LEGEND

- EXISTING TOPOGRAPHY - REFER TO CIVIL DRAWINGS
- ELP EXISTING LIGHT POLE - REFER TO ELECTRICAL DRAWINGS

NORTH

1 / A1.0 Demolition Site Plan
Scale: 1" = 40'-0"

0" 10' 20' 40' 80'

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JOHN DANIEL HEMINGWAY REGISTERED ARCHITECT 13058 NORTH CAROLINA WILMINGTON, NC
12-18-2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

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Sheet Title

DEMOLITION SITE PLAN

Sheet No.

A1.0

WORKFORCE DEVELOPMENT - SITE INFORMATION

PROPOSED BUILDING HEIGHT: (TO HIGHEST POINT)	31'-0"*
PROPOSED BUILDING LOT COVERAGE (AREA UNDER ROOF):	29,850 SF
ZONE: (TOWN OF KENANSVILLE)	(OI) Office and Institutional
MIN. LOT WIDTH:	60'
MIN. LOT AREA:	5,000 SF
FRONT SETBACK:	20'
REAR SETBACK:	20'
SIDE SETBACK:	5'
LOT COVERAGE:	NO RESTRICTION
FLOOD ZONE:	ZONE 'X'
MAX. HEIGHT:	30' *
BUFFER YARDS: (NEXT TO RES. ZONE)	15'

* Height is defined as: The vertical distance from the mean grade elevation taken at the fronting of a structure to the parapet of a flat roof, the eave of a pitched roof, or the deck line of a mansard roof.
Section 6.4.9 of the Town of Kenansville UDO excempts public buildings and schools from the height limitations of the ordinance.

PARKING SUMMARY:

TOWN OF KENANSVILLE MINIMUM PARKING REQUIREMENT:
Colleges and Universities: 1 per 3 students + 1 per employee
School, Trade or Vocational: 1 per 3 students + 1 per employee

WORKFORCE DEVELOPMENT BUILDING:
3 shops @ 25 students each = 75
3 classrooms @ 25 students each = 75
1 breakroom @ 25 students each = 25

Total Student Count: 175
Total Staff Count: 15

PARKING CALCULATION:

175/3 = 58.33 = 59 + 15 = 74 spaces required by zoning

TOTAL SPACES REQUIRED:	74 SPACES
TOTAL STANDARD SPACES PROVIDED:	67 SPACES
TOTAL HANDICAPPED SPACES PROVIDED:	4 SPACES
TOTAL PROVIDED:	**67 SPACES**

NOTES:

1. THE LOCATION OF ALL UNDERGROUND FEATURES SHOWN ARE APPROXIMATE BASED OFF ABOVE GROUND FEATURES.
2. DOMESTIC WATER CONNECTION: PROPOSED POINT OF CONNECTION IS LOCATED AT THE INTERSECTION OF JAMES SPRUNT DRIVE AND THE NORTHERN ENTRANCE CAMPUS ROAD. REFER TO CIVIL DRAWINGS.
3. THE TOWN OF KENANSVILLE REQUIRES A PROPRIETARY WATER METER FROM METERSYS. METERSYS IS LOCATED AT 703 WEST JOHNSON STREET, RALEIGH, NC 27603. POINT OF CONTACT AT METERSYS: ANDY HONEYCUTT. THE GENERAL CONTRACTOR FOR THE PROJECT WILL BE RESPONSIBLE FOR PURCHASING THE WATER METER APPROVED BY THE TOWN OF KENANSVILLE.
4. FIRE LINE CONNECTION: PROPOSED POINT OF CONNECTION IS EXISTING 8" WATER MAIN (FIRE LINE) ALONG THE NORTH SIDE OF HOFFLER BUILDING. REFER TO CIVIL DRAWINGS.
5. SEWER CONNECTION: PROPOSED POINT OF CONNECTION IS AN EXISTING SANITARY SEWER MAIN NEAR THE INTERSECTION OF JAMES SPRUNT DRIVE AND THE NORTHERN ENTRANCE CAMPUS ROAD. REFER TO CIVIL DRAWINGS.
6. FIBER CONNECTION: FIBER WILL NEED TO BE ROUTED FROM WORKFORCE DEVELOPMENT BUILDING TO THE MCGOWEN BUILDING. POINT OF CONNECTION IS AN EXISTING HAND HOLE LOCATED SOUTH OF THE HOFFLER BUILDING.
7. SEE CIVIL DRAWINGS FOR ADDITIONAL SITE WORK, INCLUDING BUT NOT LIMITED TO, TREE REMOVAL, PARKING LOT STRIPING, THERMO PLASTIC DIRECTIONAL ARROWS, STORMWATER MEASURES AND DOWNSPOUT AND SITE DRAINAGE PIPING.
8. REFER TO ELECTRICAL SITE PLAN ES1.2 FOR ADDITIONAL WORK.
9. REFER TO DRAWING L1 FOR LANDSCAPE PLAN. ALL FINAL PLANTS, TRESS AND LANDSCAPING TO BE REVIEWED BY THE ARCHITECT, OWNER AND TOWN OF KENANSVILLE PRIOR TO FINAL APPROVAL

DUPLIN COMMONS DRIVE
11/8/03 60' R/W
N.C. HIGHWAY
EXISTING ISLAND
EXISTING POND
EXISTING RETENTION POND
EXISTING ONE LANE VEHICULAR BRIDGE
EXISTING ROCK DRIVEWAY
EXISTING ASHPALT PARKING TO REMAIN
RE-STRIPE EXISTING PARKING LOT
RELOCATE PORTION OF UNDERGROUND FIBER - BY OWNER
APPROXIMATE LOCATION OF EXISTING UNDERGROUND FIBER
SITE WORK ADD ALTERNATE 4 : INCLUDING CONSTRUCTION OF NEW CAMPUS ROADWAY, STORMWATER, AND SITE LIGHTING
EXISTING DUGOUT TO REMAIN
DUPLIN COUNTY BUS GARAGE (TOWN OF KEANSVILLE : ZONE 1)
KAY WILLIAMSON IRREVOCABLE (DUPLIN COUNTY NO ZONING)
EXISTING TREES TO REMAIN AND BE PROTECTED - PLAN NORTH OF NEW DRIVE
5' SIDE SETBACK
EXISTING SIX-FOOT HIGH CHAIN LINK FENCE (DUPLIN COUNTY BUS GARAGE)
SITE WORK ADD ALTERNATE 2 : ALL WORK RELATED TO CONSTRUCTION OF (3) PREMANUFACTURED ALUMINUM CANOPIES - INCLUDING ELECTRICAL AND FIRE PROTECTION - CONCRETE PAD IS BASE BID - REFER TO SPECIFICATIONS.
NEW CONC. WALKWAY
H.C. PARKING SIGN TYP. REFER TO CIVIL DWGS./
REFER TO CIVIL DWGS FOR CURB CUT/ / LOCATIONS
PROPOSED NEW WORKFORCE DEVELOPMENT BUILDING
PROPOSED NEW PARKING LOT
NEW CONC. WALKWAY
ECM 1" AG
S 62°56'09" E 1091.49'
1" EIP
14" AG
15' BUFFER YARD
20' REAR SETBACK
FIRE HYDRANT REFER TO CIVIL DRAWINGS FOR HYDRANT, REMOTE FDC AND P/V.
REMOTE FDC AND POST INDICATR VALVE - REFER TO CIVIL DWGS.
ELECTRICAL TRANSFORMER REFER TO ES1.2
REFER TO PS1.1
EXISTING TREES TO REMAIN AND BE PROTECTED
EXISTING WATER METER VAULT
APPROXIMATE LOCATION OF EXISTING 8" FIRE LINE
SEE STRUCTURAL DRAWING S3.11 AND A4.0 FOR RETAINING HEADWALLS AT CREEK CROSSING
WATERS OF U.S. PERENNIAL STREAM
EXISTING CULVERT PIPE
NON-JURISDICTIONAL DITCH
SEWER LIFT STATION - SEE C2
PROVIDE NEW ACCESSIBLE CURB CUT
WORKFORCE BUILDING FIBER LINE ROUTED TO McGOWEN BUILDING REFER TO ELECTRICAL DRAWING ES1.2 (BY G.C.)
EXISTING FARM ROAD TO REMAIN
NEW FIBER HAND HOLE - ACCESS LOCATION BY OWNER
McGOWEN BUILDING
HOFFLER BUILDING
EXISTING TELECOM PATHWAY TO REMAIN
STEPHEN M. WILLIAMSON (DUPLIN COUNTY NO ZONING)
NEW CONDUIT RUN FOR DUPLIN COUNTY SCHOOLS AND JSCC BETWEEN NEW HAND HOLE LOCATIONS BY OWNER
EXISTING TELE-COMMUNICATIONS HAND HOLE
NEW TELECOM CONDUIT
NEW UNDERGROUND FIBER LINE - REFER TO ES1.2 (BY G.C.)
NEW FIBER HAND HOLE - ACCESS LOCATION - BY OWNER

LEGEND

- PROPOSED NEW ASPHALT ROADWAY AND PARKING
- PROPOSED NEW CONCRETE WALKWAY
- TREE LINE
- NEW TREE PLANTING
- PROPERTY LINE
- INDICATES SITE WORK ADD ALTERNATE #4
- INDICATES NEW FIBER LINE
- EXISTING LIGHT POLE
- NEW LIGHT POLE

NORTH

2 / A1.1 Architectural Site Plan
Scale: 1" = 40'-0"

0' 10' 20' 40' 80'

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JOHN DAVID HEMINGWAY 13058 NORTH CAROLINA REGISTERED ARCHITECT WILMINGTON, NC
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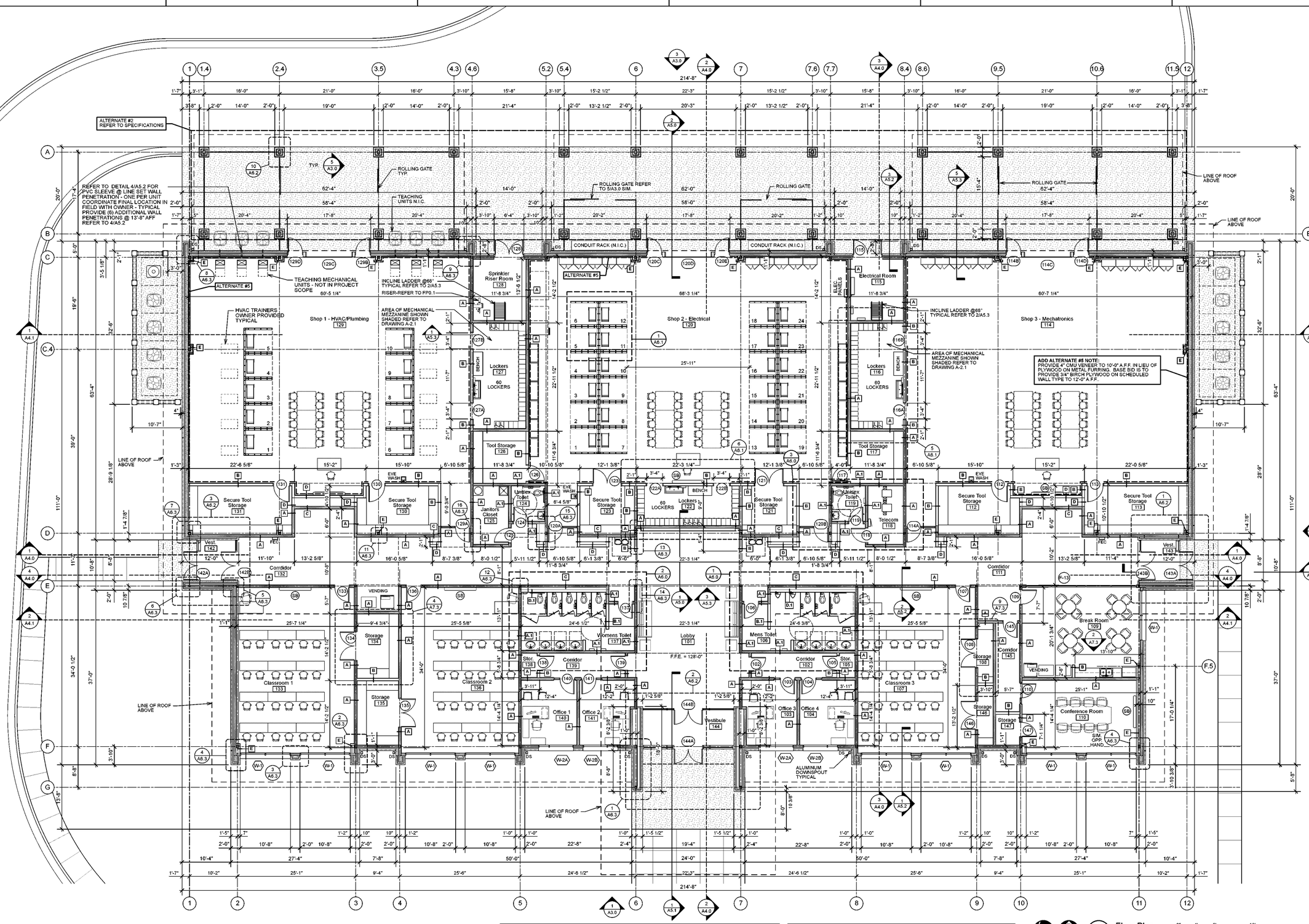
Sheet Title: **ARCHITECTURAL SITE PLAN**

Sheet No.: A1.1



NOTES:

1. ALL DIMENSIONS SHALL BE FIELD VERIFIED.
2. FURNITURE IS SHOWN FOR REFERENCE ONLY AND IS NOT IN CONTRACT (N.I.C.). THIS INCLUDES SHELVING SHOWN IN SECURE TOOL STORAGE AND TOOL STORAGE ROOMS.
3. REFER TO CIVIL DRAWINGS FOR ALL SITEWORK.
4. OWNER PROVIDED; CONTRACTOR INSTALLED ITEMS INCLUDE:
   - ELECTRIC WATER COOLERS
   - SECURITY CAMERAS
   - WIRELESS ACCESS POINTS
   - SMART BOARDS
5. REFER TO ELEVATIONS FOR CONTROL JOINTS IN BRICK MASONRY.
6. REFER TO SPECIFICATIONS SECTION 012300 FOR ALL ALTERNATES.
7. REFER TO DOOR HARDWARE SPECIFICATION FOR KNOX BOX. INSTALL KNOX BOX AS DIRECTED BY LOCAL FIRE MARSHAL.
8. ACCESS CONTROL DEVICES, WIRING, AND INSTALL IS BY THE OWNER UNLESS NOTED OTHERWISE. SEE ELECTRICAL DRAWINGS FOR ACCESS CONTROL PATHWAYS AND INFRASTRUCTURE INCLUDED IN THE PROJECT SCOPE.
9. TRAINING CUBICLES IN SHOP 2 - 120 - INCLUDING STEEL STRUCTURE AND F.R. WOOD FRAMING ARE TO BE INCLUDED IN PROJECT SCOPE - SEE A6.1 FOR DETAILS. TRAINING CUBICLES IN SHOP 1 - 129 ARE FOR REFERENCE ONLY AND ARE NOT INCLUDED IN THE CONTRACT.

LEGEND

- (135) DOOR DESIGNATION - REFER TO A7.0
- (W-) WINDOW DESIGNATION - REFER TO A7.1
- 135 ROOM NAME/IDENTIFICATION #
- A PARTITION TYPE - REFER TO DRAWING A7.0
- F.E.C. FIRE EXTINGUISHER CABINET-COORDINATE LOCATION WITH FIRE MARSHAL IN FIELD
- (#) COLUMN LINE
- (SB) OWNER PROVIDED, CONTRACTOR INSTALLED INTERACTIVE BOARD AND MOUNT. G.C. TO PROVIDE BLOCKING FOR MOUNT. REFER TO ELECTRICAL DRAWINGS. REFER TO 6/A5.3 FOR MOUNTING DETAIL
- (F-12) STOREFRONT / CURTAINWALL DESIGNATION #
- WALLS TO RECEIVE 3/4" BIRCH A/C PLYWOOD TO A HEIGHT OF 12'-0" A.F.F. IN ROOMS 114, 120, AND 129. SEE A7.0 FOR DETAIL. DASH ALSO DELINEATES EXTENT OF ADD ALTERNATE #5.
- DS DOWNSPOUT LOCATION - REFER TO CIVIL DRAWINGS

TRUE NORTH PLAN NORTH

1 A2.0 Floor Plan
Scale: 1/8" = 1'-0"

0' 4' 8' 16'

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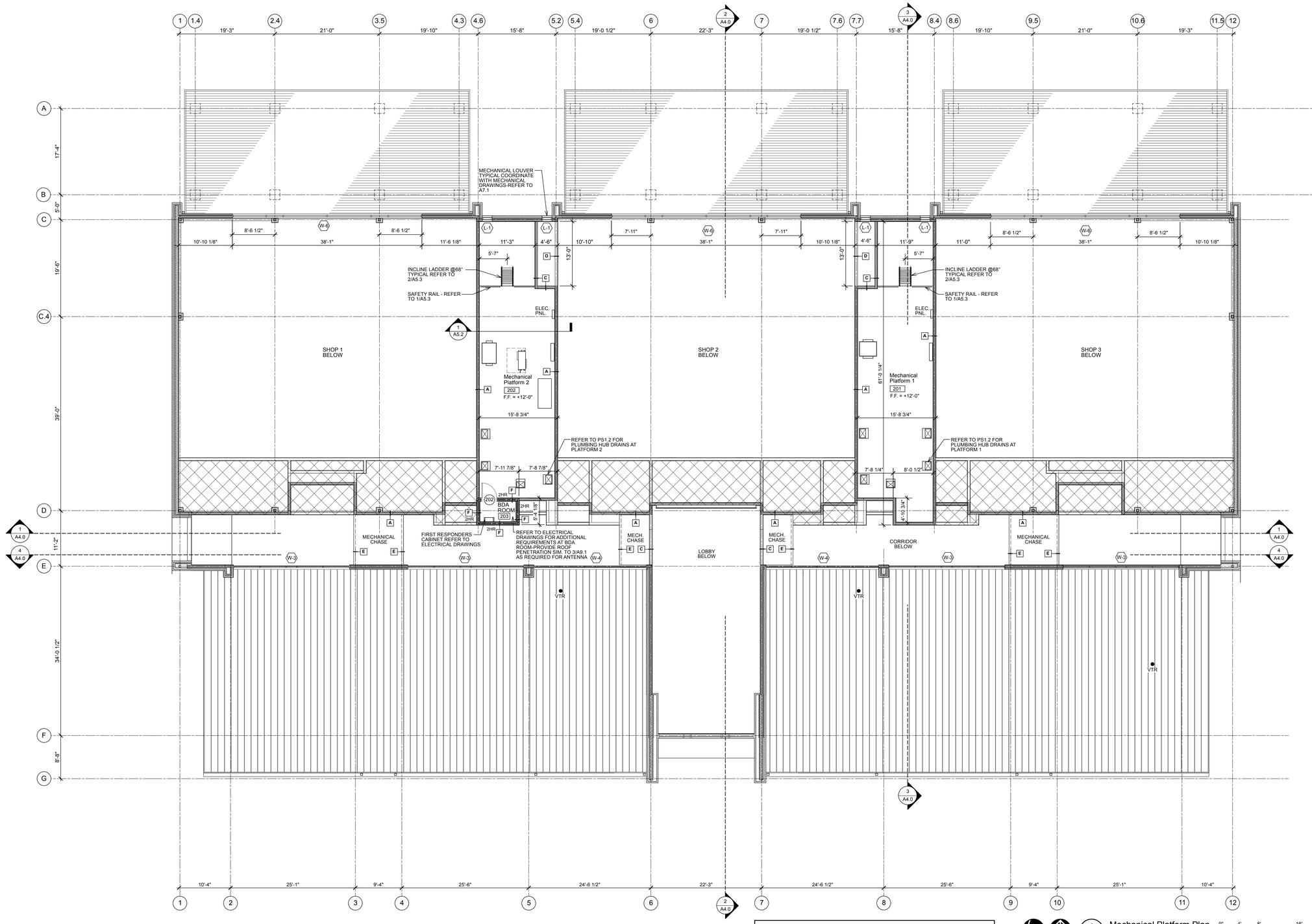
FLOOR PLAN

Sheet No.

A2.0



LEGEND

2HR	2 HOUR RATED PARTITON - REFER TO PARTITION LEGEND A7.0
135	DOOR DESIGNATION - REFER TO A7.0
W-	WINDOW DESIGNATION - REFER TO A7.1
135	ROOM NAME/IDENTIFICATION #
A	PARTITION TYPE - REFER TO DRAWING A7.0
F.E.C.	FIRE EXTINGUISHER CABINET-COORDINATE LOCATION WITH FIRE MARSHAL IN FIELD
#	COLUMN LINE
SB	OWNER PROVIDED, CONTRACTOR INSTALLED INTERACTIVE BOARD AND MOUNT. G.C. TO PROVIDE BLOCKING FOR MOUNT. REFER TO ELECTRICAL DRAWINGS
F-12	STOREFRONT / CURTAINWALL DESIGNATION #
	WALLS TO RECEIVE 3/4" BIRCH A/C PLYWOOD TO A HEIGHT OF 12'-0" A.F.F. IN ROOMS 114, 120, AND 129. DASH ALSO DELINEATES EXTENT OF ADD ALTERNATE #5. REFER TO A2.0
DS	DOWNSPOUT LOCATION - REFER TO CIVIL DRAWINGS

TRUE NORTH PLAN NORTH

1 / A2.1 Mechanical Platform Plan
Scale: 1/8" = 1'-0"

0" 4' 8' 16'

NOTE - REFER TO PLUMBING, MECHANICAL, ELECTRICAL AND FIRE PROTECTION FOR ADDITIONAL REQUIREMENTS AT MECHANICAL PLATFORMS.

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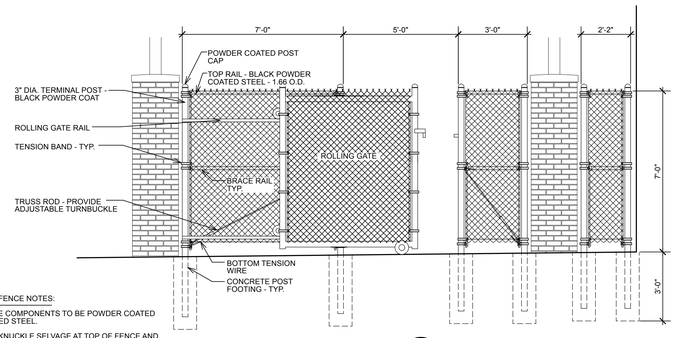
MECHANICAL PLATFORMS PLAN

Sheet No.

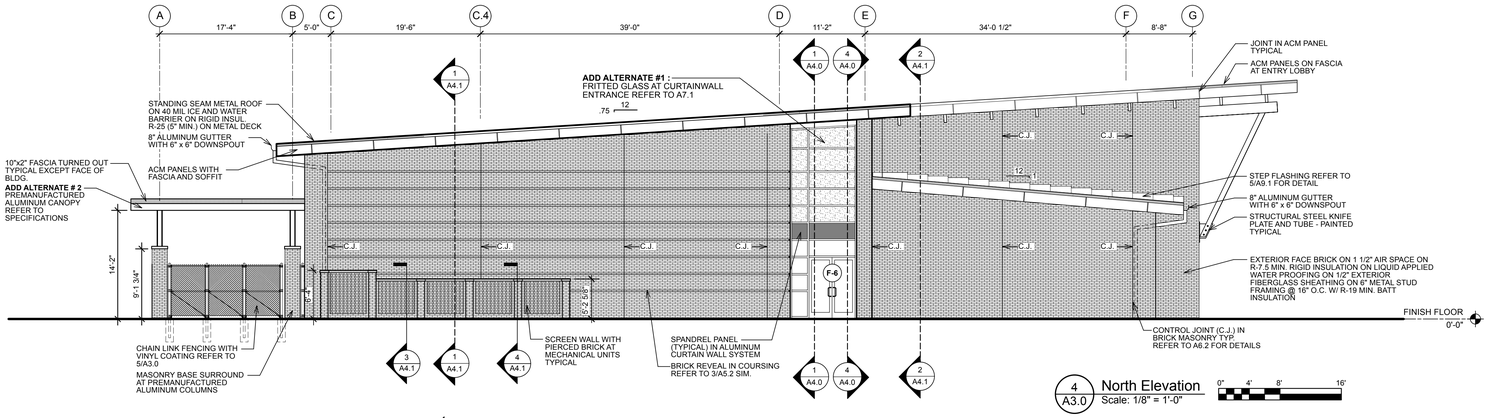
A2.1



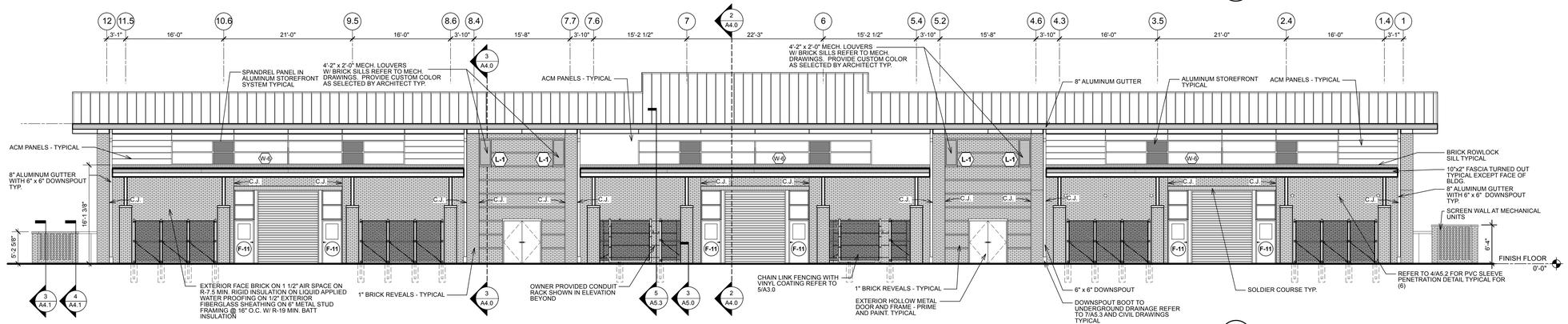
CHAIN LINK FENCE NOTES:

1. ALL FENCE COMPONENTS TO BE POWDER COATED GALVANIZED STEEL.
2. PROVIDE KNUCKLE SELVAGE AT TOP OF FENCE AND TWIST SELVAGE AT BOTTOM OF FENCE.
3. PROVIDE TIE WIRES @ 15" O.C. TO LINE POSTS AND 24" O.C. TO TOP RAILS AND TENSION WIRES.
4. FABRIC TO BE CLASS 2B IN ACCORDANCE WITH ASTM F668 - VINYL COATED STEEL CHAIN LINK - FUSED & BONDED.
5. MAXIMUM MESH SIZE AT SECTION IS 2.25 INCH SQUARE.

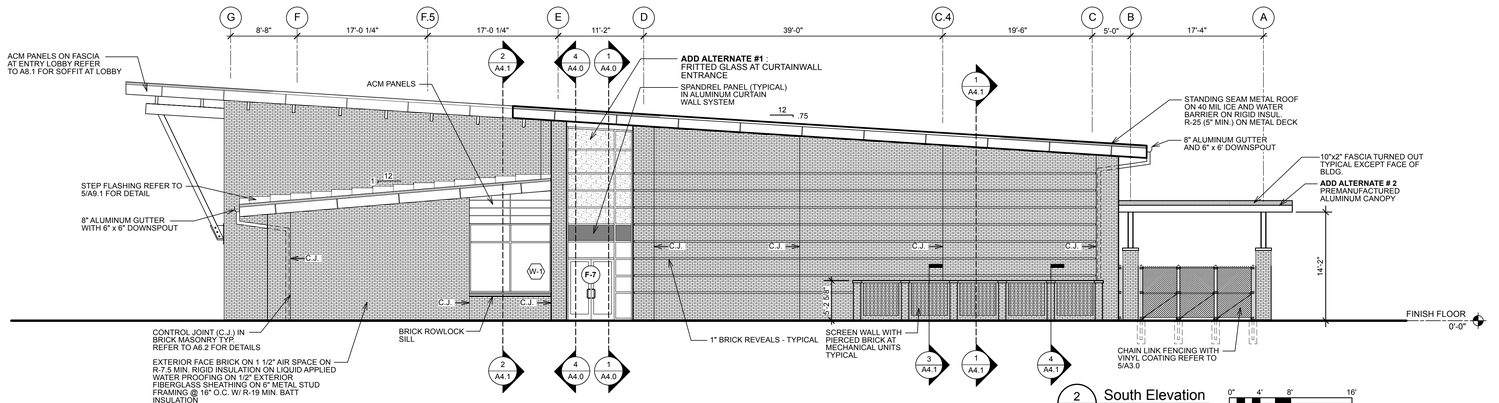
5 A3.0 Chain Link Rolling Gate Elevation
Scale: 3/8" = 1'-0"



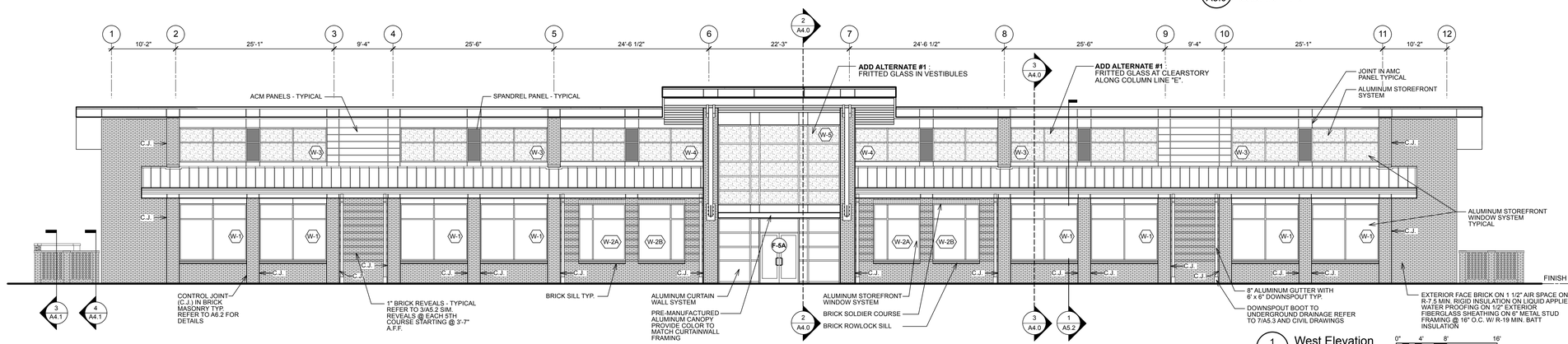
4 A3.0 North Elevation
Scale: 1/8" = 1'-0"



3 A3.0 East Elevation
Scale: 1/8" = 1'-0"



2 A3.0 South Elevation
Scale: 1/8" = 1'-0"



1 A3.0 West Elevation
Scale: 1/8" = 1'-0"

NOTE:
REFER TO DOOR HARDWARE SPECIFICATION FOR KNOX BOX. INSTALL KNOX BOX AS DIRECTED BY LOCAL FIRE MARSHAL.

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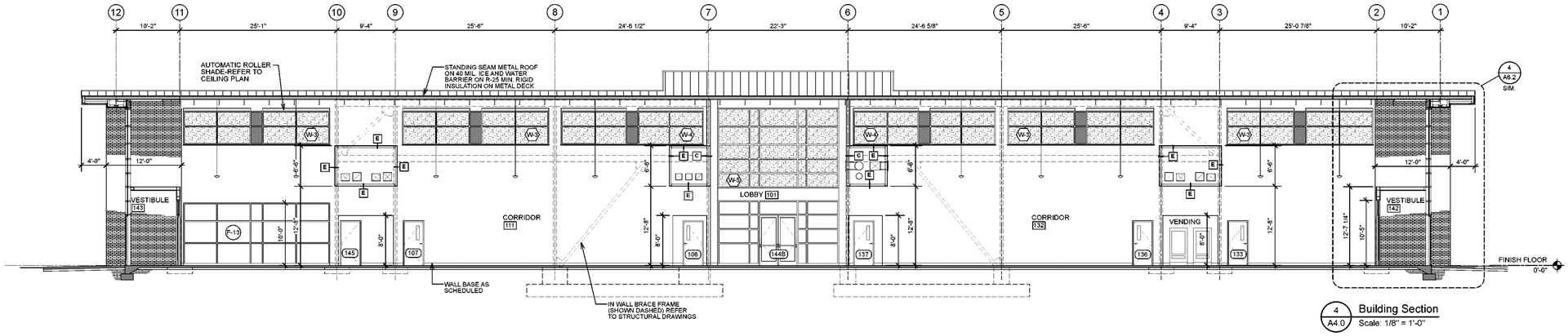
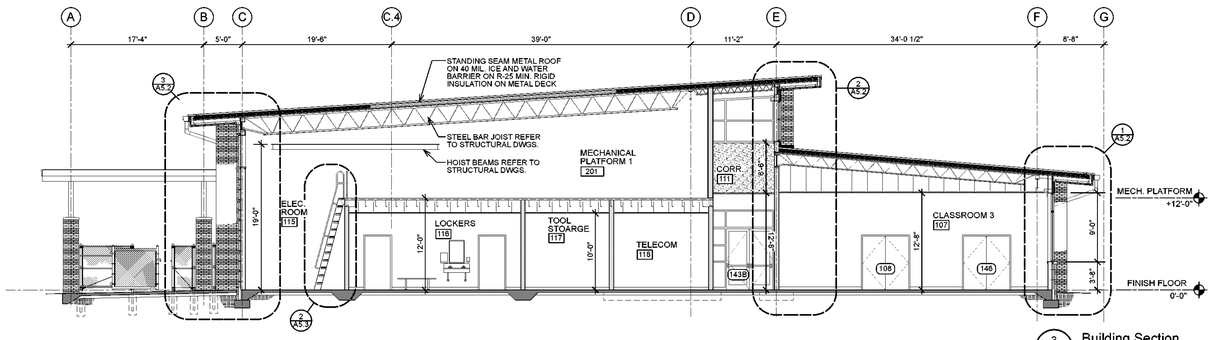
BUILDING ELEVATIONS

Sheet No.

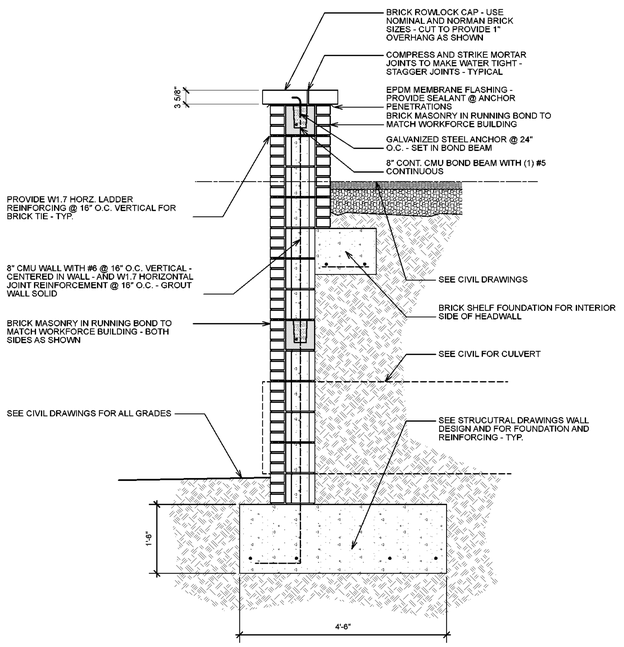
A3.0



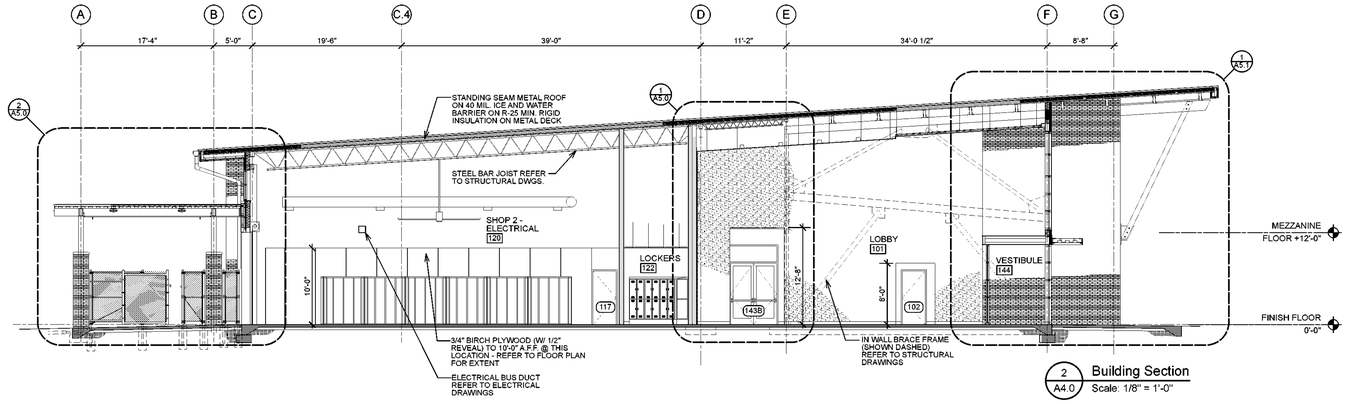
4 / A4.0 Building Section
Scale: 1/8" = 1'-0"



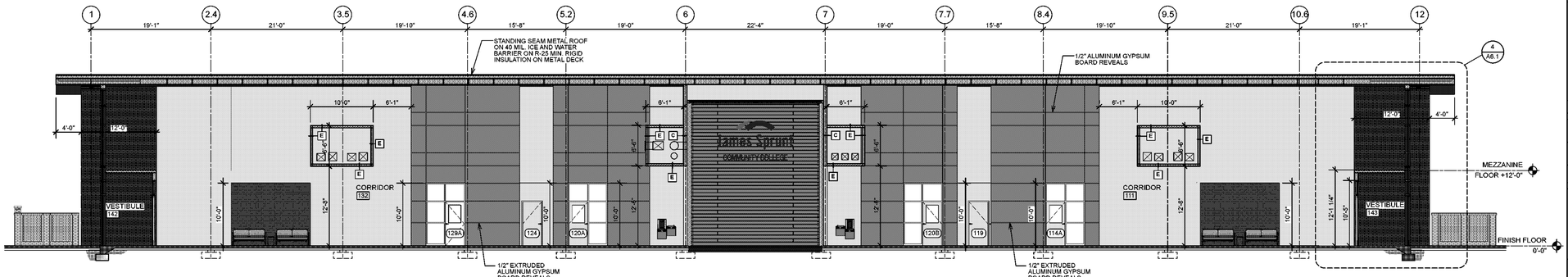
3 / A4.0 Building Section
Scale: 1/8" = 1'-0"



5 / A4.0 Section @ Headwall Retaining Wall
Scale: 3/4" = 1'-0"



2 / A4.0 Building Section
Scale: 1/8" = 1'-0"



1 / A4.0 Building Section
Scale: 1/8" = 1'-0"

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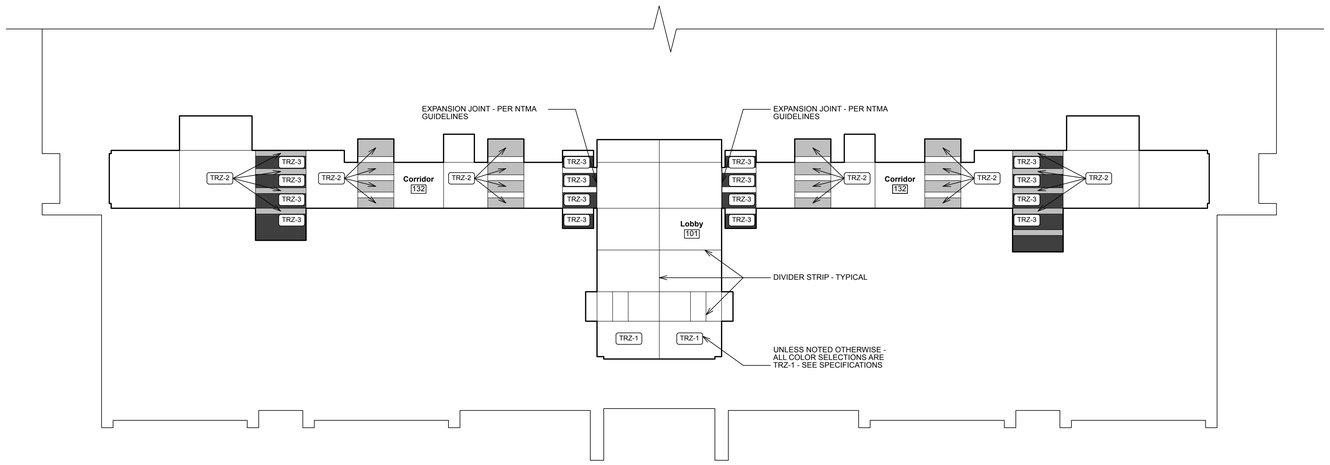
BUILDING SECTIONS

Sheet No.

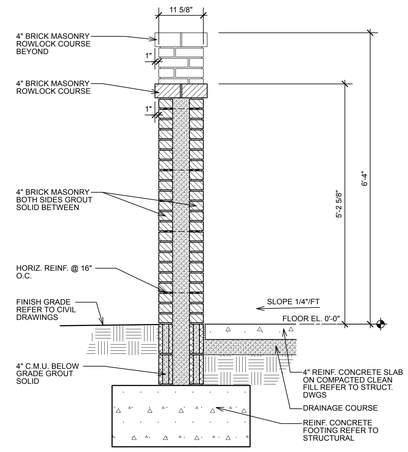
A4.0



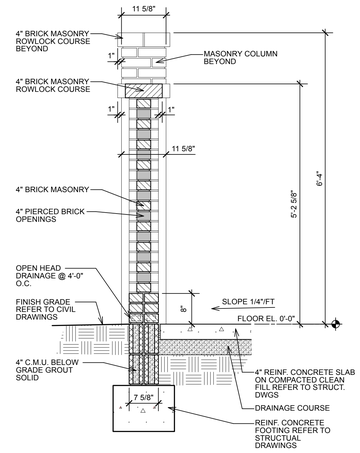
6 A4.1 Terrazzo Floor Pattern (Add Alternate #6)
Scale: 3/32" = 1'-0"

TERRAZZO NOTES:

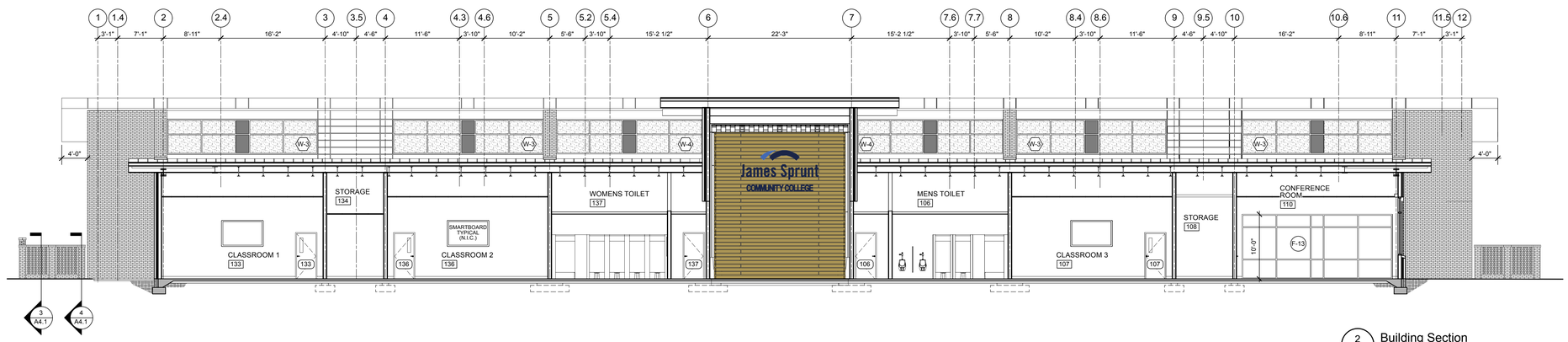
1. SEE SPECIFICATIONS FOR EPOXY TERRAZZO.
2. IN ADDITION TO CONDITIONS SHOWN IN 6/A4.1 - FOLLOW ALL NTMA GUIDELINES FOR PROPER INSTALLATION.
3. DIVIDER STRIPS TO BE 16 GAUGE ZINC U.N.O. - SEE PLAN FOR LAYOUT - PROVIDE ADDITIONAL STRIPS AS REQUIRED.
4. GC TO COORDINATE CONCRETE SLAB JOINTS WITH EPOXY TERRAZZO DIVIDER STRIPS AS REQUIRED.



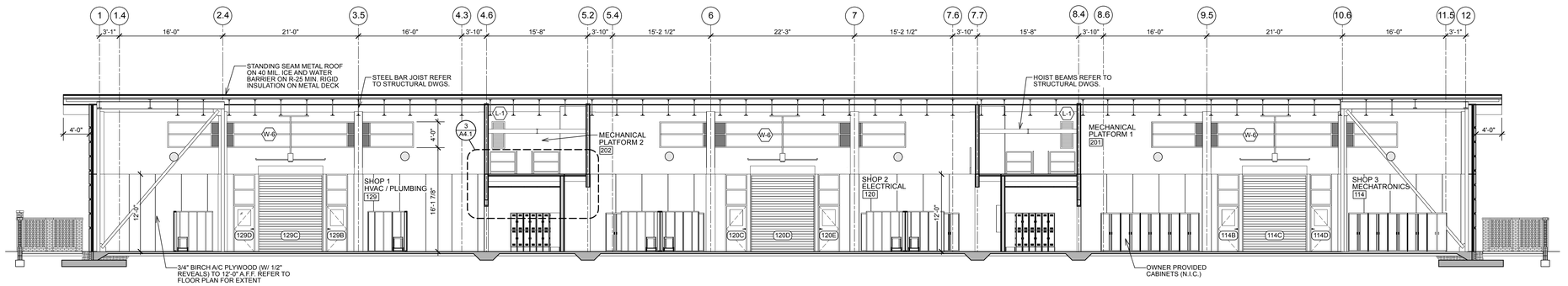
5 A4.1 Wall Section @ Screen Wall Column
Scale: 3/4" = 1'-0"



3 A4.1 Wall Section @ Screen Wall
Scale: 3/4" = 1'-0"



2 A4.1 Building Section
Scale: 1/8" = 1'-0"



1 A4.1 Building Section
Scale: 1/8" = 1'-0"

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JOHN DAVID PARKER NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 13058 WILMINGTON, NC 12-18-2024

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Kenansville, North Carolina 28349

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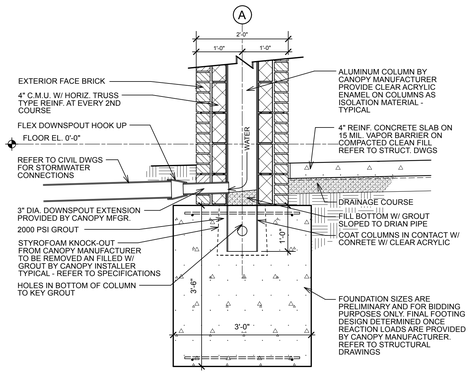
Project Manager	Drawn By
	DP
Date	Reviewed By
12-18-2024	DH
Project ID	

Sheet Title

BUILDING SECTIONS

Sheet No.

A4.1



3 / A5.0 **Column Base Detail**
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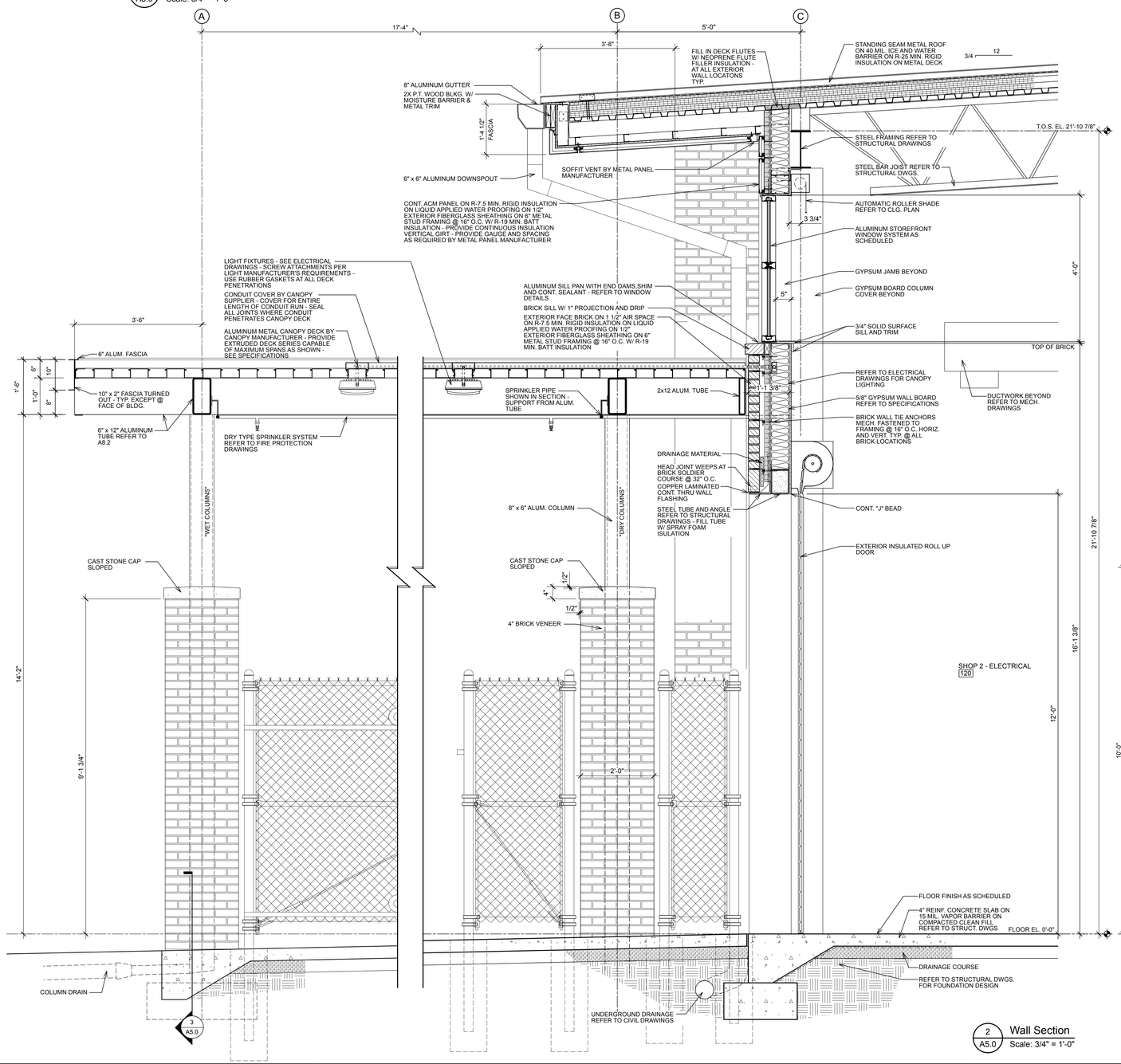

2 / A5.0 **Wall Section**
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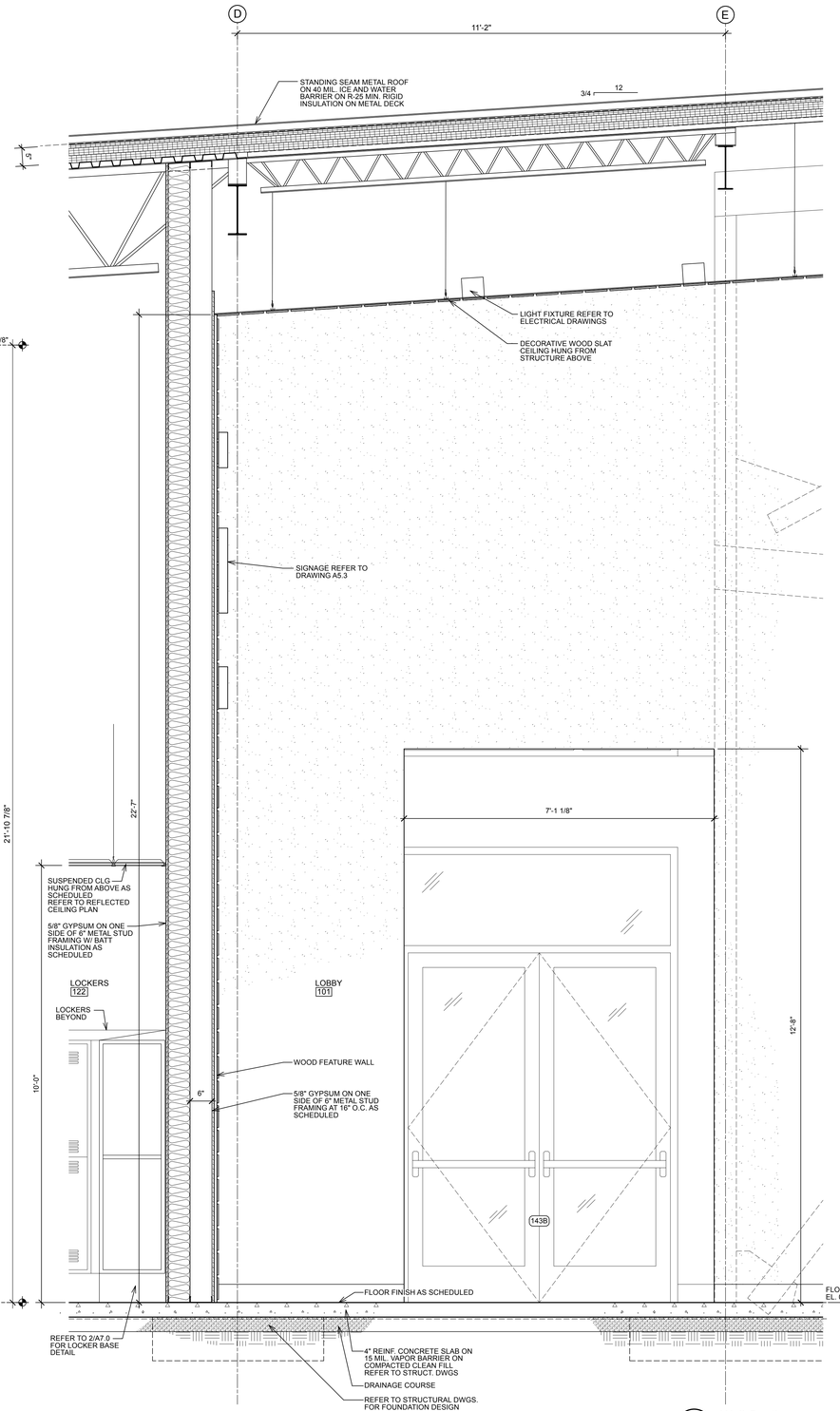

1 / A5.0 **Wall Section**
Scale: 3/4" = 1'-0"

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JOHN DANIEL HEMINGWAY 13058 NORTH CAROLINA REGISTERED WILMINGTON, NC
12-18-2024

James Sprunt Community College - Workforce Development Building

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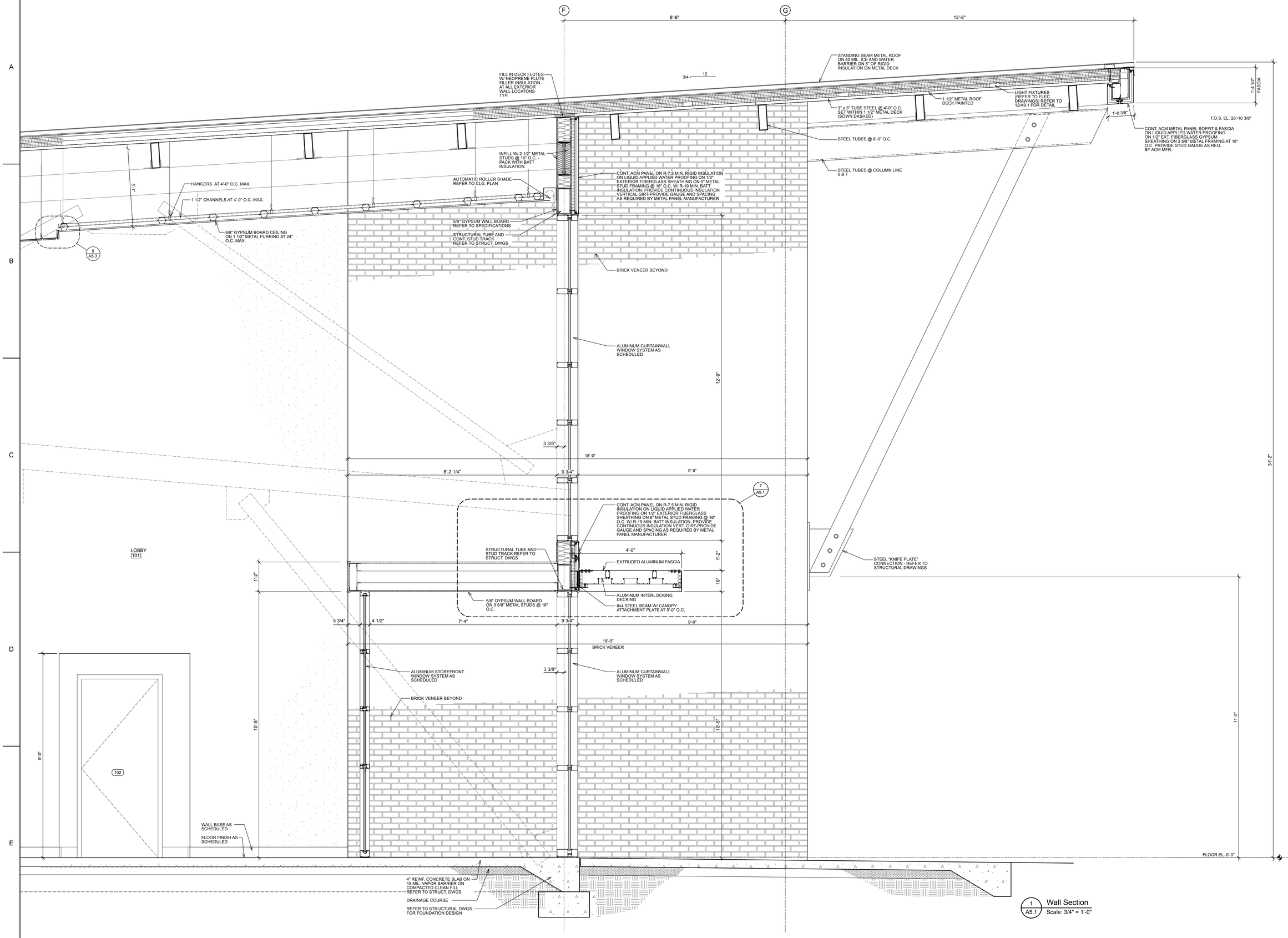
WALL SECTIONS

Sheet No.

A5.0



1 / A5.1 Wall Section
Scale: 3/4" = 1'-0"

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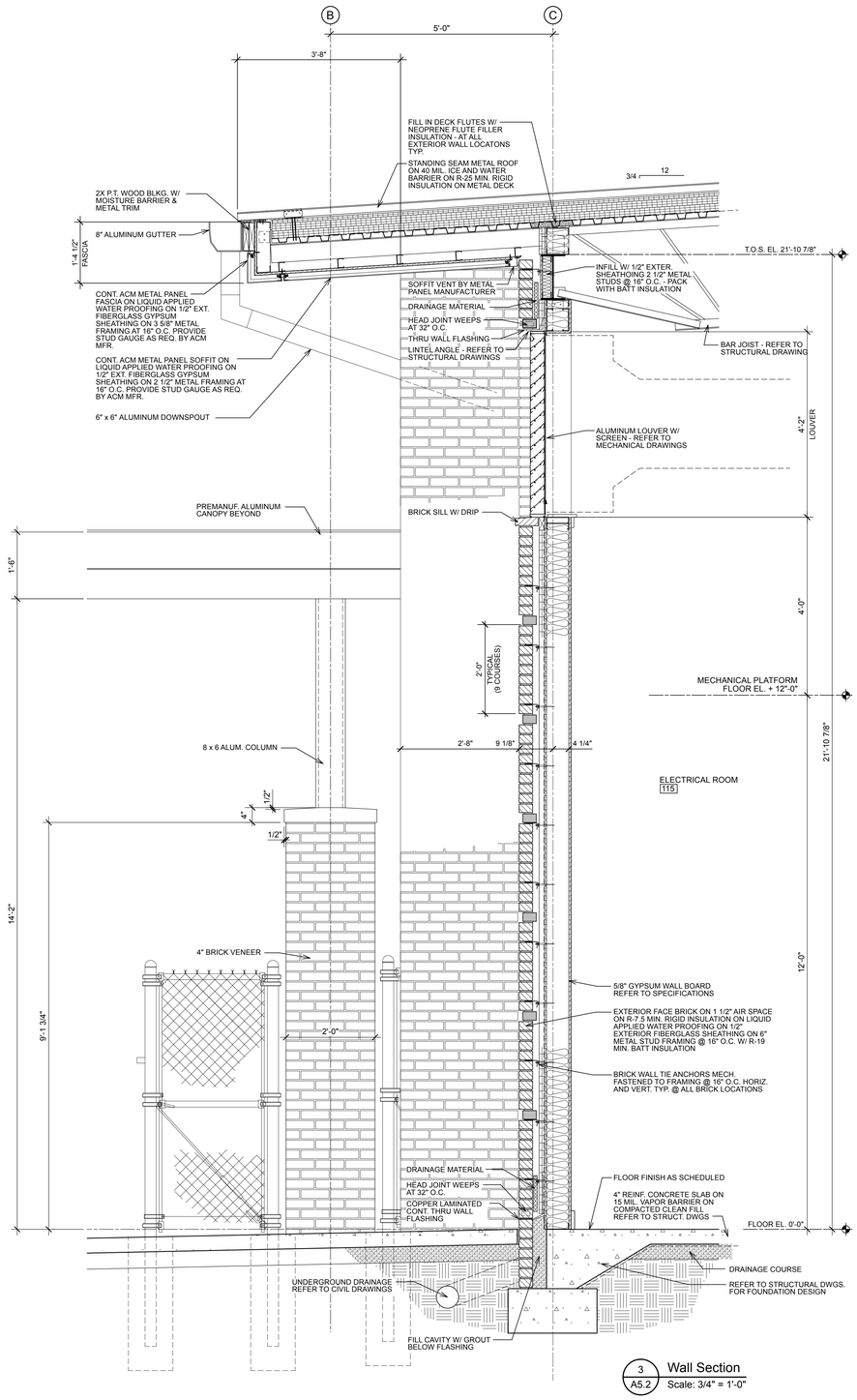
WALL SECTIONS

Sheet No.

A5.1



3 A5.2 Wall Section
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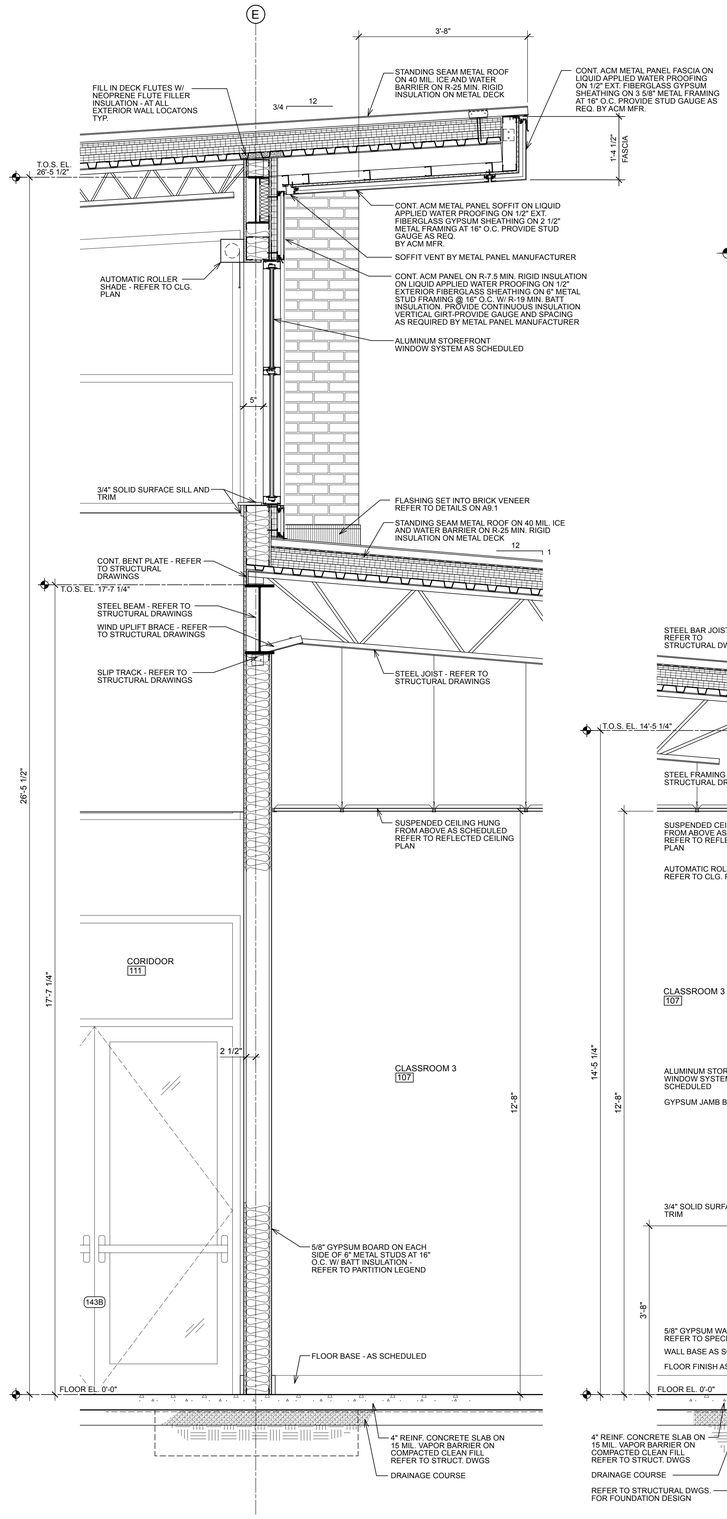

2 A5.2 Wall Section @ Clearstory
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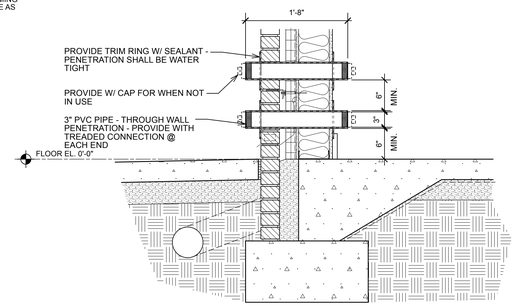
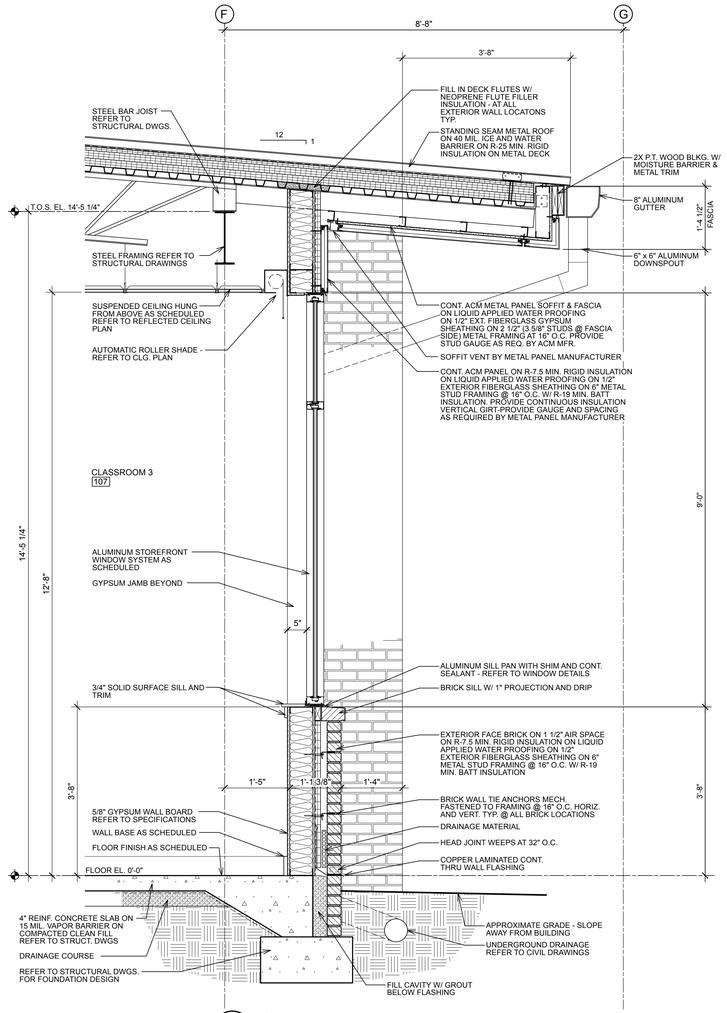


4 A5.2 PVC Sleeve Detail
Scale: 1" = 1'-0"



1 A5.2 Wall Section
Scale: 3/4" = 1'-0"

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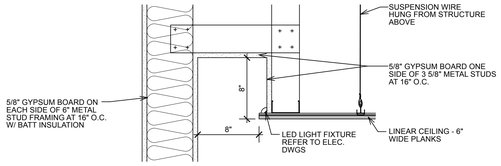
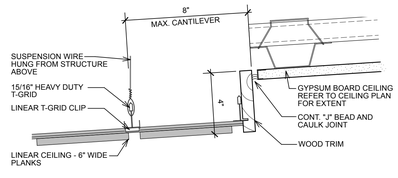
WALL SECTIONS

Sheet No.

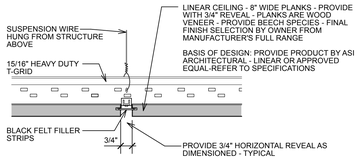
A5.2



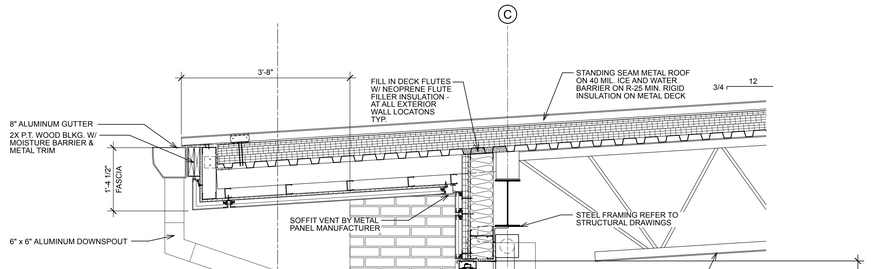
10 A5.3 Typical Linear Section Detail
Scale: 1 1/2" = 1'-0"



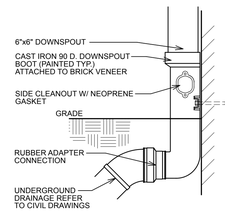
9 A5.3 Typical Linear Section Detail
Scale: 3" = 1'-0"



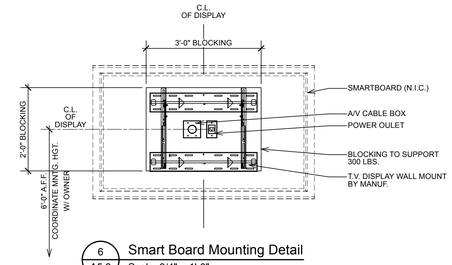
8 A5.3 Typical Linear Section Detail
Scale: 3" = 1'-0"



5 A5.3 Wall Section
Scale: 3/4" = 1'-0"



7 A5.3 Detail @ Downspout Boot
Scale: 3/4" = 1'-0"

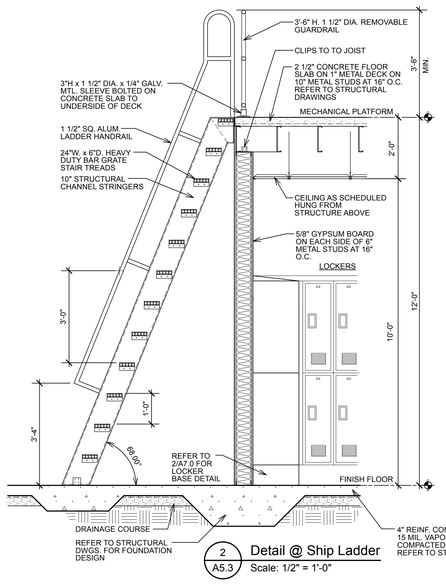


6 A5.3 Smart Board Mounting Detail
Scale: 3/4" = 1'-0"

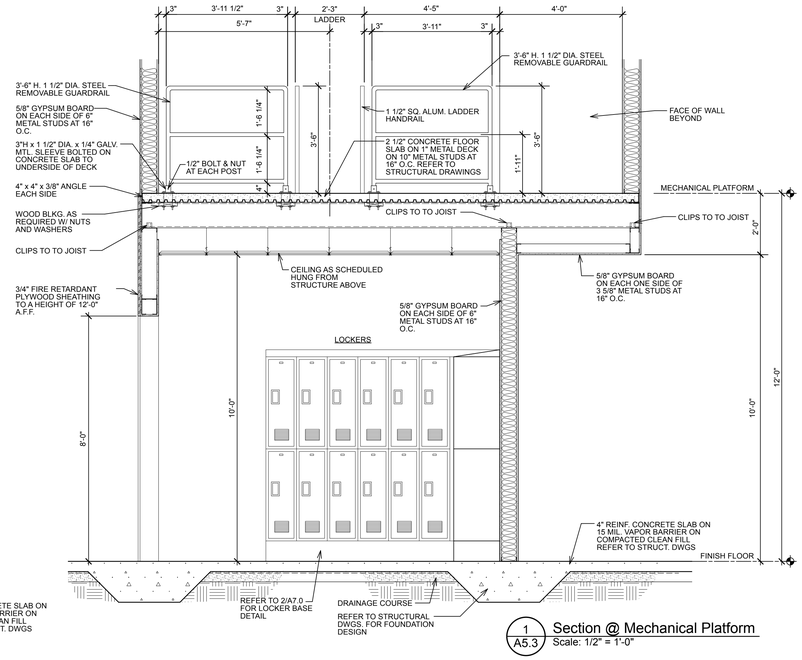
CONTRACTOR TO COORDINATE MOUNTING HEIGHTS FOR ALL SMARTBOARD LOCATIONS WITH OWNER PRIOR TO INSTALL

LADDER NOTES :

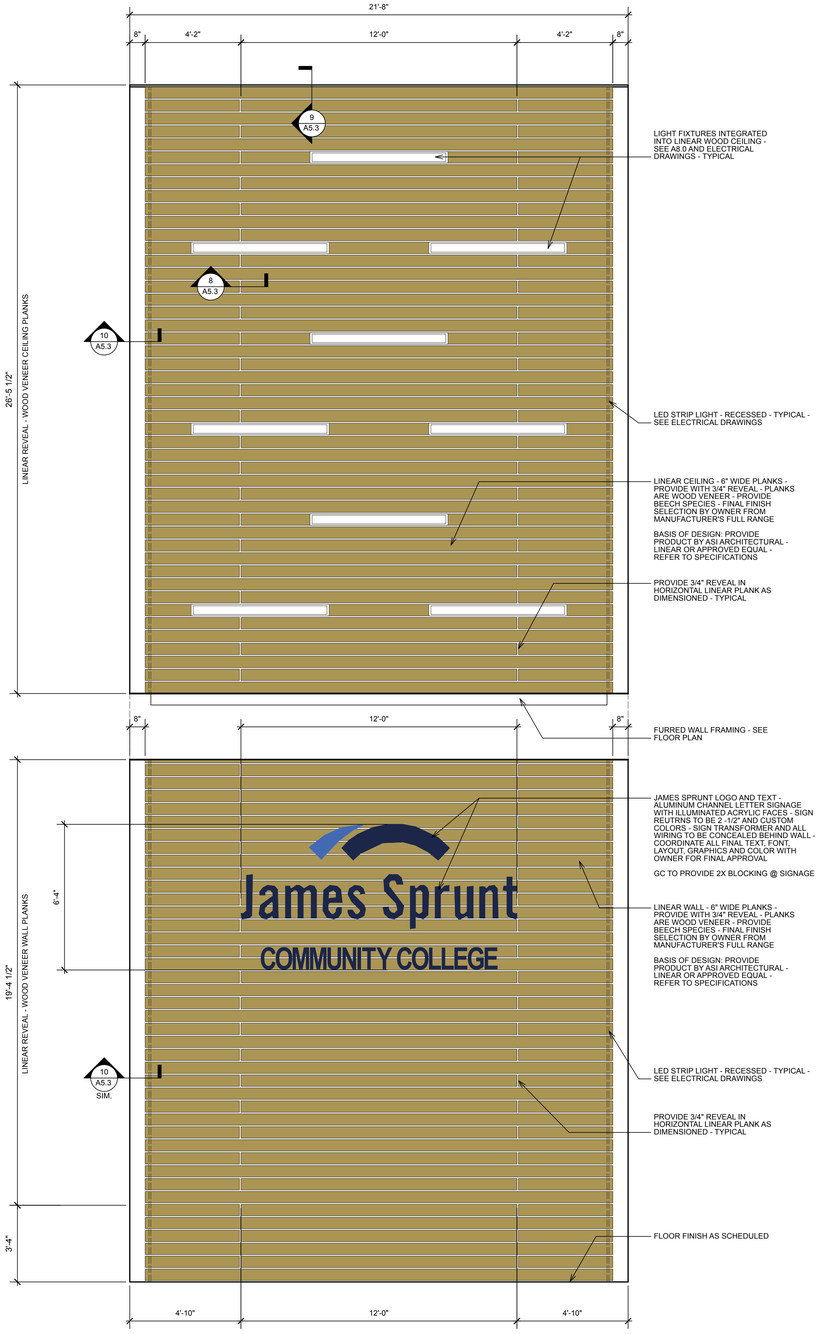
1. LADDER DESIGN SHALL CONFORM TO THE LATEST OSHA STANDARDS.
2. THE MINIMUM CONCENTRATED LIVE LOAD OF 300 LBS. SHALL BE USED.
3. LADDER SHALL BE DESIGNED TO BE MOUNTED AT FLOORS. INTERMEDIATE BRACING POINTS MAY NOT BE ACCESSIBLE.
4. LADDER SHALL BE SHOP PRIMED AND FIELD PAINTED.
5. LADDER MANUFACTURE SHALL PROVIDE REQUIRED ANCHORING LOADS AND INSTRUCTIONS.
6. REFER TO STRUCTURAL FOR THICKENED SLAB LADDER LOCATIONS.



2 A5.3 Detail @ Ship Ladder
Scale: 1/2" = 1'-0"



1 A5.3 Section @ Mechanical Platform
Scale: 1/2" = 1'-0"



3 A5.3 Entry Wall Elevation
Scale: 3/8" = 1'-0"

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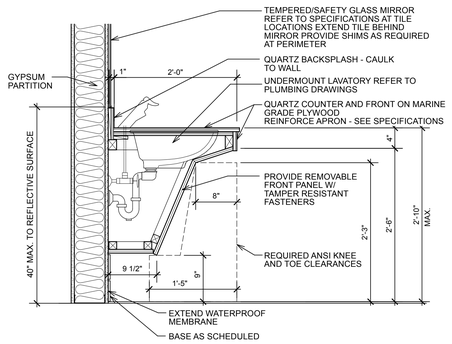
SECTIONS AND DETAILS

Sheet No.

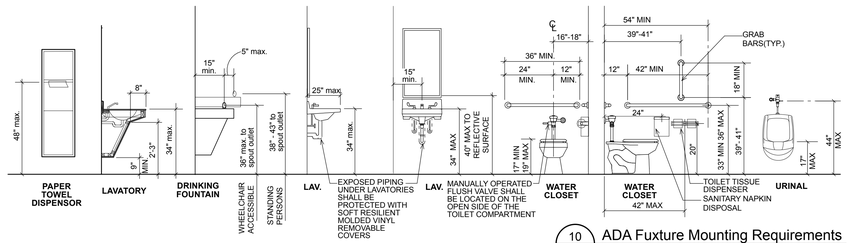
A5.3

	TOILET ACCESSORIES	MNTG. HT.
T1	Vertical Handicapped Grab Bar-18"	40"
T2	Handicapped Grab Bar - 42"	36"
T3	Handicapped Grab Bar - 36"	36"
T4	Toilet Tissue Dispenser- Double Roll	18"
T5	Sanitary Napkin Disposal	18"
T6	Frame Mirror - 2'-0" Wide x 3'-0" High	40" (bottom)
T7	Clothes Hook - 48" at required accessible locations, 60" for standard height locations	48" / 60"
T8	Wall Mounted Soap Dispenser	40"
T9	Paper Towel Dispenser	48"
T10	Full Body Mirror - 3'-0" Wide x 6'-0"	

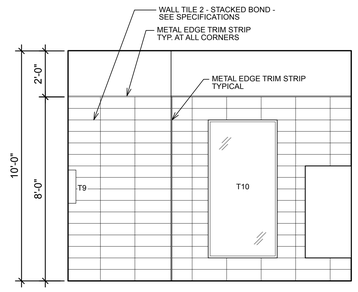
NOTE: Mounting heights are to operating mechanism where applicable.



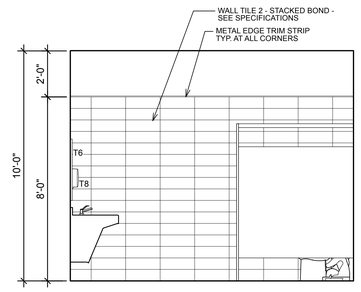
11 A6.0 Section @ Wall Mounted Sink
Scale: 1" = 1'-0"



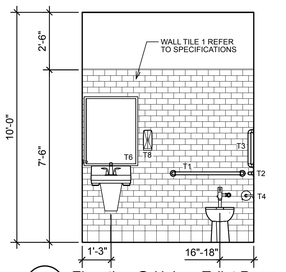
10 A6.0 ADA Fuxture Mounting Requirements
Scale: 3/8" = 1'-0"



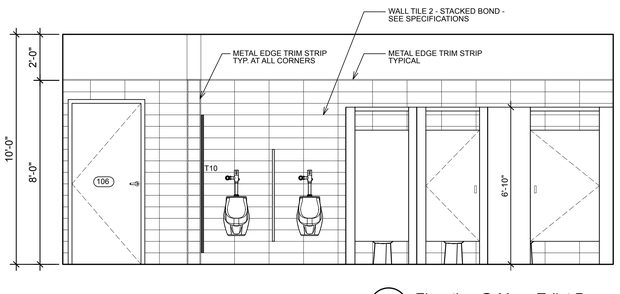
9 A6.0 Elevation @ Mens Toilet Room
Scale: 3/8" = 1'-0"



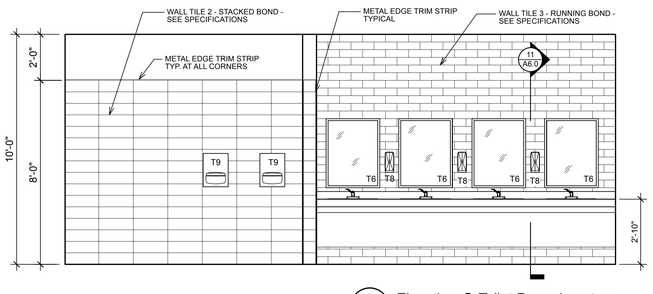
8 A6.0 Elevation @ Womens Toilet Room
Scale: 3/8" = 1'-0"



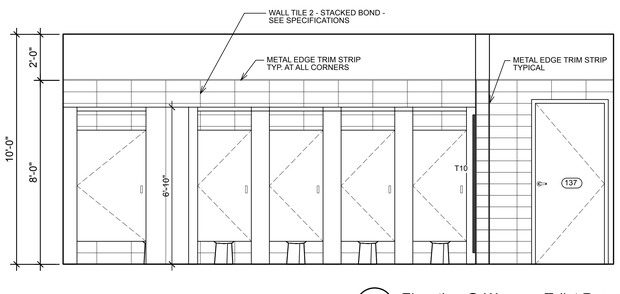
7 A6.0 Elevation @ Unisex Toilet Room
Scale: 3/8" = 1'-0"



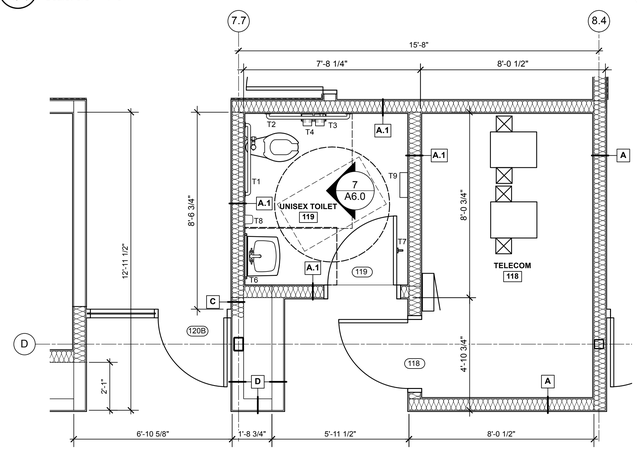
6 A6.0 Elevation @ Mens Toilet Room
Scale: 3/8" = 1'-0"



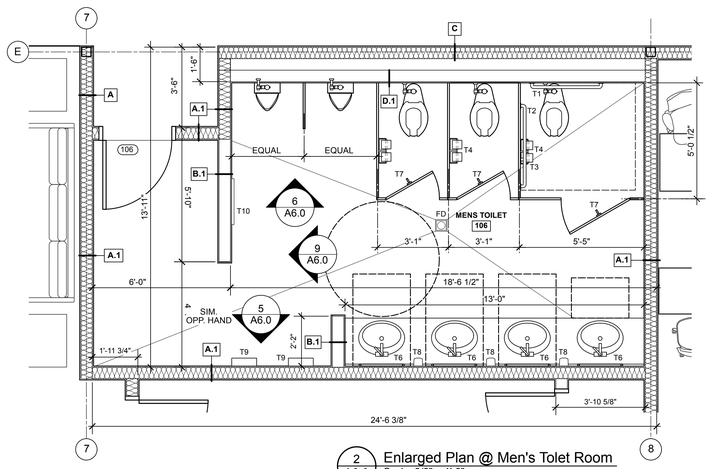
5 A6.0 Elevation @ Toilet Room Lavatory
Scale: 3/8" = 1'-0"



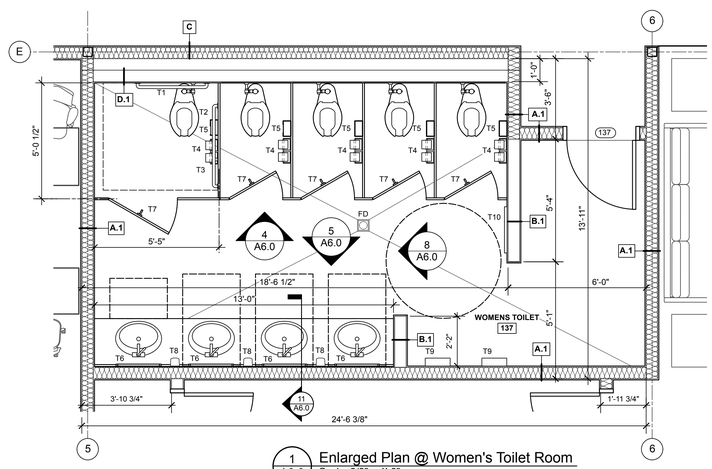
4 A6.0 Elevation @ Womens Toilet Room
Scale: 3/8" = 1'-0"



3 A6.0 Enlarged Plan @ Unisex Toilet Room
Scale: 3/8" = 1'-0" UNISEX TOILET 124 SIM. OPPOSITE HAND



2 A6.0 Enlarged Plan @ Men's Toilet Room
Scale: 3/8" = 1'-0"
NOTE: REFER TO PLUMBING DRAWINGS FOR FLOOR DRAINS. SLOPE SLAB TO DRAIN @ 1/8"/FT



1 A6.0 Enlarged Plan @ Women's Toilet Room
Scale: 3/8" = 1'-0"
NOTE: REFER TO PLUMBING DRAWINGS FOR FLOOR DRAINS. SLOPE SLAB TO DRAIN @ 1/8"/FT

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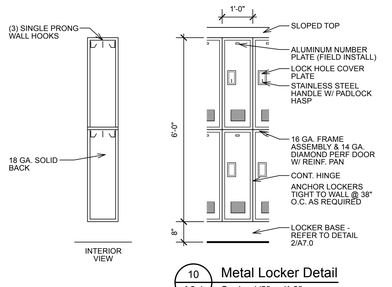
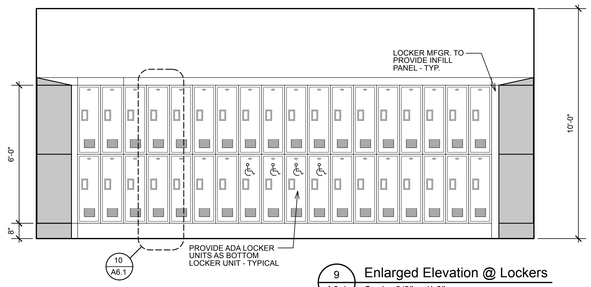
ENLARGED PLANS AND DETAILS

Sheet No.

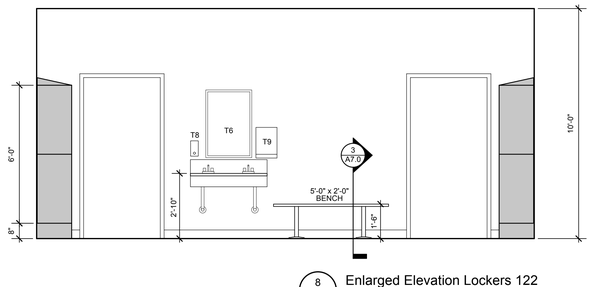
A6.0



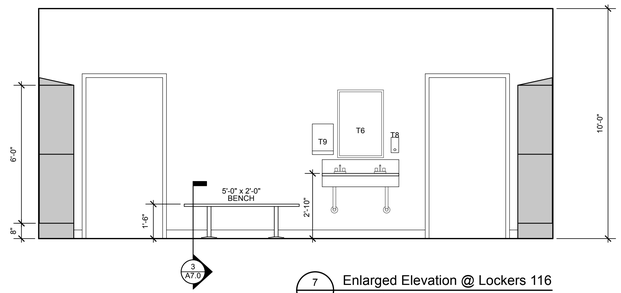
10 A6.1 **Metal Locker Detail**
Scale: 1/2" = 1'-0"



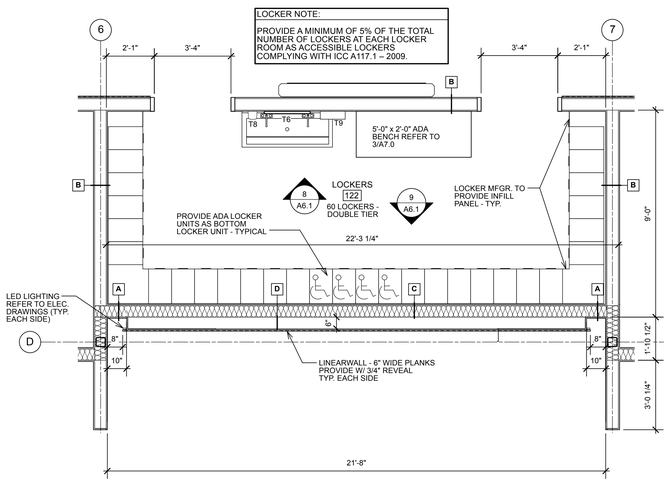
9 A6.1 **Enlarged Elevation @ Lockers**
Scale: 3/8" = 1'-0"



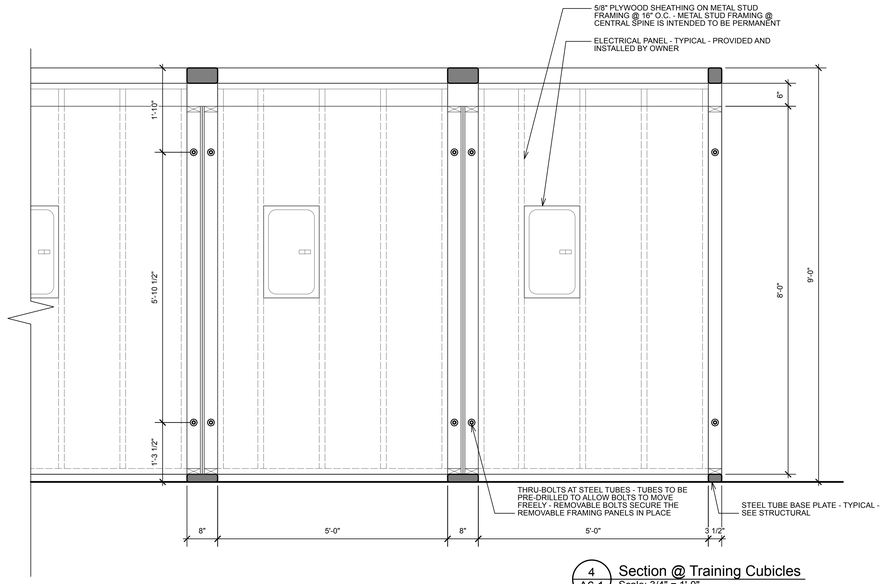
8 A6.1 **Enlarged Elevation Lockers 122**
Scale: 3/8" = 1'-0"



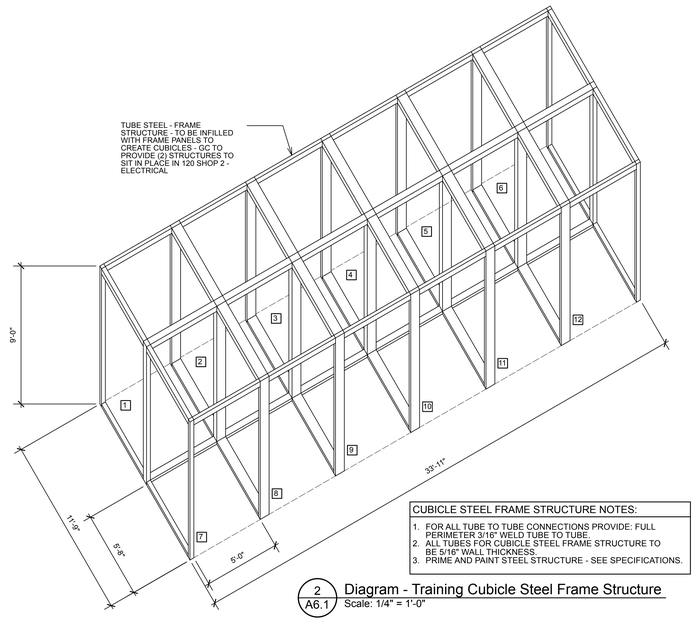
7 A6.1 **Enlarged Elevation @ Lockers 116**
Scale: 3/8" = 1'-0"



6 A6.1 **Enlarged Plan @ Lockers 122**
Scale: 3/8" = 1'-0"

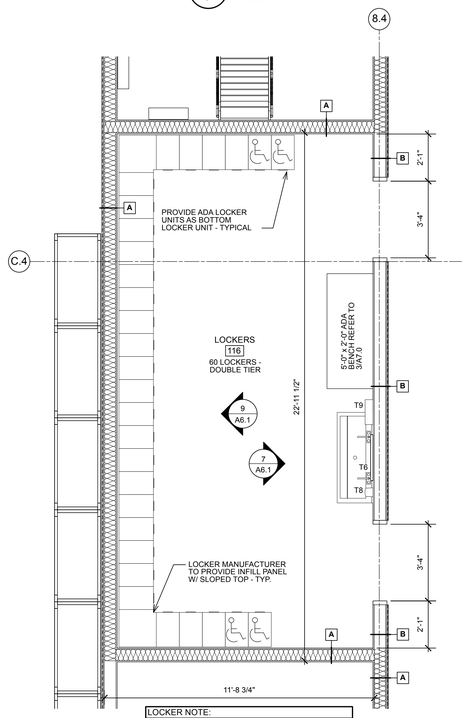


4 A6.1 **Section @ Training Cubicles**
Scale: 3/4" = 1'-0"



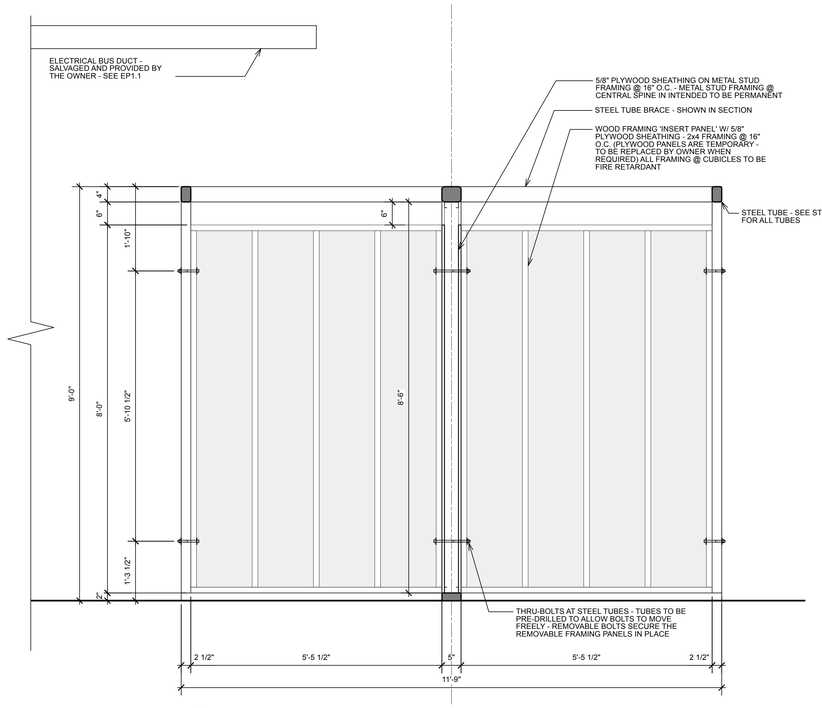
CUBICLE STEEL FRAME STRUCTURE NOTES:
1. FOR ALL TUBE TO TUBE CONNECTIONS PROVIDE: FULL PERIMETER 3/16" WELD TUBE TO TUBE.
2. ALL TUBES FOR CUBICLE STEEL FRAME STRUCTURE TO BE 5/16" WALL THICKNESS.
3. PRIME AND PAINT STEEL STRUCTURE - SEE SPECIFICATIONS.

2 A6.1 **Diagram - Training Cubicle Steel Frame Structure**
Scale: 1/4" = 1'-0"

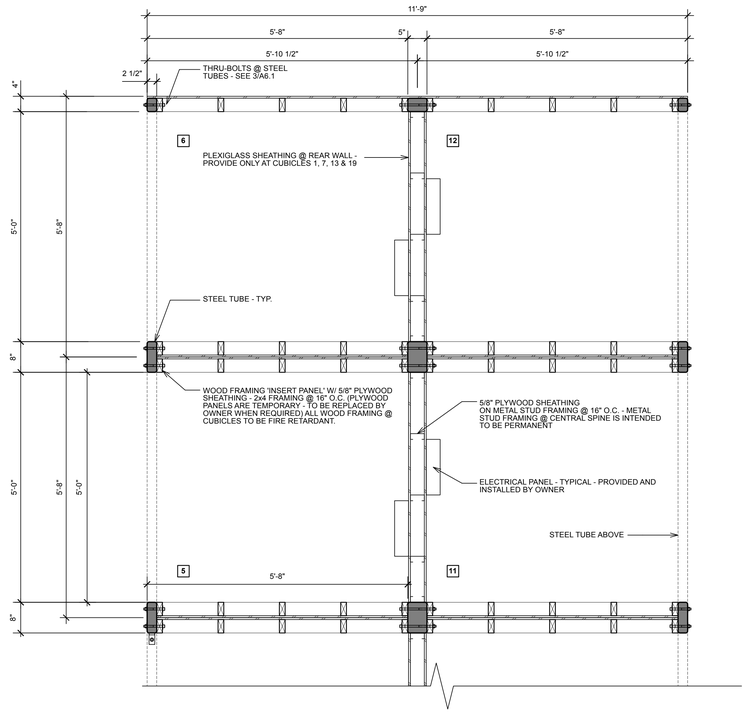


LOCKER NOTE:
PROVIDE A MINIMUM OF 5% OF THE TOTAL NUMBER OF LOCKERS AT EACH LOCKER ROOM AS ACCESSIBLE LOCKERS COMPLYING WITH ICC A117.1 – 2009.

5 A6.1 **Enlarged Plan @ Lockers 115**
Scale: 3/8" = 1'-0"



3 A6.1 **Section @ Training Cubicles**
Scale: 3/4" = 1'-0"



1 A6.1 **Enlarged Cubicle Plan @ Shop 2**
Scale: 3/4" = 1'-0"

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JOHN DAVID HEMINGWAY 13058 REGISTERED ARCHITECT NORTH CAROLINA WILMINGTON, NC 12-18-2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

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	DP
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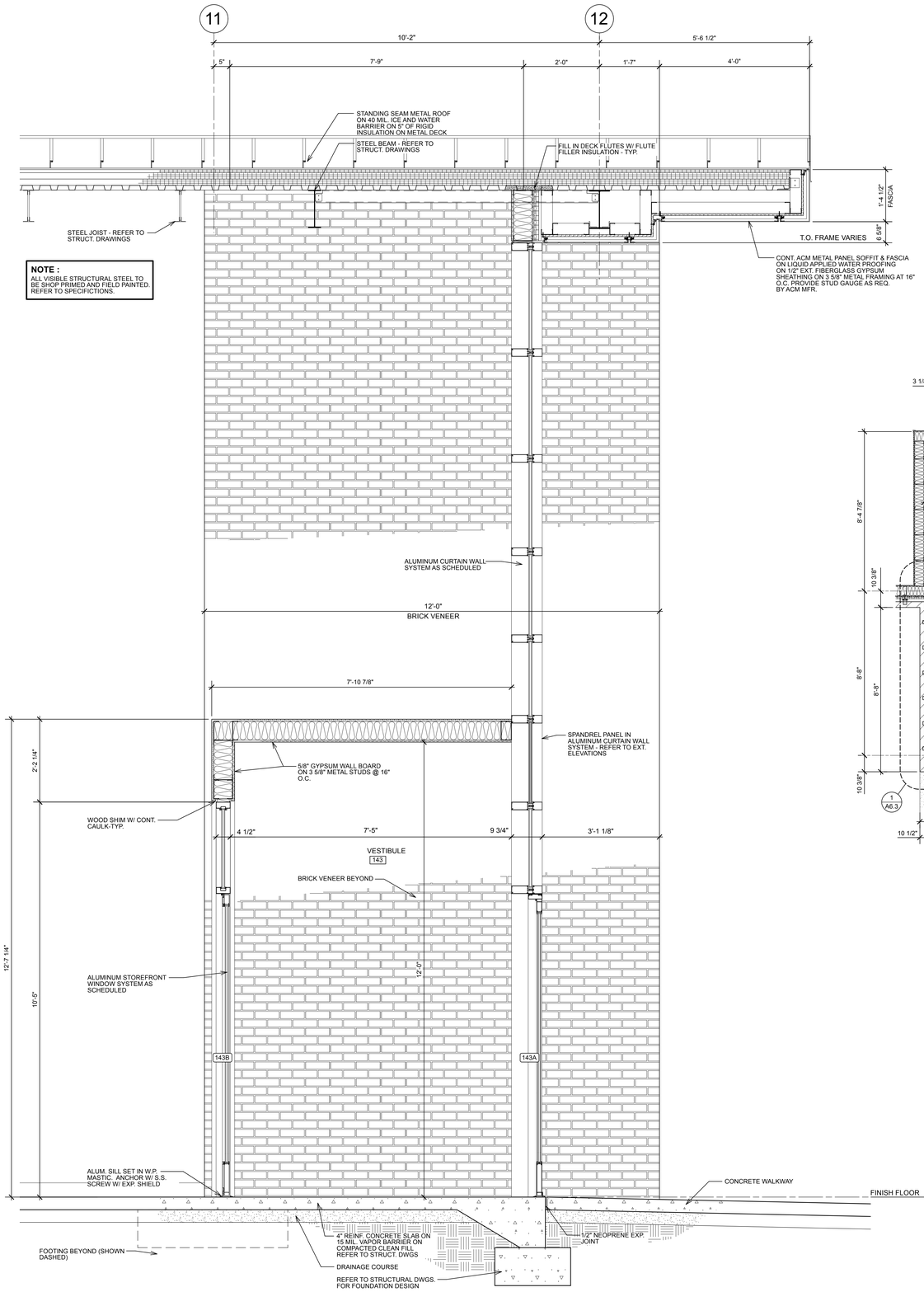
12-18-2024	DH
Project ID	

Sheet Title

ENLARGED PLANS AND DETAILS

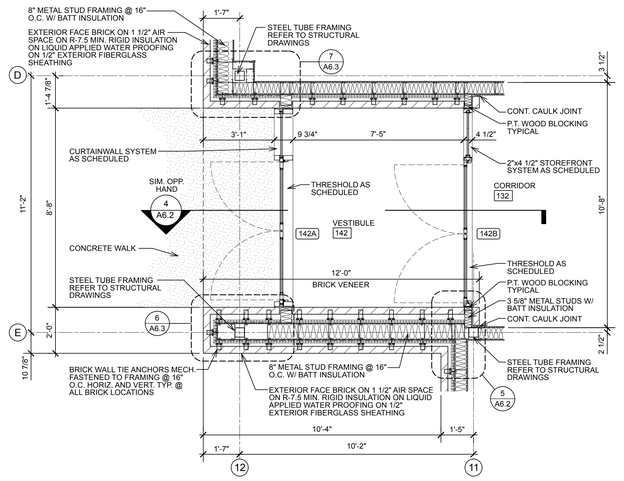
Sheet No.

A6.1

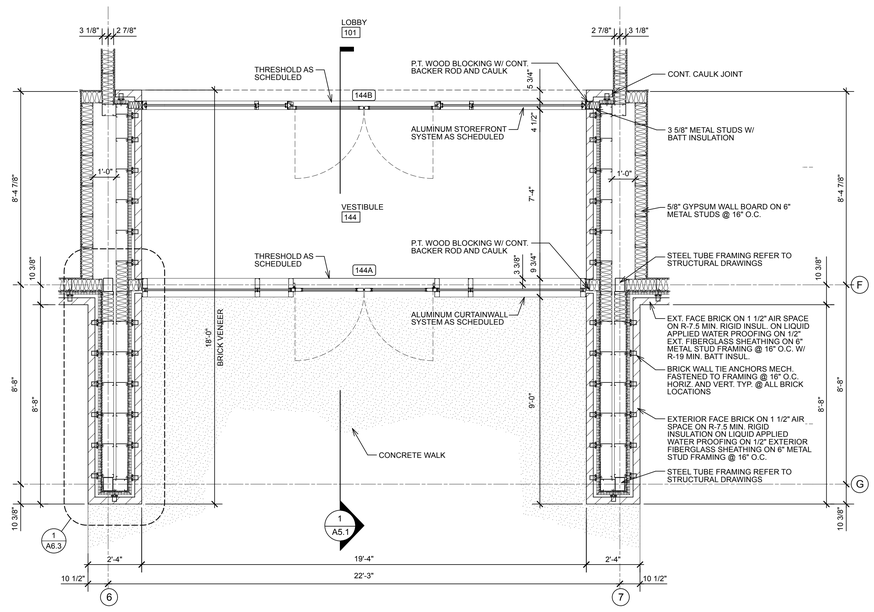


NOTE :
ALL VISIBLE STRUCTURAL STEEL TO BE SHOP PRIMED AND FIELD PAINTED. REFER TO SPECIFICTIONS.

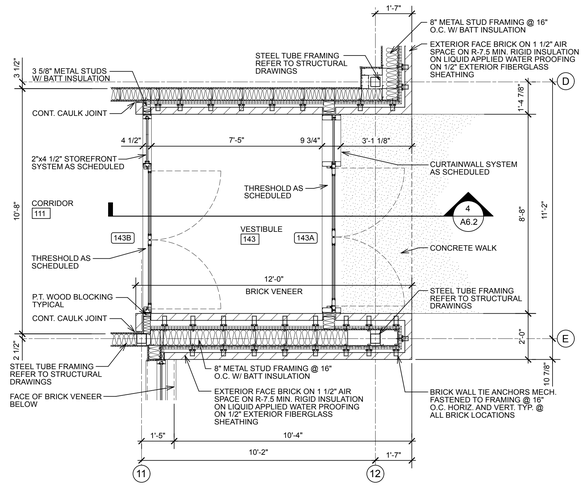
4 / A6.2 Section @ Vestibule 143
Scale: 3/4" = 1'-0"



3 / A6.2 Enlarged Plan @ Vestibule 142
Scale: 3/8" = 1'-0"



2 / A6.2 Enlarged Plan @ Vestibule 144
Scale: 3/8" = 1'-0"



1 / A6.2 Enlarged Plan @ Vestibule 143
Scale: 3/8" = 1'-0"

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James Sprunt Community College - Workforce Development Building

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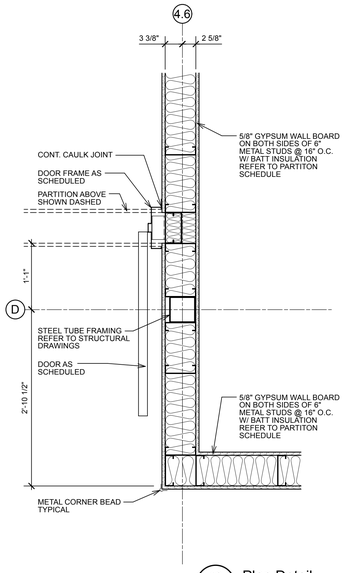
Sheet Title

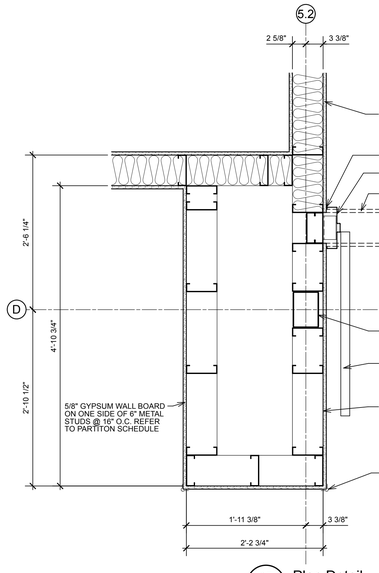
ENLARGED VESTIBULE PLANS AND DETAILS

Sheet No.

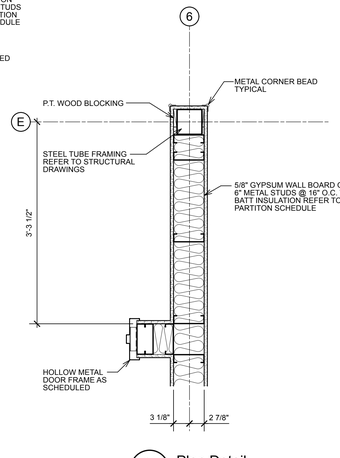
A6.2



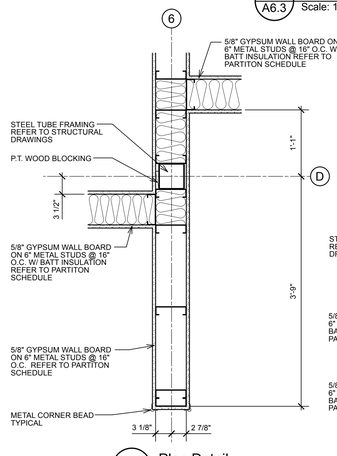
16 A6.3 Plan Detail
Scale: 1" = 1'-0"



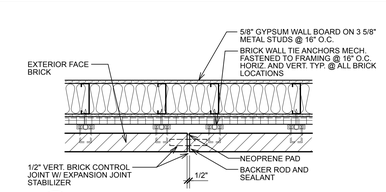
15 A6.3 Plan Detail
Scale: 1" = 1'-0"



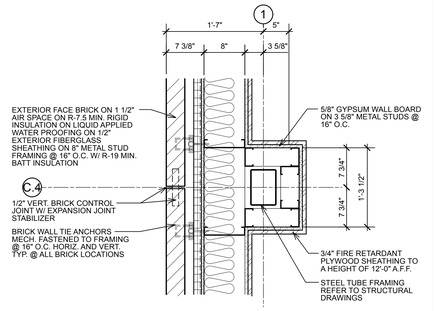
14 A6.3 Plan Detail
Scale: 1" = 1'-0"



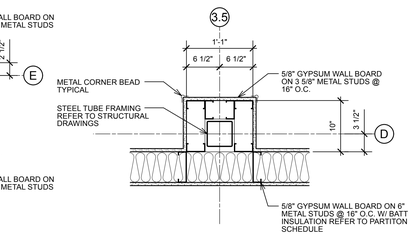
13 A6.3 Plan Detail
Scale: 1" = 1'-0"



18 A6.3 TYPICAL BRICK CONTROL JOINT DETAIL
Scale: 1" = 1'-0"

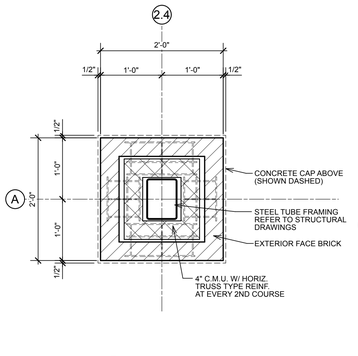


17 A6.3 Plan Detail
Scale: 1" = 1'-0"

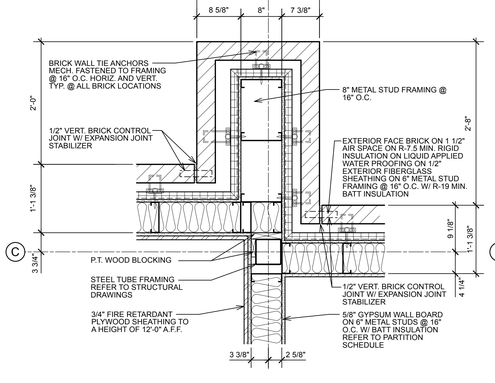


12 A6.3 Plan Detail
Scale: 1" = 1'-0"

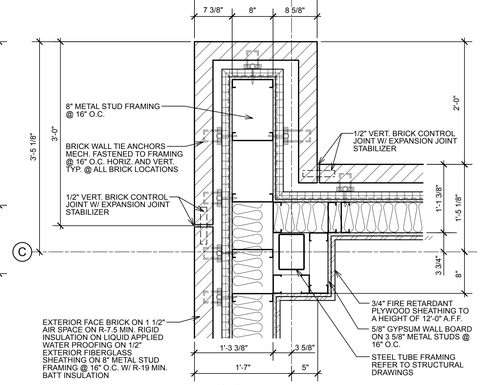
11 A6.3 Plan Detail
Scale: 1" = 1'-0"



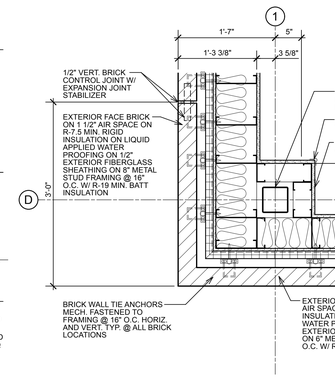
10 A6.3 Plan Detail
Scale: 1" = 1'-0"



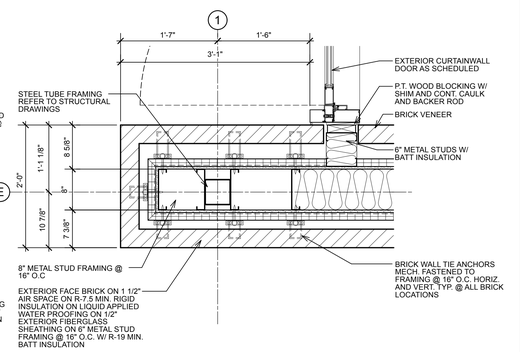
9 A6.3 Plan Detail
Scale: 1" = 1'-0"



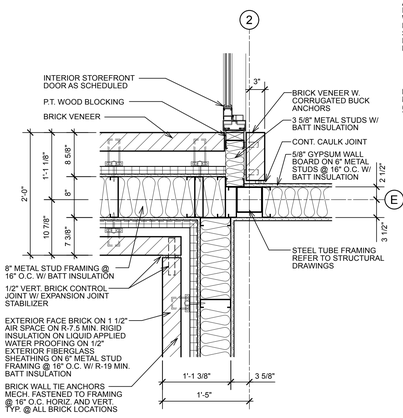
8 A6.3 Plan Detail
Scale: 1" = 1'-0"



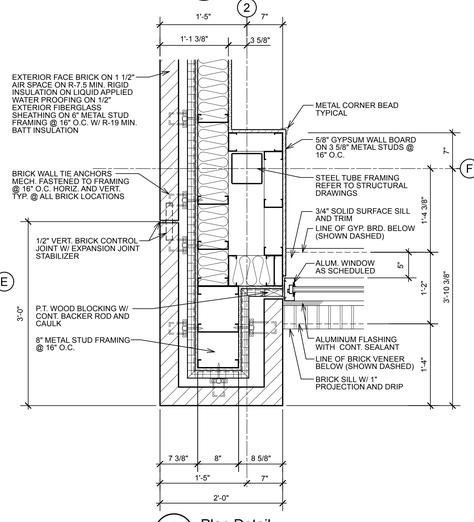
7 A6.3 Plan Detail
Scale: 1" = 1'-0"



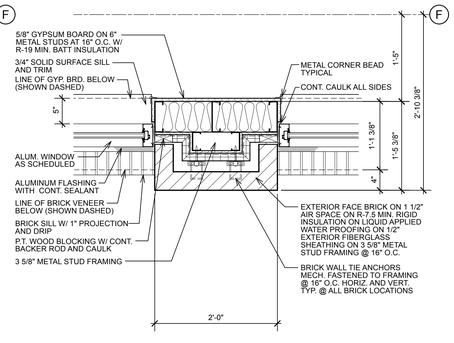
6 A6.3 Plan Detail
Scale: 1" = 1'-0"



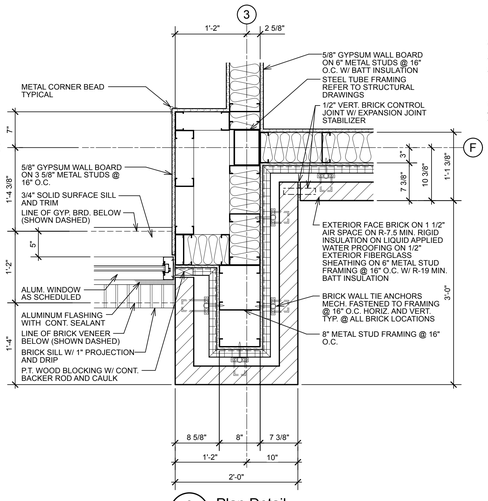
5 A6.3 Plan Detail
Scale: 1" = 1'-0"



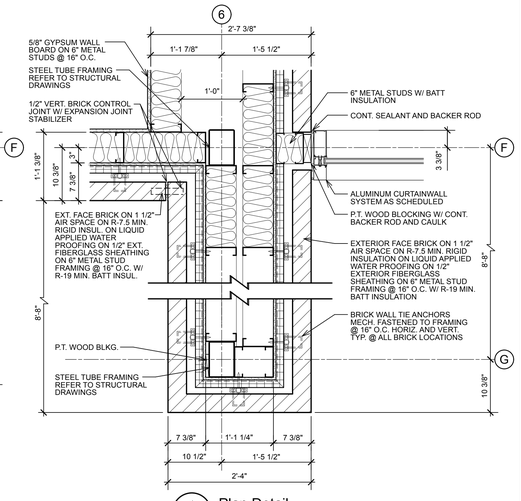
4 A6.3 Plan Detail
Scale: 1" = 1'-0"



3 A6.3 Plan Detail
Scale: 1" = 1'-0"



2 A6.3 Plan Detail
Scale: 1" = 1'-0"



1 A6.3 Plan Detail
Scale: 1" = 1'-0"

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12-18-2024

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PLAN DETAILS

Sheet No.

A6.3

Finish Schedule

ROOM #	ROOM NAME	FLOOR	BASE	NORTH WALL MAT/FINISH	EAST WALL MAT/FINISH	SOUTH WALL MAT/FINISH	WEST WALL MAT/FINISH	CEILING MAT	CEILING FINISH	REMARKS
101	LOBBY	TRZ - SEE A4.1	RBBS 1	SP. WOOD	GYP./PT	GLAZING	GYP./PT	GYP./SP. WD.	PT/PRE-FIN.	FLOOR FINISH IS ADD ALTERNATE #6/BASE BID IS LVT1 REFER TO BUILDING SECTIONS FOR WALL FINISHES.
102	CORRIDOR	LVT 1	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
103	OFFICE 3	CAR. TILE 1	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
104	OFFICE 4	CAR. TILE 1	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
105	STORAGE	QT	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	GYP.BD.	PT	
106	MENS TOILET	TILE 1	TILE	WLTL 2 / GYP.	WLTL 2 / GYP.	WLTL 2/3 GYP.	WLTL 2 / GYP.	GYP. BD.	PT	SEAL GROUT
107	CLASSROOM 3	CAR. TILE 2	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
108	STORAGE	QT	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
109	BREAK ROOM	QT	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
110	CONFERENCE ROOM	CAR. TILE 3	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
111	CORRIDOR	TRZ - SEE A4.1	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	O.T. ST.	PT	FLOOR FINISH IS ADD ALTERNATE #6/BASE BID IS LVT2 REFER TO A8.0/A8.1 FOR CEILING
112	SECURE TOOL STORAGE	QT	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
113	SECURE TOOL STORAGE	QT	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
114	SHOP 3 - MECHATRONICS	EPOXY RESIN	EPOXY R.	PLYWOOD/GB. PT	PLYWOOD/GB. PT	PLYWOOD/GB. PT	PLYWOOD/GB. PT	O.T. ST.	PT	FLOOR FINISH IS ADD ALTERNATE #3/ BASE BID IS POLISHED CONCRETE FLOOR
115	ELECTRICAL ROOM	CONCRETE	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	O.T. ST.		
116	LOCKER ROOM 3	EPOXY RESIN	EPOXY R.	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	FLOOR FINISH IS ADD ALTERNATE #3/ BASE BID IS POLISHED CONCRETE FLOOR
117	TOOL STORAGE	QT	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
118	TELECOM	QT	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
119	UNISEX TOILET	TILE 2	TILE	WLTL 1/GYP	WLTL 1/GYP	WLTL 1/GYP	WLTL 1/GYP	GYP. BD.	PT	SEAL GROUT
120	SHOP 2 - ELECTRICAL	EPOXY RESIN	EPOXY R.	PLYWOOD/GB. PT	PLYWOOD/GB. PT	PLYWOOD/GB. PT	PLYWOOD/GB. PT	O.T. ST.	PT	FLOOR FINISH IS ADD ALTERNATE #3/ BASE BID IS POLISHED CONCRETE FLOOR
121	SECURE TOOL STORAGE	QT	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
122	LOCKER ROOM 2	EPOXY RESIN	EPOXY R.	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	FLOOR FINISH IS ADD ALTERNATE #3/ BASE BID IS POLISHED CONCRETE FLOOR
123	SECURE TOOL STORAGE	QT	RBBS 2	PAINT	PAINT	PAINT	PAINT	EGAP	-	
124	UNISEX TOILET	TILE 2	TILE	WLTL 1/GYP	WLTL 1/GYP	WLTL 1/GYP	WLTL 1/GYP	GYP. BD.	PT	SEAL GROUT
125	JANITORS CLOSET	QT	RBBS 2	FRP	FRP	FRP	FRP	EGAP	-	
126	TOOL STORAGE	QT	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
127	LOCKER ROOM 1	EPOXY RESIN	EPOXY R.	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	FLOOR FINISH IS ADD ALTERNATE #3/ BASE BID IS POLISHED CONCRETE FLOOR
128	SPRINKLER RISER ROOM	CONCRETE	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	O.T. ST.	-	
129	SHOP 1 - HVAC/PLUMBING	EPOXY RESIN	EPOXY R.	PLYWOOD/GB. PT	PLYWOOD/GB. PT	PLYWOOD/GB. PT	PLYWOOD/GB. PT	O.T. ST.	PT	FLOOR FINISH IS ADD ALTERNATE #3/ BASE BID IS POLISHED CONCRETE FLOOR
130	SECURE TOOL STORAGE	QT	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
131	SECURE TOOL STORAGE	QT	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
132	CORRIDOR	TRZ - SEE A4.1	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	O.T. ST.	PT	FLOOR FINISH IS ADD ALTERNATE #6/BASE BID IS LVT2 REFER TO A8.0/A8.1
133	CLASSROOM 1	CAR. TILE 2	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
134	STORAGE	QT	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
135	STORAGE	QT	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
136	CLASSROOM 2	CAR. TILE 2	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
137	WOMENS TOILET	TILE 1	TILE	WLTL 2/GYP	WLTL 2/GYP	WLTL 2/3GYP	WLTL 2/GYP	GYP. BD.	PT	SEAL GROUT
138	STORAGE	QT	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
139	CORRIDOR	QT	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
140	OFFICE 1	CAR. TILE 1	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
141	OFFICE 2	CAR. TILE 1	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
142	VESTIBULE	TILE 3	RBBS 1	BRICK	GLAZING	BRICK	GLAZING	GYP.	-	
143	VESTIBULE	TILE 3	RBBS 1	BRICK	GLAZING	BRICK	GLAZING	GYP.	-	
144	VESTIBULE	TILE 3	RBBS 1	GLAZING	BRICK	GLAZING	BRICK	GYP.	-	
145	CORRIDOR	LVT 3	RBBS 1	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
146	STORAGE	QT	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
147	STORAGE	QT	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	EGAP	-	
201	MECHANICAL PLATFORM 1	CONCRETE	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	O.T. ST.	-	
202	MECHANICAL PLATFORM 2	CONCRETE	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	O.T. ST.	-	
203	BDA ROOM	CONCRETE	RBBS 2	GYP./PT	GYP./PT	GYP./PT	GYP./PT	O.T. ST.	-	

Door Schedule

NO.	OPENINIG: LEAVES	OPENINIG: SIZE WxHxT	DOOR: MATERIAL	DOOR: FINISH	DOOR: ELEVATION	FRAME: FRAME MATERIAL	FRAME: FRAME FINISH	FRAME: FRAME ELEVATION	FRAME: HEAD DTL	FRAME: JAMB DTL	FRAME: SILL DTL	GLAZING	HW SET	Fire Rating	REMARKS
102	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		9.0		
103	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-10	H-2	J-2	S-2		11.0		
104	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-9	H-2	J-2	S-2		11.0		
105	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		15.0		
106	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		20.0		
107	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-4	HM	PNT	F-1	H-1	J-1	S-1		18.0		
108	PAIR (2)	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-2	H-1	J-1	S-1		14.0		
109	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-4	HM	PNT	F-1	H-1	J-1	S-1		8.0		
110	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-10	H-2	J-2	S-2		13.0		
112	SINGLE	3'4" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		12.0		
113	SINGLE	3'4" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		12.0		
114A	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-3	HM	PNT	F-4	H-6	J-6	S-6	1/4" TEMP.	19.0		PROVIDE HOLD OPEN
114B	SINGLE	3'0" x 7'0" x 1 3/4"	HM	PNT	D-6	HM	PNT	F-11	H-3	J-3	S-3	1" TEMP.	4.0		
114C		10'0" x 12'0" x 1 1/2"	MTL	FF	D-7	STL	FF	-	H-4	J-4	S-4		21.0		
114D	SINGLE	3'0" x 7'0" x 1 1/2"	HM	PNT	D-6	HM	PNT	F-11	H-3	J-3	S-3	1" TEMP.	4.0		
115	PAIR (2)	3'0" x 7'0" x 1 3/4"	HM	PNT	D-5	HM	PNT	F-12	H-5	J-5	S-5		3.0		
116A		3'4" x 7'0" x 2"	-	-	-	HM	FF	F-1A	H-1A	J-1A	S-1A		-		CASED OPENING
116B		3'4" x 7'0" x 2"	-	-	-	HM	FF	F-1A	H-1A	J-1A	S-1A		-		CASED OPENING
117	SINGLE	3'4" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		12.0		
118	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		16.0		
119	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		10.0		
120A	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-3	HM	PNT	F-4	H-6	J-6	S-6	1/4" TEMP.	19.0		PROVIDE HOLD OPEN
120B	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-3	HM	PNT	F-3	H-6	J-6	S-6		19.0		PROVIDE HOLD OPEN
120C	SINGLE	3'0" x 7'0" x 1 1/2"	HM	PNT	D-6	HM	PNT	F-11	H-3	J-3	S-3	1" TEMP.	4.0		
120D		10'0" x 12'0" x 1 1/2"	MTL	FF	D-7	STL	FF	-	H-4	J-4	S-4		21.0		
120E	SINGLE	3'0" x 7'0" x 1 1/2"	HM	PNT	D-6	HM	PNT	F-11	H-3	J-3	S-3	1" TEMP.	4.0		
121	PAIR (2)	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-2	H-1	J-1	S-1		17.0		
122A		3'4" x 7'0" x 2"	-	-	-	HM	FF	F-1A	H-1A	J-1A	S-1A		-	-	CASED OPENING
122B		3'4" x 7'0" x 2"	-	-	-	HM	FF	F-1A	H-1A	J-1A	S-1A		-	-	CASED OPENING
123	PAIR (2)	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-2	H-1	J-1	S-1		17.0		
124	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		10.0		
125	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		15.0		
126	SINGLE	3'4" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		12.0		
127A		3'4" x 7'0" x 2"	-	-	-	HM	FF	F-1A	H-1A	J-1A	S-1A		-	-	CASED OPENING
127B		3'4" x 7'0" x 2"	-	-	-	HM	FF	F-1A	H-1A	J-1A	S-1A		-	-	CASED OPENING
128	PAIR (2)	3'0" x 7'0" x 1 3/4"	HM	PNT	D-5	HM	PNT	F-12	H-5	J-5	S-5		5.0		
129A	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-3	HM	PNT	F-3	H-6	F-6	S-6	1/4" TEMP.	19.0		PROVIDE HOLD OPEN
129B	SINGLE	3'0" x 7'0" x 1 1/2"	HM	PNT	D-6	HM	PNT	F-11	H-3	J-3	S-3	1" TEMP.	4.0		
129C		10'0" x 12'0" x 1 1/2"	MTL	FF	D-7	STL	FF	-	H-4	J-4	S-4		21.0		
129D	SINGLE	3'0" x 7'0" x 1 1/2"	HM	PNT	D-6	HM	PNT	F-11	H-3	J-3	S-3	1" TEMP.	4.0		
130	SINGLE	3'4" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		12.0		
131	SINGLE	3'4" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		12.0		
133	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-4	HM	PNT	F-1	H-1	J-1	S-1		18.0		
134	PAIR (2)	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-2	H-1	J-1	S-1		14.0		
135	PAIR (2)	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-2	H-1	J-1	S-1		14.0		
136	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-4	HM	PNT	F-1	H-1	J-1	S-1		18.0		
137	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		20.0		
138	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		15.0		
139	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		9.0		
140	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-10	H-2	J-2	S-2		11.0		
141	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-9	H-2	J-2	S-2		11.0		
142A	PAIR (2)	3'0" x 8'0" x 1 3/4"	ALUM	FF	D-1	ALUM	FF	F-6	H-8	J-8	S-8	1" TEMP.	2.0		
142B	PAIR (2)	3'0" x 8'0" x 1 3/4"	ALUM	FF	D-1	ALUM	FF	F-8A	H-7	J-7	S-7	1" TEMP.	7.0		
143A	PAIR (2)	3'0" x 8'0" x 1 3/4"	ALUM	FF	D-1	ALUM	FF	F-6	H-8	J-8	S-8	1" TEMP.	2.0		
143B	PAIR (2)	3'0" x 8'0" x 1 3/4"	ALUM	FF	D-1	ALUM	FF	F-8B	H-7	J-7	S-7	1" TEMP.	7.0		
144A	PAIR (2)	3'0" x 8'0" x 1 3/4"	ALUM	FF	D-1	ALUM	FF	F-5A	H-8	J-8	S-8	1" TEMP.	1.0		SEE ELEC. FOR DOOR SWITCH LOC. FOR AUTO DOOR OPR.
144B	PAIR (2)	3'0" x 8'0" x 1 3/4"	ALUM	FF	D-1	ALUM	FF	F-5B	H-8	J-8	S-8	1" TEMP.	6.0		SEE ELEC. FOR DOOR SWITCH LOC. FOR AUTO DOOR OPR.
145	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		9.0		
146	PAIR (2)	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-2	H-1	J-1	S-1		14.0		
147	SINGLE	3'0" x 7'0" x 1 3/4"	SCW	STN	D-2	HM	PNT	F-1	H-1	J-1	S-1		16.0		
202	SINGLE	3'0" x 7'0" x 1 3/4"	HM	PNT	D-5	HM	PNT	F-1	H-1	J-1	S-1		15.0	90	

ABBREVIATIONS

ALUM.	ALUMINUM
CAR. TILE	CARPET TILE & TYPE (SEE SPECIFICATIONS)
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
DBL	DOUBLE
EGAP	EXPOSED GRID ACOUSTICAL PANEL (SEE SPECIFICATIONS)
EXT.	EXTERIOR
FF	FACTORY FINISH
FRP	FIBERGLASS REINFORCED PANEL
GYP. BD.	GYPSUM BOARD
HM	HOLLOW METAL
INSUL.	INSULATED
INT.	INTERIOR
LVT	LUXURY VINYL TILE (SEE SPECIFICATIONS)
MIN.	MINUTE
OPNG.	OPENING
O.T. ST.	OPEN TO STRUCTURE
PRE. FIN.	PRE-FINISHED
PT	PAINT
RBBS	RUBBER BASE (SEE SPECIFICATIONS)
SCW	SOLID CORE WOOD
SCHED.	SCHEDULED
STN	STAINED
TILE	TILE (SEE SPECIFICATIONS FOR TYPE)
TEMP.	TEMPERED
QT	QUARTZ TILE
TRZ	EPOXY TERRAZZO - SEE SPECIFICATIONS

NOTES:

1. ALL EXPOSED SPRINKLER PIPING TO BE PAINTED - TYPICAL ALL LOCATIONS.
2. ADD ALTERNATE #3 : ALL LABOR AND MATERIAL TO PROVIDE EPOXY FLOOR FINISH IN ROOMS 114, 116, 120, 122, 127, AND 129. BASE BID TO BE POLISHED CONCRETE. REFER TO SPECIFICATIONS.
3. ADD ALTERNATE #5 : PROVIDE 4" CMU VENEER TO 10'-0" A.F.F. IN LIEU OF FIRE RATED PLYWOOD. BASE BID IS TO PROVIDE 3/4" FIRE RATED PLYWOOD ON SCHEDULED WALL TYPE TO 12'-0" A.F.F.
4. PROVIDE IMPACT RESISTANT GYP. BOARD @ ALL LOCKER ROOMS, TOOL STORAGE AND SHOP AREAS.

DOOR NOTES:

1. ALL DOORS SHALL BE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS PROVIDED WITH EACH DOOR.
2. EXTERIOR ROUGH OPENINGS SHALL HAVE FLASHING AT HEAD, JAMB, AND SILL. SHALL BE INSTALLED PER FLASHING MANUFACTURER'S INSTRUCTIONS.
3. SHIMS AND ANCHORING CLIPS ARE NOT SHOWN IN DETAILS FOR CLARITY BUT SHALL BE PROVIDED PER MANUFACTURER'S INSTRUCTIONS.
4. ANCHORING CLIPS SHALL BE STAINLESS STEEL AND SHALL BE INSTALLED WITH STAINLESS STEEL FASTENERS, ADJUST ROUGH OPENING AS NECESSARY.
5. ALL DOOR GLAZING SHALL BE TEMPERED UNLESS NOTED OTHERWISE.

WINDOW NOTES:

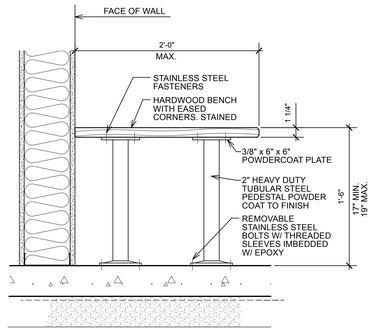
1. ALL WINDOWS SHALL BE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS PROVIDED WITH EACH WINDOW.
2. ROUGH OPENINGS SHALL HAVE FLASHING AT HEAD, JAMB, AND SILL. FLASHING SHALL BE INSTALLED PER FLASHING MANUFACTURER'S INSTRUCTIONS.
3. SILL FLASHING SHALL BE PREMOLDED, SELF ADHERING WITH 3/8" HIGH BACKDAM. HEAD AND JAMB FLASHING SHALL BE STRAIGHT AND SELF ADHERING.
4. SHIMS AND ANCHORING CLIPS ARE NOT SHOWN IN DETAILS FOR CLARITY BUT SHALL BE PROVIDED AS PER WINDOW MANUFACTURER'S INSTRUCTIONS.
5. ANCHORING CLIPS SHALL BE STAINLESS STEEL AND SHALL BE INSTALLED WITH STAINLESS STEEL FASTENERS, ADJUST ROUGH OPENING AS NECESSARY.
6. ALL GLAZING WITHIN 24" OF A DOOR SHALL BE TEMPERED.

FRAME NOTES:

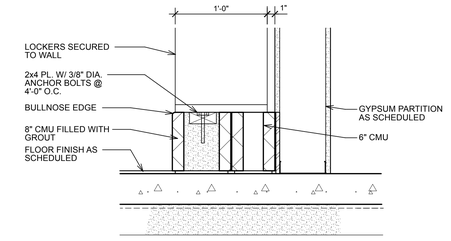
1. ALUMINUM FRAME DIMENSIONS ARE NOMINAL - FIELD VERIFY ACTUAL DIMENSIONS PRIOR TO FABRICATION.
2. ANCHOR EXTERIOR ALUMINUM FRAMES TO MEET N.C. WIND LOAD REQUIREMENTS AND PROVIDE SEALED DOCUMENTATION BY ENGINEER LICENSED IN N.C. SEE S1.01 COMPONENTS AND CLADDING WIND PRESSURE TABLE. SEE SPECIFICATIONS.

GLAZING NOTES:

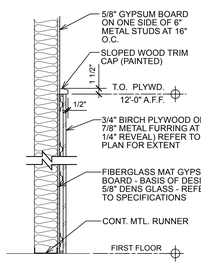
1. EACH PANE OF SAFETY GLAZING SHALL BE IDENTIFIED BY A MANUFACTURER'S DESIGNATION SPECIFYING WHO APPLIED THE DESIGNATION, THE MANUFACTURER OR INSTALLER AND THE SAFETY GLAZING STANDARD WITH WHICH IT COMPLIES.



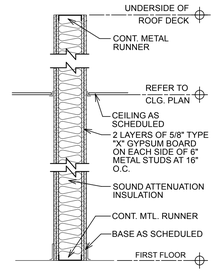
3 A7.0 ADA BENCH DETAIL
Scale: 1 1/2" = 1'-0"



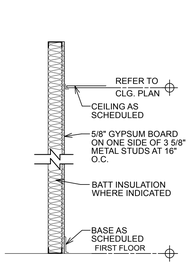
2 A7.0 Locker Base Detail
Scale: 1 1/2" = 1'-0"



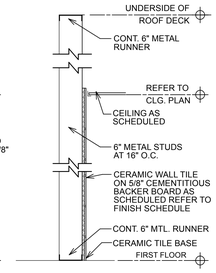
PLYWOOD DETAIL @ SHOP SPACES



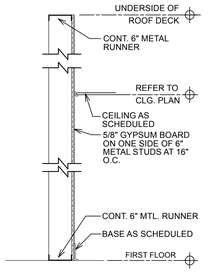
WALL ASSEMBLY TYPE "F"
2 HOUR U419
REFER TO DRAWING G1.3



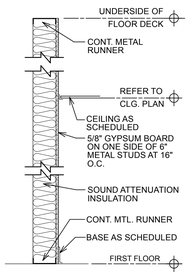
WALL ASSEMBLY TYPE "E"



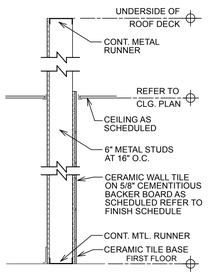
WALL ASSEMBLY TYPE "D.1"



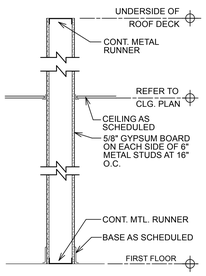
WALL ASSEMBLY TYPE "D"



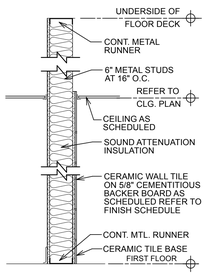
WALL ASSEMBLY TYPE "C"



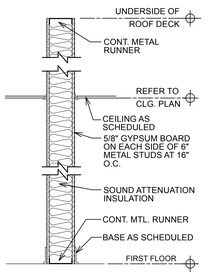
WALL ASSEMBLY TYPE "B.1"



WALL ASSEMBLY TYPE "B"



WALL ASSEMBLY TYPE "A.1"



WALL ASSEMBLY TYPE "A"

1 A7.0 Partition Types
Scale: 3/4" = 1'-0"

BOWMAN MURRAY HEMINGWAY
ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621

SCO ID# 22-24540-02A

BOWMAN, MURRAY, HEMINGWAY, ARCHITECTS, PC REGISTERED ARCHITECTURAL CORPORATION CERT. NO. 50424 NORTH CAROLINA WILMINGTON, N.C.

JOHN DANIEL HEMINGWAY 13058 NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT WILMINGTON, NC
12·18·2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

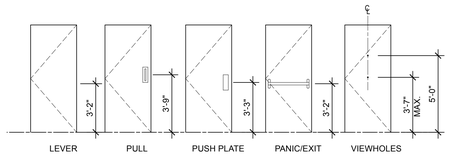
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

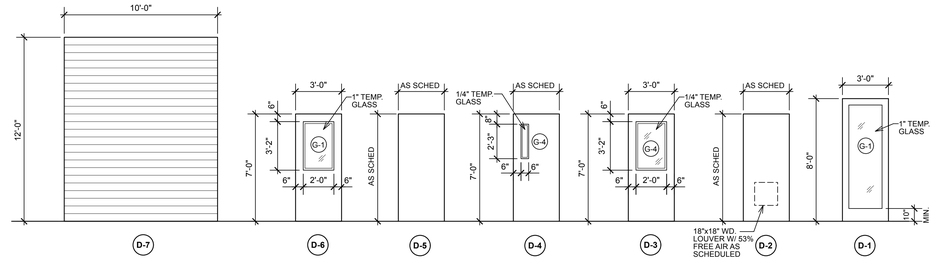
Project Manager	Drawn By
	DP
Date	Reviewed By
12-18-2024	DH
Project ID	

Sheet Title
DOOR SCHEDULE AND ROOM FINISH SCHEDULE

Sheet No.
A7.0



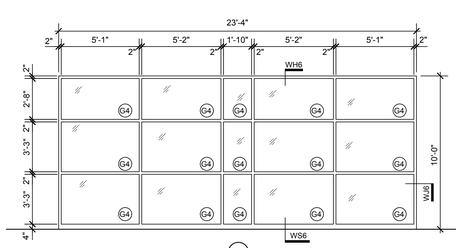
4 A7.1 Door Hardware Mounting Heights
Scale: 1/4" = 1'-0"

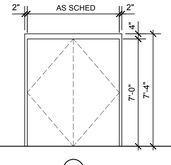


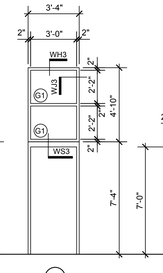
3 A7.1 Door Elevations
Scale: 1/4" = 1'-0"

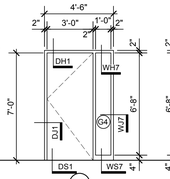
GLAZING LEGEND	
G1	1" TEMPERED INSULATED GLAZING
G2	1" FRITTED TEMPERED INSULATED GLAZING
G3	1" INSULATED SPANDREL GLAZING
G4	1/4" TEMPERED GLAZING

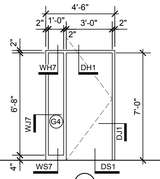
CURTAINWALL NOTE:
ALL CURTAINWALL FRAMES TO HAVE 3" EXTENDED PROFILE CAP. REFER TO SPECIFICATIONS AND DETAILS.

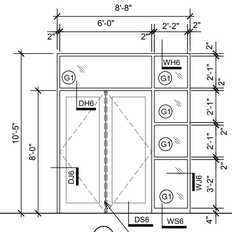


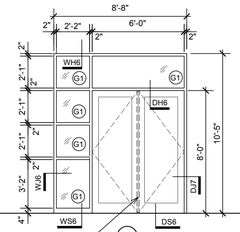


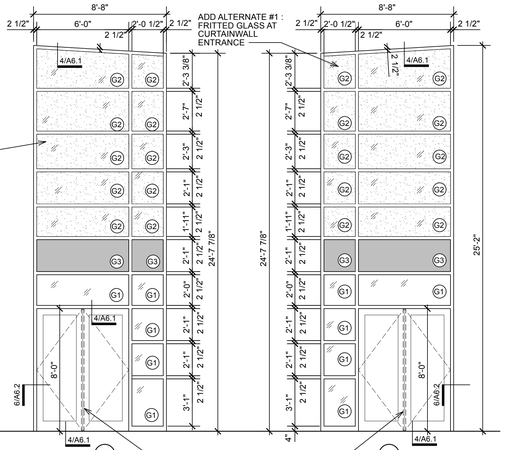




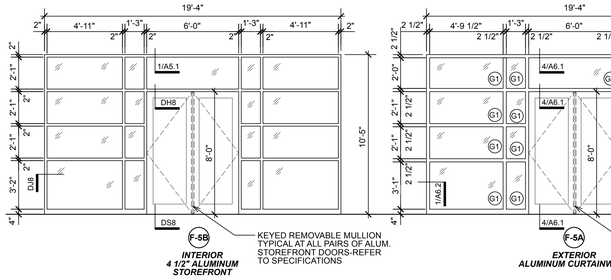


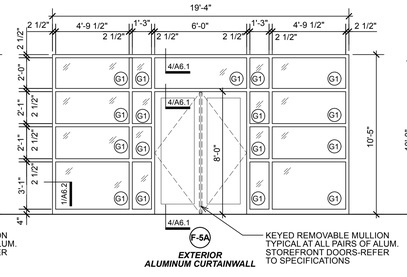


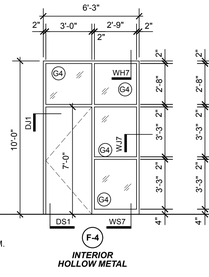


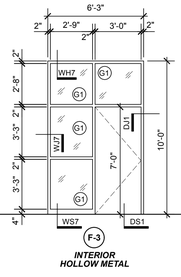


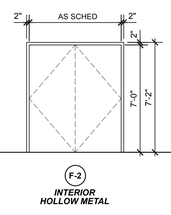
2 A7.1 Frame Elevations (Cont.)
Scale: 1/4" = 1'-0"

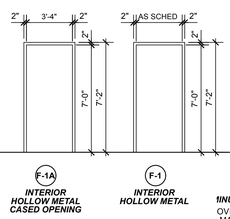


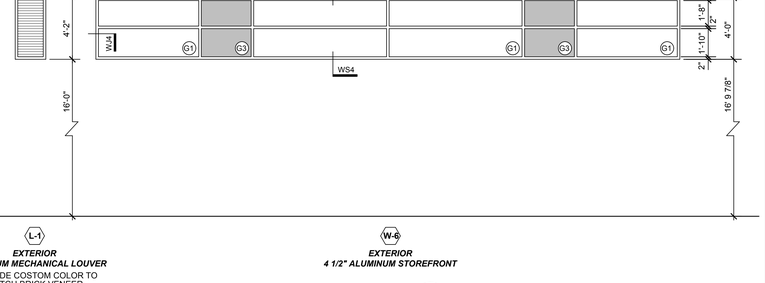






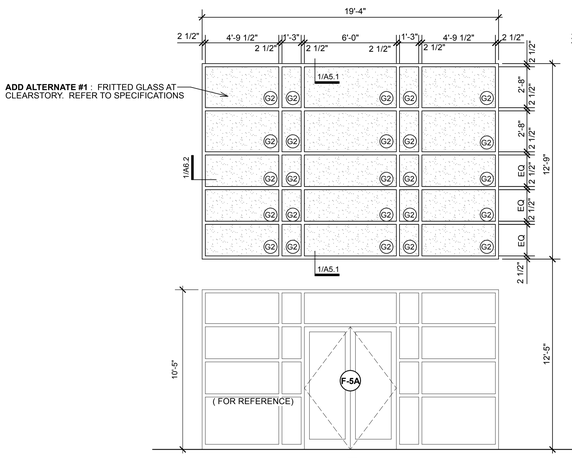


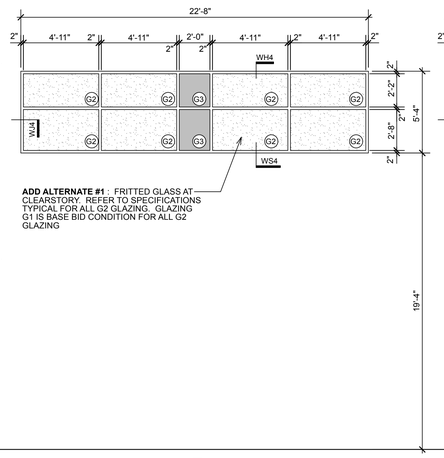


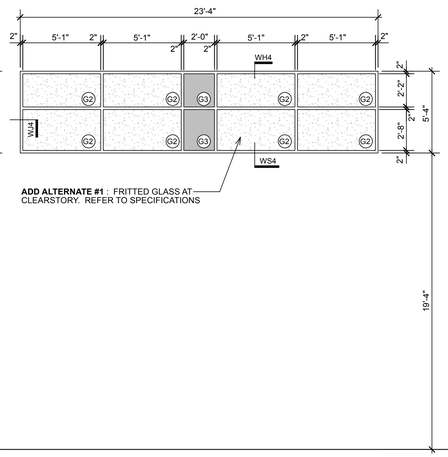


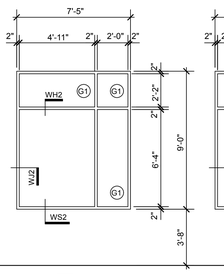
2 A7.1 Frame Elevations
Scale: 1/4" = 1'-0"

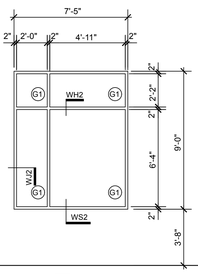
1 A7.1 Window Elevations (Cont.)
Scale: 1/4" = 1'-0"

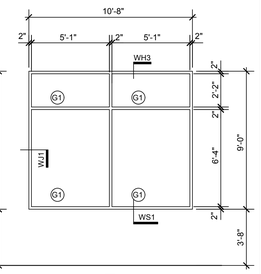












1 A7.1 Window Elevations
Scale: 1/4" = 1'-0"

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KIM DANIEL WYATT 13058 NORTH CAROLINA REGISTERED ARCHITECT WILMINGTON, NC
12-18-2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

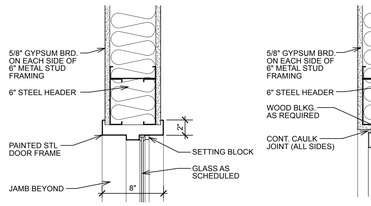
Project Manager	Drawn By: DP
Date: 12-18-2024	Reviewed By: DH
Project ID	

Sheet Title

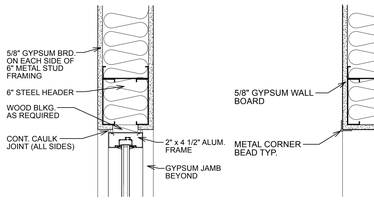
WINDOW, DOOR & FRAME ELEVATIONS

Sheet No.

A7.1



WH-7 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



WH-6 - HEAD DETAIL
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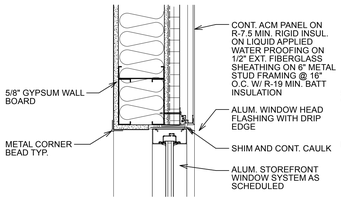

WH-5 - HEAD DETAIL
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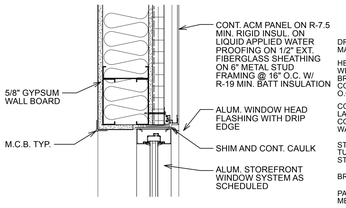

WH-4 - HEAD DETAIL
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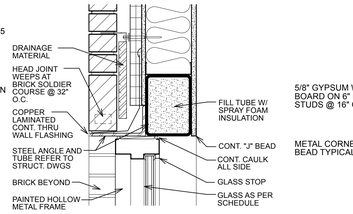

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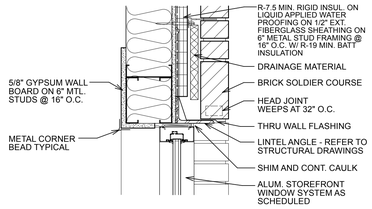
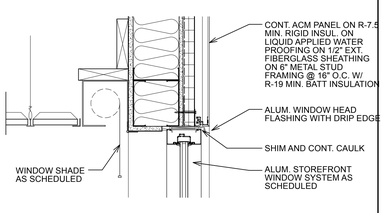
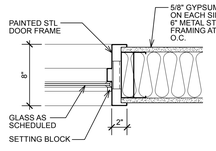


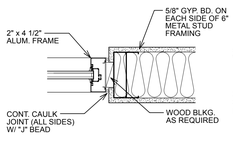
WH-2 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



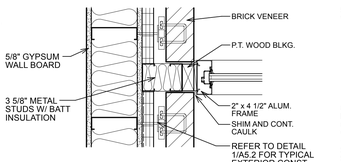
WH-1 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



WJ-7 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



WJ-6 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



WJ-5 - JAMB DETAIL
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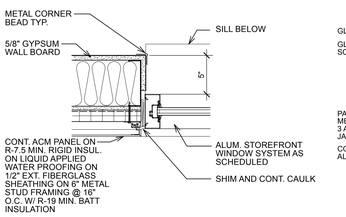

WJ-4 - JAMB DETAIL
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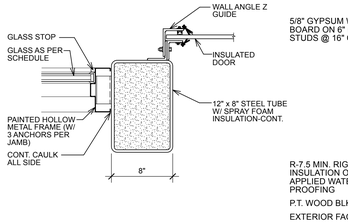

WJ-3 - JAMB DETAIL
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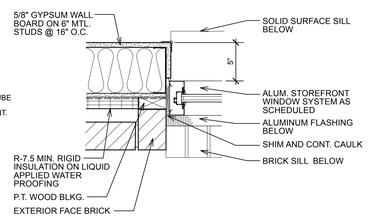

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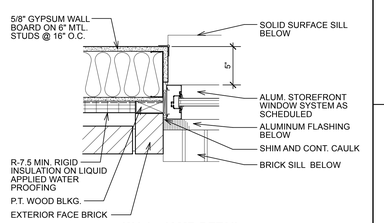

WJ-1 - JAMB DETAIL
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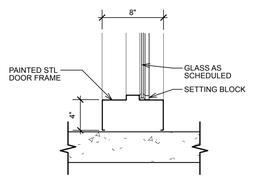
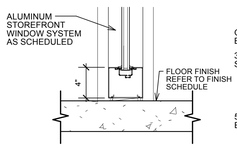
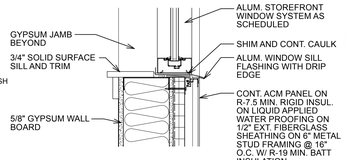


WS-7 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



WS-6 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



WS-5 - SILL DETAIL
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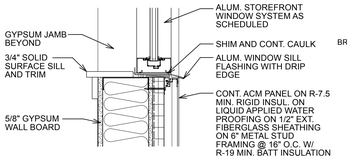

WS-4 - SILL DETAIL
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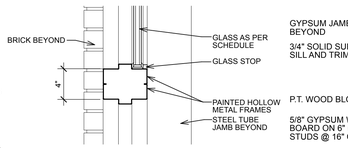
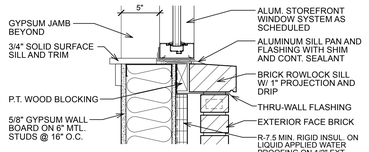


WS-3 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



WS-2 - SILL DETAIL
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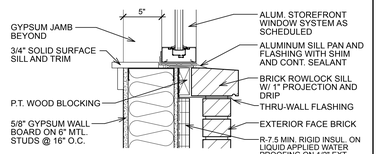
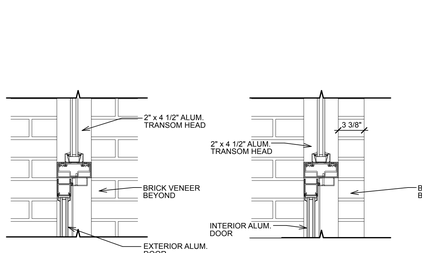


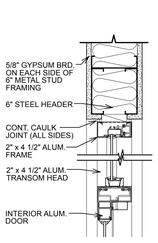
WS-1 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"

2 / A7.2 Window Frame Details
Scale: 1 1/2" = 1'-0"

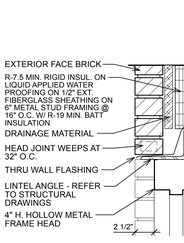


DH-8 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"

DH-7 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



DH-6 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



DH-5 - HEAD DETAIL
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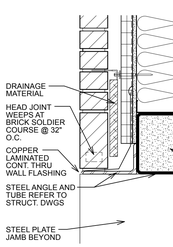

DH-4 - HEAD DETAIL
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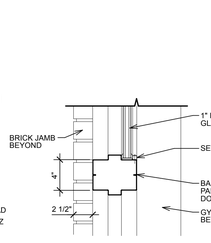

DH-3 - HEAD DETAIL
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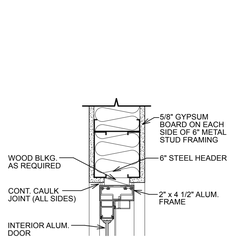
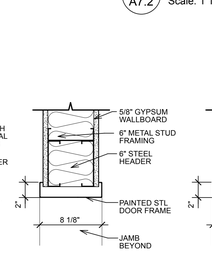
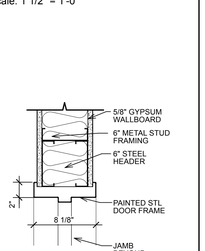


DH-2 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



DH-1A - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



DH-1 - HEAD DETAIL
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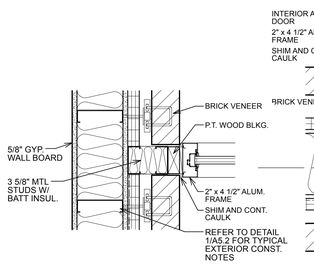
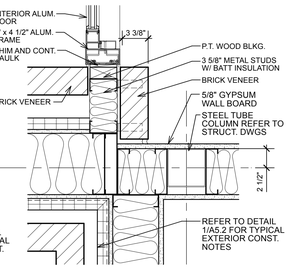


DJ-8 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



DJ-7 - JAMB DETAIL
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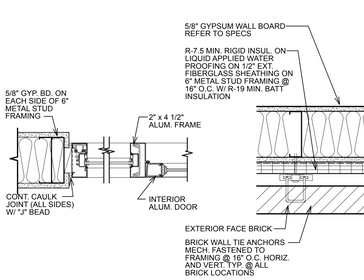

DJ-6 - JAMB DETAIL
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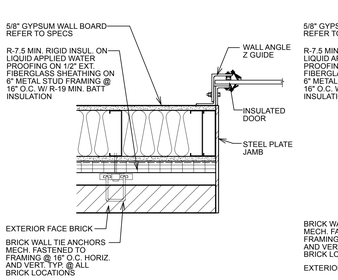

DJ-5 - JAMB DETAIL
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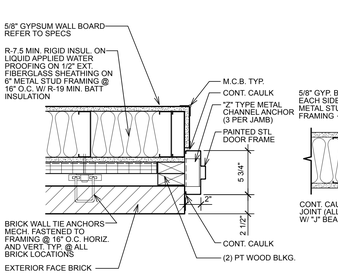

DJ-4 - JAMB DETAIL
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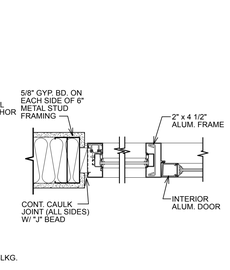

DJ-3 - JAMB DETAIL
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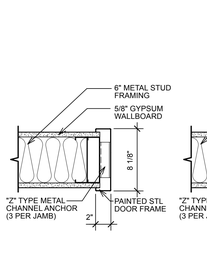
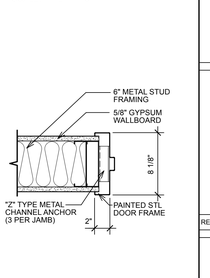
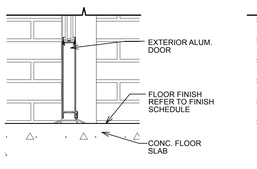


DJ-2 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"

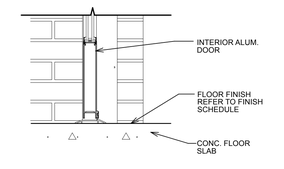


DJ-1A - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"

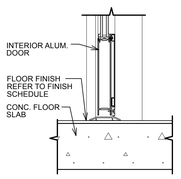
DJ-1 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



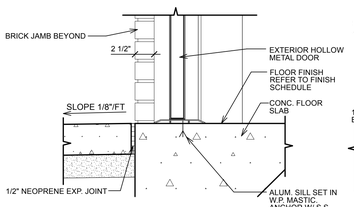
DS-8 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



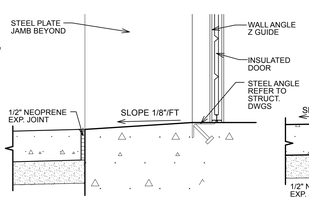
DS-7 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



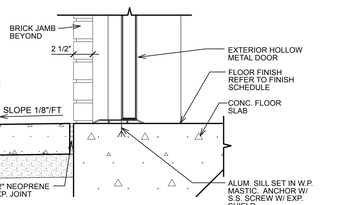
DS-6 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



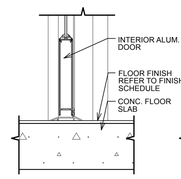
DS-5 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



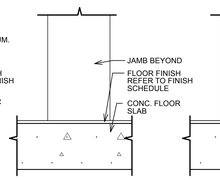
DS-4 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



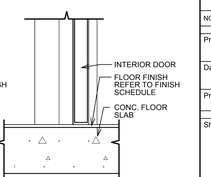
DS-3 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



DS-2 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



DS-1A - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



DS-1 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"

1 / A7.2 Door Frame Details
Scale: 1 1/2" = 1'-0"

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KIM DANIELLE HEMINGWAY SEAL 13058 NORTH CAROLINA REGISTERED ARCHITECT WILMINGTON, NC 12-18-2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

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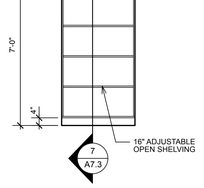
Sheet Title

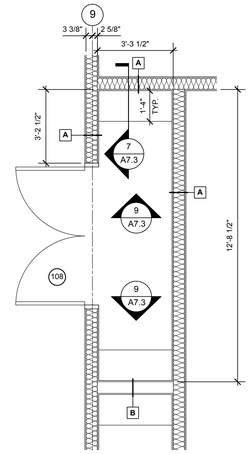
DOOR & WINDOW DETAILS

Sheet No.

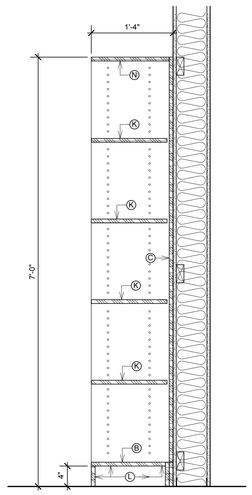
A7.2



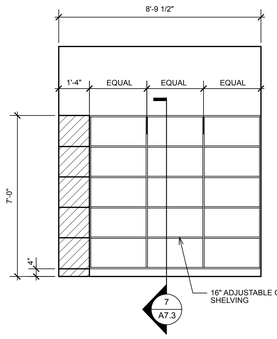
9 A7.3 Elevation @ Storage 108
Scale: 3/8" = 1'-0"



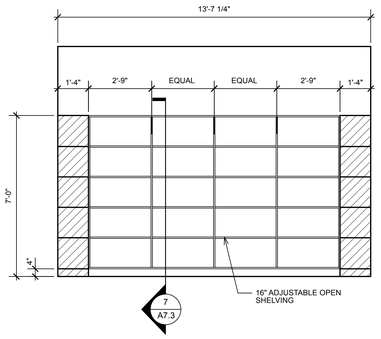
8 A7.3 Enlarged Plan @ Storage 108
Scale: 3/8" = 1'-0"
STORAGE 146 SIM.



7 A7.3 Section @ Millwork
Scale: 1" = 1'-0"



6 A7.3 Elevation @ Storage 134
Scale: 3/8" = 1'-0"

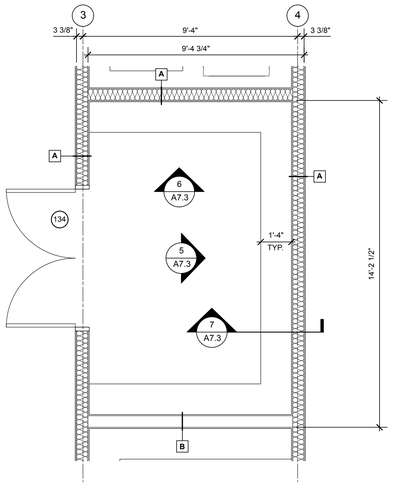


5 A7.3 Elevation @ Storage 134
Scale: 3/8" = 1'-0"

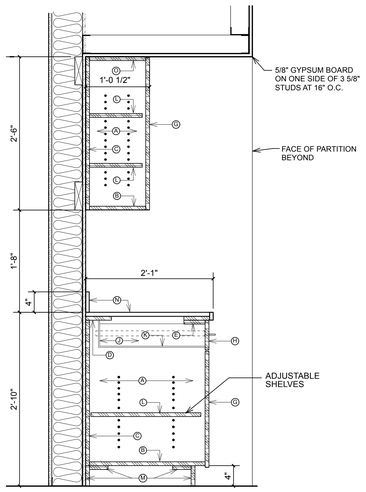
LEGEND OF MATERIALS

(A) ENDS	3/4" MELAMINE	○	✱
(B) FLOOR	3/4" MELAMINE	○	✱
(C) BACK	1/2" MELAMINE		✱
(D) BACK MOUNTING RAIL	3/4" MELAMINE	○	✱
(E) FRONT MOUNTING RAIL	3/4" MELAMINE	○	✱
(F) INT. MOUNTING RAIL	3/4" MELAMINE	○	✱
(G) DOOR	3/4" MELAMINE	○	✱
(H) DRAWER FRONT	3/4" MELAMINE	○	✱
(J) DRAWER SIDES & BACK	3/4" MELAMINE	○	
(K) DRAWER FLOOR	3/4" MELAMINE	○	
(L) SHELF	3/4" MELAMINE	○	✱
(M) TOE BOARD ASSEMBLY	3/4" HARDWOOD	○	
(N) COUNTERTOP/BACKSPLASH	1/2" SOLID SURFACE W/ 1-1/4" RADIUS EDGE		
(O) WALL CABINET TOP	3/4" MELAMINE	○	✱

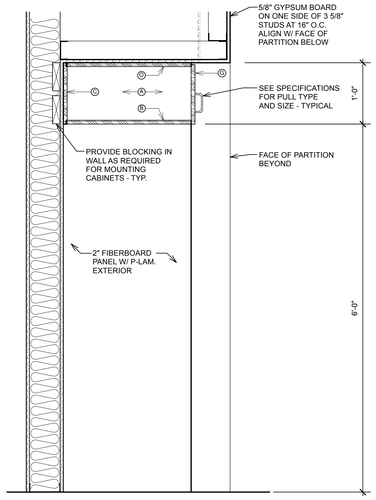
○ WITH PLASTIC LAMINATE EXTERIOR
✱ WITH MATCHING EDGE



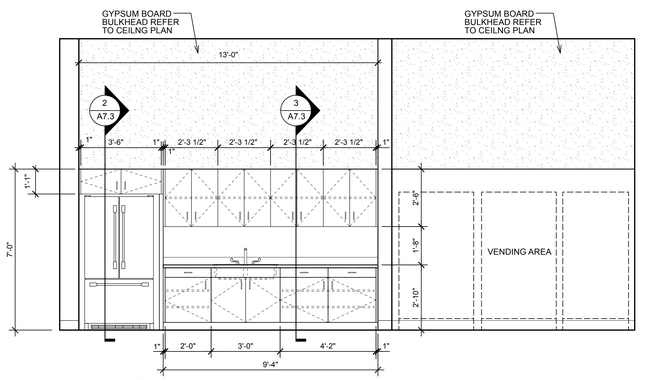
4 A7.3 Enlarged Plan @ Storage 134
Scale: 3/8" = 1'-0"
STORAGE 135 SIM.



3 A7.3 Section @ Millwork
Scale: 1" = 1'-0"



2 A7.3 Section @ Millwork
Scale: 1" = 1'-0"



1 A7.3 Millwork Elevation @ Break Room
Scale: 3/8" = 1'-0"

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JOHN D. WILK
REGISTERED ARCHITECT
13058
NORTH CAROLINA
WILMINGTON, NC
12-16-2024

James Sprunt Community College - Workforce Development Building
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REV.	DATE	DESCRIPTION

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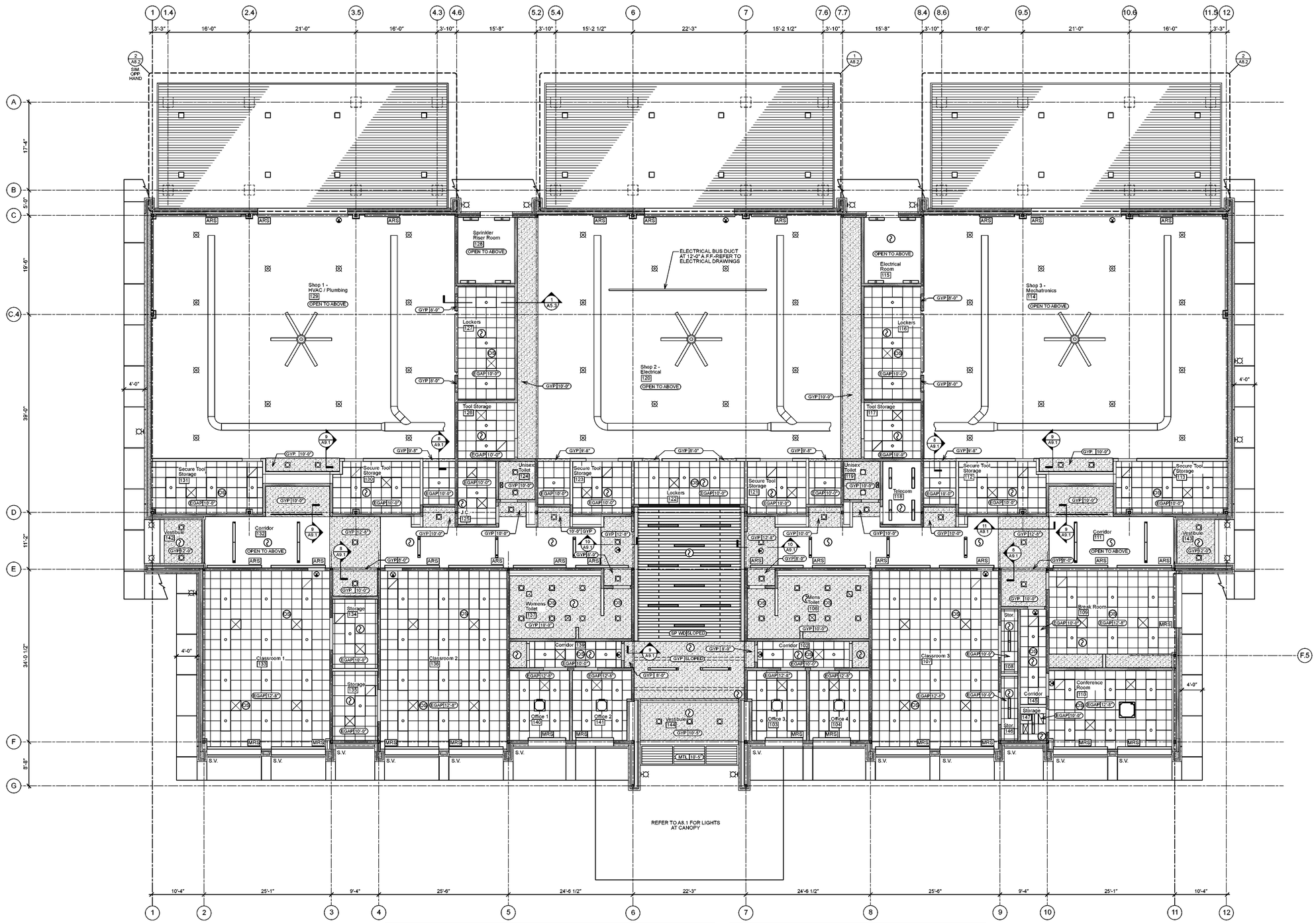
Sheet Title
MILLWORK PLANS, ELEVATIONS, AND DETAILS

Sheet No.
A7.3



LEGEND

- 2'-0" x 2'-0" ACOUSTICAL CEILING TILE AND GRID (NO RATING)
- GYPSUM BOARD = GYP.
- GYP 12'-0" — CEILING TYPE / CEILING HEIGHT - REFER TO SPECIFICATIONS
  - GYP = GYPSUM BOARD 1/2" PAINTED
  - EGAP = EXPOSED GRID ACOUSTICAL PANEL
  - SP# = SPECIALITY CEILING
  - APSF = ACRYLIC PLASTER SOFFIT FINISH
- LED LIGHTING FIXTURE - REFER TO ELECTRICAL DRAWINGS
- DIRECT/INDIRECT SUSPENDED FIXTURE - REFER TO ELECTRICAL DRAWINGS
- WALL MOUNTED LIGHT FIXTURE
- RECESSED LIGHT FIXTURE
- WALL MOUNTED FIRE ALARM PULL STATION
- FIRE ALARM HORN/VISUAL DEVICE CEILING MOUNTED
- RETURN AIR
- RETURN AIR
- SD — SMOKE DETECTOR
- OS — OCCUPANCY SENSOR
- EMERGENCY LIGHT FIXTURE
- ARS — AUTOMATIC ROLLER SHADE - REFER TO SPECIFICATIONS
- MRS — MANUAL ROLLER SHADE - REFER TO SPECIFICATIONS
- SMOKE DETECTOR
- EXIT SIGN
- HEAT DETECTOR
- S.V. — SOFFIT VENT

REFLECTED CEILING PLAN NOTES:

1. THE CONTRACTOR SHALL CONFIRM AND COORDINATE ALL MECHANICAL, ELECTRICAL, AND PLUMBING ITEMS.
2. VERIFY CEILING CLEARANCES PRIOR TO BEGINNING GRID AND FIXTURE PLACEMENT.
3. CENTER GRID AND DEVICES WHENEVER POSSIBLE. LAY-IN TILE TO HAVE 6" MINIMUM TILE WIDTH AT WALL EDGE.
4. CEILING MOUNTED SPEAKERS TO BE OWNER PROVIDED - CONTRACTOR INSTALLED. SEE ELECTRICAL DRAWINGS FOR QUANTITY AND LOCATION.
5. SPRINKLER DESIGN TO INCLUDE ACCOMMODATIONS FOR WOOD CLOUD CEILINGS AS SHOWN.
6. EXPOSED STEEL STRUCTURE, BAR-JOISTS, AND METAL DECK ARE TO RECEIVE PAINT FINISH AS SCHEDULED IN ROOMS 111, 114, 120, 129, AND 132 - UNLESS NOTED OTHERWISE.

TRUE NORTH / PLAN NORTH

1 A8.0 Reflected Ceiling Plan - Low
Scale: 1/8" = 1'-0"

0" 4" 8" 16"

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KEVIN DANIEL HEMINGWAY — 13058 — NORTH CAROLINA — WILMINGTON, NC — 12-18-2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

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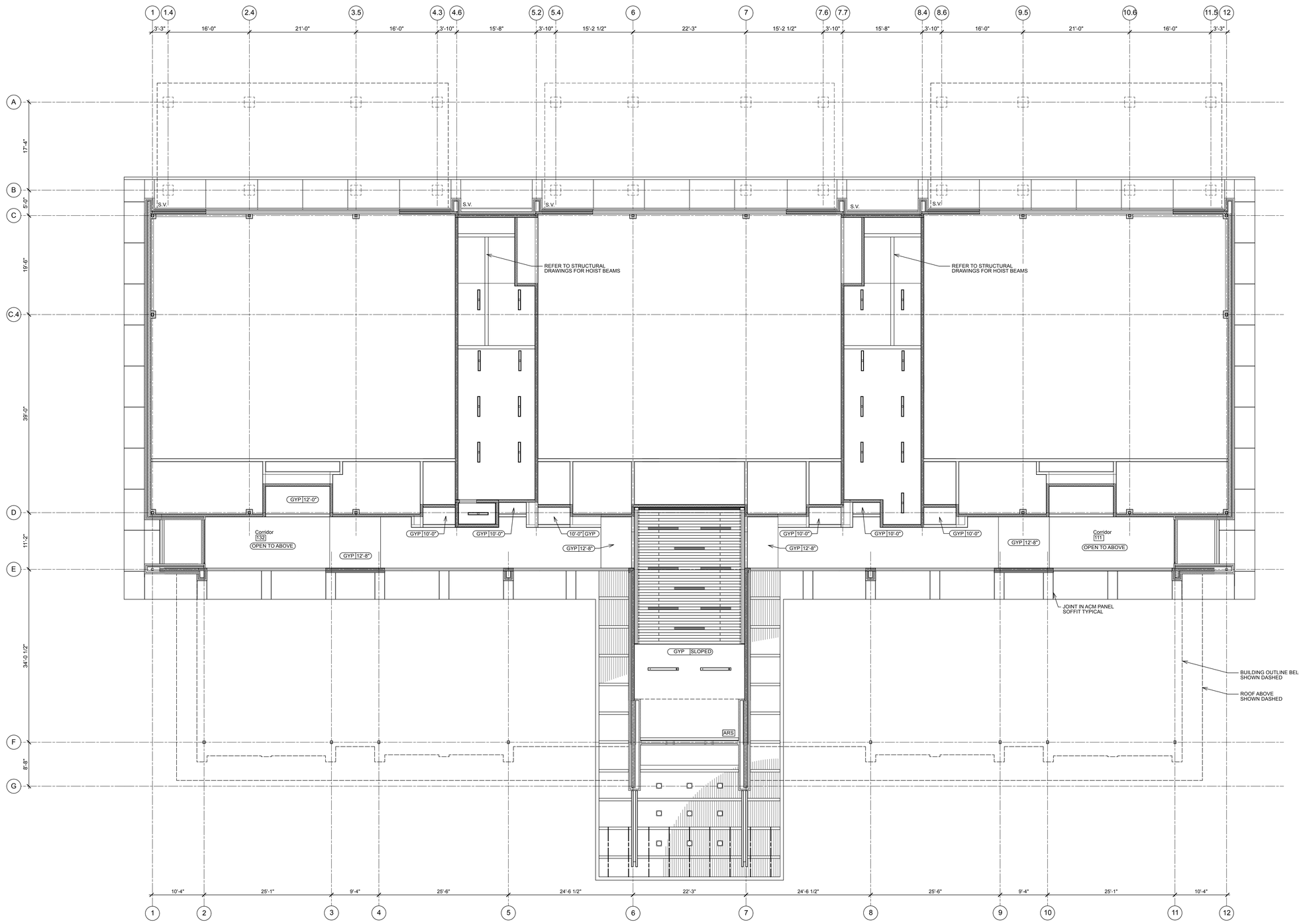
Project ID	

Sheet Title: **REFLECTED CEILING PLAN - LOW**

Sheet No.: A8.0



LEGEND

- 2'-0" x 2'-0" ACOUSTICAL CEILING TILE AND GRID (NO RATING)
- GYPSUM BOARD = GYP.
- GYP 12'-0" — CEILING TYPE / CEILING HEIGHT - REFER TO SPECIFICATIONS
  - GYP = GYPSUM BOARD 1/2" PAINTED
  - EGAP = EXPOSED GRID ACOUSTICAL PANEL
  - SP# = SPECIALITY CEILING
  - APSF = ACRYLIC PLASTER SOFFIT FINISH
- LED LIGHTING FIXTURE - REFER TO ELECTRICAL DRAWINGS
- DIRECT/INDIRECT SUSPENDED FIXTURE - REFER TO ELECTRICAL DRAWINGS
- WALL MOUNTED LIGHT FIXTURE
- RECESSED LIGHT FIXTURE
- F — WALL MOUNTED FIRE ALARM PULL STATION
- FH — FIRE ALARM HORN/VISUAL DEVICE CEILING MOUNTED
- RETURN AIR
- RETURN AIR
- SD — SMOKE DETECTOR
- OS — OCCUPANCY SENSOR
- EMERGENCY LIGHT FIXTURE
- ARS — AUTOMATIC ROLLER SHADE - REFER TO SPECIFICATIONS
- MRS — MANUAL ROLLER SHADE - REFER TO SPECIFICATIONS
- SMOKE DETECTOR
- EXIT SIGN
- HEAT DETECTOR
- S.V. SOFFIT VENT

REFLECTED CEILING PLAN NOTES:

1. THE CONTRACTOR SHALL CONFIRM AND COORDINATE ALL MECHANICAL, ELECTRICAL, AND PLUMBING ITEMS.
2. VERIFY CEILING CLEARANCES PRIOR TO BEGINNING GRID AND FIXTURE PLACEMENT.
3. CENTER GRID AND DEVICES WHENEVER POSSIBLE. LAY-IN TILE TO HAVE 6" MINIMUM TILE WIDTH AT WALL EDGE.
4. CEILING MOUNTED SPEAKERS TO BE OWNER PROVIDED - CONTRACTOR INSTALLED. SEE ELECTRICAL DRAWINGS FOR QUANTITY AND LOCATION.
5. SPRINKLER DESIGN TO INCLUDE ACCOMMODATIONS FOR WOOD CLOUD CEILINGS AS SHOWN.
6. REFER TO DRAWING A8.0 FOR ROLLER SHADE LOCATIONS

TRUE NORTH / PLAN NORTH

1 / A8.1 Reflected Ceiling Plan - High
Scale: 1/8" = 1'-0"

0" 4" 8" 16"

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12-18-2024

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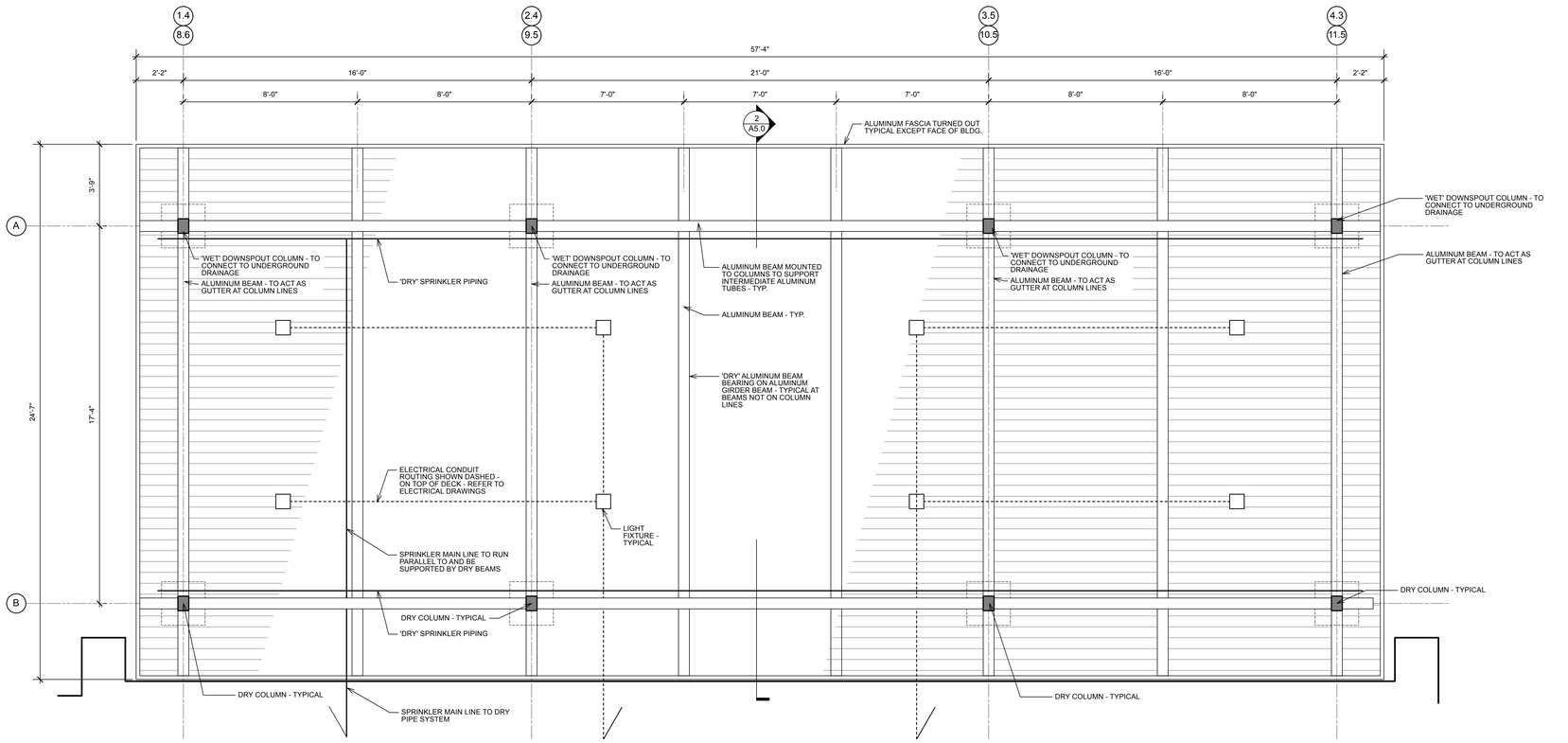
Sheet Title

REFLECTED CEILING PLAN - HIGH

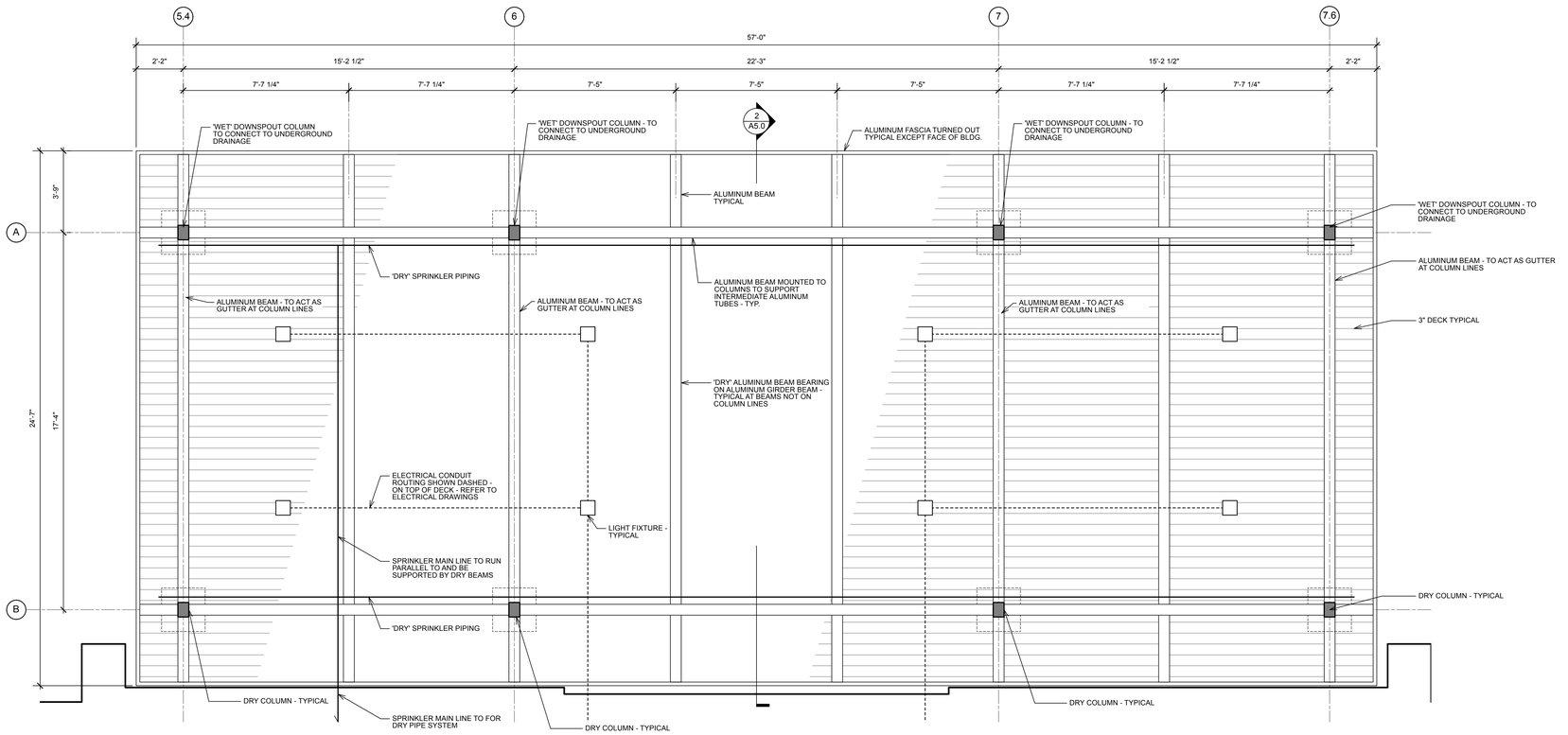
Sheet No.

A8.1



2 / A8.2 Enlarged Canopy - Reflected Ceiling Plan
Scale: 3/8" = 1'-0"

NOTE: SPRINKLER LINES TO SUPPORTED ONLY BY COLUMNS AND BEAMS THAT ARE NOT USED FOR STORMWATER DRAINAGE.



1 / A8.2 Enlarged Canopy - Reflected Ceiling Plan
Scale: 3/8" = 1'-0"

NOTE: SPRINKLER LINES TO SUPPORTED ONLY BY COLUMNS AND BEAMS THAT ARE NOT USED FOR STORMWATER DRAINAGE.

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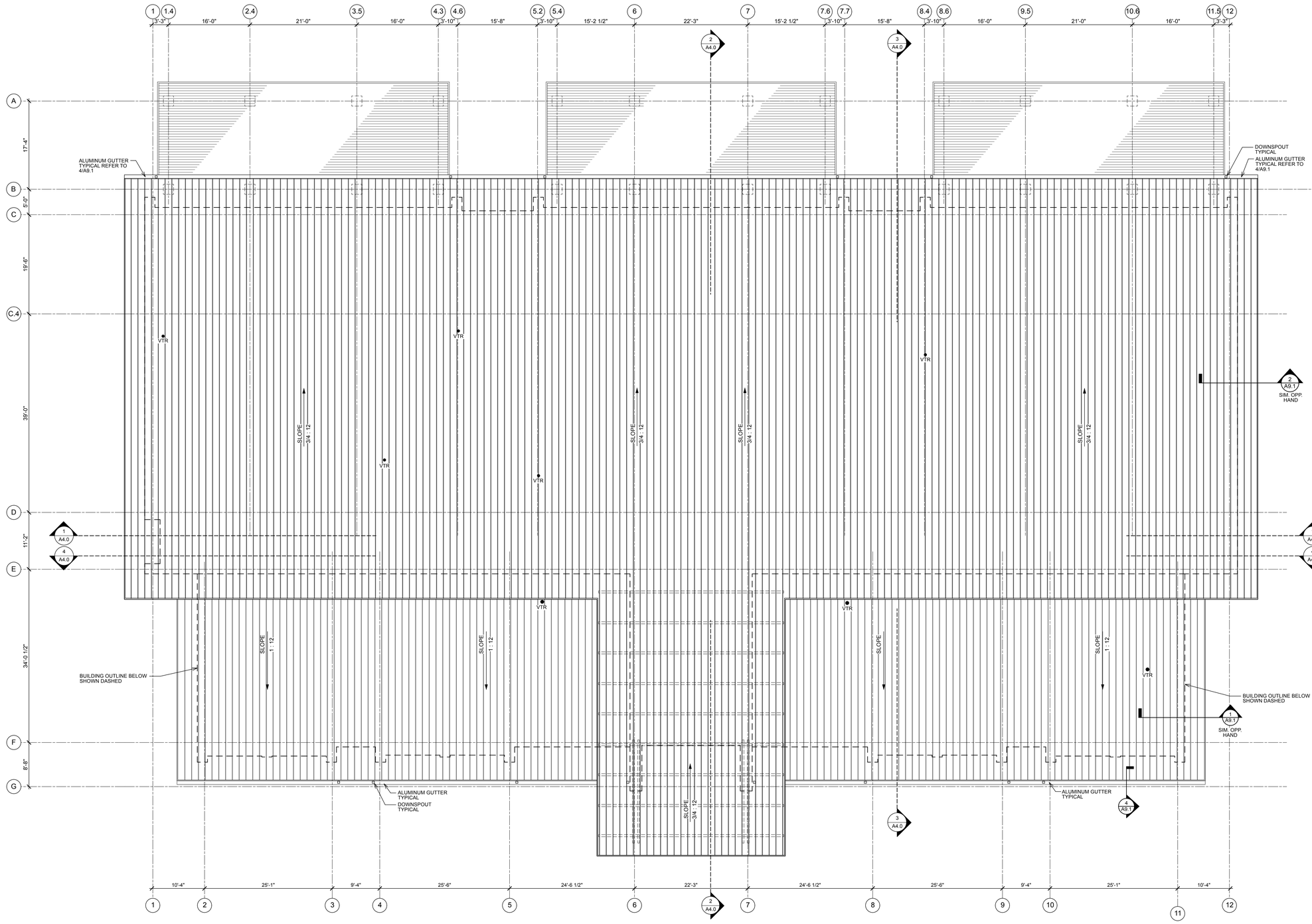
Sheet Title

REFLECTED CEILING PLAN - REAR CANOPY

Sheet No.

A8.2



TRUE NORTH PLAN NORTH

1 A9.0 Roof Plan
Scale: 1/8" = 1'-0"

0" 4" 8" 16"

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12-18-2024

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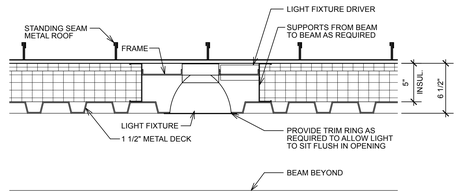
Sheet Title

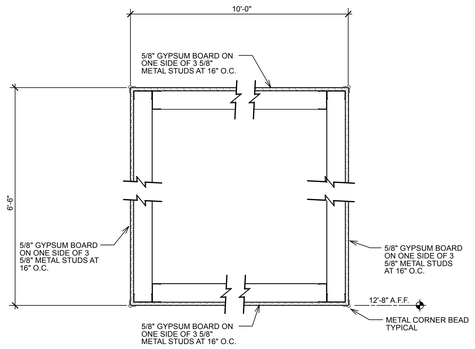
ROOF PLAN

Sheet No.

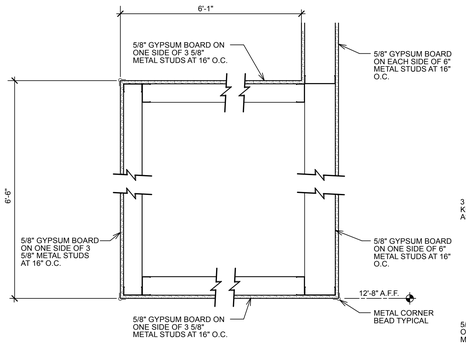
A9.0



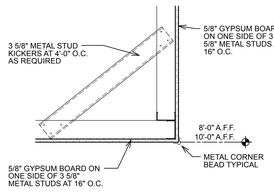
12 / A9.1 Detail @ Roof Light
Scale: 1 1/2" = 1'-0"



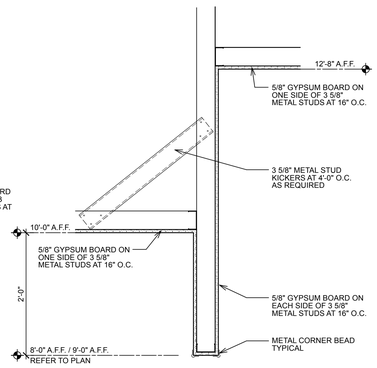
11 / A9.1 Bulkhead Detail
Scale: 1" = 1'-0"



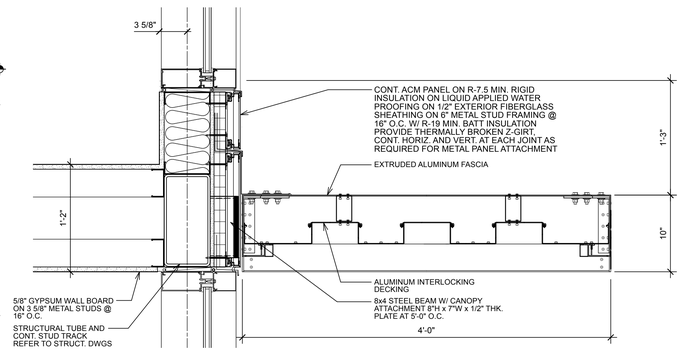
10 / A9.1 Bulkhead Detail
Scale: 1" = 1'-0"



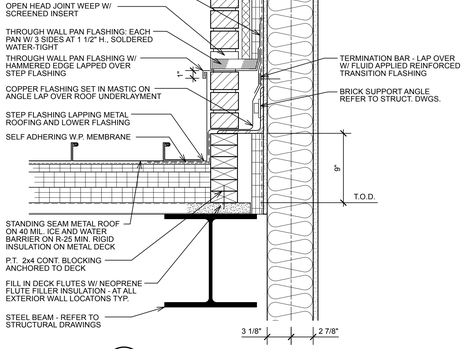
9 / A9.1 Bulkhead Detail
Scale: 1" = 1'-0"



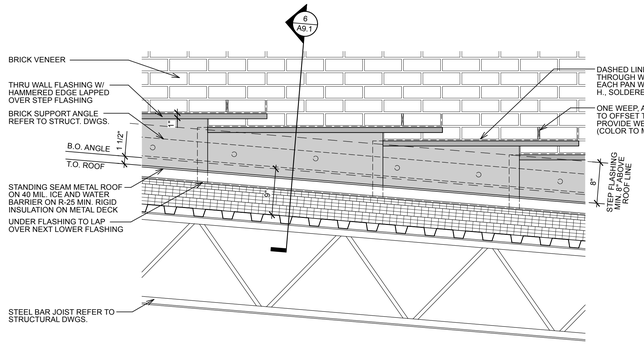
8 / A9.1 Bulkhead Detail
Scale: 1" = 1'-0"



7 / A9.1 Section @ Entrance Canopy
Scale: 1 1/2" = 1'-0"



6 / A9.1 Section @ Roof Step Flashing
Scale: 1 1/2" = 1'-0"



5 / A9.1 Section Elevation @ Roof Step Flashing
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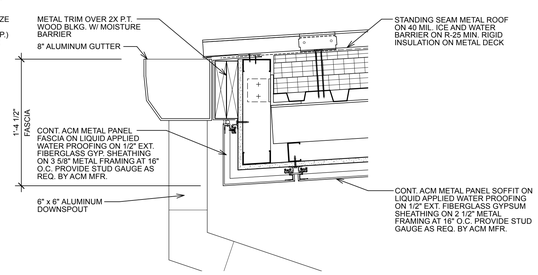
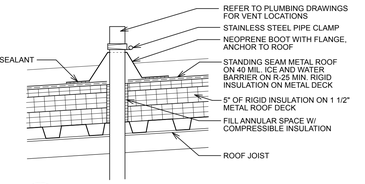


4 / A9.1 Detail @ Gutter
Scale: 1 1/2" = 1'-0"



3 / A9.1 Roof Penetration Detail
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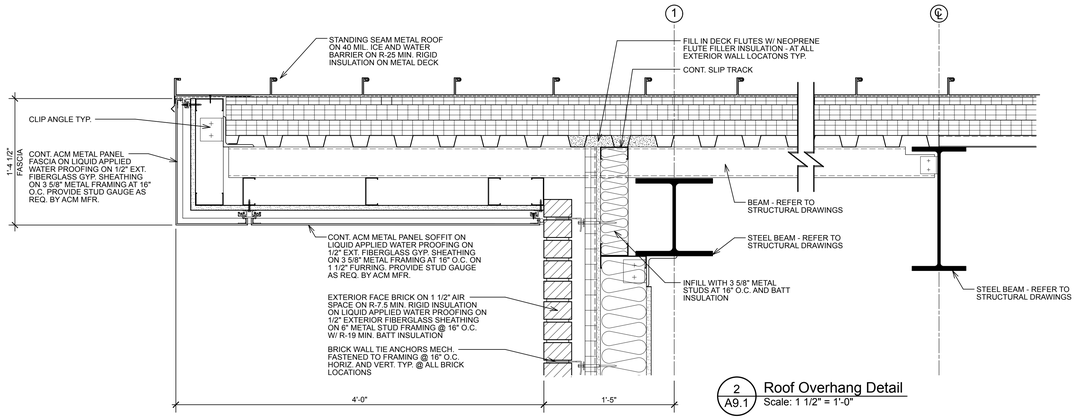
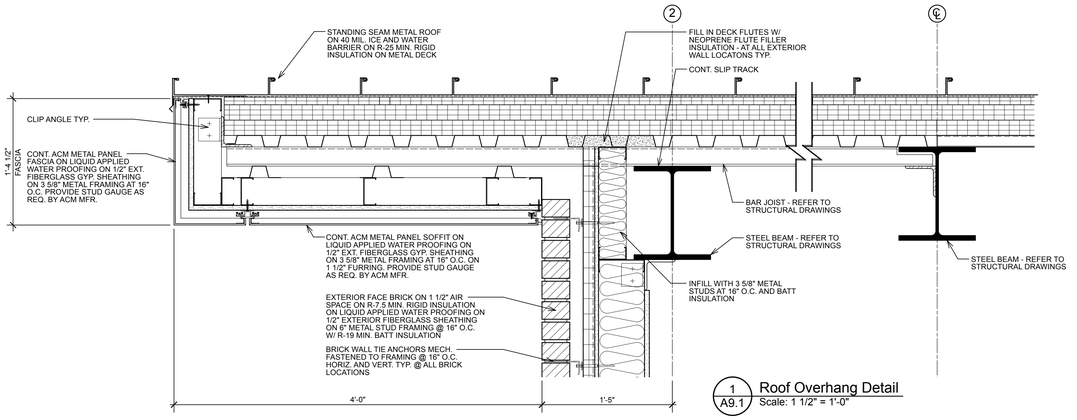


2 / A9.1 Roof Overhang Detail
Scale: 1 1/2" = 1'-0"



1 / A9.1 Roof Overhang Detail
Scale: 1 1/2" = 1'-0"

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Wilmington, NC 28401
Tel - (910) 762-2621

SCO ID# 22-24540-02A

BOWMAN, MURRAY, HEMINGWAY ARCHITECTS, PC REGISTERED ARCHITECTURAL CORPORATION NORTH CAROLINA CERT. NO. 50424 WILMINGTON, N.C.

DANIEL PHILLIP HEMINGWAY NORTH CAROLINA REGISTERED ARCHITECT 13058 WILMINGTON, NC
12-18-2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

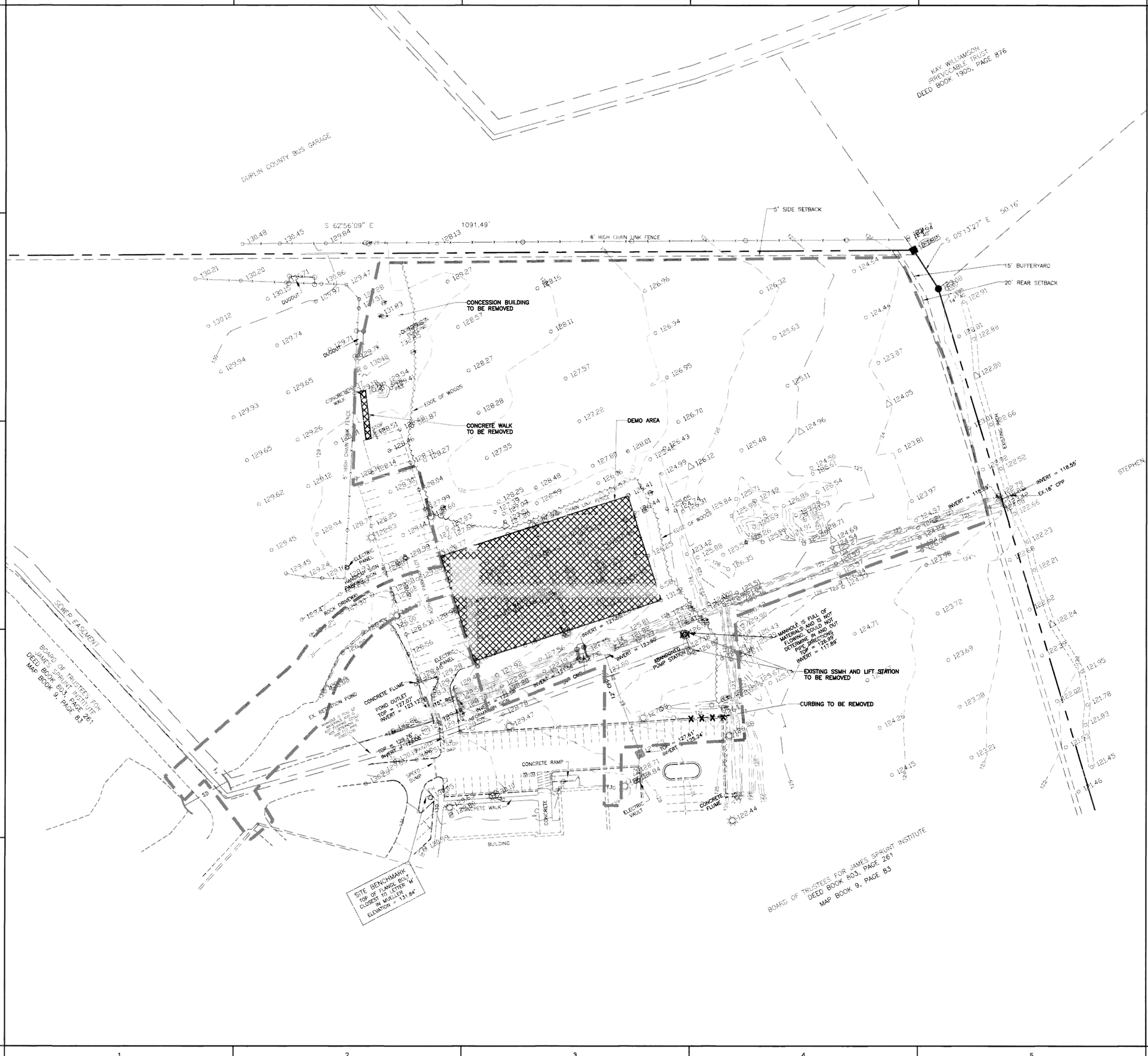
Project Manager	Drawn By
	DP
Date	Reviewed By
12-18-2024	DH
Project ID	

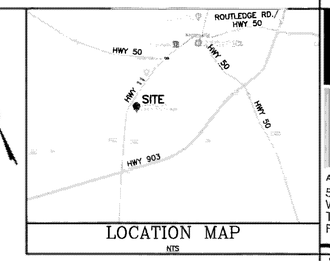
Sheet Title

ROOF AND CEILING DETAILS

Sheet No.

A9.1





LOCATION MAP
NTS

SITE DATA

PROPERTY OWNER	JAMES SPRUNT INSTITUTE BOARD OF TRUSTEES
PROJECT ADDRESS	133 JAMES SPRUNT DR. KENANSVILLE, NC 28349
PIN NUMBER	3403026726 4
TRACT AREA	53.18 Ac.
DISTURBED AREA	7 Ac.
PROPOSED IMPERVIOUS AREAS	
BUILDING	29,850 SF
PARKING	75,820 SF
CONCRETE	5,975 SF
TOTAL IMPERVIOUS	111,645 SF

WORKFORCE DEVELOPMENT - SITE INFORMATION

PROPOSED BUILDING HEIGHT: (TO HIGHEST POINT)	31'-0"*
PROPOSED BUILDING LOT COVERAGE (AREA UNDER ROOF):	29,850 SF
ZONE: (TOWN OF KENANSVILLE)	(OI) Office and Institutional
MIN. LOT WIDTH:	60'
MIN. LOT AREA:	5,000 SF
FRONT SETBACK:	20'
REAR SETBACK:	20'
SIDE SETBACK:	5'
LOT COVERAGE:	NO RESTRICTION
FLOOD ZONE:	ZONE 'X'
MAX. HEIGHT:	30' *
BUFFER YARDS: (NEXT TO RES. ZONE)	15'

* Height is defined as: The vertical distance from the mean grade elevation taken at the fronting of a structure to the parapet of a flat roof, the eave of a pitched roof, or the deck line of a mansard roof.
Section 6.4.9 of the Town of Kenansville UDO excempts public buildings and schools from the height limitations of the ordinance.

PARKING SUMMARY:

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Colleges and Universities: 1 per 3 students + 1 per employee
School, Trade or Vocational: 1 per 3 students + 1 per employee

WORKFORCE DEVELOPMENT BUILDING:
3 shops @ 25 students each = 75
3 classrooms @ 25 students each = 75
1 breakroom @ 25 students each = 25

Total Student Count: 175
Total Staff Count: 15

PARKING CALCULATION:

175/3 = 58.33 = 59 + 15 = 74 spaces required by zoning

TOTAL SPACES REQUIRED:	74 SPACES
TOTAL STANDARD SPACES PROVIDED:	87 SPACES
TOTAL HANDICAPPED SPACES PROVIDED:	4 SPACES
TOTAL PROVIDED:	**87 SPACES**

LEGEND

X X X X TO BE REMOVED

DEMO

****NOTE:**
1) CONTRACTOR SHALL FIELD VERIFY SIZE, MATERIAL, INVERTS AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PROPOSED CONNECTIONS.
2) FEMA MAP NUMBER (3720340200J) EFFECTIVE DATE: (2/16/2006)

BAR SCALE 1"=40'

40' 20' 0' 40' 80' 120'

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SCO ID# 22-24540-02A

NORTH CAROLINA PROFESSIONAL SEAL 17374 ENGINEER PHILIP GREGORY TRIPP
12-16-24

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Wilmington, North Carolina 28401
Phone 910-763-5100
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James Sprunt Community College - Workforce Development Building

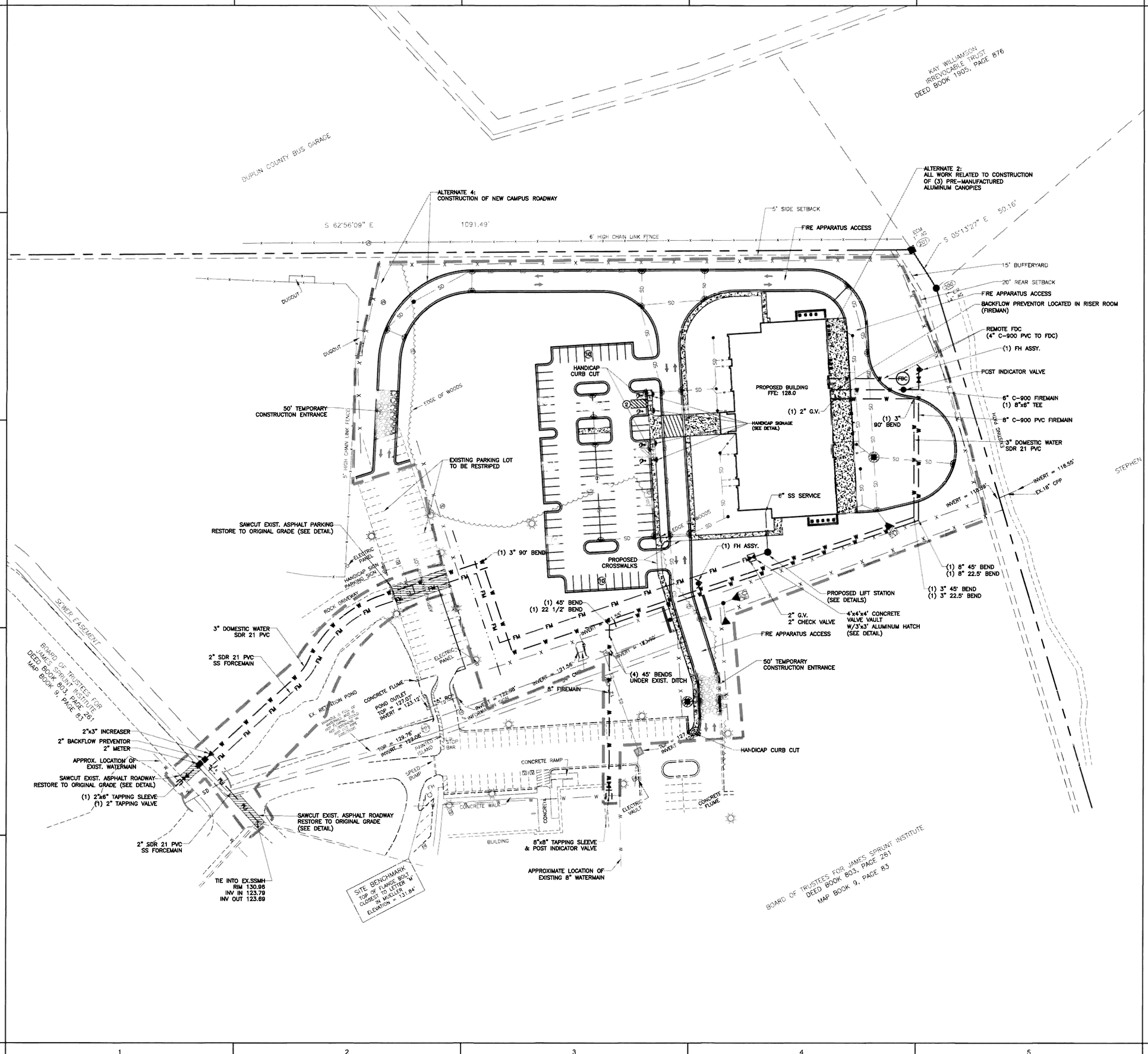
Kenansville, North Carolina 28349

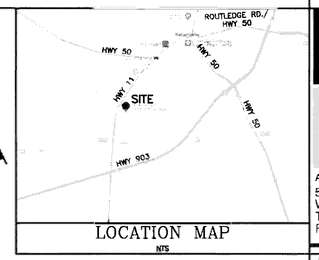
REV	MM/D	ISSUE NOTE
2nd	MM/D	ISSUE NOTE

Project Manager	Drawn By
Date: 12-16-2024	Reviewed By
Project ID	

Sheet Title: DEMOLITION SITE PLAN

Sheet No.: C1





LOCATION MAP
NTS

SITE DATA

PROPERTY OWNER	JAMES SPRUNT INSTITUTE BOARD OF TRUSTEES
PROJECT ADDRESS	133 JAMES SPRUNT DR. KENANSVILLE, NC 28349
PIN NUMBER	3403026762B4
TRACT AREA	53.18 Ac.
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PROPOSED IMPERVIOUS AREAS	
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CONCRETE	5,975 SF
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LEGEND

- W — PROPOSED WATER
- SS — PROPOSED SEWER
- SD — STORMWATER
- X — TEMPORARY SILT FENCE
- LIMITS OF DISTURBANCE
- PROPOSED CONCRETE
- PROPOSED ASPHALT

**NOTE:
1) CONTRACTOR SHALL FIELD VERIFY SIZE, MATERIAL, INVERTS AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PROPOSED CONNECTIONS.
2) FEMA MAP NUMBER (3720340200J) EFFECTIVE DATE: (2/18/2006)

BAR SCALE 1"=40'

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James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

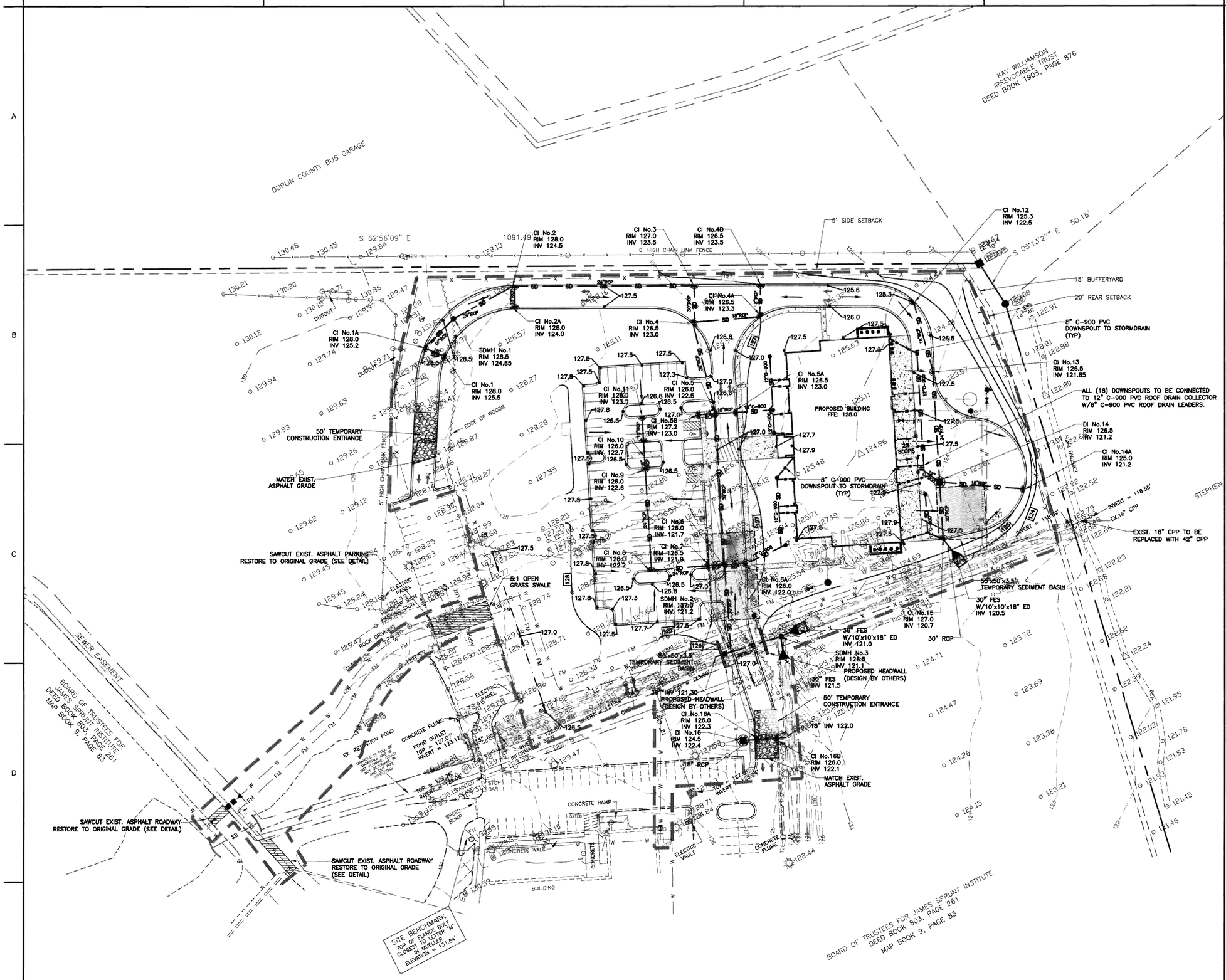
NO	DATE	DESCRIPTION

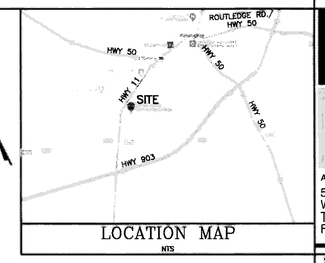
NO	DATE	ISSUE NOTE

Project Manager	Drawn By
Date: 12-18-2024	Reviewed By
Project ID	

Sheet Title: SITE & UTILITY PLAN

Sheet No.: C2





LOCATION MAP
NTS

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SITE DATA

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PROJECT ADDRESS	133 JAMES SPRUNT DR. KENANSVILLE, NC 28349
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James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

NUM	DATE	DESCRIPTION

NO	DATE	ISSUE NOTE

Project Manager	Drawn By
Date: 12-18-2024	Reviewed By
Project ID	

Sheet Title: GRADING, DRAINAGE, EROSION CONTROL AND STORMWATER MANAGEMENT

Sheet No.: C3

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below.

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such at permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

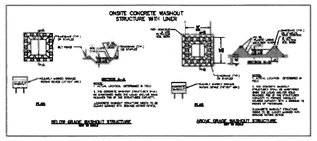
1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, locate and secure all portable toilet behind silt fence or place on a gravel pad and surround with sand bag.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



CONCRETE WASHOUTS

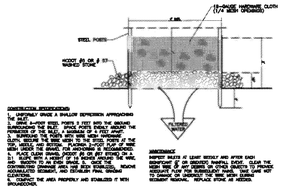
1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method of product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and transported off-site.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

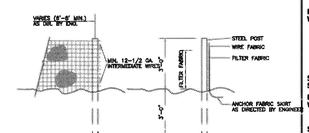
1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.



HARDWARE CLOTH AND GRAVEL INLET PROTECTION



NOTES:
1. FENCE FABRIC SHALL BE A MIN. OF 32" IN WIDTH AND SHALL HAVE A MIN. OF SIX LINE WIRES WITH 12" STAY SPACING.
2. FABRIC SHALL BE FOR EROSION CONTROL AND MIN. OF 30" IN WIDTH. FABRIC SHALL BE FASTENED SECURELY TO THE WIRE FABRIC AS DIRECTED BY THE ENGINEER.
3. STEEL POST SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER STEEL ANGLE TYPE.

TEMPORARY SILT FENCE
NTS

TEMPORARY S[illegible] SPECIFICATION

SEEDING MIXTURE

	SPECIES	RATE (lb/acre)
LATE WINTER & EARLY SPRING	Rye (grain) Annual lespedeza (Kobe in Piedmont and Coastal Plain, Kobe or Korean in Mountains)	120 50
SUMMER	Once on-site inspectors when duration of temporary cover is not to extend beyond date: German Millet	40
FALL	In the Piedmont and mountains, a small-statured sudangrass may be substituted at a rate of 50 lb/acre	
	German Millet	40

SEEDING DATES

LATE WINTER & EARLY SPRING	Mountains – March 1 to Feb. 15–May 15 Piedmont – Dec. 15 to Feb. 15–May 1 Coastal Plain – Dec. 1–Apr. 15	
SUMMER	Mountains – May 15–Aug. 15 Piedmont – May 1–Aug. 15 Coastal Plain – Apr. 15–Aug. 15	
FALL	Mountains – Aug. 15–Dec. 15 Coastal Plain and Piedmont – Aug. 15–Dec. 30	

SOIL AMENDMENTS

FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10–10–10 FERTILIZER.

MULCH

APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET ALMOST STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE

REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

PERMANENT GRASSING DETAIL

SEEDING MIXTURE

	SPECIES	RATE (lb/acre)
SPRING	BERMUDA (SEEDLING)	30
SUMMER	CENTIPEDE	25
	COMMON BERMUDA(HULLED)	10
	KOBE LESPEDEZA	50
	TALL FESCUE	50
FALL	TALL FESCUE	200
WINTER	BLUEGRASS (1 OR 2 IMPROVED VARIETIES)	50
	RYE (GRAIN)	25

SEEDING DATES

SPRING SUMMER	APRIL 1 – JULY 15	
FALL WINTER	JANUARY – APRIL AUGUST – DECEMBER	

SOIL AMENDMENTS

APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 10–10–10 FERTILIZER.

SPRING SUMMER	APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 2,000–4,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE (USE THE LOWER RATE ON SANDY SOILS) AND 1,000 LB/ACRE 10–10–10 FERTILIZER.
FALL WINTER	

MULCH

APPLY 4,000 LB/ACRE GRAIN STRAW OR EQUIVALENT COVER OF ANCHORED SUITABLE MULCH. ANCHOR BY TACKING WITH ASPHALT, NETTING, OR BY CRIMPING WITH A MULCH ANCHORING TOOL. A DISK WITH BLADES SET ALMOST STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE

SPRING SUMMER	REFERTILIZE THE FOLLOWING APRIL WITH 50 lb/acre NITROGEN. REPEAT AS GROWTH REQUIRES, MAY BE MOWED ONLY TWICE A YEAR, WHERE A NEAT APPEARANCE IS DESIRED. CHAT SCROGS AND MOW NO OFTEN AS REQUIRED.
FALL WINTER	REFERTILIZE ACCORDING TO SOIL TESTS OR APPLY 40 LB/ACRE NITROGEN IN JANUARY OR FEBRUARY, 40 LB IN SEPTEMBER AND 40 LB IN NOVEMBER. MOW AS OFTEN AS REQUIRED.

NPDES GROUND STABILIZATION CRITERIA

SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME	STABILIZATION TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HQW ZONES)

SITE WORK NOTES

1. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIARIZED WITH EXISTING CONDITIONS BOTH ON AND IMMEDIATELY ADJACENT TO THE SITE.
2. CLEARING: CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION WITHIN LIMITS OF CONSTRUCTION UNLESS OTHERWISE DESIGNATED TO REMAIN.
3. GRUBBING AND STRIPPING: CONTRACTOR SHALL RAKE AND REMOVE ROOTS, STUMPS, VEGETATION, DEBRIS, EXISTING STRUCTURES ABOVE AND BELOW GRADE, ORGANIC MATERIAL OR ANY OTHER UNSUITABLE MATERIAL WITHIN LIMITS OF CONSTRUCTION.
4. MUCKING: CONTRACTOR SHALL COORDINATE WITH OWNER AND THEIR GEOTECHNICAL REPRESENTATIVE TO COORDINATE REMOVAL OF ANY SOFT AREAS.
5. DISPOSAL: CLEARED, GRUBBED, STRIPPED OR OTHER WASTE MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A PROPERLY PERMITTED FACILITY.
6. FILL AND COMPACTION SHOULD COMPLY WITH GEOTECHNICAL REPORT.
7. THE CONTRACTOR SHALL NOTE THAT THE GRADING PLAN MAY NOT REPRESENT A BALANCED EARTHWORK CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CUT AND FILL QUANTITIES AND COMPLETE INSTALLATION TO SPECIFIED GRADES.
8. THE CONTRACTOR SHALL FURNISH SUITABLE BORROW MATERIAL FROM AN OFF-SITE PROPERLY PERMITTED FACILITY AS REQUIRED.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. BEFORE COMMENCING ANY EXCAVATIONS IN OR ALONG ROADWAYS OR RIGHT-OF-WAYS, PUBLIC AREAS OR IN PRIVATE EASEMENTS, THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE PERSONNEL OF THEIR INTENT TO EXCAVATE, IN WRITING, NOT LESS THAN 10 DAYS PRIOR TO EXCAVATING.
10. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE DISCONNECTION/ RECONNECTION AND/OR THE RELOCATION OF ALL EXISTING UTILITIES WITH APPROPRIATE PERSONNEL.
11. EXISTING SURVEYING PERFORMED BY JOHNNY J. WILLIAMS LAND SURVEYING, PC AND SUPPLIED BY THE OWNER.
12. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE SITE. FURTHERMORE THE CONTRACTOR SHALL REPORT ALL DISCREPANCIES OR QUESTIONS TO THE ENGINEER PRIOR TO INSTALLATION.
13. THE CONTRACTOR SHALL PROVIDE ANY AND ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK UNLESS OTHERWISE DIRECTED BY OWNER.
14. ALL PVC UTILITY MAINS SHALL BE INSTALLED WITH A MINIMUM OF 36" COVER AT FINAL GRADE.
15. ALL SERVICE CONNECTIONS SHALL BE INSTALLED TO MEET ALL LOCAL AND STATE CODES. METERS, TAPS, MATERIALS, WORKMANSHIP AND ALL FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL COMPLY WITH ALL REQUIREMENTS.
16. ALL PAVEMENT, BASE AND SUBGRADE SHALL CONFORM TO NCDOT STANDARDS INCLUDING WORKMANSHIP, MATERIALS AND EQUIPMENT. APPROPRIATE BARRICADES, SIGNS, LIGHTS OR OTHER TRAFFIC CONTROL DEVICES SHALL BE PROVIDED IN ACCORDANCE WITH NCDOT TO MAINTAIN SAFETY AND TWO WAY TRAFFIC.
17. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO INSTALLATION. ALL AREAS SHALL BE SLOPED TO DRAIN AWAY FROM BUILDINGS AT ALL TIMES.
18. CONCRETE STORM DRAINAGE PIPE SHALL BE CLASS III WITH RUBBER GASKETED JOINTS AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
19. USE WHITE LANE MARKING PAINT FOR ALL PAVEMENT MARKINGS. PAINT SHALL BE A CHLORINATED RUBBER ALKYD, FS TT-P-115, TYPE III, FACTORY MIXED, QUICK DRYING, NON BLEEDING. REFLECTIVE MATERIAL MAY BE ADDED AT OWNER'S OPTION FOR NIGHT REFLECTING.
20. DUCTILE IRON SHALL BE CLASS 50.
21. CONCRETE FOR WALKS, CURBS AND DRIVES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS – AIR ENTRAINED.

BY THE OWNER. FURTHER TESTING REQUIRED DUE TO A FAILED TEST WILL BE PAID FOR BY THE CONTRACTOR.

23. SEE GEOTECHNICAL REPORT NO. _____ DATED _____ BY _____ FOR ADDITIONAL REQUIREMENTS.

CONSTRU SEQUENCE

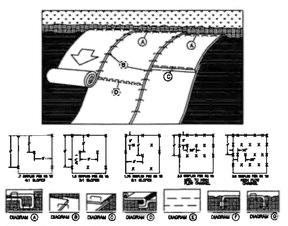
1. NO OUTSIDE OR FILL SLOPE SHALL EXCEED A RISE OR FALL OF ONE FOOT FOR EVERY RUN OF 3 FEET (1 VERTICAL TO 3 HORIZONTAL).
2. NO SEDIMENT WILL BE ALLOWED TO EXIT THE SITE. ALL EROSION SHALL BE CONTROLLED INCLUDING SIDE SLOPES DURING AND AFTER CONSTRUCTION.
3. INSTALL PRIMARY EROSION CONTROL MEASURES BEFORE BEGINNING CONSTRUCTION INCLUDING BUT NOT LIMITED TO GRAVELED CONSTRUCTION ENTRANCE, SILT FENCE, CHECK DAMS, ETC. INSTALL ALL SECONDARY EROSION CONTROL MEASURES AS SOON AS POSSIBLE AFTER BEGINNING CONSTRUCTION.
4. ALL EROSION CONTROL MEASURES TO BE INSPECTED AFTER EACH RAIN. SILT FENCE AND INLET PROTECTION ARE TO BE CLEANED WHEN 0.5 FEET OF SEDIMENT HAVE ACCUMULATED IN FRONT OF THE DEVICE OR WHEN LESS THAN HALF FULL. SEDIMENT TRAPS ARE CLEANED OUT AS STATED OR WHEN HALF FULL.
5. IF APPLICABLE, CONSTRUCT PROPOSED RETENTION POND TO ACT AS A SEDIMENT BASIN DURING CONSTRUCTION. REMOVE ACCUMULATION OF SILT AS REQUIRED TO ALLOW PROPER FUNCTIONING. RESTORE POND TO DESIGN LEVELS AT THE COMPLETION OF CONSTRUCTION.
6. IF APPLICABLE, INSTALL DROP INLETS WITH INLET PROTECTION TO ACT AS SILT TRAPS DURING CONSTRUCTION. REMOVE ACCUMULATED SILT AS NEEDED TO PREVENT SILT FROM ENTERING STORM DRAIN PIPING.
7. A 4" LAYER OF TOPSOIL SHALL BE APPLIED TO ALL NEW AREAS TO BE GRASSED.
8. MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PROJECT IS COMPLETE.
9. MORE STRINGENT MEASURES MAY BE REQUIRED TO HALT EROSION IF THOSE ON THIS PLAN PROVE TO BE LESS EFFECTIVE.
10. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF CONSTRUCTION. ALL PERMANENT MEASURES SHALL BE WELL ESTABLISHED PRIOR TO PROJECT COMPLETION.

MAINTENANCE PLAN

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF–PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF INCH RAINFALL.
2. ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP–DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED, WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
3. SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, BLOCK AND GRAVEL INLET PROTECTION, AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT SACKS WILL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AND AFTER EVERY RAIN EVENT.
4. DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.
5. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX. WITH THE USE OF EXTRA STRENGTH FABRIC, WITHOUT WIRE BACKING. STAKE SPACING WILL BE 8 FEET MAX. WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE IN THE SEDIMENT FENCE THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.
6. SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. THE ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED, OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.
7. SEDIMENT WILL BE REMOVED FROM THE SEDIMENT BASIN WHEN THE DESIGN STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR IF THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED FROM BAFFLES WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.
8. ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED WITHIN 21 CALENDAR DAYS. ALL OTHER AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS.
9. FLOCCULATES WILL BE USED TO ADDRESS TURBIDITY ISSUES. THE PUMPS, TANKS, HOSES AND INJECTION SYSTEMS WILL BE CHECKED FOR PROBLEMS OR TURBID DISCHARGES DAILY.

SITE POLLUTANTS NOTES

1. LOCATE AREAS DEDICATED FOR MANAGEMENT OF LAND CLEARING AND DEMOLITION DEBRIS, CONSTRUCTION AND DOMESTIC WASTE, AND HAZARDOUS OR TOXIC WASTE. THIS LOCATION SHALL BE AT LEAST 50' AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS IT CAN BE SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
2. DUMPING OF ANY OTHER LIQUID BUILDING MATERIAL WASTES IN STORM DRAINS IS PROHIBITED.
3. LITTER AND SANITARY WASTE–THE PERMITTEE SHALL CONTROL THE MANAGEMENT AND DISPOSAL OF LITTER AND SANITARY WASTE FROM THE SITE.
4. LOCATE EARTHEN–MATERIAL STOCK PILE AREAS AT LEAST 50' AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS IT CAN BE SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
5. CONCRETE MATERIALS ONSITE, INCLUDING EXCESS CONCRETE, MUST BE CONTROLLED AND MANAGED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS OR BUFFERS. NO CONCRETE OR CEMENT SLURRY SHALL BE DISCHARGED FROM THE SITE.
6. ANY HARDENED CONCRETE RESIDUE WILL BE DISPOSED OF, OR RECYCLED ON SITE, IN ACCORDANCE WITH LOCAL AND STATE SOLID WASTE REGULATIONS.
7. SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND–DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE:
   i. ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY.
   ii. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND–DISTURBING ACTIVITY.
8. CONDITIONS–IN MEETING THE STABILIZATION REQUIREMENTS ABOVE, THE FOLLOWING CONDITIONS OR EXEMPTIONS SHALL APPLY:
   i. EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE–SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE.
   ii. ALL SLOPES 50' IN LENGTH OR GREATER SHALL APPLY TO GROUND COVER WITHIN 7 DAYS EXCEPT WHEN THE SLOPE IS FLATTER THAN 4:1. SLOPES LESS THAN 50' SHALL APPLY GROUND COVER WITHIN 14 DAYS EXCEPT WHEN SLOPES ARE STEEPER THAN 3:1, THE 7–DAY REQUIREMENT APPLIES.
   iii. ANY SLOPED AREA FLATTER THAN 4:1 SHALL BE EXEMPT FROM THE 7–DAY GROUND COVER REQUIREMENT.
   iv. SLOPES 10' OR LESS IN LENGTH SHALL BE EXEMPT FROM THE 7–DAY GROUND COVER REQUIREMENT EXCEPT WHEN THE SLOPE IS STEEPER THAN 2:1.
   v. ALTHOUGH STABILIZATION IS USUALLY SPECIFIED AS GROUND COVER, OTHER METHODS, SUCH AS CHEMICAL STABILIZATION, MAY BE ALLOWED ON A CASE–BY–CASE BASIS.
   vi. FOR PORTIONS OF PROJECTS WITHIN THE SEDIMENT CONTROL COMMISSION–DEFINED "HIGH QUALITY WATER ZONE" (15A NCAC 04A .0105), STABILIZATION WITH GROUND COVER SHALL BE ACHIEVED AS SOON AS PRACTICABLE BUT IN ANY EVENT ON ALL AREAS OF THE SITE WITHIN 7 CALENDAR DAYS FROM THE LAST LAND–DISTURBING ACT.

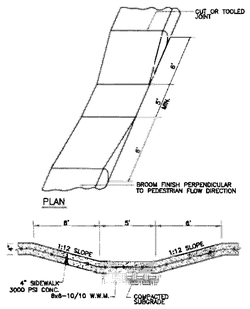


TEMPORARY GRAVELLED CONSTRUCTION ENTRANCE
NTS

BASIC INSTALLATION GUIDELINES

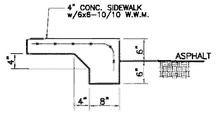
THESE GUIDELINES ARE RECOMMENDATIONS ONLY. ANY QUESTIONS ABOUT THE INSTALLATION SHOULD BE CONFIRMED WITH YOUR LOCAL DISTRIBUTOR.

1. PREPARE THE SOIL SURFACE INCLUDING RAKING, SEEDING AND FERTILIZING.
2. BEGIN THE INSTALLATION PROCESS BY DIGGING A TRENCH 6" DEEP BY 6" WIDE AT THE TOP OF THE SLOPE. PLACE 12" OF BLANKET OVER THE UP–SLOPE PORTION OF THE TRENCH. SECURE THE BLANKET AT THE BOTTOM OF THE TRENCH WITH STAPLES PLACED 12" APART. BACKFILL AND COMPACT THE TRENCH. APPLY SEED AND FOLD REMAINING 12" OF BLANKET OVER SOIL. SECURE WITH A ROW OF STAPLES PLACE 12" APART ACROSS THE WIDTH OF THE BLANKET. (SEE DIAGRAM A).
3. ROLL THE BLANKET VERTICALLY DOWN THE SLOPE. SECURE USING THE APPROPRIATE STAPLE PATTERN SHOWN HEREON SPECIFIED BY SLOPES.
4. PARALLEL BLANKETS MUST BE OVERLAPPED BY A MINIMUM 4" AND SECURED WITH A ROW OF STAPLES PLACED APPROXIMATELY 3" APART. (SEE DIAGRAM B)
5. ADDITIONAL VERTICAL BLANKETS CAN BE JOINED USING A MINIMUM 4" OVERLAPPING (SHINGLE STYLE) IN THE DIRECTION OF WATER FLOW. CONNECT THE BLANKETS BY USING STAPLES APPROXIMATELY 2" APART ACROSS THE WI



TYPICAL SIDEWALK AND WHEEL CHAIR RAMP DETAIL

NTS



TURN DOWN SIDEWALK

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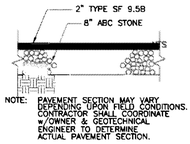

ASPHALT SECTION

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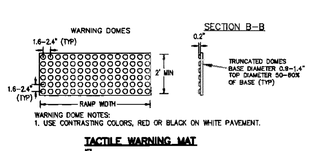

TACTILE WARNING MAT

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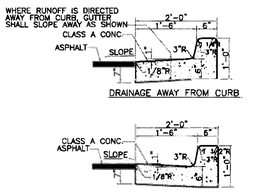

CURB SECTION

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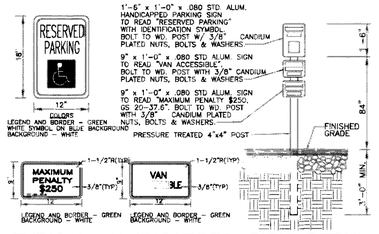

TYPICAL HANDICAPPED SIGN DETAIL

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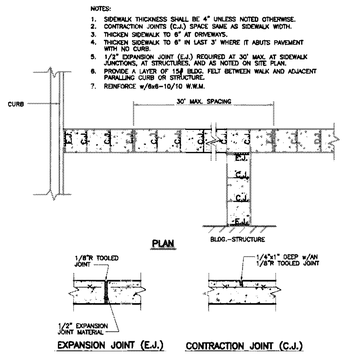

SIDEWALK JOINT DETAILS

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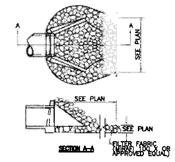
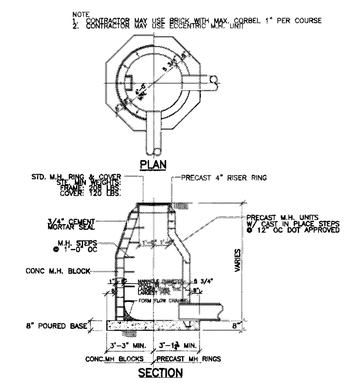


ENERGY DISSIPATOR DATA										
STR. #	Q25 (cfs)	V (FPS)	PIPE SIZE (inch)	L (ft)	W (ft)	D (ft)	ZONE*	LENGTH	WIDTH	STONE SIZE
1	9.1	1.8	30	10	10	1.5	1	3xD	4xD	CLB
2	32.2	6.1	30	10	10	1.5	1	3xD	4xD	CLB

*P. 50-25 NHC SW MANUAL

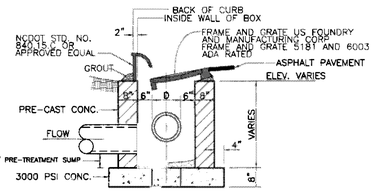
ENERGY DISSIPATOR

NTS



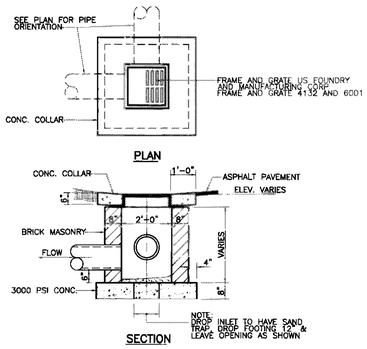
STORM DRAIN MANHOLE DETAIL

NTS



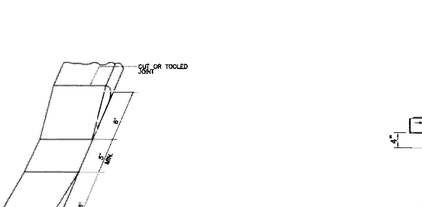
CURB INLET DETAIL

NTS



DROP INLET DETAIL

NTS

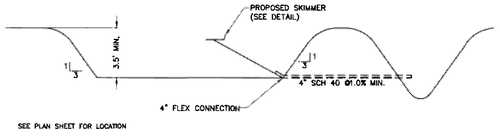


FAIRCLOTH SKIMMER DETAIL

*SEE PLAN SHEET FOR LOCATION

NTS

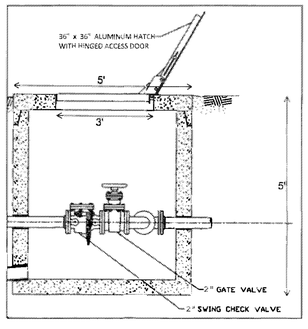
SKIMMER TABLE		
No.	SKIMMER SIZE	ORIFICE SIZE
1	2"	1.9"
2	2.5"	2.3



TEMPORARY SKIMMER SEDIMENT BASIN TABLE										
NO.	DISTURBED AREA (ACRES)	VOL. REQ'D (CF)	VOL. PROV'D (CF)	L	W	D	Q10	SURFACE AREA REQ'D	SURFACE AREA PROV'D
1	2.6	9,360	9,625	55'	50'	3.5'	3.8	1,311 SF	2,750 SF
2	4.4	15,840	15,925	91'	50'	3.5'	6.4	2,784 SF	4,550 SF

TEMPORARY SEDIMENT BASIN DETAIL

NTS



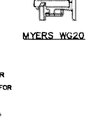
VALVE BOX DETAIL

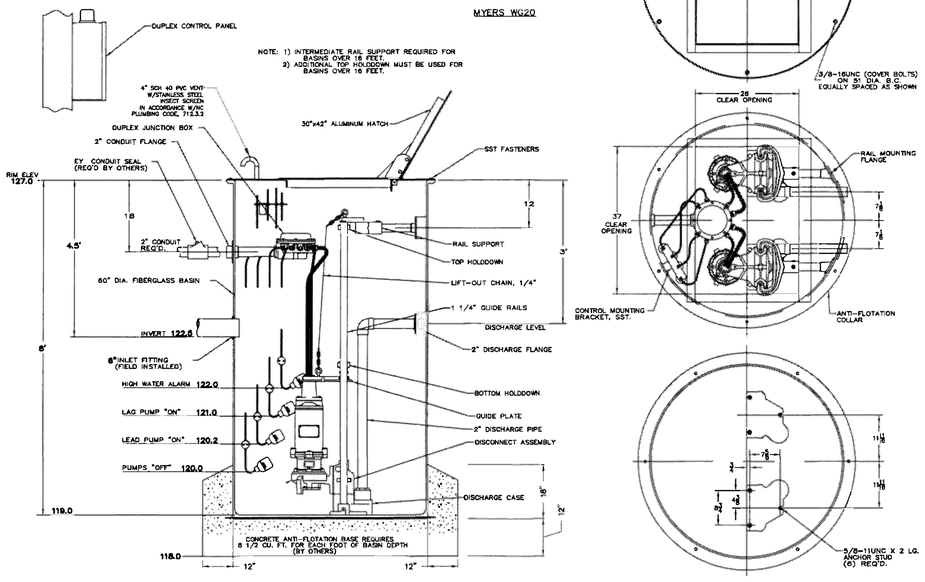
NTS

TYPICAL INSTALLATION

60" DUPLEX GRINDER PUMP PACKAGE WITH REMOTE MOUNTED CONTROL PANEL

PUMP MODELS:





NOTE:
1. MANUFACTURER MUST BE APPROVED BY JSCC.
2. GRINDER PUMP MYERS WG20, 2.0HP, 208V, THREE PHASE. CAPABLE OF 22 GPM AT 13' TDH.
3. ALL DUPLEX CONTROL PANELS SHALL BE MOUNTED ON A 4x4 PT POST IN CLOSE PROXIMITY TO THE STATION.
4. JSCC SHALL APPROVE THE LOCATION OF ALL DUPLEX GRINDER STATIONS.
5. NO ELECTRICAL CONNECTIONS INSIDE OF WET WELL. ALL FLOAT AND PUMP CORDS TO TERMINATE IN THE CONTROL PANEL ONLY.
6. ELAPSED TIME METER, PUMP ALTERNATING, HOA SWITCH, PUMP RUN LIGHT ALARM HORN, NEMA 4X ENCLOSING.
7. PROVIDE AUTO DIALER.
8. LIFT STATION SITE TO BE FENCED WITH 8' CHAIN LINK FENCE.
9. LIFT STATION SITE SHALL HAVE SIGNAGE PROVIDING OWNER & CONTACT INFORMATION IN CASE OF EMERGENCY.
10. STANDY POWER ELECTRICAL CONNECTION.

5ø FIBERGLASS LIFT STATION DETAIL

NTS

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NO.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

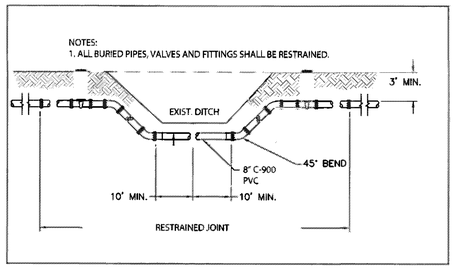
Project Manager	Drawn By
Date 12-16-2024	Reviewed By
Project ID	

Sheet Title

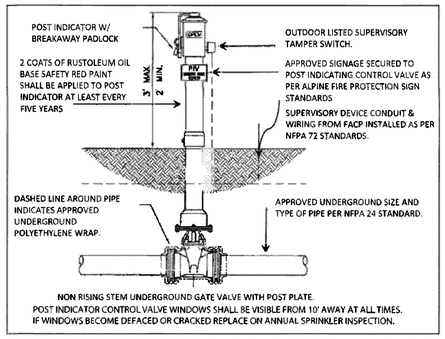
DETAILS AND NOTES

Sheet No.

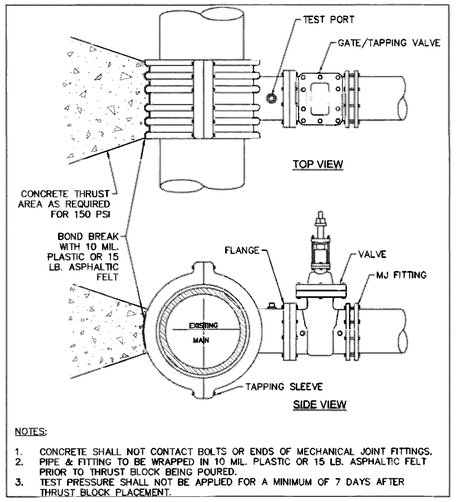
C5



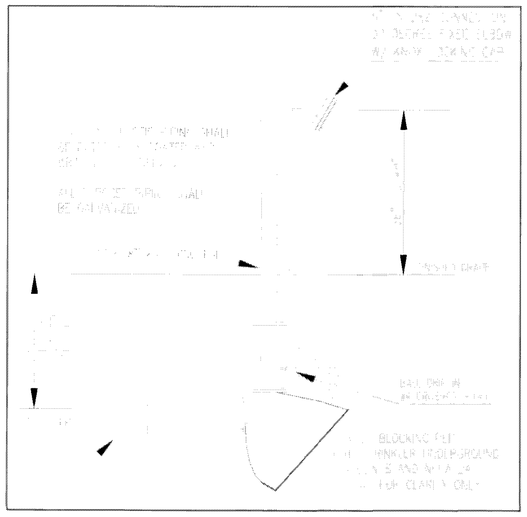
DITCH CROSSING
NTS



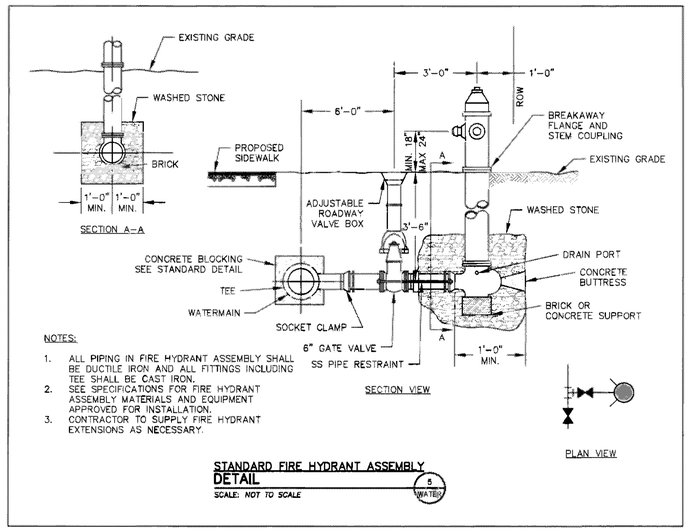
POST INDICATOR VALVE
NTS



TAPPING VALVE AND SLEEVE
NTS

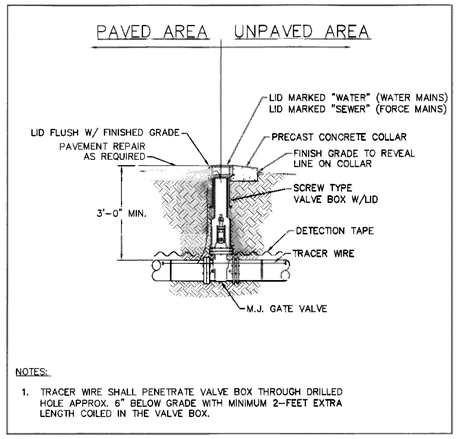


REMOTE FDC
NTS

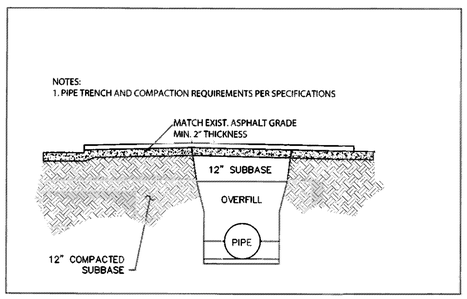


STANDARD FIRE HYDRANT ASSEMBLY DETAIL
SCALE: NOT TO SCALE

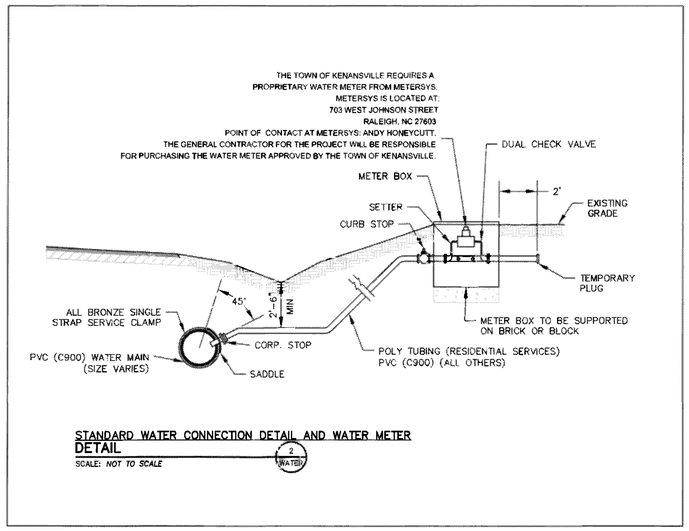
5 WATER



VALVE DETAIL
NTS



TYPICAL ROAD REPAIR
NTS



STANDARD WATER CONNECTION DETAIL AND WATER METER DETAIL
SCALE: NOT TO SCALE

2 WATER

**NOTE:
1) ALL WATER AND SEWER MAINS/SERVICE LINES TO BE MARKED WITH MAGNETIC DETECTABLE WARNING TAPE– 3" WIDTH, 5.0 MIL THICKNESS AT MINIMUM 6" DEPTH (NOT TO EXCEED 9") WITH APPROPRIATE COLOR AND PRINT LEGEND.

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REV.	DATE	ISSUE/REVISION

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Project Manager	Drawn By
Date 12-18-2024	Reviewed By
Project ID	

Sheet Title
DETAILS AND NOTES

Sheet No.
C6

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	CEILING FAN, SEE LIGHTING FIXTURE SCHEDULE FOR TYPE
	2x4 LIGHT FIXTURE, RECESSED OR SURFACE MOUNTED
	SHADING INDICATES 24HR OPERATION
	4FT OR 8FT LIGHT FIXTURE, RECESSED OR SURFACE MOUNTED
	4FT OR 8FT CHANNEL LIGHT FIXTURE, SUSPENDED OR SURFACE MOUNTED
	UNDER COUNTER LIGHT FIXTURE
	DIRECT/INDIRECT FIXTURE, SUSPENDED
	TRACK WITH LIGHT KIT
	RECESSED LIGHT FIXTURE
	SURFACE LIGHT FIXTURE
	RECESSED WALL WASH LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	EXIT SIGN, SINGLE FACE, CEILING, CHEVRON INDICATES DIRECTION.
	EXIT SIGN, DOUBLE FACE, CEILING MOUNTED, CHEVRON INDICATES DIRECTION.
	EXIT SIGN W/EMERGENCY LIGHTING UNIT, CEILING MOUNTED, CHEVRON INDICATES DIRECTION.
	EXIT SIGN, SINGLE FACE, WALL/END MOUNTED, CHEVRON INDICATES DIRECTION.
	EXIT SIGN, DOUBLE FACE, WALL/END MOUNTED, CHEVRON INDICATES DIRECTION.
	EXIT SIGN W/EMERGENCY LIGHTING UNIT, WALL/END MOUNTED, CHEVRON INDICATES DIRECTION.
	EMERGENCY LIGHTING UNIT, 2-HEAD WITH BATTERY BACK-UP, WALL MOUNTED, "NOT SWITCHED"
	EMERGENCY LIGHTING UNIT, 2-HEAD WITH BATTERY BACK-UP, CEILING MOUNTED, "NOT SWITCHED"
	**FOR ALL LIGHTING FIXTURE TYPES ABOVE: LETTER ADJACENT TO FIXTURE INDICATES FIXTURE TYPE, SEE LIGHTING FIXTURE SCHEDULE
PE	PHOTOCELL, REMOTE MOUNTED, 120V, 10 SECOND TIME DELAY, UL WET LOCATION, RATED FOR 1500 W @ 120 VAC AND 4000 W @ 277 VAC (FOR USE WITH LAMP SOURCE(S) SHOWN.
$	SWITCH, SINGLE POLE, 120/277VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED, SEE ELECTRICAL DEVICES MOUNTING HEIGHT DETAIL. LOWER CASE LETTER INDICATES FIXTURE SWITCHING, WHEN INDICATED.
$3	3-WAY SWITCH, 120/277 VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED SEE ELECTRICAL DEVICES MOUNTING HEIGHT DETAIL. LOWER CASE LETTER INDICATES FIXTURE SWITCHING, WHEN INDICATED.
$4	4-WAY SWITCH 120/277 VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED SEE ELECTRICAL DEVICES MOUNTING HEIGHT DETAIL. LOWER CASE LETTER INDICATES FIXTURE SWITCHING, WHEN INDICATED.
$$	INDICATES BI-LEVEL SWITCHING, 1 SWITCH SWITCHES OUTSIDE LAMPS, 1 SWITCH SWITCHES INSIDE LAMPS. SEE ELECTRICAL DEVICES MOUNTING HEIGHT DETAIL. LOWER CASE LETTER INDICATES FIXTURE SWITCHING, WHEN INDICATED.
$WP	WEATHERPROOF SWITCH, SINGLE POLE 120/277 VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
D$	DIMMER SWITCH, 0-10V OR LINE VOLTAGE RATING AS REQUIRED BY LIGHTING FIXTURE(S). LINE VOLTAGE RATED DIMMERS MUST BE 1500W FOR 120 VAC AND 4000W 277VAC MINIMUM.
AFC$	ADJUSTABLE FAN CONTROL, 120/277VAC, SINGLE POLE, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED, SEE ELECTRICAL DEVICES MOUNTING HEIGHT DETAIL. LOWER CASE LETTER INDICATES FIXTURE SWITCHING, WHEN INDICATED

SYMBOL	DESCRIPTION
OS	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, 360° COVERAGE. 2 = SECOND CONTACT TO BE PROVIDED FOR CONNECTION TO BUILDING MANAGEMENT
OS	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, LONG RANGE COVERAGE 2 = SECOND CONTACT TO BE PROVIDED FOR CONNECTION TO BUILDING MANAGEMENT
OS	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, 180° COVERAGE, MOUNTED +11'-6"AFF. 2 = SECOND CONTACT TO BE PROVIDED FOR CONNECTION TO BUILDING MANAGEMENT
OS	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, PIR TECHNOLOGY OCCUPANCY SENSOR, LOW VOLTAGE (24VDC) 19mA DRAW, WATTSTOPPER CX100-1, LONG RANGE SENSOR. INSTALL WHERE FREE OF OBSTRUCTIONS. MOUNTED +11'-6"AFF.
OS	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, PIR TECHNOLOGY OCCUPANCY SENSOR, LOW VOLTAGE (24VDC) 19mA DRAW, WATTSTOPPER CX100-3, TWO SIDED AISLEWAY. INSTALL WHERE FREE OF OBSTRUCTIONS. MOUNTED +11'-6"AFF.
O$	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, SINGLE BUTTON ON/OFF CONTROL, 180° COVERAGE, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
O$2	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, DUAL BUTTON ON/OFF CONTROL, 180° COVERAGE, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
O$D	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, DUAL BUTTON ON/OFF CONTROL WITH 0-10V DIMMING, 180° COVERAGE, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED. WATTSTOPPER DW-311 OR EQUAL.
O$F	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, DUAL BUTTON ON/OFF CONTROL, 180° COVERAGE, ADDITIONAL POWER SUPPLY FOR FAN OPERATION, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
$T	WALL MOUNTED DIGITAL TIMED SWITCH (5 MIN'S TO 12 HR'S), SINGLE BUTTON ON/OFF CONTROL, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
	RECESSED SINGLE/DOUBLE GANG BOX WITH BLANK COVER PLATE, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED
	RECESSED DEDICATED/PICTURE/CLOCK SINGLE OUTLET, 120VAC, 20A, MOUNTED AS INDICATED ON DRAWING.
	RECEPTACLE, DUPLEX, 120VAC, 20A, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED. (SEE ELECTRICAL MOUNTING HEIGHT DETAIL)
	RECEPTACLE, DUPLEX, 120VAC, 20A, MOUNTED 6" ABOVE COUNTER TOP OR BACK SPLASH.
	RECEPTACLE, QUADPLEX, 120VAC, 20A MOUNTED 16"AFF UNLESS OTHERWISE NOTED (SEE ELECTRICAL MOUNTING HEIGHT DETAIL)
	RECEPTACLE, QUADPLEX, 120VAC, 20A, MOUNTED 6" ABOVE COUNTER TOP OR BACK SPLASH.
	RECEPTACLE, DUPLEX, GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED. (SEE ELECTRICAL MOUNTING HEIGHT DETAIL)
	RECEPTACLE, DUPLEX, GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A, MOUNTED 6" ABOVE COUNTER TOP OR BACK SPLASH UNLESS OTHERWISE NOTED .
	RECEPTACLE, QUADPLEX, GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A MOUNTED 16"AFF UNLESS OTHERWISE NOTED (SEE ELECTRICAL MOUNTING HEIGHT DETAIL)
	RECEPTACLE, QUADPLEX, GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A, MOUNTED 6" ABOVE COUNTER TOP OR BACK SPLASH.
	RECEPTACLE, 250VAC, 2 POLE, 3 WIRE, WALL MOUNTED, SIZE AS INDICATED ON DRAWING
	RECEPTACLE, 480VAC, 2 POLE, 3 WIRE, WALL MOUNTED, SIZE AS INDICATED ON DRAWING
	RECEPTACLE, DUPLEX, 120VAC, 20A CEILING MOUNTED (LAY-IN / GYPBOARD / SUSPENDED)
	RECEPTACLE, DUPLEX, 120VAC, 20A RECESSED FLOOR MOUNTED.
	UPS FED RECEPTACLE, DUPLEX, 120VAC, 20A, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED. (SEE ELECTRICAL MOUNTING HEIGHT DETAIL)
	UPS FED RECEPTACLE, QUADPLEX, 120VAC, 20A, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED. (SEE ELECTRICAL MOUNTING HEIGHT DETAIL)
	**FOR ALL RECEPTACLE TYPES ABOVE: +XX"- INDICATES MOUNTING HEIGHT OF DEVICE IN INCHES AFF (IF GIVEN) (SEE ELECTRICAL MOUNTING HEIGHT DETAIL) WP - LISTED WEATHER-RESISTANT TYPE DEVICE WITH WEATHERPROOF IN USE COVER TR - TAMPER RESISTANT S - INDICATES THE TOP RECEPTACLE OF THE DEVICE IS CONTROLLED VIA WALL SWITCH H - DEVICE MOUNTED HORIZONTALLY U - USB IN-WALL CHARGER
30A/3/3R, W/ 30AF	DISCONNECT SWITCH, FUSED, HEAVY DUTY, SIZE AS INDICATED ON DRAWINGS ##A = DISCONNECT SIZE / # = NUMBER OF POLES / # = NEMA RATING, / ##AF = FUSE SIZE
CB	ENCLOSED BREAKER, HEAVY DUTY, SIZE AS INDICATED ON DRAWINGS ##A = BREAKER SIZE / # = NUMBER OF POLES / # = NEMA RATING
"Equip" #AMP	VARIABLE FREQUENCY DRIVE (VFD)
HMCP (#HP) NEMA #	STARTER, FULL VOLTAGE, SIZE AS INDICATED ON DRAWINGS
"Equip" #AMP HMCP (#HP) NEMA #	COMBINATION STARTER WITH CIRCUIT BREAKER DISCONNECT, FULL VOLTAGE, SIZE AS INDICATED ON DRAWINGS
M$##	MANUAL MOTOR STARTER, ELECTRICAL CONTRACTOR SHALL COORDINATE POLES AND SIZE WITH EQUIPMENT ## = AMPERAGE RATING WHEN INDICATED ON DRAWING
	1 BUTTON CONTROLLER

SYMBOL	DESCRIPTION
	2 START/STOP PUSHBUTTON CONTROLLER
	3 UP/STOP/DN PUSHBUTTON CONTROLLER
EPO	WALL MOUNTED 120V EMERGENCY OFF PUSH BUTTON WITH RED MUSHROOM STYLE HEAD WITH MANUAL PULL REST, NORMALLY OPEN, WITH CLEAR PROTECTIVE COVER. MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
	WALL MOUNTED PUSH PLATE MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
208/120V	PANELBOARD, SURFACE OR RECESSED MOUNTED AS SHOWN. SIZE, RATINGS, AND MOUNTING AS INDICATED ON PANEL SCHEDULE. CONTRACTOR IS RESPONSIBLE FOR REQUIRED CLEARANCE IN FRONT OF ELECTRICAL PANEL. SEE NEC TABLE 110.26 WORKING SPACES FOR ADDITIONAL CLEARANCE CONDITIONS.
480/277V	
	TRANSFORMER, SIZE AS INDICATED ON DRAWING
	METER
PP	SERVICE POLE, HUBBEL, LEGRAND, OR EQUAL, EXTRUDED ALUMINUM SERVICE POLE, 2-CHANNELS WITH CEILING TRIM, ANODIZED ALUMINUM, MULTI-SERVICE, TWO-CHANNEL POLE WITH (2) KNOCKOUTS, (2) 20AMP RECEPTACLES. ADJUSTABLE T-BAR ASSEMBLY FOR MOUNTING POLES IN MIDDLE OF CEILING. UL LISTED. EACH POWER POLE SHOWN ON PLAN SHALL HAVE PROVISIONS FOR (2) DATA DROPS AND (1) VOICE DROP.
M	ELECTRICAL MOTOR
	GROUND BUS, "E" INDICATES ELECTRICAL GROUND BAR, "TG" INDICATES TELECOMMUNICATIONS GROUND BAR
	CABLE TRAY, LADDER TYPE
	CABLE TRAY, CENTER HUNG TYPE
	CABLE TRAY, BASKET TYPE
	HAND HOLE, IN GRADE, TIER RATING AS INDICATED ON DRAWING
	HATCHING INDICATES ITEMS TO BE DEMOLISHED. REMOVE DEVICE, EQUIPMENT, FIXTURE INDICATED, CIRCUIT, AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED.
1	DEMOLITION KEY NOTE SYMBOL
1	KEY NOTE SYMBOL
1	REVISION DELTA
WP WAP WALL CLNG	WIRELESS ACCESS POINT, 1 DATA IN A DUAL GANG BOX WITH A SINGLE GANG PLASTER RING, OWNER SHALL PROVIDE SURGE PROTECTOR AND WAP DEVICE, THE ELECTRICAL CONTRACTOR SHALL INSTALL. WP - LISTED WEATHER-RESISTANT TYPE DEVICE
2D	COMBINATION DATA/TELEPHONE OUTLET, MOUNTED 18" AFF UNLESS OTHERWISE NOTED. PROVIDE 11/4" CONDUIT TO ABOVE ACCESSIBLE GRID CEILING W/PULL STRING FOR OUTLETS LOCATED BELOW HARD (GYPBOARD) CEILINGS, ROUTE 11/4" CONDUIT TO TELEPHONE/DATA ROOM. 2D = NUMBER OF DATA CONNECTIONS, UNLESS OTHERWISE INDICATED ON PLAN
	WALL TELEPHONE OUTLET, MOUNTED 60" AFF UNLESS OTHERWISE NOTED. PROVIDE 11/4" CONDUIT TO ABOVE ACCESSIBLE GRID CEILING W/PULL STRING FOR OUTLETS LOCATED BELOW HARD (GYPBOARD) CEILINGS, ROUTE 1/4" CONDUIT TO TELEPHONE/DATA ROOM.
2D	COMBINATION DATA/TELEPHONE OUTLET, RECESSED CEILING MOUNTED (LAY-IN / GYPBOARD) PROVIDE 11/4" CONDUIT TO ABOVE ACCESSIBLE GRID CEILING W/PULL STRING FOR OUTLETS LOCATED BELOW HARD (GYPBOARD) CEILINGS, ROUTE 11/4" CONDUIT TO TELEPHONE/DATA ROOM. 2D = NUMBER OF DATA CONNECTIONS, UNLESS OTHERWISE INDICATED ON PLAN
1V/1D	COMBINATION POWER/DATA/TELEPHONE BOX, RECESSED FLOOR MOUNTED (POKE-THROUGH SIMILAR TO HUBBELL S1PT4X4BRS). PROVIDE BRASS COVER PLATE WITH FLUSH ACCESS COVERS FOR EACH PLUG IN CONNECTION. PROVIDE PULL STRING IN CONDUIT. SEE DETAIL #, SHEET E###
2D 2G	COMBINATION POWER/DATA/TELEPHONE BOX, RECESSED FLOOR MOUNTED (CAST-IN-PLACE). PROVIDE BRASS COVER PLATE WITH FLUSH ACCESS COVERS FOR EACH PLUG IN CONNECTION. PROVIDE PULL STRING IN CONDUIT. SEE DETAIL #, SHEET E### 2D = NUMBER OF DATA CONNECTIONS, UNLESS OTHERWISE INDICATED ON PLAN; 1"CND UNDER SLAB TO NEAREST WALL, STUB ABOVE CEILING #G = GANG FLOOR BOX WITH TWO DUPLEX RECEPTACLES, VOICE AND DATA
FB1	4 GANG FLOOR BOX WITH (1) DUPLEX RECEPTACLE, (1) HDMI CONNECTOR AND (2) DATA OUTLETS (CONFIRM WITH OWNER FOR REQUIREMENTS). PROVIDE METALLIC IN-USE COVER (HUBBELL CFB4G30CR OR EQUIVALENT).
FB2	4 GANG FLOOR BOX WITH (1) DUPLEX RECEPTACLE, (2) HDMI CONNECTORS AND (2) DATA OUTLETS (CONFIRM WITH OWNER FOR REQUIREMENTS). PROVIDE METALLIC IN-USE COVER (HUBBELL CFB4G30CR OR EQUIVALENT).
FB3	2 GANG FLOOR BOX WITH (1) DUPLEX RECEPTACLE (CONFIRM WITH OWNER FOR REQUIREMENTS). PROVIDE METALLIC IN-USE COVER (HUBBELL CFB2G30RCR OR EQUIVALENT).
	JUNCTION BOX - WALL MOUNTED +##" - INDICATES MOUNTING HEIGHT OF DEVICE IN INCHES AFF (if given)

SYMBOL	DESCRIPTION
J	JUNCTION BOX - CEILING/ABOVE CEILING MOUNTED
J	JUNCTION BOX - FLOOR MOUNTED
TV-#	WALL MOUNTED DOUBLE GANG BOX FOR TELEVISION MOUNTED AT 72" AFF UNLESS NOTED OTHERWISE. BOX SHALL HAVE DUPLEX RECEPTACLE AND DATA CONNECTIONS FOR TELEVISION AS DIRECTED BY OWNER/CLIENT/TENANT. BOX TYPE AS INDICATED PER DETAILS ON E5.4 OR APPROVED EQUIVALENT.
TV	CEILING MOUNTED DOUBLE GANG BOX FOR TELEVISION RECESSED IN CEILING. BOX SHALL HAVE DUPLEX RECEPTACLE AND DATA CONNECTIONS FOR TELEVISION AS DIRECTED BY OWNER/CLIENT/TENANT. BOX SHALL BE PASS & SEYMOUR TV2MW OR APPROVED EQUIVALENT.
ES	ELECTRIC STRIKE
ML	MAGNETIC LOCK
DC	DOOR CONTACTS
CR	CARD READER
KP	KEYPAD
MD	MOTION DETECTOR (TYPE DENOTED)
WP	WALL MOUNTED CAMERA, WP INDICATES WEATHERPROOF (OWNER PROVIDED, INSTALLED BY LV CONTRACTOR)
	CEILING MOUNTED CAMERA (OWNER PROVIDED, INSTALLED BY LV CONTRACTOR)
S	CEILING MOUNTED SPEAKER
S	WALL MOUNTED SPEAKER
	FLOOR MOUNTED DATA RACK
	WALL MOUNTED DATA RACK
	PROJECTOR PAN, CEILING MOUNTED
	1 HOUR RATED FIRE WALL
(X)	1 HOUR RATED FIRE WALL - EXISTING
	2 HOUR RATED FIRE WALL
(X)	2 HOUR RATED FIRE WALL - EXISTING
	3 HOUR RATED FIRE WALL
(X)	3 HOUR RATED FIRE WALL - EXISTING
OHP	OVERHEAD PRIMARY CONDUCTORS
(X)OHP	OVERHEAD PRIMARY CONDUCTORS - EXISTING
UGP	UNDERGROUND PRIMARY CONDUCTORS
(X)UGP	UNDERGROUND PRIMARY CONDUCTORS - EXISTING
OHS	OVERHEAD SECONDARY CONDUCTORS
(X)OHS	OVERHEAD SECONDARY CONDUCTORS - EXISTING
UGS	UNDERGROUND SECONDARY CONDUCTORS
(X)UGS	UNDERGROUND SECONDARY CONDUCTORS - EXISTING
G	COPPER CLASS 1 CONDUCTOR ON ROOF
GA	ALUMINUM CLASS 1 CONDUCTOR ON ROOF
UGG	COPPER CLASS 1 CONDUCTOR BELOW GRADE
C C	CONTROL CABLE CONDUIT
	GROUND ROD, COPPER, 3/4"DIA x 10'-0" LONG
"A"	COPPER AIR TERMINAL IN BRONZE BASE
"B"	ALUMINUM AIR TERMINAL IN ALUMINUM BASE
T	226V - STYLE THRU-ROOF CONNECTOR (TYPE T)
T1	230V - STYLE THRU-ROOF CONNECTOR (TYPE T1)
"BM"	LIGHTNING CONDUCTOR CABLE CONNECTOR
	GROUNDING ELECTRODE CONDUCTOR, 10' COILED ABOVE GRADE
	POWER & SWITCH LEG
	UNSWITCHED LEG
1P3-1,3,5(7)	CONDUIT, HOME RUN TO PANEL BOARD (#) INDICATES SHUNT-TRIP SPACE 1,3,5 INDICATES CIRCUIT NUMBER(S) INDICATES PANEL NAME

TYPICAL ABBREVIATIONS:

A, AMP	AMPERE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BOF	BOTTOM OF FIXTURE
BRKR	BREAKER
C, CND	CONDUIT
CAB	CABINET
CAT	CATALOG
CL	CHLORINE
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CLG	CEILING
CP	CONTROL PANEL
CR	CONTROL RELAY, CORROSION RESISTANT
CS	CONTROL SWITCH
CV	CONTROL VALVE
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
DI	DOOR INTERLOCK
DISC SW	DISCONNECT SWITCH
DN	DOWN
EF	EXHAUST FAN
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EPO	EMERGENCY POWER OFF
EQ, EQIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EPRF	EXPLOSION PROOF
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FLA	FULL LOAD AMPS
FLUOR	FLUORESCENT
FLR	FLOOR
FWE	FURNISHED WITH EQUIPMENT
GEN	GENERATOR
G, GND	GROUND
GFI, GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTO
HP	HORSE POWER
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HTR	HEATER
HV	HIGH VOLTAGE
Hz	HERTZ
IMC	INTERMEDIATE METALLIC CONDUIT
INCAND	INCANDESCENT
JB	JUNCTION BOX
K	THOUSAND
Kcmil	THOUSAND CIRCULAR MILLS
KVA	KILOVOLT AMPERE
KW	KILOWATTS
KWH	KILOWATT-HOURS
LP	LIGHTING PANEL, LIGHT POLE
LTG	LIGHTING
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	MANHOLE
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
N. NEUT	NEUTRAL
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
P	POLE
PA	PUBLIC ADDRESS
PB	PULL BOX, PUSH-BUTTON
PF	POWER FACTOR
PH,ϕ	PHASE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANEL
PP	POWER PANEL, POWER POLE
PT	POTENTIAL TRANSFORMER
PWR	POWER
RECPT,RCP	RECEPTACLE
REQ'D	REQUIRED
RGS	RIGID GALVANIZED STEEL CONDUIT
RM	ROOM
RTU	REMOTE TELEMETRY UNIT
SCR	DC MOTOR DRIVE
SH	SHEET
SM	SURFACE MOUNTED
SPEC	SPECIFICATION
SS	SELECTOR SWITCH
SST	STAINLESS STEEL
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCH GEAR
TEL	TELEPHONE
TPS	TWISTED PAIR SHIELDED
TVSS, SPD	TRANSIENT VOLTAGE SURGE SUPPRESSER
TYP	TYPICAL
UG, UGND	UNDERGROUND
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UTIL	UTILITY
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
W	WIRE, WATT
WH	WATT-HOUR
WP	WEATHERPROOF
XFMR	TRANSFORMER
(X)	EXISTING

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NORTH CAROLINA PROFESSIONAL SEAL 023311 ENGINEER ALLEN CBHF
12/19/2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

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Project Manager: WAC	Drawn By: HGH
Date: 12-18-2024	Reviewed By: WAC
Project ID: CBHF: 22093	

Sheet Title: ELECTRICAL LEGEND AND ABBREVIATIONS

Sheet No.: E0.1

ELECTRICAL GENERAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE IN FULL COMPLIANCE WITH NFPA 70, THE NORTH CAROLINA STATE BUILDING CODE, ALL LOCAL CODES AND ORDINANCES AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.

2. ALL EQUIPMENT PROVIDED BY THE CONTRACTOR SHALL BE LISTED AND LABELED BY A NATIONALLY-RECOGNIZED TESTING AGENCY, ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION, FOR THE CONDITIONS OF INSTALLATION. ALL MATERIAL, EQUIPMENT AND DEVICES SHALL BE NEW CURRENT PRODUCTS OF MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF SUCH PRODUCTS. EQUIPMENT SHALL BE SUITABLE FOR ITS APPLICATION (E.G. WHEN INSTALLED OUTDOORS, IT SHALL BE WEATHERPROOF, ETC.)

3. THE CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS FOR WORK REQUIREMENTS, THE AMOUNT OF SPACE AVAILABLE FOR ELECTRICAL EQUIPMENT, AND LAYOUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER.

4. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THOROUGHLY FAMILIARIZING HIMSELF WITH ANY CONTRACTUAL REQUIREMENTS AS MAY BE SET FORTH IN THE OTHER DIVISIONS OF THE PROJECT SPECIFICATIONS.

5. UNLESS SPECIFICALLY NOTED OTHERWISE, SYSTEMS PROVIDED OR INSTALLED BY THE ELECTRICAL CONTRACTOR SHALL BE COMPLETE AND FULLY-FUNCTIONING AFTER INSTALLATION. INCIDENTAL COMPONENTS MAY NOT BE SHOWN, AND ALL WORK WHICH MAY BE REASONABLY IMPLIED AS BEING INCIDENTAL TO THIS WORK, BUT REQUIRED FOR THE PROPER OPERATION OF THE EQUIPMENT OR SYSTEM, SHALL BE PROVIDED BY THE CONTRACTOR AND INCLUDED IN THE BID. ADDITIONAL CIRCUITS SHALL BE INSTALLED WHEREVER NEEDED TO CONFORM TO THE SPECIFIC REQUIREMENTS OF EQUIPMENT.

6. TEMPORARY POWER CONNECTIONS AS REQUIRED SHALL BE PROVIDED BY THE CONTRACTOR AND INCLUDED IN THE BID. ALL TEMPORARY EQUIPMENT WIRING SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. THE CONTRACTOR SHALL PROVIDE DETAILS, METHODS, MATERIALS, ETC. FOR REVIEW PRIOR TO MAKING TEMPORARY CONNECTIONS. FURNISH AND INSTALL ALL EQUIPMENT AND MATERIALS INCLUDING CONTROL EQUIPMENT, MOTOR STARTERS, BRANCH AND FEEDER CIRCUIT BREAKERS, PANELBOARDS, TRANSFORMERS, ETC. FOR TEMPORARY POWER. COORDINATE WITH THE ELECTRICAL UTILITY COMPANY AS REQUIRED.

7. THE WORK SHALL INCLUDE COMPLETE TESTING OF ALL EQUIPMENT AND WIRING AT THE COMPLETION OF WORK AND ANY MINOR CORRECTIONS, CHANGES OR ADJUSTMENTS NECESSARY FOR THE PROPER FUNCTIONING OF THE SYSTEM AND EQUIPMENT.

8. ALL ELECTRICAL EQUIPMENT SHALL, AT ALL TIMES DURING CONSTRUCTION, BE ADEQUATELY PROTECTED AGAINST MECHANICAL INJURY, OR DAMAGE BY WATER AND/OR THE ELEMENTS. ELECTRICAL EQUIPMENT SHALL NOT BE STORED OUT OF DOORS, BUT SHALL BE STORED IN DRY PERMANENT SHELTERS. IF AN APPARATUS HAS BEEN DAMAGED, OR HAS BEEN SUBJECT TO POSSIBLE INJURY BY WATER OR THE ELEMENTS, SUCH DAMAGE SHALL BE REPLACED AT NO ADDITIONAL COST.

9. DO NOT SCALE ELECTRICAL DRAWINGS. REFER TO THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS.

10. CIRCUIT LAYOUTS ARE NOT INTENDED TO SHOW THE NUMBER OF FITTINGS, OR OTHER INSTALLATION DETAILS. UNLESS NOTED OTHERWISE, THE EXACT ROUTING OF FEEDER AND BRANCH CIRCUIT RACEWAYS AND CABLES IS THE RESPONSIBILITY OF THE CONTRACTOR. RISER AND GENERAL CIRCUIT ARRANGEMENTS ARE SHOWN SCHEMATICALLY/DIAGRAMMATICALLY ONLY. THE CONTRACTOR SHALL ROUTE CONDUITS AS REQUIRED BY THE CONDITIONS OF THE INSTALLATION.

11. UNLESS DIMENSIONED, DEVICE LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. ADJUST EXACT LOCATIONS AS REQUIRED TO SERVE THE INTENDED PURPOSE AND TO AVOID CONFLICTS AND INTERFERENCES WITH OTHER TRADES. EXACT DEVICE LOCATIONS SHALL BE AS INDICATED ON THE ARCHITECTURAL DRAWINGS OR AS DIMENSIONED. IF NOT SHOWN ON THE ARCHITECTURAL DRAWINGS OR DIMENSIONED ON THE ELECTRICAL DRAWINGS, VERIFY EXACT LOCATION WITH THE ARCHITECT/ENGINEER PRIOR TO ROUGH-IN.

12. CONDUIT TERMINATING IN PRESSED STEEL BOXES SHALL HAVE DOUBLE LOCKNUTS AND INSULATED BUSHINGS. CONDUITS TERMINATING IN GASKETED ENCLOSURES SHALL BE TERMINATED WITH GROUNDING TYPE CONDUIT HUBS.

13. DEVICE BOXES SHOWN BACK-TO-BACK SHALL BE OFFSET A MINIMUM OF TWELVE (12) INCHES TO REDUCE SOUND TRANSMISSION BETWEEN ROOMS.

14. BRANCH CIRCUIT HOMERUNS SHOWN ON DRAWINGS INDICATE PHASE CONDUCTORS, NEUTRAL, EQUIPMENT GROUND ISOLATED GROUND CONDUCTORS AS REQUIRED. ADDITIONAL CONDUCTORS REQUIRED FOR CONTROL SHALL BE INCLUDED EVEN IF NOT EXPLICITLY SHOWN.

15. SEAL ALL CONDUIT OPENINGS THROUGH EXTERIOR BUILDING WALLS WATERTIGHT.

16. IN WET LOCATIONS AND EXTERIOR, ALL WIRING DEVICES SHALL BE WEATHER-RESISTANT LISTED WITH WEATHERPROOF WHILE IN USE COVER. LIGHTING FIXTURES SHALL BE APPROPRIATELY RATED AND LISTED FOR THE ENVIRONMENT INCLUDING 0 DEGREE BALLASTS FOR FLUORESCENT.

17. RACEWAYS PENETRATING FLOORS, CEILINGS OR WALLS SHALL BE PROPERLY SEALED SMOKETIGHT.

18. RACEWAYS PENETRATING RATED FLOOR, CEILING OR WALL ASSEMBLIES SHALL BE PROPERLY SEALED IN ACCORDANCE WITH THE CORRESPONDING UNDERWRITERS LABORATORIES (OR OTHER APPROVED THIRD PARTY TESTING AGENCY) APPROVED AND LISTED FIRESTOPPING MATERIALS AND MANUFACTURER APPROVED INSTALLATION TECHNIQUES COMPLYING WITH ALL APPLICABLE CODES. SEE ARCHITECTURAL DRAWINGS FOR IDENTIFICATION OF RATED WALLS AND CEILINGS.

19. LIGHTING FIXTURES, SPEAKER ASSEMBLIES, ETC. MOUNTED IN FIRE-RATED CEILINGS SHALL BE PROVIDED WITH UL-LISTED, PRE-FABRICATED OR FIELD FABRICATED SHROUDS/ACCESSORIES NECESSARY TO MAINTAIN THE CEILING FIRE RATING.

20. ALL RACEWAYS SHALL BE CONCEALED WHERE POSSIBLE.

21. INSTALL EXPOSED RACEWAYS PARALLEL TO OR AT RIGHT ANGLES TO NEARBY SURFACES OR STRUCTURAL MEMBERS, AND FOLLOW THE SURFACE CONTOURS AS MUCH AS POSSIBLE. NO DIAGONAL RUNS WILL BE ALLOWED. ALL CONDUITS SHALL BE RUN STRAIGHT AND TRUE. RUN PARALLEL OR BANKED RACEWAYS TOGETHER ON COMMON SUPPORTS WHERE PRACTICAL. MAKE BENDS IN PARALLEL OR BANKED RUNS FROM SAME CENTERLINE TO MAKE BENDS PARALLEL.

22. USE FLUSH MOUNTING OUTLET BOXES IN FINISHED AREAS AND FOR EXTERIOR DEVICES/LIGHT FIXTURES UNLESS NOTED OTHERWISE.

23. PROVIDE AND PLACE ALL SLEEVES FOR CONDUITS PENETRATING WALLS, FLOORS, PARTITIONS, ETC. LOCATE ALL NECESSARY SLOTS FOR ELECTRICAL WORK AND FORM BEFORE CONCRETE IS POURED.

24. PATCHING OF WATERPROOFED SURFACES SHALL RENDER THE AREA OF THE PATCHING COMPLETELY WATERPROOF.

25. ALL MOTORS, DRY TYPE TRANSFORMERS AND OTHER VIBRATING EQUIPMENT SHALL BE CONNECTED TO THE CONDUIT SYSTEM BY MEANS OF A SHORT SECTION (18 INCH MINIMUM) OF FLEXIBLE CONDUIT UNLESS OTHERWISE INDICATED. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED INSIDE THE FLEXIBLE CONDUIT AND TERMINATE AT THE LOAD END WITH AN APPROVED GROUNDING CLAMP OR LUG.

26. SURFACE MOUNTED PANELBOARDS, JUNCTION, OUTLET AND PULL BOXES, RACEWAYS, ETC., INSTALLED ON EXTERIOR SURFACES OR INSIDE ON EXTERIOR WALLS SHALL BE SUPPORTED BY SPACERS TO PROVIDE A 1/4" MINIMUM CLEARANCE BETWEEN THE WALL AND EQUIPMENT.

27. CEILING MOUNTED DEVICES INSTALLED IN ACOUSTICAL TILE CEILING AREAS SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE WITH RODS OF SUFFICIENT SIZE TO PREVENT VERTICAL MOVEMENT OF THE OUTLET BOX. BRIDGES ALONE ARE NOT ADEQUATE UNLESS SPECIFICALLY APPROVED. CEILING MOUNTED EXIT LIGHT FIXTURES SHALL BE INSTALLED LEVEL. DO NOT SUPPORT DEVICES FROM ACCOUSTICAL CEILING TILE.

28. EXCAVATION AND TRENCHING REQUIRED FOR THE INSTALLATION OF ELECTRICAL POWER AND TELECOMMUNICATIONS RACEWAYS SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF DIVISION 26 OF THE PROJECT SPECIFICATIONS.

29. PRIOR TO TRENCHING IN ANY AREA, THE CONTRACTOR SHALL CONTACT ELECTRICAL, COMMUNICATIONS/DATA/FIBER, CABLE TELEVISION, GAS AND WATER UTILITY PROVIDERS AND HAVE ALL UTILITIES IN THE AREA IDENTIFIED. DAMAGE TO ANY UNDERGROUND UTILITIES OR STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.

30. ALL UNDERGROUND RACEWAYS SHALL BE IDENTIFIED BY UNDERGROUND LINE MARKING TAPE LOCATED DIRECTLY ABOVE THE RACEWAY AT 6 TO 8 INCHES BELOW FINISHED GRADE. SEE SPECIFICATIONS SECTION 260553.

31. WHERE UNDERGROUND RACEWAYS ARE REQUIRED TO TURN UP INTO CABINETS, EQUIPMENT, ETC., AND ON TO POLES, THE ELBOW REQUIRED AND THE STUB-UP OUT OF THE SLAB OR EARTH SHALL BE OF PLASTIC-COATED RIGID STEEL.

32. PROVIDE ADHESIVE BACKED RECEPTACLE AND SWITCH/DIMMER/OCCUPANCY SENSOR DEVICE PLATE LABELS IDENTIFYING THE PANEL AND CIRCUIT FEEDING THE DEVICE. LABELS SHALL INDICATE PANEL AND CIRCUIT NUMBER. SEE SPECIFICATIONS SECTION 260553 FOR REQUIREMENTS.

33. FINAL TYPED PANELBOARD DIRECTORIES INSTALLED IN THE PANELBOARD DOOR POCKET SHALL INCLUDE FINAL ACTUAL ROOM NAMES AND NUMBERS IN ADDITION TO THE GENERAL DESCRIPTION SHOWN ON THE PANEL SCHEDULES ON THE DRAWINGS.

34. CONDUCTOR SIZING IS BASED ON 75 DEGREE C. COPPER NEC RATINGS, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL VERIFY, PRIOR TO INSTALLATION OF CONDUCTORS OR CONDUIT FEEDING ANY EQUIPMENT, THE ELECTRICAL EQUIPMENT IS RATED FOR USE WITH 75 DEGREE C. WIRING. IF ANY EQUIPMENT IS RATED FOR USE WITH LESS THAN 75 DEGREE C. CONDUCTORS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY FOR EVALUATION/CORRECTION.

35. DO NOT PULL CONDUCTORS UNTIL THE CONDUIT SYSTEM IS COMPLETE IN EVERY DETAIL. IN THE CASE OF CONCEALED WORK, "COMPLETE" MEANS UNTIL ALL ROUGH PLASTERING OR MASONRY HAS BEEN COMPLETED.

36. WHERE SIZE IS NOT SHOWN ON THE DRAWINGS, BRANCH CIRCUITS SHALL CONSIST OF #12 OR #10 AWG MINIMUM PHASE, NEUTRAL AND EQUIPMENT GROUND CONDUCTORS IN 3/4" MINIMUM RACEWAY.

37. USE #10 AWG CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS WITH A TOTAL INSTALLED LENGTH GREATER THAN 75 FEET AND/OR BRANCH CIRCUIT HOMERUNS LONGER THAN 50 FEET, I.E.; #12 AWG INCREASED TO #10 AWG FOR RECEPTACLE BRANCH CIRCUITS OVER 75 FEET TOTAL LENGTH (INCLUDING THE HOMERUN SEGMENT) AND HOMERUNS OVER 50 FEET.

38. COMMON NEUTRAL MULTIWIRE RECEPTACLE BRANCH CIRCUITS ARE NOT PERMITTED. PROVIDE SEPARATE, INDIVIDUAL NEUTRAL CONDUCTORS FOR MULTIWIRE BRANCH CIRCUITS.

39. KEEP CONDUCTOR SPLICES TO A MINIMUM. INSTALL SPLICES AND TAPES THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATINGS THAN CONDUCTORS BEING SPLICED. USE SPLICE AND TAP CONNECTORS COMPATIBLE WITH CONDUCTOR MATERIAL. INSTALL CONDUCTORS AT EACH OUTLET WITH AT LEAST 12 INCHES OF SLACK. CONNECT OUTLETS AND COMPONENTS TO WIRING AND TO GROUND AS INDICATED AND INSTRUCTED BY THE MANUFACTURER.

40. DO NOT SPLICE BRANCH CIRCUIT HOMERUNS WITHOUT THE PERMISSION OF THE ARCHITECT/ENGINEER. HOMERUNS SHALL BE CONTINUOUS FROM THE LAST OUTLET BOX TO THE SERVING PANELBOARD.

41. DO NOT COMBINE BRANCH CIRCUIT HOMERUNS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS.

42. DO NOT CHANGE CIRCUITING SHOWN WITHOUT PERMISSION OF THE ARCHITECT/ENGINEER.

43. TROUGH TAPS SHALL BE AT SWITCH AMPACITY, UNLESS NOTED OTHERWISE.

44. INSTALL WIRING DEVICES AT HEIGHTS AS SHOWN ON THE DRAWINGS. ALSO COORDINATE MOUNTING HEIGHTS WITH THE ARCHITECTURAL DRAWINGS AND CASEWORK DETAILS. IF CONFLICTING, ARCHITECTURAL DRAWINGS AND DETAILS SHALL GOVERN.

45. PROVIDE GROUND FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL IN ACCORDANCE WITH THE NEC INCLUDING ALL ELECTRIC WATER COOLERS, EXTERIOR RECEPTACLES AND RECEPTACLES IN AREAS SUBJECT TO POSSIBLE WET CONDITIONS. ALL RECEPTACLES INSTALLED WITHIN 6 FEET OF A SINK SHALL BE GFI PROTECTED.

46. CONNECT BATTERY PACK TYPE EMERGENCY AND EXIT LIGHTING TO THE UNSWITCHED LIGHTING CIRCUIT SERVING THE SPACE LIGHTED BY THE EMERGENCY AND EXIT FIXTURES. THESE CONNECTIONS ARE INTENTIONALLY NOT SHOWN TO MAINTAIN DRAWING FOR CLARITY.

47. COORDINATE LIGHTING FIXTURE LOCATIONS WITH THE ARCHITECTURAL REFLECTED CEILING PLAN. IF CONFLICTS ARE NOTED, REQUEST CLARIFICATION FROM THE ARCHITECT/ENGINEER BEFORE PROCEEDING.

48. ADJACENT SWITCHES SHALL BE GANGED. INSTALL BARRIERS BETWEEN UNLIKE VOLTAGE SECTIONS.

49. SEPARATE NEUTRALS ARE REQUIRED FOR ALL DIMMED LIGHTING CIRCUITS.

50. WHERE THE DRAWINGS INDICATE A LIGHTING FIXTURE IS TO BE PROVIDED WITH SPECIAL FEATURES/SWITCHING (DIMMING, EMERGENCY BATTERY BALLAST, MULTI-LEVEL, ETC), THE CONTRACTOR SHALL PROVIDE THESE FIXTURES WITH THE APPROPRIATE BALLASTING TO ACCOMMODATE THE SPECIAL FEATURE. THE CONTRACTOR SHALL PROVIDE THE FIXTURES AS INDICATED IN THE LIGHTING FIXTURE SCHEDULE WITH MODIFICATIONS AS REQUIRED BY DRAWING NOTES.

51. COORDINATE LOCATIONS OF PLUMBING, MECHANICAL, DATA AND TELEPHONE AND AUDIO/VISUAL EQUIPMENT AND OF OWNER-PROVIDED EQUIPMENT WITH THE RESPECTIVE CONTRACTORS AND VENDORS AND THE OWNER BEFORE ROUGH-IN. ADJUST LIGHTING FIXTURES, RECEPTACLES AND ELECTRICAL EQUIPMENT TO ACCOMMODATE THIS EQUIPMENT. ADVISE THE ARCHITECT/ENGINEER OF CONFLICTS BEFORE ROUGH-IN

52. BEFORE COMMENCING WORK OR ORDERING MATERIALS, THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES AND VERIFY THE NAMEPLATE RATINGS OF ALL EQUIPMENT (MOTORS, HEATERS, COMPRESSORS, ETC.) AND ADJUST THE RATINGS OF THE ELECTRICAL EQUIPMENT (SWITCHES, FUSES, CIRCUIT BREAKERS, FEEDERS, ETC.) AS APPROPRIATE TO SERVE THIS EQUIPMENT.

53. UNLESS SPECIFICALLY NOTED OTHERWISE, THE CONTRACTOR PROVIDING THE EQUIPMENT SHALL MAKE FINAL CONNECTIONS TO HIS EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL, PLUMBING AND GENERAL CONTRACTORS, PRIOR TO ORDERING OR INSTALLATION OF ANY EQUIPMENT, TO VERIFY MECHANICAL, PLUMBING AND GENERAL CONTRACTOR PROVIDED EQUIPMENT REQUIREMENTS ARE PROVIDED IN THE ELECTRICAL DESIGN. IF ELECTRICAL REQUIREMENTS DIFFER FROM THOSE SHOWN ON THE DRAWINGS, THE CONTRACTOR PROVIDING THE EQUIPMENT SHALL BE RESPONSIBLE FOR DESIGN AND CONSTRUCTION COSTS ASSOCIATED WITH CHANGING THE ELECTRICAL SYSTEM TO MATCH UTILIZATION EQUIPMENT.

54. THE MECHANICAL AND PLUMBING CONTRACTORS SHALL FURNISH ALL STARTERS AND CONTROLS FOR THEIR EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE SAFETY SWITCHES AND CIRCUIT BREAKERS AND PROVIDE WIRING AND CONNECTIONS TO THE LINE SIDE OF SAFETY SWITCHES AND/OR CIRCUIT BREAKERS. THE CONTRACTOR PROVIDING THE EQUIPMENT SHALL PROVIDE LOAD SIDE WIRING AND CONNECTIONS TO EQUIPMENT. THE MECHANICAL AND PLUMBING CONTRACTORS SHALL PROVIDE ALL CONTROL WIRING AND CONNECTIONS AND DEVICES FOR THEIR EQUIPMENT.

55. ENERGIZE EQUIPMENT ONLY AFTER OBTAINING PERMISSION FROM THE CONTRACTOR PROVIDING THE EQUIPMENT.

56. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL EQUIPMENT TERMINATIONS, PLUGS AND CORDSETS WITH VENDOR EQUIPMENT AND VERIFY ALL DEVICE LOCATIONS FOR SPECIALITY EQUIPMENT WITH CASEWORK PRIOR TO ROUGH-IN.

57. THE LAYOUT AND PLACEMENT OF ELECTRICAL DISTRIBUTION EQUIPMENT IN ELECTRICAL AND MECHANICAL EQUIPMENT ROOMS IS BASED ON PUBLISHED EQUIPMENT SIZES AND SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. DEVIATIONS FROM CONFIGURATIONS SHOWN IS THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE NATIONAL ELECTRIC CODE REQUIRED CLEARANCES FOR ALL ELECTRICAL EQUIPMENT, PANELBOARDS, TRANSFORMERS, SAFETY SWITCHES, SWITCHBOARDS, ETC. COORDINATE RESOLUTION OF CONFLICTS WITH OTHER TRADES. ADVISE THE ARCHITECT/ENGINEER OF CONFLICTS BEFORE ROUGH-IN.

58. COORDINATION WITH THE UTILITY COMPANY FOR PLACEMENT OF THE UTILITY'S FACILITIES AND THE CONTRACTOR'S SERVICE ENTRANCE RACEWAYS AND CONNECTIONS TO THE CONTRACTOR'S SERVICE ENTRANCE CONDUCTORS IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

59. TELECOMMUNICATIONS AND DATA CABLES WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. LEAVE PULL WIRES OR ROPES OF ADEQUATE TENSILE STRENGTH IN ALL EMPTY CONDUITS.

60. EXACT SPACING OF SMOKE AND HEAT DETECTORS AND A/V DEVICES SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE WITH POSITIONS SHOWN ON THE DRAWINGS. DETECTOR SPACING IS BASED UPON NFPA 72 INCLUDING APPENDIX A. SLIGHT ADJUSTMENTS MAY BE MADE IN SPACING IF REQUIRED BY FIELD CONDITIONS, BUT SPACING SHALL NOT EXCEED ADA, NFPA AND EQUIPMENT MANUFACTURERS SPACING CRITERIA. DO NOT INSTALL SMOKE DETECTORS WITHIN 3 FEET OF SUPPLY AIR DIFFUSERS OR RETURN GRILLES. PROVIDE FLEX CONDUIT CONNECTION TO SMOKE AND HEAT DETECTORS OF ADEQUATE LENGTH TO ALLOW HORIZONTAL ADJUSTMENT OF FOUR FEET FROM POSITION INDICATED ON DRAWINGS.

61. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FIRE ALARM WORK ON THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO PUTTING SYSTEM ON TEST, PROTECTING DEVICES DURING CONSTRUCTION, ETC.

62. INSTALLATION INFORMATION PACKED WITH LIGHTING FIXTURES, DEVICES AND EQUIPMENT SHALL BE RETAINED FOR INCLUSION IN THE OPERATIONS AND MAINTENANCE MANUALS.

63. SAFETY: COMPLY WITH OSHA AND NEC ARC FLASH PROTECTION REQUIREMENTS.

64. ALL SWITCHES, RECEPTACLE AND LIGHTS SHALL COMPLY WITH ANSI 117.2 FOR ADA REQUIREMENTS.

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12/19/2024

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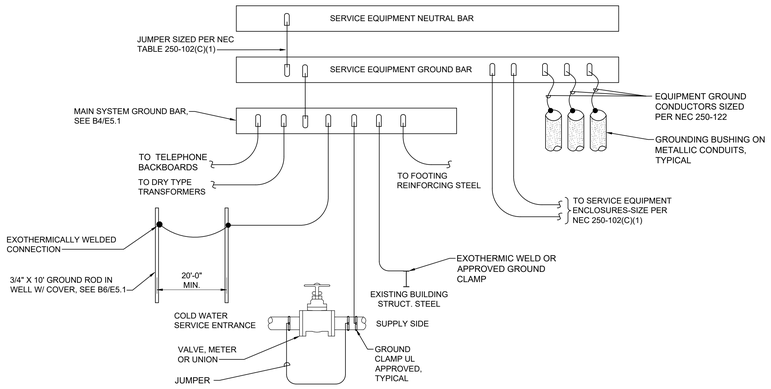
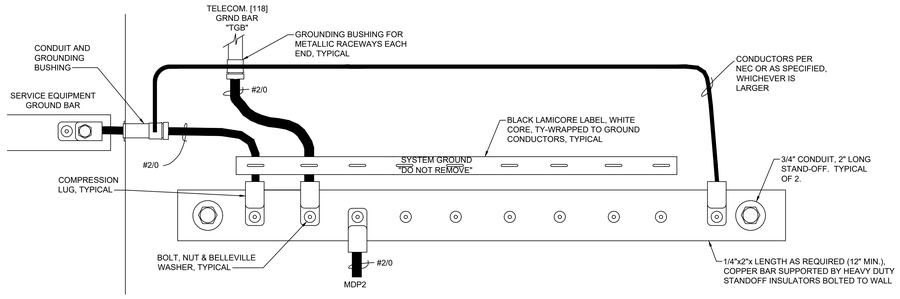
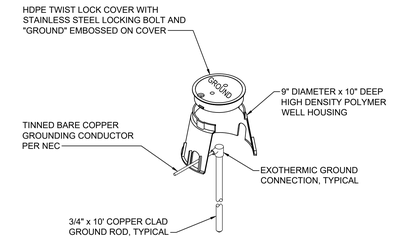
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023311 ALLEN GRUBB
12/19/2024



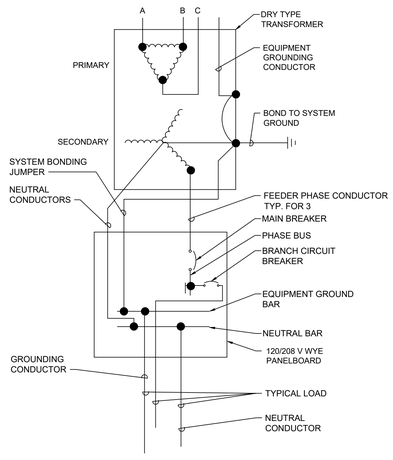
B1 SERVICE GROUNDING DETAIL
NOT TO SCALE



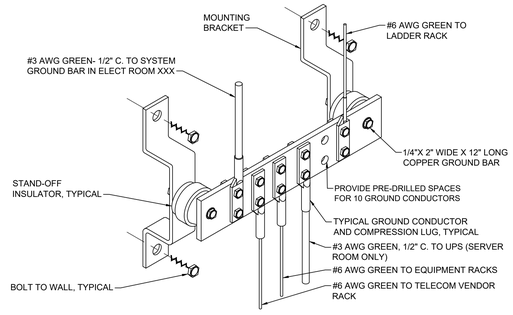
B4 EQUIPMENT GROUND "EGB" BAR DETAIL EGB
NOT TO SCALE



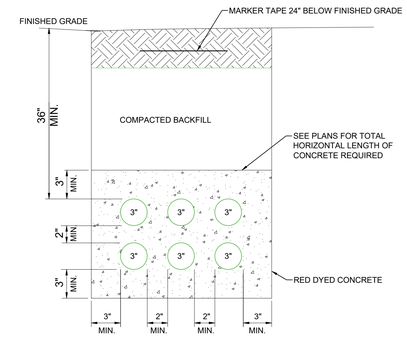
B5 GROUNDING INSPECTION WELL DETAIL
NOT TO SCALE



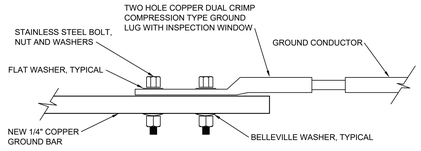
D1 3 PHASE TRANSFORMER GROUNDING DETAIL
NOT TO SCALE



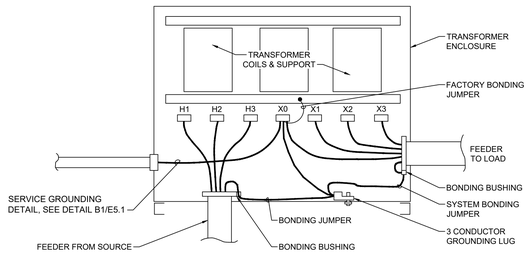
C3 TELECOMMUNICATIONS GROUND BAR DETAIL
NOT TO SCALE



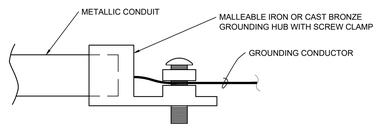
C5 CONCRETE ENCASED DUCTBANK SECTION
NOT TO SCALE



D3 TYPICAL GROUND BAR CONNECTION DETAIL
NOT TO SCALE



E1 TRANSFORMER GROUNDING DETAIL
NOT TO SCALE



NOTE: INSTALL AT EACH END OF RACEWAY

E3 CONDUIT HUB AND GROUNDING CONDUCTOR DETAIL
NOT TO SCALE

James Sprunt Community College - Workforce Development Building
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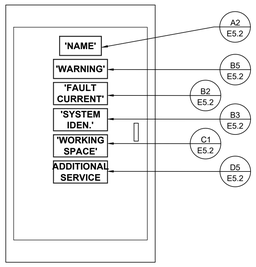
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager: WAC	Drawn By: HGH
Date: 12-18-2024	Reviewed By: WAC
Project ID: CBHF: 22093	

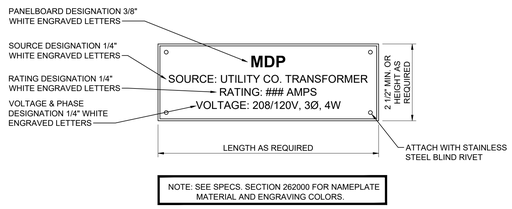
Sheet Title: ELECTRICAL DETAILS

Sheet No.: E5.1



A1 REQUIRED MDP NAMEPLATE & LABELS DETAIL

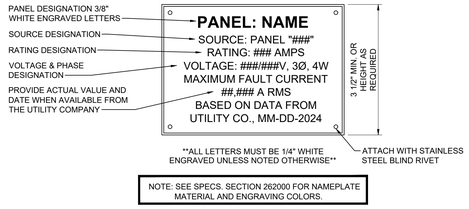
NOT TO SCALE



NOTE: SEE SPECS. SECTION 262000 FOR NAMEPLATE MATERIAL AND ENGRAVING COLORS.

A2 MDP NAMEPLATE DETAIL

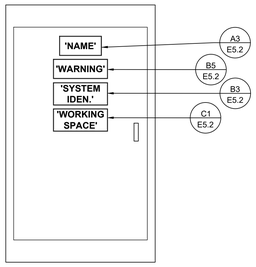
NOT TO SCALE



NOTE: SEE SPECS. SECTION 262000 FOR NAMEPLATE MATERIAL AND ENGRAVING COLORS.

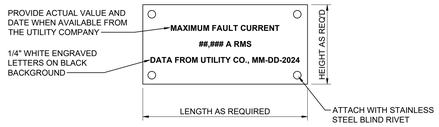
A3 TYPICAL PANELBOARD NAMEPLATE DETAIL

NOT TO SCALE



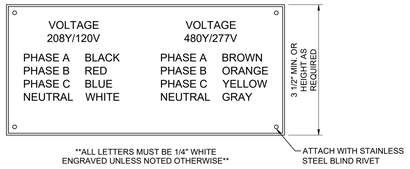
B1 REQUIRED PANELBOAD NAMEPLATE & LABELS DETAIL

NOT TO SCALE



B2 FAULT CURRENT NAMEPLATE DETAIL

NOT TO SCALE



B3 SYSTEM IDENTIFICATION LABEL

NOT TO SCALE

NOTES:

1. PROVIDE SELF-ADHESIVE VINYL LABEL TO AFFIX TO ELECTRICAL EQUIPMENT TO WARN OF ARC FLASH HAZARDS.
2. THE LABEL FORMAT AND TEXT SHALL BE IN ACCORDANCE WITH THE FIGURE.
3. THE LABEL SHALL BE LOCATED ON THE EQUIPMENT TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.
4. THE SIZE OF THE LABEL SHALL BE MINIMUM:

EQUIPMENT TYPE	HEIGHT	WIDTH
INDOOR	2"	3"
OUTDOOR	3"	4.5"

5. A DOWNLOADABLE WINDOWS METAFILE IS AVAILABLE ON THE WHOLE BUILDING DESIGN GUIDE WEBSITE (WWW.WBDG.ORG) FOR USE IN A LABEL MAKING MACHINE.
   A. THE FILE IS LOCATED ON THE "NAVFAC CADD DETAILS" PAGE. TO NAVIGATE TO THIS LOCATION, FOLLOW: HOME > DOCUMENTS & REFERENCES > CCB > CADD LIBRARY > NAVFAC CADD RESOURCES > NAVFAC CADD DETAILS.
   B. ALTERNATIVELY, TYPE IN THE FOLLOWING ADDRESS IN INTERNET EXPLORER: HTTP://WWW.WBDG.ORG/CCB/BROWSE_CAT.PHP?C=232

B5 ELECTRICAL EQUIPMENT WARNING LABEL DETAIL

NOT TO SCALE

C1 NEC WORKING SPACE LABEL DETAIL

NOT TO SCALE

NOTE: SEE SPECS. SECTION 262000 FOR NAMEPLATE MATERIAL AND ENGRAVING COLORS.

C2 TRANSFORMER NAMEPLATE DETAIL

NOT TO SCALE

C3 TYPICAL DISCONNECT NAMEPLATE DETAIL

NOT TO SCALE

NOTE: SEE SPECS. SECTION 260000 FOR NAMEPLATE MATERIAL AND ENGRAVING COLORS.

C5 TYPICAL EQUIPMENT NAMEPLATE DETAIL

NOT TO SCALE

TABLE 110.26(A)(1) - WORKING SPACES

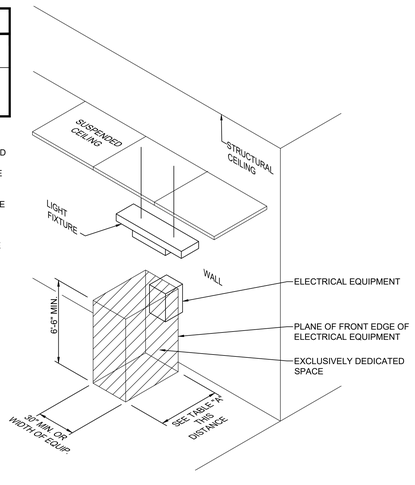
NOMINAL VOLTAGE TO GROUND	MINIMUM CLEAR DISTANCE (FEET)		
	CONDITION 1	CONDITION 2	CONDITION 3
0 - 150	900mm (3 ft)	900mm (3 ft)	900mm (3 ft)
151 - 600	900mm (3 ft)	1.0m (3 ft 6 in.)	1.2 m (4 ft.)
601 - 1000	900mm (3 ft)	1.2 m (4 ft.)	1.5 m (5 ft.)

NOTE: WHERE THE "CONDITIONS" ARE AS FOLLOWS:

CONDITION 1 - EXPOSED LIVE PARTS ON ONE SIDE OF WORKING SPACE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE THAT ARE EFFECTIVELY GUARDED BY INSULATING MATERIALS.

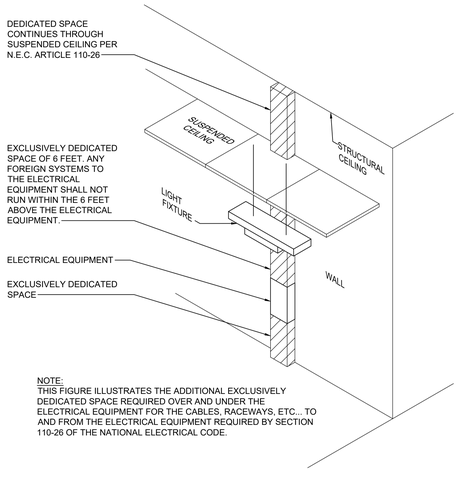
CONDITION 2 - EXPOSED LIVE PARTS ON ONE SIDE OF THE WORKING SPACE AND GROUNDED PARTS ON THE OTHER SIDE OF WORKING SPACE. CONCRETE BRICK, OR TILE WALLS SHALL BE CONSIDERED GROUNDED.

CONDITION 3 - EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE



E1 WORKING CLEARANCE FOR ELECTRICAL

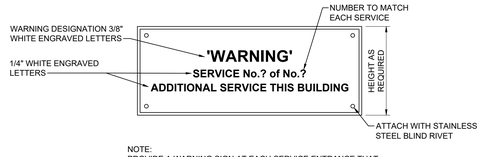
NOT TO SCALE



NOTE:
THIS FIGURE ILLUSTRATES THE ADDITIONAL EXCLUSIVELY DEDICATED SPACE REQUIRED OVER AND UNDER THE ELECTRICAL EQUIPMENT FOR THE CABLES, RACEWAYS, ETC... TO AND FROM THE ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110-26 OF THE NATIONAL ELECTRICAL CODE.

E3 DEDICATED SPACE FOR ELECTRICAL

NOT TO SCALE



NOTE:
PROVIDE A WARNING SIGN AT EACH SERVICE ENTRANCE THAT INDICATES AN ADDITIONAL SERVICE AT INDICATED LOCATION. THE SIGNS SHALL BE 1/2" WIDER THAN TEXT WIDTH AND HEIGHT (RED FACE). LETTERS ARE TO BE WHITE WITH SIZES AS INDICATED. LABEL PER NEC 230.2(E)

D5 WARNING LABEL DETAIL (TYPICAL EACH SERVICE)

NOT TO SCALE

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NC# P-0506

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SCO ID# 22-24540-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023111 ALLEN ORR
12/19/2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

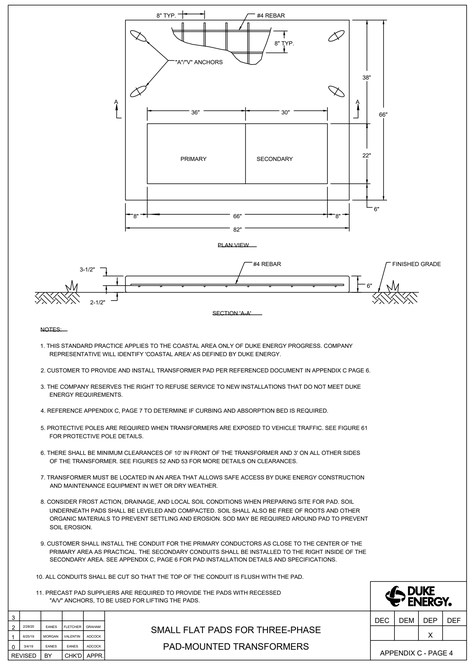
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

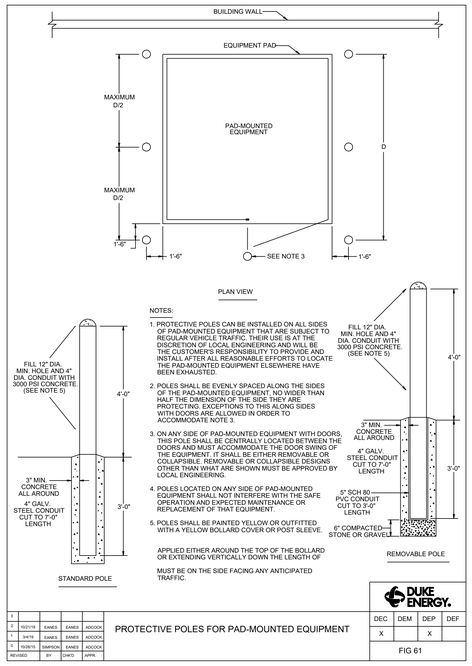
Project Manager: WAC	Drawn By: HGH
Date: 12-18-2024	Reviewed By: WAC
Project ID: CBHF: 22093	

Sheet Title: ELECTRICAL DETAILS

Sheet No.: E5.2



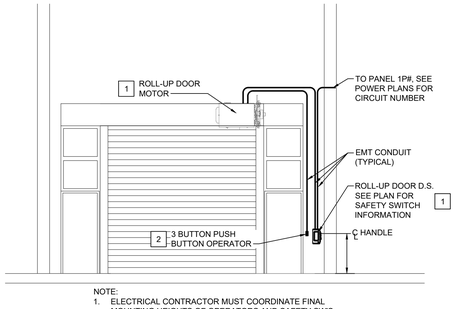
C1 **DUKE ENERGY SMALL FLAT PAD DETAIL**
NOT TO SCALE



C2 **DUKE ENERGY TRANSFORMER BOLLARD DETAIL**
NOT TO SCALE

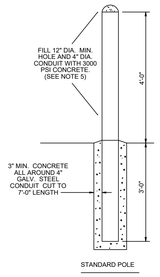
ROLL-UP DOOR KEYED NOTES

1. ROLL-UP DOOR'S: THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE LATEST DRAWINGS FOR PURCHASED EQUIPMENT FROM THE ROLL UP DOOR PROVIDER. THE ELECTRICAL CONTRACTOR MUST COORDINATE ALL EQUIPMENT VOLTAGES, RECOMMENDED BREAKER RATINGS, CONDUIT, CABLE AND CONDUCTOR INSTALLATION REQUIREMENTS FOR THIS PROJECT. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING ALL EQUIPMENT REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. NOTIFY THE ARCHITECT / ENGINEER IF ANYTHING THE EQUIPMENT DIFFERS FROM THE INFORMATION PROVIDED IN THIS DESIGN.
2. 3 BUTTON PUSH BUTTON STATION PROVIDED BY ROLL UP DOOR VENDOR INSTALLED BY E.C.



NOTE:
1. ELECTRICAL CONTRACTOR MUST COORDINATE FINAL MOUNTING HEIGHTS OF OPERATORS AND SAFETY SW'S WITH OWNER PRIOR TO ROUGH-IN AND INSTALLATION.

E1 **ROLL-UP DOOR DETAIL**
NOT TO SCALE



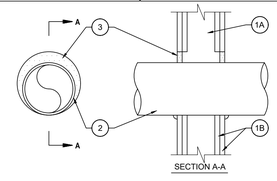
NOTES:
1. PROTECTIVE POLES CAN BE INSTALLED IN FRONT OF EQUIPMENT THAT ARE SUBJECT TO EXTERNAL DAMAGE.
2. POLES SHALL BE SPACED AS INDICATED ABOVE.
3. POLES SHALL BE PAINTED YELLOW OR OUTFITTED WITH A YELLOW BOLLARD COVER OR POST SLEEVE. PAINT MUST BE APPLIED EITHER AROUND THE TOP OF THE BOLLARD OR EXTENDING VERTICALLY DOWN THE LENGTH OF THE BOLLARD. PAINT MUST BE ON THE SIDE FACING ANY ANTICIPATED TRAFFIC. PAINT MUST BE ON THE SIDE FACING ANY ANTICIPATED TRAFFIC.

STANDARD POLE

B5 **EQUIPMENT BOLLARD DETAIL**
NOT TO SCALE

System No. W-L-1054
January 21, 2020

ANSI / UL1479 (ASTM E814)	CAN / ULC S115
F Ratings - 1 and 2 Hr (See Items 1 & 3)	F Ratings - 1 and 2 Hr (See Items 1 & 3)
T Ratings - 0 Hr	FT Ratings - 0 Hr
L Ratings at Ambient - Less Than 1 CFM / sq ft	FH Ratings - 1and 2 HR (See Items 1 and 3)
L Ratings at 400 F - Less Than 1 CFM / sq ft	FTH Ratings - 0 Hr
	FTH Ratings - 0 Hr L Rating at Ambient - Less Than 1 CFM / sq ft
	L Ratings at 400 F - Less Than 1 CFM / sq ft



SECTION A-A

1. WALL ASSEMBLY — THE 1 OR 2 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. STUDS — WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER SPACED 16 IN. (406 MM) OC. STEEL STUDS TO BE MIN 2-1/2 IN. (64 MM) WIDE AND SPACED MAX 24 IN. (610 MM) OC. FOR M RATING, STEEL STUDS TO BE MIN 3-5/8 IN. (92 MM) WIDE. WHEN STEEL STUDS ARE USED AND THE DIAM OF OPENING EXCEEDS THE WIDTH OF STUD CAVITY, THE OPENING SHALL BE FRAMED ON ALL SIDES USING LENGTHS OF STEEL STUD INSTALLED BETWEEN THE VERTICAL STUDS AND SCREW-ATTACHED TO THE STEEL STUDS AT EACH END. THE FRAMED OPENING IN THE WALL SHALL BE 4 TO 6 IN. (102 TO 152 MM) WIDER AND 4 TO 6 IN. (102 TO 152 MM) HIGHER THAN THE DIAM OF THE PENETRATING ITEM SUCH THAT, WHEN THE PENETRATING ITEM IS INSTALLED IN THE OPENING, A 2 TO 3 IN. (51 TO 76 MM) CLEARANCE IS PRESENT BETWEEN THE PENETRATING ITEM AND THE FRAMING ON ALL FOUR SIDES.
   B. GYPSUM BOARD* — 5/8 IN. (16 MM) THICK, 4 FT (122 CM) WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 32-1/4 IN. (819 MM) FOR STEEL STUD WALLS. MAX DIAM OF OPENING IS 14-1/2 IN. (368 MM) FOR WOOD STUD WALLS. THE F AND FH RATINGS OF THE FIRESTOP SYSTEM ARE EQUAL TO THE FIRE RATING OF THE WALL ASSEMBLY. THE M RATING IS APPLICABLE ONLY TO 1 HR RATED WALLS.
2. THROUGH-PENETRANTS — ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE SHALL BE MIN 0 IN. TO MAX 2-1/4 IN. (57 MM). PIPE MAY BE INSTALLED WITH CONTINUOUS POINT CONTACT. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
   A. STEEL PIPE — NOM 30 IN. (762 MM) DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE — NOM 30 IN. (762 MM) DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
   C. CONDUIT — NOM 4 IN. (102 MM) DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR 6 IN. (152 MM) . DIAM STEEL CONDUIT.
   D. COPPER TUBING — NOM 6 IN. (152 MM) DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
   E. COPPER PIPE — NOM 6 IN. (152 MM) DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
3. FILL, VOID OR CAVITY MATERIAL* — SEALANT — MIN 5/8 IN. (16 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. AT THE POINT OR CONTINUOUS CONTACT LOCATIONS BETWEEN PIPE AND WALL, A MIN 1/2 IN. (13 MM) DIAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE PIPE WALL INTERFACE ON BOTH SURFACES OF WALL.

Movement Direction	Penetrant Item	Nominal Penetrant Diameter	Annular Space	Movement	Sealant Depth	F-Rating	L Rating with Movement
Y	2A, 2C*	2 in.	Max 2-1/4 in.	5%	5/8 in.	1 hr	N/A
Z	2A, 2C*	2 in.	2-1/4 in.	0.25 in.	5/8 in.	1 hr	N/A

* INDICATES SUCH PRODUCTS SHALL BEAR THE UL OR CUL CERTIFICATION MARK FOR JURISDICTIONS EMPLOYING THE UL OR CUL CERTIFICATION

E5 **1 AND 2 HOUR FIREWALL PENETRATION DETAIL**
NOT TO SCALE

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SCO ID# 22-24540-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023311 ALLEN CRABB
12/19/2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

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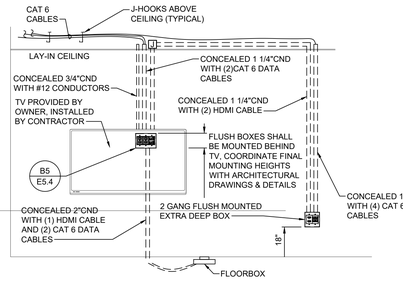
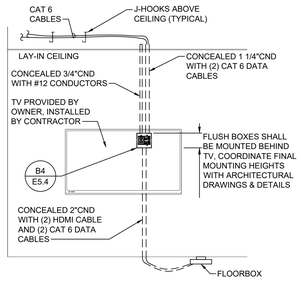
Date: 12-18-2024 | Reviewed By: WAC
Project ID: CBHF: 22093

Sheet Title: ELECTRICAL DETAILS

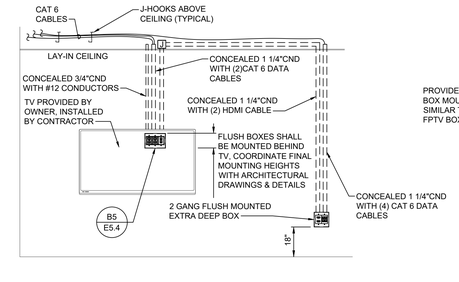
Sheet No.: E5.3



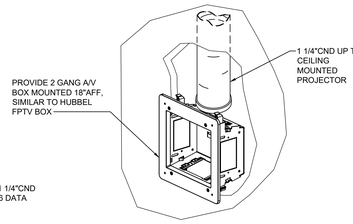
B1 SMARTBOARD-1 OUTLET DETAIL (TV-1)
NOT TO SCALE



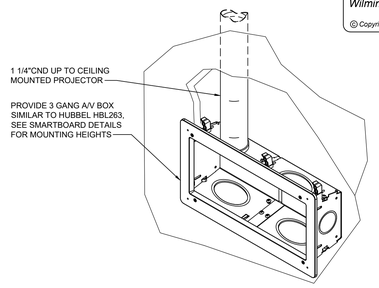
B2 SMARTBOARD-2 OUTLET DETAIL (TV-2)
NOT TO SCALE



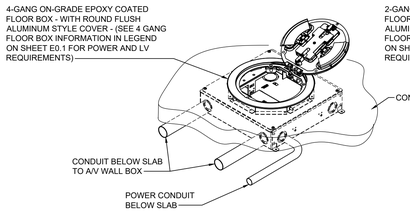
B3 SMARTBOARD-3 OUTLET DETAIL (TV-3)
NOT TO SCALE



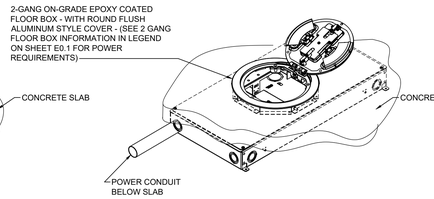
B4 A/V WALL BOX DETAIL
NOT TO SCALE



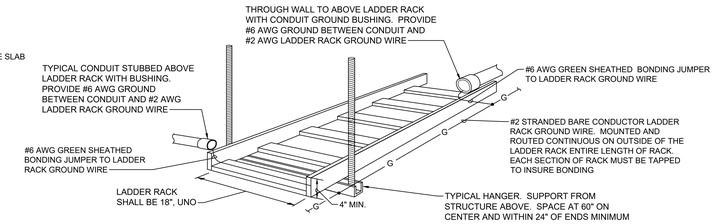
B5 A/V WALL BOX DETAIL
NOT TO SCALE



C1 FLOOR BOX DETAIL (FB1 & FB2)
NOT TO SCALE

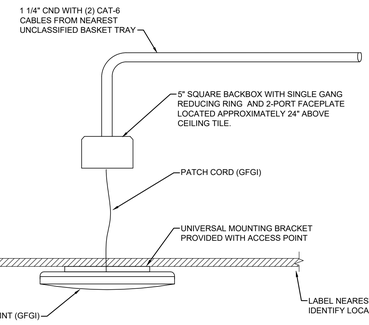


C2 FLOOR BOX DETAIL (FB3)
NOT TO SCALE

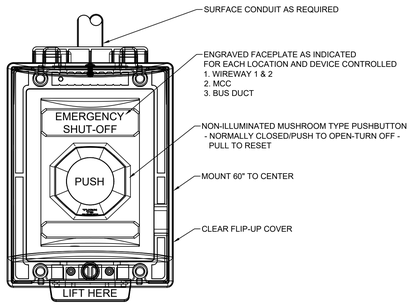


NOTES:
1. CONTRACTOR SHALL PROVIDE PATHWAY FOR ALL LISTED SYSTEMS CABLING TRAY MUST COMPLY WITH UFC 3-580-1 FOR LADDER RACK FILL REQUIREMENTS. IN NO CASE MAY THE LADDER RACK BE LESS THAN THE STATED MINIMUM SIZE
2. MOUNT LADDER RACK AT A MINIMUM OF 12" BELOW MECHANICAL DUCT WORK BUT AS HIGH AS POSSIBLE TO AVOID TAMPERING
3. TYPICAL MOUNTING METHOD

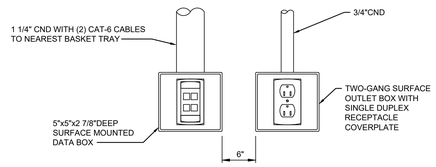
C3 LADDER TRAY BONDING DETAIL
NOT TO SCALE



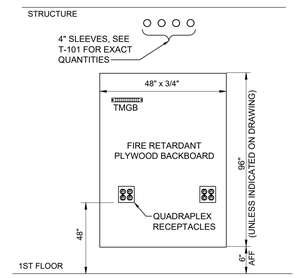
C5 TYPICAL CEILING MOUNTED INDOOR WIRELESS ACCESS POINT
NOT TO SCALE



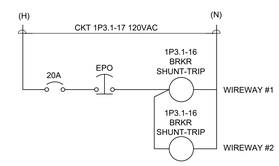
D1 EMERGENCY POWER OFF "EPO" BUTTON DETAIL
NOT TO SCALE



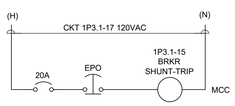
D3 DATA/RECEPTACLE MOUNTING DETAIL ( )
NOT TO SCALE



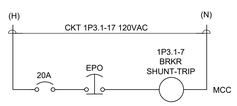
D5 TELECOM RM BACKBOARD DETAIL
NOT TO SCALE



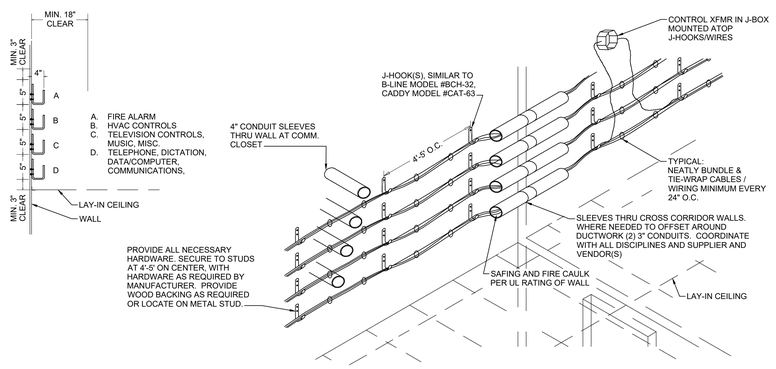
E1 WIREWAY #1 & #2 EMERGENCY POWER OFF "EPO" BUTTON WIRING DIAGRAM
NOT TO SCALE



E2 MCC EMERGENCY POWER OFF "EPO" BUTTON WIRING DIAGRAM
NOT TO SCALE



E3 BUS DUCT EMERGENCY POWER OFF "EPO" BUTTON WIRING DIAGRAM
NOT TO SCALE



E5 LOW VOLTAGE WIRE MANAGEMENT DETAIL
NOT TO SCALE

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SCO ID# 22-24540-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023311 ALLEN CRUBB
12/19/2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

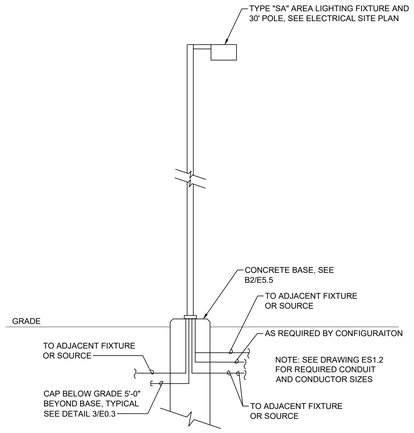
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

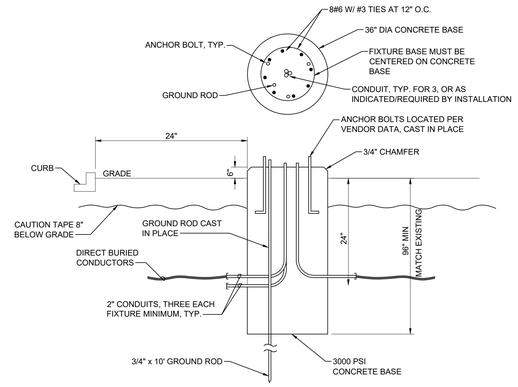
Project Manager	Drawn By
WAC	HGH
Date	Reviewed By
12-18-2024	WAC
Project ID	CBHF: 22093

Sheet Title
ELECTRICAL DETAILS

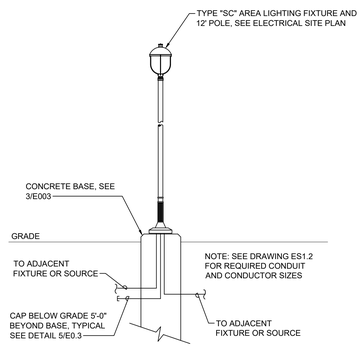
Sheet No.
E5.4



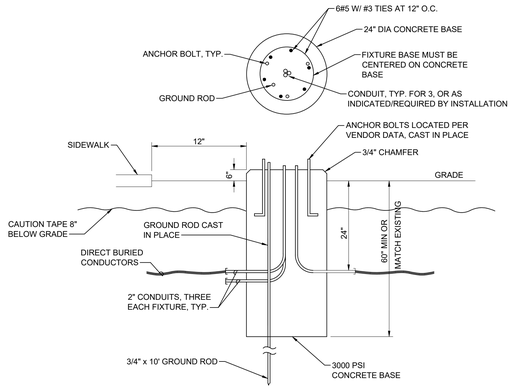
B1 **TYPE "SA" AND "SA1" AREA LIGHTING FIXTURE DETAIL**
NOT TO SCALE



B2 **TYPE "SA" AND "SA1" AREA LIGHTING FIXTURE CONCRETE BASE DETAIL**
NOT TO SCALE



D1 **TYPE "SC" WALKWAY LIGHTING FIXTURE DETAIL**
NOT TO SCALE



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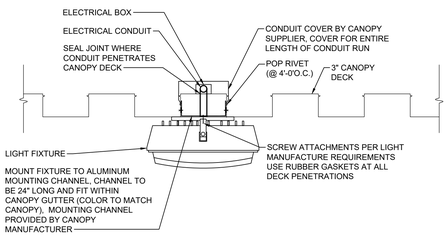
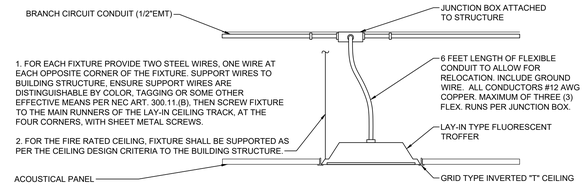
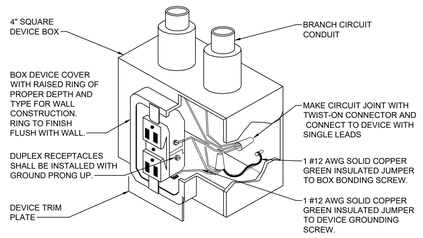


E1 **TYPE K AND KE FIXTURE MOUNTING DETAIL**
NOT TO SCALE



A1 **LIGHTING FIXTURE MOUNTING DETAIL**
NOT TO SCALE

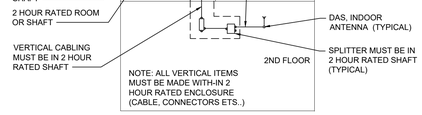


B1 **RECEPTACLE GROUNDING DETAIL**
NOT TO SCALE

FIRST RESPONDERS INSTALLATION NOTES

1. ALL WIRING SHALL BE IN ACCORDANCE WITH LOCAL AND NATIONAL CODES, INCLUDING NFPA 72 (2013 EDITION) AND NEC.
2. A FIRST RESPONDERS SYSTEM IS AN EMERGENCY RESPONDER RADIO ENHANCED SYSTEM IN COMPLIANCE WITH THE NC FIRE CODE, SECTION 510.
3. WHERE REQUIRED, WIRING SHALL BE RUN IN MINIMUM 3/4" CONDUIT. SURFACE METAL RACEWAY IS ACCEPTABLE.
4. PLENUM RATED COAXIAL CABLE WITHOUT CONDUIT, MAY BE ACCEPTABLE FOR HORIZONTAL RUNS IN AREAS OTHER THAN WHERE WATERPROOF DEVICES ARE REQUIRED. HOWEVER, CONDUIT SHALL BE USED TO PENETRATIONS IN RATED WALLS SHALL BE MADE IN CONDUIT PER APPROPRIATE U.L. SYSTEM.
5. MANUFACTURER'S 1/2" COAXIAL CABLE SHALL BE USED FOR THE FIRST RESPONDERS SYSTEM, DUE TO ITS LOW OHM LOSS PROPERTIES.
6. THE DIRECTIONAL DONOR ANTENNA ON THE ROOF SHALL BE TIED INTO THE BUILDING GROUNDING SYSTEM.
7. ALL CABLES USED FOR FIRST RESPONDERS SHALL BE GROUNDED TO THE BUILDING GROUNDING SYSTEM.
8. THE CABLE BETWEEN THE DONOR ANTENNA AND THE AMPLIFIER MAY BE RUN TO THE ROOF, BUT IT MUST BE IN CONDUIT.
9. A LIGHTNING ARRESTOR SHALL BE INSTALLED ON THE ANTENNA.
10. THE CABLE FROM THE DONOR ANTENNA TO THE AMPLIFIER SHALL BE SEPARATED FROM THE RISER CABLE FROM THE FIRST RESPONDERS SYSTEM TO THE INDOOR ANTENNA, THIS REQUIREMENT APPLIES TO THE RISER.
    - IF BOTH CABLES ARE NOT IN CONDUIT, THE MINIMUM SEPARATION SHALL BE SIX (6) FEET.
    - IF AT LEAST ONE CABLE IS IN CONDUIT, THE MINIMUM SEPARATION SHALL BE THREE (3) FEET.
    - THESE CABLES ARE ALLOWED TO CROSS A MAXIMUM OF ONE TIME.
11. THE FIRST RESPONDERS AMPLIFIER ENCLOSURE SHALL BE INSTALLED ON METAL STRUT CHANNEL (TO ALLOW AIRFLOW). SEE INSTALLATION DIAGRAM.
12. THE FIRST RESPONDERS AMPLIFIER AND BATTERY ENCLOSURES SHALL BE GROUNDED TO THE BUILDING GROUNDING SYSTEM UTILIZING A SHORT, DIRECT PATH WITH THE MINIMUM NUMBER OF BENDS (GROUNDING CABLES SHALL NOT REVERSE DIRECTION WHEN CONNECTING TO TERMINATION POINTS.)
13. A.C. WIRES SHALL BE RUN IN SEPARATE CONDUIT FROM D.C. WIRING, SUCH THAT A SYSTEM ALARM DOES NOT DE-ENERGIZE THE CONTROL PANEL. MINIMUM SIZE WIRE TO BE AWG 12 THHN. PROTECTION AGAINST VOLTAGE TRANSIENTS AND SURGES SHALL BE INSTALLED AT THE ELECTRICAL PANELBOARD AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
    - PRIMARY AC POWER TO THE FIRST RESPONDERS AMPLIFIER SHALL BE DEDICATED CIRCUIT.
    - REDUNDANT AC POWER TO THE FIRST RESPONDERS AMPLIFIER SHALL BE A 120VAC CIRCUIT. (PROVIDING A SECOND (REDUNDANT) POWER CIRCUIT IS PER THE MANUFACTURERS RECOMMENDED PRACTICE.)
    - CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED BY THE SYSTEM TYPE: i.e. "EMERGENCY COMMUNICATION SYSTEM" (ECS)
14. CONDUIT FOR THE DONOR (ROOF) ANTENNA AND FOR THE RISER COAXIAL CABLE SHALL BE PARALLEL TO THE FIRST RESPONDERS ENCLOSURE. THESE CONDUITS SHALL TERMINATE WITH A BUSHING WITHIN TWO (2) FEET OF THE BOTTOM OF THE ENCLOSURE. THE FIRST RESPONDERS INSTALLER SHALL MAKE THE CONNECTION PROVIDED, PRE-WIRED 1/4" FLEX CABLE FROM THE FIRST RESPONDERS SYSTEM.
15. INSTALLATION REQUIREMENTS TO COMPLY WITH NFPA 72, SECTION 24.3.6.8:
    - THE RISER COAXIAL CABLE SHALL BE INSTALLED IN A 2 HOUR RATED ENCLOSURE OR SHAFT. (2 HOUR RATED COAXIAL CABLE IS NOT AVAILABLE AT THE CORRECT LOW OHM LOSS RATING.)
    - THE SPLITTER CONNECTIONS BETWEEN THE RISER CABLE AND THE HORIZONTAL FEEDER CABLE SHALL ALSO BE MADE WITH A 2 HOUR RATED ENCLOSURE. THE FEEDER CABLE PASSAGE THROUGH THAT 2 HOUR ENCLOSURE SHALL BE FIRE STOPPED WITH THE APPROPRIATE U.L. SYSTEM.
    - ALL FEEDER CABLES SHALL BE PLENUM RATED AT A MINIMUM. (FEEDER CABLES ARE THE HORIZONTAL RUNS TO THE DAS.)
16. WHEN SPLITTER CONNECTIONS ARE IN CONDUIT, PROVIDE A MINIMUM 12 INCH x 12 INCH JUNCTION COX TO MAKE THE CONNECTION.
17. THE FIRST RESPONDERS ANNUNCIATOR SHALL BE INSTALLED NEAR THE FIRE ALARM CONTROL PANEL.
18. ALL FIELD WIRING SHALL BE CHECKED FOR SHORTS, OPENS, AND GROUNDS BEFORE MAKING CONNECTIONS.
19. SEE MANUFACTURERS SHEETS FOR MOUNTING DETAILS.
20. ALL JUNCTION BOX COVERS SHALL BE RED IN COLOR. THOSE IN FINISHED ARES ARE PERMITTED TO MATCH THE FINISH COLOR.
21. ALL PENETRATIONS THROUGH RATED WALLS SHALL BE SEALED USING APPROPRIATE U.L. SYSTEM.

E5 **FIRST RESPONDER DETAILS**
NOT TO SCALE



D5 **FIRST RESPONDERS RISER DIAGRAM**
NOT TO SCALE — 1ST FLOOR

FIRST RESPONDERS PROJECT NOTES IN TESTING AND INSTALLATION SEQUENCING

1. A PRELIMINARY SITE SURVEY IS NEEDED TO DETERMINE THE EXISTING dBm SIGNAL STRENGTH.
2. A MORE DETAILED SURVEY WILL MAP THE BUILDING ONCE THE BUILDING IS SUBSTANTIALLY COMPLETED.
3. THE NEXT SIGNAL STRENGTH SURVEY WILL COMPLY WITH THE 2018 NCFC, 510.5.3 AND NFPA 72, 24.5.2.1 (2013 EDITION)
    - EACH FLOOR SHALL BE DIVIDED INTO 20 (APPROXIMATELY) EQUAL TEST AREAS, THE WORST CASE SIGNAL STRENGTH READING SHALL BE RECORDED. PROVIDE 90 PERCENT FLOOR AREA RADIO COVERAGE.
    - CRITICAL AREAS, IF PRESENT, SHALL BE SURVEYED SEPARATE FROM THE EQUAL TEST AREAS.
    --- EXIT STAIRS
    --- EXIT PASSAGEWAYS
    --- ELEVATOR LOBBIES
    --- AT STANDPIPE CABINETS
    --- SPRINKLER SECTIONAL VALVE LOCATIONS
    --- AHJ MAY REQUIRE ADDITIONAL LOCATIONS.

    -- CRITICAL AREAS SHALL BE PROVIDED WITH 99 PERCENT RADIO COVERAGE.
4. THE MINIMUM SIGNAL STRENGTH OF -95 dBm IS REQUIRED.

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SCO ID# 22-24540-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023311 ALLEN ORTIB
12/19/2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

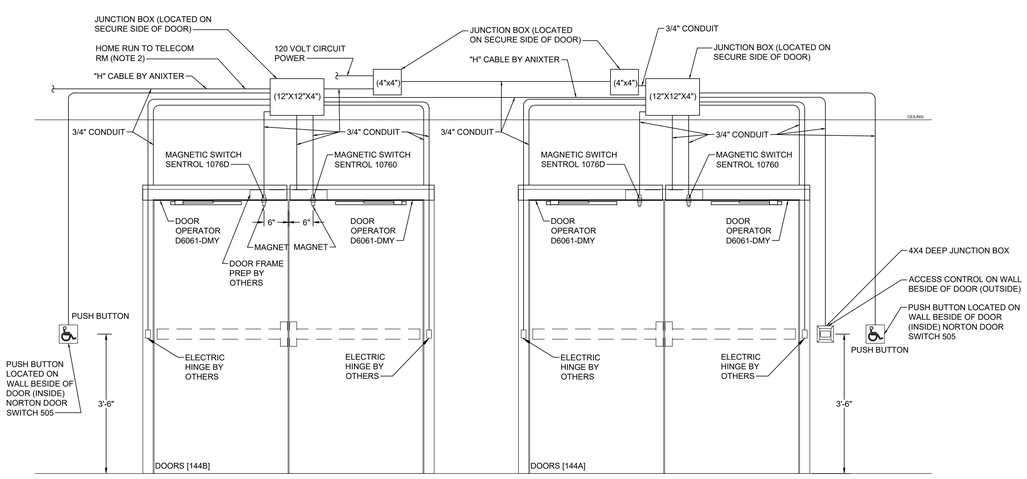
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager: WAC	Drawn By: HGH
Date: 12-18-2024	Reviewed By: WAC
Project ID: CBHF: 22093	

Sheet Title: ELECTRICAL DETAILS

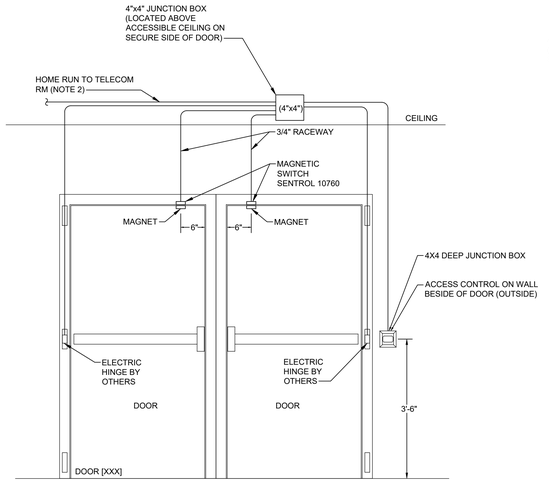
Sheet No.: E5.5



NOTES:

1. COORDINATE THE EXACT LOCATION OF SECURITY DEVICES, CONDUIT, AND JUNCTION BOXES WITH THE ARCHITECT, ENGINEER, AND SECURITY.
2. PROVIDE 1 1/4" CONDUIT IN OPEN CEILINGS AND ABOVE GYP CEILINGS, J-HOOKS ARE ACCEPTABLE ABOVE LAY-IN CEILING FOR DATA CABLE.
3. STUB CONDUIT INTO JUNCTION BOX OF DOOR FRAME FOR CONCEALED MAGNETIC DOOR POSITION SWITCH(S) AND ELECTRIC HINGE(S).
4. PULL STRINGS PROVIDED IN CONDUIT.
5. ALL SECURITY ELECTRONICS JUNCTION BOXES SHALL BE MOUNTED ON THE SECURE SIDE OF DOOR.

C1 SECURITY DOOR DETAIL W/ ACCESS CONTROL & HANDICAP OPENER (DOORS 144A & 144B)
NOT TO SCALE



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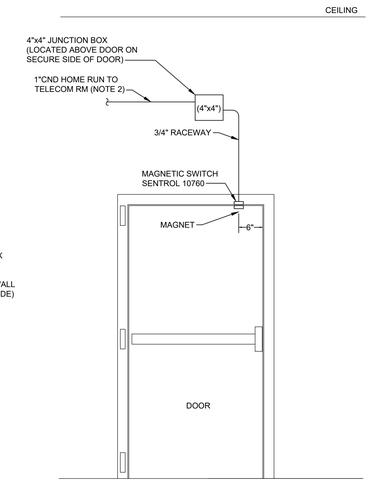
3. PROVIDE JUNCTION BOX, AS SHOWN, FLUSH OR SURFACE MOUNTED ABOVE DOOR, OR ABOVE CEILING WHERE APPLICABLE ON SECURE SIDE.
4. ROUTE SURFACE RACEWAY DOWN WALL TO TOP OF DOOR FRAME FOR SURFACE CONTACT, COORDINATE POSITION OF SURFACE MAGNET AND SWITCH WITH SECURITY CONTRACTOR.
5. PULL STRING PROVIDED IN CONDUIT.

C3 SECURITY DOOR DETAIL W/ ACCESS CONTROL (DOUBLE TYPICAL)
NOT TO SCALE



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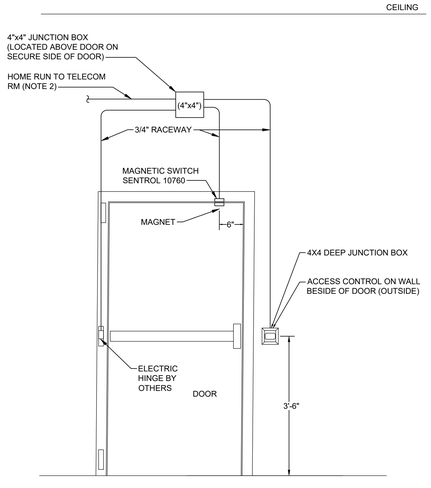
6. PULL STRING PROVIDED IN CONDUIT.

C5 SECURITY DOOR DETAIL (SINGLE TYPICAL)
NOT TO SCALE



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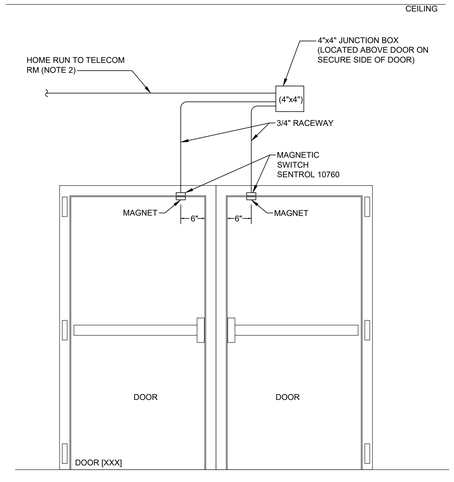
5. PULL STRING PROVIDED IN CONDUIT.

E1 SECURITY DOOR DETAIL W/ ACCESS CONTROL (SINGLE TYPICAL)
NOT TO SCALE



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5. PULL STRING PROVIDED IN CONDUIT.

E3 SECURITY DOOR DETAIL (DOUBLE TYPICAL)
NOT TO SCALE

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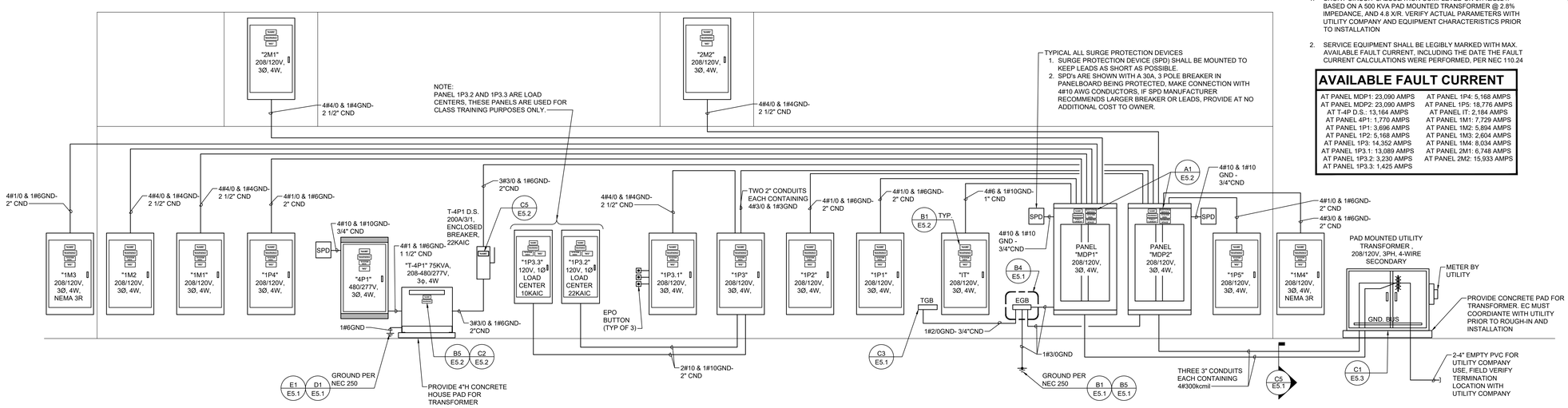
Sheet Title: ELECTRICAL DETAILS

Sheet No.: E5.6



B3 RISER DIAGRAM
NOT TO SCALE

NOTE:
1. SHORT CIRCUIT CALCULATION COMPLETED ON 07/12/2024. BASED ON A 500 KVA PAD MOUNTED TRANSFORMER @ 2.8% IMPEDANCE, AND 4.8 X/R. VERIFY ACTUAL PARAMETERS WITH UTILITY COMPANY AND EQUIPMENT CHARACTERISTICS PRIOR TO INSTALLATION
2. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED WITH MAX. AVAILABLE FAULT CURRENT, INCLUDING THE DATE THE FAULT CURRENT CALCULATIONS WERE PERFORMED, PER NEC 110.24

AVAILABLE FAULT CURRENT

AT PANEL MDP1: 23,090 AMPS	AT PANEL 1P4: 5,168 AMPS
AT PANEL MDP2: 23,090 AMPS	AT PANEL 1P5: 18,776 AMPS
AT T-4P D.S.: 13,164 AMPS	AT PANEL IT: 2,184 AMPS
AT PANEL 4P1: 1,770 AMPS	AT PANEL 1M1: 7,729 AMPS
AT PANEL 1P1: 3,696 AMPS	AT PANEL 1M2: 5,894 AMPS
AT PANEL 1P2: 5,168 AMPS	AT PANEL 1M3: 2,604 AMPS
AT PANEL 1P3: 14,352 AMPS	AT PANEL 1M4: 8,034 AMPS
AT PANEL 1P3.1: 13,089 AMPS	AT PANEL 2M1: 6,748 AMPS
AT PANEL 1P3.2: 3,230 AMPS	AT PANEL 2M2: 15,933 AMPS
AT PANEL 1P3.3: 1,425 AMPS	

LOAD SUMMARY MDP1

VOLTAGE	PHASE	
208	3	
LARGEST MOTOR APPROX. AMPS		22 AMPS
LARGEST MOTOR APPROX. AMPS x .25		6 AMPS
HVAC		
AH'S	43,233	VA
HP'S	17,139	VA
DHP	9,511	VA
DAH UNITS	153	VA
BC01	183	VA
FAN (FO#)	2,288	VA
TA'S	16,848	VA
TC'S	31,200	VA
TH'S	12,480	VA
SUB-TOTAL HVAC DEMAND	133,036	VA
SUB-TOTAL HVAC DEMAND	369	AMPS
EQUIPMENT		
ROLL-UP DOOR	1,464	VA
HVAC CTRL	360	VA
NITROGEN GEN	720	VA
COMP-1	16,645	VA
RAD-1	800	VA
SHADES	1,335	VA
SUB-TOTAL EQUIPMENT DEMAND	21,324	VA
SUB-TOTAL EQUIPMENT DEMAND	59	AMPS
ADD FOR LARGEST MOTOR	6	AMPS
TOTAL EQUIPMENT DEMAND	65	AMPS
LIGHTING		
LIGHTS (INTERIOR, BASED ON NEC 220.12)	23,292	VA
LIGHTS (EXTERIOR & PARKING)	216	VA
TOTAL LIGHTING LOAD	23,508	VA
TOTAL DEMAND FOR LIGHTING	65	AMPS
RECEPTACLES		
RECEPTACLES	30,790	VA
FIRST 10000VA	10,000	VA
REMAINDER @ 50%	10,395	VA
TOTAL DEMAND FOR RECEPTACLE/POWER PANELS	20,395	VA
TOTAL DEMAND FOR RECEPTACLE/POWER PANELS	57	AMPS
TOTAL DEMAND BUILDING AMPS	556	AMPS
TOTAL DEMAND BUILDING VA	200,244	VA
TOTAL BUILDING CONNECTED LOAD	208,658	VA

PANEL MDP1

TYPE: 208 120 VOLTS, 3 PHASE, 4 WIRE — PROVIDE XX EQUIPMENT GROUND BUS
BOLT-ON — MOUNT: SURFACE — IF XX 100 % NEUTRAL BUS
HINGED TRIM — FEED: TOP — CHECKED — ULSE LABEL
NEMA - 1 ENCLOSURE — ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR POLES/TRIP	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR POLES/TRIP	LOAD VA	LOAD SERVED
SPD		30/3	1	0			2			
|		|	3		0		4		
|		|	5			6			
PANEL 1P1	7,714	150/3	7	13,550			8	150/3	5,836	PANEL 1P4
|	6,809	|	9		11,701		10	|	4,892	|
|	7,336	|	11			13,328	12	|	5,992	|
PANEL 1M1	10,632	225/3	13	13,272			14	60/3	2,640	PANEL IT
|	10,452	|	15		12,789		16	|	2,337	|
|	9,792	|	17			13,149	18	|	3,357	|
PANEL 1M2	10,452	225/3	19	31,903			20	225/3	21,451	PANEL 2M1
|	10,452	|	21		31,612		22	|	21,160	|
|	9,360	|	23			30,780	24	|	21,420	|
PANEL 1M3	9,008	150/3	25	9,008			26	200/3		SPARE
|	8,412	|	27		8,412		28	|		|
|	9,410	|	29			9,410	30	|		|
SPARE		200/3	31	0			32	100/3		SPARE
|		|	33		0		34	|		|
|		|	35			0	36	|		|
SPARE		60/3	37	0			38	-		SPACE
|		|	39		0		40	-		SPACE
|		|	41			0	42	-		SPACE
				67,730	64,514	66,667				TOTAL VA
				564	538	556				TOTAL AMPERES
				34%	32%	34%				PHASE BALANCE

*GROUND FAULT PROTECTION REQUIRED AT MAIN.
**ARC ENERGY REDUCTION REQUIRED AT ALL BREAKERS 1200AMPS OR MORE.

800 A. BUS (COPPER, UNO)
800 A. MAIN CIRCUIT BREAKER (100% RATED MAIN CIRCUIT BREAKER)
30 KAIC MINIMUM RATING

DEMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR	DEMAND (VA)
R: TOTAL RECEPTACLES (VA) = 93469.25824			
RECEPTACLES FIRST 10 KVA	10000.0	1.0	10000
RECEPTACLES > 10 KVA	83469.25824	0.5	41734.629
L: LIGHTING	22,741	1.25	28426.25
M: MISCELLANEOUS EQUIPMENT	7,749	1.00	7,749
O: OTHER EQUIPMENT (CONTINUOUS)	63,098	1.25	78,873
B: LARGEST MOTOR	0	1.25	0
H: HVAC EQUIPMENT (FLA = MCA X 0.8)	222,431	1.00	222,431
K: KITCHEN EQUIPMENT	0	1.00	0
TOTAL CONNECTED (VA)	409,489		
TOTAL DEMAND (VA)			389,214
TOTAL DEMAND (AMPERES)			1,080
PANEL DEMAND LOADING VS RATING		135.0%	

NOTES:
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMENT.
2. PROVIDE CIRCUIT BREAKER LOCKING DEVICE FOR FACU AND UNIT TYPE SMOKE DETECTOR CIRCUITS.
3. PROVIDE ARC FAULT CIRCUIT BREAKERS FOR ALL 120V, 15A & 20A PATIENT ROOM BRANCH CIRCUITS SUPPLYING OUTLETS AND DEVICES.
4. COORDINATE SPD CIRCUIT BREAKER TRIP WITH SPD PROVIDED.
5. KITCHEN EQUIPMENT DEMAND FACTOR PER NEC TABLE 220.56
6. SEE SPECIFICATIONS SECTION 16032 AND SWITCHBOARD ELEVATION 7/E0.6 FOR ADDITIONAL DETAILS AND REQUIREMENTS.
7. PROVIDE ALL 1200A CIRCUIT BREAKERS WITH ARC ENERGY REDUCTION MODE WITH INTERNAL SWITCH AND INDICATOR.
8. SHUNT TRIP CIRCUIT BREAKER.
9. GFCI CIRCUIT BREAKER.

PANEL MDP2

TYPE: 208 120 VOLTS, 3 PHASE, 4 WIRE — PROVIDE XX EQUIPMENT GROUND BUS
BOLT-ON — MOUNT: SURFACE — IF XX 100 % NEUTRAL BUS
HINGED TRIM — FEED: TOP — CHECKED — ULSE LABEL
NEMA - 1 ENCLOSURE — ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR POLES/TRIP	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR POLES/TRIP	LOAD VA	LOAD SERVED
		-	1	0			2	30/3		SPD
		-	3		0		4	|		|
		-	5			0	6	|		|
PANEL 1P2	7,714	150/3	7	34,844			8	400/3	27,130	PANEL 1P3
|	6,809	|	9		32,794		10	|	25,985	|
|	7,336	|	11			32,941	12	|	25,605	|
PANEL 4P1 (T-4P1 TRANSFORMER)	0	200/3	13	5,080			14	150/3	5,080	PANEL 1P5
|	0	|	15		5,318		16	|	5,318	|
|	0	|	17			4,930	18	|	4,930	|
PANEL 1M4	12,488	200/3	19	33,106			20	225/3	20,618	PANEL 2M2
|	13,080	|	21		33,387		22	|	20,307	|
|	13,473	|	23			33,370	24	|	19,898	|
SPARE		200/3	25	0			26	100/3		SPARE
|		|	27		0		28	|		|
|		|	29			0	30	|		|
SPARE		60/3	31	0			32	-		SPACE
|		|	33		0		34	-		SPACE
|		|	35			0	36	-		SPACE
SPACE		-	37	0			38	-		SPACE
SPACE		-	39		0		40	-		SPACE
SPACE		-	41			0	42	-		SPACE
				73,029	71,498	71,242				TOTAL VA
				609	596	594				TOTAL AMPERES
				34%	33%	33%				PHASE BALANCE

*GROUND FAULT PROTECTION REQUIRED AT MAIN.
**ARC ENERGY REDUCTION REQUIRED AT ALL BREAKERS 1200AMPS OR MORE.

800 A. BUS (COPPER, UNO)
800 A. MAIN CIRCUIT BREAKER (100% RATED MAIN CIRCUIT BREAKER)
30 KAIC MINIMUM RATING

DEMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR	DEMAND (VA)
R: TOTAL RECEPTACLES (VA) = 93469.25824			
RECEPTACLES FIRST 10 KVA	10000.0	1.0	10000
RECEPTACLES > 10 KVA	83469.25824	0.5	41734.629
L: LIGHTING	22,741	1.25	28426.25
M: MISCELLANEOUS EQUIPMENT	7,749	1.00	7,749
O: OTHER EQUIPMENT (CONTINUOUS)	63,098	1.25	78,873
B: LARGEST MOTOR	0	1.25	0
H: HVAC EQUIPMENT (FLA = MCA X 0.8)	222,431	1.00	222,431
K: KITCHEN EQUIPMENT	0	1.00	0
TOTAL CONNECTED (VA)	409,489		
TOTAL DEMAND (VA)			389,214
TOTAL DEMAND (AMPERES)			1,080
PANEL DEMAND LOADING VS RATING		135.0%	

NOTES:
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMENT.
2. PROVIDE CIRCUIT BREAKER LOCKING DEVICE FOR FACU AND UNIT TYPE SMOKE DETECTOR CIRCUITS.
3. PROVIDE ARC FAULT CIRCUIT BREAKERS FOR ALL 120V, 15A & 20A PATIENT ROOM BRANCH CIRCUITS SUPPLYING OUTLETS AND DEVICES.
4. COORDINATE SPD CIRCUIT BREAKER TRIP WITH SPD PROVIDED.
5. KITCHEN EQUIPMENT DEMAND FACTOR PER NEC TABLE 220.56
6. SEE SPECIFICATIONS SECTION 16032 AND SWITCHBOARD ELEVATION 7/E0.6 FOR ADDITIONAL DETAILS AND REQUIREMENTS.
7. PROVIDE ALL 1200A CIRCUIT BREAKERS WITH ARC ENERGY REDUCTION MODE WITH INTERNAL SWITCH AND INDICATOR.
8. SHUNT TRIP CIRCUIT BREAKER.
9. GFCI CIRCUIT BREAKER.

LOAD SUMMARY MDP2

VOLTAGE	PHASE	
208	3	
LARGEST MOTOR APPROX. AMPS		22 AMPS
LARGEST MOTOR APPROX. AMPS x .25		6 AMPS
HVAC		
AH'S	56,203	VA
HP'S	22,963	VA
DAH'S	178	VA
DAH UNITS	153	VA
FANS (FO#)	4,576	VA
ERV	3,430	VA
SUB-TOTAL HVAC DEMAND	87,503	VA
SUB-TOTAL HVAC DEMAND	243	AMPS
EQUIPMENT		
ROLL-UP DOOR	2,929	VA
LIFT STATION	9,836	VA
LC'S & TC'S	1,600	VA
SHUNT TRIP	180	VA
WIREWAY 1 & 2	18,446	VA
DOOR PWR	200	VA
BUS DUCT	19,455	VA
MCC	9,223	VA
EWH1	4,500	VA
CP1	180	VA
SHADES	1,728	VA
SUB-TOTAL EQUIPMENT DEMAND	68,277	VA
SUB-TOTAL EQUIPMENT DEMAND	190	AMPS
ADD FOR LARGEST MOTOR	6	AMPS
TOTAL EQUIPMENT DEMAND	195	AMPS
LIGHTING		
LIGHTS (INTERIOR, BASED ON NEC 220.12)	47,610	VA
LIGHTS (EXTERIOR & PARKING)	4,623	VA
SIGN	2,300	VA
TOTAL LIGHTING LOAD	54,533	VA
TOTAL DEMAND FOR LIGHTING	151	AMPS
RECEPTACLES		
RECEPTACLES	44,233	VA
FIRST 10000VA	10,000	VA
REMAINDER @ 50%	17,117	VA
TOTAL DEMAND FOR RECEPTACLE/POWER PANELS	27,117	VA
TOTAL DEMAND FOR RECEPTACLE/POWER PANELS	75	AMPS
TOTAL DEMAND BUILDING AMPS	665	AMPS
TOTAL DEMAND BUILDING VA	239,411	VA
TOTAL BUILDING CONNECTED LOAD	254,546	VA

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SCO ID# 22-24540-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023311 ALLEN GRUBB
12/19/2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By
WAC	HGH
Date	Reviewed By
12-18-2024	WAC
Project ID	CBHF: 22093

Sheet Title
ELECTRICAL RISER DIAGRAM AND SCHEDULES

Sheet No.
E6.1

Panel 1M1

TYPE:	208	120	VOLTS, 3	PHASE, 4	WIRE	PROVIDE IF CHECKED	XX	EQUIPMENT GROUND BUS
BOLT-ON	MOUNT:	SURFACE					XX	100 % NEUTRAL BUS
HINGED TRIM	FEED:	TOP						ULSE LABEL
	NEMA -	1	ENCLOSURE					ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR TRIP/POLES	CKT #	PHASE LOAD VA A	B	C	CKT #	CKT BKR TRIP/POLES	LOAD VA	LOAD SERVED
TA1	1,872	30/2	1	2,652			2	30/2	780	TH1
|	1,872	|	3		2,652		4	|	780	|
TA2	780	30/2	5			1,560	6	30/2	780	TH2
|	780	|	7	1,560			8	|	780	|
TA3	1,560	60/2	9		3,120		10	60/2	1,560	TH3
|	1,560	|	11			3,120	12	|	1,560	|
TC1	1,560	60/2	13	3,120			14	60/2	1,560	TC4
|	1,560	|	15		3,120		16	|	1,560	|
TC2	1,560	60/2	17			3,120	18	60/2	1,560	TC5
|	1,560	|	19	3,120			20	|	1,560	|
TC3	1,560	60/2	21		1,560		22	20/1		SPARE
|	1,560	|	23			1,992	24	20/1	432	SHADES
REFRIGERANT MONITOR	180	20/1	25	180			26	20/1		SPARE
SPARE		20/1	27		0		28	20/1		SPARE
SPARE		20/1	29			0	30	20/1		SPARE
SPARE		20/1	31	0			32	20/1		SPARE
SPARE		20/1	33		0		34	20/1		SPARE
SPARE		20/1	35			0	36	20/1		SPARE
SPARE		20/1	37	0			38	20/1		SPARE
SPARE		20/1	39		0		40	20/1		SPARE
SPARE		20/1	41			0	42	20/1		SPARE
NOTES (AS APPLICABLE):				10,632	10,452	9,792	TTL PHASE VA		225	A. BUS (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMENT.				89	87	82	TTL PHASE AMPS		225	A. MAIN CIRCUIT BREAKER
2. HVAC & REFRIGERATION EQUIPMENT MUST USE TYPE HACR BREAKERS.				34%	34%	32%	PHASE BALANCE		10	KAIC MINIMUM RATING

DEMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR	DEMAND (VA)
TOTAL RECEPTACLES (VA) = 0			
RECEPTACLES FIRST 10 KVA	0	1.00	0
RECEPTACLES > 10 KVA	0	0.50	0
LIGHTING	0	1.25	0
MISCELLANEOUS EQUIPMENT	612	1.00	612
OTHER EQUIPMENT (CONTINUOUS)	0	1.25	0
LARGEST MOTOR	0	1.25	0
HVAC EQUIPMENT (FLA = MCA X 0.8)	30,264	1.00	30,264
KITCHEN EQUIPMENT 0	0	1.00	0
TOTAL CONNECTED (VA)	30,876		
TOTAL DEMAND (VA)			30,876
TOTAL DEMAND (AMPERES)			85.7
PANEL DEMAND LOADING VS RATING	38.1%		

ADDITIONAL NOTES (AS APPLICABLE):
3. NUMBERS IN PARENTHESIS REPRESENT KITCHEN EQUIPMENT NUMBERS.
4. PROVIDE CIRCUIT BREAKER LOCKING DEVICE WHERE NOTED AND FOR FACU AND UNIT TYPE SMOKE DETECTOR CIRCUITS.
5. PROVIDE ARC FAULT CIRCUIT BREAKERS FOR ALL 120V, 15A & 20A PATIENT ROOM BRANCH CIRCUITS SUPPLYING OUTLETS AND DEVICES.
6. COORDINATE SPD CIRCUIT BREAKER TRIP WITH SPD PROVIDED.
7. GFCI CIRCUIT BREAKER.
8. EXISTING LOADS ARE ESTIMATED.
9. KITCHEN EQUIPMENT DEMAND FACTOR PER NEC TABLE 220.56
10. THE MCB SHALL BE 100% RATED & PROVIDED WITH AN ARC ENERGY REDUCTION MAINTENANCE SWITCH PER NEC ART. 240.87.
11. PROVIDE CB WITH SHUNT TRIP ACCESSORY.

Panel 1M2

TYPE:	208	120	VOLTS, 3	PHASE, 4	WIRE	PROVIDE IF CHECKED	XX	EQUIPMENT GROUND BUS
BOLT-ON	MOUNT:	SURFACE					XX	100 % NEUTRAL BUS
HINGED TRIM	FEED:	TOP						ULSE LABEL
	NEMA -	1	ENCLOSURE					ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR TRIP/POLES	CKT #	PHASE LOAD VA A	B	C	CKT #	CKT BKR TRIP/POLES	LOAD VA	LOAD SERVED
TA4	1,872	30/2	1	2,652			2	30/2	780	TH4
|	1,872	|	3		2,652		4	|	780	|
TA5	780	30/2	5			1,560	6	30/2	780	TH5
|	780	|	7	1,560			8	|	780	|
TA6	1,560	60/2	9		3,120		10	60/2	1,560	TH6
|	1,560	|	11			3,120	12	|	1,560	|
TC6	1,560	60/2	13	3,120			14	60/2	1,560	TC9
|	1,560	|	15		3,120		16	|	1,560	|
TC7	1,560	60/2	17			3,120	18	60/2	1,560	TC10
|	1,560	|	19	3,120			20	|	1,560	|
TC8	1,560	60/2	21		1,560		22	20/1		SPARE
|	1,560	|	23			1,560	24	20/1		SPARE
SPARE		20/1	25	0			26	20/1		SPARE
SPARE		20/1	27		0		28	20/1		SPARE
SPARE		20/1	29			0	30	20/1		SPARE
SPARE		20/1	31	0			32	20/1		SPARE
SPARE		20/1	33		0		34	20/1		SPARE
SPARE		20/1	35			0	36	20/1		SPARE
SPARE		20/1	37	0			38	20/1		SPARE
SPARE		20/1	39		0		40	20/1		SPARE
SPARE		20/1	41			0	42	20/1		SPARE
NOTES (AS APPLICABLE):				10,452	10,452	9,360	TTL PHASE VA		225	A. BUS (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMENT.				87	87	78	TTL PHASE AMPS		225	A. MAIN CIRCUIT BREAKER
2. HVAC & REFRIGERATION EQUIPMENT MUST USE TYPE HACR BREAKERS.				35%	35%	31%	PHASE BALANCE		10	KAIC MINIMUM RATING

DEMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR	DEMAND (VA)
TOTAL RECEPTACLES (VA) = 0			
RECEPTACLES FIRST 10 KVA	0	1.00	0
RECEPTACLES > 10 KVA	0	0.50	0
LIGHTING	0	1.25	0
MISCELLANEOUS EQUIPMENT	0	1.00	0
OTHER EQUIPMENT (CONTINUOUS)	0	1.25	0
LARGEST MOTOR	0	1.25	0
HVAC EQUIPMENT (FLA = MCA X 0.8)	30,264	1.00	30,264
KITCHEN EQUIPMENT 0	0	1.00	0
TOTAL CONNECTED (VA)	30,264		
TOTAL DEMAND (VA)			30,264
TOTAL DEMAND (AMPERES)			84.0
PANEL DEMAND LOADING VS RATING	37.3%		

ADDITIONAL NOTES (AS APPLICABLE):
3. NUMBERS IN PARENTHESIS REPRESENT KITCHEN EQUIPMENT NUMBERS.
4. PROVIDE CIRCUIT BREAKER LOCKING DEVICE WHERE NOTED AND FOR FACU AND UNIT TYPE SMOKE DETECTOR CIRCUITS.
5. PROVIDE ARC FAULT CIRCUIT BREAKERS FOR ALL 120V, 15A & 20A PATIENT ROOM BRANCH CIRCUITS SUPPLYING OUTLETS AND DEVICES.
6. COORDINATE SPD CIRCUIT BREAKER TRIP WITH SPD PROVIDED.
7. GFCI CIRCUIT BREAKER.
8. EXISTING LOADS ARE ESTIMATED.
9. KITCHEN EQUIPMENT DEMAND FACTOR PER NEC TABLE 220.56
10. THE MCB SHALL BE 100% RATED & PROVIDED WITH AN ARC ENERGY REDUCTION MAINTENANCE SWITCH PER NEC ART. 240.87.
11. PROVIDE CB WITH SHUNT TRIP ACCESSORY.

Panel 1M3

TYPE:	208	120	VOLTS, 3	PHASE, 4	WIRE	PROVIDE IF CHECKED	XX	EQUIPMENT GROUND BUS
BOLT-ON	MOUNT:	SURFACE					XX	100 % NEUTRAL BUS
	FEED:	TOP						ULSE LABEL
	NEMA -	3R	ENCLOSURE					ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR TRIP/POLES	CKT #	PHASE LOAD VA A	B	C	CKT #	CKT BKR TRIP/POLES	LOAD VA	LOAD SERVED
HP02	2,330	45/2	1	2,330			2	-		SPACE
|	2,330	|	3		2,330		4	-		SPACE
SPACE		-	5			1,664	6	35/2	1,664	HP06
SPACE		-	7	1,664			8	|	1,664	|
SPACE		-	9		2,912		10	60/2	2,912	HP09
SPACE		-	11			2,912	12	|	2,912	|
DHP01	3,170	50/3	13	3,350			14	20/1	180	RCP: AT PANEL 1M3
|	3,170	|	15		3,170		16	-		SPACE
|	3,170	|	17			4,834	18	35/2	1,664	HP05
SPARE		20/1	19	1,664			20	|	1,664	|
SPARE		20/1	21		0		22	20/1		SPARE
SPARE		20/1	23			0	24	20/1		SPARE
NOTES (AS APPLICABLE):				9,008	8,412	9,410	TTL PHASE VA		225	A. BUS (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMENT.				75	70	78	TTL PHASE AMPS		150	A. MAIN CIRCUIT BREAKER
2. HVAC & REFRIGERATION EQUIPMENT MUST USE TYPE HACR BREAKERS.				34%	31%	35%	PHASE BALANCE		10	KAIC MINIMUM RATING

DEMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR	DEMAND (VA)
TOTAL RECEPTACLES (VA) = 180			
RECEPTACLES FIRST 10 KVA	180	1.00	180
RECEPTACLES > 10 KVA	0	0.50	0
LIGHTING	0	1.25	0
MISCELLANEOUS EQUIPMENT	0	1.00	0
OTHER EQUIPMENT (CONTINUOUS)	0	1.25	0
LARGEST MOTOR	0	1.25	0
HVAC EQUIPMENT (FLA = MCA X 0.8)	26,651	1.00	26,651
KITCHEN EQUIPMENT 0	0	1.00	0
TOTAL CONNECTED (VA)	26,831		
TOTAL DEMAND (VA)			26,831
TOTAL DEMAND (AMPERES)			74.5
PANEL DEMAND LOADING VS RATING	49.6%		

ADDITIONAL NOTES (AS APPLICABLE):
3. NUMBERS IN PARENTHESIS REPRESENT KITCHEN EQUIPMENT NUMBERS.
4. PROVIDE CIRCUIT BREAKER LOCKING DEVICE WHERE NOTED AND FOR FACU AND UNIT TYPE SMOKE DETECTOR CIRCUITS.
5. PROVIDE ARC FAULT CIRCUIT BREAKERS FOR ALL 120V, 15A & 20A PATIENT ROOM BRANCH CIRCUITS SUPPLYING OUTLETS AND DEVICES.
6. COORDINATE SPD CIRCUIT BREAKER TRIP WITH SPD PROVIDED.
7. GFCI CIRCUIT BREAKER.
8. EXISTING LOADS ARE ESTIMATED.
9. KITCHEN EQUIPMENT DEMAND FACTOR PER NEC TABLE 220.56
10. THE MCB SHALL BE 100% RATED & PROVIDED WITH AN ARC ENERGY REDUCTION MAINTENANCE SWITCH PER NEC ART. 240.87.
11. PROVIDE CB WITH SHUNT TRIP ACCESSORY.

Panel 1M4

TYPE:	208	120	VOLTS, 3	PHASE, 4	WIRE	PROVIDE IF CHECKED	XX	EQUIPMENT GROUND BUS
BOLT-ON	MOUNT:	SURFACE					XX	100 % NEUTRAL BUS
	FEED:	TOP						ULSE LABEL
	NEMA -	3R	ENCLOSURE					ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR TRIP/POLES	CKT #	PHASE LOAD VA A	B	C	CKT #	CKT BKR TRIP/POLES	LOAD VA	LOAD SERVED
HP01	2,330	45/2	1	3,994			2	35/2	1,664	HP04
|	2,330	|	3		3,994		4	|	1,664	|
HP03	1,664	35/2	5			4,576	6	60/2	2,912	HP07
|	1,664	|	7	4,576			8	|	2,912	|
SPACE		-	9		0		10	-		SPACE
SPACE		-	11			0	12	-		SPACE
SPARE		15/2	13	0			14	-		SPACE
|		|	15		2,912		16	60/2	2,912	HP08
SPARE		25/2	17			2,912	18	|	2,912	|
|		|	19	180			20	20/1	180	RCP: AT PANEL 1M4
LIFT STATION D.S.	3,279	35/3	21		4,119		22	20/1	840	LTS: EXTERIOR DELIVERY AREA
|	3,279	|	23			4,329	24	20/1	1,050	LTS: EXTERIOR PERIMETER PARKING AND DRIVE
|	3,279	|	25	3,739			26	20/1	460	LTS: SIDEWALK AT BUILDING
SIGN	1,200	20/1	27		2,056		28	20/1	856	LTS: MAIN PARKING
LCI 8 TC1 (EXTERIOR AT 1M4)	800	20/1	29			1,656	30	20/1	856	LTS: MAIN PARKING
SPARE		20/1	31	0			32	25/2		SPARE
SPARE		20/1	33		0		34	|		|
SPARE		20/1	35			0	36	20/1		SPARE
SPARE		20/1	37	0			38	20/1		SPARE
SPARE		20/1	39		0		40	20/1		SPARE
SPARE		20/1	41			0	42	20/1		SPARE
NOTES (AS APPLICABLE):				12,488	13,080	13,473	TTL PHASE VA		225	A. BUS (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMENT.				104	109	112	TTL PHASE AMPS		200	A. MAIN CIRCUIT BREAKER
2. HVAC & REFRIGERATION EQUIPMENT MUST USE TYPE HACR BREAKERS.				32%	34%	35%	PHASE BALANCE		10	KAIC MINIMUM RATING

DEMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR	DEMAND (VA)
TOTAL RECEPTACLES (VA) = 180			
RECEPTACLES FIRST 10 KVA	180	1.00	180
RECEPTACLES > 10 KVA	0	0.50	0
LIGHTING	6,062	1.25	7,578
MISCELLANEOUS EQUIPMENT	0	1.00	0
OTHER EQUIPMENT (CONTINUOUS)	9,836	1.25	12,294
LARGEST MOTOR	0	1.25	0
HVAC EQUIPMENT (FLA = MCA X 0.8)	22,963	1.00	22,963
KITCHEN EQUIPMENT 0	0	1.00	0
TOTAL CONNECTED (VA)	39,041		
TOTAL DEMAND (VA)			43,015
TOTAL DEMAND (AMPERES)			119.4
PANEL DEMAND LOADING VS RATING	59.7%		

ADDITIONAL NOTES (AS APPLICABLE):
3. NUMBERS IN PARENTHESIS REPRESENT KITCHEN EQUIPMENT NUMBERS.
4. PROVIDE CIRCUIT BREAKER LOCKING DEVICE WHERE NOTED AND FOR FACU AND UNIT TYPE SMOKE DETECTOR CIRCUITS.
5. PROVIDE ARC FAULT CIRCUIT BREAKERS FOR ALL 120V, 15A & 20A PATIENT ROOM BRANCH CIRCUITS SUPPLYING OUTLETS AND DEVICES.
6. COORDINATE SPD CIRCUIT BREAKER TRIP WITH SPD PROVIDED.
7. GFCI CIRCUIT BREAKER.
8. EXISTING LOADS ARE ESTIMATED.
9. KITCHEN EQUIPMENT DEMAND FACTOR PER NEC TABLE 220.56
10. THE MCB SHALL BE 100% RATED & PROVIDED WITH AN ARC ENERGY REDUCTION MAINTENANCE SWITCH PER NEC ART. 240.87.
11. PROVIDE CB WITH SHUNT TRIP ACCESSORY.

Panel 2M1

TYPE:	208	120	VOLTS, 3	PHASE, 4	WIRE	PROVIDE IF CHECKED	XX	EQUIPMENT GROUND BUS
BOLT-ON	MOUNT:	SURFACE					XX	100 % NEUTRAL BUS
HINGED TRIM	FEED:	TOP						ULSE LABEL
	NEMA -	1	ENCLOSURE					ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR TRIP/POLES	CKT #	PHASE LOAD VA A	B	C	CKT #	CKT BKR TRIP/POLES	LOAD VA	LOAD SERVED
ERV01	480	15/3	1	4,804			2	45/3	4,323	AH02
|	480	|	3		4,804		4	|	4,323	|
|	480	|	5			4,804	6	|	4,323	|
AH09	4,323	45/3	7	7,206			8	30/3	2,882	AH05
|	4,323	|	9		7,206		10	|	2,882	|
|	4,323	|	11			7,206	12	|	2,882	|
AH06	2,882	30/3	13	3,782			14	20/1	900	RCPS: MECH PLATFORM M101
|	2,882	|	15		3,062		16	20/1	180	FIRST RESPONDERS CABINET (NOTE 4)
|	2,882	|	17			3,062	18	20/1	180	FIRST RESPONDERS BATTERY CABINET (NOTE 4)
COMP-1	5,548	60/3	19	5,548			20	20/1		SPARE
|	5,548	|	21		5,977		22	20/1	429	LTS: MECH PLATFORM 1
|	5,548	|	23			6,348	24	20/1	800	RAD-1
DAH08 D.S.	20	15/2	25	111			26	15/2	92	BC01
|	20	|	27		111		28	|	92	|
SPARE		20/1	29			0	30	20/1		SPARE
SPARE		20/1	31	0			32	20/1		SPARE
SPARE		20/1	33		0		34	20/1		SPARE
SPARE		20/1	35			0	36	20/1		SPARE
SPARE		20/1	37	0			38	20/1		SPARE
SPARE		20/1	39		0		40	20/1		SPARE
SPARE		20/1	41			0	42	20/1		SPARE
NOTES (AS APPLICABLE):				21,451	21,160	21,420	TTL PHASE VA		225	A. BUS (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMENT.				179	176	178	TTL PHASE AMPS		225	A. MAIN CIRCUIT BREAKER
2. HVAC & REFRIGERATION EQUIPMENT MUST USE TYPE HACR BREAKERS.				34%	33%	33%	PHASE BALANCE		10	KAIC MINIMUM RATING

DEMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR	DEMAND (VA)
TOTAL RECEPTACLES (VA) = 900			
RECEPTACLES FIRST 10 KVA	900	1.00	900
RECEPTACLES > 10 KVA	0	0.50	0
LIGHTING	429	1.25	536
MISCELLANEOUS EQUIPMENT	223	1.00	223
OTHER EQUIPMENT (CONTINUOUS)	17,805	1.25	22,256
LARGEST MOTOR	0	1.25	0
HVAC EQUIPMENT (FLA = MCA X 0.8)	44,674	1.00	44,674
KITCHEN EQUIPMENT 0	0	1.00	0
TOTAL CONNECTED (VA)	64,031		
TOTAL DEMAND (VA)			68,589
TOTAL DEMAND (AMPERES)			190.4
PANEL DEMAND LOADING VS RATING	84.6%		

ADDITIONAL NOTES (AS APPLICABLE):
3. NUMBERS IN PARENTHESIS SHUNT TRIP.
4. PROVIDE CIRCUIT BREAKER LOCKING DEVICE.
5. PROVIDE ARC FAULT CIRCUIT BREAKERS FOR ALL 120V, 15A & 20A PATIENT ROOM BRANCH CIRCUITS SUPPLYING OUTLETS AND DEVICES.
6. COORDINATE SPD CIRCUIT BREAKER TRIP WITH SPD PROVIDED.
7. GFCI CIRCUIT BREAKER.
8. EXISTING LOADS ARE ESTIMATED.
9. KITCHEN EQUIPMENT DEMAND FACTOR PER NEC TABLE 220.56
10. THE MCB SHALL BE 100% RATED & PROVIDED WITH AN ARC ENERGY REDUCTION MAINTENANCE SWITCH PER NEC ART. 240.87.
11. PROVIDE CB WITH SHUNT TRIP ACCESSORY.

Panel 2M2

TYPE:	208	120	VOLTS, 3	PHASE, 4	WIRE	PROVIDE IF CHECKED	XX	EQUIPMENT GROUND BUS
BOLT-ON	MOUNT:	SURFACE					XX	100 % NEUTRAL BUS
HINGED TRIM	FEED:	TOP						ULSE LABEL
	NEMA -	1	ENCLOSURE					ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR TRIP/POLES	CKT #	PHASE LOAD VA A	B	C	CKT #	CKT BKR TRIP/POLES	LOAD VA	LOAD SERVED
ERV02	1,143	15/3	1	4,025			2	30/3	2,882	AH04
|	1,143	|	3		4,025		4	|	2,882	|
|	1,143	|	5			4,025	6	|	2,882	|
AH08	4,323	45/3	7	8,647			8	45/3	4,323	AH07
|	4,323	|	9		8,647		10	|	4,323	|
|	4,323	|	11			8,647	12	|	4,323	|
AH01	4,323	45/3	13	5,043			14	20/1	720	RCPS: MECH PLATFORM M102
|	4,323	|	15		4,752		16	20/1	429	LTS: MECH PLATFORM 2
|	4,323	|	17			4,343	18	15/2	20	DAH07
AH03	2,882	30/3	19	2,902			20	|	20	|
|	2,882	|	21		2,882		22	20/1		SPARE
|	2,882	|	23			2,882	24	20/1		SPARE
SPARE		20/1	25	0			26	20/1		SPARE
SPARE		20/1	27		0		28	20/1		SPARE
SPARE		20/1	29			0	30	20/1		SPARE
NOTES (AS APPLICABLE):				20,618	20,307	19,898	TTL PHASE VA		225	A. BUS (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMENT.				172	169	166	TTL PHASE AMPS		225	A. MAIN CIRCUIT BREAKER
2. HVAC & REFRIGERATION EQUIPMENT MUST USE TYPE HACR BREAKERS.				34%	33%	33%	PHASE BALANCE		22	KAIC MINIMUM RATING

DEMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR	DEMAND (VA)
TOTAL RECEPTACLES (VA) = 720			
RECEPTACLES FIRST 10 KVA	720	1.00	720
RECEPTACLES > 10 KVA	0	0.50	0
LIGHTING	429	1.25	536
MISCELLANEOUS EQUIPMENT	40	1.00	40
OTHER EQUIPMENT (CONTINUOUS)	0	1.25	0
LARGEST MOTOR	0	1.25	0
HVAC EQUIPMENT (FLA = MCA X 0.8)	59,633	1.00	59,633
KITCHEN EQUIPMENT 0	0	1.00	0
TOTAL CONNECTED (VA)	60,822		
TOTAL DEMAND (VA)			60,929
TOTAL DEMAND (AMPERES)			169.1
PANEL DEMAND LOADING VS RATING	75.2%		

ADDITIONAL NOTES (AS APPLICABLE):
3. NUMBERS IN PARENTHESIS REPRESENT KITCHEN EQUIPMENT NUMBERS.
4. PROVIDE CIRCUIT BREAKER LOCKING DEVICE WHERE NOTED AND FOR FACU AND UNIT TYPE SMOKE DETECTOR CIRCUITS.
5. PROVIDE ARC FAULT CIRCUIT BREAKERS FOR ALL 120V, 15A & 20A PATIENT ROOM BRANCH CIRCUITS SUPPLYING OUTLETS AND DEVICES.
6. COORDINATE SPD CIRCUIT BREAKER TRIP WITH SPD PROVIDED.
7. GFCI CIRCUIT BREAKER.
8. EXISTING LOADS ARE ESTIMATED.
9. KITCHEN EQUIPMENT DEMAND FACTOR PER NEC TABLE 220.56
10. THE MCB SHALL BE 100% RATED & PROVIDED WITH AN ARC ENERGY REDUCTION MAINTENANCE SWITCH PER NEC ART. 240.87.
11. PROVIDE CB WITH SHUNT TRIP ACCESSORY.

Panel 1P1

TYPE:	208	120	VOLTS, 3	PHASE, 4	WIRE	PROVIDE IF CHECKED	XX	EQUIPMENT GROUND BUS
BOLT-ON	MOUNT:	SURFACE					XX	100 % NEUTRAL BUS
HINGED TRIM	FEED:	TOP						ULSE LABEL
	NEMA -	1	ENCLOSURE					ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR TRIP/POLES	CKT #	PHASE LOAD VA A	B	C	CKT #	CKT BKR TRIP/POLES	LOAD VA	LOAD SERVED
RCPS: C.R. 1	720	20/1	1	1,620			2	20/1	900	RCP: C.R. 2 & STO 135
RCPS: C.R. 1	720	20/1	3		1,440		4	20/1	720	RCP: C.R. 2 & SMARTBOARD
RCPS: C.R. 1	720	20/1	5			1,440	6	20/1	720	RCP: C.R. 2
RCPS: C.R. 1	720	20/1	7	1,440			8	20/1	720	RCP: C.R. 2
RCPS: C.R. 1 & SMARTBOARD	720	20/1	9		1,440		10	20/1	720	RCP: C.R. 2
RCPS:C.R. 1 & STO 132	900	20/1	11			1,620	12	20/1	720	RCP: C.R. 2
RCP: VENDING CORR 132 (NOTE 1)	180	20/1	13	900			14	20/1	720	RCPS: OFF 140
RCP: VENDING CORR 132 (NOTE 1)	180	20/1	15		900		16	20/1	720	RCPS: OFF 141
RCP: EWC1 (NOTE 1)	430	20/1	17			610	18	20/1	180	RCP: CORR 137 A PANEL
SPARE		20/1	19	180			20	20/1	180	RCP: WO TLT 137
LTS: 133 THRU 141	1,498	20/1	21		1,498		22	20/1		SPARE
SPARE		20/1	23			1,260	24	20/1	1,260	RCPS: CORR 132
DAH05 - DAH06 UNITS	40	15/2	25	220			26	20/1	180	HVAC CTRL POWER
|	40	|	27		40		28	20/1		SPARE
SPARE		20/1	29			0	30	20/1		SPARE
SHADES	720	20/1	31	720			32	20/1		SPARE
SPARE		20/1	33		0		34	20/1		SPARE
SPARE		20/1	35			0	36	20/1		SPARE
SPARE		20/1	37	0			38	20/1		SPARE
SPARE		20/1	39		0		40	20/1		SPARE
SPARE		20/1	41			0	42	20/1		SPARE
NOTES:				5,080	5,318	4,930	TTL PHASE VA		225	A. BUS (COPPER, UNO)
1. PROVIDE GFI BREAKER				42	44	41	TTL PHASE AMPS		150	A. MAIN CIRCUIT BREAKER
2. HVAC & REFRIGERATION EQUIPMENT MUST USE TYPE HACR BREAKERS.				33%	35%	32%	PHASE BALANCE		10	KAIC MINIMUM RATING

DEMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR	DEMAND (VA)
TOTAL RECEPTACLES (VA) = 12,850			
RECEPTACLES FIRST 10 KVA	10,000	1.00	10,000
RECEPTACLES > 10 KVA	2,850	0.50	1,425
LIGHTING	1,498	1.25	1,873
MISCELLANEOUS EQUIPMENT	720	1.00	720
OTHER EQUIPMENT (CONTINUOUS)	0	1.25	0
LARGEST MOTOR	0	1.25

Panel 1P3

TYPE: | 208 | 120 | VOLTS, 3 | PHASE, 4 | WIRE | PROVIDE IF CHECKED | XX | EQUIPMENT GROUND BUS
BOLT-ON | MOUNT: SURFACE | | | | | | XX | 100 % NEUTRAL BUS
HINGED TRIM | FEED: TOP | | | | | | | ULSE LABEL
NEMA - 1 ENCLOSURE | | | | | | | | ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR TRIP/POLES	CKT #	PHASE LOAD VA A	PHASE LOAD VA B	PHASE LOAD VA C	CKT #	CKT BKR TRIP/POLES	LOAD VA	LOAD SERVED
RCPS: SHOP 2	540	20/1	1	1,260			2	20/1	720	RCPS: SHOP 2, SEC TOOL STO 121
RCPS: SHOP 2	540	20/1	3		1,080		4	20/1	540	RCPS: SHOP 2
20A SPCL PURP RCP	1,537	20/3	5			2,077	6	20/1	540	RCPS: SHOP 2
|	1,537	|	7	1,897			8	20/1	360	RCPS: EXTERIOR
|	1,537	|	9		1,717		10	20/1	180	RCP: COORD REEL
RCPS: SHOP 2, SEC TOOL STO 123	720	20/1	11			900	12	20/1	180	RCP: COORD REEL
RCPS: SHOP 2, SEC TOOL STO 124	540	20/1	13	900			14	20/1	360	RCPS: FLOOR BOXES
RCPS: SHOP 2 & SMART BOARD	720	20/1	15		900		16	20/1	180	RCP: COORD REEL
RCPS: SHOP 2, SEC TOOL STO 121	540	20/1	17			720	18	20/1	180	RCP: COORD REEL
ROLL-UP DOOR #2 D.S.	732	15/2	19	1,092			20	20/1	360	RCPS: FLOOR BOXES
|	732	|	21		2,269		22	20/3	1,537	20A SPCL PURP RCP
F02	1,144	15/2	23			2,681	24	20/1	1,537	|
|	1,144	|	25	2,681			26	|	1,537	|
PANEL 1P3.2		30/1	27		180		28	20/1	180	RCP: SHOP 2 AT PANEL
PANEL 1P3.3		30/1	29			1,194	30	20/1	1,194	LTS: SHOP 2,123,124,126
SPARE		20/1	31	1,088			32	20/1	1,088	LTS: SHOP 2,119,121,122
HVAC CTRL POWER	180	20/1	33		660		34	20/1	480	LTS: EXTERIOR CANOPY SHOP 2
LC2 & TC2 (SHOP 2 AT 4P1)	800	20/1	35			1,533	36	20/1	733	LTS: EXTERIOR CANOPY AT VESTIBULE
PANEL 1P3.1	17,958	225/3	37	18,211			38	20/1	253	LTS: EXTERIOR AT VEST'S 142,143 & 128, 115
|	17,958	|	39		19,178		40	20/1	1,220	LTS: CORR 111,132
|	16,500	|	41			16,500	42	20/1		SPARE
NOTES (AS APPLICABLE):				27,130	25,985	25,605	TTL PHASE VA			400 A. BUS (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMENT.				226	217	213	TTL PHASE AMPS			400 A. MAIN CIRCUIT BREAKER
2. SEE ESTIMATED LOAD SUMMARY FOR SERVICE SIZING CALCULATIONS.				34%	33%	33%	PHASE BALANCE			22 KAIC MINIMUM RATING

DEMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR	DEMAND (VA)
TOTAL RECEPTACLES (VA) = 35,049			
RECEPTACLES FIRST 10 KVA	10,000	1.00	10,000
RECEPTACLES > 10 KVA	25,049	0.50	12,525
LIGHTING	5,768	1.25	7,210
MISCELLANEOUS EQUIPMENT	1,896	1.00	1,896
OTHER EQUIPMENT (CONTINUOUS)	33,538	1.25	41,923
LARGEST MOTOR	0	1.25	0
HVAC EQUIPMENT (FLA = MCA X 0.8)	2,468	1.00	2,468
KITCHEN EQUIPMENT 0	0	1.00	0
TOTAL CONNECTED (VA)	78,720		
TOTAL DEMAND (VA)			76,021
TOTAL DEMAND (AMPERES)			211.0
PANEL DEMAND LOADING VS RATING	52.8%		

ADDITIONAL NOTES (AS APPLICABLE):
3. NUMBERS IN PARENTHESIS REPRESENT KITCHEN EQUIPMENT NUMBERS.
4. PROVIDE CIRCUIT BREAKER LOCKING DEVICE WHERE NOTED AND FOR FACU AND UNIT TYPE SMOKE DETECTOR CIRCUITS.
5. PROVIDE ARC FAULT CIRCUIT BREAKERS FOR ALL 120V, 15A & 20A PATIENT ROOM BRANCH CIRCUITS SUPPLYING OUTLETS AND DEVICES.
6. COORDINATE SPD CIRCUIT BREAKER TRIP WITH SPD PROVIDED.
7. SHUNT TRIP CIRCUIT BREAKER.
8. GFCI CIRCUIT BREAKER.
9. EXISTING LOADS ARE ESTIMATED.
10. KITCHEN EQUIPMENT DEMAND FACTOR PER NEC TABLE 220.56
11. THE MCB SHALL BE 100% RATED & PROVIDED WITH AN ARC ENERGY REDUCTION MAINTENANCE SWITCH PER NEC ART. 240.87.
12. PROVIDE CB WITH SHUNT TRIP ACCESSORY.

Panel 1P4

TYPE: | 208 | 120 | VOLTS, 3 | PHASE, 4 | WIRE | PROVIDE IF CHECKED | XX | EQUIPMENT GROUND BUS
BOLT-ON | MOUNT: SURFACE | | | | | | XX | 100 % NEUTRAL BUS
HINGED TRIM | FEED: TOP | | | | | | | ULSE LABEL
NEMA - 1 ENCLOSURE | | | | | | | | ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR TRIP/POLES	CKT #	PHASE LOAD VA A	PHASE LOAD VA B	PHASE LOAD VA C	CKT #	CKT BKR TRIP/POLES	LOAD VA	LOAD SERVED
RCPS: SHOP 1	720	20/1	1	1,440			2	20/1	720	RCPS: LOCKERS 127, TOOL STO 126
RCPS: SHOP 1	540	20/1	3		1,080		4	20/1	540	RCPS: SHOP 1
RCPS: SHOP 1 & SEC TOOL STO 131	720	20/1	5			1,260	6	20/1	540	RCPS: SHOP 1
RCPS: SHOP 1 & SEC TOOL STO 131	720	20/1	7	1,260			8	20/1	540	RCPS: SHOP 1, SPKLR RM 128, EXTERIOR
RCPS: SHOP 1 & SMARTBOARD	720	20/1	9		900		10	20/1	180	RCP: COORD REEL
RCPS: SEC TOOL STO 130	540	20/1	11			720	12	20/1	180	RCP: COORD REEL
RCPS: SHOP 1 & SEC TOOL STO 130	540	20/1	13	900			14	20/1	360	RCPS: FLOOR BOXES
RCPS: TOOL STO 126, JAN CLOSET 125	720	20/1	15		900		16	20/1	180	RCP: COORD REEL
RCP: UNX TLT 124	180	20/1	17			360	18	20/1	180	RCP: COORD REEL
ROLL-UP DOOR #3 D.S.	732	20/2	19	1,092			20	20/1	360	RCPS: FLOOR BOXES
|	732	|	21		912		22	20/1	180	RCP: SHOP 1 AT PANEL
F03	1,144	15/2	23			1,864	24	20/1	720	NITROGEN GEN
|	1,144	|	25	1,144			26	20/1		SPARE
LTS: SHOP 1,127	1,100	20/1	27		1,100		28	20/1		SPARE
LTS: SHOP 1, 125,130,131	1,128	20/1	29			1,128	30	20/1		SPARE
SPARE		20/1	31	0			32	20/1		SPARE
SPARE		20/1	33		0		34	20/1		SPARE
HVAC CTRL POWER	180	20/1	35			660	36	20/1	480	LTS: EXTERIOR CANOPY SHOP 1
SPARE		20/1	37	0			38	20/1		SPARE
SPARE		20/1	39		0		40	20/1		SPARE
SPARE		20/1	41			0	42	20/1		SPARE
NOTES (AS APPLICABLE):				5,836	4,892	5,992	TTL PHASE VA			225 A. BUS (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMENT.				49	41	50	TTL PHASE AMPS			150 A. MAIN CIRCUIT BREAKER
2. SEE ESTIMATED LOAD SUMMARY FOR SERVICE SIZING CALCULATIONS.				35%	29%	36%	PHASE BALANCE			10 KAIC MINIMUM RATING

DEMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR	DEMAND (VA)
TOTAL RECEPTACLES (VA) = 9,360			
RECEPTACLES FIRST 10 KVA	9,360	1.00	9,360
RECEPTACLES > 10 KVA	0	0.50	0
LIGHTING	2,708	1.25	3,385
MISCELLANEOUS EQUIPMENT	1,464	1.00	1,464
OTHER EQUIPMENT (CONTINUOUS)	720	1.25	900
LARGEST MOTOR	0	1.25	0
HVAC EQUIPMENT (FLA = MCA X 0.8)	2,468	1.00	2,468
KITCHEN EQUIPMENT 0	0	1.00	0
TOTAL CONNECTED (VA)	16,720		
TOTAL DEMAND (VA)			17,577
TOTAL DEMAND (AMPERES)			48.8
PANEL DEMAND LOADING VS RATING	32.5%		

ADDITIONAL NOTES (AS APPLICABLE):
3. NUMBERS IN PARENTHESIS REPRESENT KITCHEN EQUIPMENT NUMBERS.
4. PROVIDE CIRCUIT BREAKER LOCKING DEVICE WHERE NOTED AND FOR FACU AND UNIT TYPE SMOKE DETECTOR CIRCUITS.
5. PROVIDE ARC FAULT CIRCUIT BREAKERS FOR ALL 120V, 15A & 20A PATIENT ROOM BRANCH CIRCUITS SUPPLYING OUTLETS AND DEVICES.
6. COORDINATE SPD CIRCUIT BREAKER TRIP WITH SPD PROVIDED.
7. SHUNT TRIP CIRCUIT BREAKER.
8. GFCI CIRCUIT BREAKER.
9. EXISTING LOADS ARE ESTIMATED.
10. KITCHEN EQUIPMENT DEMAND FACTOR PER NEC TABLE 220.56
11. THE MCB SHALL BE 100% RATED & PROVIDED WITH AN ARC ENERGY REDUCTION MAINTENANCE SWITCH PER NEC ART. 240.87.
12. PROVIDE CB WITH SHUNT TRIP ACCESSORY.

Panel 1P5

TYPE: | 208 | 120 | VOLTS, 3 | PHASE, 4 | WIRE | PROVIDE IF CHECKED | XX | EQUIPMENT GROUND BUS
BOLT-ON | MOUNT: SURFACE | | | | | | XX | 100 % NEUTRAL BUS
HINGED TRIM | FEED: TOP | | | | | | | ULSE LABEL
NEMA - 1 ENCLOSURE | | | | | | | | ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR TRIP/POLES	CKT #	PHASE LOAD VA A	PHASE LOAD VA B	PHASE LOAD VA C	CKT #	CKT BKR TRIP/POLES	LOAD VA	LOAD SERVED
RCPS: SHOP 3	540	20/1	1	720			2	20/1	180	RCP: COORD REEL
RCP: SHOP 3 AT PANEL	180	20/1	3		360		4	20/1	180	RCP: COORD REEL
RCPS: SHOP 3	540	20/1	5			900	6	20/1	360	RCPS: FLOOR BOXES
RCPS: LOCKERS 116, TOOL STO 117	720	20/1	7	900			8	20/1	180	RCP: COORD REEL
RCPS: SHOP 3, TOOL 117	720	20/1	9		900		10	20/1	180	RCP: COORD REEL
RCP: UNX TLT	180	20/1	11			540	12	20/1	360	RCPS: FLOOR BOXES
SPARE		20/1	13	720			14	20/1	720	RCPS: SHOP 3, SEC TOOL STO 113
RCPS: SHOP 3 & SMARTBOARD	720	20/1	15		1,440		16	20/1	720	RCPS: SHOP 3, SEC TOOL STO 114
RCPS: EXTERIOR SHOP 3	360	20/1	17			900	18	20/1	540	RCPS: SHOP 3
ROLL-UP DOOR #1 D.S.	732	20/2	19	732			20	20/1		SPARE
|	732	|	21		1,452		22	20/1	720	RCPS: SHOP 3
F01	1,144	15/2	23			1,684	24	20/1	540	RCPS: ELECT RM 115
|	1,144	|	25	2,296			26	20/1	1,152	LTS: SHOP 3, 116,118
HVAC CTRL POWER	180	20/1	27		660		28	20/1	480	LTS: EXTERIOR CANOPY SHOP 3
RCPS: SEC TOOL STO 112	900	20/1	29			2,028	30	20/1	1,128	LTS: SHOP 3, 112,113
SPARE		20/1	31	0			32	20/1		SPARE
SPARE		20/1	33		432		34	20/1	432	SHADES
SPARE		20/1	35			0	36	20/1		SPARE
SPARE		20/1	37	0			38	20/1		SPARE
SPARE		20/1	39		0		40	20/1		SPARE
SPARE		20/1	41			0	42	20/1		SPARE
NOTES (AS APPLICABLE):				5,368	5,244	6,052	TTL PHASE VA			225 A. BUS (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMENT.				45	44	50	TTL PHASE AMPS			150 A. MAIN CIRCUIT BREAKER
2. SEE ESTIMATED LOAD SUMMARY FOR SERVICE SIZING CALCULATIONS.				32%	31%	36%	PHASE BALANCE			22 KAIC MINIMUM RATING

DEMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR	DEMAND (VA)
TOTAL RECEPTACLES (VA) = 9,540			
RECEPTACLES FIRST 10 KVA	9,540	1.00	9,540
RECEPTACLES > 10 KVA	0	0.50	0
LIGHTING	2,760	1.25	3,450
MISCELLANEOUS EQUIPMENT	1,896	1.00	1,896
OTHER EQUIPMENT (CONTINUOUS)	0	1.25	0
LARGEST MOTOR	0	1.25	0
HVAC EQUIPMENT (FLA = MCA X 0.8)	2,468	1.00	2,468
KITCHEN EQUIPMENT 0	0	1.00	0
TOTAL CONNECTED (VA)	16,664		
TOTAL DEMAND (VA)			17,354
TOTAL DEMAND (AMPERES)			48.2
PANEL DEMAND LOADING VS RATING	32.1%		

ADDITIONAL NOTES (AS APPLICABLE):
3. NUMBERS IN PARENTHESIS REPRESENT KITCHEN EQUIPMENT NUMBERS.
4. PROVIDE CIRCUIT BREAKER LOCKING DEVICE WHERE NOTED AND FOR FACU AND UNIT TYPE SMOKE DETECTOR CIRCUITS.
5. PROVIDE ARC FAULT CIRCUIT BREAKERS FOR ALL 120V, 15A & 20A PATIENT ROOM BRANCH CIRCUITS SUPPLYING OUTLETS AND DEVICES.
6. COORDINATE SPD CIRCUIT BREAKER TRIP WITH SPD PROVIDED.
7. GFCI CIRCUIT BREAKER.
8. EXISTING LOADS ARE ESTIMATED.
9. KITCHEN EQUIPMENT DEMAND FACTOR PER NEC TABLE 220.56
10. THE MCB SHALL BE 100% RATED & PROVIDED WITH AN ARC ENERGY REDUCTION MAINTENANCE SWITCH PER NEC ART. 240.87.
11. PROVIDE CB WITH SHUNT TRIP ACCESSORY.

Panel 1P3.1

TYPE: | 208 | 120 | VOLTS, 3 | PHASE, 4 | WIRE | PROVIDE IF CHECKED | XX | EQUIPMENT GROUND BUS
BOLT-ON | MOUNT: SURFACE | | | | | | XX | 100 % NEUTRAL BUS
HINGED TRIM | FEED: TOP | | | | | | | ULSE LABEL
NEMA - 1 ENCLOSURE | | | | | | | | ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR TRIP/POLES	CKT #	PHASE LOAD VA A	PHASE LOAD VA B	PHASE LOAD VA C	CKT #	CKT BKR TRIP/POLES	LOAD VA	LOAD SERVED
BUS DUCT	6,485	90/3	1	9,559			2	40/3	3,074	WIREWAY #1
|	6,485	|	3		9,559		4	|	3,074	|
|	6,485	|	5			9,559	6	|	3,074	|
(SHUNT TRIP)		|	7	0			8	|		(SHUNT TRIP)
MCC	3,074	40/3	9		6,149		10	40/3	3,074	WIREWAY #2
|	3,074	|	11			6,149	12	|	3,074	|
|	3,074	|	13	6,149			14	|	3,074	|
(SHUNT TRIP)			15		0		16	|		(SHUNT TRIP)
SHUNT TRIP POWER (NOTE 4)	180	20/1	17			612	18	20/1	432	SHADES
EWH1 D.S.	2,250	30/2	19	2,250			20	20/1		SPARE
|	2,250	|	21		2,250		22	20/1		SPARE
CP1 D.S.	180	15/1	23			180	24	20/1		SPARE
SPARE		20/1	25	0			26	20/1		SPARE
SPARE		30/1	27		0		28	20/1		SPARE
SPARE		30/1	29			0	30	20/1		SPARE
SPARE		20/1	31	0			32	20/1		SPARE
SPARE		20/1	33		0		34	20/1		SPARE
SPARE		20/1	35			0	36	20/1		SPARE
SPARE		20/1	37	0			38	20/1		SPARE
SPARE		20/1	39		0		40	20/1		SPARE
SPARE		20/1	41			0	42	20/1		SPARE
NOTES				17,958	17,958	16,500	TTL PHASE VA			225 A. BUS (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMENT.				150	150	138	TTL PHASE AMPS			225 A. MAIN CIRCUIT BREAKER
2. SEE ESTIMATED LOAD SUMMARY FOR SERVICE SIZING CALCULATIONS.				34%	34%	31%	PHASE BALANCE			22 KAIC MINIMUM RATING

DEMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR	DEMAND (VA)
TOTAL RECEPTACLES (VA) = 18,446			
RECEPTACLES FIRST 10 KVA	10,000	1.00	10,000
RECEPTACLES > 10 KVA	8,446	0.50	4,223
LIGHTING	0	1.25	0
MISCELLANEOUS EQUIPMENT	432	1.00	432
OTHER EQUIPMENT (CONTINUOUS)	33,538	1.25	41,923
LARGEST MOTOR	0	1.25	0
HVAC EQUIPMENT (FLA = MCA X 0.8)	0	1.00	0
KITCHEN EQUIPMENT 0	0	1.00	0
TOTAL CONNECTED (VA)	52,416		
TOTAL DEMAND (VA)			56,578
TOTAL DEMAND (AMPERES)			157.0
PANEL DEMAND LOADING VS RATING	69.8%		

ADDITIONAL NOTES (AS APPLICABLE):
3. NUMBERS IN PARENTHESIS REPRESENT KITCHEN EQUIPMENT NUMBERS.
4. PROVIDE CIRCUIT BREAKER LOCKING DEVICE WHERE NOTED AND FOR FACU AND UNIT TYPE SMOKE DETECTOR CIRCUITS.
5. PROVIDE ARC FAULT CIRCUIT BREAKERS FOR ALL 120V, 15A & 20A PATIENT ROOM BRANCH CIRCUITS SUPPLYING OUTLETS AND DEVICES.
6. COORDINATE SPD CIRCUIT BREAKER TRIP WITH SPD PROVIDED.
7. SHUNT TRIP CIRCUIT BREAKER.
8. GFCI CIRCUIT BREAKER.
9. EXISTING LOADS ARE ESTIMATED.
10. KITCHEN EQUIPMENT DEMAND FACTOR PER NEC TABLE 220.56
11. THE MCB SHALL BE 100% RATED & PROVIDED WITH AN ARC ENERGY REDUCTION MAINTENANCE SWITCH PER NEC ART. 240.87.
12. PROVIDE CB WITH SHUNT TRIP ACCESSORY.

PANEL IT

TYPE: | 208 | 120 | VOLTS, 3 | PHASE, 4 | WIRE | PROVIDE IF CHECKED | XX | EQUIPMENT GROUND BUS
BOLT-ON | MOUNT: SURFACE | | | | | | XX | 100 % NEUTRAL BUS
HINGED TRIM | FEED: TOP | | | | | | | ULSE LABEL
NEMA - 1 ENCLOSURE | | | | | | | | ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR TRIP/POLES	CKT #	PHASE LOAD VA A	PHASE LOAD VA B	PHASE LOAD VA C	CKT #	CKT BKR TRIP/POLES	LOAD VA	LOAD SERVED
RCP: IT RM WALL	180	20/1	1	360			2	20/1	180	RCP: IT RM RACK
RCP: IT RM WALL	180	20/1	3		360		4	20/1	180	RCP: IT RM RACK
RCP: IT RM WALL	180	20/1	5			360	6	20/1	180	RCP: IT RM WALL
RCP: IT RM WALL	180	20/1	7	360			8	20/1	180	RCP: IT RM WALL
RCP: IT RM WALL	180	20/1	9		1,380		10	20/2	1,200	L6-20 SPCL PURPOSE RCP RACK
RCP: IT RM WALL	180	20/1	11			1,380	12	|	1,200	|
RCPS: IT RM WALL	540	20/1	13	720			14	20/1	180	RCP: IT RM RACK
FACP (NOTE 4)	400	20/1	15		580		16	20/1	180	RCP: IT RM RACK
FA BATTERY BOX (NOTE 4)	400	20/1	17			1,600	18	20/2	1,200	L6-20 SPCL PURPOSE RCP RACK
SPARE		20/1	19	1,200			20	|	1,200	|
SPARE		20/1	21		0		22	20/1		SPARE
SPARE		20/1	23			0	24	20/1		SPARE
SPARE		20/1	25	0			26	20/1		SPARE
DAH02	17	15/2	27		17		28	20/1		SPARE
|	17	|	29			17	30	20/1		SPARE
NOTES (AS APPLICABLE):				2,640	2,337	3,357	TTL PHASE VA			100 A. BUS (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMENT.				22	19	28	TTL PHASE AMPS			60 A. MAIN CIRCUIT BREAKER
2. HVAC & REFRIGERATION EQUIPMENT MUST USE TYPE HACR BREAKERS.				32%	28%	40%	PHASE BALANCE			10 KAIC MINIMUM RATING

DEMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR	DEMAND (VA)
TOTAL RECEPTACLES (VA) = 7,500			
RECEPTACLES FIRST 10 KVA	7,500	1.00	7,500
RECEPTACLES > 10 KVA	0	0.50	0
LIGHTING	0	1.25	0
MISCELLANEOUS EQUIPMENT	33	1.00	33
OTHER EQUIPMENT (CONTINUOUS)	800	1.25	1,000
LARGEST MOTOR	0	1.25	0
HVAC EQUIPMENT (FLA = MCA X 0.8)	0	1.00	0
KITCHEN EQUIPMENT 0	0	1.00	0
TOTAL CONNECTED (VA)	8,333		
TOTAL DEMAND (VA)			8,533
TOTAL DEMAND (AMPERES)			23.7
PANEL DEMAND LOADING VS RATING	39.5%		

ADDITIONAL NOTES (AS APPLICABLE):
3. NUMBERS IN PARENTHESIS REPRESENT KITCHEN EQUIPMENT NUMBERS.
4. PROVIDE CIRCUIT BREAKER LOCKING DEVICE WHERE NOTED AND FOR FACU AND UNIT TYPE SMOKE DETECTOR CIRCUITS.
5. PROVIDE ARC FAULT CIRCUIT BREAKERS FOR ALL 120V, 15A & 20A PATIENT ROOM BRANCH CIRCUITS SUPPLYING OUTLETS AND DEVICES.
6. COORDINATE SPD CIRCUIT BREAKER TRIP WITH SPD PROVIDED.
7. GFCI CIRCUIT BREAKER.
8. EXISTING LOADS ARE ESTIMATED.
9. KITCHEN EQUIPMENT DEMAND FACTOR PER NEC TABLE 220.56
10. THE MCB SHALL BE 100% RATED & PROVIDED WITH AN ARC ENERGY REDUCTION MAINTENANCE SWITCH PER NEC ART. 240.87.
11. PROVIDE CB WITH SHUNT TRIP ACCESSORY.

Panel 4P1

TYPE: | 480 | 277 | VOLTS, 3 | PHASE, 4 | WIRE | PROVIDE IF CHECKED | XX | EQUIPMENT GROUND BUS
BOLT-ON | MOUNT: SURFACE | | | | | | XX | 100 % NEUTRAL BUS
HINGED TRIM | FEED: TOP | | | | | | | ULSE LABEL
NEMA - 1 ENCLOSURE | | | | | | | | ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR TRIP/POLES	CKT #	PHASE LOAD VA A	PHASE LOAD VA B	PHASE LOAD VA C	CKT #	CKT BKR TRIP/POLES	LOAD VA	LOAD SERVED
SPD		30/3	1	0			2	20/1		SPARE
|		|	3		0		4	20/1		SPARE
|		|	5			0	6	20/1		SPARE
SPARE		20/1	7	0			8	20/1		SPARE
SPARE		20/1	9		0		10	20/1		SPARE
SPARE		20/1	11			0	12	20/1		SPARE
SPARE		20/1	13	0			14	20/1		SPARE
SPARE		20/1	15		0		16	20/1		SPARE
SPARE		20/1	17			0	18	20/1		SPARE
SPARE		20/1	19	0			20	20/1		SPARE
SPARE		20/1	21		0		22	20/1		SPARE
SPARE		20/1	23			0	24	20/1		SPARE
SPARE		20/1	25	0			26	20/1		SPARE
SPARE		20/1	27		0		28	20/1		SPARE
SPARE		20/1	29			0	30	20/1		SPARE
NOTES				0	0	0	TTL PHASE VA			225 A. BUS (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WITH EQUIPMENT.				0	0	0	TTL PHASE AMPS			125 A. MAIN CIRCUIT BREAKER
2. HVAC & REFRIGERATION EQUIPMENT MUST USE TYPE HACR BREAKERS.				#DIV/0!	#DIV/0!	#DIV/0!	PHASE BALANCE			10 KAIC MINIMUM RATING

DEMAND SUMMARY:	CONN. (VA)	DEMAND FACTOR	DEMAND (VA)
TOTAL RECEPTACLES (VA) = 0			
RECEPTACLES FIRST 10 KVA	0	1.00	0
RECEPTACLES > 10 KVA	0	0.50	0
LIGHTING	0	1.25	0
MISCELLANEOUS EQUIPMENT	0	1.00	0
OTHER EQUIPMENT (CONTINUOUS)	0	1.25	0
LARGEST MOTOR	0	1.25	0
HVAC EQUIPMENT (FLA = MCA X 0.8)	0	1.00	0
KITCHEN EQUIPMENT 0	0	1.00	0
TOTAL CONNECTED (VA)	0		
TOTAL DEMAND (VA)			0
TOTAL DEMAND (AMPERES)			0.0
PANEL DEMAND LOADING VS RATING	0.0%		

ADDITIONAL NOTES (AS APPLICABLE):
3. NUMBERS IN PARENTHESIS REPRESENT KITCHEN EQUIPMENT NUMBERS.
4. PROVIDE CIRCUIT BREAKER LOCKING DEVICE WHERE NOTED AND FOR FACU AND UNIT TYPE SMOKE DETECTOR CIRCUITS.
5. PROVIDE ARC FAULT CIRCUIT BREAKERS FOR ALL 120V, 15A & 20A PATIENT ROOM BRANCH CIRCUITS SUPPLYING OUTLETS AND DEVICES.
6. COORDINATE SPD CIRCUIT BREAKER TRIP WITH SPD PROVIDED.
7. SHUNT TRIP CIRCUIT BREAKER.
8. GFCI CIRCUIT BREAKER.
9. EXISTING LOADS ARE ESTIMATED.
10. KITCHEN EQUIPMENT DEMAND FACTOR PER NEC TABLE 220.56
11. THE MCB SHALL BE 100% RATED & PROVIDED WITH AN ARC ENERGY REDUCTION MAINTENANCE SWITCH PER NEC ART. 240.87.
12. PROVIDE CB WITH SHUNT TRIP ACCESSORY.

Panel 1P3.2

TYPE: LOAD CENTER | | 120 | VOLTS, 1 | PHASE, 2 | WIRE | PROVIDE IF CHECKED | XX | EQUIPMENT GROUND BUS
| MOUNT: SURFACE | | | | | | XX | 100 % NEUTRAL BUS
| FEED: BOTTOM | | | | | | | ULSE LABEL
NEMA - 1 ENCLOSURE | | | | | | | | ISOLATED GROUND BAR

LOAD SERVED	LOAD VA	CKT BKR TRIP/POLES	CKT #	PHASE LOAD VA A	PHASE LOAD VA B	PHASE LOAD VA C	CKT #	CKT BKR TRIP/POLES	LOAD VA	LOAD SERVED
SPARE		20/1	1	0			2	20/1		SPARE
SPARE		20/1	3		0		4	20/1		SPARE
SPARE		20/1	5			0	6	20/1		SPARE
SPARE		20/1	7	0			8	20/1		SPARE
SPARE		20/1	9		0		10	20/1		SPARE
SPARE		20/1	11			0	12	20/1		SPARE
SPARE		20/1	13	0			14	20/1		SPARE
SPARE		20/1	15		0		16	20/1		SPARE
SPARE		20/1	17			0	18	20/

2018 APPENDIX B BUILDING CODE SUMMARY
ELECTRICAL SUMMARY
ELECTRICAL SYSTEMS AND EQUIPMENT

METHOD OF COMPLIANCE:

ENERGY CODE:	☑	PRESCRIPTIVE	☐	PERFORMANCE
ASHRAE 90.1:	☐	PRESCRIPTIVE	☐	PERFORMANCE

LIGHTING SCHEDULE (EACH FIXTURE TYPE)

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: (WHOLE BUILDING OR SPACE BY SPACE)

ALLOWED =	31,337	WATTS
ADDITIONAL 10% =	28,203	WATTS
SPECIFIED =	14,369	WATTS

EXTERIOR ALLOWANCE:
(TRADEABLE SURFACES)

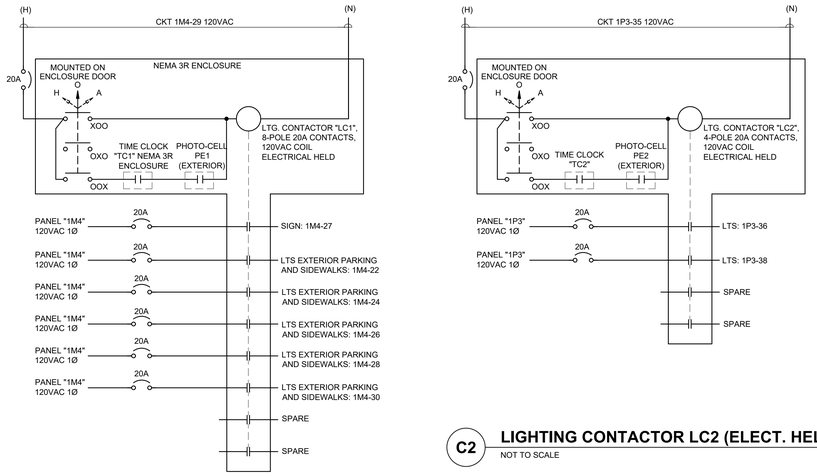
ALLOWED =	6,885	WATTS
SPECIFIED =	1,265	WATTS

(NON-TRADEABLE SURFACES:)

ALLOWED =	N/A	WATTS
SPECIFIED =	N/A	WATTS

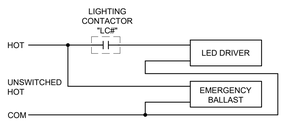
ADDITIONAL PRESCRIPTIVE COMPLIANCE

- ☐ 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 OUTSIDE AIR SYSTEM
- ☐ C406.7 REDUCED ENERGY USE IN SERVICE WATER HEATING



C1 LIGHTING CONTACTOR LC1 (ELECT. HELD)
NOT TO SCALE

C2 LIGHTING CONTACTOR LC2 (ELECT. HELD)
NOT TO SCALE



D1 WIRING DIAGRAM - EXTERIOR FIXTURES "L1E", "L2E", "HE"
NOT TO SCALE

LIGHTING FIXTURE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER/SERIES	NOM. SIZE	SOURCE / TEMP(oK) / DELIVERED LUMENS	VOLTS	WATTS	LENS	COLOR/ MATERIAL	MOUNTING HEIGHT	DRIVER/ DIMMING	REMARKS
A	LAY-IN VOLUMETRIC FIXTURE	H.E. WILLIAMS: AT1-24-L40/850-D-DIM-UNV MARK LIGHTING: WHSPR LCTR 2X4 80CRI 50K 4000LM MIN1 MVOLT SWC ZT DAY-O-LITE: HML-F-SI-50K-LO-24G-W-DIM10	2'x4'x4"	LEDs / 5000K / 4000 LUMENS	MVOLT	34	ACRYLIC	WHITE	RECESSED	LED DRIVER 0-10V DIMMING	1
A1	LAY-IN VOLUMETRIC FIXTURE	H.E. WILLIAMS: AT1-24-L55/850-D-DIM-UNV MARK LIGHTING: WHSPR LCTR 2X4 80CRI 50K 5500LM MIN1 MVOLT SWC ZT DAY-O-LITE: HML-F-SI-50K-LO-24G-W-DIM10	2'x4'x4"	LEDs / 5000K / 5500 LUMENS	MVOLT	48	ACRYLIC	WHITE	RECESSED	LED DRIVER 0-10V DIMMING	1
B4	PENDANT UP/DN LIGHT	FINELITE: H04PIDRO 4 B H 850 TG OPN 96LG-XXX-SC-FC-1%-FA50-CX-XE-XX PEERLESS: PRM4ID LLP 4FT MSL4 80CRI 50K I300LMF 1000LMF RBMW INTG MIN1 ZT MVOLT SCT F1/48A C210 SQEP LITECONTROL: 75L-P-ID-LPA-4-04-C1-50K-I100-D100-D01-1C-UNV-ECO-FA2-W3-CB1	4'x4"x4"	LEDs / 5000K / 2312 LUMENS	MVOLT	46		SATIN ALUMINUM	SUSPENDED BOT. OF FIXTURE 12.8' AFF	LED DRIVER 0-10V DIMMING	1
B8	PENDANT UP/DN LIGHT	FINELITE: H04PIDRO-8-8-H-850-TG-OPN-96LG-XXX-SC-FC-1%-FA50-CX-XE-XX PEERLESS: PRM4ID LLP 8FT MSL8 80CRI 50K I300LMF 1000LMF RBMW INTG MIN1 ZT MVOLT SCT F1/48A C210 SQEP LITECONTROL: 75L-P-ID-LPA-8-08-C1-50K-I100-D100-D01-1C-UNV-ECO-FA2-W3-CB1	8'x4"x4"	LEDs / 5000K / 4624 LUMENS	MVOLT	91		SATIN ALUMINUM	SUSPENDED BOT. OF FIXTURE 12.8' AFF	LED DRIVER 0-10V DIMMING	1
B8.1	PENDANT UP/DN LIGHT DUAL CIRCUIT, DOWN LIGHT TO OPERATE 24HR'S	FINELITE: H04PIDRO-8-8-H-850-TG-OPN-96LG-XXX-DC-FC-1%-FA50-CX-XE-XX-NL PEERLESS: PRM4ID LLP 8FT MSL8 80CRI 50K I300LMF 1000LMF RBMW INTG MIN1 ZT MVOLT DCT F1/48A C210 SQEP LITECONTROL: 75L-P-ID-LPA-8-08-C1-50K-I100-D100-D01-2C-UNV-ECO-FA2-NL-W3-CB1	8'x4"x4"	LEDs / 5000K / 4624 LUMENS	MVOLT	91		SATIN ALUMINUM	SUSPENDED BOT. OF FIXTURE 12.8' AFF	LED DRIVER 0-10V DIMMING	1
C	RECESSED WALLWASHER	FINELITE: HP 2 R WW-D 12 B 850 FO SW XXX SC FC-10% CX FE XX STARTEK LIGHTING AMERICA: RSLIM 12 500 WW 50K 80 PW DWCBW U 1C ALW: LP3.5RWT-DRY-S12-HI/90/5000-V01-HT-SW-UNV	12'	LEDs / 5000K / 5076 LUMENS	MVOLT	107			RECESSED GYP	LED DRIVER 0-10V DIMMING	1
D	SUSPENDED LED BAY LIGHT	LEDALUX: HBRSR-221816L-4KSK-WHT ASD LIGHTING CORP: ASD-UHB3-150ADAC-WH SLG: HFS-LS220-G1-FSK	10.6"x5.5"	LEDs / 5000K / 16k, 18K, 22K LUMENS	MVOLT	150		WHITE	SUSPENDED BOT. OF FIXTURE 16' AFF	LED DRIVER 0-10V DIMMING	1
E	2-HEAD EMERGENCY FIXTURE	BEGHELLI: PEH-1-AT EELP: OEM LED SD EMERGILITE: EL-2LEDR-AD	12"W 6"H 6"D	LED	MVOLT	10		WHITE	WALL 7'-6" AFF	LED DRIVER	8, 10
F	RECESSED LOBBY FIXTURE	FINELITE: HP-6-R-D-6-H-950-F-96LG-XXX-SC-FC-1%-CX-FE-SW PRUIDENTIAL LTG: BPRO5 REC FLSH LED5-90-MO-6'-TMW-WWF-LP-SC-UNV-XX-DM01 LITECONTROL: 6L-LG-D-6-6-SOF-C3-50K9-D100-DO1-1C-UNV	6'x6"x4"	LEDs / 5000K / 4398 LUMENS	MVOLT	48		SATIN ALUMINUM	RECESSED WOOD SLAT CEILING	LED DRIVER 0-10V DIMMING	1
F1	RECESSED LOBBY FIXTURE	FINELITE: HP-6-R-D-6-H-950-F-96LG-XXX-SC-FC-1%-CX-FE-SW PRUIDENTIAL LTG: BPRO5-LIN FLSH LED5-90-MO-6'-TMW-SAL-NU-SC-UNV-CA48-XX-DM01 LITECONTROL: 6L-LG-D-6-6-SOF-C3-50K9-D100-DO1-1C-UNV	6'x6"x4"	LEDs / 5000K / 4398 LUMENS	MVOLT	48		SATIN ALUMINUM	RECESSED GYP CEILING	LED DRIVER 0-10V DIMMING	1
G	RECESSED CAN	LIGHTOLIER: MODULITE M6R DL 25 9CS W CD Z10 U LIGHTONIA: LBR6 NCH 15LM 50K AR LSS MWD MVOLT UGZ1 PRES: LFR-6RD-M-15LS0K8-WD-DM1 / 6FR-6RD-T-SS	6" DIA	LEDs / 5000K / 1500 LUMENS	MVOLT	14		WHITE	RECESSED GYP CEILING	LED DRIVER 0-10V DIMMING	1
H	RECESSED CAN IC RATED HOUSING WITH MAX. DEPTH OF 6-3/8"	LIGHTOLIER: MODULITE M6R DL 40 9CS W CD Z10 U LIGHTONIA: LRC-06CDN-3000L-VOLTAGE-RND-MFL-50K-30F LITON: CH629IC/CR6L30/SW-T50-UE10-MOD638	6" DIA	LEDs / 5000K / 4000 LUMENS	MVOLT	33	FLUSH LENS	BLACK	RECESSED GYP CEILING	LED DRIVER 0-10V DIMMING	1
HE	RECESSED CAN IC RATED HOUSING WITH MAX. DEPTH OF 6-3/8"	LIGHTOLIER: MODULITE M6R DL 40 9CS W CD Z10 U LIGHTONIA: LRC-06CDN-3000L-VOLTAGE-RND-MFL-50K-EI-30F LITOM: CH629IC/CR6L30/SW-T50-UE10-MOD638-EMA-EMAC	6" DIA	LEDs / 5000K / 3000 LUMENS	MVOLT	33	FLUSH LENS	BLACK	RECESSED GYP CEILING	LED DRIVER 0-10V DIMMING	9
J	4' STRIP LIGHT	H.E. WILLIAMS: 75R-4-L50/850-XXX-DIM-UNV ASD LIGHTING CORP: AASD-LSF5-4A44AC-PRM COLUMBIA: CSL4-A-LSCS		LEDs / 5000K / 5000 LUMENS	MVOLT	33		WHITE	SUSPENDED BOT. OF FIXTURE 10' AFF	LED DRIVER	
J1	4' STRIP LIGHT	H.E. WILLIAMS: 75R-4-L50/835-XXX-DIM-UNV ASD LIGHTING CORP: ASD-LSF5-4A44AC-PRM COLUMBIA: CSL4-A-LSCS		LEDs / 5000K / 5000 LUMENS	MVOLT	33		WHITE	WALL MOUNTED 10' AFF	LED DRIVER	
K	CANOPY LIGHT	STONCO: GC60 SCT G2 SM 5 10 BZ LITHONIA: CNY LED ALO SWW2 UVOLT PE PIR WH SLG: CSC-LS1-G1-FSK	12.5"L x 12.5"W x 9.55"D	LEDs / 5000K / 3500 LUMENS	MVOLT	60	A19 ACRYLIC	WHITE	SURFACE CANOPY	LED DRIVER	3, 5
KE	CANOPY LIGHT	STONCO: GC60 SCT G2 SM 5 10 BZ, REMOTE BATTERY BACKUP LITHONIA: CNY LED ALO SWW2 UVOLT PE PIR WH, CNYEK E7WC SLG: CSC-LS1-G1-FSK	12.5"L x 12.5"W x 9.55"D	LEDs / 5000K / 3500 LUMENS	MVOLT	60	A19 ACRYLIC	WHITE	SURFACE CANOPY	LED DRIVER	3,5,9
L1	UP/DN AREA LIGHT WIDE FL DN & SPOT UP	PEACHTREE LIGHTING:SCYL-640-3CCT-75-BK-W ASD LIGHTING: ASD-OLCLR-2D18CC-BK LITON: WD-2340-BU20-BD45-UE-D10-T50	4" DIA x 12" CYLINDER	LEDs / 4000K / 2000 DN / 750 UP LUMENS	MVOLT	31(23)		BLACK	WALL 9'-0"AFF	LED DRIVER	
L1E	UP/DN AREA LIGHT WIDE FL DN & SPOT UP	PEACHTREE LIGHTING:SCYL-640-3CCT-75-BK-W ASD LIGHTING:ASD-OLCLR-2D18CC-BK IOTA IIS 25I LITON: WD-2340-BU20-BD45-UE-D10-T50-EMAC	4" DIA x 12" CYLINDER	LEDs / 4000K / 2000 DN / 750 UP LUMENS	MVOLT	31(23)		BLACK	WALL 9'-0"AFF	LED DRIVER	9
L2	DN AREA LIGHT WIDE FL DN	PEACHTREE LIGHTING:SCYL-640-3CCT-75-BK-W ASD LIGHTING: ASD-OLCLR-2D18CC-BK-2PACK LITON: WD-2340-BU20-BD45-UE-D10-T50	4" DIA x 12" CYLINDER	LEDs / 4000K / 2000 DN LUMENS	MVOLT	31(23)		BLACK	WALL 9'-0"AFF	LED DRIVER	
L2E	DN AREA LIGHT WIDE FL DN	PEACHTREE LIGHTING:SCYL-640-3CCT-75-BK-W ASD LIGHTING: ASD-OLCLR-2D18CC-BK-2PACK IOTA IIS 25I LITON: WD-2340-BU20-BD45-UE-D10-T50-EMAC	4" DIA x 12" CYLINDER	LEDs / 4000K / 2000 DN LUMENS	MVOLT	31(23)		BLACK	WALL 9'-0"AFF	LED DRIVER	9
SA	STREET AND PARKING AREA LIGHT	VISIONAIRE LTG: PG2-2-T4-64LC-5-5K-UNV-UBOA-BZ POLE – WJM SA6000730-BZ-DM10-BC LITHONIA LIGHTING: RSX1 LED P2 50K R3 MVOLT SPA DDBXD, 30 FT POLE US ARCH: LUM-PLED-III-W-40LED-700MA-50K-1-DB, POLE HAPCO SSA30D6-4-BM	14"SQx 7"H	LEDs / 5000K / 10345 LUMENS	MVOLT	105		DARK BRONZE	30' POLE	LED DRIVER	11
SA1	STREET AND PARKING AREA LIGHT	VISIONAIRE LTG: PGS-2-T4-96LC-7-5K-UNV-UBOA-BZ POLE: WJM SA6000730-BZ-DM10-BC 130MPH FBC LITHONIA LIGHTING: RSX1 LED P4 50K R3 MVOLT SPA DDBXD, 30 FT POLE US ARCH: LUM-PLED-III-W-80LED-700MA-50K-1-DB, POLE HAPCO SSA30D6-4-BM	14"SQx 7"H	LEDs / 5000K / 23917 LUMENS	MVOLT	214		DARK BRONZE	30' POLE	LED DRIVER	11
SC	WALKWAY LIGHTING	LUMCA LTG: CP6113-18 LED07 40W 50K L3 XXX BE POLE: LUMCA AP04-12 BE/WB3-4 BE ANP: LA199-1-CPS30W18-T2-50K-SX-76, 12' POLE US ARCH: LCGR-YD-PAIII-48LED-700MA-50K-UNV-PT-RAL, POLE HAPCO BRS12D4-4-SR-BM	27.75" DIA 7"H	LEDs / 5000K / 3945 LUMENS	MVOLT	42		DARK BRONZE	12' POLE	LED DRIVER	11
T	EXTERIOR AREA LIGHT	LEDALUX: SML-302N-30-UNV-7-50-BZ-WT-SS EELP: WP28-C-1L-QT-50K-SGP FIXTURE TO BE DETERMINED	18"W x 7.25"H x 9"D	LEDs / 5000K / 3811 LEMENS	MVOLT	30		BRONZE	WALL 9'-0"AFF	LED DRIVER	
U	MONO-POINT SPOT LIGHT	CLARTE LIGHTING: RR-388-PAR16-20A-XLED-BLKS-BLK-R-120V GOTHAM: ICO2ADJ 50/15 T20 30D MVOLT UGZ NCH AR LD FIXTURE TO BE DETERMINED	3"ID 5"OD 4.5"D	LEDs / 5000K / 1300 LUMENS	MVOLT	20		BLACK	RECESSED WOOD SLAT CEILING	LED DRIVER DIMMING	1
V1	SURFACE MOUNTED LINEAR FIXTURE, CORNER MOUNT	KELVIX- MELISSA 006-I-144"-DK-50K-WHR / DRIVER ULV-96 LLI: LLI-ANG-W-F-H4 4W-52K-24V-LENGTH / DRIVER LLI-PS-DE010-096W-24V-KO JESCO: DL-FLEX2-NDXCC-5W-5090-12' CH-SM-35 DL-PS-96/24	12' LONG	LEDs / 5000K / 400 LUMENS/FT	MVOLT	48		WHITE	SURFACE LIGHT COVE	LED DRIVER DIMMING	1
V2	SURFACE MOUNTED LINEAR FIXTURE, CORNER MOUNT	KELVIX- MELISSA 006-I-552"-DK-50K-WHR / DRIVER ULV-192 LLI: LLI-ANG-W-F-H4 4W-52K-24V-LENGTH / DRIVER LLI-PS-DE010-096W-24V-KO JESCO: DL-FLEX2-NDXCC-5W-5090-46' CH-SM-35 DL-PS-96/24	46' LONG	LEDs / 5000K / 400 LUMENS/FT	MVOLT	184		WHITE	SURFACE LIGHT COVE	LED DRIVER DIMMING	1
X1	EXIT SIGN, SINGLE FACE, THERMOPLASTIC HOUSING 6" RED LETTERS	BEGHELLI: PXRSA-AT EELP: XE2RW EM SD EMERGILITE: ELXN400RN-AD	12"L 7.2"H 2"D	LEDs	MVOLT		6" RED	WHITE	WALL 7'-6"AFF	LED DRIVER	5,6,8,10
X2	EXIT SIGN SINGLE FACE EDGELIT	BEGHELLI: OL2 SA LR 1 X EELP: EDGU 1RCW EM SD EMERGILITE: LXN1NRC-A-D	12"L 7.2"H 2"D	LEDs	MVOLT		6" RED	WHITE	CEILING MOUNTED	LED DRIVER	5,6,8,10
X3	COMBO/EXIT SIGN SINGLE FACE	BEGHELLI: PCHRSA-AT EELP: XCS 2 R W SD EMERGILITE: ELXN400RN-2LEDR-AD		LEDs	MVOLT		6" RED	WHITE	WALL 7'-6"AFF	LED DRIVER	5,6,8,10
X4	EXIT SIGN SINGLE FACE EDGELIT	BEGHELLI: OL2 SA LR 1 X MM EELP: EDGU 1RCW MM EM SD EMERGILITE: LXN1NRC-A-D		LEDs	MVOLT		6" RED	WHITE	MULLION MOUNTED ABOVE DOOR	LED DRIVER	5,6,8,10

EXTERIOR LIGHTING AND POLES ALTERNATE #11: PREFERRED ALTERNATE BASIS OF DESIGN VISIONAIRE LTG PG2, POLE WMJ. FIXTURES "SA", "SA1".

EXTERIOR LIGHTING AND POLES ALTERNATE #11: PREFERRED ALTERNATE BASIS OF DESIGN LUMCA LTG: CP6113, POLE LUMCA AP04. FIXTURE "SC".

REMARKS:
1. 1-10V DIMMING TO 1%
2. DAMP LOCATION
3. WET LOCATION
4. WIREGUARD
5. LED REQUIRED SURGE PROTECTION
6. VERIFY FINAL MOUNTING HEIGHT WITH ARCHITECT
7. FINAL COLOR SELECTION BY ARCHITECT
8. INTEGRAL BATTERY BACKUP - 90MIN.
9. REMOTE BATTERY BACKUP - 90MIN.
10. SELF DIAGNOSTICS
11. POLE MUST HAVE WIND RATING OF 130MPH

GENERAL NOTES:

A. THE CONTRACTOR SHALL VERIFY THE LEAD TIME OF ALL PRODUCTS SPECIFIED IN THIS SCHEDULE AT THE TIME OF PACKAGE QUOTE.
B. DURING THE BID PROCESS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DELIVERY/SCHEDULING ISSUES.
C. NO SUBSTITUTIONS WILL BE ALLOWED DUE TO THE LACK OF COORDINATION OF DELIVERY DATES AND CONSTRUCTION SCHEDULE AFTER BID.
D. ALL EXPEDITED EXPENSES SHALL BE THE RESPONSIBILITY OF THE CONTRACTORS.
E. THE ELECTRICAL CONTRACTOR SHALL RECEIVE APPROVAL FOR ALL LIGHTING FIXTURES FROM THE ARCHITECT/OWNER PRIOR TO PURCHASE AND ROUGH-IN.
F. FIXTURES INSTALLED IN CEILINGS INDICATED ON THE ARCHITECTURAL PLANS AS HAVING INSULATION IN CONTACT WITH THE CEILING SURFACE SHALL BE MANUFACTURER RATED "IC"..
G. ALL LIGHTING FIXTURES PENETRATING RATED FLOOR/CEILING ASSEMBLY SHALL BE PROVIDED WITH ACCESSORIES TO MAINTAIN ASSEMBLY FIRE RATING. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL RATINGS.
H. "NL" ADJACENT TO FIXTURE INDICATES AN UNSWITCHED 24 HOUR NIGHT LIGHT. THE FIXTURE SHALL BE CONNECTED TO THE UNSWITCHED INDICATED CIRCUIT.
I. LED MODULES SHALL BE REPLACEABLE.
J. ACRYLIC PRISMATIC LENSES SHALL BE 0.125" NOMINAL MINIMUM THICKNESS.
K. ALL EXIT AND EMERGENCY FIXTURES SHALL COMPLY WITH NCSBC STANDARDS AND HAVE AUTOMATIC TESTING DEVICES.
L. LED EMERGENCY BATTERY SHALL PROVIDE FULL RATED FIXTURE OUTPUT FOR 90 MINUTES MINIMUM.
M. SEE SPECIFICATIONS SECTIONS 265100 AND 265200 FOR ADDITIONAL REQUIREMENTS.
N. THE FIRST FIXTURE NAMED IN THE MANUFACTURER COLUMN IS THE BASIS OF DESIGN. OTHER FIXTURES ARE SIMILAR IN THE OPINION OF THE ARCHITECT AND ENGINEER. IF THE CONTRACTOR ELECTS TO SUBMIT A FIXTURE OTHER THAN THE BASIS OF DESIGN FIXTURE, INCLUDING ONE OF THE TWO SIMILAR FIXTURES, REQUIREMENTS OF NOTES O. AND P. APPLY. [THE ABOVE FIXTURE TYPES ARE LISTED AS THE DESIGN BASIS. THE ACTUAL FIXTURES SUBMITTED SHALL BE MANUFACTURED IN THE UNITED STATES.
O. LIGHTING FIXTURES HAVE BEEN SELECTED AND SPECIFIED TO ACHIEVE REQUIRED/DESIRED ILLUMINATION LEVELS AND OTHER CHARACTERISTICS IN THEIR RESPECTIVE AREAS. SPECIFIED FIXTURES HAVE SPECIFIC CHARACTERISTICS WHICH MAY CREATE UNIQUE ILLUMINATION RESULTS ESSENTIAL TO THE PROJECT. LIGHTING FIXTURES PROVIDED SHALL MEET THE ASTHETICS, DETAILS, AND SPECIFICATIONS STATED ABOVE AND IN THE DIVISION 26 SPECIFICATIONS, AND MOUNTING HEIGHTS AND SPACINGS SHOWN ON THE DRAWINGS. ANY DEVIATIONS FROM THE SPECIFIED FIXTURES SHALL DEEM ALL PARTIES IN THE SUPPLY CHAIN AND CONTRACTOR RESPONSIBLE FOR PROVIDING DETAILED COMPARISONS OF THE SPECIFIED FIXTURE AND THE PROPOSED FIXTURE FOR ARCHITECT AND ENGINEER REVIEW IN DETERMINING EQUALITY. PROVIDE COMPLETE POINT BY POINT ILLUMINATION STUDIES FOR ALL SUBSTITUTIONS.
P. SUBSTITUTIONS MAY BE APPROVED BY THE ARCHITECT AND ENGINEER IF THEY ARE JUDGED TO BE EQUAL TO THE SPECIFIED FIXTURES. "EQUAL" MAY INCLUDE, AT THE SOLE DISCRETION OF THE ARCHITECT AND ENGINEER, LENS MATERIAL AND CHARACTERISTICS, COLORS, REFLECTORS, HOUSING MATERIAL AND CONFIGURATION, FINISHES, PHOTOMETRICS, EFFICIENCY, OPTIONS, FUNCTIONALITY, ETC.

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SCO ID# 22-24540-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023111 ALLEN CRABB
12/19/2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager: WAC	Drawn By: HGH
Date: 12-18-2024	Reviewed By: WAC
Project ID: CBHF: 22093	

Sheet Title: ELECTRICAL SCHEDULES AND DETAILS

Sheet No.: E6.4

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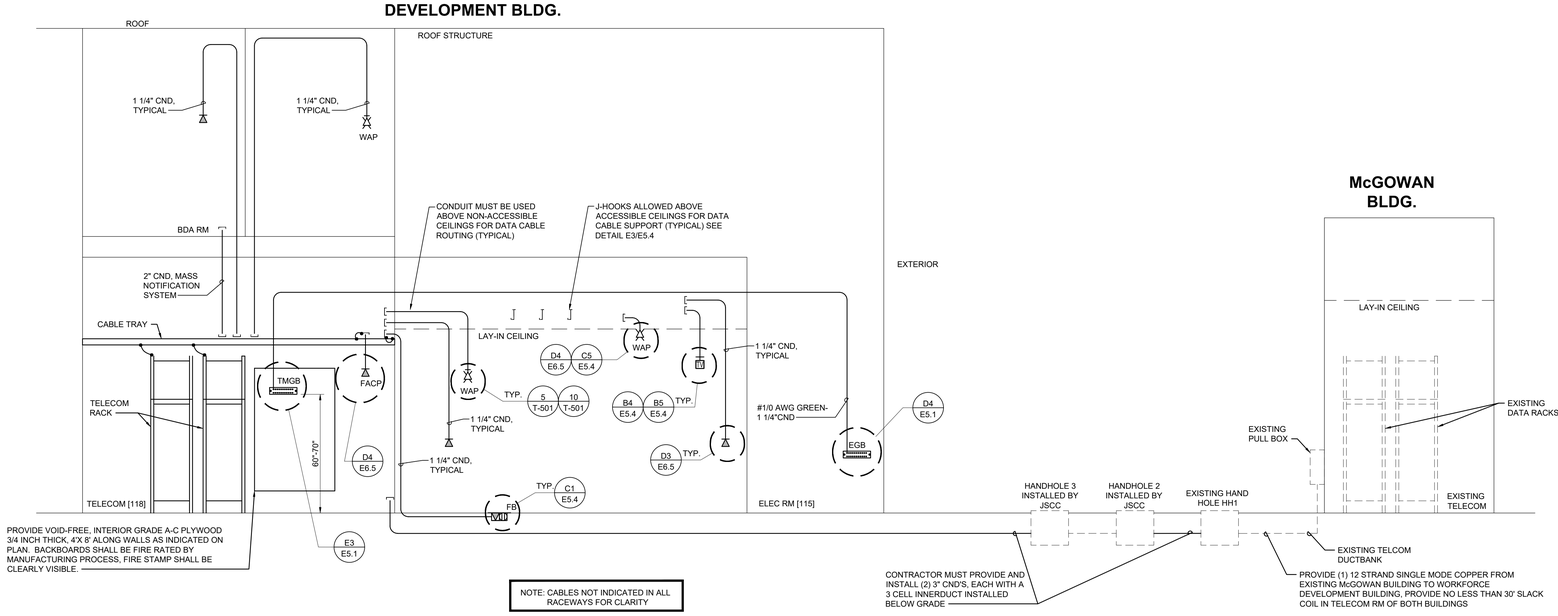
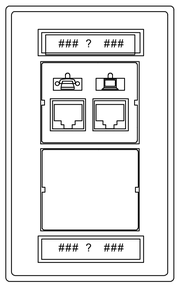


C3 TELECOMMUNICATIONS / DATA RISER DIAGRAM
NOT TO SCALE



D3 TYPICAL DATA OUTLET DETAIL
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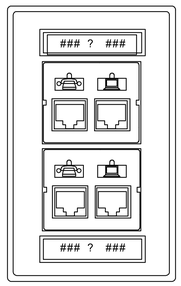

D4 TYPICAL DATA OUTLET DETAIL CLASSROOMS 1, 2 & 3
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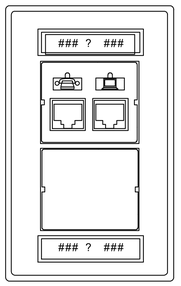

D4 DDC, WAP AND FACP OUTLET DETAIL
NOT TO SCALE

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023311 ALLEN GRIBB
12/19/2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

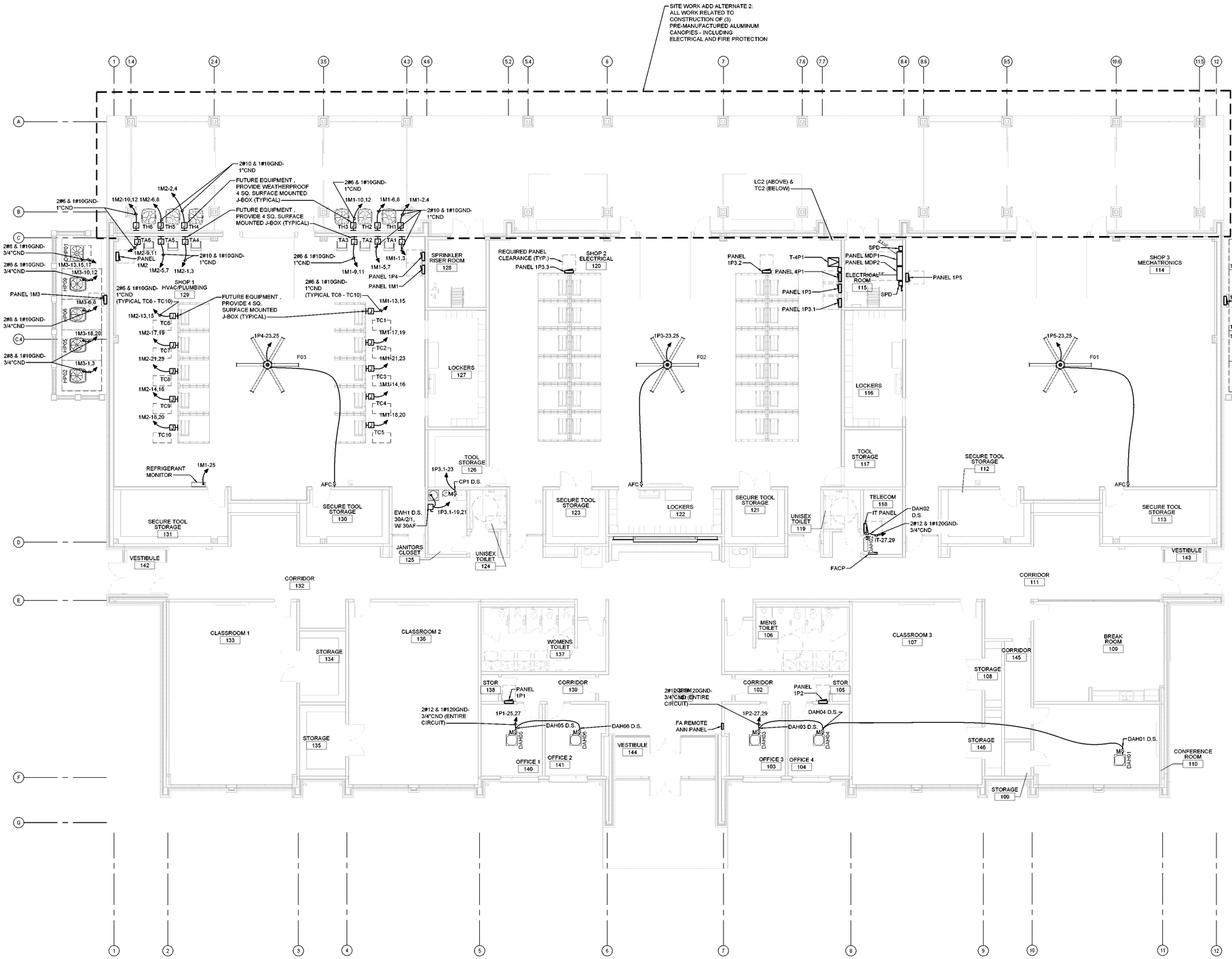
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By
WAC	HGH
Date	Reviewed By
12-18-2024	WAC
Project ID	CBHF: 22093

Sheet Title
ELECTRICAL TELECOM RISER AND DETAILS

Sheet No.
E6.5



E1 FLOOR PLAN - POWER
1/8" = 1'-0"

PLAN NORTH

WALL LEGEND

	2 HOUR RATED WALL

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NORTH CAROLINA PROFESSIONAL SEAL 023111 ENGINEER ALLEN CRUIB
12/19/2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

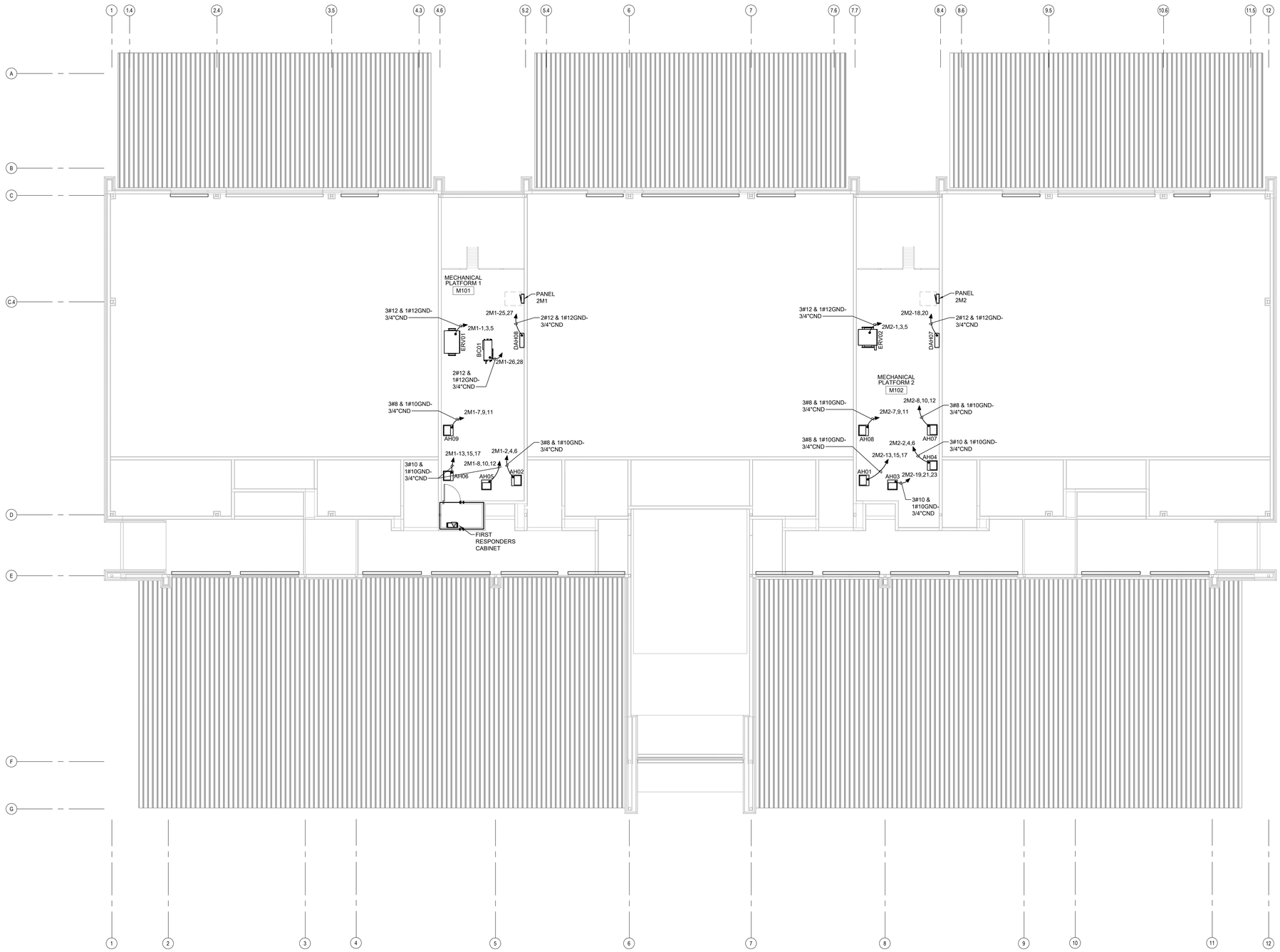
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager: WAC	Drawn By: HGH
Date: 12-18-2024	Reviewed By: WAC
Project ID: CBHF: 22093	

Sheet Title: ELECTRICAL FLOOR PLAN - HVAC POWER

Sheet No.: EH1.1



E1 MEZZANINE PLAN - POWER
1/8" = 1'-0"

PLAN NORTH

WALL LEGEND

	2 HOUR RATED WALL

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023311 ALLEN CRUSE
12/19/2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

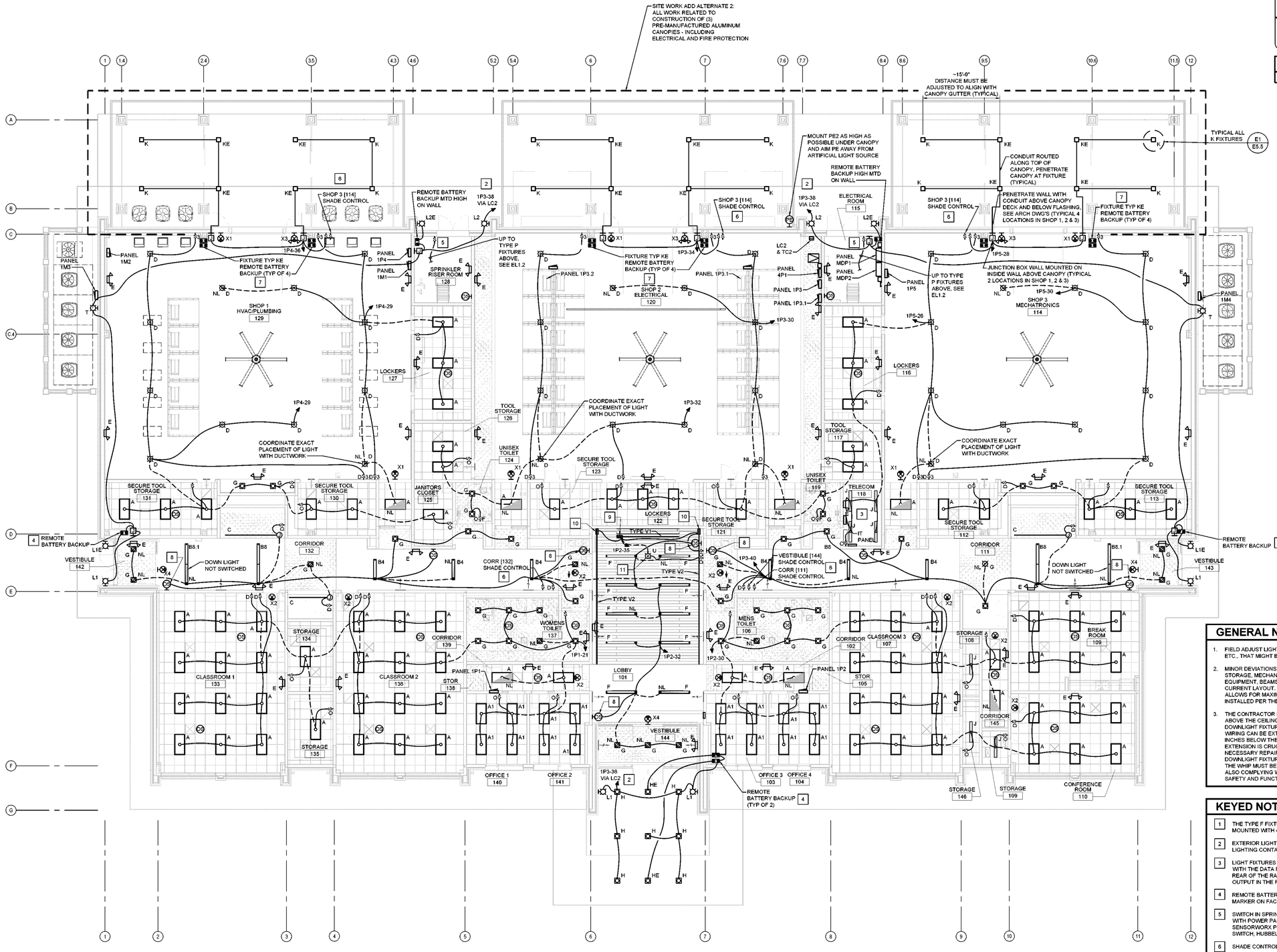
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By
WAC	HGH
Date	Reviewed By
12-18-2024	WAC
Project ID	CBHF: 22093

Sheet Title
ELECTRICAL PLATFORMS PLAN - HVAC POWER

Sheet No.
EH1.2



GENERAL NOTES

1. FIELD ADJUST LIGHT FIXTURE LAYOUT TO CLEAR ANY BEAM, COLUMNS, PIPING, ETC., THAT MIGHT BE IN THE WAY OF MOUNTING.
2. MINOR DEVIATIONS OF UP TO 2' IN LIGHTING LAYOUT SHALL BE ALLOWED IN STORAGE, MECHANICAL AND ELECTRICAL ROOMS TO CLEAR MECHANICAL EQUIPMENT, BEAMS, COLUMNS, PIPING, ETC., THAT MAY CONFLICT WITH THE CURRENT LAYOUT. DEVIATION SHALL ONLY BE ALLOWED WHERE RELOCATION ALLOWS FOR MAXIMUM LIGHTING OUTPUT ON THE GROUND AND THE LIGHTS ARE INSTALLED PER THE INTENT OF THE CONSTRUCTION DOCUMENTS.
3. THE CONTRACTOR MUST PROVIDE A FLEXIBLE WHIP FROM THE JUNCTION BOX ABOVE THE CEILING TO THE DOWNLIGHT FIXTURE, ENSURING THAT THE ENTIRE DOWNLIGHT FIXTURE INCLUDING THE LIGHT ENGINE, DRIVER AND ASSOCIATED WIRING CAN BE EXTENDED THRU THE CEILING OPENING TO A POINT AT LEAST 12 INCHES BELOW THE CEILING TO ALLOW FOR MAINTENANCE ACCESS. THIS EXTENSION IS CRUCIAL FOR ENSURING THAT TECHNICIANS CAN PERFORM NECESSARY REPAIRS OR ADJUSTMENTS TO ALL COMPONENTS OF THE DOWNLIGHT FIXTURE WITHOUT THE NECESSITY TO WORK IN THE CEILING CAVITY. THE WHIP MUST BE FLEXIBLE ENOUGH TO FACILITATE THIS EXTENSION WHILE ALSO COMPLYING WITH ALL RELEVANT ELECTRICAL CODES, ENSURING BOTH SAFETY AND FUNCTIONALITY FOR FUTURE MAINTENANCE.

KEYED NOTES

1. THE TYPE F FIXTURES IN LOBBY (101) MOUNTED VERTICALLY ON WALL WILL BE MOUNTED WITH 48" BETWEEN FIXTURES (TYPICAL 5 LOCATIONS).
2. EXTERIOR LIGHTING FIXTURES SHALL BE CONTROLLED BY PHOTOCELL VIA LIGHTING CONTACTOR "LC2".
3. LIGHT FIXTURES WITHIN THE TELECOM ROOM MUST BE ALIGNED HORIZONTALLY WITH THE DATA RACKS. LIGHTS MUST BE LOCATED IN THE FRONT AND THE REAR OF THE RACKS. ALIGN FIXTURES TO ALLOW FOR THE MAXIMUM LIGHT OUTPUT IN THE FRONT AND REAR OF THE RACKS.
4. REMOTE BATTERY BACKUP: MOUNTED ABOVE ACCESSIBLE CEILING. PROVIDE MARKER ON FACE OF T-BAR CEILING TO LOCATE BATTERY BACKUP.
5. SWITCH IN SPRINKLER / ELECTRICAL RM: PROVIDE STANDARD TOGGLE SWITCH WITH POWER PACK TO OVERRIDE SENSOR WHEN SWITCH IS OPERATED. SENSORWORX POWER PACK SWX-900-AX (SIMILAR MANUFACTURERS (SENSOR SWITCH, HUBBELL CONTROLS)
6. SHADE CONTROL: SEE EP1.2 FOR SHADE LOCATIONS.
7. REMOTE BATTERY BACKUP: MOUNTED ON WALL AT JUNCTION BOX.
8. WALL MOUNTED OCCUPANCY SENSOR: MOUNT AT 8'-0"AFF AND AIM TOWARD OPPOSITE CORNER AT OPPOSITE END OF ROOM/CORRIDOR.
9. LED DRIVER: PROVIDE ULV96 WATT POWER SUPPLY, MOUNT IN ACCESSIBLE LOCATION ABOVE CEILING. DRIVER TO POWER HORIZONTAL RUN OF LIGHTS ABOVE JAMES SPRUNT COMMUNITY COLLEGE SIGN.
10. LED DRIVER: PROVIDE ULV192 WATT POWER SUPPLY, MOUNT IN ACCESSIBLE LOCATION ABOVE CEILING. DRIVER TO POWER HORIZONTAL RUN OF LIGHTS ABOVE CEILING AND VERTICAL RUN OF LIGHTS ON WALL.
11. MONO-POINT PENDANT: FIELD ADJUST DISTANCE OF LIGHT FROM ALL TO ALLOW LIGHT TO CENTER ON LETTERS, AIM FIXTURE HEAD AT "JAMES SPRUNT COMMUNITY COLLEGE" SIGN TO LIGHT ALL LETTERS.

E1 **FLOOR PLAN - LIGHTING**
1/8" = 1'-0"
PLAN NORTH

WALL LEGEND

	2 HOUR RATED WALL

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SCO ID# 22-24540-02A

NORTH CAROLINA PROFESSIONAL SEAL 023111 ENGINEER ALLEN CRUTS
12/19/2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

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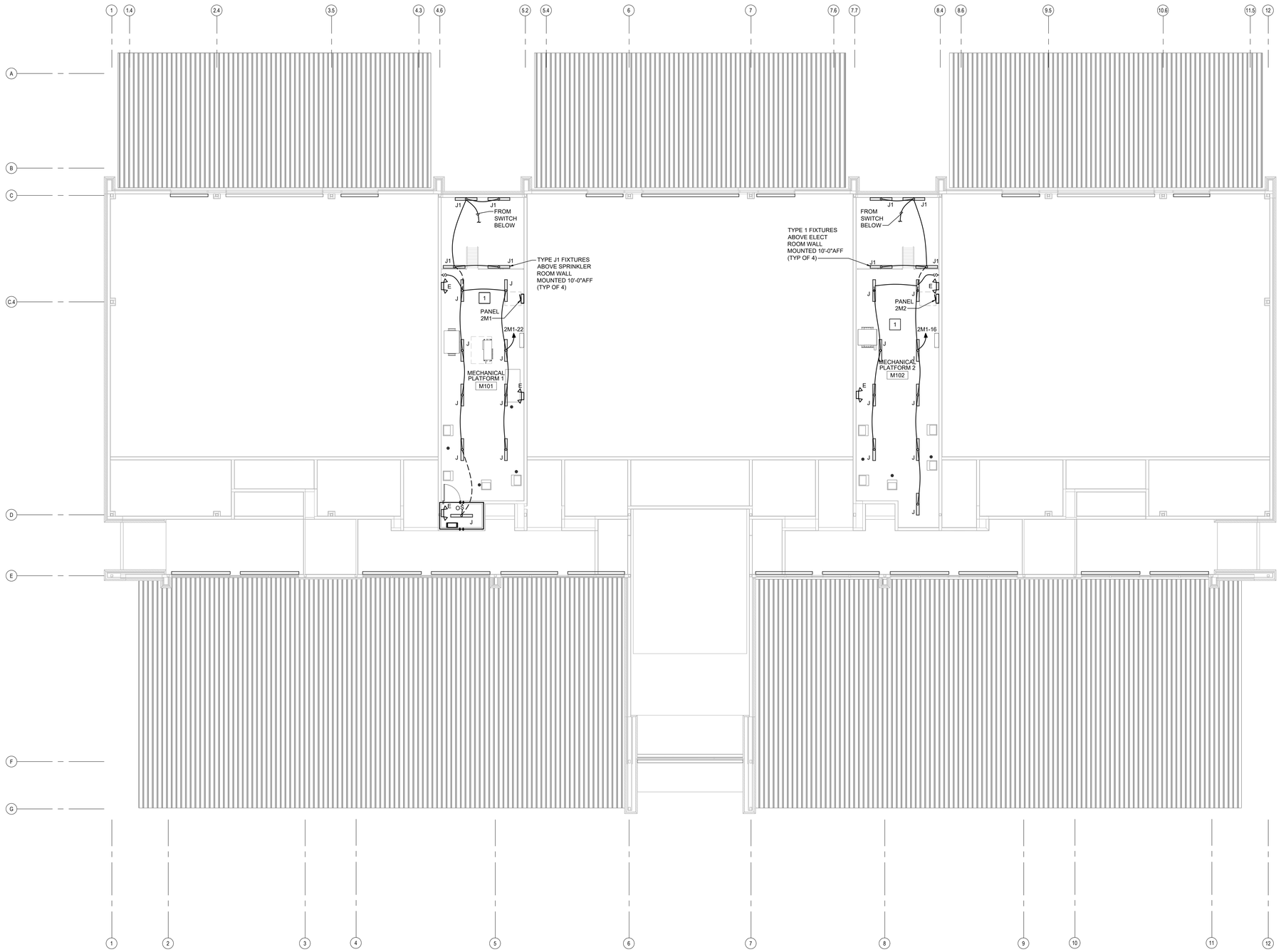
Sheet Title: ELECTRICAL FLOOR PLAN - LIGHTING

Sheet No.: EL1.1



E1 **MEZZANINE PLAN - LIGHTING**
1/8" = 1'-0"

PLAN NORTH

GENERAL NOTES

1. FIELD ADJUST LIGHT FIXTURE LAYOUT TO CLEAR ANY BEAM, COLUMNS, PIPING, ETC., THAT MIGHT BE IN THE WAY OF MOUNTING.
2. MINOR DEVIATIONS OF UP TO 2' IN LIGHTING LAYOUT SHALL BE ALLOWED IN STORAGE, MECHANICAL AND ELECTRICAL ROOMS TO CLEAR MECHANICAL EQUIPMENT, BEAMS, COLUMNS, PIPING, ETC., THAT MAY CONFLICT WITH THE CURRENT LAYOUT. DEVIATION SHALL ONLY BE ALLOWED WHERE RELOCATION ALLOWS FOR MAXIMUM LIGHTING OUTPUT ON THE GROUND AND THE LIGHTS ARE INSTALLED PER THE INTENT OF THE CONSTRUCTION DOCUMENTS.

KEYED NOTES

1 SWITCH IN SPRINKLER / ELECTRICAL RM AND MECHANICAL PLATFORM: PROVIDE STANDARD TOGGLE SWITCH WITH POWER PACK TO OVERRIDE SENSOR WHEN SWITCH IS FLIPPED. SENSORWORX POWER PACK SWX-900-AX (SIMILAR MANUFACTURERS (SENSOR SWITCH, HUBBELL CONTROLS)

WALL LEGEND

2 HOUR RATED WALL

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023311 ALLEN GRIBB
12/19/2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

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Date	Reviewed By
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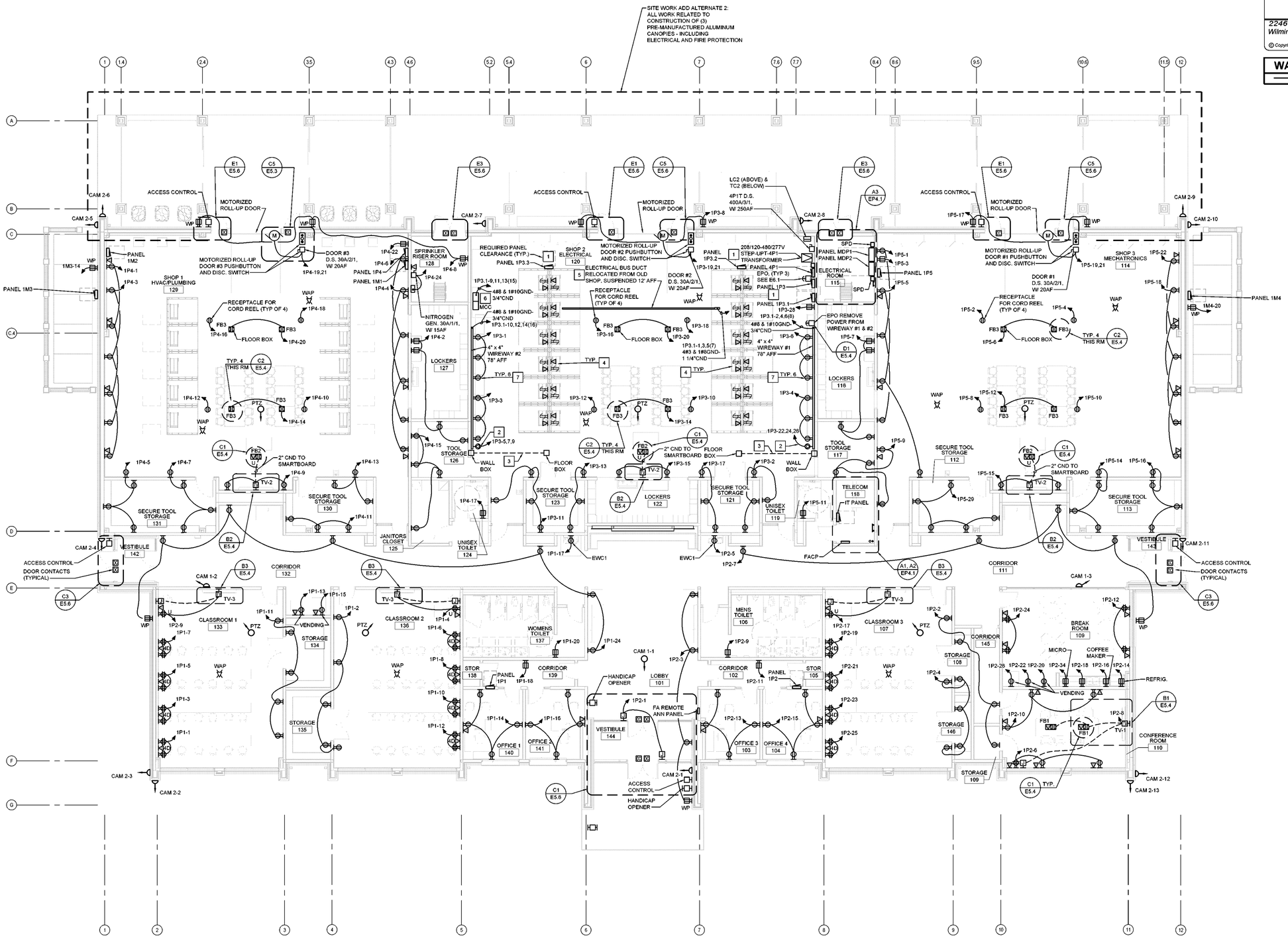
Sheet Title
ELECTRICAL PLATFORMS PLAN - LIGHTING

Sheet No.
EL1.2



KEYED NOTES

1. PROVIDE (2) 30/1 CIRCUIT BREAKERS IN PANEL 1P3 TO FEED PANEL 1P3.2 & PANEL 1P3.3. PROVIDE (2) 2" CND'S FROM PANEL1P3 BELOW SLAB, (1) 2"CND TO 1P3.2 AND (1) 2"CND TO 1P3.3, SEE RISER DIAGRAM SHEET E6.1
2. PROVIDE (1) 20A 4 POLE SPECIAL PURPOSE RECEPTACLE, MOUNT RECEPTACLE 6" BELOW WIREWAY.
3. PROVIDE FLUSH MOUNTED CONCRETE SERIES EPOXY COATED DEEP FLOOR BOX (6"Dx14Lx11W). FLOOR BOX COVER MUST BE PEDESTRIAN RATED, REMOVABLE AND FLUSH WITH FINISHED FLOOR. PROVIDE 12"X12"X6" DEEP JUNCTION WALL BOX WITH SCREW COVER. BOX TO BE MOUNTED AT 9'-6"AFF TO TOP OF BOX. INTERCONNECT FLOOR BOX AND WALL BOX WITH (1) 2" CONDUIT.
4. RECEPTACLES SHOWN ON WALL ARE FOR REFERENCE ONLY, THESE RECEPTACLES ARE TO BE MOUNTED AND WIRED BY THE STUDENTS AS PART OF CLASSROOM ACTIVITIES.
5. BUS DUCT (480/277V, 3PH, 4W, 100A) MUST BE PROVIDED WITH LABEL INDICATING PANEL SOURCE, VOLTAGE AND AMPERAGE. CONTRACTOR MUST DELIVER ALL EXISTING BUS MOUNTED PLUG-IN EQUIPMENT ASSOCIATED WITH THE RELOCATED BUS DUCT INCLUDING OPERATING DEVICES TO THE OWNER PRIOR TO COMPLETION OF THE PROJECT.
6. MCC (600V MAX, 3PH, 4W, 600A) MUST BE PROVIDED WITH LABEL INDICATING PANEL SOURCE, VOLTAGE AND AMPERAGE.
7. RECEPTACLES MOUNTED ON WALL BELOW WIREWAY ARE TO BE MOUNTED 6" ABOVE COUNTER TOP.

GENERAL NOTES

1. ALL ELECTRICAL DEVICES LOCATED IN SHOP1 HVAC/PLUMBING, AND SHOP 3 MECHATRONICS INCLUDED BUT NOT LIMITED TO RECEPTACLES, SAFETY SWITCHES, JUNCTION BOXES, DATA OUTLETS ETC. MUST BE MOUNTED 48" ABOVE FINISHED FLOOR.

WALL LEGEND

	2 HOUR RATED WALL

E1 FLOOR PLAN - POWER

1/8" = 1'-0"

PLAN NORTH

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023311 ALLEN, CRIBB
12/19/2024

James Sprunt Community College - Workforce Development Building

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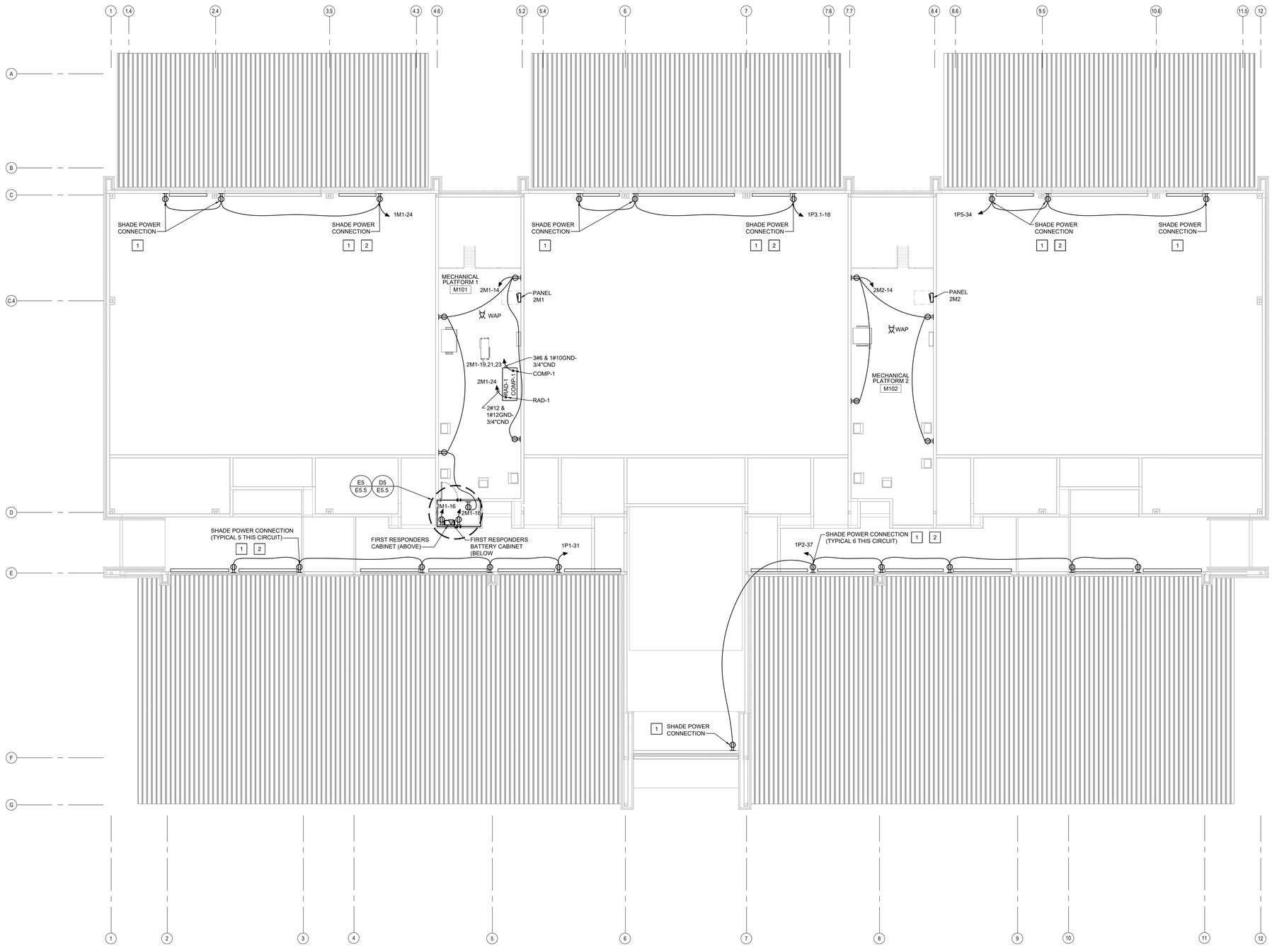
Sheet Title: ELECTRICAL FLOOR PLAN - POWER

Sheet No.: EP1.1



E1 PLATFORMS PLAN - POWER

1/8" = 1'-0"

PLAN NORTH

KEYED NOTES

1. SHADE: RECEPTACLE MOUNTED ADJACENT TO SHADE MOTOR, SEE ARCHITECTURAL 500 SERIES DRAWINGS FOR MOUNTING HEIGHT.
2. SHADE CONTROL: SEE EL1.1 FOR SWITCH LOCATION. SWITCH OPERATES ALL SHADE LOCATED IN THIS ROOM.

WALL LEGEND

	2 HOUR RATED WALL

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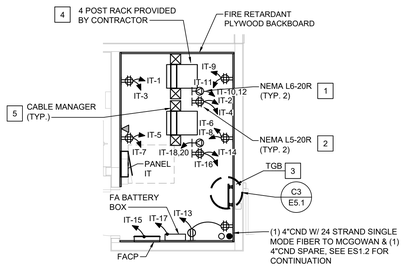
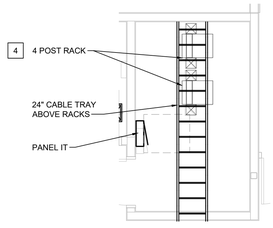
Sheet No.: EP1.2



A1 ENLARGED IT ROOM POWER PLAN

1/4" = 1'-0"

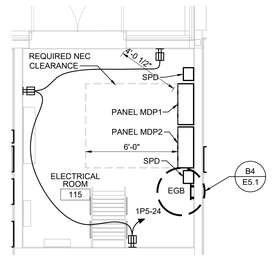
PLAN NORTH



A2 ENLARGED IT ROOM CABLE TRAY DETAIL

1/4" = 1'-0"

PLAN NORTH



A3 ENLARGED ELECTRICAL ROOM

1/4" = 1'-0"

PLAN NORTH

KEYED NOTES

1. OUTLET: PROVIDE ONE L6-20R, 20 AMP OUTLET CENTERED ON COMMUNICATIONS EQUIPMENT RACK. INSTALL OUTLET 6" ABOVE AND 6" BEHIND COMMUNICATIONS EQUIPMENT RACK. OUTLET MUST BE MOUNTED ON INDEPENDENT SUPPORT AND NOT BE ATTACHED TO COMMUNICATIONS EQUIPMENT RACK.
2. OUTLET: PROVIDE TWO SEPARATE 5-20R, 20 AMP OUTLETS INSTALLED IN ONE QUADRAPLEX OUTLET BOX CENTERED ON EACH COMMUNICATION RACK AND CONNECTED TO DEDICATED ELECTRICAL CIRCUITS. INSTALL OUTLETS 6" ABOVE AND 6" BEHIND EACH COMMUNICATIONS EQUIPMENT RACK. OUTLETS MUST BE MOUNTED ON INDEPENDENT SUPPORT AND NOT BE ATTACHED TO COMMUNICATIONS EQUIPMENT RACK. VERTICAL POWER DISTRIBUTION UNITS SHOULD BE PLUGGED INTO THE DEDICATED POWER OUTLETS AND MOUNTED TO THE BACK SIDE OF THE COMMUNICATIONS EQUIPMENT RACK. TYPICAL FOR TWO COMMUNICATIONS EQUIPMENT RACKS
3. TGB: GROUND BAR IS TO BE MOUNTED BETWEEN 70" AND 75" ABOVE FINISHED FLOOR
4. FLOOR MOUNTED COMMUNICATIONS EQUIPMENT RACK, PROVIDED BY CONTRACTOR, TYPICAL OF TWO.
5. VERTICAL CABLE MANAGERS, TYPICAL

WALL LEGEND

	2 HOUR RATED WALL

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023111 ALLEN CRABB
12/19/2024

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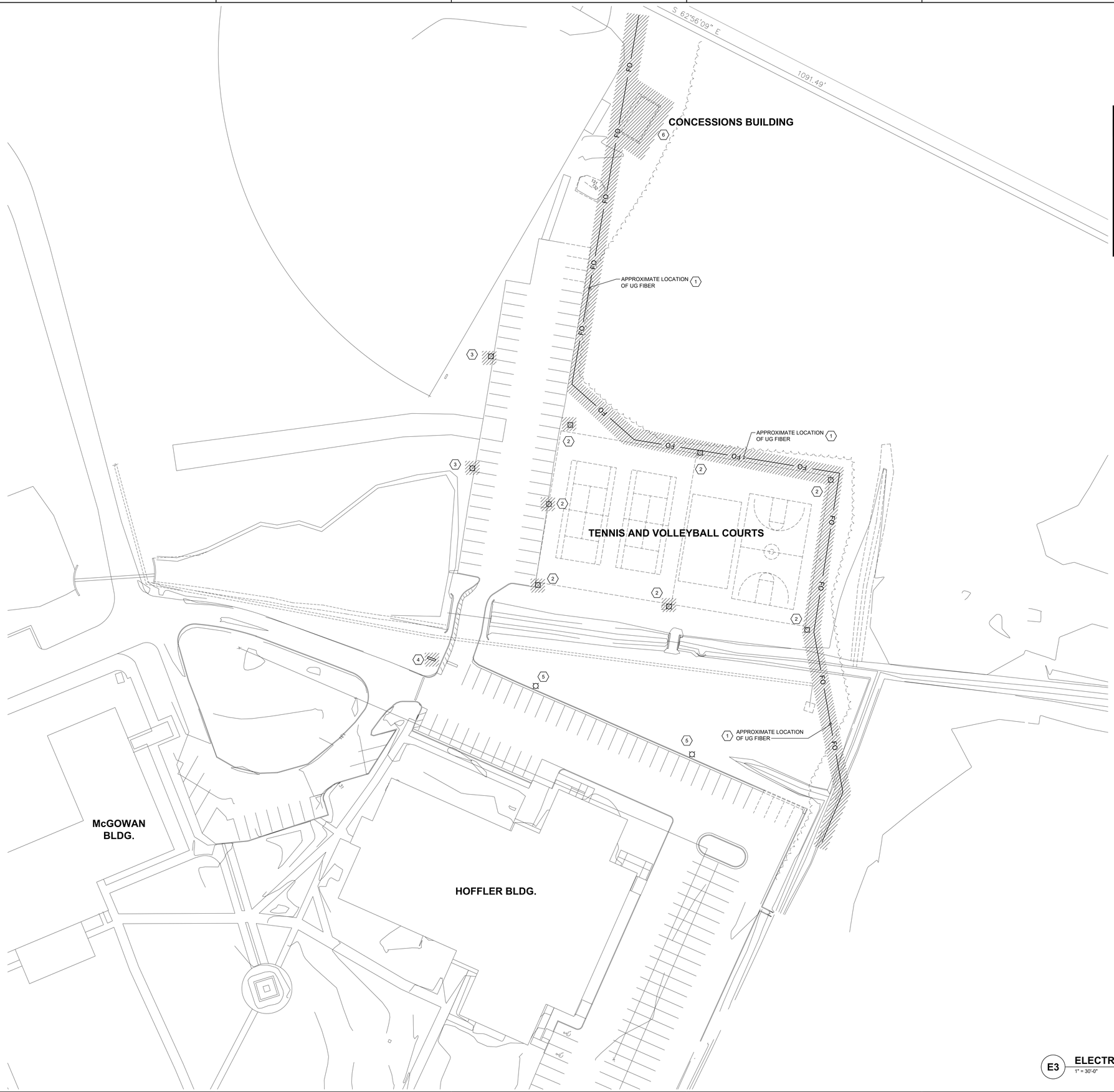
Sheet Title: ELECTRICAL ENLARGED FLOOR PLANS

Sheet No.: EP4.1



KEYED NOTES

1. EXISTING UG FIBER OPTIC CABLE TO BE REMOVED AND RE-ROUTED. JSCC TO INSTALL UG CONDUIT AND FIBER, OPTIC CABLE SEE ES1.2 FOR TELECOMM DUCTBANK LOCATION.
2. REMOVE EXISTING TENNIS COURT LIGHTS AND POLES, REMOVE ALL UNDERGROUND CONDUIT AND CONDUCTORS COMPLETE TO SOURCE IN HOFFLER BLDG.
3. REMOVE EXISTING PARKING LIGHTS AND POLES, REMOVE ALL UNDERGROUND CONDUIT AND CONDUCTORS COMPLETE TO SOURCE OR TO NEAREST POLE/LIGHT NOT BEING DEMOLISHED, IF PRESENT ALL UPSTREAM AND DOWNSTREAM LIGHTS MUST REMAIN OPERATIONAL.
4. REMOVE EXISTING GROUND MOUNTED SIGN LIGHTING, REMOVE ALL UNDERGROUND CONDUIT AND CONDUCTORS COMPLETE TO SOURCE.
5. PROTECT EXISTING POLE, LIGHTS AND UNDERGROUND LIGHTING CIRCUIT.
6. CONCESSIONS BUILDING, REMOVE ALL ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO PANELS, DISCONNECT SW'S, STARTERS, LIGHT FIXTURES, RECEPTACLES, SWITCHES, BOXES, CONDUIT ETC.

E3 **ELECTRICAL SITE PLAN - DEMOLITION**
1" = 30'-0"

PLAN NORTH

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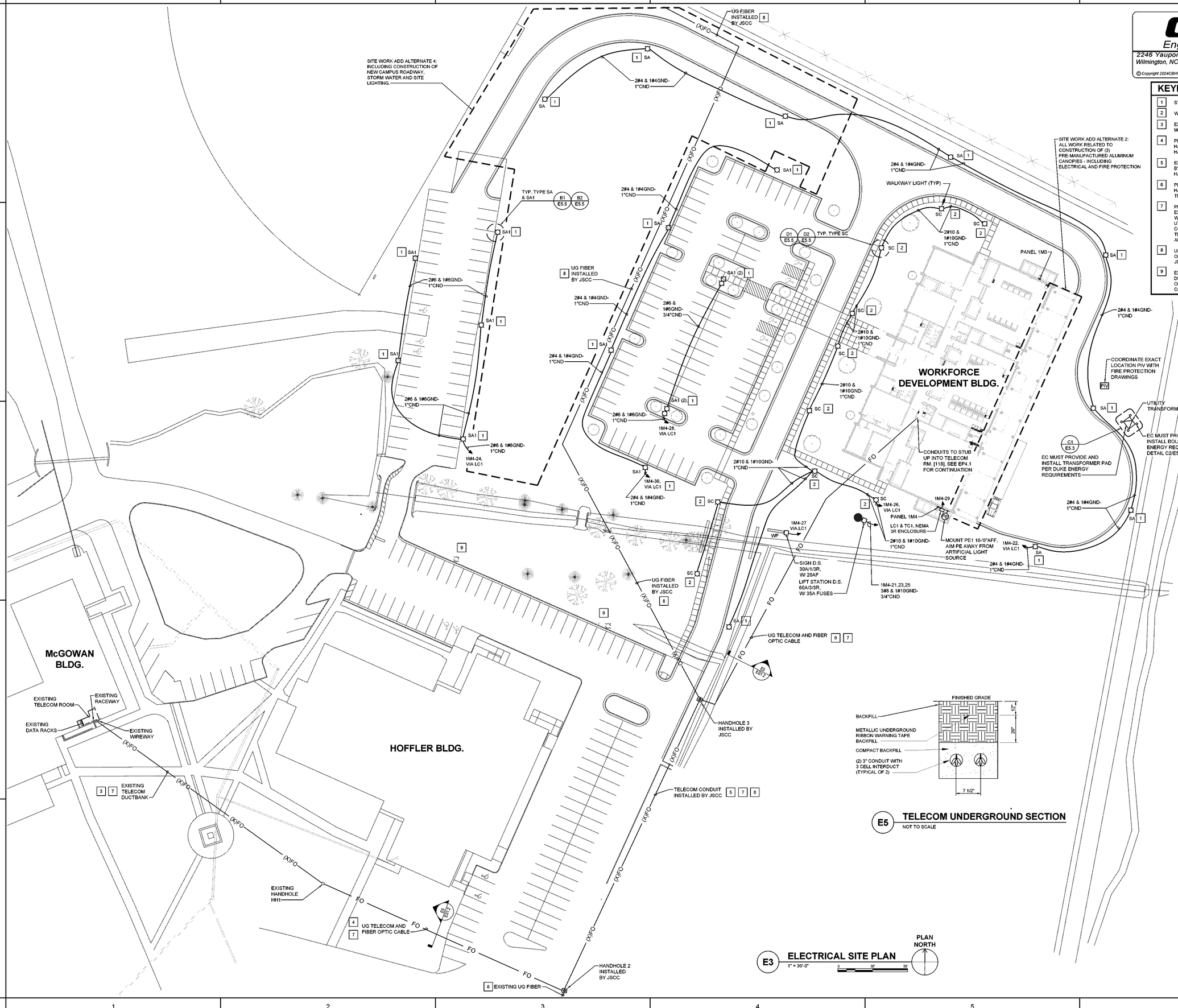

E5 TELECOM UNDERGROUND SECTION
NOT TO SCALE

E3 ELECTRICAL SITE PLAN
1" = 30'-0"
0 30' 60'
PLAN NORTH

KEYED NOTES

1. STREET / PARKING LIGHT, MOUNTED ON 30' POLE
2. WALKWAY LIGHT, MOUNTED ON 12' POLE
3. EXISTING UNDERGROUND CONDUIT FROM McGOWAN BLDG. TO HANDHOLE 1.
4. PROVIDE (2) 3" CONDUITS FROM EXISTING HANDHOLE 1 UNDERGROUND TO EXISTING HANDHOLE 2.
5. EXISTING UNDERGROUND CONDUIT INSTALLED BY JSCC FROM HANDHOLE 2 TO EXISTING HANDHOLE 3.
6. PROVIDE (2) 3" CONDUITS FROM EXISTING HANDHOLE 3 UNDERGROUND AND STUB UP INTO TELECOM ROOM [118].
7. PROVIDE FIBER OPTIC CABLE COMPLETE FROM EXISTING TELCOM ROOM IN McGOWAN BLDG. TO WORKFORCE DEV. BLDG TELECOM ROOM [118] UTILIZING EXISTING AND NEW UNDERGROUND CONDUITS AND EXISTING HANDHOLES. SEE TELECOM RISER DIAGRAM C3/E6.5 FOR ADDITIONAL INFORMATION.
8. UNDERGROUND FIBER OPTIC CABLE: FIBER OPTIC CABLE PROVIDED AND INSTALLED BY JSCC. NO WORK THIS CONTRACT.
9. EXISTING POLE AND LIGHT MUST BE PROTECTED DURING CONSTRUCTION AND MUST BE OPERATIONAL AFTER CONSTRUCTION IS COMPLETE.

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Sheet No.: ES1.2

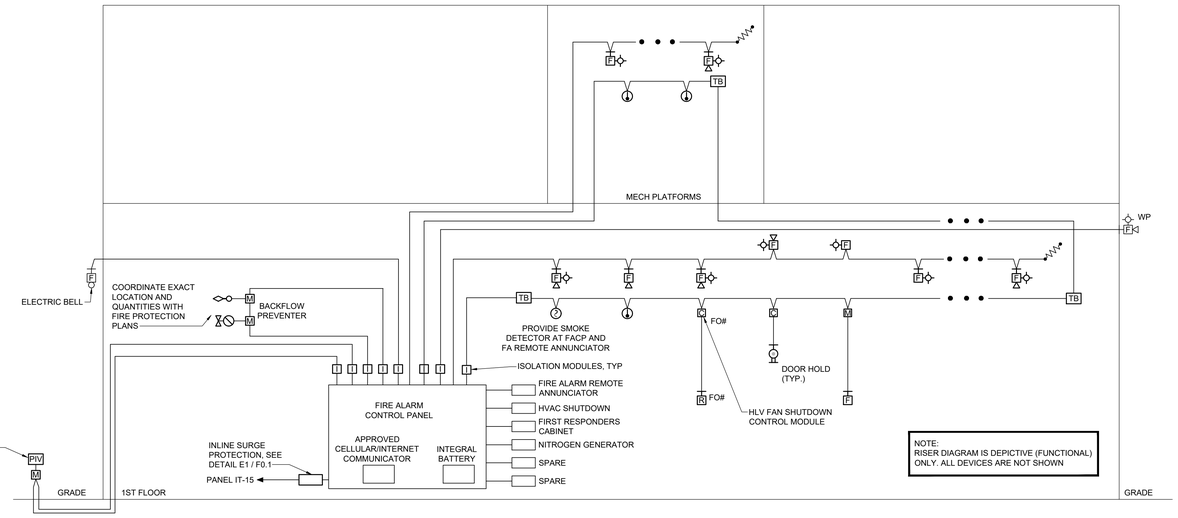
FIRE ALARM LEGEND

SYMBOL	DESCRIPTION
F	FIRE ALARM MANUAL STATION, 48" AFF
F	FIRE ALARM ABORT KILL SWITCH, 48" AFF
F	FIRE DEPT. KNOX BOX, 60" AFF
F 15cd	FIRE ALARM HORN/STROBE DEVICE, 80" AFF, "15cd" INDICATES CANDELA RATING
F	FIRE HORN (ONLY) DEVICE, 80" AFF
F 15cd	FIRE ALARM HORN/STROBE DEVICE, CEILING MOUNTED, "15cd" INDICATES CANDELA RATING
F 15cd	FIRE ALARM VISUAL (ONLY) DEVICE, 80" AFF, "15cd" INDICATES CANDELA RATING
F 15cd	FIRE ALARM VISUAL (ONLY) CEILING MOUNTED "15cd" INDICATES CANDELA RATING
F 15cd	FIRE ALARM SPEAKER/STROBE DEVICE, 80" AFF, "15cd" INDICATES CANDELA RATING
F	FIRE ALARM SPEAKER DEVICE, 80" AFF
F 15cd	FIRE ALARM SPEAKER/STROBE DEVICE, CEILING MOUNTED, "15cd" INDICATES CANDELA RATING
F	FIRE ALARM SPEAKER DEVICE, CEILING MOUNTED
F	FIRE ALARM BELL, 80" AFF
F	FIRE ALARM BELL/STROBE, 80" AFF
F	FIRE ALARM CHIME, 80" AFF, "15cd" INDICATES CANDELA RATING
F 15cd	FIRE ALARM CHIME/STROBE, 80" AFF, "15cd" INDICATES CANDELA RATING
H	HEAT DETECTOR, CEILING MOUNTED
S	SMOKE DETECTOR, CEILING MOUNTED
S C	SMOKE/CO2 DETECTOR, CEILING MOUNTED
S	DUCT MOUNTED SMOKE DETECTOR
H	DUCT MOUNTED HEAT DETECTOR
D	DOOR HOLD OPEN DEVICE BY G.C.
S BT — S BR	FIRE ALARM LINEAR BEAM SMOKE DETECTOR, INSTALLED APPROX. 12" BELOW CEILING, OR PER LISTING. PROVIDE REMOTE TEST/STATUS SWITCH AT 60" AFF BELOW DEVICE
	SPRINKLER FLOW SWITCH
	SPRINKLER TAMPER SWITCH
	LEVEL SWITCH
	PRESSURE SWITCH
	TEMPERATURE SWITCH
R	REMOTE INDICATING DEVICE (RAIL), CEILING MOUNTED
R	REMOTE INDICATING DEVICE (RAIL), WALL MOUNTED
M	MONITOR MODULE
M	MONITOR MODULE, WALL MOUNTED
I	ISOLATION MODULE
C	CONTROL MODULE
C	CONTROL MODULE, WALL MOUNTED
FACP	FIRE ALARM CONTROL PANEL (FACP)
FA REMOTE ANN	FIRE ALARM REMOTE ANNUNCIATOR PANEL
GV	GAS VALVE CONTROL MODULE
EOR	END OF LINE RESISTER (EOR)

(SYMBOLS SHOWN FOR REFERENCE ONLY AND MAY NOT IMPLY CONTRACTUAL REQUIREMENTS)

MANUAL FIRE ALARM SYSTEM NOTES

1. AS A MINIMUM THE FIRE ALARM SYSTEM SHALL INCLUDE DETECTORS, PULL STATIONS, PANEL HORN/STROBES AND SPRINKLER MONITORING WITH FIRE RATED CABLE. THE FIRE ALARM SYSTEM SHALL MEET NFPA REQUIREMENTS, THE NATIONAL ELECTRICAL CODE, THE STATE CODES, AND THE LOCAL BUILDING CODES.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CABLE, MATERIALS AND EQUIPMENT AS SHOWN ON THE DRAWINGS/OR HEREIN SPECIFIED. ALL SYSTEM COMPONENTS SPECIFIED HEREIN, AS WELL AS THEIR INSTALLATION, SHALL COMPLY WITH APPLICABLE STANDARDS OF THE NATIONAL ELECTRICAL CODE, NATIONAL FIRE PROTECTION ASSOCIATION, AND LOCAL CODES HAVING AUTHORITY. ALL EQUIPMENT SHALL BE UL LISTED FOR FIRE ALARM SYSTEM USE.
3. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE INSTALLED AND CONNECTED UNDER THE DIRECTION AND SUPERVISION OF A MANUFACTURER'S REPRESENTATIVE. UPON COMPLETION OF INSTALLATION, THE MANUFACTURER'S REPRESENTATIVE SHALL PERFORM ALL OPERATIONAL TESTS AND ADJUSTMENTS AND CERTIFY IN WRITING THAT THE SYSTEM IS PROPERLY INSTALLED AND FUNCTIONS AS SPECIFIED.
4. THE MANUFACTURER'S AUTHORIZED REPRESENTATIVE SHALL PROVIDE SUPERVISION OF FINAL SYSTEM PANEL CONNECTIONS, PERFORM A COMPLETE FUNCTIONAL TEST OF THE SYSTEM, AND A WRITTEN REPORT TO THE CONTRACTOR ATTESTING THE PROPER OPERATION OF THE COMPLETED SYSTEM.
5. ALL WIRING SHALL BE INSTALLED IN COMPLIANCE WITH N.E.C., NFPA 72, ALL STATE AND LOCAL REQUIREMENTS AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
6. SLEEVE AND SEAL ALL PENETRATIONS THROUGH FIRE WALLS.
7. WIRING SHALL BE A MINIMUM OF NO. 14 AWG UNLESS OTHERWISE NOTED.
8. ALL WORK PERFORMED AND ALL MATERIAL FURNISHED UNDER THIS CONTRACT SHALL BE FREE FROM DEFECTS AND SHALL REMAIN SO FOR A PERIOD OF AT LEAST ONE YEAR FROM THE DATE OF ACCEPTANCE.
9. THE SMOKE DUCT DETECTOR SHALL BE FURNISHED AND TERMINATED BY THE FIRE ALARM CONTRACTOR, INSTALLED BY THE MECHANICAL CONTRACTOR.
10. IN CORRIDORS WHERE MORE THAN TWO VISIBLE NOTIFICATION APPLIANCES ARE IN ANY FIELD OF VIEW, THEY SHALL FLASH IN SYNCHRONIZATION.
11. FIRE ALARM CONTRACTOR IS RESPONSIBLE FOR MODULES TO SHUTDOWN HVAC EQUIPMENT DURING ALARM CONDITION.
12. PROVIDE (1) 2" CONDUIT FOR A DEDICATED PHONE LINE FOR FIRE PROTECTION DIALER AND BACKUP LINE FROM EXTERIOR CABINET TO FACP.
13. ALL FIRE ALARM WORK AND DEVICES SHALL BE INSTALLED AND TERMINATED BY A NICET LEVEL 2 FIRE ALARM TECHNICIAN.
14. IN THE EVENT OF AN ALARM THERE SHALL BE A "GLOBAL" SHUT DOWN OF ALL AIR HANDLERS.

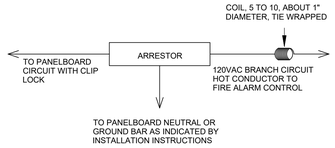


A1 FIRE ALARM RISER DIAGRAM
NOT TO SCALE

FIRE ALARM SYSTEM CONTROL MATRIX

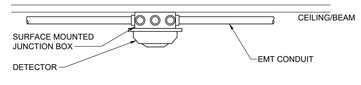
	SYSTEM INPUTS	NOTE	A ACTUATE COMMON ALARM SIGNAL INDICATOR	B ACTUATE NOTIFICATION APPLIANCES (NOTE 6)	C ACTUATE SLEEPING ROOM SOUNDER BASE ONLY	D ACTUATE EXTERIOR ELECTRIC BELL	E ACTUATE COMMON TROUBLE SIGNAL INDICATOR	F ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	G ALARM SIGNAL TO MONITORING SERVICE	H SUPERVISORY SIGNAL TO MONITORING SERVICE	I TROUBLE SIGNAL TO MONITORING SERVICE	J DISPLAY/PRINT CHANGE OF STATUS	K RECALL ELEVATOR TO PRIMARY RECALL FLOOR	L RECALL ELEVATOR TO ALTERNATE RECALL FLOOR	M ACTIVATE FIRE HAT SIGNAL	N SHUNT TRIP ELEVATOR CONTROLLER FEEDER CIRCUIT BREAKER	O START FIRE PUMP	P SHUTDOWN HLV FAN	Q RECORD EVENTS IN SYSTEM MEMORY	R SIGNAL HVAC CONTROL SYSTEM
	SYSTEM OUTPUTS		SYSTEM OUTPUTS													SYSTEM OUTPUTS				
1	INITIATING DEVICES																			
2	SMOKE DETECTORS		X	X					X			X								X
3	SLEEPING ROOM SMOKE DETECTORS	2,6			X					X		X								X
4	DUCT MOUNTED SMOKE DETECTORS							X			X	X								X
5	HEAT DETECTORS		X	X						X		X								X
6	MANUAL PULL STATIONS		X	X						X		X								X
7	TROUBLE INPUTS																			
8	SYSTEM TROUBLE CONDITION						X				X	X								
9	LOSS OF FACU AC POWER	1					X				X	X								
10	FACP LOW BATTERY						X				X	X								
11	SHORT CIRCUIT						X				X	X								
12	NAC POWER SUPPLY LOW BATTERY						X				X	X								
13	GROUND FAULT						X				X	X								
14	OPEN CIRCUIT						X				X	X								
15	SUPERVISORY INPUTS																			
16	AHU SHUTDOWN							X		X		X								
	NITROGEN GENERATOR SUPERVISORY							X		X		X							X	
31	FIRE SUPPRESSION SYSTEM																			
32	SPRINKLER SYSTEM FLOW SWITCH	4	X	X		X			X			X					X	X		X
33	SPRINKLER SYSTEM TAMPER SWITCH	4						X		X		X								
34	SPRINKLER PRESSURE SWITCH	4,5						X		X		X								
35	POST INDICATOR VALVE TAMPER SWITCH	4						X		X		X								
36	RPZ TAMPER SWITHCES	4						X		X		X								
40	FIRST RESPONDERS CABINET																			
41	AC FAIL						X				X	X								
42	CHARGER FAIL						X				X	X								
43	ANTENNA MALFUNCTION						X				X	X								
44	LOW BATTERY						X				X	X								
45	BOOSTER FAIL						X				X	X								
46	SYSTEM COMPONENT FAIL						X				X	X								

NOTES:
1. ONLY AFTER LOSS OF POWER FOR > 3 HOURS.
2. SLEEPING ROOM OR ANY OTHER SMOKE DETECTOR IN A RESIDENTIAL SUITE INITIATES THE LOCAL SOUNDER BASE (AND VISUAL NOTIFICATION APPLIANCES, WHERE INSTALLED) IN THE ROOM, PRE-SIGNALS INDICATION AT THE FACP AND THE FACP NOTIFIES THE SUPERVISING STATION.
3. TYPICAL FOR EACH OF 4 FLOORS EACH TOWER.
4. TYPICAL, QUANTITIES OF DEVICES ARE NOT SHOWN, REFER TO FIRE PROTECTION SYSTEM RECORD DRAWINGS FOR QUANTITIES AND LOCATIONS.
5. IF INSTALLED.
6. ANY COMMON AREA ALARM OR A SECOND FIRE DETECTION DEVICE INITIATION (FOLLOWING AN INITIAL DETECTION DEVIVE INITIATION WITHIN A COMMON RESIDENTIAL SUITE) MUST CAUSE IMMEDIATE GENERAL ALARM THROUGHOUT THE BUILDING, INCLUDING ALL SOUNDER BASES (AND VISUAL NOTIFICATION APPLIANCES, WHERE INSTALLED) IN THE SLEEPING ROOMS.

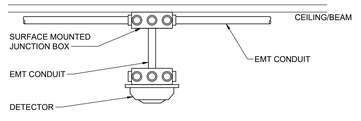


NOTES:
SECURELY MOUNT TRANSIENT ARRESTOR IN ACCESSIBLE JUNCTION BOX OR PROPER METAL ENCLOSURE ADJACENT TO THE PANELBOARD.
PROVIDE ENGRAVED LABEL INDICATING ITS LOCATION

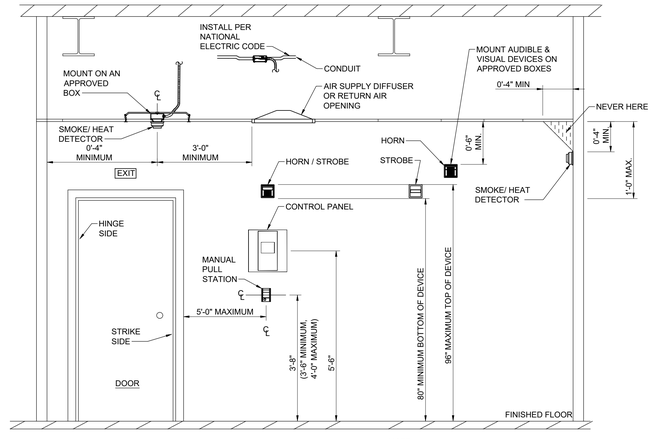
E1 TRANSIENT ARRESTOR DETAIL
NOT TO SCALE



C4 TYPICAL SURFACE DEVICE DETAIL
NOT TO SCALE

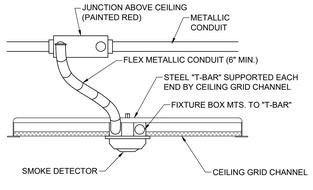


D4 TYPICAL SUSPENDED DEVICE DETAIL
NOT TO SCALE

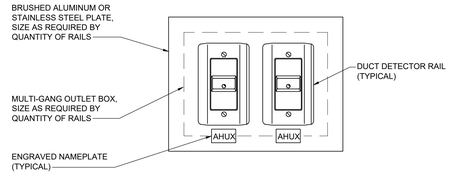


NOTE:
DETAIL SHOWN FOR REFERENCE ONLY, NOT ALL DEVICES ARE INDICATED ON PLANS.

D5 DEVICE MOUNTING DETAIL
NOT TO SCALE



E4 TYPICAL CEILING MOUINTED DEVICE DETAIL
NOT TO SCALE



E5 AHU FA RAIL INSTALLATION DETAIL
NOT TO SCALE

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SCO ID# 22-24540-02A

NORTH CAROLINA PROFESSIONAL SEAL 023111 ENGINEER ALLEN CBHF
12/19/2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

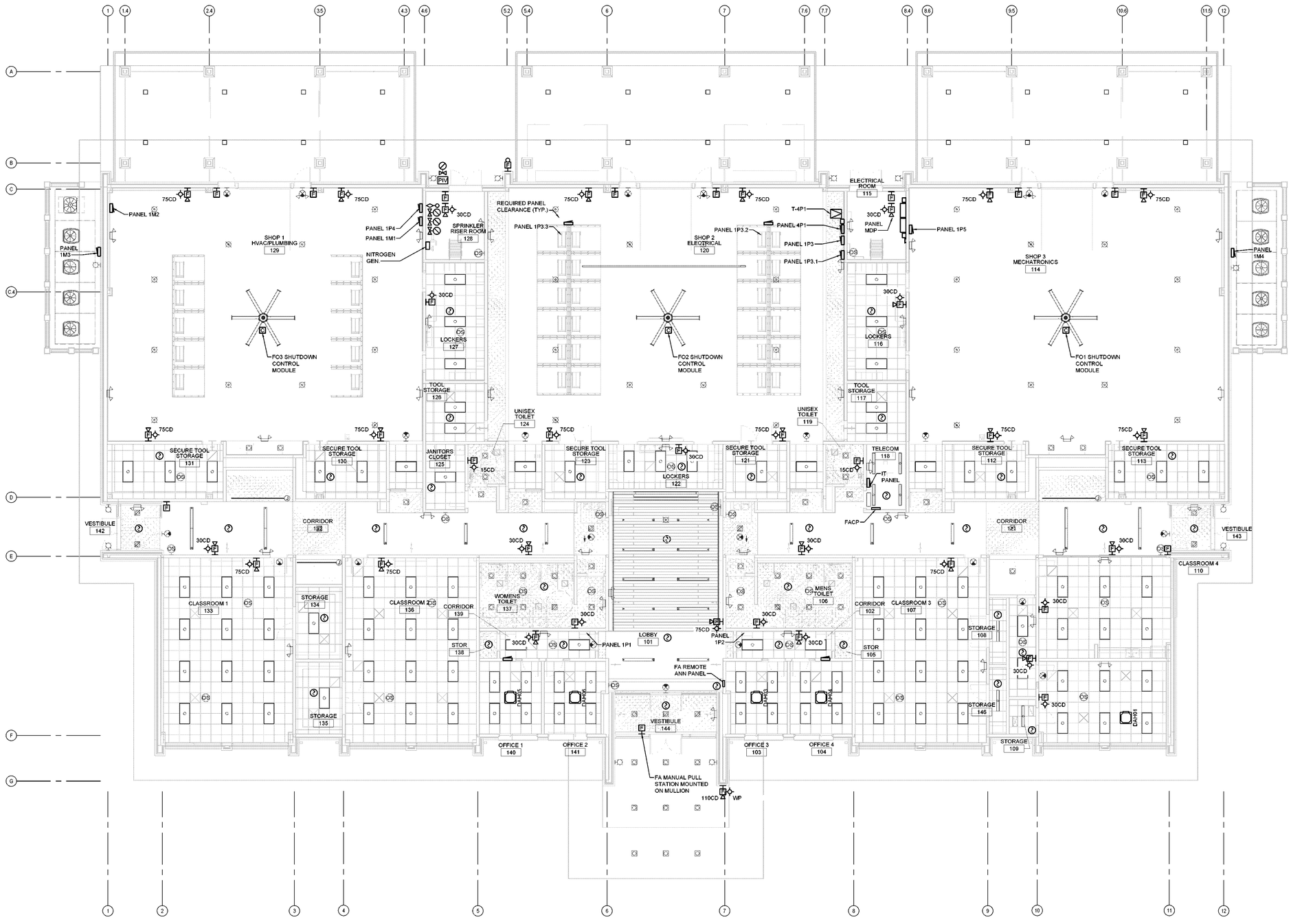
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By
WAC	HGH
Date	Reviewed By
12-18-2024	WAC
Project ID	CBHF: 22093

Sheet Title
FIRE ALARM LEGEND, RISER AND DETAILS

Sheet No.
F0.1



PLAN NORTH

E1 FLOOR PLAN - FIRE ALARM

1/8" = 1'-0"

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WALL LEGEND

	2 HOUR RATED WALL

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SCO ID# 22-24540-02A

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12/19/2024

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Kenansville, North Carolina 28349

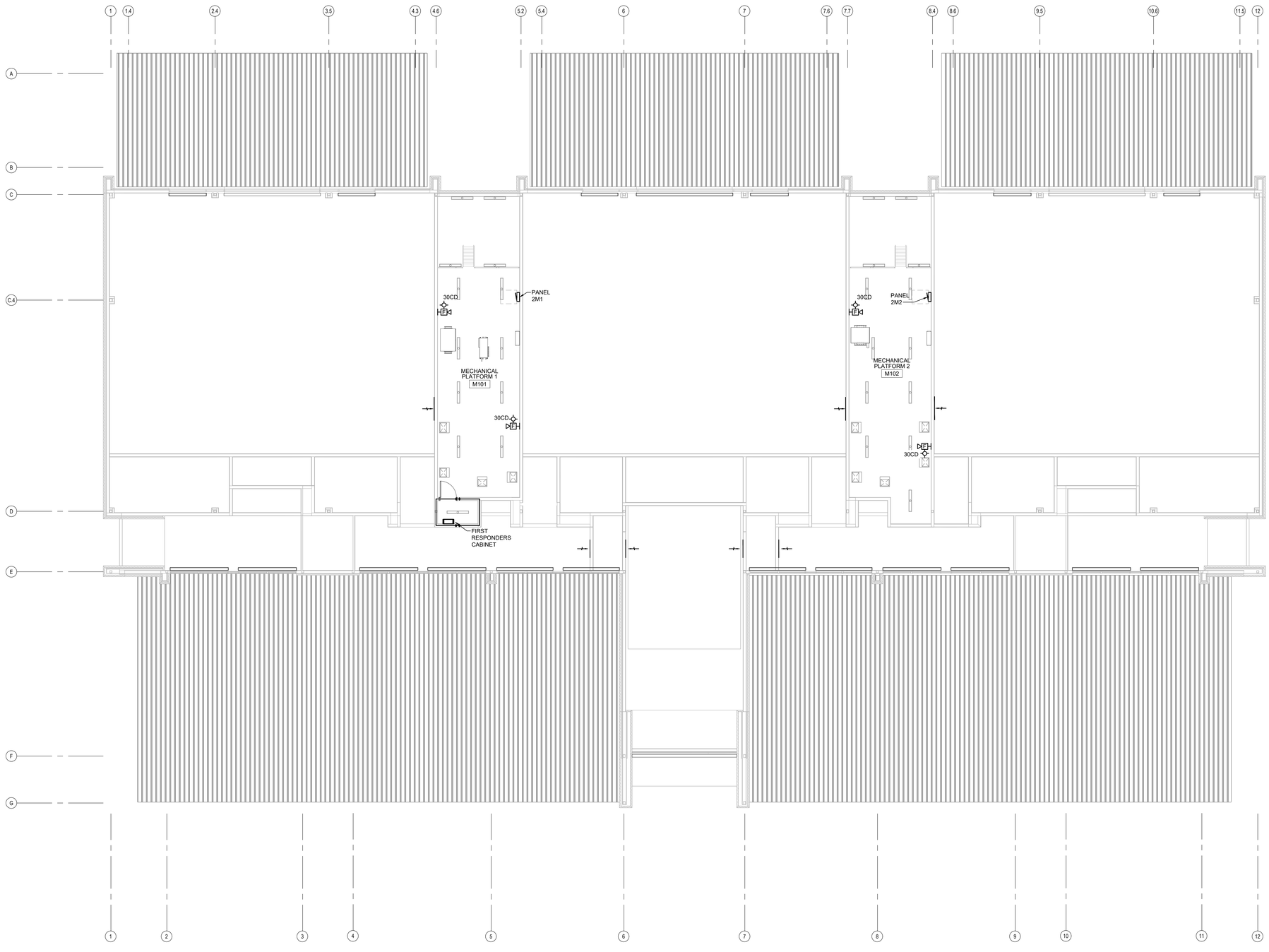
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager: WAC	Drawn By: HGH
Date: 12-18-2024	Reviewed By: WAC
Project ID: CBHF: 22093	

Sheet Title: FIRE ALARM FLOOR PLAN

Sheet No.: F1.1



PLAN NORTH

E1 PLATFORMS PLAN - FIRE ALRM

1/8" = 1'-0"

0 4 8 16

WALL LEGEND	
	2 HOUR RATED WALL

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12/19/2024

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NO.	DATE	ISSUE NOTE

Project Manager	Drawn By
WAC	HGH
Date	Reviewed By
12-18-2024	WAC
Project ID	CBHF: 22093

Sheet Title

FIRE ALARM PLATFORMS PLAN

Sheet No.

F1.2

FIRE SPRINKLER PROJECT SCOPE

1. THE SCOPE OF THIS PROJECT INCLUDES THE COMPLETE CONSTRUCTION OF A WET AND DRY PIPE AUTOMATIC SPRINKLER SYSTEM DESIGNED TO PROTECT THE BUILDING.
2. A SINGLE WET PIPE SPRINKLER RISER WILL SERVE THE ENTIRE BUILDING, FOR A TOTAL OF APPROXIMATELY 27,320 SQUARE FEET AND A DRY PIPE SYSTEM WILL SERVE THE CANOPY AREAS.
3. A FIRE PUMP IS NOT ANTICIPATED TO BE REQUIRED BASED ON HYDRAULIC CALCULATIONS PERFORMED UTILIZING HYDRANT FLOW TEST INFORMATION.

FIRE SPRINKLER GENERAL REQUIREMENTS

1. DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS: 2018 NORTH CAROLINA BUILDING CODE, 2018 NORTH CAROLINA FIRE CODE, NFPA 13 STANDARD FOR THE INSTALLATION OF FIRE SPRINKLER SYSTEMS (2013), NFPA 14 STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS (2013), NFPA 24 STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES (2013), NFPA 25 STANDARD FOR THE INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS (2011), NFPA 70 NATIONAL ELECTRICAL CODE (2020), NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE (2013), AND ALL LOCAL AHJ REQUIREMENTS.
2. NO CHANGES TO THE "FP" SHEETS BY THE SPRINKLER SUBCONTRACTOR ARE ALLOWED EXCEPT FOR ADDING SHOP DRAWING INFORMATION. ALL REQUIRED REVISIONS TO THE"FP" SHEETS (OTHER THAN MINOR REVISIONS FOR THE PURPOSE OF COORDINATION) AND ANY ABNORMAL CONDITIONS THAT WOULD RESULT IN NON-COMPLIANCE SHALL BE SUBMITTED IN WRITING AND SHALL BE APPROVED BY CBHF ENGINEERS, PLLC AND THE AHJ.
3. THE FIRE SPRINKLER SYSTEMS IN THIS BUILDING SHALL BE MONITORED BY A CENTRAL STATION SIGNALING SYSTEM FURNISHED AND INSTALLED BY THE FIRE ALARM CONTRACTOR. ALL TAMPER SWITCHES AND WATER FLOW INDICATORS SHALL BE INSTALLED BY THE SPRINKLER CONTRACTOR AND WIRED TO THE CENTRAL STATION SIGNALING SYSTEM BY THE ALARM CONTRACTOR.
4. ALL PIPE LENGTHS SHOWN ARE CENTER TO CENTER DIMENSIONS.
5. ALL INSPECTOR'S TEST CONNECTIONS AND LOW POINT DRAINS SHALL BE IN ACCORDANCE WITH NFPA 13 AND SHALL BE DISPLAYED ON SHOP DRAWINGS. MOUNT CONTROL VALVES FOR INSPECTOR'S TEST CONNECTION AND LOW POINT DRAINS INSIDE BUILDING AT 5'-0" A.F.F. PIPE DRAIN LINES TO EXTERIOR OF BUILDING. COORDINATE WITH THE ARCHITECT FOR ACCEPTABLE LOCATIONS. AIR RELIEF VALVE ALSO TO BE PROVIDED AT HIGHEST POINT IN SYSTEM
6. SPRINKLERS IN T-BAR CEILING SHALL BE PLACED IN QUARTER POINT OR CENTER OF 2x4 TILE. IN ALL SOFFITED AREAS,SPRINKLERS SHALL BE ALIGNED WITH ADJACENT LIGHTING.
7. SIGNAGE SHALL BE PROVIDED AS REQUIRED, INCLUDING RISER ROOM IDENTIFICATION, FDC, TEST CONNECTIONS AND HYDRAULIC PLACARD.
8. FLOW SWITCH SHALL BE CONNECTED TO AN OUTSIDE ALARM BELL OR OTHER AUDIBLE ALARM DEVICE AT EACH RISER.APPROVED IDENTIFICATION SIGNS SHALL BE PROVIDED ON THE OUTSIDE ALARM BELL "SPRINKLER FIRE ALARM - WHEN ALARM SOUNDS CALL 911 / FIRE DEPARTMENT"
9. REFERENCE THE CIVIL DRAWINGS FOR ADDITIONAL FIRE LINE INFORMATION AND ACTUAL LENGTHS OF PIPE. THE LAYOUT SHOWN ON THE CIVIL DRAWINGS WILL SUPERCEDE WHAT IS SHOWN ON THE FIRE PROTECTION SITE PLAN. THE FIRE PROTECTION SITE PLAN IS FOR HYDRAULIC REFERENCE ONLY.
10. THIS AREA IS NOT KNOWN TO HAVE PROBLEMS WITH MICROBIAL INDUCED CORROSION. NO PREVENTATIVE MEASURES A DESIGNED INTO THIS SYSTEM.
11. THE FIRE DEPARTMENT CONNECTION (FDC) IS A 5" STORZ TYPE CONNECTION AND ITS LOCATION WILL BE T.B.D.
12. QUICK RESPONSE SPRINKLERS SHALL BE INSTALLED THROUGHOUT (UNLESS OTHERWISE NOTED).
13. THE FIRE SPRINKLER CONTRACTOR IS RESPONSIBLE FOR CONDUCTING A FLOW TEST NO MORE THAN 12 MONTHS PRIOR TO WORKING PLAN SUBMITTAL, SATISFYING THE NFPA 13 23.2.1.1 REQUIREMENT.
14. SEISMIC DESIGN REQUIREMENTS FOR NON-STRUCTURAL MEMBERS, INCLUDING SPRINKLER ARE NOT REQUIRED DUE TO SEISMIC DESIGN CATEGORY B.

FIRE SPRINKLER CONTRACTOR REQUIREMENTS

1. THE FIRE SPRINKLER SUBCONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, SEALING, PATCHING, AND PAINTING REQUIRED FOR INSTALLATION OF THE SPRINKLER SYSTEM. ALL PENETRATIONS OF RATED ASSEMBLIES SHALL BE FIRE STOPPED WITH AN APPROVED MATERIAL AS PRESCRIBED IN THE APPLICABLE CODES AND STANDARDS.
2. THE FIRE SPRINKLER SUBCONTRACTOR SHALL BE LICENSED AS REQUIRED BY THE STATE AND LOCAL AHJ FOR THE DESIGN AND INSTALLATION OF AUTOMATIC SPRINKLER SYSTEMS.
3. ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS AS REQUIRED BY THE STATE AND LOCAL AHJ.
4. THE FIRE SPRINKLER CONTRACTOR SHALL PREPARE A SHOP DRAWING SUBMITTAL, HYDRAULIC CALCULATIONS, AND EQUIPMENT CUT SHEET PACKAGE SUBMITTAL, AND SUBMIT TO THE ENGINEER AND AUTHORITY HAVING JURISDICTION, FOR APPROVAL. APPROVAL OF SHOP DRAWINGS AND EQUIPMENT SHALL BE OBTAINED PRIOR TO STARTING WORK.
5. SPRINKLER CONTRACTOR IS RESPONSIBLE TO COORDINATE AND ADJUST SPRINKLER AND PIPING TO ACCOUNT FOR ELECTRICAL, MECHANICAL, STRUCTURE AND ALL OTHER TRADES AT NO ADDITIONAL COST.
6. CONTRACTOR SHALL PROVIDE OWNER WITH TEST CERTIFICATES, CARE & MAINTENANCE BOOK, COPY OF NFPA 25, SPARE SPRINKLER CABINET WITH SPRINKLERS, AND REQUIRED SPRINKLER WRENCHES IN ACCORDANCE WITH NFPA 13.
7. DELIVERY OF ALL MATERIALS AND EQUIPMENT TO THE JOB SITE SHALL BE SCHEDULED TO ASSURE COMPLIANCE WITH THE PREDETERMINED CONSTRUCTION SCHEDULE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STORAGE AND HANDLING ALL MATERIALS AND EQUIPMENT ON THE JOB SITE, INCLUDING FURNISHING OF ANY STORAGE FACILITIES OR STRUCTURE REQUIRED.
8. THE SYSTEM SHOWN ON THESE PLANS REQUIRES A CONNECTION TO THE UNDERGROUND FIRE PROTECTION MAIN. THE CONTRACTOR WHO INSTALLS THE UNDERGROUND PIPING FROM THE POINT OF SERVICE IS RESPONSIBLE FOR COMPLETING THE INSTALLATION TO THE ABOVE GROUND FIRE SPRINKLER SYSTEM CONNECTION FLANGE OR GROOVED CONNECTION. ALL FIRE PROTECTION UNDERGROUND DOWNSTREAM OF THE POINT OF SERVICE IDENTIFIED ON THE PLANS SHALL BE INSTALL LED BY A LICENSED FIRE PROTECTION CONTRACTOR AS REQUIRED BY THE STATE FIRE MARSHAL. THE UNDERGROUND CONTRACTOR IS RESPONSIBLE FOR COMPLETING THE CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING DOCUMENT. ABOVE GROUND CONTRACTORS MAY NOT COMPLETE THE CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR THE UNDERGROUND PIPING OR PORTION THEREOF WHICH HAVE BEEN INSTALLED BY OTHERS .

FIRE SPRINKLER MATERIAL REQUIREMENTS

1. ALL MATERIALS SHALL BE UL LISTED OR FM APPROVED.
2. ALL INTERIOR PIPE SHALL BE BLACK STEEL; SCHEDULE 10 FOR PIPES 2 1/2" AND LARGER AND SCHEDULE 40 FOR PIPES 2" AND SMMALLER .
3. ALL EXTERIOR PIPE (INCLUDING NIPPLES OR SPOOL PIECES EXTENDING THROUGH EXTERIOR WALLS) SHALL BE SCHEDULE 40 GALVANIZED STEEL.
4. ALL INTERIOR GROOVED FITTINGS SHALL COME WITH THE FACTORY APPLIED COATING.
5. ALL INTERIOR THREADED FITTINGS SHALL BE CAST IRON, DUCTILE IRON OR MALLEABLE IRON.
6. ALL EXTERIOR FITTINGS SHALL BE GALVANIZED.
7. PROVIDE RIGID COUPLINGS THROUGHOUT, SEISMIC DESIGN NOT REQUIRED.
8. HANGER LOCATION FOR ALL PIPING SHALL BE IN ACCORDANCE WITH NFPA 13. ALTERNATE UL AND FM HANGER METHODS ARE ACCEPTED AT NO ADDITIONAL COST TO THE OWNER. PROVIDE UL AND FM LITERATURE TO CBHF ENGINEERS, PLLC AND THE AHJ FOR REVIEW AND ACCEPTANCE.

FIRE SPRINKLER TESTING REQUIREMENTS

1. THE FIRE SPRINKLER SYSTEM SHALL BE HYDROSTATICALLY PRESSURE TESTED IN ACCORDANCE WITH NFPA 13.
2. ALL PIPING AND ATTACHED APPURTENANCES SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE HYDROSTATICALLY TESTED AT 200 PSI AND SHALL MAINTAIN THAT PRESSURE WITHOUT LOSS FOR 2 HOURS.
3. LOSS SHALL BE DETERMINED BY A DROP IN GAUGE PRESSURE OR VISUAL LEAKAGE.
4. THE TEST PRESSURE SHALL BE READ FROM A GAUGE LOCATED AT THE LOW POINT OF THE SYSTEM OR PORTION BEING TESTED. THE PRESSURES IN PIPING AT HIGHER ELEVATIONS SHALL BE PERMITTED TO BE LESS THAN 200 PSI WHEN ACCOUNTING FOR ELEVATION LOSSES. SYSTEMS OR PORTIONS OF SYSTEMS THAT CAN BE ISOLATED SHALL BE PERMITTED TO BE TESTED SEPARATELY.

FIRE-FLOW CALCULATION (NOTE A)

CALCULATION AREA (NOTE B) (SQ. FT.)	REQUIRED FIRE-FLOW (GPM)	AVAILABLE FIRE-FLOW (GPM)	FLOW DURATION (HRS)
TYPE IIB 25,901 - 29,300	1000 gpm	**990(NOTE D)**	3

A. IN ACCORDANCE WITH APPENDIX B OF THE 2018 NCFC
B. TABLE B105.1(2)
C. UTILIZING 25% OF VALUE IN TABLE B105.1(2) DUE TO AUTOMATIC SPRINKLER PROTECTION (750 GPM) WITH REDUCED FLOW BEING NOT LESS THAN 1,000 GPM
D. 990 GPM AT 20 PSI RESIDUAL, IN ACCORDANCE WITH TABLE B105.1(2) NOTE (B)

FIRE SPRINKLER SYSTEM DESIGN SCHEDULE

AREAS	SYSTEM TYPE	HAZARD CLASSIFICATION	SYMBOL	DENSITY (GPM/SQFT)	DESIGN AREA (SQFT)	HOSE ALLOWANCE (GPM)	DURATION (MIN)	MAX HEAD SPACING (SQFT)	SPRINKLER TYPE	K-FACTOR	POSITION	FINISH	TEMPERATURE (°F)	REMARKS
CLASSROOMS, CORRIDOR, BATHROOMS	WET-PIPE	LIGHT HAZARD	LH	0.10	1,500ª	100	60	225	QUICK RESPONSE STANDARD SPRAY	5.6	RECESSED	CHROME	155	*
ELEC, MECH, RISER	WET-PIPE	ORDINARY HAZARD (GROUP 1)	OH1	0.15	1,500ª	250	90	130	QUICK RESPONSE STANDARD SPRAY	5.6	UPRIGHT	BRASS	155	*
SHOPS	WET-PIPE DRY PIPE	ORDINARY HAZARD (GROUP 2)	OH2	0.20	OVER 1500	250	90	130	QUICK RESPONSE STANDARD SPRAY	5.6	UPRIGHT	BRASS	150	INTERMEDIATE TEMP. SPRINKLERS AS REQUIRED BY NFPA 13

a. DESIGN AREA IS PERMITTED TO BE REDUCED FOR QUICK RESPONSE SPRINKLER HEADS IN ACCORDANCE WITH NFPA 13 11.2.3.2.3

WATER SUPPLY INFO

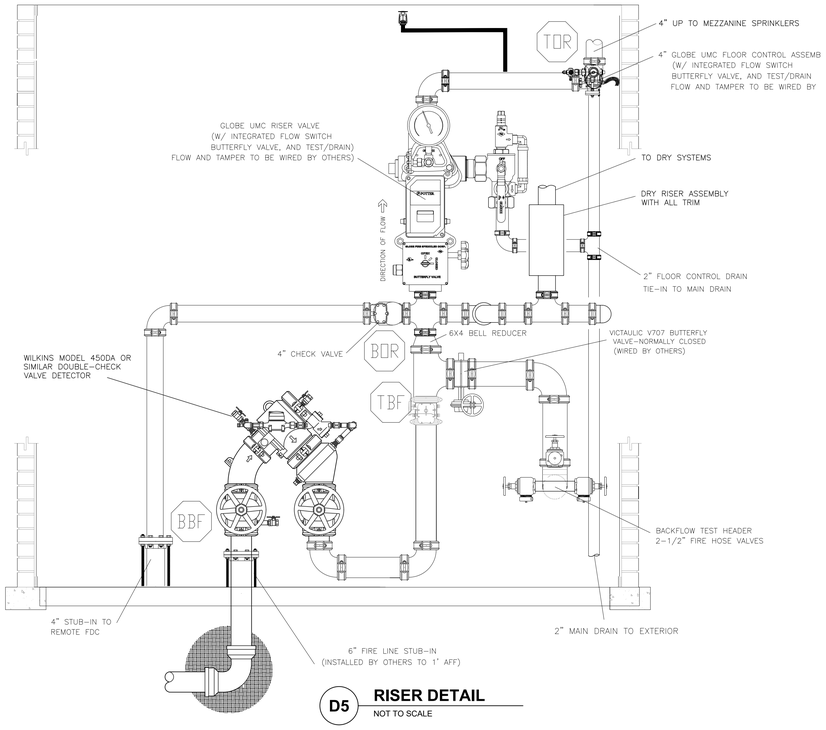
RAW FLOW TEST DATA:	839 GPM
STATIC PRESSURE:	58 PSI
RESIDUAL PRESSURE:	30 PSI
RESIDUAL FLOW:	990 GPM
CONDUCTED BY:	BFPE
DATE OF TEST:	10/17/24
TIME OF TEST:	0900
LOCATION OF TEST:	JSCC - JAMES SPRUNT DRIVE

1

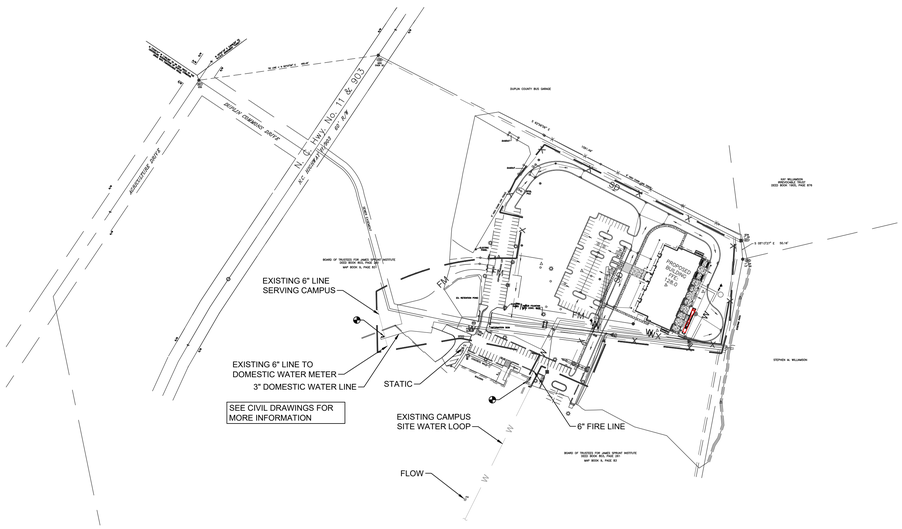
THE AVAILABLE WATER SUPPLY IS SUFFICIENT FOR THE HYDRAULICALLY CALCULATED AND DESIGNED AUTOMATIC SPRINKLER IN ACCORDANCE WITH APPENDIX B OF THE NCFC, THE AVAILABLE WATER SUPPLY FOR MANUAL FIREFIGHTING OPERATIONS FOR THIS SPRINKLER PROTECTED BUILDING WOULD BE 1,000 GPM. THE HYDRANT FLOW TEST RESULTED IN FLUCTUATIONS IN THE SUPPLY, AND QUANTITIES IN EXCESS OF 990 GPM ARE PLAUSIBLE. IN ACCORDANCE WITH SECTION B103.1 OF THE NCBC, THE FIRE CHIEF IS AUTHORIZED TO REDUCE THE FIRE-FLOW REQUIREMENT FOR ISOLATED BUILDINGS OR A GROUP OF BUILDINGS IN RURAL AREAS WHERE THE DEVELOPMENT OF FULL FIRE-FLOW REQUIREMENTS IS IMPRACTICAL. THE CALCULATED FLOW IS 99% OF THE REQUIRED FLOW FOR THIS SPECIFIC FACILITY.

ANNOTATION LEGEND

PLAN	DESCRIPTION
X" / X'- X"	PIPE DIAMETER OVER PIPE LENGTH
X	KEY NOTE TAG
XX	HAZARD CLASSIFICATION TAG
—·—·—	MATCHLINE
— — —	REMOTE AREA



D5 RISER DETAIL
NOT TO SCALE



E2 PARTICAL CAMPUS SITE PLAN
NOT TO SCALE

FIRE PROTECTION KEYED NOTES

1 CONTRACTOR TO PERFORM UPDATED HYDRANT FLOW TEST WITHIN 12 MONTHS OF SHOP PACKAGE.

WALL LEGEND

—+—	2 HOUR RATED WALL

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SCO ID# 22-24540-02A

NORTH CAROLINA PROFESSIONAL SEAL 23551 ENGINEER DAVID M. HAMM
12/18/2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

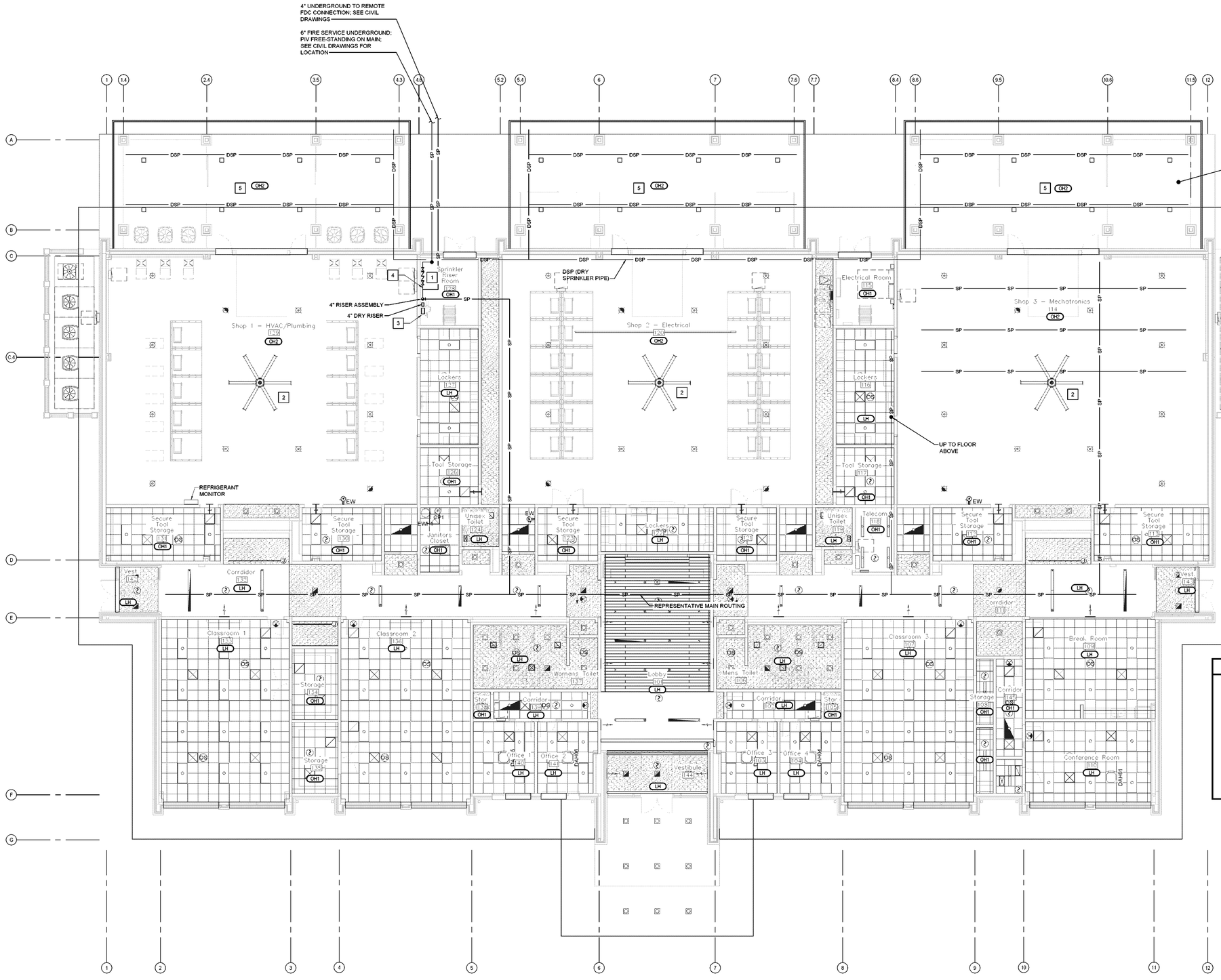
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager: DMH	Drawn By: RWC
Date: 12-18-2024	Reviewed By: DMH
Project ID: CBHF: 22093	

Sheet Title: FIRE PROTECTION LEGEND, NOTES AND SCHEDULES

Sheet No.: FP0.1



E1 FLOOR PLAN - FIRE PROTECTION

1/8" = 1'-0"

PLAN NORTH

WALL LEGEND

——+——	2 HOUR RATED WALL

HYDRAULIC INFORMATION

REMOTE AREA NAME	RA2-DRY
OCCUPANCY CLASSIFICATION	ORDINARY GROUP II
DESITY	0.20 GPM
APPLICABLE AREA	1500 SQFT
ACTUAL AREA	1167 SQFT
TOTAL HOSE STREAMS	250 GPM
FLOWING HEADS	12
K-FACTOR	5.8
TOTAL WATER REQUIRED	492.20 GPM
TOTAL PRESSURE REQUIRED	29.86 PSI
BASE OF RISER	492.20 GPM
BASE OF RISER	29.86 PSI
SAFETY MARGIN	+17.72 (37.25%)

HYDRAULIC INFORMATION

REMOTE AREA NAME	RA1
OCCUPANCY CLASSIFICATION	ORDINARY GROUP II
DESITY	0.20 GPM
APPLICABLE AREA	1500 SQFT
ACTUAL AREA	1500 SQFT
TOTAL HOSE STREAMS	250 GPM
FLOWING HEADS	15
K-FACTOR	5.6
TOTAL WATER REQUIRED	552.07 GPM
TOTAL PRESSURE REQUIRED	37.76 PSI
BASE OF RISER	552.07 GPM
BASE OF RISERE	37.76 PSI
SAFETY MARGIN	+7.36 (16.32%)

KEYED NOTES

1. PROVIDE TESTING OUTLETS TO ALLOW FORWARD FLOW TESTING OF BACK FLOW PREVENTER PER NFPA 13 10.10.2.5.
2. HVLS FANS SHALL BE CENTERED APPROXIMATELY BETWEEN FOUR ADJACENT SPRINKLERS. THE VERTICAL CLEARANCE FROM HVLS FAN TO SPRINKLER DEFLECTORS SHALL BE 36 INCHES. ALL HVLS FANS SHALL BE INTERLOCKED TO SHUT DOWN IMMEDIATELY UPON A WATERFLOW ALARM.
3. WALL MOUNT NITROGEN GENERATOR WITH PROVIDED 10 GAL STORAGE TANK BELOW 208-230V 6 A.
4. PROVIDE HOSE VALVE TEST ASSEMBLY AS MEANS TO FORWARD FLOW TEST BFP.
5. DESIGN AREA FOR OH2 PROTECTED SPACE LIMITED TO 1,400 FT2, DUE TO MAXIMUM AREA OF PROTECTED SPACE.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 23551 DAVID M. HAHN 12/18/2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

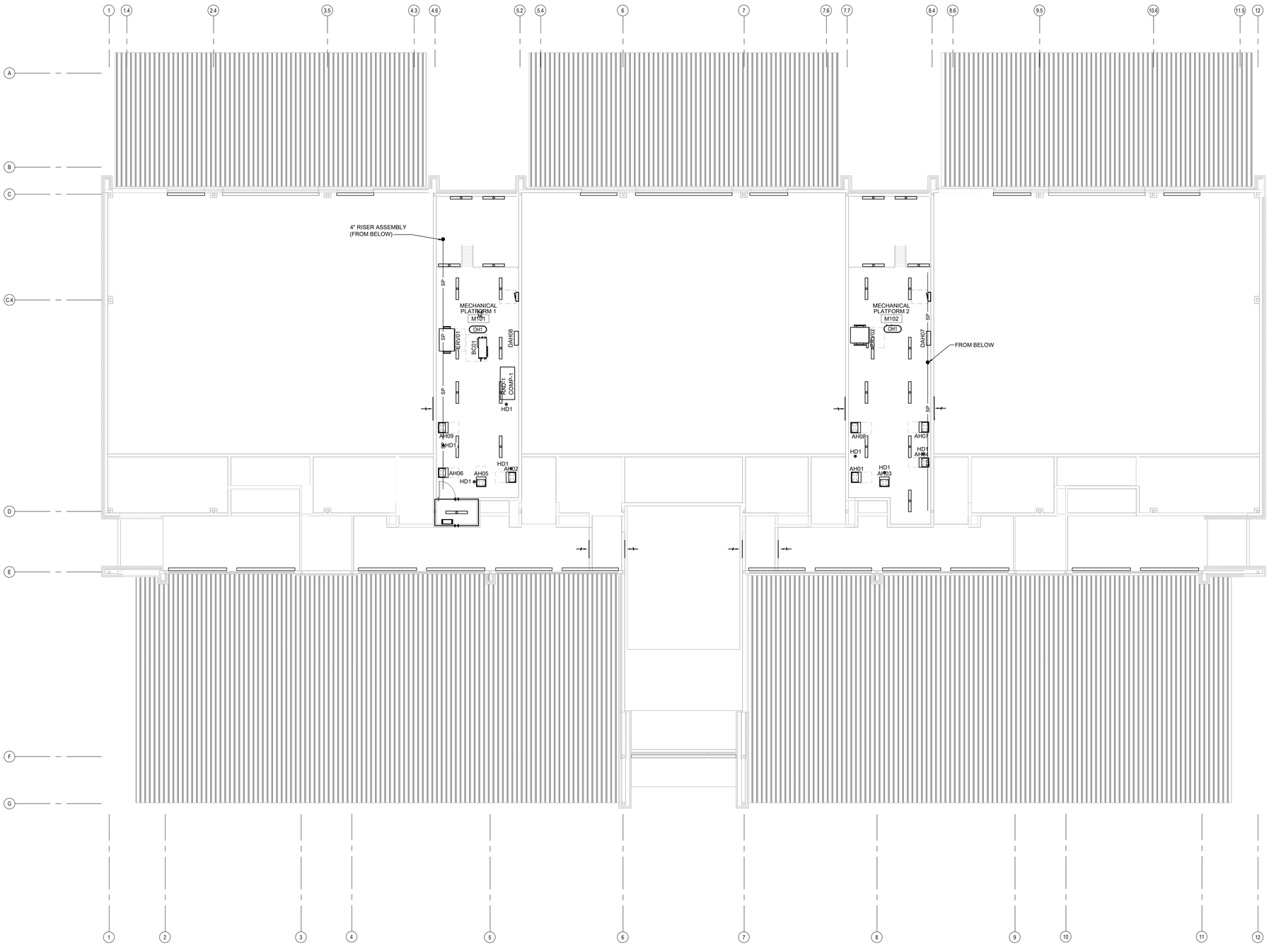
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager: DMH	Drawn By: RWC
Date: 12-18-2024	Reviewed By: DMH
Project ID: CBHF: 22093	

Sheet Title: FIRE PROTECTION FLOOR PLAN

Sheet No.: FP1.1



E1 MEZZANINE PLAN
1/8" = 1'-0"

PLAN NORTH

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WALL LEGEND

	2 HOUR RATED WALL

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SCO ID# 22-24540-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 23551 DAVID M. HINN
12/18/2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager: DMH	Drawn By: RWC
Date: 12-18-2024	Reviewed By: DMH
Project ID: CBHF: 22093	

Sheet Title
FIRE PROTECTION PLATFORMS PLAN

Sheet No.
FP1.2

James Sprunt Community College
Workforce Development Building

133 James Sprunt Drive, Kenansville, North Carolina 28349
SCO ID# 22-24540-02A
Bid Documents - 12-18-2024

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Structural:
Woods Engineering
254 North Front Street, Suite 201
Wilmington, NC 28401
(910) 343-8007

Plumbing / Mechanical / Electrical / Fire Alarm / Fire Protection:
CBHF Engineers, PLLC.
2246 Yaupon Drive
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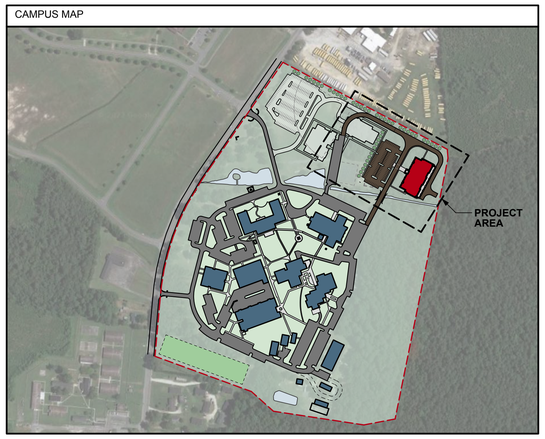
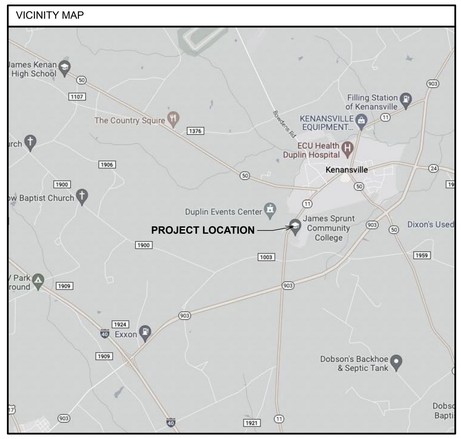
CAMPUS MAP



VICINITY MAP



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BOWMAN, MURRAY, HEMINGWAY ARCHITECTS, P.C. REGISTERED ARCHITECTURAL CORPORATION CERT. NO. 50424 NORTH CAROLINA WILMINGTON, N.C.

KEVIN DAVIS WEST 13068 NORTH CAROLINA REGISTERED ARCHITECT WILMINGTON, NC
12-18-2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By: DP
Date: 12-18-2024	Reviewed By: DH
Project ID	

Sheet Title
COVER SHEET

Sheet No.
G1.0

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: James Sprunt Community College - Workforce Development
Address: 133 James Sprunt Drive Zip code: 28349
Owner/Authorized Agent: BMH Architects - John Murray Phone #: 910-762-2621 E-mail: murray@bmharch.com
Owned by: ☒ City / County ☐ Private ☐ State
Code Enforcement Jurisdiction: ☒ City Kenansville, NC ☐ County _____ ☒ State

CONTACT: John Murray, AIA

DESIGNER	FIRM	NAME	LICENSE #	TELE. #	E-MAIL
Architectural	Bowman Murray Hemingway	Daniel Hill	13058	910-762-2621	hill@bmharch.com
Civil	Tripp Engineering	Phil Tripp	17374	910-763-5100	ptripp@trippengineering.com
Electrical	CBHF Engineers	Allen Cribb	23311	910-791-4000	acribb@cbhfengineers.com
Fire Alarm	CBHF Engineers	Allen Cribb	23311	910-791-4000	acribb@cbhfengineers.com
Plumbing	CBHF Engineers	David Hahn	23551	910-791-4000	dhahn@cbhfengineers.com
Mechanical	CBHF Engineers	David Hahn	23551	910-791-4000	dhahn@cbhfengineers.com
Sprinkler-Standpipe	CBHF Engineers	David Hahn	23551	910-791-4000	dhahn@cbhfengineers.com
Structural	Woods Engineering PA	Adam Sisk	41563	910-343-8007	adam@woodseng.com
Retaining Walls > 5' High					
Other					

("Other" should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

2018 NC BUILDING CODE: ☒ New Construction ☐ Addtion ☐ Shell/Core ☐ Phased Construction - Shell Core ☐ 1st Interior Completions

2018 NC BUILDING CODE: EXISTING: ☐ Prescriptive ☐ Repair ☐ Chapter 14 ☐ Alteration Level I ☐ Alteration Level II ☐ Alteration Level III ☐ Historic Property ☐ Change of Use

CONSTRUCTED: (date) N/A **CURRENT OCCUPANCY(S) (Ch.3) :** N/A
RENOVATED: (date) N/A **PROPOSED OCCUPANCY(S) (Ch.3) :** Assembly (A-3)

RISK CATEGORY (Table 1604.5) **Current:** ☐ I ☐ II ☐ III ☐ IV **Proposed:** ☐ I ☐ II ☒ III ☐ IV

BASIC BUILDING DATA:

Construction Type: (check all that apply) ☐ I-A ☐ I-B ☐ II-A ☒ II-B ☐ III-A ☐ III-B ☐ IV ☐ V-A ☐ 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
Special Inspections Required: ☐ No ☒ Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)

Gross Building Area Table

FLOOR	EXISTING (SQ. FT.)	NEW (SQ. FT.)	SUB-TOTAL
3rd Floor			
2nd Floor			
Mezzanine		1,510 S.F. (Eq. Platforms - not included in area)	
1st Floor		22,150 S.F.	22,150 S.F.
Covered Outdoor Area		5,170 S.F.	5,170 S.F.
TOTAL	0 S.F.	27,320 S.F.	27,320 S.F.

ALLOWABLE AREA

Primary Occupancy Classification(s):
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 Condition ☐ 1 ☐ 2
☐ I-2 Condition ☐ 1 ☐ 2
☐ I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ I-4 Condition
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 Miscellaneous ☐

Accessory Occupancy Classification(s): N/A
Incidental Uses (Table 509): N/A
Special Uses (Chapter 4 - List Code Sections): N/A
Special Provisions: (Chapter 5 - List Code Sections): N/A

Mixed Occupancy: ☐ No ☒ Yes Separation: N/A Hr. Exception: N/A

☒ **Non-Separated Use** (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 shall not exceed 1.

$$\frac{\text{Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 [4] AREA [4]	(C) [1,5] AREA FOR FRONTAGE INCREASE	(D) [2,3] AREA PER STORY OR UNLIMITED
1	Shop Spaces (A-3)	9,415 S.F.	38,000 S.F.	7,125 S.F.	45,125 S.F.
1	Classrooms, Etc. (B)	12,735 S.F.	92,000 S.F.	17,125 S.F.	109,250 S.F.
1	Eq. Platforms - (not included)	1,510 S.F.			
1	Covered Outdoor Area (B)	5,170 S.F.			
	TOTAL	**27,320 S.F.**	**38,000 S.F. (A-3)**	**7,125 S.F. (A-3)**	**45,125 S.F. (A-3)**

[1] Frontage area increases from Section 506.3 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = 754' (F)
b. Total Building Perimeter = 754' (P)
c. Ratio (F/P) = 1.0 (F/P)
d. W = Minimum width of public way = 30' (W)
e. Percent of frontage increase : If = [F/P - 0.25] x W/30 = 0.75 (%)
Allowable Area with frontage increase:
Assembly (A-3) Use = (9,500 x 0.75) = 7,125 sf

[2] Unlimited area applicable under conditions of Section 507.
[3] Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).
[4] The maximum area of open parking garages must comply with Table 406.5.4.
[5] Frontage increase is based on the unsprinklered area value in Table 506.2

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE [1]
BUILDING HEIGHT IN FEET (TABLE 504.3) [2]	75' (sprinklered)	31' - 2"	
BUILDING HEIGHT IN STORIES (TABLE 504.4) [3]	3	1	

[1] Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.
[2] The maximum height of air traffic control towers must comply with table 412.3.1.
[3] The maximum height of open parking garages must comply with table 406.5.4.

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W ——1 REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural frame, including columns, girders, trusses	30'+	0-hr	0-hr				
Bearing walls	30'+	0-hr	0-hr				
Exterior		0-hr	0-hr				
North							
East							
West							
South							
Interior		0-hr	0-hr				
Nonbearing walls and partitions							
Exterior Walls	30'+	0-hr	0-hr				
North	30'+	0-hr	0-hr				
East	30'+	0-hr	0-hr				
West	30'+	0-hr	0-hr				
South	30'+	0-hr	0-hr				
Interior Walls and partitions		0-hr	0-hr				
Floor Construction Including supporting beams and joists		0-hr	0-hr				
Floor Ceiling Assembly		0-hr	0-hr				
Columns Supporting Floors		0-hr	0-hr				
Roof Construction Including supporting beams & joists		0-hr	0-hr				
Roof ceiling assembly		0-hr	0-hr				
Columns supporting roof		0-hr	0-hr				
Shaft Enclos.- Exit		N/A	N/A				
Shaft Enclos.- Other		N/A	N/A				
Corridor Separation		0-hr	0-hr (Table 1020.1, sprinklered)				
Occupancy/ Fire Barrier Separation		0-hr	0-hr				
Party/Fire Wall Separation		N/A	N/A				
Smoke Barrier Separation		N/A	N/A				
Tenant/ Dwelling unit/ Sleeping unit separation		N/A	N/A				
Incidential Use Separation		N/A	N/A				

*Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
North: 30'+	Unprotected / Sprinkled	No Limit	8%
South: 30'+	Unprotected / Sprinkled	No Limit	8%
East: 30'+	Unprotected / Sprinkled	No Limit	15.5%
West: 30'+	Unprotected / Sprinkled	No Limit	45%

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: ☐ No ☒ Yes
Exit Signs: ☐ No ☒ Yes
Fire Alarm: ☐ No ☒ Yes
Smoke Detection Systems: ☐ No ☒ Yes ☐ Partial
Carbon Monoxide Detection: ☒ No ☐ Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan #: G1.2

☒ Fire and / or smoke rated wall locations (Chapter 7)
☐ Assumed and real property line locations (if not on the site plan)
☐ Exterior wall opening area with respect to distance to assumed property lines (705.8)
☒ Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
☒ Occupant loads for each area.
☒ Exit access travel distances (1017)
☐ Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
☒ Dead end lengths (1020.4)
☒ Clear exit widths for each exit door
☒ Maximum calculated occupant load capacity each exit door can accomodate based on egress width (1005.3)
☒ Actual occupant load for each exit door
☐ A separate schematic plan indicating where fire rated floor/ ceiling and/ or roof structure is provided for purposes of occupancy separation.
☒ Location of doors with panic hardware (1010.1.10)
☐ Location of doors with delayed egress locks and amount of delay (1010.1.9.7)
☐ Location of doors with electromagnetic egress locks (1010.1.9.9)
☐ Location of doors with hold-open devices
☐ Location of emergency escape windows (1030)
☐ The square footage of each fire area (202)
☐ The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
☐ Note any code exceptions or table notes that may have been utilized regarding items above

ACCESSIBLE DWELLING UNITS (SECTION 1107)
(NOT APPLICABLE)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	
NEW	74	87	2	---	2	4
TOTAL	74	87	---	---	---	---

PARKING CALCULATIONS

Town of Kenansville Minimum Parking Requirement:
Colleges and Universities: 1 per 3 students + 1 per employee
School, Trade or Vocational: 1 per 3 students + 1 per employee

Parking Counts:
175/3 = 58.33 = 59 + 15 = 74 spaces required by zoning.

James Sprunt has provided an occupancy count based on the following:
3 shops @ 25 students each = 75
3 classrooms @ 25 students each = 75
1 breakroom @ 25 students each = 25

Total Student Count: 175
Total Staff Count: 15

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

USE		WATERCLOSETS MALE	WATERCLOSETS FEMALE	WATERCLOSETS UNISEX	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SHOWERS / TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
SPACE	EXIST'G										
	NEW	3	5	2	3	4	4	2	-	2	2
	REQ'D	5	5	0	0	3	3	0	-	3	-

PLUMBING FIXTURE CALCULATIONS

Assembly (A-3) Requirements: 190 occ. = 95 M/95 W
Occupancy Counts: See G1.2 for full occupant count

Women / Men Ratio	= 50/50	
Female Watercloset	= 1 per 65	(1.47)
Male Watercloset	= 1 per 125	(0.76)
Lavatories	= 1 per 200	(0.48 ea.)
Drinking Fountain	= 1 per 500	(0.38)
Service Sinks	= 1 required	

Business (B) Requirements: 234 occ. = 117 M/177 W

Women / Men Ratio	= 50/50	
Female Watercloset	= 1 per 25 for first 50, then 1 per 50	(3.34)
Male Watercloset	= 1 per 25 for first 50, then 1 per 50	(3.34)
Lavatories	= 1 per 40 for first 80, then 1 per 80	(2.46 ea.)
Drinking Fountain	= 1 per 100	(2.34)
Service Sinks	= 1 required	

Total Requirements:

Female Watercloset	= 1.47 + 3.34 = 4.81 =	5 total
Male Watercloset	= 0.76 + 3.34 = 4.10 =	5 total
Lavatories	= 0.48 + 2.46 = 2.94 =	3 each total
Drinking Fountain	= 0.38 + 2.34 = 2.72 =	3 total
Service Sinks	= 1 required	1 total

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)
North Carolina State Construction Office
Town of Kenansville

ENERGY SUMMARY

ENERGY REQUIREMENTS:
The following data shall be considered minimum and any special attribute required to meet the North Carolina Energy Conservation Code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: ☐ No ☐ Yes (The remainder of this section is not applicable)
Exempt Building: ☒ No ☐ Yes (Provide code or statutory reference:) _____
Climate Zone: ☒ 3A ☐ 4A ☐ 5A
Method of Compliance: Energy Code ☐ Performance ☒ Prescriptive
ASHRAE 90.1 ☐ Performance ☐ Prescriptive
(If "Other" specify source here) _____

THERMAL ENVELOPE (Prescriptive method only)

Roof/ ceiling Assembly (each assembly)
Description of assembly: Standing seam metal roof on rigid insulation on metal deck
U-Value of total assembly: .039 min.
R-Value of insulation: R-25 min.
Skylights in each assembly: N/A
U-Value of skylight: N/A
total square footage of skylights in each assembly: N/A

Exterior Wall 1 (each assembly)
Description of assembly: 6" Metal stud frame wall w/ C.I. and ACM panel exterior
U-Value of total assembly: 0.0540
R-Value of insulation: R-19 batt + R-7.5 C.I.
Openings (windows or doors with glazing)
U-Value of assembly: 0.60
Solar heat gain coefficient: 0.24
projection factor: varies from 0.5 to 1.0
Door R-values: varies from 1 to 4

Exterior Wall 2 (each assembly)
Description of assembly: 6" Metal stud frame wall w/ C.I., air space and face brick exterior
U-Value of total assembly: 0.0555
R-Value of insulation: R-19 batt + R-7.5 C.I.
Openings (windows or doors with glazing)
U-Value of assembly: 0.60
Solar heat gain coefficient: 0.24
projection factor: varies from 0.5 to 1.0
Door R-values: varies from 1 to 4

Walls below grade (each assembly)
Description of assembly: N/A
U-Value of total assembly: _____
R-Value of insulation: _____

Floors over unconditioned space (each assembly)
Description of assembly: N/A
U-Value of total assembly: _____
R-Value of insulation: _____

Floors slab on grade
Description of assembly: Concrete slab on grade
U-Value of total assembly: Not required - TABLE C402.1.3
R-Value of insulation: _____
Horizontal/ vertical requirement: _____
slab heated: _____

STRUCTURAL DESIGN

DESIGN LOADS:
Importance Factors: Snow (I_s) 1.1 Seismic (I_E) 1.25
Live Loads: Roof 20 psf Mezzanine 60 psf Floor 100 psf
Ground Snow Loads: 10 psf
Wind Loads: Ultimate Wind Speed 139 mph (ASCE-7) Exposure Category "C"

SEISMIC DESIGN CATEGORY: ☐ A ■ B ☐ C ☐ D
Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5) ☐ I ☐ II ■ III ☐ IV
Spectral Response Acceleration SS 12.7 %g S1 6 %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/Intermediate R/C or Special Steel ☐ Moment Frame ☐ Inverted Pendulum
Analysis Procedure ☐ Simplified ■ Equivalent Lateral Force ☐ Dynamic
Architectural, Mechanical, Components anchored? ☐ Yes ■ No
LATERAL DESIGN CONTROL: Earthquake ☐ Wind ■

SOIL BEARING CAPACITIES: SEE STRUCTURAL DRAWINGS
Field Test (provide copy of test report) 2,000 psf
Presumptive Bearing capacity _____ psf
Pile size, type, and capacity _____

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT (For further information refer to mechanical schedules)

Thermal Zone: 3A
winter dry bulb: 20.5 F
summer dry bulb: 95.2 F
Interior design conditions
winter dry bulb: 70 F
summer dry bulb: 75 F
relative humidity: 60% RH
Building heating load: 289.6 MBH
Building cooling load: 408.2 MBH
Mechanical Spacing Conditioning System
Unitary
description of unit: Split System Heat Pumps
heating efficiency: 4.0-4.2 COP @ 70/47
cooling efficiency: Seer 16.5-17.5 @ 95/80/67
size category of unit: Heat/Cool Mode <65,000 Btu/h
Boiler
Size category. If oversized, state reason: N/A
Chiller
Size category. If oversized, state reason: N/A
List equipment efficiencies: See Mechanical Schedules

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT (For further information refer to electrical schedules)

Method of Compliance:
Energy Code: ■ Prescriptive ☐ Performance
ASHRAE 90.1: ☐ Prescriptive ☐ Performance

Lighting schedule (each fixture type)
lamp type required in fixture: LED
number of lamps in fixture: LED-N/A
ballast type used in the fixture: LED Drivers
number of ballasts in fixture: For Future Types A - L&X see drawing E6.2
total wattage per fixture: For Future Types A - L&X see drawing E6.2
total interior wattage specified vs allowed (whole building or space by space)
Whole Building: 14,369 Specified, 31,337 Allowed

total exterior wattage specified vs allowed
Exterior: 1,265 Specified, 6,885 Allowed

Additional Prescriptive Compliance
☐ 506.2.1 More Efficient Mechanical Equipment
■ 506.2.2 Reduced Lighting Power Density
☐ 506.2.3 Energy Recovery Ventilation Systems
☐ 506.2.4 Higher Efficiency Service Water Heating
☐ 506.2.5 On-Site Supply of Renewable energy
☐ 506.2.6 Automatic Daylighting Control Systems

BOWMAN MURRAY HEMINGWAY
ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621

SCO ID# 22-24540-02A

BOWMAN, MURRAY, HEMINGWAY, ASSOCIATES, PA REGISTERED ARCHITECTURAL CORPORATION NORTH CAROLINA CERT. NO. 50424 WILMINGTON, N. C.

JOHN D. MURRAY NORTH CAROLINA REGISTERED 13058 ARCHITECT WILMINGTON, NC 12-18-2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

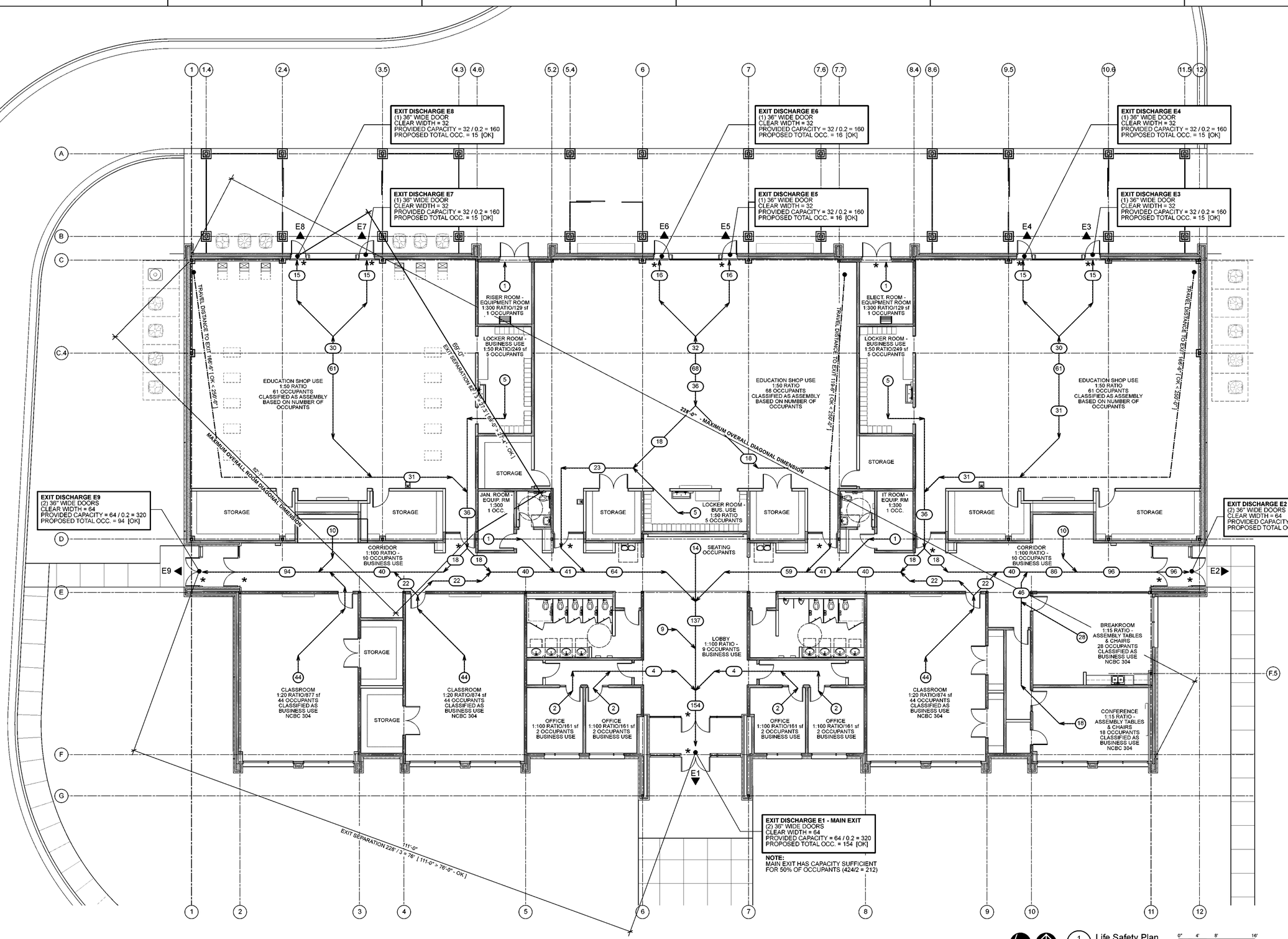
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager
Drawn By: DP
Date: 12-18-2024
Reviewed By: DH
Project ID

Sheet Title
APPENDIX B

Sheet No.
G1.1



LEGEND

E5 ▶	EXIT DISCHARGE DOOR #
(#)	ROOM OCCUPANCY LOAD
(##)	EGRESS PATH OCCUPANCY LOAD
OCC.	OCCUPANCY
*	DOOR WITH PANIC HARDWARE

WORKFORCE DEVELOPMENT BUILDING - OCCUPANCY COUNT

SHOP OCCUPANCY (A-3):
9,415 SF/50 = 190 OCCUPANTS

CLASSROOM OCCUPANCY (B):
2,625 SF/20 = 132 OCCUPANTS

OFFICE OCCUPANCY (B):
8 OCCUPANTS

LOBBY OCCUPANCY & CORRIDOR (B):
29 OCCUPANTS

LOCKER ROOMS (B):
15 OCCUPANTS

EQUIPMENT ROOMS (B):
4 OCCUPANTS

CONFERENCE & BREAK ROOM (B):
46 OCCUPANTS

TOTAL OCCUPANTS: 424 OCCUPANTS (212 MEN & 212 WOMEN)

TRUE NORTH / PLAN NORTH

1 / G1.2 Life Safety Plan
Scale: 1/8" = 1'-0"

0" 4' 8' 16'

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SCO ID# 22-24540-02A

BOWMAN, MURRAY, HEMINGWAY ARCHITECTS, PC
CERT. NO. 50424
WILMINGTON, N.C.

JOHN D. HEMINGWAY
13038
12-18-2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By: DP
Date: 12-18-2024	Reviewed By: DH
Project ID	

Sheet Title

LIFE SAFETY PLAN

Sheet No.

G1.2

BXUV.U419 - Fire-resistance Ratings - ANSI/UL 263

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

Fire-resistance Ratings - ANSI/UL 263

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

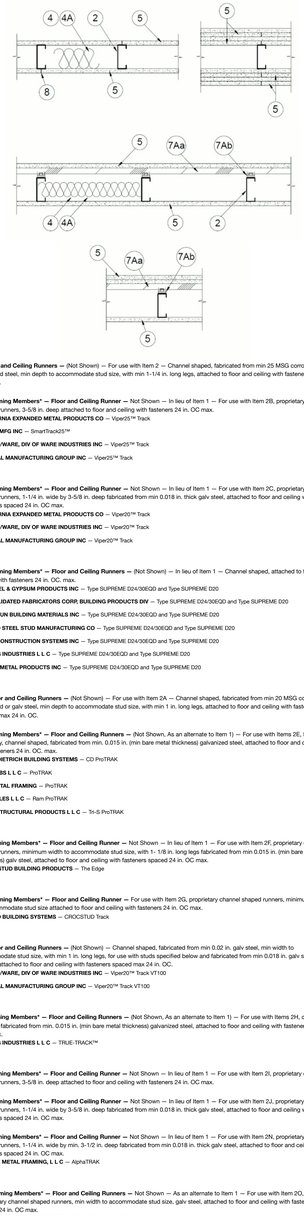
See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. U419

March 2, 2022

Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr (See Items 4 & 5 through 5J)
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners —** (Not Shown) — For use with Item 2 — Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth to accommodate stud size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.

1A. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™ Track

CRACO MFG INC — SmartTrack25™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper25™ Track

1B. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2C, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

1C. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — In lieu of Item 1 — Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EGD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EGD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EGD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EGD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EGD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EGD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EGD and Type SUPREME D20

1D. **Floor and Ceiling Runners —** (Not Shown) — For use with Item 2A — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1E. **Framing Members* — Floor and Ceiling Runners —** (Not Shown, As an alternate to Item 1) — For use with Items 2E, 5F or 5G or 5I only, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.
CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProTRAK

MBA METAL FRAMING — ProTRAK

RAM SALES L L C — Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

1F. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2F, proprietary channel shaped runners, minimum width to accommodate stud size, with 1- 1/8 in. long legs fabricated from min 0.015 in. (min bare metal thickness) galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
SUPER STUD BUILDING PRODUCTS — The Edge

1G. **Framing Members* — Floor and Ceiling Runner —** For use with Item 2G, proprietary channel shaped runners, minimum width to accommodate stud size attached to floor and ceiling with fasteners 24 in. OC max.
STUDCO BUILDING SYSTEMS — CROCSTUD Track

1H. **Floor and Ceiling Runners —** (Not Shown) — Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.018 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track VT100

1I. **Framing Members* — Floor and Ceiling Runners —** (Not Shown, As an alternate to Item 1) — For use with Items 2H, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.
TELLING INDUSTRIES L L C — TRUE-TRACK™

1J. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2I, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.

1K. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2J, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1L. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2N, proprietary channel shaped runners, 1-1/4 in. wide by min. 3-1/2 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
RESCUE METAL FRAMING, L L C — AlphaTRAK

1M. **Framing Members* — Floor and Ceiling Runners —** Not Shown — As an alternate to Item 1 — For use with Item 2O, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
RONDO BUILDING SERVICES PTY LTD — Rondo Wall Track

1N. **Framing Members* — Floor and Ceiling Runners —** Not Shown — As an alternate to Item 1 — For use with Item 2P, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
OEG BUILDING MATERIALS — OEG Track

1O. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2Q, proprietary channel shaped runners, min width to accommodate stud size, fabricated from min. 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X Track

2. **Steel Studs —** Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

2A. **Steel Studs —** (As an alternate to Item 2, For use with Items 5B, 5E, 5H, 5J or Type ULIX) — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

2B. **Framing Members* - Steel Studs —** (As an alternate to Item 2, For use with Items 5C, 5I or Type ULIX) — Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Studs to be cut 3/4 in less than the assembly height and installed with a 1/2 in. gap between the end of the stud and track at the bottom of the wall. For direct attachment of gypsum board only.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™

CRACO MFG INC — SmartStud25™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™

IMPERIAL MANUFACTURING GROUP INC — Viper25™

2C. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

IMPERIAL MANUFACTURING GROUP INC — Viper20™

2D. **Framing Members* — Steel Studs —** In lieu of Item 2 — Channel shaped studs, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EGD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EGD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EGD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EGD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EGD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EGD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EGD and Type SUPREME D20

2E. **Framing Members* — Steel Studs —** (Not Shown, As an alternate to Item 2) — For use with Items 5F or 5G or 5I or Type ULIX only, channel shaped studs, min depth as indicated under Item 5F, 5G or 5I, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA METAL FRAMING — ProSTUD

RAM SALES L L C — Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

2F. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, minimum width indicated under Item 5, 1-1/4 in. deep fabricated from min 0.015 in. (min bare metal thickness) galvanized steel. Studs 3/8 in. to 3/4 in. less in lengths than assembly heights.
SUPER STUD BUILDING PRODUCTS — The Edge

2G. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped studs, minimum width indicated under Item 5, Studs to be cut 3/8 to 3/4 in less than the assembly height.
STUDCO BUILDING SYSTEMS — CROCSTUD

2H. **Framing Members* — Steel Studs —** (Not Shown, As an alternate to Item 2) — Fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
TELLING INDUSTRIES L L C — TRUE-STUD™

2I. **Framing Members* — Steel Studs —**

2J. **Framing Members* — Metal Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max if 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights

2K. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
EB METAL INC — NITROSTUD

2L. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
OLMAR SUPPLY INC — PRIMESTUD

2M. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™

2N. **Framing Members* — Steel Studs —** As an alternate to Item 2 — proprietary channel shaped steel studs, min depth 3-1/2 in. and as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in length than assembly height.
RESCUE METAL FRAMING, L L C — AlphaSTUD

2O. **Framing Members* — Steel Studs —** As an alternate to Item 2 — proprietary channel shaped steel studs, min width as indicated under Item 5, galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max.
RONDO BUILDING SERVICES PTY LTD — Rondo Lipped Wall Stud

2P. **Framing Members* — Steel Studs —** As an alternate to Item 2 — proprietary channel shaped steel studs, min width as indicated under Item 5, min 25 MSG galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max.
OEG BUILDING MATERIALS — OEG Stud

2Q. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1O, proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 25 MSG (0.018 in. min. bare metal thickness), Studs cut 3/8 in. to 3/4 in. less in length than assembly heights.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X

3. **Wood Structural Panel Sheathing —** (Optional, For use with Item 5 Only) — (Not Shown) — 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC. in the perimeter and 12 in. OC. in the field. When used, gypsum panels attached over OSB or plywood panels and fastener lengths for gypsum panels increased by min. 1/2 in.

4. **Batts and Blankets* —** (Required as indicated under Item 5) — Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 5.
See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

4A. **Batts and Blankets* —** (Optional) — Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.
See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

4B. **Fiber, Sprayed* —** (Optional, for use with Type ULIX) Where insulation is required - Spray applied granulated mineral fiber material. The fiber is applied with adhesive at a minimum density of 4.0 pcf to completely fill the wall cavity in accordance with the application instructions supplied with the product. See **Fiber, Sprayed** (CCAZ).
AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

4C. **Foamed Plastic* —** (Where Batts and Blankets*, Item 4, are optional, for use with Item 5K) — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity, for 2 hour rated assemblies only. When foamed plastic is used, minimum stud depth shall be 3-1/2 in.
CARLISLE SPRAY FOAM INSULATION — Types SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 21, SealTite Pro One Zero, Foamulate Closed Cell, Foamulate OCX, Foamulate 70, and Foamulate HFO.

5. **Gypsum Board* —** Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) with Type ULIX need not be staggered. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Items 2, 2C, 2D, 2P, 2Q, 2O	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4)
1	3-1/2	1 layer, 5/8 in. thick	Optional
1	2-1/2	1 layer, 1/2 in. thick	1-1/2 in.
1	1-5/8	1 layer, 3/4 in. thick	Optional
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
2	3-1/2	1 layer, 3/4 in. thick	3 in.
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	2 layers, 3/4 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional
4	2-1/2	2 layers, 3/4 in. thick	2 in.

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, WRX or WRC; 3/4 in. thick Types IP-X3 or ULTRACODE

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — 1/2 in. thick Type C and 5/8 in. thick Type SCX

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SGX, SHX, ULIX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR; 3/4 in. thick Types IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, ULTRACODE

USG MEXICO S A DE C V — 1/2 in. thick Type C, IP X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick Types IP-X3 or ULTRACODE

When Item 7B, **Steel Framing Members***, is used, Nonbearing Wall Rating is limited to 1 Hr. Min. stud depth is 3-1/2 in., min. thickness of insulation (Item 4) is 3 in., and two layers of gypsum board panels (1/2 in. or 5/8 in. thick) shall be attached to furring channels as described in Item 6. One layer of gypsum board panels (1/2 in. or 5/8 in. thick) attached to opposite side of stud without furring channels as described in Item 6.

5A. **Gypsum Board* —** (As an alternate to Item 5) — 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 6.
CGC INC — Type SHX.

UNITED STATES GYPSUM CO — Type FRX-G, SHX.

USG MEXICO S A DE C V — Type SHX.

5B. **Gypsum Board* —** (Not Shown) — As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 in or 3/4 in. thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) — Nom 5/8 in. or 3/4 in. may be used as alternate to all 5/8 in. or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to 20 MSG steel studs Item 2A with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 11) or Lead Discs or Tabs (see Item 12).
RAY-BAR ENGINEERING CORP — Type RB-LBG

5C. **Gypsum Board* —** (For Use With Item 2B) — Rating Limited to 1 Hour. 5/8 in. thick, 48 in. wide, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. (Vertical Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. Vertical joints are to be centered over studs and staggered one stud cavity on opposite sides of studs. (Horizontal Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 6 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. All horizontal joints are to be backed as outlined under section VI of Volume 1 in the Fire Resistive Directory.
CGC INC — Type SCX, ULIX.

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type SCX

UNITED STATES GYPSUM CO — Type SCX, SGX, ULIX.

USG BORAL DRYWALL SFZ LLC — Type SCX

USG MEXICO S A DE C V — Type SCX

5D. **Gypsum Board* —** (As an alternate to Item 5) — 5/8 in. thick, 48 in. wide, applied vertically or horizontally. Secured as described in Item 6. For use with Items 1 and 2 only.
CGC INC — Type USGX

UNITED STATES GYPSUM CO — Type USGX

USG BORAL DRYWALL SFZ LLC — Type USGX

USG MEXICO S A DE C V — Type USGX

5E. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or No. 6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
NEW ENGLAND LEAD BURNING CO INC, DBA NELCO — Nelco

5F. **Gypsum Board* —** (As an alternate to Item 5) — For use with Items 1E and 2E and limited to 1 Hour Rating only, Gypsum panels with beveled, square or tapered edges, applied vertically, and fastened to the steel studs with 1 in. long Type S screws spaced 8 in. OC along vertical and bottom edges and 12 in. OC in the field. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Steel stud depth shall be a minimum 3-5/8 in.
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type SCX

UNITED STATES GYPSUM CO — 5/8 in. thick Type SCX, SGX, ULIX

USG BORAL DRYWALL SFZ LLC — 5/8 in. thick Type SCX, SGX

5G. **Gypsum Board* —** (As an alternate to Item 5) — For use with Items 1E and 2E only, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally, as specified in the table below and fastened to the steel studs as described in Item 6. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Item 2E	No. of Layers & Thickness of Panel	Min Thkns of Insulation (Item 4)
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR,; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX or 3/4 in. thick Types IP-X3 or ULTRACODE

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — 1/2 in. thick Types C and 5/8 in. thick SCX

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type SCX, SGX, SHX, IP-X1, AR, C, , FRX-G, IP-AR, IP-X2, IPC-AR, ULIX; 3/4 in. thick Types IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, ULTRACODE

USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, or; 3/4 in. thick Types IP-X3 or ULTRAKODE

5H. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 or 3/4 in thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) - Nom 5/8 or 3/4 in. may be used as alternate to all 5/8 or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Gypsum board secured to 20 MSG steel studs Item 2B with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 11A) or Lead Discs (see Item 12A).
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

5I. **Gypsum Board* —** (As an alternate to Item 5) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 5. Steel stud minimum depth shall be as indicated in Item 5.
CGC INC — Type ULIX, ULX

UNITED STATES GYPSUM CO — Type ULIX, ULX

USG MEXICO S A DE C V — Type ULIX

5J. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

5K. **Gypsum Board* —** (As an alternate to Item 5 when Foam Plastic insulation (Item 4C) is used) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 5 above. Applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1 in. long Type S steel screws spaced 8 in. OC at perimeter and in the field. For 2 layer assemblies outer layer will be attached to studs over inner layer with the 1-5/8 in. long steel screws spaced 8 in. OC.

6. **Fasteners —** (Not Shown) — For use with Items 2 and 2F - Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 7). **Single layer systems:** 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. **Single layer system with Type ULIX:** 1 in. long, spaced 12 in. OC in the field and perimeter, when panels are applied horizontally or vertically.**Two layer systems:** First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer.**Three-layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. **Four-layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

7. **Furring Channels —** (Optional, Not Shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 5A.

7A. **Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in item b. Gypsum board attached to furring channels as described in item 6. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (0.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 9/16 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

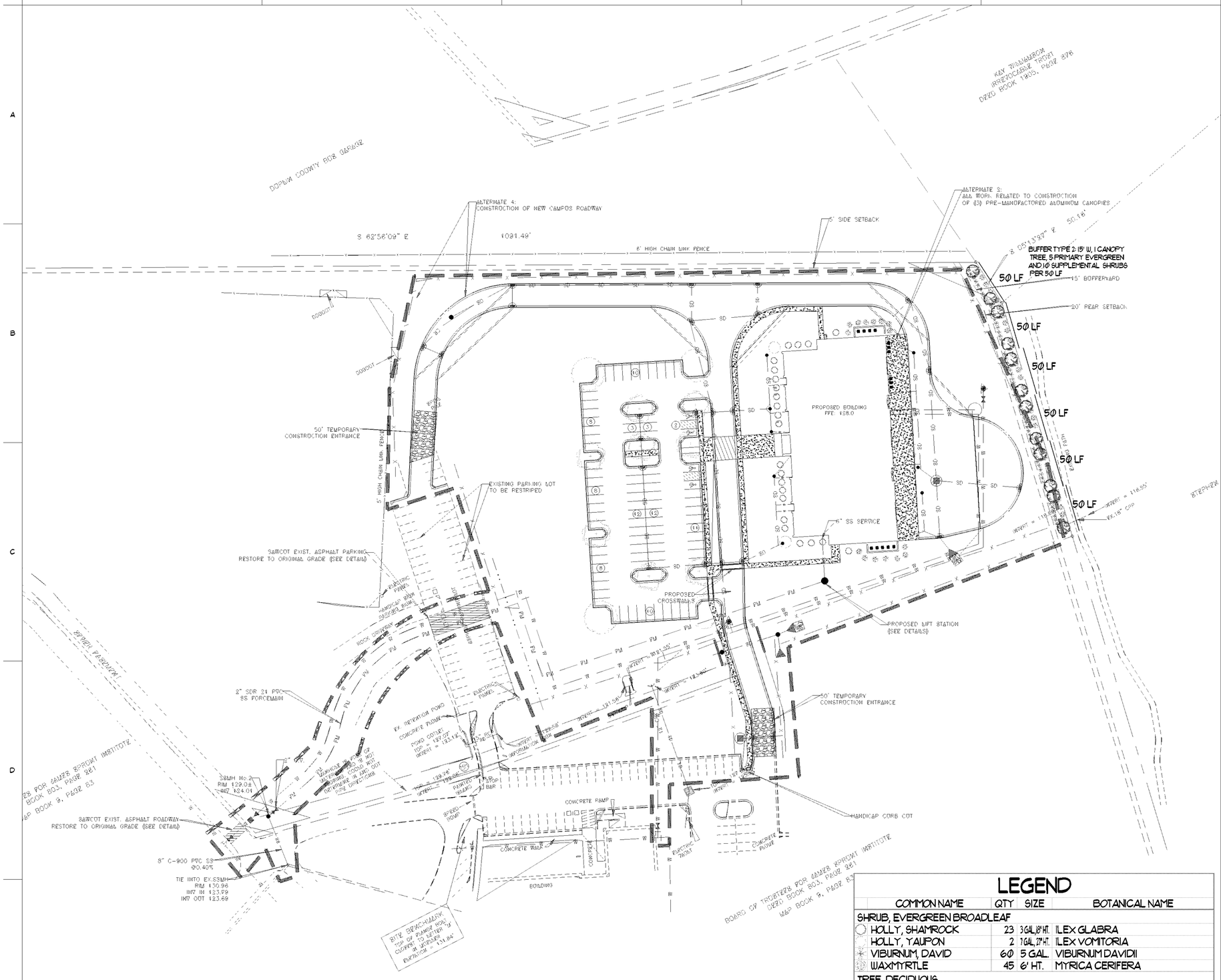
7B. **Framing Members* —** (Optional, Not Shown) — As an alternate to Item 7, for single or double layer systems, furring channels and Steel Framing Members on only one side of studs as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in item b. Batts and Blankets placed in stud cavity as described in Item 5. Two layers of gypsum board attached to furring channels as described in Item 5. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ba) to one side of studs (Item 2) only. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips.
KINETICS NOISE CONTROL INC — Type Isomax

7C. **Framing Members* —** (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ca) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
PLITEQ INC — Type GENIECLIP

7D. **Steel Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv


KEY WILLIAMSON
IRREVOCABLE TRUST
DEED BOOK 1835, PAGE 876
DUPLIN COUNTY RDS GARAGE
ALTERNATE 4:
CONSTRUCTION OF NEW CAMPUS ROADWAY
S 62°58'09" E
1081.49'
6' HIGH CHAIN LINK FENCE
ALTERNATE 3:
ALL WORK RELATED TO CONSTRUCTION
OF (3) PRE-MANUFACTURED ALUMINUM CANOPIES
S 05°13'37" W
50.18'
5' SIDE SETBACK
BUFFER TYPE 2: 15' W, 1 CANOPY
TREE, 5 PRIMARY EVERGREEN
AND 10 SUPPLEMENTAL SHRUBS
PER 50 LF
50 LF
15' BUFFERYARD
20' REAR SETBACK
DOMOUT
50' TEMPORARY
CONSTRUCTION ENTRANCE
5' HIGH CHAIN LINK FENCE
PROPOSED BUILDING
FFE 139.0
EXISTING PARKING LOT
TO BE RESTRIPED
SAWCUT EXIST. ASPHALT PARKING
RESTORE TO ORIGINAL GRADE (SEE DETAIL)
6" SS SERVICE
PROPOSED
CROSSWALK
PROPOSED LIFT STATION
(SEE DETAILS)
INVERT = 116.55'
RX.18" CPP
S72°41'42"W
ELECTRIC PANEL
CONCRETE PAD
BOLLARD (TYP.)
ROCK DRIVEWAY
POWER POLE #2
8" SDR 21 PVC
SS FORCEMAIN
RX IRRIGATION POND
CONCRETE PUMP
POND OUTLET
TOP = 134.00
INVERT = 133.16'
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MECHANICAL LEGEND

	CEILING EXHAUST AIR GRILLE
	CEILING RETURN AIR / TRANSFER AIR GRILLE
	CEILING SUPPLY AIR DIFFUSER / GRILLE
AIR TYPE DESIGNATOR / AIRFLOW, CFM	DIFFUSER / REGISTER / GRILLE TAG
(H)	HUMIDISTAT / HUMIDITY SENSOR
	MANUAL VOLUME DAMPER
(M)	MOTORIZED DAMPER
C	CONDENSATE PIPING
R	REFRIGERANT LINE-SET PIPING
	RETURN, EXHAUST OR TRANSFER AIR FLOW
	SUPPLY AIR FLOW
(T)	THERMOSTAT / TEMPERATURE SENSOR
(TH)	T-STAT / HUMIDISTAT OR TEMP/HUMIDITY SENSOR

NOTE: ALL ITEMS LISTED MAY NOT BE USED IN THIS PROJECT.

ENERGY SUMMARY

ENERGY REQUIREMENTS:

THE FOLLOWING DATA SHALL BE CONSIDERED MINIMUM AND ANY SPECIAL ATTRIBUTE REQUIRED TO MEET THE ENERGY CODE SHALL ALSO BE PROVIDED. EACH DESIGNER SHALL FURNISH THE REQUIRED PORTIONS OF THE PROJECT INFORMATION FOR THE PLAN DATA SHEET. IF PERFORMANCE METHOD, STATE THE ANNUAL ENERGY COST FOR THE STANDARD REFERENCE DESIGN VS ANNUAL ENERGY COST FOR THE PROPOSED DESIGN.

CLIMATE ZONE: 3

METHOD OF COMPLIANCE:

X PRESCRIPTIVE ([2018 NCECC][ENERGY CODE])

PERFORMANCE ([2018 NCECC][ENERGY CODE]))

PRESCRIPTIVE (ASHRAE 90.1)

PERFORMANCE (ASHRAE 90.1)

THERMAL ENVELOPE

ROOF CEILING ASSEMBLY (EACH ASSEMBLY)

DESCRIPTION OF ASSEMBLY: INSIDE SURFACE RESISTANCE, STEEL DECK, R-25 BOARD INSULATION, MEMBRANE, OUTSIDE SURFACE RESISTANCE

U-VALUE OF TOTAL ASSEMBLY: 0.04 BTU/HR/SF/F

R-VALUE OF INSULATION: R-25 (HR-SF-F)/BTU

SKYLIGHTS IN EACH ASSEMBLY: -

U-VALUE OF SKYLIGHT: -

TOTAL SQ.FT OF SKYLIGHTS IN EA. ASSEMBLY: -

EXTERIOR WALLS (EACH ASSEMBLY)

DESCRIPTION OF ASSEMBLY: INSIDE SURFACE RESISTANCE, 5/8" GYPSUM BOARD, R-13 BATT INSULATION, R-7.5 BOARD INSULATION, 1/2" GYPSUM BOARD, AIR SPACE, 4" FACE BRICK, OUTSIDE SURFACE RESISTANCE

U-VALUE OF TOTAL ASSEMBLY: 0.06 BTU/HR/SF/F

R-VALUE OF INSULATION: R-13 + R-7.5 (HR-SF-F)/BTU

OPENINGS (WINDOWS OR DOORS WITH GLAZING)

U-VALUE OF TOTAL ASSEMBLY 0.24 BTU/HR/SF/F

SHADING COEFFICIENT: 0.31

PROJECTION FACTOR: <0.5

DOOR R-VALUES: 1.4 (HR-SF-F)/BTU

WALLS BELOW GRADE (EACH ASSEMBLY)

DESCRIPTION OF ASSEMBLY: N/A

U-VALUE OF TOTAL ASSEMBLY: N/A

R-VALUE OF INSULATION: N/A

FLOORS OVER UNCONDITIONED SPACE (EACH ASSEMBLY)

DESCRIPTION OF ASSEMBLY: N/A

U-VALUE OF TOTAL ASSEMBLY: N/A

R-VALUE OF INSULATION: N/A

FLOORS SLAB ON GRADE

DESCRIPTION OF ASSEMBLY: INSIDE SURFACE RESISTANCE, 4" CONCRETE SLAB

U-VALUE OF TOTAL ASSEMBLY: 0.9 BTU/HR/SF/F

R-VALUE OF INSULATION: 0 (HR-SF-F)/BTU

HORIZONTAL/VERTICAL REQUIREMENT HORIZONTAL

SLAB HEATED: NO

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

CLIMATE ZONE 3A - WARM/HUMID

WINTER DRY BULB: 20.5 °F

SUMMER DRY BULB 95.2 °F

INTERIOR DESIGN CONDITIONS

WINTER DRY BULB 70 °F

SUMMER DRY BULB 75 °F

RELATIVE HUMIDITY 60% RH*

*DESIGN- NOT CONTROLLED

BUILDING HEATING LOAD: 289.6 MBH

BUILDING COOLING LOAD: 408.2 MBH

MECHANICAL SPACING CONDITIONING SYSTEM

UNITARY

DESCRIPTION OF UNIT: SEE SCHEDULES

HEATING EFFICIENCY: SEE SCHEDULES

COOLING EFFICIENCY: SEE SCHEDULES

SIZE CATEGORY OF UNIT: SEE SCHEDULES

BOILER

SIZE CATEGORY, IF OVERSIZED STATE REASON: N/A

CHILLER

SIZE CATEGORY, IF OVERSIZED STATE REASON: N/A

LIST EQUIPMENT EFFICIENCIES: SEE SCHEDULES

ABBREVIATIONS

TERM	ABBREVIATION	TERM	ABBREVIATION
ABOVE FINISHED FLOOR	AFF	INCH OF WATER GAUGE	INWG
ABOVE GROUND	AG	INDOOR UNIT	IDU
ABOVE SEA LEVEL	ASL	IRON PIPE SIZE	IPS
ACROSS THE LINE	ACL	KILOVOLT-AMP	KVA
AIR ADMITTANCE VALVE	AAV	KILOWATT	KW
AIR CONDITION(-ING, -ED)	AIR COND	KILOWATT HOUR	KWH
AIR-HANDLING UNIT	AHU OR AH	LEAVING AIR TEMPERATURE	LAT
AIR FLOW MEASURING STATION	AFMA	LEAVING WATER TEMPERATURE	LWT
AMBIENT	AMB	LENGTH	LG
AMPERE (AMP, AMPS)	AMP	LINEAR FEET	LF
ANALOG INPUT	AI	MAXIMUM	MAX
ANALOG OUTPUT	AO	MAXIMUM OVERCURRENT PROTECTION	MOCP
AND	&	MEDIUM-PRESSURE STEAM	MPS
APPARATUS DEW POINT	ADP	MILES PER HOUR	MPH
APPROXIMATE	APPROX	MINIMUM	MIN.
ARCHITECT	ARCH	MINIMUM CIRCUIT AMPERES	MCA
ATMOSPHERE	ATM	MINUTE	MIN
AVERAGE	AVG	MANUFACTURER	MFR
BRAKE HORSEPOWER	BHP	MOTOR CONTROL CENTER	MCC
BROWN & SHARPE WIRE GAGE	B&S	NOISE CRITERIA	NC
BRITISH THERMAL UNIT	BTU	NON-STANDARD PART LOAD	NPLV
BRITISH THERMAL UNIT PER HOUR	MBH	NORMALLY OPEN	NO
1000 BRITISH THERMAL UNIT	MBH	NORMALLY CLOSED	NC
BUILDING	BLDG	NOT APPLICABLE	N/A
BUILDING AUTOMATION SYSTEM	BAS	NOT IN CONTRACT	N I C
CELSIUS	°C	NOT TO SCALE	NTS
CHILLED WATER RETURN	CHWR	NUMBER	NO
CHILLED WATER SUPPLY	CHWS	ON CENTER	OC
COEFFICIENT, VALVE FLOW	CV	OUNCE	OZ
COEFFICIENT OF PERFORMANCE FACTOR	COP	OUTDOOR UNIT	ODU
COMPRESSOR	COMP	OUTSIDE AIR	OA
CONCRETE	CONC	PACKAGE UNIT	PU
CONDENS(-ER, -ING, -ATION)	COND	PACKAGE TERMINAL AIR CONDITIONER	PTAC
CONNECTION	CONN	PARTS PER MILLION	PPM
CONTINUATION	CONT	PERCENT	%
COOLING LOAD	CLG LOAD	PHASE	PH
CUBIC FEET	CU FT	POUNDS	LBS
CUBIC INCH	CU IN	POUNDS PER SQUARE FOOT	PSF
CUBIC FEET PER MINUTE	CFM	POWER VENTILATOR	PV
CFM, STANDARD CONDITIONS	SCFM	PRESSURE	PRESS
DECIBEL	DB	PRESSURE REDUCING VALVE	PRV
DEGREE	DEG OR °	PRESSURE SAFETY VALVE	PSV
DEDICATED OUTDOOR AIR SYSTEM	DOAS	PUMPED CONDENSATE	PC
DEGREES FAHRENHEIT	DEG. F	QUANTITY	QTY
DETAIL	DET	RATED LOAD AMPS	RLA
DEW-POINT TEMPERATURE	DPT	RECIRCULATE	RECIRC
DIAMETER	DIA	REDUCED PRESSURE BACKFLOW PREVENTER	RPZ
DIAMETER, INSIDE	ID	REFRIGERANT (12, 22, ETC.)	R22, R410
DIAMETER, OUTSIDE	OD	REFRIGERANT LIQUID	RL
DIFFERENCE OR DELTA	DIFF	REFRIGERANT SUCTION	RS
DIGITAL INPUT	DI	REQUIRED	REQD OR REQ'D
DIGITAL OUTPUT	DO	RELATIVE HUMIDITY	RH
DOMESTIC HOT WATER	DHW	RETURN AIR	RA
DOMESTIC HOT WATER RECIRCULATION	DHWR	REVOLUTIONS PER MINUTE	RPM
DRY-BULB TEMPERATURE	DBT	REVOLUTIONS PER SECOND	RPS
DUCTLESS SPLIT SYSTEM AIR HANDLER	DAH	ROOF VENTILATOR	RV
DUCTLESS SPLIT SYSTEM HEAT PUMP	DHP	ROOF TOP UNIT	RTU
ENERGY EFFICIENCY RATING	ERR	SAFETY FACTOR	SF
EFFICIENCY	EFF	SEASONAL ENERGY EFFICIENCY RATIO	SEER
ELECTRIC UNIT HEATER	EUH	SECOND	S
ELEVATION	EL	SHADING COEFFICIENT	SC
ENTERING	ENT	SPECIFICATION	SPEC
ENTERING WATER TEMPERATURE	EWT	SQUARE	SQ
ENTERING AIR TEMPERATURE	EAT	STANDARD	STD
EXISTING	(X)	STATIC PRESSURE	SP
EXTERNAL AMBIENT TEMPERATURE	EAT	SUPPLY	SPLY
EXTERNAL STATIC PRESSURE	ESP	SUPPLY AIR	SA
EXHAUST AIR	EA	TEMPERATURE	TEMP
EXHAUST FAN	EF	TEMPERATURE DIFFERENCE	TD
FACE VELOCITY	FVEL	THERMOSTAT	T STAT
FAHRENHEIT	°F	TONS OF REFRIGERATION	TONS
FEET PER MINUTE	FPM	TO BE DETERMINED	TBD
FEET PER SECOND	FPS	TOP OF STEEL	TOS
FLOOR	FLR	TOTAL DYNAMIC HEAD	TDH
FOOT OR FEET	FT	TYPICAL	TYP
FULL LOAD AMPS	FLA	U-FACTOR	U
GAGE OR GAUGE	GA	UNDER GROUND	UG
GALLONS	GAL	UNLESS OTHERWISE NOTED	UON
GALLONS PER HOUR	GPH	UNIT HEATER - ELECTRIC	UH
GALLONS PER MINUTE	GPM	VARIABLE AIR VOLUME	VAV
GALLONS PER DAY	GPD	VARIABLE FREQUENCY DRIVE	VFD
GAS UNIT HEATER	GUH	VELOCITY	VEL
GRAINS	GR	VENTILATION, VENT	VENT
HEAD	HD	VENT THRU ROOF	VTR
HEAT EXCHANGER	HX	VERTICAL	VERT
HEATING AND VENTILATION UNIT	HV	VOLT	V
HEATING, VENTILATION AND AIR CONDITIONING	HVAC	VOLT AMPERE	VA
HEIGHT	HGT	VOLUME	VOL
HERTZ	HZ	WATER PRESSURE DROP	WPD
HIGH DENSITY POLYPROPYLENE	HDPE	WATER GAUGE	WG
HIGH-PRESSURE STEAM	HPS	WATT	W
HORSEPOWER, HEAT PUMP	HP	WATT-HOUR	WH
HOT WATER COIL	HWC	WITH	W/
HOUR(S)	HR	WEIGHT	WT
HUMIDITY, RELATIVE	RH	WET BULB	WB
INTEGRATED PART LOAD VALUES	IPLV	YARD	YD
INCH	IN.	YEAR	YR

NOTE: ALL ABBREVIATIONS MAY NOT BE USED IN PROJECT.

SYSTEM COMMISSIONING

DEMONSTRATE OPERATION OF ALL COMMISSIONED SYSTEMS IN PRESENCE OF ARCHITECT / ENGINEER TO DOCUMENT COMPLIANCE WITH NC ENERGY CODE APPENDIX C1 STATEMENT OF SYSTEM COMMISSIONING

WALL LEGEND

	2 HOUR RATED WALL

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SCO ID# 22-24540-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 23551 DAVID M. HAMM

12/19/2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

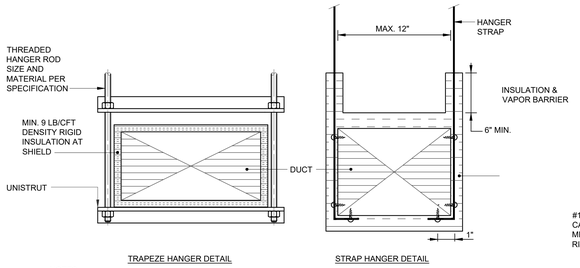
NO.	DATE	ISSUE NOTE

Project Manager	Drawn By
DMH	GRM
Date	Reviewed By
12-18-2024	DMH

Project ID: CBHF: 22093

Sheet Title: MECHANICAL LEGENDS, SUMMARIES AND ABBREVIATIONS

Sheet No.: M0.1



TRAPEZE HANGER DETAIL

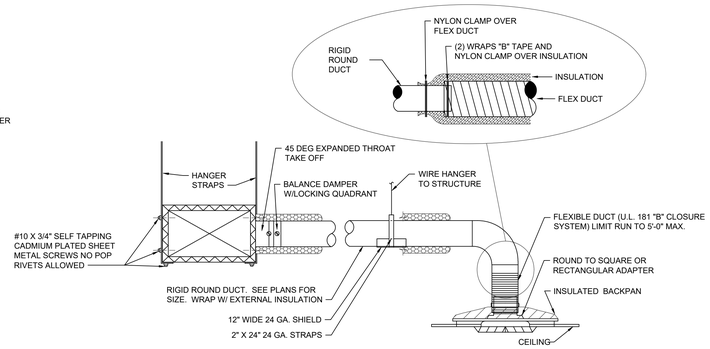
STRAP HANGER DETAIL

NOTES:

1. TRAPEZE HANGERS SHALL BE PROVIDED FOR ALL DUCT WORK. TRAPEZE HANGERS CANNOT BE USED FOR BRANCH DUCT WORK 12" IN WIDTH AND SHORTER REFER TO STRAP HANGER DETAIL.
2. SUPPORTS SHALL BE SPACED AND SIZED AS PER SPECIFICATIONS.
3. RIGID INSULATION SHALL EXTEND MINIMUM OF 3' BEYOND STRUT ON BOTH SIDES. MAINTAIN VAPOR BARRIER ACROSS STRUT.

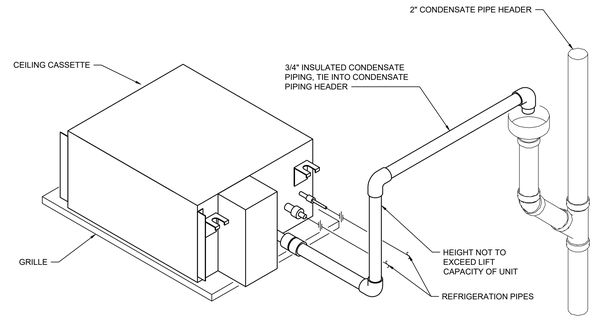
B1 DUCT HANGER SUPPORT DETAIL

NOT TO SCALE



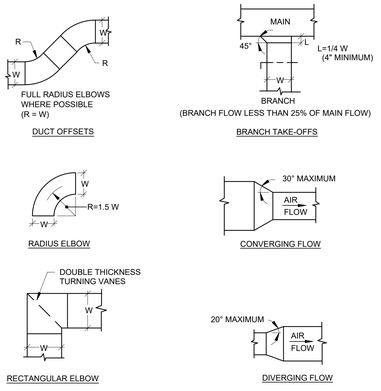
B3 DIFFUSER CONNECTION DETAIL

NOT TO SCALE



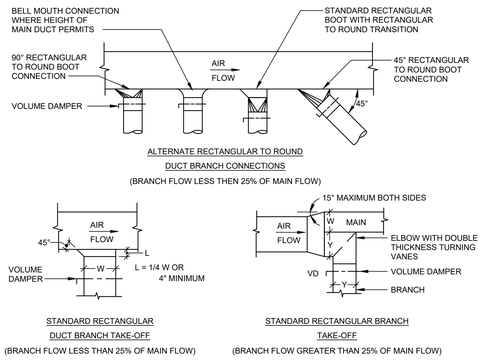
B5 VRF CONDENSATE DETAIL

NOT TO SCALE



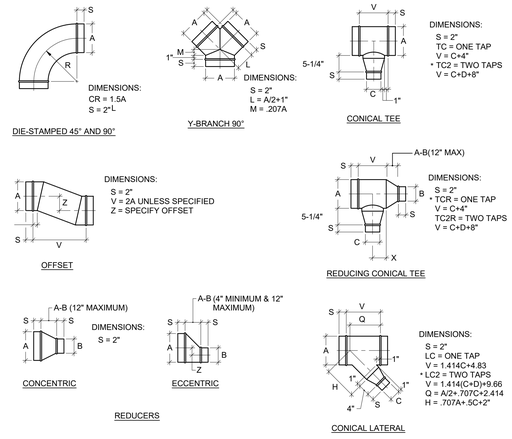
C1 RECTANGULAR DUCT FITTING DETAILS

NOT TO SCALE



C2 ROUND/RECT. DUCT TAKE-OFF FITTING DETAILS

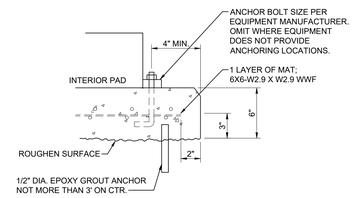
NOT TO SCALE



C4 ROUND DUCT FITTING DETAILS

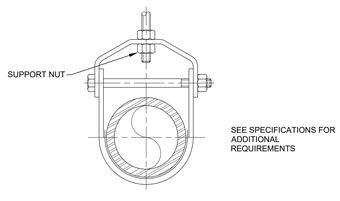
NOT TO SCALE

NOTE:
1. MESH SHALL BE FURNISHED IN SHEETS.
2. ALL PAD EDGES SHALL BE CHAMFERED.
3. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4,000 PSI AT 28 DAYS
4. ONLY ANCHOR EQUIPMENT WITH MANUFACTURER SUPPLIED ANCHOR MOUNTS



C5 CONCRETE PAD DETAIL

NOT TO SCALE

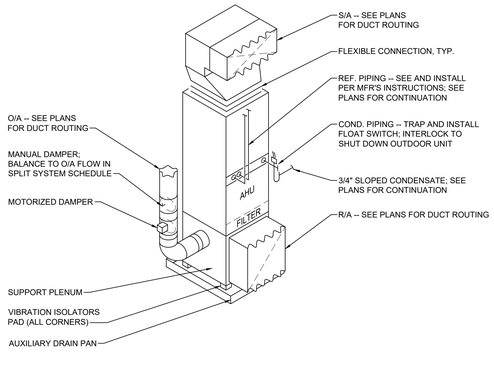


NOTES:

1. THIS DETAIL SHALL BE USED AS A GUIDE. ALL HANGERS SHALL MEET THE REQUIREMENTS OF THE SPECIFICATIONS.
2. PIPE 6" AND LARGER SHALL HAVE ROLLER SUPPORTED WITH DUAL RODS.
3. FOR CHW SERVICE OVER 3" REPLACE SADDLE WITH 12" LONG 14 GA SHIELD WITH RIGID INSULATION BETWEEN PIPE AND SHIELD.
4. WHERE TRAPEZE HANGERS ARE USED FOR HEATING HOT WATER PROVIDE ROLLERS.
5. PIPE SUBJECT TO DAMAGE MUST HAVE PADDED HANGER.

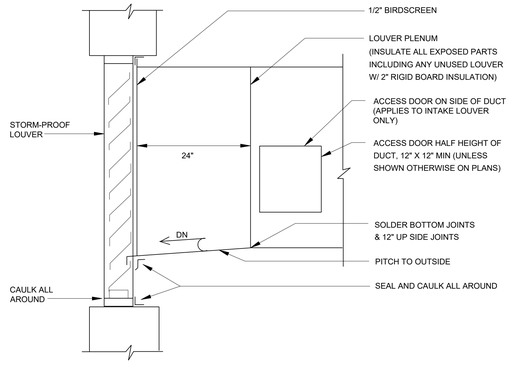
E1 PIPE HANGER SUPPORT DETAIL

NOT TO SCALE



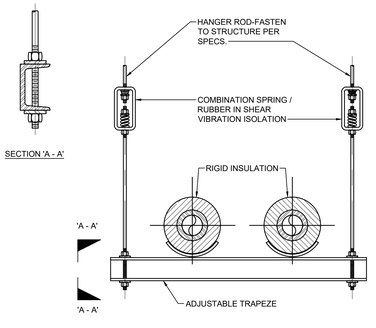
E2 AIR HANDLER DETAIL

NOT TO SCALE



E4 LOUVER PLENUM DETAIL

NOT TO SCALE



E5 TRAPEZE STYLE PIPE HANGER DETAIL

NOT TO SCALE

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NORTH CAROLINA REGISTERED PROFESSIONAL SEAL 23551 ENGINEER DAVID M. HAHN

12/19/2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager: DMH	Drawn By: GRM
Date: 12-18-2024	Reviewed By: DMH
Project ID: CBHF: 22093	

Sheet Title: MECHANICAL DETAILS

Sheet No.: M5.1

SPLIT SYSTEM SCHEDULE

DRAWING CODE (IDU/ODU)	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL (IDU/ODU)	ALTERNATE APPROVED MANUFACTURERS	SYSTEM TYPE	COOLING (AHRI STANDARD)				HEATING (AHRI STANDARD)				INDOOR UNIT				ELECTRICAL						REFRIGERANT	REFRIGERANT PIPING		WEIGHT (LBS.)		NOTES	ACCESSORIES
					TOTAL (MBH)	SENSIBLE (MBH)	EFFICIENCY		TOTAL (MBH)	EFFICIENCY			SUPPLY AIRFLOW (CFM)	OUTSIDE AIRFLOW (CFM)	ESP (IN. WG.)	AUX HEAT CAP (KW)	INDOOR UNIT			OUTDOOR UNIT			(TYPE)	STANDARD LENGTH (FT.)	STANDARD HEIGHT DIFFERENTIAL (FT.)	INDOOR UNIT	OUTDOOR UNIT		
																	(V/PH/HZ)	(MCA)	(MOCP)	(V/PH/HZ)	(MCA)	(MOCP)							
AH01 / HP01	TRANE	5TEM6A0C48 / 5TWR7048	YORK, CARRIER	HEAT PUMP	44.7	34.7	SEER	17.5	46.5	COP	4.2		1,600	155	0.50	10.8	208/3/60	45.0	45	208/1/60	28.0	45	R-454B	60	60	175	300	1,2	A,B,C,D,E,F,G
AH02 / HP02	TRANE	5TEM6A0C48 / 5TWR7048	YORK, CARRIER	HEAT PUMP	44.7	34.7	SEER	17.5	46.5	COP	4.2		1,600	160	0.50	10.8	208/3/60	45.0	45	208/1/60	28.0	45	R-454B	60	60	175	300	1,2	A,B,C,D,E,F,G
AH03 / HP03	TRANE	5TEM6A0C36 / 5TWR7036	YORK, CARRIER	HEAT PUMP	35.1	28.1	SEER	17.5	32.8	COP	4.0		1,200	280	0.50	7.2	208/3/60	30.0	30	208/1/60	20.0	35	R-454B	60	60	145	260	1,2	A,B,C,D,E,F,G
AH04 / HP04	TRANE	5TEM6A0C36 / 5TWR7036	YORK, CARRIER	HEAT PUMP	35.1	28.4	SEER	17.5	32.8	COP	4.0		1,200	180	0.50	7.2	208/3/60	30.0	30	208/1/60	20.0	35	R-454B	60	60	145	260	1,2	A,B,C,D,E,F,G
AH05 / HP05	TRANE	5TEM6A0C36 / 5TWR7036	YORK, CARRIER	HEAT PUMP	35.1	28.1	SEER	17.5	32.8	COP	4.0		1,200	395	0.50	7.2	208/3/60	30.0	30	208/1/60	20.0	35	R-454B	60	60	145	260	1,2	A,B,C,D,E,F,G
AH06 / HP06	TRANE	5TEM6A0C36 / 5TWR7036	YORK, CARRIER	HEAT PUMP	35.1	28.4	SEER	17.5	32.8	COP	4.0		1,200	395	0.50	7.2	208/3/60	30.0	30	208/1/60	20.0	35	R-454B	60	60	145	260	1,2	A,B,C,D,E,F,G
AH07 / HP07	TRANE	5TEM6B0C60 / 5TWR7060	YORK, CARRIER	HEAT PUMP	54.4	39.7	SEER	16.5	54.5	COP	4.1		1,900	525	0.50	10.8	208/3/60	45.0	45	208/1/60	35.0	60	R-454B	60	60	175	300	1,2,3	A,B,C,D,E,F,G
AH08 / HP08	TRANE	5TEM6B0C60 / 5TWR7060	YORK, CARRIER	HEAT PUMP	55.0	38.9	SEER	16.5	54.5	COP	4.1		1,900	460	0.50	10.8	208/3/60	45.0	45	208/1/60	35.0	60	R-454B	60	60	175	300	1,2,3	A,B,C,D,E,F,G
AH09 / HP09	TRANE	5TEM6B0C60 / 5TWR7060	YORK, CARRIER	HEAT PUMP	54.5	39.7	SEER	16.5	54.5	COP	4.1		1,900	550	0.50	10.8	208/3/60	45.0	45	208/1/60	35.0	60	R-454B	60	60	175	300	1,2,3	A,B,C,D,E,F,G

NOTES:
1 REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
2 IF AN ALTERNATE MANUFACTURES EQUIPMENT IS SELECTED, MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE EQUIPMENT WILL FIT AND ELECTRICAL/CONTROLS REQUIREMENTS MATCH PROPOSED EQUIPMENT.

ACCESSORIES:
A ELECTRIC HEATER AS SCHEDULED
B ODU COIL SEACOAST PROTECTION
C LOW AMBIENT COOLING OPERATION TO 40F
D SINGLE POINT POWER CONNECTION
E PROVIDE TRANE TCONT830AS52DA PIVOT COMMERCIAL THERMOSTAT OR APPROVED EQUAL
F FILTER RACK
G TWO-STAGE HEAT PUMP

ENERGY RECOVERY VENTILATOR SCHEDULE

DRAWING CODE	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	ALTERNATE APPROVED MANUFACTURERS	CONFIGURATION	SUPPLY FAN				EXHAUST FAN				HEAT ENTHALPY PLATE CORE-SUMMER			HEAT ENTHALPY PLATE CORE-WINTER			ELECTRICAL				WEIGHT (LBS.)	NOTES	ACCESSORIES
					AIRFLOW (CFM)	E.S.P. (IN. WG.)	DRIVE	MOTOR (W) (HP)	AIRFLOW (CFM)	E.S.P. (IN. WG.)	DRIVE	MOTOR (W) (HP)	OA EAT (°Fdb/°Fwb)	OA LAT (°Fdb/°Fwb)	EA EAT (°Fdb/°Fwb)	OA EAT (°Fdb/°Fwb)	OA LAT (°Fdb/°Fwb)	EA EAT (°Fdb/°Fwb)	VOLTAGE (V/PH/HZ)	MCA (A)	MOCP (A)				
ERV01	RENEWAIRE	HE-1.5JINV	AIRXCHANGE, GREENHECK	VERTICAL	1,300	0.57	DIRECT	749W	1,040	1.10	DIRECT	706W	96.9/76.7	83.5/71.4	75.0/62.5	22.4/17.8	51.6/39.5	70.0/51.5	208/3/60	5.0	15	500	1	A THRU H
ERV02	RENEWAIRE	HE-2XJINV	AIRXCHANGE, GREENHECK	VERTICAL	1,600	0.50	DIRECT	1.5HP	1,280	1.00	DIRECT	1.5HP	96.9/76.7	83.2/71.2	75.0/62.5	22.4/17.8	52.2/39.9	70.0/51.5	208/3/60	11.9	15	500	1	A THRU H

NOTES:
1 REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
2 OUTDOOR DESIGN CONDITIONS: 91.0F / 77.0F 1%DB/MCWB AND 140 GRAINS/LB WITH AN 84.0F MCDB COOLING/DEHUMIDIFYING CONDITIONS. 26.0F 99% AND 22.0F 99.6% HEATING CONDITIONS. EQUIPMENT SELECTION SHALL MEET ALL CONDITIONS.
3 PERFORMANCE DATA BASED UPON MAXIMUM AIR QUANTITIES SCHEDULED.
4 EFFICIENCY RATED IN ACCORDANCE WITH ANSI/AHRI STANDARD 340/360.
5 CONTROLS CONTRACTOR SHALL PROVIDE ON/OFF SIGNAL TO UNIT BASED ON OCCUPANCY SCHEDULE.
6 FIELD INSTALL THE FOLLOWING MONITORING SENSORS: OUTSIDE AIR TEMPERATURE & HUMIDITY, SUPPLY AIR TEMPERATURE & HUMIDITY, RETURN AIR TEMPERATURE, SUPPLY FAN STATUS & EXHAUST FAN STATUS, FILTER STATUS. SENSORS SHALL BE SUPPLIED & INSTALLED BY CONTROLS CONTRACTOR.

ACCESSORIES:
A ECM FAN MOTORS
B DOUBLE WALL CONSTRUCTION
C SINGLE POINT ELECTRICAL CONNECTION.
D MOTORIZED DAMPERS BOTH AIRSTREAMS
E NON-FUSED DISCONNECT
F ENHANCED CONTROLS WITH BACNET FACTORY ACTIVATION
G ENHANCED CONTROLS WITH BACNET FACTORY ACTIVATION
H DUAL CONTACTORS FOR INDEPENDENT BLOWER CONTROLS

LOUVER SCHEDULE

DRAWING CODE	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	ALTERNATE APPROVED MANUFACTURERS	TYPE	FRAME	DESCRIPTION	MATERIAL	LOUVER DEPTH (IN.)	SIZE (W x H) (IN.)	SERVICE	AIRFLOW (CFM)	PERFORMANCE RATINGS				NOTES	ACCESSORIES
											(CFM)	FREE AREA (SF)	S.P. LOSS (IN. H20)	FREE AREA VELOCITY (FPM)	WATER PENETRATION (OZ./SF)		
L01	RUSKIN	EME6625D	VENT PRODUCTS, POTTORFF	FIXED	CHANNEL	VERTICAL, WIND-DRIVEN-RAIN-RESISTANT	ALUMINUM	6	24 x 50	INTAKE	1,300	3.21	0.02	406	-	1	A,B,C,D
L02	RUSKIN	EME6625D	VENT PRODUCTS, POTTORFF	FIXED	CHANNEL	VERTICAL, WIND-DRIVEN-RAIN-RESISTANT	ALUMINUM	6	24 x 50	EXHAUST	1,040	3.21	0.01	324	-	1	A,B,C,D
L03	RUSKIN	EME6625D	VENT PRODUCTS, POTTORFF	FIXED	CHANNEL	VERTICAL, WIND-DRIVEN-RAIN-RESISTANT	ALUMINUM	6	24 x 50	INTAKE	1,600	3.21	0.03	499	-	1	A,B,C,D
L04	RUSKIN	EME6625D	VENT PRODUCTS, POTTORFF	FIXED	CHANNEL	VERTICAL, WIND-DRIVEN-RAIN-RESISTANT	ALUMINUM	6	24 x 50	EXHAUST	1,280	3.21	0.02	399	-	1	A,B,C,D

NOTES:
1 REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
2 FINISH AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLOR AND GLOSS.

ACCESSORIES:
A AMCA 540 LISTED (IMPACT RESISTANCE)
B AMCA 550 LISTED (WATER PENETRATION) WITHOUT DAMPER
C INCLUDE MOUNTING HARDWARE FOR SPECIFIED WALL TYPE AND DEPTH
D BIRD SCREENING (MATERIAL TO MATCH LOUVER MATERIAL)
E MIAMI-DADE STANDARDS COMPLIANT

VARIABLE REFRIGERANT FLOW AIR HANDLER SCHEDULE

DRAWING CODE	BC CONTROLLER	OUTDOOR UNIT	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	ALTERNATE APPROVED MANUFACTURERS	INDOOR UNIT CONFIGURATION	MAXIMUM COOLING CAPACITY (MBH)	MAXIMUM SENSIBLE COOLING CAPACITY (MBH)	MAXIMUM HEATING CAPACITY (MBH)	SUPPLY AIRFLOW (MIN CFM TO MAX CFM)	ELECTRICAL			WEIGHT (LBS)	NOTES	ACCESSORIES
											VOLTAGE (V/PH/HZ)	MCA (A)	MOCP (A)			
DAH01	BC01	DHP01	MITSUBISHI	TPLFYP015FM140B	DAIKIN, LG	CEILING CASSETTE - 4 WAY	14.1	9.4	17.0	265 - 390	208/1/60	0.35	15	35	1 THRU 4	A
DAH02			MITSUBISHI	TPKFYP004LM140B	DAIKIN, LG	WALL MOUNTED	3.9	2.4	4.5	120 - 145	208/1/60	0.2	15	25	1 THRU 4	A
DAH03			MITSUBISHI	TPLFYP005FM140B	DAIKIN, LG	CEILING CASSETTE - 4 WAY	4.7	3.9	5.6	230 - 280	208/1/60	0.24	15	30	1 THRU 4	A
DAH04			MITSUBISHI	TPLFYP005FM140B	DAIKIN, LG	CEILING CASSETTE - 4 WAY	4.7	3.9	5.6	230 - 280	208/1/60	0.24	15	30	1 THRU 4	A
DAH05			MITSUBISHI	TPLFYP005FM140B	DAIKIN, LG	CEILING CASSETTE - 4 WAY	4.7	3.9	5.6	230 - 280	208/1/60	0.24	15	30	1 THRU 4	A
DAH06			MITSUBISHI	TPLFYP005FM140B	DAIKIN, LG	CEILING CASSETTE - 4 WAY	4.7	3.9	5.6	230 - 280	208/1/60	0.24	15	30	1 THRU 4	A
DAH07			MITSUBISHI	TPKFYP006LM140B	DAIKIN, LG	WALL MOUNTED	5.6	4.1	6.7	145 - 190	208/1/60	0.24	15	25	1 THRU 4	A
DAH08			MITSUBISHI	TPKFYP006LM140B	DAIKIN, LG	WALL MOUNTED	5.6	4.1	6.7	145 - 190	208/1/60	0.24	15	25	1 THRU 4	A

NOTES:
1 REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
2 MAXIMUM COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB), OUTDOOR OF 95°F (DB)
3 MAXIMUM HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 23°F (DB)
4 REFER TO SCHEMATIC PIPING/CONTROL DIAGRAM ON MECHANICAL DRAWINGS FOR INDICATION OF REQUIRED INDOOR UNIT REMOTE CONTROLLERS, SYSTEM CONTROLLERS, AND INTEGRATION DEVICES.

ACCESSORIES:
A IF CONSTRUCTION DOES NOT ALLOW FOR GRAVITY DRAINAGE OF CONDENSATE, PROVIDE CONDENSATE PUMP.

VARIABLE REFRIGERANT FLOW OUTDOOR UNIT SCHEDULE

DRAWING CODE	INDOOR UNIT(S)	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	ALTERNATE APPROVED MANUFACTURERS	COOLING		HEATING		MIN EER	MIN COP (@47°F)	ELECTRICAL			REFRIGERANT			WEIGHT (LBS)	NOTES	ACCESSORIES
					TOTAL (MBH)	OAT (°F)	TOTAL (MBH)	OAT (°F)			VOLTAGE (V/PH/HZ)	MCA (A)	MOCP (A)	TYPE	CAPACITY - ODU (LBS-OZ)	CAPACITY - SYSTEM(EST) (LBS)			
DHP01	DAH01 - DAH08	MITSUBISHI	TURYE0723AN41AN	DAIKIN, LG	72.0	93.0	80.0	23.0	22.9	4.1	208/3/60	33.0	50	R410A	11-LBS + 7-OZ	31.2	520	1 THRU 4	A,B

NOTES:
1 REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
2 MAXIMUM COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB), OUTDOOR OF 95°F (DB)
3 MAXIMUM HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 43°F (DB)
4 REFER TO SCHEMATIC PIPING/CONTROL DIAGRAM ON MECHANICAL DRAWINGS FOR INDICATION OF REQUIRED INDOOR UNIT REMOTE CONTROLLERS, SYSTEM CONTROLLERS, AND INTEGRATION DEVICES.

ACCESSORIES:
A CONCRETE MOUNTING PAD FOR OUTDOOR UNIT
B TOUCH SCREEN CENTRAL CONTROLLER TE-200A OR APPROVED EQUAL

VARIABLE REFRIGERANT FLOW BRANCH CIRCUIT CONTROLLER SCHEDULE

DRAWING CODE	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	ALTERNATE APPROVED MANUFACTURERS	POWER INPUT (RATED) COOLING (KW)	POWER INPUT (RATED) HEATING (KW)	ELECTRICAL			WEIGHT (LBS)	NOTES	ACCESSORIES
						VOLTAGE (V/PH/HZ)	MCA (A)	MOCP (A)			
BC01	MITSUBISHI	TCMBG1012SJ21N4	DAIKIN, LG	0.9	0.4	208/1/60	1.1	20	109	1,2	A

NOTES:
1 REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
2 PROVIDE GRAVITY DRAIN CONDENSATE PIPING.

ACCESSORIES:
A SUCTION AND LIQUID LINES SERVICE ISOLATION VALVES FOR ALL PORTS. RATED AT 700-PSIG WORKING PRESSURE AND R410A RATED.

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SCO ID# 22-24540-02A

NORTH CAROLINA REGISTERED PROFESSIONAL SEAL 23551 ENGINEER DAVID M. HAHN
12/19/2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager: DMH	Drawn By: GRM
Date: 12-18-2024	Reviewed By: DMH
Project ID: CBHF: 22093	

Sheet Title: MECHANICAL SCHEDULES

Sheet No.: M6.1

HIGH-VOLUME, LOW-SPEED FAN SCHEDULE

DRAWING CODE	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	ALTERNATE APPROVED MANUFACTURERS	SERVICE	DRIVE	FAN		ELECTRICAL				WEIGHT (LBS)	NOTES	ACCESSORIES
						TYPE	DIAMETER (FT)	MOTOR SIZE (HP)	MOTOR SPEED (RPM)	V/PH/HZ	FLA (A)			
F01	BIG ASS FANS	POWERFOIL D	HUNTER, GREENHECK	CIRCULATION	DIRECT	HVLS DOWNFLOW	12	1.5	145	208/1/60	5.3	230	1,2,3,4,5,6	A,B,C
F02	BIG ASS FANS	POWERFOIL D	HUNTER, GREENHECK	CIRCULATION	DIRECT	HVLS DOWNFLOW	12	1.5	145	208/1/60	5.3	230	1,2,3,4,5,6	A,B,C
F03	BIG ASS FANS	POWERFOIL D	HUNTER, GREENHECK	CIRCULATION	DIRECT	HVLS DOWNFLOW	12	1.5	145	208/1/60	5.3	230	1,2,3,4,5,6	A,B,C

NOTES:
1 REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
2 FAN TO BE INTERTEK/ETL CERTIFIED TO UL507 AND SCE 22.2
3 REFER TO ARCHITECTURAL DRAWINGS FOR COLOR AND FINISH
4 FAN MOTOR AND VFD TO BE IP-66 RATED, SUITABLE FOR INDOOR AND OUTDOOR USE
5 FAN TO INCLUDE REDUNDANT SAFETY FEATURES, AIRFOIL RESTRAINT SYSTEM
6 FAN TO INCLUDE 15 YEAR MECHANICAL WARRANTY, 7 YEAR ELECTRICAL WARRANTY

ACCESSORIES:
A DIRECT DRIVE MOTOR, INTEGRAL VFD AND AIRFOIL BLADES
B STANDARD WALL MOUNT VARIABLE SPEED CONTROLLER
C 24" DOWN ROD AND ASSOCIATED MOUNTING HARDWARE

DIFFUSERS, REGISTERS AND GRILLES SCHEDULE

DRAWING CODE	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	ALTERNATE APPROVED MANUFACTURERS	TYPE	SERVICE	NECK SIZE (IN.)	MODULE SIZE (IN.)	MATERIAL	FINISH	MOUNTING	NOTES	ACCESSORIES
S1	PRICE	ASPD	METALAIRE, TITUS	SQUARE CEILING DIFFUSER, PLAQUE	SUPPLY	6Ø	24 X 24	ALUMINUM	WHITE	T-BAR	1,2,3,4	A
S2	PRICE	ASPD	METALAIRE, TITUS	SQUARE CEILING DIFFUSER, PLAQUE	SUPPLY	10Ø	24 X 24	ALUMINUM	WHITE	T-BAR	1,2,3,4	A
S3	PRICE	620	METALAIRE, TITUS	LOUVER FACE DIFFUSER	SUPPLY	12 X 6	-	ALUMINUM	WHITE	SURFACE	1,2,3,4	B
S4	PRICE	620	METALAIRE, TITUS	LOUVER FACE DIFFUSER	SUPPLY	12 X 12	-	ALUMINUM	WHITE	SURFACE	1,2,3,4	B
S5	PRICE	LBPH	METALAIRE, TITUS	LINEAR BAR DIFFUSER, CORE 16B	SUPPLY	24 X 6	-	ALUMINUM	WHITE	SURFACE	1,2,3,4	B
S6	PRICE	620	METALAIRE, TITUS	LOUVER FACE DIFFUSER	SUPPLY	6Ø	24 X 12	ALUMINUM	WHITE	T-BAR	1,2,3,4	A
T1	PRICE	630	METALAIRE, TITUS	FIXED FACE GRILLE	TRANSFER	20 X 20	24 X 24	ALUMINUM	WHITE	T-BAR	1,2,3,4	C
T2	PRICE	630	METALAIRE, TITUS	FIXED FACE GRILLE	TRANSFER	12 X 12	-	ALUMINUM	WHITE	SURFACE	1,2,3,4	-
R1	PRICE	630	METALAIRE, TITUS	FIXED FACE GRILLE	RETURN	20 X 20	24 X 24	ALUMINUM	WHITE	T-BAR	1,2,3,4	C
R2	PRICE	630	METALAIRE, TITUS	FIXED FACE GRILLE	RETURN	40 X 14	-	ALUMINUM	WHITE	SURFACE	1,2,3,4	B
R3	PRICE	630	METALAIRE, TITUS	FIXED FACE GRILLE	RETURN	48 X 18	-	ALUMINUM	WHITE	SURFACE	1,2,3,4	-
R4	PRICE	630	METALAIRE, TITUS	FIXED FACE GRILLE	RETURN	24 X 6	-	ALUMINUM	WHITE	SURFACE	1,2,3,4	B
E1	PRICE	630	METALAIRE, TITUS	FIXED FACE GRILLE	EXHAUST	20 X 20	24 X 24	ALUMINUM	WHITE	T-BAR	1,2,3,4	C
E2	PRICE	630	METALAIRE, TITUS	FIXED FACE GRILLE	EXHAUST	12 X 12	-	ALUMINUM	WHITE	SURFACE	1,2,3,4	B,C
E3	PRICE	630	METALAIRE, TITUS	FIXED FACE GRILLE	TRANSFER	40 X 14	-	ALUMINUM	WHITE	SURFACE	1,2,3,4	C

NOTES:
1 REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
2 DUCT BRANCH CONNECTION SIZE TO BE EQUAL TO THE NECK SIZE OF DIFFUSER UNLESS NOTED OTHERWISE ON PLANS.
3 COORDINATE ALL COLORS AND FINISHES WITH ARCHITECT PRIOR TO SUBMITTING FOR APPROVAL.
4 PAINT ALL VISIBLE DUCTWORK THROUGH GRILLES AND REGISTERS FLAT BLACK.

ACCESSORIES:
A VOLUME DAMPER
B OPPOSED BLADE DAMPER
C INSULATED PLENUM BOX

SEQUENCE OF OPERATION: AIR SOURCE HEAT PUMP

RUN CONDITIONS - SCHEDULED:
THE UNIT SHALL RUN ACCORDING TO A USER DEFINABLE TIME SCHEDULE IN THE FOLLOWING MODES:
•OCCUPIED MODE: THE UNIT SHALL MAINTAIN
•A 75°F (ADJ.) COOLING SETPOINT
•A 70°F (ADJ.) HEATING SETPOINT

•UNOCCUPIED MODE (NIGHT SETBACK): THE UNIT SHALL MAINTAIN
•A 85°F (ADJ.) COOLING SETPOINT.
•A 55°F (ADJ.) HEATING SETPOINT.

ZONE UNOCCUPIED OVERRIDE:
A TIMED LOCAL OVERRIDE CONTROL SHALL ALLOW AN OCCUPANT TO OVERRIDE THE SCHEDULE AND PLACE THE UNIT INTO AN OCCUPIED MODE FOR AN ADJUSTABLE PERIOD OF TIME. AT THE EXPIRATION OF THIS TIME, CONTROL OF THE UNIT SHALL AUTOMATICALLY RETURN TO THE SCHEDULE.

FAN:
THE FAN SHALL RUN ANYTIME THE UNIT IS COMMANDED TO RUN, UNLESS SHUTDOWN ON SAFETIES. THE FAN SPEEDS SHALL BE INDEXED AS FOLLOWS:
•LOW SPEED SHALL RUN ANYTIME THE ZONE TEMPERATURE IS WITHIN SETPOINTS.
•HIGH SPEED SHALL RUN ANYTIME THE ZONE TEMPERATURE IS OUTSIDE OF SETPOINTS.

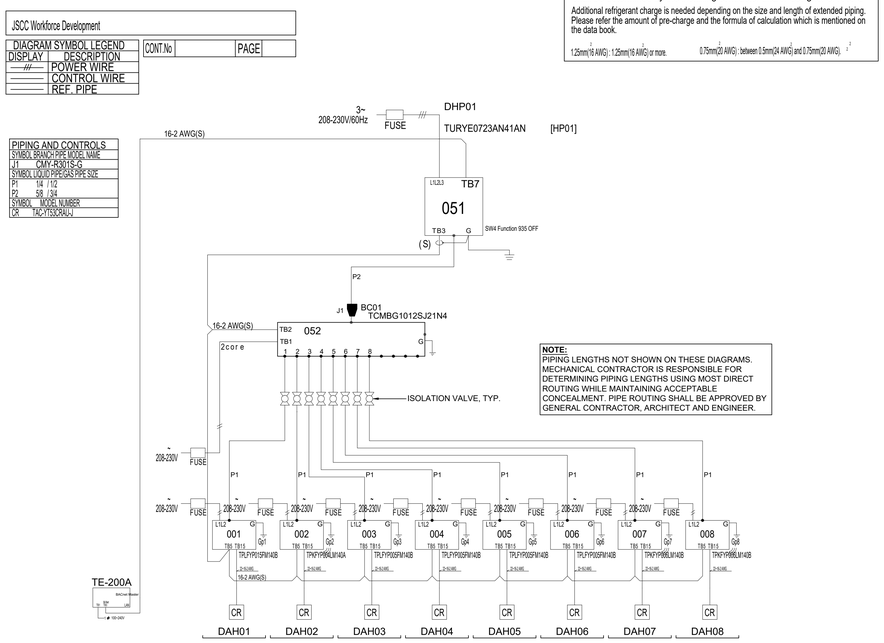
HEATING AND COOLING - 2 COMPRESSOR STAGES:
THE CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND STAGE THE COMPRESSORS TO MAINTAIN ITS SETPOINT. TO PREVENT SHORT CYCLING, THERE SHALL BE A DELAY BETWEEN STAGES, AND EACH STAGE SHALL HAVE MINIMUM RUNTIME. THE COMPRESSOR SHALL RUN SUBJECT TO ITS OWN INTERNAL SAFETIES AND CONTROLS.

ON MODE CHANGE, THE COMPRESSOR SHALL BE DISABLED AND REMAIN OFF UNTIL AFTER THE REVERSING VALVE HAS CHANGED POSITION.

SUPPLEMENTAL ELECTRIC HEATING STAGE:
THE CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND STAGE THE HEATING TO MAINTAIN ITS HEATING SETPOINT SHOULD THE COMPRESSORS NOT MEET THE HEATING DEMAND. TO PREVENT SHORT CYCLING, THE STAGE SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.

SEQUENCE OF OPERATION: ENERGY RECOVERY VENTILATOR

SEQUENCE OF OPERATION: ENERGY RECOVERY VENTILATOR
- OCCUPIED: DURING OCCUPIED PERIODS, THE ENERGY RECOVERY VENTILATOR SHALL RUN CONTINUOUSLY.
- UNOCCUPIED: DURING UNOCCUPIED PERIODS THE ENERGY RECOVERY VENTILATOR SHALL BE DISABLED.



E5 VRF SYSTEM SCHEMATIC
NOT TO SCALE

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SCO ID# 22-24540-02A

NORTH CAROLINA PROFESSIONAL SEAL 23551 ENGINEER DAVID M. HAHN
12/19/2024

REV.	DATE	DESCRIPTION

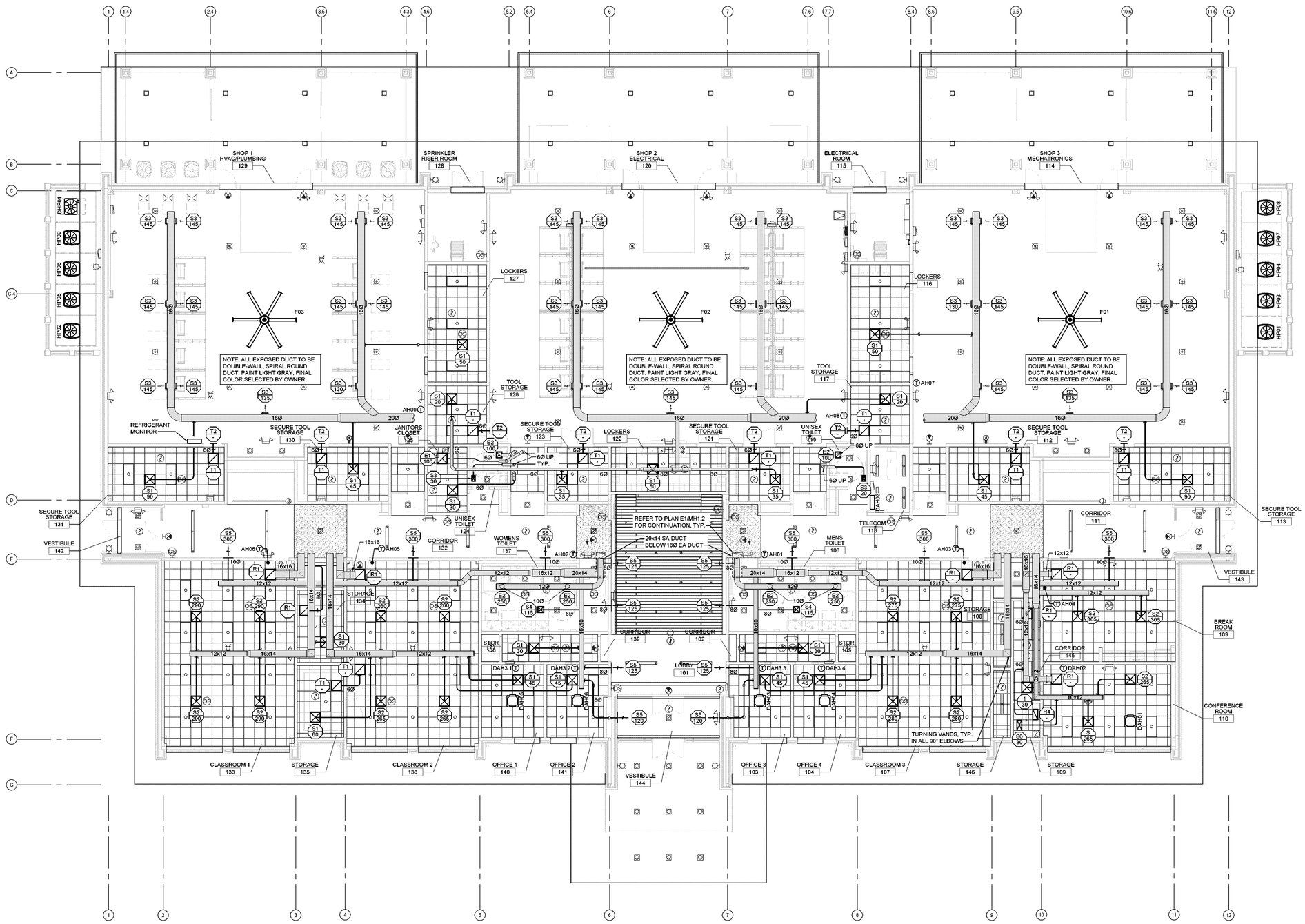
NO.	DATE	ISSUE NOTE

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

Project Manager	Drawn By
DMH	GRM
Date	Reviewed By
12-18-2024	DMH
Project ID	CBHF: 22093

Sheet Title
MECHANICAL SCHEDULES, VRF SCHEMATIC AND CONTROLS

Sheet No.
M6.2



E1 **FLOOR PLAN - HVAC**
1/8" = 1'-0"

PLAN NORTH

GENERAL NOTES

1. MECHANICAL CONTRACTOR TO COORDINATE WITH OTHER TRADES PRIOR TO BEGINNING WORK.
2. COORDINATE DUCT ELEVATION AND GENERAL PLACEMENT WITH STRUCTURE AND OTHER TRADES, TYP.
3. COORDINATE AIR-HANDLING EQUIPMENT LOCATION TO MAXIMIZE SPACE WHILE MAINTAINING MANUFACTURERS CLEARANCE REQUIREMENTS.

WALL LEGEND

	2 HOUR RATED WALL

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REV.	DATE	DESCRIPTION

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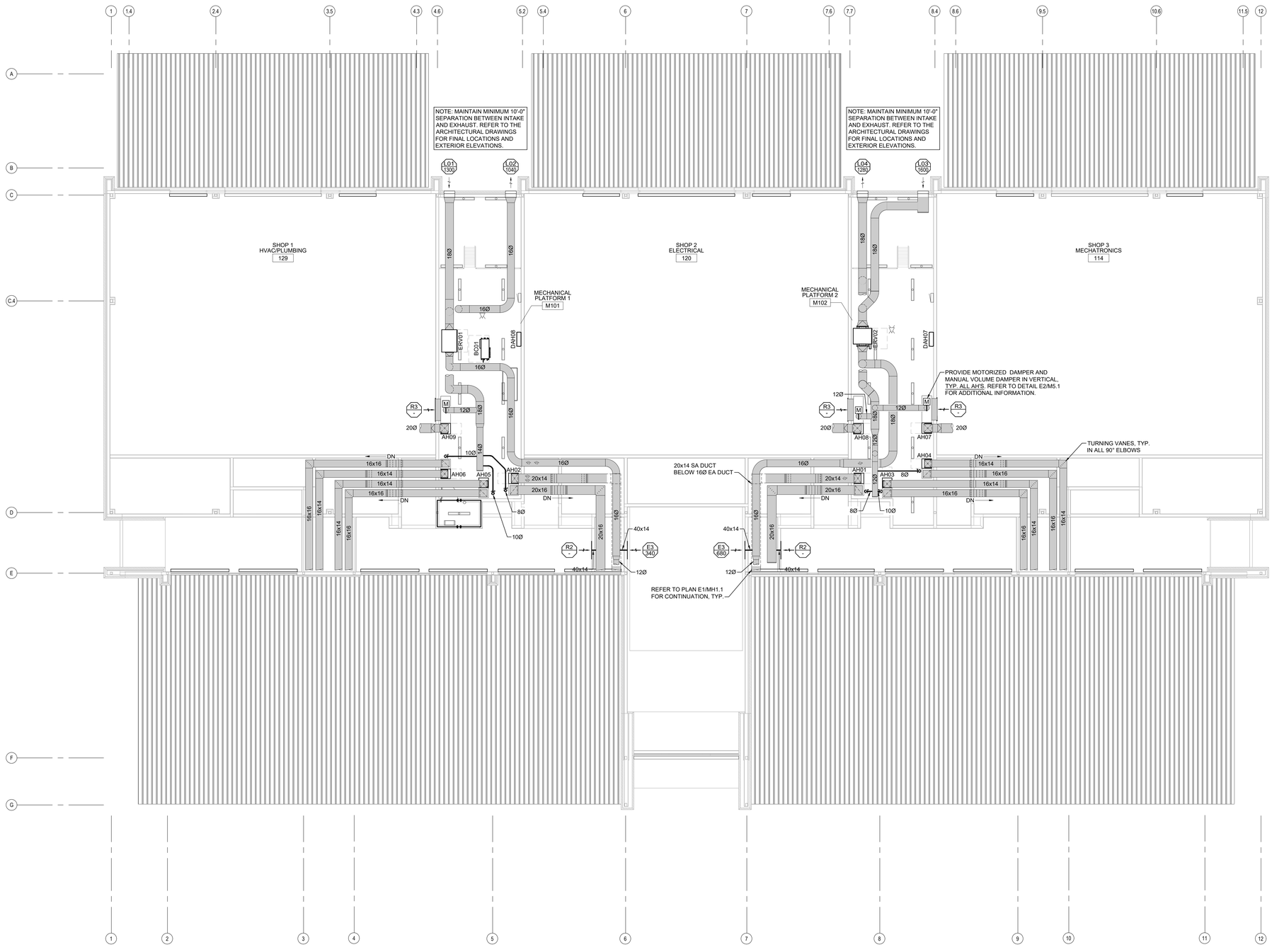
Date: 12-18-2024	Reviewed By: DMH
Project ID: CBHF: 22093	

Sheet Title: MECHANICAL FLOOR PLAN - HVAC

Sheet No.: MH1.1



E1 MEZZANINE PLAN - HVAC

1/8" = 1'-0"

PLAN NORTH

GENERAL NOTES

1. MECHANICAL CONTRACTOR TO COORDINATE WITH OTHER TRADES PRIOR TO BEGINNING WORK.
2. COORDINATE DUCT ELEVATION AND GENERAL PLACEMENT WITH STRUCTURE AND OTHER TRADES, TYP.
3. COORDINATE AIR-HANDLING EQUIPMENT LOCATION TO MAXIMIZE SPACE WHILE MAINTAINING MANUFACTURERS CLEARANCE REQUIREMENTS.

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Project ID: CBHF: 22093	

Sheet Title: MECHANICAL PLATFORMS PLAN - HVAC

Sheet No.: MH1.2

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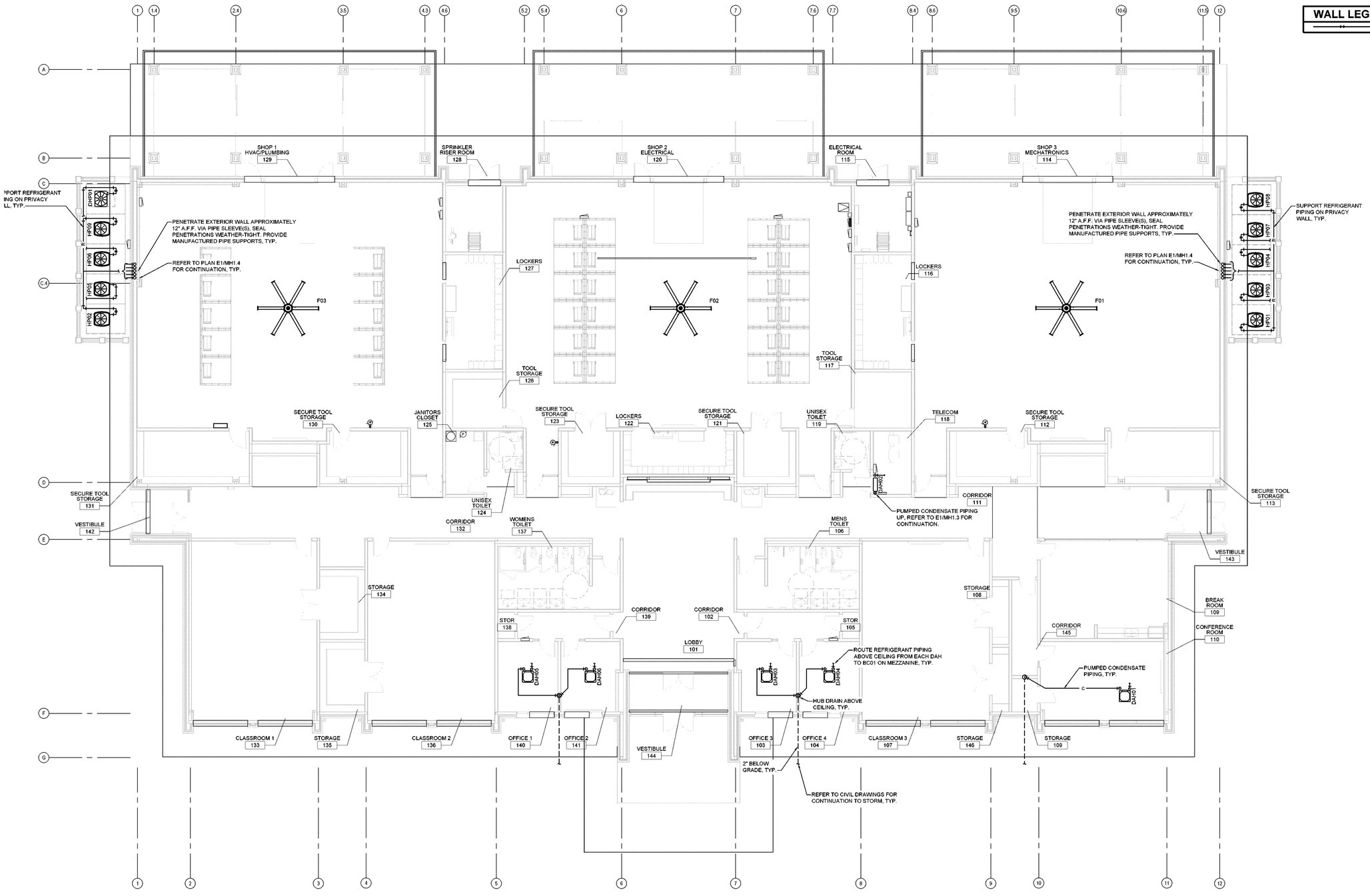

PLAN NORTH

E1 FLOOR PLAN - HVAC PIPING
1/8" = 1'-0"

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REV.	DATE	DESCRIPTION

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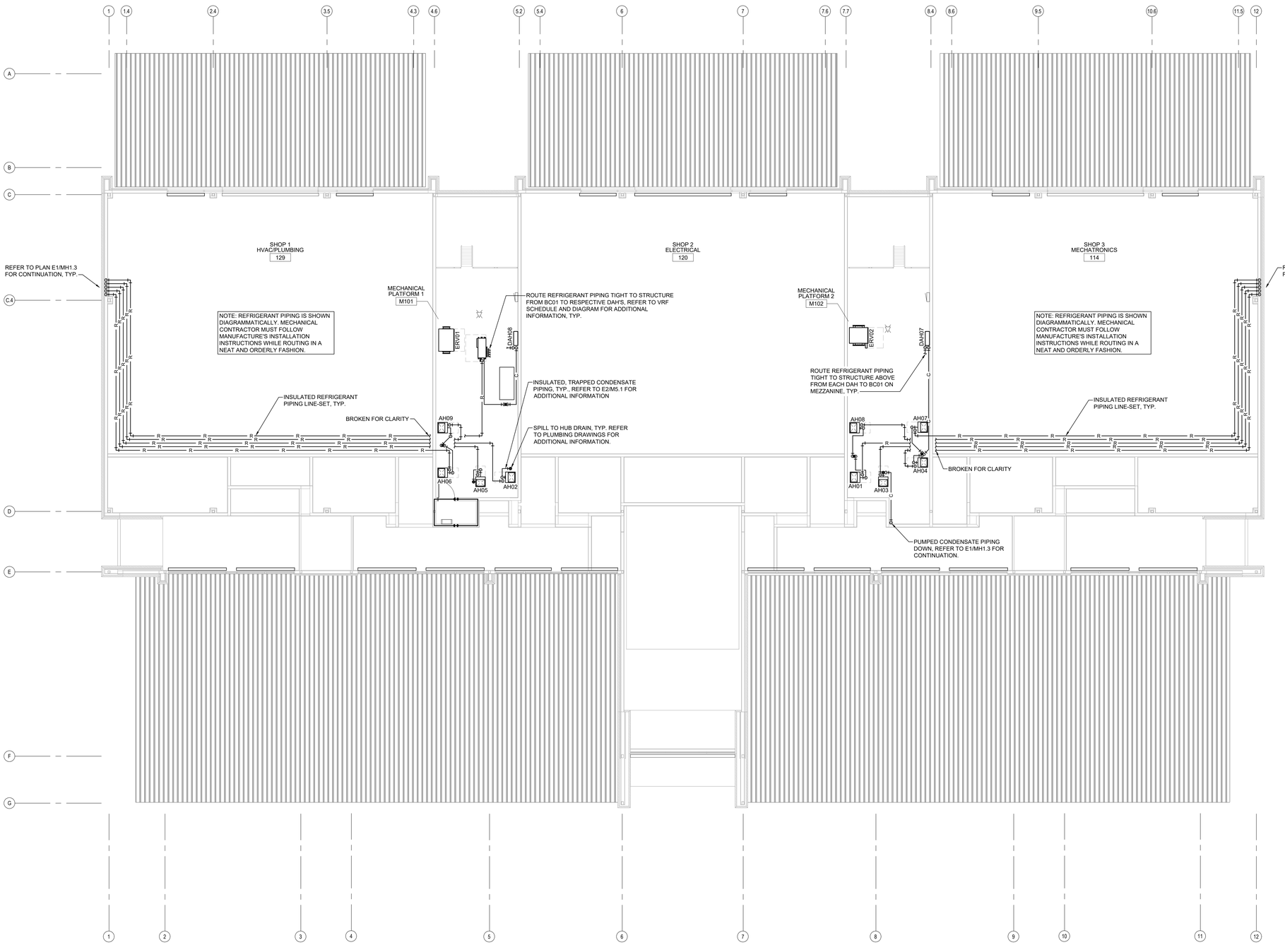
Project Manager: DMH	Drawn By: GRM
Date: 12-18-2024	Reviewed By: DMH
Project ID: CBHF: 22093	

Sheet Title
MECHANICAL FLOOR PLAN - HVAC PIPING

Sheet No.
MH1.3



E1 FLOOR PLAN - HVAC PIPING
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Project Manager: DMH	Drawn By: GRM
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Project ID: CBHF: 22093	

Sheet Title: MECHANICAL FLOOR PLAN - HVAC PIPING

Sheet No.: MH1.4

PLUMBING GENERAL NOTES:

1. SCOPE OF WORK: THESE DRAWINGS AND ACCOMPANYING SPECIFICATIONS DESCRIBE SCOPE OF WORK REQUIRED FOR PLUMBING SYSTEMS. LABOR AND MATERIAL SHALL BE PROVIDED AS REQUIRED FOR A COMPLETE, WORKMANLIKE INSTALLATION OF ALL SYSTEMS SHOWN ON DIAGRAMMATIC DRAWINGS AND/OR AS SPECIFIED HEREIN.
2. CONTRACTOR: THE WORD "CONTRACTOR", "PLUMBING CONTRACTOR", AND "P.C." AS USED HEREIN SHALL MEAN THE PLUMBING INSTALLER UNLESS OTHERWISE QUALIFIED.
3. DRAWINGS: DRAWINGS ARE DIAGRAMMATIC AND MAY NOT COMPLETELY DESCRIBE EVERY DETAIL OF THE INSTALLATION. HOWEVER, CONTRACTOR IS RESPONSIBLE FOR FURNISHING COMPLETE SYSTEMS INCLUDING ALL REQUIRED EQUIPMENT AND ACCESSORIES TO OBTAIN FULLY FUNCTIONING PLUMBING SYSTEMS.
4. CODE COMPLIANCE: COMPLY WITH THE LATEST EDITIONS OF THE FOLLOWING STANDARDS AND CODES, INSOFAR AS THEY APPLY:

   NORTH CAROLINA STATE BUILDING CODE (CODE), 2018 EDITION AND REVISIONS.

   LOCAL JURISDICTION REQUIREMENTS.
5. PERMITS AND INSPECTIONS: OBTAIN ALL PERMITS, LICENSES, INSPECTIONS, ETC., REQUIRED FOR THE WORK AND PAY FOR SAME. FURNISH A FINAL CERTIFICATE OF INSPECTION AND APPROVAL FROM THE AUTHORITY HAVING JURISDICTION PRIOR TO ACCEPTANCE OF THE WORK.
6. SUPERVISION: PROVIDE SKILLED SUPERINTENDENTS TO SUPERVISE THE WORK FROM THE BEGINNING TO COMPLETION AND FINAL INSPECTION.
7. PROGRESS OF WORK: PERFORM WORK IN ACCORDANCE WITH SCHEDULE AND REQUIREMENTS OF THE GENERAL CONTRACTOR. UNDER NO CIRCUMSTANCES SHALL THIS CONTRACTOR DELAY THE OVERALL PROJECT SCHEDULE.
8. COORDINATION: COORDINATE PLUMBING WORK WITH THE WORK OF OTHER TRADES. LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE UNLESS SPECIFICALLY DIMENSIONED. ARRANGE PLUMBING SO AS NOT TO INTERFERE WITH THE WORK OF OTHER TRADES. VERIFY ACTUAL BUILDING STRUCTURE PRIOR TO DUCT FABRICATION AND ADJUST LAYOUT AS REQUIRED. INCLUDE ALL OFFSETS IN DUCTS, FITTINGS, PIPING, ETC. AS REQUIRED TO PROPERLY INSTALL EQUIPMENT.
9. EQUIPMENT LOCATIONS: DETERMINE EXACT EQUIPMENT AND MATERIALS LOCATIONS TO PROVIDE BEST ARRANGEMENT AND TO FACILITATE PROPER MAINTENANCE AND SERVICING OF EQUIPMENT.
10. LISTING AND LABELING: ALL EQUIPMENT SHALL BE LABELED OR LISTED BY UL OR OTHER APPROVED TESTING AGENCY WHERE REQUIRED.
11. STORAGE SPACE: CONSULT WITH THE GENERAL CONTRACTOR REGARDING JOB SITE STORAGE FOR PLUMBING MATERIALS TO BE INSTALLED UNDER THIS PROJECT. STORAGE SPACE MUST BE SECURED AND THE CONTRACTOR'S REPRESENTATIVE MUST BE ON JOB BEFORE ANY MATERIAL MAY BE RECEIVED.
12. CLEANUP: REMOVE ALL DEBRIS GENERATED IN THE ACCOMPLISHMENT OF WORK UNDER THIS PROJECT. CLEAN, REPLACE OR REPAIR ALL SURFACES SOILED OR DAMAGED DURING THE COURSE OF THE WORK. REMOVE DEBRIS DAILY SO TO MAINTAIN SAFE WORKING CONDITIONS.
13. RECORD DRAWINGS: MAINTAIN ONE SET OF "RED-LINED" RECORD DRAWINGS ON SITE AT ALL TIMES AND PROVIDE DRAWINGS TO ENGINEER PRIOR TO FINAL INSPECTION.

PLUMBING LOAD SUMMARY

FIXTURE	OCCUPANCY	TYPE OF CONTROL	QUANTITY	DOMESTIC WATER SYSTEM (W.S.F.U.)						WASTE & VENT SYSTEM (D.F.U.)	
				INDIVIDUAL FIXTURE UNITS			TOTAL FIXTURE UNITS				
				COLD	HOT	TOTAL	COLD	HOT	TOTAL	EACH	TOTAL
DRINKING FOUNTAIN	OFFICES, ETC.	3/8" VALVE	2	0.3	0.0	0.0	0.5	0.0	0.0	0.5	1.0
KITCHEN SINK	PRIVATE	FAUCET	3	1.0	1.0	1.4	3.0	3.0	4.2	2.0	6.0
LAVATORY	PUBLIC	FAUCET	10	1.5	1.5	2.0	15.0	15.0	20.0	1.0	10.0
SERVICE SINK	OFFICES, ETC.	FAUCET	1	2.25	2.25	3.00	2.3	2.3	3.0	2.0	2.0
URINAL	PUBLIC	3/4"FLUSH VALVE	3	5.00	0.00	5.00	15.0	0.0	15.0	2.0	6.0
WATER CLOSET	PUBLIC	FLUSH VALVE	9	10.00	0.00	10.00	90.0	0.0	90.0	4.0	36.0
TOTALS							125.8	20.3	132.2		61.0

BASED ON AN ESTIMATED DEMAND OF 132.2 W.S.F.U.(75 GPM), PROVIDE A 2-1/2" INCOMING WATER LINE.

BASED ON AN ESTIMATED WASTE COUNT OF 61 D.F.U., PROVIDE A 4" OUTGOING WASTER LINE.

AIR COMPRESSOR SCHEDULE

DRAWING CODE		LOCATION	COMPRESSOR TYPE	AIRFLOW @ 175 PSIG (ACFM)	MAX PRES. (PSIG)	MOTOR HP	POWER (V/PH/HZ)	NOTES
COMP-1		EQUIP. MEZZ.	TANK MOUNTED RECIPROCATING, DUPLEX	51	175	15	208/3/60	1-11
NOTES:	1	REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.						
	2	BASIS OF DESIGN: QUINCY COMPRESSOR QT-15 AND LISTED ACCESSORIES.						
	3	SUPPLY COMPRESSOR WITH 200 GAL. HORIZONTAL RECEIVER, WITH ELECTRIC DRAIN VALVE QTD 115..						
	4	SUPPLY WITH PRE-FILTER - QMF 50						
	5	SUPPLY WITH POST FILTER - QWS 50.						
	6	SUPPLY WITH OIL/WATER SEPARATOR - QOCS 53						
	7	SUPPLY WITH ODP MOTOR WITH MOTOR OVERLOAD PROTECTION						
	8	SUPPLY WITH DUAL CONTROL						
	9	SUPPLY WITH LOW OIL CUT-OFF.						
	10	SUPPLY WITH VIBRATION ISOLATORS.						
	11	SET COMPRESSOR TO SUPPLY AIR AT 120 PSIG.						

HIGH TEMPERATURE REFRIGERATED AIR DRYER SCHEDULE

DRAWING CODE		LOCATION	AIRFLOW @ 100 PSIG (ACFM)	MAX PRES. (PSIG)	POWER CONSUMPTION Kw	POWER (V/PH/HZ)	NOTES
RAD-1		EQUIP. MEZZ.	50	232	0.8	120/1/60	1-3
NOTES:	1	REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.					
	2	BASIS OF DESIGN - QUINCY QRHT 50.					
	3	INSTRUMENTATION TO INCLUDE ON/OFF SWITCH, REFERIGERANT SUCTION PRESSURE GAUGE AND DRAIN TEST BUTTON COALESCING FILTER.					

PLUMBING FIXTURE SCHEDULE

DRAWING CODE	FIXTURE		DESCRIPTION	MANUFACTURER	MODEL	ALTERNATE APPROVED MANUFACTURERS	NOTES	PIPE SIZE			
								DCW	DHW	WASTE	VENT
WC1	HANDS FREE FLUSH VALVE. WATER CLOSET FLOOR MTD., 1.6GPF, ADA	BOWL	16.5" HIGH BOWL, ELONGATED, V.C., 2-1/8" TRAPWAY; TOP SPUD; MADERA	AMERICAN STANDARD	3043.001	ZURN, KOHLER		1"	-	4"	2"
		FLUSH VALVE	11.5" HIGH BATTERY OPERATED, 1.6GPF	SLOAN	SLOAN 8111	ZURN, TEC					
		SEAT	OFLC w/ SELF-SUSTAINING S.S. CHECK HINGE; HEIGHT 17-19" AFF	CHURCH	295SSCT	BEMIS, OLSONITE					
WC2	HANDS FREE FLUSH VALVE WATER CLOSET, FLOOR MTD.. 1.6GPF	BOWL	15" HIGH BOWL, ELONGATED, V.C., 2-1/8" TRAPWAY; TOP SPUD; MADERA	AMERICAN STANDARD	2234.001	ZURN, KOHLER		1"	-	4"	2"
		FLUSH VALVE	11.5" HIGH BATTERY OPERATED, 1.6GPF	SLOAN	SLOAN 8111	ZURN, TEC					
		SEAT	OFLC w/ SELF-SUSTAINING S.S. CHECK HINGE	CHURCH	295SSCT	BEMIS, OLSONITE					
UR1	HANDS FREE URINAL WALL HUNG, 0.125GPF, ADA	BOWL	SIPHONJET V.C., RIM HEIGHT 17"MAX. AFF	AMERICAN STANDARD	6550.001	ZURN, CRANE	1	3/4"	-	2"	2"
		FLUSH VALVE	11.5" HIGH, EXPOSED, BATTERY OPERATED, SINGLE FLUSH, POLISHED CHROME	SLOAN	8186-0.125	ZURN, TEC					
UR2	HANDS FREE URINAL, WALL HUNG, 0.125GPF	BOWL	WASHOUT V.C., RIM HEIGHT 21"MAX. AFF	AMERICAN STANDARD	6590.001	ZURN, CRANE	1	3/4"	-	2"	2"
		FLUSH VALVE	11.5" HIGH, EXPOSED, BATTERY OPERATED, SINGLE FLUSH, POLISHED CHROME	SLOAN	8186-0.125	ZURN, TEC					
LAV1	LAVATORY WALL HUNG, 0.5GPM, ADA	BOWL	21"x20" VITREOUS CHINA, VITREOUS CHINA SHROUD/KNEE GUARD, 4" CENTERS W/ OVERFLOW, RIM 34" AFF MAX.	AMERICAN STANDARD	0954.004EC / 0059.020EC	KOHLER, TOTO	1,2,3,9,	1/2"	1/2"	2"	2"
		FAUCET	SOLID BRASS BODY, CHROME PLATED FINISH, 4"CENTERSET, INFARED SENSOR, BATTERY POWERED. 0.5GPM	MOEN	CA8301	SLOAN, ZURN					
		DRAIN	CAST BRASS, CHROME PLATED, OPEN GRID STRAINER P.O. PLUG WITH BRASS TAILPIECE	MCGUIRE	155A	DEARBORN, DELTA					
		MIXING VALVE	LEAD FREE THERMOSTATIC MIXING VALVE - SETPOINT = 105°F INSTALL ON HOT WATER SUPPLY, ASSE 1070	CASH ACME	HG-135	LEONARD, WATTS					
LAV2	COUNTERTOP LAVATORY, HANDS-FREE, ADA	BOWL	20"x17" VITREOUS CHINA, 34"A.F.F., MAX.	AMERICAN STANDARD	0476.028	ZURN, CRANE	2,4,5,9,	1/2"	1/2"	2"	2"
		FAUCET	SOLID BRASS BODY, CHROME PLATED FINISH, 4"CENTERSET, INFARED SENSOR, BATTERY POWERED. 0.5GPM	MOEN	CA8301	SLOAN, ZURN					
		DRAIN	CAST BRASS, CHROME PLATED, OPEN GRID STRAINER P.O. PLUG WITH BRASS TAILPIECE	MCGUIRE	155A	DEARBORN, DELTA					
		MIXING VALVE	LEAD FREE THERMOSTATIC MIXING VALVE - SETPOINT = 105°F INSTALL ON HOT WATER SUPPLY, ASSE 1070	CASH ACME	HG-135	LEONARD, WATTS					
SK1	STAINLESS STEEL MULTISTATION HANDWASH SINK, ADA	BOWL	40"X19.5"X5"DEEP BOWL, WALL MOUNT, 16GA TYPE 304 STAINLESS STEEL, (2) SETS PUNCHED 8-INCH CENTERS	ADVANCE TABCO	19-18-40-ADA-F	JUST, ACORN	2,3,9	1/2"	1/2"	2"	2"
		FAUCET	3-1/2" GOOSENECK SPLACH MOUNT FAUCET WITH WRIST BLADE HANDLES, BRASS CHROME PLATED BODY; 2.2GPM AERATOR (2) INCLUDED	ADVANCE TABCO	K-161-LU	DELTA, ZURN					
		DRAIN	STAINLESS STEEL BASKET STRAINER, BRASS TAILPIECE	MCGUIRE	151A	ZURN, MOEN					
SK2	2-COMPARTMENT COUNTERTOP SINK, 7.5" DEEP (ADA SIDE APPROACH)	BOWL	33x22x7.5, 18 GA S.S.	ELKAY	LR3322	JUST, ACORN	2,4,5,9,	1/2"	1/2"	2"	2"
		FAUCET	180° SWING SPOUT, SINGLE LEVER HANDLE, 3 HOLE, 1.5GPM, SOLID BRASS CONSTRUCTION, CHROME FINISH	MOEN	8701	DELTA, ZURN					
		DRAIN	BASKET STRAINER	ELKAY	LK35	ZURN, MOEN					
MS1	MOP SINK	BASIN	24"x24"x10" MOLDED STONE w/ STAINLESS STEEL DRAIN	FIAT	MSB-2424	FLORESTONE, ZURN	10	1/2"	1/2"	3"	2"
		FAUCET	BRASS CONSTRUCTION, ROUGH CHROME FINISH, INTEGRAL VACUUM BREAKER, INTEGRAL CHECK STOPS, 3/4"THREADED SPOUT, SERVICE STOPS, WALL MOUNT, VANDAL RESISTANT, LEVER HANDLES	MOEN	8124	DELTA, ZURN					
		ACCESSORIES	STAINLESS STEEL, THREE STATION MOP/BROOM HOLDER	MOEN	8198	-					
		ACCESSORIES	STAINLESS STEEL, HOSE BRACKET WITH 30" HEAVY DUTY RUBBER HOSE, GHT THREADED CONNECTION	MOEN	8199	DELTA, ZURN					
EW1	BARRIER FREE EYE/FACE WASH	FIXT	WALL MOUNTED, 11" ROUND STAINLESS STEEL RECEPTOR, STAY OPEN BALL VALVE, THERMOSTATIC MIXING VALVE	HAWS	7360BTWC	GUARDIAN, BRADLEY		1/2"	1/2"	-	-
EWC1	WALL HUNG WATER COOLER WITH BOTTLE FILLER,ADA	FIXT	SUPPLIED BY OWNER, INSTALLED BY CONTRACTOR	-	-	-	1,11	1/2"	-	2"	2"
EWH1	WATER HEATER, 50 GAL	FIXT	HYBRID ELECTRIC HEAT PUMP, 208V/1PH/60HZ, 30AMP	A.O. SMITH	HPTU-50N	BRADFORD-WHITE, RHEEM	8	3/4"	3/4"	-	-
FCO	FLOOR CLEANOUT	FIXT	4"SCH. 40 HUB, PVC BASE ADAPTER, ROUND NICKEL-BRONZE COVER, VANDAL RESISTANT SCREWS	SIOUX CHIEF	834-4PNRV	ZURN, SMITH		-	-	MATCH	-
GCO	GRADE CLEANOUT	FIXT	4"SCH. 40 HUB, PVC BASE ADAPTER, ROUND NICKEL-BRONZE COVER, VANDAL RESISTANT SCREWS	SIOUX CHIEF	851-44NV	ZURN, SMITH		-	-	MATCH	-
WCO	WALL CLEANOUT	FIXT	ROUND S/S ACCESS COVER & SCREW, RECESS BRONZE THRD. PLUG	SIOUX CHIEF	870	ZURN, SMITH		-	-	MATCH	-
FD1	FLOOR DRAIN	FIXT	FINISHLINE ADJUSTABLE, SCH. 40 HUB CONNECTION, ABS/PVC BASE ADAPTER, SQUARE NICKEL BRONZE STRAINER, TRAP PRIMER CONNECTION	SIOUX CHIEF	832	ZURN, SMITH	7	-	-	MATCH	-
FD2	FLOOR DRAIN	FIXT	LARGE CAPACITY FLOOR DRAIN, ENAMEL-COATED CAST IRON, HEEL RESISTANT STRAINER, CONCRETE ANCHOR FLANGE, TRAP PRIMER CONNECTION	SIOUX CHIEF	860	ZURN, SMITH	7	-	-	MATCH	-
HD1	HUB DRAIN	FIXT	FINISHLINE ADJUSTABLE, SCH. 40 HUB CONNECTION, ABS/PVC BASE ADAPTER, FUNNEL STRAINER	SIOUX CHIEF	832	ZURN, SMITH		-	-	MATCH	-
OS1	OIL SEPARATOR	FIXT	POLYPROPELENE, 50 GPM WITH COALESCING MEDIA	STRIEM	OS-50	ZURN, SMITH					

NOTES
1. PROVIDE MATCHING CAST IRON AND STEEL FLOOR SUPPORT CARRIER WITH BEARING PLATE AND WALL HANGER.
2. PROVIDE BRASS 1-1/2" TAILPIECE, CAST BRASS SLIP JOINT P-TRAP WITH CLEANOUT; PROVIDE ADA OFFSET ARRANGEMENT WHERE REQUIRED.
3. PROVIDE ADA INSULATION KIT
4. COORDINATE WITH MILLWORK.
5. COORDINATE ADA MILLWORK ENCLOSURE FOR WATER AND DRAIN PIPING UNDER SINK.
6. STORAGE TEMPERATURE OF WATER HEATER TO BE SET AT 140
7. PROVIDE TRAP PRIMER
8. FIELD ROUTE 1" DRAIN PAN DRAIN PIPING TO CLOSEST INDIRECT DRAIN OR SPILL TO GRADE.
9. PROVIDE 1/2" IPS X 3/8" OD ANGLE BRASS STOP(S) WITH RIGID COPPER RISERS. ALL EXPOSED PIPING SHALL BE CHROME PLATED.
10. PROVIDE INLINE CHECK VALVES FOR WATER SUPPLY LINES.
11. PROVIDE 1/2"IPS x 3/8" O.D. BRASS STOP CONCEALED BEHIND CABINET.

PLUMBING LEGEND

CA	COMPRESSED AIR PIPING
C	CONDENSATE PIPING
140°T	DOMESTIC 140°F WATER PIPING
140R	DOMESTIC 140°F RETURN WATER PIPING
	DOMESTIC COLD WATER PIPING
	DOMESTIC HOT WATER CIRCULATION PIPING
	DOMESTIC HOT WATER PIPING
F	FILTERED WATER PIPING
SP	FIRE SPRINKLER PIPING
FM	FORCE MAIN PIPING
NG	NATURAL GAS PIPING
LP	LP GAS PIPING
GW	GREASE WASTE PIPING
CA	MEDICAL COMPRESSED AIR PIPING
N2	NITROUS OXIDE PIPING
O2	O2 (OXYGEN) PIPING
OD	OVERFLOW ROOF DRAIN PIPING
RD	ROOF DRAIN PIPING
SD	STORM DRAIN PIPING
	SANITARY VENT PIPING
	SANITARY WASTE PIPING
T	TEPID WATER PIPING
TP	TRAP PRIMER PIPING
V	VACUUM PIPING
NPW	NON-POTABLE WATER
	BACKFLOW PREVENTION DEVICE
	BALL VALVE
	CHECK VALVE
	CIRCUIT SETTER (BALANCING VALVE)
	CIRCULATION PUMP
	CONTROL VALVE
	EXTENT OF DEMOLITION
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK
	GAS-REGULATOR VALVE
	GATE VALVE
	GATE VALVE IN RISER
GCO	GRADE CLEANOUT
HB	HOSE BIBB
	PIPE CAP
	PIPE ELBOW
	PIPE ELBOW DOWN
	PIPE ELBOW UP
	PIPE TEE
	PIPE TEE DOWN
	PIPE TEE UP
SP FM	SUMP PUMP
1	DEMOLITION KEYED NOTE TAG
	HATCHING INDICATES ITEMS TO BE DEMOLISHED
1	NEW WORK KEYED NOTE
	POINT OF CONNECTION - NEW TO EXISTING
	PRESSURE REDUCING VALVE
	SOLENOID VALVE
M 140°T	THERMOSTATIC MIXING VALVE
WCO	WALL CLEANOUT
WH	WALL HYDRANT
	WASHING MACHINE BOX
"X"	WATER HAMMER ARRESTOR

NOTE: ALL ITEMS LISTED IN THIS SCHEDULE MAY NOT BE USED IN PROJECT

PLUMBING ABBREVIATIONS

(X)	EXISTING
AAV	AIR ADMITTANCE VALVE
A.F.F.	ABOVE FINISHED FLOOR
A.R.C.I.	ACID RESISTANT CAST IRON
ADA	AMERICANS WITH DISABILITIES ACT
BRZ.	BRONZE
BT	BATHTUB
C.I.	CAST IRON
CO	CLEANOUT
CONC.	CONCRETE
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DIA.	DIAMETER
E.C.I.	ENAMELED CAST IRON
EC	ELECTRICAL CONTRACTOR
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK
GA.	GAUGE
GAL.	GALLON
GC	GENERAL CONTRACTOR
GCO	GRADE CLEANOUT
GPF	GALLONS PER FLUSH
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GWH	GAS-FIRED WATER HEATER
HB	HOSE BIBB
INCL.	INCLUDED
KS	KITCHEN SINK
LAV	LAVATORY
LP	LIQUID PROPANE
MS	MOP SERVICE BASIN
NAT.	NATURAL GAS
NKL.	NICKEL
NON SIMULT.	NON SIMULTANEOUS
O.F.L.C.	OPEN FRONT LESS COVER
OB	OUTLET BOX
OC	ON CENTER
ORDL	OVERFLOW ROOF DRAIN LEADER
PC	PLUMBING CONTRACTOR
PRESS. BAL.	PRESSURE BALANCED
RCVY.	RECOVERY
RDL	ROOF DRAIN LEADER
SA	WATER HAMMER ARRESTOR
SH	SHOWER
SK	SINK
SLD.	SLIDE
SS	STAINLESS STEEL
TDH	TOTAL DYNAMIC HEAD
UR	URINAL
V	VENT
VB	VACUUM BREAKER
VC	VITREOUS CHINA
VR	VANDAL RESISTANT
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WALL HYDRANT

NOTE: ALL ABBREVIATIONS MAY NOT BE USED IN PROJECT.

WALL LEGEND

	2 HOUR RATED WALL

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SCO ID# 22-24540-02A

NORTH CAROLINA PROFESSIONAL SEAL 23551 ENGINEER DAVID M. HAM
12/18/2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

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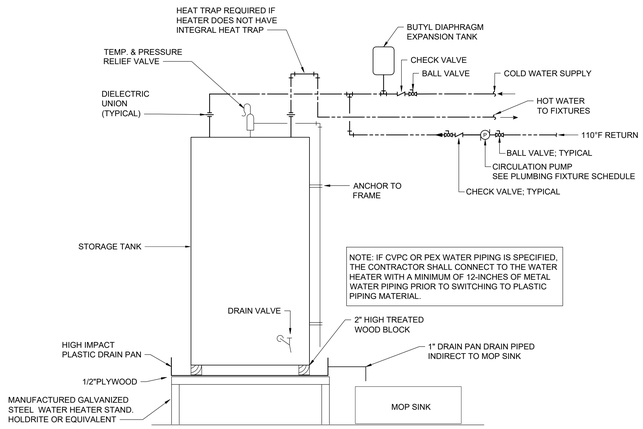
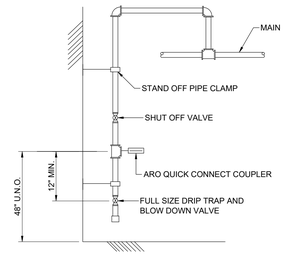
Sheet Title: GENERAL NOTES, ABRREVIATIONS, LEGEND AND SCHEDULES

Sheet No.: P-0.1



B1 ELECTRIC WATER HEATER DETAIL

NOT TO SCALE



B3 AIR PIPING DROP DETAIL

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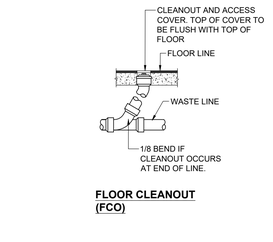
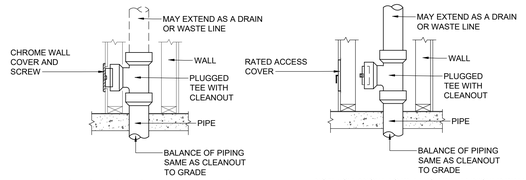


FLOOR CLEANOUT (FCO)

GRADE CLEANOUT (GCO)

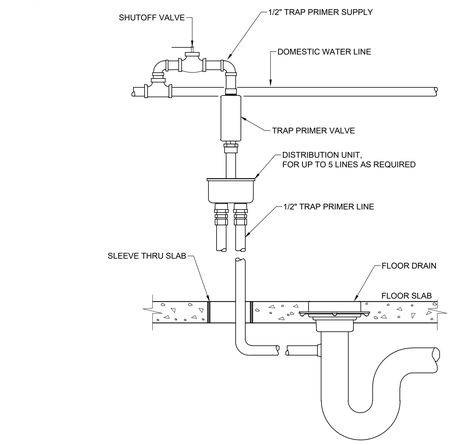


WALL CLEANOUT (WCO)

WALL CLEANOUT (WCO) RATED WALL

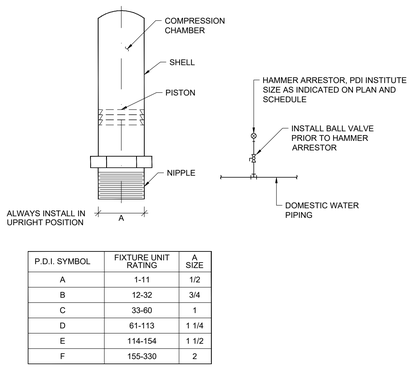
B5 CLEANOUT DETAILS

NOT TO SCALE



C1 TRAP PRIMER DETAIL

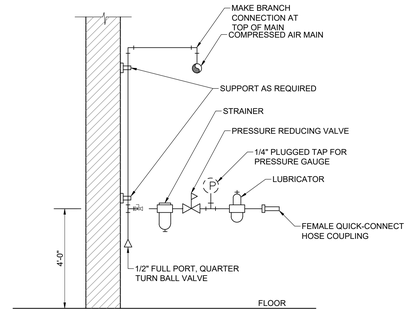
NOT TO SCALE



P.D.I. SYMBOL	FIXTURE UNIT RATING	A SIZE
A	1-11	1/2
B	12-32	3/4
C	33-60	1
D	61-113	1 1/4
E	114-154	1 1/2
F	155-330	2

C3 HAMMER ARRESTOR DETAIL

NOT TO SCALE



C5 COMPRESSED AIR TOOL STATION DETAIL

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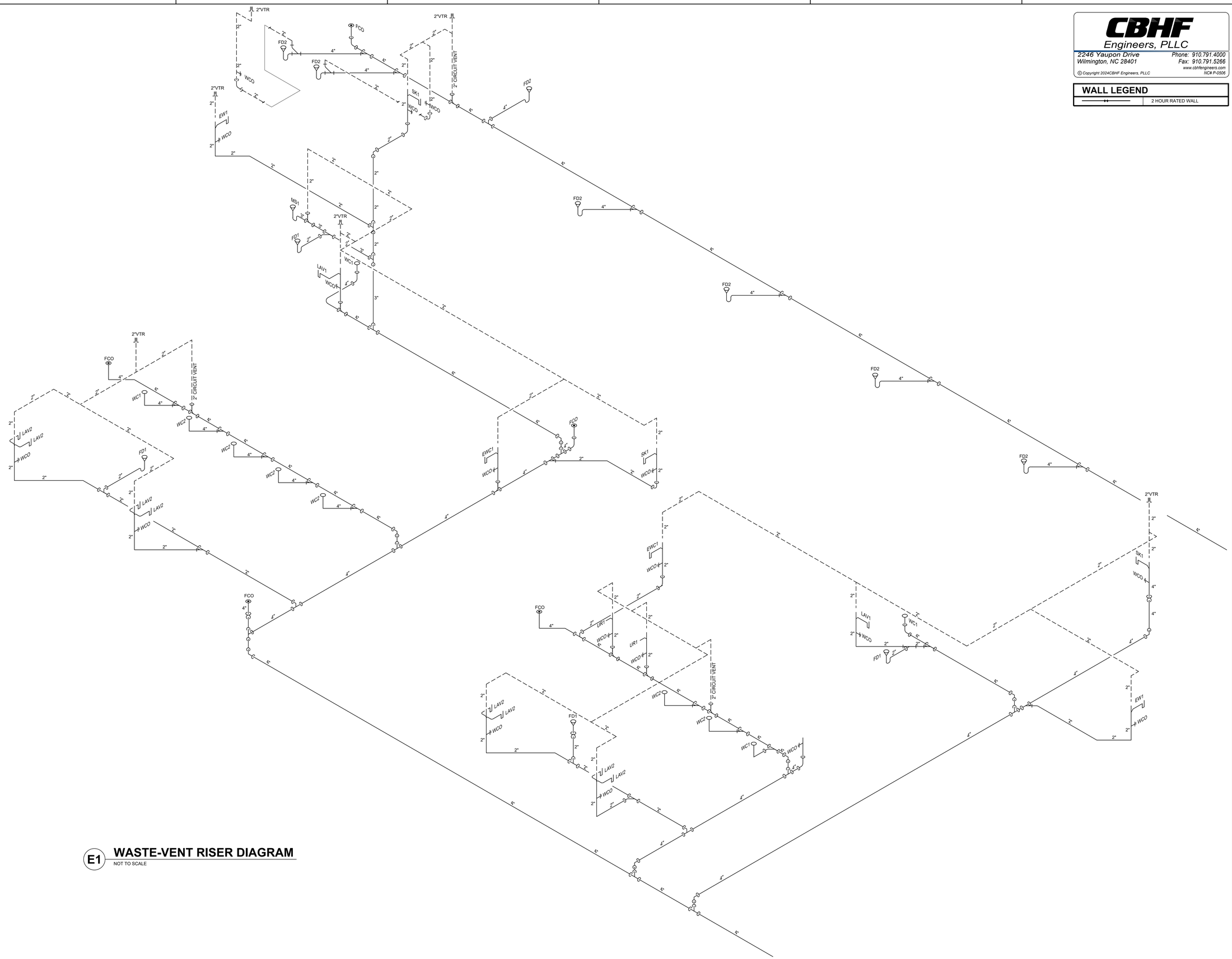
Sheet No.: P-5.1



E1 WASTE-VENT RISER DIAGRAM

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Sheet Title: WASTE-VENT RISER DIAGRAM

Sheet No.: P-5.2

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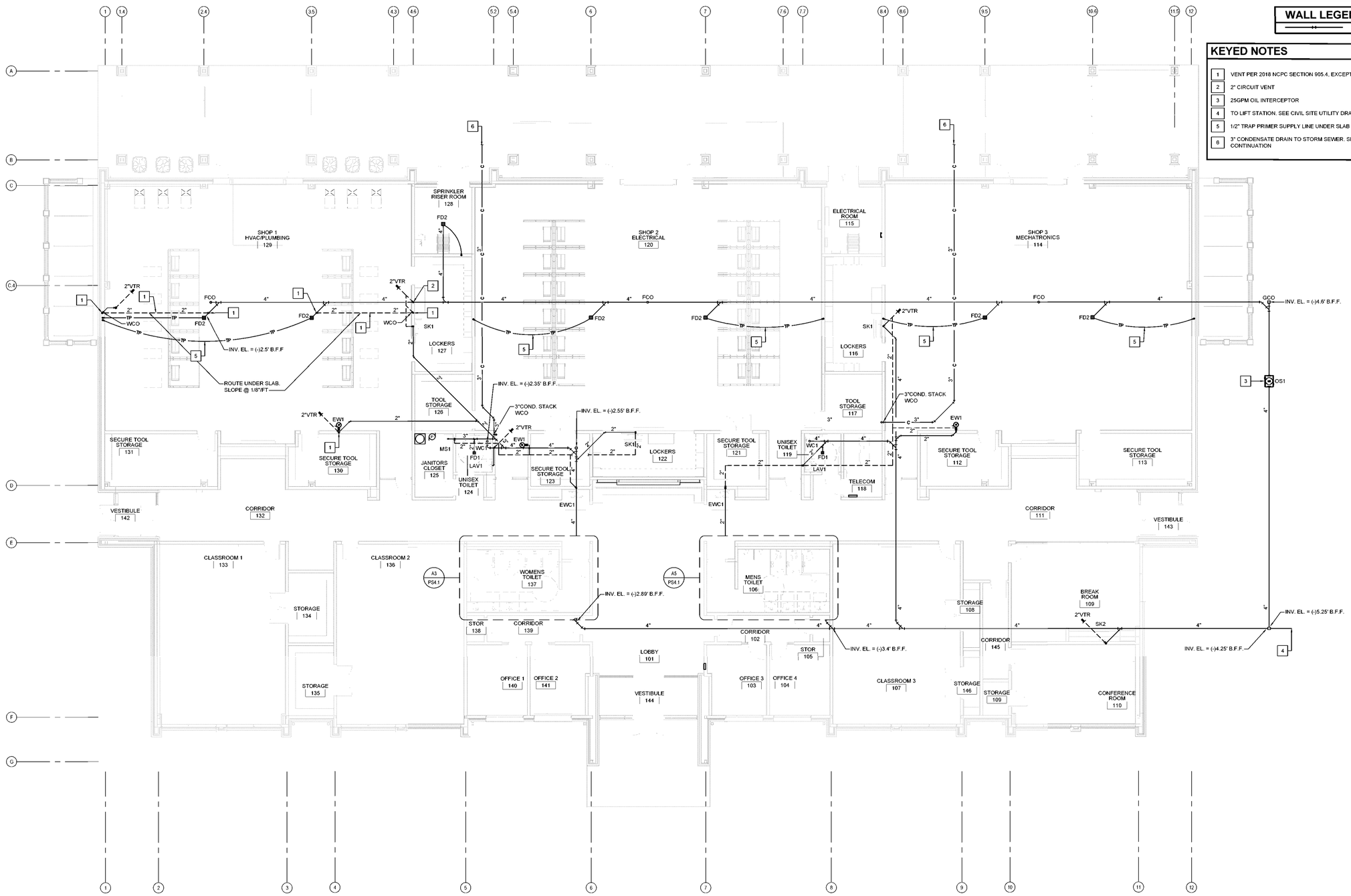
WALL LEGEND

	2 HOUR RATED WALL

KEYED NOTES

1	VENT PER 2018 NCPC SECTION 905.4, EXCEPTION 2.
2	2" CIRCUIT VENT
3	25GPM OIL INTERCEPTOR
4	TO LIFT STATION. SEE CIVIL SITE UTILITY DRAWINGS FOR CONTINUATION
5	1/2" TRAP PRIMER SUPPLY LINE UNDER SLAB
6	3" CONDENSATE DRAIN TO STORM SEWER. SEE CIVIL SITE UTILITY DRAWINGS FOR CONTINUATION



E1 FIRST FLOOR PLAN - WASTE-VENT
1/8" = 1'-0"

PLAN NORTH

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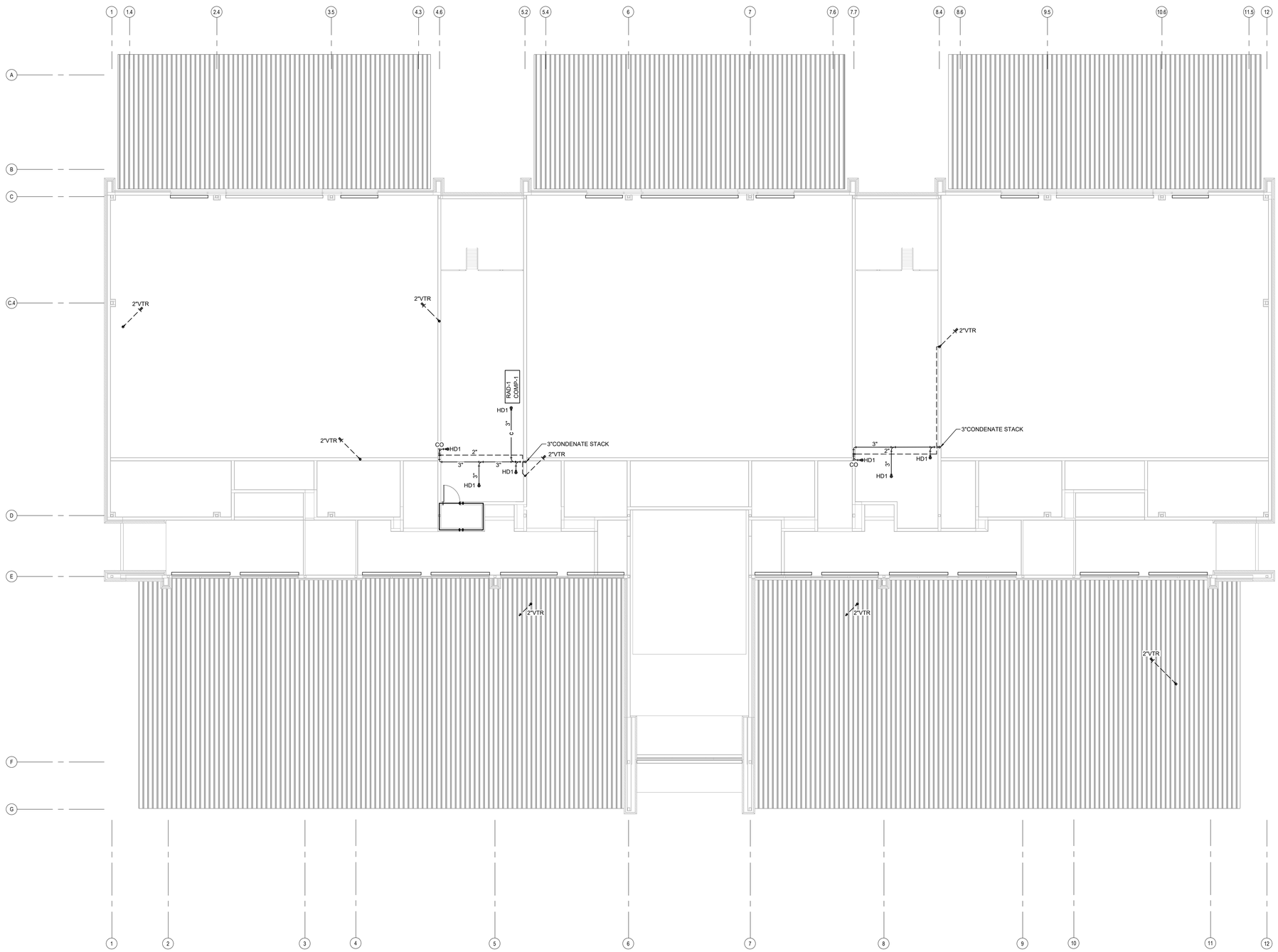
Sheet Title
FLOOR PLAN - WASTE-VENT

Sheet No.
PS1.1



E1 MEZZANINE PLAN - WASTE-VENT

1/8" = 1'-0"

PLAN NORTH

0 4' 8' 16'

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WALL LEGEND

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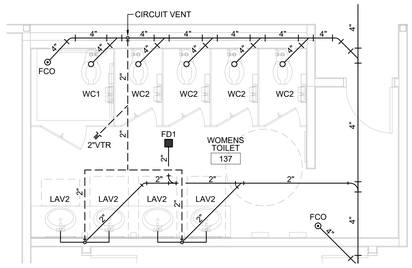
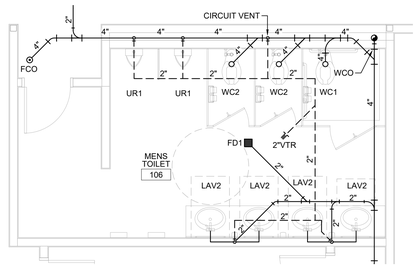
Sheet No.: PS1.2



A3 **ENLARGED WASTE-VENT PLAN**

1/4" = 1'-0"

PLAN NORTH



A5 **ENLARGED WASTE-VENT PLAN**

1/4" = 1'-0"

PLAN NORTH

WALL LEGEND

	2 HOUR RATED WALL

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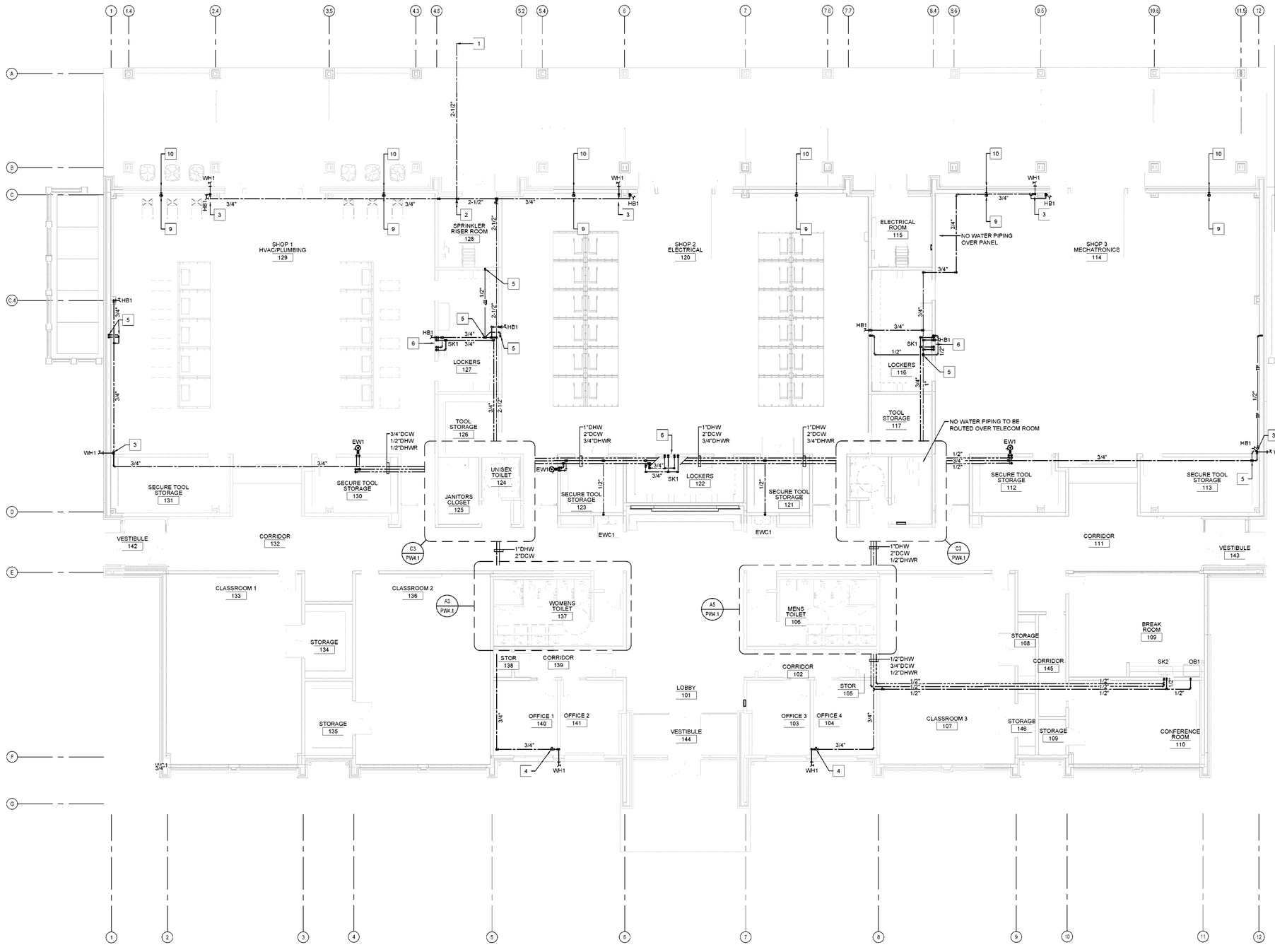
WALL LEGEND

	2 HOUR RATED WALL

KEYED NOTES

1	2-1/2" DCW SERVICE. REFER TO CIVIL SITE UTILITY PLAN FOR CONTINUATION
2	CONTRACTOR MUST INSTALL A MAIN SHUTOFF VALVE IN RISER APPROXIMATELY 2'-0 A.F.F.
3	CONTRACTOR MUST INSTALL ISOLATION VALVE IN RISER APPROXIMATELY 4'-0" A.F.F.
4	CONTRACTOR MUST INSTALL ISOLATION VALVE ABOVE CEILING
5	CONTRACTOR MUST INSTALL TRAP PRIMER VALVE AND ROUTE PIPING TO FLOOR DRAIN
6	CONTRACTOR MUST INSTALL (2) 1/2" DROPS TO SK1 FAUCETS.
7	ROUTE 3/4" DCW UP TO HOSE BIBB ABOVE
8	CIRCUIT SETTER BALANCING VALVE AND SHUTOFF VALVE.
9	1/2" COMPRESSED AIR PIPING FROM ABOVE.
10	CONTRACTOR MUST PROVIDE AND INSTALL COMPRESSED AIR OUTLET STATION.



E1 FIRST FLOOR PLAN - DOMESTIC WATER

1/8" = 1'-0"

PLAN NORTH

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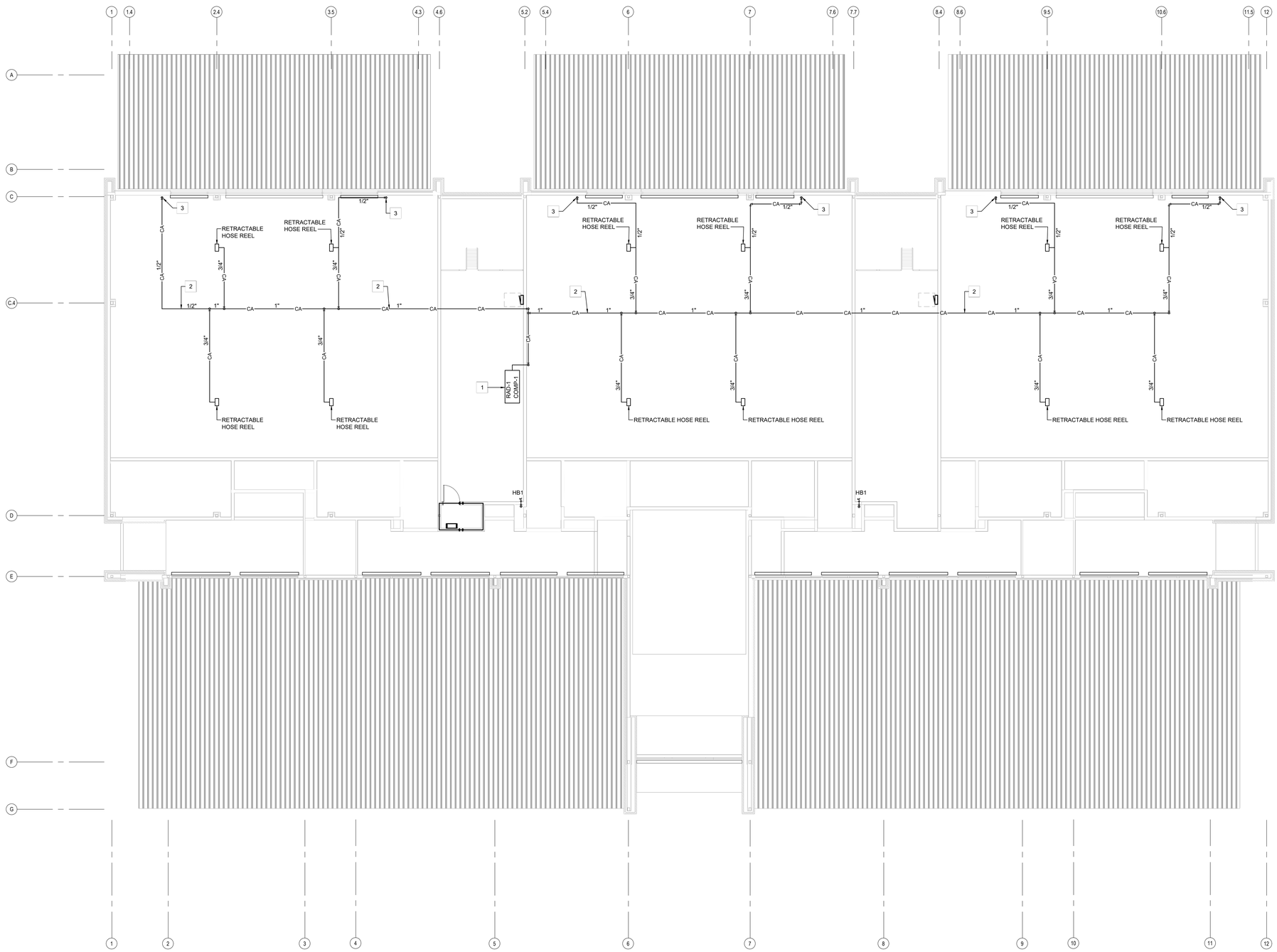
Sheet Title: FLOOR PLAN - DOMESTIC WATER AND COMP. AIR PIPING

Sheet No.: PW1.1



MEZZANINE PLAN - DOMESTIC WATER AND COMPRESSED AIR PIPING

E1

1/8" = 1'-0"

PLAN NORTH

0 4' 8' 16'

WALL LEGEND

	2 HOUR RATED WALL

KEYED NOTES

1. CONTRACTOR MUST PROVIDE AND INSTALL AIR COMPRESSOR, WITH AUTOMATIC DRAIN VALVE AND DRYER. COORDINATE WITH GENERAL CONTRACTOR AND OWNER FOR EXACT LOCATION.
2. CONTRACTOR MUST ROUTE COMPRESSED AIR PIPING BELOW ROOF STRUCTURE.
3. 1/2" COMPRESSED AIR PIPING DOWN TO BELOW. SEE PW1.1 FOR CONTINUATION.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 23551 DAVID M. HINN

12/18/2024

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

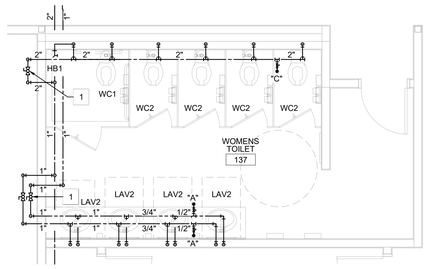
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

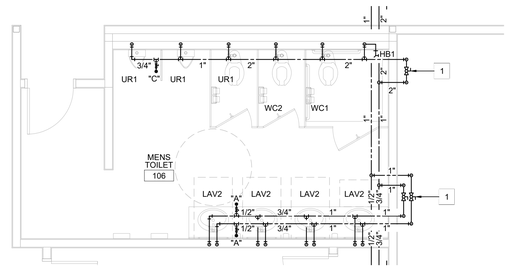
Project Manager: DMH	Drawn By: JBS
Date: 12-18-2024	Reviewed By: DMH
Project ID: CBHF: 22093	

Sheet Title: FLOOR PLAN - DOMESTIC WATER AND COMP. AIR PIPING

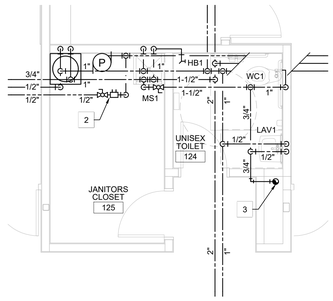
Sheet No.: PW1.2



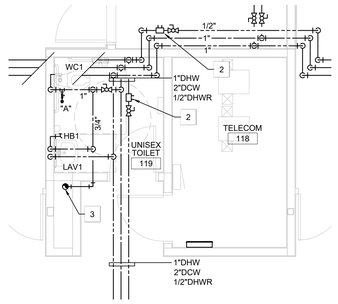
A3 **ENLARGED DOMESTIC WATER PLAN**
1/4" = 1'-0"



A4 **ENLARGED DOMESTIC WATER PLAN**
1/4" = 1'-0"



C3 **ENLARGED DOMESTIC WATER PLAN**
1/4" = 1'-0"



C4 **ENLARGED DOMESTIC WATER PLAN**
1/4" = 1'-0"

PLAN NORTH

0 2' 4' 8'

WALL LEGEND	
	2 HOUR RATED WALL

KEYED NOTES

1	LOCATE BRANCH SHUTOFF VALVES OVER ACCOUSTACAL CEILING TILES.
2	CIRCUIT SETTER BALANCING VALVE WITH SHUTOFF VALVE
3	ROUTE 3/4" DCW UP TO HOSE BIBB ABOVE

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NORTH CAROLINA REGISTERED PROFESSIONAL SEAL 23551 ENGINEER DAVID M. HAM
12/18/2024

James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager: DMH	Drawn By: JBS
Date: 12-18-2024	Reviewed By: DMH
Project ID: CBHF: 22093	

Sheet Title: ENLARGED PLANS - DOMESTIC WATER

Sheet No.: PW4.1

1.0 CODES AND STANDARDS:

1.1 ''2018 North Carolina State Building Code'' and ''International Building Code'', 2015.

1.2 ''Minimum Design Loads for Buildings and other Structures'' SEI/ASCE 7-16.

1.3 ''Building Code Requirements for Structural Concrete (ACI 318-14)'' American Concrete Institute 2014.

1.4 "Manual of Standard Practice'', Concrete Reinforcing Steel Institute, latest edition.

1.5 ''Specification for Structural Steel Buildings (AISC 360-10)'' American Institute of Steel Construction, 2011 - 14th Edition

1.6 ''Structural Welding Code - Steel (AWS D1.1)'' and ''Structural Welding Code - Reinforcing Steel (AWS D1.4)'', American Welding Society.

1.7 ''Specification for the Design of Cold-Formed Steel Structural Members'', American Iron and Steel Institute (AISI), S100-12.

1.8 "Standard Specifications for Joist Girders (JG-10)", "Standard Specifications for Open Web Steel Joists, K-Series (k-10)", "Standard Specifications for Long Span Steel Joist, LH Series and Deep Longspan Steel Joists, DLH Series (LH/DLH-1.1)", Steel Joist Institute

1.9 "Design Manual For Floor Decks and Roof Decks", Steel Deck Institute, latest edition.

1.10 "Building Code Requirements for Masonry Structures", ACI 530-13, ASCE 5-13, TMS 402-13.

2.0 DESIGN LOADS:
Project Located in: City of Kenansville, County of Duplin, State of North Carolina.

2.1 Gravity Loads: (Reduced where allowed)

GRAVITY LOADS		
Location	Uniform (psf)	Concentrated (lbs) (Over 2.5'x2.5')
Roof Loads:		
Dead Load	20	
Live Load	20	300
Floor Dead Loads:		
Ground Floor	50	
Mezzanine Dead Load	35	
Floor Live Loads:		
Ground Floor	100	
Mezzanine	60	

2.2 Snow Loads per Referenced Code.

Pg = 10 psf
I = 1.1
Ce = 0.9
Ct = 1.0

2.3 Risk Category = III

2.4 Wind Loads per Referenced Code.

Basic Design Wind Speed:
3-second Gust PER ASCE
V = 139mph
Exposure "C"

Main Wind Force Resisting System:
Building is enclosed & Internal Pressure coefficient (GCpi) = +0.18 & -0.18
Topographic Factor Kzt = 1.0
Wind Directionality Factor, Kd = 0.85

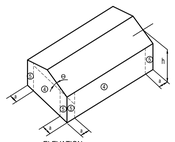
CALCULATED WIND BASE SHEAR (VULT FOR MWFRS)		
Unit Name	Vx (k)	Vy (k)
Main Building	48k	129k

Components & Cladding

Components and Cladding Wind Pressure (psf)

Walls	Area < 10ft2		Area < 20ft2		Area < 50ft2		Area < 100ft2		Area < 500ft2	
Zone 4	42.4	-46.0	40.6	-44.2	37.9	-41.5	35.9	-39.7	31.6	-35.2
Zone 5	42.4	-56.8	40.6	-53.2	37.9	-47.8	35.9	-44.2	31.6	-35.2
Roof	**Area < 10ft2**		**Area < 20ft2**		**Area < 50ft2**		**Area < 100ft2**		**Area < 500ft2**	
Zone 1	19.2	-51.1	18.0	-51.1	16.0	-51.1	16.0	-51.1	16.0	-51.1
Zone 2	19.2	-59.1	18.0	-58.3	16.0	-56.3	16.0	-55.1	16.0	-55.1
Zone 2'	19.2	-71.1	18.0	-69.1	16.0	-69.1	16.0	-67.1	16.0	-67.1
Zone 3	19.2	-79.1	18.0	-71.1	16.0	-63.1	16.0	-55.1	16.0	-55.1
Zone 3'	19.2	-111.0	18.0	-99.1	16.0	-83.1	16.0	-71.1	16.0	-71.1

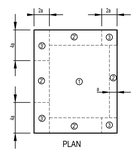
Notes:
1. Areas noted are effective wind areas as per ASCE 7, 26.2 definitions.
2. See figures this sheet for Zone locations.
3. Plus and minus signs signify pressures acting toward and away from surfaces, respectively.
4. Design pressures shown in table are strength design wind pressures. Allowable stress design wind pressures may be calculated by factoring the pressures by 0.6.
5. Design pressures for effective wind areas between those noted in schedule may be interpolated.
6. Tributary area = greater of LxW or LxL/3.
7. Deflections may be calculated based on 42% of these loads.



ELEVATION

COMPONENT & CLADDING WALL ZONES

a = 12ft



PLAN

COMPONENT & CLADDING MONOSLOPE ROOF ZONES

2.5 Seismic Loads per Referenced Code.

Risk Category = III
Site class = "D" (Per Geotechnical Report)
Spectral Response Coefficients:
SS = 0.127g
S1 = 0.06g
SDS = 0.135g
SD1 = 0.096g
Cs = 0.056g

Seismic Design Category = "B"
Seismic Importance Factor = 1.25
Basic Seismic - Force - Resisting System
Building Frame System - Steel Systems not specifically detailed for Seismic Resistance, excluding Cantilever Column Systems

RX=RY=3, ΩX=ΩY=3, CDX=CDY=3
Design Base Shear Vx = 5k Vy = 5k
Building Height Limit = NL
Analysis Procedure - per Referenced Code.
Equivalent Lateral Force Procedure

2.6 Guardrail designed per Referenced Code, Chapter 16 IBC

Guardrail:
Uniform load = 50 plf, any direction
Concentrated load = 200 lbs, any direction
Intermediate Rail: (all those except handrail)

2.7 Flood Loads:
The project site is not located in any special flood hazard areas or future conditions flood hazard areas, as shown on FEMA map number 3720340200j dated 2/16/2006

3.0 FOUNDATIONS:

3.1 Foundation design is based on geotechnical report # 22060049 by SM&E, Inc. Wilmington, NC dated November 12, 2022. This report is available in the project manual. The recommendations contained in this report are for the Contractor's information only.

3.2 Footings shall bear on strata capable of sustaining a minimum bearing pressure of 2000 psf.

3.3 Top of footing (T/FTG) elevations are shown on the drawings or are to be determined by the Contractor in the field in accordance with the guidelines set forth in the drawings.

3.4 Bottom of exterior footings, grade beams and walls shall bear at a minimum depth of 1'-6'' below final grade for frost protection.

3.5 Testing and Inspection:
a. All areas to have slabs on grade shall be proof rolled in accordance with and under observation of the Geotechnical Engineer and approved prior to preparation for concrete placement.
b. All foundation bearing strata shall be inspected and approved by the Geotechnical Engineer prior to any concrete placement.
c. Geotechnical Engineer shall be the sole judge as to suitability of all foundation and/or slab bearing strata.
d. Footing bearing elevations shall be adjusted in the field as required to meet the design bearing pressures by additional excavation or compaction and/or backfilling or by other means acceptable to the Geotechnical Engineer.

3.6 Undercutting to remove existing fill beneath footings and slab shall be performed at the direction of the Geotechnical Engineer.

3.7 Engineered Fill: All fill material shall be selected in accordance with the Geotechnical Report Material shall be a clean, low plastic soil with a plasticity index less than 30 (less than 15 is preferred), liquid limit less than 50, and unit weight of 120 pcf (+5 pcf)

3.8 Compaction: All fill shall be placed in loose lifts not exceeding 8" in thickness and compacted to a minimum of 96% Standard Proctor (ASTM D-698) except that the top 12" shall be compacted to a minimum of 98% Standard Proctor. Moisture shall be controlled to within 3% above or below optimum content.

3.9 Remove all topsoil and organic materials. The stripping should extend at least 10' beyond the proposed construction limits.

3.10 Contractor shall review all construction considerations as outlined in the Geotechnical report and bid accordingly.

4.0 CONCRETE:

4.1 Concrete Strength:
All concrete shall be in accordance with the American Concrete Institute (ACI) 301 and 318.

4.2 Concrete shall have a 28 day compressive strength and density as follows:

CONCRETE STRENGTH SCHEDULE		
Location	Concrete Strength	Density
Footings, Grade Beams	3,000 psi	±145 pcf
Interior Slab-on-grade	See Schedule S3 sheets	±145 pcf
Elevated Slab on Deck.	3,000 psi	±145 pcf
Exterior Slab on Grade	See Schedule S3 sheets	±145 pcf

4.3 Concrete Mix Designs:
a. Submittals: Submit mix designs of each proposed concrete mix not less than 15 days prior to the start of work.
b. Mix designs, including water, cement ratios and slumps, shall be prepared in accordance with ACI 301-05, Section 4, Cement shall conform to ASTM C 150 Type 1 or at contractor's option, ASTM C 595 Type IP where fly ash is permitted. Normal weight aggregate shall conform to ASTM C 33 and light weight aggregate shall conform to ASTM C 330. No admixtures containing calcium chloride shall be permitted in any concrete.
c. Aggregate size shall be #67 stone for supported slabs or other formed concrete elements; #57 stone for slabs on grade and footings or other concrete elements formed from and poured against earth; #89 stone for masonry grout.
d. Water reducing admixture shall be used in all concrete.
e. Air entraining admixture in accordance with ACI 301 shall be used in all concrete exposed freezing and thawing during construction or service conditions.
f. Concrete subjected to freezing/thawing shall have a maximum water/cement ratio of 0.45 and shall contain the amount of air entraining agent specified in ACI 301-05 Section 4.
g. All columns and walls shall have superplasticizer admixture

4.4 Curing:
See specifications for curing method options and apply within two (2) hours after completion of finishing to all concrete flatwork and walls, U.N.O., other than footings and grade beams.

4.5 Use a non-corrosive, non-chloride accelerating admixture in concrete exposed to temperatures below 40°. Uniformly heat the water and aggregates to a temperature of not less than 50° Place and cure concrete in accordance with ACI 306.

4.6 When hot weather conditions exist, place and cure concrete in accordance with ACI 301. Cool ingredients before mixing to maintain concrete temp. at time of placement below 90°.

4.7 Reinforcing in all abutting concrete, including footings shall be continuous through or around all corners or intersections. Dowels or splices shall be equal in size and spacing to the reinforcing in the abutting members.

4.8 Refer to architectural drawings for door and window openings, drips, reglets, washes, masonry anchors, brick ledge elevations, slab depressions and miscellaneous embedded plates, bolts, anchors, angles, etc.

4.9 Refer to plumbing, mechanical and electrical drawings for underfloor, perimeter and other drains and for sleeves, outlet boxes, conduit, anchors, etc. The various trades are responsible for their items.

4.10 Base plates, anchor rods, support angles and other steel exposed to earth or granular fill shall be covered with a minimum of 3'' of concrete.

4.11 Fill slabs, not shown on the structural drawings and all exterior slabs to be broom finished, shall be reinforced with a minimum of 6 x 6 x W2.0 x W2.0 WWM unless noted otherwise on other drawings.

4.12 Finish surfaces to the following tolerances, according to ASTM E 1155, for a randomly trafficked floor surface:
a. Specified overall values of flatness, F(F) 25; and of levelness, F(L) 20; with minimum local values equal to ½ of the overall flatness and levelness values.
b. The composite F(F) and F(L) numbers shall be measured and reported within 72 hours after completion of slab concrete finishing operations and before removal of any supporting shores.

4.13 Non-shrink grout shall be pre-mixed, non-corrosive, non-metallic, non-staining containing silica sands, Portland cement, shrinkage compensating and water reducing agents. Product shall only require the addition of water. Minimum compressive strength shall be 2500 psi after one day and 7000 psi after 28 days. Grout shall be free of gas producing or air releasing and oxidizing agents and contain no corrosive iron, aluminum or gypsum.

4.14 Provide concrete grout - not mortar - for reinforced masonry lintel and bond beams where indicated on drawing or as scheduled.

4.15 Tolerance for anchor rods and other embedded items shall be per the AISC Code of Standard Practice Section 7.5.

4.16 Unless otherwise shown in the architectural drawings, provide ¾'' chamfers at all column, wall, slab or beam edges that are exposed to view in the finished structure.

4.17 Concrete cover for cast-in-place concrete reinforcement:
Concrete cast against & permanently exposed to earth:.....3"
Concrete exposed to earth or weather:
No. 6 through No. 18 Bars:.....2"
No. 5 Bar and smaller:.....1½"
Concrete not exposed to weather or in contact with ground:
Slabs, Walls, Joists:
No. 11 Bar and smaller:.....¾"
Beams, Columns:
Primary Reinforcement, Ties, Stirrups:.....1½"

5.0 REINFORCING STEEL:

5.1 Reinforcing shall be domestic new billet steel conforming to ASTM A615, Grade 60 or 60S including stirrups and ties, except that reinforcing which is required to be welded shall conform to ASTM A706.

5.2 Field bending of concrete reinforcing steel is not permitted.

5.3 Welded wire mat and fabric shall conform to ASTM A184 and A185 respectively and shall be provided in flat sheets. Welded wire mat/fabric shall be lapped 6''-6'' at all splices.

5.4 Bar Splices:

	f'c = 3,000psi		f'c = 4,000psi		f'c = 5,000psi	
Bar Size	**Ld (in)**	**Class "B" Lap Splice (in)**	**Ld (in)**	**Class "B" Lap Splice (in)**	**Ld (in)**	**Class "B" Lap Splice (in)**
#3	17	22	15	19	13	17
#4	22	29	19	25	17	23
#5	28	36	24	31	22	28
#6	33	43	29	37	26	34
#7	48	63	42	54	38	49
#8	55	72	48	62	43	56
#9	62	81	54	70	48	63
#10	69	90	60	78	54	69
#11	76	98	66	85	59	76

NOTES:
1. Values are based on normal weight concrete.
2. Ld = minimum embed of rebar
3. Class "B" lap splice refers to minimum distance bars must be lapped for a full tension splice.
4. For Epoxy Coated bars multiply table values by 1.2
5. For Beam Top Bars multiply table values by 1.3
6. For Top Bars in Slabs 13in and thicker multiply table values by 1.3

6.0 COLD-FORMED STEEL FRAMING:

6.1 All members shall be designed in accordance with the American Iron and Steel Institute (AISI) ''Specifications for the Design of Cold-formed Steel Structural Members'', Latest Edition.

6.2 All framing members shall be formed from corrosion-resistant steel corresponding to the requirements of ASTM A446, with a minimum yield strength of 33 ksi for joists and studs and 33 ksi for runners.

6.3 All members shown are standard designations of Steel Stud Manufacturers Association (SSMA)

6.4 Design of members indicated in structural drawings is based on minimum properties of products produced per SSMA standards of members specified. No substitution of materials is acceptable for use without prior approval of the structural engineer. Substitutions shall meet or exceed all properties produced per SSMA standards of members specified.

6.5 All shop drawing submittals shall show layout, spacing, sizes, thicknesses and types of cold-formed metal framing, fabrication, and fastening and anchorage details, including mechanical fasteners. Show reinforcing channels, opening framing, supplemental framing, strapping, bracing, bridging, splices, accessories, connection details and attachment to adjoining work.

6.6 Shop drawings, design calculations and other structural data shall be prepared and sealed by a qualified engineer. The Structural Engineer shall be legally qualified to practice in the jurisdiction where the project is located and shall be experienced in providing engineering services of the kind indicated.

6.7 All framing components shall be cut squarely for attachment to perpendicular members or as required for an angular fit tight against abutting members. All load bearing stud/walls shall be factory assembled into panels with studs bearing squarely and fully in top and bottom tracks.

6.8 Fastening components shall be by self-drilling screws or by welding as defined below UNO on the drawings.

6.9 Screwed connections:
a. Screws shall be type S-12 or type S-4 for all framing members per manufacturer's recommendations.
b. A minimum of three (3) exposed threads shall penetrate through at joined materials.
c. Corrosion-resistant cadmium-plated screws shall be used for screws attaching metal lath, masonry ties, and other exterior materials.

6.10 Welded connections:
a. Gas metal arc welding (GMAW) shall be used for 20 ga. Or lighter members. AWSE-705-3, E-705-E, E-705-6 wire electrodes .030''-.035'' diameter shall be used with carbon dioxide, argon-oxygen or argon-carbon dioxide shielding. Welding equipment 60-100 amperes at 25 volts using 220-volt 3-phase electric service.
b. Shielded metal arc welding (SMAW) shall be used for 18 ga' and heavier members. AWS E-6012, E-6013, or E-7014 electrodes of 3/32'' or 1/8'' diameter shall be used. Welding equipment heat setting shall be varied dependent on material thickness.
c. All welds shall be touched up with zinc rich paint, or paint similar to that used by the framing member manufacturer.

6.11 Alignment of studs (plumbness) and walls (straightness) shall be within 1/960 of their respective heights and lengths.

6.12 Studs shall be plumbed, aligned, and securely attached to top and bottom runners. Splices in studs are not permitted.

6.13 Where manufacturer's recommendations for erection, attachment, assembly, bracing, alignment, or other installation, or assembly requirements are more stringent than indicated in these drawings, the manufacturer's recommendations shall apply.

STEEL THICKNESS						
Gauge	Mils	Design Thickness		Minimum Thickness		Yield Strength
		Inches	mm	Inches	mm	ksi
20	33	0.0346	0.879	0.0329	0.836	33
18	43	0.0451	1.146	0.0428	1.087	33
16	54	0.0566	1.438	0.0538	1.367	50
14	68	0.0713	1.811	0.0677	1.720	50
12	97	0.1017	2.583	0.0966	2.454	50

7.0 STEEL JOISTS:

7.1 All steel joists shall be designed, fabricated, and erected in accordance with the SJI Specifications.

7.2 Joist ends shall be fixed and bridging shall be placed prior to application of any loads.

7.3 End Support:
a. Minimum bearing requirements shall be in accordance with the SJI Specification. Extended joist ends for bearing on masonry shall be provided by the joist manufacturer where required to accommodate bearing conditions shown on the drawings.
b. K Series joists shall be welded to supports with ⅛'' fillet welds, one each side, 2'' long.
c. Bolt joists as indicated below to structural steel supports at column centerlines or where joists do not space on centerlines, bolt connections for each joist adjacent to centerline. K Series: 2 @ ½'' diameter bolts (minimum)

7.4 Joist bridging:
a. Shall be placed in accordance with the SJI Specification U.N.O. and shall be horizontal rods or angles at top & bottom chords for all K Series joists.
b. Bridging that terminates at or is interrupted by structural steel members, shall be welded or bolted thereto. Provide diagonal (''X'') bridging for ends of bridging lines terminating at walls/beams.

7.5 Holes in joist chords are not permitted, except at bearing and bolted connections.

7.6 All joists (40) forty feet and longer shall require a row of bolted bridging to be in place before slackening of hoisting lines.

8.0 STRUCTURAL STEEL:

8.1 All structural steel shall be of the grades indicated below, unless noted otherwise on plans or details.
Rolled shapes ASTM A992 Gr. 50
Steel pipe ASTM A53, Type E or S, Grade B, Fy-35ksi
Structural tubing ASTM A500, Grade B, Fy-46ksi
Plates and bars ASTM A36 U.N.O.
Anchor rods ASTM F1554, Grade 36 U.N.O.
Miscellaneous ASTM A36 U.N.O.

8.2 All structural steel shall be detailed, fabricated and erected in accordance with the AISC Code of Standard Practice. The fabricator is responsible for the design of connections not shown on the structural drawings. For the purpose of the connection design, the fabricator shall retain a professional engineer registered in the state where the project is located. The engineer shall seal and sign each shop drawing containing connection design. A note shall accompany the drawings stating that the seal is for ''Connection Design Only''.

8.3 Connection Design:
a. Generally, connections shown on the drawings are schematic and are intended to show the relationship of the members.
b. Connections shall be designed for one-half (1/2) the allowable uniform load on the member, as defined in Part 3, ''Allowable Loads on Beams'' tables in the AISC ''Manual of Steel Construction'', 14th Edition, See plan notes for design methodology and minimum reactions.

8.4 Bolted connections:
a. Bearing type connections shall be snug tight with A325N or A490N bolts, U.N.O. Oversized and long-slotted holes are NOT permitted U.N.O. At single shear plate connections, provide bearing type fasteners with horizontal short slotted holes. All bolts shall be snug tight. DO NOT over torque bolts.
b. Protruding bolt heads, shafts or nuts shall not extend nor prohibit the application of architectural finishes or placement of steel deck at its correct location and elevation.
c. Connection designer is resposible for verifying the axial capacity after a section is reduced for bolt holes. Member size may be increased or plates added to maintain required capacity.
d. Bolted connections shall be assembled and inspected in accordance with RCSC-2009 (Specification for Structural Joints Using High-Strength Bolts).

8.5 Welded connections:
a. All welding shall be in accordance with the ''Structural Welding Code - Steel'' (AWS D1.1) of the American Welding Society, Latest Edition.
b. Electrodes for welding shall comply with the requirements of Table 4.1.1 of the AWS code.
c. At Moment Connections and Braced Frames Provide filler Metal that has a minimum CVN Toughness of 20 ft-lbs at minus 20 degrees F, As determined by AWS classification or Manufacturer Certification.
d. Proof of welder certification shall be available at the job site during times of inspection.

8.6 Minimum plate thickness shall be 3/8'' U.N.O.; minimum bolt diameter shall be 3/4-inch U.N.O.; minimum shop weld shall be 3/16'' and minimum field weld shall be 1/4-inch U.N.O.

8.7 All re-entrant corners (such as copes and blocks) shall be cut and shaped notch free with a radius of at least 1/2-inch.

9.0 STEEL DECK:

9.1 Steel roof deck shall be galvanized, Type B, 1½'' deep, 20 gauge, U.N.O.

9.2 For steel roof deck spans, mechanically fasten side laps at mid-span using "Buildex", self-tapping TEKS No. 10 or larger machine screws or as noted on plan.
Provide additional sidelap fasteners where noted on plan.
Fasten roof deck to supporting members as noted on plan.

9.3 Do not hang pipes or ducts from steel roof deck. Fasten roof deck to supporting members as noted on plan.

10.0 CONSTRUCTION AND SAFETY:

10.1 Woods Engineering P.A.'s responsibility is limited to the details and information shown on these drawings. It is the responsibility of the Contractor to provide adequate safety measures required by local codes as well as OSHA Standards for the Construction Industry.
This should include, but not be limited to the following:
Shoring to protect new as well as existing structures.
Necessary Scaffolding.
Material Handling Equipment.
Trench Boxing.

11.0 STRUCTURAL MASONRY:

11.1 All structural masonry shall conform to ACI 530 standards as appropriate to the material.

11.2 Concrete Masonry Units (CMU):
a. Units shall be lightweight cellular units conforming to ASTM C 90, Grade N-2. Concrete masonry net area unit strength shall be no less than 2,000psi in accordance with ASTM C 140, with a unit weight not exceeding 95 pcf.
b. Design compressive strength of CMU (fm) = 2,000psi.

11.3 Mortar shall conform to ASTM C 270. Mortar shall be type ''S'' and shall conform to the ASTM C270 proportion requirements.

11.4 Neither type "N" mortar nor masonry cement shall be used as part of the lateral force resisting system.

11.5 Grouting:
a. Grout shall conform to ASTM C476 as specified by proportion. Masonry grout shall conform to the ASTM proportion requirements for coarse grout with a slump of 8 to 11 inches. Contractor may substitute grout with pea gravel concrete masonry fill, see note 4.2 this sheet.
b. All bond beams shall be filled with grout and reinforced as indicated on the drawings (details or schedules). Mortar fill is not permitted.
c. All masonry wall cells or cavities indicated as reinforced shall be grouted for the full height of the wall, unless specifically noted otherwise on the drawings. Unreinforced walls indicated as grouted shall be grouted full height, unless specifically noted otherwise. Mortar fill is not permitted.
d. All masonry cells or cavities below grade shall be grouted solid unless specifically noted otherwise on the drawings. Mortar fill is not permitted.
e. Vertical grouting shall be low lift or high lift as follows:
(1) Low lift grouting shall be used for all cavity walls and may be used for all walls at the option of the Contractor. Lifts shall not exceed 4'-0'' in height.
(2) High lift grouting is permissible only for filling of cellular masonry units and shall not exceed 12'-8" in height. Clean out holes shall be provided at the base of each grouted cell.
f. Grouting shall be stopped 1½'' below the top of a course to form a key at the joint.
g. Grouting of masonry beams or lintels shall be done in one continuous operation.
h. Consolidate pours with mechanical vibrator and reconsolidate by mechanical vibration after initial water loss and settlement has occured.
i. Mechanical vibrator shall be a low velocity vibrator with a ¾'' head.

11.6 Masonry Reinforcing:
a. Foundation dowels may slope a maximum of 1:6 to align with wall cavities or vertical CMU cores. Greater slopes will require replacement of the foundation dowels.
b. Spliced reinforcing shall be lapped a length calculated per IBC 2107.5 OR 15'' OR as shown on drawings, whichever is greatest. All splices shall be wired together.
c. Vertical reinforcing bars shall have a minimum clearance of ¾'' from masonry and shall be held in position top and bottom and at intervals not exceeding 4'-0''. Accessories for such support shall be used. Provide ''AA Wire Products Company'' (or approved equal) Rebar Positioner AA225 or AA239 for vertical bars and AA238 for horizontal bars or approved equal products from other suppliers.
d. Horizontal joint reinforcing shall be lapped no less than 6'' all splices, including corners and tees where no control joint is used.
e. All horizontal joint reinforcing shall stop at control joints.
f. Horizontal reinforcing in bond beams shall be continuous through control joints.
g. All CMU walls shall have joint reinforcing @ 16"o.c. All joint reinforcing shall have (2) 9 gauge (0.148"Ø or W1.7) side rods & cross rods @ 16"o.c.

11.7 Masonry contractor shall provide for and coordinate with other trades for placement of all items to be embedded or built into the masonry.

MINIMUM SPLICING LENGTH (Ld) FOR MASONRY	
BAR SIZE	SPLICE LENGTH
#3	16"
#4	22"
#5	26"
#6	43"
#7	60"

12.0 SPECIAL INSPECTIONS:

12.1 Refer to Specification Section 014533 for all Special Inspections requirements.

13.0 SHOP DRAWING SUBMITTAL:

13.1 See Project Manual

13.2 Contractor shall submit Electronic copies (PDF format) of each shop drawing for review. Shop drawings shall be reviewed by the Contractor prior to submission to the Engineer. The Contractor shall allow 10 working days for shop drawing approval.

13.3 The following items require delegated design by a licensed engineer:
- Steel connection design
- Exterior Cold-Formed metal framing design

ABBREVIATIONS

@	AT
&	AND
AB	ANCHOR BOLTS
ACI	AMERICAN CONCRETE INSTITUTE
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
ALT	ALTERNATE
ARCH	ARCHITECTS - ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
B, BOTT	BOTTOM
BCX	BOTTOM CHORD EXTENSION
BFF	BELOW FINISHED FLOOR
BLDG	BUILDING
BM	BEAM
BOS	BOTTOM OF STEEL
BRG	BEARING
BTWN	BETWEEN
CFS	COLD FORMED STEEL
CJ	CONTRACTION JOINT
CL	CENTERLINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNITS
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST JT	CONSTRUCTION JOINT
CONT	CONTINUOUS
CONTR	CONTRACTOR
CSJ	COMPOSITE STEEL JOIST
CTRD	CENTERED
DBA	DEFORMED BAR ANCHOR
DD	DELEGATED DESIGN
DEFL	DEFLECTION
DEPR	DEPRESSION - DEPRESSED
DET	DETAIL
DIAG	DIAGONAL
Ø	DIAMETER
DIM	DIMENSION
DIST	DISTANCE
DWG(S)	DRAWING(S)
DWL(S)	DOWEL(S)
EA	EACH
ELEV	ELEVATION
EMBED	EMBEDDED - EMBEDMENT
ENG	ENGINEER
EOR	ENGINEER OF RECORD
EQ	EQUAL
EQUIP	EQUIPMENT
EF	EACH FACE
EJ	EXPANSION JOINT
EOD	EDGE OF DECK
EOM	EDGE OF MASONRY
EOS	EDGE OF SLAB
EOW	EDGE OF WALL
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FDN	FOUNDATION
FFE	FINISHED FLOOR ELEVATION
FS	FAR SIDE
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GT	GIRDER TRUSS
HD	HEADED
HI	HIGH
HORIZ	HORIZONTAL
HSS	HOLLOW STRUCTURAL SECTION
HT	HIP TRUSS
IFM	INSIDE FACE OF MASONRY
INT	INTERIOR
JBE	JOIST BEARING ELEVATION
JT	JOINT
K	KIP-S
KB	KICKER BRACE
KSI	KIPS PER SQUARE INCH
(L)	LONG SIDE REINFORCEMENT
LB	LONG BAR
LBS	POUNDS
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LO	LOW
LOC	LOCATION
LWC	LIGHT WEIGHT CONCRETE
MAX	MAXIMUM
MC	MOMENT CONNECTION
MECH	MECHANICAL
MFR	MANUFACTURER
MID	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MOW	MIDDLE OF WALL
MP	MASONRY PILASTER
d	NAILS - PENNY
No	NUMBER
NS	NEAR SIDE
NTS	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE
OC	ON CENTER
OFB	OUTSIDE FACE OF BRICK
OFM	OUTSIDE FACE OF MASONRY
OFS	OUTSIDE FACE OF STUD
OPNG	OPENING
OPP	OPPOSITE HAND
PEBS	PRE-ENGINEERED BUILDING SUPPLIER
PED	PEDESTAL
PL	PLATE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PLF	POUNDS PER LINEAR FOOT
PT	PRESSURE TREATED
REF	REFERENCE
REINF	REINFORCING
REQD	REQUIRED
(S)	SHORT SIDE REINFORCEMENT
SB	SHORT BAR
SCHD	SCHEDULE
SF	STEP FOOTING
SIM	SIMILAR
SOG	SLAB ON GRADE
SPEC(S)	SPECIFICATION(S)
SPF	SPRUCE PINE FUR
SQ	SQUARE
STD	STANDARD
STIFF	STIFFENER
STIRR	STIRRUP
STL	STEEL
STR	STRUCTURAL
SW	SHEAR WALL
SYP	SOUTHERN YELLOW PINE
T	TOP
TCX	TOP CHORD EXTENSION
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VB	VEHICLE BARRIER
VERT	VERTICAL
VIF	VERIFY IN FIELD
W	WITH
WWF	WELDED WIRE FABRIC

DO NOT SCALE DIGITAL OR HARD COPIES OF THESE DRAWINGS:

Unless Specifically Noted - Drawings, Plans, Sections, Details, Etc. are a graphic representation of the framing conditions and/or requirements.
Rebar lengths, bends & etc. SHALL NOT be determined by scaling any drawings included in this set of documents. Lengths & sizes shall be determined by the schedules only, or specifically requested if not numerically shown. Submit a written request to Woods Engineering, PA if further clarification is needed.

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SCO ID#22-24540-02A

NORTH CAROLINA PROFESSIONAL ENGINEERING SEAL CORPORATE SEAL No. C-1806 WOODS ENGINEERING, P.A. NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041563 ADAM L. SISK

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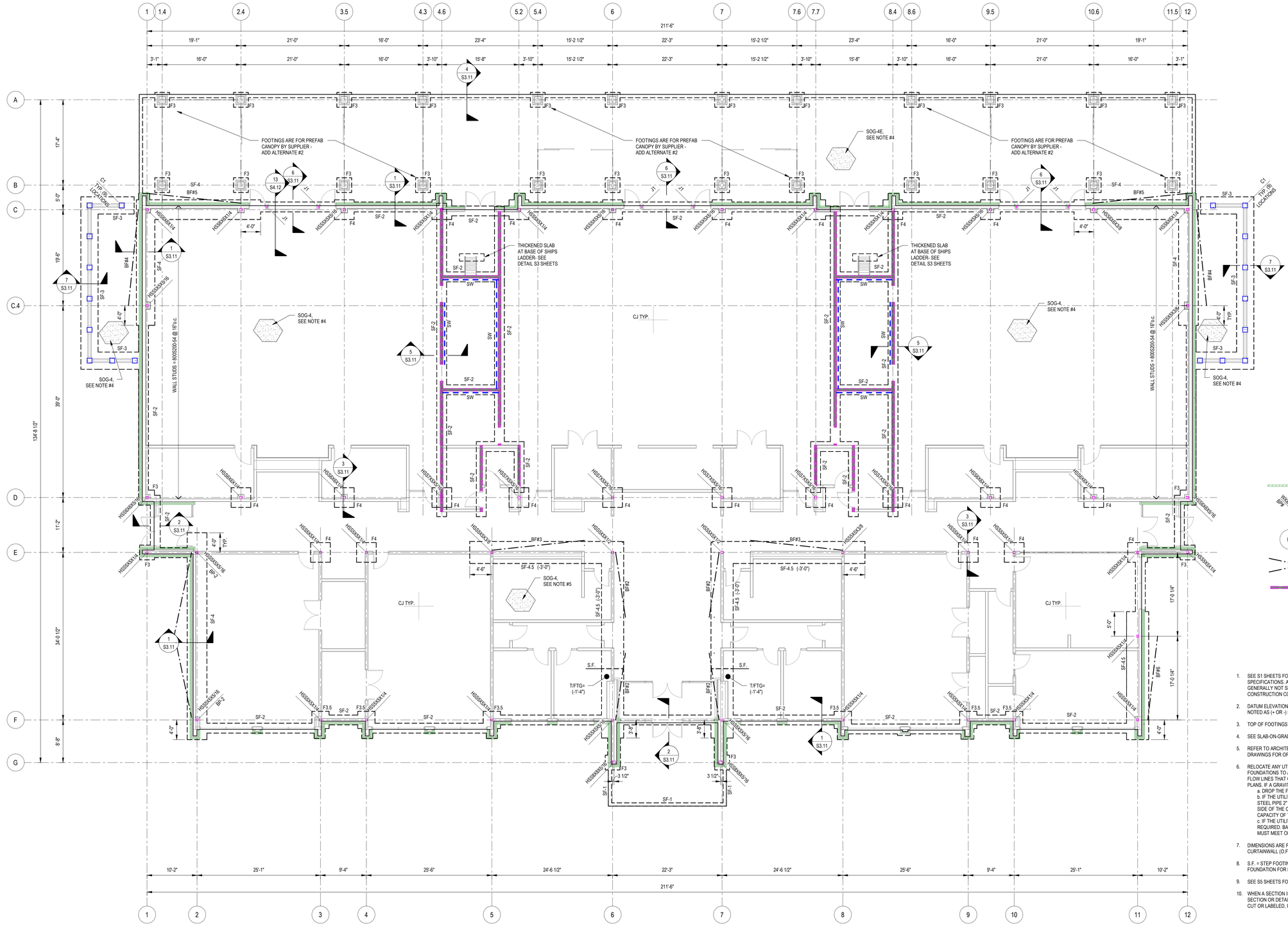
James Sprunt Community College - Workforce Development Building
Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By
Date 12-18-2024	Reviewed By
Project ID	
Sheet Title: GENERAL NOTES	
Sheet No.: S1.01	



FOUNDATION PLAN

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

FOUNDATION LEGEND

- FX — SPREAD FOOTING DESIGNATION SEE SCHEDULE ON S3 SHEETS
- SF-X — STRIP FOOTING DESIGNATION SEE SCHEDULE ON S3 SHEETS
- S.F. — STEP FOOTING SEE TYPICAL DETAIL ON S3 SHEETS
- CJ — CONCRETE SLAB CONTRACTION JOINTS SEE TYPICAL DETAIL ON S3 SHEETS SEE PLAN FOR LOCATIONS MAXIMUM SPACING = 12' IN EACH DIRECTION
- BRICK PER ARCH
- W9X / BF# — STEEL COLUMN SEE PLAN FOR SIZE AND LOCATION SEE S3 SHEETS FOR BASE PLATE DETAILS (BP-x)
- 0 — GRID DESIGNATION FOR CENTERLINE OF COLUMN U.N.O.
- BF #X — STEEL BRACE LOCATIONS SEE PLAN & S5 SHEETS
- LOAD BEARING METAL STUDS 600S162-43 @ 16" o.c.
- J1 — HS36x4x1/4" JAMB WITH EP-1 TO SLAB. SEE DETAILS S3 SHEETS
- C1 — BRICK SCREEN WALL PILASTER, SEE SECTION S3 SHEETS

FOUNDATION NOTES

1. SEE S1 SHEETS FOR ADDITIONAL GENERAL NOTES, MATERIAL NOTES AND MATERIAL SPECIFICATIONS. ALSO, SEE S3 SHEETS FOR TYPICAL DETAILS. TYPICAL DETAILS ARE GENERALLY NOT SHOWN ON PLAN BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS.
2. DATUM ELEVATION = TOP OF SLAB ELEVATION = ASSUMED 0'-0" = OTHER ELEVATIONS ARE NOTED AS (+ OR -) FROM DATUM ELEVATION. SEE CIVIL FOR ELEVATIONS RELATIVE TO MSL.
3. TOP OF FOOTINGS SHALL BE (-1'-4") FROM DATUM ELEVATION, U.N.O.
4. SEE SLAB-ON-GRADE SCHEDULE S3 SHEETS.
5. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND OTHER DISCIPLINE DRAWINGS FOR OPENINGS AND DEPRESSIONS NOT SHOWN ON THESE DRAWINGS.
6. RELOCATE ANY UTILITY LINES THAT CONFLICT WITH THE FOUNDATIONS OR DROP THE FOUNDATIONS TO AN ELEVATION BELOW THE PROPOSED UTILITIES. RELOCATE ANY GRAVITY FLOW LINES THAT CONFLICT WITH SPREAD FOOTINGS AS SHOWN ON STRUCTURAL FOUNDATION PLANS. IF A GRAVITY FLOW LINE TRAVELS UNDER A CONTINUOUS STRIP FOOTING EITHER:
   a. DROP THE FOOTING ELEVATION BELOW THE PROPOSED LINE.
   b. IF THE UTILITY LINE IS < 2'-0" BELOW THE STRIP FOOTING, THEN ENCASE THE LINE IN A STEEL PIPE 2" LARGER IN DIAMETER THAN THE LINE AND EXTEND THE PIPE 1'-0" PAST EACH SIDE OF THE CONCRETE FOOTING. BACKFILL THE TRENCH WITH #57 STONE. THE BEARING CAPACITY OF THIS AREA MUST MEET OR EXCEED THE ALLOWABLE SOIL BEARING CAPACITY.
   c. IF THE UTILITY LINE IS > 2'-0" BELOW BOTTOM OF FOOTING, THEN STEEL PIPE IS NOT REQUIRED. BACKFILL THE TRENCH WITH #57 STONE. THE BEARING CAPACITY OF THIS AREA MUST MEET OR EXCEED THE ALLOWABLE SOIL BEARING CAPACITY.
7. DIMENSIONS ARE FROM EDGE OF SLAB (E.O.S.) AND OUTSIDE FACE OF STUD (O.F.S.) / CURTAINWALL (O.F.CW.) TO COLUMN CENTERLINE UNLESS NOTED OTHERWISE.
8. S.F. = STEP FOOTING, SEE TYPICAL DETAIL ON S3 SHEETS - G.C. TO COORDINATE STEPS IN FOUNDATION FOR PLUMBING, ELECTRICAL AND MECHANICAL.
9. SEE S5 SHEETS FOR SHEARWALL AND BRACE FRAME INFORMATION.
10. WHEN A SECTION IS CUT OR A DETAIL IS LABELED FOR A PARTICULAR CONDITION, THAT SECTION OR DETAIL SHALL APPLY FOR ALL SIMILAR CONDITIONS REGARDLESS OF WHETHER CUT OR LABELED, U.N.O.

NOTE: ANY ELEMENTS ASSOCIATED WITH THE PREFABRICATED CANOPIES ARE PART OF ALTERNATE #2.

AESS NOTE:
* MEMBERS NOTED WITH * REQUIRE AESS 3 FINISH
** MEMBERS NOTED WITH ** REQUIRE AESS 4 FINISH

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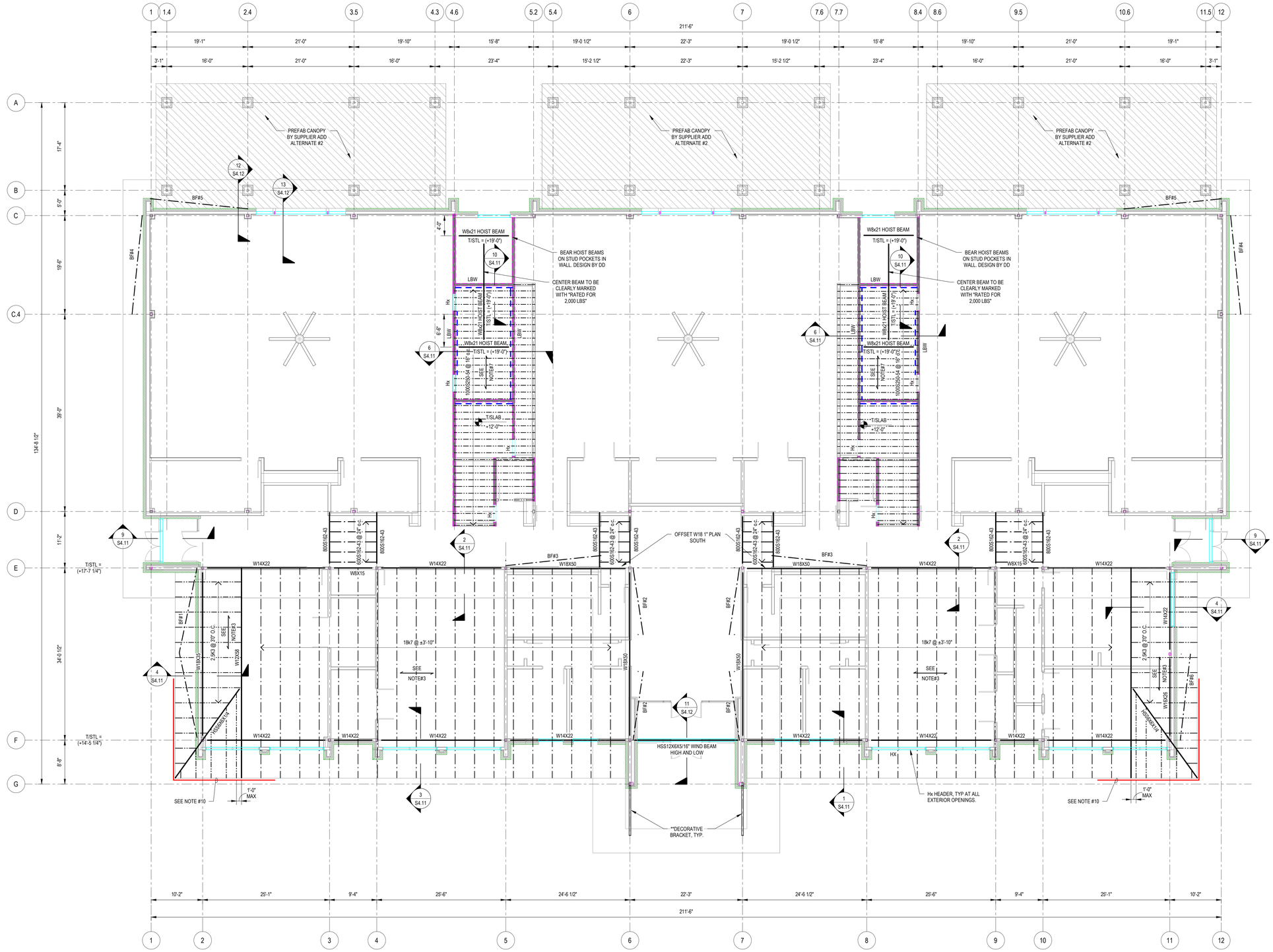
Sheet Title: FOUNDATION PLAN

Sheet No.: S2.01



LOW ROOF FRAMING PLAN

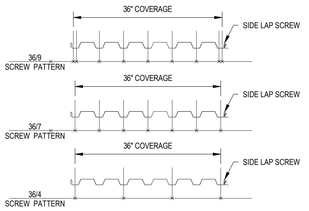
SCALE: 1/8" = 1'-0"

ROOF FRAMING LEGEND

- W6XX / HSS5XX — STEEL COLUMN SEE PLAN FOR SIZE AND LOCATION
- W_X_ — STEEL BEAM SEE PLAN FOR SIZE AND LOCATION
- STEEL ROOF JOISTS SEE PLAN FOR SIZE AND SPACING
- BFB — GIRDER BOTTOM FLANGE BRACING SEE S4 SHEETS
- 0 — GRID DESIGNATION FOR CENTERLINE OF COLUMN
- BF #X — STEEL BRACE LOCATIONS SEE PLAN & SHEET S5 SHEETS
- LOAD BEARING METAL STUDS 600S162-43 @ 16" o.c.
- METAL FLOOR JOIST, SEE PLAN FOR SIZE AND SPACING
- Hx — INDICATES CFS HEADER BY DD
- SW — SHEAR WALL DESIGNATION SEE S5 SHEETS FOR SCHEDULE, DETAILS & REQUIREMENTS

ROOF FRAMING NOTES

1. SEE S1 SHEETS FOR ADDITIONAL GENERAL NOTES, MATERIAL NOTES AND MATERIAL SPECIFICATIONS. ALSO, SEE S4 SHEETS FOR TYPICAL DETAILS. TYPICAL DETAILS ARE GENERALLY NOT SHOWN ON PLAN BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS.
2. ELEVATIONS SHOWN ON PLAN ARE REFERENCED TO DATUM ELEVATION (0'-0") - SEE FOUNDATION PLAN
3. TYPICAL ROOF DECK IS 1 1/2" DEEP, 20 ga., GALVANIZED, TYPE 'B' METAL ROOF DECK.
4. METAL ROOF DECK SHALL BE ATTACHED TO SUPPORTING MEMBERS WITH HILTI X-HSN 24 FOR STEEL THICKNESS EQUAL TO OR LESS THAN 3/8" AND HILTI X-ENP 19 OTHERWISE IN A 3&4 PATTERN U.N.O. ON PLAN - EXCEPT WITHIN 12'-0" OF ROOF EDGE PROVIDE FASTENERS IN A 36/7 PATTERN. PROVIDE (1) HILTI SCO TEK SIDELAP SCREW PER SPAN, U.N.O. ON PLAN.
   NOTE: HILTI PINS MAY BE SUBSTITUTED WITH 5/8"Ø PUDDLE WELDS AT SAME SPACING



5. ALL JOISTS SHALL BE DESIGNED FOR A NET UPLIFT PRESSURE OF 35 psf.
6. PROVIDE JOIST BRIDGING PER SJI RECOMMENDATIONS.
7. TYPICAL FLOOR SLAB IS 2 1/2" - 3,000psi NORMAL WEIGHT CONCRETE TOPPING WITH WWF6x6xW2.9xW2.9 ON 1" TYPE 'C', 26 GAUGE GALVANIZED FORM DECK BY VULCRAFT (1.0C26) OR APPROVED EQUAL. TOTAL FLOOR SLAB SYSTEM IS 3 1/2" THICK.
8. SEE S5 SHEETS FOR BRACE FRAME INFORMATION.
9. WHEN A SECTION IS CUT OR A DETAIL IS LABELED FOR A PARTICULAR CONDITION, THAT SECTION OR DETAIL SHALL APPLY FOR ALL SIMILAR CONDITIONS REGARDLESS OF WHETHER CUT OR LABELED, U.N.O.
10. DO NOT SPLICE L4X4 WITHIN 20'-0" OF ROOF CORNER, TYPICAL @ CANTILEVER ROOF CORNERS.
11. ROOF DECK TO BE 1 1/2" DEEP, 18 ga., GALVANIZED, TYPE 'B' METAL ROOF DECK. WHERE INDICATED ON PLAN. FASTENERS TO MATCH NOTE #4

AESS NOTE
* MEMBERS NOTED WITH * REQUIRE AESS 3 FINISH
** MEMBERS NOTED WITH ** REQUIRE AESS 4 FINISH

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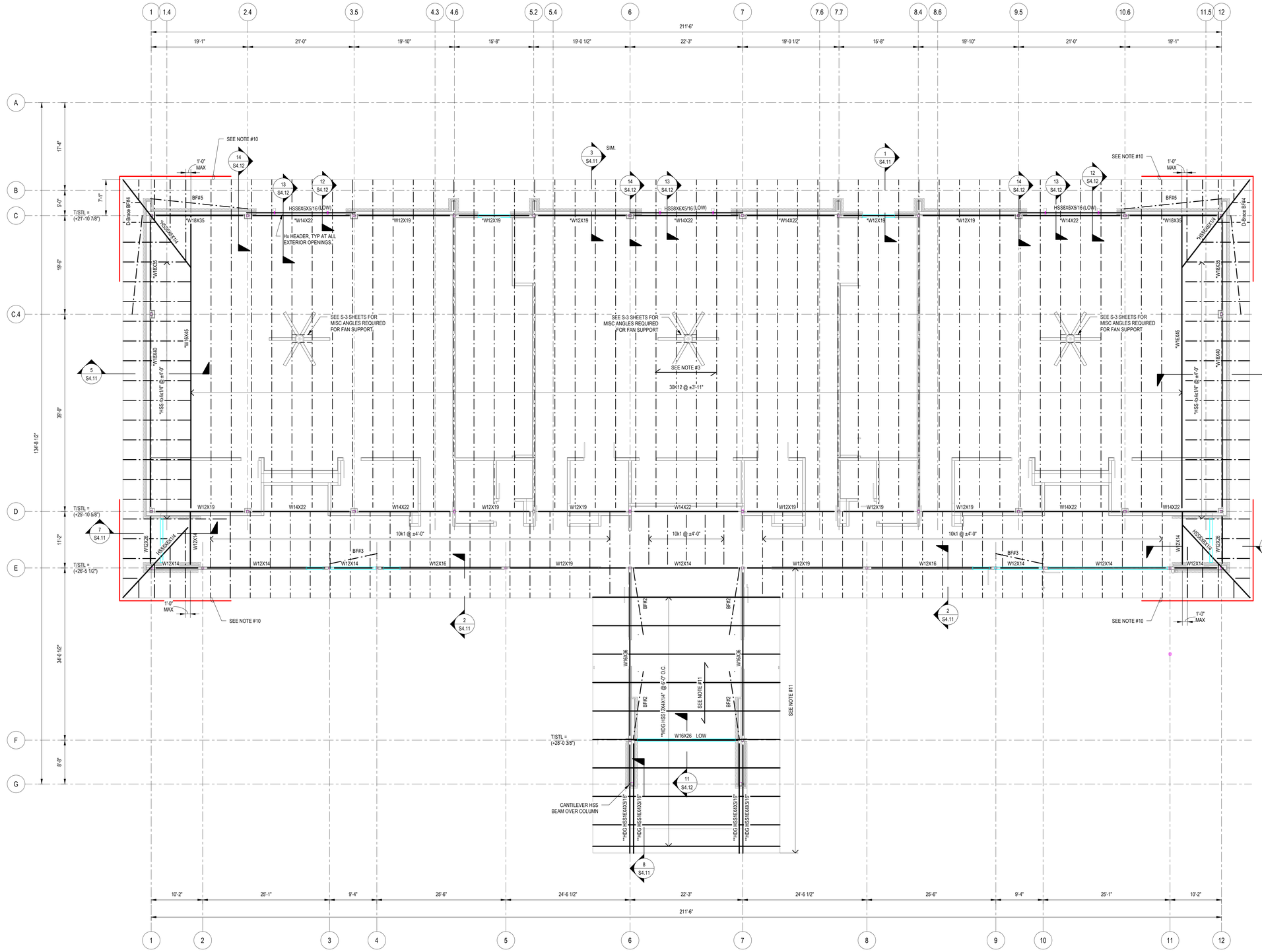
Sheet Title: LOW ROOF FRAMING PLAN

Sheet No.: S2.02



ROOF FRAMING PLAN

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

ROOF FRAMING LEGEND

- W_x_ / HSS_x_ — STEEL COLUMN — SEE PLAN FOR SIZE AND LOCATION
- W_x_ — STEEL BEAM — SEE PLAN FOR SIZE AND LOCATION
- STEEL ROOF JOISTS — SEE PLAN FOR SIZE AND SPACING
- BFB — GIRDER BOTTOM FLANGE BRACING — SEE S4 SHEETS
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4. METAL ROOF DECK SHALL BE ATTACHED TO SUPPORTING MEMBERS WITH HILTI X-HSN 24 FOR STEEL THICKNESS EQUAL TO OR LESS THAN 3/8" AND HILTI X-ENP 19 OTHERWISE IN A 3X4 PATTERN U.N.O. ON PLAN - EXCEPT WITHIN 12'-0" OF ROOF EDGE PROVIDE FASTENERS IN A 3X7 PATTERN. PROVIDE (1) HILTI SCO TEK SIDELAP SCREW PER SPAN, U.N.O. ON PLAN.
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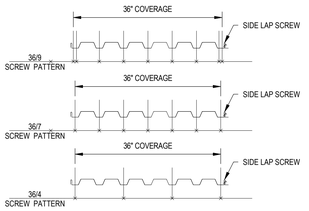

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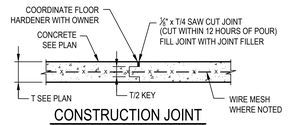
Sheet Title: ROOF FRAMING PLAN

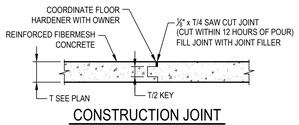
Sheet No.: S2.03



CONSTRUCTION JOINT

SCALE: 1" = 1'-0"

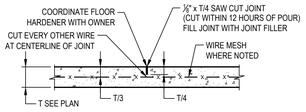
WITH WIRE MESH



CONSTRUCTION JOINT

SCALE: 1" = 1'-0"

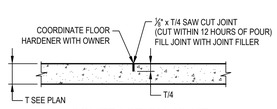
WITHOUT WIRE MESH



CONTRACTION JOINT

SCALE: 1" = 1'-0"

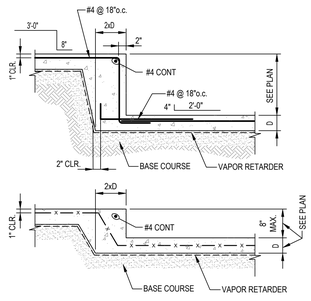
WITH WIRE MESH



CONTRACTION JOINT

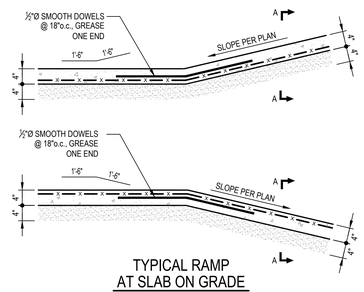
SCALE: 1" = 1'-0"

WITHOUT WIRE MESH



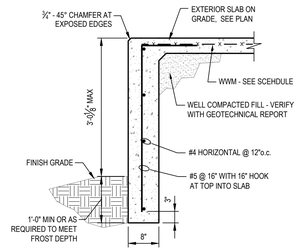
TYPICAL SLAB STEP

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



TYPICAL RAMP AT SLAB ON GRADE

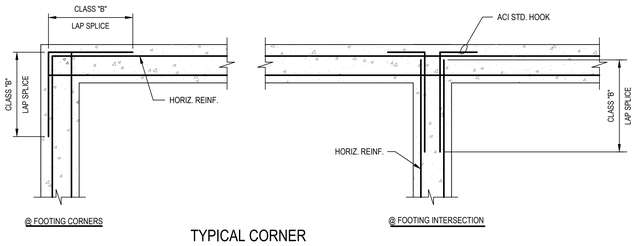
SCALE: 3/4" = 1'-0"



DETAIL A

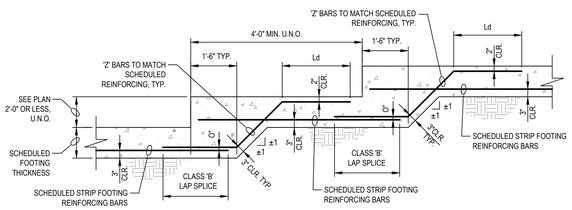
SCALE: 3/4" = 1'-0"

RAMP FOOTING DETAIL



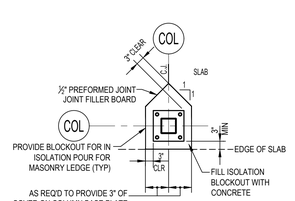
TYPICAL CORNER REINFORCING FOR CONCRETE FOOTINGS

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



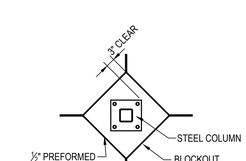
STEP FOOTING DETAIL

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



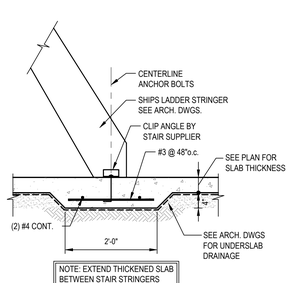
TYPICAL ISOLATION JOINT AT SLAB EDGE

NOT TO SCALE



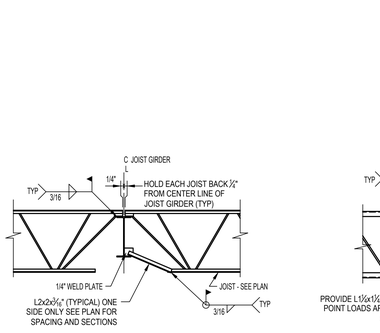
ISOLATION JOINT DETAIL

NOT TO SCALE



TYPICAL THICKENED SLAB @ BASE OF SHIPS LADDER

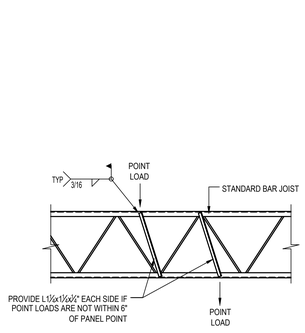
SCALE: 3/4" = 1'-0"



BOTTOM FLANGE BRACING (BFB) DETAIL

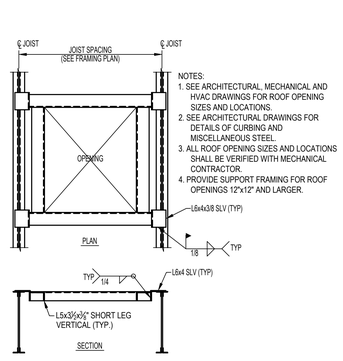
SCALE: 1/2"= 1'-0"

GIRDER BOTTOM FLANGE BRACE TYP.



DETAIL OF TYPICAL JOIST REINFORCEMENT

NOT TO SCALE

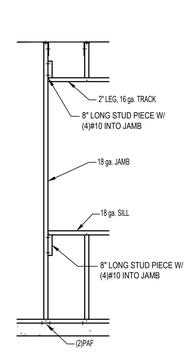


NOTES:
1. SEE ARCHITECTURAL, MECHANICAL AND HVAC DRAWINGS FOR ROOF OPENING SIZES AND LOCATIONS.
2. SEE ARCHITECTURAL DRAWINGS FOR DETAILS OF CURBING AND MISCELLANEOUS STEEL.
3. ALL ROOF OPENING SIZES AND LOCATIONS SHALL BE VERIFIED WITH MECHANICAL CONTRACTOR.
4. PROVIDE SUPPORT FRAMING FOR ROOF OPENINGS 12"x12" AND LARGER.

DETAIL OF TYPICAL ROOF OPENING

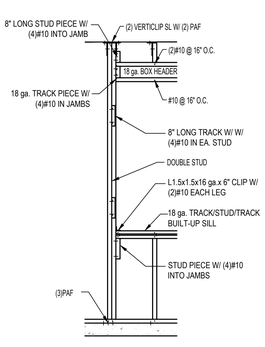
NOT TO SCALE

AT CONTRACTOR'S OPTION:
USE QUICKFRAMES
WWW.QUICKFRAMES.US



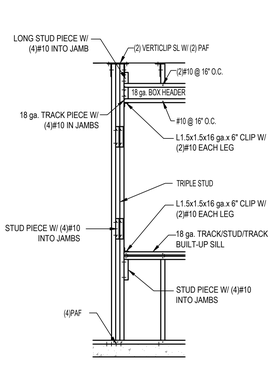
TYPICAL EXTERIOR WALL FRAMING AT WINDOW OPENING UP TO 3'-4"

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



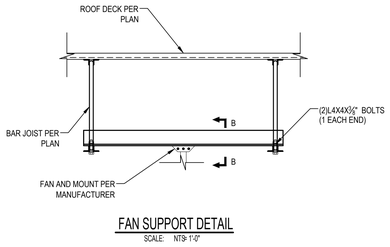
TYPICAL EXTERIOR WALL FRAMING AT WINDOW OPENING UP TO 6'-4"

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



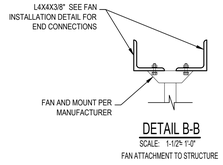
TYPICAL EXTERIOR WALL FRAMING AT WINDOW OPENING UP TO 8'-8"

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



FAN SUPPORT DETAIL

SCALE: NTS- 1'-0"



DETAIL B-B

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

FAN ATTACHMENT TO STRUCTURE

TYPICAL LIGHT GAUGE CONSTRUCTION DETAILS FOR NON-LOAD BEARING EXTERIOR WALLS

NOTE: THESE DETAILS ARE GENERIC AND ARE FOR GENERAL INFORMATION AND BUDGET PRICING. ACTUAL DESIGN BY LIGHT GAUGE SUPPLIER AND ENGINEER.

SLAB ON GRADE SCHEDULE							
MARK	THICKNESS	CONCRETE STRENGTH	REINFORCEMENT	AIR ENTRAINMENT	TYPICAL LOCATION	VAPOR BARRIER	COMMENTS
SOG-4	4"	3,000psi	WWM6x6xW2.0xW2.0	NO	TYP INTERIOR	15mil	-
SOG-4E	4"	4,000psi	WWM6x6xW2.0xW2.0	YES	TYP EXTERIOR	10mil	LIGHT BROOM FINISH

NOTE:
SLAB-ON-GRADE ON WELL COMPACTED SUB GRADE LAYER PER GEOTECHNICAL REPORT. VERIFY COMPACTION AND MATERIAL WITH QUALIFIED GEOTECHNICAL ENGINEER.

MAX HEIGHT OF BRICK ABOVE (FT)	MAX LENGTH OF LINTEL (FT)		
	8	10	12
4	L6x6x5/16	L6x6x5/16	L6x6x5/16
6	L6x6x5/16	L6x6x5/16	L6x6x5/16
8	L6x6x5/16	L6x6x5/16	L6x6x5/16
10	L6x6x5/16	L6x6x5/16	L6x6x5/16
12	L6x6x5/16	L6x6x5/16	L8x6x5/16

ALL LINTELS SHALL HAVE 6" LEG HORIZONTAL

STRIP FOOTING (SF-X) SCHEDULE				
MARK	SIZE width x thickness x length	REINFORCEMENT (BOTTOM BARS U.N.O.)	REMARKS	TYPICAL LOCATION, U.N.O.
SF-1	0'-8" x 1'-6" x CONT.	(1) #4 x CONT. TOP AND BOTTOM	MONOLITHIC W/SLAB	SLAB EDGE
SF-2	2'-0" x 1'-0" x CONT.	(3) #4 x CONT. BOTT .	T/FTG. = (-1'-4")	TYP. EXTERIOR
SF-2A	2'-0" x 1'-0" x CONT.	(3) #4 x CONT. BOTT .	MONOLITHIC W/SLAB	TYP @ INTERIOR LOAD BEARING WALLS
SF-3	3'-0" x 1'-0" x CONT.	(3) #5 x CONT. BOTT .	T/FTG. = (-1'-4")	TYPICAL AT BRICK SCREEN WALL
SF-4	4'-0" x 2'-0" x CONT.	(4) #5 x CONT. TOP/ (4) #6 x CONT. BOTT .	T/FTG. = (-1'-4")	TYP. @ BRACE FRAMES U.N.O.
SF-4.5	4'-6"x 2'-0" x CONT.	(4) #5 x CONT. TOP/(4) #6 x CONT. BOTT	T/FTG. - 3'-0"	BRACE FRAME 2 & 3 NOTED ON PLAN

SPREAD FOOTING (FX) SCHEDULE			
MARK	SIZE width x length x thickness	REINFORCEMENT (BOTTOM BARS EACH WAY UNO)	REMARKS
F3	3'-0" x 3'-0" x 1'-0"	(3) #5 E.W.	-
F3.5	3'-6" x 3'-6" x 1'-0"	(4) #5 E.W.	-
F4	4'-0" x 4'-0" x 1'-0"	(4) #5 E.W.	-
F4A	4'-0" x 4'-0" x 1'-6"	(5) #5 E.W. TOP & BOTTOM	-

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SCO ID#22-24540-02A

NORTH CAROLINA PROFESSIONAL ENGINEERING CORPORATE SEAL No. C-1806

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041563 ADAM L. SISK

Digitally signed by Adam L. Sisk, PE, SE
DN: cn=Adam L. Sisk, email=adam@woodseng.com, o=WOODS ENGINEERING, P.A., ou=Wilmington, c=US
Date: 2024.12.18 16:48:24 -05'00'

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager | Drawn By

Date: 12-18-2024 | Reviewed By

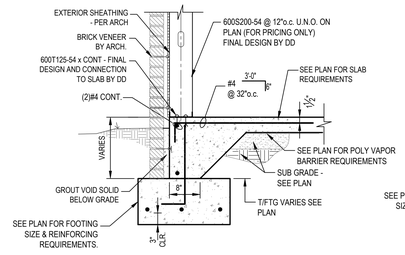
Project ID

Sheet Title

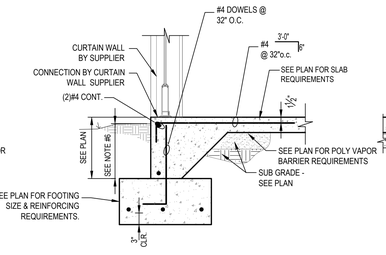
TYPICAL DETAILS AND FOUNDATION SCHEDULES

Sheet No.

S3.01



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



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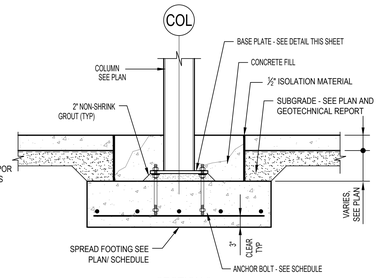

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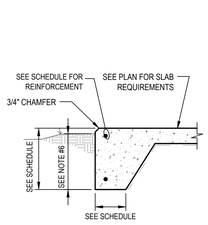

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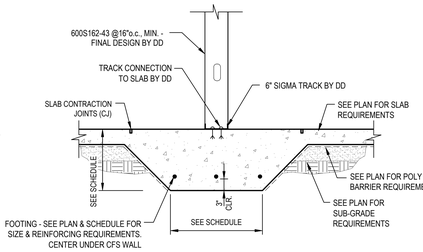

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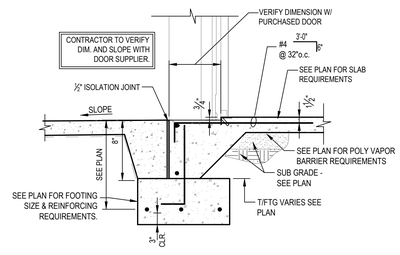
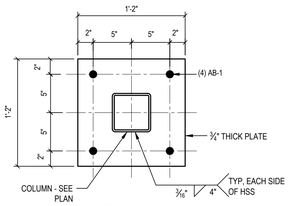


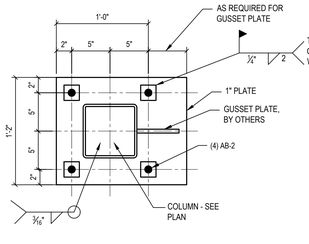
SECTION 6
SCALE: 3/4" = 1'-0"

SECTION 7
SCALE: 3/4" = 1'-0"
SCREEN WALL PILASTER

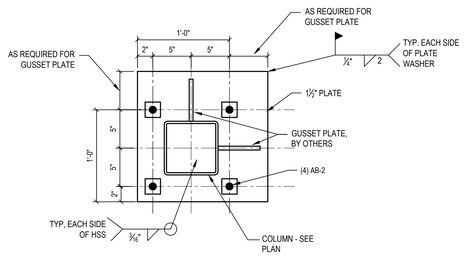
SECTION AT HEADWALL RETAINING WALL
SCALE: 3/4" = 1'-0"
SEE CIVIL FOR LOCATION



DETAIL 'BP-1'
SCALE: 1 1/2"= 1'-0"
TYPICAL, UNO



DETAIL "BP-2"
SCALE: 1 1/2"= 1'-0"
@ BRACE FRAMES



DETAIL "BP-3"
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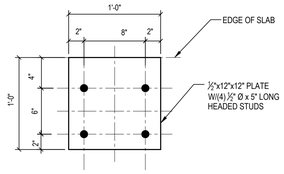
@ CORNER BRACE FRAMES



DETAIL 'EP-1'
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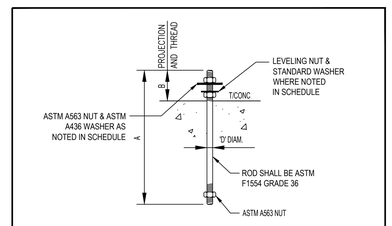

ANCHOR BOLT SCHEDULE

MARK	BOLT DIAM. D	HOLE DIAMETER	A	B	WASHER O.D. x t	LEVELING NUT	REMARKS
AB-1	¾"	1⅛"	1'-2"	5"	2" x ¼"	YES	2" LEVELING GROUT
AB-2	1"	1 ⅜"	2'-0"	7"	3" x ½"	YES	2" LEVELING GROUT

NOTE: ALL ANCHOR BOLTS GREATER OR EQUAL TO 1½"Ø SHALL HAVE HEAVY HEX HEAD NUTS.

FOUNDATION SECTION NOTES

1. DO NOT SCALE SECTIONS. SEE PLANS AND SCHEDULES FOR SIZES NOT SHOWN.
2. REBAR IS SHOWN FOR REFERENCE ONLY. SEE PLANS AND SCHEDULES FOR REINFORCEMENT REQUIREMENTS. WHERE REINFORCEMENT IS SPECIFIED IN SECTIONS IT IS IN ADDITION TO SCHEDULES.
3. IF A HOOK IS SHOWN ON REINFORCEMENT A STANDARD HOOK PER ACI IS REQUIRED U.N.O.
4. IF A DISCREPANCY EXISTS BETWEEN THE SECTIONS AND PLAN THE MORE STRINGENT REQUIREMENTS SHALL APPLY
5. WHEN A SECTION IS CUT OR A DETAIL IS LABELED FOR A PARTICULAR CONDITION, THAT SECTION OR DETAIL SHALL APPLY FOR ALL SIMILAR CONDITIONS REGARDLESS OF WHETHER CUT OR LABELED, U.N.O.
6. SEE S1 SHEETS FOR MINIMUM DEPTH OF FOOTING BEARING BELOW GRADE
7. ALL COLD-FORMED METAL FRAMING INFORMATION IS SHOWN FOR PRICING ONLY. FINAL DESIGN BY DD

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SCO ID#22-24540-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041563 ADAM L. SISK

Digitally signed by Adam L. Sisk, PE, SE
DN: cn=Adam.Sisk@woodseng.com, o=Woods Engineering, PE, SE, ou=WOODS ENGINEERING, P.A., l=Wilmington, S=North Carolina, C=US
Date: 2024.12.18 16:48:28-05'00'

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

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Project Manager	Drawn By
Date: 12-18-2024	Reviewed By
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Sheet Title: FOUNDATION SECTIONS AND DETAILS

Sheet No.: S3.11

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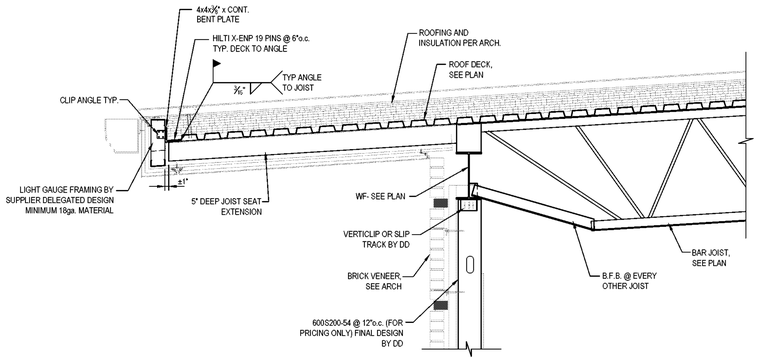

SECTION 1
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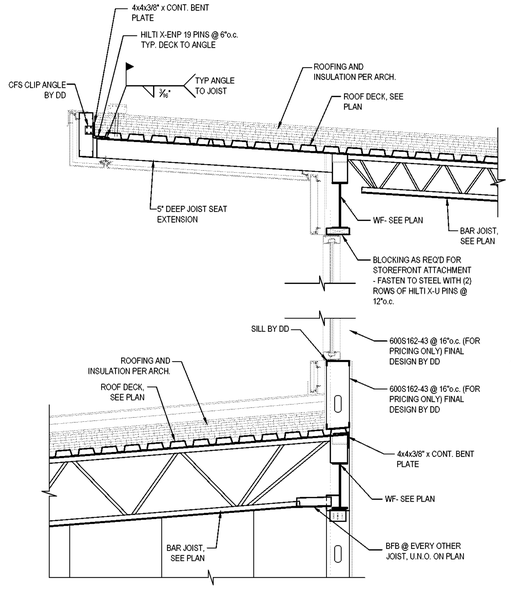

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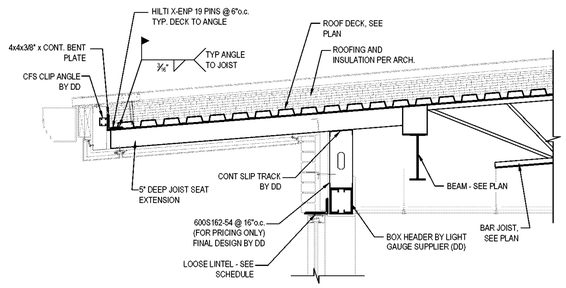

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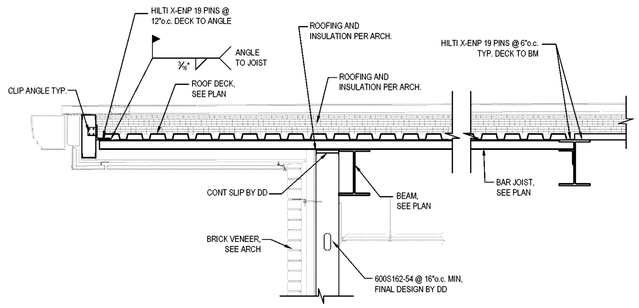
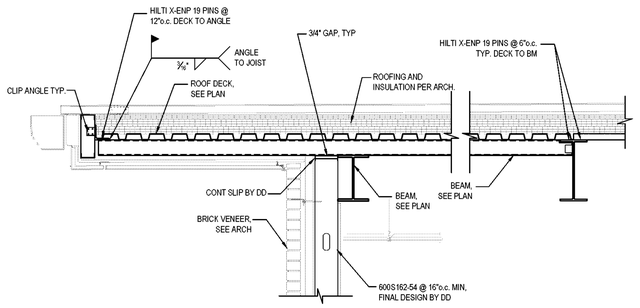
SCALE: 3/4" = 1'-0"



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



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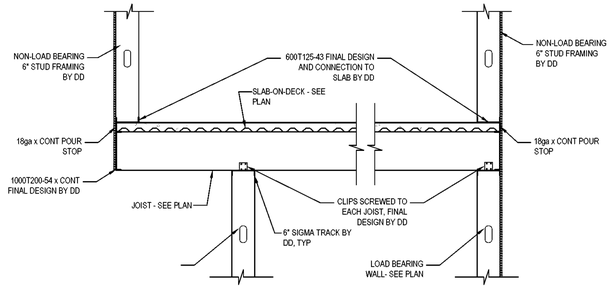

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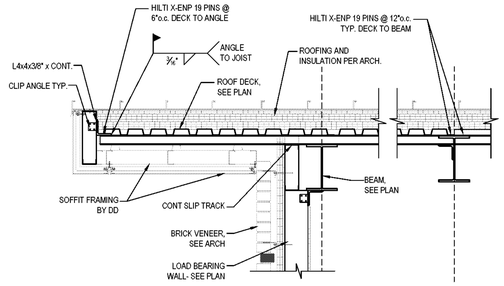

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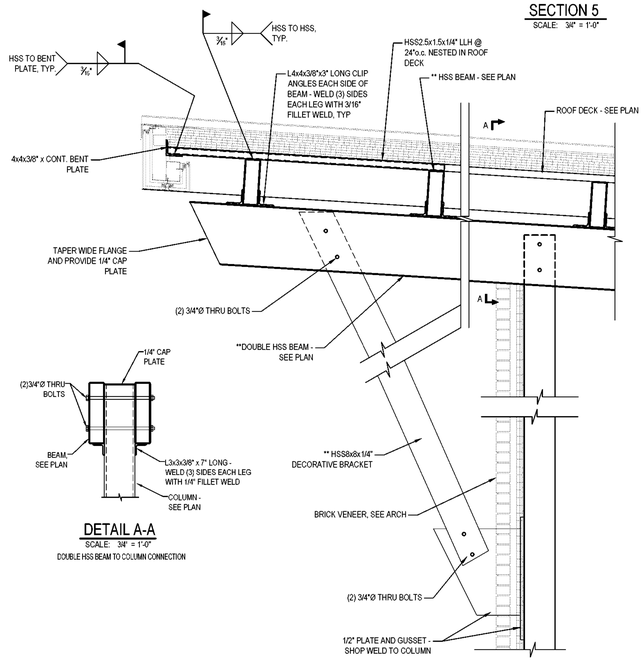
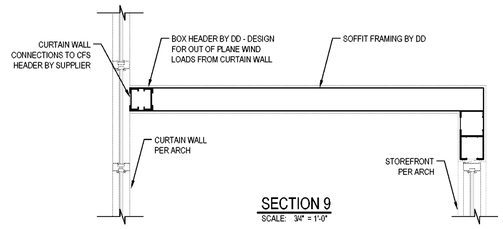
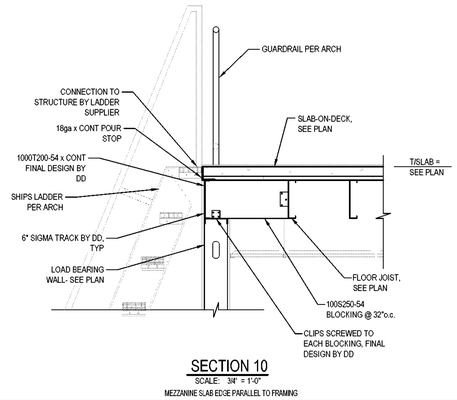


DETAIL A-A
SCALE: 3/4" = 1'-0"
DOUBLE HSS BEAM TO COLUMN CONNECTION

SECTION 8
SCALE: 3/4" = 1'-0"



SECTION 9
SCALE: 3/4" = 1'-0"



SECTION 10
SCALE: 3/4" = 1'-0"
MEZZANINE SLAB EDGE PARALLEL TO FRAMING

SECTION NOTES

1. DO NOT SCALE SECTIONS. SEE PLANS AND SCHEDULES FOR SIZES NOT SHOWN.
2. IF A DISCREPANCY EXISTS BETWEEN THE SECTIONS AND PLAN THE MORE STRINGENT REQUIREMENTS SHALL APPLY
3. WHEN A SECTION IS CUT OR A DETAIL IS LABELED FOR A PARTICULAR CONDITION, THAT SECTION OR DETAIL SHALL APPLY FOR ALL SIMILAR CONDITIONS REGARDLESS OF WHETHER CUT OR LABELED, U.N.O.
4. HILTI PINS MAY BE SUBSTITUTED WITH 5/8"Ø PUDDLE WELDS AT SAME SPACING FOR ROOF DECK ATTACHMENT.
5. ALL COLD-FORMED METAL FRAMING INFORMATION IS SHOWN FOR PRICING ONLY. FINAL DESIGN BY DD.

AESS NOTE

* MEMBERS NOTED WITH WITH * REQUIRE AESS 3 FINISH

** MEMBERS NOTED WITH ** REQUIRE AESS 4 FINISH

James Sprunt Community College - Workforce Development Building

Kenansville, North Carolina 28349

REV.	DATE	DESCRIPTION

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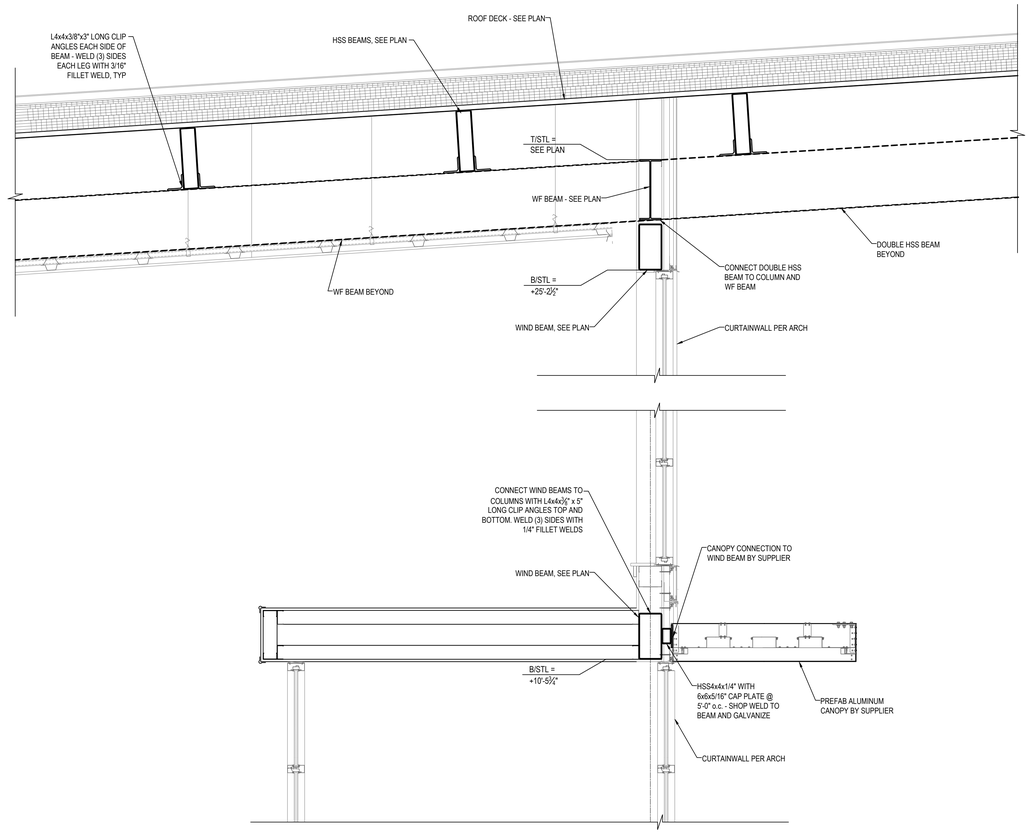
Sheet Title

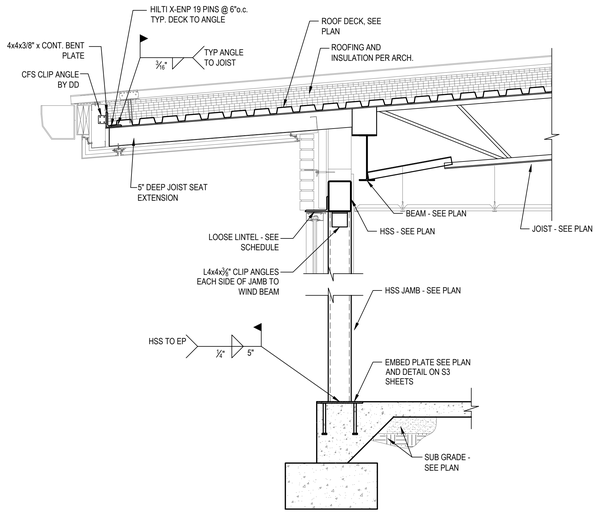
FRAMING SECTIONS AND DETAILS

Sheet No.

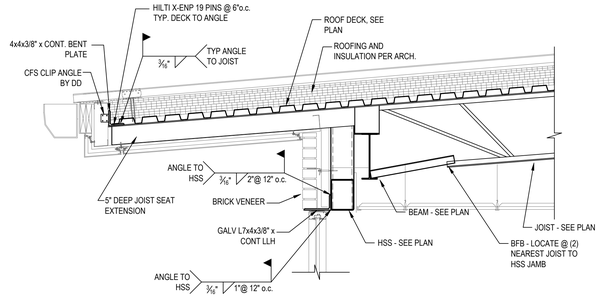
S4.11



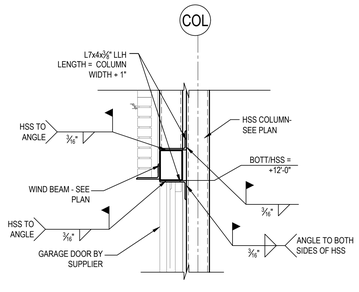
SECTION 11
SCALE: 3/4" = 1'-0"



SECTION 12
SCALE: 3/4" = 1'-0"
GARAGE DOOR JAMB



SECTION 13
SCALE: 3/4" = 1'-0"



SECTION 14
SCALE: 3/4" = 1'-0"

AESS NOTE
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SCO ID#22-24540-02A

WOODS ENGINEERING, P.A. CORPORATE SEAL No. C-1806 NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 041563 ENGINEER ADAM L. SISK

Digitally signed by Adam L. Sisk, PE, SE
DN: cn=Adam L. Sisk, PE, SE, o=WOODS ENGINEERING, P.A., l=Wilmington, state=North Carolina, c=US
Date: 2024.12.18 16:48:38-05'00'

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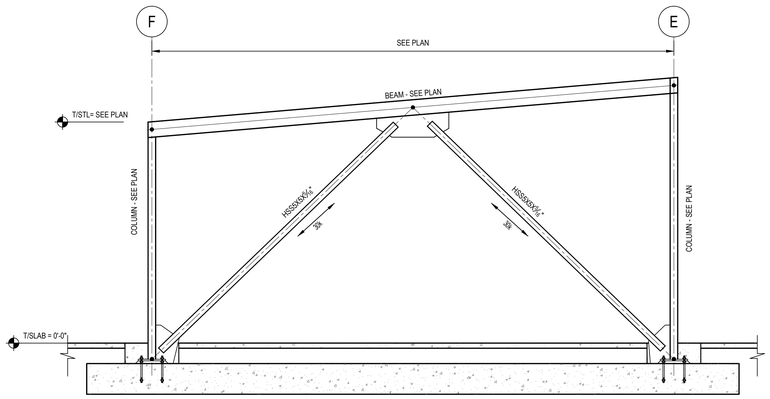
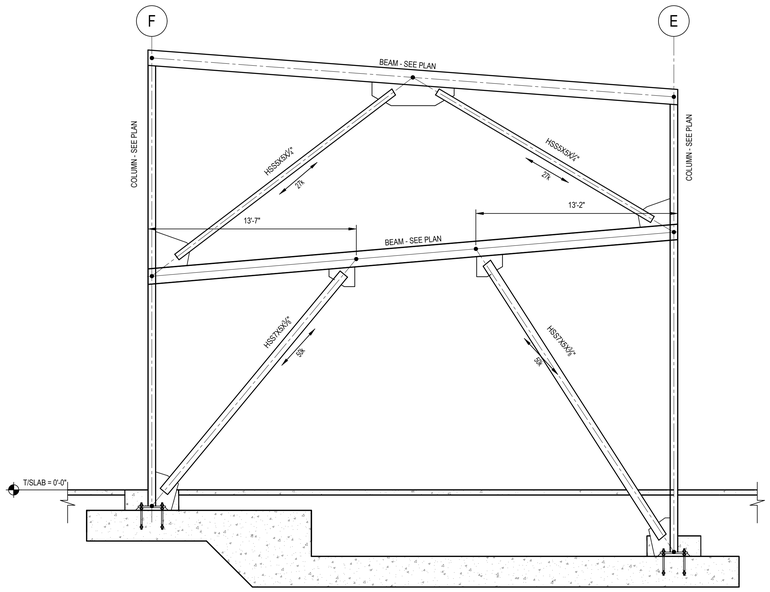
Sheet Title
FRAMING SECTIONS AND DETAILS

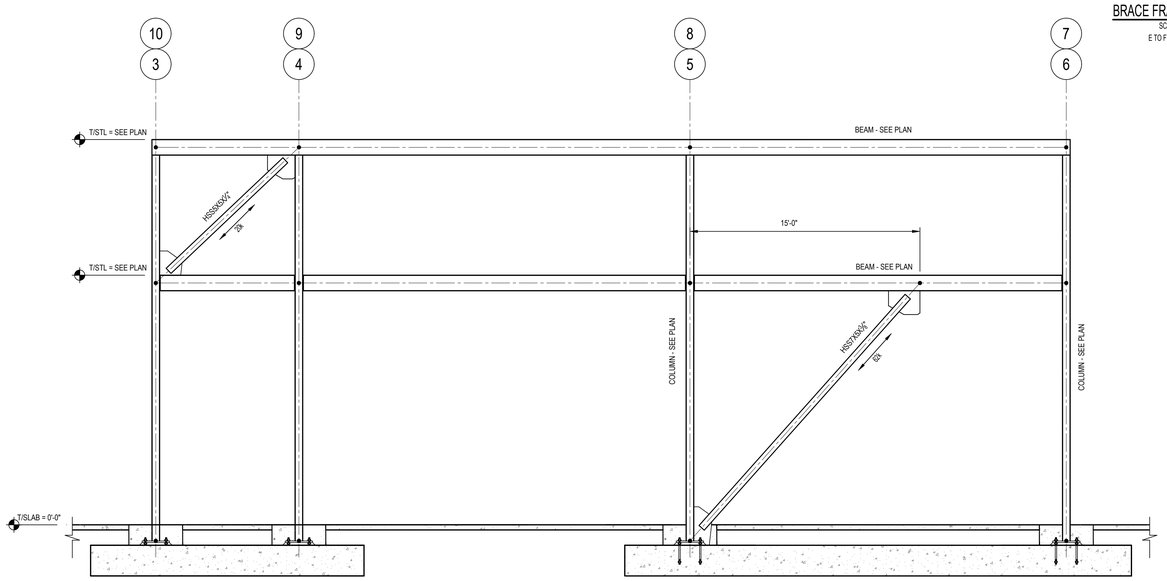
Sheet No.
S4.12



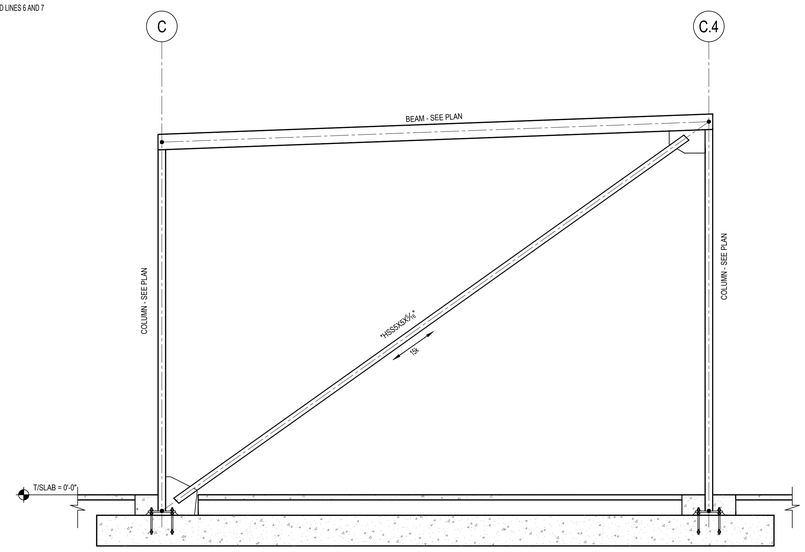
BRACE FRAME #1 ELEVATION
SCALE: 1/4" = 1'-0"
@ GRID LINE 2 AND 11



BRACE FRAME #2 ELEVATION
SCALE: 1/4" = 1'-0"
E TO F @ GRID LINES 6 AND 7

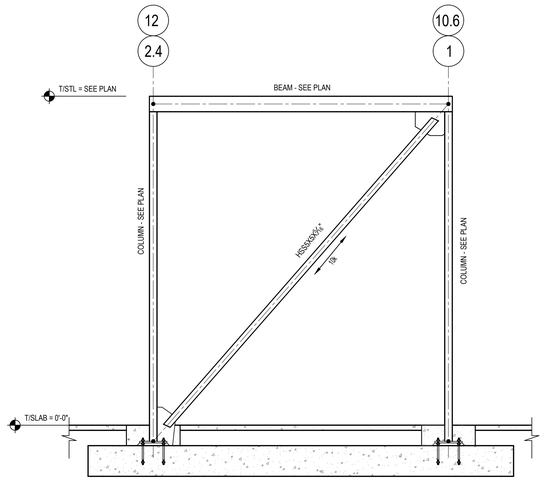


BRACE FRAME #3 ELEVATION
SCALE: 1/4" = 1'-0"
@ GRID LINE E

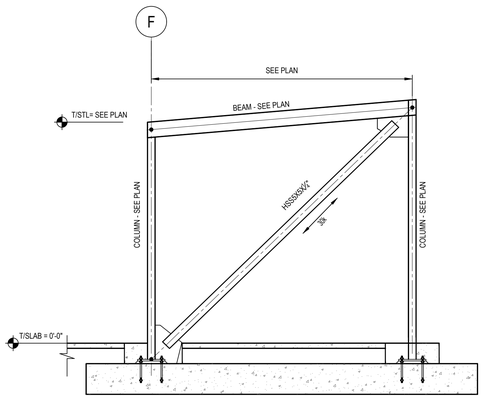


BRACE FRAME #4 ELEVATION
SCALE: 1/4" = 1'-0"
@ GRID LINES 1 AND 12

STEEL CONNECTION DESIGNER TO DESIGN FOR LRFD LOADS SHOWN



BRACE FRAME #5 ELEVATION
SCALE: 1/4" = 1'-0"
@ GRIDLINE C



BRACE FRAME #6 ELEVATION
SCALE: 1/4" = 1'-0"
@ GRID LINE 11

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041563 ADAM L. SISK

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Digitally signed by Adam L. Sisk, PE, SE
DN: cn=Adam L. Sisk, email=adam@woodseng.com, o="WOODS ENGINEERING, P.A.", ou=WOODS ENGINEERING, P.A., l=Wilmington, s=North Carolina, c=US
Date: 2024.12.18 16:48:43-05'00'

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Sheet Title
BRACE FRAMING ELEVATIONS AND DETAILS

Sheet No.
S5.01

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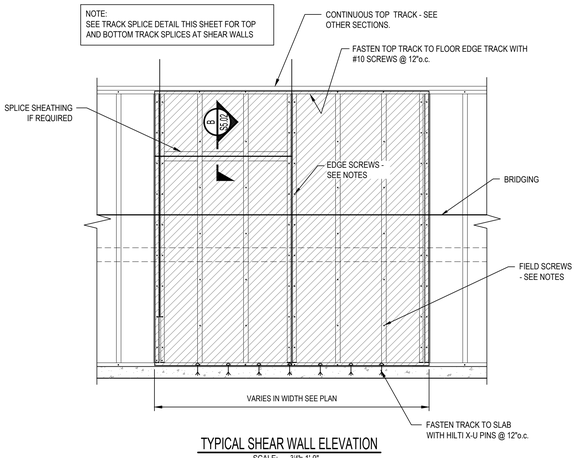

TYPICAL SHEAR WALL ELEVATION
SCALE: 3/4"= 1'-0"

COLD FORMED SHEAR WALL NOTES:

1. STUDS MUST BE A MINIMUM 600S162-43@16" o.c. U.N.O.
2. BOTTOM TRACKS SHALL BE A MINIMUM 600T125-43
3. TOP TRACKS SHALL BE A MINIMUM 600T125-43
4. SHEAR WALL PANELS SHALL BE ATTATCHED TO FRAMING WITH #8 SCREWS @ 8" o.c. AT EDGES AND 12" O.C. IN FIELD.
5. SHEAR WALL SHEATHING TO BE ⅝" GYPSUM BOARD SHEATHING.

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

SHEAR WALL TOP AND BOTT TRACK SPLICE DETAIL
SCALE: 1 1/2"= 1'-0"

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Sheet Title
SHEAR WALL DETAILS

Sheet No.
S5.02