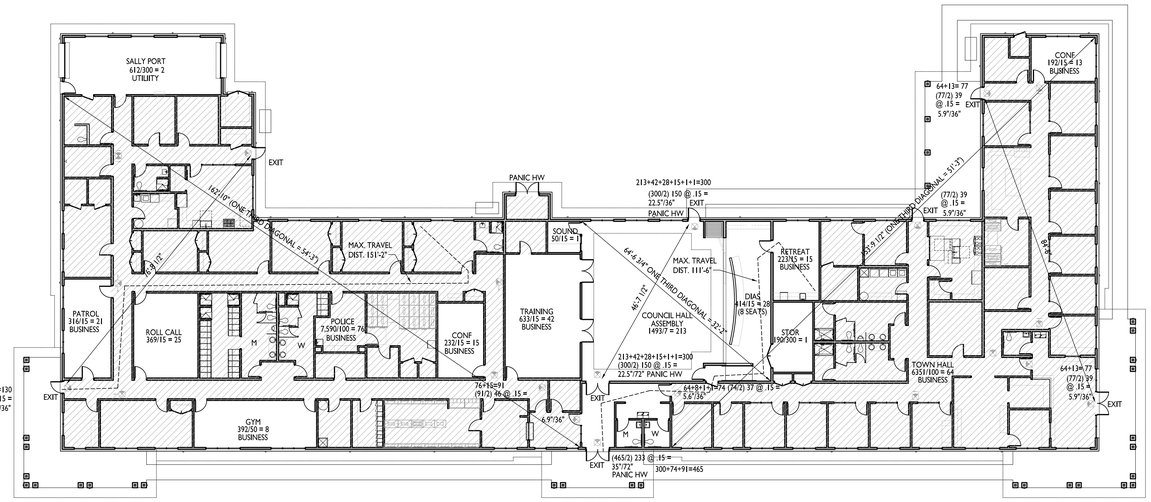
TOWN OF SURF CITY
MUNICIPAL COMPLEX



RENDERING IS SHOWN FOR GENERAL AESTHETICS ONLY



LIFE SAFETY PLAN **A**

SCALE: 1/16"= 1'-0"

DRAWING LIST

CIVIL		BY OTHERS
ARCHITECTURAL	A1.1	COVER SHEET, APPENDIX B, LIFE SAFETY PLAN
	A2.1	OVERALL FLOOR PLAN
	A2.2	FLOOR PLAN, TOWN HALL SIDE
	A2.3	FLOOR PLAN, POLICE SIDE
	A2.4	REFLECTED CEILING PLAN, TOWN HALL SIDE
	A2.5	REFLECTED CEILING PLAN, POLICE SIDE
	A2.6	ROOF PLAN
	A2.7	DOOR ELEVATIONS & SCHEDULE
	A2.8	FINISH SCHEDULE & PLAN DETAILS
	A3.1	EXTERIOR ELEVATIONS
	A3.2	INTERIOR ELEVATIONS
	A3.2	INTERIOR ELEVATIONS
	A4.1	BUILDING SECTIONS
	A4.2	WALL SECTIONS & INTER. PARTITIONS
	A4.3	WALL SECTIONS
STRUCTURAL	S1	FOUNDATION PLAN
	S2	WALL FRAMING PLAN
	S3	WINDOW & BEAM DETAILS
	S4	DOOR OPENING DETAILS
	S5	ROOF TRUSS PLAN
	S6	MOVABLE WALL & STRUCTURAL DETAILS
	S7	TRUSS BRACING PLAN
	S8	SECTIONS & GABLE DETAILS
	S9	SECTIONS S9-2 & S9-3
	S10	SECTIONS S10-4 & S10-5
PM&E	P1	PLUMBING FIXTURE SCHEDULE
	P2	OVERALL WASTE PLAN
	P3	WASTE PLAN, POLICE SIDE
	P4	WASTE PLAN, TOWN HALL SIDE
PLUMBING, MECHANICAL & ELECTRICAL	P5	OVERALL WATER PLAN
	P6	WATER PLAN, POLICE SIDE
	P7	WATER PLAN, TOWN HALL SIDE
	P8	GAS PIPING PLAN
	P9	WATER RISER
	M1	MECHANICAL SCHEDULES
	M2	MECHANICAL PLAN
	M3	MECHANICAL SYSTEM SCHEMATIC
	E1	ELECTRICAL SUMMARY & POWER RISER
	E2	SITE/ATTIC ELECTRICAL PLAN
	E3	POWER PLAN
	E4	LIGHTING PLAN
	E5	MECHANICAL CONNECTIONS PLAN
	E6	LOW VOLTAGE SYSTEMS
	E7	PANEL & EQUIP CONNECTION SCHEDULE
	FA1	FIRE ALARM PLAN

ABBREVIATIONS

@	AT	H.M.	HOLLOW METAL
ABV.	ABOVE	HT.	HEIGHT
A.C.T.	ACOUSTICAL CEILING TILE	INSUL.	INSULATION
A.D.A.	AMERICANS WITH DISABILITY ACT	INT.	INTERIOR
ALUM.	ALUMINUM	JST.	JOIST
A.F.F.	ABOVE FINISH FLOOR	LD.	LOAD
A.T.O.S.	ABOVE TOP OF SLAB	MAX.	MAXIMUM
BD.	BOARD	MIN.	MINIMUM
BM.	BEAM	MTL.	METAL
BRNG.	BEARING	N.I.C.	NOT IN CONTRACT
CBL.	CEILING	O.C.	ON CENTER
CNTR.	COUNTER	OPP.	OPPOSITE
COL.	COLUMN	PNTD.	PAINTED
CONC.	CONCRETE	PR.	PAIR
CONT.	CONTINUOUS	PT.	POINT
DN.	DOWN	RF.	ROOF
DR.	DOOR	S.C.W.	SOLID CORE WOOD
EA.	EACH	S.F.	SQUARE FOOT
ENG.	ENGINEER	SIMM.	SIMMILAR
EQ.	EQUAL	S.S.	STAINLESS STEEL
EXTER.	EXTERIOR	STL.	STEEL
FIN.	FINISHED	STR.	STRUCTURAL
FTG.	FOOTING	T.O.M.	TOP OF MASONRY
GALV.	GALVANIZED	TYP.	TYPICAL
G.C.	GENERAL CONTRACTOR	U.N.O.	UNLESS NOTED OTHERWISE
GYP. (G.W.B.)	GYPSUM WALL BOARD	V.B.	VAPOR BARRIER
H.	HIGH	WIN.	WINDOW
HD.	HEAD	W.W.F.	WELDED WIRE FABRIC

GENERAL NOTES

1. THIS IS A LIMITED SET OF CONSTRUCTION DOCUMENTS FOR LAYOUT AND GENERAL AESTHETICS. IT IS THE CONTRACTOR'S RESPONSIBILITY AND LIABILITY TO PROVIDE A WEATHER TIGHT, SOUND STRUCTURE IN COMPLIANCE WITH THE 2018 NC BUILDING CODE.
2. THE WORK SHALL BE IN ACCORDANCE WITH THESE DRAWINGS AND SPECIFICATIONS UNLESS WRITTEN NOTICE FROM THE ARCHITECT IS PROVIDED OTHERWISE. ALL WORK SHALL BE IN ACCORDANCE WITH RECOGNIZED INDUSTRY STANDARDS AND ALL MANUFACTURER'S RECOMMENDATIONS. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION.
3. THESE DRAWINGS AND SPECIFICATIONS AS INSTRUMENTS OF SERVICE ARE AND SHALL REMAIN THE PROPERTY OF DOGWOOD ARCHITECTURE, PC. THE OWNER SHALL BE PERMITTED TO RETAIN COPIES FOR INFORMATION AND REFERENCE IN CONNECTION WITH THE OWNER'S USE AND OCCUPANCY OF THIS PROJECT. THESE DRAWINGS AND SPECIFICATIONS SHALL NOT BE USED BY THE OWNER OR ANYONE ELSE ON OTHER PROJECTS, EXCEPT BY WRITTEN AGREEMENT WITH APPROPRIATE COMPENSATION.
4. DO NOT SCALE DRAWINGS. ANY DISCREPANCIES OR OMISSIONS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION. ALL DIMENSIONS ARE FROM FACE OF STUD TO FACE OF STUD UNLESS NOTED OTHERWISE.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE EXISTING UTILITIES PRIOR TO EXCAVATION. ANY DAMAGES TO EXISTING STRUCTURES OR UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
6. ALL TRUSSES AND LVL'S SHALL BE DESIGNED BY A LICENSED ENGINEER.
7. ALL CASEWORK AND FINISHES SHALL BE APPROVED BY THE OWNER PRIOR INSTALLATION.
8. ANY AND ALL EXTERIOR DOORS AND WINDOWS SHALL BE FLASHED WITH BITUMINOUS SELF-ADHERING MEMBRANE IN ACCORDANCE WITH MEMBRANE RECOMMENDED INSTALLATION INSTRUCTIONS. (WR GRACE, VYCOR OR APPROVED EQUAL)

APPENDIX B & BUILDING CODE SUMMARY
2018 NC BUILDING CODE

Name of Project: TOWN OF SURF CITY MUNICIPAL COMPLEX
Address: X Zip Code: X
Proposed Use: Business
Owner/Authorized Agent: Town of Surf City Phone: X Email: .
Owned by: ☐ City/County ☑ Private ☐ State
Code Enforcement Jurisdiction: ☐ City ☑ County New Hanover ☐ State

LEAD DESIGN PROFESSIONAL: Eric M. Jabaley

DESIGNER	FIRM	NAME	LIC. #	TELE. #	EMAIL
Architectural	Dogwood Architecture	Eric M. Jabaley	NC 12,054	910.769.4467	eric@dogwoodarch.com
Civil					
Electrical	McDowell Consul. Eng.	Gregory L. McDowell	NC 018518	910.270.3747	mcdowelleng@bellsouth.net
Plumbing	McDowell Consul. Eng.	Steve H., Everhart Jr.	NC 23933	910.270.3747	mcdowelleng@bellsouth.net
Mechanical	McDowell Consul. Eng.	Steve H., Everhart Jr.	NC 23933	910.270.3747	mcdowelleng@bellsouth.net
Structural					
Fire Alarm					
Sprinkler-Standpipe					
Retaining Walls (>5' High)					
Other					

2018 EDITION OF NC CODE FOR: ☑ New Construction ☐ Addition ☐ Upfit
EXISTING: ☐ Reconstruction ☐ Alteration ☐ Repair ☐ Renovation
CONSTRUCTED: . ORIGINAL USE(S) (Ch. 3): .
RENOVATED: CURRENT USE(S) (Ch. 3):
PROPOSED USE(S) (Ch. 3):

BUILDING DATA

Construction Type: ☐ I-A ☐ II-A ☐ III-A ☐ IV ☐ V-A ☐ I-B ☐ II-B ☐ III-B ☑ V-B
Sprinklers: ☐ No ☐ Partial ☑ Yes ☑ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D
Standpipes: ☑ No ☐ Yes Class: ☐ I ☐ II ☐ III ☐ Wet ☐ Dry
Fire District: ☑ No ☐ Yes
Flood Hazard Area: ☑ No ☐ Yes
Building Height: (feet) 24
Mezzanine: ☑ No ☐ Yes
Gross Building Area:

FLOOR	EXISTING (SF)	NEW (SF)	SUB-TOTAL (SF)
4th Floor			
3rd Floor			
2nd Floor			
Mezzanine			
1st Floor	19,999		19,999
Basement			
TOTAL	19,999		19,999

ALLOWABLE AREA

Occupancy: Assembly: ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
☑ Business ☐ Educational Factory: ☐ F-1 Moderate ☐ F-2 Low
Hazardous: ☐ H-1 Detonate ☐ H-2 Deflagrate ☐ H-3 Combust ☐ H-4 Health ☐ H-5 HPM
Institutional: ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
I-3 Use Condition: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ Mercantile
Residential: ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
Storage: ☐ S-1 Moderate ☐ S-2 Low ☐ High-piled
☐ Parking Garage: ☐ Open ☐ Enclosed ☐ Repair Garage ☐ Utility and Misc
Accessory Occupancies: Assembly A-3, Utility
Incidental Uses (Table 508.2.5):
Special Uses: ☐ 402 ☐ 403 ☐ 404 ☐ 405 ☑ 406 ☐ 407 ☐ 408 ☐ 409 ☐ 410 ☐ 411 ☐ 412 ☐ 413 ☐ 414 ☐ 415 ☐ 416 ☐ 417 ☐ 418 ☐ 419 ☐ 420 ☐ 421 ☐ 422 ☐ 423
Special Provisions: ☐ 509.2 ☐ 509.3 ☐ 509.4 ☐ 509.5 ☐ 509.6 ☐ 509.7 ☐ 509.8 ☐ 509.9
Mixed Occupancy: ☐ No ☑ Yes ☐ Separation: . Hr Exception:
☐ Incidental Use Separation (508.2.5)
This separation is not exempt as a Non-Separted Use (see exceptions).
☑ Non-Separated Mixed Occupancy (508.3)
The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.
☐ Separated Use (508.4) - See below for area calculations
For each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

Actual Area of Occupancy A / Allowable Area of Occupancy A + Actual Area of Occupancy B / Allowable Area of Occupancy B ≤ 1
___ + ___ = ___ ≤ 1.00

STORY NO.	DESCRIPT. AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 [4] AREA 51	(C) AREA FOR FRONTAGE INCREASE [1,5]	(D) ALLOWABLE AREA PER STORY OR UNLIMITED [2,3]
1	A-3	2,904	24,000	1,860	
1	B	16,483	36,000	2,790	
1	U	612	22,000	1,705	23,705

MIXED OCCUPANCY ONE STORY BUILDINGS
$A_a = A_1 + (NS \times I_f)$
A_a = 24,000 + (6,000 x .31) = 24,000 + 1,860
A_a = 36,000 + (9,000 x .31) = 36,000 + 2,790
A_a = 22,000 + (5,500 x .31) = 22,000 + 1,705

1. Frontage area increases from Section 506.2 are computed thus:
   a. Perimeter which fronts a public way or open space having 20 feet minimum width = 486 (F)
   b. Total Building Perimeter = 865 (P)
   c. Ratio (F/P) = .56 (F/P)
   d. W = Minimum width of public way = 30 (W)
   e. Percent of frontage increase I_f = 100 [F/P - 0.25] x W/30 = .31 (%)
2. The sprinkler increase per Section 506.3 is as follows:
   a. Multi-story building I_s = 200 percent
   b. Single story building I_s = 300 percent
3. Unlimited area applicable under conditions of Sections 507.
4. Maximum Building Area = total number of stories in the building x E(506.4)
5. The maximum area of parking garages must comply with 406.3.5. The maximum area of air traffic control towers must comply with 412.1.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE [1]
Building Height in Feet (Table 504.3) [2]	Feet: 60	Feet: 24	
Building Height in Stories (Table 504.4) [2]	Stories: 2	Stories: 1	

STRUCTURAL DESIGN

DESIGN LOADS: Importance Factors: Snow (I_S) 1.2 Seismic (I_E) 1.5
Live Loads: Roof 20 psf; Mechanical Access 30 psf; Floor 100 psf
Ground Snow Load: 12 psf
Wind Load: Ultimate Wind Speed 160 mph (ASCE-7); Exposure Category C
SEISMIC DESIGN CATEGORY: ☐ A ☐ B ☑ C ☐ D
Risk Category (Table 1604.5) ☐ I ☐ II ☐ III ☑ IV
Spectral Response Acceleration S_s 0.173 %g S_1 0.078 %g
Site Classification (ASCE 7) ☐ A ☐ B ☐ C ☑ D ☐ E ☐ F
Data Source: ☑ Field Test ☐ Presumptive ☐ Historical Data
Basic structural system ☑ Bearing Wall ☐ Dual w/ Special Moment Frame; ☐ Building Frame ☐ Dual w/ Interm. R/C or Special Stl.; ☐ Moment Frame ☐ Inverted Pendulum
Analysis Procedure: ☐ Simplified ☑ Equivalent Lateral Forces ☐ Dynamic
Architectural, Mechanical, Components anchored? ☑ Yes ☐ No
LATERAL DESIGN CONTROL: ☐ Earthquake ☑ Wind
SOIL BEARING CAPACITIES: Field Test 2,000 psf Report from ECS Carolinas
Presumptive Bearing capacity ___ psf
Pile size, type, and capacity ___

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/ REDUCTION) *	DETAIL AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		0	0				
Bearing walls							
Exterior							
North	> 30'	0	0				
East	> 30'	0	0				
West	> 30'	0	0				
South	> 30'	0	0				
Interior							
Nonbearing Walls and Partitions							
Exterior Walls							
North		0	0				
East		0	0				
West		0	0				
South		0	0				
Interior Walls and Partitions		0	0				
Floor Construction including supporting beams and joists		0	0				
Roof Construction including supporting beams and joists		0	0				
Shafts Enclosure- Exit		N/A	N/A				
Shafts Enclosure- Other		N/A	N/A				
Corridor Separation		0	0				
Occupancy Separation		0	0				
Party/Fire Wall Separation		N/A	N/A				
Smoke Barrier Separation		N/A	N/A				
Tenant Separation		N/A	N/A				
Incidental Use Separation		0	0				

* Indicate section number permitting reduction

LIFE SAFETY SYSTEM REQUIREMENTS:

Emergency Lighting: ☐ No ☑ Yes
Exit Signs: ☐ No ☑ Yes
Fire Alarm: ☐ No ☑ Yes
Smoke Detection System: ☑ No ☐ Yes ☐ Partial ___
Panic Hardware: ☐ No ☑ Yes (At Council Hall)

EXIT REQUIREMENTS: NUMBER AND ARRANGEMENT OF EXITS

FLOOR, ROOM, OR SPACE DESIGNATION	MINIMUM [1] NO. OF EXITS: REQUIRED	MINIMUM [1] NO. OF EXITS: SHOWN ON PLAN	TRAVEL DISTANCE: ALLOWABLE DISTANCE (TABLE 1015.1)	TRAVEL DISTANCE: ACTUAL DISTANCE SHOWN ON PLANS	ARRANGEMENT OF MEANS OF EGRESS [2] (SECTION 1015.2, 1007.1): REQUIRED DISTANCE BETWEEN EXIT DOORS	ARRANGEMENT OF MEANS OF EGRESS [2] (SECTION 1015.2, 1007.1): ACTUAL DISTANCE SHOWN ON PLANS
TOWN HALL WING	2	4	300'	58'	51'-3"	84'-6"
COUNCIL HALL	2	2	300'	111'-6"	32'-10"	46'-7"
POLICE WING	2	3	300'	151'-2"	54'-3"	76'-8"

1 Corridor dead ends (Section 1017.3)
2 Single exits (Table 1019.2), Spaces with one means of egress (Table 1015.1)
3 Common Path of Travel (Section 1014.3)

1/3 PER 1007.1.1 EX 2

EXIT WIDTH

USE GROUP OR SPACE DESCRIPTION	(a) AREA [1] (sf)	(b) AREA PER OCCUPANT (TABLE 1004.1.1)	CALCULATED OCCUPANT LOAD (a/b)	(c) EGRESS WIDTH PER OCCUPANT (TABLE 1005.1): STAIR	(c) EGRESS WIDTH PER OCCUPANT (TABLE 1005.1): LEVEL	EXIT WIDTH (in) 2,3,4,5,6: REQUIRED WIDTH (SECTION 1005.1) (a/b) x c: STAIR	EXIT WIDTH (in) 2,3,4,5,6: REQUIRED WIDTH (SECTION 1005.1) (a/b) x c: LEVEL	ACTUAL WIDTH SHOWN ON PLANS SHOWN: STAIR	ACTUAL WIDTH SHOWN ON PLANS SHOWN: LEVEL
TOWN HALL WING	6,351	100	64	.2	.15	N/A	9.6	N/A	36
COUNCIL HALL	1,497	7	213	.2	.15	N/A	32	N/A	72
POLICE WING	7,590	100	76	.2	.15	N/A	11.4	N/A	36

1 See Table 1004.1.2 to determine whether net or gross area is applicable. See definition "Area, Gross" and "Area, Net" (Section 1002)
2 Minimum stairway width (Section 1009.1); min. corridor width (Section 1017.2); min. door width (Section 1018.1)
3 Minimum width of exit passageway (Section 1021.2)
4 See Section 1004.5 for converging exits
5 The loss of one means of egress shall not reduce the available capacity to less than 50 percent of the total required (Section 1005.1)
6 Assembly occupancies (Section 1025)

PLUMBING FIXTURE REQUIREMENTS

USE		WATERCLOSETS: FEMALE	WATERCLOSETS: MALE	URINAL	UNISEX	LAVATORIES: MALE	LAVATORIES: FEMALE	LAVATORIES: UNISEX	DRINKING FOUNTAINS: REGULAR	DRINKING FOUNTAINS: ACCESSIBLE
SPACE	TOWN HALL	4	2	1		3	4		1	1
	REQUIRED	4	3			2	2		1	1
	POLICE	2	2	1		2	2	1	1	1
	REQUIRED	2	2			1	1		1	1

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES: REQUIRED	TOTAL # OF PARKING SPACES: PROVIDED	# OF ACCESSIBLE SPACES PROVIDED: REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH: 132" ACCESS AISLE	VAN SPACES WITH: 8' ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
SEE CIVIL DWGS						
TOTAL						

SPECIAL APPROVALS

Special Approval: (Local Jurisdiction, Dept. of Insurance, OSC, DPI, DHHC, ICC, etc., describe below)

ENERGY SUMMARY

Climate Zone: ☑ 3 ☐ 4 ☐ 5
Method of Compliance:
☑ Prescriptive (Energy Code) ☐ Prescriptive (ASHRAE 90.1)
☐ Performance (Energy Code) ☐ Performance (ASHRAE 90.1)

THERMAL ENVELOPE

ROOF / CEILING ASSEMBLY:
Description of Assembly: Wood roof trusses, w/ 3/4" plywd sheathing, closed cell foam insulation, & mtl. roof
U-Value of total assembly: 0.038 R-Value of insulation: 30 per e. T C402.1.3
Skylight in each assembly: None U-Value of skylight: N/A Total sf of skylight in assembly: N/A
EXTERIOR WALLS:
Description of Assembly: 2x6 wall w/ high density fiberglass insulation 5/8" gyp. bd. interior & 3/4" plywd. exterior
U-Value of total assembly: 0.046 R-Value of insulation: 23
Openings (min. or dr. w/ glazing): Storefront
U-Value of assembly: 0.41 SHGC: 27 / 23
Projection factor: 0.56 Door R-Values: 1.47
WALLS BELOW GRADE:
Description of Assembly: None
U-Value of total assembly: ___ R-Value of insulation: ___
FLOORS OVER UNCONDITIONED SPACE:
Description of Assembly: None
U-Value of total assembly: ___ R-Value of insulation: ___
FLOOR SLAB ON GRADE:
Description of Assembly: Raised 4" conc. slab w/ 1" rigid insulation at slab edge, in brick cavity
U-Value of total assembly: 0.169 R-Value of insulation: 5

ELECTRICAL SUMMARY: See Electrical Drawings
MECHANICAL SUMMARY: See Mechanical Drawings
STRUCTURAL DESIGN: See Structural Drawings

Life Safety Plan Sheet #: A/A1.1

N/A ☐ Fire and/or smoke rated wall locations (Chapter 7)
___ ☑ Assumed and real property line locations
N/A ☐ Exterior wall opening area with respect to distance to assumed property lines (705.8)
N/A ☐ Existing structures within 30' of the proposed building
___ ☑ Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.1)
___ ☑ Occupant loads for each area
___ ☑ Exit access travel distances (1016)
___ ☑ Common path of travel distances (1014.3 & 1028.8)
___ ☑ Dead end lengths (1018.4)
___ ☑ Clear exit widths for each exit door
___ ☑ Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.1)
___ ☑ Actual occupant load for each exit door
N/A ☐ A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
N/A ☐ Location of doors with panic hardware (1008.1.10)
N/A ☐ Location of doors with delayed egress locks and the amount of delay (1008.1.9.7)
N/A ☐ Location of doors with electromagnetic egress locks (1008.1.9.8)
N/A ☐ Location of doors equipped with hold-open devices
N/A ☐ Location of emergency escape windows (1029)
___ ☑ The square footage of each fire area (902)
N/A ☐ The square footage of each smoke compartment (407.4)
N/A ☐ Note any code exceptions or table notes that may have been utilized regarding the items above

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ERIC M. JABALEY — NC 12054 — REGISTERED ARCHITECT

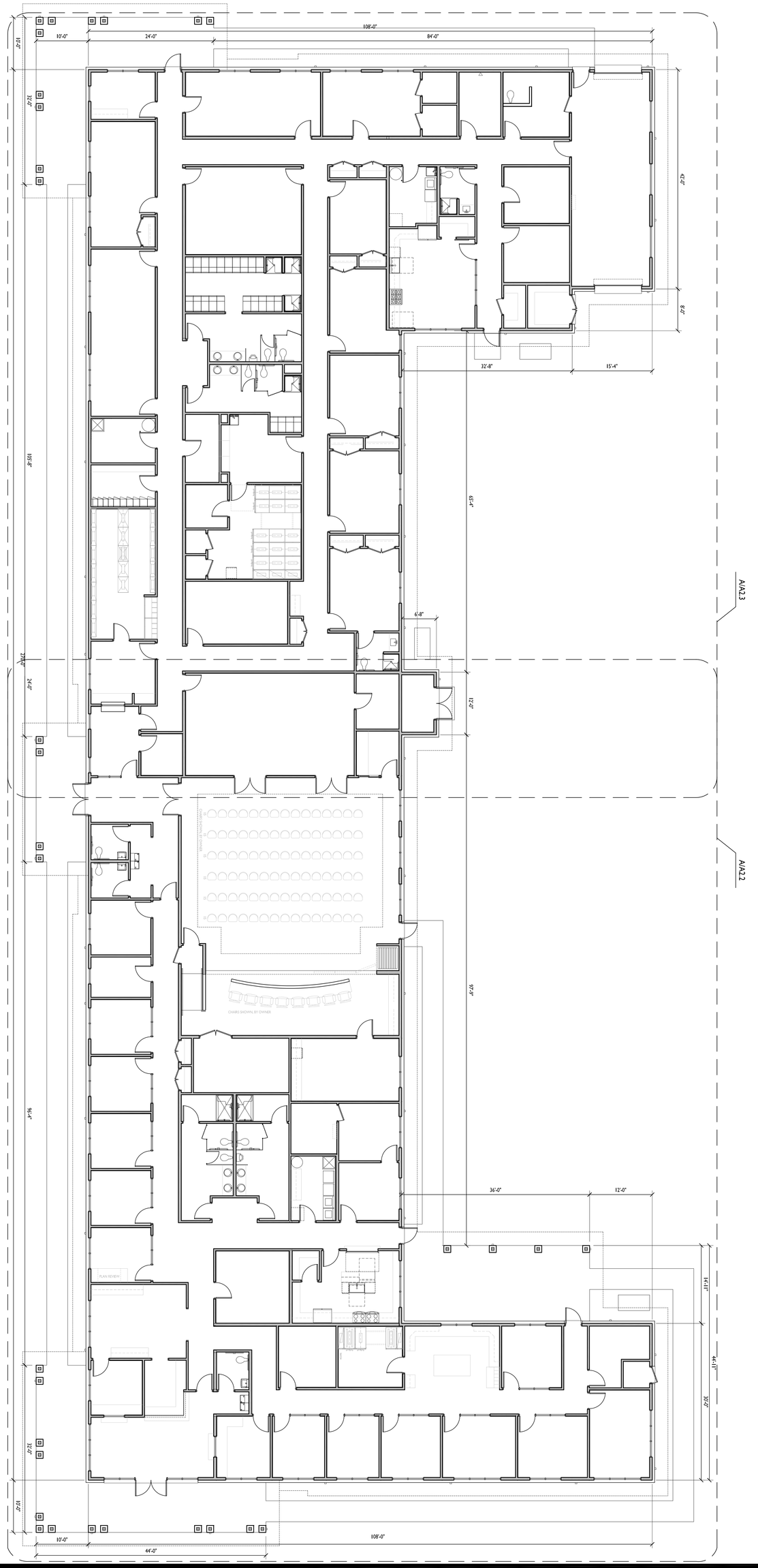
SHELL BID SET NOT FOR CONSTRUCTION

TOWN OF SURF CITY
MUNICIPAL COMPLEX
TRACT 4, M.B. 63 P. 32, / NC HWY. 210
SURF CITY, NORTH CAROLINA

COVER SHEET AND APPENDIX B

05.15.2020
REVISIONS:

A1.1



OVERALL FLOOR PLAN **A**

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

A2.1

REVISIONS:	FLOOR PLAN
05.15.2020	

TOWN OF SURF CITY

MUNICIPAL COMPLEX

TRACT 4, M.B. 63 P. 32, / NC HWY. 210
SURF CITY, NORTH CAROLINA

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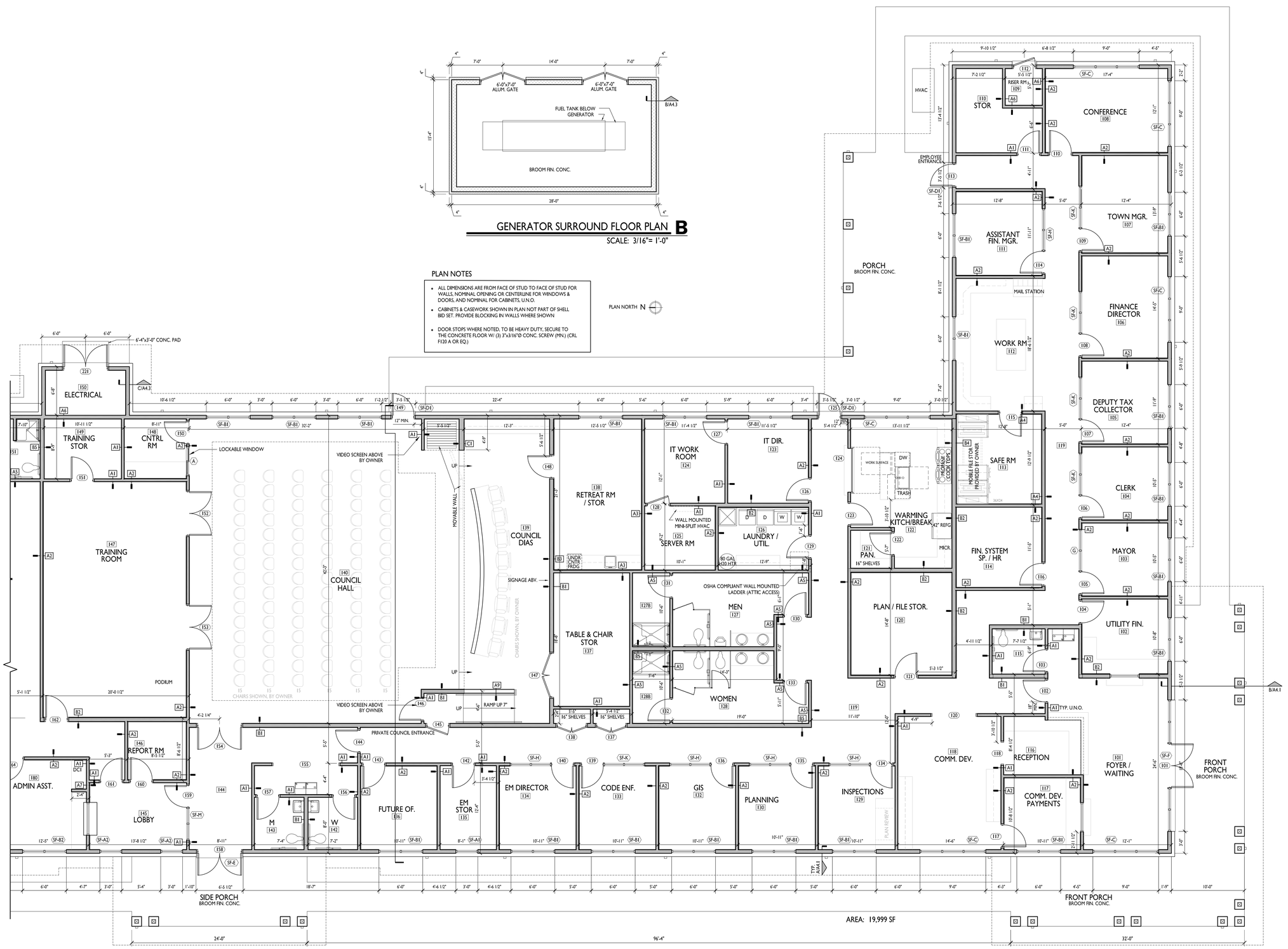
GENERATOR SURROUND FLOOR PLAN **B**

SCALE: 3/16"= 1'-0"

PLAN NOTES

- ALL DIMENSIONS ARE FROM FACE OF STUD TO FACE OF STUD FOR WALLS, NOMINAL OPENING OR CENTERLINE FOR WINDOWS & DOORS, AND NOMINAL FOR CABINETS, U.N.O.
- CABINETS & CASEWORK SHOWN IN PLAN NOT PART OF SHELL BID SET. PROVIDE BLOCKING IN WALLS WHERE SHOWN
- DOOR STOPS WHERE NOTED, TO BE HEAVY DUTY, SECURE TO THE CONCRETE FLOOR W/ (3) 3"x3/16"Ø CONC. SCREW (MIN.) (CRL F120 A OR EQ.)

PLAN NORTH N



FLOOR PLAN **A**

SCALE: 3/16"= 1'-0"

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TOWN OF SURF CITY

MUNICIPAL COMPLEX

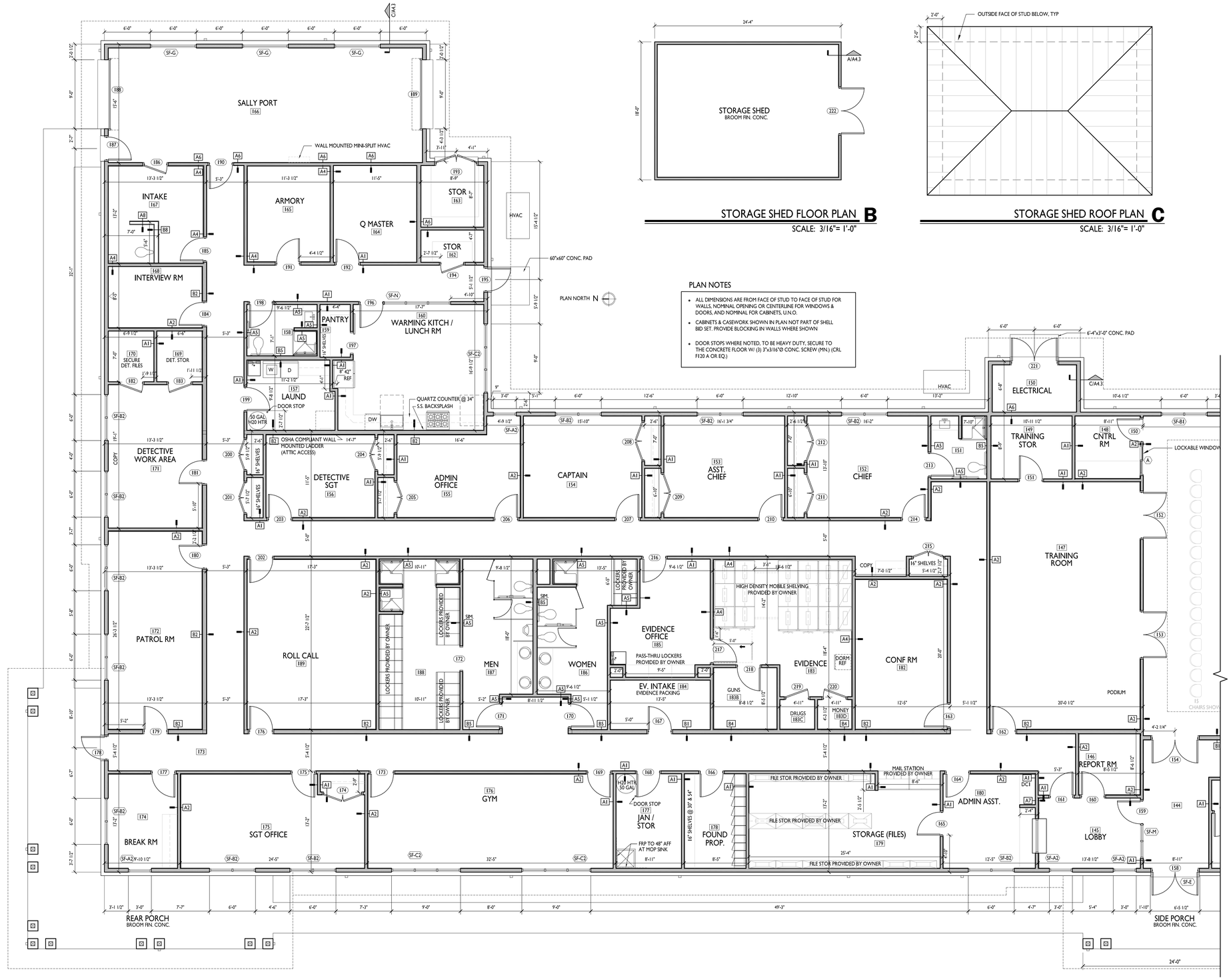
TRACT 4, M.B. 63 P. 32, / NC HWY. 210
SURF CITY, NORTH CAROLINA

FLOOR PLAN

05.15.2020

REVISIONS:

A2.2



FLOOR PLAN A

SCALE: 3/16"= 1'-0"

PLAN NOTES

- ALL DIMENSIONS ARE FROM FACE OF STUD TO FACE OF STUD FOR WALLS, NOMINAL OPENING OR CENTERLINE FOR WINDOWS & DOORS, AND NOMINAL FOR CABINETS, U.N.O.
- CABINETS & CASEWORK SHOWN IN PLAN NOT PART OF SHELL BID SET. PROVIDE BLOCKING IN WALLS WHERE SHOWN
- DOOR STOPS WHERE NOTED, TO BE HEAVY DUTY, SECURE TO THE CONCRETE FLOOR W/ (3) 3"x3/16"Ø CONC. SCREW (MN.) (CRL F120 A OR EQ.)

STORAGE SHED FLOOR PLAN B

SCALE: 3/16"= 1'-0"

STORAGE SHED ROOF PLAN C

SCALE: 3/16"= 1'-0"

Formitas PLLC
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Wilmington, NC 28404
Email: craig@formitaspllc.com

DOGWOOD ARCHITECTURE
SUSTAINABLE | MODERN | VERNACULAR
105 AUDUBON BLVD. WILMINGTON NC 28403
910.452.4662 www.dogwoodarchitecture.com

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ERIC M JABALEY
REGISTERED ARCHITECT
NO. 32054
WILMINGTON, NORTH CAROLINA

SHELL BID SET
NOT FOR CONSTRUCTION

TOWN OF SURF CITY

MUNICIPAL COMPLEX

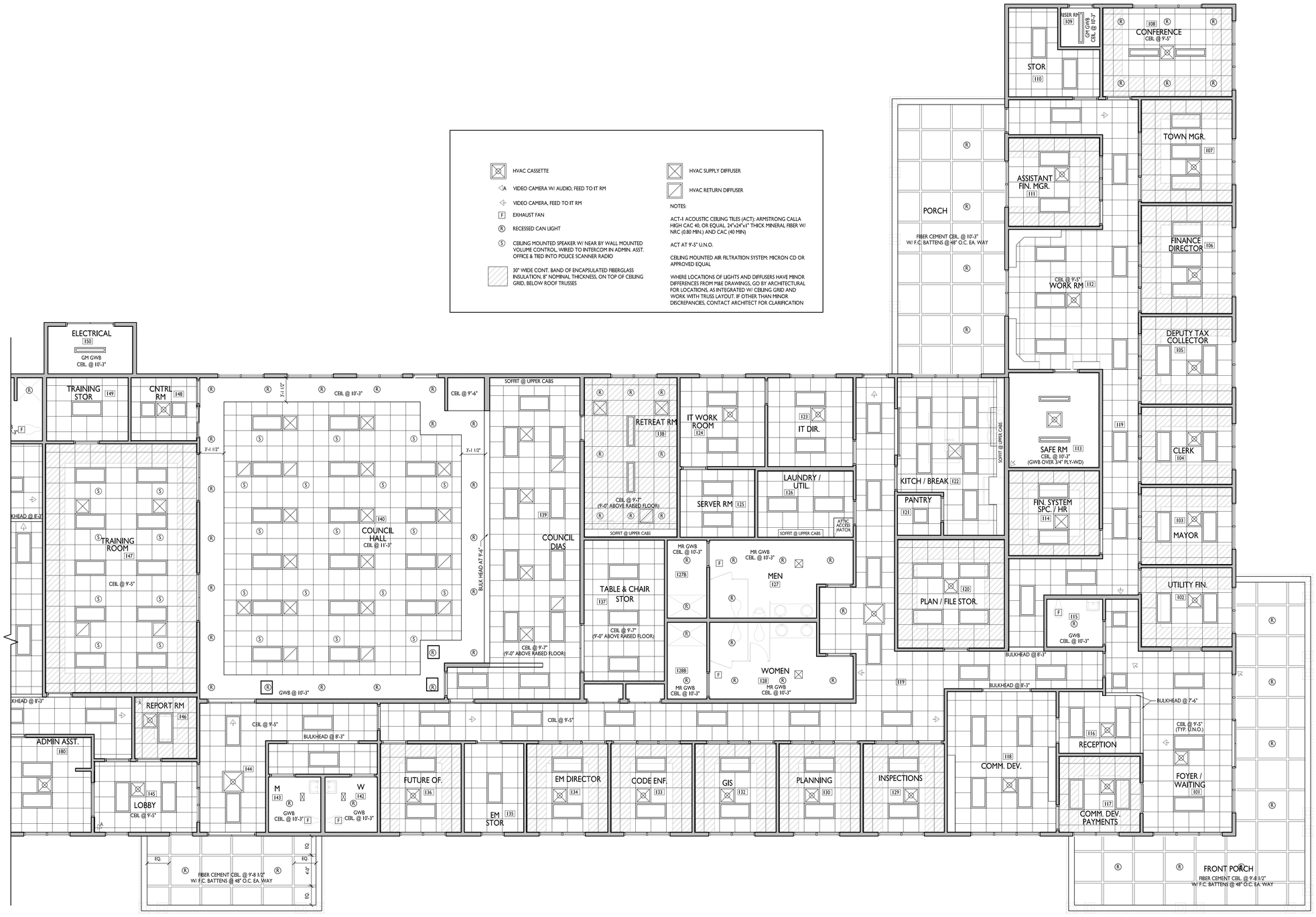
TRACT 4, M.B. 63 P. 32, / NC HWY. 210
SURF CITY, NORTH CAROLINA

FLOOR PLAN

05.15.2020

REVISIONS:

A2.3



REFLECTED CEILING PLAN **A**

SCALE: 3/16"= 1'-0"

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TOWN OF SURF CITY
MUNICIPAL COMPLEX
TRACT 4, M.B. 63 P. 32, / NC HWY. 210
SURF CITY, NORTH CAROLINA

R.C.P.

05.15.2020

REVISIONS:

A2.4



REFLECTED CEILING PLAN **A**

SCALE: 3/16"= 1'-0"

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NO. 15054
NORTH CAROLINA

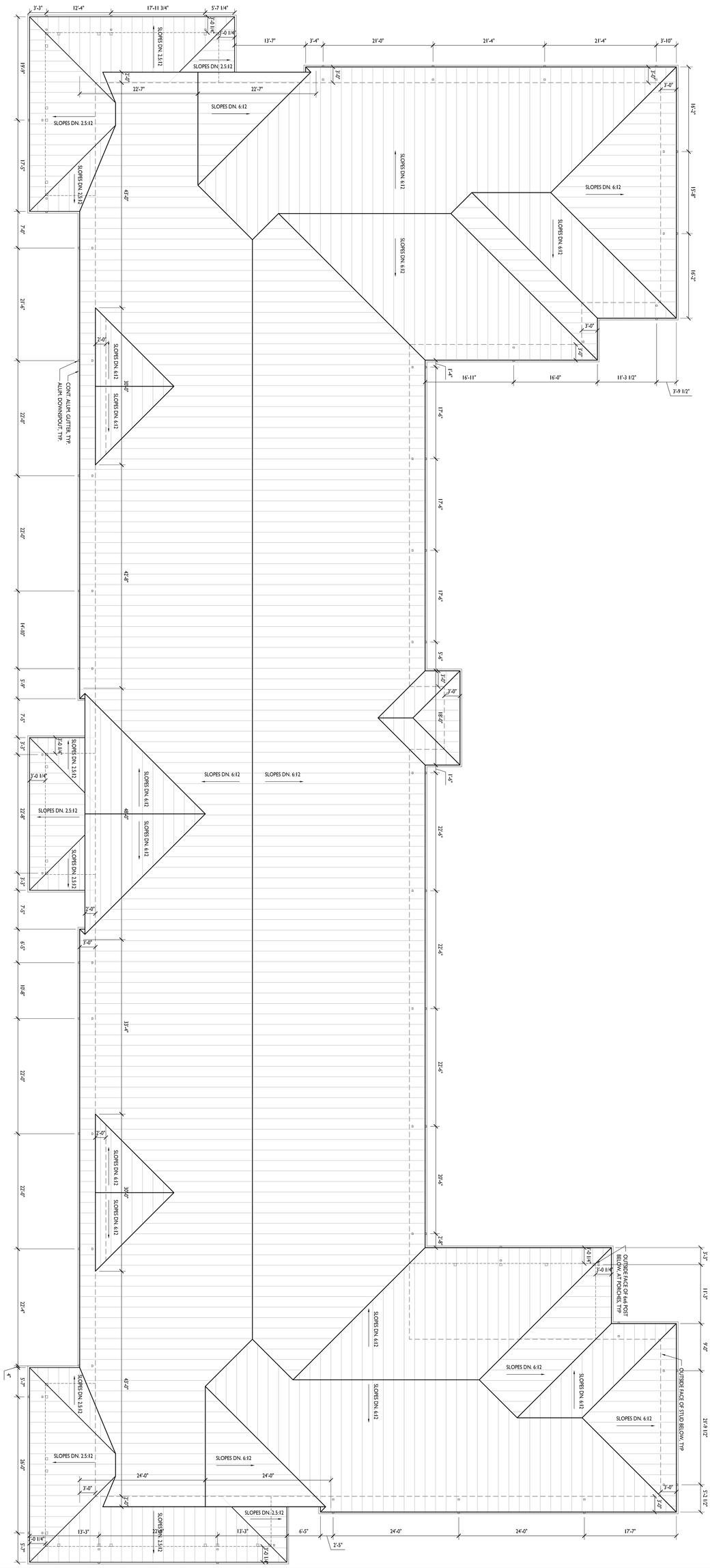
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TOWN OF SURF CITY
MUNICIPAL COMPLEX
TRACT 4, M.B. 63 P. 32, / NC HWY. 210
SURF CITY, NORTH CAROLINA

R.C.P.

05.15.2020
REVISIONS:

A2.5



ROOF PLAN **A**
SCALE: 1/8"= 1'-0"

A2.6	REVISIONS: 05.15.2020	ROOF PLAN

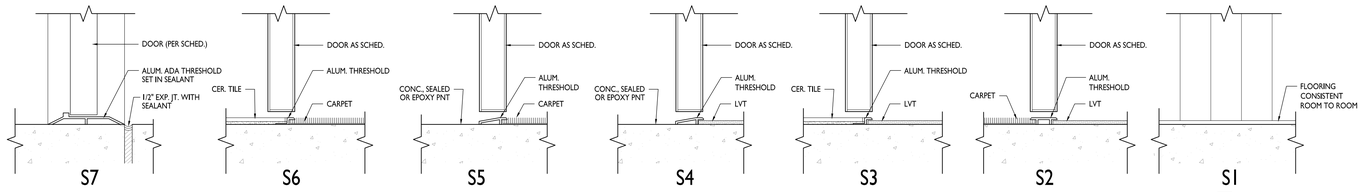
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SHELL BID SET
NOT FOR CONSTRUCTION

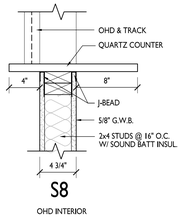
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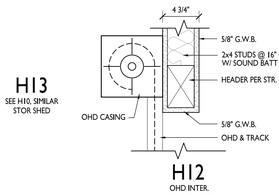
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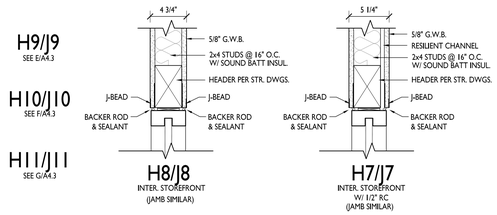


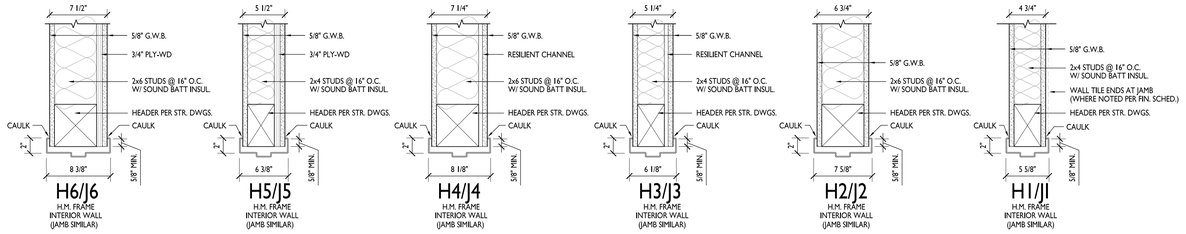
INTERIOR THRESHOLD/SILL DETAILS F

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



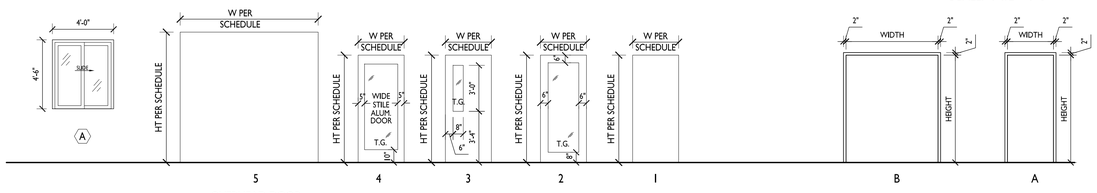






INTERIOR HEAD DETAILS E

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



WIN. ELEV. D

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

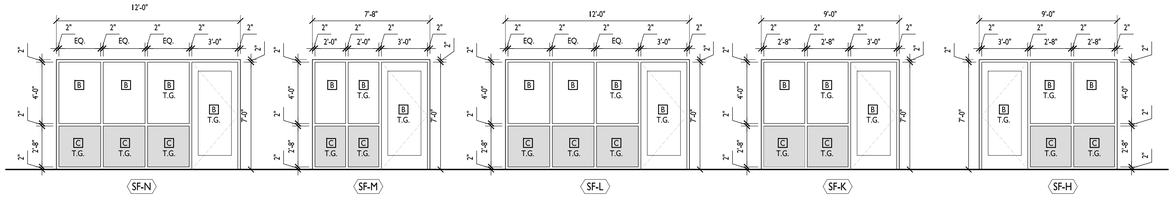
DOOR ELEVATIONS C

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

MED. STILE 3-1/2"

DOOR FRAME ELEVATIONS B

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

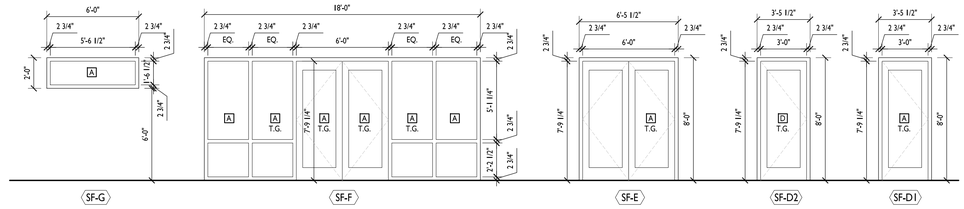


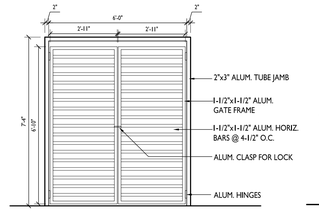
EXTERIOR STOREFRONT WINDOWS

GLAZING TO BE IMPACT RESISTANT
FRAMES TO BE THERMALLY BROKEN
U-FACTOR: .32 MAX.
KAWNEER IR 501T OR EQUAL

GLAZING

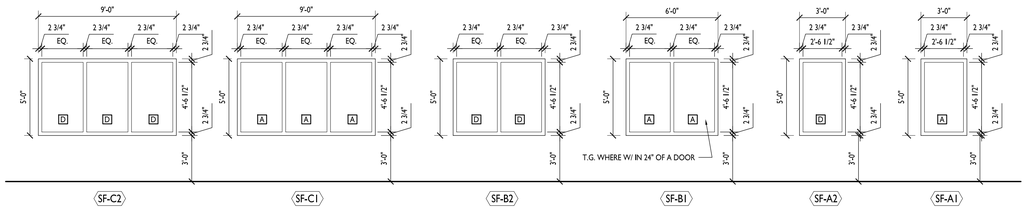
- A — SOLARBAN 70 (2) (LOW E, SHGC: 0.27)
- B — 1/4" CLEAR GLASS (INTERIOR)
- C — 1/4" FROSTED GLASS (INTERIOR)
- D — ONE WAY, SOLARBAN R100 (2) (LOW E, SHGC: 0.23)
- S — SPANDREL
- T.G. — TEMPERED GLAZING AT HAZARDOUS LOCATIONS PER NCBC 2406.4





GATE DETAIL G

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



STOREFRONT ELEVATIONS A

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

DOOR SCHEDULE

NO.		SIZE, WxHTxTH	INTER./EXTER.	LOCATION	DOOR TYPE /ELEV.	FRAME TYPE / ELEV.	HEAD	JAMB	SILL	FINISH	RATING	NOTES	NO.
101	PR	6'-0" x 7'-9 1/4" x 1-3/4"	EXTERIOR	FOYER / FRONT	ALUM. / 4	ALUM. / SF-E	H9	J9	S7	SF-1			101
102		3'-0" x 7'-0" x 1-3/4"	INTERIOR	FOYER / HALL	S.C.W. / 3	H.M. / A	H1	J1	S1	PNT-15			102
103		3'-0" x 7'-0" x 1-3/4"	INTERIOR	FOYER BTHRM	S.C.W. / 1	H.M. / A	H1	J1	S3	PNT-15			103
104		3'-0" x 7'-0" x 1-3/4"	INTERIOR	UTILITY FIN.	S.C.W. / 2	H.M. / A	H1	J1	S2	PNT-15			104
105		3'-0" x 7'-0" x 1-3/4"	INTERIOR	MAYOR	ALUM. / 4	ALUM. / SF-K	H7	J7	S2	SF-2			105
106		3'-0" x 7'-0" x 1-3/4"	INTERIOR	CLERK	ALUM. / 4	ALUM. / SF-K	H7	J7	S2	SF-2			106
107		3'-0" x 7'-0" x 1-3/4"	INTERIOR	DEPUTY TAX COL.	ALUM. / 4	ALUM. / SF-K	H7	J7	S2	SF-2			107
108		3'-0" x 7'-0" x 1-3/4"	INTERIOR	FINANCE DIR.	ALUM. / 4	ALUM. / SF-K	H7	J7	S2	SF-2			108
109		3'-0" x 7'-0" x 1-3/4"	INTERIOR	TOWN MGR.	ALUM. / 4	ALUM. / SF-K	H7	J7	S2	SF-2			109
110		3'-0" x 7'-0" x 1-3/4"	INTERIOR	CONFERENCE	S.C.W. / 2	H.M. / A	H3	J3	S2	PNT-15			110
111		3'-0" x 7'-0" x 1-3/4"	INTERIOR	STORAGE	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			111
112		3'-0" x 7'-0" x 1-3/4"	EXTERIOR	RISER RM	FRP / 1	FRP / A	H10	J10	S10	PNT-16			112
113		3'-0" x 7'-9 1/4" x 1-3/4"	EXTERIOR	PORCH	ALUM. / 4	ALUM. / SF-D1	H9	J9	S7	SF-1			113
114		3'-0" x 7'-0" x 1-3/4"	INTERIOR	ASSIST. FIN. MGR.	ALUM. / 4	ALUM. / SF-H	H7	J7	S2	SF-2			114
115		3'-0" x 7'-0" x 1-3/4"	INTERIOR	SAFE RM	S.C.W. / 1	H.M. / A	H5	J5	S2	PNT-15			115
116		3'-0" x 7'-0" x 1-3/4"	INTERIOR	FIN. SYS. SP. / HR	S.C.W. / 3	H.M. / A	H3	J3	S2	PNT-15			116
117		3'-0" x 7'-0" x 1-3/4"	INTERIOR	COMM. DEV. PYMT.	S.C.W. / 2	H.M. / A	H3	J3	S2	PNT-15			117
118		3'-0" x 7'-0"	INTERIOR	RECEPTION	CASD OPN'G	H.M. / A	H1	J1	S2				118
119													119
120		6'-0" x 7'-0"	INTERIOR	COMM. DEV.	CASD OPN'G	H.M. / A	H1	J1	S1				120
121		3'-0" x 7'-0" x 1-3/4"	INTERIOR	PLAN / FILE STOR.	S.C.W. / 2	H.M. / A	H3	J3	S2	PNT-15			121
122		3'-0" x 7'-0" x 1-3/4"	INTERIOR	WRM. KTCH / BRK	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			122
123		3'-0" x 7'-0" x 1-3/4"	INTERIOR	WRM. KTCH / BRK	S.C.W. / 2	H.M. / A	H1	J1	S1	PNT-15			123
124		6'-0" x 4'-0"	INTERIOR	WRM. KTCH / BRK	ALUM. / 5	ALUM. / B	H12	J12	S8	ANODIZED		MANUAL ROLL UP W/ LOCK	124
125		3'-0" x 7'-9 1/4" x 1-3/4"	EXTERIOR	PORCH	ALUM. / 4	ALUM. / SF-D1	H9	J9	S7	SF-1			125
126		3'-0" x 7'-0" x 1-3/4"	INTERIOR	IT DIRECTOR	S.C.W. / 2	H.M. / A	H3	J3	S2	PNT-15			126
127		3'-0" x 7'-0" x 1-3/4"	INTERIOR	IT WORK RM	S.C.W. / 1	H.M. / A	H1	J1	S5	PNT-15			127
128		3'-0" x 7'-0" x 1-3/4"	INTERIOR	SERVER RM	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			128
129		3'-0" x 7'-0" x 1-3/4"	INTERIOR	LAUNDRY / UTIL.	S.C.W. / 3	H.M. / A	H1	J1	S4	PNT-15			129
130		3'-0" x 7'-0" x 1-3/4"	INTERIOR	MEN BATH	S.C.W. / 1	H.M. / A	H1	J1	S3	PNT-15		EXTRA HEAVY DUTY	130
131		3'-0" x 7'-0" x 1-3/4"	INTERIOR	MEN BATH	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			131
132		3'-0" x 7'-0" x 1-3/4"	INTERIOR	WOMEN BATH	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			132
133		3'-0" x 7'-0" x 1-3/4"	INTERIOR	WOMEN BATH	S.C.W. / 1	H.M. / A	H1	J1	S3	PNT-15		EXTRA HEAVY DUTY	133
134		3'-0" x 7'-0" x 1-3/4"	INTERIOR	INSPECTIONS	ALUM. / 4	ALUM. / SF-H	H7	J7	S2	SF-2			134
135		3'-0" x 7'-0" x 1-3/4"	INTERIOR	PLANNING	ALUM. / 4	ALUM. / SF-H	H7	J7	S2	SF-2			135
136		3'-0" x 7'-0" x 1-3/4"	INTERIOR	G.I.S.	ALUM. / 4	ALUM. / SF-H	H7	J7	S2	SF-2			136
137	PR	4'-0" x 7'-0" x 1-3/4"	INTERIOR	HALL CLOS	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			137
138	PR	4'-0" x 7'-0" x 1-3/4"	INTERIOR	HALL CLOS	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			138
139		3'-0" x 7'-0" x 1-3/4"	INTERIOR	CODE ENF.	ALUM. / 4	ALUM. / SF-K	H7	J7	S2	SF-2			139
140		3'-0" x 7'-0" x 1-3/4"	INTERIOR	EM DIRECTOR	ALUM. / 4	ALUM. / SF-K	H7	J7	S2	SF-2			140
141													141
142		3'-0" x 7'-0" x 1-3/4"	INTERIOR	EM STORAGE	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			142
143		3'-0" x 7'-0" x 1-3/4"	INTERIOR	BREAK RM	S.C.W. / 2	H.M. / A	H3	J3	S2	PNT-15			143
144		3'-0" x 7'-0" x 1-3/4"	INTERIOR	HALL	S.C.W. / 3	H.M. / A	H1	J1	S1	PNT-15			144
145		3'-0" x 7'-0" x 1-3/4"	INTERIOR	PRVT CNCL ENTR	S.C.W. / 3	H.M. / A	H2	J2	S2	PNT-15			145
146		3'-0" x 7'-0" x 1-3/4"	INTERIOR	COUNCIL HALL	S.C.W. / 3	H.M. / A	H1	J1	S1	PNT-15			146
147	PR	6'-0" x 7'-0" x 1-3/4"	INTERIOR	COUNCIL DIAS STOR	S.C.W. / 1	H.M. / A	H2	J2	S1	PNT-15			147
148		3'-0" x 7'-0" x 1-3/4"	INTERIOR	RETREAT RM	S.C.W. / 1	H.M. / A	H4	J4	S1	PNT-15		STC 41 (MIN.)	148
149		3'-0" x 7'-9 1/4" x 1-3/4"	EXTERIOR	COUNCIL HALL / EXTER	ALUM. / 4	ALUM. / SF-D1	H9	J9	S7	SF-1			149
150		3'-0" x 7'-0" x 1-3/4"	INTERIOR	CONTROL RM	S.C.W. / 1	H.M. / A	H3	J3	S1	PNT-15			150
151		3'-0" x 7'-0" x 1-3/4"	INTERIOR	TRAINING STOR	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			151
152	PR	6'-0" x 7'-0" x 1-3/4"	INTERIOR	TRAINING RM	S.C.W. / 1	H.M. / A	H3	J3	S1	PNT-15			152
153	PR	6'-0" x 7'-0" x 1-3/4"	INTERIOR	TRAINING RM	S.C.W. / 1	H.M. / A	H3	J3	S1	PNT-15			153
154	PR	6'-0" x 7'-0" x 1-3/4"	INTERIOR	COUNCIL HALL / HALL	S.C.W. / 2	H.M. / A	H2	J2	S2	PNT-15			154
155		9'-0" x 7'-0"	INTERIOR	ENTRY HALL	CASD OPN'G	H.M. / A	H1	J1	S1				155
156		3'-0" x 7'-0" x 1-3/4"	INTERIOR	HALL BATH W	S.C.W. / 1	H.M. / A	H1	J1	S3	PNT-15			156
157		3'-0" x 7'-0" x 1-3/4"	INTERIOR	HALL BATH M	S.C.W. / 1	H.M. / A	H1	J1	S3	PNT-15			157
158	PR	6'-0" x 7'-9 1/4" x 1-3/4"	EXTERIOR	FOYER / SIDE	ALUM. / 4	ALUM. / SF-E	H9	J9	S7	SF-1			158
159		3'-0" x 7'-0" x 1-3/4"	INTERIOR	LOBBY	ALUM. / 4	ALUM. / SF-M	H8	J8	S1	SF-2			159
160		3'-0" x 7'-0" x 1-3/4"	INTERIOR	REPORT RM	S.C.W. / 3	H.M. / A	H3	J3	S2	PNT-15			160

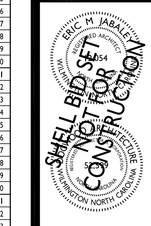
DOOR SCHEDULE

NO.		SIZE, WxHTxTH	INTER./EXTER.	LOCATION	DOOR TYPE /ELEV.	FRAME TYPE / ELEV.	HEAD	JAMB	SILL	FINISH	RATING	NOTES	NO.
161		3'-0" x 7'-0" x 1-3/4"	INTERIOR	LOBBY	S.C.W. / 3	H.M. / A	H1	J1	S1	PNT-15		BALLISTIC DOOR OR W/ PLATE STEEL	161
162		3'-0" x 7'-0" x 1-3/4"	INTERIOR	TRAINING RM	H.M. / 2	H.M. / A	H4	J4	S2	PNT-15		MAXIMUM DUTY THICKNESS	162
163		3'-0" x 7'-0" x 1-3/4"	INTERIOR	CONFERENCE	S.C.W. / 3	H.M. / A	H3	J3	S2	PNT-15			163
164		3'-0" x 7'-0" x 1-3/4"	INTERIOR	ADMIN ASST.	S.C.W. / 3	H.M. / A	H3	J3	S2	PNT-15			164
165		3'-0" x 7'-0" x 1-3/4"	INTERIOR	STORAGE FILES	S.C.W. / 3	H.M. / A	H1	J1	S1	PNT-15			165
166		3'-0" x 7'-0" x 1-3/4"	INTERIOR	FOUND PROPERTY	S.C.W. / 1	H.M. / A	H1	J1	S4	PNT-15			166
167		3'-0" x 7'-0" x 1-3/4"	INTERIOR	INTAKE	S.C.W. / 1	H.M. / A	H2	J2	S1	PNT-15			167
168		3'-0" x 7'-0" x 1-3/4"	INTERIOR	JANITOR	S.C.W. / 1	H.M. / A	H1	J1	S4	PNT-15			168
169		3'-0" x 7'-0" x 1-3/4"	INTERIOR	GYM	S.C.W. / 3	H.M. / A	H3	J3	S1	PNT-15			169
170		3'-0" x 7'-0" x 1-3/4"	INTERIOR	WOMEN	S.C.W. / 1	H.M. / A	H1	J1	S3	PNT-15		EXTRA HEAVY DUTY	170
171		3'-0" x 7'-0" x 1-3/4"	INTERIOR	MEN	S.C.W. / 1	H.M. / A	H1	J1	S3	PNT-15		EXTRA HEAVY DUTY	171
172		3'-0" x 7'-0"	INTERIOR	MEN LOCKERS	CASD OPN'G	H.M. / A	H1	J1	S1				172
173		3'-0" x 7'-0" x 1-3/4"	INTERIOR	GYM	S.C.W. / 3	H.M. / A	H3	J3	S1	PNT-15			173
174	PR	5'-0" x 7'-0" x 1-3/4"	INTERIOR	SGT OFFICE CLOS	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			174
175		3'-0" x 7'-0" x 1-3/4"	INTERIOR	SGT OFFICE	S.C.W. / 3	H.M. / A	H3	J3	S2	PNT-15			175
176		3'-0" x 7'-0" x 1-3/4"	INTERIOR	ROLL CALL	S.C.W. / 2	H.M. / A	H4	J4	S2	PNT-15			176
177		3'-0" x 7'-0" x 1-3/4"	INTERIOR	BREAK RM	S.C.W. / 2	H.M. / A	H3	J3	S2	PNT-15			177
178		3'-0" x 7'-9 1/4" x 1-3/4"	EXTERIOR	ENTRY	FRP / 3	FRP / A	H10	J10	S10	PNT-16			178
179		3'-0" x 7'-0" x 1-3/4"	INTERIOR	PATROL RM	S.C.W. / 3	H.M. / A	H4	J4	S2	PNT-15			179
180		3'-0" x 7'-0" x 1-3/4"	INTERIOR	PATROL RM	S.C.W. / 3	H.M. / A	H4	J4	S2	PNT-15			180
181		3'-0" x 7'-0" x 1-3/4"	INTERIOR	DETECTIVE	S.C.W. / 3	H.M. / A	H4	J4	S2	PNT-15			181
182		3'-0" x 7'-0" x 1-3/4"	INTERIOR	DETECTIVE FILES	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			182
183		3'-0" x 7'-0" x 1-3/4"	INTERIOR	DETECTIVE STOR.	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			183
184		3'-0" x 7'-0" x 1-3/4"	INTERIOR	INTERVIEW	S.C.W. / 1	H.M. / A	H4	J4	S2	PNT-15		KEYED FROM INTERIOR AS WELL	184
185		3'-0" x 7'-0" x 1-3/4"	INTERIOR	INTAKE / HALL	S.C.W. / 3	H.M. / A	H5	J5	S4	PNT-15		EXTRA HEAVY DUTY	185
186		3'-0" x 7'-0" x 1-3/4"	INTER. / EXTER.	INTAKE / SALLY PORT	H.M. / 3	H.M. / A	H5	J5	S1	PNT-15	20 MIN.	MAXIMUM DUTY THICKNESS W/ FULL WEATHERSTRIPPING	186
187		3'-0" x 7'-0" x 1-3/4"	EXTERIOR	SALLY PORT / EXTER.	FRP / 3	FRP / A	H10	J10	S10	PNT-16			187
188		9'-0" x 8'-6"	EXTERIOR	SALLY PORT	STL / 4	STL. / B	H11	J11	S11	PWDR COATED	PER UL 325	STL. SECURITY DR. W/ COIL HOOD ABV., SAFETY CLOSE & FULL PERIMETER WEATHER SEAL	188
189		9'-0" x 8'-6"	EXTERIOR	SALLY PORT	STL / 4	STL. / B	H11	J11	S11	PWDR COATED	PER UL 325	STL. SECURITY DR. W/ COIL HOOD ABV., SAFETY CLOSE & FULL PERIMETER WEATHER SEAL	189
190		3'-0" x 7'-0" x 1-3/4"	INTER. / EXTER.	SALLY PORT / HALL	H.M. / 3	H.M. / A	H5	J5	S3	PNT-15	20 MIN.	MAXIMUM DUTY THICKNESS W/ FULL WEATHERSTRIPPING	190
191		3'-0" x 7'-0" x 1-3/4"	INTERIOR	ARMORY	S.C.W. / 1	H.M. / A	H5	J5	S4	PNT-15		BALLISTIC DOOR OR W/ PLATE STEEL	191
192		3'-0" x 7'-0" x 1-3/4"	INTERIOR	Q MASTER	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			192
193	PR	5'-4" x 7'-0" x 1-3/4"	EXTERIOR	EXTER. STORAGE	FRP / 1	FRP / A	H10	J10	S10	PNT-16			193
194		3'-0" x 7'-0" x 1-3/4"	INTERIOR	INTER. STORAGE	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			194
195		3'-0" x 7'-9 1/4" x 1-3/4"	EXTERIOR	REAR ENTRY	FRP / 3	FRP / A	H10	J10	S10	PNT-16			195
196		3'-0" x 7'-0" x 1-3/4"	INTERIOR	WARMING KITCH	ALUM. / 4	ALUM. / SF-N	H8	J8	S1	SF-2			196
197		3'-0" x 7'-0" x 1-3/4"	INTERIOR	PANTRY	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15		BARN STYLE SLIDING	197
198		3'-0" x 7'-0" x 1-3/4"	INTERIOR	BTHRM	S.C.W. / 1	H.M. / A	H1	J1	S3	PNT-15			198
199		3'-0" x 7'-0" x 1-3/4"	INTERIOR	LAUNDRY	S.C.W. / 3	H.M. / A	H1	J1	S4	PNT-15			199
200	PR	4'-0" x 7'-0" x 1-3/4"	INTERIOR	HALL CLOSET	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			200
201	PR	4'-0" x 7'-0" x 1-3/4"	INTERIOR	HALL CLOSET	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			201
202		3'-0" x 7'-0" x 1-3/4"	INTERIOR	ROLL CALL	S.C.W. / 2	H.M. / A	H3	J3	S2	PNT-15			202
203		3'-0" x 7'-0" x 1-3/4"	INTERIOR	DETECTIVE SGT	S.C.W. / 1	H.M. / A	H3	J3	S2	PNT-15			203
204	PR	4'-0" x 7'-0" x 1-3/4"	INTERIOR	DETECTIVE CLOS.	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			204
205	PR	4'-0" x 7'-0" x 1-3/4"	INTERIOR	ADMIN. CLOS.	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			205
206		3'-0" x 7'-0" x 1-3/4"	INTERIOR	ADMIN. OFFICE	S.C.W. / 1	H.M. / A	H3	J3	S2	PNT-15			206
207		3'-0" x 7'-0" x 1-3/4"	INTERIOR	CAPTAIN	S.C.W. / 1	H.M. / A	H3	J3	S2	PNT-15			207
208	PR	5'-0" x 7'-0" x 1-3/4"	INTERIOR	CAPTAIN CLOS.	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			208
209	PR	5'-0" x 7'-0" x 1-3/4"	INTERIOR	ASST. CHIEF CLOS.	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			209
210		3'-0" x 7'-0" x 1-3/4"	INTERIOR	ASST. CHIEF	S.C.W. / 1	H.M. / A	H3	J3	S2	PNT-15			210
211	PR	5'-0" x 7'-0" x 1-3/4"	INTERIOR	CHIEF CLOS.	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			211
212	PR	5'-0" x 7'-0" x 1-3/4"	INTERIOR	CHIEF CLOS.	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			212
213		3'-0" x 7'-0" x 1-3/4"	INTERIOR	CHIEF BTHRM	S.C.W. / 1	H.M. / A	H1	J1	S6	PNT-15			213
214		3'-0" x 7'-0" x 1-3/4"	INTERIOR	CHIEF	S.C.W. / 1	H.M. / A	H3	H3	S2	PNT-15			214
215	PR	4'-0" x 7'-0" x 1-3/4"	INTERIOR	HALL CLOS.	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			215
216		3'-0" x 7'-0" x 1-3/4"	INTERIOR	EVIDENCE OFFICE	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			216
217		3'-0" x 7'-0" x 1-3/4"	INTERIOR	EVIDENCE	S.C.W. / 1	H.M. / A	H5	J5	S4	PNT-15		THIRD PARTY ALARM SYSTEM	217
218		3'-0" x 7'-0" x 1-3/4"	INTERIOR	GUNS	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			218
219		3'-0" x 7'-0" x 1-3/4"	INTERIOR	DRUGS	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			219
220		3'-0" x 7'-0" x 1-3/4"	INTERIOR	MONEY	S.C.W. / 1	H.M. / A	H1	J1	S1	PNT-15			220
221	PR	6'-0" x 7'-0" x 1-3/4"	EXTERIOR	ELECTRICAL RM	FRP / 1	FRP / A	H10	J10	S1	PNT-16			221
222	PR	6'-0" x 7'-0" x 1-3/4"	EXTERIOR	STORAGE SHED	FRP / 1	FRP / A	H13	J13	S13	PNT-16			222

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TOWN OF SURF CITY
MUNICIPAL COMPLEX
TRACT 4, M.B. 63 P. 32, / NC HWY. 210
SURF CITY, NORTH CAROLINA

SCHEDULES

05.15.2020
REVISIONS:

A2.7

PLAN NOTES:

1. PROVIDE BLOCKING AT X AND Y FOR UPPER CABINETS

2. PROVIDE BLOCKING FOR GRAB BARS, TOILET PARTITIONS AND ACCESSORIES

3. TOILET PARTITIONS TO BE SOLID PLASTIC

L = 30" x 48"
LAVATORY CLEARANCE

DF = 48" x 30"
DRINKING FOUNTAIN CLEARANCE

C = 60" DIAMETER
TURN AROUND CIRCLE

T = 60"x60"
TOILET CLEARANCE

S = 36"x48"
SHOWER CLEARANCE

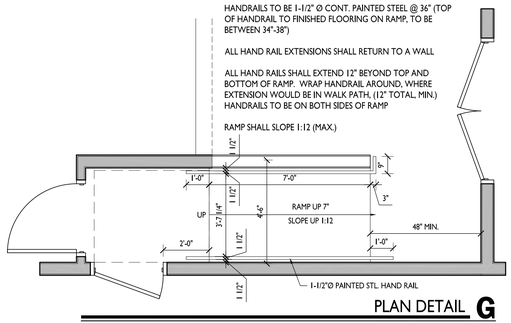
SHOWER NOTES:

1. VERIFY FRAMING DIMENSIONS FOR SHOWER UNIT ROUGH OPENING PER SHOWER MFG. SELECTED

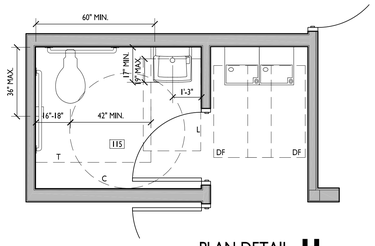
2. FLOOR TRANSITION TO SHOWER UNIT TO BE ADA COMPLIANT, SEE DETAIL G/A3.4 BUILD UP TILE MUD BED IF NEEDED, SLOPE 1:20 MAX.

* FRAMING DIMENSION AT 36"x36" TRANSFER SHOWER, BASED ON AQUATIC 1363BFSD ACRYLIC SHOWER , VERIFY DIMENSIONS W/ SELECTED SHOWER MFG.

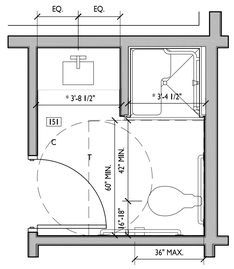
** FRAMING DIMENSION AT 60"x36" ROLL IN SHOWER, BASED ON AQUATIC 1603TBFSD ACRYLIC SHOWER, VERIFY DIMENSIONS W/ SELECTED SHOWER MFG.



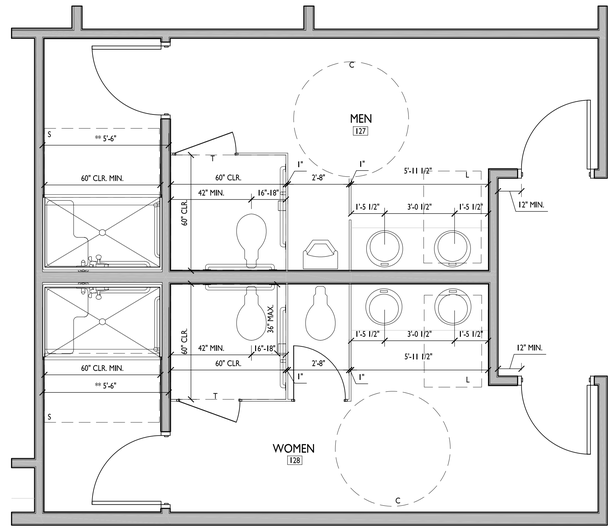
PLAN DETAIL **G**
SCALE: 3/8"= 1'-0"



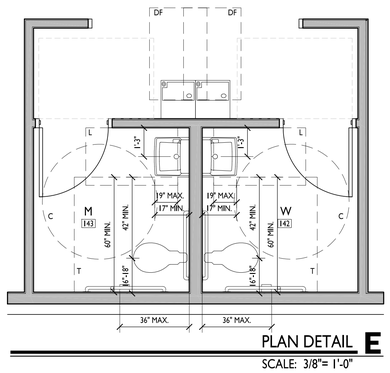
PLAN DETAIL **H**
SCALE: 3/8"= 1'-0"



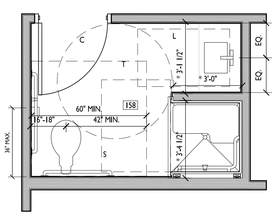
PLAN DETAIL **F**
SCALE: 3/8"= 1'-0"



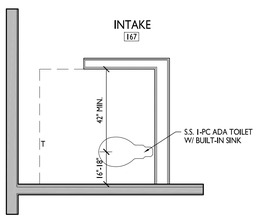
PLAN DETAIL **D**
SCALE: 3/8"= 1'-0"



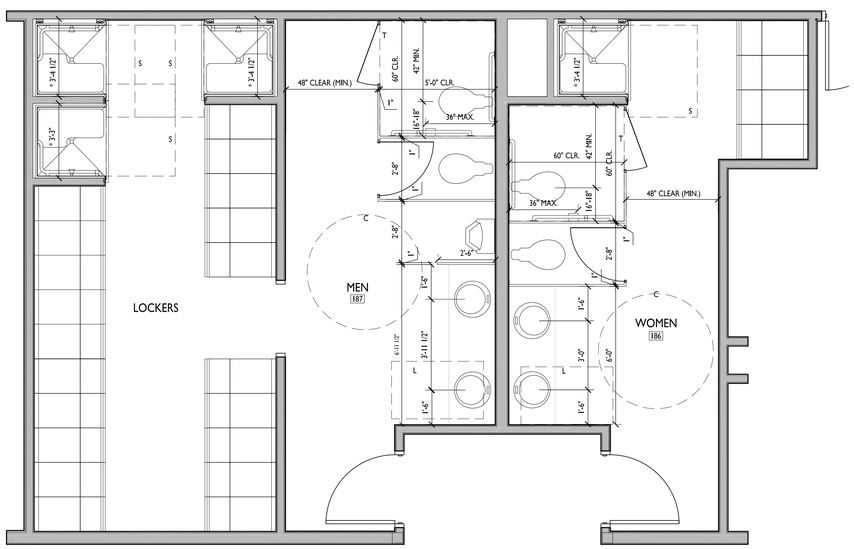
PLAN DETAIL **E**
SCALE: 3/8"= 1'-0"



PLAN DETAIL **C**
SCALE: 3/8"= 1'-0"



PLAN DETAIL **B**
SCALE: 3/8"= 1'-0"



PLAN DETAIL **A**
SCALE: 3/8"= 1'-0"

FOR SHELL BID, DO NOT INCLUDE FINISHES:
LVT, CPT, CWT, CCB, RCB, PNT, EP, ETC.

FINISH SCHEDULE

NO.	ROOM	FLOOR	BASE				WALLS				CEIL.	NOTES	NO.
			N	E	S	W	N	E	S	W			
101	FOYER / WAITING RM	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		101
102	UTILITY FIN.	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		102
103	MAYOR	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		103
104	CLERK	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		104
105	DEPUTY TAX COL.	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		105
106	FINANCE DIRECTOR	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		106
107	TOWN MGR.	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		107
108	CONFERENCE	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		108
109	RISER RM	SLD CONC	RCB-1	RCB-1	RCB-1	RCB-1	GM GWB/PNT-2	GM GWB/PNT-2	GM GWB/PNT-2	GM GWB/PNT-2	GM GWB/PNT-8		109
110	STORAGE	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		110
111	ASSISTANT FIN. MGR.	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		111
112	WORK RM	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		112
113	SAFE RM	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB OVER 3/4" PLYWD/PNT-8		113
114	FIN. SYS. SP. / HR	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		114
115	FOYER BATH	CT-1	CCB-1	CCB-1	CCB-1	CCB-1	CWT-1 (48") & GWB/PNT-1	CWT-1 (48") & GWB/PNT-1	CWT-1 (48") & GWB/PNT-1	CWT-1 (48") & GWB/PNT-1	GWB/PNT-8		115
116	RECEPTION	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		116
117	COMM. DEV. PYMT.	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		117
118	COMM. DEV.	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		118
119	HALLWAYS	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		119
120	PLAN / FILE STOR.	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		120
121	PANTRY	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		121
122	KITCH / BREAK	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		122
123	IT DIRECTOR	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		123
124	IT WORK RM	EP-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		124
125	SERVER RM	EP-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		125
126	LAUNDRY / UTILITY	EP-1 CONC	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		126
127	MEN BTHRM	CT-1	CCB-1	CCB-1	CCB-1	CCB-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-1	MR GWB/PNT-8		127
127B	MEN SHOWER	CT-1	CCB-1	CCB-1	CCB-1	CCB-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-	CWT-1(48") & MR GWB/PNT-1	MR GWB/PNT-8		127B
128	WOMEN BTHRM	CT-1	CCB-1	CCB-1	CCB-1	CCB-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-	CWT-1(48") & MR GWB/PNT-1	MR GWB/PNT-8		128
128B	WOMEN SHOWER	CT-1	CCB-1	CCB-1	CCB-1	CCB-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-	CWT-1(48") & MR GWB/PNT-1	MR GWB/PNT-8		128B
129	INSPECTIONS	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		129
130	PLANNING	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		130
131													131
132	GIS	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		132
133	CODE ENF.	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		133
134	EM DIRECTOR	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		134
135	EM STORAGE	SLD CONC	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		135
136	FUTURE OFFICE	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		136
137	TABLE & CHAIR STOR.	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		137
138	RETREAT RM / STOR	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		138
139	COUNCIL DIAS	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		139
140	COUNCIL HALL	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT W/ GWB TRAY/PNT-8		140
141													141
142	HALL BATH W	CT-1	CCB-1	CCB-1	CCB-1	CCB-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-	CWT-1(48") & MR GWB/PNT-1	GWB/PNT-8		142
143	HALL BATH M	CT-1	CCB-1	CCB-1	CCB-1	CCB-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-	CWT-1(48") & MR GWB/PNT-1	GWB/PNT-8		143
144	ENTRY HALL	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		144
145	LOBBY	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		145
146	REPORT RM	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		146
147	TRAINING RM	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		147
148	CNTRL RM	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		148
149	TRAINING STOR.	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		149
150	ELECTRICAL	SLD CONC	RCB-1	RCB-1	RCB-1	RCB-1	GM GWB/PNT-2	GM GWB/PNT-2	GM GWB/PNT-2	GM GWB/PNT-2	GM GWB/PNT-8		150
151	CHIEF BTHRM	CT-1	CCB-1	CCB-1	CCB-1	CCB-1	CWT-1(48") & MR GWB/PNT-1	MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-	CWT-1(48") & MR GWB/PNT-1	MR GWB/PNT-8		151
152	CHIEF	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		152
153	ASST. CHIEF	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		153
154	CAPTAIN	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		154
155	ADMIN OFFICE	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		155
156	DETECTIVE SGT	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		156
157	LAUNDRY	EP-1 CONC	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		157
158	BTHRM	CT-1	CCB-1	CCB-1	CCB-1	CCB-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-1	MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-1	GWB/PNT-8		158
159	PANTRY	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		159
160	WARM KITCH / LUNCH	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		160
161													161
162	STORAGE	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		162
163	EXTER. STORAGE	SLD CONC	RCB-1	RCB-1	RCB-1	RCB-1	GM GWB/PNT-2	GM GWB/PNT-2	GM GWB/PNT-2	GM GWB/PNT-2	GM GWB/PNT-8		163
164	Q MASTER	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		164
165	ARMORY	EP-1 CONC	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB OVER 3/4" PLYWD/PNT-8		165
166	SALLY PORT	EP-1 CONC	RCB-1	RCB-1	RCB-1	RCB-1	GM GWB/PNT-2	GM GWB/PNT-2	GM GWB/PNT-2	GM GWB/PNT-2	GM GWB/PNT-8		166
167	INTAKE	EP-1 CONC	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		167
168	INTERVIEW RM	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		168
169	DET. STORAGE	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		169
170	SECURE DET. FILES	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		170
171	DETECTIVE WORK AR.	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		171
172	PATROL RM	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		172
173	HALLWAYS	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		173
174	BREAK RM	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		174
175	SGT OFFICE	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		175
176	GYM	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		176
177	JANITOR / STORAGE	SLD CONC	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		177
178	FOUND PROPERTY	SLD CONC	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		178
179	STORAGE (FILES)	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		179
180	ADMIN ASST.	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		180
181													181
182	CONFERENCE RM	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		182
183	EVIDENCE	EP-1 CONC	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB OVER 3/4" PLYWD/PNT-8	SECURED ROOM, 3rd PARTY ALARM	183
183B	GUNS	EP-1 CONC	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB OVER 3/4" PLYWD/PNT-8		183B
183C	DRUGS	EP-1 CONC	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB OVER 3/4" PLYWD/PNT-8		183C
183D	MONEY	EP-1 CONC	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB OVER 3/4" PLYWD/PNT-8		183D
184	INTAKE / EV. PACK	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		184
185	EVIDENCE OFFICE	LVT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		185
186	WOMENS	CT-1	CCB-1	CCB-1	CCB-1	CCB-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-	CWT-1(48") & MR GWB/PNT-1	MR GWB/PNT-8	NO CWT OR CCB BEHIND LOCKERS OR SHOWERS	186
187	MENS	CT-1	CCB-1	CCB-1	CCB-1	CCB-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-	CWT-1(48") & MR GWB/PNT-1	MR GWB/PNT-8		187
188	MENS LOCKER	CT-1	CCB-1	CCB-1	CCB-1	CCB-1	MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-1	MR GWB/PNT-1	CWT-1(48") & MR GWB/PNT-1	MR GWB/PNT-8	NO CWT OR CCB BEHIND LOCKERS OR SHOWERS	188
189	ROLL CALL	CPT-1	RCB-1	RCB-1	RCB-1	RCB-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	GWB/PNT-1	ACT-1		189

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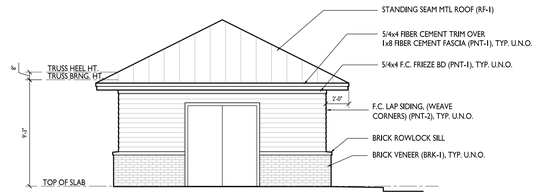
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SURF CITY, NORTH CAROLINA

SCHEDULES & PLAN DETAILS

05.15.2020

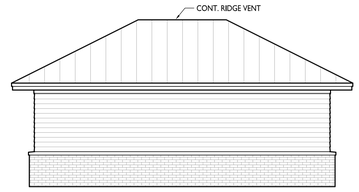
REVISIONS:

A2.8



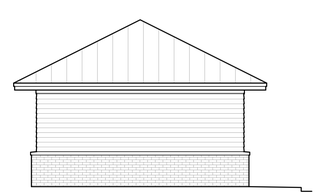
STOR. SHED, FRONT (SOUTH) ELEV. **L**

SCALE: 3/16"= 1'-0"



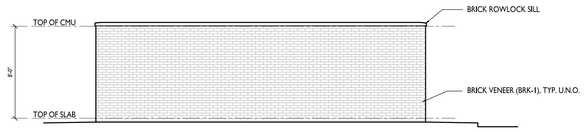
STOR. SHED, SIDE (EAST/WEST) ELEV. **K**

SCALE: 3/16"= 1'-0"



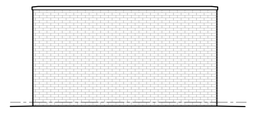
STOR. SHED, REAR (NORTH) ELEV. **J**

SCALE: 3/16"= 1'-0"



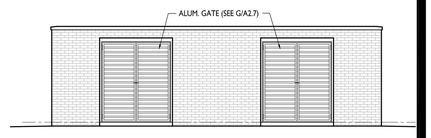
GENERATOR ENCL. (WEST) ELEVATION **I**

SCALE: 3/16"= 1'-0"



GENERATOR ENCL. (N & S) ELEV. **H**

SCALE: 3/16"= 1'-0"



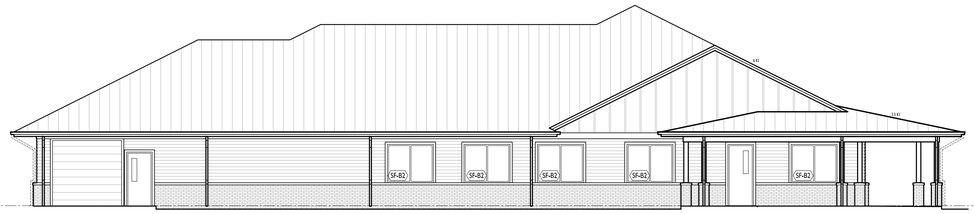
GENERATOR ENCL. (EAST) ELEVATION **G**

SCALE: 3/16"= 1'-0"



RIGHT SIDE (EAST) ELEVATION **F**

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

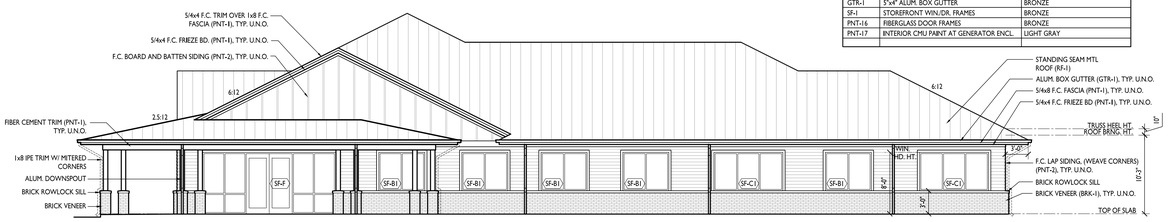


REAR (NORTH) ELEVATION **D**

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

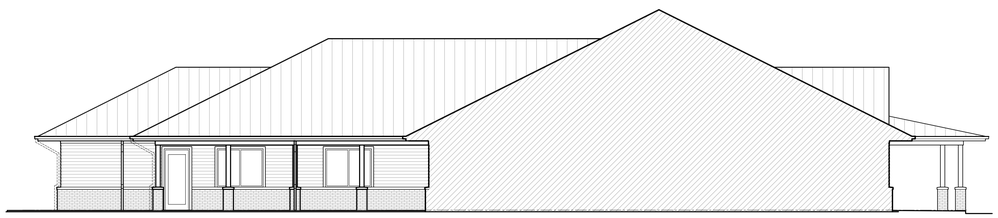
EXTERIOR FINISHES

BRK-1	BRICK VENEER	WHITE W/ GRAY HINTS, TUMBLED
RF-1	STANDING SEAM MTL. ROOF	WHITE/GRAY
PNT-9	TRIM PAINT	WHITE
PNT-10	SIDING PAINT	MEDIUM GRAY
GTR-1	5"x4" ALUM. BOX GUTTER	BRONZE
SF-1	STOREFRONT WIN./DR. FRAMES	BRONZE
PNT-16	FIBERGLASS DOOR FRAMES	BRONZE
PNT-17	INTERIOR CMU PAINT AT GENERATOR ENCL.	LIGHT GRAY



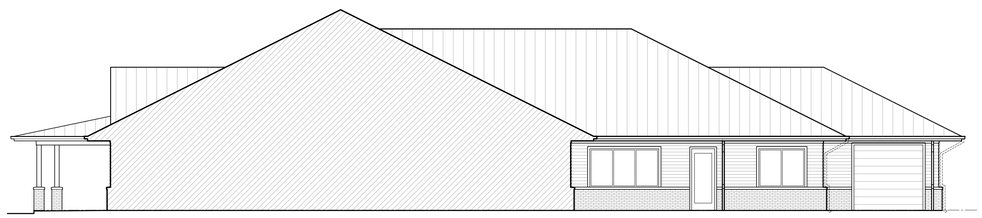
FRONT (SOUTH) ELEVATION **B**

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



REAR (NORTH) ELEVATION (BEYOND / SECTION) **E**

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



FRONT (SOUTH) ELEVATION (BEYOND / SECTION) **C**

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



LEFT SIDE (WEST) ELEVATION **A**

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

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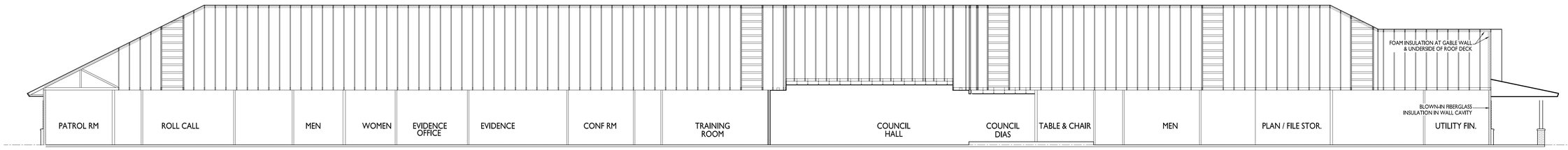
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ELEVATIONS

05.15.2020

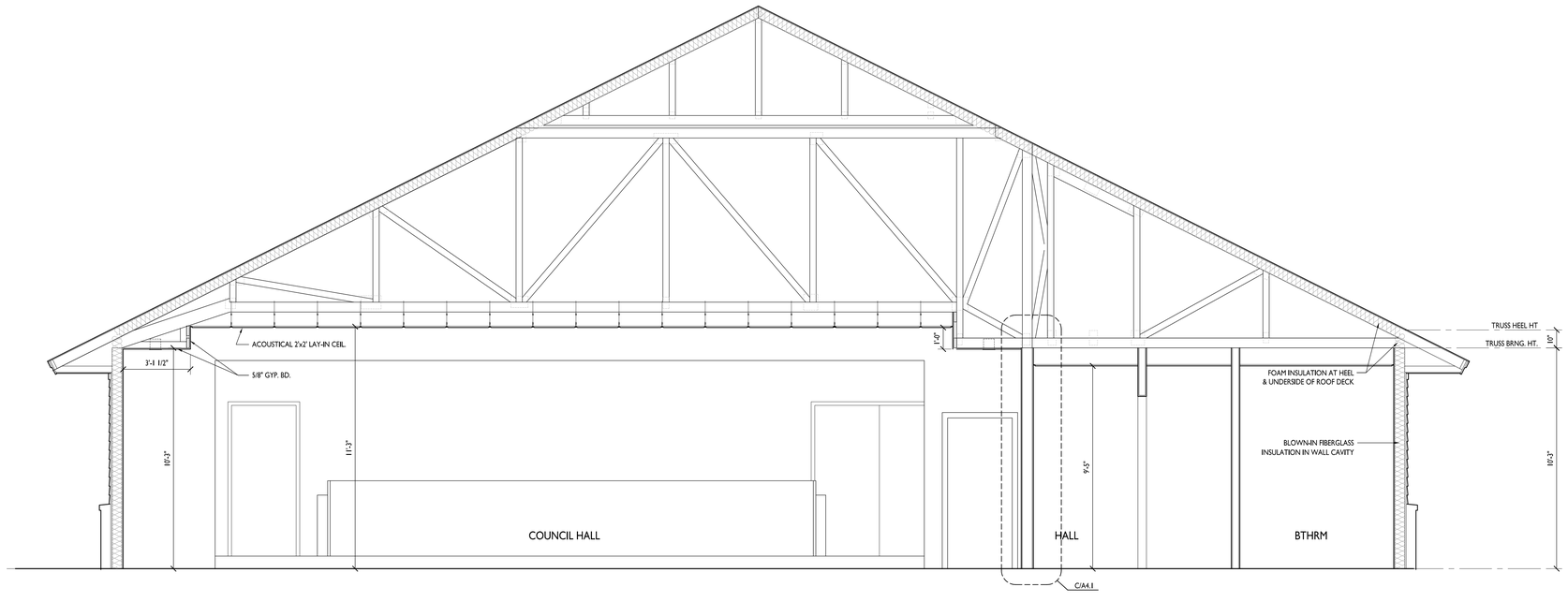
REVISIONS:

A3.1



BUILDING SECTION **B**

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



BUILDING SECTION **A**

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

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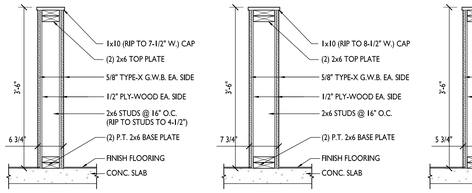
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BUILDING SECTIONS

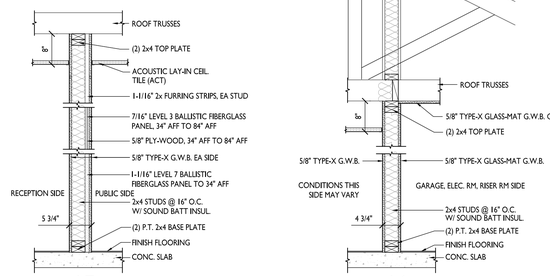
05.15.2020

REVISIONS:

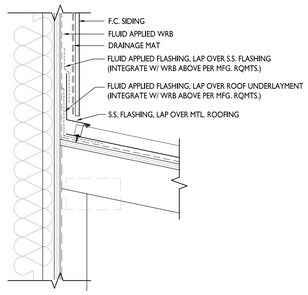
A4.1



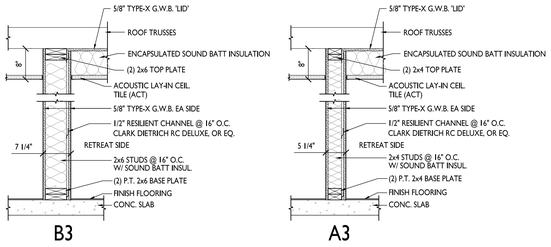
A9 B8 A8



A7 A6 B5 A5 B4 A4

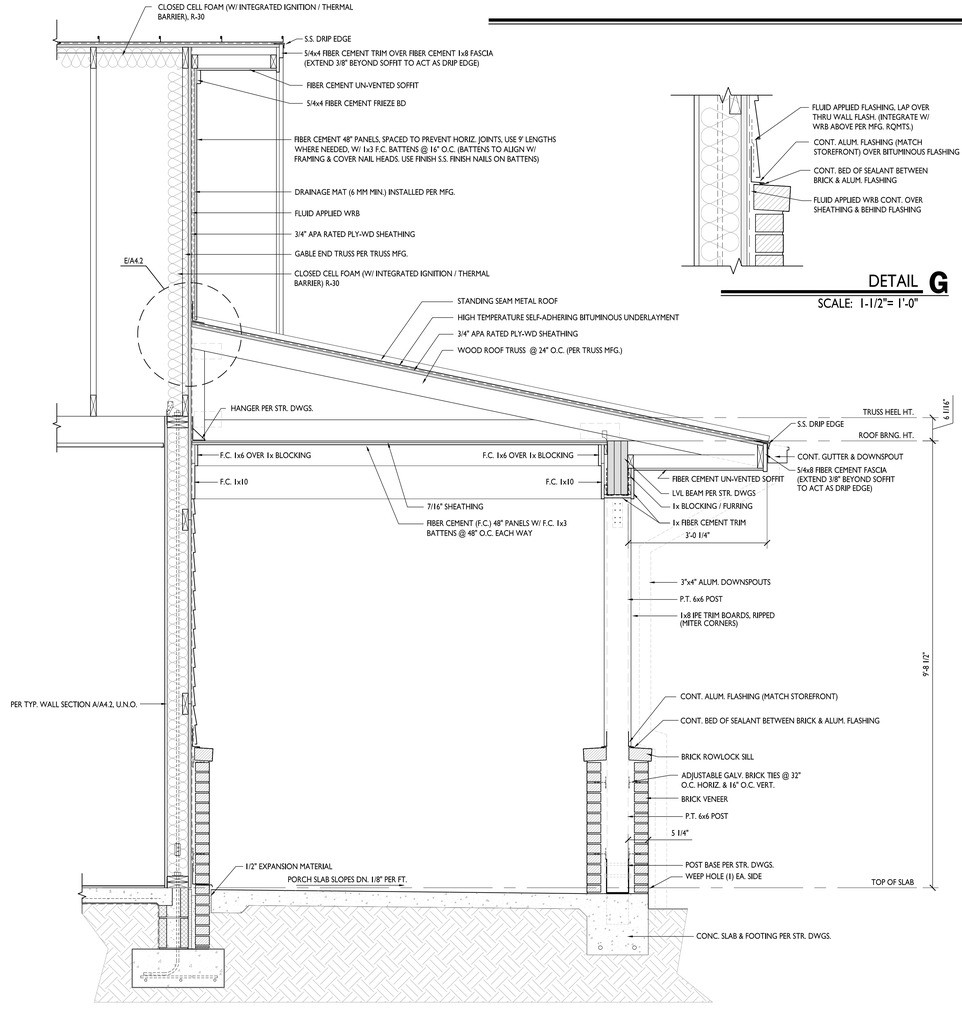


DETAIL **E**
SCALE: 1-1/2"= 1'-0"



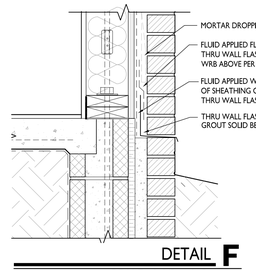
B3 A3 B2 A2 B1 (C1 SAME WALL W/ 2x8 STUDS & PLATES IN LIEU OF 2x6 STUDS & PLATES) A1 (TYP. U.N.O.)

INTERIOR PARTITION TYPES **D**
SCALE: 3/4"= 1'-0"

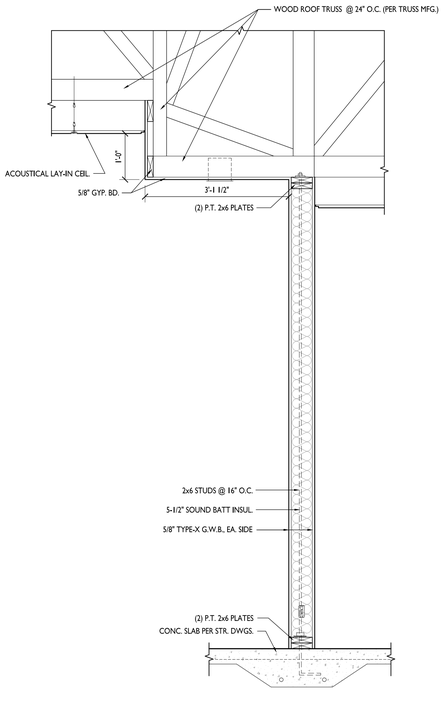


SECTION AT PORCH **B**
SCALE: 3/4"= 1'-0"

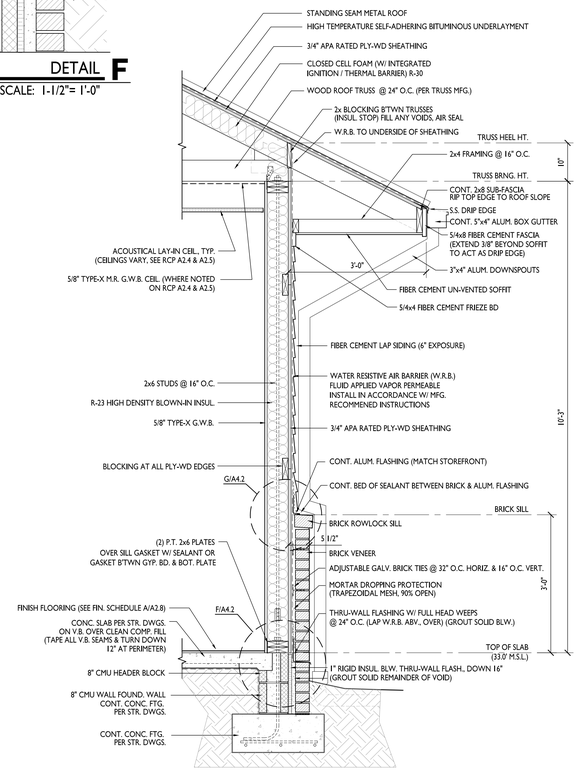
DETAIL **G**
SCALE: 1-1/2"= 1'-0"



DETAIL **F**
SCALE: 1-1/2"= 1'-0"



INTERIOR SECTION **C**
SCALE: 3/4"= 1'-0"

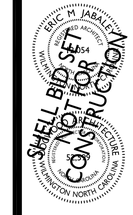


TYPICAL WALL SECTION **A**
SCALE: 3/4"= 1'-0"

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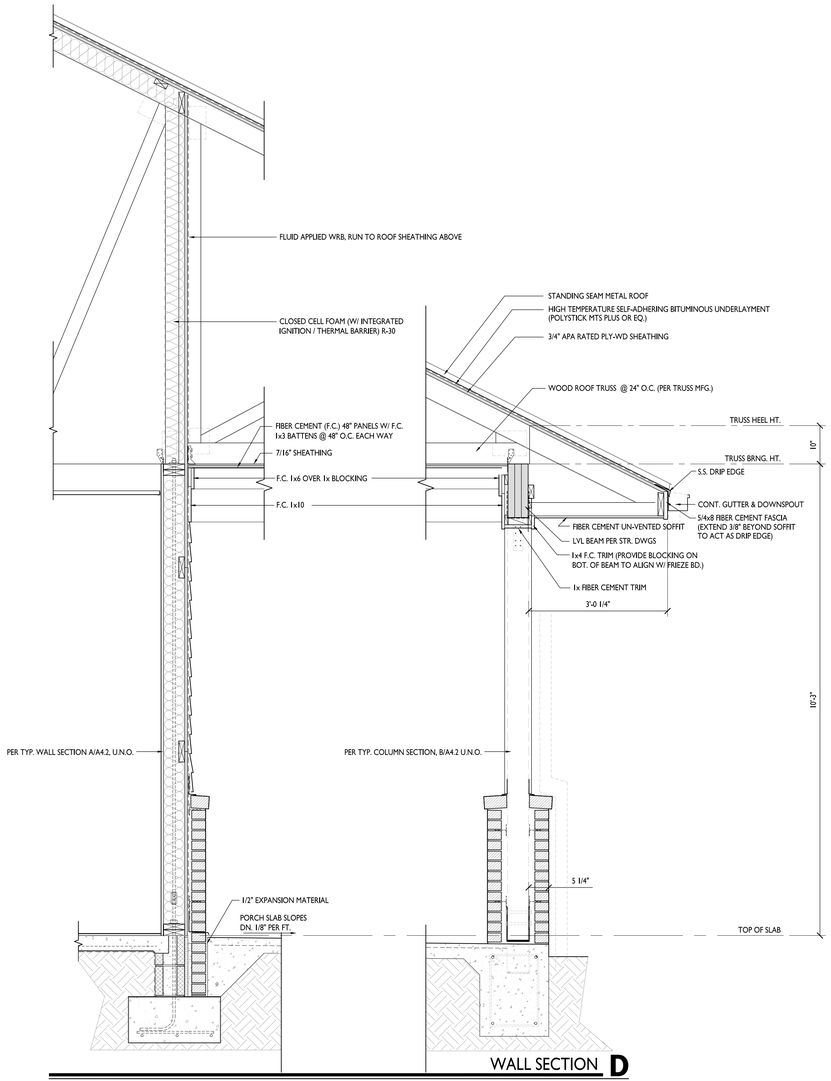


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SECTIONS

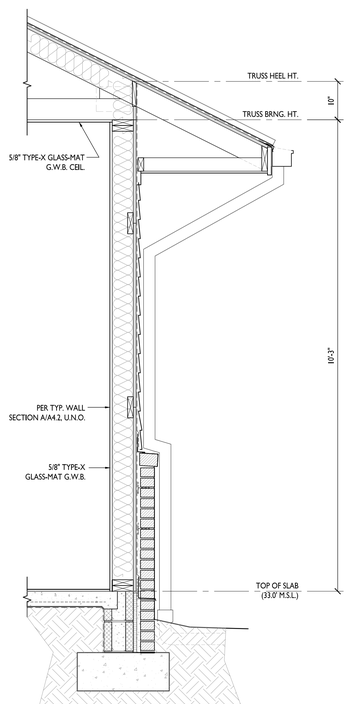
05.15.2020
REVISIONS:

A4.2



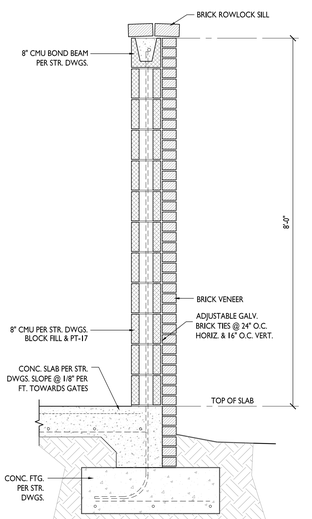
WALL SECTION **D**

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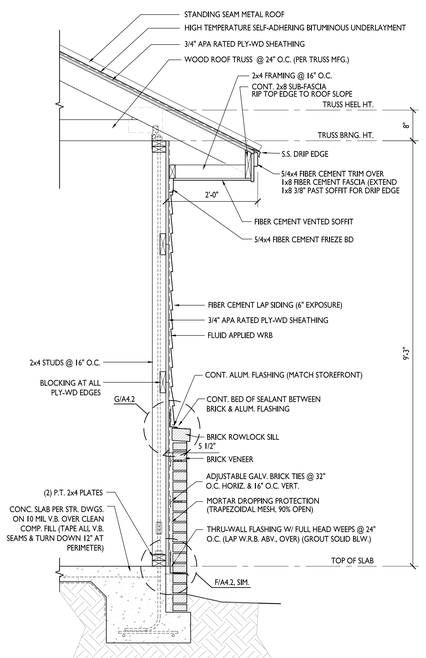
WALL SECTION **C**

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



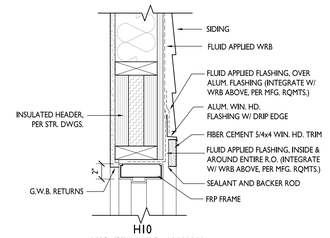
WALL SECTION AT GENERATOR ENCL. **B**

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



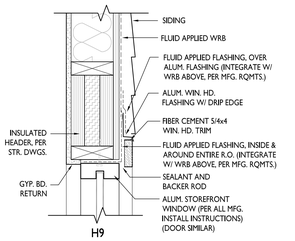
WALL SECTION AT STORAGE SHED **A**

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

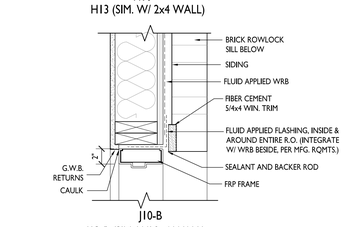


H10

H13 (SIM. W/ 2x4 WALL)

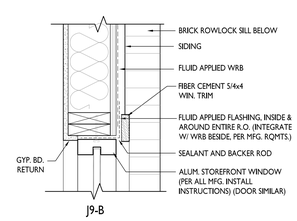


H9

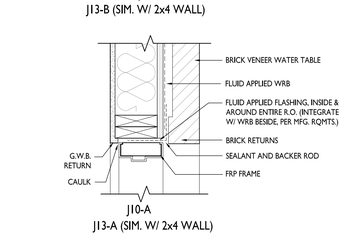


J10-B

J13-B (SIM. W/ 2x4 WALL)

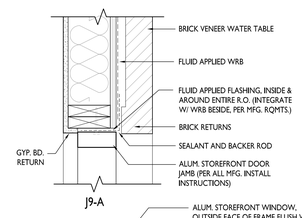


J9-B

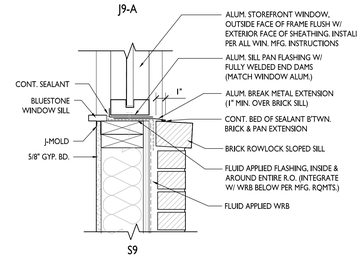


J10-A

J13-A (SIM. W/ 2x4 WALL)



J9-A



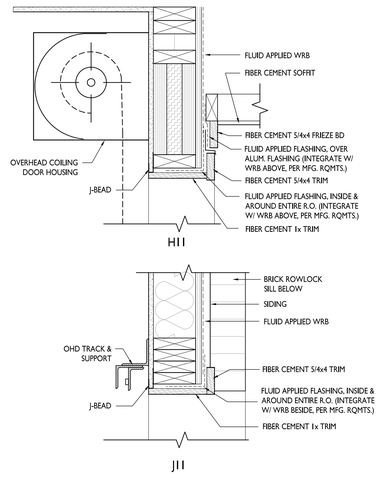
S9

FRP HEAD/JAMB/SILL DETAILS **F**

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

STOREFRONT HEAD/JAMB/SILL DETAILS **E**

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



H11

J11

OHD HEAD/JAMB DETAILS **G**

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

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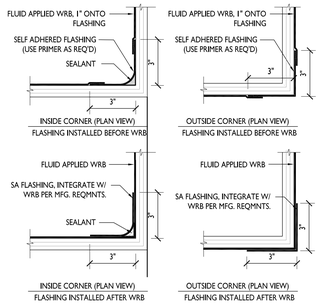
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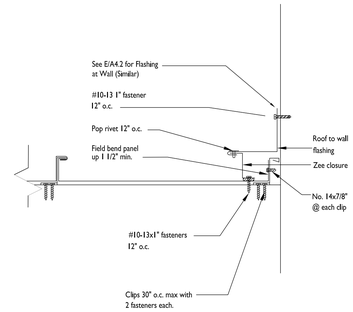
REVISIONS:

A4.3



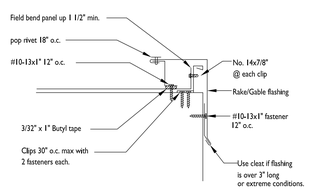
WRB CORNER DETAILS **L**

NOT TO SCALE



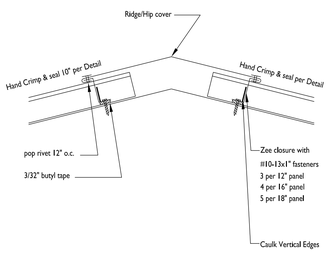
PITCHBREAK FLASHING DETAIL **K**

NOT TO SCALE



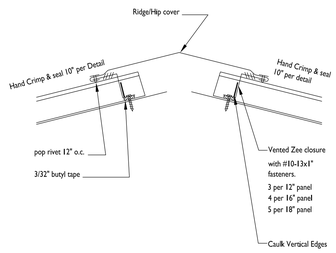
RAKE/GABLE FLASHING DETAIL **F**

NOT TO SCALE



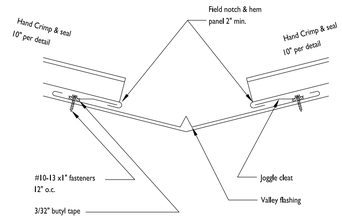
RIDGE/HIP COVER DETAIL **G**

NOT TO SCALE



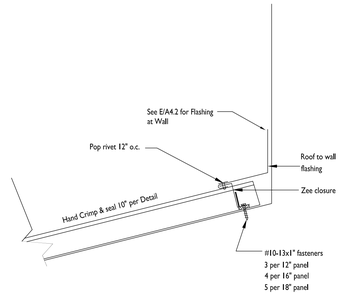
VENTED RIDGE DETAIL **H**

NOT TO SCALE



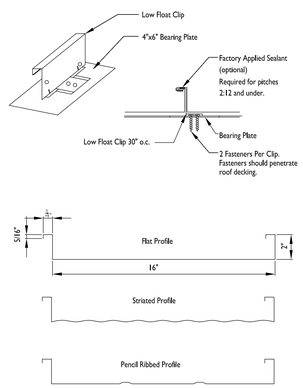
VALLEY FLASHING DETAIL **I**

NOT TO SCALE



ROOF TO WALL FLASHING DETAIL **J**

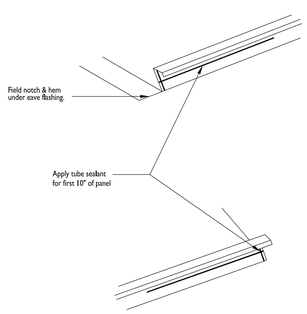
NOT TO SCALE



Note: Striated Profile is Standard, Selection by Owner

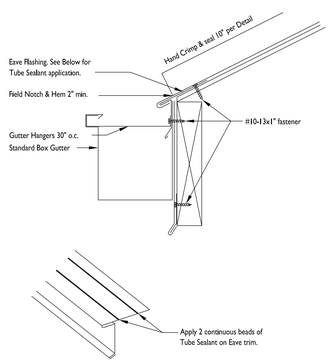
PANEL & CLIP PROFILE DETAIL **A**

NOT TO SCALE



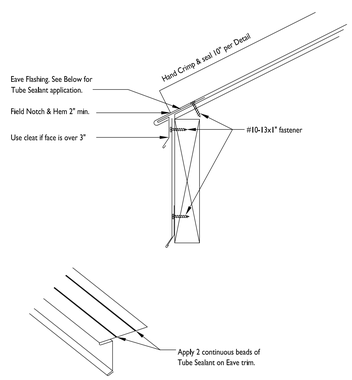
PANEL SEALANT DETAIL **B**

NOT TO SCALE



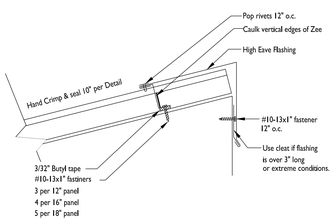
EAVE W/ GUTTER DETAIL **C**

NOT TO SCALE



EAVE DETAIL **D**

NOT TO SCALE



HIGH EAVE DETAIL **E**

NOT TO SCALE

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ERIC M JABALEY
REGISTERED ARCHITECT
2054
NORTH CAROLINA

SHELL BID SET
NOT FOR CONSTRUCTION

TOWN OF SURF CITY

MUNICIPAL COMPLEX

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SURF CITY, NORTH CAROLINA

ROOF DETAILS

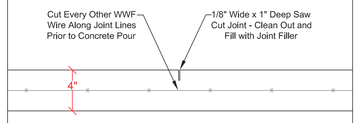
05.15.2020

REVISIONS:

A4.4

F6 Slab Contraction Joint Detail

Scale 2" = 1'

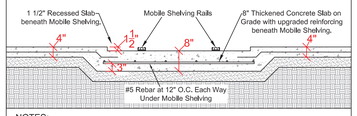


NOTES:

1. Saw Cut Contraction Joints as shown at approximately 4 to 12 Hours after concrete is finished and has set up.
2. Locate Contraction Joints in a 12' x 12' Maximum Grid with Square Panels. Panels should be square or nearly so, avoid L-Shaped Panels.
3. Plan Contraction Joints Prior to the Concrete Pour and cut every other welded wire reinforcing along the joint location.
4. Clean out joints after installation and fill with Joint Filler.
5. Follow NRMCA CIP 6 - Joints in Concrete Slabs on Grade Guidelines.
6. Locate Contraction Joints away from slab step ups, recessed areas, and load bearing footings where possible.

F5 1 1/2" Recessed Slab Detail

Scale 1/2" = 1'

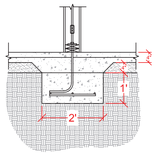


NOTES:

1. This detail is for use at Mobile Shelving Locations that require recessed Anti-Tip Rails. Builder is to verify and coordinate all dimensions and installation.
2. Normal 4" Thick Concrete Slab on Grade drops 1 1/2" where needed and increases to 8" Thick (3000 psi) for additional load support.
3. Reinforcing below shelving is to be #5 rebar at 12" O.C. each way located 3" from the bottom as shown.
4. The bottom of the recessed slab must be level to within 1/4" non-accumulative.
5. The rails are to be installed with the top flush with the finish floor covering top.
6. After rails are set, a second concrete pour is to be made to fill in around the rails up to the level of the main slab.
7. The recessed trough area should be for the entire area beneath the mobile shelving units as opposed to troughs for the individual rails. This allows for easier installation of the rails and provides greater area for feathering the second concrete pour for a more level and consistent finish floor level.
8. See Spacesaver TechData B Anti-Tip Rail Recessed in Concrete Document for specific manufacturer details.

F4 2'-0" Wide Interior Footing

Scale 1/2" = 1'

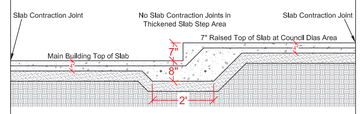


NOTES:

1. Locate Bottom of Footing at 1'-8" below top of slab as shown.
2. Install 2' x 1' Continuous Footing per Detail F1 Specifications.
3. Install 5/8" Ø Galvanized Anchor Rods per the dimensions on the plan and to be centered upon wood framed wall above. Anchor Rods have bearing plate and nut as specified in F1. Allow adequate extra length above to connect RODS to wall top plate per the ROD Detail.
4. Pour 2' Wide Interior Footings at the same time as the exterior footings. Where interior footings intersect with exterior footings, tie the (3) #5 rebar together at the intersection.
5. At the slab on grade pour provide an 8" deep thickened slab centered over the footing as shown above.

F3 Transition at 7" Raised Slab

Scale 1/2" = 1'



NOTES:

1. 4" Concrete Slab on Grade Per Notes on Plans and Detail F1.
2. At 7" Step Up in Slab, thicken lower slab to 8" Thick x 2' Wide Centered upon Step as shown.
3. Install (2) #5 Rebar Continuous with 3" Clear Distance and 25" Lap Splices in thickened portion of slab as shown.
4. Install Welded Wire Reinforcing as specified across the step area and overlap and double up underneath the step up portion in the thickened slab area.
5. Slab Contraction Joints parallel to the step are not to be installed in the thickened slab step up area. Locate them equally away from the step up - approximately 6' each way from the slab step.

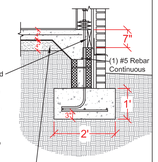
F2 Foundation at 7" Raised Slab

Scale 1/2" = 1'

Foundation Section F2 is similar to F1 with exceptions as follows:

Top of Slab is raised 7" above typical slab level for the Council Dias Area as shown on plans.

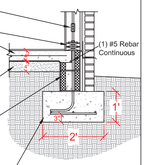
2x8 SYP #2 Ground Contact Preservative Pressure Treated Edge Form Board Ripped to 7" Depth As Shown. Install this edge form board during forming and temporarily shore on the exterior of the CMU Block Wall. Install 15 Mil Moisture Barrier on the Inside of the form board. Pour slab on grade up against PT form board with moisture barrier. After concrete is set, remove temporary shoring, but leave PT form board in place. During framing, install 3/4" Thick Preservative Pressure Treated Plywood as the bottom strip in this area down to the level of the adjacent plywood as shown. Attach PT Plywood to bottom plates per typical details. Also, attach PT Plywood to 2x8 PT Form Board with two rows of hot dipped galvanized 8d (0.113" x 2 3/8") ring shank nails with full round head @ 6" O.C. Having the exterior plywood continuous in this area allows for uniform flashing and ancillary details.



Raise interior grade 7" where needed. Create turned down slab detail as shown to the 8" CMU header block. Follow F1 Detail for all structural details not shown in F2. Install Anchor Rods long enough to allow for bearing plate, nut, and extra length for coupler as shown.

F1 Typical Exterior Foundation

Scale 1/2" = 1'



4" Thick Concrete Slab on Grade, 3000 psi with Welded Wire Reinforcing at Mid Depth (6"x6"W1.4xW1.4 minimum with noted exceptions). With 15 mil Specified Vapor Barrier Continuous with Taped Edges. With 12' x 12' (maximum) grid saw cut contraction joints. Finished level with good workmanship per specifications.

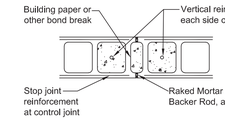
4" Thick Clean Structural Sand Base with compaction verified by Geotechnical Engineer.

8" Thick Concrete Masonry Unit (CMU) Block conforming to ASTM C90 with an F'm of at least 1500 psi. Lay in running bond pattern using Type S Mortar with tooled concave joints. Top course is to be a header block with (1) #5 rebar continuous with slab poured into header block as shown. Fill all block cores below header block with grout complying with ASTM C 476. Install truss type galvanized horizontal joint reinforcement at every other course (16" O.C. Vertically).

2' Wide x 1' Deep 3000 psi Continuous Concrete Footing on Subgrade with compaction approved by Geotechnical Engineer. (3) #5 Rebar Continuous (Grade 60 or better TYPICAL). (1) #5 Rebar Transverse at every vertical rod. Maintain 3" Clear Distance as shown. Use 25" Lap Splices with #5 Rebar. 5/8" Ø Standard Strength Fully Threaded Galvanized Steel Anchor Rods with minimum Fy of 36 ksi with 90° Radius Bend as shown ties to footing rebar. Locate Anchor Rods to center upon wood framed wall above as shown and per spacing locations on plans. Anchor Rods terminate above double bottom plate with adequate length to attach coupler as shown. Install 3" x 3 1/2" x 3/8" thick galvanized steel bearing plate w/ 11/16" Ø hole centered with 5/8" Ø galvanized nut on top of bottom plates as shown and tighten until snug. (ROD) signifies 5/8" Anchor Rod Assembly, Coupler, and Rod to top plates per detail. (ANCHOR) signifies 5/8" Anchor Rod Assembly with 3" x 3 1/2" x 3/8" thick galvanized steel bearing plate with 5/8" Ø galvanized nut on top of bottom plates (generally under windows where rod cannot be added. Footing bottom shall be at least 1'-4" below the adjacent exterior grade. Top of slab elevation shall be at least 10 inches above the adjacent exterior grade that is to slope away from the building for positive drainage. Rainwater from roof is to be collected in a drainage system and transferred away from the building.

F8 CMU Block Movement Control Joint Detail

Scale 1" = 1'



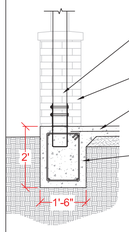
Movement Joint Location Shown on Plan as: MCJ

NOTES:

1. Install CMU Block Movement Control Joints in the locations specified on the plans per the detail above.
2. Add vertical reinforcement on each side of the joint which may be #5 Rebar or 5/8" Galvanized Threaded Rod at the Builder's Discretion. Fill reinforced cores with grout or small aggregate concrete.
3. Brick Veneer Movement Control Joints are to align with the CMU Block Movement Control Joint Locations (at a minimum).
4. Install Movement Control Joints per NCMA TEK 10-02D.

F7 Porch Footing Detail

Scale 1/2" = 1'



6x6 SYP #2 Preservative Pressure Treated Post with Cast in Place Galvanized Steel Post Base as shown in the Porch Post Section.

Non-Structural Brick Veneer Post Wrap Per Architectural Plans.

4" Thick Concrete Slab on Grade with Reinforcing Per Typical Slab Details (F1). Apply 1/16" depth broomed finish to porch slabs for slip resistance.

1'-6" Wide x 2'-0" Deep 3000 psi Continuous Monolithic Concrete Footing on Subgrade with compaction approved by Geotechnical Engineer. (2) #5 Rebar Bottom and (2) #5 Rebar Top with 3" Clear Distance and 25" Lap Splices. (1) #3 Rebar Closed Stirrup as shown on each side of every post base location for support. Locate and brace cast in place post bases in exact location prior to pour.

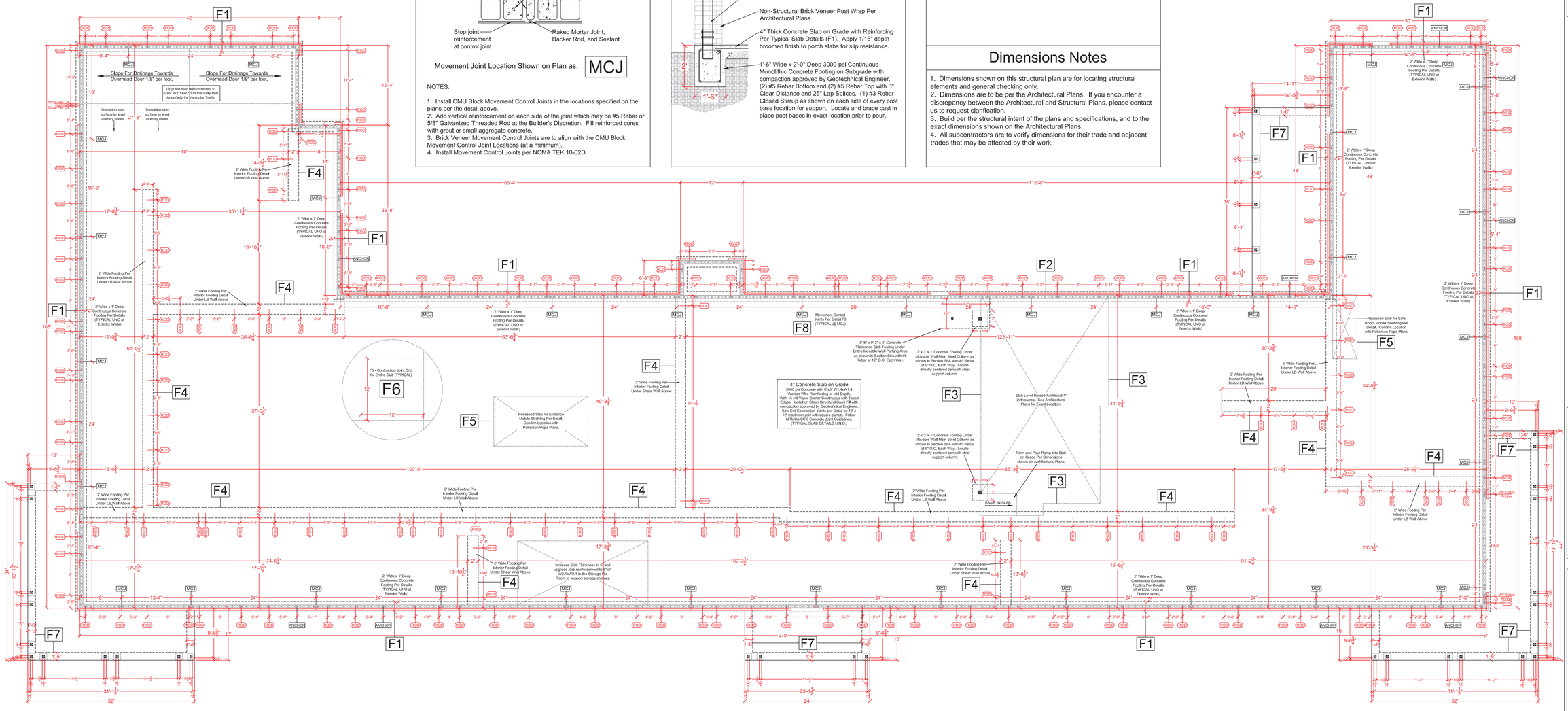
Foundation Notes

1. See foundation sections and details in the plans for general foundation requirements.
2. See specification Division 03 for concrete construction requirements.
3. See specification Division 04 for masonry construction requirements.
4. See remaining specification sections for other construction requirements.

Dimensions Notes

1. Dimensions shown on this structural plan are for locating structural elements and general checking only.
2. Dimensions are to be per the Architectural Plans. If you encounter a discrepancy between the Architectural and Structural Plans, please contact us to request clarification.
3. Build per the structural intent of the plans and specifications, and to the exact dimensions shown on the Architectural Plans.
4. All subcontractors are to verify dimensions for their trade and adjacent trades that may be affected by the work.

Foundation Plan



Formitas PLLC
PO Box 10993
Wilmington, NC 28404
Phone: (910) 465-0569
Email: craig@formitasplic.com

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 028451 CRAIG ALLEN

S. Craig Allen Digitally signed by S. Craig Allen Date: 2020.05.15 20:01:26 -04'00'

FORMITAS PLLC CORPORATE SEAL NC P-1807 NORTH CAROLINA

Shell Bid Set
5-15-2020

SCALE 1/8" = 1'

This document applies only to the job listed in the title block. This may not be used for similar jobs on different sites.

Follow this plan and its structural intent in the construction of this project. Do not make unauthorized changes to this design. Please contact us if you notice any discrepancies.

In addition to the requirements of this document, all construction must conform to the current building code and local requirements.

Digital File Printing Notes:

1. No Outside Modifications Allowed.
2. Viewing and Printing Only.
3. Security Encription Enabled.
4. Print in Black & White & Red Colors if Available.
5. Verify Scale with known dimension after printing.

Foundation Plan

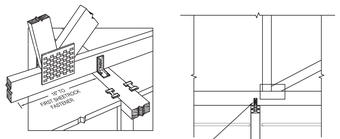
Town of Surf City
Municipal Complex
NC Highway 210
Surf City, NC

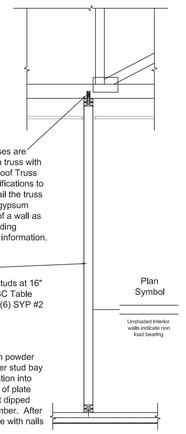
S1

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Interior Non Load Bearing Wall Detail

Scale 1/2" = 1'





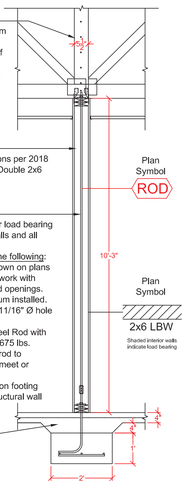
Truss Anchorage Detail:
At 2x4 or 2x6 Interior Non Load Bearing Walls where trusses are perpendicular to the wall as shown, attach the wall to each truss with (1) Simpson STC Roof Truss Clip or (1) Mitek USP TR1 Roof Truss Clip or approved equal. Install clip per manufacturer specifications to provide lateral bracing at the top of the wall. Do not toe nail the truss to the top of non load bearing walls. Where the ceiling is gypsum wallboard, do not attach wallboard to the truss within 16" of a wall as shown in the sketch above. See Truss Technology in Building "Partition Separation Prevention and Solutions" for further information.

Wall Framing:
2x4 SPF #2 Wall Studs at 16" O.C. (or 2x6 SPF #2 Wall Studs at 16" O.C. at 2x6 walls) with framing connections per 2018 NCBC Table 2304.10.1. Double 2x4(6) SPF #2 Top Plate. Double 2x4(6) SYP #2 Pressure Preservative Treatment Bottom Plate.

Wall Anchorage:
Attach bottom wall plate to the concrete slab on grade with powder actuated fasteners (Ramset or equal). Install 1 fastener per stud bay (16" O.C.). Fastener shall be 2 1/2" length with 1" penetration into slab. Use powder load needed to set fastener flush at top of plate (start with #4 but adjust as needed). Fastener shall be hot dipped galvanized and approved for use with pressure treated lumber. After anchoring the bottom plate, attach the wall and plate above with nails per 2018 NCBC Table 2304.10.1.

Interior Load Bearing Wall Section, Anchor Rod Detail and Truss Overlap Detail

Scale 1/2" = 1'



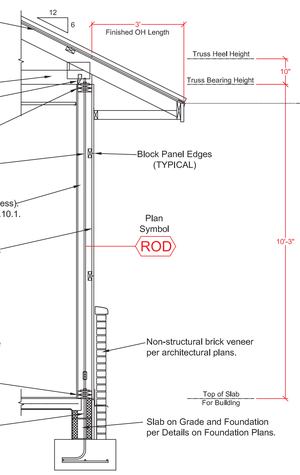
Truss Overlap Detail:
At 2x6 Interior Load Bearing Walls where trusses bear from each side, the trusses shall have 2x6 end verticals and overlap fully. Attach end verticals together with one row of 10d galvanized nails (0.131" x 3") at 6" O.C. Anchor each truss to the wall with (2) Simpson H2.5A or (2) USP RT7A Ties for a total of (4) ties per truss overlap detail. NOTE: For 60' overall span trusses, build as multiple trusses as shown. Do not build as 60' overall span due to handling concerns.

Wall Framing:
2x6 SPF #2 Wall Studs at 16" O.C. with framing connections per 2018 NCBC Table 2304.10.1. Double 2x6 SPF #2 Top Plate. Double 2x6 SYP #2 Pressure Preservative Treatment Bottom Plate.

Anchor Rod Detail:
NOTE: Anchor Rod Detail shown in this sketch for interior load bearing wall location. Use same detail for interior load bearing walls and all exterior walls.
5/8" Diameter Anchor Rod where specified on plans per the following:
- Center Anchor Rod in wall as shown. Space rods as shown on plans at 6'-8" O.C. (average with exceptions shown on plans to work with foundation and wall framing) and within 24" of corners and openings.
- Tighten rods to 70 ft-lbs torque just before ceilling / gypsum installed.
- 3" x 3 1/2" x 3/8" thick galvanized steel bearing plate w/ 11/16" Ø hole centered with 5/8" Ø galvanized nut at top of wall.
- 5/8" Ø Standard Strength Fully Threaded Galvanized Steel Rod with minimum Fy of 36 ksi and allowable tension capacity of 6,675 lbs.
- Load Rated Galvanized Steel Coupler to connect upper rod to foundation rod with witness holes. Coupler load rating to meet or exceed rod capacity.
- 5/8" Ø 36 ksi Galvanized Steel Anchor Rod into foundation footing with bearing plate and nut as shown in sketch and per structural wall section notes.

Structural Wall Section

Scale 1/2" = 1'



Roof Structural Sheathing:
23/32" Thick APA Rated Plywood Structural Sheathing Exterior Grade. 4' x 8' Sheets run with 8' dimension perpendicular to the roof trusses (plywood on strong axis). Block all panel edges with 2x4 blocking. Attach to roof trusses with galvanized 8d (0.113" x 2 3/8") ring shank nails with full round head @ 6" O.C. maximum into panel edges and intermediate framing. Space panels 1/8" apart at all panel edges to allow for expansion. Immediately cover installed plywood sheathing with the specified weather barrier.

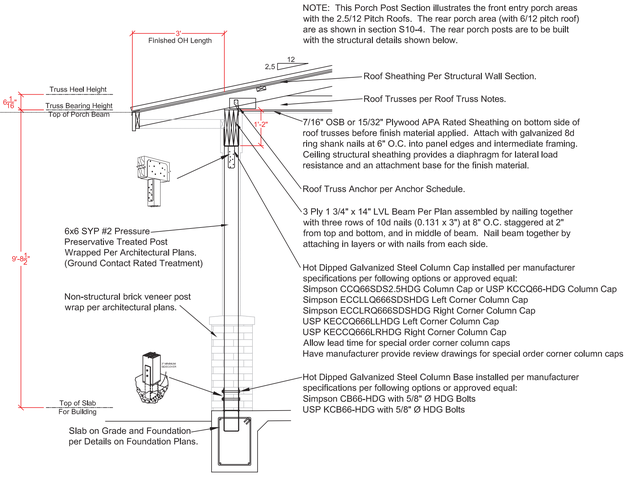
Wall Structural Sheathing:
23/32" Thick APA Rated Plywood Structural Sheathing Exterior Grade. 4' x 8' Sheets run with 8' dimension perpendicular to the wall studs (plywood on strong axis). Block all panel edges with 2x4 blocking. Attach to wall framing with galvanized 8d (0.113" x 2 3/8") ring shank nails with full round head @ 6" O.C. maximum into panel edges and intermediate framing. Space panels 1/8" apart at all panel edges to allow for expansion. Immediately cover installed plywood sheathing with the specified weather barrier. Sheathing shall overlap top and bottom plates fully, and attach to both top and bottom plates with the specified nail pattern staggered. Sheathing shall extend a minimum of 12" beyond all construction joints.

Double 2x6 SYP #2 Pressure Preservative Treated Wood Bottom Plate per NCBC 2303.

5/8" Diameter Anchor Rods where specified on the plans at 6'-8" O.C. Maximum and within 16" of corners and openings. Anchor Rods are standard strength fully threaded galvanized steel rod with minimum Fy of 36 ksi. Tie anchor rods to footing reinforcing steel as shown and extend above slab level 10" to 12" to allow for coupler attachment. Center on framed wall above and add 3" x 3 1/2" x 3/8" thick galvanized steel bearing plate w/ 11/16" Ø hole centered with 5/8" Ø galvanized nut. Tighten nut to 70 ft-lbs torque.

Porch Post Section

Scale 1/2" = 1'



NOTE: This Porch Post Section illustrates the front entry porch areas with the 2.5/12 Pitch Roofs. The rear porch area (with 6/12 pitch roof) are as shown in section S10-4. The rear porch posts are to be built with the structural details shown below.

Shear Wall Notes

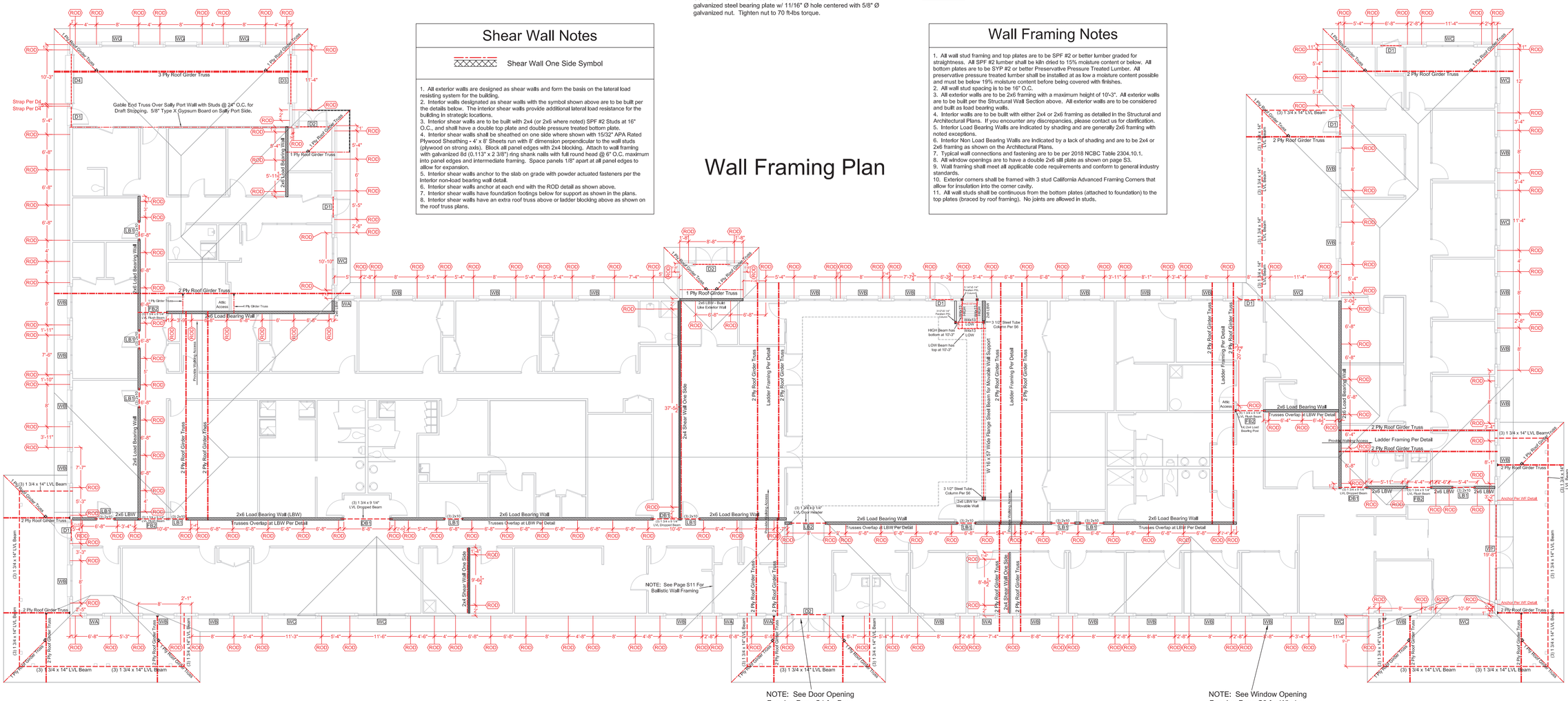
Shear Wall One Side Symbol

1. All exterior walls are designed as shear walls and form the basis on the lateral load resisting system for the building.
2. Interior walls designated as shear walls with the symbol shown above are to be built per the details below. The interior shear walls provide additional lateral load resistance for the building in strategic locations.
3. Interior shear walls are to be built with 2x4 (or 2x6 where noted) SPF #2 Studs at 16" O.C., and shall have a double top plate and double pressure treated bottom plate.
4. Interior shear walls shall be sheathed on one side where shown with 15/32" APA Rated Plywood Sheathing - 4' x 8' Sheets run with 8' dimension perpendicular to the wall studs (plywood on strong axis). Block all panel edges with 2x4 blocking. Attach to wall framing with galvanized 8d (0.113" x 2 3/8") ring shank nails with full round head @ 6" O.C. maximum into panel edges and intermediate framing. Space panels 1/8" apart at all panel edges to allow for expansion.
5. Interior shear walls anchor to the slab on grade with powder actuated fasteners per the Interior non-load bearing wall detail.
6. Interior shear walls anchor at each end with the ROD detail as shown above.
7. Interior shear walls have foundation footings below for support as shown in the plans.
8. Interior shear walls have an extra roof truss above or ladder blocking above as shown on the roof truss plans.

Wall Framing Notes

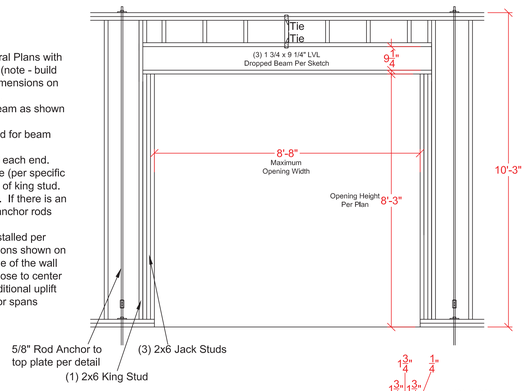
1. All wall stud framing and top plates are to be SPF #2 or better lumber graded for straightness. All SPF #2 lumber shall be kiln dried to 15% moisture content or below. All bottom plates are to be SYP #2 or better Preservative Pressure Treated Lumber. All preservative pressure treated lumber shall be installed at as low a moisture content possible and must be below 19% moisture content before being covered with finishes.
2. All wall stud spacing is to be 16" O.C.
3. All exterior walls are to be 2x6 framing with a maximum height of 10'-3". All exterior walls are to be built per the Structural Wall Section above. All exterior walls are to be considered 2x6 built as load bearing walls.
4. Interior walls are to be built with either 2x4 or 2x6 framing as detailed in the Structural and Architectural Plans. If you encounter any discrepancies, please contact us for clarification.
5. Interior Load Bearing Walls are indicated by shading and are generally 2x6 framing with noted exceptions.
6. Interior Non Load Bearing Walls are indicated by a lack of shading and are to be 2x4 or 2x6 framing as shown on the Architectural Plans.
7. Typical wall connections and fastening are to be per 2018 NCBC Table 2304.10.1.
8. All window openings are to have a double 2x6 sill plate as shown on page S3.
9. Wall framing shall meet all applicable code requirements and conform to general industry standards.
10. Exterior corners shall be framed with 3 stud California Advanced Framing Corners that allow for insulation into the corner cavity.
11. All wall studs shall be continuous from the bottom plates (attached to foundation) to the top plates (braced by roof framing). No joints are allowed in studs.

Wall Framing Plan


1 Ply Roof Girder Truss
2 Ply Roof Girder Truss
3 Ply Roof Girder Truss
Gable End Truss Over Sally Port Wall with Studs @ 24" O.C. for Draft Stopping. 5/8" Type X Gypsum Board on Sally Port Side.
Strap Per D4
Strap Per D4
2x6 Load Bearing Wall (LBW)
Trusses Overlap at LBW Per Detail
2x6 Load Bearing Wall

DB1 Interior Dropped Beam Detail 1

Opening Framing Sketch - Scale 1/2" = 1'

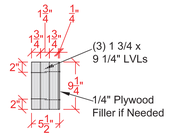


Opening Framing Details:

1. Opening Sizes vary per the Architectural Plans with 8'-8" Maximum Opening Width as shown (note - build by dimensions on Architectural Plans - dimensions on structural plans are for qualification only).
2. Beam is a 3 Ply 1 3/4" x 9 1/4" LVL Beam as shown in the sketch below.
3. (3) 2x6 SPF #2 Jack Studs at each end for beam support.
4. (1) 2x6 SPF #2 King Stud Minimum at each end.
5. 5/8" diameter all thread rod to top plate (per specific detail) on each side of opening within 12" of king stud. Tall rod anchor provides uplift anchorage. If there is an opening adjacent to this opening, install anchor rods where shown on the plan view page.
6. Simpson H2.5A or USP RT7A Ties installed per manufacturer's specifications at the locations shown on the sketch. Ties are located on either side of the wall at center points from the king studs (as close to center of opening as possible). Ties provide additional uplift load anchorage. Ties are only required for spans greater than 6'.

Beam Details:

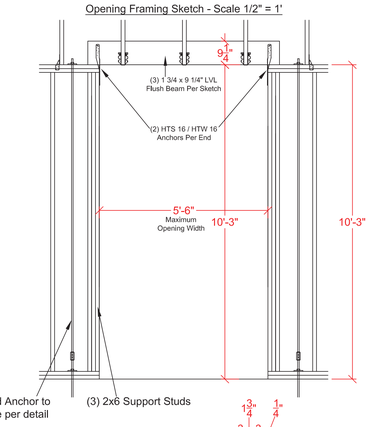
1. Beam is built from (3) 1 3/4 x 9 1/4" LVL members assembled by nailing together with two rows of 10d nails (0.131 x 3") at 8" O.C. staggered at 2" from top and bottom of beam. Nail beam together by attaching in layers or with nails from each side.
2. If needed, add 1/4" thick plywood strips on one side to flush out with wall face.



Beam Sketch
Scale 1" = 1'

FB2 Interior Flush Beam Detail 2

Opening Framing Sketch - Scale 1/2" = 1'

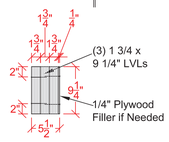


Opening Framing Details:

1. Opening Sizes vary per the Architectural Plans with 5'-6" Maximum Opening Width as shown (note - build by dimensions on Architectural Plans - dimensions on structural plans are for qualification only).
2. Beam is a 3 Ply 1 3/4" x 9 1/4" LVL Beam as shown in the sketch below.
3. (3) 2x6 SPF #2 Support Studs at each end for beam support (or (4) 2x4 SPF #2 Support Studs at anchorage condition 8).
4. Beam anchors to support stud below at each end with (2) Simpson HTS 16 or (2) USP HTW 16 Anchors per the Anchor Schedule.
5. 5/8" diameter all thread rod to top plate (per specific detail) on each side of opening within 12" of support stud. Tall rod anchor provides uplift anchorage. If there is an opening adjacent to this opening, install anchor rods where shown on the plan view page.

Beam Details:

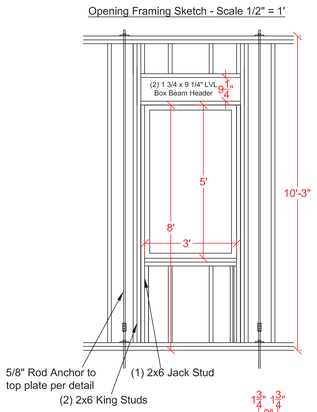
1. Beam is built from (3) 1 3/4 x 9 1/4" LVL members assembled by nailing together with two rows of 10d nails (0.131 x 3") at 8" O.C. staggered at 2" from top and bottom of beam. Nail beam together by attaching in layers or with nails from each side.
2. If needed, add 1/4" thick plywood strips on one side to flush out with wall face.



Beam Sketch
Scale 1" = 1'

WA Opening WA Single Window Framing Details

Opening Framing Sketch - Scale 1/2" = 1'



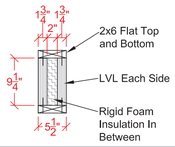
Opening Framing Details:

1. Opening is 3'-0" Wide x 5'-0" Tall Storefront Window with a header height of 8'-0" as shown on the plans (note - build by dimensions on Architectural Plans - dimensions on structural plans are for qualification only).
2. Header is a 2 Ply 1 3/4 x 9 1/4" LVL Box Beam Header as shown in the sketch below.
3. (1) 2x6 SPF #2 Jack Stud at each end for header support.
4. (2) 2x6 SPF #2 King Studs at each end for lateral load resistance.
5. (2) 2x6 SPF #2 Sill Studs under window for attachment.
6. 5/8" diameter all thread rod to top plate (per specific detail) on each side of opening within 36" of king stud. Tall rod anchor serves as shear wall segment hold down and provides uplift anchorage.
7. No intermediate ties are required for single windows.

Opening Tolerance: Opening may be up to 3/4" wider and 3/4" taller to allow for shimming during installation. Builder is to verify all rough opening sizes prior to framing. Rough openings shall be plumb and level and within opening tolerances as specified by the door or window installation instructions. (TYPICAL all door and window openings)

Box Beam Header Details:

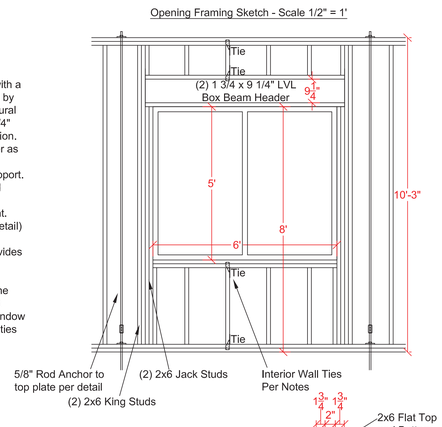
1. Header is built from (2) 1 3/4 x 9 1/4" LVL members assembled into a box beam with a 2x6 SPF #2 on top and bottom as shown.
2. Connect 2x6 top and bottom to each LVL ply with one row of 10d nails (0.131" x 3") at 6" O.C. centered on the LVL Ply as shown.
3. Between LVL plies, install 2" thick rigid foam insulation board (R-10 or better) to fill the cavity inside the box beam as shown.



Box Beam Header Sketch
Scale 1" = 1'

WB Opening WB Twin Window Framing Details

Opening Framing Sketch - Scale 1/2" = 1'

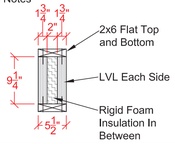


Opening Framing Details:

1. Opening is 6'-0" Wide x 5'-0" Tall Storefront Window with a header height of 8'-0" as shown on the plans (note - build by dimensions on Architectural Plans - dimensions on structural plans are for qualification only). Opening may be up to 3/4" wider and 3/4" taller to allow for shimming during installation.
2. Header is a 2 Ply 1 3/4 x 9 1/4" LVL Box Beam Header as shown in the sketch below.
3. (2) 2x6 SPF #2 Jack Studs at each end for header support.
4. (2) 2x6 SPF #2 King Studs at each end for lateral load resistance.
5. (2) 2x6 SPF #2 Sill Studs under window for attachment.
6. 5/8" diameter all thread rod to top plate (per specific detail) on each side of opening within 12" of king stud. Tall rod anchor serves as shear wall segment hold down and provides uplift anchorage.
7. Simpson H2.5A or USP RT7A Ties installed per manufacturer's specifications at the locations shown on the sketch. Ties are located on the interior side of the wall at center points from the king studs (as close to center of window as possible). Upper tie prevents top plate roll, remaining ties form a continuous interior load path to complement the continuous exterior load path (structural sheathing).

Box Beam Header Details:

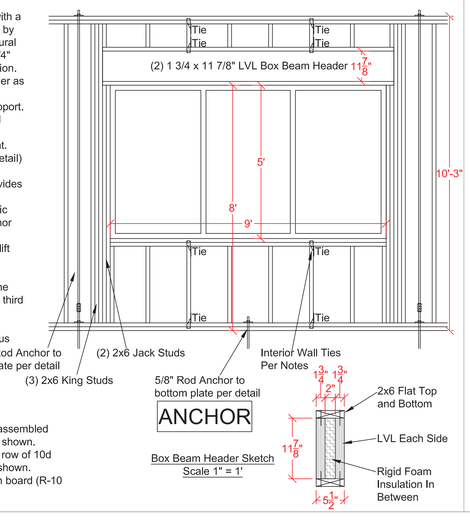
1. Header is built from (2) 1 3/4 x 9 1/4" LVL members assembled into a box beam with a 2x6 SPF #2 on top and bottom as shown.
2. Connect 2x6 top and bottom to each LVL ply with one row of 10d nails (0.131" x 3") at 6" O.C. centered on the LVL Ply as shown.
3. Between LVL plies, install 2" thick rigid foam insulation board (R-10 or better) to fill the cavity inside the box beam as shown.



Box Beam Header Sketch
Scale 1" = 1'

WC Opening WC Triple Window Framing Details

Opening Framing Sketch - Scale 1/2" = 1'



Opening Framing Details:

1. Opening is 9'-0" Wide x 5'-0" Tall Storefront Window with a header height of 8'-0" as shown on the plans (note - build by dimensions on Architectural Plans - dimensions on structural plans are for qualification only). Opening may be up to 3/4" wider and 3/4" taller to allow for shimming during installation.
2. Header is a 2 Ply 1 3/4 x 11 7/8" LVL Box Beam Header as shown in the sketch below.
3. (2) 2x6 SPF #2 Jack Studs at each end for header support.
4. (3) 2x6 SPF #2 King Studs at each end for lateral load resistance.
5. (2) 2x6 SPF #2 Sill Studs under window for attachment.
6. 5/8" diameter all thread rod to top plate (per specific detail) on each side of opening within 12" of king stud. Tall rod anchor serves as shear wall segment hold down and provides uplift anchorage.
7. 5/8" diameter all thread rod to bottom plate (per specific detail) centered on the window as shown. Short rod anchor provides anchorage for bottom plate and works with 3/4" Plywood Structural Exterior Sheathing as specified for uplift and lateral load resistance.
8. Simpson H2.5A or USP RT7A Ties installed per manufacturer's specifications at the locations shown on the sketch. Ties are located on the interior side of the wall at third points from the king studs (centered 4' O.C. as shown). Upper tie prevents top plate roll, remaining ties form a continuous interior load path to complement the continuous exterior load path (structural sheathing).

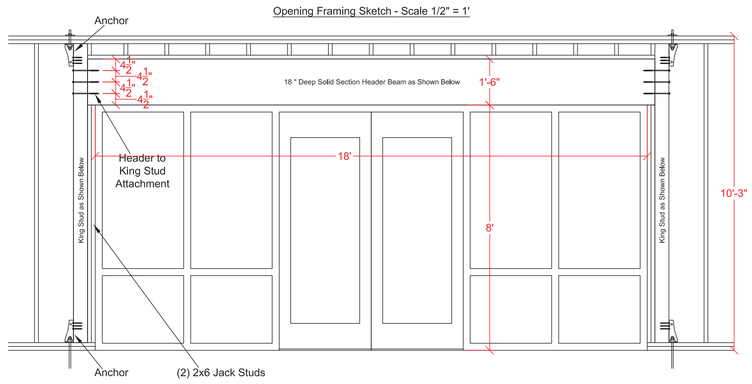
Box Beam Header Details:

1. Header is built from (2) 1 3/4 x 11 7/8" LVL members assembled into a box beam with a 2x6 SPF #2 on top and bottom as shown.
2. Connect 2x6 top and bottom to each LVL ply with one row of 10d nails (0.131" x 3") at 6" O.C. centered on the LVL Ply as shown.
3. Between LVL plies, install 2" thick rigid foam insulation board (R-10 or better) to fill the cavity inside the box beam as shown.

Box Beam Header Sketch
Scale 1" = 1'

WF Opening WF Single Window Framing Details

Opening Framing Sketch - Scale 1/2" = 1'



Opening Framing Details: Opening is 18'-0" Wide x 8'-0" Tall Storefront Opening with a header height of 8'-0" as shown on the plans (note - build by dimensions on Architectural Plans - dimensions on structural plans are for qualification only). Opening may be up to 3/4" wider and 3/4" taller to allow for shimming during installation.

1. Header - Header Beam is to be a solid section beam of one of the following options:
   A. 5 1/4" Wide x 18" Deep 2.0E Parallam PSL Beam.
   B. 5 1/2" Wide x 18" Deep 2.1E Anthony Power Beam.
   C. or Approved Equal.

NOTE: LVL or other multi ply beams may not be substituted. Beam must be solid section for lateral load resistance. If Parallam PSL header beam and king stud column used, add 1/4" plywood as needed on the interior of the building to match the 2x6 wall thickness (5 1/2").

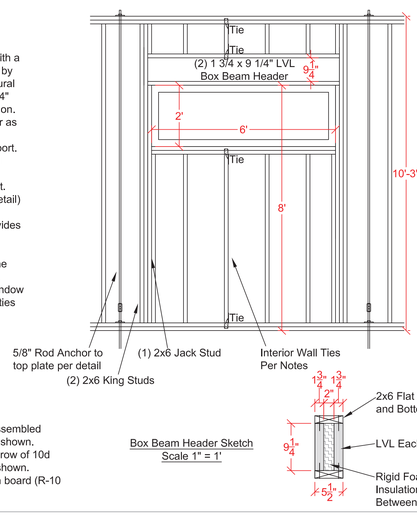
2. Jack Studs - (2) 2x6 SPF #2 or better Jack Studs at each end for header support. Attach jack studs to king studs with two rows of 0.131" x 3" nails at 8" O.C. vertically staggered in layers.
3. King Stud Columns - King Studs are to be a solid section column of one of the following options:
   A. 5 1/4" x 5 1/4" 1.8E Parallam PSL Column (used with Parallam PSL Beam).
   B. 5 1/2" x 5 1/2" 1.9E Anthony Power Column (used with Anthony Power Beam).
   C. or Approved Equal.
4. Header to King Stud Attachment - Attach header to king stud with (3) Screws from the king stud into the end of the header beam as shown in the sketch above and per the following options:
   A. Simpson SDWH Timber-Hex HDG Model # SDWH271000G (0.276"dia. x 10" long).
   B. Earnest Timberjack Screws 1/4" diameter x 10" long.
   C. or Approved Equal (1/4" diameter minimum, 10" long, 675 lb minimum shear load in SYP at 100%).

Install screws in one row centered on king stud at 4 1/2" O.C. vertically as shown. Pre drill hole with 1/8" drill bit and drive fastener per manufacturer instructions. Install screws before installing adjacent studs to allow for installation.

5. Anchors for King Studs - Install anchors at top and bottom of king studs as shown. Bottom anchor attaches to 5/8" diameter rod anchor poured into footing below. Top anchor attaches to 5/8" diameter rod with nut and washer per 5/8" anchor rod detail. Bottom and Top Anchors work together to secure the opening framing against lateral loads. Anchor details as follows:
   A. Simpson HDU2-SDS2.5 Anchor.
   B. Mitek USP PHD2A Anchor.
   C. or Approved Equal.
6. Exterior Sheathing - Exterior 3/4" Plywood Sheathing is to overlap the construction joint between the king stud and header beam end by at least 12" and shall not splice at this location. Attach exterior sheathing per general structural details.
7. Storefront Door and Window openings are to attach to the foundation, king studs and header beam with anchors / screws of sufficient length to provide attachment to meet and exceed the wind pressures associated with the design wind speed and Exposure Category shown in the plan code summary for this project.

WG Opening WG Window Framing Details

Opening Framing Sketch - Scale 1/2" = 1'

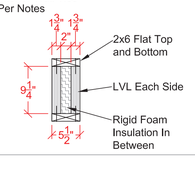


Opening Framing Details:

1. Opening is 6'-0" Wide x 2'-0" Tall Storefront Window with a header height of 8'-0" as shown on the plans (note - build by dimensions on Architectural Plans - dimensions on structural plans are for qualification only). Opening may be up to 3/4" wider and 3/4" taller to allow for shimming during installation.
2. Header is a 2 Ply 1 3/4 x 9 1/4" LVL Box Beam Header as shown in the sketch below.
3. (1) 2x6 SPF #2 Jack Stud at each end for header support.
4. (2) 2x6 SPF #2 King Studs at each end for lateral load resistance.
5. (2) 2x6 SPF #2 Sill Studs under window for attachment.
6. 5/8" diameter all thread rod to top plate (per specific detail) on each side of opening within 12" of king stud. Tall rod anchor serves as shear wall segment hold down and provides uplift anchorage.
7. Simpson H2.5A or USP RT7A Ties installed per manufacturer's specifications at the locations shown on the sketch. Ties are located on the interior side of the wall at center points from the king studs (as close to center of window as possible). Upper tie prevents top plate roll, remaining ties form a continuous interior load path to complement the continuous exterior load path (structural sheathing).

Box Beam Header Details:

1. Header is built from (2) 1 3/4 x 9 1/4" LVL members assembled into a box beam with a 2x6 SPF #2 on top and bottom as shown.
2. Connect 2x6 top and bottom to each LVL ply with one row of 10d nails (0.131" x 3") at 6" O.C. centered on the LVL Ply as shown.
3. Between LVL plies, install 2" thick rigid foam insulation board (R-10 or better) to fill the cavity inside the box beam as shown.



Box Beam Header Sketch
Scale 1" = 1'

SCALE 1/2" = 1'

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Follow this plan and its structural intent in the construction of this project. Do not make unauthorized changes to this design. Please contact us if you notice any discrepancies.

In addition to the requirements of this document, all construction must conform to the current building code and local requirements.

Digital File Printing Notes:
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3. Security Encription Enabled.
4. Print in Black & White & Red Colors if Available.
5. Verify Scale with known dimension after printing.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 028451 CRAIG ALLEN

S. Craig Allen
Digitally signed by S. Craig Allen
Date: 2020.05.15 20:00:35 -04'00'

FORMITAS PLLC CORPORATE SEAL NC P-1807 NORTH CAROLINA

Shell Bid Set
5-15-2020

Window Opening Framing
Interior Beam Details

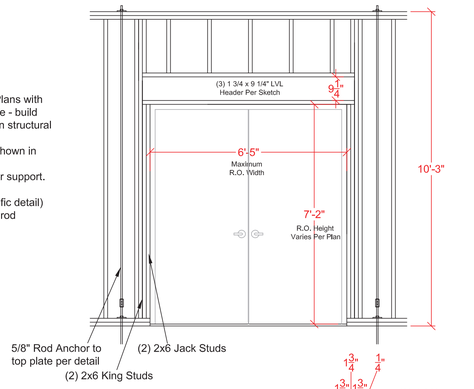
Town of Surf City
Municipal Complex
NC Highway 210
Surf City, NC

S3

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LB2 Interior Load Bearing Header (3) 9 1/4" LVL

Opening Framing Sketch - Scale 1/2" = 1'



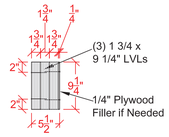
Opening Framing Details:

1. Rough Opening Sizes vary per the Architectural Plans with 6'-5" Maximum Rough Opening Width as shown (note - build by dimensions on Architectural Plans - dimensions on structural plans are for qualification only).
2. Header is a 3 Ply 1 3/4" x 9 1/4" LVL Header as shown in the sketch below.
3. (2) 2x6 SPF #2 Jack Studs at each end for header support.
4. (2) 2x6 SPF #2 King Studs at each end.
5. 5/8" diameter all thread rod to top plate (per specific detail) on each side of opening within 12" of king stud. Tall rod anchor provides uplift anchorage.

Header Details:

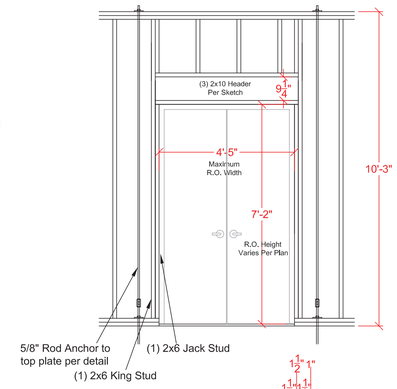
1. Header is built from (3) 1 3/4 x 9 1/4" LVL members assembled by nailing together with two rows of 10d nails (0.131 x 3") at 8" O.C. staggered at 2" from top and bottom of beam. Nail beam together by attaching in layers or with nails from each side.
2. If needed, add 1/4" thick plywood strips on one side to flush out with wall face.

Header Sketch
Scale 1" = 1'



LB1 Interior Load Bearing Header (3) 2x10

Opening Framing Sketch - Scale 1/2" = 1'



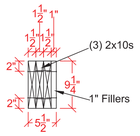
Opening Framing Details:

1. Rough Opening Sizes vary per the Architectural Plans with 4'-5" Maximum Rough Opening Width as shown (note - build by dimensions on Architectural Plans - dimensions on structural plans are for qualification only).
2. Header is a 3 Ply 2x10 SPF #2 or SYP #2 or better Header as shown in the sketch below.
3. (1) 2x6 SPF #2 Jack Stud at each end for header support.
4. (1) 2x6 SPF #2 King Stud at each end.
5. 5/8" diameter all thread rod to top plate (per specific detail) on each side of opening within 12" of king stud. Tall rod anchor provides uplift anchorage.

Header Details:

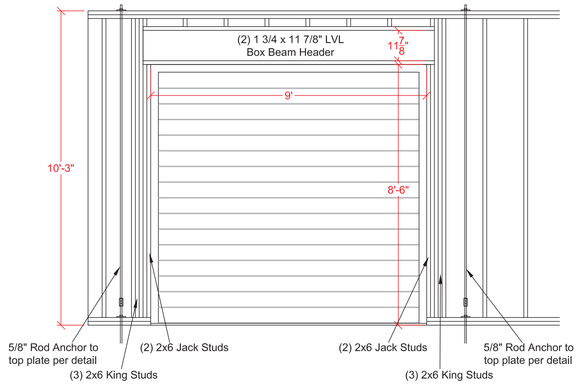
1. Header is built from (3) 2x10 SPF #2 or SYP #2 or better members assembled by nailing together with two rows of 10d nails (0.131 x 3") at 8" O.C. staggered at 2" from top and bottom of beam. Nail beam together by attaching in layers.
2. Add 1" filler studs on one side at 16" O.C. to align with wall cripple studs above.

Header Sketch
Scale 1" = 1'



D3 Opening D4 9' OH Door Framing Details

Opening Framing Sketch - Scale 1/2" = 1'

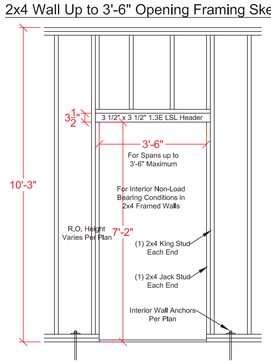


NOTE:

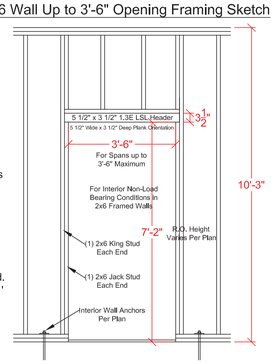
Opening D3 and D4 share the same notes below. D3 shows the overhead door only and D4 shows the overhead door with the personnel door beside it (rear condition).

NLB Interior Non-Load Bearing Headers

2x4 Wall Up to 3'-6" Opening Framing Sketch



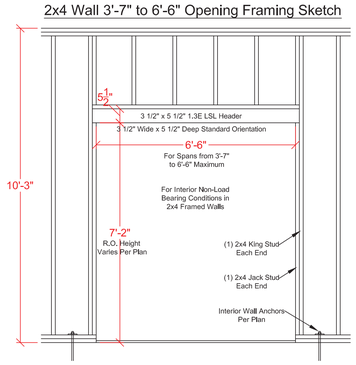
2x6 Wall Up to 3'-6" Opening Framing Sketch



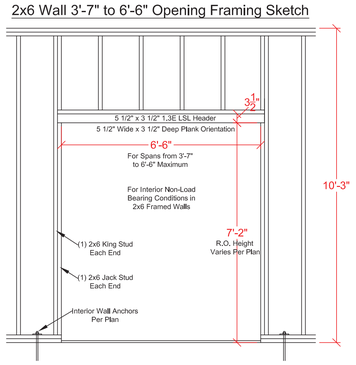
NOTES:

Non-Load Bearing = Does not support structural loads above. Load Bearing Walls are shown on plans as shaded walls. Do not use these header specifications in shaded load bearing walls.
LSL = Laminated Strand Lumber per Specifications.
E = Specified Minimum Product Modulus of Elasticity
Standard Orientation = Oriented on strength axis with larger dimension as depth.
Plank Orientation = Oriented on weak axis with larger dimension as width.
Span = Use appropriate detail for clear spans as shown in the range designated.
Scale = Scale for NLB Details is 1/2" = 1'
Installation = Per Project and Manufacturer Specifications.

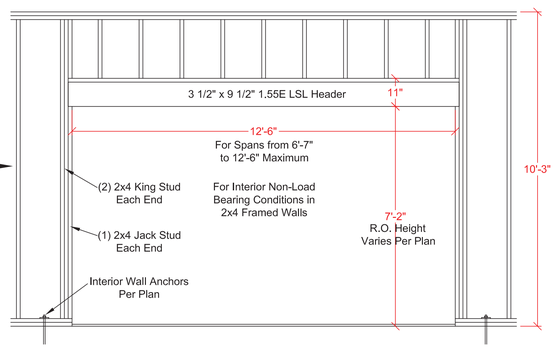
2x4 Wall 3'-7" to 6'-6" Opening Framing Sketch



2x6 Wall 3'-7" to 6'-6" Opening Framing Sketch

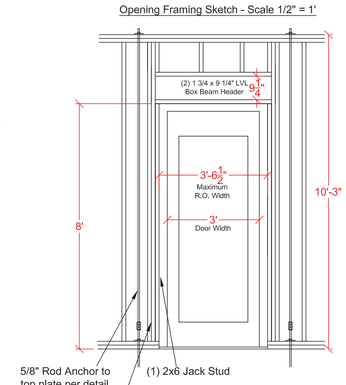


6'-7" to 12'-6" Opening
Framing Sketch
Scale 1/2" = 1'



D1 Opening D1 Single Door Framing Details

Opening Framing Sketch - Scale 1/2" = 1'



Opening Framing Details:

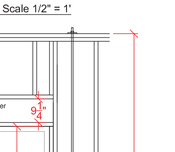
1. Opening is 3'-6 1/2" Wide (maximum) x 7'-0" to 8'-0" Tall Door with a header height as shown on the plans (note - build by dimensions on Architectural Plans - dimensions on structural plans are for qualification only) (note - 8'-0" tall door shown).
2. Header is a 2 Ply 1 3/4 x 9 1/4" LVL Box Beam Header as shown in the sketch below.
3. (1) 2x6 SPF #2 Jack Stud at each end for header support.
4. (2) 2x6 SPF #2 King Studs at each end for lateral load resistance.
5. 5/8" diameter all thread rod to top plate (per specific detail) on each side of opening within 12" of king stud. Tall rod anchor serves as shear wall segment hold down and provides uplift anchorage.

Opening Tolerance: Opening may be up to 3/4" wider and 3/4" taller to allow for shimming during installation. Builder is to verify all rough opening sizes prior to framing. Rough openings shall be plumb and level and within opening tolerances as specified by the door or window installation instructions. (TYPICAL all door and window openings)

Box Beam Header Details:

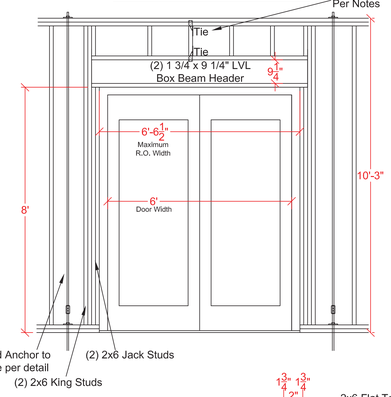
1. Header is built from (2) 1 3/4 x 9 1/4" LVL members assembled into a box beam with a 2x6 SPF #2 on top and bottom as shown.
2. Connect 2x6 top and bottom to each LVL ply with one row of 10d nails (0.131" x 3") at 6" O.C. centered on the LVL Ply as shown.
3. Between LVL plies, install 2" thick rigid foam insulation board (R-10 or better) to fill the cavity inside the box beam as shown.

Box Beam Header Sketch
Scale 1" = 1'



D2 Opening D2 Double Door Framing Details

Opening Framing Sketch - Scale 1/2" = 1'



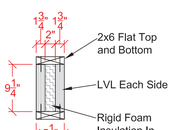
Opening Framing Details:

1. Opening is 6'-6 1/2" Wide (maximum) x 7'-0" to 8'-0" Tall Door with a header height as shown on the plans (note - build by dimensions on Architectural Plans - dimensions on structural plans are for qualification only) (note - 8'-0" tall door shown).
2. Header is a 2 Ply 1 3/4 x 9 1/4" LVL Box Beam Header as shown in the sketch below.
3. (2) 2x6 SPF #2 Jack Studs at each end for header support.
4. (2) 2x6 SPF #2 King Studs at each end for lateral load resistance.
5. 5/8" diameter all thread rod to top plate (per specific detail) on each side of opening within 12" of king stud. Tall rod anchor serves as shear wall segment hold down and provides uplift anchorage.
6. Simpson H2.5A or USP RT7A Ties installed per manufacturer's specifications at the locations shown on the sketch. Ties are located on the interior side of the wall at center points from the king studs (as close to center of window as possible). Upper tie prevents top plate roll, remaining ties form a continuous interior load path to complement the continuous exterior load path (structural sheathing).

Box Beam Header Details:

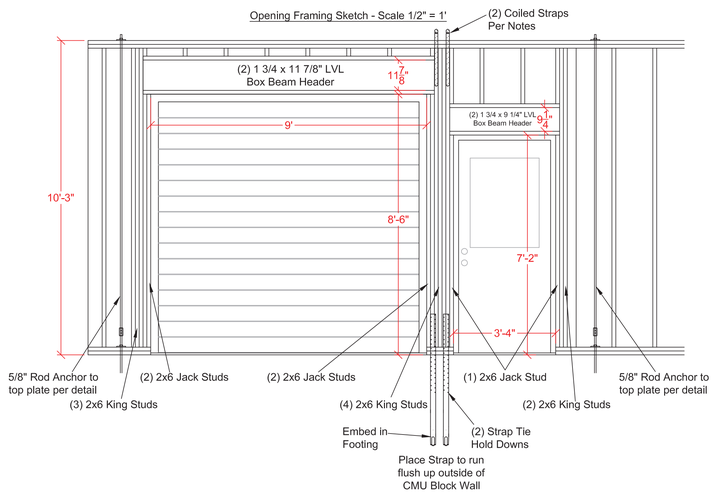
1. Header is built from (2) 1 3/4 x 9 1/4" LVL members assembled into a box beam with a 2x6 SPF #2 on top and bottom as shown.
2. Connect 2x6 top and bottom to each LVL ply with one row of 10d nails (0.131" x 3") at 6" O.C. centered on the LVL Ply as shown.
3. Between LVL plies, install 2" thick rigid foam insulation board (R-10 or better) to fill the cavity inside the box beam as shown.

Box Beam Header Sketch
Scale 1" = 1'



D4 Opening D4 9' OH Door Framing Details

Opening Framing Sketch - Scale 1/2" = 1'



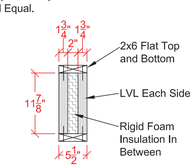
Opening Framing Details:

1. Overhead Door Opening is 9'-6" Wide (maximum) x 8'-6" Tall Overhead Door. Personnel Door Opening is 3'-4" x 7'-2". (Note - build by dimensions on Architectural Plans - dimensions on structural plans are for qualification only). Openings may be oversized by up to 3/4" wide and tall to allow for shimming if needed and allowed in the opening installation specifications.
2. Overhead Door Opening:
   A. Header is a 2 Ply 1 3/4 x 11 7/8" LVL Box Beam Header as shown in the sketch below.
   B. (2) 2x6 SPF #2 Jack Stud at each end for header support.
   C. (3) 2x6 SPF #2 King Studs at end with no adjacent opening. (4) 2x6 SPF #2 King Studs with adjacent door opening as shown.
3. Personnel Door is to be framed per Opening D1 details with specific call outs for king studs as shown.
4. 5/8" diameter all thread rod to top plate (per specific detail) on each side of opening within 12" of king stud. Tall rod anchor serves as shear wall segment hold down and provides uplift anchorage.
5. Between overhead and personnel door, there is not room for a rod anchor. Therefore do the following for anchorage:
   A. Anchor the wall section between the overhead and personnel door with two strap tie hold downs as shown. Options for strap tie hold downs are (1) Simpson PA51 or PA68 if needed for length. (2) Mitek USP PA 35 if long enough to work. (3) Or Approved equal (must be embedable into footing with sufficient length and upper wood attachment with an anchorage capacity of 2,000 lbs minimum). Strap tie hold downs are to be embedded into the foundation concrete footing with careful placement. Install per manufacturer's specifications. Install strap tie hold downs on the inside of the framed wall.
   B. Attach King Studs to the top plate on the inside of the wall with two coiled straps as shown. Coiled straps attach to the inside of the wall with 11-10d nails, extend up wall flat and taught, wrap over the wall and down the outside of the wall with sufficient length to have 11-10d nails on the combination of the top and outside of the wall. Coiled straps securely connect the king studs to the wall top plate and provide a continuous anchorage load path. Options for Coiled Straps are (1) Simpson CS16, (2) Mitek USP RS16-R, (3) or Approved Equal.

Box Beam Header Details:

1. Header is built from (2) 1 3/4 x 11 7/8" LVL members assembled into a box beam with a 2x6 SPF #2 on top and bottom as shown.
2. Connect 2x6 top and bottom to each LVL ply with one row of 10d nails (0.131" x 3") at 6" O.C. centered on the LVL Ply as shown.
3. Between LVL plies, install 2" thick rigid foam insulation board (R-10 or better) to fill the cavity inside the box beam as shown.

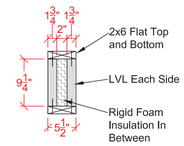
Box Beam Header Sketch
Scale 1" = 1'



Box Beam Header Details:

1. Header is built from (2) 1 3/4 x 9 1/4" LVL members assembled into a box beam with a 2x6 SPF #2 on top and bottom as shown.
2. Connect 2x6 top and bottom to each LVL ply with one row of 10d nails (0.131" x 3") at 6" O.C. centered on the LVL Ply as shown.
3. Between LVL plies, install 2" thick rigid foam insulation board (R-10 or better) to fill the cavity inside the box beam as shown.

Box Beam Header Sketch
Scale 1" = 1'



SCALE 1/2" = 1'

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4. Print In Black & White & Red Colors if Available.
5. Verify Scale with known dimension after printing.

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Email: craig@formitasplic.com

NORTH CAROLINA PROFESSIONAL SEAL 028451 ENGINEER CRAIG ALLEN

S. Craig Allen

Digitally signed by S. Craig Allen
Date: 2020.05.15 20:00:14 -04'00'

FORMITAS PLLC CORPORATE SEAL NC P-1807 NORTH CAROLINA

Shell Bid Set
5-15-2020

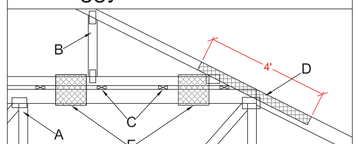
Door Opening Framing

Town of Surf City
Municipal Complex
NC Highway 210
Surf City, NC

S4

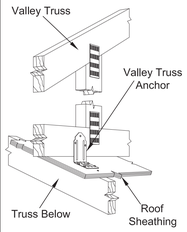
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Piggyback Connection



A - Base Roof Truss
B - Piggyback Truss
C - 2x4 Purlins Flat at 24" O.C. attached to base truss with (2) 0.131"x3" nails as top chord bracing / piggyback base.
D - 2x4 SPF #2 x 4' Scab attached to each side (two scabs / truss), centered on base / piggyback intersection with 1 row of 0.131"x3" nails from each side at 4" O.C. staggered.
E - 12" x 12" x 3/4" Plywood Gusset attached to one side at 48" O.C. or less. Attach gusset to each chord with (4) 0.131" x 2.5" nails uniformly spaced - 8 total nails per gusset.
F. Install diagonal bracing per page S7 Permanent Bracing Notes (4).

Valley Truss Anchorage

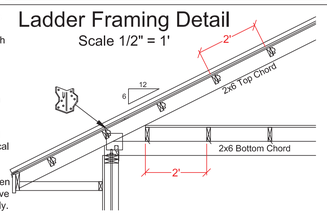


Valley Truss Anchorage:
Valley Trusses anchor to the roof sheathing and truss below via a Valley Truss Anchor as shown.
Anchor Spacing = 2' O.C.
Valley Truss anchor to every truss below (2' O.C.)
Anchor Options =
- Simpson Strong Tie VTCR
- Mitek USP VTT
- Approved Equal

Anchor Fasteners = Per Anchor Manufacturer
Access = At every valley set location, the builder is to provide an access through base roof sheathing 1'-10 1/2" x 3' in the approximate center of the valley set to allow for access and inspection.

Ladder Framing Detail

Scale 1/2" = 1'



Support Girder Trusses: 2 Ply Roof Girder Trusses with 2x6 top and bottom chords spread apart to 4" on center (4" maximum clear distance between).
Ladder Framing Top Chord: 2x4 SPF #2 or better framing at 24" O.C. as shown with 4' maximum span.
Connection Top Chord: Connect 2x4s to trusses with (1) Framing Angle as shown (Simpson A34, Mitek USP MP34, or approved equal). Connect with fasteners per manufacturer specifications.
Ladder Framing Bottom Chord: 2x6 SPF #2 or better framing at 24" O.C. as shown with 4' maximum span.
Connection Bottom Chord: Bear 2x6 ladder framing directly onto roof truss bottom chord with 3" bearing and 2x6 blocking between. Toenail 2x6's to the bottom chord with (2) 10d nails. This detail is intended to align exactly in height with the mechanical access floor level. Install 3/4" plywood atop ladder framing per mechanical access specifications.
Gypsum Ceiling Areas: In gypsum ceiling areas, add (1) 2x6 SPF #2 exactly between and parallel to the two girder trusses. Attach this 2x6 to the 2x6 ladder framing above with (1) H2.5A or (1) RT7A clip at 4'O.C. This member is for gypsum attachment only.

Roof Truss Notes

1. Roof Trusses shall be designed and manufactured in accordance with ANSI/TPI 1-2014, *National Design Standard for Metal Plate Connected Wood Truss Construction*, these notes, project specifications, and the governing building code. Where any applicable design feature is not specifically covered by ANSI/TPI 1 or this specification, design shall be in accordance with the applicable provisions of the latest edition of the ANSI/AWC NDS - *National Design Specification for Wood Construction*, and all applicable legal requirements.
2. Truss Manufacturer shall furnish Truss Design Drawings and Truss Placement Plan as a Truss Submittal Package to the Project Structural Engineer for review and approval prior to the manufacturing of trusses. Truss Submittal Package will be reviewed for general compliance with plans and specifications. Truss Designer and Truss Manufacturer shall be responsible for truss design dimensions matching plans with associated proper fit after manufacture. Typical and maximum roof truss spacing is 24" O.C.
3. Truss lumber species is to be Southern Yellow Pine. Other lumber species can be used with prior written approval from the Project Structural Engineer. All truss lumber shall be kiln dried to a maximum moisture content of 15%.
4. Truss lumber grade is #2 minimum for all lumber in all trusses in this project. No #3 or lesser grade lumber may be used in any trusses on this project. Truss lumber shall be identified by grade mark of a lumber inspection bureau and shall match the species and grade shown on the Truss Design Drawings.
5. Truss top and bottom chords shall be 2x6 size minimum for all trusses with the exception of valley and piggy back trusses which are 2x4 size minimum. Truss bottom chord shall be 2x6 Double Stacked (11" Minimum) size at mechanical access areas. Truss webs shall be 2x4 size minimum. All overhangs shall be 2x6 size minimum.
6. Truss metal connector plates shall be manufactured from galvanized steel (G60 Minimum) in accordance with the requirements of ANSI/TPI 1. Metal connector plates shall be installed in accordance with ANSI/TPI 1 including but not limited to plate placement and embedment.
7. Trusses shall be handled during manufacturing, delivery, and by the Contractor at the job site so as not to be subjected to excessive bending.
8. Trusses shall be unloaded in a manner so as to minimize lateral strain. Trusses shall be protected from damage that might result from on-site activities and environmental conditions. Trusses shall be handled in such a way as to prevent toppling when banding is removed. Trusses shall be manufactured, delivered, and installed within a one month period of time to prevent damage from environmental conditions.
9. Contractor shall be responsible for the handling, installation, and temporary restraint / bracing of the trusses in a good workmanlike manner and in accordance with the recommendations set forth in SBCA/TPI's *Building Component Safety Information (BCSI): Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses*. Contractor shall meet and follow the handling, installation, temporary and permanent restraint requirement shown on the plans, specification, and BCSI Guide. Contractor shall be responsible for creating a safe working environment for workers and others on the project site.
10. Cutting and altering of Trusses Is not permitted. If any truss should become broken, damaged, or altered, the Truss Engineer shall prepare a sealed Truss Repair Drawing for review and approval by the Project Structural Engineer prior to repair.
11. Trusses shall be set and secured level and plumb, and in the correct location. Each truss shall be held in correct alignment until the specified permanent restraint and bracing is installed. Trusses shall be aligned with adjacent trusses to create flat and true ceiling and roof planes.
12. Concentrated loads shall not be placed on to of trusses until all specified restraint and bracing has been installed and structural sheathing is permanently fastened in place. Any concentrated loads placed on top of trusses shall be within the design loading of the supporting trusses. Specifically avoid stacking bundles of construction materials or other concentrated loads on top of trusses.
13. See Page S8 for Gable End Overhang and Gable End Bracing Details.
14. Install 3/4" (23/32") APA Rated Plywood Sturd-4-Floor in Mechanical Access Areas. Attach with galvanized 8d (0.113" x 2 3/8") ring shank nails with full round head @ 6" O.C. maximum into panel edges and intermediate framing. Space panels 1/8" apart at all panel edges to allow for expansion. Install per APA / Manufacturer Specifications.
15. Roof Truss shall be manufactured in multiple pieces where shown overlapping on an interior load bearing wall. The multiple piece specification helps to facilitate manufacturing and shipping, provides better safety during installation, and accounts for structural loading as designed.

Roof Truss Plan Legend

- Roof Truss (Single Ply Common Truss)
- Overbuilt Valley Truss
- 2x4 Ladder Framing Per Detail
- Roof Girder Truss (# Plies Noted)
- Interior 2x6 Load Bearing Wall (LBW)
- Double Sub Fascia in Corners
- Structural Support Beam
- Mechanical Access Area
- 2x6 Gable Outlookers

Roof Truss Design Criteria

Top Chord Live Load = 20 psf
Top Chord Dead Load = 10 psf
Bottom Chord Dead Load = 10 psf
Bottom Chord Live Load = 30 psf (in Mechanical Access Areas)
Typical Truss Spacing = 2' O.C.
Roof Load Duration Factor = 1.15
Design Code = 2018 N.C. Building Code (2015 IBC with N.C. Amendments)
Truss Design Standard = TPI 1 - 2014
Total Load Deflection Limit = L/240 or 3/4" Maximum (whichever is least)
Live Load Deflection Limit = L/360 or 3/4" Maximum (whichever is least)
Horizontal Deflection Limit = 1/2" Maximum
Differential Deflection Limit = 3/8" Maximum difference between adjacent trusses
Gable End Stud Spacing = 16" O.C. Maximum
Valley Stud Spacing = 4' O.C. Maximum

Metal Plate Galvanization = G60 Minimum
Lumber Species = Southern Yellow Pine
Lumber Grade = #2 Minimum for all lumber in trusses - no #3 grade lumber is allowed
Top and Bottom Chord Size = 2x6 Minimum for all trusses except valleys and piggybacks
Bottom Chord at Mech. Acc. = See Sections
Web Size = 2x4 Minimum
Wind Load Design Standard = ASCE 7-10
Ultimate Design Wind Speed = 160 mph
Wind Exposure Category = C
Wind Design Method = MWFRS / CC Hybrid
Sprinkler Loads = 3 psf Dead Load is already Included in the top and bottom chord design dead loads (no further sprinkler dead load shall be added). Add 250 pound concentrated live load with automatic distribution on the top and bottom chord per code requirements.

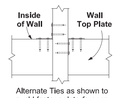
1. Each end and load bearing point of every truss shall be anchored with a metal anchor as specified on this page.
2. Drop step down hip end flat top trusses 1 1/2" on the plumb to allow for 2x4 purlins flat at 2' O.C. for top chord bracing and roof sheathing attachment.
3. Attach valley trusses to roof sheathing and trusses below per detail this page.
4. Connect piggy back trusses to base truss per detail this page.

Anchor Schedule

Symbol	Description	Simpson Strong Tie Model No.	Mitek USP Stock No.	Bearing Stud Column	Notes
1	Common Truss Anchor 0' - 10' Truss Span	(1) H2.5A	(1) RT7A	Wood Wall or Beam	Note 5,6
2	Common Truss Anchor 11' - 43' Truss Span	(2) H2.5A	(2) RT7A	Wood Wall or Beam	Note 5,6,7,8
3	1 Ply Girder Truss Anchor - 90°	(2) H2.5A	(2) RT7A	(2) 2x6 Column	Note 5,6,7
4	2 Ply Girder Truss Anchor - 90°	LGT2	LUGT2	(3) 2x6 Column	Fasteners Per Manufacturer
4	2 Ply Girder Truss Anchor - 90°	(2) HTS16	(2) HTW16	(3) 2x6 Column	Note 9
5	3 Ply Girder Truss Anchor - 90°	LGT3-SDS2.5	LUGT3	(4) 2x6 Column	Fasteners Per Manufacturer
6	1 Ply Girder Truss Anchor - 45° Corner	(1) HTS16	(1) HTW16	Wood Wall or Beam	Note 9
7	Interior LVL Beam with 2x6 Wall Bearing	(2) HTS16	(2) HTW16	(3) 2x6 Column	Note 9 Note 10
8	Interior LVL Beam with 2x4 Wall Bearing	(2) HTS16	(2) HTW16	(4) 2x4 Column	Note 9
9	Exterior LVL Beam with 2x6 Wall Bearing	(2) HTS16 Z	(2) HTW16 Z	(4) 2x6 Column	Note 9

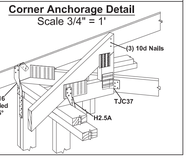
Anchor Notes:
1. Roof Truss Anchors are to be manufactured by Simpson Strong Tie, Mitek USP, or approved alternate.
2. All structural connectors shall be galvanized with standard zinc-galvanized coating containing 0.90 oz. of zinc per square foot of surface area or better. Connectors with exterior exposure shall be galvanized with triple zinc-galvanized coating containing 1.85 oz. of zinc per square foot or better. Triple Zinc notated as (Z).
3. All structural fasteners (nails or screws) shall be galvanized to a level that meets or exceeds the level specified for the structural connectors.
4. Install structural connectors per the manufacturer's specifications.
5. All roof anchors are to be installed on the inside of the wood framed wall if possible for ease of Installation and Inspection. Rod anchor system prevents top plate roll.
6. Attach H2.5A or RT7A to truss with 8d x 1 1/2" Nails and wall plate with 8d x 2 1/2" Nails.
7. When Installing (2)H2.5A or RT7A Anchors on the Inside of the wall, alternate orientation as shown below to avoid nail to nail Interference.
8. At interior load bearing walls with two truss anchorage, overlap trusses fully and nail 2x6 truss end verticals together with one row 10d (0.131" x 3") nails at 6" O.C. Anchor each truss to wall with two hurricane ties specified, four ties total at two trusses to wall anchorage.
9. Use 10d x 1 1/2" Nails with HTS16 or HTW 16 Twist Straps.
10. Anchor Straps not required with Interior Dropped Beams.

Double Hurricane Tie Orientation Detail
Scale 2" = 1"



Alternate Ties as shown to avoid fastener Interference

Corner Anchorage Detail
Scale 3/4" = 1'

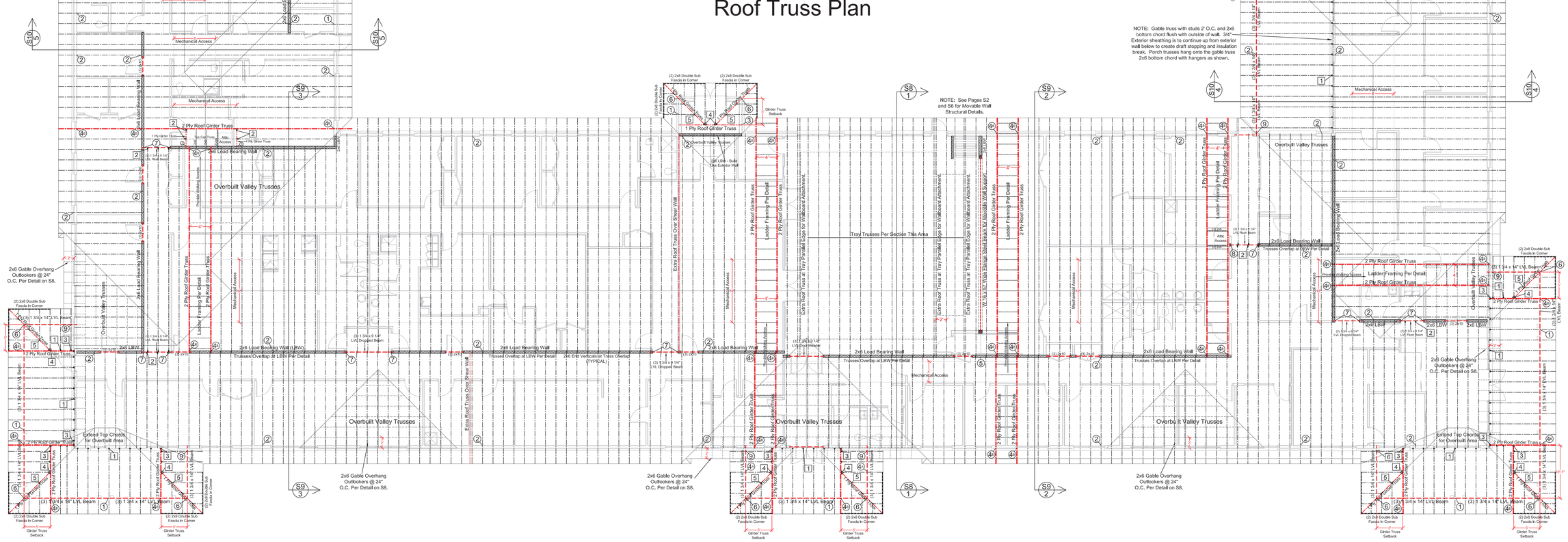


Hanger Schedule

Symbol	Description	Simpson Strong Tie Model No.	Mitek USP Stock No.	Fastener Specification	Notes
1	90° Hanger Connection for trusses < 15' Span	LUS26	JUS26	Per Manufacturer	
2	90° Hanger Connection for trusses > 15' Span	HTU26	THD26	Per Manufacturer	
3	Double 90° Hanger for trusses < 11' Span	LUS26-2	JUS26-2	Per Manufacturer	
4	Corner Girder Hip and Jack Truss Hanger	THJA26	HJC26	Per Manufacturer	See Note 5 Below
5	Jack Truss Connector	TJC37	SNP3	Per Manufacturer	See Note 6 Below
6	3 Ply LVL Beam to Wall Framing	HHUS5.50/10Z	THD610-TZ	Per Manufacturer	

Hanger Notes:
1. Roof Truss Hangers are to be manufactured by Simpson Strong Tie, Mitek USP, or approved alternate.
2. All structural connectors shall be galvanized with standard zinc-galvanized coating containing 0.90 oz. of zinc per square foot of surface area or better.
3. All structural fasteners (nails or screws) shall be galvanized to a level that meets or exceeds the level specified for the structural connectors.
4. Install structural connectors per the manufacturer's specifications. Verify that fasteners used meet the specification by the manufacturer for that specific connector.
5. The Simpson THJA26 Connector Is preferable over the Mitek USP alternative due to the connection flanges for the individual trusses. If the Mitek USP version Is used, Install carefully per the manufacturer's specifications.
6. Install Jack Truss Connectors with the 1 1/2" long nails specified. These connectors are installed back to back with a single ply corner girder truss. To avoid nail to nail contact, alternate between the standard and alternate Installation from side to side.
7. All truss to truss connections are to have a structural connector as specified as the primary connector. The only toe nailed connections that are allowed are secondary connections such as the jack truss connection at the top chord.

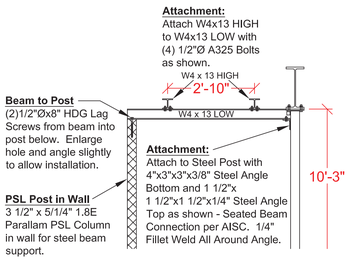
Roof Truss Plan


S8 2
S9 2
S10 5
S9 3
S8 1
S10 4
(2) 2x8 Double Sub Fascia In Corner
Overhang
Girder Truss Setback
3 Ply Roof Girder Truss
2 Ply Roof Girder Truss
Gable End Truss Over Sally Port Wall with Studs @ 24" O.C. for Draft Stopping. 5/8" Type X Gypsum Board on Sally Port Side.
Mechanical Access
2x6 Load Bearing Wall
Overbuilt Valley Trusses
Extra Roof Truss Over Shear Wall
Ladder Framing Per Detail
Attic Access
Pulpit Railing Access
2x6 Gable Overhang Outlookers @ 24" O.C. Per Detail on S8.
(3) 1 3/4 x 14" LVL Beam
(3) 1 3/4 x 9 1/4" LVL Dropped Beam
2x6 LBW
Trusses Overlap at LBW Per Detail
2x6 End Verticals on Truss Overlap (TYPICAL)
Extend Top Chords for Overbuilt Area
Roof Trusses (TYPICAL)
NOTE: Blocking and 3/4" plywood this area for draft stopping.
NOTE: Gable truss with studs 2' O.C. and 2x6 bottom chord flush with outside of wall. 3/4" Exterior sheathing is to continue up from exterior wall below to create draft stopping and insulation break. Porch trusses hang onto the gable truss 2x6 bottom chord with hangers as shown.
NOTE: See Pages S2 and S6 for Movable Wall Structural Details.
Trusses Per Section This Area
Extra Roof Truss at Tray Parallel Edge for Wallboard Attachment.
W 16 x 67 Wide Flange Steel Beam for Movable Wall Support
Tray Roof Girder Truss
Tray Roof Girder Truss
Mechanical Access
Overbuilt Valley Trusses
2x6 Gable Overhang Outlookers @ 24" O.C. Per Detail on S8.
2x6 Gable Overhang Outlookers @ 24" O.C. Per Detail on S8.
2x6 Gable Overhang Outlookers @ 24" O.C. Per Detail on S8.
2x6 Gable Overhang Outlookers @ 24" O.C. Per Detail on S8.
Extend Top Chords for Overbuilt Area
(3) 1 3/4 x 14" LVL Beam
2 Ply Roof Girder Truss
Ladder Framing Per Detail
Provide Railing Access
2x6 LBW
(3) 1 3/4 x 9 1/4" LVL Dropped Beam
(3) 1 3/4 x 9 1/4" LVL Roof Beam
(3) 1 3/4 x 14" LVL Beam
(2) 1 3/4 x 14" LVL Beam
(2) 1 3/4 x 16" LVL Beam
(3) 1 3/4 x 14" LVL Beam
(3) 1 3/4 x 14" LVL Beam
(3) 1 3/4 x 14

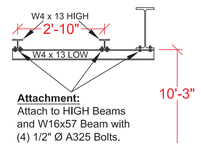
Wall Parking Support Cross Section S6C & S6D

Scale 1/2" = 1'

Section 6C

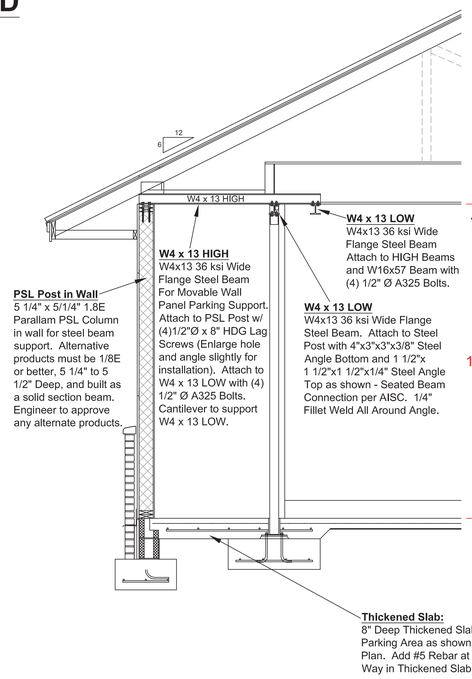


Section 6D



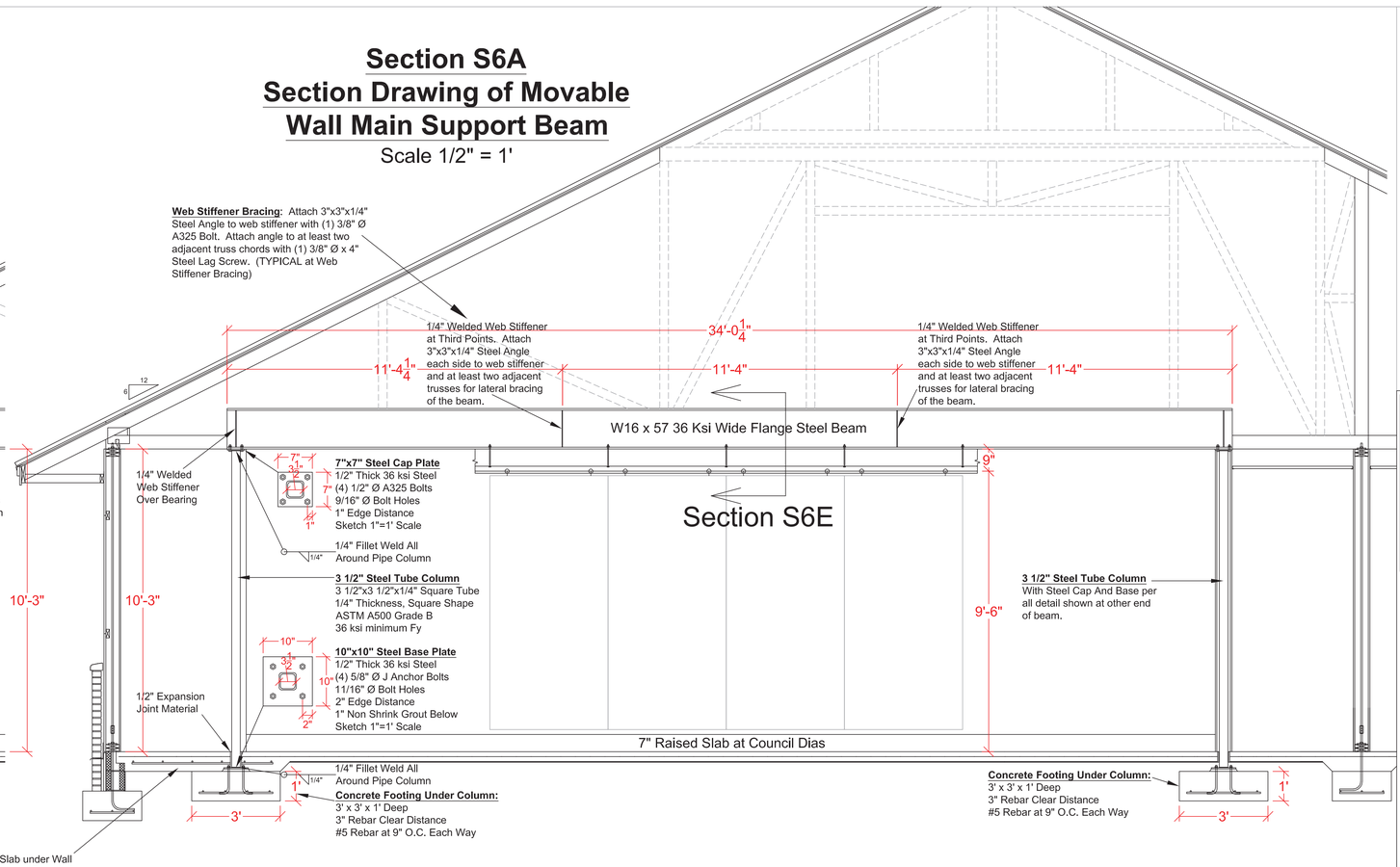
Section S6B
Section Drawing of Movable Wall Parking Support Beams

Scale 1/2" = 1'



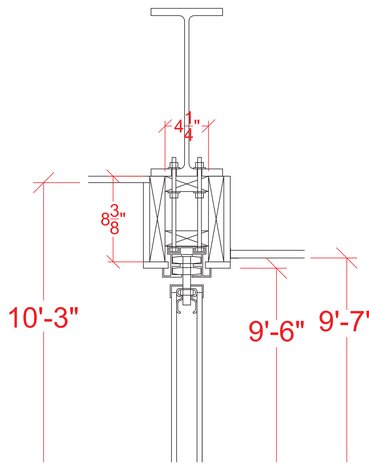
Section S6A
Section Drawing of Movable Wall Main Support Beam

Scale 1/2" = 1'



Section S6E
Section Drawing of Movable Wall Attachment and Bulk Head

Scale 2" = 1'

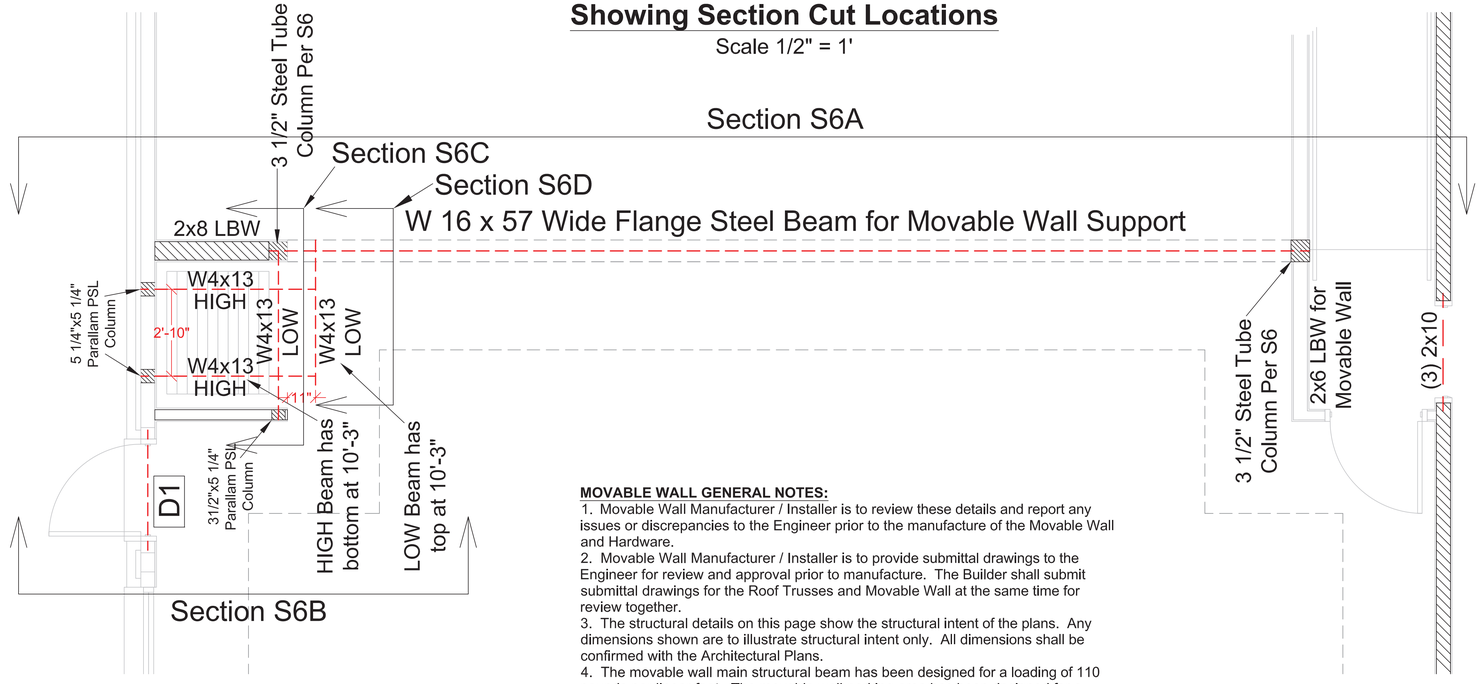


NOTES:

1. Movable Wall Track and Carrier is to attach to the steel support beams above with bolts as specified by the Movable Wall Manufacturer.
2. Bulk Head is 7 1/4" Wide with the bottom gypsum finish at 9'-6" above the main floor level (not raised floor) per the Architectural Plans.
3. Ceiling on the Council Hall Side is at 10'-3" above the main floor level per the plans.
4. Ceiling on the Council Dias Side is at 9'-7" above the main floor level (9'-0" above the raised floor level) per the plans.
5. Bulk Head Gypsum Attachment upper member is to be a 2x6 SPF #2 ripped down to 4 1/4" and attached to the steel beam above with the 3/8" diameter bolts that the movable wall attaches with (add a nut and washer below wood for support).
6. Bulk Head Gypsum Attachment side members are to be 2x10 SPF #2 ripped down to 8 3/8" and attached to the upper member with one row of 0.131" x 3" nails at 6" O.C.
7. Bulk Head Gypsum Attachment bottom member is to be a 2x6 SPF #2 ripped down to 4 1/4" and installed between the movable wall bolts. Attach the bottom member to the side members with one row of 0.131" x 3" nails at 6" O.C. each side.
8. Install the Bulk Head Gypsum Attachment upper member prior to installing the movable door track and carrier. After installing track and carrier and adjusting the movable wall, install the remaining Bulk Head Gypsum Attachment members.
9. Builder and Movable Wall Installer are to review and coordinate all details and dimensions shown on this page.

Movable Wall Floor Plan Showing Section Cut Locations

Scale 1/2" = 1'



MOVABLE WALL GENERAL NOTES:

1. Movable Wall Manufacturer / Installer is to review these details and report any issues or discrepancies to the Engineer prior to the manufacture of the Movable Wall and Hardware.
2. Movable Wall Manufacturer / Installer is to provide submittal drawings to the Engineer for review and approval prior to manufacture. The Builder shall submit submittal drawings for the Roof Trusses and Movable Wall at the same time for review together.
3. The structural details on this page show the structural intent of the plans. Any dimensions shown are to illustrate structural intent only. All dimensions shall be confirmed with the Architectural Plans.
4. The movable wall main structural beam has been designed for a loading of 110 pounds per linear foot. The movable wall parking area has been designed for a concentrated stack load of 3,520 lbs. The movable wall manufacturer / installer shall provide actual loading for review at the submittal phase.

SCALE 1/2" = 1'

This document applies only to the job listed in the title block. This may not be used for similar jobs on different sites.

Follow this plan and its structural intent in the construction of this project. Do not make unauthorized changes to this design. Please contact us if you notice any discrepancies.

In addition to the requirements of this document, all construction must conform to the current building code and local requirements.

Digital File Printing Notes:

1. No Outside Modifications Allowed.
2. Viewing and Printing Only.
3. Security Encription Enabled.
4. Print in Black & White & Red Colors if Available.
5. Verify Scale with known dimension after printing.

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NORTH CAROLINA PROFESSIONAL SEAL 028451 ENGINEER S. CRAIG ALLEN

S. Craig Allen
Digitally signed by S. Craig Allen
Date: 2020.05.15 19:59:29 -04'00'

FORMITAS PLLC CORPORATE SEAL NC P-1807 NORTH CAROLINA

Shell Bid Set
5-15-2020

Movable Wall Structural Details

Town of Surf City
Municipal Complex
NC Highway 210
Surf City, NC

S6

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Roof Truss Permanent Bracing Plan

NOTE: This half of the plan page shows the Permanent Minimum Bracing Locations. Apply these same concepts on the other half of the building as specified.

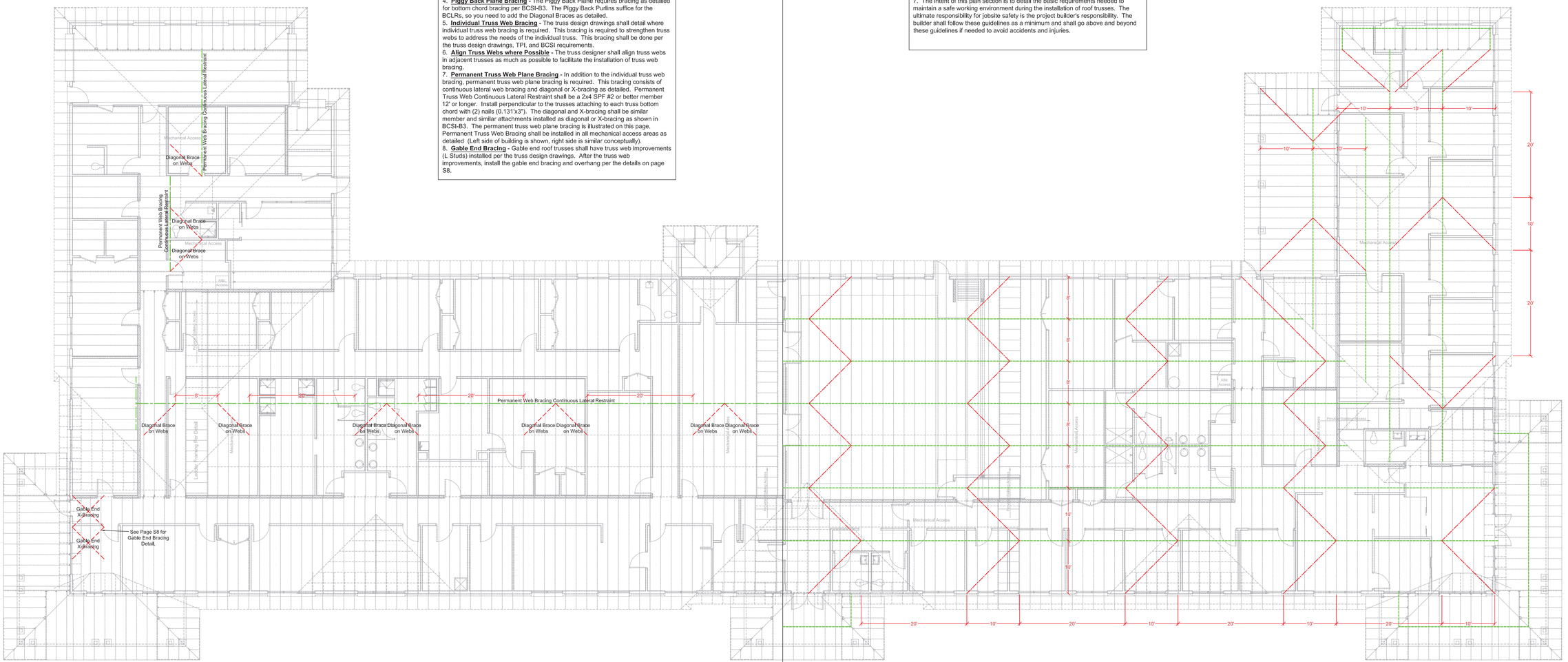
Permanent Bracing Legend

Permanent Web Bracing Continuous Lateral Restraint. This is a 2x4 SPF #2 or better member 12' or longer. Attach to each web chord with 2 nails 10d (0.131 x 3"). These members shall overlap with adjacent restraints by at least one truss spacing.

Permanent Web Diagonal and X-Bracing per notes. Diagonal Bracing is shown as a single angled line. X-Bracing is shown as an X configuration. Attach to each truss web per the specification above.

Permanent Bracing Notes

1. Permanent Bracing of Roof Trusses shall be per the BCSI-B3 and the specifications in this document. All BCSI applicable specifications shall be followed whether or not shown in this document. Following is a summary of the minimum permanent bracing required for this building:
2. **Top Chord Plane Bracing -** Permanent Bracing of the top chords is provided by the continuous attachment of structural roof sheathing as detailed in the plans.
3. **Bottom Chord Plane Bracing**
   A. Areas with Direct Applied Ceiling - The smaller portion of the ceilings in the plan have directly applied gypsum ceiling board and/or structural plywood sheathing. In these areas, no additional bottom chord bracing is required.
   B. Areas without Direct Applied Ceiling - The larger portion of the ceilings in the plan are dropped acoustical ceiling with no direct attachment. These areas require additional bottom chord bracing. The roof truss designer shall design all roof trusses without a direct applied ceiling so the truss design drawing shows the required spacing of ceiling bracing. The ceiling bracing shall be as follows utilizing the spacing shown in this document or the spacing shown on the truss design drawing, whichever is smaller.
   b1. Bottom Chord Lateral Restraint (BCLR) - BCLR shall be a 2x4 SPF #2 or better member 12' or longer. Install perpendicular to the trusses attaching to each truss bottom chord with (2) nails (0.131x3"). The BCLR shall be installed on top of the bottom chord in a flat orientation. Overlap BCLRs by one truss spacing or overlap and reinforce splices per BCSI. Install BCLR bracing at 10' O.C. maximum or per the truss design drawing specification if smaller.
   b2. Bottom Chord Diagonal Braces (BCDB) - BCDB shall be a 2x4 SPF #2 or better member. Install at a 45° Angle to the trusses attaching to each truss bottom chord with (2) nails (0.131x3"). Install in alternating pairs across the building with no more that 10 truss spacings (20') between diagonal bracing lines.
   b3. Note that the bottom chord bracing is not shown on this plan page. See the BCSI-B3 document for illustrations and more details.
4. **Piggy Back Plane Bracing -** The Piggy Back Plane requires bracing as detailed for bottom chord bracing per BCSI-B3. The Piggy Back Purlins suffice for the BCLRs, so you need to add the Diagonal Braces as detailed.
5. **Individual Truss Web Bracing -** The truss design drawings shall detail where individual truss web bracing is required. This bracing is required to strengthen truss webs to address the needs of the individual truss. This bracing shall be done per the truss design drawings, TPI, and BCSI requirements.
6. **Align Truss Webs where Possible -** The truss designer shall align truss webs in adjacent trusses as much as possible to facilitate the installation of truss web bracing.
7. **Permanent Truss Web Plane Bracing -** In addition to the individual truss web bracing, permanent truss web plane bracing is required. This bracing consists of continuous lateral web bracing and diagonal or X-bracing as detailed. Permanent Truss Web Continuous Lateral Restraint shall be a 2x4 SPF #2 or better member 12' or longer. Install perpendicular to the trusses attaching to each truss bottom chord with (2) nails (0.131x3"). The diagonal and X-bracing shall be similar member and similar attachments installed as diagonal or X-bracing as shown in BCSI-B3. The permanent truss web plane bracing is illustrated on this page. Permanent Truss Web Bracing shall be installed in all mechanical access areas as detailed (Left side of building is shown, right side is similar conceptually).
8. **Gable End Bracing -** Gable end roof trusses shall have truss web improvements (L Studs) installed per the truss design drawings. After the truss web improvements, install the gable end bracing and overhang per the details on page S8.



Roof Truss Temporary Installation Bracing Plan

NOTE: This half of the plan page shows the Temporary Installation Minimum Bracing Locations. Apply these same concepts on the other half of the building as specified.

Temporary Bracing Notes

1. Roof Truss Temporary Installation Bracing shall be per the Building Component Safety Information (BCSI) Book Sections B1 through B11 2013 Edition or newer. Portions of the books contents are included on this page. All applicable content of the BCSI Book shall be followed, whether noted on this page or not. All section notes are for the 2013 version.
2. Roof Truss handling, storing, lifting, and erecting details are to be per BCSI-B1.
3. Roof Truss Truss Installation and Temporary Restaint / Bracing shall be per BCSI-B2 and this page per the following notes:
   A. When installing trusses, start with a hip end set. Install the hip end set per the BCSI options detailed (braced ground installation or crane supported installation). Brace the hip end and install structural sheathing to have a solid bracing point to work from.
   B. Install new sections of roof trusses with TCTLR long length restraints and TCTDB diagonal braces as detailed. The minimum bracing is shown on this page - use more bracing if needed. Fully brace a section of roof before proceeding.
   C. In the fully braced section of roof, install structural sheathing per the details of this plan while removing portions of the temporary bracing as needed. Move the temporary bracing to the next section of roof to be braced. It is acceptable to reuse temporary bracing unless the bracing is damaged or won't allow solid connection.
   D. Continue across the building in this manner - brace a section of roof fully, then sheath it fully, and move the temporary bracing material for use in the next section.
4. Permanent Restraint / Bracing shall be per BCSI-B3 and the information on the left side of this page.
5. Construction Loading shall be per BCSI-B4. Do not overload roof trusses with construction materials.
6. Fall Protection related to roof trusses shall be per BCSI-B11 and all code, local, and national requirements.
7. The intent of this plan section is to detail the basic requirements needed to maintain a safe working environment during the installation of roof trusses. The ultimate responsibility for jobsite safety is the project builder's responsibility. The builder shall follow these guidelines as a minimum and shall go above and beyond these guidelines if needed to avoid accidents and injuries.

Temporary Bracing Legend

Top Chord Temporary Lateral Restraint (TCTLR). This is a 2x4 SPF #2 or better member. Attach to each top chord with 2 nails 10d (0.131 x 3") or 16d (0.131 x 3.5"). TCTLRs must be long length continuous members per BCSI - Short Member TCTLR's are not allowed. Per BCSI, TCTLRs shall have the following maximum spacing: Up to 30' Truss Span = 10' O.C. Spacing Max. 30' to 45' Truss Span = 8' O.C. Spacing Max.

Top Chord Temporary Diagonal Bracing (TCTDB). This is a 2x4 SPF #2 or better member. Attach to each top chord with 2 nails 10d (0.131 x 3") or 16d (0.131 x 3.5"), TCTDBs are installed on a 45° angle in pairs with no more than 10 truss spacings (20') between TCTDBs as shown in BCSI.

SCALE 1/8" = 1'

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S. Craig Allen

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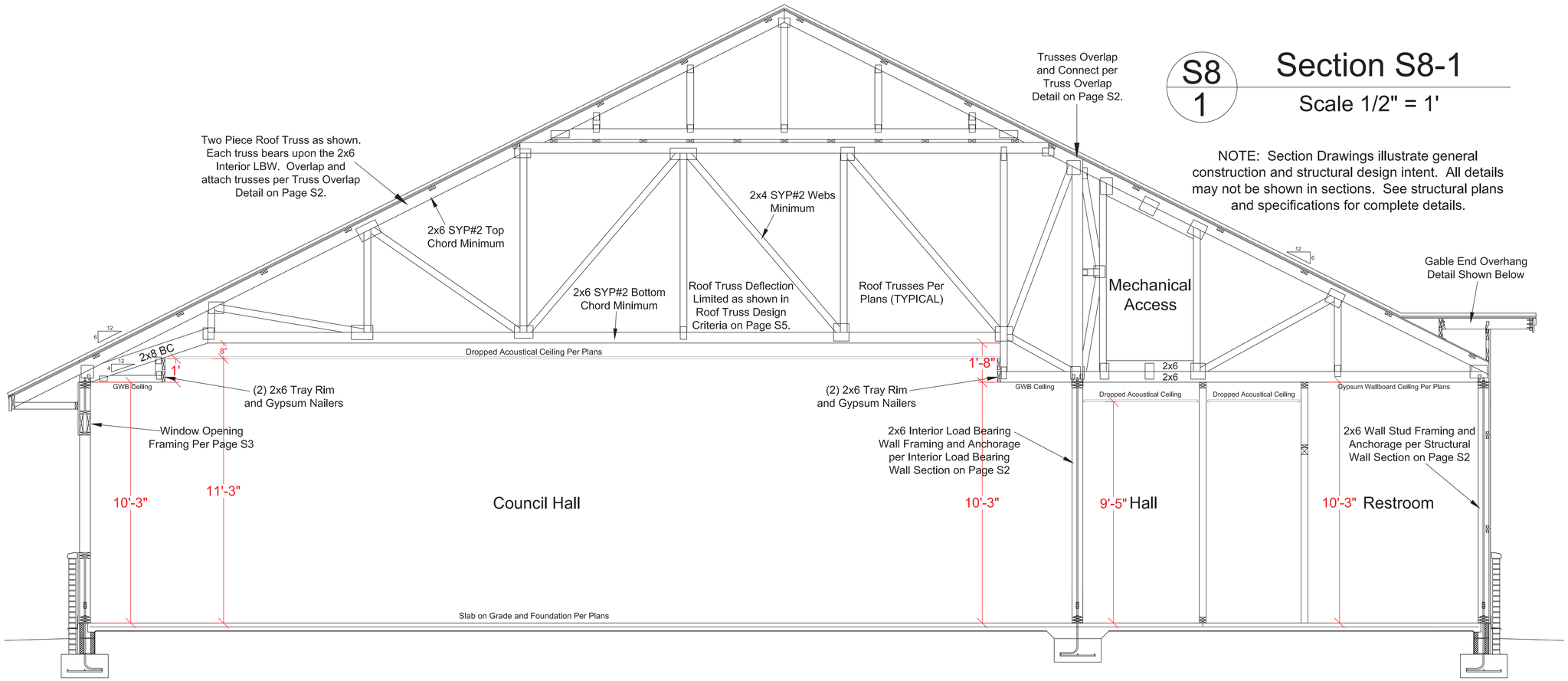
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Truss Installation Bracing
Truss Permanent Bracing

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S7

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S8
1

Section S8-1

Scale 1/2" = 1'

NOTE: Section Drawings illustrate general construction and structural design intent. All details may not be shown in sections. See structural plans and specifications for complete details.

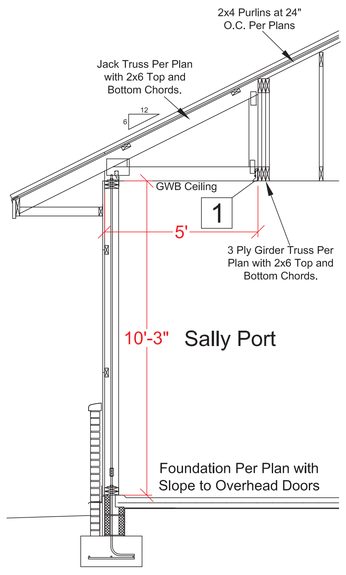
NOTE: See page S5 for locations of section drawing cuts.

S8
2

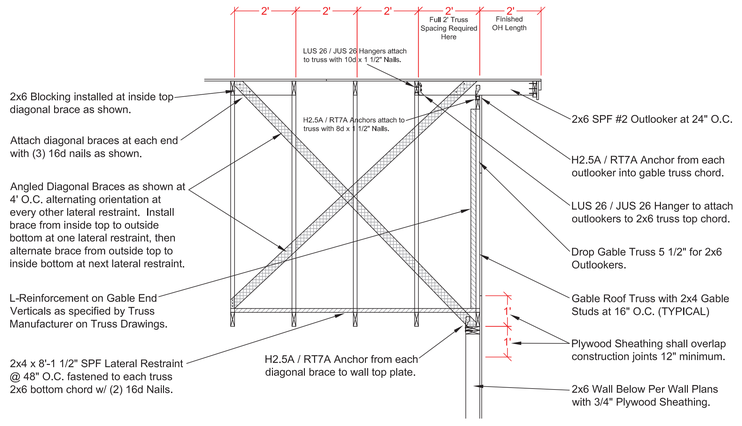
Section S8-2

Scale 1/2" = 1'

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Gable End Bracing Detail
Scale 1/2" = 1'



Gable End Bracing Notes:
1. Gable End Bracing per this detail and BCSI-B3 2013.
2. Gable Bracing Materials specified as SPF #2 lumber but may be substituted with SYP #2 lumber.

Gable End Overhang Detail
Scale 1/2" = 1'

Gable End Overhang Notes:
1. Gable End Overhang Detail shown above is for a total overhang length of up to 2' as shown.
2. 2' Gable End Overhang on the Overbuilt Valley Truss areas is to be built per the same detail above.

SCALE 1/2" = 1'

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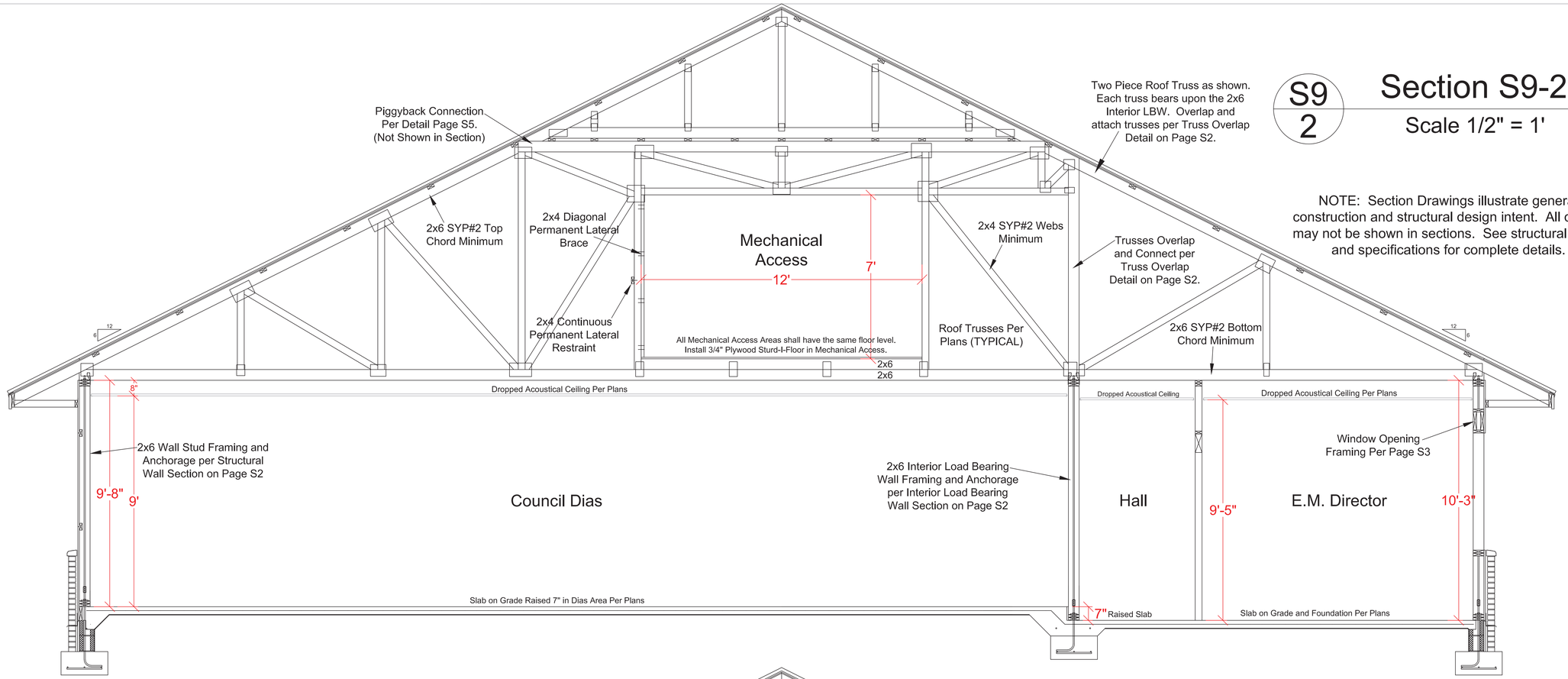
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Section S8-1
Gable End Bracing
Gable End Overhang

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S8

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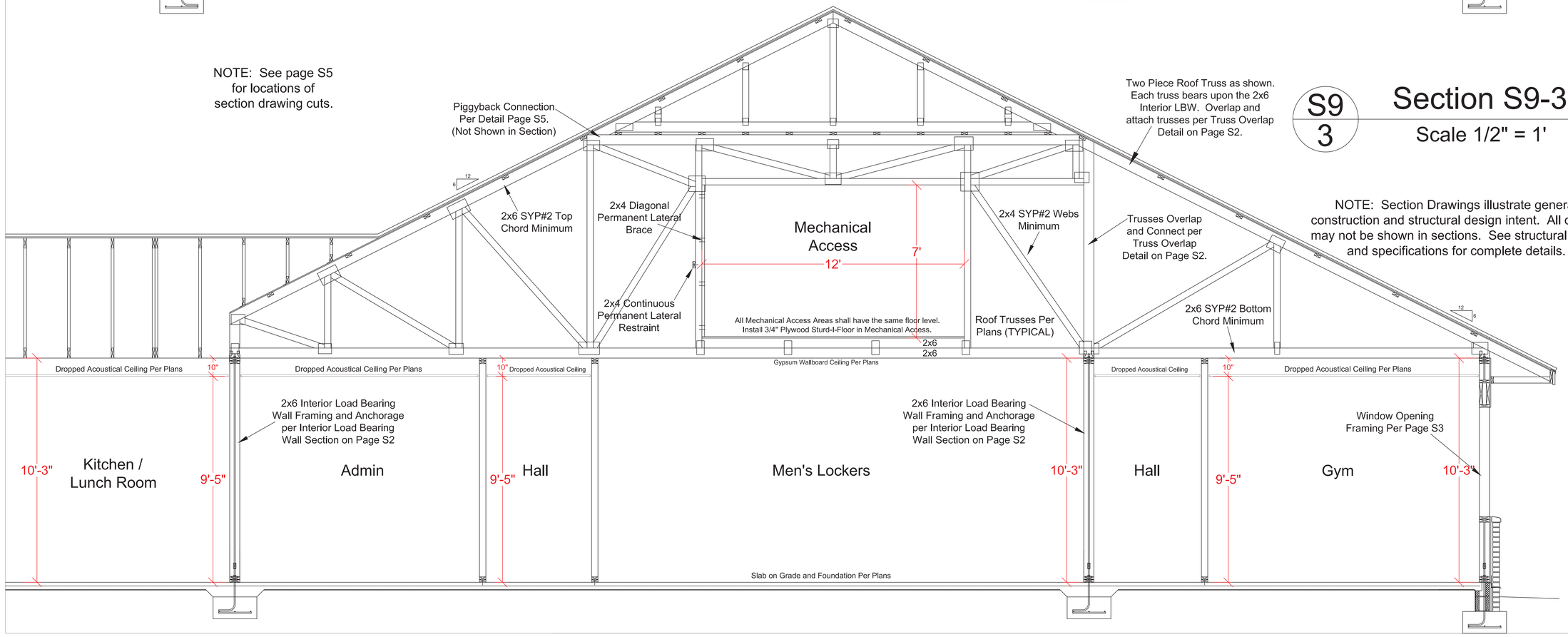
S9
2

Section S9-2

Scale 1/2" = 1'

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NOTE: See page S5
for locations of
section drawing cuts.



S9
3

Section S9-3

Scale 1/2" = 1'

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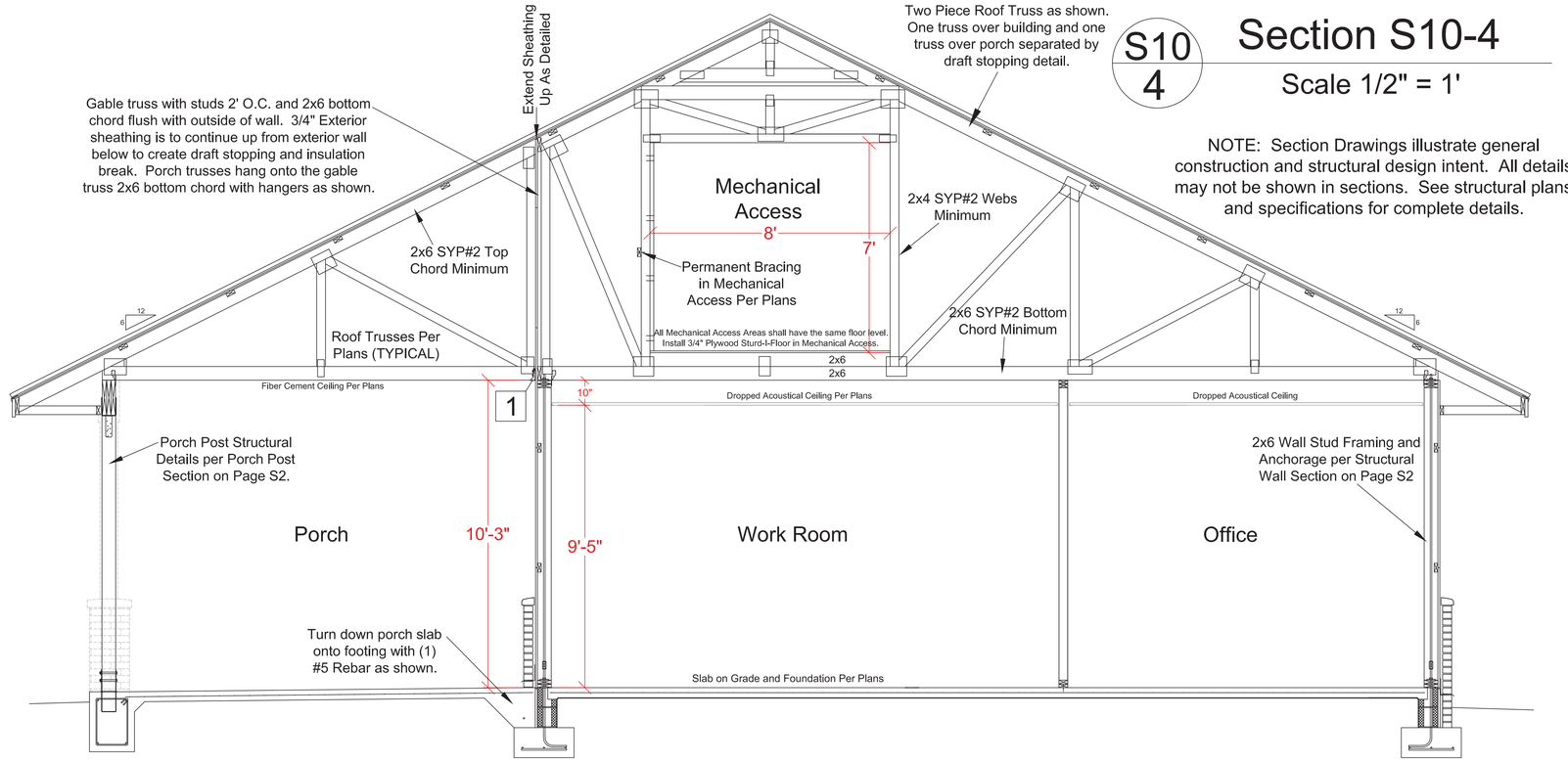
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Section S9-2
Section S9-3

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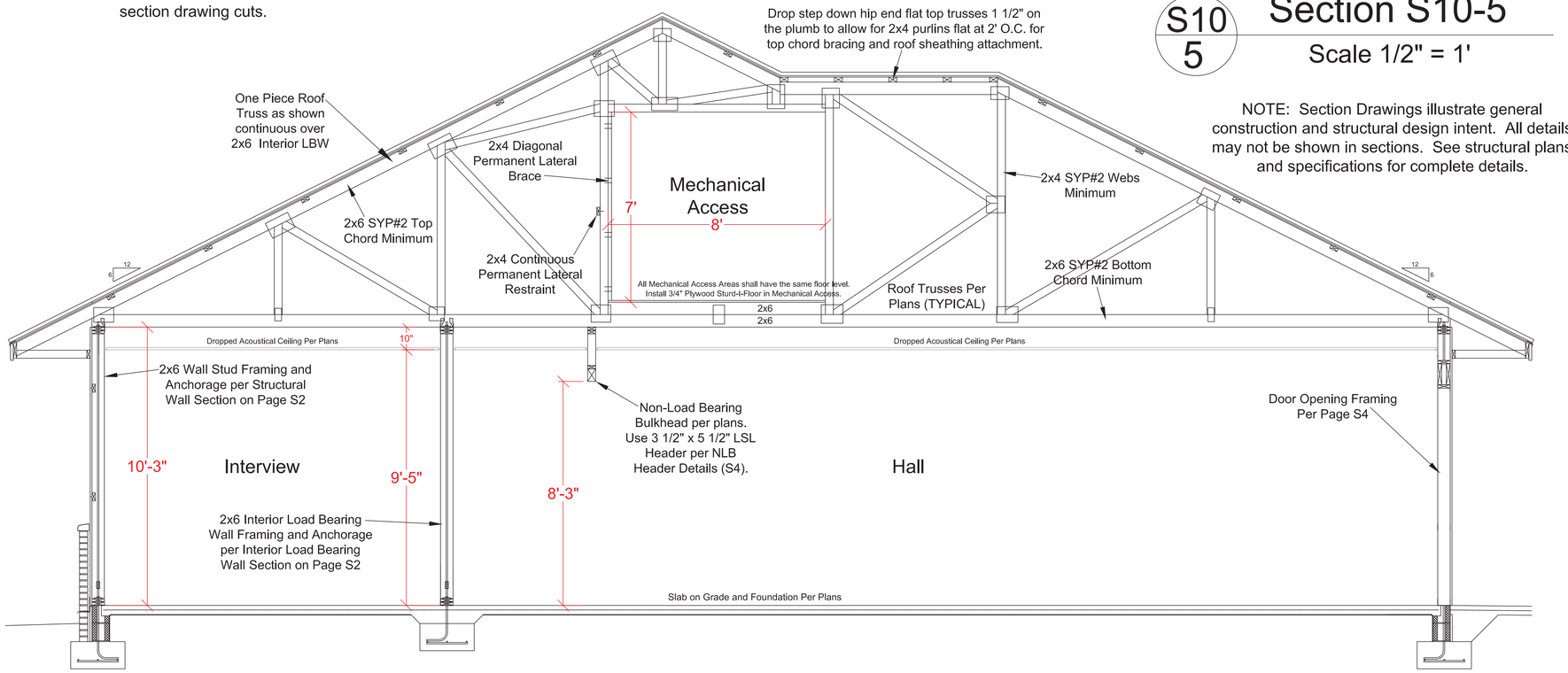


Section S10-4

S10 / 4

Scale 1/2" = 1'

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Section S10-5

S10 / 5

Scale 1/2" = 1'

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SCALE 1/2" = 1'

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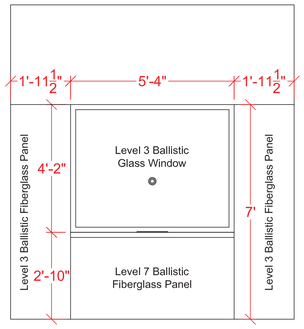
Section S10-4
Section S10-5

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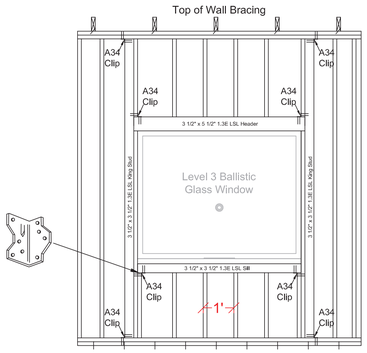
S10

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Ballistic Glass Wall Layout - Scale 1/2" = 1'



Ballistic Glass Wall Framing - Scale 1/2" = 1'

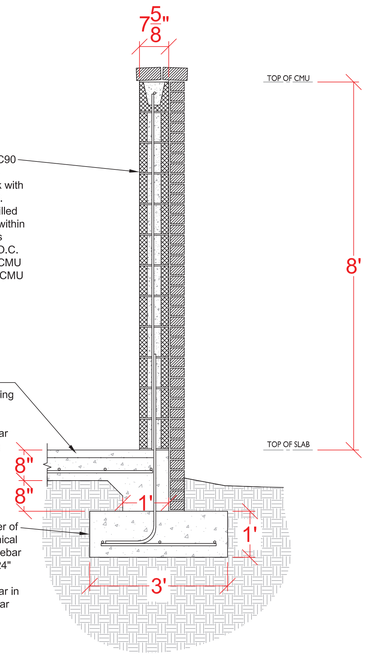


Ballistic Wall Framing Notes:

The following notes provide specific detail for framing the ballistic wall to support the additional weight of the ballistic glass and fiberglass panels.

1. Wall studs are to be framed as 2x4 SPF #2 Studs at 12" O.C. for the Ballistic Wall Only.
2. Attach bottom plates to slab below with powder actuated fasteners per interior non-load bearing wall detail at 12" O.C.
3. Install 2x6 blocking at 2' O.C. at the top of the wall and toe nail to wall as shown to brace the top of the wall and hold it firmly in place.
4. King Studs are 3 1/2" x 3 1/2" LSL Material.
5. Window Sill is 3 1/2" x 3 1/2" LSL Material.
6. Window Header is 3 1/2" x 5 1/2" LSL Material.
7. Attach window perimeter framing with Simpson A34 Clip (or Mitek USP MP34 Clip, or approved equal) where shown on plans.
8. Ballistic glass windows is to attach securely in to the LSL members. Attach per the manufacturer's specifications.
9. Ballistic fiberglass panels are to attach securely to the LSL members and the regular wood stud members as shown. Attach per the manufacturer's specifications.
10. This design is based upon the ballistic glass window unit weighing a maximum of 275 lbs.

Generator Enclosure Structural Wall Section - Scale 3/4" = 1'

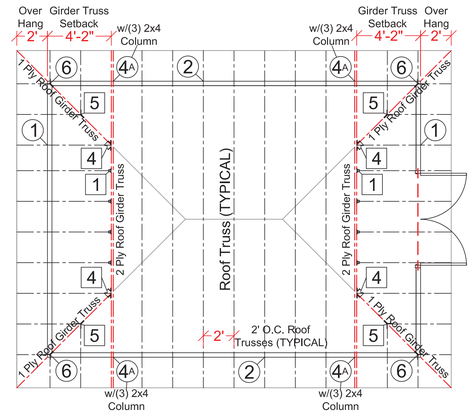


8" CMU Block Wall (7 5/8" Thick Actual) with Block conforming to ASTM C90 with an F'm of at least 1500 psi. Lay in running bond pattern with Type S Mortar with tooled concave joints. Top course is to be a bond beam block with (1) #5 Rebar continuous and filled with grout complying with ASTM C 476. Vertical Reinforcing is to be #5 rebar at 24" O.C. with all reinforced cells filled with grout complying with ASTM C 476. Vertical rebar is to be centered within the width of the block wall. Use 25" lap splices with #5 rebar. Install truss type galvanized horizontal joint reinforcement at every other course (16" O.C. Vertically). Horizontal joint reinforcement is to tie the brick veneer to the CMU Block wall as a multi-wythe wall with mortar fill between the brick and the CMU Block.

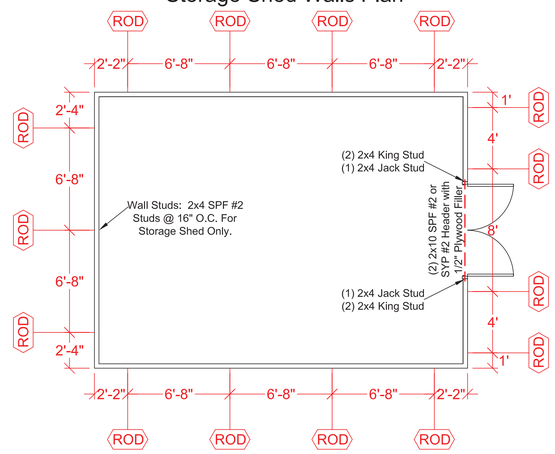
8" Thick 3000 psi Concrete Slab on Grade on subgrade with compaction approved by Geotechnical Engineer. Concrete Slab turns down onto footing as shown with 12" wide by 16" deep monolithic slab footing as shown. Reinforce slab throughout with top and bottom reinforcing as specified. Bottom reinforcing is #5 Rebar at 12" O.C. each way with 2" minimum clear distance from bottom of slab. Top reinforcing is Welded Wire Reinforcing 6"x6" W 2.9xW2.9 located at 2" from the top of the slab as shown.

3' Wide x 1' Deep Continuous 3000 psi Concrete Footing around perimeter of generator enclosure on subgrade with compaction approved by Geotechnical Engineer. (3) #5 Grade 60 Rebar Continuous Longitudinally and (1) #5 Rebar Transverse at 24" O.C. at each vertical rebar. (1) #5 Rebar Vertically at 24" O.C. as shown with radius bend. Extend vertical rebar beyond top of monolithic slab by at least 25" to allow for lap splice. Locate Vertical Rebar in the approximate center of the 8" CMU Block Wall Above. Maintain 3" Clear Distance with Reinforcing. Use 25" Lap Splices with #5 Rebar.

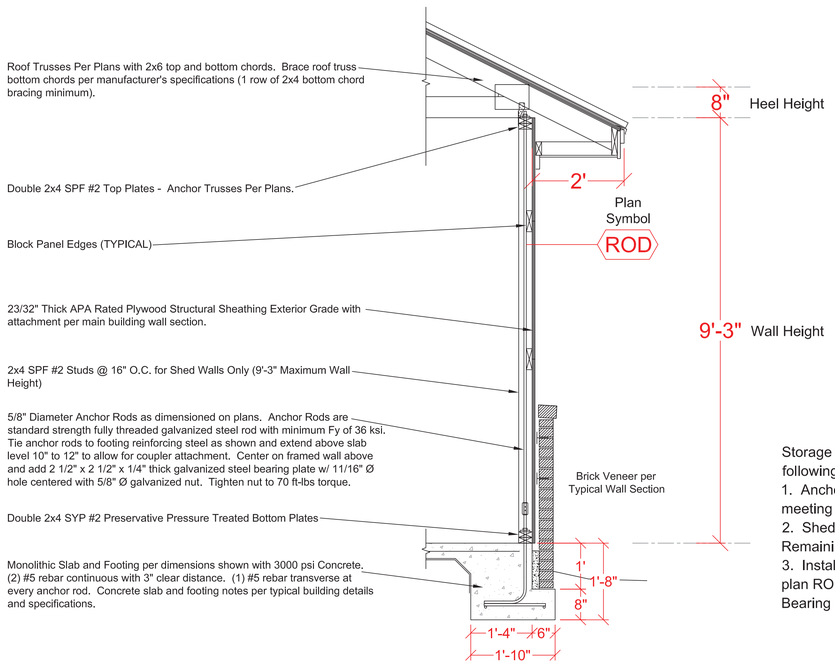
Storage Shed Roof Truss Plan



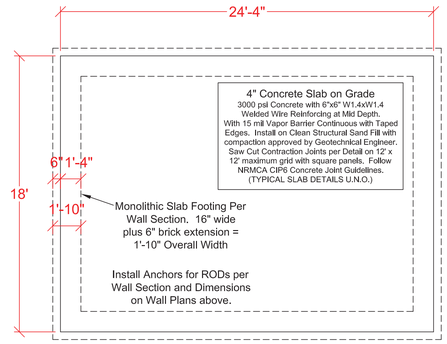
Storage Shed Walls Plan



Storage Shed Wall Section - Scale 3/4" = 1'



Storage Shed Foundation Plan



Storage Shed Notes:

Storage Shed shall be built per the notes and specifications of the main building with the following exceptions:
1. Anchors, Hangers, and other items per main building notes. Install bottom chord bracing meeting truss drawing requirements (one for 2x4 bracing at mid-span minimum).
2. Shed walls may be framed with 2x4 SPF #2 Studs at 16" O.C. due to the shorter wall height. Remaining wall details per main building notes and the Storage Shed Wall Section.
3. Install shed anchor rods where dimensioned. Install shed anchor rods per the main building plan ROD detail with the exception of the bearing plate. Use 2 1/2" x 2 1/2" x 1/4" Thick Steel Bearing Plate at the bottom and top plates to fit more appropriately into the 2x4 wall cavity.

SCALE 1/4" = 1'

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Shell Bid Set
5-15-2020

Storage Shed Plan
Generator Wall
Ballistic Wall Framing

Town of Surf City
Municipal Complex
NC Highway 210
Surf City, NC

S11

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PLUMBING LEGEND

P–#	FIXTURE NUMBER, SEE SCHEDULE
	WATER BALANCE/SHUTOFF VALVE
VTR	VENT THRU ROOF
AAV	AIR ADMITTANCE VALVE
— · —	NEW COLD WATER PIPE
— · · —	NEW HOT WATER PIPE
———	NEW WASTE PIPE
— — —	NEW VENT PIPE

PLUMBING FIXTURE SCHEDULE

P–#	FIXTURES	SPECIFICATIONS	PIPING REQUIRED		
			WASTE	CW	HW
P–1	WATER CLOSET/ADA FLOOR MOUNTED FLUSH VALVE – 3.0 GPF	KOHLER "HIGHCLIFF" K–4368 WHITE VITREOUS CHINA FLOOR MOUNTED WATER CLOSET WITH SIPHON–JET FLUSHING ACTION, 16 ½" RIM HEIGHT, 3.0 GPF, 12" ROUGH–IN, BOLT CAPS. SEAT : BEMIS/CHURCH DURAGUARD 2100 NSSC ANTI–MICROBIAL HEAVY DUTY WHITE ELONGATED OPEN FRONT SEAT WITH COVER. VALVE: SLOAN "REGAL" MODEL NO.111–YBYC–ADA CHROME FLUSH VALVE WITH SWEAT SOLDER ADAPTER & CAST WALL FLANGE WITH SET SCREW, ADA COMPLIANT HANDLE.	4"	1 1/2"	––
P–2	URINAL – HANDICAP ¾" TOP SPUD – 1.0 GPF MANUAL FLUSH VALVE	KOHLER "DEXTER" K–5016–ET 1.0 GPF ¾" TOP SPUD, WHITE VITREOUS CHINA, 2" IPS OUTLET, WALL HANGER. MOUNT RIM 17"AFF TO COMPLY WITH ADA. VALVE: SLOAN REGAL MODEL 1–186–1–ADA, 1GPF, CHROME FLUSH WITH ADA COMPLIANT HANDLE.	2"	1/2"	––
P–3	LAVATORY – WALL MTD. AUTOMATIC FAUCET ADA	AMERICAN STANDARD "LUCERNE" 0355.012 WALL MTD. WHITE VITREOUS CHINA 20"X18" LAVATORY WITH 4" FAUCET CENTERS. FAUCET: AMERICAN STANDARD "SELECTRONIC" ELECTRONIC LAVATORY FAUCET MODEL 6057.205/6056.205 , VANDAL RESISTANT 0.5 GPM AERATOR, ⅜"O.D. COPPER INLETS, PROVIDE POWER SUPPLY AND THERMOSTATIC MIXING VALVE. SUPPLIES: McGUIRE NO. 165 ⅜"X12" FLEX ANGLE SUPPLY WITH STOP STRAINER: McGUIRE NO. 155–A GRID STRAINER WITH 1 ¼" TAILPIECE. TRAP AND SUPPLY INSULATION: McGUIRE PREWRAPED PROWRAP INSULATION KIT MODEL NO.2150	1–1/2"	1/2"	1/2"
P–4	LAVATORY – CABINET MTD. AUTOMATIC FAUCET ADA	AMERICAN STANDARD "AQUALYN" 0476.028 CABINET MTD. WHITE VITREOUS CHINA 20"X17" SELF RIMMING LAVATORY WITH 4" FAUCET CENTERS. FAUCET: AMERICAN STANDARD "SELECTRONIC" ELECTRONIC LAVATORY FAUCET MODEL 6057.205/6056.205 , VANDAL RESISTANT 0.5 GPM AERATOR, ⅜"O.D. COPPER INLETS, PROVIDE POWER SUPPLY AND THERMOSTATIC MIXING VALVE. TRAP AND SUPPLIES: McGUIRE NO. 155WC OFFSET WHEELCHAIR LAVATORY GRID STRAINER WITH 1 ¼"OUTLET. McGUIRE NO. 8902 17 GA 1 ¼"X1 ½" P–TRAP & NIPPLE. McGUIRE NO 2165 ½" IPS X ⅜" FLEX ANGLE SUPPLY WITH STOP.	1–1/2"	1/2"	1/2"
P–5	SHOWER STALL HANDICAP/ADA	P–5 36"X36" TRANSFER SHOWER AQUATIC MODEL 1363BFSD ACRYLIC SHOWER P–5A 60"X36" ROLL IN SHOWER AQUATIC MODEL 16037BFSD ACRYLIC SHOWER VERIFY ALL DIMENSIONS WITH ACTUAL SELECTED SHOWER MFG. VALVE : SYMMONS PRESSURE BALANCE VALVE MODEL C–96–300–B30–V–X WITH VOLUME CONTROL FEATURES CERAMIC DISC VALVE CARTRIDGE WITH AN ADJUSTABLE HOT LIMIT SAFETY STOP. LOW LEAD FORGED BRASS BODY. ALL METAL LEVER HANDLE AND WALL ESCUTHEON. SCREW DRIVER STOPS, WITH WALL SUPPLY, IN–LINE VACUUM BREAKER, 60" LONG SHOWER HOSE, ADJUSTABLE PERSONAL SHOWER W/ GLIDE RAIL, AND BACK TO BACK WHEN APPLICABLE. ALL POLISHED CHROME FINISH. TEMPERATURE COLOR INDEX ON ESCUTHEON.	3"	1/2"	1/2"
P–6	MOP BASIN 36"X36"X12"	FIAT MODEL TSB–3002, 36"X36"X12" TERRAZZO SERVICE BASIN WITH STAINLESS STEEL CAPS ON ALL CURBS, 12" HIGH WITH 6" DROP FRONT, SELF CAULKING BRASS DRAIN WITH STAINLESS STEEL STRAINER. FAUCET: FIAT MODEL 830–AA CHROME PLATED WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK & ¾" HOSE THREAD ON SPOUT, HOSE AND HOSE BRACKET MODEL 832–AA 30" LONG FLEXIBLE HEAVY DUTY ⅝" RUBBER HOSE WITH ¾" BRASS COUPLING, 18 GAUGE 302 STAINLESS STEEL BRACKET WITH RUBBER GRIP.	3"	1/2"	1/2"
P–7	SINGLE BOWL SINK ADA	JUST MODEL NO. SL–1613–A–GR SINGLE COMPARTMENT SINK. 16"X13", 304 STAINLESS STEEL, 18 GAUGE, 3 ½" FAUCET LEDGE WITH 4 HOLES @ 4" CENTERS. TRAP AND SUPPLIES: McGUIRE NO 151 CHROME PLATED FORGED BRASS STRAINER WITH 1–½" TAILPIECE, McGUIRE NO. 8912 1 ½" P–TRAP AND NIPPLE. McGUIRE NO. 2165 ANGLE SUPPLIES WITH STOPS. FAUCET: JUST MODEL J1174KS TWO–HANDLE KITCHEN FAUCET. CHROME PLATED BRASS CONSTRUCTION, 6" WRIST BLADE HANDLES, COMPLIES WITH LATEST ADA REQUIREMENTS.	1–1/2"	1/2"	1/2"
P–8	SINGLE BOWL SINK ADA	SELECTED BY OWNER. $600 ALLOWANCE INCLUDING MATERIALS TAX AND DELIVERY. TRAP AND SUPPLIES: McGUIRE NO 151 CHROME PLATED FORGED BRASS STRAINER WITH 1–½" TAILPIECE, McGUIRE NO. 8912 1 ½" P–TRAP AND NIPPLE. McGUIRE NO. 2165 ANGLE SUPPLIES WITH STOPS. FAUCET: JUST MODEL J1174KS TWO–HANDLE KITCHEN FAUCET. CHROME PLATED BRASS CONSTRUCTION, 6" WRIST BLADE HANDLES, COMPLIES WITH LATEST ADA REQUIREMENTS.	1–1/2"	1/2"	1/2"
P–9	SERVICE SINK	E.L.MUSTEE UTILITUB MODEL NO. 19F SINGLE COMPARTMENT FLOOR MOUNTED SERVICE SINK. 24"X20", THERMOPLASTIC, PROVIDE WITH DRAIN AND FAUCET ASSEMBLY.. TRAP AND SUPPLIES: TAILPIECE, McGUIRE NO. 8912 1 ½" P–TRAP AND NIPPLE. McGUIRE NO. 2165 ANGLE SUPPLIES WITH STOPS.	1–1/2"	1/2"	1/2"
P–10	ELECTRIC WATER COOLER HANDICAP/ADA DUAL HEIGHT WITH BOTTLE FILLING STATION	ELKAY EZH20 MODEL LZSTL8WSVRSK BOTTLE FILLING STATION. BARRIER–FREE DUAL–HEIGHT UNIT WITH FRONT AND SIDE PUSH BARS. SIMULATED RECESSED MODEL WITH LEAD FREE WATERWAYS, 8 GPH OF 50°F WATER AT 90AMF. HEAVY GAUGE UNIT WITH STAINLESS STEEL FINISH. TRAP AND SUPPLIES: McGUIRE NO. 8872 1 ½" P–TRAP AND NIPPLE, McGUIRE NO. 165 ANGLE SUPPLY WITH STOP.	1–1/4"	1/2"	––
P–11	WASHING MACHINE CONNECTION	GUY GREY MODEL NO. T–200 WASHING MACHINE SUPPLY & DRAIN, 20 GAUGE STEEL PAINTED WITH WHITE SYNTHETIC ENAMEL. 9 ¼"X 14". 2" DRAIN OUTLET, ½" COMBINATION MPT BRASS SWEAT CONNECTIONS, ANGLE GATE VALVES. PANEL SHALL HAVE KNOCKOUTS IN TOP, BOTTOM, AND SIDES.	2"	1/2"	1/2"
P–12	ICE/COFFEE MAKER CONNECTION	PROVIDE RECESSED WALL BOX WITH SHUT–OFF VALVE, ROUTE ⅜" SOFT "K" COPPER TO MACHINE CONNECTION.	––	1/2"	––
P–13	INTAKE TOILET	ACORN – LIGATURE RESISTANT LR1418 SERIES 18" LAV / TOILET COMBINATION	4"	1 1/2"	––
FD	FLOOR DRAIN	FLUSH MOUNTED FLOOR DRAIN WITH STRAINER. COORDINATE WITH ARCHITECTURAL PLANS AND EQUIPMENT INSTALLER FOR EXACT POSITION.	3"	––	––
EWH–1	ELECTRIC WATER HEATER	STATE M/N PCE 20 10MSA, 20 GALLON ELECTRIC WATER HEATER WITH ONE (1) 1500 WATT ELEMENT, 120 VOLT, SINGLE PHASE, WITH 3 YEAR WARRANTY. FURNISH WITH A.S.M.E. APPROVED RELIEF VALVE, WATERGUARD EXPANSION TANK M/N ETC–2X, AND DRAIN PAN.			
EWH–2	ELECTRIC WATER HEATER	STATE M/N PCE 40 20LSA, 40 GALLON ELECTRIC WATER HEATER WITH ONE (1) 4500 WATT ELEMENT, 240 VOLT, SINGLE PHASE, WITH 3 YEAR WARRANTY. FURNISH WITH A.S.M.E. APPROVED RELIEF VALVE, WATERGUARD EXPANSION TANK M/N ETC–2X, AND DRAIN PAN.			
EWH–3	ELECTRIC WATER HEATER	EEMAX MOD. SP 2412, 2.4 KW INSTANTANEOUS WATER HEATER BELOW SINK.			
GWH–1	GAS WATER HEATER	STATE M/N SUF100 199, 100 GALLON SEALED COMBUSTION GAS WATER HEATER 120 VOLT, SINGLE PHASE, PROVIDE AND INSTALL 3" PVC/CPVC INSTAKE AND EXHAUST PIPING TO OUTSIDE PER MANUFACTURER'S RECOMMENDATIONS. 5 YEAR WARRANTY. FURNISH WITH A.S.M.E. APPROVED RELIEF VALVE, WATERGUARD EXPANSION TANK M/N ETC–2X, AND DRAIN PAN.			

PLUMBING GENERAL NOTES:

BASIS OF DESIGN: UNLESS OTHERWISE NOTED THE PURPOSE OF THESE DRAWINGS IS TO PROVIDE DIRECTION AND BASIS OF DESIGN TO A COMPETENT CONTRACTOR FAMILIAR WITH THE TYPE OF SYSTEMS BEING INSTALLED SUFFICIENT TO INDICATE OWNERS REQUESTS AND CODE REQUIREMENTS. IT IS THE CONTRACTORS RESPONSIBILITY, WHEN OTHERWISE UNDIRECTED, TO FOLLOW STANDARD INDUSTRY PRACTICES AND BASIC CODE COMPLIANCE INCLUDING, BUT NOT LIMITED TO, PROVIDING MATCHING REQUIRED ACCESSORIES TO THE SYSTEMS INDICATED, COORDINATING EXACT ROUTINGS AND LOCATIONS WITH OTHER TRADES AND THE OWNER, SELECTING CODE APPROVED MATERIALS, AND MAKING MINOR OFFSETS/ADJUSTMENTS BASED ON FIELD COORDINATION AND OWNER'S FIELD REQUESTS. CHANGE OF MANUFACTURER TO EQUIVALENT SYSTEMS, WITH OWNER'S APPROVAL, IS ACCEPTABLE. CONTACT ENGINEER WITH ANY CONFLICTS NOT COVERED BY THE ABOVE INSTRUCTIONS.

1. PROVIDE ALL MATERIALS AND LABOR NECESSARY FOR COMPLETE AND PROPERLY FUNCTIONING PLUMBING SYSTEMS. WARRANTY ALL WORK AND ALL MATERIALS, EQUIPMENT AND DEVICES FOR A PERIOD OF ONE YEAR AFTER OWNER'S ACCEPTANCE.

2. WORK SHALL CONFORM TO OR MEET THE REQUIREMENTS OF THE MOST CURRENT EDITION OF:
   A. NORTH CAROLINA PLUMBING CODE
   B. ASPE
   C. UL
   D. ANSI
   E. ALL FEDERAL, STATE AND LOCAL CODES AND ORDINANCES

3. DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE NOT INTENDED TO BE SCALED FOR DIMENSIONS, UNLESS DIMENSIONED.

4. ALL MATERIALS, EQUIPMENT AND DEVICES SHALL, AS A MINIMUM, MEET THE REQUIREMENTS OF UL WHERE UL STANDARDS ARE ESTABLISHED FOR THOSE ITEMS. ALL ITEMS SHALL BE CLASSIFIED BY UL AS SUITABLE FOR THE PURPOSE USED.

5. ALL ITEMS SHALL BE NEW, UNLESS NOTED OTHERWISE.

6. ALL MATERIALS AND EQUIPMENT SHALL BE CURRENT PRODUCTS BY MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF SUCH PRODUCTS.

7. COORDINATE LOCATION OF PLUMBING WORK WITH OTHER TRADES TO AVOID CONFLICTS AND INTERFERENCES.

8. INSTALL ALL EQUIPMENT AND MATERIAL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN PRINTED INSTRUCTIONS AND RECOMMENDATIONS.

9. COORDINATE WITH AND OBTAIN PERMITS AND INSPECTIONS FROM AUTHORITY HAVING JURISDICTION AND INCLUDE ALL FEES IN BID.

10. PROVIDE OWNER WITH CERTIFICATES OF FINAL INSPECTION AND ACCEPTANCE FROM AUTHORITY HAVING JURISDICTION.

11. ALL EQUIPMENT AND PIPE ABOVE CEILING SHALL BE SUPPORTED FROM BUILDING STRUCTURE ABOVE, UNO.

12. WHERE PIPES PENETRATE FIRE RATED BARRIERS (WALLS, FLOORS AND CEILINGS) SEAL OPENING AROUND PIPES AND DUCTWORK WITH U.L. LISTED FIRE STOPPING MATERIAL TO MAINTAIN THE FIRE RATING OF THE BARRIER. PER NC BUILDING CODE VOLUME 1, PENETRATIONS OF NONRATED WALLS, PARTITIONS AND FLOORS OF NONCOMBUSTIBLE CONSTRUCTION SHALL BE FIRE–STOPPED WITH NONCOMBUSTIBLE MATERIAL.

13. PROVIDE EXPANSION–DEFLECTION JOINTS WHERE PIPE CROSSES BUILDING EXPANSION OR SEISMIC JOINTS.

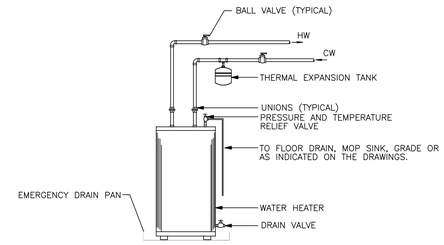
14. PRIOR TO BIDDING, THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL VISIT THE JOBSITE AND SHALL FAMILIARIZE THEMSELVES WITH ALL CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED AND SHALL INCLUDE IN HIS BID ALL LABOR, MATERIAL AND OPERATIONS REQUIRED FOR A COMPLETE JOB. (NOTIFY OWNER AND ENGINEER OF ANY DISCREPANCIES PRIOR TO BID.)

15. CLEANOUTS, LINE SIZE, UNO.

16. FLOOR DRAINS, LINE SIZE, UNO.

17. FLOOR DRAINS WITH SUBSCRIPT CO TO HAVE INTEGRAL CLEANOUT AND SHALL BE SIMILAR TO REGULAR FLOOR DRAIN SPECIFIED, UNO.

18. FLOOR DRAINS AND FLOOR SINKS SHALL BE PROVIDED WITH HOSE BIBBS AS ALTERNATE TO TRAP PRIMERS.



A WATER HEATER

SCALE: NONE

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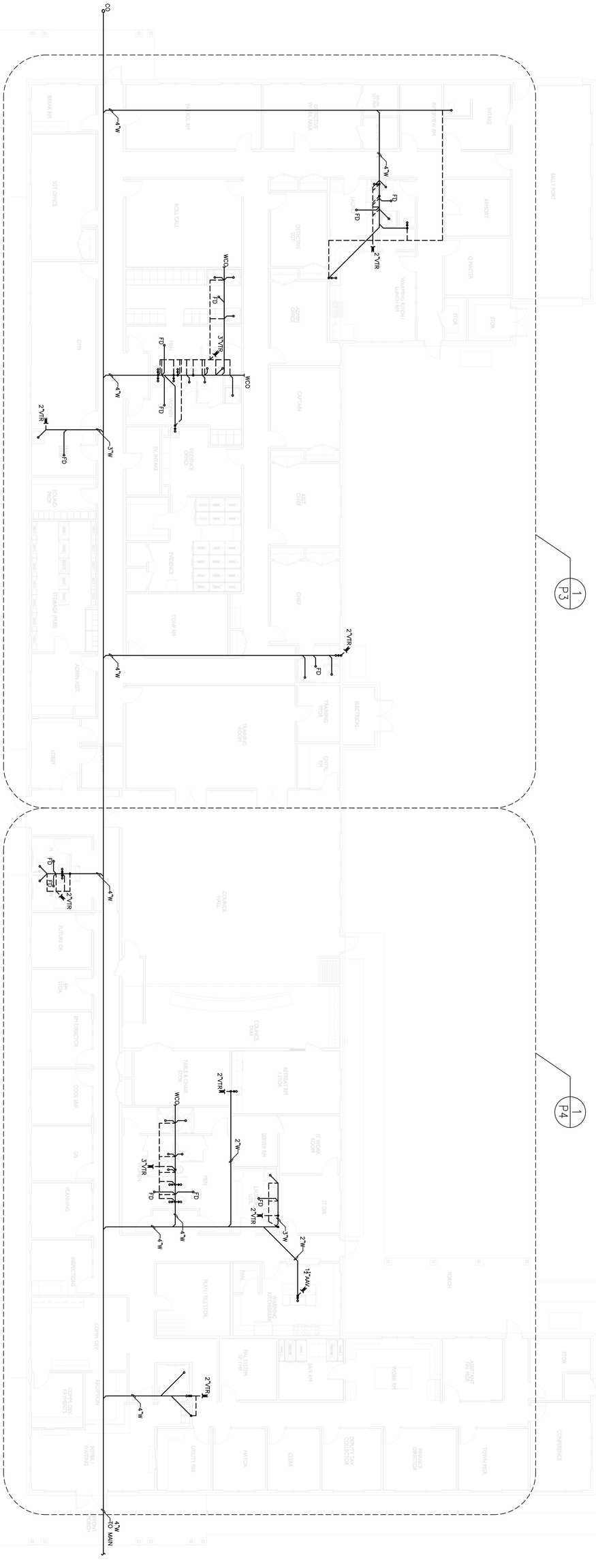
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1 P2 OVERALL FLOOR PLAN — PLUMBING — WASTE

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

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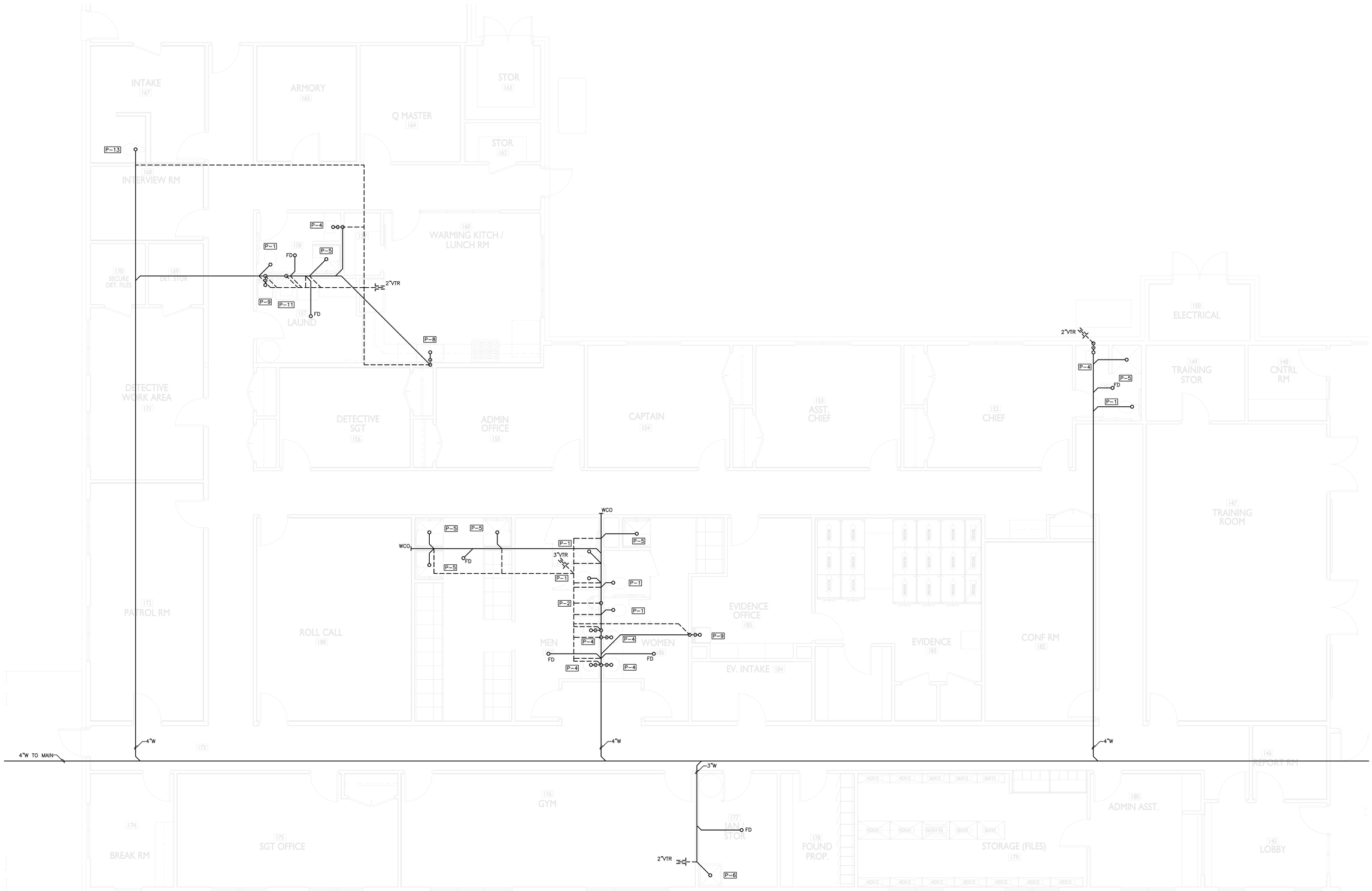
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1 P3 ENLARGED FLOOR PLAN – PLUMBING – WASTE

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

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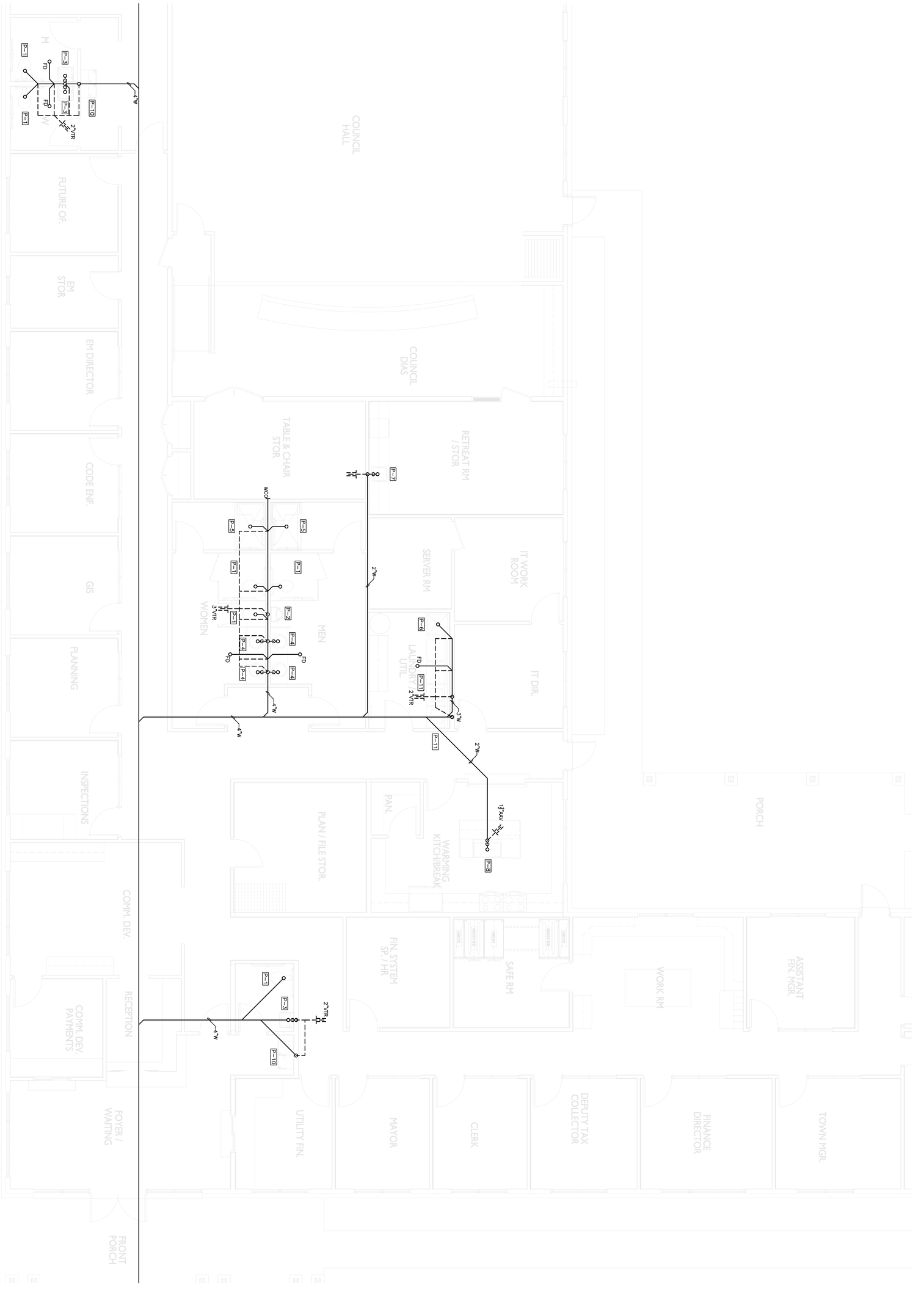
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1 / P4 ENLARGED FLOOR PLAN — PLUMBING — WASTE

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

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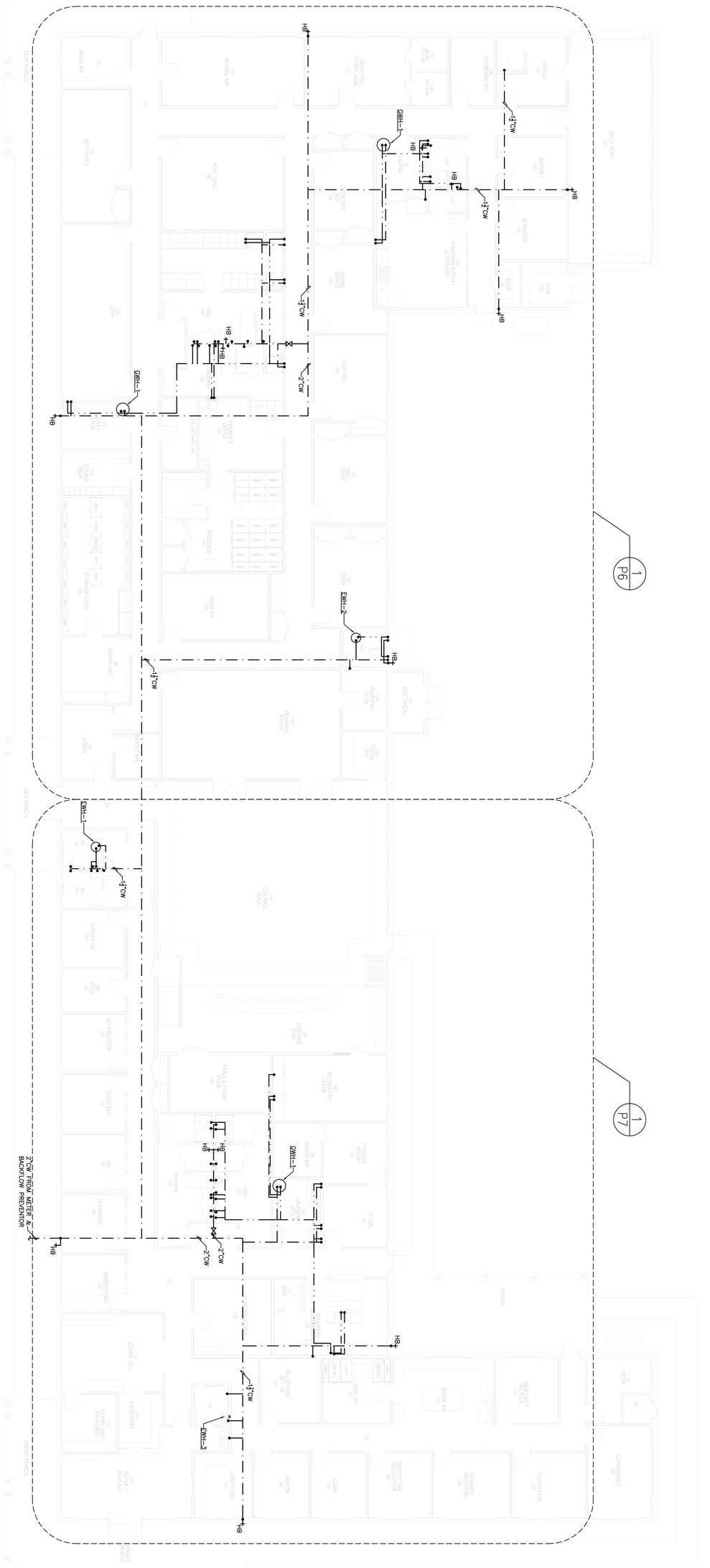
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1 P5 OVERALL FLOOR PLAN – PLUMBING – WATER

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

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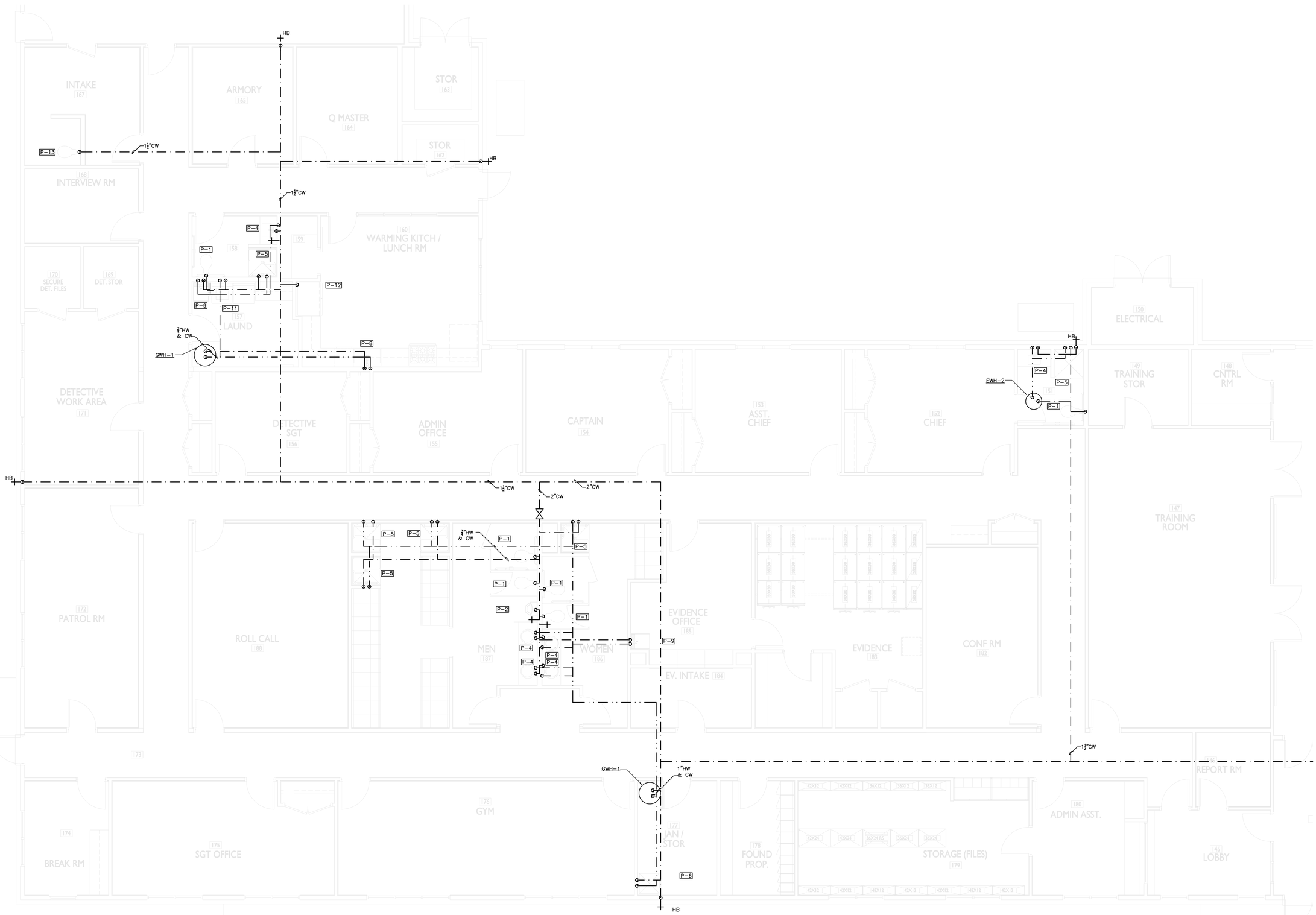
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1 / P6 ENLARGED FLOOR PLAN – PLUMBING – WATER

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

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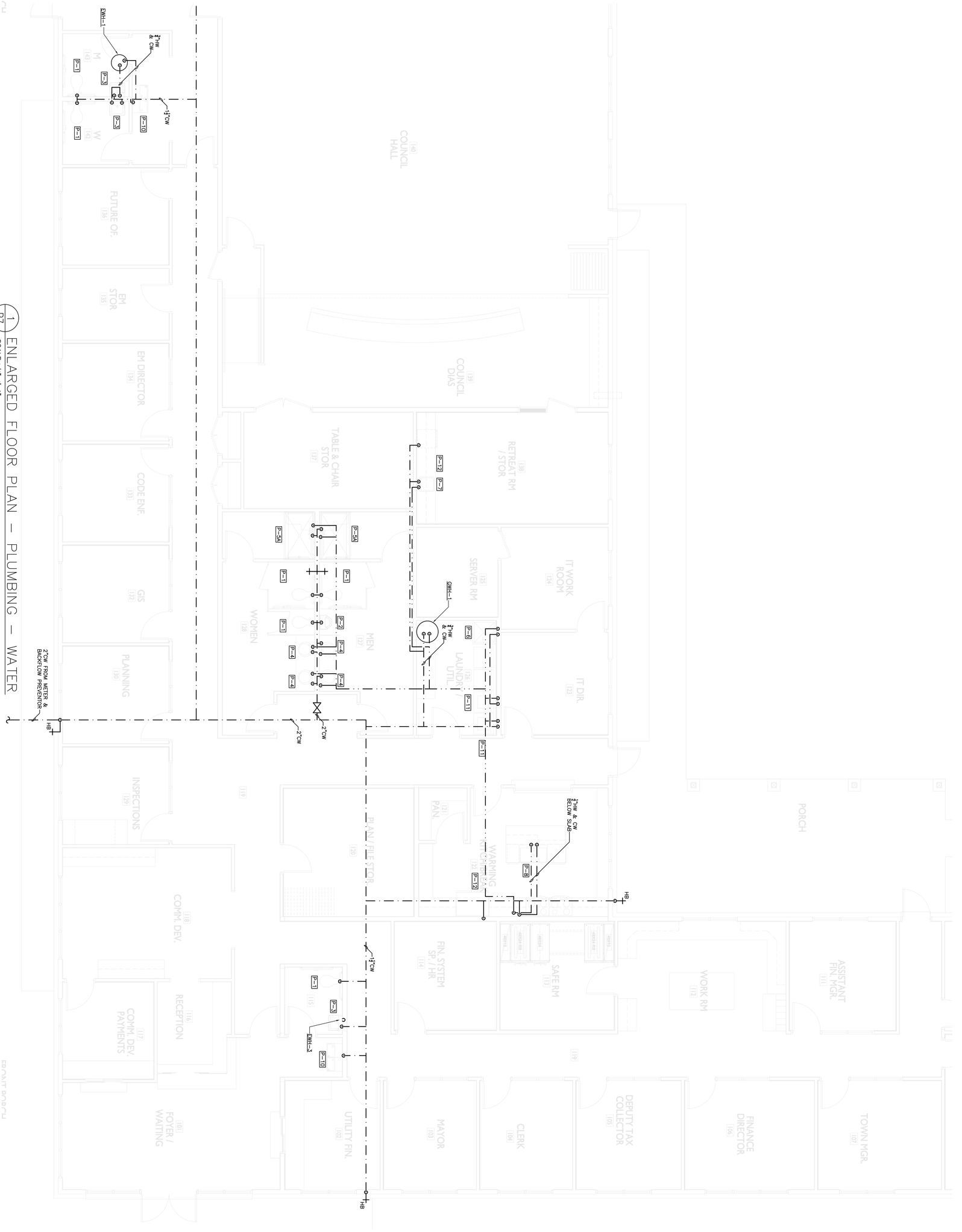
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1 P7 ENLARGED FLOOR PLAN — PLUMBING — WATER

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



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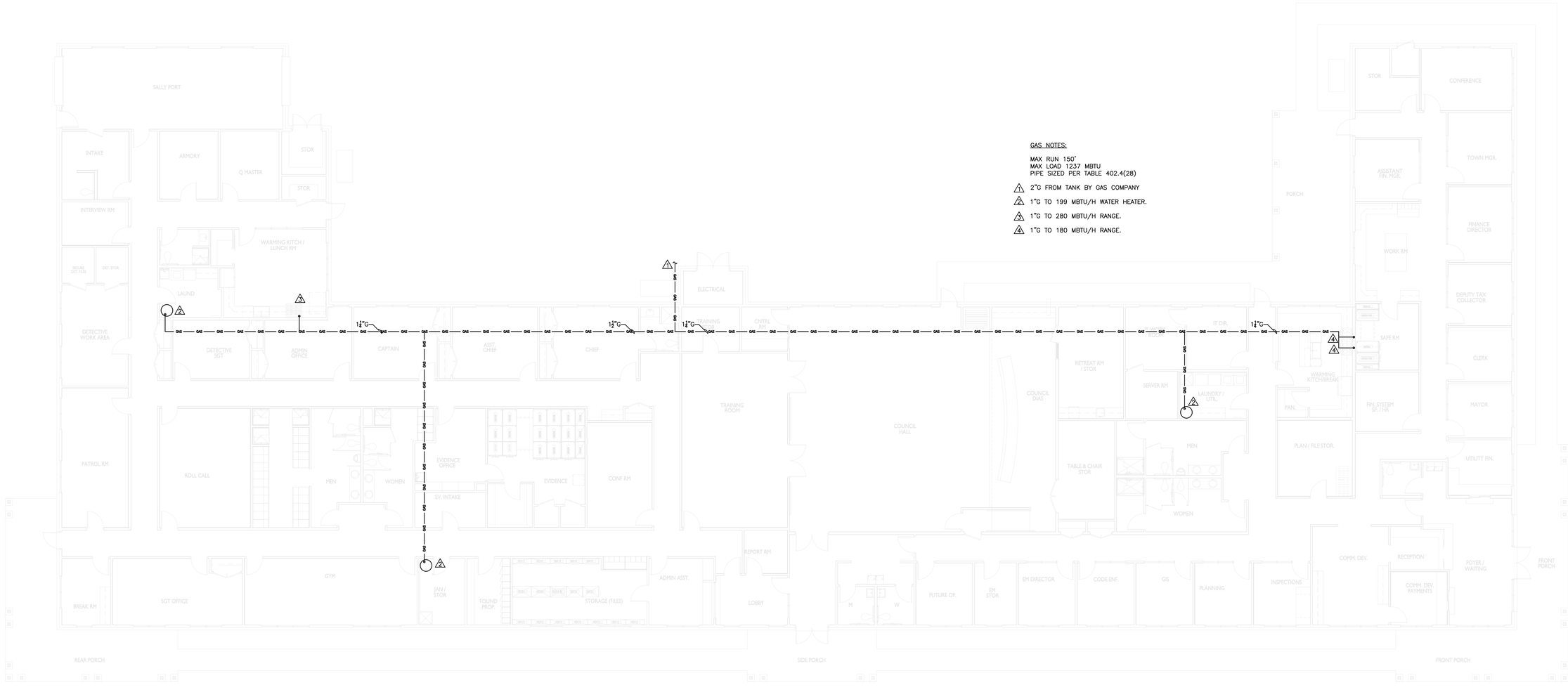
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GAS NOTES:

MAX RUN 150'
MAX LOAD 1237 MBTU
PIPE SIZED PER TABLE 402.4(28)

1. 2"G FROM TANK BY GAS COMPANY
2. 1"G TO 199 MBTU/H WATER HEATER.
3. 1"G TO 280 MBTU/H RANGE.
4. 1"G TO 180 MBTU/H RANGE.



1/P8 OVERALL FLOOR PLAN – GAS PIPING
SCALE:1/8"=1'-0"

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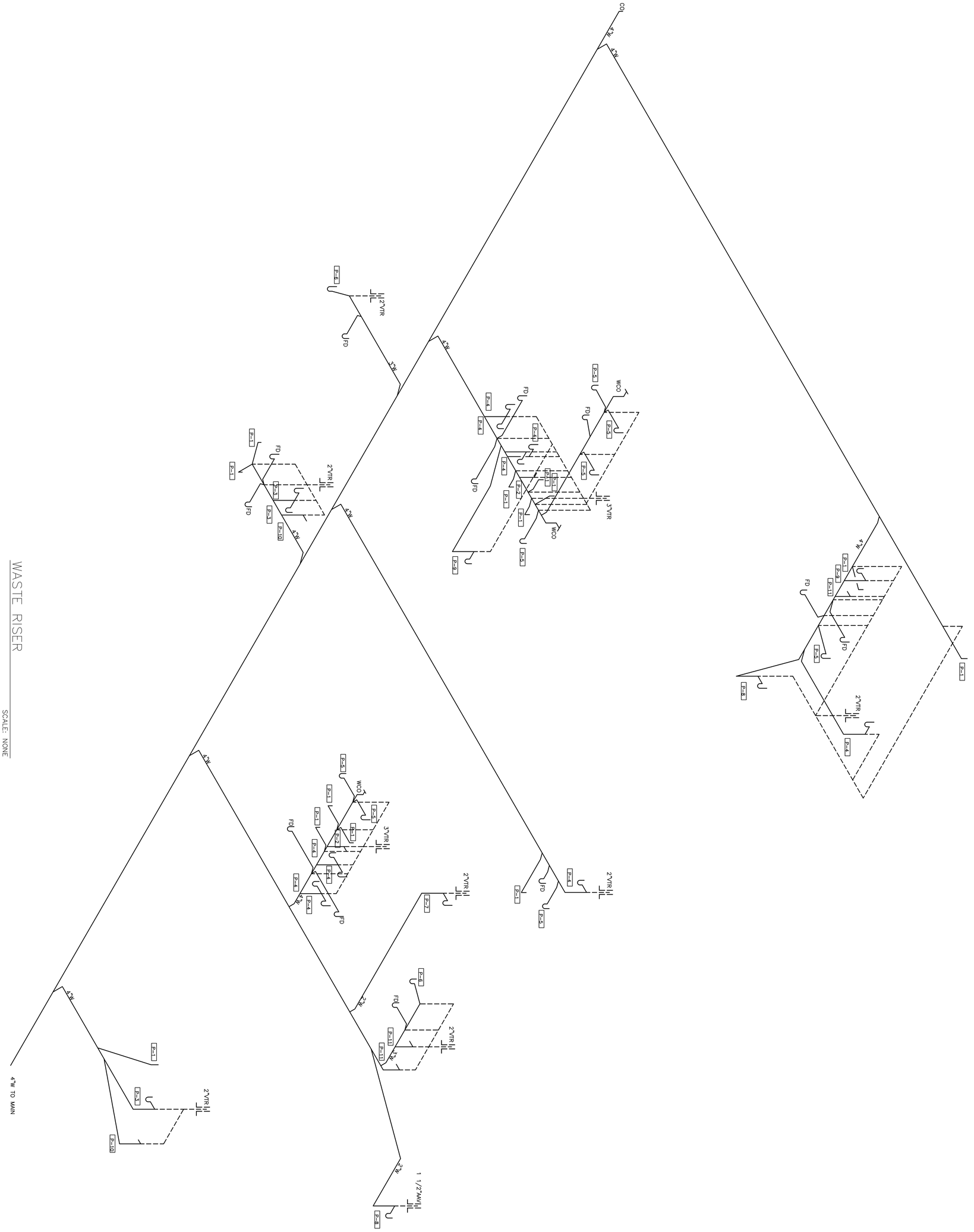
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WASTE RISER

SCALE: NONE

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SPLIT SYSTEM HEAT PUMP SCHEDULE

UNIT NUMBER		AHU1–1,3,4,5	AHU1–2	AHU1–6 THRU 26	AHU1–11, 22	AHU2–1,2	AHU2–3 THRU 6	AHU2–7	AHU2–8	AHU3–1,2	AHU3–13	AHU3–ALL OTHERS	AHU–4, 5
		POLICE WING	POLICE WING	POLICE WING	POLICE WING	ASSEMBLY AREAS	ASSEMBLY AREAS	ASSEMBLY AREAS	ASSEMBLY AREAS	TOWN HALL WING	TOWN HALL WING	TOWN HALL WING	SALLY PORT, IT
MANUFACTURER		MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI
MODEL NUMBER		PLFY–P08NFMU–E	PLFY–P12NFMU–E	PLFY–P05NFMU–E	PLFY–P06NEMU–E	PVFY–P12NAMU–E	PVFY–P30NAMU–E	PLFY–P06NFMU–E	PLFY–P05NFMU–E	PLFY–P08NFMU–E	PLFY–P06NEMU–E	PLFY–P05NFMU–E	MSZ–GE15NA–8
UNIT WEIGHT (LBS)		35	37	35	35	113	141	35	35	35	35	35	22
FAN	TOTAL AIR CFM	315	335	280	280	400	875	280	280	315	280	280	498
	OUTSIDE AIR CFM	20 (VIA DOAS)	20 (VIA DOAS)	20 (VIA DOAS)	20 (VIA DOAS)	100 (VIA DOAS)	400 (MAX VIA DOAS)	20 (VIA DOAS)	20 (VIA DOAS)	20 (VIA DOAS)	20 (VIA DOAS)	20 (VIA DOAS)	–
	FAN POWER	0.22 A	0.23 A	0.19 A	0.19 A	–	–	0.19 A	0.19 A	0.22 A	0.19 A	0.19 A	1 A
	EXT. S.P. (IN. H2O)	N/A	N/A	N/A	N/A	0.8	0.8	N/A	N/A	N/A	N/A	N/A	N/A
	POWER SUPPLY	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1
COOLING CAPACITY	TOTAL CAPACITY COOLING (BTUH)	8,000	12,000	5,000	5,000	12,000	30,000	5,000	5,000	8,000	5,000	5,000	14,000
	SENSIBLE CAPACITY COOLING (BTUH)	4,000	6,000	3,000	3,000	6,000	18,000	3,000	3,000	4,000	3,000	3,000	8,000
	ENTERING AIR TEMP.	80/67	80/67	80/67	80/67	80/67	80/67	80/67	80/67	80/67	80/67	80/67	80/67
HEATING CAPACITY	ENTERING AIR TEMP.	70 °F	70 °F	70 °F	70 °F	70 °F	70 °F	70 °F	70 °F	70 °F	70 °F	70 °F	70 °F
	HIGH TEMPERATURE (BTUH) 47°F DB °	9,000	13,500	5,000	5,000	13,500	34,000	5,000	5,000	9,000	5,000	5,000	18,000
	LOW TEMPERATURE (BTUH) 17°F DB °	3,300	5,300	2,300	2,300	5,300	12,300	2,300	2,300	3,300	2,300	2,300	6,300
	AUXILARY COIL CAPACITY	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	POWER SUPPLY	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1
	MINIMUM AMPACITY	0.28	0.29	0.24	0.24	3.0	4.13	0.24	0.24	0.28	0.24	0.24	1
	MAX. OVERCURRENT PROTECTION	15	15	15	15	15	15	15	15	15	15	15	VIA OUTDOOR UNIT
AIR COOLED HEAT PUMP	UNIT NUMBER	HP–1				HP–2				HP–3			HP–4, 5
	MODEL NUMBER	TURYP1443AN40AB				TURYP1443AN40AB				TURYP1443AN40AB			MUZ–GE15NA–1
	UNIT WEIGHT	646				646				646			80
	ENTERING AIR TEMP.	95'F				95'F				95'F			95'F
	FAN TYPE	PROPELLER				PROPELLER				PROPELLER			PROPELLER
	FAN NUMBER	2				2				2			1
	COMPRESSOR	1 SCROLL				1 SCROLL				1 SCROLL			1 SCROLL
	POWER SUPPLY	208/230/60/1				208/230/60/1				208/230/60/1			208/230/60/1
	MINIMUM AMPACITY	52/48				52/48				52/48			12
	MAX. OVERCURRENT PROTECTION	80/70				80/70				80/70			15
ACCESSORIES		(1), (3)	(1), (3)	(1), (3)	(1), (3)	(1), (2), (3)	(1), (2), (3)	(1), (3)	(1), (3)	(1), (3)	(1), (3)	(1), (3)	(1), (3)

(1) PROVIDE WALL MOUNTED, PROGRAMMABLE ELECTRONIC THERMOSTAT WITH AUTO CHANGEOVER WITH OCCUPANCY SENSOR.

(2) MECHANICAL CONTRACTOR SHALL INSTALL DUCT DETECTOR IN RETURN AIR DUCT FOR AIR HANDLER SHUTDOWN. DETECTOR PROVIDED AND CONNECTED TO BUILDING FIRE ALARM SYSTEM BY ELECTRICAL CONTRACTOR.

(3) SYSTEMS SELECTED MEET REQUIREMENTS UNDER SECTION 406 OF THE NORTH CAROLINA STATE BUILDING CODE: ENERGY CONSERVATION CODE.

EXHAUST FAN SCHEDULE

TAG	CFM	RPM	S.P. IN. W.G.	WATTS/HP	SONES	ELECTRIC	CONTROL	MANUFACTURER MODEL NUMBER	DESCRIPTION & ACCESSORIES
EF–1	75	700	.25	50 WATTS	3.0	120–1–60	WIRED WITH LIGHT	GREENHECK SP–B90	1, 2, 3
EF–2	150	1050	.25	129 WATTS	4.5	120–1–60	WIRED WITH LIGHT	GREENHECK SP–B150	1, 2, 3
EF–3	225	1000	.25	83 WATTS	3.4	120–1–60	WIRED WITH LIGHT	GREENHECK SP–A250	1, 2, 3

(1) CABINET CEILING FAN, DIRECT DRIVE, CENTRIFUGAL, SPRING LOADED ALUMINUM BACKDRAFT DAMPER.

(2) ALUMINUM, WHITE ENAMEL CEILING GRILLE.

(3) ALUMINUM HOODED WALL CAP WITH BUILT–IN BIRDSCREEN AND DAMPER.

AIR DISTRIBUTION DEVICE SCHEDULE

TAG	SERVICE	NECK SIZE	OVERALL SIZE	MODEL NUMBER	DESCRIPTION & ACCESSORIES
A	SUPPLY	8"ø	12 X 12	ASPD	1, 2, 4, 7, 8
B	SUPPLY	8"ø	24 X 24	ASPD	1, 2, 3, 7, 8
C	SUPPLY	12"ø	48" (2) 1" SLOTS	TBD3100	1, 2, 3, 7, 8
D	RETURN	14"ø	48" (2) 1" SLOTS	TBR	1, 2, 3, 5
E	EXHAUST	14"ø	24 X 24	80	1, 2, 3, 5
F	RETURN	14"ø	24 X 24	80	1, 2, 3, 5
G	SUPPLY	6"ø	12 X 6	610	1, 2, 4, 7, 8

(1) PRICE AIR DISTRIBUTION; OR APPROVED EQUAL.

(2) ALUMINUM CONSTRUCTION, STANDARD WHITE FINISH.

(3) T–BAR LAY–IN PANEL

(4) SURFACE MOUNT BORDER.

(5) CFM SHOWN IN GRILLE TAG IS MAXIMUM POSSIBLE WITH EXHAUST AND OUTSIDE AIR AT 0.

(6) DOUBLE DEFLECTION GRILLE.

(7) SQUARE FACE. ROUND NECK DIFFUSER

(8) BUTTERFLY STYLE VOLUME CONTROL DAMPER.

NOTE: FLEXIBLE DUCTWORK SHALL MATCH DIFFUSER NECK SIZE UNLESS OTHERWISE NOTED.

DOAS SCHEDULE

UNIT NUMBER	DOAS–1, 2, 3
MANUFACTURER	UNITED COOL AIR
MODEL NUMBER	ALPHA AIRE
UNIT WEIGHT (LBS)	600
TOTAL AIR CFM	500
OUTSIDE AIR CFM	500
TOTAL CAPACITY COOLING (BTUH)	33,700
SENSIBLE CAPACITY COOLING (BTUH)	11,100
COOLING ENTERING AIR TEMP. (DB/WB)	80/67
HEATING ENTERING AIR TEMP. (DB/WB)	16/12
HEATING CAP @16° F	44,000
AUXILARY COIL CAPACITY	N/A
LEAVING AIR TEMP. (DB/WB)	70/56
POWER SUPPLY	208/1/60
COMPRESSOR	4.5 A
EVAP FAN	2 ECM
COND FAN	1.5 A
MINIMUM AMPACITY	10.2
MAX. OVERCURRENT PROTECTION	15
ACCESSORIES	(1)

(1) PROVIDE CONTROLS REQUIRED FOR SEQUENCE OF OPERATION LISTED

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT
METHOD OF COMPLIANCE
Prescriptive ___●___ Energy Cost Budget _____

Thermal Zone 3A
Exterior design conditions
winter dry bulb 26° F
summer dry bulb 92° F DB/76° F WB
Interior design conditions
winter dry bulb 70° F
summer dry bulb 75° F
relative humidity 50%
Building heating load 103 MBTU/H
Building cooling load 32.4 TONS
Mechanical Spacing Conditioning System
Unitary
description of unit
heating efficiency 9.0 HSPF
cooling efficiency 15.0 SEER AVG.
heat output of unit SEE SCHEDULES
cooling output of unit SEE SCHEDULES
boiler
total boiler output. If oversized, state reason. N/A
chiller
total chiller capacity. If oversized, state reason. N/A
List equipment efficiencies N/A

Equipment schedules with motors (mechanical systems)
motor horsepower SEE SCHEDULES
number of phases SEE SCHEDULES
minimum efficiency SEE SCHEDULES
motor type ODP
# of poles 4

Additional prescriptive compliance method : C406.2.1 More Eff. Mech Equip.

DESIGNER STATEMENT:
To the best of my knowledge and belief, the design of this building complies with the mechanical systems, service systems and equipments of the 2018 North Carolina State Energy Code.

SIGNED:
NAME: STEVEN H. DEVERHART JR., P.E.
TITLE: PROFESSIONAL ENGINEER

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STEVEN H. DEVERHART JR. SEAL 24933 PROFESSIONAL ENGINEER 05.14.20

TOWN OF SURF CITY
MUNICIPAL COMPLEX
TRACT 3, M.B. 63 P. 32, / NC HWY. 210
WILMINGTON, NORTH CAROLINA

05.14.20
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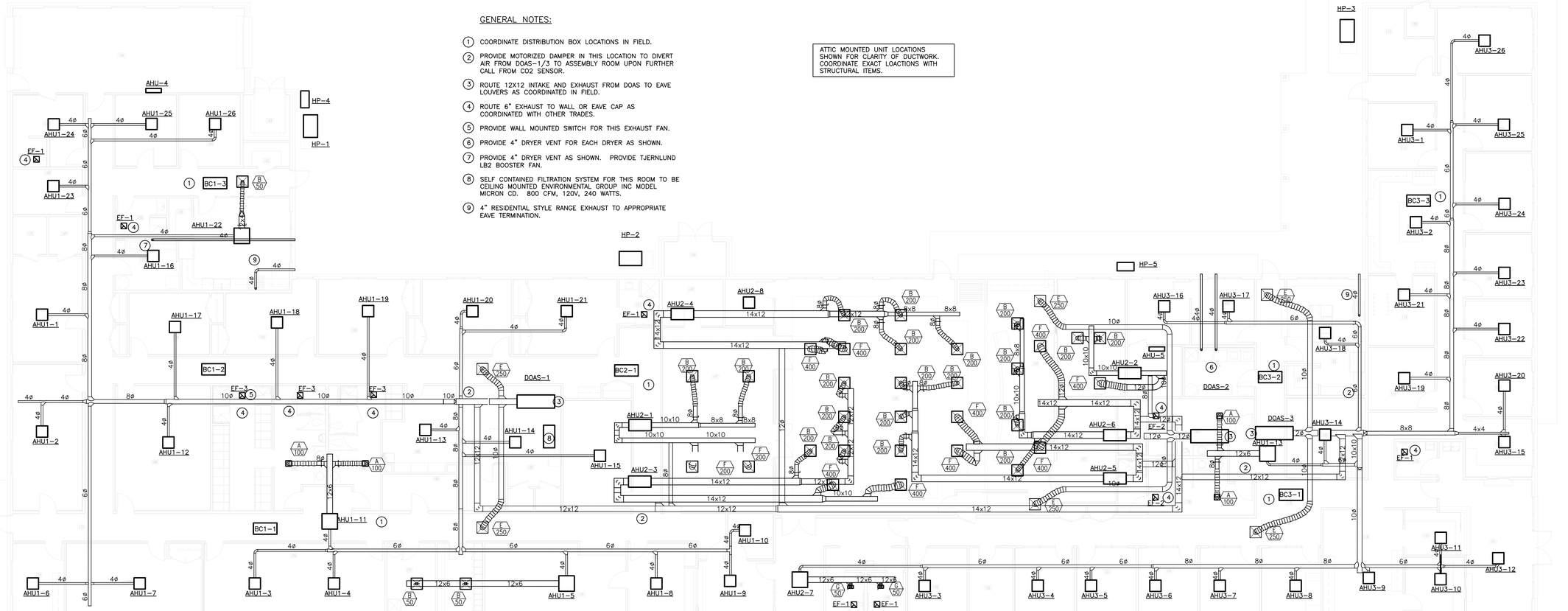
M1

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GENERAL NOTES:

1. COORDINATE DISTRIBUTION BOX LOCATIONS IN FIELD.
2. PROVIDE MOTORIZED DAMPER IN THIS LOCATION TO DIVERT AIR FROM DOAS-1/3 TO ASSEMBLY ROOM UPON FURTHER CALL FROM CO2 SENSOR.
3. ROUTE 12X12 INTAKE AND EXHAUST FROM DOAS TO EAVE LOUVERS AS COORDINATED IN FIELD.
4. ROUTE 6" EXHAUST TO WALL OR EAVE CAP AS COORDINATED WITH OTHER TRADES.
5. PROVIDE WALL MOUNTED SWITCH FOR THIS EXHAUST FAN.
6. PROVIDE 4" DRYER VENT FOR EACH DRYER AS SHOWN.
7. PROVIDE 4" DRYER VENT AS SHOWN. PROVIDE TJERNLUND LB2 BOOSTER FAN.
8. SELF CONTAINED FILTRATION SYSTEM FOR THIS ROOM TO BE CEILING MOUNTED ENVIRONMENTAL GROUP INC MODEL MICRON CD. 800 CFM, 120V, 240 WATTS.
9. 4" RESIDENTIAL STYLE RANGE EXHAUST TO APPROPRIATE EAVE TERMINATION.

ATTIC MOUNTED UNIT LOCATIONS SHOWN FOR CLARITY OF DUCTWORK. COORDINATE EXACT LOACTIONS WITH STRUCTURAL ITEMS.



1 / M2 FLOOR PLAN – MECHANICAL
SCALE:1/8"=1'-0"

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STEVEN E. SPEED 23933 REGISTERED PROFESSIONAL ENGINEER

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05.14.20
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Town of Surf City Municipal Complex

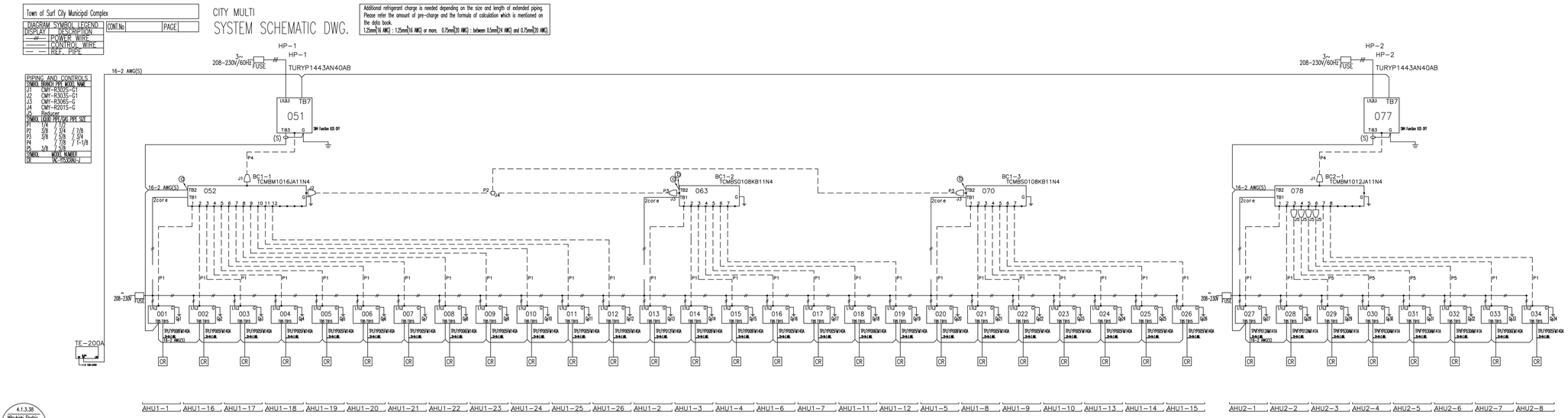
DIAGRAM SYMBOL LEGEND		CONT.No	PAGE
DISPLAY	DESCRIPTION		
——//——	POWER WIRE		
———	CONTROL WIRE		
— — —	REF. PIPE		

CITY MULTI

SYSTEM SCHEMATIC DWG.

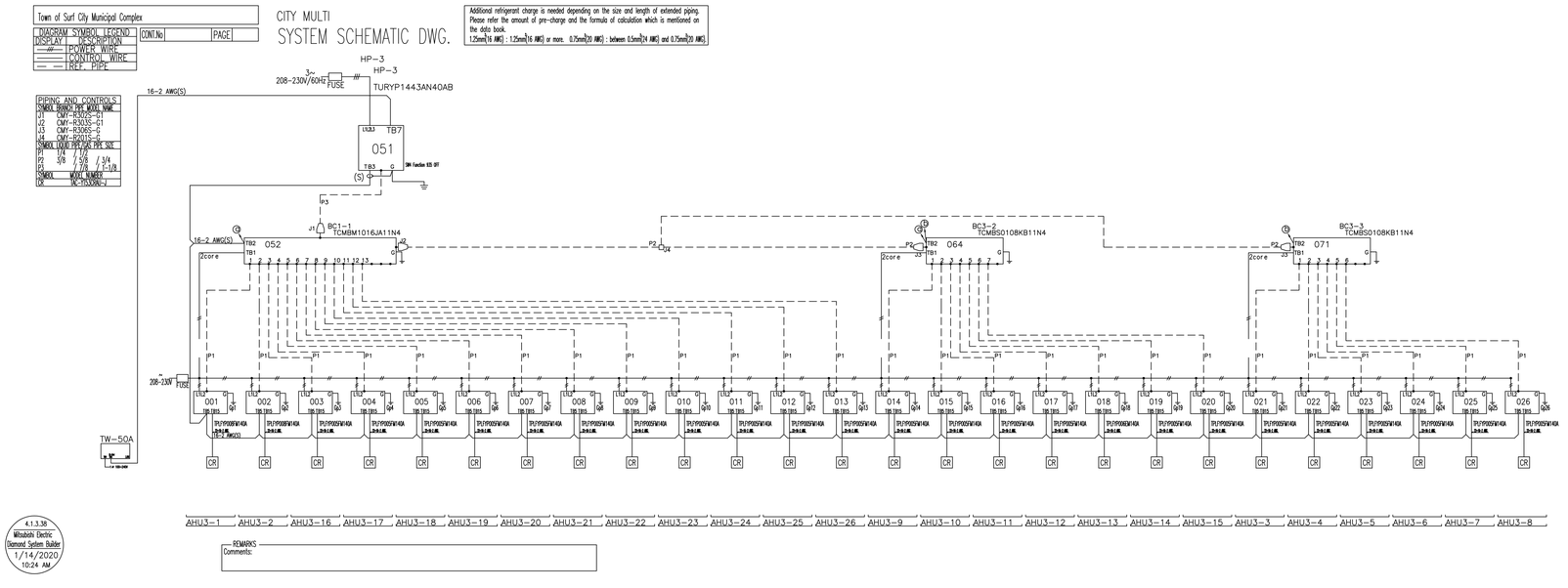
Additional refrigerant charge is needed depending on the size and length of extended piping. Please refer the amount of pre-charge and the formula of calculation which is mentioned on the data book.
1.25mm²(16 AWG) : 1.25mm²(16 AWG) or more. 0.75mm²(20 AWG) : between 0.5mm²(24 AWG) and 0.75mm²(20 AWG).

PIPING AND CONTROLS	
SYMBOL	BRANCH BOX MODEL NAME
J1	CMY-R302S-G1
J2	CMY-R303S-G1
J3	CMY-R306S-G
J4	CMY-R201S-G
J5	Redacor
SYMBOL	LIQUID PIPE GAS PIPE SIZE
P1	1/4 / 1/2
P2	3/8 / 3/4 / 7/8
P3	3/8 / 5/8 / 3/4
P4	3/8 / 7/8 / 1-1/8
P5	1/8 / 1/2
SYMBOL	MODEL NAME(S)
OR	MC-TRX008-J



REMARKS
Comments:

4.1.3.38
Mitsubishi Electric
Diamond System Builder
1/14/2020
10:22 AM



REMARKS
Comments:

4.1.3.38
Mitsubishi Electric
Diamond System Builder
1/14/2020
10:24 AM

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SEAL
24933
05.14.20
STEVEN, NC
REGISTERED ARCHITECT

TOWN OF SURF CITY
MUNICIPAL COMPLEX
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WILMINGTON, NORTH CAROLINA

05.14.20
REVISIONS:

M3

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ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

METHOD OF COMPLIANCE:

Energy Code: ◉ Prescriptive ☐ Performance

Lighting schedule

lamp type required in fixture: See Fixture Schedule
number of lamps in fixture: See Fixture Schedule
ballast type used in the fixture: See Fixture Schedule
number of ballasts in fixture: See Fixture Schedule
total wattage per fixture: See Fixture Schedule

total interior wattage specified vs allowed: 14,394/15990
total exterior wattage specified vs allowed: 795/1675

Additional Efficiency Package Options

- ◉ C406.2 More Efficient HVAC Equipment Performance
- ☐ C406.3 Reduced Lighting Power Density
- ☐ C406.4 Enhanced Digital Lighting Controls
- ☐ C406.5 On-Site Renewable Energy
- ☐ C406.6 Dedicated Outdoor Air System
- ☐ C406.7 Reduced Energy Use in Service Water Heating
- ☐ N/A EXISTING/RENOVATION

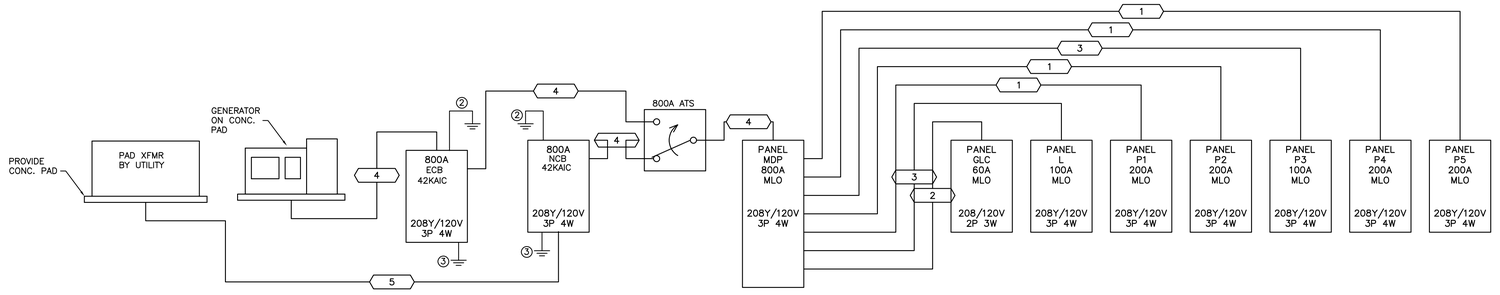
DESIGNER STATEMENT:

To the best of my knowledge and belief, the design of this building complies with the requirements of Section C405 of the 2018 North Carolina State Energy Code.

SIGNED:
NAME: Gregory McDowell
TITLE: Professional Engineer

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
———	CONDUIT
– – – –	CONDUIT UNDERFFLOOR OR UNDERGROUND
	ARROW INDICATES HOMERUN, TICKMARKS: NEUTRAL,PHASE,GND.
	POWER PANEL
▼	DATA/COMM OUTLET
J	JUNCTION BOX
	DISCONNECT SWITCH; FUSED; NONFUSED
FPN	FUSE PER NAMEPLATE
S_m	MOTOR TOGGLE SWITCH
M	MOTOR
	EXISTING OR BY OTHERS
	LIGHT FIXTURE
S, S_3, S_4	SINGLE POLE SWITCH , 3 WAY, 4 WAY
S_D, S_{DS}	DIMMER SWITCH, 3-WAY DIMMER SWITCH
AFF	ABOVE FINISHED FLOOR
	DUPLEX RECEPT , ABOVE COUNTER
WP , GFI	WEATHERPROOF , GROUND FAULT
	QUAD-PLEX RECEPTACLE
	DUPLEX RECEPT VIDEO OUTLET HEIGHT
	VIDEO OUTLET
$\odot_3$	TRIPLE SERVICE FLOOR OUTLET W/ HEAVY DUTY COVER. PROVIDE DUPLEX RECEPTACLE AND PROVISIONS FOR LOW VOLTAGE OUTLETS



GROUNDING NOTES:

1. #3/0 GND PER NEC 250
2. #6 SUPPLEMENTAL GND

POWER RISER
NTS

FEEDER SCHEDULE

ID	FEEDER AMPS	CONDUIT AND FEEDER
1	150	1-1/2"C,3#1/0,#1/0N,#6G
2	60	1"C,2#4,#4N,#10G
3	100	1-1/2"C,3#1,#1N,#8G
4	800	(3)3"C,3#300kcmil,#300kcmil N,#1/0G
5	800	(3)2-1/2"C,3#300kcmil,#300kcmil N

SIZING METHOD: COPPER, 60°C #12 THROUGH #1, 75°C 1/0 AND ABOVE

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 018518 GREGORY L. McDOWELL 5/14/20

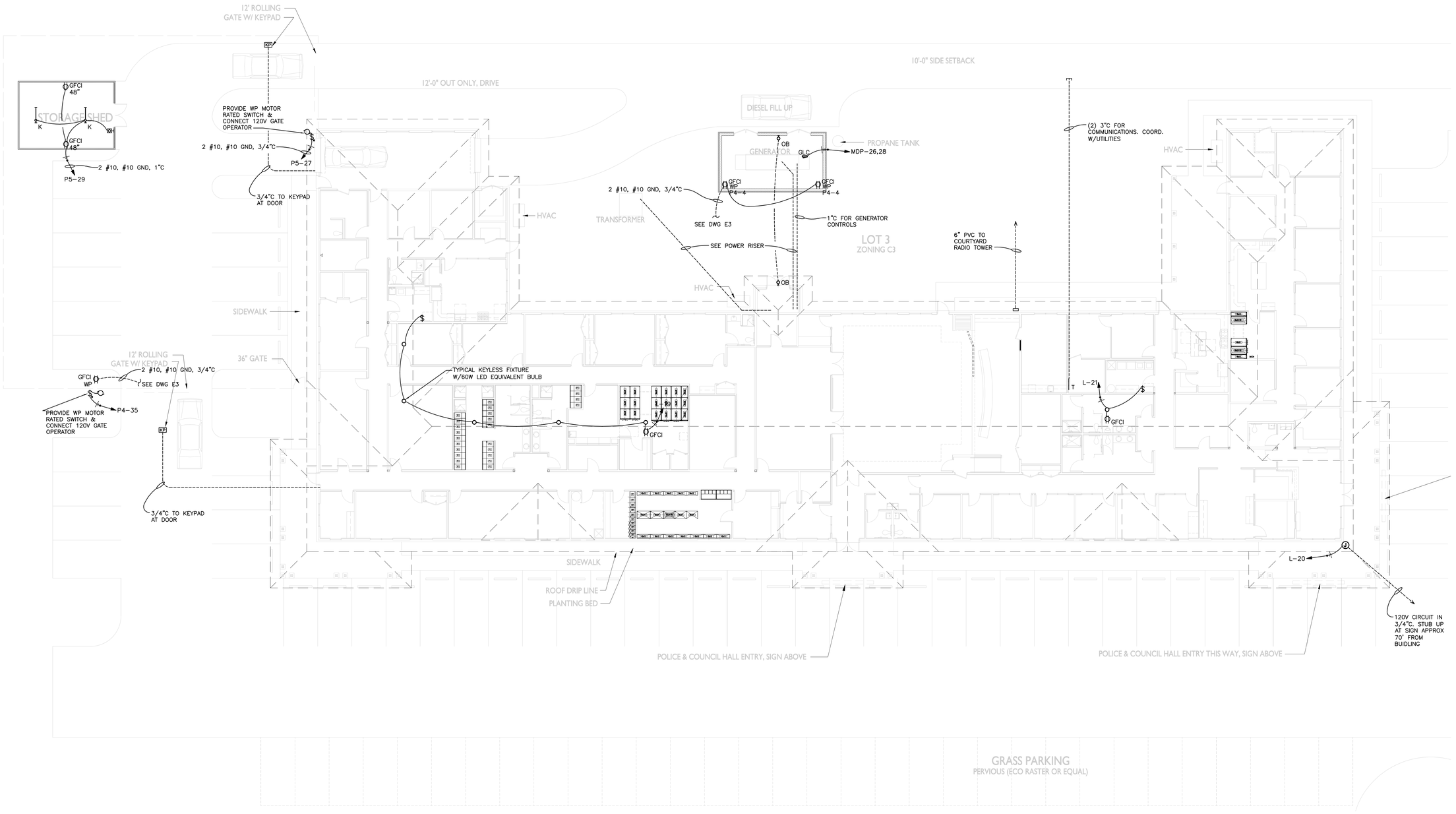
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05.14.20
REVISIONS:

E1

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1 / E2 SITE/ATTIC PLAN – ELECTRICAL
SCALE: 3/32"=1'-0"

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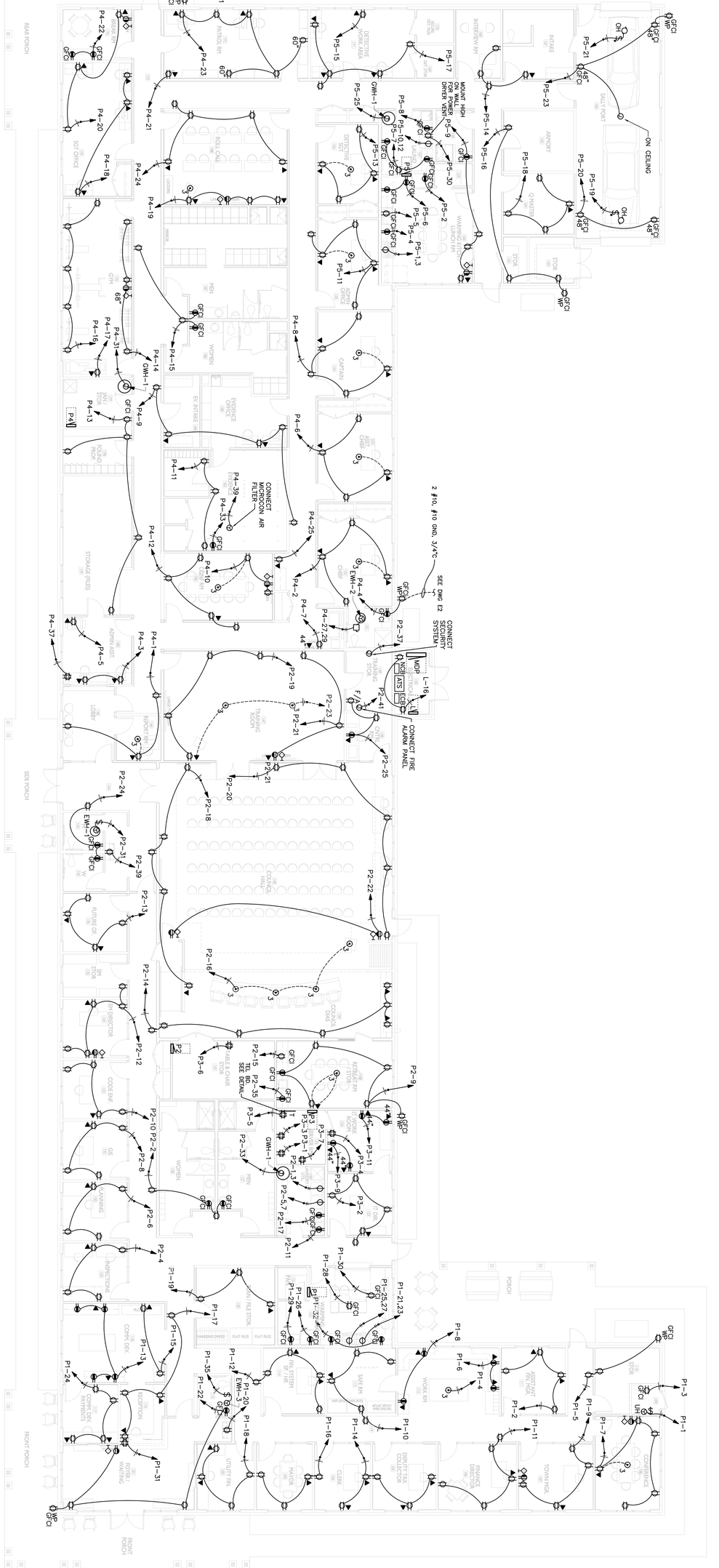
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 018518 5/14/20 CRAIG L. TENKOTTE

TOWN OF SURF CITY
MUNICIPAL COMPLEX
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05.14.20
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WILMINGTON, NORTH CAROLINA

REVISIONS:
05.14.20

E3

NORTH CAROLINA REGISTERED PROFESSIONAL SEAL 018518 5/14/20 ENGINEER GREGORY L. McDONELL

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GENERAL LUMINAIRE SCHEDULE

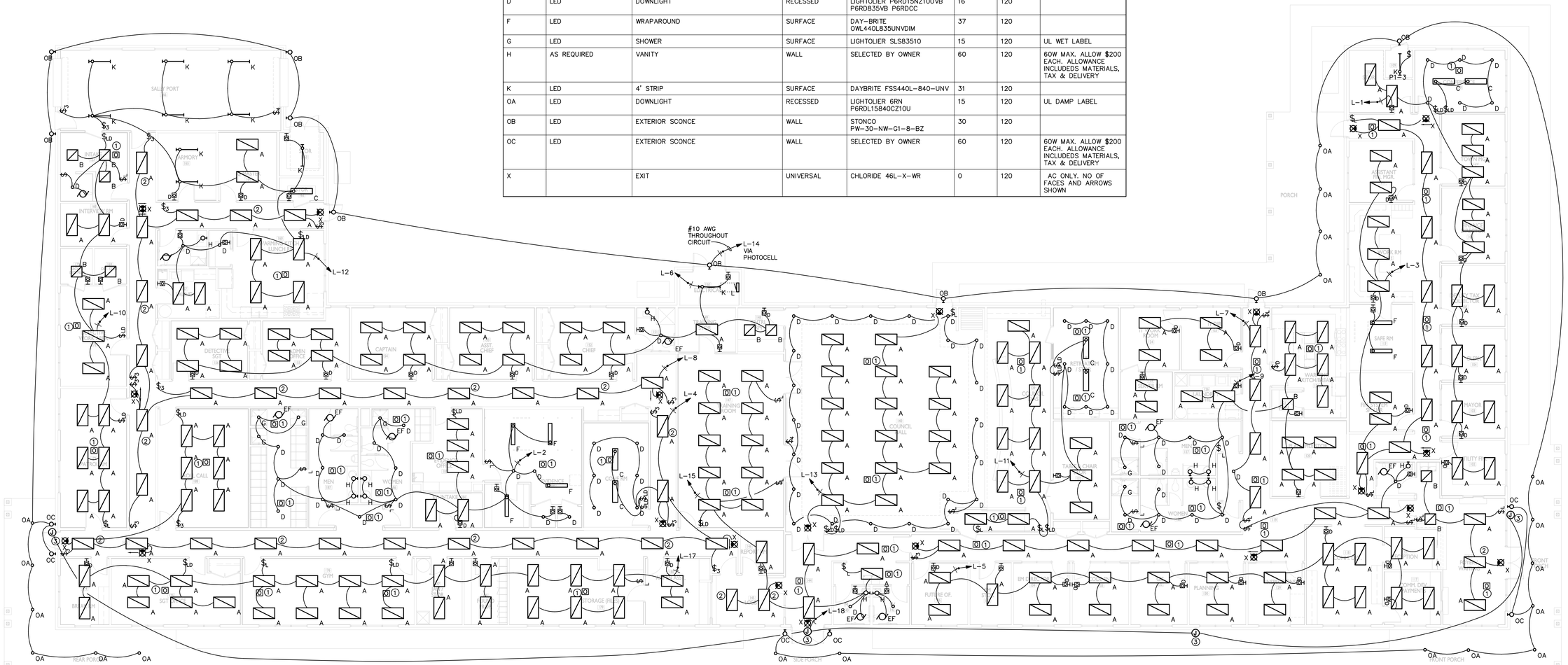
CALLOUT	LAMP	DESCRIPTION	MOUNTING	MODEL	TOTAL VA	VOLTS	NOTE 1
A	LED	2x4 BASKET TROFFER	LAY-IN	DAY-BRITE 2EVG48L835UNVDIM	48	120	
B	LED	2x2 BASKET TROFFER	LAY-IN	DAY-BRITE 2EVG38L8352DUNVDIM	33	120	
C	LED	1x4 BASKET TROFFER	LAY-IN	DAY-BRITE 1EVG38L835DUNVDIM	29	120	
D	LED	DOWNLIGHT	RECESSED	LIGHTOLIER P6RD15NZ10UVB P6RD835VB P6RDCC	16	120	
F	LED	WRAPAROUND	SURFACE	DAY-BRITE OWL440L835UNVDIM	37	120	
G	LED	SHOWER	SURFACE	LIGHTOLIER SLS83510	15	120	UL WET LABEL
H	AS REQUIRED	VANITY	WALL	SELECTED BY OWNER	60	120	60W MAX. ALLOW $200 EACH. ALLOWANCE INCLUDEDS MATERIALS, TAX & DELIVERY
K	LED	4' STRIP	SURFACE	DAYBRITE FSS440L-840-UNV	31	120	
OA	LED	DOWNLIGHT	RECESSED	LIGHTOLIER 6RN P6RDL15840CZ10U	15	120	UL DAMP LABEL
OB	LED	EXTERIOR SCONCE	WALL	STONCO PW-30-NW-G1-8-BZ	30	120	
OC	LED	EXTERIOR SCONCE	WALL	SELECTED BY OWNER	60	120	60W MAX. ALLOW $200 EACH. ALLOWANCE INCLUDEDS MATERIALS, TAX & DELIVERY
X		EXIT	UNIVERSAL	CHLORIDE 46L-X-WR	0	120	AC ONLY. NO OF FACES AND ARROWS SHOWN

SWITCH SCHEDULE

SYMBOL	NOTE 1
$4	4-WAY SWITCH
$	Single Pole Switch
$L	SENSORWORX SWX-801 LOW VOLTAGE SWITCH
$LD	SENSORWROX SWX-803 LOW VOLTAGE DIMMING SWITCH
⊡	SENSORWORX SWX-222-1 CEILING MOUNT VACANCY SENSOR
HD	SENSORWORX SWX-123-D DIMMING VACANCY SENSOR
H	SENSORWORX SWX-123 VACANCY SENSOR
$D	Dimmer Switch
$3	3-WAY SWITCH
$3d	3-Way Dimmer

NOTE:

1. PROVIDE POWER PACKS AS REQUIRED. SWITCHLEGS SHOWN FOR LOW VOLTAGE SWITCHING SHOW INTENT OF CONTROLS DESIRED.
2. POWER PACKS SHALL BE SENSORWORX SWX-900-AX FOR VACANCY MODE APPLICATION.
3. LOW VOLTAGE SWITCHES & LOW VOLTAGE DIMMING SWITCHES SHALL BE SET FOR MANUAL ON APPLICATION (VACANCY)
4. WALL BOX DIMMERS SHALL BE MANUAL, ON MANUAL OFF, VACANCY OFF.
5. ALL DIMMING SHALL BE 0-10V, COMPATIBLE WITH FIXTURES TO BE DIMMED. PROVIDE LOW VOLTAGE 0-10V DIMMING CONTROL WIRING.
6. EQUALS BY WATTSTOPPER OR LEGRAND WILL BE ACCEPTABLE. SUBMIT FOR APPROVAL.



NOTE: OCCUPANCY SENSORS/AUTOMATIC LIGHTING CONTROLS NOT PROVIDED IN POLICE DEPARTMENT CORRIDORS & SALLY PORT FOR SECURITY (2018 NC ENERGY CONSERVATION CODE C405.2 EXCEPTION 1).

NOTE: PROVIDE SWITCH BYPASS DEVICES BODINE GTD20A OR EQUAL TO BYPASS LOCAL SWITCHING WHEN NORMAL POWER IS LOST TO PROVIDE USWITCHED EMERGENCY EGRESS LIGHTING IN CORRIDORS, FOYERS, CONFERENCE ROOMS, LARGE RESTROOMS, TRAINING ROOM, COUNCIL HALL/DIAS, ROLL CALL, KITCHEN AND ALL OTHER REQUIRED AREAS OF EMERGENCY EGRESS. PROVIDE SHOP DRAWINGS FROM SUPPLIER SHOWING LOCATIONS, QUANTITY REQUIRED & WIRING DIAGRAMS FOR APPROVAL.

REFERENCE NOTES:

1. SET OCCUPANCY SENSOR TO VACANCY MODE
2. UNSWITCH NIGHT LIGHT
3. SIGN CIRCUIT VIA PHOTOCELL. VERIFY LOCATION

NOTE: ALL LIGHTING (INTERIOR & EXTERIOR) INCLUDING ATTIC AREAS W/HVAC EQUIPMENT SHOWN ON DRAWING E2 IS ON THE GENERATOR (EMERGENCY POWER SOURCE).

1/E4 FLOOR PLAN – LIGHTING
SCALE:1/8"=1'-0"

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910.343.8457 www.dogwoodarchitecture.com

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 015518 5/14/20 TOPSAIL ENGINEERING, INC. GREGORY L. TOMKOSKI

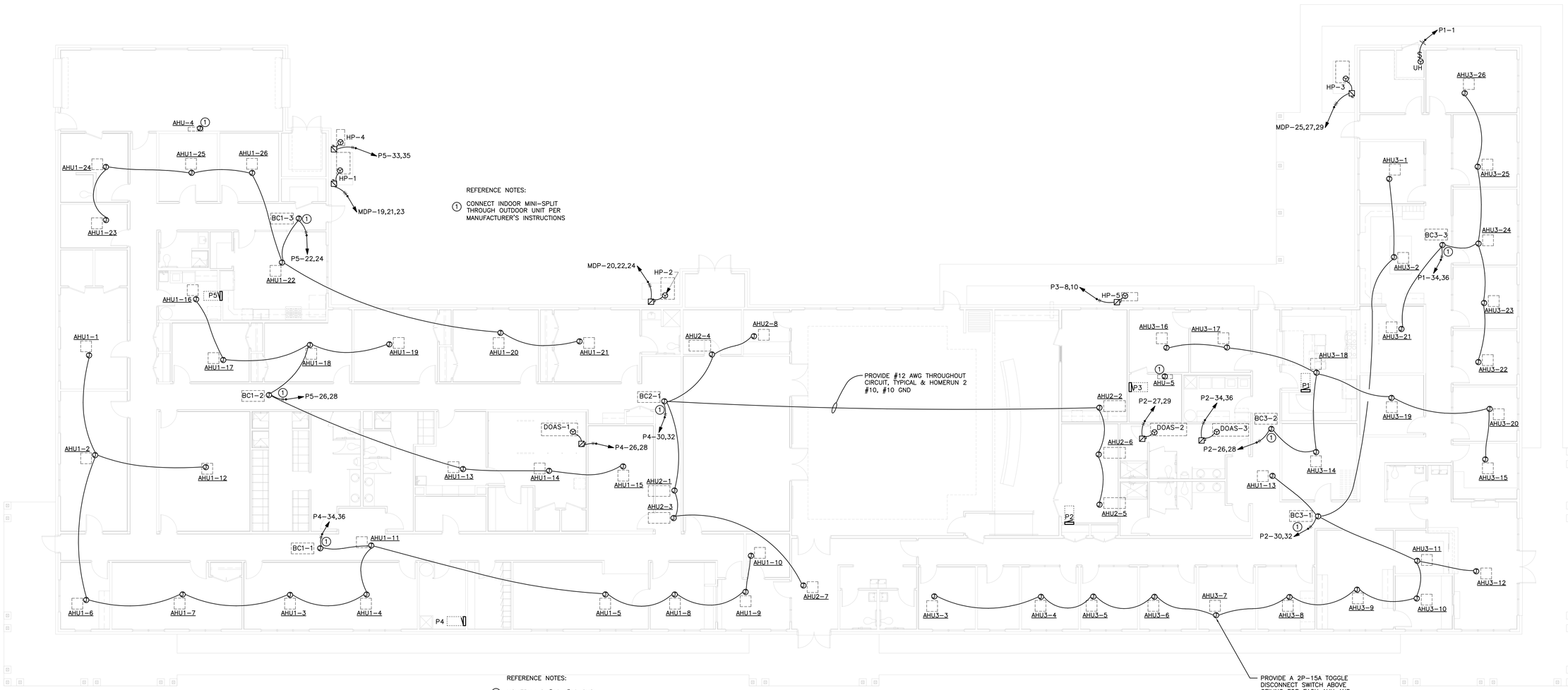
TOWN OF SURF CITY
MUNICIPAL COMPLEX
TRACT 3, M.B. 63 P. 32, / NC HWY. 210
WILMINGTON, NORTH CAROLINA

05.14.20
REVISIONS:

E4

PROJECT NO. 11710

TOPSAIL ENGINEERING, INC
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REFERENCE NOTES:

1. CONNECT INDOOR MINI–SPLIT THROUGH OUTDOOR UNIT PER MANUFACTURER'S INSTRUCTIONS

REFERENCE NOTES:

1. HOMERUN 2 #10, #10 GND

1/E5 FLOOR PLAN – MECHANICAL CONNECTIONS

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

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TOWN OF SURF CITY

MUNICIPAL COMPLEX

TRACT 3, M.B. 63 P. 32, / NC HWY. 210
WILMINGTON, NORTH CAROLINA

05.14.20
REVISIONS:

E5

PROJECT NO. 11710

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GENERAL NOTES:

1 LOW VOLTAGE SYSTEMS INCLUDING DATA COMMUNICATIONS AND NETWORKING, TELEPHONE, VIDEO, SOUND, SECURITY, ACCESS CONTROL AND INTERCOM WILL BE BY OTHERS.

2. ELECTRICAL CONTRACTOR RESPONSIBILITY SHALL BE TO PROVIDE POWER FOR THESE SYSTEMS ALONG WITH BOXES AND CONDUITS/RACEWAYS AS INDICATED ON THIS PLAN AND THE POWER PLAN.

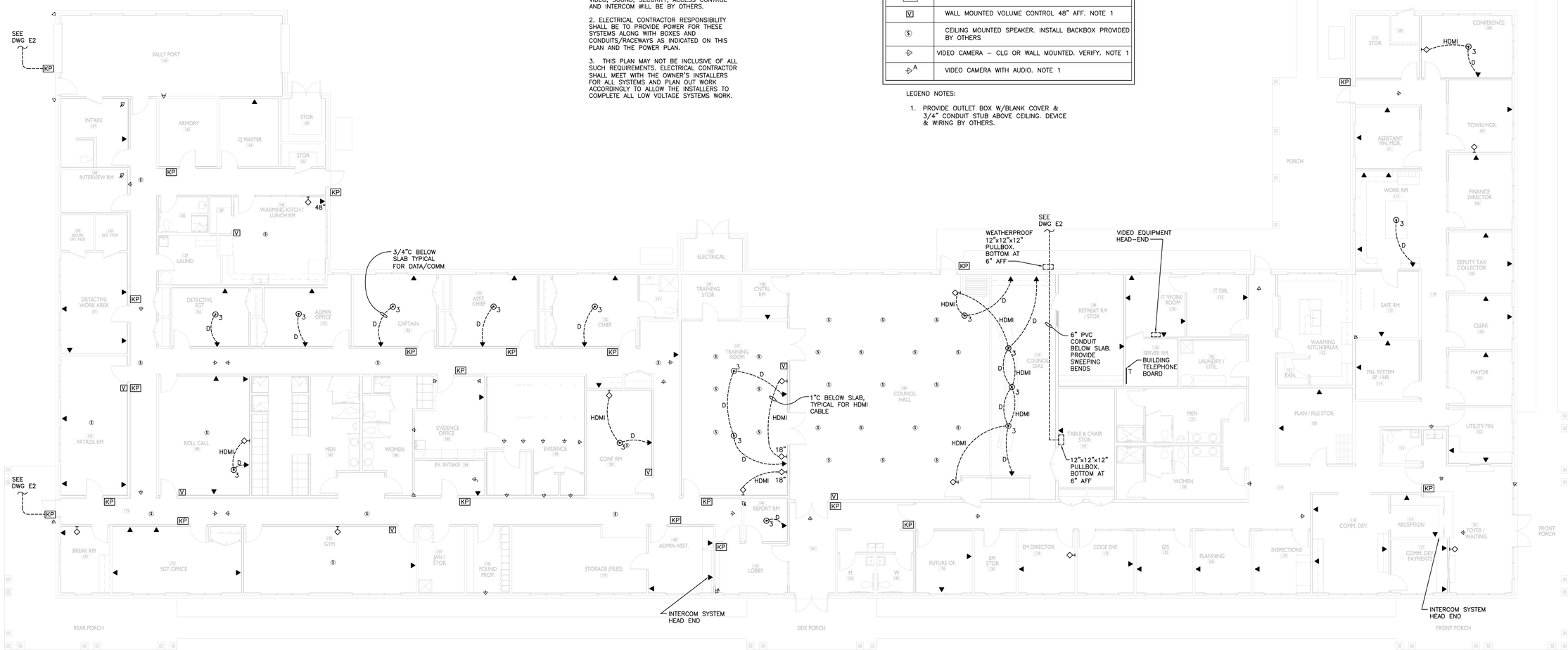
3. THIS PLAN MAY NOT BE INCLUSIVE OF ALL SUCH REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL MEET WITH THE OWNER'S INSTALLERS FOR ALL SYSTEMS AND PLAN OUT WORK ACCORDINGLY TO ALLOW THE INSTALLERS TO COMPLETE ALL LOW VOLTAGE SYSTEMS WORK.

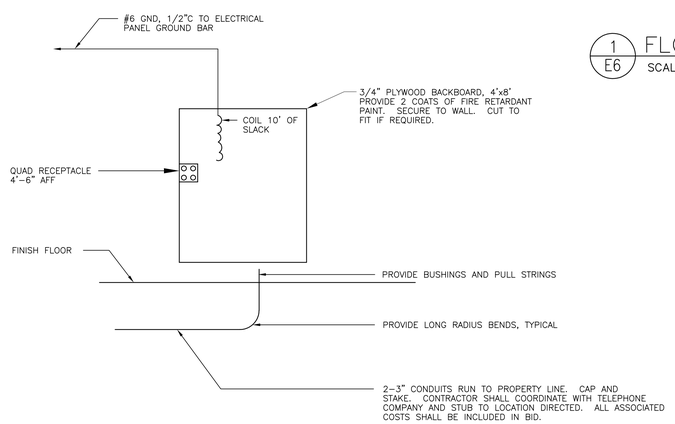
LOW VOLTAGE LEGEND

SYMBOL	DESCRIPTION
▼	DATA/COMM OUTLET. 18" AFF UNLESS OTHERWISE NOTED
◇H	VIDEO OUTLET 68" AFF TO CENTER UON. VERIFY W/OWNER
⊙3	TRIPLE SERVICE FLUSH FLOOR OUTLET W/DUPLEX RECEPT, AND DATA/COMM/VIDEO OUTLET PROVISIONS.
KP	KEYPAD FOR CARD ACCESS 48" AFF. SEE NOTE 1
V	WALL MOUNTED VOLUME CONTROL 48" AFF. NOTE 1
Ⓢ	CEILING MOUNTED SPEAKER. INSTALL BACKBOX PROVIDED BY OTHERS
▷	VIDEO CAMERA – CLG OR WALL MOUNTED. VERIFY. NOTE 1
▷A	VIDEO CAMERA WITH AUDIO. NOTE 1

LEGEND NOTES:

1. PROVIDE OUTLET BOX W/BLANK COVER & 3/4" CONDUIT STUB ABOVE CEILING. DEVICE & WIRING BY OTHERS.



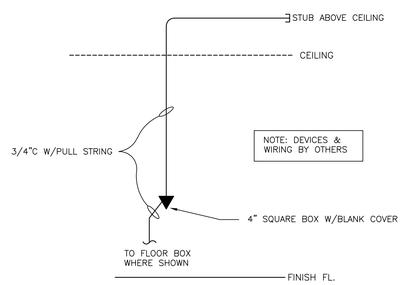


TELEPHONE SERVICE DETAIL

NTS

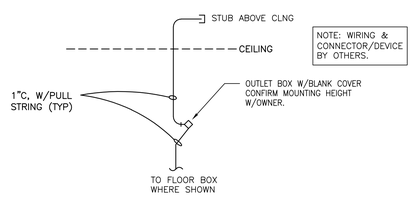
1/E6 FLOOR PLAN – LOW VOLTAGE SYSTEMS

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



TYPICAL DATA/COMM OUTLET

NTS



TYPICAL VIDEO OUTLET

NTS

PROJECT NO. 11710

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TOWN OF SURF CITY
MUNICIPAL COMPLEX
TRACT 3, M.B. 63 P. 32, / NC HWY. 210
WILMINGTON, NORTH CAROLINA

05.14.20
REVISIONS:

E6

P1

MOUNTING RECESSED | VOLTS 208Y/120V 3P 4W | AIC 10,000
FED FROM MDP | BUS AMPS 200 | MAIN MLO
NOTE | NEUTRAL 100% | LUGS STANDARD

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	UNIT HEATER	1			2	20/1	RECEPTS – ASST MGR	0.72		
3	20/1	RECEPT & LTG – RISER RM		0.211		4	20/1	FLR RECEPTS – WORK RM		0.18	
5	20/1	RECEPTS – HALL, STOR, OUTSIDE			0.54	6	20/1	RECEPTS – WORK RM			0.36
7	20/1	RECEPTS – CONF	1.26			8	20/1	RECEPTS – WORK RM	0.36		
9	20/1	RECEPTS – TOWN MGR		0.9		10	20/1	RECEPTS – SAFE RM		0.9	
11	20/1	RECEPTS – FINANCE DIR			0.9	12	20/1	RECEPTS –CLERK			0.9
13	20/1	RECEPTS – COMM DEV	0.72			14	20/1	RECEPTS – TAX, FIN SPEC	0.9		
15	20/1	RECEPTS – COMM DEV		1.18		16	20/1	RECEPTS – MAYOR		0.72	
17	20/1	RECEPTS – RECEPTION			0.72	18	20/1	RECEPTS – UTILITY FIN			0.72
19	20/1	RECEPTS – PLAN STOR	0.54			20	20/1	EWC *	0.6		
21	40/2	RANGE/COOKTOP		3		22	20/1	RECEPTS – TLT, FOYER, OUTSIDE		0.9	
23	|				3	24	20/1	RECEPTS – COMM DEV PAY			0.72
25	40/2	RANGE/COOKTOP	3			26	20/1	REFRIG	1.2		
27	|			3		28	20/1	DISHWASHER		1.5	
29	20/1	MICROWAVE			1.5	30	20/1	KITCHEN RECEPTS			0.18
31	20/1	INTERCOM SYSTEM	0.36			32	20/1	KITCHEN RECEPTS	0.36		
33	20/1	SPARE		0		34	15/2	BC3–3 AHU3: 21–26		0.12	
35	30/1	EWH–3			2.4	36	|				0.12
37	–/1	SPACE	0			38	–/1	SPACE	0		
39	–/1	SPACE		0		40	–/1	SPACE		0	
41	–/1	SPACE			0	42	–/1	SPACE			0
								TOTAL CONNECTED KVA BY PHASE	11	12.6	12.1

	CONN KVA	CALC KVA	
LIGHTING	0.031	0.039	(125%)
LARGEST MOTOR	0.24	0.06	(25%)
RECEPTACLES	18.5	14.3	(50%>10)
KITCHEN EQUIPMENT	13.5	12.2	(90%)
CONTINUOUS	2.4	3	(125%)
HEATING	1.24	1.24	(100%)
COOLING	0.24	0	(0%)
TOTAL LOAD		30.7	
BALANCED 3–PHASE AMPS		85.3	

P2

MOUNTING RECESSED | VOLTS 208Y/120V 3P 4W | AIC 10,000
FED FROM MDP | BUS AMPS 200 | MAIN MLO
NOTE | NEUTRAL 100% | LUGS STANDARD

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	30/2	DRYER	2.1			2	20/1	RECEPTS – TLTS, HALL	0.72		
3	|			2.1		4	20/1	RECEPTS – INSPECTIONS		0.72	
5	30/2	DRYER			2.1	6	20/1	RECEPTS – PLANNING			0.72
7	|		2.1			8	20/1	RECEPTS – GIS	0.72		
9	20/1	RECEPTS – RETREAT RM		1.26		10	20/1	RECEPTS – CODE		0.72	
11	20/1	WASHER			1.2	12	20/1	RECEPTS – EM DIR			1.08
13	20/1	RECEPTS – FUT OFFICE	0.72			14	20/1	RECEPTS – COUNCIL DIAS	1.26		
15	20/1	UC FRIDGE		1		16	20/1	FLOOR RECEPTS – COUNCIL		0.72	
17	20/1	WASHER			1.2	18	20/1	RECEPTS – COUNCIL HALL			0.9
19	20/1	RECEPTS – TRAINING RM	0.72			20	20/1	RECEPTS – COUNCIL HALL	0.9		
21	20/1	RECEPTS – TRAINING RM		0.54		22	20/1	VIDEO SCREENS – COUNCIL		0.36	
23	20/1	FLOOR RECEPTS – TRAINING RM			0.36	24	20/1	RECEPTS – TLT, HALL			0.54
25	20/1	RECEPTS – CONTROL RM	0.54			26	15/2	BC3–2 AHU3: 14–20	0.26		
27	15/2	DOAS–2		0.85		28	|			0.26	
29	|				0.85	30	15/2	BC3–1 AHU3: 1–13			0.26
31	20/1	WATER HEATER	1.5			32	|			0.26	
33	20/1	GAS WATER HEATER CONTROLS		0.4		34	15/2	DOAS–3		0.85	
35	20/1	COFFEE			0.18	36	|				0.85
37	20/1	SECURITY SYSTEM	0.5			38	20/1	SPARE	0		
39	20/1	EWC **		0.6		40	20/1	SPARE		0	
41	20/1	FIRE ALARM PANEL *			0.5	42	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	12.3	10.4	10.7

	CONN KVA	CALC KVA	
LARGEST MOTOR	1.7	0.425	(25%)
RECEPTACLES	15.3	12.6	(50%>10)
KITCHEN EQUIPMENT	0.4	0.4	(100%)
CONTINUOUS	1.5	1.88	(125%)
NONCONTINUOUS	11.8	11.8	(100%)
HEATING	4.44	4.44	(100%)
COOLING	4.44	0	(0%)
TOTAL LOAD		31.6	
BALANCED 3–PHASE AMPS		87.7	

* LOCK ON, ** GFCI BREAKER

P3

MOUNTING SURFACE | VOLTS 208Y/120V 3P 4W | AIC 10,000
FED FROM MDP | BUS AMPS 100 | MAIN MLO
NOTE | NEUTRAL 100% | LUGS STANDARD

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	QUAD – SERVER	0.36			2	20/1	RECEPTS – IT DIR	0.9		
3	20/1	QUAD – SERVER		0.36		4	20/1	VIDEO HEAD		0.36	
5	20/1	QUAD – SERVER			0.36	6	20/1	QUAD – STOR 137			0.36
7	20/1	QUAD – SERVER	0.36			8	15/2	HP–5	1		
9	20/1	RECEPTS – IT WORK RM		0.36		10	|			1	
11	20/1	RECEPTS – IT WORK RM			0.36	12	20/1	SPARE			0
13	–/1	SPACE	0			14	20/1	SPARE	0		
15	–/1	SPACE		0		16	20/1	SPARE		0	
17	–/1	SPACE			0	18	–/1	SPACE			0
19	–/1	SPACE	0			20	–/1	SPACE	0		
21	–/1	SPACE		0		22	–/1	SPACE		0	
23	–/1	SPACE			0	24	–/1	SPACE			0
								TOTAL CONNECTED KVA BY PHASE	2.62	2.08	1.08

	CONN KVA	CALC KVA	
LARGEST MOTOR	2	0.5	(25%)
RECEPTACLES	3.78	3.78	(50%>10)
HEATING	2	2	(100%)
COOLING	2	0	(0%)
TOTAL LOAD		6.28	
BALANCED 3–PHASE AMPS		17.4	

P4

MOUNTING SURFACE | VOLTS 208Y/120V 3P 4W | AIC 10,000
FED FROM MDP | BUS AMPS 200 | MAIN MLO
NOTE | NEUTRAL 100% | LUGS STANDARD

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	RECEPTS – LOBBY, REPORT	0.72			2	20/1	RECEPTS – CHIEF	0.9		
3	20/1	RECEPTS – ADMIN		0.36		4	20/1	RECEPTS – TLT, OUTSIDE, GENERATOR		0.72	
5	20/1	PRINTER			1	6	20/1	RECEPTS – ASST CHIEF			0.9
7	20/1	COFFEE	1.8			8	20/1	RECEPTS – CAPT	1.08		
9	20/1	RECEPTS – EVIDENCE		0.9		10	20/1	RECEPTS – CONF RM		0.72	
11	20/1	RECEPTS – EVIDENCE			0.54	12	20/1	RECEPTS – CONF RM			0.72
13	20/1	RECEPTS – STOR, FOUND, JAN	0.9			14	20/1	RECEPTS – GYM	0.72		
15	20/1	RECEPTS – HALL, TLTS		0.72		16	20/1	RECEPTS – GYM		0.9	
17	20/1	TREADMILL			1.2	18	20/1	RECEPTS – SGT OFFICE			0.54
19	20/1	RECEPTS – ROLL CALL	0.9			20	20/1	RECEPTS – SGT OFFICE, BRK RM	0.72		
21	20/1	COPY – PATROL		1		22	20/1	RECEPTS – BRK RM		0.36	
23	20/1	RECEPTS – PATROL RM			1.08	24	20/1	RECEPTS – ROLL CALL			0.9
25	20/1	COPIER	1			26	15/2	DOAS–1	0.85		
27	30/2	EWH–2		2.25		28	|			0.85	
29	|				2.25	30	15/2	BC2–1 AHU2: 1–8			0.61
31	20/1	GAS WATER HEATER CONTROLS	0.4			32	|		0.61		
33	20/1	REFRIGERATOR		1.2		34	15/2	BC1–1 AHU1: 1–12		0.25	
35	20/1	GATE OPERATOR			1.2	36	|				0.25
37	20/1	INTERCOM SYSTEM	0.36			38	20/1	SPARE	0		
39	20/1	MICROCON AIR FILTER		0.3		40	20/1	SPARE		0	
41	20/1	SPARE			0	42	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	11	10.5	11.2

	CONN KVA	CALC KVA	
LARGEST MOTOR	1.7	0.425	(25%)
MOTORS	1.2	1.2	(100%)
RECEPTACLES	22.9	16.4	(50%>10)
KITCHEN EQUIPMENT	0.4	0.4	(100%)
CONTINUOUS	4.8	6	(125%)
HEATING	3.42	3.42	(100%)
COOLING	3.42	0	(0%)
TOTAL LOAD		27.9	
BALANCED 3–PHASE AMPS		77.4	

P5

MOUNTING RECESSED | VOLTS 208Y/120V 3P 4W | AIC 10,000
FED FROM MDP | BUS AMPS 200 | MAIN MLO
NOTE | NEUTRAL 100% | LUGS STANDARD

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	30/2	RANGE/COOKTOP	3			2	20/1	REFRIGERATOR	1.2		
3	|			3		4	20/1	KITCHEN RECEPT		0.18	
5	20/1	DISHWASHER			1.5	6	20/1	KITCHEN RECEPT			0.36
7	20/1	RECEPTS – LAUNDRY	0.54			8	20/1	WASHER	1.5		
9	20/1	RECEPTS – TLT, HALL, KITCHEN		0.9		10	30/2	DRYER		2.1	
11	20/1	RECEPTS – ADMIN OFFICE			1.08	12	|				2.1
13	20/1	RECEPTS – DETECTIVE SGT	0.9			14	20/1	RECEPTS– INTERVIEW, INTAKE	0.72		
15	20/1	COPIER – DETECTIVE		1		16	20/1	RECEPTS – ARMORY, STOR		0.72	
17	20/1	RECEPTS – DETECTIVE			0.9	18	20/1	RECEPTS– Q MASTER			0.72
19	20/1	SALLY PORT OH DOOR	0.8			20	20/1	RECEPTS – SALLY PORT	0.36		
21	20/1	SALLY PORT OH DOOR		0.8		22	15/2	BC1–3 AHU1: 20–26		0.13	
23	20/1	RECEPTS – SALLY PORT			0.72	24	|				0.13
25	20/1	GAS WATER HEATER CONTROLS	0.4			26	15/2	BC1–2 AHU1: 13–18	0.13		
27	20/1	GATE OPERATOR		1.2		28	|			0.13	
29	20/1	LTG & REC – STORAGE SHED			0.422	30	20/1	POWER DRYER VENT			0.2
31	20/1	RECEPTS – OUTSIDE	0.36			32	20/1	SPARE	0		
33	15/2	HP–4		1		34	20/1	SPARE		0	
35	|				1	36	20/1	SPARE			0
37	20/1	SPARE	0			38	20/1	SPARE	0		
39	20/1	SPARE		0		40	20/1	SPARE		0	
41	20/1	SPARE			0	42	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	9.91	11.2	9.13

	CONN KVA	CALC KVA	
LIGHTING	0.062	0.078	(125%)
LARGEST MOTOR	2	0.5	(25%)
MOTORS	2.8	2.8	(100%)
RECEPTACLES	12.7	11.4	(50%>10)
KITCHEN EQUIPMENT	6.4	6.4	(100%)
NONCONTINUOUS	5.7	5.7	(100%)
HEATING	2.52	2.52	(100%)
COOLING	2.52	0	(0%)
TOTAL LOAD		29.4	
BALANCED 3–PHASE AMPS		81.5	

MDP

MOUNTING SURFACE | VOLTS 208Y/120V 3P 4W | AIC 42,000
FED FROM ATS | BUS AMPS 800 | MAIN MLO
NOTE | NEUTRAL 100% | LUGS STANDARD

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	150/3	PANEL P1	11			2	150/3	PANEL P4	11		
3	|			12.6		4	|			10.5	
5	|				12.1	6	|				11.2
7	150/3	PANEL P2	12.3			8	150/3	PANEL P5	9.91		
9	|			10.4		10	|			11.2	
11	|				10.7	12	|				9.13
13	100/3	PANEL P3	2.62			14	100/3	PANEL L	7.33		
15	|			2.08		16	|			5.28	
17	|				1.08	18	|				5.92
19	80/3	HP–1	5			20	80/3	HP–2	5		
21	|			5		22	|			5	
23	|				5	24	|				5
25	80/3	HP–3	5			26	60/2	PANEL GLC	1.5		
27	|			5		28	|			1.5	
29	|				5	30	–/1	SPACE			0
31	150/3	SPARE	0			32	–/3	200A PROVISION	0		
33	|			0		34	|			0	
35	|				0	36	|				0
37	100/3	SPARE	0			38	–/3	100A PROVISION	0		
39	|			0		40	|			0	
41	|				0	42	|				0
								TOTAL CONNECTED KVA BY PHASE	70.6	68.5	65.1

	CONN KVA	CALC KVA	
LIGHTING	17.9	22.4	(125%)
LARGEST MOTOR	15	3.75	(25%)
MOTORS	4	4	(100%)
RECEPTACLES	73.9	41.9	(50%>10)
KITCHEN EQUIPMENT	20.7	13.5	(65%)
CONTINUOUS	8.7	10.9	(125%)
NONCONTINUOUS	19	19	(100%)
HEATING	60.1	60.1	(100%)
COOLING	57.6	0	(0%)
TOTAL LOAD		176	
BALANCED 3–PHASE AMPS		487	

L

MOUNTING SURFACE | VOLTS 208Y/120V 3P 4W | AIC 10,000
FED FROM MDP | BUS AMPS 100 | MAIN MLO
NOTE | NEUTRAL 100% | LUGS STANDARD

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	LTG – OFFICES, CONF, STOR	0.922			2	20/1	LTG – TLTS, EVIDENCE	0.944		
3	20/1	LTG – HALL, CLERK, SAFE, WORK, AST FIN MGR		0.794		4	20/1	LTG – HALL, CONF, ROLL		1.07	
5	20/1	LTG – OFFICES			1.01	6	20/1	LTG – OFFICES, TRAIN, ELEC			1.23
7	20/1	LTG – HALL, FOYER, TLT	0.928			8	20/1	LTG – HALL	0.816		
9	20/1	LTG – TLTS, FILES, KIT,LNDRY		0.991		10	20/1	LTG – PATROL, WORK, INTERVIEW		0.759	
11	20/1	LTG – IT, STOR, RETREAT, DIAS			1.15	12	20/1	LTG – LNDRY, TLT, KIT, STOR, ARMOR, Q, SALLY			0.834
13	20/1	LTG – COUNCIL	1.12			14	20/1	EXTERIOR LIGHTING	0.915		
15	20/1	LTG – TLTS, HALL, LOBBY, REPT, TRAIN		1.07		16	20/1	RECEPTS – ELEC RM		0.36	
17	20/1	LTG – BRK, SGT, GYM, STOR, ADMIN			1.3	18	20/1	BUILDING SIGNS			0.4
19	20/1	ATTIC LTG & REC	0.48			20	20/1	MAIN ENTRY SIGN	1.2		
21	20/1	ATTIC LTG & REC		0.24		22	20/1	SPARE		0	
23	20/1	SPARE			0	24	20/1	SPARE			0
25	20/1	SPARE	0			26	20/1	SPARE	0		
27	20/1	SPARE		0		28	20/1	SPARE		0	
29	20/1	SPARE			0	30	20/1	SPARE			0
31	20/1	SPARE	0			32	20/1	SPARE	0		
33	20/1	SPARE		0		34	20/1	SPARE		0	
35	20/1	SPARE			0	36	20/1	SPARE			0
37	20/1	SPARE	0			38	20/1	SPARE	0		
39	20/1	SPARE		0		40	20/1	SPARE		0	
41	20/1	SPARE			0	42	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	7.33	5.28	5.92

	CONN KVA	CALC KVA	
LIGHTING	17.8	22.2	(125%)
RECEPTACLES	0.72	0.72	(50%>10)
TOTAL LOAD		23	
BALANCED 3–PHASE AMPS		63.8	

EQUIPMENT CONNECTION SCHEDULE

CALLOUT	VOLTS	AMPS	KVA	CIRCUIT	WIRE CALLOUT	MCA	MOCP	DISCONNECT	DISCONNECT DESCRIPTION	DISCONNECT NOTE 1
BC1–1	208V 2P 2W	2.4	0.5	P4–34,36	1/2"C,2#12,#12G		15	JUNCTION BOX	TOGGLE DISCONNECT SWITCH	
BC1–2	208V 2P 2W	1.25	0.26	P5–26,28	1/2"C,2#12,#12G		15	JUNCTION BOX	TOGGLE DISCONNECT SWITCH	
BC1–3	208V 2P 2W	1.25	0.26	P5–22,24	1/2"C,2#12,#12G		15	JUNCTION BOX	TOGGLE DISCONNECT SWITCH	
BC2–1	208V 2P 2W	5.87	1.22	P4–30,32	1/2"C,2#12,#12G		15	JUNCTION BOX	TOGGLE DISCONNECT SWITCH	
BC3–1	208V 2P 2W	2.5	0.52	P2–30,32	1/2"C,2#12,#12G		15	JUNCTION BOX	TOGGLE DISCONNECT SWITCH	
BC3–2	208V 2P 2W	2.5	0.52	P2–26,28	1/2"C,2#12,#12G		15	JUNCTION BOX	TOGGLE DISCONNECT SWITCH	
BC3–3	208V 2P 2W	1.15	0.24	P1–34,36	1/2"C,2#12,#12G		15	JUNCTION BOX	TOGGLE DISCONNECT SWITCH	
DOAS–1	208V 2P 2W	8.17	1.7	P4–26,28	1/2"C,2#12,#12G	11	15	FUSED	240/30/2	
DOAS–2	208V 2P 2W	8.17	1.7	P2–27,29	1/2"C,2#12,#12G	11	15	FUSED	240/30/2	
DOAS–3	208V 2P 2W	8.17	1.7	P2–34,36	1/2"C,2#12,#12G	11	15	FUSED	240/30/2	
EWH–1	120V 1P 2W	12.5	1.5	P2–31	1/2"C,1#12,#12N,#12G			TOGGLE SWITCH	120V TOGGLE DISCONNECT SWITCH	
EWH–2	208V 2P 2W	21.63	4.5	P4–27,29	1/2"C,2#10,#10G	24	30	NON–FUSED	240/30/2/NF	
EWH–3	120V 1P 2W	20	2.4	P1–35	1/2"C,1#10,#10N,#10G	25	25	TOGGLE SWITCH	120V TOGGLE DISCONNECT SWITCH	
GWH–1	120V 1P 2W	3.33	0.4	P4–31	2 #12, #12 GND		20	JUNCTION BOX		
GWH–1	120V 1P 2W	3.33	0.4	P5–25	2 #12, #12 GND		20	JUNCTION BOX		
GWH–1	120V 1P 2W	3.33	0.4	P2–33	2 #12, #12 GND		20	JUNCTION BOX		
HP–1	208V 3P 3W	41.64	15	MDP–19,21,23	3 #3, #8 GND, 1–1/4"C	52	80	FUSED	240/100/3/3R	FUSE PER MANUFACTURER'S RECOMMENDATION
HP–2	208V 3P 3W	41.64	15	MDP–20,22,24	3 #3, #8 GND, 1–1/4"C	52	80	FUSED	240/100/3/3R	FUSE PER MANUFACTURER'S RECOMMENDATION
HP–3	208V 3P 3W	41.64	15	MDP–25,27,29	3 #3, #8 GND, 1–1/4"C	52	80	FUSED	240/100/3/3R	FUSE PER MANUFACTURER'S RECOMMENDATION
HP–4	208V 2P 2W	9.62	2	P5–33,35	1/2"C,2#12,#12G	12	15	FUSED	240/30/2/3R	
HP–5	208V 2P 2W	9.62	2	P3–8,10	1/2"C,2#12,#12G	12	15	FUSED	240/30/2/3R	
OH	120V 1P 2W	6.67	0.8	P5–19	1/2"C,1#12,#12N,#12G			MANUAL MOTOR STARTER	120V, MOTOR RATED SWITCH	
OH	120V 1P 2W	6.67	0.8	P5–21	1/2"C,1#12,#12N,#12G			MANUAL MOTOR STARTER	120V, MOTOR RATED SWITCH	
UH	120V 1P 2W	8.33	1	P1–1	2 #12, #12 GND, 1/2"C			TOGGLE SWITCH	PROVIDE TOGGLE DISC. IF REQUIRED	

NOTE: AHU'S NOT LISTED ON THIS SCHEDULE. SEE DRAWING E5

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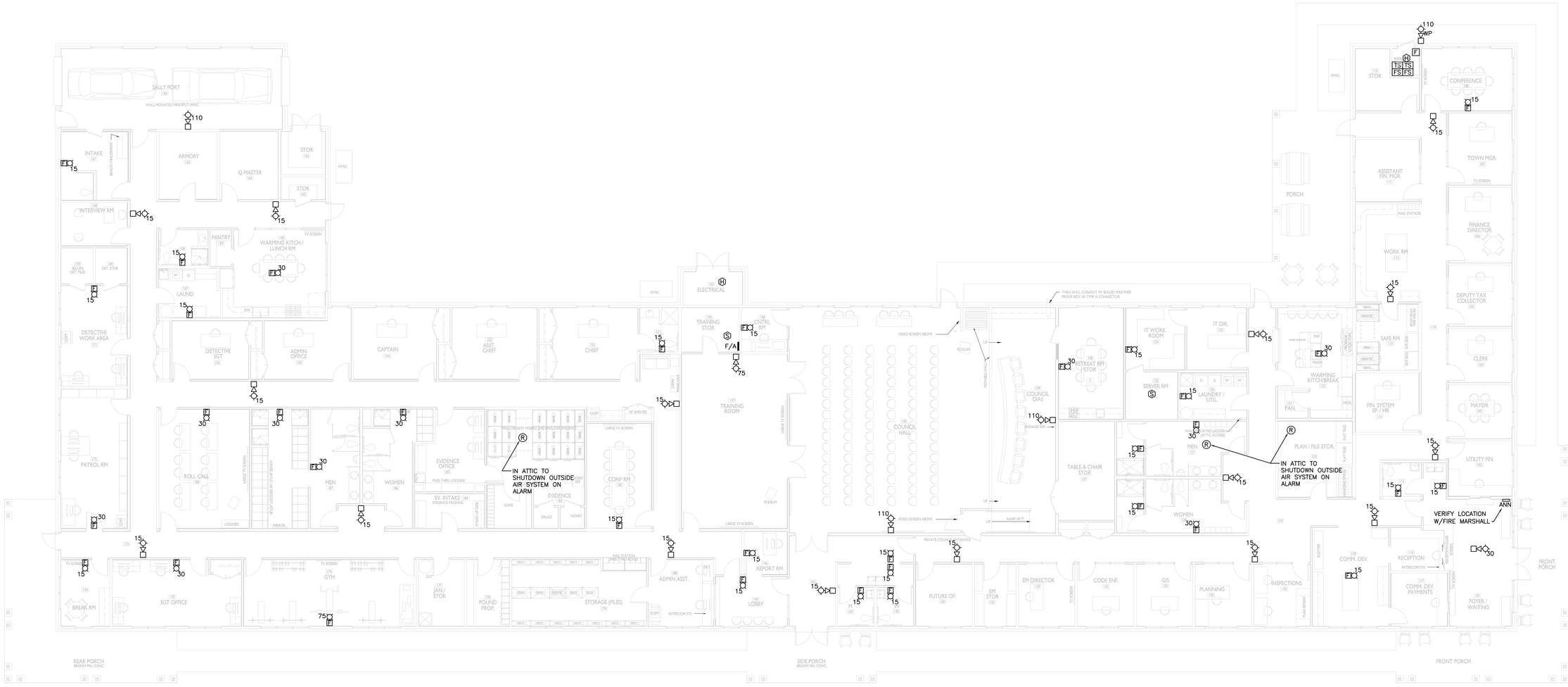
NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT SEAL 0185 5/14/20 GREGORY L. TANKERSLEY

TOWN OF SURF CITY
MUNICIPAL COMPLEX
TRACT 3, M.B. 63 P. 32, / NC HWY. 210
WILMINGTON, NORTH CAROLINA

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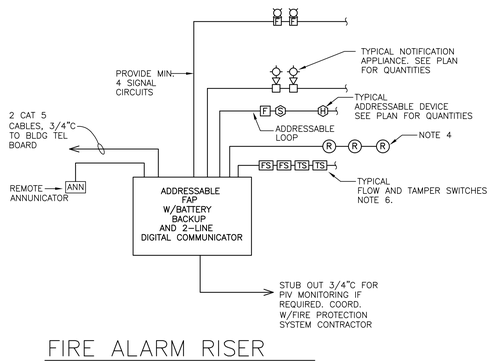
E7

PROJECT NO. 11710
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1 FA1 FLOOR PLAN – FIRE ALARM

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



FIRE ALARM RISER

NTS

NOTES:

1. ALL FIRE ALARM WORK SHALL COMPLY W/ NFPA 72 AND ALL REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.
2. CABLES SHALL BE AS RECOMMENDED BY SYSTEM MANUFACTURER,
3. SYNCHRONIZE STROBES.
4. PROVIDE GLOBAL SHUTDOWN OF OUTSIDE AIR UNITS ON ALARM.
5. TEST AND CERTIFY SYSTEM. PROVIDE O&M MANUALS.
6. MONITOR ALL FLOW SWITCHES, TAMPER SWITCHES AND VALVES AS REQUIRED. COORDINATE WITH FIRE PROTECTION SYSTEM INSTALLER. MONITORING OF ALL SUCH DEVICES SHALL BE INCLUDED IN THIIS CONTRACT.
7. CONTRACTOR SHALL OBTAIN A SEPARATE PERMIT FOR FIRE ALARM WORK. SUBMIT ALL REQUIRED DOCUMENTATION TO THE AHJ FOR APPROVAL.
8. BUILDING IS SPRINKLERED. ONE PULL STATION PROVIDED AT RISER.

FIRE ALARM LEGEND	
SYMBOL	DESCRIPTION
F	PULL STATION
	F.A. HORN/STROBE, CANDELA INDICATED
F	F.A. STROBE, CANDELA INDICATED
S	SMOKE DETECTOR
H	HEAT DETECTOR
F/A	FIRE ALARM PANEL
ANN	REMOTE ANNUNCIATOR
FS	FLOW SWITCH
TS	TAMPER SWITCH
R	RELAY FOR UNIT SHUTDOWN

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