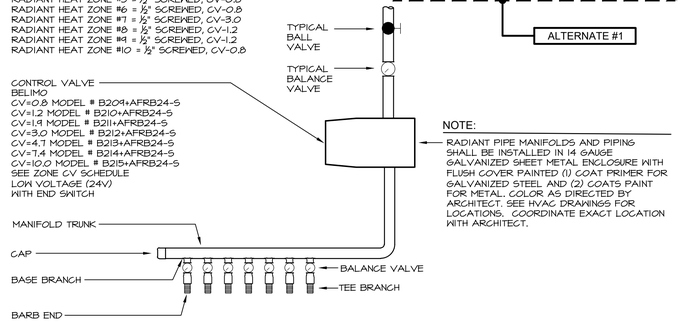
RADIANT HEAT ZONE CONTROL VALVE CV RATING

RADIANT HEAT ZONE #1 = ¾" SCREWED, CV-7.4
RADIANT HEAT ZONE #2 = ¾" SCREWED, CV-7.4
RADIANT HEAT ZONE #3 = ½" SCREWED, CV-1.9
RADIANT HEAT ZONE #4 = ½" SCREWED, CV-0.8
RADIANT HEAT ZONE #5 = ½" SCREWED, CV-0.8
RADIANT HEAT ZONE #6 = ½" SCREWED, CV-0.8
RADIANT HEAT ZONE #7 = ½" SCREWED, CV-3.0
RADIANT HEAT ZONE #8 = ½" SCREWED, CV-1.2
RADIANT HEAT ZONE #9 = ½" SCREWED, CV-1.2
RADIANT HEAT ZONE #10 = ½" SCREWED, CV-0.8

SNOWMELT ZONE CONTROL VALVE CV RATING

SNOWMELT HEAT ZONE #11 = ½" SCREWED, CV-1.9
SNOWMELT HEAT ZONE #12 = ¾" SCREWED, CV-4.7
SNOWMELT HEAT ZONE #13 = ¾" SCREWED, CV-10.0
SNOWMELT HEAT ZONE #14 = ¾" SCREWED, CV-10.0

ALTERNATE #1



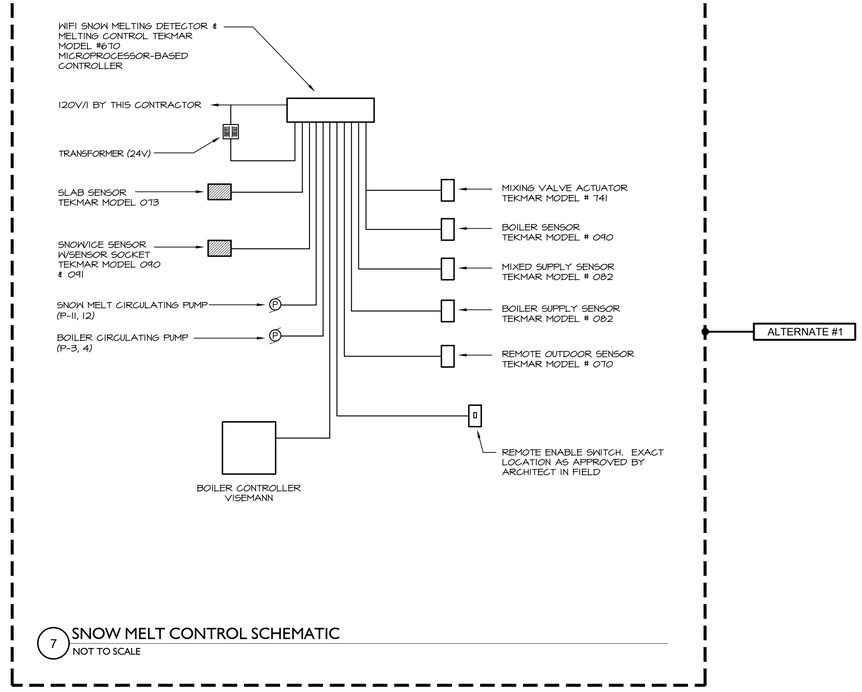
NOTE:

RADIANT PIPE MANIFOLDS AND PIPING SHALL BE INSTALLED IN 14 GAUGE GALVANIZED SHEET METAL ENCLOSURE WITH FLUSH COVER PAINTED (1) COAT PRIMER FOR GALVANIZED STEEL AND (2) COATS PAINT FOR METAL. COLOR AS DIRECTED BY ARCHITECT. SEE HVAC DRAWINGS FOR LOCATIONS. COORDINATE EXACT LOCATION WITH ARCHITECT.

RADIANT/SNOWMELT HEAT NOTES

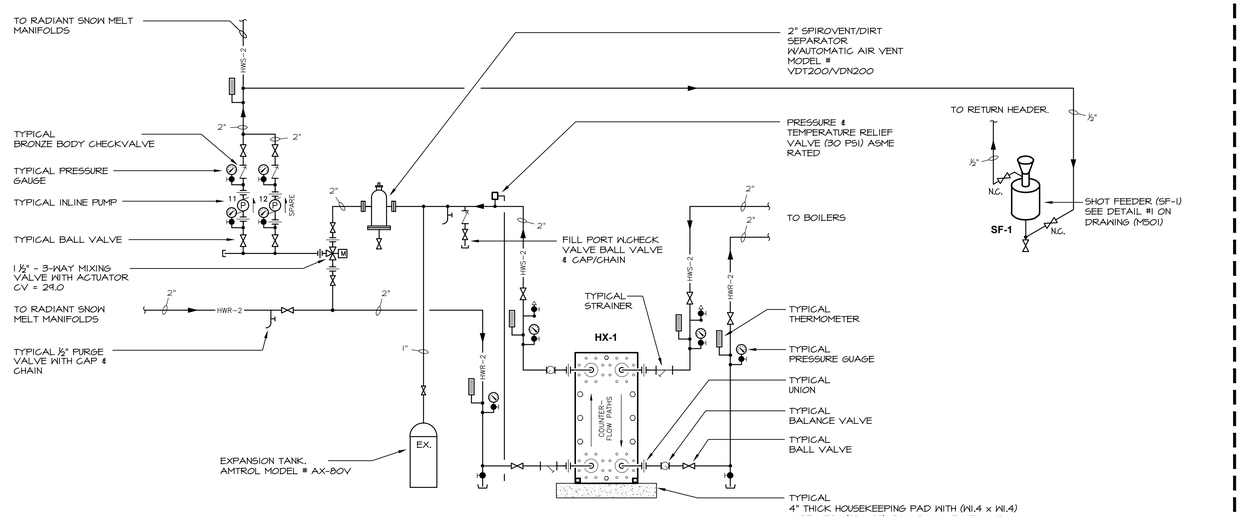
1. HVAC CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON RADIANT PIPING LAYOUT, EQUIPMENT, CALCULATED FLOW AND PRESSURE LOSS FOR ENGINEER'S REVIEW.
2. HVAC CONTRACTOR SHALL INSTALL ALL RADIANT HEAT PIPING AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. EXACT LOCATION OF RADIANT PIPE MANIFOLDS SHALL BE APPROVED BY ARCHITECT IN FIELD PRIOR TO INSTALLATION. COORDINATE INSTALLATION OF ALL RADIANT PIPING IN SLAB WITH GENERAL CONTRACTOR.
4. CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS SHOWING EXACT LOCATIONS OF RADIANT PIPE AND MANIFOLDS.
5. RADIANT PIPE MANIFOLDS AND PIPING SHALL BE INSTALLED IN MANIFOLD BOX 14 GAUGE GALVANIZED SHEET METAL SET ENCLOSURE COVER FLUSH WITH WALL WHERE POSSIBLE. SURFACE MOUNTED BOXES SHALL BE APPROVED BY ARCHITECT. PAINT MANIFOLD ENCLOSURE (1) COAT METAL PRIMER FOR GALVANIZED STEEL AND (2) COATS PAINT FOR METAL. COLOR AS DIRECTED BY ARCHITECT. MATCH ENCLOSURE FIRE RATING TO WALL/CEILING.
6. INSLAB RADIANT TUBING SHALL BE 5/8" UPONOR RADIANT HEPEX CROSS-LINKED POLYETHYLENE TUBING WITH AN OXYGEN DIFFUSION BARRIER. MAX. OPERATING TEMPERATURE 180°F AS MANUFACTURED BY UPONOR RADIANT OR EQUAL.
7. HVAC CONTRACTOR SHALL SLEEVE RADIANT PIPING THAT PENETRATES OR COMES IN CONTACT WITH SHARP EDGES AND ABRASIVE SURFACES.
8. EXACT SIZE AND NUMBER OF BOXES SHALL BE BASED ON APPROVED SHOP DRAWINGS.
9. SEE DETAIL #4 ON DRAWING (M504) AND DRAWING (M507) FOR RADIANT PIPE INSTALLATION DETAILS

5 IN SLAB RADIANT HEAT MANIFOLD
NOT TO SCALE



7 SNOW MELT CONTROL SCHEMATIC
NOT TO SCALE

ALTERNATE #1



NOTE:

FILL RADIANT SNOW MELT SYSTEM WITH DOWFROST PROPYLENE GLYCOL SOLUTION WITH RUST INHIBITORS (35%)

6 PLATE TO PLATE HEAT EXCHANGER DETAIL
NOT TO SCALE

No.	REVISION/SUBMISSION	DATE

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PROJECT
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NYS ROUTE 52, FISHKILL, NY

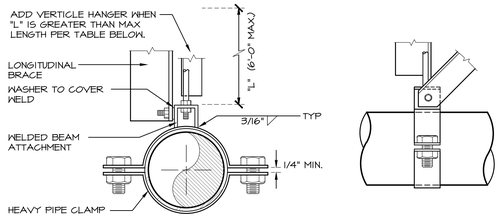
DRAWING
MECHANICAL:
DETAILS

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

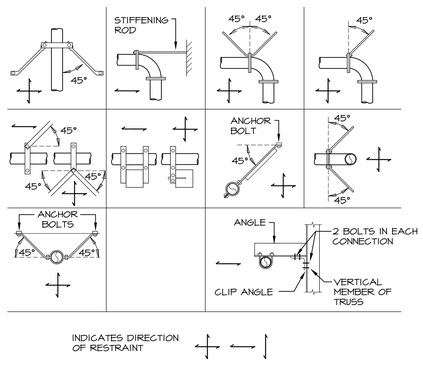
DRAWING NUMBER
M504

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BRACE SPACING	PIPE	ROD	MAX. ROD LENGTH	VERT. HANGERS	TRANSVERSE HANGERS	BOLT
80'	2½"	½"	25"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
80'	3"	½"	25"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
80'	4"	⅝"	31"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
80'	6"	¾"	37"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
80'	8"	⅞"	43"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"

1 LONGITUDINAL SEISMC BRACING
NOT TO SCALE

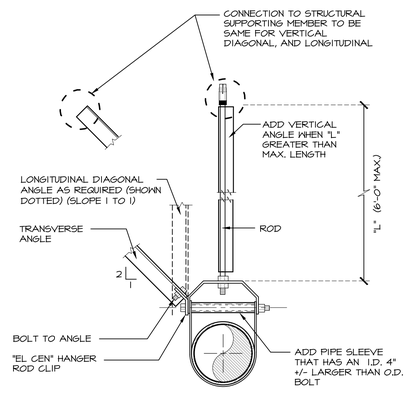


2 SEISMIC SWAY BRACING (GENERAL)
NOT TO SCALE

SEISMIC EQUIPMENT, DUCTWORK AND PIPE HANGER DESIGN

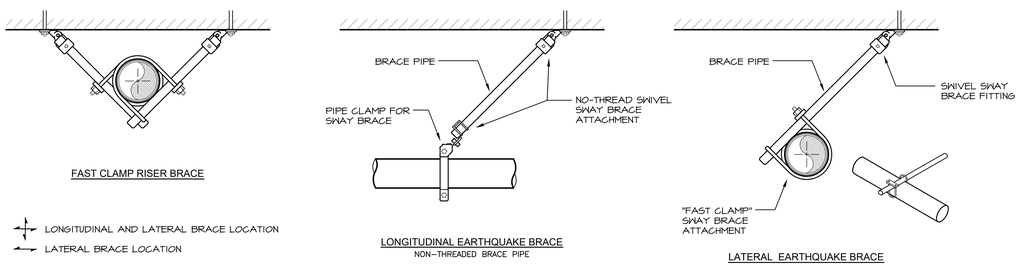
THE HVAC SYSTEM SHALL COMPLY WITH THE NEW YORK STATE UNIFORM FIRE PROTECTION AND BUILDING CODE SECTION 1613 AND APPLICABLE PROVISIONS OF ASCE 7 (ARCHITECTURAL, MECHANICAL AND ELECTRICAL COMPONENT SEISMIC DESIGN REQUIREMENTS).
HVAC CONTRACTOR SHALL HIRE NYS LICENSED PROFESSIONAL ENGINEER TO DESIGN AND PREPARE SHOP DRAWINGS WITH CALCULATIONS FOR EACH EQUIPMENT SUPPORT, CONDUIT SUPPORT, MULTIPLE PIPE SUPPORT, TRAPEZE AND SEISMIC RESTRAINT. SUBMIT SHOP DRAWINGS WITH CALCULATIONS TO ENGINEER FOR RECORD AND TO LOCAL AUTHORITY HAVING JURISDICTION FOR APPROVAL.

SEISMIC REQUIREMENTS:
BUILDING USE CATEGORY - IV
SIESMIC DESIGN CATEGORY - C



BRACE SPACING	PIPE	ROD	MAX. ROD LENGTH	VERT. HANGERS	TRANSVERSE HANGERS	BOLT
40'	2½"	½"	25"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
40'	3"	½"	25"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
40'	4"	⅝"	31"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
40'	6"	¾"	37"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"
40'	8"	⅞"	43"	2 x 2 x 16ga	2½" x 2½ x 16ga	⅜"

4 TRANSVERSE SEISMIC PIPE BRACING
NOT TO SCALE



3 SEISMIC HANGER DETAILS
NOT TO SCALE

No.	REVISION/SUBMISSION	DATE

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PROJECT
NEW FIRE STATION FOR ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

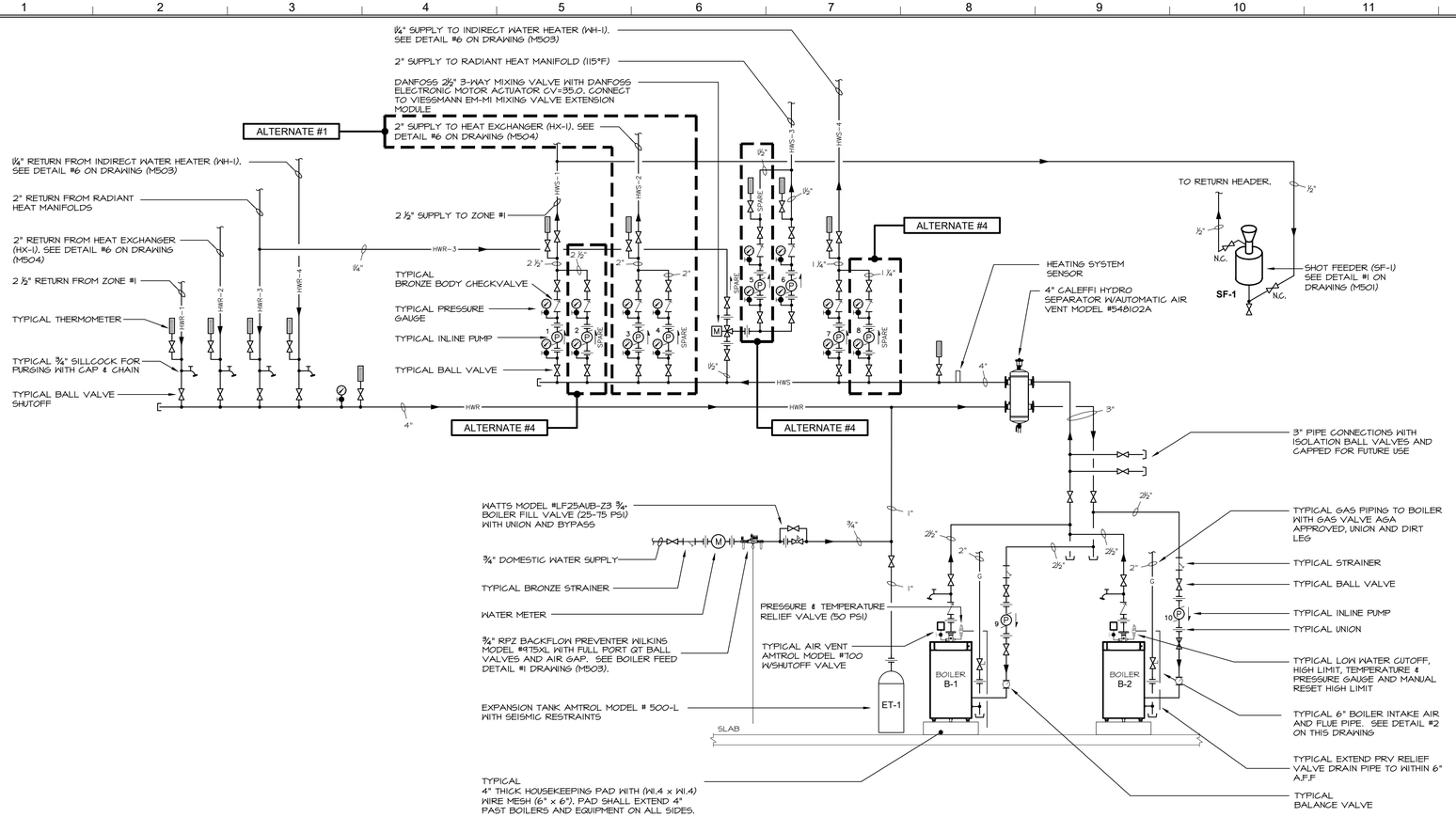
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MECHANICAL: DETAILS

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RL/KC	18142
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JT/GH	11-30-22

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M505

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1 BOILER SYSTEM SCHEMATIC
NOT TO SCALE

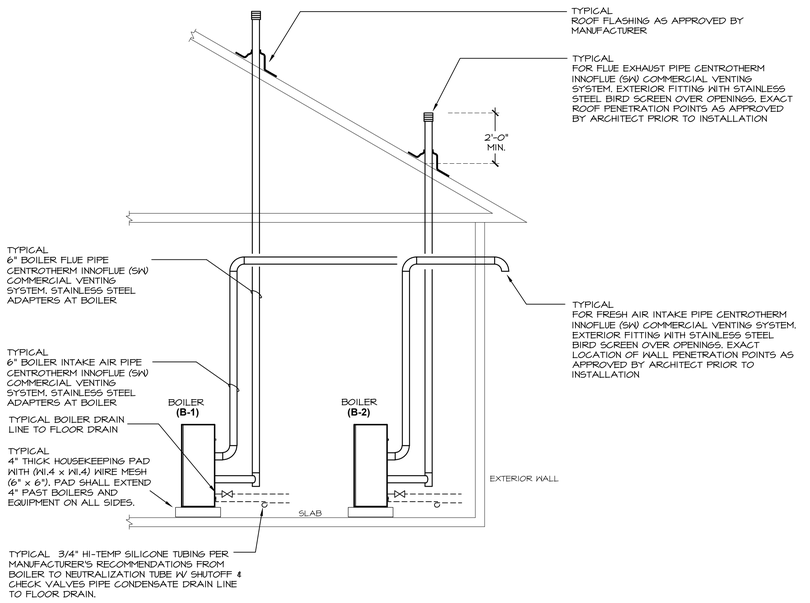
NEW YORK STATE DEPARTMENT OF LABOR - PART 4 - CONSTRUCTION INSTALLATION INSPECTION

4-6.4 CLEARANCE FOR BOILERS INSTALLED AFTER MARCH 31, 1965 IN A SPACE OR ROOM NOT PREVIOUSLY USED TO HOUSE A BOILER.

1. BUILDING WALL OR PARTITION CLEARANCE. THE CLEARANCE BETWEEN ANY COMPONENT ON THE SIDE OR REAR OF A BOILER AND ANY WALL OR PARTITION OF THE BUILDING IN WHICH IT IS INSTALLED SHALL BE NOT LESS THAN 24 INCHES WHERE THE RATED GROSS CAPACITY IS LESS THAN 5,000,000 BTU PER HOUR, WHERE THE RATED GROSS CAPACITY EXCEEDS 5,000,000 BTU PER HOUR, THE CLEARANCE TO ANY PROTECTED COMBUSTIBLE CONSTRUCTION SHALL BE NOT LESS THAN 36 INCHES.
2. CLEARANCE FROM OTHER BOILERS OR EQUIPMENT. THE CLEARANCE BETWEEN ANY COMPONENT OF THE BOILER ANY OTHER BOILER OR EQUIPMENT SHALL BE NOT LESS THAN 24 INCHES.
3. FRONT OPERATING CLEARANCE. THE CLEARANCE FROM THE FRONT WALL OR HEAD OR HEAT GENERATING APPARATUS OF THE BOILER, WHICHEVER IS CLOSER TO THE BUILDING WALL PARTITION OR OTHER EQUIPMENT, SHALL BE NOT LESS THAN FOUR FEET WHERE THE RATED GROSS CAPACITY IS LESS THAN 5,000,000 BTU PER HOUR, WHERE THE RATED GROSS CAPACITY EXCEEDS 5,000,000 BTU PER HOUR, SUCH CLEARANCE SHALL BE NOT LESS THAN SIX FEET.
4. WORKING PLATFORM -- VERTICAL CLEARANCE. WHEN WORKING PLATFORMS, REQUIRED FOR BOILERS WHERE THE DISTANCE FROM THE FLOOR TO THE TOP OF THE BOILER OR BOILER SETTING EXCEEDS EIGHT FEET, ARE INSTALLED ON TOP OF A BOILER FOR OPERATING OR MAINTENANCE PURPOSES, THE CLEARANCE FROM THE WORKING SURFACE OF SUCH PLATFORM TO THE LOWEST POINT OF ANY OVERHEAD STRUCTURE SHALL BE NOT LESS THAN SEVEN FEET.

NOTES:

1. FURNISH AND INSTALL BOILER APPURTENANCES AS RECOMMENDED BY MANUFACTURER AND SERVICE SILLCOCKS TO FACILITATE BOILER DRAINING AND HYDRONIC SYSTEM PURGING.
2. PROVIDE BOILER SAFETY SHUTDOWN SWITCH AT BOILER ROOM ENTRANCE TO SHUTDOWN ALL GAS FIRED EQUIPMENT UPON ACTIVATION. SEE DETAIL #4 ON DRAWING (M500).
3. USE BRASS UNION OR BALL VALVE BETWEEN DISSIMILAR METALS SUCH AS, BUT NOT LIMITED TO, STEEL AND COPPER CONNECTIONS.
4. CONTRACTOR SHALL FILL SNOWMELT AND BOILER HEATING SYSTEM WITH DOWFROST PROPYLENE GLYCOL SOLUTION WITH RUST INHIBITORS (35%). SUBMIT CONCENTRATION TEST REPORT FOR ENGINEER'S REVIEW.
4. CONTRACTOR SHALL FURNISH AND INSTALL MANUAL RESET HIGH LIMIT AND LOW WATER CUTOFF ON EACH BOILER.
5. CONTRACTOR SHALL HIRE MANUFACTURER'S REPRESENTATIVE TO STARTUP BOILERS, SETUP CONTROLS AND PERFORM OPERATION AND COMBUSTION TESTS AS REQUIRED BY MANUFACTURER. SUBMIT REPORT OF STARTUP AND TESTS RESULTS TO ENGINEER FOR APPROVAL.



2 BOILER FLUE PIPING DETAIL
NOT TO SCALE

BOILER VENT PIPING SCHEDULE	
UNIT NO.	FLUE/VENT PIPE SIZE
B-1, 2	6"

NOTES:

1. BOILER INTAKE AIR AND EXHAUST OUTLETS FROM BOILERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, 2020 MECHANICAL CODE, FUEL GAS CODE, OF NYS, ALL LOCAL CODES AND GENERALLY ACCEPTED STANDARDS,.
2. EXACT LOCATION OF WALL PENETRATIONS SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION.

No.	REVISION/SUBMISSION	DATE

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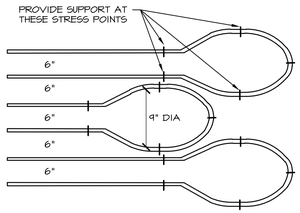
DRAWING
MECHANICAL: DETAILS

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DRAWN BY	PROJECT NUMBER
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JT/GH	11-30-22

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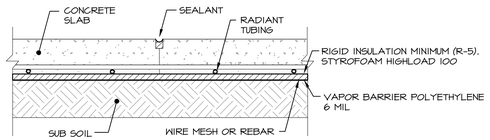


NOTE:

TUBING MAY BE 'TEAR DROPPED' AT RETURN BENDS AS SHOWN TO AVOID KINKING AND TOUCHING

1 RADIANT PIPE SLAB DETAIL

NOT TO SCALE



NOTES:

1. TUBING MUST BE PLACED DEEP ENOUGH IN THE SLAB TO BE SAFE FROM THE CONTROL JOINT (SAW BLADE).
2. TUBING MUST BE SECURED TIGHTLY TO PREVENT IT FROM FLOATING UP INTO THE SLAB.
3. TUBING MAY BE WRAPPED WITH INSULATION OR PIPE SLEEVE FOR 3" ON BOTH SIDES OF THE CONTROL JOINT.

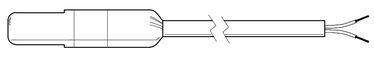
EXPANSION JOINTS - SOMETIMES CALLED ISOLATION JOINTS, THESE JOINTS ARE INTENDED TO ABSORB HORIZONTAL MOVEMENT CAUSED BY DRYING SHRINKAGE AND THE THERMAL EXPANSION AND CONTRACTION OF THE SLAB. RADIANT HEATING SYSTEMS GENERALLY REDUCE THE SEVERITY OF EXPANSION AND CONTRACTION BECAUSE THEY LIMIT THE TEMPERATURE RANGE THE SLAB EXPERIENCES.

THE COEFFICIENT OF LINEAR EXPANSION FOR CONCRETE IS APPROXIMATELY 0.0000055 INCH PER INCH PER DEGREE FAHRENHEIT. THIS MEANS, ROUGHLY, THAT FOR EVERY 10°F TEMPERATURE RISE, A 100 FOOT SPAN OF CONCRETE IS EXPECTED TO EXPAND ABOUT 2\21".

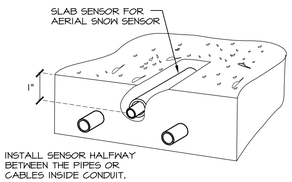
WHEN FOAM INSULATION IS USED TO ACCOMMODATE MINOR SHEAR ACTION, CARE MUST BE TAKEN TO PREVENT FLOATING DURING THE POUR. ALSO, MINIMUM COVER MUST BE COMPUTED ON THE BASIS OF THE OUTSIDE SURFACE OF THE FOAM.

2 CONTROL JOINT SAWED OR FORMED DETAIL

NOT TO SCALE



THE UPONOR SLAB SENSOR FOR AERIAL SNOW SENSOR (A3040073) FEATURES A BLACK, HIGH-DENSITY POLYETHYLENE HEAD AND IS IDEAL FOR USE IN SOIL OR CONCRETE. THE SENSOR COMES WITH 40 FT. (12M) OF 2-CONDUCTOR CABLE.



INSTALLING THE SENSOR

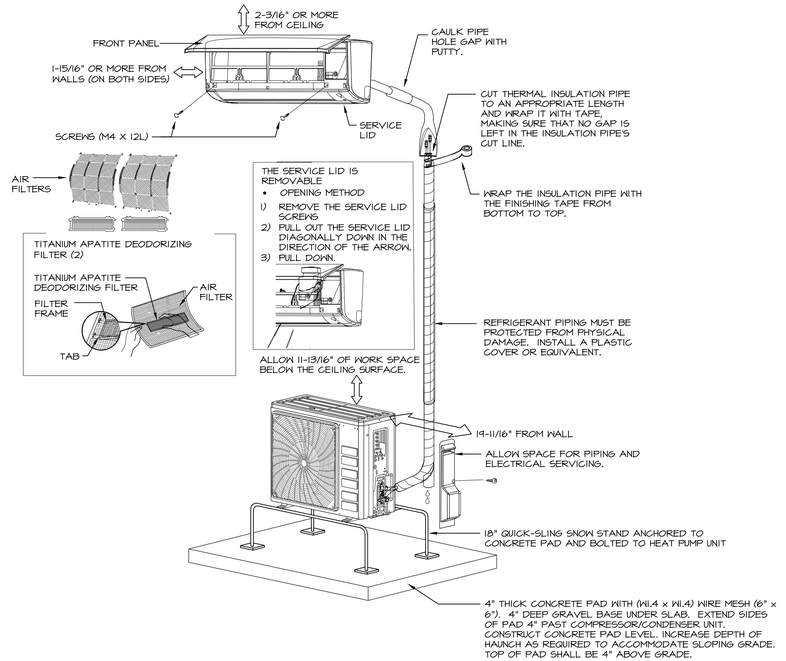
NOTE: PROPER SENSOR PLACEMENT IS CRITICAL FOR CORRECT CONTROL OPERATION. THOUGH SENSORS ARE DESIGNED FOR DIRECT EMBEDDING IN SLAB MATERIAL, UPONOR RECOMMENDS INSTALLING THEM IN A METAL OR PLASTIC SLEEVE. THIS ALLOWS FOR EASY REPLACEMENT IF THE SENSOR SHOULD EVER FAIL OR HAVE TO BE RELOCATED. THE SENSOR SHOULD BE PLACED 1" (25MM) BELOW THE SLAB SURFACE AND HALFWAY BETWEEN THE PIPES OR ELECTRIC CABLES.

SENSOR WIRING

CAUTION: DO NOT RUN SENSOR WIRES PARALLEL TO TELEPHONE OR POWER CABLES. IF SENSOR WIRES ARE LOCATED IN AN AREA WITH STRONG SOURCES OF ELECTROMAGNETIC INTERFERENCE, USE SHIELDED CABLE OR TWISTED PAIR. ALTERNATELY, THE WIRES CAN BE RUN IN A METAL CONDUIT THAT IS GROUNDED TO THE COMMON SENSOR TERMINAL ON THE CONTROL AND NOT TO EARTH GROUND. SENSOR WIRING CAN EXTEND UP TO 500 FT. USING 18 AWG WIRE. WIRE SPLICES SHOULD BE PROPERLY SOLDERED AND PROTECTED IN AN ACCESSIBLE, WATERPROOF JUNCTION BOX.

3 SLAB SENSOR DETAIL

NOT TO SCALE

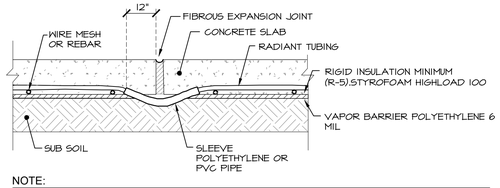


NOTES:

* BE SURE TO ADD THE PROPER AMOUNT OF ADDITIONAL REFRIGERANT. FAILURE TO DO SO MAY RESULT IN REDUCED PERFORMANCE.
** THE SUGGESTED SHORTEST PIPE LENGTH IS 10FT (3M), IN ORDER TO AVOID NOISE FROM THE OUTDOOR UNIT AND VIBRATION. (MECHANICAL NOISE AND VIBRATION MAY OCCUR DEPENDING ON HOW THE UNIT IS INSTALLED AND THE ENVIRONMENT IN WHICH IT IS USED.)

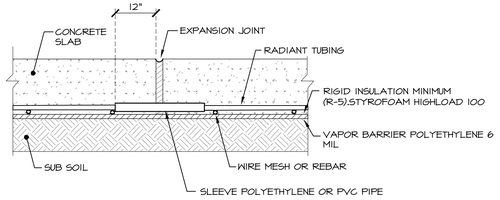
4 INDOOR/OUTDOOR UNIT INSTALLATION DETAIL

NOT TO SCALE



NOTE:

1. DIP TUBING BELOW SLAB INTO SUBSOIL.

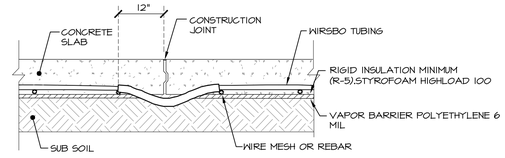


NOTE:

IF THE TUBING MUST REMAIN IN THE SLAB, WRAP THE TUBING WITH A PIPE SLEEVE OR A LARGER DIAMETER TUBING FOR 6" ON BOTH SIDES OF THE EXPANSION JOINT.

5 EXPANSION JOINT DETAILS

NOT TO SCALE



NOTE:

1. DIP TUBING BELOW SLAB INTO SUBSOIL.

JOINTS IN CONCRETE - CONCRETE SLABS OFTEN REQUIRE CONSTRUCTION JOINTS, CONTROL JOINTS OR EXPANSION JOINTS. DETAILS FOR THESE JOINTS MUST BE SPECIFIED ON THE PLAN. PROVISIONS MUST BE MADE TO CON-TROL SHEAR FORCES AT THE JOINTS AND ELIMINATE DAMAGE TO THE TUBING.

CONSTRUCTION JOINTS - CONSTRUCTION JOINTS SEPARATE TWO POURS OF A SLAB COMPLETED AT DIFFERENT TIMES, BECAUSE IT IS DIFFICULT TO CONSTRUCT A LARGE SLAB IN ONE POUR, A BULKHEAD IS INSTALLED TO CONTAIN SECTIONS OF THE SLAB UNTIL THE NEXT PHASE IS POURED. IT MAY BE CONVENIENT TO INSTALL THE TUBING IN AN AREA JUST BEFORE THE SLAB IS POURED. THAT MAKES IT EASIER TO MOVE CONCRETE EQUIPMENT

FROM PLACE TO PLACE AND REDUCES THE CHANCES THAT THE TUBING WILL BE DAMAGED DURING INSTALLATION. TYPICALLY, THE TUBING IS DROPPED BELOW THE CONTROL JOINT.

CONTROL JOINTS, SOMETIMES CALLED CONTRACTION JOINTS, ARE PLACES WHERE THE CONCRETE SURFACE IS SCORED TO CONTROL CRACKING AND RELIEVE THE STRESS CREATED WHEN CONCRETE SHRINKS DURING THE CURING PROCESS. THESE JOINTS ELIMINATE THE RANDOM CRACKS THAT WOULD OTHERWISE OCCUR. BECAUSE CONTROL JOINTS ARE OFTEN CUT INTO THE SLAB AFTER IT HAS SET, THE TUBING MUST BE PLACED DEEP ENOUGH IN THE SLAB TO AVOID THE BLADE USED TO SCORE THE CONCRETE.

No.	REVISION/SUBMISSION	DATE

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PROJECT

NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING

MECHANICAL:
DETAILS

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER

M507

FILE H:\2021\GA2106\3

MINIMUM HANGER SIZES FOR RECTANGULAR DUCT

MINIMUM HALF OF DUCT PERIMETER	PAIR AT 10Ft SPACING		PAIR AT 8Ft SPACING		PAIR AT 5Ft SPACING		PAIR AT 4Ft SPACING	
	STRAP	ROD	STRAP	ROD	STRAP	ROD	STRAP	ROD
P/2 = 30"	1" x 22ga	¼"	1" x 22ga	¼"	1" x 22ga	¼"	1" x 22ga	¼"
P/2 = 72"	1" x 18ga	⅜"	1" x 20ga	¼"	1" x 22ga	¼"	1" x 22ga	¼"
P/2 = 96"	1" x 16ga	⅜"	1" x 18ga	⅜"	1" x 20ga	⅜"	1" x 22ga	⅜"
P/2 = 120"	1½" x 16ga	½"	1" x 16ga	½"	1" x 16ga	⅜"	1" x 18ga	⅜"
P/2 = 192"	-	-	1" x 16ga	½"	1" x 16ga	⅜"	1" x 18ga	⅜"

WHEN STRAPS ARE LAP JOINED USE THESE MINIMUM FASTENERS:

1" x 18, 20, 22ga - ON ¼" BOLT
1" X 16ga - TWO ¼" Dia.
1" X 16ga - TWO ⅜" Dia.

PLACE FASTENERS IN SERIES, NOT SIDE BY SIDE.

SINGLE HANGER MAXIMUM ALLOWABLE LOAD	
STRAP	ROD (Dia.)
1" x 22ga - 260Lbs.	¼" - 270Lbs.
1" x 20ga - 32Lbs.	⅜" - 680Lbs.
1" x 18ga - 420Lbs.	½" - 1250Lbs.
1" x 16ga - 700Lbs.	⅝" - 2000Lbs.
1½" x 16ga - 1100Lbs.	¾" - 3000Lbs.

NOTES:
1. DIMENSIONS OTHER THAN GAUGE ARE IN INCHES.
2. TABLES ALLOW FOR DUCT WEIGHT, 1 LB./SF. INSULATION WEIGHT AND NORMAL REINFORCEMENT AND TRAPEZE WEIGHT, BUT NO EXTERNAL LOADS.
3. STRAPS ARE GALVANIZED STEEL.
4. ALLOWABLE LOADS FOR P/2 ASSUME THAT DUCTS ARE 16 GA. MAXIMUM, EXCEPT WHEN MAXIMUM DUCT DIMENSION (W) IS OVER 60" THEN P/2 MAXIMUM IS 1.25 W.

PIPE HANGER SCHEDULE

PIPE SIZE (INCHES)	MAXIMUM HORIZONTAL SPACING (FEET)				SINGLE STEEL ROD HANGER SIZE (INCHES)		HANGER TYPE STEEL	MAXIMUM VERTICAL SPACING (FEET)			
	COPPER TUBE	CAST IRON	STEEL PIPE	CPVC PIPE	TUBING	PIPING		COPPER TUBE	CAST IRON	STEEL PIPE	CPVC PIPE
½"	6	5	8 (5)	3	¼"	⅜"	BAND	10	15	15	10
¾"	6	5	8 (5)	3	¼"	⅜"	BAND	10	15	15	10
1"	6	5	8 (5)	3	¼"	⅜"	BAND	10	15	15	10
1¼"	6	5	9 (5)	4	¼"	⅜"	CLEVIS	10	15	15	10
1½"	6	5	9 (5)	4	¼"	⅜"	CLEVIS	10	15	15	10
2"	10	5	10 (5)	4	¼"	⅜"	CLEVIS	10	15	15	10
2½"	10	5	12 (5)	4	⅜"	½"	CLEVIS	10	15	15	10
3"	10	5	12 (5)	4	⅜"	½"	CLEVIS	10	15	15	10
4"	10	5	12 (5)	4	½"	⅝"	CLEVIS	10	15	15	10
5"	10	5	12 (5)	4	½"	⅝"	CLEVIS	10	15	15	10
6"	10	5	12 (5)	4	½"	¾"	CLEVIS	10	15	15	10
8"	10	5	12 (5)	4	⅝"	⅞"	CLEVIS	10	15	15	10
10"	10	5	12 (5)	4	⅝"	⅞"	CLEVIS	10	15	15	10
12"	10	5	12 (5)	4	⅝"	⅞"	CLEVIS	10	15	15	10

NOTES:
1. MAXIMUM HORIZONTAL SPACING OF CAST-IRON PIPE HANGERS SHALL BE INCREASED TO 10 FEET WHERE 10 FOOT LENGTHS OF PIPE ARE INSTALLED.
2. INSTALL HANGER OR SUPPORT CLOSE TO THE POINT OF CHANGE OF DIRECTION IN ALL PIPE RUNS.
3. INSTALL ADDITIONAL HANGERS ON SUPPORTS AT CONCENTRATED LOADS.
4. SUPPORT ALL BRANCH PIPING OVER 5'-0" IN LENGTH.
5. ½" GAS PIPING SHALL BE SUPPORTED EVERY 6'-0". ¾" AND 1" GAS PIPING SHALL BE SUPPORTED EVERY 8'-0". 1¼" AND LARGER GAS PIPING SHALL BE SUPPORTED EVERY 10'-0".
6. SUPPORT VERTICAL PIPING AT EVERY FLOOR.

HEATING AND COOLING MINIMUM PIPE INSULATION[a] COMMERCIAL

(THICKNESS IN INCHES)

FLUID	NOMINAL PIPE DIAMETER			
	< 1.5"	1.5" < 4.0"	4.0" to < 8.0"	≥ 8.0"
HOT WATER (141 - 200 °F)	1.5	2.0	2.0	2.0
CHILLED WATER OR REFRIGERANT	1.5	1.5	1.5	1.5
CONDENSATE	1.0	1.0	1.0	1.5

FOR SI:
1 INCH = 25.4mm, BTU PER INCH/H x FT^2 x °F = W PER 25mm/K x M^2

[a] BASED IN INSULATION HAVING A CONDUCTIVITY NOT EXCEEDING 0.27 BTU PER INCH/H x FT^2 X °F

MINIMUM DUCT INSULATION

COMMERCIAL

ALL SUPPLY AND RETURN AIR DUCTS AND PLENUMS SHALL BE INSULATED WITH A MINIMUM OF R-6 INSULATION WHEN LOCATED IN UNCONDITIONED SPACES AND WITH A MINIMUM OF R-12 INSULATION WHEN LOCATED OUTSIDE THE BUILDING ENVELOPE. WHEN LOCATED WITHIN A BUILDING ENVELOPE ASSEMBLY, THE DUCT OR PLENUM SHALL BE SEPARATED FROM THE BUILDING EXTERIOR OR UNCONDITIONED OR EXEMPT SPACES BY A MINIMUM OF R-12 INSULATION.

EXCEPTIONS:
1. WHEN LOCATED WITHIN EQUIPMENT.
2. WHEN THE DESIGN TEMPERATURE DIFFERENCE BETWEEN THE INTERIOR AND EXTERIOR OF THE DUCT OR PLENUM DOES NOT EXCEED 15°F (8°C).

ALL JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS, AND CONNECTIONS IN DUCTWORK, SHALL BE SECURELY FASTENED AND SEALED WITH WELDS, GASKETS, MASTICS (ADHESIVES), MASTIC-PLUS-EMBEDDED FABRIC SYSTEMS OR TAPES. TAPES AND MASTICS USED TO SEAL DUCTWORK SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A OR UL 181B. DUCT CONNECTIONS TO FLANGES OF AIR DISTRIBUTION SYSTEM EQUIPMENT SHALL BE SEALED AND MECHANICALLY FASTENED. UNLISTED DUCT TAPE IS NOT PERMITTED AS A SEALANT ON ANY METAL DUCTS.

NOTE:
DUCT INSULATION, COVERINGS AND LINING MATERIALS AND ADHESIVES SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50, IN ACCORDANCE WITH 2020 MC SECTION 604.3.

MINIMUM HANGER SIZES FOR ROUND DUCT

DIAMETER	MAXIMUM SPACING	WIRE DIAMETER	ROD	STRAP
10" DN.	12'	-	¼"	1" x 22ga.
11" - 18"	12'	-	¼"	1" x 22ga.
19" - 24"	12'	-	¼"	1" x 22ga.
25" - 36"	12'	-	⅜"	1" x 22ga.
37" - 50"	12'	-	TWO ⅜"	TWO 1" x 20ga.
51" - 60"	12'	-	TWO ⅜"	TWO 1" x 18ga.
61" - 84"	12'	-	TWO ⅜"	TWO 1" x 16GA.

NOTES:
1. STRAPS AND RODS ARE GALVANIZED STEEL.
2. TABLE ALLOWS FOR CONVENTIONAL WALL THICKNESS, AND JOINT SYSTEMS PLUS ONE LB/SF OF INSULATION WEIGHT. IF HEAVIER DUCTS ARE TO BE INSTALLED, ADJUST HANGER SIZES.

GENERAL HVAC NOTES

1. ALL HVAC WORK SHALL BE INSTALLED IN ACCORDANCE WITH 2020 MECHANICAL CODE, FIRE CODE, PLUMBING CODE, FUEL GAS CODE, BUILDING CODE, AND ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE, ALL LOCAL CODES AND GENERALLY ACCEPTED STANDARDS.
2. HVAC CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, PIPING, VALVES, ACCESS DOORS, HANGERS, FITTINGS AND MISCELLANEOUS COMPONENTS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE HVAC SYSTEMS COMPLETE, OPERABLE, AND IN ACCORDANCE WITH APPLICABLE CODES AND GENERALLY ACCEPTED INDUSTRY STANDARDS.
3. HVAC CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL EQUIPMENT TO ENGINEER FOR APPROVAL. DEMONSTRATE NEW HVAC SYSTEMS TO SCHOOL AND REVIEW MAINTENANCE PROCEDURES.
4. HVAC CONTRACTOR SHALL SEAL AROUND ALL PIPE AND DUCT PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS AND CEILINGS WITH HILTI INTUMESCENT FIRE STOP MATERIALS TO MAINTAIN FIRE AND SMOKE RATINGS. DUCTS PENETRATING FIRE RATED WALLS, FLOORS AND CEILINGS SHALL BE INSTALLED WITH FIRE DAMPER AND ACCESS DOORS WHETHER SPECIFICALLY SHOWN ON THE DRAWINGS OR NOT. PROVIDE FIRE STOP SEALANT ON ALL EXISTING PIPING AND DUCTWORK PENETRATING NEW FIRE RATED WALLS CONSTRUCTED AS PART OF THE PROJECT.
5. HVAC CONTRACTOR SHALL NOT DRILL OR CUT ANY STRUCTURAL MEMBERS WITHOUT PERMISSION OF ARCHITECT.
6. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
7. HVAC CONTRACTOR SHALL FURNISH AND INSTALL ALL CONTROL WIRING (24V) FOR SYSTEMS SHOWN ON HVAC DRAWINGS AND DESCRIBED IN HVAC SPECIFICATIONS, INCLUDING ALL RELAYS, TRANSFORMERS, CONDUIT, JUNCTION BOXES, CONDUCTORS, THERMOSTATS, APPURTENANCES AND ALL NECESSARY EQUIPMENT TO MAKE SYSTEMS COMPLETE AND OPERABLE.
8. HVAC CONTRACTOR SHALL PAY FOR ALL PERMITS AND INSPECTION FEES REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
9. HVAC CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CUTTING, PATCHING, AND PAINTING ASSOCIATED WITH HVAC WORK WITH THE GENERAL CONTRACTOR, WHO SHALL PERFORM THE WORK AT HVAC CONTRACTORS COST. ALL FLOORS AND WALLS WHERE A PIPE HAS BEEN REMOVED AND NOT REPLACED SHALL BE PATCHED BY THE GENERAL CONTRACTOR, HVAC CONTRACTOR SHALL COORDINATE LOCATION AND PAY ALL COSTS.
10. ALL DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH SHEET METAL AND AIR CONDITIONING HVAC CONTRACTORS NATIONAL ASSOCIATION (SMACNA) DUCT STANDARDS. PROVIDE RADIUS TURNS OR TURNING VANES ON ALL CHANGES IN DIRECTION IN ACCORDANCE WITH SMACNA STANDARDS.
11. ALL CONTROL WIRING SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (N.E.C.) AND ALL LOCAL CODES. ALL CONDUCTORS SHALL BE COPPER WITH THHN INSULATION IN EMT CONDUIT. 120V/1 - MINIMUM CONDUCTOR SIZE #12. 24V - MINIMUM CONDUCTOR SIZE #18. MINIMUM CONDUIT SIZE SHALL BE ¾". CONDUIT INSTALLED OUTDOORS SHALL BE GALVANIZED.
12. UNLESS OTHERWISE NOTED, ALL DUCTWORK SHALL BE FABRICATED WITH MINIMUM 26 GAGE GALVANIZED STEEL INCLUDING ROUND DUCTS.
13. FINAL LOCATIONS OF ALL THERMOSTATS AND SENSORS SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION, COORDINATE IN FIELD. THERMOSTATS AND SENSORS SHALL BE LOCATED 4'-0" ABOVE FINISHED FLOOR.
14. HVAC CONTRACTOR SHALL PROVIDE ACCESS DOORS FOR ALL VALVES AND DUCT ACCESSORIES CONCEALED IN WALLS/CEILINGS. ACCESS DOORS SHALL HAVE APPROPRIATE FIRE RATING TO MAINTAIN INTEGRITY OF WALL/CEILING.
15. HVAC CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF ALL PIPING IN FINISHED AREAS WITH GENERAL CONTRACTOR TO ENSURE CONCEALMENT OF ALL PIPING IN WALLS, FLOORS AND CEILINGS.
16. HVAC CONTRACTOR SHALL FURNISH AND INSTALL VALVE TAGS, PIPE LABELS, DUCT LABELS AND EQUIPMENT LABELS. LOG ALL TAGS AND LABELS IN A 3-RING BINDER WITH LOCATION, DESCRIPTION AND FUNCTION. SEE SPECIFICATIONS FOR MORE INFORMATION.
17. HVAC CONTRACTOR SHALL PROVIDE ALL AIR AND HYDRONIC BALANCING FOR ALL NEW HVAC SYSTEMS. PROVIDE ALL NECESSARY MOTOR, DRIVE, BELT CHANGES AND ETC. SEE SPECIFICATIONS FOR BALANCE PROCEDURES AND ADDITIONAL REQUIREMENTS. HVAC CONTRACTOR SHALL COMFORT BALANCE ALL HVAC SYSTEMS TO THE SATISFACTION OF ENGINEER/ARCHITECT. SUBMIT BALANCE REPORT TO ENGINEER. SEE HVAC SPECIFICATIONS BALANCE REPORT REQUIREMENTS.
18. HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUPPLEMENTAL STRUCTURAL STEEL SUPPORT ASSOCIATED WITH NEW HVAC EQUIPMENT HUNG OR SUPPORTED FROM OR ON THE BUILDING STRUCTURE. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ARCHITECT FOR APPROVAL PRIOR TO STEEL FABRICATION AND INSTALLATION OF EQUIPMENT.
19. HVAC CONTRACTOR SHALL SUBMIT PIPING AND DUCTWORK FULLY COORDINATED SHOP DRAWINGS FOR ENGINEERS REVIEW. SEE GENERAL CONDITIONS FOR NUMBER OF SHOP DRAWINGS.
20. HVAC CONTRACTOR SHALL INSTRUCT FIRE DEPARTMENT AND KEY PERSONNEL ON OPERATION OF ALL HVAC SYSTEMS. SET ALL THERMOSTATS TO TEMPERATURES AND SCHEDULES AS DIRECTED BY FIRE DEPARTMENT.
21. HVAC CONTRACTOR SHALL INCLUDE IN BID ALL MATERIALS, RIGGING AND LABOR REQUIRED FOR THE COMPLETE AND PROPER INSTALLATION OF THE MECHANICAL SYSTEM.
22. HVAC CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE BEGINNING OF WORK, AND COORDINATE WORK ALL OTHER TRADES.
23. PROVIDE ALL PIPE OPENINGS THROUGH PARTITIONS WITH PIPE SLEEVES.
24. PROVIDE VOLUME DAMPERS ON ALL SUPPLY, RETURN AND EXHAUST BRANCH DUCTWORK, WHETHER SPECIFICALLY INDICATED ON DRAWINGS OR NOT.
25. ALL MOTOR STARTERS AND DISCONNECT SWITCHES FOR HVAC EQUIPMENT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR. DISCONNECT SWITCHES FURNISHED BY THE MECHANICAL CONTRACTOR FOR HVAC EQUIPMENT SHALL BE HEAVY DUTY TYPE AND SHALL BE NEMA 3R WHEN LOCATED OUTSIDE.
26. HVAC CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIAL INSTALLED UNDER THIS CONTRACT FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER AND AGREES TO REPLACE DEFECTIVE WORK (INCLUDING ALL REQUIRED LABOR AND MATERIAL) AT NO ADDITIONAL COST TO OWNER DURING THE GUARANTEE PERIOD.
27. HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING START-UP OF ALL NEW EQUIPMENT, CONTROLS, AND ETC. TO ENSURE CORRECT OPERATION OF INSTALLED DEVICES.
28. HVAC CONTRACTOR SHALL PROVIDE OWNER WITH CATALOG DATA, OPERATING INSTRUCTIONS, MAINTENANCE INSTRUCTIONS, AND RECORD (AS-BUILT) DRAWINGS OF ALL COMPLETED WORK.
29. ALL NEW HOLES IN WALLS AND FLOORS SHALL BE CORE DRILLED BY THIS CONTRACTOR. PRIOR TO CORE DRILLING FLOORS, RADAR SCAN FLOOR SLABS. USE CAUTION WHEN CORE DRILLING TO AVOID DAMAGE TO EQUIPMENT, SYSTEMS, STRUCTURE AND ETC. ANY ITEMS DAMAGED AS A RESULT OF CORE DRILLING SHALL BE REPAIRED BY THIS CONTRACTOR AT NO ADDITIONAL COST TO FIRE DEPARTMENT.

No.	REVISION/SUBMISSION	DATE

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING
MECHANICAL:
EQUIPMENT SCHEDULES

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
M600

FILE H:\2021\GA21063

AIR HANDLING UNIT SCHEDULE

DESIGNATION	AHU-1	AHU-2	AHU-3
LOCATION	ATTIC MECH. ROOM	ATTIC MECH. ROOM	ATTIC MECH. ROOM
AREA SERVED	DAYROOM	MEETING/TRAINING	OFFICE/RADIO ROOM
MANUFACTURER	DAIKIN	DAIKIN	DAIKIN
MODEL NUMBER	FTQ48TAVJUD	FTQ48TAVJUD	FTQ18TAVJUD
WEIGHT OF UNIT (POUNDS)	150	150	115
UNIT DIMENSIONS LxWxH (IN.)	21" x 21" x 53.43"	21" x 21" x 53.43"	21" x 17.5" x 45"
DESIGN DATA:			
SUPPLY AIR (CFM)	1520/1290/1060	1520/1290/1060	600/510/420
OUTDOOR AIR (CFM)	120	470	60
FILTER DATA:			
TYPE/EFFICIENCY	PLEATED/MERV 8	PLEATED/MERV 8	PLEATED/MERV 8
QUANTITY	1	1	1
HOT WATER COIL DATA:			
No. OF ROWS	2	2	2
EAT (°F) DB	65.0	65.0	65.0
LAT (°F) DB	116.16	116.16	130.50
TOTAL CAP. (MBH)	88.2	88.2	44.3
ENT/LWT (°F)	180/160.22	180/160.22	180/161.25
FLUID FLOW RATE (GPM)	8.7	8.7	4.7
FLUID PD (FT)	7.5	7.5	6.07
EVAPORATOR COIL DATA:			
EAT (°F) DB/WB	80.0/67.0	80.0/67.0	80.0/67.0
TOTAL CAPACITY (MBH)	48.0	48.0	18.0
SUPPLY FAN DATA:			
AIRFLOW VOLUME (CFM)	1520/1290/1060	1520/1290/1060	600/510/420
HP	3/4	3/4	1/2
ESP (IN H_2O)	0.9	0.9	0.9
DISCHARGE LOCATION	TOP	TOP	TOP
VOLTS/Φ/Hz	208/1/60	208/1/60	208/1/60
FLA (AMPS)	6.5	6.5	4.9
MOTOR EFFICIENCY	ECM	ECM	ECM

NOTES:

1. UNITS BASED ON DAIKIN.
2. HVAC CONTRACTOR TO COORDINATE COIL CONNECTION AND ACCESS DOOR SIDE IN FIELD PRIOR TO ORDERING.
3. PROVIDE (1) COMPLETE EXTRA SET OF FILTERS FOR EACH UNIT.
4. REFER TO PLANS AND SECTIONS FOR AIR HANDLING UNIT SECTION ARRANGEMENTS AND DUCTWORK CONNECTION LOCATIONS.
5. ALL MOTORS 1 HP AND LARGER SHALL BE PREMIUM EFFICIENCY. FANS PROVIDED WITH VARIABLE FREQUENCY DRIVES WITH DISCONNECT SWITCHES, SHALL HAVE INVERTER RATED PREMIUM EFFICIENCY MOTORS SUITABLE FOR VARIABLE SPEED AND TORQUE APPLICATIONS. TURN DOWN RATIO OF 10:1.
6. PROVIDE NEMA 1 DISCONNECT SWITCH FOR AIR HANDLERS
7. CASED HEATING COIL DIVERSIFIED HEAT TRANSFER, INC. MODEL: AHCC-2-210, AHCC-2-175
8. CO2 SENSOR FOR VENTILATION CONTROL ON AIR HANDLERS (AHU-1, 2, 3)

BOILER SCHEDULE

DESIGNATION	B-1	B-2
LOCATION	BOILER ROOM	BOILER ROOM
SERVICE	HOT WATER	HOT WATER
MANUFACTURER	VISEMANN	VISEMANN
MODEL NUMBER	C12 - 750	C12 - 750
OPERATING WEIGHT (LBS)	963	963
WATER CONTENT	50.0 GAL	50.0 GAL
GROSS OUTPUT (MBH)	734	734
FUEL SOURCE	NATURAL GAS	NATURAL GAS
INPUT (MBH)	750	750
BOILER HP	21.9	21.9
MIN./MAX. INLET GAS PRESSURE (IN W.C.)	4.0/14	4.0/14
LWT/ENT (°F)	180/160	180/160
FLOW RATE (GPM)	58	58
WATER P.D. (FT.)	-	-
COMBUSTION EFFICIENCY	96.9%	96.9%
BOILER DESIGN PRESSURE (PSI)	80	80
ELECTRICAL REQUIREMENTS		
VOLTAGE/ Φ / Hz.	120 / 1 / 60	120 / 1 / 60

NOTES:

1. ASME CODE, SECTION IV, MAX PRESSURE= 80 PSIG, MAX TEMP 220°F.
2. ASME CSD-1 BOILER CONTROLS.
3. STAINLESS STEEL HEAT EXCHANGER.
4. INTAKE AIR ADAPTER KIT
5. FULL MODULATION, 5:1 ACROSS THE FIRING RANGE.
6. VARIABLE SPEED COMBUSTION AIR BLOWER.
7. COMBUSTION EFFICIENCY TO BE CSA CERTIFIED BASED ON OPERATING CONDITIONS FOR TESTING UNDER ANSI Z21.13/CSA4.9.
8. BOILERS FURNISHED FOR NATURAL GAS. ALL GAS TRAINS AND CONTROLS FURNISHED WITH BOILERS ARE TO BE VENTLESS.
9. ASME LABELED
10. EACH BOILER SHALL BE EQUIPPED WITH A INDEPENDENT LOW WATER CUTOFF AND MANUAL RESET HIGHLIMT.
11. 10 YEAR WARRANTY ON PRESSURE VESSEL AND 2 YEARS ON BOILER ENCLOSURE, BURNER, CONTROLS AND ACCESSORIES.
12. PROVIDE CONDENSATE TRAP AND ACID NEUTRALIZATION SYSTEM.
13. BOILERS SHALL BE FURNISHED WITH ADAPTORS FOR CPVC VENTING.
14. EM-MI MIXING VALVE EXTENSION MODULE 120V/1
15. COMBUSTION AIR FILTER KIT FOR VITOGROSSAL 200

DUCTLESS SPLIT SYSTEM EQUIPMENT SCHEDULE

SYMBOL	MANUFACTURER	CATALOG #	DESCRIPTION
FCU-1	DAIKIN	FTXI18UVJU	INDOOR UNIT-DUCTLESS SPLIT HEAT PUMP, WALL MOUNTED, DISCONNECT SWITCH, FIELD LOCATED WIRED REMOTE CONTROLLER ONE+ WITH EMAIL ALERT CAPABILITY, CONDENSATE PUMP (5130-230), COOLING 9,000 BTUH MIN., 21,600 MAX., HEATING 9,000 BTUH MIN., RATED 28,000 BTUH @ 47°F - 208/230V, 1Φ
HP-1	DAIKIN	RXL18UMVJUA	OUTDOOR UNIT-AIR COOLED INVERTER HEAT PUMP UNIT, R-410A, COOLING 9,000 BTUH MIN., 21,600 BTUH MAX., HEATING 9,000 BTUH MIN., RATED 28,000 BTUH @ 47°F, RATED 21,600 BTUH @ 5°F, INVERTER DRIVEN COMPRESSOR, BASE PAN HEATER, EXPANSION VALVE, LOW AMBIENT WIND BAFFLE/AIR ADJUSTMENT GRILLE, NEMA 3R DISCONNECT SWITCH. - SEER 20.3, HSPF 10.3 - MCA 18.1 AMPS, MOP 20.0 AMPS - 208/230V, 1Φ

AIR-COOLED CONDENSING UNIT SCHEDULE

DESIGNATION	CC-1	CC-2	CC-3
AREA SERVED	DAYROOM	MEETING/TRAINING RM	OFFICE/RADIO RM
UNIT SERVED	AHU-1	AHU-2	AHU-3
MODEL NUMBER	RZQ48TAVJUA	RZQ48TAVJUA	RZQ18TAVJUA
SEER/EER - MAX.	14.8/9.5	14.8/9.5	15.5/12.5
WEIGHT OF UNIT (POUNDS)	225	225	175
CONDENSER DATA:			
AMBIENT TEMPERATURE (°F)	95	95	95
No. OF ROWS/FPI	2/19	2/19	2/19
No. OF FANS	2	2	1
FAN MOTOR (EACH)	70 WATTS	70 WATTS	200 WATTS
AIR FLOW	3141 CFM	3141 CFM	2682 CFM
COMPRESSOR DATA:			
REFRIGERANT TYPE	R-410A	R-410A	R-410A
COMPRESSOR TYPE	SCROLL	SCROLL	SCROLL
REFRIGERATION EFFECT (MBH)	48.0	48.0	18.0
CAPACITY CONTROL	14-100 STEPS	14-100 STEPS	14-100 STEPS
SINGLE POINT POWER CONNECTION ELECTRICAL DATA:			
VOLTS/Φ/Hz	208/1/60	208/1/60	208/1/60
MCA/MOCP (AMPS)	29.1/35	29.1/35	16.5/20

NOTES:

1. UNITS BASED ON DAIKIN SHALL BE COMPLETE WITH THE FOLLOWING:
   - NON-FUSED DISCONNECT SWITCH NEMA 3R
   - FACTORY POWERED, 115 VOLT, GFI, ELECTRICAL OUTLET
   - SUCTION AND DISCHARGE ISOLATION VALVES FOR EACH REFRIGERATION SECTION.
   - 24 VOLT TERMINAL STRIP FOR FIELD SUPPLIED AND INSTALLED CONTROLS.
   - 115 VOLT TRANSFORMER
   - CRANKCASE HEATER
   - LOW AMBIENT COOLING CONTROLS, WINTER START KIT, HARD SHUTOFF TXV, COMPRESSOR START ASSIST - CAPACITOR AND RELAY
   - LOUVERED COIL GUARD, FILTER DRYER
   - LIQUID LINE SOLENOID VALVES
   - REFRIG CIRC/COMPRESSOR STAGING - VARIABLE SPEED

LOUVER SCHEDULE

DESIGNATION	L-1, 3, 4, 6	L-2, 5	
MODEL NUMBER	ESD-435	ESD-435	
LOCATION	ATTIC	122	
DIMENSIONS LxHxD (IN.)	24"x24"x4"	30"x18"x4"	
SHAPE	RECTANGLE	RECTANGLE	
MIN. FREE AREA (SQ. FT.)	1.81	1.58	
FREE AREA (%)	45.0	42.1	
BLADE ANGLE	35	35	
MATERIAL	ALUMINUM	ALUMINUM	

NOTES:

1. LOUVERS BASED ON GREENHECK
2. COORDINATE EXACT LOUVER SIZE WITH ARCHITECTURAL PLANS AND WITH WALL OPENINGS IN THE FIELD.
3. ALL LOUVERS SHALL HAVE FACTORY POWDER COAT FINISH, COLOR TO BE SELECTED BY ARCHITECT. SUBMIT COLOR CHART FOR REVIEW.
4. ALL LOUVERS SHALL BE PROVIDED WITH BIRD SCREENS AND EXTENDED SILLS AND FRAMES.
5. LOUVERS SHALL BE PROVIDED BY THE HVAC CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR.
6. LOUVERS SHALL BARE THE AMCA SEAL.

VENTILATION SCHEDULE

Space Name	Gross Area	Net Area	Ra	Ventilation based on Net Floor Area		Occupancy Density	Calculated Occupants (Pz)	People Used	Rp Cfm/Person	Ventilation based on People		Total OA Ventilation (Vbz)		Zone Air Distribution Effectiveness (Ez)		Zone OA Required (Voz)	OA Ventilation Provided	Exhaust Airflow Rates	Exhaust Required	Exhaust Provided
	sqft	sqft	CFM/sqft	CFM		#/1000 sqft				CFM		CFM				CFM	CFM	CFM/sqft	CFM	CFM
Lobby 100	152	35	0.06	3	+	30	1.1	1	5	5	=	8	x	0.8		10	10	-	-	-
Radio Room 101	126	54	0.06	4	+	5	0.3	1	5	5	=	9	x	0.8		12	15	-	-	-
Office 102	213	78	0.06	5	+	5	0.4	1	5	5	=	10	x	0.8		13	15	-	-	-
Day Room 103	638	388	0.06	24	+	30	11.6	12	5	60	=	84	x	0.8		105	110	-	-	-
Kitchen 104	220	114	0	1	+	0	0.0	1	0	0	=	1	x	0.8		2	60	0.7	80	300
Hallway 105 A	146	46	0.06	3	+	0	0.0	1	0	0	=	3	x	0.8		4	5	-	-	-
Hallway 105 B	136	21	0.06	2	+	0	0.0	1	0	0	=	2	x	0.8		3	5	-	-	-
Meeting/Training 106	656	460	0.06	28	+	100	46.0	46	7.5	345	=	373	x	0.8		467	470	-	-	-
Clean Room 107	184	68	-	-	+	-	-	-	-	-	=	-	x	0.8		-	-	70 PER FIX	70	100
Laundry Room 108	234	120	-	-	+	-	-	-	-	-	=	-	x	0.8		-	-	70 PER FIX	70	100
Toilet 110	61	14	-	-	+	-	-	-	-	-	=	-	x	0.8		-	-	70 PER FIX	140	150
Utility 111	75	19	-	-	+	-	-	-	-	-	=	-	x	0.8		-	-	-	50	50
Gear Room 112	344	203	0	1	+	0	0.0	1	0	0	=	1	x	0.8		2	110	0.5	102	140
Apparatus Room 113	6280	5384	0	1	+	0	0.0	1	0	0	=	1	x	0.8		269	315	0.05	269	315
Sprinkler Room 115	224	119	0	1	+	0	0.0	1	0	0	=	1	x	0.8		2	110	0.12	14	100
Storage 116	147	60	0	1	+	0	0.0	1	0	0	=	1	x	0.8		2	110	0.12	7	50
Electric Room 117	200	100	0	1	+	0	0.0	1	0	0	=	1	x	0.8		2	110	0.18	18	200
Toilet 121	87	20	-	-	+	-	-	-	-	-	=	-	x	0.8		-	-	70 PER FIX	170	200
Toilet 122	87	20	-	-	+	-	-	-	-	-	=	-	x	0.8		-	-	70 PER FIX	170	200

No.	REVISION/SUBMISSION	DATE

Mechanical/Electrical/Plumbing Engineer

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING
MECHANICAL:
EQUIPMENT SCHEDULES

SEAL

DRAWN BY RL/KC | PROJECT NUMBER 18142
CHECKED BY JT/GH | DATE 11-30-22
DRAWING NUMBER
M601

FILE H:\2021\GA21063

MECHANICAL EQUIPMENT SCHEDULE

SYMBOL	MANUFACTURER	CATALOG #	DESCRIPTION
—CD—	———	———	CONDENSATE DRAIN PIPING. SCHEDULE 40 PVC
—HWS— —HWR—	———	———	HYDRONIC PIPING, COPPER TYPE "L" UP TO 2". ABOVE 2" USE SCHEDULE 40 STEEL WITH SCREWED JOINTS. BOILER HEADER SHALL BE PIPED WITH SCHEDULE 40 STEEL. INSULATE WITH FIBERGLASS PIPE INSULATION WITH VAPOR PROOF JACKET, TAPED JOINTS AND PVC FITTING COVERS. EXPOSED PIPING SHALL BE COVERED WITH PVC PIPE COVER AND PAINTED. SEE THIS DRAWING FOR INSULATION THICKNESS SCHEDULE.
—REF—	———	———	REFRIGERANT PIPING SHALL BE COPPER TUBING TYPE ACR HARD DRAWN. WROUGHT COPPER FITTINGS, SILVER BRAZE JOINTS. SIZE REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS BASED ON ELEVATION AND LENGTH. INSULATE SUCTION LINE WITH 1½" ELASTROMETRIC CELLULAR FOAM. CONCEAL REFRIGERATION PIPING IN EXTERIOR WALL PARTITION AND ABOVE CEILING.
—G—	———	———	NATURAL GAS PIPING, SCHEDULE 40 STEEL WITH SCREWED JOINTS UP TO 3" DIAMETER. WELDED JOINTS ON ALL PIPE SIZES ABOVE 3" DIAMETER.
			GAS VALVE FULL PORT, AGA APPROVED.
	NIBCO	———	BALL VALVE, BRONZE BODY, FULL PORT.
	NIBCO	———	CHECK VALVE, BRONZE BODY SWING.
M	———	———	MOTORIZED DAMPER, SEE SPECIFICATION SECTION 23 33 00 AIR DUCT ACCESSORIES & 23 09 00 INSTRUMENTATION & CONTROL.
FD	———	———	FIRE DAMPER
	———	———	GAS VALVE FULL PORT, AGA APPROVED.
	———	———	TRAP.
	———	———	TURNING VALVES.
	———	———	DUCTWORK, GALVANIZED STEEL, THICKNESS PER SMACNA STANDARDS. MINIMUM 26 GAUGE
	———	———	VOLUME DAMPER, SEE SPECIFICATION SECTION 23 33 00 AIR DUCT ACCESSORIES & 23 09 00 INSTRUMENTATION & CONTROL.
	FLEXMASTER USA, INC.	TYPE 4M	FLEXIBLE DUCTWORK, MECHANICAL LOCK HELIX, FIBERGLASS INSULATION, FIRE RETARDANT ALUMINUM OUTER JACKET, UL 181 CLASS 1 AIR DUCT. MAXIMUM LENGTH (6'-0")
ALTERNATE #3 → **UH-1,2,3,4**	BEACON MORRIS	HB-204	HORIZONTAL UNIT HEATER, HOT WATER, OUTPUT 115,070 BTU/HR @ 180°F E.W.T., 14.9 GPM, 2900 CFM, WITH DISCONNECT SWITCH, AQUASTAT FAN START, 120V/1.
CH-1, 2	BEACON MORRIS	WI20	CABINET HEATER TWIN-FLO III RECESSED WALL MOUNT, AQUASTAT FAN START, TAMPER PROOF FASTENERS AND CONTROLS. HEATING CAPACITY 11,755 BTU/HR @ 180°F E.W.T. - 2.0 GPM - 127 CFM - 120V/1.
EF-1, 3	GREENHECK	SP-A290-QD	CABINET EXHAUST FAN, BACKDRAFT DAMPER, DISCONNECT SWITCH, BACKDRAFT DAMPER, ISOLATORS & BRACKETS & SPRING HANGING KIT, FLEXIBLE DUCT CONNECTOR, WALL MOUNTED SPEED SWITCH, 257 CFM @ .25" W.C., - 120V/1
EF-2	GREENHECK	SP-A200-QD	CABINET EXHAUST FAN, BACKDRAFT DAMPER, DISCONNECT SWITCH, BACKDRAFT DAMPER, ISOLATORS & BRACKETS & SPRING HANGING KIT, FLEXIBLE DUCT CONNECTOR, WALL MOUNTED SPEED SWITCH, 224 CFM @ .25" W.C., - 120V/1
EF-4, 6	GREENHECK	SQ-80-VG	INLINE CABINET EXHAUST FAN, BACKDRAFT DAMPER, VARI-GREEN REMOTE DIAL MOUNTED IN ROOM, VARI-GREEN TRANSFORMER FIELD MOUNTED AND WIRED, DISCONNECT SWITCH, BACKDRAFT DAMPER, MOTOR COVER, ISOLATORS & BRACKETS & SPRING HANGING KIT, FLEXIBLE DUCT CONNECTORS, 200 CFM @ .5" W.C., 1/6 HP - 120V/1
EF-5	GREENHECK	SQ-80-VG	INLINE CABINET EXHAUST FAN, BACKDRAFT DAMPER, VARI-GREEN REMOTE DIAL MOUNTED ON FAN, VARI-GREEN TRANSFORMER FIELD MOUNTED AND WIRED, DISCONNECT SWITCH, BACKDRAFT DAMPER, MOTOR COVER, ISOLATORS & BRACKETS & SPRING HANGING KIT, FLEXIBLE DUCT CONNECTORS, 140 CFM @ .4" W.C., 1/6 HP - 120V/1
EF-7, 8	GREENHECK	SQ-80-VG	INLINE CABINET EXHAUST FAN, BACKDRAFT DAMPER, VARI-GREEN REMOTE DIAL MOUNTED ON FAN, VARI-GREEN TRANSFORMER FIELD MOUNTED AND WIRED, DISCONNECT SWITCH, BACKDRAFT DAMPER, MOTOR COVER, ISOLATORS & BRACKETS & SPRING HANGING KIT, FLEXIBLE DUCT CONNECTORS, 170 CFM @ .5" W.C., 1/6 HP - 120V/1
DF-1	FANTECH	DEDPV-705 UL	UL LISTED DRYER EXHAUST FAN. PRESSURE-SENSING SWITCH AUTOMATICALLY TURNS ON THE FAN, ABLE TO EXHAUST UP TO 120'-0" OF 4"Φ GALVANIZED STEEL DUCT, AND WALL MOUNTED OPERATION INDICATOR SIGN. FAN MUST BE INSTALLED 5'-0" FROM DRYER OUTLET, PROVIDE AND INSTALL SECONDARY LINT TRAP (DBLT 4W) BEFORE THE FAN. PROVIDE FC VIBRATION ISOLATION CLAMPS FOR DUCT CONNECTIONS AND MOUNTING BRACKET. INDICATOR SIGN SHALL BE INSTALLED WITHIN LAUNDRY ROOM FAN IS SERVING.
	TAMARACK TECHNOLOGIES	CAPE BACKDRAFT	4" DIAMETER CAPE BACKDRAFT ULTIMATE AIRFLOW DAMPER
ERV-1	RENEWAIRE	EV450	ENERGY RECOVERY UNIT, 315 CFM @ .4" W.C. TOTAL EFF % WINTER/SUMMER (%/%) WITH TWO POSITION DAMPER MOTORIZED DAMPERS ON INTAKE AND EXHAUST AIR DUCT, SOLID STATE SPEED CONTROLLER MOUNTED NEAR UNIT. (1) - .5 HP ECM MOTOR - 120V/1
RH-1	FRIGIDAIRE	FHWC3640MS	RANGE HOOD 36" UNDER-CABINET STAINLESS STEEL FINISH, BACKDRAFT DAMPER, 7"Φ EXHAUST DUCT CONNECTION - 300 CFM, WITH HANDICAP ACCESSIBLE SWITCHES. LAMPS: (2) HALOGEN 50 WATT - 120V/1
RC-1	GREENHECK	RJ - 10x10	PITCHED ROOF CAP CONSTRUCTED OF STEEL. THROAT (10"W x 10"L) WITH INTEGRAL FLASHING, BUILT-IN BIRDSCREEN AND DAMPER. POWDER COAT PAINT COLOR AS DIRECTED BY ARCHITECT.
ALTERNATE #1 → **HX-1**	BELL & GOSSETT	BP423-30	BRAZED PLATE HEAT EXCHANGER , 1 PASS, 24 CHANNELS, PLATE MATERIAL 316L SS, BRAZING MATERIAL COPPER, DESIGN PRESSURE 435 PSI. BOILER SIDE: WATER FLOW 40 GPM, INLET TEMP 180°F, OUTLET TEMP 160°F, PRESSURE DROP 2.35 PSI, . SNOW MELT SIDE: 35% PROPYLENE GLYCOL FLOW 40 GPM, INLET TEMP 130°F, OUTLET TEMP 110°F, PRESSURE DROP 2.07 PSI. TOTAL HEAT EXCHANGED 412,482 BTU/HR WITH FIELD FABRICATED STAND.

MECHANICAL EQUIPMENT SCHEDULE CON'T

SYMBOL	MANUFACTURER	CATALOG #	DESCRIPTION
P-1, 2	GRUNDFOS	TPE3 65-150 S-A-G-A-BQQE -GBB	SINGLE STAGE, CLOSED COUPLE, VOLUTE PUMP INLINE VARIABLE SPEED PUMP WITH WIRELESS REMOTE CONTROL, FACTORY START-UP, AUTO ADAPT, FLOWADAPT, AND FLOW LIMIT. PROPORTIONAL-PRESSURE CONTROL, CONSTANT PRESSURE CONTROL, AND CONSTANT-TEMPERATURE CONTROL. SEALS COMPATIBLE WITH 35% PROPYLENE GLYCOL. MAX. WORKING PRESSURE 174 PSI, MAX. OPERATING TEMPERATURE 230°F. MOTOR STARTER H-O-A W/OVERLOADS. 86 GPM @ 40 FT. HEAD, 1.5 HP - 208V/3
P-3, 4	GRUNDFOS	MAGNA3 40-180 F	MAGNA SERIES INLINE VARIABLE SPEED PUMP WITH WIRELESS REMOTE CONTROL, FACTORY START-UP, AUTO ADAPT, FLOWADAPT, AND FLOW LIMIT. PROPORTIONAL-PRESSURE CONTROL, CONSTANT PRESSURE CONTROL, AND CONSTANT-TEMPERATURE CONTROL. SEALS COMPATIBLE WITH 35% PROPYLENE GLYCOL. MAX. WORKING PRESSURE 174 PSI, MAX. OPERATING TEMPERATURE 230°F. MOTOR STARTER H-O-A W/OVERLOADS. 40 GPM @ 14 FT. HEAD, POWER INPUT 16 -285 WATTS - 120V/1
P-5, 6	GRUNDFOS	MAGNA3 40-180 F	MAGNA SERIES INLINE VARIABLE SPEED PUMP WITH WIRELESS REMOTE CONTROL, FACTORY START-UP, AUTO ADAPT, FLOWADAPT, AND FLOW LIMIT. PROPORTIONAL-PRESSURE CONTROL, CONSTANT PRESSURE CONTROL, AND CONSTANT-TEMPERATURE CONTROL. SEALS COMPATIBLE WITH 35% PROPYLENE GLYCOL. MAX. WORKING PRESSURE 174 PSI, MAX. OPERATING TEMPERATURE 230°F. MOTOR STARTER H-O-A W/OVERLOADS. 24 GPM @ 38 FT. HEAD, POWER INPUT 16 - 606 WATTS - 120V/1
P-7, 8	GRUNDFOS	MAGNA3 32-120 F	MAGNA SERIES INLINE VARIABLE SPEED PUMP WITH WIRELESS REMOTE CONTROL, FACTORY START-UP, AUTO ADAPT, FLOWADAPT, AND FLOW LIMIT. PROPORTIONAL-PRESSURE CONTROL, CONSTANT PRESSURE CONTROL, AND CONSTANT-TEMPERATURE CONTROL. SEALS COMPATIBLE WITH 35% PROPYLENE GLYCOL. MAX. WORKING PRESSURE 174 PSI, MAX. OPERATING TEMPERATURE 230°F. MOTOR STARTER H-O-A W/OVERLOADS. 14 GPM @ 15 FT. HEAD, POWER INPUT 9.1 - 187 WATTS - 120V/1
P-9, 10	GRUNDFOS	TPE3 40-150 S-A-G-A-BQQE -GBB	SINGLE STAGE, CLOSED COUPLE, VOLUTE PUMP INLINE VARIABLE SPEED PUMP WITH WIRELESS REMOTE CONTROL, FACTORY START-UP, AUTO ADAPT, FLOWADAPT, AND FLOW LIMIT. PROPORTIONAL-PRESSURE CONTROL, CONSTANT PRESSURE CONTROL, AND CONSTANT-TEMPERATURE CONTROL. SEALS COMPATIBLE WITH 35% PROPYLENE GLYCOL. MAX. WORKING PRESSURE 174 PSI, MAX. OPERATING TEMPERATURE 230°F. MOTOR STARTER H-O-A W/OVERLOADS. 73 GPM @ 15 FT. HEAD, 1.5 HP - 208V/3
P-11, 12	GRUNDFOS	TPE 50-240/2 A-G-Z-BUBE -HBB	SINGLE STAGE, CLOSED COUPLE. INLINE VARIABLE SPEED PUMP WITH INTEGRATED FREQUENCY CONVERTER. FACTORY START-UP, AUTO ADAPT, FLOWADAPT, AND FLOW LIMIT. PROPORTIONAL-PRESSURE CONTROL, CONSTANT PRESSURE CONTROL, AND CONSTANT-TEMPERATURE CONTROL. SEALS COMPATIBLE WITH 35% PROPYLENE GLYCOL. MAX. WORKING PRESSURE 174 PSI, MAX. OPERATING TEMPERATURE 230°F. MOTOR STARTER H-O-A W/OVERLOADS. 40 GPM @ 57 FT. HEAD, 2.0 HP - 208V/3 → ALTERNATE #1
ET-1	AMTROL	500-L	HYDRONIC EXPANSION TANK, HEAVY DUTY BUTYL BLADDER, TANK VOLUME 132 GALLONS
T H/C	DAIKIN	BACRC-THOC-P01	ADAPTIVE TOUCH CONTROLLER, BUILT IN TEMPERATURE SENSOR, HUMIDITY SENSOR, CO2 SENSOR AND OCCUPANCY SENSOR PROGRAMMABLE MULTI-STAGE REMOTE SENSING, PROGRAMMABLE FAN, OUTDOOR DAMPER CONTROL, EMERGENCY HEAT SWITCH, LOW VOLTAGE (24V). WITH CLEAR LOCKING COVER UNLESS OTHERWISE NOTED.
T H	———	———	RADIANT HEAT THERMOSTAT, NON-PROGRAMMABLE, SLAB SENSOR/ROOM TEMPERATURE ACTIVATION. LOW VOLTAGE (24V). WITH CLEAR LOCKING COVER UNLESS OTHERWISE NOTED.
T H	———	———	PROGRAMMABLE MULTI--STAGE THERMOSTAT, HEAT/COOL WITH ON/OFF/AUTO FAN SWITCH, 5-1-1 DAY, PROGRAMMABLE WITH SET BACK CAPABILITIES, LOW VOLTAGE (24V). WITH CLEAR LOCKING COVER UNLESS OTHERWISE NOTED.

REGISTER/GRILLE SCHEDULE

SYMBOL	MANUFACTURER	CATALOG #	DESCRIPTION	NECK SIZE — CFM RANGE
CD-A	PRICE	SCDA	CEILING DIFFUSER, CONSTRUCTED OF STEEL LAY-IN (24" x 24") COORDINATE WITH CEILING GRID TYPE. ADJUSTABLE AIR PATTERN, ROUND NECK, 4-WAY DEFLECTION, BUTTERFLY DAMPER. WHITE	6"Φ → 0-100 CFM 8"Φ → 101-230 CFM 10"Φ → 231-300 CFM 12"Φ → 301-400 CFM 14"Φ → 401-500 CFM
CD-B	PRICE	SMDA	CEILING DIFFUSER, CONSTRUCTED OF STEEL, SURFACE MOUNTED 2-WAY DEFLECTION, ADJUSTABLE AIR PATTERN AND OPPOSED BLADE DAMPER. LAY-IN CEILING MODULE (24" x 24") COORDINATE WITH CEILING GRID TYPE. WHITE	6" x 6" → 0-100 CFM 9" x 9" → 101-200 CFM 12" x 12" → 201-300 CFM
RG-C	PRICE	535	RETURN GRILLE, CONSTRUCTED OF STEEL, SURFACE MOUNTED 45° DEFLECTION, ½" BLADE SPACING (14" x 10"). WHITE	14" x 10" → 0-165 CFM
RG-D	PRICE	535	RETURN GRILLE, CONSTRUCTED OF STEEL, SURFACE MOUNTED 45° DEFLECTION, ½" BLADE SPACING (18" x 14"). WHITE	18" x 14" → 0-320 CFM
SG-E	PRICE	520	SUPPLY REGISTER, CONSTRUCTED OF STEEL, SURFACE MOUNTED DOUBLE DEFLECTION, ¾" BLADE SPACING (16" x 14"). WHITE	16" x 14" → 0-320 CFM
RG-F	PRICE	80	RETURN REGISTER, WALL OR CEILING MOUNTED AS SHOWN, ½" EGG CRATE TYPE ALUMINUM CONSTRUCTION, 24" x 12", WHITE.	24" x 12" → 0-400 CFM
RG-G	PRICE	80	RETURN REGISTER, WALL OR CEILING MOUNTED AS SHOWN, ½" EGG CRATE TYPE ALUMINUM CONSTRUCTION, LAY-IN 24" x 24", WHITE.	24" x 24" → 0-1800 CFM
RG-H	PRICE	80	RETURN REGISTER, WALL OR CEILING MOUNTED AS SHOWN, ½" EGG CRATE TYPE ALUMINUM CONSTRUCTION WITH OPPOSED BLADE DAMPER, 24" x 12", WHITE.	24" x 12" → 0-400 CFM
RG-I	PRICE	80	RETURN REGISTER, WALL OR CEILING MOUNTED AS SHOWN, ½" EGG CRATE TYPE ALUMINUM CONSTRUCTION WITH OPPOSED BLADE DAMPER, 8" x 8", WHITE.	8" x 8" →0-80 CFM

NOTES:

1. HVAC CONTRACTOR SHALL INSULATE THE BACKS OF ALL DIFFUSERS AND GRILLES WITH 1" THICK FIBERGLASS INSULATION W/VAPOR JACKET TO PREVENT CONDENSATION.
2. HVAC CONTRACTOR SHALL INTERNALLY INSULATE THE INTERIOR OF ALL PLENUM BOXES AND PAINT ALL INTERIOR SURFACES BLACK.

No.	REVISION/SUBMISSION	DATE

Mechanical/Electrical/Plumbing Engineer

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

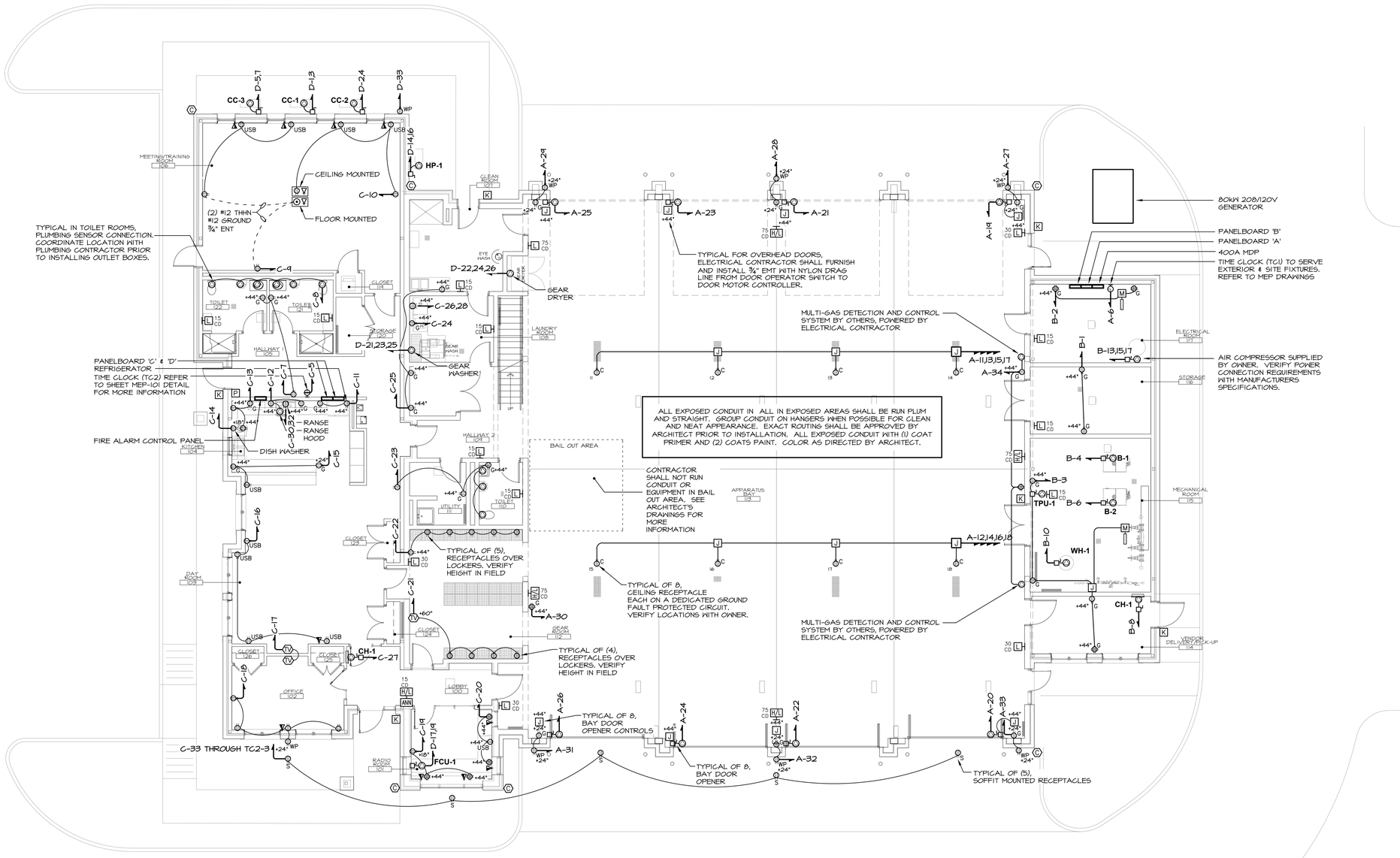
DRAWING
MECHANICAL:
EQUIPMENT SCHEDULES

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
M602

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1 ELECTRICAL: FIRST FLOOR PLAN
1/8" = 1'-0"

SEISMIC DESIGN FOR ELECTRICAL EQUIPMENT

THE ELECTRICAL SYSTEM SHALL COMPLY WITH THE NEW YORK STATE UNIFORM FIRE PROTECTION AND BUILDING CODE SECTION 1613 AND APPLICABLE PROVISIONS OF ASCE 7 (ARCHITECTURAL, MECHANICAL AND ELECTRICAL COMPONENT SEISMIC DESIGN REQUIREMENTS).
ELECTRICAL CONTRACTOR SHALL HIRE NYS LICENSED PROFESSIONAL ENGINEER TO DESIGN AND PREPARE SHOP DRAWINGS WITH CALCULATIONS FOR EACH ELECTRICAL EQUIPMENT SUPPORT, CONDUIT SUPPORT, MULTIPLE CONDUIT SUPPORT, TRAPEZE AND SEISMIC RESTRAINT. SUBMIT SHOP DRAWINGS WITH CALCULATIONS TO ENGINEER FOR RECORD AND TO LOCAL AUTHORITY HAVING JURISDICTION FOR APPROVAL.

SEISMIC REQUIREMENTS:
BUILDING USE CATEGORY - IV
SIESMIC DESIGN CATEGORY - C

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PROJECT
NEW FIRE STATION FOR
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NYS ROUTE 52, FISHKILL, NY

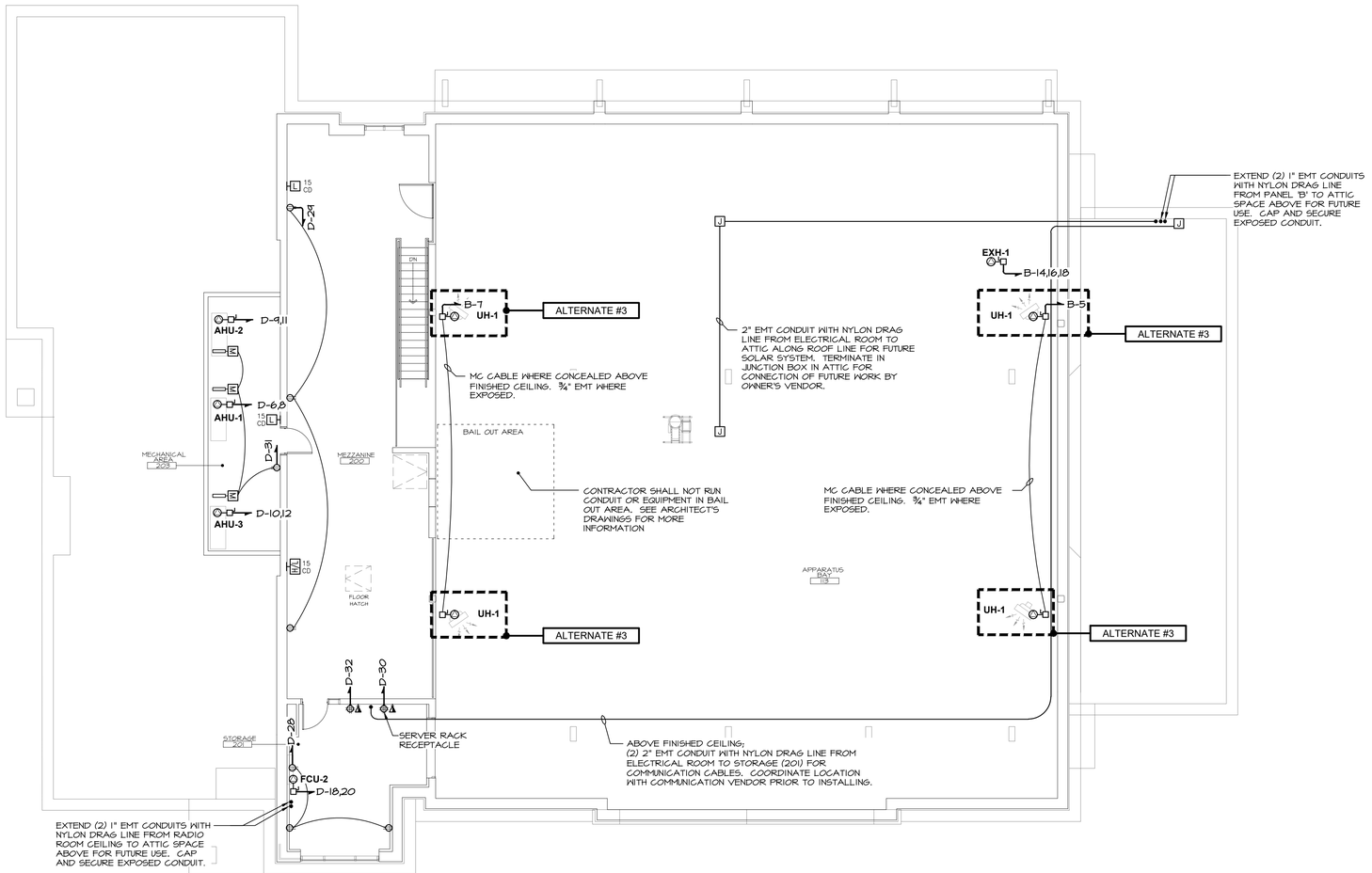
DRAWING
ELECTRICAL:
PROPOSED FIRST FLOOR PLAN

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
E100

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1 ELECTRICAL: MEZZANINE FLOOR PLAN

1/8" = 1'-0"

SEISMIC DESIGN FOR ELECTRICAL EQUIPMENT

THE ELECTRICAL SYSTEM SHALL COMPLY WITH THE NEW YORK STATE UNIFORM FIRE PROTECTION AND BUILDING CODE SECTION 1613 AND APPLICABLE PROVISIONS OF ASCE 7 (ARCHITECTURAL, MECHANICAL AND ELECTRICAL COMPONENT SEISMIC DESIGN REQUIREMENTS).
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SEISMIC REQUIREMENTS:
BUILDING USE CATEGORY - IV
SEISMIC DESIGN CATEGORY - C

No.	REVISION/SUBMISSION	DATE

Mechanical/Electrical/Plumbing Engineer

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PROJECT
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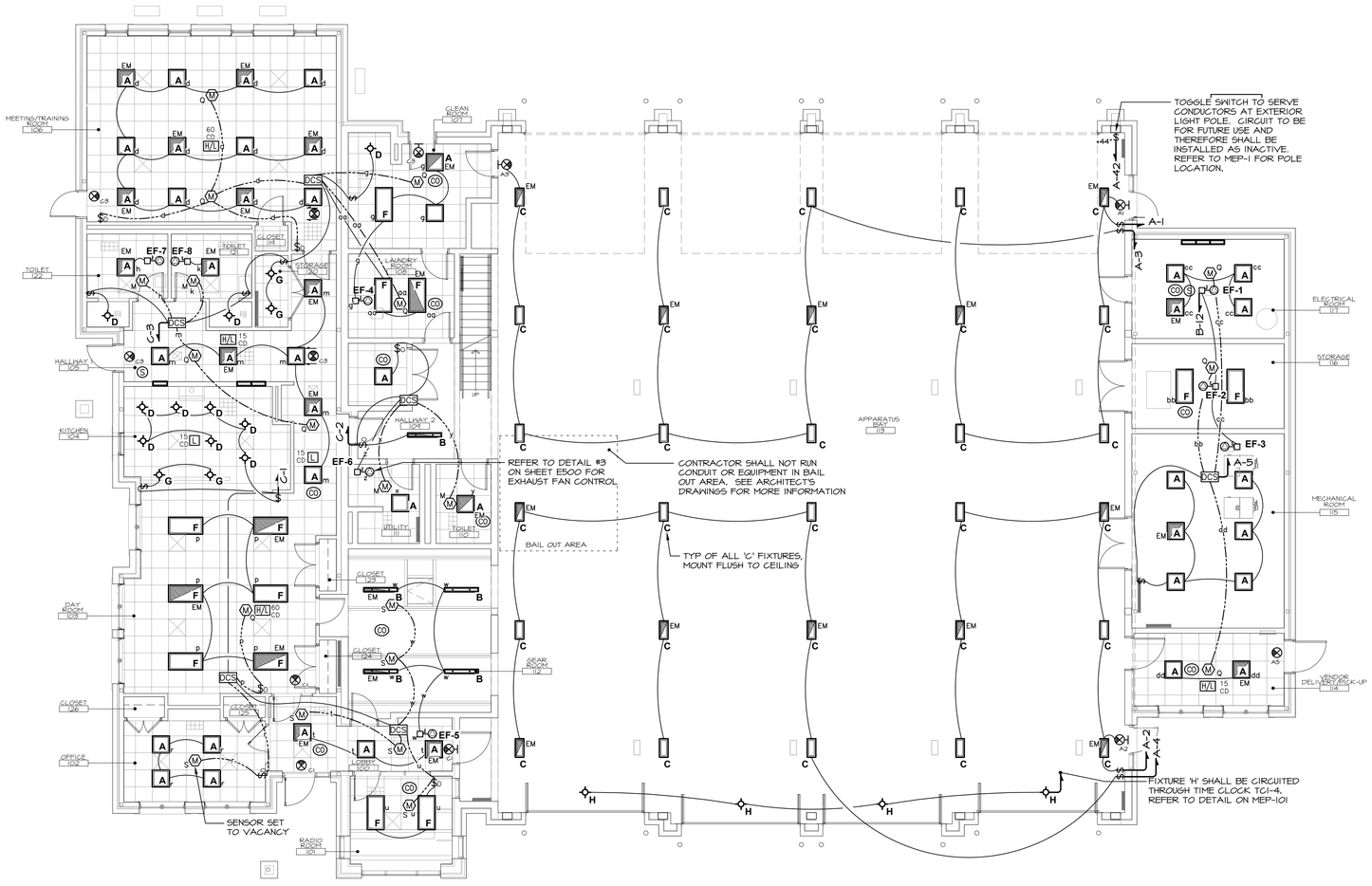
DRAWING
ELECTRICAL:
PROPOSED MEZZANINE

SEAL

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RL/KG	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
E101

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1 ELECTRICAL: FIRST FLOOR REFLECTED CEILING PLAN
1/8"= 1'-0"

SEISMIC DESIGN FOR ELECTRICAL EQUIPMENT

THE ELECTRICAL SYSTEM SHALL COMPLY WITH THE NEW YORK STATE UNIFORM FIRE PROTECTION AND BUILDING CODE SECTION 1613 AND APPLICABLE PROVISIONS OF ASCE 7 (ARCHITECTURAL, MECHANICAL AND ELECTRICAL COMPONENT SEISMIC DESIGN REQUIREMENTS).
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SEISMIC REQUIREMENTS:
BUILDING USE CATEGORY - IV
SIESMIC DESIGN CATEGORY - C

No.	REVISION/SUBMISSION	DATE

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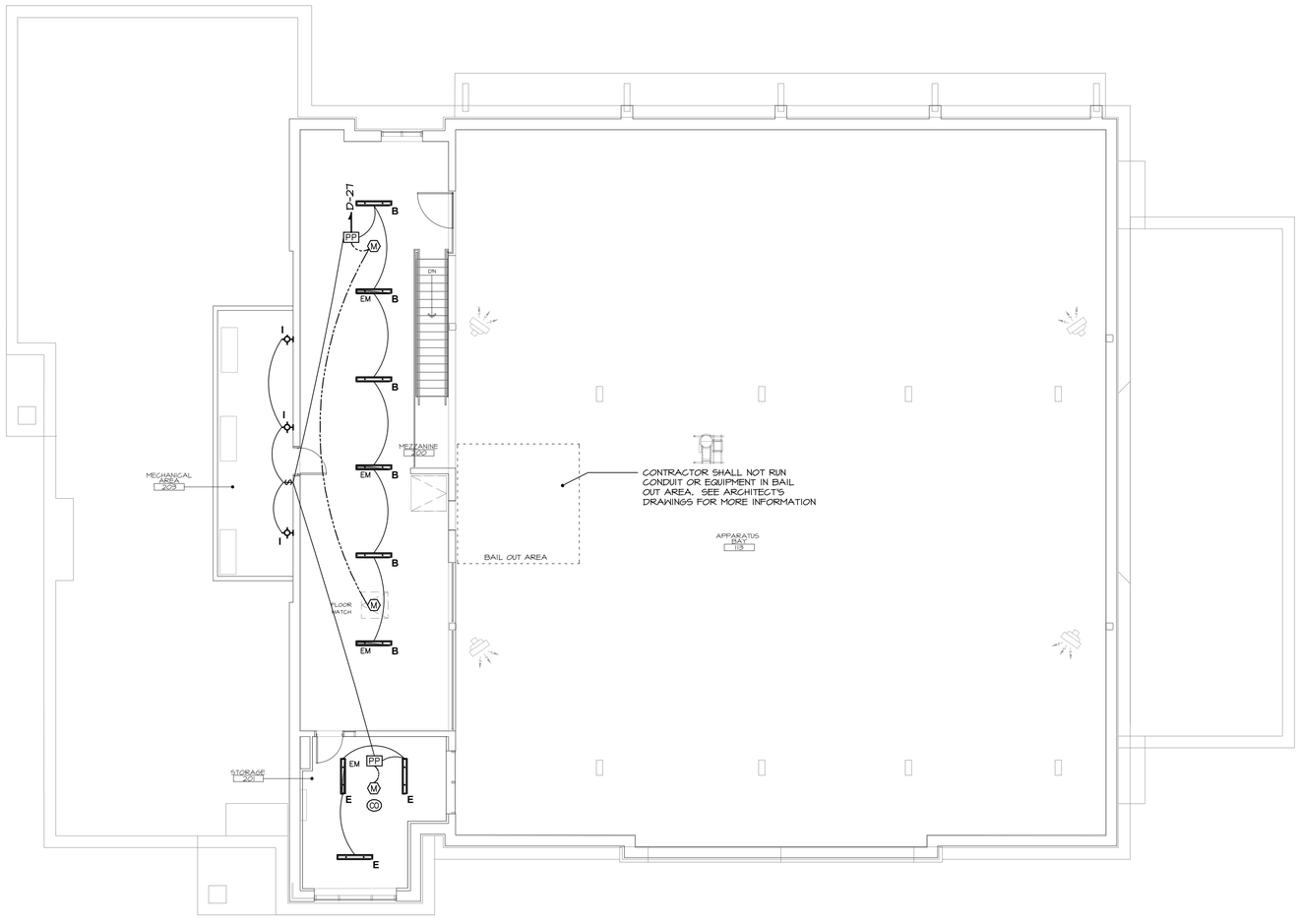
DRAWING
ELECTRICAL:
FIRST FLOOR
REFLECTED CEILING PLAN

SEAL

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RL/KC	18142
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E200

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1 ELECTRICAL: MEZZANINE REFLECTED CEILING PLAN
1/8" = 1'-0"

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SEISMIC REQUIREMENTS:
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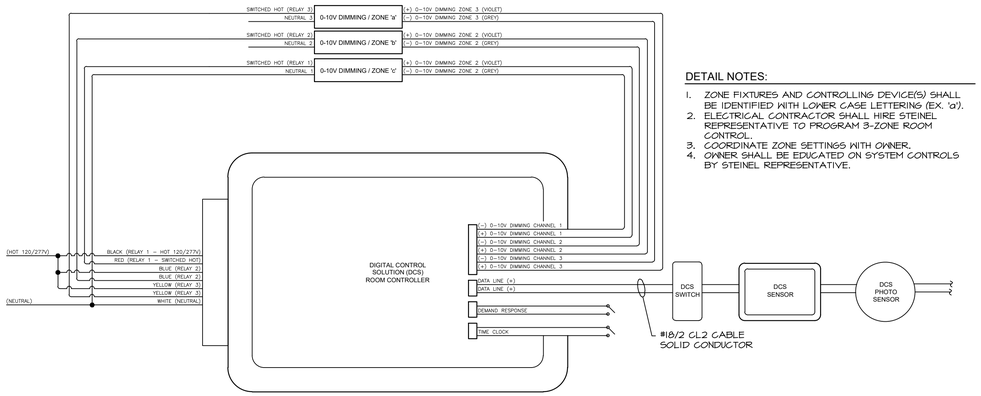
DRAWING
ELECTRICAL:
MEZZANINE
REFLECTED CEILING PLAN

SEAL

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RL/KC	18142
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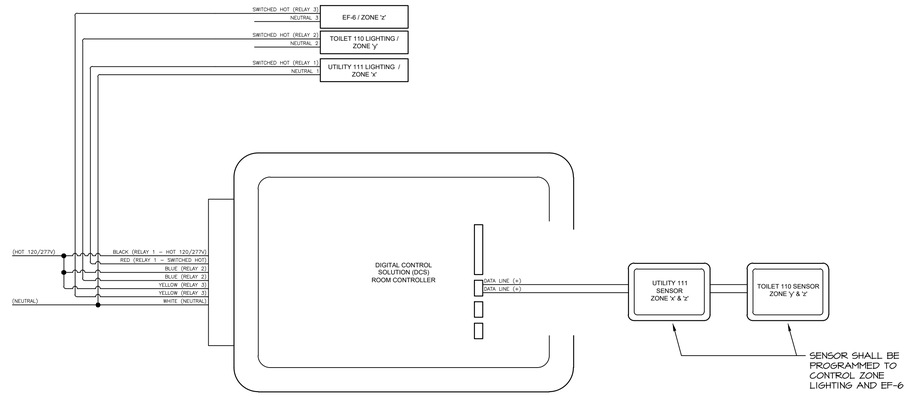
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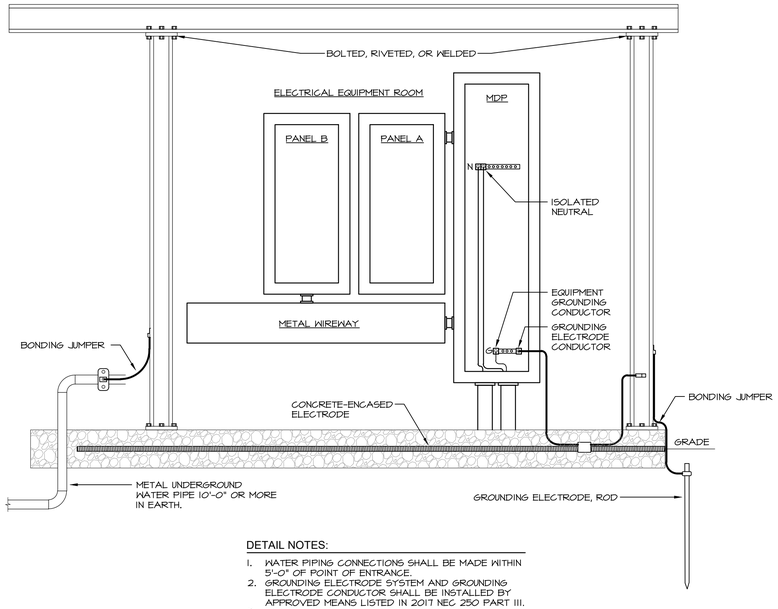
DETAIL NOTES:

1. ZONE FIXTURES AND CONTROLLING DEVICE(S) SHALL BE IDENTIFIED WITH LOWER CASE LETTERING (EX. 'a').
2. ELECTRICAL CONTRACTOR SHALL HIRE STEINEL REPRESENTATIVE TO PROGRAM 3-ZONE ROOM CONTROL.
3. COORDINATE ZONE SETTINGS WITH OWNER.
4. OWNER SHALL BE EDUCATED ON SYSTEM CONTROLS BY STEINEL REPRESENTATIVE.

1 STEINEL DCS 3-ZONE ROOM CONTROLLER
NOT TO SCALE



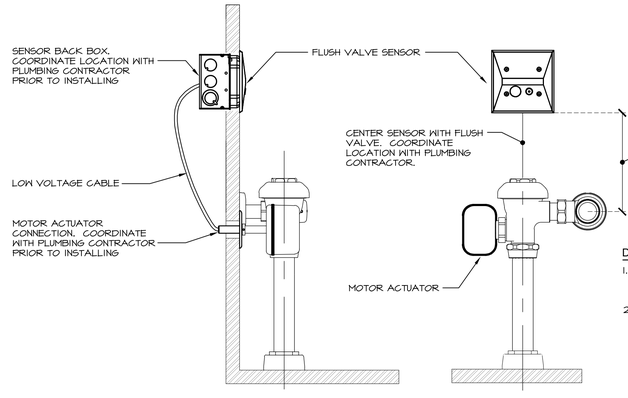
3 EXHAUST FAN - 6 (EF-6) CONTROL DETAIL
NOT TO SCALE



DETAIL NOTES:

1. WATER PIPING CONNECTIONS SHALL BE MADE WITHIN 5'-0" OF POINT OF ENTRANCE.
2. GROUNDING ELECTRODE SYSTEM AND GROUNDING ELECTRODE CONDUCTOR SHALL BE INSTALLED BY APPROVED MEANS LISTED IN 2017 NEC 250 PART III.
3. BONDED NEUTRAL AND GROUNDING ELECTRODE SYSTEM SHALL ORIGINATE AT SERVICE DISCONNECT CIRCUIT BREAKER IN AUTOMATIC TRANSFER SWITCH LOCATION.
4. BUILDING GROUNDING ELECTRODE SYSTEM SHALL BE ESTABLISHED AT BUILDINGS MAIN DISTRIBUTION PANEL IN THE ELECTRICAL CLOSET.

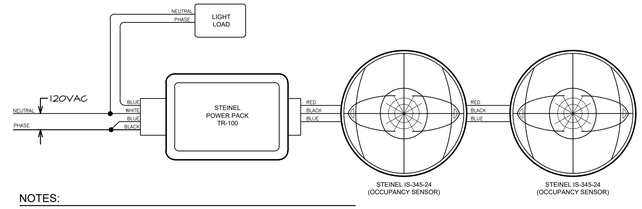
2 GROUNDING ELECTRODE CONDUCTOR - REFERENCE 2017 NEC 250.50
NOT TO SCALE



DETAIL NOTES:

1. ELECTRICAL CONTRACTOR SHALL COORDINATE MOUNTING LOCATIONS AND EQUIPMENT CONNECTIONS WITH THE PLUMBING CONTRACTOR PRIOR TO INSTALLATION.
2. ELECTRICAL CONTRACTOR SHALL VERIFY SENSOR IS NOT BLOCKED BY ADA HANDRAILS, WHERE REQUIRED. COORDINATE WITH ARCHITECT PRIOR TO INSTALLATION.

4 FLUSH VALVE SENSOR INSTALLATION DETAIL
NOT TO SCALE



NOTES:

1. APPLICABLE IN MEZZANINE
2. ALL LIGHTS SHALL TURN ON AUTOMATICALLY UPON ROOM OCCUPANCY AND AUTOMATICALLY TURN OFF AFTER 15 MINUTES OF VACANCY IN THE ROOM.

5 CEILING OCCUPANCY SENSORS (NOT DCS) - MULTIPLE CONNECTION
NOT TO SCALE

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PROJECT
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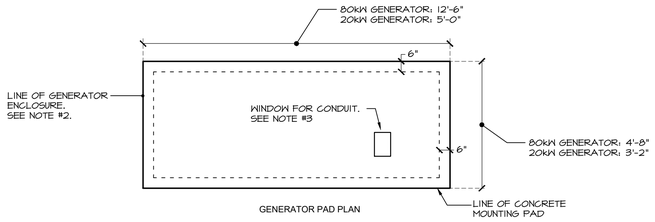
DRAWING
ELECTRICAL: DETAILS

SEAL

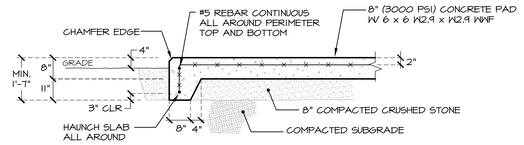
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GENERATOR PAD PLAN



GENERATOR PAD SECTION

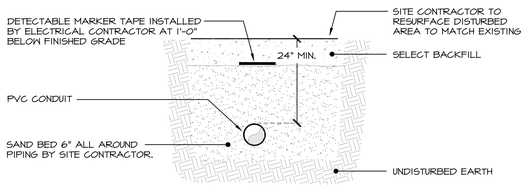
GENERATOR PAD NOTES:

1. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING APPROVED GENERATOR PAD DIMENSIONS AND DETAILS WITH GENERAL CONTRACTOR.
2. GENERAL CONTRACTOR CONSTRUCT CONCRETE PAD LEVEL. INCREASE DEPTH OF HAUNCH AS REQUIRED TO ACCOMMODATE SLOPING GRADE. TOP OF PAD SHALL BE 4" ABOVE GRADE ON UPHILL SIDE.
3. CONCRETE PAD SHALL EXTEND MIN. 6" BEYOND GENERATOR ENCLOSURE ON ALL SIDES. ADJUSTMENTS IN PAD SIZE SHALL BE MADE TO ACCOMMODATE APPROVED GENERATOR.

   PROVIDE WINDOWS IN PAD FOR POWER AND CONTROL CONDUITS IN ACCORDANCE WITH GENERATOR MANUFACTURER'S INSTALLATION DRAWINGS.

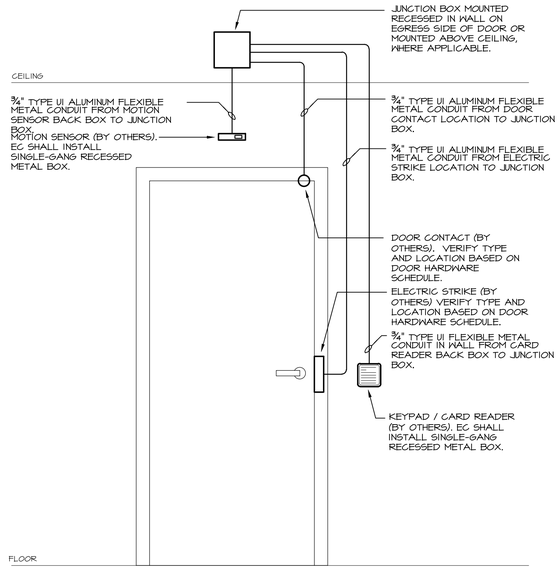
1 GENERATOR PAD DETAIL

NOT TO SCALE



2 ELECTRICAL CONDUIT TRENCH DETAIL

NOT TO SCALE



NOTES:

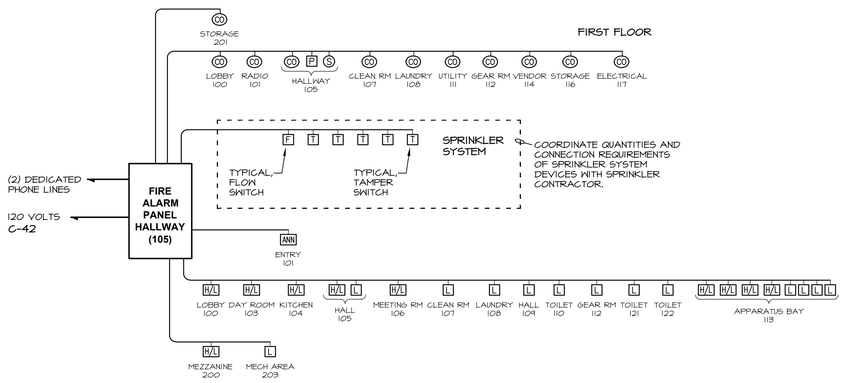
1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OWNER'S SECURITY CONSULTANT PRIOR TO PURCHASE OF ANY WIRING OR INSTALLATION OF SECURITY INFRASTRUCTURE.
2. ALL DEVICE LOCATIONS SHALL BE APPROVED BY OWNER'S SECURITY VENDOR.
3. ALL CONDUITS SHOWN SHALL BE INSTALLED WITH NYLON DRAG LINE.

4 ACCESS CONTROL DOOR DETAIL

NOT TO SCALE

FIRE ALARM EQUIPMENT SCHEDULE

SYMBOL	MANUFACTURER	CATALOG #	DESCRIPTION
ANN	———	———	SURFACE MOUNTED REMOTE FIRE ALARM ANNUNCIATOR WITH LCD COLOR TOUCHSCREEN DISPLAY.
L	———	———	CEILING MOUNTED FIRE ALARM STROBE LIGHT, COLOR: RED, MARKING: 'FIRE', FIELD SELECTABLE OUTPUT OF 15, 30, 75 & 110 CANDELAS.
H L	———	———	WALL MOUNTED FIRE ALARM STROBE LIGHT, COLOR: RED, MARKING: 'FIRE', FIELD SELECTABLE OUTPUT OF 15, 30, 77, & 110 CANDELAS.
H/L	———	———	CEILING MOUNTED FIRE ALARM HORN/STROBE LIGHT, COLOR: RED, MARKING: 'FIRE', FIELD SELECTABLE OUTPUT OF 15, 30, 77, & 110 CANDELAS.
H/L	———	———	WALL MOUNTED FIRE ALARM HORN/STROBE LIGHT, COLOR: RED, MARKING: 'FIRE', FIELD SELECTABLE OUTPUT OF 15, 30, 77, & 110 CANDELAS.
CO	———	———	ADDRESSABLE CARBON MONOXIDE DETECTOR WITH SOUNDER BASE. UPON ACTIVATION, DETECTOR SHALL INDICATE A SYSTEM SUPERVISORY SIGNAL AND ACTIVATE THE SOUNDER BASE ALARM.
P	———	———	DOUBLE ACTION ADDRESSABLE MANUAL PULL STATION
S	———	———	ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR
F	———	———	SPRINKLER FLOW SWITCH - COORDINATE QUANTITIES WITH SPRINKLER CONTRACTOR
T	———	———	SPRINKLER TAMPER SWITCH - COORDINATE QUANTITIES WITH SPRINKLER CONTRACTOR



3 FIRE ALARM RISER DIAGRAM

NOT TO SCALE

FIRE ALARM NOTES

1. FIRE ALARM SYSTEM WIRING, NUMBER AND SIZE OF CONDUCTORS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS BUT NOT LESS THAN 18 AWG, COPPER CONDUCTOR. UL LISTED PLENUM RATED SIGNALING CABLE MAY BE USED IN CONCEALED SPACES.
2. FIRE ALARM SYSTEM SHALL BE FULLY ADDRESSABLE, WITH DISCREET ADDRESSES FOR EACH ACTIVATING DEVICE. MAIN PANEL SHALL IDENTIFY DEVICE BY ROOM NAMES AND LOCATIONS TO BE PROVIDED BY THE BUILDING OPERATOR.
3. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE AND OPERABLE FIRE ALARM AND SMOKE DETECTION SYSTEM IN ACCORDANCE WITH NFPA 72, BUILDING CODE OF NEW YORK STATE AND ALL LOCAL CODES, INCLUDING ALL CIRCUITRY, SMOKE DETECTORS, HEAT DETECTORS, ZONE MODULES, ANNUNCIATION DEVICES, FIRE ALARM PANEL, POWER MODULES, BATTERY BACKUP, MUNICIPAL TIE AND CONNECTION AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THIS DRAWING TO RENDER FIRE ALARM SYSTEM COMPLETE AND OPERATIVE.
4. ELECTRICAL CONTRACTOR SHALL HIRE MANUFACTURER'S REPRESENTATIVE TO FULLY DEMONSTRATE SYSTEM FUNCTION, OPERATION AND MAINTENANCE OF FIRE ALARM SYSTEM TO OWNER.

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PROJECT
NEW FIRE STATION FOR ROMBOUT FIRE DISTRICT - STATION 2
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DRAWING
ELECTRICAL: DETAILS

SEAL

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E501

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MAIN DISTRIBUTION PANEL (MP)

120/208 VOLT, 3Φ, 4 WIRE, 400 AMPERE RATED MAIN LUGS ONLY FED FROM 400A MCB IN ATS.

BRANCH: THERMAL MAGNETIC EATON EDB TYPE CIRCUIT BREAKERS.
ENCLOSURE: NEMA 1, SURFACE MOUNTED, EZB2060R

C.B.	LOAD	CONDUCTORS	CONDUCTORS	LOAD	C.B.
	MAIN LUGS ONLY 400A				
	NEUTRAL				
	SPARE - FOR FUTURE SOLAR SYSTEM	———	80 1 — 2 20	(4) #12 THHN #12 GND, 1" PVC	GENERATOR BATTERY CHARGER
			80 3 — 4 20		GENERATOR BLOCK HEATER
			80 5 — 6 20		
7	PANEL B ELECTRICAL ROOM	150A		(4) #3/0 AL THHN #6 CU GROUND 2" EMT	8
9					10
11					12
13	PANEL C HALLWAY	150A		(4) #3/0 AL THHN #6 CU GROUND 2" EMT	14
15					16
17					18
19	PANEL D HALLWAY	150A		(4) #3/0 AL THHN #6 CU GROUND 2" EMT	20
21					22
23					24
25	PANEL A ELECTRICAL CLOSET 100A	(4) #1 AL THHN #8 CU GROUND 1¼" EMT	———	SPACE ONLY	26
27			———	SPACE ONLY	28
29			———	SPACE ONLY	30

PANEL "A" (PA)

120/208 VOLT, 3Φ, 4 WIRE, 225 AMPERE RATED MAIN LUGS FEED FROM 100 AMPERE CIRCUIT BREAKER IN MAIN DISTRIBUTION PANEL.

BRANCH: THERMAL MAGNETIC EATON BAB TYPE CIRCUIT BREAKERS.
ENCLOSURE: NEMA 1, SURFACE MOUNTED, EZB2042R

LOAD	CONDUCTORS	C.B.		C.B.	CONDUCTORS	LOAD
LIGHTING CIRCUIT	#12/2 TYPE MC CABLE WITH GND	20	1 — 2	20	#12/2 TYPE MC CABLE WITH GND	LIGHTING CIRCUIT
LIGHTING CIRCUIT	#12/2 TYPE MC CABLE WITH GND	20	3 — 4	20	#12/2 TYPE MC CABLE WITH GND	LIGHTING CIRCUIT
LIGHTING CIRCUIT	#12/2 TYPE MC CABLE WITH GND	20	5 — 6	20	#12/2 TYPE MC CABLE WITH GND	LIGHTING CIRCUIT TIME CLOCK
LIGHTING CIRCUIT TIME CLOCK	#12/2 TYPE MC CABLE WITH GND	20	7 — 8	20	#12/2 TYPE MC CABLE WITH GND	LIGHTING CIRCUIT TIME CLOCK
LIGHTING CIRCUIT TIME CLOCK	#12/2 TYPE MC CABLE WITH GND	20	9 — 10	20	#12/2 TYPE MC CABLE WITH GND	LIGHTING CIRCUIT TIME CLOCK
CEILING RECEPTACLE	(6) #12 THHN #12 GROUND 1" EMT	20	11 — 12	20	(6) #12 THHN #12 GROUND 1" EMT	CEILING RECEPTACLE
CEILING RECEPTACLE		20	13 — 14	20		CEILING RECEPTACLE
CEILING RECEPTACLE		20	15 — 16	20		CEILING RECEPTACLE
CEILING RECEPTACLE		20	17 — 18	20		CEILING RECEPTACLE
GARAGE DOOR OPENER	(2) #12 THHN #12 GND, ¾" EMT	20	19 — 20	20	(2) #12 THHN #12 GND, ¾" EMT	GARAGE DOOR OPENER
GARAGE DOOR OPENER	(2) #12 THHN #12 GND, ¾" EMT	20	21 — 22	20	(2) #12 THHN #12 GND, ¾" EMT	GARAGE DOOR OPENER
GARAGE DOOR OPENER	(2) #12 THHN #12 GND, ¾" EMT	20	23 — 24	20	(2) #12 THHN #12 GND, ¾" EMT	GARAGE DOOR OPENER
GARAGE DOOR OPENER	(2) #12 THHN #12 GND, ¾" EMT	20	25 — 26	20	(2) #12 THHN #12 GND, ¾" EMT	GARAGE DOOR OPENER
APPARATUS / EXT RECEPTACLE	#12/2 TYPE MC CABLE WITH GND	20	27 — 28	20	#12/2 TYPE MC CABLE WITH GND	APPARATUS / EXT RECEPTACLE
APPARATUS / EXT RECEPTACLE	#12/2 TYPE MC CABLE WITH GND	20	29 — 30	20	#12/2 TYPE MC CABLE WITH GND	APPARATUS / EXT RECEPTACLE
APPARATUS / EXT RECEPTACLE	#12/2 TYPE MC CABLE WITH GND	20	31 — 32	20	#12/2 TYPE MC CABLE WITH GND	APPARATUS / EXT RECEPTACLE
APPARATUS BAY RECEPTACLE	#12/2 TYPE MC CABLE WITH GND	20	33 — 34	20	#12/2 TYPE MC CABLE WITH GND	APPARATUS BAY RECEPTACLE
SPARE	———	20	35 — 36	20	———	SPARE
SPARE	———	20	37 — 38	20	———	SPARE
SPARE	———	20	39 — 40	20	———	SPARE
SPARE	———	20	41 — 42	20	(2) #10 THHN #10 GND, 1" PVC	FOR FUTURE USE AT F2' POLE

PANEL "B" (PB)

120/208 VOLT, 3Φ, 4 WIRE, 225 AMPERE RATED MAIN LUGS FEED FROM 150 AMPERE CIRCUIT BREAKER IN MAIN DISTRIBUTION PANEL.

BRANCH: THERMAL MAGNETIC EATON BAB TYPE CIRCUIT BREAKERS.
ENCLOSURE: NEMA 1, SURFACE MOUNTED, EZB2042R

ALTERNATE #3

LOAD	CONDUCTORS	C.B.		C.B.	CONDUCTORS	LOAD
STORAGE RECEPTACLES	(2) #12 THHN #12 GND, ¾" EMT	20	1 — 2	20	(2) #12 THHN #12 GND, ¾" EMT	ELECTRICAL ROOM RECEPTACLES
SPRINKLER ROOM RECEPTACLES	(2) #12 THHN #12 GND, ¾" EMT	20	3 — 4	20	(2) #12 THHN #12 GND, ¾" EMT	BOILER B-1
UNIT HEATERS UH-1	(2) #12 THHN #12 GND, ¾" EMT	20	5 — 6	20	(2) #12 THHN #12 GND, ¾" EMT	BOILER B-2
UNIT HEATERS UH-1	(2) #12 THHN #12 GND, ¾" EMT	20	7 — 8	20	(2) #12 THHN #12 GND, ¾" EMT	CABINET HEATER CH-1
(1) PUMPS P-3,6,7	(2) #12 THHN #12 GND, ¾" EMT	20	9 — 10	20	(2) #12 THHN #12 GND, ¾" EMT	HOT WATER HEATER
(1) PUMPS P-4,5,8 (SPARES)	(2) #12 THHN #12 GND, ¾" EMT	20	11 — 12	20	#12/2 TYPE MC CABLE WITH GND	EXHAUST FANS
COMPRESSOR	(3) #10 THHN #10 GND, 1" EMT	30	13 — 14	30	#10/3 TYPE MC CABLE WITH GND	PLYMOVENT
		30	15 — 16	30		
		30	17 — 18	30		
SIREN	(3) #6 THHN #10 GROUND 1" SCH.40 PVC	60	19 — 20	—	———	SPACE ONLY
		60	21 — 22	—	———	SPACE ONLY
		60	23 — 24	—	———	SPACE ONLY
(1) PUMP P-1	(3) #12 THHN #12 GND, ¾" EMT	20	25 — 26	20	(3) #12 THHN #12 GND, ¾" EMT	PUMP P-2 (SPARE) (1)
		20	27 — 28	20		
		20	29 — 30	20		
(1) PUMP P-9 (B-1)	(3) #12 THHN #12 GND, ¾" EMT	20	31 — 32	20	(3) #12 THHN #12 GND, ¾" EMT	PUMP P-10 (B-2) (1)
		20	33 — 34	20		
		20	35 — 36	20		
(2) PUMP P-11 (SNOW MELT)	(3) #12 THHN #12 GND, ¾" EMT	20	37 — 38	20	(3) #12 THHN #12 GND, ¾" EMT	PUMP P-12 (SPARE) (2)
		20	39 — 40	20		
		20	41 — 42	20		

ALTERNATE #4

ALTERNATE #1

ALTERNATE #4

PANEL "C" (PC)

120/208 VOLT, 3Φ, 4 WIRE, 225 AMPERE RATED MAIN LUGS FEED FROM 150 AMPERE CIRCUIT BREAKER IN MAIN DISTRIBUTION PANEL.

BRANCH: THERMAL MAGNETIC EATON BAB TYPE CIRCUIT BREAKERS.
ENCLOSURE: NEMA 1, FLUSH MOUNTED, EZB2042R

LOAD	CONDUCTORS	C.B.		C.B.	CONDUCTORS	LOAD
LIGHTING CIRCUIT	#12/2 TYPE MC CABLE WITH GND	20	1 — 2	20	#12/2 TYPE MC CABLE WITH GND	LIGHTING CIRCUIT
LIGHTING CIRCUIT	#12/2 TYPE MC CABLE WITH GND	20	3 — 4	20	#12/2 TYPE MC CABLE WITH GND	LIGHTING CIRCUIT
LIGHTING CIRCUIT TIME CLOCK	#12/2 TYPE MC CABLE WITH GND	20	5 — 6	20	#12/2 TYPE MC CABLE WITH GND	LIGHTING CIRCUIT TIME CLOCK
HALL/TOILETS RECEPTACLES	#12/2 TYPE MC CABLE WITH GND	20	7 — 8	20	#12/2 TYPE MC CABLE WITH GND	SINK & FLUSH VALVES
MEETING ROOM RECEPTACLES	#12/2 TYPE MC CABLE WITH GND	20	9 — 10	20	#12/2 TYPE MC CABLE WITH GND	MEETING ROOM RECEPTACLES
COUNTER / REFRIG RECEPTACLES	#12/2 TYPE MC CABLE WITH GND	20	11 — 12	20	#12/2 TYPE MC CABLE WITH GND	KITCHEN COUNTER RECEPTACLES
KITCHEN COUNTER RECEPTACLES	#12/2 TYPE MC CABLE WITH GND	20	13 — 14	20	#12/2 TYPE MC CABLE WITH GND	DISHWASHER RECEPTACLE (3)
KITCHEN COUNTER RECEPTACLES	#12/2 TYPE MC CABLE WITH GND	20	15 — 16	20	#12/2 TYPE MC CABLE WITH GND	DAY ROOM RECEPTACLES
TV RECEPTACLES	#12/2 TYPE MC CABLE WITH GND	20	17 — 18	20	#12/2 TYPE MC CABLE WITH GND	OFFICE RECEPTACLES
RADIO ROOM RECEPTACLES	#12/2 TYPE MC CABLE WITH GND	20	19 — 20	20	#12/2 TYPE MC CABLE WITH GND	RADIO ROOM RECEPTACLES
GEAR ROOM RECEPTACLES	#12/2 TYPE MC CABLE WITH GND	20	21 — 22	20	#12/2 TYPE MC CABLE WITH GND	GEAR ROOM RECEPTACLES
TOILET, UTILITY, HALL RECEPT	#12/2 TYPE MC CABLE WITH GND	20	23 — 24	20	#12/2 TYPE MC CABLE WITH GND	WASHER RECEPTACLE
LAUNDRY ROOM RECEPTACLES	#12/2 TYPE MC CABLE WITH GND	20	25 — 26	30	#10/3 TYPE MC CABLE WITH GND	DRYER RECEPTACLE
CABINET HEATER CH-1	#12/2 TYPE MC CABLE WITH GND	20	27 — 28	30		
SIGN / MONUMENT	(3) #10 THHN #10 GROUND 1" SCH.40 PVC	30	29 — 30	50G	#8/3 TYPE MC CABLE WITH GND	RANGE (3)
		30	31 — 32	50G		
TC2-T3 - SOFFIT RECEPTACLES	#12/2 TYPE MC CABLE WITH GND	20	33 — 34	20	(2) #10 THHN #10 GND, 1" PVC	SIGN RECEPTACLE
FLAG POLE LIGHT	(2) #10 THHN #10 GND, 1" PVC	20	35 — 36			
SPACE ONLY	———	—	37 — 38	—	———	SPACE ONLY
SPACE ONLY	———	—	39 — 40	—	———	SPACE ONLY
SPACE ONLY	———	—	41 — 42	20	#12/2 TYPE MC CABLE WITH GND	FIRE ALARM PANEL

KEYED NOTES

(APPLIES TO THIS SHEET ONLY)

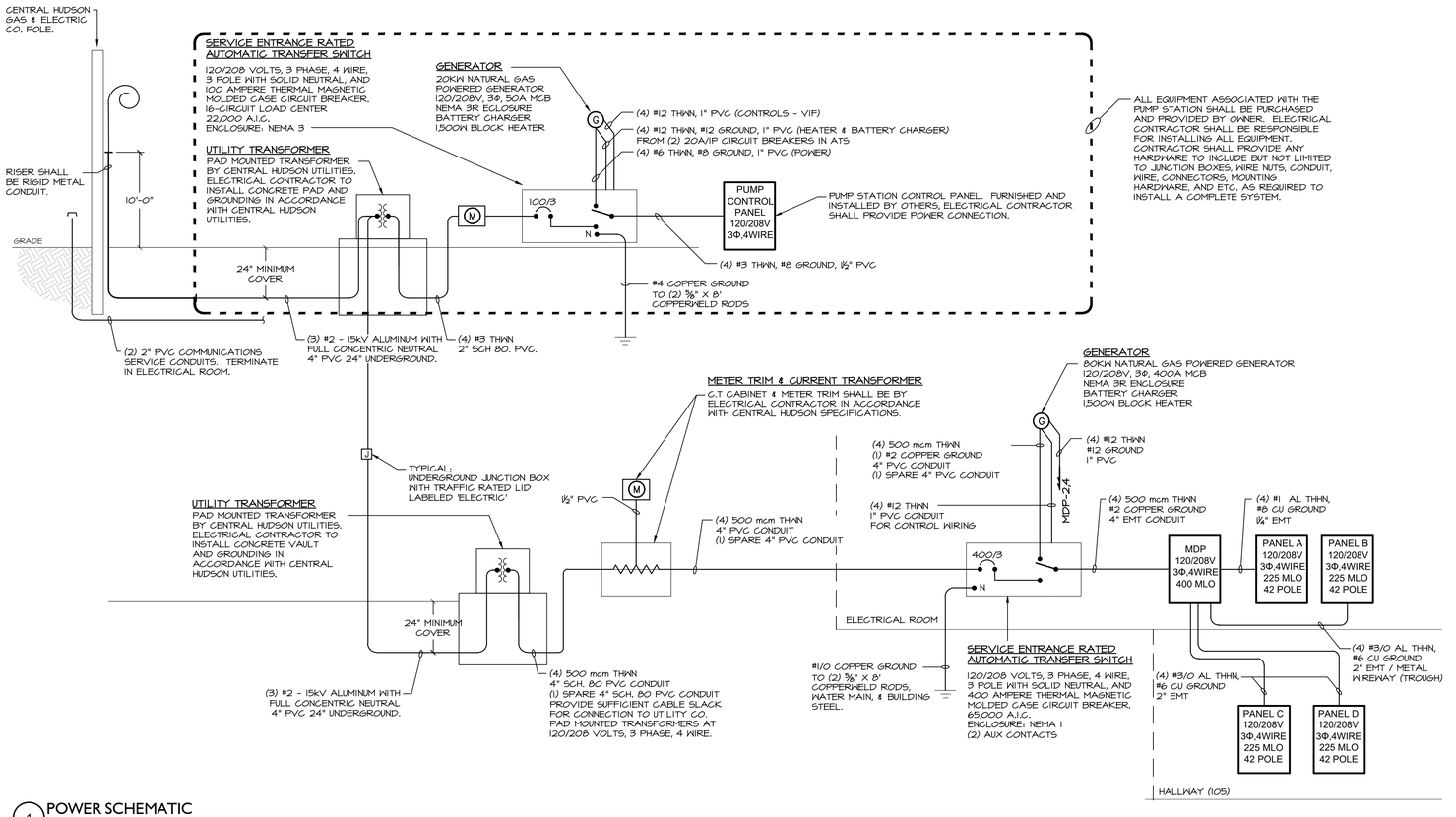
1. PUMPS NOT SHOWN ON PLANS. ELECTRICAL CONTRACTOR SHALL REFER TO BOILER SYSTEM SCHEMATIC DETAIL ON MECHANICAL DRAWING M506, AND MECHANICAL EQUIPMENT SCHEDULE ON DRAWING M602 FOR MORE INFORMATION. THIS CONTRACTOR SHALL PROVIDE A LISTED NEMA RATED DISCONNECT FOR EACH PUMP WHERE NOT FACTORY SUPPLIED.
2. PUMPS NOT SHOWN ON PLANS. ELECTRICAL CONTRACTOR SHALL REFER TO PLATE TO PLATE HEAT EXCHANGER DETAIL ON MECHANICAL DRAWING M504, AND MECHANICAL EQUIPMENT SCHEDULE ON DRAWING M602 FOR MORE INFORMATION. THIS CONTRACTOR SHALL PROVIDE A LISTED NEMA RATED DISCONNECT FOR EACH PUMP WHERE NOT FACTORY SUPPLIED.
3. CIRCUIT SHALL BE PROTECTED BY GFCI TYPE CIRCUIT BREAKER IN ACCORDANCE WITH 2017 NEC 210.8

PANEL "D" (PD)

120/208 VOLT, 3Φ, 4 WIRE, 225 AMPERE RATED MAIN LUGS FEED FROM 150 AMPERE CIRCUIT BREAKER IN MAIN DISTRIBUTION PANEL.

BRANCH: THERMAL MAGNETIC EATON BAB TYPE CIRCUIT BREAKERS.
ENCLOSURE: NEMA 1, FLUSH MOUNTED, EZB2042R

LOAD	CONDUCTORS	C.B.		C.B.	CONDUCTORS	LOAD
CC-1	(2) #8 THHN #10 GROUND TYPE MC CABLE / ¾" LFMC	35	1 — 2	35	(2) #8 THHN #10 GROUND TYPE MC CABLE / ¾" LFMC	CC-2
		35	3 — 4	35		
CC-3	(2) #12 THHN #12 GROUND TYPE MC CABLE / ¾" LFMC	20	5 — 6	15	(2) #12 THHN #12 GROUND TYPE MC CABLE	AHU-1
		20	7 — 8	15		
AHU-2	(2) #12 THHN #12 GROUND TYPE MC CABLE	15	9 — 10	15	(2) #12 THHN #12 GROUND TYPE MC CABLE	AHU-3
		15	11 — 12	15		
SPARE	———	20	13 — 14	20	(2) #12 THHN #12 GROUND TYPE MC CABLE / ¾" LFMC	HP-1
SPARE	———	20	15 — 16	20		
FCU-1	(2) #12 THHN #12 GROUND TYPE MC CABLE	15	17 — 18	15	(2) #12 THHN #12 GROUND TYPE MC CABLE	FCU-2
		15	19 — 20	15		
GEAR WASHER	#12/3 TYPE MC CABLE WITH GND	20	21 — 22	30	#10/3 TYPE MC CABLE WITH GND	GEAR DRYER
		20	23 — 24	30		
		20	25 — 26	30		
LIGHTING CIRCUIT - MEZZANINE	#12/2 TYPE MC CABLE WITH GND	20	27 — 28	20	#12/2 TYPE MC CABLE WITH GND	MEZZ. STORAGE RECEPTACLES
MEZZANINE RECEPTACLES	#12/2 TYPE MC CABLE WITH GND	20	29 — 30	20	#12/2 TYPE MC CABLE WITH GND	MEZZ. SERVER RECEPTACLES
MEZZANINE MECH RM	#12/2 TYPE MC CABLE WITH GND	20	31 — 32	20	#12/2 TYPE MC CABLE WITH GND	MEZZ. SERVER RECEPTACLES
MAINTENANCE RECEPTACLE	#12/2 TYPE MC CABLE WITH GND	20	33 — 34	—	———	SPACE ONLY
SPACE ONLY	———	—	35 — 36	—	———	SPACE ONLY
SPACE ONLY	———	—	37 — 38	—	———	SPACE ONLY
SPACE ONLY	———	—	39 — 40	—	———	SPACE ONLY
SPACE ONLY	———	—	41 — 42	—	———	SPACE ONLY



1 POWER SCHEMATIC
NOT TO SCALE

No.	REVISION/SUBMISSION	DATE

Mechanical/Electrical/Plumbing Engineer

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PROJECT
NEW FIRE STATION FOR ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING
ELECTRICAL: EQUIPMENT SCHEDULES

SEAL

DRAWN BY: RL/KC
PROJECT NUMBER: 18142
CHECKED BY: JT/GH
DATE: 11-30-22
DRAWING NUMBER: E600

FILE: H:\2021\GA21063

ELECTRICAL FIXTURE SCHEDULE

DESIGNATION	MANUFACTURER	CATALOG #	TEMPERATURE	LUMENS	WATTS	VOLTAGE	TYPE
A	DAY-BRITE CFI BY SIGNIFY	HL-S-22-G-LR -33L-40-U-DZT	4000	3,345	34.6	120	2'X2' TROFFER WITH 0-10V DIMMING
EM A	DAY-BRITE CFI BY SIGNIFY	HL-S-22-G-LR -33L-40-U -DZT-EMLED	4000	3,345	34.6	120	2'X2' TROFFER WITH 0-10V DIMMING, & INTEGRAL EMERGENCY BACK UP
B	LEDALITE BY SIGNIFY	7806-L-A-G-Q -N-04-T-D-AI	4000	3560	34.2	120	1'X4' FULL DOWN LINEAR LED.
EM B	LEDALITE BY SIGNIFY	7806-L-A-G-Q -N-04-N-D-AI	4000	3560	34.2	120	1'X4' FULL DOWN LINEAR LED W/ INTEGRAL EMERGENCY BACK UP
C	LEGION LED LIGHTING	193-110L-40-UNV -193SMK	4000	15,297	109	120	ADJUSTABLE HIGH BAY LINEAR LED
EM C	LEGION LED LIGHTING	193-110L-40-UNV -EM12-193SMK	4000	15,297	109	120	ADJUSTABLE HIGH BAY LINEAR LED W/ INTEGRAL EMERGENCY BACK UP
D	LIGHTOLIER SIGNIFY	CP6RB10840W	4000	1,250	14	120	6" ROUND LED. WET LOCATION RATED. HOUSE IN IC RATED HOUSING W/ AIRSEAL.
E	DAY-BRITE CFI BY SIGNIFY	FSWEZ-4-40L -840-UNV	4000	3,325	32	120	GENERAL LINEAR LED W/ WRAPAROUND LENS
F	DAY-BRITE CFI BY SIGNIFY	HL-S-24-G-LR -41L-40-U-DZT	4000	4,090	46	120	2'X4' TROFFER WITH 0-10V DIMMING
F	DAY-BRITE CFI BY SIGNIFY	HL-S-24-G-LR -41L-40-U-DZT-EMLED	4000	4,090	46	120	2'X4' TROFFER WITH 0-10V DIMMING, & INTEGRAL EMERGENCY BACK UP
G	LIGHTOLIER SIGNIFY	CP4RB0T840W	4000	850	11	120	4" ROUND LED. WET LOCATION RATED. HOUSE IN IC RATED HOUSING W/ AIRSEAL.
H	LIGHTOLIER SIGNIFY	P6RLWB0830 CLPZIOU	3000	3174	30	120	6" ROUND LED. HOUSE IN IC RATED HOUSING W/ AIRSEAL.
I	STONCO	VWXL-14-NW-61-8	4000	1390	14	120	ROUGHLYTE LED. WALL MOUNTED

NOTES:

1. FIXTURE TYPE SHALL BE IDENTIFIED WITH UPPER CASE, BOLD LETTERING. EXAMPLE " **A** "
2. FIXTURE 120V ZONE CIRCUIT FROM DCS CONTROLLER SHALL BE IDENTIFIED BY LOWER CASE LETTERING. EXAMPLE "a, b, c"
3. FIXTURES WITH EMERGENCY LIGHTING SHALL BE IDENTIFIED BY THE "EM" TAG, AND FIXTURE SYMBOL LISTED ABOVE.

SEISMIC DESIGN FOR ELECTRICAL EQUIPMENT

THE ELECTRICAL SYSTEM SHALL COMPLY WITH THE NEW YORK STATE UNIFORM FIRE PROTECTION AND BUILDING CODE SECTION 1613 AND APPLICABLE PROVISIONS OF ASCE 7 (ARCHITECTURAL, MECHANICAL AND ELECTRICAL COMPONENT SEISMIC DESIGN REQUIREMENTS).
ELECTRICAL CONTRACTOR SHALL HIRE NYS LICENSED PROFESSIONAL ENGINEER TO DESIGN AND PREPARE SHOP DRAWINGS WITH CALCULATIONS FOR EACH ELECTRICAL EQUIPMENT SUPPORT, CONDUIT SUPPORT, MULTIPLE CONDUIT SUPPORT, TRAPEZE AND SEISMIC RESTRAINT. SUBMIT SHOP DRAWINGS WITH CALCULATIONS TO ENGINEER FOR RECORD AND TO LOCAL AUTHORITY HAVING JURISDICTION FOR APPROVAL.

SEISMIC REQUIREMENTS:
BUILDING USE CATEGORY - IV
SIESMIC DESIGN CATEGORY - C

GENERAL ELECTRICAL NOTES

1. ELECTRICAL CONTRACTOR SHALL PROVIDE TYPEWRITTEN SCHEDULES OF ALL CIRCUITRY IN ALL PANELS. SCHEDULES SHALL MATCH THE LOADS SHOWN IN THE PROJECT PANEL SCHEDULE INCLUDED WITH THESE DRAWINGS. ALL SPARE PANEL SPACES SHALL BE FULLY PROTECTED WITH METAL BLANKS.
2. ELECTRICAL DEVICES MATERIALS AND PACKAGED EQUIPMENT SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) SUCH AS UNDERWRITERS LABORATORIES INC. (UL), FOR THE INTENDED USE, AND SHALL BEAR ITS LABEL. NOTE THAT NRTL APPROVAL OF INDIVIDUAL COMPONENTS OF PACKAGED EQUIPMENT DOES NOT CONSTITUTE APPROVAL OF THE ENTIRE PACKAGE.
3. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE 2017 EDITION (NFPA 70), AND THE BUILDING CODE OF NEW YORK STATE.
4. ELECTRICAL CONTRACTOR SHALL OBTAIN, PAY FOR AND COMPLY WITH ALL REQUIRED PERMITS. THE ELECTRICAL CONTRACTOR SHALL ARRANGE FOR ALL INSPECTIONS AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO OWNER PRIOR TO COMPLETION OF PROJECT.
5. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS, NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE ELECTRICAL INSTALLATION COMPLETE AND OPERATIVE, AND IN COMPLIANCE WITH APPLICABLE CODES.
6. ALL WIRING SHALL BE COPPER CONDUCTOR, MINIMUM SIZE #12 AWG.
7. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING EQUIPMENT AND NOTE CONDITIONS AND AREAS WHERE WORK WILL OCCUR IN FIELD.
8. ELECTRICAL CONTRACTOR SHALL SEAL AROUND ALL PIPE PENETRATIONS THROUGH WALLS, FLOORS AND CEILINGS WITH AN INTUMESCENT FIRE STOP MATERIAL TO MAINTAIN FIRE AND SMOKE RATINGS.
9. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH AND MEET ALL REQUIREMENTS OF SERVING POWER UTILITY COMPANY.
10. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES TO AVOID CONFLICTS OF EQUIPMENT INSTALLATION. ELECTRICAL CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL EQUIPMENT CONNECTIONS, WIRING DEVICES AND LIGHTING WITH ARCHITECT PRIOR TO INSTALLATION.
11. ELECTRICAL CONTRACTOR SHALL SUBMIT EQUIPMENT SHOP DRAWINGS FOR APPROVAL BY ARCHITECT PRIOR TO COMMENCING INSTALLATION.
12. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING, PATCHING AND PAINTING ASSOCIATED WITH ELECTRICAL WORK.
13. ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIAL INSTALLED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF COMPLETION AND ACCEPTANCE BY THE OWNER. CONTRACTOR AGREES TO REPLACE ANY DEFECTIVE EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER FOR THE DURATION OF THE GUARANTEE PERIOD.
14. MOUNTING HEIGHTS FROM FINISHED FLOOR TO CENTER LINE OF DEVICES SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON DRAWINGS.
    - CONVENIENCE OUTLETS: 18"
    - LIGHT SWITCHES: 44"
    - COMMUNICATIONS OUTLETS: 18"
    - FIRE ALARM PULL STATIONS: 44"
    - FIRE ALARM HORNS AND STROBES: 80"

ELECTRICAL EQUIPMENT SCHEDULE

SYMBOL	MANUFACTURER	CATALOG #	DESCRIPTION
	———	———	WALL MOUNTED L.E.D. EXIT SIGN WITH INTEGRAL BATTERY AND CHARGER FOR 90 MINUTE ILLUMINATION IN CASE OF POWER LOSS. SIGN SHALL BE WIRED TO UNSWITCHED HOT LEG OF INDICATED CIRCUIT. 120/277 VOLTS.
	———	———	CEILING MOUNTED L.E.D. EXIT SIGN WITH INTEGRAL BATTERY/CHARGER FOR 90 MINUTE ILLUMINATION IN CASE OF POWER LOSS. SIGN SHALL BE WIRED TO UNSWITCHED HOT LEG OF INDICATED CIRCUIT. 120/277 VOLTS.
PC	———	———	COMPUTER ACCESS POINT. PROVIDE 1-GANG BACKLESS PVC OUTLET BOX WITH RESI-RINGS TO ACCEPT CONDUIT. PROVIDE AND INSTALL ¾" EMT IN WALL FROM BOX TO ACCESSIBLE SPACE ABOVE FINISHED CEILING. PROVIDE AND INSTALL 1-GANG BOX FOR 120V POWER RECEPTACLE. CONTRACTOR SHALL PROVIDE DEEP BACK 4X4 METAL OUTLET BOX INSTEAD OF PVC IN THE CASE OF INSTALLATION IN A FIRE-RATED WALL OR CEILING. ALL DATA CABLING SHALL BE FURNISHED AND INSTALLED BY OWNER'S VENDOR.
TV	———	———	TV ACCESS POINT. FURNISH AND INSTALL RECESSED CABLE MANAGEMENT AND POWER BOX WITH (1) 120V DUPLEX RECEPTACLE. VERIFY MOUNTING HEIGHT AND LOCATION WITH OWNER PRIOR TO INSTALLATION. ALL DATA & AUDIO/VIDEO CABLING SHALL BE FURNISHED AND INSTALLED BY OWNER'S VENDOR.
DCS	STEINEL	69196	DCS 3-ZONE LIGHTING CONTROLLER. MOUNT SECURED ABOVE DROP CEILINGS. LIGHTING ZONES SHALL BE IDENTIFIED WITH LOWER CASE LETTERING. (EXAMPLE: "a, b, c"). POWER CIRCUIT SHALL BE IDENTIFIED WITH THE CIRCUIT NUMBER. (EXAMPLE: "22")
PP	STEINEL	63101	TR-100 POWER PACK. 120VAC - 24VDC, 20A RATED.
M_M	STEINEL	72484	IR QUATTRO MICRO DCS LOW VOLTAGE CEILING MOUNTED INFRARED VACANCY SENSOR, POWERED BY 1 OF 3 ZONES ON STEINEL DCS (69196), SET FOR MANUAL-ON/AUTO-OFF OPERATION. VERIFY ZONE IDENTIFICATION TAG ON SHEET E-3.
M_S	STEINEL	72490	IR QUATTRO SLIM DCS LOW VOLTAGE CEILING MOUNTED INFRARED VACANCY SENSOR, POWERED BY 1 OF 3 ZONES ON STEINEL DCS (69196), SET FOR MANUAL-ON/AUTO-OFF OPERATION FOR CONFERENCE ROOM, SET FOR AUTO-ON/OFF FOR OPEN AREAS. VERIFY ZONE IDENTIFICATION TAG ON SHEET E-3.
M_O	STEINEL	69344	DY QUATTRO DCS LOW VOLTAGE CEILING MOUNTED INFRARED / ULTRA-SONIC OCCUPANCY SENSOR, POWERED BY 1 OF 3 ZONES ON STEINEL DCS (69196), SET FOR AUTO-ON/AUTO-OFF OPERATION. VERIFY ZONE IDENTIFICATION TAG ON SHEET E-3.
M	STEINEL	61134	24VDC OCCUPANCY SENSOR (IS 345-24). CONNECT TO 24VDC SIDE OF STEINEL TR-100 POWER PACK (#63101).
$	LEVITON	1463-GLW	SINGLE POLE SWITCH, SPECIFICATION GRADE, 15 AMPERES, 120/277 VOLTS. ALL SWITCHES SHALL BE LABELED WITH SOURCE AND CIRCUIT NUMBER.
$3	LEVITON	L1463-2W	THREE WAY SWITCH, SPECIFICATION GRADE, 15 AMPERES, 120/277 VOLTS. ALL SWITCHES SHALL BE LABELED WITH SOURCE AND CIRCUIT NUMBER.
$4	LEVITON	CS415-2T	FOUR WAY SWITCH, SPECIFICATION GRADE, 15 AMPERES, 120/277 VOLTS. ALL SWITCHES SHALL BE LABELED WITH SOURCE AND CIRCUIT NUMBER.
$D	STEINEL	DSI-DCS	DCS ONE BUTTON LON/OFF SWITCH WITH DIMMING SLIDER.
$O	STENIEL	66100-IR-WLS	SINGLE POLE OCCUPANCY WALL SWITCH. SET FOR AUTO ON/AUTO OFF (OCCUPANCY) OPERATION. 120/277 VOLTS.
T	INTERMATIC	ET2845C	PROGRAMMABLE, ASTRONOMIC, 7-DAY/365 DAY, 4-CIRCUIT ELECTRONIC TIME CLOCK. 120/277V INPUT, INDOOR METAL ENCLOSURE. (OR EQUAL)
	LEVITON	T5825	DUPLEX RECEPTACLE, SPECIFICATION GRADE, 20 AMPERES, 125 VOLTS. ALL RECEPTACLES SHALL BE LABELED WITH SOURCE AND CIRCUIT NUMBER.
$_C$	LEVITON	T5825	CEILING MOUNTED DUPLEX RECEPTACLE, SPECIFICATION GRADE, 20 AMPERES, 125 VOLTS. ALL RECEPTACLES SHALL BE LABELED WITH SOURCE AND CIRCUIT NUMBER.
$_{USB}$	LEVITON	T5833	DUPLEX RECEPTACLE W/ USB-A & USB-C, SPECIFICATION GRADE, 20 AMPERES, 125 VOLTS. ALL RECEPTACLES SHALL BE LABELED WITH SOURCE AND CIRCUIT NUMBER.
$_G$	LEVITON	R6F20	DUPLEX RECEPTACLE WITH GFCI PROTECTION, SPECIFICATION GRADE, 20 AMPERES, 125 VOLTS. ALL RECEPTACLES SHALL BE LABELED WITH SOURCE AND CIRCUIT NUMBER.
$_{WP}$	LEVITON	R6F20	DUPLEX RECEPTACLE WITH GFCI PROTECTION AND WEATHERPROOF COVER, SPECIFICATION GRADE, 20 AMPERES, 125 VOLTS. ALL RECEPTACLES SHALL BE LABELED WITH SOURCE AND CIRCUIT NUMBER.
	LEVITON	(2) T5825	(2) DUPLEX OUTLETS IN COMMON BOX (QUAD), SPECIFICATION GRADE, 20 AMPERES, 125 VOLTS. ALL RECEPTACLES SHALL BE LABELED WITH SOURCE AND CIRCUIT NUMBER.
	LEVITON	279-500	50A STRAIGHT BLADE RECEPTACLE IN COMMON BOX (QUAD), SPECIFICATION GRADE, 50 AMPERES, 125 VOLTS. ALL RECEPTACLES SHALL BE LABELED WITH SOURCE AND CIRCUIT NUMBER. COORDINATE RECEPTACLE TYPE WITH EQUIPMENT TO BE SUPPLIED BY OWNER PRIOR TO ORDERING.
	———	———	DATA OUTLET. PROVIDE 1-GANG BACKLESS PVC OUTLET BOX WITH RESI-RINGS TO ACCEPT CONDUIT. PROVIDE AND INSTALL ¾" EMT IN WALL FROM BOX TO ACCESSIBLE SPACE ABOVE FINISHED CEILING. CONTRACTOR SHALL PROVIDE DEEP BACK 4X4 METAL OUTLET BOX INSTEAD OF PVC IN THE CASE OF INSTALLATION IN A FIRE-RATED WALL OR CEILING. ALL CABLING SHALL BE FURNISHED AND INSTALLED BY OWNER'S VENDOR
	———	———	HARD WIRED CONNECTION - WHERE EQUIPMENT OR APPLIANCE DOES NOT HAVE INTEGRAL DISCONNECTING MEANS, ELECTRICAL CONTRACTOR SHALL PROVIDE INDEPENDENT DISCONNECT SWITCH.
	———	———	UNFUSED DISCONNECT SWITCH.
K	———	———	KEY PAD / CARD READER SECURITY DEVICE - FURNISHED AND INSTALLED BY OTHERS. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL RECESSED JUNCTION BOX WITH ¾" EMT TO ABOVE FINISHED CEILING WITH NYLON DRAG LINE FOR FUTURE USE. VERIFY WITH OWNER PRIOR TO INSTALLATION. REFER TO DETAIL #2 ON SHEET E501
C	———	———	SECURITY CAMERA DEVICE - FURNISHED AND INSTALLED BY OTHERS. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL RECESSED JUNCTION BOX WITH ¾" EMT ABOVE FINISHED CEILING WITH NYLON DRAG LINE FOR FUTURE USE. VERIFY LOCATION WITH OWNER PRIOR TO INSTALLATION.
	———	———	FUSED DISCONNECT SWITCH.
J	———	———	JUNCTION BOX.
M	———	———	MOTORIZED DAMPER - FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR SHALL PROVIDE ELECTRICAL AND FIRE ALARM CONNECTIONS AS REQUIRED.
	———	———	BRANCH CIRCUIT OR HOMERUN: TYPE MC (METAL CLAD) CABLE OR EMT CONDUIT (REFER TO PANEL SCHEDULES FOR TYPE) WITH TYPE THHN INSULATED COPPER CONDUCTORS. ALL WIRING SHALL BE CONCEALED IN WALLS AND ABOVE FINISHED CEILINGS UNLESS OTHERWISE NOTED.
	———	———	BRANCH CIRCUIT: TYPE MC (METAL CLAD) CABLE WITH COPPER CONDUCTORS AND FULL SIZED GROUND. ALL WIRING SHALL BE CONCEALED IN WALLS AND ABOVE FINISHED CEILINGS UNLESS OTHERWISE NOTED.
	———	———	BRANCH CIRCUIT: ELECTRICAL METALLIC TUBING (EMT) CONDUIT (UNLESS OTHERWISE SPECIFIED) WITH COPPER CONDUCTORS AND FULL SIZED GROUND. ALL WIRING SHALL BE CONCEALED IN WALLS AND ABOVE FINISHED CEILINGS UNLESS OTHERWISE NOTED.

No.	REVISION/SUBMISSION	DATE

Mechanical/Electrical/Plumbing Engineer

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PROJECT
NEW FIRE STATION FOR
ROMBOUT FIRE DISTRICT - STATION 2
NYS ROUTE 52, FISHKILL, NY

DRAWING
ELECTRICAL:
EQUIPMENT SCHEDULES

SEAL

DRAWN BY	PROJECT NUMBER
RL/KC	18142
CHECKED BY	DATE
JT/GH	11-30-22

DRAWING NUMBER
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