CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CARM1902

3/22/2021

PROJECT LOCATION

CONSULTANT INFORMATION

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.	H2M ARCHITECTS + ENGINEERS	KENNETH A. HIPSKY, P.E., LEED AP
CIVIL ENGINEER PH: (845) 225-9690 3 Garrett Place Carmel, New York 10512	STRUCTURAL ENGINEER PH: (860)-310-9827 538 Broadhollow Road Melville, NY 11747	MEP & FP ENGINEER PH: (860)-310-9827 243 Godfrey Road Mystic, CT 06355

GENERAL NOTES

1. THESE DRAWINGS ARE PART OF THE CONSTRUCTION DOCUMENTS AND ARE FOR THE GENERAL LAYOUT, DIMENSIONS, AND MATERIAL DETAILS OF THIS PROJECT. THEY ARE TO BE USED IN CONJUNCTION WITH THE REMAINDER OF THE ACCOMPANYING CONSTRUCTION DOCUMENTS.
2. IN THE EVENT OF DISCREPANCIES BETWEEN CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING PRIOR TO PROCEEDING AND SHALL NOT PROCEED WITHOUT DIRECTION FROM THE ARCHITECT.
3. FOR CLARITY AND/OR EMPHASIS, DETAIL DRAWINGS MAY NOT SHOW ALL COMPONENTS OR ELEMENTS AT THAT CONDITION. THIS DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PROVIDING THOSE COMPONENTS REASONABLY INFERABLE AND/OR SHOWN OR NOTED ELSEWHERE IN THE CONTRACT DOCUMENTS.
4. ANY/ ALL DIMENSIONS SHALL BE FIELD VERIFIED. CONTRACTORS AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR BRINGING ANY DIMENSIONAL DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT IN WRITING. PLAN DIMENSIONS ARE NOMINAL; DETAIL DIMENSIONS ARE ACTUAL UNLESS OTHERWISE NOTED.
5. A SET OF PLANS BEARING THE ARCHITECTS & ENGINEER'S SEALS SHALL BE KEPT AT THE SITE AT ALL TIMES DURING CONSTRUCTION.
6. ANY ALTERATION TO DRAWINGS BY ANYONE EXCEPT A LICENSED ARCHITECT OR ENGINEER IS PROHIBITED BY LAW. IF ANY ITEM BEARING THE SEAL OF AN ARCHITECT IS ALTERED, THE ALTERING ARCHITECT/ENGINEER SHALL AFFIX TO HIS/HER ALTERATION HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE, DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

PROJECT SEALS

SHEET INDEX

#	SHEET NAME	#	SHEET NAME
G 000	COVER SHEET	P 001	PLUMBING GENERAL INFORMATION
G 010	CODE ANALYSIS - FIRST FLOOR	PD 101	PLUMBING DEMOLITION PLANS
G 011	CODE ANALYSIS - SECOND FLOOR PLAN	P 100	PLUMBING UNDERSLAB PLAN
EX-1	EXISTING CONDITIONS & REMOVALS PLAN	P 101	FIRST FLOOR DRAINAGE PLAN
SP-1	LAYOUT AND LANDSCAPE PLAN	P 102	SECOND FLOOR DRAINAGE PLAN
SP-2	GRADING AND UTILITIES PLAN	P 103	PLUMBING ROOF PLAN
SP-3	EROSION AND SEDIMENT CONTROL PLAN	P 201	FIRST FLOOR PLUMBING SUPPLY PLAN
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PR-2	PROFILES	P 501	PLUMBING SCHEDULES
D-1	DETAILS	FPD 101	FIRE PROTECTION DEMOLITION PLANS
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D-3	DETAILS	M 001	MECHANICAL GENERAL INFORMATION
D-4	DETAILS	MD 101	MECHANICAL DEMOLITION PLANS
S 0	DESIGN CRITERIA AND GENERAL NOTES	M 001	MECHANICAL GENERAL INFORMATION
S 100	FOUNDATION PLAN AND DESIGN LOADS	M 101	FIRST FLOOR MECHANICAL DUCT PLAN
S 101	MASONRY REINFORCING AND SLAB PLAN	M 102	SECOND FLOOR MECHANICAL DUCT PLAN
S 102	MEZZANINE FRAMING PLAN	M 103	MECHANICAL ROOF PLAN
S 103	ROOF FRAMING PLAN	M 200	MECHANICAL RADIANT FLOOR PIPING PLAN
S 500	FOUNDATION DETAILS	M 201	FIRST FLOOR MECHANICAL PIPE PLAN
S 501	FOUNDATION DETAILS	M 202	SECOND FLOOR MECHANICAL PIPE PLAN
S 502	CMU DETAILS	M 301	MECHANICAL DETAILS
S 503	FRAMING DETAILS	M 401	MECHANICAL SCHEDULES
S 504	TRUSS AND FRAMING DETAILS	M 501	MECHANICAL SCHEMATICS
S 505	FRAMING DETAILS	E 001	ELECTRICAL GENERAL INFORMATION
AD 111	DEMO PLAN - FIRST AND SECOND FLOOR PLAN AND ROOF	E 002	ELECTRICAL GENERAL INFORMATION
A 010	PARTITION TYPES, UL LISTINGS, AND LEGENDS	E 003	ELECTRICAL GENERAL INFORMATION
A 101	FLOOR PLAN - FIRST FLOOR	ED 101	LIGHTING DEMOLITION PLANS
A 102	FLOOR PLAN - SECOND FLOOR AND MEZZANINE PLAN	ED 201	POWER DEMOLITION PLANS
A 121	REFLECTED CEILING PLAN - FIRST FLOOR AND DETAILS	E 101	FIRST FLOOR LIGHTING RCP
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A 130	ROOF PLAN AND DETAILS	E 201	FIRST FLOOR POWER PLAN
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A 201	WEST AND NORTH ELEVATIONS AND DETAILS	E 203	ELECTRICAL ROOF PLAN
A 300	BUILDING SECTIONS	E 501	RISER DIAGRAMS
A 301	WALL SECTIONS	E 502	RISER DIAGRAMS
A 302	SECTION DETAILS	E 601	ELECTRICAL SCHEDULES
A 410	ENLARGED PLANS AND ELEVATIONS	E 602	ELECTRICAL SCHEDULES
A 430	ENLARGED PLANS AND ELEVATIONS	E 701	DETAILS
A 470	ENLARGED INTERIOR ELEVATIONS AND MEZZANINE DETAILS	E 702	DETAILS
A 500	PLAN AND SECTION DETAILS	E 703	DETAILS
A 540	ROOFING DETAILS	E 704	DETAILS
A 600	FINISH PLAN, SCHEDULE, AND DETAILS	E 705	DETAILS
A 610	WINDOW SCHEDULE AND DETAILS		
A 620	DOOR SCHEDULE AND DETAILS		

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HUEBER BREUER

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
DAR	TES	AFJ	
PROJECT No:	DATE:	SCALE:	
CARM1902	3/22/2021	AS SHOWN	

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

**94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512**

STATUS

BID SET

DRAWING No.

G 000

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3/22/2021 4:30:17 PM

LIST OF APPLICABLE CODES

2020 BUILDING CODE OF NEW YORK STATE (BCNYS) (PART OF THE NEW YORK STATE UNIFORM FIRE PREVENTION AND BUILDING CODE) ADOPTS WITH AMENDMENTS THE INTERNATIONAL BUILDING CODE 2018
2020 MECHANICAL CODE OF NEW YORK STATE
2020 PLUMBING CODE OF NEW YORK STATE
2020 FIRE CODE OF NEW YORK STATE
2020 FUEL GAS CODE OF NEW YORK STATE
ICC/ANSI A117.1-2009 ACCESSIBLE AND USABLE BUILDING AND FACILITIES
NATIONAL ELECTRIC CODE (NFPA-70, 2017)
2020 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE

2020 Uniform Building Code of New York State (2018 IBC) Code Areas / Occupant Loads

Building Areas (per code section 503)
Used for Building Size Calculations
* See Allowable Building Area Worksheet

First Floor	12,454
Second Floor	10,167
Mezzanine is Excluded (per code section 505.1)	-
Total Building Area S.F.	**22,621**

Gross/Net Floor Areas (per code section 1003 & Table 1004.5)
Used for means of egress occupancy calculations

Occupancy	*Area*	*S.F. Per Occupant*	*Occupant Load*
First Floor			
Apparatus Bay	**7536** sf @	**200** gross	38
Mezzanine	**744** sf @	**300** gross	3
Radio	**168** sf @	**150** gross	2
Turnout Gear	**455** sf @	**50** gross	10
Bay Support Spaces	**462** sf @	**300** gross	2
Members Room	**2750** sf @	**15** net	184
Storage	**418** sf @	**300** gross	2
Mech./Elec.	**430** sf @	**300** gross	2
Kitchen	**235** sf @	**150** gross	2
Second Floor			
Conference Rm.	**276** sf @	**15** net	19
Kitchen/Pantry	**492** sf @	**150** gross	4
Meeting Room	**1945** sf @	**15** net	130
Display	**376** sf @	**150** gross	3
Office Spaces	**970** sf @	**150** gross	7
Existing Mezz.	**822** sf @	**300** gross	3
Mechanical	**513** sf @	**300** gross	2
Ex. App. Bay Storage	**5121** sf @	**300** gross	18
Support/Stor.	**474** sf @	**300** gross	2
Total First Floor Occupants			**245**
Total Second Floor Occupants			**188**
Total Occupants			**433**

*Actual occupancies are greater than the calculated occupancies when grouped

Overall Building Size (inclusive of exterior walls)
Used for zoning footprint and materials estimates

First Floor	14,043
Second Floor	13,489
Total Overall Building Gross S.F.	27,532

Area Increase for Frontage

$I_f = [F/P - .25] (W/30)$

W =	30	W/30 =	1.00
F =	689		
P =	689		
I_f =	75 %		

Total Allowable Area per Floor (Sec. 506.2.2)

$A_a = A_t + (NS \times I_f)$

	VB	⇦ Construction Type
	A-3	⇦ Building Occupancy
A_t =	24,000	⇦ Allowable area for 2 story from Table 506.2 Based on MOST restrictive Use-Sprinklered
NS =	6,000	⇦ Allowable non-sprinklered area
I_f =	75 %	
A_a =	28,500 SF	⇦ Total Allowable Area per Floor

PLUMBING FIXTURE COUNT

		Water Closets		Lavatories		Drinking	Urinals	Service		Shower	
Use	Occupants	Men	Women	Men	Women	Fountains		Sink		Men	Women
A-3	184	0.74	1.42	0.46	0.46	0.37		0.00		0.00	0.00
B	4	0.08	0.08	0.05	0.05	0.04		0.00		0.00	0.00
S-2	57	0.29	0.29	0.29	0.29	0.06		0.00		0.00	0.00
Subtotal 1st Floor		1.10	1.78	0.80	0.80	0.47		1.00		0.00	0.00
A-3	149	0.99	0.99	0.37	0.37	0.30		0.00		0.00	0.00
B	11	0.22	0.22	0.14	0.14	0.11		0.00		0.00	0.00
S-2	28	0.14	0.14	0.14	0.14	0.03		0.00		0.00	0.00
Subtotal 2nd Floor		1.35	1.35	0.65	0.65	0.44		1.00		0.00	0.00
Total 'B'	15	0.00	0.00	0.00	0.00	0.00		0.00		0.00	0
Required Fixtures		3	4	2	2	1		2		0	0
								L: Maximum # of Substitutions for Water Closets			
Provided Fixtures		3	5	3	4	**		3	3	1	1

**= Owner provided portable water coolers. Locations noted on plan.

Miscellaneous Code Information

Use Groups (code section 302)	*S-2, B*
Occupancy Classification (code section 508.3)	*Mixed Use Non-Separated*
Accessory Uses (code section 508.2)	*A-3*
Construction Classification (code section 601)	*VB*

GROSS FLOOR AREA

WORK AREA	FIRST FLOOR	SECOND FLOOR	TOTAL
EXISTING	4,489 SF	12,667 SF	16,199 SF
NEW	9,554 SF	1,779 SF	11,333 SF
TOTAL	14,043 SF	13,489 SF	27,532 SF

FIRST FLOOR ROOM LEGEND

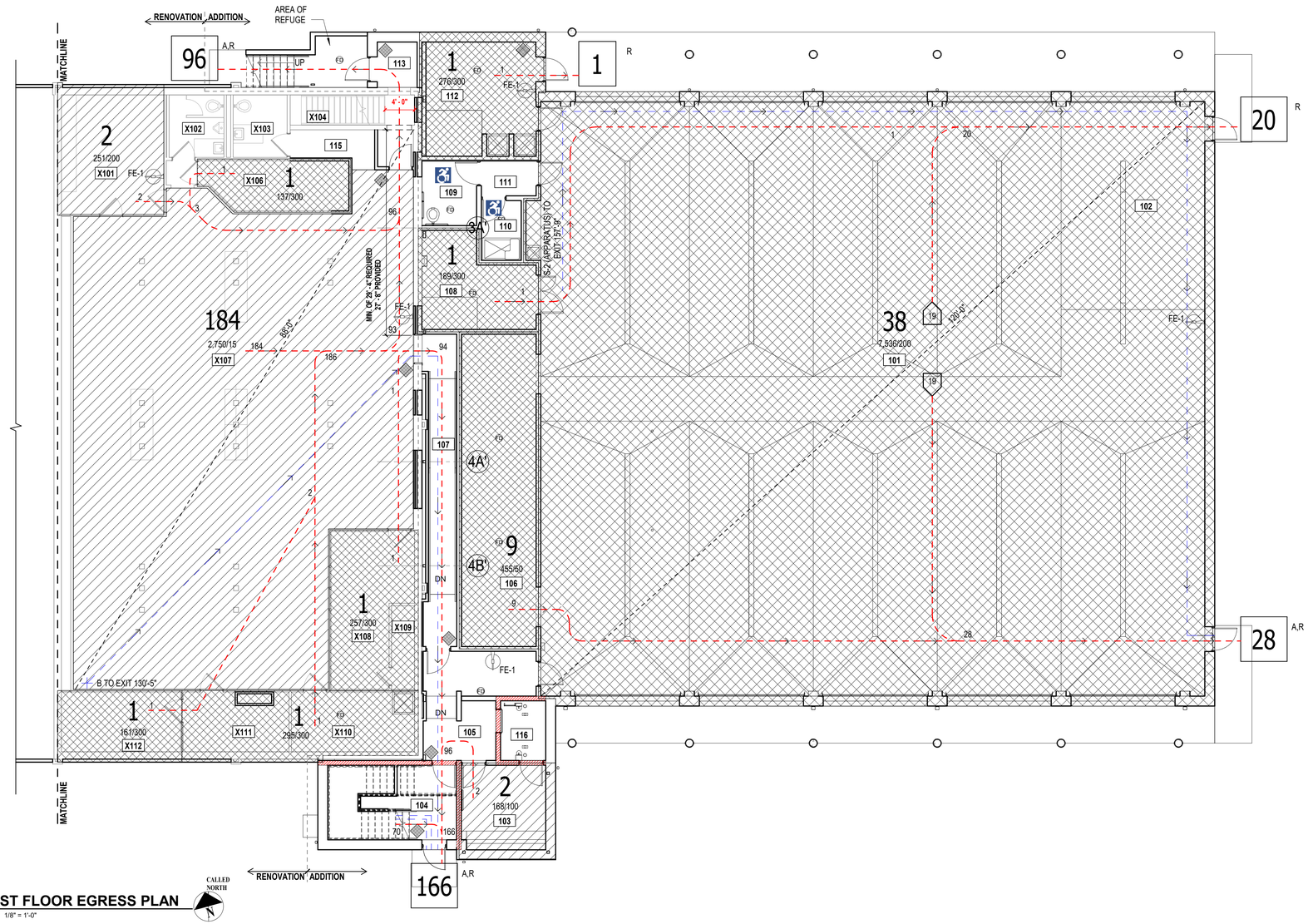
#	NAME
101	APPARATUS BAYS
102	HOSE STORAGE/WORK AREA
103	RADIO ROOM
104	STAIR
105	LOBBY
106	TURNOUT GEAR ROOM
107	CORRIDOR
108	SCBA
109	RESTROOM
110	SHOWER
111	VESTIBULE
112	DECON ROOM
113	VESTIBULE
114	VESTIBULE
115	CORRIDOR
116	ELEVATOR
ELEV	ELEVATOR
X101	KITCHEN
X102	TOILET
X103	TOILET
X104	STAIRS
X106	ELECTRIC
X107	MEMBER'S ROOM
X108	STORAGE
X109	STORAGE
X110	MECHANICAL
X111	UTILITY
X112	STORAGE
X114	CLOSET
XM03	EXISTING MEZZANINE
XM04	EXISTING MEZZANINE

EXIT PLAN LEGEND

- 23 ⇐ CALCULATED OCCUPANTS PER OCCUPIED SPACE
- 4,534/200 ⇐ SQ. FT./AREA PER OCCUPANT, 2020 BCNYS TABLE 1004.5
- NUMBER ⇐ NUMBER OF OCCUPANTS AND DIRECTION OF EXIT TRAVEL WHERE POPULATIONS ARE SPLIT
- NUMBER ⇐ NUMBER OF OCCUPANTS AND DIRECTION OF TRAVEL, CUMULATIVE
- XX' to exit ⇐ MAXIMUM TRAVEL DISTANCE TO EACH EXIT (PER 2020 BCNYS TABLE 1017.2 FOR EACH USE **WITH SPRINKLER** : A: 250', B: 300', S-2: 400')
- XX' to exit ⇐ MAXIMUM TRAVEL DISTANCE TO EACH EXIT (PER 2020 BCNYS TABLE 1017.2 FOR EACH USE **WITHOUT SPRINKLER** : A: 200', B: 200', S-2: 300')
- B ⇐ BUSINESS - FIRE STATION
- A-3 ⇐ ASSEMBLY - (NOTE THAT IN ASSEMBLY OCCUPANCIES NUMBER OF OCCUPANTS MUST BE POSTED PER 2020 BCNYS)
- S-2 ⇐ STORAGE (APPARATUS BAYS) - PER NYS TECHNICAL BULLETIN DATED OCTOBER 31, 2017, RE: 19 NYCRR1221-BUILDING CONSTRUCTION
- S-2 ⇐ STORAGE (SUPPORT SPACES)

- 130 A,R ⇐ TOTAL EXIT LOAD AT DOOR
  - 'A' DENOTES ACCESSIBLE EGRESS
  - 'R' DENOTES RESTRICTED ENTRANCE (SECURE)
- ⇐ PUBLIC ENTRANCE (ACCESSIBLE BY DEFAULT)
- ⇐ RATED WALL (HOUR NOTED IN PLAN)
- ⇐ INCIDENTAL USE SEPARATION PER BCNYS TABLE 509
- ⇐ ACCESSIBLE FACILITIES
- HC ⇐ ACCESSIBLE PLUMBING FIXTURE (SHOWER, SINK, OR URINAL)
- FE-# ⇐ FIRE EXTINGUISHER & TYPE
- FEC-# ⇐ FIRE EXTINGUISHER IN CABINET & TYPE
- ⇐ LOCATION FOR TACTILE 'EXIT' SIGNAGE

NOTE: NOT ALL SYMBOLS WILL BE USED



1 G 010 **FIRST FLOOR EGRESS PLAN**
SCALE: 1/8" = 1'-0"

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CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
DAR	TES	AFJ	
PROJECT No:	DATE:	SCALE:	
CARM1902	3/22/2021	AS SHOWN	

CLIENT
CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

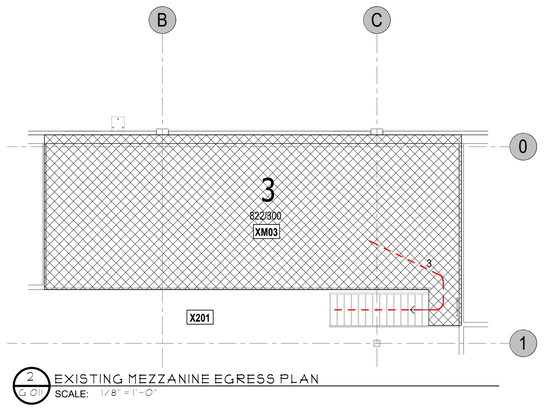
94 GLENEIDA AVE, CARMEL HAMLET NY, 10512

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
BID SET

SHEET TITLE
CODE ANALYSIS - FIRST FLOOR

DRAWING No.
G 010



2 G 011 EXISTING MEZZANINE EGRESS PLAN
SCALE: 1/8" = 1'-0"

SECOND FLOOR ROOM LEGEND

#	NAME
201	STAIRS
202	SECOND FLOOR LOBBY
203	CORRIDOR
204	STORAGE
206	Room
ELEV	ELEVATOR
M01	MEZZANINE
M02	MECH. ROOM
X201	APPARATUS BAYS
X202	DISPLAY ROOM
X203	CONFERENCE ROOM
X204	CHIEF'S OFFICE
X205	FILE ROOM
X206	ADMIN OFFICE
X207	DISPATCH
X208	STORE ROOM
X209	COMPRESSOR
X210	OFFICE
X211	UTILITY ROOM
X212	PANTRY
X213	KITCHEN
X215	FOYER
X216	STAIR
X217	MEN'S ROOM
X218	WOMEN'S ROOM
X219	MEETING HALL
X220	CORRIDOR
XM03	EXISTING MEZZANINE
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- A-3 — ASSEMBLY - (NOTE THAT IN ASSEMBLY OCCUPANCIES NUMBER OF OCCUPANTS MUST BE POSTED PER 2020 BCNYS)
- S-2 — STORAGE (APPARATUS BAYS) - PER NYS TECHNICAL BULLETIN DATED OCTOBER 31, 2017, RE: 19 NYCRR1221-BUILDING CONSTRUCTION
- S-2 — STORAGE (SUPPORT SPACES)
- 130 A,R — TOTAL EXIT LOAD AT DOOR
- 'A' — DENOTES ACCESSIBLE EGRESS
- 'R' — DENOTES RESTRICTED ENTRANCE (SECURE)
- PUBLIC ENTRANCE (ACCESSIBLE BY DEFAULT)
- RATED WALL (HOUR NOTED IN PLAN)
- INCIDENTAL USE SEPARATION PER BCNYS TABLE 509
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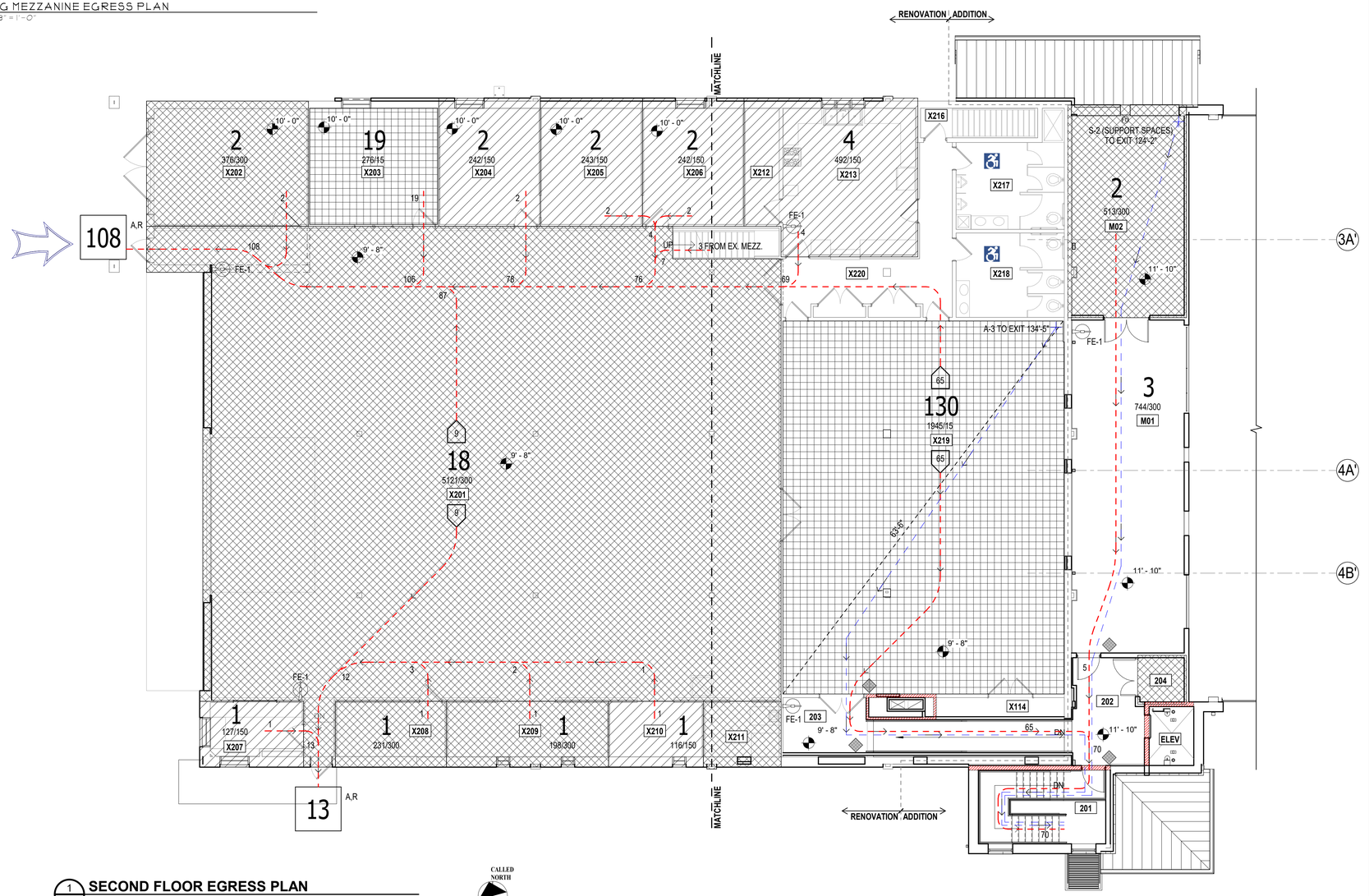
- FE-# — FIRE EXTINGUISHER & TYPE
- FEC-# — FIRE EXTINGUISHER IN CABINET & TYPE
- LOCATION FOR TACTILE 'EXIT' SIGNAGE

NOTE: NOT ALL SYMBOLS WILL BE USED



1 G 011 SECOND FLOOR EGRESS PLAN
SCALE: 1/8" = 1'-0"

CALLED NORTH

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CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
DAR	TES	AFJ	

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

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CARMEL HAMLET NY, 10512

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

BID SET

SHEET TITLE

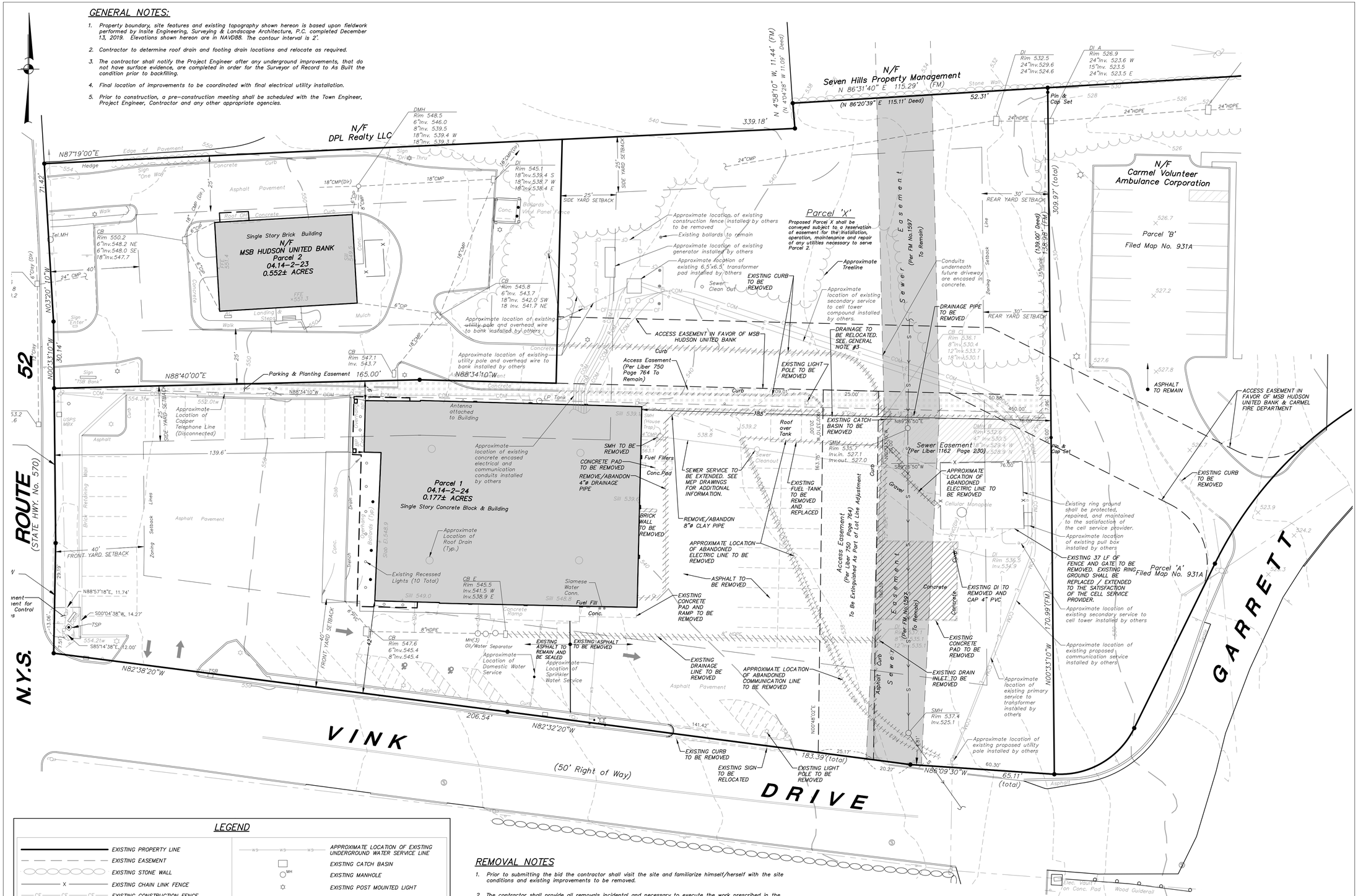
CODE ANALYSIS - SECOND FLOOR PLAN

DRAWING No.

G 011

GENERAL NOTES:

1. Property boundary, site features and existing topography shown hereon is based upon fieldwork performed by Insite Engineering, Surveying & Landscape Architecture, P.C. completed December 13, 2019. Elevations shown hereon are in NAVD88. The contour interval is 2'.
2. Contractor to determine roof drain and footing drain locations and relocate as required.
3. The contractor shall notify the Project Engineer after any underground improvements, that do not have surface evidence, are completed in order for the Surveyor of Record to As Built the condition prior to backfilling.
4. Final location of improvements to be coordinated with final electrical utility installation.
5. Prior to construction, a pre-construction meeting shall be scheduled with the Town Engineer, Project Engineer, Contractor and any other appropriate agencies.



LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING STONE WALL
- EXISTING CHAIN LINK FENCE
- EXISTING CONSTRUCTION FENCE
- EXISTING CONCRETE CURB
- EXISTING DROP IN CONCRETE CURB
- EXISTING TRAFFIC SIGNAL BOX
- EXISTING SIGN
- EXISTING UNDERGROUND DRAINAGE PIPE
- APPROXIMATE LOCATION OF EXISTING ROOF DRAIN
- APPROXIMATE LOCATION OF EXISTING UNDERGROUND COMMUNICATION LINE
- APPROXIMATE LOCATION OF EXISTING UNDERGROUND SECONDARY ELECTRIC LINE
- APPROXIMATE LOCATION OF EXISTING UNDERGROUND PRIMARY ELECTRIC LINE
- APPROXIMATE LOCATION OF EXISTING UNDERGROUND WATER SERVICE LINE
- EXISTING CATCH BASIN
- EXISTING MANHOLE
- EXISTING POST MOUNTED LIGHT
- EXISTING RECESSED LIGHT
- EXISTING WATER VALVE
- EXISTING CLEAN OUT
- EXISTING UTILITY POLE
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE
- EXISTING HEDGE ROW
- EXISTING TREELINE
- EXISTING BOLLARD

REMOVAL NOTES

1. Prior to submitting the bid the contractor shall visit the site and familiarize himself/herself with the site conditions and existing improvements to be removed.
2. The contractor shall provide all removals incidental and necessary to execute the work prescribed in the contract documents. All existing features specified to be removed shall be removed in their entirety unless otherwise authorized in writing by the owner or the project engineer.
3. Contractor shall coordinate installation of replacement utility systems or provide temporary system (if approved by Project Engineer) before removal.
4. These drawings are intended to show an overall Limit of Disturbance and general features to be removed. Not all features incidental to the general scope of the site work has been shown to be removed. The contractor shall be responsible for all removals within the limits of both above and below grade features, necessary for the construction of the site improvements shown hereon.
5. All building materials as noted to be removed shall be demolished and removed from the site.
6. Burying of any demolished building materials on site is prohibited. Building foundations may be crushed and abandoned, filled in and restored in accordance with the project specifications.
7. Existing signs on light poles shall be removed, stored for the duration of the project and reinstalled at the direction of Carmel Fire Department.

GRAPHIC SCALE

0 10 20 40

(IN FEET)
1 inch = 20 ft.

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CONSULTANTS:
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MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JMW/KMG	JFR	KMG	JMW
PROJECT No:	DATE:		SCALE:
19135.100	3-22-21		1" = 20'

CLIENT

CARMEL FIRE DEPARTMENT

ADDITION/RENOVATION

94 GLENEIDA AVENUE
Carmel, NY 10512

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

BID SET

SHEET TITLE

EXISTING CONDITIONS & REMOVALS PLAN

DRAWING No.

EX-1

Z:\EVE\19100 Carmel FD\Construction Drawings\01 EX-1.dwg, 3/22/2021 4:32:24 PM, cazzaro, 1:1

C ZONE REQUIREMENTS:

	Required/Permitted:	Existing:	Proposed:
Minimum Lot Area:	40,000 SF	94,830 SF	94,830 SF
Minimum Lot Width:	200'	261'±	261'±
Minimum Lot Depth:	200'	450'±	450'±
Minimum Road Frontage:	100'	574.7'±	574.7'±
Minimum Yard Setbacks:			
Front:	40'	42'±	41'±
Side:	25'	8.9'±*	8.9'±*
Rear:	30'	185'±	78'±
Maximum Building Height:	35'	Less Than 35'	Less Than 35'
Minimum Building Floor Area	5,000 SF	>5,000 SF±	26,900 SF±
Maximum Building Coverage:	30%	14%±**	22%±**

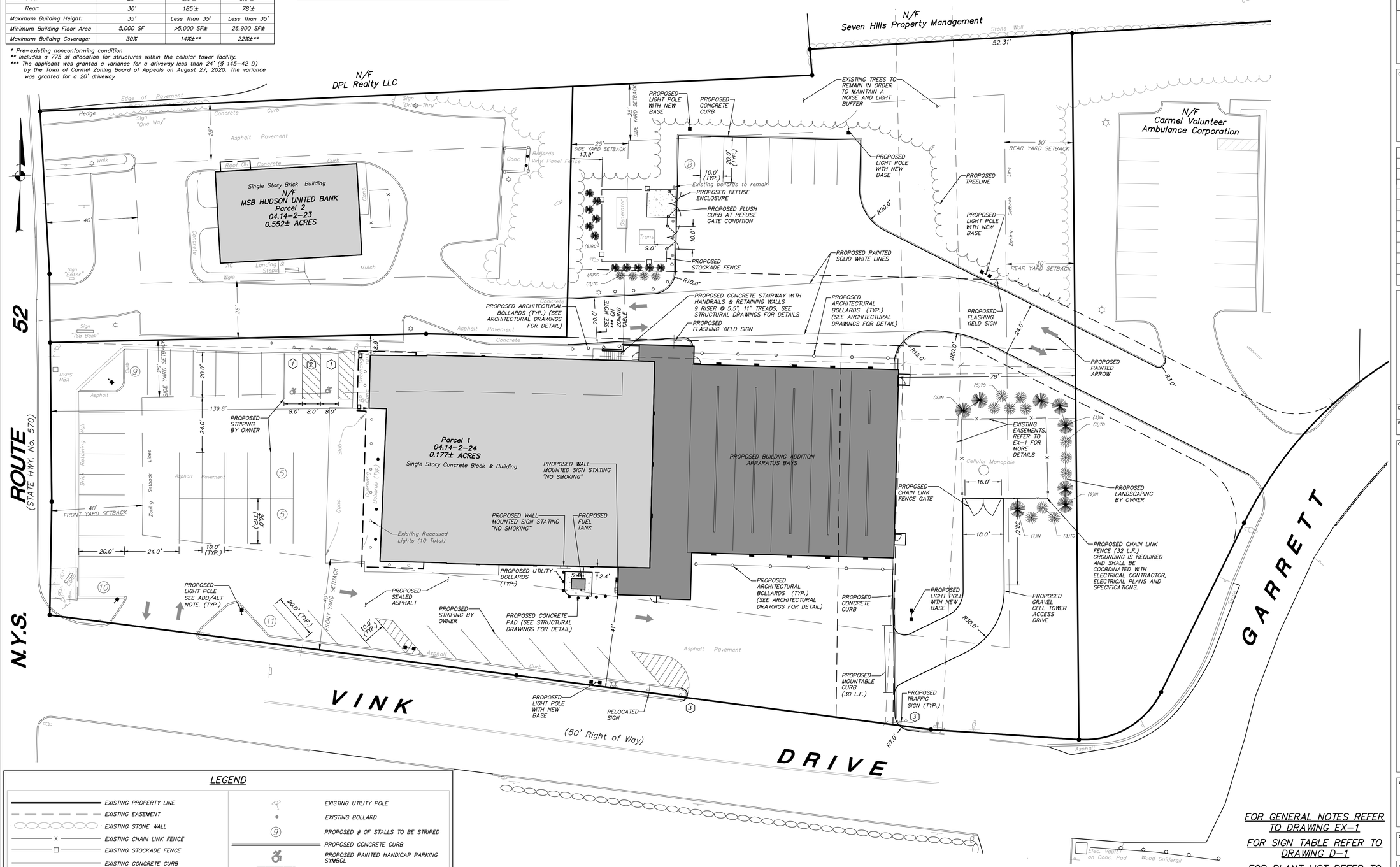
* Pre-existing nonconforming condition
** Includes a 775 sf allocation for structures within the cellular tower facility.
*** The applicant was granted a variance for a driveway less than 24' (§ 145-42 D) by the Town of Carmel Zoning Board of Appeals on August 27, 2020. The variance was granted for a 20' driveway.

PARKING SUMMARY

REQUIRED:

FIRE DEPARTMENT SPACES (CALCULATED AS WHOLESALE, WAREHOUSE, STORAGE, HEAVY COMMERCIAL ESTABLISHMENTS)
12,524 S.F. @ 1 SPACE/1,000 S.F. = 13 REQUIRED
6,976 S.F. OF OFFICE SPACE @ 1 SPACE/200 S.F. = 35 REQUIRED
* 7,400 S.F. OF APPARATUS BAYS ARE NOTE INCLUDED PARKING CALCULATIONS

TOTAL PARKING SPACE REQUIRED = 48 REQUIRED
TOTAL PARKING SPACE PROVIDED = 48 PROVIDED



LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING STONE WALL
- EXISTING CHAIN LINK FENCE
- EXISTING STOCKADE FENCE
- EXISTING CONCRETE CURB
- EXISTING DROP IN CONCRETE CURB
- EXISTING SIGN
- EXISTING HEDGE ROW
- EXISTING TREELINE
- EXISTING POST MOUNTED LIGHT
- EXISTING RECESSED LIGHT
- EXISTING UTILITY POLE
- EXISTING BOLLARD
- PROPOSED # OF STALLS TO BE STRIPED
- PROPOSED CONCRETE CURB
- PROPOSED PAINTED HANDICAP PARKING SYMBOL
- PROPOSED STRIPED ISLAND
- PROPOSED SINGLE POLE SIGN
- PROPOSED WALL MOUNTED SIGN
- PROPOSED POLE MOUNTED LIGHT
- PROPOSED BUILDING MOUNTED LIGHT
- PROPOSED LANDSCAPING
- PROPOSED BOLLARDS

LIGHT POLE ADD/ALT NOTE

1. Light poles, unless otherwise noted, shall utilize the existing concrete base and utility connection.
2. Contractor shall provide an add/alt unit pricing in the bid package for the removal and replacement of existing light pole base foundation and the disconnection and reconnection of the electrical conduits, wiring and associated ground / ground rods that may be disturbed during removal and installation.

SEAL COAT & CRACK SEAL NOTES

1. All visible cracks in the pavement, within the above noted limits, wider than 1/4" shall be sealed with hot tar. Upon completion of crack sealing, the entire area shall be seal coated.
2. Carmel Fire Department is responsible for restriping the pavement after completion of seal coating to match existing conditions or proposed conditions as note on the project plans.

FOR GENERAL NOTES REFER TO DRAWING EX-1

FOR SIGN TABLE REFER TO DRAWING D-1

FOR PLANT LIST REFER TO DRAWING D-2

GRAPHIC SCALE
0 10 20 40
(IN FEET)
1 inch = 20 ft.

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www.insite-eng.com

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JMW/KMG	JFR	KMG	JMW

PROJECT No:	DATE:	SCALE:
19135.100	3-22-21	1" = 20'

CLIENT

CARMEL FIRE DEPARTMENT

ADDITION/RENOVATION

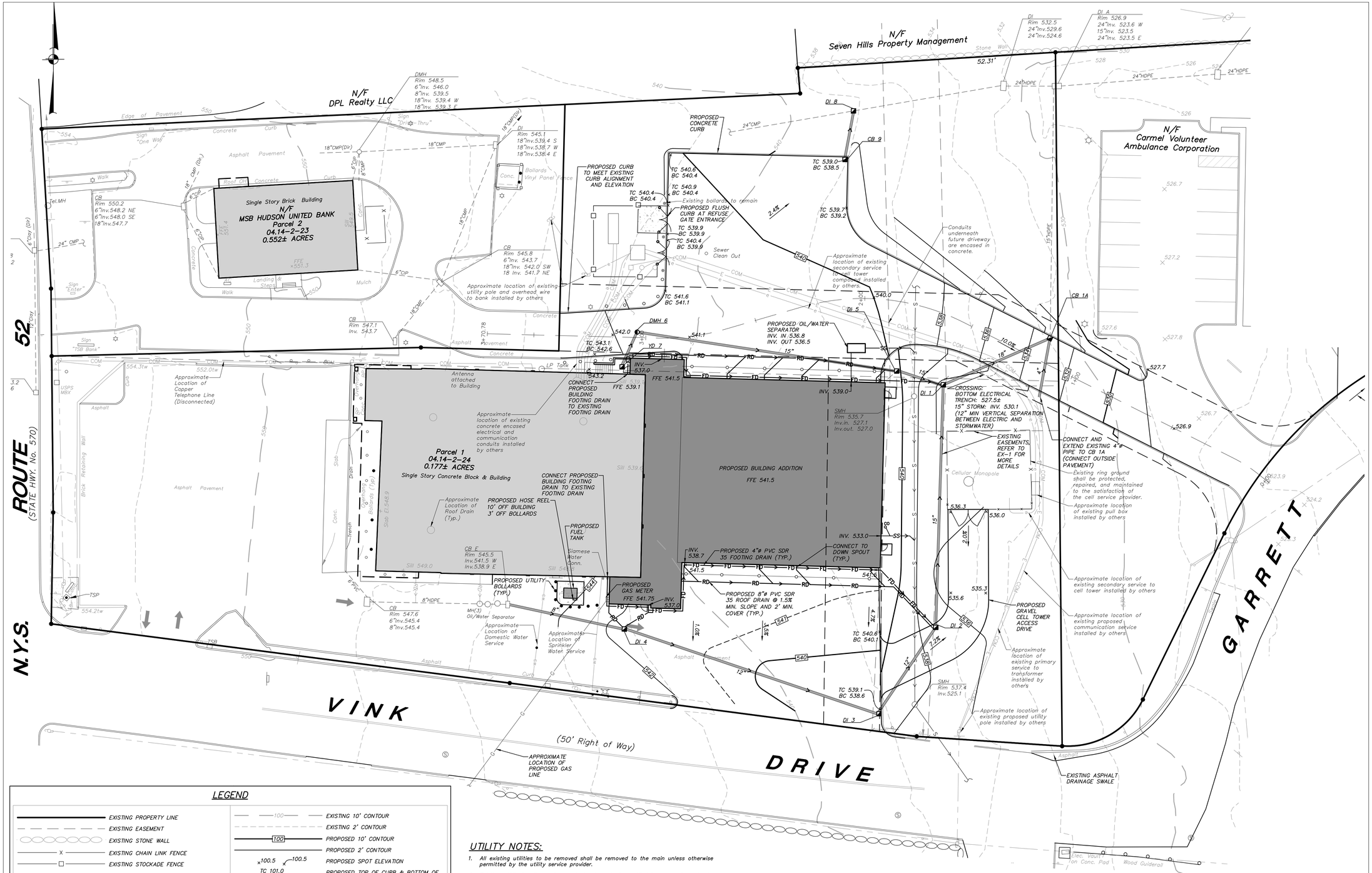
94 GLENEIDA AVENUE
Carmel, NY 10512

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
BID SET

SHEET TITLE
LAYOUT & LANDSCAPE PLAN

DRAWING No.
SP-1



LEGEND

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- EXISTING DROP IN CONCRETE CURB
- EXISTING TRAFFIC SIGNAL BOX
- EXISTING SIGN
- EXISTING UNDERGROUND DRAINAGE PIPE
- EXISTING CATCH BASIN
- EXISTING MANHOLE (type unidentified)
- EXISTING POST MOUNTED LIGHT
- EXISTING RECESSED LIGHT
- EXISTING WATER VALVE
- EXISTING CLEAN OUT
- EXISTING UTILITY POLE
- EXISTING SPOT GRADE
- EXISTING BOLLARD
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED TOP OF CURB & BOTTOM OF CURB ELEVATIONS
- PROPOSED DRAINAGE MANHOLE
- PROPOSED DRAIN INLET (DI) OR CATCH BASIN (CB)
- PROPOSED N-12 HDPE DRAINAGE PIPE
- PROPOSED 4"ø PVC SDR 35 SEWER SERVICE LINE WITH CLEANOUT
- PROPOSED 8"ø PVC SDR 35 ROOF DRAIN
- PROPOSED 4"ø PVC SDR 35 FOOTING DRAIN
- PROPOSED COMMUNICATIONS SERVICE
- PROPOSED PRIMARY ELECTRICAL SERVICE
- PROPOSED SECONDARY ELECTRICAL SERVICE
- PROPOSED OVERHEAD WIRE
- PROPOSED UTILITY POLE

UTILITY NOTES:

1. All existing utilities to be removed shall be removed to the main unless otherwise permitted by the utility service provider.
2. Existing utility locations, sizes and elevations to be verified by contractor prior to the start of construction and any discrepancies reported to the construction manager immediately.
3. The location of the proposed electric and gas service lines for the property are approximate and subject to the utility company design. The contractor shall coordinate with the owner and utility service provider(s) to determine the location of the site's electric and gas service connections. The contractor shall be responsible for obtaining all required permits necessary for the installation of utility connections, and shall provide electric service lines to each light in accordance with the owner's direction, manufacturer's specifications, and applicable electric code.
4. The gas, electric and communication utilities shall be installed in accordance with the utility provider specifications including but not limited to provided the proper bedding, cover, and detectible warning tape / tracer wire.
5. It shall be the Contractor's responsibility to locate all overhead wires and utility poles, if any, in the vicinity of the proposed work. Furthermore it is the Contractor's responsibility to make the necessary arrangements to perform the work in the vicinity of these overhead wires.
6. Should any utility poles require bracing or relocating to accomplish the proposed work, it shall be the Contractor's responsibility to make the appropriate arrangements to properly secure or relocate such utility poles. The contractor will not receive any additional payment for utility pole bracing or relocating. The Contractor must include any costs for such work within their bid submittal.
7. When structures are to be placed on existing utility lines or where the proposed utility lines are assume to cross existing utilities, the contractor shall locate the existing utility and shall verify its existing invert elevation. The Contractor shall notify the architect/engineer if different utility invert elevations or locations are revealed by field exploration.
8. All sewer manhole pipe penetrations shall be provided with a waterproof rubber boot and gasket.
9. Whenever a connection to an existing pipe or structure is shown, the Contractor shall confirm existing pipe materials of construction, dimensions, and connection requirement prior to submitting materials for approval.
10. The locations of existing utilities, water, sewers, and drainage structures have been indicated based on the best available information. It is possible that the actual subsurface utilities and piping may vary from that indicated. Therefore, prior to starting work in any area, the contractor shall take the necessary steps to determine the locations of all existing underground piping, conduit and structures. The contractor shall carry out his operations in such a manner as to prevent interference with lines which are to remain alone. Any pipe or conduit disturbed in the course of contract shall be repaired by the contractor at no extra cost to the owner.
11. Where interference with other utilities or construction are encountered during construction of new utility lines, the contractor may adjust the alignment or invert elevations of that system only at the direction of the project architect or engineer.
12. The contractor shall exercise extreme caution when working adjacent to active power and communication lines to prevent damage to these lines. the contractor shall hand excavate test pits to expose those lines prior to performing any other excavation work in the area. the contractor shall repair at his/her expense, any power or communication interruption immediately.

FOR GENERAL NOTES REFER TO DRAWING EX-1

GRAPHIC SCALE
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(IN FEET)
1 inch = 20 ft.

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MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JMW/KMG	JFR	KMG	JMW

PROJECT No:	DATE:	SCALE:
19135.100	3-22-21	1" = 20'

CLIENT
CARMEL FIRE DEPARTMENT

ADDITION/RENOVATION

94 GLENEIDA AVENUE
Carmel, NY 10512

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
BID SET

SHEET TITLE
GRADING & UTILITIES PLAN

DRAWING No.
SP-2

CONSTRUCTION SEQUENCE: (Total Area of Disturbance = 42,364 SF±)

1. Schedule Pre-Construction meeting with Site Engineer / Town.
2. Install silt fence and stabilized construction entrance as shown on plans in accordance with the plan and detail. Install orange construction fence in locations shown on the plan.
3. Contractor shall sequence operations to maintain two way traffic for the bank property across the fire department property to Vink Drive or Garrett Place.
4. Begin clearing and grubbing operations associated with the site work improvements.
5. Install drainage structures CB 1A and DI 1 and pipe from CB 1A to DI 1 including connections to existing drainage pipes. Extend existing 4"pipe to CB 1A and provide temporary connection of 18"CMP from CB C to DI 1. Work shall include removal of drainage structure DMH B and existing pipe between DMH B and new structures CB 1A and DI 1.
6. Complete curb grading, subbase and binder course paving for the new access driveway from the existing Ambulance Corporation driveway from Station 0+00 to Station 1+75.
7. Provide temporary gravel driveway (8"NYSDOT Item 304.12 compacted to prevent rutting) as shown on plan. Short term road closure for filling and construction of temporary gravel driveway shall not exceed two days. Pitch temporary driveway to the north and grade area to prevent puddles on temporary driveway. Install barrels to delineate traffic areas. Barrel Spacing to be a maximum of 25' on center. Provide a minimum of two Road Closed Signs and temporary movable barriers for temporary traffic diversions. Complete removal of existing site features to provide a smooth transition from the temporary gravel road to pavement near bank property and binder course of new access driveway.
8. Install Drainage structures DI 2, DI 3, DI 4 and complete pipe connections including connection to existing CB E. Remove drainage structure DI D and pipe to CB C and DI E.
9. Remove asphalt within building excavation area and begin building excavation and foundation. Protect existing sewer service connection from damage and frost to maintain sewer service until new sewer service is complete and authorization to put the new sewer service online is given by Design Team. Complete remaining drainage and roof drain leaders to protect excavation.
10. Construct building and appurtenances.
11. Complete removals and install subbase and pavement for parking lot and driveway areas.
12. Upon completion of all work, stabilize disturbed areas in accordance with the Sediment and Erosion Control Notes. Permanent stabilization is achieved when 80% of the plant/grass density is established.
13. Once the site has achieved final stabilization, remove all temporary sediment and erosion control facilities. Reseed areas disturbed by removal.

REQUIRED SWPPP CONTENTS PER GP-0-20-001:

1. Pursuant to the NYSDEC "SPDES General Permit for Stormwater Discharges from Construction Activity" (GP-0-20-001), all Stormwater Pollution Prevention Plan's (SWPPP) shall include erosion and sediment control practices designed in conformance with the most current version of the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." Where erosion and sediment control practices are not designed in conformance with this technical standard, the owner or operator must demonstrate equivalence to the technical standard. The following list of required SWPPP components is provided in accordance with Part III.B.1a-l of General Permit GP-0-20-001:

a. Background Information: The proposed project includes a building addition which consists of a new apparatus bay space, support spaces for equipment, storage and training as well as the addition of a new driveway, relocation of utilities and site amenities. The existing building will be repurposed to include office, meeting and display spaces.

b. Site map / construction drawing: These plans serve to satisfy this SWPPP requirement.

c. Description of the soils present at the site: Onsite soils located within the proposed limits of disturbance consist of Urban land-Charlton complex (UhB), as identified on the Soil Conservation Service Web Soil Survey. These soil types belong to the Hydrologic Soil Group " D."

d. An inspection schedule: Inspections are to be performed daily by a NYSDEC Trained Contractor as cited in the Erosion and Sediment Control Notes.

e. Construction phasing plan / sequence of operations: The Construction Sequence and phasing found on these plans provide the required phasing. A Construction Sequence and Erosion and Sediment Control Maintenance Schedule has been provided. The Sedimentation and Erosion Control Notes contained hereon outline a general sequence of operations for the proposed project. In general all erosion and sediment control facilities shall be installed prior to commencement with land disturbing activities, and areas of disturbance shall be limited to the shortest period of time as practicable.

f. Description of erosion and sediment control practices: This plan, and details / notes shown hereon serve to satisfy this SWPPP requirement.

g. Temporary and permanent soil stabilization plan: The Sedimentation and Erosion Control Notes and Details provided heron identify temporary and permanent stabilization measures to be employed with respect to specific elements of the project, and at the various stages of development.

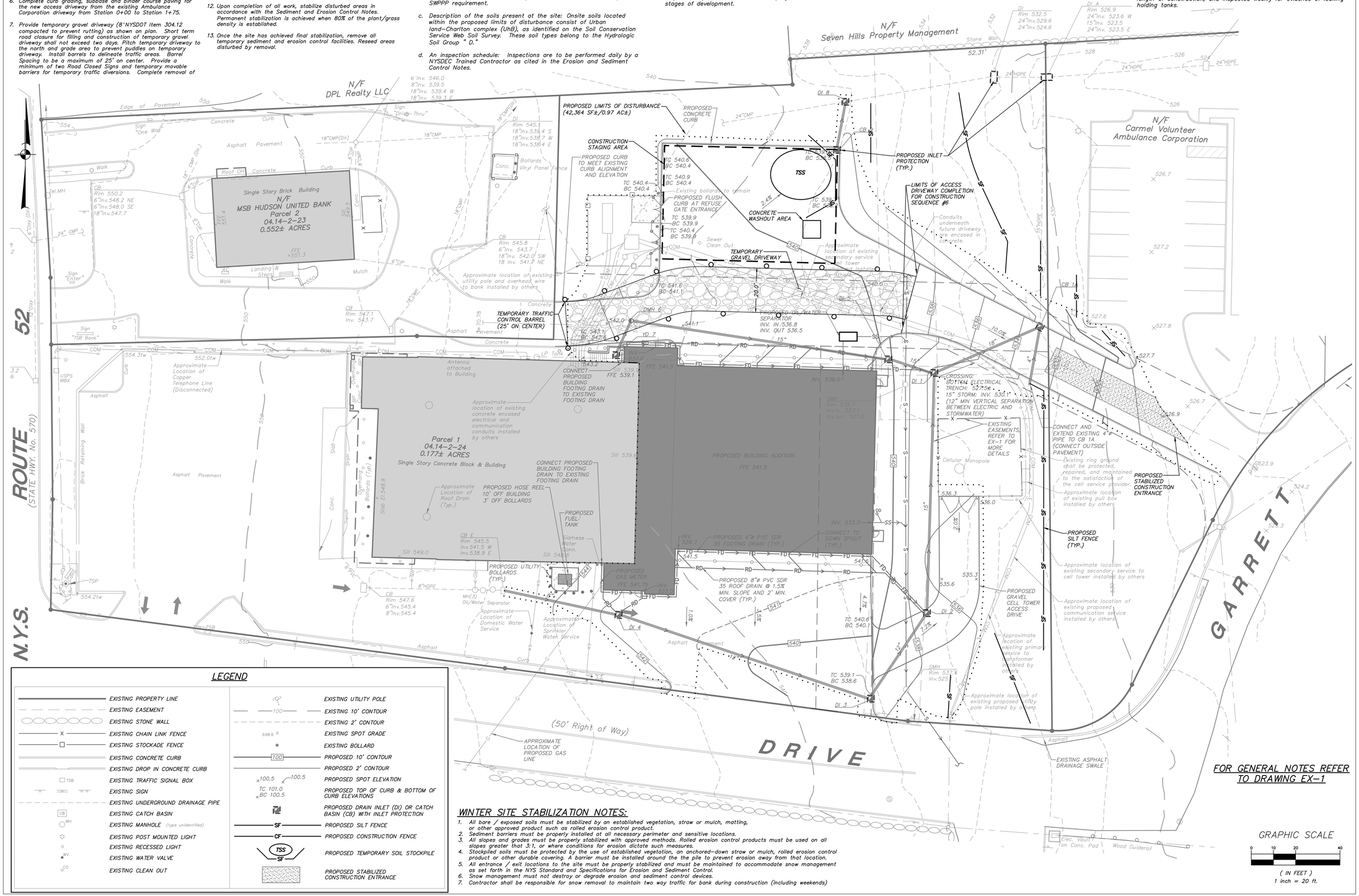
h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices: The details, Erosion and Sediment Control Notes, and Erosion and Sediment Control Maintenance Schedule serve to satisfy this SWPPP requirement.

i. A description and location of any stormwater discharges associated with industrial activity other than construction at the site: There are no known industrial stormwater discharges present or proposed at the site.

j. Identification of any elements of the design that are not in conformance with the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." All proposed elements of this SWPPP have been designed in accordance with the "New York Standards and Specifications for Erosion and Sediment Control."

k. Site map / construction drawing showing the specific locations, sizes, and lengths of each erosion and sediment control practice: This plan serves to satisfy this SWPPP requirement.

l. A description of pollution prevention measures that will be used to control litter, construction chemicals and construction debris: In general, all construction litter / debris shall be collected and removed from the site. The general contractor shall supply either waste barrels or dumpster for proper waste disposal. Any construction chemicals utilized during construction shall either be removed from site daily by the contractor or stored in a structurally sound and weatherproof building. No hazardous waste shall be disposed of onsite, and shall ultimately be disposed of in accordance with all federal, state and local regulations. Material Safety Data Sheets (MSDS), material inventory, and emergency contact numbers shall be maintained by the general contractor for all construction chemicals utilized onsite. Finally, temporary sanitary facilities (portable toilets) shall be provided onsite during the entire length of construction, and inspected weekly for evidence of leaking holding tanks.



LEGEND

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- EXISTING CATCH BASIN
- EXISTING MANHOLE (type unidentified)
- EXISTING POST MOUNTED LIGHT
- EXISTING RECESSED LIGHT
- EXISTING WATER VALVE
- EXISTING CLEAN OUT
- EXISTING UTILITY POLE
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
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- EXISTING BOLLARD
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED TOP OF CURB & BOTTOM OF CURB ELEVATIONS
- PROPOSED DRAIN INLET (DI) OR CATCH BASIN (CB) WITH INLET PROTECTION
- PROPOSED SILT FENCE
- PROPOSED CONSTRUCTION FENCE
- PROPOSED TEMPORARY SOIL STOCKPILE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE

WINTER SITE STABILIZATION NOTES:

1. All bare / exposed soils must be stabilized by an established vegetation, straw or mulch, matting, or other approved product such as rolled erosion control product.
2. Sediment barriers must be properly installed at all necessary perimeter and sensitive locations.
3. All slopes and grades must be properly stabilized with approved methods. Rolled erosion control products must be used on all slopes greater that 3:1, or where conditions for erosion dictate such measures.
4. Stockpiled soils must be protected by the use of established vegetation, an anchored-down straw or mulch, rolled erosion control product or other durable covering. A barrier must be installed around the the pile to prevent erosion away from that location.
5. All entrance / exit locations to the site must be properly stabilized and must be maintained to accommodate snow management as set forth in the NYS Standard and Specifications for Erosion and Sediment Control.
6. Snow management must not destroy or degrade erosion and sediment control devices.
7. Contractor shall be responsible for snow removal to maintain two way traffic for bank during construction (including weekends)

FOR GENERAL NOTES REFER TO DRAWING EX-1

GRAPHIC SCALE
0 10 20 40
(IN FEET)
1 inch = 20 ft.

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JMW/KMG	JFR	KMG	JMW

PROJECT No:	DATE:	SCALE:
19135.100	3-22-21	1" = 20'

CLIENT
CARMEL FIRE DEPARTMENT

ADDITION/RENOVATION

94 GLENEIDA AVENUE
Carmel, NY 10512

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
BID SET

SHEET TITLE
EROSION & SEDIMENT CONTROL PLAN

DRAWING No.
SP-3

architectural area lighting

UCM2

ARCHITECTURAL AREA/SITE

UNIVERSE®

FEATURES

- Reliable, uniform, glare free illumination
- Types II, III, IV, V and custom distributions
- 3000K, 4000K, 5000K CCT
- 0-10V dimming ready
- Integral surge suppression
- 15 standard powder coat finishes
- Upgrade Kits

3000K and warmer CCTs only

CONTROL TECHNOLOGY

wiSCAPE · HUBBELL · HUBBELL Lighting

LUMINAIRE SCHEDULE

Symbol	Qty	Catalog Number	Description	Lamp	Mounting Height
A	2	UCM2–SR–FLR–ANG–36L–260–3K7–4W–DBT–SLA7–HS–PCAC–UNV	ARCHITECTURAL AREA LIGHTING, UNIVERSE COLLECTION, MEDIUM 2.0, HOUSE–SIDE SHIELD	LED	18' – 0"
B	3	UCM2–SR–FLR–ANG–36L–260–3K7–4W–DBT–SLA7–PCAC–UNV	ARCHITECTURAL AREA LIGHTING, UNIVERSE COLLECTION, MEDIUM 2.0	LED	18' – 0"
C	4	UCM2–SR–FLR–ANG–36L–260–3K7–4W–DBT–SLA7–PCAC–UNV	ARCHITECTURAL AREA LIGHTING, UNIVERSE COLLECTION, MEDIUM 2.0	LED	18' – 0"
D	10	UCM2–SR–FLR–ANG–36L–260–3K7–4W–DBT–PCAC–UNV*	ARCHITECTURAL AREA LIGHTING, UNIVERSE COLLECTION, MEDIUM 2.0	LED	18' – 4 1/2"
E	1	LNC3–24L–4K–035–3–1–DBT–PCU–EH	HUBBELL MIDSIZED WALL PACK, 24 LEDS, 4000K, 70 CRI, 350 MA DRIVE CURRENT, TYPE 3 IES DISTRIBUTION, 120V, 28W	LED	10'–0"
○	10	N/A	EXISTING RECESSED BUILDING MOUNTED LIGHTING. MODELED FOR REFERENCE ONLY.	LED	N/A
☼	4	N/A	EXISTING FIXTURES. MODELED FOR REFERENCE ONLY.	LED	N/A

* Final wall–mounted light to be coordinated with Project Architect

STATISTICS

DESCRIPTION	SYMBOL	AVG	MAX	MIN	AVG/MAX	AVG/MIN
Project Area	+	0.5 fc	5.4 fc	0.0 fc	N/A	N/A

LIGHTING NOTES:

1. All lighting shall be as noted on the plan or approved equal.
2. Style and finish of all luminaires to be selected by owner.
3. Calculation values shown in this plan are taken on a horizontal plane at ground level using a 0.90 light loss factor for LEDs. Topographical information and landscaping have not been accounted for in these calculations.
4. Photometric modeling based on similar or specified fixtures.
5. Lighting plan assumes that certain light fixtures will utilize existing foundations. Contractor verify prior to ordering fixtures and shall notify Project Landscape Architect if bolt pattern differs.
6. Light levels generated from lighting on adjacent properties are approximate and shown for informational purposes only.
7. Lights to include photocell sensor.

LIGHT CONTOUR LEGEND

0.1	0.10 Foot Candles
0.5	0.50 Foot Candles
1	1.00 Foot Candles
2	2.00 Foot Candles

* Photometric calculations shown on plan are in foot candles.

LEGEND

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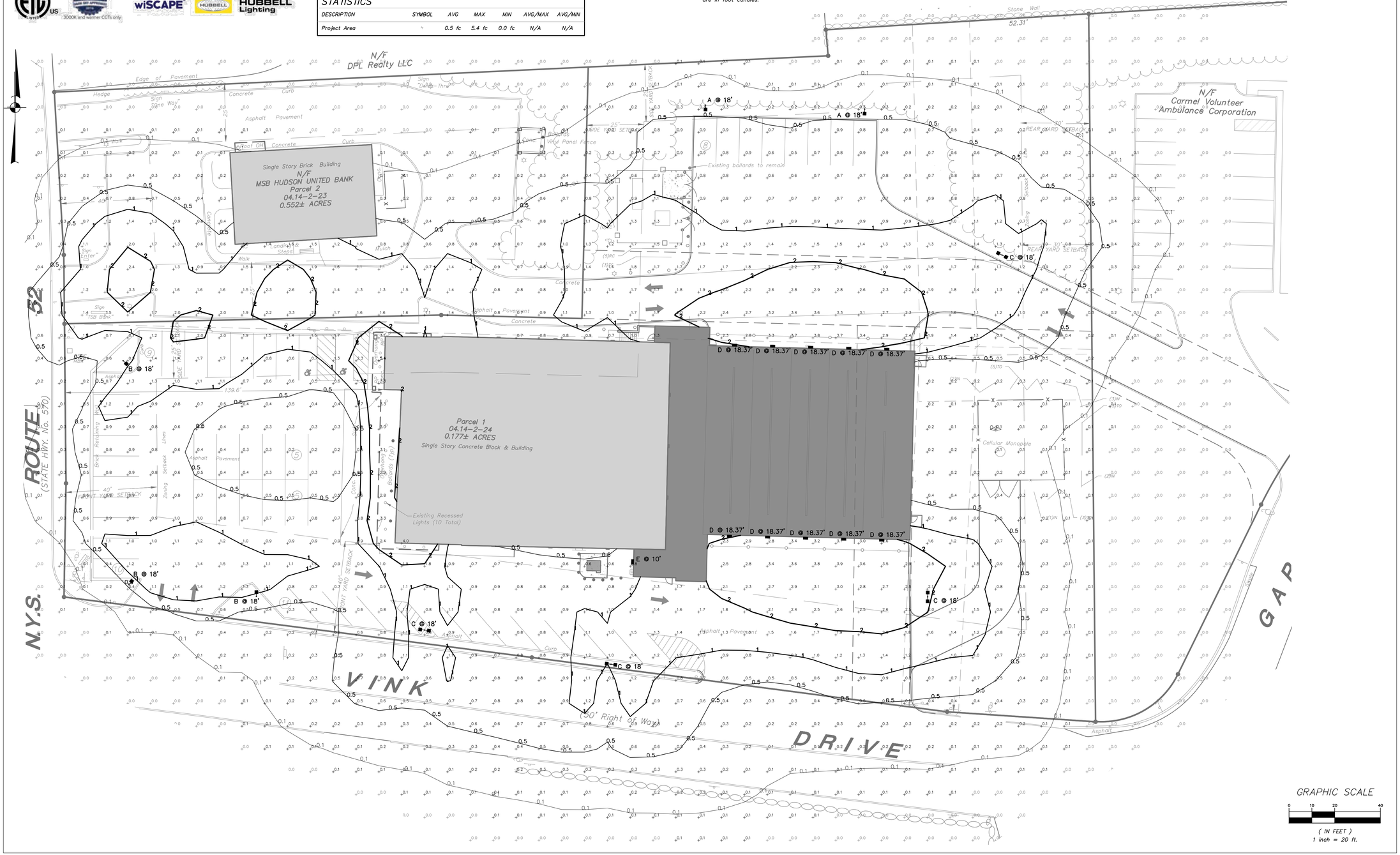
- PROPOSED STRIPED ISLAND
- PROPOSED SINGLE POLE SIGN
- PROPOSED POLE MOUNTED LIGHT
- PROPOSED BUILDING MOUNTED LIGHT



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PROJECT No:	DATE:	SCALE:
19135.100	3-22-21	1" = 20'

CLIENT

CARMEL FIRE DEPARTMENT

ADDITION/RENOVATION

94 GLENEIDA AVENUE
Carmel, NY 10512

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

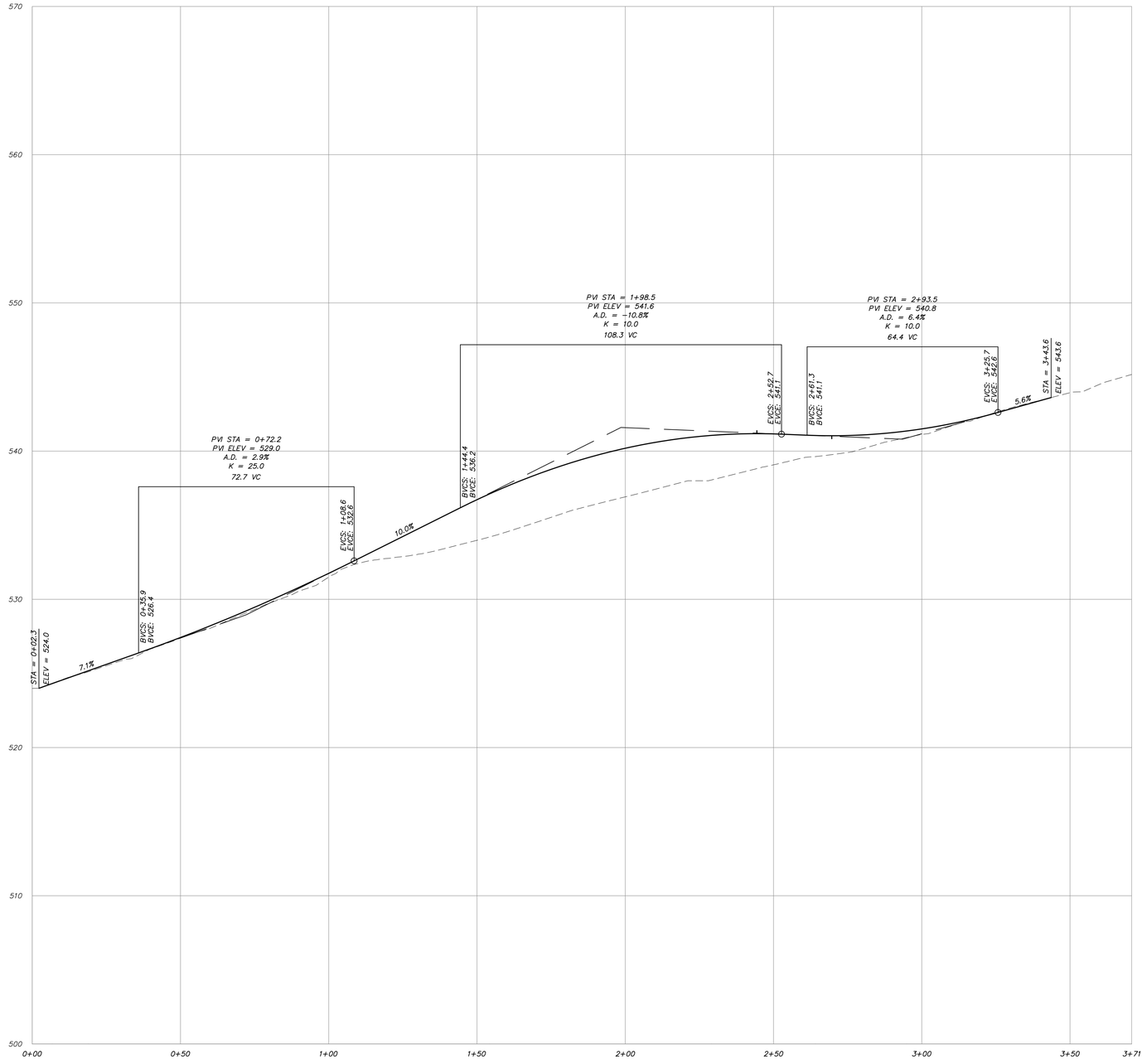
BID SET

SHEET TITLE

LIGHTING PLAN

DRAWING No.

LP-1



PROPOSED DRIVEWAY PROFILE

SCALE: HORIZ. 1" = 20'
VER. 1" = 4'

GRAPHIC SCALE

0 10 20 40

(IN FEET)
1 inch = 20 ft.

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PROJECT No:	DATE:	SCALE:
19135.100	3-22-21	AS NOTED

CLIENT

CARMEL FIRE DEPARTMENT

ADDITION/RENOVATION

94 GLENEIDA AVENUE
Carmel, NY 10512

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

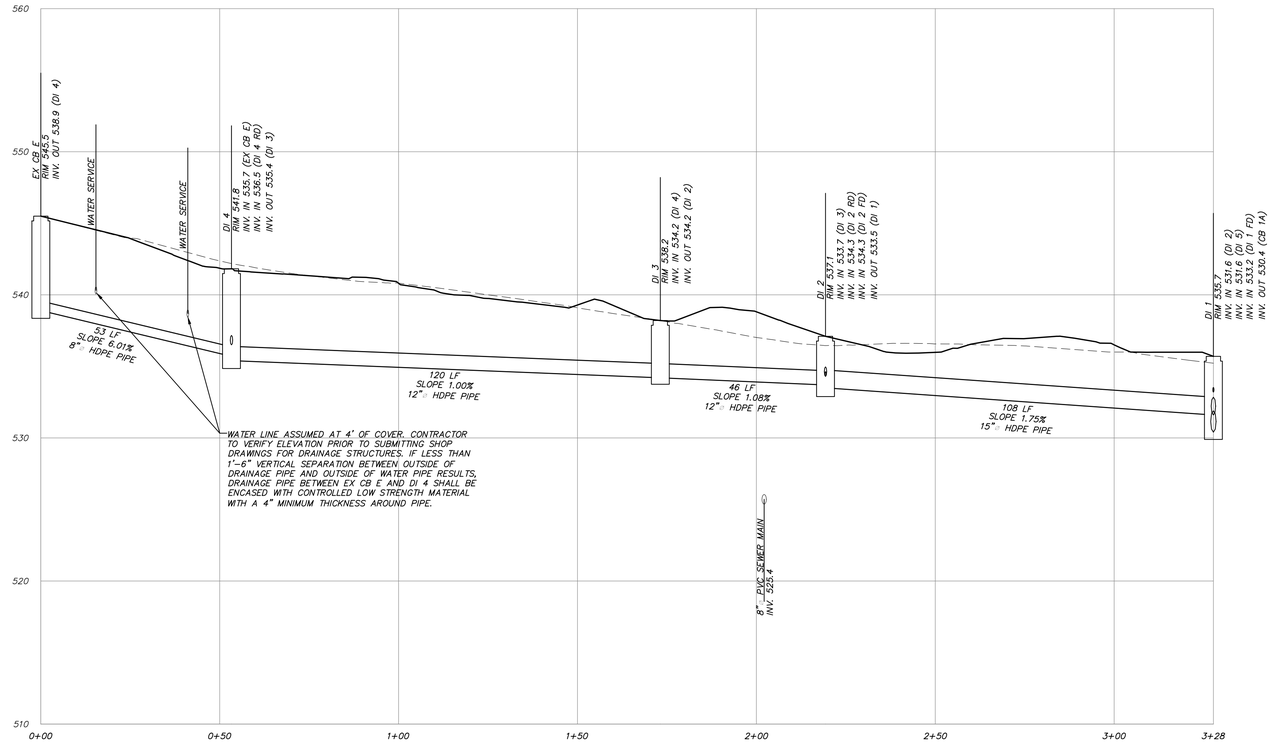
BID SET

SHEET TITLE

PROFILES

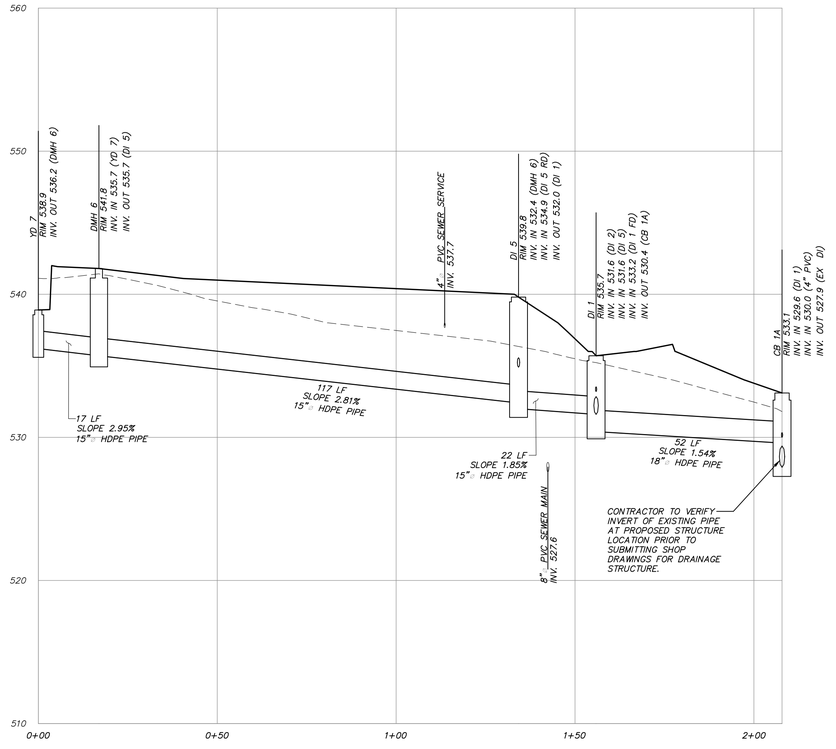
DRAWING No.

PR-1



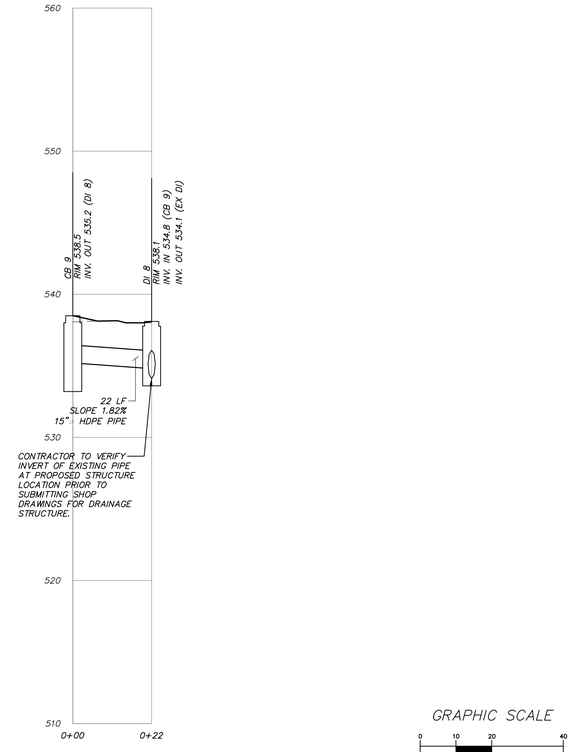
EX CB TO DI 1

SCALE: HORIZ. 1" = 20'
VER. 1" = 5'



YD 7 TO DI 1

SCALE: HORIZ. 1" = 20'
VER. 1" = 5'



CB 9 TO DI 8

SCALE: HORIZ. 1" = 20'
VER. 1" = 5'

GRAPHIC SCALE

0 10 20 40

(IN FEET)
1 inch = 20 ft.

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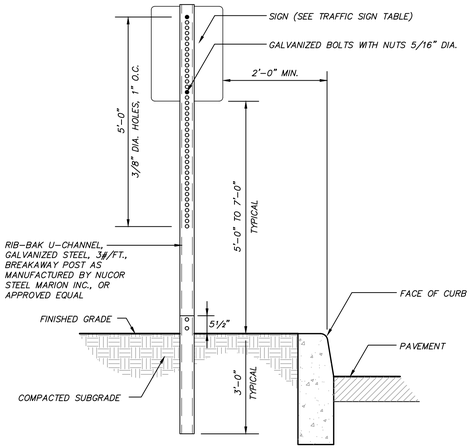
BID SET

SHEET TITLE

PROFILES

DRAWING No.

PR-2

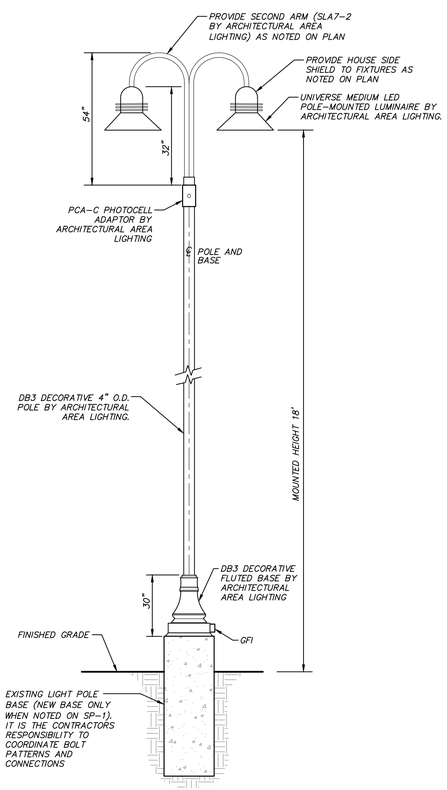


NOTE: FOR HANDICAP PARKING SIGNAGE, SIGNS SHALL BE INSTALLED AT A CLEAR HEIGHT OF BETWEEN 5'-0" AND 7'-0" ABOVE GRADE OF PARKING SPACE AND SUCH THAT SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.

TRAFFIC SIGN DETAIL
(N.T.S.)

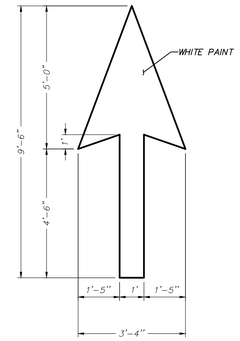
SIGN DATA TABLE

LOCATION NO.	TEXT	M.U.T.C.D. NUMBER	SIZE OF SIGN (s.f.)	DESCRIPTION
1	RESERVED PARKING / VAN ACCESSIBLE	NY R7-8*	12" x 18"	Green on White Blue Symbol
		R7-8P	12" x 6"	Green on White
2	NO PARKING ANY TIME	R7-1	12" x 18"	Red on White
3	DO NOT ENTER	R5-1C	30" x 30"	White on Red



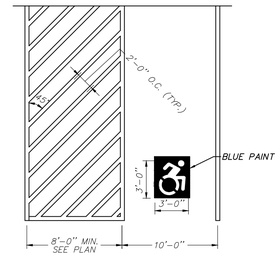
POLE-MOUNTED AREA LIGHT DETAIL
(N.T.S.)

NOTES:
1. FIXTURE, POLE, AND BASE TO BE DARK BRONZE MATTE TEXTURED (DBT) OR CUSTOM COLOR APPROVED BY PROJECT LANDSCAPE ARCHITECT.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE PHOTOCELL WITH LIGHTING SUPPLIER.



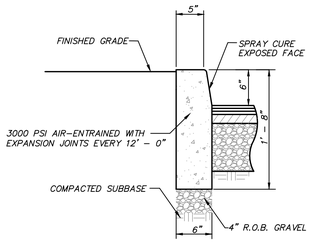
NOTE: INSTALLATION TO CONFORM WITH CURRENT NYSDOT STANDARDS AND SPECIFICATIONS.

DIRECTIONAL ARROWS DETAIL
(N.T.S)

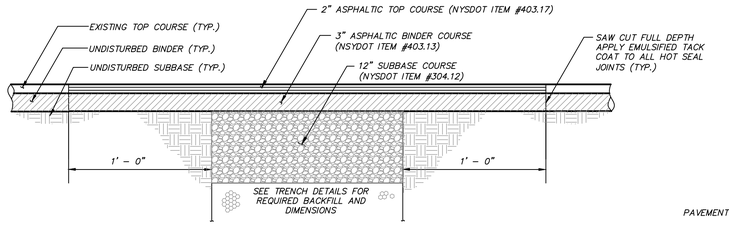


NOTE:
ALL HANDICAP STRIPING SHALL BE 4" WIDE BLUE PAINT.

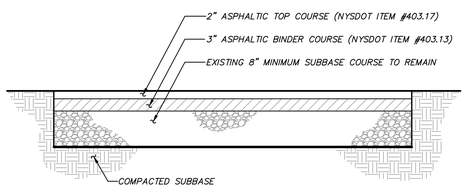
PAINTED NYS ACCESSIBLE PARKING DETAIL
(N.T.S.)



CONCRETE CURB DETAIL
(N.T.S.)

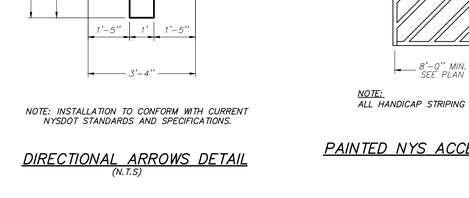


UTILITY TRENCH PAVEMENT REPLACEMENT DETAIL
(N.T.S.)



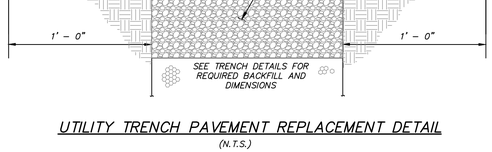
NOTES:
1. WHERE REPLACEMENT PAVEMENT CONNECTS TO EXISTING PAVEMENT, EXISTING PAVEMENT SHALL BE SAW CUT TO PROVIDE CLEAN JOINT.
2. ALL PAVEMENT JOINTS SHALL BE HOT SEALED.

REPLACEMENT ASPHALT PAVEMENT DETAIL
(N.T.S.)

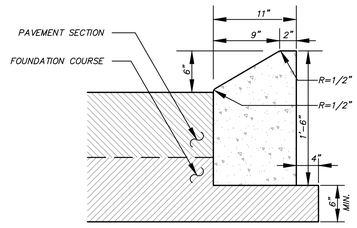


ASPHALT PAVEMENT DETAIL
(N.T.S.)

NOTE: DRIVEWAYS SHALL MEET CONSTRUCTION REQUIREMENTS AS OUTLINED IN THE TOWN OF CARMEL CODE §128 STREETS AND SIDEWALKS.

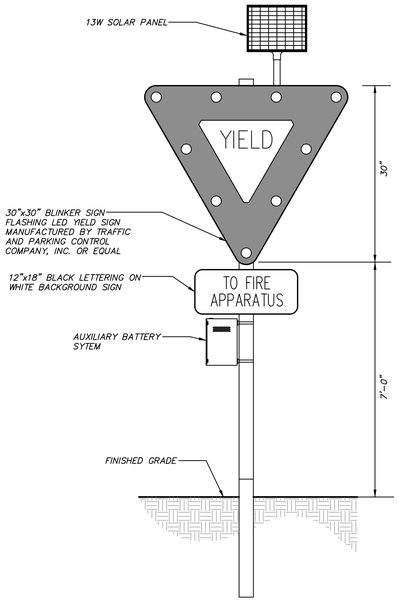


GRAVEL DRIVE DETAIL
(N.T.S.)

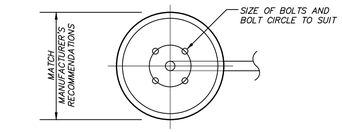


NOTE: TRANSVERSE JOINTS 1/2" WDE SHALL BE INSTALLED IN THE CURB 10'-0" APART AND SHALL BE FILLED WITH CELLULAR COMPRESSION MATERIALS AS SPECIFIED, RECESSED 1/4" IN FROM FRONT FACE AND TOP OF CURB.

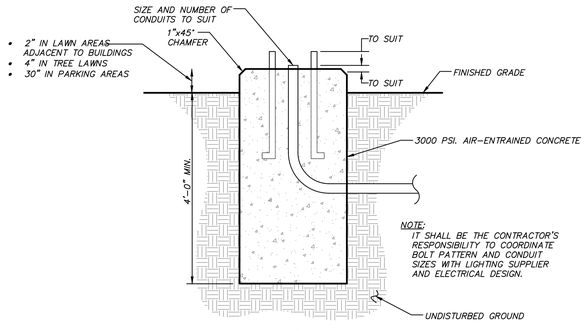
MOUNTABLE CONCRETE CURB DETAIL
(N.T.S.)



FLASHING YIELD SIGN DETAIL
(N.T.S.)

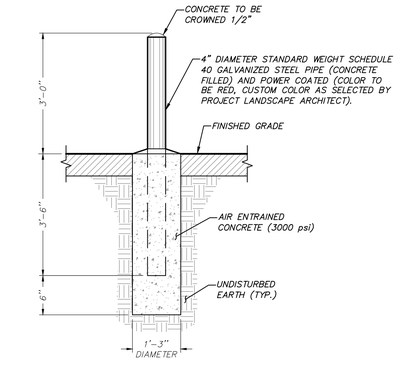


PLAN VIEW



SECTION

LIGHT POLE BASE DETAIL
(N.T.S.)



UTILITY BOLLARD AT FUEL TANK DETAIL
(N.T.S.)

NOTES:
1. WHEN BOLLARDS ARE TO BE USED FOR PROTECTION OF COMBUSTIBLE OBJECTS, POSTS SHALL BE OFFSET A MINIMUM OF THREE (3) FEET FROM THE OBJECT BEING PROTECTED.
2. BOLLARDS (WHEN MORE THAN ONE IS REQUIRED) SHALL BE SPACED NOT MORE THAN FOUR (4) FEET ON CENTER WHEN PROTECTING COMBUSTIBLE OBJECTS

H2M architects + engineers
3 Lear Jet Lane, Suite 205
Latham, NY 12110
518.765.5105 • www.h2m.com

CONSULTANTS:
INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JMW/KMG	JFR	KMG	JMW
PROJECT No: 19135.100	DATE: 3-22-21	SCALE: AS NOTED	

CLIENT
CARMEL FIRE DEPARTMENT

ADDITION/RENOVATION

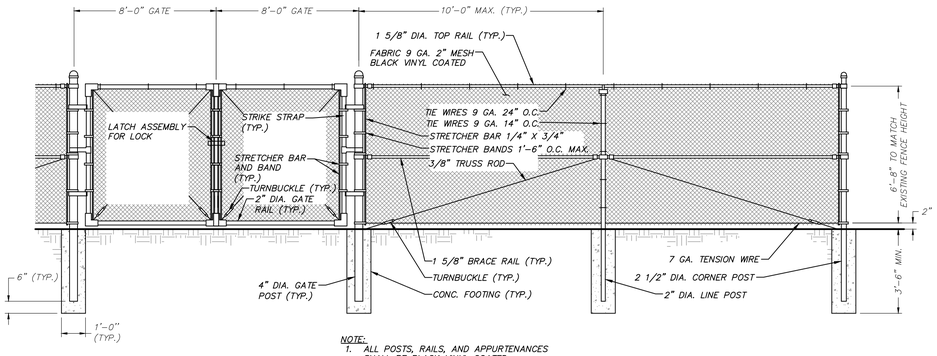
94 GLENEIDA AVENUE
Carmel, NY 10512

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
BID SET

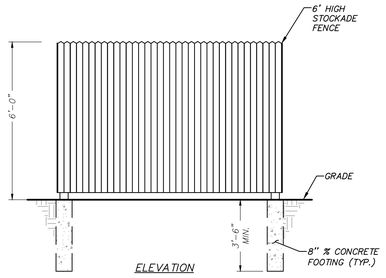
SHEET TITLE
DETAILS

DRAWING No.
D-1



NOTE:
1. ALL POSTS, RAILS, AND APPURTENANCES SHALL BE BLACK VINYL COATED.
2. SEE ELECTRICAL DRAWINGS FOR GROUNDING DETAILS.

CHAIN LINK FENCE DETAIL
(N.T.S.)



ELEVATION

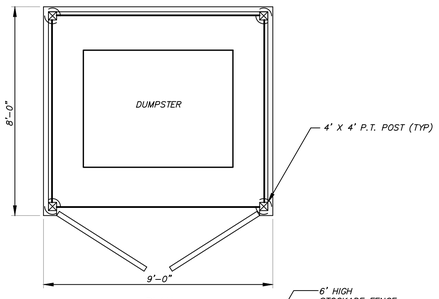
STOCKADE FENCE DETAIL
(N.T.S.)

PLANT LIST (BY OWNER)

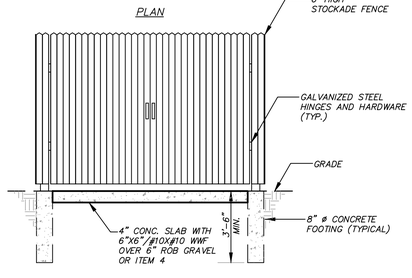
QUANTITY	KEY	BOTANICAL/COMMON NAME	SIZE	ROOT/SPACING
11	TO	Thuja occidentalis 'Emerald Green" / Emerald Green Arborvitae	6'-7'	B&B
8	IN	Ilex 'Nellie R. Stevens' / Nellie R. Stevens' Holly	5'-6'	B&B
4	TG	Thuja occidentalis 'Golden Globe' / Golden Clube Arborvitae	18"-24"	#3 CONT.
11	RC	Rhododendron 'Chionoides' / Chionoides Rhododendron	24"-30"	#5 CONT.

GENERAL PLANTING NOTES:

1. Carmel Fire Department / Owner to coordinate and hire landscape contractor for planing scope of work.
2. All proposed planting beds to receive a 12" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
3. Any new soils added will be amended as required by results of soil testing and placed using a method that will not cause compaction.
4. All plant material to be nursery grown.
5. Plants shall conform with ANSI Z60.1 American Standard for Nursery Stock in all ways including dimensions.
6. Plant material shall be taken from healthy nursery stock.
7. All plants shall be grown under climate conditions similar to those in the locality of the project.
8. Plants shall be planted in all locations designed on the plan or as staked in the field by the Landscape Architect.
9. The location and layout of landscape plants shown on the site plan shall take precedence in any discrepancies between the quantities of plants shown on the plans and the quantity of plants in the Plant List.
10. Provide a 3" layer of shredded pine bark mulch (or as specified) over entire watering saucer at all tree pits or over entire planting bed. Do not place mulch within 3" of tree or shrub trunks.
11. All landscape plantings shall be maintained in a healthy condition at all times. Any dead or diseased plants shall immediately be replaced "in kind" by the contractor (during warranty period) or project owner.
12. All Plantings shall be installed per § 142 of the Town of Carmel Town Code. In addition, plantings shall be verified by the Town of Carmel Wetland Inspector.



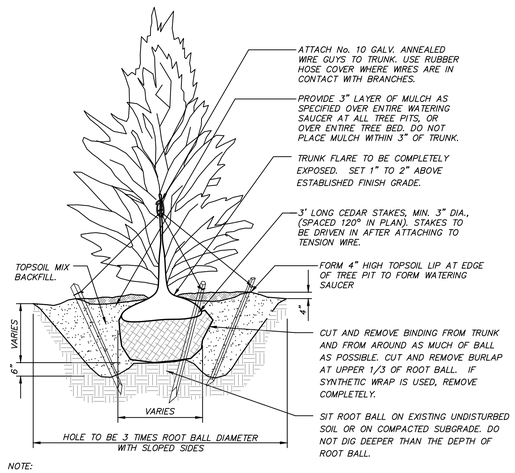
PLAN



ELEVATION

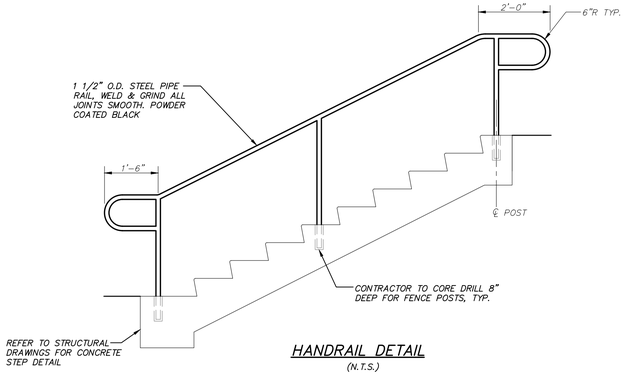
NOTE: CHECK WITH REFUSE HAULER PRIOR TO INSTALLATION OF REFUSE ENCLOSURE FOR DIMENSIONS.

DUMPSTER ENCLOSURE DETAIL
(N.T.S.)

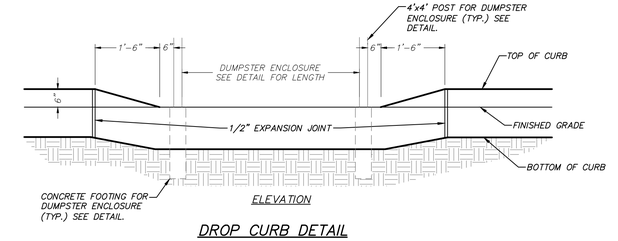


NOTE:
PROVIDE STAKING AND GUYING FOR TREES PLANTED ON SLOPES GREATER THAN 3H:1V, IN EXPOSED, WINDY AREAS AND AS SPECIFIED BY LANDSCAPE ARCHITECT. GUY WIRES AND STAKES SHALL BE REMOVED WITHIN TWELVE MONTHS OF PLANTING.

EVERGREEN TREE PLANTING DETAIL
(N.T.S.)



HANDRAIL DETAIL
(N.T.S.)



ELEVATION

DROP CURB DETAIL
(N.T.S.)

H 2 M architects + engineers

3 Lear Jet Lane, Suite 205
Latham, NY 12110
518.765.5105 • www.h2m.com

CONSULTANTS:

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MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
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PROJECT No:	DATE:		SCALE:
19135.100	3-22-21		AS NOTED

CLIENT

CARMEL FIRE DEPARTMENT

ADDITION/RENOVATION

94 GLENEIDA AVENUE
Carmel, NY 10512

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

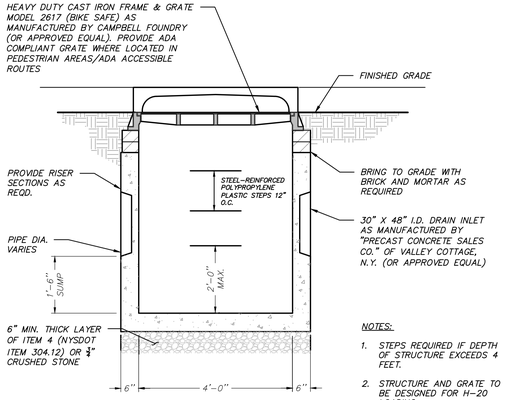
BID SET

SHEET TITLE

DETAILS

DRAWING No.

D-2

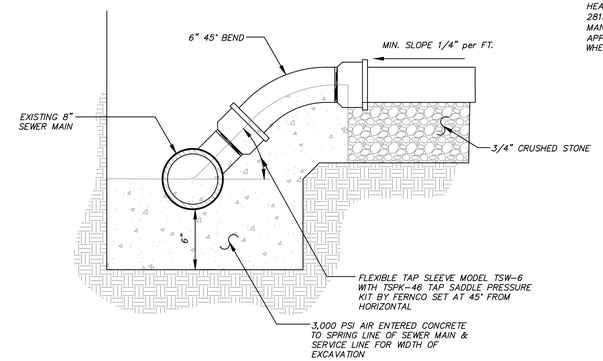


NOTES:

1. STEPS REQUIRED IF DEPTH OF STRUCTURE EXCEEDS 4 FEET.
2. STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING.

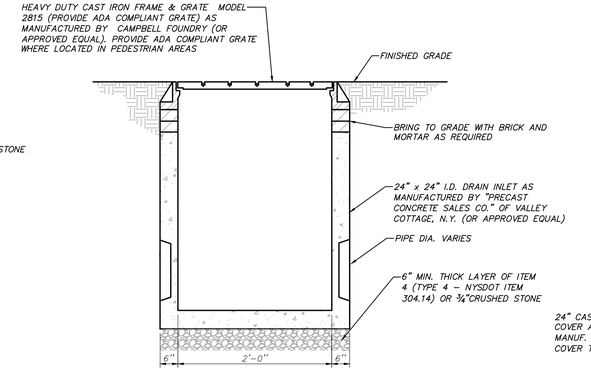
30" X 48" CATCH BASIN DETAIL

(N.T.S.)



SEWER SERVICE CONNECTION DETAIL

(N.T.S.)



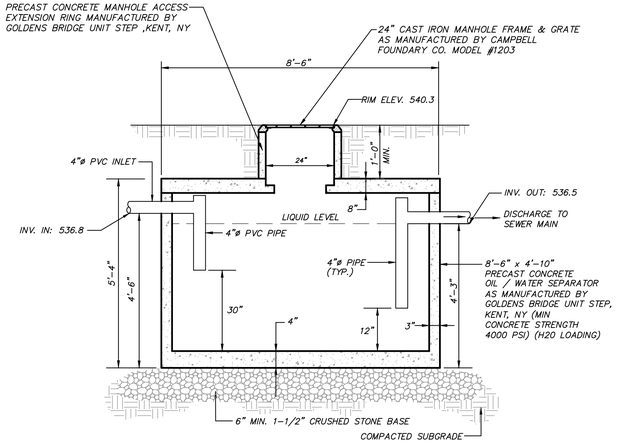
(STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING)

24" x 24" YARD DRAIN DETAIL

(N.T.S.)

SEWER SERVICE NOTES

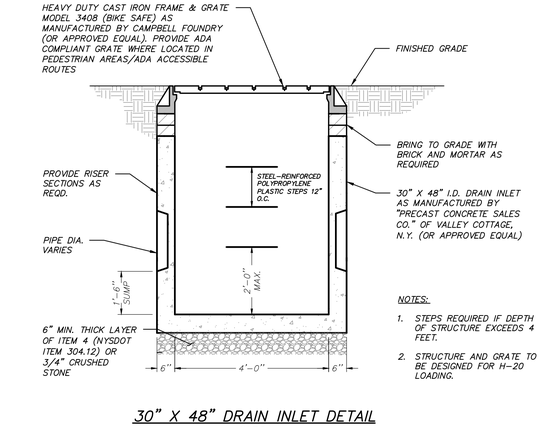
1. All sewer services shown on these plans shall be polyvinyl chloride (PVC) SDR 35 with factory installed push on gaskets.
2. Sanitary Sewers shall be laid at least 10 feet horizontally from any existing or proposed water main. The distance shall be measured edge to edge. In cases where it is not practical to maintain a 10 foot horizontal separation, the Design Engineer and the Town of Carmel may allow deviation with prior approval on a case-by-case basis, if supported by data from the Design Engineer prior to sewer line installation. The horizontal separation also applies to service connections.
3. Sewers crossing water mains shall be laid to provide a minimum vertical separation of 18 inches between the outside of the sewer main and the water main. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade. In cases where it is not practical to maintain a 18" vertical separation, the Design Engineer and the Town of Carmel may allow deviation with prior approval on a case-by-case basis, if supported by data from the Design Engineer prior to the sewer line installation. The vertical separation also applies to service connections.



NOTES:
1. OIL/WATER SEPARATOR TO BE INSPECTED TWO TIMES PER YEAR AND AFTER FUEL OR OIL LEAKS/SPILLS.
2. ACCUMULATED OIL/FUEL SHALL BE REMOVED AND HAULED OFF SITE BY A LICENSED HAULER FOR PROPER DISPOSAL IF 15" OR GREATER DEPTH IS OBSERVED.

1,000 GALLON OIL/WATER SEPARATOR DETAIL (TO BE DESIGNED FOR H20 LOADING)

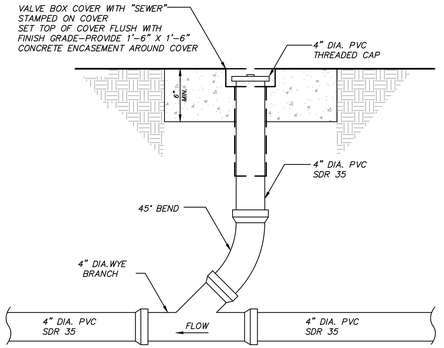
(N.T.S.)



NOTES:
1. STEPS REQUIRED IF DEPTH OF STRUCTURE EXCEEDS 4 FEET.
2. STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING.

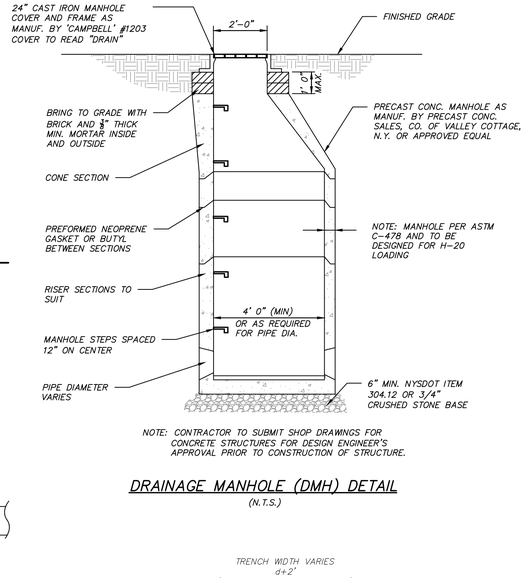
30" X 48" DRAIN INLET DETAIL

(N.T.S.)



SEWER LINE CLEANOUT DETAIL

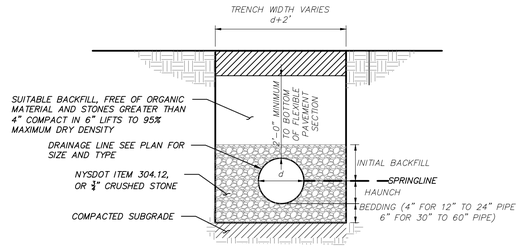
(N.T.S.)



NOTE: CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR CONCRETE STRUCTURES FOR DESIGN ENGINEER'S APPROVAL PRIOR TO CONSTRUCTION OF STRUCTURE.

DRAINAGE MANHOLE (DMH) DETAIL

(N.T.S.)

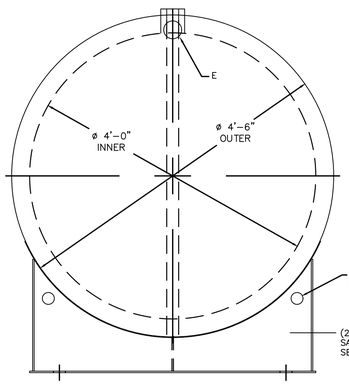


DRAINAGE LINE TRENCH DETAIL

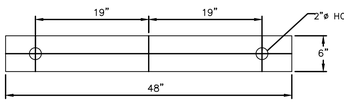
(N.T.S.)

COMMUNICATION BOX DETAIL

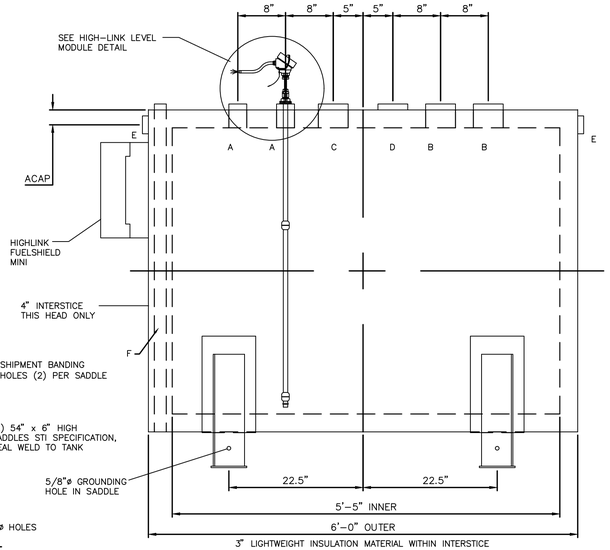
HIGH-LINK LEVEL SHIELD DETAIL



END VIEW



SADDLE VIEW



SIDE VIEW

500 GAL 48" DIAMETER FIREGUARD TANK

(N.T.S.)

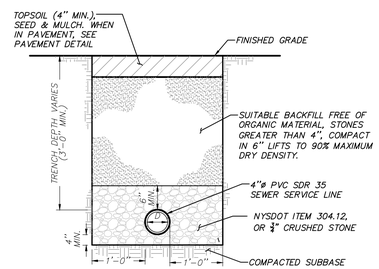
DESIGN DATA
CAPACITY : 500 GALLONS
TYPE: FIREGUARD® CYLINDRICAL
FIREGUARD® IS A TRADEMARK OF THE STEEL TANK INSTITUTE
NO. REQ. – –
OPERATING PRESSURE – ATMOSPHERIC
SPECIFIC GRAVITY = 1.0
TANK MATERIAL – MILD CARBON STEEL
THICKNESS – INNER – 7 GAUGE
THICKNESS – OUTER – 7 GAUGE
MIN. GAUGE OR THICKNESS (PER U.L. 2085)
CONSTRUCTION – INNER – LAP WELD OUTSIDE ONLY
CONSTRUCTION – OUTER – LAP WELD OUTSIDE ONLY
TANK TEST – PER UL 2085
INT. FINISH – NONE
EXT. FINISH – SP-6 BLAST, FINISH PAINT WHITE
LABEL– UL 2085 AND FIREGUARD® PER sti

LEGEND	
A	2" FEMALE FIREGUARD COUPLING
B	4" FEMALE FIREGUARD COUPLING
C	4" FEMALE FIREGUARD COUPLING – FOR PRIMARY EMERGENCY VENT USE
D	4" FITTING THROUGH OUTER SHELL ONLY, MARK WITH SPECIAL WARNING LABEL INTERSTITIAL EMERGENCY VENT USE ONLY
E	2" FITTING THROUGH OUTER SHELL ONLY WITH CAST IRON PLUG– MFG USE ONLY
F	2" INTERSTITIAL MONITOR PIPE – MALE NPT END

FUEL TANK INSTALLATION REQUIREMENTS:

FUEL TANK ACCESSORIES SHALL BE MODEL HL-37 BY HIGHLAND TANKS INSTALLED WITH THE FOLLOWING:

1. FILLRITE FUEL DISPENSER PUMP AND METER (M# FR701V) OR EQUIVALENT. METER TO BE PLUMED INLINE HORIZONTALLY WITH PUMP.
2. REMOTE FILL CONTAINMENT CHAMBER
3. TWO 4" EMERGENCY VENTS
4. SWING ARM LEVEL GAGE
5. LEAK DETECTION GAUGE
6. VENT PIPE WITH CAP
7. OVERFILL PROTECTION VALVE 9095S (AUTOMATIC SHUT OFF) ON FILL PORT
8. LABEL TANK AS PER NYSDEC PBS
9. ALL TANK APPURTENANCES TO BE LOCATED PER DIRECTION OF CARMEL FIRE DEPARTMENT
10. TANK SHOULD BE GROUNDED AS PER FEDERAL AND/OR STATE REGULATIONS
11. HIGH-LINK FUELSHIELD-MINI FUEL MANAGEMENT SYSTEM.
12. SYSTEM SHALL INCLUDE ALL COMPONENTS REQUIRED TO PROVIDE A CODE COMPLIANT FUNCTIONING FUEL SYSTEM.
13. PROVIDE CHECK VALVE AND CONTROL VALVE ON FUEL LINES. (NFPA 30 (2012))
14. PROVIDE SEISMIC-RATED CONCRETE FOUNDATION FOOTINGS FOR THE FUEL TANK. 8" REINFORCED CONCRETE PAVING FOR TANK PAD.
15. ALL SYSTEMS TO BE TESTED FOR TIGHTNESS PER NYSDEC REGULATIONS.
16. CONTRACTOR SHALL PROVIDE DETAILED INFORMATION FROM SUPPLIER OF SYSTEM CODE COMPLIANCE.
17. FUEL TANK SHALL BE A LIGHT BEIGE (CUSTOM COLOR TO BE APPROVED BY PROJECT ENGINEER PRIOR TO CONSTRUCTION).
18. ELECTRICAL EQUIPMENT (WIRING, LIGHTING, ETC.) WITHIN 10' OF FUEL TANK AND VENT SHALL CONFORM WITH NATIONAL ELECTRIC CODE REQUIREMENTS FOR CLASS 1, GROUP D, DIVISION 1 LOCATIONS.



SEWER SERVICE LINE TRENCH DETAIL

(N.T.S.)

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Carmel, NY 10512
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(845) 225-9717 fax
www.insite-eng.com

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JMW/KMG	JFR	KMG	JMW

PROJECT No:	DATE:	SCALE:
19135.100	3-22-21	AS NOTED

CLIENT

CARMEL FIRE DEPARTMENT

ADDITION/RENOVATION

94 GLENEIDA AVENUE Carmel, NY 10512

CONTRACT

CONTRACT G GENERAL CONSTRUCTION

STATUS

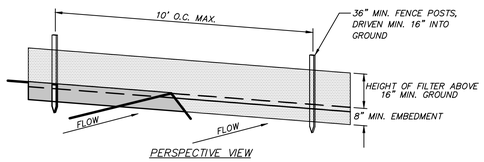
BID SET

SHEET TITLE

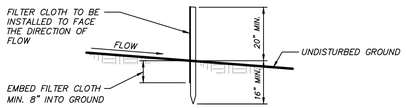
DETAILS

DRAWING No.

D-3



PERSPECTIVE VIEW



SECTION

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

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

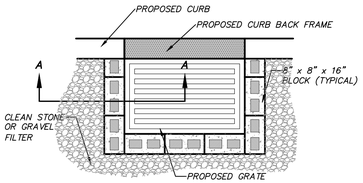
POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUAL

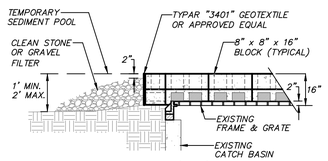
PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

SILT FENCE DETAIL

(N.T.S.)



PLAN



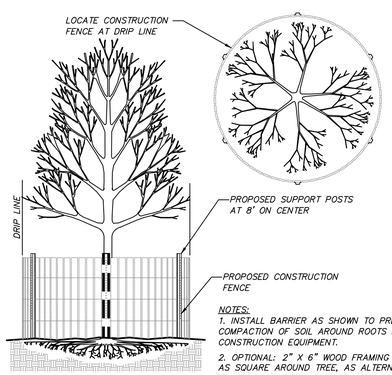
SECTION 'A-A'

CONSTRUCTION NOTES:

1. LAY ONE LAYER OF BLOCKS ON EACH SIDE OF THE STRUCTURE ON THEIR SIDES FOR DEWATERING. EDGES OF BLOCK SHALL BE 2 INCHES MINIMUM BELOW THE GRATE. BLOCKS SHALL BE PLACED AGAINST THE INLET FOR SUPPORT. PLACE A SECOND LAYER OF BLOCKS ON TOP OF THE FIRST LAYER WITH HOLE FACE UP.
2. GEOTEXTILE SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2 TO 3/4 INCH IN DIAMETER PLACED ON A 2H:1V SLOPE OR FLATTER, TO WITHIN 2 INCHES OF THE TOP OF THE BLOCKS.

CATCH BASIN IN EXISTING PAVEMENT STONE AND BLOCK DROP INLET PROTECTION DETAIL

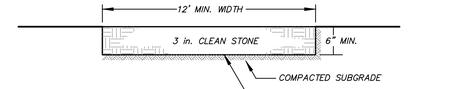
(N.T.S.)



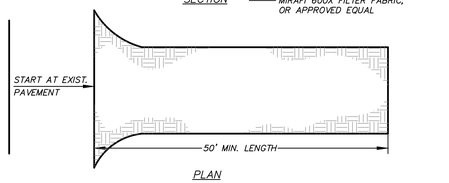
NOTES:
1. INSTALL BARRIER AS SHOWN TO PREVENT COMPACTION OF SOIL AROUND ROOTS BY CONSTRUCTION EQUIPMENT.
2. OPTIONAL: 2" X 6" WOOD FRAMING BUILT AS SQUARE AROUND TREE, AS ALTERNATIVE.

TREE PROTECTION DETAIL

(N.T.S.)



SECTION



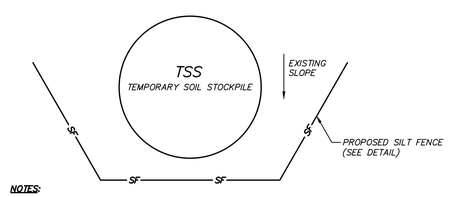
PLAN

INSTALLATION NOTES

1. STONE SIZE – USE 3" STONE
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.)
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

(N.T.S.)

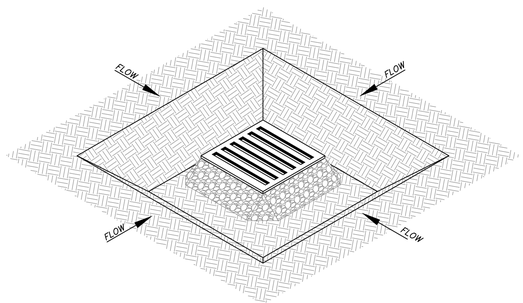


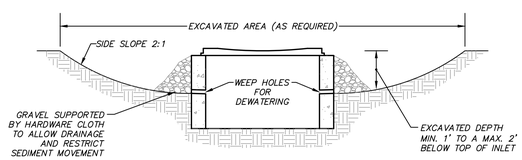
NOTES:

1. AREA CHOSEN FOR STOCKPILE LOCATION SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE IMMEDIATELY SEEDED WITH K31 PERENNIAL TALL FESCUE.
4. ALL STOCKPILES SHALL BE PROTECTED WITH SILT FENCING INSTALLED ON THE DOWNGRADIENT SIDE.

TEMPORARY SOIL STOCKPILE DETAIL

(N.T.S.)





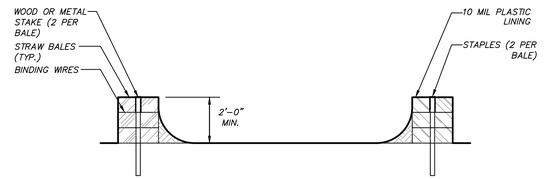
1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN
3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL
4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL EXCAVATION WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY, AND STABILIZE WITH PERMANENT SEEDING
5. MAXIMUM DRAINAGE AREA = 1 ACRE

EXCAVATED DROP INLET PROTECTION DETAIL

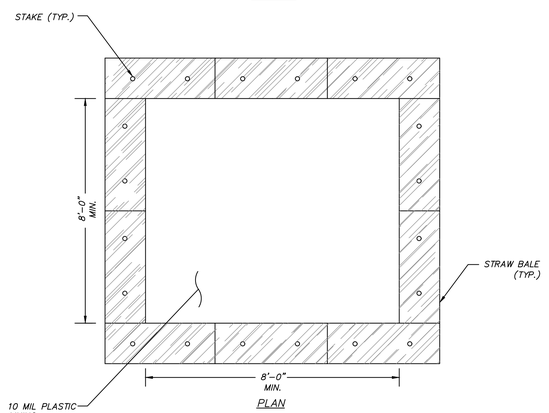
(N.T.S.)

EROSION & SEDIMENT CONTROL NOTES:

1. The owner's field representative (O.F.R.) will be responsible for the implementation and maintenance of erosion and sediment control measures on this site prior to and during construction.
2. All construction activities involving the removal or disposition of soil are to be provided with appropriate protective measures to minimize erosion and contain sediment disposition within. Minimum soil erosion and sediment control measures shall be implemented as shown on the plans and shall be installed in accordance with "New York Standards and Specifications For Erosion and Sediment Control," latest edition.
3. Wherever feasible, natural vegetation should be retained and protected. Disturbance shall be minimized in the areas required to perform construction. No more than 5 acres of unprotected soil shall be exposed at any one time.
4. When land is exposed during development, the exposure shall be kept to the shortest practical period of time. In the areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. Disturbance shall be minimized to the areas required to perform construction.
5. Silt fence shall be installed as shown on the plans prior to beginning any clearing, grubbing or earthwork.
6. All topsoil to be stripped from the area being developed shall be stockpiled and immediately seeded for temporary stabilization. Ryegrass (annual or perennial) at a rate of 30 lbs. per acre shall be used for temporary seeding in spring, summer or early fall. 'Aristook' Winter Rye (cereal rye) shall be used for temporary seeding in late fall and winter.
7. Owner/Carmel Fire Department is responsible for hiring and coordinating final seeding and mulching. Any disturbed areas not subject to further disturbance or construction traffic, permanent or temporary, shall have soil stabilization measures initiated for permanent vegetation cover in combination with a suitable mulch after final grading. All seeded areas to receive a minimum 4" topsoil (from stockpile area) and be seeded and mulched as follows:
   - Seed mixture to be planted between March 21 and May 20, or between August 15 and October 15 or as directed by project representative at a rate of 100 pounds per acre in the following proportions:
     - Kentucky Bluegrass 20%
     - Creeping Red Fescue 40%
     - Perennial Ryegrass 20%
     - Annual Ryegrass 20%
   - Mulch: Salt hay or small grain straw applied at a rate of 90 lbs./1000 S.F. or 2 tons/acre, to be applied and anchored according to "New York Standards and Specification For Erosion and Sediment Control," latest edition.
8. Grass seed mix may be applied by either mechanical or hydroseeding methods. Seeding shall be performed in accordance with the current edition of the "NYSDOT Standard Specification, Construction and Materials, Section 610-3.02, Method No. 1". Hydroseeding shall be performed using materials and methods as approved by the site engineer.
9. Cut or fill slopes steeper than 3:1 shall be stabilized immediately after grading with Curlex I Single Net Erosion Control Blanket, or approved equal.
10. Paved roadways shall be kept clean at all times.
11. The site shall at all times be graded and maintained such that all stormwater runoff is diverted to soil erosion and sediment control facilities.
12. All storm drainage outlets shall be stabilized, as required, before the discharge points become operational.
13. Stormwater from disturbed areas must be passed through erosion control barriers before discharge beyond disturbed areas or discharged into other drainage systems.
14. Erosion and sediment control measures shall be inspected and maintained on a daily basis by the O.F.R. to insure that channels, temporary and permanent ditches and pipes are clear of debris, that embankments and berms have not been breached and that all straw bales and silt fences are intact. Any failure of erosion and sediment control measures shall be immediately repaired by the contractor and inspected for approval by the O.F.R. and/or site engineer.
15. Dust shall be controlled by sprinkling or other approved methods as necessary, or as directed by the O.F.R.
16. Cut and fills shall not endanger adjoining property, nor divert water onto the property of others.
17. All fills shall be placed and compacted in 6" lifts to provide stability of material and to prevent settlement.
18. The O.F.R. shall inspect downstream conditions for evidence of sedimentation on a weekly basis and after rainstorms.
19. As warranted by field conditions, special additional erosion and sediment control measures, as specified by the site engineer and/or the Town Engineer shall be installed by the contractor.
20. Erosion and sediment control measures shall remain in place until all disturbed areas are suitably stabilized.



SECTION



PLAN

CONCRETE WASHOUT AREA DETAIL

(N.T.S.)

NOTES

1. TEMPORARY CONCRETE WASHOUT TYPE ABOVE GRADE WILL BE CONSTRUCTED AS SHOWN ABOVE, WITH RECOMMENDED MINIMUM LENGTH AND MINIMUM WIDTH OF 8 FT.
2. THE WASHOUT WILL BE MINIMUM OF 100 FT FROM DRAINAGE SWALES, STORM DRAIN INLETS, WETLANDS, STREAMS AND OTHER SURFACE WATERS.
3. PLASTIC LINING WILL BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

CONSTRUCTION NOTES:

1. The subject project has coverage under the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity, permit No. GP-0-20-001. As required by the permit all contractors and subcontractors will be required to sign a certification statement that they understand and agree to comply with the requirements of GP-0-20-001.
2. All pre-cast concrete drainage structures, frames, and grates are to meet H-20 loading requirements.
3. Design Engineer to approve locations and elevations of all structures prior to placement.
4. The contractor shall field verify all dimensions relative to the scope of work.
5. It shall be the contractor's responsibility to identify and protect all underground utilities. The contractor shall contact Dig Safely New York at 811 or 1-800-962-7962 and any other required utility locators prior to the start of construction.
6. The contractor shall field verify the existing grades / utility locations prior to commencement of any work. Any discrepancy shall be reported to the owner and project engineer when identified.
7. The contractor shall perform all work with care so that any materials which are to remain in place, or which are to remain on the property, shall not be damaged. The contractor will be held responsible for all damage caused to existing utilities / features / facilities / vegetation during execution of the work not proposed to be modified or removed by this contract. All damage to any existing utilities / features / facilities / vegetation not proposed to be modified by the contract shall be repaired or replaced by the contractor to the satisfaction of the owner at no additional cost.
8. During execution of the work, the contractor shall be responsible for dewatering and control of surface water in accordance with the New York State Standards and Specifications for Erosion and Sediment Control. The New York State Standards and Specifications for Erosion and Sediment Control can be found at http://www.dec.ny.gov/chemical/29066.html.
9. All existing pavement shall be cleaned and swept prior to the completion of construction.
10. Contractor shall be responsible for removal of all excess rock, topsoil, subsoil, and construction debris from the site.
11. The contractor shall stake out the limits of clearing and it shall be reviewed with the project engineer prior to the start of clearing operations. Existing trees to remain outside the limits of clearing shall be protected per the detail.
12. The contractor shall be responsible for the implementation and maintenance of erosion and sediment controls (shown or not) as necessary to prevent erosion and migration of sediment outside of the contract limit line or into the stormwater collection system. Erosion and sediment controls may include but are not limited to silt fence, stabilized construction entrance, berms and inlet protection. All erosion and sediment controls shall be installed in accordance with the New York State Standards and Specifications for Erosion and Sediment Control. Additional erosion and sediment controls may be required during construction by the project architect/engineer. All disturbed areas shall be stabilized in accordance with the Erosion & Sediment Control Notes and details.
13. Topsoil and subsoil shall be stripped, screened, and stockpiled in locations shown for future use. The contractor must keep enough topsoil onsite for final restoration. Four inches of screened topsoil shall be placed and raked to finish grade over all disturbed areas not covered by pavement, concrete and/or gravel surfaces, unless otherwise noted.
14. Trees shown on the plans for reference only. All trees and vegetation within the contract limit line shall be removed unless otherwise labeled to be protected and saved.
15. The contractor shall be responsible for providing all power, water, and other resources necessary to complete the project work.
16. Minimum OSHA site standards must be maintained including personal protective equipment and vests. The contractor shall be responsible for guarding and protecting all open excavations in accordance with the latest edition and current OSHA requirements.
17. It shall be the contractor's/subcontractor's responsibility to provide sanitary facilities (i.e. porta-john (and other necessary temporary facilities) throughout the duration of construction.
18. The contractor is advised that additional notes will be found on other drawings and such notes, while pertaining to the specific drawings they are placed in, also supplement the construction notes listed hereon.
19. Unless otherwise shown on the drawings the contractor shall match the material, thickness and quality of all existing pavements that are to be replaced.
20. The contractor shall coordinate their construction operations with the project engineer or architect and any other contractors/subcontractors and construction activities occurring simultaneously on the property.
21. Original condition shall mean the condition in which the feature was found (or better) at the start of construction.
22. The contractor will be responsible for the implementation of all maintenance and protection of traffic (MP&T) measures if necessary. MP&T shall include but not be limited to placement of traffic cones and warning signs around work zone. Safe and adequate pedestrian vehicular traffic flow shall be maintained at all times to the existing buildings, while the work is in progress. The contractor shall submit for approval of the Architect, a construction sequence schedule and plan for pedestrian and vehicular traffic flow.
23. All work and materials shall be in accordance with these contract drawings, project specifications.
24. There shall be no burying of construction and demolition (C&D) debris or stumps on site. All C&D debris and stumps must be removed by the contractor, and disposed of in accordance with all pertinent regulations.
25. The contractor shall notify the architect and/or construction mgr. 72 hours prior to start of work.
26. Contractor is responsible for protecting soil stockpiles, trenches, and building excavations against weather. No additional fee will be paid to the contractor for removal and replacement of suitable soils due to degradation from weather related events.
27. The contractor shall coordinate the layout of the work with the owner, and the project engineer, and eliminate all conflicts including but not limited to utility location conflicts, prior to commencement of any proposed work.
28. The exact location, size, and type of the existing utilities may differ from what is shown hereon. The contractor shall field verify by performing a test pit, the location size and type of the existing utilities ahead of construction as necessary to permit revisions to meet existing utilities or relocate proposed utilities as required. Horizontal location and elevation of the existing utility as determined by test pit shall be provided to the Engineer and Designer.
29. All personal vehicles, materials, and construction equipment must be kept within the construction staging area. Use of additional onsite storage areas must be pre-authorized by the owner of the property.
30. The contractor shall maintain existing grades unless otherwise noted.
31. Temporary asphalt wedges shall be placed in all areas open to vehicular access. The wedges shall be installed between any sudden abrupt grade changes in excess of 1" as a result of construction. All temporary wedges shall be removed prior to placement of asphalt course.
32. The contractor shall have a representative onsite that is a NYSDEC Trained Contractor at all times site work is being performed under this contract. The contractor shall provide a contractor's certification as contained in the NYSDEC Construction Site Logbook to the Engineer and Designer upon start of construction.
33. The contractor shall provide temporary construction fence for all work areas including the material storage/staging areas.
34. Silt fence shall be installed parallel to the contours.

EROSION AND SEDIMENT CONTROL MAINTENANCE SCHEDULE

	MONITORING REQUIREMENTS			MAINTENANCE REQUIREMENTS	
PRACTICE	DAILY	WEEKLY	AFTER RAINFALL	DURING CONSTRUCTION	AFTER CONSTRUCTION
SILT FENCE BARRIER	–	Inspect	Inspect	Clean/Replace	Remove
STABILIZED CONSTRUCTION ENTRANCE	Inspect	–	Inspect	Clean/Replace Stone and Fabric	Remove
INLET PROTECTION	–	Inspect	Inspect	Clean/Repair/ Replace	Remove
DUST CONTROL	Inspect	–	Inspect	Mulching/ Spraying Water	N/A
*VEGETATIVE ESTABLISHMENT	–	Inspect	Inspect	Water/Reseed/ Remulch	Reseed to 80% Coverage
SOIL STOCKPILES	–	Inspect	Inspect	Mulching/ Silt Fence Repair	Remove
CONCRETE DRAINAGE STRUCTURES	–	Inspect	Inspect	Clean Sumps/ Remove Debris/ Repair/Replace	See Permanent Stormwater Facilities Maintenance Schedule on Drawing D-10
DRAINAGE PIPES	–	Inspect	Inspect	Clean/Repair	
ACCESS ROAD / PAVEMENT	–	Inspect	Inspect	Clean	Clean

* Permanent vegetation is considered stabilized when 80% of the plant density is established. Erosion control measures shall remain in place until all disturbed areas area permanently stabilized.

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MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JMW/KMG	JFR	KMG	JMW

PROJECT No:	DATE:	SCALE:
19135.100	3-22-21	AS NOTED

CLIENT
CARMEL FIRE DEPARTMENT

ADDITION/RENOVATION

94 GLENEIDA AVENUE
Carmel, NY 10512

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
BID SET

SHEET TITLE
DETAILS

DRAWING No.
D-4

SPECIAL INSPECTION NOTES:

SPECIAL INSPECTION SHALL MEET THE REQUIREMENTS OF THE NEW YORK STATE BUILDING CODE SECTION 1704. SPECIAL INSPECTOR(S) SHALL BE RETAINED BY OWNER TO PERFORM THE REQUIRED SPECIAL INSPECTIONS. THE NAMES OF PERSONS OR FIRMS WHO ARE TO PERFORM THE SPECIAL INSPECTIONS SHALL BE FORWARDED TO THE BUILDING OFFICIAL FOR APPROVAL. THE SPECIAL INSPECTOR(S) SHALL COMPLETE AND SUBMIT ALL FORMS REQUIRED BY CARMEL, NY.

1. THE SPECIAL INSPECTOR(S) SHALL:
   - A. OBSERVE THE WORK ASSIGNED FOR CONFORMANCE TO THE APPROVED DRAWINGS AND SPECIFICATIONS.
   - B. FURNISH INSPECTION REPORTS TO ENGINEER OF RECORD AND BUILDING DEPARTMENT. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF NOT CORRECTED TO THE ENGINEER AND THE BUILDING DEPARTMENT.
   - C. SUBMIT TO THE ENGINEER OF RECORD AND THE BUILDING DEPARTMENT A SIGNED FINAL REPORT STATING THAT THE WORK WAS IN CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE NYS BC.
2. SPECIAL INSPECTION NOTES:
   - A. WHERE FABRICATION OF STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES IS BEING PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP, CONTINUOUS SPECIAL INSPECTION IS REQUIRED DURING THE PERFORMANCE OF THE WORK EXCEPT AS ALLOWED IN IBC SECTION 1704.2.2 AND UNLESS SPECIFICALLY NOTED BELOW.
   - B. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE SPECIAL INSPECTOR(S) WITH ADVANCE NOTICE, NO LESS THAN 72 HOURS, OF THE INITIATION OF ANY WORK REQUIRED TO HAVE SPECIAL INSPECTIONS. ALL WORK PERFORMED WITHOUT REQUIRED SPECIAL INSPECTION WILL BE SUBJECT TO REMOVAL.
3. TYPES OF WORK REQUIRING SPECIAL INSPECTION ARE:
   - A. STRUCTURAL STEEL ELEMENTS OF BUILDINGS AND STRUCTURES AS REQUIRED BY IBC SECTION 1704.3 AND TABLE 1704.3, EXCEPT AS ALLOWED IN IBC SECTION 1704.3:
     1. STRUCTURAL STEEL WELDING IN COMPLIANCE WITH AWS D1.1, IBC SECTION 1704.3.1, AND TABLE 1704.3:
        - a. CONTINUOUS INSPECTION DURING WELDING OF COMPLETE AND PARTIAL PENETRATION GROOVE WELDS, MULTI-PASS FILET WELDS, AND SINGLE PASS FILET WELDS GREATER THAN 5/16".
        - b. PERIODIC INSPECTION OF SINGLE PASS FILET WELDS LESS THAN OR EQUAL TO 5/16" AND FLOOR DECK WELDS.
     2. REINFORCING STEEL WELDING IN COMPLIANCE WITH AWS D1.1, IBC SECTION 1704.3.1, AND TABLE 1704.3:
        - a. PERIODIC VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706 AND PERIODIC INSPECTION OF ALL OTHER REINFORCING STEEL.
        - b. DURING WELDING OF REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT RESISTING FRAMES, BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS, AND SHEAR REINFORCEMENT.
     3. PERIODIC INSPECTION OF STRUCTURAL STEEL FRAME IN COMPLIANCE WITH DETAILS INDICATED ON APPROVED CONSTRUCTION DOCUMENTS INCLUDING BUT NOT LIMITED TO BRACING, STIFFENING, MEMBER LOCATIONS, AND PROPER APPLICATION OF JOINT DETAILS AT EACH CONNECTION IN COMPLIANCE WITH IBC SECTION 1704.3.2 AND TABLE 1704.3.
     4. INSTALLATION OF HIGH-STRENGTH BOLTING IN COMPLIANCE WITH AISC SPECIFICATIONS, IBC SECTION 1704.3.3, AND TABLE 1704.3:
        - a. CONTINUOUS INSPECTION DURING INSTALLATION OF SLIP CRITICAL CONNECTION.
        - b. PERIODIC INSPECTION OF BEARING TYPE CONNECTIONS AND MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS.
   - B. CONCRETE CONSTRUCTION AS REQUIRED BY NYS BC SECTION 1705.3 AND TABLE 1705.3, EXCEPT AS ALLOWED IN IBC SECTION 1704.4:
     1. PERIODIC INSPECTION OF REINFORCING STEEL MATERIAL AND PLACEMENT.
     2. CONTINUOUS INSPECTION DURING SETTING OF BOLTS INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE.
     3. PERIODIC INSPECTION FOR VERIFICATION OF PROPER USE OF REQUIRED MIX DESIGN, MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.
     4. PERIODIC INSPECTION DURING ERECTION OF PRECAST CONCRETE MEMBERS.
     5. PERIODIC INSPECTION OF IN-SITU CONCRETE STRENGTH PRIOR TO REMOVAL OF FORMS FROM BEAM AND SLABS.
     6. CONTINUOUS INSPECTION DURING PREPARATION OF REQUIRED STRENGTH TEST SPECIMENS AND PLACEMENT OF CONCRETE FOR PROPER APPLICATION OF TECHNIQUES.
   - C. MASONRY CONSTRUCTION AS REQUIRED BY NYS SECTION 1705.4, LEVEL B SPECIAL INSPECTION, EXCEPT AS ALLOWED IN IBC SECTION 1705.4:
     1. AS MASONRY CONSTRUCTION BEGINS, PERIODIC INSPECTION OF PROPORTIONS OF SITE PREPARED MORTAR, CONSTRUCTION OF MORTAR JOINTS, AND LOCATION AND PLACEMENT OF REINFORCEMENT AND CONNECTORS.
     2. CONTINUOUS INSPECTION DURING THE LAYING OF MASONRY UNITS AND PLACEMENT OF REINFORCING STEEL AS FOLLOWS:
        - a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.
        - b. TYPE, SIZE LOCATION OF ANCHORS, AND DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, AND OTHER CONSTRUCTION.
        - c. SPECIFIED SIZE, GRADE, AND TYPE OF REINFORCEMENT.
        - d. PROTECTION OF MASONRY DURING COLD OR HOT WEATHER.
     3. CONTINUOUS INSPECTION OF WELDING OF REINFORCING BARS.
     4. PRIOR TO GROUTING, PERIODIC INSPECTION TO ENSURE CLEAN GROUT SPACE, PLACEMENT OF REINFORCEMENT AND CONNECTORS, PROPORTIONS OF SITE-PREPARED GROUT, AND CONSTRUCTION OF MORTAR JOINTS.
     5. DURING GROUT PLACEMENT TO ENSURE COMPLIANCE WITH CODE PROVISIONS AND CONSTRUCTION DOCUMENTS.
     6. DURING PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS.
     7. PERIODIC INSPECTION TO VERIFY COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND APPROVED SUBMITTALS
   - D. SPECIAL INSPECTION FOR EXISTING SITE SOIL CONDITIONS, DURING SITE PREPARATION AND FILL PLACEMENT, TO ENSURE LOAD-BEARING REQUIREMENTS IN COMPLIANCE WITH NYS SECTION 1705.6.
   - E. SPECIAL CASES AS DEEMED NECESSARY BY THE BUILDING OFFICIAL IN COMPLIANCE WITH IBC SECTION 1704.13.

GENERAL NOTES:

1. SPECIFICATIONS ARE PART OF THE CONSTRUCTION DOCUMENTS AND MUST BE USED IN CONJUNCTION WITH THE DRAWINGS.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BY MEASUREMENTS AT THE JOB SITE AND SHALL TAKE ANY AND ALL OTHER MEASUREMENTS NECESSARY TO VERIFY THE DRAWINGS AND TO PERFORM THE WORK PROPERLY. ANY DISCREPANCY BETWEEN THE DRAWINGS AND THE MEASURED DIMENSIONS OF THE EXISTING SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. NO WORK SHALL PROCEED UNTIL SUCH DISCREPANCIES HAVE BEEN RECTIFIED INCLUDING BUT NOT LIMITED TO FABRICATION OF MATERIALS. SUCH DISCREPANCIES BETWEEN THE DRAWINGS AND THE MEASURED DIMENSIONS SHALL NOT BE THE REASONS FOR ANY EXTRA COST OR DELAY IN THE EXECUTION OF THE WORK AND THE WORK SHALL BE PERFORMED AT NO EXTRA COST TO THE OWNER.
3. ALL CONTRACTORS ARE REQUIRED TO VISIT THE SITE AND FULLY INFORM THEMSELVES AS TO THE EXISTING CONDITIONS AND LIMITATIONS PRIOR TO SUBMITTING THEIR PROPOSAL/BID. FAILURE TO VISIT THE SITE AND NOT FAMILIARIZING THEMSELVES WITH THE CONDITIONS AND LIMITATIONS WILL IN NO WAY RELIEVE THE SUCCESSFUL BIDDER FROM FURNISHING ANY MATERIALS OR PERFORMING ANY WORK THAT MAY BE REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS AT NO ADDITIONAL COST TO THE OWNER.
4. THE CONTRACT STRUCTURAL DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR ALONE IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND SAFETY OF STRUCTURE AND WORKERS DURING THE ENTIRE CONSTRUCTION PERIOD, WHICH SHALL INCLUDE BUT NOT BE LIMITED TO DESIGN AND INSTALLATION OF BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, FORMS AND SCAFFOLDING, SHORING OF RETAINING WALLS AND OTHER TEMPORARY SUPPORTS AS REQUIRED. ANY DAMAGE TO THE STRUCTURE, IF IT OCCURRED, SHALL BE RECTIFIED TO THE ENTIRE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL SCHEDULE THE WORK IN CONSULTATION WITH THE OWNER AND IN SUCH A WAY AS TO MINIMIZE THE CONFLICT OF THE OPERATION OF THE BUILDING. COMPLY WITH APPLICABLE REQUIREMENTS OF OSHA AND OTHER GOVERNING BODIES HAVING JURISDICTION AT THE SITE.
5. IN CASE OF ANY DAMAGE TO THE CONSTRUCTION, THE CONTRACTOR SHALL REPAIR THE SAME TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
6. THE CONTRACTOR SHALL INFORM THE ENGINEER OF ANY DEMOLITION, ALTERATIONS REQUIRED OR INTERFERENCES NOT SHOWN ON THE DEMOLITION DRAWINGS FOR RESOLUTION. THE CONTRACTOR SHALL ALLOW 7 WORKING DAYS FOR RESOLUTION OF THE CONDITION UNLESS ADDITIONAL TIME IS STATED TO BE REQUIRED BY THE ENGINEER.
7. TYPICAL DETAILS ON THE DRAWINGS APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WHETHER OR NOT DETAILS ARE REFERENCED AT EACH LOCATION. NOTIFY ENGINEER OF CONFLICTS REGARDING APPLICABILITY OF TYPICAL DETAILS.
8. DO NOT LOAD THE FINISHED SLAB ON GRADE OR ELEVATED SLABS WITH ERECTION EQUIPMENT. DO NOT STACK CONSTRUCTION MATERIALS ON DECKS/SLABS. DO NOT CAUSE IMPACT LOADS TO DECK/SLAB DURING CONSTRUCTION.
9. VERIFY THE LOCATION OF CHASES, INSERTS, OPENINGS, SLEEVES, FINISHES, DEPRESSIONS, PADS, AND WALL OPENINGS.
10. PRINCIPAL OPENINGS THROUGH THE FRAMING AND SLABS ARE SHOWN ON DRAWINGS. COORDINATE WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS FOR ALL THE REQUIRED OPENINGS AND PROVIDE FOR REQUIRED OPENINGS WHETHER SHOWN ON THE STRUCTURAL DRAWING OR NOT. VERIFY SIZE AND LOCATION OF OPENINGS WITH THE MECHANICAL AND PLUMBING CONTRACTOR. DEVIATIONS FROM THE OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS MUST BE APPROVED PRIOR TO CONSTRUCTION/FABRICATION OF THE REQUIRED OPENINGS.
11. LOADING FOR MECHANICAL EQUIPMENT IS BASED ON THE UNITS SHOWN ON THE MECHANICAL DRAWINGS. ANY CHANGES IN TYPE, SIZE OR NUMBER OF PIECES OF EQUIPMENT SHALL BE REPORTED TO THE ARCHITECT FOR VERIFICATION OF THE ADEQUACY OF SUPPORTING MEMBERS PRIOR TO THE PLACEMENT OF SUCH EQUIPMENT.
12. SEE ARCHITECTURAL DRAWINGS FOR ELEVATIONS NOT SHOWN AND FOR EXACT LOCATION OF ALL SLAB DEPRESSIONS AND HOUSEKEEPING PADS. THE CONTRACTOR SHALL COMPARE THE STRUCTURAL SECTIONS WITH ARCHITECTURAL SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATING OR INSTALLING STRUCTURAL MEMBERS.

EXCAVATION NOTES:

1. PROTECT ABOVE AND BELOW GRADE UTILITIES WHICH ARE TO REMAIN.
2. PROTECT PLANT LIFE, LAWNS AND OTHER FEATURES REMAINING AS A PORTION OF FINAL LANDSCAPING.
3. PROTECT BENCH MARKS, EXISTING STRUCTURES, FENCES, SIDEWALKS, PAVING AND CURBS FROM EXCAVATION EQUIPMENT AND VEHICULAR TRAFFIC.
4. GRADE TOP PERIMETER OF EXCAVATION TO PREVENT SURFACE WATER FROM DRAINING INTO EXCAVATION.
5. HAND TRIM EXCAVATION. REMOVE LOOSE MATTER.
6. REMOVE LUMPED SUB-SOIL, BOULDERS AND ROCK.
7. NOTIFY ENGINEER OF UNEXPECTED SUBSURFACE CONDITIONS AND DISCONTINUE AFFECTED WORK AREA UNTIL NOTIFIED TO RESUME WORK.
8. CORRECT UNAUTHORIZED EXCAVATION AT NO EXTRA COST TO OWNER IN ACCORDANCE WITH BACKFILLING NOTES.
9. STOCKPILE EXCAVATED MATERIAL IN AREA DESIGNATED ON SITE AND REMOVE EXCESS MATERIAL NOT BEING REUSED FROM SITE.
10. PROTECT EXCAVATIONS BY METHODS REQUIRED TO PREVENT CAVE-IN OR LOOSE SOIL FROM FALLING INTO EXCAVATION.
11. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING STRUCTURES AND UTILITIES PRIOR TO EXCAVATION. CONTRACTOR SHALL ENSURE ALL SURROUNDING STRUCTURES ARE PROTECTED FROM THE EFFECTS OF ALL EXCAVATION.

DESIGN CODES/REFERENCE FOR DESIGN AND DELEGATED DESIGN

1. AISI 2017 EDITION OF THE COLD-FORMED STEEL DESIGN MANUAL.
2. AWS D1.1-2020 - STRUCTURAL WELDING CODE - STEEL
3. ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, 2019 EDITION.
4. STRUCTURAL WELDED WIRE REINFORCEMENT MANUAL OF STANDARD PRACTICE, WIRE REINFORCEMENT INSTITUTE.
5. ACI 530 BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES. 2013 EDITION.
6. SJI RECOMMENDED CODE OF STANDARD PRACTICE FOR STEEL JOISTS AND JOIST GIRDERS, 2015 EDITION
7. LIVE LOAD REDUCTION ON SUPPORTING ELEMENTS IN ACCORDANCE WITH IBC 2020.
8. ADDITIONAL DESIGN LOADS INDICATED ON STRUCTURAL DRAWINGS SHALL BE IDENTIFIED AS FOLLOWS:

   DL = DEAD LOAD
   LL = LIVE LOAD
   WL = WIND LOAD
   EQ = SEISMIC LOAD
   Lr = ROOF LIVE LOAD
   SL = SNOW LOAD

BACKFILLING NOTES:

1. CONTROLLED FILL: FREE DRAINING, NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF SAND OR CRUSHED STONE OR GRAVEL. CONTROLLED FILL SHALL CONFORM TO NYSDOT SUBBASE COARSE TYPE 2 OR 4, OR NO. 2 CRUSHED STONE AS INDICATED IN THE MATERIAL SPECIFICATIONS BELOW. SHALL BE FREE OF ORGANIC AND/OR FROZEN MATERIAL, WITH LESS THAN 10% FINES PASSING THE NO. 200 SIEVE.

SIEVE SIZE:	PERCENT PASSING
2 INCH	100
1/4 INCH	30-65
NO. 40	5-40
NO. 200	0-10

2. VERIFY EXISTING CONDITIONS AND SUBSTRATE.
3. VERIFY FILL MATERIALS TO BE REUSED ARE ACCEPTABLE.
4. COMPACT SUBGRADE TO 95 PERCENT MAXIMUM DRY DENSITY IN ACCORDANCE WITH ANSI/ASTMD1557.
5. CUT OUT SOFT AREAS OF SUBGRADE NOT CAPABLE OF IN-SITU COMPACTION. BACKFILL WITH TYPE C FILL AND COMPACT TO DENSITY EQUAL TO OR GREATER THAN REQUIREMENTS FOR SUBSEQUENT BACKFILL MATERIAL.
6. BACKFILL AREAS TO CONTOURS AND ELEVATIONS WITH UNFROZEN MATERIALS.
7. SYSTEMATICALLY BACKFILL TO ALLOW MAXIMUM TIME FOR NATURAL SETTLEMENT. DO NOT BACKFILL OVER POROUS, WET, FROZEN OR SPONGY MATERIALS.
8. PLACE AND COMPACT MATERIALS IN CONTINUOUS LAYERS NOT EXCEEDING 6 INCHES COMPACTED DENSITY.
9. ALL BACKFILL MATERIALS SHALL BE COMPACTED TO 95 PERCENT MAXIMUM DRY DENSITY IN ACCORDANCE WITH ANSI/ASTM D1557. MAINTAIN OPTIMUM MOISTURE CONTENT TO ATTAIN REQUIRED DENSITY.
10. AT COMPLETION OF WALL CONSTRUCTION, BACKFILL SHALL BE PLACED LEVEL WITH FINAL TOP OF WALL ELEVATION. IF FINAL GRADING, PAVING, LANDSCAPING AND/OR STORM DRAINAGE INSTALLATION ADJACENT TO THE WALL IS NOT PLACED IMMEDIATELY AFTER COMPLETION, TEMPORARY GRADING AND DRAINAGE SHALL BE PROVIDED TO ENSURE WATER RUNOFF IS NOT DIRECTED AT THE WALL OR ALLOWED TO COLLECT OR POND BEHIND THE WALL UNTIL FINAL CONSTRUCTION ADJACENT TO THE WALL IS COMPLETED.

STRUCTURAL STEEL NOTES:

1. DETAIL AND ERECT STRUCTURAL STEEL ELEMENTS IN ACCORDANCE WITH THE FOLLOWING:
   - A. AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
   - B. AISC MANUAL OF STEEL CONSTRUCTION.
   - C. AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
   - D. AWS STRUCTURAL WELDING CODE, D1.1.
2. PROVIDE STRUCTURAL STEEL OF THE FOLLOWING ASTM DESIGNATIONS UNLESS NOTED OTHERWISE:
   - A. STRUCTURAL STEEL WIDE FLANGE SHAPES: ASTM A 992
   - B. EDGE ANGLES, BENT PLATES, HANGERS AND BRACES:ASTM A 36
   - C. STRUCTURAL PIPE: ASTM A 53, GRADE B, TYPE E OR S
   - D. HOLLOW STRUCTURAL SHAPES: ASTM A 500, GRADE B
   - E. BASE PLATES AND MISCELLANEOUS STEEL PLATES: ASTM A 36
   - F. ANCHOR RODS: ASTM F 1554, GRADE 36 U.N.O.
3. CONNECTION MATERIALS:
   - A. BEAM-COLUMN STIFFENER PLATES AND DOUBLER PLATES TO MATCH THE GRADE STEEL OF STRUCTURAL ELEMENT:
   - B. HIGH STRENGTH BOLTS: ASTM A 325
   - C. HARDENED STEEL WASHERS: ASTM F 436
4. WELD MINIMUM SIZE AND STRENGTH:
   - A. PROVIDE MINIMUM SIZE OF FILLET WELDS AS SPECIFIED IN TABLE J2.4 OF THE AISC MANUAL.
   - B. PROVIDE MINIMUM EFFECTIVE THROAT THICKNESS OF PARTIAL PENETRATION GROOVE WELDS AS SPECIFIED IN TABLE J2.3 OF THE AISC MANUAL
   - C. DEVELOP THE FULL TENSILE STRENGTH OF THE MEMBER ELEMENT JOINED, ON ALL SHOP AND FIELD WELDS, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
   - D. WHERE CONNECTIONS ARE NOTED ON DRAWINGS AS MOMENT CONNECTIONS, PROVIDE WELDS TO DEVELOP FULL FLEXURAL CAPACITY OF THE LESSER MEMBER.
   - E. PROVIDE ELECTRODES FOR FIELD OR SHOP WELDING THAT CONFORM TO ASTM A 233(CLASS 70).
   - F. ALL WELDS ARE CONTINUOUS FOR THE FULL LENGTH OF THE CONNECTION UNLESS NOTED OTHERWISE ON DRAWINGS.
5. PROVIDE MINIMUM OF TWO BOLTS PER CONNECTION. PROVIDE MINIMUM BOLT DIAMETER OF 3/4 INCH.
6. PROVIDE BOLTS, NUTS AND WASHERS THAT ARE HOT DIP GALVANIZED ACCORDING TO ASTM A 153, CLASS C WHEN USED TO CONNECT STEEL ELEMENTS THAT ARE HOT DIP GALVANIZED AFTER FABRICATION.
7. SUBMIT CALCULATIONS FOR CONNECTION DESIGNS NOT FULLY DETAILED ON DRAWINGS. DESIGN CONNECTIONS UNDER SUPERVISION OF REGISTERED PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE PROJECT IS BEING CONSTRUCTED, EMPLOYED BY THE STEEL FABRICATOR. DESIGN CALCULATIONS TO BE SEALED BY FABRICATOR'S REGISTERED PROFESSIONAL ENGINEER. SHOP DRAWINGS SUBMITTED WITHOUT COMPLETE DESIGN CALCULATIONS WILL NOT BE REVIEWED.
8. PROVIDE SIMPLE SHEAR CONNECTIONS FOR STEEL CONNECTIONS NOT FULLY DETAILED BY UTILIZING HIGH STRENGTH BEARING BOLTS IN SINGLE OR DOUBLE SHEAR. PROVIDE DOUBLE ANGLE BOLTED CONNECTIONS WHERE POSSIBLE. UNLESS LARGER REACTION IS SHOWN ON DRAWINGS, CONNECTION DESIGNER SHALL DESIGN EACH CONNECTION FOR MAXIMUM END REACTION RESULTING FROM THE APPLICATION OF THE ALLOWABLE UNIFORM LOADS LISTED IN TABLES OF PART 2 OF THE AISC MANUAL OF STEEL CONSTRUCTION.
   - 8.1 ADD TO REACTIONS LISTED ABOVE, LOADS OR REACTIONS OF MEMBERS SUPPORTED BY BEAM WITHIN THREE FEET OF BEAM END AND VERTICAL COMPONENTS OF FORCES IN BRACE MEMBERS FRAMING INTO BEAM.
9. STEEL FABRICATION:
   - A. FABRICATE AND ASSEMBLE STRUCTURAL MEMBER/ ASSEMBLIES IN SHOP TO GREATEST EXTENT POSSIBLE.
   - B. SPLICING OF STRUCTURAL STEEL MEMBERS IS PROHIBITED WITHOUT PRIOR APPROVAL BY THE A/E.
   - C. FABRICATOR SHALL BE RESPONSIBLE FOR ALL ERRORS OF DETAILING ON THE SHOP DRAWINGS, ERRORS IN FABRICATION, AND THE CORRECT FITTING OF STRUCTURAL STEEL MEMBERS.
   - D. CONFORM TO THE AISC CODE OF STANDARD PRACTICE, FOR ERECTION TOLERANCES. FIELD MODIFICATION TO STRUCTURAL STEEL IS PROHIBITED WITHOUT PRIOR APPROVAL BY THE A/E.
   - E. CLEAN STEEL OR RUST, LOOSE MILL SCALE AND OTHER FOREIGN MATERIALS WHERE REQUIRED FOR FABRICATION, FITTING UP, OR WELDING.
   - F. DO NOT CUT STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT PRIOR REVIEW AND APPROVAL OF THE A/E.
10. HOT DIP GALVANIZE AFTER FABRICATION ALL STRUCTURAL STEEL AND THEIR CONNECTIONS PERMANENTLY EXPOSED TO THE OUTSIDE. ITEMS INCLUDED BUT NOT LIMITED TO:
    - A. SHELF ANGLES.
    - B. EMBEDDED PLATES IN CONCRETE
    - C. LINTELS
    - D. COLUMNS

CONCRETE REINFORCING NOTES:

1. PROVIDE NEW BILLET STEEL REINFORCEMENT BARS IN ACCORDANCE WITH ASTM A 615 GRADE 60.
2. COORDINATE PLACEMENT OF CAST-IN-PLACE EMBEDS AND ANCHORS RODS. SET ANCHOR RODS WITH A TEMPLATE. SECURELY ATTACH EMBEDDED ITEMS TO FORMWORK OR REINFORCING.
3. PROVIDE CLASS "B" REINFORCEMENT SPLICES FOR CONTINUOUS REINFORCEMENT. PROVIDE STANDARD 90-DEGREE HOOKS IN ACCORDANCE WITH ACI 318, UNLESS NOTED OTHERWISE.
4. MAINTAIN THE FOLLOWING CONCRETE COVERAGE FOR REINFORCING STEEL UNLESS NOTED OTHERWISE:
   - A. CONCRETE CAST AGAINST EARTH: 3 INCHES
   - B. CONCRETE EXPOSED TO WEATHER
     No. 6 AND LARGER: 2 INCHES
     No. 5 AND SMALLER: 1 1/2 INCHES
   - C. CONCRETE NOT EXPOSED TO WEATHER OR CONCRETE NOT IN CONTACT WITH THE GROUND:
     SLAB AND WALLS
     No. 11 AND SMALLER: 3/4 INCHES
5. DO NOT WELD OR BEND REINFORCEMENT IN THE FIELD UNLESS SPECIFICALLY SHOWN OR APPROVED BY STRUCTURAL ENGINEER.
6. WHEN SPECIFICALLY APPROVED, PROVIDE WELDED REINFORCEMENT IN ACCORDANCE WITH ASTM A 706 GRADE 60. USE LOW HYDROGEN ELECTRODES FOR WELDING OF REINFORCEMENT IN CONFORMANCE WITH "RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL," AMERICAN WELDING SOCIETY, AWS D12.1. PROVIDE ASTM GRADE 40 REINFORCING BARS WHERE DETAILED BARS ARE TO BE WELDED TO A STEEL SECTION.
7. WHERE REQUIRED, PROVIDE DOWELS TO MATCH SIZE AND SPACING OF MAIN REINFORCING.
8. PROVIDE CONTINUOUS HORIZONTAL WALL REINFORCEMENT WITH 90-DEGREE BENDS AND EXTENSIONS AT CORNERS AND INTERSECTIONS AS SHOWN ON TYPICAL BAR PLACING DETAILS.

METAL DECK:

1. PROVIDE DESIGN, FABRICATIONS, AND ERECTION OF METAL DECK CONFORMING TO THE STEEL DECK "CODE OF RECOMMENDED STANDARD PRACTICE AND BASIC DESIGN SPECIFICATIONS"
2. FORM ROOF AND FLOOR DECK FROM STEEL SHEETS CONFORMING TO ASTM A611 GRADE C AND D OR A653 OR HIGHER SPECIFICATIONS WITH A MINIMUM YIELD STRENGTH OF 33 KSI.
3. ATTACH SHEETS OF STEEL SUPPORT MEMBERS AS INDICATED AND IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION. WHEN DECK IS SCHEDULED TO BE EXPOSED, DE-SLAG, CLEAN AND TOUCHED UP WELDS WITH ZINC-RICH PRIMER.
4. LAP ROOF AND FLOOR DECK ENDS MINIMUM OF 2 INCHES. WHEN FASTENING DECK TO SUPPORT MEMBERS PROVIDE WELDING MATERIALS INSTALLATION PROCEDURES TO PREVENT BURNING OF HOLES IN DECK.
5. PROVIDE SIX INCH CLOSURE STRIP WHERE CHANGES IN DECK DIRECTION OCCUR. CLOSURE TO BE SAME GAUGE AS DECK.
6. AT ENDS OF DECKS OR WHERE CHANGES OF DECK DIRECTION OCCUR, FASTEN TO SUPPORTS AT EACH FLUTE. PROVIDE ADEQUATE CLOSURES AND FASTENERS TO SIDES AT EIGHTEEN INCHES ON CENTER.
7. WHERE PARTIAL PANELS MAY BE REQUIRED TO COMPLETE DECK INSTALLATION AT PERIMETER OF STRUCTURE, PROVIDE WELDS IN EACH FLUTE TO STRUCTURAL MEMBERS. INSTALL DECK IN THREE CONTINUOUS SPAN LENGTHS.
8. AT PERIMETER OF DECK, SECURE DECK TO STRUCTURAL MEMBERS WITH SAME ATTACHMENT AND SPACING SUPPORT ATTACHMENT AS INDICATED ON PLANS.
9. DECK CLOSURE STRIPS SHALL BE INSTALLED ON STRUCTURAL STEEL PRIOR TO DECK LAYING.

CONCRETE NOTES:

1. PROVIDE BATCH MIXING, TRANSPORTATION, PLACING AND CURING OF CONCRETE IN ACCORDANCE WITH RECOMMENDATIONS OF ACI 301 AND ACI 318. USE TYPE I PORTLAND CEMENT UNLESS NOTED OTHERWISE. PROVIDE ADMIXTURES AND SPECIAL REQUIREMENTS AS SPECIFIED.
   A. ALL CONCRETE SHALL BE NORMAL WEIGHT (145 PCF) CONCRETE f'c = 4000 PSI AT 28 DAYS.
2. PROVIDE CONCRETE MIXES DESIGNED BY A QUALIFIED TESTING LABORATORY FOR REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER.
3. PROVIDE CONSTRUCTION AND CONTROL JOINTS AS REQUIRED BY A.C.I CODE AND AS INDICATED ON DRAWINGS. HORIZONTAL CONSTRUCTION JOINTS ARE NOT ALLOWED UNLESS SPECIFICALLY NOTED OR APPROVED BY STRUCTURAL ENGINEER. SUBMIT PLAN TO ENGINEER INDICATING PROPOSED CONTROL AND EXPANSION JOINT LOCATIONS IN CONCRETE SLABS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
4. CHAMFER EXPOSED CONCRETE EDGES 3/4 INCH UNLESS NOTED OTHERWISE.
5. WIRE BRUSH AND CLEAN CONSTRUCTION JOINTS PRIOR TO POURING NEW CONCRETE.
6. PROVIDE ADEQUATE STRUCTURAL FRAMING AS APPROVED BY STRUCTURAL ENGINEER FOR MECHANICAL OPENING THROUGH THE SLABS, WALLS AND FLOOR DECK.

COLD FORMED STEEL:

1. PROVIDE ALL STUDS AND/OR JOISTS AND ACCESSORIES OF THE TYPE, SIZE, GAGE AND SPACING SHOWN ON THE DRAWINGS.
2. DESIGN ALL STRUCTURAL MEMBERS IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE (AISI) "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION.
3. FORM ALL FRAMING MEMBERS FROM CORROSION RESISTANT STEEL, CORRESPONDING TO THE REQUIREMENTS OF ASTM A653 AND THE FOLLOWING STRENGTH REQUIREMENTS:

FRAMING MEMBER	GA. THICKNESS (MIL)	MINIMUM YIELD
STUDS, JOISTS	18 (43)	33 KSI
STUDS, JOISTS	16,14 (54,68)	50 KSI
TRACKS, SOLID BLOCKING	16 MIN. (54)	50 KSI

4. PLACE ALL COLD-FORMED STEEL STUD WALL BRIDGING HORIZONTALLY WITH A MAXIMUM VERTICAL SPACING OF FOUR FEET UNLESS NOTED OTHERWISE. AS AN OPTION, CONTINUOUS COLD-FORMED CHANNELS MAY BE POSITIONED THROUGH THE STUD PUNCH OUTS AS BRIDGING PROVIDED THE CHANNEL IS PROPERLY FASTENED TO EACH STUD.
5. INSTALL AXIALLY LOADED STUDS IN A MANNER WHICH WILL ASSURE THAT THEIR ENDS ARE POSITIONED AGAINST THE INSIDE OF RUNNER WEB PRIOR TO FASTENING.
6. FASTEN COMPONENTS WITH SELF-DRILLING SCREWS OR WELDING. PROVIDE SCREWS OF SUFFICIENT SIZE TO ENSURE THE STRENGTH OF THE CONNECTION. WIRE TYING OF COMPONENTS IS NOT PERMITTED. TOUCH UP ALL WELDS WITH A ZINC-RICH PAINT.
7. WELDING OF COLD-FORMED STUDS MAY BE PERFORMED USING A MINIMUM ONE-EIGHTH INCH AWS TYPE 6013 WELDING ROD.
8. SECURELY ANCHOR RUNNERS TO THE SUPPORTING STRUCTURE. PROVIDE COMPLETE, UNIFORM, AND LEVEL BEARING SUPPORT FOR THE BOTTOM RUNNER.
9. SECURELY ANCHOR ABUTTING LENGTHS OF RUNNER TO A COMMON STRUCTURAL ELEMENT, BUTT-WELDED OR SPLICED.
10. PLUMB, ALIGN, AND SECURELY ATTACH STUDS TO THE FLANGES OF BOTH UPPER AND LOWER RUNNERS. SPLICES IN STUDS ARE NOT PERMITTED.
11. PROVIDE HEADERS AND SUPPORTING STUDS FOR FRAMING OF WALL OPENINGS.

SPECIAL INSPECTION REQUIREMENTS

CONTINUOUS	PERIODIC	REQ'D	INSPECTION AND TESTING	NYS 2020 REFERENCE	REFERENCE STANDARD
	X	X	HIGH STRENGTH BOLTING	1705.2	AISC 360
	X	X	WELDING OF STRUCTURAL STEEL	1705.2	AISC 360, AWS D1.1
X	X	X	STRUCTURAL STEEL MEMBERS	1705.2	AISC 360
	X	X	COLD-FORMED STEEL DECKING	1705.2	SDI
	X	X	OPEN-WEB STEEL JOISTS AND JOIST-GIRDERS	1705.2	SJI
	X	X	COLD FORMED STEEL TRUSSES	1705.2	-
	X	X	INSPECTION OF STEEL FRAME JOINT DETAILS	1704.3, 1704.3.2	AISC 360
X	X	X	CONCRETE CONSTRUCTION	1705.3; TABLE 1705.3	ACI 318
			MASONRY CONSTRUCTION: TYPE A	1705.4	TMS 402/ACI 530/ASCE 5 & TMS 602/ACI 530.1/ASCE
X	X	X	MASONRY CONSTRUCTION: TYPE B	1705.4	TMS 402/ACI 530/ASCE 5 & TMS 602/ACI 530.1/ASCE
			MASONRY CONSTRUCTION: TYPE C	1705.4	TMS 402/ACI 530/ASCE 5 & TMS 602/ACI 530.1/ASCE
	X		WOOD CONSTRUCTED SITE-BUILT ASSEMBLIES	1705.5; 1704.2.5	-
			METAL -PLATE-CONNECTED WOOD TRUSSES	1705.5	-
X	X	X	SOIL TESTING AND INSPECTION	1705.6; TABLE 1705.6	-
			DRIVEN DEEP FOUNDATIONS	1705.7; TABLE 1705.7	-
			CAST-IN-PLACE DEEP FOUNDATIONS	1705.3, 1705.8; TABLE 1705.8	-
			HELICAL PILE FOUNDATIONS	1705.9	-

NOTE:
1. THE ABOVE TABLE IS INTENDED TO SUMMARIZE THE REQUIRED STRUCTURAL SPECIAL INSPECTIONS AND ALERT THE OWNER AND CONTRACTOR OF THEIR INCLUSION IN THE SCOPE. THE CONTRACTOR IS RESPONSIBLE FOR BEING FAMILIAR WITH THE APPLICABLE BUILDING CODE AND COMPLYING WITH ALL OF THE SPECIFIC REQUIREMENTS OF THE SECTIONS LISTED ABOVE. MORE SPECIFIC REQUIREMENTS ARE OUTLINED IN THE REFERENCE CODES LISTED IN THIS TABLE. REFER TO 014500 STATEMENT OF SPECIAL INSPECTIONS AND TESTS SPEC FOR MORE OF A BREAKDOWN ON THE INSPECTION TYPES.
2. THE REFERENCE STANDARD COLUMN ABOVE IS FOR GENERAL USE, THE CONTRACTOR IS RESPONSIBLE FOR BEING IN COMPLIANCE WITH ALL STANDARDS REFERENCED IN THE GOVERNING BUILDING CODE.

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CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
MDM	MDM	KDD	

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT
CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CONTRACT
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GENERAL CONSTRUCTION

STATUS
BID SET

SHEET TITLE
DESIGN CRITERIA AND GENERAL NOTES

DRAWING No.
S 0

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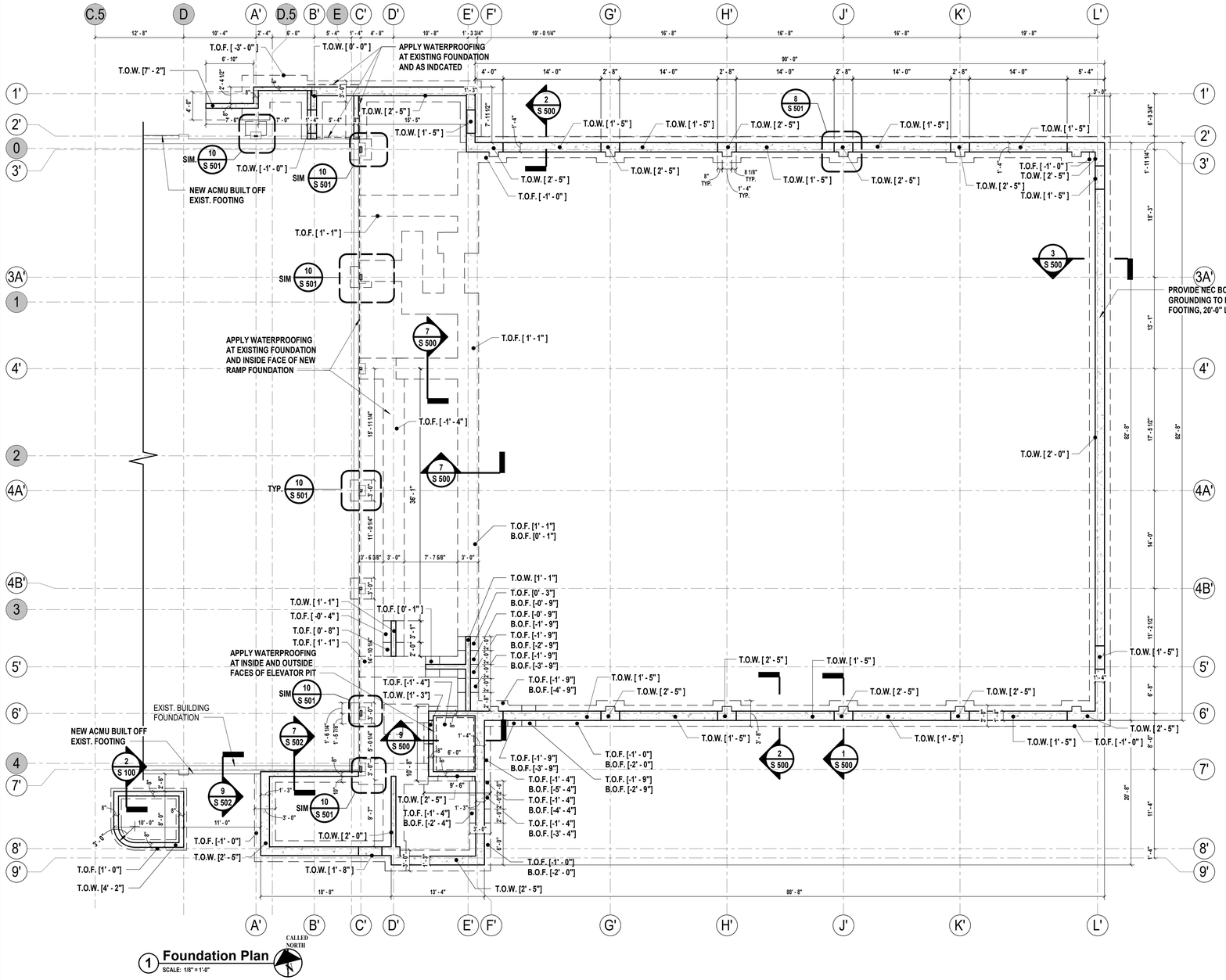


1 Foundation Plan
SCALE: 1/8" = 1'-0"

LEGEND:

U.O.N. =	UNLESS OTHERWISE NOTED
F# =	FOOTING DESIGNATION
T.O.F. =	TOP OF FOOTING
T.O.W. =	TOP OF WALL
T.O.B.S. =	TOP OF BRICK SHELF
T.O.P. =	TOP OF PEDESTAL
T.O.S. =	TOP OF SLAB

FOUNDATION PLAN NOTES:

1. ELEVATIONS SHOWN THUS [ ] ARE RELATIVE TO EXISTING FINISHED FIRST FLOOR ELEVATION [0'-0"].
2. ALL EXCAVATED EARTH SHALL BE REPLACED WITH TYPE 'C' CONTROLLED FILL AS PER SPECIFICATION SECTION 312323.13.
3. CONTRACTOR SHALL COORDINATE SIZE AND LOCATIONS OF ALL REQUIRED PIPING AND CONDUIT PENETRATIONS THROUGH FOUNDATION WALL WITH ALL OTHER CONTRACTS. PROVIDE PIPE SLEEVES AND REINFORCEMENT AROUND PENETRATIONS AS PER DETAIL 6 ON SHEET S500
4. REFER TO 'A' DWGS FOR WATERPROOFING REQUIREMENTS.
5. COORDINATE LOCATIONS OF REINFORCEMENT DOWELS INTO BUILDING WALLS WITH MASONRY TRADE.
6. SEE GEOTECHNICAL REPORT FOR SOIL PREPARATION BELOW FOOTINGS AND SLAB.
7. COORDINATE WITH ELECTRICAL CONTRACTOR AND ELECTRICAL DRAWINGS FOR NEC REQUIRED BONDING TO CONCRETE REINFORCEMENT AND HAVE INSPECTED BY BUILDING OFFICIAL PRIOR TO POURING CONCRETE.

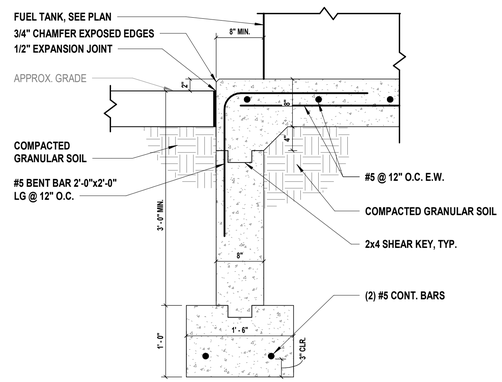
DESIGN LOADS:

DESIGNED IN ACCORDANCE WITH 2020 NYS BUILDING CODE AND ACSE 7-16
OCCUPANCY/RISK CATEGORY IV

1. BUILDING DESIGN LOADS:
   - FIRST FLOOR LIVE LOAD = 100 PSF
   - FIRST FLOOR COLLATERAL DEAD LOAD = 10 PSF
   - SECOND FLOOR LIVE LOAD = 100 PSF
   - SECOND FLOOR DEAD LOAD = 70 PSF
   - ROOF T.C. LIVE LOAD = 20 PSF
   - ROOF T.C. DEAD LOAD = 15 PSF
   - ROOF B.C. LIVE LOAD = 10 PSF
   - ROOF B.C. DEAD LOAD = 10 PSF
   - RTU-1, 2, 3= 600 LBS
2. SNOW LOADS:
   - GROUND SNOW LOAD, P_g = 30 PSF
   - (EXPOSURE) C_e = 1.0
   - (THERMAL) C_t = 1.0
   - (IMPORTANCE) I_s = 1.2
   - FLAT ROOF SNOW LOAD PF = I_s * P_g = 36 PSF
3. WIND LOADS:
   - BASIC WIND SPEED: 127 MPH
   - EXPOSURE: B
   - EXPOSURE ADJUSTMENT FACTOR: 1.05
   - INTERNAL PRESSURE COEFFICIENT: Gcpi = ±0.18

		EXPOSURE B WIND LOADS		EXPOSURE ADJUSTMENT COEFFICIENT		DESIGN WIND LOADS
MWFRS WALL	(END ZONE)	33.8 PSF	x	1.0	=	33.8 PSF
MWFRS WALL	(INT. ZONE)	22.5 PSF	x	1.0	=	22.5 PSF
MWFRS ROOF	(END ZONE)	-11.2 PSF	x	1.0	=	-11.2 PSF
MWFRS ROOF	(INT. ZONE)	-10.0 PSF	x	1.0	=	-10.0 PSF
MWFRS ROOF	(UPLIFT)	-22.5 PSF	x	1.0	=	-22.5 PSF
COMPONENTS & CLADDING	(WALL PRESSURE)	30.5 PSF	x	1.0	=	30.5 PSF
	(WALL SUCTION)	-33.1 PSF	x	1.0	=	-33.1 PSF
	(ROOF PRESSURE)	12.4 PSF	x	1.0	=	12.4 PSF
	(ROOF SUCTION)	-49.0 PSF	x	1.0	=	-49.0 PSF

4. SEISMIC CRITERIA:
   - SITE CLASS: D
   - (IMPORTANCE) I_e = 1.50
   - F_a = 1.6 F_v = 2.4
   - S_S = 0.223%g S_1 = 0.068%g
   - S_{MS} = 0.357 S_{M1} = 0.163
   - S_{DS} = 0.238 S_{D1} = 0.109
   - SEISMIC DESIGN CATEGORY: B
   - EQUIVALENT LATERAL FORCE PROCEDURE
   - ORDINARY REINFORCED MASONRY SHEAR WALLS
   - R = 2.0 C_s = 0.1487
   - LATERAL FORCE F1 = 215.4 KIP (1st FLOOR)
5. SOIL BEARING CAPACITY: 2.0 TONS/S.F.
   AS REFERENCED BY SUB-SURFACE SOILS INVESTIGATION PERFORMED BY TECTONIC ENGINEERING AND SURVEYING CONSULTANTS P.C. (JULY 2019)



2 Fuel Tank Foundation
SCALE: 1" = 1'-0"

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CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE, CARMEL HAMLET NY, 10512

CONTRACT
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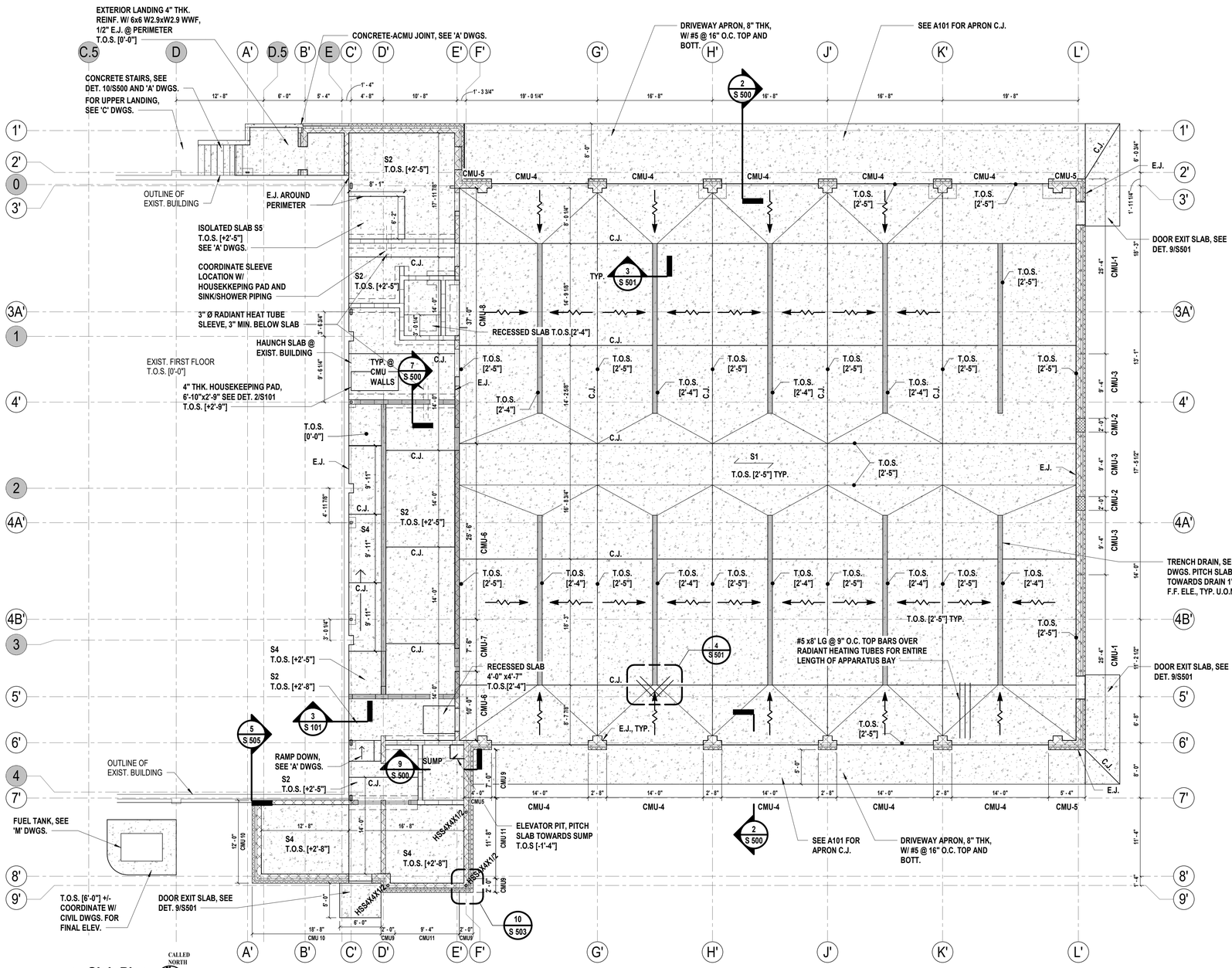
SHEET TITLE
FOUNDATION PLAN AND DESIGN LOADS

DRAWING No.
S 100

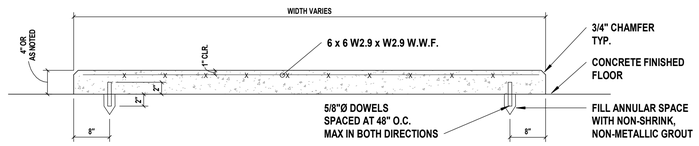


1 Slab Plan
SCALE: 1/8" = 1'-0"

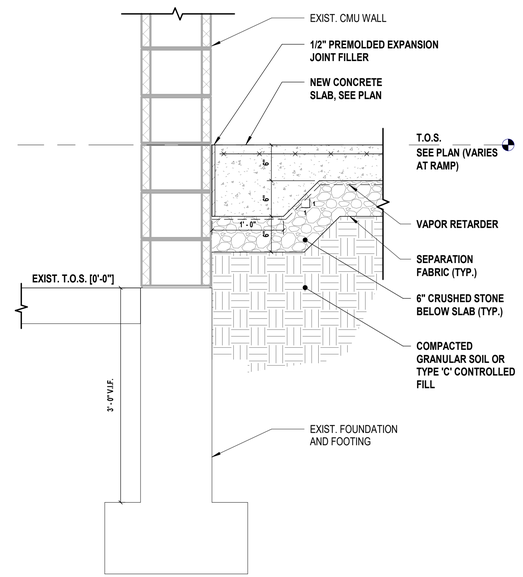
CMU SHEAR WALL REINFORCEMENT REQUIREMENTS

TYPE	VERT. REINF.		END ZONE LENGTH AT EACH END	DOWEL LENGTH, (EMBEDMENT INTO FND. WALL)	
	END ZONE	INT. ZONE		END ZONE	MIDDLE ZONE
CMU-1	(2)#6, EACH END	#6@24" O.C.	16" (2 CELLS)	60",(30")	32",(16")
CMU-2	#6@8" O.C.		FULL WIDTH	60",(16")	
CMU-3	-	#5@24" O.C.	-	-	32",(16")
CMU-4	-	#6@24" O.C.	-		-
CMU-5	#6@8" O.C.	#6@24" O.C.	FULL WIDTH	60",(30")	
CMU-6	(2)#5 EACH END	#5@32" O.C.	16" (2 CELLS)	48",(16")	48",(16")
CMU-7	-	#5@24" O.C.	-		32",(16")
CMU-8	(2)#5 ONE END	#5@32" O.C.	16" (2 CELLS)	48",(16")	
CMU-9	(2)#5 PER CELL	-	-	48",(16")	-
CMU-10	(2)#5 ONE END	#5@8" O.C.	16" (2 CELLS)	48",(16")	32",(16")
CMU-11	(2)#5 ONE END	#5@32" O.C.	16" (2 CELLS)	48",(16")	32",(16")

NOTE: SEE SPECIFICATION FOR HORIZONTAL REINFORCEMENT AND SPACING



2 Typical Housekeeping Pad
SCALE: 12" = 1'-0"



3 Haunched Slab at Existing Building
SCALE: 1" = 1'-0"

LEGEND:

- C.J. = CONTROL JOINT
- E.J. = 1/2" PREMOLDED EXPANSION JOINT
- E.O.S. = EDGE OF SLAB
- T.O.S. = TOP OF SLAB
- T.O.G. = TOP OF GRATING
- U.O.N. = UNLESS OTHERWISE NOTED
- H.P. = HIGH POINT OF PITCHED SLAB
- L.P. = LOW POINT OF PITCHED SLAB
- INDICATES PITCH DIRECTION OF SLAB
- INDICATES CHANGE IN SLAB ELEVATION

MASONRY NOTES:

1. ALL VERTICAL MASONRY WALL REINFORCEMENT SHALL BE #5 BARS SPACED AT A MAXIMUM OF 32" O.C., TYP. UNLESS OTHERWISE NOTED.
2. THE FIRST CELL ADJACENT TO MASONRY OPENINGS, AS WELL AS ALL CORNERS, SHALL CONTAIN (1) CONT. #5 BAR, TYP. AT EACH SIDE OF OPENING UNLESS OTHERWISE NOTED.
3. FILL ALL MASONRY CELLS CONTAINING REINFORCEMENT SOLID WITH GROUT, TYP.,
4. REFER TO 'A' DWGS. AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT OUTLINED HERE, INCLUDING HORIZONTAL REINFORCEMENT AND VENEER TIES.
5. ALL VERTICAL REINFORCEMENT INTERRUPTED BY STRUCTURAL STEEL SHALL BE WELDED TO TOP OF STEEL MEMBERS, TYP.
6. COORDINATE PLACEMENT OF VERTICAL WALL DOWELS EMBEDDED INTO FOUNDATION WALL WITH CELLS OF MASONRY WALL. DOWEL SPACING TO MATCH SPACING OF VERTICAL REINFORCEMENT IN WALLS, TYP.
7. CMU ON EACH SIDE OF TRAINING DEVICE ATTACHMENTS SHALL HAVE #6 BARS IN GROUTED CELLS FOR FULL HEIGHT

NOTES:

1. ELEVATIONS SHOWN THUS [ ] ARE RELATIVE TO EXISTING FINISHED FIRST FLOOR ELEVATION [0'-0"].
2. S1 — INDICATES 8" CONCRETE SLAB ON GRADE, REINFORCED WITH (2) LAYERS OF 6x6 - W4.0xW4.0 W.W.F.
3. S2 — INDICATES 6" CONCRETE SLAB ON GRADE REINFORCED WITH (1) LAYER OF 6x6 - W2.9xW2.9 W.W.F.
4. S3 — INDICATES SPAN OF 4" CONCRETE SLAB REINFORCED WITH 6x6 - W2.9xW2.9 W.W.F. AND 1.3C 20 GA. GALVANIZED METAL FORM DECK AS MANUFACTURED BY VULCRAFT NUCOR OR APPROVED EQUAL.
3. S4 — INDICATES 6" CONCRETE SLAB ON GRADE REINFORCED WITH 6x6 - W2.9xW2.9 W.W.F. NO RADIANT HEAT TUBING THIS SLAB.
5. S5 — INDICATES SPAN OF 10" CONCRETE SLAB ON GRADE, REINFORCED WITH 6x6 - W2.9xW2.9 W.W.F.TOP AND #4 @ 12" O.C. E.W. BOTTOM. NO RADIANT HEAT TUBING THIS SLAB.
6. PROVIDE 1/2" PRE-MOLDED EXPANSION JOINT AROUND PERIMETER OF CONCRETE SLAB ON METAL DECK AND SLAB ON GRADE WHERE IT ABUTS THE FOUNDATION WALL OF THE BUILDING.
7. PROVIDE CONTINUOUS 12 GA. POURSTOP WITH 18 GA. CELL CLOSURE AROUND PERIMETER OF FLOOR SLAB WHERE IT ABUTS THE FOUNDATION WALL AND AT EDGES OF SLAB OPENINGS, TYP.
8. COORDINATE LOCATIONS OF INTERIOR MASONRY WALLS WITH 'A' DWGS. PROVIDE #5 DOWELS, 1'-4" x 6" LG. @ 48" O.C. TO BE EMBEDDED INTO CONCRETE FLOOR SLAB.
9. WHERE RADIANT HEATING TUBES MERGE AT MANIFOLD, MAINTAIN 1 1/2" CLEARANCE BETWEEN TUBES. RADIANT HEATING TUBES SHALL BE SUPPORTED ON LOWER LAYER OF MESH.

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MDM/TZY	MDM	KDD	

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STATUS

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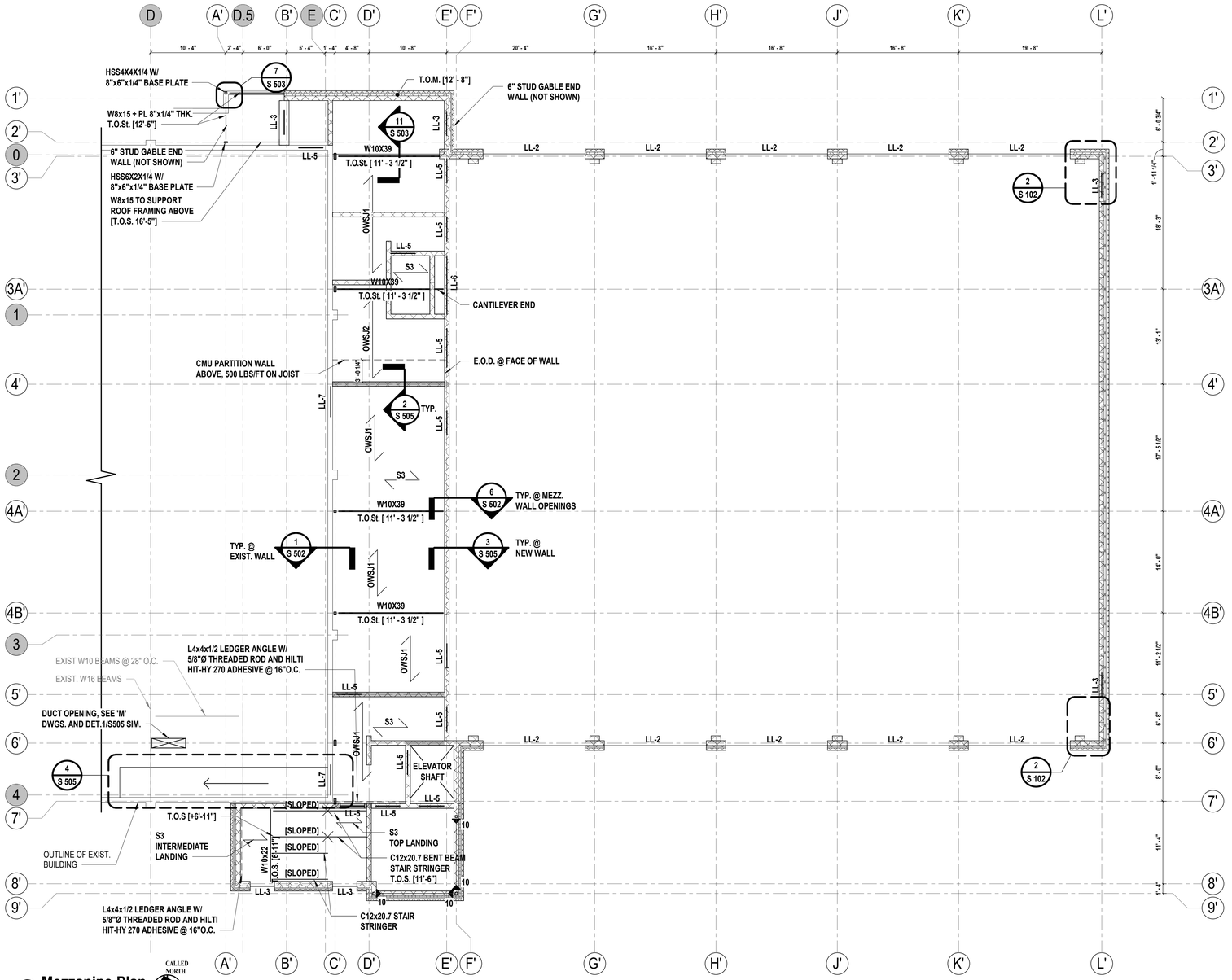
SHEET TITLE

MASONRY REINFORCING AND SLAB PLAN

DRAWING No.

S 101



1 Mezzanine Plan

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

LEGEND:

- = BEARING WALL
- = TUBE COLUMN FROM ABOVE
- = MASONRY WALL REINFORCING
- E.O.D. = EDGE OF DECK
- = MOMENT CONNECTION REQUIRED, NUMBER INDICATES ASD MOMENT CAPACITY IN K-FT
- = BEND IN STEEL BEAM, TO BE SHOP WELDED

NOTES:

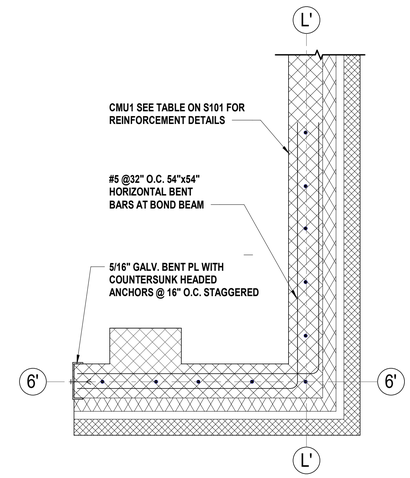
1. TOP OF STEEL SHALL BE SET AT [11' - 3 1/2"] RELATIVE TO EXISTING FINISHED FIRST FLOOR ELEVATION OF [0'-0"].
2. S3 — INDICATES SPAN OF 4" CONCRETE SLAB, REINFORCED WITH 6x6 - W2.9xW2.9 W.W.F. AND 1.3C 20GA. METAL FORM DECK AS MANUFACTURED BY VULCRAFT NUCOR OR APPROVED EQUAL.
3. OWSJ1 — INDICATES SPAN OF 10K1 OPEN WEB STEEL JOISTS AT 12" O.C. AS MANUFACTURED BY VULCRAFT OR APPROVED EQUAL.
4. OWSJ2 — INDICATES SPAN OF 10K1 OPEN WEB STEEL JOISTS AT 12" O.C. WITH POINT LOAD OF 500LBS AS MANUFACTURED BY VULCRAFT OR APPROVED EQUAL. SEE PLAN FOR POINT LOAD LOCATION FROM CMU PARTITION.
5. COORDINATE DIMENSIONS OF STAIR LANDING FRAMING WITH STAIR MANUFACTURER. SEE 'A' DWGS. FOR ADDITIONAL INFORMATION.
6. ANY HOLES CORED THRU THE MEZZANINE SLAB MUST BE A MINIMUM OF 6" FROM THE WALL & THROUGH THE UPTURNED FLUTES OF THE DECKING. HOLES SHALL BE SPACED A MINIMUM OF 12" APART.
7. FOR LOCATIONS OF TRAINING EQUIPMENT & OPENINGS ON MEZZANINE SEE ARCHITECTURAL PLAN.
8. PROVIDE CONTINUOUS 12 GA. POURSTOP WITH 18 GA. CELL CLOSURE AROUND PERIMETER OF FLOOR SLAB WHERE APPLICABLE.

LINTEL SCHEDULE

MARK	SIZE	DETAILS	COMMENTS
LL-1	(3) L6 x 3-1/2x 5/16", AND PL 1/4" x 16" x M.O.		NOTES 1-5, 7
LL-2	W16x36 W/ L3x3x1/4, AND PL 1/4" x 16" x M.O.		NOTES 1-4, 6, 7
LL-3	(3) L3 x 3 x 1/4", AND PL 1/4" x 16" x M.O.		NOTES 1-5, 7
LL-4	(2) L3 1/2 x3 1/2 x 1/4"		NOTES 1-5
LL-5	(2) L4 x3 1/2 x 1/4"		NOTES 1-5
LL-6	W8x21 W/ PL 1/4" x 7 1/2" x M.O.		NOTES 1-4, 7
LL-7	(2) L4 x4 x 3/8"		NOTES 1-5
LL-8	W8x21 W/ PL 1/4" x 7 1/2" x M.O.		NOTES 1-4, 7

NOTES:

1. LINTEL LENGTH SHALL BE M.O. + 1'-4" TO PROVIDE MIN. BEARING OF 8" ONTO SOLID MASONRY ON EACH SIDE.
2. ALL EXTERIOR LINTELS TO BE SHOP APPLIED HOT DIPPED GALVANIZED.
3. WELD VERTICAL REINFORCEMENT INTERRUPTED BY MASONRY OPENINGS TO TOP OF THE STEEL LINTELS, TYPICAL.
4. REFER TO ARCHITECTURAL FLOOR PLANS AND ELEVATIONS FOR LINTEL LOCATIONS.
5. VERTICAL LEGS OF DOUBLE ANGLES SHALL BE WELDED TOGETHER.
6. WELD REINFORCEMENT TO TOP OF W16x36, #6 BARS @ 24"O.C. FOR FULL WALL HEIGHT, COORDINATE LOCATIONS WITH CMU CORE LOCATIONS
7. WELD PLATE TO BOTTOM OF LINTEL WITH CONTINUOUS 3/16" FILLET WELD.



2 Masonry Corner Detail

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

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CONSULTANTS:

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MDM/TZY	MDM/TZY	KDD	
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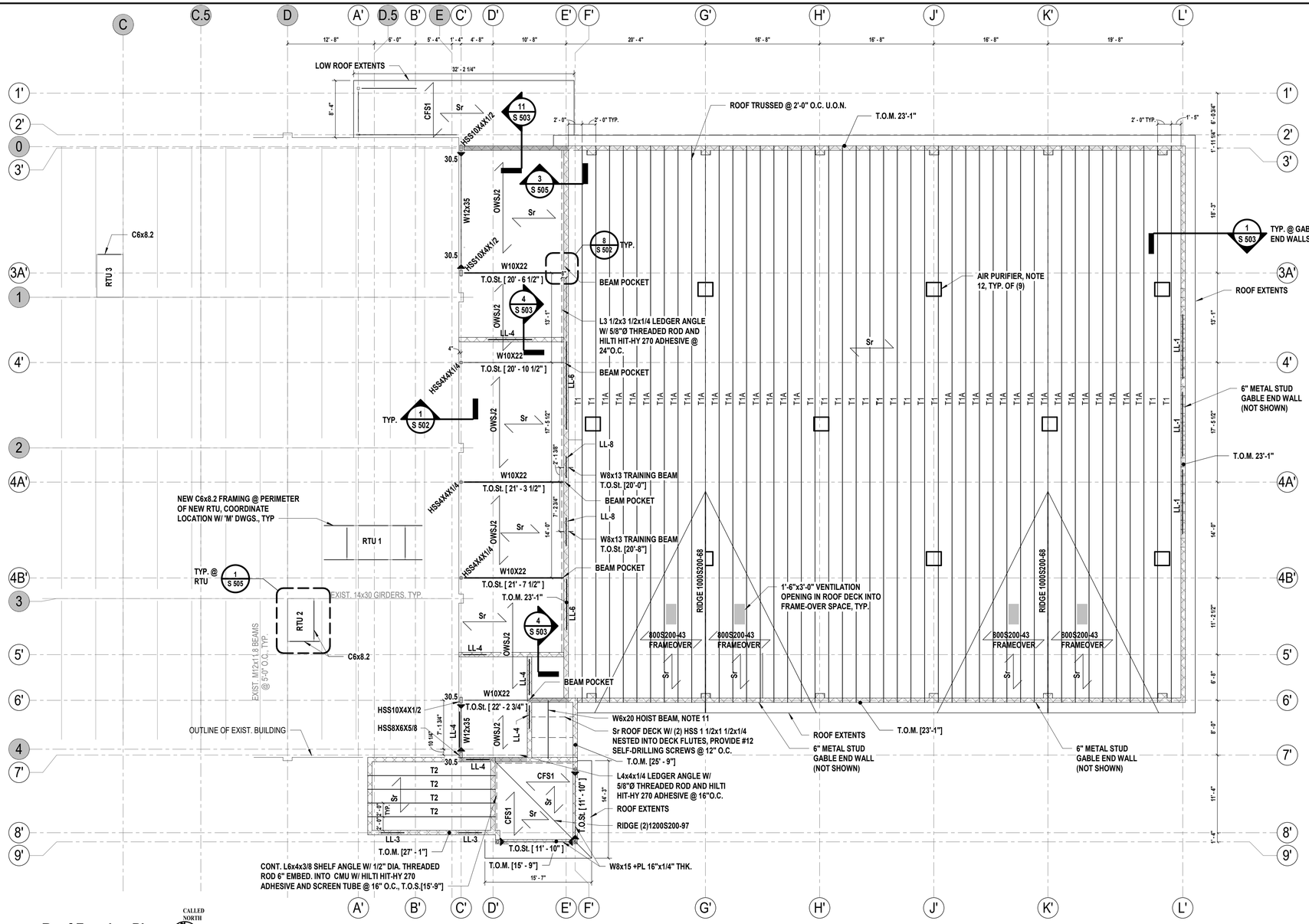
SHEET TITLE

MEZZANINE FRAMING PLAN

DRAWING No.

S 102



1 Roof Framing Plan

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

CALLED NORTH

LEGEND:

E.O.D. =	EDGE OF DECK
T.O.ST. =	TOP OF STEEL
U.O.N. =	UNLESS OTHERWISE NOTED
T.O.M. =	TOP OF MASONRY
	= BEARING WALL

NOTES:

1. TOP OF STEEL SHALL BE SET AT ELEVATIONS NOTED AS [_' - _"] ABOVE EXIST. FINISHED FIRST FLOOR DATUM ELEVATION [0'-0"].
2. Sr — INDICATES SPAN OF 1.5B 20GA. METAL ROOF DECK AS MANUFACTURED BY VULCRAFT NUCOR OR APPROVED EQUAL.
3. OWSJ2 — INDICATES SPAN OF 10K1 OPEN WEB STEEL JOISTS AT 16" O.C. AS MANUFACTURED BY VULCRAFT OR APPROVED EQUAL.
4. CFS1 — INDICATES SPAN OF 1000S200-54 CFS JOISTS AT 16" O.C. AS MANUFACTURED BY MARINOWARE OR APPROVED EQUAL.
5. INDICATES BEAM TO COLUMN MOMENT CONNECTION WITH THE NUMBER REPRESENTING THE A.S.D. MOMENT CAPACTY IN FT-KIPS.
6. STEEL CONNECTION PIECE DETAILS SHALL BE SUBMITTED WITH CALCULATIONS SIGNED AND SEALED BY A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER. CONNECTION DESIGNER SHALL DESIGN ALL MOMENT CONNECTIONS AND SIMPLE SHEAR CONNECTIONS. WHERE DESIGN SHEAR REACTION IS NOT LISTED ON DRAWINGS, IT SHALL BE DETERMINED BY THE CONNECTION DESIGNER AS THE MAXIMUM REACTION RESULTING FROM THE INDICATED BEAM SECTION BEING FULLY LOADED WITH MAXIMUM ALLOWABLE UNIFORM LOADS AS SPECIFIED IN AISC SPECIFICATION. WHERE AXIAL FORCE IN BEAMS IS NOT LISTED IN DRAWINGS, IT SHALL BE TAKEN AS 10 KIPS ASD. ALL CONNECTIONS SHALL BE DESIGNED CONSIDERING AXIAL, SHEAR AND MOMENT FORCES SIMULTANEOUSLY AS REQUIRED BY BUILDING CODE. SEE STRUCTURAL STEEL SPECIFICATIONS FOR ADDITIONAL DESIGN LOADING REQUIREMENTS.
7. COORDINATE ALL ROOF TOP EQUIPMENT WITH M-SERIES AND A-SERIES DWGS AND WITH APPROVED SHOP DRAWINGS FOR ALL TRADES. LOCATIONS INDICATED ARE APPROXIMATE AND SHALL BE COORDINATED. STRUCTURE HAS BEEN DESIGNED FOR EQUIPMENT WEIGHTS INDICATED. SUBMIT SELECTED WEIGHTS AND EQUIPMENT FOR REVIEW.
8. COORDINATE ALL ROOF TOP OPENINGS WITH M-SERIES AND A-SERIES DWGS AND WITH APPROVED SHOP DRAWINGS FOR ALL TRADES. LOCATIONS AND SIZES INDICATED ARE APPROXIMATE AND SHALL BE COORDINATED.
9. COORDINATE DIMENSIONS OF STAIR LANDING FRAMING WITH STAIR MANUFACTURER. SEE 'A' DWGS. FOR ADDITIONAL INFORMATION.
10. CONTINUOUS BOND BEAM AT TOP OF MASONRY WALL. SEE DETAIL 5 ON SHEET S503 FOR BOND BEAM INFO.
11. HOIST BEAM T.O.S. [24'-10"], MAINTAIN 0'-2" CLEAR BETWEEN T.O.S. AND BOTTOM OF ROOF DECK.
12. COORDINATE LOCATIONS OF AIR PURIFIERS WITH 'H' DRAWINGS. APPLY 100 LBS POINT LOAD TO BOTTOM CHORD OF TRUSSES AT LOCATIONS OF AIR PURIFIERS.

LINTEL SCHEDULE

MARK	SIZE	DETAILS	COMMENTS
LL-1	(3) L6 x 3-1/2x 5/16", AND PL 1/4" x 16" x M.O.		NOTES 1-5, 7
LL-2	W16x36 W/ L3x3x1/4, AND PL 1/4" x 16" x M.O.		NOTES 1-4, 6, 7
LL-3	(3) L3 x 3 x 1/4", AND PL 1/4" x 16" x M.O.		NOTES 1-5, 7
LL-4	(2) L3 1/2 x3 1/2 x 1/4"		NOTES 1-5
LL-5	(2) L4 x3 1/2 x 1/4"		NOTES 1-5
LL-6	W8x21 W/ PL 1/4" x 7 1/2" x M.O.		NOTES 1-4, 7
LL-7	(2) L4 x4 x 3/8"		NOTES 1-5
LL-8	W8x21 W/ PL 1/4" x 7 1/2" x M.O.		NOTES 1-4, 7

NOTES:

1. LINTEL LENGTH SHALL BE M.O. + 1'-4" TO PROVIDE MIN. BEARING OF 8" ONTO SOLID MASONRY ON EACH SIDE.
2. ALL EXTERIOR LINTELS TO BE SHOP APPLIED HOT DIPPED GALVANIZED.
3. WELD VERTICAL REINFORCEMENT INTERRUPTED BY MASONRY OPENINGS TO TOP OF THE STEEL LINTELS, TYPICAL.
4. REFER TO ARCHITECTURAL FLOOR PLANS AND ELEVATIONS FOR LINTEL LOCATIONS.
5. VERTICAL LEGS OF DOUBLE ANGLES SHALL BE WELDED TOGETHER.
6. WELD REINFORCEMENT TO TOP OF W16x36, #6 BARS @ 24"O.C. FOR FULL WALL HEIGHT, COORDINATE LOCATIONS WITH CMU CORE LOCATIONS
7. WELD PLATE TO BOTTOM OF LINTEL WITH CONTINUOUS 3/16" FILLET WELD.

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CARMEL HAMLET NY, 10512

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CONTRACT G
GENERAL CONSTRUCTION

STATUS

BID SET

SHEET TITLE

ROOF FRAMING PLAN

DRAWING No.

S 103

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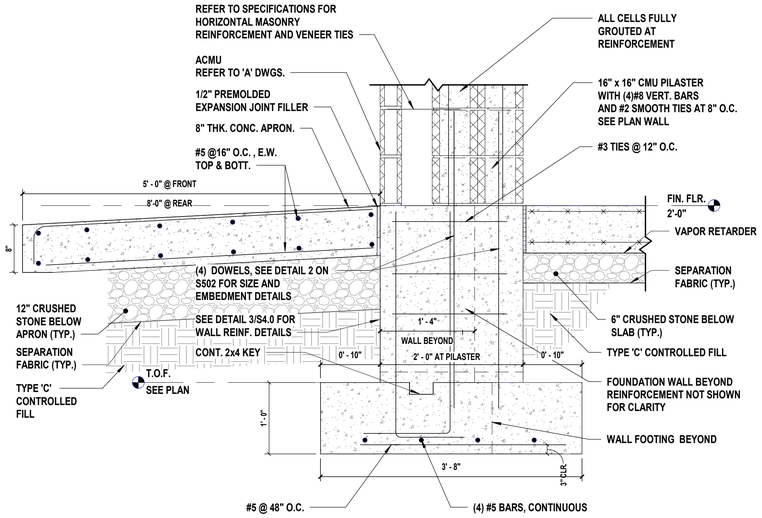
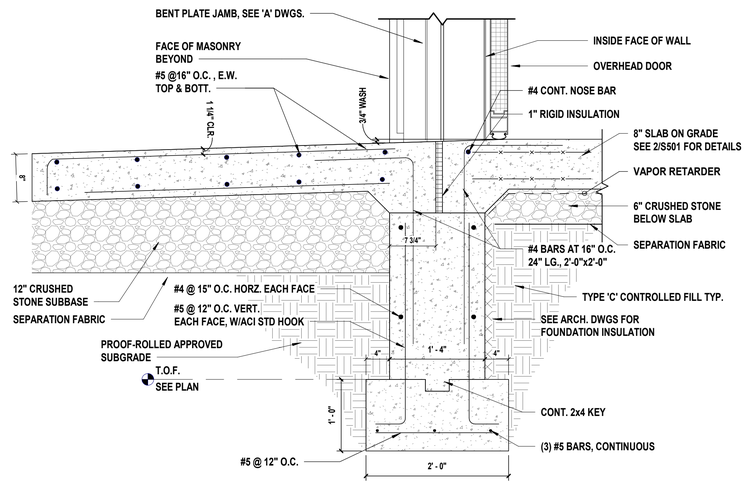
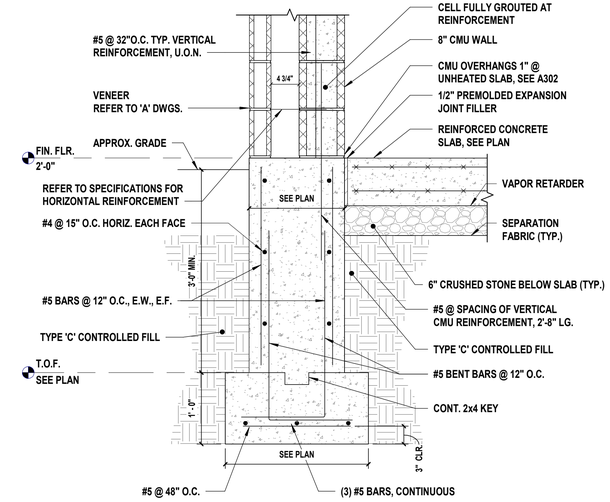


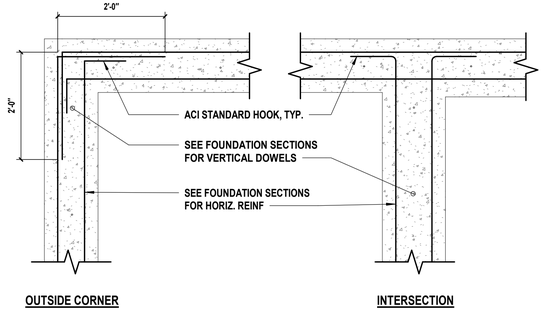
1 Exterior Foundation and Pier at CMU Pilaster
SCALE: 1" = 1'-0"



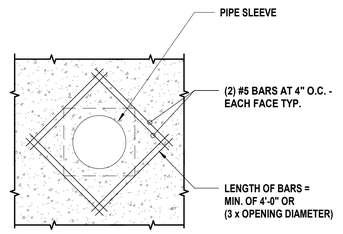
2 Section at Door Apron at Overhead Doors (Main Building)
SCALE: 1" = 1'-0"



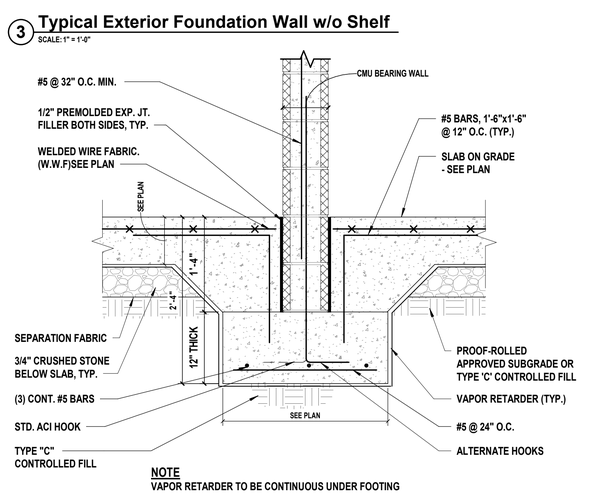
3 Typical Exterior Foundation Wall w/o Shelf
SCALE: 1" = 1'-0"



5 Corner Horizontal Reinforcement at Foundation Wall or Footing
SCALE:NTS

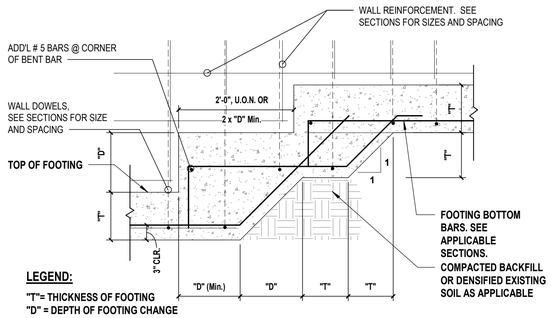


6 Typical Pipe Penetration at Wall or Slab
SCALE:NTS



NOTE
VAPOR RETARDER TO BE CONTINUOUS UNDER FOOTING

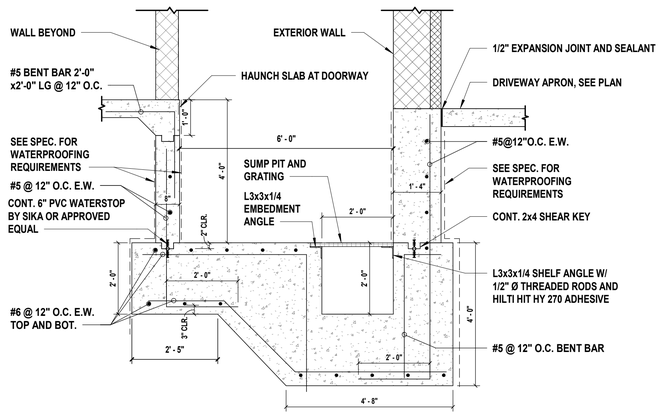
7 Typical Interior Footing at Masonry Walls
SCALE: 12" = 1'-0"



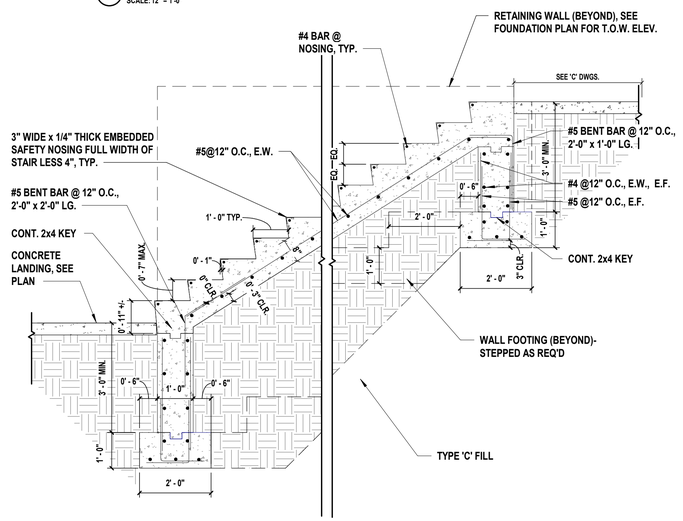
LEGEND:
"T"= THICKNESS OF FOOTING
"D" = DEPTH OF FOOTING CHANGE

NOTES:
1. TOP REINFORCEMENT FOR RETAINING WALL/ COLUMN SUPPORT FOOTINGS NOT SHOWN FOR CLARITY.

8 Typical Stepped Footing Detail
SCALE:N.T.S.



9 Section at Elevator Foundation
SCALE:1/2" = 1'-0"



10 Stair Tread and Endwalls
SCALE:1/2" = 1'-0"

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CONSULTANTS:

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DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
MDM	MDM	KDD	
PROJECT No:	DATE:	SCALE:	
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ADDITION/RENOVATION

94 GLENEIDA AVE, CARMEL HAMLET NY, 10512

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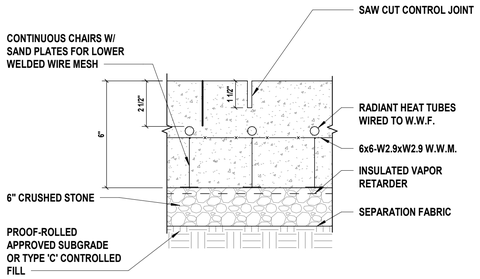
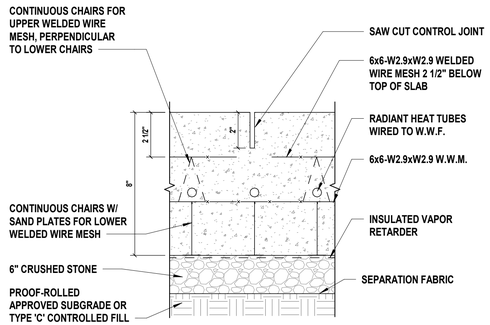


SEE RADIANT HEATING SLAB NOTES

1 Slab On Grade w/ Radiant Heating - 6" Slab

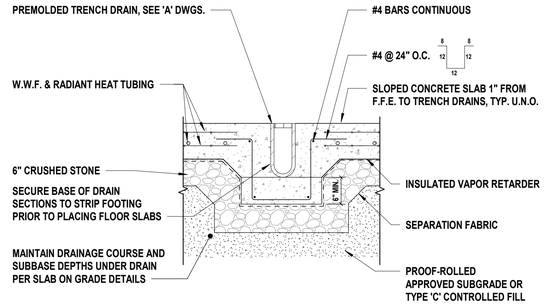
SCALE: 3" = 1'-0"



SEE RADIANT HEATING SLAB NOTES

2 Slab On Grade w/ Radiant Heating - Apparatus Bay Slab

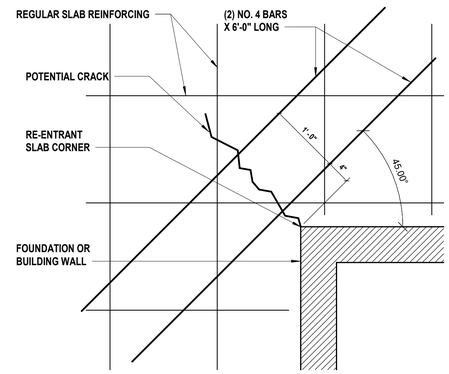
SCALE: 3" = 1'-0"



SEE RADIANT HEATING SLAB NOTES

3 Typical Section at Trench Drain

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



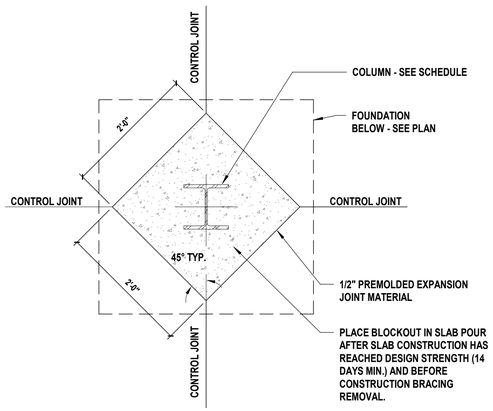
NOTE: THIS DETAIL IS APPLICABLE TO TRENCH DRAIN ENDS TOO

4 Typical Slab Re-Entrant Corner Reinforcement

SCALE: 1" = 1'-0"

RADIANT HEATING SLAB NOTES:

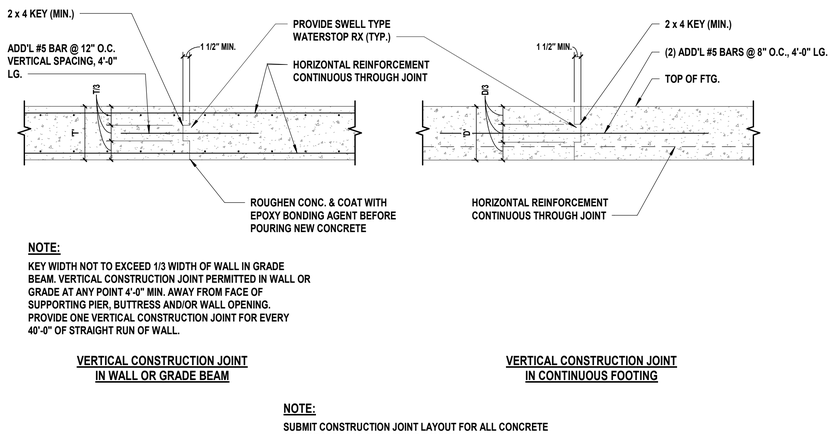
1. RADIANT HEATING TUBES SHALL BE SPACED MIN. 12" O.C. IN APPARATUS BAYS.
2. WHERE TUBES MERGE TOGETHER AT MANIFOLD, RADIANT HEATING TUBES SHALL MAINTAIN 1-1/2" CLEARANCE BETWEEN TUBES.
3. RADIANT HEATING TUBES SHALL BE SUPPORTED ON LOWER LAYER OF WIRE MESH.



DIAMOND BLOCKOUT AROUND COLUMN

5 Typical Column Expansion Joint Detail

SCALE:NTS



NOTE:

KEY WIDTH NOT TO EXCEED 1/3 WIDTH OF WALL IN GRADE BEAM. VERTICAL CONSTRUCTION JOINT PERMITTED IN WALL OR GRADE AT ANY POINT 4'-0" MIN. AWAY FROM FACE OF SUPPORTING PIER, BUTTRESS AND/OR WALL OPENING. PROVIDE ONE VERTICAL CONSTRUCTION JOINT FOR EVERY 40'-0" OF STRAIGHT RUN OF WALL.

VERTICAL CONSTRUCTION JOINT IN WALL OR GRADE BEAM

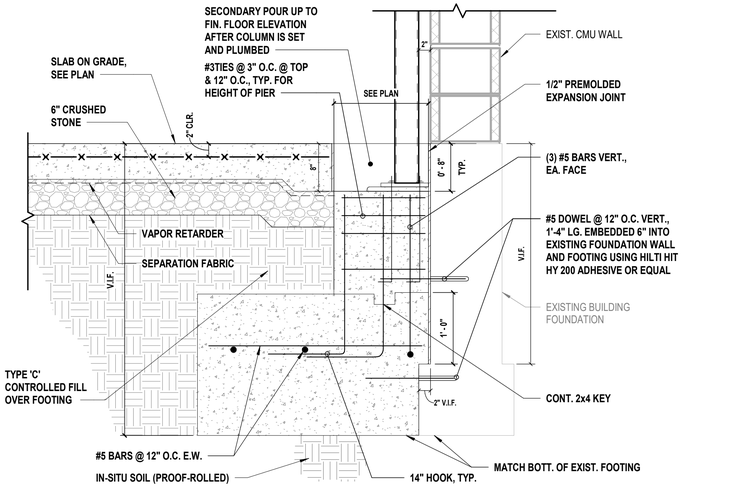
VERTICAL CONSTRUCTION JOINT IN CONTINUOUS FOOTING

NOTE:

SUBMIT CONSTRUCTION JOINT LAYOUT FOR ALL CONCRETE STRUCTURES FOR ENGINEER'S REVIEW

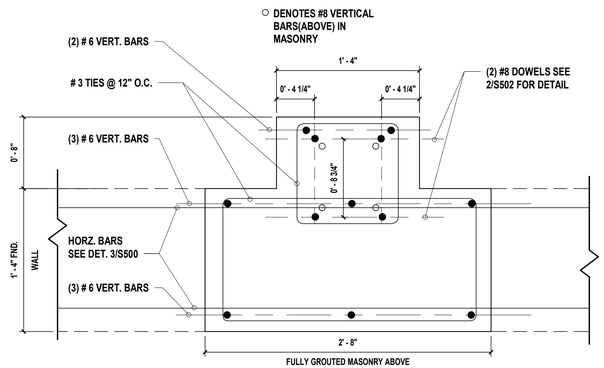
6 Typical Construction Joint Details

SCALE:N.T.S.



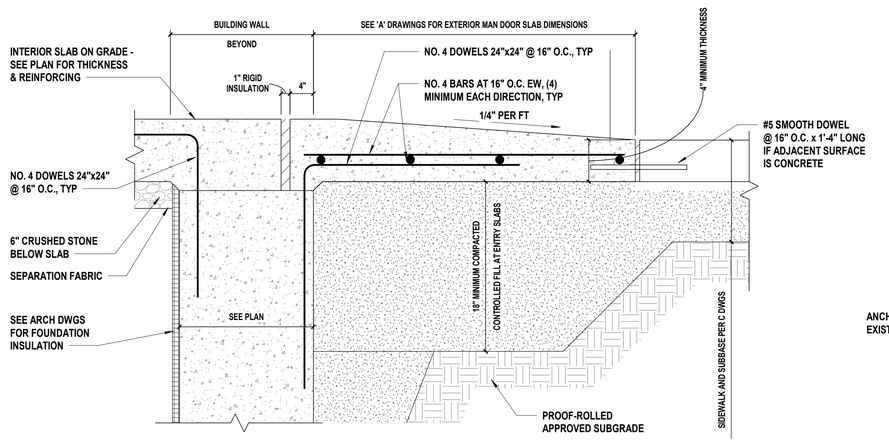
7 Column Footing Adjacent to Existing Building

SCALE:N T S



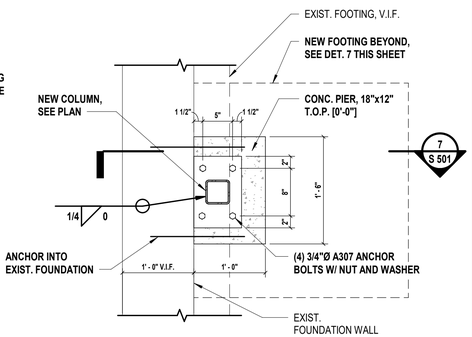
8 Pilaster FTG. @ App. Bay

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



9 Typical Man Door Slabs

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



NOTE: AT HSS10x4x1/2 COLUMNS, BASE PLATE TO BE 18"x8". PIER DIMENSIONS TO BE 1'-0"x1'-10".

10 Column Pier and Baseplate

SCALE: 1" = 1'-0"

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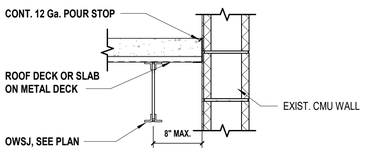
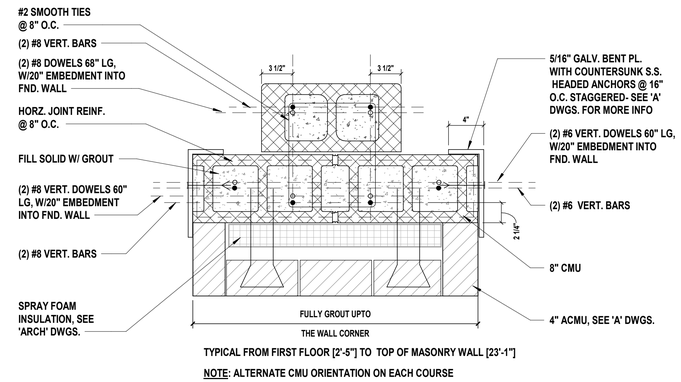


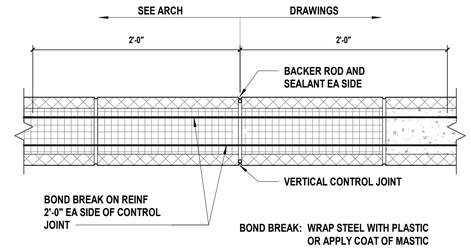
1 Steel Joist at Existing CMU Wall
SCALE:1" = 1'-0"



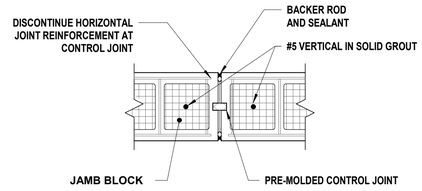
TYPICAL FROM FIRST FLOOR [2'-5"] TO TOP OF MASONRY WALL [23'-1"]

NOTE: ALTERNATE CMU ORIENTATION ON EACH COURSE

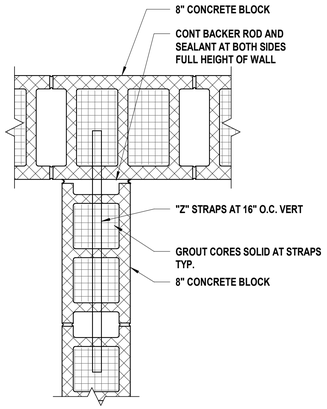
2 Pilaster Detail
SCALE: 1 1/2" = 1'-0"



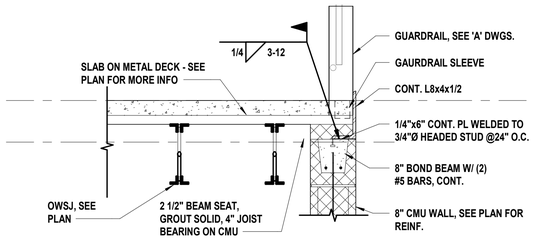
3 CMU Bond Beam at Vertical Control Joint
SCALE:N.T.S.



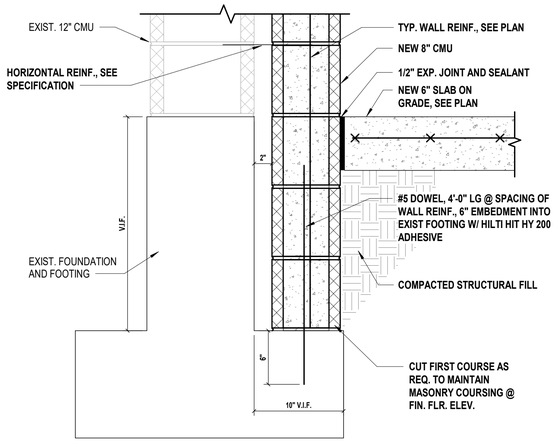
4 Typical CMU Wall Control Joint
SCALE:N.T.S.



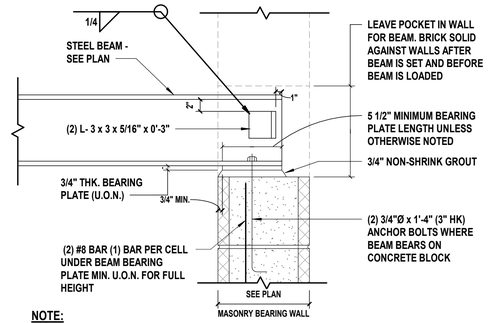
5 CMU Block Intersection
SCALE:N.T.S.



6 Mezzanine Slab Over CMU Wall
SCALE:1" = 1'-0"

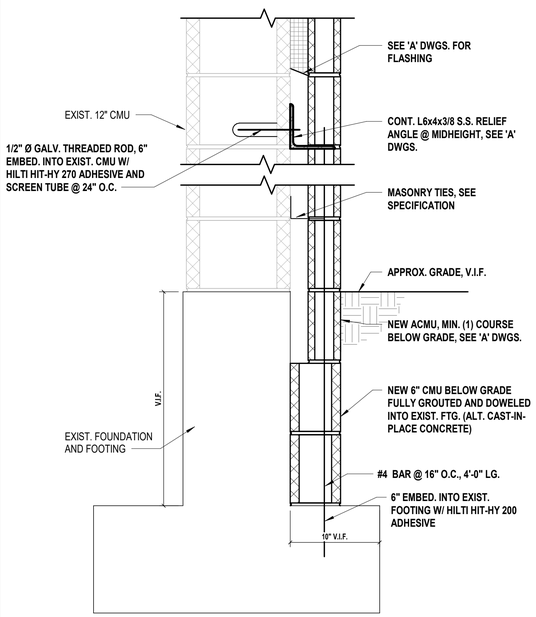


7 New CMU on Existing Footing
SCALE: 1 1/2" = 1'-0"

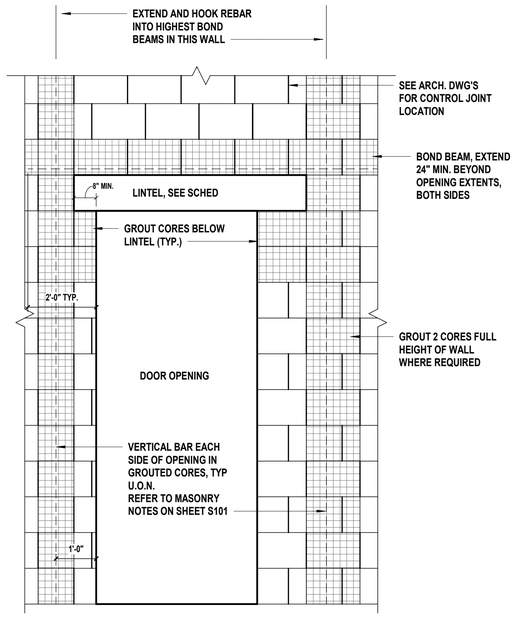


NOTE:
FILL CORES IN WALL UNDER BEARING PLATE SOLID WITH GROUT BEFORE PLACING BEARING PLATE.

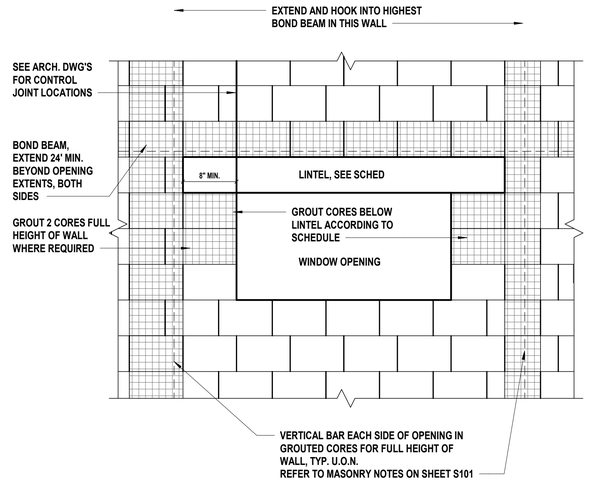
8 Typical Beam Bearing on CMU Wall Detail
SCALE: 1" = 1'-0"



9 New ACMU on Existing Footing
SCALE:1 1/2" = 1'-0"



10 CMU Reinforcing at Door Openings
SCALE:N.T.S.



11 CMU Reinforcing at Window or Louver Opening
SCALE:N.T.S.

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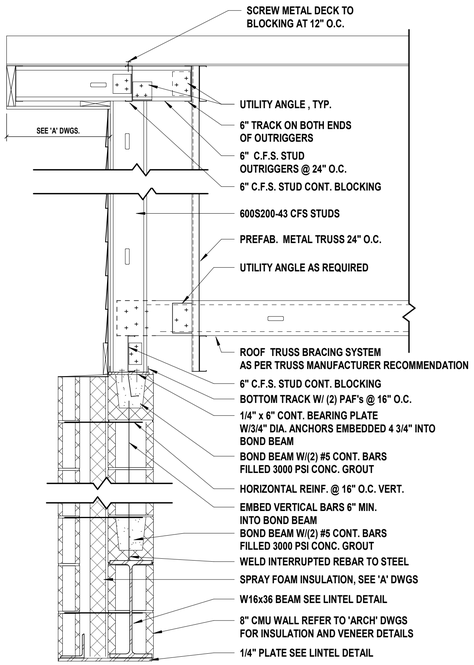
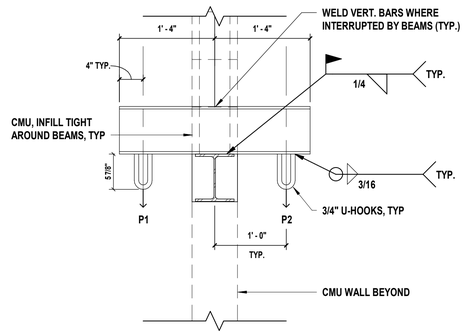
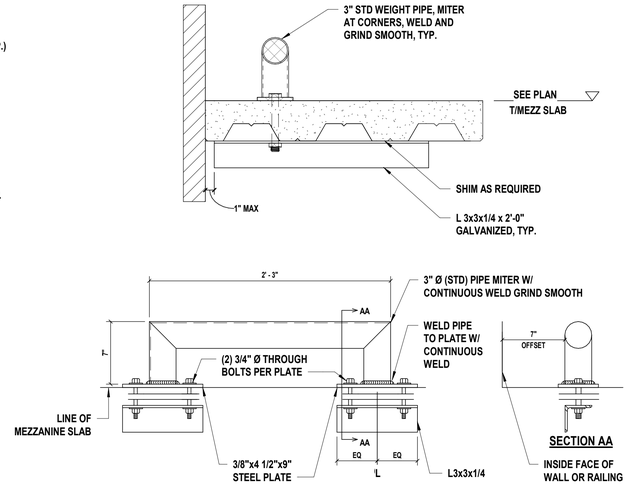


1 Roof Truss Gable Wall Detail
SCALE: 1" = 1'-0"

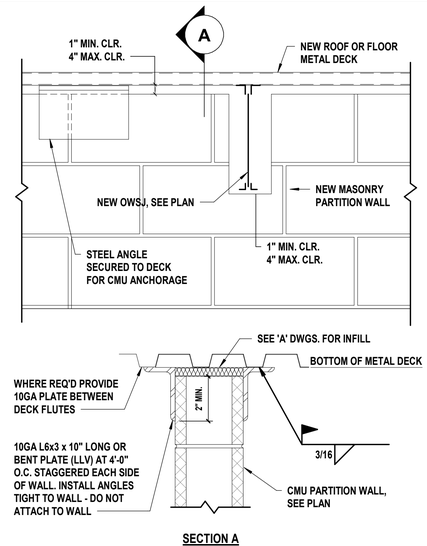


TRAINING DEVICE ALLOWABLE LOADING		
P1		P2
6,000 LBS	&	0 LBS
0 LBS	&	6,000 LBS
3000 LBS	&	3,000 LBS

2 Training Device - Beams With U-Hooks
SCALE:N.T.S.



3 Tie Off Rail at Mezzanine Slab
SCALE:N.T.S.



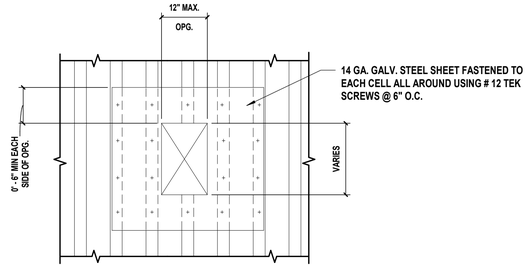
4 Joist Thru Non-bearing CMU Wall
SCALE: 1" = 1'-0"

11 Connection at Shed Roof
SCALE: 1" = 1'-0"

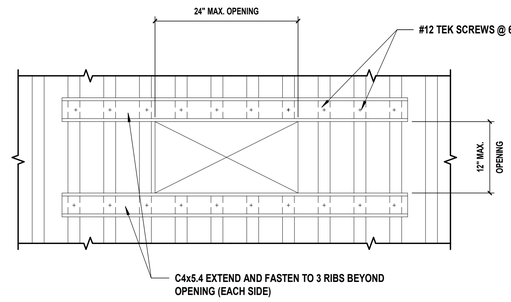
5 Roof Truss Bearing Detail
SCALE: 3/4" = 1'-0"

6 Typical Beam Bracing Top of CMU Wall
SCALE:N.T.S.

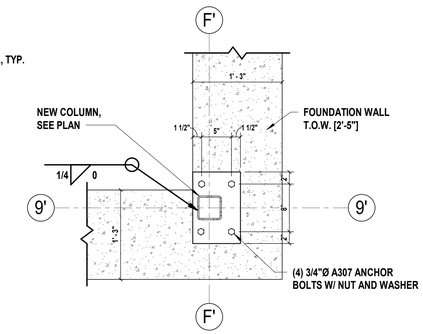
7 Baseplate at Retaining Wall
SCALE: 1" = 1'-0"



8 Deck Support Openings To 12" Perpendicular To Flutes
SCALE:NTS



9 Deck Support Openings To 24" Perpendicular To Flutes
SCALE:NTS



10 Base Plate at New Foundation Wall
SCALE: 1" = 1'-0"

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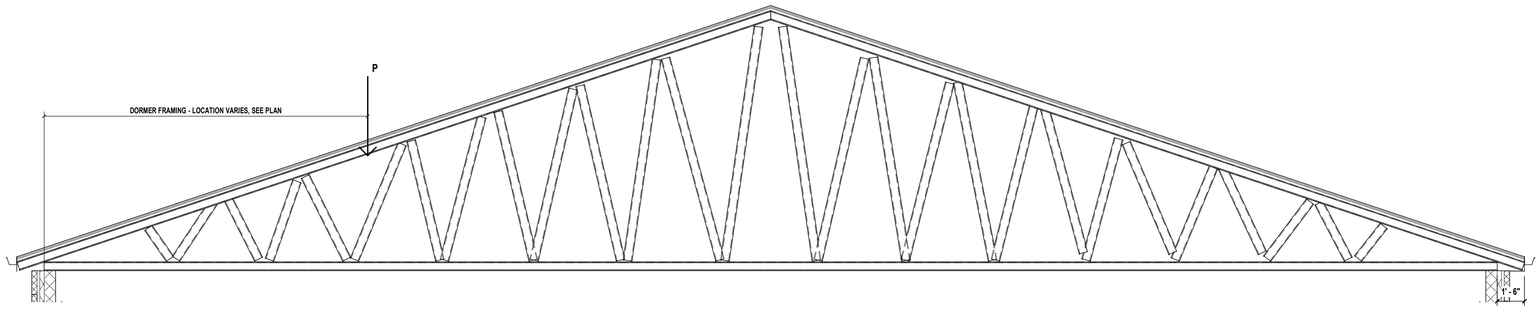
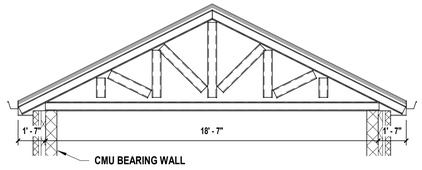
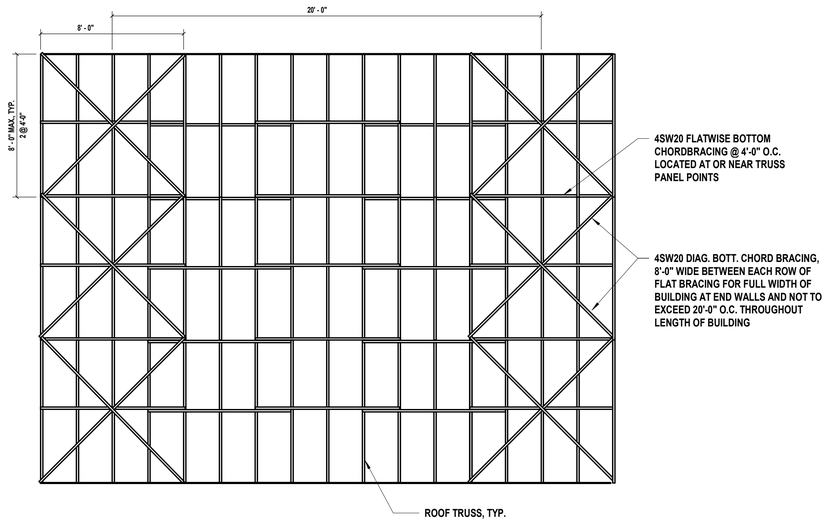


1 Truss Section T1 & T1A
SCALE: 1/4" = 1'-0"



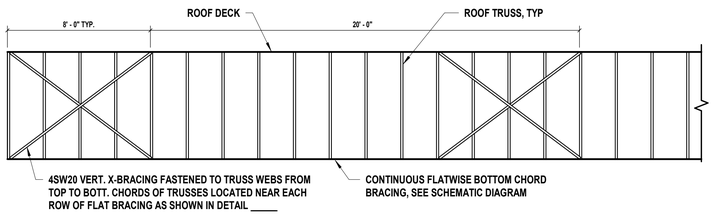
2 Truss Section T2
SCALE: 1/4" = 1'-0"

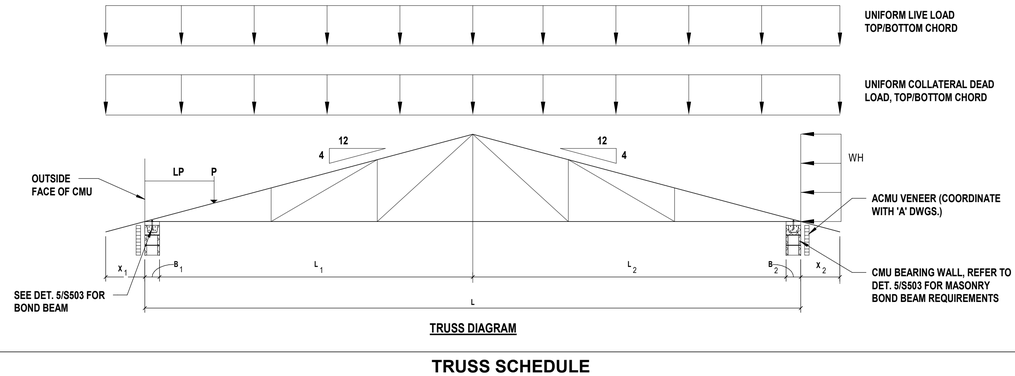
TRUSS SECTION NOTES:
1. TRUSS WEBS PER TRUSS DESIGN, MAY NOT BE AS SHOWN.
2. CHORD AND WEB MEMBER SIZES AS REQUIRED BY TRUSS DESIGN, TYP.



NOTES:
1. FASTEN ALL BRACING TO TRUSS CHORDS
2. ALL CONNECTIONS TO BE MADE WITH #12-14 SELF-TAPPING SCREWS
3. PLACE FLATWISE BRACING ON TOP SIDE OF BOTTOM CHORDS UNLESS OTHERWISE NOTED.

3 ROOF TRUSS BOTTOM CHORD BRACING
SCALE: 1/4" = 1'-0"





TRUSS DIAGRAM

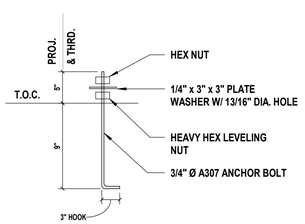
TRUSS SCHEDULE

TRUSS ASSEMBLY	L (ft.) (V.I.F.)	L_1 (ft)	L_2 (ft)	L_3 (ft)	OVERHANG LENGTH		BEARING WALL WIDTH-NOMINAL (V.I.F.)		POINT LOADS	
					X_1 (ft)	X_2 (ft)	B_1 (ft)	B_2 (ft)	P (KIPS) TOP CHORD	P (KIPS) BOTTOM CHORD
T1	81' - 3 1/4"	40' - 7 5/8"	40' - 7 5/8"	-	1' - 7"	1' - 7"	8"	8"	-	-
T1A	81' - 3 1/4"	40' - 7 5/8"	40' - 7 5/8"	-	1' - 7"	1' - 7"	8"	8"	1.0	-
T2	18' - 7 1/4"	9' - 3 5/8"	9' - 3 5/8"	-	1' - 7"	1' - 7"	8"	8"	-	-

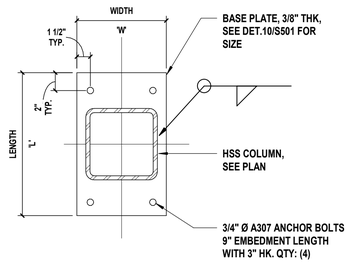
TRUSS ASSEMBLY	UNIFORM LOADS				LATERAL LOADS	DESIGN NET UPLIFT AT EACH END	LOAD LOCATION (LP)	
	TOP CHORD		BOTTOM CHORD		WIND	FORCE	TOP CHORD	BOTTOM CHORD
	DL (PLF)	LL (PLF)	DL (PLF)	LL (PLF)	WH (PSF)	(LBS.)		
T1	40.0	72.0	30.0	20.0	5.2	300	-	-
T1A	40.0	72.0	30.0	20.0	5.2	300	VARIES	-
T2	40.0	44.0	30.0	20.0	5.2	300	-	-

PRE-ENGINEERED TRUSS NOTES:
1. COLD FORMED STEEL ROOF TRUSSES SHALL BE DESIGNED AND FABRICATED BY A SHOP OR FABRICATOR SPECIALIZING IN THIS WORK, AND UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER LICENSED IN NYS.
2. TRUSSES SHALL BE DESIGNED AND MANUFACTURED IN CONFORMANCE WITH AISI & 2020 BCNYS.
3. THE TRUSS DESIGN SHALL INCLUDE TRUSS FRAMING CONFIGURATION AS SHOWN INCLUDING TRUSS ANCHORAGE, BLOCKING, CURBING, MISC. FRAMING, AND ALL TEMPORARY AND PERMANENT BRACING.
4. THE CONTRACTOR SHALL RETAIN A LICENSED PROFESSIONAL ENGINEER FOR THE DESIGN OF ALL PORTIONS AND COMPONENTS OF THE ROOF FRAMING EXCLUDED BY THE TRUSS SUPPLIER. A COMPLETE DESIGN PACKAGE STAMPED BY A LICENSED P.E. SHALL BE SUBMITTED FOR REVIEW AND COMMENT BEFORE FABRICATION BEGINS.
5. TRUSSES SHALL BE MANUFACTURED, HANDLED, AND ERECTED IN A MANNER TO PRECLUDE EXCESSIVE LATERAL BENDING STRESSES.
6. TRUSSES SHALL BE ANCHORED TO TOP WALL PLATES, GIRDER TRUSSES, AND OTHER BEARING SURFACES WITH APPROVED CONNECTIONS.
7. FIELD CUTTING AND/OR MODIFICATION OF TRUSSES IS PROHIBITED.
8. ANY AND ALL DAMAGED TRUSSES SHALL BE REPLACED WITH NEW TRUSSES OR SHALL BE REPAIRED ONLY BY DETAILS PREPARED BY THE TRUSS MANUFACTURER. REPAIR DETAILS SHALL BE SEALED BY THE PROFESSIONAL ENGINEER RESPONSIBLE FOR THE ORIGINAL TRUSS DESIGN, AND SHALL BE SUBMITTED FOR REVIEW AND COMMENT BEFORE ANY REPAIRS ARE UNDERTAKEN.
9. TEMPORARY BRACING IS THE FULL RESPONSIBILITY OF THE CONTRACTOR.
10. PERMANENT TRUSS BRACING SHALL BE DESIGNED BY THE TRUSS MANUFACTURER OR ANOTHER LICENSED PROFESSIONAL ENGINEER. THE DESIGN SHALL INDICATE MEMBER SIZES, PLACEMENT, AND CONNECTIONS. THE PACKAGE SHALL COMPLETELY DETAIL ALL COMPRESSION WEB BRACING, AS WELL AS MINIMUM PERMANENT BRACING CONSISTING OF:
    - A. CONTINUOUS HORIZONTAL LONGITUDINAL BRACING ALONG BOTTOM CHORDS AT 10FT O.C. MAX.
    - B. W-BRACING ASSEMBLIES AT BOTTOM CHORDS LATERALLY ALONG LENGTH OF TRUSSES; W-DIAGONALS EXTENDING LONGITUDINALLY OVER (4) TRUSSES MINIMUM. W-BRACING ASSEMBLIES SPACED AT 20FT O.C. MAX.
    - C. DIAGONAL GABLE END BRACING AT 10FT O.C. MAX OVER THE WIDTH OF THE BUILDING.
    - D. LONGITUDINAL CROSS BRACING ASSEMBLIES ALONG TRUSS WEBS AT 10FT O.C. MAX LATERALLY, AND 20FT O.C. MAX LONGITUDINALLY.
11. REFER TO SPEC 054400 FOR MORE INFO.
12. APPLY 100 LBS POINT LOAD TO BOTTOM CHORD OF TRUSSES AT LOCATIONS OF AIR PURIFIERS, SEE PLAN AND 'H' DRAWINGS FOR LOCATIONS.

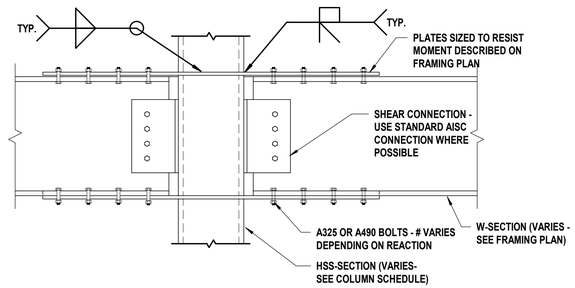
5 Typical Anchor Bolt Detail
SCALE N.T.S.



6 Typical Non-Moment Base Plate
SCALE N.T.S.



7 Typical Beam to Column Moment Connection
SCALE N.T.S.



NOTE:
STRUCTURAL STEEL FABRICATOR SHALL HAVE ALL CONNECTIONS NOT DETAILED ON DRAWINGS DESIGNED BY A LICENSED STRUCTURAL ENGINEER. STEEL SHOP DRAWINGS SHALL BEAR SIGNATURE AND SEAL OF SAID ENGINEER.

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CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
MDM	MDM	KDD	

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

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94 GLENEIDA AVE, CARMEL HAMLET NY, 10512

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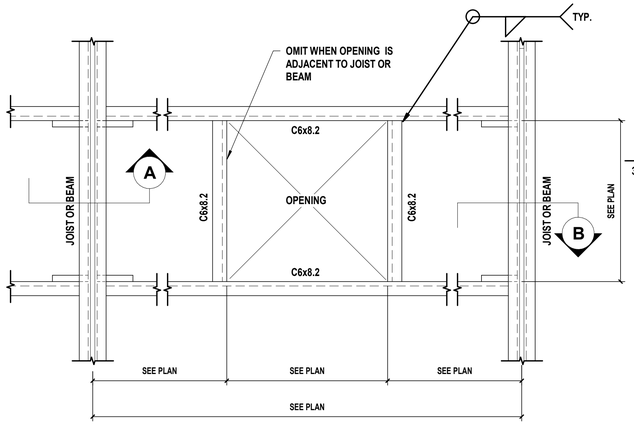
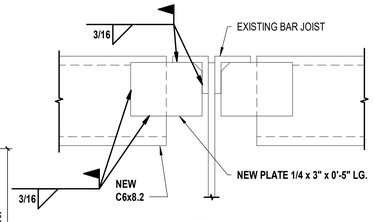
STATUS
BID SET

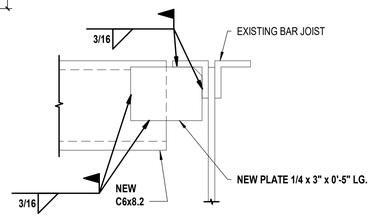
SHEET TITLE
TRUSS AND FRAMING DETAILS

DRAWING No.
S 504



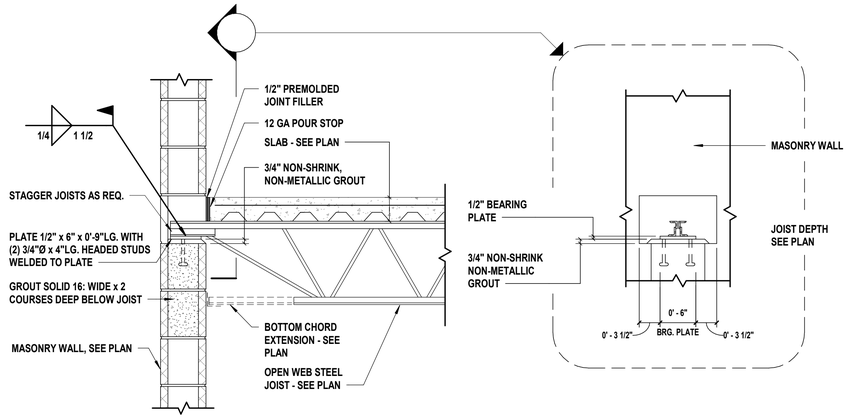


SECTION A

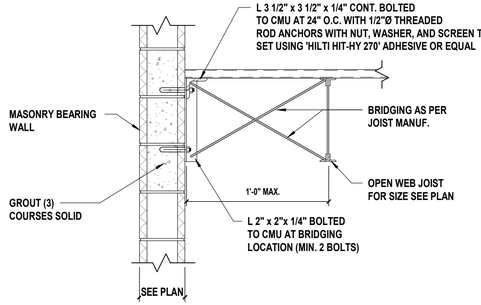


SECTION B

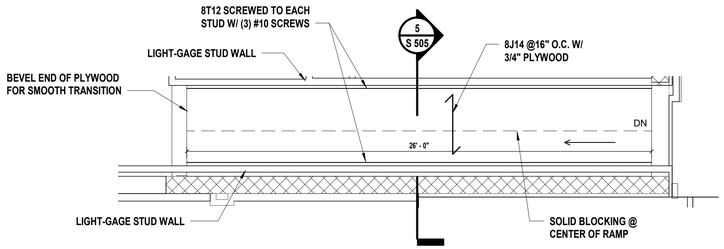
1 RTU Roof Framing at Existing Joist or Beam
SCALE:NTS



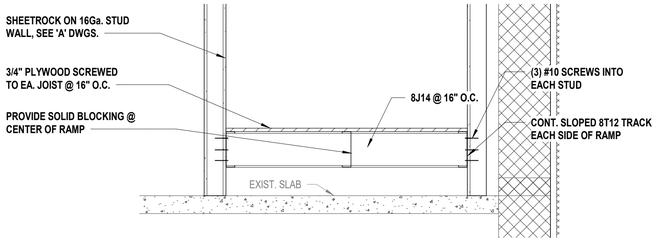
2 Open Web Steel Joist Bearing On CMU Wall
SCALE: 1" = 1'-0"



3 Deck Support And Joist Bridging at New CMU Wall
SCALE: 1 1/2" = 1'-0"



4 Ramp Framing Plan
SCALE: 1/4" = 1'-0"



5 Section at Framed Ramp
SCALE: 3/4" = 1'-0"

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CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
Designer	Author		

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

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FRAMING DETAILS

DRAWING No.

S 505

EXISTING ROOM LEGEND

#	Name
X101	KITCHEN
X102	TOILET
X103	TOILET
X104	STAIRS
X106	ELECTRIC
X107	MEMBER'S ROOM
X108	STORAGE
X109	STORAGE
X110	MECHANICAL
X111	UTILITY
X112	STORAGE
X114	CLOSET
X201	APPARATUS BAYS
X202	DISPLAY ROOM
X203	CONFERENCE ROOM
X204	CHIEF'S OFFICE
X205	FILE ROOM
X206	ADMIN OFFICE
X207	DISPATCH
X208	STORE ROOM
X209	COMPRESSOR
X210	OFFICE
X211	UTILITY ROOM
X212	PANTRY
X213	KITCHEN
X215	FOYER
X216	STAIR
X217	MEN'S ROOM
X218	WOMEN'S ROOM
X219	MEETING HALL
X220	CORRIDOR
XM03	EXISTING MEZZANINE
XM04	EXISTING MEZZANINE

DEMO KEYNOTE LEGEND

#	DESCRIPTION
D1	CONTRACTOR SHALL REMOVE EXISTING ACOUSTICAL CEILING SYSTEM, COMPLETE. PREPARE FOR NEW FINISHES.
D10	CONTRACTOR SHALL REMOVE EXISTING DOOR COMPLETE, INCLUDING FRAME, HARDWARE, WALL ANCHORS, AND ALL DEVICES USED TO SECURE THE DOOR AND FRAME IN PLACE. PREPARE TO RECEIVE NEW CONSTRUCTION.
D10A	CONTRACTOR SHALL REMOVE EXISTING O.H. DOOR COMPLETE WHEN NEW BAYS ARE COMPLETE AND APPARATUS HAS BEEN MOVED TO NEW BAYS, INCLUDING FRAME, HARDWARE, WALL ANCHORS, AND ALL DEVICES USED TO SECURE THE DOOR AND FRAME IN PLACE. PREPARE TO RECEIVE NEW CONSTRUCTION.
D12	CONTRACTOR SHALL REMOVE EXISTING DOOR AND HARWARE, EXISTING FRAME TO REMAIN. EXISTING FRAME TO SCRAPED, SANDED, AND RE-PAINTED
D15	CONTRACTOR SHALL REMOVE EXISTING WINDOW SYSTEM AND ALL ASSOCIATED CONSTRUCTION COMPLETE, INCLUDING SHADES OR CURTAINS. PREPARE FOR NEW CONSTRUCTION. PROTECT OPENING UNTIL INSTALLATION OF NEW WINDOW OR NEW INFILL. REMOVE AND SALVAGE INTERIOR WINDOW TRIM.
D16	CONTRACTOR TO REMOVE AND SALVAGE ALL EXISTING WAINSCOATING AND CHAIR RAIL MATERIALS FOR REUSE
D21	CONTRACTOR SHALL REMOVE EXISTING WALL SYSTEM (SAW CUT AS NEEDED), COMPLETE. CONTRACTOR IS RESPONSIBLE TO VIF EXISTING WALL TYPE AND IF ANY ADDITIONAL FRAMING OR SUPPORT IS NEEDED DURING DEMOLITION OR RECONSTRUCTION. WHERE REQUIRED, PATCH EXISTING FLOOR, WALL AND CEILING IN AREAS WHERE WALLS ARE REMOVED WITH MATERIALS AND FINISHES TO MATCH EXISTING ADJACENT CONSTRUCTION.
D22	CONTRACTOR SHALL DEMO EXISTING CHIMNEY, FULL HEIGHT THROUGH ROOF, COMPLETE. PROTECT EXISTING B.U.R. ROOF DURING DEMOLITION. PROVIDE TEMPORARY IN-FILL AND SBS COVERING AT OPENING.
D23	CONTRACTOR SHALL COMPLETELY REMOVE EXISTING SIDING (INCLUDING DRIP EDGE) THIN BRICK AND/OR STUCCO/EFIS EXTERIOR FINISHES DOWN TO EXISTING CMU OR SHEATHING. PREPARE REMAINING SURFACES TO RECEIVE NEW WORK. REMOVE ALL FASTENERS, BLOCKING, FURRING, AND EXCESS MORTAR TO RECIEVE NEW MASONRYPROVIDE TEMPORARY COVERING TO PROTECT TOP OF WALL AND WALL ROOF INTERSECTION UNTIL NEW FASCIA AND DRIP EDGE CAN BE INSTALLED. U.O.N.
D24	CONTRACTOR SHALL REMOVE EXISTING WALL SYSTEM (SAW CUT AS NEEDED) FOR NEW OPENING. CONTRACTOR IS RESPONSIBLE TO VIF EXISTING WALL TYPE AND IF ANY ADDITIONAL FRAMING OR SUPPORT IS NEEDED DURING DEMOLITION OR RECONSTRUCTION. WHERE REQUIRED, PATCH EXISTING FLOOR, WALL AND CEILING IN AREAS WHERE WALLS ARE REMOVED WITH MATERIALS AND FINISHES TO MATCH EXISTING ADJACENT CONSTRUCTION.
D25	CONTRACTOR SHALL COMPLETELY REMOVE EXISTING RETAINING WALL INCLUDING ANY FOUNDATIONS AND CONNECTIONS TO REMAINING WALL.
D26	CONTRACTOR SHALL REMOVE EXISTING ROOFING MEMBRANE AS REQUIRED TO ACCOMMODATE TIE IN OF NEW ROOFING MEMBRANE. SEE SHEET A 130 FOR SCOPE OF REMOVALS TO ACCOMMODATE NEW WORK. PREPARE SURFACES TO RECEIVE NEW CONSTRUCTION.
D34	DISCONNECT AND RELOCATE EXISTING PROPANE TANK FOR PHASE 2 WORK
D51	CONTRACTOR SHALL REMOVE EXISTING RAMP, COMPLETE. PREPARE ADJACENT WALL FOR NEW MASONRY
D52	SIDEWALK TO BE REMOVED TO EXTENT SHOWN ON PLAN
D53	PORTION OF EXISITNG FLOOR TO BE REMOVED TO EXTENT SHOWN ON PLANS FOR NEW DUCTWORK, COORDINATE WITH MECHANICAL DRAWINGS.
D54	EXCAVATE DOWN TO EXISTING FOOTER TO ACCOMMODATE NEW ACMU WORK.

EQUIPMENT KEYNOTE LEGEND

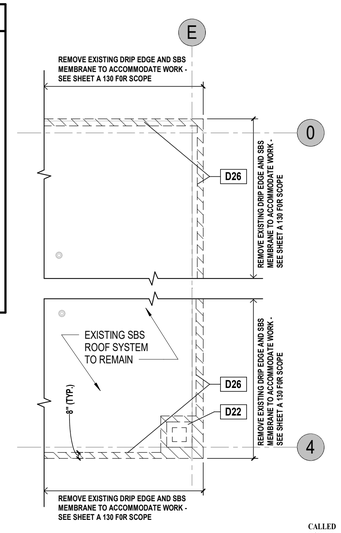
#	DESCRIPTION
E33	EXISTING ANTENNA AND ALL ASSOCIATED WIRING TO REMAIN, PROTECT IN-PLACE. ANTENNA SHALL REMAIN IN OPERATION DURING CONSTRUCTION ACTIVITIES.PROVIDE NEW BRACKETS ATTACHED TO EXISTING WALL TO ACCOMMODATE NEW ACMU DEPTH BEHIND ANTENNA - COORDINATE THIS WORK W/CM.
E91	EXISTING F.D. CONNECTION SEE MEP DRAWINGS FOR SCOPE
E92	EXISTING OIL TANK FILL SEE MEP DRAWINGS FOR SCOPE

DEMOLITION PLAN GENERAL NOTES

1. PERFORM ALL DEMOLITION AS REQUIRED TO COMPLETE WORK. ALL ENVIRONMENTAL ABATEMENT WORK SHALL BE COMPLETED BY THE OWNER'S VENDOR PRIOR TO BEGINNING ANY DEMOLITION WORK ON THE EXISTING FIRE STATION
2. THE CONTRACTOR SHALL OBEY ALL CODES, STATUTES AND LAWS AS APPLICABLE TO THE DEMOLITION WORK IN AN OCCUPIED BUILDING AND FOR REMOVAL OF MATERIALS SAFELY FROM THE SITE, INCLUDING ALL OSHA REGULATIONS.
3. THE OWNER SHALL REMOVE EXISTING EQUIPMENT, PLAQUES, POSTERS, CCTV, SECURITY SYSTEMS, AND ALL SIMILAR ITEMS WHICH WILL BE SALVAGED FROM THE DEMOLITION AREA PRIOR TO THE START OF SELECTIVE DEMOLITION OF THE EXISTING FIRE STATION.
4. COORDINATE THE EXACT LOCATIONS OF ALL DUMPSTERS, AND MATERIALS STORED AT GRADE (IF ANY) WITH THE OWNER.
5. COORDINATE THE WORK OF THE DEMOLITION DRAWINGS WITH ALL CIVIL, ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS
6. THE CONTRACTOR IS REQUIRED TO PROTECT ALL EXISTING TO REMAIN EQUIPMENT AND FINISHES INCLUDING BUT NOT LIMITED TO EXISTING MECHANICAL, PLUMBING, AND ELECTRICAL.
7. DIMENSIONS ARE TO BE VERIFIED IN FIELD. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS FOR QUANTITY TAKEOFFS AND FABRICATION OF MATERIALS.
8. CONTRACTOR IS TO PROVIDE DRAWINGS SIGNED AND SEALED BY A NYS LICENSED ENGINEER FOR ALL SHORING WORK PRIOR TO DEMOLITION FOR THE ARCHITECT TO REVIEW. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL AREAS THAT WILL NEED SHORING.
9. ALL EXISTING EXTERIOR MASONRY SURFACES TO BE PREPPED FOR NEW CONSTRUCTION. REMOVE EXISTING FASTENERS, BLOCKING, AND ANY EXISTING CONSTRUCTION IN PREPARATION OF NEW WORK.
10. EXISTING FINISHED SURFACES DAMAGED DURING DEMOLITION AND OR CONSTRUCTION OPERATIONS SHALL BE RESTORED TO THEIR ORIGINAL CONDITIONS. IF PAINTING IS REQUIRED, ENTIRE SECTION OF WALL FROM INSIDE/OUTSIDE CORNER TO INSIDE/OUTSIDE CORNER SHALL BE REPAINTED

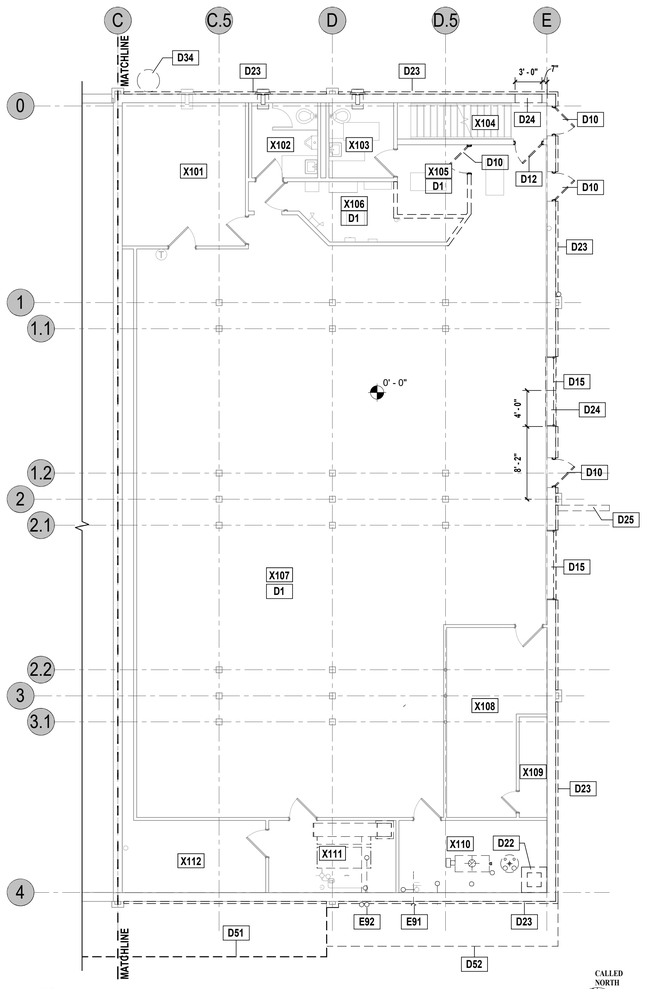
DEMO LEGEND

- EXISTING WALLS TO REMAIN
- AREA OF EXISTING ROOF MEMBRANE TO BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION
- EXISTING WALLS, MATERIALS, EQUIPMENT, FIXTURES AND PARTITIONS TO BE REMOVED
- EXISTING DOOR AND/OR FRAME TO BE REMOVED
- EXISTING DOOR TO REMAIN
- EXISTING WINDOW TO BE REMOVED



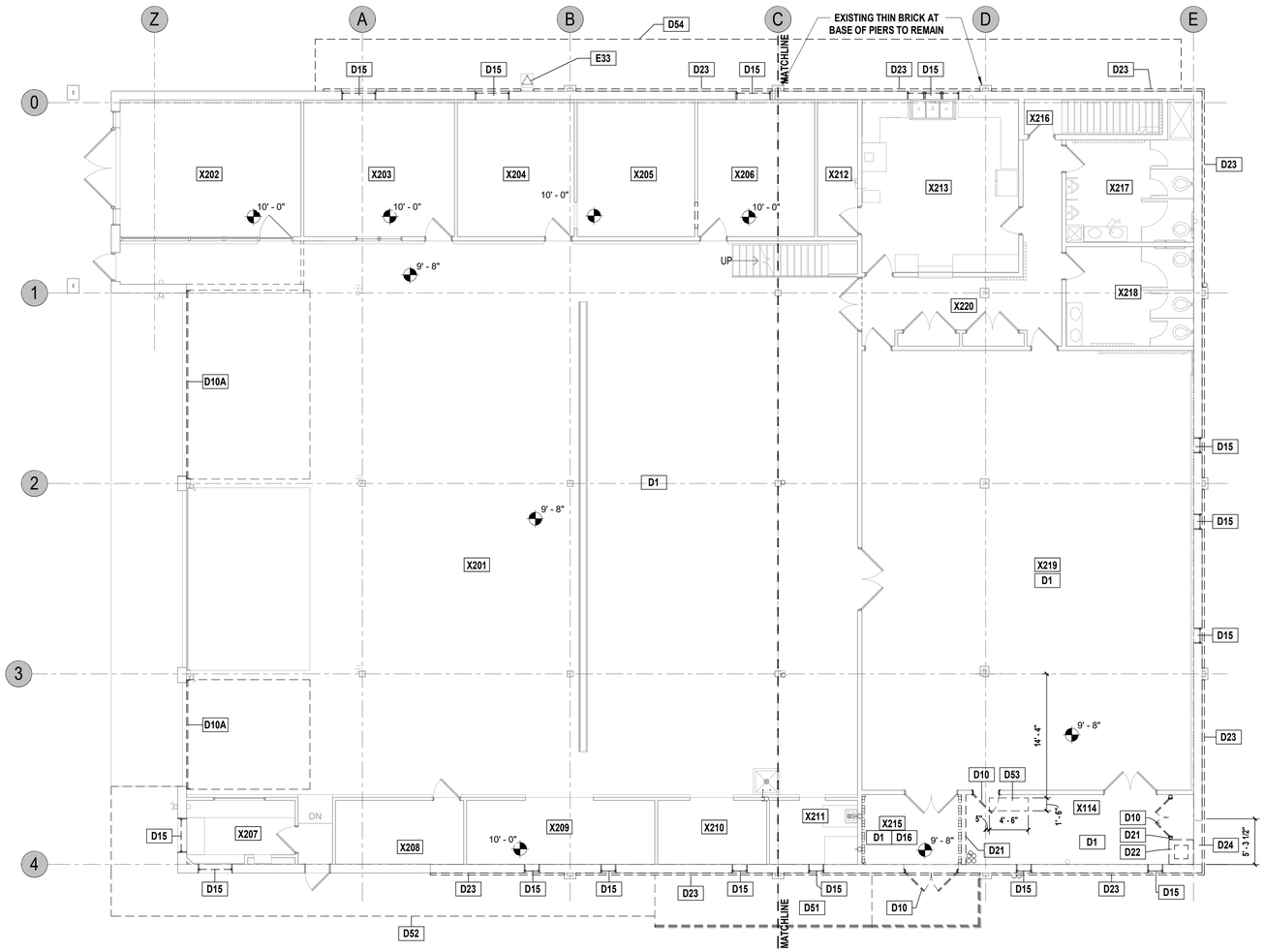
3 AD 111 **PARTIAL ROOF DEMO PLAN**
SCALE: 1/8" = 1'-0"

CALLED NORTH



1 AD 111 **FIRST FLOOR DEMO PLAN**
SCALE: 1/8" = 1'-0"

CALLED NORTH



2 AD 111 **SECOND FLOOR DEMO PLAN**
SCALE: 1/8" = 1'-0"

CALLED NORTH

H 2 M architects + engineers

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Latham, NY 12110
518.765.5105 • www.h2m.com

CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
DAR	TES	AFJ	
PROJECT No:	DATE:	SCALE:	
CARM1902	3/22/2021	AS SHOWN	

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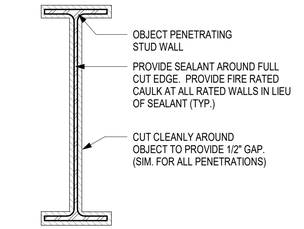
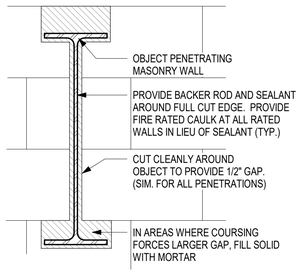
DEMO PLAN - FIRST AND SECOND FLOOR PLAN AND ROOF

DRAWING No.

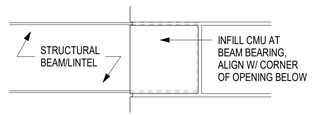
AD 111



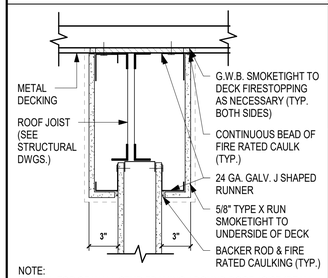


NOTE:
THESE DETAILS APPLY TO ALL PENETRATING ITEMS INCLUDING BEAMS, JOISTS, ANGLES, DUCTS, PIPES, CONDUIT, ETC. BEAMS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.

TYPICAL HORIZONTAL PENETRATIONS AT WALLS

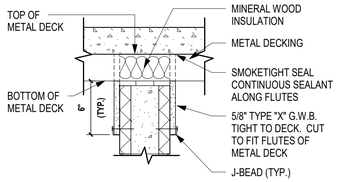


TYPICAL INFILL AT EXPOSED BEAM/ LINTEL BEARING

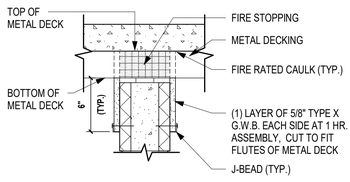


NOTE:
TYPICAL TOP OF WALL STUD FRAMING AROUND ROOF JOIST (BEAM SIM.) PROVIDING SMOKETIGHT BARRIER OR FIRE RATING TO MATCH WALL RATING; SEE PLAN AND WALL TYPES

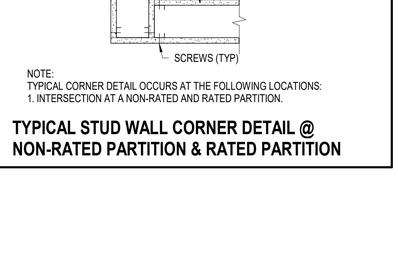
TYPICAL TOP OF FIRE RATED WALLS OR SMOKE PARTITION WALLS AT JOISTS OR BEAMS



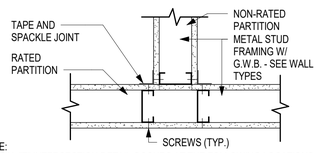
TYPICAL TOP OF C.M.U. WALL TO UNDERSIDE OF COMPOSITE DECK @ NON-RATED ASSEMBLY



TYPICAL TOP OF C.M.U. WALL TO UNDERSIDE OF COMPOSITE DECK @ RATED ASSEMBLY

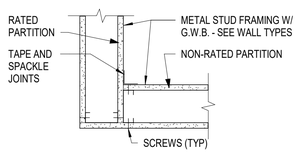


TYPICAL CMU BLOCK TO EXPOSED COLUMN DETAIL



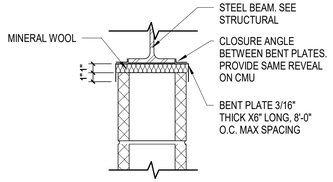
NOTE:
TYPICAL "T" INTERSECTION DETAIL OCCURS AT THE FOLLOWING LOCATIONS:
1. INTERSECTION AT A NON-RATED PARTITION AND A RATED PARTITION.

TYPICAL STUD WALL INTERSECTION @ NON-RATED PARTITION & RATED PARTITION

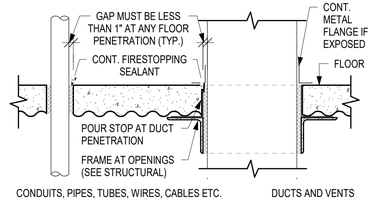


NOTE:
TYPICAL CORNER DETAIL OCCURS AT THE FOLLOWING LOCATIONS:
1. INTERSECTION AT A NON-RATED AND RATED PARTITION.

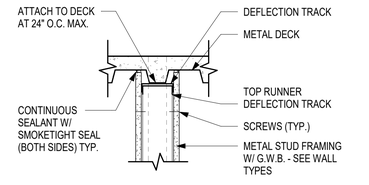
TYPICAL STUD WALL CORNER DETAIL @ NON-RATED PARTITION & RATED PARTITION



CMU WALL TO BOTTOM OF STEEL BEAM OR JOIST

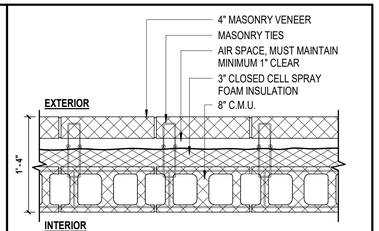


TYPICAL FLOOR PENETRATIONS FOR MECHANICAL,ELECTRICAL, PLUMBING AND SPRINKLER



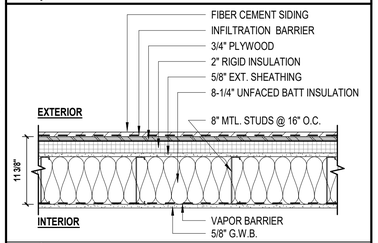
TYPICAL TOP OF WALL STUD FRAMING TO UNDERSIDE OF FLOOR OR ROOF DECKING @ NON-RATED PARTITIONS

EXTERIOR

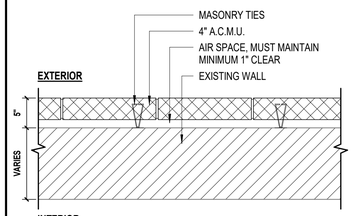


1A — WALL TYPE 1A

SEE STRUCTURAL DRAWINGS FOR REINFORCING AND SPECIFICATIONS



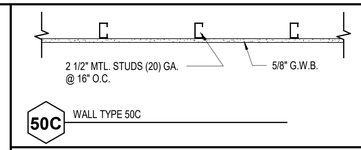
31C — WALL TYPE 31C



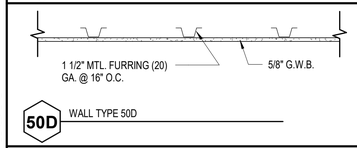
41D — WALL TYPE 41D

PER IBC TABLE 721.1(2) ITEM 3

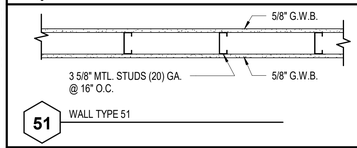
INTERIOR



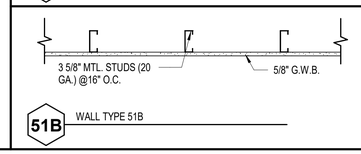
50C — WALL TYPE 50C



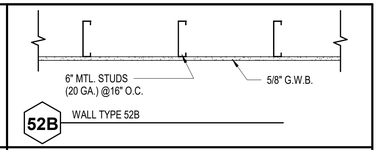
50D — WALL TYPE 50D



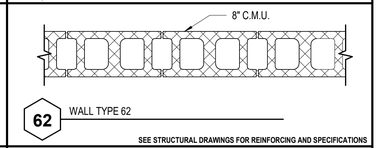
51 — WALL TYPE 51



51B — WALL TYPE 51B



52B — WALL TYPE 52B



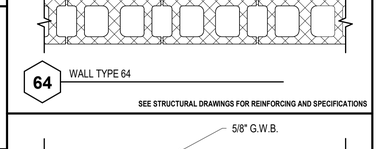
62 — WALL TYPE 62

SEE STRUCTURAL DRAWINGS FOR REINFORCING AND SPECIFICATIONS

SAME AS WALL TYPE 62 EXCEPT:
-RUN TO BOTTOM OF DECK W/ FIRE-RATED CAULK

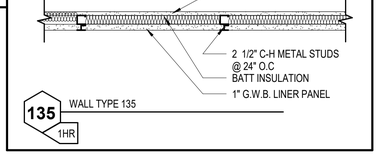
62 1HR — WALL TYPE 62 - 1HR

SEE STRUCTURAL DRAWINGS FOR REINFORCING AND SPECIFICATIONS



64 — WALL TYPE 64

SEE STRUCTURAL DRAWINGS FOR REINFORCING AND SPECIFICATIONS



135 1HR — WALL TYPE 135

GENERAL NOTES

1. ALL DIMENSIONS ARE NOMINAL UNLESS OTHERWISE NOTED.
2. ALL BLOCKING SHALL BE FIRE RETARDANT TREATED, EXCEPT IN THE EXTERIOR WALL SPECIFICALLY FOR DOORS, WINDOWS, AND LOUVERS.
3. ALL EXT. GYP SHEATHING NOT AT GABLE ENDS SHALL HAVE INFILTRATION BARRIER AND TRANSITION FLASHING UNLESS COVERED BY MIN. 2" OF CLOSED CELL SPRAY POLYURETHANE FOAM INSULATION

ABBREVIATIONS

A.C.M.U.	ARCHITECTURAL CONCRETE MASONRY UNIT	INSUL.	INSULATED/INSULATION
A.F.F.	ABOVE FINISHED FLOOR	INT.	INTERIOR
ALUM.	ALUMINUM		
APPROX.	APPROXIMATE	L.T.	LINT TRAP
@	AT		
		MECH.	MECHANICAL
B/O	BOTTOM OF	MAX.	MAXIMUM
BM.	BEAM	M.C.	MECHANICAL CONTRACTOR
BLDG.	BUILDING	M.D.O.	MEDIUM DENSITY OVERLAY
		MTL.	METAL
C.B.	CATCH BASIN	MIN.	MINIMUM
CLG.	CEILING	M.O.	MASONRY OPENING
CFS	COLD FORMED STEEL	M.R.	MOISTURE RESISTANT
C.G.	CORNER GUARD		
℄	CENTERLINE	N.F.W.H.	NON FREEZE WALL HYDRANT
C.O.	CLEANOUT	N.I.C.	NOT IN CONTRACT
COL.	COLUMN	NL	NIGHT LIGHT
CONC.	CONCRETE	N.T.S.	NOT TO SCALE
C.M.U.	CONCRETE MASONRY UNIT	O.C.	ON CENTER
CONT.	CONTINUOUS	O.H.	OVERHEAD
CPT.	CARPET	OPP.	OPPOSITE
C.T.	CERAMIC TILE/PORCELAIN TILE	OPNG.	OPENING
CJ	CONTROL JOINT	P.LAM.	PLASTIC LAMINATE
		PLUMB.	PLUMBING
DIA.	DIAMETER	PLYWD.	PLYWOOD
DHW.	DOMESTIC HOT WATER HEATER	P.C.	PLUMBING CONTRACTOR
DN.	DOWN	P.S.F.	POUNDS PER SQUARE FOOT
D.S.	DOWNSPOUT	P.S.I.	POUNDS PER SQUARE INCH
DWG.	DRAWINGS	PT.	PAINT
D.F.	DRINKING FOUNTAIN	P.T.	PRESSURE TREATED
EA.	EACH	Q.T.	QUARRY TILE
E.C.	ELECTRICAL CONTRACTOR		
EJ	EXPANSION JOINT	R-#	RESISTANCE R-VALUE (INSUL.)
ELEC.	ELECTRICAL	RAD.	RADIUS (CURVES)
ELEV.	ELEVATION	REINF.	REINFORCEMENT
EPOXY PT.	EPOXY PAINT	REQ'D.	REQUIRED
EXP.	EXPOSED	RM.	ROOM
EXIST.	EXISTING	R.O.	ROUGH OPENING
EXT.	EXTERIOR		
E.I.F.S.	EXTERIOR INSULATION & FINISH SYSTEM	S.A.C.	SUSPENDED ACOUSTICAL CEILING
		SIM.	SIMILAR
FIN.	FINISH	SF	SQUARE FOOT
FE.	FIRE EXTINGUISHER	S/S or S.S.	STAINLESS STEEL
F.F.	FINISHED FLOOR	S.D.T.	STATIC DISSIPATIVE TILE
FEC.	FIRE EXTINGUISHER IN CABINET	STRUCT.	STRUCTURAL
FLR.	FLOOR	T.B.B.	TILE BACKER BOARD
F.R.P.	FIBER REINFORCED PANEL	T.O.F.	TOP OF FOOTING
F.R.	FIRE RETARDANT	T.O.M.	TOP OF MASONRY
FS	FLOOR SINK	T.O.S.	TOP OF STEEL BAR JOIST OR BEAM
FD	FLOOR DRAIN	T.O.W.	TOP OF WALL
F/W	FACE OF WALL	TYP.	TYPICAL
		TYPE 'X'	FIRE CODE GWB
GALV.	GALVANIZED		
GA.	GAUGE	U.O.N.	UNLESS OTHERWISE NOTED
G.C./G.C.C.	GENERAL CONTRACTOR		
GYP.	GYPSUM	V.B.	VAPOR BARRIER/VAPOR RETARDER
GWB/G.W.B.	GYPSUM WALL BOARD	V.R.	VAPOR RETARDER
		V.C.T.	VINYL COMPOSITION TILE
HDCP.	HANDICAPPED	V.I.F.	VERIFY IN FIELD
HVAC.	HEATING, VENTILATING & AIR CONDITIONING		
H.M.	HOLLOW METAL	WR.	WATER RESISTANT
HORIZ.	HORIZONTAL	W/	WITH
HR.	HOUR		

SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
DRAWING NUMBER / SHEET NUMBER: 1 / A1.1 SIM	EXTERIOR ELEVATION INDICATOR	Name / Elevation	ELEVATION INDICATOR
		XX	REVISION MARK
DRAWING NUMBER / SHEET NUMBER: A / A1.1 / A	INTERIOR ELEVATION INDICATOR	1	WALL TYPE INDICATOR
		ROOM NAME / 101	ROOM TAG SYMBOL
DRAWING NUMBER / SHEET NUMBER: 1 / A1.1 SIM	BUILDING SECTION INDICATOR	101	DOOR MARK
		#	KEYNOTE MARK
DRAWING NUMBER / SHEET NUMBER: 1 / A1.1 SIM	SECTION DETAIL INDICATOR	A	WINDOW MARK
DRAWING NUMBER / SHEET NUMBER: Ref / A101	DETAIL INDICATOR	AC-#	ACCESSORY TAG FOR TOILET ROOMS AND OTHER ROOMS
		X'	UNSHADED PRIME LETTER COLUMN LINES ARE NEW
	EXISTING DOOR TO REMAIN	X	SHADED COLUMN LINES ARE EXISTING

HATCH LEGEND

PLAN/SECTION			ELEVATION
BATT INSULATION		CONCRETE	GLASS
(DIMENSIONAL LUMBER) ROUGH WOOD BLOCKING		BACK FILL	OBSCURE GLASS
SHIM		UNDISTURBED SOIL/EARTH	
PLYWOOD		CONCRETE MASONRY UNIT	
RIGID INSULATION		GRANULAR FILL/SUB BASE	
GYP. BOARD, GYP. SHEATHING, OR CEMENT BOARD		STEEL	WALLS - EXISTING TO REMAIN
FINISHED WOOD		GROUT	EXISTING AREA NOT IN SCOPE (SEE NOTES FOR EXCEPTIONS)
PLASTIC TRIM PRODUCT			

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CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
DAR	TES	AFJ	

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE, CARMEL HAMLET NY, 10512

CONTRACT

CONTRACT G GENERAL CONSTRUCTION

STATUS

BID SET

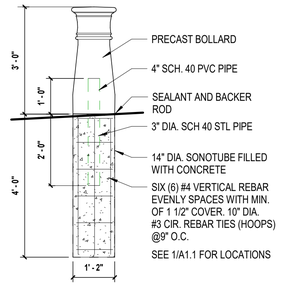
SHEET TITLE

PARTITION TYPES, UL LISTINGS, AND LEGENDS

DRAWING No.

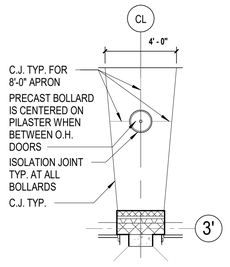
A 010

NOTE:
* - COORDINATE WITH PROJECT ELEVATION



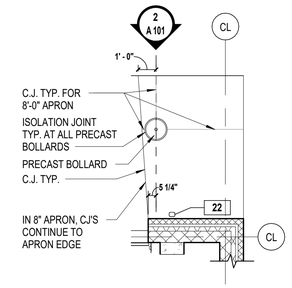
TYPICAL PRECAST BOLLARD DETAIL

2 / A 101 SCALE: 1/2" = 1'-0"



BOLLARD PLAN BETWEEN O.H. DOORS

3 / A 101 SCALE: 1/4" = 1'-0"



BOLLARD CORNER PLAN

4 / A 101 SCALE: 1/4" = 1'-0"

FLOOR PLAN KEYNOTES

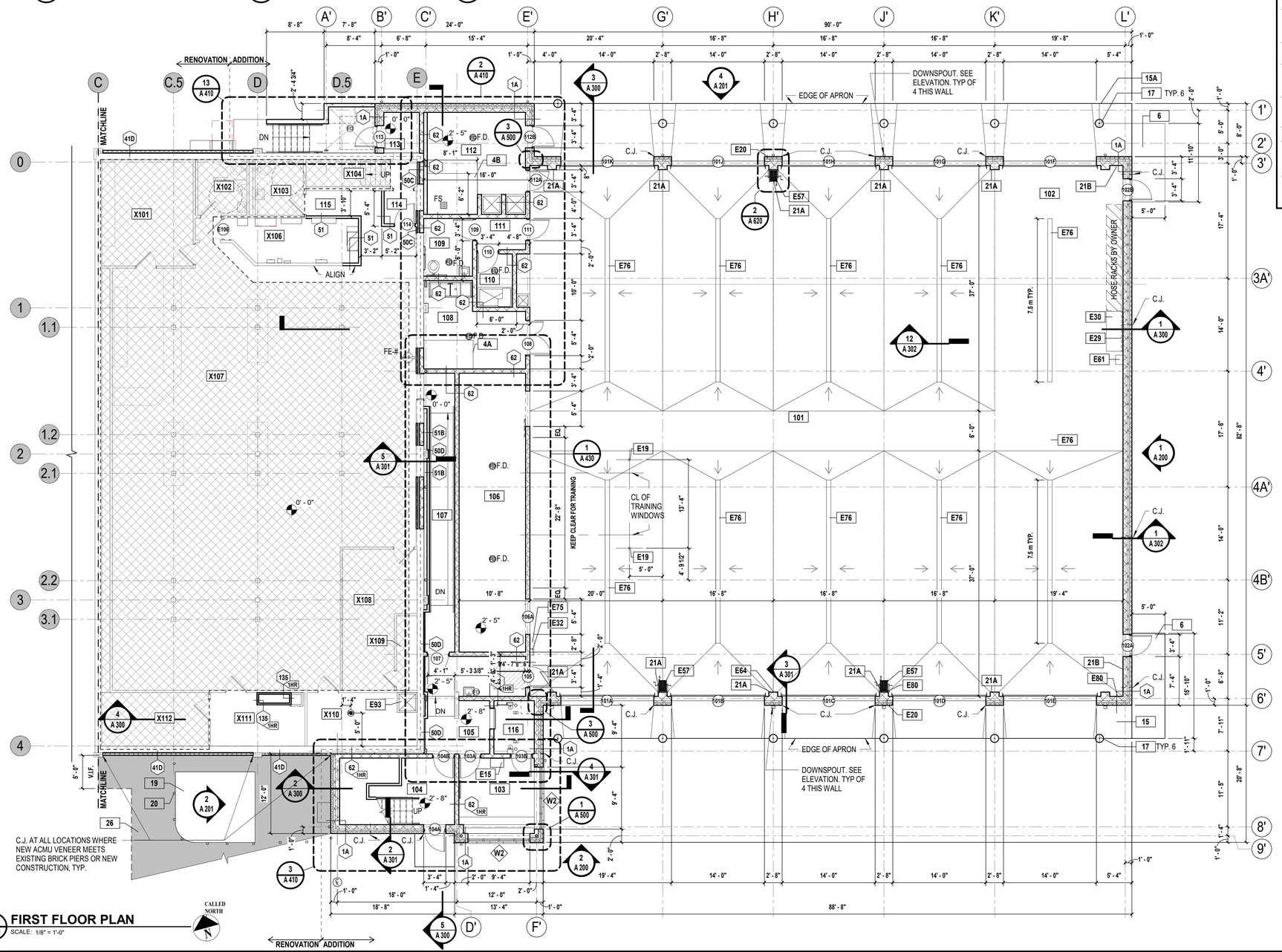
#	DESCRIPTION
4A	4" CONCRETE HOUSEKEEPING PADS. SEE MECHANICAL AND PLUMBING DRAWINGS FOR PLACEMENT OF EQUIPMENT. VERIFY EQUIPMENT SIZES PRIOR TO INSTALLATION OF HOUSEKEEPING PADS.
4B	10" ISOLATED PAD FLUSH WITH FLOOR LEVEL, SEE STRUCTURAL. SEE MECHANICAL AND PLUMBING DRAWINGS FOR PLACEMENT OF EQUIPMENT. VERIFY EQUIPMENT SIZES PRIOR TO INSTALLATION OF ISOLATED PAD.
6	CONCRETE PAD/SIDEWALK AT MAN DOOR
15	5'-0" CONCRETE BAY APRON
15A	8'-0" CONCRETE BAY APRON
17	PRECAST CONCRETE BOLLARD
19	NEW CONCRETE PAD FOR FUEL TANK. SEE STRUCTURAL DRAWINGS FOR SIZE AND DETAILS.
20	NEW METAL BOLLARDS. SEE CIVIL DRAWINGS
21A	SINGLE OVER HEAD DOOR OPERATOR.
21B	MULTIPLE OVER HEAD DOOR OPERATORS.
22	DOWNSPOUT
26	ASPHALT PAVING - SEE SITE PLAN

EQUIPMENT KEYNOTE LEGEND

#	DESCRIPTION
E15	24"W x 24"D x 54"H AV RACK. HAMMOND MANUFACTURING MODEL RB-AV27 OR EQUAL
E19	ANCHOR POT
E20	NON-FREEZE WALL HYDRANT
E29	WIRE MOLD, SEE ELECTRICAL DRAWINGS
E30	6' WORK BENCH BY OWNER
E32	ENGINE EXHAUST SYSTEM CONTROL PANEL, PROVIDED BY OWNER'S VEHICLE EXHAUST VENDOR
E57	50' HOSE REEL.
E61	EMERGENCY EYEWASH FENDALL 2000
E64	TRUCK FILL
E75	RADIANT HEAT MANIFOLD ENCLOSURE
E76	TRENCH DRAIN BY PC. PITCH FLOOR 1" TO DRAIN FROM FINISH FLOOR LEVEL
E80	TV MOUNTING BRACKET BY GC, MONITOR FOR RESPONSE SYSTEM N.I.C. MOUNTING HEIGHT PER ARCHITECT.
E93	MOP BASIN

FLOOR PLAN GENERAL NOTES

1. ALL PLAN DIMENSIONS ARE NOMINAL.
2. DIMENSIONS ARE TO FACE OF MASONRY OR FACE OF FRAMING, NOT FACE OF FURRING.
3. FIRST FLOOR REFERENCE ELEVATION 539.1' = 0'-0"
4. ALL PENETRATIONS THROUGH A RATED ASSEMBLY SHALL BE FIRE STOPPED. SEE FIRESTOPPING SPECIFICATION.
5. TYPICAL DIMENSION AT HINGE SIDE OF INTERIOR DOOR IN FRAMED WALLS, U.O.N. (2 3/4" TYP.)
6. ALL WALLS AND SOFFITS TO EXTEND TIGHT TO UNDERSIDE OF DECK ABOVE U.O.N.
7. SEE ALSO 1/4" SCALE PLANS FOR ADDITIONAL WALL TYPE AND DIMENSION INFORMATION.
8. SEE ELEVATIONS FOR CONTROL JOINTS (CJ) IN CMU.
9. SEE STRUCTURAL PLANS FOR SLOPES TO DRAIN.
10. ROUND EDGES OF ALL EXPOSED INTERIOR CORNERS OF C.M.U. WALLS & AT FRAMELESS OPENINGS.
11. LAYOUT OF TOILET FIXTURES AND ACCESSIBILITY CLEARANCES ARE SHOWN AS CLEAR DIMENSIONS. CONTRACTORS ARE REQUIRED TO COORDINATE LAYOUTS OF PARTITIONS, UTILITY CONNECTIONS, AND THICKNESS OF FINISHES TO ALLOW THESE CLEAR DIMENSIONS.
12. WALLS ON COLUMN LINES ARE CENTERED. U.O.N.
13. IT IS INTENDED THAT THE FACE OF EVERY CONTINUOUS PARTITION SHALL BE FLUSH WITHOUT OFFSETS. CHANGES IN PARTITION THICKNESS SHALL OCCUR ONLY AS INDICATED ON FLOOR PLANS.
14. ALL WOOD BLOCKING IN RATED PARTITIONS SHALL BE FIRE RETARDANT TREATED.
15. COORDINATE WITH ENGINEERING DRAWINGS FOR LOCATIONS AND SIZES OF EQUIPMENT AND HOUSEKEEPING CONCRETE PADS.
16. SEE DOOR SCHEDULE FOR SCHEDULED DOORS REQUIRING CONDUIT FOR FUTURE CARD ACCESS, ALARM AND SECURITY SYSTEMS.
17. ALL EXPOSED SURFACES OF PARTITIONS ARE TO BE PAINTED.
18. PROVIDE FIRE RETARDANT BLOCKING IN WALLS FOR ALL WALL-MOUNTED ITEMS. COORDINATE WITH ARCHITECTURAL AND M, E, P, AND FP DRAWINGS.
19. SEE STRUCUTRAL DRAWINGS FOR LOCATIONS OF CONCRETE FLOOR CJ'S AND CSJ'S



FIRST FLOOR PLAN

1 / A 101 SCALE: 1/8" = 1'-0"

FIRST FLOOR ROOM LEGEND

#	NAME
101	APPARATUS BAYS
102	HOSE STORAGE/WORK AREA
103	RADIO ROOM
104	STAIR
105	LOBBY
106	TURNOUT GEAR ROOM
107	CORRIDOR
108	SCBA
109	RESTROOM
110	SHOWER
111	VESTIBULE
112	DECON ROOM
113	VESTIBULE
114	VESTIBULE
115	CORRIDOR
116	ELEVATOR
ELEV	ELEVATOR
X101	KITCHEN
X102	TOILET
X103	TOILET
X104	STAIRS
X106	ELECTRIC
X107	MEMBER'S ROOM
X108	STORAGE
X109	STORAGE
X110	MECHANICAL
X111	UTILITY
X112	STORAGE
X114	CLOSET
XM03	EXISTING MEZZANINE
XM04	EXISTING MEZZANINE

FLOOR PLAN LEGEND

- EXISTING WALLS TO REMAIN
- EXISTING AREA NOT IN SCOPE (SEE NOTES FOR EXCEPTIONS)
- EXISTING DOOR TO REMAIN
- NEW DOOR AND FRAME
- NEW WINDOW AND FRAME
- EXPANSION JOINT, ALL LOCATIONS WHERE EXISTING AND NEW BUILDING MEET, TYP.
- F.D. FLOOR DRAIN
- F.S. FLOOR SINK
- FE-# FIRE EXTINGUISHER
- FEC-# FIRE EXTINGUISHER CABINET

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CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
DAR	TES	AFJ	

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

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ADDITION/RENOVATION

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STATUS

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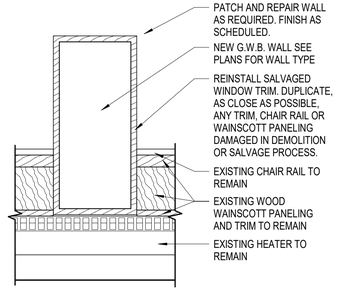
SHEET TITLE

FLOOR PLAN - FIRST FLOOR

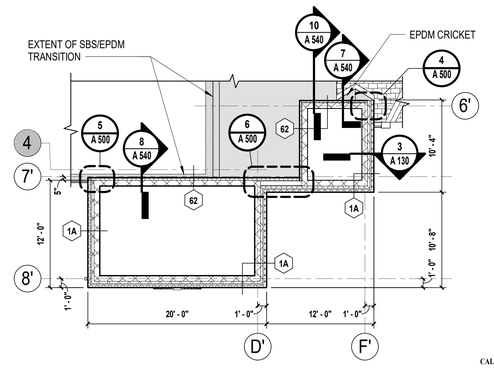
DRAWING No.

A 101



MEETING ROOM WINDOW INFILL ELEVATION

2 / A 102 SCALE: 1/2" = 1'-0"



PARTIAL ROOF PLAN AT STAIR AND ELEVATOR

3 / A 102 SCALE: 1/8" = 1'-0"

CALLED NORTH

FLOOR PLAN KEYNOTES

#	DESCRIPTION
6	CONCRETE PAD/SIDEWALK AT MAN DOOR
23	INFILL WITH SALVAGED WAINSCOATING AND CHAIR RAIL MATERIALS
26	ASPHALT PAVING - SEE SITE PLAN

EQUIPMENT KEYNOTE LEGEND

#	DESCRIPTION
E33	EXISTING ANTENNA AND ALL ASSOCIATED WIRING TO REMAIN. PROTECT IN-PLACE. ANTENNA SHALL REMAIN IN OPERATION DURING CONSTRUCTION ACTIVITIES.PROVIDE NEW BRACKETS ATTACHED TO EXISTING WALL TO ACCOMMODATE NEW ACMU DEPTH BEHIND ANTENNA - COORDINATE THIS WORK W/CM.
E79	TIE OFF RAIL
E83	REMOVABLE RAILING
E86	FLOOR MOUNTED D-RINGS

FURNISHING KEYNOTE LEGEND

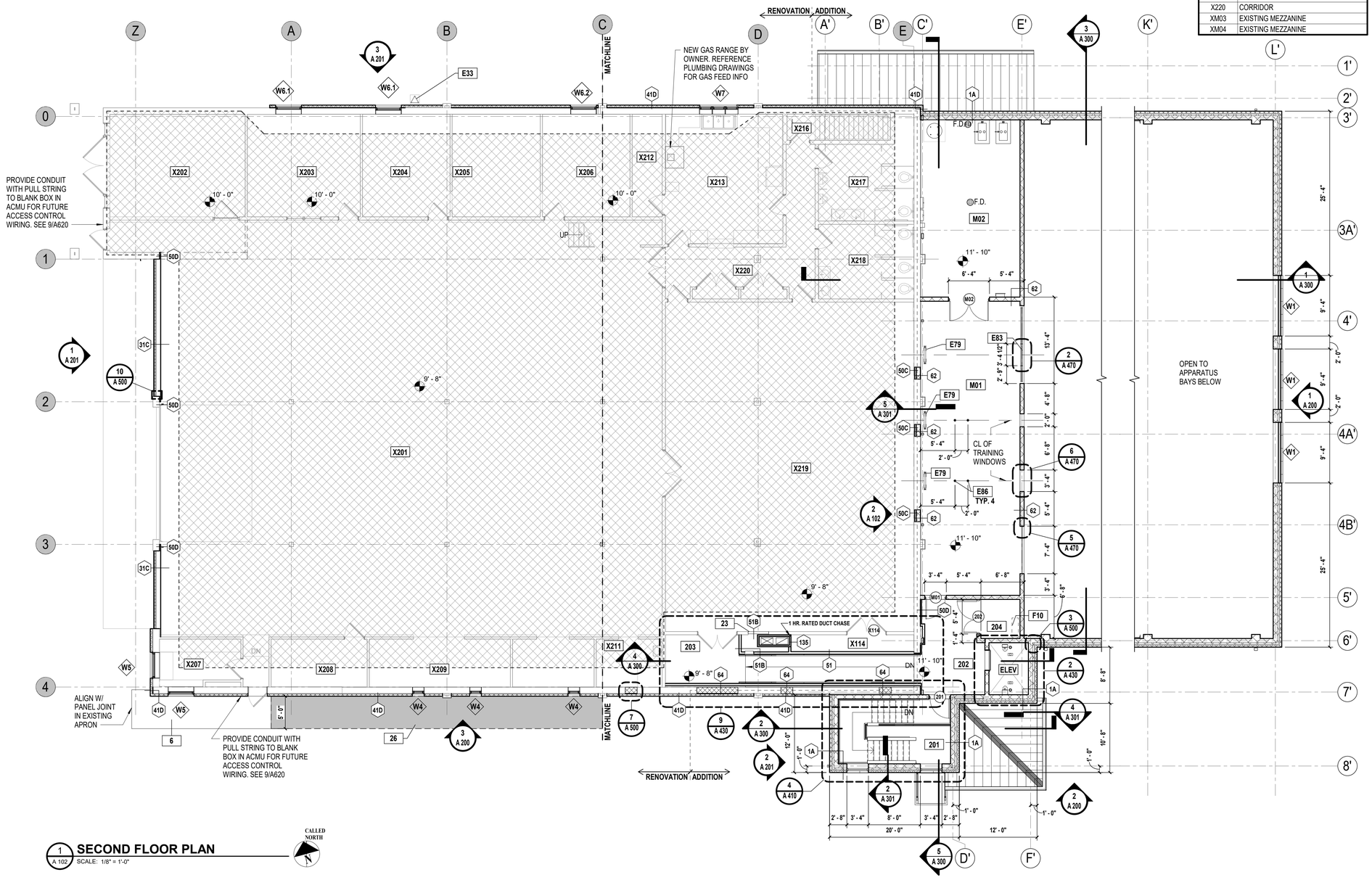
#	DESCRIPTION
F10	SHELVES BY OWNER

FLOOR PLAN LEGEND

- EXISTING WALLS TO REMAIN
- EXISTING AREA NOT IN SCOPE (SEE NOTES FOR EXCEPTIONS)
- EXISTING DOOR TO REMAIN
- NEW DOOR AND FRAME
- NEW WINDOW AND FRAME
- EXPANSION JOINT, ALL LOCATIONS WHERE EXISTING AND NEW BUILDING MEET, TYP.
- F.D. FLOOR DRAIN
- F.S. FLOOR SINK
- FE-# FIRE EXTINGUISHER
- FEC-# FIRE EXTINGUISHER CABINET

SECOND FLOOR ROOM LEGEND

#	NAME
201	STAIRS
202	SECOND FLOOR LOBBY
203	CORRIDOR
204	STORAGE
206	Room
ELEV	ELEVATOR
M01	MEZZANINE
M02	MECH. ROOM
X201	APPARATUS BAYS
X202	DISPLAY ROOM
X203	CONFERENCE ROOM
X204	CHIEF'S OFFICE
X205	FILE ROOM
X206	ADMIN OFFICE
X207	DISPATCH
X208	STORE ROOM
X209	COMPRESSOR
X210	OFFICE
X211	UTILITY ROOM
X212	PANTRY
X213	KITCHEN
X215	FOYER
X216	STAIR
X217	MEN'S ROOM
X218	WOMEN'S ROOM
X219	MEETING HALL
X220	CORRIDOR
XM03	EXISTING MEZZANINE
XM04	EXISTING MEZZANINE



SECOND FLOOR PLAN

1 / A 102 SCALE: 1/8" = 1'-0"

CALLED NORTH

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CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
DAR	TES	AFJ	

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

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ADDITION/RENOVATION

94 GLENEIDA AVE, CARMEL HAMLET NY, 10512

CONTRACT

CONTRACT G GENERAL CONSTRUCTION

STATUS

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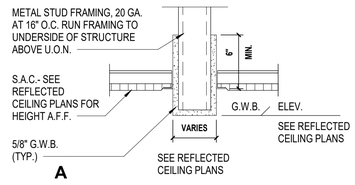
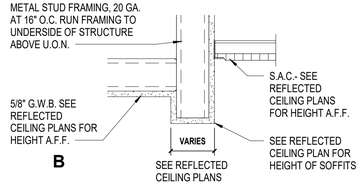
SHEET TITLE

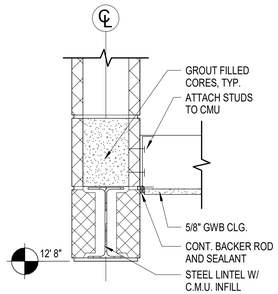
FLOOR PLAN - SECOND FLOOR AND MEZZANINE PLAN

DRAWING No.

A 102

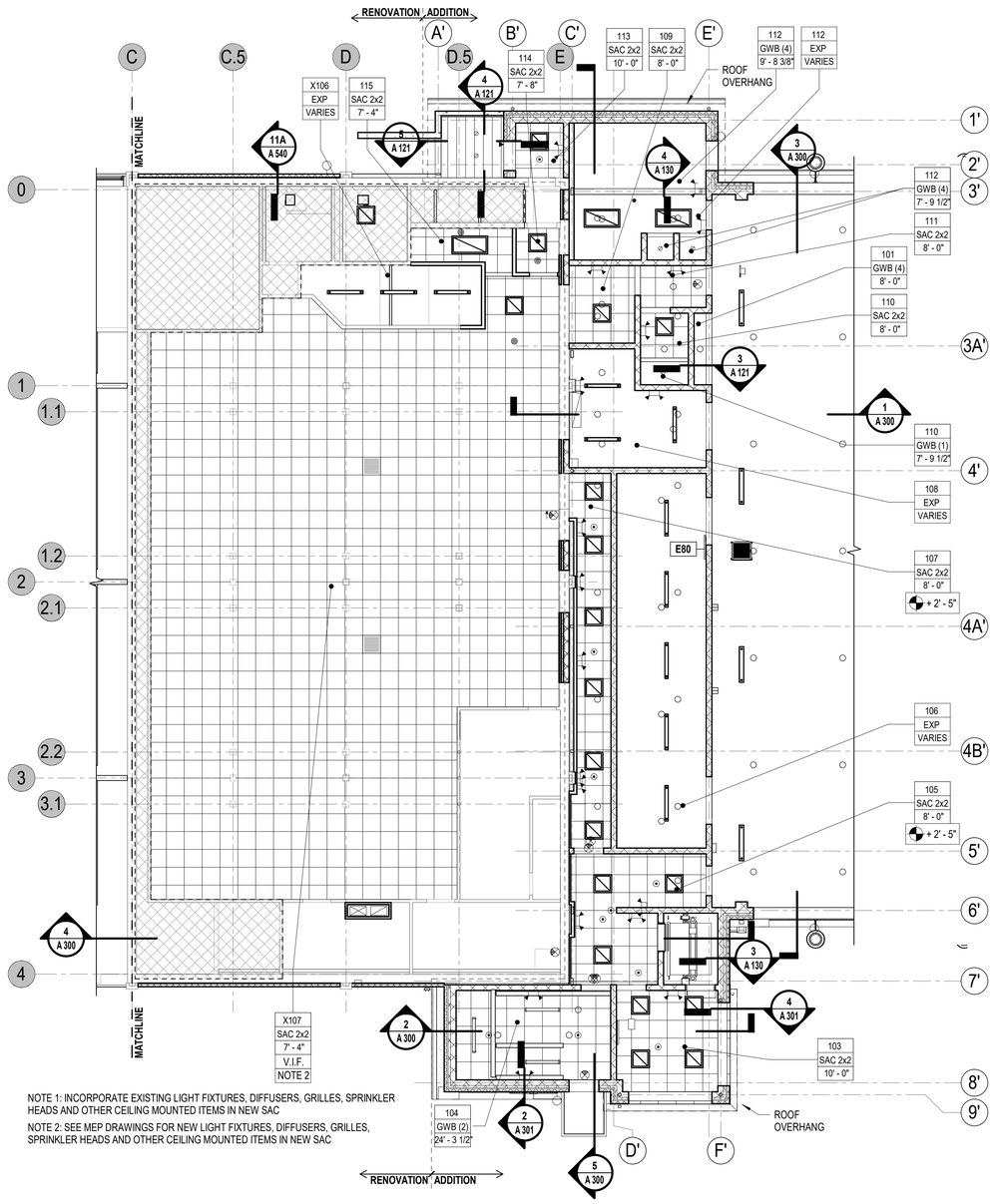






2 A 121 SOFFIT DETAILS
SCALE: 1 1/2" = 1'-0"

3 A 121 C.M.U. SOFFIT DETAIL
SCALE: 1 1/2" = 1'-0"



NOTE 1: INCORPORATE EXISTING LIGHT FIXTURES, DIFFUSERS, GRILLES, SPRINKLER HEADS AND OTHER CEILING MOUNTED ITEMS IN NEW SAC

NOTE 2: SEE MEP DRAWINGS FOR NEW LIGHT FIXTURES, DIFFUSERS, GRILLES, SPRINKLER HEADS AND OTHER CEILING MOUNTED ITEMS IN NEW SAC

1 A 121 FIRST FLOOR REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"

FIRST FLOOR ROOM LEGEND

#	NAME
101	APPARATUS BAYS
102	HOSE STORAGE/WORK AREA
103	RADIO ROOM
104	STAIR
105	LOBBY
106	TURNOUT GEAR ROOM
107	CORRIDOR
108	SCBA
109	RESTROOM
110	SHOWER
111	VESTIBULE
112	DECON ROOM
113	VESTIBULE
114	VESTIBULE
115	CORRIDOR
116	ELEVATOR
ELEV	ELEVATOR
X101	KITCHEN
X102	TOILET
X103	TOILET
X104	STAIRS
X106	ELECTRIC
X107	MEMBER'S ROOM
X108	STORAGE
X109	STORAGE
X110	MECHANICAL
X111	UTILITY
X112	STORAGE
X114	CLOSET
XM03	EXISTING MEZZANINE
XM04	EXISTING MEZZANINE

REFLECTED CEILING LEGEND
(NOT ALL SYMBOLS MAY BE USED)

GENERAL:
- 101 — ROOM NUMBER
- SAC — CEILING MATERIAL
- 8'-0" — CEILING HEIGHT

LIGHTING:
- WALL MOUNTED FIXTURE
- SURFACE MOUNTED FIXTURE
- PENDANT MOUNTED FIXTURE
- 2'x4' LAY-IN FIXTURE
- 1'x4' FIXTURE
- 2'x2' LAY-IN FIXTURE
- WALL MOUNTED FIXTURE
- WALL MOUNTED EMERGENCY LIGHT
- WALL MOUNTED EXIT LIGHT
- CEILING MOUNTED EXIT LIGHT
- RECESSED DOWN LIGHT
- BOWL PENDANT FIXTURE
- CEILING ACCESS HATCH

ME&P:
- CLG. DIFFUSER AIR GRILLE
- CLG. RETURN AIR GRILLE
- EXHAUST AIR GRILLE
- CLG. HVAC UNIT SEE MECH. DWGS
- CONCEALED PENDANT SPRINKLER HEAD
- UPRIGHT SPRINKLER HEAD
- SIDEWALL SPRINKLER HEAD
- SMOKE DETECTOR
- HEAT DETECTOR
- CARBON MONOXIDE DETECTOR
- AREA FOR PIPE PENETRATIONS
- EXISTING AREA NOT IN SCOPE (SEE NOTES FOR EXCEPTIONS)

- PAGING SPEAKER (CEILING) SOUND SYSTEM SPEAKER (CEILING)
- FSA HORN SPEAKER
- WALL MOUNTED SPEAKER SEE ELECTRICAL PLANS FOR TYPE.

NOTE: SEE ELECTRICAL DRAWINGS FOR SPEAKER VOLUME CONTROL SWITCHES.

- ELECTRIC POWER DROP FIELD. VERIFY LOCATION WITH OWNER (TYP.)
- CEILING FAN
- ELEC. DROP. SEE KEYNOTE FIELD VERIFY LOCATION WITH OWNER (TYP.) SEE ELEC. DWGS
- CAMERA LOCATION ONLY EXTERIOR BACKBOX AND STUB CONDUIT TO INSIDE OF WALL. COORDINATE HEIGHT WITH CM.

G.W.B. CEILING LEGEND

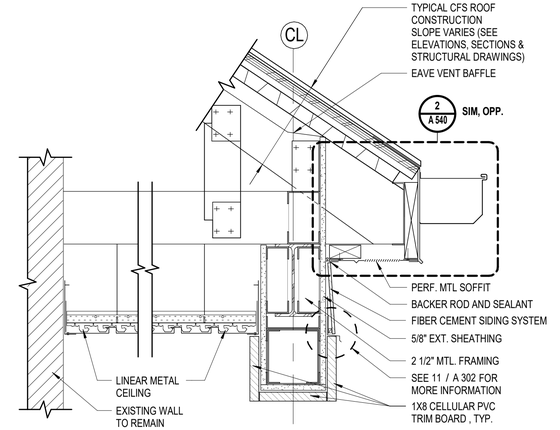
G.W.B. (1): 5/8" G.W.B. ON 1/2" RESILIENT CHANNELS AT 16" O.C.

G.W.B. (2): 5/8" G.W.B. ON 7/8" (18 GA.) HAT CHANNELS AT 16" O.C.

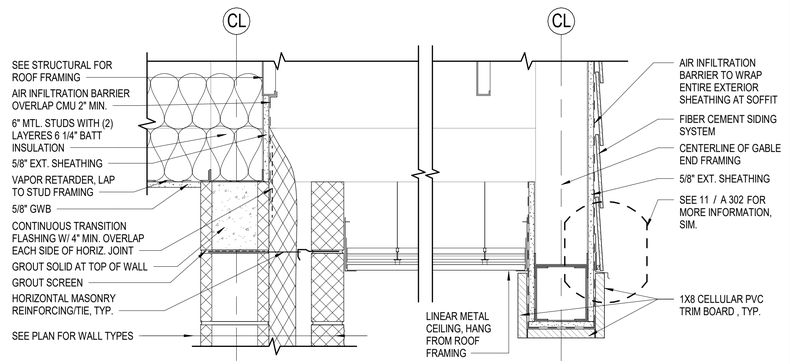
G.W.B. (4): 5/8" G.W.B. ON 3 5/8" MTL. 20 GA. STUDS AT 16" O.C

HATCH LEGEND

- EXISTING WALLS TO REMAIN
- EXISTING AREA NOT IN SCOPE (SEE NOTES FOR EXCEPTIONS)



4 A 121 CANOPY EAVE SECTION
SCALE: 1 1/2" = 1'-0"



5 A 121 CANOPY GABLE SECTION
SCALE: 1 1/2" = 1'-0"

H 2 M architects + engineers
3 Lear Jet Lane, Suite 205
Latham, NY 12110
518.765.5105 • www.h2m.com

CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
DAR	TES	AFJ	

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

BID SET

SHEET TITLE

REFLECTED CEILING PLAN - FIRST FLOOR AND DETAILS

DRAWING No.

A 121

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SECOND FLOOR ROOM LEGEND

#	NAME
201	STAIRS
202	SECOND FLOOR LOBBY
203	CORRIDOR
204	STORAGE
206	Room
ELEV	ELEVATOR
M01	MEZZANINE
M02	MECH. ROOM
X201	APPARATUS BAYS
X202	DISPLAY ROOM
X203	CONFERENCE ROOM
X204	CHIEF'S OFFICE
X205	FILE ROOM
X206	ADMIN OFFICE
X207	DISPATCH
X208	STORE ROOM
X209	COMPRESSOR
X210	OFFICE
X211	UTILITY ROOM
X212	PANTRY
X213	KITCHEN
X215	FOYER
X216	STAIR
X217	MEN'S ROOM
X218	WOMEN'S ROOM
X219	MEETING HALL
X220	CORRIDOR
XM03	EXISTING MEZZANINE
XM04	EXISTING MEZZANINE

EQUIPMENT KEYNOTE LEGEND

#	DESCRIPTION
E25	VEHICLE EXHAUST REMOVAL SYSTEM BY OWNER. GC TO PROVIDE TWO (2) 1-1/2" UNISTRUT RAILS PER UNIT MOUNTED ON BOTTOM OF GWB CEILING. UNISTRUT MUST SPAN AND ATTACH TO THREE TRUSSES.
E45	ELECTRICAL CORD REEL
E80	TV MOUNTING BRACKET BY GC, MONITOR FOR RESPONSE SYSTEM N.I.C. MOUNTING HEIGHT PER ARCHITECT,
E94	CEILING FAN

FLOOR PLAN KEYNOTES

#	DESCRIPTION
24	TRAINING BEAM, SEE STRUCTURAL DRAWINGS

G.W.B. CEILING LEGEND

G.W.B. (1): 5/8" G.W.B. ON 1/2" RESILIENT CHANNELS AT 16" O.C.

G.W.B. (2): 5/8" G.W.B. ON 7/8" (18 GA.) HAT CHANNELS AT 16" O.C.

G.W.B. (4): 5/8" G.W.B. ON 3 5/8" MTL. 20 GA. STUDS AT 16" O.C

REFLECTED CEILING LEGEND

(NOT ALL SYMBOLS MAY BE USED)

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- 8'-0" — CEILING HEIGHT

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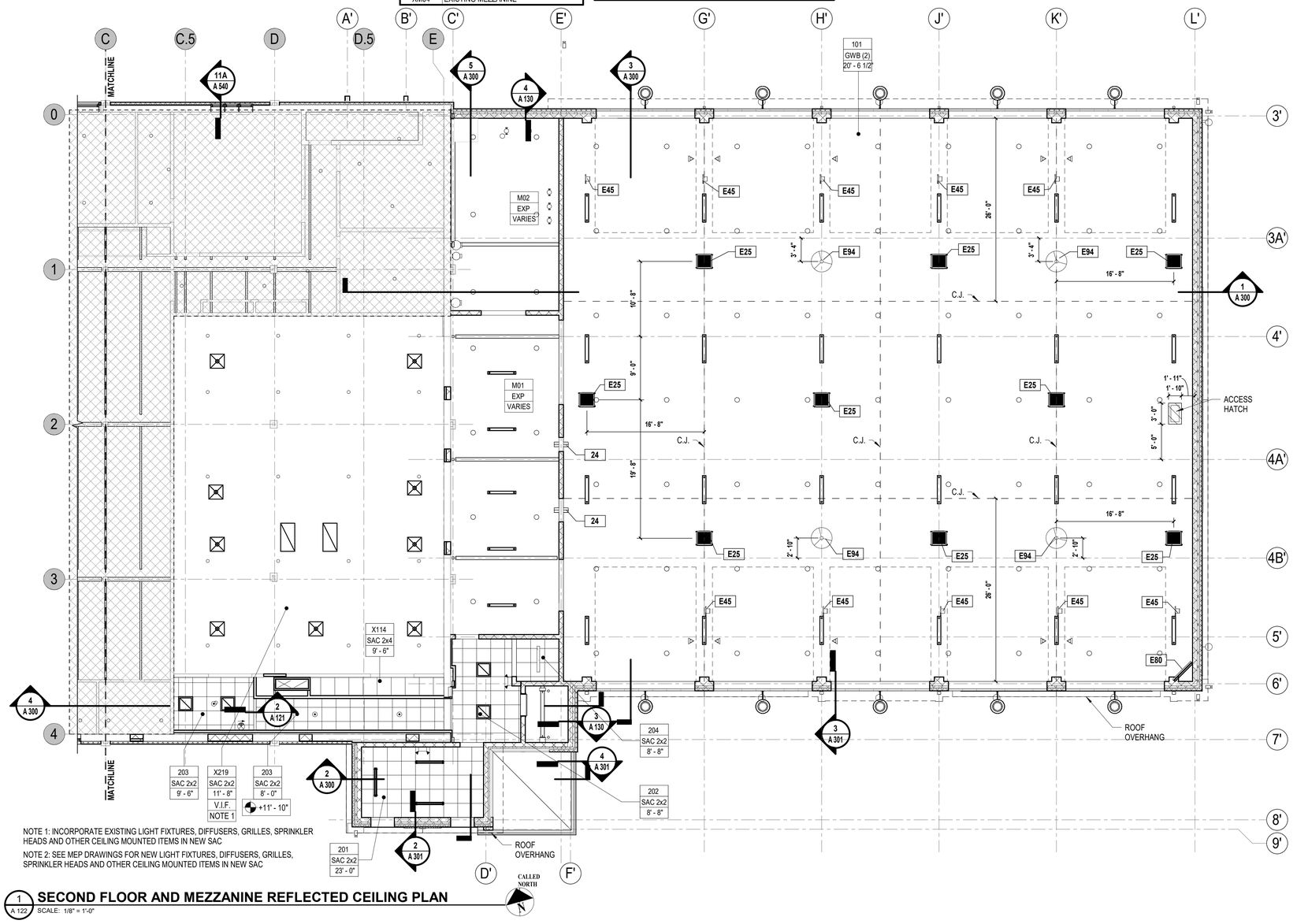

NOTE 1: INCORPORATE EXISTING LIGHT FIXTURES, DIFFUSERS, GRILLES, SPRINKLER HEADS AND OTHER CEILING MOUNTED ITEMS IN NEW SAC

NOTE 2: SEE MEP DRAWINGS FOR NEW LIGHT FIXTURES, DIFFUSERS, GRILLES, SPRINKLER HEADS AND OTHER CEILING MOUNTED ITEMS IN NEW SAC

1 / A 122 **SECOND FLOOR AND MEZZANINE REFLECTED CEILING PLAN**

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

H 2 M architects + engineers

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Latham, NY 12110
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CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
DAR	TES	AFJ	

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

**94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512**

CONTRACT

**CONTRACT G
GENERAL CONSTRUCTION**

STATUS

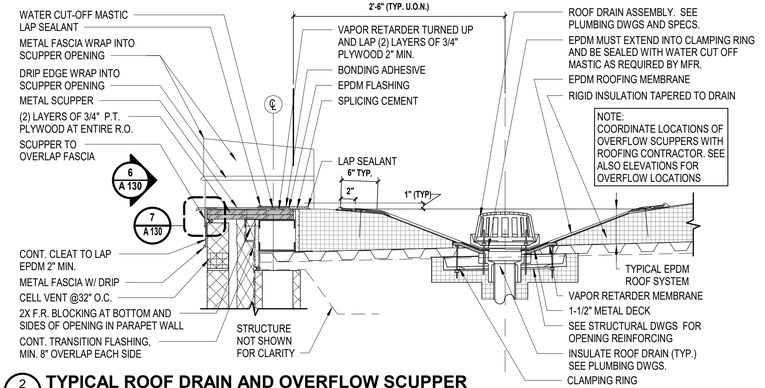
BID SET

SHEET TITLE

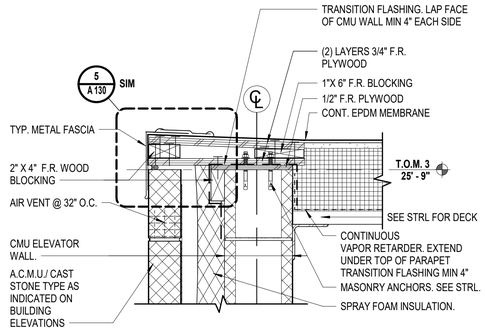
REFLECTED CEILING PLAN - SECOND FLOOR AND DETAILS

DRAWING No.

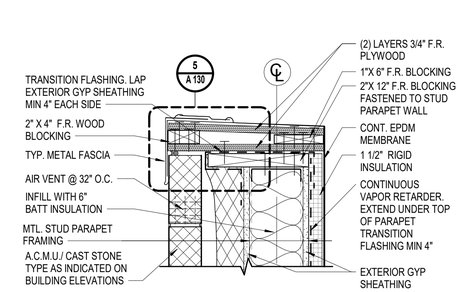
A 122



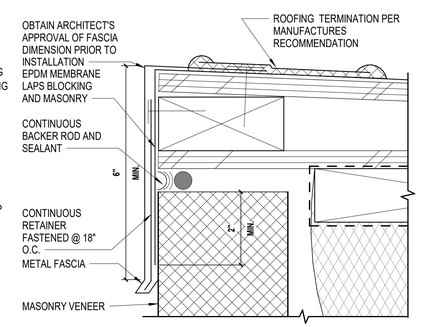
2 / A 130 TYPICAL ROOF DRAIN AND OVERFLOW SCUPPER
SCALE: 1" = 1'-0"



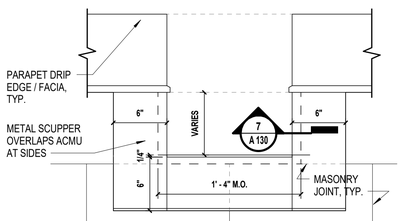
3 / A 130 DRIP EDGE AT ELEVATOR SHAFT
SCALE: 1 1/2" = 1'-0"



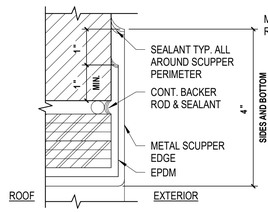
4 / A 130 TYP. PARAPET IN STUD WALL
SCALE: 1 1/2" = 1'-0"



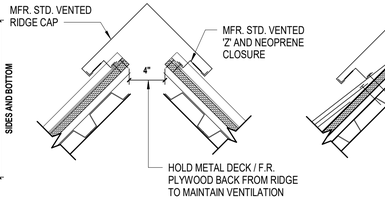
5 / A 130 TYPICAL DRIP EDGE
SCALE: 6" = 1'-0"



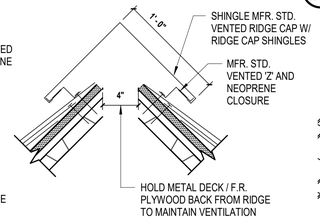
6 / A 130 TYP. SCUPPER ELEVATION
SCALE: 1 1/2" = 1'-0"



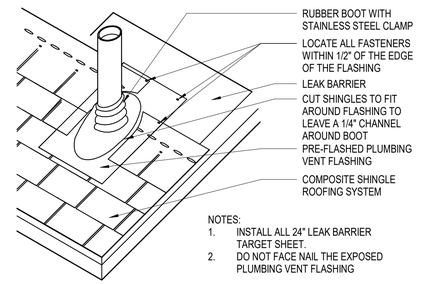
7 / A 130 TYPICAL SCUPPER EDGE PLAN DETAIL
SCALE: N.T.S.



8 / A 130 TYP. RIDGE VENT DETAIL @ METAL ROOF
SCALE: 1 1/2" = 1'-0"

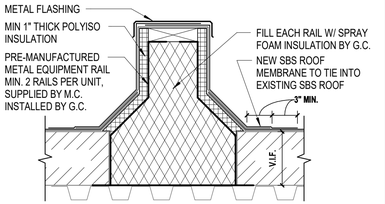


9 / A 130 TYP. RIDGE VENT DETAIL @ SHINGLE ROOF
SCALE: 1 1/2" = 1'-0"



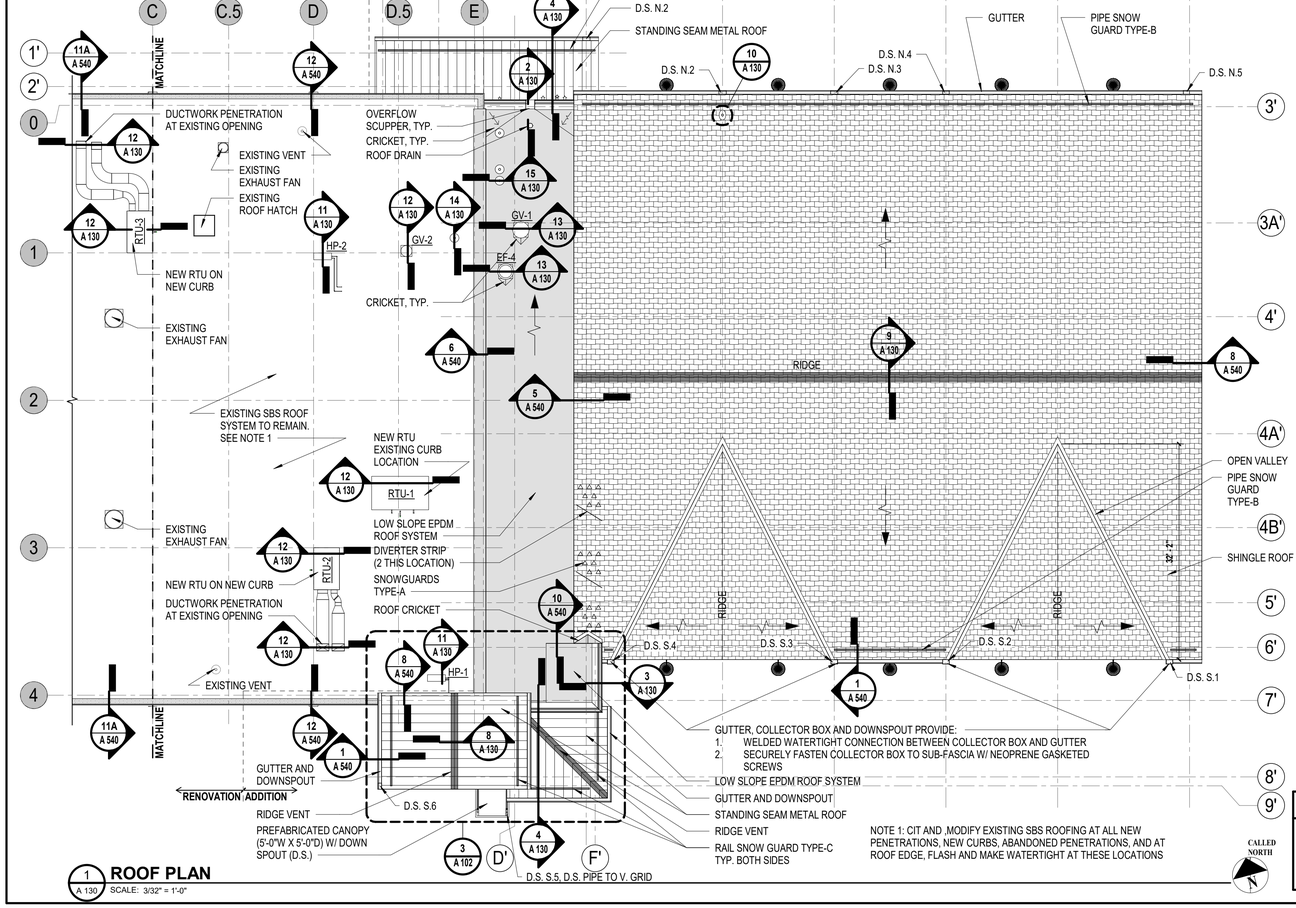
10 / A 130 TYP. ROOF VENT AXON. AT SHINGLE ROOF
SCALE: 1:10

COORDINATE SIZE, QUANTITY, AND LOCATION OF ROOF RAILS WITH CONTRACTOR WHOSE EQUIPMENT SITS ON RAILS. ASSUME MIN (2) AT EACH PIECE OF EQUIPMENT.

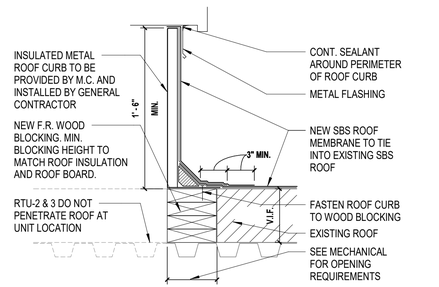


NOTES:
1. METAL RAIL TO BE SET OVER METAL DECK W/ INSULATION IN LINE W/ ROOF SLOPE
2. EQUIPMENT RAIL MUST SPAN OVER A MINIMUM OF TWO BAR JOISTS.

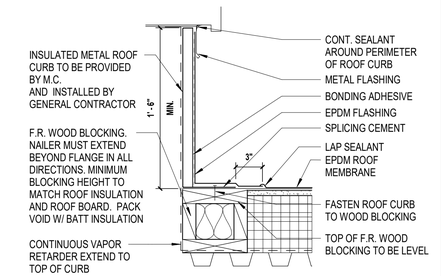
11 / A 130 TYP. EQUIPMENT ROOF RAIL AT EX. ROOF
SCALE: 1 1/2" = 1'-0"



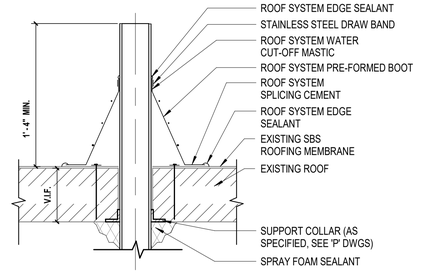
1 / A 130 ROOF PLAN
SCALE: 3/32" = 1'-0"



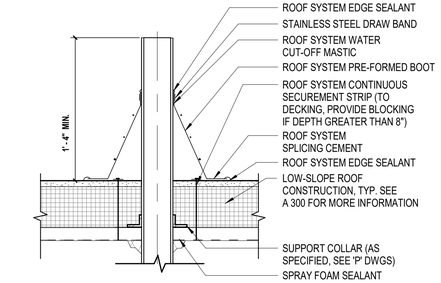
12 / A 130 TYP. ROOF CURB AT EXISTING ROOF
SCALE: 1 1/2" = 1'-0"



13 / A 130 TYP. ROOF CURB AT NEW ROOF
SCALE: 1 1/2" = 1'-0"



14 / A 130 TYP. ROOF VENT DETAIL AT EXISTING ROOF
SCALE: 1 1/2" = 1'-0"



15 / A 130 TYP. ROOF VENT DETAIL AT NEW ROOF
SCALE: 1 1/2" = 1'-0"

ROOF HATCH LEGEND

EXISTING SBS ROOF	NEW EPDM ROOF
NEW METAL ROOF	NEW SHINGLE ROOF

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3 Lear Jet Lane, Suite 205
Latham, NY 12110
518.765.5105 • www.h2m.com

CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
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ADDITION/RENOVATION

94 GLENEIDA AVE, CARMEL HAMLET NY, 10512

CONTRACT
CONTRACT G GENERAL CONSTRUCTION

STATUS
BID SET

SHEET TITLE
ROOF PLAN AND DETAILS

DRAWING No.
A 130

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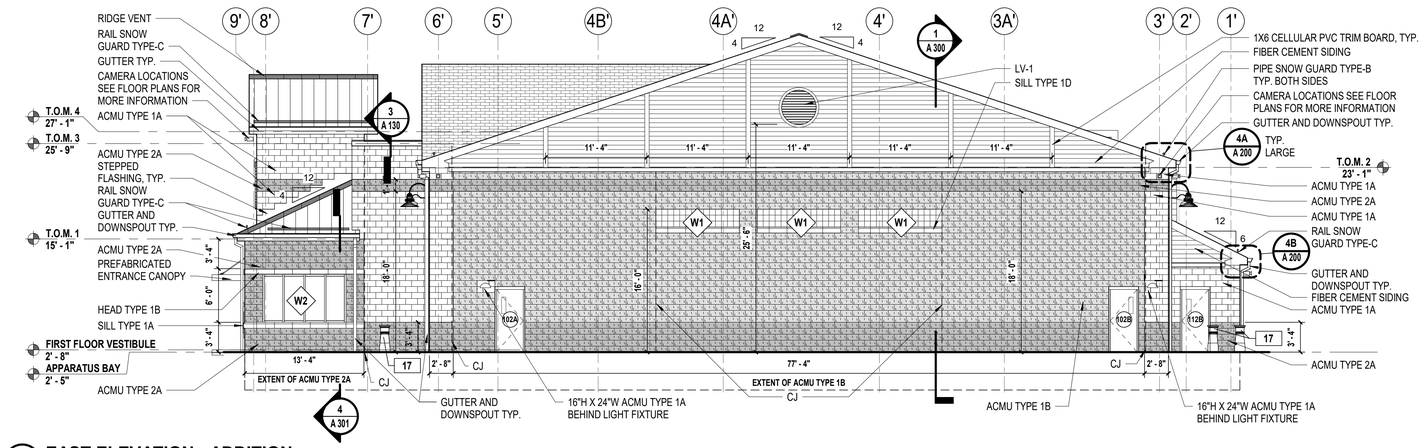
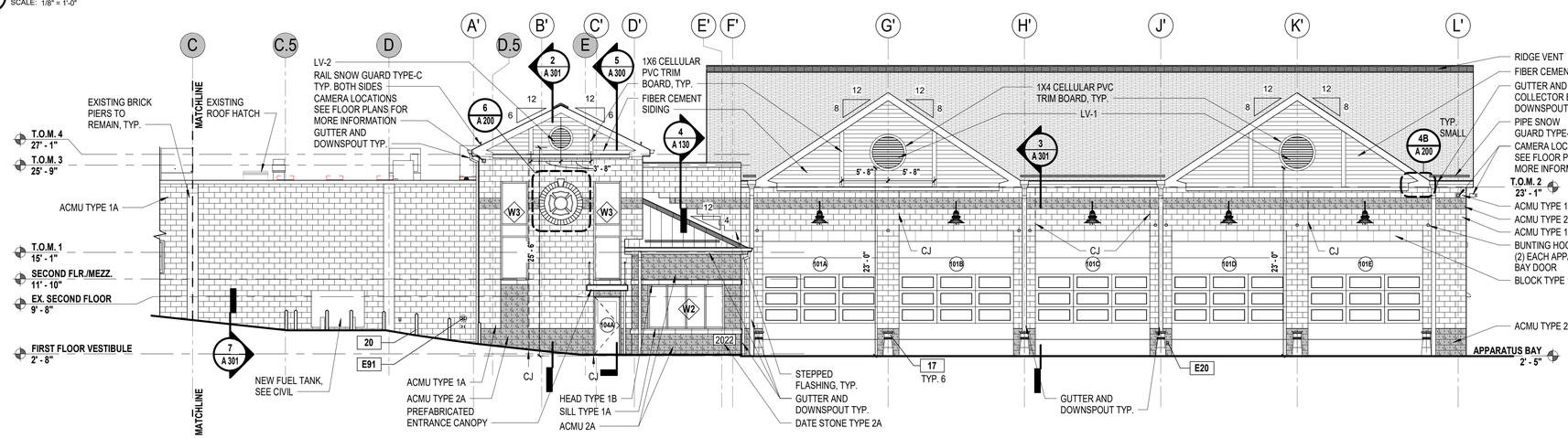
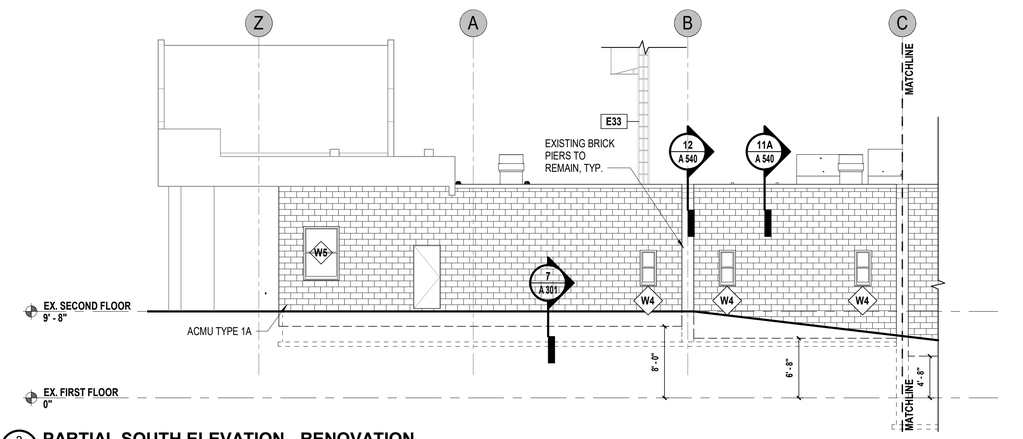


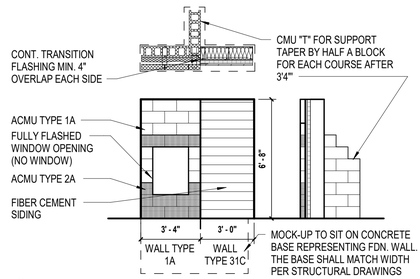
1 EAST ELEVATION - ADDITION
1 / A 200 SCALE: 1/8" = 1'-0"



2 PARTIAL SOUTH ELEVATION - ADDITION
2 / A 200 SCALE: 1/8" = 1'-0"



3 PARTIAL SOUTH ELEVATION - RENOVATION
3 / A 200 SCALE: 1/8" = 1'-0"



NOTE:

WALL IS TO BE CONSTRUCTED AS A TYPICAL WALL TYPE 1A AND 10A THAT INCLUDES ALL WALL TYPE COMPONENTS BUT NOT LIMITED TO: THROUGH-WALL FLASHING, REINFORCING, WEEPS, DRIPS, MORTAR NET, AND SPRAY FOAM INSULATION

7 WALL MOCKUP ELEVATION
7 / A 200 SCALE: 1/4" = 1'-0"

EQUIPMENT KEYNOTE LEGEND

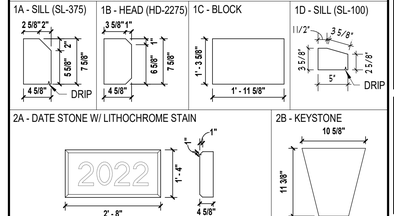
#	DESCRIPTION
E20	NON-FREEZE WALL HYDRANT
E33	EXISTING ANTENNA AND ALL ASSOCIATED WIRING TO REMAIN, PROTECT IN-PLACE. ANTENNA SHALL REMAIN IN OPERATION DURING CONSTRUCTION ACTIVITIES.PROVIDE NEW BRACKETS ATTACHED TO EXISTING WALL TO ACCOMMODATE NEW ACMU DEPTH BEHIND ANTENNA - COORDINATE THIS WORK W/CM.
E91	EXISTING F.D. CONNECTION SEE MEP DRAWINGS FOR SCOPE

FLOOR PLAN KEYNOTES

#	DESCRIPTION
17	PRECAST CONCRETE BOLLARD
20	NEW METAL BOLLARDS. SEE CIVIL DRAWINGS

PRECAST/LIMESTONE

BASIS OF DESIGN : READING BOCK /ROCK CAST



NOTE: CONFIRM ALL SHAPES VIA SHOP DRAWINGS

GENERAL NOTES

1. COORDINATE EXACT LOCATIONS OF ALL EXTERIOR WALL PENETRATIONS WITH THE APPROPRIATE CONTRACTOR. ITEMS SHOWN ON ELEVATIONS, SECTIONS, ETC. ARE FOR REFERENCE PURPOSES ONLY.
2. SEE STRUCTURAL DRAWINGS FOR BOND BEAM LOCATIONS.
3. ALL ACMU AND C.M.U. MORTAR JOINTS TO HAVE FIELD APPLIED SEALER.

LOUVER SCHEDULE

DESIGNATION	DESCRIPTION
LV-1	4'-0" DIAMETER CIRCULAR LOUVER BY G.C.
LV-2	2'-6" DIAMETER CIRCULAR LOUVER BY G.C.

ACMU MASONRY LEGEND

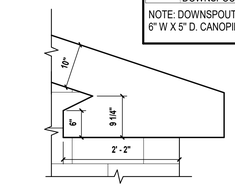
BLOCK DESCRIPTION		NCMA DESIGNATION
COLOR 1 - BRICK RED		
TYPE 1A	SMOOTH FACE	(00SMO040816)
TYPE 1B	SPLIT FACE	(00SPF040816)
COLOR 2 - GRAY		
TYPE 2A	SPLIT FACE	(00SPF040816)

NOTE:

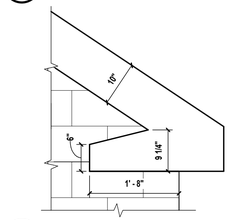
GUTTER LEGEND

TYPE A		
	GUTTER	7" W X 5 1/2"H
	DOWNSPOUT	5" W X 4"D

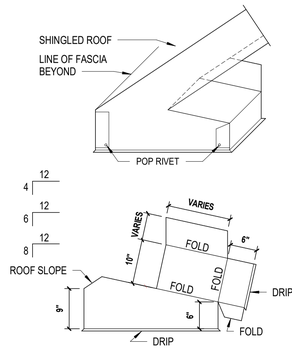
NOTE: DOWNSPOUT AT COLLECTOR BOX: 6" W X 5" D. CANOPIES 3" W X 2" D



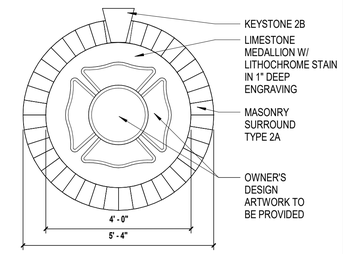
4A TYP. LARGE RAKE RETURN
4A / A 200 SCALE: 3/4" = 1'-0"



4B TYP. SMALL RAKE RETURN
4B / A 200 SCALE: 3/4" = 1'-0"



5 TYP. RAKE DETAIL
5 / A 200 SCALE: 3/4" = 1'-0"



6 MEDALLION DETAIL
6 / A 200 SCALE: 1/2" = 1'-0"

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DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
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PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

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CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE, CARMEL HAMLET NY, 10512

CONTRACT

CONTRACT G GENERAL CONSTRUCTION

STATUS

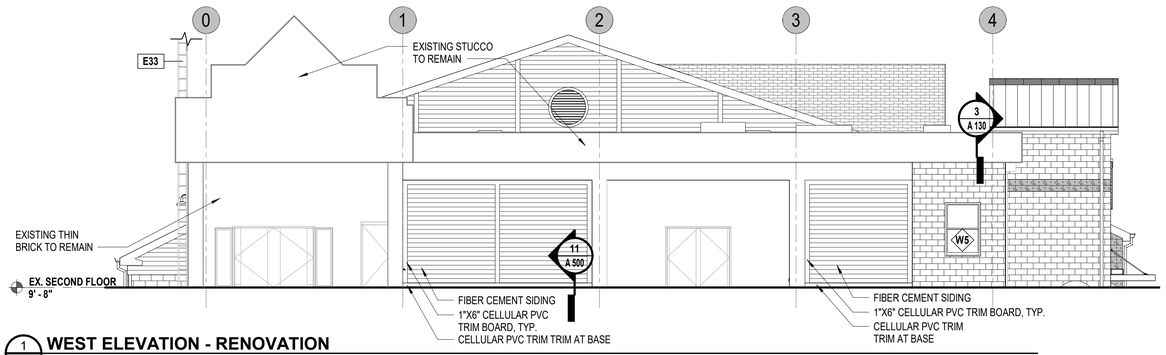
BID SET

SHEET TITLE

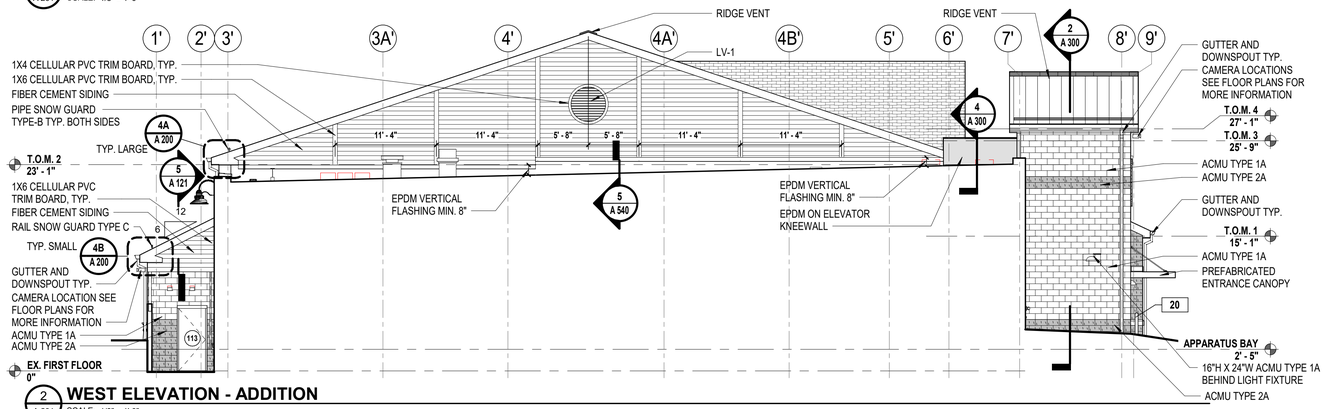
EAST AND SOUTH ELEVATIONS AND DETAILS

DRAWING No.

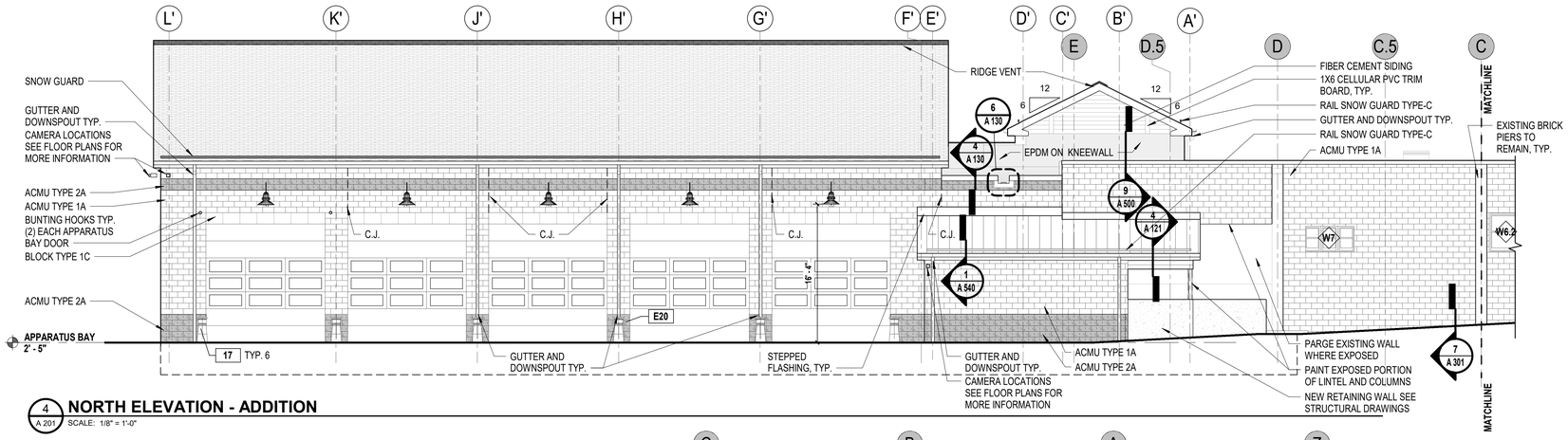
A 200



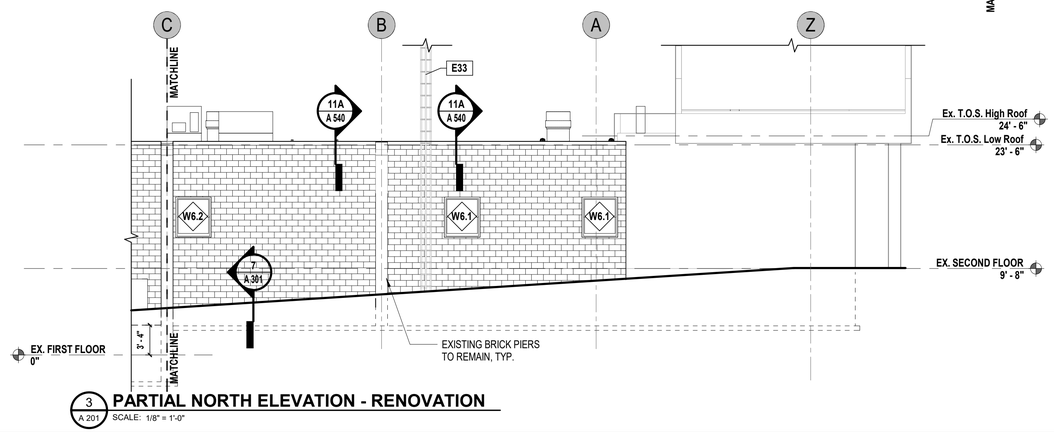
1 A 201 **WEST ELEVATION - RENOVATION**
SCALE: 1/8" = 1'-0"



2 A 201 **WEST ELEVATION - ADDITION**
SCALE: 1/8" = 1'-0"



4 A 201 **NORTH ELEVATION - ADDITION**
SCALE: 1/8" = 1'-0"

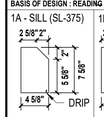


3 A 201 **PARTIAL NORTH ELEVATION - RENOVATION**
SCALE: 1/8" = 1'-0"

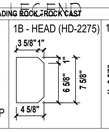
PRECAST/LIMESTONE LEGEND

BASIS OF DESIGN : READING ROCK, ROCK CAST

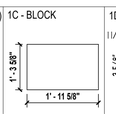
1A - SILL (SL-375)



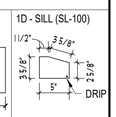
1B - HEAD (HD-2275)



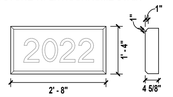
1C - BLOCK



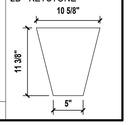
1D - SILL (SL-100)



2A - DATE STONE W/ LITHOCHROME STAIN



2B - KEYSTONE



NOTE: CONFIRM ALL SHAPES VIA SHOP DRAWINGS

GENERAL NOTES

1. COORDINATE EXACT LOCATIONS OF ALL EXTERIOR WALL PENETRATIONS WITH THE APPROPRIATE CONTRACTOR. ITEMS SHOWN ON ELEVATIONS, SECTIONS, ETC. ARE FOR REFERENCE PURPOSES ONLY.
2. SEE STRUCTURAL DRAWINGS FOR BOND BEAM LOCATIONS.
3. ALL ACMU AND C.M.U. MORTAR JOINTS TO HAVE FIELD APPLIED SEALER.

LOUVER SCHEDULE

DESIGNATION	DESCRIPTION
LV-1	4'-0" DIAMETER CIRCULAR LOUVER BY G.C.
LV-2	2'-6" DIAMETER CIRCULAR LOUVER BY G.C.

ACMU MASONRY LEGEND

BLOCK DESCRIPTION		NCMA DESIGNATION
COLOR 1 - BRICK RED		
TYPE 1A	SMOOTH FACE	(00SMO040816)
TYPE 1B	SPLIT FACE	(00SPF040816)
COLOR 2 - GRAY		
TYPE 2A	SPLIT FACE	(00SPF040816)

NOTE:

GUTTER LEGEND

TYPE A		
	GUTTER	7" W X 5 1/2"H
	DOWNSPOUT	5" W X 4"D

NOTE: DOWNSPOUT AT COLLECTOR BOX: 6" W X 5" D. CANOPIES 3" W X 2" D

EQUIPMENT KEYNOTE LEGEND

#	DESCRIPTION
E20	NON-FREEZE WALL HYDRANT
E33	EXISTING ANTENNA AND ALL ASSOCIATED WIRING TO REMAIN. PROTECT IN-PLACE. ANTENNA SHALL REMAIN IN OPERATION DURING CONSTRUCTION ACTIVITIES.PROVIDE NEW BRACKETS ATTACHED TO EXISTING WALL TO ACCOMMODATE NEW ACMU DEPTH BEHIND ANTENNA - COORDINATE THIS WORK W/CM.

FLOOR PLAN KEYNOTES

#	DESCRIPTION
17	PRECAST CONCRETE BOLLARD
20	NEW METAL BOLLARDS. SEE CIVIL DRAWINGS

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CARMEL HAMLET NY, 10512**

CONTRACT

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GENERAL CONSTRUCTION**

STATUS

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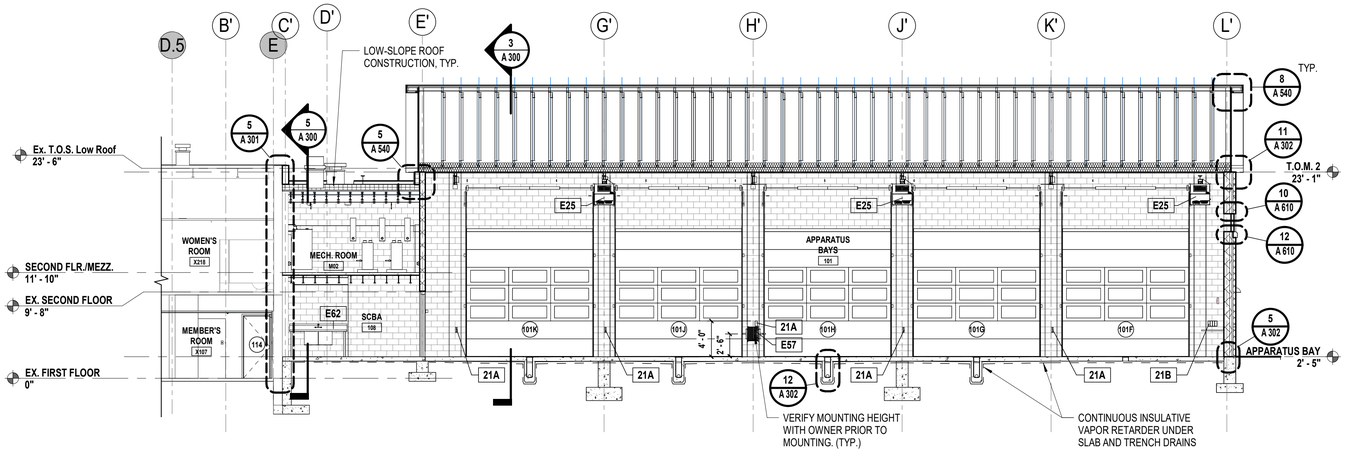
SHEET TITLE

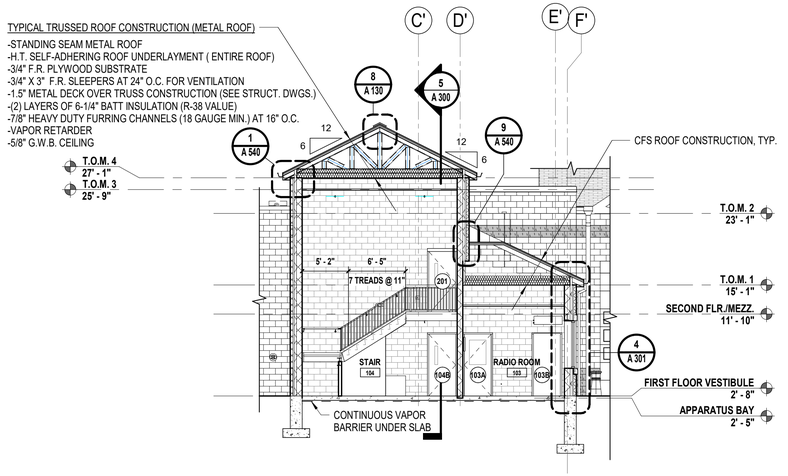
WEST AND NORTH ELEVATIONS AND DETAILS

DRAWING No.

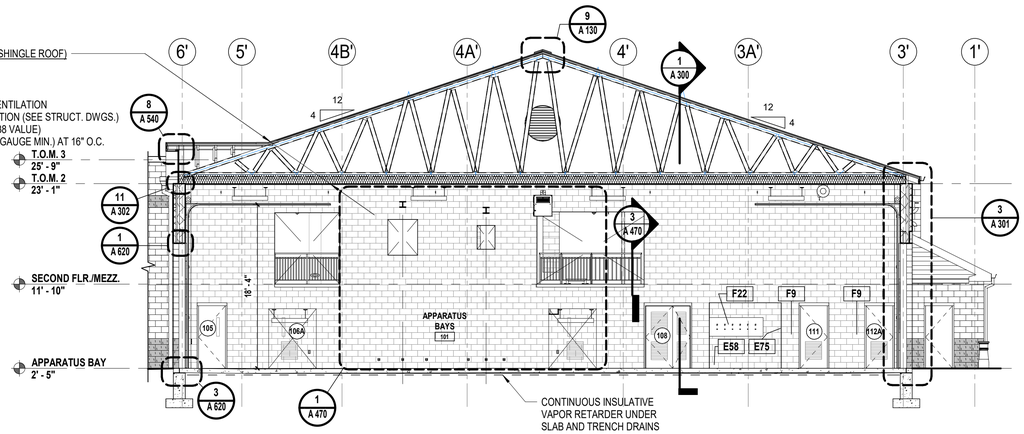
A 201



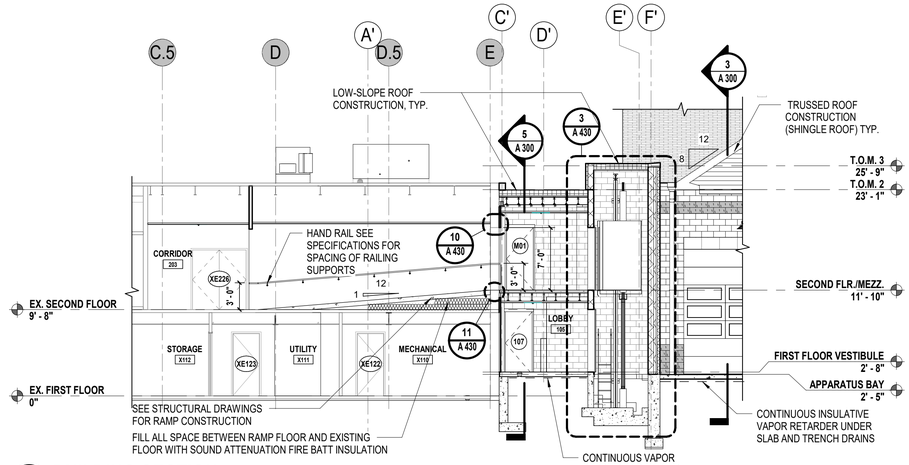
1 BUILDING SECTION
1 / A 300 SCALE: 1/8" = 1'-0"



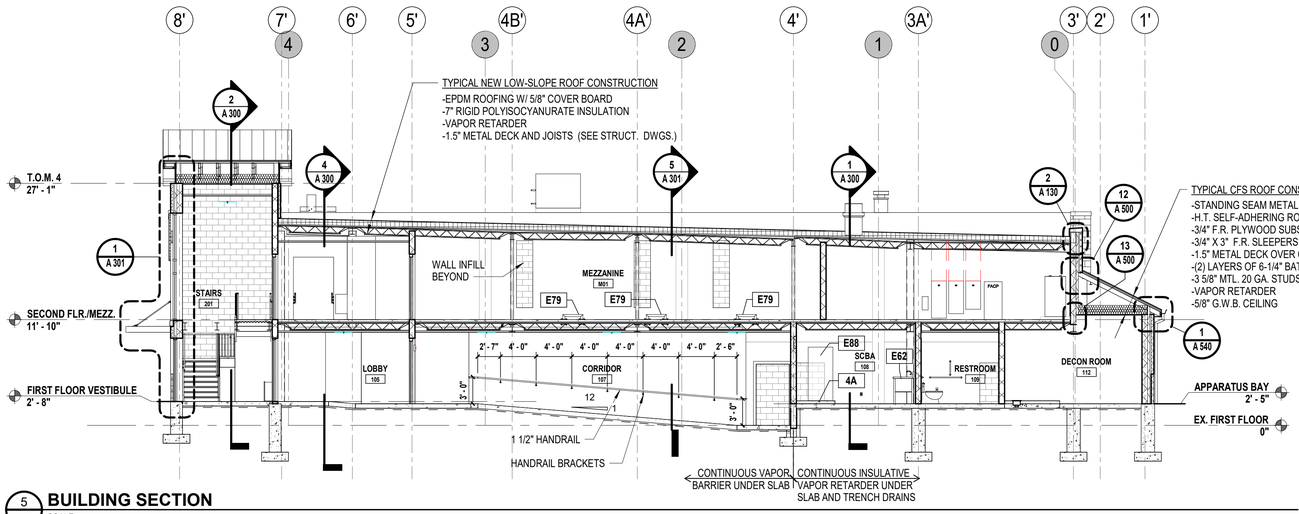
2 BUILDING SECTION
2 / A 300 SCALE: 1/8" = 1'-0"



3 APPARATUS BAY SECTION
3 / A 300 SCALE: 1/8" = 1'-0"



4 BUILDING SECTION
4 / A 300 SCALE: 1/8" = 1'-0"



5 BUILDING SECTION
5 / A 300 SCALE: 1/8" = 1'-0"

FURNISHING KEYNOTE LEGEND

#	DESCRIPTION
F9	TOUCHLESS HAND SANITIZER DISPENSER BY OWNER
F22	GEAR GRID BROOM CENTER BY OWNER, WALL MOUNTED

EQUIPMENT KEYNOTE LEGEND

#	DESCRIPTION
E25	VEHICLE EXHAUST REMOVAL SYSTEM BY OWNER. GC TO PROVIDE TWO (2) 1-1/2" UNISTRUT RAILS PER UNIT MOUNTED ON BOTTOM OF GWB CEILING. UNISTRUT MUST SPAN AND ATTACH TO THREE TRUSSES.
E57	50' HOSE REEL.
E58	MOP SINK AND WALL MOUNTED MOP HOLDER
E62	2 BOWL SINK WITH SIDEBOARDS
E75	RADIANT HEAT MANIFOLD ENCLOSURE
E79	TIE OFF RAIL
E88	SCBA COMPRESSOR/FILL STATION, EXISTING BY OWNER. OWNER TO RELOCATE

INSULATION TABLE

TABLES 402.1.3 & 402.1.4 FOR CLIMATE ZONE 5

PER 2020 ECCCNYS BASED ON 2018 IECC

EXT. ENVELOPE COMPONENT	LOCATION/ DETAIL REF.	REQ'D MIN. R-VALUE	PROVIDED R-VALUE*	METHOD
UNHEATED SLAB EDGE	2 / A 302	R-10 FOR 24" BELOW TOP OF SLAB	R-10 TO 36" BELOW TOP OF SLAB	2" EXTRUDED POLYSTYRENE AT SLAB PERIMETER
HEATED SLAB EDGE	1 / A 302	R-15 FOR 36" BELOW TOP OF SLAB	R-15 TO 36" BELOW TOP OF SLAB	3" EXTRUDED POLYSTYRENE AT SLAB PERIMETER
CMU WALLS	WT 1A / A 010	R-11.4CI	R-21	3" CLOSED CELL SPRAY FOAM INSULATION (CONTINUOUS)
METAL STUD WALLS	WT 31C / A 010	R-13 PLUS R-7.5 CI	R-27 PLUS R-10 CI	2" EXTRUDED POLYSTYRENE (CONTINUOUS)/ 8 1/4" BATT INSULATION
ROOF W/ INSULATION ABOVE DECK	LOW SLOPE EPDM ROOF	R-30CI	R-39.2 CI	7" POLYISOCYANURATE (CONTINUOUS) ON LOW ROOFS
ROOF W/ INSULATION AT BOTTOM CHORD OF TRUSS	ROOFS W/ GABLE ENDS	R-38 CI	R-38	(2) LAYERS OF 6 1/4" FIBERGLASS BATT INSULATION
HEATED SLAB	A 300	R-5	R-5.9	INSULTARP BELOW ALL HEATED SLABS

* VALUES ARE GIVEN FOR INSULATION ONLY, NOT FOR ASSEMBLY. ADJUSTED LTTR VALUES (JAN. 2014) USED.

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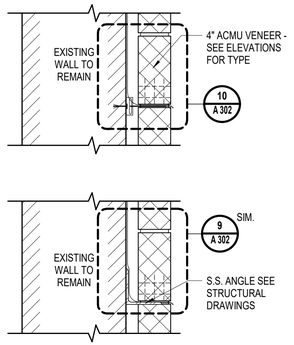
BUILDING SECTIONS

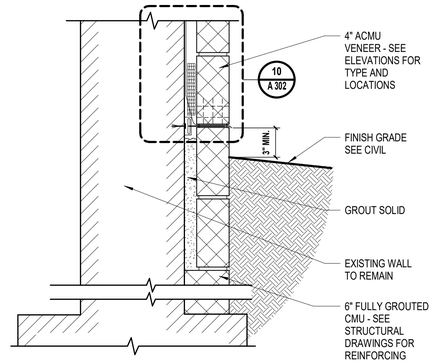
DRAWING No.

A 300



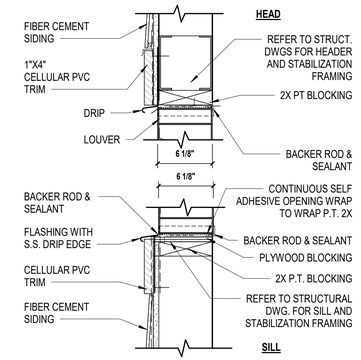
SECTION AT ACMU VENEER INTERMEDIATE FLASHING

6 / A 301 SCALE: 1 1/2" = 1'-0"



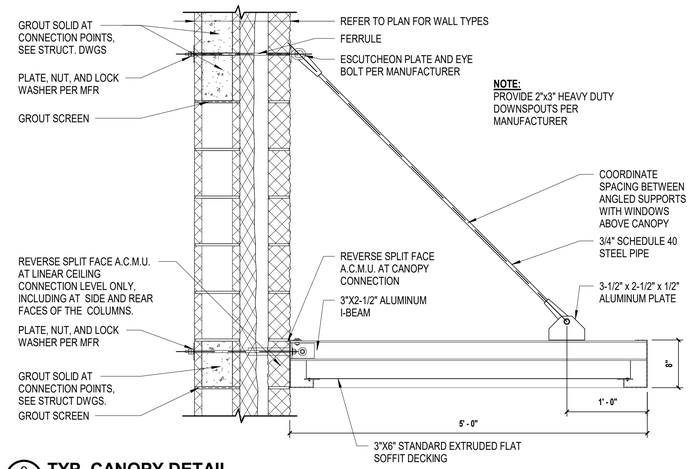
SECTION AT ACMU VENEER BELOW GRADE TERMINATION

7 / A 301 SCALE: 1 1/2" = 1'-0"



TYP. FRAMING SECTION FOR LOUVER WITH FIBER CEMENT SIDING

8 / A 301 SCALE: 1 1/2" = 1'-0"



TYP. CANOPY DETAIL

9 / A 301 SCALE: 1" = 1'-0"

WALL SECTION AT STAIR TOWER SIDING

1 / A 301 SCALE: 1/2" = 1'-0"

WALL SECTION AT STAIR TOWER ACMU

2 / A 301 SCALE: 1/2" = 1'-0"

WALL SECTION AT APPARATUS BAY

3 / A 301 SCALE: 1/2" = 1'-0"

WALL SECTION AT RADIO ROOM

4 / A 301 SCALE: 1/2" = 1'-0"

WALL SECTION AT EXISTING BLDG. TO NEW BUILDING

5 / A 301 SCALE: 1/2" = 1'-0"

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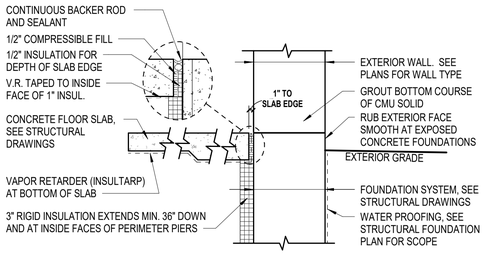
WALL SECTIONS

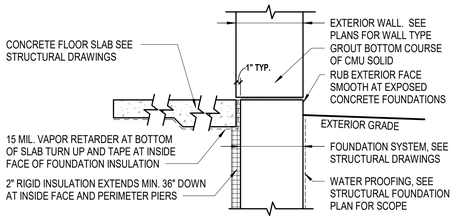
DRAWING No.

A 301



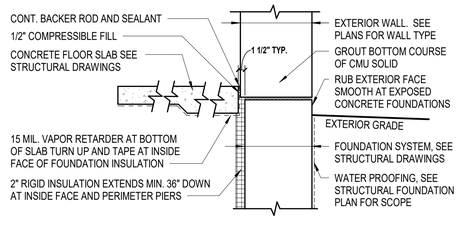
1 A 302 TYPICAL HEATED SLAB EDGE DETAIL

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



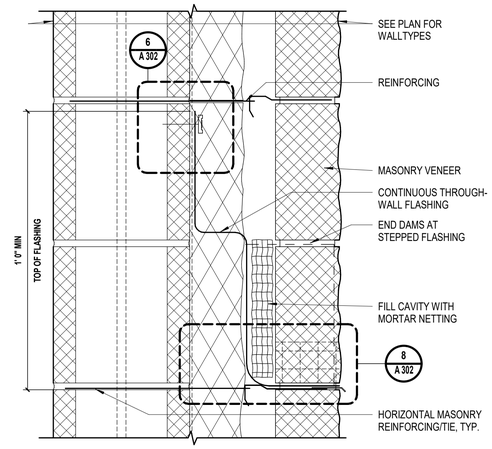
2 A 302 TYPICAL UNHEATED SLAB EDGE

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



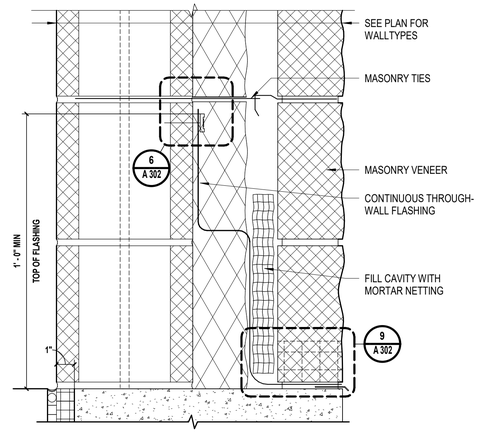
3 A 302 TYPICAL UNHEATED SLAB EDGE AT RAISED SLABS

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



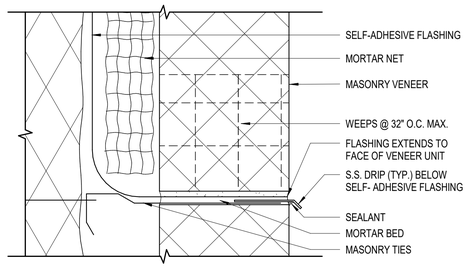
4 A 302 TYP. THROUGH WALL FLASHING @ CMU WALL

SCALE: 3" = 1'-0"



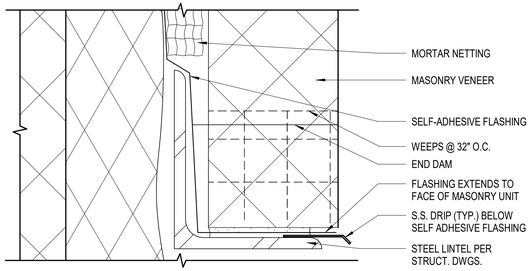
5 A 302 TYP. BASE OF WALL FLASHING @ CMU WALL

SCALE: 3" = 1'-0"



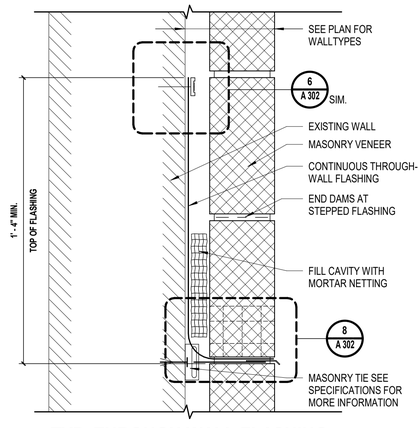
8 A 302 TYP. FLASHING TERMINATION DETAIL

SCALE: 6" = 1'-0"



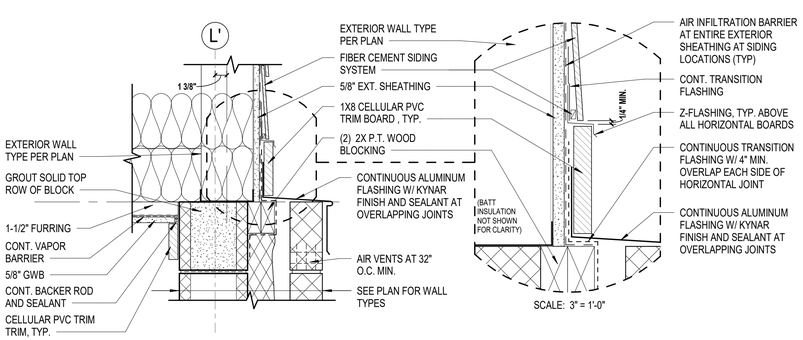
9 A 302 TYP. WALL FLASHING AT LINTEL ANGLE

SCALE: 6" = 1'-0"



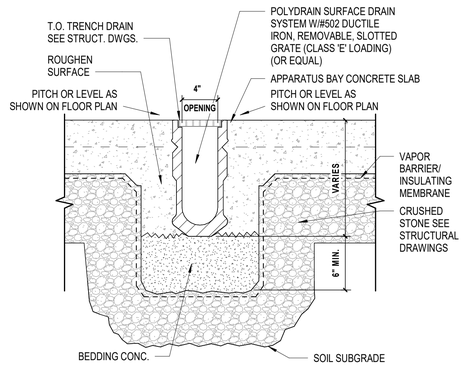
10 A 302 TYP. THROUGH WALL FLASHING @ EXISTING WALL WITH ACMU

SCALE: 3" = 1'-0"



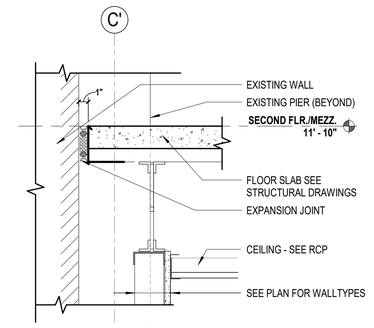
11 A 302 CMU WALL WITH ACMU TO STUD WALL WITH SIDING TRANSITION DETAIL

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



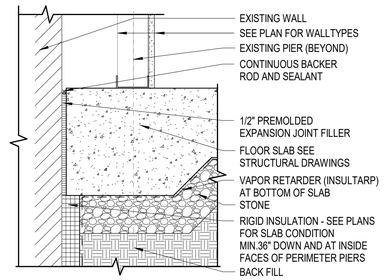
12 A 302 TYPICAL TRENCH DRAIN

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



13 A 302 SECTION DETAIL AT SECOND/MEZZ. FLOOR EXPANSION JOINT

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



14 A 302 SECTION DETAIL AT FIRST FLOOR EXPANSION JOINT

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

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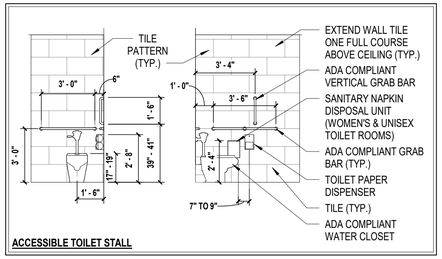
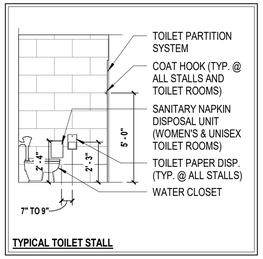
SECTION DETAILS

DRAWING No.

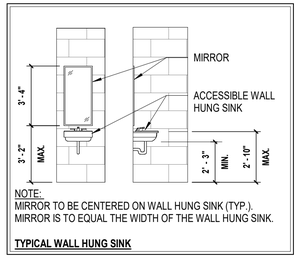
A 302



ACCESSIBLE TOILET STALL

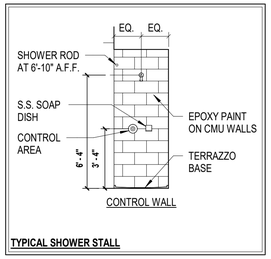


TYPICAL TOILET STALL

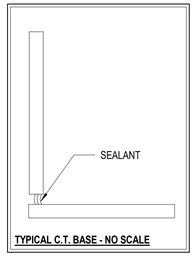


NOTE:
MIRROR TO BE CENTERED ON WALL HUNG SINK (TYP.).
MIRROR IS TO EQUAL THE WIDTH OF THE WALL HUNG SINK.

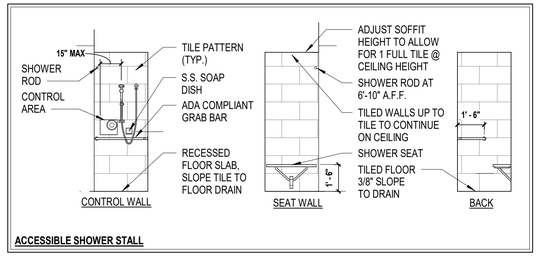
TYPICAL WALL HUNG SINK



TYPICAL SHOWER STALL



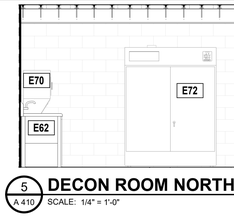
TYPICAL C.T. BASE - NO SCALE



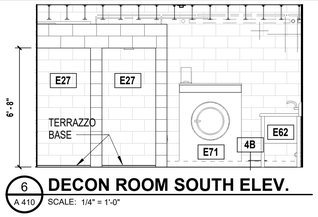
ACCESSIBLE SHOWER STALL

NOTES:
- ALL DIMENSIONS ARE MEASURED OFF FINISHED WALL SURFACES. U.N.O.
- SEE REFLECTED CEILING PLANS FOR CEILING AND SOFFIT HEIGHTS.
- ALL WALL TILE SHALL BE 1 FULL TILE ABOVE THE CEILING (U.O.N.). COORDINATE W/ CEILING INSTALLER.

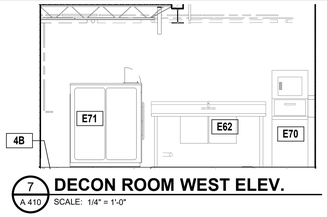
1 A 410 TYPICAL TOILET AND SHOWER DETAILS
SCALE: 1/4" = 1'-0"



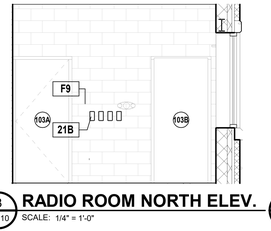
DECON ROOM NORTH ELEV.



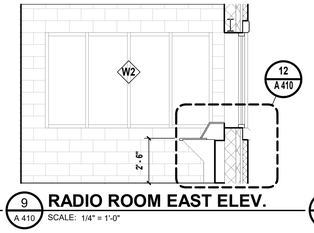
DECON ROOM SOUTH ELEV.



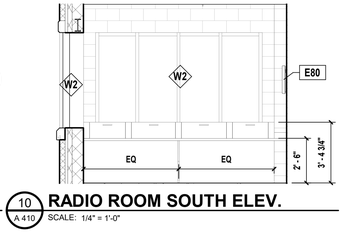
DECON ROOM WEST ELEV.



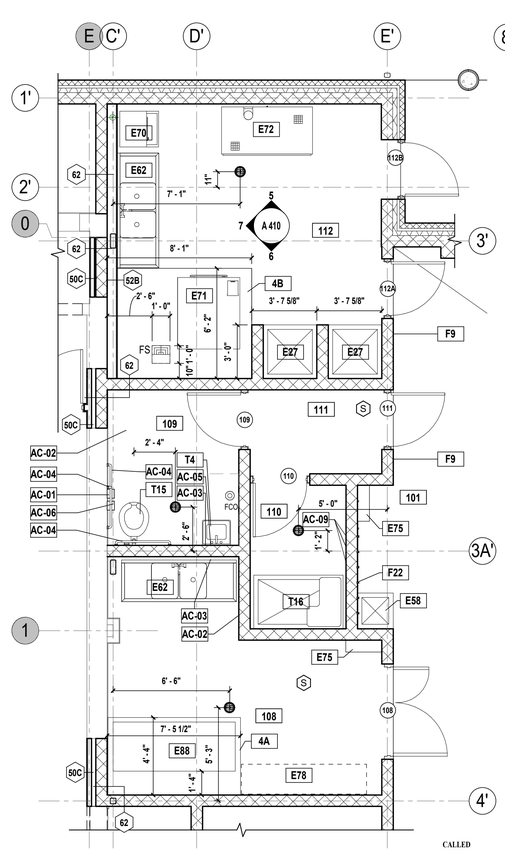
RADIO ROOM NORTH ELEV.



RADIO ROOM EAST ELEV.

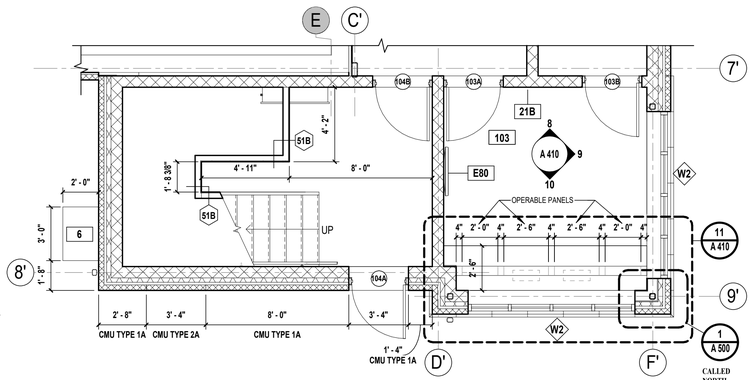


RADIO ROOM SOUTH ELEV.



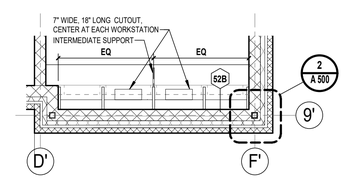
2 A 410 DECON, TOILET, & SCBA ROOM PLAN
SCALE: 1/4" = 1'-0"

CALLED NORTH



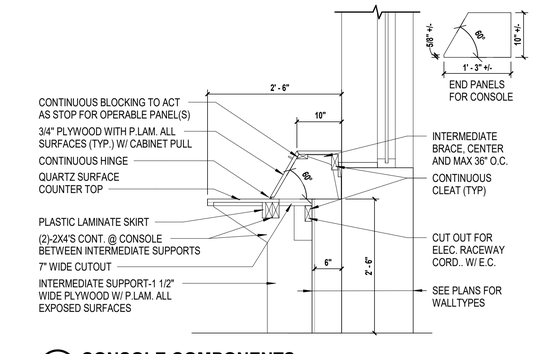
3 A 410 FIRST FLOOR STAIR AND RADIO ROOM PLAN
SCALE: 1/4" = 1'-0"

CALLED NORTH



RADIO ROOM LOWER CONSOLE PLAN
SCALE: 1/4" = 1'-0"

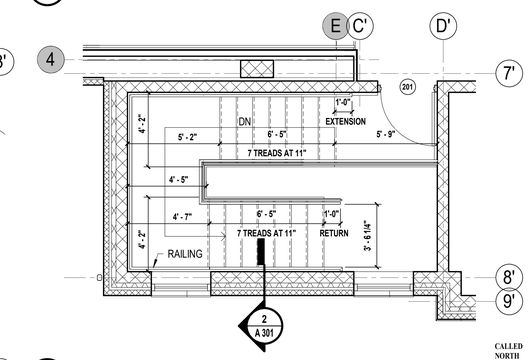
CALLED NORTH



12 A 410 CONSOLE COMPONENTS
SCALE: 3/4" = 1'-0"

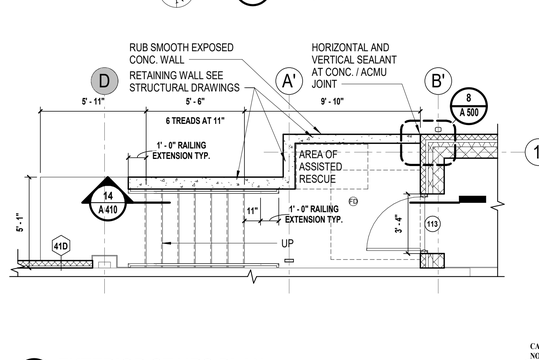
2 A 410 DECON, TOILET, & SCBA ROOM PLAN
SCALE: 1/4" = 1'-0"

CALLED NORTH



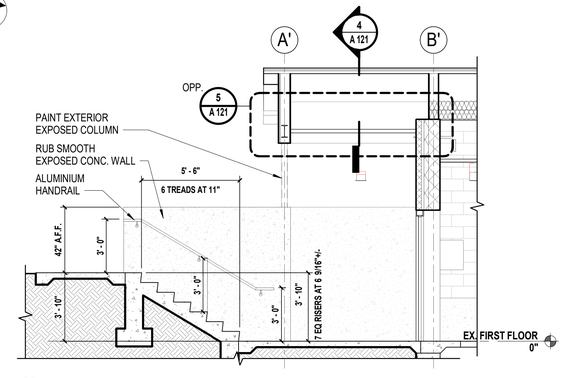
4 A 410 SECOND FLOOR STAIR PLAN
SCALE: 1/4" = 1'-0"

CALLED NORTH

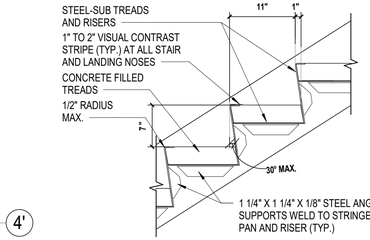


13 A 410 EXTERIOR STAIRS PLAN
SCALE: 1/4" = 1'-0"

CALLED NORTH

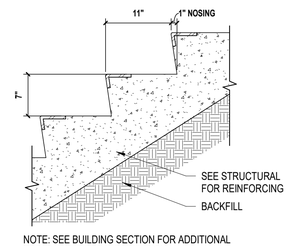


14 A 410 EXTERIOR STAIR SECTION
SCALE: 1/4" = 1'-0"



NOTE: SEE BUILDING SECTION FOR ADDITIONAL TREAD AND RISER INFORMATION

15 A 410 INTERIOR TREAD/RISER SECTION
SCALE: 1" = 1'-0"



NOTE: SEE BUILDING SECTION FOR ADDITIONAL TREAD AND RISER INFORMATION

16 A 410 EXTERIOR TREAD/ RISER SECTION
SCALE: 1" = 1'-0"

ACCESSORIES KEYNOTE LEGEND

#	DESCRIPTION
AC-01	TOILET TISSUE DISPENSER
AC-02	PAPER TOWEL DISPENSER BY OWNER
AC-03	WALL HUNG SOAP DISPENSER BY OWNER, MOUNTING HEIGHT 40" A.F.F.
AC-04	ADA COMPLIANT GRAB BAR
AC-05	MIRROR
AC-06	SANITARY NAPKIN DISPOSAL BY OWNER
AC-09	ROBE HOOK BY OWNER, MOUNTING HEIGHT 40" A.F.F.

FURNISHING KEYNOTE LEGEND

#	DESCRIPTION
F9	TOUCHLESS HAND SANITIZER DISPENSER BY OWNER
F22	GEAR GRID BROOM CENTER BY OWNER, WALL MOUNTED

EQUIPMENT KEYNOTE LEGEND

#	DESCRIPTION
E27	DRENCH SHOWER
E58	MOP SINK AND WALL MOUNTED MOP HOLDER
E62	2 BOWL SINK WITH SIDEBOARDS
E70	RESIDENTIAL STACK WASHER AND DRYER BY OWNER
E71	EXTRACTOR BY OWNER, GC TO HOOKUP
E72	GEAR DRYER BY OWNER, GC TO HOOKUP
E75	RADIANT HEAT MANIFOLD ENCLOSURE
E78	SCBA TANK STORAGE, N.I.C.
E80	TV MOUNTING BRACKET BY GC, MONITOR FOR RESPONSE SYSTEM N.I.C. MOUNTING HEIGHT PER ARCHITECT,
E88	SCBA COMPRESSOR/FILL STATION, EXISTING BY OWNER. OWNER TO RELOCATE

FLOOR PLAN KEYNOTES

#	DESCRIPTION
4A	4" CONCRETE HOUSEKEEPING PADS. SEE MECHANICAL AND PLUMBING DRAWINGS FOR PLACEMENT OF EQUIPMENT. VERIFY EQUIPMENT SIZES PRIOR TO INSTALLATION OF HOUSEKEEPING PADS.
4B	10" ISOLATED PAD FLUSH WITH FLOOR LEVEL, SEE STRUCTURAL. SEE MECHANICAL AND PLUMBING DRAWINGS FOR PLACEMENT OF EQUIPMENT. VERIFY EQUIPMENT SIZES PRIOR TO INSTALLATION OF ISOLATED PAD.
6	CONCRETE PAD/SIDEWALK AT MAN DOOR
21B	MULTIPLE OVER HEAD DOOR OPERATORS.

TOILET / SHOWER KEYNOTE LEGEND

#	DESCRIPTION
T4	ACCESSIBLE WALL HUNG SINK
T15	ACCESSIBLE WALL HUNG WATER CLOSET
T16	ACCESSIBLE SHOWER STALL. RECESS SLAB FOR INSTALLATION, SEE STRUCTURAL DRAWINGS.

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CONSULTANTS:

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DAR	TES	AFJ	

PROJECT No:	DATE:	SCALE:
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ADDITION/RENOVATION

94 GLENEIDA AVE, CARMEL HAMLET NY, 10512

CONTRACT

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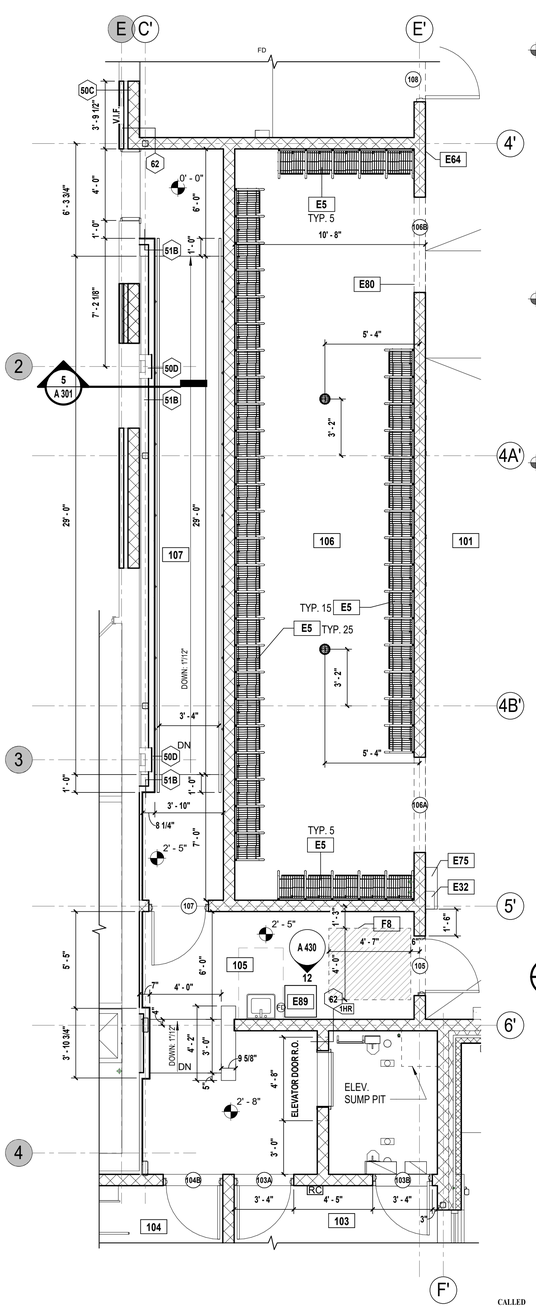
SHEET TITLE

ENLARGED PLANS AND ELEVATIONS

DRAWING No.

A 410

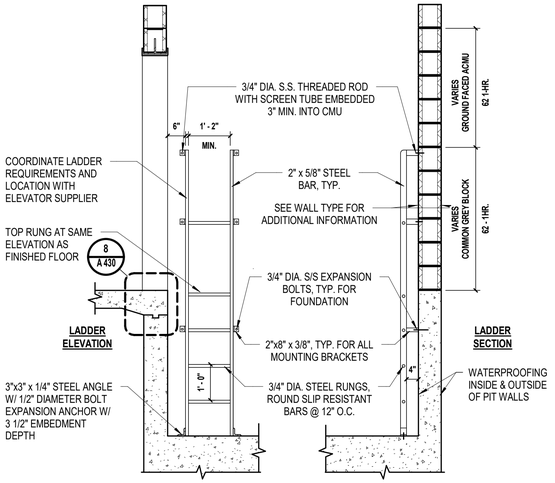


1 A 430 FIRST FLOOR RAMP PLAN

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

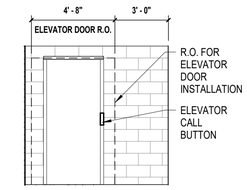
3 A 430 ELEVATOR SECTION

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



4 A 430 ELEVATOR PIT LADDER DETAIL

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

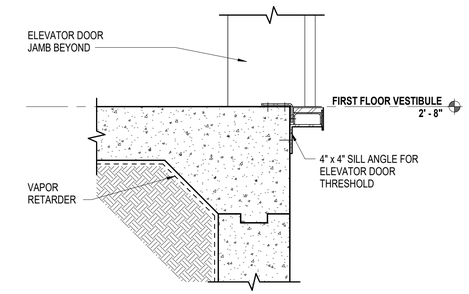


5 A 430 ELEVATOR ELEVATION

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

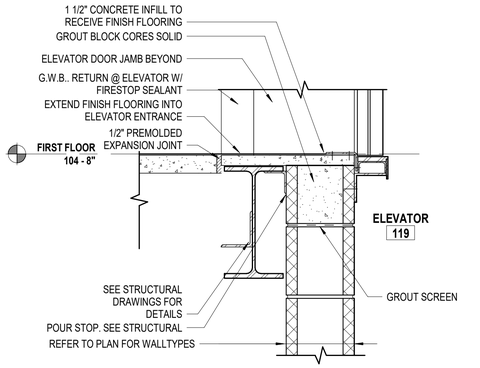
EQUIPMENT KEYNOTE LEGEND	
#	DESCRIPTION
E5	GEAR LOCKERS BY OWNER
E32	ENGINE EXHAUST SYSTEM CONTROL PANEL, PROVIDED BY OWNER'S VEHICLE EXHAUST VENDOR
E64	TRUCK FILL
E75	RADIANT HEAT MANIFOLD ENCLOSURE
E80	TV MOUNTING BRACKET BY GC, MONITOR FOR RESPONSE SYSTEM N.I.C. MOUNTING HEIGHT PER ARCHITECT,
E89	BOOT WASH

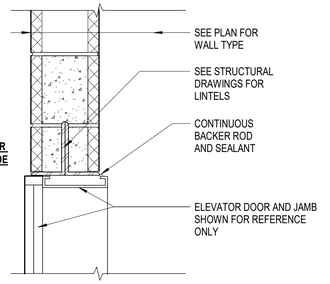
FURNISHING KEYNOTE LEGEND	
#	DESCRIPTION
F8	RECESSED WALK-OFF MAT



8 A 430 ELEV. DOOR THRESHOLD - FIRST FLOOR

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



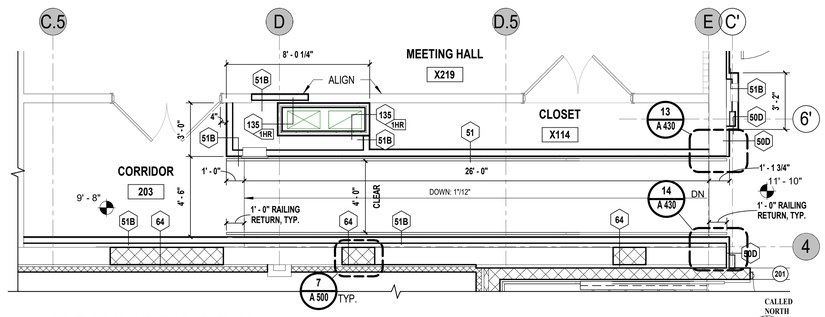


6 A 430 SECTION @ ELEV. DOOR HEAD

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

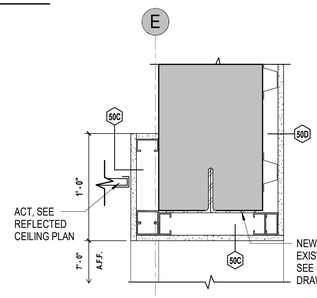
7 A 430 ELEV. DOOR THRESHOLD - SECOND FLOOR

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



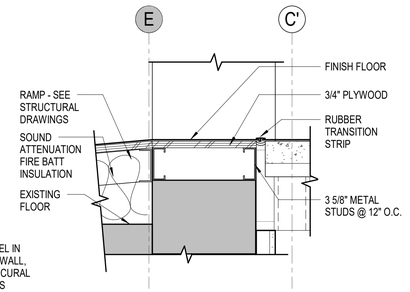
9 A 430 SECOND FLOOR RAMP PLAN

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



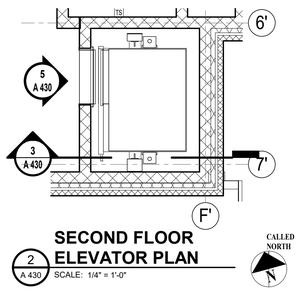
10 A 430 RAMP ENTRANCE HEAD

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



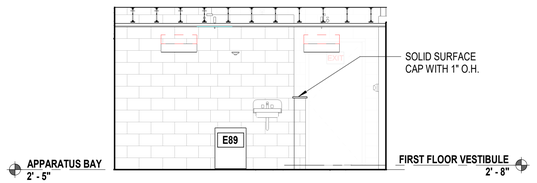
11 A 430 RAMP ENTRANCE THRESHOLD

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



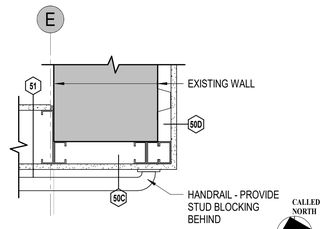
2 A 430 SECOND FLOOR ELEVATOR PLAN

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



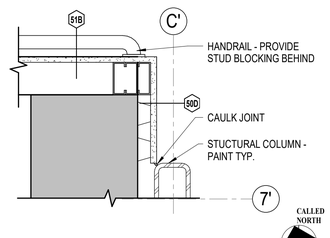
12 A 430 HOT ZONE TRANSITION AREA ELEVATION

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



13 A 430 PLAN DETAIL AT RAMP

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



14 A 430 PLAN DETAIL AT RAMP

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

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CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
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PROJECT No:	DATE:	SCALE:
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CLIENT

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ADDITION/RENOVATION

**94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512**

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STATUS

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SHEET TITLE

ENLARGED PLANS AND ELEVATIONS

DRAWING No.

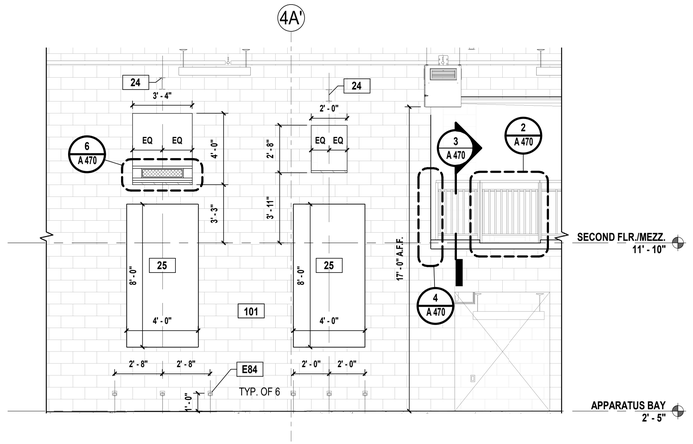
A 430

FLOOR PLAN KEYNOTES

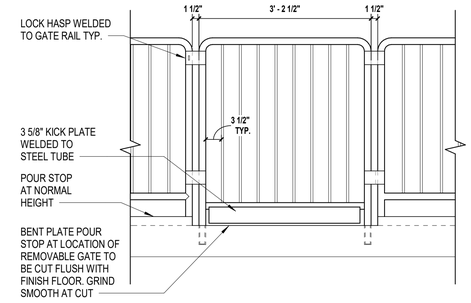
#	DESCRIPTION
24	TRAINING BEAM, SEE STRUCTURAL DRAWINGS
25	3/4" F.R. PLYWOOD SHEETS MOUNTED TO WALL W/ MIN. (6) 5/8" DIA. COUNTERSUNK REPLACEABLE BOLTS W/SHIELDS EACH SHEET.

EQUIPMENT KEYNOTE LEGEND

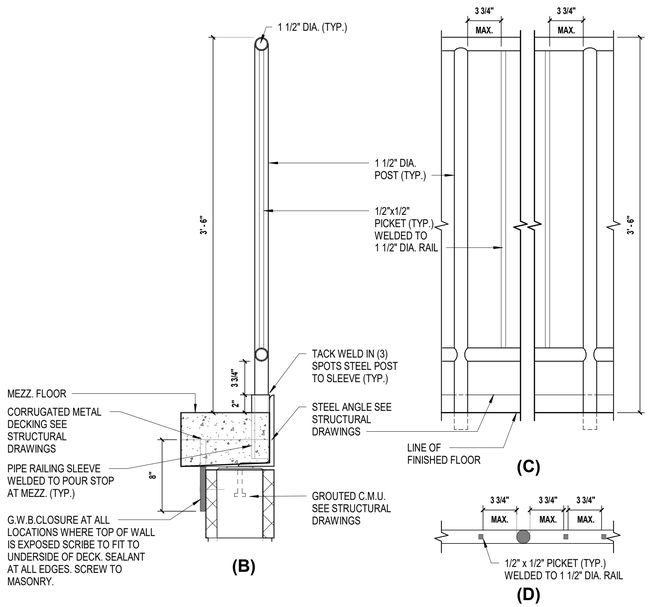
#	DESCRIPTION
E84	WALL MOUNTED D-RINGS



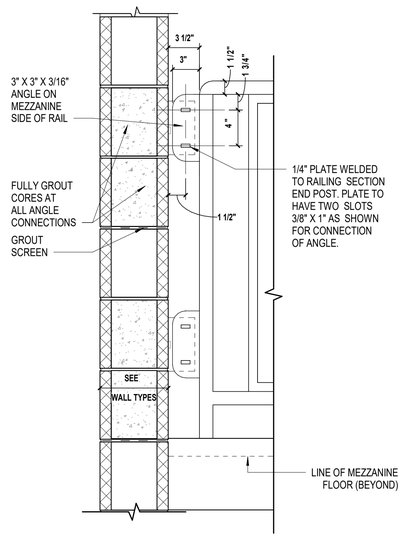
1 A 470 **MEZZANINE TRAINING WALL ELEVATION**
SCALE: 1/4" = 1'-0"



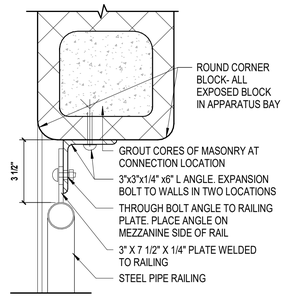
2 A 470 **REMOVABLE GATE AT MEZZANINE**
SCALE: 3/4" = 1'-0"



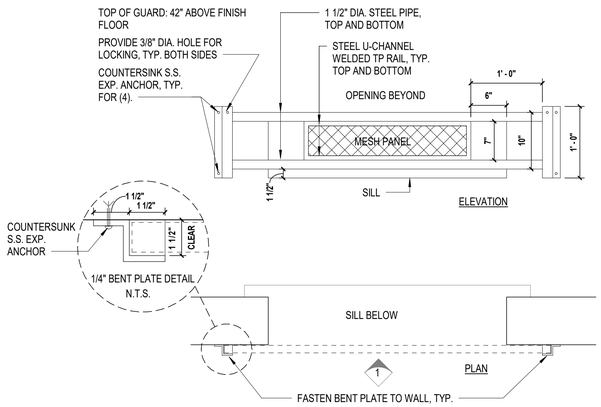
3 A 470 **MEZZANINE RAILING DETAILS**
SCALE: 1 1/2" = 1'-0"



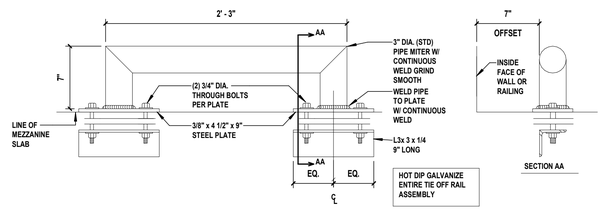
4 A 470 **ELEVATION (TYP.) RAILING TO WALL CONNECTION AT MEZZANINE**
SCALE: 1 1/2" = 1'-0"



5 A 470 **PLAN TYPICAL RAILING TO WALL ATTACHMENT AT MEZZANINE**
SCALE: 3" = 1'-0"



6 A 470 **OPENING GUARD AT TRAINING WINDOW**
SCALE: 1" = 1'-0"



7 A 470 **TIE OFF RAIL AT MEZZANINE SLAB**
SCALE: 1 1/2" = 1'-0"

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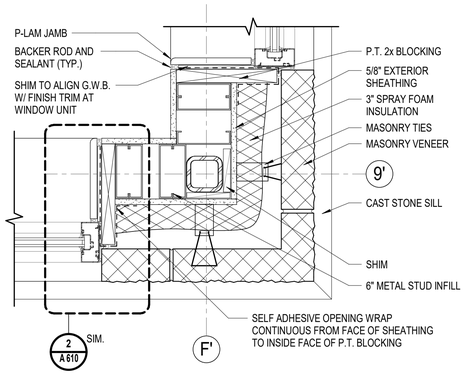
ENLARGED INTERIOR ELEVATIONS AND MEZZANINE DETAILS

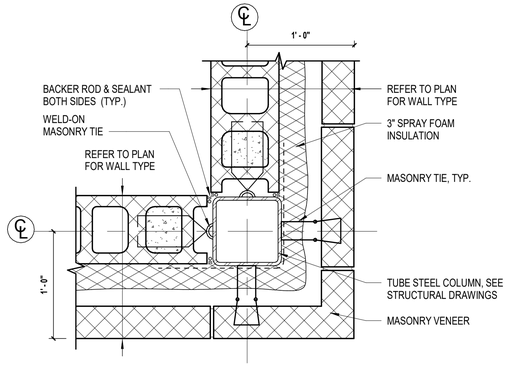
DRAWING No.

A 470



1 A 500 RADIO ROOM WINDOW CORNER DETAIL

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



2 A 500 PLAN DETAIL BELOW SILL AT RADIO ROOM

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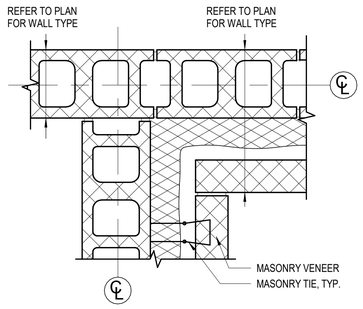
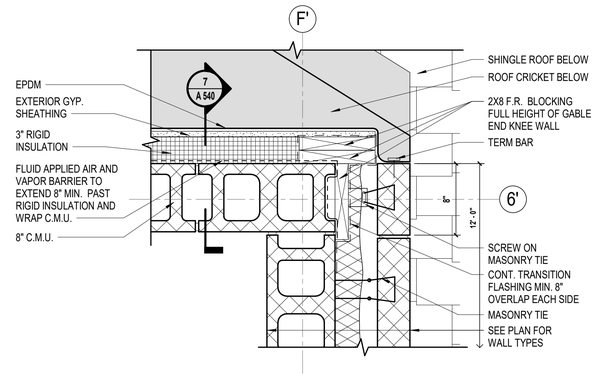


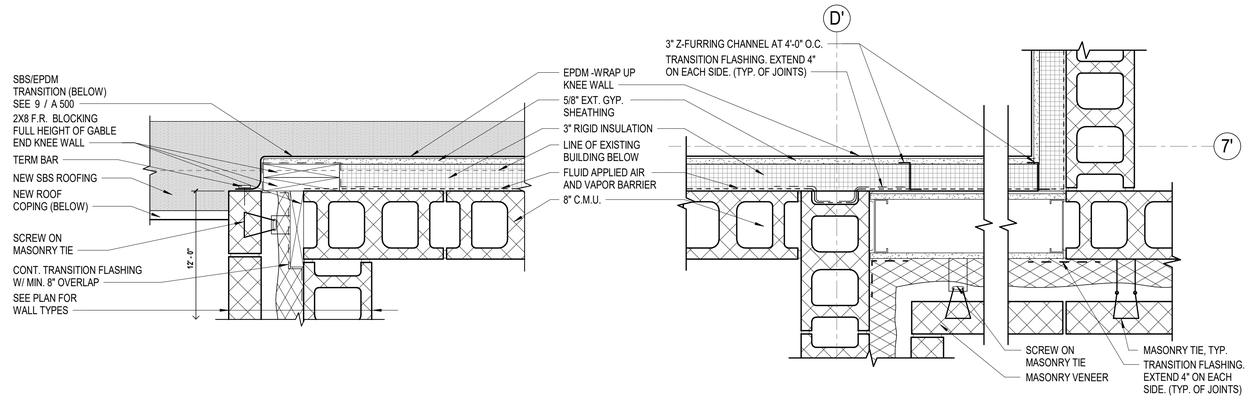
3 A 500 PLAN DETAIL @ TYP. INT. MASONRY WALL CORNER

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



4 A 500 PLAN DETAIL @ ROOF PARAPET TRANSITION

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

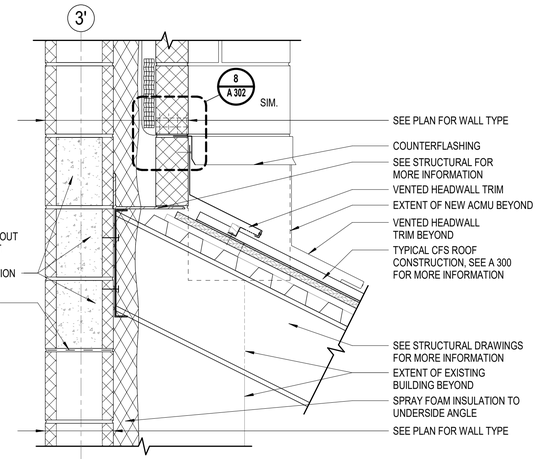


5 A 500 PLAN DETAIL @ MASONRY TO EPDM TRANSITION

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

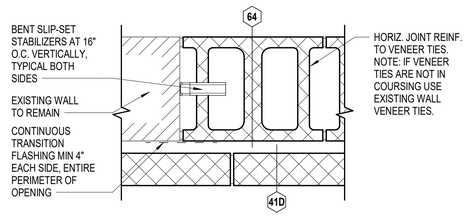
6 A 500 UPPER FRAMING TO PARAPET PLAN

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



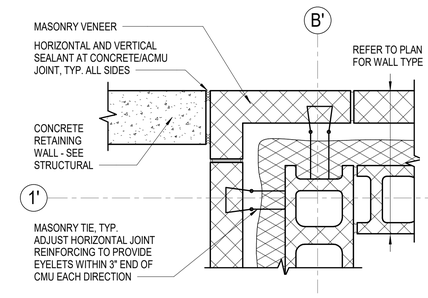
12 A 500 METAL ROOF TO WALL TRANSITION DETAIL

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



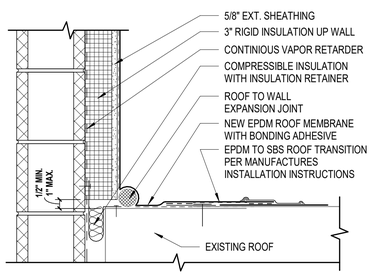
7 A 500 TYP. INFILL AT EXISTNG WALL OPENINGS

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



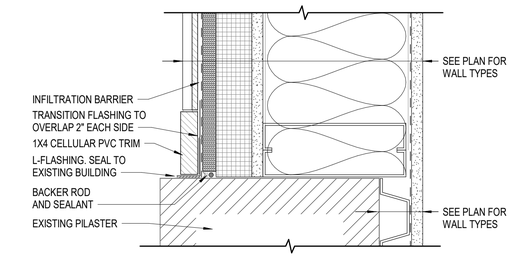
8 A 500 PLAN DETIAL AT CONC. RETAINING WALL TO ACMU

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



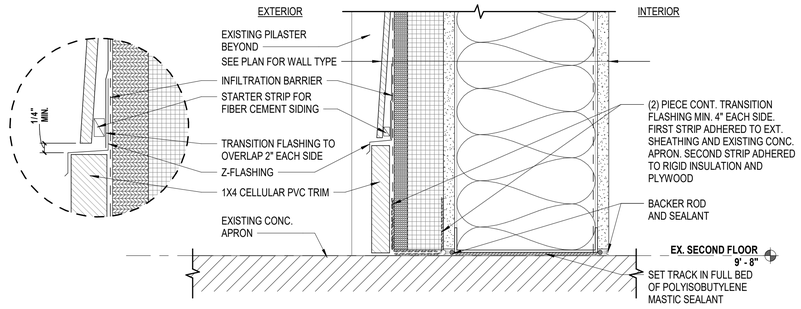
9 A 500 EXIST. ROOF TO NEW WALL EXPANSION JOINT

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



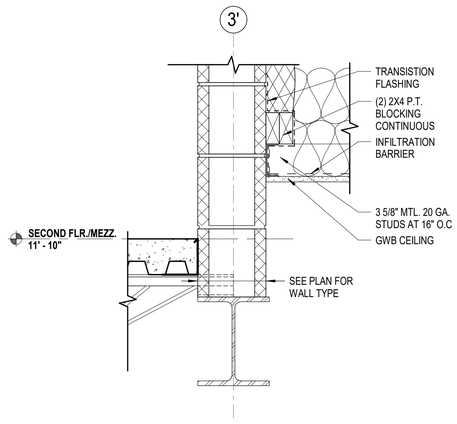
10 A 500 PLAN DETAIL @ EXTERIOR WALL INFILL AT BAY DOOR JAMB

SCALE: 3" = 1'-0"



11 A 500 BASE OF WALL FLASHING AT O.H. DOOR INFILL LOCATIONS

SCALE: 3" = 1'-0"



13 A 500 MEZZ. TO ROOF TRANSITION DETAIL

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

H 2 M architects + engineers

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Latham, NY 12110
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CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
DAR	TES	AFJ	

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE, CARMEL HAMLET NY, 10512

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

BID SET

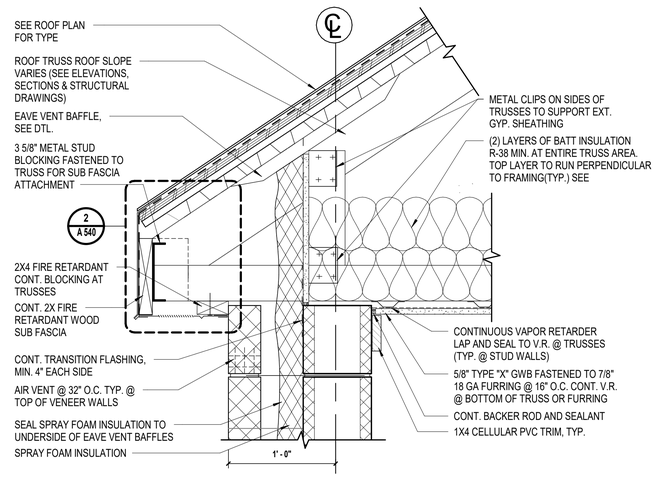
SHEET TITLE

PLAN AND SECTION DETAILS

DRAWING No.

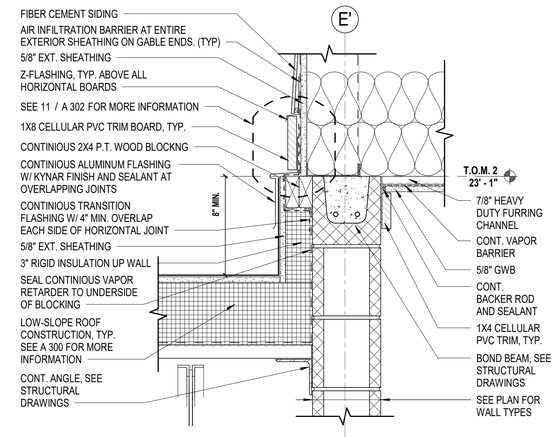
A 500

3/22/2021 4:29:50 PM



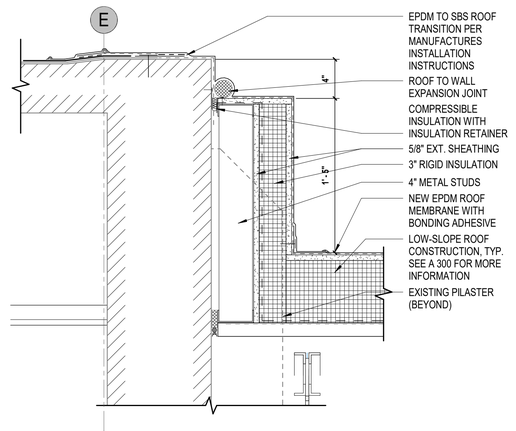
1 / A 540 TYPICAL EAVE AT CMU WALLS

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



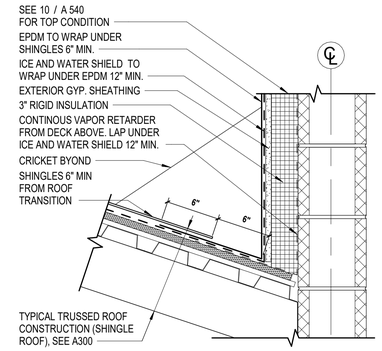
5 / A 540 TYP. EPDM ROOF TO SIDING TRANSITION

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



6 / A 540 ROOF EDGE DETAIL AT EXISTING

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



7 / A 540 SHINGLE ROOF TO EPDM TRANSITION

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

2 / A 540 TYP. EAVE DETAIL AT SHINGLE ROOF

SCALE: 6" = 1'-0"

8 / A 540 TYP. RAKE DETAIL @ SIDING

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

9 / A 540 TYP. STEPPED WALL FLASHING

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

10 / A 540 ELEVATOR ROOF TRANSITION DETAIL

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

DETAIL AT METAL ROOF

DETAIL AT SHINGLE ROOF

3 / A 540 TYP. GUTTER DETAIL

SCALE: 6" = 1'-0"

4 / A 540 TYP. COLLECTOR BOX DETAIL

SCALE: 6" = 1'-0"

11A / A 540 PARAPET AT EXISTING WALL W/ NEW ACMU

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

11B / A 540 PARAPET AT EXISTING WALL

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

12 / A 540 CMU INFILL AT EXISTING PILASTERS

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

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Latham, NY 12110
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94 GLENEIDA AVE, CARMEL HAMLET NY, 10512

CONTRACT

CONTRACT G GENERAL CONSTRUCTION

STATUS

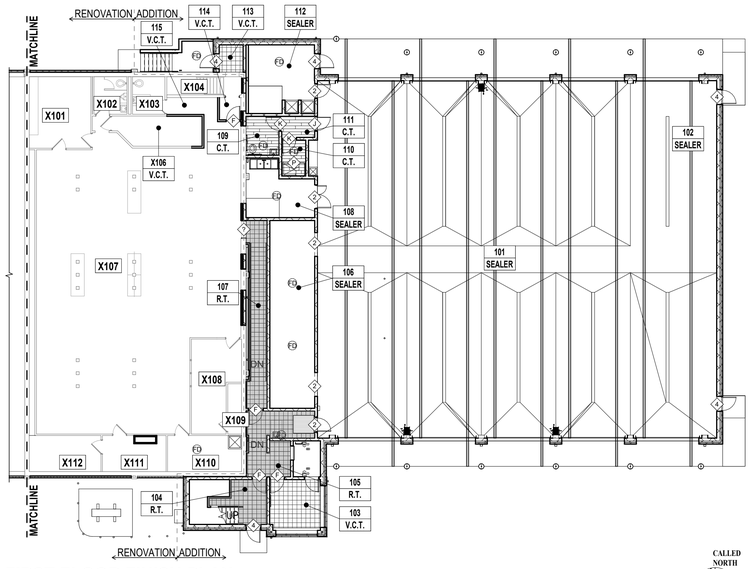
BID SET

SHEET TITLE

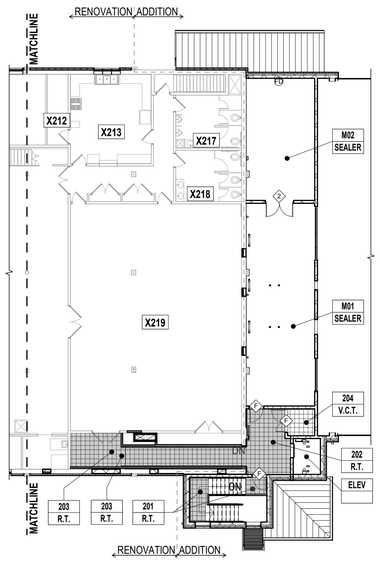
ROOFING DETAILS

DRAWING No.

A 540



1 A 600 **FIRST FLOOR FINISH PLAN**
SCALE: 1/16" = 1'-0"



2 A 600 **SECOND FLOOR FINISH PLAN**
SCALE: 1/16" = 1'-0"

CALLED NORTH

FINISH SCHEDULE

ROOM NO.	ROOM NAME	WALLS NORTH MAT	WALLS NORTH FINISH	WALLS EAST MAT	WALLS EAST FINISH	WALLS SOUTH MAT	WALLS SOUTH FINISH	WALLS WEST MAT	WALLS WEST FINISH	CEILING MAT	CEILING FINISH	FLOOR FINISH	BASE	COMMENTS	ROOM NO.
101	APPARATUS BAYS	CMU	SEALER	CMU	SEALER	CMU	SEALER	CMU	SEALER	G.W.B.	PT.	SEALER	-		101
102	HOSE STORAGE/WORK AREA	CMU	SEALER	CMU	SEALER	EXP.	-	EXP.	-	G.W.B.	PT.	SEALER	-		102
103	RADIO ROOM	CMU	PT.	CMU	PT.	CMU/G.W.B.	PT.	CMU	PT.	S.A.C.	22B	V.C.T.	R.B.		103
104	STAIR	CMU	PT.	CMU	PT.	CMU	PT.	CMU	PT.	EXP.	-	R.T.	R.B.	PAINT EXPOSED STEEL	104
105	LOBBY	CMU	PT.	CMU	PT.	CMU	PT.	CMU	PT.	S.A.C.	22B	R.T.	R.B.		105
106	TURNOUT GEAR ROOM	CMU	SEALER	CMU	SEALER	CMU	SEALER	CMU	SEALER	EXP.	PT.	SEALER	R.B.		106
107	CORRIDOR	CMU	PT.	CMU	PT.	CMU	PT.	EXIST./G.W.B.	PT.	S.A.C.	22B	R.T.	R.B.		107
108	SCBA	CMU	SEALER	CMU	SEALER	CMU	SEALER	EXIST.	SEALER	EXP.	PT.	SEALER	R.B.		108
109	RESTROOM	CMU	C.T.	CMU	C.T.	CMU	C.T.	EXIST.	C.T.	S.A.C.	22A	C.T.	C.T.		109
110	SHOWER	CMU	C.T.	CMU	C.T.	CMU	C.T.	CMU	C.T.	S.A.C./G.W.B.	22A/C.T.	C.T.	R.B.	C.T. ON SHOWER CEILING	110
111	VESTIBULE	CMU	PT.	CMU	PT.	CMU	PT.	CMU	PT.	S.A.C.	22A	C.T.	-		111
112	DECON ROOM	CMU	EPOXY PT.	CMU	SEALER	CMU	SEALER	G.W.B.	SEALER	EXP.	PT.	SEALER	R.B.	C.T. ON SHOWER CEILING	112
113	VESTIBULE	CMU/CONC.	PT.	CMU/CONC.	PT.	EXIST.	PT.	CMU/CONC.	PT.	S.A.C.	22A	V.C.T.	R.B.		113
114	VESTIBULE	EXIST.	PT.	EXIST./G.W.B.	PT.	G.B.W.	PT.	G.W.B.	PT.	S.A.C.	22B	V.C.T.	R.B.	NEW RUBBER BASE ALL WALLS	114
115	CORRIDOR	EXIST.	PT.	G.W.B.	PT.	G.B.W.	PT.	EXIST.	PT.	S.A.C.	22B	V.C.T.	R.B.	NEW RUBBER BASE ALL WALLS	115
116	ELEVATOR														116
201	STAIRS	CMU	PT.	CMU	PT.	CMU	PT.	CMU	PT.	S.A.C.	22B	R.T.	R.B.		201
202	SECOND FLOOR LOBBY	CMU	PT.	CMU	PT.	CMU	PT.	G.W.B.	PT.	S.A.C.	22B	R.T.	R.B.		202
203	CORRIDOR	EXIST./G.W.B.	PT.	G.W.B.	PT.	G.B.W.	PT.	EXIST.	PT.	S.A.C.	22B	R.T.	R.B.		203
204	STORAGE	CMU	SEALER	CMU	SEALER	CMU	SEALER	CMU	SEALER	S.A.C.	22B	V.C.T.	R.B.		204
M01	MEZZANINE	CMU	SEALER	CMU	SEALER	CMU	SEALER	EXIST./CMU	SEALER	EXP.	PT.	SEALER	R.B.		M01
M02	MECH. ROOM	CMU	PT.	CMU	PT.	CMU	PT.	EXIST./CMU	PT.	EXP.	-	SEALER	R.B.		M02
X103	TOILET	EXIST.	-	EXIST.	-	EXIST.	-	EXIST.	-	S.A.C.	22A	-	-		X103
X106	ELECTRIC	EXIST./G.W.B.	PT.	G.W.B.	PT.	EXIST./G.W.B.	PT.	EXIST.	PT.	EXP.	-	V.C.T.	R.B.		X106
X107	MEMBER'S ROOM	EXIST.	-	EXIST.	-	EXIST.	-	EXIST.	-	S.A.C.	22A	-	-		X107

FLOOR TRANSITION NOTES

A. THERMALLY BROKEN THRESHOLDS TO BE INSTALLED AT ALL EXTERIOR DOORS

B. IN AREAS WHERE 3/4" HIGH THRESHOLD IS SPECIFIED THE DOORS SHALL BE UNDERCUT TO CLEAR

FOR ADDITIONAL THRESHOLD INFORMATION - SEE DOOR SCHEDULE AND FINISH SCHEDULE PLAN.

FLOOR PATTERN LEGEND

1/16TH SCALE FLOOR PLANS

- CONCRETE W/ SEALER
- CERAMIC TILE
- RUBBER TILE
- WALK OFF MAT
- VCT

NOTE:

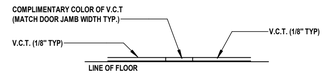
FLOOR PATTERN LEGENDS ARE GRAPHIC TO DIFFERENTIATE MATERIALS - SEE CONTRACT SPECIFICATIONS FOR TILE SIZE. SEE FINISH FLOOR PLAN FOR BORDERS, PATTERNS, AND/OR ACCENTS IF ANY.

FINISH NOTES

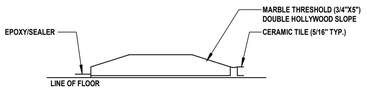
1. PAINT ALL EXPOSED METAL INCLUDING RAILS, RISERS, STRINGERS, COLUMNS, BEAMS, JOISTS, EDGES, LINTELS, AND ALL EXPOSED SURFACES.
2. ALL NEW OR EXISTING CONSTRUCTION THAT IS MODIFIED OR DAMAGED DURING CONTRACTOR OCCUPANCY SHALL BE PAINTED.
3. PROVIDE 6" WIDE X WIDTH OF RAMP ACCENT RUBBER TILE AT TOP AND BOTTOM OF ALL RAMPS.. SEE SPECIFICATIONS.
4. TILE IN LAVATORY, SEE SPECIFICATIONS.
5. BAY SHALL HAVE 2 COLOR WALLS WITH 8" PAINTED ACCENT STRIPE. SEE A 5/A 600
6. BAY DOORS ARE TO HAVE A NUMBER DESIGNATION FOR EACH DOOR, NUMBERING IS TO BE SET ON INTERIOR FACE OF THE APPARATUS BAY DOORS. SEE DOOR TYPES ON SHEET A 620 SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION. COORDINATE WITH OWNER FOR DOOR NUMBERING DESIGNATION.
7. ALL C.M.U. WALLS THAT ARE TO RECEIVE CERAMIC TILES SHALL HAVE FLUSH MORTAR JOINTS
8. PREP. AND PAINT EXISTING CMU/BRICK TO BE EXPOSED

FINISH ABBREVIATIONS

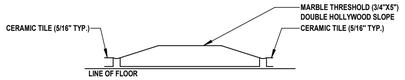
C.M.U.	=	CONCRETE MASONRY UNIT	R.B.	=	RUBBER BASE
CONC.	=	CONCRETE	R.T.	=	RUBBER TILE
C.T.	=	CERAMIC TILE/PORCELAIN TILE	P-LAM	=	PLASTIC LAMINATE
EPOXY PT.	=	EPOXY PAINT	PT.	=	PAINT
EXP.	=	EXPOSED	S.A.C.	=	SUSPENDED ACOUSTICAL CEILING
G.W.B.	=	GYPSUM WALL BOARD	SEALER	=	SEALED CONCRETE
L.C.	=	LINEAR CEILING	STRUCT.	=	STRUCTURE



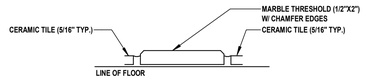
F **V.C.T. / V.C.T. THRESHOLD**



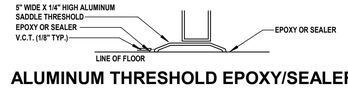
J **MARBLE THRESHOLD EPOXY OR SEALER / C.T.**



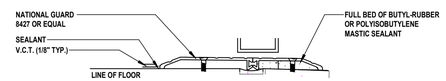
K **MARBLE THRESHOLD C.T. / C.T.**



P **MARBLE THRESHOLD C.T. / C.T. AT ACCESSIBLE SHOWER STALL**

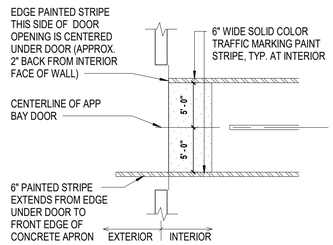


2 **ALUMINUM THRESHOLD EPOXY/SEALER OR V.C.T. / EPOXY/SEALER**

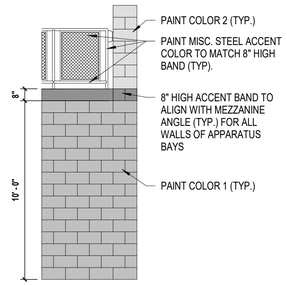


4 **V.C.T. OR SEALER @ EXTERIOR THRESHOLD**

3 A 600 **TYP. THRESHOLD DETAILS**
SCALE: 3" = 1'-0"



4 A 600 **BAY STRIPING DETAIL**
SCALE: 1/8" = 1'-0"



5 A 600 **APPARATUS BAY PAINT SCHEME**
SCALE: 1/4" = 1'-0"

H 2 M architects + engineers

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CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
Designer	Author	Checker	

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT

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ADDITION/RENOVATION

94 GLENEIDA AVE, CARMEL HAMLET NY, 10512

CONTRACT

CONTRACT G GENERAL CONSTRUCTION

STATUS

BID SET

SHEET TITLE

FINISH PLAN, SCHEDULE, AND DETAILS

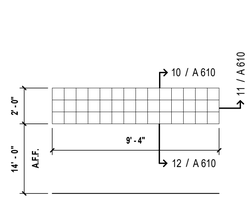
DRAWING No.

A 600

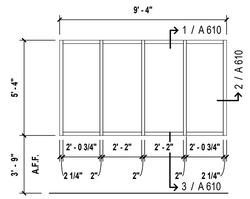
EXTERIOR WINDOW TYPES - SCALE 1/4"=1'-0"

WINDOW NOTES:

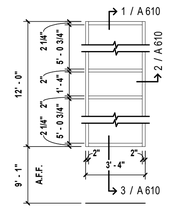
1. GLASS WITHIN 18" OF DOORS AND FLOORS SHALL BE TEMPERED
2. DIMENSIONS SHOWN ARE MASONRY ROUGH OPENINGS U.O.N.
3. WINDOWS W2, & W3 ARE ALUMINUM STOREFRONT
4. WINDOWS W4 - W7 ARE ALUMINUM CLAD WOOD DOUBLE HUNG WINDOW
5. FOR NEW WINDOWS IN EXISTING OPENINGS, VERIFY IN FIELD EXISTING OPENING SIZES PRIOR TO SHOP DRAWING SUBMITTAL.



W1 WINDOW ELEVATION - W1 (GLASS BLOCK)

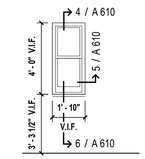


W2 WINDOW ELEVATION - W2

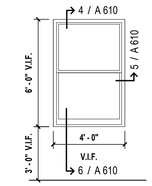


W3 WINDOW ELEVATION - W3

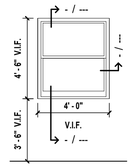
NOTE: ELEVATIONS INDICATED ARE ABOVE EXISTING SECOND FLOOR ELEVATION +9'-8". VERIFY FOR ALL.



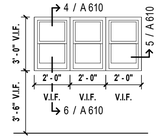
W4 WINDOW ELEVATION - W4



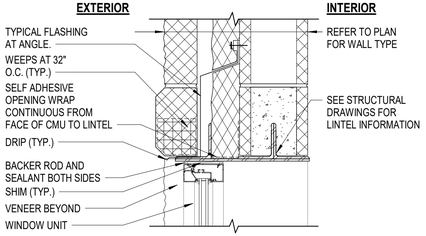
W5 WINDOW ELEVATION - W5



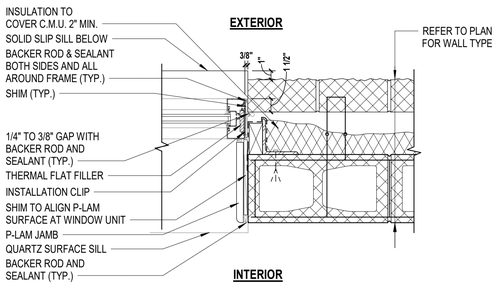
W6.2 WINDOW ELEVATION - W6.2



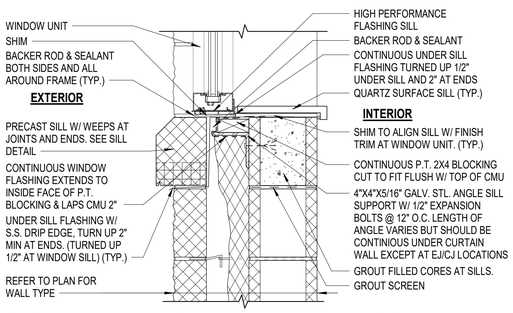
W7 WINDOW ELEVATION - W7



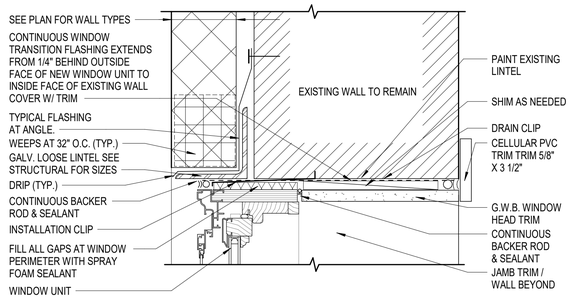
1 A 610 **STOREFRONT WINDOW HEAD DETAIL AT MASONRY WALL**
SCALE: 1 1/2" = 1'-0"



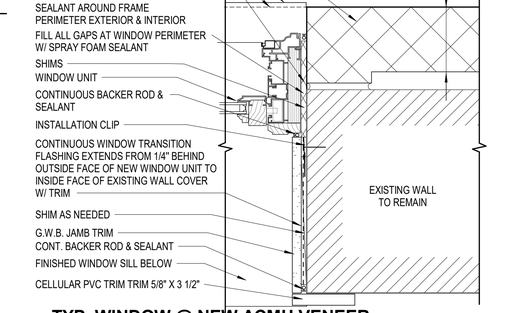
2 A 610 **STOREFRONT WINDOW JAMB DETAIL AT MASONARY WALL**
SCALE: 1 1/2" = 1'-0"



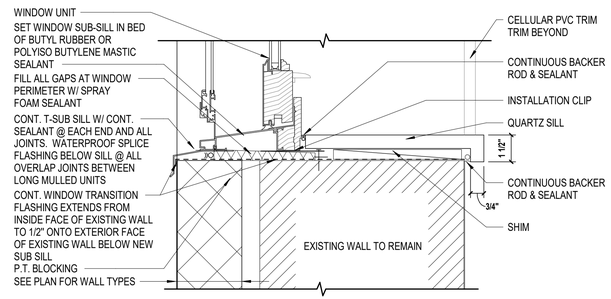
3 A 610 **STOREFRONT WINDOW SILL DETAIL AT MASONRY WALL**
SCALE: 1 1/2" = 1'-0"



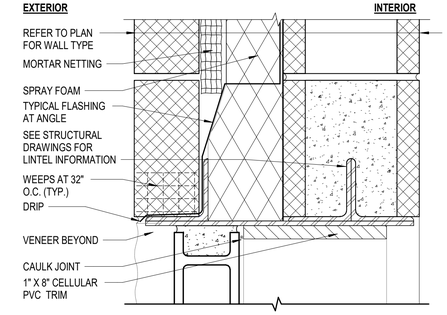
4 A 610 **TYP. WINDOW @ NEW ACMU VENEER AT EXISTING WALL - HEAD**
SCALE: 3" = 1'-0"



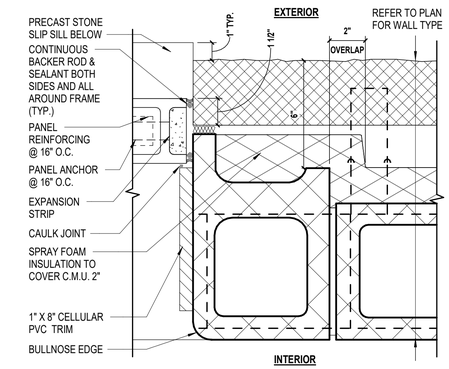
5 A 610 **TYP. WINDOW @ NEW ACMU VENEER AT EXISTING WALL - JAMB**
SCALE: 3" = 1'-0"



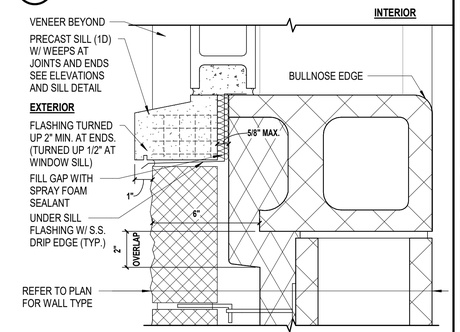
6 A 610 **TYP. WINDOW @ NEW ACMU VENEER AT EXISTING WALL - SILL**
SCALE: 3" = 1'-0"



10 A 610 **TYP. GLASS BLOCK HEAD DETAIL**
SCALE: 3" = 1'-0"



11 A 610 **TYP. GLASS BLOCK JAMB DETAIL**
SCALE: 3" = 1'-0"



12 A 610 **TYP. GLASS BLOCK SILL DETAIL**
SCALE: 3" = 1'-0"

H 2 M architects + engineers

3 Lear Jet Lane, Suite 205
Latham, NY 12110
518.765.5105 • www.h2m.com

CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
DAR	TES	AFJ	

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE, CARMEL HAMLET NY, 10512

CONTRACT

CONTRACT G GENERAL CONSTRUCTION

STATUS

BID SET

SHEET TITLE

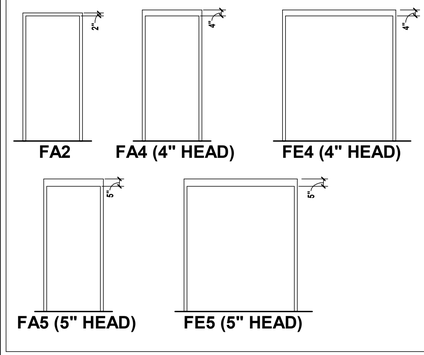
WINDOW SCHEDULE AND DETAILS

DRAWING No.

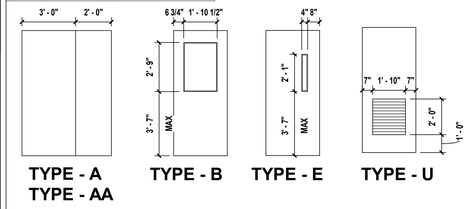
A 610

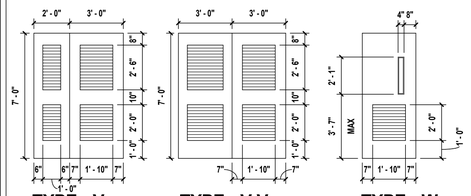
DOOR FRAMES

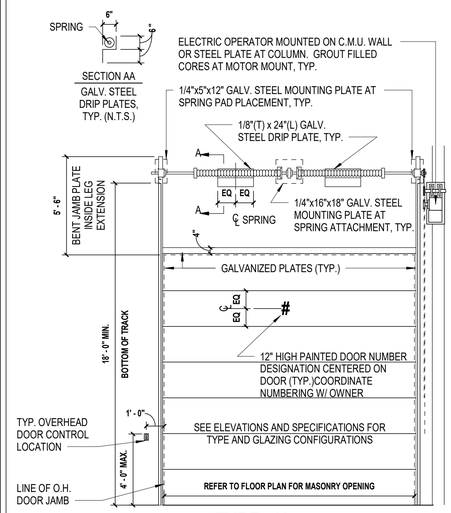
INTERIOR HOLLOW METAL DOOR FRAME SCHEDULE:
INTERIOR CMU: 8" CMU | FRAME SIZE: 5 3/4" WIDE U.O.N.



DOOR TYPES



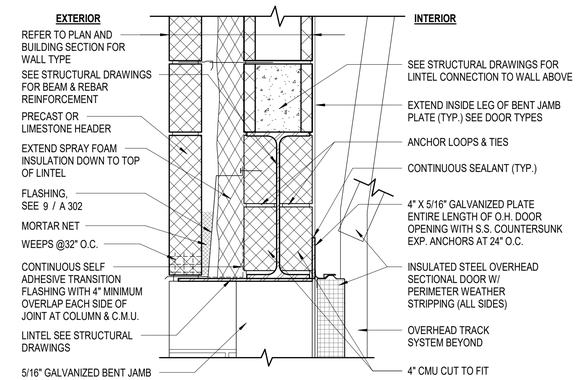




TYPE - X
14'-0" x 14'-0" U.O.N.

NOTES

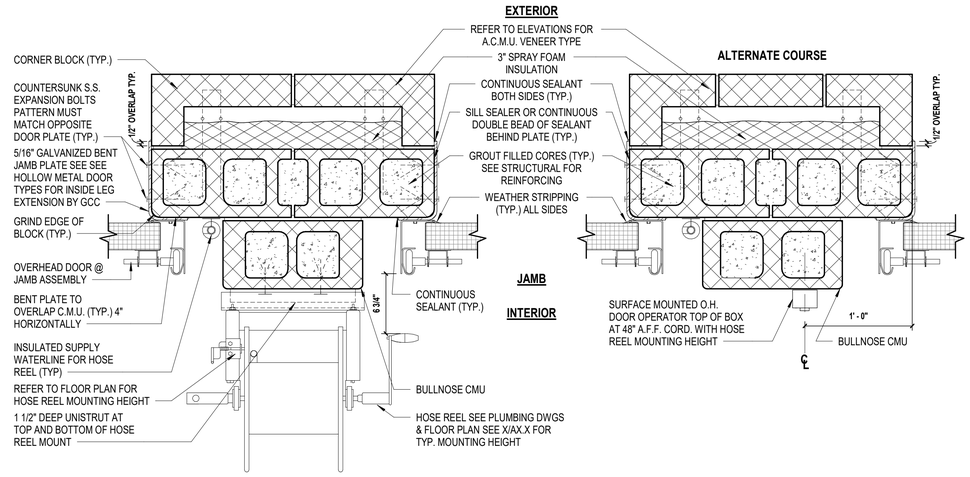
1. METAL FRAMES HOLDING GLASS IN WOOD DOORS TO BE PAINTED TO MATCH DOOR FRAME COLOR OR AS NOTED ON COLOR SCHEDULE.
2. UNDERCUT DOORS WHERE MARBLE THRESHOLD, ALUMINUM THRESHOLDS ARE REQUIRED.
3. INSTALL KICKPLATES ON PUSH SIDE OF DOOR (TYP.) UNLESS OTHERWISE NOTED.
4. ALL DOORS TO BE ADJUSTED TO ELIMINATE RATTLE AND OR PLAY WHEN DOOR IS LATCHED.
5. SLOPE ALUMINUM THRESHOLDS TO EXTERIOR AT ALL EXTERIOR DOORS.
6. CARD READERS AND WIRING BY OWNER'S VENDOR. CONTRACTOR TO PROVIDE ALL SUPPORTING CONDUIT, BACK BOX, AND HARDWARE PER SCHEDULE.



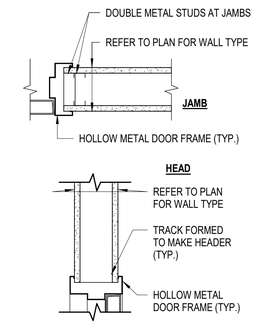
1 / A 620 TYP. OVERHEAD DOOR HEAD @ C.M.U.
SCALE: 1 1/2" = 1'-0"

DOOR SCHEDULE

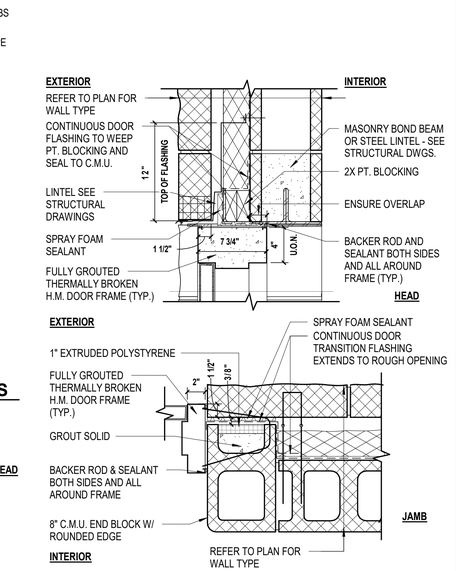
DOOR NO.	FROM	TO	DOOR WIDTH	DOOR HEIGHT	DOOR MATERIAL	TYPE	FIRE RATING	FRAME TYPE	HARDWARE SET	ELECTRIC STRIKE	COMMENTS
101A	101	EXT	14' - 0"	14' - 0"	INSUL. STL.	X	-	-	13	No	
101B	101	EXT	14' - 0"	14' - 0"	INSUL. STL.	X	-	-	13	No	
101C	101	EXT	14' - 0"	14' - 0"	INSUL. STL.	X	-	-	13	No	
101D	101	EXT	14' - 0"	14' - 0"	INSUL. STL.	X	-	-	13	No	
101E	101	EXT	14' - 0"	14' - 0"	INSUL. STL.	X	-	-	13	No	
101F	102	EXT	14' - 0"	14' - 0"	INSUL. STL.	X	-	-	13	No	
101G	101	EXT	14' - 0"	14' - 0"	INSUL. STL.	X	-	-	13	No	
101H	101	EXT	14' - 0"	14' - 0"	INSUL. STL.	X	-	-	13	No	
101J	101	EXT	14' - 0"	14' - 0"	INSUL. STL.	X	-	-	13	No	
101K	101	EXT	14' - 0"	14' - 0"	INSUL. STL.	X	-	-	13	No	
102A	101	EXT	3' - 0"	7' - 0"	INSUL. H.M.	E	-	FA4	1	Yes	
102B	101	EXT	3' - 0"	7' - 0"	INSUL. H.M.	E	-	FA4	1	Yes	
103A	105	103	3' - 0"	6' - 11"	H.M.	B	-	FA2	8	No	NOTE: SPECIAL DOOR SIZE
103B	105	103	3' - 0"	6' - 11"	H.M.	B	3/4 HR.	FA2	8	No	NOTE: SPECIAL DOOR SIZE
104A	104	EXT	3' - 0"	6' - 11"	INSUL. H.M.	B	-	FA2	1	Yes	NOTE: SPECIAL DOOR SIZE
104B	105	104	3' - 0"	6' - 11"	H.M.	E	3/4 HR.	FA2	4	No	NOTE: SPECIAL DOOR SIZE
105	105	101	3' - 0"	7' - 0"	INSUL. H.M.	E	-	FA4	11	No	KERFED FRAME W/ WEATHER STRIP AND SWEEP
107	107	105	3' - 0"	7' - 0"	H.M.	E	3/4 HR.	FA4	4	No	
108	108	101	5' - 4"	7' - 0"	H.M.	V	-	FE4	10	No	
109	111	109	3' - 0"	7' - 0"	H.M.	U	-	FA4	9	No	
110	111	110	3' - 0"	7' - 0"	H.M.	U	-	FA4	9	No	
111	111	101	3' - 0"	7' - 0"	H.M.	U	-	FA4	12	No	
112A	112	101	3' - 0"	7' - 0"	H.M.	U	-	FA4	12	No	
112B	112	EXT	3' - 0"	7' - 0"	INSUL. H.M.	E	-	FA4	1	Yes	
113	113	EXT	3' - 0"	7' - 0"	INSUL. H.M.	E	-	FA4	1	Yes	
114	E107	114	3' - 0"	7' - 0"	H.M.	E	-	FA2	4	No	
E106	E106	E107	3' - 0"	7' - 0"	EXIST.	-	-	-	-	No	
201	202	201	3' - 0"	7' - 0"	H.M.	E	3/4 HR.	FA5	4	No	NOTE: SPECIAL FRAME SIZE
202	204	202	5' - 4"	7' - 0"	H.M.	AA	-	FE4	5	No	DOOR STOP
M01	M01	202	3' - 0"	7' - 0"	H.M.	E	-	FA5	7	No	NOTE: SPECIAL FRAME SIZE
M02	M02	M01	6' - 0"	7' - 0"	H.M.	V V	-	FE5	6	No	NOTE: SPECIAL FRAME SIZE



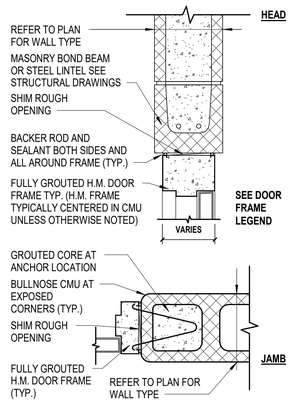
2 / A 620 TYP. OVERHEAD DOOR JAMB
SCALE: 1 1/2" = 1'-0"



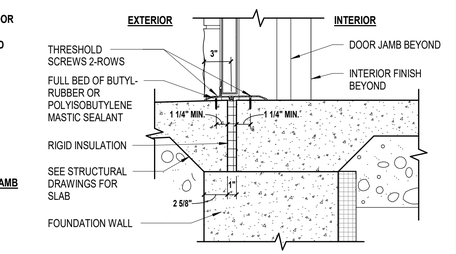
5 / A 620 TYP. H.M. DOOR AT INTERIOR STUD WALLS
SCALE: 1 1/2" = 1'-0"



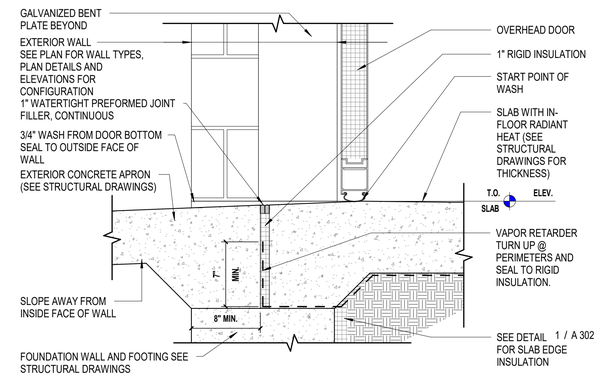
7 / A 620 TYP. H.M. DOOR AT EXTERIOR CMU WALL
SCALE: 1 1/2" = 1'-0"



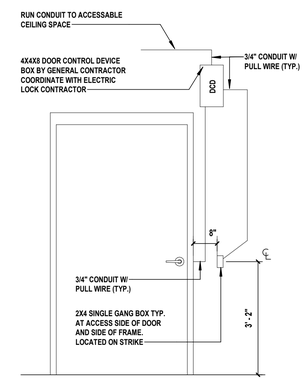
6 / A 620 TYP. H.M. DOOR AT INTERIOR CMU WALLS
SCALE: 1 1/2" = 1'-0"



8 / A 620 TYPICAL EXTERIOR DOOR THRESHOLD
SCALE: 1 1/2" = 1'-0"



3 / A 620 TYP. OVERHEAD DOOR THRESHOLD
SCALE: 1 1/2" = 1'-0"



4 / A 620 ELECTRIC STRIKE DETAIL
SCALE: 1 1/2" = 1'-0"

H 2 M architects + engineers
3 Lear Jet Lane, Suite 205
Latham, NY 12110
518.765.5105 • www.h2m.com

CONSULTANTS:

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
DAR	TES	AFJ	

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CONTRACT

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GENERAL CONSTRUCTION

STATUS

BID SET

SHEET TITLE

DOOR SCHEDULE AND DETAILS

DRAWING No.

A 620

ABBREVIATIONS

A	GENERAL SERVICE COMPRESSED AIR
A/AMP	AMPERE
AC	AIR COMPRESSOR
ACU	AIR CONDITIONING UNIT(S)
AD	ACCESS DOORS
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AMB	AMBIENT
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE
AS	AIR SEPARATOR
AV	ACID VENT (CHEMICAL)
AVTR	ACID VENT THRU ROOF
AW	ACID WASTE
BFW	BOILER FEED WATER
BHP	BRAKE HORSEPOWER
BSMT	BASEMENT
BTU	BRITISH THERMAL UNITS
BTUH	BRITISH THERMAL UNITS/HOUR
C	CONNDESATE
C/B	CIRCUIT BREAKER
CER/CEG	CEILING EXHAUST REG./GRILLE
CFM	CUBIC FEET PER MINUTE
CFP	CHEMICAL FEED PUMPS
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CI	CAST IRON
CLG	CEILING
CLPS	CLEAN LOW PRESSURE STEAM
CMPS	CLEAN MEDIUM PRESSURE STEAM
CMV	CEILING MOUNTED VENTILATOR
CO	CLEANOUT
CO2	CARBON DIOXIDE
COMP	COMPRESSOR
CP	CONDENSATE PUMP
CRU	COMPUTER ROOM UNIT
CT	COOLING TOWER
CU FT	CUBIC FEET
CUH	CABINET UNIT HEATER
CV	COEFFICIENT, VALVE FLOW
CW	COLD WATER
D	DEPTH
dB	DECIBEL
DC	DIRECT CURRENT
DCV	DOUBLE CHECK VALVE
DE	DEIONIZED PROCESS WATER
DEG or °	DEGREE
DI	DISTILLED WATER
DIA	DIAMETER
DN	DOWN
DWBP	DOMESTIC WATER BOOSTER PUMP
DWG	DRAWING
EF	EXHAUST FAN
EFF	EFFICIENCY
EHC	ELECTRICAL HEATING CABLES
ELEC	ELECTRICAL
ELEV	ELEVATOR
ETP	ELECTRIC TRAP PRIMER
EUH	ELECTRIC UNIT HEATER
EVAP	EVAPORATOR
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXH	EXHAUST
EXP	EXPANSION
F	FAHRENHEIT
FA	FIRE ALARM
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FHC	FIRE HOSE CABINET
FM	FLOW METER
FP	FIRE PUMP
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FS	FLOOR SINK
FT	FOOR OR FEET
FVC	FIRE VALVE CABINET
G	GAS
GA	GAUGE
GAL	GALLONS
GND	GROUND
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GRU	GREASE RECOVERY UNIT
GW	GREASE WASTE
H	HEIGHT
HD	HEAD
HP	HORSEPOWER
HPG	HIGH PRESSURE GAS
HPS	HIGH PRESSURE STEAM
HR	HOUR(S)
HT	HEAT
HTR	HEATER
HUM	HUMIDIFIER
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
HW	HOT WATER
HWR	HOT WATER RETURN

ABBREVIATIONS

HWRP	HOT WATER RETURN PUMP
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGE
ID	INSIDE DIAMETER
IEF	IN-LINE EXHAUST FAN
IN	INCHES
IN WG	INCHES OF WATER, GAUGE (PRESSURE)
IW	INDIRECT WASTE
JP	JOCKEY PUMP
KEF	KITCHEN EXHAUST FAN
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KITCHEN WATER HEATER
L	LENGTH
LA	LABORATORY COMPRESSED AIR
LAV	LAVATORY
LBS/HR	POUNDS PER HOUR
LF	LINEAR FEET
LG	LABORATORY GAS
LPC	LOW PRESSURE CONDENSATE
LPS	LOW PRESSURE STEAM
LV	LABORATORY VACUUM
MA	MEDICAL COMPRESSED AIR
MAGP	MASTER ALARM GAS PANEL
MAX	MAXIMUM
MBH	BTU PER HOUR (THOUSAND)
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MPS	MEDIUM PRESSURE STEAM
MUAU	MAKE UP AIR UNIT
MV	MEDICAL VACUUM
N2	NITROGEN
N2O	NITROUS OXIDE
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
O	OXYGEN
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER
ORD	OVERFLOW ROOF DRAIN
ORL	OVERFLOW RAIN LEADER
P	POLE
PH / Ø	PHASE
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
RD	ROOF DRAIN
REF	ROOF EXHAUST FAN
RM	ROOM
RO	REVERSE OSMOSIS WATER
RPD/RPZ	REDUCED PRESSURE DEVICE
RPM	REVOLUTIONS PER MINUTE
RTU	ROOF TOP UNIT
RV	RADON VENT
RL	RAIN LEADER
S	SOIL
SAC	SHOP AIR COMPRESSOR
SCP	STEAM CONDENSATE PUMP
SEP	SEWAGE EJECTOR PUMP
SP	STATIC PRESSURE
SP	SUMP PUMP
SPEC	SPECIFICATION
SQ	SQUARE
SS	SOIL/STACK
ST	STORM
STD	STANDARD
SWH	STEAM WATER HEATER
TAG	IDENTIFICATION OF EQUIPMENT
TEMP	TEMPERATURE
TMV	THERMOSTATIC MIXING VALVE
TP	TRAP PRIMER
TW	TEMPERED WATER
TWR	TEMPERED WATER RETURN
TYP	TYPICAL
UH	UNIT HEATER
UR	URINAL
V	VENT
VAC	VACUUM
VEL	VELOCITY
VFC	VARIABLE FREQUENCY CONTROLLER
VIF	VERIFY IN FIELD
VOL	VOLUME
VTR	VENT THRU ROOF
W	WASTE
WC	WATER CLOSET
WG	WIREGUARD
WH	WALL HYDRANT (HOSE BIBB)
WHA	WATER HAMMER ARRESTER
WI	WIDTH
WP	WEATHERPROOF
WTG	WALL TRANSFER GRILLE
WV	WASTE AND VENT COMBINATION

PLUMBING SYMBOLS

- COLD WATER
- HOT WATER
- HOT WATER RECIRCULATING
- VENT
- S — SOIL OR WASTE PIPE
- RV — RADON VENT
- WV — COMBINATION WASTE & VENT
- GW — GREASE WASTE
- IW — INDIRECT WASTE
- ORL — OVERFLOW RAIN LEADER
- RL — RAIN LEADER
- ST — STORM DRAIN
- CD — CONDENSATE DRAIN
- G — GAS PIPE
- NPW — NON-POTABLE WATER
- HEAT TRACED PIPE
- M — WATER METER ASSEMBLY
- G — GAS METER ASSEMBLY
- FLOOR DRAIN
- ROOF DRAIN
- TP — TRAP PRIMER
- ETP — ELECTRONIC TRAP PRIMER

FITTINGS AND VALVES

- BALL VALVE
- DIRECTION OF FLUID FLOW
- GATE VALVE
- BUTTERFLY VALVE
- CALIBRATED BALANCING VALVE
- GAS COCK
- CHECK VALVE
- PRESSURE REDUCING VALVE
- THERMOSTATIC MIXING VALVE
- SOLENOID VALVE
- DRAIN VALVE WITH HOSE END, CAP & CHAIN OR HOSE BIBB
- WALL HYDRANT
- PIPE DROP WITH VALVE
- TAKEOFF FROM TOP OF MAIN PIPE
- TAKEOFF FROM BOTTOM OF MAIN PIPE
- UNION
- PIPE ELBOW UP OR PIPE TEE UP
- PIPE ELBOW DOWN
- PIPE TEE DOWN
- WALL CLEANOUT OR BLIND FLANGE
- FLOOR CLEANOUT
- "P" TRAP
- STRAINER OR STRAINER WITH BLOW-DOWN VALVE HOSE END, CAP AND CHAIN
- BACKFLOW PREVENTER (2" AND SMALLER)
- BACKFLOW PREVENTER (2 1/2" AND LARGER)
- PUMP
- WATER HAMMER ARRESTOR
- 2-WAY CONTROL VALVE
- 3-WAY CONTROL VALVE
- PIPE CAP OR CAPPED END OF PIPE
- STEEL PENETRATION / PIPE SLEEVE
- PIPE GUIDES
- AIR VENT
- PRESSURE RELIEF SAFETY VALVE
- A — AQUASTAT
- T — TEMPERATURE SENSOR WITH SEPARABLE SOCKET IN IMMERSIBLE WELL
- T — TEMPERATURE GAUGE WITH SEPARABLE SOCKET IN IMMERSIBLE WELL
- THERMOMETER WITH SEPARABLE SOCKET IN IMMERSIBLE WELL
- P — PRESSURE GAUGE
- FLEXIBLE CONNECTOR

PLUMBING GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH CURRENT APPLICABLE CODES, ORDINANCES, THE REGULATORY AGENCIES HAVING JURISDICTION AND THE SPECIFICATIONS. THE SPECIFICATIONS MAY EXCEED THE REQUIREMENTS OF THE CODE, IN WHICH CASE, THE SPECIFICATION MUST BE FOLLOWED.
2. THE INTENT OF THESE DOCUMENTS IS FOR THE MEP TRADES TO FURNISH AND INSTALL COMPLETE MECHANICAL AND ELECTRICAL SYSTEMS. THE SPECIFIED PLUMBING SYSTEM SHALL BE COMPLETE IN ALL RESPECTS; OPERATIONAL, TESTED, ADJUSTED, APPROVED BY THE AUTHORITIES HAVING JURISDICTION AND READY FOR BENEFICIAL USE BY THE OWNER.
3. THE TRADES SHALL OBTAIN AND REVIEW ALL CONTRACT DOCUMENTS BEFORE SUBMITTING A BID. INFORMATION IS PROVIDED ON THE VARIOUS DRAWINGS, SCHEDULES, SPECIFICATIONS AND ALL OF THE VARIOUS DOCUMENTS IN THE BIDDING PACKAGE. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND FORM A TOTAL PROJECT DESIGN AND INFORMATION SOURCE FOR CONSTRUCTION PURPOSES.
4. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. COORDINATE LOCATIONS OF EQUIPMENT WITH OTHER TRADES BEFORE AND DURING CONSTRUCTION. ANY MODIFICATION TO THE EQUIPMENT LAYOUT, REQUIRED FOR INSTALLATION, IS TO BE PERFORMED UNDER THE CONTRACT AGREEMENT, AT NO ADDITIONAL COST. REFER TOP DETAILS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. THE CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH THE PROJECT DOCUMENTS OF ALL TRADES. THE DRAWINGS ARE DIAGRAMMATIC AND SHOW THE GENERAL ARRANGEMENT OF EQUIPMENT AND PIPING. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF EQUIPMENT AND PIPING INSTALLATION WITH ALL THE TRADES BEFORE COMMENCING WORK.
6. EQUIPMENT SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS, WHEN EQUIPMENT MUST BE LOCATED ABOVE AN INACCESSIBLE CEILING (GYP BOARD OR EQUIVALENT), OR BEHIND A WALL, AN APPROPRIATE ACCESS DOOR SHALL BE PROVIDED. IF AN ACCESS DOOR IS REQUIRED, IT SHALL BE OF A RATING APPROPRIATE FOR THE WALL/CEILING IN WHICH IT IS TO BE INSTALLED. THE CONTRACTOR SHALL COORDINATE LOCATIONS OF ACCESS PANELS FOR ALL VALVES AND DEVICES, REQUIRING ACCESS, WITH THE ARCHITECT, PRIOR TO INSTALLATION OF SUCH DEVICES OR OTHER APPURTENANCES.
7. WHERE A CONFLICT OCCURS BETWEEN THE DOCUMENTS, IT SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. CARRY AS PART OF THE BID THE LARGER QUANTITY AND/OR MORE EXPENSIVE ITEM(S).
8. THIS CONTRACT SHALL INCLUDE ALL THE NECESSARY PIPING, FITTINGS, TRANSITIONS, OFFSETS, ETC. AS REQUIRED TO INSTALL PIPING, EQUIPMENT, MAINTAINING PROPER CLEARANCES AND TO AVOID ANY CONFLICTS WITH OTHER TRADES, AND THE BUILDING STRUCTURE. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ASSUMPTIONS, OMISSIONS OR ERRORS HE MAKES AS A RESULT OF HIS FAILURE TO COORDINATE WITH OTHER TRADES OR BECOME FULLY FAMILIAR WITH THE PROJECT DOCUMENTS OF ALL TRADES.
9. DO NOT INSTALL ANY PIPING OVER ELECTRICAL PANELS, TRANSFORMERS, SPECIAL EQUIPMENT, OR THROUGH ELECTRICAL ROOMS, DATA ROOMS, ELEVATOR MACHINE ROOM, STAIRWELL WALLS THAT ARE NOT ASSOCIATED WITH OR SERVE THE RESPECTIVE ROOMS. COORDINATE THE LOCATION OF ELECTRICAL EQUIPMENT IN THE FIELD AND ADJUST AS NECESSARY.
10. IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW INDIVIDUAL BRANCH PIPING TO EACH PLUMBING FIXTURE; ONLY THE BRANCH PIPING TO GROUPS OF FIXTURES IS INDICATED. EACH AND EVERY FIXTURE SHALL BE PROPERLY PIPED TO WATER, WASTE, AND VENT PIPING SYSTEMS. REFER TO THE PLUMBING SCHEDULES FOR INDIVIDUAL PIPE SIZES TO EACH FIXTURE.
11. PROVIDE PROPER PIPING SYSTEM IDENTIFICATION LABELS, SLOPES FOR DRAIN PIPING, CLEANOUTS, HANGERS, ETC. IN ACCORDANCE WITH THE PLUMBING CODE.
12. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES OR EQUIPMENT. ALL SUCH EQUIPMENT AND EQUIPMENT COLORS AND FINISHES SHALL BE COORDINATED WITH THE ARCHITECT. MOUNTING HEIGHTS SHALL BE APPROVED BY THE ARCHITECT.
13. INSTALL WATER HAMMER ARRESTORS (WHA) AT ALL QUICK CLOSING VALVES (FLUSH VALVES, SOLENOID VALVES, ETC.); SIZE SHALL BE BASED ON FIXTURE UNITS PER PDI STANDARDS AND INSTALLED PER MANUFACTURER'S RECOMMENDATION.
14. ALL PIPING, DRAINS, STRAINERS, FAUCETS, FAUCET AERATORS, FILTERS, ETC. SHALL BE THOROUGHLY CLEANED AND FLUSHED IMMEDIATELY BEFORE PROJECT COMPLETION. PROVIDE CERTIFICATION ON CONTRACTOR'S LETTER HEAD THAT THIS WORK HAS BEEN COMPLETED.
15. DOMESTIC WATER DROPS AND RISERS INSTALLED ON EXTERIOR FRAMED WALLS SHALL BE INSTALLED ON THE WARM SIDE OF INSULATION AND THE LOCATION SHALL BE MADE INFILTRATION FREE. DOMESTIC WATER PIPING SHALL BE SURFACE MOUNTED ON INTERIOR AND EXTERIOR BLOCK WALLS.
16. BEFORE INSTALLATION, COORDINATE THE WORK WITH OWNER-FURNISHED EQUIPMENT, INCLUDING REQUIRED SERVICE CONNECTIONS, FACTORY START UPS AND INSTALLATION OF FIELD DEVICES.
17. INSULATE NEW STORM DRAIN PIPING AND ROOF DRAIN BODIES.
18. INSULATE ALL NEW AND EXISTING DOMESTIC WATER PIPING. PROVIDE PVC JACKETS TO 10'-0" AFF ON EXPOSED WATER PIPING IN APPARATUS BAY.
19. ALL INDIRECT WASTE DRAINS SHALL BE PIPED TO FLOOR DRAINS, FUNNELS OR FIXED AIR GAP FITTINGS, THROUGH AIR GAP OR TO A SINK DRAIN TAILPIECE.
20. INSTALL TRAP GUARD SEALER FOR FLOOR DRAINS, HUB DRAINS AND FIXED AIR GAP FITTINGS, WHERE TRAP IS SUBJECT TO LOSS OF SEAL BY EVAPORATION.
21. COORDINATE ALL PLUMBING EQUIPMENT REQUIRING POWER, FOR EXACT LOCATION AND POWER REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
22. ALL EXTERIOR EXPOSED GAS PIPING SHALL BE PRIMED AND PAINTED.
23. FLOOR MOUNTED PLUMBING EQUIPMENT SHALL BE INSTALLED ON A 4" CONCRETE HOUSE-KEEPING PAD. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS. COORDINATE SIZE AND FINAL LOCATION OF ALL CONCRETE PADS WITH THE STRUCTURAL ENGINEER. PADS SHALL BE MINIMUM 6" LARGER THAN THE EQUIPMENT IN BOTH HORIZONTAL DIRECTIONS.
24. COORDINATE EXACT LOCATION OF PLUMBING SERVICES ENTERING THE BUILDING WITH THE SITE CONTRACTOR AND UTILITY DRAWINGS PRIOR TO INSTALLATION. COORDINATE ALL FOUNDATION WALL PENETRATIONS AND INVERT ELEVATIONS WITH THE GENERAL CONTRACTOR AND/OR CONSTRUCTION MANAGER BEFORE COMMENCING WORK.
25. SEISMICALLY SUPPORT THE EQUIPMENT AS REQUIRED BY CODE, THE AUTHORITY HAVING JURISDICTION, AND/OR AS SPECIFIED. SUBMIT ENGINEERED INSTALLATION DETAILS PER THE SPECIFICATIONS. THE CONTRACTOR'S SEISMIC ENGINEER SHALL REVIEW THE INSTALLATION AND PROVIDE A DETAILED REPORT FOR THE RECORD.
26. PROVIDE PIPE EXPANSION COMPENSATION FOR THE VARIOUS PIPING SYSTEMS. SUBMIT ENGINEERED DETAILS FOR APPROVAL AND VERIFY INSTALLATION IS IN ACCORDANCE WITH THE CODE. THE CONTRACTOR'S CONSULTING ENGINEER SHALL REVIEW THE INSTALLATION AND PROVIDE A REPORT OF THE FINDINGS.

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(860)-310-9827

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
KAH	ALL		

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

BID SET

SHEET TITLE

PLUMBING GENERAL INFORMATION

DRAWING No.

P 001

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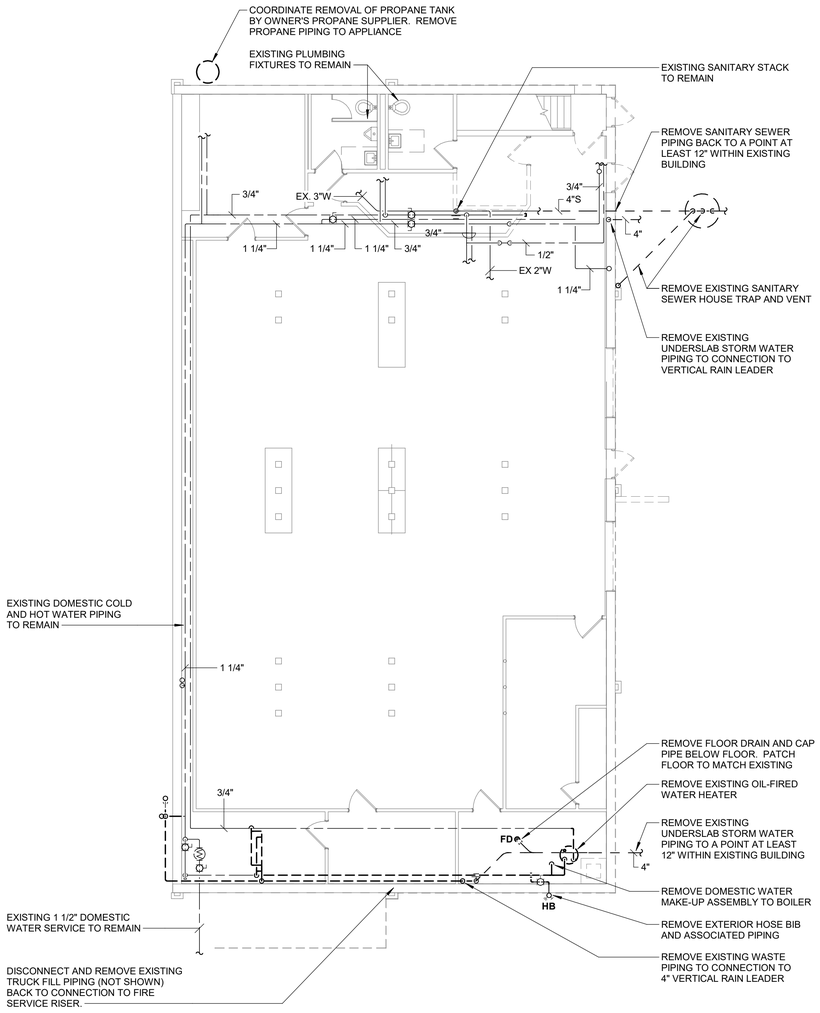
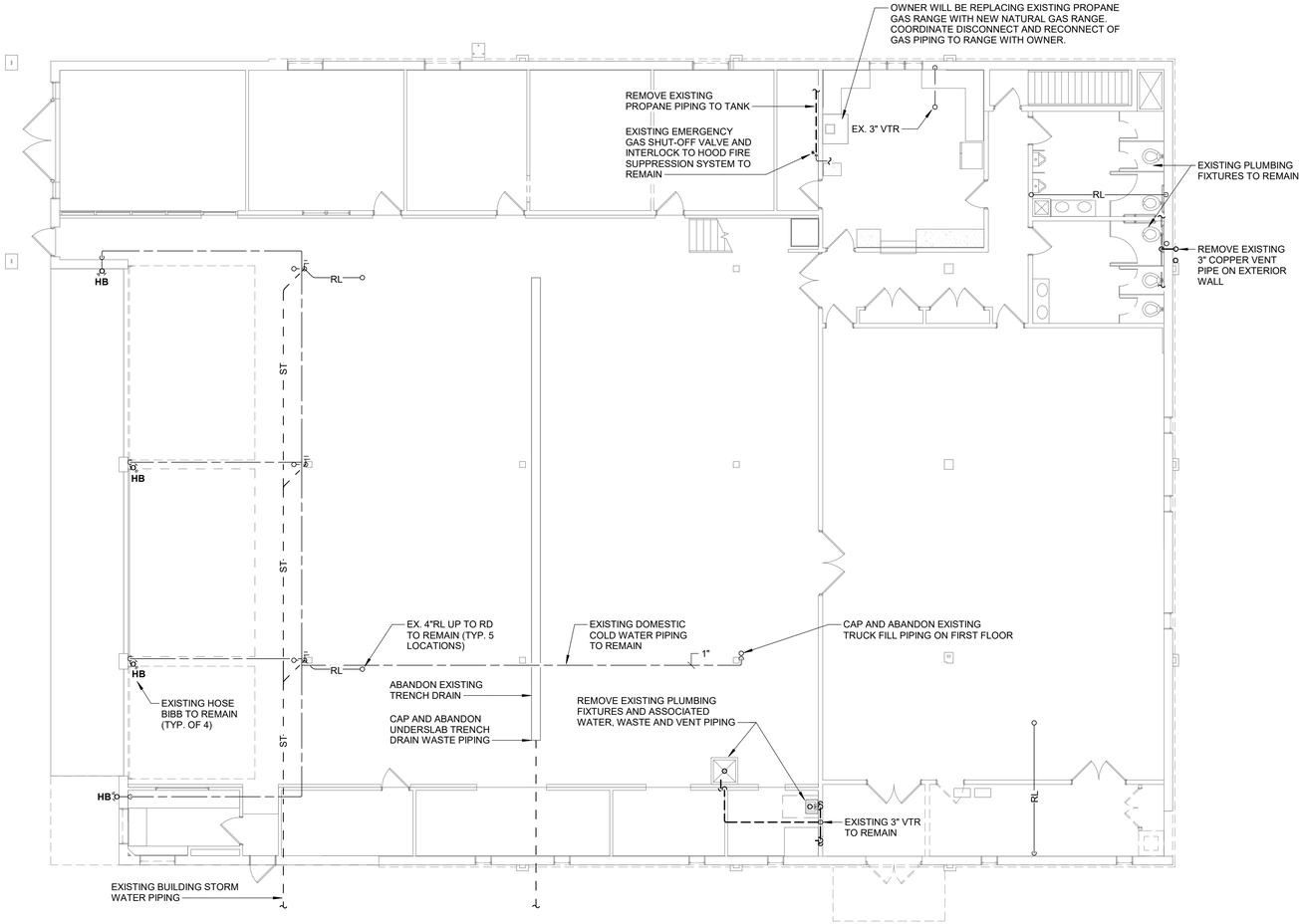


1 FIRST FLOOR PLUMBING DEMOLITION PLAN
1/8" = 1'-0"



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

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**94 GLENEIDA AVE,
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PLUMBING DEMOLITION PLANS

DRAWING No.

PD 101

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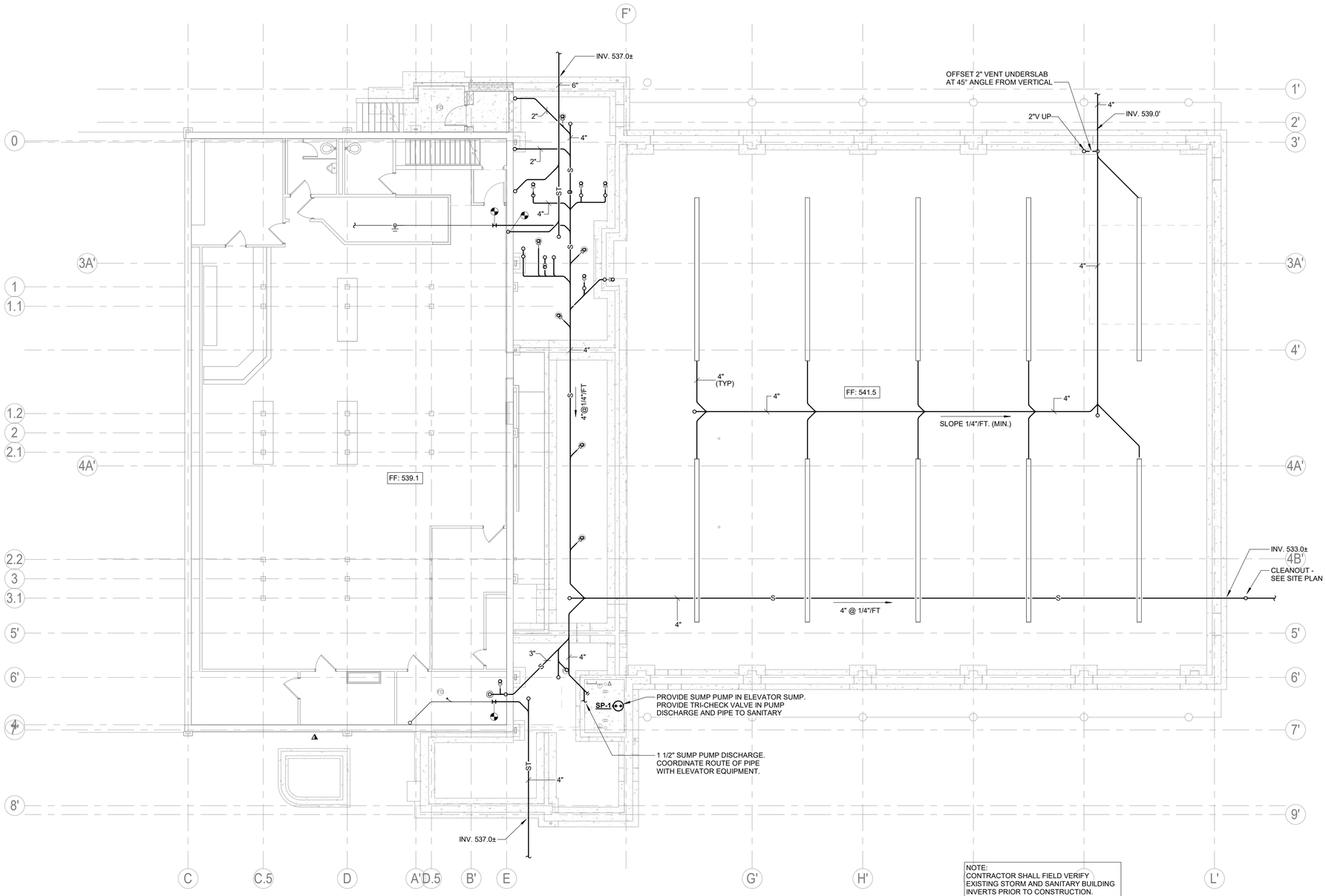

NOTE:
CONTRACTOR SHALL FIELD VERIFY
EXISTING STORM AND SANITARY BUILDING
INVERTS PRIOR TO CONSTRUCTION.

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

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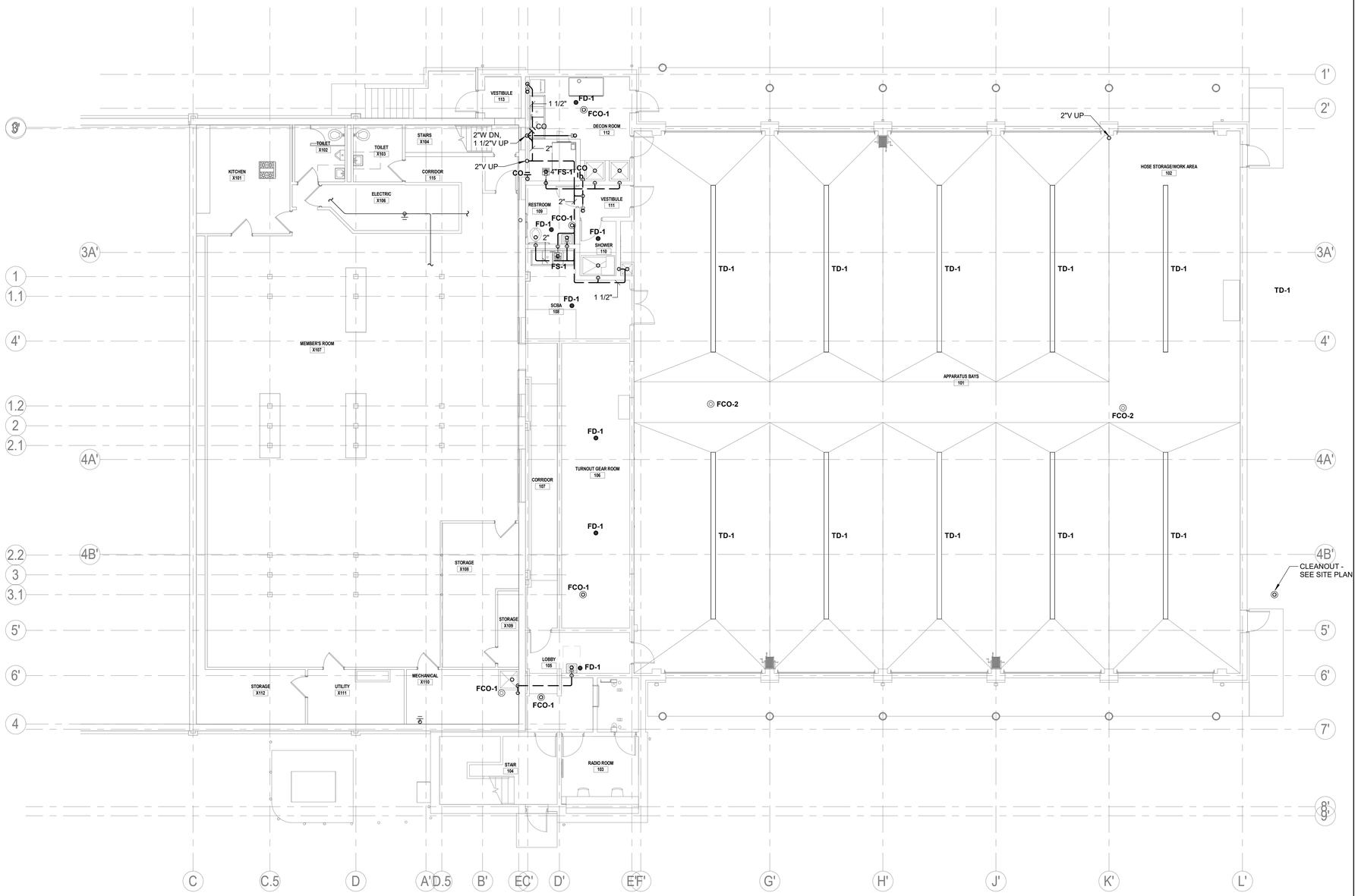
SHEET TITLE

PLUMBING UNDERSLAB PLAN

DRAWING No.

P 100



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

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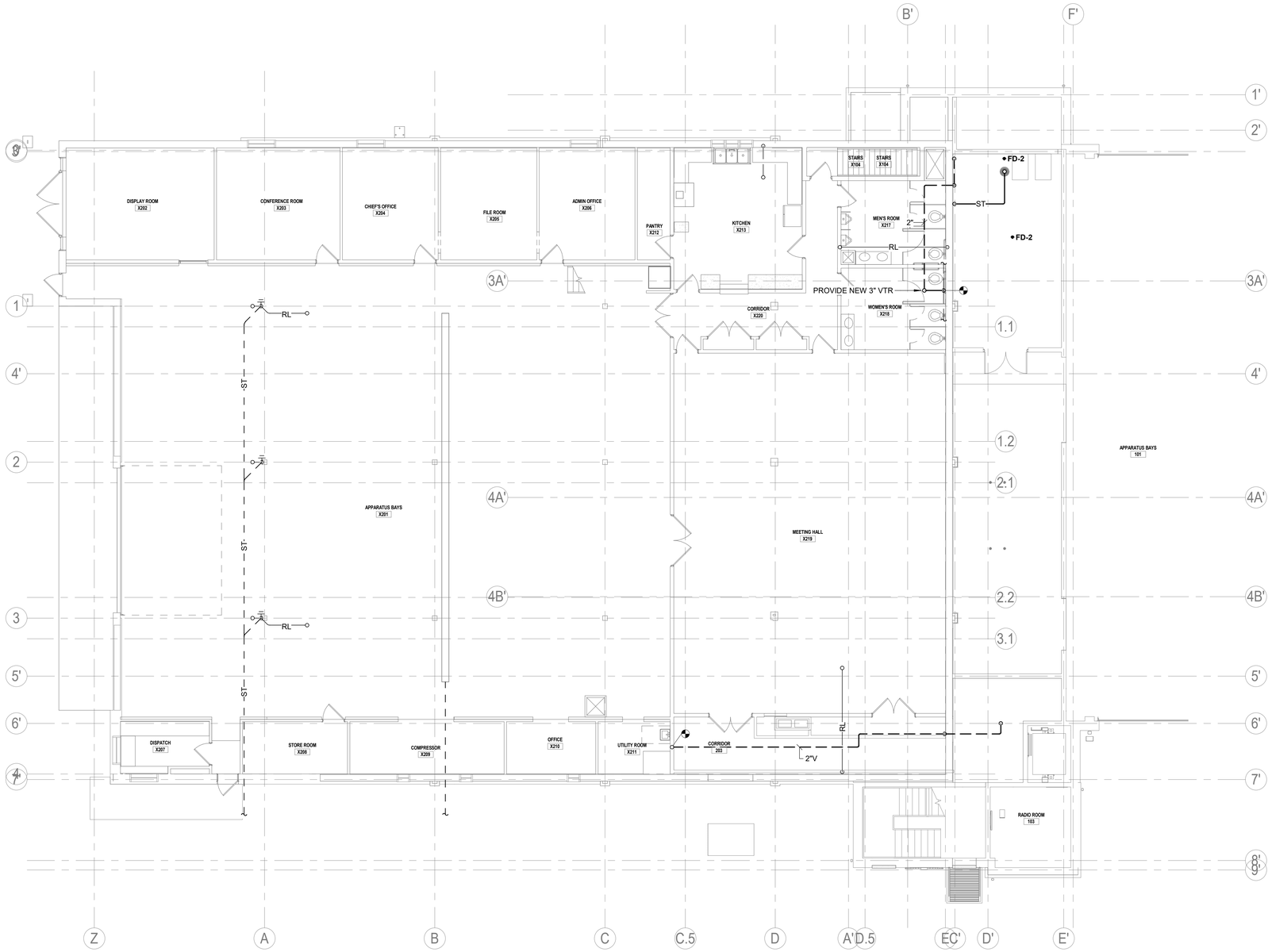
FIRST FLOOR DRAINAGE PLAN

DRAWING No.

P 101



1 SECOND FLOOR DRAINAGE PLAN
1/8" = 1'-0"

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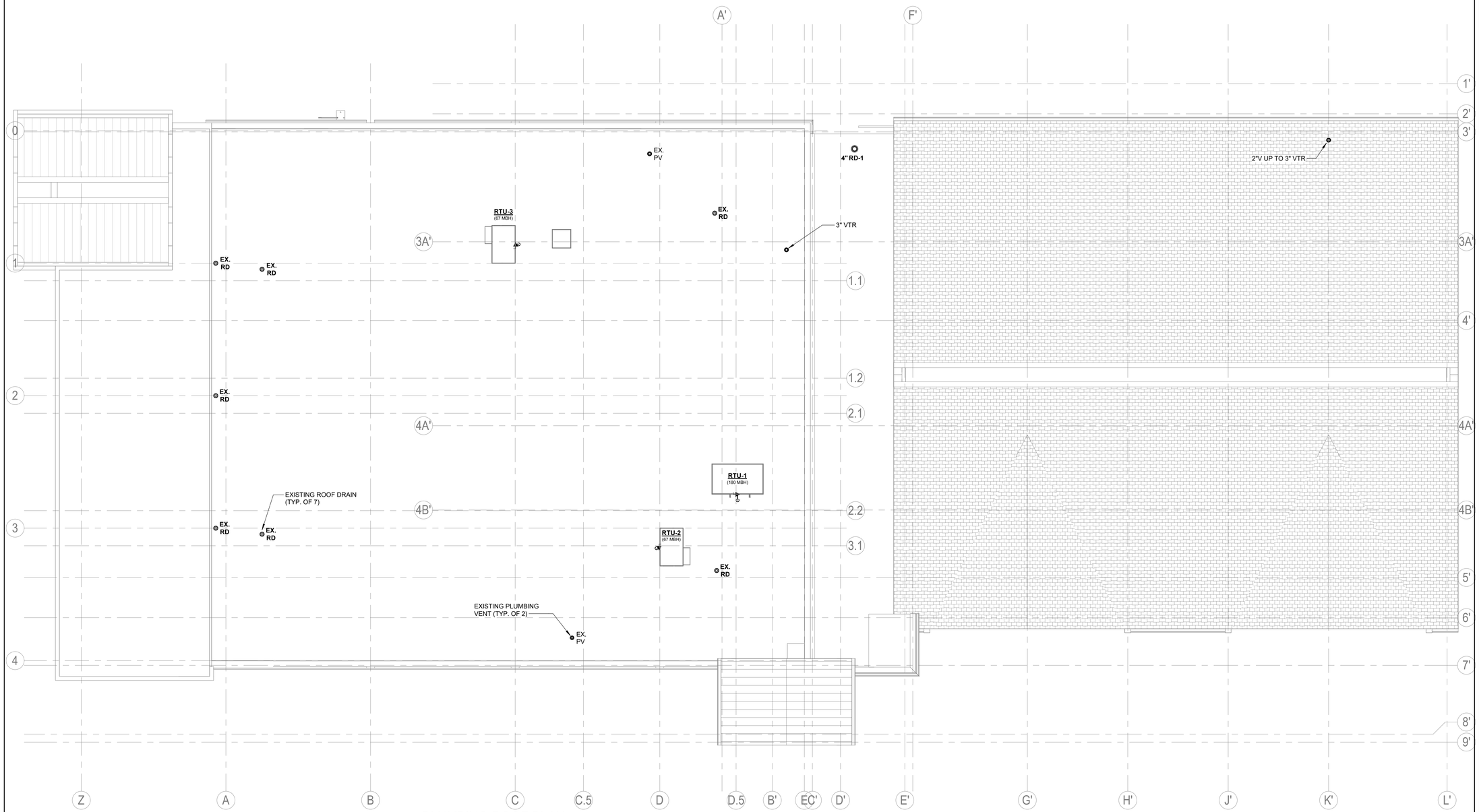
SHEET TITLE

SECOND FLOOR DRAINAGE PLAN

DRAWING No.

P 102



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

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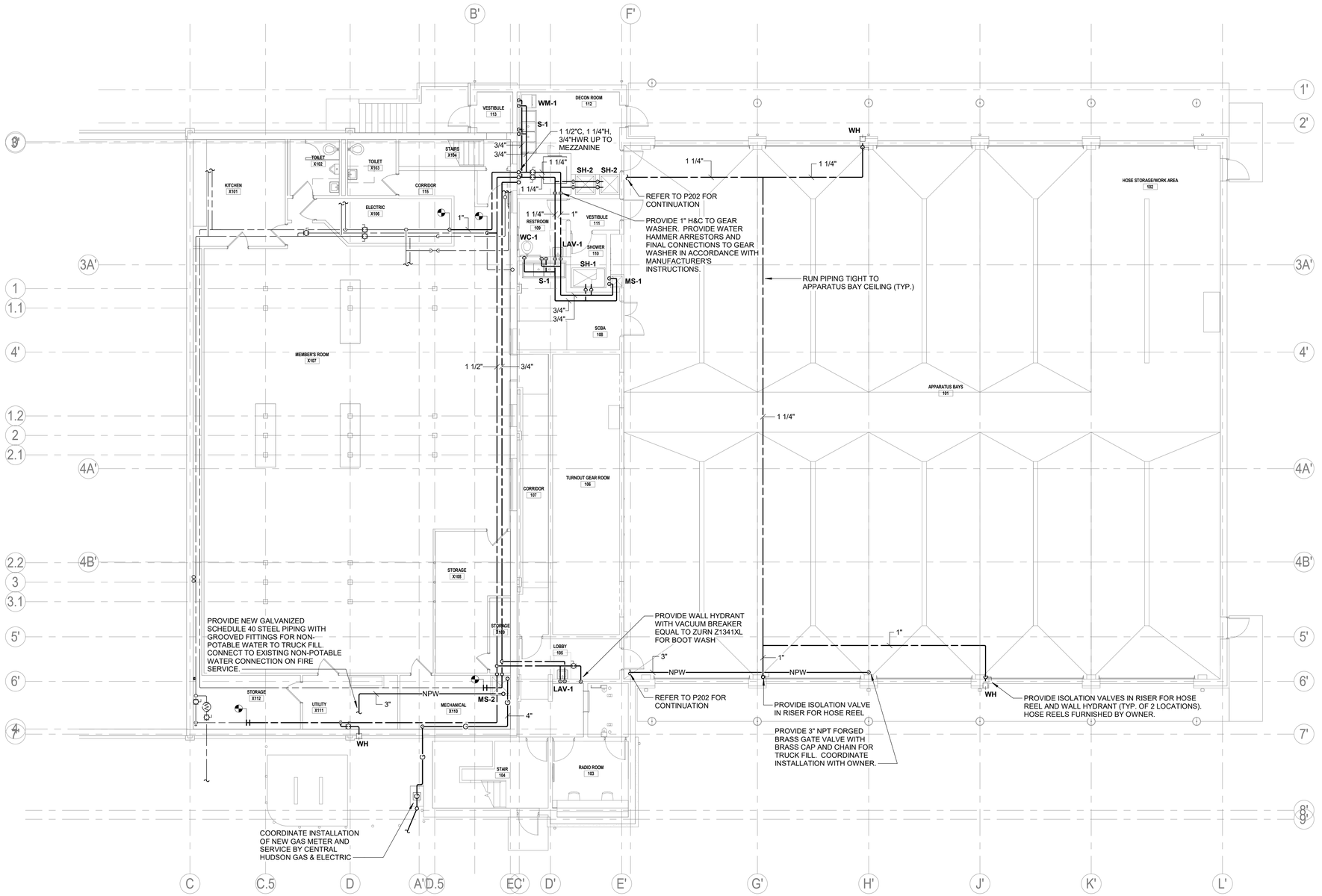
PLUMBING ROOF PLAN

DRAWING No.

P 103



1 FIRST FLOOR PLUMBING SUPPLY PLAN
1/8" = 1'-0"

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FIRST FLOOR PLUMBING SUPPLY PLAN

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P 201

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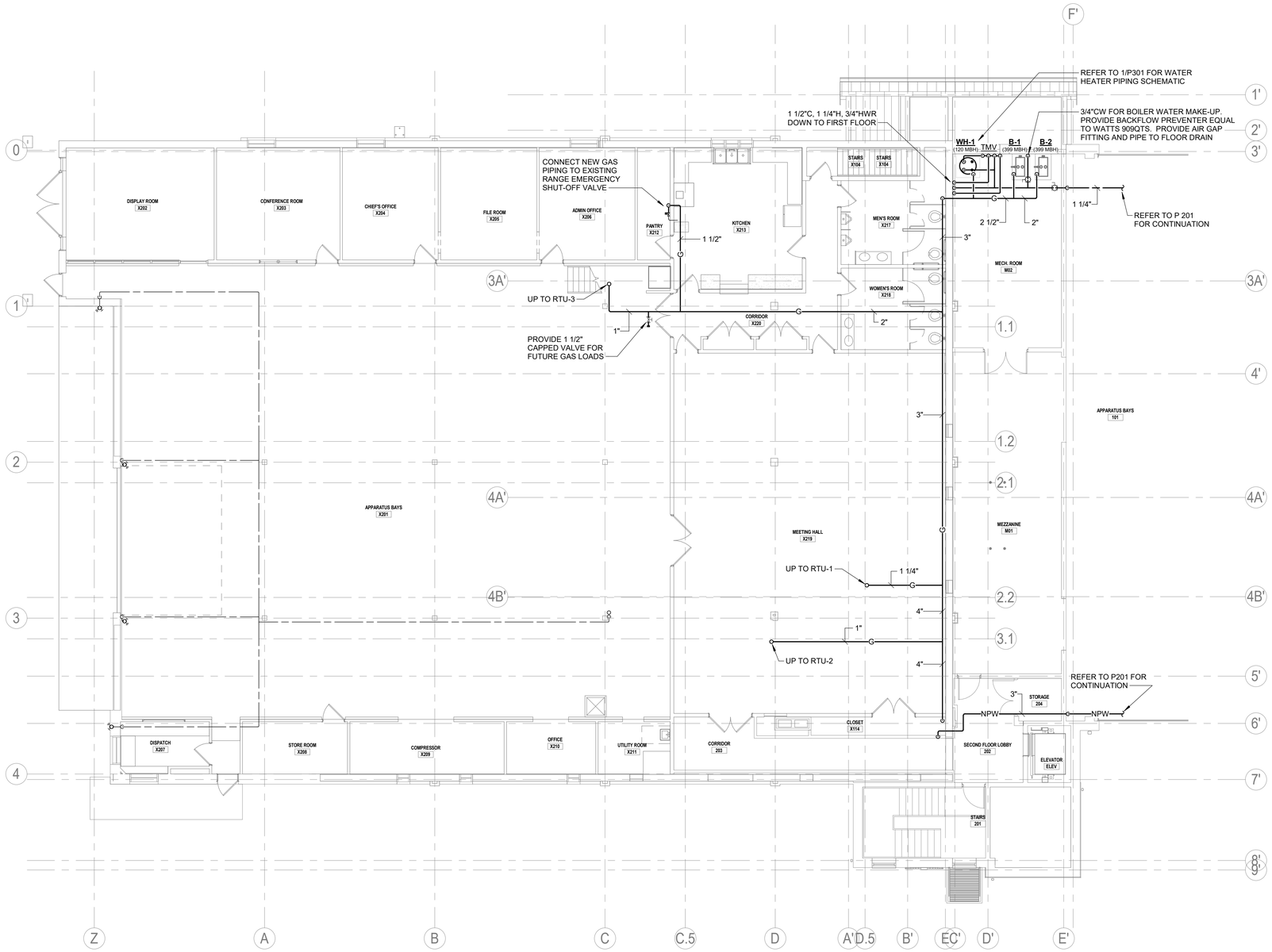

1 SECOND FLOOR PLUMBING SUPPLY PLAN
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P 202

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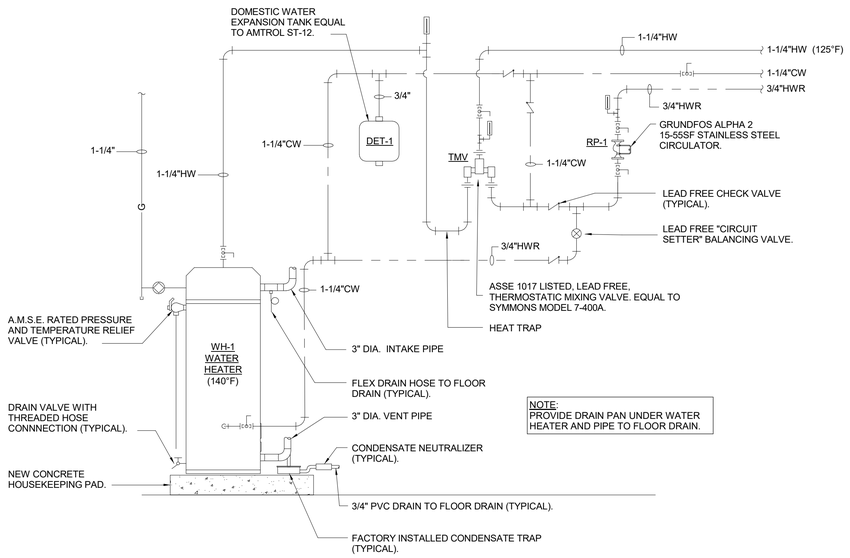

1 DOMESTIC HOT WATER SYSTEM PIPING SCHEMATIC
NOT TO SCALE

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PLUMBING DETAILS

DRAWING No.

P 301

PLUMBING FIXTURE SCHEDULE

GENERAL NOTES:

PIPE SIZES SHOWN ARE FOR SUPPLY AND DRAINAGE ONLY. PROVIDE SUPPLIES WITH SCREWDRIVER STOPS, WALL ESCUTCHEON, 17-GAUAGE SEMICAST "P" TRAPS WITH CLEANOUT PLUGS, PLUMBING FIXTURE SUPPORTS AND NECESSARY FITTINGS TO MAKE FINAL CONNETION. REFER TO SPECIFICATIONS FOR EQUIVALENTS. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING ELEVATION OF PLUMBING FIXTURES, CLEARANCE BELOW SINKS AND LAVATORIES AND OFFSET DRAIN LOCATIONS. OFFSET DRAINS SHALL BE OFFSET LEFT REAR OR OFFSET RIGHT REAR. COORDINATE MOUNTING HEIGHTS FOR CHILDREN AND ADULT FIXTURES WITH ARCHITECTURAL DRAWINGS.

TAG	TYPE	ADA	MANUFACTURER	MODEL	COLD	HOT	SAN	VENT	DESCRIPTION	REMARKS
LAV-1	LAVATORY	Yes	AMERICAN STANDARD	LUCERNE 0355.012	1/2"	1/2"	1 1/2"	1 1/2"	WALL-HUNG, VITREOUS CHINA, FRONT OVERFLOW, D-SHAPE BOWL, SELF-DRAINING DECK WITH CONTOURED BACK AND SIDE SPLASH SHIELDS, FAUCET LEDGE, 20"X18" NOMINAL DIMENSIONS. SYMMONS #S-20-2-G-1.5-W SINGLE LEVER FAUCET WITH GRID DRAIN ASSEMBLY AND 6" HANDLE. TRUEBRO #102-EZ INSULATION KIT.	PROVIDE LEONARD #170A-LF-BP THERMOSTATIC MIXING-VALVE UNDER LAVATORY. PIPE TEMPERED HOT (110DEG F.) AND COLD WATER TO FAUCET.
MS-1	JANITOR SINK	No	ACORN	TSH-24	3/4"	3/4"	3"	2"	TERRAZZO-WARE ONE-PIECE PRECAST 24"X24" MOP SINK WITH 12" SHOLDERS, STAINLESS STEEL CAPS, 3" RUBBER DRAIN GASEKET. CHICAGO FAUCET #897-CP MANUAL WALL-MOUNT FAUCET WITH 8" BODY, VACUUM BREAKER SPOUT WITH PAIL HOOK AND WALL BRACE.	
MS-2	MOP SINK	No	ACORN	TRH-362406	3/4"	3/4"	3"	2"	TERRAZZO-WARE ONE-PIECE PRECAST 36"X24" MOP SINK WITH 6" SHOLDERS, STAINLESS STEEL CAPS, 3" RUBBER DRAIN GASEKET. CHICAGO FAUCET #897-CP MANUAL WALL-MOUNT FAUCET WITH 8" BODY, VACUUM BREAKER SPOUT WITH PAIL HOOK AND WALL BRACE.	
S-1	SCULLERY SINK	No	ELKAY	WNSF8230LR2	1/2"	1/2"	2"	2"	WELDBILT, 14 GAGUE TYPE 304 STAINLESS STEEL, 78"X27.5"X14", FLOOR MOUNT, DOUBLE COMPARTMENT SCULLERY SINK WITH 24" LEFT AND RIGHT DRAINBOARDS, 8" BACKSPLASH, CENTER DRAIN, AND TUBULAR LEGS. ELKAY #LK-24RT ROTARY LEVER OPERATED DRAIN FITTING WITH TAILPIECE. CHICAGO FAUCET#540-LDL9ABCP WALL-MOUNTED MANUAL SINK FAUCET WITH 8" BODY, 9.5" SWING SPOUT.	PIPE (2) 1 1/2" INDIRECT WASTE LINES FROM SINK TO FLOOR SINK.
SH-1	SHOWER	Yes	N/A	N/A	1/2"	1/2"	2"	1 1/2"	SYMMONS 9603-PLR PRESSURE BALANCING MIXING VALVE WITH HAND SHOWER, 36" ADA GRAB BAR AND 60" FLEXIBLE METAL HOSE, INTEGRAL SERVICE STOPS, 2.5 GPM FLOW RESTRICTOR.	
SH-2	SHOWER	No	ACORN	SBS-36-3F	1/2"	1/2"	2"	1 1/2"	TERRAZZO-WARE ONE-PIECE PRECAST 36"X36" SHOWER BASE WITH 4" HIGH THRESHOLD, 2" RUBBER DRAIN GASKET. SYMMONS S-9601-P PRESSURE BALANCED SHOWER VALVE WITH INTEGRAL VOLUME CONTROL, SHOWER HEAD, INTEGRAL SERVICE STOPS, 2.5 GPM FLOW RESTRICTOR.	
WC-1	WATER CLOSET	Yes	SLOAN	ST-2029	1"	0"	4"	2"	ELONGATED FLOOR MOUNTED, VITREOUS CHINA, ADA TOILET. CHURCH 295CT TOILET SEAT. SLOAN ROYAL 111-1.6 MANUAL FLUSH VALVE.	

PLUMBING DRAINAGE SPECIALTY SCHEDULE

TAG	TYPE	MANUFACTURER	MODEL	DESCRIPTION	REMARKS
FCO-1	FLOOR CLEANOUT	J. R. SMITH	#4032	CAST IRON CLEANOUT, WITH ROUND ADJUSTABLE NICKEL-BRONZE TOP (SQUARE TOP IN PORCELAIN TILED FLOORS) BRONZE PLUG AND VANDAL PROOF SCREWS.	
FCO-2	FLOOR CLEANOUT	J. R. SMITH	#4231M	CAST IRON CLEANOUT, WITH 6" ROUND EXTRA HEAVY DUTY DUCTILE IRON COVER, BRONZE PLUG AND VANDAL PROOF SCREWS.	
FD-1	FLOOR DRAIN	J. R. SMITH	#2005Y	CAST IRON BODY WITH FLASHING COLLAR, 6"DIA. ROUND (6' SQUARE IN PORCELAIN TILED FLOORS) NICKEL-BRONZE ADJUSTABLE STRAINER. VANDAL PROOF SCREWS. QUAD CLOSE TRAP SEAL. 2' PIPE SIZE UNLESS OTHERWISE INDICATED ON FLOOR PLANS.	
FD-2	FLOOR DRAIN	J. R. SMITH	#2131Y	CAST IRON DEEP BODY, AND FLASHING COLLAR 12" DIA. CAST IRON BAR GRATE. QUAD CLOSE TRAP SEAL. 2' PIPE SIZE UNLESS OTHERWISE INDICATED ON FLOOR PLANS.	
FS-1	FLOOR SINK	J. R. SMITH	#3004	10"DEEP 14 GAUGE TYPE 316 STAINLESS STEEL RECEPTOR BODY, 12"SQ. 1/2 GRATE, CAST TYPE 316 STAINLESS STEEL DOME BOTTOM STRAINER. 2" PIPE SIZE UNLESS OTHERWISE INDICATED ON FLOOR PLANS.	
RD-1	ROOF DRAIN	J. R. SMITH	#1015-CID-R-C	ADJUSTABLE ROOF DRAIN, CAST IRON BODY WITH COMBINED FLASHING CLAMP AND GRAVEL STOP, CAST IRON DOME, CAST IRON STANDPIPE, SUMP RECEIVER AND UNDER DECK CLAMP. DRAIN SIZE AS INDICATED ON ROOF PLAN.	
TD-1	TRENCH DRAIN	ABT, INC.	#2512AF	SEVEN (7) 39.19" (1 METER) PRECAST POLYESTER POLYMER CONCRETE PRESLOPED (0.6%) CHANNELS WITH RADIUS BOTTOM, #502 DUCTILE IRON GRATE (CLASS "C" LOADING), #510 ANCHOR FRAMES, #901 SERIES CATCH BASIN WITH FOUL AIR TRAP (ON END), #106 END PLATE AND #2224 INSTALLATION DEVICES.	
WM-1	WASHING MACHINE OUTLET BOX	OATEY	#38995	1/4 TURN BRASS HAMMER BALL VALVE, COPPER SWEAT CONNECTION, 2" DRAIN OPENING, 20GA STEEL BOX, 18GA STEEL FACEPLATE.	

PLUMBING WATER SPECIALTY SCHEDULE

TAG	TYPE	MANUFACTURER / ITEM DESCRIPTION	REMARKS
WH	WALL HYDRANT (EXTERIOR)	J.R. SMITH #5509QT-NB, NICKEL BRONZE BOX, BRONZE NICKEL PLATED NON-FREEZE QUARTER TURN WALL HYDRANT WITH INTEGRAL VACUUM BREAKER, 3/4"HOSE CONNECTION "T" HANDLE KEY.	SEE ARCHITECTURAL DOCUMENTS FOR WALL THICKNESS
WHA	WATER HAMMER ARRESTOR	SIOUX CHIEF "HYDRA-RESTER" SEAMLESS PRESSURE CHAMBER. SPUN CLOSED COPPER TUBE PERMANENTLY SEALED AT 60 PSIG. SHALL CONFORM TO ASME/ANSI STANDARDS AND PDI CERTIFIED. INSTALL PER FACTORY RECOMMENDATION. LIFETIME WARRANTY.	PROVIDE AT QUICK CLOSING VALVES.

GAS-FIRED WATER HEATER SCHEDULE

			GAS BURNER		WATER SIDE					ELECTRICAL DATA			
					STORAGE		PIPE DIAMETER						
ID	MANUFACTURER	MODEL NO.	INPUT (BTU/H)	FUEL TYPE	RECOVERY @ 100°F (GPH)	VOL (gal)	INLET	OUTLET	THERMAL EFFICIENCY	FLA	VOLT	PH	REMARKS
WH-1	A. O. SMITH	BTH-120	120,000	NG	138.0	60.0	1 1/2"	1 1/2"	95	5 A	120 V	1	

NOTES:
1. PROVIDE CONDENSATE NEUTRALIZATION KIT.

SUMP PUMP SCHEDULE

			PUMP		MOTOR				
ID	MANUFACTURER	MODEL NO.	FLOW (GPM)	HEAD (FT)	POWER (hp)	RPM	VOLT	PH	REMARKS
SP-1	ZOELLER	98	50.00	13.0	0.5	1725	120 V	1	

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(860)-310-9827

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
KAH	ALL		

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

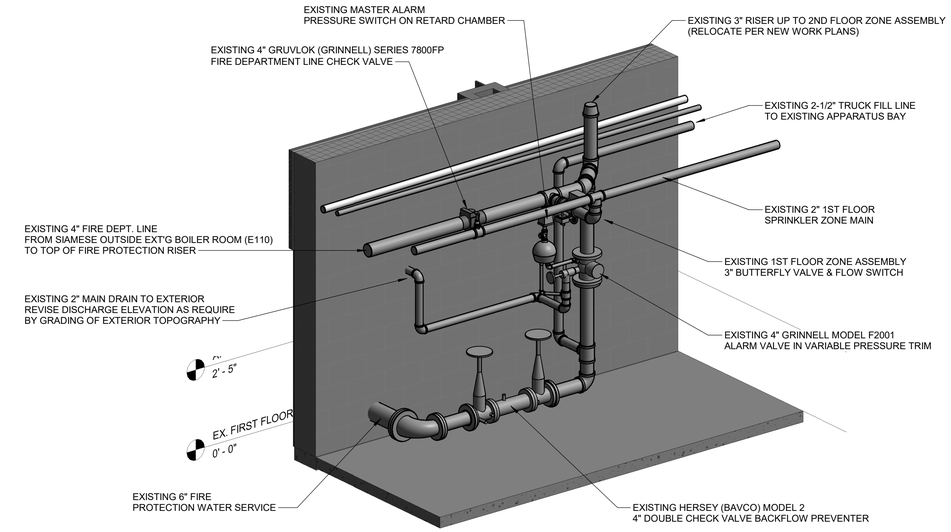
BID SET

SHEET TITLE

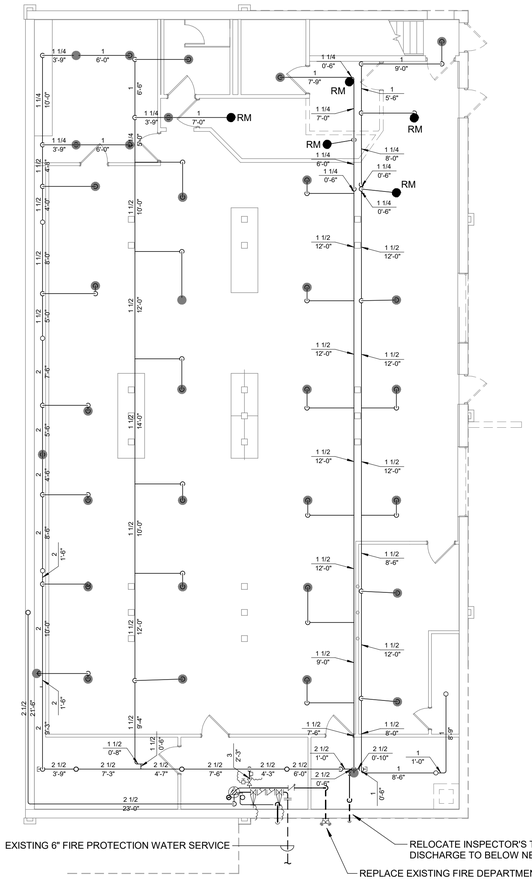
PLUMBING SCHEDULES

DRAWING No.

P 501

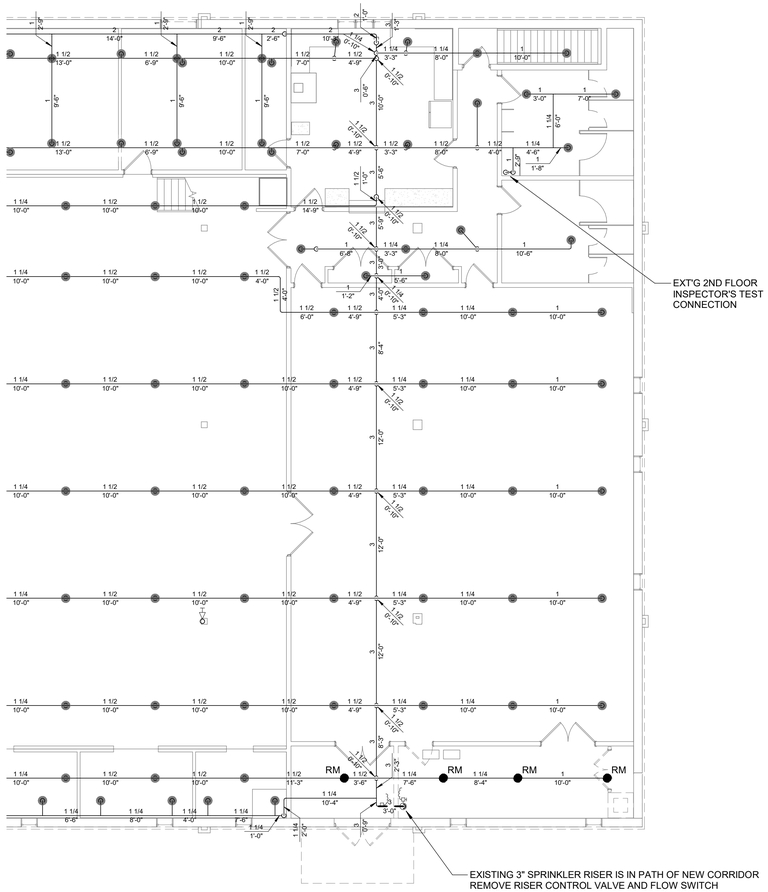


3 EXISTING FIRE PROTECTION RISER



1 FIRST FLOOR FIRE PROTECTION DEMOLITION PLAN

1/8" = 1'-0"



2 SECOND FLOOR FIRE PROTECTION DEMOLITION PLAN

1/8" = 1'-0"

EXISTING SPRINKLER SYSTEM LEGEND

1 1/4 6'-9"	EXISTING SPRINKLER PIPING WITH SIZE AND LENGTH
	OS&Y GATE VALVE W/ TAMPER SWITCH
	DOUBLE CHECK VALVE BACKFLOW PREVENTER
	ALARM CHECK VALVE
	CHECK VALVE
	PROJECTING TYPE FIRE DEPARTMENT CONNECTION
	BUTTERFLY VALVE W/ TAMPER SWITCH
	FLOW SWITCH
	INSPECTOR'S TEST VALVE
	FIRE DEPT. TRUCK FILL HOSE VALVE
	EXISTING PENDENT SPRINKLER
	EXISTING UPRIGHT SPRINKLER
RM	REMOVE EXISTING PENDENT SPRINKLER
	REMOVE EXISTING SPRINKLER PIPING

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GFL	GFL		

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94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CONTRACT

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GENERAL CONSTRUCTION

STATUS

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SHEET TITLE

FIRE PROTECTION DEMOLITION PLANS

DRAWING No.

FPD 101

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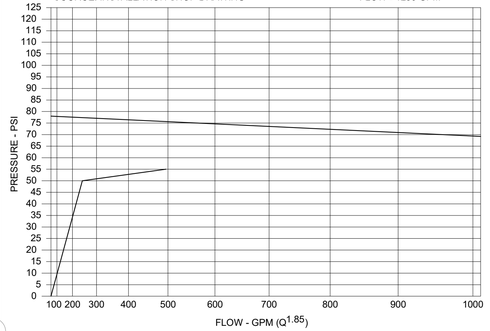
FIRE PROTECTION LEGEND

	FIRE PROTECTION PIPING (PROPOSED)
	EXISTING SPRINKLER SYSTEM PIPING
	PROJECTING TYPE FIRE DEPARTMENT CONNECTION
	CHECK VALVE
	BUTTERFLY VALVE W/ TAMPER SWITCH
	FLOW SWITCH
	EXISTING PENDENT SPRINKLER
	EXISTING UPRIGHT SPRINKLER
	RECESSED PENDENT SPRINKLER HEAD
	CONCEALED PENDENT SPRINKLER HEAD
	UPRIGHT SPRINKLER HEAD
	HORIZONTAL SIDEWALL SPRINKLER HEAD
	DRY HORIZONTAL SIDEWALL SPRINKLER HEAD
R	RELOCATE EXISTING SPRINKLER HEAD DROP WITH A PIPE ARMOVER

HYDRANT FLOW TEST: 1990
LOCATION: 52 & VINK DRIVE
SOURCE: INSTALLATION SHOP DRAWING

STATIC - 78 PSI
RESIDUAL - 65 PSI
FLOW - 1250 GPM



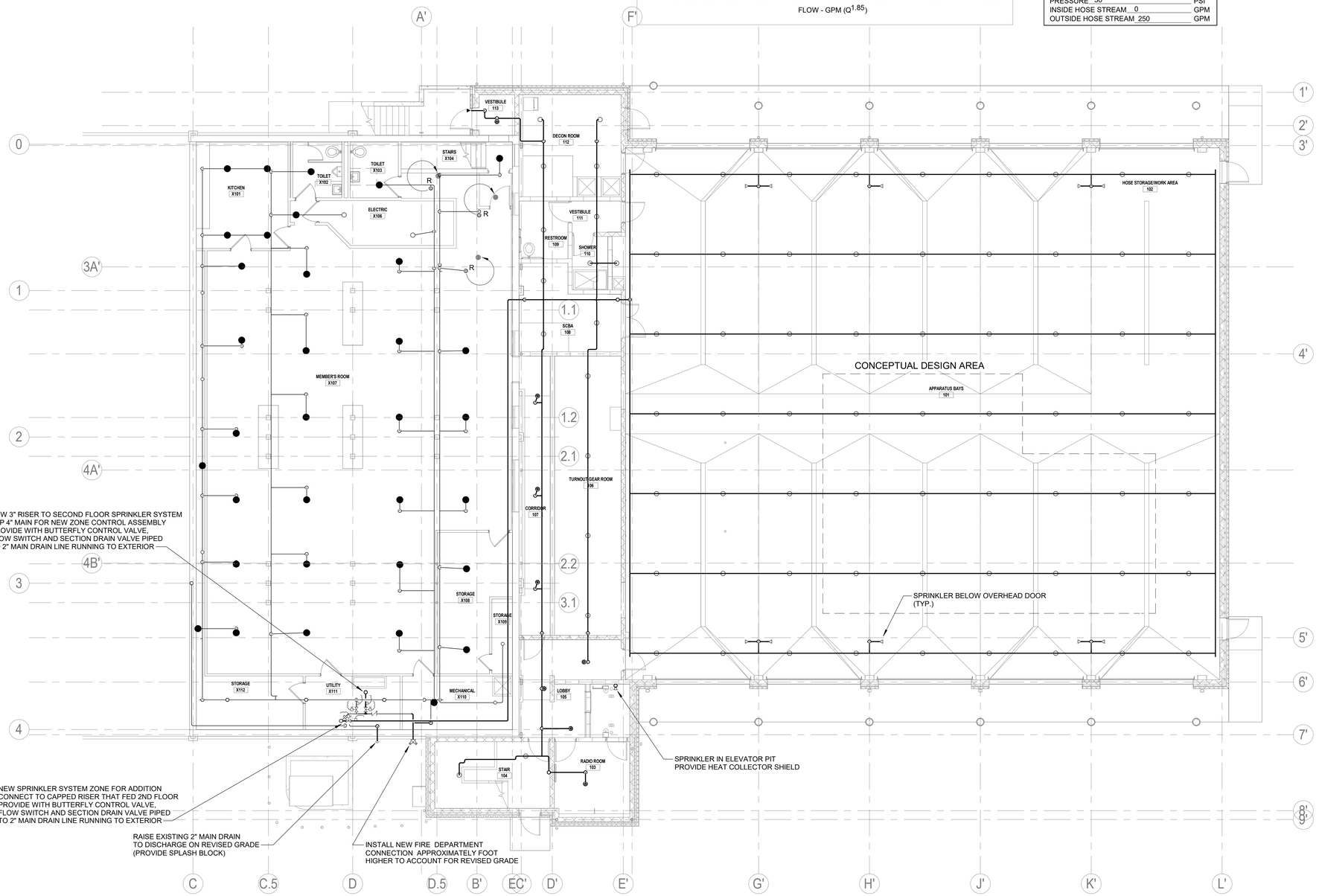
PRELIMINARY DESIGN

WET-PIPE HYDRAULIC DESIGN DATA

A.H.J. CARMEL FIRE DEPARTMENT
DESIGN STD. NFPA 13 - 2016
PIPE TYPES
MAINS 2 1/2" & LARGER SCH. 10, BLACK
BRANCHES 1"-2" SCHEDULE 40, BLACK
SPRINKLER TYPE QR ORIFICE (K=) 5.6

AREA LOCATION APPARATUS BAY
OF FLOWING SPRINKLERS 13
DENSITY 0.15 GPM/SQFT
REMOTE AREA 1560 SQFT (PER 11.2.3.2)

DEMAND @ BASE OF RISER
FLOW 245 GPM
PRESSURE 50 PSI
INSIDE HOSE STREAM 0 GPM
OUTSIDE HOSE STREAM 250 GPM



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

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MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
GFL	GFL		

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT
CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE, CARMEL HAMLET NY, 10512

CONTRACT
CONTRACT G GENERAL CONSTRUCTION

STATUS
BID SET

SHEET TITLE
FIRST FLOOR FIRE PROTECTION PLAN

DRAWING No.
FP 101

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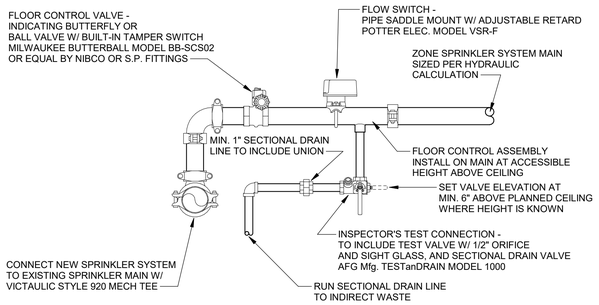
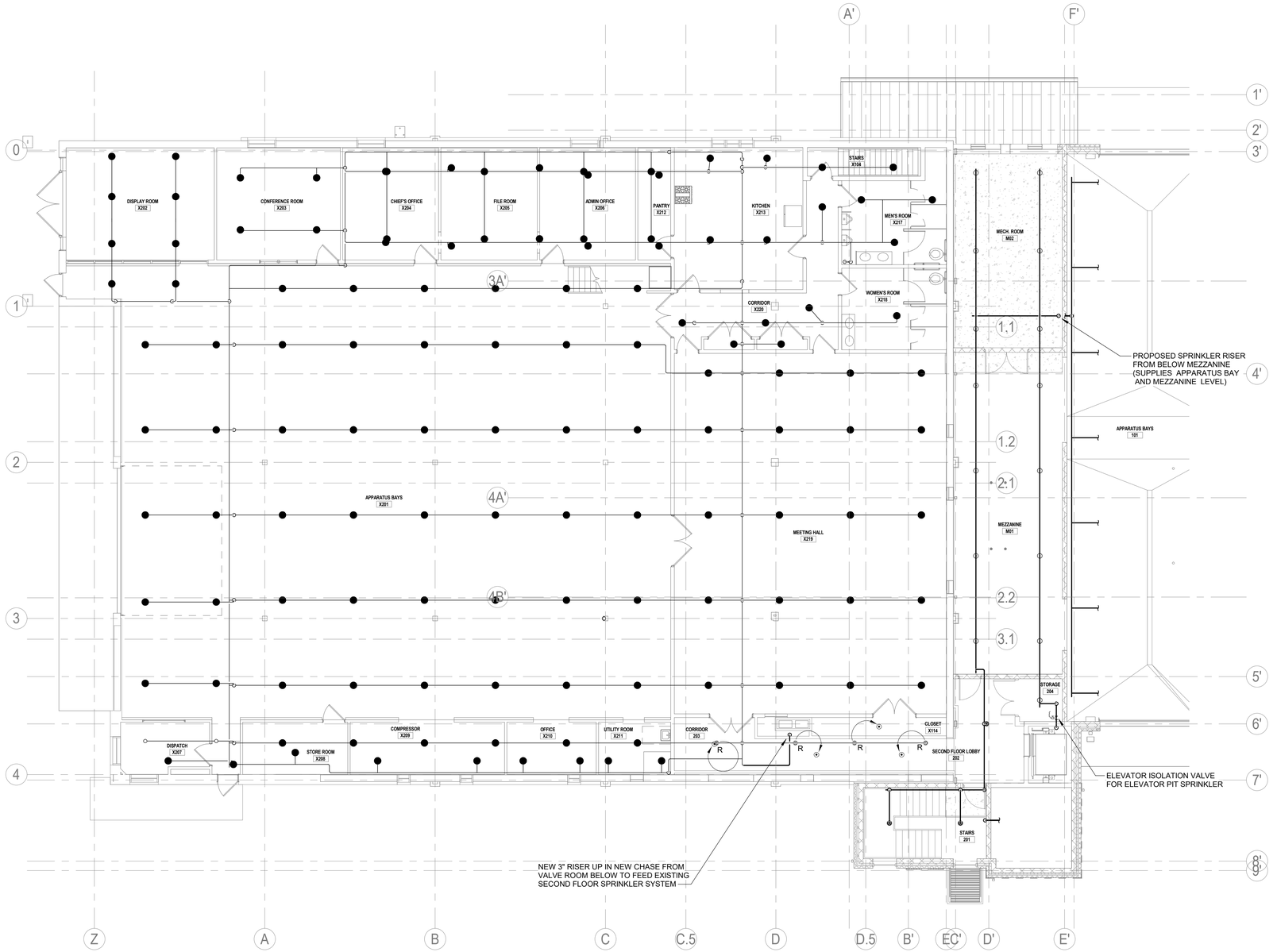


2 ZONE CONTROL ASSEMBLY DETAIL
NTS

FIRE PROTECTION LEGEND

	FIRE PROTECTION PIPING (PROPOSED)
	EXISTING SPRINKLER SYSTEM PIPING
	PROJECTING TYPE FIRE DEPARTMENT CONNECTION
	CHECK VALVE
	BUTTERFLY VALVE W/ TAMPER SWITCH
	FLOW SWITCH
	EXISTING PENDENT SPRINKLER
	EXISTING UPRIGHT SPRINKLER
	RECESSED PENDENT SPRINKLER HEAD
	CONCEALED PENDENT SPRINKLER HEAD
	UPRIGHT SPRINKLER HEAD
	HORIZONTAL SIDEWALL SPRINKLER HEAD
	DRY HORIZONTAL SIDEWALL SPRINKLER HEAD
R	RELOCATE EXISTING SPRINKLER HEAD DROP WITH A PIPE ARMOVER



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

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MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
GFL	GFL		

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

BID SET

SHEET TITLE

SECOND FLOOR FIRE PROTECTION PLAN

DRAWING No.

FP 102

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ABBREVIATIONS

AC	AIR COMPRESSOR
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AMB	AMBIENT
APROX	APPROXIMATE
AS	AIR SEPERATOR
ATC	AUTOMATIC TEMPERATURE CONTROL
AVG	AVERAGE
AWT	AVERAGE WATER TEMPERATURE
BAS	BUILDING AUTOMATION SYSTEM
BDD	BACK DRAFT DAMPER
BFW	BOILER FEED WATER
BHP	BRAKE HORSEPOWER
BMS	BULIDING MANAGEMENT SYSTEM
BTUH	BRITISH THERMAL UNITS PER HOUR
CC	COOLING COIL
CD	CONDENSATE DRAIN
CDR	CONDENSER WATER RETURN
CDS	CONDENSER WATER SUPPLY
CFM	CUBIC FEET PER MINUTE
CFP	CHEMICAL FEED PUMPS
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CLG	CEILING
CO	CLEANOUT
CO2	CARBON DIOXIDE
COMP	COMPRESSOR
COND	CONDENSER
CONV	CONVECTOR
CP	CONDENSATE PUMP
CPU	CENTRAL PROCESSING UNIT
CT	COOLING TOWER
CU	CONDENSING UNIT
CU FT	CUBIC FEET
CUH	CABINET UNIT HEATER
CV	COEFFICIENT, VALVE FLOW
CV	CONSTANT VOLUME
D	DEPTH
DB	DRY BULB TEMPERATURE
dB	DECIBEL
DEG or °	DEGREE
DIA or Ø	DIAMETER
DN	DOWN
DP	DIFFERENTIAL PRESSURE
DWG	DRAWING
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EBB	ELECTRIC BASEBOARD RADIATION
EDR	EQUIVALENT DIRECT RADIATION
EF	EXHAUST FAN
EFF	EFFICIENCY
ELEC	ELECTRICAL
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
EVAP	EVAPORATOR
EWB	ENTERING WET BULB TEMPERATURE
EWT	ENTERING WATER TEMPERATURE
F	FAHRENHEIT
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FD	FLOOR DRAIN
FD/SB	FIRE DAMPER WITH INTEGRAL SECURITY BARS
FM	FLOW METER
FOB	FLAT ON BOTTOM
FOF	FUEL OIL FILL
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOT	FLAT ON TOP
FOV	FUEL OIL VENT
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FS	FLOOR SINK
FSD	FIRE/SMOKE DAMPER
FT	FOOT OR FEET
G	GAS
GA	GAUGE
GAL	GALLONS
GND	GROUND
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GR	GRAINS
H	HEIGHT
H/C	HEATING/COOLING
HC	HEATING COIL
HD	HEAD
HP	HORSEPOWER
HPC	HIGH PRESSURE CONDENSATE
HPG	HIGH PRESSURE GAS
HPS	HIGH PRESSURE STEAM
HR	HOUR(S)
HT	HEAT
HTHW	HIGH TEMPERATURE HOT WATER

ABBREVIATIONS

HTHWR	HIGH TEMPERATURE HOT WATER RETURN
HTHWS	HIGH TEMPERATURE HOT WATER SUPPLY
HTR	HEATER
HUM	HUMIDIFIER
HV	HEATING/VENTILATION UNIT
HW	HOT WATER
HWR	HOT WATER RETURN
HWRP	HOT WATER RETURN PUMP
HWRR	HOT WATER REVERSE RETURN
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
HZ	FREQUENCY (CYC, PER SEC.)
ID	INSIDE DIAMETER
IN	INCHES
IN WG	INCHES OF WATER, GAUGE (PRESS.)
IW	INDIRECT WASTE
KEF	KITCHEN EXHAUST FAN
KW	KILOWATT
L	LENGTH
LA	LABORATORY COMPRESSED AIR
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LBS/HR	POUNDS PER HOUR
LF	LINEAR FEET
LPC	LOW PRESSURE CONDENSATE
LPS	LOW PRESSURE STEAM
LV	LABORATORY VACUUM
LWT	LEAVING WATER TEMPERATURE
MA	MIXED AIR
MAU	MAKE-UP AIR UNIT
MAX	MAXIMUM
MBH	BTU PER HOUR (THOUSAND)
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MFR	MANUFACTURER
MH	METAL HALIDE
MIN	MINIMUM
MPC	MEDIUM PRESSURE CONDENSATE
MPS	MEDIUM PRESSURE STEAM
N2	NITROGREN
N2O	NITROUS OXIDE
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
N.T.S.	NOT TO SCALE
N/A	NOT APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
OA	OUTSIDE AIR
PCD	PUMPED CONDENSATE DRAIN (COOLING)
PCR	PUMPED CONDENSATE RETURN (STEAM)
PD	PRESSURE DROP
PH or Ø	PHASE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
RA	RETURN AIR
RG	REFRIGERANT GAS
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RHG	REFRIGERANT HOT GAS
RL	REFRIGERANT LIQUID
RM	ROOM
RPD	REDUCED PRESSURE DEVICE
RPM	REVOLUTIONS PER MINUTE
RTU	ROOFTOP UNIT
S&R	SUPPLY AND RETURN
SA	SUPPLY AIR
SCP	STEAM CONDENSATE PUMP
SD	SMOKE DAMPER
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
T'STAT	THERMOSTAT
TD	TEMPERATURE DIFFERENCE
TEMP	TEMPERATURE
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UH	UNIT HEATER
V	VOLTAGE
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VIF	VERIFY IN FIELD
VOL	VOLUME
W	WATT
W	WIDTH
WB	WET BULB TEMPERATURE
WP	WEATHERPROOF
WPD	WATER PRESSURE DROP
WWM	WELDED WIRE MESH

HVAC SYMBOLS

	RECTANGULAR, FLAT OVAL OR ROUND AIR DUCT
	AIR DUCT WITH ACOUSTICAL LINING
	SUPPLY AIR DUCT UP
	SUPPLY AIR DUCT DOWN
	RETURN AIR DUCT UP
	RETURN AIR DUCT DOWN
	EXHAUST AIR DUCT UP
	EXHAUST AIR DUCT DOWN
	TURNING VANES
AD / AD	ACCESS DOOR
	FLEXIBLE DUCT CONNECTION
	CEILING SUPPLY DIFFUSERS
	CEILING RETURN / EXHAUST GRILLE
	HARD DUCTED DIFFUSER OR GRILLE WITH FULL SIZE BOTTOM TAKE-OFF
	DIRECTION OF SUPPLY OR OUTDOOR AIRFLOW
	DIRECTION OF RETURN OR EXHAUST AIRFLOW
	DOOR UNDERCUT
BDD	BACK DRAFT DAMPER
VD	VOLUME DAMPER
FD	FIRE DAMPER
FD/SB	FIRE DAMPER WITH INTEGRAL SECURITY BARS
FS	FIRE/SMOKE DAMPER
SD	SMOKE DAMPER SYSTEM AND ASSOCIATED DEVICES PER SPECIFICATIONS AND MEP DETAILS
M	MOTORIZED DAMPER
H	HUMIDIFIER TUBE/PANEL
XXX	SUPPLY PIPING, REFER TO ABBREVIATION LIST FOR DESIGNATION (XXX)
XXX	RETURN PIPING, REFER TO ABBREVIATION LIST FOR DESIGNATION (XXX)
DS	DUCT SMOKE DETECTOR WITH REMOTE INDICATING LIGHT AND TEST SWITCH
SP	DUCT STATIC PRESSURE SENSOR
DP	DIFFERENTIAL PRESSURE SENSOR
VFD	VARIABLE FREQUENCY DRIVE
AFS	AIR FLOW STATION
SA	DUCT SOUND ATTENUATOR
T	ROOM THERMOSTAT
T	ROOM TEMPERATURE SENSOR
CO	CARBON MONOXIDE SENSOR
C	CARBON DIOXIDE SENSOR
H	HUMIDISTAT
	FINNED TUBE RADIATION
FM	FLOW METER
RC	VRF REMOTE CONTROL

FITTINGS AND VALVES

	BACKFLOW PREVENTOR
	STRAINER OR STRAINER WITH BLOW-DOWN VALVE HOSE END, CAP AND CHAIN
	PIPE ELBOW UP OR PIPE TEE UP
	PIPE ELBOW DOWN
	PIPE TEE DOWN
	TAKEOFF FROM BOTTOM OF MAIN PIPE
	TAKEOFF FROM TOP OF MAIN PIPE
	IN-LINE EXPANSION COMPENSATOR
	PIPE ANCHOR
	COMPANION FLANGE
	PIPE CAP OR CAPPED END OF PIPE
	UNION
	PIPE GUIDES
	PUMP
	DIRECTION OF FLUID FLOW
	VALVE ON RISER
	VALVE ON DROP
	AIR VENT
	FLOW SENSOR
	2-WAY CONTROL VALVE
	3-WAY CONTROL VALVE
	BALL VALVE
	CALIBRATED BALANCING VALVE
	SHUT-OFF VALVE (SEE SPECIFICATIONS FOR APPLICATION TYPE)
	BUTTERFLY VALVE
	CHECK VALVE
	GLOBE VALVE
	GATE VALVE
	PRESSURE REDUCING VALVE
	TRIPLE DUTY VALVE
	OS&Y VALVE
	DRAIN VALVE WITH HOSE END, CAP & CHAIN OR WALL HYDRANT / HOSE BIBB
M	MOTORIZED BUTTERFLY VALVE
	PRESSURE RELIEF SAFETY VALVE
A	AQUASTAT
T	TEMPERATURE SENSOR WITH SEPARABLE SOCKET IN IMMERSIBLE WELL
T	TEMPERATURE GAUGE WITH SEPARABLE SOCKET IN IMMERSIBLE WELL
	THERMOMETER WITH SEPARABLE SOCKET IN IMMERSIBLE WELL
P	PRESSURE GAUGE
P	PRESSURE SENSOR WITH SYPHON (STEAM)
	FLEXIBLE CONNECTOR

DUCT SIZING	
20x12	RECTANGULAR DUCT
20/12	FLAT OVAL DUCT
20"ø	ROUND DUCT

HVAC GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH CURRENT APPLICABLE CODES, ORDINANCES, THE REGULATORY AGENCIES HAVING JURISDICTION AND THE SPECIFICATIONS. THE SPECIFICATIONS MAY EXCEED THE REQUIREMENTS OF THE CODE, IN WHICH CASE, THE SPECIFICATION MUST BE FOLLOWED.
2. THE INTENT OF THESE DOCUMENTS IS FOR THE MEP TRADES TO FURNISH AND INSTALL COMPLETE MECHANICAL AND ELECTRICAL SYSTEMS. THE SPECIFIED HVAC SYSTEM SHALL BE COMPLETE IN ALL RESPECTS; OPERATIONAL, TESTED, ADJUSTED, APPROVED BY THE AUTHORITIES HAVING JURISDICTION AND READY FOR BENEFICIAL USE BY THE OWNER.
3. THE TRADES SHALL OBTAIN AND REVIEW ALL CONTRACT DOCUMENTS BEFORE SUBMITTING A BID. INFORMATION IS PROVIDED ON THE VARIOUS DRAWINGS, SCHEDULES, SPECIFICATIONS AND ALL OF THE VARIOUS DOCUMENTS IN THE BIDDING PACKAGE. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND FORM A TOTAL PROJECT DESIGN AND INFORMATION SOURCE FOR CONSTRUCTION PURPOSES.
4. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. COORDINATE LOCATIONS OF EQUIPMENT WITH OTHER TRADES BEFORE AND DURING CONSTRUCTION. ANY MODIFICATION TO THE EQUIPMENT LAYOUT, REQUIRED FOR INSTALLATION, IS TO BE PERFORMED UNDER THE CONTRACT AGREEMENT, AT NO ADDITIONAL COST. REFER TOP DETAILS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. THE CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH THE PROJECT DOCUMENTS OF ALL TRADES. THE DRAWINGS ARE DIAGRAMMATIC AND SHOW THE GENERAL ARRANGEMENT OF EQUIPMENT AND PIPING. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF EQUIPMENT AND PIPING INSTALLATION WITH ALL THE TRADES BEFORE COMMENCING WORK.
6. EQUIPMENT SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS, WHEN EQUIPMENT MUST BE LOCATED ABOVE AN INACCESSIBLE CEILING (GYP BOARD OR EQUIVALENT), OR BEHIND A WALL, AN APPROPRIATE ACCESS DOOR SHALL BE PROVIDED. IF AN ACCESS DOOR IS REQUIRED, IT SHALL BE OF A RATING APPROPRIATE FOR THE WALL/CEILING IN WHICH IT IS TO BE INSTALLED. THE CONTRACTOR SHALL COORDINATE LOCATIONS OF ACCESS PANELS FOR ALL VALVES AND DEVICES, REQUIRING ACCESS, WITH THE ARCHITECT, PRIOR TO INSTALLATION OF SUCH DEVICES OR OTHER APPURTENANCES.
7. WHERE A CONFLICT OCCURS BETWEEN THE DOCUMENTS, IT SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. CARRY AS PART OF THE BID THE LARGER QUANTITY AND/OR MORE EXPENSIVE ITEM(S).
8. THIS CONTRACT SHALL INCLUDE ALL THE NECESSARY PIPING, FITTINGS, TRANSITIONS ETC. AS REQUIRED TO INSTALL PIPING AND EQUIPMENT, AND TO AVOID ANY CONFLICTS WITH OTHER TRADES AND THE BUILDING STRUCTURE. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ASSUMPTIONS, OMISSIONS OR ERRORS HE MAKES AS A RESULT OF HIS FAILURE TO COORDINATE WITH OTHER TRADES OR BECOME FULLY FAMILIAR WITH THE PROJECT DOCUMENTS OF ALL TRADES.
9. DO NOT INSTALL ANY PIPING OVER ELECTRICAL PANELS, TRANSFORMERS, SPECIAL EQUIPMENT, OR THROUGH ELECTRICAL ROOMS, DATA ROOMS, ELEVATOR MACHINE ROOM, STAIRWELL OR STAIRWELL WALLS THAT ARE NOT ASSOCIATED WITH OR SERVE THE RESPECTIVE ROOMS. COORDINATE THE LOCATION OF ELECTRICAL EQUIPMENT IN THE FIELD AND ADJUST AS NECESSARY.
10. INSTALL SMOKE DETECTORS IN BOTH SUPPLY & RETURN AIR DUCTS FOR AIR HANDLING EQUIPMENT 2,000 CFM AND GREATER.
11. PROVIDE SMOKE DAMPERS IN BOTH SUPPLY & RETURN AIR DUCTS FOR AIR HANDLING EQUIPMENT 15,000 CFM AND GREATER.
12. PROVIDE SMOKE DAMPERS AND SMOKE DETECTORS AT DUCT PENETRATIONS OF SMOKE-BRRIERS, AND AT ELEVATOR SHAFT VENTS PER CODE REQUIREMENTS.
13. PROVIDE FIRE DAMPERS AT DUCT PENETRATIONS OF FIRE-RATED CONSTRUCTION, INCLUDING WALLS, SHAFTS AND FLOOR PENETRATIONS. COORDINATE WITH ARCHITECTURAL DRAWINGS.
14. PROVIDE AN AUTOMATIC TEMPERATURE CONTROL SYSTEM COMPLETE IN ALL REGARDS. ALL ZONES, VAV'S AND SYSTEM SHALL BE THERMOSTATICALLY CONTROLLED. REVIEW THE PLANS AND SPECIFICATIONS OF ALL MEP TRADES FOR A COMPLETE SCOPE OF THE WORK.
15. PIPING SHALL BE SUPPORTED FROM STRUCTURE ABOVE. TO MAXIMIZE HEAD ROOM, INSTALL PIPING TIGHT TO BOTTOM OF BEAMS WHEN RUNNING PERPENDICULAR TO BEAM; INSTALL PIPING TIGHT TO FLOOR SLAB WHEN RUNNING PARALLEL TO BEAM; PROVIDE ALL NECESSARY FITTINGS AND TRANSITIONS.
16. PROVIDE THROTTLING VALVES AND SHUT-OFF VALVES AS INDICATED IN SPECIFICATIONS IN ADDITION TO THOSE INDICATED ON THE DOCUMENTS.
17. INSTALL ALL EQUIPMENT VALVES AS REQUIRED BY MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS AND AS DETAILED.
18. PROVIDE AIR VENTS AT ALL HIGH POINTS AND DRAINS AT ALL LOW POINTS.
19. PROVIDE PRESSURE RELIEF DOORS FOR AIR SYSTEMS, PER THE SPECIFICATIONS.
20. PROVIDE MOTORIZED DAMPERS AT ALL PERMANENT OPENINGS (EXHAUST, SUPPLY, RELIEF, O.A. INTAKES, MAKE-UP AIR, SMOKE VENTS, ETC.) EXCEPT DRYER, KITCHEN, AND FUME EXHAUST AND PROVIDE A MEANS TO CONTROL THE DAMPER OPERATION.
21. ALL SUPPLY RECTANGULAR 90° ELBOWS SHALL HAVE TURNING VANES.
22. PROVIDE DUCT TAKE-OFF TYPES AND VOLUME DAMPERS PER THE SPECIFICATIONS AND DUCT TAKE-OFF DETAILS ON DRAWINGS. TAKE-OFFS SHOWN ON FLOOR PLANS DO NOT REPRESENT THE SPECIFIC TYPE OF TAKE-OFF REQUIRED; CONSULT THE DETAILS AND SPECIFICATIONS.
23. PROVIDE VOLUME DAMPERS ON ALL SUPPLY, EXHAUST, AND RETURN BRANCH DUCTS.
24. COORDINATE AND VERIFY LOCATIONS OF ALL ITEMS REQUIRING ACCESS WITH ARCHITECT IN FIELD., INCLUDING VALVES, VOLUME DAMPERS, FIRE DAMPERS, ETC.
25. ALL EQUIPMENT LOCATED ON THE ROOF THAT REQUIRES SERVICING SHALL BE LOCATED A MINIMUM 10'-0" FROM EDGE OF THE ROOF.
26. ALL EXPOSED DUCTWORK SHALL BE FLAT, OVAL, OR ROUND. COORDINATE WITH ARCHITECT'S CEILING PLANS AND IDENTIFY ON DUCTWORK SHOP DRAWINGS.
27. ALL DUCTWORK AND PIPING CROSSING SEISMIC JOINTS SHALL ACCOMMODATE DIFFERENTIAL MOTION. REFER TO DETAILS AND SPECIFICATIONS FOR MORE INFORMATION. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR LOCATIONS.
28. ALL THERMOSTATS LOCATED ON OUTSIDE WALL SHALL HAVE INSULATED PAD BEHIND.
29. ALL MOTORIZED DAMPERS SHALL BE WIRED BY ATC CONTRACTOR, COORDINATE VOLTAGE REQUIREMENTS WITH EQUIPMENT.
30. ALL TOILETS & BATHROOMS SHALL HAVE 3/4" UNDERCUT DOORS.
31. ALL LOUVERS ARE SELECTED AND SCHEDULED BY ARCHITECT. LOUVER TAGS ARE SHOWN FOR COORDINATION ONLY.
32. SEISMICALLY SUPPORT THE EQUIPMENT AS REQUIRED BY CODE, THE AUTHORITY HAVING JURISDICTION, AND/OR AS SPECIFIED. SUBMIT ENGINEERED INSTALLATION DETAILS PER THE SPECIFICATIONS. THE CONTRACTOR'S SEISMIC ENGINEER SHALL REVIEW THE INSTALLATION AND PROVIDE A DETAILED REPORT FOR THE RECORD.
33. PROVIDE PIPE EXPANSION COMPENSATION FOR THE VARIOUS PIPING SYSTEMS. SUBMIT ENGINEERED DETAILS FOR APPROVAL AND VERIFY INSTALLATION IS IN ACCORDANCE WITH THE CODE. THE CONTRACTOR'S CONSULTING ENGINEER SHALL REVIEW THE INSTALLATION AND PROVIDE A REPORT OF THE FINDINGS.

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CONSULTANTS:

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Mystic, CT 06355
(860)-310-9827

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
KAH	ALL		

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

BID SET

SHEET TITLE

MECHANICAL GENERAL INFORMATION

DRAWING No.

M 001

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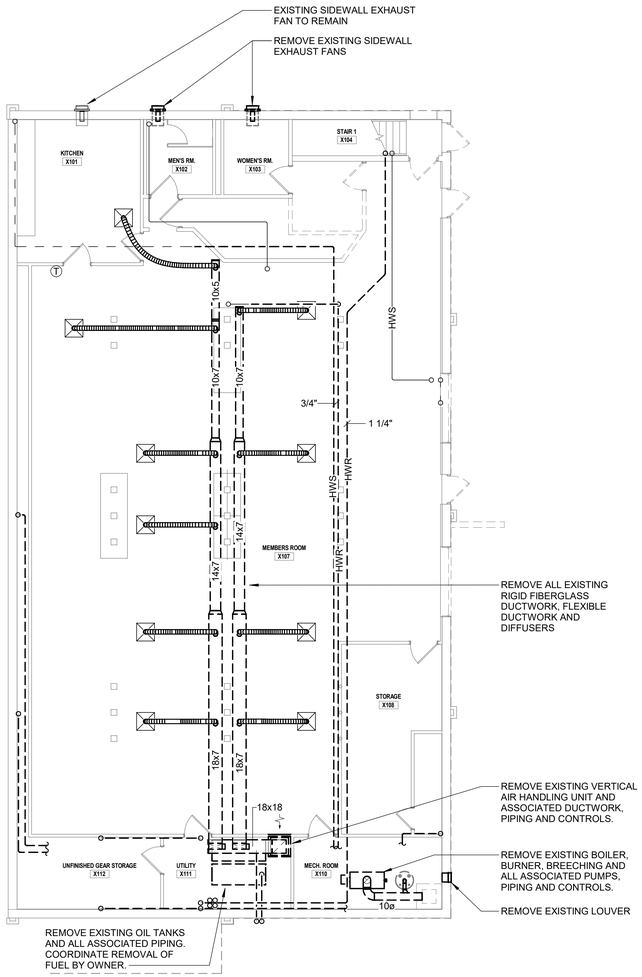
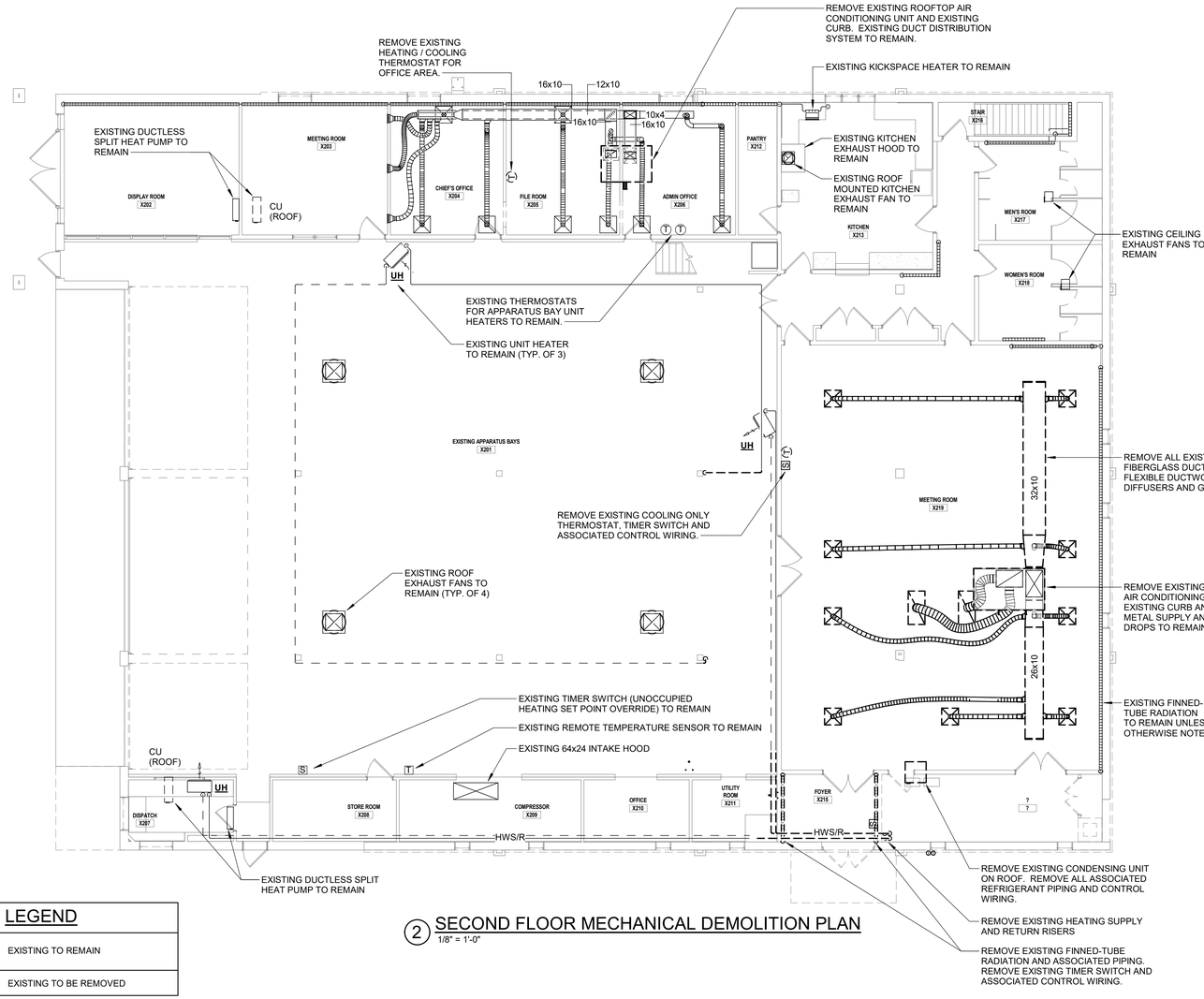
3/22/2021 3:40:36 PM



1 FIRST FLOOR MECHANICAL DEMOLITION PLAN
1/8" = 1'-0"

LEGEND	
	EXISTING TO REMAIN
	EXISTING TO BE REMOVED



2 SECOND FLOOR MECHANICAL DEMOLITION PLAN
1/8" = 1'-0"

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MARK	DATE	DESCRIPTION

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PROJECT No: CARM1902	DATE: 3/22/2021	SCALE: AS SHOWN	

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

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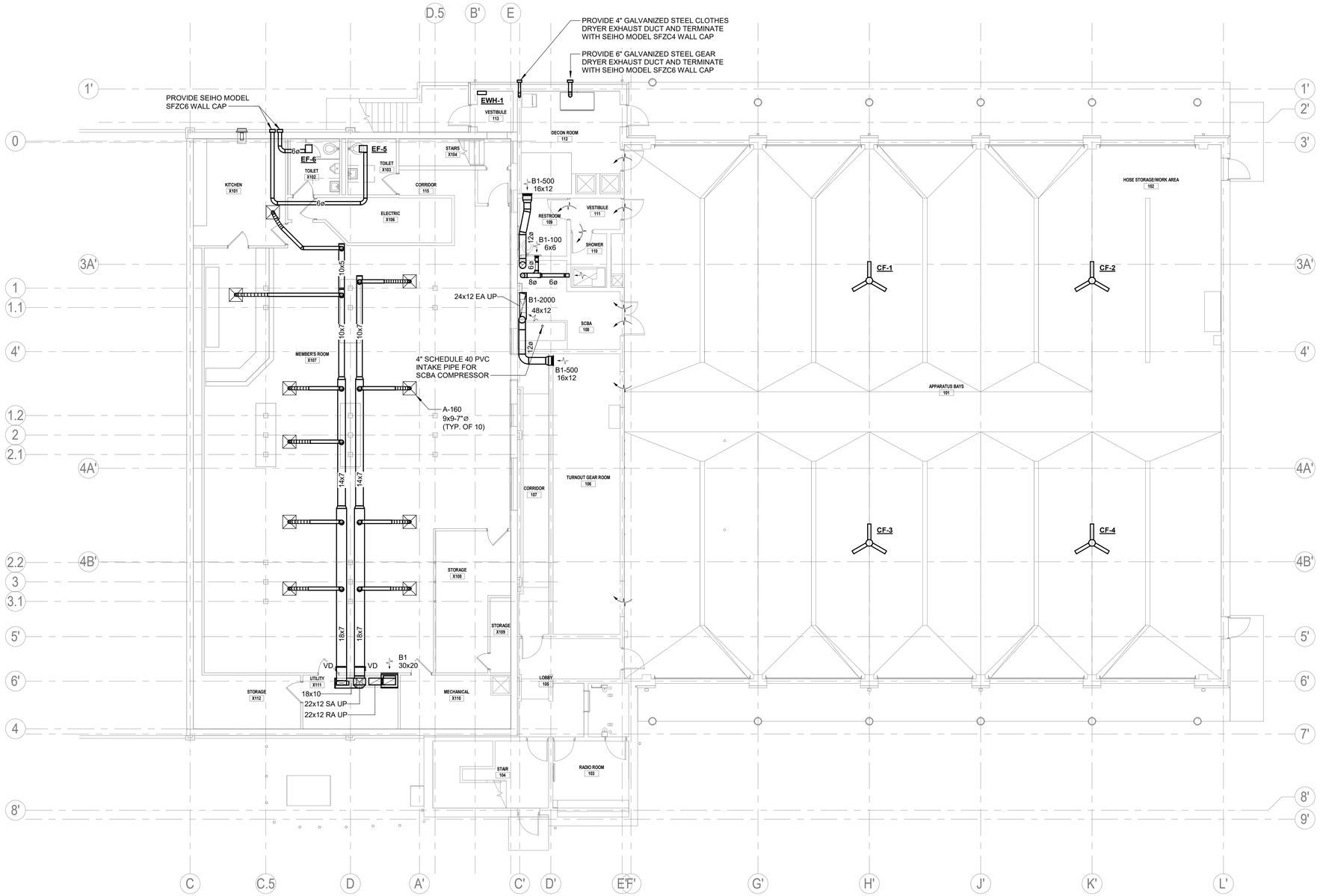
SHEET TITLE

MECHANICAL DEMOLITION PLANS

DRAWING No.

MD 101



1 FIRST FLOOR MECHANICAL DUCT PLAN
1/8" = 1'-0"

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CARMEL FIRE DEPARTMENT INC.

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CONTRACT

**CONTRACT G
GENERAL CONSTRUCTION**

STATUS

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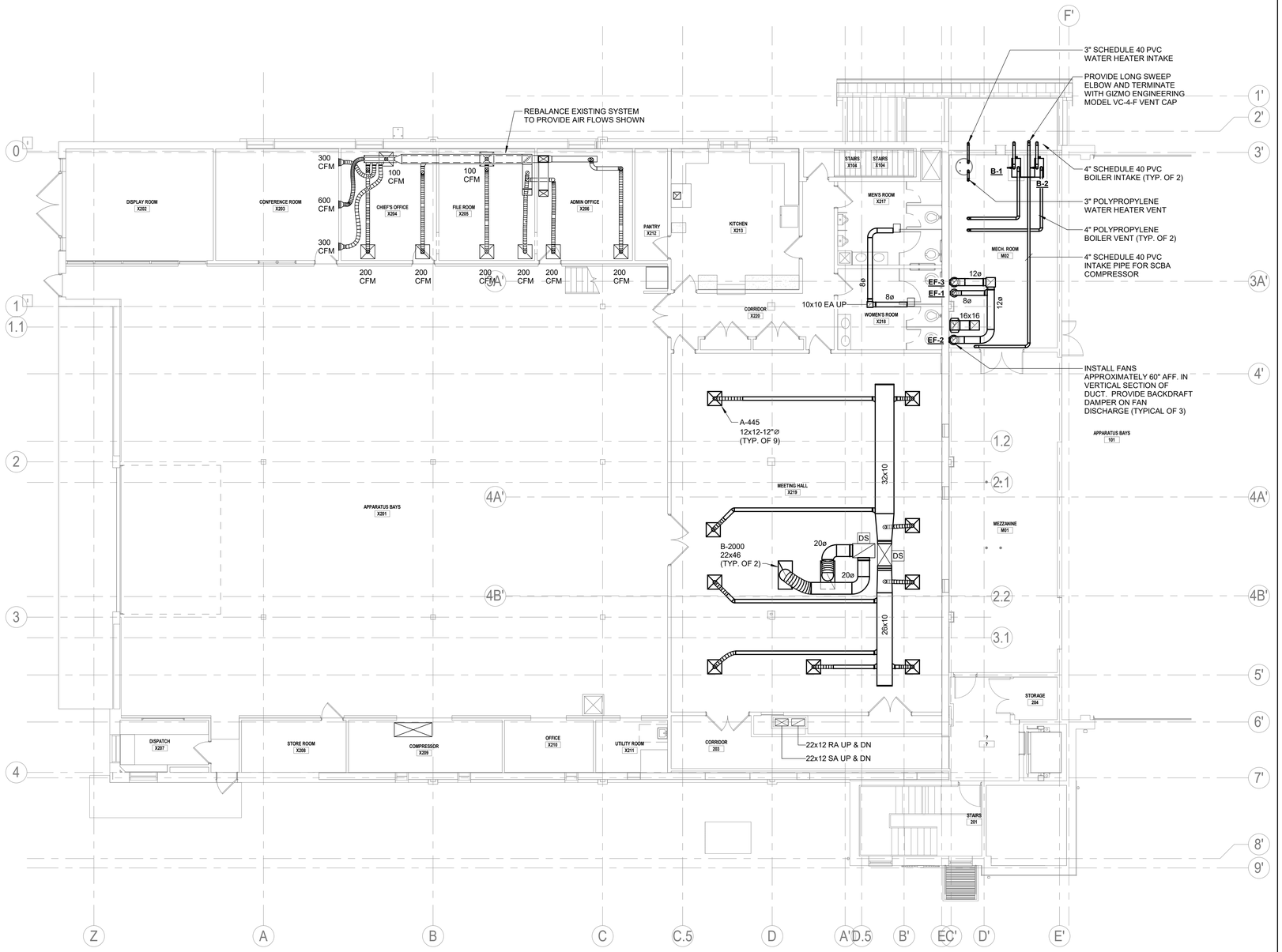
**FIRST FLOOR
MECHANICAL DUCT PLAN**

DRAWING No.

M 101



1 SECOND FLOOR MECHANICAL DUCT PLAN
1/8" = 1'-0"

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SECOND FLOOR MECHANICAL DUCT PLAN

DRAWING No.

M 102

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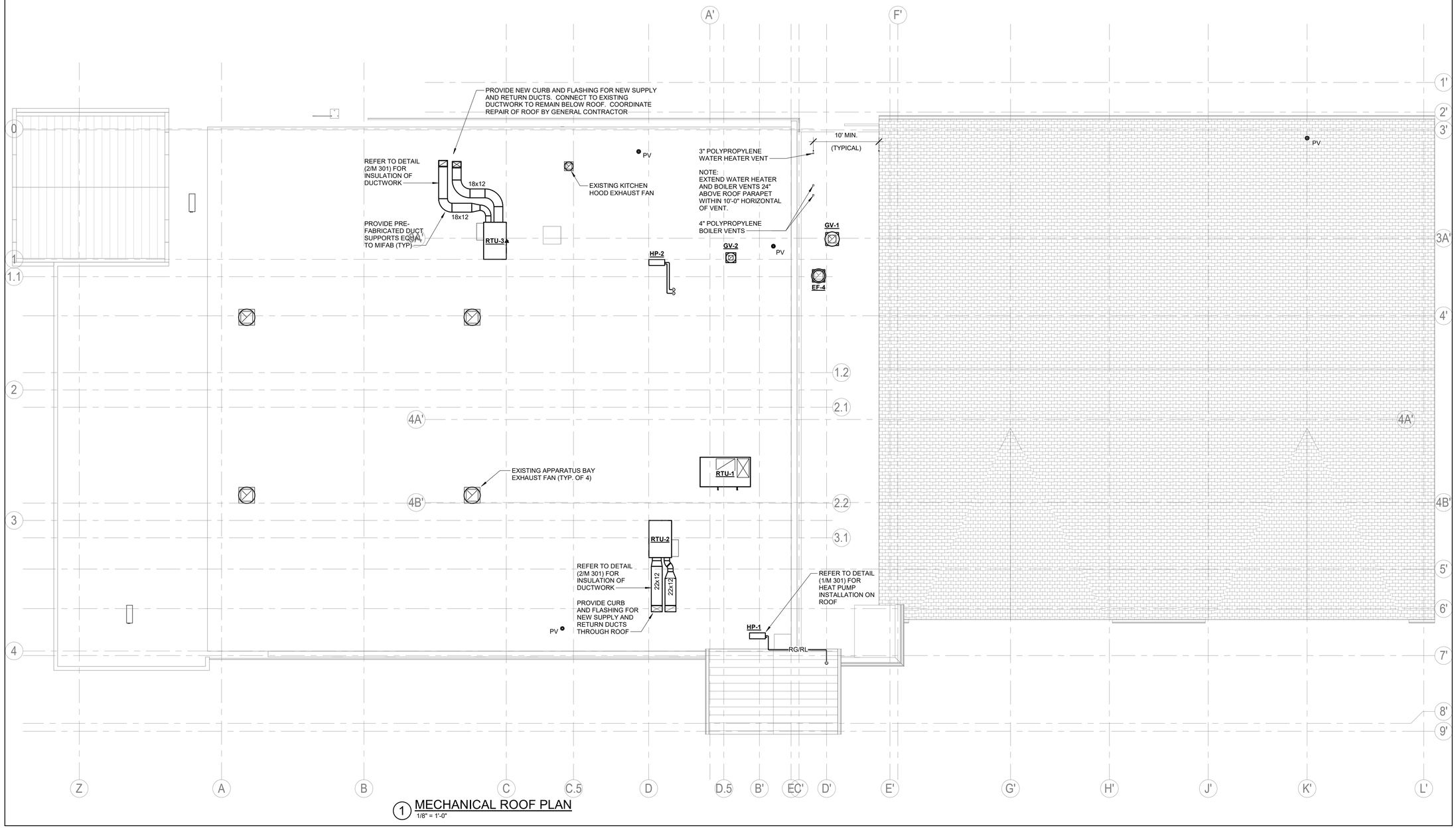

1 MECHANICAL ROOF PLAN
1/8" = 1'-0"

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SHEET TITLE

MECHANICAL ROOF PLAN

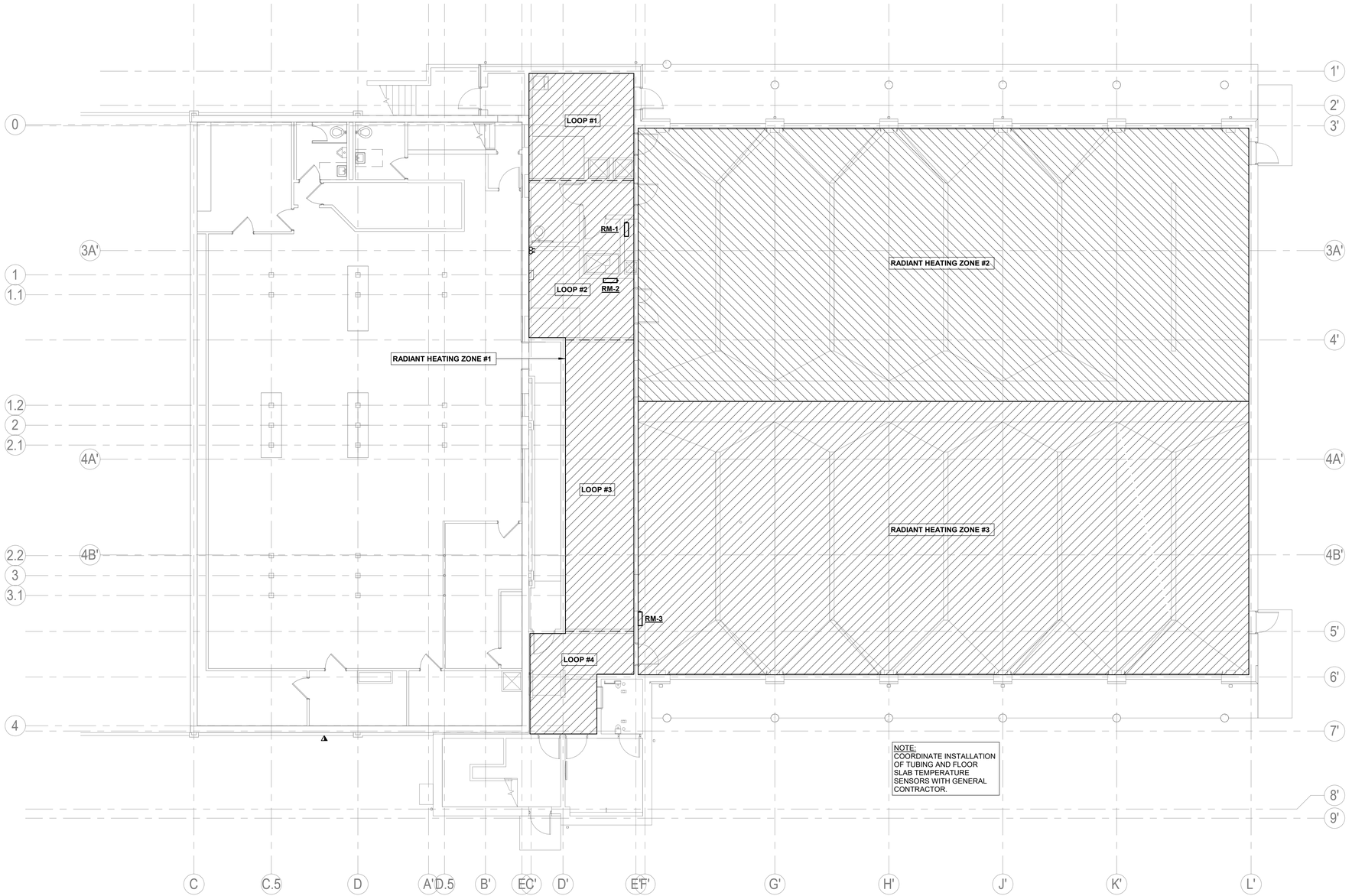
DRAWING No.

M 103

RADIANT MANIFOLD SCHEDULE

TAG	MANUFACTURER	MODEL	CAPACITY / BTUH	NO. LOOPS	TUBING			FLOW			
					SPACING	SIZE	MAX. LENGTH	GPM	WPD FT H2O	EWT DEG. F	WTD DEG. F
RM-1	WATTS RADIANT	RADIANT PEX+	41,391	4	12"	3/4"	500' - 0"	4.5	4.7	104.9	20
RM-2	WATTS RADIANT	RADIANT PEX+	108,000	8	12"	3/4"	500' - 0"	11.7	10.1	105.1	20
RM-3	WATTS RADIANT	RADIANT PEX+	108,000	8	12"	3/4"	500' - 0"	11.7	10.1	105.1	20

NOTES:
1. BASIS OF DESIGN: WATTS RADIANT "RADIANT PEX+".
2. PROVIDE STAINLESS STEEL MANIFOLDS HOUSED IN SURFACE MOUNTED SATIN COATED STEEL (READY FOR FIELD PAINTING) MANIFOLD BOX WITH KEY LOCK.



1 FIRST FLOOR MECHANICAL RADIANT FLOOR PIPING PLAN
1/8" = 1'-0"

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MECHANICAL RADIANT FLOOR PIPING PLAN

DRAWING No.

M 200

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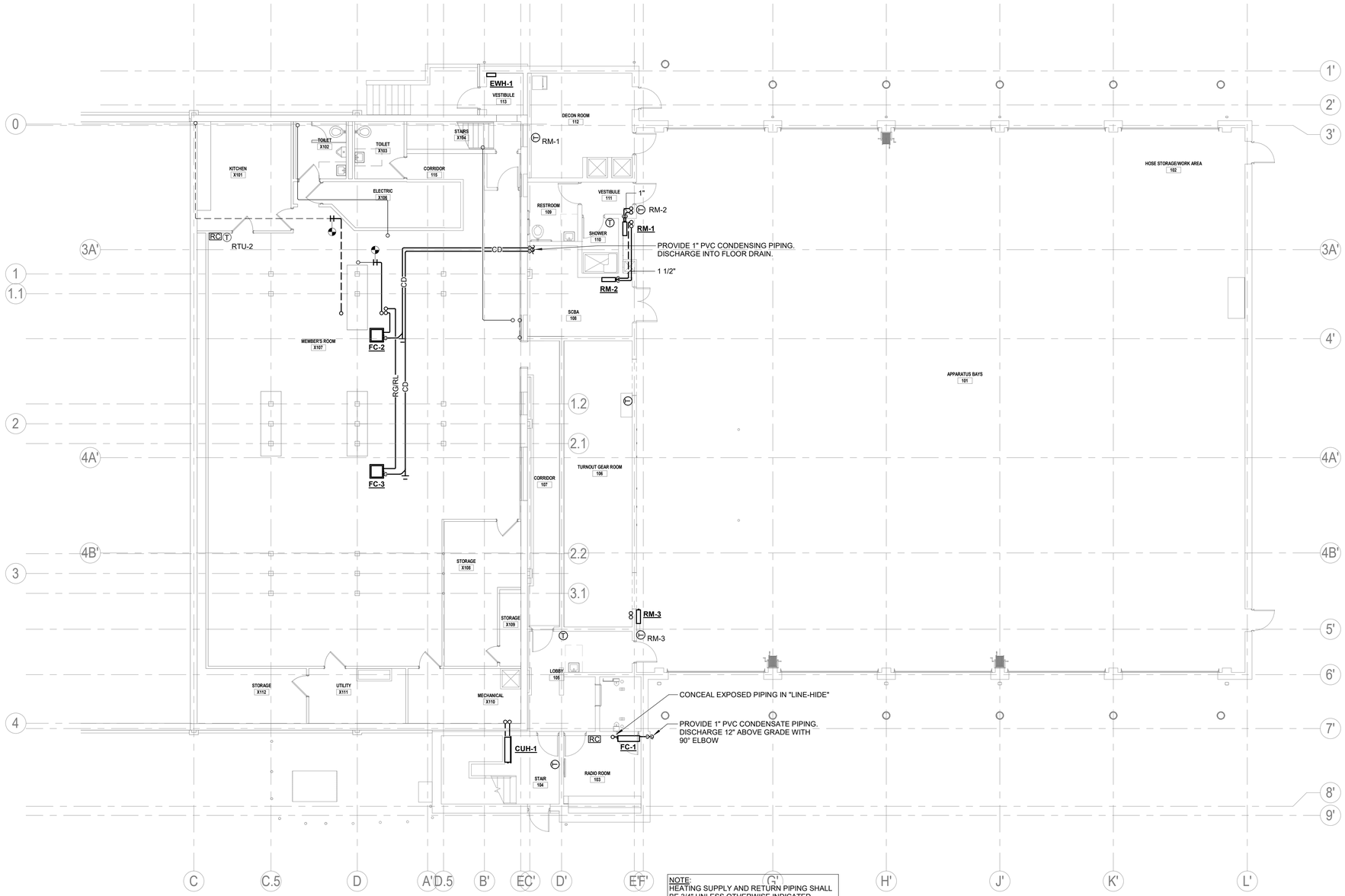

NOTE:
HEATING SUPPLY AND RETURN PIPING SHALL BE 3/4" UNLESS OTHERWISE INDICATED.

1 FIRST FLOOR MECHANICAL PIPE PLAN
1/8" = 1'-0"

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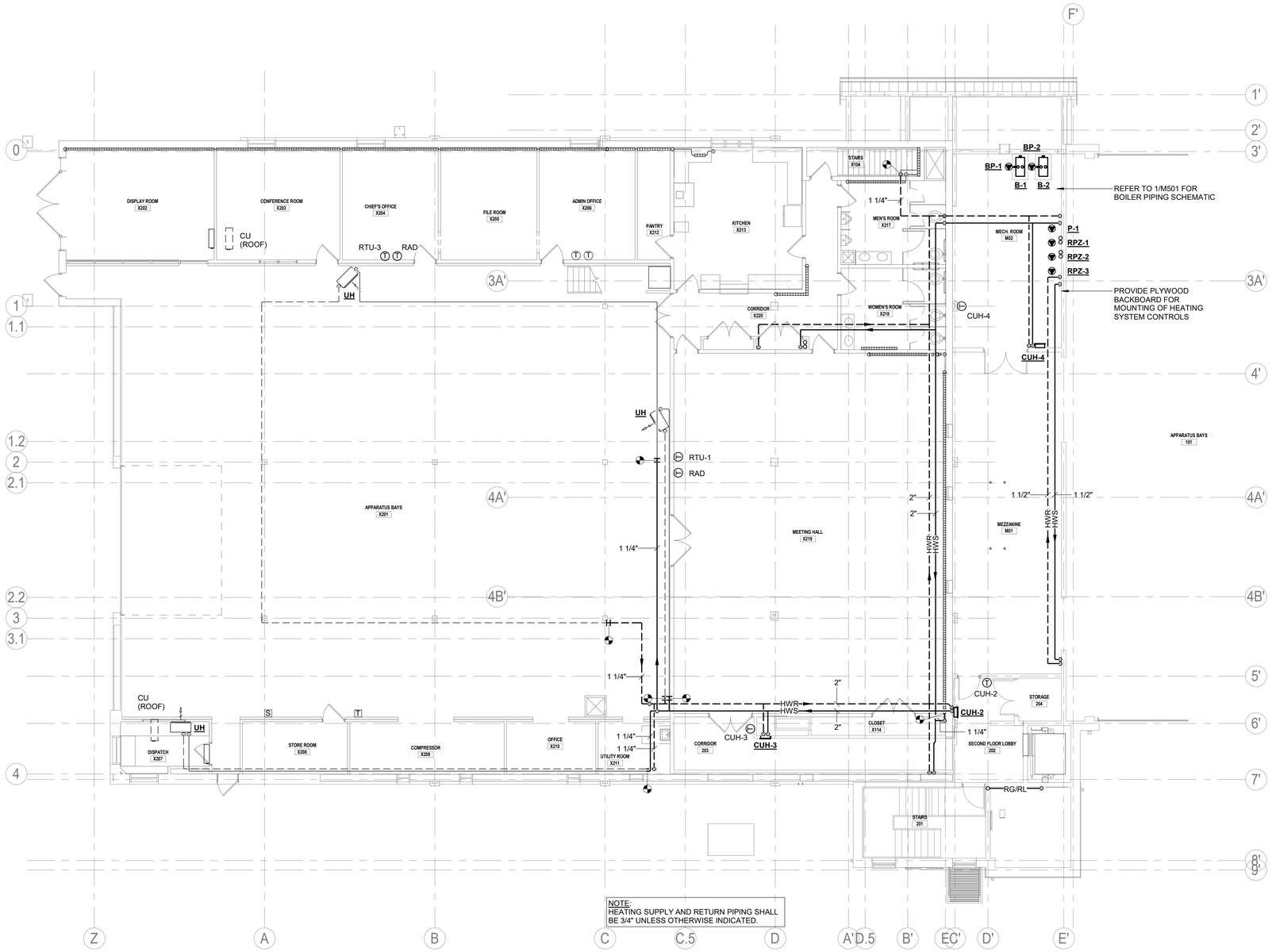
FIRST FLOOR MECHANICAL PIPE PLAN

DRAWING No.

M 201



1 SECOND FLOOR MECHANICAL PIPE PLAN
1/8" = 1'-0"

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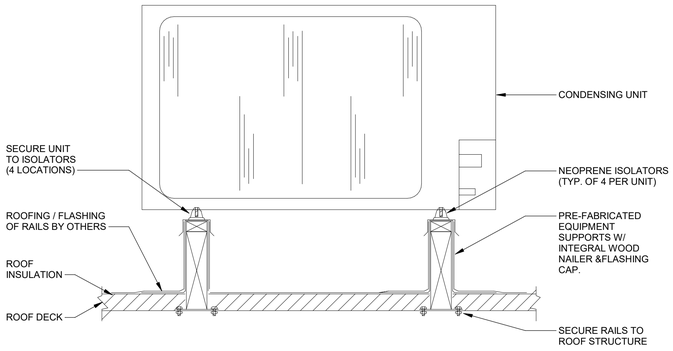
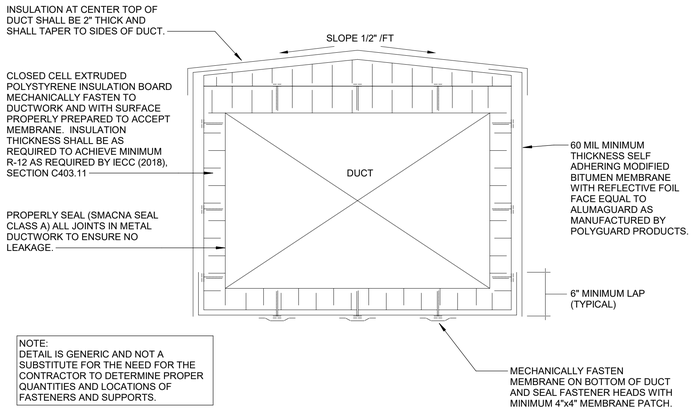
SECOND FLOOR MECHANICAL PIPE PLAN

DRAWING No.

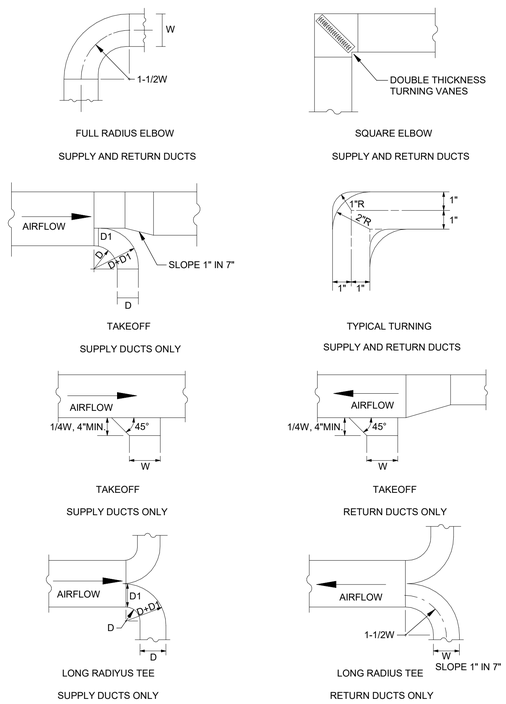
M 202



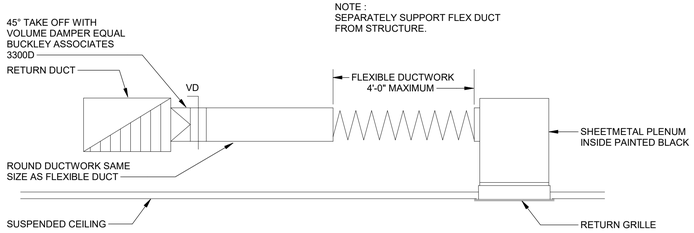
1 TYPICAL ROOF MOUNTED CONDENSING UNIT DETAIL
NOT TO SCALE



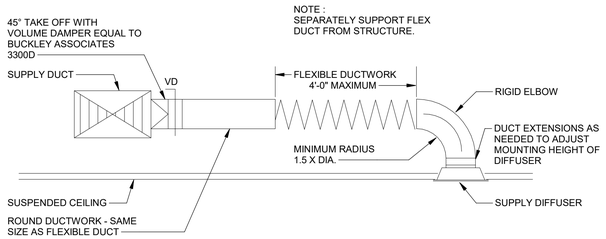
2 EXTERIOR DUCT INSULATION DETAIL
12" = 1'-0"



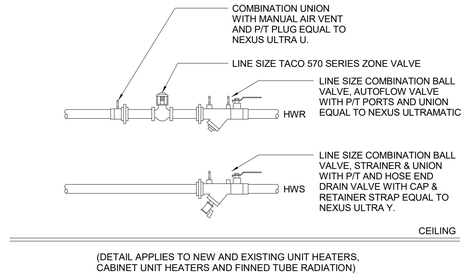
3 TYPICAL DUCT DETAILS
NTS



4 TYPICAL CEILING MOUNTED RETURN AIR GRILL DETAIL
NTS



5 TYPICAL CEILING MOUNTED SUPPLY DIFFUSER DETAIL
NTS



(DETAIL APPLIES TO NEW AND EXISTING UNIT HEATERS, CABINET UNIT HEATERS AND FINNED TUBE RADIATION)

6 TERMINAL HEATING UNIT PIPING DETAIL
NOT TO SCALE

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STATUS

BID SET

SHEET TITLE

MECHANICAL DETAILS

DRAWING No.

M 301

ROOFTOP UNIT SCHEDULE

TAG	MANUFACTURER	MODEL	OUTSIDE AIRFLOW		FANS					COILS (REFER TO COIL SCHEDULES)					GAS-FIRED HEAT EXCHANGER					EFFICIENCY			ELECTRICAL DATA				REMARKS
					SUPPLY										MAX. CAPACITY		PIPE PRESS.		AIRSIDE								
			MAX (CFM)	MIN (CFM)	FLOW (CFM)	ESP (in-wg)	TSP (in-wg)	POWER (hp)	RPM	WATER	ELECTRIC	STEAM	D/X	CHILLED WATER	INPUT (BTUH)	OUTPUT (BTUH)	MIN (in-wg)	MAX (in-wg)	EAT(db) (°F)	LAT(db) (°F)	SEER	EER	IEER	MCA	MOCP	VOLT	PH	
RTU-1	CARRIER	48HCD11	825	0	4000	0.75	0.95	2.59	982	No	No	No	Yes	No	180,000	148,000	4.00	13.00	56.4	90.4		12	14.3	54 A	60 A	208 V	3	1, 3, 4, 5, 6, 7, 8, 9, 13, 15
RTU-2	CARRIER	48GCM05	400	0	1600	1.50	1.58	1.45	2382	No	No	No	Yes	No	67	54	4.00	13.00	53.0	84.4	16	12		26 A	30 A	208 V	3	2, 3, 4, 5, 7, 10, 11, 14, 15
RTU-3	CARRIER	48GCM04	100	100	1200	1.50	1.5	0.81	2234	No	No	No	Yes	No	67	54	4.00	13.00	64.3	106.3	16	12.5		24 A	30 A	208 V	3	2, 3, 4, 5, 10, 12, 14, 15

NOTES:
1. UNIT CONFIGURATION: GAS HEAT / ELECTRIC COOLING, DOWNFLOW.
2. UNIT CONFIGURATION: GAS HEAT / ELECTRIC COOLING, HORIZONTAL AIR FLOW.
3. NON-FUSED DISCONNECT.
4. HINGED ACCESS PANELS AND UN-POWERED CONVENIENCE OUTLET.
5. ELECTRO MECHANICAL CONTROLS.
6. ENTHALPY ECONOMIZER WITH BAROMETER RELIEF.
7. CARBON DIOXIDE SENSOR (UNIT MOUNTED IN RETURN).
8. 2-SPEED INDOOR FAN CONTROLLER (VFD).
9. MEDIUM STATIC OPTION - BELT DRIVE.
10. DIRECT DRIVE - ECO BLUE - HIGH STATIC.
11. ENTHALPY ECONOMIZER WITH POWER EXHAUST.
12. 2-POSITION MOTORIZED OUTSIDE AIR DAMPER.
13. 14" HIGH CURB ADAPTER (TO EXISTING LENNOX UNIT CURB).
14. 14" HIGH ROOF CURB.
15. CARRIER WIFI COMMERCIAL THERMOSTAT.

D/X COOLING COIL SCHEDULE - AHU/ERU/MAU/RTU

TAG	COOLING COIL							REMARKS
	CAPACITY (MBH)		AIRSIDE					
	TOTAL	SENSIBLE	FLOW (CFM)	EAT(db) (°F)	EAT(wb) (°F)	LAT(db) (°F)	LAT(wb) (°F)	
RTU-1	118.9	91.3	4000	79.3	66.5	58.0	57.1	
RTU-2	49.9	36.9	1600	80.0	67.0	58.5	57.2	
RTU-3	33.6	24.4	1200	77.3	65.0	58.4	55.9	

FAN SCHEDULE

TAG	MANUFACTURER	MODEL	SERVES	TYPE	FAN						SOUND PRESS LEVEL (dBA)	SONES	ELECTRICAL DATA		REMARKS
					FLOW (CFM)	ESP (in-wg)	RPM	DRIVE TYPE	MOTOR POWER HP	MOTOR POWER WATTS			VOLT	PH	
EF-1	FANTECH	FG 8 EC	SHOWER 110	IN-LINE	150	0.50	0	DIRECT		71	0	0.0	120 V	1	1, 2
EF-2	FANTECH	FG 12 EC	GEAR 106	IN-LINE	500	0.50	0	DIRECT		136	0	0.0	120 V	1	1, 2
EF-3	FANTECH	FG 12 EC	DECON 112	IN-LINE	500	0.50	0	DIRECT		136	0	0.0	120 V	1	1, 2
EF-4	GREENHECK	G-163-VG	SCBA 108	ROOF	2000	0.50	945	DIRECT	1/3		61	10.7	120 V	1	2, 3, 4, 5
EF-5	GREENHECK	SP-A50-A90-VG	WOMENS E103	CEILING	70	0.25	0	DIRECT		7.6	0	0.9	120 V	1	2, 6
EF-6	GREENHECK	SP-A90-A130-VG	WOMENS E102	CEILING	110	0.25	0	DIRECT		12.7	0	1.3	120 V	1	2, 6

NOTES:
1. FANTECH MODEL RSK BACKDRAFT DAMPER.
2. EC MOTOR WITH POTENTIOMETER FOR BALANCING.
3. UL/CUL 705 LISTED - "POWER VENTILATORS"
4. NEMA 1 DISCONNECT SWITCH WITH JUNCTION BOX MOUNTED AND WIRED.
5. 24" HIGH GALVANIZED ROOF CURB WITH GRAVITY BACK DRAFT DAMPER, GREENHECK WD-100.
6. BUILT-IN BACKDRAFT DAMPER.

DUCTLESS SPLIT SYSTEM SCHEDULE

TAG	MANUFACTURER	MODEL	NOMINAL CAPACITY		EFFICIENCY				ELECTRICAL DATA				REMARKS
			COOLING (BTUH)	HEATING (BTUH)	SEER	EER	HSPF	COP	MCA	MOCP	VOLT	PH	
HP-1	FUJITSU	AOUG09LZAH1	9,000	12,000	33.1	18	14	18.2	14.4 A	15 A	208 V	1	1
HP-2	FUJITSU	AOU18RLXFZ	18,000	22,000	18	12.5	9.03	11.7	13 A	15 A	208 V	1	2
FC-1	FUJITSU	ASUG09LZAS											
FC-2	FUJITSU	AUU9RLF											
FC-3	FUJITSU	AUU9RLF											

NOTES:
1. PROVIDE MODEL UTY-RNRUZ4 WIRED REMOTE CONTROLLER.
2. PROVIDE MODEL UTY-RNNUM WIRED REMOTE CONTROLLER. CONTROLLER SHALL OPERATE BOTH INDOOR UNITS AS A SINGLE UNIT.

GRAVITY VENTILATOR SCHEDULE

TAG	MANUFACTURER	MODEL	TYPE	FLOW (CFM)	ESP (in-wg)	THROAT AREA (SQ. FT)	CURB HEIGHT	SERVES	REMARKS
GV-1	GREENHECK	GRSR-16	RELIEF	1230	0.08	1.45	24"	EF-1, EF-2, EF-3	1, 2
GV-2	GREENHECK	GRSR-10	RELIEF	406	0.06	0.57	18"	EXISTING BATHROOM FANS	1, 2

NOTES:
1. GALVANIZED STEEL ROOF CURB.
2. GRAVITY BACKDRAFT DAMPER.

CABINET UNIT HEATER SCHEDULE

TAG	MANUFACTURER	MODEL	TYPE	FAN			HEATING COIL						ELECTRICAL DATA		REMARKS
					MOTOR			AIRSIDE		WATERSIDE					
				FLOW (CFM)	QTY	POWER (hp)	CAPACITY (BTUH)	EAT(db) (°F)	LAT(db) (°F)	FLOW (GPM)	EWT (°F)	LWT (°F)	PD (PSI)	VOLT	PH	
CUH-1	ZEHNDER RITTLING	RF-200-03	FLOOR	300	1	0.20	16,100	70	119.8	1.5	180	157.9	0.3	120 V	1	1, 2
CUH-2	BEACON MORRIS	F42	WALL	53	1	0.03	4,300	65	139	1	180	160	0.2	120 V	1	3
CUH-3	BEACON MORRIS	F42	WALL	53	1	0.03	4,300	65	139	1	180	160	0.2	120 V	1	3
CUH-4	BEACON MORRIS	F42	WALL	53	1	0.03	4,300	65	139	1	180	160	0.2	120 V	1	4

NOTES:
1. PROVIDE ECM MOTOR.
2. FURNISH WITH FACTORY WIRED AND MOUNTED DISCONNECT SWITCH.
3. FURNISH WITH RECESSED WALL BOX KIT.
4. FURNISH WITH SURFACE MOUNT WALL BOX KIT.

ELECTRIC WALL HEATER SCHEDULE

TAG	MANUFACTURER	MODEL	TYPE	FAN (CFM)	ELECTRICAL DATA			REMARKS
					KW	VOLT	PH	
EWH-1	BERKO	FRC1512F	SURFACE MOUNT	100	1.5	120 V	1	1, 2, 3

NOTES:
1. BUILT-IN TAMPER RESISTANT THERMOSTAT.
2. INTEGRAL DISCONNECT SWITCH.
3. MODEL FRSMPB SURFACE MOUNTING FRAME.

GRILLES, DIFFUSERS AND REGISTERS SCHEDULE

SEE ARCHITECTURAL DRAWINGS FOR CEILING TYPES AND CONSTRUCTION. SIZE AND CFM INDICATED ON MECHANICAL DRAWINGS

A - PRICE MODEL SMD DIRECTIONAL DIFFUSER, LOUVERED FACE, 4-WAY THROW (UNLESS SHOWN OTHERWISE), 24X24 MODULE SIZE, LAY-IN BORDER, STEEL CONSTRUCTION, WHITE FINISH. PROVIDE MODEL SR ADAPTER.

B - PRICE MODEL 530 RETURN GRILLE, 45° FIXED LOUVERS, 3/4" BLADE SPACING, 24X24 MODULE SIZE, LAY-IN BORDER, STEEL CONSTRUCTION, WHITE FINISH.

B1 - PRICE MODEL 530 RETURN GRILLE, 45° FIXED LOUVERS, 3/4" BLADE SPACING PARALLEL TO LONG DIMENSION, SURFACE MOUNT BORDER, STEEL CONSTRUCTION, WHITE FINISH.

CEILING STRATIFICATION FAN SCHEDULE

TAG	MANUFACTURER	MODEL	BLADE SWEEP	Max Airflow	WATTS	VOLT	PH	REMARKS
CF-1	LEADING EDGE	56001	56"	27500	110	120 V	1	
CF-2	LEADING EDGE	56001	56"	27500	110	120 V	1	
CF-3	LEADING EDGE	56001	56"	27500	110	120 V	1	
CF-4	LEADING EDGE	56001	56"	27500	110	120 V	1	

NOTES:
1. PROVIDE SOLID STATE SPEED CONTROL TO CONTROL ALL FANS AS ONE SYSTEM.

GAS-FIRED BOILER SCHEDULE

TAG	MANUFACTURER	MODEL	TYPE	GAS-FIRED HEAT EXCHANGER											THERMAL EFF (%)	ELECTRICAL DATA			REMARKS
				GAS BURNER						WATERSIDE									
				INPUT (BTUH)	OUTPUT (BTUH)	TURN DOWN	FUEL TYPE	PRESSURE (in-wg) MIN	PRESSURE (in-wg) MAX	FLOW (GPM)	EWT (°F)	LWT (°F)	PD (FT)	VOL (GAL)		FLA	VOLT	PH	
B-1	HTP	EP-399	CONDENSING	399,000	385,000	10	NG	3.5	14	30	160	180	17	3.7	96.5	6.3 A	120 V	1	ALL
B-2	HTP	EP-399	CONDENSING	399,000	385,000	10	NG	3.5	14	30	160	180	17	3.7	96.5	6.3 A	120 V	1	ALL

NOTES:
1. PROVIDE CONDENSATE NEUTRALIZING TUBES.
2. PROVIDE MANUAL RESET HIGH LIMIT.
3. PROVIDE LOW WATER CUT-OFF.

PUMP SCHEDULE

TAG	MANUFACTURER	MODEL	PUMP				MOTOR	ELECTRICAL DATA			REMARKS
			TYPE	FLOW (GPM) DESIGN	HEAD (FT)	DRIVE TYPE	POWER WATTS	VOLT	PH		
BP-1	TACO	VR15-3	IN-LINE	30.00	20.0	ECM	500	115 V	1		
BP-2	TACO	VR15-3	IN-LINE	30.00	20.0	ECM	500	115 V	1		
P-1	TACO	VR20-3	IN-LINE	40.00	30.0	ECM	800	208 V	1		
RPZ-1	TACO	VR3452	IN-LINE	5.00	15.0	ECM	180	115 V	1		
RPZ-2	TACO	VR3452	IN-LINE	12.00	20.0	ECM	180	115 V	1		
RPZ-3	TACO	VR3452	IN-LINE	12.00	20.0	ECM	180	115 V	1		

NOTES:
1.

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MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
KAH	ALL		

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

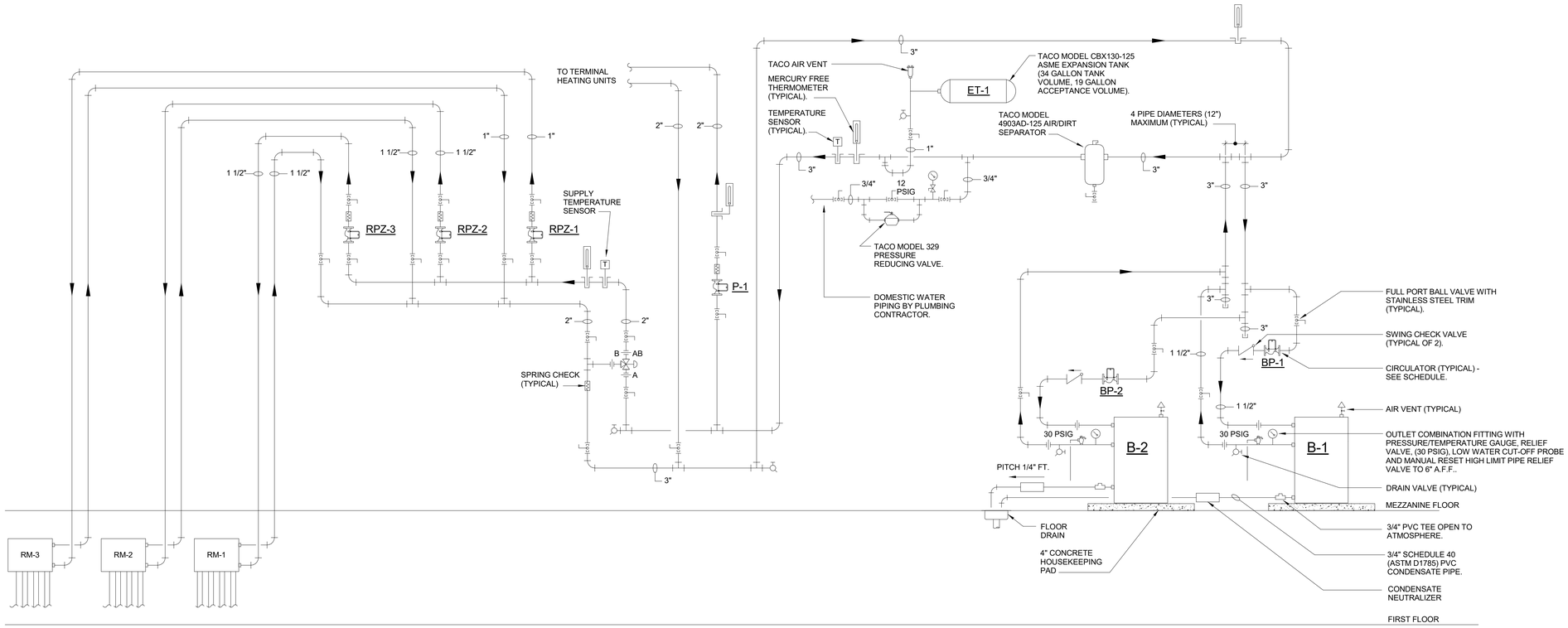
BID SET

SHEET TITLE

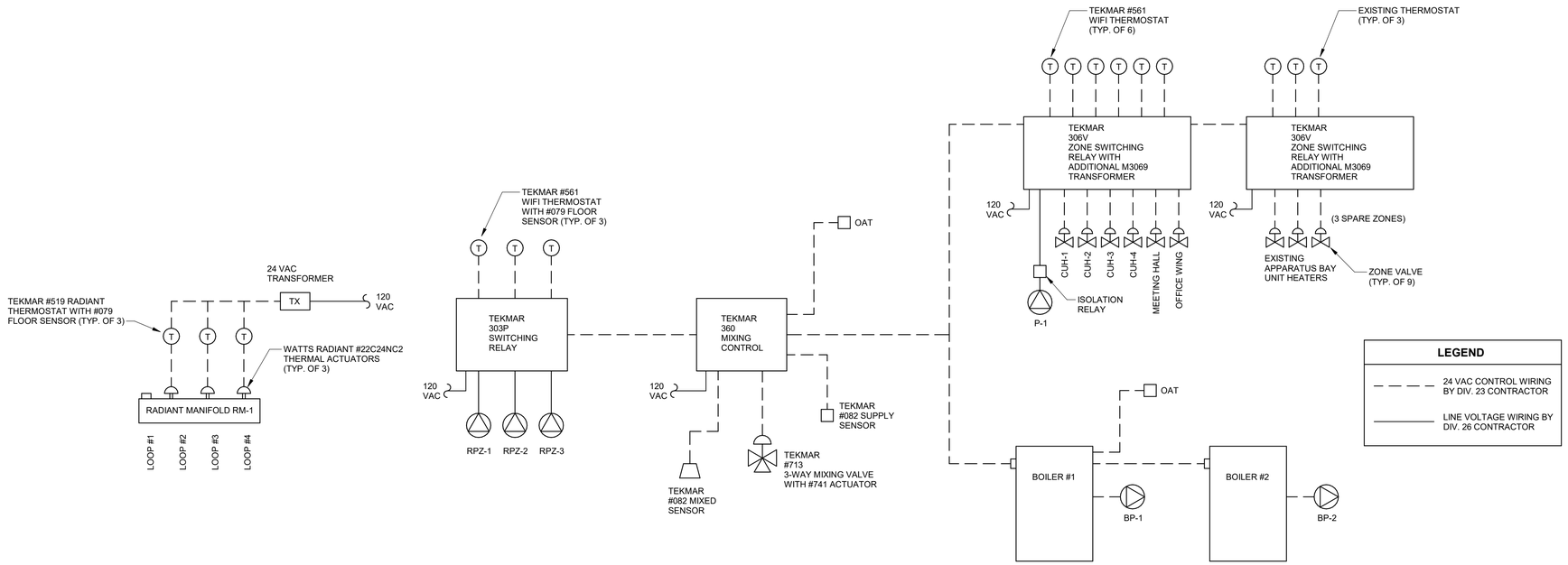
MECHANICAL SCHEDULES

DRAWING No.

M 401



1 BOILER PIPING SCHEMATIC
1/8" = 1'-0"



2 HEATING SYSTEM CONTROL SCHEMATIC
1/8" = 1'-0"

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MECHANICAL SCHEMATICS

DRAWING No.

M 501

EQUIPMENT COORDINATION NOTES

1. REFER TO EQUIPMENT COORDINATION SCHEDULE FOR ALL EQUIPMENT WIRING INFORMATION.
2. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL PROVIDE PROPOSED DISCONNECT SWITCH LOCATION FOR ENGINEER REVIEW PRIOR TO ROUGH-IN. IN ALL CASES, DISCONNECT SWITCH SHALL BE LOCATED WITHIN SIGHT OF EQUIPMENT SERVED.
3. DISCONNECT SWITCHES LOCATED OUTSIDE SHALL BE PROVIDED WITH NEMA 3R ENCLOSURE UNLESS OTHERWISE NOTED.

RTU-01 (PP1-1,5,7) — EQUIPMENT ID / PANEL & CIRCUIT

ELECTRICAL SYMBOL LIST

NOTE: ALL MOUNTING HEIGHTS GIVEN ARE TO CENTERLINE OF DEVICE UNLESS NOTED OTHERWISE.

SYMBOL	DESCRIPTION
	PENDANT MOUNTED LIGHT FIXTURE
	PENDANT MOUNTED LIGHT FIXTURE
	CEILING MOUNTED LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	RECESSED DOWN LIGHT FIXTURE
	RECESSED 2'X4' LIGHT FIXTURE
	RECESSED 2'X2' LIGHT FIXTURE
	WALL MOUNTED FIXTURE
	LINEAR FIXTURE
	SINGLE FACE EXIT SIGN WITH BATTERY AND DIRECTIONAL ARROWS UNIVERSAL MOUNT
	DOUBLE FACE EXIT SIGN WITH BATTERY AND DIRECTIONAL ARROWS UNIFIERS MOUNT
	EMERGENCY BATTERY UNIT WITH TWO DIRECTIONAL HEADS
	EMERGENCY REMOTE, WEATHERPROOF, WITH DOUBLE DIRECTIONAL HEADS
S_{O2}	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH WITH DUAL OUTPUT RELAYS
S	SINGLE POLE TOGGLE SWITCH
S_3	THREE WAY TOGGLE SWITCH
S_S	TIMER SWITCH
S_K	SINGLE POLE KEYED TOGGLE SWITCH
S_{EF}	EXHAUST FAN SWITCH.
S_F	CEILING FAN SWITCH. COORDINATE LOCATION WITH ARCHITECT AND MECHANICAL PLANS
S_T	THERMAL OVERLOAD SWITCH - MOUNT AT FRACTIONAL HP MOTORS
S_D	DIMMER SWITCH
S_{PS}	PROJECTION SCREEN SWITCH
S_{OC}	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH
B	DOORBELL BUZZER/CHIME - MOUNT 7'-0" A.F.F.
OS OS	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR
PC	PHOTOCELL
E/G	EMERGENCY ELECTRIC/GAS SHUTOFF PUSHBUTTON OPERATOR
	GROUNDED DUPLEX RECEPTACLE
A	GROUNDED DUPLEX RECEPTACLE - MOUNT ABOVE COUNTER OR BACKSPLASH 42" A.F.F.
C	GROUNDED DUPLEX RECEPTACLE - MOUNT AT CEILING
GFI	GROUNDED DUPLEX GFI RECEPTACLE
WP	GROUNDED DUPLEX GFI RECEPTACLE "WEATHERPROOF WHILE IN-USE" COVER
S	GROUNDED DUPLEX RECEPTACLE - STUB UP TO 24" A.F.F. ON 1" (MIN) RGS CONDUIT
PM	VERTICAL PLUGMOLD WITH OUTLETS AT 12" O.C. - 5' LONG
MW	GROUNDED GFI DUPLEX RECEPTACLE DEDICATED FOR MICROWAVE OVEN - VERIFY EXACT MOUNTING LOCATION
	GROUNDED DOUBLE DUPLEX RECEPTACLE
	GROUNDED 240V RECEPTACLE
USB, U	GROUNDED GFI DUPLEX RECEPTACLE WITH INTEGRAL USB CHARGING PORTS
	GROUNDED SIMPLEX RECEPTACLE
SP	GROUNDED SIMPLEX RECEPTACLE FOR SUMP PUMP
	FLOOR MOUNTED DEVICES AS LISTED ABOVE
	CEILING MOUNTED CORD REEL WITH A SINGLE 120V NEMA 5-15R RECEPTACLE - OFCI
	RECESSED MOUNTED PANELBOARD
	SURFACE MOUNTED PANELBOARD
PP	COMBINATION POWER/TEL/DATA POLE
	TELEPHONE/DATA OUTLETS
WAP	WIRELESS ACCESS POINT (WAP - WIRELESS ACCESS POINT) - BY OWNER
F	MANUAL FIRE ALARM PULL STATION - MOUNT AT 48" A.F.F.
H	HEAT DETECTOR
H 200°	HEAT DETECTOR 200°
S	AREA SMOKE DETECTOR
S_D	DUCT SMOKE DETECTOR
S_{CO}	AREA COMBINATION SMOKE AND CARBON MONOXIDE DETECTOR
S_E	ELEVATOR RETURN SMOKE DETECTOR
CO	FIRE ALARM CARBON MONOXIDE DETECTOR
X_{RTS}	FIRE ALARM REMOTE TEST SWITCH
M	MAGNETIC DOOR HOLDER
	FIRE ALARM VISUAL ONLY INDICATING UNIT - MOUNT AT 6'-6" A.F.F.
	FIRE ALARM SPEAKER/VISUAL INDICATING UNIT - MOUNT AT 6'-6" A.F.F.
R	LIGHTING CONTROL RELAY
AOM	FIRE ALARM ADDRESSABLE OUTPUT MODULE
AIM	FIRE ALARM ADDRESSABLE INPUT MODULE
S_{VC}	SPEAKER VOLUME CONTROL
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM REMOTE ANNUNCIATOR PANEL
HGMP	HAZARDOUS GAS MONITOR PANEL FURNISHED BY DIV. 25, WIRED BY DIV. 26
	EMERGENCY "CALL-FOR-AID" BUZZER/LIGHT - MOUNT AT 7'-6" A.F.F.
S_A	EMERGENCY "CALL-FOR-AID" SWITCH - MOUNT 48" A.F.F. WITH PULL CORD TO 6" A.F.F.
M, FR	UP/DOWN/STOP STATION FOR OVERHEAD DOOR. "M" INDICATES MASTER STATION WITH BUTTONS TO OPERATE MULTIPLE DOORS. "FR" INDICATES CONTROL BUTTONS FOR FRONT AND REAR DOOR.
SL	RELOCATED STREET LIGHT CONTROL SWITCH.
F	1 HOUR TIMER SWITCH FOR FUEL FILLING STATION.

SYMBOL	DESCRIPTION
M/S	EMERGENCY SWITCH - MOUNT AT 48" A.F.F. - M=MASTER - S=SLAVE
J GD	JUNCTION BOX. "GD" INDICATES FOR GARAGE DOOR POWER.
J AC	JUNCTION BOX ABOVE DOOR WITH 120V POWER FOR ACCESS CONTROLS
	JUNCTION BOX FOR CATV OUTLET WITH 1 1/4" CONDUIT TO CEILING
	MOTOR
	NON-FUSED DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	MAGNETIC MOTOR STARTER
	COMBINATION DISCONNECT SWITCH/MAGNETIC MOTOR STARTER
	BRANCH CIRCUIT WIRING
	BRANCH CIRCUIT FEEDER
	ELECTRICAL GROUND
	FLEXIBLE EQUIPMENT CONNECTION
	FIXED/HARD - WIRED EQUIPMENT CONNECTION
TC	TIMECLOCK (PER DETAILS)
C	CONTACTOR
	SECURITY SYSTEM CAMERA OUTLET. REFER TO DETAILS.
DL	SECURITY SYSTEM DOOR LOCK
	SECURITY SYSTEM MOTION SENSOR
CR	SECURITY SYSTEM CARD READER
DC	SECURITY SYSTEM DOOR CONTACT
KP	SECURITY SYSTEM KEY PAD
FS	FLOW SWITCH
TS	TAMPER SWITCH
PS	PRESSURE SWITCH
S	WALL MOUNTED SPEAKER
S	CEILING MOUNTED SPEAKER
IC	INTERCOM STATION
	COMBINATION SPEAKER/CLOCK
	CLOCK
	SPECIAL PURPOSE RECEPTACLE - MATCH NEMA CONFIGURATION OF EQUIPMENT SERVED

ELECTRICAL LEGEND NOTES:
1. ALL SYMBOLS MAY NOT BE USED.

ABBREVIATIONS

A	AMPERE	KW	KILOWATT
AFF	ABOVE FINISHED FLOOR	MAU	MAKE-UP AIR UNIT
AFG	ABOVE FINISHED GRADE	MFG	MANUFACTURER
AFI	ARC FAULT CIRCUIT INTERRUPTER	NL	NIGHT LIGHT
AHU	AIR HANDLING UNIT	NLE	NEW LOCATION OF EXISTING
C	CONDUIT	OFCI	OWNER FURNISHED, E.C. INSTALLED
CB	CIRCUIT BREAKER	OHD	OVERHEAD DOOR ELECTRIC OPERATOR
CKT	CIRCUIT	P	POLE
CUH	CABINET UNIT HEATER	PE	PRIMARY ELECTRIC SERVICE
DAC	DOOR ACCESS CONTROLLER	PH or Ø	PHASE
EBB	ELECTRIC BASEBOARD	PNL	PANEL
E.C.	ELECTRICAL CONTRACTOR	PVC	POLYVINYL CHLORIDE CONDUIT
EF	EXHAUST FAN	RAP	REMOTE ANNUNCIATOR PANEL
EM	EMERGENCY POWERED	RGS	RIGID GALVANIZED STEEL CONDUIT
EMT	ELECTRICAL METALLIC TUBING	RLE	RELOCATED EXISTING
ETBR	EXISTING TO BE REMOVED & RELOCATED	RTU	ROOFTOP UNIT
ETR	EXISTING TO REMAIN	SE	SECONDARY ELECTRIC SERVICE
EWC	ELECTRIC WATER COOLER	T	TELEPHONE SERVICE
EWH	ELECTRIC WATER HEATER	TV	TELEVISION
FA	FIRE ALARM	TX	TRANSFORMER
FACP	FIRE ALARM CONTROL PANEL	UNO	UNLESS NOTED OTHERWISE
FMC	FLEXIBLE METALLIC TUBING	W	WIRE
GFI	GROUND FAULT INTERRUPTER	WAP	WIRELESS ACCESS POINT
IG	ISOLATED GROUND	WP	WEATHER PROOF
JB	JUNCTION BOX		
KVA	KILOVOLT-AMP		

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CKD	CKD		

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CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
BID SET

SHEET TITLE
ELECTRICAL GENERAL INFORMATION

DRAWING No.
E 001

ELECTRICAL GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH CURRENT APPLICABLE CODES, ORDINANCES, THE REGULATORY AGENCIES HAVING JURISDICTION AND THE SPECIFICATIONS. THE SPECIFICATIONS MAY EXCEED THE REQUIREMENTS OF THE CODE, IN WHICH CASE, THE SPECIFICATION MUST BE FOLLOWED.
2. THE INTENT OF THESE DOCUMENTS IS FOR THE MEP TRADES TO FURNISH AND INSTALL COMPLETE MECHANICAL AND ELECTRICAL SYSTEMS. THE SPECIFIED ELECTRICAL SYSTEM SHALL BE COMPLETE IN ALL RESPECTS; OPERATIONAL, TESTED, ADJUSTED, APPROVED BY THE AUTHORITIES HAVING JURISDICTION AND READY FOR BENEFICIAL USE BY THE OWNER.
3. THE TRADES SHALL OBTAIN AND REVIEW, ALL CONTRACT DOCUMENTS BEFORE SUBMITTING A BID. INFORMATION IS PROVIDED ON THE VARIOUS DRAWINGS, SCHEDULES, SPECIFICATIONS AND ALL OF THE VARIOUS DOCUMENTS IN THE BIDDING PACKAGE. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND FORM A TOTAL PROJECT DESIGN AND INFORMATION SOURCE FOR CONSTRUCTION PURPOSES.
4. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. COORDINATE LOCATIONS OF EQUIPMENT WITH OTHER TRADES BEFORE AND DURING CONSTRUCTION. ANY MODIFICATION TO THE EQUIPMENT LAYOUT, REQUIRED FOR INSTALLATION, IS TO BE PERFORMED UNDER THE CONTRACT AGREEMENT, AT NO ADDITIONAL COST. REFER TO DETAILS, SCHEDULES, AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. THE CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH THE PROJECT DOCUMENTS OF ALL TRADES. THE DRAWINGS ARE DIAGRAMMATIC AND SHOW THE GENERAL ARRANGEMENT OF EQUIPMENT AND CONDUITS. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF EQUIPMENT AND CONDUITS INSTALLATION WITH ALL THE TRADES BEFORE COMMENCING WORK.
6. EQUIPMENT SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS, WHEN EQUIPMENT MUST BE LOCATED ABOVE AN INACCESSIBLE CEILING (GYP BOARD OR EQUIVALENT), OR BEHIND A WALL, AN APPROPRIATE ACCESS DOOR SHALL BE PROVIDED. IF AN ACCESS DOOR IS REQUIRED, IT SHALL BE OF A RATING APPROPRIATE FOR THE WALL/CEILING IN WHICH IT IS TO BE INSTALLED. THE CONTRACTOR SHALL COORDINATE LOCATIONS OF ACCESS PANELS FOR ALL DEVICES, REQUIRING ACCESS, WITH THE ARCHITECT, PRIOR TO INSTALLATION OF SUCH DEVICES OR OTHER APPURTENANCES.
7. WHERE A CONFLICT OCCURS BETWEEN THE DOCUMENTS, IT SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. CARRY AS PART OF THE BID THE LARGER QUANTITY AND/OR MORE EXPENSIVE ITEM(S).
8. THIS CONTRACT SHALL INCLUDE ALL THE NECESSARY CONDUITS, FITTINGS, TRANSITIONS ETC. AS REQUIRED TO INSTALL CONDUITS AND EQUIPMENT, AND TO AVOID ANY CONFLICTS WITH OTHER TRADES AND THE BUILDING STRUCTURE. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ASSUMPTIONS, OMISSIONS OR ERRORS HE MAKES AS A RESULT OF HIS FAILURE TO COORDINATE WITH OTHER TRADES OR BECOME FULLY FAMILIAR WITH THE PROJECT DOCUMENTS OF ALL TRADES.
9. DO NOT INSTALL ANY ELECTRICAL PANELS, TRANSFORMERS, SPECIAL EQUIPMENT, BELOW PIPING OR THROUGH MECHANICAL ROOMS, THAT ARE NOT ASSOCIATED WITH OR SERVE THE RESPECTIVE ROOMS. COORDINATE THE LOCATION OF MECHANICAL EQUIPMENT IN THE FIELD AND ADJUST AS NECESSARY.
10. ALL HOMERUNS SHALL BE 2#12, 1#12G., 3/4"C TO 20A-1P CIRCUIT BREAKER IN PANEL DESIGNATED UNLESS OTHERWISE NOTED.
11. ALL 120 VAC (277 VAC) CIRCUITS EXCEEDING 150' IN LENGTH SHALL BE INCREASED TO 2#10, 1#10G, 3/4" CONDUIT UNLESS OTHERWISE NOTED.
12. ALL BRANCH CIRCUITS SHALL BE PROVIDED WITH SEPARATE NEUTRALS. USE OF COMMON NEUTRALS WILL NOT BE ALLOWED.
13. FIELD VERIFY WITH MANUFACTURER'S PROVIDED EXACT ELECTRICAL CHARACTERISTICS AND CONNECTION REQUIREMENTS OF ALL OPERATIONAL EQUIPMENT PRIOR TO MAKING ELECTRICAL POWER CONNECTION. FURNISH AND INSTALL SAFETY DISCONNECT AS REQUIRED BY NEC.
14. RECEPTACLES LOCATED WITHIN 6' OF A WATER SOURCE, OR OUTSIDE, AND WHERE REQUIRED BY CODE SHALL BE PROVIDED WITH GFCI PROTECTION, WHETHER INDICATED OR NOT.
15. EXTERIOR RECEPTACLES SHALL BE PROVIDED WITH "CAST ALUMINUM" LOCKABLE COVERS RATED "WEATHER-PROOF WHILE IN USE". LOCKS SHALL BE KEYED ALIKE.
16. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED SLEEVES AND FIRE STOP FOR CONDUITS AND CABLES PENETRATING FIRE RATED WALLS AND FLOORS.
17. ELECTRICAL CONTRACTOR SHALL SEAL ALL CONDUITS PENETRATING EXTERIOR WALLS.
18. ALL WIRING SHALL BE IN CONDUIT, UNLESS OTHERWISE INDICATED. CONDUITS SHALL BE RUN CONCEALED IN NEW WALLS AND ABOVE CEILINGS.
19. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL LOCATIONS OF EQUIPMENT WITH DIV. 21, 22, AND 23 PRIOR TO ROUGHING OR INSTALLING OUTLETS.
20. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE OWNER, ALL LOCATIONS OF EQUIPMENT BEING FURNISHED BY THE OWNER PRIOR TO ROUGHING OR INSTALLING OUTLETS.
21. REFER TO ARCHITECTURAL DRAWINGS FOR ELEVATIONS AND EXACT LOCATION OF DEVICES PRIOR TO ROUGHING OR INSTALLATION OF OUTLETS.
22. ELECTRICAL CONTRACTOR SHALL COORDINATE THE LOCATION OF DUCT SMOKE DETECTORS WITH DIV. 23. DUCT SMOKE DETECTORS SHALL BE FURNISHED AND WIRED BY ELECTRICAL CONTRACTOR, INSTALLED BY DIV. 23.
23. ALL FIRE ALARM DEVICES LOCATED ON BUILDING EXTERIOR SHALL BE WEATHERPROOF RATED.
24. CONDUITS AND/OR WIRING SHALL NOT PENETRATE STAIR ENCLOSURES UNLESS SPECIFICALLY SERVING EQUIPMENT OR DEVICES LOCATED WITHIN STAIR ENCLOSURE.
25. WHERE INDICATED, PROVIDE FIXTURES WITH EMERGENCY BATTERY TO OPERATE LAMPS FOR 1 1/2 HOURS UPON LOSS OF NORMAL POWER. WIRE EMERGENCY BATTERY AND EXIT LIGHTS TO LINE SIDE OF AREA LIGHTING CIRCUIT.
26. DIRECTIONAL CHEVRONS SHALL CONFORM TO NFPA 5-10.4.1.2 AND SHALL BE IDENTIFIABLE AS A DIRECTIONAL INDICATOR AT A MINIMUM OF 40 FT. UNDER ALL SPACE CONDITIONS. PROVIDE DIRECTIONAL CHEVRONS AS INDICATED ON PLAN.
27. BRANCH CIRCUIT WIRING IS SHOWN ON THE FLOOR PLANS. NUMERALS ADJACENT TO THE HOMERUN SYMBOLS FOR LIGHTING, RECEPTACLES, MOTORS, APPLIANCES, ETC. INDICATE THE CIRCUIT NUMBER TO WHICH THE ITEMS ARE TO BE CONNECTED. PROVIDE BRANCH CIRCUIT WIRING FOR ALL ITEMS SHOWN IN ACCORDANCE WITH THESE GENERAL NOTES AND THE ELECTRICAL SPECIFICATIONS.
28. ALL 1 POLE, 15 AND 20 AMPERE BRANCH CIRCUITS SERVING RECEPTACLE OR LIGHTING SHALL BE 2 WIRE CIRCUITS PROVIDING AN INDIVIDUAL NEUTRAL CONDUCTOR FOR EACH UNGROUNDED (HOT) CIRCUIT CONDUCTOR. DO NOT SHARE NEUTRAL CONDUCTORS.
29. REFER TO ARCHITECTS REFLECTED CEILING PLAN FOR EXACT LOCATIONS OF CEILING MOUNTED DEVICES.
30. ALL EXPOSED CABLES OF ANY TYPE IN PLENUM CEILING SPACE SHALL BE PLENUM RATED.
31. CONTRACTOR SHALL PROVIDE ALL NECESSARY MISCELLANEOUS STEEL FOR THE SUPPORT OF ALL EQUIPMENT, PIPING, CONDUIT AND DUCTWORK. SUSPENDED FROM SLAB, STEEL, WALL OR TRUSSWORK.
32. ALL PENETRATIONS OF FLOORS AND WALLS (WHETHER OR NOT FIRE RESISTANCE RATED) SHALL BE PROVIDED WITH A THROUGH PENETRATION PROTECTION SYSTEM (FIRESTOPPING). EACH THROUGH - PENETRATION PROTECTION SYSTEM SHALL BE TESTED IN ACCORDANCE WITH ASTM E814 AND BE LISTED FOR THE TYPE OF FLOOR OR WALL ASSEMBLY PENETRATED AND THE TYPE OF PROTECTION SYSTEM.
33. IT IS NOT THE INTENTION TO SHOW EVERY FITTING, HANGER, WIRE OR DEVICE, ALL SUCH ITEMS SHALL BE FURNISHED AND INSTALLED AS NECESSARY FOR A COMPLETE SYSTEM.
34. SEE SPECIFICATION SECTION "ELECTRICAL IDENTIFICATION" FOR PROPERLY LABELING EQUIPMENT WIRING, BOXES, ETC.
35. CONTRACTOR SHALL DETERMINE THE QUANTITY OF CONDUCTORS REQUIRED FOR PROPER OPERATION OF ALL SWITCHING SCHEMES.
36. THE WORD "PROVIDE" AS USED IN THESE DOCUMENTS AND SPECIFICATIONS SHALL MEAN FURNISH (OR SUPPLY) AND INSTALL AS REQUIRED FOR PROPER OPERATION OR USE.
37. ALL HARDWIRED APPLIANCES AND EQUIPMENT SHALL BE PROVIDED WITH ADJACENT DISCONNECTING MEANS OR BE SUPPLIED FROM A DEDICATED CIRCUIT BREAKER THAT IS LOCKABLE IN THE OFF POSITION.
38. PRIOR TO INSTALLING ANYTHING IN THE NEW APPARATUS BAY OR MEZZANINE, COORDINATE WITH OWNER AND ARCHITECT FOR LOCATION OF TRAINING WALL AND EXTEND OF AREA TO BE KEPT COMPLETELY CLEAR WITH NO ELECTRICAL WORK BEING DONE IN THAT AREA WITHOUT PRIOR WRITTEN CONSENT FROM OWNER OR ARCHITECT.
39. SURFACE RACEWAY SYSTEMS SHALL BE BASED ON LEGRAND WIREMOLD SERIES 3000 COMPONENTS. PROVIDE ALL COMPONENTS AND ACCESSORIES REQUIRED FOR COMPLETE INSTALLATION. COORDINATE COLOR AND MOUNTING LOCATION WITH ARCHITECT. PROVIDE MULTIPLE INFEEDS AS REQUIRED TO MEET MAX CONDUCTOR FILL REQUIREMENTS.
40. USB RECEPTACLES SHALL BE 120V, 20A GROUNDING DUPLEX RECEPTACLES WITH ONE USB-A CHARGING PORT AND ONE USB-C CHARGING PORT WITH 5A OUTPUT. DESIGN BASED ON HUBBELL USB20AC5xx.
41. PROVIDE ALL BONDING AND GROUNDING REQUIRED BY THE NATIONAL ELECTRIC CODE, NFPA 70 AND AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
42. ALL REQUIRED BONDING CONDUCTORS SHALL BE MINIMUM #8 SOLID INSULATED COPPER, PROVIDE ALL NECESSARY FITTINGS, JUNCTION BOXES, END FITTINGS, ETC., FOR A COMPLETE, CONTINUOUS INSTALLATION.
43. ALL BONDING/GROUNDING CONNECTIONS SHALL BE MADE BY LISTED CLAMP OR CONNECTORS AS REQUIRED BY ARTICLE 250 OF NFPA 70, THE NATIONAL ELECTRIC CODE (CURRENT ADOPTED EDITION).
44. SEISMICALLY SUPPORT THE EQUIPMENT AS REQUIRED BY CODE. THE AUTHORITY HAVING JURISDICTION, AND/OR AS SPECIFIED. SUBMIT ENGINEERED INSTALLATION DETAILS PER THE SPECIFICATIONS. THE CONTRACTOR'S SEISMIC ENGINEER SHALL REVIEW THE INSTALLATION AND PROVIDE A DETAILED REPORT FOR THE RECORD.
45. ALL WORK ON OR NEAR ENERGIZED CONDUCTORS OR EQUIPMENT SHALL BE IN ACCORDANCE WITH NFPA 70E, CHAPTER 1: SAFETY-RELATED WORK PRACTICES.
46. THIS IS AN EXISTING BUILDING, WITH AN EXISTING SERVICE. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID TO ASCERTAIN FIELD CONDITIONS AS THEY EXIST AND JUDGE THEIR EFFECT ON THE WORK TO BE DONE. NO ALLOWANCE WILL BE MADE FOR FAILURE TO VISIT THE JOB SITE AND MAKE THIS DETERMINATION.
47. DO NOT SCALE DRAWINGS; ACTUAL FIELD MEASUREMENTS AND DIMENSIONS TAKE PRECEDENCE IN ALL CASES.
48. THE SCOPE OF WORK IS AS SHOWN ON THE PLANS AND DETAILED IN THE SPECIFICATIONS. ANY DEVIATIONS OR EXCLUSIONS FROM THIS MUST BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO BEING IMPLEMENTED.
49. ELECTRICAL CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS AND OR REQUIREMENTS FOR PROPER OPERATION AND MAINTENANCE.
50. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING OF ALL PHASES OF THE WORK AND TO DEMONSTRATE TO OWNER THAT THE EQUIPMENT IS IN FULL OPERATING ORDER.
51. ELECTRICAL CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED TO THEIR ORIGINAL CONDITION. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, PAINTING, CLEAN-UP, ELECTRICAL DEBRIS REMOVAL AND GENERAL COORDINATION OF THE WORK EFFORT AS REQUIRED FOR THE INSTALLATION OF THE ELECTRICAL ITEMS OF WORK.
52. ALL THE WIRE SIZES ARE BASED ON COPPER, ALUMINUM IS NOT TO BE USED.
53. ELECTRICAL CONTRACTOR TO COORDINATE WITH ARCHITECTURAL, CIVIL, AND MECHANICAL CONTRACTOR FOR ITEMS SUPPLIED BY MECHANICAL OR OTHER DIVISIONS BUT INSTALLED BY THE ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR TO REVIEW ALL THE PLANS FOR THE PROJECT FOR ELECTRICAL WORK.
54. COORDINATE EXACT PLACEMENT OF EQUIPMENT WITH ARCHITECTURAL CIVIL, AND MECHANICAL PLANS, MAKE FIELD ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS, VERIFY WITH OWNER.
55. ELECTRICAL CONTRACTOR SHALL SECURE ALL PERMITS AND PAY FOR ALL REQUIRED FEES, INCLUDING ALL UTILITY FEES.
56. ELECTRICAL CONTRACTOR SHALL WARRANT AND GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER.
57. ELECTRICAL CONTRACTOR SHALL PROVIDE PROOF OF LIABILITY AND PROPERTY INSURANCE TO THE OWNER, ALL DEDUCTIBLES SHALL BE PAID FOR BY THE ELECTRICAL CONTRACTOR IN THE EVENT OF A CLAIM.
58. PERSONNEL SAFETY IS OF PRIME IMPORTANCE. NO HAZARDOUS CONDITION MUST BE ALLOWED. EVERY CARE MUST BE TAKEN TO PROTECT CONSTRUCTION AND OTHER PERSONNEL. CLEANUP IS TO BE DONE ON A DAILY BASIS. ELECTRICAL CONTRACTOR TO REMOVE AND DISPOSE OF REFUSE FROM SITE.
59. ELECTRICAL CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL FOR ALL LIGHTING FIXTURES, PANELS, SWITCHES, RECEPTACLES, ETC.
60. ELECTRICAL CONTRACTOR TO VERIFY LIGHTING FIXTURE MOUNTING REQUIREMENTS FOR VARIOUS CEILING TYPES AND ORDER APPROPRIATE HARDWARE.
61. ELECTRICAL CONTRACTOR TO VERIFY LOADS, SETTINGS, OVERCURRENT PROTECTION... ETC. TO INSURE COMPATIBILITY OF EQUIPMENT.
62. ELECTRICAL CONTRACTOR TO VERIFY ALL EQUIPMENT POWER NEEDS WITH THE ACTUAL SHOP DRAWINGS FOR THE EQUIPMENT TO BE USED, PRIOR TO STARTING ANY ELECTRICAL WORK.
63. PROVIDE LAMINATED PLASTIC NAMEPLATES FOR ALL ELECTRICAL DISTRIBUTION AND DISCONNECT EQUIPMENT. ALTERNATE METHODS SHALL NOT BE ALLOWED. NAMEPLATES SHALL BE FASTENED TO PANEL WITH SCREWS.
64. THE DISPOSAL OF ALL UNUSED EXISTING ELECTRICAL EQUIPMENT REMOVED IS A PART OF THE SCOPE OF WORK. THE ELECTRICAL CONTRACTOR SHALL LAWFULLY DISPOSE OF ALL SUCH EQUIPMENT, INCLUDING HAZARDOUS PCB CONTAINING BALLASTS.
65. PRIOR TO ACQUISITION OR INSTALLATION GIVE WRITTEN NOTICE TO ARCHITECT AND ENGINEER OF ANY MATERIAL OR APPARATUS THAT IS INADEQUATE, UNSUITABLE FOR THE USE, IN VIOLATION OF LAWS, ORDINANCES, RULES, CODES OR ANY REGULATIONS OF AUTHORITIES HAVING JURISDICTION OR ANY NECESSARY ITEMS OF WORK THAT HAS BEEN OMITTED. CONTRACTOR AFFIRMS THAT ABSENT SUCH NOTICE, ALL SYSTEMS WILL FUNCTION SATISFACTORILY WITHOUT ADDITIONAL EXTRA COMPENSATION.
66. ALL PART NUMBERS ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THEY ARE NOT TO BE CONSIDERED THE COMPLETE SPECIFICATION OF THE PRODUCT. THE PART NUMBER AND DESCRIPTION WILL BE THE COMPLETE SPECIFICATION. IN THE EVENT OF A DISCREPANCY BETWEEN THE TWO, THE MORE STRINGENT, MORE COSTLY FEATURE/PERFORMANCE WILL BE REQUIRED.
67. AT THE CONCLUSION OF THE PROJECT WHILE THE PROJECT IS OCCUPIED AND OPERATING NORMALLY, THE CONTRACTOR IS TO TAKE AND RECORD OPERATING CURRENTS IN THE DISTRIBUTION SYSTEM AND REPORT THESE READINGS TO THE ENGINEER FOR EVALUATION. ENGINEER SHOULD BE ADVISED WHEN THE READINGS ARE TO BE MADE SO THAT HE MAY ATTEND AND WITNESS SAME.
68. RISER DIAGRAMS ARE PROVIDED TO SHOW DIAGRAMMATIC GENERAL WIRING REQUIREMENTS. WIRING IS TO BE PROVIDED FOR THE PARTICULAR VENDOR/SYSTEM APPROVED FOR THE PROJECT. ALL WIRING IS TO BE CONCEALED.
69. NO LOW VOLTAGE WIRING SHALL BE PERMITTED IN THE SAME RACEWAY AS POWER WIRING.
70. PROVIDE DRAG LINES IN ALL EMPTY RACEWAYS.
71. CIRCUIT NUMBERS ARE INDICATED FOR INTENT ONLY. THE ELECTRICAL CONTRACTOR SHALL ADJUST ACCORDINGLY IN THE FIELD, TO BALANCE CIRCUITS EVENLY ON ALL PHASES.
72. DEBRIS REMOVAL FROM THE CONSTRUCTION SITE WILL BE COMPLETED BY A PREDETERMINED ROUTE AT TIMES COORDINATED WITH OWNER.
73. ELECTRICAL CONTRACTOR SHALL CREATE A NEW TYPE-WRITTEN CIRCUIT DIRECTORY TO BE PLACED IN EACH PANEL ASSOCIATED WITH THIS PROJECT WHICH SHALL INCLUDE PANEL NUMBER AND DATE. ALL EXISTING CIRCUITS IN PANEL SHALL BE FIELD VERIFIED TO ENSURE ENTIRE CIRCUIT DIRECTORY IS ACCURATE. TWO COPIES OF THIS DIRECTORY SHALL BE SUBMITTED TO THE OWNER, AND ONE COPY SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER.
74. ALL REMOVED CIRCUITS SHALL BE RE-LABELED IN PANEL AS "SPARE" AND A NEW PANEL CIRCUIT DIRECTORY SHALL BE CREATED.
75. THE ELECTRICAL CONTRACTOR SHALL PROVIDE INTERIM HEAT DETECTOR COVERAGE IN ALL AREAS UNDER CONSTRUCTION. FIRE ALARM CONTROL PANEL, HEAT DETECTORS, WIRING AND POINTS OF CONNECTION TO THE EXISTING FIRE ALARM SYSTEM SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR AND BE COMPATIBLE WITH THE FIRE ALARM SYSTEM PRESENTLY SERVING THE AREA. THE HEAT DETECTORS SHALL BE LOCATED ON A DRAWING AND BE WIRED TO THE FACP (EXISTING FIRE ALARM ZONE). THIS DRAWING SHALL BE SUBMITTED TO THE OWNER AND FIRE MARSHAL FOR APPROVAL. THE CONTRACTOR SHALL SUBMIT IN WRITING TO OWNER THAT THE INTERIM HEAT DETECTORS HAVE BEEN SYSTEM TESTED AND ARE CERTIFIED OPERATIONAL BY THE FIRE ALARM VENDOR. THE DETECTORS SHALL BE REMOVED AND TURNED OVER TO THE OWNER WHEN THE PERMANENT SYSTEM IS IN PLACE AND CERTIFIED OPERATIONAL BY THE FIRE ALARM VENDOR. THE ELECTRICAL CONTRACTOR SHALL CARRY THE COST FOR INTERIM HEAT DETECTOR COVERAGE AND ASSOCIATED EQUIPMENT IN THE BASE BID.
76. ALL WORK REQUIRED IN CORRIDORS OR AREAS OUTSIDE OF THE PROJECT AREA SHALL BE COORDINATED WITH OWNER FOR SCHEDULING AND ANY SPECIAL REQUIREMENTS FOR WORKING IN THOSE SPACES.
77. ANY DUST TRACKED OUTSIDE OF THE PROJECT AREA MUST BE REMOVED IMMEDIATELY BY THE RESPECTIVE CONTRACTOR. CLEANING IN PATIENT-OCCUPIED AREAS SHALL BE BY HEPA-FILTERED VACUUM CLEANERS.
78. PRIOR TO MAKING ANY FLOOR PENETRATIONS, ALL CONFLICTS AND OBSTRUCTIONS SHALL BE LOCATED. ALL CONCRETE REINFORCING SHALL BE LOCATED USING AN X-RAY OR OTHER STRUCTURAL ENGINEER APPROVED METHODS. COORDINATE WITH BUILDING OWNER AND STRUCTURAL ENGINEER TO RESOLVE ALL CONFLICTS. REINFORCING SHALL NOT BE CUT OR DRILLED WITHOUT STRUCTURAL ENGINEER'S APPROVAL.
79. ALL ELECTRONIC DOOR CONTROLS SHALL BE CONNECTED TO THE FIRE ALARM SYSTEM AND WIRED FAIL/SAFE OR FAIL/SECURE OPERATION UPON FIRE ALARM AND/OR POWER OUTAGE, AS SPECIFIED BY OWNER'S SECURITY DEPT.
80. COORDINATE WITH MECHANICAL CONTRACTOR FOR REQUIREMENTS OF ATC CIRCUITS AND OVERCURRENT PROTECTION DEVICES AND PROVIDE HACR CIRCUIT BREAKERS AND/OR FUSES WITH SPECIFIED TIME DELAY AS REQUIRED.
81. EXIT SIGNS SHALL BE WIRED FOR CONSTANT ILLUMINATION AND CONNECTED TO LINE SIDE OF NEARBY LIGHTING CIRCUIT, AND IF AVAILABLE THEY SHALL BE WIRED TO A LIFE SAFETY LIGHTING CIRCUIT.
82. ALL NEW AND RELOCATED OUTLETS IN ALL LOCATIONS (INCLUDING ETR, AND WITHIN OWNER FURNISHED EQUIPMENT AND SYSTEMS) REQUIRE NEW DEVICES AND NEW COVER PLATES. DEVICES AND COVER PLATES SHALL BE LABELED AND COLORED AS SPECIFIED IN THE DETAILS.
83. COORDINATE WITH FIRE ALARM VENDOR TO ENSURE THAT ALL NEW AND EXISTING FIRE ALARM DEVICES ARE COMPATIBLE WITH NEW FIRE ALARM SYSTEM. ANY REQUIRED SYSTEM UPGRADES SHALL BE INCLUDED AS PART OF THIS PROJECT.
84. PROVIDE AN ALLOWANCE FOR INSTALLATION OF THE FOLLOWING ADDITIONAL FIRE ALARM DEVICES, ALONG WITH 50' OF CABLE FOR EACH DEVICE. DEVICES INCLUDE: 2 PULL STATIONS, 4 SMOKE DETECTORS, 4 HEAT DETECTORS, 2 A/V NOTIFICATION DEVICES, 4 MONITOR MODULES, 4 CONTROL MODULES, 2 DUCT SMOKE DETECTORS WITH REMOTE ALARM INDICATORS AND TEST SWITCHES.
85. NEW FIRE ALARM DEVICES SHALL BE CONNECTED TO NEW WIRE. OLD WIRE SHALL NOT BE USED AND SHALL BE REMOVED. NEW WIRE SHALL BE CLASS A, MINIMUM 16 AWG. AUDIO CABLES SHALL BE SHIELDED TYPE. PROVIDE CERTIFICATION TESTING OF ALL WIRES AND PROVIDE VERIFICATION OF TEST RESULTS TO OWNER.
86. FIRE ALARM WIRING SHALL BE INSTALLED PER AHJ REQUIREMENTS AND ALL APPLICABLE STATE AND LOCAL CODES INCLUDING, BUT NOT LIMITED TO, NFPA CODES: 70, 70E, 72, AND 101.
87. ALL NEW AND EXISTING SMOKE/HEAT DETECTORS WITHIN THE PROJECT SHALL BE TESTED AND LABELED. PROVIDE VERIFICATION OF TEST RESULTS TO OWNER.
88. PROVIDE FIRE ALARM AS-BUILT DRAWING SHOWING ALL DEVICE LOCATIONS, ADDRESSES, NODES, LOOPS, AND PIPING OR PATHWAYS.
89. IN THE EVENT OF A DISCREPANCY BETWEEN ANY OF THE PROJECT DOCUMENTS PROVIDED BY ENGINEER OR OWNER, THE MORE STRINGENT, MORE COSTLY FEATURE/PERFORMANCE WILL BE REQUIRED.
90. ALL NEW AND RELOCATED CIRCUIT BREAKERS SHALL HAVE AIC RATING EQUAL TO, OR GREATER THAN, THE AIC RATING OF THE PANEL IN WHICH THEY ARE INSTALLED. CIRCUIT BREAKERS SHALL NOT BE RELOCATED TO PANELS WITH GREATER AIC RATING THAN THE CIRCUIT BREAKER.
91. ALL NEW ELECTRICAL RECEPTACLES SHALL BE TESTED WITH A BIONIX R7000 RECEPTACLE ANALYZER WITH REPORT GENERATOR. A REPORT OF THE TEST RESULTS SHALL BE PROVIDED TO THE OWNER AND ENGINEER AND SHALL INDICATE ROOM NUMBER, RECEPTACLE ID, LINE VOLTAGE, CORRECT POLARITY, NEUTRAL TO GROUND VOLTS, GROUND TO GROUND VOLTS AND OHMS, TENSION, RECEPTACLE STATUS, AND PROOF OF DEVICE CALIBRATION.
92. ALL RELOCATED LIGHT FIXTURES WITHIN THE PROJECT AREA SHALL BE CLEANED, RE-LAMPED, AND HAVE NEW LENSES INSTALLED. ALL DEFICIENCIES SHALL BE REPORTED TO OWNER.
93. SHORT CIRCUIT, ARCH FLASH, AND COORDINATION STUDY IS REQUIRED FOR FIRE DEPARTMENT, TD BANK, AND CELL TOWER COMPOUND.
94. COORDINATE ALL SERVICE WORK WITH ELECTRIC UTILITY COMPANY (NYSEG) AND PROVIDE ALL ELEMENTS REQUIRED BUT NOT PROVIDED BY UTILITY.
95. ALL PANELBOARDS SHALL HAVE INTEGRAL, FACTORY INSTALLED, SURGE PROTECTION DEVICES WITH MINIMUM 180KA SURGE RATING ON BRANCH PANELS AND 250 KA RATING IN MDP.
96. PROVIDE DEDICATED CIRCUITS FOR ALL FIRE ALARM CONTROL PANELS, TRANSPONDER PANELS, BATTERY CABINETS, AND EXTERNAL SPRINKLER BELLS.
97. ALL CIRCUIT BREAKERS SERVING THE FIRE ALARM SYSTEM SHALL BE LOCKED IN THE "ON" POSITION WITH A LISTED AND APPROVED BREAKER LOCKING DEVICE. THE BREAKER SHALL BE CLEARLY IDENTIFIED AS "FIRE ALARM CIRCUIT" AND SHALL HAVE RED IDENTIFICATION MARKING.
98. INSTALLATION SHALL COMPLY WITH NEC REQUIREMENTS AND BE INSTALLED IN ACCORDANCE WITH NECA-1 STANDARD FOR GOOD WORKMANSHIP IN ELECTRICAL CONSTRUCTION.
99. UNLESS OTHERWISE NOTED, OR REQUIRED BY COORDINATION STUDY, ALL DEVICES, DISTRIBUTION EQUIPMENT SHALL BE RATED MINIMUM 65 KAIC.
100. UNLESS OTHERWISE NOTED, SQUARE-D IS THE DESIGN BASIS FOR ALL DISTRIBUTION EQUIPMENT.
101. GROUND FAULT TRIP AND TIME DELAY SETTINGS SHALL BE SET ACCORDING TO THE RECOMMENDATIONS IN THE COORDINATION STUDY.
102. REFER TO SITE / CIVIL PLANS FOR LOCATIONS OF UTILITY EQUIPMENT AND DEVICES.
103. ALL TERMINATION LUGS MUST BE RATED MINIMUM 75 DEGREE C, AND SIZED TO ACCEPT THE SPECIFIED CONDUCTORS WITHOUT THE NEED FOR REDUCERS.
104. COORDINATE WITH ALL AFFECTED PARTIES AND PROVIDE TEMPORARY POWER DURING ALL ELECTRICAL OUTAGES.
105. ALL BACKBOXES IN FIRE RATED WALLS SHALL BE FULLY WRAPPED ON ALL SIDES WITH 2 HOUR RATED FIRE BARRIER MOLDABLE PUTTY PADS BY 3M OR EQUIVALENT. PRODUCT MUST BE SUBMITTED FOR APPROVAL PRIOR TO USE, AND MUST BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS FULLY ENCOMPASSING THE BACKBOX. COORDINATE WITH ARCHITECTURAL PLANS FOR FIRE RATED WALL LOCATIONS.
106. ALL OCCUPANCY SENSORS SHALL BE DUAL TECHNOLOGY.
107. COORDINATE WITH ALL OTHER TRADES AND DISCONNECT, REMOVE, REINSTALL, AND REWIRE ALL EXISTING CEILING MOUNTED DEVICES, LIGHT FIXTURES, CONTROLS, AND ASSOCIATED ELEMENTS REQUIRED TO ACCOMMODATE THE INSTALLATION OF ELECTRICAL, MECHANICAL, PLUMBING, OR FIRE PROTECTION EQUIPMENT AND DEVICES. REFER TO RESPECTIVE CONTRACT DOCUMENTS AND CONTRACTORS FOR ALL AFFECTED AREAS. COORDINATE ALL WORK WITH OWNER.
108. ALL DEVICES ON MASONRY WALLS SHALL BE SURFACE MOUNTED, AND SHALL BE CONNECTED TO SURFACE MOUNTED EMT CONDUIT. ALL ASSOCIATED RACEWAYS, BACKBOXES, MOUNTING HARDWARE, AND ACCESSORIES SHALL BE PAINTED TO MATCH ADJACENT WALL SURFACE.
109. THE COLOR OF ALL DEVICES AND COVER PLATES SHALL BE COORDINATED WITH ARCHITECT PRIOR TO PURCHASE. THIS REQUIREMENT INCLUDES ALL DEVICES THROUGHOUT THE PROJECT.
110. COORDINATE LOCATION OF ALL CORD REELS WITH ARCHITECT, AND CONSTRUCTION MANAGER.

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CONSULTANTS:
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MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
CKD	CKD		

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT
CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
BID SET

SHEET TITLE
ELECTRICAL GENERAL INFORMATION

DRAWING No.
E 002

SYSTEM DESIGN INTENT NOTES

ELECTRIC UTILITY SCOPE:

1. THE SCOPE OF WORK INCLUDES REMOVAL OF THE EXISTING UTILITY TRANSFORMER AND INSTALLATION OF A NEW UTILITY TRANSFORMER IN A NEW LOCATION TO REFEED TD BANK AND THE AMERICAN TOWER CORP "ATC" CELL SITE COMPOUND, AND TO PROVIDE A NEW UPGRADED ELECTRIC SERVICE TO THE FIRE HOUSE.
2. PRIOR TO REMOVAL OR DISCONNECTION OF ANY EXITING SERVICES, THE NEW TRANSFORMER SHALL BE INSTALLED, AND ALL AFFECTED SERVICES SHALL BE CUTOVER TO THE NEW TRANSFORMER AND FULLY OPERATIONAL.
3. THE TD BANK CUTOVER SCOPE SHALL CONSIST OF THE FOLLOWING:
   a. CUTTING THE EXISTING OVERHEAD SERVICE CONDUCTORS AND SPLICING THEM TO NEW SERVICE CONDUCTORS INSTALLED ON A NEW UTILITY POLE IN LINE WITH THE EXISTING OVERHEAD CONDUCTORS. THIS SCOPE OF WORK IS EXPECTED TO BE PERFORMED BY THE UTILITY COMPANY AND CONDUCTED DURING OVERNIGHT HOURS.
   b. ALL WORK MUST BE COORDINATED WITH THE TD BANK REPRESENTATIVE: DAVE MOEHRKE OF BGIS. PHONE: 845-490-4094, EMAIL: DAVID.MOEHRK@BGIS.COM.
   c. COORDINATE WITH TD BANK FOR THE NEED FOR TEMPORARY POWER DURING ALL PLANNED OUTAGES. PROVIDE AS REQUIRED.
4. THE AMERICAN TOWER CORPORATION CELL SITE CUTOVER SCOPE SHALL CONSIST OF THE FOLLOWING:
   a. INSTALL NEW CONDUITS FROM TRANSFORMER TO AREA NEAR METER CENTER.
   b. COORDINATE WITH NYSEG TO DISCONNECT ONE SET OF EXISTING PARALLEL SERVICE CONDUCTORS.
   c. REMOVE DISCONNECTED CONDUCTORS AND CONDUIT FROM SERVICE EQUIPMENT.
   d. EXTEND ALL NEW CONDUITS TO MAIN LUG TERMINAL CABINET.
   e. COORDINATE WITH NYSEG TO DISCONNECT REMAIN SERVICE CONDUCTORS FROM OLD TRANSFORMER. (COORDINATE WITH TOWER OWNER TO ENSURE GENERATOR IS FULLY OPERATIONAL AND ALL WIRELESS CARRIERS HAVE BEEN NOTIFIED OF OUTAGE.)
   f. INSTALL NEW SERVICE CONDUCTORS AND ENERGIZE SITE.
   g. ALL WORK MUST BE COORDINATE WITH ATC REPRESENTATIVE: MATT BEAUPRE; 860-625-2244, MATT BEAUPRE, MATT.BEAUPRE@AMERICANTOWER.COM.
   h. ALL OUTAGES REQUIRE TEMPORARY BACKUP POWER.
      - COORDINATE WITH ATC PRIOR TO ALL OUTAGES AND VERIFY THAT THE EXISTING ATC SITE GENERATOR SHALL BE USED DURING THE OUTAGES TO BACKUP THE WIRELESS CARRIERS.
      - THE ELECTRICAL CONTRACTOR SHALL PAY FOR ALL REFUELING FEES AND ANY OTHER ASSOCIATED COSTS.
      - VERIFY PROPER GENERATOR AND TRANSFER SWITCH OPERATION WITH ATC PRIOR TO ALL OUTAGES.
      - PROVIDE DOCUMENTATION TO THE CARMEL FIRE DEPARTMENT SHOWING FUEL LEVELS OF THE ATC GENERATOR BEFORE AND AFTER ALL OUTAGES.
      - IF THE ATC GENERATOR CAN NOT BE USED, THE ELECTRICAL CONTRACTOR SHALL PROVIDE AN APPROPRIATE PORTABLE GENERATOR(S) AND ALL CONNECTIONS REQUIRED.
5. THE FIRE HOUSE SERVICE UPGRADE SHALL CONSIST OF THE FOLLOWING:
   a. INSTALL AND ENERGIZE NEW SERVICE EQUIPMENT.
   b. EXPAND EXISTING ELECTRIC ROOM.
   c. INSTALL NEW PANEL "MDP" AND AUTOMATIC TRANSFER SWITCH "ATS".
   d. INSTALL GENERATOR AND ASSOCIATED EQUIPMENT.
   e. INSTALL FEEDER AND CIRCUIT BREAKER TO BACKFEED EXISTING MAIN FUSE PANEL FROM MDP.
   f. DISCONNECT POWER FROM EXISTING TRANSFORMER.
   g. CUTOVER ALL CIRCUITS FROM MFP TO MDP. AND REMOVE TEMPORARY BACKFEED CONDUITS AND CONDUCTORS.
   h. REMOVE EXISTING MFP, CT CABINET, 400A ATS, AND ASSOCIATED CONDUITS, CONDUCTORS, ACCESSORIES, AND MISC HARDWARE.
   i. RESTORE ELECTRIC ROOM WALLS.
   j. INSTALL NEW PANELS AND CIRCUITS.
6. ALL OUTAGES REQUIRE MINIMUM TWO WEEK ADVANCED NOTICE TO EACH AFFECTED PARTY.
7. ALL WORK MUST BE COORDINATED WITH TD BANK, ATC, OWNER, AND ELECTRIC UTILITY COMPANY (NYSEG).
8. ELECTRICAL CONTRACTOR MUST COORDINATE ALL REQUIREMENTS WITH NYSEG AND PROVIDE ALL REQUIRED ELEMENTS NOT PROVIDED BY NYSEG.
9. NYSEG. PROJECT CONTACT IS: STEVE IMPERIALE, 585-484-2334, SIMPERIALE@NYSEG.COM.

TELECOMMUNICATIONS AND CABLE TV SYSTEM NOTES:

1. THIS SECTION SHALL BE INCLUSIVE OF TELEPHONE, CABLE TV, FIBER, AND DATA.
2. UNLESS OTHERWISE SPECIFIED, TELEPHONE, FIBER, AND DATA SYSTEMS SHALL BE COLLECTIVELY REFERRED TO AS "TEL/DATA".
3. UNLESS OTHERWISE SPECIFIED CABLE TV SHALL BE COLLECTIVELY REFERRED TO AS "CATV".
4. THE SCOPE OF THIS PROJECT IS TO PROVIDE BACKBOXES, RACEWAYS, AND SPECIFIED POWER FOR ALL TEL/DATA & CATV EQUIPMENT PROVIDED UNDER DIVISION 27 AND PROVIDED BY OWNER.
5. INFRASTRUCTURE SHALL INCLUDE THE FOLLOWING:
   a. PROVIDE NEW TEL/DATA & CATV SERVICE TO THE PROJECT LOCATION.
   b. ALL TEL/DATA, WIRELESS ACCESS POINT, AND CATV OUTLET LOCATIONS: PROVIDE 2-GANG BACKBOXES, 3.5" DEEP WITH SINGLE GANG MUD RING AND 1-1/4" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING LOCATION.
   c. PATHWAYS (SLEEVES) THROUGH PARTITIONS AND FLOORS FOR TEL/DATA & CATV WIRING.
   d. PATHWAYS ACROSS INACCESSIBLE CEILINGS FOR TEL/DATA & CATV WIRING.
   e. POWER FOR ALL EQUIPMENT, INCLUDING RECEPTACLES AND HARD-WIRED CONNECTIONS AS REQUIRED.
   f. ALL EMPTY RACEWAYS SHALL BE LABELED AND HAVE PULL CORD INSTALLED.
6. CONDUITS SHALL BE 1-1/4" UNLESS OTHERWISE SPECIFIED.
7. COORDINATE WITH OWNER'S PREFERRED TELEPHONE SYSTEM VENDOR (VERIZON) AND PROVIDE DEDICATED COPPER TELEPHONE SERVICE LINES "POTS" FOR THE FOLLOWING SYSTEMS AND PROVIDE ALL RACEWAYS, BACKBOXES, CONDUCTORS, TERMINATIONS, AND FINAL TESTING AS REQUIRED FOR EACH SYSTEM:
   a. FIRE ALARM SYSTEM
   b. ELEVATOR CONTROLLER
   c. SECURITY SYSTEM
8. COORDINATE ALL WORK WITH EACH SERVICE PROVIDER AND OWNER'S TEL/DATA REPRESENTATIVE.
9. COORDINATE ALL TEL/DATA SERVICE REQUIREMENTS WITH OWNER'S PREFERRED SERVICE PROVIDER: VERIZON, JOHN SPRAGUE, 914-327-6519, JOHN.SPRAGUE@VERIZON.COM.
10. COORDINATE ALL CATV SERVICE REQUIREMENTS WITH OWNER'S PREFERRED SERVICE PROVIDER: COMCAST, ROBERT BLACKWELL, 203-539-1065, ROBERT_BLACKWELL@COMCAST.COM
11. PROVIDE CONDUITS WITH PULL CORDS FROM EACH SERVICE PROVIDER SOURCE LOCATION TO EACH DEMARC LOCATION.
12. DEMARC FOR ALL VERIZON SERVICES IS LOCATED IN EXISTING BASEMENT ELECTRIC ROOM.
13. EXISTING DEMARC FOR ALL COMCAST SERVICES IS LOCATED AT CABLE SPLITTER ON NORTHEAST CORNER OF BUILDING EXTERIOR. NEW DEMARC SHALL BE ON SAME WALL BUT MOVED WEST TO AVOID CONFLICT WITH NEW STAIRWELL.
14. PROVIDE GROUND BAR AT TELCO BACKBOARD WITH BONDING JUMPER TO MAIN GROUND BAR IN ELECTRIC ROOM.
15. PROVIDE CATV BONDING JUMPER FROM DEMARC TO INTERSYSTEM BONDING DEVICE AT SERVICE GROUND.
16. COORDINATE ALL DEVICE LOCATIONS WITH THE ARCHITECTURAL PLANS, FURNITURE SYSTEM VENDORS, AND THE WORK OF ALL OTHER TRADES.
17. FAILURE TO COORDINATE INTERFACE REQUIREMENTS WILL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY TO COMPLETE THE WORK FOR PROPER OPERATION.

SECURITY, VIDEO SURVEILLANCE, ACCESS CONTROL:

1. THE SCOPE OF THIS PROJECT IS TO PROVIDE BACKBOXES, RACEWAYS, AND SPECIFIED POWER TO SUPPORT THE INSTALLATION OF WIRING, DEVICES, AND EQUIPMENT PROVIDED BY OTHERS FOR EACH SYSTEM. ADDITIONAL INFORMATION SHOWN FOR REFERENCE ONLY.
2. ALL SECURITY WORK SHALL BE COORDINATED WITH OWNER'S SECURITY VENDOR PRIOR TO INSTALLATION.
3. FINAL LOCATION OF ALL SECURITY DEVICES SHALL BE COORDINATED WITH OWNER, ARCHITECT, AND OWNER'S SECURITY VENDOR.
4. PROVIDE POWER TO J-BOXES ABOVE CEILING OF DOORS, WHERE INDICATED, TO SUPPORT INSTALLATION OF SECURITY AND ACCESS CONTROL DEVICES BY OTHERS.
5. ALL EMPTY RACEWAYS SHALL BE LABELED AND HAVE PULL CORD INSTALLED.

FIRE ALARM SYSTEM:

1. THE SCOPE OF FIRE ALARM WORK INCLUDES:
   a. INSTALLATION OF A NEW NFPA 72 COMPLIANT FIRE ALARM SYSTEM COMPATIBLE WITH EXISTING FIRE ALARM DEVICES.
   b. REWIRING ALL EXISTING DEVICES TO NEW FIRE ALARM SYSTEM.
   c. REMOVAL OF EXISTING FIRE ALARM CONTROL PANEL AND ANNUNCIATOR.
2. FIRE SYSTEM VENDOR SHALL BE DOYLE SECURITY, WHICH IS THE CURRENT FIRE ALARM SYSTEM VENDOR FOR THE FACILITY. REFER TO FIRE ALARM RISER DIAGRAM FOR CONTACT INFORMATION.
3. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH LOCAL FIRE MARSHAL, AND IF REQUIRED, SHALL PROVIDE INTERIM HEAT DETECTOR COVERAGE IN ALL AREAS OF THE EXISTING BUILDING UNDER CONSTRUCTION. THE HEAT DETECTORS SHALL BE LOCATED ON A DRAWING AND BE WIRED TO THE EXISTING FACP. THIS DRAWING SHALL BE SUBMITTED TO THE OWNER AND FIRE MARSHAL FOR APPROVAL. THE ELECTRICAL CONTRACTOR SHALL SUBMIT IN WRITING TO OWNER THAT THE INTERIM HEAT DETECTORS HAVE BEEN SYSTEM TESTED AND ARE CERTIFIED OPERATIONAL BY THE FIRE ALARM VENDOR. THE DETECTORS AND ASSOCIATED TEMPORARY USE EQUIPMENT SHALL BE REMOVED AND TURNED OVER TO THE OWNER WHEN THE NEW PERMANENT SYSTEM IS FULLY INSTALLED, COMMISSIONED, AND CERTIFIED OPERATIONAL BY THE FIRE ALARM VENDOR. THE ELECTRICAL CONTRACTOR SHALL CARRY THE COST FOR INTERIM HEAT DETECTOR COVERAGE AND ASSOCIATED EQUIPMENT IN THE BASE BID.
4. THE EXISTING SYSTEM SHALL REMAIN IN PLACE AND USED FOR THE REQUIRED TEMPORARY HEAT DETECTOR COVERAGE UNTIL THE NEW SYSTEM IS FULLY INSTALLED AND COMMISSIONED.
5. THE FIRE ALARM WORK SHALL PROCEED AS FOLLOWS:
   a. INSTALL TEMPORARY HEAT DETECTOR COVERAGE OR FIRE WATCH AS REQUIRED BY LOCAL FIRE MARSHAL.
   b. CONNECT TEMPORARY HEAT DETECTORS TO EXISTING FACP.
   c. INSTALL NEW FIRE ALARM CONTROL PANELS, TRANSPONDER PANELS, BATTERY CABINETS, BOOSTER CABINETS, AND COMMUNICATIONS WIRING.
   d. INSTALL NEW FIRE ALARM INITIATION AND NOTIFICATION DEVICES AS SHOWN ON PLANS.
   e. CUTOVER EXISTING FIRE ALARM DEVICES TO NEW FACP:
      1. COORDINATE ALL WORK WITH FIRE MARSHAL AND PROVIDE FIRE WATCH DURING PERIODS WHEN EXISTING DEVICES ARE NOT CONNECTED.
      2. INSTALL POWER SUPPLY WIRED TO NEW FACP WITH ALL REQUIRED CONTROL, MONITOR, AND SYNCHRONIZING MODULES NEAR EXISTING AFP-200 FACP. CONNECT POWER SUPPLY TO 120V, 20A CIRCUIT SERVING EXISTING AFP-200 FACP.
      3. REMOVE INTERIOR OF EXISTING FACP AND REMOVE ALL ASSOCIATED COMMUNICATION WIRING, ALL UNUSED POWER WIRING, AND REMOTE ANNUNCIATOR. KEEP CABINET IN PLACE WITH COVER FOR USE AS JUNCTION BOX.
      4. CONNECT EXISTING AFP-200 INITIATION LOOP TO NEW FACP.
      5. CONNECT EXISTING AFP-200 NOTIFICATION CIRCUITS TO NEW POWER SUPPLY.
      6. PROVIDE PROGRAMMING TO RE-ASSIGN EXISTING DEVICE ADDRESSES TO NEW FACP.
   f. INSTALL ALL ADDITIONAL FIRE ALARM HEAD END EQUIPMENT (PANELS, BOOSTERS, BATTERIES, ETC.) AS REQUIRED FOR PROPER OPERATION.
   g. PROVIDE FINAL TESTING AND COMMISSIONING.
   h. PROVIDE COMPLETE SET OF AS-BUILT FIRE ALARM SYSTEM DRAWINGS TO OWNER AND ENGINEER.
   i. REMOVE TEMPORARY HEAT DETECTORS AND ALL ASSOCIATED EQUIPMENT, INCLUDING ALL WIRING AND RACEWAYS.
6. COORDINATE SEQUENCING OF ALL WORK WITH FIRE MARSHAL AND PHASING PLANS.
7. COORDINATE WITH ALL PROJECT DOCUMENTS FOR ADDITIONAL INFORMATION.
8. COORDINATE DEVICE LOCATIONS WITH THE ARCHITECTURAL PLANS AND THE WORK OF ALL OTHER TRADES.

   COORDINATE INTERFACE REQUIREMENTS WITH DIVISION 8, DIVISION 14, DIVISION 21, DIVISION 23, DIVISION 27, AND DIVISION 28.
9. FAILURE TO COORDINATE INTERFACE REQUIREMENTS WILL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY TO COMPLETE THE WORK FOR PROPER OPERATION.

PROJECT PHASING NOTES

1. THIS PROJECT SHALL PROCEED IN TWO PHASES.
2. PHASE-1:
   A. INSTALL NEW ELECTRIC SERVICE FOR FIRE DEPARTMENT, TD BANK, AND CELL SITE.
   B. INSTALL NEW VERIZON SERVICE FOR FIREHOUSE.
   C. INSTALL NEW COMCAST SERVICE FOR FIREHOUSE.

N.I.C.

3. PHASE-2:
   A. SHALL INCLUDE ALL OTHER WORK TO COMPLETE THE PROJECT.
4. REFER TO ELECTRICAL RISER DIAGRAM FOR INFORMATION REGARDING ELECTRICAL PHASES.

OVERHEAD DOOR NOTES

THE ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCHES, STARTERS AND ALL LINE VOLTAGE WIRING AND CONDUIT TO OVERHEAD (OH) DOOR OPERATORS. THE HAND-OFF-AUTO SWITCHES, PUSH BUTTON CONTROL STATIONS (MOMENTARY UP-STOP-DOWN) AND CONTROLLER IS FURNISHED BY THE OH DOOR MANUFACTURER AND INSTALLED BY THE OH DOOR CONTRACTOR. THE ELECTRICAL CONTRACTOR IS TO PROVIDE CONDUIT AND WIRING BETWEEN THE HAND-OFF-AUTO SWITCHES, THE PUSH BUTTON CONTROL STATIONS AND CONTROLLER PER OH DOOR MANUFACTURER REQUIREMENTS. FURNISHING AND INSTALLATION OF THE MOTOR UNIT, OPTICAL SENSORS, PNEUMATIC DOOR SAFETY BOTTOM, LOW VOLTAGE WIRING AND ALL OTHER ACCESSORIES ASSOCIATED WITH THE OH DOORS SHALL BE THE RESPONSIBILITY OF THE OH DOOR CONTRACTOR. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE AND INSTALL STARTERS, DISCONNECT SWITCHES AND COMBINATION STARTER/DISCONNECT DEVICES.

ELECTRICAL DEMOLITION NOTES

1. BEFORE SUBMITTING BID, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BECOME FULLY FAMILIAR WITH THE EXISTING CONDITIONS AND THE DOCUMENTS OF OTHER TRADES UNDER WHICH THEIR WORK WILL BE ACCOMPLISHED. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ASSUMPTIONS, OMISSIONS OR ERRORS MADE AS A RESULT OF FAILURE TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS.
2. THE CONTRACTOR SHALL COORDINATE AND SCHEDULE ANY DAILY INTERRUPTIONS OR SHUTDOWNS OF THE EXISTING SYSTEMS IN ADVANCE WITH OWNER'S DESIGNATED REPRESENTATIVE. THIS SHALL INCLUDE SERVICES INTERRUPTIONS AND CONNECTIONS, MECHANICAL AND ELECTRICAL DISRUPTIONS EFFECTING OTHER TRADES. INCLUDE ALL WORK REQUIRED TO ALLOW PHASED CONSTRUCTION WHERE NECESSARY.
3. DEMOLITION DRAWINGS ARE STRICTLY DIAGRAMMATIC AND SHOW GENERAL ARRANGEMENT AND APPROXIMATE LOCATION OF EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT. IT IS NOT THE INTENT OF THESE DRAWINGS TO SHOW ALL EQUIPMENT, PIPING OR CONDUIT TO BE REMOVED. EQUIPMENT NOT BEING REUSED SHALL BE REMOVED, INCLUDING ALL ASSOCIATED HANGERS, SUPPORTS, PIPES, CONDUITS, WIRES, AND CONTROLS BACK TO THE POINT OF ORIGIN.
4. REFER TO THE ARCHITECTURAL DEMOLITION DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. THE FULL EXTENT OF THE DEMOLITION AND RECONSTRUCTION SCOPE OF WORK SHALL BE DETERMINED BY THE ENTIRE SET OF BID DOCUMENTS.
5. THE CONTRACTORS SHALL COORDINATE THE DEMOLITION SCOPE OF WORK WITH THE GENERAL CONTRACTOR'S OR CONSTRUCTION MANAGER'S PHASING SCHEDULE PRIOR TO COMMENCEMENT OF WORK. CARE MUST BE TAKEN SO AS NOT TO DESTROY, REMOVE OR DEMOLISH ANY EQUIPMENT, APPURTENANCES OR DEVICES INTENDED TO REMAIN. PROVIDE TEMPORARY SERVICES AND SYSTEM MODIFICATIONS TO ACCOMMODATE CONTINUOUS OPERATION OF ACTIVE SYSTEM.
6. THE LOCATION OF EXISTING ELECTRICAL SYSTEM SHOWN ON FLOOR PLANS, IS BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL FIELD VERIFY PRIOR TO COMMENCEMENT OF CONSTRUCTION, EXACT QUANTITY AND LOCATION(S) OF EXISTING EQUIPMENT, PANELS, CONDUITS, LIGHTING, ETC. TO BE REMOVED AND ADJUST AS NECESSARY.
7. ALL EQUIPMENT, AND ASSOCIATED WIRING, CONDUITS INDICATED TO BE REMOVED OR RELOCATED, SHALL BE DISCONNECTED AND REMOVED, INCLUDING HANGERS AND OTHER COMPONENTS. NO EQUIPMENT, WIRING OR CONDUITS SHALL BE ABANDONED IN PLACE, UNLESS SPECIFICALLY NOTED.
8. ALL SYSTEMS TO BE REMOVED SHALL BE REMOVED BACK TO THE POINT OF SOURCE. THE CONTRACTOR SHALL VERIFY WHICH SYSTEMS MUST REMAIN ACTIVE TO SERVE ADJACENT SPACES DURING CONSTRUCTION. SHOULD THE CONTRACTOR ENCOUNTER, DURING DEMOLITION OF EXISTING WALLS OR CHASES, ANY WIRING OR CONDUIT WHICH MUST REMAIN ACTIVE, IMMEDIATELY GIVE NOTICE TO THE ENGINEER, GENERAL CONTRACTOR OR CONSTRUCTION MANAGER.
9. ALL SALVAGEABLE MATERIALS OR EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER AT THE END OF EACH DAY. ITEMS REMOVED AND NOT REUSED OR CLAIMED BY THE OWNER SHALL BECOME PROPERTY OF THE TRADE CONTRACTOR AND SHALL BE TRANSPORTED FROM THE SITE. SITE STORAGE OF REMOVED ITEMS WILL NOT BE PERMITTED.
10. PROPERLY DISPOSE OF ALL DEMOLISHED EQUIPMENT IN COMPLIANCE WITH CODES AND REGULATIONS; THIS APPLIES TO HAZARDOUS MATERIALS AND CONTAMINATED ITEMS TO BE DEMOLISHED.
11. THE CONTRACTOR SHALL OBTAIN EXISTING ELECTRICAL DRAWINGS FROM THE OWNER IF AVAILABLE TO HELP DETERMINE FULL SCOPE OF WORK.

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MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
CKD	CKD		

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT
CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
BID SET

SHEET TITLE
ELECTRICAL GENERAL INFORMATION

DRAWING No.
E 003

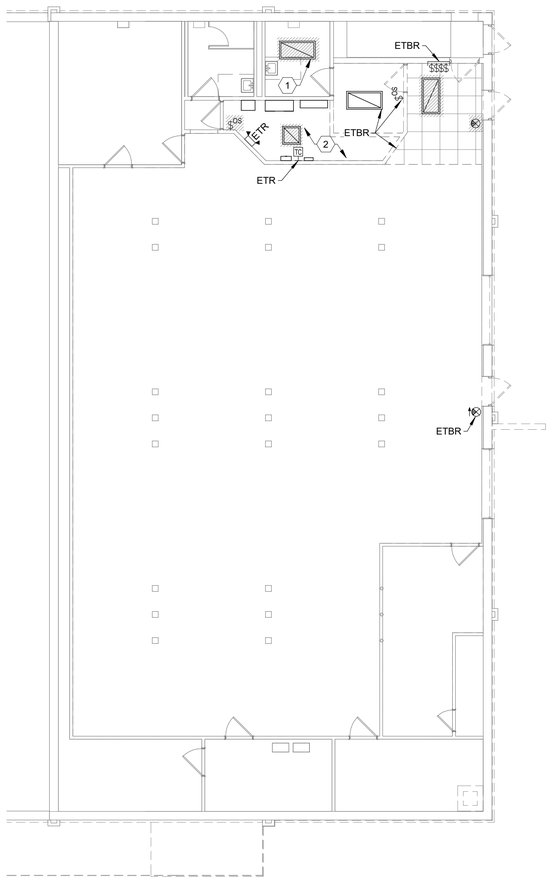
LIGHTING DEMOLITION KEY NOTES

1. EXISTING CIRCUIT AND CONTROLS TO REMAIN FOR REUSE WITH NEW FIXTURE.
2. ALL LIGHTING AND CONTROLS IN THIS AREA ARE TO BE REMOVED INCLUDING ANY ITEMS NOT SHOWN.

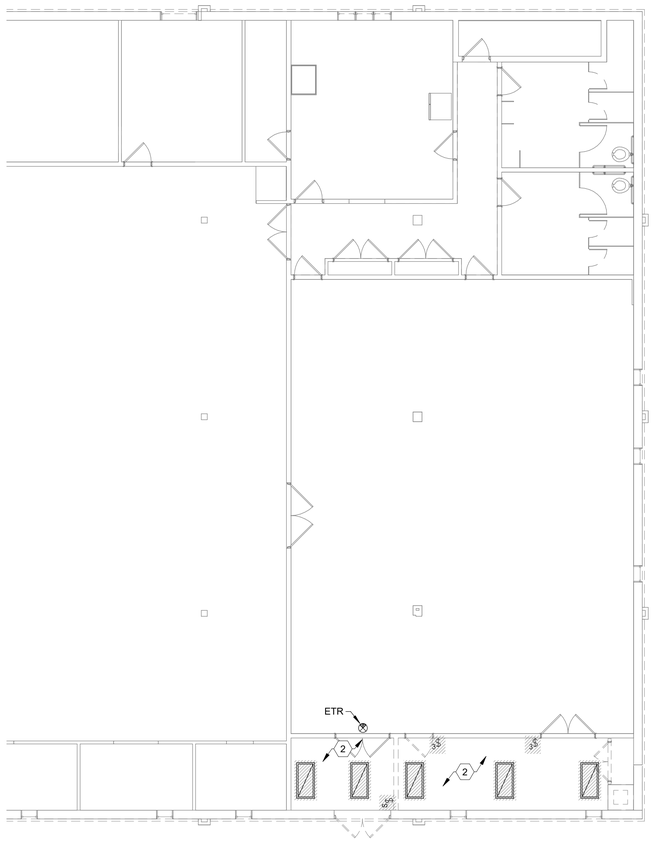
ELECTRICAL LIGHTING DEMOLITION NOTES

- HATCHED AREA INDICATES ITEMS TO BE REMOVED.

1. FOR CLARITY NOT ALL EXISTING LIGHTS ARE SHOWN. PROVIDE DEMOLITION WORK AS INDICATED.
2. COORDINATE WITH ALL OTHER TRADES AND DISCONNECT, REMOVE, REINSTALL, AND REWIRE ALL EXISTING CEILING MOUNTED LIGHT FIXTURES, CONTROLS, AND ASSOCIATED DEVICES REQUIRED TO ACCOMMODATE THE INSTALLATION OF ELECTRICAL, MECHANICAL, PLUMBING, OR FIRE PROTECTION EQUIPMENT AND DEVICES. REFER TO RESPECTIVE CONTRACT DOCUMENTS. COORDINATE ALL WORK WITH OWNER.



1 FIRST FLOOR LIGHTING DEMOLITION RCP
1/8" = 1'-0"



2 SECOND FLOOR LIGHTING DEMOLITION RCP
1/8" = 1'-0"

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SHEET TITLE
LIGHTING DEMOLITION PLANS

DRAWING No.
ED 101

ELECTRICAL POWER DEMOLITION NOTES

1. FOR CLARITY NOT ALL EXISTING DEVICES AND EQUIPMENT ARE SHOWN. PROVIDE DEMOLITION WORK AS INDICATED.
2. COORDINATE WITH ALL OTHER TRADES AND DISCONNECT, REMOVE, REINSTALL, AND REWIRE ALL EXISTING CEILING MOUNTED LIGHT FIXTURES, CONTROLS, AND ASSOCIATED DEVICES REQUIRED TO ACCOMMODATE THE INSTALLATION OF ELECTRICAL, MECHANICAL, PLUMBING, OR FIRE PROTECTION EQUIPMENT AND DEVICES. REFER TO RESPECTIVE CONTRACT DOCUMENTS. COORDINATE ALL WORK WITH OWNER.

POWER DEMOLITION KEY NOTES

1. EXISTING ROOFTOP UNIT TO BE REMOVED.
2. EXISTING CONDENSING UNIT TO BE REMOVED.
3. EXISTING EXHAUST FAN TO REMAIN.
4. EXISTING EXHAUST FAN TO BE REMOVED.
5. EXISTING TRANSFER SWITCH TO BE REMOVED.
6. EXISTING MAIN FUSE PANEL. ALL EXISTING CIRCUITS TO BE RELOCATED TO NEW MDP, THEN PANEL TO BE REMOVED.
7. EXISTING NYSEG CT CABINET TO BE REMOVED.
8. EXISTING BOILER ALONG WITH ALL ASSOCIATED PUMPS AND ACCESSORIES TO BE REMOVED.
9. EXISTING WATER HEATER ALONG WITH ALL ASSOCIATED PUMPS AND ACCESSORIES TO BE REMOVED.

N.I.C.

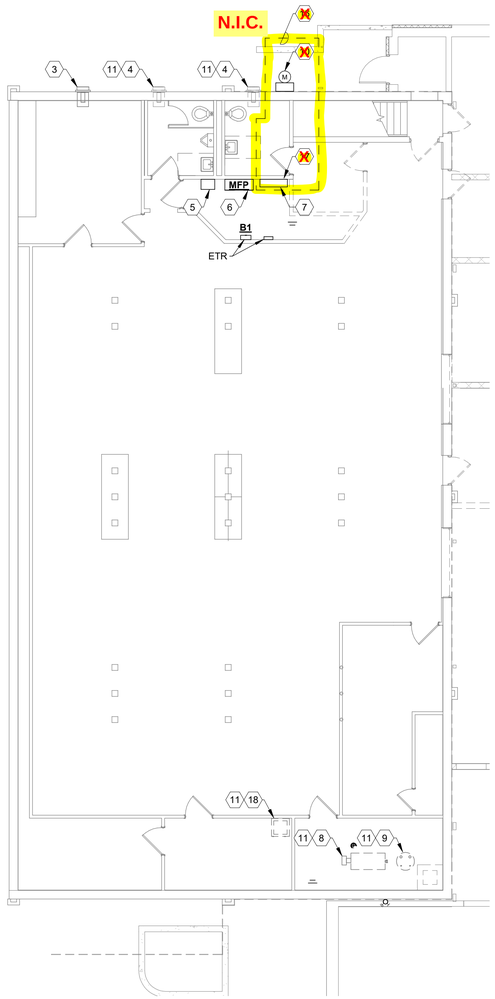
10. EXISTING UTILITY METER AND ASSOCIATED EQUIPMENT CONDUITS AND CONDUCTORS TO BE REMOVED. COORDINATE WITH UTILITY COMPANY.
11. REMOVED ALL WIRING, RACEWAYS, DISCONNECTS, CONTROLS, AND ALL ASSOCIATED ELECTRICAL ELEMENTS BACK TO SOURCE. COORDINATE WITH MECHANICAL CONTRACTOR.
12. EXISTING FIRE ALARM CONTROL PANEL TO BE REMOVED, AND ALL SYSTEM COMPONENTS REWIRED TO NEW FIRE ALARM CONTROL PANEL. REFER TO FIRE ALARM RISER DIAGRAM, SPECIFICATIONS, OTHER INFORMATION ON THE PROJECT DOCUMENTS. COORDINATE ALL WORK WITH OWNER AND OWNER'S FIRE ALARM VENDOR.
13. EXISTING RADIO EQUIPMENT TO BE DISCONNECTED FROM ANTENNA CABLES AND RELOCATED TO NEW RADIO ROOM.
14. EXISTING 1/2" ANTENNA CABLES FROM RADIO TOWER TO BE DISCONNECTED TO FROM RADIO EQUIPMENT, MOVED TO ABOVE CEILING, AND SPLICED TO NEW CABLES.
15. EXISTING RADIO ROOM. ALL EQUIPMENT IN EXISTING RADIO ROOM SHALL BE RELOCATED TO NEW RADIO ROOM. COORDINATE REQUIREMENTS AND OUTAGES WITH OWNER.

N.I.C.

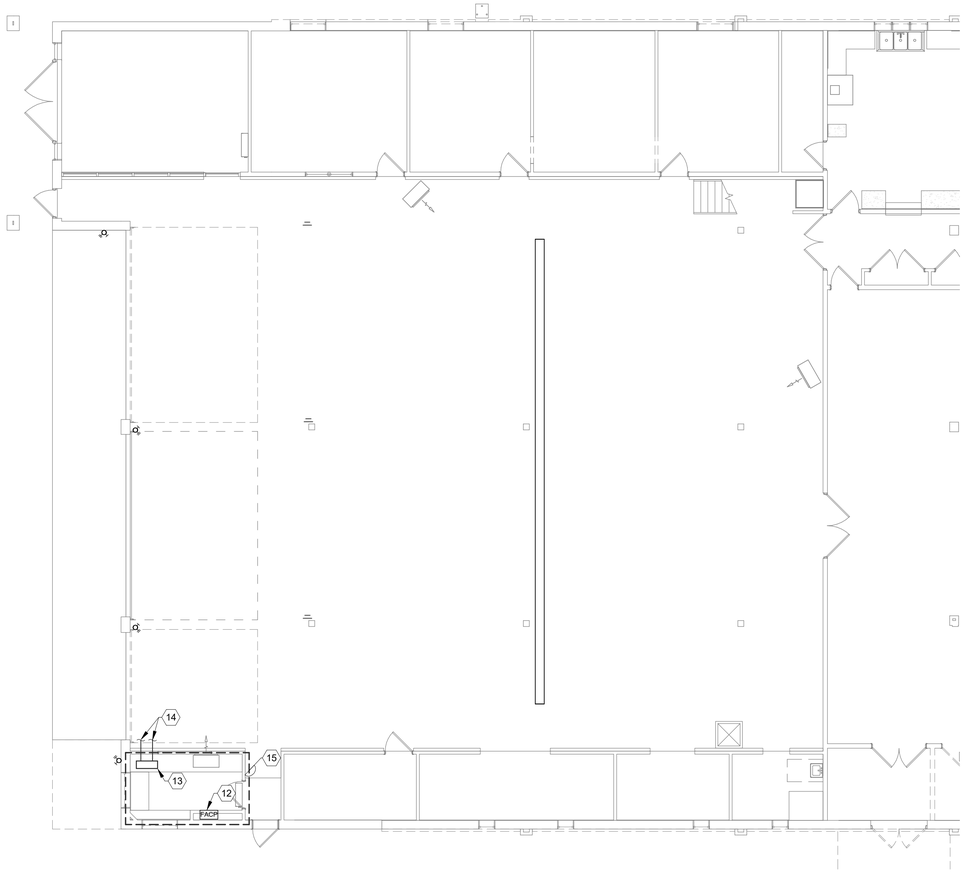
16. PHASE-T SCOPE OF WORK. (REFER TO ELECTRICAL RISER DIAGRAM FOR ADDITIONAL INFORMATION.

N.I.C.

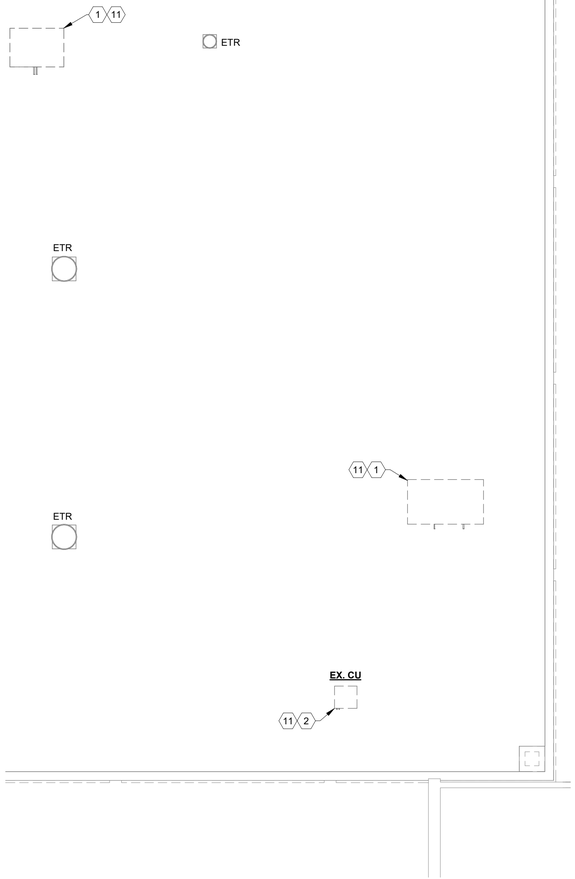
17. EXISTING NYSEG CT CABINET TO BE DISCONNECTED FROM TRANSFORMER, AND VACATED OF ALL INTERNAL COMPONENTS, EXCEPT CONDUCTORS LEADING TO MAIN FUSE PANEL "MFP". CABINET SHALL BE USED AS TEMPORARY SPLICE BOX TO ENABLE PANEL "MFP" TO BE TEMPORARILY CONNECTED TO NEW SERVICE. REFER TO RISER DIAGRAM FOR ADDITIONAL INFORMATION.
18. EXISTING AIR HANDLER TO BE REMOVED.



1 FIRST FLOOR POWER DEMOLITION PLAN
1/8" = 1'-0"



2 SECOND FLOOR POWER DEMOLITION PLAN
1/8" = 1'-0"



3 ROOF POWER DEMOLITION PLAN
1/8" = 1'-0"

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POWER DEMOLITION PLANS

DRAWING No.

ED 201

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1ST FLOOR LIGHTING PLAN KEY NOTES

1. LIGHT AND SWITCH LOCATED IN ELEVATOR PIT. COORDINATE EXACT LOCATION WITH ARCHITECT AND ELEVATOR MFG.
2. LIGHT SWITCHES SHALL BE WIRED TO PROVIDE THE SAME CONTROL FUNCTIONALITY AS BEFORE RELOCATION. PROVIDE ALL WIRING REQUIRED FOR PROPER OPERATION.
3. CONNECT TO SAME CIRCUIT USED PRIOR TO RELOCATION. EXTEND CONDUCTORS AS REQUIRED.
4. CONNECT TO SAME CIRCUIT AND CONTROLS CURRENTLY SERVING THE MEMBERS ROOM.
5. CONNECT TO SAME CIRCUIT AND CONTROLS SERVING PREVIOUS FIXTURE IN ROOM.
6. CONNECT TO SAME CIRCUIT CURRENTLY SERVING MEMBERS ROOM, AND DISCONNECTED FROM FIXTURE IN THIS AREA DURING DEMOLITION.
7. CIRCUIT TO BE WIRED THROUGH CONTACTOR CONTROLLED BY TIMECLOCK AND PHOTOCELL. REFER TO DETAILS.
8. REFER TO SECOND FLOOR LIGHTING RCP FOR LIGHT FIXTURES SERVING THIS AREA.
9. WITHIN THIS ROOM PROVIDE ALTERNATE PRICING TO: REMOVE AND REPLACE (14) EXISTING 2X4 AND (20) DOWNLIGHT FIXTURES WITH NEW LED REPLACEMENTS HAVING SAME VOLTAGE AND OUTPUT LUMEN CHARACTERISTICS. WATTAGE OF NEW FIXTURES SHALL NOT BE GREATER THAN EXISTING. SUBMIT SHOP DRAWINGS TO OWNER FOR REVIEW OF AESTHETICS. CONNECT TO EXISTING CIRCUIT AND CONTROLS SERVING EXISTING LIGHTS. INSPECT EXISTING FIXTURES TO ACQUIRE MFG AND MODEL NUMBER INFORMATION FOR USE IN DETERMINING PERFORMANCE CRITERIA.
10. LOW VOLTAGE SWITCHES FOR CONTROL OF APPARATUS BAY LIGHTS. SWITCH CONTROL SHALL BE AS INDICATED WITH SWITCH LEG DESIGNATION ON FIXTURE AND SWITCH. PROVIDE POWER PACKS AND LOW VOLTAGE WIRING AS REQUIRED FOR PROPER OPERATION.
11. EXISTING CIRCUITS AND CONTROLS FOR EXISTING PARKING LOT POLE LIGHTS TO REMAIN FOR REUSE. EVALUATE TIMECLOCK, PHOTOCELL, AND EXISTING RACEWAYS AND CONDUCTORS FOR CODE COMPLIANCE AND SUITABILITY OF REUSE. PROVIDE REPORT TO OWNER WITH ALL DEFICIENCIES AND ITEMIZED COST OF REMEDIATION.
12. DUAL RELAY WALL OCCUPANCY SENSOR SWITCH FOR CONTROL OF LIGHTING WITHIN BATHROOM AND ALSO CONTROL OF SHARED EXHAUST FAN. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
13. KEYED SWITCH FOR MANUAL OVERRIDE CONTRO OF NIGHTLIGHT FIXTURES IN APPARATUS BAY.

1 FIRST FLOOR LIGHTING RCP
1/8" = 1'-0"

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FIRST FLOOR LIGHTING RCP

DRAWING No.

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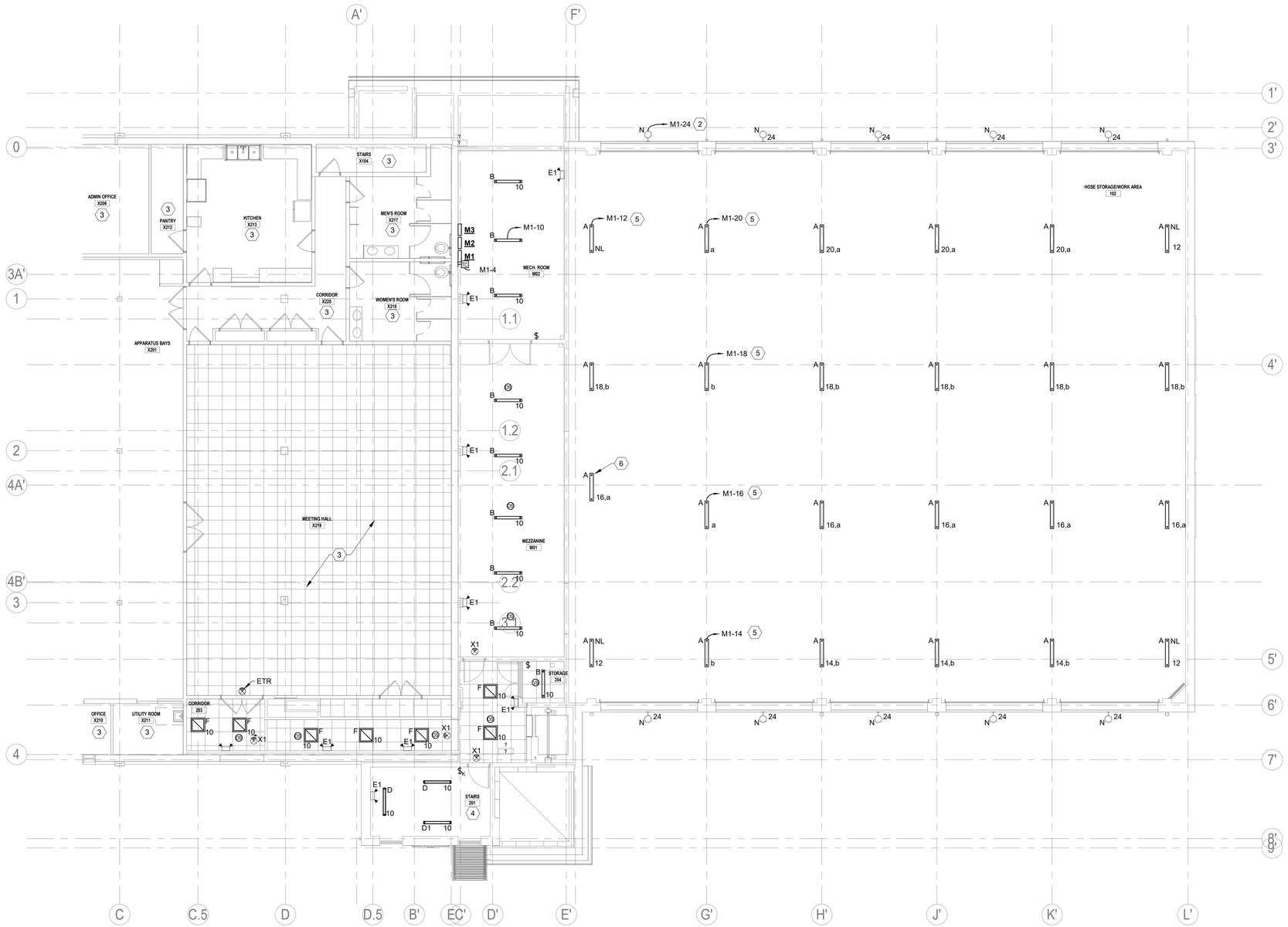
2ND FLOOR LIGHTING PLAN KEY NOTES

1. LIGHT AND SWITCH LOCATED IN ELEVATOR PIT. COORDINATE EXACT LOCATION WITH ARCHITECT AND ELEVATOR MFG.
2. CIRCUIT TO BE WIRED THROUGH CONTACTOR CONTROLLED BY TIMECLOCK AND PHOTOCELL. REFER TO DETAILS.
3. WITHIN THIS ROOM PROVIDE ALTERNATE PRICING TO: REMOVE AND REPLACE (30) EXISTING 2X4 FIXTURES WITH NEW LED REPLACEMENTS HAVING SAME VOLTAGE AND OUTPUT LUMEN CHARACTERISTICS. WATTAGE OF NEW FIXTURES SHALL NOT BE GREATER THAN EXISTING. SUBMIT SHOP DRAWINGS TO OWNER FOR REVIEW OF AESTHETICS. CONNECT TO EXISTING CIRCUIT AND CONTROLS SERVING EXISTING LIGHTS. INSPECT EXISTING FIXTURES TO ACQUIRE MFG AND MODEL NUMBER INFORMATION FOR USE IN DETERMINING PERFORMANCE CRITERIA.
4. FIXTURES IN STAIRWELL TO BE CONTROLLED VIA INTEGRAL OCCUPANCY SENSORS SET FOR 100% ON OPERATION AND 30 MINUTE OFF DELAY. KEY SWITCH SHALL BE WIRED FOR LOCAL OVERRIDE OFF.
5. REFER TO FIRST FLOOR LIGHTING RCP FOR SWITCH CONTROLS. REFER TO LIGHT FIXTURE ANNOTATION DETAIL FOR ADDITIONAL INFORMATION.
6. COORDINATE LOCATION OF LIGHT FIXTURE WITH ARCHITECT AND OWNER TO AVOID OBSTRUCTING TRAINING WALL LAUNCH AREA.



1 SECOND FLOOR LIGHTING RCP
1/8" = 1'-0"

H 2 M architects + engineers

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MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
CKD	CKD		

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CONTRACT

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SECOND FLOOR LIGHTING RCP

DRAWING No.

E 102

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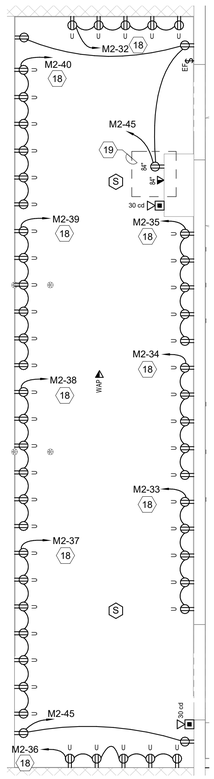
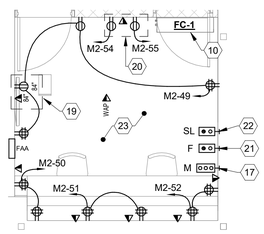
1ST FLOOR POWER PLAN KEY NOTES

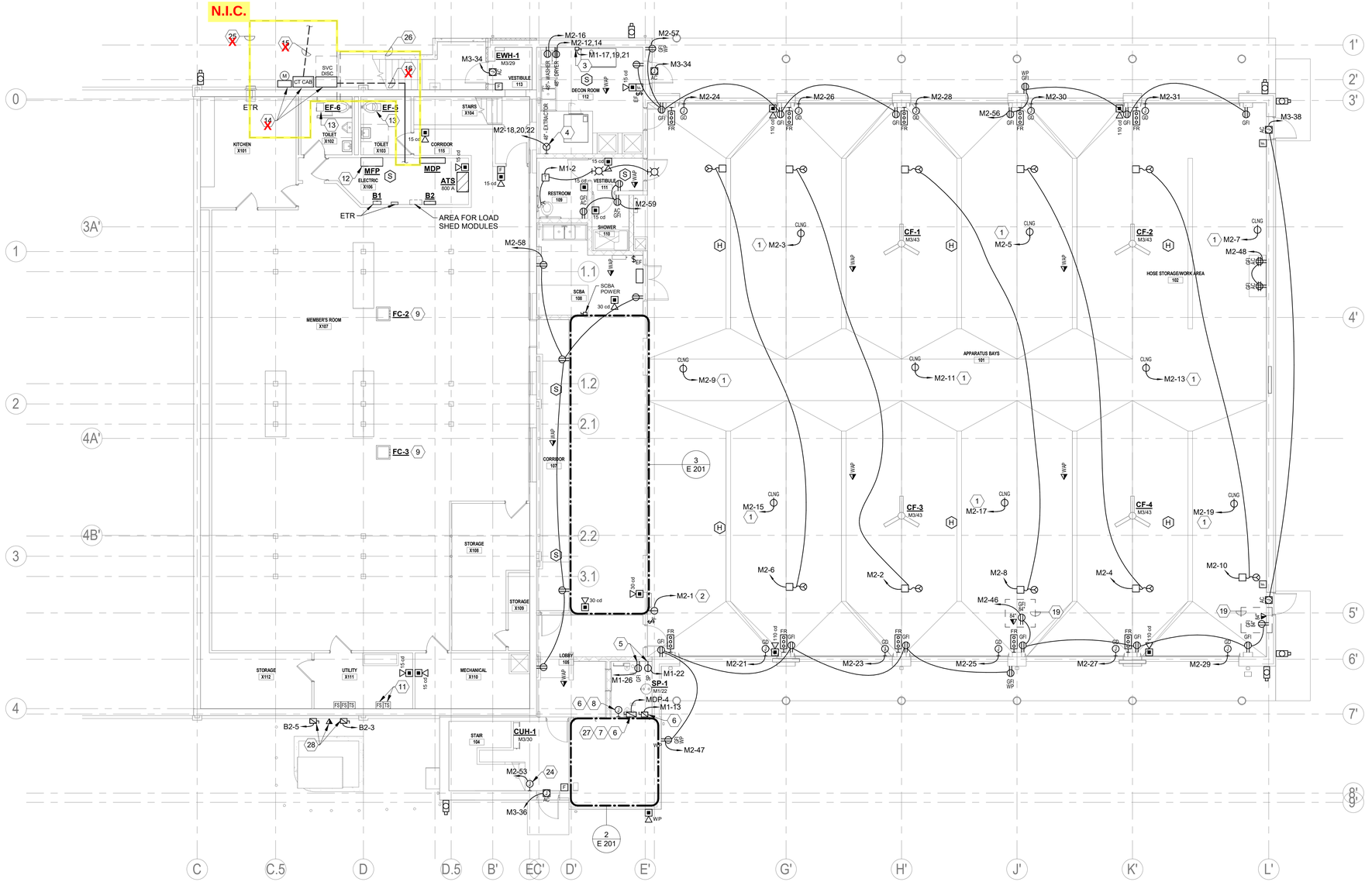
1. RECEPTACLE IS DEDICATED TO AIRVAC DEVICE. ALL CIRCUIT WIRING SHALL PASS THROUGH AIRVAC CONTROL PANEL PER MFG REQUIREMENTS.
2. RECEPTACLE DEDICATED TO AIRVAC CONTROL PANEL. COORDINATE WITH MFG REQUIREMENTS.
3. DESIGN BASED ON UNIMAC FIREFIGHTER'S PPE DRYING CABINET, MODEL UTGC WITH 12 KW HEATING, 208V-3P POWER.
4. DESIGN BASED ON UNIMAC FIRE GEAR CLEANING UC CABINET HARDMOUNT WASHER-EXTRACTOR, MODEL UC80 WITH 9 AMPS FLA AT 208V, 3 PHASE.
5. RECEPTACLE LOCATED IN ELEVATOR PIT. COORDINATE EXACT LOCATION WITH ARCHITECT AND ELEVATOR MFG.
6. DEVICES FOR MAIN ELEVATOR POWER AND CAB LIGHTING CIRCUITS SHOWN IN ELEVATOR SHAFT FOR REFERENCE ONLY. COORDINATE WITH ARCHITECT AND ELEVATOR MFG FOR EXACT LOCATION. DISCONNECTS MUST BE LOCKABLE IN THE OFF POSITION.
7. BUSSMANN QUICK SPEC POWER MODULE SWITCH / ELEVATOR DISCONNECT. REFER TO DETAILS.
8. JUNCTION/PULL BOX FOR TELEPHONE CABLES TO ELEVATOR. PROVIDE ONE DEDICATED OUTSIDE TELEPHONE LINE PER MFG SPECIFICATIONS.
9. DEVICES FC-2 & FC-3 ARE POWERED FROM ASSOCIATED OUTDOOR UNIT HP-2. PROVIDE ALL WIRING FOR PROPER OPERATION. REFER TO MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
10. DEVICE FC-1 IS POWERED FROM ASSOCIATED OUTDOOR UNIT HP-1. PROVIDE ALL WIRING FOR PROPER OPERATION. REFER TO MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
11. DEVICES ARE RELOCATED FROM TOP OF RISER. REMOVE AND REINSTALL AS REQUIRED. REFER TO FIRE PROTECTION PLANS FOR ADDITIONAL INFORMATION.
12. EXISTING MAIN FUSE PANEL. RELOCATE ALL CIRCUITS TO NEW MDP AND REMOVE PANEL. REFER TO RISER DIAGRAM FOR ADDITIONAL INFORMATION.
13. CONNECT TO SAME CIRCUIT AND CONTROLS AS PREVIOUS FAN IN ROOM.
14. SERVICE EQUIPMENT MOUNTED TO BUILDING EXTERIOR. COORDINATE EXACT LOCATION WITH UTILITY COMPANY AND ARCHITECT. VERIFY ADEQUATE CLEARANCE FOR STAIR ACCESS. REFER TO RISER DIAGRAM FOR ADDITIONAL INFORMATION. **N.I.C.**
15. SERVICE LATERAL FROM UTILITY TRANSFORMER. REFER TO RISER DIAGRAM AND CIVIL PLANS.
16. CONDUIT AND CONDUCTORS FROM MAIN SERVICE DISCONNECT TO DISTRIBUTION EQUIPMENT IN ELECTRIC ROOM. ROUTE CONDUITS UNDERGROUND FROM DISCONNECT ALONG BUILDING AND RISE AT PENETRATION LOCATION. COORDINATE ALL ROUTING IN FIELD AND WITH ARCHITECT. ALL EXPOSED CONDUIT SHALL BE ROUTED TIGHT TO BUILDING. PROVIDE EXPANSION JOINTS WHERE CONDUITS EXTEND FROM GRADE, PER NEC REQUIREMENTS. REFER TO RISER DIAGRAM FOR DESCRIPTION OF PHASE-1 AND PHASE-2 ELEMENTS OF WORK WITHIN ELECTRIC ROOM.
17. COORDINATE WITH ARCHITECT FOR EXACT DOORS BEING CONTROLLED BY MASTER STATION.
18. RECEPTACLES TO BE INSTALLED IN CONTINUOUS RUN OF SURFACE RACEWAY SYSTEM MOUNTED ABOVE LOCKERS (GEAR RACKS) WITH ONE RECEPTACLE CENTERED OVER EACH RACK. COORDINATE HEIGHT WITH ARCHITECT. PROVIDE ALL ACCESSORIES REQUIRED. RECEPTACLES TO BE ORIENTED HORIZONTALLY.
19. COORDINATE DEVICE LOCATION AND HEIGHT WITH DISPLAY MONITOR.
20. DEVICES ARE FOR SECURITY PANEL. COORDINATE LOCATIONS WITH ARCHITECT.
21. 1 HOUR TIMER SWITCH FOR ACTIVATION OF FUELING STATION. DESIGN BASED ON INTERMATIC FF60MC. COORDINATE WITH FUELING SYSTEM SPECIFICATIONS AND PROVIDE ALL WIRING AND ACCESSORIES REQUIRED FOR PROPER OPERATION. COORDINATE MOUNTING LOCATION WITH ARCHITECT AND OWNER.
22. TRAFFIC LIGHT CONTROL SWITCH RELOCATED FROM ORIGINAL RADIO ROOM. PROVIDE ALL WIRING FOR PROPER OPERATION. COORDINATE LOCATION WITH OWNER AND ARCHITECT.
23. RELOCATE ALL EQUIPMENT FROM ORIGINAL RADIO ROOM TO NEW RADIO ROOM. COORDINATE WITH OWNER FOR PLACEMENT AND SETUP OF ALL EQUIPMENT. PROVIDE ALL POWER AND DATA CONNECTIONS REQUIRED.
24. JUNCTION BOX LOCATED ABOVE CEILING FOR POWER TO FUTURE ELECTRIC SIGN.
25. SF[illegible]ORK SHALL BE PERFORMED IN PHASE-1 AS INDICATED ON RISER DIAGRAM. REFER TO RISER DIAGRAM F[illegible]AL INFORMATION REGARDING PHASING. **N.I.C.**
26. ELEMENTS OF THIS ITEM ARE PHASE-1, AND OTHER ELEMENTS ARE PHASE-2. REFER TO RISER DIAGRAM FOR ELEMENTS OF SCOPE ASSOCIATED WITH EACH PHASE.
27. CIRCUIT MUST BE WIRED THROUGH LOAD SHED RELAY. PROVIDE PROPERLY SIZED FOR CIRCUIT. REFER TO LOAD SHED SCHEMATIC DETAIL.
28. PROVIDE ALL FINAL CONNECTIONS OR PROPER OPERATION OF FUEL FILLING STATION, MONITORING SYSTEM, AND ASSOCIATED TIMER SWITCH IN RADIO ROOM. PROVIDE DATA OUTLET FOR CONNECTION OF MONITORING SYSTEM.
29. JUNCTION BOX LOCATED ABOVE DOOR WITH 120V POWER FOR USE BY ACCESS CONTROL VENDOR/INSTALLER.



3 TURNOUT GEAR ROOM PART PLAN
1/4" = 1'-0"



2 RADIO ROOM PART PLAN
1/4" = 1'-0"



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

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FIRST FLOOR POWER PLAN

DRAWING No.
E 201

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2ND FLOOR POWER PLAN KEY NOTES

1. NEW 1/2" ANTENNA CABLES FROM EXISTING RADIO ROOM TO NEW RADIO ROOM. EXISTING 1/2" CABLES FROM RADIO TOWER TO BE DISCONNECTED TO FROM RADIO EQUIPMENT, MOVED TO ABOVE CEILING, AND SPLICED TO NEW CABLES. COORDINATE ALL ASPECTS OF WORK, CABLE TYPE, CABLE TERMINATIONS, AND CABLE ROUTING WITH OWNER'S RADIO TELECOM VENDOR (KEVIN RONALD AT METROCOM WIRELESS, 914-244-3500 X-101, KEVIN@METROCOMRADIO.COM).
2. RECEPTACLE IS FOR GAS OVEN IGNITER CIRCUIT. PROVIDE SHUNT TRIP BREAKER AND CONNECT TO EXHAUST HOOD CONTROL PANEL TO DE-ENERGIZE CIRCUIT ON ANSUL SYSTEM ACTIVATION. COORDINATE WITH HOOD MFG.
3. 120V POWER FOR MECHANICAL CONTROL RELAYS. REFER TO HEATING SYSTEM CONTROL SCHEMATIC ON MECHANICAL PLANS, AND COORDINATE WITH MECHANICAL CONTRACTOR. JUNCTION BOX SHOWN FOR REFERENCE ONLY. PROVIDE ALL FINAL CONNECTIONS TO RELAY MODULES.
4. AREA DESIGNATED FOR LOAD SHED RELAY MODULES, FOR CIRCUITS WIRED TO ADJACENT PANELS.
5. CIRCUIT FOR WATER HEATER RECIRCULATOR PUMP RP-1. PROVIDE ALL FINAL CONNECTIONS AND DISCONNECT FOR PROPER OPERATION.
6. CIRCUIT FOR FUTURE ELECTRIC SIGN LIGHTING.

GENERAL:

1. NOT ALL EXISTING EQUIPMENT SHOWN, FOR CLARITY. PROVIDE SCOPE OF WORK AS SHOWN.

1 SECOND FLOOR POWER PLAN
1/8" = 1'-0"

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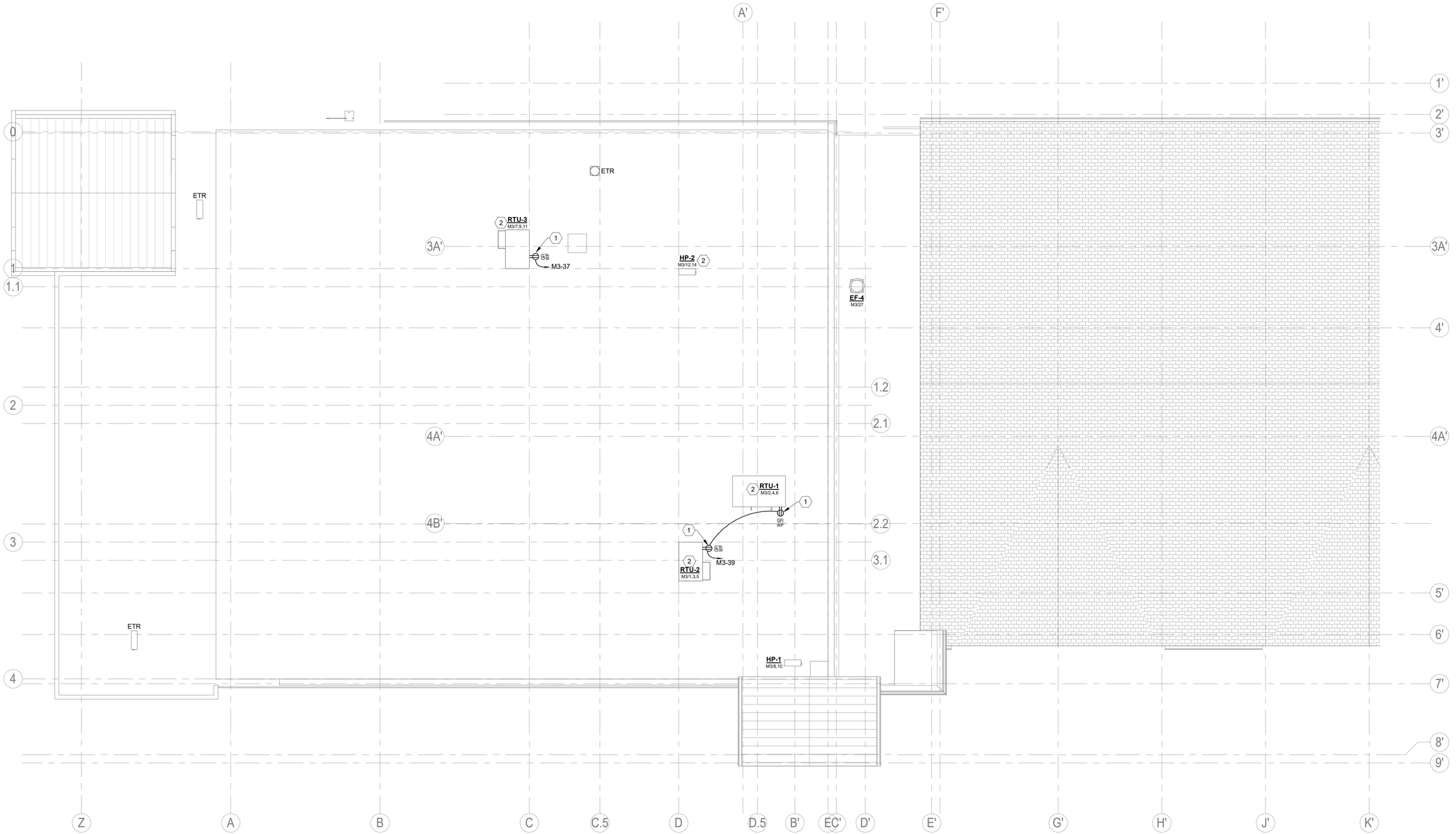
ROOF POWER PLAN KEY NOTES

1. RECEPTACLES ARE INTEGRAL TO RTU ASSEMBLY PROVIDED BY RTU MFG. PROVIDE POWER AS INDICATED.
2. CIRCUIT MUST BE WIRED THROUGH LOAD SHED RELAY. PROVIDE PROPERLY SIZED FOR CIRCUIT. REFER TO LOAD SHED SCHEMATIC DETAIL.



2 ELECTRICAL ROOF PLAN
1/8" = 1'-0"

H 2 M architects + engineers

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ELECTRICAL ROOF PLAN

DRAWING No.

E 203

ELECTRICAL RISER DIAGRAM KEY NOTES

1. EXISTING UTILITY POLE ON VINK DRIVE TO BE REMOVED AND REPLACED WITH NEW POLE IN SAME LOCATION. POLE NUMBER: "NYSEG 269 / 14-1 / 6A".
2. EXISTING PRIMARY CONDUCTORS AND RACEWAYS TO EXISTING TRANSFORMER, TO BE REMOVED.
3. EXISTING PAD-MOUNT UTILITY TRANSFORMER TO BE REMOVED, INCLUDING CONCRETE PAD/VAULT, GROUNDING, AND ALL ASSOCIATED CONDUITS, CONDUCTORS, AND ACCESSORIES.
4. EXISTING UTILITY POLE ADJACENT TO TRANSFORMER TO BE REMOVED. POLE NUMBER: "NYSEG 14-2".
5. SECONDARY CONDUITS AND CONDUCTORS SERVING TD BANK FROM EXISTING TRANSFORMER. PORTION FROM EXISTING TRANSFORMER TO NEW SPLICE SHALL BE REMOVED.
6. EXISTING UTILITY POLE ON TD BANK PROPERTY, TO REMAIN
7. PORTION OF EXISTING TD BANK SECONDARY CONDUCTORS TO REMAIN. THE OVERHEAD PORTION OF THESE CONDUCTORS SHALL BE CUT BY NYSEG AND SPLICED TO NEW CONDUCTORS FROM NEW TRANSFORMER. REFER TO ADDITIONAL NOTES FOR INFORMATION REGARDING CUTOVER AND COORDINATION.
8. SPLICE CONNECTION OF EXISTING CONDUCTORS TO NEW. WORK PERFORMED BY NYSEG. SCHEDULE TO BE COORDINATED WITH TD BANK.
9. EXISTING GENERATOR, FUEL TANK, ENCLOSURE, AND BASE TO BE REMOVED AND RETURNED TO OWNER. COORDINATE WITH OWNER FOR STORAGE LOCATION AND PROVIDE RIGGING, PREPARATION, DELIVERY, AND OFFLOAD TO FINAL STORAGE LOCATION. ANY COMPONENTS THAT THE OWNER DOES NOT WANT SHALL BECOME THE PROPERTY OF THE ELECTRICAL CONTRACTOR FOR REMOVAL AND DISPOSAL. REMOVAL SHALL INCLUDE CONCRETE FOUNDATION, AND ALL ENGINE FUEL AND FLUIDS.
10. EXISTING CONDUITS AND CONDUCTORS ASSOCIATED WITH THE GENERATOR TO BE REMOVED. THIS SHALL INCLUDE ALL CONDUITS AND CONDUCTORS FOR OUTPUT POWER, GROUNDING, COMMUNICATIONS, ALARMS, AND ALL MISCELLANEOUS OTHER CIRCUITS FOR BLOCK HEATER, BATTERY CHARGER, AND ANY OTHER ACCESSORIES OR COMPONENTS.
11. EXISTING METER CENTER SERVING THE ATC TOWER COMPOUND TO REMAIN.
12. EXISTING MAIN LUG TERMINAL BOX TO REMAIN. DEVICE SHALL BE DISCONNECTED FROM EXISTING TRANSFORMER AND BE RECONNECTED TO NEW TRANSFORMER. REFER TO ADDITIONAL NOTES FOR INFORMATION REGARDING CUTOVER AND COORDINATION.
13. EXISTING CONDUITS AND CONDUCTORS FROM EXISTING TRANSFORMER TO BE REMOVED.
14. THREE SETS OF: (3) 400 KCMIL, 4" CONDUIT. (BASED ON 300' MAX CONDUCTOR LENGTH.)
15. NEW UTILITY POLE BY NYSEG TO REPLACE EXISTING. TO BE INSTALLED ADJACENT TO EXISTING POLE: "NYSEG 269 / 14-1 / 6A".
16. ONE 4' CONDUIT AND CONDUCTORS FOR PRIMARY SUPPLY OF NEW PAD-MOUNT TRANSFORMER. MUST BE ENCASED WITH CONCRETE WHERE UNDER DRIVEWAYS OR PARKING AREAS. COORDINATE ALL REQUIREMENTS WITH UTILITY COMPANY AND SITE/CIVIL PLANS.
17. NEW UTILITY TRANSFORMER, PROVIDED BY UTILITY COMPANY.
18. PROVIDE UTILITY TRANSFORMER GROUNDING PER NEC AND UTILITY COMPANY REQUIREMENTS.
19. PROVIDE TRANSFORMER PAD, VAULT, AND ACCESSORIES PER UTILITY COMPANY REQUIREMENTS.
20. UTILITY COMPANY CT CABINET, METER PAN, AND METER, FURNISHED BY UTILITY COMPANY, INSTALLED BY ELECTRICAL CONTRACTOR.
21. MAIN SERVICE DISCONNECT: 800A, 240V, 100KAIC, 3P, NEMA 3R, HEAVY DUTY, SERVICE ENTRANCE RATED, LOCKABLE, FUSED DISCONNECT WITH LUGS TO ACCOMMODATE ALL SPECIFIED CONDUCTORS. DESIGN BASED ON SQUARE-D. PROVIDE WITH NEUTRAL ASSEMBLY AND ALL OTHER ACCESSORIES REQUIRED FOR USE AS SERVICE EQUIPMENT.
22. PROVIDE LABEL INDICATING "MAIN SERVICE DISCONNECT". PROVIDE ADDITIONAL LABEL INDICATING TYPE AND LOCATION OF ONSITE GENERATOR.
23. SERVICE GROUND PER NEC REQUIREMENTS. PROVIDE #3/0 AWG GROUNDING ELECTRODE CONDUCTOR BONDED TO GROUND RODS. PROVIDE FULL SIZE SYSTEM BONDING JUMPER. PROVIDE INTERSYSTEM BONDING DEVICE. PROVIDE 3/0 AWG JUMPER FROM GROUND RODS TO COMMUNICATIONS TOWER GROUNDING ELECTRODES. REFER TO DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
24. SERVICE LATERAL. TWO SETS OF: (4) 600 KCMIL, 4" CONDUIT.
25. FOUR SETS OF: (4) 3/0 AWG, (1) 1/0 AWG GROUND, 2" CONDUIT. CONDUIT SHALL EXTEND UNDERGROUND FROM MAIN BREAKER TO EXTERIOR WALL OF BASEMENT LADIES BATHROOM, THEN PENETRATE THE WALL ABOVE THE CEILING SPACE OF THE BATHROOM, AND THEN PROCEED TO THE ELECTRIC ROOM. REFER TO ELECTRICAL AND ARCHITECTURAL PLANS FOR ROUTING INFORMATION AND PROVIDE JUNCTION/PULL BOXES WHERE REQUIRED.
26. TWO SETS OF: (4) 600 KCMIL, (1) 1/0 AWG GROUND, 4" CONDUIT.
27. AUTOMATIC TRANSFER SWITCH "ATS" WITH THE FOLLOWING FEATURES: 800A, 208V, 3P, SOLID NEUTRAL, NEMA-1, OPEN TRANSITION, ENGINE EXERCISER, INTEGRAL TVSS ON EMERGENCY AND NORMAL INPUTS, FOUR LUGS PER PHASE SIZED 1/0 TO 600 KCMIL, 5 YEAR WARRANTY, (DESIGN BASED ON ASCO 300 SERIES.)
28. 1" CONDUIT WITH CONDUCTORS FOR GENERATOR COMMUNICATION AND CONTROL. COORDINATE REQUIREMENTS WITH GENERATOR MFG FOR PROPER OPERATION.
29. BREAK GLASS TYPE EMERGENCY GENERATOR SHUT OFF SWITCH. COORDINATE QUANTITY AND LOCATIONS WITH FIRE MARSHAL. ALL LOCATIONS MUST BE APPROVED BY FIRE MARSHAL.
30. 1" CONDUIT TO GENERATOR WITH CONDUCTORS REQUIRED FOR PROPER OPERATION OF EMERGENCY GENERATOR SHUT OFF SWITCH AND REMOTE GENERATOR ALARM/ANNUNCIATOR PANEL. PROVIDE ALL FINAL CONNECTIONS FOR PROPER OPERATION.
31. GENERATOR COOLANT/BLOCK HEATER.
32. PROVIDE 208V, 20A, SINGLE PHASE CIRCUIT FOR BLOCK HEATER. REFER TO PANEL SCHEDULES.
33. GENERATOR BATTERY CHARGER.
34. PROVIDE 120V, 20A CIRCUIT FOR BATTERY CHARGER. REFER TO PANEL SCHEDULES.
35. CUMMINS MODEL C150DGD, 150 KW, 208V, 3P, DIESEL FUELED GENERATOR WITH F217-2 WEATHERPROOF SOUND ATTENUATED (LEVEL -2) ENCLOSURE. GENERATOR SHALL BE NFPA 110, LEVEL-1 COMPLIANT WITH 450A, 3P OUTPUT BREAKER. WITH 72 HOUR FUEL TANK WITH 1055 USABLE GALLON CAPACITY. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. (ALTERNATE MFG'S NOT PERMITTED.)
36. GENERATOR GROUNDING PER NEC AND MFG SPECIFICATIONS.
37. MAIN DISTRIBUTION PANEL: 800A, 208Y/120V, 3P, 4W, NEMA-1, 65 KAIC, 800A MCB, TWENTY 3-POLE BRANCH CIRCUIT BREAKER SPACES. DESIGN BASED ON SQUARE-D I-LINE HCR-U DOUBLE ROW PANEL WITH 108" OF TOTAL CIRCUIT BREAKER SPACE, INTEGRAL TVSS, AND TYPE MJ MAIN CIRCUIT BREAKER. REFER TO PANEL SCHEDULE FOR ADDITIONAL INFORMATION.
38. NEW ELECTRIC PANEL. REFER TO PANEL SCHEDULE FOR ADDITIONAL INFORMATION.
39. (4) #3/0, (1) #6 AWG GROUND, 2-1/2" CONDUIT.
40. TWO SETS OF: (4) 350 KCMIL, (1) #1 AWG GROUND, 3" CONDUIT.
41. EXISTING PANEL TO REMAIN.
42. EXISTING CONDUIT AND CONDUCTORS TO REMAIN.
43. EXISTING CONDUIT AND CONDUCTORS TO BE TRACED TO SOURCE AND IDENTIFIED. LABELS SHALL BE ADDED TO EACH PANEL INDICATING SOURCE PANEL AND CIRCUIT PER THE CONTRACT DOCUMENTS. IF PANELS ARE FED FROM EXISTING MAIN FUSE PANEL "MFP" THEY SHALL BE RELOCATED TO NEW MDP WITH NEW CIRCUIT BREAKERS MATCHING EXISTING SOURCE FUSE RATING. IF PANELS ARE FED FROM AN ETR PANEL, THEY SHALL REMAIN AS IS.
44. PANEL TO BE RENAMED "B1". PROVIDE LABEL INDICATING SOURCE PANEL AND CIRCUIT PER THE SPECIFICATIONS.
45. EXISTING NYSEG CT CABINET TO BE VACATED OF ALL SERVICE CONDUCTORS AND METERING EQUIPMENT. CABINET SHALL REMAIN AND BE USED AS TEMPORARY JUNCTION BOX. CONDUIT AND CONDUCTORS FEEDING EXISTING MAIN FUSE PANEL SHALL REMAIN AND BE SPLICED TO NEW TEMPORARY FEEDER CONDUCTORS FROM NEW JUNCTION BOX, AS INDICATED.
46. EXISTING 400A ATS TO BE REMOVED AND RETURNED TO OWNER. ALL CONDUITS AND CONDUCTORS ASSOCIATED WITH THIS DEVICE SHALL BE REMOVED.
47. EXISTING MAN FUSE PANEL "MFP" TO BE REMOVED. PRIOR TO REMOVAL ALL CIRCUITS SHALL BE RELOCATED TO PANEL MDP. EACH RELOCATED CIRCUIT SHALL BE FED FROM A DEDICATED CIRCUIT BREAKER WITH THE SAME RATING AS THE FUSE PREVIOUSLY PROTECTING THE CIRCUIT. ALL CIRCUITS SHALL BE PROPERLY LABELED. PRIOR TO RELOCATING EACH CIRCUIT, ALL CONDUCTORS, RACEWAYS, AND OVERCURRENT DEVICE RATINGS SHALL BE EVALUATED FOR CODE COMPLIANCE AND EXAMINED FOR SUITABILITY OF REUSE. ALL DEFICIENCIES SHALL BE PRESENTED TO OWNER WITH ITEMIZED COST BREAKDOWN FOR REMEDIATION.
48. AFTER PANEL MFP HAS BEEN OFFLOADED AND DE-ENERGIZED, EXISTING NYSEG CT CABINET TO BE REMOVED, ALONG WITH ALL ASSOCIATED CONDUITS AND CONDUCTORS.
49. EXISTING CONDUITS AND CONDUCTORS TO BE REMOVED. TYPICAL.
50. EXISTING SERVICE LATERAL TO BE REMOVED. COORDINATE ALL WORK WITH NYSEG.
51. NEW UTILITY POLE BY NYSEG. LOCATED NEAR EXITING OVERHEAD LINES FEEDING BANK TO FACILITATE CUTOVER TO NEW TRANSFORMER.
52. NEW SERVICE CONDUCTORS FOR CONNECTION TO TD BANK.
53. PORTION OF EXISTING PANEL FEEDER TO REMAIN AND BE EXTENDED TO NEW PANEL MDP.
54. JUNCTION BOX TO SPLICE NEW FEEDER TO EXISTING. COORDINATE LOCATION IN FIELD.
55. NEW CONDUIT AND CONDUCTORS TO MATCH EXISTING CONDUIT AND CONDUCTORS FEEDING EXISTING PANEL. CONNECT TO NEW CIRCUIT BREAKER MATCHING THE RATING OF THE FUSES PROTECTING THE EXISTING FEEDER CONDUCTORS. CONNECT TO EXISTING CONDUCTORS VIA SPLICE IN NEW JUNCTION BOX.
56. GENERATOR OUTPUT BREAKER. REFER TO GENERATOR SPECIFICATIONS FOR ADDITIONAL INFORMATION.
57. 2 SETS OF: (4) 4/0 AWG, (1) #2 AWG GROUND, 3" CONDUIT.
58. MANUAL TRANSFER SWITCH BASED ON ASCO 300NTS WITH THE FOLLOWING FEATURES: NEMA-3R, 400A, 208V, OPEN TRANSITION, SOLID NEUTRAL, SECURE DOUBLE DOOR ENCLOSURE, STRIP HEATER WITH THERMOSTAT WIRED TO LOAD TERMINALS, PHASE MONITORING, TWO AUXILIARY CONTACTS WIRED TO NORMAL, TWO AUXILIARY CONTACTS WIRED TO EMERGENCY, MANUALLY INITIATED VIA SOFT KEYS ON FRONT INTERFACE PANEL, SOURCE ACCEPTABILITY INDICATOR LIGHTS.
59. GENERATOR CONNECTION BOX WITH MAIN BREAKER, CAMLOCK COMPARTMENT AND THE FOLLOWING FEATURES: 400A, 120/208V, 3P, 4W+G, SERIES 16 CAM LOCKS, SINGLE NEUTRAL, NEMA-3R, 400A MAIN BREAKER, PHASE SEQUENCE METER. DESIGN BASED ON UNION CONNECTOR MODEL GCP-N-0. PROVIDE WITH LUGS SIZED T0 ACCEPT 600 KCMIL CONDUCTORS.
60. CONCRETE EQUIPMENT PAD.
61. SCOPE OF WORK ASSOCIATED WITH THIS AREA SHALL BE PRICED AS "ADD ALTERNATE #E1".
62. EXTEND TO GENERATOR OUTPUT BREAKER FOR BASE BID PRICING.
63. COPPER GROUND BAR WITH INSULATORS, BRACKETS AND STAINLESS STEEL MOUNTING HARDWARE. LOCATE ON WALL ADJACENT TO MDP. REFER TO GROUNDING RISER DIAGRAM FOR ADDITIONAL INFORMATION.
64. #3/0 AWG GREEN INSULATED GROUNDING ELECTRODE CONDUCTOR IN 3/4" C BONDED TO GROUND RODS. BOND TO SAME GROUND ROD AS MAIN SERVICE GROUNDING ELECTRODE CONDUCTOR. REFER TO DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. ALL BONDING SHALL BE BY EXOTHERMIC WELDING.
65. #3/0 AWG GREEN INSULATED GROUNDING CONDUCTOR IN 3/4" C BONDED TO GROUNDING LUG IN MAIN SERVICE DISCONNECT
66. #2/0 AWG GREEN INSULATED GROUNDING CONDUCTOR IN 3/4" C BONDED TO GROUND BAR AT IT RACK. COORDINATE LOCATION WITH OWNER.
67. #3/0 AWG GREEN INSULATED BONDED TO BUILDING STEEL.
68. PROVIDE BONDING JUMPERS FOR ALL ONSITE GROUNDING ELECTRODES AS REQUIRED BY NEC (THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, CONCRETE ENCASE ELECTRODE WITHIN NEW FOUNDATION). PROVIDE DEDICATE JUMPER FOR EACH GROUNDING ELECTRODE. JUMPERS SHALL BE SIZED PER NEC BUT SHALL NOT BE SMALLER THAN #2 AWG.
69. 2" CONDUITS, ONE EACH FOR TELEPHONE, CABLE TV, AND SPARE. EXTEND TO PEDESTALS & PULL BOXES NEAR NEW TRANSFORMER. PROVIDE PULL CORD, CAP, AND LABEL AT EACH END. PROVIDE TRAFFIC RATED PULL BOX ALONG ROUTE AS REQUIRED. INSTALL IN SAME TRENCH AS POWER CONDUITS, BUT MAINTAIN 12" HORIZONTAL SPACING. PROVIDE CONCRETE ENCASEMENT WHERE CROSSING DRIVEWAYS OR PARKING LOTS. REFER TO SITE/CIVIL PLANS FOR ADDITIONAL INFORMATION.
70. 2" CONDUITS, ONE EACH FOR TELEPHONE, CABLE TV, AND SPARE. EXTEND TELCO AND SPARE TO AREA ABOVE EXISTING TELCO BACKBOARD IN MAIN ELECTRIC ROOM. EXTEND CABLE TV CONDUIT TO AREA ON EXTERIOR OF BUILDING CLOSE TO CABLE TV DEMARC. PROVIDE PULL CORD, CAP, WEATHERSEAL, AND LABEL AT EACH END. COORDINATE TELCO AND CABLE TV TERMINATION LOCATIONS WITH EACH RESPECTIVE SERVICE PROVIDER PRIOR TO INSTALLATION.
71. TELCO PEDESTAL PER VERIZON REQUIREMENTS
72. CABLE TV PEDESTAL PER COMCAST REQUIREMENTS.
73. QUAZITE PULL BOX FOR SPARE CONDUIT. PROVIDE TEMPORARY WATERPROOF CAPS AT EACH CONDUIT END.
74. CONNECT TO GROUND BAR WITH TWO HOLE LONG BARREL COMPRESSION CONNECTORS WITH INSPECTION WINDOWS. (DESIGN BASED ON: BURNDY TWO HOLE HYLUG CODE CONDUCTOR LONG BARREL WITH INSPECTION WINDOW COPPER COMPRESSION CONNECTOR.)
75. REMOTE GENERATOR ALARM PANEL "RGAP" INSTALLED ON WALL IN NEW RADIO ROOM. MOUNTING LOCATION TO BE COORDINATED WITH OWNER AND ARCHITECT.
76. (2) 3" C WITH PULL CORD FOR FUTURE AREA RENOVATION. EXTEND TO ACCESSIBLE AREA OF EXISTING APPARATUS BAY CEILING. PROVIDE CAP AT OPEN END, AND LABEL AT END "SPARE". PROVIDE LOAD SHED RELAY MODULE FOR FUTURE CONNECTION, SIZED FOR THE SPECIFIED BREAKER.
77. PROVIDE WITH 600 AMP TIME DELAY FUSES.
78. AFTER EXISTING MAIN FUSE PANEL "MFP" HAS BEEN COMPLETELY OFFLOADED AND DE-ENERGIZED, REPLACE 600A FUSES WITH NEW 800 TIME DELAY FUSES.
79. JUNCTION BOX SIZED PER NEC. COORDINATE BEST LOCATION IN FIELD. BOX SHALL BE USED FOR SPLICING TEMPORARY CONDUCTORS TO NEW SERVICE CONDUCTORS (PHASE-1), AND FOR AN ADDITIONAL SPLICES REQUIRED TO EXTEND SERVICE CONDUCTORS TO NEW ATS (PHASE-2). BOX SHALL BE SIZED TO ACCOMMODATE BOTH SETS OF SPLICES. PHASE-1 SPLICING SHALL BE DONE WITH LUGS HAVING ADDITIONAL TERMINALS TO ACCOMMODATE THE ADDITIONAL PHASE-2 CONDUCTORS WITHOUT THE NEED FOR ADDITIONAL LUGS.
80. EXTEND CONDUCTORS TO NYSEG CABINET AFTER IT HAS BEEN VACATED BY NYSEG, AND SPLICE TO EXISTING CONDUCTORS SERVING THE EXISTING MAIN FUSE PANEL "MFP". VERIFY CODE COMPLIANCE WITH EXISTING CONDUCTORS AND MAIN CONNECTION TO MFP, AND REPORT ANY DEFICIENCIES TO OWNER, WITH ITEMIZED COST BREAKDOWN FOR REMEDIATION.
81. AFTER EXISTING MAIN FUSE PANEL "MFP" HAS BEEN COMPLETELY OFFLOADED AND DE-ENERGIZED, REMOVE CONDUITS AND CONDUCTORS.
82. SPLICE TO EXISTING SERVICE CONDUCTORS IN J-BOX.

POWER SYSTEM STUDY NOTE

THE REQUIRED POWER SYSTEM STUDY (SHORT CIRCUIT, ARC FLASH, AND COORDINATION STUDY) MUST BE COMPLETED, SUBMITTED, REVIEWED, AND RECEIVE FINAL APPROVAL PRIOR TO ISSUING ANY DISTRIBUTION EQUIPMENT SUBMITTALS. THIS INCLUDES ANY REQUIRED CORRECTIONS, CLARIFICATIONS, OR CHANGES REQUIRED OR REQUESTED BY ENGINEER PRIOR TO FINAL ACCEPTANCE. ANY DISTRIBUTION EQUIPMENT SUBMITTALS RECEIVED PRIOR TO FINAL APPROVAL OF THE STUDY WILL BE REJECTED WITHOUT REVIEW. THERE WILL BE NO EXCEPTIONS TO THIS REQUIREMENT FOR ANY REASON. THIS IS REQUIRED FOR ALL PHASES OF WORK.

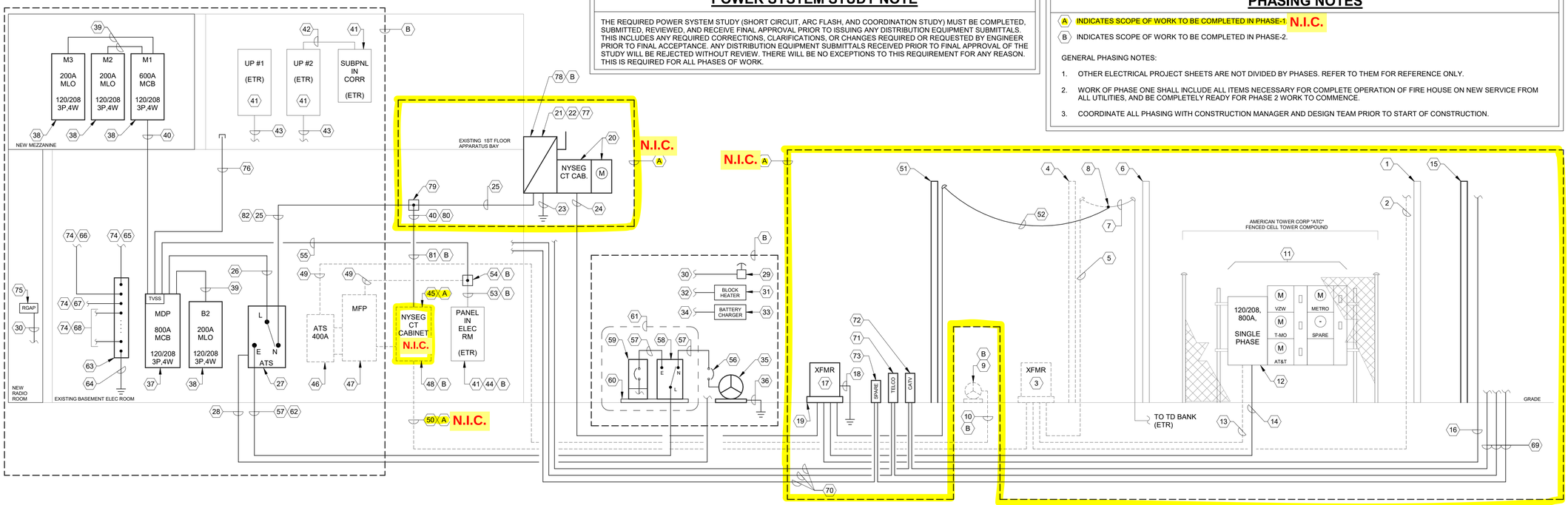
PHASING NOTES

(A) INDICATES SCOPE OF WORK TO BE COMPLETED IN PHASE-1. N.I.C.

(B) INDICATES SCOPE OF WORK TO BE COMPLETED IN PHASE-2.

GENERAL PHASING NOTES:

1. OTHER ELECTRICAL PROJECT SHEETS ARE NOT DIVIDED BY PHASES. REFER TO THEM FOR REFERENCE ONLY.
2. WORK OF PHASE ONE SHALL INCLUDE ALL ITEMS NECESSARY FOR COMPLETE OPERATION OF FIRE HOUSE ON NEW SERVICE FROM ALL UTILITIES, AND BE COMPLETELY READY FOR PHASE 2 WORK TO COMMENCE.
3. COORDINATE ALL PHASING WITH CONSTRUCTION MANAGER AND DESIGN TEAM PRIOR TO START OF CONSTRUCTION.



H 2 M architects + engineers

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CONSULTANTS:

MEP: **Kenneth A. Hipsky, P.E., LEED AP**
243 Godfrey Road
Mystic, CT 06355
(860)-310-9827

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
CKD	CKD		

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT

CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

BID SET

SHEET TITLE

RISER DIAGRAMS

DRAWING No.

E 501

BIM 360://20-265 Carmel NY Fire Dept./MEP_20-265_CARMEL NY FIRE DEPT.rvt

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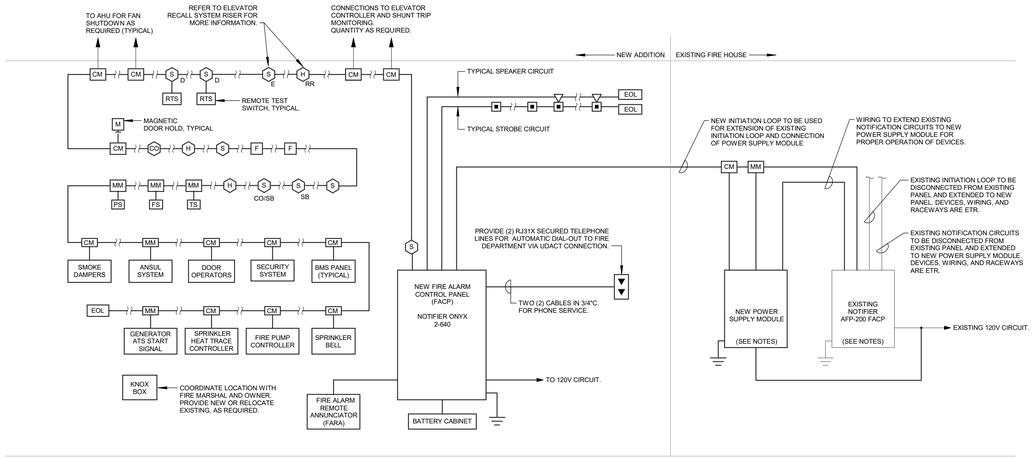
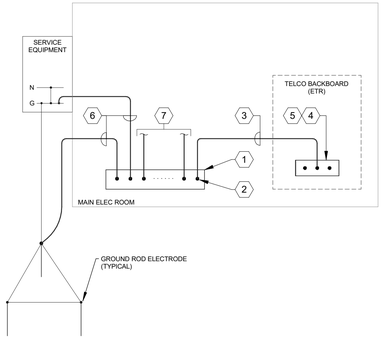


FIRE ALARM RISER DIAGRAM NOTES

1. SYSTEM DESIGN BASED ON NOTIFIER PRODUCTS. FOR ALL PRICING, COORDINATE WITH OWNER'S EXISTING & PREFERRED FIRE ALARM VENDOR: DOYLE SECURITY. CONTACT PERSON FOR THIS PROJECT IS JOE LOMBARDI, 845-702-0828, JOE.LOMBARDI@GODOYLE.COM.
2. ALL PROGRAMMING FOR INTEGRATION OF NEW AND EXISTING DEVICES TO BE DONE BY DOYLE SECURITY.
3. PHASING OF WORK SHALL PROCEED AS FOLLOWS:
   - A. INSTALL NEW FIRE ALARM SYSTEM, INCLUDING PHONE LINES, POWER CIRCUIT, GROUNDING, BATTERIES, AND ALL COMPONENTS REQUIRED TO INTERFACE WITH EXISTING SYSTEM DEVICES.
   - B. UPON COMPLETION AND TESTING OF NEW SYSTEM THE FOLLOWING ITEMS SHALL COMMENCE:
     - a. EXISTING NOTIFIER AFP-200 FACP SHALL BE DISCONNECTED AND ALL COMPONENTS SHALL BE REMOVED TO ALLOW CABINET TO BE USED AS A JUNCTION BOX. (CIRCUIT SHALL BE TERMINATED IN JUNCTION BOX FOR REUSE BY NEW POWER SUPPLY MODULE.)
     - b. CONNECT EXISTING INITIATION LOOP TO NEW FACP.
     - c. INSTALL NEW POWER SUPPLY PER MFG INSTRUCTIONS. CONNECT TO 120V CIRCUIT PREVIOUSLY USED FOR EXISTING FACP.
     - d. CONNECT NEW POWER SUPPLY TO NEW CONTROL MODULES AND MONITOR MODULES ON NEW INITIATION LOOP.
     - e. CONNECT EXISTING NOTIFICATION CIRCUITS TO NEW POWER SUPPLY MODULE TO ENABLE OPERATION VIA THE NEW FACP.
     - f. INSTALL SYNCHRONIZING MODULES AND OTHER ACCESSORIES REQUIRED FOR PROPER OPERATION OF ENTIRE SYSTEM (NEW & EXISTING).
     - g. PROVIDE ALL SYSTEM PROGRAMMING TO ACCEPT THE EXISTING DEVICE ADDRESSES ALONG WITH THE NEW DEVICES.
   - C. ALL SYSTEM OUTAGES SHALL BE COORDINATED WITH OWNER AND LOCAL AUTHORITY. PROVIDE FIRE WATCH DURING OUTAGES AS REQUIRED.
   - D. ENTIRE SYSTEM (INCLUDING ALL NEW AND EXISTING COMPONENTS) SHALL BE PROGRAMMED, TESTED, AND COMMISSIONED.
   - E. PROVIDE A PDF SET OF COMPLETE AS-BUILT DRAWINGS TO OWNER AND ENGINEER. DRAWINGS SHALL INDICATE ALL NEW AND EXISTING COMPONENTS.
4. FOR ADDITIONAL INFORMATION REFER TO SYMBOL LEGEND, ABBREVIATIONS LIST, AND ALL NOTES AND SPECIFICATIONS.
5. COORDINATE ALL REQUIREMENTS WITH LOCAL FIRE DEPARTMENT (I.E.: OWNER).
6. PROVIDE ALL FIRE ALARM DEVICE WIRING PER MANUFACTURER'S SPECIFICATIONS.
7. PROVIDE EXTRA POWER SUPPLIES AND TRANSPONDERS (WIRED TO NEW DEDICATED 120V EMERGENCY CIRCUITS) WHERE REQUIRED BY MANUFACTURER.
8. TYPICAL DEVICES SHOWN IN RISER. REFER TO FLOOR PLANS FOR DEVICE QUANTITIES AND LOCATIONS.
9. REFER TO FIRE PROTECTION DRAWINGS FOR LOCATIONS AND QUANTITIES OF FLOW AND TAMPER SWITCHES.
10. CARBON MONOXIDE DETECTORS SHALL EMIT A SUPERVISORY SIGNAL TO THE FACP WHEN ACTIVATED.
11. CONTRACTOR IS RESPONSIBLE FOR SIZING BATTERY CABINET CAPABLE OF SUPPORTING BUILDING FIRE ALARM SYSTEM IN THE EVENT OF A POWER FAILURE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
12. REFER TO HVAC DRAWINGS FOR LOCATIONS AND QUANTITIES OF DUCT SMOKE DETECTORS AND SMOKE DAMPERS. REMOTE TEST SWITCHES SHALL BE FLUSHED IN CEILING DIRECTLY BELOW DUCT SMOKE DETECTOR (OR IN CLOSEST DROPPED CEILING TO DETECTOR), UNLESS OTHERWISE NOTED.
13. UNLESS OTHERWISE NOTED IN SPECIFICATIONS, ALL WIRING SHALL BE IN CONDUIT, OR MC CABLE WHERE PERMITTED.
14. TWO ADDRESSABLE LOOPS SHOWN. PROVIDE AS REQUIRED.
15. LOCATE ONE SMOKE DETECTOR ON CEILING ABOVE EACH FACP AND FATP CABINET.
16. LOCATE BATTERY CABINET IN SAME ROOM AS THE PANEL IT IS CONNECTED TO.
17. PROVIDE ISOLATION MODULES AT ALL FLOOR SEPARATIONS, AFTER EVERY 50TH DEVICE, AND AT EVERY SPACE DESIGNATED FOR FUTURE USE OR OCCUPANCY.

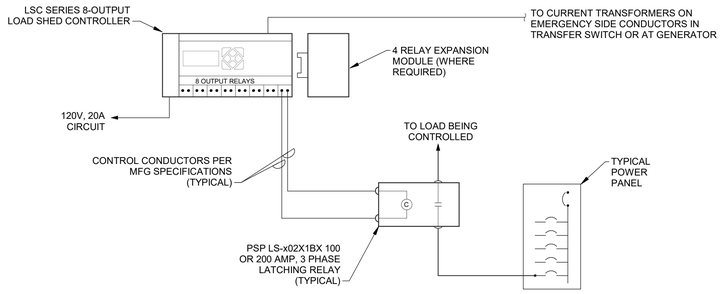
1 FIRE ALARM RISER DIAGRAM
NOT TO SCALE



GROUNDING RISER DIAGRAM KEYNOTES

1. MAIN GROUNDING BUSBAR: 16" X 4" X 1/4" COPPER GROUND BAR WITH INSULATORS, BRACKETS, AND MOUNTING HARDWARE FROM MANUFACTURER. MOUNT IN READILY ACCESSIBLE LOCATION ON WALL ADJACENT TO MDP. REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL CONNECTIONS. (DESIGN BASED ON STORM POWER COMPONENTS: SCGB-8KT. EQUALS BY ERICO, CHATSWORTH, AND EATON ARE ACCEPTABLE.)
2. LISTED GROUNDING CONNECTION UTILIZING BURNDY TWO-HOLE LONG BARREL IRREVERSIBLE HI COMPRESSION LUGS WITH INSPECTION WINDOW OR APPROVED EQUAL (TYPICAL).
3. #2 AWG GREEN INSULATED COPPER BONDING JUMPER.
4. TELCO GROUNDING BUSBAR: 10" X 2" X 1/4" COPPER GROUND BAR WITH INSULATORS, BRACKETS, AND MOUNTING HARDWARE FROM MANUFACTURER. MOUNT IN READILY ACCESSIBLE LOCATION NEAR TOP OF TELCO BACKBOARD. (DESIGN BASED ON STORM POWER COMPONENTS: SCGB-1KT. EQUALS BY ERICO, CHATSWORTH, AND EATON ARE ACCEPTABLE.)
5. RECONNECT ALL EXISTING BONDING JUMPERS AT TELCO BOARD TO NEW GROUND BAR. COORDINATE REQUIREMENTS WITH TELCO REPRESENTATIVE AND OWNER'S DATA CONSULTANT.
6. GREEN INSULATED GROUNDING ELECTRODE CONDUCTOR. REFER TO RISER DIAGRAM FOR ADDITIONAL INFORMATION.
7. BONDING JUMPERS AS REQUIRED BY NEC. REFER TO ELECTRICAL RISER DIAGRAM FOR ADDITIONAL INFORMATION.

2 GROUNDING RISER DIAGRAM
NOT TO SCALE



NOTES:

1. LOAD SHED CONTROLLER BASED ON PSP PRODUCTS LSC SERIES 8 OUTPUT CONTROLLER WITH CAPABILITY OF EXPANSION TO 12 OUTPUTS.
2. RELAYS BASED ON PSP PRODUCTS MODEL LS-X02X1BX 3 PHASE LATCHING RELAYS WITH NEMA-1 ENCLOSURE. (REPLACE "x" WITH "1" FOR 100 AMP RELAY, OR "2" FOR 200 AMP RELAY. (COORDINATE WITH MFG FOR RELAYS LARGER THAN 200.)
3. COORDINATE WITH TRANSFER SWITCH MFG AND INSTALL CONTROLLER IN TRANSFER SWITCH IF PERMITTED, OR INSTALL IN NEMA-1 HOFFMAN ENCLOSURE WITH HINGED DOOR. LOCATE ENCLOSURE ADJACENT TO TRANSFER SWITCH. PROVIDE ALL REQUIRED MOUNTING HARDWARE.
4. MOUNT RELAY ENCLOSURES ON WALL ADJACENT TO THE PANEL SERVING THE LOAD. PROVIDE LABEL ON EACH ENCLOSURE INDICATING "LOAD SHED RELAY" ALONG WITH A COMPLETE DESCRIPTION OF THE LOAD BEING CONTROLLED AND THE ASSOCIATED PANEL AND CIRCUIT NUMBER.
5. ELEVATOR LOAD SHALL BE PROGRAMMED TO OPERATE ONLY ON UTILITY POWER AND BE LOCKED OUT OF SERVICE DURING GENERATOR OPERATION.
6. PROVIDE CONTROLLER AND CONTACTOR COMPLETE WITH ALL ACCESSORIES REQUIRED FOR INSTALLATION AND OPERATION, INCLUDING MOUNTING HARDWARE, CONTACTS, TERMINALS, CURRENT TRANSFORMERS, ETC.
7. PROVIDE 2 HOURS, ON SITE MFG TRAINING WITH OWNER ON DEVICE OPERATION AND PROGRAMMING.
8. PROVIDE ALL WIRING TO UTILITY CONTROLLER, CONTACTORS, AND ALL OTHER INTERCONNECTION AND INTERFACE WIRING REQUIRED FOR PROPER OPERATION.
9. ALL DEVICES CONNECTED TO LOAD SHED RELAYS SHALL SHUT-DOWN DURING PERIODS OF GENERATOR LOADING EXCEEDING A SPECIFIED THRESHOLD, AND IN A SPECIFIC SHUTDOWN SEQUENCE. COORDINATE WITH OWNER FOR PRIORITY OF DEVICE SHUTDOWNS, AND COORDINATE APPROPRIATE SHUTDOWN THRESHOLDS WITH GENERATOR MFG.
10. PROVIDE ALL PROGRAMMING REQUIRED FOR PROPER OPERATION AND PROVIDE LOAD BANK TEST OF GENERATOR TO DEMONSTRATE PROPER FUNCTION OF THE RELAYS, AND VERIFICATION OF THE PROGRAMMING SEQUENCE. PROVIDE ANY ADJUSTMENTS REQUIRED BY OWNER.

3 LOAD SHEDDING SCHEMATIC DIAGRAM (PHASE-2)
NOT TO SCALE

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MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
Designer	Author		

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT
CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE, CARMEL HAMLET NY, 10512

CONTRACT
CONTRACT G GENERAL CONSTRUCTION

STATUS
BID SET

SHEET TITLE
RISER DIAGRAMS

DRAWING No.
E 502

Branch Panel: M1

Location: RESTROOM 109
Supply From: MDP
Mounting: SURFACE
Enclosure: NEMA 1

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

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 600 A
MCB Rating: 600 A

Notes:
If A.I.C. Rating not provided, refer to short circuit analysis requirement in contract specifications.

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
1					21.5	0.0					1	20 A		AID CALL - BATH 109	2
3	PANEL M2		225 A	3			22.1	0.3			1	20 A		LIGHTING TIMECLOCK	4
5									20.5	0.5	1	20 A		LIGHTS - 1ST FLR NORTH	6
7					14.6	0.7					1	20 A		LIGHTS - 1ST FLR SOUTH	8
9	PANEL M3		225 A	3			12.5	0.8			1	20 A		LIGHTS - 2ND FLOOR	10
11									12.3	0.9	1	20 A		LIGHTS - APP BAY-NL	12
13	SPEC		20 A	1	0.5	0.9					1	20 A		LIGHTS - APP BAY-NORTH-2	14
15	ELEVATOR PIT LIGHT		20 A	1			0.0	1.3			1	20 A		LIGHTS - APP BAY-NORTH-3	16
17									4.0	1.3	1	20 A		LIGHTS - APP BAY-SOUTH-1	18
19	PPE DRYING CABINET		35 A	3	4.0	0.9					1	20 A		LIGHTS - APP BAY-SOUTH-2	20
21							4.0	1.2			1	20 A		RCPT - ELEVATOR SUMP PUMP	22
23									5.0	0.7	1	20 A		LIGHTS - OUTSIDE EXIT & BAY DOORS	24
25	SCBA		60 A	3	5.0	0.2					1	20 A		RCPT - ELEVATOR PIT	26
27							5.0	0.0			1	20 A	--	Spare	28
29									0.0	0.0	1	20 A	--	Spare	30
31	Spare	--	30 A	3	0.0	0.0					1	20 A	--	Spare	32
33							0.0	0.0			1	20 A	--	Spare	34
35									0.0	0.0	1	20 A	--	Spare	36
37	Spare	--	20 A	2	0.0	0.0									38
39	Spare	--	30 A	2			0.0	0.0			3	60 A	--	INTEGRAL SURGE PROTECTION DEVICE	40
41									0.0	0.0					42
				Total Load:	48.2 kVA		47.2 kVA		45.3 kVA						
				Total Amps:	404.4 A		395.4 A		377.9 A						

Legend:
Blank = Standard, AFI = Arc Fault Circuit Interrupter, GFI = Ground Fault Circuit Interrupter, EPD = Equipment Protection Device, ST = Shunt Trip Circuit Breaker, HACR = Heating, Air Conditioning, Refrigeration Circuit Breaker

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	21,035 VA	100.00%	21,035 VA		
Other	15,850 VA	100.00%	15,850 VA	**Total Conn. Load:**	140,758 VA
MTR	13,210 VA	104.68%	13,829 VA	**Total Est. Demand:**	126,167 VA
RCPT	44,438 VA	61.25%	27,219 VA	**Total Conn.:**	390.7 A
FIRE ALARM	1,500 VA	100.00%	1,500 VA	**Total Est. Demand:**	350.2 A
LITES	8,038 VA	125.00%	10,048 VA		
SPEC	36,687 VA	100.00%	36,687 VA		

Notes:

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	MODEL	LAMPS		VOLTAGE	REMARKS	ALTERNATE 1	
			LUMENS	WATTAGE			MANUFACTURER	MODEL
A	LITHONIA	IBHST	24000 lm	221 W	120 V	48" X 14" HIGH BAY LED FIXTURE, CHAIN MOUNTED, SOLID TOP, 24000 LUMENS, SEMI-DIFFUSE ACRYLIC LENS, NARROW DISTRIBUTION ,MULTI-VOLT, 0-10V DIMMING, 80 CRI, GLOSS WHITE FINISH, 36" CHAINS, LIGHTWEIGHT ALUMINUM HEATSINK, 100,000 HOURS PREDICTED LIFE, DAMP LOCATION LISTED, 5 YEAR WARRANTY. PROVIDE WITH PROTECTIVE STEEL CAGES.		
B	LITHONIA	ZL1N	7000 lm	52 W	120 V	48" X 2-1/8" X 2-3/16" LED STRIP LIGHT WITH SYMMETRIC REFLECTORS, 7,000 LUMENS, SNAP ON FROSTED DIFFUSER, MULTI-VOLT DRIVER, 4000K COLOR TEMPERATURE, 80 CRI, WHITE PAINT FINISH, DAMP LOCATION LISTED. PROVIDE WITH PROTECTIVE STEEL CAGES.	COLUMBIA	MPS
D	LITHONIA	WL4	3000 lm	29 W	120 V	4' X 4.75" X 3.75" SURFACE LED FIXTURE, ROLL FORMED CODE GAUGE STEEL HOUSING, 3,000 LUMENS, MULTI-VOLT, 0-10V DIMMING TO 10%, 4,000K COLOR TEMP, DAMP LOCATION LISTED, INTEGRAL OCCUPANCY SENSOR. ORIENT FIXTURE SO OCCUPANCY SENSOR IS TOWARDS UPPER LEVEL DOOR.	COLUMBIA	ESL
D1	LITHONIA	WL4	4000 lm	40 W	120 V	SAME AS TYPE D, EXCEPT WITH 4,000 LUMENS, AND HIGH BAY OCCUPANCY SENSOR. ORIENT FIXTURE SO OCCUPANCY SENSOR IS TOWARDS LOWER LEVEL DOOR.	COLUMBIA	ESL
E1	ISOLITE	BUG6W	1300 lm	12 W	120 V	HIGH PERFORMANCE LED EMERGENCY LIGHT WITH TWO ADJUSTABLE 6W LED HEADS, 650 LUMENS PER HEAD, BACK MOUNT, WHITE HOUSING, SELF-DIAGNOSTICS, 120/277 VOLT INPUT, LOW VOLTAGE DISCONNECT, LITHIUM ION PHOSPHATE BATTERY, UL924 LISTED, DAMP LOCATION LISTED, 5 YEAR WARRANTY.	DUAL-LITE	LZ
F	LITHONIA	2BLT2	4000 lm	32 W	120 V	2' X 2' LOW PROFILE LAY-IN STATIC LED LUMINAIRE WITH CENTER BASKET DESIGN, VOLUMETRIC ILLUMINATION, SMOOTH REFLECTOR, 4,000 LUMENS, CURVED/RIBBED DIFFUSER, MULTI-VOLT, 0-10V DIMMING TO 10%, 82 CRI, 4,000K COLOR TEMP, IC RATED, 5 YEAR WARRANTY.	COLUMBIA	LCAT
G	HUBBELL	LNC3	3000 lm	28 W	120 V	MIDSIZED LED WALL PACK WITH 24 LEDS, 4000 COLOR TEMPERATURE, 70 CRI, 350 MA DRIVE CURRENT, TYPE III IES DISTRIBUTION, 120V, INTEGRAL BATTERY BACKUP WITH HEATER RATED FOR -30 DEGREES CELSIUS, 28 SYSTEM WATTS, 3,000 NOMINAL LUMENS, WET LOCATION LISTED.	LITHONIA	ARC2-LED
L	LITHONIA	LDN6	2000 lm	23 W	120 V	6" LED OPEN ROUND DOWNLIGHT, GALVANIZED STEEL MOUNTING, WET LOCATION LISTED, 3500K COLOR, 2,000 LUMENS, MULTI-VOLT, 0-10V DIMMING TO 10%, 5 YEAR WARRANTY.	PRESCOLITE	LF6SL
N	HUBBELL	UCM2	6000 lm	51 W	120 V	EXTERIOR LED DECORATIVE GOOSENECK FIXTURE, UNIVERSE MEDIUM HOUSING, 36 LEDS, 6,000 LUMENS ,4000K COLOR TEMP, 70 CRI, TYPE V WIDE DISTRIBUTION, DIFFUSED LENS, SINGLE FUSE, PHOTOCELL ADAPTOR CONTEMPORARY, UNIVERSAL VOLTAGE, POWDERCOAT FINISH, STAINLESS STEEL HARDWARE, INTEGRAL SURGE PROTECTION. PROVIDE FIXTURE WITH COMPATIBLE PHOTOCELL, WET LOCATION LISTED. ALTERNATES REQUIRE PRE-APPROVAL FROM OWNER AND ARCHITECT.	NLS LIGHTING	CAL-1
P	ANP LIGHTING	VTW100 GL	2000 lm	25 W	120 V	VAPOR TIGHT FLUSH WALL LED FIXTURE WITH 21W LED NON-DIMMING DRIVER, WIDE DISTRIBUTION, 4000K COLOR TEMPERATURE, TEMPERED GLASS GLOBE, HEAVY DUTY CAST GUARD, TEXTURED BLACK MARINE GRADE FINISH, 2000 LUMENS, BUILT-IN SURGE PROTECTION, 5 YEAR WARRANTY.	HUBBELL	VWGL
S	GOTHAM	EVO4SH	1000 lm	9 W	120 V	4 INCH GENERAL ILLUMINATION LED SHOWER DOWNLIGHT WITH 4000K COLOR TEMPERATURE, 1,000 NOMINAL LUMENS, FLUSH LENSED WHITE PAINTED TRIM, SMOOTH CLEAR LENS, UNIVERSAL VOLTAGE, WET LOCATION LISTED, NON-CONDUCTIVE DEAD-FRONT TRIM, 85 CRI, IP66 RATED ROOM-SIDE, ANTIMICROBIAL PAINT FINISH.	PRESCOLITE	LF4SL
X1	ISOLITE	RL			120 V	THERMOPLASTIC EXIT SIGN WITH WHITE HOUSING, RED LETTERING, NI-CAD BATTERY, SELF DIAGNOSTICS, UNIVERSAL FACES, UNIVERSAL MOUNTING. INSTALL QUANTITY OF FACES AND CHEVRONS AS INDICATED ON PLANS. PROVIDE MOUNTING HARDWARE AS REQUIRED FOR EACH LOCATION.	DUAL-LITE	EVE

MDP

Location: ELECTRIC X106
Supply From:
Mounting: SURFACE
Enclosure: NEMA 1

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

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 1200 A
MCB Rating: 800 A

Notes:
If A.I.C. Rating not provided, refer to short circuit analysis requirement in contract specifications.

CKT	Circuit Description	Type	Trip	Poles	Load
1	PANEL M1		600 A	3	140,758 VA
2	PANEL B2		200 A	3	1,506 VA
3	MFP (TEMPORARY BACKFEED. LOAD = 2019 PEAK FROM NYSEG)		400 A	3	45,000 VA
4	ELEVATOR	ST	225 A	3	23,417 VA
5	Space	--	--	--	0 VA
6	Space	--	--	--	0 VA
7	INTEGRAL SURGE PROTECTION DEVICE	--	60 A	3	0 VA
8	Spare	--	60 A	3	0 VA
9	Spare	--	100 A	3	0 VA
10	Spare	--	100 A	3	0 VA
11	Spare	--	200 A	3	0 VA
12	FUTURE OFFICE	--	250 A	3	72,000 VA
13	RELOCATED FROM MFP (TRIP SETTING SHOW FOR REFERENCE ONLY)	--	30 A	3	0 VA
14	RELOCATED FROM MFP (TRIP SETTING SHOW FOR REFERENCE ONLY)	--	60 A	3	0 VA
15	RELOCATED FROM MFP (TRIP SETTING SHOW FOR REFERENCE ONLY)	--	60 A	3	0 VA
16	RELOCATED FROM MFP (TRIP SETTING SHOW FOR REFERENCE ONLY)	--	60 A	3	0 VA
17	RELOCATED FROM MFP (TRIP SETTING SHOW FOR REFERENCE ONLY)	--	60 A	3	0 VA
18	RELOCATED FROM MFP (TRIP SETTING SHOW FOR REFERENCE ONLY)	--	100 A	3	0 VA
19	RELOCATED FROM MFP (TRIP SETTING SHOW FOR REFERENCE ONLY)	--	200 A	3	0 VA
20	RELOCATED FROM MFP (TRIP SETTING SHOW FOR REFERENCE ONLY)	--	200 A	3	0 VA

Legend:
Blank = Standard, AFI = Arc Fault Circuit Interrupter, GFI = Ground Fault Circuit Interrupter, EPD = Equipment Protection Device, ST = Shunt Trip Circuit Breaker, HACR = Heating, Air Conditioning, Refrigeration Circuit Breaker

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	21,035 VA	100.00%	21,035 VA		
Other	15,850 VA	100.00%	15,850 VA	**Total Conn. Load:**	282,681 VA
Spare	117,000 VA	100.00%	117,000 VA	**Total Est. Demand:**	268,129 VA
MTR	13,210 VA	104.68%	13,829 VA	**Total Conn.:**	784.6 A
RCPT	44,438 VA	61.25%	27,219 VA	**Total Est. Demand:**	744.3 A
FIRE ALARM	1,500 VA	100.00%	1,500 VA		
LITES	8,194 VA	125.00%	10,243 VA		
SPEC	61,454 VA	100.00%	61,454 VA		

Notes:

Branch Panel: B2

Location: ELECTRIC X106
Supply From: MDP
Mounting: SURFACE
Enclosure: NEMA 1

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

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 225 A

Notes:
If A.I.C. Rating not provided, refer to short circuit analysis requirement in contract specifications.

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
1	ELECTRIC ROOM LIGHTS		20 A	1	0.2	0.0									2
3	FUEL PUMP MOTOR		20 A	1			0.9	0.0			3	60 A	--	INTEGRAL SURGE PROTECTION DEVICE	4
5	FUEL SHIELD MONITORING SYSTEM		20 A	1					0.5	0.0					6
7	Space	--	--	--	0.0	0.0					--	--	--	Space	8
9	Space	--	--	--			0.0	0.0			--	--	--	Space	10
11	Space	--	--	--					0.0	0.0	--	--	--	Space	12
13	Space	--	--	--	0.0	0.0					--	--	--	Space	14
15	Space	--	--	--			0.0	0.0			--	--	--	Space	16
17	Space	--	--	--					0.0	0.0	--	--	--	Space	18
19	Space	--	--	--	0.0	0.0					--	--	--	Space	20
21	Space	--	--	--			0.0	0.0			--	--	--	Space	22
23	Spare	--	20 A	2					0.0	0.0	--	--	--	Space	24
25					0.0	0.0					--	--	--	Space	26
27	Spare	--	20 A	1			0.0	0.0			--	--	--	Space	28
29	Spare	--	20 A	1					0.0	0.0	--	--	--	Space	30
31	Spare	--	20 A	1	0.0	0.0					1	20 A	--	Spare	32
33	Spare	--	20 A	1			0.0	0.0			1	20 A	--	Spare	34
35	Spare	--	20 A	1					0.0	0.0	1	20 A	--	Spare	36
37	Spare	--	20 A	1	0.0	0.0					1	20 A	--	Spare	38
39	Spare	--	30 A	2			0.0	0.0			2	20 A	--	Spare	40
41									0.0	0.0					42
				Total Load:	0.2 kVA		0.9 kVA		0.5 kVA						
				Total Amps:	1.3 A		7.5 A		4.6 A						

Legend:
Blank = Standard, AFI = Arc Fault Circuit Interrupter, GFI = Ground Fault Circuit Interrupter, EPD = Equipment Protection Device, ST = Shunt Trip Circuit Breaker, HACR = Heating, Air Conditioning, Refrigeration Circuit Breaker

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
LITES	156 VA	125.00%	195 VA		
SPEC	1,350 VA	100.00%	1,350 VA	**Total Conn. Load:**	1,506 VA
				Total Est. Demand:	1,545 VA
				Total Conn.:	4.2 A
				Total Est. Demand:	4.3 A

Notes:

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CONSULTANTS:
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243 Godfrey Road
Mystic, CT 06355
(860)-310-9827

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
CKD	CKD		*
PROJECT No:	DATE:		SCALE:
CARM1902	3/22/2021		AS SHOWN

CLIENT
CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
BID SET

SHEET TITLE
ELECTRICAL SCHEDULES

DRAWING No.
E 601

Branch Panel: M3

Location: RESTROOM 109
Supply From: M1
Mounting: SURFACE
Enclosure: NEMA 1

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

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 225 A

Notes:
If A.I.C. Rating not provided, refer to short circuit analysis requirement in contract specifications.

CKT	Circuit Description	Type	Trip	Poles	A	B	C	Poles	Trip	Type	Circuit Description	CKT
1					2.5 2.2							2
3	RTU-2		40 A	3		2.5 2.2		3	30 A		RTU-1	4
5							2.5 2.2					6
7					2.3 1.2			2	20 A		HP-1	8
9	RTU-3		60 A	3		2.3 1.2						10
11							2.3 1.0					12
13	PUMP - P-1		20 A	2	0.4 1.0			2	20 A		HP-2	14
15						0.4 0.5		1	35 A		BP-1	16
17	RPZ-1		15 A	1			0.2 0.5	1	35 A		BP-2	18
19	RPZ-2		15 A	1	0.2 0.8			1	20 A		B-1	20
21	EF-1		20 A	1		0.1 0.8		1	20 A		B-2	22
23	EF-2		20 A	1			0.1 0.1	1	20 A		CUH-4	24
25	EF-3		20 A	1	0.1 0.1			1	20 A		CUH-2	26
27	EF-4		20 A	1		0.9 0.1		1	20 A		CUH-3	28
29	EWH-1		20 A	1			1.5 0.7	1	20 A		CUH-1	30
31	WH-1		20 A	1	0.6 1.5			1	20 A		FIRE ALARM	32
33	RPZ-3		15 A	1		0.2 1.0		1	20 A		ACCESS CTRLS	34
35	Mech Control Relay Pwr		20 A	1			0.5 0.5	1	20 A		ACCESS CTRLS	36
37	RCPT - RTU-3		20 A	1	0.2 1.0			1	20 A		ACCESS CTRLS	38
39	RCPT - RTU - 1 & 2		20 A	1		0.4 0.0		1	20 A	--	Spare	40
41	RECIRC PUMP - RP-1		15 A	1			0.2 0.0	1	20 A	--	Spare	42
43	CEILING FANS - CF-1,2,3,4		20 A	1	0.4 0.0			1	20 A	--	Spare	44
45	Spare	--	20 A	1		0.0 0.0		1	20 A	--	Spare	46
47	Spare	--	20 A	1			0.0 0.0	1	20 A	--	Spare	48
49	Spare	--	20 A	1	0.0 0.0			3	60 A	--	INTEGRAL SURGE PROTECTION DEVICE	50
51	Spare	--	20 A	1		0.0 0.0						52
53	Spare	--	20 A	1			0.0 0.0					54
			Total Load:		14.6 kVA	12.5 kVA	12.3 kVA					
			Total Amps:		121.9 A	104.4 A	102.8 A					

Legend:
Blank = Standard, AFI = Arc Fault Circuit Interrupter, GFI = Ground Fault Circuit Interrupter, EPD = Equipment Protection Device, ST = Shunt Trip Circuit Breaker, HACR = Heating, Air Conditioning, Refrigeration Circuit Breaker

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	21,035 VA	100.00%	21,035 VA		
Other	3,150 VA	100.00%	3,150 VA	**Total Conn. Load:**	39,435 VA
MTR	13,210 VA	104.68%	13,829 VA	**Total Est. Demand:**	40,053 VA
RCPT	540 VA	100.00%	540 VA	**Total Conn.:**	109.5 A
FIRE ALARM	1,500 VA	100.00%	1,500 VA	**Total Est. Demand:**	111.2 A

Notes:

Branch Panel: M2

Location: RESTROOM 109
Supply From: M1
Mounting: SURFACE
Enclosure: NEMA 1

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

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 225 A

Notes:
If A.I.C. Rating not provided, refer to short circuit analysis requirement in contract specifications.

CKT	Circuit Description	Type	Trip	Poles	A	B	C	Poles	Trip	Type	Circuit Description	CKT
1	RCPT - AirVac Control panel		20 A	1	0.2 1.1			1	20 A		Cord Reels	2
3	RCPT - AirVac - NorthWest		20 A	1		1.6 1.1		1	20 A		Cord Reels	4
5	RCPT - AirVac North-Middle		20 A	1			1.6 1.1	1	20 A		Cord Reels	6
7	RCPT - AirVac - NorthEast		20 A	1	1.6 1.1			1	20 A		Cord Reels	8
9	RCPT - AirVac CenterWest		20 A	1		1.6 1.1		1	20 A		Cord Reels	10
11	RCPT - AirVac - Center Middle		20 A	1			1.6 2.5	2	30 A		CLOTHES DRYER	12
13	RCPT - AirVac - CenterEast		20 A	1	1.6 2.5							14
15	RCPT - AirVac SouthWest		20 A	1		1.6 1.5		1	20 A		RCPT - WASHING MACHINE	16
17	RCPT - AirVac - South-Middle		20 A	1			1.6 1.1					18
19	RCPT - AirVac SouthEast		20 A	1	1.6 1.1			3	15 A		EXTRACTOR	20
21	FRONT GARAGE DOOR #1		20 A	1		1.2 1.1						22
23	FRONT GARAGE DOOR #2		20 A	1			1.2 1.2	1	20 A		REAR GARAGE DOOR #1	24
25	FRONT GARAGE DOOR #3		20 A	1	1.2 1.2			1	20 A		REAR GARAGE DOOR #2	26
27	FRONT GAEAGE DOOR #4		20 A	1		1.2 1.2		1	20 A		REAR GARAGE DOOR #3	28
29	FRONT GARAGE DOOR #5		20 A	1			1.2 1.2	1	20 A		REAR GARAGE DOOR #4	30
31	REAR GARAGE DOOR #5		20 A	1	1.2 0.9			1	20 A		RCPT - LOCKERS	32
33	RCPT - LOCKERS		20 A	1		0.9 0.9		1	20 A		RCPT - LOCKERS	34
35	RCPT - LOCKERS		20 A	1			0.9 0.9	1	20 A		RCPT - LOCKERS	36
37	RCPT - LOCKERS		20 A	1	1.3 1.1			1	20 A		RCPT - LOCKERS	38
39	RCPT - LOCKERS		20 A	1		1.1 1.1		1	20 A		RCPT - LOCKERS	40
41	RCPT - MECH ROOM M02		20 A	1			0.4 0.5	1	20 A		RCPT - RMS 202, 203, 204	42
43	RCPT - MEZZANINE M01		20 A	1	0.7 0.2			1	20 A		RCPT - KITCHEN (E213) STOVE	44
45	RCPT - GEAR TURNOUT		20 A	1		0.9 0.9		1	20 A		RCPT - APPARATUS BAY	46
47	RCPT - APPARATUS BAY		20 A	1			0.9 0.7	1	20 A		RCPT - WORKBENCH - BAYS	48
49	RCPT - RADIO RM		20 A	1	1.3 0.7			1	20 A		RCPT - RADIO RM	50
51	RCPT - RADIO RM		20 A	1		0.7 0.7		1	20 A		RCPT - RADIO RM	52
53	FUTURE ELECTRIC SIGN		20 A	1			1.2 0.4	1	20 A		RCPT - SECURITY CABINET	54
55	RCPT - SECURITY CABINET		20 A	1	0.4 0.7			1	20 A		RCPT - APPARATUS BAY	56
57	RCPT - APPARATUS BAY		20 A	1		0.9 0.9		1	20 A		RCPT - 107, 108	58
59	RCPT - 109, 110, 111		20 A	1			0.5 0.0	1	20 A	--	Spare	60
61	Spare	--	20 A	1	0.0 0.0			1	20 A	--	Spare	62
63	Spare	--	20 A	1		0.0 0.0		1	20 A	--	Spare	64
65	Spare	--	20 A	1			0.0 0.0	1	20 A	--	Spare	66
67	Spare	--	20 A	1	0.0 0.0			3	60 A	--	INTEGRAL SURGE PROTECTION DEVICE	68
69	Spare	--	20 A	1		0.0 0.0						70
71	Spare	--	20 A	1			0.0 0.0					72
			Total Load:		21.5 kVA	22.1 kVA	20.5 kVA					
			Total Amps:		180.2 A	185 A	171 A					

Legend:
Blank = Standard, AFI = Arc Fault Circuit Interrupter, GFI = Ground Fault Circuit Interrupter, EPD = Equipment Protection Device, ST = Shunt Trip Circuit Breaker, HACR = Heating, Air Conditioning, Refrigeration Circuit Breaker

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	12,700 VA	100.00%	12,700 VA		
RCPT	42,542 VA	61.75%	26,271 VA	**Total Conn. Load:**	64,048 VA
SPEC	8,806 VA	100.00%	8,806 VA	**Total Est. Demand:**	47,777 VA
				Total Conn.:	177.8 A
				Total Est. Demand:	132.6 A

Notes:

LIGHTING FIXTURE NOTES

1. TYPE 'EM' EMERGENCY FIXTURES AND TYPE 'X' EXIT SIGNS SHALL BE WIRED TO LINE SIDE OF AREA LIGHTING CIRCUIT TO SENSE LOSS OF NORMAL POWER AND PROVIDE CONTINUOUS TRICKLE CHARGE, AND SHALL OPERATE AT A MINIMUM OF 1 1/2 HOURS UPON LOSS OF NORMAL POWER. SEE SCHEDULE.
2. DIRECTIONAL CHEVRONS SHALL CONFORM TO NFPA AND SHALL BE IDENTIFIABLE AS A DIRECTIONAL INDICATOR AT A MINIMUM OF 40 FT. UNDER ALL SPACE CONDITIONS. SEE DETAIL BELOW.

EXIT SIGN DIRECTIONAL INDICATOR

3. ALL FIXTURES TO BE LED WITH 0-10V DRIVERS STANDARD.
4. PROVIDE ERICO FASTENING PRODUCTS (CADDY) CAT. No. 515 OR 515A LIGHT FIXTURE SUPPORT CLIPS ON ALL RECESSED LIGHT FIXTURES. PROVIDE MINIMUM FOUR (4) PER FIXTURE.
5. IN ADDITION TO THE REQUIREMENTS OF THE IBC AND THE NEC, ALL RECESSED LIGHT FIXTURES SHALL BE PROVIDED WITH SUPPORT WIRES AT A MINIMUM OF FOUR (4) PER FIXTURE AND LOCATED NOT MORE THAN SIX (6") INCHES FROM EACH CORNER, EXTENDED AND ATTACHED TO THE BUILDING STRUCTURE. HANGER WIRES SHALL BE GALVANIZED CARBON STEEL, ASTM A641, SOFT TEMPER, PRE-STRETCHED WITH A YIELD STRESS LOAD OF AT LEAST THREE (3) TIMES DESIGN LOAD BUT NOT LESS THAN 12 GAUGE (0.106"). FOR ROUND FIXTURES OR FIXTURES SMALLER THAN THE CEILING GRID, PROVIDE A MINIMUM OF FOUR (4) WIRES PER FIXTURE AND LOCATE AT EACH CORNER OF THE CEILING GRID IN WHICH THE FIXTURE IS TO BE LOCATED. ADDITIONALLY, WHERE FIXTURES OF SIZES LESS THAN THE CEILING GRID ARE INDICATED TO BE CENTERED IN THE ACOUSTICAL PANEL, SUCH FIXTURES SHALL BE SUPPORTED WITH A MINIMUM OF TWO (2) 3/4" METAL CHANNELS SPANNING AND SECURED TO THE CEILING TEES.
6. VERIFY ALL LIGHT FIXTURE FINISHES, TRIMS, AND LAMP COLOR TEMPERATURES WITH ARCHITECT PRIOR TO PURCHASE.
7. VERIFY ALL LIGHT FIXTURE MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
8. FIXTURES INDICATED AS NIGHT LIGHT WITH "NL" SHALL BE WIRED FOR CONSTANT ILLUMINATION WITHOUT SWITCH CONTROL.

EQUIPMENT COORDINATION SCHEDULE

NOTE: REFER TO WIRE SCHEDULE FOR CONDUCTOR SIZING FOR EACH PIECE OF EQUIPMENT.

TAG	EQUIPMENT INFORMATION FLA	MCA	MOCP	VOLT	PH	CIRCUIT INFORMATION PANEL	NO.	APPARENT LOAD	LOAD CLASSIFICATION	CONTROL TYPE	FURNISH	INSTALL	STARTER TYPE	FURNISH	INSTALL	DISCONNECT TYPE	FURNISH	INSTALL	REMARKS
B-1	6.3 A	7.9 A	20 A	120 V	1	M3	20	756 VA	MTR	AC	MANUF.	DIV. 23	SPP	MANUF.	MANUF.	NFS	DIV. 26	DIV. 26	
B-2	6.3 A	7.9 A	20 A	120 V	1	M3	22	756 VA	MTR	AC	MANUF.	DIV. 23	SPP	MANUF.	MANUF.	NFS	DIV. 26	DIV. 26	
BP-1	4.3 A	5.4 A	15 A	115 V	1	M3	16	500 VA	MTR	AC	MANUF.	DIV. 23	ECM	DIV. 23	DIV. 23	NFS	DIV. 26	DIV. 26	
BP-2	4.3 A	5.4 A	15 A	115 V	1	M3	18	500 VA	MTR	AC	MANUF.	DIV. 23	ECM	DIV. 23	DIV. 23	NFS	DIV. 26	DIV. 26	
CF-1	0.9 A	1.1 A	15 A	120 V	1	M3	43	110 VA	MTR	SW	DIV. 23	DIV. 23	SPP	MANUF.	MANUF.	NFS	DIV. 26	DIV. 26	
CF-2	0.9 A	1.1 A	15 A	120 V	1	M3	43	110 VA	MTR	SW	DIV. 23	DIV. 23	SPP	MANUF.	MANUF.	NFS	DIV. 26	DIV. 26	
CF-3	0.9 A	1.1 A	15 A	120 V	1	M3	43	110 VA	MTR	SW	DIV. 23	DIV. 23	SPP	MANUF.	MANUF.	NFS	DIV. 26	DIV. 26	
CF-4	0.9 A	1.1 A	15 A	120 V	1	M3	43	110 VA	MTR	SW	DIV. 23	DIV. 23	SPP	MANUF.	MANUF.	NFS	DIV. 26	DIV. 26	
CUH-1	5.8 A	7.3 A	20 A	120 V	1	M3	30	696 VA	MTR	T	DIV. 23	DIV. 23	ECM	DIV. 23	DIV. 23	NFS-M	MANUF.	MANUF.	
CUH-2	1 A	1.3 A	15 A	120 V	1	M3	26	120 VA	MTR	T	DIV. 23	DIV. 23	SPP	MANUF.	MANUF.	NFS-M	MANUF.	MANUF.	
CUH-3	1 A	1.3 A	15 A	120 V	1	M3	28	120 VA	MTR	T	DIV. 23	DIV. 23	SPP	MANUF.	MANUF.	NFS-M	MANUF.	MANUF.	
CUH-4	1 A	1.3 A	15 A	120 V	1	M3	24	120 VA	MTR	T	DIV. 23	DIV. 23	SPP	MANUF.	MANUF.	NFS-M	MANUF.	MANUF.	
EF-1	0.6 A	0.7 A	20 A	120 V	1	M3	21	71 VA	MTR	OS	DIV. 23	DIV. 23	ECM	DIV. 23	DIV. 23	NFS	DIV. 26	DIV. 26	
EF-2	1.1 A	1.4 A	20 A	120 V	1	M3	23	136 VA	MTR	SW	DIV. 26	DIV. 26	ECM	DIV. 23	DIV. 23	NFS	DIV. 26	DIV. 26	
EF-3	1.1 A	1.4 A	20 A	120 V	1	M3	25	136 VA	MTR	SW	DIV. 26	DIV. 26	ECM	DIV. 23	DIV. 23	NFS	DIV. 26	DIV. 26	
EF-4	7.2 A	9 A	20 A	120 V	1	M3	27	864 VA	MTR	SW	DIV. 26	DIV. 26	ECM	DIV. 23	DIV. 23	NFS	DIV. 26	DIV. 26	
EWH-1	12.5 A	15.6 A	20 A	120 V	1	M3	29	1,500 VA	MTR	AC	MANUF.	DIV. 23	SPP	MANUF.	MANUF.	NFS-M	MANUF.	MANUF.	
HP-1	11.9 A	14.4 A	15 A	208 V	1	M3	8,10	2,475 VA	MTR	T	DIV. 23	DIV. 23	SPP	MANUF.	MANUF.	NFS	DIV. 26	DIV. 26	
HP-2	10 A	13 A	15 A	208 V	1	M3	12,14	2,080 VA	MTR	T	DIV. 23	DIV. 23	SPP	MANUF.	MANUF.	NFS	DIV. 26	DIV. 26	
P-1	3.8 A	4.8 A	15 A	208 V	1	M3	13,15	800 VA	MTR	T	DIV. 23	DIV. 23	ECM	DIV. 23	DIV. 23	NFS	DIV. 26	DIV. 26	
RPZ-1	1.6 A	2 A	15 A	115 V	1	M3	17	180 VA	MTR	T	DIV. 23	DIV. 23	ECM	DIV. 23	DIV. 23	NFS	DIV. 26	DIV. 26	
RPZ-2	1.6 A	2 A	15 A	115 V	1	M3	19	180 VA	MTR	T	DIV. 23	DIV. 23	ECM	DIV. 23	DIV. 23	NFS	DIV. 26	DIV. 26	
RPZ-3	1.6 A	2 A	15 A	115 V	1	M3	33	180 VA	MTR	T	DIV. 23	DIV. 23	ECM	DIV. 23	DIV. 23	NFS	DIV. 26	DIV. 26	
RTU-1	18.4 A	54 A	60 A	208 V	3	M3	2,4,6	6,624 VA	HVAC	T	DIV. 23	DIV. 23	SPP	MANUF.	MANUF.	NFS-M	MANUF.	MANUF.	
RTU-2	20.8 A	26 A	30 A	208 V	3	M3	1,3,5	7,494 VA	HVAC	T	DIV. 23	DIV. 23	SPP	MANUF.	MANUF.	NFS-M	MANUF.	MANUF.	
RTU-3	19.2 A	24 A	30 A	208 V	3	M3	7,9,11	6,917 VA	HVAC	SW	DIV. 26	DIV. 26	SPP	MANUF.	MANUF.	NFS-M	MANUF.	MANUF.	
SP-1	9.8 A	12.3 A	20 A	120 V	1	M1	22	1,176 VA	MTR	AC	MANUF.	DIV. 23	SPP	MANUF.	MANUF.	CP	DIV. 26	DIV. 26	
WH-1	5 A	6.3 A	15 A	120 V	1	M3	31	600 VA	MTR	AC	MANUF.	DIV. 23	SPP	MANUF.	MANUF.	NFS-M	MANUF.	MANUF.	

DISCONNECT TYPES	
TYPE	DESCRIPTION
CP	DIV. 26 - CORD AND PLUG
NFS	DIV. 26 - NON-FUSED SWITCH
NFS-M	MANUF - NON-FUSED SWITCH

STARTER TYPES	
TYPE	DESCRIPTION
ECM	DIV. 23 - ELECTRICALLY COMMUTATED MOTOR
SPP	MANUF - SINGLE POINT POWER

CONTROL TYPES	
TYPE	DESCRIPTION
(E)	EXISTING
AC	MANUF - AUTOMATIC CONTROLLER
OS	DIV. 23 - OCCUPANCY SENSOR
SW	
T	DIV. 23 - THERMOSTAT

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CONSULTANTS:
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243 Godfrey Road
Mystic, CT 06355
(860)-310-9827

MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
CKD	CKD		

PROJECT No:	DATE:	SCALE:
CARM1902	3/22/2021	AS SHOWN

CLIENT
CARMEL FIRE DEPARTMENT INC.

ADDITION/RENOVATION

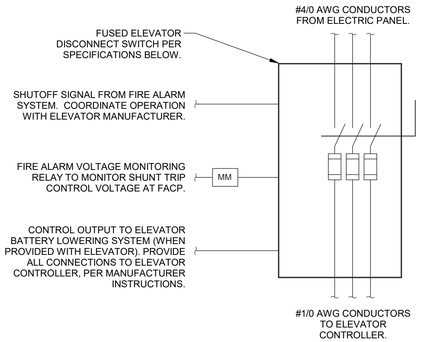
94 GLENEIDA AVE,
CARMEL HAMLET NY, 10512

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
BID SET

SHEET TITLE
ELECTRICAL SCHEDULES

DRAWING No.
E 602



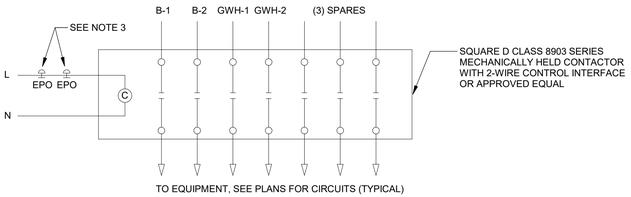
SWITCH SPECIFICATIONS:

1. SWITCH SHALL BE EATON BUSSMANN SERIES QUIK-SPEC POWER MODULE SWITCH ELEVATOR DISCONNECT, OR APPROVED EQUAL WITH THE FOLLOWING FEATURES:
   - A. RATING OF 208V, 3 POLE, 400A. PROVIDE WITH (3) 125A RK1 TIME-DELAY FUSES. (FUSE SIZE &TYPE MUST BE VERIFIED WITH ELEVATOR MFG.)
   - B. INTEGRAL 120V SHUNT-TRIP CAPABILITY.
   - C. FIRE ALARM VOLTAGE MONITORING RELAY.
   - D. MINIMUM TWO (2) SETS OF N.O./N.C. AUXILIARY CONTACTS.
   - E. GREEN POWER INDICATOR PILOT LIGHT.
   - F. KEYED TEST SWITCH
   - G. INTEGRAL CONTROL TRANSFORMER.

GENERAL NOTES:

1. ALL CONTROL WIRING SHALL BE MINIMUM #14 AWG UNLESS OTHERWISE NOTED.
2. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE ALL WIRING AND CONNECTIONS WITH THE ELEVATOR MANUFACTURER, AND TO PROVIDE ALL CONNECTIONS AND TERMINATE ALL WIRING AS REQUIRED BY ELEVATOR MANUFACTURER, FOR PROPER OPERATION OF ALL FUNCTIONS.
3. WIRES ARE INDICATED SCHEMATICALLY, PROVIDE QUANTITY AND SIZE AS REQUIRED FOR ALL REQUIRED CONNECTIONS.
4. REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. COORDINATE WITH APPROVED ELEVATOR SHOP DRAWINGS PRIOR TO INSTALLATION OR ACQUISITION.

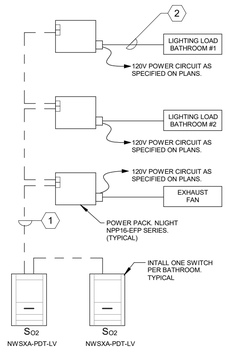
ELEVATOR DISCONNECT SWITCH DETAIL (PHASE-2)
1 NOT TO SCALE



NOTES

1. PROVIDE CONTACTOR WITH QUANTITY OF POLES REQUIRED TO SHUT POWER DOWN TO EQUIPMENT LISTED PLUS (3) SPARE POLES. COORDINATE LOCATION IN MECHANICAL ROOM IN FIELD.
2. COORDINATE CONNECTIONS TO EQUIPMENT/CONTROL PANELS IN FIELD.
3. EPO TOGGLE SWITCHES AS SHOWN ON THE DRAWINGS.

BOILER ROOM EPO DETAIL (PHASE-2)
4 NTS



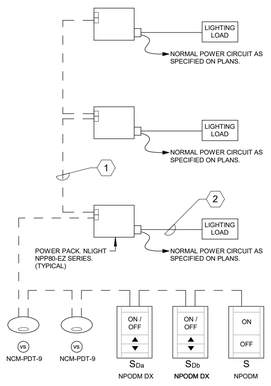
GENERAL NOTES:

1. ACUITY BRANDS NLIGHT PRODUCTS IS THE BASIS OF DESIGN.
2. PROVIDE FACTORY ENGRAVING ON ALL WALL CONTROL DEVICES AND BUTTONS PER ARCHITECTS LABELING REQUIREMENTS.
3. FACTORY COMMISSIONING SHALL BE PROVIDED FOR ALL SYSTEM COMPONENTS (SENSORS, PHOTOCELLS, CONTROLS, ETC.).
4. POWER PACKS NOT SHOWN ON PLANS. PROVIDE QUANTITY AND TYPE OF POWER PACKS AS REQUIRED FOR PROPER OPERATION.
5. REFER TO FLOOR PLANS FOR QUANTITY AND TYPE OF SENSORS AND CONTROLS.
6. EACH SENSOR SHALL HAVE TWO OUTPUT RELAYS:
   - A. ONE RELAY SHALL CONTROL LIGHTS WITHIN ROOM
   - B. ONE RELAY SHALL CONTROL EXHAUST FAN, AND BE WIRED IN PARALLEL WITH OTHER SWITCH CONTROLLING SAME FAN.
7. SENSORS SHALL BE SET TO FOR AUTO 100% 0N. AUTO OFF OPERATION. TIMEOUT AFTER 30 MINUTES.
8. PROVIDE ALL LOW VOLTAGE CONTROL WIRING AS REQUIRED FOR PROPER OPERATION OF ALL FIXTURES FROM ASSOCIATED CONTROLS (INCLUDES DIMMERS, OCCUPANCY SENSORS, SCENE CONTROL SWITCHES, ETC.).
9. VERIFY COMPATIBILITY OF PRODUCTS WITH LIGHT FIXTURES BEING CONTROLLED AND PROVIDE APPROPRIATE DEVICES FOR PROPER OPERATION.

WIRE LEGEND:

1. CAT-5e NLIGHT COMMUNICATION WIRING, PER NLIGHT SPECIFICATIONS (TYPICAL).
2. POWER WIRING TO LIGHTING LOADS, POWER PACKS, AND DEVICE POWER SUPPLIES AS INDICATED. PROVIDE 0-10V CONTROL WIRING WHERE DIMMING CONTROLS ARE SPECIFIED.

DUAL BATHROOM SHARED FAN CONTROL DETAIL (PHASE-2)
5 NOT TO SCALE



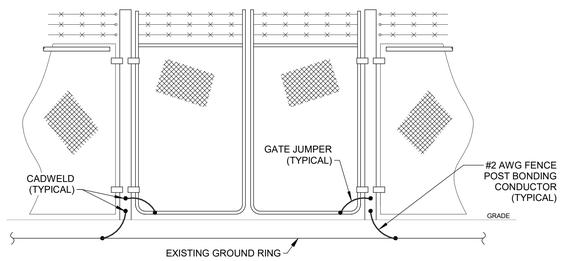
GENERAL NOTES:

1. DETAIL IS TYPICAL. REFER TO FLOOR PLANS FOR SPECIFICATIONS OF CONTROLS AND FIXTURES.
2. ACUITY BRANDS NLIGHT PRODUCTS IS THE BASIS OF DESIGN.
3. PROVIDE FACTORY ENGRAVING ON ALL WALL CONTROL DEVICES AND BUTTONS PER ARCHITECTS LABELING REQUIREMENTS.
4. FACTORY COMMISSIONING SHALL BE PROVIDED FOR ALL SYSTEM COMPONENTS (SENSORS, PHOTOCELLS, CONTROLS, ETC.).
5. POWER PACKS NOT SHOWN ON PLANS. PROVIDE QUANTITY AND TYPE OF POWER PACKS AS REQUIRED FOR PROPER OPERATION.
6. CONNECT A MAXIMUM OF 6 CONTROL DEVICES ON EACH CAT-5e PORT OF EACH POWER PACK. PROVIDE ADDITIONAL POWER PACKS AS REQUIRED.
7. REFER TO FLOOR PLANS FOR QUANTITY AND TYPE OF SENSORS AND CONTROLS.
8. ROOM VACANCY SENSORS SHALL BE SET FOR MANUAL ON, AUTO OFF OPERATION. TIMEOUT AFTER 30 MINUTES.
9. PROVIDE ALL LOW VOLTAGE CONTROL WIRING AS REQUIRED FOR PROPER OPERATION OF ALL FIXTURES FROM ASSOCIATED CONTROLS (INCLUDES DIMMERS, OCCUPANCY SENSORS, SCENE CONTROL SWITCHES, ETC.).
10. VERIFY COMPATIBILITY OF PRODUCTS WITH LIGHT FIXTURES BEING CONTROLLED AND PROVIDE APPROPRIATE DEVICES FOR PROPER OPERATION.

WIRE LEGEND:

1. CAT-5e NLIGHT COMMUNICATION WIRING, PER NLIGHT SPECIFICATIONS (TYPICAL).
2. POWER WIRING TO LIGHTING LOADS, POWER PACKS, AND DEVICE POWER SUPPLIES AS INDICATED. PROVIDE 0-10V CONTROL WIRING WHERE DIMMING CONTROLS ARE SPECIFIED.

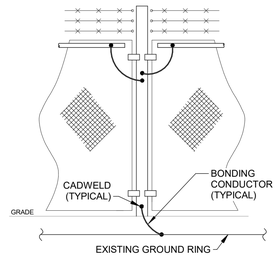
LIGHTING CONTROLS DETAIL (PHASE-2)
6 NOT TO SCALE



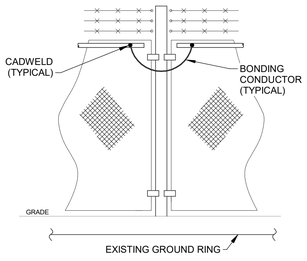
NOTES:

1. DETAIL ONLY APPLIES TO NEW FENCING INSTALLED AT AMERICAN TOWER CORP "ATC" FLAGPOLE CELL SITE COMPOUND. COORDINATE ALL WORK WITH ATC REPRESENTATIVE.
2. ALL BONDING SHALL BE DONE VIA CADWELD OR OTHER APPROVED EXOTHERMIC WELDING PROCESS.
3. ALL CADWELDING TO FENCE POSTS SHALL BE LOCATED A MINIMUM OF 6" ABOVE GRADE.
4. BOND EACH HORIZONTAL POLE/BRACE TO EACH OTHER AND TO EACH VERTICAL POLE BONDED TO THE EXTERIOR GROUND RING.
5. BONDING CONDUCTORS SHALL BE:
   - A. GATE JUMPER: #4/0 AWG WELDING CABLE OR FLEXIBLE COPPER BRAID (BURNDY TYPE B WITH SLEEVES ON EACH END DESIGNED FOR EXOTHERMIC WELDING.)
   - B. ALL OTHERS: #2 AWG SOLID TINNED BARE COPPER CONDUCTORS.
6. GATE JUMPER SHALL BE INSTALLED SO THAT IT WILL NOT BE SUBJECTED TO DAMAGING STRAIN WHEN GATE IS FULLY OPEN IN EITHER DIRECTION.

TYPICAL FENCE GATE GROUNDING (PHASE-1 & 2 AS APPLICABLE)
2 NOT TO SCALE



VERTICAL POST BONDED TO GROUND RING

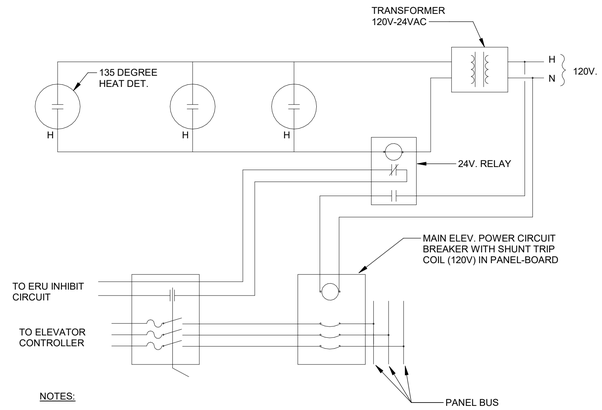


VERTICAL POST NOT BONDED TO GROUND RING

NOTES:

1. DETAIL ONLY APPLIES TO NEW FENCING INSTALLED AT AMERICAN TOWER CORP "ATC" FLAGPOLE CELL SITE COMPOUND. COORDINATE ALL WORK WITH ATC REPRESENTATIVE.
2. VERTICAL POSTS SHALL BE BONDED TO THE RING AT EACH CORNER, AT EACH GATE POST, AND AT MINIMUM ONE VERTICAL POST SHALL BE BONDED TO THE GROUND RING IN EVERY 100 FOOT STRAIGHT RUN OF FENCE.
3. HORIZONTAL POLES SHALL BE BONDED TO EACH OTHER.
4. BOND EACH HORIZONTAL POLE / BRACE TO EACH OTHER AND TO EACH VERTICAL POST THAT IS BONDED TO THE EXTERIOR GROUND RING.
5. ALL BONDING CONDUCTORS SHALL BE #2 AWG SOLID TINNED BARE COPPER CONDUCTORS.
6. ALL BONDING SHALL BE DONE VIA CADWELD OR OTHER APPROVED EXOTHERMIC WELDING PROCESS.
7. ALL CADWELDING TO FENCE POSTS SHALL BE LOCATED A MINIMUM OF 6" ABOVE GRADE.

TYPICAL FENCE GROUNDING (PHASE-1 & 2 AS APPLICABLE)
3 NOT TO SCALE



NOTES:

1. HEAT DETECTORS TO BE COMB. FIXED TEMP/RATE OF RISE TYPE RATED 135 F. MOUNT ADJACENT TO SPRINKLER HEADS IN SHAFT AND ELEV. MACHINE ROOM.
2. TRANSFORMER TO BE 120VAC-24VAC. LOCATE IN ELEV. MACHINE ROOM - EDWARDS #598.
3. RELAY TO BE 24 VOLT WITH 120V RATED N.O. AND N.C. CONTACT. (2P,1T)

ELEVATOR SHUTDOWN WIRING SCHEMATIC (PHASE-2)
7 NOT TO SCALE

H2M architects + engineers
3 Lear Jet Lane, Suite 205
Latham, NY 12110
518.765.5105 • www.h2m.com

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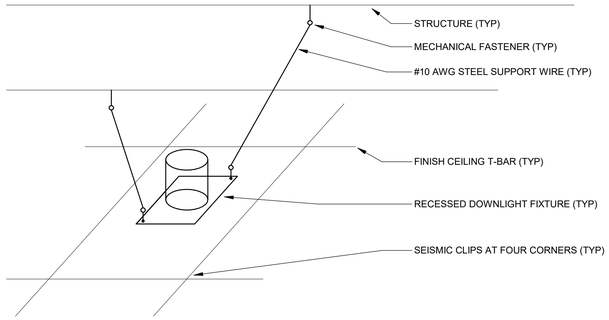
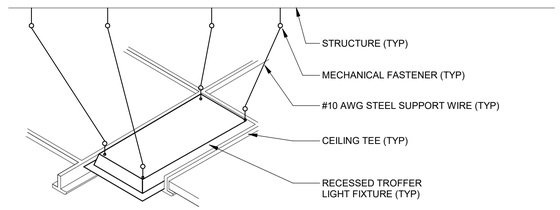
DRAWING No.
E 701



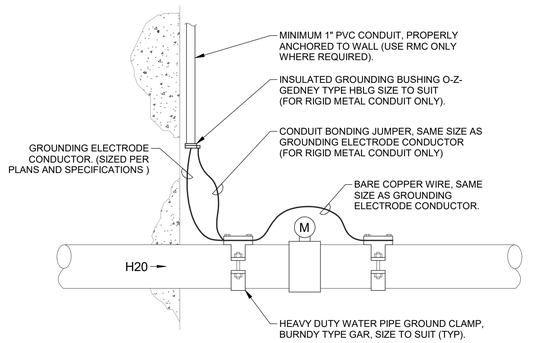
TYPICAL RECESSED DOWNLIGHT SUPPORT DETAIL (PHASE-2)

1 NOT TO SCALE



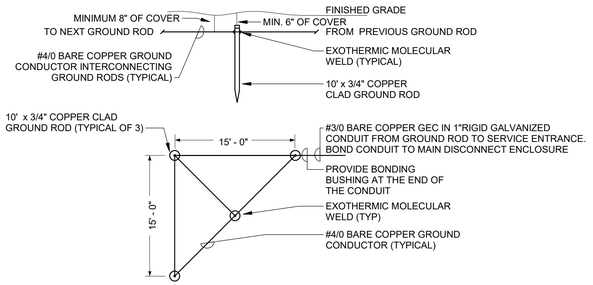
TYPICAL RECESSED TROFFER LIGHT SUPPORT DETAIL (PHASE-2)

2 NOT TO SCALE



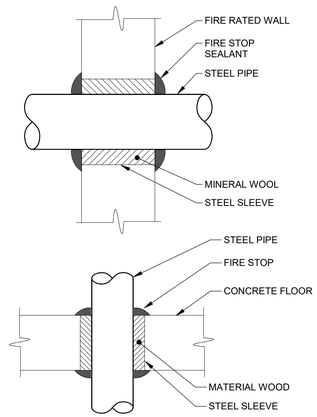
WATER MAIN GROUNDING DETAIL (PHASE-1 & 2 AS APPLICABLE)

3 1/8" = 1'-0"



GROUND ROD POISE DETAIL (PHASE-1 & 2 AS APPLICABLE)

4 NOT TO SCALE

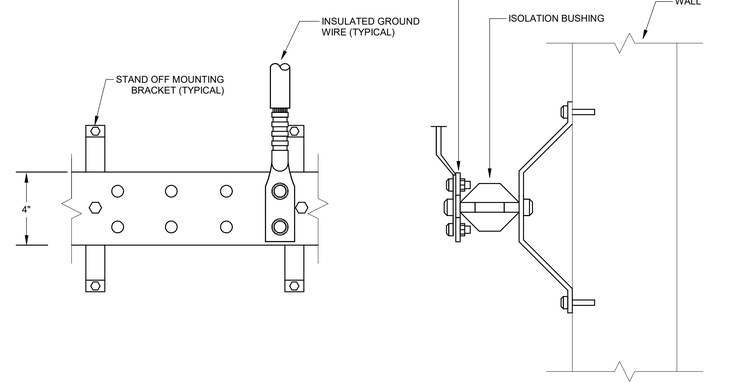


NOTES:

1. 4" STEEL PIPE MAXIMUM (REFER TO FLOOR PLANS FOR SIZE REQUIREMENTS).
2. 6" DIA. OPENING (MAX) WITH STEEL SLEEVE.
3. SLEEVE: 4" OF 4PCF MINERAL WOOL IN OPENING.
4. APPLY FIRE STOP SEALANT THICKNESS MANUFACTURE'S INSTALLATION INSTRUCTIONS. APPLY SEALANT OVER MINERAL WOOL ON EACH SIDE OF PENETRATION.

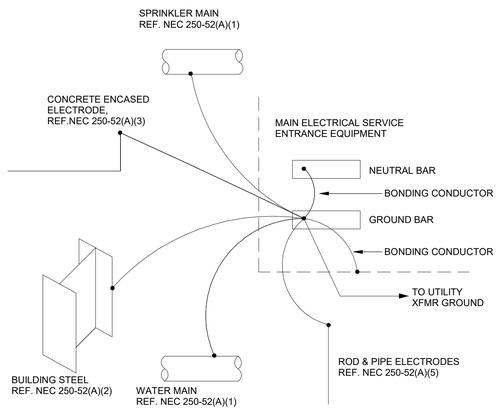
CONDUIT/SLEEVE WALL & FLOOR PENETRATION DETAILS (PHASE-1 & 2 AS APPLICABLE))

5 NOT TO SCALE



GROUNDING BUS BAR DETAIL (PHASE-2)

6 NOT TO SCALE



NOTES:

A. REFER TO GROUNDING ELECTRODE TABLE FOR CONNECTIONS REQUIRED AS RELATED TO THIS PROJECT.

B. ALL CONNECTIONS SHALL BE IN ACCORDANCE WITH NEC ARTICLE 250.

GROUNDING ELECTRODE SYSTEM DETAIL (PHASE-1 & 2 AS APPLICABLE)

7 NOT TO SCALE

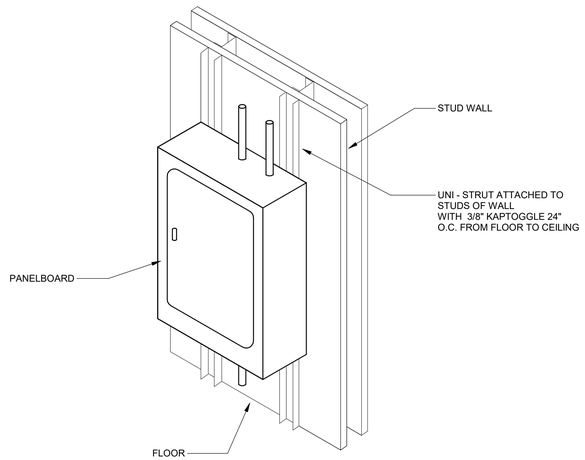
GROUNDING ELECTRODE CONNECTIONS
AVAILABILITY AND REQUIREMENTS
FOR THIS PROJECT

NEC REFERENCE	AVAIL. YES	REQ'D YES	NOTES
250-52(A)(1)	X	X	1
250-52(A)(2)	X	X	1
250-52(A)(3)	X	X	1,4
250-52(A)(4)	X	X	2
250-52(A)(5)	X	X	2
250-52(A)(6)	X	X	2
250-52(A)(7)	X		2

GROUNDING ELECTRODE CONDUCTOR SIZE:3/0 AWG COPPER

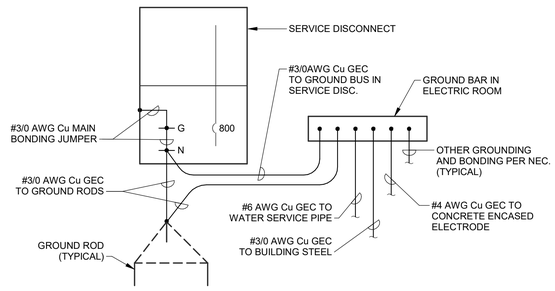
NOTES:

1. NEC ARTICLE 250-52 INDICATES A PRIORITY LIST OF GROUNDING ELECTRODE CONNECTIONS WITH (1) BEING THE HIGHEST PRIORITY AND (7) BEING THE LOWEST.
2. CONNECTION TO ITEMS MADE UNDER ARTICLE 250-52(A)(4),(5),(6) & (7) SHALL NOT SUBSTITUTE CONNECTIONS TO 250-52 (1), (2), OR (3), UNLESS NONE OF THESE SYSTEMS ARE AVAILABLE.
3. GROUNDING ELECTRODE SYSTEM INSTALLATION SHALL COMPLY WITH NEC ARTICLE 250.53.
4. REFER TO NEC ARTICLE 250.50, EXCEPTION.



WALL MOUNTED PANELBOARD WITH SEISMIC BRACING (PHASE-2)

8 NOT TO SCALE



SERVICE GROUNDING DETAIL (PHASE-1 & 2 AS APPLICABLE)

9 NOT TO SCALE

H 2 M architects + engineers

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Latham, NY 12110
518.765.5105 • www.h2m.com

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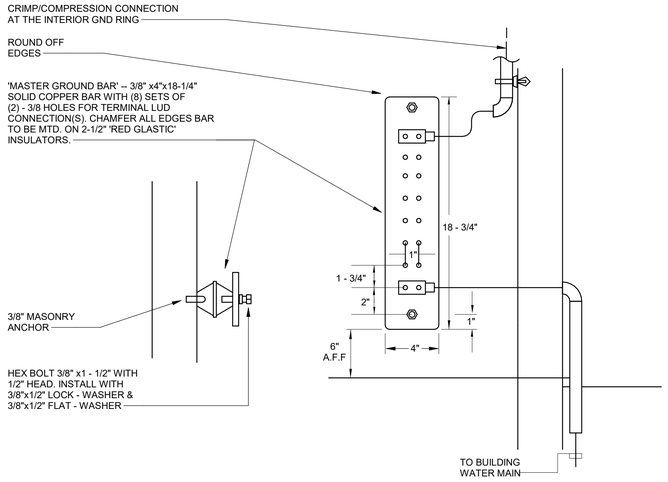
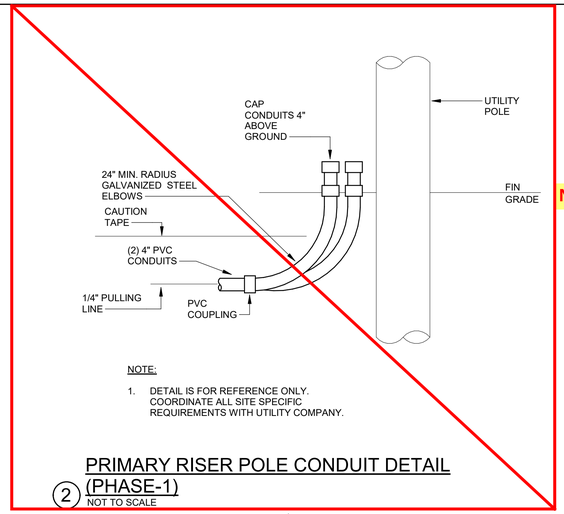


MASTER GROUND BAR DETAIL (PHASE-2)

1 NOT TO SCALE



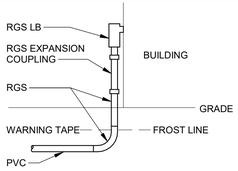
N.I.C.

NOTE:

1. DETAIL IS FOR REFERENCE ONLY. COORDINATE ALL SITE SPECIFIC REQUIREMENTS WITH UTILITY COMPANY.

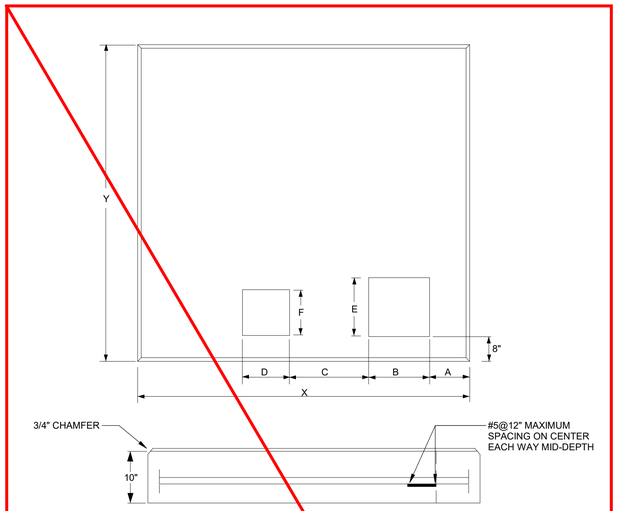
PRIMARY RISER POLE CONDUIT DETAIL (PHASE-1)

2 NOT TO SCALE



CONDUIT CONNECTION TO BUILDING DETAIL (PHASE-1 & 2 AS APPLICALE)

3 NOT TO SCALE



REBAR DIAGRAM

N.I.C.

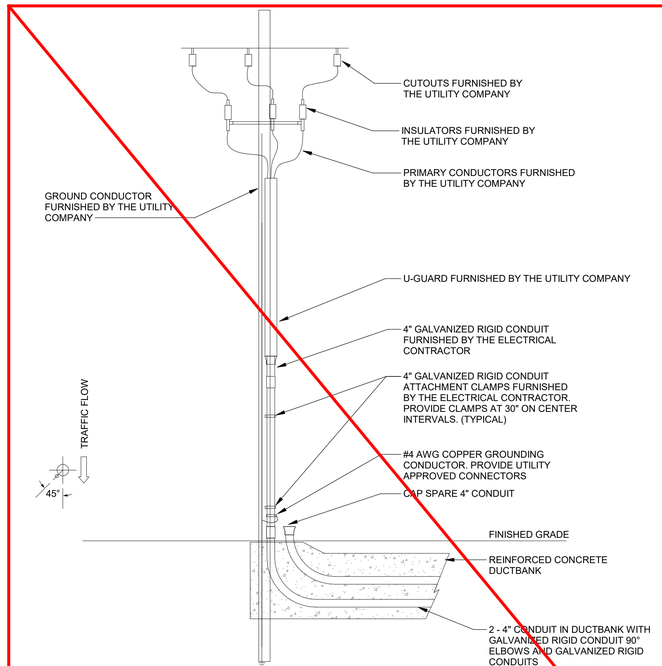
3 PHASE PADMOUNTS		15 kV		25 AND 35kV	
DIMENSIONS		75 - 500 kVA	750 - 2500 kVA	75 - 300 kVA	500 - 2500 kVA
X		81"	83"	85"	96"
Y		64"	82"	62"	84"
A		22"	12"	8"	8"
B		15"	25"	16"	25"
C		8"	8"	20"	20"
D		12"	12"	12"	12"
E		15"	15"	18"	21"
F		12"	12"	12"	12"

NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO AC1-318.
2. CONCRETE TO HAVE A MINIMUM STRENGTH OF 5000 P.S.I. AFTER 28 DAYS. AIR ENTRAINMENT TO BE 6% ± 1%. ALL EXPOSED EDGES TO HAVE A 3/4" CHAMFER.
3. REINFORCING TO BE *5 - GRADE 60 BARS AND SHALL CONFORM TO ASTM A-615 OF LATEST DATE. REINFORCING TO BE PLACED A MINIMUM OF 2" CLEAR FROM FACE OF CONCRETE.
4. ALL OPENINGS SHALL HAVE ADDITIONAL REBAR REINFORCEMENT OF 1 - *5 EACH CORNER, MID- DEPTH.
5. LIFTING ANCHORS SHALL BE INSTALLED WITH APPROPRIATE DAYTON LIFTING ANCHORS OR EQUIVALENT.

TYPICAL TRANSFORMER CONCRETE PAD (PHASE-1)

4 NOT TO SCALE



N.I.C.

GENERAL NOTES:

1. DETAIL IS FOR REFERENCE ONLY. COORDINATE ALL SITE SPECIFIC REQUIREMENTS WITH UTILITY COMPANY.
2. RIGID CONDUIT RISERS SHALL BE ON THE SIDE OF THE POLE THAT IS AWAY FROM TRAFFIC.
3. CAP SPARE 4" CONDUIT.
4. PROVIDE 1/4" PULL ROPE FOR BOTH PRIMARY CONDUITS.

PRIMARY POLE RISER DETAIL (PHASE-1)

5 NOT TO SCALE

SINGLE PHASE WIRE SCHEDULE

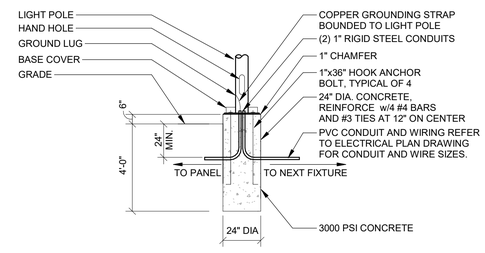
OVERCURRENT RATING (1-POLE OR 2-POLE)	CONDUCTORS (1 PH, 2W) WITH GROUND	CONDUIT SIZE	CONDUCTORS (1 PH, 3W) WITH GROUND	CONDUIT SIZE
15A	2#12 & 1#12G	3/4"	3#12 & 1#12G	3/4"
20A	2#12 & 1#12G	3/4"	3#12 & 1#12G	3/4"
25A	2#10 & 1#10G	3/4"	3#10 & 1#10G	3/4"
30A	2#10 & 1#10G	3/4"	3#10 & 1#10G	3/4"
35A	2#8 & 1#10G	3/4"	3#8 & 1#10G	3/4"
40A	2#8 & 1#10G	3/4"	3#8 & 1#10G	3/4"
45A	2#6 & 1#10G	1"	3#6 & 1#10G	1"
50A	2#6 & 1#10G	1"	3#6 & 1#10G	1"
60A	2#4 & 1#10G	1"	3#4 & 1#10G	1-1/4"
70A	2#4 & 1#8G	1"	3#4 & 1#8G	1-1/4"
80A	2#3 & 1#8G	1-1/4"	3#3 & 1#8G	1-1/2"
90A	2#2 & 1#8G	1-1/4"	3#2 & 1#8G	1-1/2"
100A	2#1 & 1#8G	1-1/2"	3#1 & 1#8G	2"

THREE PHASE WIRE SCHEDULE

OVERCURRENT RATING (3-POLE)	CONDUCTORS (3 PH, 3W) WITH GROUND	CONDUIT SIZE	CONDUCTORS (3 PH, 4W) WITH GROUND	CONDUIT SIZE
15A	3#12 & 1#12G	3/4"	4#12 & 1#12G	3/4"
20A	3#12 & 1#12G	3/4"	4#12 & 1#12G	3/4"
25A	3#10 & 1#10G	3/4"	4#10 & 1#10G	3/4"
30A	3#10 & 1#10G	3/4"	4#10 & 1#10G	3/4"
35A	3#8 & 1#10G	3/4"	4#8 & 1#10G	3/4"
40A	3#8 & 1#10G	3/4"	4#8 & 1#10G	3/4"
45A	3#6 & 1#10G	1"	4#6 & 1#10G	1"
50A	3#6 & 1#10G	1"	4#6 & 1#10G	1"
60A	3#4 & 1#10G	1-1/4"	4#4 & 1#10G	1-1/4"
70A	3#4 & 1#8G	1-1/4"	4#4 & 1#8G	1-1/4"
80A	3#3 & 1#8G	1-1/4"	4#3 & 1#8	1-1/4"
90A	3#2 & 1#8G	1-1/4"	4#2 & 1#8G	1-1/2"
100A	3#1 & 1#8G	1-1/2"	4#1 & 1#8G	2"
110A	3#1 & 1#6G	1-1/2"	4#1 & 1#6G	2"
125A	3#1/0 & 1#6G	1-1/2"	4#1/0 & 1#6G	2"
150A	3#1/0 & 1#6G	2"	4#1/0 & 1#6G	2"
175A	3#2/0 & 1#6G	2"	4#2/0 & 1#6G	2"
200A	3#3/0 & 1#6G	2"	4#3/0 & 1#6G	2-1/2"
225A	3#4/0 & 1#4G	2-1/2"	4#4/0 & 1#4G	2-1/2"
250A	3#250KCMIL & 1#4G	2-1/2"	4#250KCMIL & 1#4G	3"
300A	3#350KCMIL & 1#4G	3"	4#350KCMIL & 1#4G	3"
350A	3#500KCMIL & 1#3G	3"	4#500KCMIL & 1#3G	4"
400A	3#500KCMIL & 1#3G	3-1/2"	4#500KCMIL & 1#3G	4"
450A	(2)3#4/0 & 1#2G	(2) 3"	(2)4#4/0 & 1#2G	(2) 3"
500A	(2)3#250KCMIL & 1#2G	(2) 3"	(2)4#250KCMIL & 1#2G	(2) 3"
600A	(2)3#350KCMIL & 1#1G	(2) 3"	(2)4#350KCMIL & 1#1G	(2) 3"
700A	(2)3#500KCMIL & 1#1/0G	(2) 3-1/2"	(2)4#500KCMIL & 1#1/0G	(2) 4"
800A	(2)3#500KCMIL & 1#1/0G	(2) 3-1/2"	(2)4#500KCMIL & 1#1/0G	(2) 4"
900A	(3)3#350KCMIL & 1#2/0G	(3) 3"	(3)4#350KCMIL & 1#2/0G	(3) 3"
1000A	(3)3#500KCMIL & 1#2/0G	(3) 3-1/2"	(3)4#500KCMIL & 1#2/0G	(3) 3-1/2"
1200A	(4)3#350KCMIL & 1#3/0G	(4) 4"	(4)4#350KCMIL & 1#3/0G	(4) 4"
1600A	(4)3#600KCMIL & 1#4/0G	(4) 4"	(4)4#600KCMIL & 1#4/0G	(4) 4"

NOTES:

1. UNLESS OTHERWISE INDICATED, CONDUCTOR SIZING SHALL MATCH THE SIZE INDICATED ABOVE FOR THE APPLICABLE OVERCURRENT DEVICE. PROVIDE LARGER CIRCUIT WHERE INDICATED.
2. PROVIDE MINIMUM SIZE CONDUIT INDICATED IN THE SPECIFICATIONS OR ON THE DRAWINGS.
3. PROVIDE A 3-PHASE 4-WIRE CIRCUIT UNLESS DEVICE SERVED DOES NOT HAVE PROVISIONS FOR A NEUTRAL.
4. PROVIDE A 1-PHASE 3-WIRE CIRCUIT UNLESS DEVICE SERVED DOES NOT HAVE PROVISIONS FOR A NEUTRAL.
5. MINIMUM SIZE CONDUIT UNDERGROUND IS 4 INCH EXCEPT FOR SITE BRANCH CIRCUITS SUCH AS LIGHTING AND MISCELLANEOUS POWER AND SYSTEMS WHICH SHALL BE A MINIMUM OF 1 INCH.
6. PROVIDE TYPE OF RACEWAY OR CABLE AS INDICATED IN THE SPECIFICATIONS OR ON THE DRAWINGS.
7. REFER TO MOTOR CIRCUIT SCHEDULE AND/OR DRAWINGS FOR CONDUCTOR AND CONDUIT SIZE REQUIREMENTS FOR MOTOR LOADS.
8. CONDUIT AND WIRE SIZES SHOWN IN SCHEDULE ABOVE ARE BASED ON MAXIMUM CIRCUIT LENGTH OF 150'
9. CONDUIT AND WIRE SIZES FOR CIRCUITS OVER 150' SHALL BE BASED ON THE NEXT AMERICAN WIRE GAUGE SIZE.



POLE BASE DETAIL (PHASE-2)

6 NOT TO SCALE

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MARK	DATE	DESCRIPTION

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
CKD	CKD		

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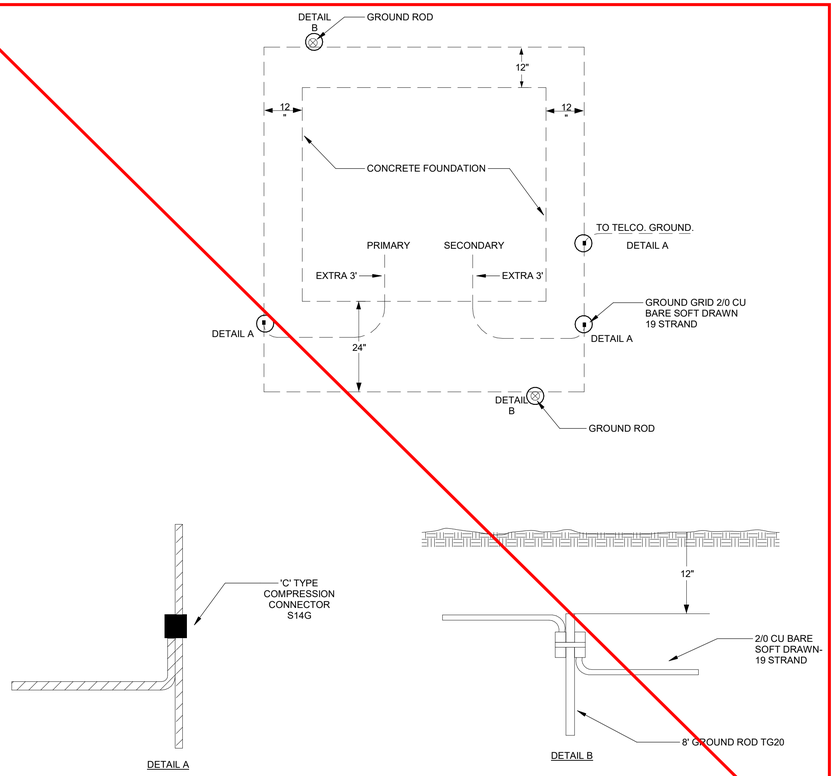
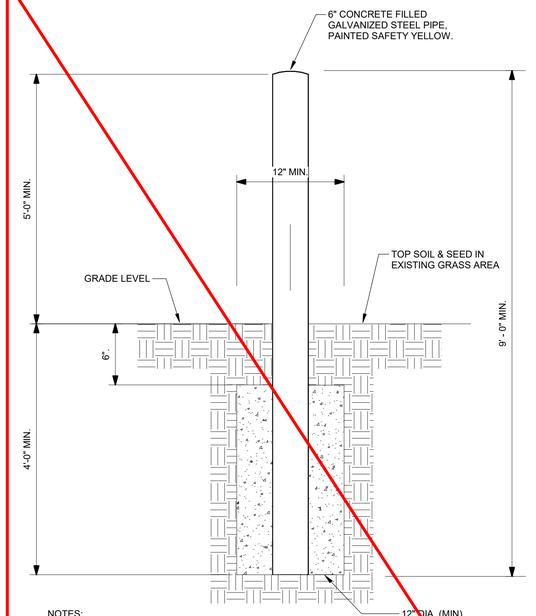


THREE-PHASED PADMOUNTED TRANSFORMER GROUNDING DETAIL (PHASE-1)

1 NOT TO SCALE

N.I.C.



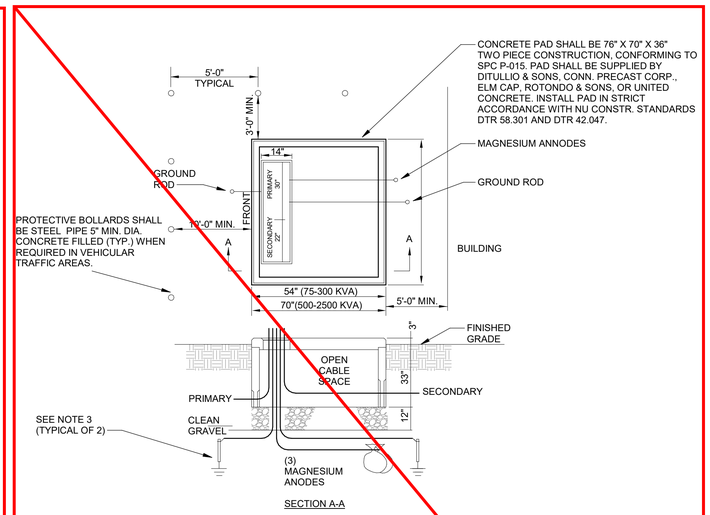
NOTES:

1. COORDINATE WITH LOCAL ELECTRIC UTILITY COMPANY AND CIVIL ENGINEER FOR QUANTITY AND LOCATION.
2. PROVIDE WITH YELLOW UV RESISTANT HDPE BOLLARD SLEEVES COVERING FULL LENGTH OF BOLLARD.

TRANSFORMER BOLLARD DETAIL (PHASE-1)

2 NOT TO SCALE

N.I.C.



SECTION A-A

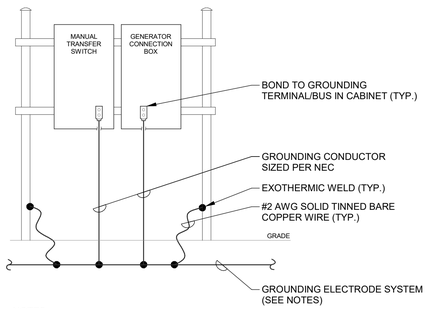
NOTES:

1. PRIMARY CABLE:
   A. INSTALL DIRECT - BURIED CABLES A MINIMUM OF 30 INCHES BELOW GRADE.
   B. INSTALL CABLES IN CONDUIT A MINIMUM OF 24 INCHES BELOW GRADE.
   C. LOOP CABLES IN PIT BEFORE MAKING CONNECTIONS.
2. SECONDARY CABLE:
   LEAVE ENOUGH CABLE TO EXTEND 6 FEET ABOVE PAD FOR FUTURE CONNECTING TO TRANSFORMERS WITH HIGHER SECONDARY TERMINALS. E.C. TO PROVIDE CABLES ENTERING THROUGH THE REAR KNOCKOUT AND SHALL BE CONFINED TO THE AREA DEFINED AS THE SECONDARY CABLE AREA.
3. COPPER CLAD GROUND RODS-INSTALL IN TRENCH AND CONNECT #2 COPPER CONDUCTORS FROM RODS THROUGH PAD OPENING AND EXTENDING 5 FEET ABOVE PAD. MINIMUM SEPARATION OF GROUND RODS IS 8 FEET.
4. MEET ALL UTILITY COMPANY REQUIREMENTS

TRANSFORMER PAD DETAIL (PHASE-1)

3 NOT TO SCALE

N.I.C.



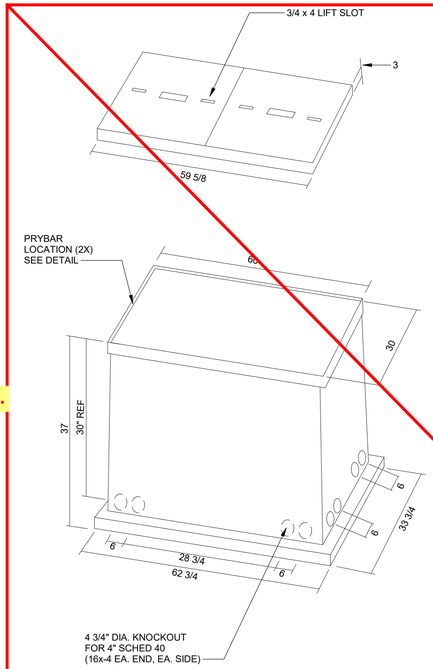
NOTES:

1. GROUNDING ELECTRODE SYSTEM SHALL BE A GROUNDING TRIAD, GROUND RING, OR OTHER NEARBY MULTI-ELECTRODE SYSTEM AS SHOWN ON THE PLANS.
2. BONDING TO GROUND RING SHOWN. BOND DIRECTLY TO GROUND ROD WHEN USING GROUNDING TRIAD OR OTHER GROUND ROD ARRANGEMENT.
3. DETAILS APPLIES TO ALTERNATE #1 ONLY, AS SHOWN ON RISER DIAGRAM.

UTILITY FRAME GROUNDING (PHASE-2)

4 NOT TO SCALE

N.I.C.

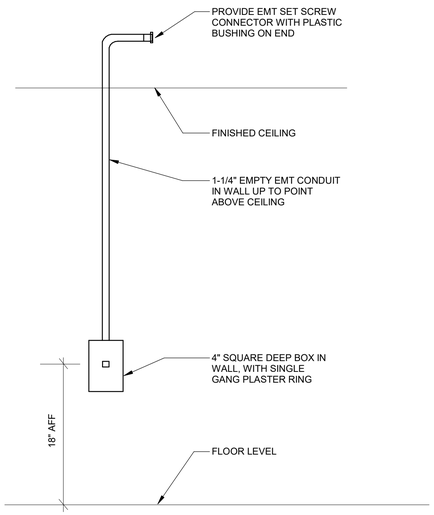


NOTES:

1. MATERIAL: FIBERGLASS REINFORCED POLYMER CONCRETE & FIBERGLASS REINFORCED POLYMER
2. COLOR: CONCRETE GRAY
3. LOAD RATING: A16(ASTM C857)
4. LOGO: ELECTRIC
5. COVER WEIGHT: 215 LBS
6. BOX WEIGHT: 253 LBS
7. COVER & BOX TOTAL WEIGHT: 478 LBS

TYPICAL PRIMARY CABLE HANDHOLE (PHASE-1)

5 NOT TO SCALE



TEL/DATA OUTLET INSTALLATION DETAIL (PHASE-2)

6 NOT TO SCALE

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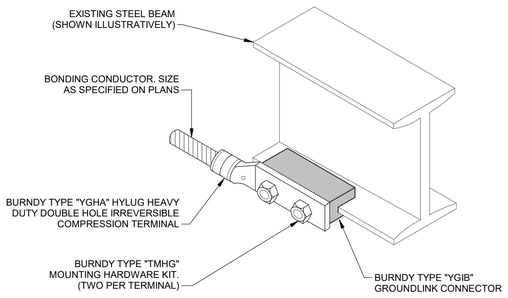
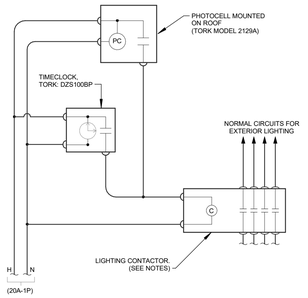


NOTES:

1. WIDE FLANGE BEAM SHOWN. USE WITH OTHER STRUCTURAL ELEMENTS ONLY AS SPECIFIED BY MANUFACTURER.
2. INSTALL ACCORDING TO MANUFACTURER'S SPECIFICATIONS, USING MANUFACTURER'S RECOMMENDED INSTALLATION TOOLS.
3. PREPARE BEAM SURFACE ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
4. UPON COMPLETION OF INSTALLATION REPAIR & RESTORE ALL DISTURBED FIREPROOFING AND CORROSION PROTECTION.
5. DETAIL SHOWS ONLY COMPONENT FAMILY TYPES. COORDINATE WITH MANUFACTURER TO DETERMINE EXACT PART NUMBER APPROPRIATE FOR SIZE/TYPE OF EACH BEAM AND BONDING CONDUCTOR.

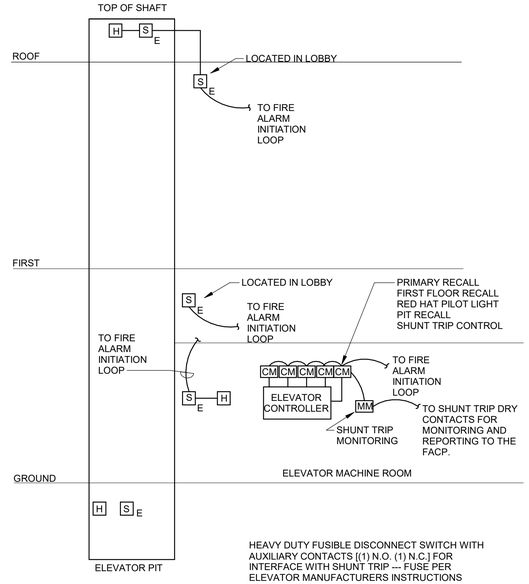
BUILDING STEEL BONDING DETAIL (PHASE-2)
1 NOT TO SCALE



NOTES:

1. ALL WIRING FOR SITE LIGHTING SHALL BE #10 AWG, MINIMUM.
2. LIGHTING CONTACTOR SHALL BE 30 AMP, MECHANICALLY HELD, SQUARE-D CLASS 8203, MODEL LGX, WITH QUANTITY OF NORMALLY OPEN CONTACTS AS REQUIRED AND CONTROL VOLTAGE TO MATCH VOLTAGE OF CONTROL CIRCUIT SPECIFIED. PROVIDE WITH ENCLOSURE APPROPRIATE FOR MOUNTING LOCATION.
3. MOUNT ALL COMPONENTS, EXCEPT PHOTOCELL, ON WALL IN ELECTRIC CLOSET ADJACENT TO EACH ASSOCIATED POWER PANEL.

TIMECLOCK & PHOTOCELL (PHASE-2)
2 NOT TO SCALE

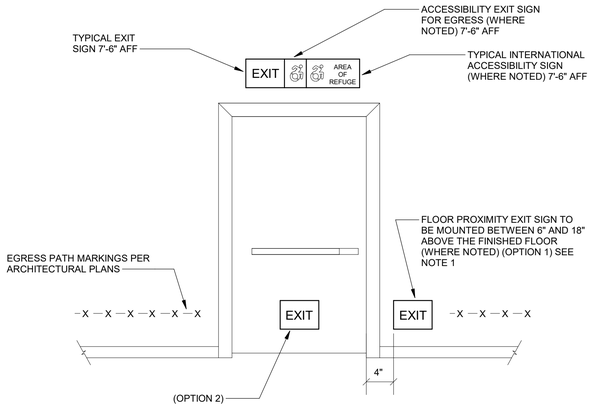


HEAVY DUTY FUSIBLE DISCONNECT SWITCH WITH AUXILIARY CONTACTS [(1) N.O. (1) N.C.] FOR INTERFACE WITH SHUNT TRIP — FUSE PER ELEVATOR MANUFACTURERS INSTRUCTIONS

NOTES:

1. DO NOT INSTALL CONDUIT IN ELEVATOR SHAFT.
2. COORDINATE LOCATION OF ALL DEVICES WITH ELEVATOR VENDOR.

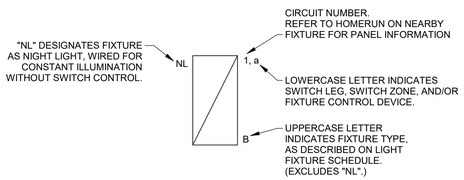
ELEVATOR RECALL RISER DETAIL (PHASE-2)
3 NOT TO SCALE



NOTES:

1. FLOOR PROXIMITY SIGN(S) SHALL BE MOUNTED WITHIN 4" OF DOOR (SAME PLANE NOT REQUIRED) AND NO LESS THAN 6" ABOVE THE FINISHED FLOOR AND NO MORE THAN 18" ABOVE THE FINISHED FLOOR. SIGN MAY BE MOUNTED ON FACE OF DOOR (OPTION 2). REFER TO FIXTURE SCHEDULE FOR SPECIFIC MOUNTING HEIGHT REQUIREMENT.
2. FLOOR PROXIMITY SIGN MAY BE MOUNTED BEHIND DOOR THAT IS HELD IN THE OPEN POSITION BY MAGNETIC DOOR HOLDER ARRANGED TO CLOSE UPON ACTIVATION OF LOCAL SMOKE DETECTOR AND / OR FIRE ALARM SYSTEM.

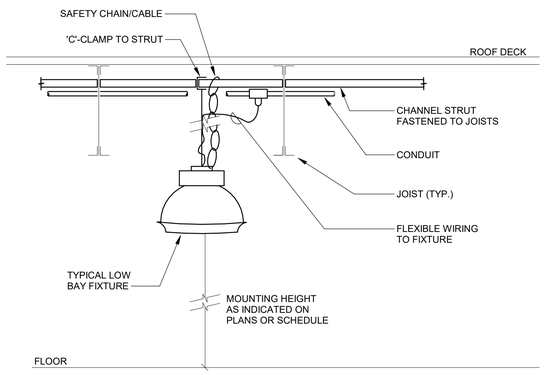
EXIT SIGNAGE DETAIL (PHASE-2)
4 NOT TO SCALE



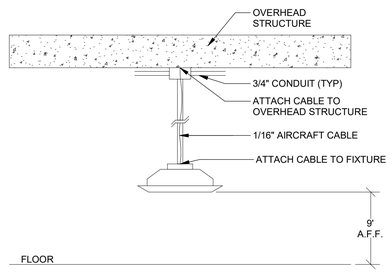
NOTES:

1. UNSWITCHED LIGHTING BRANCH CIRCUIT WIRING SHOWN TO A SINGLE FIXTURE FOR EACH CIRCUIT. UNLESS OTHERWISE INDICATED OR REQUIRED FOR VOLTAGE DROP, PROVIDE (2) #12 AWG & (1) #12 AWG GND IN 3/4" CONDUIT FOR SWITCHED WIRING TO ALL COMMON CONTROL FIXTURES.
2. PROVIDE ALL LOW VOLTAGE CONTROL WIRING AS REQUIRED FOR PROPER OPERATION OF ALL FIXTURES FROM ASSOCIATED CONTROLS (INCLUDES DIMMERS, OCCUPANCY SENSORS, SCENE CONTROL SWITCHES, ETC.).
3. FIXTURES WITHOUT SWITCH LEG OR CONTROL DESIGNATION SHALL BE CONTROLLED BY THE CONTROL DEVICES WITHIN THE SAME ROOM OR AREA. (THIS INCLUDES ANY COMBINATION OF 3-WAY AND 4-WAY SWITCHES, SENSORS, SCENE CONTROLLERS, OR OTHER CONTROL DEVICES.)
4. WIRING MAY ALSO BE INDICATED WITH CONNECTING LINES FOR CLARITY.

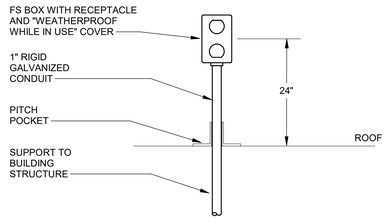
LIGHT FIXTURE ANNOTATION DETAIL (PHASE-2)
5 NOT TO SCALE



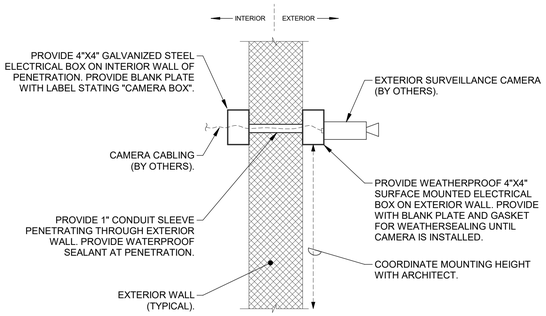
HIGH BAY FIXTURE MOUNTING DETAIL (PHASE-2)
6 NOT TO SCALE



PENDANT FIXTURE DETAIL (PHASE-2)
7 NOT TO SCALE



ROOF RECEPTACLE - MOUNTING DETAIL (PHASE-2)
8 NOT TO SCALE



NOTES:

1. REFER TO FLOOR PLANS FOR LOCATION AND QUANTITY OF DEVICES. COORDINATE FINAL LOCATION WITH OWNER AND ARCHITECT PRIOR TO INSTALLATION.
2. COORDINATE WITH SECURITY CAMERA SYSTEM VENDOR FOR ADDITIONAL SPECIFICATIONS.

EXTERIOR CAMERA BOX INSTALLATION (PHASE-2)
9 NOT TO SCALE

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