MUNICIPAL BUILDING RENOVATIONS

EDDYSTONE BOROUGH, DELAWARE COUNTY

1300 E. 12TH STREET
EDDYSTONE, PA 19022

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CODE INFORMATION

2018 INTERNATIONAL BUILDING CODE

ACCESSIBILITY REQUIREMENTS SHALL COMPLY WITH 2018 IBC CHAPTER 11 AND ICC A117.1 2009
OCCUPANCY GROUP B –

CONSTRUCTION TYPE 3B
TABLE 503 – ALLOWABLE AREA – B – 4 STORIES 23,000 SF PER STORY

TOTAL ACTUAL BUILDING SIZE W/ ADDITION – 2 STORIES 10,601 SF TOTAL

TABLE 504.4 – ALLOWABLE STORIES ABOVE GRADE PLANE – 2 STORIES

TABLE 601 – FIRE RESISTANCE RATINGS REQUIREMENTS – 3B

PRIMARY BUILDING FRAME – 0 HOURS — FLOOR CONSTRUCTION – 0 HOURS
BEARING WALLS (EXTERIOR)– 2 HOURS — ROOF CONSTRUCTION – 0 HOURS
NONBEARING WALLS & PARTITIONS INTERIOR – 0 HOURS

TABLE 602 – REAR WALL RATING REQUIRED PER TABLE 602 – DISTANCE >30FT – 0 HOUR RATING

TABLE 803.13 – INTERIOR FINISHES GROUP B OCCUPANCY
EXIT ENCLOSURES – CLASS A
CORRIDORS – CLASS B
ROOMS & ENCLOSED SPACES – CLASS C

903.2 – GROUP B – AUTOMATIC SPRINKLER SYSTEMS – NOT REQUIRED

TABLE 1004.5 COMPUTED OCCUPANCY

ADDITION OCCUPANCY LOAD – TOTAL AREA 10,601 SF
B OCCUPANCY
BUSINESS AREA 10,601 SF/150 = 70.67 PEOPLE
71 PEOPLE COMPUTED

1005 EGRESS WIDTH
STAIRWAYS 71 x .3 = 21.3" REQUIRED – 45" PROVIDED
OTHER COMPONENTS 71 x .2 = 14.2" – 108" PROVIDED

1006.1 MEANS OF EGRESS ILLUMINATION – REQUIRED
1011.1 EXIT SIGNS – REQUIRED
1017.2 EXIT ACCESS TRAVEL DISTANCE – NON SPRINKLED BUILDING B = 200 FT ALLOWED – ACTUAL = 55 FT
1021.1 EXITS REQUIRED – 2 REQUIRED / 2 PROVIDED
1111.2 TACTILE EXIT SIGNS – REQUIRED AT ALL EXITS.

CODES APPLICABLE TO THE PROJECT

2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL BUILDING CODE – CHAPTER 11 FOR ACCESSIBILITY
2018 INTERNATIONAL MECHANICAL CODE
2018 INTERNATIONAL ELECTRICAL CODE
2014 NATIONAL ELECTRICAL CODE
2009 ICC A117.1
2018 INTERNATIONAL ENERGY CONSERVATION CODE
2018 INTERNATIONAL FUEL GAS CODE
PENNSYLVANIA UNIFORM CONSTRUCTION CODE

PROJECT TEAM

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TITLE SHEET
RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
1300 E. 12TH ST.
EDDYSTONE, PA 19022

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1	ISSUED FOR BID	01.31.23

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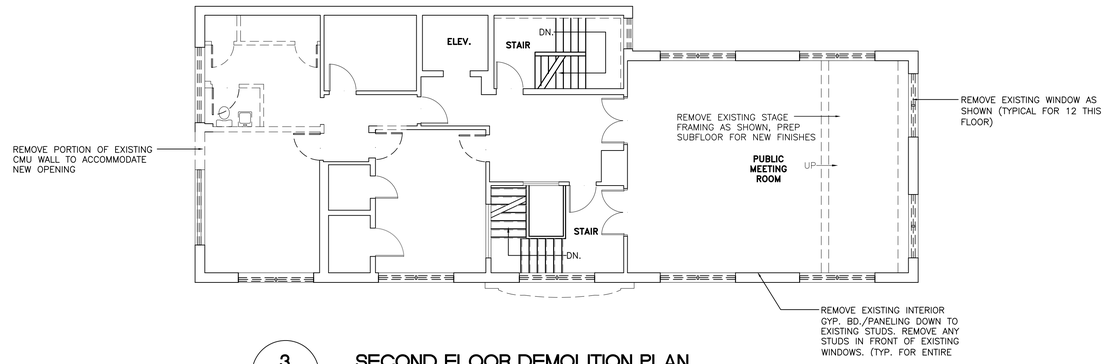
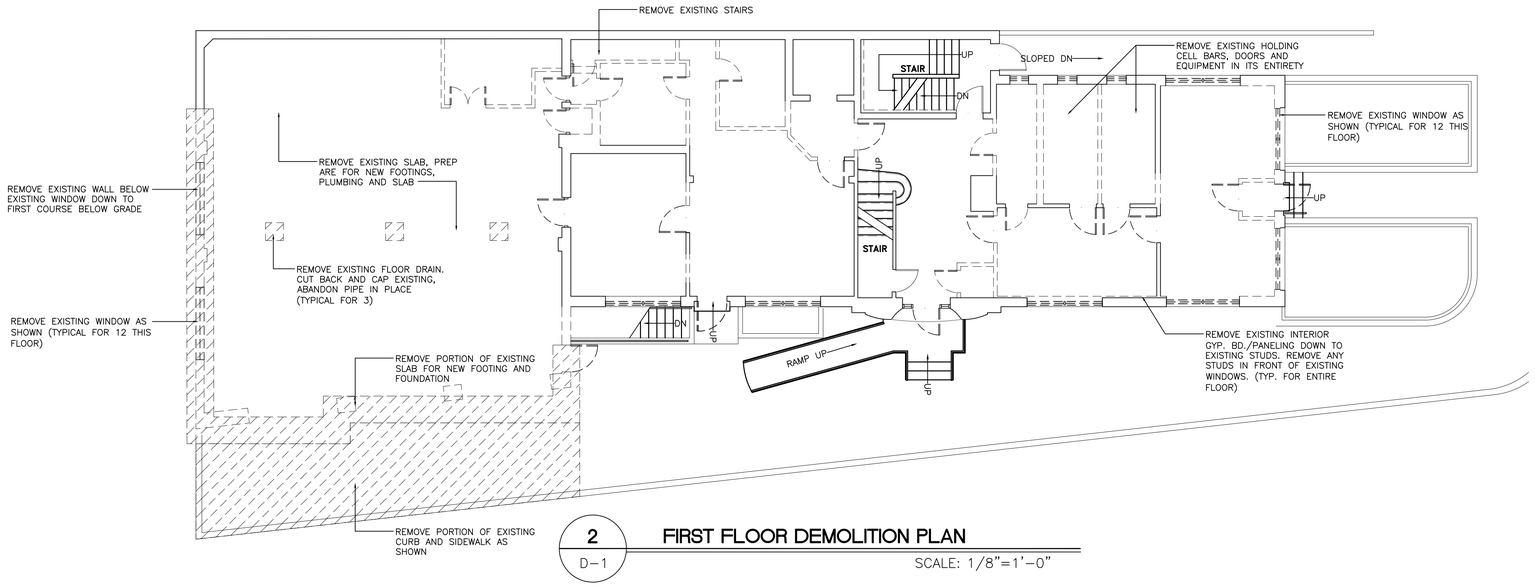
SHEET NO. T–1
SHEET OF



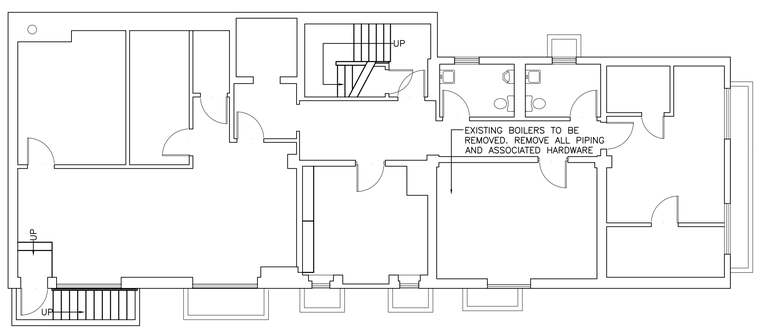
3 D-1 **SECOND FLOOR DEMOLITION PLAN**

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



2 D-1 **FIRST FLOOR DEMOLITION PLAN**

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



1 D-1 **BASEMENT DEMOLITION PLAN**

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

NOTE: SCRAPE & PAINT ALL EXISTING EXPOSED STEEL CHANNELS REMAINING. COLOR TO BE WHITE.

NOTE: CLEAN, SCRAPE & POWERWASH EXISTING BRICK, PATCH & REPAIR ANY MISSING OR DAMAGED BRICK. REPOINT ALL REMAINING EXPOSED BRICK.

DEMO NOTES:

1) REMOVE ALL LIGHTS, RECEPTACLES, SWITCH PANELS, WIRING.
2) REMOVE ALL CONDUITS, PIPING, SUPPORTS AND ALL FIXTURES.
3) REMOVE ALL WALLS & DOORS AS SHOWN.
4) REMOVE ALL EXISTING MECHANICAL DEVICES, UNIT HEATERS, AC UNITS & ALL ASSOCIATED WIRING & PIPIING.
5) REMOVE EXISTING BOILER AND ALL EXISTING RADIATORS, PIPING, VALVES AND ALL ASSOCIATED HARDWARE IN THERE ENTIRETY.
6) REMOVE ALL EXISTING PLUMBING FIXTURES, SUPPLY LINES & SANITARY PIPING. CUTBACK CAP & ABANDON ANY PIPING NOT BE REUSED. REMOVE ANY PIPING THAT CONFLICTS WITH NEW CONSTRUCTION.
7) REMOVE & DISPOSE OF ALL DEBRIS IN A LEGAL MANNER.
8) ALL CONTRACTORS SHALL KEEP THE SITE & BUILDING BROOM CLEAN ON A DAILY BASIS.

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PROPOSED DEMOLITION PLANS

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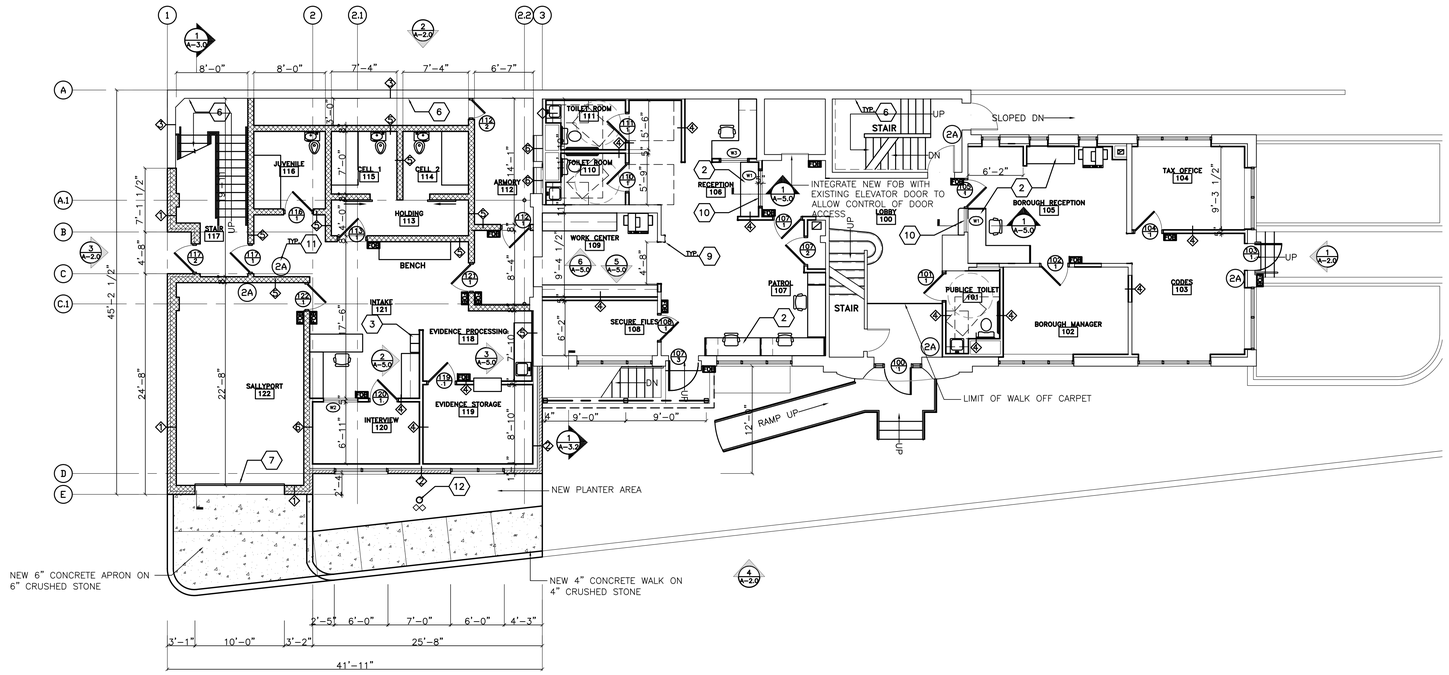
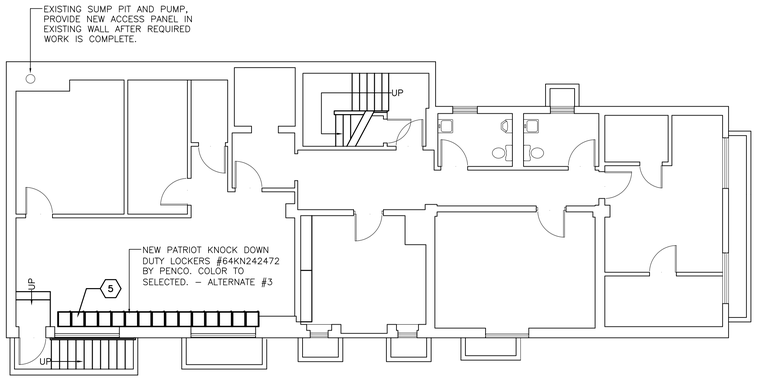


1 A-1 **PROPOSED FIRST FLOOR PLAN**

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



2 A-1 **PROPOSED BASEMENT PLAN**

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

WALL TYPE LEGEND

EXISTING WALL TO REMAIN FRAME OR MASONRY

1 — NEW EXTERIOR WALL – U935 1 HR – 8" CMU WALL w/ 1 ½" RIGID INSULATION, CARLISLE CCW 705 AIR BARRIER, 1" AIR SPACE & 4" BRICK VENEER @ EXTERIOR, PTD. CMU @ INTERIOR

2 — NEW EXTERIOR WALL – 6" MTL. STUDS @ 16" O.C. w/ 5 ½" KRAFT FACED BATT INSULATION, ½" DENS GLAS SHEATHING, CARLISLE CCW 705 AIR BARRIER, 2" AIR SPACE & 4" BRICK VENEER @ EXTERIOR, ⅝" GYP. BD. @ INTERIOR

3 — NEW (2) HOUR EXTERIOR WALL – 6" MTL. STUDS @ 16" O.C. w/ 5 ½" FACED BATT INSULATION, ½" FIREGUARD DENS GLASS SHEATHING, CARLISLE CCW 705 AIR BARRIER, ¾" METAL HAT CHANNEL @ 24" O.C. HORIZONTAL, 2" METL SPAN CF42 INSULATED PANEL @ EXTERIOR, ⅝" FIRE CODE "X" GYP. BD. @ BOTH SIDES

4 — NEW INTERIOR WALL – 3 5/8" MTL. STUDS @ 16" O.C. w/ 3 ½" UNFACED BATT INSULATION, & ⅝" GYP. BD. @ BOTH SIDES. RUN WALL TO 6" ABOVE SCHEDULED CEILING, RUN WALL FULL HEIGHT IF NO CEILING IS SCHEDULED PROVIDE DUROCK @ TILE LOCATIONS& MOISTURE RESISTANT DRYWALL IN TOILET ROOMS

5 — NEW INTERIOR WALL – 8" CMU WALL PTD. BOTH SIDES

6 — NEW INTERIOR WALL – 8" CMU WALL PTD. 3 5/8" MTL. STUDS @ 16" O.C, w/ 3 ½" UNFACED BATT INSULATION, & ⅝" DRYWALL.

7 — NEW INTERIOR WALL – 8" CMU WALL w/ ¾" HAT CHANNEL @ 16" O.C, ⅝" GYP. BD. ON ONE FACE, PTD. CMU ON THE OPPOSITE FACE.

KEY NOTES:

1. PROVIDE 4x8x⅝" F.R.T. PLYWOOD, BEHIND GYPSUM BOARD FOR MOUNTING OF EQUIPMENT.
2. NEW PLASTIC LAMINATE CASEWORK WITH PLASTIC LAMINATE COUNTERTOPS
3. PRISONER LOCKERS – VANGUARD 3 TIER LOCKER 12X12 #6419R
4. ROOF HATCH AND ACCESS LADDER MODEL S20 AS MANUFACTURED BY BILCO – PROVIDE BLOCKING IN WALLS FOR LADDER ATTACHMENT
5. PATRIOT KNOCK DOWN DUTY LOCKERS #64KN242472 BY PENCO. COLOR TO BE SELECTED
6. PAINT EXISTING MASONRY.
7. OVERHEAD GARAGE DOOR MODEL THERMACORE MODEL # 596 DOOR SIZE 10'X9' AS MANUFACTURED BY OVERHEAD DOOR COMPANY OR APPROVED EQUAL. PROVIDE ALUM. SASH SECTION COLOR TO BE GRAY & RMX MEDIUM DUTY OPERATOR AND ALL ASSOCIATED HARDWARE FOR A COMPLETE INSTALLATION.
8. 4" CONCRETE WALK ON 4" CRUSHED STONE W/ W1.4 X W1.4 6X6 WWF. PROVIDE CONTROL JOINTS @ 5'-0" O/C. & EXPANSION JOINT @ 20'-0" O.C.
9. NEW VINYL CORNER GUARDS– MODEL SGU AS MANUFACTURED BY JC– INDUSTRIES, 48" LENGTH WITH 2" WINGS
10. SECURITY WINDOW AS MANUFACTURED BY NORTH AMERICAN BULLETPROOF – PROVIDE LEVEL 3 SECURITY
11. 2A FIRE EXTINGUISHER MTD. 48" TO TOP.
12. NEW FLAG POLES WITH LED UPLIGHTING, GC TO RUN CONDUIT AND CIRCUITING FOR NEW LIGHTING.

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PROPOSED BASEMENT & FIRST FLOOR PLAN

RENOVATIONS TO MUNICIPAL BUILDING

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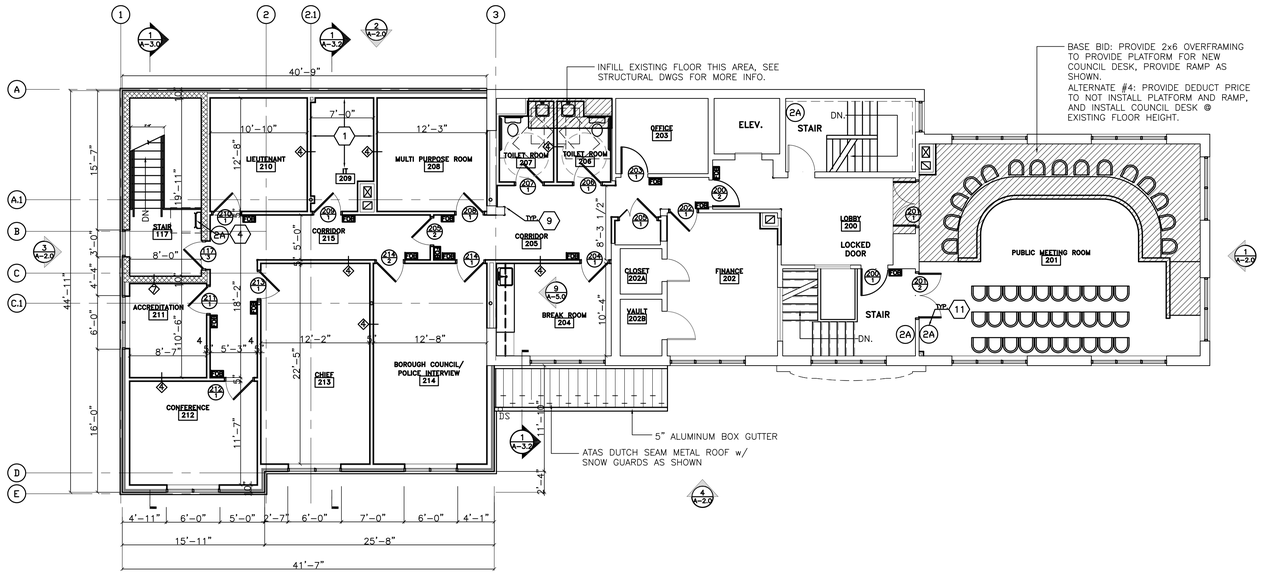
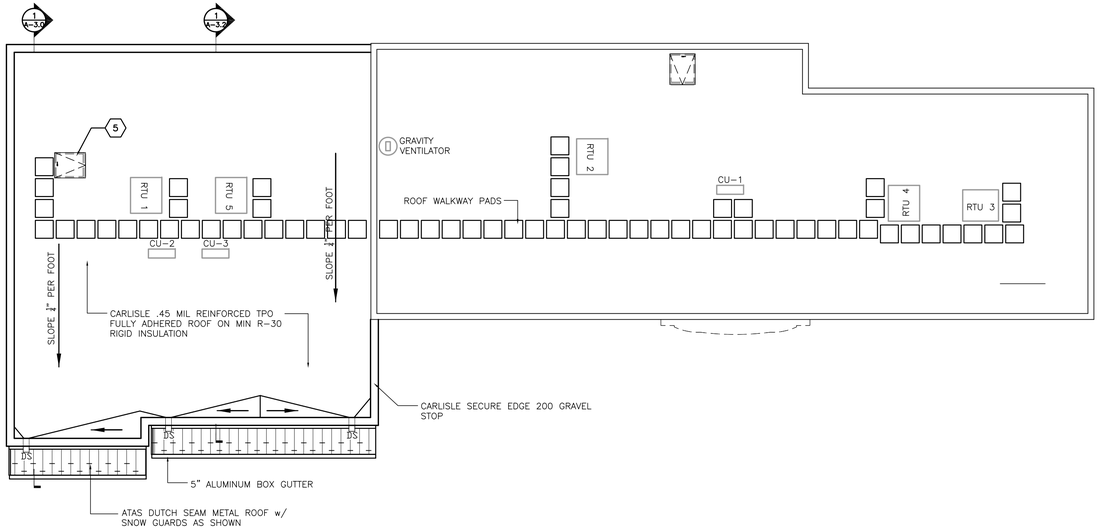


1 A-1.1 **PROPOSED SECOND FLOOR PLAN**

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



2 A-1.1 **PROPOSED ROOF PLAN**

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

WALL TYPE LEGEND

- EXISTING WALL TO REMAIN FRAME OR MASONRY
- 1 — NEW EXTERIOR WALL – U935 1 HR – 8" CMU WALL w/ 1 ½" RIGID INSULATION, CARLISLE CCW 705 AIR BARRIER, 1" AIR SPACE & 4" BRICK VENEER @ EXTERIOR, PTD. CMU @ INTERIOR
- 2 — NEW EXTERIOR WALL – 6" MTL. STUDS @ 16" O.C. w/ 5 ½" KRAFT FACED BATT INSULATION, ½" DENS GLAS SHEATHING, CARLISLE CCW 705 AIR BARRIER, 2" AIR SPACE & 4" BRICK VENEER @ EXTERIOR, ⅝" GYP. BD. @ INTERIOR
- 3 — NEW (2) HOUR EXTERIOR WALL – 6" MTL. STUDS @ 16" O.C. w/ 5 ½" FACED BATT INSULATION, ½" FIREGUARD DENS GLASS SHEATHING, CARLISLE CCW 705 AIR BARRIER, ¾" METAL HAT CHANNEL @ 24" O.C. HORIZONTAL, 2" METL SPAN CF42 INSULATED PANEL @ EXTERIOR, ⅝" FIRE CODE "X" GYP. BD. @ BOTH SIDES
- 4 — NEW INTERIOR WALL – 3 5/8" MTL. STUDS @ 16" O.C. w/ 3 ½" UNFACED BATT INSULATION, & ⅝" GYP. BD. @ BOTH SIDES. RUN WALL TO 6" ABOVE SCHEDULED CEILING, RUN WALL FULL HEIGHT IF NO CEILING IS SCHEDULED PROVIDE DUROCK @ TILE LOCATIONS& MOISTURE RESISTANT DRYWALL IN TOILET ROOMS
- 5 — NEW INTERIOR WALL – 8" CMU WALL PTD. BOTH SIDES
- 6 — NEW INTERIOR WALL – 8" CMU WALL PTD. 3 5/8" MTL. STUDS @ 16" O.C, w/ 3 ½" UNFACED BATT INSULATION, & ⅝" DRYWALL.
- 7 — NEW INTERIOR WALL – 8" CMU WALL w/ ¾" HAT CHANNEL @ 16" O.C, ⅝" GYP. BD. ON ONE FACE, PTD. CMU ON THE OPPOSITE FACE.

KEY NOTES:

1. PROVIDE 4x8x⅜" F.R.T. PLYWOOD, BEHIND GYPSUM BOARD FOR MOUNTING OF EQUIPMENT.
2. NEW PLASTIC LAMINATE CASEWORK WITH PLASTIC LAMINATE COUNTERTOPS
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6. PAINT EXISTING MASONRY.
7. OVERHEAD GARAGE DOOR MODEL THERMACORE MODEL # 596 DOOR SIZE 10'X9' AS MANUFACTURED BY OVERHEAD DOOR COMPANY OR APPROVED EQUAL. PROVIDE ALUM. SASH SECTION COLOR TO BE GRAY & RMX MEDIUM DUTY OPERATOR AND ALL ASSOCIATED HARDWARE FOR A COMPLETE INSTALLATION.
8. 4" CONCRETE WALK ON 4" CRUSHED STONE W/ W1.4 X W1.4 6X6 WWF. PROVIDE CONTROL JOINTS @ 5'-0" O/C. & EXPANSION JOINT @ 20'-0" O.C.
9. NEW VINYL CORNER GUARDS– MODEL SGU AS MANUFACTURED BY JC– INDUSTRIES, 48" LENGTH WITH 2" WINGS
10. SECURITY WINDOW AS MANUFACTURED BY NORTH AMERICAN BULLETPROOF – PROVIDE LEVEL 3 SECURITY
11. 2A FIRE EXTINGUISHER MTD. 48" TO TOP.
12. NEW FLAG POLES WITH LED UPLIGHTING, GC TO RUN CONDUIT AND CIRCUITING FOR NEW LIGHTING.

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PROPOSED FLOOR PLANS

RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
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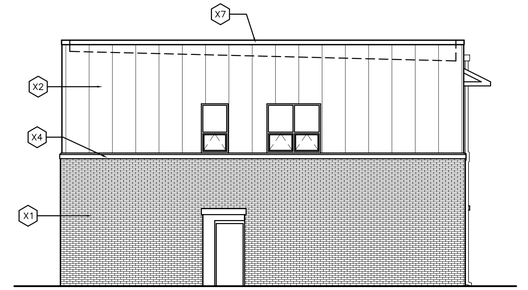
SHEET NO. A-1.1 SHEET OF

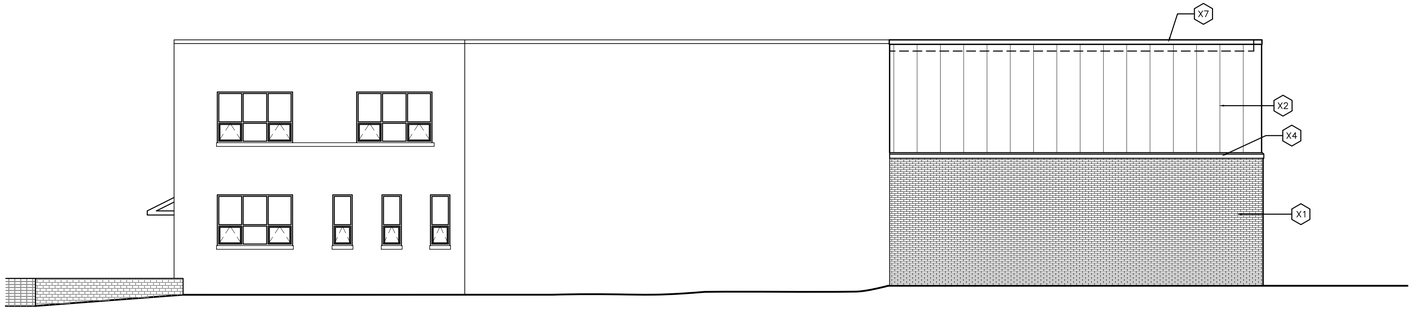
4 A–2 **PROPOSED FRONT ELEVATION**

SCALE: 1/4"=1'–0"



3 A–2 **PROPOSED LEFT SIDE ELEVATION**

SCALE: 1/4"=1'–0"



2 A–2 **PROPOSED REAR ELEVATION**

SCALE: 1/4"=1'–0"

1 A–2 **PROPOSED RIGHT SIDE ELEVATION**

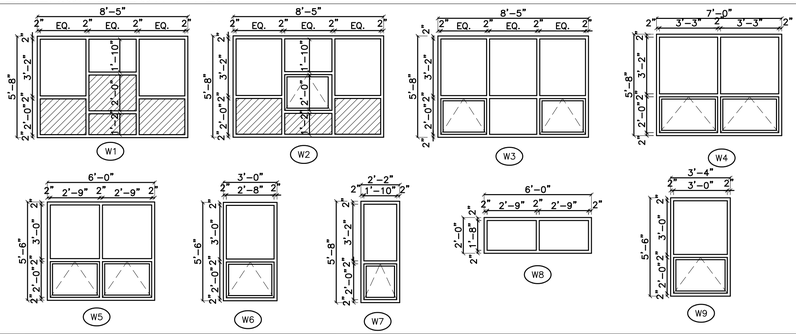
SCALE: 1/4"=1'–0"

EXTERIOR FINISH SCHEDULE

TAG	MATERIAL/ MANUF.	STYLE/COLOR	REMARKS
X1	4" BRICK VENEER	GLEN–GERY DOLOMITE GRAY (SIS181)	CONTRACTOR TO PROVIDE SAMPLES, CONTACT MIKE CLEMENT @ DIENER BRICK COMPANY 856.858.2000
X2	METAL INSULATED WALL PANEL	METL SPAN CF42 – SLATE GREY SG EXTERIOR POLAR WHITE SG INTERIOR	
X3	CAST STONE SILL	ROCKCAST COLOR BUFFSTONE	CONTRACTOR TO PROVIDE SAMPLES, CONTACT MIKE CLEMENT @ DIENER BRICK COMPANY 856.858.2000
X4	CAST STONE WATERTABLE	ROCKCAST COLOR BUFFSTONE	
X5	STANDING SEAM METAL ROOF SYSTEM ATAS	DUTCH SEAM – 15" KYNAR 500 FINISH, BLACK	.040 ALUMINUM, KYNAR SMOOTH FINISH W/ BERGER BROTHERS AP400–MILL FINISH SNOW GUARDS ALL SEAMS
X6	ALUMINUM RWC W/ SCUPPER BOX ATAS	KYNAR 500 FINISH KYNAR 500 FINISH, TO BE SELECTED	
X7	METAL GRAVEL STOP CARLISLE	SECUREDGE 200 COLOR TO MATCH METAL PANEL	
X8	AZEK TRIM 5/4"x 6	COLOR WHITE STYLE SMOOTH	
X9	AZEK TRIM 5/4"x 8	COLOR WHITE STYLE SMOOTH	
X10	AZEK TRIM 5/4"x 10	COLOR WHITE STYLE SMOOTH	
X11			
X12			

NOTES:
1.) CONTRACTOR TO SUBMIT SAMPLES FOR APPROVAL
2.) REFER TO SPECIFICATIONS FOR MORE INFORMATION

EXTERIOR WINDOW TYPES



NOTES:

1. WINDOWS TO BE SPECIFIED AROUND PRODUCTS MANUFACTURED BY KAWNEER 5500 THERMAL WINDOWS
2. VENTING AWNING WINDOWS SHALL INCLUDE SASH LOCKS & SCREENS
3. GLASS ADJACENT TO DOORS AND WITHIN 18" OF FLOOR TO BE TEMPERED SAFETY GLASS.
4. EXTERIOR AND INTERIOR FRAME COLOR TO BE DETERMINED.
5. GLAZING TO BE 1" INSULATED GLASS WITH LOW E GLAZING

T TEMPERED GLASS

SPANDREL PANEL

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PROPOSED ELEVATIONS

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BOROUGH OF EDDYSTONE

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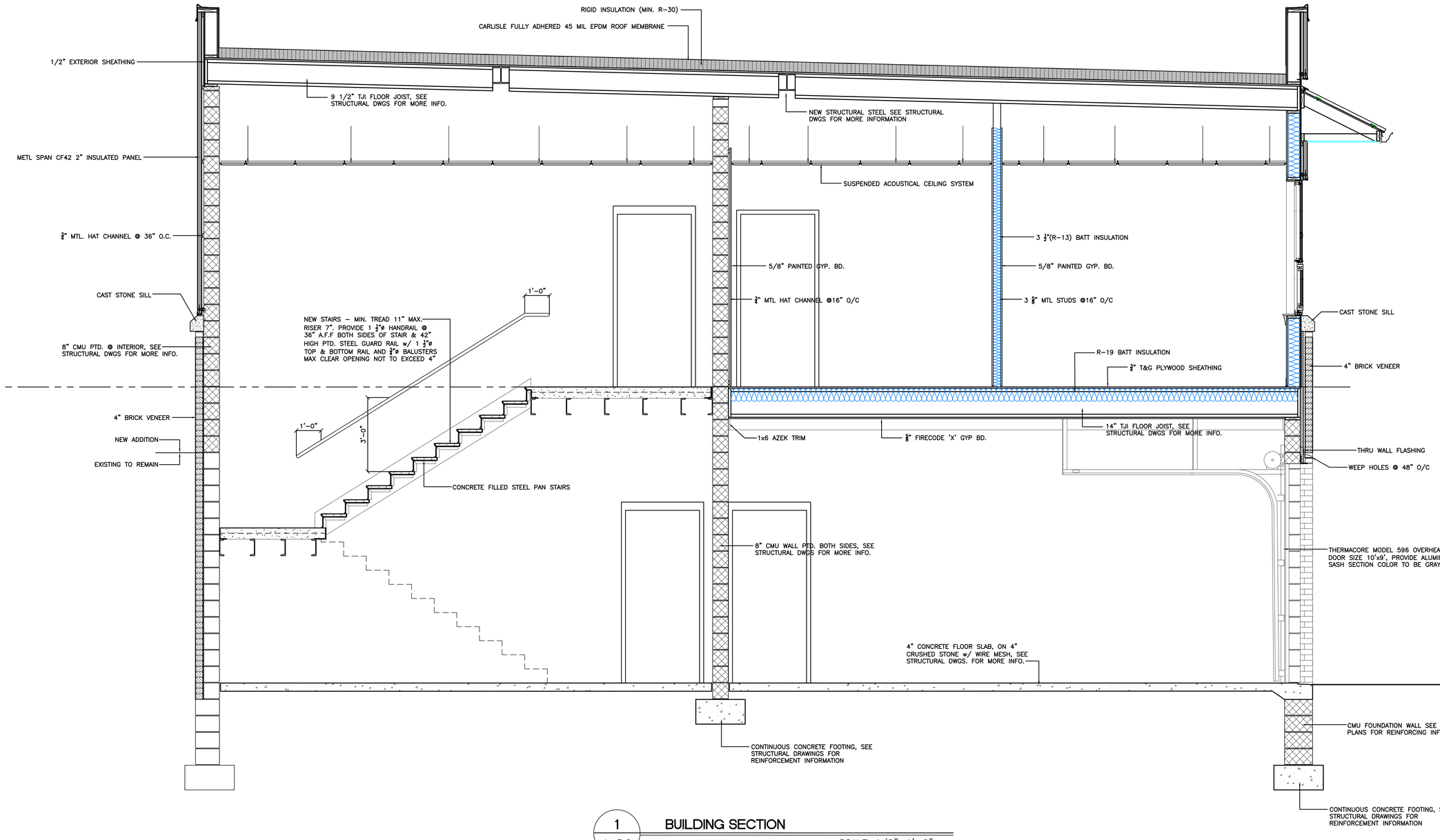

1 / A-3.0 **BUILDING SECTION**

SCALE: 1/2"=1'-0"

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BUILDING SECTION

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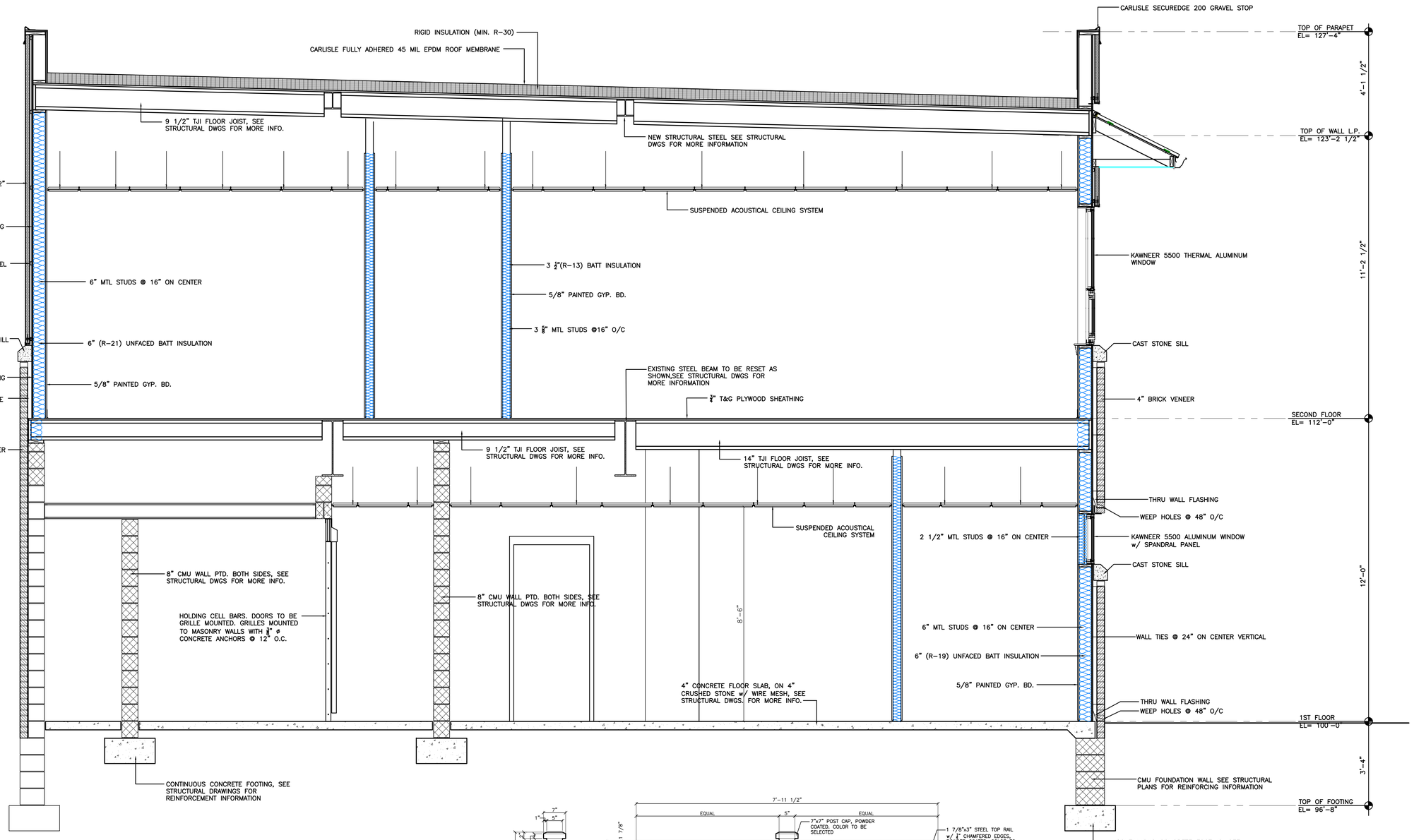
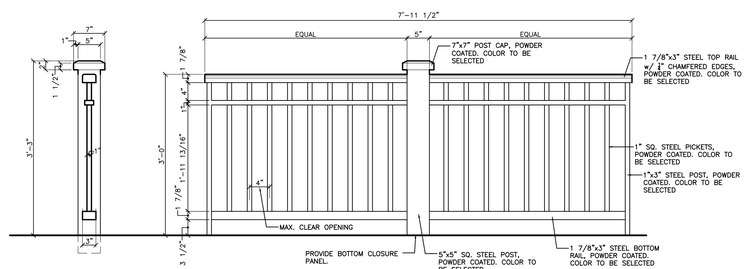


1 / A-3.1 **BUILDING SECTION**

SCALE: 1/2"=1'-0"



NOTES:
1. GRIND ALL WELDS SMOOTH, POWDER COAT ALL RAILING COMPONENTS AS SHOWN
2. CORE DRILL CONCRETE AND EPOXY SET RAILING PROVIDE MIN 4" EMBEDMENT
3. CONTRACTOR TO VERIFY DISTANCE BETWEEN COLUMN COVERS PRIOR TO FABRICATION AND ADJUST RAILING LENGTH ACCORDINGLY.

2 / A-3.1 **RAILING DETAIL**

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

LINN ARCHITECTS
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TEL: 610-566-7044
FAX: 610-566-3258

BUILDING SECTION

RENOVATIONS TO MUNICIPAL BUILDING

BOROUGH OF EDDYSTONE

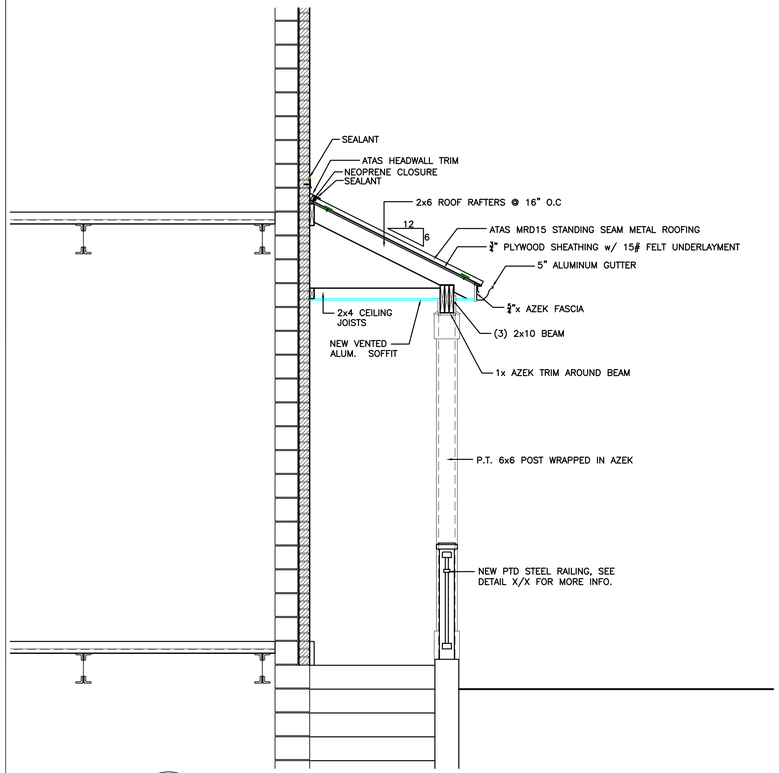
1300 E. 12TH ST.

EDDYSTONE, PA 19022

REVISIONS		
NO.	DESCRIPTION	DATE
1	ISSUED FOR BID	01.31.23

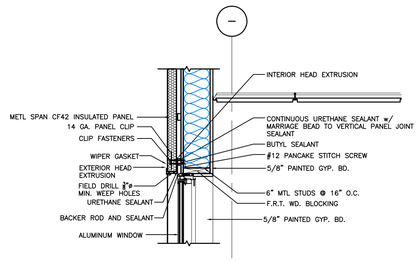
DATE: 01.31.23
SCALE: 1/2"=1'-0"
DRAWN BY:
CHECKED BY:
PROJ. NO. 22100

SHEET NO. A-3.1 SHEET OF



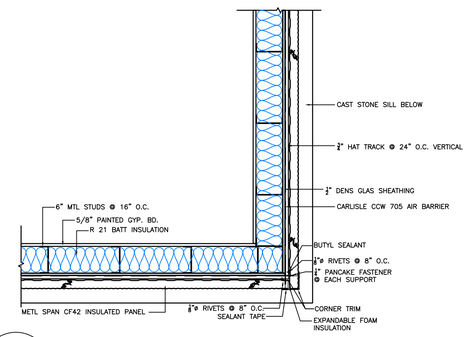
1 A-3.2 **BUILDING SECTION**

SCALE: 1/2"=1'-0"



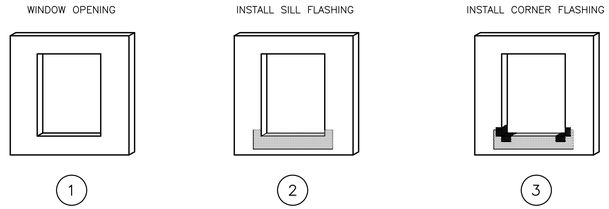
4 A-3.2 **WINDOW HEAD DETAIL**

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



7 A-3.2 **METAL PANEL CORNER DETAIL**

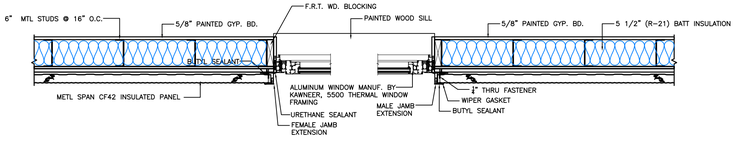
SCALE: 3/4"=1'-0"



NOTES:
1. SURFACES SHALL BE CLEAN AND DRY AND PRIMED WITH CCW-CONTACT ADHESIVE.
2. FLASHING SHALL BE A MINIMUM OF 9" WIDE. THE FLASHING SHALL WRAP INTO WINDOW OPENING GREATER THAN THE DEPTH OF THE WINDOW AND OUT ONTO THE WALL A MINIMUM OF 3".
3. SEQUENCE FLASHING INSTALLATION TO PROVIDE SHINGLED OVERLAPS, OVERLAPS SHALL BE A MINIMUM OF 2".

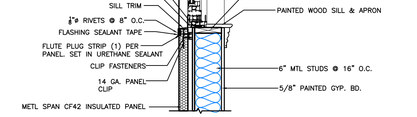
8 A-3.2 **WINDOW FLASHING DETAIL**

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



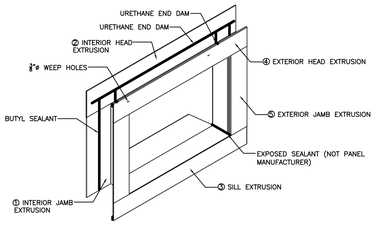
2 A-3.2 **WALL CONSTRUTION DETAIL**

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



5 A-3.2 **WINDOW SILL DETAIL**

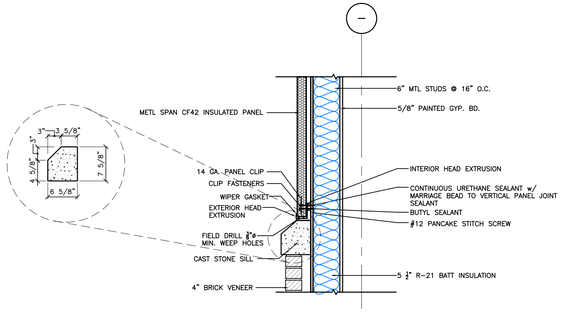
SCALE: 3/4"=1'-0"



EXTRUSION INSTALLATION SEQUENCE:
① INTERIOR JAMB EXTRUSIONS
② INTERIOR HEAD EXTRUSION (NOTCHED)
③ SILL EXTRUSION (NOTCHED)
④ EXTERIOR HEAD EXTRUSION (NOTCHED)
⑤ EXTERIOR JAMB EXTRUSIONS

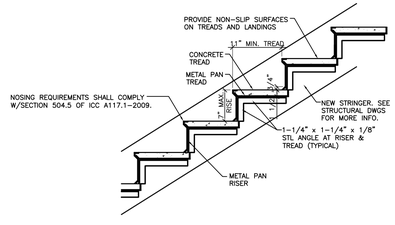
3 A-3.2 **WINDOW TRIM & METAL PANELS**

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



6 A-3.2 **CAST STONE SILL DETAIL**

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



9 A-3.2 **METAL PAN STAIR DETAIL**

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

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SECTIONS & DETAILS

RENOVATIONS TO MUNICIPAL BUILDING

BOROUGH OF EDDYSTONE

1300 E. 12TH ST.

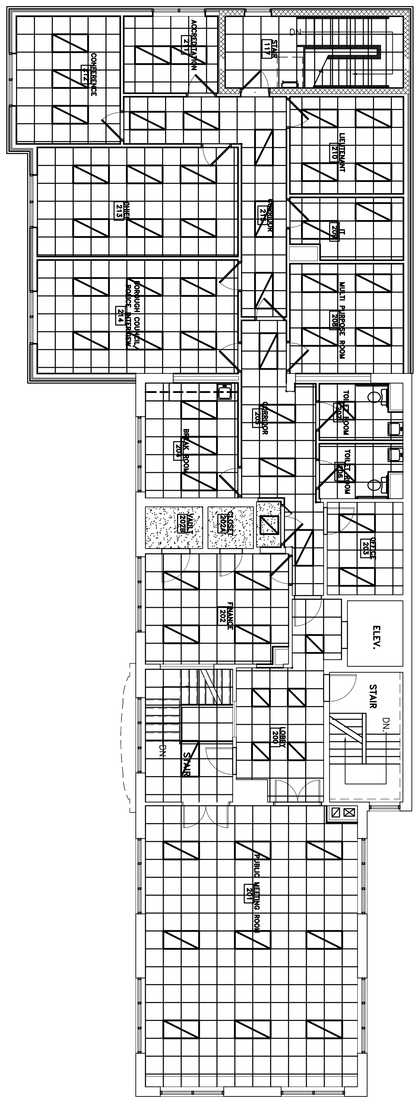
EDDYSTONE, PA 19022

REVISIONS		
NO.	DESCRIPTION	DATE
1	ISSUED FOR BID	01.31.23

DATE 01.31.23
SCALE AS NOTED
DRAWN BY
CHECKED BY
PROJ. NO. 22100

SHEET NO. A-3.2

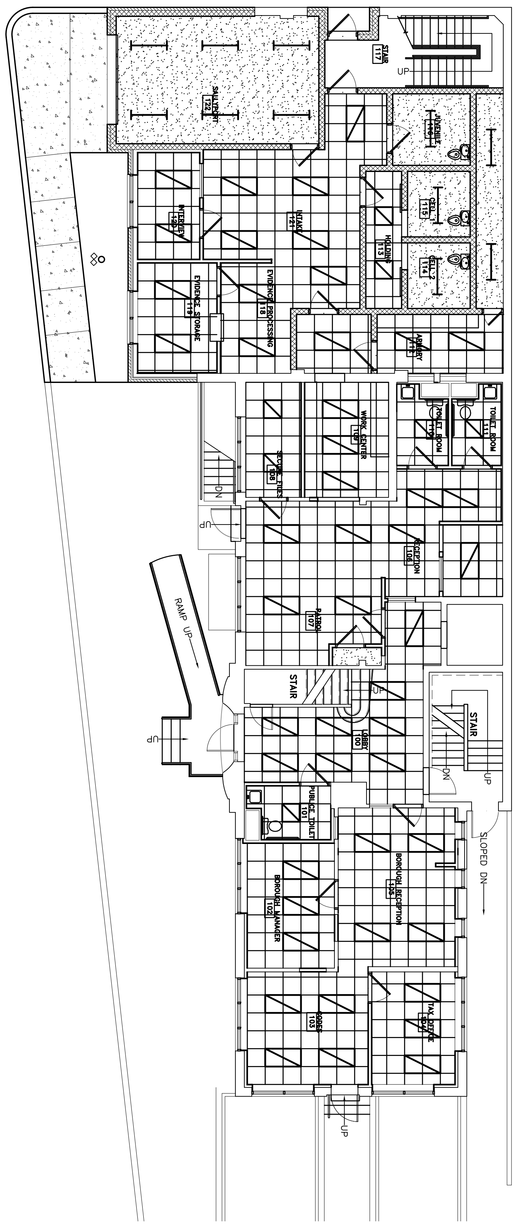
SHEET OF



1 A-4

SECOND FLOOR CEILING PLAN

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



2 A-4

FIRST FLOOR CEILING PLAN

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

SHEET NO. A-4	DATE 01.31.23	REVISIONS NO.	DESCRIPTION	DATE
	SCALE 1/8"=1'-0"	1	ISSUED FOR BID	01.31.23
	DRAWN BY			
	CHECKED BY			
SHEET OF	PROJ. NO. 22100			

PROPOSED REFLECTED CEILING PLANS

RENOVATIONS TO MUNICIPAL BUILDING

BOROUGH OF EDDYSTONE

1300 E. 12TH ST.

EDDYSTONE, PA 19022

LINN ARCHITECTS

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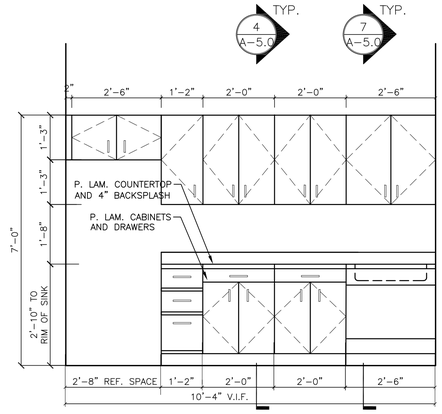
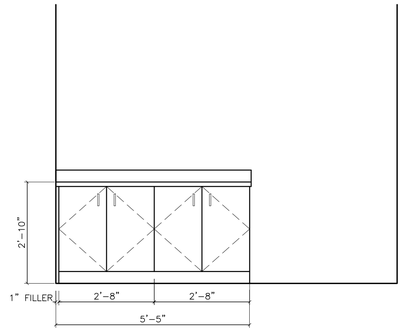


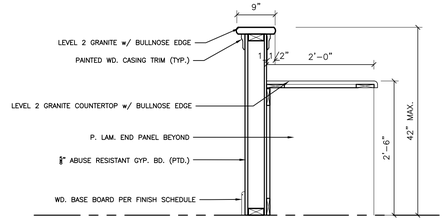
9 CASEWORK ELEVATION

A-5 **BREAKROOM** SCALE: 3/4"=1'-0"



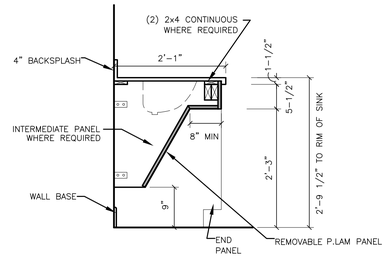
8 CASEWORK ELEVATION

A-5 **RECEPTION AREA** SCALE: 3/4"=1'-0"



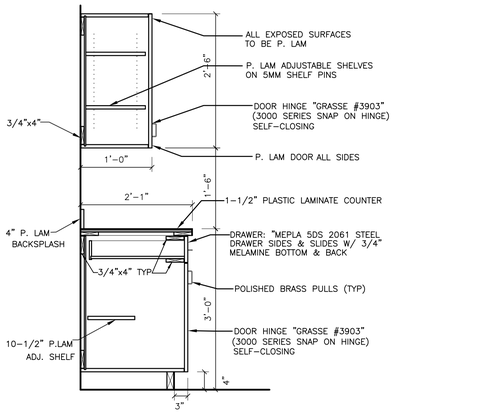
10 SECTION @ COUNCIL DESK

A-5 SCALE: 1"=1'-0"



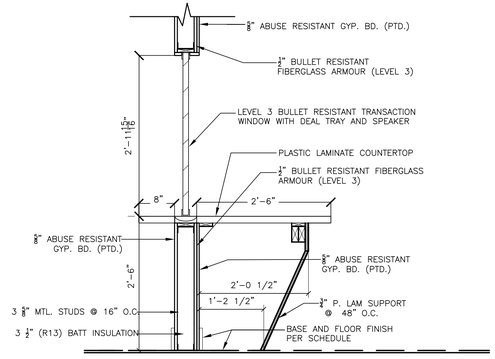
7 CASEWORK SINK SECTION TYPICAL

A-5 SCALE: 1"=1'-0"



4 CASEWORK SECTION TYPICAL

A-5 SCALE: 1"=1'-0"

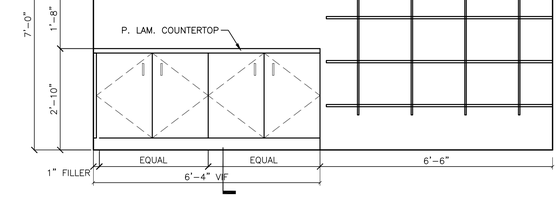


1 RECEPTION COUNTER TOP TYPICAL

A-5 SCALE: 1"=1'-0"

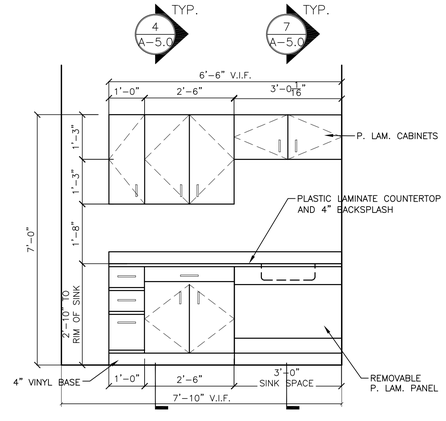
6 CASEWORK ELEVATION

A-5 **WORK CENTER / COPIER** SCALE: 3/4"=1'-0"



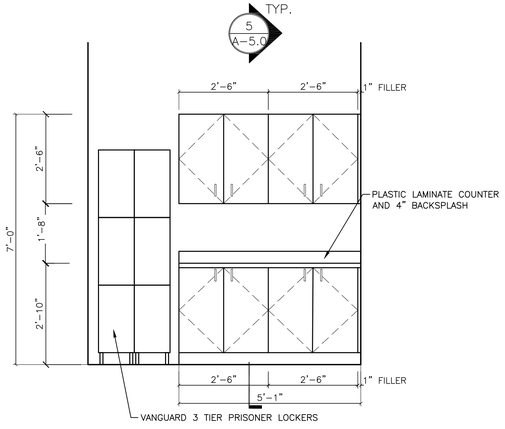
5 CASEWORK ELEVATION

A-5 **WORK CENTER** SCALE: 3/4"=1'-0"



3 CASEWORK ELEVATION

A-5 **EVIDENCE PROCESSING** SCALE: 3/4"=1'-0"



2 CASEWORK ELEVATION

A-5 **INTAKE** SCALE: 3/4"=1'-0"

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CASEWORK DETAILS

RENOVATIONS TO MUNICIPAL BUILDING

BOROUGH OF EDDYSTONE

1300 E. 12TH ST.

EDDYSTONE, PA 19022

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1	ISSUED FOR BID	01.31.23

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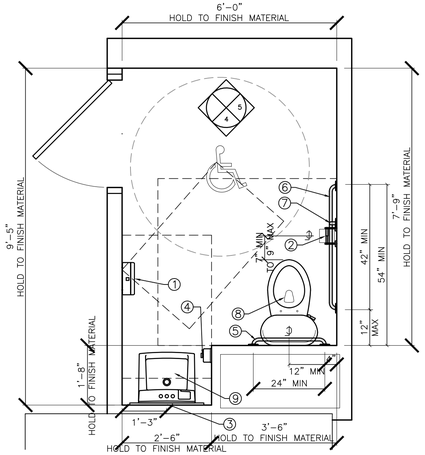
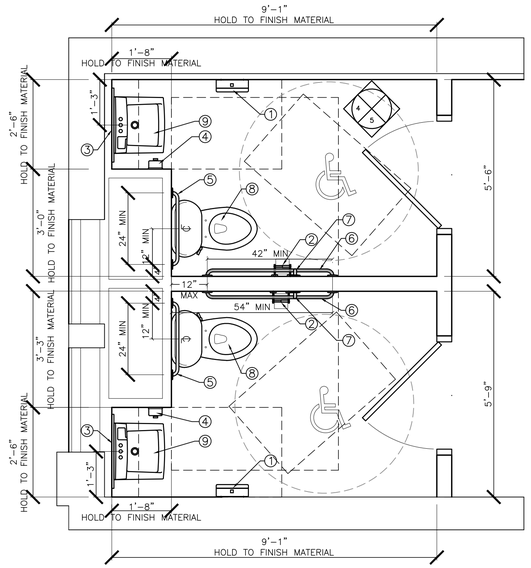
SHEET NO. A-5 SHEET OF



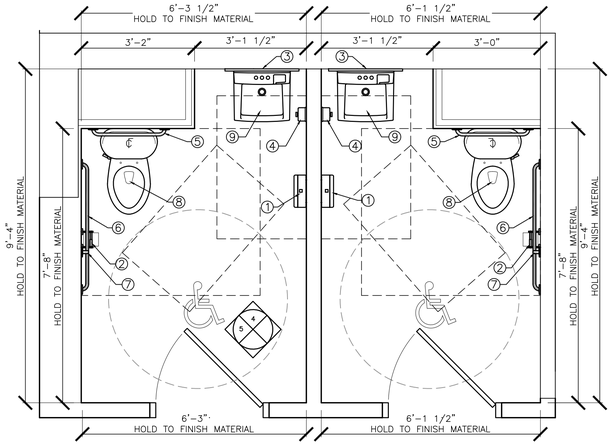
1 A-6 **ADA TOILET ROOM 101 PLAN DETAILS**

SCALE: 1/2"=1'-0"



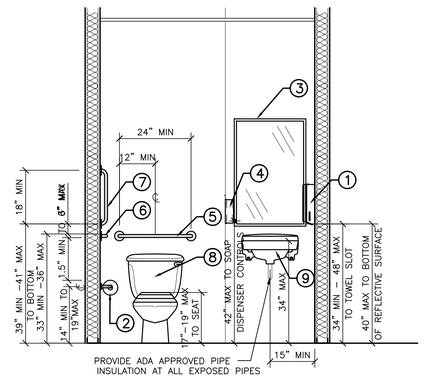
2 A-6 **ADA TOILET ROOM 111 / 110 PLAN DETAILS**

ELEVATIONS RM. 111 IS OPP. HAND OF RM 110 SCALE: 1/2"=1'-0"



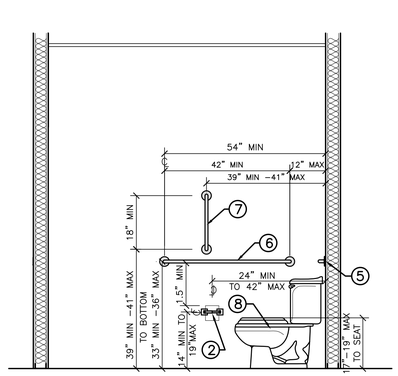
3 A-6 **ADA TOILET ROOM 207 / 206 PLAN DETAILS**

ELEVATIONS RM. 207 IS OPP. HAND OF RM 206 SCALE: 1/2"=1'-0"



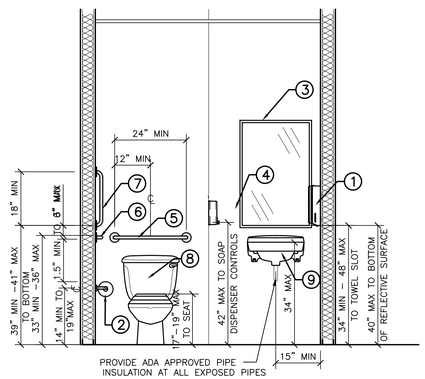
4 A-6 **ADA TOILET ROOM ELEVATION DETAILS TYP.**

RMS. 111 + 207 ARE OPPOSITE HAND SCALE: 1/2"=1'-0"



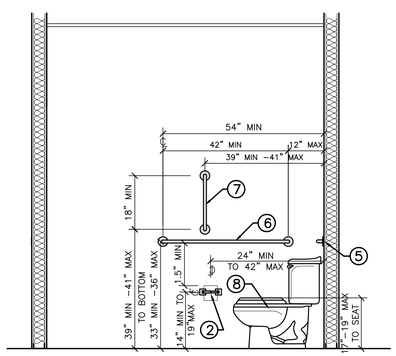
5 A-4 **ADA TOILET ROOM ELEVATION DETAILS TYP.**

SCALE: 1/2"=1'-0"



6 A-6 **ADA TOILET ROOM 207 / 206 PLAN DETAILS**

ELEVATIONS RM. 207 IS OPP. HAND OF RM 206 SCALE: 1/2"=1'-0"



8 A-6 **ADA TOILET ROOM 111 / 110 EVEVATION DETAILS**

ELEVATIONS RM. 111 IS OPP. HAND OF RM 110 SCALE: 1/2"=1'-0"

TOILET ROOM ACCESSORY SCHEDULE

DESIG.	MANUF.	CAT. #	ITEM	MTG.	FINISH	MTG. HEIGHT	QTY.
1	BOBRICK	B-262	P. TOWEL DISPENSER	SURFACE	STAIN. STL.	34" MIN TO 48" MAX TO TOWEL SLOT	5
2	BOBRICK	B-7685	TOIL. PAPER DISPENSER	SURFACE	STAIN. STL.	15" MIN TO 48" MAX A.F.F TO OUTLET	5
3	BOBRICK	B-290 2436	MIRROR	SURFACE	STAIN. STL.	40" MAX TO BOTTOM OF REFLECTIVE SURFACE	5
4	BOBRICK	B-2111	SOAP DISPENSER	SURFACE	STAIN. STL.	48" MAX TO CONTROLS (REACH RANGE: VARIES)	5
5	BOBRICK	B-6806 x 24	REAR GRAB BAR	SURFACE	STAIN. STL.	33" MIN TO 36" MAX A.F.F	5
6	BOBRICK	B-6806 x 42	SIDE GRAB BAR	SURFACE	STAIN. STL.	33" MIN TO 36" MAX A.F.F	5
7	BOBRICK	B-6806 x 18	VERT GRAB BAR	SURFACE	STAIN. STL.	39" MIN TO 41" MAX A.F.F TO BOTTOM	5

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ADA TOILET ROOM DETAILS

RENOVATIONS TO MUNICIPAL BUILDING

BOROUGH OF EDDYSTONE

1300 E. 12TH ST.

EDDYSTONE, PA 19022

REVISIONS NO.	DESCRIPTION	DATE
1	ISSUED FOR BID	01.31.23

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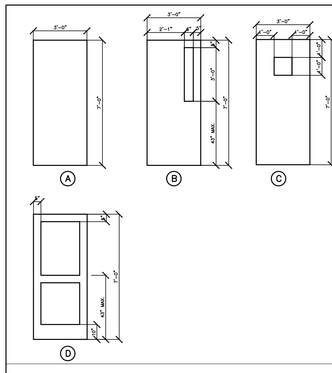
PROJ. NO. 22100

SHEET NO. A-6 SHEET OF

DOOR AND FRAME SCHEDULE

DOOR NO.	SIZE W	SIZE H	SIZE T	DOOR TYPE	DOOR MAT.	DOOR CORE	DOOR GLASS	DOOR FOB	FRAME TYPE	FRAME MAT.	FRAME DETAILS HEAD & JAMB	FIRE RATING LAB.	HINGES QT.	HINGES ITEM	LOCKS QT.	LOCKS ITEM	PANIC DEVICES QT.	PANIC DEVICES ITEM	CLOSERS QT.	CLOSERS ITEM	PUSH/PULL QT.	PUSH/PULL ITEM	BUMPER QT.	BUMPER ITEM	KICK PLATE QT.	KICK PLATE ITEM	BOLTS QT.	BOLTS ITEM	THRESHOLD QT.	THRESHOLD ITEM	WEATHER STRIPPING QT.	WEATHER STRIPPING ITEM	DOOR NO.	REMARKS
100-1	3°	7°	1¾	D	ALUM		TEMP			ALUM																							100-1	
101-1	3°	7°	1¾	A	WD	SC			1	HM			3	1A	1/1	2C/2F			1	4A					1	7A							101-1	
102-1	3°	7°	1¾	B	WD	SC		●	1	HM			3	1A	1	2A							1	6A									102-1	
103-1	3°	7°	1¾	B	HM	INSUL		●	1	HM			3	1B	1	2A	1	3A	1	4A									1	9B	1	10A	103-1	
104-1	3°	7°	1¾	A	WD	SC		●	1	HM			3	1A	1	2A							1	6A									104-1	
105-1	3°	7°	1¾	A	WD	SC		●	1	HM			3	1A	1	2A																	105-1	
107-1	3°	7°	1¾	A	WD	SC		●	1	HM			3	1A	1	2A																	107-1	
107-2	3°	7°	1¾	A	WD	SC			1	HM			3	1A	1	2B																	107-2	
107-3	3°	7°	1¾	A	HM	INSUL		●	1	HM			3	1B	1	2A	1	3A	1	4A									1	9B	1	10A	107-3	
108-1	3°	7°	1¾	A	WD	SC		●	1	HM			3	1A	1	2A																	108-1	
110-1	3°	7°	1¾	A	WD	SC			1	HM			3	1A	1	2C									1	7A							110-1	
111-1	3°	7°	1¾	A	WD	SC			1	HM			3	1A	1	2C									1	7A							111-1	
112-1	3°	7°	1¾	A	HM	INSUL		●	2	HM			3	1A	1	2A									1	7A							112-1	
112-2	2°	7°	1¾	A	HM	INSUL		●	2	HM			3	1A	1	2A									1	7A							112-2	
113-1	3°	7°	1¾	C	HM	INSUL		●	2	HM			3	1A	1	2G																	113-1	EXTRA HEAVY DUTY HOLLOW METAL DOOR AND FRAME
116-1	3°	7°	1¾	C	HM	INSUL		●	2	HM			3	1A	1	2G																	116-1	EXTRA HEAVY DUTY HOLLOW METAL DOOR AND FRAME
117-1	3°	7°	1¾	B	WD	SC			2	HM		60	3	1A			1	3A	1	4A					1	7A							117-1	
117-2	3°	7°	1¾	B	HM	INSUL			2	HM		60	3	1B			1	3A	1	4A					1	7A			1	9B	1	10A	117-2	
117-3	3°	7°	1¾	B	WD	SC			2	HM		60	3	1A			1	3A	1	4A					1	7A							117-3	
119-1	3°	7°	1¾	A	HM	INSUL		●	1	HM			3	1A	1	2A							1	6A									119-1	
120-1	3°	7°	1¾	A	HM	INSUL		●	1	HM			3	1A	1	2A																	120-1	
121-1	3°	7°	1¾	A	HM	INSUL		●	2	HM			3	1A	1	2A			1	4A					1	7A							121-1	
122-1	3°	7°	1¾	A	HM	INSUL		●	2	HM			3	1A	1	2A			1	4A					1	7A							122-1	
200-1	3°	7°	1¾	B	WD	SC		●	1	HM			3	1A	1	2A			1	4A													200-1	
200-2	3°	7°	1¾	B	WD	SC		●	1	HM			3	1A	1	2A							1	6A									200-2	
201-1	(2)3°	7°	1¾	B	WD	SC			1	HM			6	1A	1/1	2A/2E			1	4A							2	8A					201-1	
201-2	(2)3°	7°	1¾	B	WD	SC			1	HM			6	1A	1/1	2A/2E			1	4A							2	8A					201-2	
202-1	3°	7°	1¾	B	WD	SC		●	1	HM			3	1A	1	2A																	202-1	
203-1	3°	7°	1¾	B	WD	SC		●	1	HM			3	1A	1	2A							1	6A									203-1	
204-1	3°	7°	1¾	B	WD	SC		●	1	HM			3	1A	1	2D							1	6A									204-1	
205-1	1°x3°	7°	1¾	A	WD	SC			1	HM			6	1A	2	2E							1	6A			2	8B					205-1	
205-2	3°	7°	1¾	A	WD	SC		●	1	HM			3	1A	1	2A							1	6A									205-2	
206-1	3°	7°	1¾	A	WD	SC			1	HM			3	1A	1	2C									1	7A							206-1	
207-1	3°	7°	1¾	A	WD	SC			1	HM			3	1A	1	2C									1	7A							207-1	
208-1	3°	7°	1¾	A	WD	SC		●	1	HM			3	1A	1	2A							1	6A									208-1	
209-1	3°	7°	1¾	A	WD	SC		●	1	HM			3	1A	1	2B									1	7A							209-1	
210-1	3°	7°	1¾	B	WD	SC		●	1	HM			3	1A	1	2A							1	6A									210-1	
211-1	3°	7°	1¾	B	WD	SC		●	1	HM			3	1A	1	2A							1	6A									211-1	
212-1	3°	7°	1¾	B	WD	SC		●	1	HM			3	1A	1	2A							1	6A									212-1	
213-1	3°	7°	1¾	B	WD	SC		●	1	HM			3	1A	1	2A							1	6A									213-1	
214-1	3°	7°	1¾	A	WD	SC		●	1	HM			3	1A	1	2A							1	6A									214-1	
214-2	3°	7°	1¾	A	WD	SC		●	1	HM			3	1A	1	2A							1	6A									214-2	



DOOR TYPES

DOOR NOTES:

1) ALL DOORS TO BE PROVIDED WITH LEVER HANDLES

2) ALL HOLLOW METAL DOORS TO BE 18 GAUGE. ALL EXTERIOR HOLLOW METAL FRAMES TO BE 16 GAUGE. ALL HOLLOW METAL FRAMES SHALL BE PROVIDED WITH REINFORCING AT THE HINGE, JAMB, STRIKE, AND CLOSER LOCATIONS. HOLLOW METAL FRAMES IN GYP. BD. OPENINGS SHALL BE KNOCKDOWN FRAMES.

3) ALL HOLLOW METAL DOORS AND FRAMES SHALL BE PAINTED – SEE FINISH SCHEDULE. ALL WOOD DOORS TO BE STAIN GRADE.

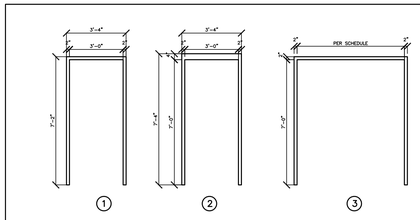
4) ALL DOORS SHALL RECEIVE SILENCER PADS AT HM FRAME. PROVIDE ROCKWOOD #608 OR #609

5) ALL EXTERIOR HM DOORS AND FRAMES SHALL RECEIVE FACTORY APPLIED A60 GALVANIZED FINISH. PROVIDE FIELD APPLIED GALVANIZED FINISH AS A RESULT OF FIELD PREPARATION AND/OR HARDWARE INSTALLATION.

6 ALL RATED DOORS TO HAVE UL LABELS

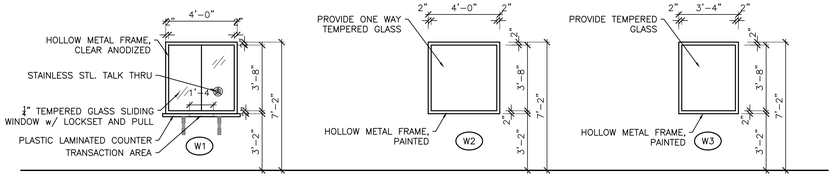
7) THRESHOLDS, WEATHERSTRIPPING & SWEEPS TO BE INSTALLED PER MANF. INSTRUCTIONS

8) DOOR TYPE "D" – THERMALLY BROKEN, 1" INSULATING TEMPERED GLASS, WITH 10" BOTTOM RAIL. PROVIDE DOR-O-MATIC 1390 MID RAIL PANIC, INTERNATIONAL RIM LOCK CYLINDER, & LCN 4041 SUPER SMOOTHIE SURFACE MOUNTED CLOSER



FRAME TYPES

WINDOW TYPES



HARDWARE ITEM SCHEDULE

ITEM NUMBER	DESCRIPTION	FINISH	MANUFACTURER
1A	5BB1-NRP- 4.5"x4.5"-BALL BEARING HINGE	US26D	IVES
1B	5BB1-NRP-SEC 4.5"x4.5"-NON FERROUS BALL BEARING HINGE	US32D	IVES
2A	AL50PD-SAT-626 (OFFICE FUNCTION) w/ INTERCHANGEABLE CORE	626	SCHLAGE
2B	AL80PD-SAT-626 (STOREROOM FUNCTION) w/ INTERCHANGEABLE CORE	626	SCHLAGE
2C	AL40S-SAT-626 (RESTROOM FUNCTION)	626	SCHLAGE
2D	AL10S-SAT-626 (PASSAGE FUNCTION)	626	SCHLAGE
2E	AL170-SAT-626 (DUMMY TRIM)	626	SCHLAGE
2F	B600-626 DEADBOLT w/ THUMBTURN	626	SCHLAGE
2G	D9336 MAXI MORTISE – INMATE KEYED LOCK		FOLGER ADAM
3A	99-27-L-06 SURFACE	US26D	VON DUPRIN
3B	99-47-L-06 CONCEALED	US26D	VON DUPRIN
3C	99-47-L-BE-06 BLANK (PASSAGE)	US26D	VON DUPRIN
4A	4040 SERIES	AL	LCN
5A	8200 PUSH PLATE 4x16/8302 PULL PLATE 4x16	US32D	IVES
6A	#409 CONCAVE WALL BUMPER	626	ROCKWOOD
6B	#441CU FLOOR BUMPER	626	ROCKWOOD
7A	8"x34"x.050 – KICKPLATE	US32D	HAGER
8A	292-D – AUTO-LATCHING FLUSH BOLT SET	US26D	HAGER
8B	318-D – ROLLER LATCH	US26D	HAGER
9A	413 S SADDLE THRESHOLD	MIL	HAGER
9B	477 S BUMPER THRESHOLD w VINYL INSERT	MIL	HAGER
10A	PEMKO 3030S GASKETING PEMKO 346 DOOR TOP	MIL	PEMKO

LINN ARCHITECTS
ARCHITECTURE
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INTERIOR DESIGN
1140 N. PROVIDENCE ROAD
MEDIA, PENNSYLVANIA 19063
TEL: 610-566-7044
FAX: 610-566-3258

DOOR SCHEDULE

RENOVATIONS TO MUNICIPAL BUILDING

BOROUGH OF EDDYSTONE

1300 E. 12TH ST.

EDDYSTONE, PA 19022

REVISIONS NO.	DESCRIPTION	DATE
1	ISSUED FOR BID	01.31.23

DATE 01.31.23
SCALE AS NOTED
DRAWN BY
CHECKED BY
PROJ. NO. 22100

SHEET NO. A-7

SHEET OF

INTERIOR ROOM FINISH SCHEDULE

ROOM			FLOORS								BASES				WALLS					CEILINGS						
LOCATION (FLOOR)	NUMBER	ROOM NAME	CARPET TILE 1	CARPET TILE 2	VCT 1	VCT 2 (ESD)	WALK OFF CARPET	SEALED CONCRETE	CERAMIC TILE 1	CERAMIC TILE 2	4" VINYL COVE	CERAMIC 1	CERAMIC 2	NONE	G.W.B. PAINTED	CMU PAINTED	FRT PLYWOOD PTD.	CERAMIC TILE	MTG.	2X2 ACT 1	2X4 ACT 2	PAINTED STRUCTURE	GYP. BD. PTD	NONE	MTG. SUSPENSION HEIGHT	REMARKS
1	100	LOBBY	●				●				●				●					●					10'-0"	
1	101	PUBLIC TOILET							●			●			●			●	48"	●					8'-0"	
1	102	BOROUGH MANAGER		●							●				●					●					9'-0"	
1	103	CODES		●							●				●					●					9'-0"	
1	104	TAX OFFICE		●							●				●					●					9'-0"	
1	105	BOROUGH RECEPTION		●							●				●					●					9'-0"	
1	106	POLICE RECEPTION		●							●				●					●					9'-0"	
1	107	PATROL			●						●				●					●					9'-0"	
1	108	SECURE FILES			●						●				●					●					8-0"	
1	109	WORK CENTER			●						●				●					●					9'-0"	
1	110	TOILET ROOM								●			●		●			●	48"	●					8'-0"	
1	111	TOILET ROOM								●			●		●			●	48"	●					8'-0"	
1	112	ARMORY						●			●					●				●					9'-0"	
1	113	HOLDING						●			●					●							●		8'-6"	
1	114	CELL 2						●						●		●							●		8'-0"	
1	115	CELL 1						●						●		●							●		8'-0"	
1	116	JUVENILE						●						●		●							●		8'-0"	
1	117	STAIR						●			●					●				●					9'-0"	
1	118	EVIDENCE PROCESSING			●						●				●	●				●					9'-0"	
1	119	EVIDENCE STORAGE			●						●				●					●					9'-0"	
1	120	INTERVIEW			●						●				●					●					8'-0"	
1	121	INTAKE			●						●					●				●					8'-6"	
1	122	SALLYPORT						●						●		●							●			
2	200	LOBBY	●												●					●					9'-0"	
2	201	PUBLIC MEETING ROOM		●											●					●					9'-6"	
2	202	FINANCE		●											●					●					9'-0"	
2	202A	CLOSET		●											●								●		8'-0"	
2	202B	VAULT		●											●								●		8'-0"	
2	203	OFFICE		●											●					●					9'-0"	
2	204	BREAK ROOM		●											●					●					9'-0"	
2	205	CORRIDOR	●												●					●					9'-0"	
2	206	TOILET ROOM								●					●			●	48"	●					8'-0"	
2	207	TOILET ROOM								●					●			●	48"	●					8'-0"	
2	208	MULTI PURPOSE ROOM	●												●					●					9'-0"	
2	209	IT ROOM				●											●			●					8'-0"	
2	210	LIEUTENANT		●											●					●					9'-0"	
2	211	ACCREDITATION		●											●					●					9'-0"	
2	212	CONFERENCE		●											●					●					9'-0"	
2	213	CHIEF		●											●					●					9'-0"	
2	214	BOROUGH COUNCIL/INTERVIEW		●											●					●					9'-0"	
2	215	CORRIDOR	●												●					●					9'-0"	
		EXISTING REAR STAIR														●						●				

MATERIAL SPECIFICATIONS

ITEM	MANUFACTURER	STYLE OR CATALOG #	COLOR	REMARKS
FLOORS				
CARPET TILE 1	PATCRAFT	24x24	TO BE SELECTED	MID CENTURY POP
CARPET TILE 2	PATCRAFT	24x24	TO BE SELECTED	MID CENTURY MAD
VCT 1	ARMSTRONG	EXCELON – 12"x12"x1/8"	TO BE SELECTED	
VCT 2 ELECTRO-STATIC DISSIPATIVE	ARMSTRONG	EXCELON SDT – 12"x12"x1/8"	TO BE SELECTED	
WALK OFF CARPET	PATCRAFT	10304 WALK RIGHT IN II	00595 EBONY	
CONCRETE SEALER	BASF	MASTERKURE CC1315		
CERAMIC TILE 1	DALTILE	SIERRA 12"X12"	TO BE SELECTED	
CERAMIC TILE 2	DALTILE	KEYSTONES 2X2	TO BE SELECTED	USE PRICE GROUP 4
BASE				
VINYL	ROPPE	4" VINYL COVE	TO BE SELECTED	
CERAMIC 1	DALTILE	SIERRA 3"X12"	TO BE SELECTED	
CERAMIC 2	DALTILE	KEYSTONES MB5A	TO BE SELECTED	USE PRICE GROUP 4
WALLS				
PAINT WALLS	SHERWIN WILLIAMS	EGG SHELL FINISH	TO BE SELECTED	
PAINT DOOR FRAMES	SHERWIN WILLIAMS	SEMI GLOSS FINISH	TO BE SELECTED	
CERAMIC TILE	DALTILE	FESTIVA 4 1/4"X4 1/4"	TO BE SELECTED	USE PRICE GROUP 4
CEILING				
2x2 ACOUSTICAL TILE 1	ARMSTRONG	CLASSIC FINE TEXTURE	#954 WHITE	w/ PRELUDE XL 15/16 GRID

LINN ARCHITECTS

ARCHITECTURE
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SITE PLANNING
INTERIOR DESIGN

1140 N. PROVIDENCE ROAD
MEDIA, PENNSYLVANIA 19063
TEL: 610-566-7044
FAX: 610-566-3258

FINISH SCHEDULE

RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
1300 E. 12TH ST.
EDDYSTONE, PA 19022

REVISIONS

NO.	DESCRIPTION	DATE
1	ISSUED FOR BID	01.31.23

DATE 01.31.23
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PROJ. NO. 22100

SHEET NO.
A-7.1
SHEET OF

GENERAL NOTES

CODES & STANDARDS

1. INTERNATIONAL BUILDING CODE - 2018 IBC
2. AMERICAN SOCIETY OF CIVIL ENGINEERS - ASCE 7-16
3. AMERICAN CONCRETE INSTITUTE - ACI 318-14
4. AMERICAN INSTITUTE OF STEEL CONSTRUCTION - AISC 360-16
5. AMERICAN WELDING SOCIETY - AWS D1.4/D1.4M-2017
6. NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION - NDS 2018
7. INTERNATIONAL MASONRY INSTITUTE - TMS 402-16/TMS 602-16
8. ASTM STANDARDS FOR THE MATERIALS SPECIFIED

DESIGN & STRUCTURAL CRITERIA

PROJECT LOCATION/LOCAL JURISDICTION	EDDYSTONE, PA
RISK CATEGORY	CATEGORY IV

WIND DESIGN DATA

BASIC WIND SPEED, V	128 MPH
ALLOWABLE STRESS WIND SPEED, Vasd	99 MPH
EXPOSURE CATEGORY	B
WIND DIRECTION	ALL
INTERNAL PRESSURE COEFFICIENT	+/- 0.18
COMPONENTS & CLADDING WALL PRESSURES	SEE TABLE
COMPONENTS & CLADDING ROOF PRESSURES	SEE TABLE

COMPONENTS & CLADDING WIND PRESSURE (PSF)

TRIB AREA (SF)	ROOF ZONES				WALL ZONES		
	1, 2, & 3	1	2	3	4 & 5	4	5
	POS.	NEG.	NEG.	NEG.	POS.	NEG.	NEG.
10	16	-29.8	-39.3	-39.3	17.1	-18.5	-22.8
50	16	-29.8	-39.3	-39.3	16	-16.8	-19.3
100	16	-23.2	-30.9	-30.9	16	-16	-17.8
500	16	-18.7	-25	-25	16	-16	-16

SEISMIC DESIGN DATA

SEISMIC IMPORTANCE FACTORE, I_e	1.5
MAPPED SPECTRAL RESPONSE ACCELERATIONS:	
FOR SHORT PERIODS	S_S=0.179 g
FOR 1-SECOND PERIODS	S_1=0.047 g
SPECTRAL RESPONSE PARAMETERS:	
FOR SHORT PERIODS	S_{DS}=0.191 g
FOR 1-SECOND PERIODS	S_{D1}=0.075 g
SEISMIC DESIGN CATEGORY	B
SITE CLASS	D
SEISMIC RESPONSE COEFFICIENT, C_S	0.19
RESPONSE MODIFICATION FACTOR, R	1.5
DESIGN BASE SHEAR, V	XX.X KIPS
BASIC SEISMIC-FORCE-RESISTING SYSTEM	ORDINARY PLAIN MASONRY SHEAR WALLS
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE

SNOW DESIGN DATA

GROUND SNOW LOAD, P_g	20 PSF
MINIMUM LOW-SLOPE ROOF SNOW LOAD, P_m	24 PSF
SNOW EXPOSURE FACTOR, C_e	1.0
SNOW LOAD IMPORTANCE FACTOR, I_s	1.20
THERMAL FACTOR, C_t	1.0

GEOTECHNICAL DESIGN DATA

FROST DEPTH	36 IN
ALLOWABLE SOIL BEARING PRESSURE	1,500 PSF (ASSUMED)
SOIL COEFFICIENT OF FRICTION	0.35 (ASSUMED)
ACTIVE EARTH PRESSURE	30 PSF/FT (ASSUMED)
AT-REST EARTH PRESSURE	60 PSF/FT (ASSUMED)
PASSIVE EARTH PRESSURE	250 PSF/FT (ASSUMED)

DEFLECTION DESIGN CRITERIA

ROOF TOTAL LOAD	L/240
ROOF LIVE LOAD	L/360
FLOOR TOTAL LOAD	L/240
FLOOR LIVE LOAD	L/360
LATERAL SYSTEMS	L/180

GRAVITY DESIGN LOADS

LEVEL	DEAD	LIVE	TOTAL
SLAB-ON-GRADE	52 PSF	100 PSF	152 PSF
SECOND FLOOR (OFFICE)	15 PSF	50 PSF	65 PSF
SECOND FLOOR (CORRIDOR)	15 PSF	100 PSF	115 PSF
ROOF	20 PSF	24 PSF	44 PSF

NOTES:
1. STRUCTURAL DESIGN IS BASED ON THE CODE CRITERIA/DESIGN GUIDELINE VALUES ABOVE THAT PRODUCE THE GREATEST LOADING CONDITION.
2. GRAVITY DESIGN DEAD LOAD DOES NOT INCLUDE STEEL SELF WEIGHT.
3. GRAVITY DESIGN LOADS PROVIDED ARE SERVICE LEVEL LOADS.

MISCELLANEOUS

1. REFERENCE CIVIL DRAWINGS FOR EQUIPMENT LOCATION AND ORIENTATION ON THE SITE. THE CONTRACTOR AND SUB-TRADES SHALL FURNISH ALL REQUIRED MATERIAL, LABOR, EQUIPMENT AND PERFORM ALL WORK AS NECESSARY, AS INDICATED ON THE PROJECT DOCUMENTS, OR AS REASONABLY INFERRED TO EXECUTE THE SCOPE OF WORK FOR A PROPERLY FINISHED, COMPLETE JOB.
2. THE QUALITY OF WORKMANSHIP SHOULD BE SET AND SUPERVISED BY THE CONTRACTOR TO PASS BUILDING DEPT. OR ENGINEER INSPECTION FOR ROUGH CONSTRUCTION. THE LEVEL OF QUALITY AND TOLERANCE SHOULD BE APPROPRIATE FOR THE INSTALLED ELEMENT TO RECEIVE THE NEXT IN-LINE FINISH ASPECT OF CONSTRUCTION.
3. THE PURPOSE OF PROJECT DRAWINGS IS TO DEPICT THE OVERALL SCOPE OF THE PROJECT. THE PROJECT DRAWINGS HAVE BEEN DEVELOPED TO SHOW A LEVEL OF DETAIL WITH THE OBJECTIVE OF PLAN CHECK APPROVAL AND ISSUANCE OF A BUILDING PERMIT. THIS MODERATE LEVEL OF DETAIL SHOULD ALLOW FOR A VARIETY OF STANDARD CONSTRUCTION METHODS AND SEQUENCES. THE PROJECT DRAWINGS ARE INTENDED TO COMPLY WITH THE ORDINANCES, RULES AND REGULATIONS OF THE JURISDICTION IN WHICH THE BUILDING IS LOCATED.
4. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNOLOGIES, SEQUENCES AND PROCEDURES.
5. CONSTRUCTION MATERIAL SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOF. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.
6. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDUM.
7. OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. THEY SHALL BE RESPONSIBLE FOR ALL CHANGES NECESSARY IF THEY CHOOSE AN OPTION AND THEY SHALL COORDINATE ALL DETAILS.
8. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.
9. TYPICAL DETAILS ARE NOT CUT ON DRAWINGS, BUT APPLY UNLESS NOTED OTHERWISE.

GENERAL NOTES - cont'd

10. IN THE CASE OF DISCREPANCIES BETWEEN THE GENERAL NOTES, SPECIFICATIONS, PLANS/DETAILS OR REFERENCE STANDARDS, THE ARCHITECT/ENGINEER SHALL DETERMINE WHICH SHALL GOVERN. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK. SHOULD ANY DISCREPANCY BE FOUND IN THE CONTRACT DOCUMENTS, THE CONTRACTOR WILL BE DEEMED TO HAVE INCLUDED IN THE PRICE THE MOST EXPENSIVE WAY OF COMPLETING THE WORK, UNLESS PRIOR TO THE SUBMISSION OF THE PRICE, THE CONTRACTOR ASKS FOR A DECISION FROM THE ARCHITECT AS TO WHICH SHALL GOVERN. ACCORDINGLY, ANY CONFLICT IN OR BETWEEN THE CONTRACT DOCUMENTS SHALL NOT BE A BASIS FOR ADJUSTMENT IN THE CONTRACT PRICE.
11. VISITS TO THE JOBSITE BY THE ENGINEER TO OBSERVE CONSTRUCTION DO NOT IN ANY WAY MEAN THAT THEY ARE THE GUARANTORS OF THE CONTRACTOR'S WORK, NOR SUPERVISION, NOR SAFETY AT THE JOBSITE.
12. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK THAT CONFORMS TO THE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) SAFETY AND HEALTH STANDARDS FOR THE CONSTRUCTION INDUSTRY.
13. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION. DO NOT PENETRATE ANY STRUCTURAL ELEMENTS (BEAMS, COLUMNS, WALLS, SLABS, STEEL DECKS, ETC.) WITHOUT PRIOR WRITTEN APPROVAL OF STRUCTURAL ENGINEER THROUGH ARCHITECT.
14. ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED.
15. CONTRACTOR SHALL COORDINATE ALL DIMENSIONS AND ELEVATIONS SHOWN ON STRUCTURAL DRAWINGS WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. NOTED SCALES ARE INTENDED FOR FULL SIZE PLANS. DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS ONLY.
16. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORTS REQUIRED FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES UNTIL STRUCTURE IS CAPABLE OF PROVIDING THIS SUPPORT.CONTRACTOR TO REFER TO AISC STEEL DESIGN GUIDE #10 "ERECTION BRACING OF LOW RISE STRUCTURAL STEEL BUILDINGS" AND TO THE NATIONAL CONCRETE MASONRY ASSOCIATION TECHNICAL GUIDE #3-4 "BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION".
17. UNLESS OTHERWISE INDICATED, ALL ITEMS NOTED TO BE DEMOLISHED SHALL BECOME THE CONTRACTOR'S PROPERTY AND BE REMOVED FROM THE SITE.
18. CONTRACTORS SHALL VISIT THE SITE PRIOR TO BID TO ASCERTAIN CONDITIONS WHICH MAY ADVERSELY AFFECT THE WORK OR COST THEREOF.

MATERIALS

STRUCTURAL STEEL	W	ASTM A992, Fy = 50 KSI
	CHANNEL & ANGLE	ASTM A36, Fy = 36 KSI
	PLATES	ASTM A36, Fy = 36 KSI
	HSS SQ OR RECT	ASTM A500, GR C, Fy = 50 KSI
	HSS ROUND	ASTM A500. GR B, Fy = 42 KSI
REINFORCING BARS		ASTM A615, GRADE 60 (NON-WELDABLE) ASTM A-1064 (WELDED WIRE REINF)
ANCHOR RODS		ASTM F1554, GRADE 36
BOLTS		ASTM A307, GALVANIZED PER ASTM A153 (ONLY WHERE NOTED ON PLANS)
HEADED STUD ANCHORS		ASTM A108
WELD METAL		E70XX ELECTRODE
ADHESIVE ANCHORS	MASONRY	HILTI HIT HY 270 OR SIMPSON STRONG-TIE SET ANCHORING ADHESIVE
WOOD		2x4 STUDS AND LARGER, HEM FIR #2 WALL SHEATHING, 24/16 OSB, EXPOSURE 1 ROOF AND FLOOR SHEATHING, 48/24 CDX PLYWOOD
COLD FORMED STEEL		STEEL STUDS, ASTM A653, 18 GA. Fy = 33 KSI U.N.O.
MASONRY		CMU BLOCK: NORMAL WEIGHT, F'c = 1900 PSI MORTAR: PORTLAND CEMENT/LIME, TYPE M OR S GROUT: F'c = 2000 PSI (28 DAYS) WALL COMPRESSIVE STRENGTH = F'M = 2000 PSI (28 DAYS)

SHOP DRAWING SUBMITTAL REQUIREMENTS

			SUBMITTAL REQUIRED	SIGNED & SEALED
			YES	YES
SECTION 1 - CONCRETE				
	1	CONCRETE MIX DESIGN	X	
	2	CONCRETE REINFORCING SHOP DRAWINGS	X	
	3	ADMIXTURES/MATERIALS/ACCESSORIES	X	
SECTION 2 - MASONRY				
	1	MASONRY REINFORCING DRAWINGS	X	
	2	MASONRY MATERIALS; GROUT, MORTAR, CMU BLOCK & BOND BEAMS	X	
	3	PRECAST CONCRETE LINTEL SUBMITTAL	X	
SECTION 3 - METALS				
	1	STEEL SHOP DRAWINGS	X	
	2	STEEL STAIR SHOP DRAWINGS & CALCULATIONS	X	X
	3	STEEL GUARDS AND RAILINGS & CALCULATIONS	X	X
	4	POST INSTALLED ANCHORS, MATERIALS, ADHESIVES	X	
	5	COLD-FORMED METAL DRAWINGS & CALCULATIONS	X	X

DELEGATED DESIGN

1	TEMPORARY SHORING OF EXCAVATIONS & BUILDING STRUCTURE DURING CONSTRUCTION. OTHER CONTRACTOR MEANS & METHODS COMPONENTS (e.g. SCAFFOLDING, FALL PROTECTION, ETC.
2	METAL STAIRS & RAILINGS

DELEGATED DESIGN SCHEDULE NOTES:
1. THE ITEMS LISTED IN THIS SCHEDULE HAVE NOT BEEN DESIGNED BY THE STRUCTURAL ENGINEER OF RECORD FOR THIS PROJECT. A SPECIALTY ENGINEER SHALL BE RETAINED BY THE CONTRACTOR TO PERFORM THE REQUIRED DESIGNS.
2. THE SPECIALTY ENGINEER SHALL BE A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT.
3. CALCULATIONS AND/OR SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL TO THE STRUCTURAL ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

FOUNDATION AND SOIL PREPARATION

SITE GRADING AND EXCAVATIONS

1. A GEOTECHNICAL ENGINEERING EVALUATION REPORT HAS NOT BEEN CONDUCTED FOR THIS PROJECT. THE CONTRACTOR IS THEREFORE RESPONSIBLE THAT ALL BUILDING CODE REQUIREMENTS ARE MET AND IN COMPLIANCE WITH THE LOCAL JURISDICTION. THE FOLLOWING NOTES ARE TYPICAL AND SHALL NOT GOVERN SITE SPECIFIC REQUIREMENTS.

2. CONFORM TO IBC CHAPTER 18 "SOILS AND FOUNDATIONS".

3. ALL TOPSOIL AND ORGANIC MATERIAL, ASPHALT, CONCRETE AND RELATED CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE PROPOSED BUILDING AND PAVEMENT AREAS AND ANY AREAS TO RECEIVE SITE GRADING FILL. FOR PLANNING PURPOSES, A MINIMUM STRIPPING THICKNESS OF 6 INCHES IS RECOMMENDED. THICKER STRIPPING DEPTHS MAY BE WARRANTED TO REMOVE ALL DETRIMENTAL ORGANICS AS DETERMINED ONCE ACTUAL STRIPPING OPERATIONS ARE PERFORMED.

4. ALL FILL AND BACKFILL SHALL BE NON-EXPANSIVE, FREE OF ORGANICS AND DEBRIS AND SHALL BE APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER. ALL FILL SHALL BE PLACED IN UNIFORM LIFTS NOT EXCEEDING 8 INCHES IN THICKNESS FOR FINE-GRAINED SOILS AND NOT EXCEEDING 12 INCHES FOR GRANULAR SOILS. ALL FILL AND BACKFILL SHALL BE COMPACTED TO THE FOLLOWING PERCENTAGES OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 OR EQUIVALENT (E.G. ASTM D4253-D4254).

4.1.	BELOW FOUNDATIONS OR SPREAD FOOTINGS.....	95%
4.2.	BELOW SLAB-ON-GRADE CONSTRUCTION.....	95%
4.3.	BELOW STREETS, PARKING LOTS, OR OTHER PAVED AREAS.....	95%
4.4.	GENERAL LANDSCAPING OR NONSTRUCTURAL AREAS.....	92%
4.5.	UTILITY TRENCH BACKFILL, TO WITHIN 2 FEET OF SURFACE.....	95%

5. IMPORTED STRUCTURAL FILL SHOULD BE NON-EXPANSIVE, FREE OF ORGANICS AND DEBRIS, AND SELECTED PER THE FOLLOWING GRADATION REQUIREMENTS:

SCREEN OR SIEVE SIZE	PERCENT PASSING BY WEIGHT
3-INCH	100
1 1/2-INCH	80-100
3/4-INCH	60-100
NO. 4	25-60
NO. 200	12 MAXIMUM

6. TOP OF FOOTING ELEVATION SHALL BE AS SHOWN ON THE FOUNDATION PLAN. THESE ELEVATIONS SHALL BE LOWERED AS REQUIRED TO OBTAIN THE REQUIRED DESIGN BEARING PRESSURE OR LOWERED BELOW NEW OR EXISTING UTILITIES PER TYPICAL DETAILS.

7. UNLESS OTHERWISE NOTED, THE FOLLOWING CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT.
   A. CONCRETE CAST AGAINST AND PERMANANTLY EXPOSED TO EARTH: 3"
   B. CONCRETE EXPOSED TO EARTH OR WEATHER:
      a. #6 THROUGH #18 BARS: 2"
      b. #5 BAR OR SMALLER: 1-1/2"

8. NO UNBALANCED BACKFILLING SHALL BE PLACED AGAINST FOUNDATION WALLS UNLESS WALLS ARE SECURELY BRACED AGAINST OVERTURNING.

9. ALL RETAINING WALLS SHALL HAVE AT LEAST 12" OF FREE-DRAINING GRANULAR BACKFILL, FULL HEIGHT OF WALL. PROVIDE CONTROL JOINTS IN RETAINING WALLS NOT TO EXCEED 25 FEET NOR 3 TIMES THE WALL HEIGHT. PROVIDE EXPANSION JOINTS AT EVERY FOURTH CONTROL JOINT, UNLESS OTHERWISE INDICATED.

SPREAD FOOTING FOUNDATIONS

1. BOTH INTERIOR AND EXTERIOR FOOTINGS SHALL BEAR ON THE PROPERLY COMPACTED NATIVE SOILS. AN ALLOWABLE SOIL BEARING PRESSURE OF 1,500 PSF WAS USED FOR ALL FOOTINGS.

2. SOILS DISTURBED BELOW THE PLANNED DEPTHS OF FOOTING EXCAVATIONS SHALL EITHER BE RECOMPACTED OR BE REPLACED WITH SUITABLE COMPACTED BACKFILL APPROVED BY THE GEOTECHNICAL ENGINEER.

3. THE BOTTOM OF THE FOOTING EXCAVATIONS SHALL BE FREE OF COBBLES AND BOULDERS TO AVOID STRESS CONCENTRATIONS ACTING ON THE BASE OF THE FOOTINGS.

4. A REPRESENTATIVE OF THE PROJECT GEOTECHNICAL ENGINEER SHALL OBSERVE ALL FOOTING EXCAVATIONS AND BACKFILL PHASES PRIOR TO THE PLACEMENT OF CONCRETE FORMWORK.

5. ALL FOUNDATIONS SHALL BEAR AT OR BELOW THE FROST DEPTH SPECIFIED.

6. NEW FOUNDATION BEARING ELEVATIONS SHALL MATCH ADJACENT EXISTING FOUNDATION BEARING ELEVATIONS, UNLESS SPECIFICALLY INDICATED OTHERWISE.

FLOOR SLABS AND EXTERIOR FLATWORK

1. FOR NORMALLY LOADED, SLAB-ON-GRADE CONSTRUCTION, A MINIMUM 6-INCH CUSHION COURSE CONSISTING OF FREE-DRAINING, CRUSHED GRAVEL SHOULD BE PLACED BENEATH THE SLABS AND COMPACTED TO A MINIMUM OF 95 PERCENT DENSITY PER ASTM D698 (OR EQUIVALENT PER ASTM D4253-D4254). THIS MATERIAL SHOULD CONFORM TO SECTION 02235 OF MPWSS AND INCORPORATE A MAXIMUM PARTICLES SIZE OF 3/4-INCH. PRIOR TO PLACING THE CUSHION COURSE, THE UPPER SIX INCHES OF SUBGRADE SHOULD BE COMPACTED TO 95 PERCENT OF MAXIMUM DENSITY PER ASTM D698.

2. SLAB-ON-GRADE CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF ACI 301 "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS".

3. ALL WELDED WIRE FABRIC SHALL BE IN ACCORDANCE WITH ASTM A-185. LAP ADJOINING PIECES AT LEAST ONE FULL MESH.

4. UNLESS OTHERWISE APPROVED, ALL WELDED WIRE FABRIC SHALL BE BLOCKED INTO THE POSITION INDICATED WITH PRECAST CONCRETE BLOCKS HAVING A COMPRESSIVE STRENGTH EQUAL TO THAT OF THE SLAB.

5. SLAB JOINTS SHOULD BE FILLED WITH APPROVED MATERIAL. THIS SHOULD TAKE PLACE AS LATE AS POSSIBLE, PREFERABLY 4-6 WEEKS AFTER THE SLAB HAS BEEN CAST. PRIOR TO FILLING, REMOVE ALL DEBRIS FROM THE SLAB JOINTS. FILL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AS FOLLOWS: FILL WITH FIELD MOLDED OR ELASTOMERIC SEALANT.

6. IN ORDER TO AVOID CONCRETE SHRINKAGE CRACKING, PLACE SLABS IN AN ALTERNATING LANE (CHECKERBOARD) PATTERN. THE MAXIMUM LENGTH OF SLAB CAST IN ANY ONE CONTINUOUS POUR IS RECOMMENDED TO BE LESS THAN 100 FEET. THE MAXIMUM SPACING OF JOINTS SHALL BE 12'.

7. THE ALTERNATE WIRES OF THE WELDED WIRE FABRIC MUST BE PRECUT AT THE SLAB CONTRACTION JOINT LOCATIONS.

8. THE USE OF POLYPROPYLENE FIBERS IN LIEU OF WELDED WIRE FABRIC IS PROHIBITED WITHOUT THE WRITTEN AUTHORIZATION OF THE ENGINEER.

9. THE FINISH TOLERANCE OF SLABS SHALL BE IN ACCORDANCE WITH ACI 302 SECTION 8.4.

10. FLOOR FLATNESS AND LEVELNESS TESTS SHALL BE CONDUCTED BY THE OWNER IN ACCORDNACE WITH ASTM E 1155. RESULTS SHALL BE PROVIDED TO THE CONTRACTOR WITHIN 48 HOURS AFTER DATA COLLECTION. REMEDIES FOR OUT OF TOLERANCE WORK SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.

11. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DRAINS. SLOPE SLAB TO DRAINS WHERE SHOWN.

LEGEND AND ABBREVIATIONS

AB	ANCHOR BOLT	HORIZ	HORIZONTAL
ACI	AMERICAN CONCRETE INSTITUTE	HSA	HEADED STUD ANCHOR
		HSS	HOLLOW STRUCT STEEL
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	IBC	INTERNATIONAL BUILDING CODE
ALT	ALTERNATE	INT	INTERIOR
APPROX	APPROXIMATE	JT	JOINT
ARCH	ARCHITECTURAL	L	STEEL ANGLE
ASTM	AMERICAN SOCIETY FOR TESTING MATERIAL	LG	LIGHT GAUGE
		LLV	LONG LEG VERTICAL
AWS	AMERICAN WELDING SOCIETY	LONG	LONGITUDINAL
		MAX	MAXIMUM
@	AT	MECH	MECHANICAL
BLDG	BUILDING	MANUF OR MFR	MANUFACTURER
BLK'G	BLOCKING	MIN	MINIMUM
BM	BEAM	MISC	MISCELLANEOUS
BOC	BOTTOM OF CONCRETE	NO. OR #	NUMBER
BOF	BOTTOM OF FOOTING	(N)	NEW
BOS	BOTTOM OF STEEL/SLAB	NTS	NOT TO SCALE
BOT	BOTTOM OF	OC	ON CENTER
BRG	BEARING	OCEF	ON CENTER EACH FACE
BTB	BACK TO BACK	OCEW	ON CENTER EACH WAY
BTWN	BETWEEN	OPP	OPPOSITE
C	STEEL CHANNEL	OWJ	OPEN WEB STEEL JOIST
CFS	COLD FORMED STEEL	PEMB	PRE-ENGINEERED METAL BUILDING
CIP	CAST IN PLACE		
CJ	CONTROL JOINT	PLCS	PLACES
℄ OR CL	CENTER LINE	PL	PLATE
CLR	CLEAR	PREFAB	PREFABRICATED
CMU	CONCRETE MASONRY UNIT	PSF	POUNDS PER SQUARE FOOT
		PSI	POUNDS PER SQUARE INCH
COL	COLUMN	PT	PRESSURE TREATED
CONC	CONCRETE	REF	REFERENCE
CONN OR CXN	CONNECTION	REINF	REINFORCEMENT
CONT	CONTINUOUS	REQ'D	REQUIRED
DEMO	DEMOLISH	REV	REVISION/REVISED
DET	DETAIL	SCH OR SCHED	SCHEDULE
DF	DOUGLAS FIR	SFE	SUBFLOOR ELEVATION
ø OR DIA	DIAMETER	SHT	SHEET
DIM	DIMENSION	SIM	SIMILAR
DJ	DOUBLE JOIST	SOG	SLAB-ON-GRADE
DWG	DRAWING	SPCS OR SPA	SPACE(S)
EA	EACH	SPEC	SPECIFICATION(S)
EA WAY OR EW	EACH WAY	SQ	SQUARE
EF	EACH FACE	STD	STANDARD
EJ	EXPANSION JOINT	STRUCT	STRUCTURAL
EL OR ELEV	ELEVATION	SYM	SYMMETRICAL
EMBED	EMBEDMENT	T&B	TOP & BOTTOM
ENG	ENGINEER	THRU	THROUGH
EOR	ENGINEER OF RECORD	TOB	TOP OF BEAM
EQ	EQUAL	TOC	TOP OF CONCRETE
EXIST OR (E)	EXISTING	TOF	TOP OF FOOTING
EXP	EXPANSION	TOS	TOP OF STEEL/SLAB
EXT	EXTERIOR	TOW	TOP OF WALL
FDT OR FND	FOUNDATION	TRANS	TRANSVERSE
FF	FINISH FLOOR	TYP	TYPICAL
FLR	FLOOR	VIF	VERIFY IN FIELD
FTG	FOOTING	VERT	VERTICAL
GA	GAUGE	UNO	UNLESS NOTED OTHERWISE
GALV	GALVANIZED	W/	WITH
GEN	GENERAL	WF	WIDE FLANGE
GLB	GLULAM BEAM	WP	WORKING POINT
GR	GRADE	WWR	WELDED WIRE REINFORCEMENT

CONCRETE

CONCRETE MASONRY UNIT

STEEL IN SECTION

ELEVATION NOTED

X — FLAG NOTE

1 — REVISION SPECIFIED

STEEL LEGEND

1 / S1.0 — SECTION OR DETAIL DESIGNATION SYMBOL; SHEET NUMBER WHERE SECTION OR DETAIL IS SHOWN

UP OR DOWN — STAIR IDENTIFICATION

XXXX — INDICATES COLUMN

BPX — INDICATES BASE PLATE, SEE SCHEDULE Sx.x

DRAWING SCHEDULE

DRAWING NUMBER NOMENCLATURE

S0.01
- DRAWING NUMBER IN SERIES
- DRAWING SERIES
- DISCIPLINE

DRAWING NUMBER	DRAWING NAME	ISSUE DATE	ISSUE DESCRIPTION: 75% PROGRESS SET	ISSUE DESCRIPTION: ISSUE FOR BID
			01/09/23	01/31/23
S0.00	GENERAL STRUCTURAL NOTES		X	X
S0.01	GENERAL STRUCTURAL NOTES		X	X
S0.02	GENERAL STRUCTURAL NOTES		X	X
S0.04	SPECIAL INSPECTIONS		X	X
S1.00	FOUNDATION PLAN		X	X
S1.10	SECOND FLOOR FRAMING PLAN		X	X
S1.20	ROOF FRAMING PLAN		X	X
S4.00	FOUNDATION SECTIONS		X	X
S5.00	FRAMING SECTIONS		X	X
S5.01	ROOF FRAMING SECTIONS		X	X
S6.00	TYPICAL FOUNDATION DETAILS			X
S6.10	TYPICAL FRAMING DETAILS			X
	TOTAL		12	

NOT FOR CONSTRUCTION, FOR REVIEW

LINN ARCHITECTS
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GENERAL STRUCTURAL NOTES

EDDYSTONE BOROUGH POLICE BUILDING ADDITION

1300 E. 12TH ST., EDDYSTONE, PA 19022

REV	DATE	REVISION
B	01/31/23	ISSUE FOR BID
A	01/09/23	75% PROGRESS SET

DATE 01/31/23
SCALE AS NOTED
DRAWN BY: NYO
CHECKED BY: PMH
PROJ. NO.: M22-161

SHEET NO.

S0.00

WOOD

1. ALL WOOD TO BE CONSTRUCTED USING STANDARD PRACTICES. LATEST EDITION OF NATIONAL DESIGN SPECIFICATION (NDS) APPLIES.
2. PROVIDE ALL ACCESSORY ITEMS FOR ENGINEERED WOOD PRODUCTS (BLOCKS, CLIPS, STRAPS, STIFFENERS, ETC.) DESIGNED BY THE MANUFACTURER AS REQUIRED.
3. ENGINEERED WOOD JOISTS SHALL BE MANUFACTURED IN ACCORDANCE WITH PRI-400 PERFORMANCE STANDARD FOR APA EWS I-JOISTS.
4. FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION OF ALL ENGINEERED WOOD PRODUCTS AND ALL FRAMING CONNECTORS, HANGERS AND ANCHORS.
5. PROVIDE FULL BEARING (MIN 3") FOR ALL FRAMING MEMBERS UNLESS SHOWN OTHERWISE.
6. ALL FRAMING TO BE HEM FIR #2 OR BETTER (UNO).
7. ALL JOISTS AND RAFTERS SHALL HAVE BRIDGING AT MAXIMUM 8'-0" O.C. MINIMUM ONE ROW OF BRIDGING AT MIDSPAN. ANY JOISTS THAT DO NOT HAVE SHEATHING ON THE TOP FACE SHALL HAVE BRIDGING AT 4'-0" O.C. ANY ROOF RAFTERS THAT DO NOT HAVE SHEATHING ON THE BOTTOM FACE SHALL HAVE BRIDGING AT 4'-0" O.C.
8. WALLS TO HAVE 8d NAILS @ 6" OC AT EDGE AND 12" OC IN FIELD, FULLY BLOCKED. ALL OPENINGS TO HAVE 8d NAILS @ 3" OC ALL AROUND, UNO ON SHEAR WALL PLANS.
9. PLACE FLOOR AND ROOF SHEATHING WITH FACE GRAIN PERPENDICULAR TO THE SUPPORTS AND JOINTS STAGGERED OVER SUPPORTS. PLACE WALL SHEATHING WITH FACE GRAIN VERTICAL. PROVIDE 2X BLOCKING AT UNSUPPORTED PANEL EDGES.
10. ALL TIMBER SHALL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS OUTLINED IN CHAPTER 23 OF THE IBC INCLUDING USING THE FASTENING SCHEDULE (TABLE 2304.10.1 OF IBC), EXCEPT AS NOTED DIFFERENTLY ON PLANS.
11. ALL MULTIPLE 2x BEAMS AND HEADERS SHALL BE JOINED TOGETHER WITH 1/2" DIAMETER LAG OR THRU BOLTS AT 24" ON CENTER, STAGGERED.
12. PROVIDE 2x BLOCKING IN ALL BEARING & SHEAR WALLS, AT THIRD POINTS OF THE HEIGHT, WHERE SHEATHING OR GWB ONLY OCCURS ON ONE (1) SIDE.
13. ALL ROOF AND FLOOR SHEATHING SHALL BE CDX PLYWOOD. ALL WALL SHEATHING SHALL BE ORIENTED STRAND BOARD. WALL SHEATHING SHALL EXTEND AND ATTACH TO (USING MIN 10d NAILS @ 4" OC, UNO) THE TOP AND BOTTOM OF THE WALL TOP AND BOTTOM HORIZONTAL PLATES (RESPECTIVELY). NO HORIZONTAL JOINT OF THE PLYWOOD CAN BE WITHIN 2' OF THE TOP OR BOTTOM PLATE.
14. TYPICAL SUB-FLOOR SHALL BE 3/4" TONGUE & GROOVE APA RATED STURD-I-FLOOR PLYWOOD NAILED W/ 10d @ 6" OC AT SHEET EDGES AND 12" OC FIELD. S.A.D. FOR GYPCRETE TOPPING, TYPICAL ROOF SHEATHING SHALL BE MIN 15/32" THICK APA SPAN RATED CD-X PLYWOOD NAILED W/ 10d @ 6" OC AT SHEET EDGES AND 12" OC FIELD.
15. ALL PLYWOOD SHALL BE IN ACCORADANCE WITH THE AMERICAN PLYWOOD ASSOCIATION (APA) SPECIFICATIONS AND IBC CHAPTER 23.
16. ALL NAILS SHALL BE COMMON NAILS UNO.
17. WOOD CONNECTORS AND FASTENERS SHALL BE OF THE SAME MATERIAL AND FINISH. FOR UNTREATED WOOD, USE G90 ZINC GALV FINISH. FOR PRESSURE-TREATED WOOD WITH NO AMMONIA, USE ZMAX G185 ZINC GALV FINISH. FOR OTHER PRESSURE-TREATED WOOD, USE TYPE 316L STAINLESS STEEL.
18. ALL METAL FASTENERS AND CONNECTORS IN CONTACT WITH P.T. WOOD SHALL BE GALVANIZED.
19. ALL LUMBER IN CONTACT WITH GROUND, CONCRETE OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA U1. ALL METAL EXPOSED TO WEATHER OR IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE STAINLESS STEEL, HOT DIPPED GALVANIZED (MIN G180) OR OTHERWISE PROTECTED AGAINST CORROSION.
20. BRACE STUD WALLS UNTIL ALL PLYWOOD SUB-FLOOR, FLOOR TRUSSES, ROOF TRUSSES AND SHEAR PANELS ARE IN PLACE.
21. ANCHOR RODS FOR HOLDOWNS SHALL HAVE TACK WELDED NUT OR DOUBLE NUT ON EMBEDDED END UNO. EMBEDMENT AS LISTED ON PLANS SHALL BE MEASURED FROM THE TOP OF THE UPPERMOST EMBEDDED NUT TO THE TOP OF THE CONCRETE.
22. ALL NAILING SHALL BE CAREFULLY DRIVEN AND NOT OVERDRIVEN.

CONCRETE

1. CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301, "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE". ALL REINFORCING SHALL CONFORM TO THE CRSI SPECIFICATIONS & HANDBOOK. CONCRETE PLACEMENT SHALL MEET ALL COLD WEATHER AND HOT WEATHER REQUIREMENTS OUTLINED IN ACI 306 & 305 RESPECTIVELY.
2. ADDITION OF WATER TO THE BATCH FOR MATERIAL WITH INSUFFICIENT SLUMP WILL NOT BE PERMITTED, UNLESS THE SUPPLIER HAS SPECIFICALLY WITHHELD WATER FROM THE BATCH AT THE PLANT. IN SUCH CASE THE MIX DESIGN AND TRUCK TICKET MUST CLEARLY STATE THE MAXIMUM AMOUNT OF WATER THAT CAN BE ADDED TO THE BATCH ON SITE. IN NO CASE SHALL THE DESIGN WATER TO CEMENTITIOUS MATERIAL RATIO BE EXCEEDED.
3. CONCRETE CONTAINING SUPERPLASTICIZING ADMIXTURE SHALL HAVE A SLUMP OF 4" +/- 1", TO BE FIELD VERIFIED, PRIOR TO ADDING ADMIXTURE, AND NOT EXCEEDING 8" AT PLACEMENT.
4. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, INCLUDING SLABS ON GRADE AT 2'-0" O.C. AROUND UNDER-FLOOR DUCTS AND SLAB EDGES, REINFORCING, KEYS, ETC.
5. IF CONCRETE IS PLACED BY THE PUMP METHOD, SUPPORTS SHALL BE PRODUCED FOR THE HOSE. THE HOSE SHALL NOT BE ALLOWED TO CONTACT THE REBAR OR TENDONS. THIS REQUIREMENT IS MANDATORY. DISCHARGE SHALL BE DIRECTED SO AS TO PREVENT DISPLACEMENT OF REBAR, TENDONS, OR ACCESSORIES.
6. REINFORCING SHALL BE CONTINUOUS AROUND ALL CORNERS AND THROUGH CONSTRUCTION JOINTS UNLESS SHOWN OTHERWISE.
7. REINFORCING STEEL SHALL NOT BE BENT OR STRAIGHTENED IN A MANNER INJURIOUS TO THE CONCRETE OR STEEL.
8. ALL REINFORCING TO BE WELDED SHALL BE WELDED IN ACCORDANCE WITH AWS D1.4. NO TACK WELDING OF REINFORCING BARS IS ALLOWED WITHOUT PRIOR REVIEW OF PROCEDURE BY STRUCTURAL ENGINEER.
9. ALL CONDUITS, GROUND WIRES, DRAINS, ANCHOR BOLTS, OTHER EMBEDDED ITEMS, ETC. SHALL BE IN PLACE BEFORE CONCRETE PLACEMENT.
10. REINFORCING LAP SPLICES IN CONCRETE SHALL BE PER TYPICAL DETAIL UNLESS NOTED OTHERWISE. ALL SPLICE LOCATIONS ARE SUBJECT TO APPROVAL. PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT CORNERS AND INTERSECTIONS OF FOOTINGS AND WALLS.
11. ALL FIELD BENDING OF REINFORCING SHALL BE STANDARD 90 DEGREE HOOKS AS DEFINED IN CURRENT ACI 318 UNLESS NOTED OR DETAILED OTHERWISE.
12. WHEN TOTAL NUMBER OF REINFORCING BARS IS SHOWN ON DESIGN DRAWINGS AND SPACING IS NOT SPECIFIED, BARS SHALL BE EQUALLY SPACED.
13. DETAILS OF REINFORCING NOT SHOWN IN THESE PLANS SHALL BE DONE IN ACCORDANCE WITH ACI 315 AND ACI 318.
14. ALL REINFORCING STEEL SHALL BE SET AND TIED IN PLACE PRIOR TO POURING OF CONCRETE, EXCEPT THAT VERTICAL DOWELS FOR MASONRY WALL REINFORCING MAY BE "FLOATED" IN PLACE. DO NOT FIELD BEND BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE UNLESS SPECIFICALLY INDICATED OR APPROVED BY THE ENGINEER.
15. BAR SUPPORTS AND HOLDING BARS SHALL BE PROVIDED FOR ALL REINFORCING STEEL TO INSURE MINIMUM CONCRETE COVER. BAR SUPPORTS SHALL BE PLASTIC TIPPED OR STAINLESS STEEL.
16. DRILLED PIER CONCRETE SHALL BE CHANNELED TO FREE FALL DOWN THE SHAFT WITHOUT STRIKING THE REINFORCING OR THE SIDES OF THE SHAFT. MAXIMUM HEIGHT OF FREE-FALL IS 10'-0".
17. ALL SLABS-ON-GRADE SHALL HAVE CONTROL JOINTS CUT IN CONCRETE WITHIN 8 HOURS OF PLACEMENT AT A SPACING NO GREATER THAN 10' O.C.E.W. (U.N.O. ON PLANS).
18. FORMWORK SHALL REMAIN IN PLACE UNTIL CONCRETE HAS OBTAINED AT LEAST 90% OF ITS 28 DAY COMPRESSIVE STRENGTH.
19. ALL EDGES OF PERMANENTLY EXPOSED CONCRETE SURFACES SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.
20. ALL CONCRETE FILL ON METAL DECK SHALL BE REINFORCED WITH ONE LAYER OF WELDED WIRE FABRIC LOCATED 1" CLEAR FROM THE TOP OF THE SLAB. CONCRETE ON METAL DECK MUST BE IN ACCORDANCE WITH ACI 318 AND 301. ADMIXTURES CONTAINING CHLORIDES ARE PROHIBITED.
21. CONCRETE PROPERTIES (SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS):

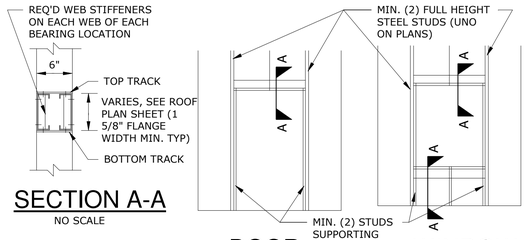
CONCRETE MATERIAL SCHEDULE

USAGE	UNIT WEIGHT	f'c (PSI)	MAX W/C	AIR CONTENT	EXPOSURE CLASS
FOUNDATION CONCRETE	145 PCF	4500	0.45	6%	F2
EXTERIOR SITE WORK	145 PCF	4500	0.45	6%	F2
INTERIOR SLAB ON GRADE	145 PCF	4000	0.50	3%	F0

NOTES:
1. FOUNDATION CONCRETE INCLUDES FOOTINGS, WALLS & PIERS
2. TOLERANCE FOR UNIT WEIGHT IS ±3 PCF
3. TOLERANCE FOR AIR CONTENT IS ±1.5% (ASTM C567) WHERE A RANGE IS NOT PROVIDED
4. [INCLUDE PERMEABILITY REDUCING ADMIXTURE (HYCRETE W1000 OR EQUAL)]
5. [INCLUDE PERMEABILITY REDUCING ADMIXTURE (HYCRETE W1002 OR EQUAL SUITABLE FOR AIR ENTRAINED CONCRETE)]

COLD-FORMED STEEL STUD NOTES

1. ALL STEEL STUDS SHALL HAVE 1 5/8" WIDE FLANGES WITH 1/2" LIP LENGTH MINIMUM. ALL EXTERIOR STUDS SHALL BE 6" DEEP AT A MINIMUM, UNLESS NOTED OTHERWISE.
2. ALL COLD-FORMED PRODUCTS SHALL BE MADE FROM SHEET STEEL MEETING ASTM A1003/A1003m STRUCTURAL GRADE, G60 METALLIC COATING, AND HAVE A MINIMUM YIELD STRENGTH OF 33 ksi FOR 18 AND 20 GAUGE MEMBERS AND A STRENGTH OF 50 ksi FOR 12, 14, AND 16 GAUGE MEMBERS.
3. ALL STEEL STUDS AND HEADERS SHALL CONFORM TO AND BE INSTALLED ACCORDING TO THESE SPECIFICATIONS AND PLANS AND ALSO THE MANUFACTURER'S RECOMMENDED PROCEDURES.
4. THE GAUGE OF ALL TRACKS SHALL BE NO LIGHTER THAN THE FRAMING BEING CONNECTED. UNLESS OTHERWISE INDICATED, CONNECT TRACKS TO CONCRETE WITH 0.145" DIA POWER DRIVEN FASTENERS (WITH 1.25" EMBEDMENT) AT 16" O.C.
5. COORDINATE ALL FRAMING AS NECESSARY WITH ARCHITECTURAL CONDITIONS AND DIMENSIONS.
6. ABOVE ALL WINDOWS WITH BRICK VENEER ABOVE, INSTALL 4x4x1/4" STEEL ANGLE, BEARING 1'-0" ON BRICK EACH SIDE, AND SCREWED TO HEADER WITH (2)#10 SCREWS @ 6" OC.
7. ALL DOORS AND WINDOWS AROUND THE PERIMETER OF THE BUILDING IN THE EXTERIOR STUD WALL AREAS ONLY (i.e. MINIMAL VERTICAL LOADS), SHALL CONTAIN THE FOLLOWING BOX STUD SYSTEM AS A HEADER FOR DOORS AND WINDOWS AND A SILL BEAM FOR WINDOWS (UNO).



SECTION A-A
NO SCALE

DOOR

WINDOW

8. PROVIDE BRIDGING FOR STUDS, JOISTS, AND RAFTERS AT MIDSPAN AND AT AMINIMUM SPACING NOT TO EXCEED 4'-0". THIS BRACING SHALL BE EITHER 1 1/2" 18 GAUGE STRAP BOTH SIDES, OR 18 GAUGE COLD ROLLED U-CHANNEL THRU PUNCHED HOLES AND INSTALLED BY WELDING, CLIP ANGLES, OR OTHER APPROVED PER MANUFACTURER'S REQUIREMENTS FOR A FULLY BRACED SYSTEM. LATERAL BRACING TO BE INSTALLED PRIOR TO THE ADDITION OF ANY LOADING.
9. PROVIDE WEB STIFFENERS AT JOIST AND RAFTER BEARINGS IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
10. #8 TEK SCREWS SHALL BE USED AT ALL CONNECTIONS UNLESS NOTED OTHERWISE.
11. STEEL STUDS SHALL BE 18 GAUGE AND SPACED @ 16" OC MAXIMUM, UNLESS NOTED OTHERWISE ON THE PLANS. CLEAR SPAN HEIGHT OF STUDS SHALL BE 13'-6".
12. ALL STRUCTURAL MEMBERS SHALL BE PROPERLY CONNECTED TO EACH OTHER AND TO THE SUPPPORTING BACK-UP FRAMING. FASTENINGS SHALL BE MADE WITH SELF TAPPING SCREWS OR WELDS OF SUFFICIENT SIZE TO INSURE THE CONNECTION STRENGTH.
13. DESIGN EXTERIOR NONLOAD-BEARING CURTAINWALLS FOR A MAXIMUM DEFLECTION OF L/600. DESIGN ROOF RAFTER FRAMING AND CEILING JOIST FRAMING FOR A MAXIMUM DEFLECTION OF L/360.

MASONRY

1. MASONRY WORK SHALL CONFORM TO ALL REQUIREMENTS OF TMS 402-16, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES".
2. HOLLOW CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90, GRADE N, TYPE I. F'm FOR DESIGN IS 2000 PSI.
3. FILL ALL BOND BEAMS AND REINFORCED CELLS SOLIDLY WITH GROUT. GROUT SHALL CONFORM TO ASTM C-476 AND SHALL OBTAIN MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI.
4. THE USE OF MASONRY-CEMENT MORTAR IS STRICTLY PROHIBITED. MORTAR SHALL CONFORM TO ASTM C-270, TYPE S. ALL MORTAR SHALL MEET THE "PROPORTION SPECIFICATION" OF ASTM C-270 AND BE MADE WITH PORTLAND CEMENT/LIME (NON AIR-ENTRAINED).
5. ALL UNITS SHALL BE LAID IN RUNNING BOND UNLESS NOTED OTHERWISE. BOND CORNERS AND INTERSECTIONS OF LOAD-BEARING WALLS.
6. VERTICAL REINFORCING (UNLESS NOTED OTHERWISE):

   PLACE #5 (8" WALL) BAR IN CENTER OF GROUT AT CENTER OF WALL, CONTINUOUS FULL HEIGHT OF WALL, WITH ONE BAR AT ALL CORNERS, INTERSECTIONS, WALL ENDS, BEAM BEARING, JAMBS AND EACH SIDE OF CONTROL JOINTS AND AT INTERVALS NOT TO EXCEED 48" O.C.. TIE AT 8'-0" VERTICALLY, WITH SINGLE WIRE LOOP TIE BY AMERICAN WIRE TIE PRODUCTS COMPANY (OR EQUAL). DOWEL ALL VERTICAL REINFORCING TO FOUNDATION WITH STANDARD 90 DEGREE HOOKED DOWELS TO MATCH VERTICAL REINFORCING.
7. HORIZONTAL REINFORCING (UNLESS NOTED OTHERWISE):

   PLACE (2) #5 (8" WALL) BARS IN MINIMUM 8" DEEP GROUTED CONTINUOUS BOND BEAM AT ROOF AND ELEVATED FLOOR LINES. PLACE #5 (8" WALL) BAR IN MINIMUM 8" DEEP GROUTED CONTINUOUS BOND BEAM AT TOP OF PARAPET OR TOP OF FREE-STANDING WALL. PLACE THESE BARS CONTINUOUS THROUGH CONTROL JOINTS. WRAP MASTIC TAPE FOR 1'-6" EACH SIDE OF CONTROL JOINT. PROVIDE BENT BARS, TO MATCH HORIZONTAL BOND BEAM REINFORCING, AT CORNERS AND WALL INTERSECTIONS TO MAINTAIN BOND BEAM CONTINUITY. STAGGER ALTERNATE SPLICES A MINIMUM OF 4'-0". PROVIDE STANDARD WEIGHT (NO. 9 GAUGE WIRE) DUR-O-WALL OR DUR-O-WIRE LADDER TYPE JOINT REINFORCING AT 16" O.C. IN MASONRY WALLS. LAP JOINT REINFORCING 6" MINIMUM.
8. MECHANICALLY VIBRATE GROUT IN VERTICAL SPACES IMMEDIATELY AFTER POURING. PROVIDE CLEANOUTS IF GROUT POUR EXCEEDS 5'-0" IN HEIGHT. IF CLEANOUTS ARE PROVIDED, GROUT POUR MAXIMUM HEIGHT = 12'-0", IN LIFTS NOT TO EXCEED 6'-0".
9. PROVIDE CMU CONTROL JOINTS AS INDICATED ON THE ARCHITECTURAL DRAWINGS, WITH ADDITIONAL JOINTS SUCH THAT THE SPACING BETWEEN JOINTS DOES NOT EXCEED 3 X WALL HEIGHT (20' MAXIMUM).
10. THE MASONRY CONTRACTOR SHALL PROVIDE ALL REQUIRED TEMPORARY WALL BRACING DURING CONSTRUCTION.
11. (2) #4 HORIZONTAL BARS SHALL BE PLACED AT THE BOTTOM OF ALL MASONRY OPENINGS GREATER THAN 9" WIDE IN FULLY GROUTED CELLS WITH HORIZONTAL LINTEL REINFORCING AT THE TOP OF ALL OPENINGS (AS INDICATED IN THE LINTEL SCHEDULE). REBAR SHALL EXTEND 24" MINIMUM BEYOND OPENINGS.
12. (1) #5 VERTICAL REBAR SHALL BE PLACED IN FULLY GROUTED CELLS ON EACH SIDE OF OPENINGS GREATER THAN 9" WIDE. REBAR AND GROUTED CELLS SHALL EXTEND THE FULL HEIGHT OF THE WALL FROM DIAPHRAGM TO DIAPHRAGM.
13. PROVIDE REBAR DOWELS FROM FOUNDATIONS TO MATCH VERTICAL REINFORCING SIZE AND SPACING. DOWELS SHALL HAVE STANDARD 90 DEGREE HOOKS AND LAP WITH THE FIRST LIFT OF REINFORCING.
14. PROVIDE STANDARD, GALVANIZED 9 GAUGE HORIZONTAL JOINT REINFORCING AT 16" O.C. IN ALL WALLS. PROVIDE TRUSS TYPE JOINT REINFORCING FOR ALL CONCRETE MASONRY. UNLESS OTHERWISE NOTED STOP HORIZONTAL JOINT REINFORCING AT CONTROL JOINTS.
15. PROVIDE 3 COURSES OF SOLIDLY GROUTED CMU BELOW ALL BEAM/JOIST BEARINGS OVER A WIDTH OF 2'-8" CENTERED ON THE BEAM/JOIST.
16. REBAR SPLICE LENGTHS SHALL BE 48 BAR DIAMETERS.
17. HOT AND COLD WEATHER MASONRY WORK SHALL BE IN ACCORDANCE WITH ACI 530.1.

NOT FOR CONSTRUCTION, FOR REVIEW

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GENERAL STRUCTURAL NOTES

EDDYSTONE BOROUGH POLICE BUILDING ADDITION

1300 E. 12TH ST., EDDYSTONE, PA 19022

REV	DATE	REVISION
B	01/31/23	ISSUE FOR BID
A	01/09/23	75% PROGRESS SET

DATE 01/31/23
SCALE AS NOTED
DRAWN BY: NYO
CHECKED BY: PMH
PROJ. NO.: M22-161

SHEET NO.

S0.01

TESTING AND INSPECTIONS

1. THE OWNER OR OWNER'S REPRESENTATIVE SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTION AGENCY TO SAMPLE MATERIALS, PERFORM TESTS, INSPECT WORK, AND SUBMIT REPORTS TO ASCERTAIN CONFORMANCE WITH THE CONTRACT DOCUMENTS AND DESIGN PROFESSIONAL REVIEWED SUBMITTALS.

2. THE INDEPENDENT TESTING AND INSPECTION AGENCY SHALL PREPARE AND SUBMIT REPORTS OF INSPECTIONS AND TESTING WHICH INCLUDE, BUT ARE NOT LIMITED TO, PROJECT IDENTIFICATION NAME, PROJECT NUMBER, DATE OF REPORT, DATE OF INSPECTION OR TEST, NAME OF AGENCY, NAME OF PERSONNEL WHO PERFORMED THE TEST OR INSPECTION, SPECIFIC LOCATION OF TEST OR INSPECTION, STATEMENT OF COMPLIANCE OR NONCOMPLIANCE DEFICIENCY, AND ANY OTHER PERTINENT INFORMATION. "NONCOMPLIANCE" REPORTS SHALL BE RECTIFIED AND SUPERSEDED BY A "COMPLIANCE" REPORT.

3. THE INDEPENDENT TESTING AND INSPECTION AGENCY/CONSTRUCTION MANAGER/GENERAL CONTRACTOR SHALL MAINTAIN A NONCOMPLIANT DEFICIENCIES LOG FOR INSPECTION AND TESTING RESULTS THAT REQUIRE REMEDIATION AND RE-INSPECTION. NOTIFY THE ENGINEER OF RECORD DAILY OF NONCOMPLIANCE DEFICIENCES LOGGED.

4. CONTRACTORS SHALL COOPERATE AND FACILITATE THE WORK OF THE INDEPENDENT INSPECTION AND TESTING AGENCY.

5. [THE INDEPENDENT TESTING AND INSPECTION AGENCY SHALL PERFORM INSPECTIONS AND TESTING OF EARTHWORK AND FOUNDATION BEARING CAPACITIES PER THE FOLLOWING MINIMUM REQUIREMENTS:

   A. INSPECTION AND TESTING SHALL BE PERFORMED BY A GRADUATE ENGINEER, EDUCATED IN THE FIELD OF GEOTECHNICAL ENGINEERING AND UNDER THE DIRECT SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER SUBMITTING CERTIFICATION.

   B. TEST FOUNDATION SUBGRADE BEARING CAPACITIES.

   C. TEST EARTHWORK COMPACTION.

6. THE INDEPENDENT TESTING AND INSPECTION AGENCY SHALL PERFORM INSPECTIONS AND TESTING OF CONCRETE AND CONCRETE REBAR IN ACCORDANCE WITH ACI 301 AND PER THE FOLLOWING MINIMUM REQUIREMENTS:

   A. TEST COMPOSITE SAMPLES OF FRESH CONCRETE ACCORDING TO ASTM C172. OBTAIN ONE COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIX EXCEEDING 5 CUBIC YARDS BUT LESS THAN 25 CUBIC YARDS. OBTAIN AN ADDITIONAL SET FOR EACH ADDITIONAL 50 CUBIC YARDS OR FRACTION THEREOF.

   B. PERFORM SLUMP TESTS, ACCORDING TO ASTM C143, AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S OUR OF EACH CONCRETE MIX. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.

   C. PERFORM AIR CONTENT TESTS, PER ASTM C231, FOR MORMAL WEIGHT CONCRETE. PERFORM ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX.

   D. PERFORM ONE CONCRETE TEMPERATURE TEST, PER ASTM C1064, FOR EACH COMPOSITE SAMPLE. PERFORM SAME TEST HOURLY WHEN AIR TEMPERATURE IS 40°F AND BELOW OR 80°F AND ABOVE.

   E. PERFORM UNIT WEIGHT TEST, PER ASTM C567, FOR EACH LIGHTWEIGHT CONCRETE COMPOSITE SAMPLE BUT NOT LESS THAN ONE TEST PER EACH DAY'S POUR.

   F. CAST AND LABORATORY CURE, PER ASTM C31, ONE SET OF FOUR STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE. PERFORM COMPRESSIVE STRENGTH TESTS, PER ASTM C39, FOR TWO (2) LABORATORY-CURED SPECIMENS AT 7 DAYS AND TWO (2) AT 28 DAYS.

   G. COMPRESSIVE-STRENGTH TEST REPORTS SHALL INCLUDE THE FOLLOWING IN ADDITION TO THE STANDARD REPORT INFORMATION NOTE PREVIOUSLY: DATE OF CONCRETE PLACEMENT, CONCRETE MIX PROPORTIONS AND MATERIALS, CONCRETE TRUCK BATCH TICKET NUMBER, SPECIFIC LOCATION OF CONCRETE BATCH IN WORK, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, COMPRESSIVE BREAKING STRENGTH, TYPE OF BREAK FOR 7 AND 28 DAY TESTS, AND STATEMENT OF COMPLIANCE OR NONCOMPLIANCE DEFICIENCY AND ANY OTHER PERTINENT INFORMATION.

   H. INSPECTION AGENCY SHALL INSPECT PLACEMENT OF CONCRETE REBAR FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS AND ENGINEER OF RECORD REVIEWED SHOP DRAWINGS.

7. THE INDEPENDENT TESTING AND INSPECTION AGENCY SHALL PERFORM INSPECTIONS AND TESTING OF STRUCTURAL STEEL PER THE FOLLOWING MINIMUM REQUIREMENTS:

   A. STRUCTURAL STEEL BOLTED CONNECTION SHALL BE VISUALLY INSPECTED IN ACCORDANCE WITH RSCC'S "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 AND A490 BOLTS"

   B. STRUCTURAL STEEL FIELD WELDED CONNECTIONS SHALL BE VISUALLY INSPECTED IN ACCORDANCE WITH AWS D1.1. FIELD WELDS THAT FAIL VISUAL INSPECTION SHALL BE TESTED WITH A NON-DESTRUCTIVE METHOD IN ACCORDANCE WITH AWS D1.1.

   C. IN ADDITION TO TESTING FIELD WELDS THAT FAIL THE VISUAL INSPECTION, THE TESTING AND INSPECTION AGENCY SHALL TEST A MINIMUM OF 10% OF FIELD WELDS USING A NON-DESTRUCTIVE METHOD.

   D. METAL STAIRS SHALL BE VISUALLY INSPECTED.

8. THE INDEPENDENT TESTING AND INSPECTION AGENCY SHALL PERFORM INSPECTIONS AND TESTING OF MASONRY AND MASONRY REBAR PER THE FOLLOWING MINIMUM REQUIREMENTS:

   A. INSPECT REINFORCEMENT PLACEMENT AND GROUTING FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS AND ENGINEER REVIEWED SUBMITTAL DRAWINGS.

   B. TEST ONEMASONRY UNIT ACCORDING TO ASTM C140 FOR EACH SIZE AND STRENGTH OF CMU INDICATED. TEST THREE SAMPLES FROM MATERIALS DELIVERED TO THE SITE.

   C. TEST MORTAR MIX COMPRESSIVE STRENGTH ACCORDING TO ASTM C780 FOR EACH TYPE OF MORTAR INDICATED. PREPARE FOUR (4) SAMPLES AND TEST TWO (2) AT 7 DAYS AND TWP (2) AT 28 DAYS.

   D. TEST GROUT COMPRESSIVE STRENGTH ACCORDING TO ASTM C1019 FOR EACH STRENGTH OF GROUT INDICATED. PREPARE FOUR SAMPLES AND TEST TWO (2) AT 7 DAYS AND TWO (2) AT 28 DAYS.

ANCHOR ROD NOTES

1. ANCHOR ROD LOCATIONS AND DIAMETERS ARE PER BUILDING MANUFACTURER.

2. ALL ANCHOR RODS SHALL BE EITHER HEADED OR DOUBLE NUT WITH 1/4"x2"x2" STEEL WASHER.

3. MINIMUM EMBEDMENT:

   3.1. 3/4"ø RODS = 12"
   3.2. 1" ø RODS = 22"

4. ANCHOR RODS SHALL BE ASTM F1554 GR 36 MATERIAL.

5. ANCHOR NUTS SHALL BE INSTALLED SNUG TIGHT.

6. EPOXY AND EXPANSION ANCHORS SHALL BE HILTI (OR EQUAL) INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.

STRUCTURAL SUBMITTALS

1. SHOP DRAWINGS AND OTHER ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICTAION. THE ENGINEER'S REVIEW IS FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS. THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK, AND COORDINATE THE SHOP DRAWINGS PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, DIMENSIONS, ETC.

2. PREPARE AND SUBMIT A SCHEDULE OF STRUCTURAL SUBMITTALS. SUBMITTALS SHALL BE LISTED IN CHRONOLOGICAL ORDER BY DATES REQUIRED FOR CONSTRUCTION. ESTABLISH REVIEW DATES BASED ON TIME REQUIRED FOR REVIEW, ORDERING, FABRICATION, AND DELIVERY OF MATERIALS. SCHEDULE SHALL INCLUDE ADDITIONAL TIME FOR ADDITIONAL REVIEWS OF SUBMITTALS WHEN CORRECTIONS OR REVISIONS ARE NEEDED. SUBMITTAL REVIEW PERIODS MAY NOT OVERLAP BY MORE THAN ONE WEEK. ENGINEER IS NOT RESPONSIBLE FOR DELAYS RESULTING FROM SUBMISSION OF OVERLAPPING SUBMITTAL PACKAGES.

3. PREPARE SUBMITTALS INTO PDF PACKAGES, INCORPORATING COMPLETE INFORMATION INTO EACH PDF FILE. SUBMITTAL FILE NAMES SHALL BE A REASONABLE LENGTH. RED-LINED REVIEW PDF FILES WILL BE RETURNED.

4. USE OF THE CONTRACT DOCUMENTS AS SHOP DRAWINGS IS PROHIBITED. THE FABRICATOR/DETAILER/SUPPLIER SHALL PREPARE THEIR OWN SHOP DRAWINGS.

5. ALLOW A MINIMUM OF 10 BUSINESS DAYS FOR REVIEW OF EACH SUBMITTAL & RE-SUBMITTAL. ALLOW ADDITIONAL TIME, 15 BUSINESS DAYS MINIMUM, WHERE A SEQUENTIAL REVIEW IS REQUIRED BY TWO OR MORE DESIGN PROFESSIONALS.

6. THE CONTRACTOR SHALL COORDINATE SUBMITTALS THAT REQUIRE SEQUENTIAL REVIEW. ENGINEER RESERVES THE RIGHT TO WITHHOLD ACTION ON A SUBMITTAL REQUIRING COORDINATION WITH OTHER SUBMITTALS UNTIL RELATED SUBMITTALS ARE RECEIVED.

7. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR BEFORE SUBMITTAL TO THE ENGINEER OR ARCHITECT. SHOP DRAWINGS WILL BE REJECTED IF THE CONTRACTOR HAS NOT REVIEWED THE SHOP DRAWINGS PRIOR TO SUBMITTAL TO ENGINEER OR ARCHITECT.

8. SHOP DRAWING SUBMITTALS SHALL BE PROPORTIONED INTO REASONABLY SIZED PACKAGES, CONTAINING NOT MORE THAN [100] [150] [200] SHEETS PER SUBMITTAL, UNLESS APPROVED BY ENGINEER PRIOR TO SUBMISSION.

9. ALL NOTES OR QUESTIONS FROM THE DETAILER TO THE ENGINEER OR ARCHITECT SHALL BE CLOUDED, NUMBERED, AND WITH THE TEXT"ARCH/ENGR REVIEW". ANY NOTES OR QUESTIONS FROM THE DETAILER TO THE CONTRACTOR SHALL BE CLOUDED, NUMBERED, AND WITH THE TEXT "G.C. REVIEW".

10. SEE MATERIAL SPECIFICATIONS FOR POSSIBLE ADDITIONAL SUBMITTAL REQUIREMENTS.

CONCRETE

1. CONCRETE MIX DESIGNS AND ASSOCIATED PRODUCT DATA, IN ACCORDANCE WITH ACI 301, ACI 211.1, AND ACI 211.2, SHALL BE SUBMITTED FOR REVIEW PRIOR TO PLACEMENT. SUBMITTAL SHALL INCLUDE COMPRESSIVE STRENGTH TEST RESULTS, [SPLITTING TENSILE STRENGTH DATA (ASTM C496), CALCULATED EQUILIBRIUM UNIT WEIGHT (ASTM C567) FOR LIGHTWEIGHT CONCRETE,) MIX PROPORTIONS, AND PRODUCT DATA. PRODUCT DATA SHALL INCLUDE CEMENT MILL TEST CERTIFICATE, AGGREGATE GRADUATION RESULTS, AND ADMIXTURE MANUFACTURER DATA SHEETS AND COMPATIBILITY LETTER. ADMIXTURES SHALL BE FROM A SINGLE SOURCE MANUFACTURER.

2. REINFORCING SHOP DRAWINGS, IN CONFORMANCE WITH ACI 315 AND ACI SP-66, INCLUDING BAR AND WELDED WIRE FABRIC REINFORCING, SHALL BE SUBMITTED FOR REVIEW PRIOR TO PLACEMENT.

3. SUBMIT SLAB ON GRADE JOINT PLACEMENT DRAWINGS FOR REVIEW. LAYOUT JOINTS ACCORDING TO REQUIREMENTS SET FORTH IN TYPICAL DETAILS.

4. SUBMIT WALL JOINT PLACEMENT DRAWINGS FOR REVIEW. LAYOUT JOINT ACCORDING TO REQUIREMENTS SET FORTH IN CONCRETE NOTES AND TYPICAL DETAILS.

UNIT MASONRY

1. SUBMIT PRODUCT DATA IN ACCORDANCE WITH TMS AND MSJC INCLUDING COMPRESSIVE TEST STRENGTH RESULTS, MATERIAL CERTIFICATIONS, GROUT AND MORTAR MIX DESIGNS, AND PRODUCT DATA FOR REVIEW PRIOR TO PLACEMENT.

2. SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION, SHOWING REINFORCEMENT AND INSTALLATION DETAILS INCLUDING BUT NOT LIMITED TO PLANS, SECTIONS, ELEVATIONS AND PRODUCT DATA.

COLD-FORMED METAL FRAMING

1. COLD-FORMED METAL STUD DESIGNATIONS SHOWN ON STRUCTURAL DRAWINGS ASSUME MARINO WARE AS THE BASIS OF DESIGN. SUBMIT MANUFACTURER LITERATURE INDICATING THAT THE MEMBERS SUPPLIED PROVIDE EQUIVALENT STRENGTH AND STIFFNESS.

2. THE CONTRACTOR OR MANUFACTURER SHALL SUBMIT SIGNED AND SEALED DESIGN CALCULATIONS AND SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION AND INSTALLATION. SHOP DRAWINGS SHALL INCLUDE BUT NOT BE LIMITED TO FRAMING MEMBER SIZES, CAPACITY, CONNECTION DETAILS, BRACING, BRIDGING, AND OTHER APPURTENANCES OF MEMBERS THAT CONFORM TO THE DELEGATED DESIGN ENGINEER'S CALCULATIONS. SUBMITTAL SHALL INCLUDE PRODUCT DATA INDICATING THAT THE MEMBERS BEING SUPPLIED MEET OR EXCEED THE DESIGN PROPERTIES REQUIRED BY THE DLEGATED DESIGN ENGINEER'S CALCULATIONS. THE PROFESSIONAL ENGINEER RESPONSIBLE FOR CfMF DESIGN MUST BE REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

3. ALL CONNECTIONS AND ATTACHEMENTS SHALL BE CLEARLY SHOWN AS FOLLOWS:
   A. INDICATE COMPONENT DETAILS, FRAMED OPENINGS, BEARING, ANCHORAGE, LOADING, WELDS, TYPE AND LOCATION OF FASTENERS, AND ACCESSORIES OR ITEMS REQUIRED OF RELATED WORK.
   B. INDICATE STUD LAYOUT.
   C. DESCRIBE METHOD FOR SECURING STUDS TO TRACKS AND FOR FRAMING CONNECTIONS.
   D. SUBMIT CALCULATIONS FOR LOADINGS AND STRESSES OF ALL FRAMING AND CONNECTIONS.
   E. SUBMIT DATA ON STANDARD FRAMING MEMBERS AND DESCRIBE MATERIAL AND FINISH.
   F. SUBMIT SPECIAL PROCEDURES AND PERIMETER CONDITIONS REQUIRING SPECIAL ATTENTION.
   G. SUBMIT MILL CERTIFICATIONS FOR STEEL DELIVERED TO SITE. CERTIFY STEEL BARE METAL THICKNESS, YIELD STRENGTH, TENSILE STRENGTH, TOTAL ELONGATION, CHEMICAL ANALYSIS, AND GALVANIZED COATING THICKNESS.

STRUCTURAL SUBMITTALS-cont'd

STAIR STRUCTURE

1. SUBMIT STEEL STAIR SHOP DRAWINGS, PREPARED IN STRICT ACCORDANCE WITH AISC FOR REVIEW PRIOR TO FABRICATION, SHOWING FABRICATION AND INSTALLATION DETAILS INCLUDING BUT NOT LIMITED TO PLANS, SECTIONS, ANCHORAGE, AND PRODUCT DATA.

2. SUBMIT FOR REVIEW DESIGN CALCULATIONS OF PROPOSED STEEL STAIR. COMPLETE CALCULATIONS SHALL BE SUBMITTED THAT SUBSTANTIATE COMPLIANCE WITH THE CAPACITIES AND DESIGN CRITERIA SPECIFIED ON THE CONTRACT DOCUMENTS. CALCULATIONS MUST BE PERFORMED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

3. WELDING STANDARDS: COMPLY WITH APPLICABLE PROVISIIONS OF AWS D1.1 AND AWS D1.3. CERTIFY THAT EACH WELDER HAS SATISFACTORILY PASSED AWS QUALIFICATION TESTS FOR WELDING PROCESSES INVOLVED.

4. SUBMIT PRODUCT DATA FOR METAL STAIRS, PREFILLED METAL PAN STAIR TREADS, NONSLIP AGGREGATES AND NONSLIP AGGREGATE SURFACE FINISHES, CAST NOSINGS, EXTRUDED NOSINGS, STEEL FLOOR PLATE, PAINT PRODUCTS, AND GROUT.

5. ENGINEER, FABRICATE, AND INSTALL HANDRAILS AND RAILING SYSTEMS TO COMPLY WITH REQUIREMENTS OF ASTM 985 FOR STRUCTURAL PERFORMANCE.

6. RAILING SYSTEM AND HANDRAIL DESIGN LOADS: ENGINEER, FABRICATE, AND INSTALL HANDRAILS AND RAILING SYSTEMS TO WITHSTAND THE FOLLOWING STRUCTURAL LOADS WITHOUT EXCEEDING THE ALLOWABLE DESIGN WORKING STRESS OF THE MATERIALS INVOLVED, INCLUDING ANCHORS AND CONNECTIONS. APPLY EACH LOAD TO PRODUCE THE MAXIMUM STRESS IN EACH OF THE RESPECTIVE COMPONENTS.
   A. TOP RAIL OF GUARDRAIL SYSTEM MUST BE DESIGNED FOR A CONCENTRATED LOAD OF 200 LBS APPLIED AT ANY POINT AND IN ANY DIRECTION. TOP OF GUARDRAIL SYSTEM MUST ALSO BE DESIGNED FOR A UNIFORM LOAD OF 50 PLF HORIZONTALLY AND APPLIED CONCURRENTLY WITH A UNIFORM LOAD OF 100 PLF VERTICALLY.
   B. HANDRAILS NOT SERVING AS TOP RAILS: DESIGN FOR A CONCENTRATED LOAD OF 200 LBS APPLIED AT ANY POINT AND IN ANY DIRECTION AND ALSO DESIGN FOR A UNIFORM LOAD OF 50 PLF APPLIED IN ANY DIRECTION. THESE LOADS ARE NOT ASSUMED TO ACT CONCURRENTLY.

7. STEEL STAIR DESIGN LIVE LOADS: ENGINEER, FABRICATE, AND INSTALL STEEL STAIRS TO WITHSTAND THE FOLLOWING STRUCTURAL LOADS WITHOUT EXCEEDING THE ALLOWABLE DESIGN WORKING STRESS OF THE MATERIALS INVOLVED, INCLUDING ANCHORS AND CONNECTIONS. APPLY EACH LOAD TO PRODUCE THE MAXIMUM STRESS IN EACH COMPONENT OF THE STEEL STAIRS.
   A. TREADS OF STEEL STAIRS: CAPABLE OF WITHSTANDING A UNIFORM LOAD OF 100 LBF PER SQ FT OR A CONCENTRATED LOAD OF 300 LBF ON AN AREA OF 4 SQ INCHES LOCATED IN THE CENTER OF THE TREAD. WHICHEVER PRODUCES GREATER STRESS.
   B. PLATFORMS OF STEEL STAIRS: CAPABLE OF WITHSTANDING A UNIFORM LOAD OF 100 LBF PER SQ FT.
   C. STAIR FRAMING: CAPABLE OF WITHSTANDING STRESSES RESULTING FROM LOADS SPECIFIED ABOVE AS WELL AS STRESSES RESULTING FROM RAILING SYSTEM LOADS.

NOT FOR CONSTRUCTION, FOR REVIEW

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GENERAL STRUCTURAL NOTES

EDDYSTONE BOROUGH POLICE BUILDING ADDITION

1300 E. 12TH ST., EDDYSTONE, PA 19022

REV	DATE	REVISION
B	01/31/23	ISSUE FOR BID
A	01/09/23	75% PROGRESS SET

DATE 01/31/23
SCALE: AS NOTED
DRAWN BY: NYO
CHECKED BY: PMH
PROJ. NO.: M22-161

SHEET NO.

S0.02

STATEMENT OF SPECIAL INSPECTIONS

1. SPECIAL INSPECTION AND TESTING SHALL BE PROVIDED BY THE OWNER IN ACCORDANCE WITH CHAPTER 17 OF THE IBC.
2. ALL SPECIAL INSPECTORS SHALL BE UNDER THE SUPERVISION OF A REGISTERED CIVIL OR STRUCTURAL ENGINEER LICENSED IN THE STATE IN WHICH THE WORK IS TO BE PERFORMED. ALL INSPECTIONS SHALL BE PERFORMED BY EXPERIENCED PERSONNEL MEETING THE REQUIREMENTS OF THE IBC AND AC291 "ACCREDITATION CRITERIA FOR SPECIAL INSPECTION AGENCIES" AND SHALL BE APPROVED BY THE LICENSED ENGINEER OF RECORD.
3. SPECIAL INSPECTIONS ARE NOT REQUIRED FOR WORK OF A MINOR NATURE AS APPROVED BY THE BUILDING OFFICIAL, NOR ARE THEY REQUIRED FOR GROUP U OCCUPANCIES.
4. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK AS OUTLINED IN 1704.4 OF THE IBC.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE SPECIAL INSPECTOR OR SPECIAL INSPECTION AGENCY AT LEAST TWO WORKING DAYS PRIOR TO PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION. ALL WORK PERFORMED WITHOUT THE REQUIRED SPECIAL INSPECTION IS SUBJECT TO REMOVAL.
6. SPECIAL INSPECTIONS SHALL BE REQUIRED FOR PROPOSED WORK THAT IS, IN THE OPINION OF THE BUILDING OFFICIAL, UNUSUAL IN ITS NATURE, SUCH AS, BUT NOT LIMITED TO THE FOLLOWING EXAMPLES: CONSTRUCTION MATERIALS AND SYSTEMS THAT ARE ALTERNATIVES TO MATERIALS AND SYSTEMS PRESCRIBED BY THE IBC, UNUSUAL DESIGN APPLICATIONS OF MATERIALS PRESCRIBED IN THE IBC, AND MATERIALS AND SYSTEMS REQUIRED TO BE INSTALLED IN ACCORDANCE WITH ADDITIONAL MANUFACTURER'S INSTRUCTIONS THAT PRESCRIBE REQUIREMENTS NOT CONTAINED IN THE IBC OR IN STANDARDS REFERENCED BY THE IBC.

SPECIAL INSPECTIONS FOR MASONRY

1. MASONRY CONSTRUCTION SHALL BE INSPECTED AND VERIFIED IN ACCORDANCE WITH TMS 402 AND TMS 602 QUALITY ASSURANCE PROGRAM REQUIREMENTS.

TABLE 1705.6
REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS

APPLIES	TYPE	CONT	PERIODIC
X	1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X
X	2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	X
X	3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	X
X	4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	-
X	5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X

TABLE 1705.3
REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

APPLIES	TYPE	CONT	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
X	1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	-	X	ACI 318: CH, 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
	2. REINFORCING BAR WELDING: a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706; b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"; AND c. INSPECT ALL OTHER WELDS.	- X	X X	AWS D1.4 ACI 318: 26.6.4	-
X	3. INSPECT ANCHORS CAST IN CONCRETE.	-	X	ACI 318: 17.8.2	-
X	4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS. a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS. b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.	X	 X	ACI 318: 17.8.2.4 ACI 318: 17.8.2	-
X	5. VERIFY USE OF REQUIRED DESIGN MIX.	-	X	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
X	6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	ASTM C172 ASTM C31 ACI 318: 26.5, 26.12	1908.10
	7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8
X	8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	ACI 318: 26.5.3-26.5.5	1908.9
	9. INSPECT PRESTRESSED CONCRETE FOR: a. APPLICATION OF PRESTRESSING FORCES; AND b. GROUTING OF BONDED PRESTRESSING TENDONS.	X X	- -	ACI 318: 26.10	-
	10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	-	X	ACI 318: 26.9	-
	11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	X	ACI 318: 26.11.2	-
X	12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	X	ACI 318: 26.11.1.2(b)	-

SPECIAL INSPECTIONS FOR MASONRY

MINIMUM SPECIAL INSPECTION REQUIREMENTS

APPLIES	INSPECTION TASK	FREQUENCY (a)	REFERENCE FOR CRITERIA	
		LEVEL 3	TMS 402	TMS 602
	1. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:			
X	a. PROPORTIONS OF SITE-PREPARED MORTAR	P		Art. 2.1, 2.6 A, & 2.6 C
	b. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES	P		Art. 2.4 B & 2.4 H
X	c. GRADE, TYPE AND SIZE OF REINFORCEMENT, CONNECTORS, ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES	P		Art. 3.4 & 3.6 A
	d. PRESTRESSING TECHNIQUE	P		Art. 3.6 B
	e. PROPERTIES OF THIN-BED MORTAR FOR AAC MASONRY	C		Art. 2.1 C.1
X	f. SAMPLE PANEL CONSTRUCTION	C		Art. 1.6 D
	2. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:			
X	a. GROUT SPACE	C		Art. 3.2 D & 3.2 F
	b. PLACEMENT OF PRESTRESSING TENDONS AND ANCHORAGES	P	SEC. 10.8 & 10.9	Art. 2.4 & 3.6
X	c. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND ANCHOR BOLTS	C	SEC. 6.1, 6.3.1, 6.3.6 & 6.3.7	Art. 3.2 E & 3.4
X	d. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	P		Art. 2.6 B & 2.4 G.1.b
	3. VERIFY COMPLIANCE OF THE FOLLOWING DURING CONSTRUCTION:			
X	a. MATERIALS AND PROCEDURES WITH THE APPROVED SUBMITTALS	P		Art. 1.5
X	b. PLACEMENT OF MASONRY UNITS AND MORTAR JOINT CONSTRUCTION	P		Art. 3.3 B
X	c. SIZE AND LOCATION OF STRUCTURAL MEMBERS	P		Art. 3.3 F
X	d. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION.	C	SEC. 1.2.1 (e), 6.2.1 & 6.3.1	
	e. WELDING OF REINFORCEMENT	C	SEC. 6.1.6.1.2	
X	f. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40° F (4.4° C)) OR HOT WEATHER (TEMPERATURE ABOVE 90° F (32.2° C))	P		Art. 1.8 C & 1.8 D
	g. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE	C		Art. 3.6 B
	h. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS IS IN COMPLIANCE	C		Art. 3.5 & 3.6 C
X	i. PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS	C		Art. 3.3 B.9 & 3.3 F.1.b
X	4. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS	C		Art. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, & 1.4 B.4

a. FREQUENCY REFERS TO THE FREQUENCY OF INSPECTION, WHICH MAY BE CONTINUOUS DURING THE LISTED TASK OR PERIODICALLY DURING THE LISTED TASK, AS DEFINED IN THE TABLE.
NR = NOT REQUIRED, P = PERIODIC, C = CONTINUOUS
b. REQUIRED FOR THE FIRST 5000 SQUARE FEET (465 SQUARE METERS) OF AAC MASONRY.
c. REQUIRED AFTER THE FIRST 5000 SQUARE FEET (465 SQUARE METERS) OF AAC MASONRY.

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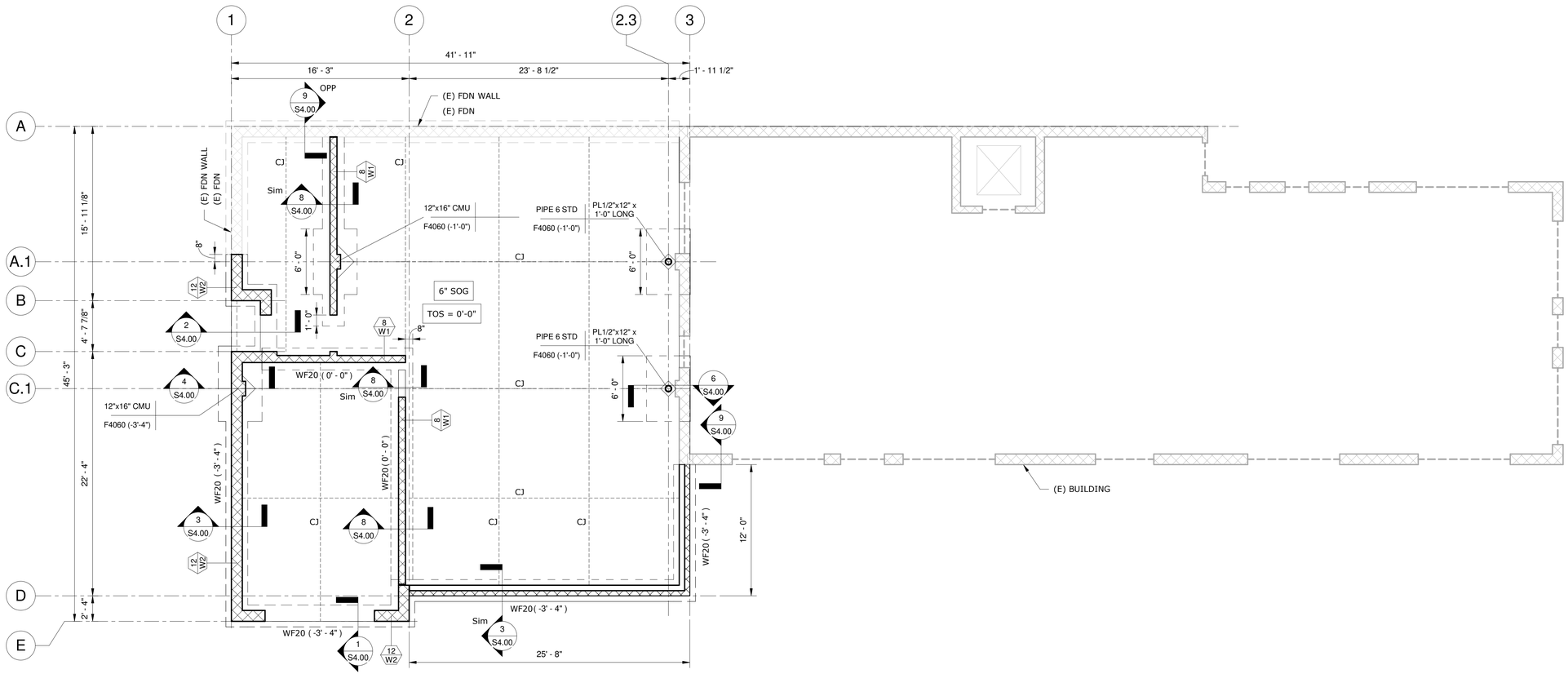
SPECIAL INSPECTIONS
EDDYSTONE BOROUGH POLICE BUILDING ADDITION
1300 E. 12TH ST., EDDYSTONE, PA 19022

REV	DATE	REVISION
B	01/31/23	ISSUE FOR BID
A	01/09/23	75% PROGRESS SET

DATE 01/31/23
SCALE AS NOTED
DRAWN BY: NYO
CHECKED BY: PMH
PROJ. NO.: M22-161

SHEET NO.
S0.04



1 FOUNDATION PLAN
3/16" = 1'-0"

FOOTING (F) SCHEDULE

MARK	DIMENSION			REINFORCEMENT
	WIDTH	LENGTH	THICKNESS	
F4060	4'-0"	6'-0"	1'-6"	(4) #5 LONG BARS & (6) #5 TRANS BARS
WF20	2'-0"	CONT	1'-0"	(3) #4 CONT BARS & #4 TRANS BARS @ 24" OC

CMU WALL REINFORCING SCHEDULE (#/W#)

MARK	VERTICAL	HORIZONTAL
W1	#5 BARS @ 48" OC	(2) #4 BARS IN FULLY GROUTED BOND BEAM AT TOP OF WALL. STANDARD WEIGHT (NO. 9) LADDER OR WIRE JOINT REINFORCEMENT @ 16" OC VERTICAL SPACING
W2	(2)#5 BARS @ 16" OC	(2) #4 BARS IN FULLY GROUTED BOND BEAM AT TOP OF WALL. STANDARD WEIGHT (NO. 9) LADDER OR WIRE JOINT REINFORCEMENT @ 8" OC (EVERY COURSE)

NOTES:
1. REINFORCE AT CORNERS AND OPENINGS PER TYPICAL DETAILS

FOUNDATION PLAN NOTES

1. FINISH FLOOR SLAB ELEVATION = 0'-0" UNO
2. TOP OF FOOTING ELEVATION = -3'-4" UNO
3. 6" SOG — 6" SLAB ON GRADE WITH #3 BARS AT 18" O.C. EACH WAY, CENTERED IN SLAB
4. FOUNDATION MEMBERS DESIGNATED AS FOLLOWS:
   - F#### FOOTING MARK (SEE FOOTING SCHEDULE)
   - WF## WALL FOOTING MARK (SEE FOOTING SCHEDULE)
5. COORDINATE W/ ARCH, MECH, ELEC, AND PLUMBING DRAWINGS FOR FLOOR SLOPES, DRAINS, OPENINGS, DEPRESSIONS, ETC. NOT SHOWN ON PLAN.
6. REFER TO ARCH DRAWINGS FOR DIMENSIONS NOT INDICATED.
7. FOR GENERAL STRUCTURAL NOTES, REFER TO S0.00 TO S0.02 & S0.04.
8. REFER TO TYPICAL FOUNDATION DETAILS ON S6.00.
9. ALL WALL FOOTINGS SHALL BE INSTALLED CENTERED ON FOUNDATION WALL UNO ON PLAN.
10. G.C. TO SUBMIT C.J. LAYOUT PLAN FOR APPROVAL FOR SLAB ON GRADE WORK. REFER TO TYPICAL DETAILS & NOTES FOR PREPARATION OF SUBGRADE.

LEGEND

(#/W#) — CMU WALL THICKNESS
WALL REINFORCEMENT PER SCHEDULE

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FOUNDATION PLAN

EDDYSTONE BOROUGH POLICE BUILDING ADDITION

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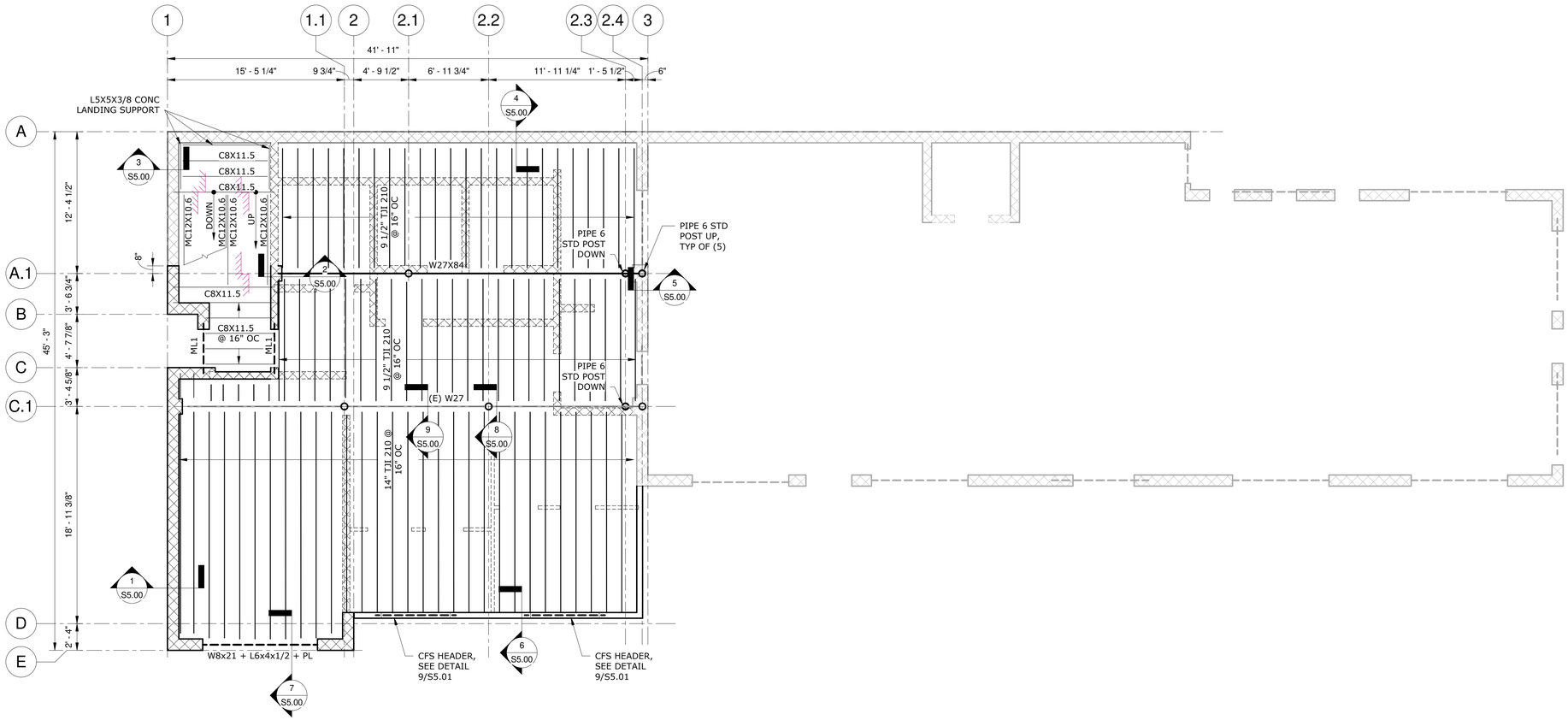
DATE 01/31/23
SCALE AS NOTED
DRAWN BY: NYO
CHECKED BY: PMH
PROJ. NO.: M22-161

SHEET NO.

S1.00



1 SECOND FLOOR FRAMING PLAN
3/16" = 1'-0"

FLOOR FRAMING NOTES

1. FINISH FLOOR ELEVATION = 12'-0" UNO
2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL INFORMATION NOT SHOWN.
3. FOR CMU LINTEL/HEADER INFORMATION, SEE SCHEDULE

MASONRY LINTEL SCHEDULE	
LINTEL MARK	REINFORCEMENT
ML1	(2) 4X8 PRECAST CONCRETE LINTEL W/ (1) #3 TOP & BOT

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SECOND FLOOR FRAMING PLAN

EDDYSTONE BOROUGH POLICE BUILDING ADDITION

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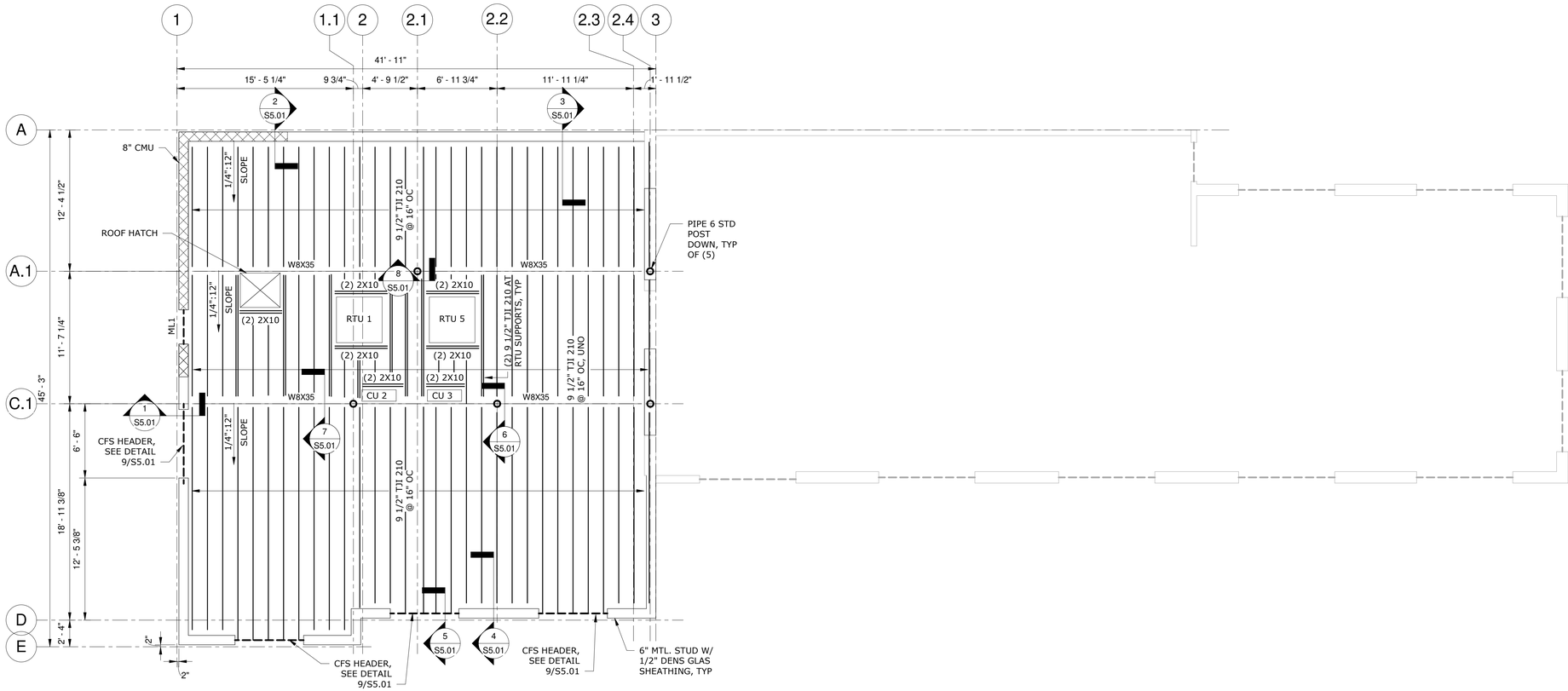
SHEET NO.

S1.10



1 ROOF FRAMING PLAN

3/16" = 1'-0"

ROOF FRAMING NOTES

1. REFER TO ARCHITECTURAL DRAWINGS FOR ALL INFORMATION NOT SHOWN.
2. REFER TO DETAILS ON S6.10 FOR FRAMING REQUIRED TO SUPPORT ROOF TOP MECHANICAL UNITS AND ASSOCIATED DUCT OPENINGS. THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER SHALL OBTAIN CERTIFIED MANUFACTURER'S DRAWINGS FOR ALL EQUIPMENT SHOWN.
3. WEIGHT OF ROOF TOP UNITS:
   A. RTU-1 = 375 LB
   B. RTU-5 = 358 LB
   C. CU-2 = 153 LB
   D. CU-3 = 93 LB
4. FOR CMU LINTEL/HEADER INFORMATION, SEE SCHEDULE

MASONRY LINTEL SCHEDULE	
LINTEL MARK	REINFORCEMENT
ML1	(2) 4X8 PRECAST CONCRETE LINTEL W/ (1) #3 TOP & BOT

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ROOF FRAMING PLAN

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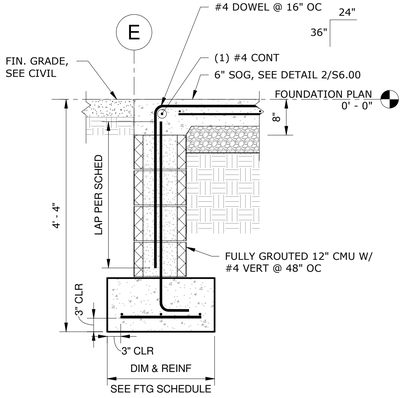
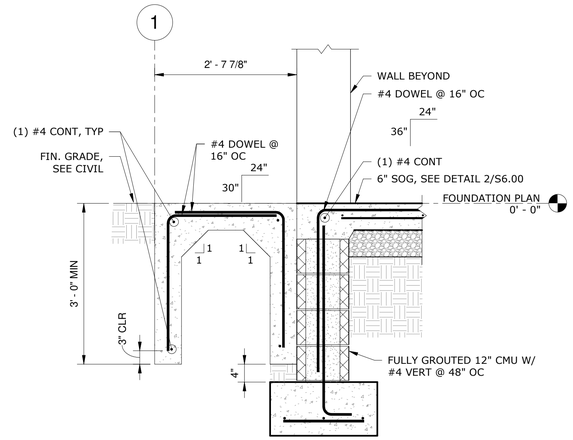
SHEET NO.

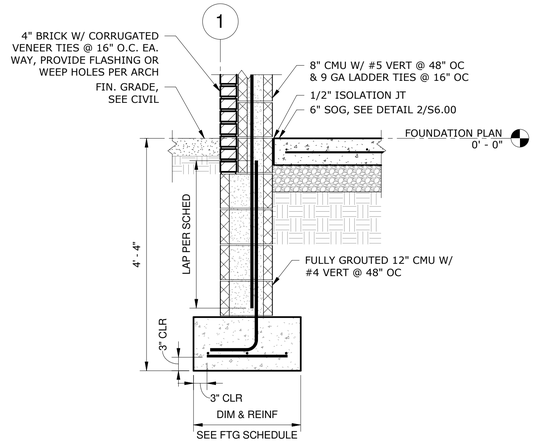
S1.20



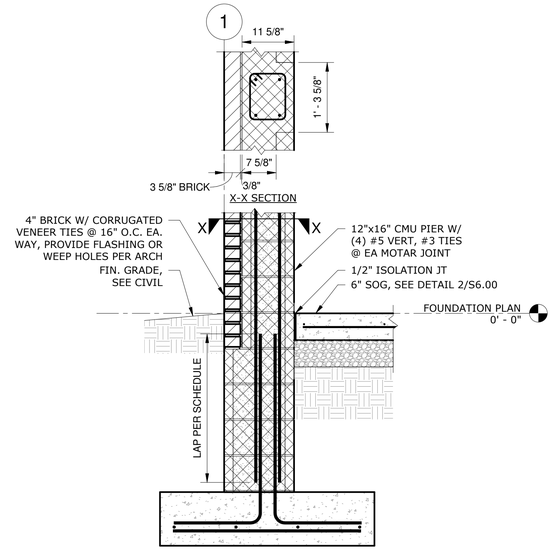
1 POUR THROUGH SLAB DETAIL
3/4" = 1'-0"



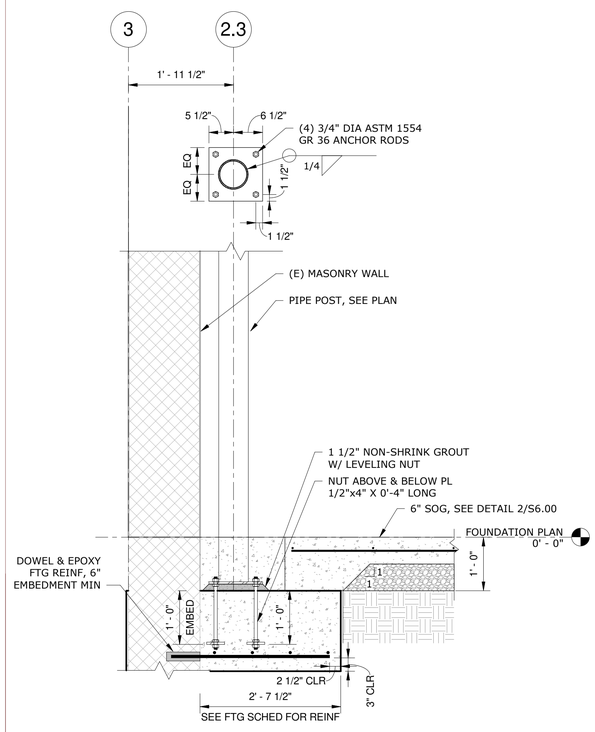
2 POUR THROUGH SLAB DETAIL
3/4" = 1'-0"



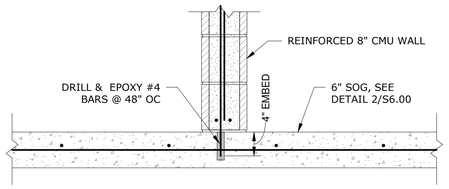
3 WALL FOOTING DETAIL
3/4" = 1'-0"



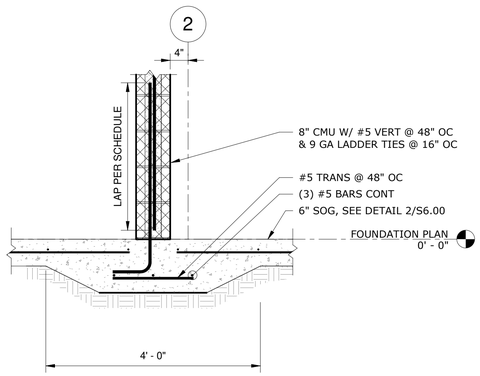
4 CMU PIER FOOTING DETAIL
3/4" = 1'-0"



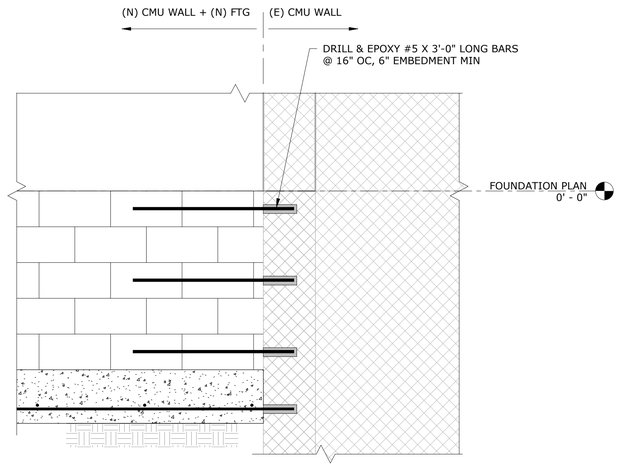
6 INTERIOR POST FOOTING DETAIL
3/4" = 1'-0"



7 TYPICAL INTERIOR CELL WALL @ SLAB
1" = 1'-0"



8 THICKENED SLAB @ INTERIOR CMU WALL
3/4" = 1'-0"



9 NEW TO (E) FOUNDATION DETAIL
3/4" = 1'-0"

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FOUNDATION SECTIONS

EDDYSTONE BOROUGH POLICE BUILDING ADDITION

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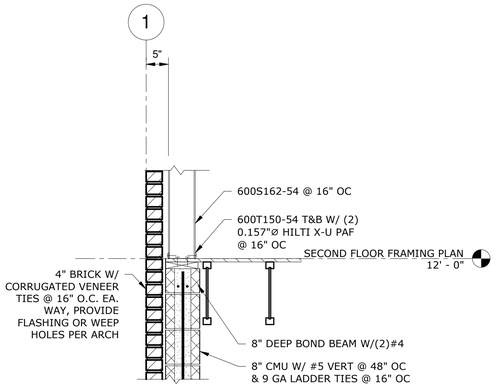
A	01/09/23	75% PROGRESS SET

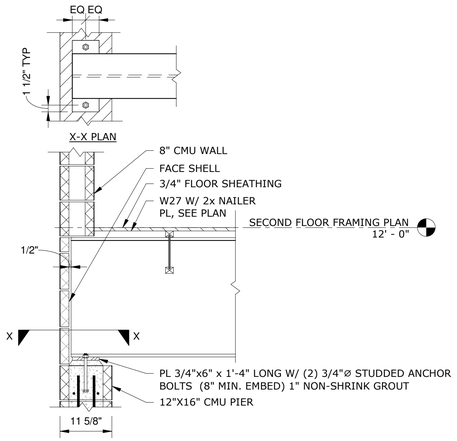
DATE 01/31/23
SCALE: AS NOTED
DRAWN BY: NYO
CHECKED BY: PMH
PROJ. NO.: M22-161

SHEET NO.

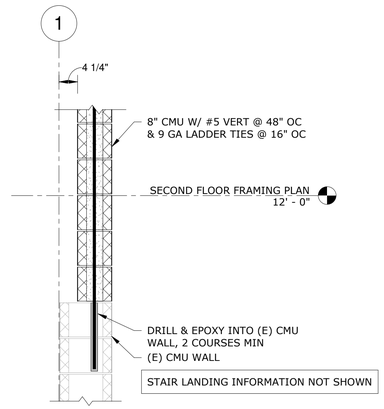
S4.00



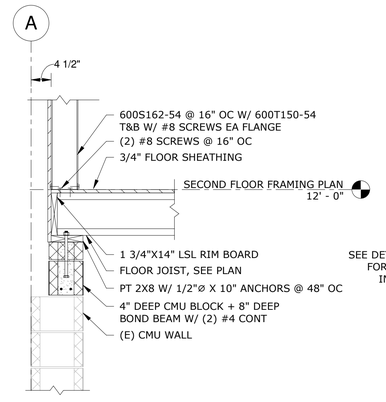
1 FLOOR JOISTS PARALLEL TO CMU WALL
3/4" = 1'-0"



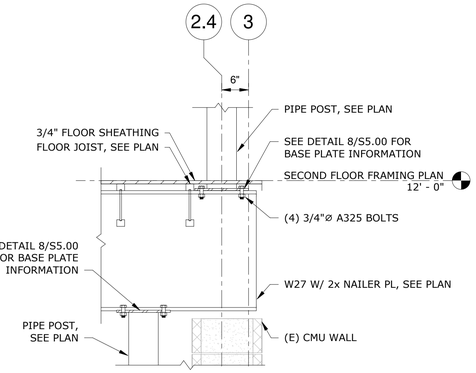
2 BEAM AT CMU PIER
3/4" = 1'-0"



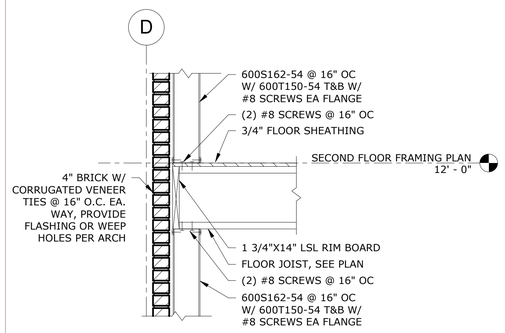
3 (E) TO (N) CMU WALL DETAIL
3/4" = 1'-0"



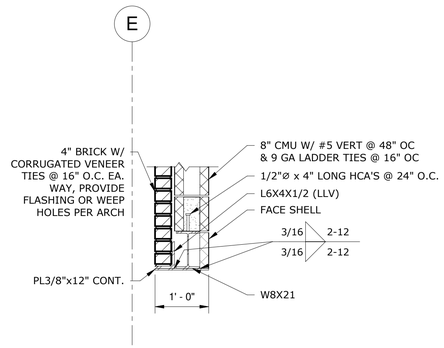
4 FLOOR JOISTS @ CMU WALL
3/4" = 1'-0"



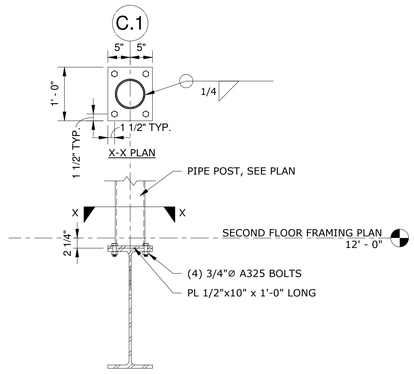
5 BEAM AT (E) CMU PIER
3/4" = 1'-0"



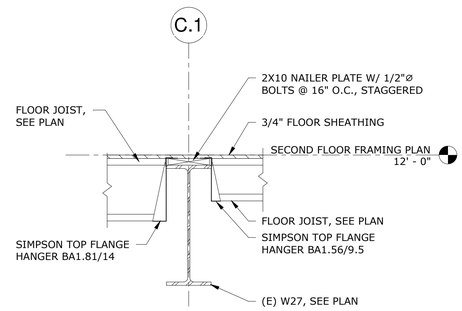
6 FLOOR JOISTS PERPENDICULAR TO CFS WALL
3/4" = 1'-0"



7 OVERHEAD DOOR LINTEL
3/4" = 1'-0"



8 BEAM SUPPORTING POST UP
3/4" = 1'-0"



9 BEAM SUPPORTING FLOOR JOISTS
3/4" = 1'-0"

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FRAMING SECTIONS

EDDYSTONE BOROUGH POLICE BUILDING ADDITION

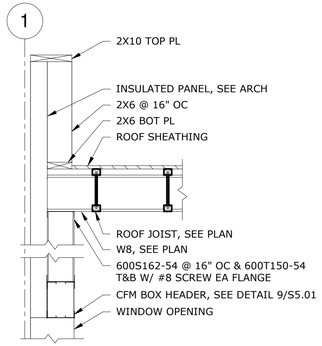
1300 E. 12TH ST., EDDYSTONE, PA 19022

REV	DATE	REVISION
B	01/31/23	ISSUE FOR BID
A	01/09/23	75% PROGRESS SET

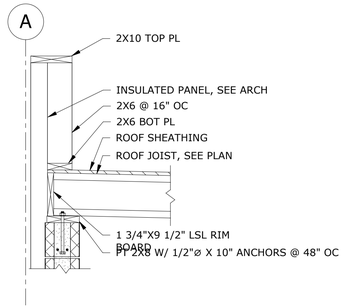
DATE 01/31/23
SCALE: AS NOTED
DRAWN BY: NYO
CHECKED BY: PMH
PROJ. NO.: M22-161

SHEET NO.

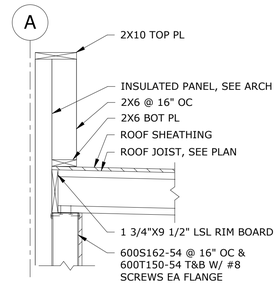
S5.00



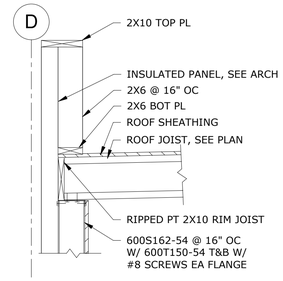
1 ROOF FRAMING DETAIL
3/4" = 1'-0"



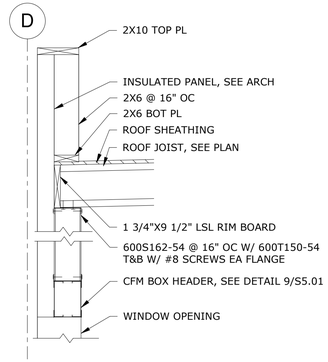
2 ROOF FRAMING DETAIL
3/4" = 1'-0"



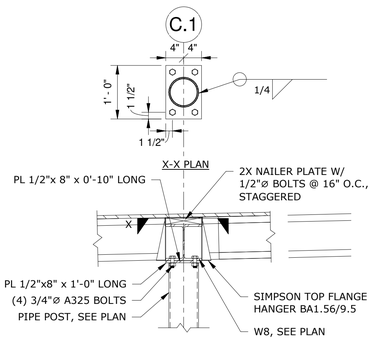
3 ROOF FRAMING DETAIL
3/4" = 1'-0"



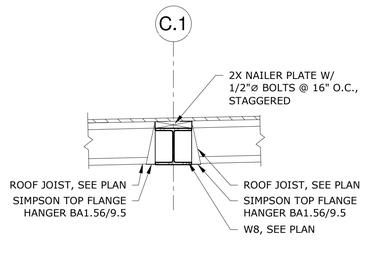
4 ROOF FRAMING DETAIL
3/4" = 1'-0"



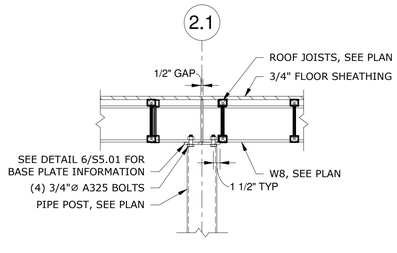
5 ROOF FRAMING DETAIL
3/4" = 1'-0"



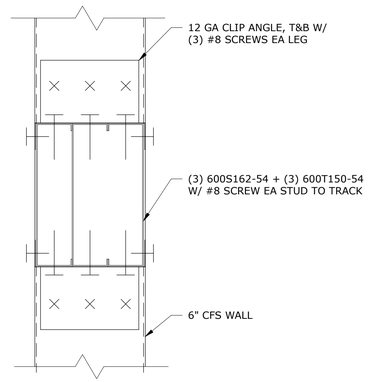
6 ROOF FRAMING DETAIL
3/4" = 1'-0"



7 ROOF FRAMING DETAIL
3/4" = 1'-0"



8 ROOF FRAMING DETAIL
3/4" = 1'-0"



9 LOAD BEARING BOXED HEADER
3" = 1'-0"

NOT FOR CONSTRUCTION, FOR REVIEW

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ROOF FRAMING SECTIONS

EDDYSTONE BOROUGH POLICE BUILDING ADDITION

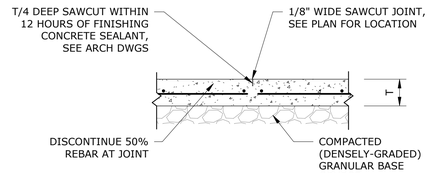
1300 E. 12TH ST., EDDYSTONE, PA 19022

REV	DATE	REVISION
A	01/09/23	75% PROGRESS SET
B	01/31/23	ISSUE FOR BID

DATE 01/31/23
SCALE AS NOTED
DRAWN BY: NYO
CHECKED BY: PMH
PROJ. NO.: M22-161

SHEET NO.

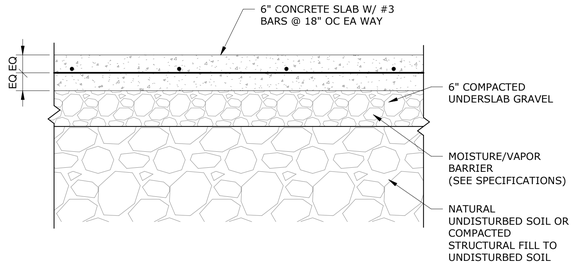
S5.01



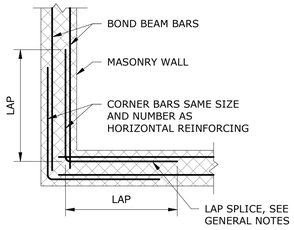
NOTES:

1. SEE PLAN AND DETAIL FOR SLAB CONSTRUCTION.
2. PROVIDE SLAB BOLSTERS OR HIGH CHAIRS, AS REQUIRED, TO MAINTAIN LOCATION OF REINFORCING.

1 TYP SLAB-ON-GRADE CONTROL JOINT
DO NOT SCALE

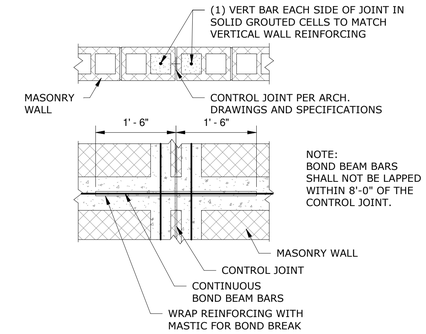


2 TYPICAL SLAB-ON-GRADE SECTION
DO NOT SCALE

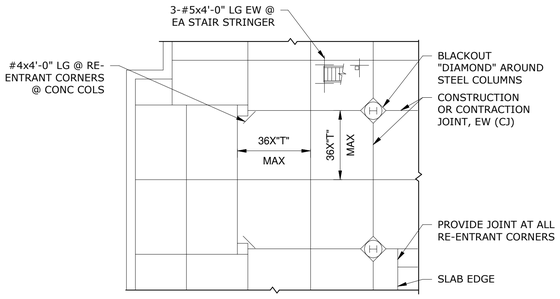


PLAN VIEW

3 CORNER MASONRY REINFORCING DETAIL
DO NOT SCALE



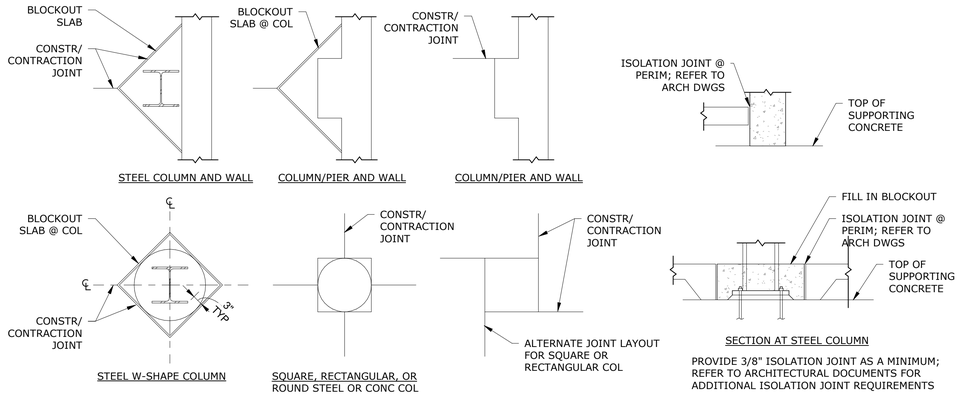
4 CONTROL JOINT IN MASONRY WALL
DO NOT SCALE



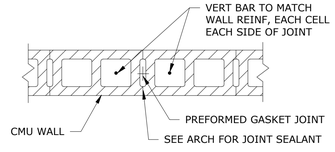
NOTES:

1. LOCATE JOINTS ON ALL COLUMN GRID LINES AND SUB-DIVIDE AS REQUIRED TO NOT EXCEED THE MAXIMUM JOINT SPACING. PANELS SHALL HAVE AN ASPECT RATIO BETWEEN 1.0 TO 1.5.
2. SEE PLAN NOTES FOR ADDITIONAL INFORMATION AND REINFORCING.
3. ALL REINFORCING SHALL BE PLACED A MID-DEPTH OF SLAB, UNO.
4. "T" INDICATES THICKNESS OF SLAB-ON-GRADE.
5. STAIR STINGER OR POST LOAD ON SLAB-ON-GRADE SHALL NOT EXCEED P=2k. PROVIDE SPREAD FOOTING OR THICKENED SLAB AS REQUIRED FOR HIGHER LOADS. FOOTING DESIGN SHALL BE PROVIDE BY STAIR MANUFACTURER.

5 SLAB-ON-GRADE JOINT LAYOUT
DO NOT SCALE



6 TYPICAL SLAB JOINT
DO NOT SCALE



NOTES:

1. CUT ALL HORIZ REINF @ WALL JOINT EXCEPT @ TOP BOND BEAM.
2. SEE PLANS & ARCH ELEVATIONS FOR LOCATIONS.

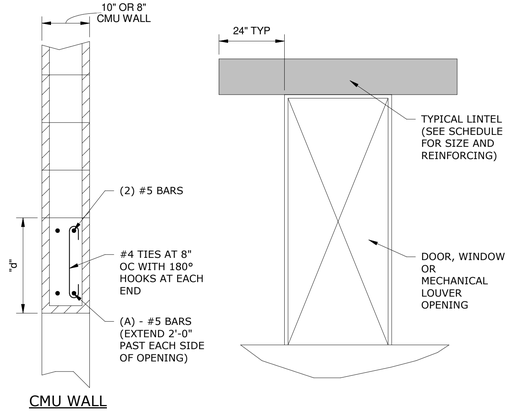
7 MASONRY CONTROL JOINT DETAIL
DO NOT SCALE

BAR SIZE		MASONRY		
IN-LB	AREA (IN^2)	MINIMUM MASONRY COVER		
		2"	3"	6"
#3	0.11	1'-3"	1'-0"	1'-0"
#4	0.20	2'-2"	1'-5"	1'-0"
#5	0.31	3'-4"	2'-3"	1'-2"
#6	0.44	6'-2"	4'-2"	2'-1"
#7	0.60	8'-5"	5'-7"	2'-10"
#8	0.79	12'-8"	8'-5"	4'-3"

NOTES

1. BASED ON COMPRESSIVE STRENGTH OF MASONRY, f'm = 1500 PSI AND STEEL YIELD STRENGTH, Fy = 60 SKI.
2. TABLE APPLICABLE FOR BARS IN TENSION OR COMPRESSION.
3. CLEAR SPACING BETWEEN ADJACENT REINFORCEMENT SPLICES SHALL NOT BE LESS THAN MIN. MASONRY COVER OR $9d_b$.

8 MASONRY REINFORCING BAR SPLICE LENGTHS
DO NOT SCALE



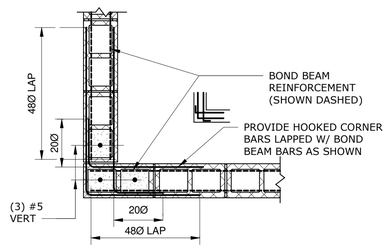
TYPICAL LINTEL DETAIL
NTS

CMU LINTEL SCHEDULE			
LINTEL NO.	"d"	REINFORCING "A"	TIES
L-1	16"	(2) #5 BARS	12" SPACING
L-2	24"	(2) #5 BARS	12" SPACING

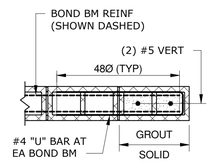
LINTELS REQUIRED OVER ALL DOORWAYS OR OPENINGS GREATER THAN 6" IN WIDTH.

TYPICAL LINTEL ELEVATION
NTS

9 TYPICAL CMU LINTEL DETAIL AND SCHEDULE
DO NOT SCALE



TYPICAL WALL CORNER



TYPICAL WALL END OR JAMB

10 TYPICAL DETAIL 8 INCH CMU WALL CONSTRUCTION
DO NOT SCALE

NOT FOR CONSTRUCTION, FOR REVIEW

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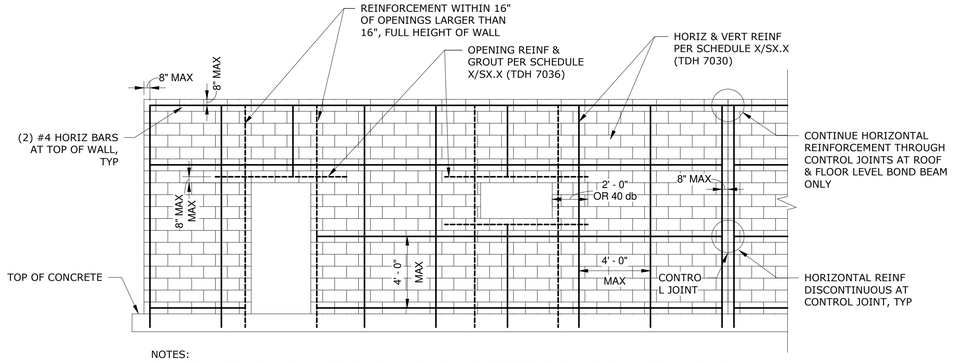
TYPICAL FOUNDATION DETAILS
EDDYSTONE BOROUGH POLICE BUILDING ADDITION
1300 E. 12TH ST., EDDYSTONE, PA 19022

REV	DATE	REVISION
B	01/31/23	ISSUE FOR BID

DATE 01/31/23
SCALE AS NOTED
DRAWN BY: NYO
CHECKED BY: PMH
PROJ. NO.: M22-161

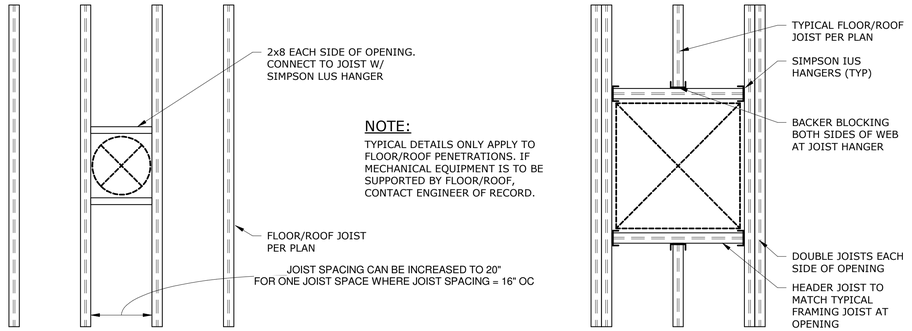
SHEET NO.

S6.00



NOTES:
1. LAP REINFORCING (2'-8" MIN) PER SCHEDULE (TDH 7031). STAGGER SPLICES IN ADJACENT HORIZ BARS 2'-0".
2. PROVIDE DOWEL BARS IN FOUNDATION TO MATCH ALL VERTICAL REINFORCING.
3. SEE DETAIL XX/SX.X (TDH 7035) FOR ADDED REINFORCEMENT AT WALL INTERSECTIONS AND CORNERS.
4. FOR NON-STRUCTURAL CMU WALLS, BOND BEAMS SHALL BE PLACED AT THE MID-HEIGHT OF THE WALL OR 10'-0" OC, WHICHEVER IS MORE FREQUENT.

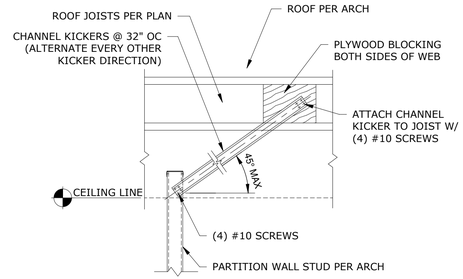
1 TYPICAL CMU WALL DETAIL
DO NOT SCALE



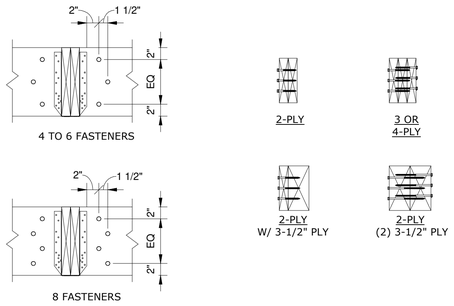
NOTE:
TYPICAL DETAILS ONLY APPLY TO FLOOR/ROOF PENETRATIONS. IF MECHANICAL EQUIPMENT IS TO BE SUPPORTED BY FLOOR/ROOF, CONTACT ENGINEER OF RECORD.

OPENING WIDTH ≤ 16" | OPENING WIDTH 18" - 30"

2 TYPICAL FRAMING AT FLOOR/ROOF OPENINGS
3/4" = 1'-0"



3 NON-LOAD BEARING INTERIOR WALL WITH DIAGONAL KICKER SCREWED
DO NOT SCALE



NOTES:
FASTENERS SHALL BE SIMPSON SDS SCREWS. ENSURE FASTENERS PENETRATE THE END PLY 3/4" WIDE OF THE PLY.

4 BUILT-UP MEMBERS SUPPORTING SIDE ATTACHED BEAM
1" = 1'-0"

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TYPICAL FRAMING DETAILS
EDDYSTONE BOROUGH POLICE BUILDING ADDITION
1300 E. 12TH ST., EDDYSTONE, PA 19022

REV	DATE	REVISION
B	01/31/23	ISSUE FOR BID

DATE 01/31/23
SCALE AS NOTED
DRAWN BY: NYO
CHECKED BY: Designer
PROJ. NO.: M22-161

SHEET NO.
S6.10

GENERAL SPECIFICATIONS

1. DRAWINGS AND SPECIFICATIONS FORM COMPLIMENTARY REQUIREMENTS: PROVIDE WORK SPECIFIED AND NOT SHOWN, AND WORK SHOWN BUT NOT SPECIFIED AS THOUGH EXPLICITLY REQUIRED BY BOTH. ALTHOUGH WORK IS NOT SPECIFICALLY SHOWN OR SPECIFIED, PROVIDE SUPPLEMENTARY OR MISCELLANEOUS ITEMS, APPURTENANCES, DEVICES AND MATERIALS OBVIOUSLY NECESSARY FOR A SOUND, SECURE AND COMPLETE INSTALLATION.
2. THE DRAWINGS AND SPECIFICATIONS INDICATE A PERFORMANCE SPECIFICATION FOR THE FIRE ALARM SYSTEM. AWARDED CONTRACTORS ARE RESPONSIBLE FOR DETAILED DESIGN AND PREPARATION OF SIGNED AND SEALED ENGINEERING DOCUMENTS FOR REVIEW/APPROVAL FROM OWNERS INSURANCE CARRIER AND LOCAL AUTHORITY HAVING JURISDICTION.
3. DRAWINGS ARE DIAGRAMMATIC: THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL COMPONENTS NECESSARY FOR A COMPLETE INSTALLATION. DETERMINE LOCATIONS OF SYSTEMS AND COMPONENTS IN FIELD. COORDINATE WITH ARCHITECTURAL DRAWINGS AND OTHER TRADES.
4. ADDRESS QUESTIONS REGARDING DRAWINGS TO ARCHITECT IN WRITING BEFORE AWARD OF CONTRACT. OTHERWISE, ARCHITECTS INTERPRETATION OF MEANING AND INTENT OF DRAWINGS SHALL BE FINAL.
5. THE INTENTION IS FOR INSTALLATION OF COMPLETE AND OPERATING SYSTEMS INSTALLED IN ACCORDANCE WITH THE ASSOCIATED MANUFACTURER'S INSTRUCTIONS. NOT EVERY COMPONENT REQUIRED IS SHOWN. THE CONTRACTOR SHALL INCLUDE ALL COMPONENTS NORMALLY ASSOCIATED WITH THE PARTICULAR SYSTEM AND/OR REQUIRED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
6. GIVE NOTICES, FILE PLANS, OBTAIN PERMITS AND LICENSES, PAY FEES AND BACK CHARGES, AND OBTAIN NECESSARY APPROVALS FROM AUTHORITIES THAT HAVE JURISDICTION AS REQUIRED TO PERFORM WORK IN ACCORDANCE WITH ALL LEGAL REQUIREMENTS AND WITH THE DESIGN DOCUMENTS.
7. MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS LABORATORIES (UL) AND APPROVED BY ASME AND AGA, AS APPLICABLE, FOR INTENDED SERVICE.
8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES REQUIRED FOR SAFE EXECUTION AND COMPLETION OF THE WORK AND FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
9. ALL MATERIALS, EQUIPMENT AND METHOD OF INSTALLATION SHALL BE ACCORDANCE WITH THE STANDARDS, REGULATIONS, CODES, ORDINANCES AND LAW OF LOCAL, STATE AND FEDERAL GOVERNMENTS AND OTHER AUTHORITIES THAT HAVE LAWFUL JURISDICTION.
10. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO COORDINATE THE WORK UNDER THIS CONTRACT WITH THAT OF ALL OTHER TRADES, INCLUDING, BUT NOT LIMITED TO, ELECTRICAL, HVAC, SPRINKLER, PLUMBING, STRUCTURAL AND GENERAL CONSTRUCTION. OFFSETS IN DUCTWORK, PIPINGAND CONDUITS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
11. EACH CONTRACTOR IS RESPONSIBLE FOR CUTTING AND PATCHING REQUIRED FOR THE INSTALLATION OF NEW WORK UNDER THIS CONTRACT. CUTTING AND PATCHING SHALL BE COMPLETED IN A NEAT AND WORKMANLIKE MANNER. PATCHING MATERIALS SHALL MATCH EXISTING MATERIALS TO THE GREATEST EXTENT POSSIBLE. PROVIDE TOUCH-UP TO MATCH EXISTING SURROUNDING AREAS OF CUTTING AND PATCHING WORK.
12. CONTRACTOR SHALL COORDINATE ITS RESPECTIVE CEILING MOUNTED EQUIPMENT AND DEVICES WITH OTHER TRADE CONTRACTORS PRIOR TO INSTALLATION TO AVOID CONFLICTS.
13. ALL DEBRIS SHALL BE CLEANED AND REMOVED FROM THE SITE BY END OF EACH WORK DAY. PRIOR TO DISPOSAL OF EQUIPMENT AND MATERIALS, TURN OVER TO THE OWNER ANY REMOVED EQUIPMENT AND MATERIALS REQUESTED BY THE OWNER.
14. WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER AND SHALL PRESENT A NEAT, RECTILINEAR APPEARANCE WHEN COMPLETED.
15. MAINTAIN MAXIMUM HEAD ROOM AT ALL TIMES. DO NOT RUN PIPES, DUCTS AND CONDUIT EXPOSED UNLESS SHOWN AND NOTED TO BE EXPOSED ON DRAWINGS.
16. MATERIALS AND EQUIPMENT SHALL BE NEW, UNLESS NOTED OTHERWISE, AND INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS SO THAT COMPLETED INSTALLATION SHALL OPERATE SAFELY AND EFFICIENTLY.
17. EACH RESPECTIVE CONTRACTOR SHALL FIRE STOP ALL NEW AND EXISTING OPENINGS THROUGH FIRE RATED FLOORS, WALLS AND CEILINGS WITH UL ASSEMBLIES OF EQUAL RATING. FIELD VERIFY EXISTING CONDITIONS BEFORE SUBMITTING BID PROPOSAL.
18. COORDINATE ALL ROOF PENETRATIONS WITH WORK OF OTHER TRADES. ALL PENETRATIONS SHALL BE SEALED WATERTIGHT. COORDINATE FLASHING REQUIREMENTS TO MAINTAIN ROOF WARRANTY.
19. MANUFACTURERS' MODEL NUMBERS ARE SPECIFIED SOLELY TO ESTABLISH STANDARDS OF QUALITY FOR PERFORMANCE AND MATERIALS.
20. SUBSTITUTED PRODUCTS SUBMITTED AND APPROVED FOR USE THAT NECESSITATE CHANGES TO THE WORK OF OTHER TRADES OF CONTRACT SHALL BE COORDINATED AND ARRANGED BY THE CONTRACTOR WHO SUBMITTED THE SUBSTITUTION WITHOUT ADDITIONAL COST TO THE OWNER.
21. PRODUCT INSTALLATION SHALL ADHERE TO MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTION.
22. EACH RESPECTIVE CONTRACTOR SHALL PROVIDE PROPER ACCESS TO EQUIPMENT AND COMPONENTS THAT REQUIRE INSPECTION, MAINTENANCE AND POSSIBLE REPAIR. ACCESS PANELS SHALL BE MINIMUM 12"X12" OR AS NEEDED FOR PROPER ACCESS. ACCESS PANELS SHALL BE FURNISHED BY THIS CONTRACTOR AND TURNED OVER TO GENERAL CONTRACTOR FOR INSTALLATION.
23. CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL APPLICABLE EQUIPMENT WITH THE ELECTRICAL CONTRACTOR.
24. AS WORK PROGRESSES AND FOR DURATION OF CONSTRUCTION, MAINTAIN A COMPLETE SET OF CONTRACT DRAWINGS AT THE JOBSITE. RECORD WORK COMPLETED AND ALL CHANGES FROM ORIGINAL CONTRACT DRAWINGS CLEARLY AND ACCURATELY INCLUDING WORK INSTALLED AS A MODIFICATION OR ADDITION TO THE ORIGINAL DESIGN TURN OVER ALL OPERATING MANUALS, MAINTENANCE MANUALS, AND "AS BUILT" DRAWINGS TO OWNER AT CONCLUSION OF CONSTRUCTION.
25. DO NOT SUPPORT EQUIPMENT, DUCTWORK, PIPING, CONDUIT OR DEVICES FROM SUSPENDED CEILINGS. SUPPORT ALL EQUIPMENT, DUCTWORK, PIPING, CONDUIT AND DEVICES FROM BUILDING STRUCTURE TO PROVIDE A VIBRATION FREE INSTALLATION. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF ALL WEIGHTS AND METHODS OF SUPPORT.
26. ANY REFERENCE TO MECHANICAL, PLUMBING, FIRE PROTECTION OR ELECTRICAL CONTRACTORS NOTED ON THE DRAWINGS SHALL NOT BE INTERPRETED AS AN INTENTION TO DEFINE SEPARATE CONTRACTORS FOR THE RESPECTIVE WORK. THE GENERAL CONTRACTOR SHALL COORDINATE AND PROVIDE A COMPLETE INSTALLATION WITH COMPLETE MECHANICAL, PLUMBING, FIRE PROTECTION AND ELECTRICAL SYSTEMS, REGARDLESS OF ANY REFERENCES TO OTHER TRADE CONTRACTORS.
27. GUARANTEE WORK OF THIS CONTRACTOR IN WRITING FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNER'S ACCEPTANCE OR CERTIFICATE OF SUBSTANTIAL COMPLETION. PROMPTLY REPAIR OR REPLACE DEFECTIVE MATERIALS, EQUIPMENT, WORKMANSHIP AND INSTALLATIONS THAT DEVELOP DEFECTS WITHIN THIS PERIOD. PROMPTLY AND TO OWNERS SATISFACTION, CORRECT DAMAGE CAUSED IN MAKING NECESSARY REPAIRS AND REPLACEMENTS UNDER THIS GUARANTEE AT NO ADDITIONAL COST TO OWNER. SUBMIT GUARANTEE TO ARCHITECT BEFORE FINAL PAYMENT IS MADE. STATEMENT OF GUARANTEE REQUIREMENTS SHALL NOT BE INTERRUPTED TO LIMIT OWNER'S RIGHTS UNDER LAW AND THIS CONTRACT.

HVAC DEMOLITION NOTES

1. PROJECT CONDITIONS
   - 1.1. THE CONTRACTOR SHALL COMPLETELY FAMILIARIZE HIMSELF WITH ALL EXISTING BUILDING AND SITE CONDITIONS AND LIMITATIONS WHICH MAY HAVE A BEARING ON THE OPERATIONS HEREIN SPECIFIED, AND SHALL INCLUDE ALL WORK REQUIRED TO COMPLETE THE PROJECT AS SHOWN ON THE DRAWINGS. NO EXTRA COMPENSATION WILL BE ALLOWED FOR UNFORESEEN CONDITIONS THAT CAN BE DETERMINED FROM A CAREFUL EXAMINATION OF THE SITE, BUILDING AND DRAWINGS.
   - 1.2. ITEMS OF VALUE WHICH ARE NOT INDICATED TO BE RETURNED TO THE OWNER, SHALL BECOME THE PROPERTY OF THE CONTRACTOR. STORAGE OR SALE OF ITEMS ON THE PROJECT SITE IS PROHIBITED.
   - 1.3. PROTECTION: ENSURE THE SAFE PASSAGE OF PERSONS IN AND AROUND THE BUILDING DURING DEMOLITION. PREVENT INJURY TO PERSONS AND DAMAGE TO PROPERTY. PROVIDE ADEQUATE SHORING AND BRACING TO PREVENT COLLAPSE. IMMEDIATELY REPAIR DAMAGED PROPERTY TO THE CONDITION BEFORE BEING DAMAGED. TAKE EFFECTIVE MEASURES TO PREVENT WINDBLOWN DUST.
   - 1.4. UTILITIES: MAINTAIN ALL UTILITIES EXCEPT THOSE REQUIRING REMOVAL OR RELOCATION. KEEP UTILITIES IN SERVICE AND PROTECT FROM DAMAGE. DO NOT INTERRUPT UTILITIES SERVING USED AREAS WITHOUT FIRST OBTAINING PERMISSION FROM OWNER.
2. REGULATION REQUIREMENTS
   - 2.1. STRICTLY COMPLY WITH APPLICABLE CODES, REGULATIONS AND REQUIREMENTS OR AUTHORITY HAVING JURISDICTION.
3. HANDLING OF MATERIALS
   - 3.1. REMOVE DEBRIS FROM THE SITE AS IT ACCUMULATES. DO NOT STORE, SELL, BURN, OR OTHERWISE DISPOSE OF DEBRIS ON SITE. REMOVE ALL MATERIAL IN SUCH MANNER AS TO PREVENT SPILLAGE.
4. TRANSFER OF RESPONSIBILITY AND DISPOSITION OF MATERIALS
   - 4.1. UPON RECEIPT OF NOTICE TO PROCEED WITH THE WORK, THE TITLE TO ALL MATERIALS FOR DEMOLITION SHALL BE VESTED. THE CONTRACTOR WHEREUPON THE OWNER WILL NOT BE RESPONSIBLE FOR THE CONDITION, LOSS, OR DAMAGE TO SAID PROPERTY. ALL SUCH ITEMS SHALL BE REMOVED FROM THE OWNER'S PROPERTY.
5. DISPOSAL OF DEMOLISHED MATERIALS
   - 5.1. REMOVE UNUSED FIXTURES AND ALL PIPING/ DUCTWORK SERVICING EQUIPMENT INCLUDING ABANDONED PIPING / DUCTWORK NOT ASSOCIATED WITH SAID EQUIPMENT. REMOVE PIPING / DUCTWORK BACK TO THE NEXT LIVE BRANCH WHICH WILL NOT OBSTRUCT THE NEW WORK AND CAP AIRTIGHT. TRANSPORT AND LEGALLY DISPOSE OF MATERIALS OFF SITE.
   - 5.2. ANY DEMOLITION SHALL BE COORDINATED WITH OWNER, ENGINEER, AND GENERAL CONTRACTOR. ALL DEBRIS SHALL BE CLEANED UP AND REMOVED FROM THE SITE BY THE END OF EVERY WORK DAY. PRIOR TO DISPOSAL OF EQUIPMENT AND MATERIALS, TURN OVER TO OWNER ANY REMOVED EQUIPMENT AND MATERIALS PER OWNERS REQUEST.
6. CLEAN UP AND REPAIR
   - 6.1. UPON COMPLETION OF DEMOLITION WORK, REMOVAL TOOLS, EQUIPMENT AND DEMOLISHED MATERIALS FROM SITE. REMOVE PROTECTION AND LEAVE INTERIOR AREAS BROOM CLEAN.
   - 6.2. REPAIR DEMOLITION PERFORMED IN EXCESS OF THAT REQUIRED. RETURN STRUCTURES AND SURFACES TO REMAIN IN CONDITION EXISTING PRIOR TO COMMENCEMENT OF SELECTIVE DEMOLITION WORK. REPAIR ADJACENT CONSTRUCTION OR SURFACES SOILED OR DAMAGED BY SELECTIVE DEMOLITION WORK.

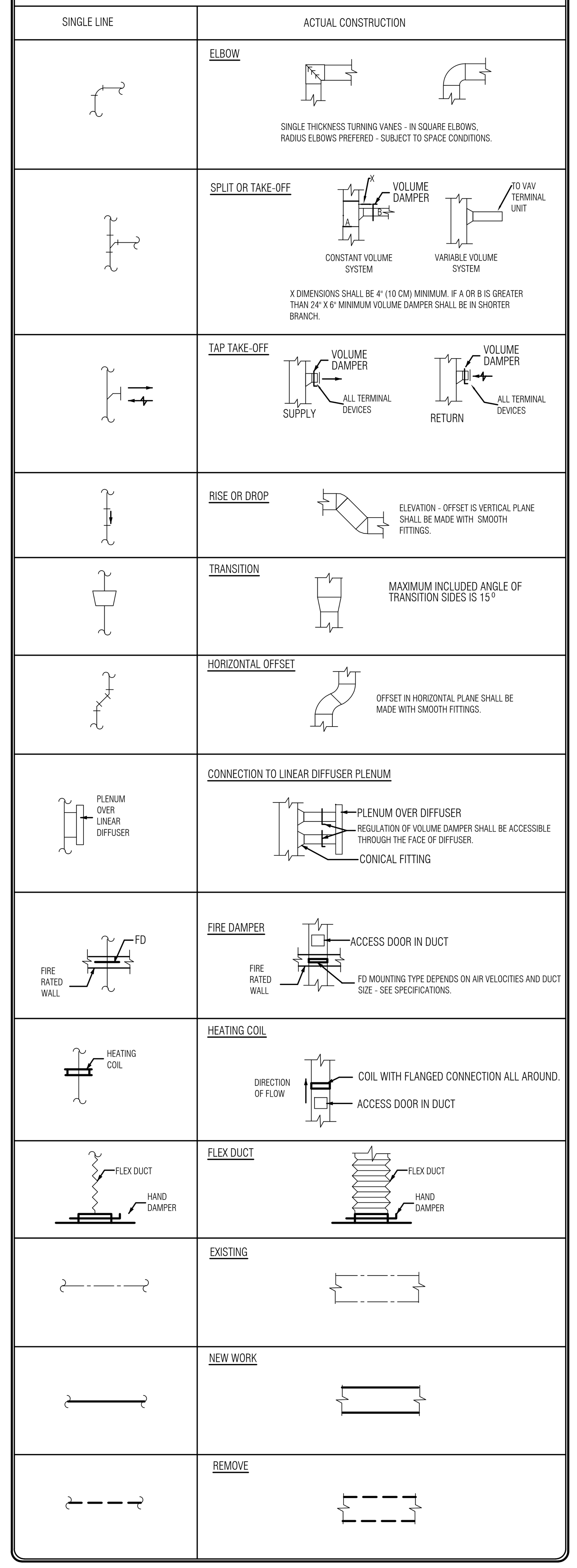
MECHANICAL DUCTWORK/EQUIPMENT NOTES

1. ALL DUCTWORK SHALL BE IN ACCORDANCE WITH SMACNA (SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION) STANDARDS.
2. SHEET-METAL FITTINGS SHOWN ARE TO BE PROVIDED. NO SUBSTITUTIONS ALLOWED WITHOUT PRIOR CONSENT FROM ENGINEER AND WILL BE REQUIRED TO BE REPLACED IF INSTALLED.
3. RUN DUCTS AND PIPING CONCEALED, UNLESS SPECIFIED OTHERWISE AND CLEAR OF CEILING INSERTS. ALL DUCTWORK SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO WALL AND UNDERSIDE OF BEAMS AND JOISTS.
4. ALL WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN PIPING AND DUCTS (INCLUDING DIVIDED DUCTS) AND TRANSITIONS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
5. VERIFY ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. VERIFY AND PROVIDE DUCT TRANSITIONS TO EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DIMENSIONS BEFORE FABRICATING.
6. ACCESS PANELS SHOULD BE PROVIDED TO CLEAN COILS AND SERVICE DAMPERS, HEATERS, VALVES AND ALL CONCEALED MECHANICAL EQUIPMENT.
7. SUPPORT ALL EQUIPMENT, PIPING AND DUCTWORK FROM BUILDING STRUCTURE TO PROVIDE A VIBRATION FREE INSTALLATION. NOTIFY STRUCTURAL ENGINEER OF ALL WEIGHTS AND METHODS OF SUPPORT.
8. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF AIR TERMINAL DEVICES.
9. INTERNAL AIR FLOW DIMENSIONS ARE SHOWN FOR DUCTS. CONTRACTOR SHALL INCREASE SIZE FOR LINER IF APPLICABLE.
10. ANY DUCTWORK PASSING THROUGH A RATED WALL NEEDS TO HAVE A FIRE DAMPER OR FIRE AND SMOKE DAMPER. SEE ARCHITECTURAL PLAN FOR FINAL LOCATIONS OF ALL FIRE WALLS OR SMOKE PARTITIONS. ALL DUCT PENETRATIONS OF RATED ASSEMBLIES MUST MEET THE REQUIREMENTS OF IBC (INTERNATIONAL BUILDING CODE) SECTION 705 AND IMC (INTERNATIONAL MECHANICAL CODE) 610.
11. PROVIDE FLEXIBLE CONNECTIONS ON ALL DUCTS CONNECTING TO FANS AND AIR HANDLING UNITS.
12. THE INSIDE OF ALL UNLINED DUCTWORK VISIBLE THROUGH A GRILLE SHALL BE PAINTED FLAT BLACK.
13. INSULATE OUTSIDE AIR, SUPPLY, RETURN AIR DUCTS AND PLENUMS WITH MINIMUM OF R-6 INSULATION. SUPPLY,RETURN, OUTSIDE AIR AND EXHAUST DUCTWORK LOCATED IN UNCONDITIONED SPACES AND OUTSIDE THE BUILDING SHALL BE INSULATED WITH A MINIMUM OF R-8 INSULATION.DUCT WRAP SHALL BE FIBROUS GLASS DUCT-WRAP WITH FOIL-DRAFT FLAME RESISTANT VAPOR BARRIER. INSULATION SHALL BE FIRE RATED IN ACCORDANCE WITH ASHRAE (AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS) 90A, 50/25 SMOKE DEVELOPMENT AND FLAME SPREAD REQUIREMENTS. EXCEPTIONS FOR DUCT INSULATION SHALL BE IF THE DUCTWORK IS LOCATED WITHIN EQUIPMENT AND WHERE THE DESIGN TEMPERATURE DIFFERENCE BETWEEN THE INTERIOR AND EXTERIOR OF THE DUCT OR PLENUM IS NOT GREATER THAN 15°F.DUCTWORK SHALL BE WRAPPED INSULATION UNLESS OTHERWISE NOTED.
14. FLEXIBLE DUCT IS ALLOWABLE ON SUPPLY OR RETURN AIR SYSTEMS ABOVE ACCESSIBLE CEILINGS ONLY. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL NOT EXCEED 5 FEET. FLEXIBLE DUCT SHALL BE FABRIC COVERED GALVANIZED STEEL HELIX MECHANICALLY LOCKED TO THE FABRIC. THE FABRIC SHALL BE A LAMINATE OF ALUMINUM FOIL FIBERGLASS & ALUMINIZED POLYESTER RATED AT 5500 RPM WITH FLEX-MASTER USA TYPE 3 OR EQUAL. 1" EXTERNAL FIBERGLASS INSULATION AND VAPOR BARRIER JACKET. SUPPLY AIR SYSTEMS ABOVE NON-ACCESSIBLE CEILINGS AND ALL RETURN, EXHAUST, AND OUTSIDE AIR DUCTWORK SHALL BE HARD DUCTED.
15. THOROUGHLY CLEAN ALL NEW DUCTWORK AFTER INSTALLATION.
16. NO DUCTWORK SHALL BE LOCATED ABOVE ELECTRICAL PANELS/GEAR.
17. VOLUME DAMPERS SHALL BE PROVIDED AT THE BRANCH TAKE-OFF OF THE MAIN.
18. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
19. DUCTWORK SCHEDULE
   - 19.1. LOW PRESSURE - ALL OTHER SUPPLY, RETURN EXHAUST AND OUTSIDE AIR DUCTWORK TO BE 2" CONSTRUCTION, 2" STATIC, LEAKAGE CLASS B, SEAL CLASS 12. MATERIAL TO BE GALVANIZED STEEL UNLESS NOTED OTHERWISE.
   - 19.2. FURNACE / WATER HEATING VENTING - CPVC OR MANUFACTURER'S APPROVED MATERIAL.
20. ALL DUCTWORK AND VENTS CONNECTED TO EXTERIOR LOUVERS SHALL BE SLOPED TOWARD THE LOUVER.+\
21. ALL DUCT ROUTING IS DIAGRAMMATIC. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK WITH OTHER TRADES INCLUDING, BUT NOT LIMITED TO, FIRE PROTECTION, ELECTRICAL, FIRE PROTECTION, AND STRUCTURE. ADJUST DUCT ROUTING (LOCATION, OFFSETS, FITTINGS, ETC.) AND ASPECT RATIO AS NEEDED.

CODE SUMMARY

MUNICIPALITY	EDDYSTONE BOROUGH, PA
USE AND OCC. CLASSIFICATION	B (BUSINESS)
APPLICABLE CODES	BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE MECHANICAL CODE: 2018 INTERNATIONAL MECHANICAL CODE PLUMBING CODE: 2018 INTERNATIONAL PLUMBING CODE FUEL GAS CODE: 2018 INTERNATIONAL FUEL GAS CODE ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE FIRE CODE: 2018 INTERNATIONAL FIRE CODE ENERGY CODE: 2018 INTERNATIONAL ENERGY CONSERVATION CODE

DUCTWORK SYMBOLOGY



GENERAL ABBREVIATIONS

AC	AIR CONDITIONING	HPS	HEAT PUMP LOOP SUPPLY
ACV	AUTOMATIC CONTROL VALVE	HPR	HEAT PUMP LOOP RETURN
AD	ACCESS DOOR	HR	HOUR
ADD'L	ADDITIONAL	HWR	HOT WATER RETURN
AFF	ABOVE FINISHED FLOOR	HWS	HOT WATER SUPPLY
AHU	AIR HANDLING UNIT	HZ	HERTZ
AP	ACCESS PANEL	IN	INCHES
ARCH	ARCHITECT	KW	KILOWATT
BHP	BRAKE HORSEPOWER	LAT	LEAVING AIR TEMPERATURE
BOD	BOTTOM OF DUCT	LPR	LOW PRESSURE COND. RETURN
BOP	BOTTOM OF PIPE	LPS	LOW PRESSURE STEAM
CD	CEILING DIFFUSER	LWT	LEAVING WATER TEMPERATURE
CFM	CUBIC FEET PER MINUTE	MAX	MAXIMUM
CL	CENTERLINE	MECH	MECHANICAL
CLG	CEILING	MF'R	MANUFACTURER
CO	CLEAN-OUT	MOD	MOTOR OPERATED DAMPER
COL	COLUMN	MIN	MINIMUM
CONN	CONNECTION	MTD	MOUNTED
CONTR	CONTRACTOR	MAV	MANUAL AIR VENT
CW	COLD WATER	N/A	NOT APPLICABLE
CHWS	CHILLED WATER SUPPLY	NC	NORMALLY CLOSED
CHWR	CHILLED WATER RETURN	NIC	NOT IN CONTRACT
CWS	CONDENSER WATER SUPPLY	NO	NUMBER
CWR	CONDENSER WATER RETURN	NTS	NOT TO SCALE
DB	DRY BULB TEMPERATURE	OA	OUTSIDE AIR
DDC	DIRECT DIGITAL CONTROL	OD	OUTSIDE DIAMETER
DIA	DIAMETER	PD	PRESSURE DROP
DIFF	DIFFUSER	PLBG	PLUMBING
DIM	DIMENSION	PSIA	POUNDS PER SQ INCH ABSOLUTE
DN	DOWN	PSIG	POUNDS PER SQ INCH GAUGE
DX	DIRECT EXPANSION	(R)	REMOVE
DL	DOOR LOUVER	REG	REGISTER
(E)	EXISTING	RET	RETURN
EA	EACH	REQ'D	REQUIRED
EAT	ENTERING AIR TEMPERATURE	RG	RETURN GRILLE
EFF	EFFICIENCY	RH	RELATIVE HUMIDITY
EG	EXHAUST GRILLE	(RL)	RELOCATE
ELEC	ELECTRICAL	RM	ROOM
ER	EXHAUST REGISTER	RPM	REVOLUTIONS PER MINUTE
ERU	ENERGY RECOVERY UNIT	SA	SOUND ATTENUATOR
ESP	EXTERNAL STATIC PRESSURE	SCH	SCHEDULE
EWT	ENTERING WATER TEMPERATURE	SCR	SCREEN
EXH	EXHAUST	SD	SMOKE DAMPER
EXP	EXPANSION	SF	SQUARE FOOT
(F)	FUTURE	SPECS	SPECIFICATIONS
FA	FREE AREA	SR	SUPPLY REGISTER
FD	FIRE DAMPER (W/ ACCESS DOOR)	ST	STEAM TRAP
FLEX	FLEXIBLE	STL	STEEL
FLRDR	FLOOR DRAIN	STM	STEAM
FPM	FEET PER MINUTE	SUP	SUPPLY
FSD	COMBINATION FIRE/SMOKE DAMPER	TEMP	TEMPERATURE
FT	FEET	TG	TRANSFER GRILLE
FURN	FURNISHED	TR	TRANSFER
GA	GAUGE	TYP	TYPICAL
GAL	GALLONS	UC	UNDERCUT DOOR
GALV	GALVANIZED	V	VENT
GC	GENERAL CONTRACTOR	VD	VOLUME DAMPER
GPM	GALLONS PER MINUTE	VFD	VARIABLE FREQUENCY DRIVE
GR	GRILLE	W	WIDTH
GR	RETURN GRILLE	W/	WITH
HB	HOSE BIBB CONN W/ CHAINED CAP	WB	WET BULB TEMPERATURE
HD	HAND DAMPER	WG	WATER GAUGE
HGT	HEIGHT	WWMS	WELD-WIRE MESH SCREEN (1/4")
HP	HORSEPOWER	W/O	WITHOUT
		Ø	DIAMETER

CALL OUT SYMBOLS

- REVISION NUMBER/INDICATES A REVISED FEATURE
- T — TEMPERATURE SENSOR OR THERMOSTAT
- T AVG — AVERAGING TEMPERATURE SENSOR OR THERMOSTAT
- S — VARIABLE SPEED FAN SWITCH
- P — PUMP
- AHU — AIR HANDLING UNIT
- CU — CONDENSING UNIT
- HP — HEAT PUMP
- EH — ELECTRIC HEATER
- FC — FAN COIL UNIT
- UH — UNIT HEATER
- EF — EXHAUST FAN
- SF — SUPPLY FAN
- AC — AIR CONDITIONING UNIT
- CH — CHILLER UNIT
- B — BOILER
- SF — SUPPLY FAN
- ERU — ENERGY RECOVERY UNIT

HVAC LEGEND

- MOD/ZD — MOTOR OPERATED DAMPER/ ZONE DAMPER
- HD — HAND DAMPER
- FSD — COMBINATION FIRE SMOKE DAMPER
- FD — SELF-CLOSING FIRE DAMPER W/ ACCESS DOOR
- SD — SMOKE DAMPER WITH ACCESS DOOR
- BLANKED FOR 3-WAY BLOW SUPPLY DIFFUSER
- OR — BLANKED FOR 2-WAY BLOW SUPPLY DIFFUSER
- 1-WAY BLOW SUPPLY DIFFUSER
- UC 1" — UNDERCUT DOOR
- LVDR — LOUVERED DOOR
- RETURN OR EXHAUST AIR FLOW
- SUPPLY AIR FLOW
- EXHAUST FAN
- NEW CONNECTION TO EXISTING
- TEMINATION OF DEMOLITION
- CO2 — CARBON DIOXIDE SENSOR
- CO — CARBON MONOXIDE SENSOR
- DP — DIFFERENTIAL PRESSURE SENSOR
- SD — SMOKE DETECTOR ON AC UNITS
- MS — MOTION SENSOR
- BUTTERFLY VALVE
- BALL VALVE
- THERMOMETER
- P — PRESSURE GAUGE
- FM — FLOW METER

EDDYSTONE BOROUGH BUILDING RENOVATION MEP - DRAWING INDEX

DRAWING NO.	DRAWING TITLE	ISSUE: ISSUED FOR BID 01/31/23	
M-1	MECHANICAL COVER	●	
M-1.1	MECHANICAL DETAILS	●	
MD-2	MECHANICAL FLOOR PLAN - DEMOLITION	●	
M-2	MECHANICAL FLOOR PLAN - NEW WORK	●	
M-3	MECHANICAL ROOF PLAN	●	
M-5	MECHANICAL SCHEDULES	●	

HVAC GENERAL NOTES

1. NEW THERMOSTATS SHALL BE HONEYWELL OR EQUAL AND SHALL INCLUDE THE FOLLOWING FUNCTIONS
   - 1.1. AUTOMATIC START CONTROLS SHALL BE PROVIDED FOR EACH HVAC CAPABLE OF ADJUSTING DAILY START TIME TO BRING EACH SPACE TO THE DESIRED OCCUPIED TEMPERATURE PRIOR TO THE SCHEDULED OCCUPANCY (C403.2.4.3)
   - 1.2. THERMOSTATIC CONTROLS HAVE A 5 DEG F DEADBAND OR MANUAL CHANGEOVER CONTROLS, EXCEPT PRECISION INDOOR TEMPERATURE CONTROLS. (C403.2.4.1.2)
   - 1.3. ALL THERMOSTATS/TEMPERATURE SENSORS SHALL HAVE SETBACK CONTROLS VIA TIME CLOCK OR PROGRAMMABLE CONTROL SYSTEM (C403.2.4.2)
   - 1.4. WHERE THERMOSTATS ARE LOCATED IN PUBLIC AREAS, PROVIDE PASSWORD PROTECTED MODELS OR LOCKING COVERS.
   - 1.5. ALL THERMOSTATS/TEMPERATURE SENSORS SHALL HAVE SETBACK CONTROLS SET TO 55 DEGREES (ADJ., HEAT) AND 85 DEGREES (ADJ. COOL) WITH 7-DAY CLOCK, 2 HOUR OCCUPANT OVERRIDE, AND 10 HOUR BACKUP. (C403.2.4.2.1, C403.2.4.2.2)
2. INSTALL THERMOSTATS 48" ABOVE FINISHED FLOOR OR AS DIRECTED OTHERWISE BY ARCHITECT.
3. LABEL EACH THERMOSTAT FOR HP UNIT OR AC UNIT SERVED.
4. IF AN AIR HANDLER MOVES MORE THAN 2000 CFM, IT SHALL HAVE A SMOKE DETECTOR IN THE AIR STREAM.
5. SMOKE DETECTORS SHALL BE FURNISHED AND WIRED TO THE FIRE ALARM SYSTEM UNDER THE ELECTRICAL SECTION. UNDER THE MECHANICAL SECTION. THIS CONTRACTOR SHALL MOUNT THE DETECTORS IN DUCTWORK, WHERE REQUIRED BY CODE, AND SHALL WIDE THE DETECTORS TO THE ATC SYSTEM AND RAN STARTERS FOR SHUTDOWN.
6. ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH NEC.
7. PROVIDE HANGERS, CLAMPS, OFFSETS, EXPANSION JOINTS, ANCHORS AND GUIDES AS NECESSARY TO PREVENT STRESS ON PIPING.
8. ALL CONDENSATE DRAIN LINES SHALL BE PIPED FULL SIZE OF THE UNIT DRAIN OUTLET, WITH "P" TRAP, CONNECTED TO PLUMBING IWR AS INDICATED ON DRAWINGS OR OTHERWISE DISCHARGED TO THE NEAREST DRAIN.
9. CONTROL WIRING FOR HVAC EQUIPMENT, WHETHER IT BE LINE OR LOW VOLTAGE, SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.
10. ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH NEC.
11. EACH NEW SYSTEM, EACH NEW PIECE OF EQUIPMENT AND EACH NEW AIR DEVICE SHALL BE FULLY TESTED AND BALANCED UPON COMPLETION OF THE WORK.
12. TESTING AND BALANCING SHALL BE PROVIDED BY A COMPANY SPECIALIZING IN THE TESTING AND BALANCING OF HVAC SYSTEMS. THE TEST AND BALANCE COMPANY SHALL BE A MEMBER OF AABC OR NEBB. BALANCE AIRFLOWS WITHIN 10% OF SCHEDULED AIR FLOWS TO ALL AIR DEVICES. IF AIR FLOW CANNOT BE BALANCED TO WITHIN 10%, PERFORM UP TO TWO PITOT TUBE TRAVERSES, AS DIRECTED BY OWNERS' REPRESENTATIVE, TO DETERMINE THE CAUSE OF THE DEFICIENCY. SUBMIT SIX COPIES OF THE BALANCING REPORT FOR REVIEW PRIOR TO FINAL INSPECTIONS.
13. PROVIDE 1/4" WELDED WIRE MESH SCREEN AT ALL OUTSIDE AIR INTAKE AND EXHAUST LOUVERS AND WHERE SHOWN ON DRAWINGS.
14. ALL EQUIPMENT PIPING, WIRING AND INSULATION ETC. INSTALLED IN HVAC AIR PLENUM SPACES SHALL MEET CODE REQUIREMENT FOR SMOKE AND COMBUSTIBILITY.
15. DESIGN CONDITIONS ARE AS FOLLOWS:
    - OUTDOOR SUMMER: 91 DEG DB, 75 DEG WB (ASHRAE 1%)
    - INDOOR SUMMER: 74 DEG DB, 55% RH
    - OUTDOOR WINTER: 11.6 DEG DB (ASHRAE 99.6%)
    - INDOOR WINTER: 70 DEB DB

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Project No. 22065

MECHANICAL COVER SHEET

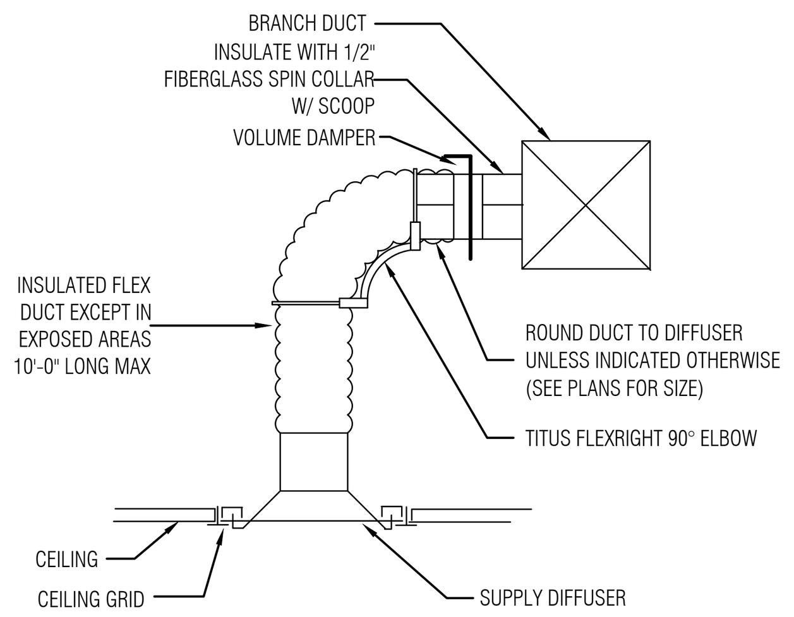
RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
1300 E. 12TH ST.
EDDYSTONE, PA 19022

REVISIONS

NO.	DESCRIPTION	DATE
	Issued for Bid	1/31/23

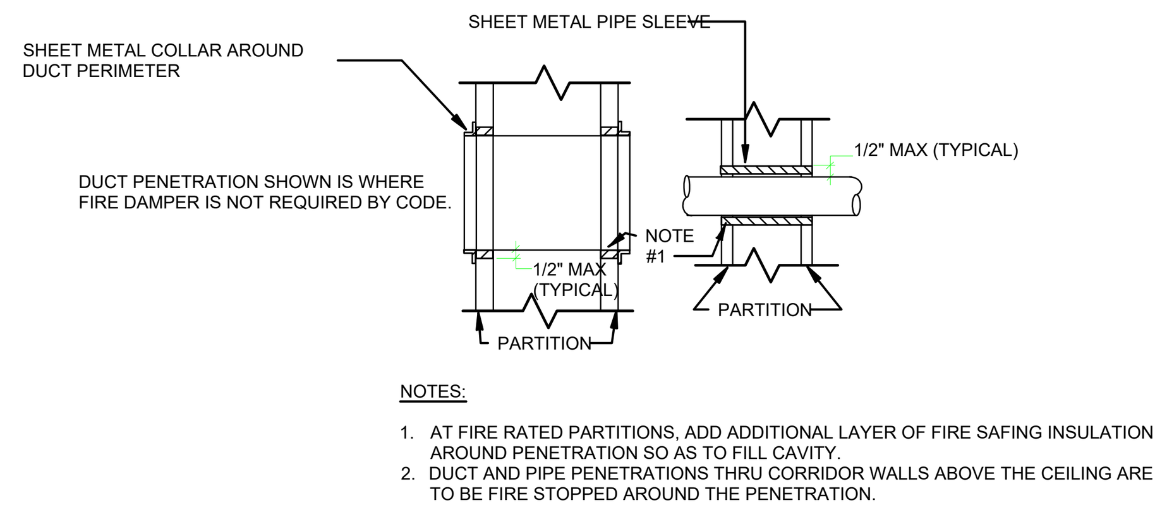
DATE: 1/31/23
SCALE: AS NOTED
DRAWN BY: GPM
CHECKED BY: DWF
PROJ. NO.: 22065

SHEET NO.
M-1
SHEET OF



TAKEOFF AND DIFFUSER DETAIL

NO SCALE



NOTES:
1. AT FIRE RATED PARTITIONS, ADD ADDITIONAL LAYER OF FIRE SAFING INSULATION AROUND PENETRATION SO AS TO FILL CAVITY.
2. DUCT AND PIPE PENETRATIONS THRU CORRIDOR WALLS ABOVE THE CEILING ARE TO BE FIRE STOPPED AROUND THE PENETRATION.

DUCT PENETRATION DETAIL

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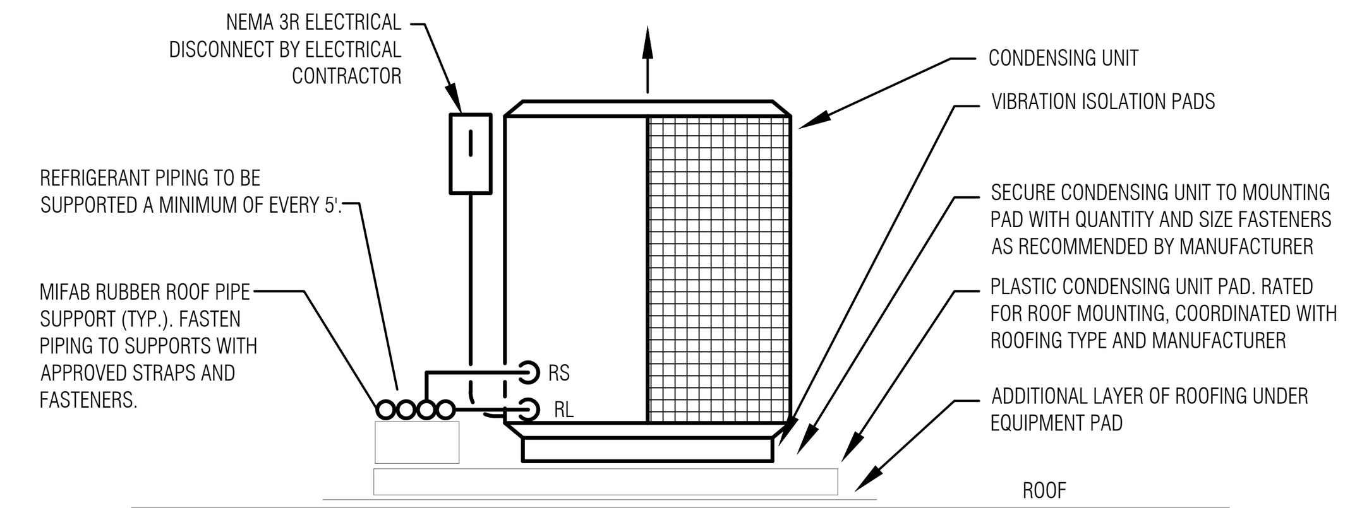

CONDENSING UNIT ON ROOF DETAIL

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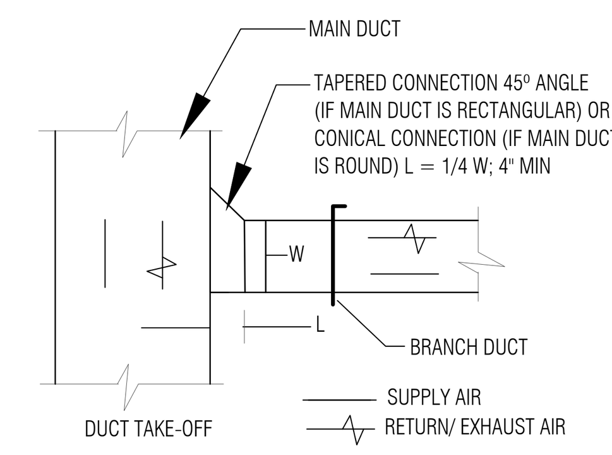

BRANCH TAKE-OFFS

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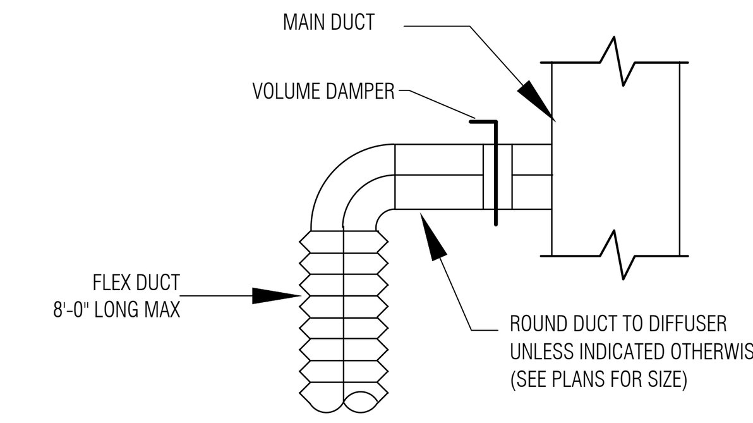
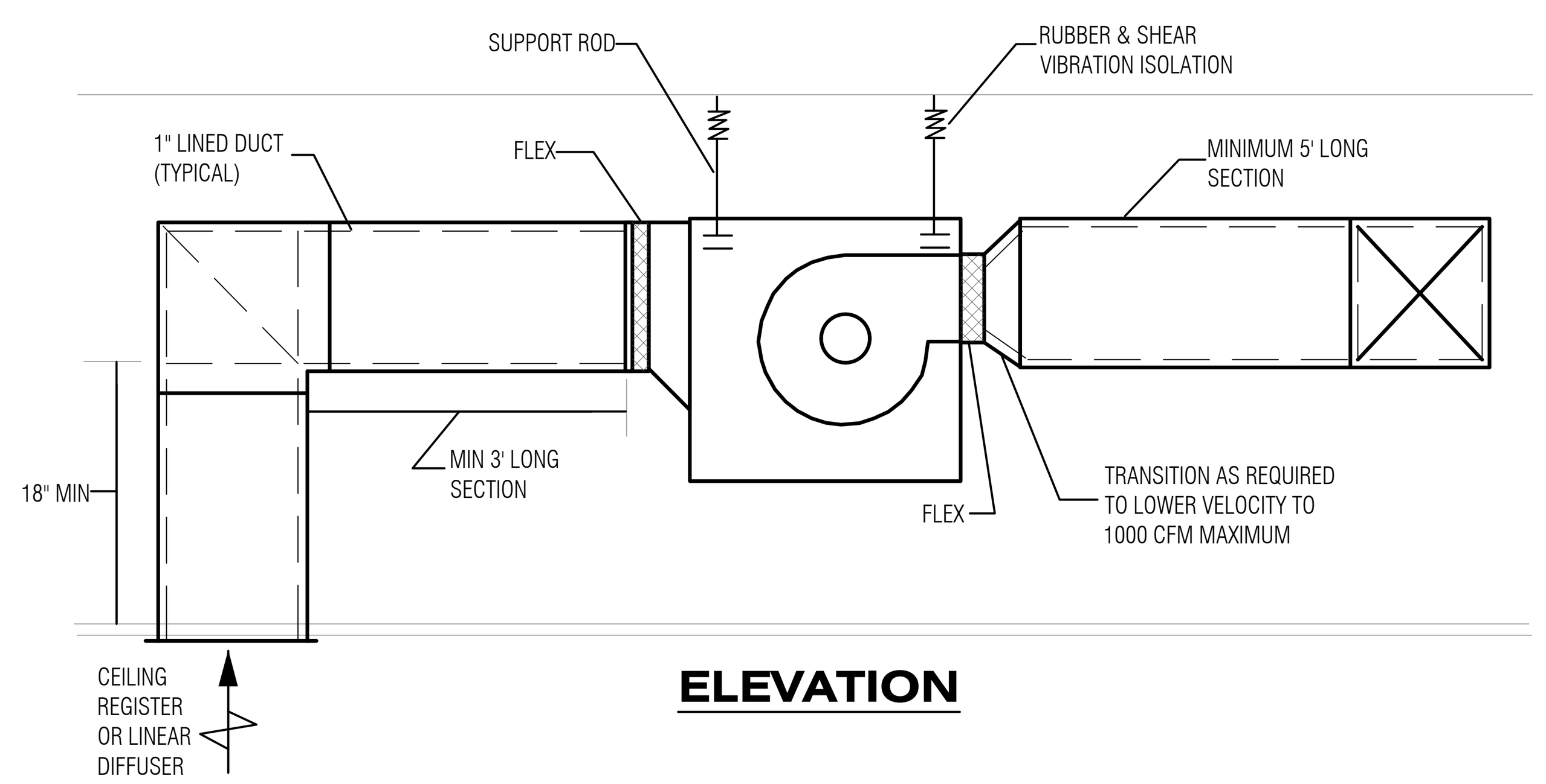


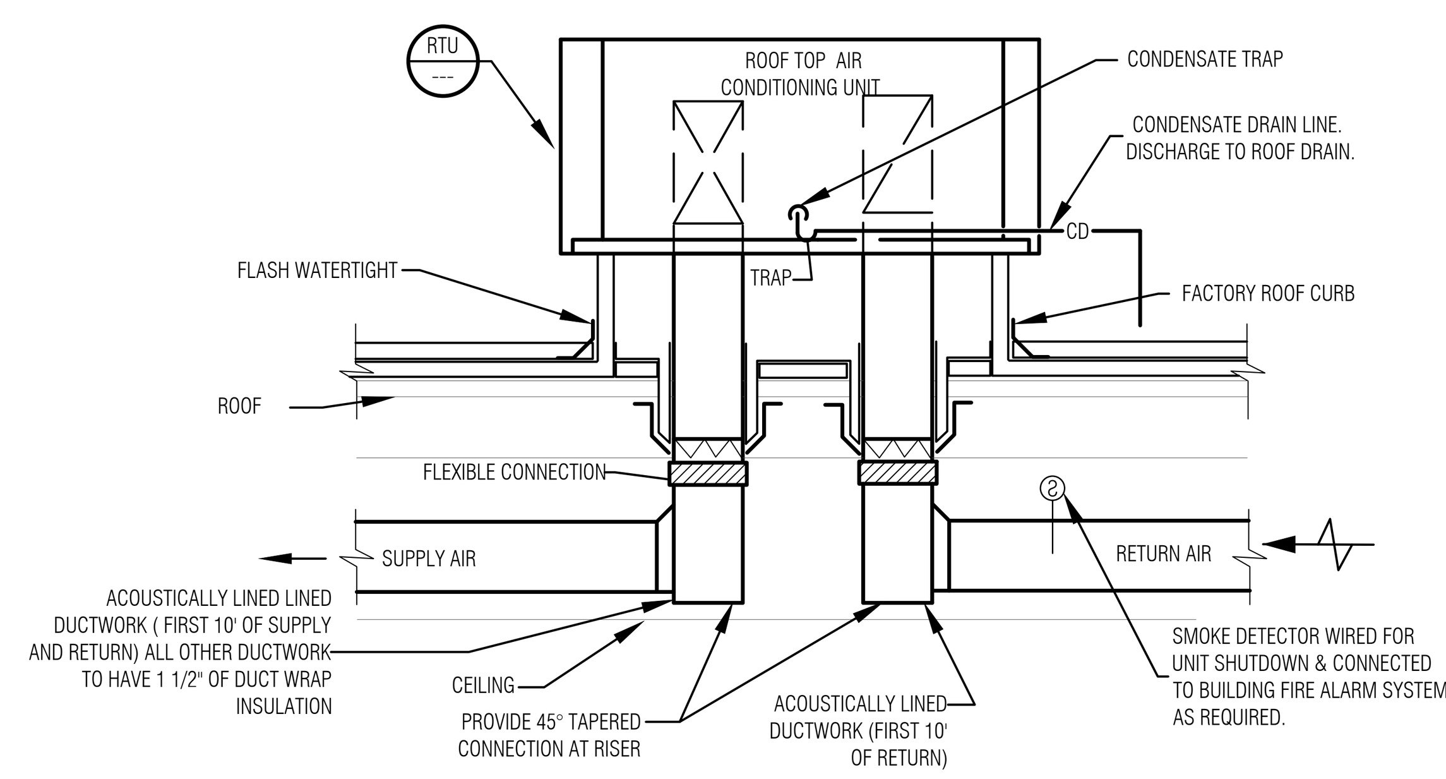
FLEXIBLE DUCT DETAIL

NO SCALE



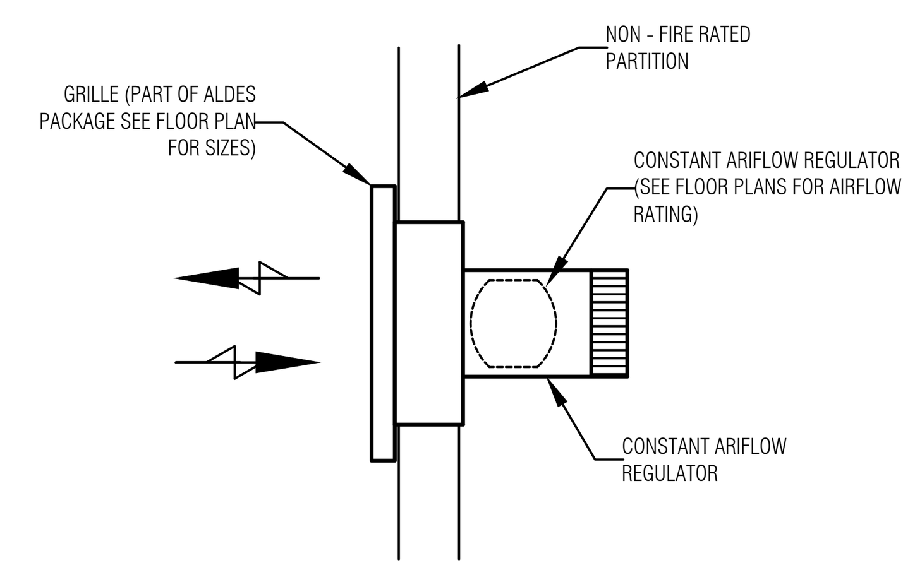
INLINE EXHAUST FAN DETAIL

NO SCALE



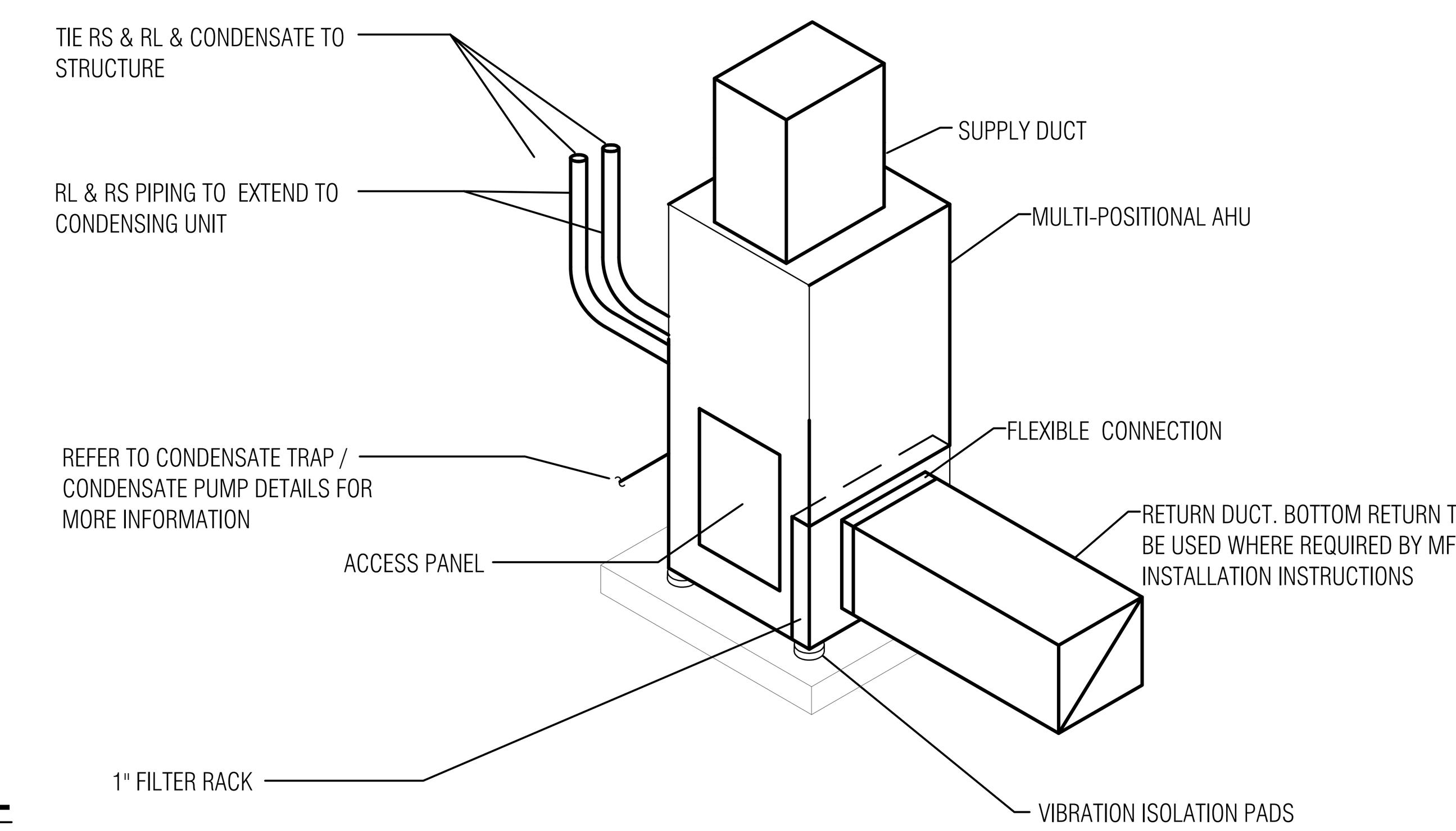
ROOF TOP A/C UNIT DETAIL

NO SCALE



SUPPLY OR EXHAUST WALL GRILLE INSTALLATION DETAIL

NO SCALE



VERTICAL AIR HANDLING UNIT

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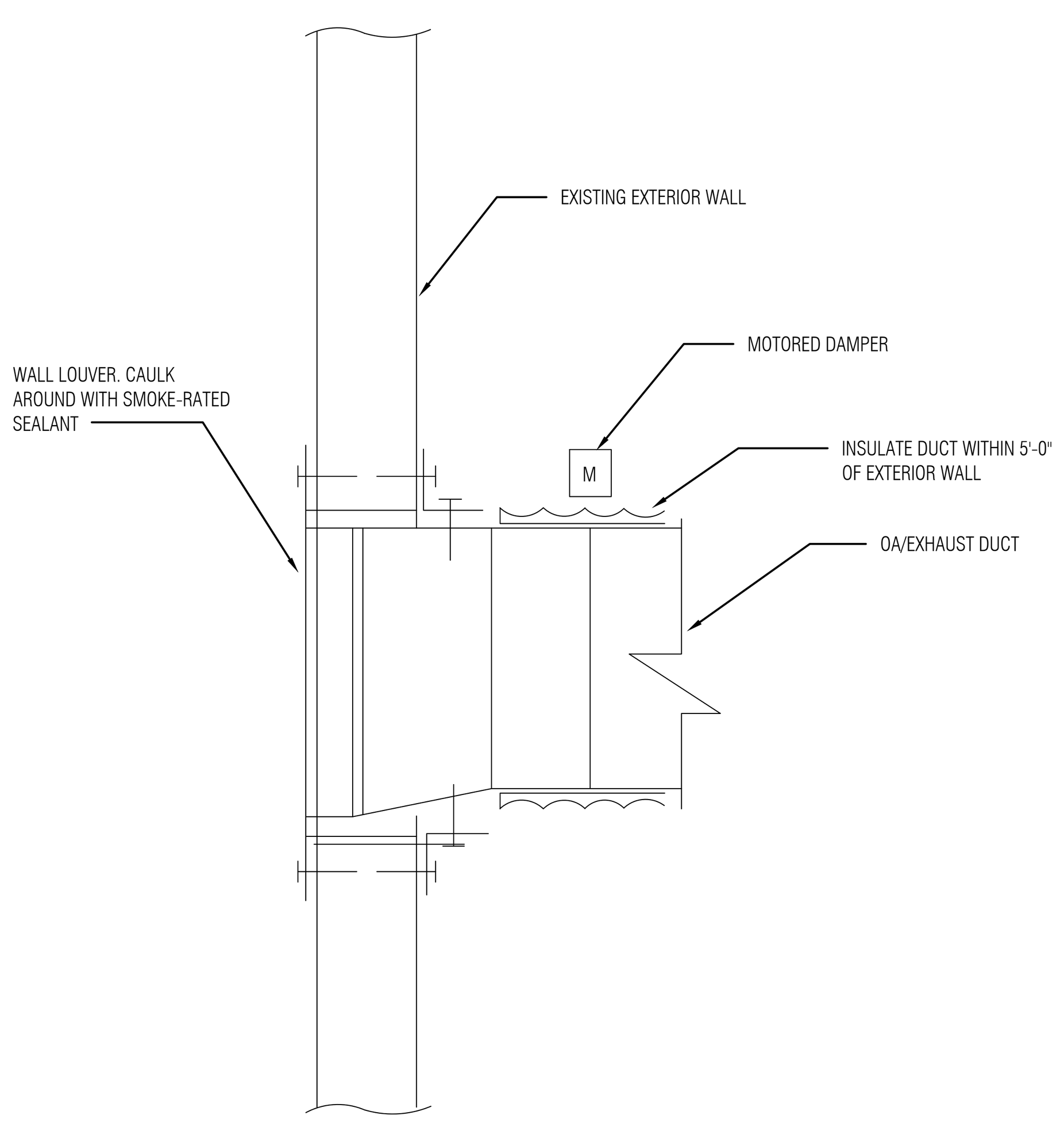
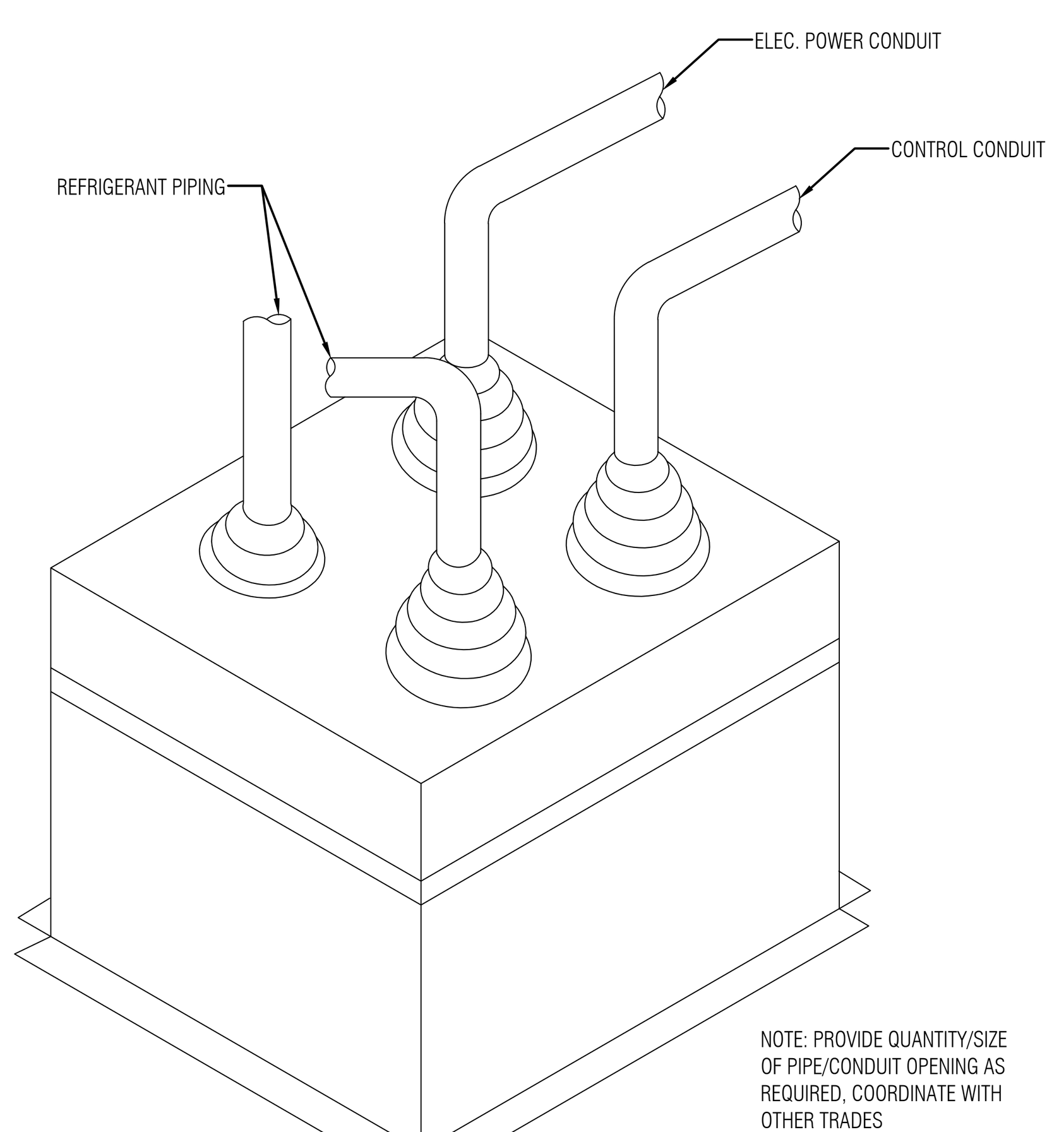


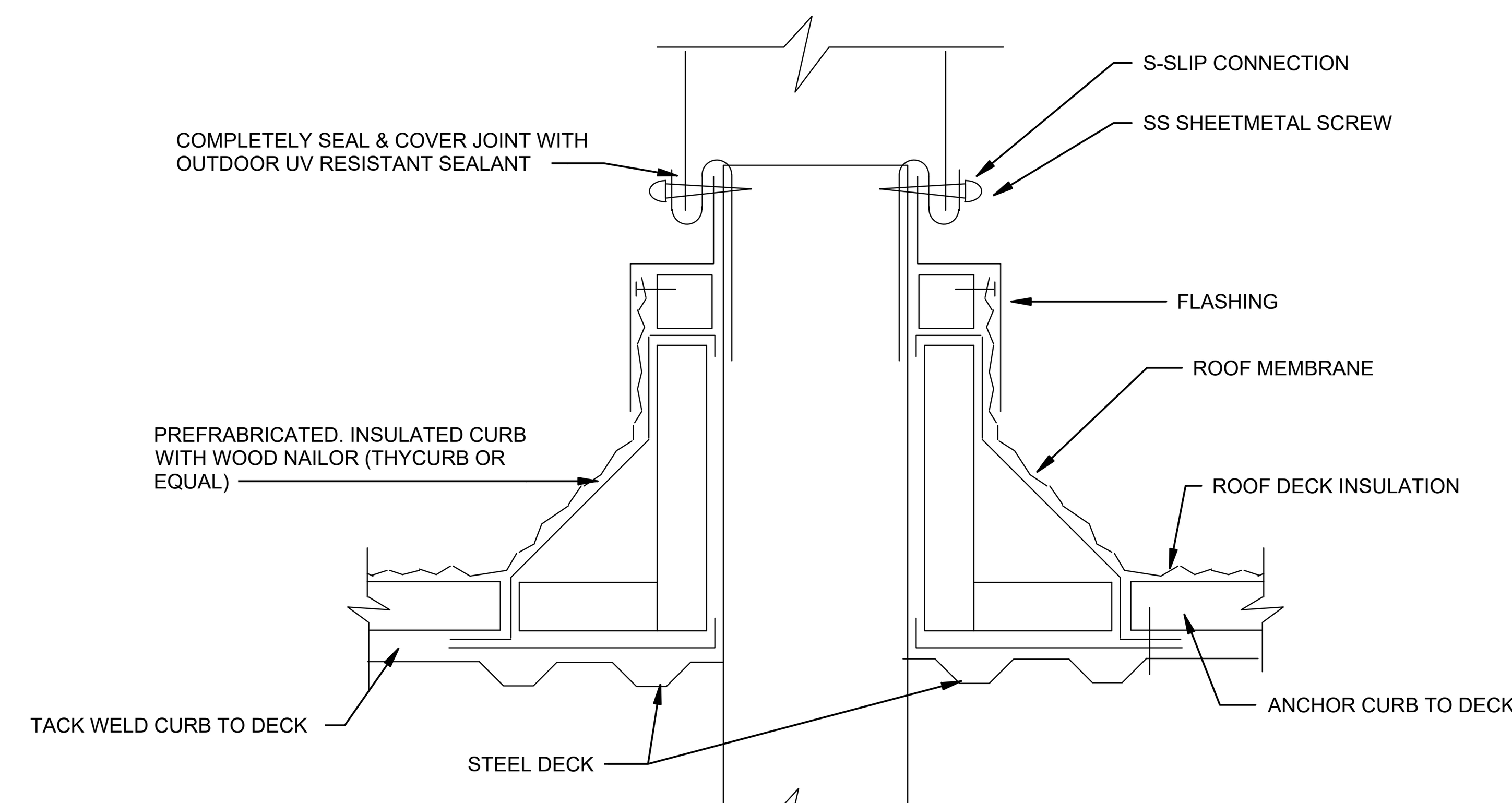
WALL LOUVER DETAIL

NO SCALE



REFRIGERANT PIPING PORTAL DETAIL

NO SCALE



DUCT ROOF PENETRATION DETAIL

NO SCALE

DETAIL NOTES:
1. DUCTS SHALL BE GALVANIZED SHEET METAL CONSTRUCTED AS PER SMACNA STANDARDS.
2. COORDINATE WITH GC/CM FOR WALL OPENING SIZE AND LOCATION.
3. PROVIDE 2" THICK DOUBLE WALL INSULATING BOARD OVER ALL UNUSED LOUVER AREA.

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MECHANICAL DETAILS
RENOVATIONS TO MUNICIPAL BUILDING
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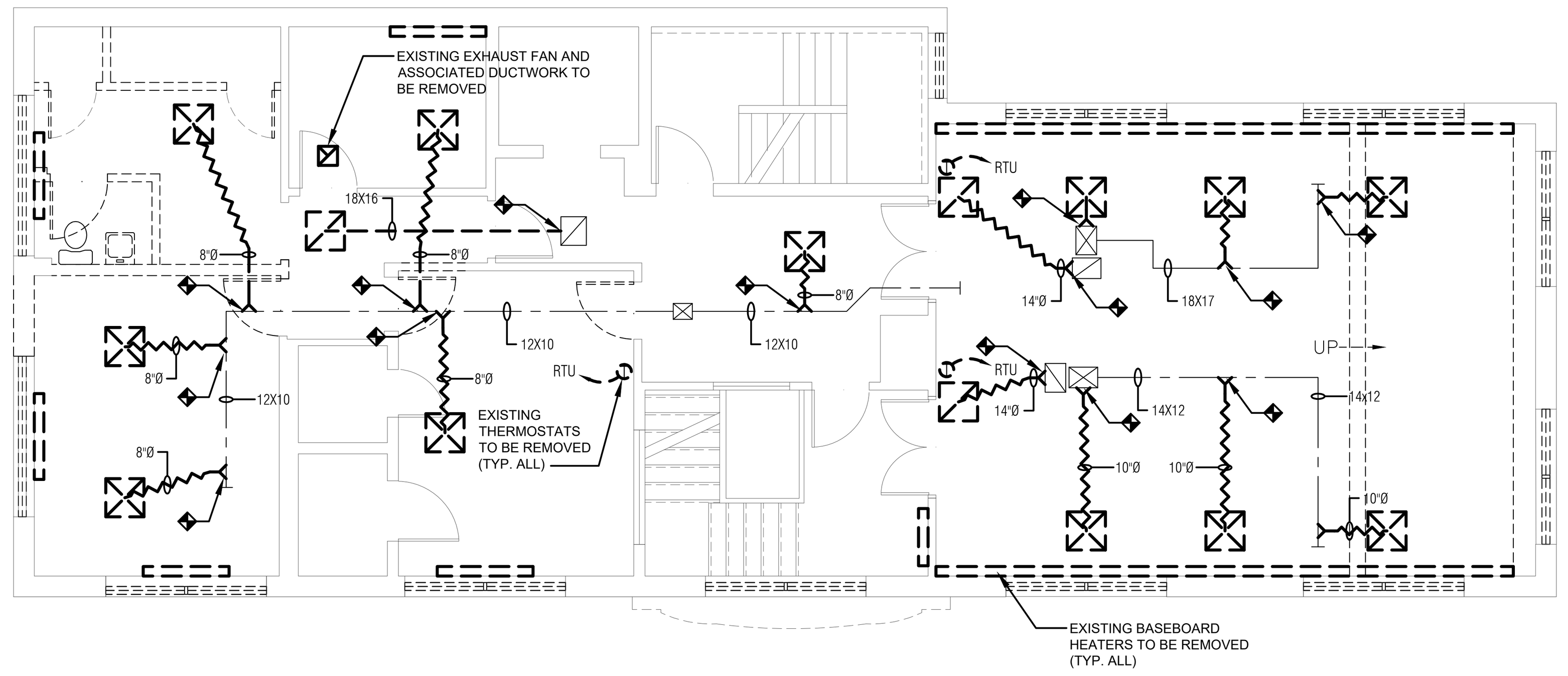
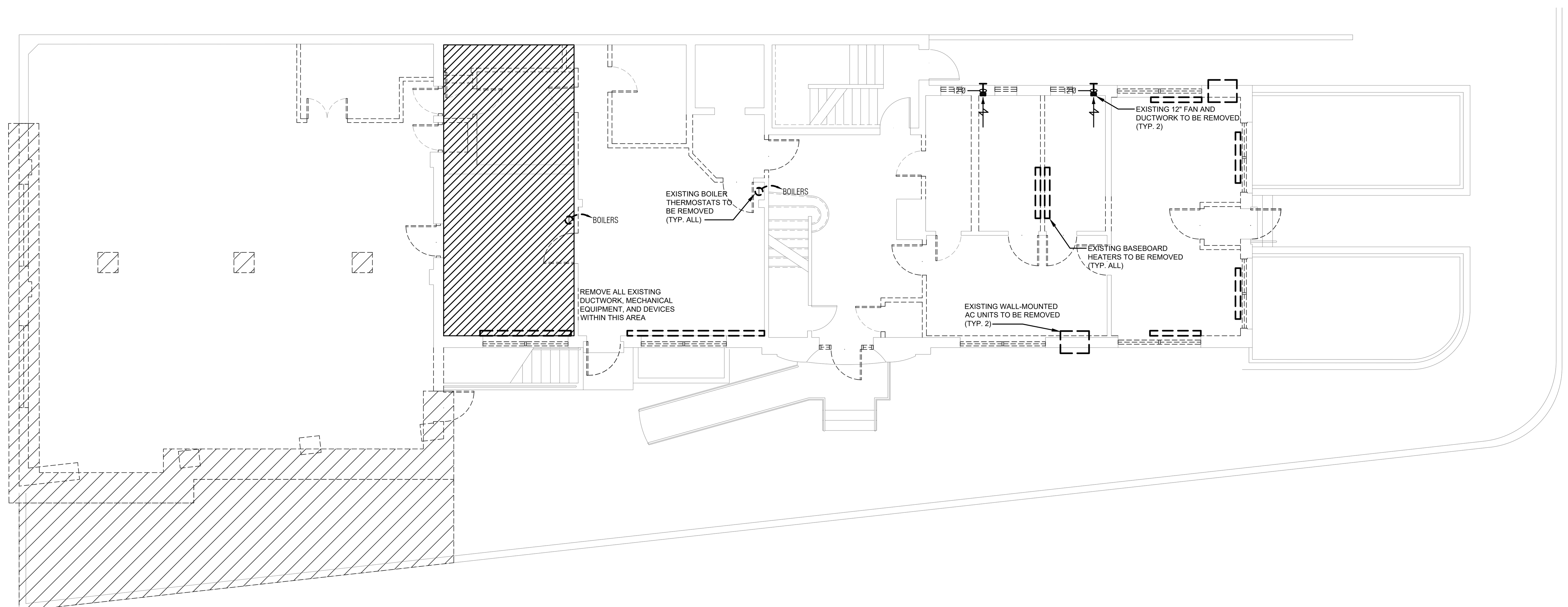
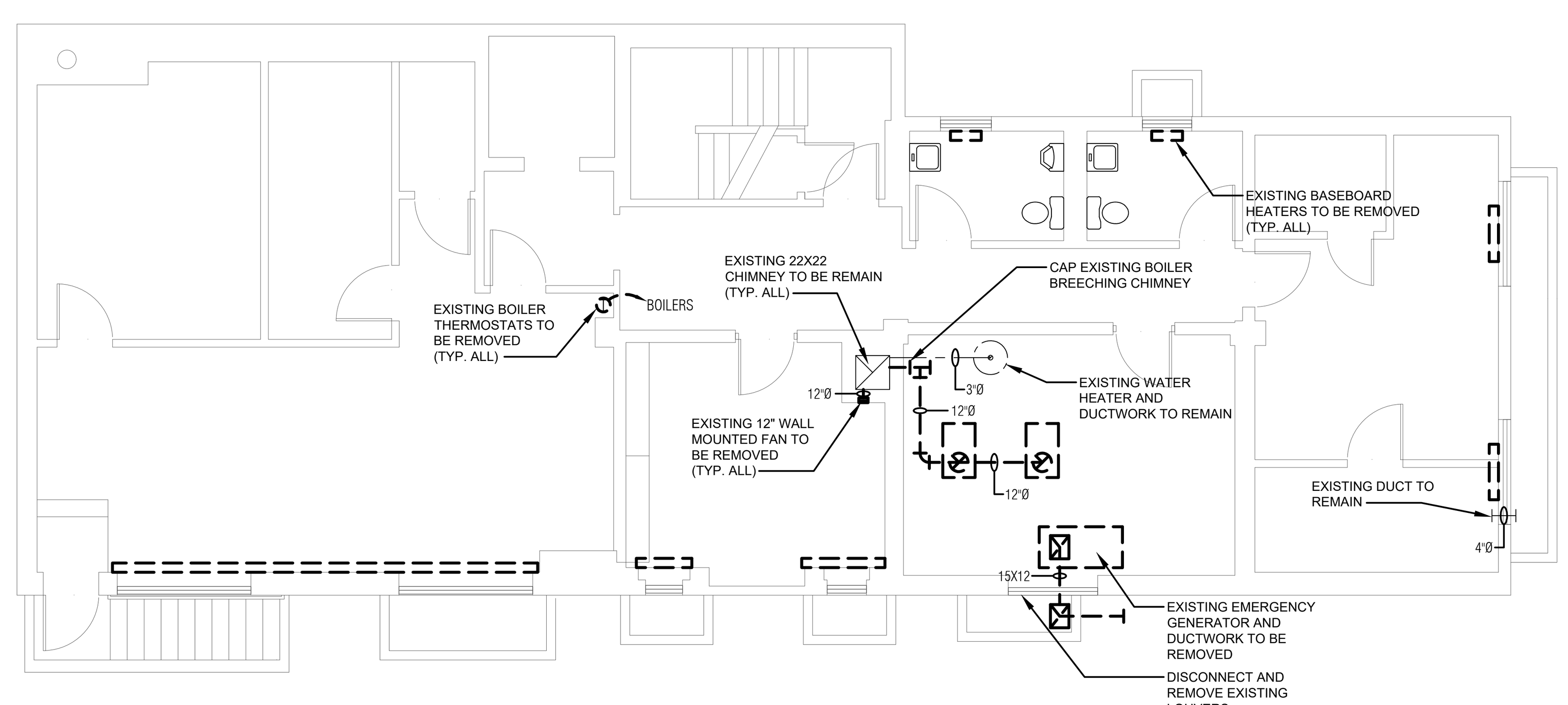


3 MD-2 **MECHANICAL SECOND FLOOR PLAN - DEMOLITION**
SCALE - 1/8" = 1'-0"



2 MD-2 **MECHANICAL FIRST FLOOR PLAN - DEMOLITION**
SCALE - 1/8" = 1'-0"



1 MD-2 **MECHANICAL BASEMENT PLAN - DEMOLITION**
SCALE - 1/8" = 1'-0"

GENERAL MECHANICAL DEMOLITION NOTES

DESIGN INTENT IS FOR THE FOLLOWING:

1. EXISTING BASEMENT AND FIRST FLOOR AIR HANDLING/DISTRIBUTION SYSTEMS SHALL BE DISCONNECTED AND REMOVED IN THEIR ENTIRETY INCLUDING, BUT NOT LIMITED TO:
   1.1. HVAC EQUIPMENT, REFRIGERANT LINES, DISTRIBUTION DUCTWORK, AIR DEVICES, THRU-THE-WALL AIR CONDITIONING UNITS, EXHAUST FANS, CONTROLS, ETC.
2. EXISTING 2ND FLOOR PACKAGED ROOFTOP UNITS TO BE DISCONNECTED AND REMOVED. EXISTING SHEET METAL SUPPLY AND RETURN MAINS TO REMAIN AND BE REUSED. ALL EXISTING BRANCH DUCTWORK AND AIR DEVICES
3. EXISTING HEATING HOT WATER SYSTEM TO BE DISCONNECTED AND REMOVED IN IT'S ENTIRETY. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO:
   3.1. EXISTING BOILERS, PUMPS, PIPING, BREECHING AND ASSOCIATED CONTROLS WITHIN THE MAIN BOILER ROOM.
   3.2. ALL HOT WATER RADIATION/HEATERS AND ASSOCIATED PIPING, HANGERS, INSULATION, CONTROLS, ETC THROUGHOUT THE BUILDING.

LINN ARCHITECTS
ARCHITECTURE
ENGINEERING
SITE PLANNING
INTERIOR DESIGN
1140 N. PROVIDENCE ROAD
MEDIA, PENNSYLVANIA 19063
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ADVANCED ENGINEERING INC
5561 Pennell Road | Media PA 19063

Project No. 22065

MECHANICAL FLOOR PLAN – DEMOLITION
RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
1300 E. 12TH ST.
EDDYSTONE, PA 19022

REVISIONS

NO.	DESCRIPTION	DATE
	Issued for Bid	1/31/23

DATE: 12.05.22
SCALE: AS NOTED
DRAWN BY:
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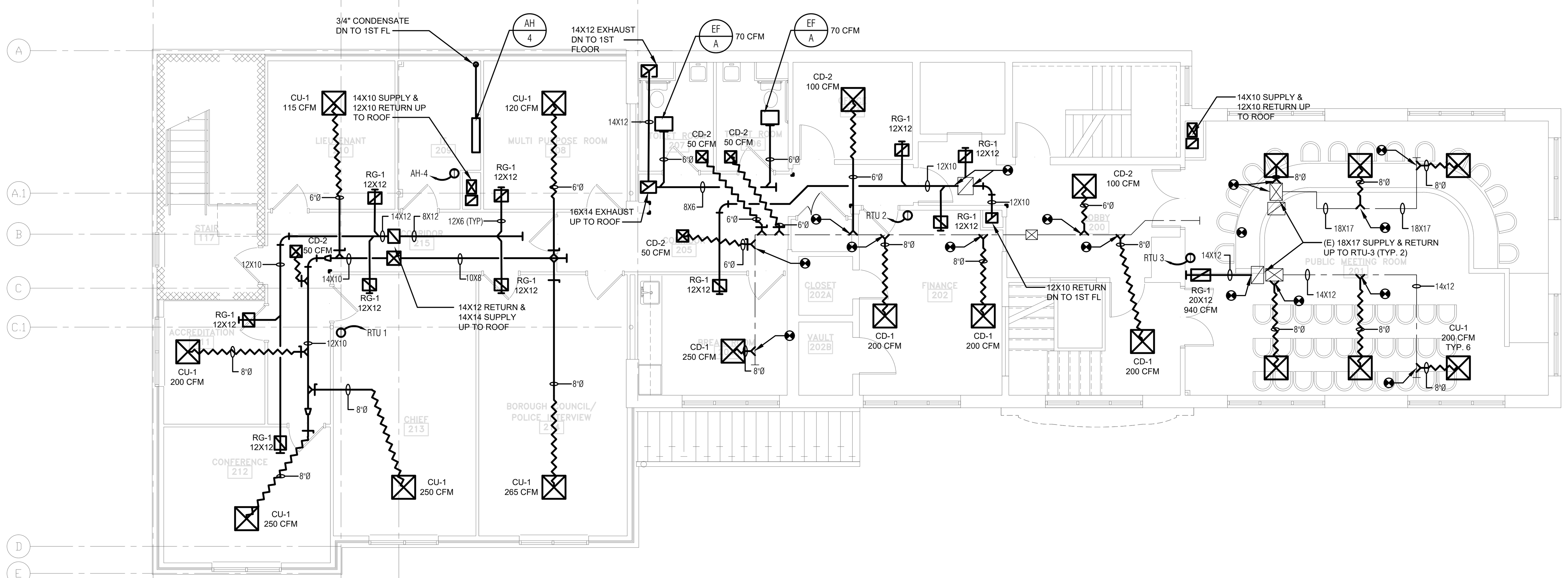
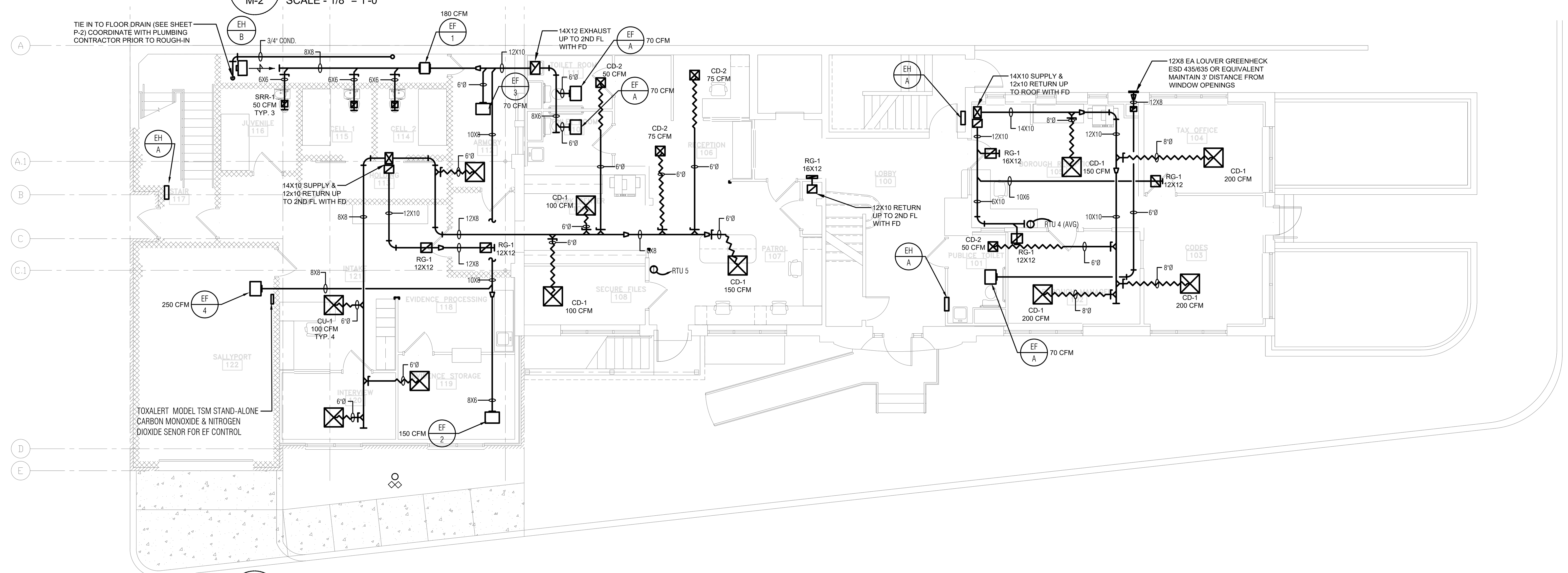
PROJ. NO.: 22065

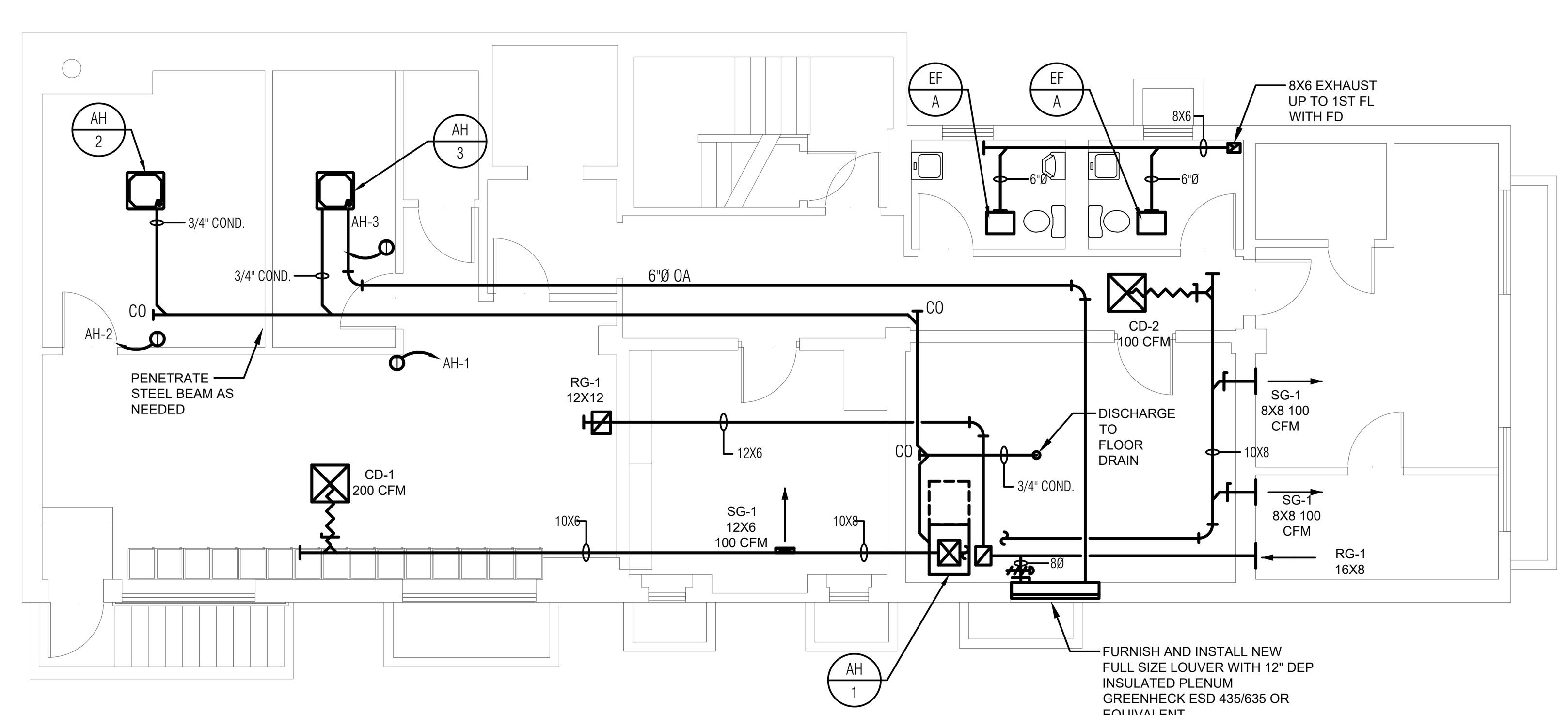
SHEET NO.
MD-2
SHEET OF



3 MECHANICAL SECOND FLOOR PLAN
M-2 SCALE - 1/8" = 1'-0"



2 MECHANICAL FIRST FLOOR PLAN
M-2 SCALE - 1/8" = 1'-0"



1 MECHANICALBASEMENT PLAN
M-2 SCALE - 1/8" = 1'-0"

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Project No. 22065

MECHANICAL FLOOR PLAN – NEW WORK

RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
1300 E. 12TH ST.
EDDYSTONE, PA 19022

REVISIONS		
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SHEET NO.
M-2
SHEET OF

GENERAL MECHANICAL CONSTRUCTION NOTES- ROOF

1. ALL EXTERIOR DUCTWORK SHALL BE INSULATED WITH R-8 RIGID INSULATION WITH WEATHERPROOF JACKETING.
2. ALL 90 DEGREE DUCT FITTINGS SHALL BE RADIUS ELBOWS OR MITERED JOINTS WITH TURNING VANES.
3. ALL ROOFTOP EQUIPMENT SHALL BE LOCATED A MINIMUM OF 10' FROM THE PARAPET EDGE.
4. ALL ROOFTOP PIPING AND DUCTWORK SHALL BE SUPPORTED AT 5' INTERVALS AND ALL CHANGES IN DIRECTION (PATE OR EQUAL)

1 MECHANICAL ROOF PLAN

M-3 SCALE - 1/8" = 1'-0"

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Project No. 22065

MECHANICAL ROOF PLAN – NEW WORK

RENOVATIONS TO MUNICIPAL BUILDING

BOROUGH OF EDDYSTONE

1300 E. 12TH ST.

EDDYSTONE, PA 19022

REVISIONS NO.	DESCRIPTION	DATE
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SHEET NO. M-3 SHEET OF

AIR DEVICE SCHEDULE

SYMBOL	TYPE	SIZE	SERVICE	MOUNTING	MATERIAL	FINISH	ACCESSORIES	MAX. NC	STANDARD OF DESIGN MFGR.	STANDARD OF DESIGN MODEL	REMARKS
CD-1	DIFFUSER	24X24	SUPPLY	REFER TO PLAN	ALUMINUM	WHITE	OBD	25	PRICE	ASCD	SQUARE TO ROUND ADAPTER AS REQUIRED.
CD-2	DIFFUSER	12X12	SUPPLY	REFER TO PLAN	ALUMINUM	WHITE	OBD	25	PRICE	ASCD	SQUARE TO ROUND ADAPTER AS REQUIRED.
RG-1	RETURN GRILLE	REFER TO PLAN	RETURN	REFER TO PLAN	ALUMINUM	WHITE	-	25	PRICE	635	3 /4" SPACING 45 ° DEFLECTION
SG-1	SUPPLY GRILLE	REFER TO PLAN	SUPPLY	REFER TO PLAN	ALUMINUM	WHITE	OBD	30	PRICE	635	1/2" SPACING, DOUBLE DEFLECTION
SRR-1	SECURITY REGISTER	REFER TO PLAN	EXHAUST	REFER TO PLAN	STEEL	WHITE	OBD	30	PRICE	MSL	WIRE MESH SCREEN

FAN SCHEDULE

UNIT NO.	DUTY	TYPE	CFM	ESP	HP	RPM	FLA	ELECTRICAL CHARACTERISTICS	WEIGHT	CONTROL	STANDARD OF DESIGN MFGR	STANDARD OF DESIGN MODEL	REMARKS
EF-1	CELLS	INLINE	180	0.35	134 WATTS	825	0.46	115V - 1Ø - 60Hz	23	CONTINUOUS	GREENHECK	CSP-A200	(1)
EF-2	EVIDENCE ROOM	CLG. CABINET	150	0.1	11 WATTS	704	1.5	115V - 1Ø - 60Hz	24	SWITCH	GREENHECK	SP-A390-VG	(1)
EF-3	ARMORY	CLG. CABINET	70	0.11	15 WATTS	850	0.14	115V - 1Ø - 60Hz	17	SWITCH	GREENHECK	SP-A70	(1)
EF-4	SALLYPORT	CLG. CABINET	70	0.11	15 WATTS	850	0.14	115V - 1Ø - 60Hz	17	INTERCONNECT W/ LIGHT SWITCH SWITCH	GREENHECK	SP-A70	(1)
EF-A	WOMEN'S & MEN'S BATHROOMS	CLG. CABINET	70	0.11	15 WATTS	850	0.14	115V - 1Ø - 60Hz	17		GREENHECK	SP-A70	(1)

(1) PROVIDE VIBRATION ISOLATION HANGERS, DISCONNECT SWITCH, INTEGRAL GRAVITY BACKDRAFT DAMPER, SPEED CONTROLLER.

BRANCH/ FLEX DUCT SIZING SCHEDULE

DUCT SIZE	CFM RANGE	REMARK
6"Ø	0-100	MAX 10' LENGTH. FLEX DUCTWORK APPROVED ON SUPPLY SYSTEMS ONLY.RETURN AND EXHAUST TO BE HARD DUCTED.
8"Ø	101-174	
9"Ø	175-250	
10"Ø	251-300	
12"Ø	301-500	

ELECTRIC HEATER SCHEDULE

UNIT NO.	MBH	KW	CFM	TYPE	ELECTRICAL CHARACTERISTICS	AMPS	MFGR	MODEL NO.	REMARKS
EH-A	6.1	1.8	N/A	WALL MOUNTED	120/1/60	15.0	Q-MARK	SSAR1802	(1) (2)
EH-B	10.2	3.0	350	CLG. MOUNTED	240/1/60	12.5	Q-MARK	MUH-0321	(3)

(1) PROVIDE: DISCONNECT SWITCH, 2" SEMI RECESSED MOUNTING FRAME, INTEGRAL THERMOSTAT
(2) DO NOT INSTALL HEATER CLOSER THAN 12" TO THE FLOOR, 12" TO AN ADJACENT WALL, 36" TO CEILING.

(3) PROVIDE: DISCONNECT SWITCH, INTEGRAL THERMOSTAT, CEILING MOUNTING HARDWARE

PACKAGED ROOFTOP AIR CONDITIONING UNIT SCHEDULE

UNIT NO.	TYPE	SERVES	NOM. TONS	EER	SUPPLY FAN SUPPLY AIR	SUPPLY FAN OUTSIDE AIR	SUPPLY FAN ESP	SUPPLY FAN HP	COOLING-DX (1) TMBH	COOLING-DX (1) SMBH	GAS HEAT (MBH) INPUT	GAS HEAT (MBH) OUTPUT	GAS HEAT (MBH) EFF	FILTERS	ELECTRICAL VOLT/PH	ELECTRICAL MCA	ELECTRICAL MOCP	WEIGHT	BASIS OF DESIGN MFGR	BASIS OF DESIGN MODEL	REMARKS
RTU-1	ROOFTOP	2ND FL OFF.	3.0	12.0	1190	175	1.0	0.5	37.0	30.0	70.0	56.7	0.8	MERV8	230V, 1Ø, 60Hz	24.5	40	375 LBS	TRANE	4YCC4036A1070A	(2)
RTU-2	ROOFTOP	2ND FL AMEN.	2.0	12.0	805	120	1.0	0.33	24.6	19.9	60.0	48.6	0.8	MERV8	230V, 1Ø, 60Hz	19.1	30	358 LBS	TRANE	4YCC4024A1060A	(2)
RTU-3	ROOFTOP	MEETING RM	3.0	12.0	1190	250	1.0	0.5	37.0	30.0	70.0	56.7	0.8	MERV8	230V, 1Ø, 60Hz	24.5	40	375 LBS	TRANE	4YCC4036A1070A	(2)
RTU-4	ROOFTOP	1ST FL SOUTH	2.0	12.0	805	120	1.0	0.33	24.6	19.9	60.0	48.6	0.8	MERV8	230V, 1Ø, 60Hz	19.1	30	358 LBS	TRANE	4YCC4024A1060A	(2)
RTU-5	ROOFTOP	1ST FL AMEN.	2.0	12.0	805	120	1.0	0.33	24.6	19.9	60.0	48.6	0.8	MERV8	230V, 1Ø, 60Hz	19.1	30	358 LBS	TRANE	4YCC4024A1060A	(2)

(1) 80 DB/67 WB RETURN AIR CONDITIONS, 95 DEG OAT
(2) HORIZONTAL DISCHARGER. PROVIDE ROOF CURB, MOTORIZED OA DAMPER, HINGED FILTER ACCESS DOOR, 2" FILTER FRAME THROUGH THE BASE ELECTRIC, DISCONNECT SWITCH, 7-DAY PROGRAMMABLE THERMOSTAT WITH AVERAGING SENSOR CAPABILITY. FACTORY STARTUP AND 5 YR PARTS AND LABOR WARRANTY

CONDENSING UNIT SCHEDULE

UNIT NO.	UNITS SERVED	TOT. CLG CAP.(1)	TOT. HTG CAP.(2)	ELECTRICAL VOLT/PH	ELECTRICAL MCA	ELECTRICAL MOCP	MFGR	MODEL NO.	WEIGHT	REMARKS
CU-1	AH-1	18.0	20.0	230/60/1	11	28	TRANE	TRUZA0181KA70BA	100	PROVIDE DISCONNECT, PATE PIPE CURB, ROOF MOUNTING PAD. REFRIGERANT LINES TO BE SIZED BY MFG.
CU-2	AH-2, AH-3	24.0	28.0	230/60/1	19	26	TRANE	TRUZA0241HA70NA	153	PROVIDE DISCONNECT, PATE PIPE CURB, ROOF MOUNTING PAD. REFRIGERANT LINES TO BE SIZED BY MFG. (3)
CU-3	AH-4	12.0	18.0	230/60/1	11	28	TRANE	TRUZA0121KA70BA	93	PROVIDE DISCONNECT, PATE PIPE CURB, ROOF MOUNTING PAD. REFRIGERANT LINES TO BE SIZED BY MFG.

(1) 80 DB/ 67 WB RETURN AIR CONDITIONS, 95 OAT
(2) 70 DB RETURN AIR CONDITIONS, 47 OAT
(3) PROVIDE MSDD-50TR-E DISTRIBUTION PIPE KIT FOR TWINNED INTERIOR UNITS.

AIR HANDLING UNIT SCHEDULE

UNIT NO.	TYPE	SERVING	NOM. TONS	SUPPLY FAN SUPPLY AIR	SUPPLY FAN OUTSIDE AIR	SUPPLY FAN ESP	COOLING-DX (1) TOTAL MBH	COOLING-DX (1) SEER	HTG-HP REV. MBH @ 47°F	HTG-HP REV. COP	FILTERS	ELECTRICAL VOLT/PH	ELECTRICAL MCA	ELECTRICAL MOCP	BASIS OF DESIGN MFGR.	BASIS OF DESIGN MODEL	NET WEIGHT	REMARKS
AH-1	VERTICAL UNIT	STORAGE	1.5	735	110	0.8	18.0	20.2	23.0	3.78	MERV 8	230/60/1	3.0	5.0	TRANE	TPVA0A0181AA70A	113	(2)
AH-2	CEILING CASSETTE	STORAGE	1.0	495	60	0.6	12.0	21.1	18.0	3.9	MERV 8	230/60/1	2.23	5.0	TRANE	TPEADA0121AA80A	58	(3)
AH-3	CEILING CASSETTE	FIRE MARSHAL	1.0	490	60	N/A	12.0	27.0	20.0	4.94	MERV 8	230/60/1	1.0	2.5	TRANE	TPLA0A0121EA70B	46	(3)
AH-4	WALL MOUNTED	IT ROOM	1.0	385	N/A	N/A	12.0	21.0	18.0	3.9	MERV 8	230/60/1	1.0	2.5	TRANE	TPKA0A0121LA00A	28	(3)

(1) 80 DB/ 67 WB RETURN AIR CONDITIONS, 95 OAT
(2) PROVIDE: DISCONNECT SWITCH, R410A HEAT PUMP EXPANSION VALVE, 7 -DAY PROGRAMMABLE THERMOSTAT, VIBRATION ISOLATION PADS, REFRIGERANT LINES TO BE SIZED BY MANUFACTURER.
(3) PROVIDE DISCONNECT SWITCH, LOW AMBIENT KIT, WIRED WALL-MOUNTED CONTROLLER, INTEGRAL CONDENSATE LIFT DEVICE. REFRIGERANT PIPING TO BE SIZED BY MANUFACTURER.

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MECHANICAL SCHEDULES

RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
1300 E. 12TH ST.
EDDYSTONE, PA 19022

REVISIONS

NO.	DESCRIPTION	DATE
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SHEET NO.
M-5
SHEET OF

GENERAL SPECIFICATIONS

1. THE DRAWINGS INDICATE A PERFORMANCE SPECIFICATION FOR THE FIRE ALARM SYSTEM. AWARDED CONTRACTOR IS RESPONSIBLE FOR DETAILED DESIGN AND PREPARATION OF SIGNED AND SEALED ENGINEERING DOCUMENTS FOR REVIEW/APPROVAL FROM OWNERS INSURANCE CARRIER AND LOCAL AUTHORITY HAVING JURISDICTION.
2. DRAWINGS ARE DIAGRAMMATIC: DETERMINE LOCATIONS OF SYSTEMS AND COMPONENTS IN FIELD. COORDINATE WITH ARCHITECTURAL DRAWINGS AND OTHER TRADES.
3. ADDRESS QUESTIONS REGARDING DRAWINGS TO ARCHITECT IN WRITING BEFORE AWARD OF CONTRACT. OTHERWISE, ARCHITECT'S INTERPRETATION OF MEANING AND INTENT OF DRAWINGS SHALL BE FINAL.
4. THE INTENTION IS FOR INSTALLATION OF COMPLETE AND OPERATING SYSTEMS. NOT EVERY COMPONENT REQUIRED IS SHOWN. THE CONTRACTOR SHALL INCLUDE ALL COMPONENTS NORMALLY ASSOCIATED WITH THE PARTICULAR SYSTEM. THE SYSTEM SHALL BE FULLY COMMISSIONED AND SIGNED OFF BY AN OFFICER OF THE RESPECTIVE CONTRACTOR.
5. GIVE NOTICES, FILE PLANS, OBTAIN PERMITS AND LICENSES, PAY FEES AND BACK CHARGES, AND OBTAIN NECESSARY APPROVALS FROM AUTHORITIES THAT HAVE JURISDICTION AS REQUIRED TO PERFORM WORK IN ACCORDANCE WITH ALL LEGAL REQUIREMENTS AND WITH THE DESIGN DOCUMENTS
6. PRIOR TO COMMENCING WORK, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND EQUIPMENT DATA FOR MATERIALS AND EQUIPMENT TO THE ARCHITECT FOR REVIEW AND APPROVAL. MATERIALS AND EQUIPMENT SHALL NOT BE INSTALLED BEFORE SHOP DRAWINGS ARE REVIEWED AND APPROVED. SCHEDULE AT LEAST TEN WORKING DAYS, EXCLUSIVE OF TRANSMITTAL TIME, FOR SUBMITTAL REVIEW SHALL BE ALLOWED.
7. MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS LABORATORIES (UL) AND APPROVED BY ASME AND AGA FOR INTENDED SERVICE.
8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES REQUIRED FOR SAFE EXECUTION AND COMPLETION OF WORK, AND FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
9. COORDINATE WORK OF THIS SECTION WITH THAT OF OTHER SECTIONS.
10. ALL MATERIALS, EQUIPMENT AND METHOD OF INSTALLATION SHALL BE ACCORDANCE WITH THE STANDARDS, REGULATIONS, CODES, ORDINANCES, AND LAW OF LOCAL, STATE, AND FEDERAL GOVERNMENTS, AND OTHER AUTHORITIES THAT HAVE LAWFUL JURISDICTION.
11. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO COORDINATE HIS WORK WITH THAT OF ALL OTHER TRADES, INCLUDING (BUT NOT LIMITED TO), ELECTRICAL, HVAC, SPRINKLER, FIRE PROTECTION, STRUCTURAL AND GENERAL ARCHITECTURE. OFFSETS IN PIPING AND OFFSETS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
12. DEVIATION FROM CONTRACT DOCUMENTS, OR PROPOSED SUBSTITUTION OF MATERIALS OR EQUIPMENT FOR THOSE SPECIFIED, SHALL BE REQUESTED IN SEPARATE LETTER, WHETHER DEVIATIONS ARE DUE TO FIELD CONDITIONS, STANDARD SHOP PRACTICE OR OTHER CAUSE.
13. EACH CONTRACTOR IS RESPONSIBLE FOR THE CUTTING AND PATCHING REQUIRED FOR THE INSTALLATION OF ITS NEW WORK. CUTTING AND PATCHING SHALL BE COMPLETED IN A NEAT AND WORKMANLIKE MANNER. PATCHING MATERIALS SHALL MATCH EXISTING MATERIALS TO THE GREATEST EXTENT POSSIBLE. PROVIDE TOUCH-UP TO MATCH EXISTING SURROUNDING AREAS OF CUTTING AND PATCHING WORK.
14. CONTRACTOR SHALL COORDINATE ITS RESPECTIVE CEILING MOUNTED EQUIPMENT WITH OTHER TRADE CONTRACTORS PRIOR TO INSTALLATION TO AVOID CONFLICTS.
15. ANY DEMOLITION SHALL BE COORDINATED WITH OWNER, ARCHITECT, G.C. AND ENGINEER. ALL DEBRIS SHALL BE CLEANED UP AND REMOVED FROM THE SITE BY THE END OF THE DAY. PRIOR TO DISPOSAL OF EQUIPMENT AND MATERIALS, TURN OVER TO THE OWNER ANY REMOVED EQUIPMENT AND MATERIALS PER OWNERS REQUEST.
16. WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER AND SHALL PRESENT NEAT, RECTILINEAR APPEARANCE WHEN COMPLETED. MAINTAIN MAXIMUM HEAD ROOM AT ALL TIMES. DO NOT RUN PIPES, DUCTS, AND CONDUIT EXPOSED UNLESS SHOWN AND NOTED TO BE EXPOSED ON DRAWINGS. MATERIALS AND EQUIPMENT SHALL BE NEW AND INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS, SO THAT COMPLETED INSTALLATION SHALL OPERATE SAFELY AND EFFICIENTLY.
17. COORDINATE ROOF PENETRATIONS WITH WORK OF OTHER SECTIONS AND WITH FLASHING REQUIREMENTS.
18. ANY INTERFERENCE SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE, AND SHALL BE RESOLVED PRIOR TO THE INSTALLATION OF THE WORK INVOLVED.
19. ALL MATERIALS AND EQUIPMENT SHALL BE NEW UNLESS NOTED OTHERWISE.
20. MANUFACTURERS' MODEL NUMBERS ARE SPECIFIED SOLELY TO ESTABLISH STANDARDS OF QUALITY FOR PERFORMANCE AND MATERIALS.
21. SUBSTITUTED PRODUCTS SUBMITTED AND APPROVED FOR USE THAT NECESSITATE CHANGES TO THE WORK OF OTHER TRADES OF CONTRACT SHALL BE COORDINATED AND ARRANGED BY THE CONTRACTOR WHO SUBMITTED THE SUBSTITUTION WITHOUT ADDITIONAL COST TO THE OWNER.
22. PRODUCT INSTALLATION SHALL ADHERE TO MANUFACTURERS RECOMMENDATIONS.
23. EACH RESPECTIVE CONTRACTOR SHALL PROVIDE PROPER ACCESS TO EQUIPMENT THAT REQUIRES INSPECTION, REPLACEMENT OR REPAIR. ACCESS PANELS SHALL BE A MINIMUM OF 12" X 12" OR AS NEEDED FOR APPROPRIATE ACCESS. TO BE SUPPLIED TO GENERAL CONTRACTOR FOR INSTALLATION.
24. CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL APPLICABLE EQUIPMENT WITH THE ELECTRICAL CONTRACTOR.
25. ALL EQUIPMENT, PIPING, INSULATION, ETC., INSTALLED IN HVAC PLENUM SPACES SHALL MEET CODE REQUIREMENTS FOR SMOKE AND COMBUSTIBILITY.
26. AS WORK PROGRESSES AND FOR DURATION OF CONTRACT, MAINTAIN COMPLETE SET OF PRINTS OF CONTRACT DRAWINGS AT JOB SITE AT ALL TIMES. RECORD WORK COMPLETED AND ALL CHANGES FROM ORIGINAL CONTRACT DRAWINGS CLEARLY AND ACCURATELY INCLUDING WORK INSTALLED AS A MODIFICATION OR ADDITION TO THE ORIGINAL DESIGN. TURN OVER ALL OPERATING MANUALS, MAINTENANCE MANUALS, AND "AS BUILT" DRAWINGS TO OWNER AT CONCLUSION OF CONSTRUCTION.
27. DO NOT SUPPORT EQUIPMENT FROM SUSPENDED CEILINGS. SUPPORT ALL EQUIPMENT AND PIPING FROM BUILDING STRUCTURE TO PROVIDE A VIBRATION FREE INSTALLATION. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF ALL WEIGHTS AND METHODS OF SUPPORT.
28. RUN PIPING/WIRING CONCEALED, UNLESS SPECIFIED OTHERWISE, AND CLEAR OF CEILING INSERTS.
29. ANY REFERENCE TO ELECTRICAL, PLUMBING AND HVAC CONTRACTORS, NOTED ON THESE DRAWINGS OR STATED IN THE SPECIFICATIONS SHALL NOT BE MISCONSTRUED AS AN INTENTION TO DEFINE SEPARATE CONTRACTORS FOR THE RESPECTIVE WORK. THE GENERAL CONTRACTOR SHALL COORDINATE AND PROVIDE A COMPLETE BUILDING WITH COMPLETE MECHANICAL AND ELECTRICAL SYSTEMS, REGARDLESS OF ANY SPECIFICATION REFERENCES TO OTHER CONTRACTORS.
30. GUARANTEE WORK OF THIS CONTRACTOR IN WRITING FOR ONE YEAR FROM THE DATE OF OWNER'S ACCEPTANCE OF CERTIFICATE OF SUBSTANTIAL COMPLETION. PROMPTLY, REPAIR OR REPLACE DEFECTIVE MATERIALS, EQUIPMENT, WORKMANSHIP AND INSTALLATIONS THAT DEVELOP DEFECTS WITHIN THIS PERIOD. PROMPTLY AND TO OWNERS SATISFACTION, CORRECT DAMAGE CAUSED IN MAKING NECESSARY REPAIRS AND REPLACEMENTS UNDER GUARANTEED AT NO ADDITIONAL COST TO OWNER. SUBMIT GUARANTEE TO ARCHITECT BEFORE FINAL PAYMENT. STATEMENT OF GUARANTEE REQUIREMENTS SHALL NOT BE INTERRUPTED TO LIMIT OWNER'S RIGHTS UNDER LAW AND THIS CONTRACT.

CODE SUMMARY

MUNICIPALITY	EDDYSTONE BOROUGH, PA
USE AND OCC. CLASSIFICATION	B (BUSINESS)
APPLICABLE CODES	BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE MECHANICAL CODE: 2018 INTERNATIONAL MECHANICAL CODE PLUMBING CODE: 2018 INTERNATIONAL PLUMBING CODE FUEL GAS CODE: 2018 INTERNATIONAL FUEL GAS CODE ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE FIRE CODE: 2018 INTERNATIONAL FIRE CODE ENERGY CODE: 2018 INTERNATIONAL ENERGY CONSERVATION CODE

FIRE ALARM SYSTEM GENERAL NOTES

PROVIDE FIRE ALARM SYSTEM TO ACCOMPLISH THE PARAMETERS BELOW:

1. THE DRAWINGS INDICATE A PERFORMANCE SPECIFICATION FOR THE FIRE ALARM SYSTEM. CONTRACTOR IS RESPONSIBLE FOR DETAILED DESIGN AND PREPARATION OF SIGNED AND SEALED ENGINEERING DOCUMENTS FOR REVIEW/APPROVAL FROM OWNERS INSURANCE CARRIER AND LOCAL AUTHORITY HAVING JURISDICTION. ALL MODULES, INTERFACING, SIGNALS, SIGNAL LIGHTS AND PROGRAMMING SHALL BE INCLUDED IN THE FIRE ALARM CONTRACTORS SCOPE OF WORK. SYSTEM SHALL BE IN COMPLIANCE WITH NFPA 72, ICC CODES, NATIONAL ELECTRIC CODE, NFPA 101, 90A, ADA, AND THE AUTHORITY HAVING JURISDICTION (AHJ). REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

MOUNTING HEIGHTS

HEIGHT	ITEM
PER N.F.P.A. & A.D.A. CODE REQUIREMENTS	WALL-MOUNTED CLOCKS, PROGRAM BELLS, FIRE ALARM AUDIBLE AND VISUAL DEVICES (OR AS SHOWN ON ARCHITECTURAL DETAILS)
10'-0"	EXIT SIGNS, BATTERY UNITS AND EMERGENCY REMOTE HEADS (OR 6" BELOW FINISHED CEILING TO TOP OF FIXTURE)
CENTERED ABOVE DOOR OR WINDOW OPENING	WARNING AND SIGNALING FIXTURES/SIGNS.
6'-6"	TOP OF FLUSH AND SURFACE MOUNTED ELECTRICAL PANELBOARDS, TELEPHONE CABINETS, OR FIRE ALARM CABINETS EXCLUDING MULTI-FAMILY RESIDENTIAL DWELLING UNITS.
6'-3"	TOP OF BACK-MOUNTED WALL EXIT FIXTURES (NOT MOUNTED ABOVE DOORS)
6'-0"	TOP OF HIGHEST ELECTRICAL SAFETY DISCONNECT SWITCHES, MAGNETIC STARTERS, CONTACTORS.
4'-6"	WALL MOUNTED TELEPHONES AND PAY STATIONS, THERMOSTATS (3'-6" AT HANDICAP LOCATIONS).
3'-10"	MULTI-FAMILY DWELLING UNITS: INSTALL ELECTRICAL PANELS SUCH THAT HIGHEST BREAKER IS 46" AFF.
3'-6"	WALL MOUNTED ELECTRICAL LIGHT SWITCHES, MANUAL MOTOR STARTERS, FIRE ALARM PULL STATIONS, AND WALL MOUNTED WIREMOLD. OBTAIN MOUNTING HEIGHT APPROVAL FROM BUILDING INSPECTOR PRIOR TO ROUGHING IN LIGHT SWITCHES.
3'-0"	ADA UNIT INTERCOM. CENTER OF "CALL" BUTTON.
2'-0"	ELECTRICAL RECEPTACLE WITHIN ELECTRICAL/MECHANICAL SPACES AND ELEVATOR ROOMS.
1'-6"	ELECTRICAL RECEPTACLES, TELEPHONE OUTLETS, COMPUTER OUTLETS UNLESS IN WIREMOLD, OR OTHERWISE NOTED.
0'-8"	BOTTOM OF EXIT SIGN ADJACENT TO DOOR (WHERE REQUIRED)
	FINISHED FLOOR

NOTES:
1. MOUNTING HEIGHTS TO CENTER OF OUTLETS UNLESS OTHERWISE NOTED. IN MASONRY WALL CONSTRUCTION THE ABOVE MOUNTING HEIGHTS SHALL BE USED FOR REFERENCE TO NEAREST BLOCK OR BRICK COURSING.
2. THE ABOVE MOUNTING HEIGHTS SHALL BE ADHERED TO UNLESS SPECIFICALLY NOTED OR DETAILED OTHERWISE ON THE DRAWINGS OR SPECIFICATIONS.

ABBREVIATIONS

A	AMPS	H.V.	HIGH VOLTAGE (PRIMARY)
ABV.	ABOVE	HWH	HOT WATER HEATER
A.F.F.	ABOVE FINISHED FLOOR	IG	ISOLATED GROUND
A.F.G.	ABOVE FINISHED GRADE	J.B.	JUNCTION BOX
A.H.U.	AIR HANDLER UNIT	KVA	KILOVOLT-AMPERE
C/B	CIRCUIT BREAKER	KW	KILOWATT
C.H.	CABINET HEATER	LTG.	LIGHTING
CLG.	CEILING	L.V.	LOW VOLTAGE
CONC.	CONCRETE	M.C.	MECHANICAL CONTRACTOR
COND.	CONDENSER	MCB	MAIN CIRCUIT BREAKER
CONT'R.	CONTRACTOR	MECH.	MECHANICAL
D.E.	DUAL ELEMENT (TIME DELAY)	MLO	MAIN LUGS ONLY
DNLT.	DOWNLIGHT	MOD	MOTOR OPERATED DOOR
DWG	DRAWING	MT.	MOUNT
E.B.H.	ELECTRIC BASEBOARD HEATER	MTD.	MOUNTED
E.C.	ELECTRICAL CONTRACTOR	MTG.	MOUNTING
E.F.	EXHAUST FAN	N.L.	NIGHT LIGHTING
ELECT.	ELECTRIC	P.C.	PLUMBING CONTRACTOR
EM	INDICATES LIGHT FIXTURE OR DEVICE WIRED TO EMERGENCY CIRCUIT	PLG	PLUMBING
		P.S.	PAY STATION
E.P.O.	EMERGENCY POWER-OFF PUSHBUTTON SWITCH	R.T.U.	ROOF TOP UNIT
EUH	ELECTRIC UNIT HEATER	SLD	SINGLE LINE DIAGRAM
EWC	ELECTRIC WATER COOLER	SP/ST	SINGLE POLE/SINGLE THROW
EWH	ELECTRIC WALL HEATER	S/S	SAFETY SWITCH (DISCONNECT SWITCH)
EXIST.	EXISTING		
FACP	FIRE ALARM CONTROL PANEL	SW.	SWITCH
FATB	FIRE ALARM TERMINAL BOX	T/C	TIME CLOCK
FSD	FIRE SMOKE DAMPER	UH	UNIT HEATER
FU.	FUSE (OR FUSED)	U.O.N.	UNLESS OTHERWISE NOTED
G.C.	GENERAL CONTRACTOR	V	VOLTS
GEN.	GENERAL	VAV	VARIABLE AIR VOLUME
G.F.I.	GROUND FAULT INTERRUPT	WP	WEATHERPROOF
GND.	GROUND	XFMR.	TRANSFORMER
HP	HORSE POWER	(E)	EXISTING TO REMAIN
HTR.	HEATER	(R)	REMOVE EXISTING
HVAC	HEATING, VENTILATING, & AIR CONDITIONING	(RL)	RELOCATED EXISTING

BRANCH & FEEDER CIRCUIT SCHEDULE

	COPPER (CU)			ALUMINUM (AL)			REMARKS
WIRE ID	# OF WIRES	GROUND	CONDUIT	# OF WIRES	GROUND	CONDUIT	
20W2	2# 12	1# 12 G.	3/4"C	2# 10	1# 12 G.	3/4"C	(1)
30W2	2# 10	1# 10 G.	3/4"C	2# 8	1# 8 G.	3/4"C	(1)
35W2	2# 10	1# 10 G.	3/4"C	2# 8	1# 8 G.	3/4"C	(1)
40W2	2# 8	1# 10 G.	3/4"C	2# 8	1# 8 G.	3/4"C	(1)
45W2	2# 8	1# 10 G.	3/4"C	2# 6	1# 8 G.	3/4"C	(1)
50W2	2# 8	1# 10 G.	3/4"C	2# 6	1# 8 G.	3/4"C	(1)
60W2	2# 6	1# 10 G.	3/4"C	2# 4	1# 8 G.	3/4"C	
70W2	2# 4	1# 8 G.	1 "C	2# 2	1# 6 G.	1"C	
80W2	2# 4	1# 8 G.	1 "C	2# 2	1# 6 G.	1"C	
90W2	2# 2	1# 8 G.	1 1/4 "C	2# 2	1# 6 G.	1 1/4 "C	
100W2	2# 2	1# 8 G.	1 1/4 "C	2# 1	1# 6 G.	1 1/4 "C	
20W3	3# 12	1# 12 G.	3/4"C	3# 10	1# 10 G.	3/4"C	(1)
25W3	3# 12	1# 10 G.	3/4"C	3# 10	1# 8 G.	3/4"C	(1)
30W3	3# 10	1# 10 G.	3/4"C	3# 8	1# 8 G.	3/4"C	(1)
40W3	3# 8	1# 10 G.	3/4"C	3# 8	1# 8 G.	3/4"C	(1)
50W3	3# 8	1# 10 G.	3/4"C	3# 6	1# 8 G.	3/4"C	(1)
60W3	3# 6	1# 10 G.	3/4"C	3# 4	1# 8 G.	3/4"C	
70W3	3# 4	1# 8 G.	1 "C	3# 2	1# 6 G.	1"C	
80W3	3# 4	1# 8 G.	1 "C	3# 2	1# 6 G.	1"C	
90W3	3# 2	1# 8 G.	1"C	3# 2	1# 6 G.	1"C	
100W3	3# 2	1# 8 G.	1"C	3# 1	1# 6 G.	1 1/4"C	
110W3	3# 2	1# 8 G.	1"C	3# 1/0	1# 6 G.	1 1/4 "C	
125W3	3# 1	1# 6 G.	1 1/4"C	3# 2/0	1# 6 G.	1 1/2"C	
150W3	3# 1/0	1# 6 G.	1 1/4"C	3# 3/0	1# 6 G.	1 1/2"C	
175W3	3# 2/0	1# 6 G.	1 1/2"C	3# 4/0	1# 4 G.	2"C	
200W3	3# 3/0	1# 6 G.	1 1/2"C	3-250KCMIL	1# 4 G.	2"C	
225W3	3# 4/0	1# 4 G.	2"C	3-300 KCMIL	1# 4 G.	2"C	
250W3	3-250 KCMIL	1# 4 G.	2"C	3-350 KCMIL	1# 4 G.	2 1/2"C	
300W3	3-350 KCMIL	1# 4 G.	2 1/2"C	3-500 KCMIL	1# 2 G.	2 1/2"C	
350W3	3-500 KCMIL	1# 3 G.	2 1/2"C	(2) 3#4/0	(2) 1# 2 G.	(2) 2"C	
400W3	3-600 KCMIL	1# 3 G.	3"C	(2) 3-250 KCMIL	(2) 1# 1 G.	2"C	
60W4	4# 6	1# 10 G.	3/4"C	4# 4	1# 8 G.	1"C	
75W4	4# 4	1# 8 G.	1"C	4# 2	1# 6 G.	1 1/4 "C	
100W4	4# 2	1# 8 G.	1 1/4 "C	4# 1	1# 6 G.	1 1/4 "C	
125W4	4# 1	1# 6 G.	1 1/4"C	4# 2/0	1# 4 G.	2"C	
150W4	4# 1/0	1# 6 G.	1 1/2"C	4# 3/0	1# 4 G.	2"C	
175W4	4# 2/0	1# 6 G.	2"C	4# 4/0	1# 4 G.	2"C	
200W4	4# 3/0	1# 6 G.	2"C	4-250KCMIL	1# 4 G.	2 1/2"C	

REMARKS	COPPER (CU)				ALUMINUM (AL)		
	WIRE ID	# OF WIRES	GROUND	CONDUIT	# OF WIRES	GROUND	CONDUIT
	225W4	4# 4/0	1# 4 G.	2"C	4-300 KCMIL	1# 2 G.	2 1/2"C
	250W4	4-250 KCMIL	1# 4 G.	2 1/2"C	4-350 KCMIL	1# 2 G.	2 1/2"C
	300W4	4-350 KCMIL	1# 4 G.	2 1/2"C	4-500 KCMIL	1# 2 G.	3"C
	350W4	4-500 KCMIL	1# 3 G.	3"C	(2) 4#4/0	(2) 1# 1 G.	(2) 2"C
	400W4	4-600 KCMIL	1# 3 G.	3 1/2"C	(2) 4-250 KCMIL	(2) 1# 1 G.	(2) 2 1/2"C
	450W4	(2) 4#4/0	(2) 1# 2 G.	(2) 2"C	(2) 4-300 KCMIL	(2) 1# 1/0 G.	(2) 2 1/2"C
	500W4	(2) 4-250 KCMIL	(2) 1# 2 G.	(2) 2 1/2"C	(2) 4-350 KCMIL	(2) 1# 1/0 G.	(2) 2 1/2"C
	600W4	(2) 4-350 KCMIL	(2) 1# 1 G.	(2) 3"C	(2) 4-500 KCMIL	(2) 1# 2/0 G.	(2) 3"C
	800W4	(2) 4-600 KCMIL	(2) 1# 1/0 G.	(2) 4"C	(3) 4-400 KCMIL	(3) 1# 3/0 G.	(3) 3 1/2"C
	1000W4	(3) 4-400 KCMIL	(3) 1# 2/0 G.	(3) 3"C	(3) 4-600 KCMIL	(3) 1# 4/0 G.	(3) 3 1/2"C
	1200W4	(3) 4-600 KCMIL	(3) 1# 3/0 G.	(3) 3 1/2"C	(4) 4-500 KCMIL	(4) 250 KCMIL	(4) 3"C
(2)	100NW4	5# 1 (2@N)	1# 6 G.	1 1/4 "C	5# 2/0 (2@N)	1# 4 G.	2"C
(2)	125NW4	5# 1/0 (2@N)	1# 6 G.	1 1/4"C	5# 3/0 (2@N)	1# 4 G.	2"C
(2)	150NW4	5# 3/0 (2@N)	1# 6 G.	1 1/2"C	5# 4/0 (2@N)	1# 4 G.	2 1/2"C
(2)	200NW4	5-250KCMIL (2@N)	1# 6 G.	2"C	5-350KCMIL (2@N)	1# 2 G.	3"C
(2)	225NW4	5-300KCMIL (2@N)	1# 4 G.	2"C	5-400KCMIL (2@N)	1# 2 G.	3"C
(2)	250NW4	5-350KCMIL (2@N)	1# 4 G.	2 1/2"C	5-500KCMIL (2@N)	1# 2 G.	2 1/2"C
	250XW4	4-250 KCMIL	1# 2 G.	2 1/2"C	4-350 KCMIL	1# 1/0 G.	3"C
	300XW4	4-350 KCMIL	1# 2 G.	3 1/2"C	4-500 KCMIL	1# 1/0 G.	3"C
	350XW4	4-500 KCMIL	1# 1/0 G.	3"C	(2) 4#4/0	(2) 1# 3/0 G.	(2) 2"C
	400XW4	4-600 KCMIL	1# 1/0 G.	3 1/2"C	(2) 4-250 KCMIL	(2) 1# 3/0 G.	(2) 3"C
	450XW4	(2) 4#4/0	(2) 1# 2/0 G.	(2) 2"C	(2) 4-300 KCMIL	(2) 1# 3/0 G.	(2) 2 1/2"C
	600XW4	(2) 4-350 KCMIL	(2) 1# 2/0 G.	(2) 3"C	(2) 4-500 KCMIL	(2) 1# 4/0 G.	(3) 3 1/2"C
	750XW4	(2) 4-500 KCMIL	(2) 1# 3/0 G.	(2) 3 1/2"C	(3) 4-400 KCMIL	(3) 250 KCMIL	(3) 3"C
	800XW4	(2) 4-600 KCMIL	(2) 1# 3/0 G.	(2) 3 1/2"C	(3) 4-400 KCMIL	(3) 250 KCMIL	(3) 3"C
	1000XW4	(3) 4-400 KCMIL	(3) 1# 3/0 G.	(3) 3"C	(3) 4-600 KCMIL	(3) 250 KCMIL	(3) 3 1/2"C
	1200XW4	(3) 4-600 KCMIL	(3) 1# 3/0 G.	(3) 3 1/2"C	(4) 4-500 KCMIL	(4) 250 KCMIL	(4) 3 1/2"C
	1600XW4	(4) 4-600 KCMIL	(4) 1# 3/0 G.	(4) 3 1/2"C	(5) 4-600 KCMIL	(5) 250 KCMIL	(5) 3 1/2"C
	2000XW4	(5) 4-600 KCMIL	(5) 1# 3/0 G.	(5) 3 1/2"C	(6) 4-600 KCMIL	(6) 250 KCMIL	(6) 3 1/2"C

NOTE: (#) DENOTES NUMBER OF SETS OF WIRES & CONDUITS

###W#
- DENOTES NUMBER OF PHASE/LINE & NEUTRAL CONDUCTORS WIRE,
- X DENOTES SEPARATELY DERIVED SYSTEMS, SERVICES AND TRANSFORMER SECONDARIES
- CONDUCTORS AMPERE VALUE

NOTES

THIS CHART IS BASED UPON INSULATED WIRE IN CONDUIT- NEC TABLE 310.15(B)(16).
60 DEG COLUMN #1 AND LESS
75 DEG COLUMN #1/0 AND GREATER

(1) ROMEX IS ACCEPTABLE FOR APARTMENT UNIT BRANCH CIRCUIT WIRING.

(2) DISTRIBUTION FOR HIGH HARMONIC CONTENT SERVICE. DE-RATED FEEDERS WITH OVERSIZED NEUTRALS

ELECTRICAL SYMBOLS

- 2'X4' RECESSED LED FIXTURE, "A" INDICATES TYPE, "2" INDICATES CIRCUIT BREAKER POSITION, "a" INDICATES SWITCHING
- 2'X4' RECESSED LED FIXTURE CONNECTED TO EMERGENCY (EM) AND/OR NIGHT LIGHT (NL) CIRCUIT, "A" INDICATES TYPE, "2" INDICATES CIRCUIT BREAKER POSITION, "a" INDICATES SWITCHING
- 2'X2' RECESSED LED FIXTURE, "A" INDICATES TYPE, "2" INDICATES CIRCUIT BREAKER POSITION, "a" INDICATES SWITCHING
- 2'X2' RECESSED LED FIXTURE CONNECTED TO EMERGENCY (EM) AND/OR NIGHT LIGHT (NL) CIRCUIT, "A" INDICATES TYPE, "2" INDICATES CIRCUIT BREAKER POSITION, "a" INDICATES SWITCHING
- PENDANT MOUNTED LIGHT FIXTURE, "A" INDICATES TYPE, "2" INDICATES CIRCUIT BREAKER POSITION, "a" INDICATES SWITCHING
- RECESSED DOWNLIGHT, "A" INDICATES TYPE, "2" INDICATES CIRCUIT BREAKER POSITION, "a" INDICATES SWITCHING
- RECESSED WALLWASHER DOWNLIGHT, "A" INDICATES TYPE, "2" INDICATES CIRCUIT BREAKER POSITION, "a" INDICATES SWITCHING
- WALL MOUNTED LIGHT FIXTURE, "A" INDICATES TYPE, "2" INDICATES CIRCUIT BREAKER POSITION, "a" INDICATES SWITCH CONTROL
- CEILING OR WALL MOUNTED LINEAR LED LIGHT FIXTURE, "A" INDICATES TYPE, "2" INDICATES CIRCUIT BREAKER POSITION, "a" INDICATES SWITCH CONTROL
- CEILING OR WALL MOUNTED INDUSTRIAL LED STRIP LIGHT FIXTURE, "A" INDICATES TYPE, "2" INDICATES CIRCUIT BREAKER POSITION, "a" INDICATES SWITCH CONTROL
- CEILING OR WALL MOUNTED TRACK LIGHT FIXTURE, "A" INDICATES TYPE, "2" INDICATES CIRCUIT BREAKER POSITION, "a" INDICATES SWITCHING
- POLE MOUNTED LIGHT FIXTURE. "A" INDICATES TYPE, "2" INDICATES CIRCUIT BREAKER POSITION
- CEILING OR WALL MOUNTED SINGLE FACE EXIT SIGN, "X" INDICATES TYPE, ARROWS AS INDICATED ON PLANS. CONNECT TO LOCAL LIGHTING BRANCH CIRCUIT AHEAD OF ALL SWITCHING UNLESS OTHERWISE NOTED
- CEILING OR WALL MOUNTED DOUBLE FACE EXIT SIGN, "X" INDICATES TYPE, ARROWS AS INDICATED ON PLANS. CONNECT TO LOCAL LIGHTING BRANCH CIRCUIT AHEAD OF ALL SWITCHING UNLESS OTHERWISE NOTED
- CEILING OR WALL MOUNTED EXIT SIGN WITH INTEGRAL EMERGENCY LIGHT HEADS, "X" INDICATES TYPE, ARROWS AS INDICATED ON PLANS. CONNECT TO LOCAL LIGHTING BRANCH CIRCUIT AHEAD OF ALL SWITCHING UNLESS OTHERWISE NOTED
- WALL MOUNTED EMERGENCY BATTERY PACK WITH (2)-LIGHT HEADS, "EM" INDICATES TYPE. CONNECT TO LOCAL LIGHTING BRANCH CIRCUIT AHEAD OF ALL SWITCHING UNLESS OTHERWISE NOTED
- WALL OR CEILING MOUNTED SINGLE HEAD OR TWIN REMOTE EMERGENCY LIGHT "EM" INDICATES TYPE, "WP" INDICATES WEATHERPROOF.
- CEILING MOUNTED PADDLE FAN, "A" INDICATES TYPE, "2" INDICATES CIRCUIT BREAKER POSITION
- FIRE ALARM SMOKE DETECTOR
- FIRE ALARM DUCT SMOKE DETECTOR
- FIRE ALARM HEAT DETECTOR
- FIRE ALARM ADDRESSABLE MODULE
- CEILING MOUNTED 125V., COMBINATION SMOKE DETECTOR/HORN-STROBE
- CEILING MOUNTED 125V., CARBON MONOXIDE DETECTOR
- FIRE ALARM SPEAKER
- FIRE ALARM PULL STATION
- FIRE ALARM STROBE
- FIRE ALARM HORN/STROBE
- SECURITY CAMERA

- S — 125V., 20A TOGGLE SWITCH MOUNTED AT 42" AFF UNLESS OTHERWISE NOTED.
- S_D — 125V., 20A DIMMER SWITCH MOUNTED AT 42" AFF UNLESS OTHERWISE NOTED.
- S_J — 125V., 20A DOOR JAMB SWITCH MOUNTED AT 42" AFF UNLESS OTHERWISE NOTED.
- S_F — 125V., 20A CEILING FAN SPEED SWITCH MOUNTED AT 42" AFF UNLESS OTHERWISE NOTED.
- S_3 — 125V., 20A 3-WAY TOGGLE SWITCH MOUNTED AT 42" AFF UNLESS OTHERWISE NOTED.
- S_T — 125V., 20A BATHROOM EXHAUST FAN TIMER SWITCH MOUNTED AT 42" AFF UNLESS OTHERWISE NOTED.
- S_{OS} — WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR
- OS — CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR
- 125V., 20A SIMPLEX RECEPTACLE MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED
- 125V., 20A DUPLEX RECEPTACLE MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED. "+" INDICATES MOUNTED AT 42" AFF OR 6" ABOVE COUNTER OR BACKSPLASH
- WP — 125V., 20A DUPLEX GFCI RECEPTACLE MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED. "+" INDICATES MOUNTED AT 42" AFF OR 6" ABOVE COUNTER OR BACKSPLASH. "WP" INDICATES WEATHERPROOF ENCLOSURE
- CEILING MOUNTED 125V., 20A DUPLEX RECEPTACLE
- CEILING MOUNTED 125V., 20A DOUBLE DUPLEX RECEPTACLE.
- 125V., 20A DOUBLE DUPLEX RECEPTACLE MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED.
- 125V., 20A DUPLEX RECEPTACLE WITH BOTTOM RECEPTACLE CONNECTED TO WALL SWITCH, MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED. "+" INDICATES MOUNTED AT 42" AFF OR 6" ABOVE COUNTER
- LOCKING OR NONLOCKING NEMA RECEPTACLE AS NOTED
- COMBINATION POWER/DATA FLOOR FLUSH MOUNTED BOX OR POKE-THRU DEVICE, REFER TO PLANS FOR TYPE AND DEVICE CONFIGURATION
- SURFACE MOUNTED PLUGMOLD, TYPE AND DEVICES AS INDICATED ON PLANS
- JB — CEILING MOUNTED JUNCTION BOX
- J — WALL MOUNTED JUNCTION BOX
- J — JUNCTION OR PULL BOX. SIZE AS INDICATED ON PLAN
- S_M — 125V., 20A MOTOR RATED SWITCH MOUNTED AT 42" AFF UNLESS OTHERWISE NOTED.
- DISCONNECT SWITCH, SIZE AS INDICATED ON PLAN
- FUSED DISCONNECT SWITCH, SIZE AS INDICATED ON PLAN
- MOTOR STARTER, SIZE AS INDICATED ON PLAN
- COMBINATION MOTOR STARTER AND DISCONNECT SWITCH, SIZE AS INDICATED ON PLAN
- EC — ELEVATOR CONTROL SWITCH (EC) - 'EC' SHALL BE EATON "ES" SERIES OR EQUAL WITH THE FOLLOWING:
  - SHUNT TRIP INTERFACE WITH FIRE ALARM SYSTEM
  - PILOT LIGHT(PER NFPA 72 & ASME A17.1)
  - CONTROL POWER(PER NFPA 72 & ASME A17.1)
  - MONITORING(PER NFPA 72 & ASME A17.1)
  - AUXILIARY CONTACTS
- PANEL "P1" — PANELBOARD, SIZE, TYPE AND RATING AS INDICATED ON PLAN
- M — METER AND SOCKET
- TVSS — TRANSIENT VOLTAGE SURGE SUPPRESSION SYSTEM
- 5 — MOTOR OR MOTORIZED EQUIPMENT. NUMBER INDICATES HORSEPOWER (HP)
- TV — RECESSED CABLE TV OUTLET. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL/ID ELEVATIONS. CHIEF PAC526F OR EQUAL.
- VOICE COMMUNICATION OUTLET
- DATA COMMUNICATION OUTLET
- VOICE & DATA COMMUNICATION OUTLET
- WAP — WIRELESS ACCESS POINT
- POWER OPERATED DOOR SYSTEM

- 2#12 & 1#12GND. IN 3/4" CONDUIT CONCEALED IN WALL OR CEILING UNLESS OTHERWISE NOTED
- 2#12 & 1#12GND. IN 3/4" CONDUIT RUN IN OR UNDER CONCRETE SLAB UNLESS OTHERWISE NOTED
- 2#12 & 1#12GND. IN 3/4" CONDUIT RUN EXPOSED UNLESS OTHERWISE NOTED
- P1-3 — 2#12 & 1#12GND. IN 3/4" CONDUIT, UNLESS OTHERWISE NOTED, HOME RUN TO PANEL, "P1" INDICATES PANEL NAME, "3" INDICATES CIRCUIT BREAKER POSITION
- PANELBOARD, SURFACE MOUNTED
- PANELBOARD, FLUSH MOUNTED
- T — TRANSFORMER, SIZE, TYPE AND RATING AS INDICATED ON PLAN
- COPPER GROUND BAR, SIZE AS INDICATED ON PLAN
- G — COPPER GROUND CONDUCTOR, SIZE AS INDICATED ON PLAN
- 1 — PLAN NOTE CALLOUT
- NEW CONNECTION TO EXISTING
- TERMINATION OF DEMOLITION
- MOLDED CASE CIRCUIT BREAKER
- DRAWOUT CIRCUIT BREAKER
- DRAWOUT CIRCUIT BREAKER MEDIUM VOLTAGE
- FUSED SWITCH
- FUSE
- CONTACT
- POWER TRANSFORMER W/ VOLTAGES AS INDICATED
- POTENTIAL TRANSFORMER
- CURRENT TRANSFORMER
- N E L — AUTOMATIC TRANSFER SWITCH
- GROUND CONNECTION
- THERMAL OVERLOADS
- K — KEY INTERLOCK SWITCH
- E — ELECTRIC INTERLOCK SWITCH
- IC — INTERCOM STATION
- B — DOOR BELL/INTERCOM STATION
- FF — FURNITURE FEED
- CR — CARD READER
- PP — PUSH PLATE FOR HANDICAP ASSIST DOORS
- DS — ELECTRIC DOOR STRIKE
- CX — DELAYED EGRESS DOOR HARDWARE
- KP — KEYPAD
- IC — INTERCOM
- POWER OPERATED DOOR SYSTEM

SWITCHES, COVERPLATES AND RECEPTACLES BASIS OF DESIGN:
COMMERCIAL - DEVICES SHALL BE WHITE WITH A METAL STAINLESS STEEL COVERPLATE
RESIDENTIAL-DEVICE COLOR BY ARCHITECT WITH A MATCHING SCREWLESS COVERPLATE

ELECTRICAL DEMOLITION NOTES

1. PROJECT CONDITIONS
   - 1.1. THE CONTRACTOR SHALL COMPLETELY FAMILIARIZE HIMSELF WITH ALL EXISTING BUILDING AND SITE CONDITIONS AND LIMITATIONS WHICH MAY HAVE A BEARING ON THE OPERATIONS HEREIN SPECIFIED, AND SHALL INCLUDE ALL WORK REQUIRED TO COMPLETE THE PROJECT AS SHOWN ON THE DRAWINGS. NO EXTRA COMPENSATION WILL BE ALLOWED FOR UNFORESEEN CONDITIONS THAT CAN BE DETERMINED FROM A CAREFUL EXAMINATION OF THE SITE, BUILDING AND DRAWINGS.
   - 1.2. ITEMS OF VALUE WHICH ARE NOT INDICATED TO BE RETURNED TO THE OWNER, SHALL BECOME THE PROPERTY OF THE CONTRACTOR. STORAGE OR SALE OF ITEMS ON THE PROJECT SITE IS PROHIBITED.
   - 1.3. PROTECTION: ENSURE THE SAFE PASSAGE OF PERSONS IN AND AROUND THE BUILDING DURING DEMOLITION. PREVENT INJURY TO PERSONS AND DAMAGE TO PROPERTY. PROVIDE ADEQUATE SHORING AND BRACING TO PREVENT COLLAPSE. IMMEDIATELY REPAIR DAMAGED PROPERTY TO THE CONDITION BEFORE BEING DAMAGED. TAKE EFFECTIVE MEASURES TO PREVENT WINDBLOWN DUST.
   - 1.4. UTILITIES: MAINTAIN ALL UTILITIES EXCEPT THOSE REQUIRING REMOVAL OR RELOCATION. KEEP UTILITIES IN SERVICE AND PROTECT FROM DAMAGE. DO NOT INTERRUPT UTILITIES SERVING USED AREAS WITHOUT FIRST OBTAINING PERMISSION FROM OWNER.
2. REGULATION REQUIREMENTS
   - 2.1. STRICTLY COMPLY WITH APPLICABLE CODES, REGULATIONS AND REQUIREMENTS OR AUTHORITY HAVING JURISDICTION.
3. HANDLING OF MATERIALS
   - 3.1. REMOVE DEBRIS FROM THE SITE AS IT ACCUMULATES. DO NOT STORE, SELL, BURN, OR OTHERWISE DISPOSE OF DEBRIS ON SITE. REMOVE ALL MATERIAL IN SUCH MANNER AS TO PREVENT SPILLAGE.
4. TRANSFER OF RESPONSIBILITY AND DISPOSITION OF MATERIALS
   - 4.1. UPON RECEIPT OF NOTICE TO PROCEED WITH THE WORK, THE TITLE TO ALL MATERIALS FOR DEMOLITION SHALL BE VESTED. THE CONTRACTOR WHEREUPON THE OWNER WILL NOT BE RESPONSIBLE FOR THE CONDITION, LOSS, OR DAMAGE TO SAID PROPERTY. ALL SUCH ITEMS SHALL BE REMOVED FROM THE OWNER'S PROPERTY.
5. DISPOSAL OF DEMOLISHED MATERIALS
   - 5.1. REMOVE UNUSED FIXTURES AND ALL SERVICING EQUIPMENT. TRANSPORT AND LEGALLY DISPOSE OF MATERIALS OFF SITE.
   - 5.2. ANY DEMOLITION SHALL BE COORDINATED WITH OWNER, ENGINEER, AND GENERAL CONTRACTOR. ALL DEBRIS SHALL BE CLEANED UP AND REMOVED FROM THE SITE BY THE END OF EVERY WORK DAY. PRIOR TO DISPOSAL OF EQUIPMENT AND MATERIALS, TURN OVER TO OWNER ANY REMOVED EQUIPMENT AND MATERIALS PER OWNERS REQUEST.
6. CLEAN UP AND REPAIR
   - 6.1. UPON COMPLETION OF DEMOLITION WORK, REMOVAL TOOLS, EQUIPMENT AND DEMOLISHED MATERIALS FROM SITE. REMOVE PROTECTION AND LEAVE INTERIOR AREAS BROOM CLEAN.
   - 6.2. REPAIR DEMOLITION PERFORMED IN EXCESS OF THAT REQUIRED. RETURN STRUCTURES AND SURFACES TO REMAIN IN CONDITION EXISTING PRIOR TO COMMENCEMENT OF SELECTIVE DEMOLITION WORK. REPAIR ADJACENT CONSTRUCTION OR SURFACES SOILED OR DAMAGED BY SELECTIVE DEMOLITION WORK.

EDDYSTONE BOROUGH BUILDING RENOVATION MEP - DRAWING INDEX

DRAWING NO.	DRAWING TITLE	ISSUE: ISSUED FOR BID 01/31/23
E-1	ELECTRICAL COVER	●
E-1.1	ELECTRICAL DETAILS	●
E-2	ELECTRICAL POWER FLOOR PLAN - NEW WORK	●
ED-2	ELECTRICAL POWER FLOOR PLAN - DEMOLITION	●
E-3	ELECTRICAL ROOF PLAN - NEW WORK	●
E-4	ELECTRICAL LIGHTING FLOOR PLAN - DEMOLITION	●
E-5	ELECTRICAL SCHEDULES	●
E-6	ELECTRICAL SINGLE LINE DIAGRAM	●
E-7	ELECTRICAL SECURITY FLOOR PLAN - NEW WORK	●

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ELECTRICAL COVER SHEET
RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
1300 E. 12TH ST.
EDDYSTONE, PA 19022

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SHEET NO.
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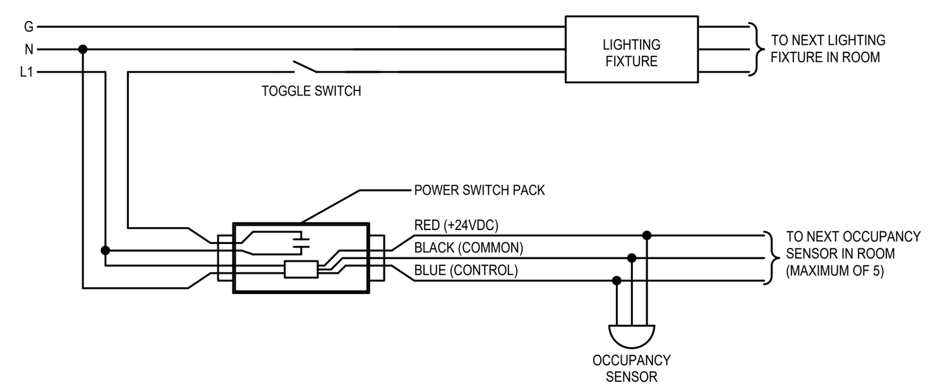
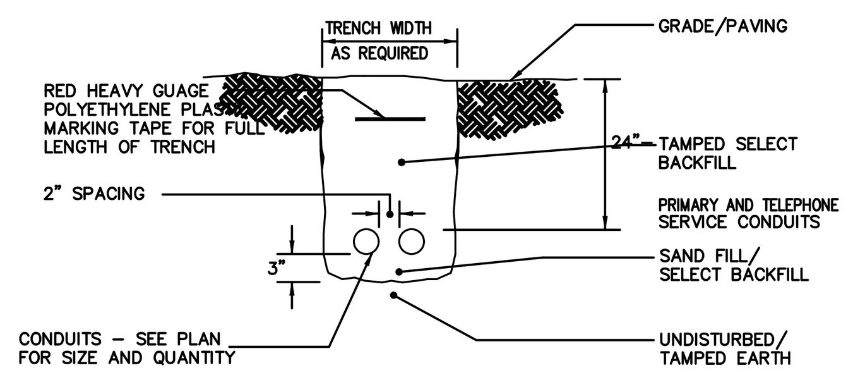
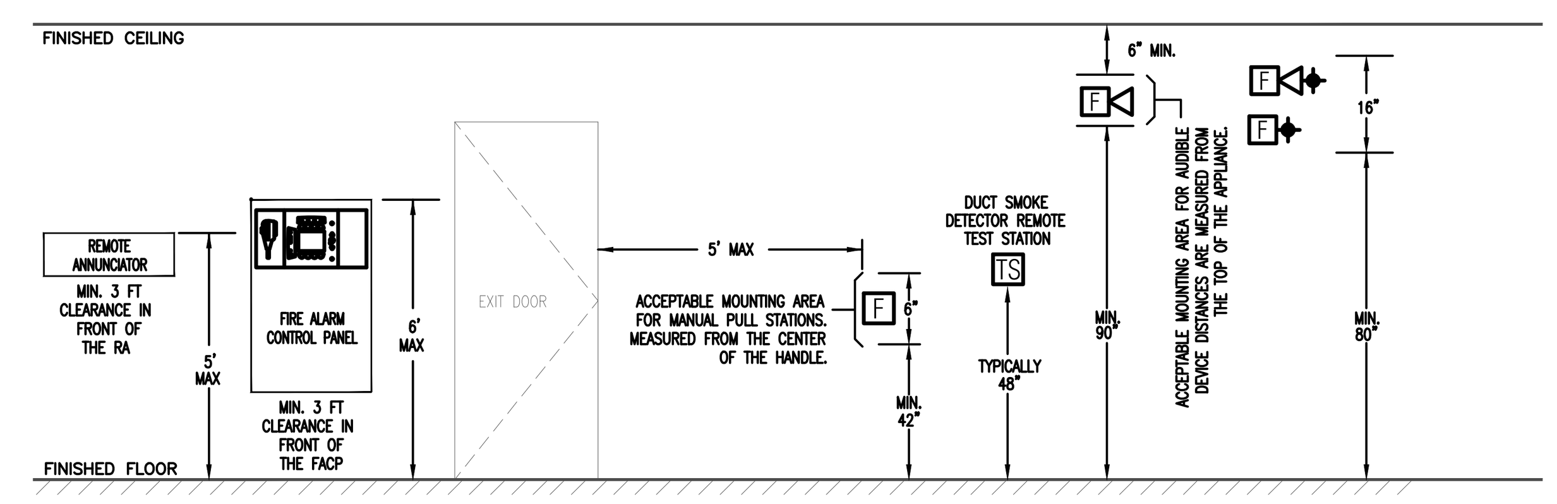


1 WIRING DIAGRAM - CEILING MOUNTED OCCUPANCY SENSOR
E1.1 SCALE - NONE



2 TYPICAL SECTION DIRECT BURIED CONDUITS
E1.1 SCALE - NONE



FIRE ALARM EQUIPMENT MOUNTING HEIGHTS DIMENSIONS

MANUAL PULL STATION MOUNTING HEIGHT REFERENCES

CODE	MINIMUM	MAXIMUM
NFPA-72	39"	54"
IBC	42"	48"
ADAAG	-	*48"

THE MOST RESTRICTIVE FRONT REACH DISTANCE

HARMONIZED FIRE ALARM EQUIPMENT MOUNTING DISTANCE REQUIREMENTS – IBC/ADA/NFPA/ANSI

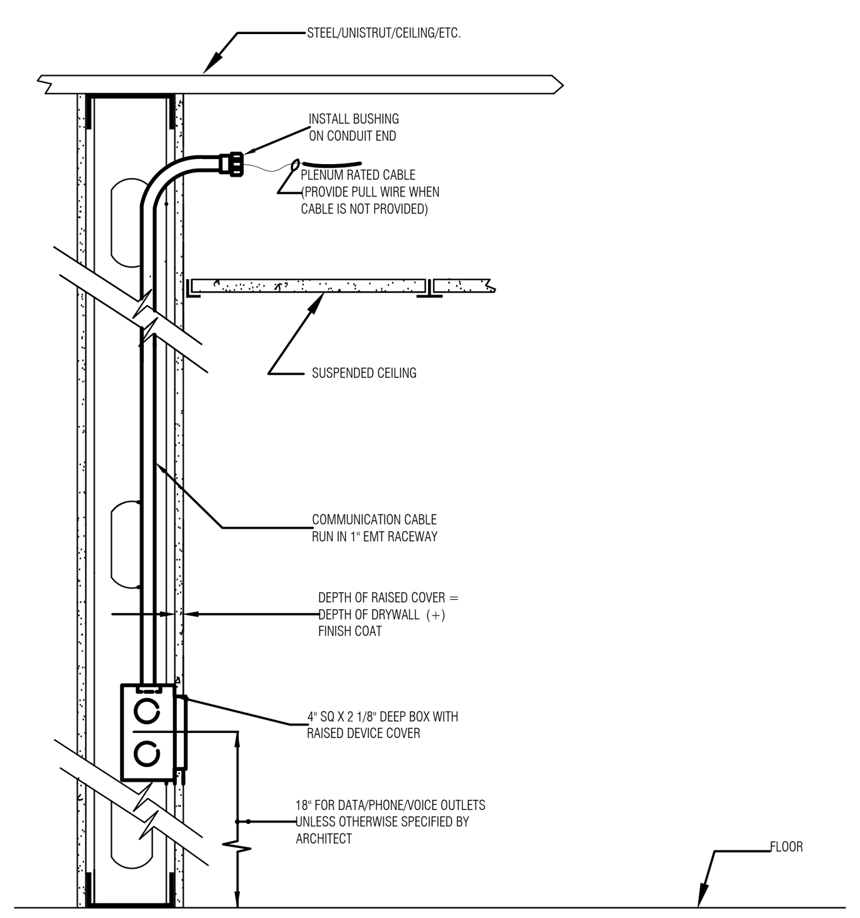
NOT TO SCALE--FOR INSTALLER'S REFERENCE

RISER DIAGRAM IS SCHEMATIC ONLY AND DOES NOT REPRESENT ACTUAL DEVICE QUANTITIES UNLESS OTHERWISE NOTED. EVERY DEVICE INDICATED MAY NOT BE UTILIZED FOR THIS PROJECT. REFER TO DRAWINGS, AND ALLOWANCES FOR EQUIPMENT QUANTITIES. REFER TO SPEC. FOR FURTHER PERFORMANCE INFORMATION.

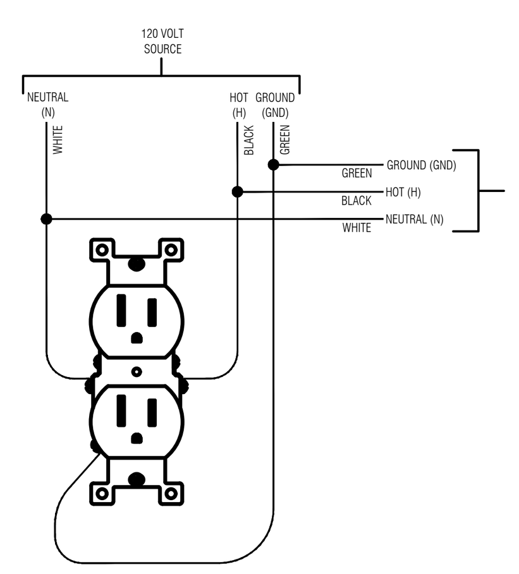
NOTE: QUANTITY OF NAC'S AND SIZE OF CONDUCTORS TO BE DETERMINED BY SYSTEM VENDOR. ACTIVE ALARM CAPACITY MUST NOT EXCEED 80%. ALL STROBES SHALL HAVE ADA COMPLIANT SYNCHRONIZED FLASHING. VOICE SPEAKER CIRCUITS SIZED PER THE BUILDING'S FIRE ZONES.

FREE-AIR NFPA 72 CABLE DESIGNATIONS *
FPLP - POWER LIMITED, PLENUM SPACE SUITABLE FOR USE IN DUCTS, PLENUMS, AND OTHER SPACE USED FOR ENVIRONMENTAL AIR.
FPLR - POWER LIMITED, RISER SUITABLE FOR USE IN VERTICAL SHAFT RUNS OR WIRE RUNS BETWEEN FLOORS.
FPL - POWER LIMITED, GENERAL SUITABLE FOR GENERAL-PURPOSE USE, WITH THE EXCEPTIONS OF THE ABOVE APPLICATIONS.

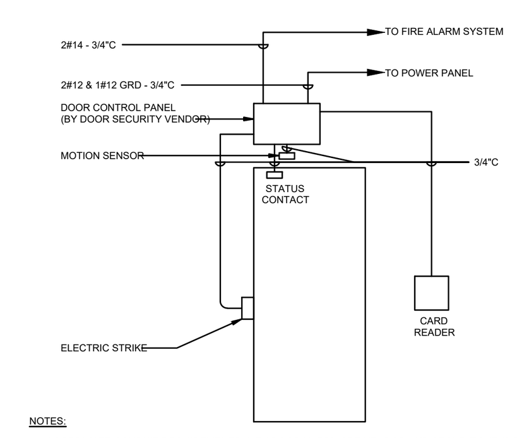
* LISTED IN DESCENDING ORDER OF FIRE-RESISTANT RATING



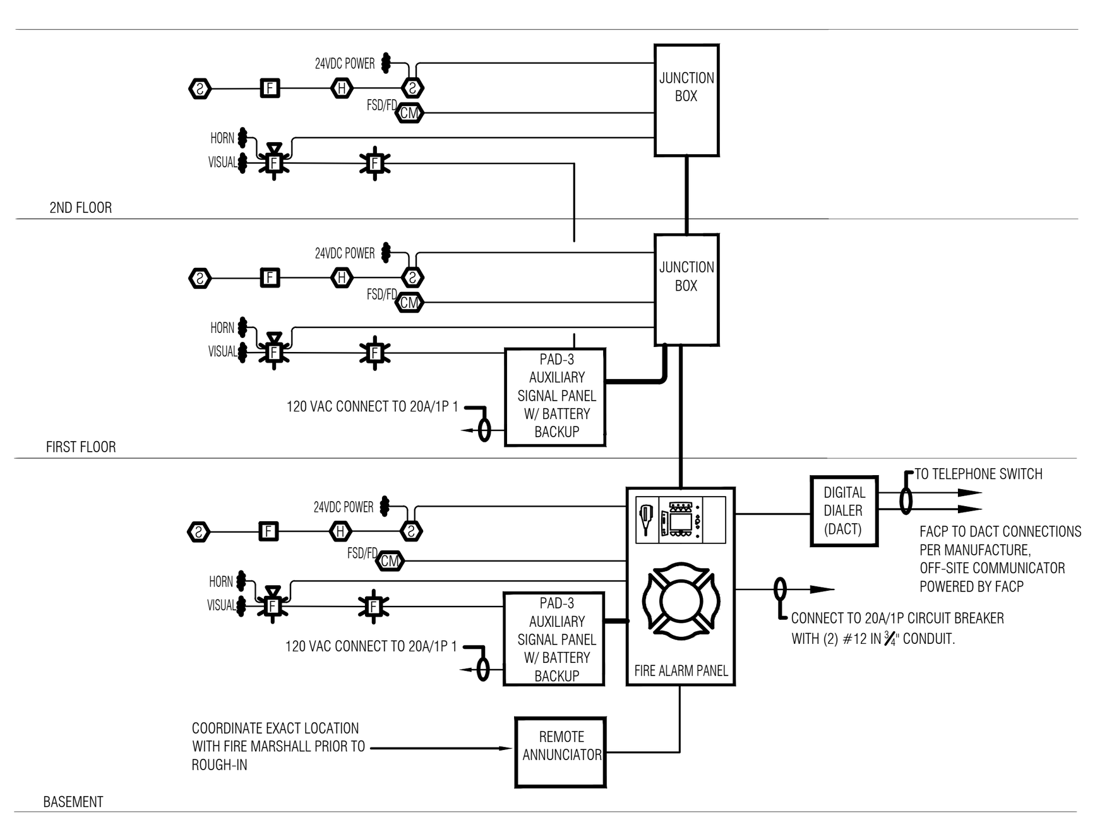
4 DETAIL - DEVICE INSTALLATION
E1.1 SCALE - NONE



5 DETAIL - DUPLEX RECEPTACLE WIRING
E1.1 SCALE - NONE



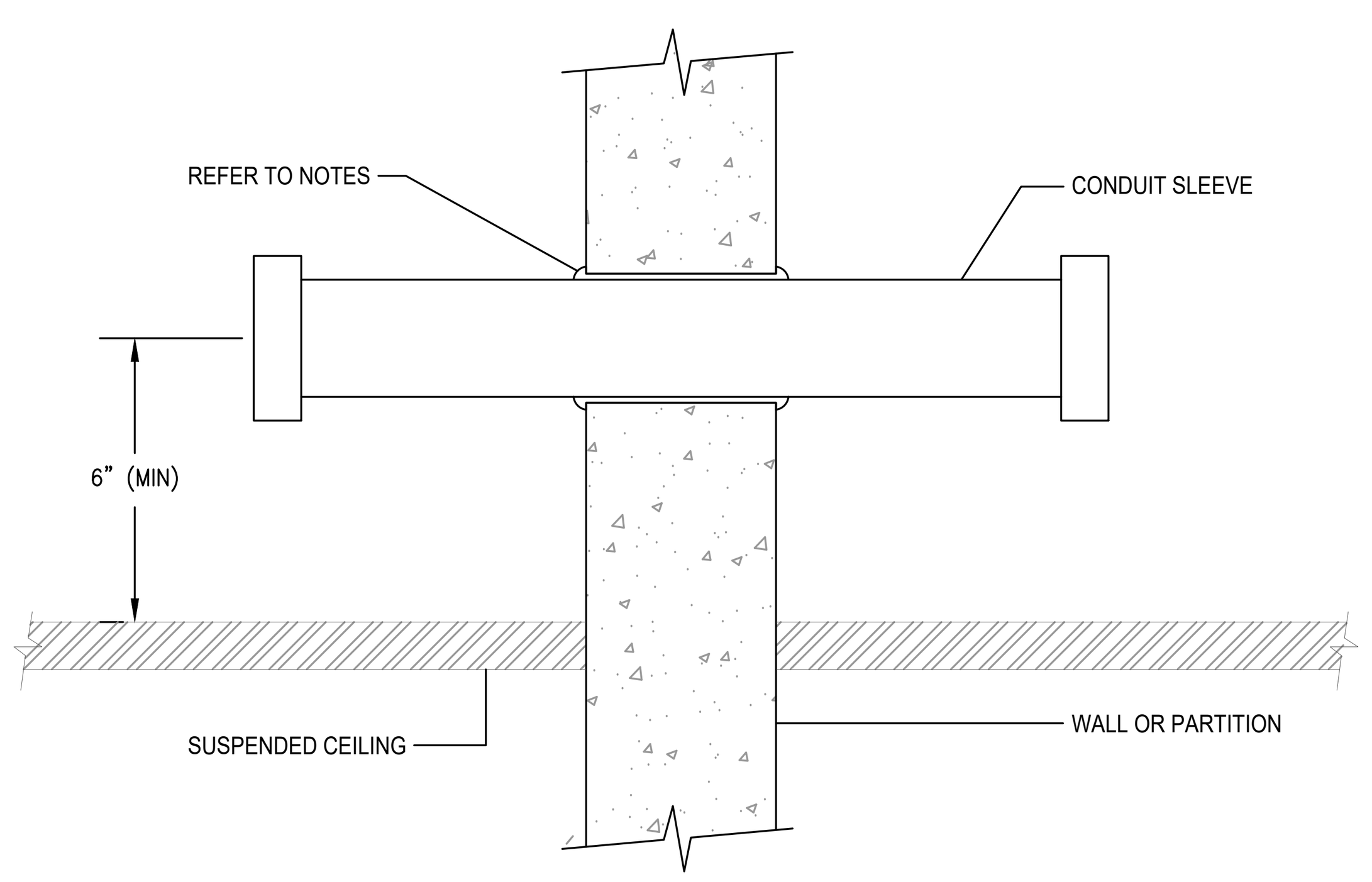
6 DETAIL - CARD READER DETAIL
E1.1 SCALE - NONE



3 DETAIL - FIRE ALARM RISER
E1.1 SCALE - NONE

GENERAL FIRE ALARM SYSTEM NOTES

1. THE DRAWINGS AND SPECIFICATIONS INDICATE A PERFORMANCE SPECIFICATION FOR THE FIRE ALARM SYSTEM. ALL MODULES, INTERFACING, SIGNALS, SIGNAL LIGHTS AND PROGRAMMING SHALL BE INCLUDED IN THE FIRE ALARM CONTRACTORS SCOPE OF WORK. SYSTEM SHALL BE IN COMPLIANCE WITH NFPA 72, ICC CODES, NATIONAL ELECTRIC CODE, NFPA 101, 90A, ADA, AND THE AUTHORITY HAVING JURISDICTION (AHJ).
2. SYSTEM WIRING PERFORMANCE INFORMATION:
   - 2.1. ALL ADDRESSABLE SLC'S SHALL BE NFPA 72 CLASS B, STYLE 4.
   - 2.2. ALL NOTIFICATION NAC'S SHALL BE NFPA 72CLASS B, STYLE Y.
   - 2.3. ALL PANEL NETWORK COMMUNICATIONS SHALL BE NFPA 72 STYLE 4.
   - 2.4. PRIMARY FACP POWER FED VIA BRANCH 120 CIRCUIT(S) DEDICATED FOR THE FIRE ALARM SYSTEM.
   - 2.5. ALL PANEL BATTERY BACKUP (STANDBY & ALARM) SHALL BE SIZED PER NFPA 72 REQUIREMENTS.
3. IT IS THE INTENT THAT THE DRAWINGS AND SPECIFICATIONS SHALL PROVIDE A WORKING INSTALLATION. THE OMISSION OF EXPRESSED REFERENCE IN THE DRAWINGS OR SPECIFICATION TO ANY LABOR OR MATERIAL NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH PRESENT GOOD PRACTICE OF THE TRADE SHALL NOT RELIEVE THIS CONTRACTOR FROM PROVIDING, AT NO COST, SUCH ADDITIONAL LABOR AND MATERIAL UNDER THIS CONTRACT.
4. ALL WIRING SHALL COMPLY WITH PROJECT SPECIFICATIONS, NFPA 72, NEC ARTICLE 760, AND THE REQUIREMENTS OF THE AHJ. NO FIRE ALARM POWER-LIMITED WIRING SHALL BE PERMITTED IN THE SAME RACEWAY AS NO POWER-LIMITED UNLESS SEPARATED BY AN APPROVED BARRIER.
5. FOR CONDUIT APPLICATIONS, USE ELECTRICAL METALLIC TUBING (EMT), 3/4" MINIMUM.
6. ALL CONDUITS, CONDUCTORS, RACEWAYS, EQUIPMENT, ETC., SHALL BE SUPPORTED IN AN APPROVED MANNER BY THE BUILDING STRUCTURE, INCLUDING HANGERS AND RESTRAINTS, IN ACCORDANCE WITH ALL APPLICABLE CODES AND SEISMIC RESTRAINT REQUIREMENTS.
7. ALL FIRE RATED PENETRATIONS SHALL BE MADE WITH A UL APPROVED FIRE STOP MATERIAL OR METHOD.
8. SEAL ALL PENETRATIONS THROUGH EXTERIOR WALLS, FLOORS, AND ROOFS WITH WATERTIGHT MATERIAL.
9. FURNISH AND INSTALL ACCESS PANELS WHERE REQUIRED FOR ACCESS TO CONCEALED EQUIPMENT WHERE NO OTHER MEANS IS PROVIDED.
10. MOUNTING FOR ALL DEVICES AND APPLIANCES SHALL COMPLY WITH STATE, LOCAL, AND ADAAG.
11. THE FIRE ALARM VENDOR MUST CALCULATE THE NOTIFICATION APPLIANCES CANDELA RATINGS AND DESIGNATE THEM ON THE SHOP DRAWINGS. ALL STROBE SETTING MUST COMPLY WITH NFPA 72 REQUIREMENTS.
12. ALL WORK AND SHUTDOWNS ASSOCIATED WITH FIRE ALARM SYSTEM INTERFACES SHALL BE COORDINATED THROUGH THE RESPECTIVE CONTRACTOR, INCLUDING BUT NOT LIMITED TO: SPECIAL HAZARD SUPPRESSION SYSTEM(S), AUTOMATIC SPRINKLER SYSTEM(S), HVAC SYSTEM(S), ELEVATOR SYSTEM(S), AND SECURITY/ ACCESS CONTROL SYSTEM(S).
13. SYSTEM MANUFACTURER SHALL COORDINATE FINAL QUANTITIES AND LOCATIONS OF ALL SYSTEM MONITORS AND CONTROL MODULES WITH THE RESPECTIVE CONTRACTORS FOR INTERFACE. FINAL LOCATIONS TO BE SHOWN ON SHOP DRAWINGS. CHECK AND VERIFY ALL CONDITIONS AT THE SITE WITHIN THE CONTRACT LIMITS. THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR ALL FIELD MEASUREMENTS AND VERIFICATION OF FIELD CONDITIONS PRIOR TO COMMENCING WORK. ANY CHANGES IN WORK NECESSITATED BY FAILURE OF THIS CONTRACTOR TO COMPLY WITH THIS PROCEDURE SHALL BE UNDERTAKEN BY THIS CONTRACTOR AT HIS/ HER OWN EXPENSE.
14. FIRE ALARM CONTRACTOR IS RESPONSIBLE FOR ALL DISTANCES BETWEEN DEVICES, VOLTAGE DROP CALCULATIONS, CODE COMPLIANCE AND SUBMITTING SIGNED/SEALED DRAWINGS TO AHJ. THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE FIRE ALARM SHOP DRAWING SUBMITTAL FOR COMPLETE COMPLIANCE WITH THE FULL SET OF BID DOCUMENTS PRIOR TO SUBMITTING TO THE ENGINEER FOR APPROVAL.
15. ACCEPTANCE TESTING MUST BE PERFORMED IN ACCORDANCE WITH NFPA 72 AND AHJ REQUIREMENTS.
16. UPON COMPLETION OF FINAL TESTING AND APPROVAL OF THE AHJ, THE SYSTEM VENDOR SHALL SUBMIT RECORD DRAWINGS TO THE OWNER DETAILING AS-BUILT CIRCUITING AS SHOWN ON THE INSTALLER'S RED-LINE MARKUPS. THEY SHALL INCORPORATE ALL FIELD AND DESIGN DIRECTIVES GIVEN THROUGH OUT THE PROJECT.



NOTES:

1. FOR PENETRATIONS THROUGH FIRE RATED WALLS, PROVIDE FIRESTOPPING AROUND CONDUIT SLEEVE AND IN SLEEVE AFTER INSTALLATION OF CABLES.
2. PROVIDE CAULKING IN SLEEVE AFTER INSTALLATION OF CABLES IN ALL REQUIRED AREAS TO PREVENT AIR LEAKAGE.

7 DETAIL - WALL SLEEVE
E1.1 SCALE - NONE

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ELECTRICAL DETAILS

RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
1300 E. 12TH ST.
EDDYSTONE, PA 19022

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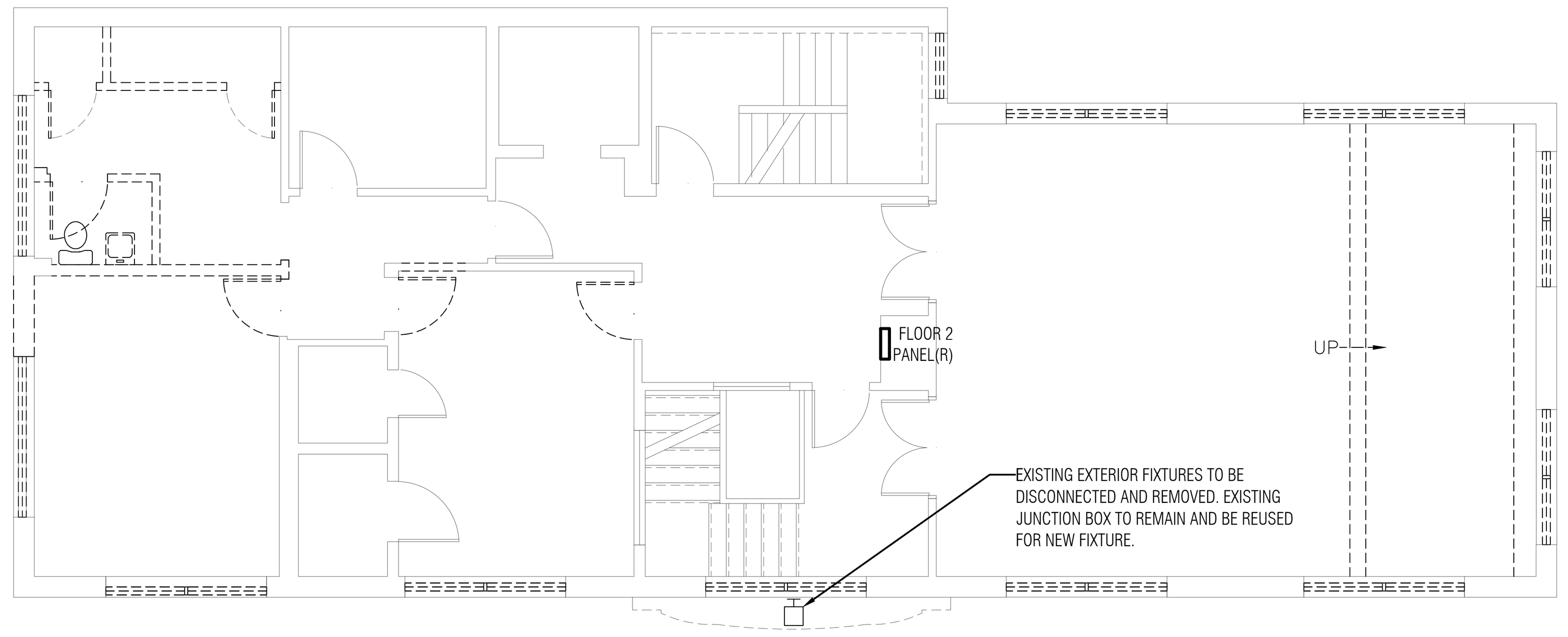
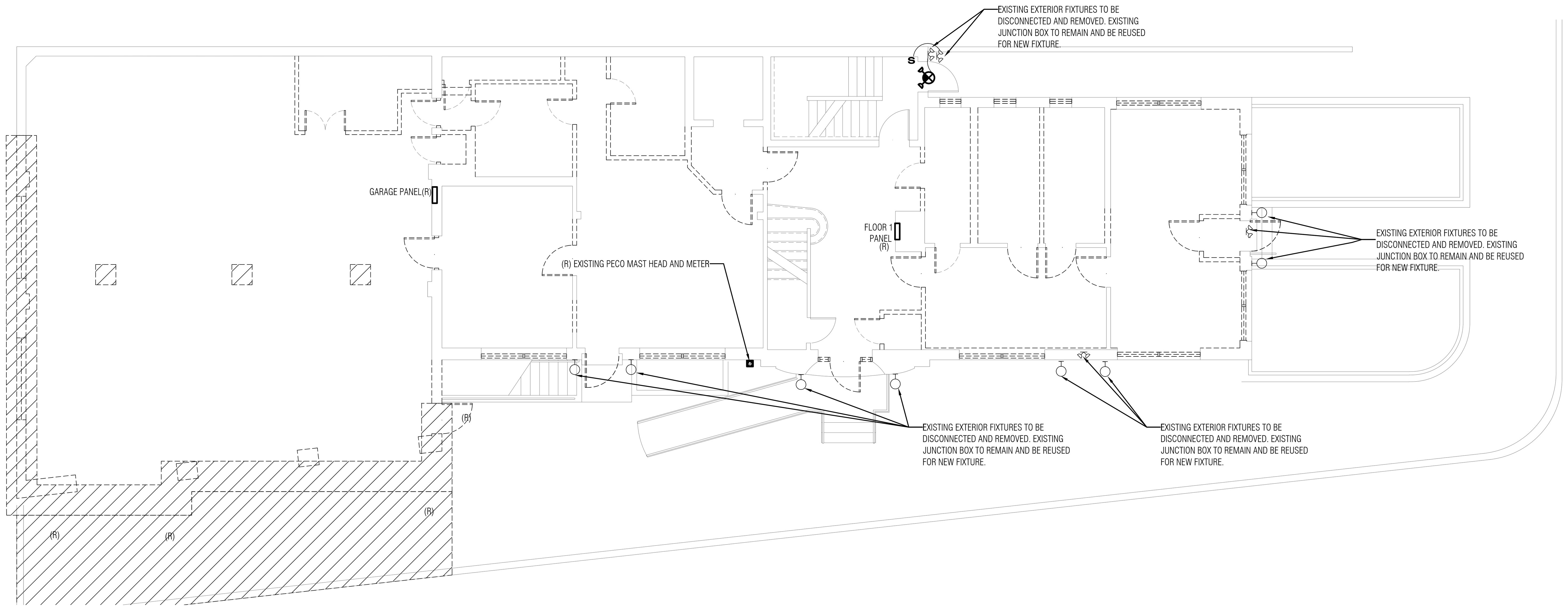
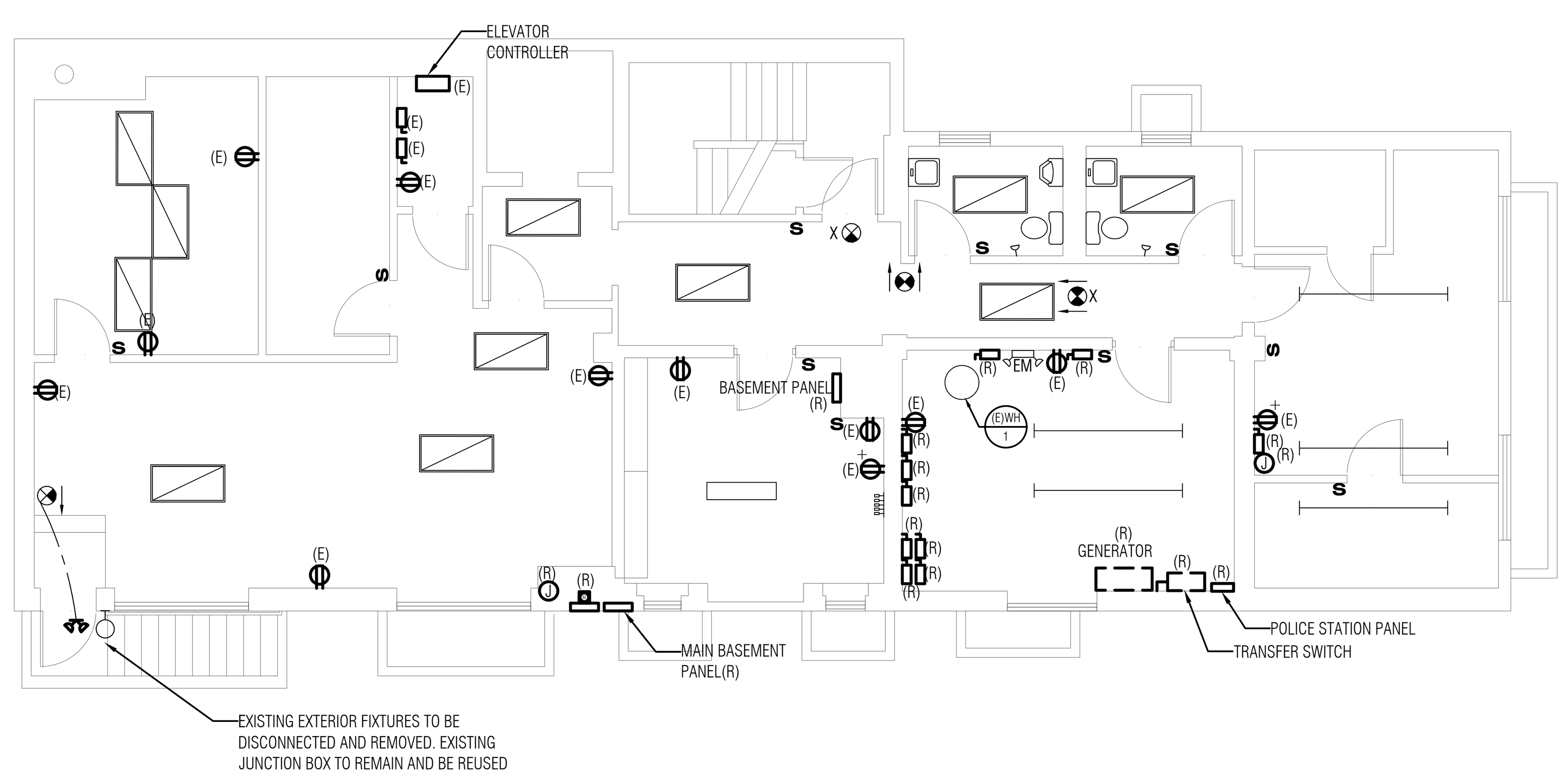


3 ED-2 **ELECTRICAL SECOND FLOOR PLAN - DEMOLITION**
SCALE - 1/8" = 1'-0"



2 ED-2 **ELECTRICAL FIRST FLOOR PLAN - DEMOLITION**
SCALE - 1/8" = 1'-0"



1 ED-2 **ELECTRICAL BASEMENT PLAN - DEMOLITION**
SCALE - 1/8" = 1'-0"

GENERAL DEMOLITION NOTES:

1. FIRST AND SECOND FLOOR ELECTRICAL/FIRE ALARM/SECURITY/TELE-DATA DEVICES, FIXTURES, EQUIPMENT, WIRING, AND RACEWAYS TO BE DISCONNECTED AND REMOVED IN THEIR ENTIRETY(LIGHTING, POWER,TELE/DATA, FIRE ALARM, PANELS, RECEPTACLES, DISCONNECTS,ETC.)
2. BASEMENT ELECTRIC SERVICE, PANELS, GENERATOR, AND ATS TO BE DISCONNECTED AND REMOVED IN THEIR ENTIRETY. EXISTING LIGHTING AND RECEPTACLES ARE INTENDED TO REMAIN AND BE REUSED. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR REMOVING THE BRANCH CIRCUITS FOR THESE DEVICES BACK TO THE SOURCE, THEN EXTENDING CIRCUITS FROM THE NEW ELECTRIC SERVICE DURING THE NEW WORK PHASE.
3. ALL ELECTRICAL PANELS TO BE DEMOLISHED. ELECTRICAL CONTRACTOR SHALL COORDINATE REMOVAL OF SERVICE WITH PECO.
4. ELEVATOR EQUIPMENT AND CONTROLS EXISTING TO REMAIN. DISCONNECT AND REMOVE WIRE AND CONDUIT. RETAIN EXISTING EQUIPMENT AND CONTROLS FOR REUSE IN NEW WORK. REMOVE WIRING BACK TO SOURCE.
5. EXISTING FIRE ALARM AND SECURITY SHALL REMAIN OPERABLE DURING CONSTRUCTION. SECURE ANY EXISTING TO REMAIN DEVICES IN PLACE TO MAINTAIN BUILDING COVERAGE. COORDINATE SECURITY REQUIREMENTS WITH BOROUGH.
6. COORDINATE ANY POWER SHUTDOWNS WITH BOROUGH AND GENERAL CONTRACTOR PRIOR TO BEGINNING DEMOLITION WORK.
7. EXISTING EMERGENCY LIGHTING THROUGHOUT BUILDING SHALL REMAIN IN OPERATION THROUGHOUT CONSTRUCTION. ENSURE CODE MINIMUM FOOT CANDLE LEVEL FOR EMERGENCY LIGHTS. PROVIDE EXIT SIGNS ALONG EMERGENCY EGRESS PATH.
8. COORDINATE MECHANICAL,PLUMBING, AND FIRE PROTECTION DEMOLITION WITH APPROPRIATE TRADE.

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Project No. 22065

ELECTRICAL FLOOR PLAN – DEMOLITION
RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
1300 E. 12TH ST.
EDDYSTONE, PA 19022

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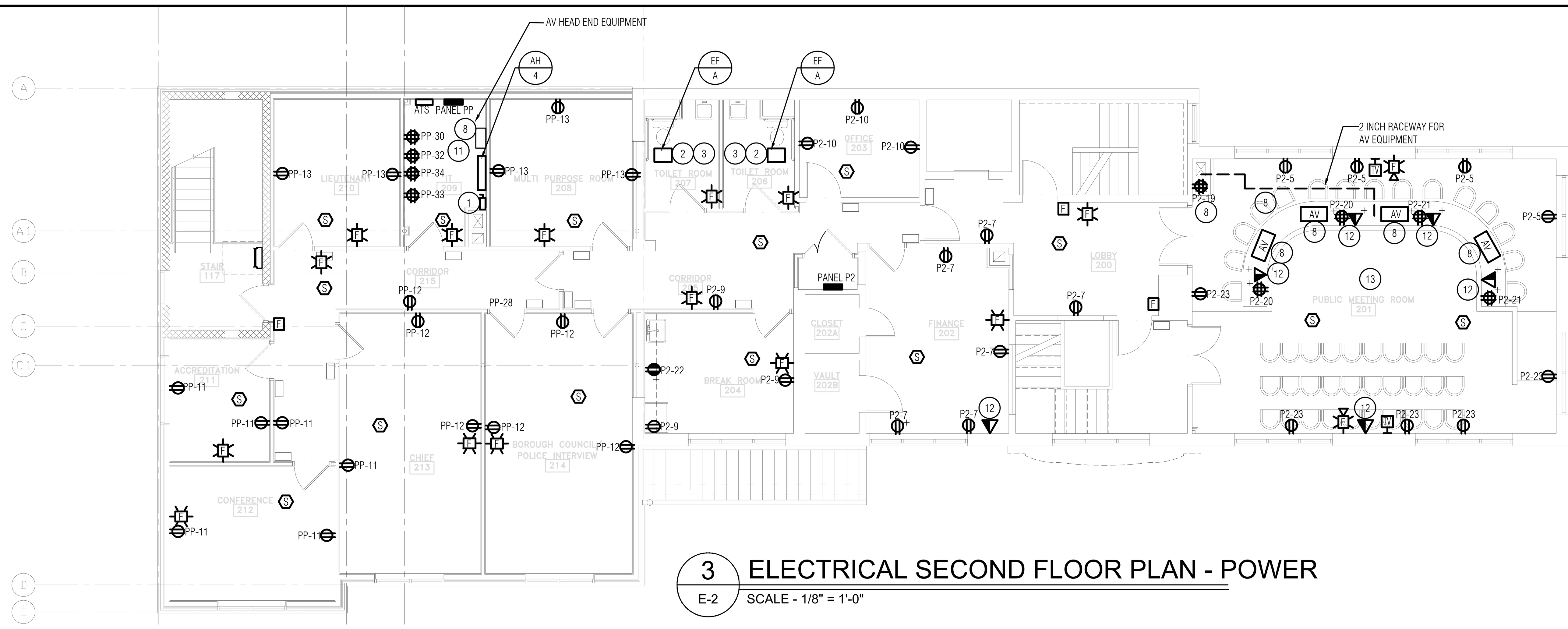
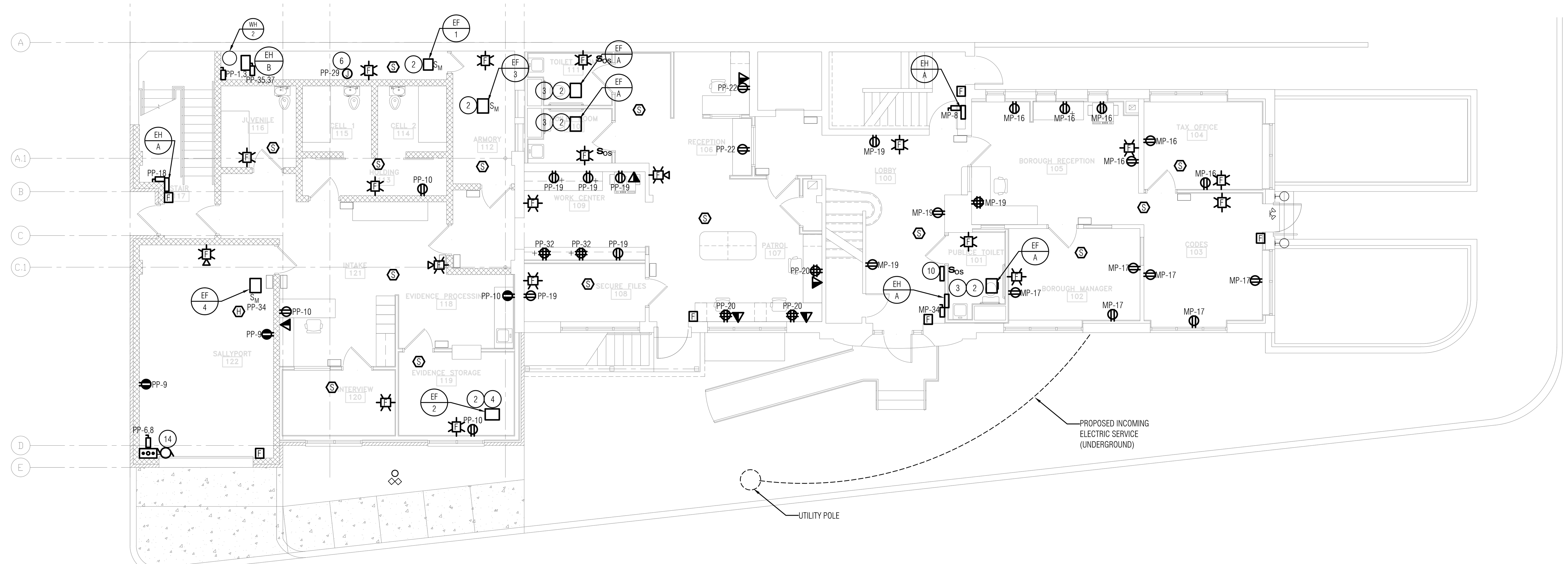
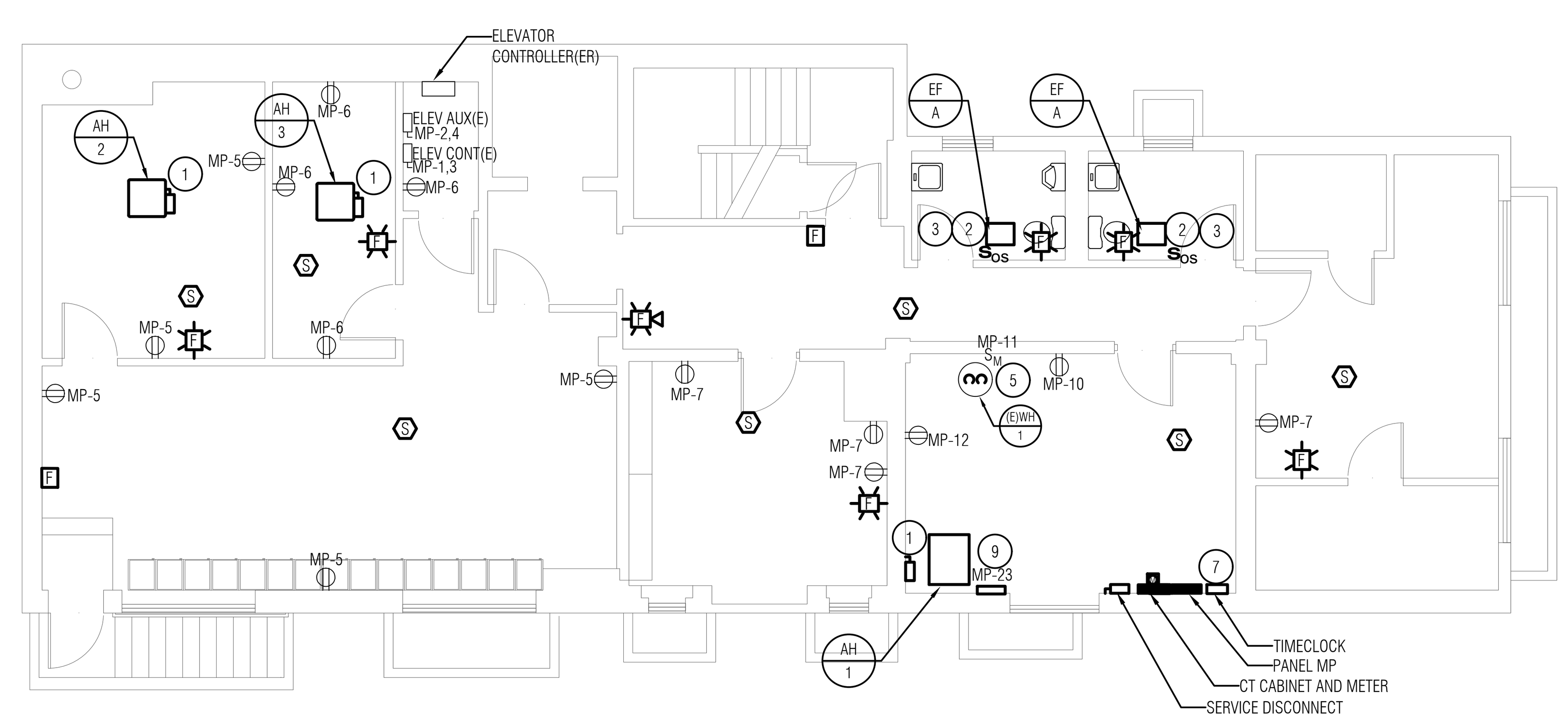


3 ELECTRICAL SECOND FLOOR PLAN - POWER
E-2 SCALE - 1/8" = 1'-0"



2 ELECTRICAL FIRST FLOOR PLAN - POWER
E-2 SCALE - 1/8" = 1'-0"



1 ELECTRICAL BASEMENT PLAN - POWER
E-2 SCALE - 1/8" = 1'-0"

ELECTRICAL SHEET NOTES:

1. ALL SINGLE PHASE BRANCH CIRCUITING SHALL BE 2#12 & 1#12GND - 3/4"C UON. ALL THREE PHASE BRANCH CIRCUITING SHALL BE 3#12 & 1#12GND 3/4"C UON. ROUTE ALL BRANCH CIRCUITS TO PANEL INDICATED IN ROOM UON. REFER TO SINGLE LINE DIAGRAM FOR ADDITIONAL WIRE SIZES.
2. REFER TO APPROPRIATE TRADE DRAWINGS FOR EXACT LOCATION OF HVAC, PLUMBING, AND ARCHITECTURAL EQUIPMENT.
3. COORDINATE EXACT LOCATION OF RECEPTACLES AND TELECOMMUNICATION DEVICES WITH FURNITURE MILLWORK, AND EQUIPMENT.
4. SECURITY SYSTEMS TO BE DETERMINED(FOBS AND CAMERAS). COORDINATE POWER REQUIREMENTS WITH SECURITY CONTRACTORS.
5. TELE/DATA OUTLETS HOMERUN TO IT ROOM.

ELECTRICAL NEW WORK KEY NOTES

(1) INDOOR AIR HANDLER POWERED BY OUTDOOR CONDENSING UNIT.

(2) CIRCUIT EXHAUST FANS TO NEAREST LIGHTING CIRCUIT. SEE E-4 FOR LIGHTING CIRCUITING.

(3) INTERCONNECT EXHAUST FAN WITH BATHROOM OCCUPANCY SENSOR SWITCH. SEE E-4 FOR OCCUPANCY SENSOR LOCATIONS.

(4) INTERCONNECT EXHAUST FAN WITH EVIDENCE ROOM OCCUPANCY SENSOR SWITCH. SEE E-4 FOR OCCUPANCY SENSOR LOCATIONS.

(5) HOT WATER RECIRC PUMP. COORDINATE POWER REQUIREMENTS AND FINAL LOCATION WITH PLUMBING CONTRACTOR.

(6) JUNCTION BOX FOR SOLENOID VALVE CONTROLLER. COORDINATE POWER REQUIREMENTS AND FINAL LOCATION WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.

(7) TIMECLOCK FOR SITE LIGHTING CIRCUITS. TIME CLOCK SHALL BE 365 DAY PROGRAMMABLE ASTRONOMIC TYPE WITH PHOTOCELL OVERRIDE. TIME CLOCK SHALL BE INTERMATIC TYPE ET9015CR OR APPROVED EQUAL

(8) AV EQUIPMENT. AV OUTLETS, RACEWAY, AND QUAD RECEPTACLE AND HEAD END EQUIPMENT ARE DIAGRAMMATIC ONLY. COORDINATE LOCATION, ROUTING, INSTALLATION, AND POWER REQUIREMENTS WITH AV CONTRACTOR IN FIELD PRIOR TO ROUGH-IN.

(9) FIRE ALARM CONTROL PANEL. COORDINATE LOCATION WITH FIRE MARSHALL PRIOR TO ROUGH-IN.

(10) FIRE ALARM ANNUNCIATOR PANEL. COORDINATE LOCATIOIN WITH FIRE MARSHALL.

(11) IT ROOM RECEPTACLES. COORDINATE FINAL LOCATIONS WITH BOROUGH STAFF PRIOR TO ROUGH-IN.

(12) MOUNT TELE/DATA OUTLETS, QUAD RECEPTACLES, AND AV OUTLETS IN FURNITURE. COORDINATE MOUNTING AND FINAL LOCATION WITH GENERAL CONTRACTOR.

(13) FLOORBOX POWER RACEWAY. ROUTING/FINAL LOCATION OF RACEWAY TO BE DETERMINED IN-FIELD PRIOR TO ROUGH IN.

(14) GARAGE DOOR OPENER/CONTROLS.COORDINATE FINAL LOCATION AND ELECTRICAL CHARACTERISTICS WITH APPROVED SUBMITTAL PRIOR TO ROUGH-IN.

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ELECTRICAL FLOOR POWER PLAN – NEW WORK
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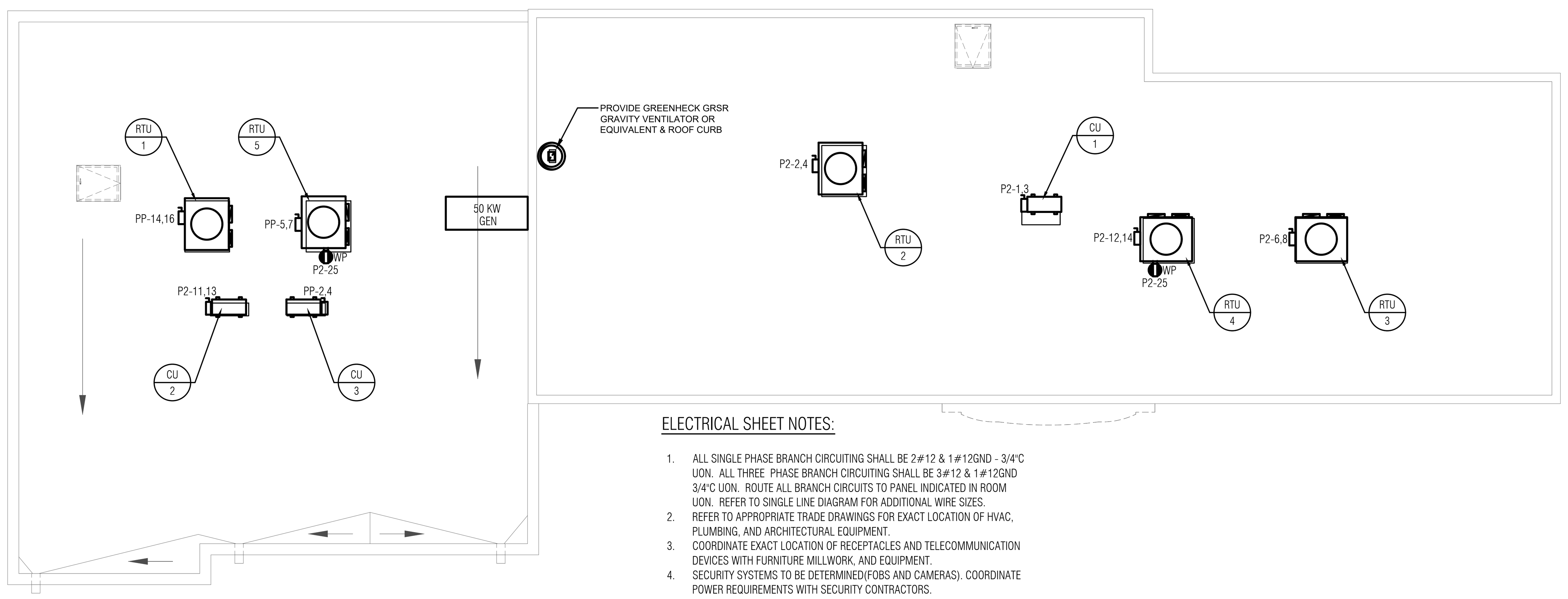

ELECTRICAL SHEET NOTES:

1. ALL SINGLE PHASE BRANCH CIRCUITING SHALL BE 2#12 & 1#12GND - 3/4"C UON. ALL THREE PHASE BRANCH CIRCUITING SHALL BE 3#12 & 1#12GND 3/4"C UON. ROUTE ALL BRANCH CIRCUITS TO PANEL INDICATED IN ROOM UON. REFER TO SINGLE LINE DIAGRAM FOR ADDITIONAL WIRE SIZES.
2. REFER TO APPROPRIATE TRADE DRAWINGS FOR EXACT LOCATION OF HVAC, PLUMBING, AND ARCHITECTURAL EQUIPMENT.
3. COORDINATE EXACT LOCATION OF RECEPTACLES AND TELECOMMUNICATION DEVICES WITH FURNITURE MILLWORK, AND EQUIPMENT.
4. SECURITY SYSTEMS TO BE DETERMINED(FOBS AND CAMERAS). COORDINATE POWER REQUIREMENTS WITH SECURITY CONTRACTORS.

ELECTRICAL NEW WORK KEY NOTES

(1) FURNISH AND INSTALL GENERAC SG050NA 50 KW, 120/240V, SINGLE PHASE GENERATOR OR APPROVED EQUAL. COORDINATE FINAL GENERATOR LOCATION WITH STRUCTURAL ENGINEER .

1 ELECTRICAL ROOF PLAN
E-3 SCALE - 1/8" = 1'-0"

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ELECTRICAL ROOF PLAN – NEW WORK

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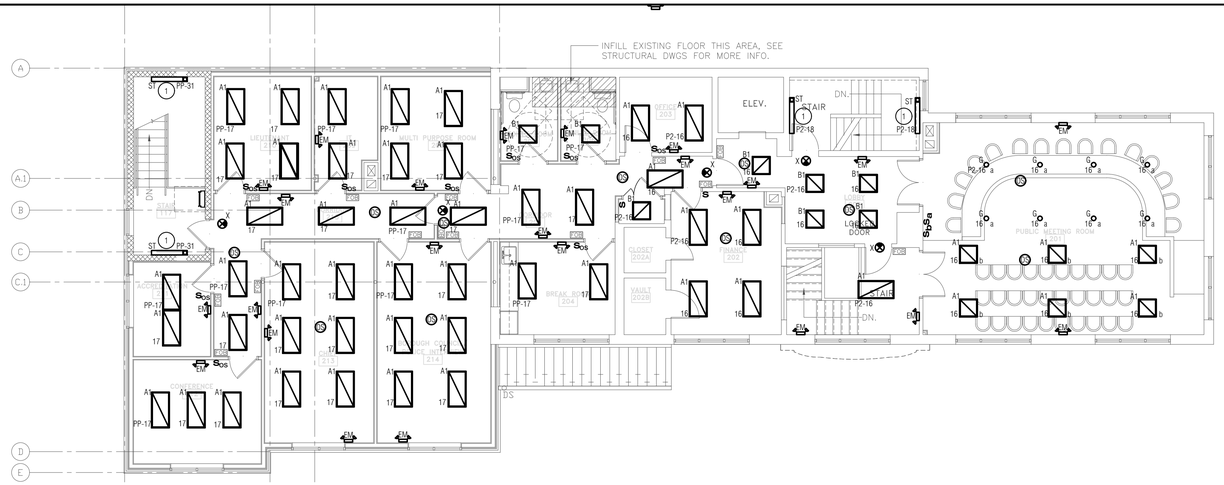


ELECTRICAL SHEET NOTES:

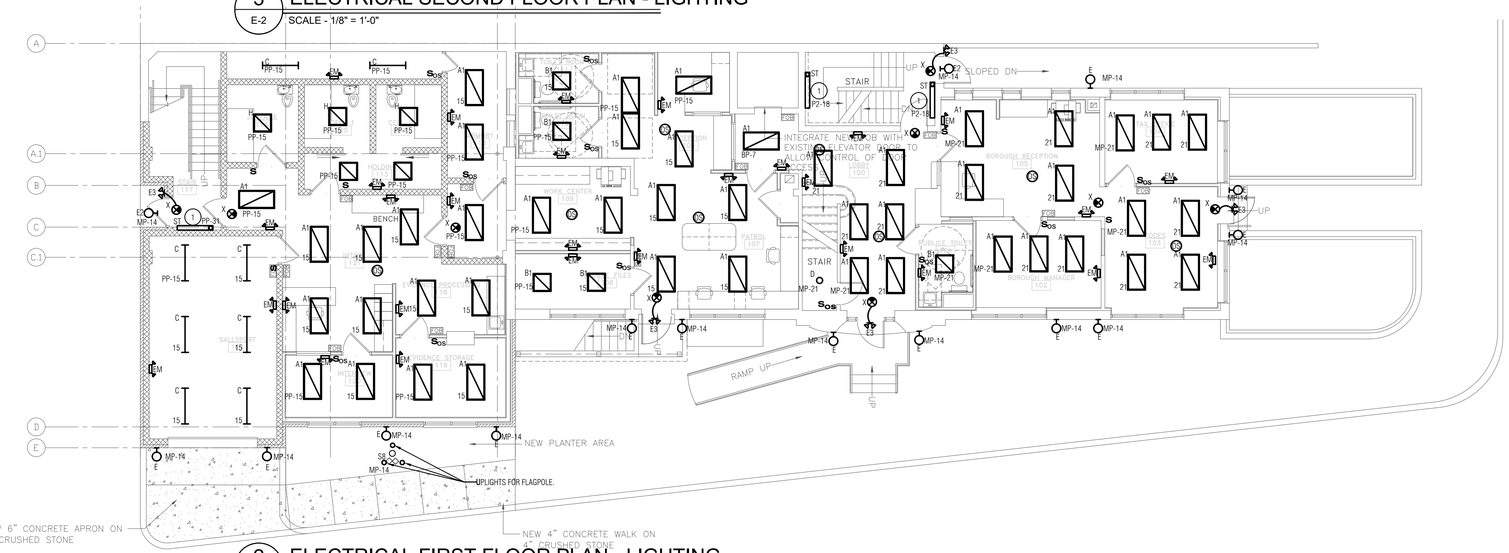
1. ALL SINGLE PHASE BRANCH CIRCUITING SHALL BE 2#12 & 1#12GND - 3/4"C U0N. ALL THREE PHASE BRANCH CIRCUITING SHALL BE 3#12 & 1#12GND 3/4"C U0N. ROUTE ALL BRANCH CIRCUITS TO PANEL INDICATED IN ROOM U0N. REFER TO SINGLE LINE DIAGRAM FOR ADDITIONAL WIRE SIZES.
2. REFER TO APPROPRIATE TRADE DRAWINGS FOR EXACT LOCATION OF HVAC, PLUMBING, AND ARCHITECTURAL EQUIPMENT.
3. BASEMENT LIGHT FIXTURES AND SWITCHES EXISTING TO REMAIN. CIRCUIT FIXTURES NOT CAPTURED ON PLAN TO NEAREST LIGHTING CIRCUIT.
4. BASEMENT RECEPTACLES EXISTING TO REMAIN. CIRCUIT RECEPTACLES NOT CAPTURED ON PLAN TO SPARE CIRCUITS ON ELECTRICAL PANEL MP.

ELECTRICAL NEW WORK KEY NOTES

1. MOUNT 8' AFF AT EACH LANDING.
2. CLOSET LIGHT SWITCH

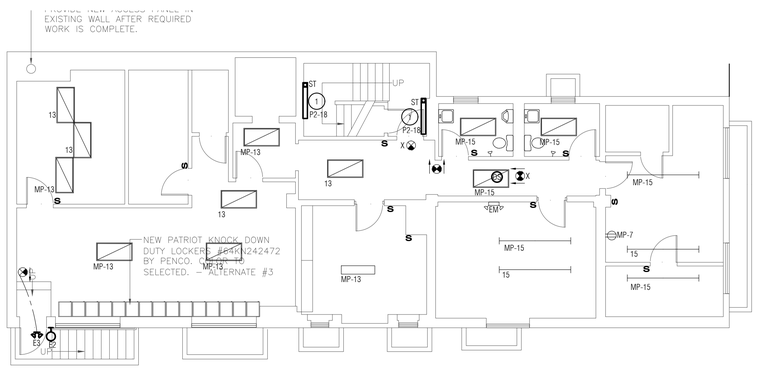
3 ELECTRICAL SECOND FLOOR PLAN - LIGHTING

E-2 SCALE - 1/8" = 1'-0"



2 ELECTRICAL FIRST FLOOR PLAN - LIGHTING

E-2 SCALE - 1/8" = 1'-0"



1 ELECTRICAL BASEMENT PLAN - LIGHTING

E-2 SCALE - 1/8" = 1'-0"

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ARCHITECTURE
ENGINEERING
SITE PLANNING
INTERIOR DESIGN

ADVANCED ENGINEERING INC.
5560 Pennell Road | Media PA 19063
Project No. 22065

ELECTRICAL LIGHTING FLOOR PLAN – NEW WORK

RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE

1300 E. 12TH ST.
EDDYSTONE, PA 19022

REVISIONS NO	DESCRIPTION	DATE
	Issued for Bid	1/31/23

DATE: 1/31/23
SCALE: AS NOTED
DRAWN BY: AH
CHECKED BY: DWF
PROJ. NO.: 22065

SHEET NO. E-4 SHEET OF

Main Panel(MP)

LOCATION: BASEMENT MECHANICAL ROOM
MOUNTING: SURFACE

VOLTAGE: 120/240 V, 1ø , 3 WI
MAIN : 300 A MCB
NEUTRAL: 100%
AIC RATIN

CKT NO.	WIRE ID	CB AMP/POLE	DESCRIPTION	LOAD (KW) A	LOAD (KW) B	LOAD (KW) A	LOAD (KW) B	DESCRIPTION	CB AMP/POLE	WIRE ID	CKT NO.
1	60W3	60A/2P	Elevator Controller	2520		2500		Elevator Auxiliary	30A/2P	30W3	2
3					2520		2500				4
5	20W2	20A/1P	Receptacles-Basement Storage	900		540		Receptacles-Fire Marshall	20A/1P	20W2	6
7	20W2	20A/1P	Receptacles-Mechanical Room		900		1800	EH-A(Stairwell)	20A/1P	20W2	8
9	20W2	20A/1P	Exsting Sump Pump**	500		360		Receptacles-Mechanical Room*	20A/1P	20W2	10
11	20W2	20A/1P	Hot Water Recirc Pump		500		540	Receptacles-Mechanical Room*	20A/1P	20W2	12
13	20W2	20A/1P	Existing Lighting	1000		200		Exterior Lighting***	20A/1P	20W2	14
15	20W2	20A/1P	Existing Lighting		1000		900	Receptacles-Rms 104&105	20A/1P	20W2	16
17	20W2	20A/1P	Receptacles-Rms 102&103	1080		400		Borough Reception Fobs	20A/1P	20W2	18
19	20W2	20A/1P	Receptacles-Lobby Receptacles		900			Parking Lot Lighting(Future)			20
21	20W2	20A/1P	First Floor Lighting	800							22
23	20W2	20A/1P	FACP		500			Parking Lot Lighting(Future)			24
25		20A/1P	SPARE								26
27		20A/1P	SPARE					SPARE	20A/1P		28
29	150W3	150A/2P	Panel PP	16500		11500		Panel P2	100A/2P	100W3	30
31					16500		11500				32
33		20A/1P	SPARE			1800		EH-A(Stairwell 117)	20A/1P	20W2	34
35		20A/1P	SPARE					SPARE	20A/1P		36
37		20A/1P	SPARE					SPARE	20A/1P		38
39			SPACE					SPACE			40
41			SPACE					SPACE			42
			SUB-TOTAL KW	23.3	22.8	17.3	17.2	SUB-TOTAL KW			

TOTAL CONNECTED KVA LOAD 80.7 KVA
TOTAL CONNECTED AMP LOAD 336.1 A

NOTES:*USE GFCI BREAKER
** CONFIRM POWER REQUIREMENTS IN FIELD
***CIRCUIT THROUGH TIMECLOCK

Police Panel(PP)

LOCATION: IT ROOM
MOUNTING: SURFACE

VOLTAGE: 120/240 V, 1ø , 3 WI
MAIN : 150 A MCB
NEUTRAL: 100%

CKT NO.	WIRE ID	CB AMP/POLE	DESCRIPTION	LOAD (KW) A	LOAD (KW) B	LOAD (KW) A	LOAD (KW) B	DESCRIPTION	CB AMP/POLE	WIRE ID	CKT NO.
1	30W2	30A/2P	Electric Water Heater Holding Cell Area	2250		900		CU-3	30A/2P	30W3	2
3					2250		900				4
5	30W3	30A/2P	RTU-5	1940		1500		Overhead Door-Salleyport	20A/2P	20W3	6
7					1940		1500				8
9	20W2	20A/1P	Salleyport Receptacles	360		540		Receptacles-Rms 119,121,113	20A/1P	20W2	10
11	20W2	20A/1P	Receptacles-Rms 211,212		1080		1080	Receptacles-Rms 213, 214			12
13	20W2	20A/1P	Receptacles-Rms 208,209,210	1080		2500		RTU-1	40A/2P	40W3	14
15	20W2	20A/1P	First Floor Lighting		1575		2500				16
17	20W2	20A/1P	Second Floor Lighting	1350		1800		EH-A(Stairwell 117)	20A/1P	20W2	18
19	20W2	20A/1P	Receptacles-Work Center(Rm. 109)		1080		1080	Receptacles-Patrol Room 107	20A/1P	20W2	20
21	20W2	20A/1P	Patrol Fobs	400		360		Receptacles-Reception 106	20A/1P	20W2	22
23	20W2	20A/1P	Intake Fobs		400		400	Intake Fobs	20A/1P	20W2	24
25	20W2	20A/1P	Rms 119/120 Fobs	400		400		Rms 211/212/213 Fobs	20A/1P	20W2	26
27	20W2	20A/1P	Rms 208/214 Fobs		400		400	Rms 209/210/214 Fobs	20A/1P	20W2	28
29	20W2	20A/1P	Solenoid Valve Controller*	400		500		Receptacles-IT Room	20A/1P	20W2	30
31	20W2	20A/1P	Stairwell Lighting		105		500	Receptacles-IT Room	20A/1P	20W2	32
33	20W2	20A/1P	Receptacles-IT Room	500		500		Receptacles-IT Room	20A/1P	20W2	34
35		20A/2P	EH-B		1500		720	Quad Receptales - Work Center	20A/1P	20W2	32
37				1500				EF-4	20A/1P	20W2	34
39			SPACE					SPACE			32
41			SPACE					SPACE			34
			SUB-TOTAL KW	10.2	10.3	9.0	9.1	SUB-TOTAL KW			

TOTAL CONNECTED KVA LOAD 38.6 KVA
TOTAL CONNECTED AMP LOAD 160.8 A

NOTES:*USE GFCI BREAKER

Second Floor Panel(P2)

LOCATION: CORRIDOR 205 CLOSET
MOUNTING: SURFACE

VOLTAGE: 120/240 V, 1ø , 3 WI
MAIN : 100 A MCB
NEUTRAL: 100%

CKT NO.	WIRE ID	CB AMP/POLE	DESCRIPTION	LOAD (KW) A	LOAD (KW) B	LOAD (KW) A	LOAD (KW) B	DESCRIPTION	CB AMP/POLE	WIRE ID	CKT NO.
1	30W3	30A/2P	CU-1	900		1940		RTU-2	30A/2P	40W3	2
3					900		1940				4
5	20W2	20A/1P	Receptacles-Public Meeting Room	720		2500		RTU-3	40A/2P	40W3	6
7	20W2	20A/1P	Receptacles-Finance Office		1080		2500				8
9	20W2	20A/1P	Receptacles-2nd Floor Break Room	720		540		Receptacles-Office Rm 203	20A/1P		10
11	30W3	30A/2P	CU-2		900		1940	RTU-4	30A/2P	40W3	12
13				900		1940					14
15	20W2	20A/1P	Rms 202/203/204 Fobs		400		800	2nd Floor Lighting	20A/1P	20W2	16
17	20W2	20A/1P	2nd Floor Lobby Fobs	400		240		Stairwell Lighting	20A/1P	20W2	18
19	20W2	20A/1P	AV Closet Receptacle		360		720	Floorbox Receptacles-Pub Meeting	20A/1P	20W2	20
21	20W2	20A/1P	Floorbox Receptacles-Pub Meeting	720				Receptacles-2nd Floor Break Room	20A/1P	20W2	22
23	20W2	20A/1P	Receptacles-Public Meeting Room		720			SPARE	20A/1P		24
25	20W2	20A/1P	Rooftop Receptacles	360				SPARE	20A/1P		26
27		20A/1P	SPARE					SPARE	20A/1P		28
29		20A/1P	SPARE					SPARE	20A/1P		30
31		20A/1P	SPARE					SPARE	20A/1P		32
33		20A/1P	SPARE					SPARE	20A/1P		34
35			SPACE					SPACE			36
37			SPACE					SPACE			38
39			SPACE					SPACE			40
41			SPACE					SPACE			42
			SUB-TOTAL KW	4.7	4.4	7.2	7.9	SUB-TOTAL KW			

TOTAL CONNECTED KVA LOAD 24.1 KVA
TOTAL CONNECTED AMP LOAD 100.6 A

NOTES:

EDDYSTONE LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER & MODEL NUMBER	SPECIFIED BY	VOLTAGE	LAMP QUANTITY	LAMP TYPE	LAMP WATTAGE	LAMP DIMMABLE	LAMP COLOR TEMP	LAMP LUMEN	MOUNTING	CLG TYPE (GYP/ACT)	REMARKS
A1	2'X4 RECESSED TROFFER WITH PRISMATIC LENS	LITHONIA 2TL4-40L-RW-A19-EZ1-LP835	AEI	120	1	LED	32	Yes	3500K	4000	Recessed	GYP/ACT	
B1	2X2 RECESSED TROFFER WITH PRISMATIC LENS	LITHONIA 2TL2-40L-RW-A19-EZ1-LP835	AEI	120	1	LED	35	Yes	3500K	4000	Recessed	GYP/ACT	
C	4' LED STRIP LIGHT	LITHONIA CLX-L48-5000LM-SEF-FDL-MVOLT-GZ10-35K-80CRI	AEI	MVOLT	1	LED	35	Yes	3500K	5000	Pendant/Surface	-	CHAIN KIT AVAILABLE
D	8" OPEN LED NON-IC DOWNLIGHT	LITHONIA RV8-30-20-R08-WR-120	AEI	120	1	LED	26	Yes	3000K	2000	Pendant/Surface	-	CHAIN KIT AVAILABLE
E	EXTERIOR - UP/DOWN OUTDOOR LED WALL CYLINDER LIGHTING FIXTURE	LITHONIA OLLWU-LED-P1-40K-120-DARK BRONZE	AEI	120	1	LED	14	No	3500K	950	Surface	-	
E2	PITCH SINGLE LIGHT 5" HIGH INTEGRATED LED OUTDOOR WALL SCONCE	TECH LIGHTING 700W-SPITSB-LED830	AEI	120	1	LED	26	No	3000K	823	Surface	-	
E3	PREMIUMDIE-CAST ARCHITECTURAL EMERGENCY LIGHT	LITHONIA LIGHTING AFF-OELR-DNAXD-WT	AEI	-	1	LED	8.5	No	-	-	Surface	-	
G	6"OPEN LED DOWNLIGHT	LITHONIA LIGHTING LDN6-35-25-L06-WR-LSS-120	AEI	120	1	LED	35	YES	3500K	3130	Surface	GYP/ACT	
H	2'X2' HAZARDOUS LOCATION LED LUMINAIRE	KURTZON TLX12-R-2X2-2/LEDR-840-UNV	AEI	MVOLT	1	LED	37	YES	4000K	4190	Recessed	-	
ST	STAIRWELL FIXTURE	COLUMBIA ESL4-35LW-FAW-EDU-ELL14-NXOS	AEI	120	1	LED	34.5	Yes	3500K	4000	Surface	-	PROVIDE INTEGRATED SENSOR AND DIMMING TO 50% UNOCCUPIED. INCLUDES EMERGENCY BATTERY PACK.
S8	LANDSCAPE ACCENT UPLGHT	HYDREL - ASPEN ASPEN A P1 80CRI 30K 120 25 WSL KM	AEI	120	1	LED	11	NO	3000K	600	Ground	-	U.L. LISTED FOR WET LOCATION
X	EDGE-LIT LED EXIT SIGN.	LITHONIA EDG-W-1-G-EL (SINGLE FACE) EDG-W-2-G-EL (DUAL FACE)	AEI	120	1	LED	3.8	NO	-	-	Surface	-	PROVIDE SINGLE OR DOUBLE FACE AS INDICATED ON PLANS. PROVIDE CHEVRONS AS INDICATED ON PLANS. GREEN LETTERING
EM	LED EMERGENCY LIGHT	COMPASS CU2-SD	AEI	MVOLT	2	LED	1	NO	-	-	Surface	-	INCLUDES SELF TEST/SELF DIAGNOSTIC

LIGHTING FIXTURE SCHEDULE NOTES
1. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN(S) FOR THE CEILING TYPE AND EXACT LOCATION OF ALL LIGHT FIXTURES.
2. PROVIDE PLASTER/GWB CEILING FRAMING KITS WHERE APPLICABLE.
3. ALL LAMPS SHALL HAVE A COLOR RENDERING OF 3000 DEGREES KELVIN, UNLESS OTHERWISE NOTED.
4. PROVIDE ALL ACCESSORIES NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM
5. ALL FIXTURES RECESSED WITHIN A FIRE RATED CEILING SHALL BE INSTALLED IN A FIRE RATED ENCLOSURE TO MAINTAIN THE CEILING FIRE RATING. THIS CAN BE DONE BY EITHER A FIRE RATED FIXTURE, A TENMAT ENCLOSURE, OR A
6. EC IS RESPONSIBLE FOR PROVIDING ALL POWER SUPPLIES, CONTROLS, HARDWARE, ETC. NEEDED FOR A COMPLETE INSTALLATION

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ADVANCED ENGINEERING INC
5561 Pennell Road | Media PA 19063
Project No. 22065

ELECTRICAL SCHEDULES
RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
1300 E. 12TH ST.
EDDYSTONE, PA 19022

REVISIONS NO.	DESCRIPTION	DATE
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DATE: 1/31/23
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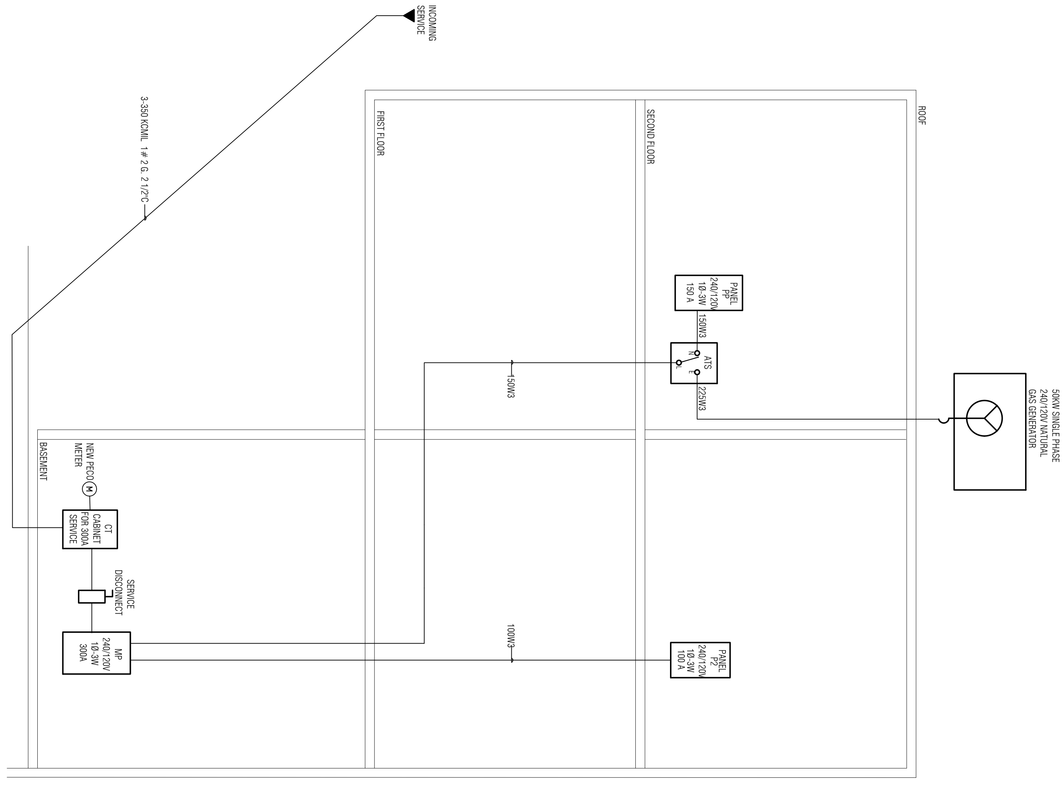
PROJ. NO.: 22065

SHEET NO.
E-5
SHEET OF



1 E-6

ELECTRICAL SINGLE LINE DIAGAM

SCALE - NONE

SHEET NO. E-6

SHEET OF

DATE: 1/31/23

SCALE: AS NOTED

DRAWN BY: AH

CHECKED BY: DWF

PROJ. NO.: 22065

NO.	REVISIONS DESCRIPTION	DATE
	Issued for Bid	1/31/23

ELECTRICAL SINGLE LINE DIAGRAM

RENOVATIONS TO MUNICIPAL BUILDING

BOROUGH OF EDDYSTONE

1300 E. 12TH ST.

EDDYSTONE, PA 19022

ADVANCED ENGINEERING INC.
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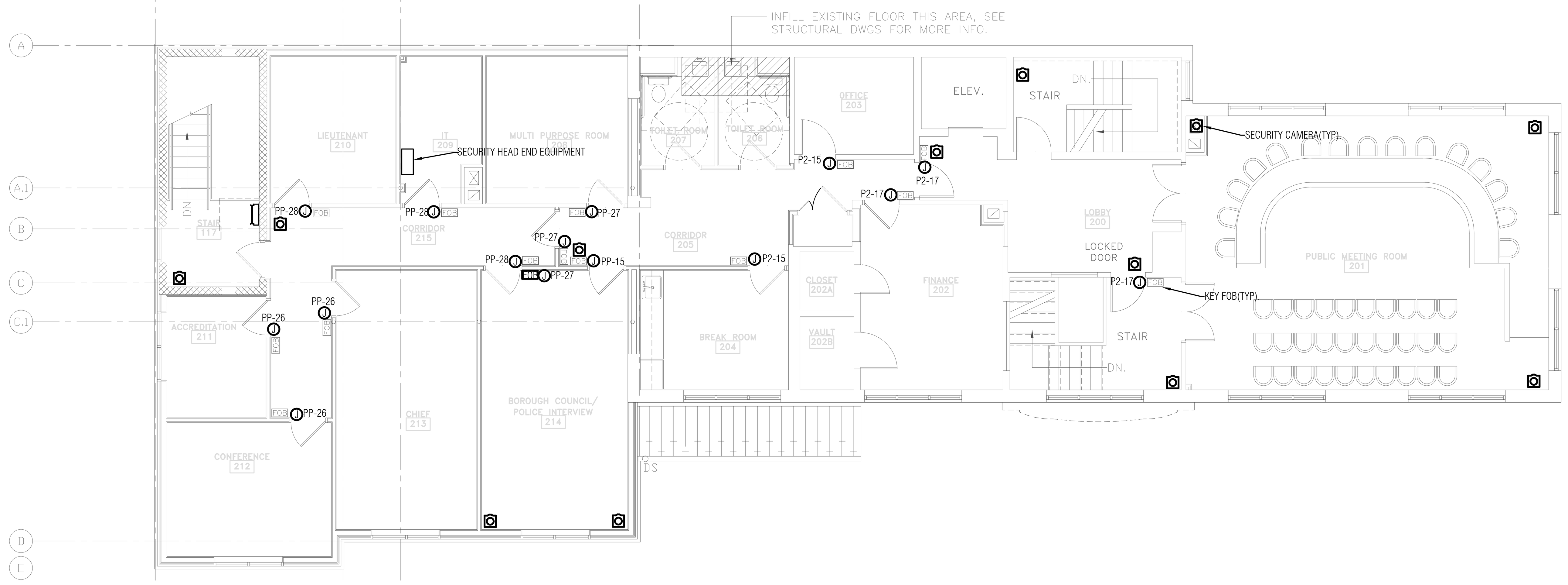
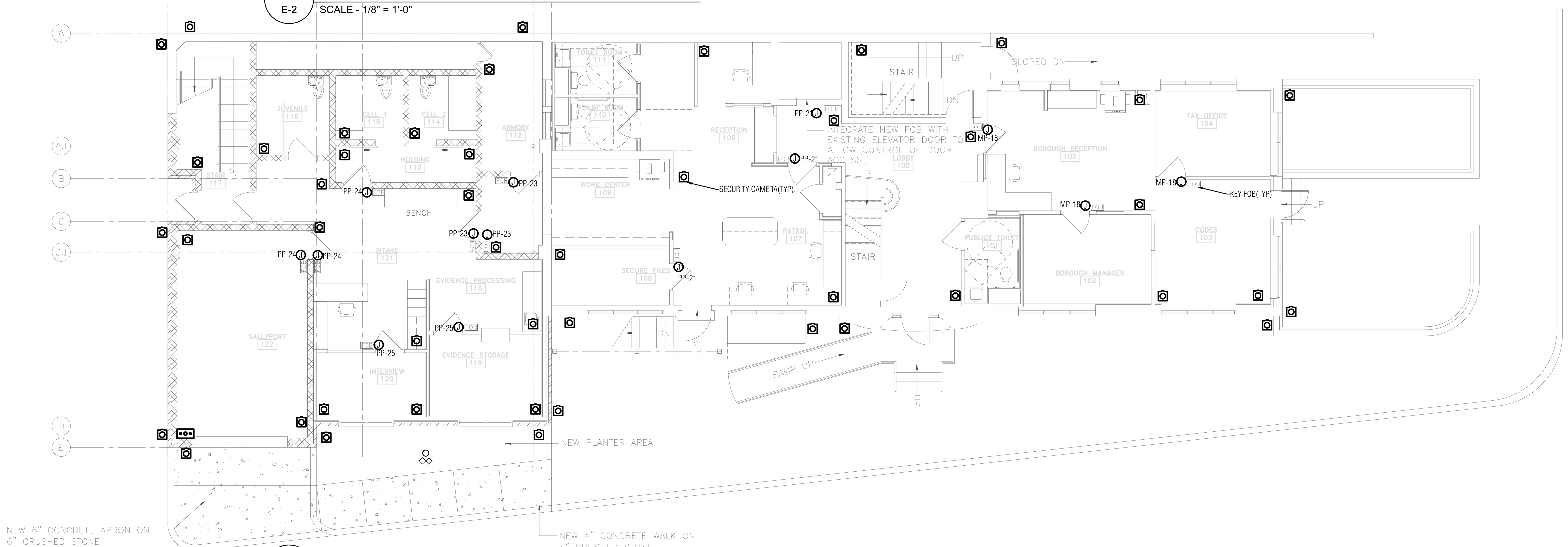
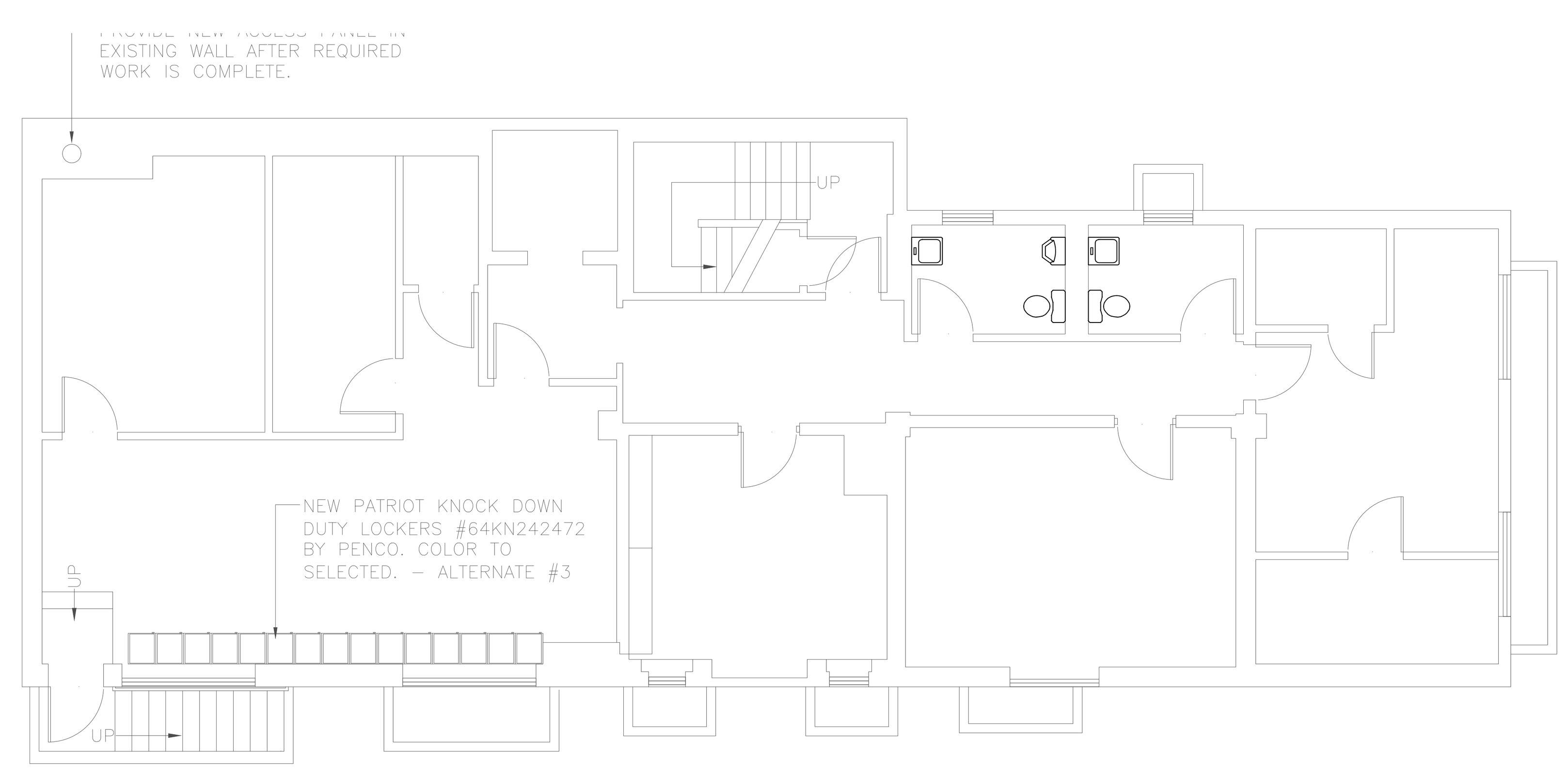


3 ELECTRICAL SECOND FLOOR PLAN - SECURITY
E-2 SCALE - 1/8" = 1'-0"



2 ELECTRICAL FIRST FLOOR PLAN - SECURITY
E-2 SCALE - 1/8" = 1'-0"



1 ELECTRICAL BASEMENT PLAN - SECURITY
E-2 SCALE - 1/8" = 1'-0"

ELECTRICAL SHEET NOTES:

1. SECURITY SYSTEMS TO BE DETERMINED(FOBS AND CAMERAS). COORDINATE POWER REQUIREMENTS WITH SECURITY CONTRACTORS.

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Project No. 22065

ELECTRICAL FLOOR PLAN SECURITY – NEW WORK
RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
1300 E. 12TH ST.
EDDYSTONE, PA 19022

REVISIONS

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SHEET NO.
E-7
SHEET OF

GENERAL SPECIFICATIONS

1. DRAWINGS AND SPECIFICATIONS FORM COMPLIMENTARY REQUIREMENTS; PROVIDE WORK SPECIFIEDAND NOT SHOWN, AND WORK SHOWN BUT NOT SPECIFIED AS THOUGH EXPLICITLY REQUIRED BY BOTH. ALTHOUGH WORK IS NOT SPECIFICALLY SHOWN OR SPECIFIED, PROVIDE SUPPLEMENTARY OR MISCELLANEOUS ITEMS, APPURTENANCES, DEVICES AND MATERIALS OBVIOUSLY NECESSARY FOR A SOUND, SECURE AND COMPLETE INSTALLATION.
2. THE DRAWINGS AND SPECIFICATIONS INDICATE A PERFORMANCE SPECIFICATION FOR THE FIRE PROTECTION AND FIRE ALARM SYSTEMS. AWARDED CONTRACTORS ARE RESPONSIBLE FOR DETAILED DESIGN AND PREPARATION OF SIGNED AND SEALED ENGINEERING DOCUMENTS FOR REVIEW/APPROVAL FROM OWNERS INSURANCE CARRIER AND LOCAL AUTHORITY HAVING JURISDICTION.
3. DRAWINGS ARE DIAGRAMMATIC: THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL COMPONENTS NECESSARY FOR A COMPLETE INSTALLATION. DETERMINE LOCATIONS OF SYSTEMS AND COMPONENTS IN FIELD. COORDINATE WITH ARCHITECTURAL DRAWINGS AND OTHER TRADES.
4. ADDRESS QUESTIONS REGARDING DRAWINGS TO ARCHITECT IN WRITING BEFORE AWARD OF CONTRACT. OTHERWISE, ARCHITECT'S INTERPRETATION OF MEANING AND INTENT OF DRAWINGS SHALL BE FINAL.
5. THE INTENTION IS FOR INSTALLATION OF COMPLETE AND OPERATING SYSTEMS INSTALLED IN ACCORDANCE WITH THE ASSOCIATED MANUFACTURER'S INSTRUCTIONS. NOT EVERY COMPONENT REQUIRED IS SHOWN. THE CONTRACTOR SHALL INCLUDE ALL COMPONENTS NORMALLY ASSOCIATED WITH THE PARTICULAR SYSTEM AND/OR REQUIRED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE SYSTEM SHALL BE FULLY COMMISSIONED AND SIGNED OFF BY AN OFFICER OF THE RESPECTIVE CONTRACTOR.
6. **PRIOR TO COMMENCING WORK, COORDINATION DRAWINGS MUST BE PREPARED AND SUBMITTED FOR REVIEW AND APPROVAL TO THE ARCHITECT/ENGINEER. EACH TRADE (HVAC, PLUMBING, ELECTRIC, AND FIRE PROTECTION) IS RESPONSIBLE FOR DOCUMENTING THEIR WORK ON THE PLAN ORIGINALLY SUBMITTED AS THE SPRINKLER PIPE FABRICATION DRAWING. LOCATION AND ELEVATION OF THE RESPECTIVE DISCIPLINE'S WORK MUST BE SHOWN ON THE COORDINATION DRAWINGS. SHEETMETAL SHOP DRAWINGS SHALL INCLUDE ALL ELEMENTS OF THE EQUIPMENT, DUCTWORK, AIR DEVICES, AND REFLECTED CEILING PLAN FOR COORDINATION OF CRITICAL DIMENSIONS OF ARCHITECTURAL/STRUCTURAL COMPONENTS.**
7. GIVE NOTICES, FILE PLANS, OBTAIN PERMITS AND LICENSES, PAY FEES AND BACK CHARGES, AND OBTAIN NECESSARY APPROVALS FROM AUTHORITIES THAT HAVE JURISDICTION AS REQUIRED TO PERFORM WORK IN ACCORDANCE WITH ALL LEGAL REQUIREMENTS AND WITH THE DESIGN DOCUMENTS
8. PRIOR TO COMMENCING WORK, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND EQUIPMENT DATA FOR MATERIALS AND EQUIPMENT TO THE ARCHITECT FOR REVIEW AND APPROVAL. MATERIALS AND EQUIPMENT SHALL NOT BE INSTALLED BEFORE SHOP DRAWINGS ARE REVIEWED AND APPROVED. SCHEDULE AT LEAST TEN WORKING DAYS, EXCLUSIVE OF TRANSMITTAL TIME, FOR SUBMITTAL REVIEW SHALL BE ALLOWED.
9. MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS LABORATORIES (UL) AND APPROVED BY ASME AND AGA FOR INTENDED SERVICE.
10. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES REQUIRED FOR SAFE EXECUTION AND COMPLETION OF WORK, AND FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
11. COORDINATE WORK OF THIS SECTION WITH THAT OF OTHER SECTIONS.
12. ALL MATERIALS, EQUIPMENT AND METHOD OF INSTALLATION SHALL BE ACCORDANCE WITH THE STANDARDS, REGULATIONS, CODES, ORDINANCES, AND LAW OF LOCAL, STATE, AND FEDERAL GOVERNMENTS, AND OTHER AUTHORITIES THAT HAVE LAWFUL JURISDICTION.
13. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO COORDINATE HIS WORK WITH THAT OF ALL OTHER TRADES, INCLUDING (BUT NOT LIMITED TO), ELECTRICAL, HVAC, SPRINKLER, PLUMBING, STRUCTURAL AND GENERAL ARCHITECTURE. OFFSETS IN PIPING AND OFFSETS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
14. DEVIATION FROM CONTRACT DOCUMENTS, OR PROPOSED SUBSTITUTION OF MATERIALS OR EQUIPMENT FOR THOSE SPECIFIED, SHALL BE REQUESTED IN SEPARATE LETTER, WHETHER DEVIATIONS ARE DUE TO FIELD CONDITIONS, STANDARD SHOP PRACTICE OR OTHER CAUSE. THE CONTRACTOR IS RESPONSIBLE FOR ANY COSTS INCURRED AS A RESULT OF THE CHANGES NEEDED TO ACCOMMODATE THE SUBSTITUTED EQUIPMENT INCLUDING THE WORK OF OTHER TRADES.
15. EACH CONTRACTOR IS RESPONSIBLE FOR ITS CUTTING AND PATCHING REQUIRED FOR THE INSTALLATION OF ITS NEW WORK. CUTTING AND PATCHING SHALL BE COMPLETED IN A NEAT AND WORKMANLIKE MANNER. PATCHING MATERIALS SHALL MATCH EXISTING MATERIALS TO THE GREATEST EXTENT POSSIBLE. PROVIDE TOUCH-UP TO MATCH EXISTING SURROUNDING AREAS OF CUTTING AND PATCHING WORK
16. INTERRUPTIONS TO EXISTING SERVICES AND SYSTEMS SHALL BE AS SHORT AS POSSIBLE AND AT A TIME AND DURATION APPROVED BY THE OWNER. INCLUDE ALL PREMIUM TIME ASSOCIATED WITH INTERRUPTIONS. INTERRUPTIONS SHALL BE SCHEDULED WITH OWNER 48 HOURS IN ADVANCE.
17. CONTRACTOR SHALL COORDINATE ITS RESPECTIVE CEILING MOUNTED EQUIPMENT WITH OTHER TRADE CONTRACTORS PRIOR TO INSTALLATION TO AVOID CONFLICTS.
18. ANY DEMOLITION SHALL BE COORDINATED WITH OWNER, ARCHITECT, G.C. AND ENGINEER. ALL DEBRIS SHALL BE CLEANED UP AND REMOVED FROM THE SITE BY THE END OF THE DAY. PRIOR TO DISPOSAL OF EQUIPMENT AND MATERIALS, TURN OVER TO THE OWNER ANY REMOVED EQUIPMENT AND MATERIALS PER OWNERS REQUEST.
19. WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER AND SHALL PRESENT NEAT, RECTILINEAR APPEARANCE WHEN COMPLETED. MAINTAIN MAXIMUM HEAD ROOM AT ALL TIMES. DO NOT RUN PIPES, DUCTS, AND CONDUIT EXPOSED UNLESS SHOWN AND NOTED TO BE EXPOSED ON DRAWINGS. MATERIALS AND EQUIPMENT SHALL BE NEW AND INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS, SO THAT COMPLETED INSTALLATION SHALL OPERATE SAFELY AND EFFICIENTLY.
20. EACH RESPECTIVE CONTRACTOR SHALL FIRE STOP ALL NEW AND EXISTING SLEEVES THROUGH CONCRETE FLOORS AND FIRE RATED WALLS OR PARTITIONS WITH UL RATED ASSEMBLIES WITH EQUAL FIRE RATING. FIELD VERIFY EXISTING CONDITIONS BEFORE SUBMITTING PRICE.
21. COORDINATE ROOF PENETRATIONS WITH WORK OF OTHER SECTIONS AND WITH FLASHING REQUIREMENTS.
22. ANY INTERFERENCE SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE, AND SHALL BE RESOLVED PRIOR TO THE INSTALLATION OF THE WORK INVOLVED.
23. ALL MATERIALS AND EQUIPMENT SHALL BE NEW UNLESS NOTED OTHERWISE.
24. MANUFACTURERS' MODEL NUMBERS ARE SPECIFIED SOLELY TO ESTABLISH STANDARDS OF QUALITY FOR PERFORMANCE AND MATERIALS.
25. SUBSTITUTED PRODUCTS SUBMITTED AND APPROVED FOR USE THAT NECESSITATE CHANGES TO THE WORK OF THAT OR ANY OTHER TRADES OF CONTRACT SHALL BE COORDINATED AND ARRANGED BY THE CONTRACTOR WHO SUBMITTED THE SUBSTITUTION WITHOUT ADDITIONAL COST TO THE OWNER.
26. PRODUCT INSTALLATION SHALL ADHERE TO MANUFACTURERS RECOMMENDATIONS.
27. EACH RESPECTIVE CONTRACTOR SHALL PROVIDE PROPER ACCESS TO EQUIPMENT THAT REQUIRES INSPECTION, REPLACEMENT OR REPAIR. ACCESS PANELS SHALL BE A MINIMUM OF 12" X 12" OR AS NEEDED FOR APPROPRIATE ACCESS. TO BE SUPPLIED TO GENERAL CONTRACTOR FOR INSTALLATION. ACCESS PANELS IN RATED ASSEMBLIES SHALL BE ACUDOR FW-5050. ACCESS PANELS IN NON-RATED DRYWALL CEILINGS SHALL BE WIND-LOCK "STEALTH". ACCESS PANELS IN NON-RATED WALLS SHALL BE ADUDOR UF-5000.
28. CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL APPLICABLE EQUIPMENT WITH THE ELECTRICAL CONTRACTOR.
29. ALL EQUIPMENT, PIPING, INSULATION, ETC., INSTALLED IN HVAC PLENUM SPACES SHALL MEET CODE REQUIREMENTS FOR SMOKE AND COMBUSTIBILITY.
30. AS WORK PROGRESSES AND FOR DURATION OF CONTRACT, MAINTAIN COMPLETE SET OF PRINTS OF CONTRACT DRAWINGS AT JOB SITE AT ALL TIMES. RECORD WORK COMPLETED AND ALL CHANGES FROM ORIGINAL CONTRACT DRAWINGS CLEARLY AND ACCURATELY INCLUDING WORK INSTALLED AS A MODIFICATION OR ADDITION TO THE ORIGINAL DESIGN TURN OVER ALL OPERATING MANUALS, MAINTENANCE MANUALS, AND "AS BUILT" DRAWINGS TO OWNER AT CONCLUSION OF CONSTRUCTION.
31. DO NOT SUPPORT EQUIPMENT FROM SUSPENDED CEILINGS. SUPPORT ALL EQUIPMENT AND PIPING FROM BUILDING. STRUCTURE TO PROVIDE A VIBRATION FREE INSTALLATION. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF ALL WEIGHTS AND METHODS OF SUPPORT.
32. RUN PIPING/WIRING CONCEALED, UNLESS SPECIFIED OTHERWISE, AND CLEAR OF CEILING INSERTS.
33. PROVIDE CLAMPS, OFFSETS, EXPANSION JOINTS, ANCHORS AND GUIDES AS NECESSARY TO PREVENT STRESS ON PIPING/WIRING. .
34. ANY REFERENCE TO ELECTRICAL, PLUMBING AND HVAC CONTRACTORS, NOTED ON THESE DRAWINGS OR STATED IN THE SPECIFICATIONS SHALL NOT BE MISCONSTRUED AS AN INTENTION TO DEFINE SEPARATE CONTRACTORS FOR THE RESPECTIVE WORK. THE GENERAL CONTRACTOR SHALL COORDINATE AND PROVIDE A COMPLETE BUILDING WITH COMPLETE MECHANICAL AND ELECTRICAL SYSTEMS, REGARDLESS OF ANY SPECIFICATION REFERENCES TO OTHER CONTRACTORS.
35. GUARANTEE WORK OF THIS CONTRACTOR IN WRITING FOR ONE YEAR FROM THE DATE OF OWNER'S ACCEPTANCE OF CERTIFICATE OF SUBSTANTIAL COMPLETION. PROMPTLY, REPAIR OR REPLACE DEFECTIVE MATERIALS, EQUIPMENT, WORKMANSHIP AND INSTALLATIONS THAT DEVELOP DEFECTS WITHIN THIS PERIOD. PROMPTLY AND TO OWNERS SATISFACTION, CORRECT DAMAGE CAUSED IN MAKING NECESSARY REPAIRS AND REPLACEMENTS UNDER GUARANTEED AT NO ADDITIONAL COST TO OWNER. SUBMIT GUARANTEE TO ARCHITECT BEFORE FINAL PAYMENT. STATEMENT OF GUARANTEE REQUIREMENTS SHALL NOT BE INTERRUPTED TO LIMIT OWNER'S RIGHTS UNDER LAW AND THIS CONTRACT.

PLUMBING NOTES & SPECIFICATIONS

1. PIPE MATERIALS
   A. SERVICE: ABOVE GROUND WATER PIPING
   PIPE MATERIAL: TYPE L COPPER TUBING ASTMB882 FACTORY.
   FITTING MATERIAL: WROUGHT COPPER AND BRONZE SOLDER JOINTS.
   PIPE JOINT: 95-5 LEAD FREE SOLDER
   B. SERVICE: SANITARY WASTE & VENT (BELOW GRADE)
   PIPE MATERIAL: SERVICE WEIGHT CAST IRON WITH HUB CONFORMING TO CS 301.
   FITTING MATERIAL: BELL AND SPIGOT (LEAD AND OAKUM) OR COMPRESSION GASKETS
   C. SERVICE: SANITARY WASTE & VENT (ABOVE GRADE)
   PIPE MATERIAL: SERVICE WEIGHT CAST IRON NO-HUB CONFORMING TO CS 301, TYPE ME COPPER TUBING
   FITTING MATERIAL: CAST IRON DRAINAGE PATTERN, WROUGHT COPPER DRAINAGE PATTERN TO SUIT PIPE MATERIAL
   PIPE JOINT: HEAVY DUTY CISPI APPROVED STAINLESS STEEL NO-HUB COUPLING W/ NEOPRENE GASKET, 95-5 SOLDER FOR COPPER.
2. VALVES
   A. BALL VALVES 2" AND SMALLER ON WATER SERVICES SHALL BE 2 PIECE ALL BRONZE WITH FULL PORT STAINLESS STEEL BALL, TEFLON SEATS, SOLDER ENDS AND 600 PSI COLD WORKING PRESSURE: JENKINS 902, APOLLO OR WATTS APPROVED EQUAL, UNLESS OTHERWISE NOTED.
3. INSULATION
   A. INSULATION SHALL BE BY OWENS CORNING, CERTAIN-TEED OR MANVILLE.
   B. INSULATION, JACKETS AND ADHESIVES SHALL BE FLAME RETARDANT AND SHALL HAVE ASTM E-84 FIRE HAZARD RATINGS OF 25 FLAME SPREAD, 50 SMOKE DEVELOPED AND 50 FUEL CONTRIBUTED.
   C. DOMESTIC HOT WATER: NEW DOMESTIC HOT WATER PIPING SUPPLY AND RECIRCULATION PIPING SHALL BE INSULATED WITH HEAVY DENSITY FIBERGLASS WITH SELF-SEALING LAP AND ALL SERVICE JACKET. FITTINGS AND VALVES SHALL BE INSULATED WITH TWO LAYERS BLANKET INSULATION WITH PVC COVERS. INSULATION SHALL BE RATED FOR MAXIMUM OPERATING TEMPERATURE OF 450 DEGREES F. REFER TO PIPE INSULATION MATRIX ON THIS SHEET FOR REQUIRED INSULATION THICKNESS.
   D. DOMESTIC COLD WATER: NEW COLD WATER SUPPLY PIPING, VALVES AND FITTINGS SHALL BE INSULATED AS SPECIFIED FOR HOT WATER SUPPLY PIPING, IN ADDITION, CONTINUOUS VAPOR BARRIER SHALL BE MAINTAINED. REFER TO PIPE INSULATION MATRIX ON THIS SHEET FOR REQUIRED INSULATION THICKNESS.
4. HANGERS, ANCHORS, CLAMPS AND INSERTS
   A. PROVIDE CAST BRASS SPLIT RING HINGE HANGERS, SUPPORT PIPING FROM BUILDING STRUCTURE TO MAINTAIN REQUIRED GRADE AND PITCH OF PIPE LINES, PREVENT VIBRATION, SECURE PIPING IN PLACE. SECURE HANGERS TO INSERTS WHERE PRACTICAL. HANGER RODS SHALL HAVE MACHINE THREADS.
   B. HANGER RODS SHALL BE CONNECTED TO BEAM CLAMP, UL APPROVED CONCRETE INSERTS OR PHILLIPS SHALL BE APPROVED EQUAL EXPANSION SHIELD. RAMSET OR POWER DRIVEN INSERTS WILL NOT BE ALLOWED.
   C. HANGER SPACING SHALL MEET REQUIREMENTS OF STATE AND LOCAL CODES.
5. SLEEVES AND PENETRATIONS
   A. PIPE SLEEVES THROUGH FIRE RATED CONSTRUCTION SHALL BE SCHEDULE 40 STEEL. SLEEVES THROUGH PARTITIONS AND NON FIRE RATED CONSTRUCTION SHALL BE 26 GAUGE GALVANIZED STEEL WITH LOCAL LONGITUDINAL SEAMS.
   B. PACKING FOR SLEEVES THAT DO NOT REQUIRE MAINTENANCE OF FIRE RATING SHALL BE OAKUM, SILICATE FOAM, CERAMIC FIBER WITH APPROVED SEALANT. PACK OR FOAM TO WITHIN ONE INCH OF BOTH WALL SURFACES. SEAL PENETRATION PACKING WITH APPROVED CAULKING AND PAINTABLE WATERPROOF MASTIC SURFACE FINISH OR SILICONE CAULKING.
6. TESTING
   A. TEST AND ADJUST PLUMBING SYSTEMS AS REQUIRED BY ARCHITECT AND AUTHORITIES THAT HAVE JURISDICTION. PERFORM TEST RECOMMENDED BY MANUFACTURERS OF MATERIAL AND EQUIPMENT; THIS REQUIREMENT MAY BE WAIVED BY ARCHITECT. TEST PLUMBING SYSTEMS UNDER PRESSURE AND HEADS SPECIFIED IN PLUMBING CODES. CLEAN SYSTEMS THOROUGHLY BEFORE TESTING. FIXTURES, EQUIPMENT, PIPE, VALVES AND FITTINGS SHALL BE FREE OF GREASE, METAL CUTTINGS, DIRT AND OTHER FOREIGN MATERIAL. REPAIR STOPPAGE, DISCOLORATION AND DAMAGE TO PARTS OF BUILDING, FINISHES AND FURNISHINGS DUE TO FAILURE TO PROPERLY CLEAN PIPING SYSTEM.
7. DISINFECTION OF WATER SYSTEMS
   A. WATER PIPING SYSTEMS SHALL BE THOROUGHLY DISINFECTED WITH A SOLUTION CONTAINING NO LESS THAN 50 PARTS PER MILLION OF AVAILABLE CHLORINE. CHLORINATING MATERIALS SHALL BE EITHER LIQUID CHLORINE OR SODIUM HYPOCHLORITE SOLUTION, SHALL BE INTRODUCED INTO THE SYSTEM AND DRAWN TO ALL POINTS IN THE SYSTEM. DISINFECTION SOLUTION SHALL BE ALLOWED TO REMAIN IN SYSTEM FOR 24 HOURS, DURING THIS TIME, VALVES AND FAUCETS SHALL BE OPENED AND CLOSED SEVERAL TIMES. AFTER DISINFECTION, SOLUTION SHALL BE FLUSHED FROM THE SYSTEM WITH CLEAR WATER UNTIL RESIDUAL CHLORINE CONTENT IS NO GREATER THAN 2 PARTS PER MILLION.
8. IDENTIFICATION OF PLUMBING SYSTEMS:
   A. PROVIDE PIPING IDENTIFICATION LABELS AND DIRECTIONAL ARROWS ON ALL PLUMBING SYSTEMS. INSTALL LABELS AT 10' INTERVALS & AT EACH SIDE OF FLOOR & WALL SEPARATIONS.
   B. PROVIDE VALVE TAGS AT EACH DOMESTIC WATER SHUTOFF VALVE. PROVIDE VALVE TAG INDEX IDENTIFYING VALVE NUMBER, LOCATION AND SERVICE.
9. MISCELLANEOUS
   A. ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH THE CURRENT PLUMBING CODE AND ALL APPLICABLE CODES AND STANDARDS
   B. PROVIDE SHUTOFF VALVES ON ALL BRANCH PIPING AND ON ALL SUPPLIES TO INDIVIDUAL FIXTURES AND EQUIPMENT. PROVIDE BALL VALVES ON ALL WATER MAIN BRANCHES IN CORRIDORS AND WHERE INDICATED ON DRAWINGS. ALL VALVES SHALL BE ACCESSIBLE.
   C. PROVIDE VENTS AT HIGH POINTS IN PIPING SYSTEMS AND DRAIN VALVES AT LOW POINTS.
   D. PROVIDE AT LEAST THREE-ELBOW SWING FOR PIPE TAKE-OFFS TO RISERS.
   E. PITCH PIPING MINIMUM 1/8" PER 1'-0" TOWARDS DIRECTION OF FLOW TO ALLOW FOR DRAINING.
   F. PROVIDE TRAP GUARDS ON ALL FLOOR DRAINS.
   G. WHERE PIPING (DOMESTIC WATER, SANITARY, VENT, GAS, ETC.) IS LOCATED WITHIN WALLS, PROVIDE NAILER PLATES WHERE PIPING IS LOCATED WITHIN 1 1/2" OF THE FRAMING MEMBER.

PLUMBING GENERAL NOTES

1. ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH THE CURRENT PLUMBING CODE AND ALL APPLICABLE LOCAL CODES AND DRAWINGS.
2. ALL MATERIALS AND EQUIPMENT SHALL BE NEW.
3. MANUFACTURERS' MODEL NUMBERS ARE SPECIFIED SOLELY TO ESTABLISH STANDARDS OF QUALITY FOR PERFORMANCE AND MATERIALS.
4. PRODUCT INSTALLATION SHALL ADHERE TO MANUFACTURERS RECOMMENDATIONS.
5. PROVIDE ACCESS PANELS FOR EQUIPMENT THAT REQUIRES PERIODIC SERVICE & TO ACCESS VALVES AND ALL CONCEALED MECHANICAL EQUIPMENT.
6. CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL PLUMBING EQUIPMENT WITH THE ELECTRICAL DRAWINGS.
7. ALL PLUMBING EQUIPMENT, PIPING, INSULATION, ETC., INSTALLED IN HVAC PLENUM SPACES SHALL MEET CODE REQUIREMENTS FOR SMOKE AND COMBUSTIBILITY.
8. PROVIDE SHUTOFF VALVES ON ALL BRANCH PIPING AND ON ALL SUPPLIES TO INDIVIDUAL FIXTURES AND EQUIPMENT. PROVIDE BALL VALVES ON ALL WATER MAIN BRANCHES IN CORRIDORS AND WHERE INDICATED ON DRAWINGS. ALL VALVES SHALL BE ACCESSIBLE.
9. SUPPORT ALL EQUIPMENT PIPING FROM BLDG STRUCTURE TO PROVIDE A VIBRATION FREE INSTALLATION. NOTIFY STRUCTURAL ENGINEER OF ALL WEIGHTS AND METHODS OF SUPPORT.
10. RUN PIPING CONCEALED, UNLESS SPECIFIED OTHERWISE, AND CLEAR OF CEILING INSERTS.
11. PROVIDE CLAMPS, OFFSETS, EXPANSION JOINTS, ANCHORS AND GUIDES AS NECESSARY TO PREVENT STRESS ON PIPING.
12. PROVIDE VENTS AT HIGH POINTS IN PIPING SYSTEMS AND DRAIN VALVES AT LOW POINTS.
13. PROVIDE AT LEAST THREE-ELBOW SWING FOR PIPE TAKE-OFFS TO RISERS.
14. HORIZONTAL SANITARY PIPING 2 1/2" AND SMALLER TO BE PITCHED A MINIMUM OF 1/4" PER FOOT IN THE DIRECTION OF THE FLOW.
15. HORIZONTAL SANITARY PIPING 3" AND UP TO AND INCLUDING 6" TO BE PITCHED AT A MINIMUM OF 1/8" PER FOOT IN THE DIRECTION OF FLOW.
16. HORIZONTAL SANITARY PIPING GREATER THAN 6" TO BE PITCHED A MINIMUM OF 1/16" PER FOOT IN THE DIRECTION OF FLOW.
17. CLEANOUTS SHALL BE PROVIDED AT THE BASE OF ALL SANITARY AND RAIN WATER VERTICAL STACKS.
18. ANY REFERENCE TO ELECTRICAL, PLUMBING AND HVAC CONTRACTORS, NOTED ON THESE DRAWINGS OR STATED IN THE SPECIFICATIONS SHALL NOT BE MISCONSTRUED AS AN INTENTION TO DEFINE SEPARATE CONTRACTORS FOR THE RESPECTIVE WORK. THE GENERAL CONTRACTOR SHALL CO-ORDINATE AND PROVIDE A COMPLETE BUILDING WITH COMPLETE MECHANICAL AND ELECTRICAL SYSTEMS, REGARDLESS OF ANY SPECIFICATION REFERENCES TO OTHER CONTRACTORS.

LEGEND

AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
ARCH	ARCHITECT
BV	BALL VALVE
BLDG	BUILDING
CV	CHECK VALVE
CO	WALL CLEANOUT
CO	FLOOR CLEANOUT
CW	COLD WATER
CD	CONDENSATE
CTE	CONNECT TO EXISTING
	DIRECTION OF SLOPE
DN	DOWN
DWG	DRAWING
ED	EMERGENCY DRAIN
DP, DN	ELBOW DOWN OR DROP
UP	ELBOW UP OR RISE
FLR	FLOOR
FD	FLOOR DRAIN
	FLOW IN DIRECTION OF ARROW
G	GAS
HB	HOSE BIBB W/ VACUUM BREAKER
HW	HOT WATER
HWR	HOT WATER RETURN
140 HW	140 DEG. HOT WATER
IWR	INDIRECT WASTE RECEPTOR
LAV	LAVATORY
MFR	MANUFACTURER
MSB	MOP SERVICE BASIN
NTS	NOT TO SCALE
	P-TRAP
RAC	RUN ABOVE CEILING
RAF	RUN ABOVE FLOOR
RBF	RUN BELOW FLOOR
RCP	REINFORCED CONCRETE PIPE
RWC	RAIN WATER CONDUCTOR
SAN	SANITARY
DP, DN	TEE LOOKING DOWN
UP	TEE LOOKING UP
TYP	TYPICAL
UR	URINAL
V	VENT
VTR	VENT THRU ROOF
WH	WALL HYDRANT
WC	WATER CLOSET

CODE SUMMARY

MUNICIPALITY	EDDYSTONE BOROUGH BUILDING, DELAWARE COUNTY, PA
USE AND OCC. CLASSIFICATION	B (BUSINESS)
APPLICABLE CODES	BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE MECHANICAL CODE: 2018 INTERNATIONAL MECHANICAL CODE PLUMBING CODE: 2018 INTERNATIONAL PLUMBING CODE FUEL GAS CODE: 2018 INTERNATIONAL FUEL GAS CODE ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE (BY REFERENCE) FIRE CODE: 2018 INTERNATIONAL FIRE CODE ENERGY CODE: 2018 INTERNATIONAL ENERGY CONSERVATION CODE/ASHRAE 90.1-2016

EDDYSTONE BOROUGH BUILDING RENOVATION PLUMBING - DRAWING INDEX

DRAWING NO.	DRAWING TITLE	ISSUE: ISSUED FOR BID 01/31/23	
P-1	PLUMBING COVER SHEET	●	
P-1.1	PLUMBING SCHEDULES	●	
P-1.2	PLUMBING DETAILS	●	
PD-2	PLUMBING FLOOR PLAN - DEMOLITION	●	
P-2	PLUMBING FLOOR PLAN - NEW WORK-SANITARY	●	
P-3	PLUMBING FLOOR PLAN - NEW WORK-DOMESTIC WATER	●	
P-4	PLUMBING ROOF PLAN - NEW WORK & RISER DIAGRAMS	●	

GENERAL DEMOLITION NOTES

1. PROJECT CONDITIONS
   1.1. THE CONTRACTOR SHALL COMPLETELY FAMILIARIZE HIMSELF WITH ALL EXISTING BUILDING AND SITE CONDITIONS AND LIMITATIONS WHICH MAY HAVE A BEARING ON THE OPERATIONS HEREIN SPECIFIED, AND SHALL INCLUDE ALL WORK REQUIRED TO COMPLETE THE PROJECT AS SHOWN ON THE DRAWINGS. NO EXTRA COMPENSATION WILL BE ALLOWED FOR UNFORESEEN CONDITIONS THAT CAN BE DETERMINED FROM A CAREFUL EXAMINATION OF THE SITE, BUILDING AND DRAWINGS.
   1.2. ITEMS OF VALUE WHICH ARE NOT INDICATED TO BE RETURNED TO THE OWNER, SHALL BECOME THE PROPERTY OF THE CONTRACTOR. STORAGE OR SALE OF ITEMS ON THE PROJECT SITE IS PROHIBITED.
   1.3. PROTECTION: ENSURE THE SAFE PASSAGE OF PERSONS IN AND AROUND THE BUILDING DURING DEMOLITION. PREVENT INJURY TO PERSONS AND DAMAGE TO PROPERTY. PROVIDE ADEQUATE SHORING AND BRACING TO PREVENT COLLAPSE. IMMEDIATELY REPAIR DAMAGED PROPERTY TO THE CONDITION BEFORE BEING DAMAGED. TAKE EFFECTIVE MEASURES TO PREVENT WINDBLOWN DUST.
   1.4. UTILITIES: MAINTAIN ALL UTILITIES EXCEPT THOSE REQUIRING REMOVAL OR RELOCATION. KEEP UTILITIES IN SERVICE AND PROTECT FROM DAMAGE. DO NOT INTERRUPT UTILITIES SERVING USED AREAS WITHOUT FIRST OBTAINING PERMISSION FROM OWNER.
2. REGULATION REQUIREMENTS
   2.1. STRICTLY COMPLY WITH APPLICABLE CODES, REGULATIONS AND REQUIREMENTS OR AUTHORITY HAVING JURISDICTION.
3. HANDLING OF MATERIALS
   3.1. REMOVE DEBRIS FROM THE SITE AS IT ACCUMULATES. DO NOT STORE, SELL, BURN, OR OTHERWISE DISPOSE OF DEBRIS ON SITE. REMOVE ALL MATERIAL IN SUCH MANNER AS TO PREVENT SPILLAGE.
4. TRANSFER OF RESPONSIBILITY AND DISPOSITION OF MATERIALS
   4.1. UPON RECEIPT OF NOTICE TO PROCEED WITH THE WORK, THE TITLE TO ALL MATERIALS FOR DEMOLITION SHALL BE VESTED. THE CONTRACTOR WHEREUPON THE OWNER WILL NOT BE RESPONSIBLE FOR THE CONDITION, LOSS, OR DAMAGE TO SAID PROPERTY. ALL SUCH ITEMS SHALL BE REMOVED FROM THE OWNER'S PROPERTY.
5. DISPOSAL OF DEMOLISHED MATERIALS
   5.1. REMOVE UNUSED FIXTURES AND ALL PIPING/ DUCTWORK SERVICING EQUIPMENT INCLUDING ABANDONED PIPING / DUCTWORK NOT ASSOCIATED WITH SAID EQUIPMENT. REMOVE PIPING / DUCTWORK BACK TO THE NEXT LIVE BRANCH WHICH WILL NOT OBSTRUCT THE NEW WORK AND CAP AIRTIGHT. TRANSPORT AND LEGALLY DISPOSE OF MATERIALS OFF SITE.
   5.2. ANY DEMOLITION SHALL BE COORDINATED WITH OWNER, ENGINEER, AND GENERAL CONTRACTOR. ALL DEBRIS SHALL BE CLEANED UP AND REMOVED FROM THE SITE BY THE END OF EVERY WORK DAY. PRIOR TO DISPOSAL OF EQUIPMENT AND MATERIALS, TURN OVER TO OWNER ANY REMOVED EQUIPMENT AND MATERIALS PER OWNERS REQUEST.
6. CLEAN UP AND REPAIR
   6.1. UPON COMPLETION OF DEMOLITION WORK, REMOVAL TOOLS, EQUIPMENT AND DEMOLISHED MATERIALS FROM SITE. REMOVE PROTECTION AND LEAVE INTERIOR AREAS BROOM CLEAN.
   6.2. REPAIR DEMOLITION PERFORMED IN EXCESS OF THAT REQUIRED. RETURN STRUCTURES AND SURFACES TO REMAIN IN CONDITION EXISTING PRIOR TO COMMENCEMENT OF SELECTIVE DEMOLITION WORK. REPAIR ADJACENT CONSTRUCTION OR SURFACES SOILED OR DAMAGED BY SELECTIVE DEMOLITION WORK.

GAS PIPING NOTES

1. CONTRACTOR TO VERIFY GAS PRESSURE PRIOR TO BID.
2. ALL ABOVE GRADE GAS PIPING SHALL BE BLACK STEEL INTERIOR (BASIS OF DESIGN) OR TRACPIPE COUNTERSTRIKE FLEXIBLE GAS PIPING (ACCEPTABLE ALTERNATE).
3. ALL BELOW GRADE GAS PIPING SHALL BE POLYETHYLENE OR TRACPIPE PS-II FLEXIBLE GAS PIPING.
4. ALL JOINTS FOR 2# SHALL BE WELDED COUPLING. (NO JOINTS PERMITTED BELOW GRADE)
5. HIGH PRESSURE GAS (2#) PIPE SIZE BASED ON GAS PRESSURE OF 2 PSI W/ A PRESSURE DROP OF 1.0 PSI AND 0.60 SPECIFIC GRAVITY (2009 IFGC TABLE 402. 4(3)). ALL EQUIPMENT WILL REQUIRE LOCAL PRESSURE REGULATORS VENTED TO THE OUTDOORS OR PRESSURE LIMITING DEVICE WHERE APPROVED BY LOCAL AUTHORITY. IF ALTERNATE PIPING MATERIAL IS TO BE USEDCONTRACTOR IS RESPONSIBLE FOR ADJUSTING PIPE SIZE TO MEET THE DESIGN PRESSURE DROP.
6. LOW PRESSURE GAS PIPE SIZE BASED ON SCHEDULE 40 STEEL PIPING WITH GAS PRESSURE LESS THAN 2 PSI W/ A PRESSURE DROP OF 0.3" AND 0.60 SPECIFIC GRAVITY (2009 IFGC TABLE 402. 4(1)). IF ALTERNATE PIPING MATERIAL IS TO BE USED, CONTRACTOR IS RESPONSIBLE FOR ADJUSTING PIPE SIZE TO MEET THE DESIGN PRESSURE DROP.
7. PROVIDE SHUT OFF VALVE, UNION REDUCER(S), DIRT LEG AND ALL FITTINGS REQUIRED AT EACH UNIT. ALL CONNECTIONS SHALL BE FULL SIZE OF EQUIPMENT.
8. GAS PIPING MATERIALS & INSTALLATION TO BE PER INTERNATIONAL FUEL & GAS CODE AND UTILITY REQUIREMENTS.
9. ALL FUEL FIRED EQUIPMENT SHALL HAVE AN EMERGENCY SHUT-OFF.
10. GAS PIPING SERVING RESIDENTIAL APPLIANCES SHALL TERMINATE IN A METAL BOX WITH SHUT-OFF VALVE, TRACPIPE MODEL #FGP-WBTM OR APPROVED EQUAL.
11. PRESSURE REGULATORS SHALL BE MANUFACTURED BY MAXITROL. PROVIDE VENT LIMITER MANUFACTURED BY MAXITROL. REGULATOR SHALL BE INSTALLED IN A HORIZONTAL UPRIGHT POSITION.
12. ALL EXTERIOR GAS PIPING TO BE PAINTED. COORDINATE COLOR WITH ARCHITECT.
13. GAS WATER HEATER DRAIN PANS SHALL BE METAL.

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Project No. 22065

PLUMBING COVER SHEET
RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
1300 E. 12TH ST.
EDDYSTONE, PA 19022

REVISIONS NO.	DESCRIPTION	DATE
	Issued for Bid	1/31/23

DATE: 1/31/23
SCALE: AS NOTED
DRAWN BY: AG
CHECKED BY: DWF
PROJ. NO.: 22065

SHEET NO. P-1
SHEET 1 OF 7

PLUMBING FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	FIXTURE							TRAP	COLOR	CARRIER	REMARKS
		MFGR	MODEL	TYPE	SIZE	MFGR	TYPE	SUPPLY				
WC-1	ADA WATER CLOSET FLUSH TANK	MANSFIELD	137-160	ELONGATED BOWL, VITREOUS CHINA	1.6 GPF	---	---	1/2" SUPPLY, ANGLE STOP, C.B. ESCUTCHEON	INTEGRAL	WHITE	---	SOLID PLASTIC, OPEN FRONT SEAT W/O COVER, BEMIS #1955SSCT
PF-1	PENAL FIXTURE	ACORN	1420FA-XX-2-BP	STAINLESS STEEL	1.28 GPF	---	SINGLE TEMP BUBBLER	---	---	---	---	COORDINATE LEFT HAND/RIGHT HAND CONFIGURATION WITH ARCHITECTURAL PLANS. PROVIDE WALL SLEEVE. PROVIDE ACORN #MTP MASTER-TROL PLUS SYSTEMS FOR HOLDING CELL WATER CONTROL. PROVIDE TOUCH SCREEN MONITOR AT INTAKE DESK.
LAV-1	WALL HUNG LAVATORY	GERBER	12-314	WALL HUNG, VITREOUS CHINA	19" X 17"	DELTA #B510LF	SINGLE LEVER CONTROL	1/2" SUPPLIES, ANGLE STOP, C.B. ESCUTCHEON	1 1/2" C.B. CAST BRASS W/ CLEANOUT PLUG	WHITE	---	W/ MCGUIRE OFFSET LAVATORY GRID DRAIN. #PRODRAINMCSAN & THERMOSTATIC MIXING VALVE #LEONARD 170A-LF. PROVIDE MAINLINE #ML102EZ & ML105EZ SUPPLY & WASTE PIPING INSULATION.
SK-1	SINGLE BOWL SINK	MOEN	GS20457IBQ	18 GAUGE STAINLESS STEEL	21 1/4" X 17" X 6 1/2"	MOEN #7565	SINGLE LEVER CONTROL W/PULL DOWN KITCHEN FAUCET	1/2" SUPPLIES, ANGLE STOP, C.B. ESCUTCHEON	1 1/2" C.B. CAST BRASS W/ CLEANOUT PLUG	STAINLESS STEEL	---	PROVIDE BASKET STRAINER #MAINLINE ML151.

WATER HEATER SCHEDULE

UNIT NO.	LOCATION	MFGR	MODEL NO.	STORAGE CAPACITY	HEATING MEDIUM	ELECTRICAL CHARACTERISTICS	INPUT	RECOVERY @ 90° F	REMARKS
(EXISTING) WH-1	BASEMENT MECHANICAL ROOM	BRADFORD WHITE	RG240S6N	40 GALLON	GAS	120V, 1PH, 2AMPS	40 MBH	43 GPH	WATER HEATER IS EXISTING TO REMAIN. SEE DETAIL FOR HOT WATER RECIRCULATION PUMP INTEGRATION INTO EXISTING WATER HEATING SYSTEM.
WH-2	APARTMENT UNITS (LOW BOY)	BRADFORD WHITE	RE120L	19 GALLON	ELECTRIC	208V, 1PH	4.5 KW	21 GPH	W/ FACTORY INSTALLED HEAVY DUTY WALL MOUNTING BRACKET & WATTS #PLT-5-MI 2 GALLON EXPANSION TANK

PUMP SCHEDULE

UNIT NO.	SERVICE	LOCATION	GPM	HEAD (FT)	ELECTRIC CHARACTERISTICS	MOTOR HP	MODEL NUMBER	REMARKS
HWRP-1	HOT WATER RECIRCULATION	BASEMENT MECHANICAL ROOM	3	8'	115 V/ 1Ø	1/25	TACO #008TACO GENIE	PROVIDE WITH THERMOMETERS, & PUMP CONTROLLER ACCESSORIES

PLUMBING SPECIALTIES

UNIT NO	DESCRIPTION	MFGR	MODEL NO.	REMARK
CO	FLOOR CLEANOUT	JR SMITH	4031	ROUND TOP
CO	WALL CLEANOUT	JR SMITH	4436	FACE OF WALL COVER
OWH-1	OUTSIDE WALL HYDRANT	JR SMITH	HY42	NON-FREEZE HYDRANT W/ LOOSE KEY
FD-1	FLOOR DRAIN	JR SMITH	2005	PROVIDE JR SMITH #2692 TRAP SEAL. SEAL TO BE IN ACCORDANCE WITH ASSE 1072
FD-2	PENAL FLOOR DRAIN	JR SMITH	2016	PROVIDE JR SMITH #2692 TRAP SEAL. SEAL TO BE IN ACCORDANCE WITH ASSE 1072
ROB-1	REFRIGERATOR OUTLET BOX	OATEY	MODA	W 1/4 TURN VALVE. PROVIDE FIRE RATED MODEL WHEN LOCATED IN RATED WALL
IWR-1	INDIRECT WASTE RECEPTOR	JR SMITH	3821	PROVIDE JR SMITH #2692 TRAP SEAL. SEAL TO BE IN ACCORDANCE WITH ASSE 1072
WHA-1	WATER HAMMER ARRESTER	JR SMITH	5200 SERIES	---
DSB-1	DOWNSPOUT BOOT	JR SMITH	1785, 1786, 1787	COORDINATE DOWNSPOUT SIZE AND SHAPE WITH ARCHITECTURAL PLANS

CIRCUIT SOLVER SCHEDULE

UNIT NO.	LOCATION	MFGR	MODEL NO.	SIZE	RETURN TEMP.	FLOW RATE	PRESSURE DROP	REMARKS
CS-1	VARIES, HOT WATER RECIRCULATION	THERM OMEGATECH	CSUAS-3/4-105	3/4"	105°F	1 GPM	1.38 PSI (3.19' HD)	THERMOSTATIC BALANCING VALVE W/ INTEGRATED UNION BODY, BALL VALVES, & STRAINER

PIPE INSULATION MATRIX

FLUID OPERATING TEMPERATURE RANGE (°F)	INSULATION CONDUCTIVITY		NOMINAL PIPE OR TUBE SIZE (INCHES)				
	CONDUCTIVITY Btu x in./(h x ft² x °F)	MEAN RATING TEMPERATURE, °F	LESS THAN 1"	1" TO LESS THAN 1-1/2"	1-1/2" TO LESS THAN 4"	4" TO LESS THAN 8"	8" AND GREATER
141-200	0.25-0.29	125	1.5	1.5	2.0	2.0	2.0
105-140	0.21-0.28	100	1.0	1.0	1.5	1.5	1.5
40-60	0.21-0.27	75	0.5	0.5	1.0	1.0	1.0
LESS THAN 40	0.20-0.26	75	1.0	1.0	1.0	1.0	1.5

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Project No. 22065

PLUMBING SCHEDULES

RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
1300 E. 12TH ST.
EDDYSTONE, PA 19022

REVISIONS NO.	DESCRIPTION	DATE
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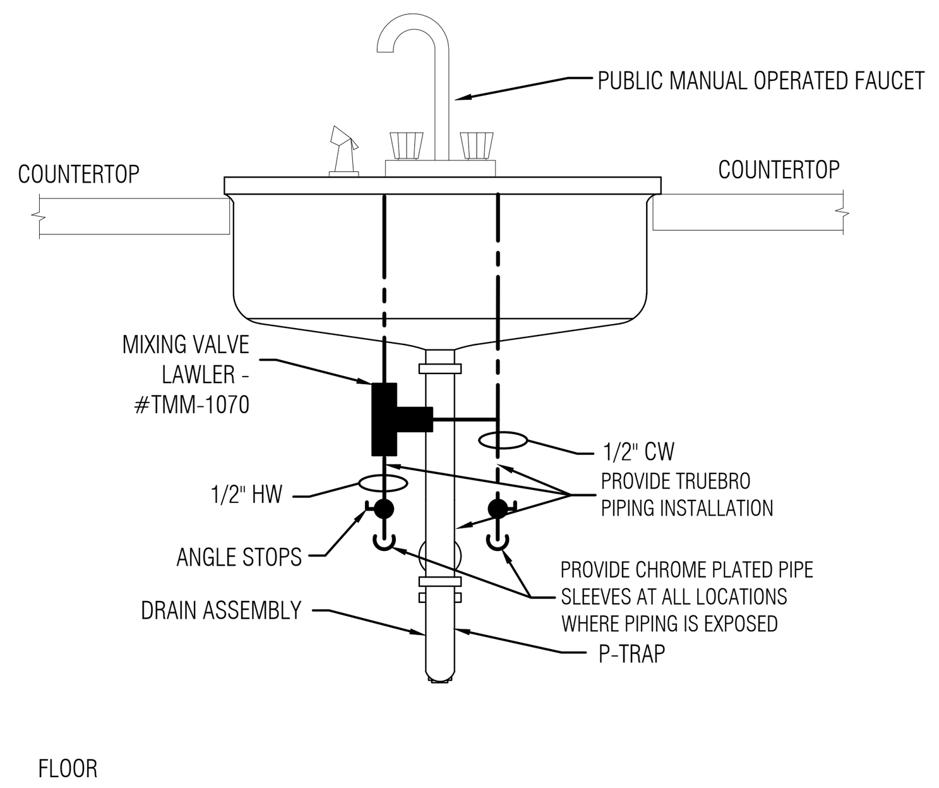
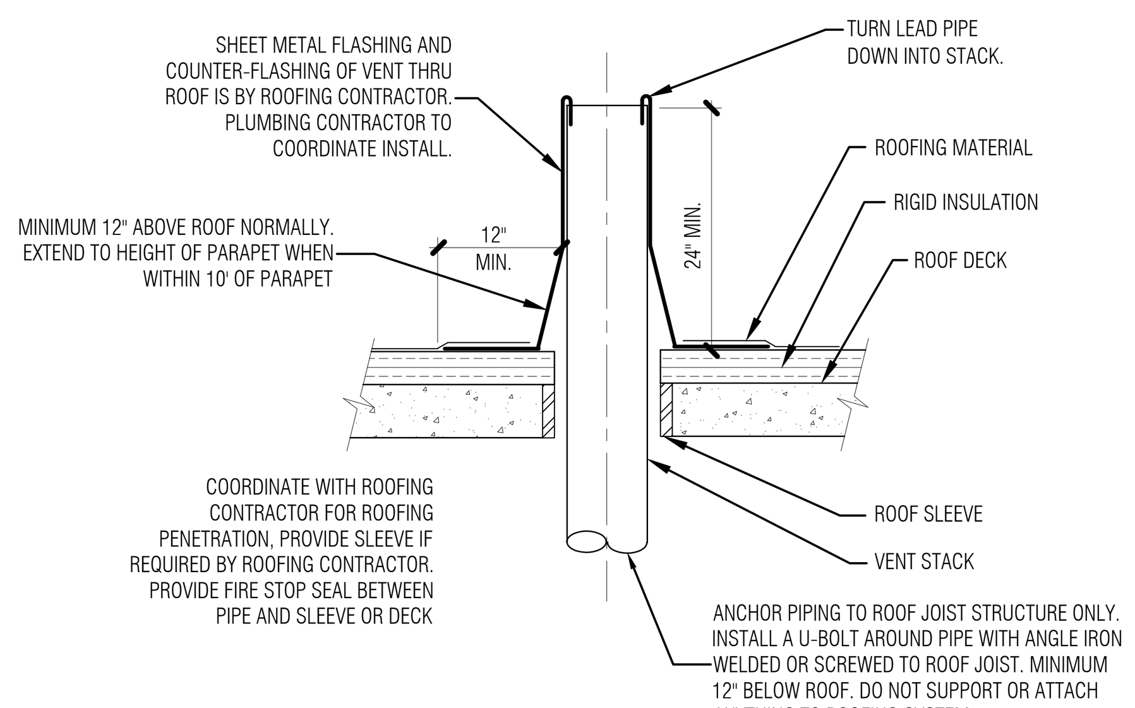
SHEET NO. P-1.1
SHEET 2 OF 7



1 PUBLIC LAVATORY / SINK PIPING DETAIL (MANUAL OPERATED)

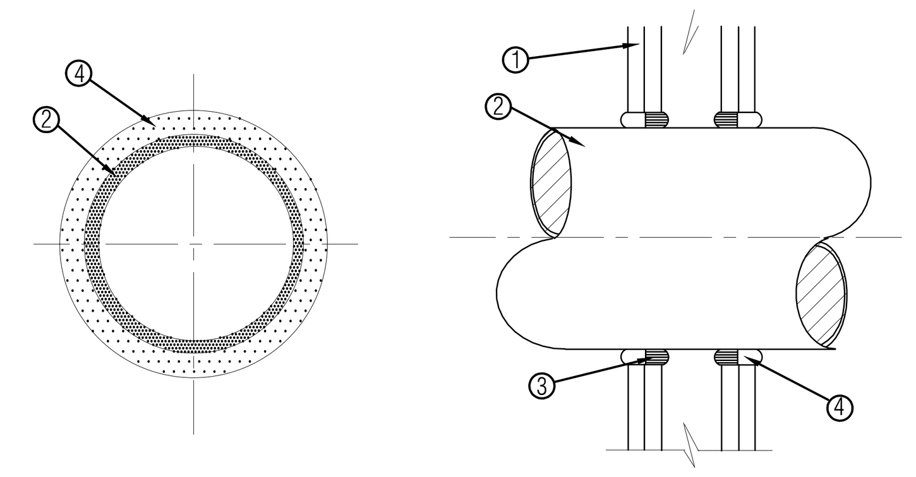
SCALE: NONE



NOTE: REFER TO PLANS FOR VENT TO ROOF PIPE SIZES AND LOCATIONS. LOCATE VENT TO ROOF MINIMUM THREE FEET FROM PROPERTY LINE, OR TEN FEET HORIZONTAL OR THREE FEET VERTICAL ABOVE ANY BUILDING OPENING OR FRESH AIR INTAKE, OR ONE FOOT FROM ANY VERTICAL SURFACE. LOCATE VENT TO ROOF MINIMUM 18" FROM PARAPET, EXPANSION JOINT, EQUIPMENT CURB, ETC OFFSET IN CEILING SPACE WHERE REQUIRED TO MEET THESE CONDITIONS. ALL ROOF PENETRATIONS TO BE MADE SHALL BE IN COMPLIANCE WITH ANY EXISTING ROOF WARRANTIES.

2 VENT THRU ROOF DETAIL

SCALE: NONE



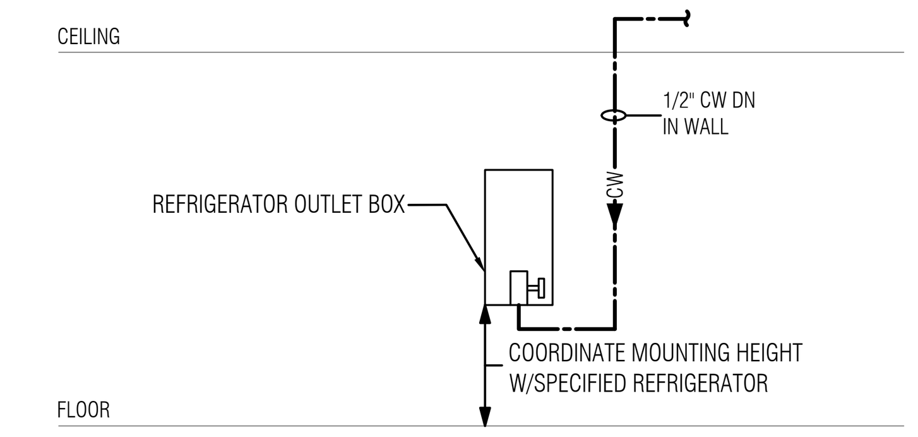
1. FIRE-RATED GYPSUM WALLBOARD.
2. METALLIC PIPE (NOT FOR USE WITH ALUMINUM OR LEAD).
3. FORMING MATERIAL. CERAMIC FIBER OR MINERAL WOOL. PACK AS NECESSARY TO RETAIN FILL MATERIAL.
4. FILL VOID OR CAVITY MATERIAL. FLAME-SAFE TYPE FS OR FST900 SERIES COMPOUND CAULKED OR TROWELLED TO REQUIRED DEPTH.

NOTES:
1. SYSTEM DESIGN EVALUATED TO THE TIME TEMPERATURE REQUIREMENTS OF ASTM E110.
2. DESIGN BASED UPON UL CLASSIFIED SYSTEM NO. 230 EVALUATED UL STANDARD 1470 (ASTM EB-14).
3. INSTALL FIRESTOP COMPOUND TO A NET DEPTH THICKNESS OF 1 1/4" MINIMUM (BOTH SIDES).
4. MINIMUM ANGULAR SPACE (BETWEEN PIPE AND SIDE OF OPENING) 3/16 MAX. FT.

1 & 2 HOUR RATED FIRESTOP FOR METALLIC PIPE PENETRATIONS THROUGH GYPSUM WALLBOARD ASSEMBLIES USING FLAME-SAFE FS, FST900 SEROES

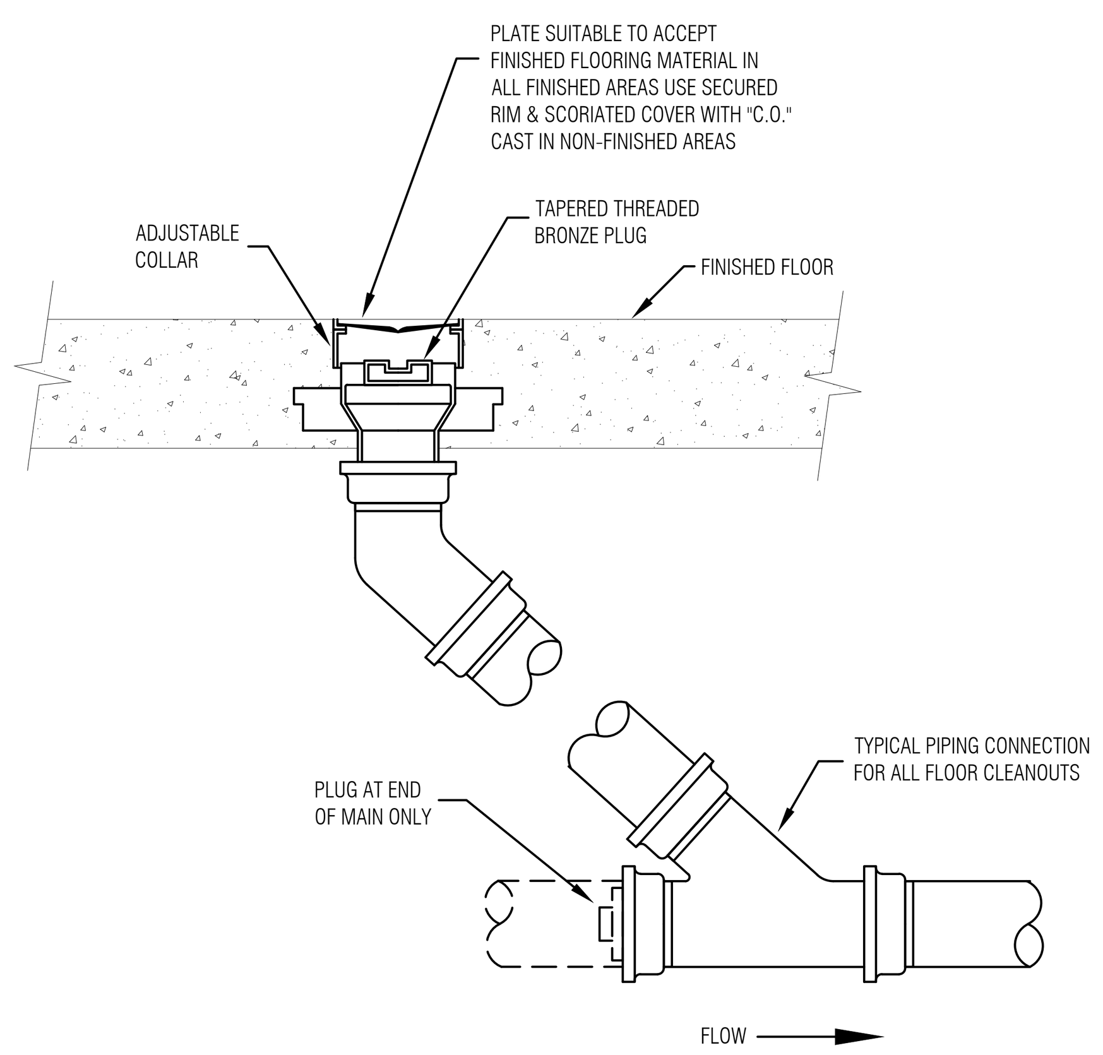
3 1 & 2 HOUR RATED FIRESTOP DETAIL

SCALE: NONE



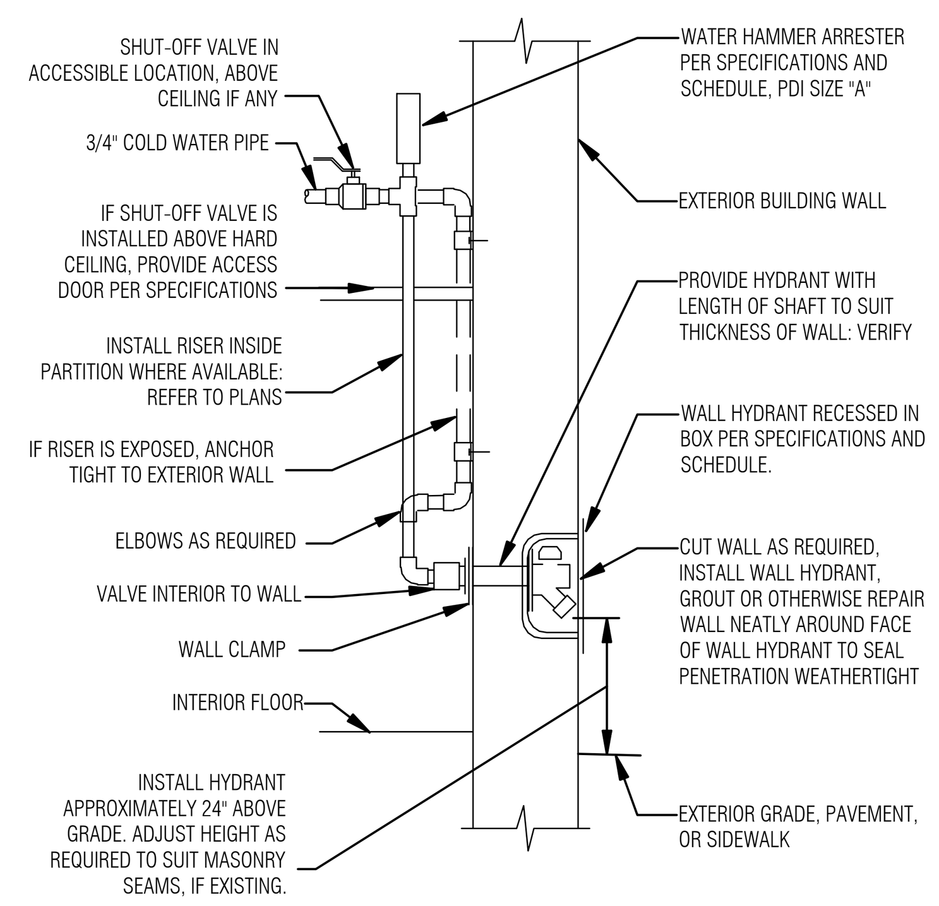
4 REFRIGERATOR WATER FEED DETAIL

SCALE: NONE



5 TYPICAL INTERIOR CLEANOUT DETAIL

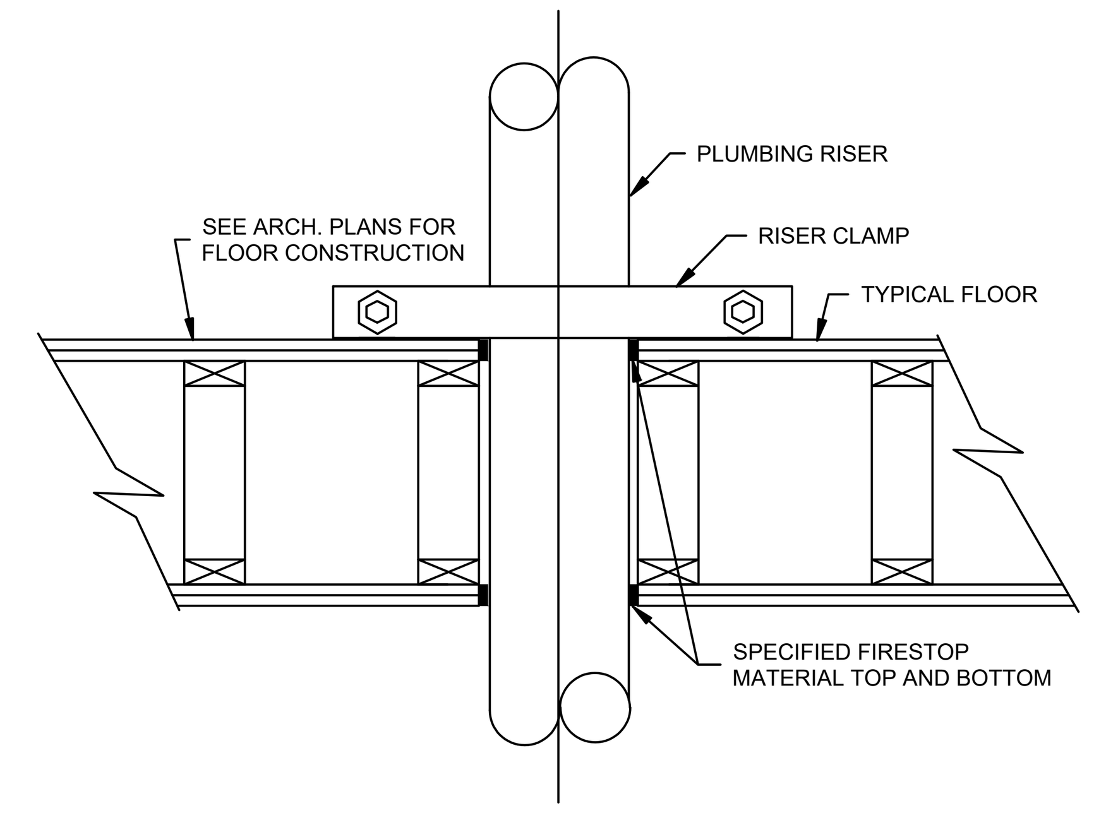
SCALE: NONE



ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST AS REQUIRED TO SUIT FIELD CONDITIONS. INSTALL PER MANUFACTURER'S INSTRUCTIONS. IN NON-FREEZING CLIMATES, PIPE MAY BE INSTALLED CONCEALED IN EXTERIOR WALL RATHER THAN EXTERIOR TO WALL AS SHOWN. REFER TO PLANS FOR LOCATION.

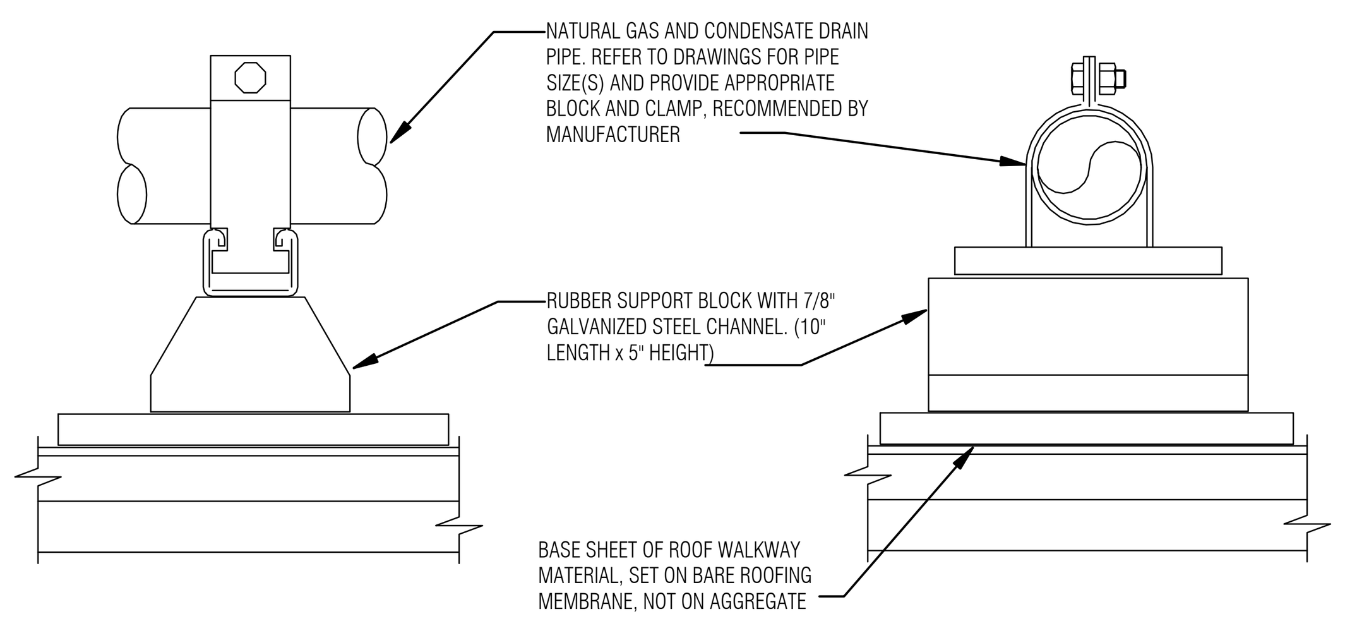
6 TYPICAL WALL HYDRANT DETAIL

SCALE: NONE



7 PIPE RISER SUPPORT DETAIL

SCALE: NONE



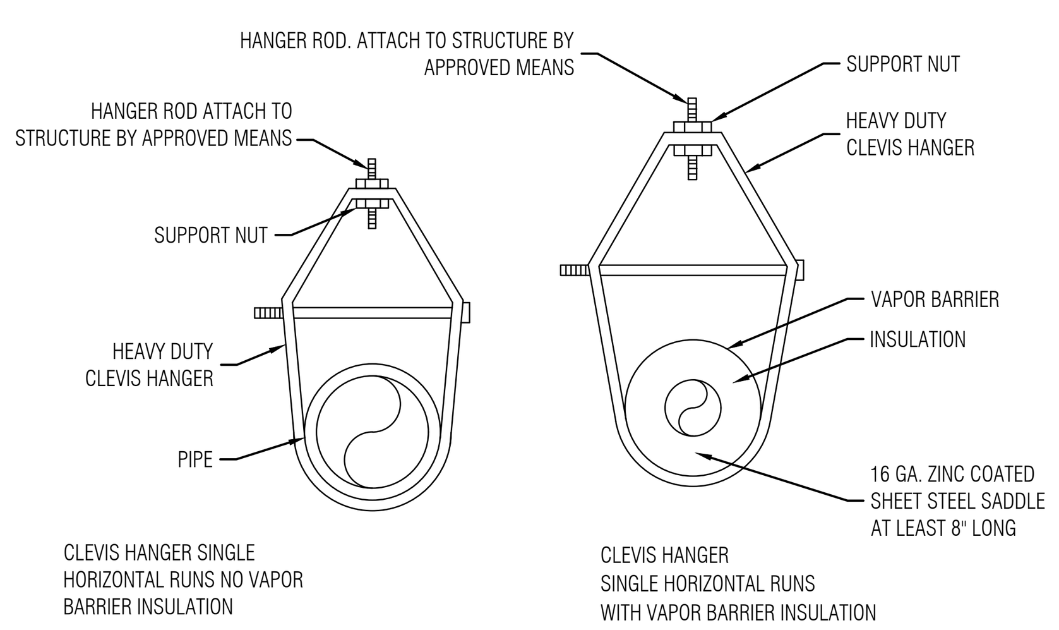
*LOCATE SUPPORTS AS CLOSE AS POSSIBLE TO EACH ELBOW AND TEE. PLACE BASE SHEETS ON ROOFING BEFORE GRAVEL IF ANY. SET BLOCKS FREE ON BASE SHEETS. INSTALL PIPE TO ALLOW FOR EXPANSION AND CONTRACTION. FOR TRAC-PIPE / CCST PIPING, FOLLOW MANUFACTURE'S INSTRUCTIONS FOR INSTALLATION REQUIREMENTS.

GAS PIPE SUPPORT SCHEDULE

STEEL PIPE SIZE	MAXIMUM SPACING OF SUPPORTS (FT.)	NOMINAL SMOOTH-WALL SIZE	MAXIMUM SPACING OF SUPPORTS (FT.)
1/2"	6	1/2"	4
3/4" - 1"	8	3/4"	6
1 1/4" OR LARGER HORIZONTAL	10	1" OR LARGER	8
1 1/4" OR LARGER VERTICAL	EVERY FLOOR LEVEL	1" OR LARGER VERTICAL	EVERY FLOOR LEVEL

8 ROOFTOP GAS SUPPORT DETAIL

SCALE: NONE



1. HORIZONTAL PIPING SHALL BE SUSPENDED FROM BUILDING STRUCTURE BY MILD STEEL ROD CONNECTING PIPE HANGER TO INSERTS, BEAM CLAMPS, ANGLE BRACKETS AND LAG SCREWS AS REQUIRED BY BUILDING CONSTRUCTION IN ACCORDANCE WITH THE FOLLOWING:

ROD SIZE	PIPE SIZE
3/8"	1/2" TO 2"
1/2"	2 1/2" TO 4"
5/8"	4" - 8"

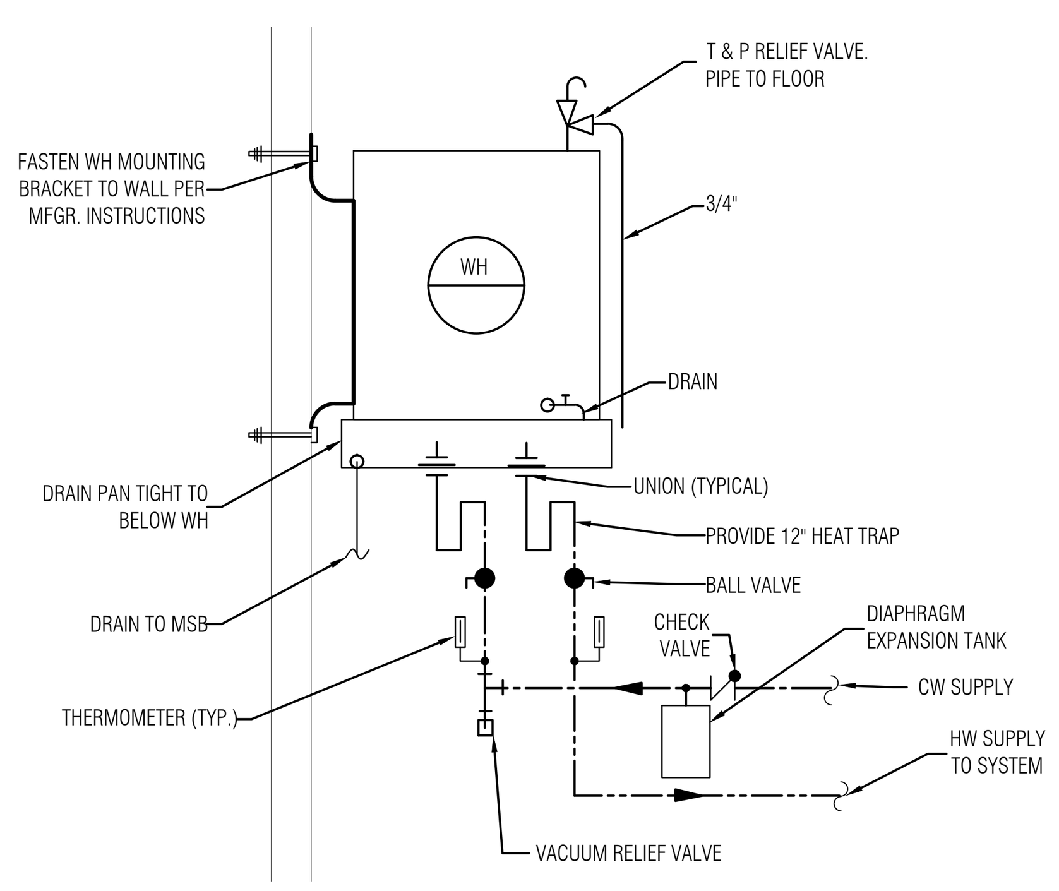
2. HANGERS ON INSULATED LINES SHALL BE SIZED TO FIT THE OUTSIDE DIAMETER OF PIPE INSULATION. PROVIDE HANGERS FOR INSULATED PIPING WITH 12" LONG, 18 GAUGE GALVANIZED INSULATION SHIELDS.

3. SCHEDULE - HANGER SPACING IN FEET/PIPE MATERIAL

PIPE SIZE (INCHES)	STEEL (FEET)	COPPER OR BRASS (FEET)	PVC
1/2" -1"	7	5	4
1 1/4" - 3"	10	6	4
4" - 8"	10	8	4

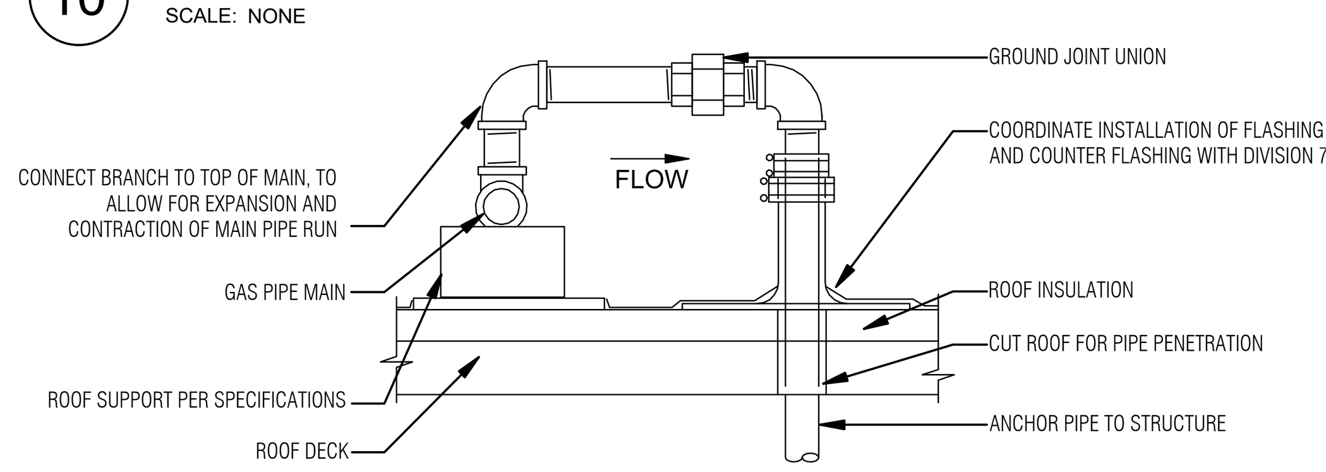
9 PIPE SUPPORT DETAIL

SCALE: NONE



10 WALL MOUNTED WATER HEATER DETAIL

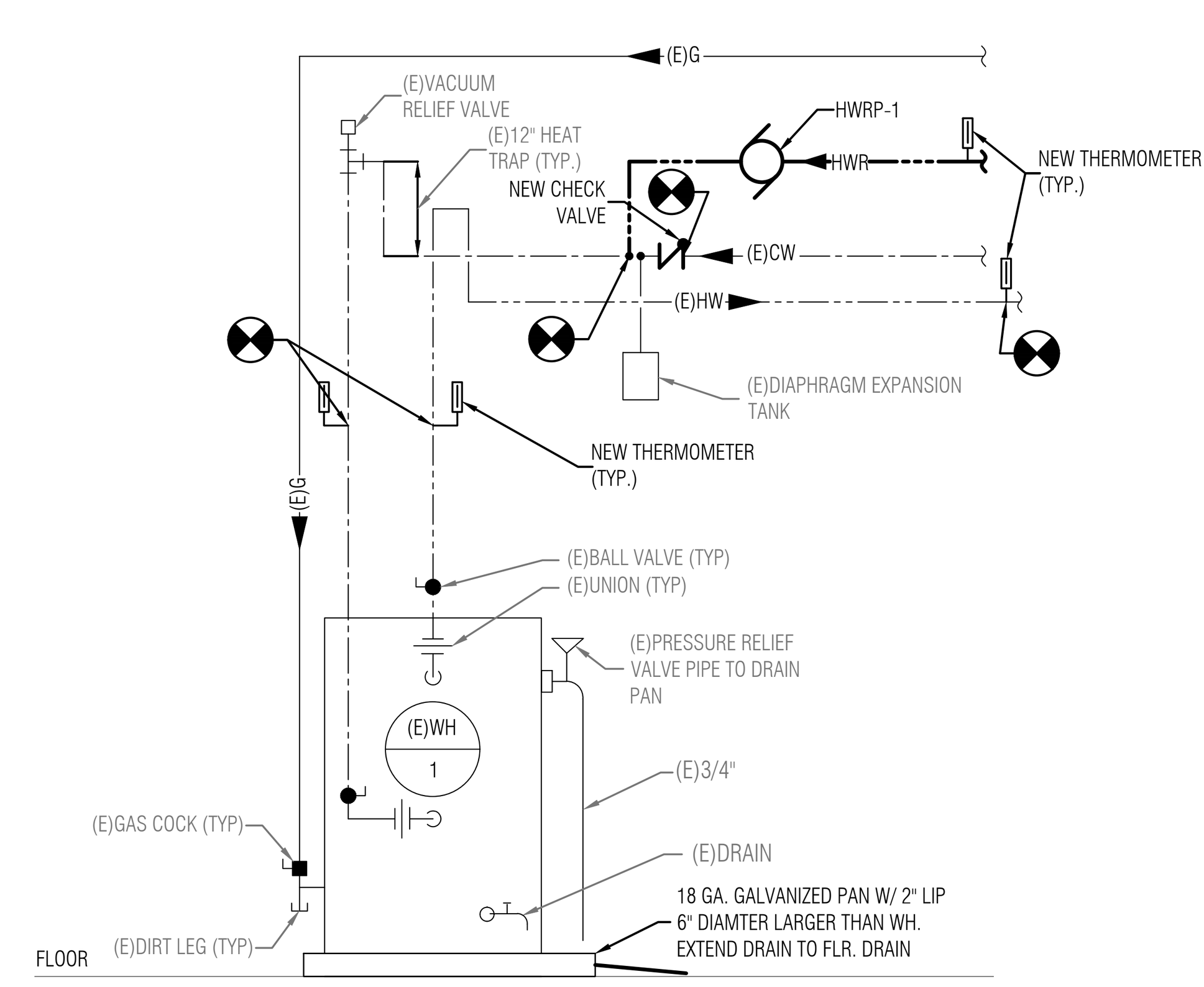
SCALE: NONE



REFER TO PLANS FOR PIPE SIZE(S) AND PENETRATION LOCATION(S). REFER TO SPECIFICATIONS FOR MORE INFORMATION. LOCATE PENETRATION MINIMUM 18" FROM ADJACENT WALLS, VENTS THRU ROOF, EQUIPMENT CURBS, PARAPETS, ROOF DRAINS, EXPANSION JOINTS, AND OTHER ROOF FEATURES.

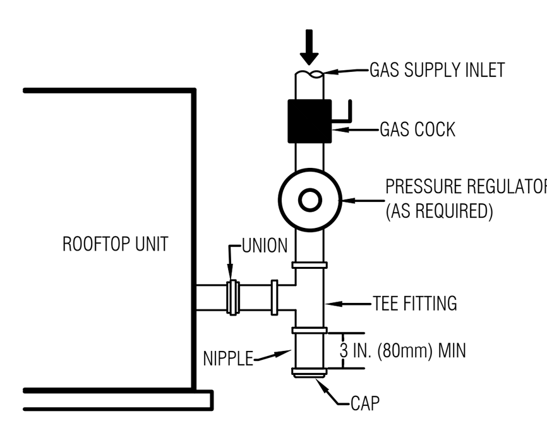
11 GAS PIPE ROOF PENETRATION DETAIL

SCALE: NONE



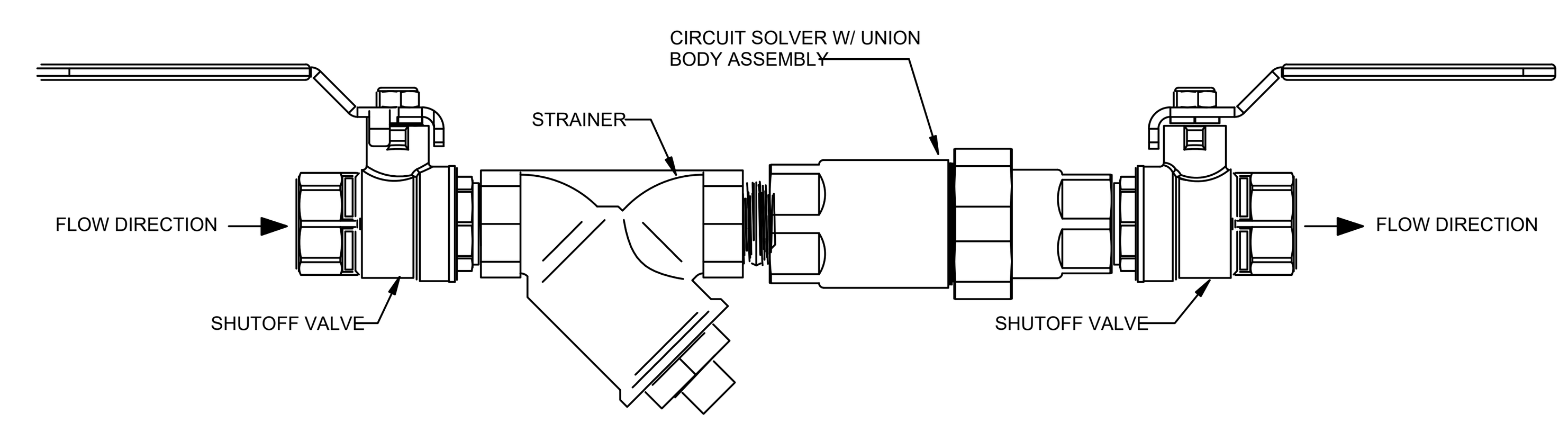
12 GAS FIRE WATER HEATER W/ RECIRCULATION DETAIL

SCALE: NONE



13 GAS CONNECTION DETAIL

SCALE: NONE



14 CIRCUIT SOLVER DETAIL

SCALE: NONE

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Project No. 22065

PLUMBING DETAILS

RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
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SHEET NO.
P-1.2
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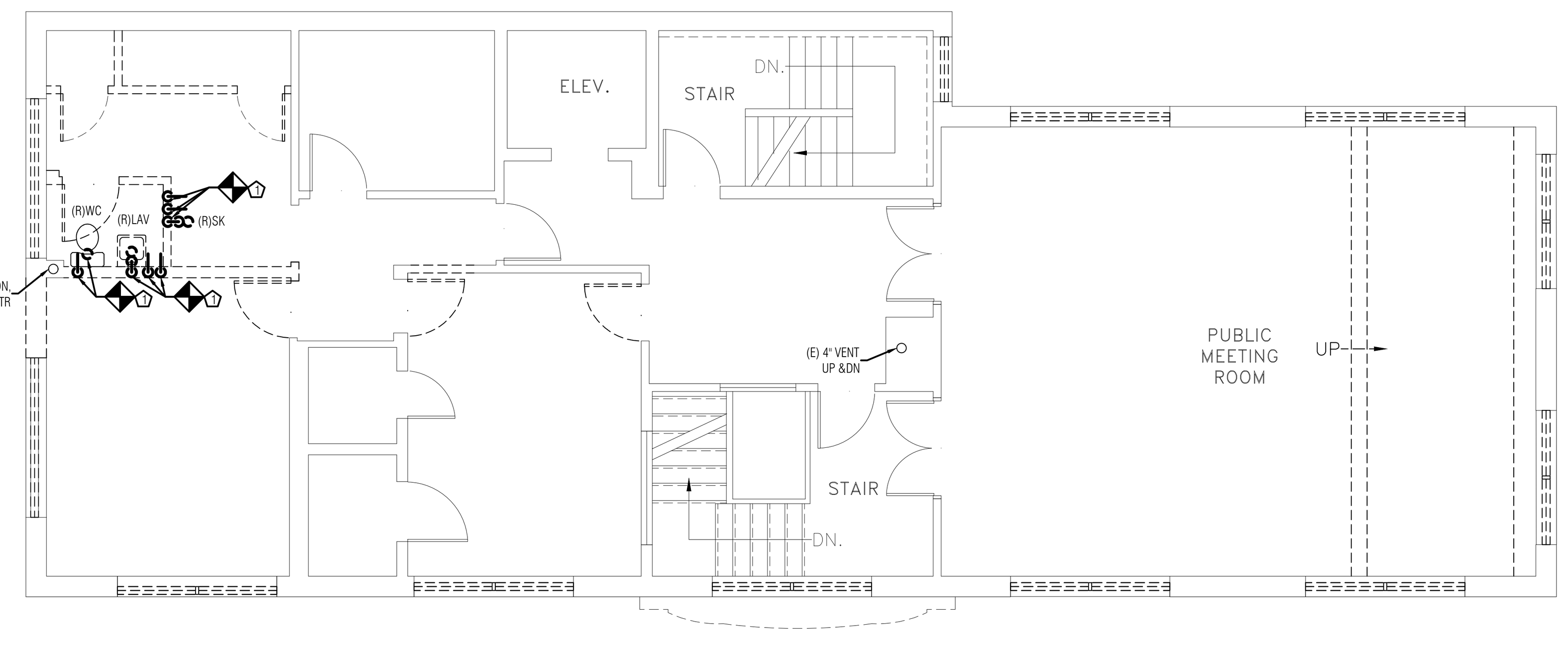
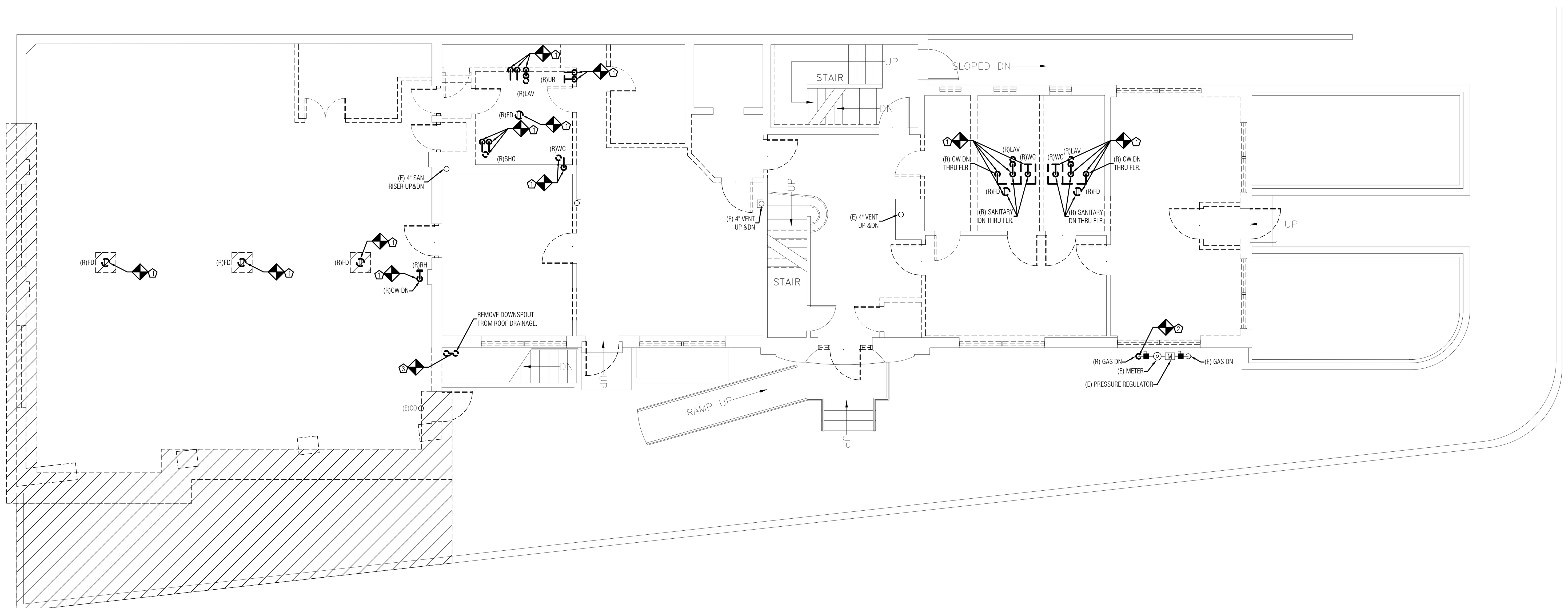
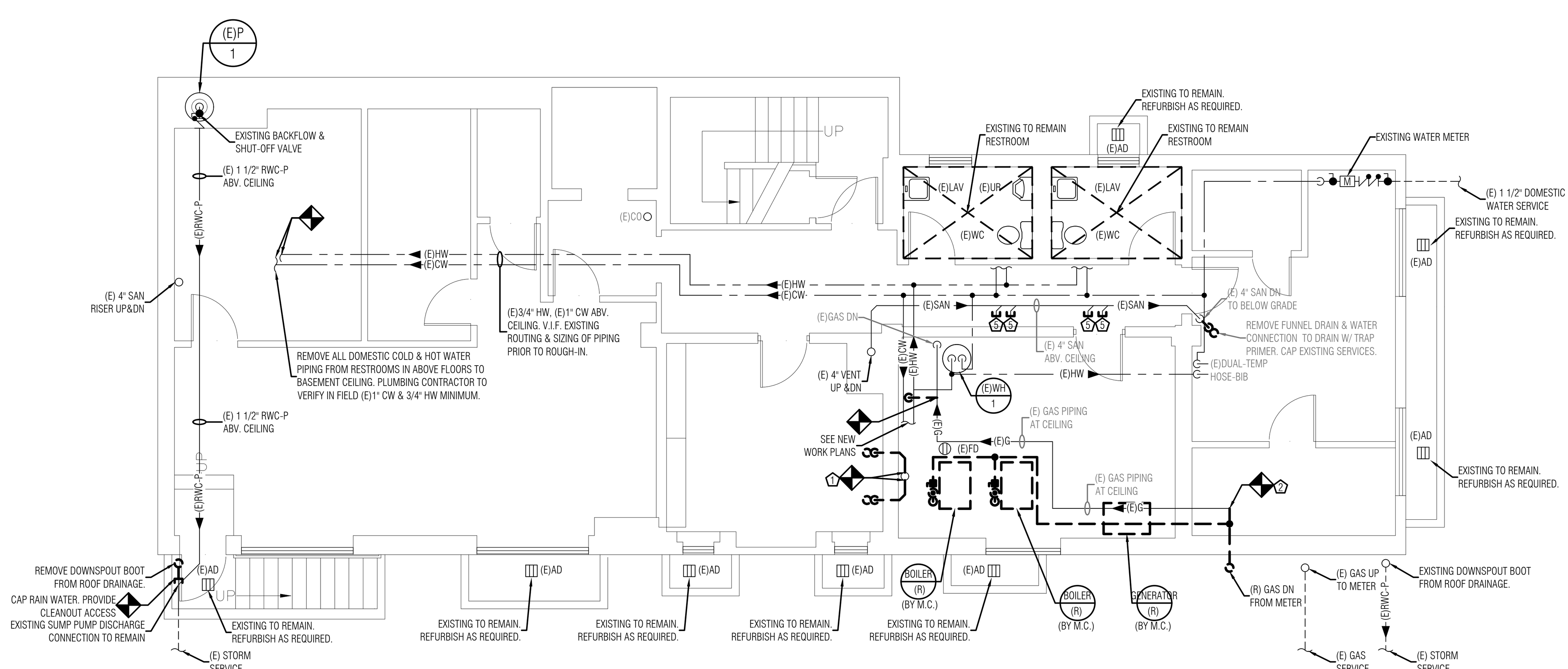


3 PLUMBING SECOND FLOOR PLAN - DEMOLITION
PD-2 SCALE - 1/8" = 1'-0"



2 PLUMBING FIRST FLOOR PLAN - DEMOLITION
PD-2 SCALE - 1/8" = 1'-0"



1 PLUMBING BASEMENT PLAN - DEMOLITION
PD-2 SCALE - 1/8" = 1'-0"

PLUMBING DRAWING NOTES - DEMOLITION

1. PLUMBING CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS OF THE PLUMBING SYSTEM. CONTRACTOR SHALL REPORT BACK TO ENGINEER WITH ANY DISCREPENCIES BETWEEN EXISTING CONDITIONS AND PLUMBING PLANS.
2. PLUMBING CONTRACTOR IS RESPONSIBLE FOR IN-FILL OF SLAB PENETRATIONS IN THE SCOPE OF WORK, REMOVAL OF SUCH ASSOCIATED PIPING AND PATCHING SHALL BE COMPLETED IN A NEAT AND WORKMANLIKE MANNER. PATCHING MATERIALS SHALL MATCH EXISTING MATERIALS TO THE GREATEST EXTENT POSSIBLE. PROVIDE TOUCH-UP TO MATCH EXISTING SURROUNDING AREAS OF PATCHING.
3. PLUMBING CONTRACTOR IS TO VERIFY IN FIELD EXISTING SANITARY INVERT, SIZING, AND ROUTING.

PLUMBING NOTES BY SYMBOL - DEMOLITION

1. DEMOLISH & REMOVE ALL PLUMBING FIXTURES, TRAPS, PIPING (COLD WATER, HOT WATER, SANITARY, AND VENTING), AND EQUIPMENT. CAP EXISTING PIPING BACK TO MAIN FOR INSTALLATION OF NEW PLUMBING SYSTEM. PLUMBING CONTRACTOR IS TO VERIFY IN FIELD SLOPE, INVERT, ROUTING, AND SIZING OF EXISTING SANITARY ROUTING. CONFIRM SLOPE, INVERT, AND PIPE SIZE WORKS.
2. DEMOLISH GAS PIPING BACK TO METER.
3. REMOVE EXISTING DOWNSPOUT FROM LOWER ROOF. MAINTAIN EXISTING DOWNSPOUT BOOT CONNECTION FOR NEW WORK.
4. EXISTING RESTOOM IS TO REMAIN.
5. SANITARY TO BE CAPPED ABOVE CEILING.

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PLUMBING FLOOR PLAN – DEMOLITION
RENOVATIONS TO MUNICIPAL BUILDING
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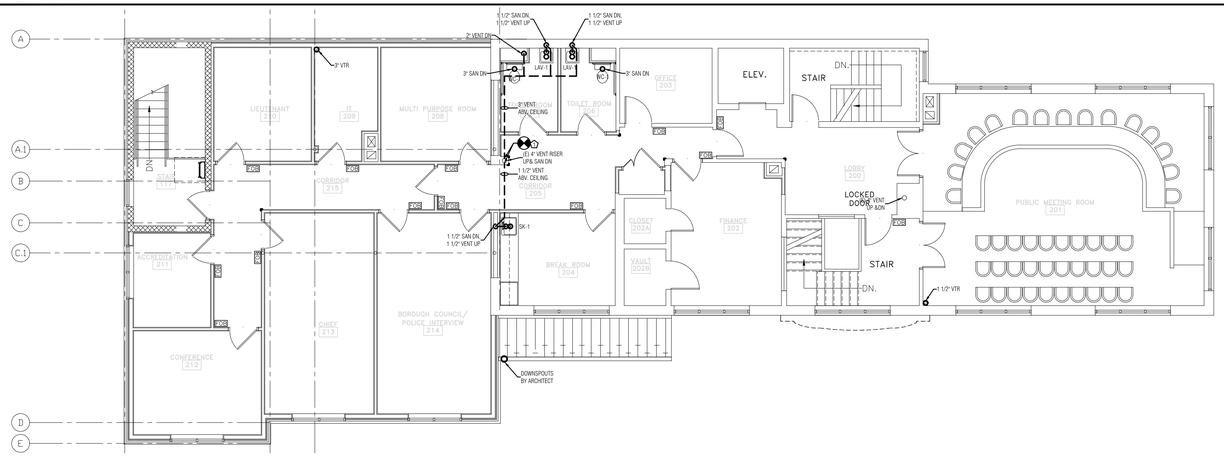
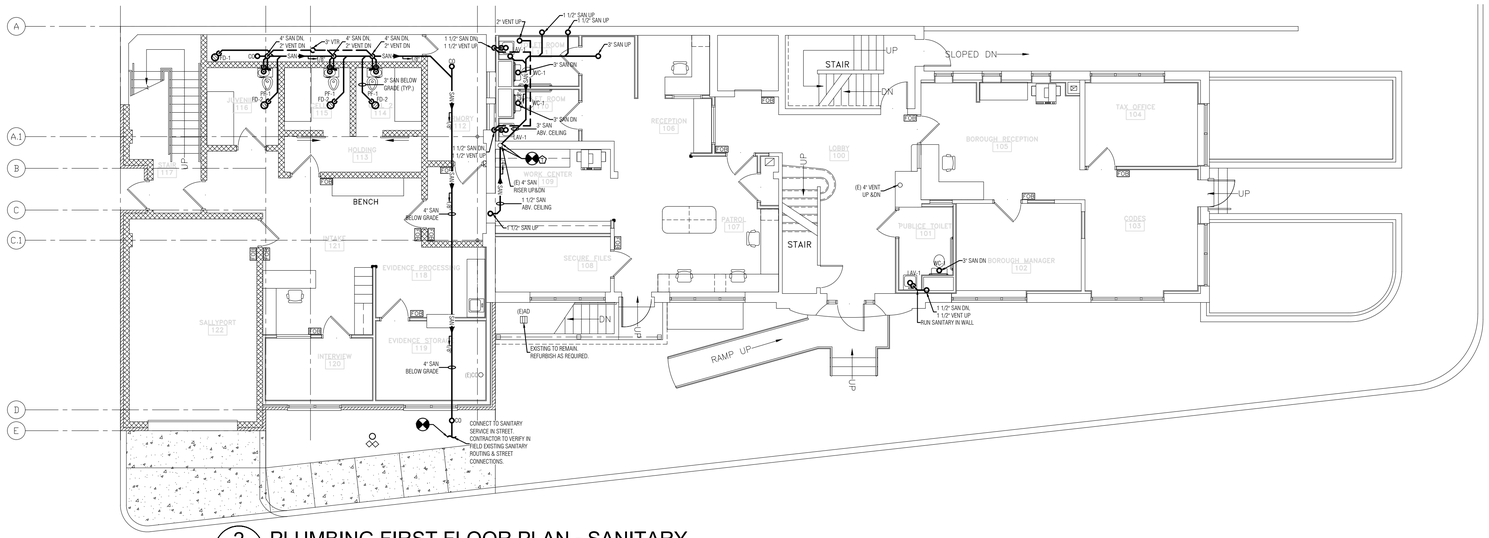


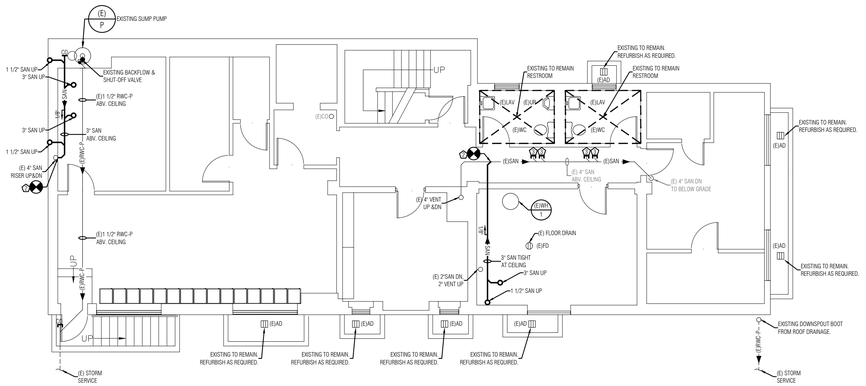
3 P-2 PLUMBING SECOND FLOOR PLAN - SANITARY

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



2 P-2 PLUMBING FIRST FLOOR PLAN - SANITARY

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



1 P-2 PLUMBING BASEMENT PLAN - SANITARY

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

PLUMBING SHEET NOTES - NEW WORK

1. CONTRACTOR SHALL VERIFY THE EXACT LOCATION, SIZE, CONFIGURATION AND ROUTING OF PLUMBING IN THE FIELD. ALL INFORMATION SHOWN IS BASED ON BEST INFORMATION AVAILABLE AT THE TIME OF DOCUMENTATION. CONTRACTOR SHALL REPORT BACK TO ENGINEER WITH ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND PLUMBING PLANS.
2. PLUMBING CONTRACTOR IS RESPONSIBLE FOR ITS CUTTING AND PATCHING REQUIRED FOR THE INSTALLATION OF ITS NEW WORK. CUTTING AND PATCHING SHALL BE COMPLETED IN A NEAT WORKMANLIKE MANNER. PATCHING MATERIALS SHALL MATCH EXISTING MATERIALS TO THE GREATEST EXTENT POSSIBLE. PROVIDE TOUCH-UP TO MATCH EXISTING SURROUNDING AREAS OF CUTTING AND PATCHING WORK.
3. GENERAL CONTRACTOR SHALL PROVIDE ACCESS PANELS FOR ALL VALVES, METERS, AND RELATED COMPONENTS ABOVE HARD CEILINGS. COORDINATE EXACT LOCATION, SIZE AND SPECIFICATION WITH ARCHITECT.
4. INSTALL ALL PIPING AS HIGH AS POSSIBLE IN SPACE TO ALLOW FOR HIGHEST POSSIBLE CEILINGS.
5. INSTALL ALL PIPING ON THE INSULATED, CONDITIONED SIDE OF THE BUILDING ENVELOPE.

PLUMBING NOTES BY SYMBOL - NEW WORK

1. EXTEND VENT TO EXISTING VENT. CONTRACTOR TO VERIFY IN FIELD VENT PIPING SIZING & ROUTING PRIOR TO ROUGH-IN.
2. PLUMBING CONTRACTOR TO VERIFY IN FIELD ROUTING, SIZE, & INVERT WORK WITH EXISTING SANITARY CONDITIONS IN BASEMENT FOR RESTROOM CONNECTION.
3. CAPPED SANITARY ABOVE CEILING.

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PLUMBING FLOOR PLAN – NEW WORK–SANITARY

RENOVATIONS TO MUNICIPAL BUILDING

BOROUGH OF EDDYSTONE

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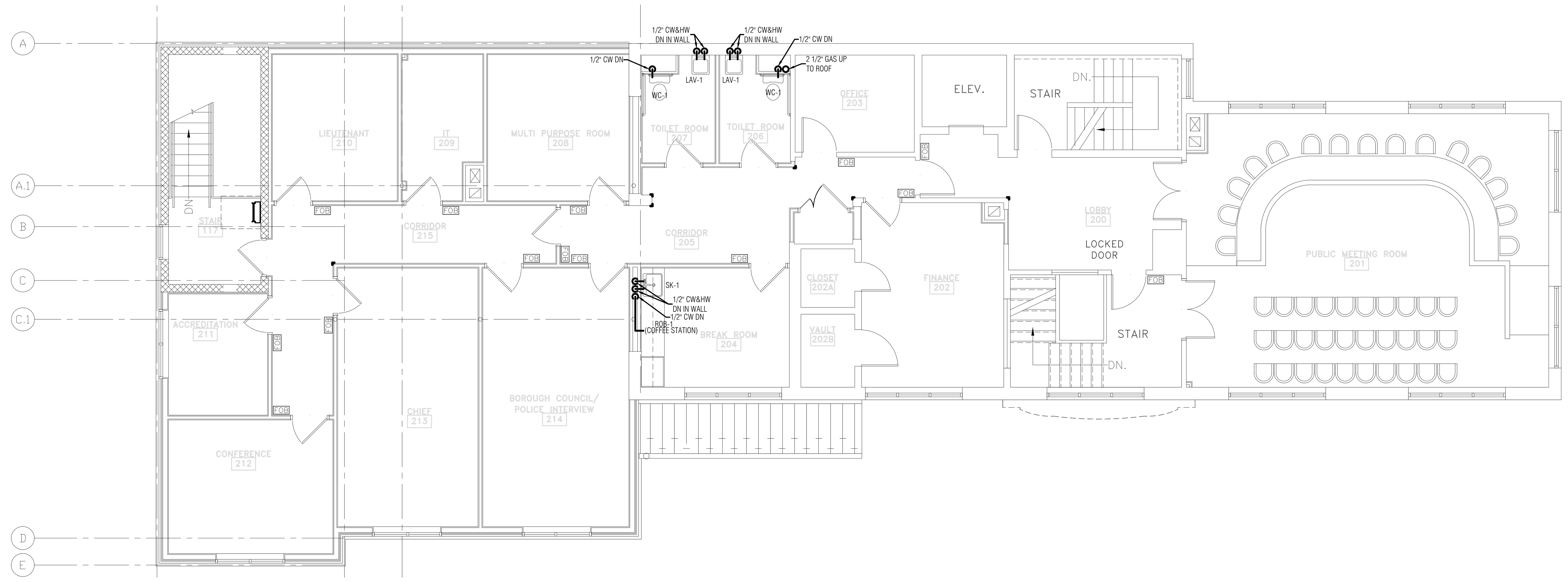
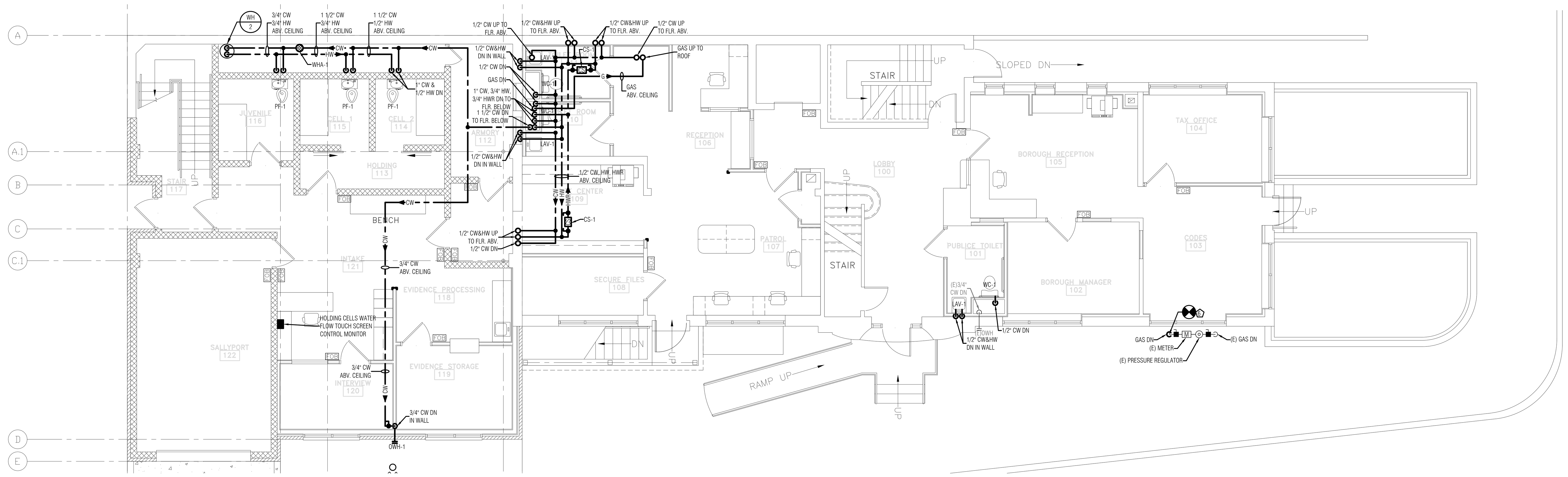
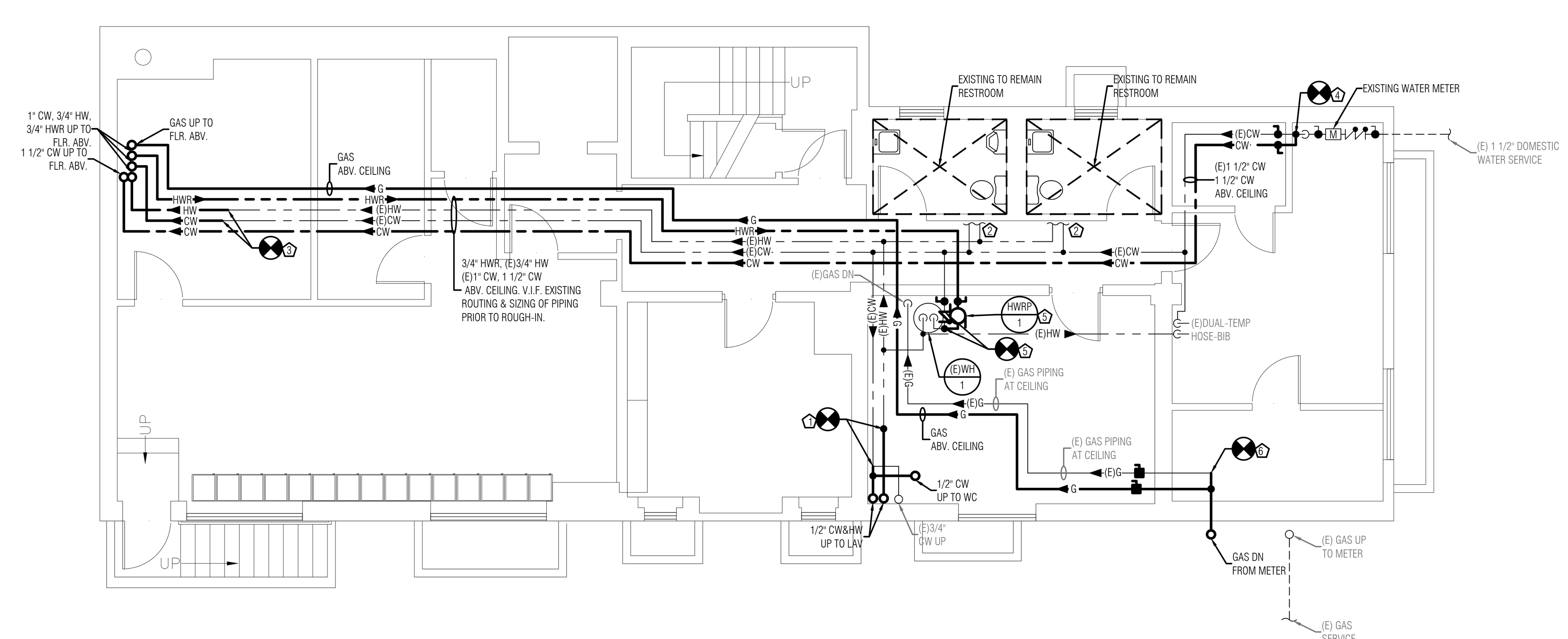


3 PLUMBING SECOND FLOOR PLAN - DOMESTIC WATER
P-3 SCALE - 1/8" = 1'-0"



2 PLUMBING FIRST FLOOR PLAN - DOMESTIC WATER
P-3 SCALE - 1/8" = 1'-0"



1 PLUMBING BASEMENT PLAN - DOMESTIC WATER
P-3 SCALE - 1/8" = 1'-0"

PLUMBING SHEET NOTES - NEW WORK

1. CONTRACTOR SHALL VERIFY THE EXACT LOCATION, SIZE, CONFIGURATION AND ROUTING OF PLUMBING IN THE FIELD. ALL INFORMATION SHOWN IS BASED ON BEST INFORMATION AVAILABLE AT THE TIME OF DOCUMENTATION. CONTRACTOR SHALL REPORT BACK TO ENGINEER WITH ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND PLUMBING PLANS.
2. PLUMBING CONTRACTOR IS RESPONSIBLE FOR ITS CUTTING AND PATCHING REQUIRED FOR THE INSTALLATION OF ITS NEW WORK. CUTTING AND PATCHING SHALL BE COMPLETED IN A NEAT WORKMANLIKE MANNER. PATCHING MATERIALS SHALL MATCH EXISTING MATERIALS TO THE GREATEST EXTENT POSSIBLE. PROVIDE TOUCH-UP TO MATCH EXISTING SURROUNDING AREAS OF CUTTING AND PATCHING WORK.
3. GENERAL CONTRACTOR SHALL PROVIDE ACCESS PANELS FOR ALL VALVES, METERS, AND RELATED COMPONENTS ABOVE HARD CEILINGS. COORDINATE EXACT LOCATION, SIZE AND SPECIFICATION WITH ARCHITECT.
4. INSTALL ALL PIPING AS HIGH AS POSSIBLE IN SPACE TO ALLOW FOR HIGHEST POSSIBLE CEILINGS.
5. INSTALL ALL PIPING ON THE INSULATED, CONDITIONED SIDE OF THE BUILDING ENVELOPE.

PLUMBING NOTES BY SYMBOL - NEW WORK

1. EXTEND 3/4" COLD WATER & 1/2" HOT WATER MINIMUM FROM EXISTING DOMESTIC WATER PIPING TO NEW RESTROOM. CONTRACTOR TO VERIFY IN FIELD DOMESTIC PIPING SIZING & ROUTING PRIOR TO ROUGH-IN.
2. MAINTAIN EXISTING DOMESTIC WATER FEEDS TO EXISTING RESTROOMS.
3. EXTEND 1" COLD WATER & 3/4" HOT WATER MINIMUM FROM EXISTING DOMESTIC WATER PIPING TO NEW RESTROOMS. CONTRACTOR TO VERIFY IN FIELD DOMESTIC PIPING SIZING & ROUTING PRIOR TO ROUGH-IN.
4. EXTEND 1 1/2" COLD WATER PIPING BACK TO THE DOMESTIC SERVICE FOR THE NEW HOLDING AREA. PROVIDE A SHUT-OFF VALVE FOR NEW DOMESTIC WATER ZONE.
5. INSTALL HWRP-1 PER DETAIL ON P-1.2. PROVIDE A BACK-FLOW PREVENTER UP STREAM OF HOT WATER RETURN CONENCTION INTO COLD WATER FEED INTO EXISTING WATER HEATER. COORDINATE WORK WITH OTHER TRADES PRIOR TO ROUGH-IN.
6. EXTEND 3" GAS FROM EXISTING GAS PIPING TO NEW EQUIPMENT ON ROOF. CONTRACTOR TO VERIFY IN FIELD GAS PIPING SIZING & ROUTING PRIOR TO ROUGH-IN.

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PLUMBING FLR PLAN–NEW WORK–DOMESTIC WATER

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SHEET NO.
P-3
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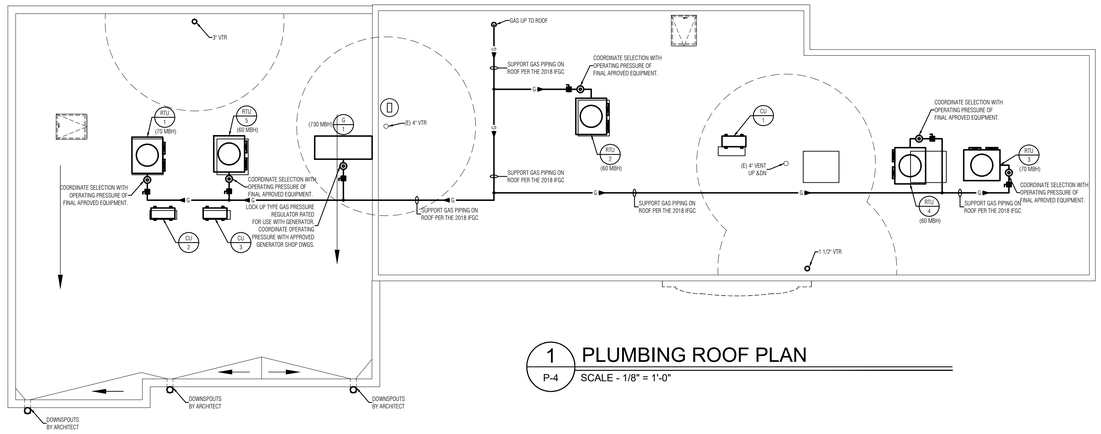
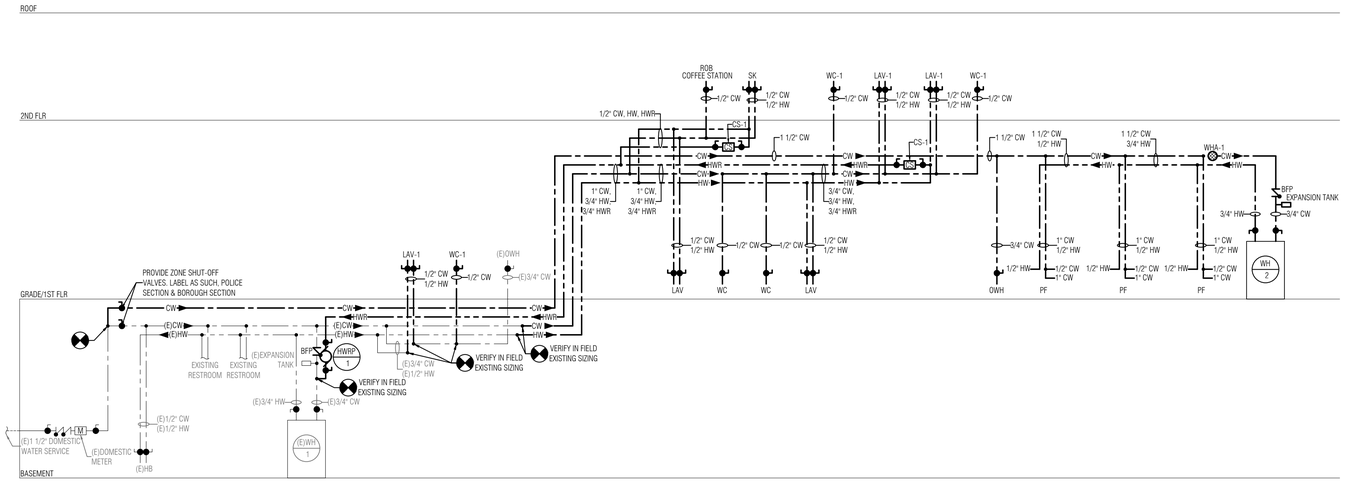


1 P-4 PLUMBING ROOF PLAN

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

PLUMBING SHEET NOTES - NEW WORK

1. CONTRACTOR SHALL VERIFY THE EXACT LOCATION, SIZE, CONFIGURATION AND ROUTING OF PLUMBING IN THE FIELD. ALL INFORMATION SHOWN IS BASED ON BEST INFORMATION AVAILABLE AT THE TIME OF DOCUMENTATION. CONTRACTOR SHALL REPORT BACK TO ENGINEER WITH ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND PLUMBING PLANS.
2. PLUMBING CONTRACTOR IS RESPONSIBLE FOR ITS CUTTING AND PATCHING REQUIRED FOR THE INSTALLATION OF ITS NEW WORK. CUTTING AND PATCHING SHALL BE COMPLETED IN A NEAT WORKMANLIKE MANNER. PATCHING MATERIALS SHALL MATCH EXISTING MATERIALS TO THE GREATEST EXTENT POSSIBLE. PROVIDE TOUCH-UP TO MATCH EXISTING SURROUNDING AREAS OF CUTTING AND PATCHING WORK.
3. MAINTAIN 10' - 0" WITH PLUMBING VENTS THROUGH ROOF FROM ALL MECHANICAL FRESH-AIR INTAKE.



2 P-4 DOMESTIC WATER RISER DIAGRAM

NO SCALE

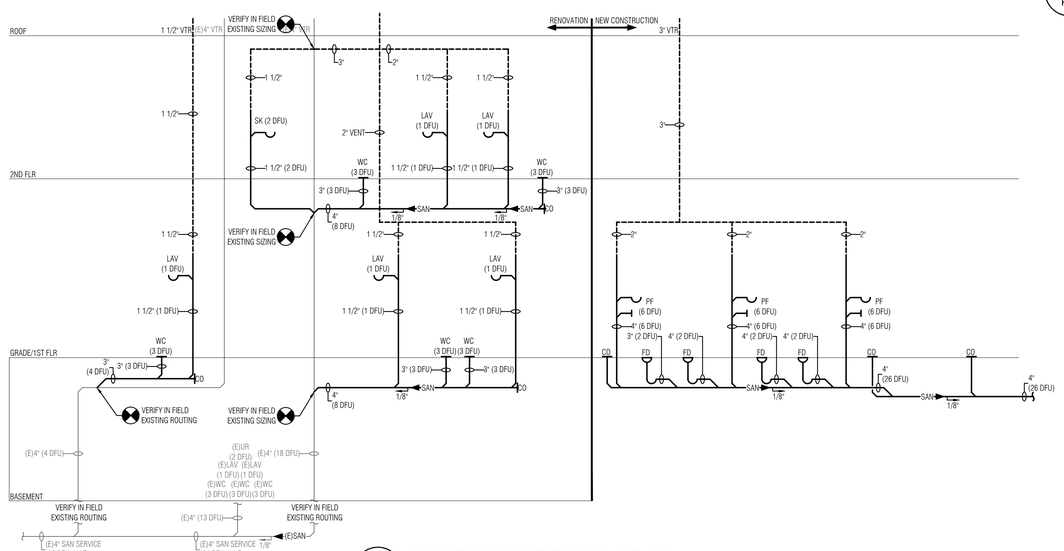
3 P-4 GAS RISER DIAGRAM

NO SCALE

GAS PIPING CALCULATION

GAS TYPE	INLET PRESSURE	PRESSURE DROP	SPECIFIC GRAVITY	LENGTH	TOTAL CONNECTED LOAD	PIPE SIZE*
NATURAL	LESS THAN 2 PSI	0.3" W.C.	0.60	350'	1,090 Mbh	3"

*GAS PIPING SIZED PER 2018 INTERNATIONAL FUEL GAS CODE TABLE 402.4(1)



4 P-4 SANITARY RISER DIAGRAM

NO SCALE

LINN ARCHITECTS
1140 N. PROVIDENCE ROAD
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INTERIOR DESIGN
ADVANCED ENGINEERING INC.
5561 Pennell Road | Media PA 19063
Project No. 22065

PLUMBING ROOF PLAN – NEW WORK & RISER DIAGRAMS

RENOVATIONS TO MUNICIPAL BUILDING

BOROUGH OF EDDYSTONE

1300 E. 12TH ST.

EDDYSTONE, PA 19022

REVISIONS NO.	DESCRIPTION	DATE
	Issued for Bid	1/31/23

DATE: 1/31/23
SCALE: AS NOTED
DRAWN BY: AG
CHECKED BY: DWF
PROJ. NO.: 22065

SHEET NO. P-4

SHEET 7 OF 7

GENERAL SPECIFICATIONS

1. DRAWINGS AND SPECIFICATIONS FORM COMPLIMENTARY REQUIREMENTS; PROVIDE WORK SPECIFIED AND NOT SHOWN, AND WORK SHOWN BUT NOT SPECIFIED AS THOUGH EXPLICITLY REQUIRED BY BOTH. ALTHOUGH WORK IS NOT SPECIFICALLY SHOWN OR SPECIFIED. PROVIDE SUPPLEMENTARY OR MISCELLANEOUS ITEMS, APPURTENANCES, DEVICES AND MATERIALS OBVIOUSLY NECESSARY FOR A SOUND, SECURE AND COMPLETE INSTALLATION.
2. THE DRAWINGS AND SPECIFICATIONS INDICATE A PERFORMANCE SPECIFICATION FOR BIDDING PURPOSES FOR FIRE PROTECTION AND FIRE ALARM SYSTEMS. AWARDED CONTRACTORS ARE RESPONSIBLE FOR DETAILED DESIGN AND PREPARATION OF SIGNED AND SEALED ENGINEERING DOCUMENTS FOR REVIEW/APPROVAL FROM OWNERS INSURANCE CARRIER AND LOCAL AUTHORITY HAVING JURISDICTION.
3. DRAWINGS ARE DIAGRAMMATIC. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL COMPONENTS NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM. DETERMINE LOCATIONS OF SYSTEMS AND COMPONENTS IN FIELD. COORDINATE WITH ARCHITECTURAL DRAWINGS AND OTHER TRADES.
4. ADDRESS QUESTIONS REGARDING DRAWINGS TO ARCHITECT IN WRITING BEFORE AWARD OF CONTRACT. OTHERWISE, ARCHITECT'S INTERPRETATION OF MEANING AND INTENT OF DRAWINGS SHALL BE FINAL.
5. THE INTENTION IS FOR INSTALLATION OF COMPLETE AND OPERATING SYSTEMS. NOT EVERY COMPONENT REQUIRED IS SHOWN. THE CONTRACTOR SHALL INCLUDE ALL COMPONENTS NORMALLY ASSOCIATED WITH THE PARTICULAR SYSTEM. THE SYSTEM SHALL BE FULLY COMMISSIONED AND SIGNED OFF BY AN OFFICER OF THE RESPECTIVE CONTRACTOR. PRIOR TO FINAL OWNER ACCEPTANCE TESTING, PROVIDE PERSONNEL TO ASSIST IN 24 HOURS OF ACCEPTANCE TESTING.
6. PRIOR TO COMMENCING WORK, SHEET METAL SHOP DRAWINGS OF ALL ***COMMON AREA/AMENITY SPACES*** MUST BE PREPARED AND SUBMITTED FOR REVIEW AND APPROVAL TO THE ARCHITECT/ENGINEER. SHEETMETAL SHOP DRAWINGS SHALL INCLUDE ALL ELEMENTS OF THE EQUIPMENT, DUCTWORK, AIR DEVICES, AND REFLECTED CEILING PLAN FOR COORDINATION OF CRITICAL DIMENSIONS OF ARCHITECTURAL/ STRUCTURAL COMPONENTS.
7. GIVE NOTICES, FILE PLANS, OBTAIN PERMITS AND LICENSES, PAY FEES AND BACK CHARGES, AND OBTAIN NECESSARY APPROVALS FROM AUTHORITIES THAT HAVE JURISDICTION AS REQUIRED TO PERFORM WORK IN ACCORDANCE WITH ALL LEGAL REQUIREMENTS AND WITH THE DESIGN DOCUMENTS.
8. PRIOR TO COMMENCING WORK, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND EQUIPMENT DATA FOR MATERIALS AND EQUIPMENT TO THE ARCHITECT FOR REVIEW AND APPROVAL. MATERIALS AND EQUIPMENT SHALL NOT BE INSTALLED BEFORE SHOP DRAWINGS ARE REVIEWED AND APPROVED. SCHEDULE AT LEAST TEN WORKING DAYS, EXCLUSIVE OF TRANSMITTAL TIME. FOR SUBMITTAL REVIEW SHALL BE ALLOWED.
9. MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS LABORATORIES (UL) AND APPROVED BY ASME AND AGA FOR INTENDED SERVICE.
10. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES REQUIRED FOR SAFE EXECUTION AND COMPLETION OF WORK, AND FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
11. COORDINATE WORK OF THIS SECTION WITH THAT OF OTHER SECTIONS.
12. ALL MATERIALS, EQUIPMENT AND METHOD OF INSTALLATION SHALL BE ACCORDANCE WITH THE STANDARDS, REGULATIONS, CODES, ORDINANCES, AND LAW OF LOCAL, STATE, AND FEDERAL GOVERNMENTS, AND OTHER AUTHORITIES THAT HAVE LAWFUL JURISDICTION.
13. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO COORDINATE HIS WORK WITH THAT OF ALL OTHER TRADES, INCLUDING (BUT NOT LIMITED TO), ELECTRICAL, HVAC, SPRINKLER, PLUMBING, STRUCTURAL AND GENERAL ARCHITECTURE. OFFSETS IN PIPING AND OFFSETS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
14. DEVIATION FROM CONTRACT DOCUMENTS, OR PROPOSED SUBSTITUTION OF MATERIALS OR EQUIPMENT FOR THOSE SPECIFIED, SHALL BE REQUESTED IN SEPARATE LETTER, WHETHER DEVIATIONS ARE DUE TO FIELD CONDITIONS, STANDARD SHOP PRACTICE OR OTHER CAUSE. THE CONTRACTOR IS RESPONSIBLE FOR ANY COSTS INCURRED AS A RESULT OF THE CHANGES NEEDED TO ACCOMMODATE THE SUBSTITUTED EQUIPMENT INCLUDING THE WORK OF OTHER TRADES.
15. EACH CONTRACTOR IS RESPONSIBLE FOR ITS CUTTING AND PATCHING REQUIRED FOR THE INSTALLATION OF ITS NEW WORK. CUTTING AND PATCHING SHALL BE COMPLETED IN A NEAT AND WORKMANLIKE MANNER. PATCHING MATERIALS SHALL MATCH EXISTING MATERIALS TO THE GREATEST EXTENT POSSIBLE. PROVIDE TOUCH-UP TO MATCH EXISTING SURROUNDING AREAS OF CUTTING AND PATCHING WORK.
16. CONTRACTOR SHALL COORDINATE ITS RESPECTIVE CEILING MOUNTED EQUIPMENT WITH OTHER TRADE CONTRACTORS PRIOR TO INSTALLATION TO AVOID CONFLICTS.
17. WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER AND SHALL PRESENT NEAT, RECTILINEAR APPEARANCE WHEN COMPLETED. MAINTAIN MAXIMUM HEAD ROOM AT ALL TIMES. DO NOT RUN PIPES, DUCTS, AND CONDUIT EXPOSED UNLESS SHOWN AND NOTED TO BE EXPOSED ON DRAWINGS. MATERIALS AND EQUIPMENT SHALL BE NEW AND INSTALLED ACCORDING TO MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS, SO THAT COMPLETED INSTALLATION SHALL OPERATE SAFELY AND EFFICIENTLY.
18. EACH RESPECTIVE CONTRACTOR SHALL FIRE STOP ALL NEW SLEEVES THROUGH CONCRETE FLOORS AND FIRE RATED WALLS OR PARTITIONS WITH UL RATED ASSEMBLIES WITH EQUAL FIRE RATING. COORDINATE ROOF PENETRATIONS WITH WORK OF OTHER SECTIONS AND WITH FLASHING REQUIREMENTS.
19. ANY INTERFERENCE SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE, AND SHALL BE RESOLVED PRIOR TO THE INSTALLATION OF THE WORK INVOLVED.
20. ALL MATERIALS AND EQUIPMENT SHALL BE NEW UNLESS NOTED OTHERWISE.
21. MANUFACTURERS' MODEL NUMBERS ARE SPECIFIED SOLELY TO ESTABLISH STANDARDS OF QUALITY FOR PERFORMANCE AND MATERIALS.
22. SUBSTITUTED PRODUCTS SUBMITTED AND APPROVED FOR USE THAT NECESSITATE CHANGES TO THE WORK OF OTHER TRADES OF CONTRACT SHALL BE COORDINATED AND ARRANGED BY THE CONTRACTOR WHO SUBMITTED THE SUBSTITUTION WITHOUT ADDITIONAL COST TO THE OWNER.
23. SHOP DRAWINGS MUST BE SUBMITTED, REVIEWED AND APPROVED PRIOR TO INSTALLATION OF EQUIPMENT/MATERIALS
24. PRODUCT INSTALLATION SHALL ADHERE TO MANUFACTURERS RECOMMENDATIONS.
25. EACH RESPECTIVE CONTRACTOR SHALL PROVIDE PROPER ACCESS TO EQUIPMENT THAT REQUIRES INSPECTION, REPLACEMENT OR REPAIR. ACCESS PANELS SHALL BE A MINIMUM OF 12" X 12" OR AS NEEDED FOR APPROPRIATE ACCESS. TO BE SUPPLIED TO GENERAL CONTRACTOR FOR INSTALLATION. ACCESS PANELS IN RATED ASSEMBLIES SHALL BE ACUDOR FW-5050. ACCESS PANELS IN NON-RATED DRYWALL CEILINGS SHALL BE WIND-LOCK "STEALTH". ACCESS PANELS IN NON-RATED WALLS SHALL BE ADJUDOR UF-5000.
26. CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL APPLICABLE EQUIPMENT WITH THE ELECTRICAL CONTRACTOR.
27. ALL EQUIPMENT, PIPING, INSULATION, ETC., INSTALLED IN HVAC PLENUM SPACES SHALL MEET CODE REQUIREMENTS FOR SMOKE AND COMBUSTIBILITY.
28. AS WORK PROGRESSES AND FOR DURATION OF CONTRACT, MAINTAIN COMPLETE SET OF PRINTS OF CONTRACT DRAWINGS AT JOB SITE AT ALL TIMES. RECORD WORK COMPLETED AND ALL CHANGES FROM ORIGINAL CONTRACT DRAWINGS CLEARLY AND ACCURATELY INCLUDING WORK INSTALLED AS A MODIFICATION OR ADDITION TO THE ORIGINAL DESIGN TURN OVER ALL OPERATING MANUALS, MAINTENANCE MANUALS, AND "AS BUILT" DRAWINGS TO OWNER AT CONCLUSION OF CONSTRUCTION.
29. DO NOT SUPPORT EQUIPMENT FROM SUSPENDED CEILINGS. SUPPORT ALL EQUIPMENT AND PIPING FROM BUILDING STRUCTURE TO PROVIDE A VIBRATION FREE INSTALLATION. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF ALL WEIGHTS AND METHODS OF SUPPORT.
30. RUN PIPING/WIRING CONCEALED, UNLESS SPECIFIED OTHERWISE, AND CLEAR OF CEILING INSERTS.
31. PROVIDE CLAMPS, OFFSETS, EXPANSION JOINTS, ANCHORS AND GUIDES AS NECESSARY TO PREVENT STRESS ON PIPING/WIRING.
32. ANY REFERENCE TO ELECTRICAL, PLUMBING AND HVAC CONTRACTORS, NOTED ON THESE DRAWINGS OR STATED IN THE SPECIFICATIONS SHALL NOT BE MISCONSTRUED AS AN INTENTION TO DEFINE SEPARATE CONTRACTORS FOR THE RESPECTIVE WORK. THE GENERAL CONTRACTOR SHALL COORDINATE AND PROVIDE A COMPLETE BUILDING WITH COMPLETE MECHANICAL AND ELECTRICAL SYSTEMS, REGARDLESS OF ANY SPECIFICATION REFERENCES TO OTHER CONTRACTORS.
33. GUARANTEE WORK OF THIS CONTRACTOR IN WRITING FOR ONE YEAR FROM THE DATE OF OWNER'S ACCEPTANCE OF CERTIFICATE OF SUBSTANTIAL COMPLETION. PROMPTLY, REPAIR OR REPLACE DEFECTIVE MATERIALS, EQUIPMENT, WORKMANSHIP AND INSTALLATIONS THAT DEVELOP DEFECTS WITHIN THIS PERIOD. PROMPTLY AND TO OWNERS SATISFACTION. CORRECT DAMAGE CAUSED IN MAKING NECESSARY REPAIRS AND REPLACEMENTS UNDER GUARANTEED AT NO ADDITIONAL COST TO OWNER. SUBMIT GUARANTEE TO ARCHITECT BEFORE FINAL PAYMENT. STATEMENT OF GUARANTEE REQUIREMENTS SHALL NOT BE INTERRUPTED TO LIMIT OWNER'S RIGHTS UNDER LAW AND THIS CONTRACT.

GENERAL NOTES - FIRE PROTECTION

1. THE DRAWINGS AND SPECIFICATIONS INDICATE A PERFORMANCE SPECIFICATION FOR THE FIRE PROTECTION SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND OPERATING SYSTEM IN COMPLIANCE WITH THE APPLICABLE NFPA CODES. AWARDED CONTRACTOR IS RESPONSIBLE FOR DETAILED DESIGN AND PREPARATION OF SIGNED AND SEALED ENGINEERING DOCUMENTS FOR REVIEW/APPROVAL FROM THE OWNER'S INSURANCE CARRIER AND LOCAL AUTHORITY HAVING JURISDICTION.
2. PRIOR TO COMMENCING WORK, CONTRACTOR SHALL SUBMIT SPRINKLER SHOP DRAWINGS, HYDRAULIC CALCULATIONS AND EQUIPMENT DATA FOR MATERIALS AND EQUIPMENT TO THE ENGINEER FOR REVIEW AND APPROVAL. MATERIALS AND EQUIPMENT SHALL NOT BE INSTALLED BEFORE SHOP DRAWINGS ARE REVIEWED AND APPROVED. SCHEDULE AT LEAST TEN WORKING DAYS, EXCLUSIVE OF TRANSMITTAL TIME, FOR SUBMITTAL REVIEW.
3. GENERAL NOTES, SYMBOLS LIST AND DETAILS ARE APPLICABLE TO ALL DRAWINGS OF THIS SECTION.
4. SPRINKLER PIPE SIZES ARE TO BE CALCULATED HYDRAULICALLY BY THE FIRE PROTECTION CONTRACTOR.
5. THE CONTRACTOR SHALL COORDINATE SPRINKLER HEADS AND ASSOCIATED PIPING LOCATIONS WITH THE ARCHITECT PRIOR TO COMMENCING WORK IN FINISHED AREAS.
6. THE CONTRACTOR SHALL COORDINATE SPRINKLER HEAD LOCATIONS WITH LIGHTING LAYOUT, DUCTWORK AND PIPING AND OTHER TRADES PRIOR TO ROUGH-IN.
7. BEFORE STARTING WORK IN A PARTICULAR AREA OF THE PROJECT, VISIT SITE AND EXAMINE CONDITIONS UNDER WHICH WORK MUST BE PERFORMED INCLUDING PREPARATORY WORK DONE UNDER OTHER SECTIONS OR CONTRACTS BY OWNER. REPORT CONDITIONS THAT MIGHT AFFECT WORK ADVERSELY IN WRITING THROUGH THE CONTRACTOR TO THE ARCHITECT/ENGINEER. DO NOT PROCEED WITH WORK UNTIL DEFECTS HAVE BEEN CORRECTED AND THE CONDITIONS ARE SATISFACTORY. COMMENCEMENT OF WORK SHALL INDICATE ACCEPTANCE OF EXISTING CONDITIONS.
8. ALL SPRINKLER HEADS IN ACOUSTICAL DROP CEILINGS SHALL BE CENTERED IN TILE.

FIRE PROTECTION NOTES

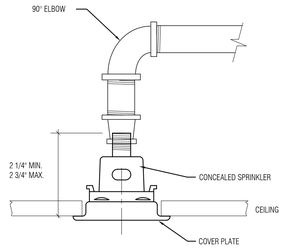
1. PIPE AND FITTINGS
   - A. PIPE SHALL MEET APPLICABLE ANSI OR ASTM STANDARDS AND SHALL HAVE MANUFACTURER'S NAME AND STANDARD MARKED ON EACH LENGTH. JOINTS SHALL MEET APPLICABLE ANSI OR ASTM STANDARDS. WHERE ANSI OR ASTM STANDARD DOES NOT EXIST, JOINTS AND FITTINGS SHALL BEAR UL LISTED SYMBOL.
   - B. SERVICE: LIGHT HAZARD ABOVE GROUND WET-PIPE SPRINKLER (2 1/2" AND BELOW).
     PIPE MATERIAL: CPVC (CHLORINATED POLYVINYL CHLORIDE), ASTM D1784
     FITTING MATERIAL: CPVC, ASTM F437 & ASTM F438.
     PIPE JOINT: SOLVENT CEMENT, ASTM F656 & ASTM F493
   - C. SERVICE: ORDINARY HAZARD ABOVE GROUND WET-PIPE SPRINKLER (2 1/2" AND BELOW).
     PIPE MATERIAL: WELDED AND SEAMLESS STEEL PIPE, SCHEDULE 40, ASTM A53.
     FITTING MATERIAL: MALLEABLE IRON, CLASS 150, ANSI B 16.3
     PIPE JOINT: THREADED OR VICTAULIC
   - D. SERVICE: ABOVE GROUND WET-PIPE SPRINKLER (3" AND LARGER):
     PIPE MATERIAL: WELDED AND SEAMLESS STEEL PIPE, SCHEDULE 40, ASTM A53
     FITTING MATERIAL: MALLEABLE IRON, CLASS 150, ANSI B16.3.
     PIPE JOINT: THREADED OR VICTAULIC
2. HANGERS, ANCHORS, CLAMPS, AND INSERTS
   - A. HANGERS SHALL MEET NFPA STANDARDS. PROVIDE ADJUSTABLE SWIVEL RIGHTS FOR PIPING 3" AND SMALLER. SUPPORT PIPING FROM BUILDING STRUCTURE TO MAINTAIN REQUIRED GRADE AND PITCH OF PIPE LINES, PREVENT VIBRATIONS, SECURE PIPING IN PLACE. SECURE HANGERS TO INSERTS WHERE PRACTICAL. HANGER TODS SHALL HAVE MACHINE THREADS.
   - B. HANGER RODS SHALL BE CONNECTED TO BEAM CLAMP. UL-APPROVED CONCRETE INSERTS OR PHILIPS OR APPROVED EQUAL EXPANSION SHIELDS. RAMSET OR POWER DRIVEN INSETS WILL NOT BE ALLOWED.
   - C. HANGER SPACING SHALL MEET REQUIREMENT OF STATE AND LOCAL CODES. PIPE SUPPORTS, VERTICAL AND HORIZONTAL, SHALL NOT BEAR ON SLEEVES.
3. SPRINKLER HEADS
   - A. PROVIDE UL-LISTED AND FM APPROVED FUSIBLE LINK SPRAY SPRINKLER HEADS
   - B. HEADS SHALL HAVE ORDINARY DEGREE TEMPERATURE RATINGS.
   - C. SPRINKLER HEADS SHALL BE RELOCATED OR ADDED TO PROVIDE ADEQUATE COVERAGE THROUGHOUT ALL AREAS IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13.
   - D. WHERE SPRINKLER HEADS ARE SUBJECT TO PHYSICAL DAMAGE PROVIDE PROTECTIVE WIRE GUARD.
4. SPRINKLER SYSTEM INSTALLATION
   - A. WORK SHALL BE NEAT AND RECTILINEAR. PIPING SHALL RUN CONCEALED. WORK SHALL BE PROPERLY AND EFFECTIVELY PROTECTED AND PIPE OPENING SHALL BE TEMPORARILY CLOSED TO PREVENT CONSTRUCTION AND DAMAGE BEFORE COMPLETION.
5. CONTINUITY OF SERVICES
   - A. NOTIFY THE "AUTHORITY HAVING JURISDICTION" WHEN SHUTDOWNS OF EXISTING SYSTEMS ARE NECESSARY.
6. TESTS
   - A. TEST SPRINKLER SYSTEM AS REQUIRED IN NFPA CODE. OWNERS INSURANCE CARRIER, AND AGENCIES THAT HAVE JURISDICTION.
   - B. NOTIFY ARCHITECT AND AGENCIES THAT HAVE JURISDICTION TESTS ARE TO BE MADE. TEST SPRINKLER PIPING AND MAKE WATERTIGHT BEFORE CONCEALMENT. TEST SHALL BE WITNESSED BY THE INSURANCE UNDERWATERS REPRESENTATIVE, THE MUNICIPAL INSPECTOR AND A REPRESENTATIVE OF THE ARCHITECT.
   - C. SPRINKLER SYSTEM SHALL BE TESTED TO HYDROSTATIC TEST OF 200 PSI IN ACCORDANCE WITH NEPA REQUIREMENTS
   - D. IF INSPECTION OR TEST SHOWS DEFECTS, SUCH DEFECTIVE WORK OR MATERIAL, SHALL BE REPLACED AND INSPECTED AND TESTS SHALL BE REPEATED UNTIL WORK IS ACCEPTED. REPAIRS TO PIPING SHALL BE MADE WITH NEW MATERIAL
7. CLEANING
   - A. CLEAN INSTALLATION THOROUGHLY UPON COMPLETION TO REMOVE GREASE, CUTTINGS, DIRT AND OTHER FOREIGN MATERIALS. REPAIR STOPPAGES, DISCOLORATION AND DAMAGE THAT RESULT FROM FAILURE TO CLEAN PIPING PROPERLY WITHIN CONTRACT PRICE.

FIRE PROTECTION ABBREVIATIONS
(NOT ALL ABBREVIATIONS ARE NECESSARILY USED ON THIS PROJECT)

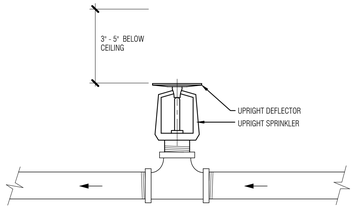
COMP	COMPRESSOR
CV	CHECK VALVE
DIPS	DOUBLE INTERLOCKED PREACTION SPRINKLER SYSTEM
DN	DOWN
DR	DRAIN RISER
DSS	DRY PIPE SPRINKLER SYSTEM
DWG	DRAWING
(E)	EXISTING
FD	FLOOR DRAIN
FS	FLOW SWITCH
GPM	GALLONS PER MINUTE
GV	GATE VALVE
MIN	MINIMUM
(N)	NEW
NTS	NOT TO SCALE
O/G-1	ORDINARY HAZARD - GROUP 1
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH (GAUGE)
SQ.FT.	SQUARE FOOT
SPKR	SPRINKLER
TS	TAMPER SWITCH
WF	WATER FLOW DETECTOR
SP	WET PIPE SPRINKLER SYSTEM

FIRE PROTECTION SYMBOLS
(NOT ALL SYMBOLS ARE NECESSARILY USED ON THIS PROJECT)

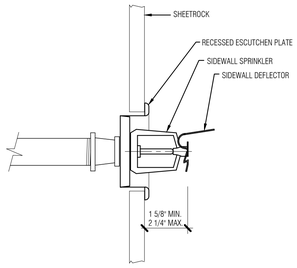
SYMBOL	DESCRIPTION
	WATERFLOW DETECTOR
	BACKFLOW PREVENTER
	DRY PIPE VALVE
	PREACTION DELUGE VALVE
	PREACTION CONTROL PANEL
	PREACTION ALARM HORN WITH FLASHING LIGHT
	SYSTEM CONTROL VALVE
	CHECK VALVE
	SOLENOID RELEASE VALVE
	PRESSURE GUAGE
	3-WAY ALARM TEST SHUT OFF VALVE
	POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
	POINT OF CONNECTION BETWEEN EXISTING AND TO BE REMOVED WORK
DSP	DRYPIPE SPRINKLER SYSTEM
DE	DELUGE SPRINKLER SYSTEM
SP	WET SPRINKLER SYSTEM
	DIRECTION OF FLOW



CONCEALED SPRINKLER HEAD INSTALLATION DETAIL
NO SCALE



UPRIGHT SPRINKLER HEAD INSTALLATION DETAIL
NO SCALE



RECESSED SIDEWALL SPRINKLER HEAD INSTALLATION DETAIL
NO SCALE

SPRINKLER SCHEDULE

SYMBOL	TYPE	TEMPERATURE RATING	ORIFICE DIAMETER	FINISH	BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS	ACCEPTABLE MFGR.
▲	RECESSED HORIZONTAL, SIDEWALL DRY TYPE FOR SALLYPORT	155° F	3/4"	WHITE	GLOBE #GL3642	DRY-TYPE WET-PIPE, QUICK RESPONSE, THERMO-SENSITIVE GLASS BULB SPRAY SPRINKLER, SEMI-RECESSED ESCUTCHEN	VICTAULIC, VIKING, RELIABLE
◉	INSTITUTIONAL PENDENT FOR HOLDING CELL AREAS	165° F	1/2"	CHROME PLATED	TYCO TGP-PH2	STANDARD RESPONSE, THERMO-SENSITIVE SPRAY SPRINKLER, FOR USE IN HOLDING AREA	VICTAULIC, VIKING, RELIABLE
⊠	CONCEALED PENDANT	155° F	1/2"	WHITE	TYCO SERIES RFII	QUICK RESPONSE, THERMO-SENSITIVE GLASS BULB SPRAY SPRINKLER, CONCEALED SPRINKLER COVER	VICTAULIC, VIKING, RELIABLE
△	SIDEWALL	155° F	1/2"	WHITE	VIKING MICROFAST	QUICK RESPONSE, THERMO-SENSITIVE GLASS BULB SPRAY SPRINKLER, SEMI-RECESSED ESCUTCHEN	VICTAULIC, TYCO, RELIABLE
⊙	UPRIGHT	155° F	1/2"	WHITE	TYCO TY-FRB	QUICK RESPONSE, THERMO-SENSITIVE GLASS BULB SPRAY SPRINKLER	VICTAULIC, VIKING, RELIABLE

SPRINKLER SYSTEM DESIGN DATA

OCCUPANCY	NFPA HAZARD CLASSIFICATION	SPRINKLER CRITERIA GPM / SQ.FT.	SPRINKLER TEMPERATURE
OFFICES	NFPA 13 LIGHT HAZARD	0.10 / 1500	155° F
MECHANICAL AREAS / SALLY PORT	ORDINARY HAZARD	0.15 / 1500	155° F

CODE SUMMARY

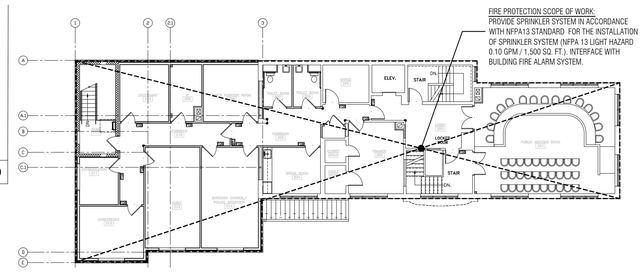
MUNICIPALITY	EDDYSTONE BOROUGH BUILDING, DELAWARE COUNTY, PA
USE AND OCC. CLASSIFICATION	B (BUSINESS)
APPLICABLE CODES	BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE MECHANICAL CODE: 2018 INTERNATIONAL MECHANICAL CODE PLUMBING CODE: 2018 INTERNATIONAL PLUMBING CODE FUEL GAS CODE: 2018 INTERNATIONAL FUEL GAS CODE ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE (BY REFERENCE) FIRE CODE: 2018 INTERNATIONAL FIRE CODE ENERGY CODE: 2018 INTERNATIONAL ENERGY CONSERVATION CODE/ASHRAE 90.1-2016

EDDYSTONE BOROUGH BUILDING RENOVATION
FIRE PROTECTION - DRAWING INDEX

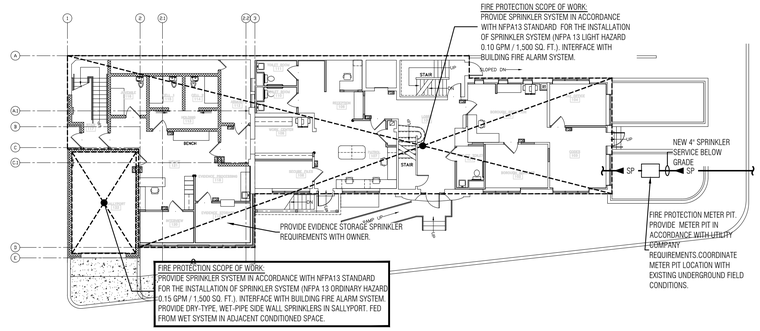
DRAWING NO.	DRAWING TITLE	ISSUE
FP-1	FIRE PROTECTION PLAN	ISSUED FOR BID 01/31/23

FIRE PROTECTION SCOPE - ADD ALTERNATE

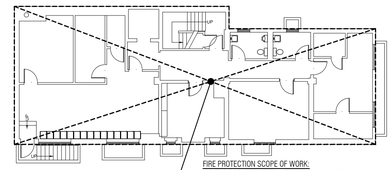
1. PROVIDE A COMPLETE WORKING FIRE PROTECTION SYSTEM PER NFPA 13, LIGHT & ORDINARY HAZARD AS LOCATED ON PLANS, WITH A 4" SPRINKLER SERVICE. COORDINATE SPRINKLER SERVICE WITH UTILITIES COMPANY. PROVIDE METER PIT IN ACCORDANCE WITH UTILITY COMPANY EQUIREMENTS.COORDINATE METER PIT LOCATION WITH EXISTING UNDERGROUND FIELD CONDITIONS. FINAL SPRINKLER DESIGN & SPRINKLER HEAD LOCATION & TYPES ARE TO BE VERIFIED WITH OWNER, ARCHITECT, & ENGINEER. PROVIDE ADD ALTERNATE PRICE FOR FIRE PROTECTION SCOPE OF WORK.



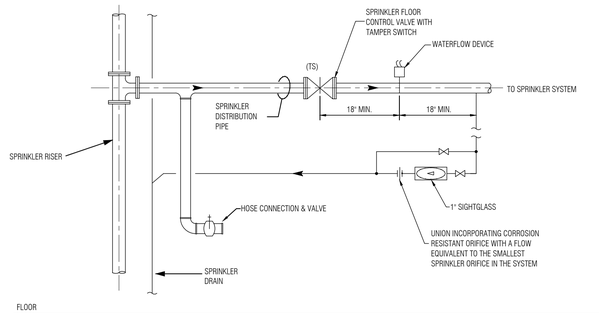
3 FP-1 FIRE PROTECTION SECOND FLOOR PLAN
SCALE - 1/16" = 1'-0"



2 FP-1 FIRE PROTECTION FIRST FLOOR PLAN
SCALE - 1/16" = 1'-0"



1 FP-1 FIRE PROTECTION BASMENT FLOOR PLAN
SCALE - 1/16" = 1'-0"



TYPICAL FLOOR CONTROL ASSEMBLY
NO SCALE

***PROVIDE ADD ALTERNATE PRICE FOR FIRE PROTECTION SCOPE**

LINN ARCHITECTS
ARCHITECTURE
ENGINEERING
SITE PLANNING
INTERIOR DESIGN
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ADVANCED ENGINEERING INC
5561 Pennell Road | Media PA 19063

Project No. 22065

FIRE PROTECTION PLAN
RENOVATIONS TO MUNICIPAL BUILDING
BOROUGH OF EDDYSTONE
1300 E. 12TH ST.
EDDYSTONE, PA 19022

REVISIONS

NO.	DESCRIPTION	DATE
	Issued for Bid	1/31/23

DATE: 1/31/23
SCALE: AS NOTED
DRAWN BY: AG
CHECKED BY: DWF
PROJ. NO.: 22065

SHEET NO.
FP-1
SHEET 1 OF 1