WAKE TECH COMMUNITY COLLEGE

TECHNOLOGY 4.0 BUILDING

12/20/2023

BID SET

1160 Inspiration Circle, Wendell, NC 27591

SCO ID # 21-23932-02A

LAS Project No. 11751-00

VOLUME 1

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VOLUME 1

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M502	MECHANICAL DETAILS
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E701	ELECTRICAL DETAILS
E702	ELECTRICAL DETAILS
E703	ELECTRICAL DETAILS
E704	ELECTRICAL DETAILS
E705	ELECTRICAL DETAILS
E706	ELECTRICAL DETAILS
E707	ELECTRICAL DETAILS
E708	ELECTRICAL DETAILS
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E713	SECURITY DOOR DETAILS
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E801	PANEL SCHEDULES
E802	PANEL SCHEDULES
E803	PANEL SCHEDULES
E804	PANEL SCHEDULES
E805	PANEL SCHEDULES
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TA403	AUDIOVISUAL THIRD FLOOR REFLECTED CEILING PLAN
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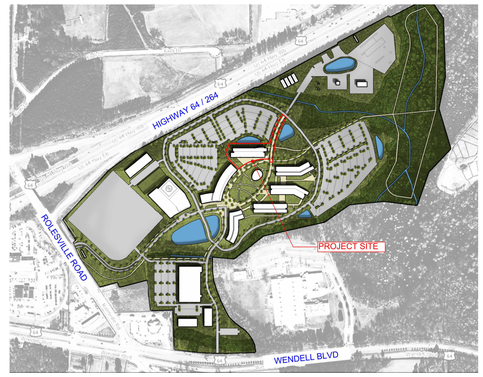
SY17	HYFLEX CLASSROOM ALT

PROJECT LOCATION MAP



LORD AECK SARGENT

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REVISION:

SHEET TITLE: COVER SHEET

SCALE (U.N.O.)

10th Floor
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, CERT. NO. 53851, NORTH CAROLINA, CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, North Carolina, Chapel Hill, NC, 5074, 12-20-2023

ISSUE DATE: 12/20/2023

JOB. NO.: 11751-00

DWG. NO.: G001

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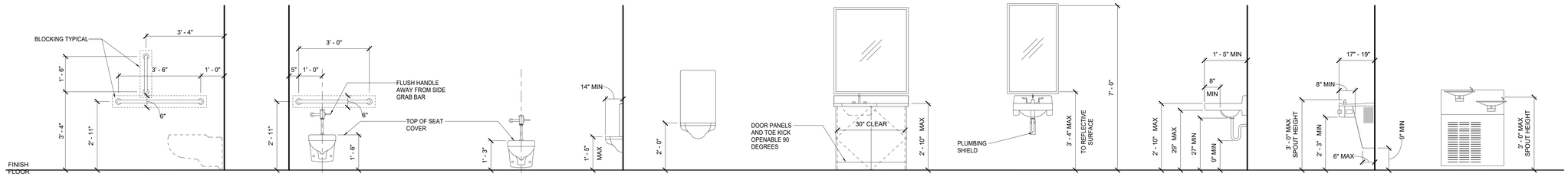
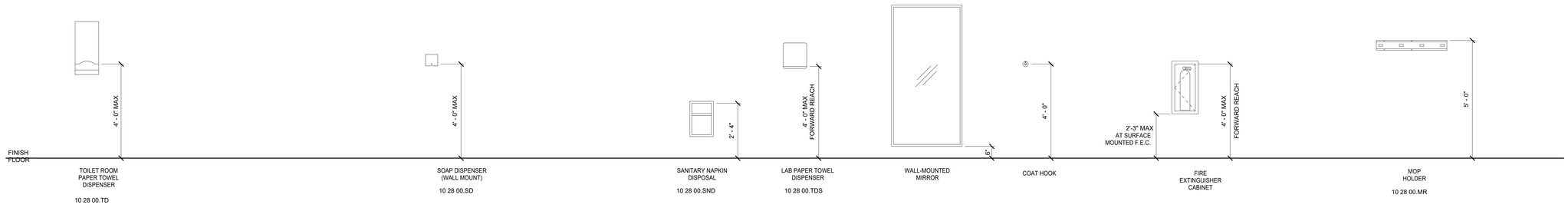
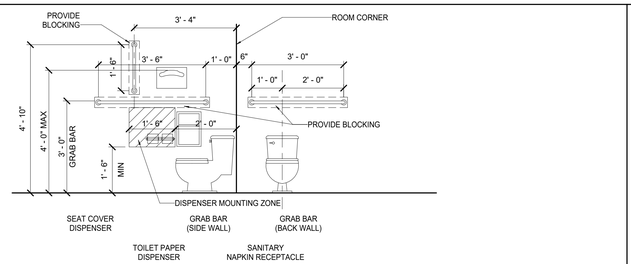
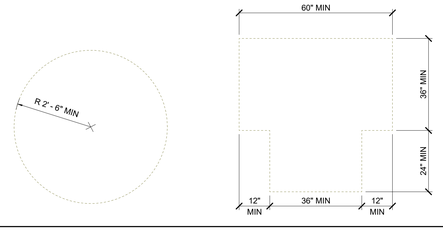


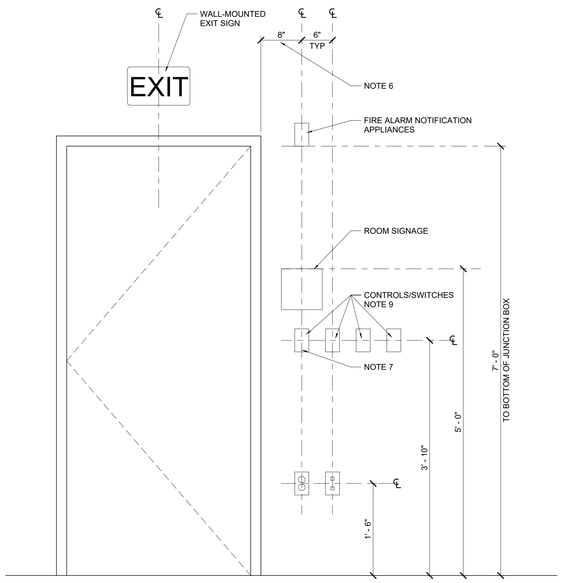


G1 TYPICAL MOUNTING HEIGHTS
0 2 4 FT





A5 ACCESSIBLE WATER CLOSETS AND SHOWERS
0 2 4 FT



1. MOUNTING HEIGHTS SHOWN ILLUSTRATE DESIGN INTENT AND ARE TO BE FOLLOWED UNLESS CONTRADICTED BY SPECIFICATIONS, DISCIPLINE, OR APPLICABLE CODE.
2. DIAGRAM INDICATES TYPICAL RELATIONSHIPS TO DOOR, BUT SIMILAR DEVICE MOUNTING AND SPACING SHOULD BE FOLLOWED IN ANY AREA WHERE GROUPS OF DEVICES ARE LOCATED IN PROXIMITY TO EACH OTHER.
3. WHERE DEVICES OF ANY DISCIPLINE ARE LOCATED IN THE SAME GENERAL AREA AND ARE SHOWN TO BE MOUNTED AT A SIMILAR HEIGHT, ALIGN HORIZONTALLY ALONG THE CENTERLINE WITH SPACING AS SHOWN. STARTING CLOSEST TO DOOR, ORDER OF DEVICES (WHERE OCCURRING) TO BE FIRE ALARM PULL STATION; SWITCHES; TEMPERATURE SENSOR; WALL TELEPHONE.
4. WHERE DEVICES OF ANY DISCIPLINE ARE LOCATED IN THE SAME GENERAL AREA AND ARE SHOWN MOUNTED AT DIFFERENT HEIGHTS, ALIGN VERTICALLY ALONG THE CENTERLINE.
5. ARRANGE METAL STUD LOCATIONS AND ADDITIONAL SUPPORTS AS REQUIRED TO MAINTAIN HORIZONTAL SPACING AS INDICATED.
6. WHERE NO SIGNAGE IS REQUIRED, DIMENSION MAY BE REDUCED AS REQUIRED TO PROVIDE ADEQUATE SPACE FOR ALL DEVICES.
7. WHERE SWITCHES OR OTHER DEVICES ARE MOUNTED ON WALL PERPENDICULAR TO DOOR, MOUNT CLOSEST DEVICE JUST PAST EDGE OF DOOR IN FULLY OPEN POSITION.
8. MULTIPLE DEVICES OF THE SAME TYPE ARE TO BE GANGED TOGETHER UNLESS OTHERWISE INDICATED.
9. GANG SWITCH PLATES AT ALL LOCATIONS WHERE POSSIBLE.

A12 TYPICAL DEVICE MOUNTING HEIGHTS & LOCATIONS
0 1 2 FT

KEYNOTES

GENERAL NOTES

SHEET SPECIFIC NOTES

LORD AECK SARGENT

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REVISION:

SHEET TITLE: TYPICAL MOUNTING HEIGHTS & LOCATIONS

SCALE (U.N.O.)

CPI#: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockar Registered Architect 9074 North Carolina Chapel Hill, NC 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. G021

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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 sheets 1 or 2)

Name of Project: WAKE TECH COMMUNITY COLLEGE TECHNOLOGY 4.0 BUILDING
Address: 1160 Inspiration Circle, Wendell, NC Zip Code: 27591
Owner/Authorized Agent: Jeff Carter Phone # (919) 866-5148 E-Mail: jjcarter@waketech.edu
Owned By: ■ City/County ☐ Private ☐ State
Code Enforcement Jurisdiction: ■ City: Wendell ■ County: Wake ☐ State

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Electrical	RMF Engineering	Kyle L. Pittman	049995	(919) 941-9876	kyle.pittman@rmf.com
Fire Alarm	RMF Engineering	Kyle L. Pittman	049995	(919) 941-9876	kyle.pittman@rmf.com
Plumbing	RMF Engineering	Timothy A. Griffin	028506	(919) 941-9876	tim.griffin@rmf.com
Mechanical	RMF Engineering	Timothy A. Griffin	028506	(919) 941-9876	tim.griffin@rmf.com
Sprinkler-Standpipe	RMF Engineering	Timothy A. Griffin	028506	(919) 941-9876	tim.griffin@rmf.com
Structural	Lynch Mykins	Michael R. Brandes	051551	(919) 809-8951	mbrandes@lynchmykins.com
Retaining Walls >5' High	Lynch Mykins	Michael R. Brandes	051551	(919) 809-8951	mbrandes@lynchmykins.com
Landscape	Surface678	Matthew Eric Davis	1330	(919) 419-1199	edavis@surface678.com
Audiovisual	RMF Engineering	Kyle L. Pittman	049995	(919) 941-9876	kyle.pittman@rmf.com

2018 EDITION OF NC CODE FOR: ■ New Building ☐ Addition ☐ Renovation
☐ 1st Time Interior Completion
☐ Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements
☐ Phased Construction - Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements.

2018 NC EXISTING BUILDING CODE: EXISTING: ☐ Prescriptive ☐ Repair ☐ Chapter 14
Alteration: ☐ Level 1 ☐ Level II ☐ Level III
☐ Historic Property ☐ Change of Use

CONSTRUCTED: (date)_____ **CURRENT OCCUPANCY(S)**(Ch. 3):
RENOVATED: (date)_____ **PROPOSED OCCUPANCY(S)**(Ch. 3): Business

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 ■ 1 ☐ II ☐ III ■ Wet ☐ Dry
Fire District: ■ No ☐ Yes **Flood Hazard Area:** ■ No ☐ Yes
Special Inspections Required: ☐ No ■ Yes (Contact the location inspections jurisdiction for additional procedures and requirements.)

Gross Building Area:

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
Penthouse		6,885	6,885
3rd Floor		22,146	22,146
2nd Floor		25,760	25,760
1st Floor		24,157	24,157
TOTAL		78,948	78,948

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): None
Incidental Uses (Table 509): None
Special Uses (Chapter 4 - List Code Sections): None
Special Provisions: (Chapter 5 - List Code Sections): None
Mixed Occupancy: ☐ No ■ Yes Separation: _____Hr. Exception:

■ 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 use shall not exceed 1.

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

$$\frac{\text{XX,XXX sf of Assembly}}{\text{XX,XXX sf allowed}} + \frac{\text{XX,XXX sf of Business}}{\text{XX,XXX sf allowed}} = \frac{\text{XX,XXX sf}}{\text{XX,XXX sf}} \leq 1.00$$

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2[4] AREA	(C) AREA FOR FRONTAGE INCREASE [1,5]	(D) ALLOWABLE AREA PER STORY OR UNLIMITED [2,3]
Penthouse	Mechanical	6,885	N/A	N/A	N/A
3	B, F-1	22,146	46,500	N/A	46,500
2	B, A-3	25,760	46,500	N/A	46,500
1	B, A-3	24,157	46,500	N/A	46,500

[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 = _____ (F)
b. Total Building Perimeter = _____ (P)
c. Ratio (F/P) = _____ (F/P)
d. W = Minimum width of public way = _____ (W)
e. Percent of frontage increase $I_f = 100\ [F/P - 0.25] \times W/30$ = _____ (%)
[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]	85	69	
Building Height in Stories (Table 504.4) [3]	4	3	

[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 / * REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		1	1	G304	Y725		
Bearing Walls							
Exterior							
North		N/A					
East		N/A					
West		N/A					
South		N/A					
Interior		N/A					
Nonbearing Walls and Partitions							
Exterior							
North	>30'	0	0				
East	>30'	0	0				
West	>30'	0	0				
South	>30'	0	0				
Interior walls and partitions		0	0				
Floor Construction Including supporting beams and joists		1	1	G303	D985		G302
Floor Ceiling Assembly		N/A					
Columns Supporting Floors		1	1				
Roof Construction, including supporting beams and joists		1	1	G302	HW-D-0264		
Roof Ceiling Assembly		N/A					
Columns Supporting Roofs		1	1	G304	Y725		
Shaft Enclosures - Exit		1	1	G301	U415		G302
Shaft Enclosures - Other		1	1	G301	U415		G302
Corridor Separation		0	0				
Occupancy /Fire Barrier Separation		1	1	G302	U465		G302
Party/Fire Wall Separation		N/A					
Smoke Barrier Separation		N/A					
Smoke Partition		N/A					
Tenant/Dwelling Unit/ Sleeping Unit Separation		N/A					
Incidental Use Separation		0	0				

* 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 (%)
>30'	UNPROTECTED, ~~SPRINKLERED~~	UNLIMITED	

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: ☐ No ■ Yes
Exit Signs: ☐ No ■ Yes
Fire Alarm: ☐ No ■ Yes (Voice/alarm communication system NCFC 907.2.3)
Smoke Detection Systems: ☐ No ☐ Yes ■ Partial _____
Carbon Monoxide Detection: ■ No ☐ Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: G100; G101; G102; G103; G104

■ 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 sign locations (1013)
■ 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 accommodate 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 the amount of delay (1010.1.9.7)
☐ Location of doors with electromagnetic egress locks (1010.1.9.9)
☐ Location of doors equipped 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 the items above

ACCESSIBLE DWELLING UNITS
(SECTION 1107)

UNIT CLASSIFICATION	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

NOT APPLICABLE

ACCESSIBLE PARKING
(SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED		TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	96" SPACES	132" SPACES	
TECHNOLOGY 4.0	163	263	8	0	8
TOTAL	163	263	8	0	8

PLUMBING FIXTURE REQUIREMENTS
(TABLE 2902.1)

USE		WATERCLOSETS			URINALS	LAVATORIES			SHOWERS/ TUBS	DRINKING FOUNTAINS	
		MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX		REGULAR	ACCESSIBLE
SPACE	EXISTG										
	NEW	9	15*		5	11	12*				6
	REQ'D	14	15			10	10				5

* INCLUDES FIXTURES IN FAMILY RESTROOM PER NCBC 2902.1.2

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)
NC Department of Insurance

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.

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 NCECC C402.1 item 3
ASHRAE 90.1 ☐ Performance ☐ Prescriptive
(If "Other" specify source here)_____

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Skylights in each assembly: _____
U-Value of skylight: _____
total square footage of skylights in each assembly: _____

Exterior Walls (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Openings (windows or doors with glazing)
U-Value of assembly: _____
Solar heat gain coefficient: _____
projection factor: _____
Door R-Values: _____

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

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

Floors slab on grade
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Horizontal/vertical requirement: _____
slab heated: _____

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Snow (I_S) 1.1
Seismic (I_E) 1.25

Live Loads: Roof 20 psf
Floor 80 psf (typical)
100 psf (assembly, slab on grade, storage)
150 psf (mechanical spaces)

Ground Snow Load: 15 psf

Wind Loads: Ultimate Wind Speed 120 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 S_S 15.2 %g S_1 7.6 %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:
Field Test (provide copy of test report) N/A
Presumptive Bearing capacity 3,000 psf
Pile size, type, and capacity N/A

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone
winter dry bulb: 19.6°F
summer dry bulb: 94.8°F

Interior design conditions
winter dry bulb: 70°F
summer dry bulb: 73°F
relative humidity: 50%

Building heating load: 1,180 MBH

Building cooling load: 320 Tons

Mechanical Spacing Conditioning System
Unitary
description of unit: See Mechanical Drawings
heating efficiency: See Mechanical Drawings
cooling efficiency: See Mechanical Drawings
size category of unit: See Mechanical Drawings
Boiler
Size category. If oversized, state reason.: N/A
Chiller
Size category. If oversized, state reason.: N/A

List equipment efficiencies: See Mechanical Drawings

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Energy Code: ■ Performance ☐ Prescriptive NCECC C402.1 item 3
ASHRAE 90.1: ☐ Performance ☐ Prescriptive

Lighting schedule (each fixture type)
lamp type required in fixture See schedule on E500
number of lamps in fixture N/A
ballast type used in the fixture N/A
number of ballasts in fixture N/A
total wattage per fixture See schedule on E500
total interior wattage specified vs. allowed (whole building or space by space) 66,670 w vs. 68,547 w
total exterior wattage specified vs. allowed 2,547 w vs. 3,886 w

Additional Efficiency Package Options
(When using the 2018 NCECC; not required for ASHRAE 90.1)
☐ C406.2 More Efficient HVAC Equipment Performance
☐ C406.3 Reduced Lighting Power Density
☐ C406.4 Enhanced Digital Lighting Controls
☐ C406.5 On-Site Renewable Energy
☐ C406.6 Dedicated Outdoor Air System
☐ C406.7 Reduced Energy Use in Service Water Heating

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REVISION:

SHEET TITLE: APPENDIX B - BUILDING CODE SUMMARY
SCALE (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, CERT. NO. 53851, NORTH CAROLINA, CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, 9674, North Carolina, Chapel Hill, NC
12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: G031

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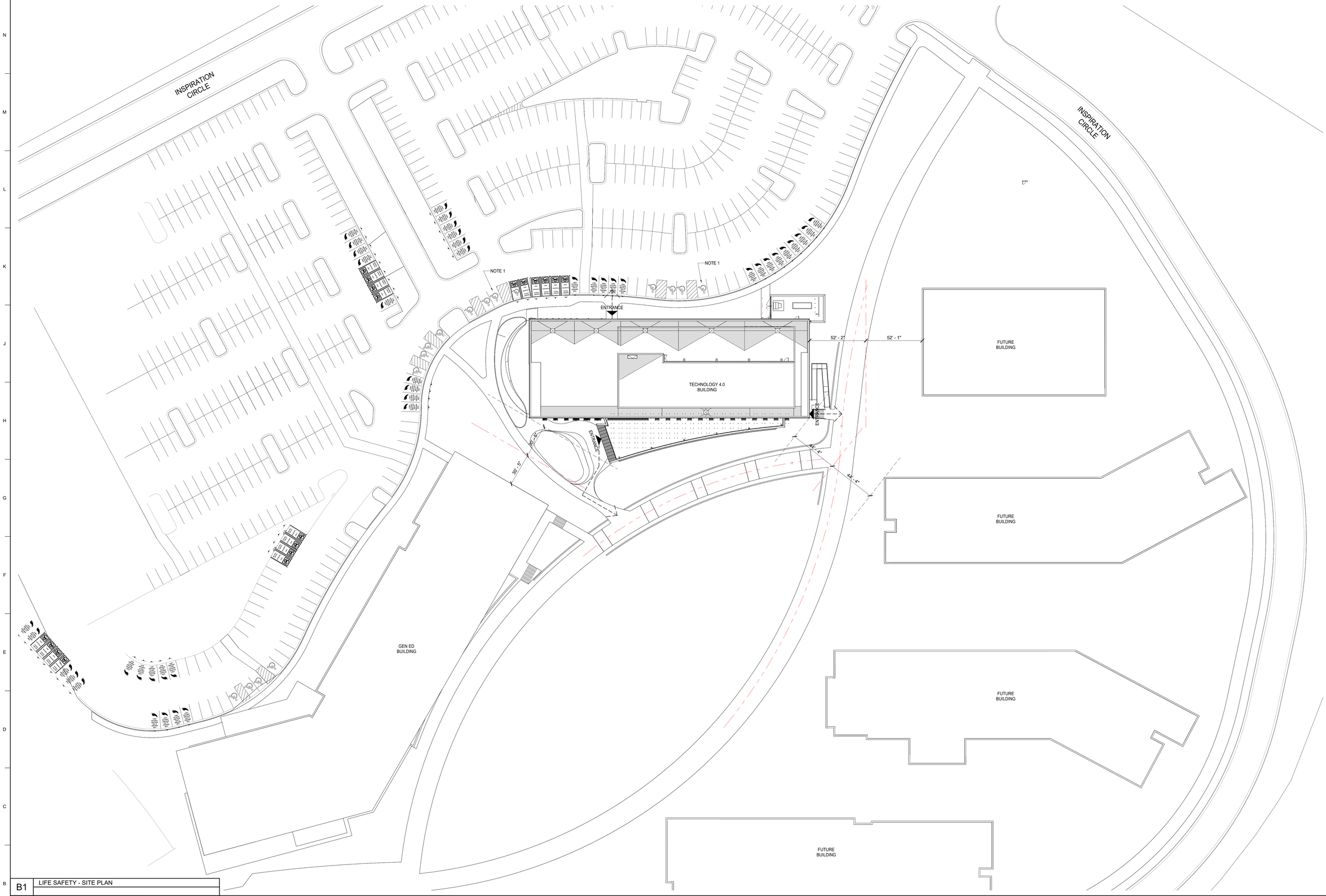

B1 | LIFE SAFETY - SITE PLAN

LIFE SAFETY SITE LEGEND

- PROPERTY LINE (ASSUMED)
- ENTRANCE — ACCESSIBLE ENTRANCE
- EGRESS PATH

GENERAL NOTES

A. SEE CIVIL AND LANDSCAPE DRAWINGS FOR ADDITIONAL INFORMATION REGARDING SLOPES AND ACCESSIBLE PATHS.

SHEET SPECIFIC NOTES

1. VAN-ACCESSIBLE PARKING SPACE, ICC/ANSI A117.1-2009 502.2 EXCEPTION: "VAN PARKING SPACES SHALL BE PERMITTED TO BE 96 INCHES (2440 mm) MINIMUM IN WIDTH WHERE THE ADJACENT ACCESS AISLE IS 96 INCHES (2440 mm) MINIMUM IN WIDTH."

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REVISION:

PROJECT NORTH

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, NC, CERT. NO. 53851, CHAPEL HILL, NORTH CAROLINA

SEAL: Lauren Dunn Rockart, Registered Architect, 39714, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: G100

SHEET TITLE: LIFE SAFETY SITE PLAN
SCALE (U.N.O.): 0 32 64 FT

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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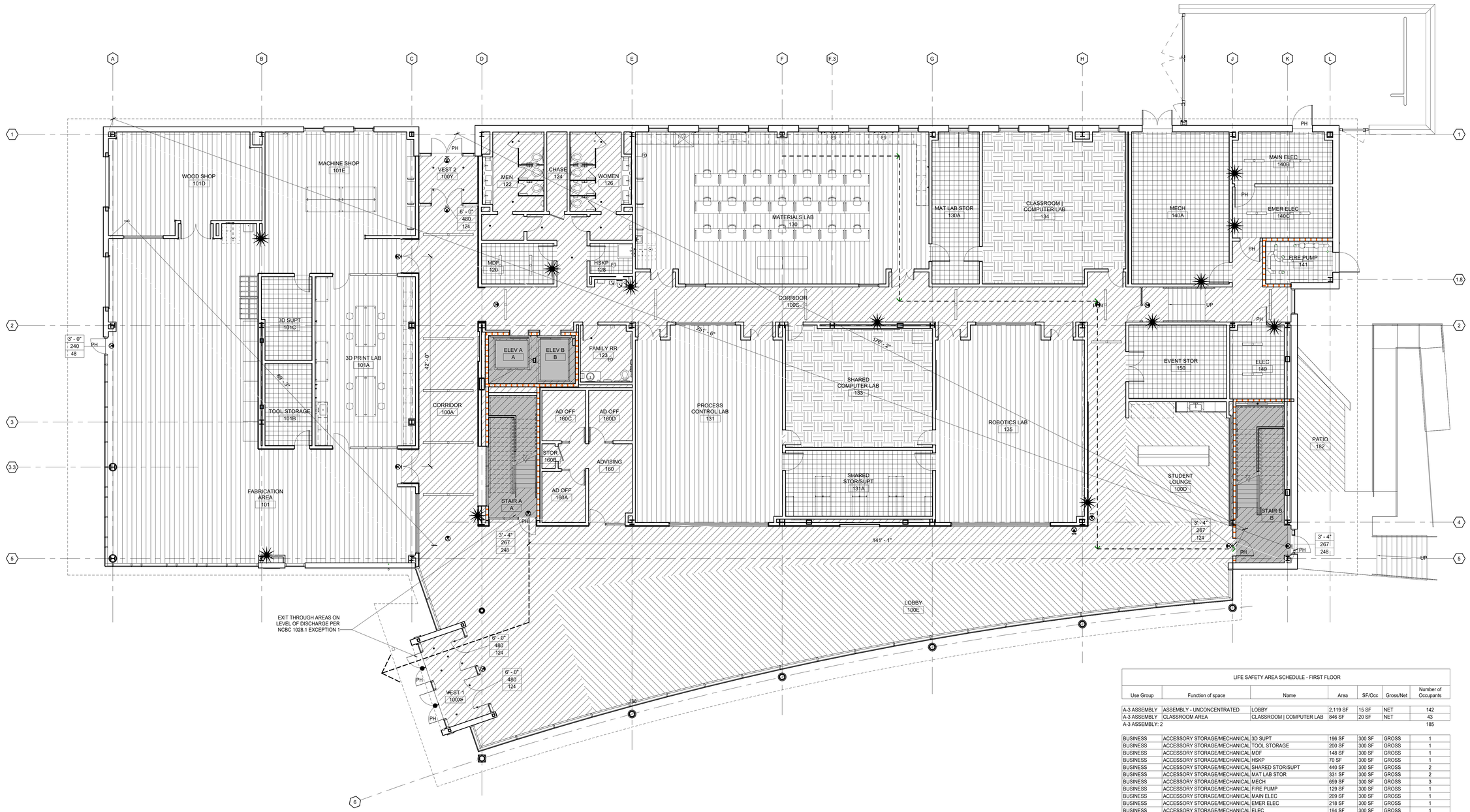

LIFE SAFETY AREA SCHEDULE - FIRST FLOOR						
Use Group	Function of space	Name	Area	SF/Occ	Gross/Net	Number of Occupants
A-3 ASSEMBLY	ASSEMBLY - UNCONCENTRATED	LOBBY	2,119 SF	15 SF	NET	142
A-3 ASSEMBLY	CLASSROOM AREA	CLASSROOM | COMPUTER LAB	846 SF	20 SF	NET	43
A-3 ASSEMBLY: 2						185
BUSINESS	ACCESSORY STORAGE/MECHANICAL	3D SUPT	196 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	TOOL STORAGE	200 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	MDF	148 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	HSKP	70 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	SHARED STOR/SUPT	440 SF	300 SF	GROSS	2
BUSINESS	ACCESSORY STORAGE/MECHANICAL	MAT LAB STOR	331 SF	300 SF	GROSS	2
BUSINESS	ACCESSORY STORAGE/MECHANICAL	MECH	659 SF	300 SF	GROSS	3
BUSINESS	ACCESSORY STORAGE/MECHANICAL	FIRE PUMP	129 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	MAIN ELEC	209 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	EMER ELEC	218 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	ELEC	194 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	EVENT STORAGE	321 SF	300 SF	GROSS	2
BUSINESS	ASSEMBLY - UNCONCENTRATED	STUDENT LOUNGE	509 SF	15 SF	NET	34
BUSINESS	ASSEMBLY - UNCONCENTRATED	PATIO	231 SF	15 SF	NET	16
BUSINESS	BUSINESS AREA	BUSINESS AREA	7,577 SF	100 SF	GROSS	76
BUSINESS	CLASSROOM AREA	SHARED COMPUTER LAB	700 SF	20 SF	NET	36
BUSINESS	EDUCATIONAL - VOCATIONAL	WOOD SHOP	604 SF	50 SF	NET	13
BUSINESS	EDUCATIONAL - VOCATIONAL	SYSTEM TECH LAB	1,112 SF	50 SF	NET	23
BUSINESS	EDUCATIONAL - VOCATIONAL	ROBOTICS LAB	1,126 SF	50 SF	NET	23
BUSINESS	EDUCATIONAL - VOCATIONAL	MATERIALS LAB	1,732 SF	50 SF	NET	35
BUSINESS	EDUCATIONAL - VOCATIONAL	FABRICATION AREA	2,927 SF	50 SF	NET	59
BUSINESS	EDUCATIONAL - VOCATIONAL	3D PRINT LAB	678 SF	50 SF	NET	14
BUSINESS	EDUCATIONAL - VOCATIONAL	MACHINE SHOP	638 SF	50 SF	NET	13
BUSINESS: 23						359
Grand total: 25						544

PATH OF TRAVEL - FIRST FLOOR	
PATH OF TRAVEL	LENGTH OF PATH
Egress Path Lines: Egress Path Line 1	169' - 0"

B1 LIFE SAFETY PLAN - FIRST FLOOR

LIFE SAFETY LEGEND

- VERTICAL ELEMENTS (SHAFTS, ELEVATORS, STAIRS)
- 34" CLEAR WIDTH / 226 CALCULATED CAPACITY / 208 ACTUAL LOAD — EXIT DOOR
- 1-HOUR RATED PARTITION
- EXIT SIGN
- PH PANIC HARDWARE
- EXIT ACCESS TRAVEL DISTANCE
- FIRE EXTINGUISHER
- 8' - 0" WIDTH OF STAIR / 640 CAPACITY OF STAIR
- EMERGENCY LIGHTS

GENERAL NOTES

SHEET SPECIFIC NOTES

FUNCTION OF SPACE

- ACCESSORY STORAGE/MECHANICAL
- ASSEMBLY - UNCONCENTRATED
- BUSINESS AREA
- CLASSROOM AREA
- EDUCATIONAL - VOCATIONAL

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockett, Registered Architect, North Carolina, Chapel Hill, NC, 9674, 12-20-2023

PROJECT NORTH

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: G101

SHEET TITLE: LIFE SAFETY PLAN - FIRST FLOOR
SCALE (UNO): 0 8 16 FT

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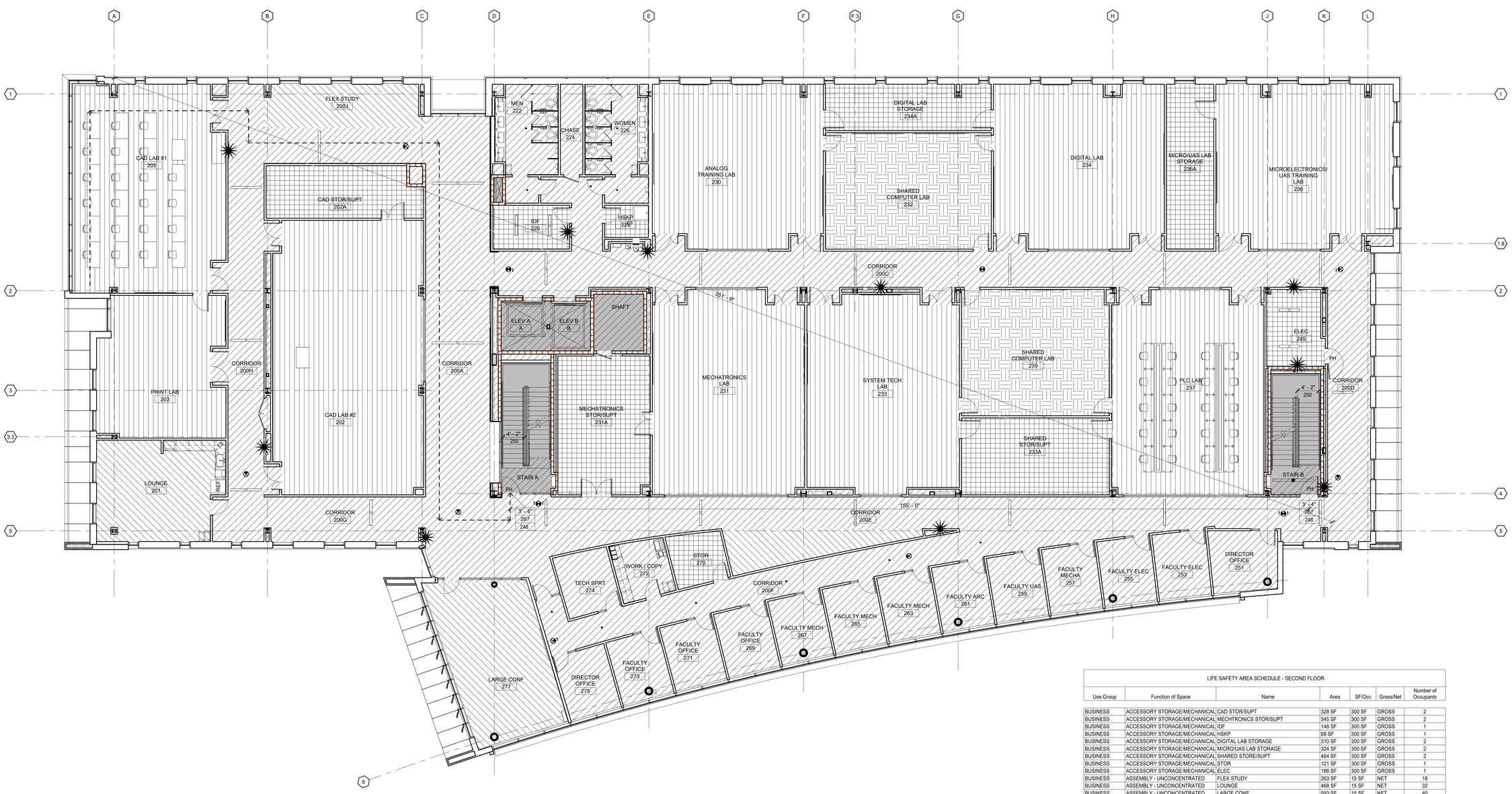

LIFE SAFETY AREA SCHEDULE - SECOND FLOOR						
Use Group	Function of Space	Name	Area	SF/Occ	Gross/Net	Number of Occupants
BUSINESS	ACCESSORY STORAGE/MECHANICAL	CAD STOR/SUPT	328 SF	300 SF	GROSS	2
BUSINESS	ACCESSORY STORAGE/MECHANICAL	MECHTRONICS STOR/SUPT	545 SF	300 SF	GROSS	2
BUSINESS	ACCESSORY STORAGE/MECHANICAL	IDF	146 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	HSKP	68 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	DIGITAL LAB STORAGE	310 SF	300 SF	GROSS	2
BUSINESS	ACCESSORY STORAGE/MECHANICAL	MICRO/UAS LAB STORAGE	324 SF	300 SF	GROSS	2
BUSINESS	ACCESSORY STORAGE/MECHANICAL	SHARED STORE/SUPT	464 SF	300 SF	GROSS	2
BUSINESS	ACCESSORY STORAGE/MECHANICAL	STOR	121 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	ELEC	186 SF	300 SF	GROSS	1
BUSINESS	ASSEMBLY - UNCONCENTRATED	FLEX STUDY	263 SF	15 SF	NET	18
BUSINESS	ASSEMBLY - UNCONCENTRATED	LOUNGE	468 SF	15 SF	NET	32
BUSINESS	ASSEMBLY - UNCONCENTRATED	LARGE CONF	593 SF	15 SF	NET	40
BUSINESS	ASSEMBLY - UNCONCENTRATED	FLEX STUDY	201 SF	15 SF	NET	14
BUSINESS	BUSINESS AREA	BUSINESS AREA	10,547 SF	100 SF	GROSS	106
BUSINESS	CLASSROOM AREA	SHARED INSTRUCTIONAL/ COMPUTER LAB	727 SF	20 SF	NET	37
BUSINESS	CLASSROOM AREA	SHARED COMPUTER LAB	700 SF	20 SF	NET	35
BUSINESS	EDUCATIONAL - VOCATIONAL	CAD LAB #1	1,158 SF	50 SF	NET	24
BUSINESS	EDUCATIONAL - VOCATIONAL	CAD LAB #2	1,530 SF	50 SF	NET	31
BUSINESS	EDUCATIONAL - VOCATIONAL	PRINT LAB	643 SF	50 SF	NET	13
BUSINESS	EDUCATIONAL - VOCATIONAL	ANALOG TRAINING	1,021 SF	50 SF	NET	21
BUSINESS	EDUCATIONAL - VOCATIONAL	DIGITAL LAB	1,021 SF	50 SF	NET	21
BUSINESS	EDUCATIONAL - VOCATIONAL	MICROELECTRONICS/ UAS TRAINING LAB	1,043 SF	50 SF	NET	21
BUSINESS	EDUCATIONAL - VOCATIONAL	PLC LAB	1,135 SF	50 SF	NET	23
BUSINESS	EDUCATIONAL - VOCATIONAL	PROCESS CONTROL LAB	1,094 SF	50 SF	NET	22
BUSINESS	EDUCATIONAL - VOCATIONAL	MECHATRONICS LAB	1,133 SF	50 SF	NET	23
BUSINESS: 25						495
Grand total: 25						495

PATH OF TRAVEL - SECOND FLOOR	
PATH OF TRAVEL	LENGTH OF PATH
Egress Path Lines: Egress Path Line 1	200' - 0 3/4"

B1 LIFE SAFETY PLAN - SECOND FLOOR

LIFE SAFETY LEGEND

- VERTICAL ELEMENTS (SHAFTS, ELEVATORS, STAIRS)
- 34" CLEAR WIDTH / 226 CALCULATED CAPACITY / 208 ACTUAL LOAD — EXIT DOOR
- 1-HOUR RATED PARTITION
- EXIT SIGN
- PH PANIC HARDWARE
- EXIT ACCESS TRAVEL DISTANCE
- FIRE EXTINGUISHER
- 8' - 0" WIDTH OF STAIR / 640 CAPACITY OF STAIR
- EMERGENCY LIGHTS

GENERAL NOTES

SHEET SPECIFIC NOTES

FUNCTION OF SPACE

- ACCESSORY STORAGE/MECHANICAL
- ASSEMBLY - UNCONCENTRATED
- BUSINESS AREA
- CLASSROOM AREA
- EDUCATIONAL - VOCATIONAL

PROJECT NORTH

CORPORATE SEAL — LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL — Lauren Dunn Rockart, Registered Architect, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE 12/20/2023
JOB. NO. 11751-00
DWG. NO. G102

SHEET TITLE: LIFE SAFETY PLAN - SECOND FLOOR
SCALE (U.N.O.) 0 8 16 FT

ON CAMPUS: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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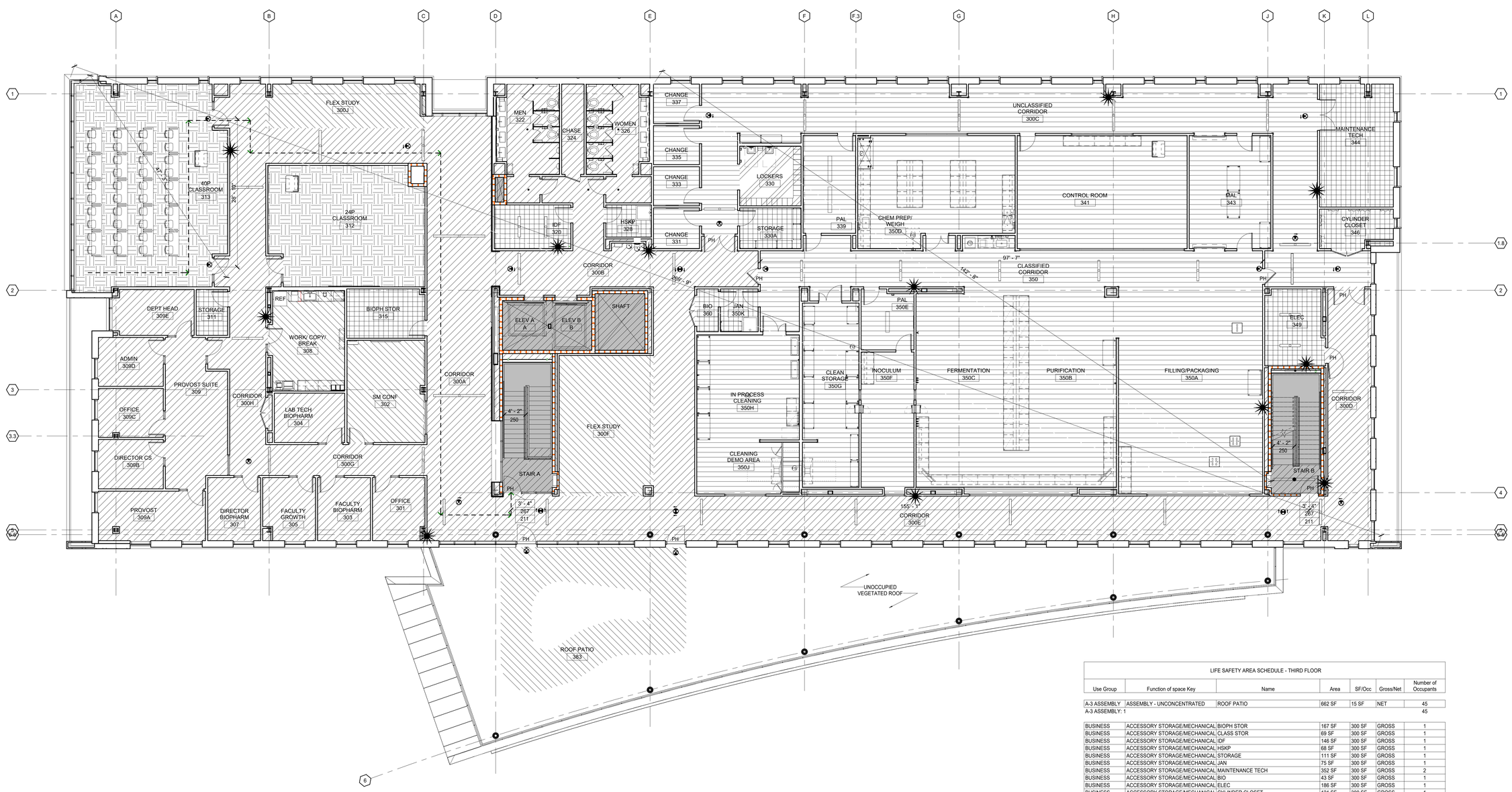

LIFE SAFETY AREA SCHEDULE - THIRD FLOOR						
Use Group	Function of space Key	Name	Area	SF/Occ	Gross/Net	Number of Occupants
A-3 ASSEMBLY	ASSEMBLY - UNCONCENTRATED	ROOF PATIO	662 SF	15 SF	NET	45
A-3 ASSEMBLY: 1						45
BUSINESS	ACCESSORY STORAGE/MECHANICAL	BIOPH STOR	167 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	CLASS STOR	69 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	IDF	146 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	HSKP	68 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	STORAGE	111 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	JAN	75 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	MAINTENANCE TECH	352 SF	300 SF	GROSS	2
BUSINESS	ACCESSORY STORAGE/MECHANICAL	BIO	43 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	ELEC	186 SF	300 SF	GROSS	1
BUSINESS	ACCESSORY STORAGE/MECHANICAL	CYLINDER CLOSET	121 SF	300 SF	GROSS	1
BUSINESS	ASSEMBLY - UNCONCENTRATED	FLEX STUDY	263 SF	15 SF	NET	18
BUSINESS	ASSEMBLY - UNCONCENTRATED	SM CONF	300 SF	15 SF	NET	21
BUSINESS	ASSEMBLY - UNCONCENTRATED	WORK/ COPY/ BREAK	284 SF	15 SF	NET	19
BUSINESS	ASSEMBLY - UNCONCENTRATED	FLEX STUDY	527 SF	15 SF	NET	36
BUSINESS	BUSINESS AREA	BUSINESS AREA	8,337 SF	100 SF	GROSS	84
BUSINESS	CLASSROOM AREA	40P CLASSROOM	1,134 SF	20 SF	NET	57
BUSINESS	CLASSROOM AREA	24P CLASSROOM	688 SF	20 SF	NET	35
BUSINESS	LOCKER ROOMS	LOCKERS	138 SF	50 SF	GROSS	3
BUSINESS: 18						284
F-1 FACTORY	INDUSTRIAL AREAS	BIOPHARMA SUITE	9,134 SF	100 SF	GROSS	92
F-1 FACTORY: 1						92
Grand total: 20						421

PATH OF TRAVEL - THIRD FLOOR	
PATH OF TRAVEL	LENGTH OF PATH
Egress Path Lines: Egress Path Line 1	192' - 9 1/2"

B1 LIFE SAFETY PLAN - THIRD FLOOR

LIFE SAFETY LEGEND

- VERTICAL ELEMENTS (SHAFTS, ELEVATORS, STAIRS)
- 34" CLEAR WIDTH / 226 CALCULATED CAPACITY / 208 ACTUAL LOAD — EXIT DOOR
- 1-HOUR RATED PARTITION
- EXIT SIGN
- PH PANIC HARDWARE
- EXIT ACCESS TRAVEL DISTANCE
- FIRE EXTINGUISHER
- 8' - 0" / 640 — WIDTH OF STAIR / CAPACITY OF STAIR
- EMERGENCY LIGHTS

GENERAL NOTES

SHEET SPECIFIC NOTES

FUNCTION OF SPACE

- ACCESSORY STORAGE/MECHANICAL
- LOCKER ROOMS
- ASSEMBLY - UNCONCENTRATED
- BUSINESS AREA
- CLASSROOM AREA
- INDUSTRIAL AREAS

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SHEET TITLE: LIFE SAFETY PLAN - THIRD FLOOR

SCALE (U.N.O.): 0 8 16 FT

PROJECT NORTH

PROJECT NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN NC CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockar, Registered Architect, 9674, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: G103

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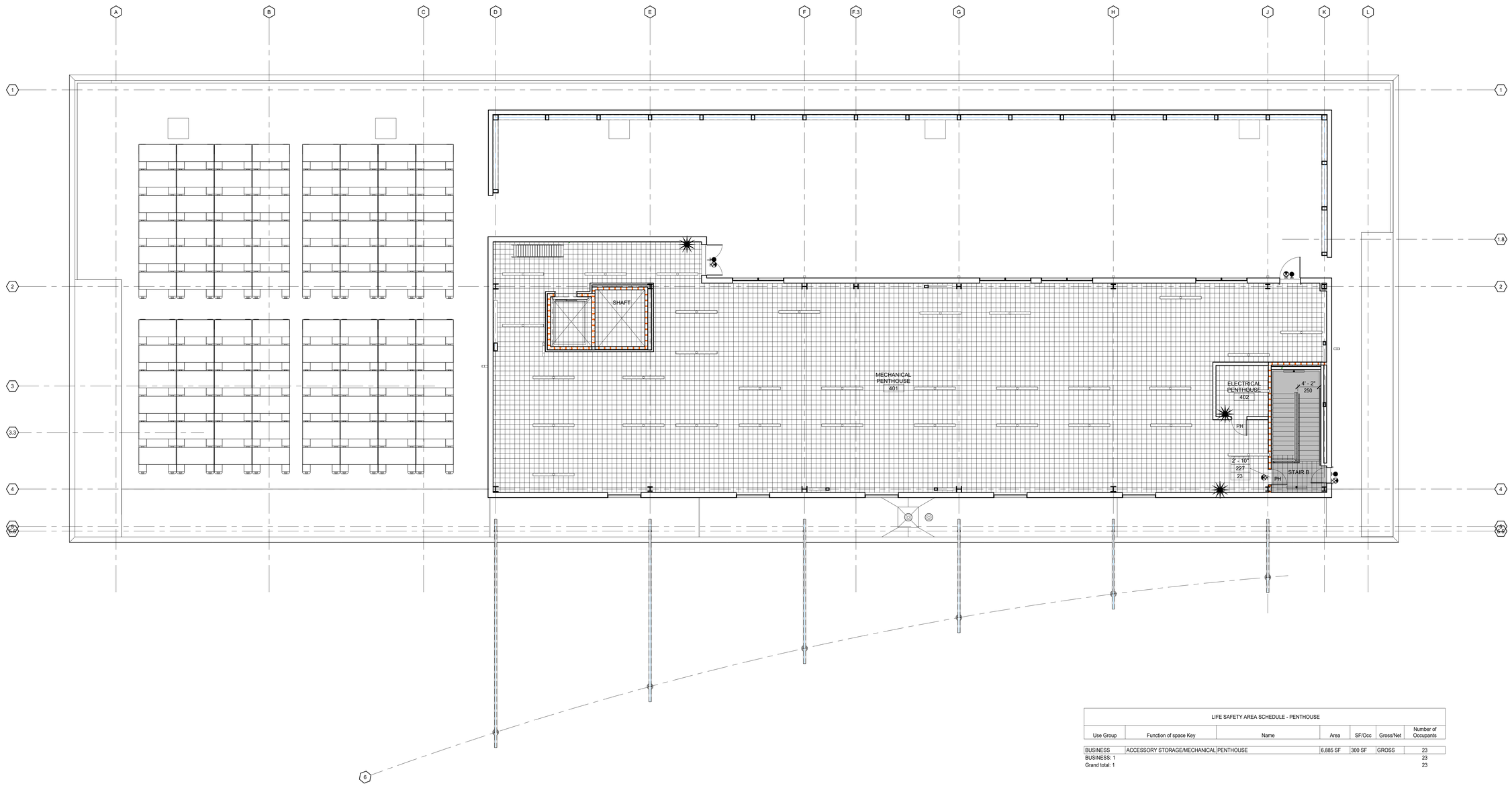

LIFE SAFETY AREA SCHEDULE - PENTHOUSE						
Use Group	Function of space Key	Name	Area	SF/Occ	Gross/Net	Number of Occupants
BUSINESS	ACCESSORY STORAGE/MECHANICAL	PENTHOUSE	6,885 SF	300 SF	GROSS	23
BUSINESS: 1						23
Grand total: 1						23

B1 LIFE SAFETY PLAN - PENTHOUSE

LIFE SAFETY LEGEND

- VERTICAL ELEMENTS (SHAFTS, ELEVATORS, STAIRS)
- 34" CLEAR WIDTH / 226 CALCULATED CAPACITY / 208 ACTUAL LOAD — EXIT DOOR
- 1-HOUR RATED PARTITION
- EXIT SIGN
- PH PANIC HARDWARE
- EXIT ACCESS TRAVEL DISTANCE
- FIRE EXTINGUISHER
- 8' - 0" WIDTH OF STAIR / 640 CAPACITY OF STAIR
- EMERGENCY LIGHTS

GENERAL NOTES

SHEET SPECIFIC NOTES

FUNCTION OF SPACE

ACCESSORY STORAGE/MECHANICAL

PROJECT NORTH

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, North Carolina, Chapel Hill, NC

12-20-2023

ISSUE DATE 12/20/2023

JOB. NO. 11751-00

DWG. NO. G104

SHEET TITLE: LIFE SAFETY PLAN - PENTHOUSE

SCALE (U.N.O.) 0 8 16 FT

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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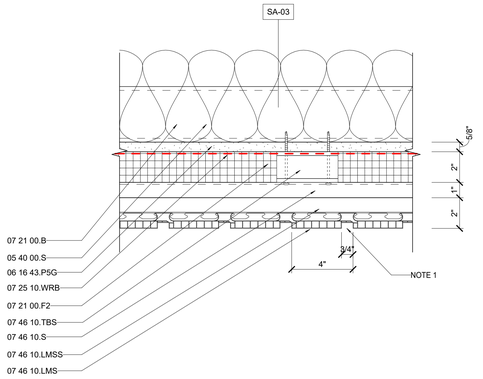
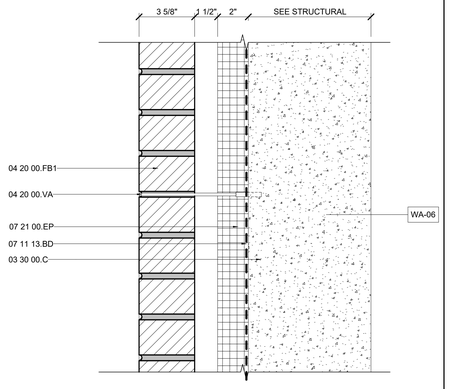
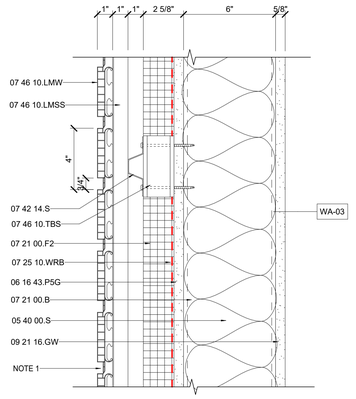


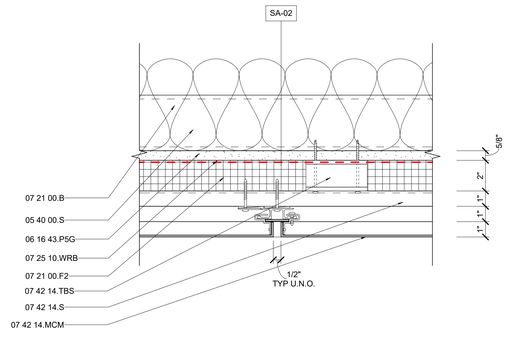
K3 SA-03: LINEAR METAL SOFFIT



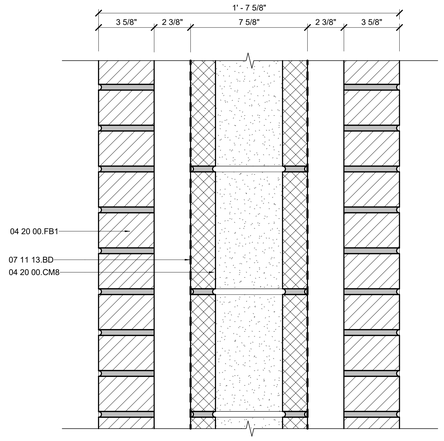
K11 WA-06: FACE BRICK ON CONCRETE



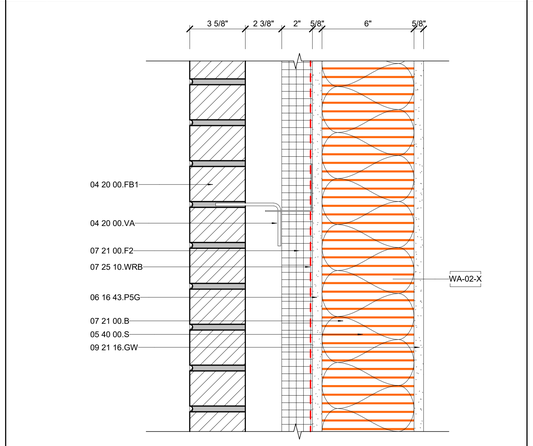
K15 WA-03: LINEAR METAL SIDING ON METAL STUD



F3 SA-02: MCM SOFFIT W/ INSULATION



F7 WA-07: BRICK ON CMU



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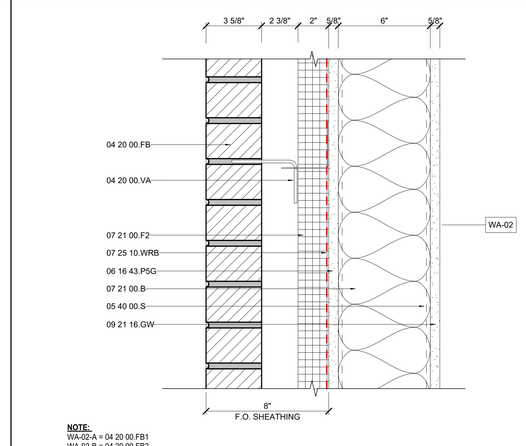
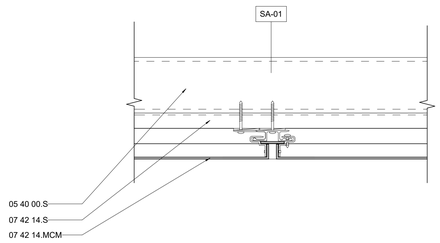
F11 WA-02-X: FACE BRICK 1 ON METAL STUD

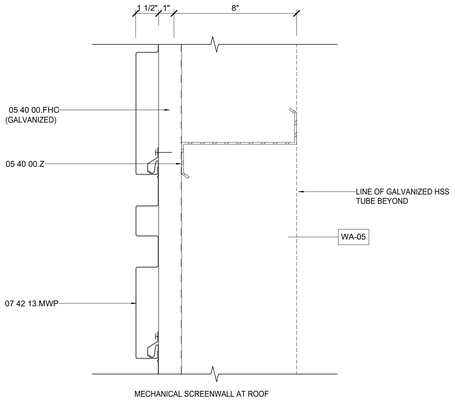


NOTE:
WA-02-A = 04 20 00.FB1
WA-02-B = 04 20 00.FB2

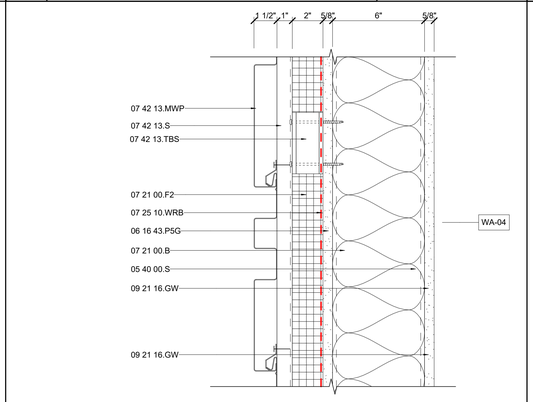
F15 WA-02-A and B: FACE BRICK ON METAL STUD



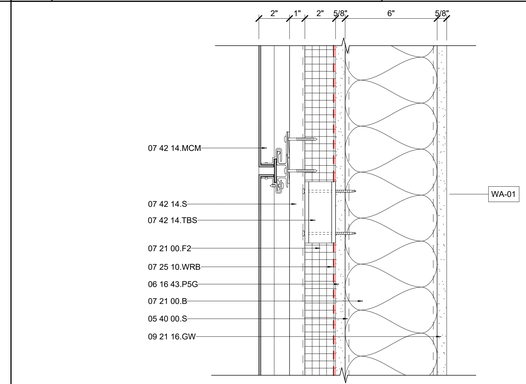
B3 SA-01: MCM SOFFIT



B7 WA-05: METAL PANEL ON GALVANIZED Z-GIRTS



B11 WA-04: METAL PANEL ON METAL STUD



B15 WA-01: MCM ON METAL STUD

MATERIAL KEYNOTES

03 30 00.C	Concrete	07 25 10.WRB	Weather-Resistant Barrier
04 20 00.CM8	8" Concrete Masonry Units	07 42 13.MWP	Metal Wall Panel
04 20 00.FB	Face Brick	07 42 13.S	Subgirt
04 20 00.FB1	Face Brick 1	07 42 13.TBS	Thermal Break Supports
04 20 00.VA	Veneer Anchors	07 42 14.MCM	Metal Composite Material Wall Panel
05 40 00.FHC	Furring Hat Channel	07 42 14.S	Subgirt
05 40 00.S	Stud	07 42 14.TBS	Thermal Break Support
05 40 00.Z	Z-Furring	07 46 10.LMS	Linear Metal Soffit
06 16 43.P5G	5/8" Gypsum Sheathing	07 46 10.LMSS	Linear Metal Suspension System
07 11 13.BD	Bituminous Damp-Proofing	07 46 10.LMW	Linear Metal Wall Panel
07 21 00.B	Batt Insulation	07 46 10.S	Subgirt
07 21 00.EP	Expanded Polystyrene Insulation	07 46 10.TBS	Thermal Break Support
07 21 00.F2	2" Fiber Board Insulation	09 21 16.GW	Gypsum Wallboard

GENERAL NOTES

SHEET SPECIFIC NOTES

1. INTEGRATED SPACER.

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REVISION:

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

SHEET TITLE
EXTERIOR ASSEMBLIES - WALLS

SCALE (U.N.O.)
0 6 12 IN

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN INC
CERT. NO. 53851
NORTH CAROLINA
CHAPEL HILL

SEAL
Lauren Dunn Rockart
Registered Architect
9814
North Carolina
Chapel Hill, NC
12·20·2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
G201

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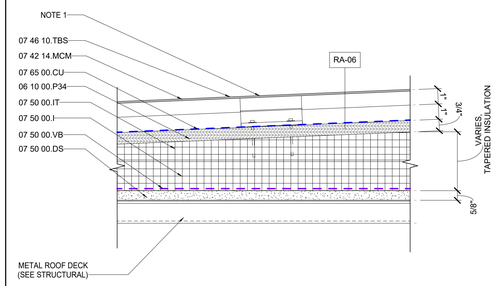
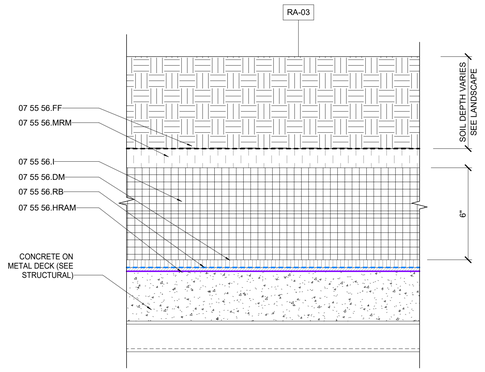
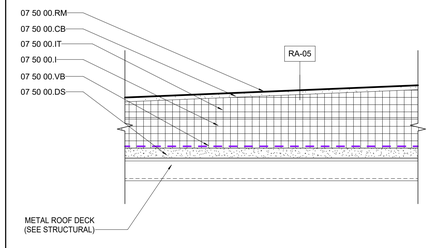


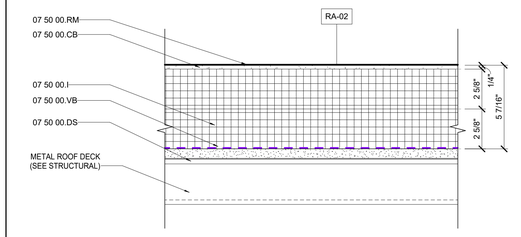
K11 RA-06: MCM OVER HARD ROOF ON METAL DECK



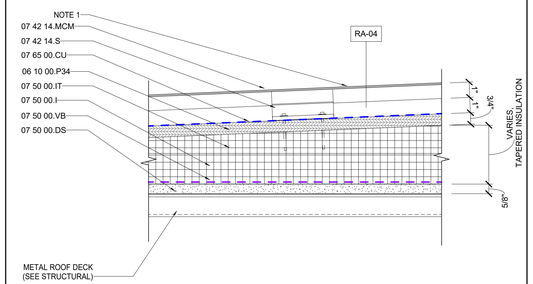
K15 RA-03: GREEN ROOF ASSEMBLY



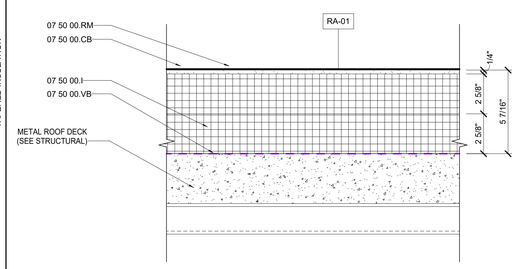
F11 RA-05: VESTIBULE ROOF



F15 RA-02: MEMBRANE ROOF ASSEMBLY AT METAL ROOF DECK



B11 RA-04: MCM OVER MEMBRANE ROOF ON METAL DECK



B15 RA-01: MEMBRANE ROOF ASSEMBLY AT CONCRETE

MATERIAL KEYNOTES

06 10 00.P34	3/4" Plywood Panel	07 55 56.I	Insulation
07 42 14.MCM	Metal Composite Material Wall Panel	07 55 56.MRM	Moisture Retention Mat
07 42 14.S	Subgirt	07 55 56.RB	Root Barrier
07 46 10.TBS	Thermal Break Support	07 65 00.CU	Modified Asphalt Coping Underlayment
07 50 00.CB	Cover Board		
07 50 00.DS	Deck Sheathing		
07 50 00.I	Insulation		
07 50 00.IT	Tapered Insulation		
07 50 00.RM	Roof Membrane		
07 50 00.VB	Vapor Barrier		
07 55 56.DM	Drainage Mat		
07 55 56.FF	Filter Fabric		
07 55 56.HRAM	Hot Rubberized Asphalt Membrane		

GENERAL NOTES

SHEET SPECIFIC NOTES

1. SEAL ALL UPWARD-FACING JOINTS IN MCM PANELS WITH SPECIFIED SEALANT; CONTINUE SEALANT DOWN VERTICAL FACE OF PANEL TO NEXT CHANGE IN PLANE.

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REVISION

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

SHEET TITLE: EXTERIOR ASSEMBLIES - ROOFS

SCALE (U.N.O.): 0 6 12 IN

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockar, Registered Architect, 9674, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: G202

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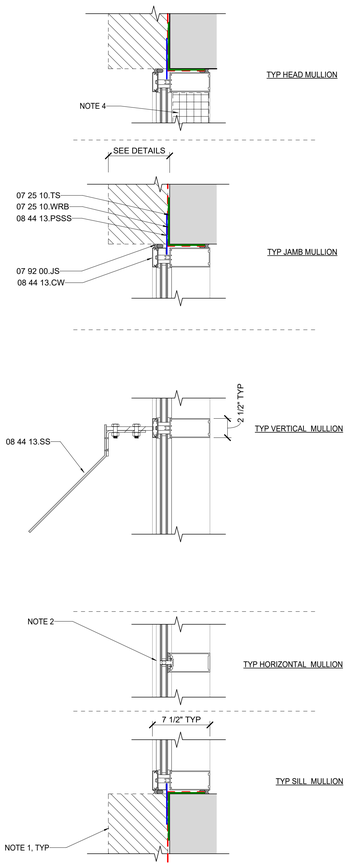

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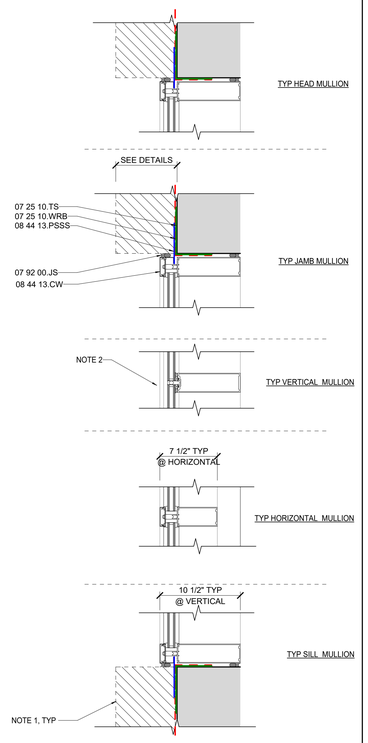

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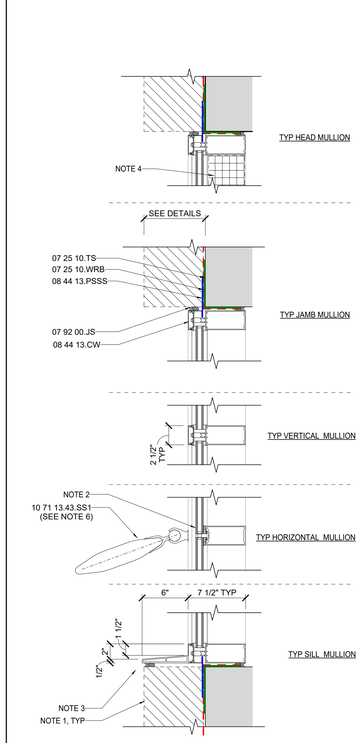

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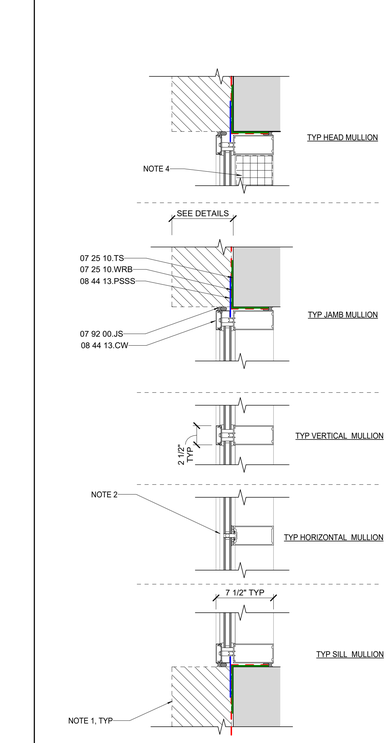
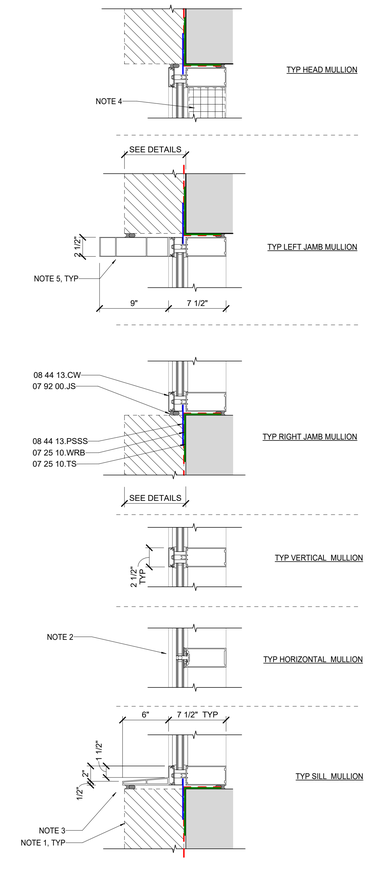


B10 CW-02



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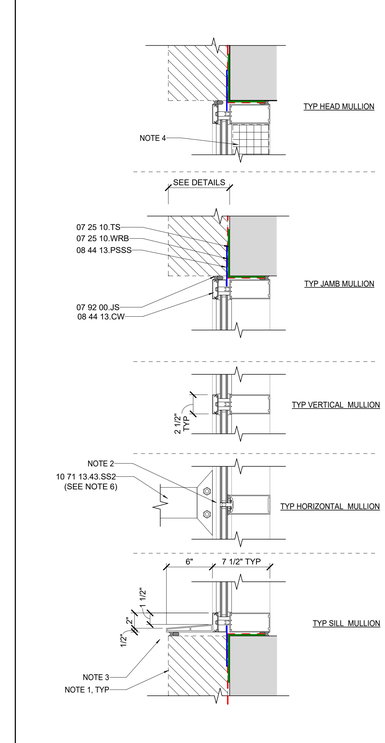

B14 CW-01A

MATERIAL KEYNOTES

07 25 10.TS	Transition Sheet
07 25 10.WRB	Weather-Resistant Barrier
07 92 00.JS	Joint Sealant
08 44 13.CW	Curtain wall
08 44 13.PSSS	Preformed Silicone Sheet Seal
08 44 13.SS	Custom Integrated Sun Screen
10 71 13.43.SS1	Sun Screen 1
10 71 13.43.SS2	Sun Screen 2

GENERAL NOTES

SHEET SPECIFIC NOTES

1. SEE DETAILS FOR CLADDING AND SUBSTRATE.
2. SSG MULLION.
3. CUSTOM EXTRUDED ALUMINUM SILL EXTENSION.
4. SPANDREL GLASS AND INSULATION ASSEMBLY WHERE INDICATED IN ELEVATIONS AND DETALS.
5. EXTRUDED ALUMINUM CUSTOM JAMB MULLION EXTENSION TO MATCH MULLIONS.
6. FIXED SUNSCREENS WHERE INDICATED ON ELEVATIONS AND WALL SECTIONS.

LORD AECK SARGENT

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Planning & Design, Inc.
LordAeckSargent.com

REVISION:

SHEET TITLE: EXTERIOR ASSEMBLIES - CURTAIN WALL

SCALE (U.N.O.): 0 1 2FT

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, 9674, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. G203

NOT FOR CONSTRUCTION

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/Central_11751-00_V22.rvt
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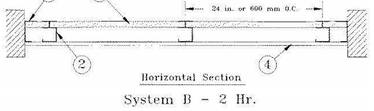
Design No. U415

February 14, 2022

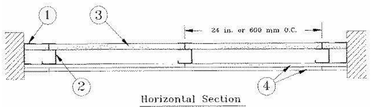
Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

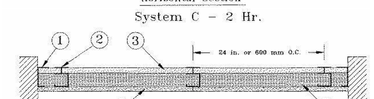
System A – 1 Hr.



System B – 2 Hr.



System C – 2 Hr.



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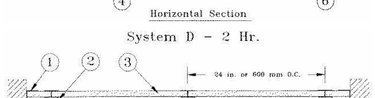

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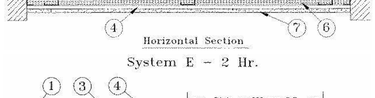
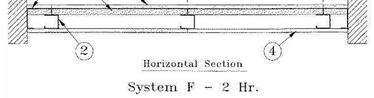
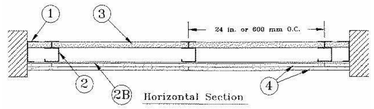


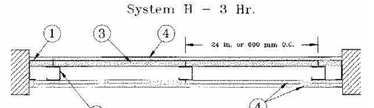
System F – 2 Hr.



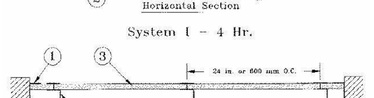
System G – 3 Hr.



System H – 3 Hr.



System I – 4 Hr.



1. **Floor, Side and Ceiling Runners —** "J" - shaped runner, min 2-1/2 in. deep (min 4 in. deep when System C is used), with unequal legs of 1 in. and 2 in., fabricated from min 24 MSG (min 20 MSG when item 4A, 4B, 4C, 4D or 7 are used) galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC. "E" - shaped studs (Item 2A) may be used as side runners in place of "J" - shaped runners.

2. **Steel Studs —** "C-H" - shaped studs, min 2-1/2 in. deep (min 4 in. deep when System C is used), fabricated from min 25 MSG (min 20 MSG when items 2D, 4A, 4B, 4C, 4D or 7 is used) galv steel. Cut to lengths 3/8 to 1/2 in. less than floor-to-ceiling height and spaced 24 in. or 600 mm OC (max 16 in. OC when items 4A, 4B, 4C, or 4D are used).

2A. **Steel Studs —** (Not Shown) — "E" - shaped studs installed back to back in place of "C-H" - shaped studs (Item 2) "E" - shaped studs secured together with steel screws spaced a maximum 12 in. OC. Fabricated from min 25 MSG (min 20 MSG when Item 2D, 4A, 4B or 7 is used) galv steel, min 2-1/2 in. deep (min 4 in. deep when System C is used), with one leg 1 in. long and two legs 3/4 in. long. Shorter legs 1 in. apart to engage gypsum liner panels. Cut to lengths 3/8 to 1/2 in. less than floor to ceiling heights.

2B. **Furring Channels —** (Optional, Not Shown) — For use with single or double layer systems. Resilient furring channels fabricated from min 25MSG corrosion protected steel, installed horizontally, and spaced vertically a max 24 in. OC. Flange portion of channel attached to each intersecting "C-H" or "E" stud on side of stud opposite the 1 in. liner panels with 1/2 in. long Type S or S-12 pan-head steel screws. When furring channels are used, wallboard to be installed vertically only . Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

2C. **Furring Channels —** For use with System I - "Hat" - shaped, 25 MSG galv steel furring channels attached directly over the inner layers of wallboard to each stud with 2 in. long Type S pan head steel screws. Screws alternate from top flange to bottom flange at each stud intersection. Furring channels spaced vertically max 24 in. OC.

2D. **Steel Framing Members* —** (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

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 installed vertically only and attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Da) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC., and 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 GEN/ECLIP

2G. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

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 2Gb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Ga) to studs. Clips spaced 24 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA — Type SonusClip

2H. **Steel Framing Members* —** (Optional, Not Shown) — Resilient channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 2Ha) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC — Type RC* Assurance Clip

2I. **Steel Framing Members* —** (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

a. **Furring Channels —** Formed of No. 25 MSG galv steel. 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 installed vertically only and attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Ia) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC., and 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.
CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

3. **Gypsum Board* —** Gypsum liner panels, nom 1 in. thick, 24 in. or 600 mm (for metric spacing) wide. Panels cut 1 in. less in length than floor to ceiling height. Vertical edges inserted in "H" portion of "C-H" studs or the gap between the two 3/4 in. legs of the "E" studs. Free edge of end panels attached to long leg of vertical "J" - runners with 1-5/8 in. long Type S steel screws spaced not greater than 12 in. OC. When wall height exceeds liner panel length, liner panel may be butted to extend to the full height of the wall. Horizontal joints need not be backed by steel framing. In System I, butt joints in liner panels are staggered min 36 in. Butt joints backed with 6 in. by 22 in. strips of 3/4 in. thick gypsum wallboard (Item 4). Wallboard strips centered over butt joints and secured to liner panels with six 1-1/2 in. long Type G steel screws, three screws along the 22 in. dimension at the top and bottom of the strips.
CGC INC — Type SLX
UNITED STATES GYPSUM CO — Type SLX
USG BORAL DRYWALL SFZ LLC — Type SLX
USG MEXICO S A DE C V — Type SLX

4. **Gypsum Board* —**

System A — 1 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 12 in. when installed vertically or 8 in OC when installed horizontally. Horizontal joints need not be backed by steel framing.
CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, ULX, USGX, WRC, WRX
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX
UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, WRC, WRX, USGX
USG BORAL DRYWALL SFZ LLC — Types C, SCX, SGX, USGX
USG MEXICO S A DE C V — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX

System B — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 8 in. OC and staggered 8 in. from gypsum wall board screws. Joints centered on and staggered on opposite sides of studs. Horizontal joints need not be backed by steel framing.
CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, ULX, USGX, WRC, WRX
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX
UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, WRC, WRX, USGX
USG BORAL DRYWALL SFZ LLC — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX
USG MEXICO S A DE C V — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX

System C — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 3/4 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, screw attached to studs with 1-1/4 in. long Type S steel screws spaced 8 in. OC along vertical edges and 12 in. OC in the field when installed vertically or 8 in. OC along the vertical edges and in the field when installed horizontally. Horizontal joints need not be backed by steel framing. Screws along side joints offset 4 in. Requires min 4 in. deep framing per Items 1, 2 and 3. Requires min 3 in. thick mineral wool batts per Item 6.
CGC INC — Types IP-X3 or ULTRACODE
UNITED STATES GYPSUM CO — Types IP-X3 or ULTRACODE
USG BORAL DRYWALL SFZ LLC — Type ULTRACODE
USG MEXICO S A DE C V — Types IP-X3 or ULTRACODE

System D — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached directly to studs with 1 in. long Type S steel screws spaced 24 in. when installed vertically or 16 in. OC when installed horizontally. Horizontal joints need not be backed by steel framing. Required min 4 in. deep for 5/8 in. thick cementitious backer units per Item 7 and min 1-1/2 in. thick mineral wool batts per Item 6.
CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX
UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX
USG BORAL DRYWALL SFZ LLC — Type C; 5/8 in. Types C, SCX, SGX, USGX
USG MEXICO S A DE C V — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX
X

System E — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 12 in. OC when installed vertically or 8 in. when installed horizontally. Horizontal joints need not be backed by steel framing.
CGC INC — 1/2 in. Types C, IP-X2, IPC-AR; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX
UNITED STATES GYPSUM CO — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX
USG BORAL DRYWALL SFZ LLC — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX
USG MEXICO S A DE C V — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX

System F — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 12 in. OC when installed vertically or 8 in. when installed horizontally. Horizontal joints need not be backed by steel framing. Screws along side joints offset 4 in. Requires min 4 in. deep framing per Items 1, 2 and 3. Requires min 3 in. thick mineral wool batts per Item 6.
CGC INC — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX
UNITED STATES GYPSUM CO — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX
USG BORAL DRYWALL SFZ LLC — 1/2 in. Types C, SCX; 5/8 in. Types C, SCX, SGX, USGX
USG MEXICO S A DE C V — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

System G — 3 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 12 in. OC when installed vertically or 8 in. OC when installed horizontally. Middle layer attached to studs with 1-5/8 in. long Type S steel screws spaced 24 in. when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 2-1/4 in. long Type S steel screws spaced 16 in. when installed vertically or 12 in. OC when installed horizontally. Screws offset 6 in. from layer below. Horizontal joints on adjacent layers staggered a min of 12 in. . Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. on adjacent layers.
CGC INC — Types C, IP-X2, IPC-AR, ULIX, WRC
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type C
UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR, ULIX, WRC
USG BORAL DRYWALL SFZ LLC — Type C
USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR, WRC

System H — 3 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, two layers over the flange of the "C" section of the studs, one layer over the flange of the "H" section of the studs. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Face layer attached to studs with 1-5/8 in. long Type S steel screws spaced 16 in. when installed vertically or 12 in. OC when installed horizontally. Screws offset 6 in. from layer below. Horizontal joints on adjacent layers staggered a min of 12 in. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. on adjacent layers.
CGC INC — Types C, IP-X2, IPC-AR, ULIX, WRC
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type C
UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR, ULIX, WRC
USG BORAL DRYWALL SFZ LLC — Type C
USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR, WRC

System I — 4 Hr

Gypsum panels, with beveled, square or tapered edges, nom 3/4 in. thick, 4 ft wide (or 1200 mm for metric spacing) wallboard with square or tapered edges. Total of four layers to be used. First and second (inner) layers applied vertically or horizontally over the steel studs. Horizontal joints need not be backed by steel framing. When applied vertically, joints centered over studs and staggered min 24 in., otherwise all joints staggered min 12 in. First layer secured to studs with 1-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 24 in. OC. Second layer secured to studs with 2-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Third layer applied vertically over the furring channels (Item 2C) with a 1-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Fourth layer applied vertically or horizontally with 2-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. When applied vertically, joints to be staggered min 24 in. from third layer, otherwise all joints staggered min 12 in.
CGC INC — Types IP-X3 or ULTRACODE
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types IP-X3 or ULTRACODE
USG BORAL DRYWALL SFZ LLC — Type ULTRACODE
USG MEXICO S A DE C V — Types IP-X3 or ULTRACODE

4A. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — 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 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1, 2, 2A, 2B and 2D. 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. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 9) or Lead Discs or Tabs (see Item 10).
RAY-BAR ENGINEERING CORP — Type RB-LBG

4B. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — 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 #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 — Type Nelco

4C. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — 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. See Items 1, 2, 2A, 2B and 2D. 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. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 9A) or Lead Discs (see Item 10A). 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 10 ft long with a max thickness of 0.140 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip.
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

4D. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — 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 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

5. **Joint Tape and Compound —** (Not Shown)

Joints on outer layers of gypsum boards (Item 4 and 4A) covered with paper tape and joint compound. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges. Exposed screw heads covered with joint compound.

6. **Batts and Blankets* —**

Systems A, B, E, F, G, H, I

(Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt mineral bearing the UL Classification Marking as to Fire Resistance.

Systems C & D

Min 3 in. (System C) and min 1-1/2 in. (System D) thick mineral wool batts, friction fitted between the studs and floor and ceiling runners.
ROCKWOOL — Type AFB, min. density 1.8 pcf / 28.8 kg/m3
THERMAFIBER INC — Type SAFB, SAFB FF

7. **Cementitious Backer Units* —** (System D) — Nom 1/2 or 5/8 in. thick panels, square edge, attached to studs over gypsum wallboard with 1-5/8 in. long, Type S-12, corrosion resistant steel screws spaced 8 in. OC and staggered 8 in. from gypsum wall board screws. Joints centered on and staggered on opposite sides of studs. Horizontal joints staggered min one stud cavity from gypsum wallboard joints. Horizontal joints staggered a min of 12 in. from the gypsum wallboard joints.
UNITED STATES GYPSUM CO — Type DCB

8. **Laminating Adhesive* —** (Optional, Not Shown) — Used to bond outer layer of Cementitious Backer Units (Item 7) to inner layers of Gypsum Board (Item 4) in System D. ANSI A136.1 Type 1 organic adhesive applied with 1/4 in. square notched trowel. See Adhesives (BYWR) in the Fire Resistance Directory or Adhesives (BJLZ) in the Building Materials Directory for names of Classified companies.

9. **Lead Batten Strips —** (Not Shown, For Use With Item 4A) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with 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 batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4A) and optional at remaining stud locations. Required behind vertical joints.

9A. **Lead Batten Strips —** (Not Shown, for use with Item 4C) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4B) and optional at remaining stud locations.

10. **Lead Discs or Tabs —** (Not Shown, For Use With Item 4A) — Used in lieu of or in addition to the lead batten strips (Item 9) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4A) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

10A. **Lead Discs —** (Not Shown, for use with Item 4C) — Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

11. **Lead Batten Strips —** (Not Shown, For Use With Item 4B) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4B) and optional at remaining stud locations.

12. **Lead Tabs —** (Not Shown, For Use With Item 4B) — 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 4B) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

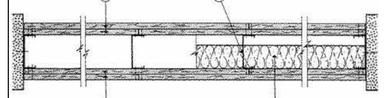
Last Updated on 2022-02-14, © 2023 UL LLC

Design No. U411

March 1, 2022

Nonbearing Wall Rating — 2 Hr.

*** 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 Runner —** (Not Shown) — Min. 25 MSG galv steel, 1 in. return legs, 2-1/2 in. deep (min), attached to floor and ceiling with fasteners 24 in. OC max.

1A. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2A, channel shaped, min 2-1/2 in. deep, fabricated from 25 MSG galv steel and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™ Track
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track
IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20
STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20
TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20
UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

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

1C. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2C, channel shaped, min 2-1/2 in. wide fabricated from min 0.015 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC. max.
CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK
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

1D. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2D, channel shaped, min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC. max.
TELLING INDUSTRIES L L C — TRUE-TRACK™

1E. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2E, channel shaped, min 2-1/2 in. wide fabricated from min 25 MSG steel, attached to floor and ceiling with fasteners 24 in. OC. max.
KIRI (HONG KONG) LTD — Type KIRI

1F. **Floor and Ceiling Runners —** (Not Shown) — Channel shaped, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below, attached to floor and ceiling with fasteners spaced max 24 in. OC.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Track VT100
IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

1G. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2G, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

1H. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2J. Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.
BAILEY METAL PRODUCTS LTD — Type PLATINUM PLUS

1I. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2K, channel shaped, min 3-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC. max.
RESCUE METAL FRAMING, L L C — AlphaTRAK

1J. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2L, Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.
OEG BUILDING MATERIALS — OEG Track

1K. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2M, channel shaped, min 2-1/2 in. deep, formed of min. 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners 24 in. OC. max.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X Track

1L. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2N. Channel shaped, min. 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D25
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D25
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D25
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D25
STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D25
TELLING INDUSTRIES L L C — Type SUPREME D25
UNITED METAL PRODUCTS INC — Type SUPREME D25

1M. **Floor and Ceiling Runner —** (Not shown) - As an alternate to Item 1, For use with Items 2O and 4O - Min 25 MSG galv steel, 1-5/8 in. deep (min), attached to floor and ceiling with fasteners 24 in. OC. max.

2. **Steel Studs —** Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

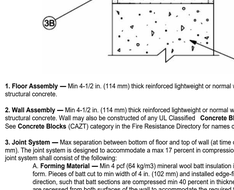
2A. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1G, channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™
IMPERIAL MANUFACTURING GROUP INC — Viper20™
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20
STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20
TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20
UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

2B. **Steel Studs —** (As an alternate to Item 2, For use with Item 4D, 4H, and 4J) — 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 in. less than assembly height.

2C. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1C, channel shaped studs, min 2-1/2 in. wide fabricated from min 0.015 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
**CLARKDIETRICH B

Design No. HW-D-1078

July 13, 2009
Assembly Rating — 2 Hr
Nominal Joint Width — 3/4 in.
Class II Movement Capabilities —17% Compression Or Extension
L Rating at Ambient — Less than 1 CFM/Lin Ft
L Rating at 400 F — Less than 1 CFM/Lin Ft



1. Floor Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete.

2. Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg /m3) structural concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. See **Concrete Blocks** (CAZT) category for the Fire Resistance Ratings of systems of manufacturers.

3. Joint System — Max separation between bottom of floor and top of wall (at time of installation of joint system) is 3 in. (76 mm). The joint system is designed to accommodate a max 17 percent in compression or extension from its installed width. The joint system shall consist of the following:

A. **Forming Material —** Min 4 pcf (64 kg/m3) mineral wool batt insulation installed in joint opening as a permanent form. Pieces of batt cut to min width of 4 in. (102 mm) and installed edge-first into joint opening, parallel with joint direction, such that batt sections are compressed min 60 percent in thickness and that the compressed batt sections are recessed from both surfaces of the wall to accommodate the required thickness of fill material. Adjoining lengths of batt to be tightly-butted with butted seams spaced min 24 in. (610 mm) apart along the length of the joint.

A1. **Forming Material (as an alternate to 3A) —** Min 6 pcf (96 kg/m3) ceramic blanket insulation installed in joint as a permanent form. Pieces of batt cut to min width of 4 in. (102 mm) and installed edge-first into joint opening, parallel with joint direction, such that batt sections are compressed min 50 percent in thickness and that the compressed batt sections are recessed from both surfaces of the wall to accommodate the required thickness of fill material. Adjoining lengths of batt to be tightly-butted with butted seams spaced min 24 in. (610 mm) apart along the length of the joint.

B. **Fill, Void or Cavity Material* — Sealant —** Min 1/4 in. (6 mm) thickness of fill material applied within the joint, flush with both surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP606 Flexible Firestop Sealant

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2009-07-13

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Design No. HW-D-0003

September 01, 2016
Assembly Ratings — 2 Hr (See Item 2)
L Rating at Ambient — Less Than 1 CFM/Lin Ft
L Rating at 400°F — Less Than 1 CFM/Lin Ft
Joint Width — 3/4 in. Max
Class II Movement Capabilities —25% Compression Only

1. **Floor Assembly —** Min 4-1/2 in. (114 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete.

2. **Wall Assembly —** The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor and Ceiling Runners —** Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 2B) within min 1-1/4 in. (32 mm) to max 2 in. (51 mm) flanges. When deflection channel (Item 3A) is used, flange height of ceiling runner is to be equal to or greater than flange height of deflection channel and the ceiling runner is to nest within the deflection channel with a 1/2 in. to 3/4 in. (13 to 19 mm) gap maintained between the top of the ceiling runner and the top of the deflection channel. When deflection channel is not used, ceiling runner is secured to concrete floor with steel fasteners spaced max 24 in. (610 mm) OC.

A1. **Light Gauge Framing* — Slotted Ceiling Runner —** As an alternate to the ceiling runner in Item 2A, ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Items 2B). Ceiling runner secured to bottom of concrete floor with steel fasteners spaced max 24 in. (610 mm) OC. When slotted ceiling runner is used, deflection channel (Item 3A) shall not be used.
BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK
CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — SDT250, SDT300
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
METAL-LITE INC — The System
OLMAR SUPPLY INC — ST7250, STT300
QUAIL RUN BUILDING MATERIALS INC — Slotted Deflection Track
R & P SUPPLY — SCT250, SCT300
RAM SALES L L C — RAM Slotted Track
SCAFCO STEEL STUD MANUFACTURING CO
STEELER INC — Steeler Slotted Ceiling Runner
TELLING INDUSTRIES L L C — True-Action Deflection Track

A2. **Light Gauge Framing* — Vertical Deflection Ceiling Runner —** As an alternate to the ceiling runner in Item 2A, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clip provided with step bushings for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B). Vertical deflection ceiling runner secured to floor with steel fasteners spaced max 24 in. (610 mm) OC. When vertical deflection ceiling runner is used, deflection channel (Item 3A) shall not be used.
THE STEEL NETWORK INC — VertiTrack VTD362, VTD400, VTD600 and VTD800

B. **Studs —** Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 in. to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and secured to floor runner and with top nesting in ceiling runner without attachment. When deflection channel (Item 3A) is used, steel studs attached to ceiling runner with sheet metal screws located 1/2 in. (13 mm) below the bottom of the deflection channel. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. Stud spacing not to exceed 24 in. (610 mm) OC. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through bushings, with steel screws at midheight of each slot.

B1. **Light Gauge Framing* — Slotted Studs —** Slotted steel stud to be used in conjunction with Light Gauge Framing* — Floor and Ceiling Runners (Item 2A1). Slotted steel studs to be min 3-1/2 in. (89 mm) wide. Slotted steel studs cut 1/2 in. to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and secured to both ceiling and floor runners. Ceiling runner secured to preformed slot within steel stud by means of No. 10 by 3/4 in. (19 mm) long low profile head steel screw. Floor runner attached to bottom of steel stud by means of No. 8 by 1/2 in. (13 mm) long pan head steel screw. Slotted steel stud spacing not to exceed 24 in. (610 mm) OC.
STEELER INC — Steeler Slotted Stud

C. **Gypsum Board* —** Gypsum board sheets installed to a min total thickness of 5/8 in. and 1-1/4 in. (16 and 32 mm) on each side of wall for 1 and 2 hr fire rated assemblies, respectively. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory, except that a max 3/4 in. (19 mm) gap shall be maintained between the top of the gypsum board and the bottom surface of the floor. The screws attaching the gypsum board to the studs along the top of the wall shall be located 1 in. (25 mm) below the bottom of the ceiling runner. No gypsum board attachment screws shall be driven into the ceiling runner or into the optional deflection channel.

The hourly fire rating of the joint system is dependent on the hourly fire rating of the wall assembly in which it is installed.

3. **Joint System Max separation between bottom of floor and top of wall is 3/4 in. (19 mm). The joint system is designed to accommodate a max 25 percent compression from its installed width.**
The joint system consists of the following:

A. **Deflection Channel —** (Optional, Not Shown) — Max 2 in. (51 mm) deep min 24 gauge galv steel channel sized to accommodate ceiling runner (Item 2A). Deflection channel secured to bottom of concrete floor with steel fasteners spaced max 24 in. (610 mm) OC. The ceiling runner is installed within the deflection channel to maintain a 1/2 in. to 3/4 in. (13 to 19 mm) gap between the top of the ceiling runner and the top of the deflection channel. The ceiling runner is not fastened to the deflection channel.

B. **Forming Material —** (Optional, Not Shown) — In 2 hr fire rated wall assemblies, polyethylene backer rod, mineral wool batt insulation or fiberglass batt insulation friction fit into joint opening.

C. **Fill, Void or Cavity Material* — Sealant —** Min 1/2 in. (13 mm) thickness of fill material applied within joint opening on both sides of wall, flush with both surfaces of wall. In 1 hr fire rated walls, bond breaker tape applied to ceiling channel (Item 2A, 2A1, 2A2 or 2A3) prior to installation of fill material.
SPECIFIED TECHNOLOGIES INC — SpecSeal Series SSS Sealant

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2016-09-01

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Design No. HW-D-0264

September 01, 2016

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 4)	FT Ratings — 1 and 2 Hr (See Item 4)
Nominal Joint Width - 1-1/2 In.	FT Ratings — 1 and 2 Hr (See Item 4)
Class II Movement Capabilities — 50% Compression or Extension	FH Ratings — 1 and 2 Hr (See Item 4)
Rating At Ambient — Less Than 1 CFM/In ft	FTH Ratings — 1 and 2 Hr (See Item 4)
L Rating At 400 F — Less Than 1 CFM/In ft	Nominal Joint Width - 1-1/2 In.
	Class II Movement Capabilities — 50% Compression or Extension
	L Rating At Ambient — Less Than 1 CFM/In ft
	L Rating At 400 F — Less Than 1 CFM/In ft

1. Floor Assembly — The fire-rated fluted steel floor unit/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Series Floor-Ceiling Design in the Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor and Form Units* —** Max 3 in. (76 mm) deep galv steel fluted floor units.
B. **Concrete —** Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.
C. **Spray-Applied Fire Resistive Material* —** (Optional, Not Shown) - After installation of the steel straps (Item 2), the steel floor units may be sprayed with the min thickness of material specified in the individual D700 Series Design.
ISOLATEK INTERNATIONAL — Type 300
GCP APPLIED TECHNOLOGIES INC — Types MK-6/HY or MK-10HB

1A. **Roof Assembly —** (Not Shown) - As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof shall be constructed of the materials and in the manner described in the individual P700 or P900 Series Roof-Ceiling designs in the UL Fire Resistance Directory. The fire rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.
B. **Roof Insulation —** Roof insulation to consist of min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the roof deck.
C. **Spray-Applied Fire Resistive Material* —** (Optional, Not Shown) - After installation of the steel straps (Item 2), all surfaces of the steel deck may be sprayed with the thickness of material as specified in the individual P700 Series Floor-Ceiling Design. The flutes of the steel deck above the steel straps and wall may be sprayed with the material as alternate to the Forming Material (Item 3).
ISOLATEK INTERNATIONAL — Type 300
GCP APPLIED TECHNOLOGIES INC — Types MK-6/HY or MK-10HB

2. Steel Straps — Min. 2 in. (51 mm) wide 16 MSG galv steel straps cut to a length to span the flute and overlap the adjacent valleys of fluted floor units or roof deck by 1-1/2 in. (38 mm). Straps spaced max 24 in. (610 mm) OC and fastened to floor or roof assembly with 1/4 in. (6 mm) diam by 1-1/2 in. (38 mm) long steel concrete anchors. As an alternate, min 1 in. (25 mm) long Hilti X-DNI 27 P8 S15 or Hilti X-U 27 P8 S15 powder actuated floor pins with integral rim 9/16 in. (14 mm) diam washer may be used to secure steel straps to floor or roof assembly.

3. Forming Material* - Plugs — Preformed mineral wool plugs, formed to the shape of the fluted floor units or roof deck, friction fit to completely fill the flutes below the steel straps. Adjacent lengths of plugs to be tightly butted with butted seams spaced min 24 in. (610 mm) apart along the length of the flutes.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP777 Speed Plugs

3A. **Forming Material* —** As an alternate to Item 3, min 4 pcf (64 kg/m ³) mineral wool batt insulation forming material cut to the shape of the fluted floor units or roof deck and friction fit to completely fill the flutes above the steel straps. Adjacent lengths of batts to be tightly butted with butted seams spaced min 24 in. (610 mm) apart along the length of the flutes.
INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing
JOHNS MANVILLE — Safing
ROCK WOOL MANUFACTURING CO — Delta Board
ROCKWOOL — SAFE
THERMAFIBER INC — Type SAF

4. Wall Assembly — The 1 hr or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor and Ceiling Runners —** Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 4B). Ceiling runner installed parallel to direction of fluted steel floor deck, directly beneath steel straps, and secured to straps with two No. 8 self-drilling, self-tapping steel screws per strap.

A1. **Light Gauge Framing* — Slotted Ceiling Runner —** As an alternate to the ceiling runner in Item 4A, ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 4B). Ceiling runner installed parallel to direction of fluted steel floor deck, directly beneath steel straps, and secured to straps with two No. 8 self-drilling, self-tapping steel screws per strap. When slotted ceiling runner is used, deflection channel (Item 3A) shall not be used.
BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK, SLPTRK325
CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
CLARKDIETRICH BUILDING SYSTEMS — Types SLT, SLT-H
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
METAL-LITE INC — The System
RAM SALES L L C — RAM Slotted Track
THE STEEL NETWORK INC — VertiTrack VT series, 250VT, 362VT, 400VT, 600VT and 800VT

A2. **Light Gauge Framing* - Notched Ceiling Runner —** As an alternate to the ceiling runners in Items 2A through 2A1, notched ceiling runners to consist of C-shaped, galv steel channel with notched flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors spaced max 24 in. (610 mm) OC.
OLMAR SUPPLY INC — Type SCR

A3. **Light Gauge Framing* — Slotted Ceiling Runner —** As an alternate to the ceiling runner in Item 4A through 4A2, ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 4B). Flange height of ceiling runner shall be 3-1/4 in. (83 mm) with 2 in. (51 mm) deep slots. Slotted ceiling runner installed parallel to direction of fluted steel floor deck, directly beneath steel straps, and secured to straps with two No. 8 self-drilling, self-tapping steel screws per strap.
SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track-Type SDS1

B. **Studs —** Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 3/4 in. (19 mm) to 1 in. (25 mm) less in length than assembly height with bottom nesting in and resting on the floor runner with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 4A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. Stud spacing not to exceed 24 in. (610 mm) OC. When slotted ceiling runner (Item 4A3) is used, steel studs cut in lengths 3/4 to 1-3/4 in. (19 to 44 mm) less than floor to ceiling height and secured to slotted ceiling runner with No. 8 by 1/2 (13 mm) long wafer head steel screws at +/- 3/16 in. (5 mm) of the mid-height of slot on each side of wall.

C. **Gypsum Board* —** For 1 hr assembly, one layer of 5/8 in. (16 mm) thick gypsum board as specified in the individual Wall and Partition Design. For 2 hr assembly, two layers of 5/8 in. (16 mm) thick gypsum board are specified in the individual Wall and Partition Design. For both hourly ratings, a nominal 1-1/2 in. (38 mm) gap shall be maintained between the top of the gypsum board and the bottom surface of the steel floor units and the top row of screws shall be installed into the studs 3 in. (76 mm) below the valleys of the steel floor units.
The hourly ratings of the joint system are dependent on the hourly rating of the wall.

5. Joint System — Max separation between bottom of floor and top of wall is 1-1/2 in. (38 mm). The joint system is designed to accommodate a max 50percent compression from its installed width. The joint system consists of a forming material and a fill material between the top of the gypsum board and the bottom of the floor, as follows:

A. **Forming Material* —** Min 4 pcf (64 kg/m ³) density mineral wool batt insulation cut shall be cut into strips to fill the gap between the top of gypsum board and bottom of the floor units. The width of the strips shall be equal to the total thickness of the gypsum board. The strips of mineral wool are compressed 50 percent in thickness and firmly packed into the gap between the top of the gypsum board and bottom of the mineral wool plug or steel floor units.
INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing
JOHNS MANVILLE — Safing
ROCK WOOL MANUFACTURING CO — Delta Board
ROCKWOOL — SAFE
THERMAFIBER INC — Type SAF

A1. **Forming Material* - Strips —** (Optional) - Nom 5/8 in. (16 mm) and 1-1/4 in. (32 mm) wide precut mineral wool strips for 1 hr and 2 hr rated assemblies respectively. The strips are compressed 50 percent in thickness and firmly packed into the gap between the top of the gypsum board and bottom of the steel floor units on both sides of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 767 Speed Strips

B. **Fill, Void or Cavity Material* - Sealant —** Min 1/8 in. (3.2 mm) wet thickness (min 1/16 in. or 1.6 mm dry thickness) of fill material sprayed or troweled on each side of the wall to completely cover the mineral wool forming material and to overlap a min of 1/2 in. (13 mm) onto gypsum board, steel floor units or roof deck and steel straps on both sides of the wall and min 2 in. (51 mm) onto spray-applied fire resistive material (Item 1C).
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SP WB Firestop Joint Spray

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**
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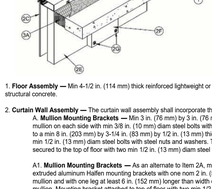
Design No. CW-D-1015

June 23, 2016
F Rating — 2 Hr
T Rating — 1/2 Hr
Linear Opening Width — 4 In. Max
L Rating At Ambient — Less Than 1 CFM/sq ft
L Rating At 400 F — Less Than 1 CFM/sq ft
Class II Movement Capabilities — 5% Vertical Shear



1. Floor Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete.

2. Curtain Wall Assembly — The curtain wall assembly shall incorporate the following construction features:

A. **Mullion Mounting Brackets —** Min 3 in. (76 mm) by 3 in. (76 mm) by 1/4 in. (6 mm) thick steel angles attached through the mullion on each side with min 3/8 in. (10 mm) diam steel bolts with steel nuts and washers. The brackets are attached to a min 8 in. (203 mm) by 3-1/4 in. (83 mm) by 1/2 in. (13 mm) thick steel angles with a min 4 in. (51 mm) long with min 1/2 in. (13 mm) diam steel bolts, with steel nuts and washers. The 8 in. (203 mm) by 3-1/4 in. (83 mm) angle is secured to the top of floor with two min 1/2 in. (13 mm) diam steel masonry anchors in conjunction with steel washers.

A1. **Mullion Mounting Brackets —** As an alternate to Item 2A, min 8 in. (203 mm) wide by 3/4 in. (19 mm) thick extruded aluminum Hafeln mounting brackets with one nom 2 in. (51 mm) high leg for support and attachment of mullion and with one leg at least 6 in. (152 mm) longer than the mullion for anchorage to floor with min 1/2 in. (13 mm) diam steel masonry anchors in conjunction with washer plates supplied with mullion.

B. **Framing —** The two-piece rectangular tube mullions (vertical members) and transoms (horizontal members) shall be min 2-1/2 in. (64 mm) wide by 7-1/2 in. (191 mm) deep and shall be formed from min 0.100 in. (2.5 mm) thick aluminum. Mullions spaced max 60 in. (1.52 m) OC and secured to mullion mounting brackets (Item 2A) at each floor level. Interior face of mullions to be flush with the face of wall at max 1 in. (102 mm) from edge of floor assembly. Transoms to be spaced min 24 in. (610 mm) OC. The minimum height from the top of the floor to the bottom of the vision panel sill is 0 in. The maximum height from the top of the floor to the bottom of horizontal transom is 3 in. (76 mm).

C. **Spandrel Panels —** The spandrel panels shall consist of one of the following types:

a. **Glass Panels —** Nom 1/4 in. (6 mm) thick opaque heat-strengthened glass. Each panel secured in position with aluminum pressure plates in conjunction with glazing gaskets and steel screws.

b. **Aluminum Panels —** Nom 1/8 in. (3 mm) thick aluminum panels with 1/4 in. (6 mm) thick edges. Each panel secured in position with aluminum pressure plates in conjunction with gaskets and steel screws.

c. **Stone Panels —** Nom 1-3/16 in. (46 mm) thick polished granite spandrel panels with 1 in. (25 mm) thick gauged edges. Each panel secured in position with aluminum pressure plates in conjunction with gaskets and steel screws.

D. **Vision Panels —** Nom 1/4 in. (6 mm) thick transparent heat-strengthened glass or nom 1 in. (25 mm) thick insulated glass units consisting of two lites of nom 1/4 in. (6 mm) thick transparent heat-strengthened glass separated by a 1/2 in. (25 mm) air space. Each panel secured in position with aluminum pressure plates in conjunction with glazing gaskets and steel screws.

E. **Curtain Wall Insulation* —** Min. 2 in. (51 mm) thick mineral wool batt insulation faced on one side with aluminum foil/scrim vapor retarder. Impasse® Horizontal Hangers are installed in the insulation batt 6 in. (152 mm) from each mullion end and spaced max 16 in. (406 mm) OC across at the window sill transom. One Impasse® Vertical Hanger is installed along each vertical mullion in the insulation batt at 6 in. (152 mm) up from the bottom of the insulation batt. Insulation batt is then installed in spandrel area flush with the interior surface of the framing with no vertical or horizontal seams exposed. Insulation batt and Impasse® Hangers are now attached to top horizontal transom. Impasse® Vertical Hangers are screw attached to vertical mullions using min No. 10 by min. 1/2 in. (13 mm) self-drilling/self-taping screws. No attachment to the lower horizontal transom is required.
THERMAFIBER INC — FIRESPAN® 90

F. **Mullion Covers — Curtain Wall Insulation* —** Nom 2 in. (51 mm) thick mineral wool batt insulation faced on one side with aluminum foil/scrim vapor retarder, supplied in min 24 by 48 in. (610 by 1219 mm) boards. Min. 12 in. (305 mm) wide strips to be cut from boards and secured to curtain wall insulation (Item 2E) with a min. of four Spiral Anchors (Item 2G) spaced a max 12 in. (305mm) OC. Mullion covers to tightly abut the bottom of the forming material (Item 3A).
THERMAFIBER INC — FIRESPAN® 90

G. **Light Gauge Framing* — Spiral Anchor —** Galv steel wire spiral anchors used to secure the curtain wall insulation (Item 2F and 2G). Nom length of spiral anchors to be 3-3/4 in. (95 mm), spaced max 12 in. (305 mm) OC.
THERMAFIBER INC — Spiral Anchor

3. Safing System — Max separation between edge of floor assembly and face of framing members (at time of installation) is 4 in. (102 mm). The safing system is designed to accommodate vertical shear movement up to a max of 5 percent of its installed width. The safing system shall incorporate the following construction features:

A. **Forming Material* —** Nom 4 pcf (64 kg/m3) density mineral wool batt insulation. Batt sections cut to a 4 in. (102 mm) width and stacked to a thickness which is min 25 percent greater than the width of the linear gap between the curtain wall insulation and the edge of the concrete floor slab. The forming material is compressed and inserted cut-edge-first into linear gap such that its top surface is flush with the top surface of the floor assembly. A max of one layer of safing system is permitted between floor sections. Additional pieces of forming material to be friction-fit into gap between batt sections above mullion mounting clip at each mullion location.
THERMAFIBER INC — SAF

B. **Fill, Void or Cavity Material* —** Min 1/8 in. (3 mm) wet thickness (min 1/16 in. (1.5 mm) dry thickness) of fill material spray-applied over top of forming material and lapping min 1/2 in. (13 mm) onto the top surface of the floor and onto the curtain wall insulation (Item 2E) and mullion covers (Item 2F). When CFS-SP SIL is used, min wet (and dry) thickness of spray is 2 mm.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SP WB Firestop Joint Spray, CFS-SP SIL Firestop Silicone Joint Spray

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2016-06-23

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

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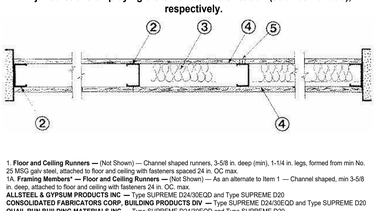
Design No. U465

March 2, 2022
Nonbearing Wall Rating — 1 HR.
*** 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) — Channel shaped runners, 3-5/8 in. deep (min), 1-1/4 in. legs, formed from min No. 25 MSG galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
1A. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 — Channel shaped, min 3-5/8 in. deep, attached to floor and ceiling with fasteners 24 in. OC, max.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME 024/30EQD and Type SUPREME D20
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME 024/30EQD and Type SUPREME D20
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME 024/30EQD and Type SUPREME D20
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME 024/30EQD and Type SUPREME D20
STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME 024/30EQD and Type SUPREME D20
TELLING INDUSTRIES L L C — Type SUPREME 024/30EQD and Type SUPREME D20
UNITED METAL PRODUCTS INC — Type SUPREME 024/30EQD and Type SUPREME D20

1B. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 25 MSG steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™ Track
MARINOWARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track
IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

1C. Floor and Ceiling Runners — (Not Shown) — For use with Item 2C — 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.
1D. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Item 1 through 1C — For use with Item 2D and 4G only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK
DMFCWSS L L C — ProTRAK
MBA METAL FRAMING — ProTRAK
RAM SALES L L C — Ram ProTRAK
STEEL NETWORK INC, THE — VertiTrack L L C — Tri-S ProTRAK

1E. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Items 1 through 1D — For use with Item 2E and 4I only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
TELLING INDUSTRIES L L C — TRUE-TRACK™

1F. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Items 1 through 1E — For use with Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 25 MSG steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
KIRII (HONG KONG) LTD — Type KIRII

1G. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Items 1 through 1F — For use with Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide, attached to floor and ceiling with fasteners spaced 24 in. OC max.
STUDCO BUILDING SYSTEMS — DeckSTUD 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 0.02 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.
MARINOWARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100
IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track VT100

1I. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Item 1 — For use with Item 2H, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
MARINOWARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

1J. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Items 1 — For use with Item 2, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide 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 — AlphaSTUD

1K. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Item 1 — For use with Item 2M, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep 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

1L. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Item 1 — For use with Item 2N, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CRACO MFG INC — SmartStud20™

2. Steel Studs — Channel shaped, 3-5/8 in. deep (min), formed from min No. 25 MSG galv steel spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.
2A. Framing Members* — Steel Studs — As an alternate to Item 2 — Channel shaped studs, min 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME 024/30EQD and Type SUPREME D20
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME 024/30EQD and Type SUPREME D20
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME 024/30EQD and Type SUPREME D20
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME 024/30EQD and Type SUPREME D20
STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME 024/30EQD and Type SUPREME D20
TELLING INDUSTRIES L L C — Type SUPREME 024/30EQD and Type SUPREME D20
UNITED METAL PRODUCTS INC — Type SUPREME 024/30EQD and Type SUPREME D20

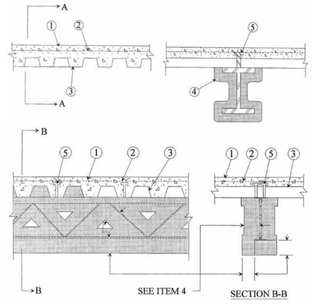
2B. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — For use with Item 1B, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™
CRACO MFG INC — SmartStud20™
MARINOWARE, DIV OF WARE INDUSTRIES INC — Viper20™
IMPERIAL MANUFACTURING GROUP INC — Viper20™

2C. Steel Studs — (As an alternate to Item 2, For use with Item 1C) — 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. See materials in Item 4) that require Item 2C studs.
2D. Framing Members* — Steel Studs — As an alternate to Items 2 through 2C — For use with Item 1D and 4G only, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.
CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD
DMFCWSS L L C —

Design No. D985

November 19, 2022

Restrained Assembly Ratings — 3/4, 1, 1-1/2, 2 or 3 Hr (See Items 1, 3A, 6 and 10)
Unrestrained Assembly Rating — 0 Hr (See Items 3, 3A, 4, 4A and 10)
Unrestrained Beam Ratings — 1, 1-1/2, 2, 3 and 4 Hr (See Items 4, 4A and 10)
Loading Determined by Allowable Stress Design Method or Load and Resistance Factor Design Method published by the American Institute of Steel Construction, or in accordance with the relevant Limit State Design provisions of Part 4 of the National Building Code of Canada.
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Supports — W8 x 28 or alternate (per Section IV.6 in the front of the Fire Resistance Directory) steel beam or min 10K1 steel joists when joist substitution applied.
1A. Normal Weight or Lightweight Concrete — Normal weight concrete carbonate or siliceous aggregate, 3500 psi compressive strength, vibrated. Lightweight concrete, expanded shale, or slate aggregate by rotary-kiln method, or expanded clay aggregate by rotary-kiln or sintered-grate method, 3000 psi compressive strength, vibrated, 4 to 7 percent entrained air.

Restrained Assembly Rating Hr	Concrete (Type)	Concrete Unit Weight pcf	Concrete Thkns In
1	Normal Weight	147-153	3-1/2
1-1/2	Normal Weight	147-153	4
2	Normal Weight	147-153	4-1/2
3	Normal Weight	147-153	5-1/4
3/4 or 1	Lightweight	107-113	2-1/2
1	Lightweight	107-120	2-5/8
1-1/2	Lightweight	107-113	3
2	Lightweight	107-113	3-1/4
2	Lightweight	107-116	3-1/4*
2	Lightweight	114-120	3-1/2
3	Lightweight	107-113	4-3/16
3	Lightweight	114-120	4-7/16

* For use with 2 or 3 in. steel floor and form units only.

2. Welded Wire Fabric — 6 x 6, 10 x 10 SWG.
2A. Negative Reinforcement — (Not Shown) — Optional — For 3/4, 1, 1-1/2 and 2 Hr Restrained Assembly Rating Only. Used in lieu of Item 2 and with Item 2B. For floor spans with concrete cast continuous over the supporting beams. Deformed bars designed to resist the support moments of the concrete slab in accordance with the latest ACI Building Code Specifications.
2B. Fiber Reinforcement — (Not Shown) — For 3/4, 1, 1-1/2 and 2 Hr Restrained Assembly Rating Only. Required with Item 2A. Engineered synthetic fibers added to concrete mix to control shrinkage cracks in concrete. Fibers added to concrete mix at rate of 5 lbs of fiber for each cubic yard of concrete.
GCP APPLIED TECHNOLOGIES INC — Type Strux 90/40

3. Steel Floor or Form Units* — Composite or Non-Composite, fluted, 1-1/2, 2, or 3 in. deep galv units welded to beam or joist. Min gauge is 22 MSG.
ASC STEEL DECK, DIV OF ASC PROFILES L L C — 32 in. wide Types NH-32, NHN-32, NHF-32; 36 in. wide Types BH-36, BHN-36, BHN-35-1/4, BHF-36, 2WH-36, 2WHS-36, 3WxH-36, 3WH-36, 3W-36, DG3W-36. All units may be galvanized or Prime Shield. May be vented designated with a "V" suffix to the product name.
CANAM GROUP INC — 36 in. wide Types P-3623, P-3606, P-3615 and 24 in wide Type P-2432 composite; 24 or 36 in. wide Type 3 in. LOK-Floor; 36 in. wide Types 1.5B, 1.5BI, 1.5BL and 1.5BL.
CANAM STEEL CORP — 24 in. wide, Types 1-1/2, 2 or 3 in. LOK-Floor; 36 in. wide, Types 2 or 3 in. LOK-Floor; 24 in. wide, Type N-LOK; 24, 30 or 36 in. wide, Type 1-1/2 in. B-LOK.
NEW MILLENNIUM BUILDING SYSTEMS L L C — 24 in. wide Type Versa-Dek
DECK WEST INC — 36 in. wide Types B-DW, 2-DW or 3-DW. Side joints of 2-DW and 3-DW may be fastened together with min 1 in. long No. 12 x 14 self-drilling, self-tapping steel screw 36 in. OC
DESIGN ASSISTANCE CONSTRUCTION SYSTEMS INC — 36 in. wide Type DACS1.5CD, or 24 in. wide Types DACS2.0CD or DACS3.0CD
EPIC METALS CORP — 24 in. wide Types EC150, EC300, EC366, EC150, EC300 inverted; 30 in. wide Types ECB150, ECBR150; 36 in. wide Types EC266
INTSEL STEEL EAST LLC — 36 in. wide Types 1.5" COMPOSITE/FLOOR, 2" COMPOSITE/FLOOR, 3" COMPOSITE/FLOOR.
MARLYN STEEL DECKS INC — Types 1.5 CF, 2.0 CF or 3.0 CF
NEW MILLENNIUM BUILDING SYSTEMS L L C — 24 or 36 in. wide Types 2.0CD, 3.0CD, 2.0CFD, 3.0CFD, 3.0CFDES; 24, 30 or 36 in. wide Types 1.5CD, 1.5CDI, 1.5CDR, 1.5CFD. Units may be phos/painted or galvanized.
SAMSON METAL LTD — Type 1-1/2" deep SM60OFD-CL deck.
VALLEY JOIST+DECK — 24 or 36 in. wide Types WVC 1-1/2 or WVC 2
VERCO DECKING INC - A NUCOR CO — FORMLOK™ deck types PLB, B, BR, PLN3, N3, PLN, N, PLW2, W2, PLW3, W3. Units are min 24 in. wide and may be galvanized, phos./pkt., or mill finish. Units may be cellular or acoustical cellular, with the suffix "CD" or "CD-AC" added to the product name, respectively. All non-cellular deck may be vented or non-vented. 12 in. wide PLW2, W2, PLW3 or W3 units may be blanked with 24 or 36 in. wide PLW2, W2, PLW3 or W3 units, respectively; or Type N3.
VICWEST INC. — Types HBS938, HBS938CL and HBS938CL-IN Composite Steel Decks; Types RDS938, RDS938CL and RDS938CL-IN. Non-Composite Steel Decks.
VULCRAFT, DIV OF NUCOR CORP — 24, 30 or 36 in. wide, Type 1.5 VL, 1.5 VLI, 1.5PLVLI; 24 or 36 in. wide. Types 2VLI, 2.0PLVLI, 3VLI, 3.0PLVLI; 36 in. wide Types 1.5 SB, 1.5 SBR; 24 or 36 in wide Types 2.0 SB, 3.0 SB, 36 in. wide Type High Strength 1.5 SBI, 36 in. wide Type High Strength 1.5 SBN

The Unrestrained Assembly Rating is equal to the Unrestrained Beam Rating for a max of 3 Hr and is limited to the following floor units and spans:
(a) 1-1/2, 2 and 3 in. deep, 24 in. wide, 22 MSG or thicker fluted with clear spans not more than 7 ft, 8 in.
(b) 1-1/2, 2 and 3 in. deep, 24 in. wide, 20 MSG or thicker fluted with clear spans not more than 8 ft, 8 in.
(c) 1-1/2 and 2 in. deep, 24 in. wide, 16 MSG or thicker fluted with clear spans not more than 9 ft, 11 in.
(d) 3 in. deep, 36 in. wide, 18 MSG or thicker fluted and 24 in. wide with clear spans not more than 13 ft, 2 in.

For assemblies utilizing 3-1/4 in. lightweight concrete topping with a max Restrained Assembly Rating of 2 Hr; the Unrestrained Assembly Rating is equal to the Unrestrained Beam Rating and is limited to the following floor units and spans:
(a) 1-1/2, 2, and 3 in. deep, 24 or 36 in. wide, 22 MSG fluted with clear spans not more than 9 ft, 6 in.
(b) 2 and 3 in. deep, 24 or 36 in. wide 20 MSG fluted with clear spans not more than 10 ft, 0 in.
(c) 3 in. deep, 24 in. wide, 20 MSG flutedwith clear spans not more than 13 ft, 2 in.

3A. Steel Floor and Form Units* — (not Shown) As an alternate to Item 3. Nom 8 or 9 in. deep composite, galv steel units, Min thickness 0.0373 inch (20 MSG). Side joints of adjacent units fully overlapping, fastened together by using 1-1/4 in. long self-drilling, self-tapping steel screws driven through Shear-Bond Clips (not shown) at 13-3/4 in. OC. Steel end closures flashings (not shown) made of min 0.056 inch thick (16 MSG) galv steel, fixed to the steel work before decking is placed.
In addition to the Steel Floor and Form Units, the following components are required:
a). Welded Wire Fabric — 6 X 6 - Min wire thickness W2.9 X W2.9 slab reinforcement. As an alternate, max # 4 bars spaced 12-in. OC in both directions shall be used. When re-bars are used, the concrete slab thickness shall be increased a minimum 5/16 in.
b). Rib Reinforcement —Min. #4 rebar. Min concrete cover below the steel reinforcement shall be 1-9/16 in. Reinforcement support chairs spaced at max 41-1/2 inches OC.
The flute areas above the beam/joist are to be : (1) filled with concrete, (2) filled with Spray-Applied Fire Resistive Material or (3) the beam/joist coated with Spray-Applied Fire Resistive Material installed as described in the design to thickness required when all cellular Steel Floor and Form Units are used

See Design No. D989 for a typical illustration of the components. Consult the deck manufacturer for comprehensive load tables and design parameters referencing UL Design D989.
BAILEY METAL PRODUCTS LTD — Type COMSLAB™ 210 and COMSLAB™ 225, Steel End Closure Flashing

4. Spray-Applied Fire Resistive Materials — Applied by mixing with water and spraying in one or more coats to a final thickness as shown in the tables below, to steel beam surfaces which must be clean and free of dirt, loose scale and oil. Min avg and min ind density of 15/14 pcf, respectively for Types MK-6/HY, MK-6/HY Extended Set, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, MK-10 HB, MK-10 HB Extended Set, MK-1000/HB, MK-1000/HB Extended Set, RG. Min avg and min ind density of 22/19, respectively for Types Z-106, Z-106/G and Z-106/HY. Min avg and min ind density of 40/36 pcf respectively for Types AV-650, Z-146, Z-146PC and Z-146T cementitious mixture. Min avg and min ind density of 50/45 pcf respectively for Types AV800, Z-156, Z-156T and Z-156PC. For method of density determination, refer to Design Information Section.

Restrained Assembly Rating Hr	Unrestrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Fluted Floor Units w/Light Weight Concrete	W8x28 Beam (see Note #1) Fluted Floor Units w/Normal Weight Concrete
1	1	1	3/8	5/16
			5/8*	
1-1/2	1	1	3/8	5/16
			5/8*	
1-1/2	1-1/2	1-1/2	5/8	9/16
			15/16*	
2	1	1	3/8	5/16
			5/8*	
2	2	2	15/16	13/16
			1-1/4*	
3	1-1/2	1-1/2	5/8	9/16
3	3	3	1-9/16	1-5/16
3	3	4	2-1/8	1-7/8

Note #1: Joists from the N series designs may be substituted for the listed beam. When joists are substituted, the restrained rating of the joist must be equal to or greater that the restrained rating of the assembly. Additional joist substitution requirements are contained in the front of the Fire Resistance Directory.

This thickness applies when optional Item 10 is used over 3-1/4 in. light weight concrete topping.

Restrained Assembly Rating Hr	Unrestrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Joist Thickness: Joist Spacing More than 4 ft OC	Joist Thickness: Joist Spacing 4 ft OC or less
1	1	1	7/8	3/4
1-1/2	1	1	7/8	3/4
1-1/2	1-1/2	1-1/2	1-5/16	1-1/8
2	1	1	7/8	3/4
2	2	2	1-3/4	1-1/2
3	1-1/2	1-1/2	1-7/16	1-7/16
3	3	3	2-9/16	2-5/16

The thicknesses of Spray-Applied Fire Resistive Materials shown in the table below are applicable when normal weight concrete is used and the thickness applied to the beams' lower flange edges is reduced to one-half that shown in the table.

Restrained Assembly Rating Hr	Unrestrained Assembly Rating Hr	Unrestrained Beam Rating Hr	W8x28 Beam and NW Concrete
1	1	1	3/8
1-1/2	1	1	3/8
1-1/2	1-1/2	1-1/2	5/8
2	1	1	3/8
2	2	2	7/8
3	1-1/2	1-1/2	5/8
3	3	3	1-7/16
3	3	4	1-15/16

+ Thickness applied to beams' lower flange edges shall be a minimum of 1/4 in.

Design No. D985
(cont.)

ARABIAN VERMICULITE INDUSTRIES — Types MK-6/HY, MK-6/HY Extended Set, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, MK-10 HB, MK-10 HB Extended Set, MK-1000/HB, MK-1000/HB Extended Set, Z-106, Z-106/G, Z-106/HY, Z146, AV-650, AV-800
GCP KOREA INC — Types MK-6/HY, MK-6/HY Extended Set, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, MK-10 HB, MK-10 HB Extended Set, MK-1000/HB, MK-1000/HB Extended Set, Z-106/G, Z-106, Z-106/HY, Z-146
GCP APPLIED TECHNOLOGIES INC — Types MK-6/HY, MK-6/HY Extended Set, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, MK-10 HB, MK-10 HB Extended Set, MK-1000/HB, MK-1000/HB Extended Set, RG, Z-106/G, Z-106, Z106/HY, Z-146, Z-146T, Z-146PC, Z-156, Z-156T, Z-156PC

4A. Sprayed Fiber* — (Optional, Not Shown) Sprayed Fiber, Classified for Surface Burning Characteristics (BNST), having a maximum applied density of 3.5 pcf applied over both Steel Floor and Form Units (Item 3 and 3A) and over Spray-Applied Fire Resistive Material (Item 4) on Supports (Item 1). Sprayed Fiber may be applied to the underside of Steel Floor and Form Units (Item 3 and 3A) at an unlimited thickness. Sprayed Fiber may be applied over Spray-Applied Fire Resistive Material (Item 4) on Supports (Item 1) according to the following tables:

Allowable Sprayed Fiber Thickness over SFRM applied to Beams (Item 1)

Installed SFRM Thickness (in.) on Beam	SFRM Density (lb/ft³) 15	22	40	50
	Sprayed Fiber Thickness (in.)			
5/16	6	6	6	6
3/8	6	6	6	6
9/16	6	6	6	6
5/8	6	6	6	6
13/16	6	6	6	6
7/8	6	6	6	6
15/16	6	6	6	6
1-1/4	6	6	6	6
1-5/16	7-3/4	6	6	6
1-7/16	7-1/4	6	6	6
1-9/16	6-11/16	6	6	6
1-7/8	5-3/8	7-7/8	5	6-1/4
1-15/16	5-1/16	7-7/16	4-5/16	5-3/8
2-1/8	4-5/16	6-5/16	2-1/8	2-11/16

Allowable Sprayed Fiber Thickness over SFRM applied to Joists (Item 1)

Installed SFRM Thickness (in.) on Joist	SFRM Density (lb/ft³) 15	22	40	50
	Sprayed Fiber Thickness (in.)			
3/4	7 3/4	8	8	8
7/8	7 1/4	8	8	8
1 1/8	6 3/16	8	8	8
1 1/4	5 5/8	8	8	8
1 5/16	5 3/8	7 7/8	8	8
1 7/16	4 13/16	7 1/16	8	8
1 3/4	3 1/2	5 1/8	8	8
2 5/16	1 1/16	1 9/16	8	8
2 9/16	0	0	7 7/8	8

INTERNATIONAL CELLULOSE CORP — Type K13, URE-K, or SonaSpray FC

4B. Sprayed Fiber* — (Optional, Not Shown) Sprayed Fiber, Classified for Surface Burning Characteristics (BNST), having a maximum applied density of 2.8 pcf applied over the Spray-Applied Fire Resistive Material (Item 4) on both the Steel Floor and Form Units (Item 3 and 3A) and on the Supports (Item 1). Sprayed Fiber may be applied to the underside of Steel Floor and Form Units (Item 3 and 3A) at an unlimited thickness. Sprayed Fiber may be applied over Spray-Applied Fire Resistive Material (Item 4) on Supports (Item 1) according to the following tables:

Allowable Sprayed Fiber Thickness over SFRM applied to Beams (Item 1)

Installed SFRM Thickness (in.) on Beam	SFRM Density (lb/ft³) 15	22	40	50
	Sprayed Fiber Thickness (in.)			
5/16	5	5	5	5
3/8	5	5	5	5
9/16	5	5	5	5
5/8	5	5	5	5
13/16	5	5	5	5
7/8	5	5	5	5
1-1/4	5	5	5	5
1-5/16	5	5	5	5
1-7/16	5	5	5	5
1-9/16	5	5	5	5
1-7/8	5	5	5	5
2 5/16	2 11/16	3 3/8		

Allowable Sprayed Fiber Thickness over SFRM applied to Joists (Item 1)

Installed SFRM Thickness (in.) on Joist	SFRM Density (lb/ft³) 15	22	40	50
	Sprayed Fiber Thickness (in.)			
3/4	5	5	5	5
7/8	5	5	5	5
1 1/8	5	5	5	5
1 1/4	5	5	5	5
1 5/16	5	5	5	5
1 7/16	4 3/8	5	5	5
1 3/4	4 3/8	5	5	5
2 5/16	1 5/16	1 15/16	5	5
2 9/16	0	0	5	5

MONOGLASS INC — Type Monoglas

4C. Sprayed Fiber* — (Optional, Not Shown) Sprayed Fiber, Classified for Noncombustible Building Materials (BICW), having a maximum applied density of 3.5 pcf applied over the Spray-Applied Fire Resistive Material (Item 4) on both the Steel Floor and Form Units (Item 3 and 3A) and on the Supports (Item 1). Sprayed Fiber may be applied to the underside of Steel Floor and Form Units (Item 3 and 3A) at an unlimited thickness. Sprayed Fiber may be applied over Spray-Applied Fire Resistive Material (Item 4) on Supports (Item 1) according to the following tables:

Allowable Sprayed Fiber Thickness over SFRM applied to Beams (Item 1)

Installed SFRM Thickness (in.) on Beam	SFRM Density (lb/ft³) 15	22	40	50
	Sprayed Fiber Thickness (in.)			
5/16	5	5	5	5
3/8	5	5	5	5
9/16	5	5	5	5
5/8	5	5	5	5
13/16	5	5	5	5
7/8	5	5	5	5
15/16	5	5	5	5
1-1/4	5	5	5	5
1-5/16	5	5	5	5
1-7/16	5	5	5	5
1-9/16	5	5	5	5
1-7/8	5	5	5	5
1-15/16	5	5	4 5/16	5
2-1/8	4 5/16	5	2 1/8	2 11/16

Allowable Sprayed Fiber Thickness over SFRM applied to Joists (Item 1)

Installed SFRM Thickness (in.) on Joist	SFRM Density (lb/ft³) 15	22	40	50
	Sprayed Fiber Thickness (in.)			
3/4	5	5	5	5
7/8	5	5	5	5
1 1/8	5	5	5	5
1 1/4	5	5	5	5
1 5/16	5	5	5	5
1 7/16	4 13/16	5	5	5
1 3/4	3 1/2	5	5	5
2 5/16	1 1/16	1 9/16	5	5
2 9/16	0	0	5	5

THERMACOUSTIC IND. — Type TC-41

5. Shear-Connector-Studs-Optional — Studs 3/4 in. diam by 3 in. long, for 1-1/2 in. deep form units to 5-1/4 in. long for 3 in. deep form units, headed type or equivalent per AISC specifications. Welded to the top flange of the beam through the steel form units.

6. Electrical Inserts — (Not Shown) — Classified as "Outlet Boxes and Fittings Classified for Fire Resistance".
WIREMOLD CO — After set Inserts. Single-service after set inserts installed per accompanying installation instructions in 2-1/2 in. diam hole core-drilled through min 3-1/4 in. thick concrete topping to top of cell of any min 3 in. deep cellular steel floor unit specified under Item 3. Spacing shall be no more than one insert in each 10 sq ft of floor area in each span with a min center to center spacing of 16 in. If the high potential and low potential raceways of the cellular steel floor unit are separated by a valley filled with concrete, the center to center spacing of the high potential and low potential single-service after set inserts may be reduced to a min of 7-1/2 in. Restrained Assembly Rating is 2 hr or less with internally protected Type 436 after set insert with Types M4-, M6- or M8- Series single-service activation fitting
WIREMOLD CO — Internally protected Type 436 after set insert with Type M4-, M6- or M8- Series single-service activation fitting

7. Roof Covering Materials* — (Optional, not shown) — Consisting of materials compatible with insulations described herein which provide Class A, B or C coverings. See Roofing Materials and Systems Directory - Roof Covering Materials (TEVT).

8. Insulating Concrete — (Not Shown) — Optional. Various types of insulating concrete prepared and applied in the thickness indicated:
A. Vermiculite Concrete — (Not Shown) — Optional.
1. Blend 6 to 8 cu ft of Vermiculite Aggregate* to 94 lb Portland Cement and air entraining agent. Min thickness of 2 in. as measured to the top surface of the structural concrete or foamed plastic (Item 9) when it is used.
SIPLAST INC
VERMICULITE PRODUCTS INC

2. Blend 3.5 cu ft. of Type NVC Concrete Aggregate* or Type NVS Vermiculite Aggregate* to 94 lb Portland Cement. Slurry coat, 1/8 in. thickness beneath foamed plastic (Item 9) when used, 1 in. min topping thickness.
SIPLAST INC
VERMICULITE PRODUCTS INC

Vermiculite concrete may be covered with Roof Covering Materials (Item 7).

B. Cellular Concrete-Roof Topping Mixture* — Concentrate mixed with water and Portland Cement per manufacturers specifications. Min. thickness of 2-in. as measured to the top surface of the structural concrete or foamed plastic (Item 9) when used. 28-day min compressive strength of 190 psi as determined with ASTM C495-66.
AERIX INDUSTRIES — Cast dry density of 37 (+ or -) 3.0 pcf
CELCORE INC — Type Celcore with cast dry density of 31 (+ or - 3.0) pcf or Type Celcore MF with cast dry density of 29 (+ or - 3.0) pcf
ELASTIZELL CORP OF AMERICA — Type II. Mix #1 of cast dry density 39 (+ or -) 3.0 pcf, Mix #2 of cast dry density 40 (+ or -) 3.0 pcf, Mix #3 of cast dry density 47 (+ or -) 3.0 pcf
SIPLAST INC — Mix No. 1 or 2. Cast dry density of 32+3 (Mix No. 1) or 36+3 (mix No. 2) pcf

C. Perlite Concrete — Mix consists of 6.2 cu ft Perlite Aggregate* to 94 lbs of Portland cement and 1-1/2 pt air entraining agent. Compressive strength 80 psi min.
See Perlite Aggregate (CFFX) category for names of Classified companies.

D. Cellular Concrete-Roof Topping Mixture* — Foam Concentrate mixed with water, Portland Cement and UL Classified Vermiculite Aggregate per manufacturer's application instructions. Cast dry density of 33 (+ or -) 3.0 pcf and 28-day compressive strength of min 250 psi as determined in accordance with ASTM C495-86.
AERIX INDUSTRIES — Mix No. 3
SIPLAST INC — Mix No. 3

E. Floor Topping Mixture* — (Optional, not shown) — Approx 4.5 gal of water to 41 lbs of NVS Premix floor topping mixture. Slurry coat 1/8 in. thickness beneath foamed plastic (Item 9) when used, 1 in. min topping thickness.
SIPLAST INC

Floor Topping Mixture may be covered with Built-Up or Single Membrane Roof Covering.

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(cont.)

9. Foamed Plastic* — (Optional, not shown) — For use only with vermiculate or cellular concretes or Floor Topping mixture (Item 8E) - Rigid polystyrene foamed plastic insulation having slots and/or holes sandwiched between vermiculite concrete slurry which is applied to the normal or lightweight concrete surface and concrete topping.
SIPLAST INC
VERMICULITE PRODUCTS INC

10. Roof Insulation-Mineral and Fiber Boards* or Foamed Plastic* — (Optional, not shown, Not for use with Item 3) — Mineral and fiber boards or polyisocyanurate roof insulation applied over concrete floor with no restriction on board thickness. When mineral and fiber boards or polyisocyanurate roof insulation are used the unrestrained beam rating shall be increased by a min of 1/2 hr. See Mineral and Fiber Boards (CERZ) or Foamed Plastic (QCVW) category for names of Manufacturers.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

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REVISION:

SHEET TITLE: UL DESIGNS - D985
SCALE: (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. — CERT. NO. 53851 — NORTH CAROLINA — CHAPEL HILL

SEAL: Lauren Dunn Rockett — Registered Architect — North Carolina — Chapel Hill, NC — 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: G303

NOT FOR CONSTRUCTION

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/Central_11751-00_v22.rvt
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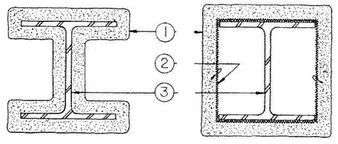
Design No. Y725

January 09, 2019

Ratings — 1, 1-1/2, 2, 3 and 4 h.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Spray-Applied Fire Resistive Materials*** - Applied by mixing with water and spraying in more than one coat to the thicknesses shown below, to steel surfaces which are clean and free of dirt, loose scale, and oil. Min avg and min ind density of 15/14 pcf respectively. Min avg and min ind density of 25/23 pcf respectively for Type Hi-S. Min avg and min ind density of 19/18 pcf respectively for Types 7GP and 7HD. For method of density determination, see Design Information Section, Sprayed Material.
The thickness of Spray-Applied Fire Resistive Materials for full flange and half flange thickness of the column (item 1) required for rating periods of 1 h, 1-1/2 h, 2 h, 3 h, 4 h may be determined by the following equations:

Full flange thickness

For 4, 5, SGP, SGP/AR, SEF/AR, SMD/AR, SEF, SMD, SAR, 7GP, 7HD, BGP, BEF, BMD, 9GP, 9EF, 9MD:	h = R/(0.9994W/D) + 0.9438)	0.338≤W/D≤6.76
For Hi S:	h = R/(0.9617W/D) + 1.1939)	0.338≤W/D≤6.76

Half flange thickness

For 4, 5, SGP, SGP/AR, SEF/AR, SMD/AR, SEF, SMD, SAR, 7GP, 7HD, BGP, BEF, BMD, 9GP, 9EF, 9MD:	For 1 hr rating	h= -0.318W/D) + 0.5465 — 0.338≤W/D≤2.55
		h = 1/4 — 2.55<W/D≤6.76
	For 1.5 hr rating	h = -0.337B/W/D) + 0.8817 — 0.338≤W/D≤6.76
	For 2 hr rating	h = -0.458W/D) + 1.1549 — 0.338≤W/D≤6.76
	For 3 hr rating	h = -0.621W/D) + 1.7575 — 0.338≤W/D≤6.76
	For 4 hr rating	h = -0.809W/D) + 2.3099 — 0.338≤W/D≤6.76
For Hi S:	For 1 hr rating	h = -0.25W/D) + 0.5006 — 0.338≤W/D≤2.55
		h = 1/4 — 2.55<W/D≤6.76
	For 1.5 hr rating	h = -0.274W/D) + 0.7913 — 0.338≤W/D≤6.76
	For 2 hr rating	h = -0.368W/D) + 1.0197 — 0.338≤W/D≤6.76
	For 3 hr rating	h = -0.5W/D) + 1.5564 — 0.338≤W/D≤6.76
	For 4 hr rating	h = -0.649W/D) + 2.0523 — 0.338≤W/D≤0.688 and 2.55≤W/D≤6.76
		h = -0.4364W/D +2.6127 — 0.688<W/D<2.55

Where:
h = Spray-Applied Fire Resistive Materials thickness in the range 0.25 to 3.875 in.
R = Fire resistance rating in hours (1 to 4 h)
D = Heated perimeter of steel column in inches
W = Weight of steel column in lbs per foot

As an alternate to the equation, the minimum full flange and half flange thickness of Spray-Applied Fire Resistive Materials required for various fire resistance ratings may be determined from the tables below:

For 4, 5, SGP, SGP/AR, SEF/AR, SMD/AR, SEF, SMD, SAR, 7GP, 7HD, BGP, BEF, BMD, SGP, 9EF, 9MD

FULL FLANGE TIP THICKNESS (in.)					Member		HALF FLANGE TIP THICKNESS (in.)			
1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr	Size x Wt	W/D	1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr
11/16	1-1/16	1-3/8	2-1/16	2-11/16	W44x113	0.556	3/4	1-1/8	1-7/16	2-1/8	2-13/16
11/16	1-1/16	1-3/8	2-1/16	2-11/16	W5x16	0.55	3/4	1-1/8	1-7/16	2-3/16	2-13/16
11/16	1	1-5/16	1-15/16	2-9/16	W5x19	0.644	11/16	1-1/16	1-3/8	2-1/16	2-11/16
13/16	1-3/16	1-9/16	2-3/8	3-1/8	W6x9	0.338	7/8	1-1/4	1-5/8	2-7/16	3-3/16
3/4	1-1/8	1-1/2	2-3/16	2-15/16	W6x15	0.431	7/8	1-3/16	1-9/16	2-5/16	3
3/4	1-1/8	1-7/16	2-3/16	2-7/8	W6x12	0.448	13/16	1-3/16	1- 9/16	2-5/16	3
11/16	1	1-3/8	2	2-11/16	W6x20	0.563	3/4	1-1/8	1-7/16	2-1/8	2-13/16
11/16	1	1-5/16	2	2-5/8	W6x16	0.584	3/4	1-1/16	1-3/8	2-1/16	2-11/16
5/8	15/16	1-1/4	1-7/8	2-1/2	W6x25	0.696	11/16	1-1/16	1-3/8	2	2-5/8
3/4	1-1/8	1-1/2	2-1/4	2-15/16	W8x13	0.421	7/8	1-3/16	1-9/16	2-5/16	3-1/16
3/4	1-1/16	1-7/16	2-1/8	2-13/16	W8x15	0.481	13/16	1-3/16	1-1/2	2-1/4	2-15/16
3/4	1-1/16	1-7/16	2-1/8	2-13/16	W8x18	0.499	13/16	1-1/8	1-1/2	2-1/4	2-7/8
11/16	1	1-3/8	2	2-11/16	W8x21	0.577	3/4	1-1/8	1-7/16	2-1/8	2-13/16
11/16	1	1-5/16	2	2-5/8	W8x24	0.591	3/4	1-1/16	1-3/8	2-1/16	2-11/16
5/8	15/16	1-1/4	1-7/8	2-1/2	W8x31	0.665	11/16	1-1/16	1-3/8	2-1/16	2-11/16
5/8	15/16	1-1/4	1-7/8	2-1/2	W8x28	0.688	11/16	1-1/16	1-3/8	2	2-5/8
5/8	15/16	1-1/16	1-13/16	2-3/8	W8x35	0.749	11/16	1	1-5/16	1-15/16	2-9/16
1/2	7/8	1-1/8	1-11/16	2-1/4	W8x40	0.849	9/16	15/16	1-1/4	1-7/8	2-1/2
1/2	13/16	1-1/16	1-9/16	2-1/16	W8x48	1	9/16	15/16	1-1/16	1-13/16	2-5/16
1/2	3/4	15/16	1-7/16	1-7/8	W8x58	1.2	1/2	7/8	1-1/8	1-11/16	2-3/16
7/16	11/16	7/8	1-5/16	1-3/4	W8x67	1.37	1/2	13/16	1-1/16	1-9/16	2-1/16
13/16	1-3/16	1-9/16	2-3/8	3-1/8	W10x12	0.347	7/8	1-1/4	1-5/8	2- 1/16	3-3/16
3/4	1-1/8	1-1/2	2-3/16	2-15/16	W10x15	0.429	7/8	1-3/16	1-9/16	2-5/16	3
3/4	1-1/16	1-7/16	2-1/8	2-13/16	W10x17	0.482	13/16	1-3/16	1-1/2	2-1/4	2-15/16
11/16	1-1/16	1-3/8	2-1/16	2-3/4	W10x22	0.523	13/16	1-1/8	1-1/2	2-3/16	2-7/8
11/16	1-1/16	1-3/8	2-1/16	2-3/4	W10x19	0.538	3/4	1-1/8	1-7/16	2-3/16	2-13/16
11/16	1	1-5/16	1-15/16	2-5/8	W10x26	0.612	3/4	1-1/16	1-3/8	2-1/16	2-11/16
5/8	15/16	1-1/4	1-7/8	2-1/2	W10x33	0.661		1-1/16	1-3/8	2-1/16	2-11/16
5/8	15/16	1-1/4	1-7/8	2 7/16	W10x30	0.699	11/16	1-1/16	1-3/8	2	2-5/8
5/8	7/8	1-1/16	1-3/4	2-3/8	W10x39	0.78	11/16	1	1-5/16	1-15/16	2-9/16
1/2	7/8	1-1/8	1-11/16	2-1/4	W10x49	0.84	9/16	15/16	1-1/4	1-7/8	2-1/2
1/2	7/8	1-1/8	1-11/16	2-3/16	W10x45	0.888	9/16	15/16	1-1/4	1-7/8	2-7/16
1/2	13/16	1-1/8	1-5/8	2-3/16	W10x54	0.922	9/16	15/16	1-1/4	1-13/16	2-7/16
1/2	13/16	1-1/16	1-9/16	2-1/16	W10x60	1.01	1-9/16	15/16	1-3/16	1-13/16	2-5/16
1/2	3/4	1	1-7/16	1-15/16	W10x68	1.15	9/16	7/8	1-1/8	1-11/16	2-1/4
1/2	1/2	11/16	1	1-5/16	W14x193	2.14	3/8	11/16	7/8	1-5/16	1-3/4
5/16	1/2	5/8	15/16	1-1/4	W14x211	2.32	5/16	5/8	13/16	1-1/4	1-11/16
1/4	7/16	9/16	7/8	1-3/16	W14x233	2.55	1/4	7/16	11/16	1-3/16	1-9/16
1/4	7/16	9/16	13/16	1-1/8	W14x257	2.78	1/4	7/16	11/16	1-1/8	1-1/2
1/4	7/16	9/16	13/16	1-1/16	W14x283	3.03	1/4	7/16	11/16	1-1/8	1-7/16
1/4	3/8	1/2	3/4	1	W14x311	3.3	1/4	7/16	5/8	1-1/16	1-3/8
1/4	3/8	1/2	11/16	15/16	W14x342	3.58	1/4	7/16	5/8	1	1-5/16
1/4	3/8	7/16	11/16	7/8	W14x370	3.84	1/4	7/16	9/16	15/16	1-1/4
1/4	5/16	7/16	5/8	13/16	W14x398	4.09	1/4	7/16	9/16	15/16	1-1/16
1/4	5/16	7/16	5/8	13/16	W14x426	4.32	1/4	7/16	1/2	7/8	1-1/16
1/4	5/16	3/8	9/16	3/4	W14x455	4.59	1/4	3/8	1/2	13/16	1-1/8
1/4	5/16	3/8	9/16	11/16	W14x500	4.95	1/4	3/8	7/16	13/16	1-1/16
1/4	1/4	3/8	1/2	11/16	W14x550	5.34	1/4	3/8	7/16	3/4	1
1/4	1/4	5/16	1/2	5/8	W14x605	5.82	1/4	5/16	3/8	11/16	15/16
1/4	1/4	5/16	7/16	9/16	W14x665	6.21	1/4	5/16	3/8	5/8	7/8
1/4	1/4	1/4	3/8	1/2	W14x730	6.76	1/4	5/16	5/16	9/16	3/4
3/4	1-1/16	1-7/16	2-1/8	2-13/16	W16x26	0.499	13/16	1-1/8	1-1/2	2-1/4	2-7/8
11/16	1	1-5/16	1-15/16	2-5/8	W16x31	0.592	3/4	1-1/16	1-3/8	2-1/16	2-11/16
11/16	1	1-5/16	1-15/16	2-5/8	W16x36	0.617	3/4	1-1/16	1-3/8	2-1/16	2-11/16
5/8	15/16	1-1/4	1-7/8	2-1/2	W16x40	0.686	11/16	1-1/16	1-3/8	2	2-5/8
5/8	15/16	1-1/4	1-7/8	2-1/2	W16x45	0.767	11/16	1	1-5/16	1-15/16	2-9/16
1/2	7/8	1-1/8	1-11/16	2-1/4	W16x50	0.846	9/16	15/16	1-1/4	1-7/8	2-1/2
1/2	13/16	1-1/8	1 5/8	2-3/16	W16x67	0.936	9/16	15/16	1-3/16	1-13/16	2-3/8
1/2	3/4	15/16	1-7/16	1-7/8	W16x57	0.963	9/16	15/16	1-3/16	1-13/16	2-3/8
1/2	3/4	1	1-1/2	2	W16x77	1.07	9/16	7/8	1-1/8	1 3/4	2-5/16
7/16	11/16	7/8	1-5/16	1-3/4	W16x89	1.22	1/2	7/8	1-1/8	1-11/16	2-3/16
7/16	11/16	7/8	1-5/16	1-3/4	W16x100	1.37	1/2	13/16	1-1/16	1-9/16	2-1/16
11/16	1	1-5/16	2	2-5/8	W18x35	0.602	3/4	1-1/16	1-3/8	2-1/16	2-11/16
5/8	15/16	1-1/4	1-7/8	2-1/2	W18x40	0.668	11/16	1	1-5/16	1-15/16	2-9/16
5/8	7/8	1-3/16	1-3/4	2-3/8	W18x50	0.778	11/16	1	1-5/16	1-15/16	2-9/16
5/8	7/8	1-3/16	1-3/4	2-3/8	W18x46	0.786	5/8	1	1-5/16	1-15/16	2-9/16
1/2	7/8	1-1/8	1-11/16	2-1/4	W18x55	0.85	9/16	15/16	1-1/4	1-7/8	2-1/2
1/2	13/16	1-1/16	1-5/8	2-3/16	W18x60	0.923	9/16	15/16	1-1/4	1-13/16	2-3/8
1/2	13/16	1-1/16	1-5/8	2-1/16	W18x76	0.971	9/16	15/16	1-3/16	1-13/16	2-5/16
1/2	3/4	1	1-1/2	2	W18x71	1.08	9/16	7/8	1-1/8	1-3/4	2-1/4
1/2	3/4	15/16	1-7/16	1-7/8	W18x97	1.22	1/2	7/8	1-1/8	1-11/16	2-3/16
1/2	11/16	15/16	1-3/8	1-13/16	W18x106	1.33	1/2	13/16	1-1/16	1-5/8	2-1/8
7/16	5/8	7/8	1-1/4	1-11/16	W18x119	1.48	7/16	3/4	1	1-9/16	2
5/8	15/16	1-1/4	1-7/8	2-1/2	W21x44	0.672	11/16	1-1/16	1-3/8	2-1/16	2-11/16
5/8	15/16	1-1/4	1-7/8	2-1/2	W21x50	0.754	11/16	1	1-5/16	1-15/16	2-9/16
1/2	7/8	1-1/8	1-11/16	2-1/4	W21x57	0.857	9/16	15/16	1-1/4	1-7/8	2-1/2
1/2	13/16	1-1/8	1 5/8	2 3/16	W21x62	0.926	9/16	15/16	1-3/16	1-13/16	2-3/8
1/2	3/4	1	1-1/2	2	W21x73	0.989	9/16	15/16	1-3/16	1-13/16	2-3/8
1/2	3/4	1	1-1/2	2	W21x83	1.12	9/16	7/8	1-1/8	1-11/16	2-1/4
1/2	3/4	1	1-1/2	1-15/16	W21x101	1.13	9/16	7/8	1-1/8	1-11/16	2-1/4
1/2	11/16	15/16	1-3/8	1-7/8	W21x93	1.24	1/2	13/16	1-1/16	1-5/8	2-1/4
1/2	11/16	15/16	1-3/8	1-7/8	W21x111	1.24	1/2	13/16	1-1/16	1-5/8	2-1/4
1/2	11/16	15/16	1-3/8	1-7/8	W21x122	1.35	1/2	13/16	1-1/16	1-5/8	2-1/8
7/16	11/16	7/8	1-5/16	1-3/4	W21x132	1.45	7/16	13/16	1	1-9/16	2-1/16
7/16	5/8	13/16	1-3/16	1-5/8	W21x147	1.61	7/16	3/4	1	1-1/2	1-15/16
5/8	7/8	1-1/8	1-11/16	2-1/4	W24x55	0.749	3/8	11/16	7/8	1-5/16	2-1/4
5/8	7/8	1-1/8	1-11/16	2-1/4	W24x68	0.837	5/8	1	1-1/4	1-7/8	2-1/2
1/2	7/8	1-1/8	1-11/16	2-1/4	W24x62	0.844	9/16	15/16	1-1/4	1-7/8	2-1/2
1/2	13/16	1-1/8	1-5/8	2-3/16	W24x76	0.933	9/16	15/16	1-3/16	1-13/16	2-5/8
1/2	13/16	1-1/16	1-9/16	2-1/16	W24x84	1.02	9/16	15/16	1-3/16	1-13/16	2-5/16
1/2	3/4	1	1-7/16	1-15/16	W24x104	1.07	9/16	7/8	1-1/8	1-3/4	2-5/16
1/2	3/4	15/16	1-7/16	1-7/8	W24x94	1.14	1/2	7/8	1-1/8	1-11/16	2-3/16
1/2	3/4	15/16	1-7/16	1-7/8	W24x117	1.2	1/2	13/16	1-1/16	1-5/8	2-1/8
1/2	11/16	15/16	1-3/8	1-13/16	W24x103	1.33	1/2	13/16	1-1/16	1-5/8	2-1/8
7/16	5/8	7/8	1-1/4	1-11/16	W24x131	1.33	1/2	13/16	1-1/16	1-5/8	2-1/8
7/16	5/8	7/8	1-1/4	1-11/16	W24x146	1.48	7/16	3/4	1	1-9/16	2
1/2	13/16	1-1/8	1-5/8	2-3/16	W24x162	1.63	7/16	3/4	15/16	1-1/2	1-15/16
1/2	13/16	1-1/8	1-5/8	2-3/16	W27x84	0.921	9/16	15/16	1-1/4	1-13/16	2-7/16
1/2	3/4	1	1-1/2	2	W27x94	1.03	9/16	7/8	1-1/8	1-3/4	2-5/16
1/2	3/4	1	1-1/2	2	W27x102	1.11	9/16	7/8	1-1/8	1-3/4	2-1/4
1/2	3/4	15/16	1-7/16	1-7/8	W27x114	1.23	1/2	13/16	1-1/16	1-5/8	2-1/16
7/16	11/16	7/8	1-5/16	1-3/4	W27x146	1.35	1/2	13/16	1-1/16	1-5/8	2-1/8
7/16	5/8	7/8	1-1/4	1-11/16	W27x161	1.48	7/16	3/4	1	1-9/16	2
7/16	5/8	13/16	1-3/16	1-9/16	W27x178	1.63	7/16	3/4	15/16	1-1/2	1-15/16
1/2	13/16	1-1/8	1-5/8	2-1/16	W30x99	1	9/16	15/16	1-3/16	1-13/16	2-5/16
1/2	3/4	1	1-1/2	2	W30x108	1.09	9/16	7/8	1-1/8	1-3/4	2-1/4
1/2	3/4	1	1-1/2	1-15/16	W30x116	1.16	1/2	7/8	1-1/8	1-11/16	2-1/4
1/2	11/16	15/16	1-3/8	1-7/8	W30x124	1.24	1/2	13/16	1-1/16	1 5/8	2 3/16
1/2	11/16	15/16	1-3/8	1-13/16	W30x132	1.32	1/2	13/16	1-1/16	1 5/8	2-1/8
7/16	5/8	7/8	1-1/4	1-11/16	W30x173	1.47	7/16	11/16	15/16	1-3/8	2
3/8	9/16	3/4	1-1/8	1-1/2	W30x191	1.62	7/16	11/16	7/8	1-3/8	1-15/16
3/8	9/16	3/4	1-1/16	1-7/16	W30x211	1.76	3/8	11/16	7/8	1-5/16	1-7/8
1/2	11/16	15/16	1-3/8	1-13/16	W33x118	1.08	1/2	13/16	1	1-9/16	2-3/16
7/16	11/16	7/8	1-5/16	1-3/4	W33x130	1.18	1/2	3/4	1	1-1/2	2-1/8
7/16	5/8	7/8	1-1/4	1-11/16	W33x141	1.28	1/2	3/4	15/16	1-7/16	2-1/16
7/16	5/8	13/16	1-3/16	1-5/8	W33x152	1.37	7/16	3/4	15/16	1-7/16	2-1/16
3/8	9/16	3/4	1-1/8	1-1/2	W33x201	1.58	7/16	11/16	7/8	1-3/8	1-15/16
3/8	9/16	3/4	1-1/16	1-7/16	W33x221	1.73	3/8	11/16	7/8	1-5/16	1-7/8
3/8	9/16	11/16	1-1/16	1-3/8	W33x241	1.87	3/8	5/8	13/16	1-1/4	1-13/16
7/16	11/16	7/8	1-5/16	1-3/4	W36x135	1.15	1/2	13/16	1	1-1/2	2-1/8
7/16	5/8	7/8	1-1/4	1-11/16	W36x150	1.27	1/2	3/4	15/16	1-7/16	2-1/16
7/16	5/8	13/16	1-3/16	1-5/8	W36x160	1.35	7/16	3/4	15/16	1-7/16	2-1/16
7/16	5/8	13/16	1-3/16	1-9/16	W36x170	1.43	7/16	3/4	15/16	1-7/16	2
7/16	5/8	13/16	1-3/16	1-9/16	W36x182	1.52	7/16	11/16	7/8	1-3/8	2
3/8	9/16	3/4	1-1/8	1-1/2	W36x194	1.62	7/16	11/16	7/8	1-3/8	1-15/16
3/8	9/16	3/4	1-1/8	1-7/16	W36x230	1.69	3/8	11/16	7/8	1-5/16	1-15/16
3/8	9/16	3/4	1-1/16	1-7/16	W36x210	1.74	3/8	11/16	7/8	1-5/16	1-7/8
3/8	1/2	11/16	1	1-3/8	W36x245	1.79	3/8	11/16	13/16	1-5/16	1-7/8
3/8	1/2	11/16	1	1-3/8	W36x260	1.9	3/8	5/8	13/16	1-1/4	1-13/16
3/8	1/2	11/16	1	1-5/16	W36x280	2.03	3/8	5/8	13/16	1-1/4	1-3/4
5/16	1/2	5/8	15/16	1-1/4	W36x300	2.17	5/16	5/8	3/4	1-3/16	1-11/16

SOUTHWEST FIREPROOFING PRODUCTS CO - Types 4, 5, SGP/AR, SEF/AR, SMD/AR, 5 EF, SMD, SAR, 7GP, 7HD, 8GP, 8EF, BMD, 9GP, 9EF, 9MD.

FULL FLANGE TIP THICKNESS (in.)					For Hi-S Member		HALF FLANGE TIP THICKNESS (in.)			
1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr	Size x Wt	W/D	1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr
5/8	7/8	1-3/16	1-3/4	2-3/8	W4x13	0.556	11/16	1	1-1/4	1-7/8	2-7/16
5/8	7/8	1-3/16	1-3/4	2-3/8	W5x16	0.55	11/16	1	1-1/4	1-7/8	2-1/2
9/16	7/8	1-1/8	1-11/16	2-1/4	W5x19	0.644	5/8	15/16	1-3/16	1-13/16	2-3/8
11/16	1	1-5/16	2	2-5/8	W6x9	0.338	3/4	1-1/16	1-3/8	2-1/16	2-11/16
5/8	15/16	1-1/4	1-7/8	2-1/2	W6x15	0.431	3/4	1-1/16	1-3/8	2	2-5/8
5/8	7/8	1-1/8	1-3/4	2-3/8	W6x12	0.448	3/4	1-1/16	1-5/16	2	2-5/8
5/8	7/8	1-1/8	1-3/4	2-3/16	W6x20	0.563	11/16	1	1-1/4	1-7/8	2-7/16
9/16	7/8	1-1/8	1-3/4	2-3/16	W6x16	0.584	5/8	15/16	1-3/16	1-13/16	2-3/8
9/16	13/16	1-1/16	1-5/8	2-1/16	W6x25	0.696	5/8	15/16	1-3/16	1-13/16	2-3/8
11/16	1	1-5/16	1-15/16	2-9/16	W8x13	0.421	3/4	1-1/16	1-3/8	2	2-5/8
5/8	15/16	1-1/4	1-7/8	2-1/2	W8x15	0.481	11/16	1	1-5/16	1-15/16	2-9/16
5/8	15/16	1-1/4	1-13/16	2-7/16	W8x18	0.499	11/16	1	1-5/16	1-15/16	2-9/16
5/8	7/8	1-3/16	1-3/4	2-3/8	W8x21	0.577	11/16	1	1-1/4	1-7/8	2-7/16
5/8	15/16	1-1/4	1-7/8	2-1/2	W8x24	0.591	5/8	15/16	1-3/16	1-13/16	2-3/8
5/8	15/16	1-1/4	1-7/8	2-1/2	W8x31	0.665	5/8	15/16	1-3/16	1-13/16	2-3/8
9/16	13/16	1-1/16	1-5/8	2-1/16	W8x28	0.688	5/8	15/16	1-3/16	1-13/16	2-3/8
9/16	13/16	1-1/16	1-5/8	2-1/16	W8x35	0.749	5/8	7/8	1-1/8	1-13/16	2-3/8
9/16	13/16	1-1/16	1-5/8	2-1/16	W8x40	0.849	9/16	7/8	1-1/8	1-3/4	2-5/16
1/2	3/4	15/16	1-7/16	1-7/8	W8x48	1	9/16	13/16	1-1/16	1-9/16	2-5/16
1/2	3/4	15/16	1-7/16	1-7/8	W8x58	1.2	1/2	3/4	1	1-1/2	2-1/8
1/2	3/4	15/16	1-7/16	1-7/8	W8x67	1.37	7/16	3/4	15/16	1-7/16	2-1/16
1/2	3/4	1	1-1/2	2	W10x12	0.347	3/4	1-1/16	1-3/8	2-1/16	2-11/16
1/2	3/4	15/16	1-7/16	1-7/8	W10x15	0.429	3/4	1-1/16	1-3/8	2-1/16	2-11/16
1/2	3/4	15/16	1-7/16	1-7/8	W10x17	0.482	11/16	1	1-5/16	1-15/16	2-9/16
1/2	3/4	15/16	1-7/16	1-7/8	W10x22	0.523	11/16	1	1-5/16	1-15/16	2-1/2
1/2	3/4	15/16	1-7/16	1-7/8	W10x19	0.538	11/16	1	1-5/16	1-15/16	2-9/16
1/2	3/4	15/16	1-7/16	1-7/8	W10x26	0.612	11/16	1	1-5/16	1-15/16	2-9/16
1/2	3/4	15/16	1-7/16	1-7/8	W10x33	0.661	11/16	1	1-5/16	1-15/16	2-9/16
1/2	3/4	15/16	1-7/16	1-7/8	W10x30	0.699	11/16	1	1-5/16	1-15/16	2-9/16
1/2	3/4	15/16	1-7/16	1-7/8	W10x39	0.78	11/16	1	1-5/16	1-15/16	2-9/16
1/2	3/4	15/16	1-7/16	1-7/8	W10x49	0.84	9/16	15/16	1-1/4	1-7/8	2-1/2
1/2	3/4	15/16	1-7/16	1-7/8	W10x45	0.888	9/16	15/16	1-1/4	1-7/8	2-1/2
1/2	3/4	15/16	1-7/16	1-7/8	W10x54	0.922	9/16	15/16	1-1/4	1-7/8	2-1/2
1/2	3/4	15/16	1-7/16	1-7/8	W10x60	1.01	9/16	15/16	1-1/4	1-7/8	2-1/2
1/2	3/4	15/16	1-7/16	1-7/8	W10x68	1.15	9/16	15/16	1-1/4	1-7/8	2-1/2
1/2	3/4	15/16	1-7/16	1-7/8	W10x77	1.28	1/2	3/4	1	1-5/16	2-1/16
1/2	3/4	15/16	1-7/16	1-7/8	W10x88	1.45	7/16	3/4	15/16	1-3/8	2
1/2	3/4	15/16	1-7/16	1-7/8	W10x100	1.64	7/16	11/16	7

CITY OF RALEIGH PUBLIC UTILITIES STANDARD UTILITY NOTES (AS APPLICABLE)

1. ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION).

2. UTILITY SEPARATION REQUIREMENTS:

   a) A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.

   b) WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.

   c) WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.

   d) 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER.

   e) MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49).

   f) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.

3. ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.

4. DEVELOPER SHALL PROVIDE 30 DAYS ADVANCE WRITTEN NOTICE TO OWNER FOR ANY WORK REQUIRED WITHIN AN EXISTING CITY OF RALEIGH UTILITY EASEMENT TRAVERSING PRIVATE PROPERTY.

5. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.

6. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.

7. IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.

8. INSTALL 3/4" COPPER WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE.

9. INSTALL 4" PVC SEWER SERVICES @ 2.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM.

10. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.

11. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.

12. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.

13. GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE RW FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A UC / BLDG PERMIT. CONTACT (919) 996-4516 OR FOG@RALEIGHNC.GOV FOR MORE INFORMATION.

14. CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVED LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. A CERTIFICATE OF COMPLIANCE SHALL ALSO BE OBTAINED FROM THE RW CROSS-CONNECTION COORDINATOR FOR EACH DEVICE PRIOR TO ISSUANCE OF A UC / BLDG PERMIT. CONTACT (919) 996-5923 OR CROSS.CONNECTION@RALEIGHNC.GOV FOR MORE INFORMATION.

15. NOTICE FOR PROJECTS WITH REPLACED OR OVERSIZED MAINS: IF THE CITY'S REIMBURSEMENT FOR AN OVERSIZED MAIN OR URBAN MAIN REPLACEMENT PROJECT IS $250,000 OR GREATER - THE PROJECT MUST BE PUBLICLY BID

ADDITIONAL UTILITY NOTES

1. ALL WATER MAINS, SERVICES AND FIRE SERVICES GREATER THAN 2" DIAMETER ARE TO BE DUCTILE IRON PIPE. 2" & SMALLER DOMESTIC SERVICES MUST BE TYPE K SOFT COPPER (WITHOUT FITTINGS) TO THE WATER METER.

2. ALL SEWER MAINS SHALL BE EITHER PVC OR DUCTILE IRON PIPE AS SHOWN ON THE PLANS. ALL PIPE MATERIAL SHALL MEET CITY OF RALEIGH STANDARDS AND SPECIFICATIONS AS DEFINED IN THE LATEST ISSUE OF THE PUBLIC UTILITIES HANDBOOK AND/OR UNIFIED DEVELOPMENT ORDINANCE (UDO).

3. ALL FIRE HYDRANTS ALONG PUBLIC R/W LINES SHALL HAVE A 5'Wx5'L CITY OF RALEIGH WATERLINE EASEMENT ONTO ADJACENT PROPERTY.

4. IN ACCORDANCE WITH GENERAL STATUTE 87-121(G), ALL UNDERGROUND UTILITIES INSTALLED AFTER OCTOBER 1, 2014 SHALL BE ELECTRONICALLY LOCATABLE. CONTRACTOR SHALL COORDINATE DIRECTLY WITH THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT FOR DETAILS AND SPECIFICATIONS FOR MEETING THESE REQUIREMENTS.

5. EXISTING UTILITIES SHOWN ARE BASED ON DESIGN DRAWINGS. THE CONTRACTOR SHALL VERIFY CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.

6. ALL WATER AND SEWER MAINS WITHIN PUBLIC EASEMENTS OR RIGHTS-OF-WAY TO BE OWNED, OPERATED, AND MAINTAINED BY THE CITY OF RALEIGH.

7. ALL WATER AND SEWER MAINS NOT WITHIN PUBLIC EASEMENTS OR RIGHTS-OF-WAY TO BE PRIVATELY OWNED, OPERATED, AND MAINTAINED BY THE PROPERTY OWNER.

8. WHERE SANITARY SERVICES ARE SERVING A BUILDING INSTALLED ON A FLOOR WITH A FINISHED FLOOR ELEVATION BELOW THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER, SUCH FIXTURES SHALL BE PROTECTED BY A BACKWATER VALVE INSTALLED IN THE SERVICE LINE. SANITARY SERVICES SERVING A BUILDING WITH A FINISHED FLOOR ELEVATION ABOVE THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER SHALL NOT DISCHARGE THROUGH A BACKWATER VALVE.

9. CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

STORM DRAINAGE NOTES:

1. ALL STORM DRAINAGE PIPES SHOWN SHALL BE REINFORCED CONCRETE (RCP) (MINIMUM CLASS III) UNLESS NOTED OTHERWISE. CONTRACTOR TO COORDINATE WITH THE GEOTECH TO VERIFY TYPE OF BEDDING REQUIRED BASED ON SOIL CONDITIONS. CONTRACTOR TO SELECT REQUIRED CLASS OF PIPE BASED ON DEPTH OF PIPE AND BEDDING PROVIDED PER THE AMERICAN CONCRETE PIPE ASSOCIATION GUIDELINES.

2. ALL STORM DRAINAGE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST TOWN OF WENDELL AND NCDOT STANDARDS.

3. ALL CONCRETE SHALL MEET A MINIMUM 3000 PSI COMPRESSIVE STRENGTH.

4. ALL PIPE IN STORM DRAIN STRUCTURES SHALL BE STRUCK EVEN WITH INSIDE WALL.

5. THE INTERIOR SURFACES OF ALL STORM DRAINAGE STRUCTURES SHALL BE POINTED UP AND SMOOTHED TO AN ACCEPTABLE STANDARD USING MORTAR MIXED TO MANUFACTURER'S SPECIFICATIONS.

6. ALL BACKFILL SHALL BE NON-PLASTIC IN NATURE, FREE FROM ROOTS, VEGETATION MATTER, WASTE CONSTRUCTION MATERIAL OR OTHER OBJECTIONABLE MATERIAL. SAID MATERIAL SHALL BE CAPABLE OF BEING COMPACTED BY MECHANICAL MEANS AND SHALL HAVE NO TENDENCY TO FLOW OR BEHAVE IN A PLASTIC MANNER UNDER THE TAMPING BLOWS OR PROOF ROLLING.

7. MATERIALS DEEMED BY THE OWNER'S REPRESENTATIVE AS UNSUITABLE FOR BACKFILL PURPOSES SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL.

8. BACKFILLING OF TRENCHES SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PIPE IS LAID. THE FILL AROUND THE PIPE SHALL BE THOROUGHLY COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY OBTAINABLE WITH THE STANDARD PROCTOR TEST. THE TOP EIGHT (8) INCHES SHALL BE COMPACTED TO 100 PERCENT STANDARD PROCTOR.

9. UNDER NO CIRCUMSTANCES SHALL WATER BE ALLOWED TO RISE IN UNBACKFILLED TRENCHES AFTER PIPE HAS BEEN PLACED.

10. IF THE USE OF WAFFLE BOXES ARE ALLOWED AT THIS SITE, ALL PENETRATIONS FOR STORM DRAINAGE PIPES MUST BE MADE WITHIN THE KNOCK-OUT PORTION OF THE BOX AND NOT AT THE CORNERS WHERE THE STRUCTURAL INTEGRITY MAY BE COMPROMISED.

GENERAL NOTES (APPLIES TO ALL SHEETS):

1. TOPOGRAPHIC & PLANIMETRIC INFORMATION TAKEN FROM ELECTRONIC COPY OF A SURVEY PREPARED BY SEPI ENGINEERING, DATED 02/18/2021, APPROVED CONSTRUCTION DRAWINGS OF WTCC EWS-GENERAL EDUCATION BUILDING #1, DATED 03/19/2022 BY BSA LIFESTRUCTURES, APPROVED CONSTRUCTION DRAWINGS OF WTCC EWS-CENTRAL ENERGY PLANT & INFRASTRUCTURE-PHASE ONE SITE, DATED 04/21/2022 BY SEPI ENGINEERING AND SUPPLEMENTED WITH GIS INFORMATION PROVIDED BY WAKE COUNTY G.I.S.

2. THIS SITE IS LOCATED WITHIN SPECIAL FLOOD HAZARD AREAS OR FUTURE CONDITIONS FLOOD HAZARD AREAS, AS SHOWN ON FIRM PANEL 3720177400J DATED MAY 2, 2006 AS BEING WITHIN ZONE"AE". PROPOSED IMPROVEMENTS ASSOCIATED WITH THIS PROJECT ARE NOT WITHIN FLOODPLAIN.

3. LIMITED SUB-SURFACE INVESTIGATIONS HAVE BEEN PERFORMED AT THE SITE. THE GENERAL CONTRACTOR IS ENCOURAGED TO PERFORM ADDITIONAL SUB-SURFACE INVESTIGATIONS PRIOR TO ESTABLISHING HIS CONTRACT PRICE FOR SITE GRADING. IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ESTABLISH CUT AND FILL QUANTITIES NECESSARY TO PROVIDE THE FINAL GRADES INDICATED ON THESE PLANS. FILL MATERIAL NOT AVAILABLE AT THE SITE SHALL BE PROVIDED BY THE GENERAL CONTRACTOR, OR EXCESS MATERIAL SHALL BE REMOVED/DISPOSED OF BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE OWNER. FURTHERMORE, THE GENERAL CONTRACTOR, BY WAY OF ESTABLISHING A CONTRACT PRICE FOR SITE GRADING, HAS ACKNOWLEDGED THAT HE IS AWARE OF THE LIMITED SUBSURFACE INFORMATION AND AVAILABLE FILL MATERIAL OR EXCESS MATERIAL NECESSARY TO COMPLETE THE WORK, AND THAT HIS ESTABLISHED CONTRACT PRICE IS SUFFICIENT TO ENSURE THE PROPER COMPLETION OF THE PROJECT AND CONDITIONS WHICH MAY AFFECT THE WORK, INCLUDING BUT NOT RESTRICTED TO THOSE BEARING UPON TRANSPORTATION, DISPOSAL, HANDLING AND STORAGE OF MATERIALS; WATER TABLES OR SIMILAR CONDITIONS AT THE SITE; AVAILABILITY OF LABOR, WATER, ELECTRIC POWER, ROADS, AND UNCERTAINTIES OF WEATHER, AND THE CHARACTER OF EQUIPMENT AND FACILITIES NEEDED PRELIMINARY TO AND DURING EXECUTION OF THE WORK. ANY FAILURE BY THE CONTRACTOR TO ACQUAINT HIMSELF WITH THESE FACTS WILL NOT RELIEVE HIM FROM RESPONSIBILITY FOR ESTIMATING PROPERLY THE DIFFICULTY OR COST OF SUCCESSFULLY PERFORMING THE WORK. THE OWNER ASSUMES NO RESPONSIBILITY FOR ANY CONCLUSIONS OR INTERPRETATIONS MADE BY THE CONTRACTOR ON THE BASIS OF THE INFORMATION, IF ANY, MADE AVAILABLE BY THE OWNER. ALL FILL MATERIAL SHALL BE PLACED IN CONFORMANCE WITH THE GEO-TECH ENGINEER'S RECOMMENDATION.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO GAS OR WATER PIPES, PUBLIC OR PRIVATE SEWERS, DRAINS OR CULVERTS, RAILROAD OR TRAFFIC SIGNAL CABLES, TELEPHONE OR POWER CONDUITS, OR OTHER STRUCTURES WHERE APPLICABLE. WHEN UTILITY LINES THAT ARE TO BE REMOVED ARE ENCOUNTERED WITHIN THE AREA OF OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IN AN AMPLE TIME FOR THE NECESSARY MEASURES TO BE TAKEN TO PREVENT INTERRUPTION OF THE SERVICES. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF SUCH UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF THE GRADING OPERATION BY OBSERVATIONS, ELECTRONIC DEVICES, AND BY PERSONAL CONTACTS WITH UTILITY COMPANIES, AND LOCATE SUCH UTILITIES IN ADVANCE OF THE TRENCHING OR GRADING OPERATIONS, AND SHALL SPREAD WORK IN SUCH MANNER SO AS TO ELIMINATE OR MINIMIZE DAMAGE TO THE EXISTING STRUCTURES OR UTILITIES.

5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMANCE WITH ALL CURRENT LOCAL, STATE, AND FEDERAL SAFETY CODES DURING ALL PHASES OF THE WORK. CONTRACTOR SHALL ESTABLISHED FOR THE WORK SHALL INCLUDE COSTS ASSOCIATED WITH THE PROVISION OF SAFETY EQUIPMENT, AND PERSONNEL NECESSARY TO COMPLETE THE WORK, INCLUDING BUT NOT LIMITED TO, TRENCH BRACING, AND PERSONNEL LICENSED BY OSHA AS COMPETENT FOR EVALUATING SOIL STABILITY.

6. CONTRACTOR SHALL RETAIN COPY OF ALL APPROVED PERMITS ONSITE. ALSO, CONTRACTOR SHALL FOLLOW ALL STIPULATIONS AND REQUIREMENTS SPECIFIED IN EACH OF THE APPROVAL INCLUDING BUT NOT LIMITED TO THE 401/404 CERTIFICATIONS.

7. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE OWNER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.

8. CAD FILES WILL BE PROVIDED TO THE CONTRACTOR AS REQUESTED. ALL VERTICAL & HORIZONTAL CONTROL POINTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

9. CONTRACTOR RESPONSIBLE FOR COORDINATION WITH OTHER PROJECTS ONSITE AND SHALL NOT INTERRUPT OTHER BUILDINGS OR PROJECTS WITHOUT PRIOR APPROVAL FROM OWNER.

DEMOLITION NOTES:

1. IN ACCORDANCE WITH 40 CFR, PART 61, SUBPART M, A THOROUGH INSPECTION SHALL BE CONDUCTED FOR ASBESTOS-CONTAINING MATERIALS, PRIOR TO CONDUCTING A RENOVATION OR DEMOLITION ACTIVITY OF AN EXISTING STRUCTURE. THE ASBESTOS INSPECTION MUST BE CONDUCTED BY A NORTH CAROLINA ACCREDITED ASBESTOS INSPECTOR. ALL REGULATED AND/OR FRIABLE ASBESTOS-CONTAINING MATERIALS IDENTIFIED DURING THE SURVEY, WHICH WILL BE DISTURBED, MUST BE PROPERLY REMOVED BY ACCREDITED INDIVIDUALS BEFORE BEGINNING THE RENOVATION OR DEMOLITION ACTIVITY. IF REGULATED AND/OR FRIABLE ASBESTOS-CONTAINING MATERIALS TO BE REMOVED EXIST IN EXCESS OF 160 SQUARE FEET, 260 LINEAR FEET OR 35 CUBIC FEET, A PERMIT SHALL BE APPLIED FOR THROUGH THE NORTH CAROLINA DEPARTMENT OF HEALTH AND HUMAN SERVICES.

2. ALL MATERIAL TO BE DEMOLISHED SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT A PERMITTED SITE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL LAWS.

3. UTILITY STATEMENT: THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED UNDERGROUND UTILITIES.

4. THE CONTRACTOR SHALL PERFORM DEMOLITION ACTIVITIES AS NOTED AND SHOWN ON THESE PLANS AND SPECIFICATIONS AND AS DIRECTED BY THE OWNER.

5. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY PERMITS AND PAY FEES REQUIRED FOR DEMOLITION AND HAUL-OFF FROM THE APPROPRIATE AUTHORITIES. THESE FEES ARE TO BE INCLUDED WITH THE BID.

6. THE DEMOLITION PLAN IS INTENDED TO DEPICT GENERAL DEMOLITION AND UTILITY WORK. IT IS NOT INTENDED TO IDENTIFY EACH ELEMENT OF DEMOLITION OR RELOCATION. CONTRACTOR SHALL COORDINATE WITH THE OWNER AND APPROPRIATE UTILITY COMPANY PRIOR TO WORK.

7. CONTRACTOR SHALL COMPLETELY DEMOLISH ALL EXISTING IMPROVEMENTS NOTED FOR REMOVAL ON THE APPROVED DEMOLITION PLAN. ALL REMOVED MATERIAL SHALL BE DISPOSED OF OFFSITE IN A LAWFUL MANNER OR RECYCLED. IF POSSIBLE, CONTRACTOR SHALL MAKE EVERY ATTEMPT TO RECYCLE ANY DEBRIS AND RUBBISH THAT IS RECYCLABLE.

8. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES TO REMAIN IN PLACE.

9. ALL EXISTING ITEMS TO REMAIN WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE SOLE EXPENSE OF THE CONTRACTOR.

10. CONTRACTOR SHALL ALSO SAWCUT PAVEMENT AT CONSTRUCTION LIMITS WITH NEW PAVEMENT OR RECLAMATION AREAS. PRIOR TO FINAL LIFT CONTRACTOR SHALL MILL 18"-24" WIDE ACROSS THESE AREAS TO PROVIDE A LAP JOINT FOR A SMOOTH TRANSITION.

11. ANY HARDSCAPE OR SOFTSCAPE PREVIOUSLY INSTALLED THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED TO THE OWNER'S SATISFACTION AT NO ADDITIONAL COST.

12. IT IS HIGHLY RECOMMENDED THE CONTRACTOR PERFORM A SITE WALK & SAVE PICTURES/VIDEO OF EXISTING SITE CONDITIONS PRIOR TO MOBILIZATION. ANY PREVIOUSLY DAMAGED AREAS SHALL BE BROUGHT TO THE OWNER'S ATTENTION PRIOR TO MOBILIZATION. BURDEN OF PROOF FOR DAMAGE TO EXISTING FACILITIES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

EROSION CONTROL NARRATIVE:

WAKE TECHNICAL COMMUNITY COLLEGE
TECHNOLOGY 4.0 BUILDING
RECEIVING STREAM – UT TO MILLS BRANCH (NEUSE RIVER BASIN)
CLASSIFICATION - C; NSW

PROJECT DESCRIPTION:

THE PROPOSED PROJECT CONSISTS OF CONSTRUCTING AN ADDITION OF A NEW BUILDING (TECHNOLOGY 4.0 BUILDING) AND VARIOUS UTILITY IMPROVEMENTS, SUCH AS DOMESTIC WATERLINE, FIRE, SANITARY SEWER, AND STORMWATER MAINS AND SERVICES.

EROSION CONTROL NOTES:

1. EXISTING EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSPECTED AND MAINTAINED PRIOR TO ANY GRADING ON SITE. MAINTENANCE AND REPAIR SHALL BE MADE, AS NECESSARY, DURING CONSTRUCTION ACTIVITIES. CONTRACTOR TO MODIFY EXISTING SEDIMENT BASIN AS NECESSARY TO RESTORE PROPER FUNCTION BEFORE STARTING GRADING ACTIVITIES.

2. SEDIMENT/EROSION CONTROL DEVICES MUST BE CHECKED AFTER EACH STORM EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE.

3. THE STAGING AREA IS TO CONSIST OF 6 INCHES OF COMPACTED ABC STONE OVER GEO-TEXTILE FABRIC AND IS TO BE TAKEN UP AND THE AREA SEEDED AFTER CONSTRUCTION IS COMPLETE.

4. A COPY OF THE APPROVED EROSION CONTROL PLAN MUST BE ON FILE AT THE JOB SITE AT ALL TIMES.

5. INSTALL A RAIN GAUGE (6" CAPACITY OR GREATER) ONSITE.

6. CONSTRUCTION, MAINTENANCE, AND REMOVAL OF ALL EROSION CONTROL DEVICES ARE THE RESPONSIBILITY OF THE GRADING CONTRACTOR UNLESS OTHERWISE NOTED. ANY DEWATERING OF SEDIMENT CONTAINMENT DEVICES FOR MAINTENANCE, REMOVAL OR CONVERSION PURPOSES IS TO BE DONE THROUGH A SILT BAG.

7. ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE EROSION CONTROL PERMIT AND IS SUBJECT TO A FINE.

8. THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION-CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, WITHIN 7 OR 14 CALENDAR DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY GROUND COVER, DEVICES OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION. PERMANENT GROUNDCOVER WILL BE PROVIDED FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR NO MORE THAN 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENUDED AREAS AND ESPECIALLY WHEN SPECIFICALLY REQUIRED AS PART OF THE CONSTRUCTION SEQUENCE ON THE PLAN. ALL GRADED SLOPES STEEPER THAN 3:1 MUST BE SEEDED & COMPOST LAID WITHIN 7 DAYS OF COMPLETION OF GRADING. ALL REMAINING DISTURBED AREAS ARE TO BE SEEDED AND COMPOST LAID WITHIN 14 DAYS. PERMANENT SWALES ARE TO BE STABILIZED WITHIN 7 DAYS. SEE THE GROUND STABILIZATION CHART FOR ADDITIONAL REQUIREMENTS.

9. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY REPRESENTATIVE OF THE NCDEQ DEMLR DEPARTMENT. ADDITIONAL SILT FENCE OUTLETS AT LOW AREAS MAY BE INSTALLED BY CONTRACTOR AS REQUIRED. E&SC MEASURES ARE TO BE INSTALLED AT ANY AREAS USED FOR CONTRACTOR EQUIPMENT STAGING, MATERIALS LAYDOWN, SPOIL OR WASTE AREA.

10. PROTECTION OF EXISTING VEGETATION (IF APPLICABLE): AT THE START OF GRADING INVOLVING THE STRIPPING OF TOPSOIL OR LOWERING OF EXISTING GRADE AROUND A TREE, A CLEAN, SHARP, VERTICAL CUT SHALL BE MADE AT THE EDGE OF THE TREE SAVE AREA AT THE SAME TIME AS OTHER EROSION CONTROL MEASURES ARE INSTALLED. THE TREE PROTECTION FENCING SHALL BE INSTALLED ON THE SIDE OF THE CUT FARTHEST AWAY FROM THE TREE TRUNK AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IN THE VICINITY OF THE TREES IS COMPLETE. NO STORAGE OF MATERIALS, FILL, OR EQUIPMENT AND NO TRESPASSING SHALL BE ALLOWED WITHIN THE BOUNDARY OF THE PROTECTED AREA AND SHALL BE POSTED ON THE PROTECTION FENCE. A PROTECTION FENCE CONSTRUCTED OF MATERIAL RESISTANT TO DEGRADATION BY SUN, WIND, AND MOISTURE FOR THE DURATION OF THE CONSTRUCTION, SHALL BE INSTALLED AT THE SAME TIME AS THE EROSION CONTROL MEASURES AND SHALL BE IN PLACE UNTIL ALL CONSTRUCTION IN THE VICINITY OF THE TREES IS COMPLETE.

11. INSTALLATION AND MAINTENANCE OF ALL PROPOSED SEDIMENTATION & EROSION CONTROL MEASURES IS REQUIRED. THE CONTRACTOR MAY BE ALLOWED, WITH PRIOR APPROVAL FROM THE OWNER, TO COORDINATE CHANGES TO THE PLAN WITH THE ON-SITE NCDEQ DEMLR INSPECTOR AND THE ENGINEER OR THE OWNER'S REPRESENTATIVE.

12. CONTRACTOR WILL FIELD LOCATE SILT FENCE OUTLETS AT LOW POINTS IN SILT FENCE AS REQUIRED TO PROVIDE RELIEF FROM CONCENTRATED FLOWS.

13. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE OWNER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.

14. REQUIRED CONSTRUCTION/SAFETY FENCING SHALL BE INSTALLED PRIOR TO BEGINNING LAND DISTURBANCE.

15. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO KEEP ALL DIRT OFF PAVED ROADS. HEAVY MATS MAY BE USED IN LIEU OF ROCK CONSTRUCTION ENTRANCES AS DETERMINED BY THE ON-SITE INSPECTOR.

16. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO KEEP ALL SEDIMENT ON SITE AND ENSURE NO SEDIMENT LEAVES THE LIMITS OF DISTURBANCE OF THE PROJECT. THIS MAY REQUIRE INSTALLATION OF ADDITIONAL EROSION CONTROL MEASURES ABOVE AND BEYOND WHAT IS SHOWN ON THE PLANS. IF ENVIRONMENTAL OR SITE CONDITIONS WARRANT ADDITIONAL EROSION CONTROL MEASURES, CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM DEP REPRESENTATIVE. EROSION CONTROL MEASURES DAMAGED OR REQUIRED DUE TO CONTRACTOR ACTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL EROSION CONTROL MEASURES SHALL BE PROPERLY MAINTAINED THROUGHOUT CONSTRUCTION AT NO ADDITIONAL COST TO DEP.

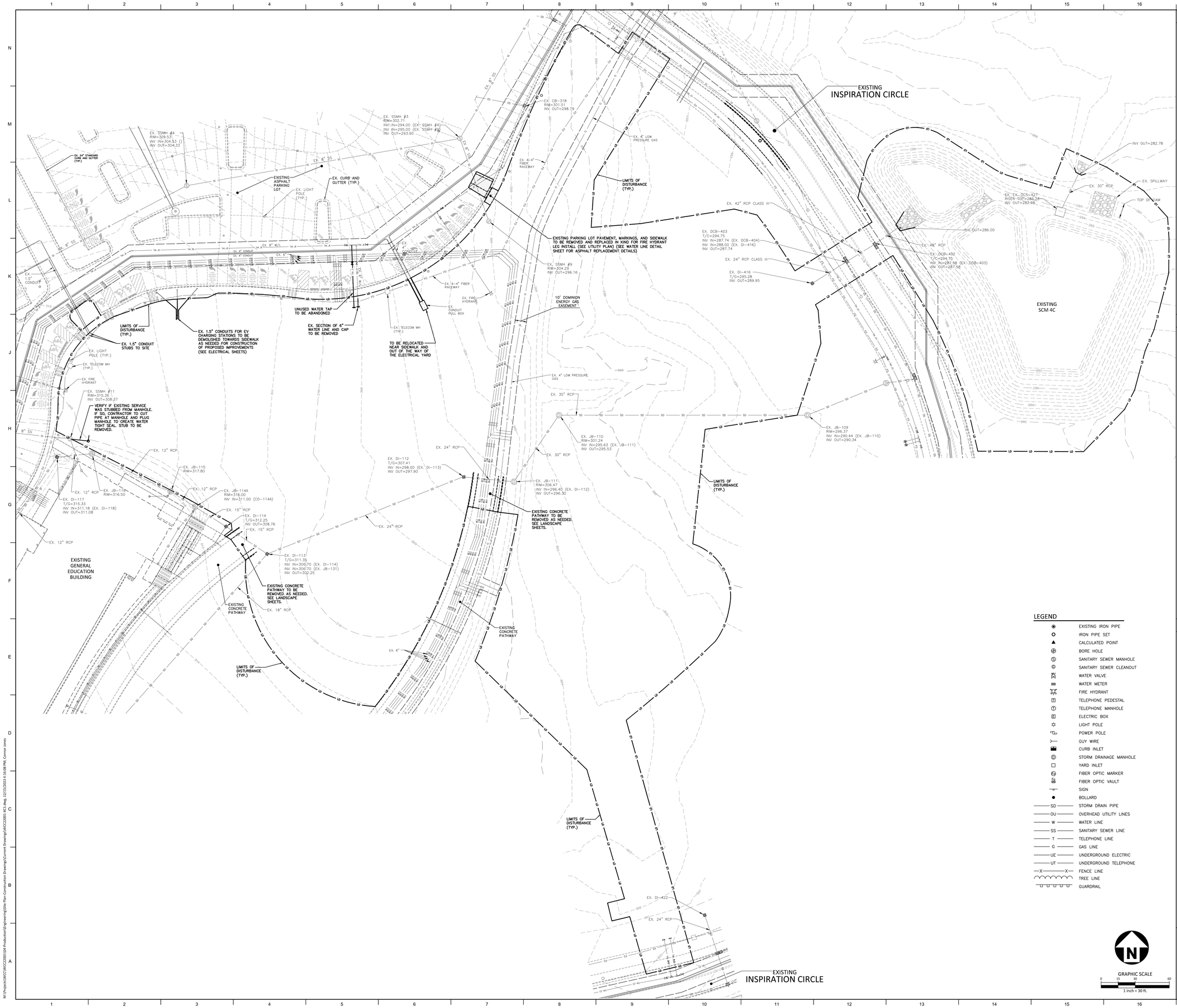
17. ALL CONSTRUCTION DEBRIS SHALL BE TESTED AND DISPOSED OF OFF-SITE IN A STATE PERMITTED LINED LANDFILL.

18. PLAN APPROVAL LETTER WITH ANY MODIFICATIONS OR PERFORMANCE RESERVATIONS, AND 401/404 DOCUMENTATION, & A MINIMUM OF THE PAST 30 DAYS OF SELF-INSPECTION REPORTS WILL BE KEPT ON SITE UNTIL PROJECT IS CLOSED-OUT BY THIS OFFICE.

19. ALL E&SC MEASURES MUST BE MAINTAINED UNTIL ALL DRAINAGE AREAS HAVE BEEN STABILIZED WITH THE ESTABLISHMENT OF PERMANENT VEGETATION.

STANDARD NOTES:

1. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, CONSTRUCTION FEN



LEGEND

- EXISTING IRON PIPE
- IRON PIPE SET
- CALCULATED POINT
- BORE HOLE
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- TELEPHONE PEDESTAL
- TELEPHONE MANHOLE
- ELECTRIC BOX
- LIGHT POLE
- POWER POLE
- GUY WIRE
- CURB INLET
- STORM DRAINAGE MANHOLE
- YARD INLET
- FIBER OPTIC MARKER
- FIBER OPTIC VAULT
- SIGN
- BOLLARD
- SD — STORM DRAIN PIPE
- OU — OVERHEAD UTILITY LINES
- W — WATER LINE
- SS — SANITARY SEWER LINE
- T — TELEPHONE LINE
- G — GAS LINE
- UE — UNDERGROUND ELECTRIC
- UT — UNDERGROUND TELEPHONE
- X — X — FENCE LINE
- TREE LINE
- GUARDRAIL

GRAPHIC SCALE
0 15 30 60
1 inch = 30 ft.

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

1. ALL HARDSCAPE, SOFTSCAPE AND UTILITIES OUTSIDE OF LIMITS OF DISTURBANCE TO REMAIN. ANY DAMAGE TO BE REPAIRED TO OWNER'S SATISFACTION AT NO ADDITIONAL COST.
2. THIS EXISTING SITE PLAN IS BASED ON THE BEST INFORMATION PROVIDED BY OTHERS IN THE FORM OF DESIGN FILES, SURVEY AND ASBUILT INFORMATION AND THUS IS NOT AN OFFICIAL SURVEY OR NECESSARILY AN ACCURATE REPRESENTATION OF FIELD CONDITIONS. THE CONTRACTOR NEEDS TO VERIFY ITEMS IN THE FIELD AND BRING DISCREPANCIES TO THE ENGINEERS ATTENTION IMMEDIATELY.
3. EXISTING INFRASTRUCTURE AT CONSTRUCTION ENTRANCES SHALL BE REMOVED AND REPLACED AS NEW AT THE END OF CONSTRUCTION. ANY DAMAGE TO EXISTING INFRASTRUCTURE NEEDS TO BE REPAIRED TO OWNERS SATISFACTION AT NO ADDITIONAL COST.
4. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

CORPORATE SEAL
NORTH CAROLINA — THE JOHN R. McADAMS COMPANY, INC. C-0293 — CERTIFICATE OF AUTHORIZATION

SEAL
NORTH CAROLINA — PROFESSIONAL — SEAL 052846 — ENGINEER — CONNOR J. JONES — 12/20/2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
C100

SHEET TITLE
EXISTING SITE & DEMOLITION PLAN
SCALE (UNO)
1"=30'

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

LORD AECK SARGENT

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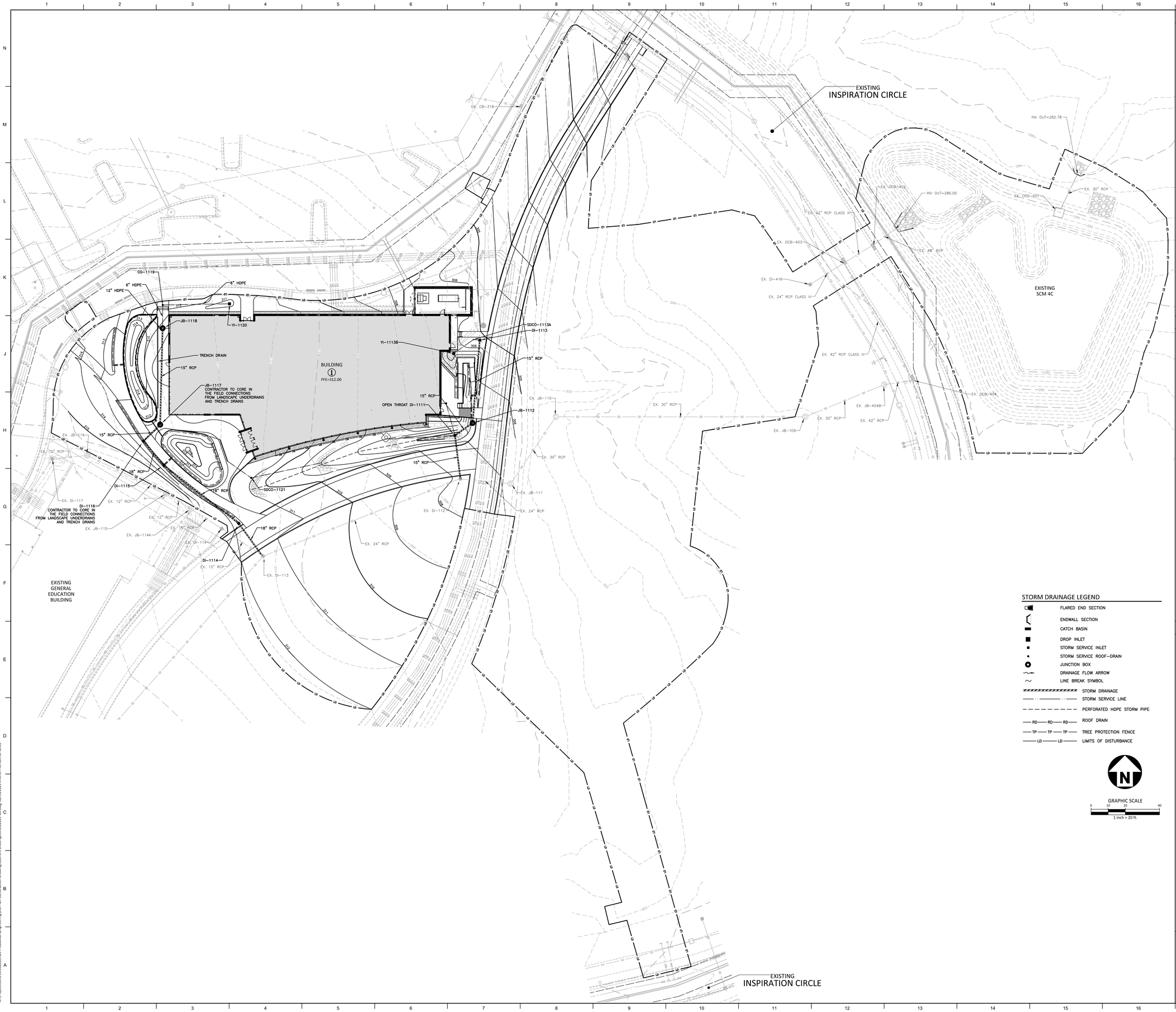

STORM DRAINAGE LEGEND

- FLARED END SECTION
- ENDWALL SECTION
- CATCH BASIN
- DROP INLET
- STORM SERVICE INLET
- STORM SERVICE ROOF–DRAIN
- JUNCTION BOX
- DRAINAGE FLOW ARROW
- LINE BREAK SYMBOL
- STORM DRAINAGE
- STORM SERVICE LINE
- PERFORATED HDPE STORM PIPE
- RD RD RD — ROOF DRAIN
- TP TP TP — TREE PROTECTION FENCE
- LD LD — LIMITS OF DISTURBANCE

GRAPHIC SCALE
0 10 20 40
1 inch = 20 ft.

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

1. SEE LANDSCAPE SHEETS FOR ALL HARDSCAPE AND DETAILED GRADING. INFORMATION.
2. 4" PIPE MINIMUM SLOPE 2%, 6" PIPE MINIMUM SLOPE 1%, 8" PIPE MINIMUM SLOPE 0.5%.

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www.mcadamsco.com

SHEET TITLE: OVERALL STORM DRAINAGE PLAN

SCALE: (U.N.O.) 1"=20'

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
NORTH CAROLINA
THE JOHN R. McADAMS COMPANY, INC.
C-0293
CERTIFICATE OF AUTHORIZATION

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 052846 ENGINEER CONNOR J. JONES
12/20/2023

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. C300

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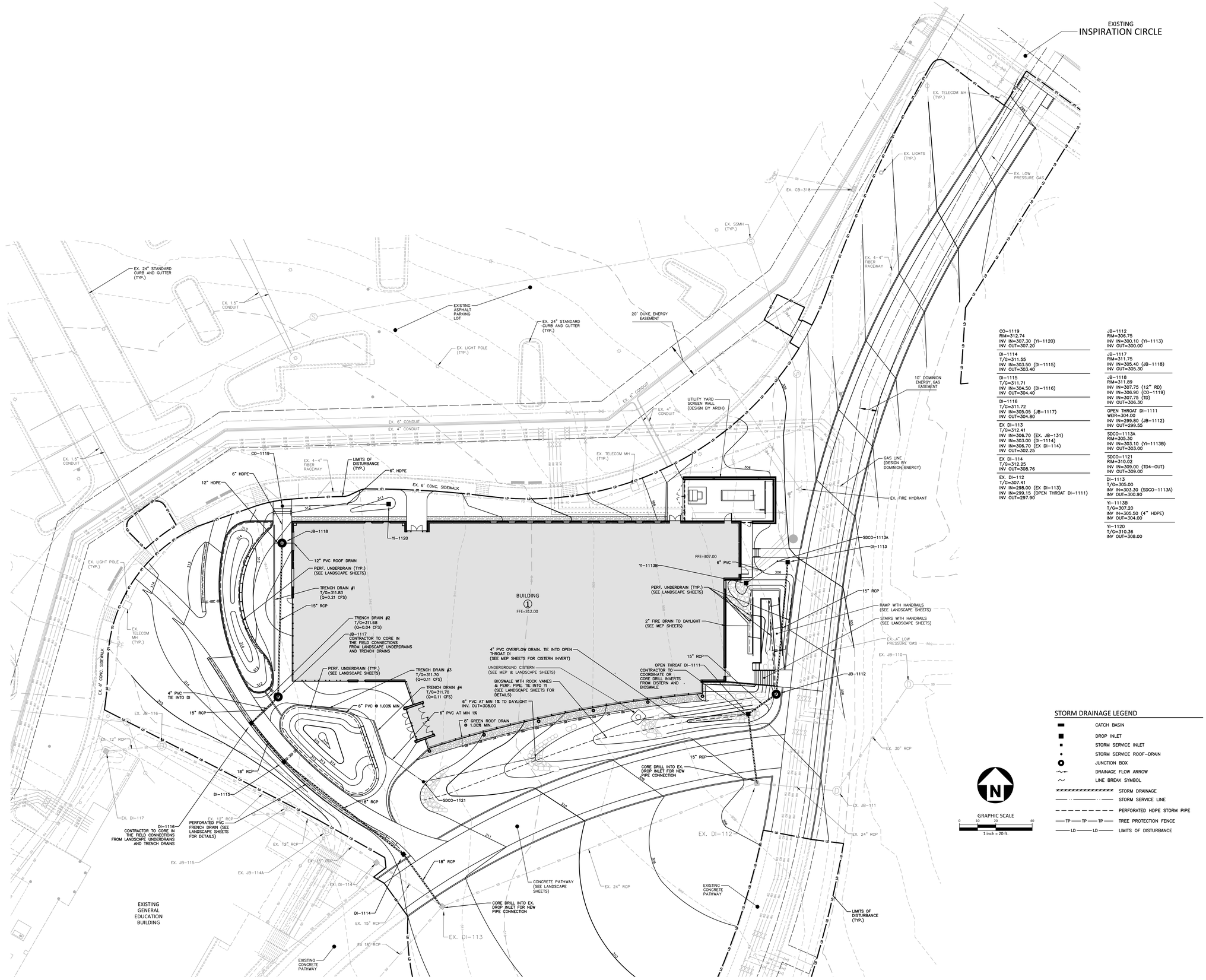

SEE SHEET C300 FOR FULL LIMITS OF DISTURBANCE

CO-1119
RIM=312.74
INV IN=307.30 (Yl-1120)
INV OUT=307.20

DI-1114
T/G=311.55
INV IN=303.50 (DI-1115)
INV OUT=303.40

DI-1115
T/G=311.71
INV IN=304.50 (DI-1116)
INV OUT=304.40

DI-1116
T/G=311.72
INV IN=305.05 (JB-1117)
INV OUT=304.80

EX DI-113
T/G=312.41
INV IN=306.70 (EX. JB-131)
INV IN=303.00 (DI-1114)
INV IN=306.70 (EX DI-114)
INV OUT=302.25

EX. DI-114
T/G=312.25
INV OUT=308.76

EX. DI-112
T/G=307.41
INV IN=298.00 (EX DI-113)
INV IN=299.15 (OPEN THROAT DI-1111)
INV OUT=297.90

JB-1112
RIM=306.75
INV IN=300.10 (Yl-1113)
INV OUT=300.00

JB-1117
RIM=311.75
INV IN=305.40 (JB-1118)
INV OUT=305.30

JB-1118
RIM=311.89
INV IN=307.75 (12" RD)
INV IN=306.90 (CO-1119)
INV IN=307.75 (TD)
INV OUT=306.30

OPEN THROAT DI-1111
WIER=304.00
INV IN=299.80 (JB-1112)
INV OUT=299.55

SDCO-1113A
RIM=305.30
INV IN=303.10 (Yl-1113B)
INV OUT=303.00

SDCO-1121
RIM=310.02
INV IN=309.00 (TD4-OUT)
INV OUT=309.00

DI-1113
T/G=305.00
INV IN=303.30 (SDCO-1113A)
INV OUT=300.90

Yl-1113B
T/G=307.20
INV IN=305.50 (4" HDPE)
INV OUT=304.00

Yl-1120
T/G=310.36
INV OUT=308.00

STORM DRAINAGE LEGEND

- CATCH BASIN
- DROP INLET
- STORM SERVICE INLET
- STORM SERVICE ROOF-DRAIN
- JUNCTION BOX
- DRAINAGE FLOW ARROW
- LINE BREAK SYMBOL
- STORM DRAINAGE
- STORM SERVICE LINE
- PERFORATED HDPE STORM PIPE
- TP TP TP TREE PROTECTION FENCE
- LD LD LIMITS OF DISTURBANCE

GRAPHIC SCALE
0 10 20 40
1 inch = 20 ft.

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

1. SEE LANDSCAPE SHEETS FOR ALL HARDSCAPE AND DETAILED GRADING. INFORMATION.
2. 4" PIPE MINIMUM SLOPE 2%, 6" PIPE MINIMUM SLOPE 1%, 8" PIPE MINIMUM SLOPE 0.5%.

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fax 919. 361. 2269
license number: C-0293, C-187
www.mcadamsco.com

SHEET TITLE: STORM DRAINAGE PLAN
SCALE (H/V): 1"=20'

FOR PERMIT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
NORTH CAROLINA
THE JOHN R. McADAMS COMPANY, INC.
C-0293
CERTIFICATE OF AUTHORIZATION

SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
052846
ENGINEER
CONNOR J. JONES
12-22-2023

ISSUE DATE: 12/22/2023
JOB NO.: 11751-00
DWG. NO.: C301

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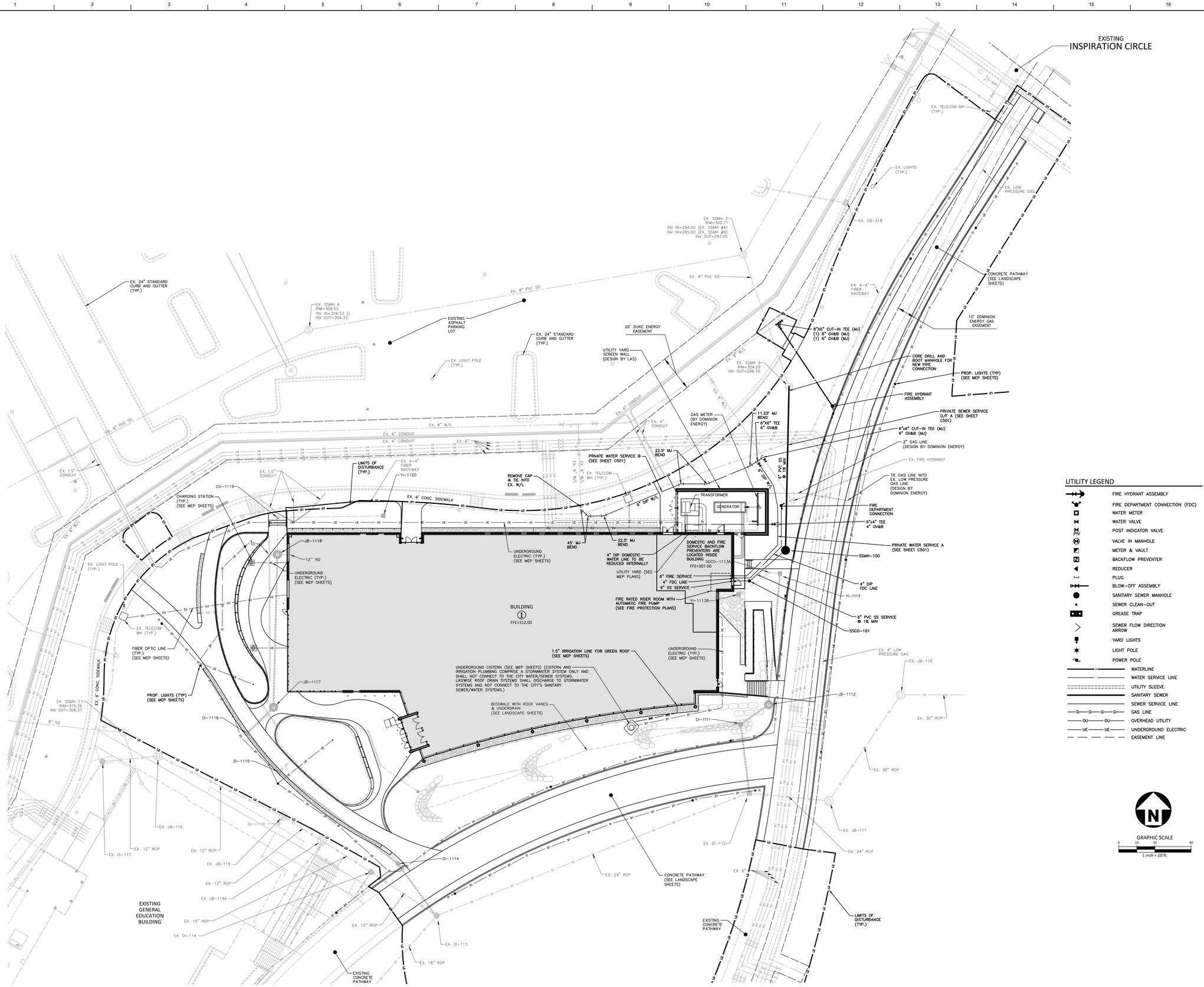

UTILITY LEGEND

- FIRE HYDRANT ASSEMBLY
- FIRE DEPARTMENT CONNECTION (FDC)
- WATER METER
- WATER VALVE
- POST INDICATOR VALVE
- VALVE IN MANHOLE
- METER & VAULT
- BACKFLOW PREVENTER
- REDUCER
- PLUG
- BLOW-OFF ASSEMBLY
- SANITARY SEWER MANHOLE
- SEWER CLEAN-OUT
- GREASE TRAP
- SEWER FLOW DIRECTION ARROW
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- WATERLINE
- WATER SERVICE LINE
- UTILITY SLEEVE
- SANITARY SEWER
- SEWER SERVICE LINE
- GAS LINE
- OVERHEAD UTILITY
- UNDERGROUND ELECTRIC
- EASEMENT LINE

GRAPHIC SCALE
0 10 20 40
1 inch = 20 ft.

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

1. SEE SHEET C501 FOR SEWER AND WATER PROFILES.
2. 4" PIPE MINIMUM SLOPE 2%, 6" PIPE MINIMUM SLOPE 1%, 8" PIPE MINIMUM SLOPE 0.5%.

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license number: C-0293, C-187
www.mcadamsco.com

SHEET TITLE: UTILITY PLAN

SCALE: AS NOTED: 1"=20'

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: NORTH CAROLINA — THE JOHN R. McADAMS COMPANY, INC. C-0293 — CERTIFICATE OF AUTHORIZATION

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 052846 ENGINEER CONNOR J JONES 12-22-2023

ISSUE DATE: 12/22/2023
JOB. NO.: 11751-00
DWG. NO.: C400

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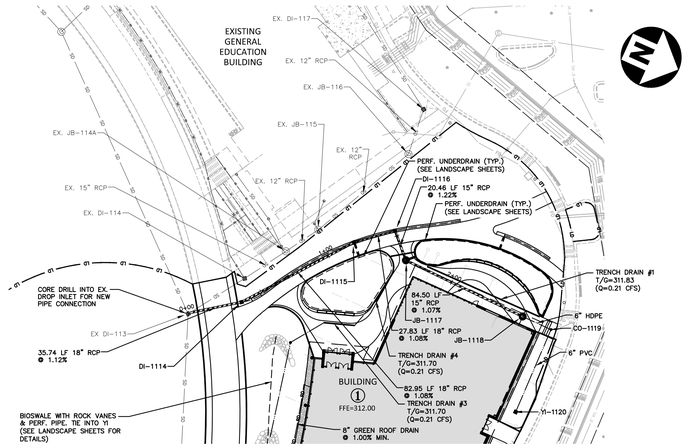

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INV Out=307.20

DI=1114
T/G=312.69
INV In=303.50 (DI=1115)
INV Out=303.40

DI=1115
T/G=311.71
INV In=304.00 (DI=1116)
INV Out=303.90

DI=1116
T/G=311.79
INV In=305.05 (JB=1117)
INV Out=304.95

EX DI=113
T/G=312.41
INV In=305.70 (EX. JB=101)
INV In=305.60 (DI=114)
INV In=305.70 (EX DI=114)
INV Out=305.05

EX DI=114
T/G=312.05
INV Out=308.78

EX. DI=115
T/G=312.25
INV In=298.00 (EX DI=113)
INV In=299.15 (OPEN THROAT DI=1111)
INV Out=297.90

JB=1112
Rim=306.78
INV In=302.10 (YI=1113)
INV Out=305.00

JB=1117
Rim=311.89
INV In=305.40 (JB=1118)
INV Out=305.30

JB=1118
Rim=311.89
INV In=305.75 (12" RD)
INV In=307.75 (YD)
INV Out=305.30

OPEN THROAT DI=1111
RIM=306.50
INV In=298.00 (JB=1112)
INV Out=298.00

SDCO=1134
Rim=309.30
INV In=302.10 (YI=1138)
INV Out=303.00

SDCO=1121
Rim=310.02
INV In=308.00 (TD4-OUT)
INV Out=308.00

YI=1113
T/G=307.20
INV In=303.30 (SDCO-1113A)
INV Out=300.90

YI=1138
T/G=307.20
INV In=300.50 (4" HDPE)
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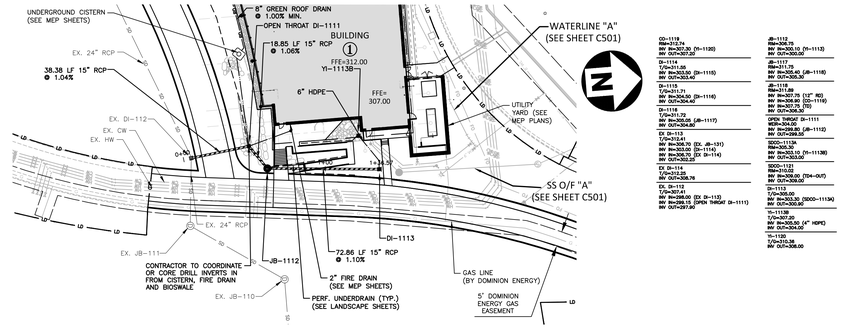
T/G=310.50
INV Out=308.00



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INV Out=303.40

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INV In=304.00 (DI=1116)
INV Out=304.40

DI=1116
T/G=311.79
INV In=305.05 (JB=1117)
INV Out=304.95

EX DI=113
T/G=312.41
INV In=305.70 (EX. JB=101)
INV In=305.60 (DI=114)
INV In=305.70 (EX DI=114)
INV Out=305.05

EX DI=114
T/G=312.05
INV Out=308.78

EX. DI=115
T/G=312.25
INV In=298.00 (EX DI=113)
INV In=299.15 (OPEN THROAT DI=1111)
INV Out=297.90

JB=1112
Rim=306.78
INV In=302.10 (YI=1113)
INV Out=305.00

JB=1117
Rim=311.89
INV In=305.40 (JB=1118)
INV Out=305.30

JB=1118
Rim=311.89
INV In=305.75 (12" RD)
INV In=307.75 (YD)
INV Out=305.30

OPEN THROAT DI=1111
RIM=306.50
INV In=298.00 (JB=1112)
INV Out=298.00

SDCO=1134
Rim=309.30
INV In=302.10 (YI=1138)
INV Out=303.00

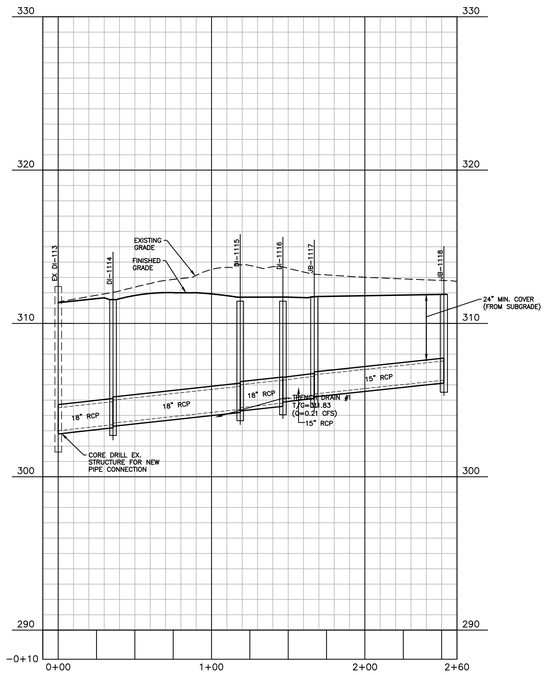
SDCO=1121
Rim=310.02
INV In=308.00 (TD4-OUT)
INV Out=308.00

YI=1113
T/G=307.20
INV In=303.30 (SDCO-1113A)
INV Out=300.90

YI=1138
T/G=307.20
INV In=300.50 (4" HDPE)
INV Out=304.00

YI=1120
T/G=310.50
INV Out=308.00

STORM OUTFALL "A"



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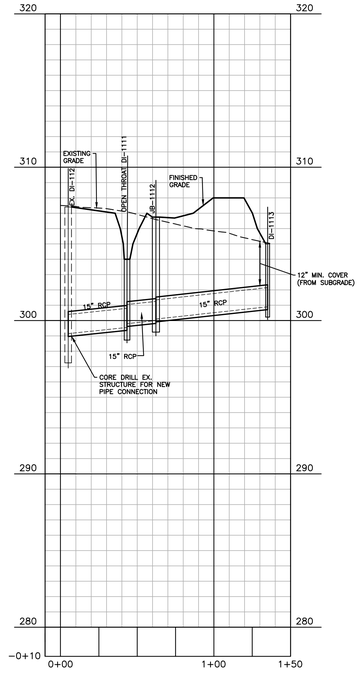

GRAPHIC SCALE
0 20 40 80
1 inch = 40 ft.
Vertical: 1 inch = 4 ft.

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

1. 4" PIPE MINIMUM SLOPE 2%, 6" PIPE MINIMUM SLOPE 1%, 8" PIPE MINIMUM SLOPE 0.5%.

LORD AECK SARGENT

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REVISION

McADAMS
The John R. McAdams Company, Inc.
2905 Meridian Parkway
Durham, NC 27713
phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187
www.mcadamsco.com

SHEET TITLE
PLAN & PROFILE - STORM OUTFALL "A", "B"

SCALE (UNO)
1"=40'/1"=4'

PROJECT
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
NORTH CAROLINA
THE JOHN R. McADAMS COMPANY, INC.
C-0293
CERTIFICATE OF AUTHORIZATION

SEAL
NORTH CAROLINA PROFESSIONAL
SEAL 052844
ENGINEER
CONNOR J. JONES
12/20/2023

ISSUE DATE
12/20/2023

JOB NO.
11751-00

DWG NO.
C500

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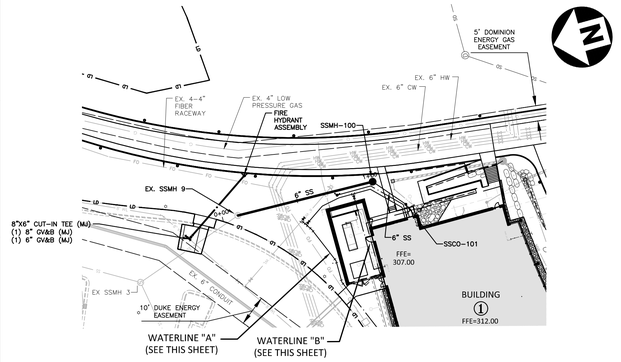
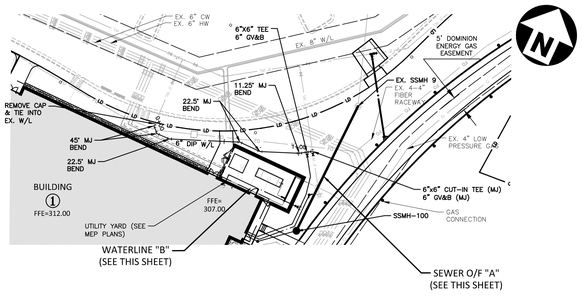
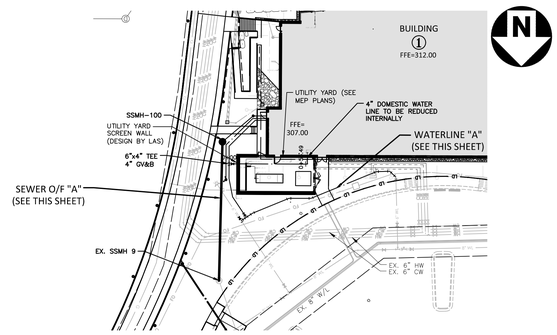
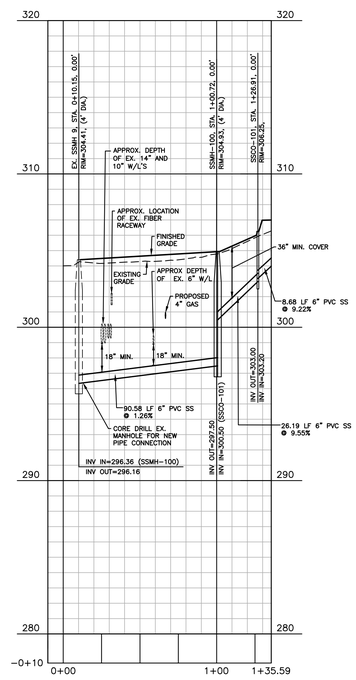


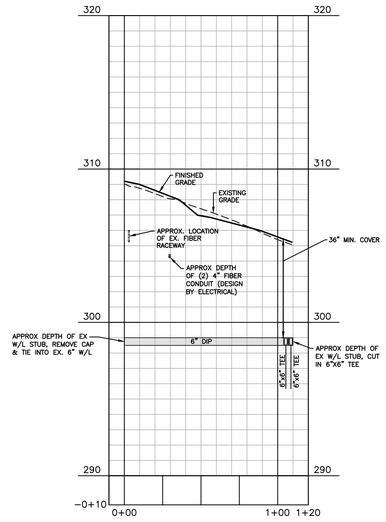




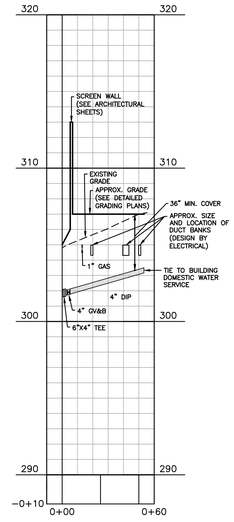
PRIVATE SEWER SERVICE OUTFALL "A"



PRIVATE WATER SERVICE "A"



PRIVATE WATER SERVICE "B"



GRAPHIC SCALE
0 20 40 80
1 inch = 40 ft.
Vertical: 1 inch = 4 ft.

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

1. 4" PIPE MINIMUM SLOPE 2%, 6" PIPE MINIMUM SLOPE 1%, 8" PIPE MINIMUM SLOPE 0.5%.

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license number: C-0293, C-187
www.mcadamsco.com

SHEET TITLE: PLAN & PROFILE - SEWER OUTFALL "A", WATERLINE "A", WATERLINE "B"

SCALE (U.N.O.): 1"=40'

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: NORTH CAROLINA, THE JOHN R. McADAMS COMPANY, INC. C-0293, STATE OF AUTHORIZATION

SEAL: NORTH CAROLINA, PROFESSIONAL SEAL 052846 ENGINEER, CONNOR J. JONES, 12-22-2023

ISSUE DATE: 12/22/2023
JOB NO.: 11751-00
DWG. NO.: C501

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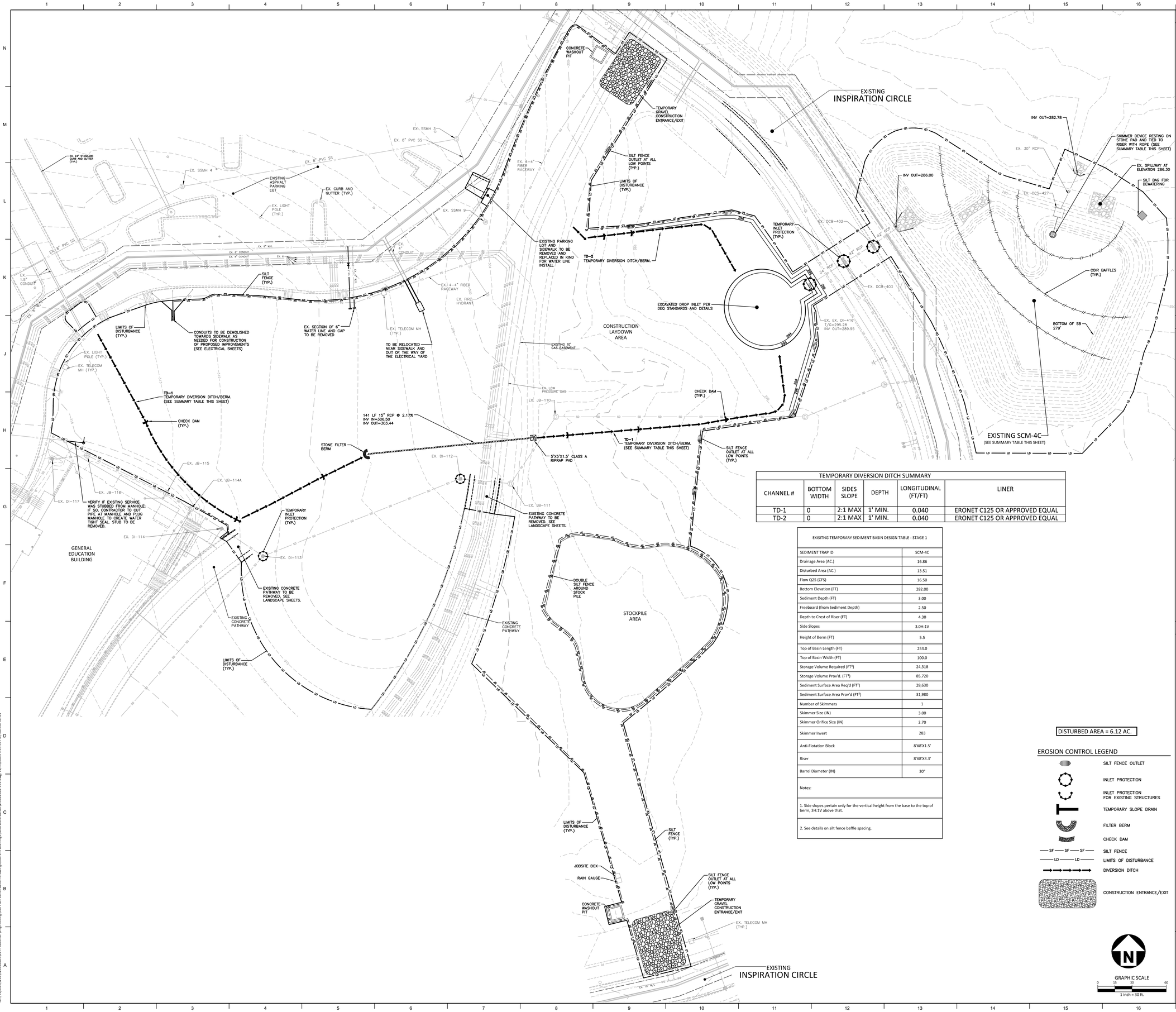

TEMPORARY DIVERSION DITCH SUMMARY					
CHANNEL #	BOTTOM WIDTH	SIDES SLOPE	DEPTH	LONGITUDINAL (FT/FT)	LINER
TD-1	0	2:1 MAX	1' MIN.	0.040	ERONET C125 OR APPROVED EQUAL
TD-2	0	2:1 MAX	1' MIN.	0.040	ERONET C125 OR APPROVED EQUAL

EXISITNG TEMPORARY SEDIMENT BASIN DESIGN TABLE - STAGE 1	
SEDIMENT TRAP ID	SCM-4C
Drainage Area (AC.)	16.86
Disturbed Area (AC.)	13.51
Flow Q25 (CFS)	16.50
Bottom Elevation (FT)	282.00
Sediment Depth (FT)	3.00
Freeboard (from Sediment Depth)	2.50
Depth to Crest of Riser (FT)	4.30
Side Slopes	3.0H:1V
Height of Berm (FT)	5.5
Top of Basin Length (FT)	253.0
Top of Basin Width (FT)	100.0
Storage Volume Required (FT^3)	24,318
Storage Volume Prov'd. (FT^3)	85,720
Sediment Surface Area Req'd (FT^2)	28,630
Sediment Surface Area Prov'd (FT^2)	31,980
Number of Skimmers	1
Skimmer Size (IN)	3.00
Skimmer Orifice Size (IN)	2.70
Skimmer Invert	283
Anti-Flotation Block	8'X8'X1.5'
Riser	8'X8'X3.3'
Barrel Diameter (IN)	30"
Notes:	
1. Side slopes pertain only for the vertical height from the base to the top of berm, 3H:1V above that.	
2. See details on silt fence baffle spacing.	

DISTURBED AREA = 6.12 AC.

EROSION CONTROL LEGEND

- SILT FENCE OUTLET
- INLET PROTECTION
- INLET PROTECTION FOR EXISTING STRUCTURES
- TEMPORARY SLOPE DRAIN
- FILTER BERM
- CHECK DAM
- SF SF SF — SILT FENCE
- LD LD — LIMITS OF DISTURBANCE
- DIVERSION DITCH
- CONSTRUCTION ENTRANCE/EXIT

GRAPHIC SCALE
0 15 30 60
1 inch = 30 ft.

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

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license number: C-0293, C-187
www.mcadamsco.com

SHEET TITLE: EROSION CONTROL PLAN - STAGE 1

SCALE (BASED ON 24 X 36): 1"=30'

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: NORTH CAROLINA — THE JOHN R. McADAMS COMPANY, INC. C-0293 — CERTIFICATE OF AUTHORIZATION

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052846 — JOHNNY J. JONES — 12/20/2023

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: C600

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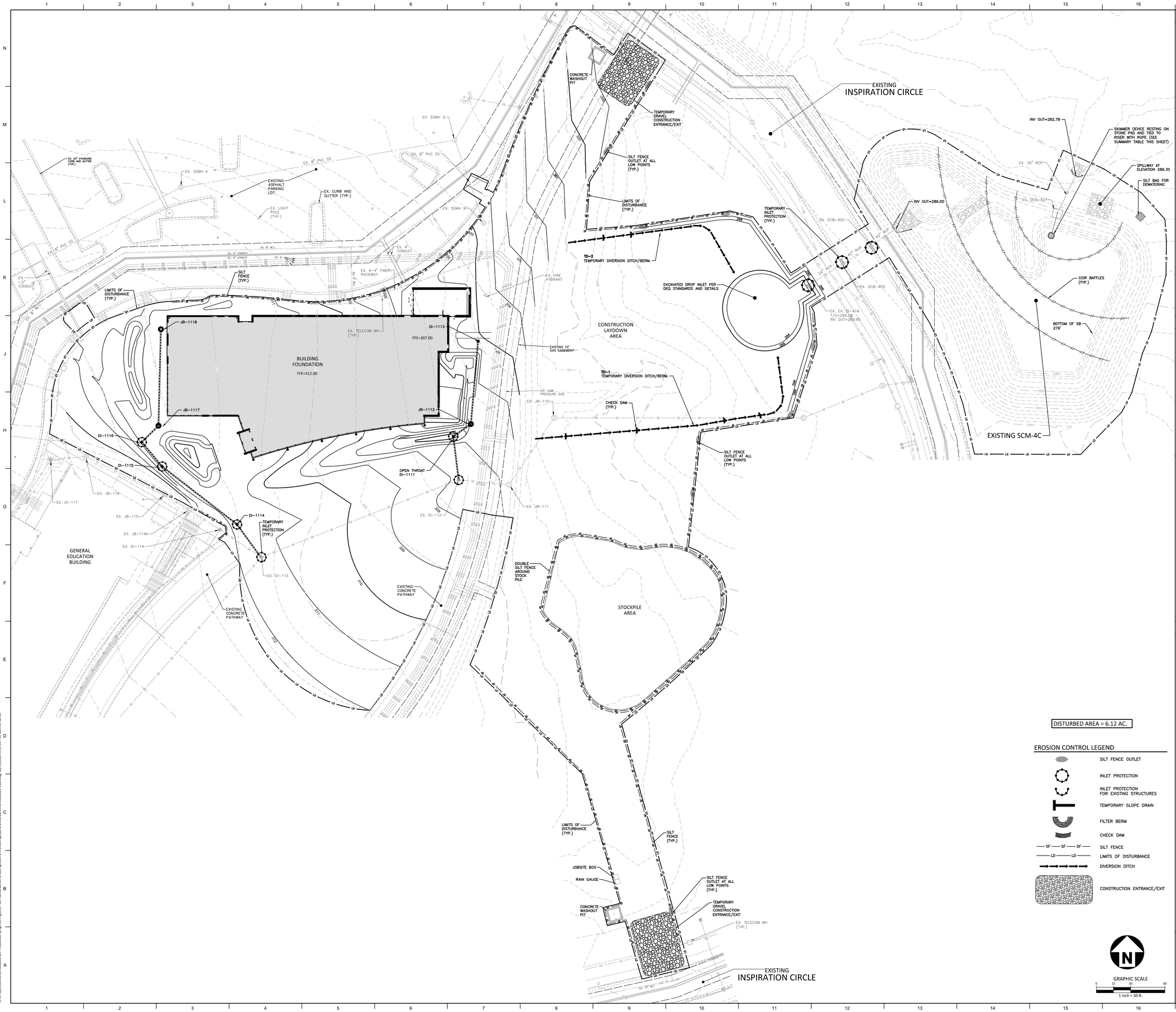

DISTURBED AREA = 6.12 AC.

EROSION CONTROL LEGEND

- SILT FENCE OUTLET
- INLET PROTECTION
- INLET PROTECTION FOR EXISTING STRUCTURES
- TEMPORARY SLOPE DRAIN
- FILTER BERM
- CHECK DAM
- SF SF SF — SILT FENCE
- LD LD — LIMITS OF DISTURBANCE
- DIVERSION DITCH
- CONSTRUCTION ENTRANCE/EXIT

GRAPHIC SCALE
0 15 30 60
1 inch = 30 ft.

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

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license number: C-0293, C-187
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SHEET TITLE: EROSION CONTROL PLAN - STAGE 2
SCALE (UNO): 1"=30'

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
NORTH CAROLINA
THE JOHN R. McADAMS COMPANY, INC.
C-0293
CERTIFICATE OF AUTHORIZATION

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 052844 ENGINEER CONNOR J. JONES
12/20/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: C601

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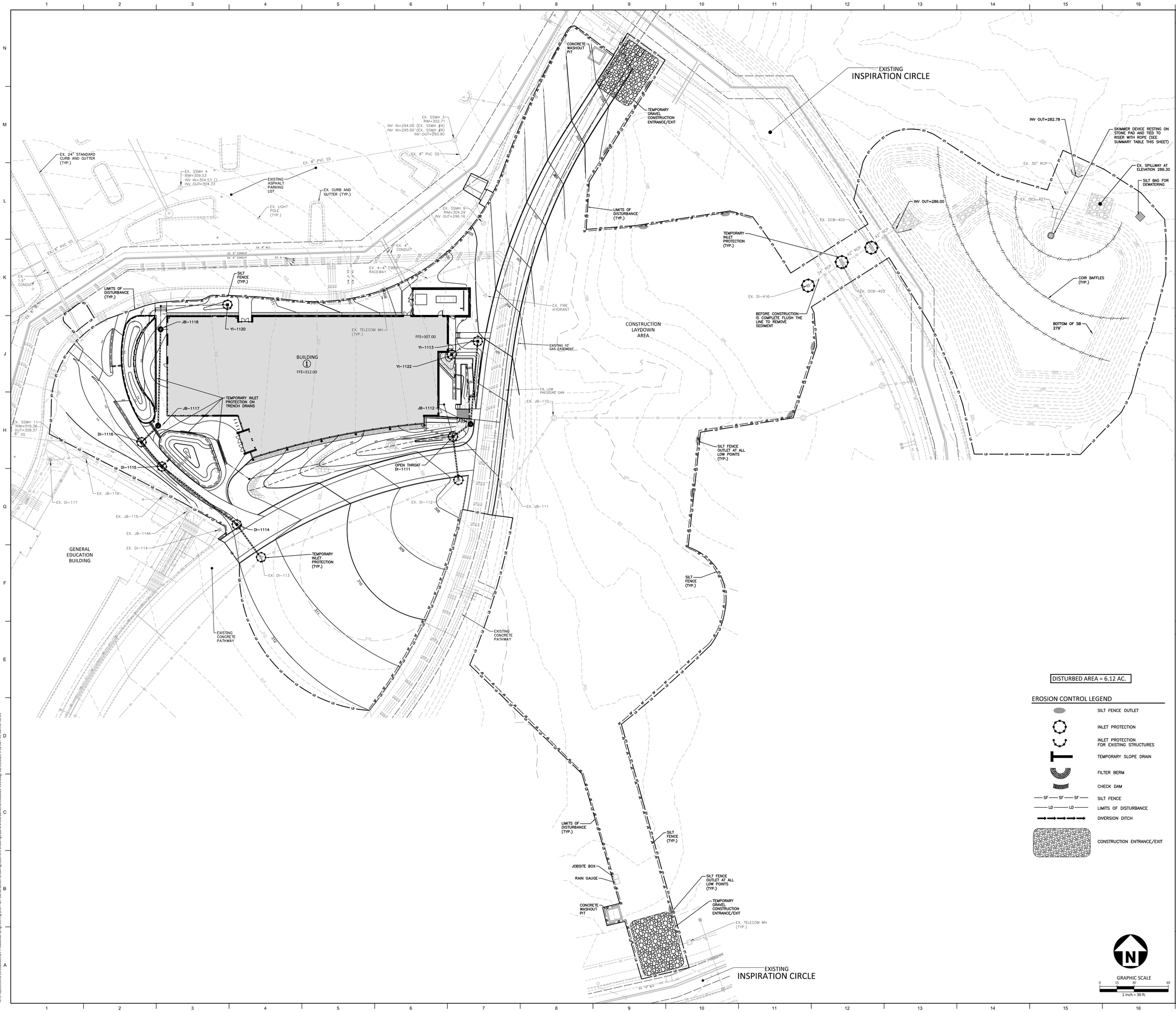

DISTURBED AREA = 6.12 AC.

EROSION CONTROL LEGEND

- SILT FENCE OUTLET
- INLET PROTECTION
- INLET PROTECTION FOR EXISTING STRUCTURES
- TEMPORARY SLOPE DRAIN
- FILTER BERM
- CHECK DAM
- SF — SF — SF — SILT FENCE
- LD — LD — LIMITS OF DISTURBANCE
- DIVERSION DITCH
- CONSTRUCTION ENTRANCE/EXIT

GRAPHIC SCALE
0 15 30 60
1 inch = 30 ft.

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

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license number: C-0293, C-187
www.mcadamsco.com

SHEET TITLE: EROSION CONTROL PLAN - STAGE 3

SCALE (UNO): 1"=30'

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: NORTH CAROLINA — THE JOHN R. McADAMS COMPANY, INC. C-0293 — CERTIFICATE OF AUTHORIZATION

SEAL: NORTH CAROLINA — PROFESSIONAL ENGINEER — SEAL 052846 — CONNOR J. JONES — 12/20/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: C602

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1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS. IF AVAILABLE.
2. RIP THE ENTIRE AREA TO 6 INCHES DEPTH.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING THE SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER AND SUPER PHOSPHATE UNIFORMLY AND MIX WITH SOIL.

   APPLY: AGRICULTURAL LIMESTONE – 2 TONS/ACRE (3 TONS/ACRE IN CLAY SOILS)
   FERTILIZER – 1,000 LBS./ACRE – 10–10–10
   SUPER PHOSPHATE – 500 LBS./ACRE – 20% ANALYSIS
5. CONTINUE TILLAGE UNTIL A WELL–PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.

   APPLY: MULCH – 2 TONS/ACRE – SMALL GRAIN STRAW
   ANCHOR – ASPHALT EMULSION @ 300 GALS./ACRE
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. CONSULT CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

SEEDBED PREPARATION

Table 6.10a
Temporary Seeding Recommendations for Late Winter and Early Spring

Seeding mixture

Species	Rate (lb/acre)
Rye (grain)	~~120~~ use 110

Seeding dates
Mountains—Above 2500 feet: Feb. 15 - May 15
Below 2500 feet: Feb. 1- May 1
Piedmont—Jan. 1 - May 1
Coastal Plain—Dec. 1 - Apr. 15

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 nearly 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.

Table 6.10b
Temporary Seeding Recommendations for Summer

Seeding mixture

Species	Rate (lb/acre)
German millet	40

In the Piedmont and Mountains, a small-stemmed Sudangrass may be substituted at a rate of 50 lb/acre.

Seeding dates
Mountains—May 15 - Aug. 15
Piedmont—May 1 - Aug. 15
Coastal Plain—Apr. 15 - Aug. 15

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 nearly 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.

Table 6.10c
Temporary Seeding Recommendations for Fall

Seeding mixture

Species	Rate (lb/acre)
Rye (grain)	120

Seeding dates
Mountains—Aug. 15 - Dec. 15
Coastal Plain and Piedmont—Aug. 15 - Dec. 30

Soil amendments
Follow soil tests or apply 2,000 lb/acre ground agricultural limestone and 1,000 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 nearly straight can be used as a mulch anchoring tool.

Maintenance
Repair and refertilize damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extent temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.

TEMPORARY SEEDING PER NCDEQ
EROSION & SEDIMENT CONTROL PLANNING AND DESIGN MANUAL
SECTION 6.10

Table 6.11k
Seeding No. 1P for: Steep Slopes or Poor Soils; Low Maintenance

Seeding mixture

Species[1]	Rate (lb/acre)
Tall fescue	100
Bermudagrass	25

Seeding notes
1. In Eastern Piedmont, add 25 lb/acre Pensacola Bahiagrass or 10 lb/acre common Bermudagrass. Use common Bermudagrass only where it is unlikely to become a pest.
2. After Aug. 15, use unscarified sericea seed.
3. Where a neat appearance is desired, omit sericea and substitute 40 lb/acre Bahiagrass or 15 lb/acre Bermudagrass.
4. To extend spring seeding dates into June, add 15 lb/acre hulled Bermudagrass. However, it is preferable to seed temporary cover and seed fescue in Sept.

Nurse plants
Between May 1 and Aug. 15, add 10 lb/acre German millet or 15 lb/acre Sudangrass. Prior to May 1 or after Aug. 15, add 40 lb/acre rye (grain).

Seeding dates

	Best	Possible
Fall:	Aug. 25 - Sept. 15	Aug. 20 - Oct. 25
Late Winter:	Feb. 15 - Mar. 21	Feb. 1 - Apr. 15

Fall is best for tall fescue, and lespedezas in late winter. Overseeding of Kobe lespedeza over fall-seeded tall fescue is very effective. Use unhulled Bermudagrass seed in fall.

Soil amendments
Apply lime and fertilizer according to soil tests or apply 4,000 lb/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.

Mulch
Apply 4,000-5,000 lb/acre grain straw or equivalent cover of another suitable mulching material. Anchor mulch by tacking with asphalt, roving, or netting. Netting is the preferred anchoring method on steep slopes.

Maintenance
Refertilize in the second year unless growth is fully adequate. May be mowed once or twice a year, but mowing is not necessary. Reseed, fertilize, and mulch damaged areas immediately.

[1]Refer to *Appendix 8.02* for botanical names.

Table 6.11l
Seeding No. 2P for: Gentle Slopes, Average Soil; Low Maintenance

Seeding mixture

Species[1]	Rate (lb/acre)
Tall fescue	~~80~~ use 110

Seeding notes
1. After Aug. 15, use unscarified sericea seed.
2. Where periodic mowing is planned or a neat appearance is desired, omit sericea and increase Kobe lespedeza to 40 lb/acre.
3. To extend spring seeding dates into June, add 15 lb/acre hulled Bermudagrass. However, after mid-Apr. it is preferable to seed temporary cover.

Nurse plants
Between May 1 and Aug. 15, add 10 lb/acre German millet or 15 lb/acre Sudangrass. Prior to May 1 or after Aug. 15, add 40 lb/acre rye (grain).

Seeding dates

	Best	Possible
Fall:	Aug. 25 - Sept. 15	Aug. 20 - Oct. 25
Late Winter:	Feb. 15 - Mar. 21	Feb. 1 - Apr. 15

Fall is best for tall fescue and late winter for lespedezas. Overseeding of Kobe lespedeza over fall-seeded tall fescue is very effective.

Soil amendments
Apply lime and fertilizer according to soil tests, or apply 4,000 lb/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.

Mulch
Apply 4,000 lb/acre grain straw or equivalent cover of another suitable mulch. Anchor straw by tacking with asphalt, netting, or roving or by crimping with a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
Refertilize in the second year unless growth is fully adequate. May be mowed once or twice a year, but mowing is not necessary. Reseed, fertilize, and mulch damaged areas immediately.

[1]Refer to *Appendix 8.02* for botanical names.

Table 6.11m
Seeding No. 3P for: Gentle Slopes, Soils with Average or Better Moisture Retention, Cooler Sites; High Maintenance

Seeding mixture

Species[1]	Rate (lb/acre)
Blend of two turf-type tall fescues (90%) and two or more improved Kentucky bluegrass varieties (10%)	200-250

Seeding dates

	Best	Possible
Fall:	Aug. 25 - Sept. 15	Aug. 20 - Oct. 25
Winter:	—	Feb. 1 - Mar. 31

For quality turf, avoid spring seeding. Where grading is completed during late winter or spring, an alternative is to seed 30 lb/acre Kobe lespedeza, keep mowed, prepare seedbed, and seed a permanent mixture in early fall.

Soil amendments
Apply lime and fertilizer according to soil tests, or apply 4,000 lb/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.

Mulch
Apply 4,000 lb/acre small grain straw or equivalent cover of another suitable mulch. Anchor straw by tacking with asphalt, netting, roving, or by crimping with a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
Fertilize according to soil tests or apply 40 lb/acre nitrogen in Jan. or Feb., 40 lb in Sept., and 40 lb in Nov., from a 12-4-8, 16-4-8, or similar turf fertilizer. Avoid fertilizer applications during warm weather, as this increases stand losses to disease. Mow to a height of 2.5-3.5 inches as needed. Reseed, fertilize, and mulch damaged areas immediately.

[1]Refer to *Appendix 8.02* for botanical names.

Table 6.11n
Seeding No. 4P for: Gentle Slopes, Soils Somewhat Warmer or Drier than 3P, or with Physical Limitations; High Maintenance

Seeding mixture

Species[1]	Rate (lb/acre)
Blend of 50% KY-31 tall fescue and 50% mixture of two or more turf-type tall fescues	200-250
or	
Blend of three or more turf-type tall fescues	200-250

Seeding dates

	Best	Possible
Fall:	Aug. 25 - Sept. 15	Aug. 20 - Oct. 25
Winter:	—	Feb. 1 - Mar. 31

For quality turf, avoid spring seeding. Where grading is completed during late winter or spring, an alternative is to seed 30 lb/acre Kobe lespedeza, keep mowed, prepare seedbed, and seed permanent mixture between Aug. 25 and Sept. 15.

Soil amendments
Apply lime and fertilizer according to soil tests or apply 4,000 lb/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.

Mulch
Apply 4,000 lb/acre grain straw or equivalent cover of another suitable mulch. Anchor straw by tacking with asphalt, roving, netting, or by crimping with a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
Fertilize according to soil tests or apply 40 lb/acre nitrogen in Jan. or Feb., 40 lb in Sept., and 40 lb in Nov., from a 12-4-8, 16-4-8, or similar turf fertilizer. Avoid fertilizer applications during warm weather, as this increases stand losses to disease. Reseed, fertilize, and mulch damaged areas immediately. Mow to a height of 2.5-3.5 inches as needed.

[1]Refer to *Appendix 8.02* for botanical names.

PERMANENT SEEDING PER NCDEQ
EROSION & SEDIMENT CONTROL PLANNING AND DESIGN MANUAL
VERSION 6/06, SECTION 6.11

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

LORD AECK SARGENT
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Planning & Design, Inc.
LordAeckSargent.com

REVISION:

McADAMS
The John R. McAdams Company, Inc.
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Durham, NC 27713
phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187
www.mcadamsco.com

SHEET TITLE: EROSION CONTROL NOTES
SCALE (U.N.O.): NO SCALE

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: NORTH CAROLINA — THE JOHN R. McADAMS COMPANY, INC. C-0293 — CERTIFICATE OF AUTHORIZATION

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 052846 ENGINEER CHRISTOPHER M. JONES 12/20/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: C603

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PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no incidentally rainfall information is available, then the following business day's observation shall be the antecedent rain (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain monitoring station approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Date and time of the inspection; 2. Date and time of the inspection; 3. Name of the person performing the inspection; 4. Indication of whether the measures were operating properly; 5. Description of maintenance needs for the measure; 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Presence of suspended sediment, turbidity, discoloration, and/or oil sheen; 2. Date and time of the inspection; 3. Name of the person performing the inspection; 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration; 5. Indication of whether any discharge at the time; 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sediment been tracked-off site, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits; 2. Description, evidence, and date of corrective actions taken; and 3. Documentation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence, and date of corrective actions taken; and 2. Records of all required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of the permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grouping (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all bare disturbing activities, construction or redevelopment, permanent ground cover); 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&SC Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC Plan.	Initial and date each E&SC Measure on a copy of the approved E&SC Plan or complete, date and sign an inspection report that lists each E&SC Measure shown on the approved E&SC Plan. This documentation is required upon the initial installation of the E&SC Measures or if the E&SC Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC Plan.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC Measures.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation

In addition to the E&SC Plan documents above, the following items shall be kept on the site

and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This general permit as well as the certificate of coverage, after it is received.

(b) Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if such records are readily accessible and available as hard-copy records.

(c) All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that must be reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(a) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(b) Anticipated bypasses and unanticipated bypasses.

(c) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• **Within 24 hours**, an oral or electronic notification. • **Within 7 calendar days**, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Items 1(b)-(c) above	• **Within 24 hours**, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses (40 CFR 122.41(m)(3))	• **A report at least ten days before the date of the bypass, if possible**. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses (40 CFR 122.41(m)(3))	• **Within 24 hours**, an oral or electronic notification. • **Within 7 calendar days,** a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment(40 CFR 122.41(l)(7))	• **Within 24 hours**, an oral or electronic notification. • **Within 7 calendar days**, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

(a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal
shall not commence until the E&SC plan authority has approved these items,

(b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,

(c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include
properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,

(d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,

(e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and

(f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

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	Required Ground Stabilization Timeframes: 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 as 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.

TEMPORARY SEEDING MAINTENANCE

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

PERMANENT SEEDING MAINTENANCE

1. SOIL ADDITIVES SHALL BE APPLIED PER SOILS TEST TAKEN PRIOR TO, DURING AND AFTER CONSTRUCTION. ADDITIVE RATES ARE INCLUDED WITH THE TEMPORARY AND PERMANENT SEEDING SCHEDULES PROVIDED WITH THIS PLAN SET.
2. AREAS SHALL BE REFERTILIZED IF GROWTH RATES AND NECESSARY GROUND COVER IS NOT ACHIEVED.
3. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.
4. AREAS SHOULD BE INSPECTED REGULARLY FOR INVASIVE SPECIES. INVASIVES SPECIES SHALL BE TREATED IMMEDIATELY WITH APPROPRIATE CULTURAL PRACTICES AND/OR BY THE USE OF SEASONALLY-APPROPRIATE AND SITE APPROPRIATE HERBICIDES (PER NCDEQ EROSION AND SEDIMENTATION MANUAL).

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 burn 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

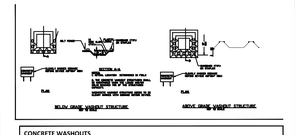
1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, 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, provide relocation of portable toilets to the next best place on a gravel pad and surround with sand bags.
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 or 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 removed from project.
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.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

DEMLR Monitoring Form Rev. 08082019

INSPECTION AND MONITORING RECORDS FOR ACTIVITIES UNDER STORMWATER GENERAL PERMIT NCG010000 AND SELF-INSPECTION RECORDS FOR LAND DISTURBING ACTIVITIES PER G.S. 113A-54.1

Project Name				**Land Quality or Local Program Project/Permit #**	
Approving Authority		**Date of Plan Approval**		**Expiration Date, if applicable**	
NCG010000 Certificate of Coverage Number				**Date of Issuance**	
Coverage under the NCG010000 permit must be renewed annually, if issued after April 1, 2019 until Notice of Termination is filed and approved.					

PART 1A: Rainfall Data

Day / Date	Rain Amt (inches) Daily Rainfall Required, except for Holidays or Weekends. If no rain, indicate with a "zero"
M	
T	
W	
Th	
F	
Sat (Optional)	
Sun (Optional)	

PART 1B: Phase(s) of the Plan

Check ALL applicable box(es) that apply to completed & current phases	X
Installation of perimeter erosion and sediment control measures	
Clearing and grubbing of existing ground cover	
Completion of any grading of slopes or fills	
Installation of storm drainage facilities	
Completion of all land-disturbing activity, construction or development	
Permanent ground cover sufficient to restrain erosion has been established	

Are there any site or project conditions that limit completion of inspection? If yes, explain conditions and areas of site that were inaccessible.	

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PART 2: STORMWATER PLANS AND CONTROLS: For each question below, mark the corresponding box as Yes, No or N/A. For all items marked 'No', note in Part 2A or 2A the Reference letter and provide the Corrective Action and location of the deficiency, the original date noted, and the date it was noted as being corrected. NOTE: Reference letters may be used multiple times.

Reference	Part 2A: Storm Water Plans and Related Documents	Yes	No	N/A
A	Is the approval letter or certificate, COC and a copy of the NPDES Construction General Permit (CGP) on site? (Readily available electronic copy of CGP is acceptable).			
B	Is the approved plan on site and current?			
C	Is the construction sequence being followed?			
D	Have all areas within the approved limits of disturbance been inspected?			

Reference	Corrective Actions	Inspection Date	Date Noted as Corrected

Reference	Part 2B: Stormwater Pollutant Controls	Yes	No	N/A
E	Are erosion and sediment controls that are shown on the approved plan installed and operating properly with no repairs needed?			
F	Are stormwater controls that are shown on the approved plan installed and operating properly with no repairs needed?			
G	Are BMPs needed on any areas of the site where not otherwise indicated on the approved plan?			
H	Vehicle Tracking: Are construction entrances operating properly with no repairs needed?			
I	Soil Stabilization: Are areas of the site where construction activites have ceased been properly stabilized within the required timeframes?			
J	Are earthen stockpiles protected from sediment loss and/or stabilized, and located away or downhill from drainage paths to water sources?			

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Reference	Part 2C: Non-Storm Water Pollutant Controls	Yes	No	N/A
K	Concrete, stucco, paint, etc. washouts: Are washouts properly located, installed, posted and operating with no repairs needed?			
L	Solid & hazardous wastes: Are trash, debris, and hazardous materials properly managed?			
M	Sanitary waste: Are portable toilets properly located and operating with no visible repairs needed?			
N	Equipment fluids: Are fuels, lubricants, hydraulic fluids, etc. contained so as not to enter surface and ground waters?			

For any items listed in this section, a full description of sedimentation is required in Part 3A. This includes, but may not be limited to: location, estimated amount of sediment that has left the site and/or entered waters, apparent causes of the sediment loss, and what corrective actions need to be taken to prevent this from recurring.

Reference	Part 2D: Sedimentation	Yes	No	N/A
O	Are sediment or other pollutants noted beyond site boundaries?			
P	Are BMPs detected as releasing sediment or other pollutants into receiving waters?			

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PART 3A: EROSION AND SEDIMENTATION CONTROL MEASURES: Measures must be inspected at least ONCE PER 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A RAINFALL EVENT EQUAL TO OR GREATER THAN 1.0 INCH PER 24 HOUR PERIOD.

Erosion and Sedimentation Control Measures Inspected					
Measure ID or Location and Description	Reference(s)	Operating Properly? (Y/N)	Inspection Date	Describe Actions Needed Corrective actions should be performed as soon as possible and before the next storm event	Date Noted as Corrected

PART 3B: STORMWATER DISCHARGE OUTFALLS (SDOs): SDOs must be inspected at least ONCE PER 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A RAINFALL EVENT EQUAL TO OR GREATER THAN 1.0 INCH PER 24 HOUR PERIOD.

Stormwater Discharge Outfalls Inspected							
Stormwater Discharge Outfall ID or Location	If Any Visible Sedimentation in Streams, Wetlands or Receiving Waters? (Y/N)	If Any Increase in Stream Turbidity from Discharge? (Y/N)	Any Visible Erosion below SDO? (Y/N)	Any visible oil sheen, floating or suspended solids or discoloration? (Y/N)	Inspection Date	Describe Actions Needed Corrective actions should be performed as soon as possible and before the next storm event	Date Noted as Corrected
Report visible sedimentation into streams or wetlands to the appropriate DEQ Regional Office via phone call or email within 24 hours of discovery. https://deq.nc.gov/contact/regional-offices							

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PART 3C: GROUND STABILIZATION: Must be recorded, at a minimum, after each phase.

Site area description and location where construction activities have temporarily or permanently ceased	Time Area Has Been Left Idle (see table below)	Have Ground Stabilization measures been installed? (Y/N)	Temporary or Permanent Stabilization (T/P)	Is Ground Cover Sufficient to Restrain Erosion? (Y/N)	Original Inspection Date	Describe Actions Needed Corrective actions should be performed as soon as possible and before the next storm event	Date Noted as Corrected

GROUND STABILIZATION TIMEFRAMES

Site Area Description	Stabilization Timeframe Variations
Perimeter dikes, swales and slopes	7 Days — None
High Quality Water (HQW) Zones	7 Days — None
Slopes Steeper than 3:1	7 Days — 14 days for perimeter dikes, swales, slopes and HWQ zones 14 days for slopes 10 ft or less in length and not steeper than 2:1 10 days for Falls Lake Watershed
Slopes 3:1 to 4:1	14 Days — 7 days for perimeter dikes, swales, slopes and HWQ zones 7 days for slopes greater than 50 ft in length 10 days for Falls Lake Watershed
All other areas with slopes flatter than 4:1	14 Days — 7 days for perimeter dikes, swales, slopes and HWQ zones 10 days for Falls Lake Watershed

NOTE:
CONSTRUCTION ACTIVITIES THAT HAVE AN E&SC PLAN APPROVED ON OR AFTER APRIL 1, 2019 ARE REQUIRED TO FILL OUT AND SUBMIT AN ELECTRONIC NOTICE OF INTENT (e-NOI) FORM. ALL CONSTRUCTION ACTIVITIES ARE REQUIRED TO FOLLOW THE NEW NCG01 PERMIT REGARDLESS OF WHEN THEY WERE APPROVED.

DEMLR Monitoring Form Rev. 08082019

PART 3D: NEW OR REVISED MEASURES: Erosion and sedimentation control measures, installed since the last inspection and as approved, should be documented here or by initialing and dating each measure or practice shown on a copy of the approved erosion and sedimentation control plan. Revisions or removal of measures should also be documented. List dimensions of measures such as Sediment Basins and Dissipator Pads. Corrective actions should be included in Part 3A.

Measure ID or Location and Description	Proposed Dimensions (ft.)	Actual Dimensions (ft.)	Significant Deviation* from Plan? (Y/N)	Date measure noted as installed, revised or removed	Installed (I) Revised (R) Removed (X)

*Significant deviation means any omission, alteration or relocation of an erosion or sedimentation control measure that prevents it from performing as intended.

PART 4: Signature of Inspector

Financially Responsible Party (FRP) / Permittee			County	
INSPECTOR	Name		Employer	
Inspector Type (Mark)	X	Address		
FRP/Permittee				
Agent/Designee		Phone Number	Email Address	

By this signature, I certify in accordance with the NCG010000 permit & G.S. 113A-54.1 that this report is accurate and complete to the best of my knowledge.

Financially Responsible Party / Permittee or Agent / Designee	Date & Time of Inspection

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

LORD AECK SARGENT

© 2022 Lord Aeck Sargent
Planning & Design, Inc.
LordAeckSargent.com

REVISION:

McADAMS
The John R. McAdams Company, Inc.
2905 Meridian Parkway
Durham, NC 27713
phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187
www.mcadamsco.com

SHEET TITLE: EROSION CONTROL NOTES

SCALE (UNO): NO SCALE

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: NORTH CAROLINA — THE JOHN R McADAMS COMPANY, INC. C-0293 — CERTIFICATE OF AUTHORIZATION

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 052846 ENGINEER CHRISTOPHER CAMERON JONES — 12/20/2023

ISSUE DATE: 12/20/2023

JOB. NO. 11751-00

DWG. NO. C604

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INSTRUCTIONS FOR
SLOPE DRAINS

INSTALLATION

1. REFER TO PLANS FOR LOCATIONS, EXTENT, AND SPECIFICATIONS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATIONS, EXTENT, OR METHODS OF INSTALLATION, CONTACT THE ENGINEER, ARCHITECT, OR RESPONSIBLE PERSONNEL ON THE SITE FOR ASSISTANCE. EROSION CONTROL PERSONNEL HAVE COPIES OF INSTALLATION INSTRUCTIONS AND MAY HAVE PHOTOGRAPHS OF PROPERLY INSTALLED SLOPE DRAINS AS AN AID TO INSTALLATION.

IF THE SLOPE DRAIN IS NOT INSTALLED CORRECTLY THE FIRST TIME, IT WILL HAVE TO BE RESHOT.

2. DETERMINE THE LOCATION ON THE GROUND TAKING INTO CONSIDERATION:

* THE INLET MUST BE AT THE LOW POINT WHERE RUNOFF CAN ENTER THE SLOPE DRAIN.

* A SEDIMENT-TRAPPING DEVICE MUST BE PLACED AT EITHER THE INLET OR, PREFERABLY, AT THE OUTLET.

* WHEN USED DOWN A STABILIZED SLOPE BELOW A SEDIMENT-TRAPPING DEVICE, INSTALL THE SLOPE DRAIN AT THE SAME TIME AS THE DEVICE.

* WHEN USED DOWN A FILL SLOPE, INSTALL THE SLOPE DRAIN WHEN THE FILL REACHES 5 FEET HIGH. AS GRADING PROGRESSES AND ADDITIONAL FILL IS PLACED, RECONSTRUCT THE DIVERSIONS AND RELOCATE THE SLOPE DRAIN.

3. ANCHOR THE INLET AT THE TOP OF THE SLOPE. DRIVE 1-INCH SQUARE STAKES ON BOTH SIDES OF THE INLET 18 INCHES INTO THE GROUND; USE WIRE OR CORD TO SECURE THE PIPE TO THE STAKES. COVER THE PIPE WITH SOIL AND COMPACT IT AS SHOWN IN THE ILLUSTRATION.

4. LAY THE PIPE DOWN THE SLOPE. WHERE PREFABRICATED DRAIN IS USED, USE RODS OR STAKES AND ATTACH THEM AT EACH GROMMET ON THE PIPE. WHERE CORRUGATED PLASTIC PIPE IS USED, DRIVE 1-INCH SQUARE STAKES 18 INCHES INTO THE GROUND ON BOTH SIDES OF THE PIPE; SPACE THE STAKES EVERY 10 FEET. SECURE THE PIPE TO THE STAKES WITH WIRE OR CORD. SECURE THE OUTLET IN THE SAME MANNER.

5. ALL JOINTS IN THE PIPE MUST BE WATERTIGHT. USE CONNECTIONS MADE FOR THE PARTICULAR BRAND OF PIPE.

6. PLACE THE OUTLET OF THE PIPE WHERE IT WILL DISCHARGE ONTO STABLE GROUND. **DO NOT PLACE THE OUTLET WHERE THERE IS FILL OR DISTURBED SOIL BELOW IT.** WHERE THE SOIL IS NOT STABLE, CONSTRUCTION A STONE APRON AT THE OUTLET.

MAINTENANCE

1. INSPECT THE SLOPE DRAIN:

* DURING CONSTRUCTION: TO SEE IF MACHINERY HAS DAMAGED THE DRAIN; IF SO, REPAIR IT. TO SEE IF FILL MATERIAL HAS BLOCKED THE INLET OR THE CHANNEL LEADING TO THE INLET; IF SO, REMOVE THE FILL AND CLEAR THE INLET.

* AFTER EACH RAINFALL: TO SEE THAT RUNOFF IS FLOWING THROUGH THE SLOPE DRAIN TO THE BOTTOM OF THE SLOPE; IF NOT, MAKE THE NECESSARY CORRECTIONS AND/OR REPAIRS. TO SEE THAT THE CHANNELS LEADING TO THE INLET ARE FUNCTIONING PROPERLY; IF NOT, MAKE THE NECESSARY REPAIRS. TO SEE THAT THE CONNECTIONS ARE WATERTIGHT AND THAT THE STAKES ARE SECURE; IF NOT, MAKE THE REPAIRS.

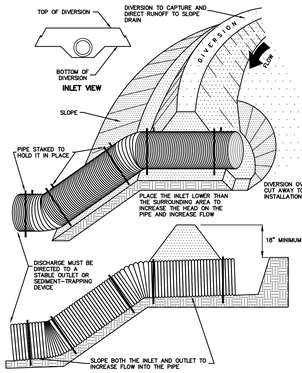
2. INSPECT AND MAINTAIN THE DIVERSIONS, SEDIMENT-TRAPPING DEVICES AT THE INLET OR OUTLET, AND ANY ENERGY DISSIPATOR.

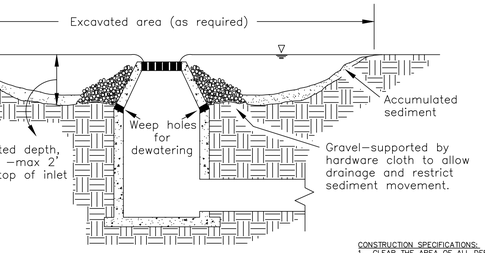
3. GIVE SPECIAL ATTENTION TO THE DIKE OVER THE PIPE INLET. LOOK FOR RUNOFF FLOWING BETWEEN THE PIPE AND THE SOIL. IF THIS OCCURS, REMOVE THE SOIL, REPLACE IT IN THIN LAYERS, AND COMPACT IT.

REMOVAL

1. WHEN THE WATERSHED HAS BEEN STABILIZED OR RUNOFF HAS BEEN DIVERTED TO A PERMANENT STABILIZED CHANNEL, THE SLOPE DRAIN CAN BE REMOVED.

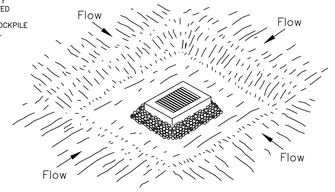
2. REMOVE THE PIPE AND STAKES; UNLESS THEY WILL BE USED AGAIN, DISPOSE OF THEM PROPERLY.





MAINTENANCE:
INSPECT, CLEAN, AND PROPERLY MAINTAIN THE EXCAVATED BASIN AFTER EVERY STORM UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED. TO PROVIDE SATISFACTORY BASIN EFFICIENCY, REMOVE SEDIMENT WHEN THE VOLUME OF THE BASIN HAS BEEN REDUCED BY ONE-HALF. SPREAD ALL EXCAVATED MATERIAL EVENLY OVER THE SURROUNDING LAND AREA OR STOCKPILE AND STABILIZE IT APPROPRIATELY.

CONSTRUCTION SPECIFICATIONS:
1. CLEAR THE AREA OF ALL DEBRIS THAT MIGHT HINDER EXCAVATION AND DISPOSAL OF SPOIL.
2. GRADE THE APPROACH TO THE INLET UNIFORMLY.
3. PROTECT WEEP HOLES BY GRAVEL.
4. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, SEAL WEEP HOLES, FILL THE BASIN WITH STABLE SOIL TO FINAL GRADING ELEVATIONS, COMPACT IT PROPERLY, AND STABILIZE.



Excavated drop inlet protection.

NOTES:

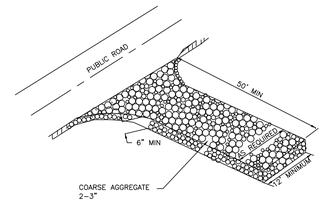
a. GRAVEL PAD TO BE 12'x 50' AND 6" THICK MINIMUM

b. TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS IS TO BE PROVIDED.

c. ENTRANCE(S) SHOULD BE LOCATED TO PROVIDE FOR MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES.

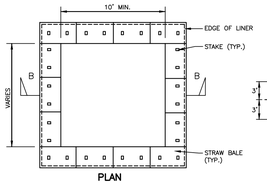
d. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE SILL BE NECESSARY; KEEP SOME HANDY.

e. ANY MATERIAL WHICH STILL MAKES IT ONTO THE ROAD MUST BE CLEANED UP IMMEDIATELY.

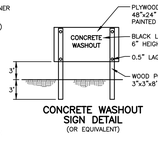


NOTES: APPLICABLE AT ALL POINTS OF INGRESS & EGRESS UNTIL SITE IS STABILIZED, FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE MUST BE PROVIDED.

TEMPORARY CONSTRUCTION ENTRANCE/EXIT



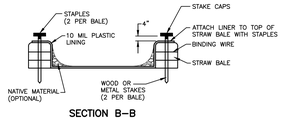
PLAN



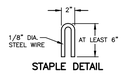
CONCRETE WASHOUT SIGN DETAIL
(OR EQUIVALENT)

NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

INSPECTION/MAINTENANCE/REMOVAL:
1. TEMPORARY CONCRETE WASHOUT FACILITIES ARE TO BE INSPECTED BY THE CONTRACTOR DURING HIS/HER WEEKLY EROSION AND SEDIMENT CONTROL INSPECTION, AFTER A STORM EVENT OF 1/2" OR GREATER AND AT THE END OF ANY DAY WHEN CONCRETE HAS BEEN POURED ON THE CONSTRUCTION SITE. THE INSPECTOR IS TO ENSURE THAT THERE ARE NO LEAKS, NO SPILLS AND THAT THE FACILITIES CAPACITY HAS NOT YET BEEN COMPROMISED.
2. ANY OVERFLOWING OF THE WASHOUT FACILITIES ONTO THE GROUND MUST BE CLEANED UP AND REMOVED WITHIN 24 HOURS OF DISCOVERY.
3. IF A RAIN OR SNOW EVENT IS FORECASTED, A NON-COLLAPSING, NON-WATER COLLECTING COVER SHALL BE PLACED OVER THE WASHOUT FACILITY AND SECURED TO PREVENT ACCUMULATION AND OVERFLOW OF PRECIPITATION.
4. CONTENTS OF EACH CONCRETE WASHOUT FACILITY ARE NOT TO EXCEED 75% OF ITS DESIGNED CAPACITY. IF THE CONTENTS REACH 75% CAPACITY, DISCONTINUE POURING CONCRETE INTO THE FACILITY UNTIL IT HAS BEEN CLEANED OUT.
5. ALLOW SLURRY TO EVAPORATE OR REMOVE FROM SITE IN A SAFE MANNER (I.E. VACUUM TRUCK). ALL HARDENED MATERIAL CAN THEN BE REMOVED AND DISPOSED OF PROPERLY.
6. IF A LINED BASIN IS USED, IMMEDIATELY REPLACE THE LINER IF IT BECOMES DAMAGED.
7. REMOVE TEMPORARY CONCRETE WASHOUT FACILITIES WHEN THEY ARE NO LONGER NEEDED AND RESTORE THE DISTURBED AREAS TO THEIR ORIGINAL CONDITION.

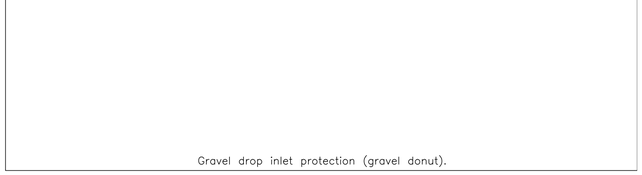


SECTION B–B



STAPLE DETAIL

CONCRETE WASHOUT PIT
N.T.S.

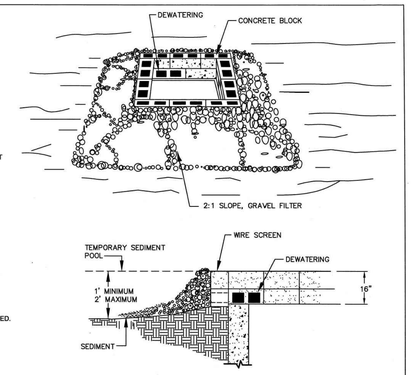


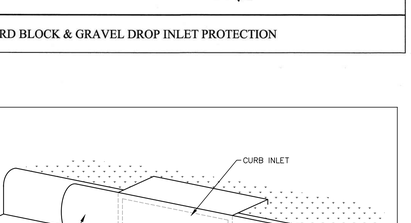
Gravel drop inlet protection (gravel donut).

CONSTRUCTION SPECIFICATIONS

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE IN THE BOTTOM ROW TO ALLOW POOL DRAINAGE. THE FOUNDATION SHOULD BE EXCAVATED AT LEAST 2 INCHES BELOW THE CREST OF THE STORM DRAIN. PLACE THE BOTTOM ROW OF BLOCKS AGAINST THE EDGE OF THE STORM DRAIN FOR LATERAL SUPPORT AND TO AVOID WASHOUTS WHEN OVERFLOW OCCURS. IF NEEDED, GIVE LATERAL SUPPORT TO SUBSEQUENT ROWS BY PLACING 2x4 WOOD STUDS THROUGH BLOCK OPENINGS.
2. CAREFULLY FIT HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2 INCH OPENINGS OVER ALL BLOCK OPENINGS TO HOLD GRAVEL IN PLACE.
3. USE CLEAN GRAVEL, 3/4 TO 1/2 INCH IN DIAMETER, PLACED 2 INCHES BELOW THE TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER AND SMOOTH IT TO AN EVEN GRADE. DOT #57 WASHED STONE IS RECOMMENDED.

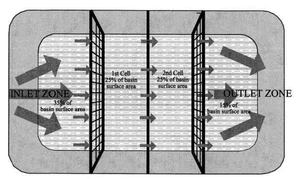
MAINTENANCE: INSPECT INLET PROTECTION AND REMOVE SEDIMENT AFTER EACH RAIN EVENT. GRAVEL SHOULD BE REPLACED AND REPAIRS MADE AS NEEDED.





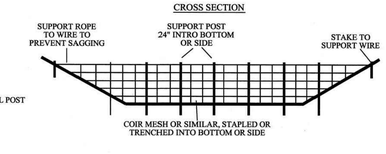
STANDARD BLOCK & GRAVEL DROP INLET PROTECTION

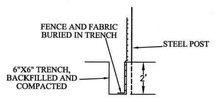
WAKE COUNTY NORTH CAROLINA
EFFECTIVE: 01/31/08



PLAN VIEW

CROSS SECTION



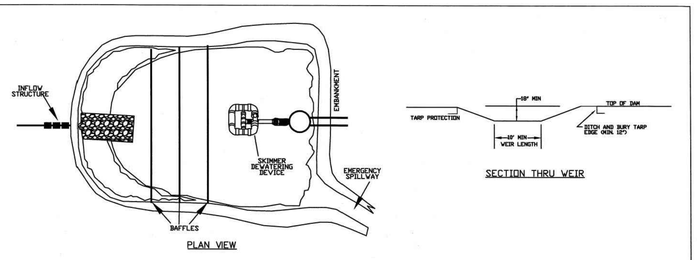


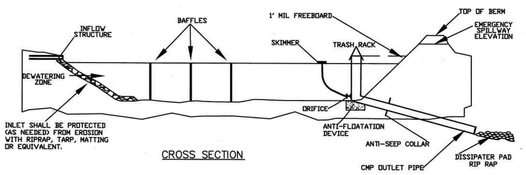
SECTION VIEW AT OPENING

NOTES:
1. BAFFLE MATERIAL SHOULD BE SECURED AT THE BOTTOM AND SIDES USING STAPLES OR BY TRENCHING AS FOR SILT FENCE.
2. MOST OF THE SEDIMENT WILL ACCUMULATE IN THE 1ST BAY, WHICH SHOULD BE READILY ACCESSIBLE FOR MAINTENANCE.
3. PROVIDE 3 BAFFLES (USE TWO IF LESS THAN 20 FEET IN LENGTH). PROVIDE 5 BAFFLES FOR DRAINAGE AREAS GREATER THAN 10 ACRES.
4. BAFFLE SHALL BE 700 G/M2 COIR EROSION BLANKET.
5. TOPS OF BAFFLES SHOULD BE 2 INCHES LOWER THAN THE TOP OF THE BERMS
6. INSPECT BAFFLES FOR REPAIR ONCE A WEEK AND AFTER EACH RAINFALL

STANDARD BAFFLES DETAIL

WAKE COUNTY NORTH CAROLINA
EFFECTIVE: 01/31/08



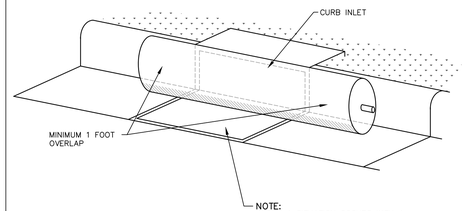


CROSS SECTION

NOTES:
1) BASIN SHOULD BE CLEANED OUT WHEN CAPACITY REACHES AN ELEVATION REPRESENTING THAT THE BASIN IS HALF-FULL.
2) THE TARP USED TO PROTECT THE WEIR SHALL BE THE WIDTH SPECIFIED. THE LENGTH OF THE TARP SHALL BE ACCORDING TO AVAILABLE SUPPLY. IF MULTIPLE TARPS ARE TO BE USED, THEN TARPS SHALL BE OVERLAPPED AT LEAST 12". THE UPSTREAM 12" TARP SHALL OVERLAP THE DOWNSTREAM TARP. THE TARP SHALL BE 50 MIL. HEAVY DUTY SILVER TARPAULINS OR EQUIVALENT FOR U.V. RESISTANCE.
3) PROVIDE A MINIMUM OF THREE POROUS BAFFLES TO EVENLY DISTRIBUTE FLOW ACROSS THE BASIN, REDUCING TURBULENCE.
4) BAFFLE MATERIAL MUST BE SECURED AT THE BOTTOM AND SIDES USING STAPLES OR BY TRENCHING AS FOR A SILT FENCE.
5) MOST OF THE SEDIMENT WILL ACCUMULATE IN THE FIRST BAY, SO THIS SHOULD BE READILY AVAILABLE FOR MAINTENANCE.
6) DURING THE CONSTRUCTION PHASE OF THE PROJECT, PERMANENT STORMWATER RISER SHALL ONLY DEWATER FROM THE TOP OF PIPE.
7) POND SHALL NOT BE CONVERTED FOR STORMWATER USE UNTIL APPROVED BY ENVIRONMENTAL ENGINEER.

STANDARD SKIMMER ATTACHED TO PERMANENT RISER

WAKE COUNTY NORTH CAROLINA
EFFECTIVE: 01/31/08



NOTES:
1. THE SEDIMENT FILTER SHALL BE SYNTHETIC FILTER MANUFACTURED FROM RECYCLED SYNTHETIC FIBERS.
2. THE SEDIMENT FILTER WILL BE MANUFACTURED TO BY 9" IN DIAMETER AND ARE AVAILABLE IN 4', 6', 8', 10', 12', 14' AND 16' LENGTHS AND A MINIMUM OF 24" LONGER THAN THE CURB INLET OPENING. THIS WILL ALLOW FOR SUFFICIENT LENGTH TO COVER THE INLET WITH TWELVE (12) INCHES BEYOND THE INLET ON BOTH ENDS.

CONSTRUCTION SEQUENCE
1. INSTALL THE SEDIMENT FILTER IN FRONT OF THE CURB INLET OPENING. EACH END OF THE SEDIMENT FILTER SHOULD OVERLAP THE CURB INLET APPROXIMATELY 12".
2. THE SEDIMENT FILTER SHOULD BE CLEANED IF A VISUAL INSPECTION SHOWS SILT AND DEBRIS BUILD UP AROUND THE SEDIMENT FILTER.
3. TO REMOVE THE SEDIMENT FILTER , LIFT OUT OF THE OPENING.
4. PONDING IS LIKELY IF SEDIMENT IS NOT REMOVED REGULARLY. INSPECTION SHOULD BE ON A REGULAR BASIS AND IMMEDIATELY AFTER MAJOR RAIN EVENTS.

EXISTING INLET SEDIMENT FILTER
N.T.S.

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

LORD AECK SARGENT

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LordAeckSargent.com

REVISION

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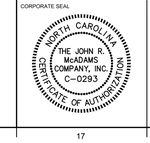
SHEET TITLE: EROSION CONTROL DETAILS

SCALE (ARCH): NO SCALE

PROJECT: WAKE TECH COMMUNITY COLLEGE
TECHNOLOGY 4.0 BUILDING
SCO ID # 21-23932-02A
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL



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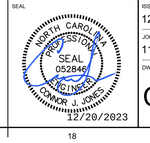

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: C605

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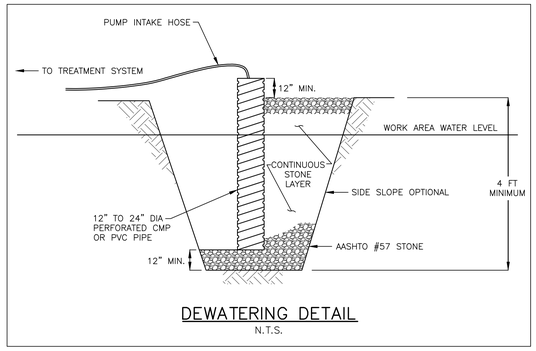

DEWATERING DETAIL
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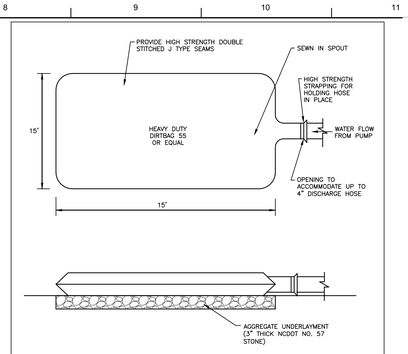
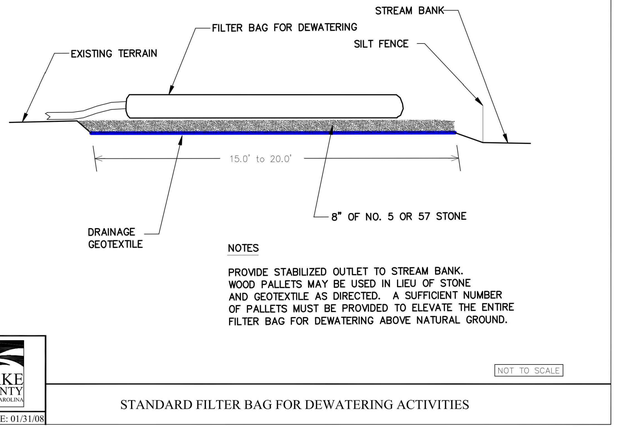


NOTES:
1. THE DEWATERING BAG SHALL BE MADE OF NON-WOVEN GEOTEXTILE WITH A MIN. SURFACE AREA OF 225 SQUARE FEET PER SIDE.
2. ALL STRUCTURAL SEAMS SHALL BE SEWN WITH A DOUBLE STITCH USING A DOUBLE NEEDLE MACHINE WITH HIGH STRENGTH THREAD.
3. THE SEAM STRENGTH SHALL WITHSTAND 100 LB/IN USING ASTM D-4884 TEST METHOD.
4. THE GEOTEXTILE FABRIC SHALL BE 10 OZ NON-WOVEN FABRIC.
5. DISCHARGE FROM THE DEWATERING BAG SHALL BE DIRECTED SUCH THAT PRE-DISTURBANCE HYDROLOGY IS NOT CHANGED.

DIRT BAG DETAIL
N.T.S.



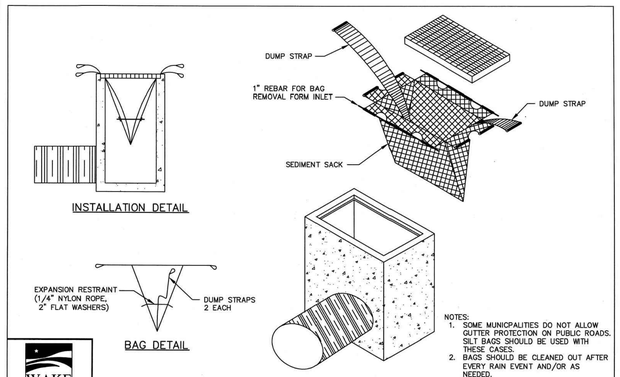
NOTES

PROVIDE STABILIZED OUTLET TO STREAM BANK. WOOD PALLETS MAY BE USED IN LIEU OF STONE AND GEOTEXTILE AS DIRECTED. A SUFFICIENT NUMBER OF PALLETS MUST BE PROVIDED TO ELEVATE THE ENTIRE FILTER BAG FOR DEWATERING ABOVE NATURAL GROUND.

NOT TO SCALE

WAKE COUNTY NORTH CAROLINA
EFFECTIVE: 01/31/08

STANDARD FILTER BAG FOR DEWATERING ACTIVITIES



NOTES:
1. SOME MUNICIPALITIES DO NOT ALLOW GUTTER PROTECTION ON PUBLIC ROADS. SILT BAGS SHOULD BE USED WITH THESE CASES.
2. BAGS SHOULD BE CLEANED OUT AFTER EVERY RAIN EVENT AND/OR AS NEEDED.

WAKE COUNTY NORTH CAROLINA
EFFECTIVE: 01/31/08

STANDARD SILT BAG - INLET SEDIMENT CONTROL DEVICE

INSTRUCTIONS FOR:
DIVERSION DITCH

INSTALLATION

1. REFER TO THE PLANS FOR LOCATION, EXTENT AND SPECIFICATIONS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, EXTENT OR METHODS OF INSTALLATION, CONTACT THE ENGINEER, ARCHITECT OR RESPONSIBLE PERSONNEL ON THE SITE FOR ASSISTANCE. EROSION CONTROL PERSONNEL HAVE COPIES OF INSTRUCTIONS AND MAY HAVE PHOTOGRAPHS OF PROPERLY INSTALLED DIVERSIONS AS AN AID TO INSTALLATION.

   IF THE DIVERSION DIKE IS NOT INSTALLED CORRECTLY THE FIRST TIME IT WILL HAVE TO BE REPLACED.
2. DETERMINE ON THE GROUND TAKING INTO CONSIDERATION:

   CONSIDER THE LOCATIONS OF THE SEDIMENT TRAPPING DEVICES (SEDIMENT TRAP OR POND) WHEN LOCATING AND BUILDING THE DIVERSION. THE DIVERSION MUST DRAIN TO THE DEVICES.

   THE DIVERSION MUST HAVE POSITIVE DRAINAGE TO THE SEDIMENT TRAPPING DEVICES. THE MAXIMUM GRADE IS 2%.

   ALLOW SUFFICIENT SPACE FOR MAINTENANCE AND REMOVAL BETWEEN THE TOE OF THE FILL SLOPE AND THE DIVERSION. IF NECESSARY, HAVE SLOPES STAKED, BUILDING CORNERS, STORM DRAINS, ETC. SURVEYED BEFORE CLEARING TO GUIDE INSTALLATION.
3. CLEAR THE LOCATION FOR THE DIVERSION, CLEARING ONLY WHAT IS NEEDED TO PROVIDE ACCESS FOR PERSONNEL AND EQUIPMENT FOR INSTALLATION. DO NOT CLEAR THE DRAINAGE AREA ABOVE UNTIL THE DIVERSION AND SEDIMENT TRAPPING DEVICES ARE IN PLACE.
4. REMOVE ROOTS, STUMPS, AND OTHER DEBRIS AND DISPOSE OF THEM PROPERLY. DON NOT USE DEBRIS TO BUILD THE DAM.
5. GRADE THE CHANNEL AND BUILD THE RIDGE. COMPACT THE FILL. THE SIDES OF THE CHANNEL AND THE BACK OF THE RIDGE MUST BE NO STEEPER THAN 2:1 SLOPE. THE COMPLETED DIVERSION MUST BE AT LEAST 18 INCHES DEEP, MEASURED FROM THE BOTTOM OF THE CHANNEL TO THE TOP OF THE RIDGE.
6. CHECK THE BOTTOM OF THE CHANNEL TO ENSURE POSITIVE DRAINAGE IN THE DESIRED DIRECTION.

MAINTENANCE

MATERIALS, EQUIPMENT AND PERSONNEL MUST BE AVAILABLE FOR MAINTENANCE AT ALL TIMES

1. INSPECT THE DIVERSION DIKE:

   DURING CONSTRUCTION: TO SEE IF MACHINERY OR FALLING TREES HAVE DAMAGED THE DIKE, IF DAMAGED, MAKE REPAIRS. TO SEE THAT FILL MATERIAL HAS NOT BLOCKED THE CHANNEL! IF IT HAS, REMOVE THE FILL.

   AFTER EACH RAINFALL: TO SEE IF RUNOFF IS FLOWING TO THE SEDIMENT TRAPPING DEVICES; IF NOT, CHANGE THE GRADE SO THAT IT WILL.
2. IF SEDIMENT ACCUMULATES IN THE CHANNEL, REMOVE IT SO THAT ITS CAPACITY IS NOT REDUCED, CAUSING IT TO FAIL.
3. DO NOT DISPOSE OF THE SEDIMENT IN A MANNER THAT WILL CREATE A EROSION HAZARD.
4. REPAIR ANY PLACE IN THE RIDGE THAT ARE WEAKENED AND WHICH THREATEN TO CAUSE FAILURE OF THE DIVERSION.

REMOVAL

1. WHEN GRADING ABOVE THE DIVERSION IS FINISHED AND AREA STABILIZED, IT MUST BE REMOVED.
2. REMOVE ANY ACCUMULATED SEDIMENT AND DISPOSE OF IT PROPERLY.
3. GRADE THE AREA AND SMOOTH IT OUT IN PREPARATION FOR STABILIZATION.
4. STABILIZE THE AREA AS SPECIFIED IN THE PLAN.

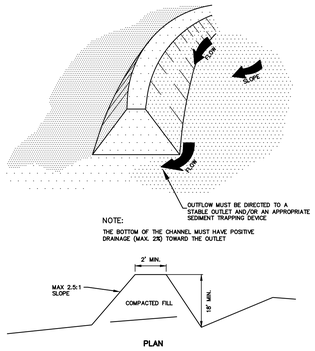
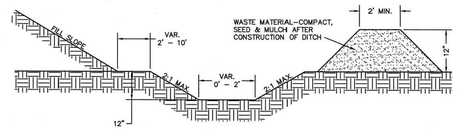


ILLUSTRATION OF A DIVERSION DIKE
(NOT TO SCALE)

NOTES:
1. TEMPORARY DIVERSION DITCH TO BE USED TO INTERCEPT FLOW AND/OR DIVERT TO A SEDIMENT CONTROL MEASURE OR BMP.
2. SILT SHALL BE REMOVED WHEN DITCH IS ONE-HALF FULL.
3. DITCH SHALL BE RECONSTRUCTED WHEN DAMAGED BY EQUIPMENT OR COVERED BY FILL.
4. STABILIZE DIVERSION DITCH BERM WITH TEMPORARY SEEDING, MULCH WITH TAC, AND/OR EROSION CONTROL NETTING.



CROSS SECTIONAL VIEW

WAKE COUNTY NORTH CAROLINA
EFFECTIVE: 01/31/08

STANDARD TEMPORARY DIVERSION DITCH

INSTRUCTIONS FOR **SILT FENCE**

INSTALLATION

1. REFER TO THE PLANS FOR LOCATION, EXTENT AND SPECIFICATIONS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATIONS, EXTENT OR METHOD OF INSTALLATION, CONTACT THE ENGINEER, ARCHITECT OR CONTROL PERSONNEL ON THE SITE FOR ASSISTANCE. EROSION CONTROL PERSONNEL HAVE COPIES OF INSTRUCTIONS AND MAY HAVE PHOTOGRAPHS OF PROPERLY INSTALLED SILT FENCES AS AN AID TO INSTALLATION.
2. IF THE SILT FENCE IS NOT INSTALLED CORRECTLY THE FIRST TIME , IT WILL HAVE TO BE REINAL.

   DETERMINE THE LOCATION ON THE GROUND TAKING INTO CONSIDERATION:

   A SILT BARRIER (PREFABRICATED SILT FENCE) CANNOT BE SUBSTITUTED!! THE SILT FENCE MUST BE CONSTRUCTED AS DESCRIBED IN THESE INSTRUCTIONS.

   ALLOW SUFFICIENT SPACE FOR MAINTENANCE, GRADING, FILLING AND OTHER CONSTRUCTION ACTIVITY BETWEEN THE SILT FENCE AND THE CONSTRUCTION SITE.

   ALLOW AT LEAST:
   15 FEET BETWEEN THE FENCE AND SINGLE-STORY BUILDINGS.
   25 FEET BETWEEN THE FENCE AND MULTIPLE-STORY BUILDINGS.
   10 FEET BETWEEN THE FENCE AND THE TOE OF FILL SLOPES.

   WHERE POSSIBLE, INSTALL THE SILT FENCE ON THE CONTOUR SO THAT RUNOFF GOES THROUGH THE SILT FENCE AND DOES NOT FLOW ALONG THE SILT FENCE AT THE LOWEST POINT. WHERE PONDING DOES OCCUR, SILT FENCE OUTLETS MAY BE NECESSARY SO THAT THE FENCE DOES NOT COLLAPSE.
3. CLEAR THE LOCATION OF THE SILT FENCE, CLEARING ONLY WHAT IS NEEDED TO PROVIDE ACCESS TO PERSONNEL AND EQUIPMENT FOR INSTALLATION. IT IS PERMISSIBLE TO PLACE THE SILT FENCE IN THE EDGE OF EXISTING TREES AS LONG AS THE OWNER ALLOWS IT AND CARE IS TAKEN TO PROTECT THESE TREES DURING INSTALLATION, MAINTENANCE AND REMOVAL. IF TREES ARE TO REMAIN AFTER CONSTRUCTION, DO NOT ATTACH THE FILTER FABRIC TO THE TREES, AS IT MAKES BURYING THE TOES IMPOSSIBLE.
4. EXCAVATE A 6 INCH X 6 INCH TRENCH ALONG THE LOCATION OF THE FENCE, USING A "DITCH WITCH" IS HELPFUL.
5. ALONG THE LOWER SIDE OF THE TRENCH, PLACE STEEL FENCE POSTS NO MORE THAN 8 FEET APART AND DRIVE THEM 18 INCHES INTO THE GROUND.
6. ATTACH WIRE FENCE ("HOG WIRE" OF MINIMUM 14 GAUGE WITH MAXIMUM MESH OF 6 INCHES) TO THE UPHILL SIDE OF THE POSTS AND PLACE 12 INCHES OF THE BOTTOM OF THE FENCE INTO THE TRENCH. DO NOT USE "CHICKEN WIRE". USE WIRE TO FASTEN THE FENCE TO THE POSTS. THE COMPLETED FENCE MUST BE AT LEAST 2 FEET HIGH AND NOT MORE THAN 3 FEET HIGH.
7. ATTACH SYNTHETIC FILTER TO THE UPSIDE OF THE WIRE FENCE WITH STAPLES A MINIMUM OF 12 INCHES APART AND PLACE 12 INCHES OF THE FABRIC INTO THE TRENCH WITH THE WIRE FENCE. USE ROLLS OF FABRIC AND CUT TO THE NECESSARY LENGTH IN ORDER TO MINIMIZE THE NUMBER OF JOINTS.
8. BACKFILL THE TRENCH AND TAMP THE FILL TO FIRMLY ANCHOR THE BOTTOM OF THE FILTER FABRIC AND WIRE FENCE TO PREVENT WATER FROM FLOWING UNDER THE FENCE; MAKE IT GO THROUGH THE FILTER FABRIC.
9. WHERE IT IS IMPOSSIBLE TO INSTALL THE SILT FENCE ON THE CONTOUR, RUNOFF WILL FLOW ALONG THE FENCE AND POND AT THE LOWEST POINT, WHERE THE TOTAL DRAINAGE AREA TO THE POINT OF PONDING IS GREATER THAN 5,000 SQUARE FEET (FOR EXAMPLE: A SQUARE 70 FEET ON A SIDE). A SILT FENCE OUTLET IS REQUIRED; WHERE THE DRAINAGE ARE IS GREATER THAN 10,000 SQUARE FEET (FOR EXAMPLE: A SQUARE 100 FEET ON A SIDE), A SEDIMENT TRAP IS NECESSARY. THE LOCATION OF THIS OUTLET MAY BE SHOWN ON THE PLAN, BUT CHECK THE INSTALLATION IN THE FIELD WHEN THE WIRE FENCE IS UP TO DETERMINE IF ADDITIONAL OUTLETS ARE NEEDED. SEE THE DETAILS OF THE SILT FENCE FOR INSTRUCTIONS.

MAINTENANCE

MATERIALS, EQUIPMENT AND PERSONNEL MUST BE AVAILABLE FOR MAINTENANCE AT ALL TIMES

1. INSPECT THE SILT FENCE:

   DURING CONSTRUCTION: TO SEE IF MACHINERY OR FALLING TREES HAVE DAMAGED THE SILT FENCE; REPAIR IT. TO SEE THAT FILL MATERIAL HAS NOT ACCUMULATED AGAINST THE FENCE; IF IT HAS, REMOVE THAT MATERIAL. ALSO, REMOVE SEDIMENT AND MOVE THE FENCE OR FILL SO THAT IT DOES NOT HAPPEN AGAIN.

   AFTER EACH RAINFALL: TO SEE IF RUNOFF IS NOT FLOWING UNDER THE FENCE; IF IT IS, BURY THE BOTTOM OF THE FENCE CORRECTLY. TO SEE THAT RUNOFF HAS NOT TOPPED THE FENCE IN LOW POINTS; IF IT HAS, AN OUTLET MAY BE NEEDED AT THAT POINT TO PREVENT FUTURE FAILURES.
2. CLEAN OUT ACCUMULATED SEDIMENT WHEN IT REACHES A DEPTH OF ONE-HALF THE HEIGHT OF THE FILTER FABRIC. PLACE THE SEDIMENT IN A DISPOSAL AREA OR, IF APPROPRIATE, MIX IT WITH DRY SOIL ON THE SITE.
3. DO NOT DISPOSE OF SEDIMENT IN A MANNER THAT WILL CREATE AN EROSION HAZARD. DO NOT DIRECT A NEW SILT FENCE ON TOP OF ACCUMULATED SEDIMENT BEHIND THE FENCE.
4. REPAIR ANY BREAKS OR ROTTED PLACES IN THE FILTER FABRIC.
5. IF THE FENCE IS SAGGING BETWEEN POSTS, INSTALL ADDITIONAL POSTS.
6. WHEN MAKING REPAIRS, ALWAYS RESTORE THE SILT FENCE TO ITS ORIGINAL DESIGN CONFIGURATION.

REMOVAL

1. WHEN GRADING IN THE DRAINAGE AREA ABOVE THE SILT FENCE HAS BEEN FINISHED AND DISTURBED AREAS SUFFICIENTLY STABILIZED TO RESTRAIN EROSION, THE SILT FENCE AND ANY OUTLETS MAY BE REMOVED.
2. REMOVE ANY ACCUMULATED SEDIMENT AND DISPOSE OF IT PROPERLY.
3. REMOVE POSTS, FENCE AND FABRIC; DISPOSE OF THEM PROPERLY.
4. STABILIZE THE DISTURBED AREA WHERE THE FENCE WAS LOCATED.

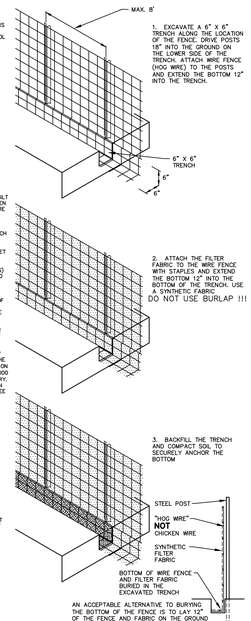


ILLUSTRATION OF A SILT FENCE INSTALLATION
(NOT TO SCALE)

INSTRUCTIONS FOR
SILT FENCE OUTLET

INSTALLATION

1. REFER TO THE PLANS FOR LOCATIONS AND SPECIFICATIONS. DURING INSTALLATION OF THE SILT BARRIER OR SILT FENCE, INSPECT THE INSTALLATION TO DETERMINE IF OUTLETS ARE NEEDED ACCORDING TO THE CRITERIA SET FORTH IN THE SPECIFICATIONS FOR THE BARRIER AND FENCE. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, EXTENT, OR METHOD OF INSTALLATION, CONTACT THE ENGINEER, ARCHITECT, OR RESPONSIBLE PERSONNEL ON THE SITE FOR ASSISTANCE. EROSION CONTROL PERSONNEL HAVE COPIES OF INSTRUCTIONS AND MAY HAVE PHOTOGRAPHS OF PROPERLY INSTALLED OUTLETS AS AN AID TO INSTALLATION.

   IF THE SILT FENCE OUTLET IS NOT INSTALLED CORRECTLY THE FIRST TIME, IT WILL HAVE TO BE REBUILT.
2. DETERMINE THE EXACT LOCATION ON THE GROUND BEFORE COMPLETING INSTALLATION OF THE SILT FENCE, TAKING INTO CONSIDERATION:

- INSTALL THE OUTLET AT THE LOWEST POINT (S) IN THE BARRIER OR FENCE WHERE WATER WILL POND.
- INSTALL THE OUTLET WHERE IT IS ACCESSIBLE FOR INSTALLATION, MAINTENANCE, AND REMOVAL.
- ALLOW AT LEAST:

  15 FEET BETWEEN THE BARRIER OR FENCE AND SINGLE-STORY BUILDINGS.

  25 FEET FOR FORK LIFTS BETWEEN THE BARRIER OR FENCE AND MULTIPLE-STORY BUILDINGS.

  10 FEET BETWEEN THE BARRIER OR FENCE AND THE TOE OF FILL SLOPES.
- PLACE THE OUTLET SO THAT WATER FLOWING THROUGH IT WILL NOT CREATE AN EROSION HAZARD BELOW: AVOID STEEP SLOPES BELOW THE OUTLET AND AREAS WITHOUT PROTECTIVE VEGETATION. USE SILT DRAINS IF NECESSARY.
- DETERMINE THE LOCATION OF THE OUTLET: FOR A SILT BARRIER, WHEN THE TRENCH IS DUG TO BURY THE BOTTOM OF THE FABRIC BECAUSE THE BARRIER WILL BE OMITTED AT THE OUTLET; FOR A SILT FENCE, WHEN THE WIRE FENCE IS IN PLACE BECAUSE THE FILTER FABRIC WILL BE OMITTED AT THE OUTLET.

3. REFER TO THE ILLUSTRATIONS OF THE OUTLET IN THE PLAN.
4. CLEAR STUMPS AND ROOTS FROM THE LOCATION OF THE OUTLET. CLEAR ADEQUATE ACCESS FOR THE EQUIPMENT NEEDED FOR INSTALLATION, MAINTENANCE, AND REMOVAL.
5. FOR A SILT BARRIER:

- JUST BELOW THE GAP IN THE BARRIER, PLACE A LAYER OF FILTER FABRIC ON THE GROUND TO PROTECT THE SOIL FROM EROSION BY OUTFLOW FROM THE OUTLET; PLACE 6 INCHES OF THE UPPER EDGE IN THE TRENCH. STAKE THE REMAINING EDGES OF THE FABRIC TO HOLD IT IN PLACE.
- ALONG THE GAP WHERE THE OUTLET WILL GO, PLACE STEEL FENCE POSTS FOR STRENGTH. THE POSTS MUST BE A MAXIMUM OF 2 FEET APART AND DRIVEN INTO SOLID GROUND AT LEAST 18 INCHES.
- PLACE HARDWARE CLOTH (WELDED GALVANIZED SCREEN WITH SQUARE 1/4 – 1/2-INCH HOLES) ON THE UPHILL SIDE OF THE POSTS TO HOLD THE WASHED STONE IN PLACE. PUT 6 INCHES OF THE BOTTOM OF THE CLOTH IN THE TRENCH AND FASTEN IT TO THE POSTS WITH LENGTHS OF WIRE.
- BURY THE BOTTOM OF THE HARDWARE CLOTH AND THE UPPER EDGE OF THE FILTER FABRIC BELOW THE OUTLET IN THE TRENCH AND COMPACT THE FILL.
- PLACE A FILTER OF 1–INCH DIAMETER WASHED STONE ON THE UPHILL SIDE OF THE OUTLET. PILE THE STONE UP TO THE TOP OF THE HARDWARE CLOTH AND OVER THE JOINT BETWEEN THE OUTLET AND THE BARRIER.
6. FOR A SILT FENCE:

- JUST BELOW THE GAP IN THE BARRIER, PLACE A LAYER OF FILTER FABRIC ON THE GROUND TO PROTECT THE SOIL FROM EROSION BY OUTFLOW FROM THE OUTLET; PLACE 6 INCHES OF THE UPPER EDGE IN THE TRENCH. STAKE THE OTHER EDGES OF THE FABRIC TO HOLD IT IN PLACE.
- ALONG THE GAP WHERE THE OUTLET WILL GO, PLACE ADDITIONAL STEEL FENCE POSTS FOR STRENGTH. THE POSTS MUST BE A MAXIMUM OF 2 FEET APART AND DRIVEN INTO SOLID GROUND AT LEAST 18 INCHES.
- PLACE HARDWARE CLOTH (WELDED GALVANIZED SCREEN WITH SQUARE 1/4 – 1/2-INCH HOLES) ON THE UPHILL SIDE OF THE POSTS TO HOLD THE WASHED STONE IN PLACE. PUT 6 INCHES OF THE BOTTOM OF THE CLOTH IN THE TRENCH AND FASTEN IT TO THE POSTS WITH LENGTHS OF WIRE.
- BURY THE BOTTOM OF THE HARDWARE CLOTH, THE UPPER EDGE OF THE FILTER FABRIC BELOW THE OUTLET, AND THE WIRE FENCE IN THE TRENCH AND COMPACT THE FILL.
- PLACE A FILTER OF 1–INCH DIAMETER WASHED STONE ON THE UPHILL SIDE OF THE OUTLET. PILE THE STONE UP TO THE TOP OF THE HARDWARE CLOTH AND OVER THE JOINT BETWEEN THE OUTLET AND THE SILT FENCE.

MAINTENANCE

MATERIALS, EQUIPMENT, AND PERSONNEL MUST BE AVAILABLE FOR MAINTENANCE AT ALL TIMES.

1. INSPECT THE SILT FENCE:

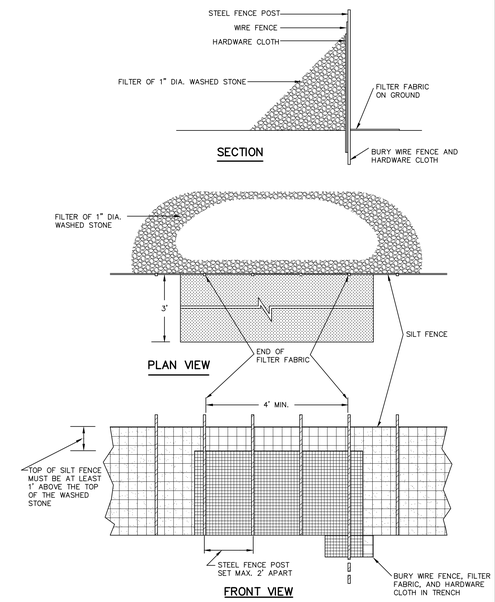
- DURING CONSTRUCTION: TO DETERMINE IF MACHINERY, FALLING TREES, ETC. HAVE DAMAGED THE BARRIER, FENCE, OR OUTLET; IF DAMAGED, MAKE REPAIRS. TO SEE THAT FILL MATERIAL HAS NOT ACCUMULATED AGAINST THE OUTLET, BLOCKING OUTFLOW; IF IT HAS, REMOVE THE MATERIAL, REPAIR THE DAMAGE, AND MOVE THE FENCE OR FILL SO THAT IT DOES NOT HAPPEN AGAIN.
- AFTER EACH RAINFALL: TO DETERMINE IF RUNOFF FLOWING THROUGH THE OUTLET HAS CAUSED DAMAGE BY UNDERMINING THE FENCE OR OUTLET, OR IF ACCUMULATED WATER HAS COLLAPSED THE OUTLET; IF IT HAS, MAKE REPAIRS OR INSTALL A SEDIMENT TRAP IF NECESSARY TO PREVENT FUTURE FAILURES.

2. CLEAN OUT ACCUMULATED SEDIMENT WHEN IT REACHES A DEPTH OF ONE–HALF THE HEIGHT OF THE OUTLET. PLACE THE SEDIMENT IN A DISPOSAL AREA, OR MIX IT WITH DRY SOIL ON THE SITE IF APPROPRIATE.

   DO NOT DISPOSE OF SEDIMENT IN A MANNER THAT WILL CREATE AN EROSION HAZARD.
3. WHEN THE WASHED STONE BECOMES CLOGGED WITH SEDIMENT AND DEBRIS, SCRAPE THE CONTAMINATED STONE OFF, DISPOSE OF IT PROPERLY, AND REPLACE IT WITH CLEAN STONE.
4. REPAIR THE OUTLET IF DAMAGED BY USE OR DURING MAINTENANCE. REBUILD IT TO THE ORIGINAL CONFIGURATION.

REMOVAL

1. WHEN GRADING IN THE DRAINAGE AREA ABOVE THE OUTLET HAS BEEN COMPLETED AND DISTURBED AREAS SUFFICIENTLY STABILIZED TO RESTRAIN EROSION, THE OUTLET MUST BE REMOVED.
2. CLEAN OUT ACCUMULATED SEDIMENT AND DISPOSE OF IT PROPERLY.
3. REMOVE POSTS, FENCE, FABRIC WIRE, AND WASHED STONE; DISPOSE OF THEM PROPERLY.
4. GRADE THE LOCATION AS NECESSARY.
5. STABILIZE THE DISTURBED AREA WHERE THE OUTLET WAS LOCATED.



SILT FENCE GRAVEL OUTLET

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

LORD AECK SARGENT

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SHEET TITLE: EROSION CONTROL DETAILS

SCALE (UNO): NO SCALE

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: NORTH CAROLINA — THE JOHN R. McADAMS COMPANY, INC. C-0293 — CERTIFICATE OF AUTHORIZATION

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052846 CANNON J. JONES 12/20/2023

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: C606

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INSTRUCTIONS FOR
SEDIMENT POND

INSTALLATION:

1. REFER TO THE PLANS FOR LOCATION, DIMENSIONS, AND SPECIFICATIONS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, EXTENT, OR METHODS OF INSTALLATION, CONTACT THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE PLANS. IF THE SITE ENGINEER, EROSION CONTROL PERSONNEL HAVE COPIES OF INSTRUCTIONS AND MAY HAVE PHOTOGRAPHS OF PROPERLY INSTALLED SEDIMENT TRAPS AS AN AID TO INSTALLATION.

IF THE SEDIMENT POND IS NOT INSTALLED CORRECTLY THE FIRST TIME, IT WILL HAVE TO BE REBUILD.

2. CONTACT THE ENGINEER OR ARCHITECT RESPONSIBLE FOR PREPARING CONSTRUCTION PLANS AND ASK HIM CERTIFYING THAT IT IS BUILT ACCORDING TO THE APPROVED PLANS.

3. BEFORE STARTING ANY CLEARING OR CONSTRUCTION, HAVE ALL THE NECESSARY MATERIALS AND COMPONENTS ON THE SITE SO THERE WILL BE NO DELAYS IN COMPLETING THE POND ONCE WORK BEGINS.

4. FOLLOW THE CONSTRUCTION SEQUENCE IN THE EROSION CONTROL PLAN. AND LIMIT INITIAL CLEARING AND GRADING TO THE AREA FOR THE EROSION CONTROL DEVICES BELOW THE POND, THE DAM AND BASIN AND THE BORROW AREA FOR THE DAM.

5. INSTALL THE EROSION CONTROL DEVICES BELOW THE POND SITE SHOWN ON THE EROSION CONTROL PLAN. LIMIT INITIAL CLEARING TO THE AREA NEEDED TO GAIN ACCESS TO AND INSTALL THESE DEVICES.

6. CLEAR THE LOCATION OF THE DAM OF TREES, STUMPS, ROOTS, TOPSOIL AND OTHER DEBRIS.

7. EXCAVATE THE CUTOFF TRENCH TO THE DIMENSIONS SPECIFIED ON THE PLAN. THE TRENCH MUST BE DEEP ENOUGH TO CUT THROUGH ALL PERMEABLE LAYERS OF SOIL AND INTO IMPERVIOUS MATERIAL. ANY WATER THAT ACCUMULATES MUST BE REMOVED. THE TRENCH MUST BE BACKFILLED WITH SOIL OF THE SAME QUALITY AS THAT TO BE USED IN THE DAM AND THEN COMPACTED.

8. FILL USED TO BUILD THE DAM MUST BE OBTAINED FROM THE LOCATION SPECIFIED BY THE ENGINEER AND BE FREE OF ROOTS, VEGETATION, LARGE ROCKS AND OTHER OBJECTIONABLE MATERIAL. THE FILL MUST BE PLACED AT PROPER MOISTURE CONTENT, PLACED THOROUGHLY COMPACTED AND TESTED, IF REQUIRED, UNDER THE NECESSARY SUPERVISION.

DO NOT USE THE DAM AS A DUMP FOR DEBRIS FROM BUILDING THE POND.

9. WHEN THE DAM HAS BEEN BUILT UP TO THE PROPER LEVEL, INSTALL THE BARREL, ANTI-SEEP COLLARS, RISER AND THE PROPER RISER BASE. USE THE MATERIALS SPECIFIED IN THE CONSTRUCTION PLANS. PLACE THE BARREL ON A FIRM, UNYIELDING FOUNDATION. BACKFILL AROUND AND OVER THE PIPE AND COMPACT THE FILL. PLACE AND COMPACT ADEQUATE FILL OVER THE PIPE BEFORE ALLOWING EQUIPMENT TO CROSS SO THAT THE PIPE IS NOT CRUSHED.

10. INSTALL THE BAFFLES AS SPECIFIED IN THE PLAN. REFER TO THE ILLUSTRATIONS AND INSTRUCTIONS FOR BAFFLES. INSTALL THE 4-INCH STAKE IN THE CENTER OF THE PIT SHOWING THE TOP OF THE SEDIMENT STORAGE VOLUME.

11. SEED AND MULCH THE SEDIMENT TRAP AND DISTURBED AREAS AROUND IT DURING SPRING, SUMMER AND FALL. IN WINTER, COVER THESE AREAS WITH A HEAVY LAYER OF STRAW MULCH.

MAINTENANCE

MATERIALS, EQUIPMENT AND PERSONNEL MUST BE AVAILABLE FOR MAINTENANCE AT ALL TIMES.

1. INSPECT THE SEDIMENT POND:

* DURING CONSTRUCTION: TO SEE IF MACHINERY, FALLING TREES OR CONSTRUCTION ACTIVITY HAVE DAMAGED ANY COMPONENT OF THE SEDIMENT POND. IF DAMAGE HAS OCCURRED, REPAIR IT.

* AFTER EACH RAINFALL: TO SEE IF RUNOFF INTO THE POND HAS CAUSED DAMAGE OR SEDIMENT HAS ACCUMULATED TO A LEVEL WHERE IT MUST BE REMOVED. IF DAMAGE HAS OCCURRED, MAKE THE NECESSARY REPAIRS. IF NECESSARY, REMOVE THE ACCUMULATED SEDIMENT AND RESTORE THE ORIGINAL STORAGE VOLUME.

2. CLEAN OUT ACCUMULATED SEDIMENT WHEN IT REACHES THE TOP OF THE STAKE SET IN THE CENTER OF THE POND FOR ITS PURPOSE. PLACE THE SEDIMENT IN A DISPOSAL AREA OR, IF APPROPRIATE, MIX IT WITH DRY SOIL ON THE SITE.

DO NOT DISPOSE OF SEDIMENT IN A MANNER THAT WILL CREATE AN EROSION HAZARD.

3. CHECK ALL PIPE CONNECTIONS TO SEE IF THERE ARE LEAKS; IF THERE ARE, FIX THEM.

4. CHECK THE FILL MATERIAL IN THE DAM FOR EXCESSIVE SETTLEMENT, SLUMPING OF THE SLOPES OR PIPING BETWEEN THE BARREL AND THE SOIL. MAKE REPAIRS IF NECESSARY.

5. WHEN MAKING REPAIRS, ALWAYS RESTORE THE SEDIMENT POND TO ITS ORIGINAL DESIGN CONFIGURATION.

REMOVAL

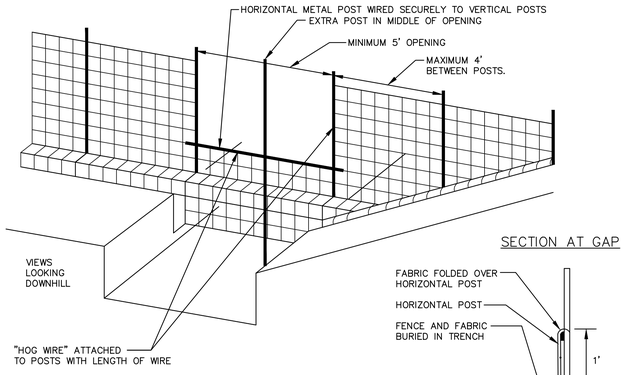
1. WHEN GRADING AND CONSTRUCTION IN THE DRAINAGE AREA ABOVE THE SEDIMENT POND IS COMPLETED AND THE DISTURBED AREAS ABOVE THE SEDIMENT POND IS COMPLETE AND THE DISTURBED AREAS ARE ADEQUATELY STABILIZED TO RESTRAIN EROSION, THE SEDIMENT POND MUST BE REMOVED AND THE LOCATION MUST BE STABILIZED. (THERE MAY BE EXCEPTIONS TO REMOVAL, SUCH AS WHEN THE POND IS TO BE CONVERTED TO A PERMANENT POND OR STORMWATER DETENTION.

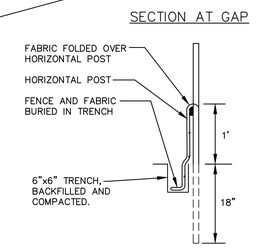
2. CLEAN OUT THE ACCUMULATED SEDIMENT AND DISPOSE OF IT PROPERLY.

3. GRADE THE BASIN TO FORM THE FINISHED CONTOURS TO THE POINT WHERE EROSION IS RESTRAINED, THE DAM AND OUTLET STRUCTURES CAN BE REMOVED. REMOVE THE FILL THAT FORMED THE DAM AND THE OUTLET STRUCTURE; DISPOSE OF THE DEBRIS PROPERLY; GRADE THE LOCATION OF THE DAM AND STABILIZE THE AREA AS WAS DONE TO THE BASIN.

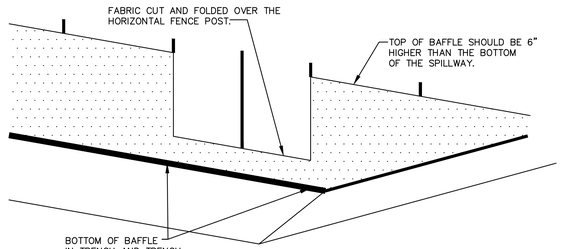
BAFFLES FOR SEDIMENT TRAPS AND PONDS

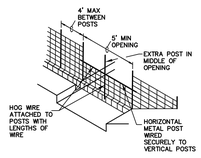
STEP 1 DRIVE STEEL FENCE POST AT LEAST 18" INTO SOLID GROUND.
WOOD POSTS ARE NOT ACCEPTABLE!





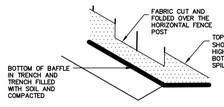
STEP 2 USE STAPLES 1' APART TO ATTACH FABRIC TO HOG WIRE



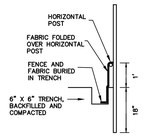


NOTES:
1. DRIVE STEEL FENCE POST AT LEAST 18" INTO SOLID GROUND
2. WOOD POSTS ARE NOT ACCEPTABLE
3. USE STAPLES 1' APART TO ATTACH FABRIC TO "HOG WIRE"
4. BAFFLE SPACES AS ON APPROVED PLAN

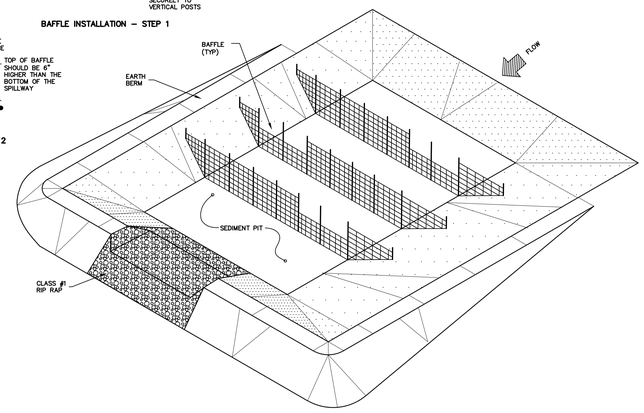
BAFFLE INSTALLATION – STEP 1



BAFFLE INSTALLATION – STEP 2



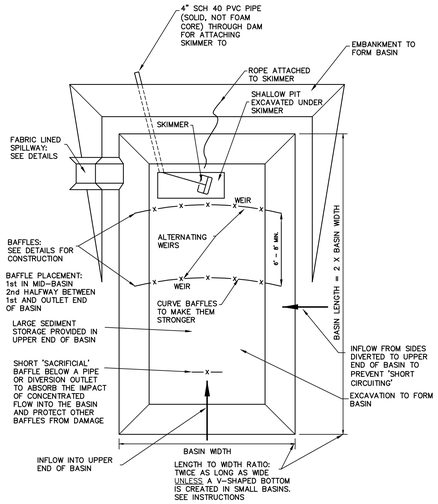
SECTION AT OPENING



PERSPECTIVE VIEW

BAFFLES FOR SEDIMENT TRAPS AND PONDS

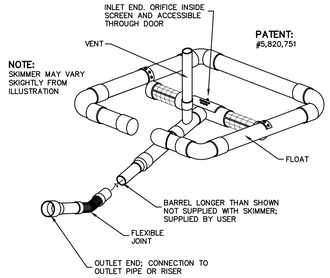
NOT TO SCALE



NOTE ON SPILLWAY PLACEMENT:
WHENEVER POSSIBLE PLACE THE SPILLWAY AROUND ONE END OF THE DAM INSTEAD OF IN THE FILL FOR THE DAM TO MINIMIZE THE CHANCE OF FAILURE. CARE MUST BE TAKEN WHEN THE SPILLWAY IS IN FILL TO FOLLOW THE INSTALLATION INSTRUCTIONS AND KEEP OUTFLOW ON THE FABRIC LINING AND OFF THE ERODIBLE FILL.

PLAN VIEW OF SEDIMENT BASIN COMPONENTS

(NOT TO SCALE)



SKIMMER DETAIL

NOT TO SCALE

ASSEMBLING AND INSTALLING THE SKIMMER

SKIMMER ASSEMBLY
ASSEMBLE AS FOLLOWS:

* INSERT THE VENT INTO THE HOLE IN THE TEE WITH THE LONG END POINTING TO THE REAR, THE SIDE WITH THE DOOR. TIGHTEN THE SCREW TO SECURE IT.

* GLUE THE BARREL (NOT INCLUDED, AVAILABLE AT PLUMBING AND HARDWARE STORES) 6'–8' LONG, DEPENDING ON THE LENGTH NEEDED TO PULL THE SIMMER TO THE SIDE OF SKIMMER.

* PRIME ONLY ONE END OF THE PVC PIPE FOR THE BARREL AND THE FEMALE COUPLING ON THE FLEXIBLE JOINT. THEN GLUE THE PIPE TO THE COUPLING.

* WITHOUT GLUE (SO IT CAN BE DISASSEMBLED LATER) SLIP THE OTHER END OF THE PIPE (A LITTLE GREASE IS RECOMMENDED) INTO THE BRUSHING AT THE OUTLET END OF THE PIPE ON THE SKIMMER. SECURE THE PIPE BY TIGHTENING THE PHILLIPS HEAD SCREW SO THAT THE POINT GOES SLIGHTLY INTO THE PIPE.

INSTALLATION
INSTALL AS FOLLOWS:

* LAY THE ASSEMBLED SKIMMER ON THE BOTTOM OF THE BASIN WITH THE FLEXIBLE JOINT AT THE INLET OF THE PIPE THROUGH THE DAM OR AT THE CONNECTION WITH THE RISER.

* REMOVE ANY DIRT OR MORTAR ON THE PIPE AND SLIP THE 4" COUPLING OVER THE PIPE INLET. TIGHTEN THE TWO SCREWS SO THE POINTS JUST PIERCE THE SIDE OF THE PIPE TO SECURE THE CONNECTION.

* POSITION THE SKIMMER OVER THE EXCAVATED PIT IN THE BASIN.

* THE SKIMMER SHOULD SETTLE LEVEL ACROSS THE TOP OF THE PIPE THE THE DOOR ON IT, SO THAT DEBRIS GUARDS WORK. OTHERWISE, DEBRIS THAT ACCUMULATES AROUND THAT FLOAT WILL FLOW UNDER THE FLOAT AND CLOG THE SCREEN WHEN THE WATER LEVEL DROPS.

* ADJUST THE FLEXIBLE JOINT CONNECTION, IF NECESSARY, ESPECIALLY IF THE SKIMMER IS PULLED TO THE SIDE AND THE BARREL IS NOT ALIGNED WITH THE OUTLET PIPE. THE FLOAT IS BALANCED SO THAT THE REAR SETTLES DOWN AS THE LAST FEW INCHES OF WATER DRAIN FROM THE BASIN. THIS POSITIONS THE FLOAT AND THE GUARDS TO CONTAIN FLOATING DEBRIS ON THE OUTSIDE OF THE FLOAT AS THE WATER LEVEL DROPS.

* IF THE SKIMMER IS NOT LEVEL DEBRIS CAN FLOW UNDER THE FLOAT AND CLOG THE SCREEN AND POSSIBLY THE ORIFICE.

* PLACE A SKATE AT THE CONNECTION OF THE FLEXIBLE JOINT SO THE BACK HOE OPERATOR WILL KNOW THE LOCATION WHEN EXCAVATING ACCUMULATED SEDIMENT FROM UNDER THE SKIMMER AND NOT DAMAGE IT.

* AFTER INSTALLING THE SKIMMER CHECK TO MAKE SURE THE ORIFICE HAS NOT FALLEN OUT WHILE MOVING THE SKIMMER.

THE ROPE

* TIE THE ROPE PROVIDED AROUND THE TEE BETWEEN THE VENT AND THE HORIZONTAL TUBE.

* SINCE IT IS POLYPROPYLENE ROPE, WHICH IS SLIPPERY, USE A GOOD KNOT THAT WILL NOT COME LOOSE.

* SECURE THE OTHER END TO A STAKE ON THE DAM OR THE SIDE OF THE BASIN.

* PUT TENSION ON THE ROPE SO THE SKIMMER WILL SETTLE INTO THE PIT AFTER THE BASIN DRAINS.

* IF YOU NEED TO LENGTHEN THE ROPE USE ONE THAT WILL FLOAT. OTHERWISE, IT MAY SINK AND BE COVERED BY SEDIMENT AND ACT AS AN ANCHOR TO KEEP THE SKIMMER FROM FLOATING. (THIS IS KNOWN FROM SAD EXPERIENCE).

MAINTENANCE
WARNING! IF THE SKIMMER IS CLOGGED WITH WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY A FEW JERKS ON THE ROPE TO MAKE THE SKIMMER BOB UP AND DOWN WILL DISLODGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK PULL THE SKIMMER OVER TO THE SIDE (IT'S EASIER TO DO WHEN THE BASIN PARTIALLY FULL) AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED; IF SO REMOVE THE DEBRIS.

SEDIMENT UNDER THE SKIMMER. IF SEDIMENT ACCUMULATES TO THE POINT THE SKIMMER CANNOT SETTLE LOW ENOUGH TO DRAIN THE ENTIRE BASIN BULL THE SKIMMER OVER TO ONE SIDE AND EXCAVATE THE SEDIMENT WITH A BACKHOE.

CLOGGED BARREL OR PIPE THROUGH THE DAM. IF THE SKIMMER IS CLOGGED DESPITE REMOVING DEBRIS AND IT APPEARS THAT EITHER THE BARREL BETWEEN THE ORIFICE AND THE FLEXIBLE JOINT OR THE PIPE THROUGH THE DAM IS CLOGGED TAKE THE FOLLOWING STEPS TO CLEAR THE BLOCKAGE (SEDIMENT WILL SOMETIMES ACCUMULATE IN THE PIPE).

* PULL THE SKIMMER OVER TO THE SIDE.

* REMOVE THE PIN AND OPEN THE DOOR TO ACCESS THE ORIFICE.

* REMOVE THE ORIFICE PLUG OR CAP.

* RAISE THE INLET AS HIGH AS PRACTICAL.

* FILL THE BARREL WITH WATER (USE A BUCKET AND FUNNEL OR A PUMP) TO REMOVE THE CLOG USING THE WATER AND PRESSURE.

* AFTER THE OBSTRUCTION IS REMOVED CONTINUE POURING WATER INTO THE BARREL TO FLUSH OUT ACCUMULATED DEBRIS AND SEDIMENT TO PREVENT FUTURE CLOGGING.

* A PLUMBERS SNAKE CAN BE USED BUT FLUSHING OUT THE SEDIMENT AND DEBRIS IS RECOMMENDED FIRST.

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

LORD AECK SARGENT

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Planning & Design, Inc.
LordAeckSargent.com

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SHEET TITLE: EROSION CONTROL DETAILS
SCALE: (UNO) NO SCALE

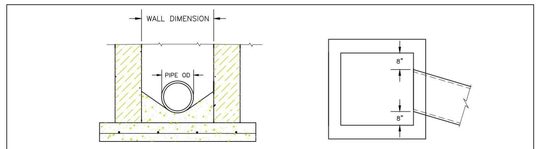
PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: NORTH CAROLINA — THE JOHN R. McADAMS COMPANY, INC. C-0293 — CERTIFICATE OF AUTHORIZATION

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052846 — 12/20/2023

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: C607

M:\Projects\WCC\WCC2200104 Production\Engineering\Site Plan Construction Drawings\Current Drawings\Land Disturbance\WCC2200104_C031.dwg, 12/15/2023 1:13:31 PM, Dante Walker



PIPE DIAMETER	MINIMUM WALL DIMENSION
15"	3'-0"
18"	3'-3"
24"	3'-10"
30"	4'-5"
36"	5'-1"
42"	5'-8"
48"	6'-4"
54"	6'-10"
60"	7'-6"

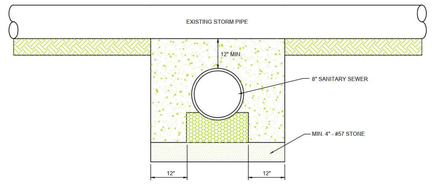
NOTE: THE ABOVE DIMENSIONS ARE APPLICABLE ONLY FOR PIPE INSTALLED AT RIGHT ANGLES TO BOX. FOR PIPES ENTERING AT AN ANGLE, THE INSIDE DIMENSION OF THE WALL SHALL BE THE DISTANCE ACROSS THE PIPE (OUTSIDE TO OUTSIDE) PLUS 8" ON EACH SIDE. SEE SKETCH ABOVE.

REVISIONS	
DATE	DESCRIPTION

TOWN OF WENDELL
Effective Date: 4/23/2018
STANDARD DETAIL No.

Policy Number: 120

INSIDE DIMENSIONS FOR CATCH BASINS, JUNCTION BOXES AND DROP INLETS — 17



REVISIONS	
DATE	DESCRIPTION

TOWN OF WENDELL
Effective Date: 4/23/2018
STANDARD DETAIL No.

Policy Number: 120

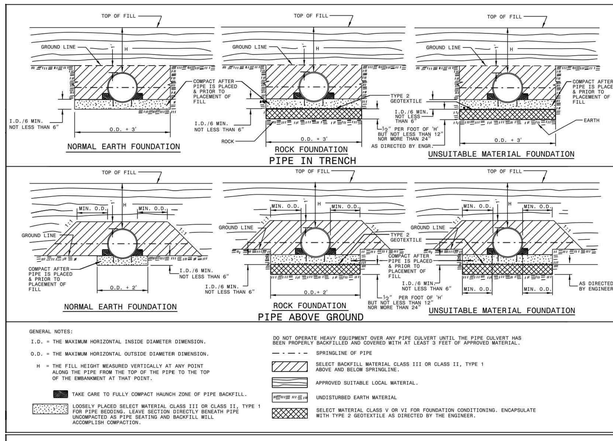
STORM SEWER CROSSING DETAIL — 23

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES



GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, TYPE 1 ABOVE AND BELOW SPRINGLINE

APPROVED SUITABLE LOCAL MATERIAL.

UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE 2 GEOTEXTILE AS DIRECTED BY THE ENGINEER.

REVISIONS	
DATE	DESCRIPTION

TOWN OF WENDELL
Effective Date: 4/23/2018
STANDARD DETAIL No. 840.14

Policy Number: 120

ROADWAY STANDARD DRAWING FOR **CONCRETE DROP INLET** 12" THRU 30" PIPE

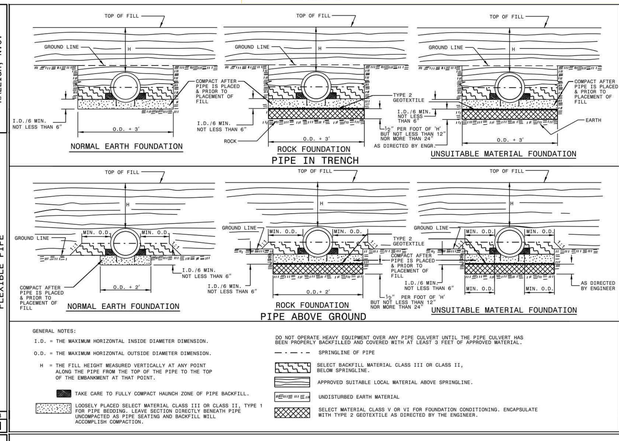
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

I-18

SHEET 1 OF 1

840.14

DIMENSIONS AND QUANTITIES FOR DROP INLET(BASED ON MIN. HEIGHT, H)							
DIMENSIONS OF BOX & PIPE				CUBIC YARDS CONC. IN BOX			DEDUCTIONS FOR ONE PIPE
PIPE	SPAN	WIDTH	MIN. HEIGHT				
D	A	B	H	BOTTOM SLAB	WALL PER FT. HT.	(INCRS FOR ACUTE SKEW) C.M.	R.C.
12"	3'-0"	2'-0"	2'-0"	0.222	0.222	0.592	0.015 0.026
15"	/	/	2'-3"	/	/	0.648	0.023 0.036
18"	/	/	2'-6"	/	/	0.703	0.033 0.049
24"	/	/	3'-0"	/	/	0.814	0.059 0.085
30"	3'-0"	2'-0"	3'-6"	0.222	0.222	0.925	0.092 0.127



GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, BELOW SPRINGLINE.

APPROVED SUITABLE LOCAL MATERIAL ABOVE SPRINGLINE.

UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE 2 GEOTEXTILE AS DIRECTED BY THE ENGINEER.

ROADWAY STANDARD DRAWING FOR **METHOD OF PIPE INSTALLATION** FLEXIBLE PIPE

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

I-18

SHEET 2 OF 3

300.01

FLEXIBLE PIPE

Round Corrugated Steel Pipe
2 2/3 x ½ corrugation **

Diameter (inches)	Minimum cover (inches)	(Ga)	Maximum Height of Cover (feet) 16	14	12	10	8
12	12		204	256			
15	12		162	204			
18	12		135	169	239		
21	12		115	145	204		
24	12		100	126	178		
30	12		79	100	142		
36	12		65	83	117	152	
42	12		55	70	100	130	160
48	12		48	61	87	113	139
54	12			54	77	100	123
60	12				69	90	111
66	12					81	100
72	12					74	91
78	12						81
84	12						69

Round Corrugated Aluminum Pipe
2 2/3 x ½ corrugation **

Diameter (inches)	Minimum cover (inches)	(Ga)	Maximum Height of Cover (feet) 16	14	12	10	8
12	12		123	155	216	281	344
15	12		98	123	174	224	275
18	12		81	102	144	187	228
21	12		69	87	123	160	195
24	12		60	76	108	139	171
27	12			67	95	123	151
30	12			60	85	111	136
36	12			50	71	92	113
42	12				60	78	96
48	12				52	68	84
54	12				46	60	74
60	12					50	62
66	12						51
72	12						41

** FOR DIFFERENT CORRUGATIONS AND ARCH PIPES REFER TO ROADWAY DESIGN MANUAL OR MANUFACTURERS SPECIFICATION.

REFER TO THE FOLLOWING FOR PIPE SPECIFICATIONS

CSP - AASHTO M36
CAAP - AASHTO M196
HDPE - AASHTO M294
PVC - ASTM F949 or AASHTO M304

HDPE - * (Minimum fill) 2' for pipe diameters ≥ 12" and ≤ 60"
* (Maximum fill) 20' for pipe diameters ≤ 24"
17' for pipe diameters ≥ 30" and ≤ 60"

PVC - * (Minimum fill) 2' for pipe diameters ≥ 12" and ≤ 36"
* (Maximum fill) 30' for pipe diameters ≥ 12" and ≤ 36"

NOTES: FILL HEIGHTS SHOWN WERE CALCULATED USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

1' MINIMUM COVER FOR ALL SIDE DRAIN PIPE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS

* FILL HEIGHT IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT STRUCTURE

RIGID PIPE

RCP - * (Minimum fill) 1' for Class IV & Class V
2' for Class III & Class II

* (Maximum fill) 10' - Class II pipe
20' - Class III pipe
30' - Class IV pipe
40' - Class V pipe

(For fills > 40' & < 80' use LRFD Direct Design Method)

REFER TO THE FOLLOWING FOR PIPE SPECIFICATIONS

RCP - AASHTO M170

NOTES: FILL HEIGHTS SHOWN WERE CALCULATED USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

1' MINIMUM COVER FOR ALL SIDE DRAIN PIPE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS

* FILL HEIGHT IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT STRUCTURE

ROADWAY STANDARD DRAWING FOR **METHOD OF PIPE INSTALLATION** RIGID PIPE

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

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SHEET 3 OF 3

300.01

ROADWAY STANDARD DRAWING FOR **METHOD OF PIPE INSTALLATION** FILL HEIGHT TABLES

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

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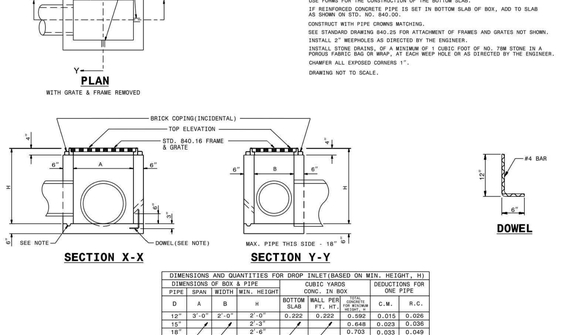
SHEET 3 OF 3

300.01



GENERAL NOTES:

USE CLASS "B" CONCRETE THROUGHOUT.

PROVIDE ALL DROP INLETS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.

OPTIONAL CONSTRUCTION - MONOLITHIC POUR 3" KEYWAY OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.

CONSTRUCT WITH PIPE CROWNS MATCHING.

SEE STANDARD DRAWING 840.25 FOR ATTACHMENT OF FRAMES AND GRATES NOT SHOWN.

INSTALL 2" WEEPHOLES AS DIRECTED BY THE ENGINEER.

INSTALL STONE DRAINS, OF A MINIMUM OF 1 CUBIC FOOT OF NO. 78M STONE IN A POROUS FABRIC BAG OR WRAP, AT EACH WEEP HOLE OR AS DIRECTED BY THE ENGINEER.

CHAMFER ALL EXPOSED CORNERS 1".

DRAWING NOT TO SCALE.

DIMENSIONS AND QUANTITIES FOR DROP INLET(BASED ON MIN. HEIGHT, H)							
DIMENSIONS OF BOX & PIPE				CUBIC YARDS CONC. IN BOX			DEDUCTIONS FOR ONE PIPE
PIPE	SPAN	WIDTH	MIN. HEIGHT				
D	A	B	H	BOTTOM SLAB	WALL PER FT. HT.	(INCRS FOR ACUTE SKEW) C.M.	R.C.
12"	3'-0"	2'-0"	2'-0"	0.222	0.222	0.592	0.015 0.026
15"	/	/	2'-3"	/	/	0.648	0.023 0.036
18"	/	/	2'-6"	/	/	0.703	0.033 0.049
24"	/	/	3'-0"	/	/	0.814	0.059 0.085
30"	3'-0"	2'-0"	3'-6"	0.222	0.222	0.925	0.092 0.127

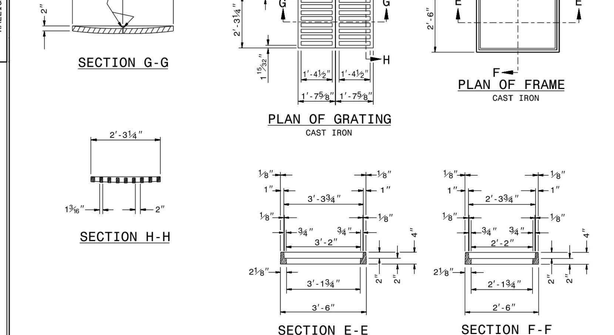
ROADWAY STANDARD DRAWING FOR **CONCRETE DROP INLET** 12" THRU 30" PIPE

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

I-18

SHEET 1 OF 1

840.14



ROADWAY STANDARD DRAWING FOR **DROP INLET FRAME AND GRATES** FOR USE WITH STD. DWG.S 840.14 AND 840.15

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

I-18

SHEET 1 OF 1

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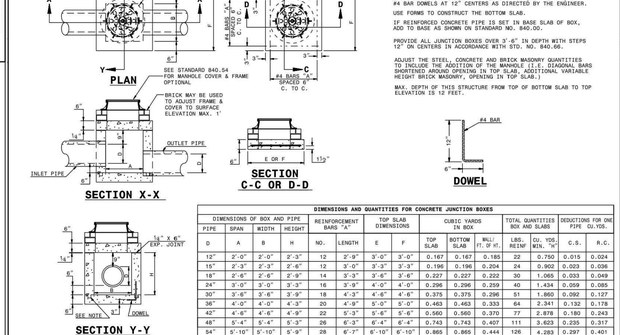


GENERAL NOTES:

CHAMFER ALL EXPOSED CORNERS 1".

USE CLASS "B" CONCRETE THROUGHOUT.

OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.

USE FORMS TO CONSTRUCT THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BASE SLAB OF BOX, ADD TO BASE AS SHOWN ON STANDARD NO. 840.00.

PROVIDE ALL JUNCTION BOXES OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTERS IN ACCORDANCE WITH STD. NO. 840.66.

ADJUST THE STEEL, CONCRETE AND BRICK MASONRY QUANTITIES FOR BOXES WITH SKEW OVER 30 DEGREES. (DIAGONAL BARS SHORTENED AROUND OPENING IN TOP SLAB, ADDITIONAL VARIABLE HEIGHT BRICK MASONRY, OPENING IN TOP SLAB.)

MAX. DEPTH OF THIS STRUCTURE FROM TOP OF BOTTOM SLAB TO TOP ELEVATION IS 12 FEET.

DIMENSIONS AND QUANTITIES FOR CONCRETE JUNCTION BOXES													
DIMENSIONS OF BOX AND PIPE				REINFORCEMENT BARS "A"		TOP SLAB DIMENSIONS		CUBIC YARDS IN BOX			TOTAL QUANTITIES BOX AND SLABS		DEDUCTIONS FOR ONE PIPE Qu.YDS.
PIPE	SPAN	WIDTH	HEIGHT	NO.	LENGTH	E	F	TOP SLAB	BOTTOM SLAB	WALL/ FT. OF HT.	LBS. REINF	CU. YDS. CONC.	C.S. R.C.
12"	2'-0"	2'-0"	2'-3"	12	2'-9"	3'-0"	3'-0"	0.167	0.167	0.185	22	0.750	0.015 0.024
15"	2'-3"	2'-3"	2'-6"	12	3'-0"	3'-3"	3'-3"	0.196	0.196	0.204	24	0.902	0.023 0.036
18"	2'-6"	2'-6"	2'-9"	14	3'-3"	3'-6"	3'-6"	0.227	0.227	0.222	30	1.065	0.033 0.049
24"	3'-0"	3'-0"	3'-3"	16	3'-9"	4'-0"	4'-0"	0.296	0.296	0.259	40	1.434	0.059 0.085
30"	3'-6"	3'-6"	3'-9"	18	4'-3"	4'-6"	4'-6"	0.375	0.375	0.296	51	1.860	0.092 0.127
36"	4'-0"	4'-0"	4'-3"	20	4'-9"	5'-0"	5'-0"	0.463	0.463	0.333	64	2.341	0.132 0.178
42"	4'-6"	4'-6"	4'-9"	22	5'-3"	5'-6"	5'-6"	0.560	0.560	0.370	77	2.878	0.180 0.243
48"	5'-0"	5'-0"	5'-3"	26	6'-3"	6'-0"	6'-0"	0.743	0.743	0.407	111	3.623	0.235 0.317
54"	5'-10"	5'-10"	5'-9"	28	6'-7"	6'-10"	6'-10"	0.865	0.865	0.444	126	4.293	0.297 0.401
60"	6'-6"	6'-6"	6'-3"	30	7'-3"	7'-6"	7'-6"	1.042	1.042	0.481	145	5.090	0.367 0.495
66"	7'-1"	7'-1"	6'-9"	32	7'-10"	8'-1"	8'-1"	1.210	1.210	0.518	169	5.917	0.444 0.589

ROADWAY STANDARD DRAWING FOR **CONCRETE JUNCTION BOX** (WITH OPTIONAL MANHOLE) 12" THRU 66" PIPE

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

I-18

SHEET 1 OF 1

840.31

GENERAL NOTES

USE 4000 PSI MINIMUM COMPRESSIVE STRENGTH CONCRETE.

USE ASTM A615 GRADE 60 REINFORCING STEEL. USE ASTM A1064 WELDED WIRE FABRIC (MWF).

FABRICATE, ASSEMBLE AND DESIGN PRECAST MANHOLE COMPONENTS ACCORDANCE WITH AASHTO M199.

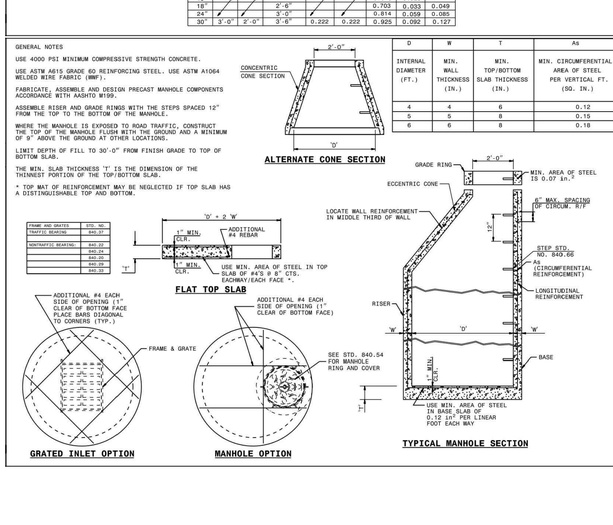
ASSEMBLE RISER AND GRADE RINGS WITH THE STEPS SPACED 12" FROM THE TOP TO THE BOTTOM OF THE MANHOLE.

WHERE THE MANHOLE IS EXPOSED TO ROAD TRAFFIC, CONSTRUCT THE TOP OF THE MANHOLE FLUSH WITH THE GROUND AND A MINIMUM OF 9" ABOVE THE GROUND AT OTHER LOCATIONS.

LIMIT DEPTH OF FILL TO 30'-0" FROM FINISH GRADE TO TOP OF BOTTOM SLAB.

THE MIN. SLAB THICKNESS 'T' IS THE DIMENSION OF THE THINNEST PORTION OF THE TOP/BOTTOM SLAB.

* TOP MAT OF REINFORCEMENT MAY BE NEGLECTED IF TOP SLAB HAS A DISTINGUISHABLE TOP AND BOTTOM.



FRAME AND GRATES	STD. NO.
TRAFFIC BEARING	840.20
NON-TRAFFIC BEARING	840.22
	840.24
	840.25
	840.26
	840.27

D INTERNAL DIAMETER (FT.)	W MIN. WALL THICKNESS (IN.)	T MIN. TOP/BOTTOM SLAB THICKNESS (IN.)	As MIN. CIRCUMFERENTIAL AREA OF STEEL PER VERTICAL FT. (SQ. IN.)
4	4	6	0.12
5	5	8	0.15
6	6	8	0.18

ROADWAY STANDARD DRAWING FOR **PRECAST MANHOLE 4', 5' AND 6' DIAMETER** 12" THRU 48" PIPE

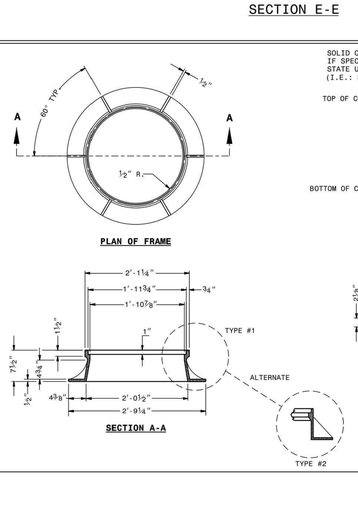
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

I-18

SHEET 1 OF 1

840.52

SOLID COVER SHOWN PERFORATED. PERFORATED AVAILABLE IF SPECIFIED.
STATE USE OF SYSTEM ON COVER
(I.E.: SEWER, STORM DRAIN, ELECTRICAL)



MINIMUM WEIGHTS - LBS.
FRAME - 180
COVER - 120
TOTAL - 300

ROADWAY STANDARD DRAWING FOR **MANHOLE FRAME AND COVER**

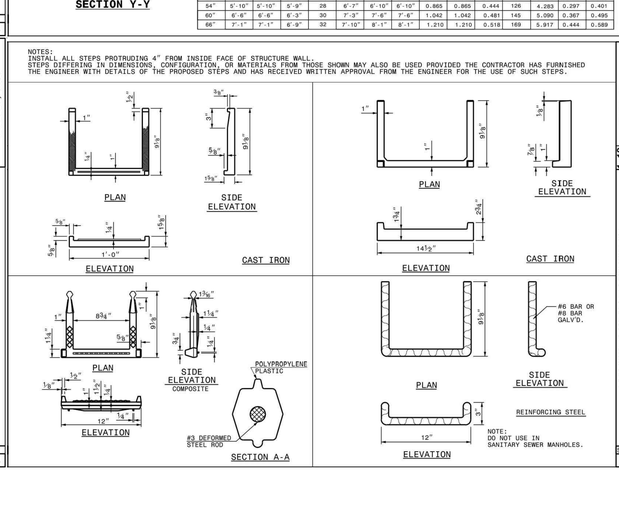
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

I-18

SHEET 1 OF 1

840.54

NOTES:
INSTALL ALL STEPS PROTRUDING 4" FROM INSIDE FACE OF STRUCTURE WALL.
STEPS DIFFERING IN DIMENSIONS, CONFIGURATION, OR MATERIALS FROM THOSE SHOWN MAY ALSO BE USED PROVIDED THE CONTRACTOR HAS FURNISHED THE ENGINEER WITH DETAILS OF THE PROPOSED STEPS AND HAS RECEIVED WRITTEN APPROVAL FROM THE ENGINEER FOR THE USE OF SUCH STEPS.



NOTE:
DO NOT USE IN SANITARY SEWER MANHOLES.

ROADWAY STANDARD DRAWING FOR **DRAINAGE STRUCTURE STEPS**

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

I-18

SHEET 1 OF 1

840.66

LORD AECK SARGENT

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Planning & Design, Inc.
LordAeckSargent.com

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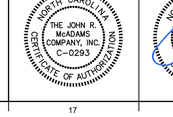
SHEET TITLE: STORM DRAINAGE DETAILS

SCALE (UNO): NO SCALE

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL



SEAL

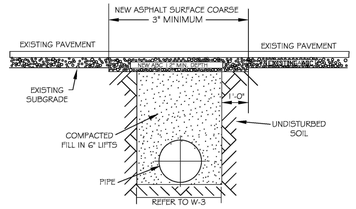
ISSUE DATE: 12/20/2023

JOB. NO.: 11751-00

DWG. NO.: C800

M:\Projects\WCC\WCC22001\04-Production\Engineering\Site Plan-Construction Drawings\Current Drawings\WCC22001-03.dwg, 12/15/2023 12:38:52 PM, Dantis Walker

SEE TYPICAL STANDARD DUTY ASPHALT PAVEMENT SECTION DETAIL FOR TRUE ASPHALT DEPTH.



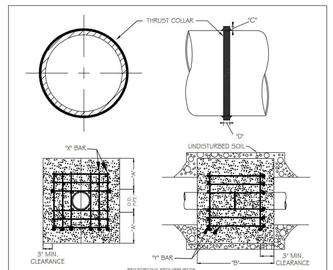
NOTES:

1. THE PAVEMENT CUT SHALL BE DEFINED BY A STRAIGHT EDGE AND CUT WITH AN APPROPRIATE SAW CUT MACHINE.
2. THE TRENCH SUBGRADE MATERIAL SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO A DENSITY OF AT LEAST 95% OF THAT OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY NCDOT.
3. THE FINAL 1' OF FILL SHALL CONSIST OF ABC MATERIAL COMPACTED TO A DENSITY EQUAL TO 100% OF THAT OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH AASHTO T-80 AS MODIFIED BY NCDOT.
4. THE ENTIRE THICKNESS/ VERTICAL EDGE OF CUT SHALL BE TACKED.
5. THE SAME DEPTH OF PAVEMENT MATERIAL WHICH EXISTS SHALL BE REINSTALLED, BUT IN NO CASE SHALL THE ASPHALT BE LESS THAN 3" THICK.
6. THE ASPHALT PAVEMENT MATERIAL SHALL BE INSTALLED AND COMPACTED THOROUGHLY WITH A SMOOTH DRUM ROLLER TO ACHIEVE A SMOOTH LEVEL PATCH.
7. REFER TO CITY OF RALEIGH STANDARDS FOR TRENCHES AND PIPE BEDDING, W-3. FOR ADDITIONAL DETAILS.
8. NO HAND PATCHING ALLOWED.
9. PAVEMENT CUTS WITHIN NCDOT ROW SHALL CONFORM TO THE APPROVED ON SITE ENCROACHMENT PERMIT.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

STANDARD ASPHALT PAVEMENT PATCH DETAIL

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-2	KRH	5-31-00	A.B.B.	4-16-04
	D.W.C.	11-1-99	J.P.S.	10-29-10



REINFORCING REQUIREMENTS

I.D. PIPE	REBAR SIZE	"X" BAR LENGTH	"X" BAR WEIGHT	"A" BAR LENGTH	"A" BAR WEIGHT	NO. REQUIRED
6" - 24"	#5	3'-2"+ O.D. PIPE	1.043 LBS/FT	1'-0"	1 LBS/ EACH	X-24, Y-12
30" & greater	#6	3'-0"+ O.D. PIPE	1.502 LBS/FT	1'-0"	1 LBS/ EACH	X-24, Y-12

THRUST COLLAR, AND THRUST SCHEDULE

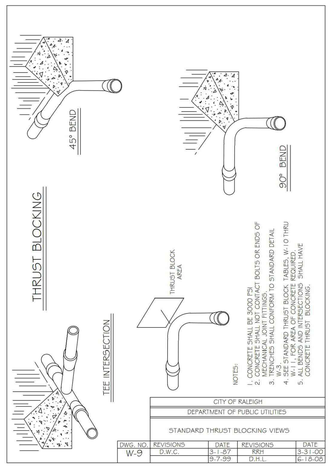
D. PIPE	"A"	"B"	"C"	"D"
6" - 12"	1'-4"	1'-7"	2"	3/8"
20" - 24"	1'-4"	1'-7"	3"	1/2"
30" - 36"	1'-4"	1'-7"	4"	5/8"
42" & greater	1'-5"	1'-9"	6"	7/8"

NOTES:
1. SEE STANDARD DETAIL W-9 FOR THRUST BLOCK LOCATIONS.
2. CONCRETE SHALL BE 3000 PSI AND TRANSIT MIXED.
3. REINFORCING BARS SHALL BE DEFORMED AND TIED TOGETHER.
4. TRENCH BOTTOM WIDTH IN VICINITY OF THRUST BLOCK INSTALLATION SHALL BE THE MINIMUM WIDTH AS SHOWN ON STANDARD DETAIL W-3.
5. BACKFILL TAMPED IN 6" LIFTS PER STANDARD DETAIL W-3.
6. THRUST COLLAR MUST BE FACTORY WELDED ON BOTH SIDES ALONG BOTH EDGES OF COLLAR AROUND CIRCUMFERENCE.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

THRUST BLOCKING DESIGN DATA FOR WATER MAINS

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-7	KRH	2-1-00	J.P.S.	11-1-10
	D.H.L.	6-15-05		



NOTES:
1. CONCRETE SHALL BE 3000 PSI.
2. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL FITTINGS.
3. TRENCHES SHALL CONFORM TO STANDARD DETAIL W-3.
4. SEE STANDARD THRUST BLOCK TABLES, W-10 THRU W-11 FOR AREA REQUIREMENTS.
5. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF ALL FITTINGS. ALL FITTINGS SHALL HAVE MECHANICAL JOINT RESTRAINT. ALL BENDS SHALL BE RESTRAINED WITH CONCRETE THRUST BLOCKING.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

STANDARD THRUST BLOCKING VIEWS

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-9	D.W.C.	5-1-97	KRH	5-31-00
		11-7-99	D.H.L.	6-15-05

REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS
BASED ON TEST PRESSURE OF 200 P.S.I.

ALL AREAS GIVEN IN SQUARE FEET.

SIZE AND DEGREE OF BEND	STATIC THRUST IN POUNDS	APPROXIMATE EARTH MOMENT ARM	SOFT CLAY, 1000 LBS/SQ FT	MEDIUM SOFT CLAY, 2000 LBS/SQ FT	SAND, 3000 LBS/SQ FT DRY CLAY, 2000 LBS/SQ FT MOIST	2000 COMPACT FINE SAND, 3000 LBS/SQ FT	3000 CLEAN SAND AND GRAVEL, 4000 LBS/SQ FT	ROCK, 10000 LBS/SQ FT
6"								
11 1/4°	1,108	1	1	1	1	1	2	1
22 1/2°	2,207	1	2	2	1	1	2	1
45°	4,326	2	3	3	1	1	2	5	1
90°	7,996	2	4	5	1	1	2	8	1
PLUG	5,655	2	3	4	1	1	2	6	1
8"								
11 1/4°	1,970	1	1	2	1	1	2	1
22 1/2°	3,922	1	2	3	1	1	1	4	1
45°	7,694	2	4	5	1	1	2	8	1
90°	14,215	4	8	9	2	2	4	15	2
PLUG	10,053	3	5	6	2	2	3	10	1
12"								
11 1/4°	4,433	2	3	3	1	1	2	5	1
22 1/2°	8,826	3	5	6	2	2	3	9	1
45°	17,312	5	9	11	3	3	5	18	2
90°	31,983	8	16	19	4	4	6	32	4
PLUG	22,619	6	12	14	3	3	6	23	3
16"								
11 1/4°	7,861	2	4	5	1	1	2	8	1
22 1/2°	15,691	4	8	10	2	2	4	16	2
45°	30,779	8	16	19	4	4	6	31	4
90°	56,861	15	29	35	8	8	15	57	6
PLUG	40,213	10	21	25	5	5	10	41	5

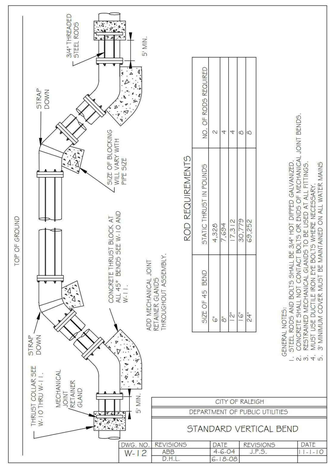
REACTION BEARING AREAS ARE IN SQUARE FEET MEASURED IN A VERTICAL PLANE IN THE TRENCH SIDE AT AN ANGLE OF 90° TO THE THRUST VECTOR.

USE 6" - 90° BEND VALUE FOR HYDRANTS FOR ADDITIONAL SAFETY FACTOR.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

THRUST BLOCKING DESIGN QUANTITY TABLE

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-10	D.W.C.	6-23-99		



ROD REQUIREMENTS

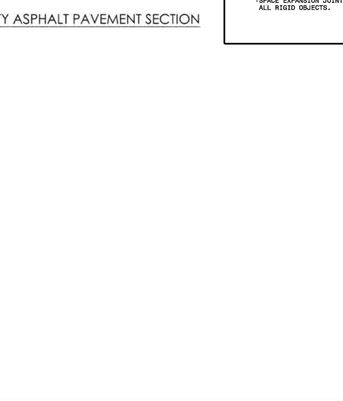
SIZE OF 45 BEND	STATIC THRUST IN POUNDS	NO. OF RODS REQUIRED
4"	4,326	2
6"	7,694	4
8"	17,312	4
12"	31,983	6
24"	69,552	6

GENERAL NOTES:
1. STEEL RODS AND BOLTS SHALL BE 3/4" HOT DIPPED GALVANIZED.
2. SEE STANDARD THRUST BLOCK, TABLES W-10 AND W-11 FOR CONCRETE.
3. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT RESTRAINED MECHANICAL GLANDS TO BE USED AT ALL FITTINGS.
4. THIS RODDING REQUIREMENT DOES NOT APPLY TO FIRE HYDRANTS.
5. 3' MINIMUM COVER MUST BE MAINTAINED ON ALL WATER MAINS

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

STANDARD VERTICAL BEND

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-12	ABB	1-6-04	J.P.S.	11-1-10
	D.H.L.	6-15-05		



NOTES:
1. TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
2. NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN BACKFILL.
3. ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
4. BACKFILL SHALL BE TAMPED IN 6" LIFTS.
5. ACHIEVE 95% COMPACTION IN BACKFILL.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

TRENCH BOTTOM DIMENSIONS & BACKFILLING REQUIREMENTS FOR DUCTILE IRON

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-5	KRH	3-3-99	ABB	2-15-05
	3-31-00	J.P.S.		10-29-10

ROD REQUIREMENTS

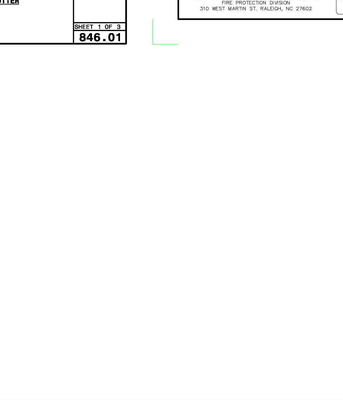
NO. OF RODS	BRANCH SIZE
4"	2
6"	2
8"	4
12"	4
16"	6
24"	6
30"	8
36"	8

NOTES:
1. STEEL RODS AND BOLTS SHALL BE 3/4" HOT DIPPED GALVANIZED.
2. SEE STANDARD THRUST BLOCK, TABLES W-10 AND W-11 FOR CONCRETE.
3. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL FITTINGS.
4. THIS RODDING REQUIREMENT DOES NOT APPLY TO FIRE HYDRANTS.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

VALVE RESTRAINT AT TEES AND CROSSES FOR LINES (4"-24")

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-15	KRH	3-31-00	D.H.L.	6-16-05
	A.B.B.	4-19-04	J.P.S.	11-1-10

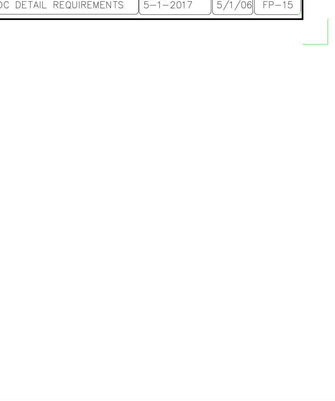


NOTES:
1) VALVE BOX NOT TO CONTACT WATER MAIN
2) ALL TRAFFIC CASTINGS MUST BE CLASS 35 OR GREATER.
3) FOR ANY VALVES OVER 10' DEEP, A VALVE STEM EXTENSION MUST BE USED TO BRING TO A DEPTH OF NO MORE THAN 9'. EXTENSION MUST BE A MINIMUM OF 1" SOLID STOCK.
4) TOTAL VALVE BOX WEIGHT: MINIMUM OF 65 LBS.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

VALVE BOX INSTALLATION AND EXTENSION DETAIL

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-17	D.W.C.	9-7-99	A.B.B.	4-19-04
	KRH	3-31-00	DHL	6-16-07

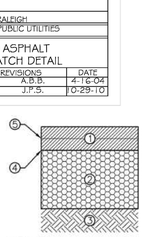


NOTE 1 - 'WATER' LETTERING MUST BE 1" RAISED (RECESSED FLUSH)
NOTE 2 - VALVE COVER SHALL BE DOMESTICALLY CAST.
NOTE 3 - COVER MUST HAVE A MINIMUM WEIGHT OF 25 POUNDS.
NOTE 4 - COVER MUST BE CLASS 35 OR GREATER.
NOTE 5 - COVER MUST MEET OR EXCEED AASHTO H-20 LOAD REQUIREMENTS.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

5 1/4" VALVE BOX DROP LID WITH 4" SKIRT

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-16				



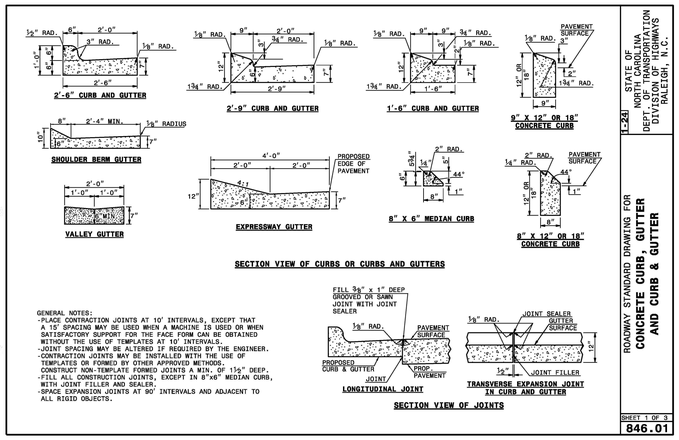
1. 3" TYPE S-9.5B SURFACE COURSE
2. 8" AGGREGATE BASE COURSE
3. COMPACTED SUBGRADE
4. PRIME COAT TO BE APPLIED AT A RATE OF 0.4 GAL/SQ. YD.
5. TACK COAT TO BE APPLIED AT A RATE OF 0.6 GAL/SQ. YD.

NOTES:

1. FOR ADDITIONAL PAVEMENT DESIGN INFORMATION, SEE "GEOTECHNICAL EXPLORATION REPORT WTCC EAST CEP EAST CAMPUS" BY S&ME, INC ON 1/28/2021 SEALED BY KEVIN A. NADEAU, P.E.
2. DETAIL IS FOR ON-SITE PAVING OPERATIONS ONLY.
3. THE CONTRACTOR MAY CHOOSE TO INSTALL INTERMEDIATE COURSES OF PAVEMENT TO STABILIZE THE SITE DURING CONSTRUCTION AT NO ADDITIONAL COST. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ADEQUATE THICKNESS REQUIRED FOR INTERMEDIATE PAVING. INCREASES IN THE DESIGN PAVEMENT SECTION TO FACILITATE INTERMEDIATE PAVING SHALL BE PROVIDED AT NO ADDITIONAL COST.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGES TO SUB-GRADE, INSTALLED BASE COURSE AND/OR INTERMEDIATE PAVING PRIOR TO PLACING SUBSEQUENT PAVEMENT LIFTS AT NO ADDITIONAL COST.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING PAVEMENT DURING ALL PHASES OF WORK. THE FINAL SURFACE OF PAVEMENT SHALL BE FREE OF ALL DEFECTS OR DAMAGE.
6. COAT SURFACES OF CONCRETE CURB, SLABS, SIDEWALK, AND DRAINAGE STRUCTURES WITH TACK COAT TO PROVIDE BOND WITH ASPHALT PAVING.
7. IF MORE THAN 24 HOURS HAS PASSED BETWEEN PAVEMENT OF ASPHALT LIFTS, APPLY TACK COAT AT RECOMMENDED RATE.
8. PRIOR TO PLACEMENT OF STONE, SUBGRADE SHALL BE PROOFROLLED AND YIELDING AREAS REPAIRED AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

TYPICAL STANDARD DUTY ASPHALT PAVEMENT SECTION

SCALE: NTS



GENERAL NOTES:
-PLACE CONTRACTION JOINTS AT 10' INTERVALS, EXCEPT THAT A 15' SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS.
-JOINT SPACING MAY BE ALTERED IF REQUIRED BY THE ENGINEER.
-CONTRACTION JOINTS MAY BE INSTALLED WITH THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. CONSTRUCT NON-TEMPLATE FORMED JOINTS A MIN. OF 1½" DEEP.
-FILL ALL CONSTRUCTION JOINTS, EXCEPT IN 8"x6" MEDIAN CURB, WITH JOINT FILLER AND SEALER.
-SPACE EXPANSION JOINTS AT 90' INTERVALS AND ADJACENT TO ALL RIGID OBJECTS.

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

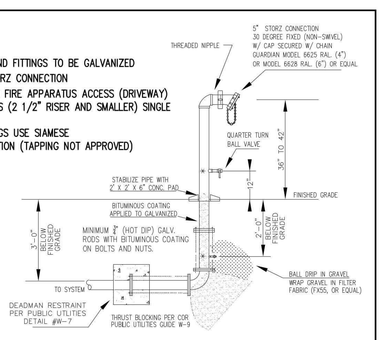
1-23J

ROADWAY STANDARD DRAWING FOR
CONCRETE CURB, GUTTER AND CURB & GUTTER

SHEET 1 OF 3
846.01

TYPICAL NOTES:

1)–ALL EXPOSED PIPING AND FITTINGS TO BE GALVANIZED WITH EXCEPTION OF STORZ CONNECTION
2)–40' MAX. FROM FDC TO FIRE APPARATUS ACCESS (DRIVEWAY)
3)–FOR NFPA 13R SYSTEMS (2 1/2" RISER AND SMALLER) SINGLE FDC
4)–FOR HIGH RISE BUILDINGS USE SIAMESE
5)–AN APPROVED CONNECTION (TAPPING NOT APPROVED)



CITY OF RALEIGH FIRE DEPARTMENT
FIRE PROTECTION DIVISION
310 WEST MARTIN ST. RALEIGH, NC 27602

DESCRIPTION:	REVISIONS:	DATE:	DRAWING NO.:
YARD FDC DETAIL REQUIREMENTS	5-1-2017	5/1/06	FP-15

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

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REVISION:

McADAMS
The John R. McAdams Company, Inc.
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phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187
www.mcadamsco.com

SHEET TITLE: WATER DETAILS
SCALE (U.N.O.): NO SCALE

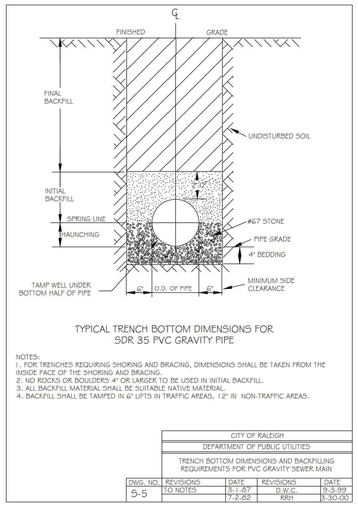
JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
THE JOHN R. McADAMS COMPANY, INC. C-0293
NORTH CAROLINA CERTIFICATE OF AUTHORIZATION

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 052846 ENGINEER CONNOR J. JONES
12/20/2023

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: C801

M:\Projects\WCC\22001.04 Production\Engineering\Site Plan-Construction Drawings\Current Drawings\WCC22001.01.dwg, 12/12/2023 12:39:20 PM, Burris Walker

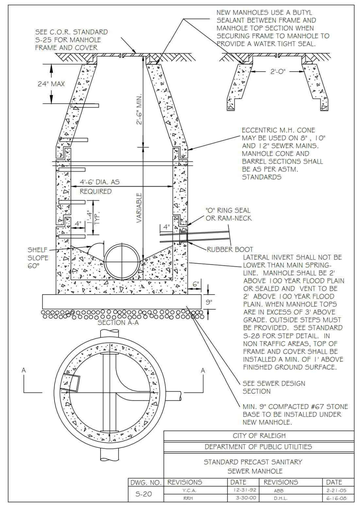


TYPICAL TRENCH BOTTOM DIMENSIONS FOR SDR 35 PVC GRAVITY PIPE

NOTES:
1. FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
2. NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN INITIAL BACKFILL.
3. ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
4. BACKFILL SHALL BE TAMPED IN 6" LIFTS IN TRAFFIC AREAS, 12" IN NON-TRAFFIC AREAS.

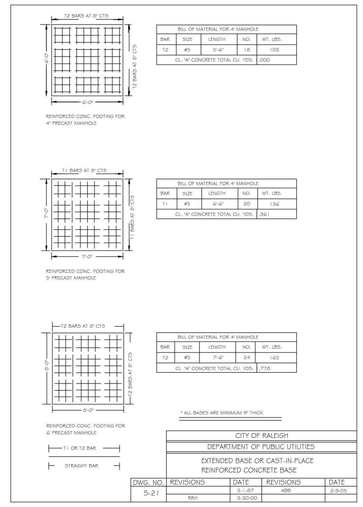
CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-5	TO NOTES	5-1-97	D.W.C.	9-3-99
		7-2-02	RRH	5-30-00



CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD PRECAST SANITARY SEWER MANHOLE

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-20	Y.C.A.	12-31-92	ABR	2-21-05
	RRH	3-30-00	D.M.L.	6-14-08



BILL OF MATERIAL FOR 4' MANHOLE

BAR	SIZE	LENGTH	NO.	WT. LBS.
T2	#5	5'-6"	16	103
CL. 'A' CONCRETE TOTAL CU. YDS.				.000

REINFORCED CONC. FOOTING FOR 4' PRECAST MANHOLE

BILL OF MATERIAL FOR 6' MANHOLE

BAR	SIZE	LENGTH	NO.	WT. LBS.
T1	#5	6'-6"	20	134
CL. 'A' CONCRETE TOTAL CU. YDS.				.261

REINFORCED CONC. FOOTING FOR 5' PRECAST MANHOLE

BILL OF MATERIAL FOR 8' MANHOLE

BAR	SIZE	LENGTH	NO.	WT. LBS.
T2	#5	7'-6"	24	165
CL. 'A' CONCRETE TOTAL CU. YDS.				.775

REINFORCED CONC. FOOTING FOR 6' PRECAST MANHOLE

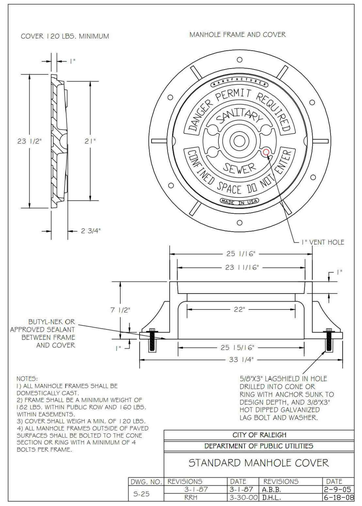
T1 OR T2 BAR

STRAIGHT BAR

* ALL BASES ARE MINIMUM 9" THICK

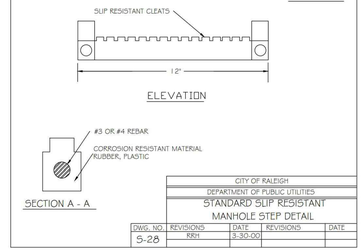
CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
EXTENDED BASE OR CAST-IN-PLACE REINFORCED CONCRETE BASE

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-21		5-1-97	ABR	2-9-05
	RRH	5-30-00		



CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD MANHOLE COVER

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-25	5-1-97	3-1-97	A.B.B.	2-9-05
	RRH	3-30-00	D.M.L.	6-18-08



CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD SLIP RESISTANT MANHOLE STEP DETAIL

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-28	RRH	5-30-00		

KEYNOTES

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH, TOWN OF WENDELL AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.

SHEET SPECIFIC NOTES

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SHEET TITLE: SANITARY SEWER DETAILS

SCALE (ARCH): NO SCALE

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCG ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
NORTH CAROLINA
THE JOHN R. McADAMS COMPANY, INC.
C-0293
CERTIFICATE OF AUTHORIZATION

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 052846
CONNOR J. JONES
12/20/2023

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: C802

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REFER TO L131 MATERIAL PLAN
REFER TO L134 FIRE ACCESS/ ADA ACCESS DIAGRAM
REFER TO L141 LAYOUT PLAN
REFER TO L151 GRADING PLAN
REFER TO L161 PLANTING PLAN

INSPIRATION CIRCLE

TECHNOLOGY 4.0 BUILDING

ROOF TERRACE PLAN, REFER TO SHEET L162

LIMITS OF DISTURBANCE

GENERAL EDUCATION BUILDING

FUTURE UAV

FUTURE GENERAL ED. BUILDING 2

GENERAL ED. BLDG. 5 (PHASE-3)

GENERAL ED. BLDG. 6 (PHASE-3)

0' 15' 30' 60'

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f: 984-444-8688

CORPORATE SEAL: NORTH CAROLINA C-098 SURFACE 678, P.A.

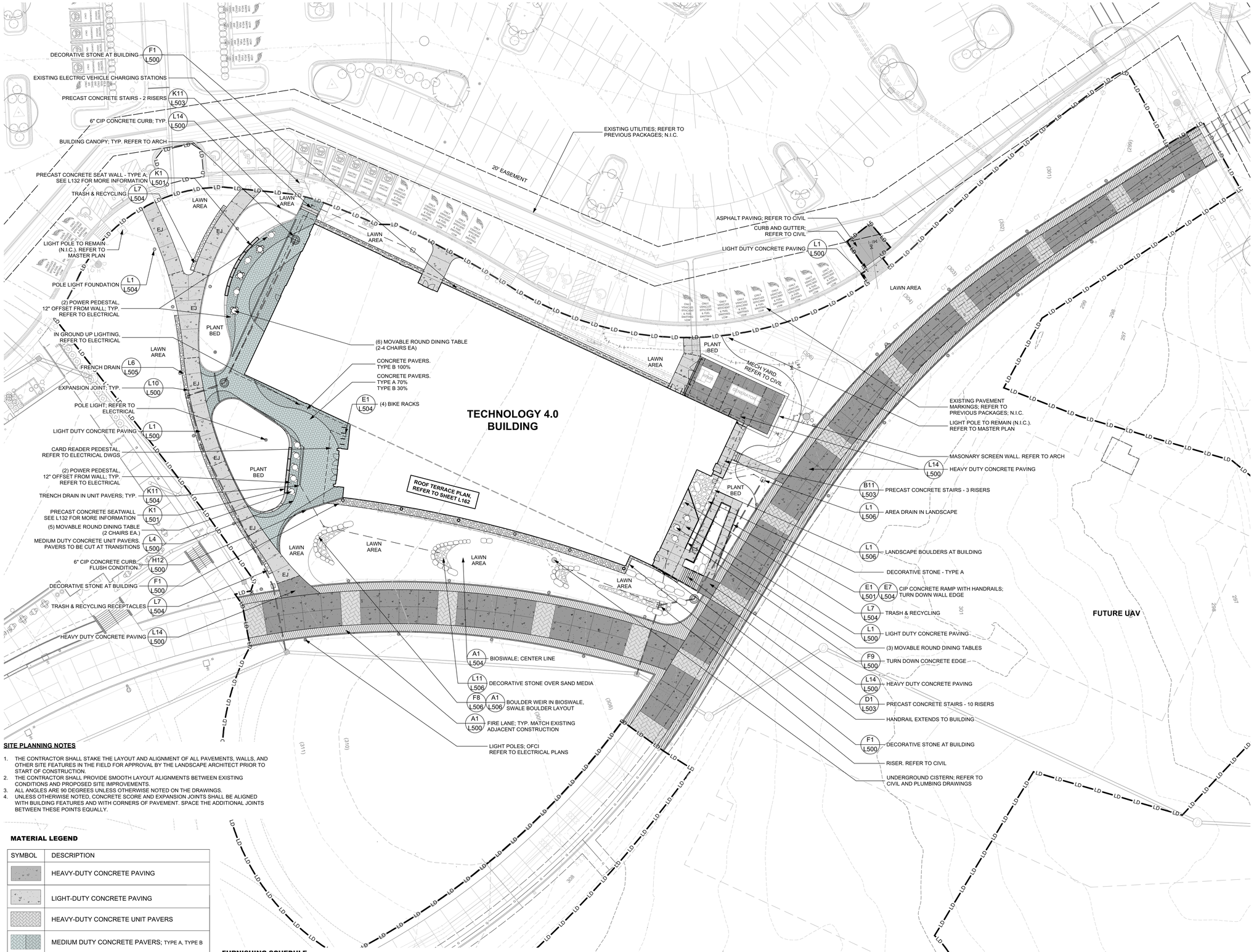
SEAL: NORTH CAROLINA 1330 MATTHEW ERIC DAVIS

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. L130

SHEET TITLE: OVERALL PLAN
SCALE: (U.N.O.)

SF Zone: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

NOT FOR CONSTRUCTION



SITE PLANNING NOTES

1. THE CONTRACTOR SHALL STAKE THE LAYOUT AND ALIGNMENT OF ALL PAVEMENTS, WALLS, AND OTHER SITE FEATURES IN THE FIELD FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL PROVIDE SMOOTH LAYOUT ALIGNMENTS BETWEEN EXISTING CONDITIONS AND PROPOSED SITE IMPROVEMENTS.
3. ALL ANGLES ARE 90 DEGREES UNLESS OTHERWISE NOTED ON THE DRAWINGS.
4. UNLESS OTHERWISE NOTED, CONCRETE SCORE AND EXPANSION JOINTS SHALL BE ALIGNED WITH BUILDING FEATURES AND WITH CORNERS OF PAVEMENT. SPACE THE ADDITIONAL JOINTS BETWEEN THESE POINTS EQUALLY.

MATERIAL LEGEND

SYMBOL	DESCRIPTION
	HEAVY-DUTY CONCRETE PAVING
	LIGHT-DUTY CONCRETE PAVING
	HEAVY-DUTY CONCRETE UNIT PAVERS
	MEDIUM DUTY CONCRETE PAVERS; TYPE A, TYPE B
	DECORATIVE STONE - TYPE A
	DECORATIVE STONE - TYPE B
	FIRE LANE/ REINFORCED TURF PAVERS
	PRECAST CONCRETE SEATWALL
LD — LD	LIMIT OF DISTURBANCE

FURNISHING SCHEDULE

SYMBOL	DESCRIPTION	DETAIL
	(3)TRASH & (3) RECYCLING RECEPTACLES	L7 L504
	MOVABLE TABLES & CHAIRS *(14) TABLE - STYLE: ROUND DINING TABLE, SIZE: 31" DIA., 28" MIN. HT *(34) CHAIR - STYLE: ARMLESS, SIZE: 22" DEPTH, 20" W, 33" HT **OWNER PROVIDED, CONTRACTOR INSTALLED** PROVIDE ANCHORING MECHANISM	
	(4) BIKE RACKS	E1 L504

DEVELOPMENT SUMMARY

TOTAL DEVELOPMENT ACREAGE:	4.90 ACRES (213,252 SF)
TOTAL BUILDING AREA (GROSS SF):	78,948 SF
PROPOSED USE:	INSTITUTIONAL
VEHICULAR PARKING:	158 PARKING SPACES REQUIRED
	158 PARKING SPACES PROVIDED*

* REFER TO SITE MASTER PLAN FOR FULL PARKING COUNTS

TOWN OF WENDELL REQUIREMENTS

VEHICULAR PARKING SPACES (UDO SEC 10.4.A)

2 PARKING SPACES REQUIRED PER 1,000SF BUILDING
78,948 SF BUILDING =
158 PARKING SPACES REQUIRED / 158 PARKING SPACES PROVIDED

BICYCLE PARKING SPACES (UDO SEC 10.4.A)

1 BICYCLE PARKING SPACES PER 20 VEHICULAR SPACES REQUIRED.
158 VEHICULAR PARKING SPACES REQUIRED =
8 BICYCLE SPACES REQUIRED / 8 BICYCLE SPACES PROVIDED

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SHEET TITLE: MATERIAL PLAN

SCALE (U.N.O.)

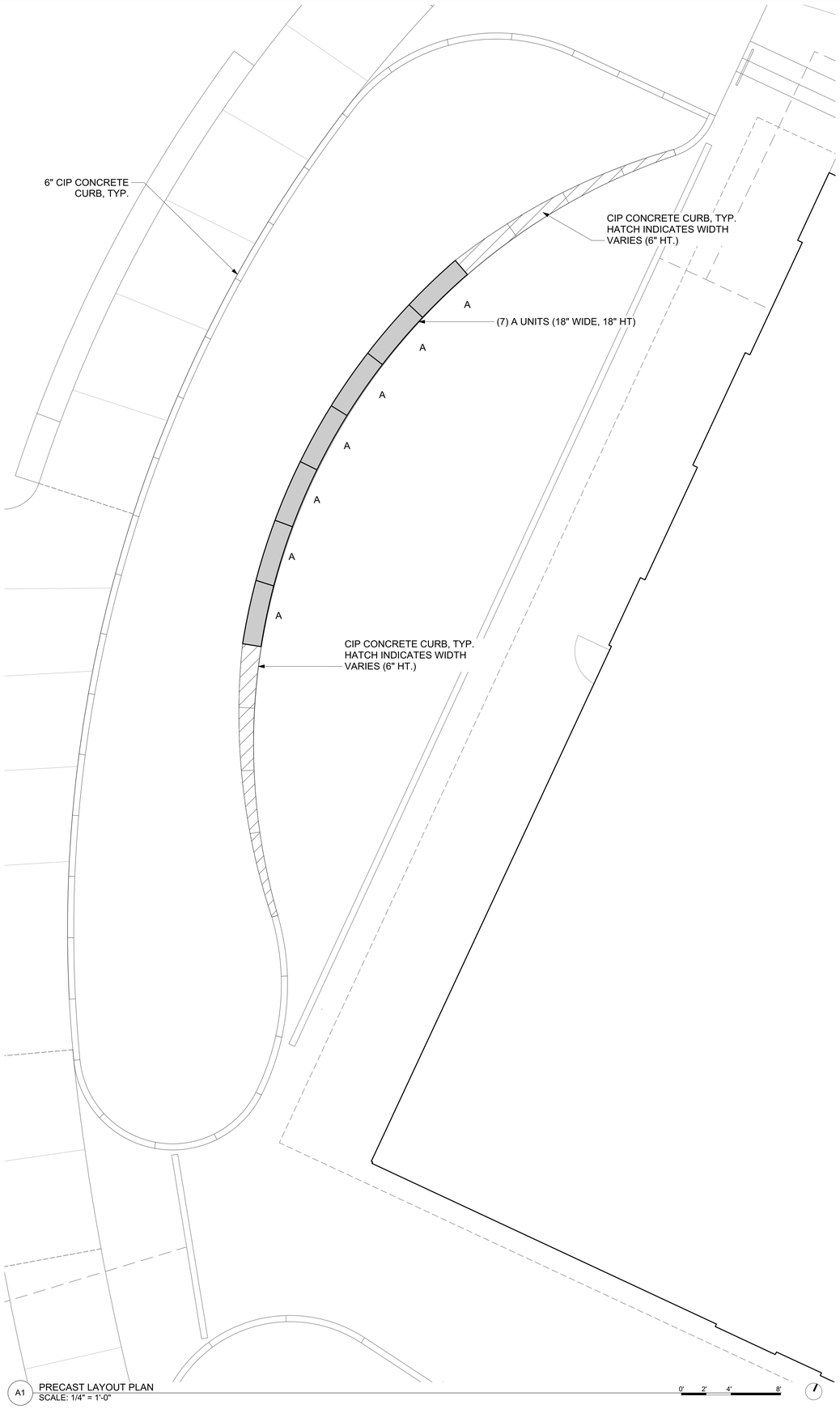
ON NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL: NORTH CAROLINA C-098 SURFACE 678, P.A.

SEAL: NORTH CAROLINA 1330 MATTHEW ERIC DAVIS

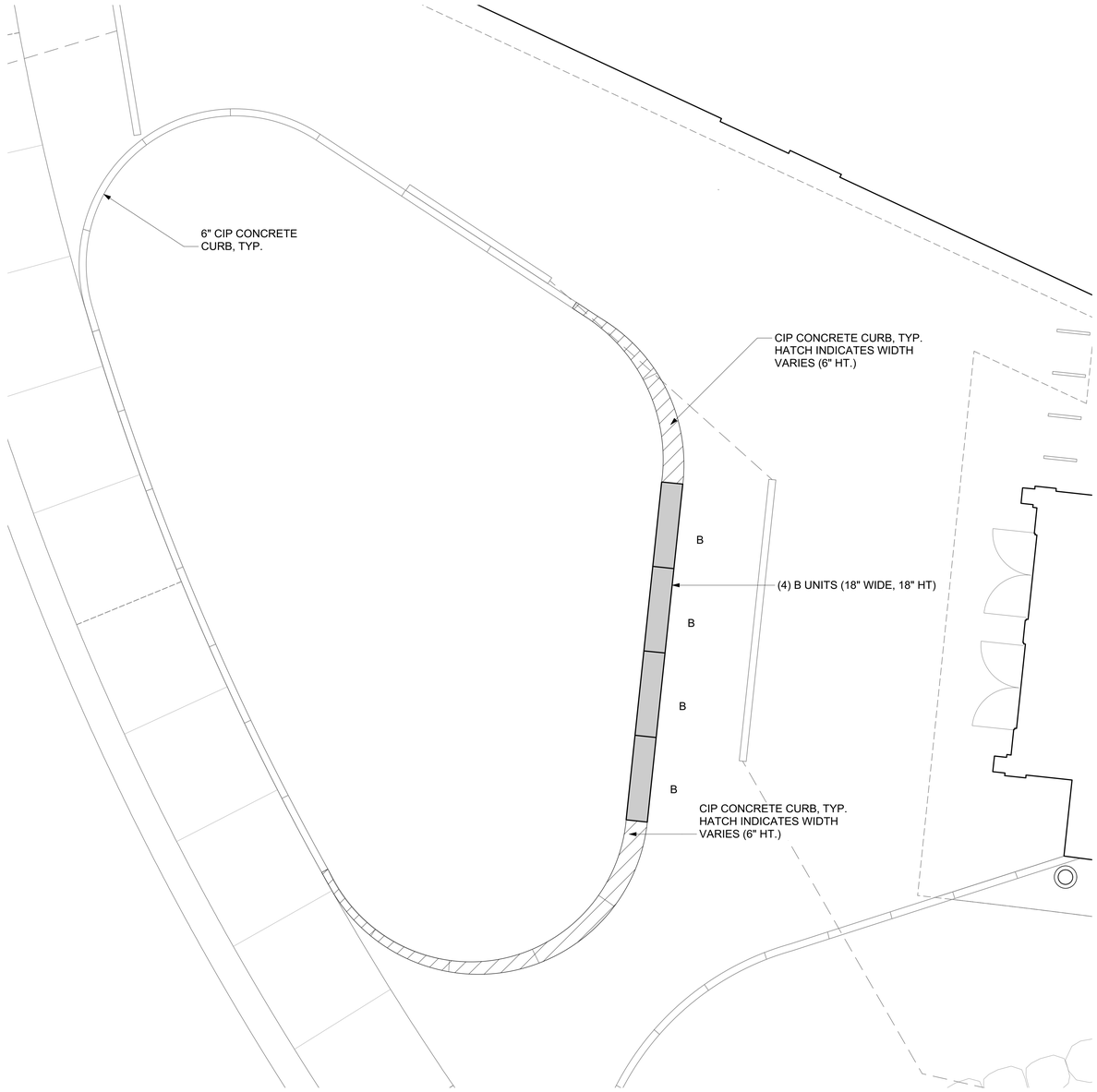
ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. L131

NOT FOR CONSTRUCTION



A1 PRECAST LAYOUT PLAN
SCALE: 1/4" = 1'-0"

0' 2' 4' 8'



D9 PRECAST LAYOUT PLAN
SCALE: 1/4" = 1'-0"

0' 2' 4' 8'

MATERIAL LEGEND

SYMBOL	DESCRIPTION
	CIP CONCRETE CURB
	PRECAST CONCRETE SEATWALL
	CIP CONCRETE CURB WIDTH VARIES (6" HT.)

PRECAST UNIT SCHEDULE

KEY	WIDTH	QTY.
A	18"	7
B	18"	4

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p: 919-416-1199
f: 919-414-1999

SHEET TITLE: PRECAST ENLARGEMENT
SCALE (U.N.O.)

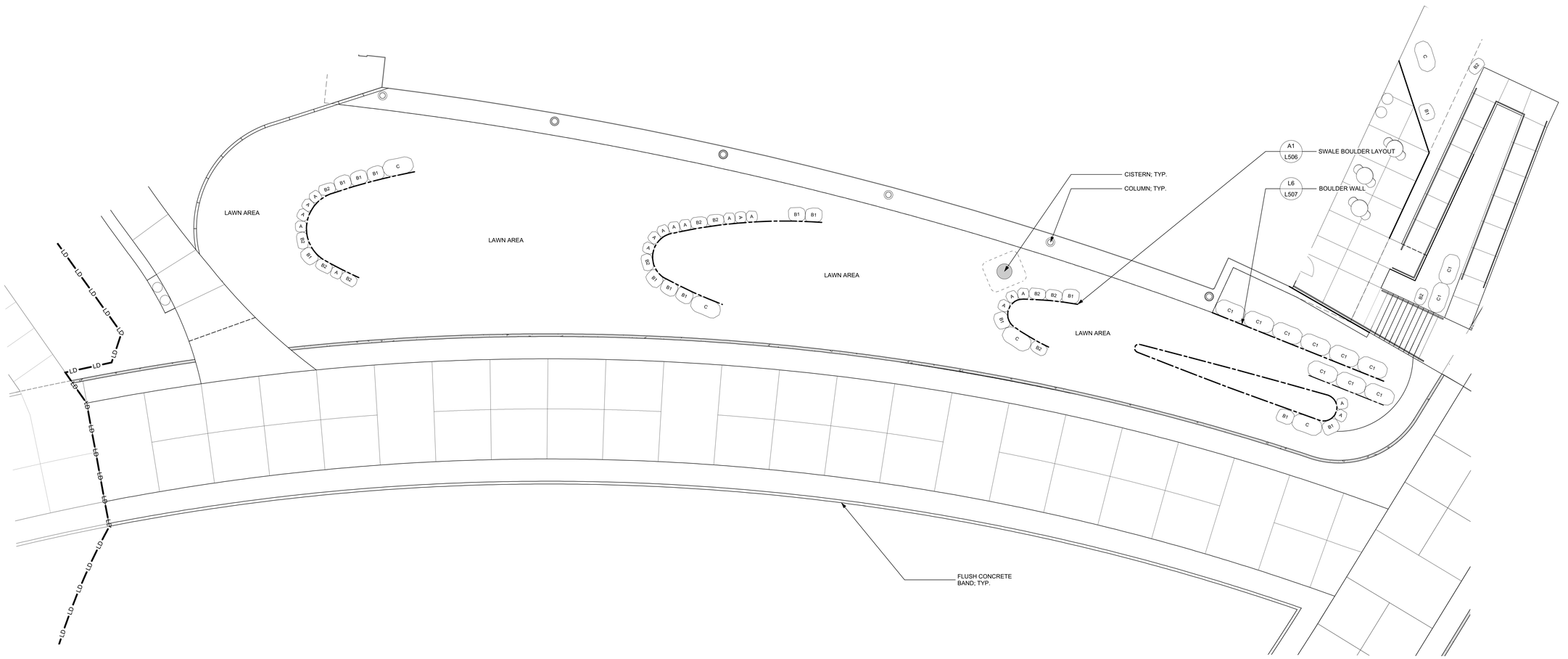
PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL: NORTH CAROLINA C-098 SURFACE 678, P.A.

SEAL: NORTH CAROLINA 1330 MATTHEW ERIC DAVIS

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: L132

NOT FOR CONSTRUCTION



1 BIOSWALE ENLARGEMENT
1/8" = 1'-0"

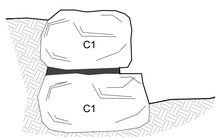
0' 4' 8' 16'

BOULDER SCHEDULE

BOULDERS		
SYMBOL	QTY	TYPE
A	18	1.5-2' **W** x 1-2' **L** x 1-1.5' **H**
B1 B2	25	2-3' **W** x 2-3' **L** x 2-3' **H**
C	5	2.5-3' **W** x 5-6' **L** x 1.5-2.5' **H**
C1	11	2.5-3' **W** x 5-6' **L** x 1.5-2.5' **H** (EACH SYMBOL REPRESENTS 2 BOULDERS STACKED)

BOULDER WALL DIAGRAM

REFER TO BOULDER DETAILS L6/ L506



STOCKPILED BOULDERS LOCATED ON MOBILITY LANE

CONTRACTOR TO PROVIDE TOTAL QUANTITIES OF BOULDERS IN SIZES INDICATED IN SCHEDULE.
WHERE OFF-SITE BOULDERS ARE REQUIRED IN ADDITION TO OWNER-PROVIDED STOCKPILE,
OFF-SITE BOULDERS ARE TO MATCH GENERAL APPEARANCE OF ON-SITE BOULDERS AS APPROVED BY DESIGNER.

OWNER PROVIDED ON-SITE STOCKPILED BOULDERS ARE LOCATED AT THE CURRENT JOB SITE TRAILERS ON MOBILITY LANE AND ARE AVAILABLE FOR USE BY THE CONTRACTOR.

LORD AECK SARGENT

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SHEET TITLE: BOULDER PLAN

SCALE: (U.N.O.)

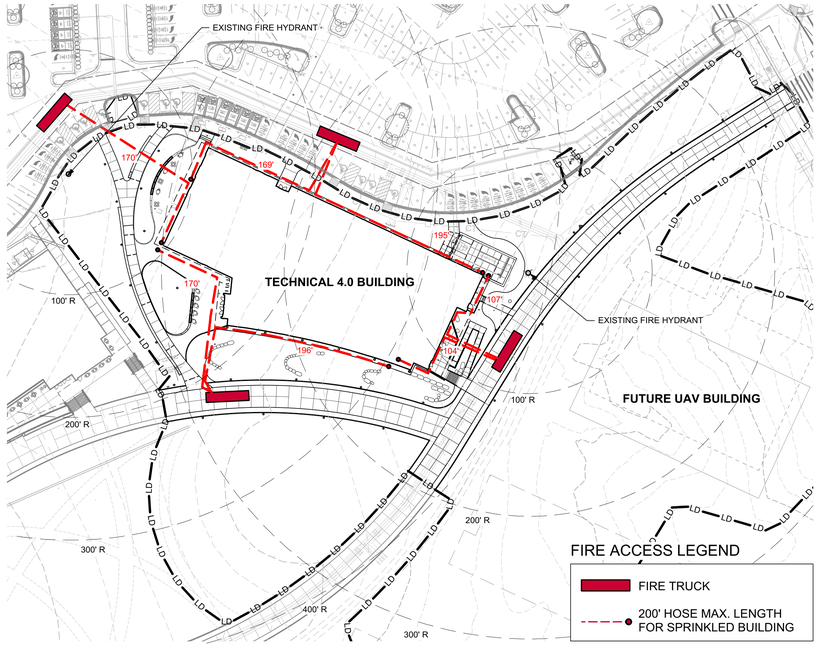
JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL: NORTH CAROLINA LANDSCAPE ARCHITECTURE C-098 SURFACE 678, P.A.

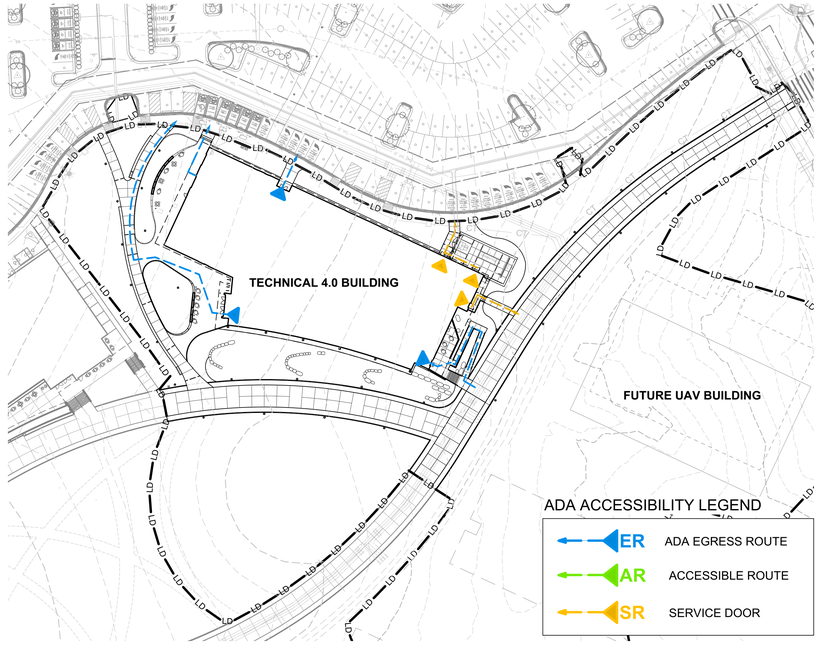
SEAL: NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1330 MATTHEW ERIC DEMS

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: L133

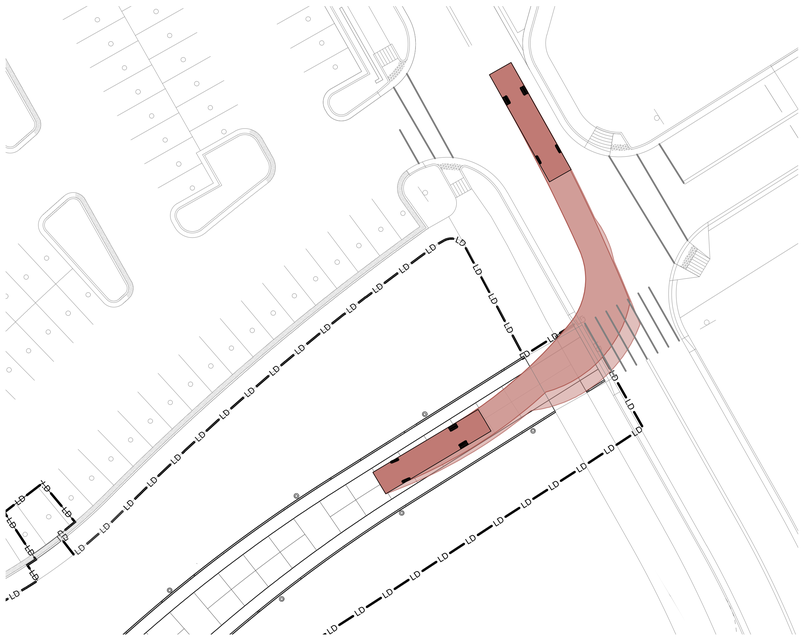
NOT FOR CONSTRUCTION



G3 FIRE ACCESS DIAGRAM
1"= 50'-0"



G10 ADA ACCESS ROUTES
1"= 50'-0"



B3 SOUTH HELIX FIRE TRUCK TURNING STUDY EAST ENTRY
1"= 20'-0"

B10 HELIX INTERSECTION TURNING STUDY
1"= 20'-0"

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SHEET TITLE
FIRE ACCESS/ ADA ACCESS DIAGRAM

SCALE (U.N.O.)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL
NORTH CAROLINA C-098 SURFACE 678, P.A.

SEAL
NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1330 MATTHEW ERIC DAMS

ISSUE DATE
12/20/2023

JOB. NO.
11751-00

DWG. NO.
L134

NOT FOR CONSTRUCTION

REFER TO A/L142 LAYOUT ENLARGEMENT PLAN

TECHNOLOGY 4.0
BUILDING

REFER TO B/L143 LAYOUT
ENLARGEMENT PLAN

REFER TO A/L143 LAYOUT
ENLARGEMENT PLAN

REFER TO B/L142 LAYOUT ENLARGEMENT PLAN

FUTURE UAV

POINT OF TANGENCY

R 5.00'
12.38'
11.2'
11.26'
R 5.00'
21.00'
76.06'
4.00'
226.91'
R 501.73'
69.92'
ALIGN. 1 P.I.
R 435.01'
51.32'

0' 10' 20' 40'

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SHEET TITLE
OVERALL LAYOUT PLAN

SCALE (U.N.O.)

PROJECT
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL
NORTH CAROLINA
C-098
SURFACE 678, P.A.

SEAL
NORTH CAROLINA
1330
MATTHEW ERIC DAVIS

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
L141

NOT FOR CONSTRUCTION

NOT FOR CONSTRUCTION

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

SHEET TITLE
LAYOUT ENLARGEMENT PLAN
SCALE (1/40.)

ISSUE DATE
12/20/2023
JOB NO.
111751-00
DWG NO.
L142

SEAL
NORTH CAROLINA LICENSED LANDSCAPE ARCHITECT 1330 MATTHEW ERIC SMITH

CORPORATE SEAL
NORTH CAROLINA SURFACE 678 C-098

Surface

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REVISION

MATCH LINE - REFER TO A/L143
MATCH LINE - REFER TO A/L142
START AND END POINT OF BOULDER LAYOUT
TANGENT, TYP.
ALIGN, TYP.
E.O.
L.D.
R 16.00'
R 7.62'
2.02'
4.01'
3.96'
2.43'
7.47'
26.30'
24.71'
19.9'
14.82'
6.72'
20.24'
27.06'
23.59'
14.54'
7.75'
27.00'
20.23'
25.70'
7.59'
4.58'
8.87'
2.72'
2.35'
10.6'
9.74'
R 62.50'
R 38.468'
L 6.69'
R 2.75'
49.13'
22.1'
12.1'
L 2.168'
R 72'
86.77'
6.3'
33.17'
14.41'
38.1'
7.4'
35.03'
27.6'
36.45'
18.0'
46.97'
224.50'
R 417.890'
61.99'
63.48'
44.72'
6.30'
9.3'
9.59'
10.52'
8.97'
6.11'
5.01'
11.84'
8.06'
1.43'
7.5'
20.00'
4.0'
26.84'
R 92.30'
12.78'
R 61.127'
10.81'
28.40'
L 11.15'
R 4.37'
16.17'
8.10'
154.70'
10.42'
15.15'
R 104.76'
23.11'
9.26'
9.3'
24.98'
7.78'
8.49'
R 88.53'
7.12'
35.49'
9.00'
R 6.64'
L 15.00'
R 101.75'
26.75'
R 101.75'
26.75'
20.86'
26.89'
R 20.04'
41.72'
27.31'
R 61.64'
8.00'
R 4.250'
L 4.664'
10.25'
12.50'
R 150.00'
R 108.90'
71.69'
16.91'
R 116.90'
50.80'
R 108.90'
85.69'
39.67'
R 270.10'
R 3.00'
L 7.60'
8.0'
81.63'
R 196.00'
776.34'
R 80.00'
27.40'
R 24.00'
L 15.80'
10.28'
14.82'
13.73'
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RR 11.00'
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112.71'
24.26'
13.14'
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24.23'
25.05'
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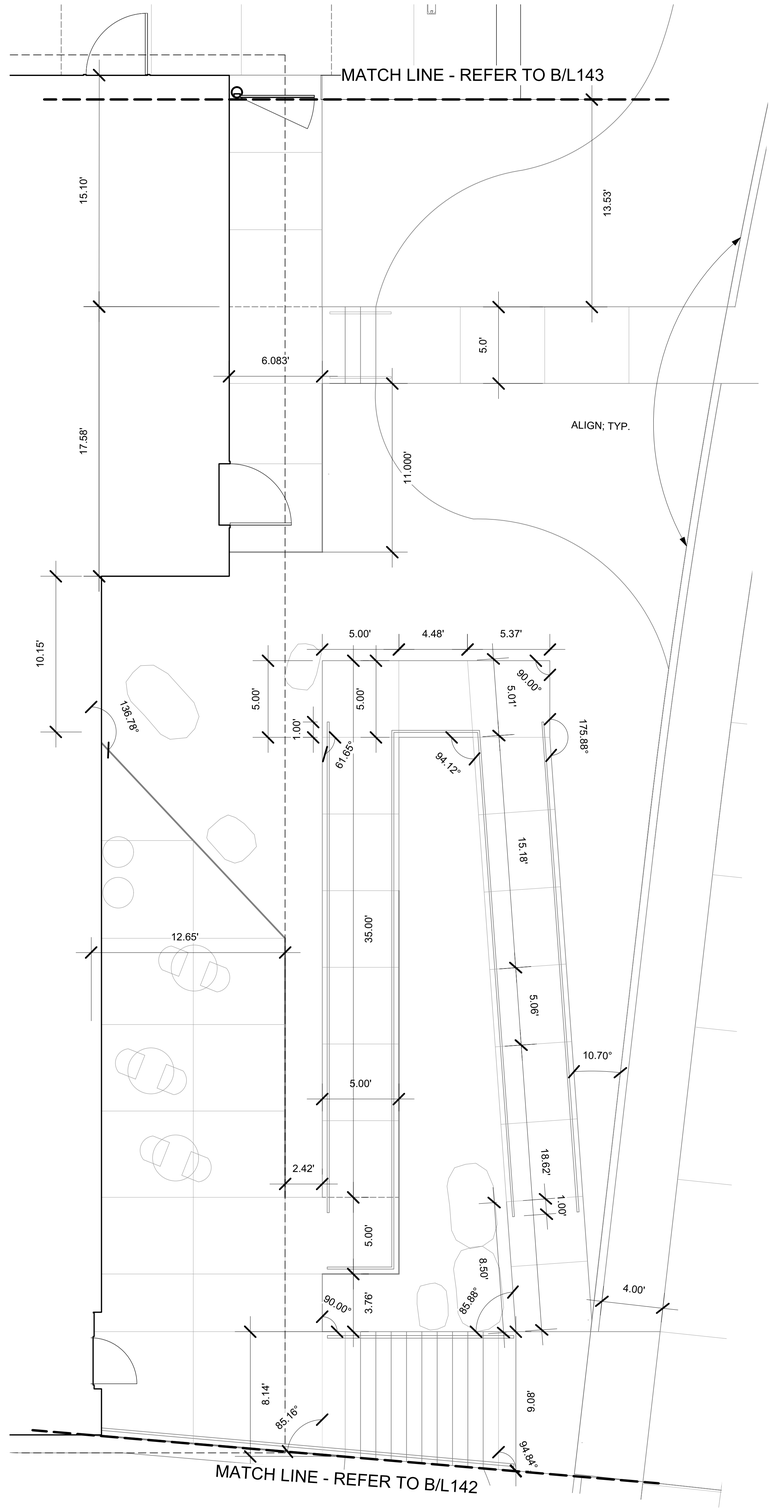
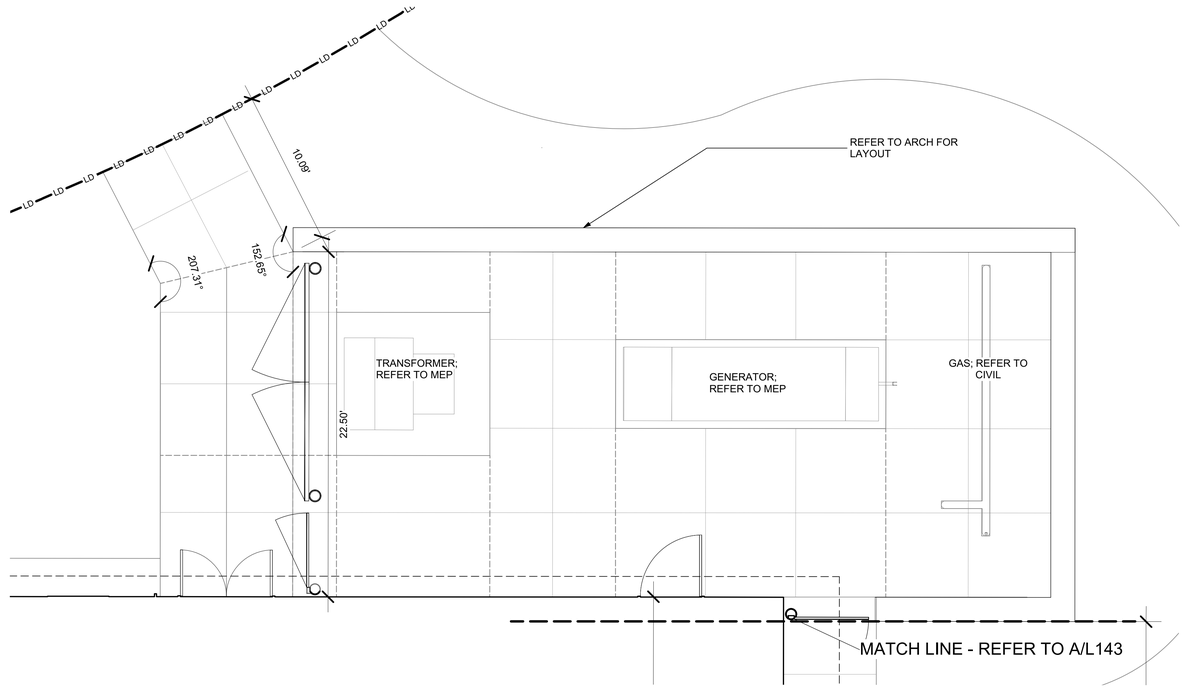
30.04'
R 194.79'
36.55'
8.00'
154.70'
23.11'
R 20.04'
26.89'
8.10'
0'
05'
10'
20'

A PLAZA ENLARGEMENT
1" = 10'-0"

B BIOSWALE ENLARGEMENT
1" = 10'-0"



A PLAZA ENLARGEMENT
1/4" = 1'-0"
0' 1/8" 1/4" 1/2"



B MEP YARD ENLARGEMENT
1/4" = 1'-0"
0' 1/8" 1/4" 1/2"

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SHEET TITLE
LAYOUT ENLARGEMENT PLAN

SCALE (U.N.O.)

PROJECT
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL
NORTH CAROLINA C-098 SURFACE 678, P.A.

SEAL
NORTH CAROLINA 1330 MATTHEW ERIC DAVIS

ISSUE DATE
12/20/2023

JOB. NO.
11751-00

DWG. NO.
L143

NOT FOR CONSTRUCTION

REFER TO A/L152 GRADING ENLARGEMENT PLAN

L1 / L505 AREA DRAIN IN LAWN

(311.26)

311.98

FFE 312.00

K11 / L504 TRENCH DRAIN IN UNIT PAVERS

TECHNOLOGY 4.0 BUILDING

AREA DRAIN IN DECORATIVE STONE; TYP. J1 / L505

RIVER ROCK FRENCH DRAIN L6 / L505

TRENCH DRAIN IN UNIT PAVERS K11 / L504

4" UNDERDRAIN

REFER TO B/L152 GRADING ENLARGEMENT PLAN

REFER TO B/L153 GRADING ENLARGEMENT PLAN

REFER TO A/L153 GRADING ENLARGEMENT PLAN

L1 / L505 AREA DRAIN IN LAWN; REFER TO CIVIL

J6 / L505 SUBDRAINAGE IN PLANTING BED

UNDERGROUND CISTERN. REFER TO CIVIL

RISER. SEE CIVIL

FUTURE UAV

2.53%

2.17%

4.19%

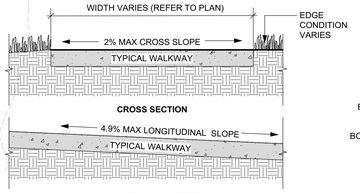
4%

1 ACD.01 08/02/2023

SITE GRADING NOTES

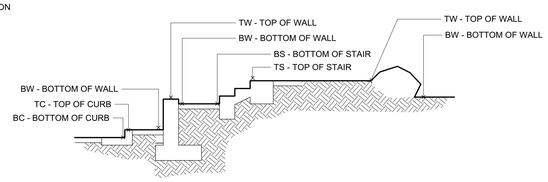
1. EXISTING UTILITIES SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD PRIOR TO BEGINNING WORK. CONTRACTOR SHALL CONTACT THE TOWN OF WENDELL FOR LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING AROUND EXISTING UTILITIES TO REMAIN.
2. MATCH NEW CONSTRUCTION TO SURROUNDING ESTABLISHED GRADES. REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT.
3. ALL AREAS ARE TO BE GRADED TO PROVIDE POSITIVE DRAINAGE AND AS SHOWN ON THE PLANS. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN A MINIMUM 2.5% SLOPE ON LAWNS, 1.5% ON UNIT PAVER SURFACES, 1% ON CONCRETE FLATWORK AND 1.5% ON ASPHALT SURFACES. ALL STEPS, PRECAST SURFACES, CONSTRUCTED SEATING, WALL TOPS SHALL RECEIVE A MINIMUM OF 1% SLOPE TO PROVIDE WASH.
4. UNLESS OTHERWISE NOTED, SPOT GRADES REFER TO BOTTOM OF CURB AT THE FLOW LINE (ADD 6" FOR THE TOP OF CURB). ALL SPOT GRADES AT THE EDGE OF PAVEMENTS SHALL REPRESENT THE PAVEMENT GRADES, NOT ADJOINING LANDSCAPE. ELEVATIONS SUPPLIED FOR CATCH BASINS OR AREA DRAINS ARE INDICATED FOR TOP OF GRATE AND TOP OF COVER FOR MANHOLES OR JUNCTION BOXES.
5. THE FRAMES, GRATES, CLEAN OUTS, VALVE COVERS AND OTHER SURFACE UTILITY FEATURES SHALL BE ADJUSTED TO MEET PROPOSED GRADES WITH APPROPRIATE INSTALLATION DETAILS.
6. ALL STORM DRAINAGE GRATES AND COVERS WITHIN ACCESSIBLE ROUTES THAT ARE SHOWN ON THE DRAWINGS SHALL MEET STATE AND FEDERAL ADA REQUIREMENTS.
7. ALL DRAINAGE GRATES WITHIN PEDESTRIAN PAVING SHALL BE BICYCLE WHEEL SAFE.
8. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO STORM DRAINAGE THAT PROVIDES ALIGNMENT WITH EXISTING SWALES, PIPES AND STRUCTURES. THE CONTRACTOR SHALL ALIGN THE TOP OF GRATE WITH INTENDED SCORE JOINTS, CURBS OR OTHER SURFACE DESIGN ELEMENTS OR AS SHOWN ON THE DRAWINGS.
9. REFER TO CIVIL DRAWINGS FOR ALL DRAIN INLET RIM ELEVATIONS AND STORM STRUCTURES.

UNIVERSAL ACCESSIBLE ROUTE WALK DETAIL



NOTE:
DETAIL APPLIES TO ALL ACCESSIBLE ROUTES

GRADING ABBREVIATIONS LEGEND



0' 10' 20' 40'

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SHEET TITLE: OVERALL GRADING PLAN

SCALE (UNO)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL: NORTH CAROLINA C-098 SURFACE 678, P.A.

SEAL: NORTH CAROLINA 1330 MATTHEW ERIC DAVIS

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. L151

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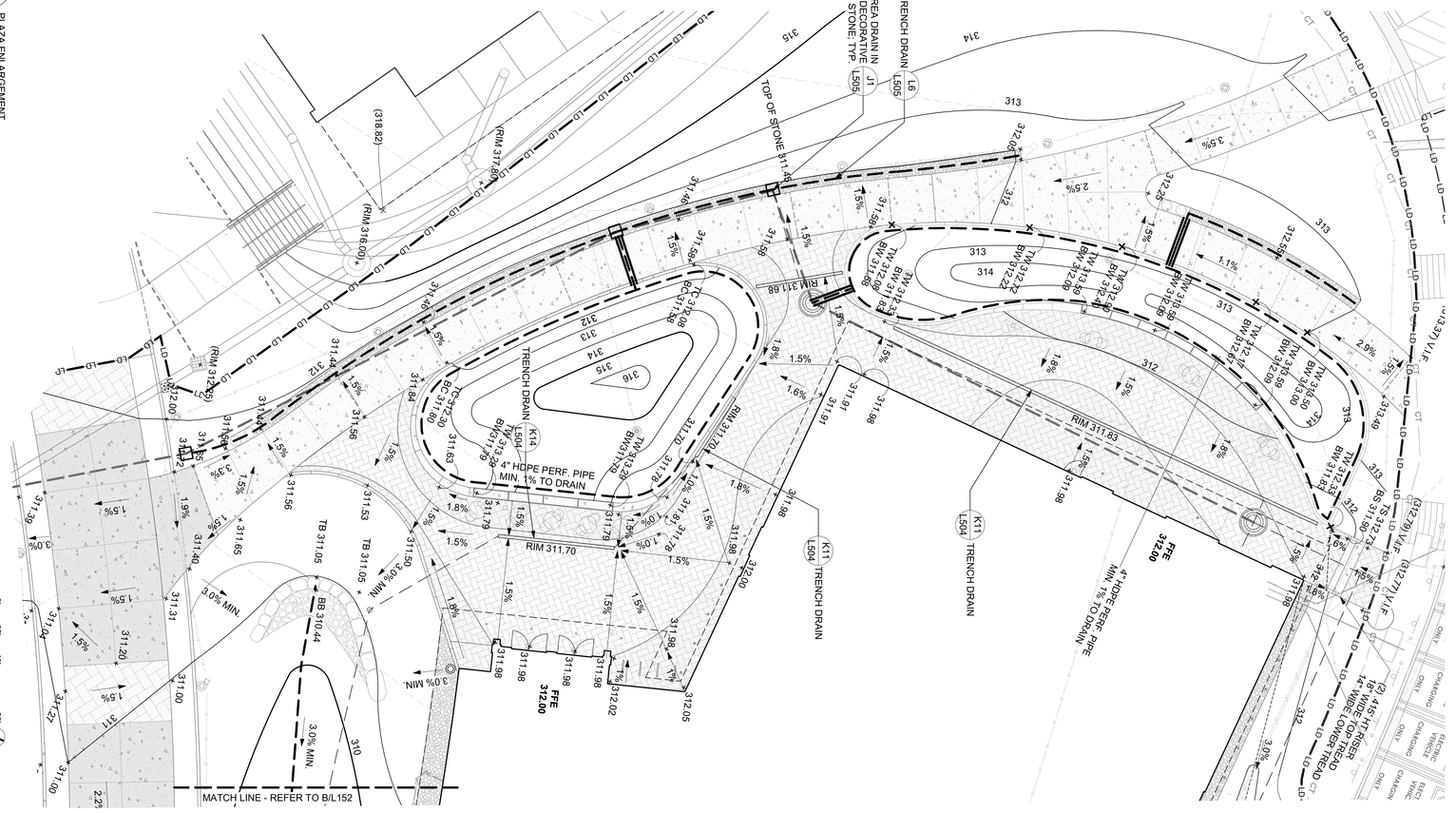
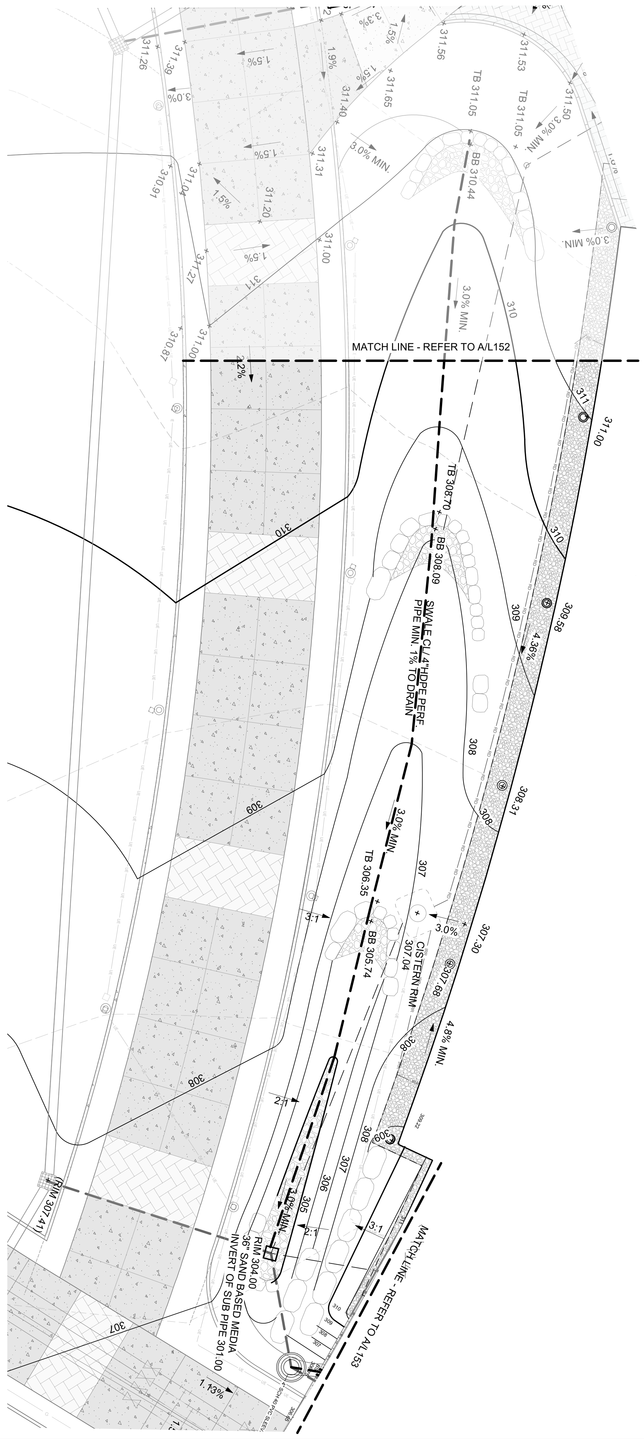
A PLAZA ENLARGEMENT
1" = 10'-0"



B BIOSWALE ENLARGEMENT
1" = 10'-0"



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CORPORATE SEAL
NORTH CAROLINA SURVEYING C-098

SEAL
NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1330

L152	JOB NAME: WAKE TECH COMMUNITY COLLEGE SCO ID # 21-23932-02A TECHNOLOGY 4.0 BUILDING Eastern Wake Site	SHEET TITLE: GRADING ENLARGEMENT PLAN SCALE (U.N.O.)	Surface 678, P.A. 215 Morris Street, Suite 150 Durham, NC 27701 www.surface678.com p: 919-419-1199 f : 919-419-1669	Surface

ISSUE DATE: 12/20/2023
JOB NO. 11751-00
DWG. NO.

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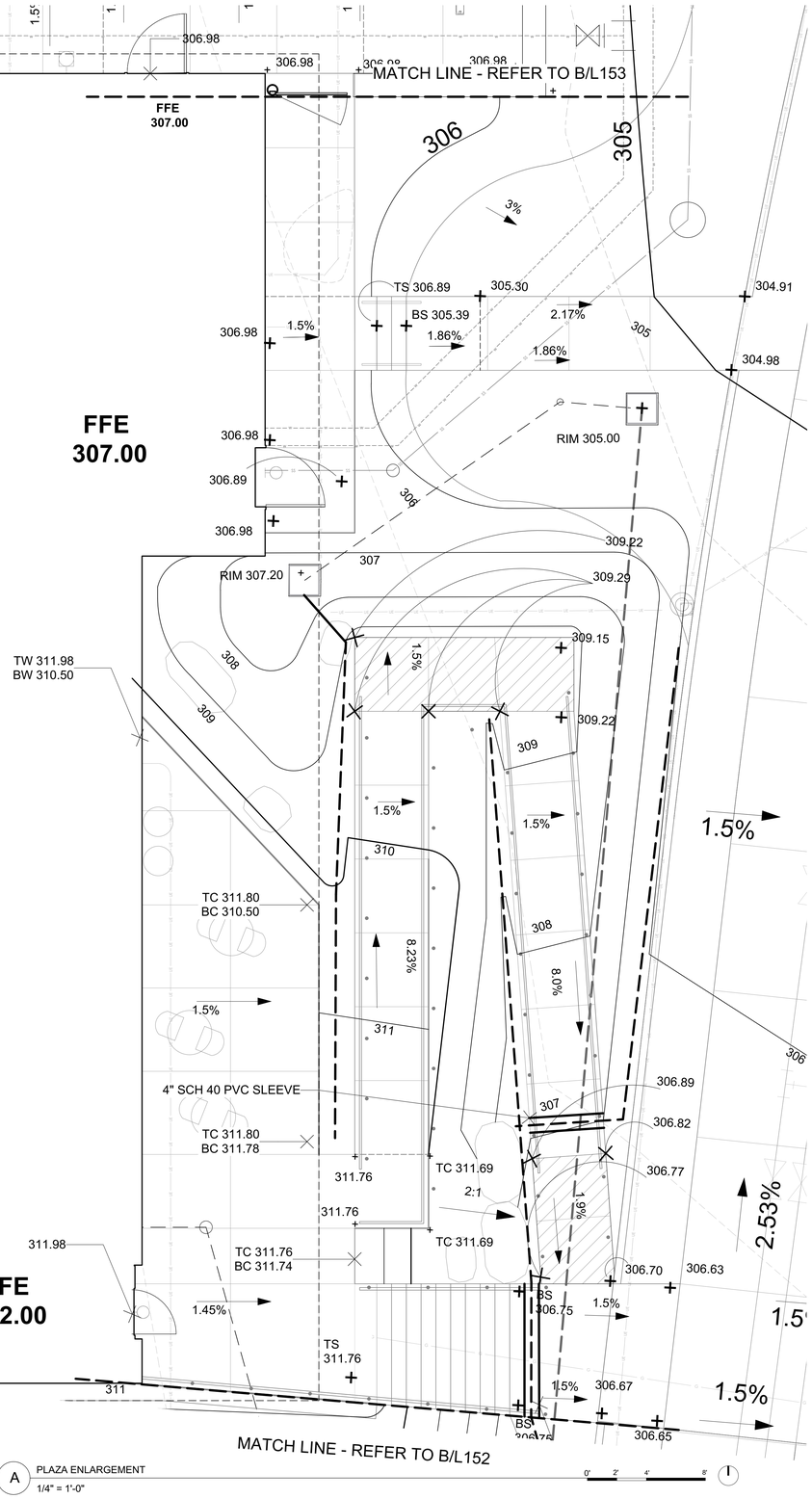
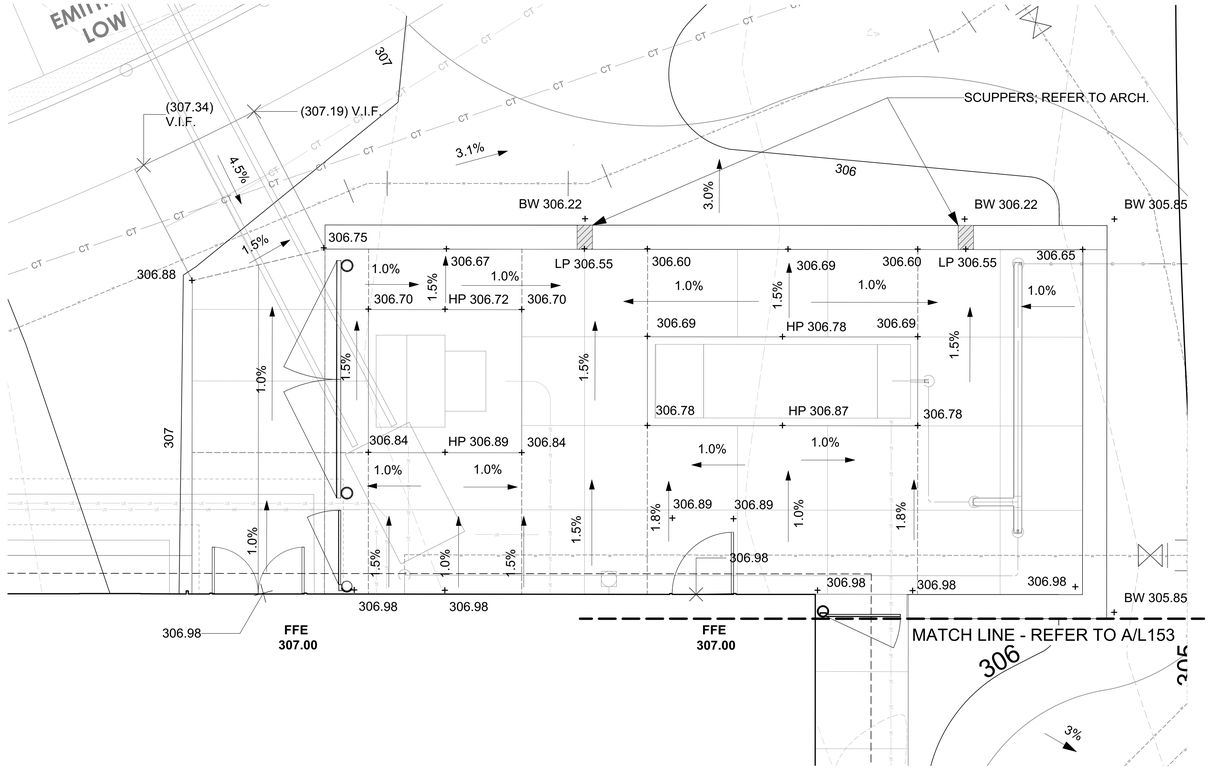


A PLAZA ENLARGEMENT
1/4" = 1'-0"



B MEP YARD ENLARGEMENT
1/4" = 1'-0"

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SHEET TITLE
GRADING ENLARGEMENT PLAN

SCALE (U.N.O.)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL
NORTH CAROLINA C-098 SURFACE 678, P.A.

SEAL
NORTH CAROLINA 1330 MATTHEW ERIC DAVIS

ISSUE DATE
12/20/2023

JOB. NO.
11751-00

DWG. NO.
L153

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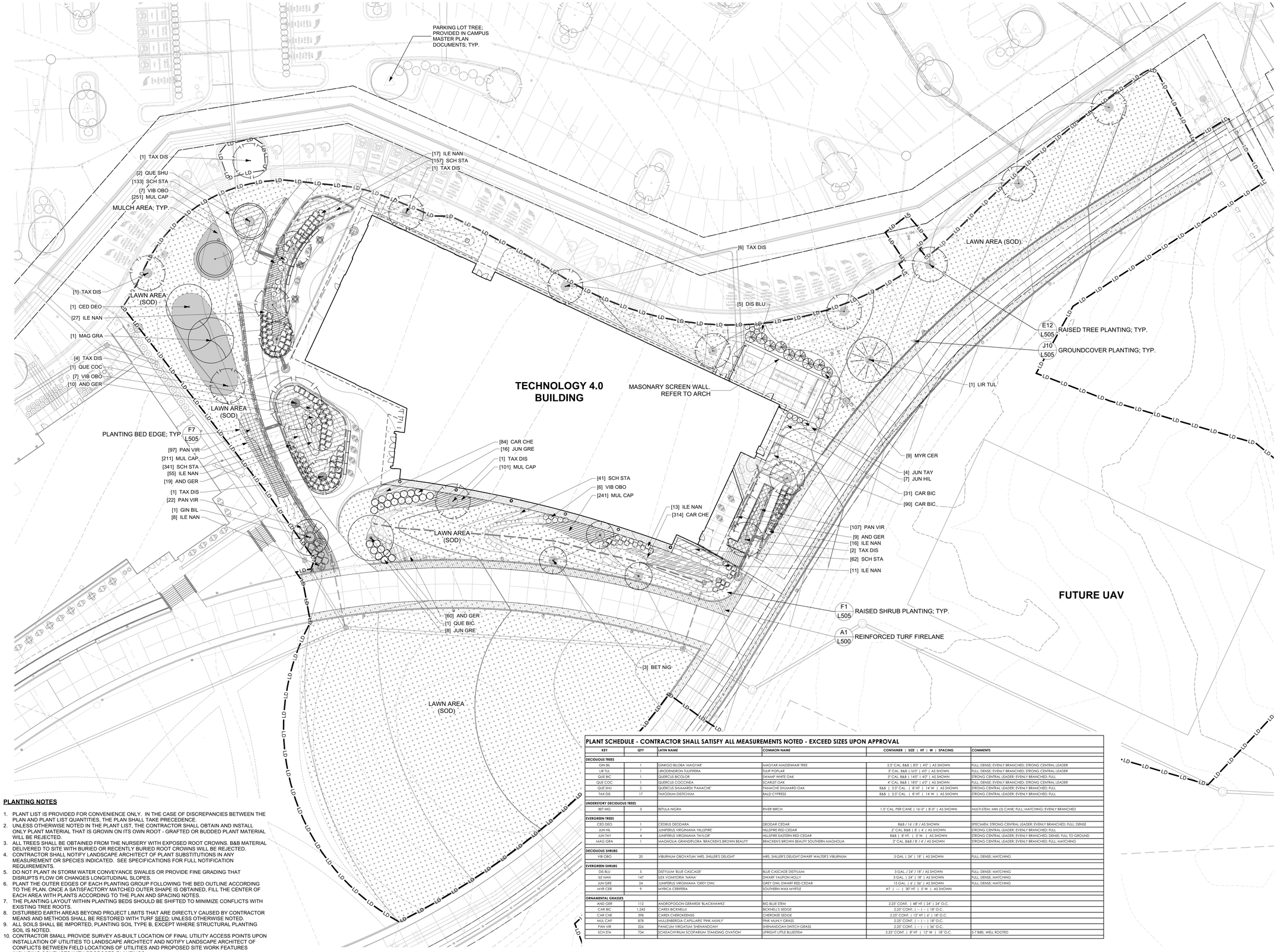

PLANTING NOTES

1. PLANT LIST IS PROVIDED FOR CONVENIENCE ONLY. IN THE CASE OF DISCREPANCIES BETWEEN THE PLAN AND PLANT LIST QUANTITIES, THE PLAN SHALL TAKE PRECEDENCE.
2. UNLESS OTHERWISE NOTED IN THE PLANT LIST, THE CONTRACTOR SHALL OBTAIN AND INSTALL ONLY PLANT MATERIAL THAT IS GROWN ON ITS OWN ROOT - GRAFTED OR BUDDED PLANT MATERIAL WILL BE REJECTED.
3. ALL TREES SHALL BE OBTAINED FROM THE NURSERY WITH EXPOSED ROOT CROWNS. B&B MATERIAL DELIVERED TO SITE WITH BURIED OR RECENTLY BURIED ROOT CROWNS WILL BE REJECTED.
4. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF PLANT SUBSTITUTIONS IN ANY MEASUREMENT OR SPECIES INDICATED. SEE SPECIFICATIONS FOR FULL NOTIFICATION REQUIREMENTS.
5. DO NOT PLANT IN STORM WATER CONVEYANCE SWALES OR PROVIDE FINE GRADING THAT DISRUPTS FLOW OR CHANGES LONGITUDINAL SLOPES.
6. PLANT THE OUTER EDGES OF EACH PLANTING GROUP FOLLOWING THE BED OUTLINE ACCORDING TO THE PLAN. ONCE A SATISFACTORY MATCHED OUTER SHAPE IS OBTAINED, FILL THE CENTER OF EACH AREA WITH PLANTS ACCORDING TO THE PLAN AND SPACING NOTES.
7. THE PLANTING LAYOUT WITHIN PLANTING BEDS SHOULD BE SHIFTED TO MINIMIZE CONFLICTS WITH EXISTING TREE ROOTS.
8. DISTURBED EARTH AREAS BEYOND PROJECT LIMITS THAT ARE DIRECTLY CAUSED BY CONTRACTOR MEANS AND METHODS SHALL BE RESTORED WITH TURF SEED, UNLESS OTHERWISE NOTED.
9. ALL SOILS SHALL BE IMPORTED, PLANTING SOIL TYPE B, EXCEPT WHERE STRUCTURAL PLANTING SOIL IS NOTED.
10. CONTRACTOR SHALL PROVIDE SURVEY AS-BUILT LOCATION OF FINAL UTILITY ACCESS POINTS UPON INSTALLATION OF UTILITIES TO LANDSCAPE ARCHITECT AND NOTIFY LANDSCAPE ARCHITECT OF CONFLICTS BETWEEN FIELD LOCATIONS OF UTILITIES AND PROPOSED SITE WORK FEATURES INCLUDING CONFLICTS WITH PROPOSED PLANTINGS.

PLANT SCHEDULE - CONTRACTOR SHALL SATISFY ALL MEASUREMENTS NOTED - EXCEED SIZES UPON APPROVAL

KEY	QTY	LATIN NAME	COMMON NAME	CONTAINER | SIZE | HT | W | SPACING	COMMENTS
DECIDUOUS TREES					
GIN BIL	1	GINKGO BILOBA 'MAGYAR'	MAGYAR MAIDENHAIR TREE	2.5" CAL. B&B | 8'0" | 4'0" | AS SHOWN	FULL; DENSE; EVENLY BRANCHED; STRONG CENTRAL LEADER
LIR TUL	1	LIRODENDRON TULIPIFERA	TULIP POPLAR	3" CAL. B&B | 16'0" | 4'0" | AS SHOWN	FULL; DENSE; EVENLY BRANCHED; STRONG CENTRAL LEADER
QUE BIC	1	QUERCUS BICOLOR	SWAMP WHITE OAK	3" CAL. B&B | 14'0" | 4'0" | AS SHOWN	STRONG CENTRAL LEADER; EVENLY BRANCHED; FULL
QUE COC	1	QUERCUS COCCINEA	SCARLET OAK	4" CAL. B&B | 18'0" | 6'0" | AS SHOWN	FULL; DENSE; EVENLY BRANCHED; STRONG CENTRAL LEADER
QUE SHU	2	QUERCUS SHUMARDII 'PANACHE'	PANACHE SHUMARD OAK	B&B | 3.5" CAL. | 8' HT | 14' W | AS SHOWN	STRONG CENTRAL LEADER; EVENLY BRANCHED; FULL
TAX DIS	17	TAXODIUM DISTICHUM	BALD CYPRESS	B&B | 3.5" CAL. | 8' HT | 14' W | AS SHOWN	STRONG CENTRAL LEADER; EVENLY BRANCHED; FULL
UNDERSTORY DECIDUOUS TREES					
BET NIG	3	BETULA NIGRA	RIVER BIRCH	1.5" CAL. PER CANE | 16'-0" | 8'-0" | AS SHOWN	MULTI-STEM; MIN (3) CANE; FULL; MATCHING; EVENLY BRANCHED
EVERGREEN TREES					
CED DEO	1	CEDRUS DEODARA	DEODAR CEDAR	B&B | 16' / 8' / AS SHOWN	SPECIMEN; STRONG CENTRAL LEADER; EVENLY BRANCHED; FULL; DENSE
JUN HIL	7	JUNIPERUS VIRGINIANA 'HILLSPIRE'	HILLSPIRE RED CEDAR	2" CAL. B&B | 8' | 4' | AS SHOWN	STRONG CENTRAL LEADER; EVENLY BRANCHED; FULL
JUN TAY	4	JUNIPERUS VIRGINIANA 'TAYLOR'	HILLSPIRE EASTERN RED CEDAR	B&B | 8' HT. | 3' W. | AS SHOWN	STRONG CENTRAL LEADER; EVENLY BRANCHED; DENSE; FULL TO GROUND
MAG GRA	1	MAGNOLIA GRANDIFLORA 'BRACKEN'S BROWN BEAUTY'	BRACKEN'S BROWN BEAUTY SOUTHERN MAGNOLIA	2" CAL. B&B | 8' | 4' | AS SHOWN	STRONG CENTRAL LEADER; EVENLY BRANCHED; FULL; MATCHING
DECIDUOUS SHRUBS					
VIB OBO	20	VIBURNUM OBOVATUM 'MRS. SHILLER'S DELIGHT'	MRS. SHILLER'S DELIGHT DWARF WALTER'S VIBURNUM	3 GAL | 24" | 18" | AS SHOWN	FULL; DENSE; MATCHING
EVERGREEN SHRUBS					
DIS BLU	5	DISTYLIUM 'BLUE CASCADE'	BLUE CASCADE DISTYLIUM	3 GAL. / 24" / 18" / AS SHOWN	FULL; DENSE; MATCHING
ILE NAN	147	ILEX VOMITORIA 'NANA'	DWARF YAUPON HOLLY	3 GAL | 24" | 18" | AS SHOWN	FULL; DENSE; MATCHING
JUN GRE	24	JUNIPERUS VIRGINIANA 'GREY OWL'	GREY OWL DWARF RED CEDAR	15 GAL | 6' | 36" | AS SHOWN	FULL; DENSE; MATCHING
MYR CER	9	MYRICA CERIFERA	SOUTHERN WAX MYRTLE	#7 | — | 30" HT | 5' W | AS SHOWN	
ORNAMENTAL GRASSES					
AND GER	112	ANDROPOGON GERARDII 'BLACKHAWKS'	BIG BLUE STEM	2.25" CONT. | 48" HT | 24" | 24" O.C.	
CAR BIC	1,243	CAREX BICKNELLII	BICKNELL'S SEDGE	2.25" CONT. | — | — | 18" O.C.	
CAR CHE	398	CAREX CHEROKEENSIS	CHEROKEE SEDGE	2.25" CONT. | 12" HT | 6" | 18" O.C.	
MUL CAP	878	MULLENBERGIA CAPILLARIS 'PINK MUHLY'	PINK MUHLY GRASS	2.25" CONT. | — | — | 18" O.C.	
PAN VIR	226	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	2.25" CONT. | — | — | 36" O.C.	
SCH STA	734	SCHIZACHYRIUM SCOPARIUM 'STANDING OVATION'	UPRIGHT LITTLE BLUESTEM	2.25" CONT. | 8" HT | 12" W | 18" O.C.	5-7 BIBS, WELL ROOTED

0' 10' 20' 40'

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SHEET TITLE: PLANTING PLAN

SCALE (UNO):

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL: NORTH CAROLINA LANDSCAPE ARCHITECTURE C-098 SURFACE 678, P.A.

SEAL: NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1330 MATTHEW ERIC DAVIS

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. L161

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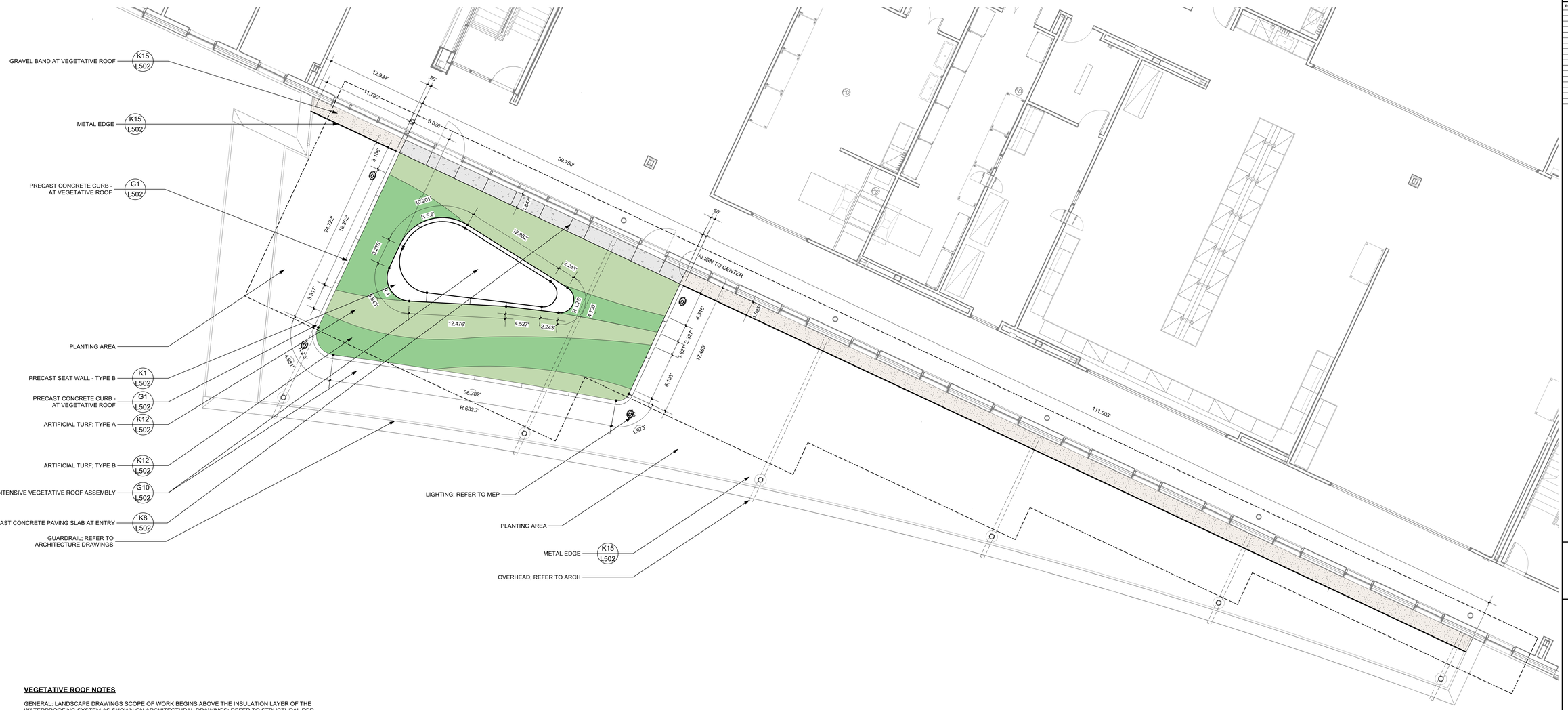

VEGETATIVE ROOF NOTES

GENERAL: LANDSCAPE DRAWINGS SCOPE OF WORK BEGINS ABOVE THE INSULATION LAYER OF THE WATERPROOFING SYSTEM AS SHOWN ON ARCHITECTURAL DRAWINGS; REFER TO STRUCTURAL FOR FOOTINGS FOR ALL SEATWALLS AND CURBS SHOWN ON LANDSCAPE DRAWINGS.

1. FINISH FLOOR ELEVATION (FFE) REFERS TO *TOP* OF PAVERS; TYP.
2. REFER TO ARCHITECT FOR ANY AND ALL WATERPROOFING SYSTEMS BELOW LANDSCAPE DRAINAGE MAT.
3. REFER TO ARCHITECT FOR INSULATION DEPTH REQUIREMENTS.
4. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR PAVER PEDESTAL SYSTEM. REFER TO MANUFACTURER FOR LAYOUT REQUIREMENTS.

MATERIAL LEGEND

SYMBOL	DESCRIPTION
	ARTIFICIAL TURF - TYPE A
	ARTIFICIAL TURF - TYPE B
	PRECAST CONCRETE SEATWALL; TYP
	PRECAST CONCRETE CURB
	GRAVEL BAND

A1 VEGETATIVE ROOF - MATERIAL & LAYOUT PLAN
3/16" = 1'-0"

0' 2.5' 5' 10'

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SHEET TITLE: VEGETATIVE ROOF PLAN
SCALE (UNO):

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL: NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT C-098 SURFACE 678, P.A.

SEAL: NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1330 MATTHEW ERIC DAVIS

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
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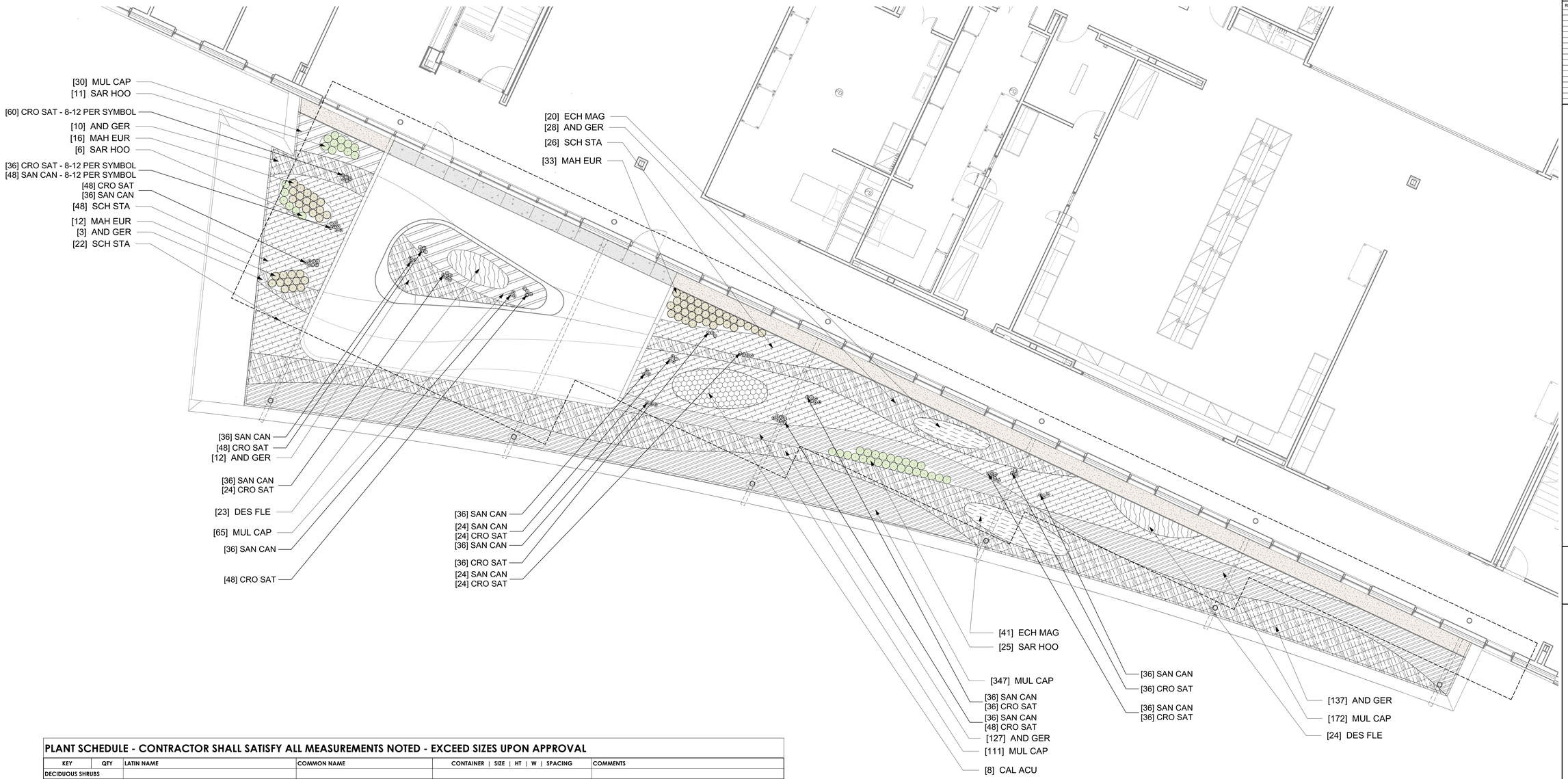

PLANT SCHEDULE - CONTRACTOR SHALL SATISFY ALL MEASUREMENTS NOTED - EXCEED SIZES UPON APPROVAL

KEY	QTY	LATIN NAME	COMMON NAME	CONTAINER | SIZE | HT | W | SPACING	COMMENTS
DECIDUOUS SHRUBS					
EVERGREEN SHRUBS					
MAH EUR	61	MAHONIA EURYBYACTEATA 'SOFT CARESS'	SOFT CARESS MAHONIA	CONT. | 18-24" | 36" | 36" O.C.	FULL, DENSE
SAR HOO	42	SARCOCOCCA HOOKERIANA VAR. HUMILIS	HIMALAYAN SWEETBOX	CONT. | 18" HT | 12" W | 24" O.C.	FULL, DENSE
PERENNIALS, ORNAMENTAL GRASSES, AND GROUNDCOVERS					
AND GER	180	ANDROPOGON GERARDII 'BLACKHAWKS'	BIG BLUE STEM	2.25" CONT. | 48" HT | 24" | 24" O.C.	
CAL ACU	8	CALAMAGROSTIS X ACUTIFLORA 'KARL FORESTER'	'KARL FORESTER' FEATHER REED GRASS	1 QT/ 18" / 18"/ 30" O.C.	30" O.C., 7-10 NIBS WELL ROOTED
DES FLE	47	DESCHAMPSIA FLEXUOSA	CRINKLED HAIR GRASS	CONT./ 12" / 4" / 12" O.C.	5-7 BIBS, WELL ROOTED
MUL CAP	790	MULLENBERGIA CAPILLARIS 'PINK MUHLY'	PINK MUHLY GRASS	2.25" CONT. | -- | -- | 18" O.C.	
SCH STA	218	SCHIZACHYRIUM SCOPARIUM 'STANDING OVATION'	UPRIGHT LITTLE BLUESTEM	2.25" CONT. | 8" HT | 12" W | 18" O.C.	5-7 BIBS, WELL ROOTED
ECH MAG	20	ECHINACEA PURPUREA 'MAGNUS'	MAGNUS CONFLOWER	1 GAL. / 12" HT/ 12"W / 12" O.C.	
BULB					
CRO SAT	504	CROCUS SATIVUS	SAFFRON FALL BLOOMING CROCUS	GROUPINGS OF 12 PER SYMBOL ON PLANS	----
SAN CAN	456	SANGUINARIA CANADENSIS	BLOODROOT	GROUPINGS OF 12 PER SYMBOL ON PLANS	----

A1 VEGETATIVE ROOF - PLANTING PLAN
3/16" = 1'-0"

0' 2.5' 5' 10'

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SHEET TITLE
VEGETATIVE ROOF PLAN

SCALE (UNO)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL
NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT C-098 SURFACE 678, P.A.

SEAL
NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1330 MATTHEW ERIC DAVIS

ISSUE DATE
12/20/2023

JOB NO.
11751-00

DWG. NO.
L163

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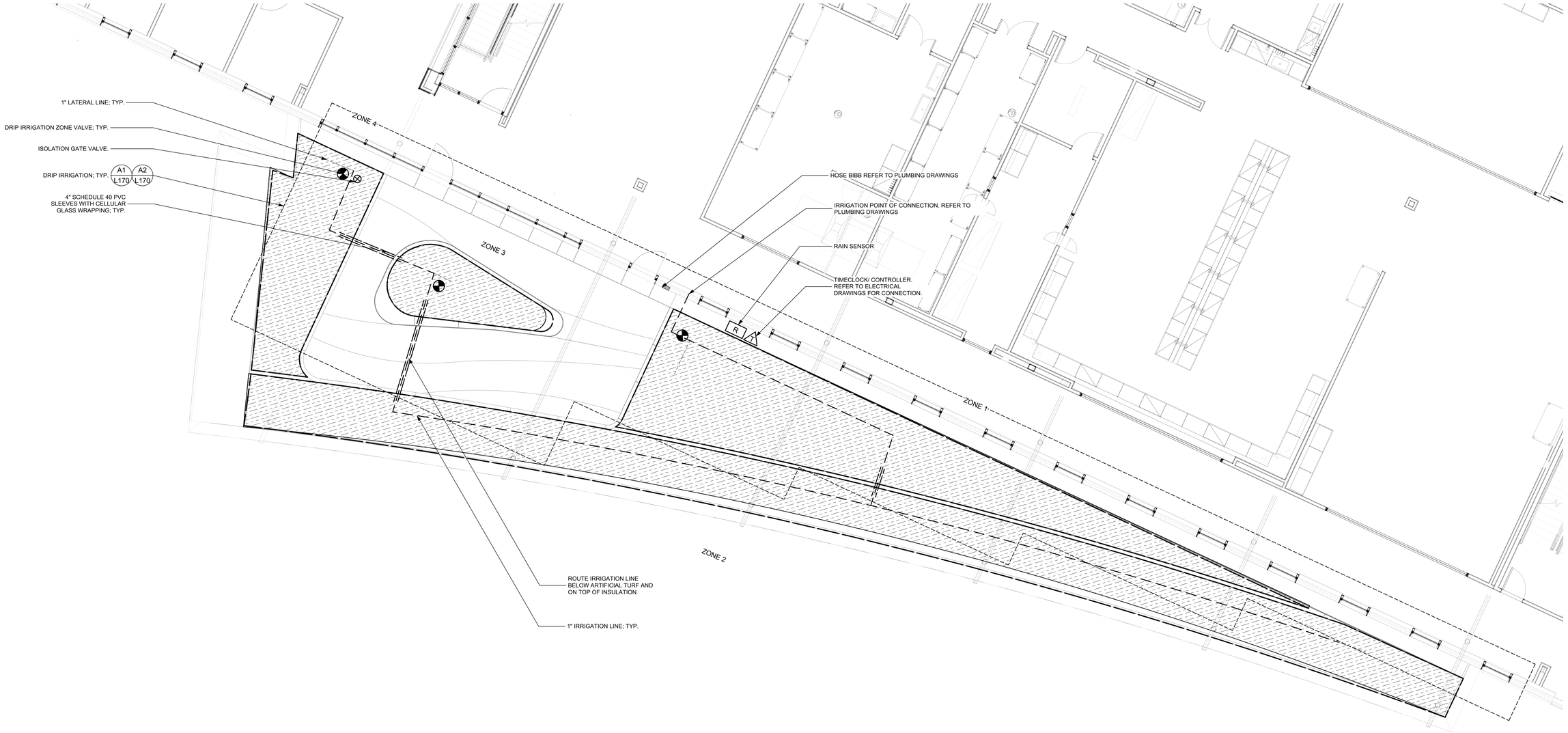
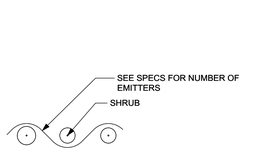


D1 IRRIGATION PLAN
1" = 10'-0"

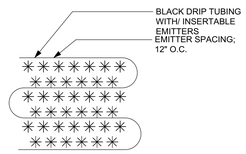
0' 05' 10' 20'

IRRIGATION NARRATIVE:

THE IRRIGATION SYSTEM WILL REQUIRE THE USE OF RECYCLED RAINWATER COLLECTED FROM AND STORED ON THE SITE. THE SYSTEM WILL UTILIZE DRIP IRRIGATION FOR ALL AREAS. THE SYSTEM WILL REQUIRE 50 GALLONS PER MINUTE OF FLOW WITH AN OPERATIONAL WORKING PRESSURE OF 30PSI



A1 DRIP LINE LAYOUT THROUGH SHRUBS
NTS



A2 DRIP LINE LAYOUT THROUGH GROUNDCOVER
NTS

VEGETATIVE ROOF IRRIGATION NOTES

GENERAL: THE IRRIGATION PLAN SHOWN IS TO SHOW THE REQUIRED METHOD OF COVERAGE. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE A SOUND, SINGLE SOURCE IRRIGATION SYSTEM CAPABLE OF DELIVERING WATER WITHIN THE MANUFACTURE'S PERFORMANCE SPECIFICATIONS. SUBSTANTIAL CHANGES TO PLAN SHALL BE APPROVED PRIOR TO INSTALLATION.

1. WORKING PRESSURE BASED ON 30 PSI. NOTIFY THE ARCHITECT OF ANY DEVIATIONS.
2. WIRE IN MAIN LINE DITCH ONLY - WIRE TO BE 14 GA.
3. TIME CLOCK TO BE HARDWIRED TO THE POWER SUPPLY. POWER SUPPLY WILL BE PROVIDED TO WITHIN TEN FEET OF THE TIME CLOCK. COORDINATE TIME CLOCK LOCATION WITH OWNER.
4. CONTRACTOR TO SUPPLY SLEEVING AS REQUIRED.
5. PROVIDE DRIP IRRIGATION FOR ALL SHRUB AND GROUNDCOVER APPLICATIONS AS NOTED ON PLANS.
6. CONTRACTOR SHALL PROVIDE AN AS BUILT DRAWING WITH OPERATION MANUAL BOUND IN AN EASY TO USE BINDER. DEMONSTRATE IRRIGATION SYSTEM USE TO OWNER AND THE LANDSCAPE ARCHITECT AT PROJECT COMPLETION.
7. THE FINISHED IRRIGATION SYSTEM SHALL HAVE COMPLETELY SEPARATE TURF AND SHRUB ZONES.
8. ALWAYS DIRECT IRRIGATION AWAY FROM THE BUILDING AND SIGNAGE.
9. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF IRRIGATION SYSTEM FOR APPROVAL PRIOR TO CONSTRUCTION.
10. IRRIGATION SLEEVES SHALL BE 4 INCHES DIAMETER. EXTEND 12 INCHES BEYOND EDGE OF WALK AND CAP ENDS. PROVIDE FLAG INDICATING LOCATION AND UPDATE CONTRACTOR RECORD SET WITH FINAL INSTALLED LOCATION.

IRRIGATION LEGEND

SYMBOL	DESCRIPTION
	DRIP IRRIGATION
	DRIP IRRIGATION ZONE VALVE
	ISOLATION GATE VALVE
R	RAIN SENSOR
T	TIMECLOCK/ CONTROLLER
	1" IRRIGATION LINE
	1" LATERAL LINE
	PVC SLEEVE

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VEGETATIVE ROOF IRRIGATION PLAN

SCALE (U.N.O.)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL
NORTH CAROLINA C-098 SURFACE 678, P.A.

SEAL
NORTH CAROLINA 1330 REGISTERED LANDSCAPE ARCHITECT ANDREW ERIC DAVIS

ISSUE DATE
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JOB. NO.
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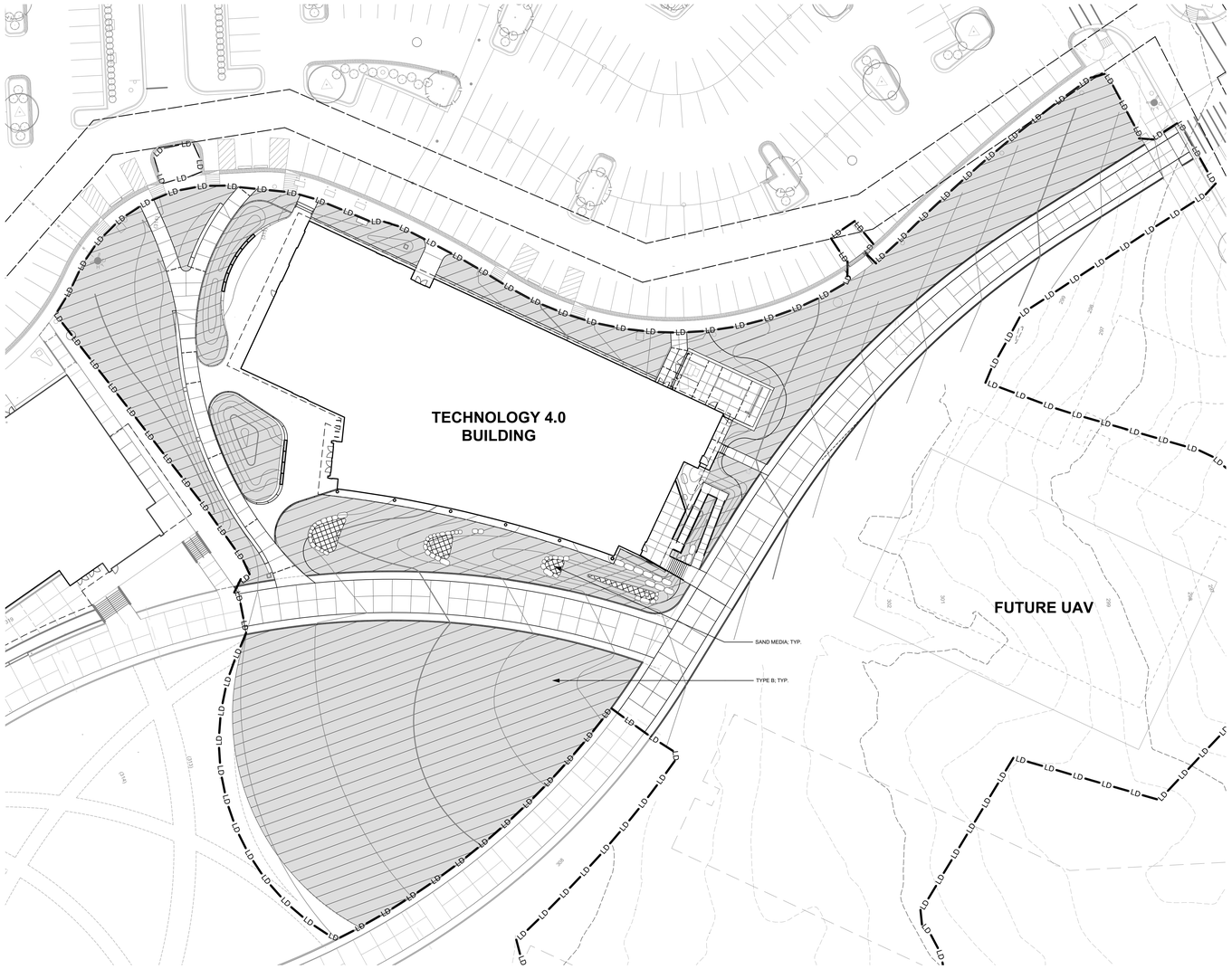

SOIL LEGEND

SYMBOL	TYPE	DESCRIPTION
	TYPE B	NATIVE STOCKPILED SURFACE TOPSOIL SUPPLEMENTED WITH PLANTING SOIL TYPE C
	TYPE C	IMPORTED SANDY LOAM TOPSOIL
	SAND MEDIA	36" MIN. DEPTH SAND MEDIA

NOTE:
REFER TO SPECS FOR SOIL DEPTHS AND INFORMATION

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SHEET TITLE
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11751-00

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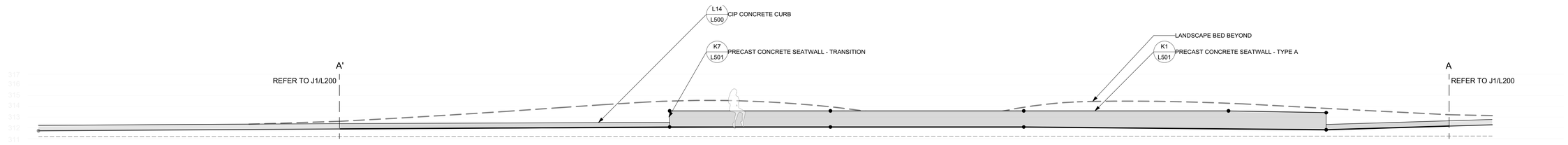
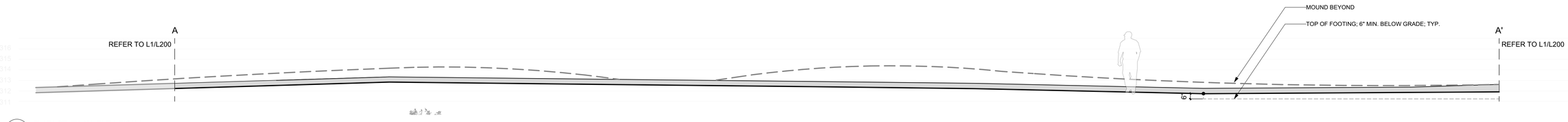


L1 PLAZA SEATWALL ELEVATION A' - A

1/4" = 1'-0"

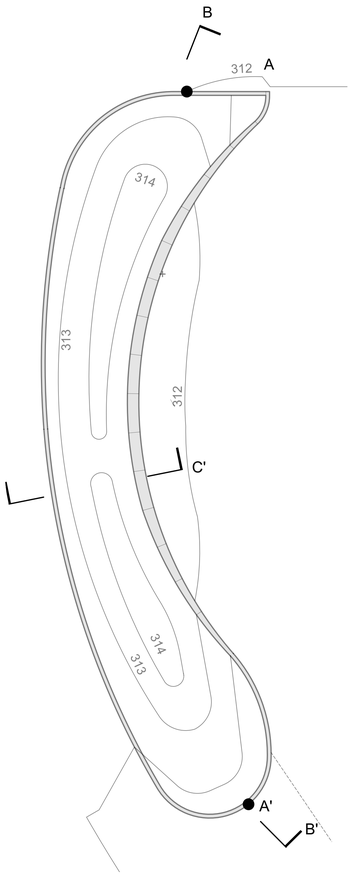
0' 1/8' 1/4' 1/2'



H1 PLAZA SEATWALL ELEVATION A - A'

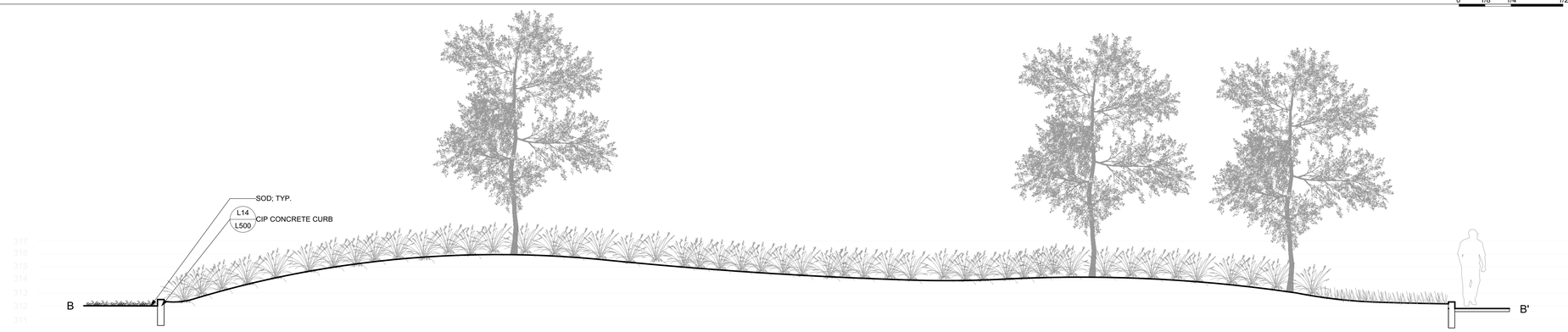
1/4" = 1'-0"

0' 1/8' 1/4' 1/2'



A1 KEY MAP

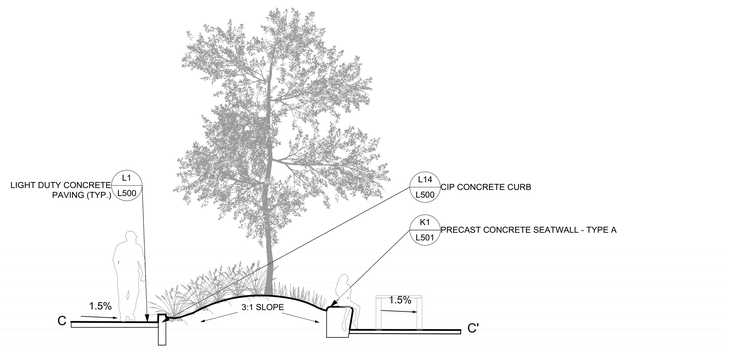
N.T.S



E4 PLAZA SEATWALL SECTION B - B'

1/4" = 1'-0"

0' 1/8' 1/4' 1/2'



B4 PLAZA SEATWALL SECTION C - C'

1/4" = 1'-0"

0' 1/8' 1/4' 1/2'

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SHEET TITLE
SITE ELEVATIONS AND SECTIONS

SCALE (U.N.O.)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING

Eastern Wake Site

CORPORATE SEAL

NORTH CAROLINA C-098 SURFACE 678, P.A.

SEAL

NORTH CAROLINA 1330 MATTHEW ERIC CANADA

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11751-00

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L200

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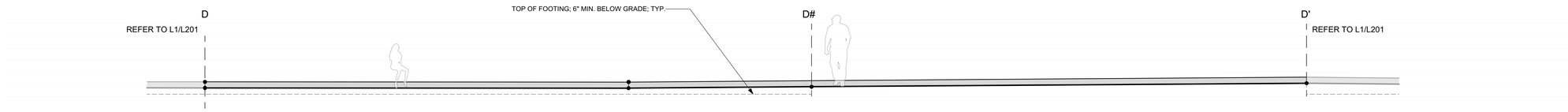
L1 PLAZA SEATWALL ELEVATION D - D' - D#

1/4" = 1'-0"

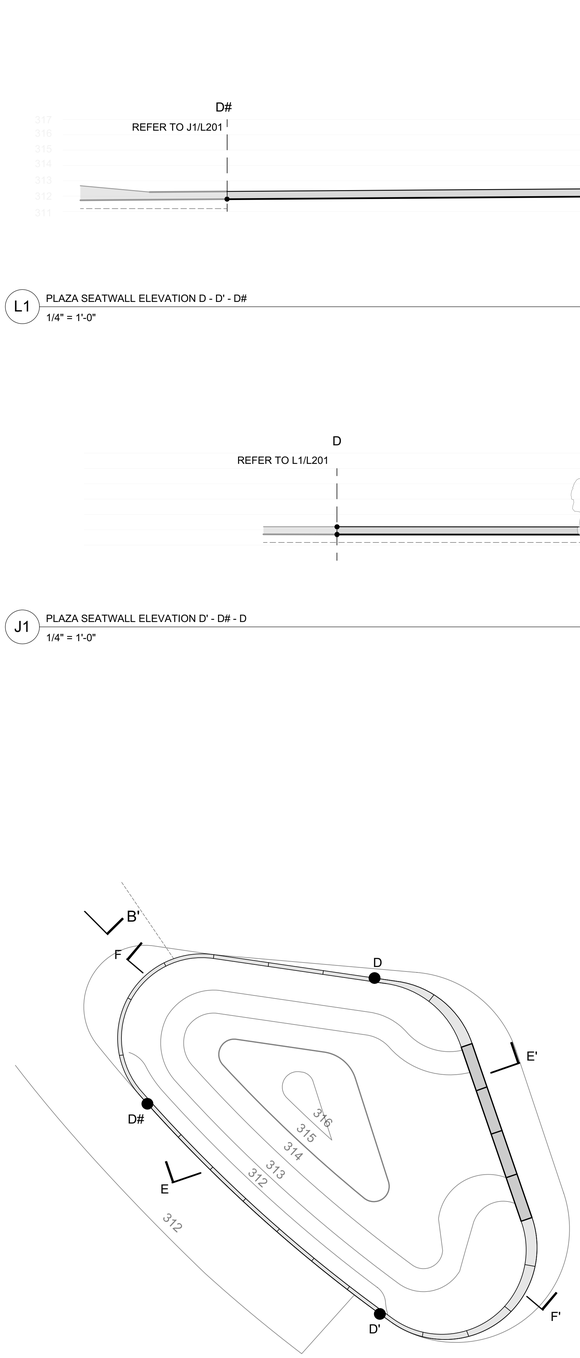
0' 1/8' 1/4' 1/2'



J1 PLAZA SEATWALL ELEVATION D' - D# - D

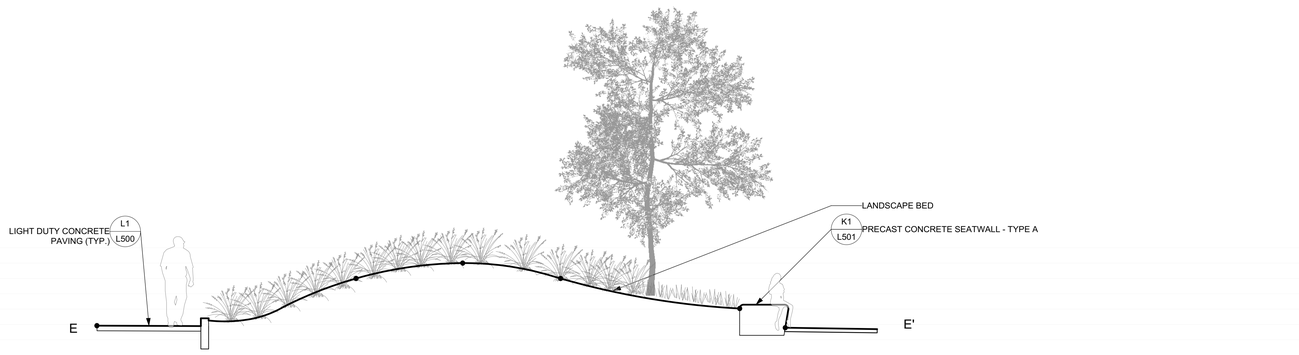
1/4" = 1'-0"

0' 1/8' 1/4' 1/2'



C1 KEY MAP

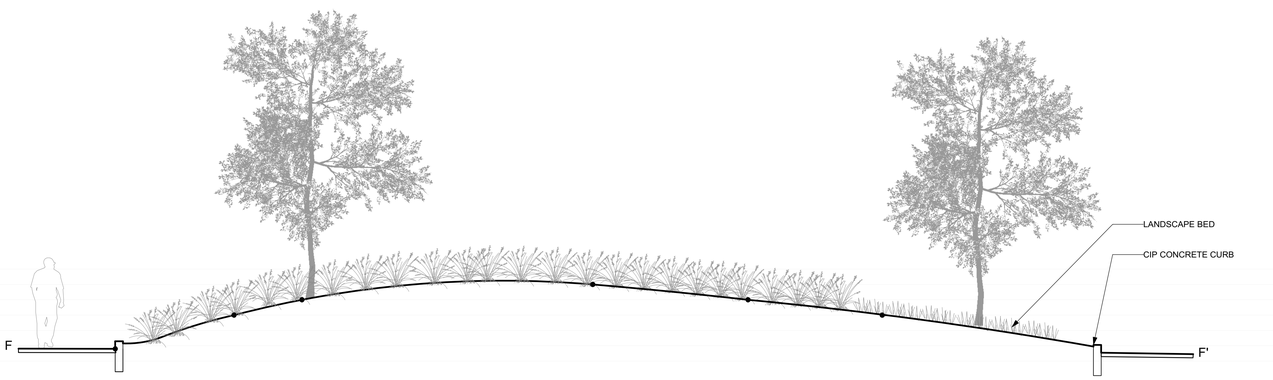
N.T.S



E6 PLAZA SEATWALL SECTION E - E'

1/4" = 1'-0"

0' 1/8' 1/4' 1/2'



B6 PLAZA SEATWALL SECTION F - F'

1/4" = 1'-0"

0' 1/8' 1/4' 1/2'

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SITE ELEVATIONS AND SECTIONS

SCALE (U.N.O.)

Eastern Wake Site

WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING

CORPORATE SEAL
NORTH CAROLINA
LANDSCAPE ARCHITECTURE
C-098
SURFACE 678, P.A.

SEAL
NORTH CAROLINA
REGISTERED LANDSCAPE ARCHITECT
1330
ANDREW ERIC DAVIS

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JOB NO.
11751-00

DWG. NO.
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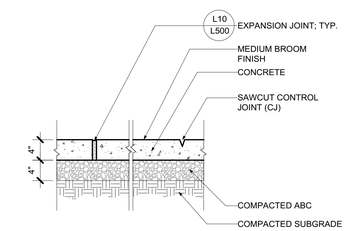
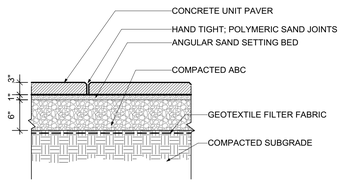


SECTION

L1 LIGHT DUTY CONCRETE PAVING (TYP.)
1"=1'-0"
* JOINT IS 1/4 DEPTH OF CONCRETE DEPTH

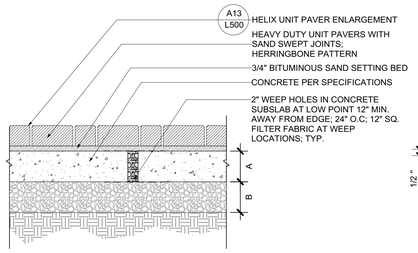


SECTION

REFER TO MANUFACTURERS SPECIFICATIONS FOR DEPTH OF BASE MATERIALS & INSTALLATION (TYP.)

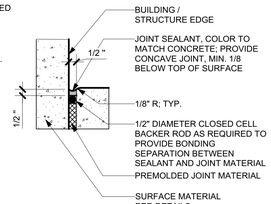
MATERIAL	SIZE	DEPTH
CONCRETE PAVER; EDGE: STRAIGHT, COLOR; 70% LIMESTONE GRAY, 30% CHARCOAL FINISH: TUDOR	6 X 12"	3"

L4 MEDIUM DUTY CONCRETE UNIT PAVERS (TYP.)
1"=1'-0"

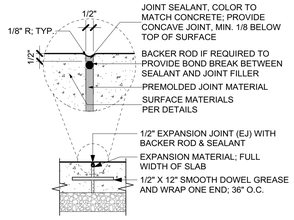


	MATERIAL	DEPTH	NOTES
A	CONCRETE*	6" *	4,000 PSI
B	COMPACTED ABC*	6" *	COMPACTION: 98%

L7 HEAVY DUTY CONCRETE UNIT PAVERS
1"=1'-0" * PER GEOTECHNICAL REPORT
NOTE: MAXIMUM JOINT SPACING: 12' IN ALL DIRECTIONS



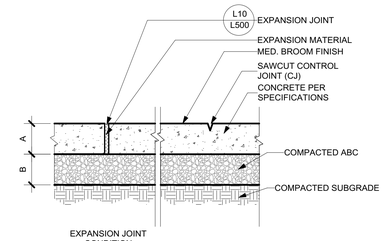
#1 EXPANSION JOINT AT STRUCTURE/BUILDING EXTERIOR TYP. SECTION



EXPANSION JOINT, TYP

L10 EXPANSION JOINT
1"=1'-0"

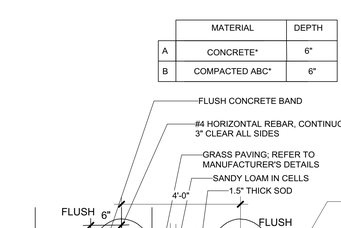
	MATERIAL	DEPTH
A	CONCRETE*	6"
B	COMPACTED ABC*	6"



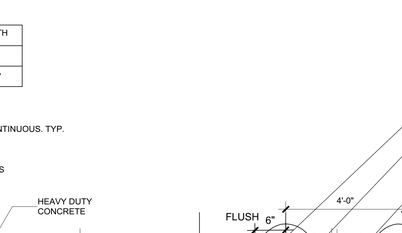
EXPANSION JOINT CONDITION

SECTION SECTION

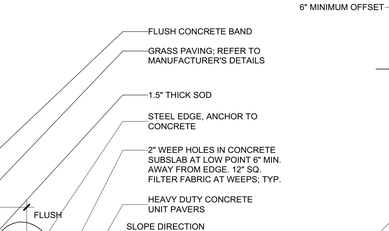
L14 HEAVY DUTY CONCRETE PAVING (TYP.)
1"=1'-0"
* JOINT IS 1/4 DEPTH OF CONCRETE DEPTH
* PER GEOTECHNICAL REPORT



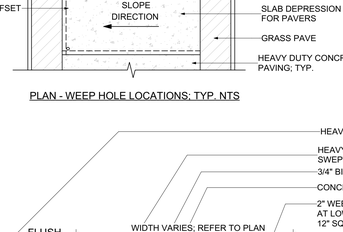
UNIT PAVER / LANDSCAPE BED TRANSITION



UNIT PAVER / CONCRETE TRANSITION

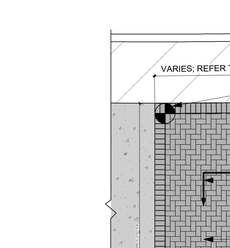


UNIT PAVER / DECORATIVE STONE TRANSITION

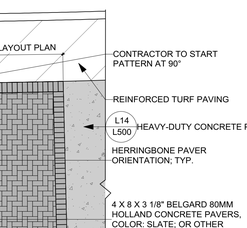


LIGHT DUTY CONCRETE / DECORATIVE STONE TRANSITION

H1 PAVEMENT TRANSITIONS
1"=1'-0"



RAISED CONDITION



FLUSH CONDITION

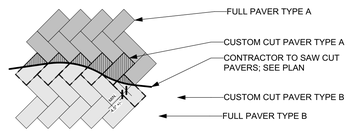
H12 CIP CONCRETE CURB
1"=1'-0"

SECTION - UNDER BUILDING OVERHANG

F1 DECORATIVE STONE AT BUILDING
1"=1'-0"

SECTION

F9 TURN DOWN CONCRETE EDGE
1"=1'-0"
*NOTE: CONTRACTOR TO VERIFY LOCATION IN FIELD AND IDENTIFY ANY CONFLICTS WITH EXISTING UTILITIES.



45° PATTERN

E13 PLAZA PAVING PATTERN
1/2"=1'-0"

	MATERIAL	DEPTH
A	CONCRETE*	6"
B	COMPACTED ABC*	6"

FLUSH CONCRETE BAND TO GRASS PAVE TO CONCRETE

CONCRETE BAND TO GRASS PAVE TO UNIT PAVING

PLAN - WEEP HOLE LOCATIONS; TYP. NTS

CONCRETE TO UNIT PAVER

A13 HELIX UNIT PAVER BANDING ENLARGEMENT
1/4"=1'-0"

A1 FIRE LANE
1"=1'-0"

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SITE DETAILS - PAVING
SCALE (UNO)

PROJECT
WAKE TECH COMMUNITY COLLEGE
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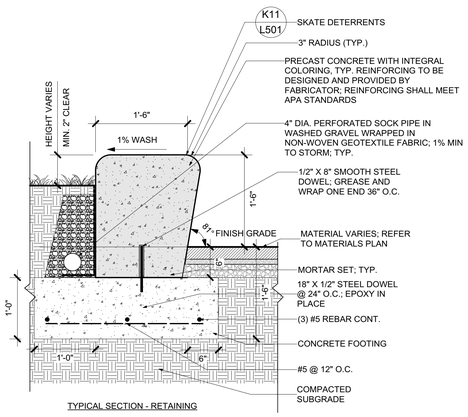
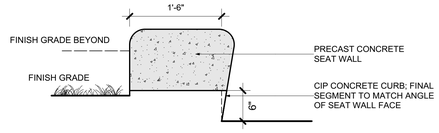


TYPICAL SECTION - RETAINING

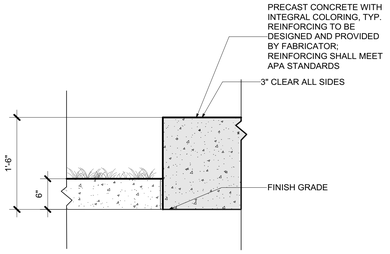
K1 PRECAST CONCRETE SEATWALL

1"=1'-0"

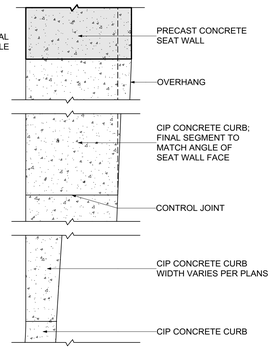
* CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW/ APPROVAL PRIOR TO CONSTRUCTION
* REFER TO GRADING PLANS FOR WALL HEIGHTS/ TOP OF WALL ELEVATIONS



TYPICAL SIDE ELEVATION - CURB TO WALL



TYPICAL ELEVATION - TRANSITION TO CURB

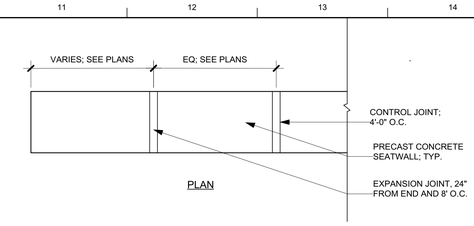


TYPICAL PLAN - CURB TO WALL

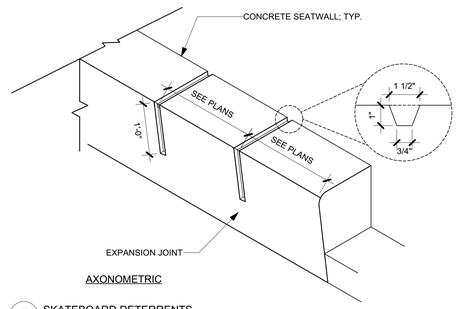
K7 PRECAST CONCRETE SEATWALL - TRANSITION

1"=1'-0"

* CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW/ APPROVAL PRIOR TO CONSTRUCTION
* REFER TO GRADING PLANS FOR WALL HEIGHTS/ TOP OF WALL ELEVATIONS



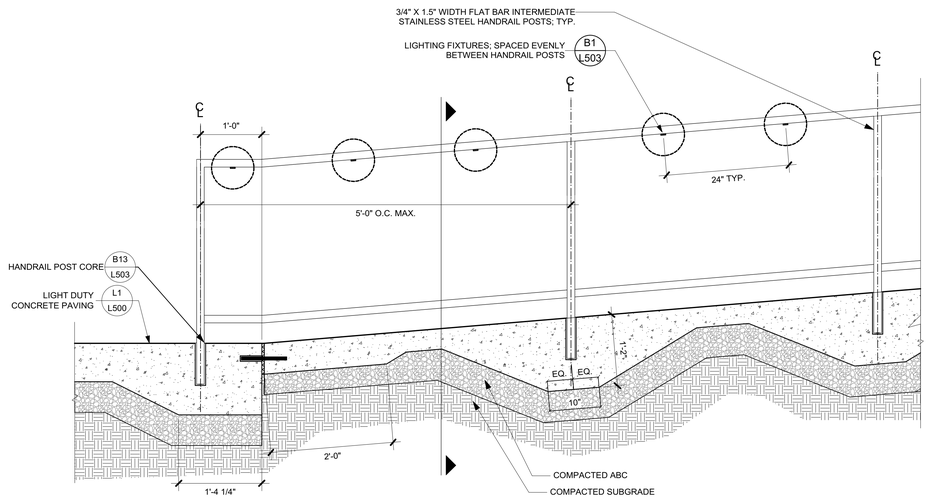
PLAN

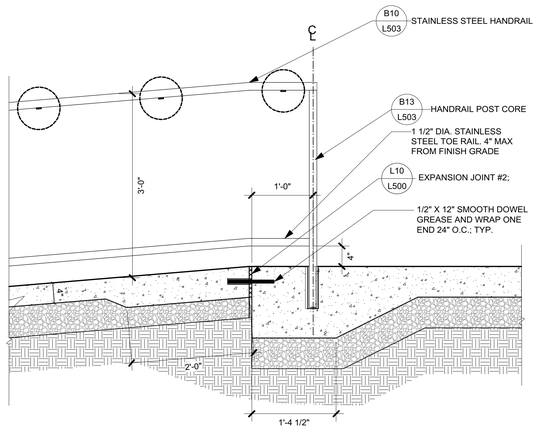


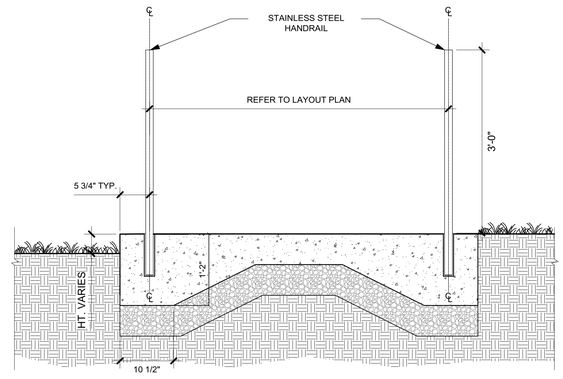
AXONOMETRIC

K11 SKATEBOARD DETERRENTS

SCALE : NTS



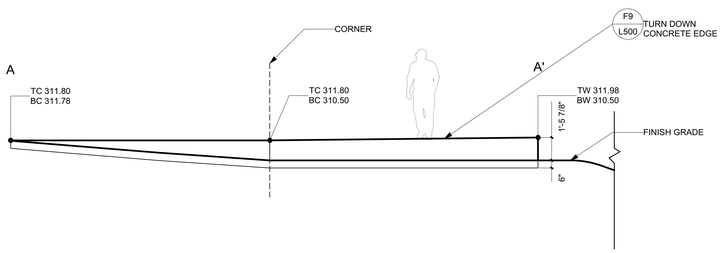




TYPICAL CONDITION

E1 CONCRETE RAMP WITH HANDRAILS

SCALE: 1"=1'-0"



B1 TURNDOWN CONCRETE EDGE SECTION A- A'

1/4" = 1'-0"

LORD AECK SARGENT

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SHEET TITLE
SITE DETAILS - PRECAST CONCRETE SEATWALL

SCALE (U.N.O.)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING

Eastern Wake Site

CORPORATE SEAL

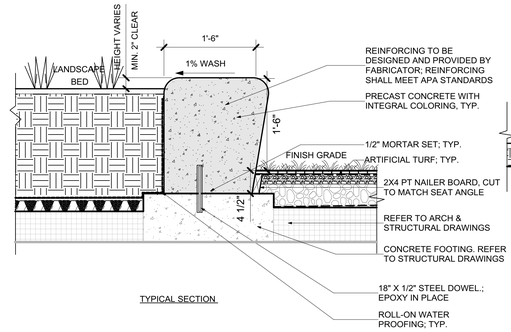
SEAL

ISSUE DATE
12/20/2023

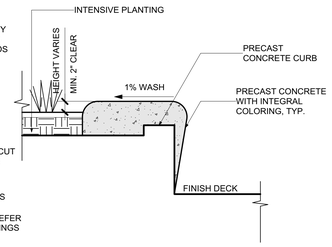
JOB. NO.
11751-00

DWG. NO.
L501

NOT FOR CONSTRUCTION



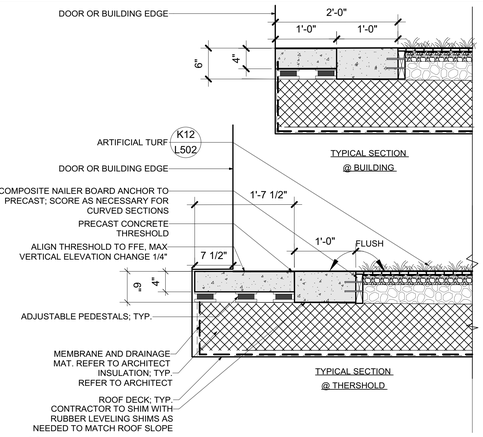
TYPICAL SECTION



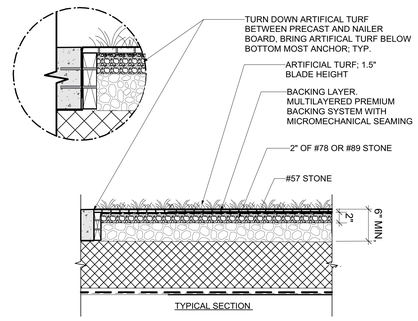
TYPICAL ELEVATION - AT PRECAST CURB

K1 PRECAST CONCRETE SEAT WALL - TYPE B
SCALE: 1" = 1'-0"

NOTE:
1. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO FABRICATION, CONSTRUCTION, AND INSTALLATION
2. CONTRACTOR TO VERIFY LOCATION IN FIELD AND IDENTIFY ANY CONFLICTS WITH EXISTING UTILITIES.
3. PROVIDE 4'-0" LONG MOCK-UP FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT. MOCKUP MAY NOT BE USED AS PART OF FINAL CONDITION.



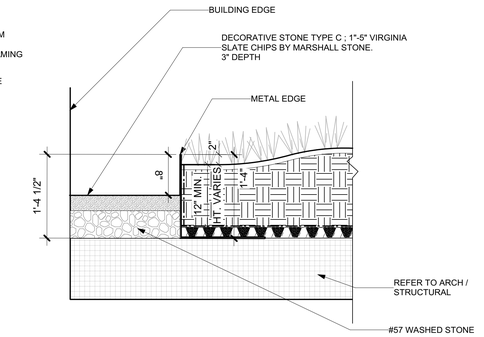
K8 PRECAST CONCRETE PAVING SLAB AT ENTRY
SCALE: 1" = 1'-0"



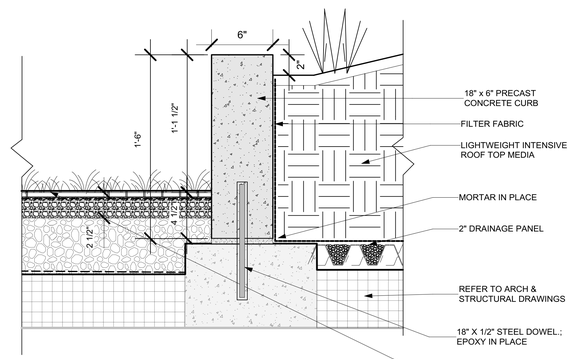
ARTIFICIAL TURF	COLOR
TYPE A	FIELD / OLIVE GREEN
TYPE B	FILED / CLOVER GREEN

*REQUEST TO SAMPLES TO BE REVIEWED AND APPROVED BY L.A. (SPCES)

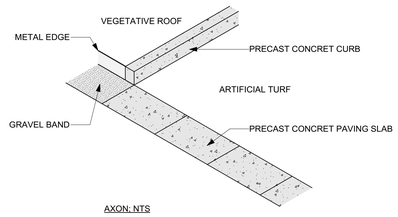
K12 ARTIFICIAL TURF
SCALE: 1" = 1'-0"



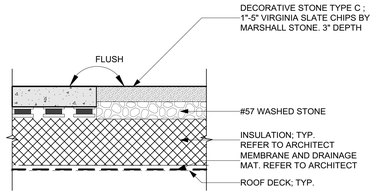
K15 GRAVEL BAND AT VEGETATIVE ROOF
SCALE: 1" = 1'-0"



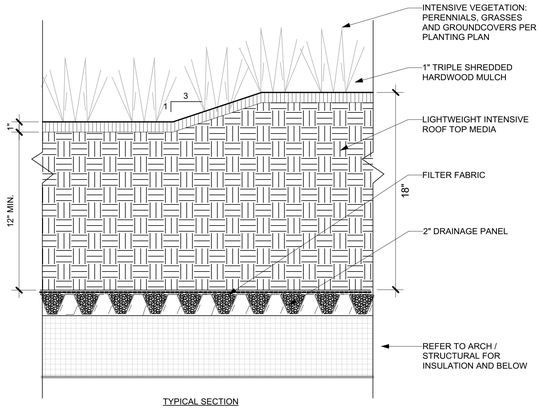
SECTION, TYP.



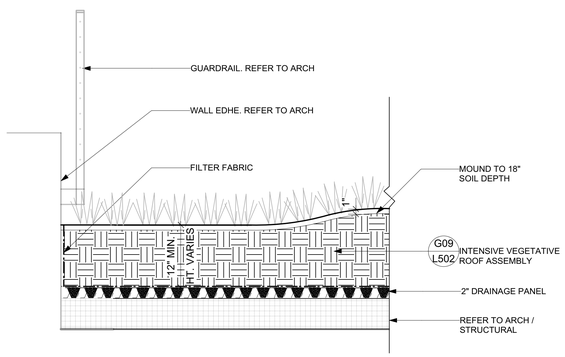
AXON: NTS



SECTION



TYPICAL SECTION



TYPICAL SECTION

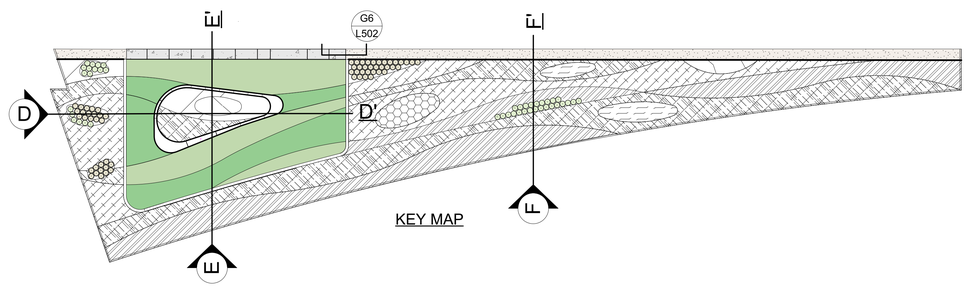
G1 PRECAST CONCRETE CURB - AT VEGETATIVE ROOF
SCALE: 2" = 1'-0"

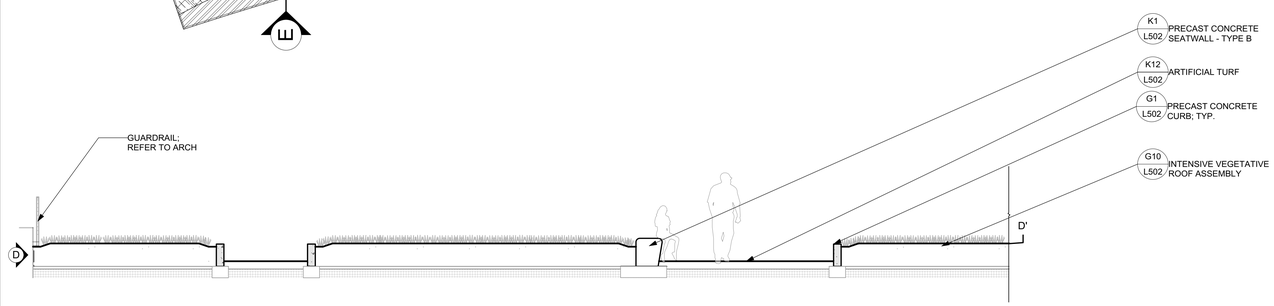
G6 PRECAST CONCRETE PAVING SLAB TO GRAVEL
SCALE: 1" = 1'-0"

G10 INTENSIVE VEGETATIVE ROOF ASSEMBLY
SCALE: 1/2" = 1'-0"

NOTE:
1. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO FABRICATION, CONSTRUCTION, AND INSTALLATION
2. CONTRACTOR TO VERIFY LOCATION IN FIELD AND IDENTIFY ANY CONFLICTS WITH EXISTING UTILITIES.
3. PROVIDE 4'-0" LONG MOCK-UP FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT. MOCKUP MAY NOT BE USED AS PART OF FINAL CONDITION.

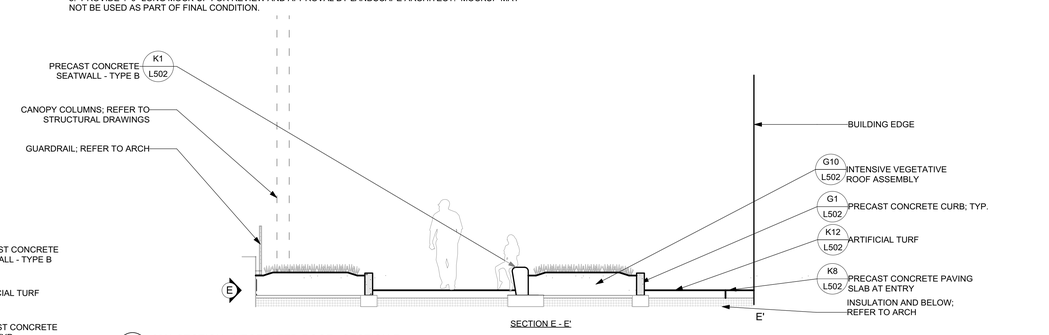
G14 INTENSIVE VEGETATIVE ROOF ASSEMBLY - GUARDRAIL EDGE
SCALE: 1" = 1'-0"





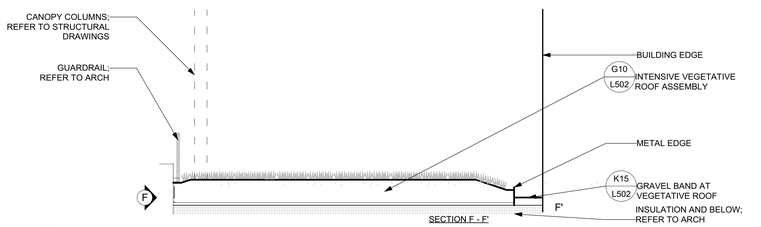
SECTION D - D'

B1 60% SECTION - VEGETATED ROOF - SECTION D
* CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW/ APPROVAL PRIOR TO CONSTRUCTION
* REFER TO GRADING PLANS FOR WALL HEIGHTS/ TOP OF WALL ELEVATIONS



SECTION E - E'

C11 60% SECTION - VEGETATED ROOF - SECTION E
* CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW/ APPROVAL PRIOR TO CONSTRUCTION
* REFER TO GRADING PLANS FOR WALL HEIGHTS/ TOP OF WALL ELEVATIONS



SECTION F - F'

A11 60% SECTION - VEGETATED ROOF - SECTION F
* CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW/ APPROVAL PRIOR TO CONSTRUCTION
* REFER TO GRADING PLANS FOR WALL HEIGHTS/ TOP OF WALL ELEVATIONS

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SHEET TITLE: SITE DETAILS - VEGETATIVE ROOF

SCALE (U.N.O.)

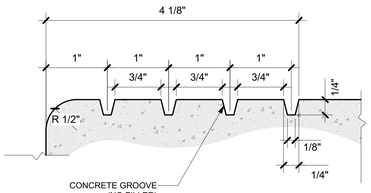
JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL: NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT C-098 SURFACE 678, P.A.

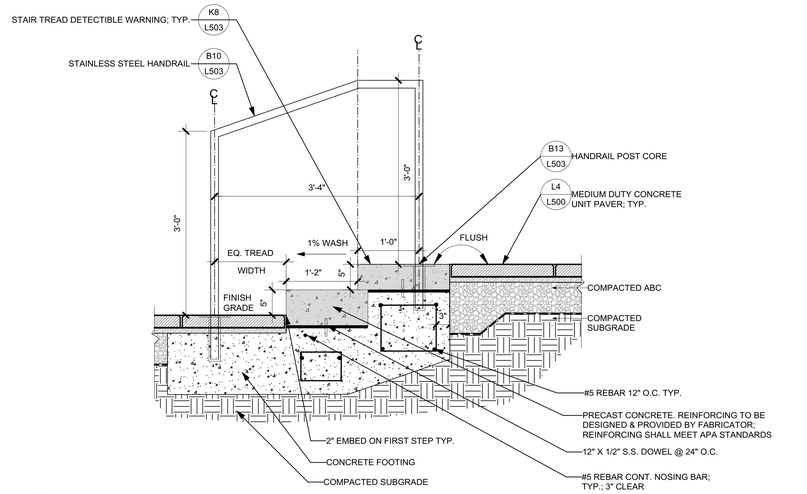
SEAL: NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1330 MATTHEW ERIC DAWSON

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. L502

NOT FOR CONSTRUCTION



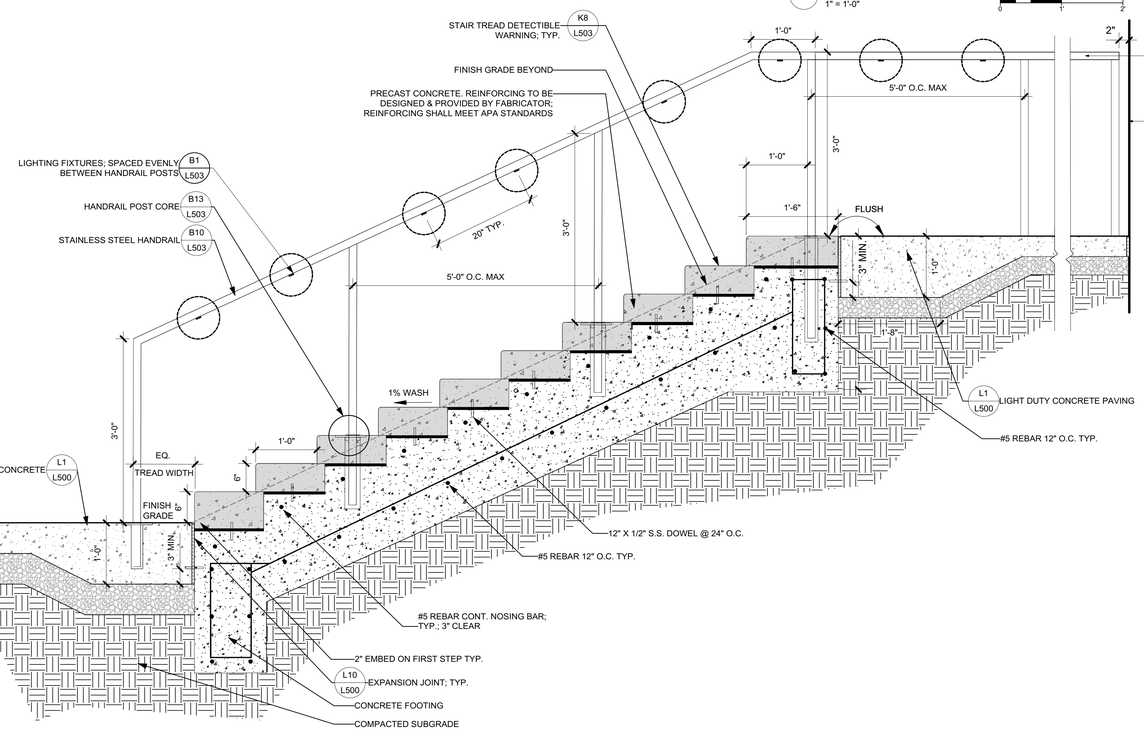
SECTION



K11 PRECAST STAIRS - 2 RISERS
1" = 1'-0"

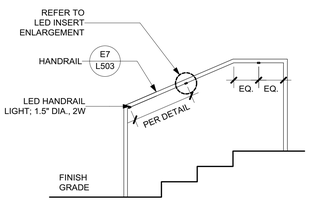
* CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW/ APPROVAL PRIOR TO CONSTRUCTION

K8 STAIR TREAD DETECTIBLE WARNING
1" = 1'-0"



D1 PRECAST STAIRS; 10 RISERS
1" = 1'-0"

* CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW/ APPROVAL PRIOR TO CONSTRUCTION

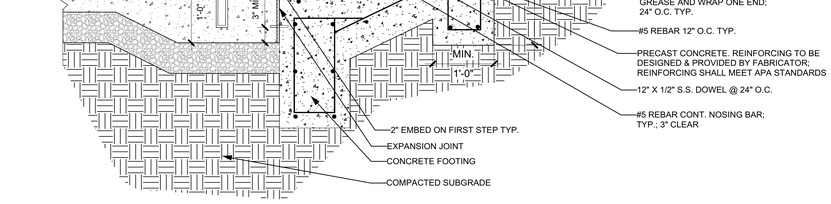


*DRIVER LOCATIONS TO BE COORDINATED WITH LIGHTING ENGINEER PLANS.

LED LIGHT INSERT
ENLARGEMENT; NTS

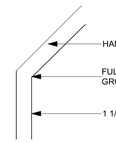
B1 HANDRAIL WITH LED LIGHT POD INSERT
NTS

NOTE:
1. CONTRACTOR TO SUBMIT PRODUCT DATA FOR LED HANDRAIL LIGHT PRODUCT.
2. INSTALL LIGHTING ACCORDING TO MANUFACTURER INSTRUCTIONS.
3. CONTRACTOR SHALL PROVIDE FULL LENGTH HANDRAIL MOCKUP FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. MOCKUP SHALL NOT BE USED AS PART OF FINAL CONSTRUCTION.

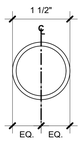


B11 PRECAST STAIRS - 3 RISERS
1" = 1'-0"

* CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW/ APPROVAL PRIOR TO CONSTRUCTION



HANDRAIL PROFILE
AT ENDS; NTS



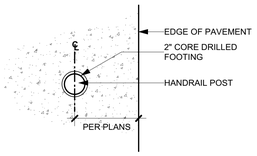
HANDRAIL PIPE SECTION;
NTS

HANDRAIL NOTES:
1. ALL STEEL SHALL BE WELDED AT STEEL TO STEEL CONNECTIONS. WELDS SHALL BE CONTINUOUS AND FINISHED SMOOTH WITHOUT SHARP EDGES.
2. CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO FABRICATION TO ENSURE COMPLIANCE WITH CODE.
3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
4. HAND RAIL POST SPACING 5'-0" O.C. MAX., SPACE RAILS EQUALLY

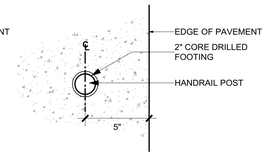
STRUCTURAL PERFORMANCE NOTES:
DEFLECTION LIMITS:
1) MAXIMUM DEFLECTION LIMIT: 0.60 INCHES UNLESS CURRENT CODE REQUIRES MORE STRINGENT LIMIT.

1. LIMIT BASED ON NC STATE BUILDING CODE AND INTERNATIONAL BUILDING CODE FOR STRUCTURAL SYSTEM REQUIREMENTS TO NOT EXCEED MOST RESTRICTIVE DEFLECTION LIMITS.

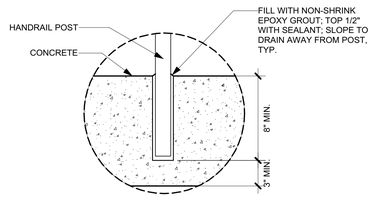
B10 STAINLESS STEEL HANDRAIL
NTS



PLAN VIEW - CENTRAL HANDRAIL; NTS



PLAN VIEW - SIDE HANDRAIL; NTS



SECTION: NTS

CONDITION A: POST CORE DRILL IN CONCRETE

B13 HANDRAIL/ GUARDRAIL POST CORE DRILL IN PAVEMENT ENLARGEMENT
NTS

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f: 919-414-9999

SHEET TITLE
SITE DETAILS - RAMP/ STAIRS

SCALE (U.N.O.)

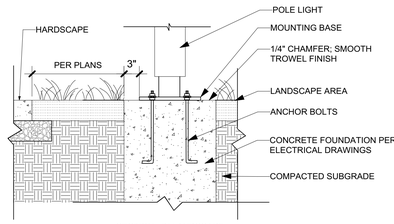
JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL
NORTH CAROLINA
C-098
SURFACE 678, P.A.

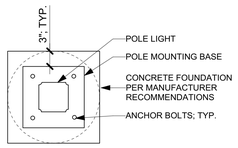
SEAL
NORTH CAROLINA
LANDSCAPE ARCHITECTURE
1330
REGISTERED
ANDREW ERIC DAVIS

ISSUE DATE
12/20/2023
JOB NO.
11751-00
DWG. NO.
L503

NOT FOR CONSTRUCTION



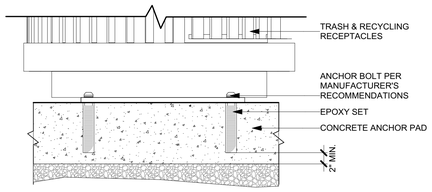
SECTION - IN LANDSCAPE



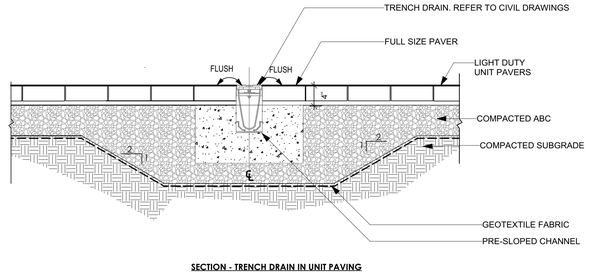
TOP VIEW

L1 POLE LIGHT FOUNDATION IN LANDSCAPE AREA
NTS

NOTE:
1. CONTRACTOR TO SUBMIT PRODUCT DATA AND SHOP DRAWINGS FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO MANUFACTURING AND INSTALLATION.



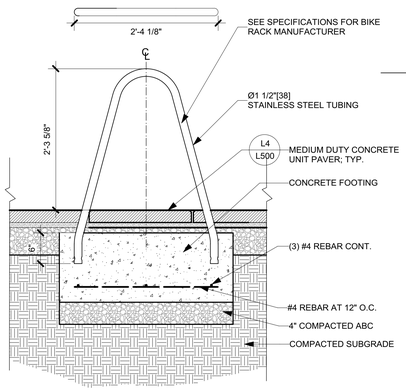
L7 TRASH & RECYCLING RECEPTACLE MOUNTING
0" 6" 12"



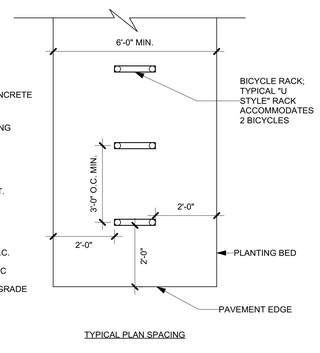
SECTION - TRENCH DRAIN IN UNIT PAVING

K11 TRENCH DRAIN IN UNIT PAVERS
1"=1'-0"
0 1' 2'

NOTE:
1. TRENCH DRAIN LAYOUT TO BE REVIEWED AND APPROVED BY LANDSCAPE ARCHITECT IN FIELD PRIOR TO INSTALLATION.

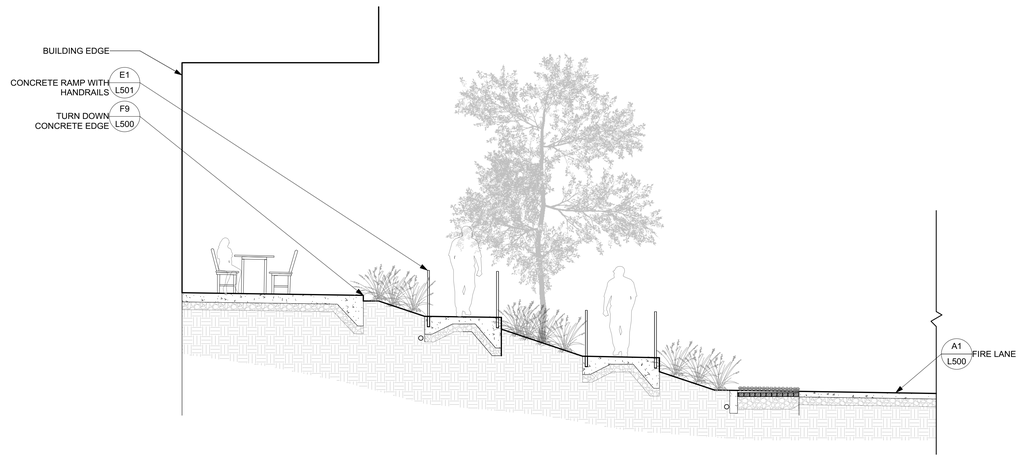


SECTION

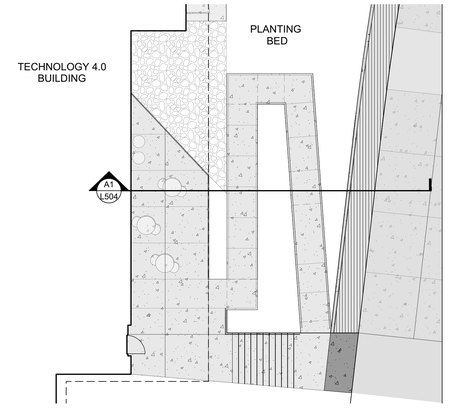


TYPICAL PLAN SPACING

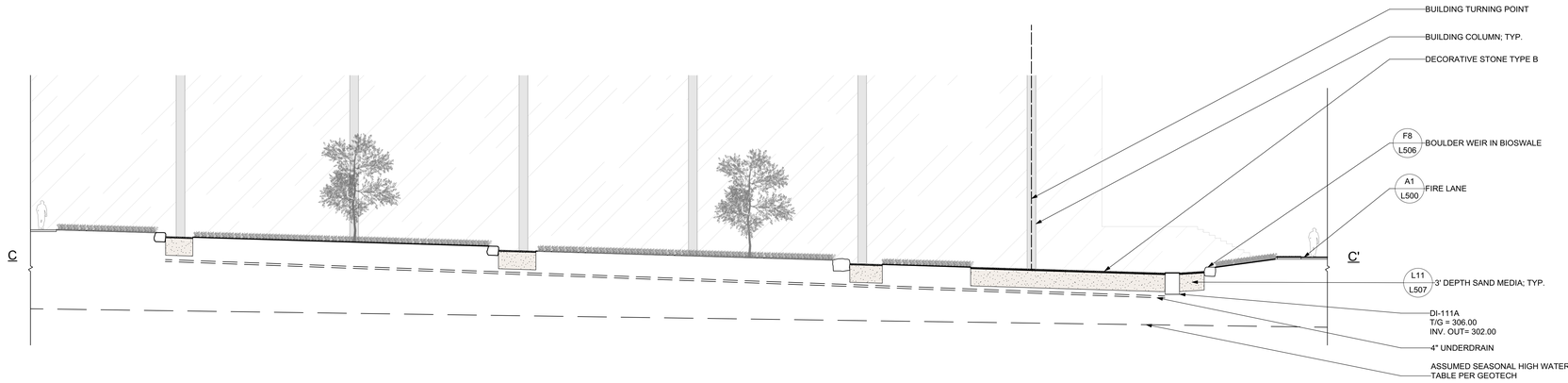
E1 BIKE RACK
1"= 1'-0"
*NOTE:
INSTALL RACK ACCORDING TO MANUFACTURER'S INSTRUCTIONS
CONTRACTOR TO PROVIDE SHOP DRAWINGS PRIOR TO MANUFACTURING OR INSTALLATION
0 1' 2'



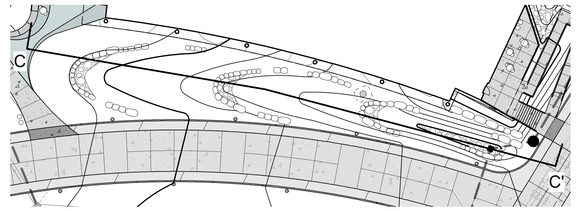
E7 PATIO & RAMP SECTION
1/4"= 1'-0"



KEY MAP



A1 BIOSWALE - SECTION
1"=10'-0"
0 10' 20'



KEY MAP

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SHEET TITLE: SITE DETAILS - GUARDRAIL/ BOLLARD

SCALE (U.N.O.)

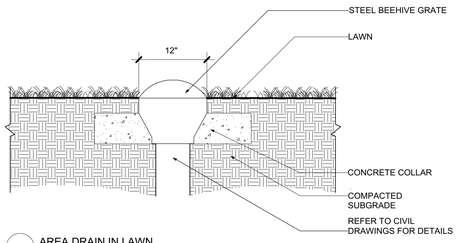
On Campus: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL: NORTH CAROLINA C-098 SURFACE 678, P.A.

SEAL: NORTH CAROLINA 1330 REGISTERED LANDSCAPE ARCHITECT ANDREW ERIC DAVIS

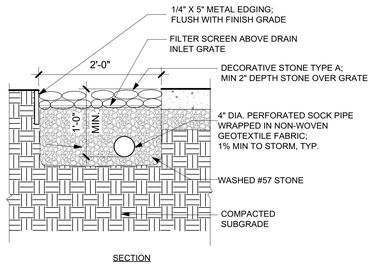
ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. L504

NOT FOR CONSTRUCTION



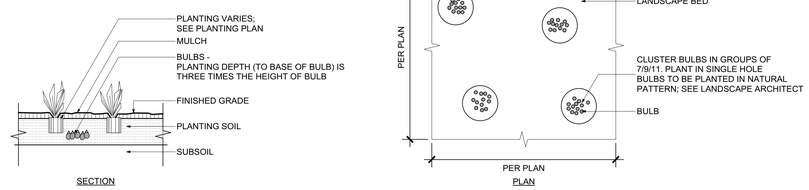
L1 AREA DRAIN IN LAWN

SCALE: NTS



L6 FRENCH DRAIN

SCALE: 1" = 1'-0"

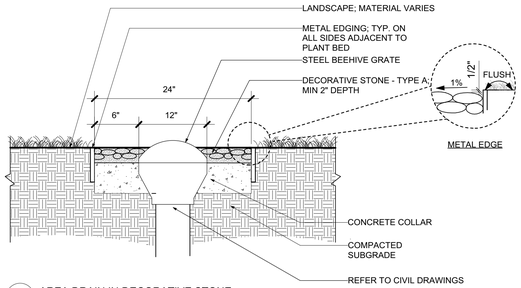


L10 BULB PLANTING

SCALE: NTS

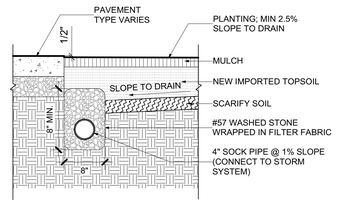
NOTES:

1. CONTRACTOR TO MEET WITH LANDSCAPE ARCHITECT TO FIELD LOCATE BULBS
2. LANDSCAPE ARCHITECT TO FIELD APPROVE BULB LAYOUT PRIOR TO INSTALLATION



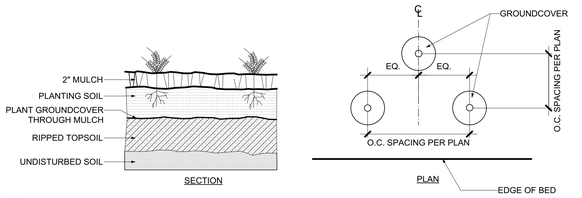
J1 AREA DRAIN IN DECORATIVE STONE

SCALE: NTS



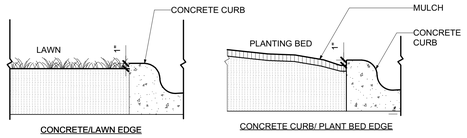
J6 SUBDRAINAGE IN PLANTING BED

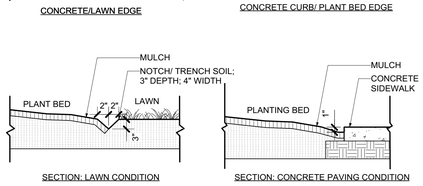
1"=1'-0"



J10 GROUNDCOVER PLANTING

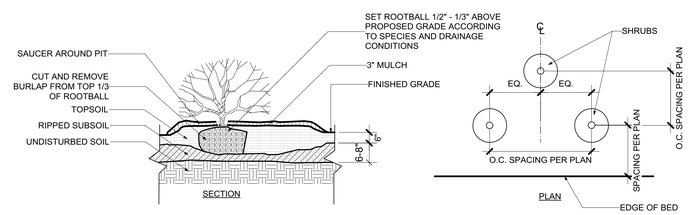
SCALE: NTS





F7 PLANT BED EDGE

SCALE: NTS

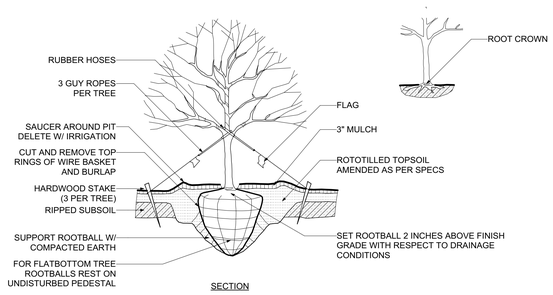


F1 RAISED SHRUB PLANTING

SCALE: NTS

C1 EVERGREEN TREE PLANTING

SCALE: NTS



NOTES

1. CONTRACTOR SHALL PROVIDE SAMPLE TREE PLANTING FOR REVIEW AND APPROVAL BY LARCH PRIOR TO INSTALLATION
2. PER SPECIFICATIONS, CONTRACTOR SHALL NOTIFY LARCH IN WRITING OF ENVIRONMENTAL OR DETRIMENTAL SITE CONDITIONS AFFECTING THE SURVIVAL OF PROPOSED PLANTING MATERIAL PRIOR TO THE INSTALLATION OF PLANT MATERIAL. PROCEEDING WITH PLANTING INSTALLATIONS AT THE DETRIMENT OF PLANTING SURVIVABILITY WITHOUT NOTIFYING LARCH OF HARMFUL SITE CONDITIONS MAY RESULT IN REJECTION OF PLANT MATERIAL AT THE DISCRETION OF LARCH. CONTRACTOR SHALL REPLACE ANY REJECTIONS AT NO COST TO OWNER

E12 RAISED TREE PLANTING

SCALE: NTS

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SHEET TITLE: SITE DETAILS - PLANTING

SCALE (U.N.O.):

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL: NORTH CAROLINA SURFACE 678, P.A. C-098

SEAL: NORTH CAROLINA MATTHEW ERIC CANNON 1330

ISSUE DATE: 12/20/2023

JOB. NO.: 11751-00

DWG. NO.: L505

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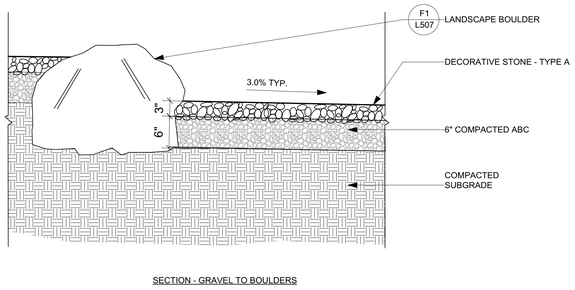
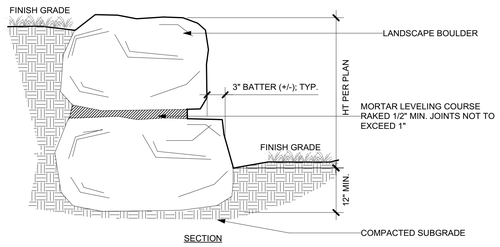


SECTION - GRAVEL TO BOULDERS

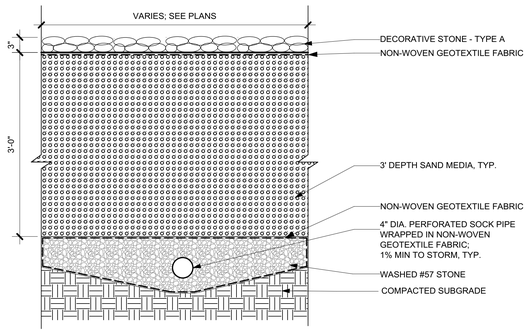
L1 LANDSCAPE BOULDERS AT BUILDING
1"=1'-0"



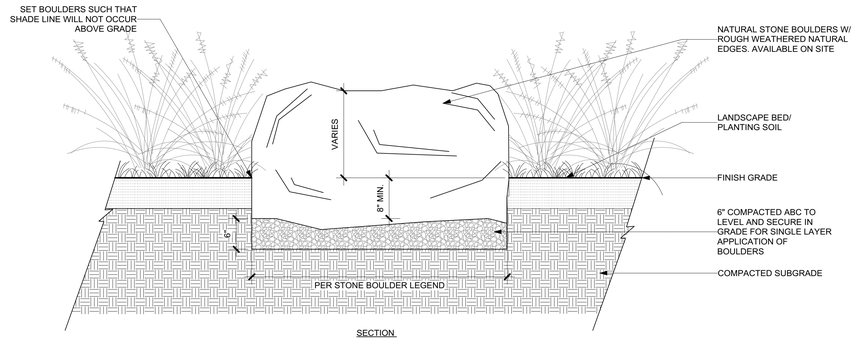
SECTION

L6 BOULDER WALL
1" = 1'-0"

*CONTRACTOR TO REFER TO BOULDER SCHEDULE FOR SIZE REQUIREMENTS.
*CONTRACTOR TO SUBMIT COLOR PHOTOGRAPHY SAMPLES WITH DIMENSIONS FOR REVIEW/APPROVAL PRIOR TO INSTALLATION

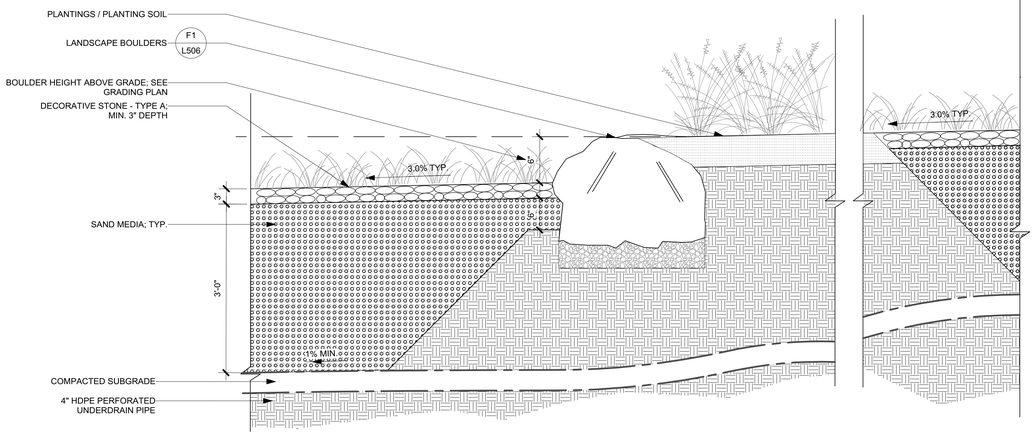


L11 DECORATIVE STONE OVER SAND MEDIA (TYP.)
1" = 1'-0"

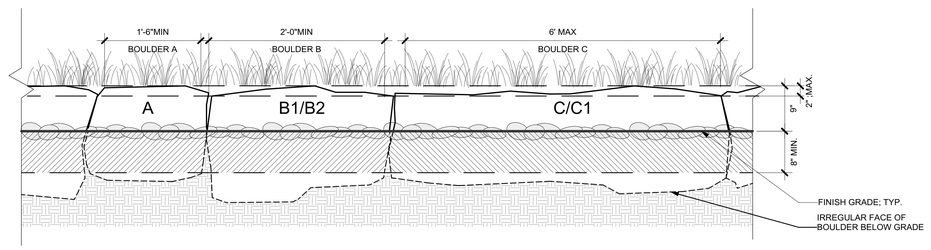


SECTION

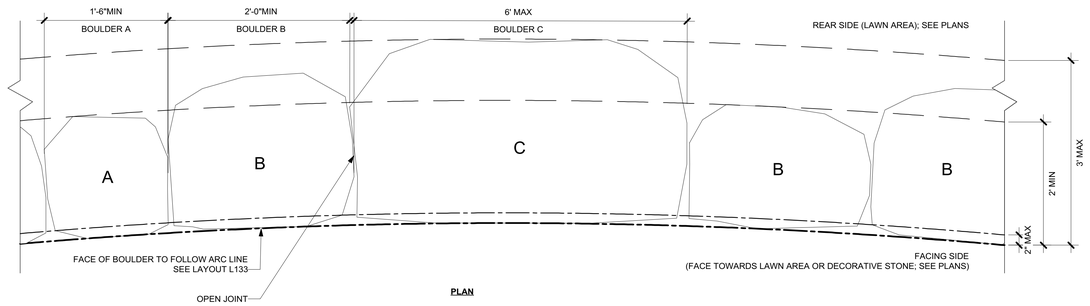
F1 LANDSCAPE BOULDER
1"=1'-0"



F8 BOULDER WEIR IN BIOSWALE
1"=1'-0"



ELEVATION



PLAN

A1 SWALE BOULDER LAYOUT
1"=1'-0"
L.A. TO REVIEW + APPROVE BOULDER LAYOUT PRIOR TO INSTALLATION

BOULDER SCHEDULE

BOULDERS	
SYMBOL	TYPE
A	1.5-2' **W** x 1-2' **L** x 18" **H**
B1 B2	2-3' **W** x 2-3' **L** x 18" **H**
C C1	2.5-3' **W** x 5-6'**L** x 18" **H**

*SEE PLAN L133 FOR QUANTITY AVAILABLE FROM ON SITE STOCKPILE

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SHEET TITLE
SITE DETAILS - BOULDERS

SCALE (UNO)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
Eastern Wake Site

CORPORATE SEAL
NORTH CAROLINA C-098 SURFACE 678, P.A.

SEAL
NORTH CAROLINA 1330 MATTHEW ERIC DAVIS

ISSUE DATE
12/20/2023

JOB. NO.
11751-00

DWG. NO.
L506

NOT FOR CONSTRUCTION

GENERAL NOTES:

1. THE STRUCTURAL DRAWINGS MUST BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS, AND THE SPECIFICATIONS. THE CONTRACTOR MUST VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES, AND ADDITIONAL ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.

2. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF THE NORTH CAROLINA STATE BUILDING CODE, 2018 EDITION.

3. THE WORK OUTLINED IN SPECIFICATION SECTION 01 41 00 IS SUBJECT TO SPECIAL INSPECTIONS AS DESCRIBED IN THE TECHNICAL SPECIFICATIONS.

4. THE CONTRACTOR MUST PROVIDE TEMPORARY SHORING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL PERMANENT SUPPORTS AND LATERAL BRACING ARE IN PLACE.

5. PRIOR TO THE GENERAL CONTRACTOR ISSUING THE STRUCTURAL DRAWINGS TO SUBCONTRACTORS FOR ANY PURPOSE, AUTHORIZATION MUST BE OBTAINED FROM THE STRUCTURAL ENGINEER OF RECORD. WHEN AUTHORIZED, THE DOCUMENTS THAT ARE RELEASED MUST BE CLEARLY IDENTIFIED WITH THE AUTHORIZED PURPOSE AND MUST INCLUDE THE DATE OF RELEASE.

6. DESIGN CRITERIA:

CLASSIFICATION OF BUILDING
- RISK CATEGORY . . . III

SUPER IMPOSED ROOF DEAD LOADS - UNIFORM:
- 1 1/2" INSULATION AND ROOF MEMBRANE . . . 3 PSF
- METAL DECK . . . 2 PSF
- CEILING . . . 2 PSF
- SPRINKLERS . . . 3 PSF
- DUCTS, LIGHTS, MISC. MECHANICAL . . . 3 PSF
- SOLAR PANEL ALLOWANCE (PENTHOUSE ROOF AND PV ARRAY) . . . 10 PSF
- 2" CONCRETE PAVER . . . 24 PSF
- 18" MAX SOIL . . . 180 PSF

SUPER IMPOSED FLOOR DEAD LOADS - UNIFORM:
- FLOOR FINISH . . . 3 PSF
- CEILING . . . 2 PSF
- SPRINKLERS . . . 3 PSF
- DUCTS, LIGHTS, MISC. MECHANICAL . . . 3 PSF
- COLLATERAL . . . 2 PSF

LIVE LOADS - UNIFORM:
- SLAB ON GRADE . . . 100 PSF
- ROOF . . . 20 PSF
- ELEVATED FLOORS AND CORRIDORS . . . 80 PSF
- STORAGE . . . 125 PSF
- MECHANICAL SPACE . . . 150 PSF
- ELEVATOR MACHINE ROOM . . . 50 PSF
- LOBBIES . . . 100 PSF
- CORRIDORS (FIRST FLOOR) . . . 100 PSF
- LABORATORIES . . . 100 PSF
- STAIRWAYS . . . 100 PSF

LIVE LOAD REDUCTION OF THE UNIFORMLY DISTRIBUTED FLOOR LIVE LOADS HAS BEEN UTILIZED.

LIVE LOADS - CONCENTRATED:
- FLOORS . . . 2,000#
- ROOFS . . . 300#

UNLESS OTHERWISE NOTED, CONCENTRATED LOADS ARE APPLIED UNIFORMLY OVER 2'-6" x 2'-6" AREA.

SPECIAL LOADS:
- LIFELINE ANCHORAGE . . . 5,000# (ULTIMATE) / LIFELINE MAXIMUM CONSTRUCTION LOADS ON STEEL DECK . . . 20 PSF

SNOW LOADS:
- GROUND SNOW LOAD . . . 15 PSF
- FLAT ROOF LOAD . . . 17 PSF
- IMPORTANCE FACTOR (Is) . . . 1.1
- THERMAL FACTOR (Ct) . . . 1.0
- EXPOSURE FACTOR (Ce) . . . 1.0
- DRIFT SURCHARGE (Pd) . . . REF SHEET S002

WIND LOADS:
- ULTIMATE DESIGN WIND SPEED (V-ULT) . . . 120 MPH
- EXPOSURE CATEGORY . . . C
- INTERNAL PRESSURE COEFFICIENT . . . ±0.18
- COMPONENT AND CLADDING PRESSURES:
  - WALLS, ZONE 5 (10 SF) . . . 72 PSF
  - ROOF, ZONE 3 (10 SF) . . . 102 PSF
  - PARAPET, END/CORNER (10 SF) . . . 115 PSF
- ULTIMATE WIND BASE SHEARS (FOR MWFRS):
  - VE-W . . . 230 KIPS
  - VN-S . . . 585 KIPS

SEISMIC LOADS:
- SITE CLASSIFICATION . . . D
- SEISMIC DESIGN CATEGORY . . . B
- IMPORTANCE FACTOR (IE) . . . 1.25
- SPECTRAL RESPONSE ACCELERATIONS:
  - S_S . . . 0.147 S_1 . . . 0.074
  - S_{MS} . . . 0.235 S_{M1} . . . 0.177
  - S_{DS} . . . 0.157 S_{D1} . . . 0.118
- ANALYSIS PROCEDURE . . . EQUIVALENT LATERAL FORCE
- LATERAL FORCE RESISTING SYSTEM . . . STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
- RESPONSE MODIFICATION COEFFICIENT (R) . . . 3.0
- SEISMIC RESPONSE COEFFICIENT (Cs) . . . 0.061
- ULTIMATE SEISMIC BASE SHEAR (V) . . . 530 KIPS

LATERAL DESIGN CONTROL
- CONTROLLING LATERAL LOADS:
  - E-W DIR . . . SEISMIC
  - N-S DIR . . . WIND

FOUNDATION NOTES:

1. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL EXPLORATION REPORT PREPARED BY S&ME, DATED NOVEMBER 22, 2022.

2. FOUNDATIONS HAVE BEEN DESIGNED FOR A NET ALLOWABLE SOIL BEARING PRESSURE OF 3,000 PSF.

3. PRIOR TO PLACING FOUNDATION CONCRETE, ALL FOUNDATION EXCAVATIONS MUST BE INSPECTED BY THE OWNER'S GEOTECHNICAL SPECIAL INSPECTOR TO EXPLORE THE EXTENT OF LOOSE, SOFT, EXPANSIVE, OR OTHERWISE UNSATISFACTORY SOIL MATERIAL AND TO VERIFY DESIGN BEARING PRESSURE. DIRECTION FOR CORRECTIVE ACTION WILL BE PROVIDED BY THE OWNER'S GEOTECHNICAL SPECIAL INSPECTOR WHERE UNSATISFACTORY SOILS ARE PRESENT.

4. NO UNBALANCED BACKFILLING MUST BE DONE AGAINST MASONRY OR CONCRETE WALLS UNLESS WALLS ARE SECURELY BRACED AGAINST OVERTURNING, EITHER BY TEMPORARY CONSTRUCTION BRACING OR BY PERMANENT CONSTRUCTION.

5. CONTROL GROUNDWATER AND SURFACE RUNOFF THROUGHOUT THE CONSTRUCTION PROCESS. INUNDATION AND LONG TERM EXPOSURE OF BEARING SURFACES WHICH RESULT IN DETERIORATION OF BEARING MUST BE PREVENTED.

CAST-IN-PLACE CONCRETE NOTES:

1. CONCRETE MUST BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301 AND 318.

2. CONCRETE MUST BE NORMAL WEIGHT [UNLESS OTHERWISE DENOTED AS LW (LIGHTWEIGHT)] AND MUST OBTAIN 28 DAY COMPRESSIVE STRENGTHS AS FOLLOWS:
   A. SLAB-ON-GRADE . . . 3,500 PSI
   B. SUPPORTED FLOOR SLABS . . . 4,000 PSI LW
   C. WALLS AND PEDESTALS . . . 4,000 PSI
   D. CONCRETE NOT OTHERWISE NOTED . . . 3,000 PSI

3. LIGHTWEIGHT CONCRETE MUST HAVE A DRY UNIT WEIGHT OF NOT LESS THAN 110 PCF AND NOT MORE THAN 116 PCF AFTER 28 DAYS WITH 4% TO 7% ENTRAINED AIR.

4. REINFORCING MATERIALS MUST BE AS FOLLOWS:
   A. REINFORCING BARS - ASTM A615, GRADE 60, DEFORMED.
   B. WELDED REINFORCING BARS - ASTM A706, GRADE 60.
   C. WELDED WIRE REINFORCEMENT - ASTM A1064, WELDED STEEL WIRE REINFORCEMENT; PROVIDE SHEET TYPE, ROLL TYPE IS NOT ACCEPTABLE.

5. ALL REINFORCING STEEL AND EMBEDDED ITEMS SUCH AS ANCHOR RODS AND WELD PLATES MUST BE ACCURATELY PLACED AND ADEQUATELY TIED AND SUPPORTED BEFORE CONCRETE IS PLACED TO PREVENT DISPLACEMENT BEYOND PERMITTED TOLERANCES.

6. CONCRETE COVER TO REINFORCING STEEL MUST CONFORM TO THE MINIMUM COVER REQUIRED BY ACI 318, UNLESS THE DRAWINGS SHOW GREATER COVER REQUIREMENTS.

7. LAP CONTINUOUS REINFORCING STEEL AS FOLLOWS, UNLESS OTHERWISE NOTED:

BEAM TOP REINFORCING AND TENSION SPLICES			
BAR SIZE	CONC COMPRESSIVE STRENGTH (PSI)		
	3,000	4,000	5,000
#6 AND SMALLER	75xBD	65xBD	58xBD
#7 AND LARGER	93xBD	81xBD	72xBD

ALL OTHER REINFORCING			
BAR SIZE	CONC COMPRESSIVE STRENGTH (PSI)		
	3,000	4,000	5,000
#6 AND SMALLER	57xBD	50xBD	45xBD
#7 AND LARGER	72xBD	62xBD	56xBD

CONCRETE MASONRY NOTES:

1. CONCRETE MASONRY MATERIALS AND CONSTRUCTION MUST CONFORM TO THE AMERICAN CONCRETE INSTITUTE (ACI) 530.

2. CONCRETE MASONRY UNITS MUST CONFORM TO ASTM C90 AND MUST BE MADE WITH LIGHTWEIGHT AGGREGATE. MINIMUM NET AREA COMPRESSIVE STRENGTH OF MASONRY UNITS MUST BE 2,000 PSI AT 28 DAYS.

3. COMPRESSIVE STRENGTH OF MASONRY MUST BE DETERMINED BY THE UNIT STRENGTH METHOD AS SET FORTH IN ACI 530.1. THE NET AREA COMPRESSIVE STRENGTH OF MASONRY, f'm, MUST BE 2,000 PSI AT 28 DAYS.

4. MORTAR MUST BE TYPE 'M' OR 'S' AND MUST COMPLY WITH ASTM C270, PROPORTIONS OR PROPERTIES SPECIFICATION.

5. GROUT MUST COMPLY WITH EITHER THE PROPORTIONS OR PROPERTIES SPECIFICATION OF ASTM C476 AND AS FOLLOWS:
   A. PROPORTIONS SPECIFICATION: THIS MIX CANNOT CONTAIN ADMIXTURES. WATER MUST BE ADDED IN THE FIELD IN ORDER TO ACHIEVE A SLUMP OF 8-11 INCHES WHEN PLACED IN THE CONCRETE MASONRY UNITS. MORTAR, PEA-GRAVEL CONCRETE, OR "CHAT" MIXES ARE NOT ACCEPTABLE SUBSTITUTES FOR THE SPECIFIED GROUT.
   B. PROPERTIES SPECIFICATION: THIS MIX MUST BE PROPORTIONED TO OBTAIN A DOCUMENTED 28 DAY COMPRESSIVE STRENGTH OF 2,000 PSI IN ACCORDANCE WITH ASTM C-1019, WITH AN 8-11 INCH SLUMP WHEN PLACED IN THE CONCRETE MASONRY UNITS.

6. REINFORCING STEEL MUST COMPLY WITH ASTM A615, GRADE 60. SHOP FABRICATE REINFORCING BARS WHICH ARE SHOWN TO BE BENT OR HOOKED.

7. ALL BOND BEAMS, REINFORCED CELLS AND CELLS WITH EXPANSION BOLTS, EMBED PLATES OR OTHER ANCHORS AND ALL CELLS BELOW GRADE MUST BE GROUTED SOLID. GROUT PROCEDURE MUST COMPLY WITH ACI 530.1.

8. ALL CMU WALLS MUST BE REINFORCED CONTINUOUSLY FROM FOUNDATION TO TOP OF WALL. WHERE REINFORCING IS INTERRUPTED, OFFSET AND LAP ADDITIONAL BARS PER THE "TYPICAL OFFSET SPLICE AT MASONRY WALL DETAILS."

9. PROVIDE REINFORCING BARS OF THE GIVEN SIZE AND SPACING SHOWN. LAP CONTINUOUS REINFORCING STEEL 64 BAR DIAMETERS UNLESS OTHERWISE NOTED.

10. PROVIDE ONE VERTICAL BAR EACH SIDE OF ALL OPENINGS AND CONTROL JOINTS, AND AT CORNERS AND INTERSECTIONS OF ALL MASONRY WALLS, BOTH BEARING AND NON-BEARING WALLS. SHOW CONTROL JOINT LOCATIONS ON THE REINFORCING STEEL SHOP DRAWINGS.

11. ALL NON-BEARING MASONRY WALLS MUST BE REINFORCED WITH #4 VERTICAL BARS AT 40 INCHES ON CENTER, TYPICAL UNLESS OTHERWISE NOTED. ALL NON-BEARING MASONRY WALLS MUST BE BRACED PER "TYPICAL NON-BEARING MASONRY PARTITION DETAILS".

CONCRETE MASONRY NOTES CONT:

12. PROVIDE REINFORCING STEEL DOWELS OF THE SAME SIZE AND SPACING AS VERTICAL REINFORCING FROM THE SUPPORTING STRUCTURE. DOWELS MUST HAVE STANDARD ACI HOOKS, UNLESS OTHERWISE NOTED.

13. PROVIDE STANDARD 9 GAGE LADDER TYPE HORIZONTAL JOINT REINFORCING IN CMU WALLS AT 16 INCHES ON CENTER AND IN TWO JOINTS IMMEDIATELY ABOVE AND BELOW ALL OPENINGS, EXTENDING A MINIMUM OF 2 FEET BEYOND THE JAMB ON EACH SIDE OF THE OPENING, EXCEPT AT CONTROL JOINTS.

14. PROVIDE HORIZONTAL BOND BEAMS WITH CONTINUOUS REINFORCING AS SHOWN IN THE SECTIONS AND DETAILS.

15. DO NOT LOCATE CONTROL JOINTS WITHIN TWO FEET OF STEEL BEAM BEARING LOCATIONS.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL MUST BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 360.

2. STRUCTURAL STEEL MUST COMPLY WITH THE FOLLOWING SPECIFICATIONS:
   A. STRUCTURAL STEEL SHAPES, PLATES AND BARS UNLESS OTHERWISE NOTED - ASTM A36, Fy = 36 KSI
   B. STRUCTURAL STEEL W-SHAPES - ASTM A992, Fy = 50 KSI
   C. HOLLOW STRUCTURAL SECTIONS (HSS):
      a. SQUARE AND RECTANGULAR - ASTM A500, GRADE C, Fy = 50 KSI
      b. ROUND - ASTM A500, GRADE C, Fy = 46 KSI
   D. ANCHOR RODS - ASTM F1554, GRADE 36 (TYPICAL UON)
   E. HIGH STRENGTH BOLTS - ASTM A325 (TYPICAL UON)
   F. FULLY PRETENSIONED BOLTS - ASTM F1852
   G. WASHERS - ASTM F436
   H. NUTS - ASTM A563
   I. LOOSE BRICK SHELF ANGLES - STAINLESS STEEL ASTM A240 (GRADE 316L, Fy = 30 KSI)

3. UNLESS OTHERWISE NOTED, ALL REQUIRED DESIGN STRENGTHS AND REACTIONS INDICATED ARE BASED ON THE "LOADING COMBINATIONS USING STRENGTH DESIGN OR LOAD AND RESISTANCE FACTOR DESIGN" PER SECTION 1605.2 OF THE BUILDING CODE.

4. STRUCTURAL STEEL FRAME IS CONSIDERED AS UNRESTRAINED FOR FIRE PROTECTION PURPOSES.

5. UNLESS OTHERWISE NOTED, BEAM CONNECTIONS MUST BE AISC "SIMPLE SHEAR CONNECTIONS" WITH ASTM A325 BOLTS. DESIGN CONNECTIONS FOR THE REACTIONS (LRFD FACTORED LOADING) SHOWN ON THE DRAWINGS AND THE MINIMUM NUMBER OF BOLTS SHOWN BELOW. IF NO REACTION IS SHOWN, DESIGN CONNECTIONS FOR REACTIONS AND THE MINIMUM NUMBER OF BOLTS SHOWN BELOW.

BEAM SIZE	DESIGN REACTION (LRFD)	MIN # OF BOLTS
W8, W10	20 KIPS	2
W12, W14	35 KIPS	3
W16, W18	50 KIPS	4
W21, W24	60 KIPS	5
W27, W30	75 KIPS	6
W33, W36	90 KIPS	7
W40	105 KIPS	8

6. HIGH STRENGTH BOLTS MAY BE TIGHTENED TO THE "SNUG TIGHT" CONDITION IN LIEU OF FULL PRETENSIONING EXCEPT FOR THE FOLLOWING CONNECTIONS WHICH MUST BE FULLY PRETENSIONED:
   A. BOLTED CONNECTIONS USING NON-STANDARD HOLES.
   B. ALL FRAMING CONNECTIONS AT BRACED FRAMES.
   C. ALL COLLECTOR BEAM CONNECTIONS.

7. REFER TO THE SPECIFICATIONS FOR REQUIREMENTS OF "DELEGATED DESIGN" CONNECTIONS.

8. FOR STRUCTURAL STEEL CONNECTIONS INDICATED AS "DELEGATED DESIGN", INCLUDE STRUCTURAL CALCULATIONS SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA RESPONSIBLE FOR THEIR PREPARATION. IN ADDITION, THE PROFESSIONAL ENGINEER RESPONSIBLE FOR CONNECTION DESIGN MUST REVIEW THE SHOP DRAWINGS PRIOR TO SUBMITTAL TO VERIFY THAT THE CONNECTIONS AS DETAILED ON THE SHOP DRAWINGS COMPLY WITH THE CONNECTION DESIGN REQUIREMENTS OF THE FINAL CALCULATIONS. A REVIEW LETTER, SIGNED AND SEALED BY THE PROFESSIONAL ENGINEER RESPONSIBLE FOR CONNECTION DESIGN MUST BE PROVIDED WITH THE SHOP DRAWINGS AND CALCULATION SUBMITTAL STATING THAT THIS REVIEW AND VERIFICATION HAS BEEN COMPLETED.

9. DELEGATED DESIGN CONNECTIONS ARE AS FOLLOWS:
   A. BRACED FRAMES
   B. MOMENT CONNECTIONS
   C. AXIAL AND SHEAR CONNECTIONS

10. FULLY PRETENSIONED HIGH STRENGTH BOLTS MUST USE A LOAD INDICATOR WASHERS OR TENSION CONTROL "TWIST OFF" BOLTS.

11. PROVIDE ANGLE FRAMING AROUND OPENINGS LARGER THAN 6 INCHES IN ANY DIMENSION (INCLUDING ROOF DRAINS) TO SUPPORT STEEL DECK, TYPICAL UNLESS OTHERWISE NOTED OR DETAILED AS FOLLOWS:

BEAM SPACING	ANGLE SIZE
TO 6'-0"	L3x3x1/4
6'-1" TO 8'-0"	L4x4x5/16
8'-1" TO 10'-0"	L6x4x5/16 (LLV)
10'-1" TO 12'-0"	L6x6x5/16

12. WELDING MUST BE IN ACCORDANCE WITH AWS D1.1, "STRUCTURAL WELDING CODE - STEEL." WELD ELECTRODES MUST BE E70XX LOW HYDROGEN. UNLESS OTHERWISE NOTED, PROVIDE CONTINUOUS FILLET WELDS WITH MINIMUM SIZE REQUIRED BY TABLE J2.4 AISC 360.

13. COORDINATE ALL MEMBER LOCATIONS, UNIT WEIGHTS, OPENING SIZES, AND CURB DIMENSIONS FOR MECHANICAL EQUIPMENT WITH THE ACTUAL EQUIPMENT FURNISHED.

14. STRUCTURAL STEEL SCHEDULED TO RECEIVE SPRAYED-ON FIREPROOFING MUST NOT BE PRIME PAINTED.

15. HOT-DIP GALVANIZE AFTER FABRICATION THE FOLLOWING:
   A. ANGLES AND PLATES SUPPORTING MASONRY IN EXTERIOR WALLS.
   B. LINTELS AND LINTEL ASSEMBLIES SUPPORTING MASONRY IN EXTERIOR WALLS.
   C. ALL STEEL EXPOSED TO WEATHER IN THE FINAL CONSTRUCTION.
   D. ITEMS IDENTIFIED AS GALVANIZED ON ARCHITECTURAL OR STRUCTURAL DRAWINGS.
   E. ALL STEEL FRAMING SUPPORTING ROOF PV ARRAY.

16. FOR ALL MEMBERS EXPOSED TO VIEW IN THE FINISHED CONSTRUCTION REFERENCE ARCHITECTURAL DRAWINGS FOR FINISH REQUIREMENTS.

17. STEEL MEMBERS MUST BE SPLICED ONLY WHERE INDICATED. CONTINUOUS MEMBERS MUST BE SPLICED OVER SUPPORTS, UNLESS OTHERWISE NOTED.

STEEL DECK NOTES:

1. STEEL DECK MUST BE IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE (AISI), "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" AND THE STEEL DECK INSTITUTE (SDI), "DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS, AND ROOF DECKS."

2. STEEL DECK INSTALLATION MUST COMPLY WITH THE FOLLOWING:
   A. ROOF DECK: 3" x 20 GAGE TYPE 'N' GALVANIZED. ATTACH DECK TO SUPPORTS WITH 5/8 INCH DIAMETER PUDDLE WELDS IN ALL RIBS WHERE END LAPS OCCUR AND AT 8 INCHES ON CENTER ALONG SUPPORTS WITH A 24/8 PATTERN. FASTEN SIDE LAPS WITH (12) #10 SELF-TAPPING HEX HEAD SCREWS BETWEEN SUPPORTS. FASTEN EDGEMOST DECK PANEL TO STEEL FRAMING WITH 5/8 INCH DIAMETER PUDDLE WELDS AT SAME SPACING AS SIDELAP FASTENERS.
   B. ROOF DECK: 1 1/2" x 22 GAGE GAGE TYPE 'B' GALVANIZED. ATTACH DECK TO SUPPORTS WITH 5/8 INCH DIAMETER PUDDLE WELDS IN ALL RIBS WHERE END LAPS OCCUR AND AT 12 INCHES ON CENTER ALONG SUPPORTS WITH A 36/4 PATTERN. FASTEN SIDE LAPS WITH (2) #10 SELF-TAPPING HEX HEAD SCREWS BETWEEN SUPPORTS. FASTEN EDGEMOST DECK PANEL TO STEEL FRAMING WITH 5/8 INCH DIAMETER PUDDLE WELDS AT SAME SPACING AS SIDELAP FASTENERS.
   C. COMPOSITE DECK: 2" x 20 GAGE GALVANIZED. ATTACH DECK TO SUPPORTS WITH 5/8 INCH DIAMETER PUDDLE WELDS AT 12 INCHES ON CENTER. FASTEN SIDELAPS WITH (5) #10 SELF-TAPPING HEX HEAD SCREWS BETWEEN SUPPORTS. FASTEN EDGEMOST DECK PANEL TO STEEL FRAMING WITH 5/8 INCH DIAMETER PUDDLE WELDS AT SAME SPACING AS SIDELAP FASTENERS.

3. STEEL DECK MUST BE INSTALLED PERPENDICULAR TO SUPPORTS AND MUST HAVE A MINIMUM OF THREE CONTINUOUS SPANS. ENDLAPS MUST ONLY OCCUR AT SUPPORTS.

4. WELDING MUST BE IN ACCORDANCE WITH AWS D1.3 "STRUCTURAL WELDING CODE - SHEET STEEL".

5. PERMANENT SUSPENDED LOADS MUST NOT BE SUPPORTED BY STEEL ROOF DECK.

6. SHEAR CONNECTORS FOR COMPOSITE FLOOR SYSTEMS MUST BE 3/4 INCH DIAMETER HEADED STUDS CONFORMING WITH ASTM A108, GRADE 1015 OR 1020. PROVIDE HEADED STUDS AS SHOWN ON PLANS AND DETAILS. NET IN-PLACE LENGTH MUST BE 1 1/2 INCHES ABOVE TOP OF COMPOSITE STEEL DECK .

7. CONDUIT AND PIPING MUST NOT BE PLACED IN ELEVATED SLABS.

COLD-FORMED METAL FRAMING NOTES:

1. COLD-FORMED METAL FRAMING MUST BE IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE (AISI) "NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING - GENERAL PROVISIONS".

2. SUBMIT SHOP DRAWINGS AND CALCULATIONS SIGNED AND SEALED BY A NORTH CAROLINA LICENSED PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN OF COLD-FORMED METAL FRAMING. SHOP DRAWINGS MUST INCLUDE DESIGN LOADINGS AND REACTIONS APPLIED TO THE SUPPORTING STRUCTURE. INCLUDE PLACING DRAWINGS FOR FRAMING MEMBERS SHOWING SIZE AND GAGE DESIGNATIONS, NUMBER, TYPE, LOCATION AND SPACING. INDICATE CONNECTIONS, SUPPLEMENTAL STRAPPING, BRACING, SPLICES, BRIDGING, ACCESSORIES AND DETAILS AND CONSTRUCTION SEQUENCE REQUIRED FOR PROPER AND SAFE INSTALLATION.

3. WELDING MUST BE IN ACCORDANCE WITH AWS D1.3, "STRUCTURAL WELDING CODE - SHEET STEEL". TOUCH UP ALL WELDS WITH SPECIFIED COATING SYSTEMS.

4. COLD-FORMED METAL FRAMING MEMBERS MUST CONFORM TO ASTM C955, AND BE FORMED OF CORROSION-RESISTANT STEEL CONFORMING TO ASTM A653 AND ASTM C955 WITH A MINIMUM YIELD STRENGTH OF 33 KSI FOR 43 MIL AND THINNER MEMBERS AND 50 KSI FOR ALL OTHER MEMBERS.

5. MEMBER SECTION PROPERTIES MUST CONFORM TO PART 'I' OF THE "COLD-FORMED STEEL DESIGN MANUAL."

6. COLD-FORMED METAL FRAMING MEMBERS, HEADERS AND CONNECTIONS SHOWN ON STRUCTURAL AND ARCHITECTURAL DRAWINGS ARE SCHEMATIC ONLY AND MUST BE DESIGNED TO MEET PERFORMANCE SPECIFICATION REQUIREMENTS.

7. PROVIDE BRIDGING LINES AT 5'-0" MAXIMUM ON CENTER IN ALL WALLS UNLESS OTHERWISE INDICATED. BRIDGING MUST BE FULLY INSTALLED AND ANCHORED AT ENDS BEFORE SUPERIMPOSING LOADS ONTO THE STUDS.

LORD AECK SARGENT

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SHEET TITLE: GENERAL NOTES
SCALE (U.N.O.)

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12/18/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S001

NOT FOR CONSTRUCTION

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/R22138_WTCC Tech 4.0_Struc_R22.rvt
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SPECIALTY STRUCTURAL ELEMENTS:

1. DELEGATED DESIGN AND ENGINEERING BY A SPECIALTY STRUCTURAL ENGINEER IS REQUIRED FOR, BUT NOT LIMITED TO, THE FOLLOWING:

   A. METAL STAIRS
   B. CURTAIN WALL AND GLAZING ASSEMBLIES INCLUDING CONNECTIONS TO THE STRUCTURE
   C. COLD-FORMED METAL FRAMING (CFMF)
   D. STRUCTURAL STEEL CONNECTIONS
   E. FALL ARREST SYSTEMS

   REFERENCE SPECIFICATIONS FOR COMPLETE REQUIREMENTS.

2. SUBMIT COMPLETE CALCULATIONS AND SHOP DRAWINGS, SIGNED AND SEALED BY THE PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA RESPONSIBLE FOR THE DESIGN, INCLUDING DESIGN LOADINGS AND REACTIONS APPLIED TO THE SUPPORTING STRUCTURE. INCLUDE A SUMMARY OF THE CONTROLLING LOAD CASES FOR EACH LOCATION.

3. IN ADDITION TO THEIR OWN DEAD WEIGHT AND THE DEAD LOADS SHOWN OR INDICATED IN THE DRAWINGS, MEMBERS MUST BE DESIGNED TO SUPPORT THE LOADS INDICATED IN THE GENERAL NOTES.

4. CONNECTION DETAILS SHOWN ARE SCHEMATIC ONLY. ALL CONNECTIONS MUST BE DESIGNED AND DETAILED BY THE MANUFACTURER TO SUIT THE SPECIFIED LOADS. CONNECTIONS MUST ACCOUNT FOR THERMAL MOVEMENT, DEFLECTION AND CREEP. DETAIL ALL CONNECTIONS ON SHOP DRAWINGS.

5. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL SPECIALTY STRUCTURAL ELEMENTS AND COST ASSOCIATED WITH A CONTRACTOR INITIATED CHANGE IN BUILDING STRUCTURE, INCLUDING CONSTRUCTION COSTS AND RE-ENGINEERING COSTS.

POST-INSTALLED ANCHOR NOTES:

1. ALL POST INSTALLED ANCHORS INDICATED ON THE DRAWINGS ARE BY HILTI, INC, AND MUST BE CONSIDERED THE BASIS OF DESIGN PRODUCT. WHERE NOT EXPLICITLY INDICATED IN THE DRAWINGS, THE FOLLOWING ANCHORS/ADHESIVES MUST BE USED:
   - A. ANCHORAGE TO CONCRETE
     1. ADHESIVE ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
        a. HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT (TE-CD OR TE-YD) AND VC 20/40 VACUUM SYSTEM (VC 20-U OR VC40-U) WITH STEEL THREADED ROD PER ICC ESR-3187.
     2. SCREW ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
        a. HILTI KWIK HUS EZ SCREW ANCHORS PER ICC ESR-3027.
   - B. REBAR DOWELING INTO CONCRETE
     1. ADHESIVE ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
        a. HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT (TE-CD OR TE-YD) AND VC 20/40 VACUUM SYSTEM (VC 20-U OR VC 40-U) WITH CONTINUOUSLY DEFORMED REBAR PER ICC ESR-3187.
   - C. ANCHORAGE TO SOLID GROUTED MASONRY
     1. ADHESIVE ANCHORS USE:
        a. HILTI HIT-HY 270 MASONRY ADHESIVE ANCHORING SYSTEM (ICC PENDING).
        b. STEEL ANCHOR ELEMENT MUST BE HILTI HAS-E CONTINUOUSLY THREADED ROD.
     2. MECHANICAL ANCHORS USE:
        a. HILTI KWIK HUS EZ SCREW ANCHORS PER ICC ESR 3056.
   - D. ANCHORAGE TO HOLLOW / MULTI-WYTHE MASONRY
     1. ADHESIVE ANCHORS USE:
        a. HILTI HIT-HY 270 MASONRY ADHESIVE ANCHORING SYSTEM PERICCESR-3342.
        b. STEEL ANCHOR ELEMENT MUST BE HILTI HAS-E CONTINUOUSLY THREADED ROD OR CONTINUOUSLY DEFORMED STEEL REBAR.
        c. THE APPROPRIATE SIZE SCREEN TUBE MUST BE USED PER ADHESIVE MANUFACTURER'S RECOMMENDATION.

2. ALTERNATE POST INSTALLED ANCHOR PRODUCTS MAY BE SUBMITTED TO THE ENGINEER FOR REVIEW AND POSSIBLE APPROVAL. ALL SUBSTITUTION REQUESTS MUST BE ACCOMPANIED BY AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE. ALTERNATE PRODUCTS MAY REQUIRE MODIFICATIONS TO ANCHOR DIAMETER, SPACING, AND EMBEDMENT.

3. INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.

4. THE CONTRACTOR MUST ARRANGE FOR AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF ANCHOR INSTALLATION.

5. ANCHOR CAPACITY IS DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.

6. EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR MUST LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS, BY FERROSCAN OR GPR.

7. ALL POST INSTALLED ANCHORS REQUIRE CONTINUOUS SPECIAL INSPECTIONS TO VERIFY INSTALLATION HAS BEEN PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. REFERENCE THE STATEMENT AND SCHEDULE OF SPECIAL INSPECTIONS FOR ADDITIONAL INFORMATION.

ABBREVIATIONS:

AFF	ABOVE FINISHED FLOOR	INT	INTERIOR
ARCH	ARCHITECT	JT	JOINT
BD	BAR DIAMETER	KCJ	KEYED CONSTRUCTION JOINT
BF	BRACED FRAME	L	LOW
BLDG	BUILDING	LLH	LONG LEG HORIZONTAL
BM	BEAM	LLV	LONG LEG VERTICAL
BOD	BOTTOM OF DECK	LSH	LONG SIDE HORIZONTAL
BOT, B	BOTTOM	LSV	LONG SIDE VERTICAL
BRG	BEARING	LTWT	LIGHTWEIGHT
BTWN	BETWEEN	LWC	LIGHTWEIGHT CONCRETE
CFMF	COLD-FORMED METAL FRAMING	MAS	MASONRY
		MATL	MATERIAL
CJ	CONTROL JOINT	MAX	MAXIMUM
CL	CENTERLINE	MECH	MECHANICAL
CLR	CLEAR	MF	MOMENT FRAME
CMU	CONCRETE MASONRY UNIT	MFR	MANUFACTURER
COL	COLUMN	MID	MIDDLE
CONC	CONCRETE	MIN	MINIMUM
CONN	CONNECTION	MOD	MODIFY
CONSTR	CONSTRUCTION	MOS	MIDDEPTH OF SLAB
CONT	CONTINUOUS	MOW	MIDDLE OF WALL
COORD	COORDINATE	NOM	NOMINAL
CTR	CENTER	NTS	NOT TO SCALE
CW	CURTAIN WALL	OC	ON CENTER
DBL	DOUBLE	OPH	OPPOSITE HAND
DC	DIAPHRAGM CHORD	OPNG	OPENING
DIA, Ø	DIAMETER	PAF	POWDER ACTUATED FASTENER
DWGS	DRAWINGS		
EA	EACH	PAR	PARALLEL
EF	EACH FACE	PC	PIECE
EJ	EXPANSION JOINT	PEN	PENETRATE, PENETRATION
EL	ELEVATION	PERP	PERPENDICULAR
ELEV	ELEVATOR	PL	PLATE
EMBED	EMBEDMENT	R	RADIUS
EOD	EDGE OF DECK	REF	REFERENCE, REFER TO
EOS	EDGE OF SLAB	REINF	REINFORCE, REINFORCED, REINFORCING
EQ	EQUAL		
EW	EACH WAY	REQD	REQUIRED
EXP	EXPANSION	SCHED	SCHEDULE
EXT	EXTERIOR	SF	STEPPED FOOTING
FD	FLOOR DRAIN	SIM	SIMILAR
FDN	FOUNDATION	SJ	SAWED JOINT
FO	FACE OF	SL	SLOPE
FF EL	FINISHED FLOOR ELEVATION	SOG	SLAB-ON-GRADE
		STD	STANDARD
FIN	FINISH	T&B	TOP & BOTTOM
FRMG	FRAMING	THK	THICKNESS
FTG	FOOTING	TOCP	TOP OF CONCRETE PEDESTAL
GALV	GALVANIZED	TOF	TOP OF FOOTING
GEN	GENERAL	TOS	TOP OF STEEL
H	HIGH	TS	THICKENED SLAB
HK	HOOK	TYP	TYPICAL
HORIZ	HORIZONTAL	UON	UNLESS OTHERWISE NOTED
HSS	HOLLOW STRUCTURAL SECTION	VERT	VERTICAL
		W/	WITH
HT	HEIGHT	WP	WORKING POINT
HVY	HEAVY	WWR	WELDED WIRE REINFORCING

PLAN LEGEND:

TOS = +X'-X" = TOP OF STEEL ELEVATION MEASURED FROM REFERENCED FINISHED FIRST FLOOR ELEVATION = 0'-0"

BOD = +X'-X" = BOTTOM OF DECK ELEVATION MEASURED FROM REFERENCED FINISHED FIRST FLOOR ELEVATION = 0'-0"

XXX# = MECHANICAL UNIT SUPPORTED ABOVE FRAMING (WEIGHT IN POUNDS) - COORDINATE W/ MECH DWGS

= FLOOR / ROOF OPENING

(-X'-X") = TOP OF FOOTING ELEVATION MEASURED FROM REFERENCED FINISHED FIRST FLOOR ELEVATION = 0'-0"

X'-X" = TOP OF SLAB ELEVATION MEASURED FROM REFERENCED FINISHED FIRST FLOOR ELEVATION = 0'-0"

= CHANGE IN ELEVATION - REF ARCH DWGS FOR DIMENSIONS

SL = DIRECTION OF SLOPE

= KCJ OR SJ LINE ON PLAN

= WARP LINE OF ROOF DECK

SF SF / PIPE = PIPE CROSSING FOOTING

X = PLAN KEY NOTE MARK

X = COLUMN GRID MARK

= SECTION/DETAIL NUMBER/LETTER

X / SX = SECTION/DETAIL MARK

= SHEET NUMBER WHERE SECTION/DETAIL MARK IS DRAWN

M= xx k/ft = MOMENT CONNECTION W/ CONNECTION DEMAND (LOAD PROVIDED IS FOR BOTH SIDES OF CONNECTION, UON)

= BEAM DOUBLE ANGLE SHEAR TAB CONNECTION

= BEAM BOTTOM FLANGE BRACE PERPENDICULAR (X INDICATES BOTTOM FLANGE CONNECTION)

= CROSS BRIDGING

= FALL PROTECTION ANCHOR

WFX = WALL FOOTING MARK

CFX = COLUMN FOOTING MARK

± = PLUS/MINUS (VERIFY)

BEAM SIZE — W16x26 (36) [2"] — CAMBER, SHEAR REACTION (KIPS) 35k, A= 35k = COMPOSITE BEAM NOTATION
NUMBER OF HEADED STUDS
AXIAL REACTION (KIPS)

BEAM SIZE — W16x26 (-xx") = NON-COMPOSITE BEAM NOTATION
CHANGE IN TOP OF STEEL ELEVATION

WALL FOOTING SCHEDULE

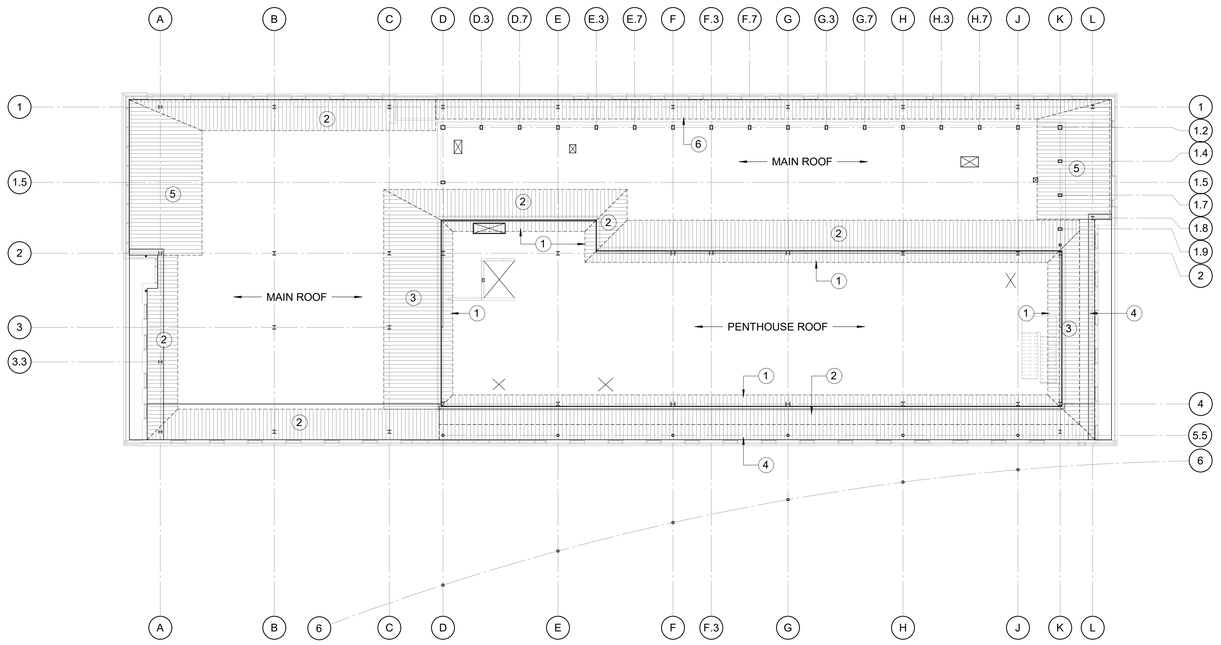
MARK	SIZE WIDTH	SIZE DEPTH	REINFORCING CONTINUOUS	REINFORCING TRANSVERSE
WF3	3' - 0"	1'-0"	(4) #5 BOT	#4 AT 24" OC BOT
WF4	4' - 0"	1'-0"	(5) #6 TOP AND BOT	#5 AT 12" OC TOP AND BOT
WF4A	4' - 0"	1'-6"	(5) #6 TOP AND BOT	#6 AT 12" OC TOP AND BOT
WF5	5' - 0"	1'-3"	(6) #6 TOP AND BOT	#5 AT 12" OC TOP AND BOT

COLUMN FOOTING SCHEDULE

MARK	SIZE LENGTH	SIZE WIDTH	SIZE DEPTH	REINFORCING BOTTOM	REINFORCING TOP
CF4	4' - 0"	4' - 0"	1'-0"	(5) #5 EW	-
CF6	6' - 0"	6' - 0"	1'-3"	(7) #5 EW	-
CF7	7' - 0"	7' - 0"	1'-6"	(8) #6 EW	-
CF8	8' - 0"	8' - 0"	1'-9"	(9) #6 EW	-
CF9	9' - 0"	9' - 0"	2'-0"	(10) #7 EW	(10) #4 EW
CF10	10' - 0"	10' - 0"	2'-3"	(11) #7 EW	(11) #4 EW
CF12	12' - 0"	12' - 0"	2'-9"	(13) #8 EW	-
CF13	13' - 0"	13' - 0"	3'-0"	(14) #8 EW	(14) #8 EW
CF14	14' - 0"	14' - 0"	3'-0"	(15) #9 EW	(15) #4 EW
CF15	15' - 0"	15' - 0"	3'-9"	(16) #9 EW	(16) #9 EW
CF18	18' - 0"	18' - 0"	3'-9"	(19) #9 EW	(19) #9 EW

MAT FOOTING SCHEDULE

MARK	DEPTH	REINFORCING BOTTOM	REINFORCING TOP
MF1	3'-0"	#9 AT 12" OC EW	#8 AT 12" OC EW



1 / S002 SNOW DRIFT PLAN
1/16" = 1'-0"

SNOW DRIFT SCHEDULE

Pd (#) 0 PSF, W	DRIFT VALUES W	DRIFT VALUES Pd
①	3 FT	16 PSF
②	8 FT	44 PSF
③	9 TO 15 FT	71 PSF
④	4 FT	25 PSF
⑤	19 FT	48 PSF
⑥	5 FT	31 PSF

NOTE:
SNOW DRIFT LOADS ARE IN ADDITION TO FLAT ROOF LOADS.

LORD AECK SARGENT

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Planning & Design, Inc.
LordAeckSargent.com

REVISION:

Structural Engineers
301 N West St., Suite 105
Raleigh, NC 27603
919.782.1833 - lynchmykins.com
lynchmykins

SHEET TITLE: GENERAL NOTES AND SCHEDULES
SCALE (UNO)

for work:
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA PROFESSIONAL ENGINEERING CORPORATION C-4360 STRUCTURAL DIVISION

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNEN 12/18/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S002

NOT FOR CONSTRUCTION

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/R22138_WTCC Tech 4.0_Struc_R22.rvt
12/15/2023 8:13:35 AM

STATEMENT OF SPECIAL INSPECTION SERVICES

PROJECT: TECHNOLOGY 4.0 BUILDING
LOCATION: 1160 INSPIRATION CIRCLE, WENDELL, NC 27591
OWNER'S REPRESENTATIVE: TBD
OWNER'S ADDRESS: TBD

THIS STATEMENT OF SPECIAL INSPECTIONS IS SUBMITTED AS A CONDITION FOR PERMIT ISSUANCE IN ACCORDANCE WITH THE SPECIAL INSPECTION REQUIREMENTS OF THE 2018 NORTH CAROLINA STATE BUILDING CODE. IT INCLUDES A SCHEDULE OF SPECIAL INSPECTION SERVICES APPLICABLE TO THIS PROJECT, THE NAME OF THE SPECIAL INSPECTOR, THE IDENTITY OF OTHER APPROVED AGENCIES RETAINED FOR CONDUCTING SPECIAL INSPECTIONS, AND THE REQUIRED INSPECTOR QUALIFICATIONS. THIS STATEMENT OF SPECIAL INSPECTIONS WAS PREPARED BY THE FOLLOWING DESIGNERS OF RECORD:

STRUCTURAL	MICHAEL BRANDES, PE SE	MBrandes	6/7/2023
	(Type or print name)	(Signature)	(Date)
ARCHITECTURAL			
	(Type or print name)	(Signature)	(Date)
MECHANICAL			
	(Type or print name)	(Signature)	(Date)
OTHER			
	(Type or print name)	(Signature)	(Date)

THE SPECIAL INSPECTOR MUST KEEP RECORDS OF ALL SPECIAL INSPECTIONS AND TESTS AND MUST FURNISH REPORTS TO THE STATE CONSTRUCTION OFFICE AND THE DESIGNERS OF RECORD. REPORTS MUST INDICATE IF THE WORK INSPECTED OR TESTED WAS OR WAS NOT COMPLETED IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. DISCOVERED DISCREPANCIES MUST BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF SUCH DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE STATE CONSTRUCTION OFFICE AND THE DESIGNERS OF RECORD. THE SPECIAL INSPECTIONS PROGRAM DOES NOT RELIEVE THE CONTRACTOR OF HIS OR HER RESPONSIBILITIES.

INTERIM REPORTS MUST BE SUBMITTED TO THE STATE CONSTRUCTION OFFICE, OWNER, AND THE DESIGNERS OF RECORD.

INTERIM REPORT FREQUENCY: MONTHLY

A FINAL REPORT OF SPECIAL INSPECTIONS DOCUMENTING COMPLETION OF ALL REQUIRED SPECIAL INSPECTIONS, TESTING, AND CORRECTION OF ANY DISCREPANCIES SHOULD BE SUBMITTED PRIOR TO ISSUANCE OF A CERTIFICATE OF USE AND OCCUPANCY.

JOB SITE SAFETY AND MEANS AND METHODS OF CONSTRUCTION ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

OWNER'S AUTHORIZATION

(Signature) (Date)

ACCEPTED FOR THE SCO BY:

(Signature) (Date)

SCHEDULE OF SPECIAL INSPECTION SERVICES [A]

THE FOLLOWING COMPRISES THE REQUIRED SCHEDULE OF SPECIAL INSPECTIONS FOR THIS PROJECT. THE CONSTRUCTION DIVISIONS WHICH REQUIRE SPECIAL INSPECTIONS FOR THIS PROJECT ARE AS FOLLOWS.

- [X] STRUCTURAL STEEL & HIGH STRENGTH BOLTING
- [X] WELDING OF STRUCTURAL STEEL
- [X] COLD-FORMED STEEL DECK
- [ ] OPEN-WEB STEEL JOISTS & JOIST GIRDERS
- [ ] COLD-FORMED STEEL FRAMING
- [X] CONCRETE CONSTRUCTION
- [X] MASONRY CONSTRUCTION [B]
- [ ] WOOD CONSTRUCTION
- [X] SOILS
- [ ] DRIVEN DEEP FOUNDATIONS
- [ ] CAST-IN-PLACE DEEP FOUNDATIONS
- [ ] HELICAL PILE FOUNDATIONS
- [ ] RAMMED AGGREGATE PIERS & STONE COLUMNS
- [X] SPRAYED FIRE-RESISTANT MATERIAL
- [X] MASTIC & INTUMESCENT FIRE-RESISTANT COATINGS
- [ ] EXTERIOR INSULATION & FINISH SYSTEM
- [ ] FIRE-RESISTANT PENETRATIONS & JOINTS
- [ ] SMOKE CONTROL
- [ ] RETAINING WALL & SYSTEMS > 5 FEET
- [ ] SPECIAL INSPECTIONS FOR WIND RESISTANCE
- [ ] SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE

A. THE INSPECTION FREQUENCY INDICATED ON THE FOLLOWING INSPECTION TABLES ARE "C" CONTINUOUS, "P" PERIODIC, & "O" RANDOM ON A DAILY BASIS.
B. LEVEL A IS THE MINIMUM INSPECTION PROGRAM FOR EMPIRICALLY / PRESCRIPTIVELY DESIGNED MASONRY IN RISK CATEGORY I, II OR III STRUCTURES. LEVEL B IS THE MINIMUM INSPECTION PROGRAM FOR EMPIRICALLY / PRESCRIPTIVELY DESIGNED MASONRY IN RISK CATEGORY IV STRUCTURES AND ENGINEERED MASONRY IN RISK CATEGORY I, II OR III STRUCTURES. LEVEL C IS THE MINIMUM INSPECTION PROGRAM FOR ENGINEERED MASONRY IN RISK CATEGORY IV STRUCTURES. ENGINEERED MASONRY STRUCTURES ARE THOSE DESIGNED IN ACCORDANCE WITH PORTIONS OF THE TMS 402-13 / ACI 530-13/ASCE 5-13 OTHER THAN PART 4 OR APPENDIX A.

INSPECTION AGENTS	FIRM NAME & POINT OF CONTACT	ADDRESS / PHONE / E-MAIL
1. SPECIAL INSPECTOR (SI-1)		
2. TESTING AGENCY (TA-1)		
3. TESTING AGENCY (TA-2)		
4. GEOTECHNICAL ENGINEER (GE-1)		
5. OTHER (O-1)		

NOTE: THE INSPECTION AND TESTING AGENT(S) MUST BE ENGAGED BY THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL OF RECORD ACTING AS THE OWNER'S AGENT, AND NOT BY THE CONTRACTOR OR SUBCONTRACTOR WHOSE WORK IS TO BE INSPECTED OR TESTED. ANY CONFLICT OF INTEREST MUST BE DISCLOSED TO THE STATE CONSTRUCTION OFFICE, PRIOR TO COMMENCING WORK.

SEISMIC DESIGN CATEGORY: [ ] A [X] B [ ] C [ ] D

BASIC WIND SPEED (V_{ASD}): [X] 90-109 MPH [ ] 110-119 MPH [ ] >120 MPH

WIND EXPOSURE CATEGORY: [ ] B [X] C [ ] D

MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS

INSPECTION TASK	TASK REQD	FREQ	REFERENCE FOR CRITERIA	
			STANDARD	NCBC
1. PRIOR TO APPLICATION, VERIFY PREPARATION OF SUBSTRATE AND SUITABILITY OF PRIMERS, IF PRESENT, ARE IN ACCORDANCE WITH APPROVED FIRE RESISTANCE DESIGN, APPROVED MANUFACTURER'S WRITTEN INSTRUCTIONS, AND THE REQUIREMENTS OF AWCI 12-B	[X]	P	AWCI 12-B	1705.15
2. OBSERVE THE APPLICATION OF FIRE-RESISTANT COATINGS ENSURING COMPLIANCE WITH APPROVED FIRE RESISTANCE DESIGN, APPROVED MANUFACTURER'S WRITTEN INSTRUCTIONS, AND THE REQUIREMENTS OF AWCI 12-B	[X]	P	AWCI 12-B	1705.15
3. AFTER ADEQUATE DRYING BUT PRIOR TO THE APPLICATION OF ANY TOPCOAT, MEASURE THE FINAL MASTIC / INTUMESCENT MATERIAL THICKNESS ENSURING COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS AND APPROVED MATERIAL / INSTALLATION SUBMITTALS. MEASUREMENTS MUST CONSIDER THE THICKNESS OF PRIMERS OR OTHER EXISTING COATINGS ON THE SURFACE OF THE SUBSTRATE.	[X]	P	AWCI 12-B	1705.15

STRUCTURAL STEEL AND HIGH-STRENGTH BOLTING

INSPECTION TASK	TASK REQD	FREQ	REFERENCE FOR CRITERIA	
			AISC 360	NCBC
1. FABRICATOR CERTIFICATION / VERIFICATION OF QUALITY CONTROL PROCEDURES				
a. VERIFY FABRICATOR QUALIFICATIONS	[X]	C		1704.2.5.1
b. REVIEW MATERIAL TEST REPORTS & CERTIFICATIONS	[X]	C	N5.2	
c. COLLECT CERTIFICATES OF COMPLIANCE FROM THE STEEL FABRICATOR AT COMPLETION OF FABRICATION	[X]	C		1704.5
2. INSPECTIONS PRIOR TO HIGH-STRENGTH BOLTING AT PRETENSIONED AND SLIP-CRITICAL JOINTS				
a. COLLECT MANUFACTURER'S CERTIFICATIONS FOR FASTENER MATERIALS	[X]	C	TBL N5.6-1	
b. FASTENERS ARE MARKED PER ASTM REQUIREMENTS	[X]	P	TBL N5.6-1	
c. ENSURE CORRECT FASTENERS AND BOLTING PROCEDURES ARE SELECTED FOR JOINT DETAILS	[X]	P	TBL N5.6-1	
d. VERIFY CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION WHEN SPECIFIED, COMPLY WITH THE CONSTRUCTION DOCUMENTS	[X]	P	TBL N5.6-1	
e. OBSERVE AND DOCUMENT PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONAL FOR FASTENER ASSEMBLIES AND METHODS	[X]	P	TBL N5.6-1	
f. VERIFY PROPER STORAGE PROVIDED FOR ALL FASTENER COMPONENTS	[X]	P	TBL N5.6-1	
3. INSPECTIONS DURING HIGH-STRENGTH BOLTING AT PRETENSIONED AND SLIP-CRITICAL JOINTS				
a. ENSURE CORRECT FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS, WHEN SPECIFIED, ARE POSITIONED AS REQUIRED	[X]	P	TBL N5.6-2	
b. VERIFY JOINT BROUGHT TO SNUG-TIGHT CONDITION PRIOR TO PRETENSIONING	[X]	P	TBL N5.6-2	
c. VERIFY FASTENER COMPONENTS NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	[X]	P	TBL N5.6-2	
d. ENSURE FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH RCSC, PROGRESSING FROM THE MOST RIGID POINT TOWARDS FREE EDGES	[X]	P	TBL N5.6-2	
4. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS AFTER HIGH-STRENGTH BOLTING IS COMPLETE	[X]	C	TBL N5.6-3	
5. STRUCTURAL DETAILS				
a. VERIFY DIAMETER, GRADE, TYPE AND LENGTH OF ANCHOR RODS AND OTHER EMBEDDED ITEMS SUPPORTING STRUCTURAL STEEL	[X]	P	N5.7	
b. INSPECTION OF FABRICATED ASSEMBLIES & ERECTED STEEL FRAMING VERIFYING COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS	[X]	P	N5.7	
6. COMPOSITE CONSTRUCTION				
a. VERIFY PLACEMENT & INSTALLATION OF STEEL DECK	[X]	P	TBL N6.1	
b. OBSERVE PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	[X]		TBL N6.1	
c. DOCUMENT ACCEPTANCE OR REJECTION OF COMPOSITE CONSTRUCTION ELEMENTS	[X]	P	TBL N6.1	

WELDING OF STRUCTURAL STEEL

INSPECTION TASK	TASK REQD	FREQ	REFERENCE FOR CRITERIA	
			AISC 360	NCBC
1. INSPECTIONS PRIOR TO WELDING			N5.4	
a. COLLECT & REVIEW WELDING PROCEDURE SPECIFICATION (WPS) AND VERIFY MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES	[X]	C	TBL N5.4-1	
b. CONFIRM WELD MATERIAL TYPE & GRADE	[X]	P	TBL N5.4-1	
c. CONFIRM METHOD OF WELDER IDENTIFICATION	[X]	P	TBL N5.4-1	
d. INSPECTION OF FIT-UP FOR GROOVE & FILLET WELDS INCLUDING ACCESS HOLE CONFIGURATION & FINISH	[X]	P	TBL N5.4-1	
2. INSPECTIONS DURING WELDING			N5.4	
a. VERIFY WELDER QUALIFICATIONS	[X]	P	TBL N5.4-2	
b. VERIFY PROPER CONTROL AND HANDLING OF WELDING CONSUMABLES	[X]	P	TBL N5.4-2	
c. MONITOR ENVIRONMENTAL CONDITIONS	[X]	P	TBL N5.4-2	
d. MONITOR PROPER IMPLEMENTATION OF WPS	[X]	P	TBL N5.4-2	
e. INSPECTION OF WELDING TECHNIQUES INCLUDING NO WELDING OVER CRACKED TACK WELDS	[X]	P	TBL N5.4-2	
3. INSPECTIONS AFTER WELDING			N5.4, N5.5	
a. VERIFY WELDS HAVE BEEN CLEANED	[X]	P	TBL N5.4.3	
b. CONFIRM THE INSTALLED SIZE, LENGTH AND LOCATION OF WELDS MATCHES THE CONTRACT DOCUMENTS	[X]	C	TBL N5.4.3	
c. VERIFY WELDS MEET VISUAL ACCEPTANCE CRITERIA	[X]	C	TBL N5.4.3	
d. CONFIRM ARC STRIKES COMPLY WITH PART 5.28 OF AWS D1.1	[X]	C	TBL N5.4.3	
e. VISUALLY OBSERVE WEB K-AREA FOR CRACKS WITHIN 3" OF WELDED DOUBLER PLATES, CONTINUITY PLATES AND STIFFENERS	[X]	C	TBL N5.4.3	
f. BACKING AND WELD TABS REMOVED PER CONTRACT DOCUMENTS	[X]	C	TBL N5.4.3	
g. OBSERVE AND INSPECT WELD REPAIR ACTIVITIES	[X]	C	TBL N5.4.3	
h. FOR RISK CATEGORY III OR IV STRUCTURES, CONDUCT ULTRASONIC TESTING (UT) OF CJP GROOVE WELDS IN MATERIALS ≥ 5/16" AT BUTT, T- AND CORNER JOINTS SUBJECT TO TRANSVERSELY APPLIED TENSION LOADING	[X]	C	N5.5B, N5.5E	
i. FOR RISK CATEGORY II STRUCTURES, CONDUCT ULTRASONIC TESTING (UT) OF CJP GROOVE WELDS IN MATERIALS ≥ 5/16" AT BUTT, T- AND CORNER JOINTS SUBJECT TO TRANSVERSELY APPLIED TENSION LOADING	[X]	P	N5.5.B, N5.5F	
j. CONDUCT MAGNETIC PARTICLE TESTING (MT) OR LIQUID PENETRANT TESTING (PT) AT THERMALLY CUT SURFACES OF ACCESS HOLES FOR ROLLED SECTION WITH TF > 2" AND BUILT-UP SHAPE WITH TW > 2"	[X]	C	N5.5C	
k. RADIOGRAPHIC OR ULTRASONIC INSPECTION AT JOINTS SUBJECT TO FATIGUE	[X]	C	N5.5D, TBL A-3.1	
l. DOCUMENT ACCEPTANCE / REJECTION OF WELDED JOINTS AND MEMBERS	[X]	C	TBL N5.4-3, N5.5G	

COLD-FORMED STEEL DECK

INSPECTION TASK	TASK REQD	FREQ	REFERENCE FOR CRITERIA	
			SDI QA/QC	NCBC
1. PRIOR TO DECK PLACEMENT, VERIFY DECK AND DECK ACCESSORIES COMPLY WITH THE CONSTRUCTION DOCUMENTS	[X]	C	TBL 1.1	
2. INSPECTION TASKS AFTER DECK PLACEMENT				
a. VERIFY THE INSTALLATION OF DECK & DECK ACCESSORIES COMPLIES WITH THE CONSTRUCTION DOCUMENTS	[X]	C	TBL 1.2	
b. VERIFY THAT DECK MATERIALS' MILL CERTIFICATIONS COMPLY WITH THE CONSTRUCTION DOCUMENTS	[X]	C	TBL 1.2	
3. INSPECTION TASKS PRIOR TO DECK WELDING				
a. COLLECT WELDING PROCEDURE SPECIFICATION (WPS)	[X]	P	TBL 1.3	
b. COLLECT MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES	[X]	P	TBL 1.3	
c. VERIFY MATERIAL TYPE AND GRADE	[X]	P	TBL 1.3	
d. CHECK WELDING EQUIPMENT	[X]	P	TBL 1.3	
4. INSPECTION TASKS DURING DECK WELDING				
a. VERIFY WELDER QUALIFICATIONS	[X]	P	TBL 1.4	
b. VERIFY PROPER CONTROL AND HANDLING OF WELDING CONSUMABLES	[X]	P	TBL 1.4	
c. MONITOR ENVIRONMENTAL CONDITIONS	[X]	P	TBL 1.4	
d. MONITOR PROPER IMPLEMENTATION OF WPS	[X]	P	TBL 1.4	
5. INSPECTION TASKS AFTER WELDING				
a. VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP AND PERIMETER WELDS	[X]	C	TBL 1.5	
b. VERIFY WELDS MEET VISUAL ACCEPTANCE CRITERIA	[X]	C	TBL 1.5	
c. OBSERVE WELD REPAIR ACTIVITIES	[X]	C	TBL 1.5	
6. INSPECTION TASKS PRIOR TO MECHANICAL FASTENING				
a. VERIFY MANUFACTURER INSTALLATION INSTRUCTIONS AVAILABLE FOR MECHANICAL FASTENERS	[X]	P	TBL 1.6	
b. PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION	[X]	P	TBL 1.6	
c. VERIFY PROPER STORAGE OF MECHANICAL FASTENERS	[X]	P	TBL 1.6	
7. INSPECTION TASKS DURING MECHANICAL FASTENING				
a. OBSERVE FASTENER SPACING AND POSITION	[X]	P	TBL 1.7	
b. VERIFY FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS	[X]	P	TBL 1.7	
8. INSPECTION TASKS AFTER MECHANICAL FASTENING				
a. CHECK SPACING, TYPE AND INSTALLATION OF SUPPORT FASTENERS	[X]	C	TBL 1.8	
b. CHECK SPACING, TYPE, AND INSTALLATION OF SIDELAP FASTENERS	[X]	C	TBL 1.8	
c. CHECK SPACING, TYPE, AND INSTALLATION OF PERIMETER FASTENERS	[X]	C	TBL 1.8	
d. VERIFY REPAIR ACTIVITIES	[X]	C	TBL 1.8	
9. DOCUMENT ACCEPTANCE OR REJECTION OF DECK & DECK ACCESSORIES FOR ALL PHASES OF CONSTRUCTION	[X]	C	TBLS 1.1 THRU 1.8	

CONCRETE CONSTRUCTION

INSPECTION TASK	TASK REQD	FREQ	REFERENCE FOR CRITERIA	
			STANDARD[A]	NCBC
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	[X]	P	ACI CH.20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2. REINFORCING BAR WELDING:			AWS D1.4	
a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706 AND COLLECT REPORTS	[X]	P	ACI 26.6.4	1704.5
b. INSPECT SINGLE-PASS FILLET WELDS ≤ 5/16"	[X]	P	ACI 26.6.4	
c. INSPECT ALL WELDS OTHER THAN SINGLE-PASS FILLET WELDS ≤ 5/16"	[X]	C	ACI 26.6.4	
3. CONCRETE ANCHORS:				
a. INSPECT ANCHORS CAST IN CONCRETE	[X]	P	ACI 17.8.2	
b. INSPECT ADHESIVE ANCHORS INSTALLED IN HARDENED CONCRETE WITH HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS THAT RESIST SUSTAINED TENSION LOADS	[X]	C	ACI 17.8.2.4	
c. INSPECT ADHESIVE ANCHORS INSTALLED IN HARDENED CONCRETE WITH ORIENTATIONS DIFFERENT FROM ITEM 3.B	[X]	P	ACI 17.8.2	
d. INSPECT MECHANICAL ANCHORS INSTALLED IN HARDENED CONCRETE	[X]	P	ACI 17.8.2	
4. COLLECT MIX DESIGNS AND VERIFY THE CORRECT MIX USED DURING INSTALLATION	[X]	P	ACI CH 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
5. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	[X]	C	ASTM C172, ASTM C31, ACI 26.4, 26.12	1908.10
6. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	[X]	C	ACI 26.5	1908.6, 1908.7, 1908.8
7. COLLECT REPORTS OF PRECONSTRUCTION TESTS FOR SHOTCRETE WHEN PRECONSTRUCTION TESTS ARE REQUIRED BY NCBC SECTION 1908.4	[X]	C		1704.5, 1908.5
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	[X]	P	ACI 26.5.3-26.5.5	1908.9
9. INSPECTIONS FOR PRESTRESSED CONCRETE				
a. OBSERVE APPLICATION OF PRESTRESSING FORCE	[ ]	C	ACI 26.10	
b. INSPECT GROUTING OF BONDED PRESTRESSING TENDONS	[ ]	C	ACI 26.10	
10. VERIFY CONCRETE STRENGTH PRIOR TO STRESSING OF PT TENDONS AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM PT & MILD BEAMS AND STRUCTURAL SLABS	[ ]	P	ACI 26.11.2	
11. INSPECT ERECTION OF PRECAST MEMBERS	[ ]	P	ACI 26.8	
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	[X]	P	ACI 26.11.1.2(B)	
13. COLLECT MILL TEST REPORTS FOR ASTM A615 REBAR USED BY SFRS SPECIAL MOMENT FRAMES, SPECIAL STRUCTURAL WALLS OR COUPLING BEAMS	[X]	C	ACI 20.2.2.5	1704.5

A. REFERENCES TO "ACI" IN THIS TABLE ARE TO THE ACI 318-14.

MASONRY - LEVEL B

INSPECTION TASK	TASK REQD	FREQ	REFERENCE FOR CRITERIA	
			TMS 402[A]	TMS 602[A]
1. TEST & VERIFY SLUMP FLOW & VISUAL STABILITY INDEX AS DELIVERED TO SITE FOR SELF-CONSOLIDATING GROUT	[X]	C	TBL 3.1.2	ART. 1.5B.1.B.3
2. TEST & VERIFY F'M & F'AAC PRIOR TO CONSTRUCTION	[X]	C	TBL 3.1.2	ART. 1.4B
3. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS	[X]	P	TBL 3.1.2	ART. 1.5
4. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:				
a. PROPORTIONS OF SITE-PREPARED MORTAR	[X]	P		ART. 2.1, 2.6A
b. CONSTRUCTION OF MORTAR JOINTS	[X]	P		ART. 3.3B
c. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES	[X]	P		ART. 2.4B, 2.4H
d. LOCATION OF REINFORCEMENT, CONNECTORS AND PRESTRESSING TENDONS AND ANCHORAGES	[X]	P		ART. 3.4, 3.6A
e. PRESTRESSING TECHNIQUE	[X]	P		ART. 3.6B
f. TEST & VERIFY F'M & F'AAC PRIOR TO CONSTRUCTION	[X]	C/P[A]		ART. 2.1C
5. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING COMPLY:	[X]			
a. GROUT SPACE IS CLEAN, AND CLEANOUTS PROVIDED WHEN REQUIRED	[X]	P		ART. 3.2D, 3.2F
b. GRADE, TYPE & SIZE OF REINFORCEMENT & ANCHOR BOLTS, & PRESTRESSING TENDONS & ANCHORAGE	[X]	P	SEC 6.1	ART. 2.4, 3.4
c. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGE	[X]	P	SEC 6.1, 6.2.1 ,6.2.6, 6.2.7	ART. 3.2E, 3.4, 3.6A
d. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	[X]	P		ART. 2.6B, 2.4G.1.B
e. CONSTRUCTION AND SIZE OF MORTAR JOINTS	[X]	P		ART. 3.3B
6. VERIFY DURING CONSTRUCTION:				
a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS	[X]	P		ART. 3.3F
b. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION	[X]	P	SEC1.2.1(E), 6.1.4.3, 6.2.1	
c. WELDING OF REINFORCEMENT	[X]	C	SEC 8.1.6.7.2, 9.3.3.4(C), 11.3.3.4(B)	
d. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE < 40ºF) OR HOT WEATHER (TEMPERATURE > 90ºF)	[X]	P		ART. 1.8C, 1.8D
e. APPLICATION & MEASUREMENT OF PRESTRESS FORCE	[X]	C		ART. 3.6B
f. VERIFY PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	[X]	C		ART. 3.5. 3.6C
g. PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS	[X]	C/P[A]		ART. 3.3B.9, 3.3F.1.B
7. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND OR PRISMS	[X]	P		ART. 1.4.B.2.A.3, 1.4.B.2.B.3, 1.4.B.2.C.3, 1.4.B.3, 1.4.B.4

A. REFERENCES TO "TMS402" IN THIS TABLE ARE TO THE TMS402/ACI530/ASCE5-13. REFERENCES TO "TMS602" ARE TO TMS602/ACI530.1/ASCE6-13.
B. AAC MASONRY MUST BE CONTINUOUSLY INSPECTED FOR THE FIRST 5000-SQUARE FEET AND PERIODICALLY INSPECTED AFTERWARDS.

SOILS

INSPECTION TASK	TASK REQD	FREQ	REFERENCE FOR CRITERIA	
			STANDARD	NCBC
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	[X]	C		1705.6
2. VERIFY EXCAVATIONS EXTEND TO PROPER DEPTH AND HAVE REACHED THE CORRECT SOIL MATERIAL	[X]	P		1705.6
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	[X]	P		1705.6
4. VERIFY THAT MATERIALS USED, DENSITIES, LIFT THICKNESS AND PROCEDURES USED DURING PLACEMENT AND COMPACTION OF COMPACTED FILL ARE IN ACCORDANCE WITH THE APPROVED SOILS REPORT AND THE CONSTRUCTION DOCUMENTS	[X]	C		1705.6
5. PRIOR TO PLACEMENT OF COMPACTED FILL, VERIFY THAT THE SUBGRADE HAS BEEN PREPARED IN ACCORDANCE WITH THE APPROVED SOILS REPORT AND THE CONSTRUCTION DOCUMENTS	[X]	P		1705.6

SPRAYED FIRE-RESISTANT MATERIALS[A]

INSPECTION TASK	TASK REQD	FREQ	REFERENCE FOR CRITERIA	
			STANDARD	NCBC
1. PRIOR TO THE APPLICATION OF SPRAYED ON FIRE RESISTANT MATERIALS, VERIFY STRUCTURAL MEMBER SURFACES ARE PREPARED IN ACCORDANCE WITH THE APPROVED FIRE-RESISTANCE DESIGN AND THE WRITTEN INSTRUCTIONS OF THE APPROVED MANUFACTURER	[X]	P		1705.14.2
2. DURING THE APPLICATION OF SPRAYED ON FIRE RESISTANT MATERIALS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:				
a. SUBSTRATE HAS MINIMUM AMBIENT TEMPERATURE BEFORE AND AFTER APPLICATION AS SPECIFIED BY THE FIRE RESISTANCE DESIGN AND APPROVED MANUFACTURER'S WRITTEN INSTRUCTIONS	[X]	P		1705.14.3
b. WORK AREA PROPERLY VENTILATED DURING AND AFTER APPLICATION	[X]	P		1705.14.3
c. THICKNESS OF SPRAYED ON MATERIAL CONFORMS WITH THE APPROVED FIRE RESISTANCE DESIGN AND NCBC MINIMUMS	[X]	P		1705.14.4, 1705.14.4.4, 1705.14.4.5, 1705.14.4.6, 1705.14.4.7, 1705.14.4.8, 1705.14.4.9
d. THE DENSITY OF SPRAYED ON MATERIALS IS NOT LESS THAN THE REQUIREMENTS OF THE APPROVED FIRE-RESISTANCE DESIGN	[X]	P		1705.14.5
e. THE COHESIVE / ADHESIVE BOND STRENGTH IS NOT LESS THAN 150 POUNDS PER SQUARE FOOT	[X]	P		1705.14.6

A. INSPECTIONS MUST BE PERFORMED AFTER THE ROUGH INSTALLATION OF ELECTRICAL, AUTOMATIC SPRINKLER, MECHANICAL AND PLUMBING SYSTEMS, AND SUSPENSION SYSTEMS FOR CEILINGS.

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REVISION:

SHEET TITLE: SPECIAL INSPECTIONS
SCALE (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA ENGINEERING CORPORATION C-4360

SEAL 051551 ENGINEER MICHAEL R. BRANDES 12/19/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S011

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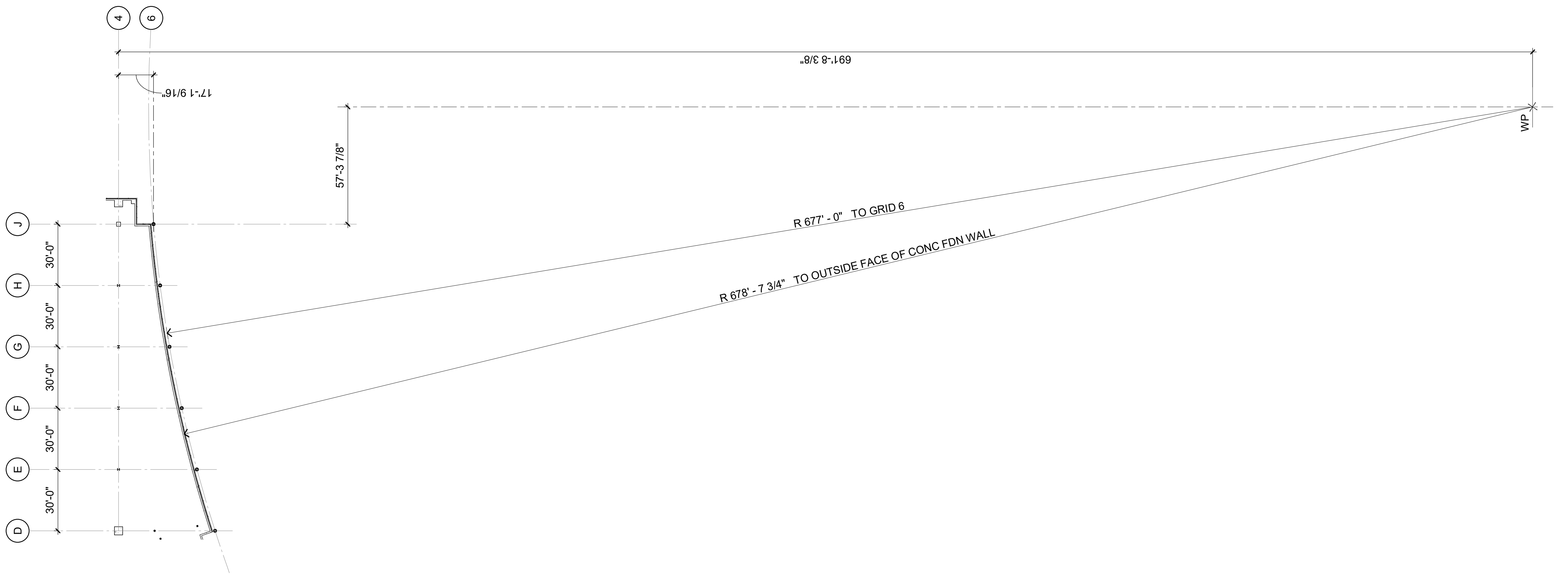
CUSTOM DELIVERED DESIGN

SHEET TITLE
RADIAL DIMENSION PLAN

SCALE: (U.N.O.)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DRWG NO. S100



1 S100 RADIAL DIMENSION PLAN
1" = 30'-0"

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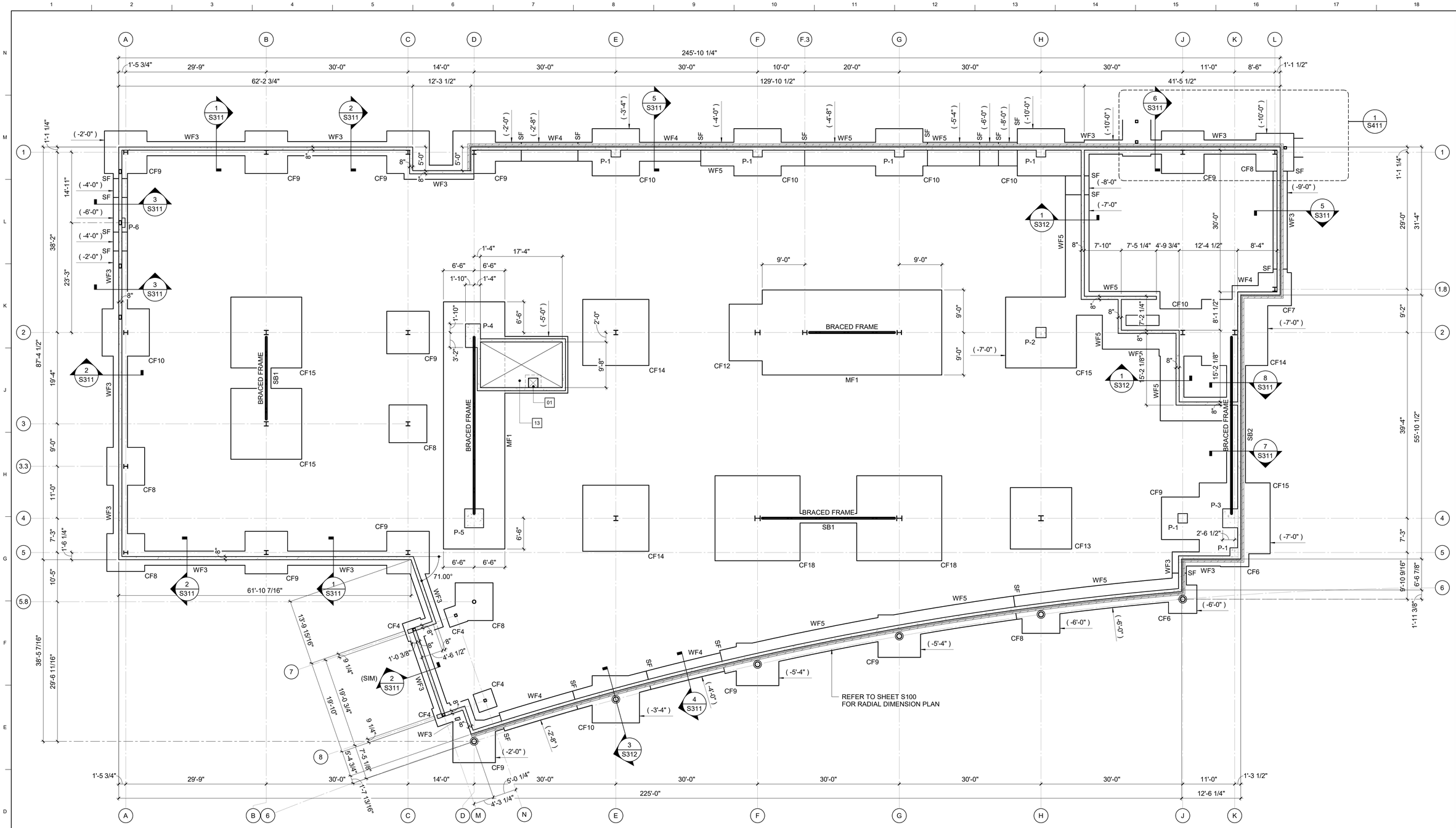

1 FIRST FLOOR FOUNDATION PLAN

1/8" = 1'-0"

0 8 16 32'

FOUNDATION PLAN NOTES

A. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS TO NONBEARING WALLS, WALL CONTROL JOINTS AND OPENINGS.

B. UNLESS OTHERWISE NOTED, ALL ELEVATIONS ARE BASED ON A FINISHED FIRST FLOOR REFERENCE OF 0'-0". ACTUAL FINISHED FLOOR ELEVATION IS 312.00'. FINISHED FLOOR ELEVATIONS AT EACH LEVEL ARE INDICATED ON SLAB PLANS. REFERENCE ARCHITECTURAL DRAWINGS FOR FINISHED FLOOR MATERIALS.

C. TOP OF ALL FOOTINGS MUST BE AT ELEVATION -2'-0" UNLESS OTHERWISE NOTED.

D. NOT ALL UTILITY LOCATIONS ARE SHOWN ON PLAN. THE CONTRACTOR MUST COORDINATE THE LOCATIONS, SIZES, AND INVERTS OF UTILITIES. AT LOCATIONS WHERE UTILITIES PASS BELOW THE TOP OF FOOTING ELEVATION, STEP THE TOP OF FOOTING DOWN ON EACH SIDE PER THE "STEPPED FOOTING DETAIL" AND SLEEVE THE UTILITY THROUGH THE FOUNDATION WALL. THE CONTRACTOR MAY, AT HIS/HER OPTION, SLEEVE THE UTILITY THROUGH THE FOUNDATION PER THE "UTILITY SLEEVE DETAIL".

E. UNLESS OTHERWISE INDICATED, EXTEND WALL FOOTINGS A MINIMUM OF 6 INCHES BEYOND ENDS OF WALLS.

F. NOT ALL SITE WALLS ARE SHOWN ON PLAN. CONTRACTOR MUST COORDINATE CIVIL AND LANDSCAPE DRAWINGS FOR SITE WALL INFORMATION.

G. DIMENSIONS SHOWN ON FOUNDATION PLAN ARE TO COLUMN GRIDLINES AND OUTSIDE FACE OF FOUNDATION WALLS, UNLESS OTHERWISE NOTED.

PLAN KEYNOTES

01 2'-0 SQUARE SUMP PIT FOR ELEVATOR. REFERENCE TYPICAL DETAIL. COORDINATE LOCATION WITH PLUMBING DRAWINGS AND ELEVATOR MANUFACTURER.

13 COORDINATE EXACT DIMENSIONS OF ELEVATOR PIT WITH ELEVATOR MANUFACTURER SELECTED PRIOR TO PLACING CONCRETE. ELEVATOR PIT DIMENSIONS SHOWN ARE APPROXIMATE AND CONSIDERED ADEQUATE FOR BIDDING PURPOSES ONLY.

FLOOR ELEVATION CHART	
LEVEL	**REFERENCE ELEVATION**
First Floor	0'-0"
Second Floor	18'-0"
Third Floor	34'-0"
Penthouse	50'-0"

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REVISION:

SHEET TITLE: FIRST FLOOR FOUNDATION PLAN

SCALE (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23892-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA PROFESSIONAL ENGINEERING CORPORATION C-4360 STRUCTURAL MILLWORK CONSTRUCTION DIVISIONS

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANDIS 12/18/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S110

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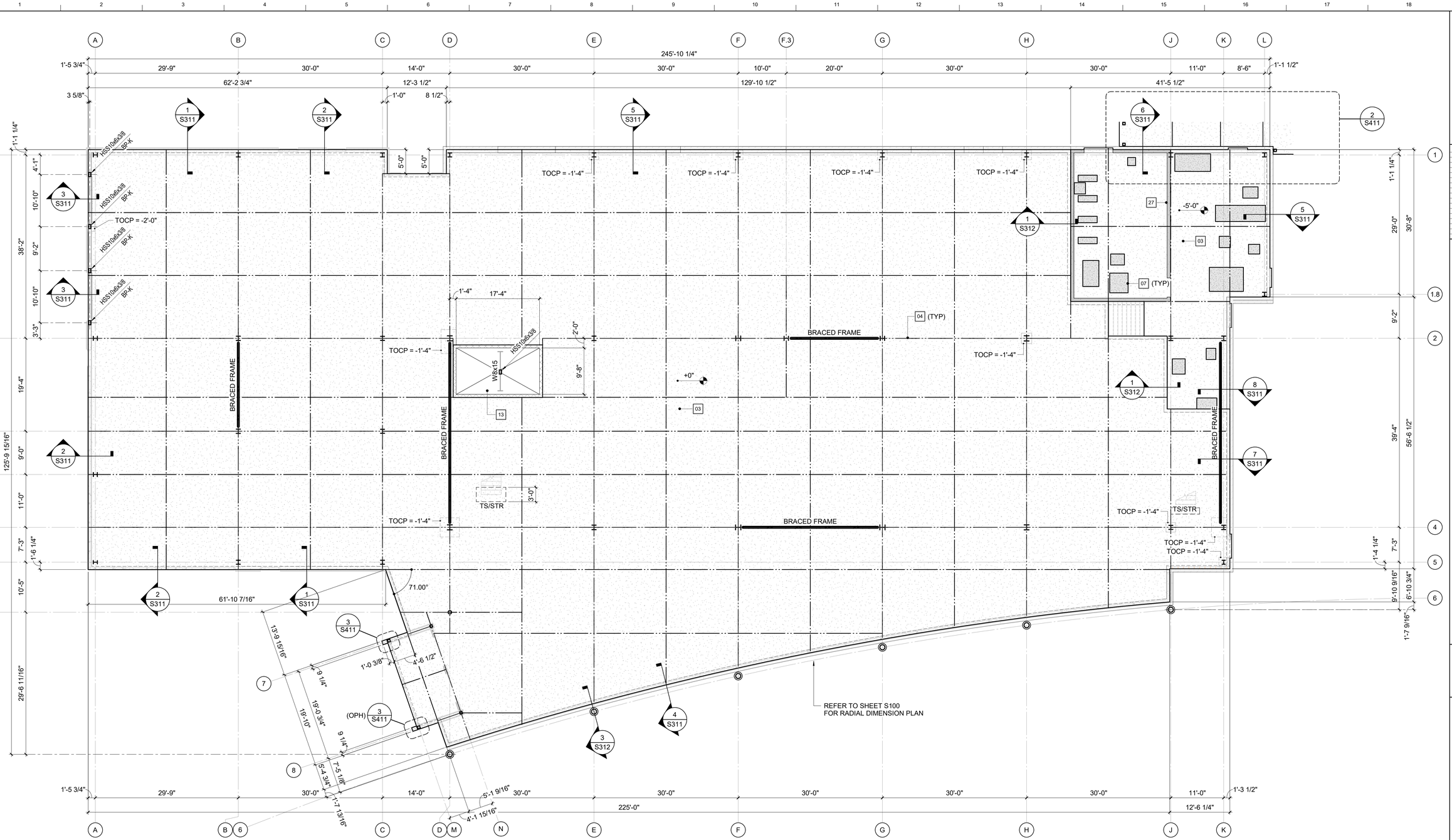

1 FIRST FLOOR SLAB PLAN

S111

1/8" = 1'-0"

0 8 16 32'

SLAB-ON-GRADE PLAN NOTES

A. REFERENCE ARCHITECTURAL DRAWINGS FOR DIMENSIONS TO NONBEARING WALLS, WALL CONTROL JOINTS AND OPENINGS.

B. UNLESS OTHERWISE NOTED, ALL ELEVATIONS ARE BASED ON A FINISHED FIRST FLOOR REFERENCE OF 0'-0". ACTUAL FINISHED FLOOR ELEVATION IS 312.00'. FINISHED FLOOR ELEVATIONS AT EACH LEVEL ARE INDICATED ON SLAB PLANS. REFERENCE ARCHITECTURAL DRAWINGS FOR FINISHED FLOOR MATERIALS.

C. REFERENCE ARCHITECTURAL DRAWINGS FOR EXACT LIMITS OF SLAB DEPRESSIONS AND OMITTED SLABS.

D. FLOOR SINKS AND DRAINS ARE NOT SHOWN ON PLAN. REFERENCE PME DRAWINGS FOR LOCATIONS.

E. REFERENCE CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR CONCRETE SLABS AND PAVING.

F. SLAB-ON-GRADE JOINTS MUST BE SAWED JOINTS OR KEYED CONSTRUCTION JOINTS, UNLESS OTHERWISE NOTED. CONTRACTOR MUST COORDINATE ALL SLAB JOINTS WITH JOINTS IN BONDED FLOOR FINISHES. REFERENCE ARCHITECTURAL DRAWINGS FOR FLOOR FINISH JOINT LOCATIONS.

G. PLACE (1) #4 x 3'-0" IN MIDDLE OF SLAB AT RE-ENTRANT CORNERS WHERE A SLAB JOINT DOES NOT OCCUR.

PLAN KEYNOTES

03 4" CONCRETE SLAB-ON-GRADE OVER VAPOR RETARDER AND 4" DEPTH OF POROUS FILL. REINFORCE SLAB WITH 6x6-W2.1xW2.1 WELDED WIRE REINFORCING PLACED 1 1/2" CLEAR BELOW TOP OF SLAB. MAINTAIN REINFORCEMENT IN POSITION ON BOLSTERS, CHAIRS OR SPACERS DURING CONCRETE PLACEMENT.

04 SLAB-ON-GRADE JOINT. REFERENCE FOUNDATION / SLAB PLAN NOTES AND TYPICAL DETAILS.

07 4" THICK HOUSEKEEPING PAD. REFERENCE TYPICAL DETAIL.

13 COORDINATE EXACT DIMENSIONS OF ELEVATOR PIT WITH ELEVATOR MANUFACTURER SELECTED PRIOR TO PLACING CONCRETE. ELEVATOR PIT DIMENSIONS SHOWN ARE APPROXIMATE AND CONSIDERED ADEQUATE FOR BIDDING PURPOSES ONLY.

27 8" WIDE x 6" TALL CONCRETE CURB AT MECHANICAL ROOM, REFER TO TYPICAL DETAIL.

FLOOR ELEVATION CHART	
LEVEL	**REFERENCE ELEVATION**
First Floor	0'-0"
Second Floor	18'-0"
Third Floor	34'-0"
Penthouse	50'-0"

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SHEET TITLE: FIRST FLOOR SLAB PLAN

SCALE (U.N.O.):

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

ISSUE DATE: 12/20/2023

JOB. NO.: 11751-00

DWG. NO.: S111

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NORTH CAROLINA PROFESSIONAL ENGINEERING SEAL C-4360 INFRASTRUCTURE

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNON
02/16/2024

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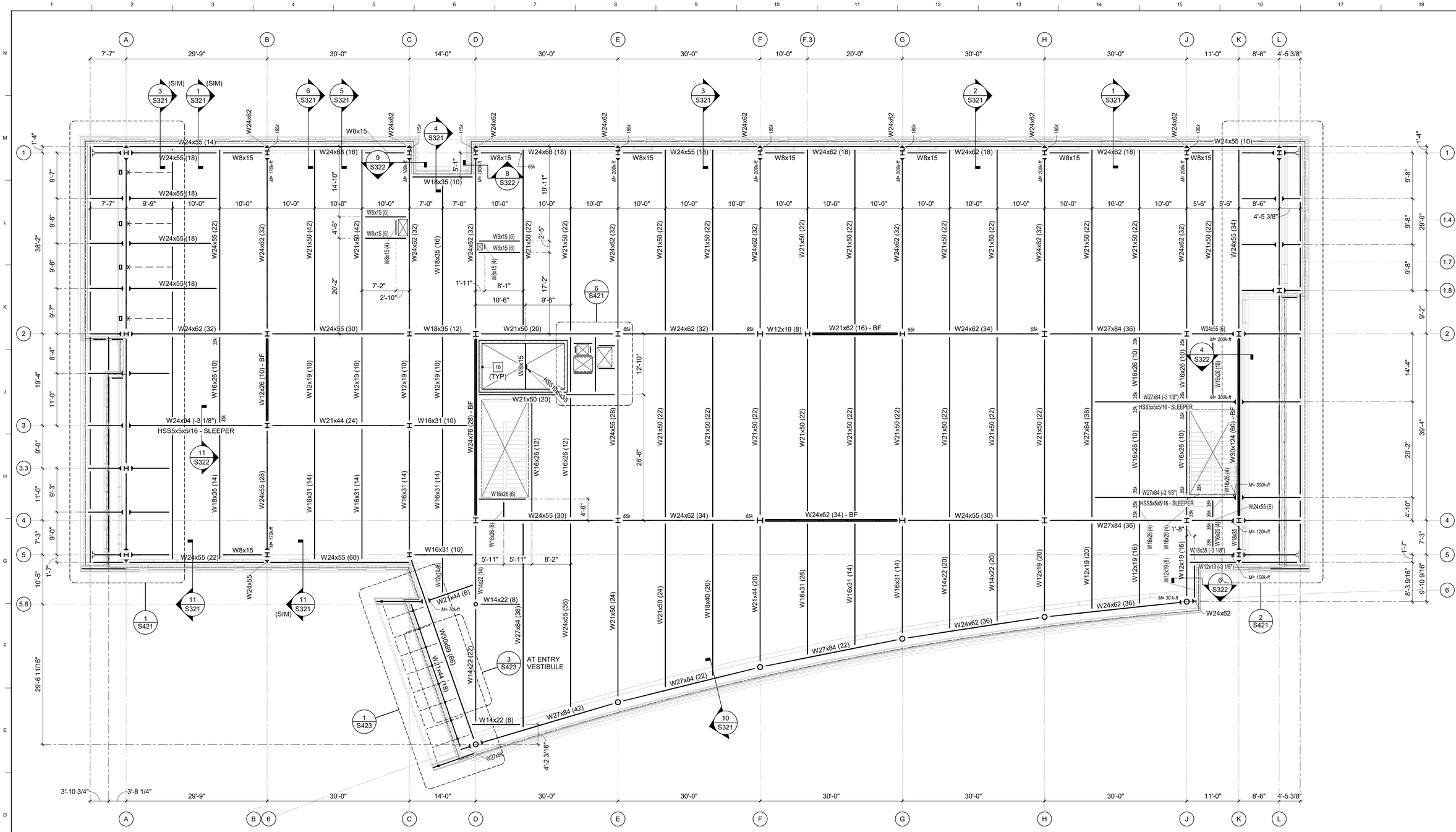
A B C D E F F.3 G H J K L
7'-7" 29'-9" 30'-0" 14'-0" 30'-0" 30'-0" 10'-0" 20'-0" 30'-0" 30'-0" 11'-0" 8'-6" 4'-5 3/8"
1 2 3 3.3 4 5 5.8 6
N M L K J H G F E D C B A
W24x55 (14)
W24x55 (18)
W8x15
W24x68 (18)
W18x35 (10)
W24x62 (18)
W24x55 (10)
W24x62 (32)
W24x55 (30)
W18x35 (12)
W21x50 (20)
W24x62 (32)
W12x19 (8)
W21x62 (16) - BF
W24x62 (34)
W27x84 (36)
W24x55 (6)
W24x94 (-3 1/8")
HSS5x5x5/16 - SLEEPER
W21x44 (24)
W16x31 (10)
W24x76 (28) - BF
W24x62 (34) - BF
W24x55 (22)
W24x55 (60)
W16x31 (10)
W27x84 (-3 1/8")
W30x124 (60) - BF
W18x35 (-3 1/8")
W12x19 (-3 1/8")
W14x22 (8)
W21x44 (8)
W27x84 (22)
W27x84 (42)
W24x62 (36)
W24x62
W27x84 (38)
W24x55 (28)
W21x50 (24)
W18x40 (20)
W16x31 (26)
W16x31 (14)
W14x22 (20)
W12x19 (20)
W12x19 (16)
W12x19 (8)
W14x22 (14)
W30x99 (60)
W21x44 (18)
W27x84
M= 170k-ft
M= 150k-ft
M= 200k-ft
M= 65k
M= 300k-ft
M= 120k-ft
M= 100k-ft
M= 30 k-ft
W8x15 (6)
W8x15 (4)
W16x26 (6)
W16x26 (4)
W16x26 (10)
W16x26 (12)
W16x35 (14)
W16x55
W24x55
W24x62 (32)
W24x55 (22)
W24x55 (34)
W21x50 (42)
W21x50 (22)
W18x35 (16)
W12x26 (10) - BF
W16x26 (10)
W12x19 (10)
W24x55 (28)
W16x31 (14)
W16x26 (12)
W24x55 (30)
W24x62 (34)
W24x55 (6)
W16x26 (10)
W27x84 (-3 1/8")
W16x26 (4)
W16x55
W18x35 (-3 1/8")
W12x19 (-3 1/8")
W12x19 (16)
W12x19 (8)
W14x22 (14)
W14x22 (20)
W14x22 (8)
W24x62 (36)
W27x84 (22)
W27x84 (42)
W24x62
W24x55 (22)
W24x55 (60)
W16x31 (10)
W24x55
W24x62 (32)
W24x55 (34)
W21x50 (22)
W24x62 (34) - BF
W27x84 (36)
W27x84 (38)
W24x55 (28)
W21x50 (24)
W18x40 (20)
W16x31 (26)
W16x31 (14)
W14x22 (20)
W12x19 (20)
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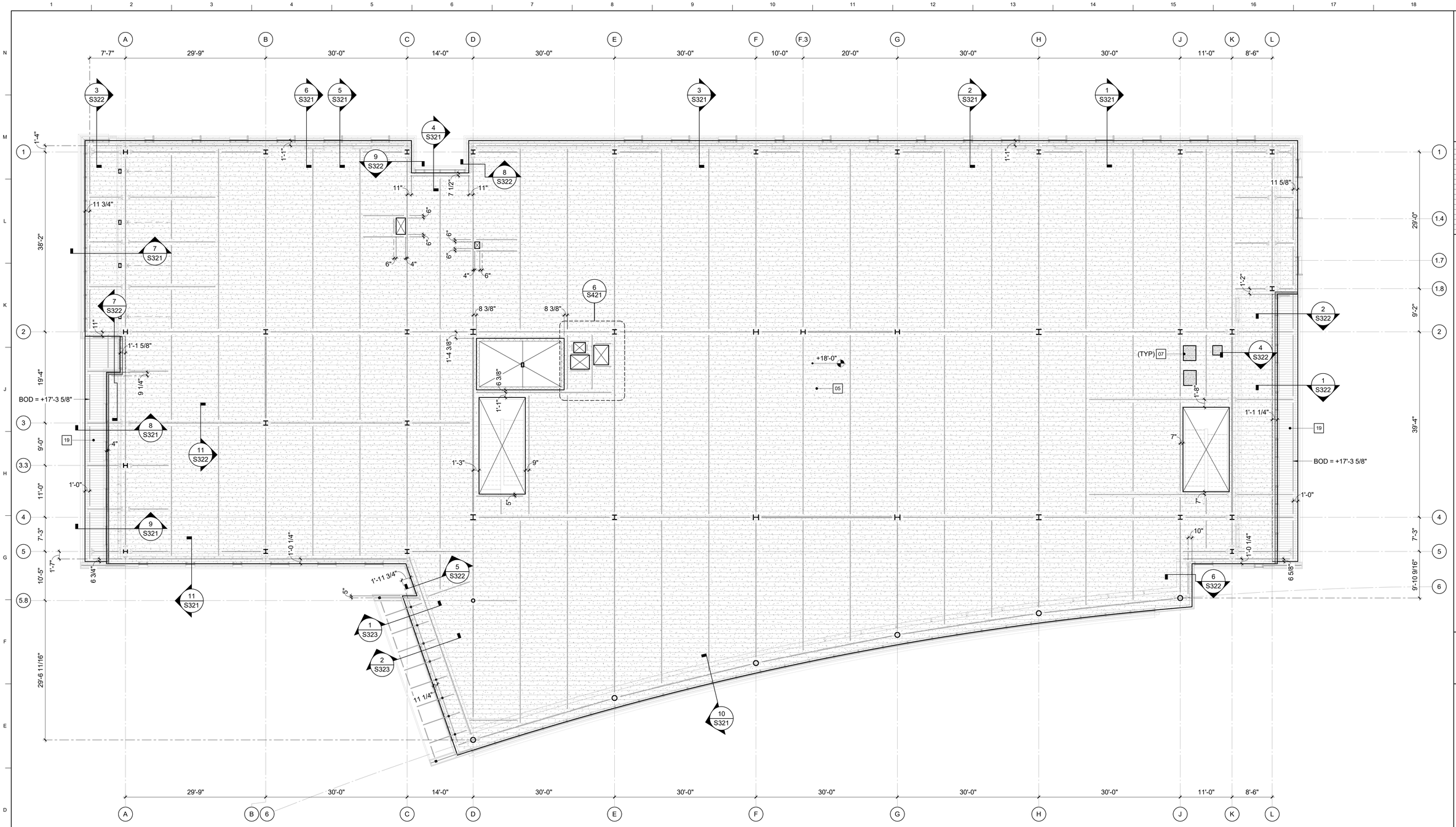
W27x84
W24x62 (36



1 SECOND FLOOR SLAB PLAN

S121 — 1/8" = 1'-0"

0 8 16 32'

FRAMING PLAN NOTES

A. REFERENCE FOUNDATION PLAN AND ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.

B. TOP OF FINISHED FLOOR ELEVATION SHALL BE AS NOTED ON SLAB PLANS.

C. COMPOSITE STEEL BEAM FRAMING MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER), UNLESS OTHERWISE NOTED.

D. STEEL ROOF FRAMING SUPPORTING 3" STEEL ROOF DECK MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER) UNLESS OTHERWISE NOTED.

E. CONCRETE ON ELEVATED METAL DECKS MUST BE POURED TO THE THICKNESS INDICATED.

F. AT STEEL ROOF FRAMING, BOTTOM OF DECK ELEVATIONS ARE SHOWN ON PLAN. INTERMEDIATE ELEVATIONS SHALL BE STRAIGHT LINES BETWEEN GIVEN ELEVATIONS. INTERPOLATE AS REQUIRED FOR INTERMEDIATE BEARING ELEVATIONS, UNLESS OTHERWISE NOTED.

G. COORDINATE AND VERIFY ALL MEMBER LOCATIONS, DIMENSIONS, WEIGHTS, OPENING SIZES, AND CURB DIMENSIONS FOR ALL MECHANICAL EQUIPMENT WITH THE ACTUAL EQUIPMENT FURNISHED. INCLUDE THIS INFORMATION ON THE JOIST AND STRUCTURAL STEEL SHOP DRAWINGS.

H. REFER TO SHEET S100 FOR RADIAL DIMENSION PLAN.

PLAN KEYNOTES

05 3 1/4" LIGHTWEIGHT CONCRETE SLAB ON 2" COMPOSITE FLOOR DECK, (5 1/4" TOTAL) REINFORCED WITH 6x6-W2.9xW2.9 WELDED WIRE REINFORCING LOCATED 1" CLEAR BELOW TOP OF SLAB. FOR SUPPLEMENTAL REINFORCING OVER GIRDER, REFERENCE TYPICAL REINFORCING OVER BEAM PARALLEL TO DECK FLUTES DETAIL.

07 4" THICK HOUSEKEEPING PAD. REFERENCE TYPICAL DETAIL.

19 1 1/2" ROOF DECK. REFERENCE STEEL DECK NOTES.

FLOOR ELEVATION CHART	
LEVEL	REFERENCE ELEVATION
First Floor	0'-0"
Second Floor	18'-0"
Third Floor	34'-0"
Penthouse	50'-0"

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CONSULTING ENGINEERING GROUP, PLLC

SHEET TITLE: SECOND FLOOR SLAB PLAN
SCALE (UNO):

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA PROFESSIONAL ENGINEERING CORPORATION C-4360 STRUCTURAL ENGINEERS, P.A.

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNEN 12/18/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S121

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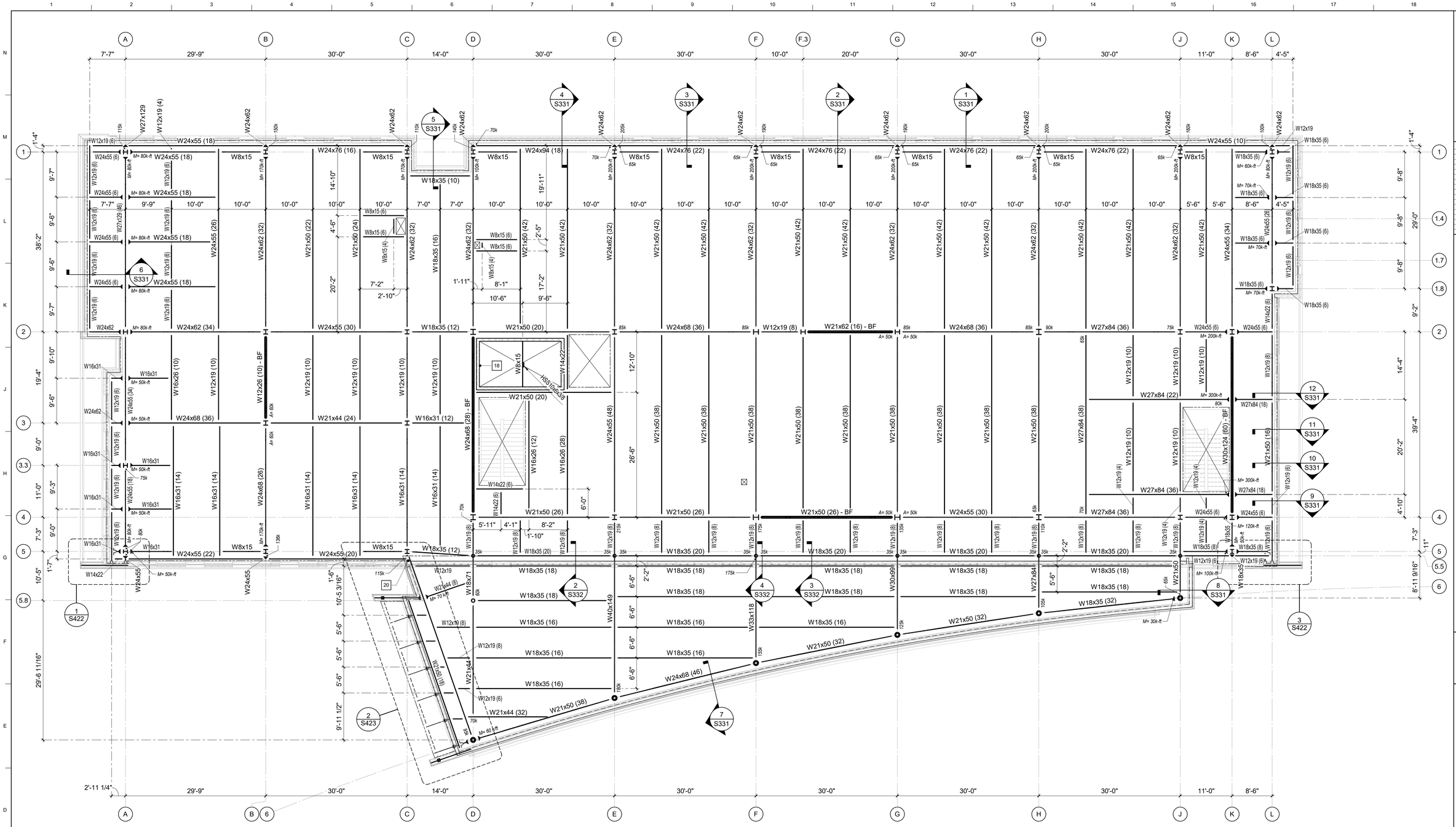
A
B
C
D
E
F
F.3
G
H
J
K
L
7'-7"
29'-9"
30'-0"
14'-0"
30'-0"
30'-0"
10'-0"
20'-0"
30'-0"
30'-0"
11'-0"
8'-6"
4'-5"
38'-2"
W24x55 (18)
W24x62 (34)
W24x55 (30)
W18x35 (12)
W21x50 (20)
W24x68 (36)
W12x19 (8)
W21x62 (16) - BF
W24x68 (36)
W27x84 (36)
W24x55 (6)
W24x55 (10)
W24x68 (36)
W21x44 (24)
W16x31 (12)
W21x50 (26)
W21x50 (26)
W21x50 (26) - BF
W24x55 (30)
W27x84 (36)
W24x55 (6)
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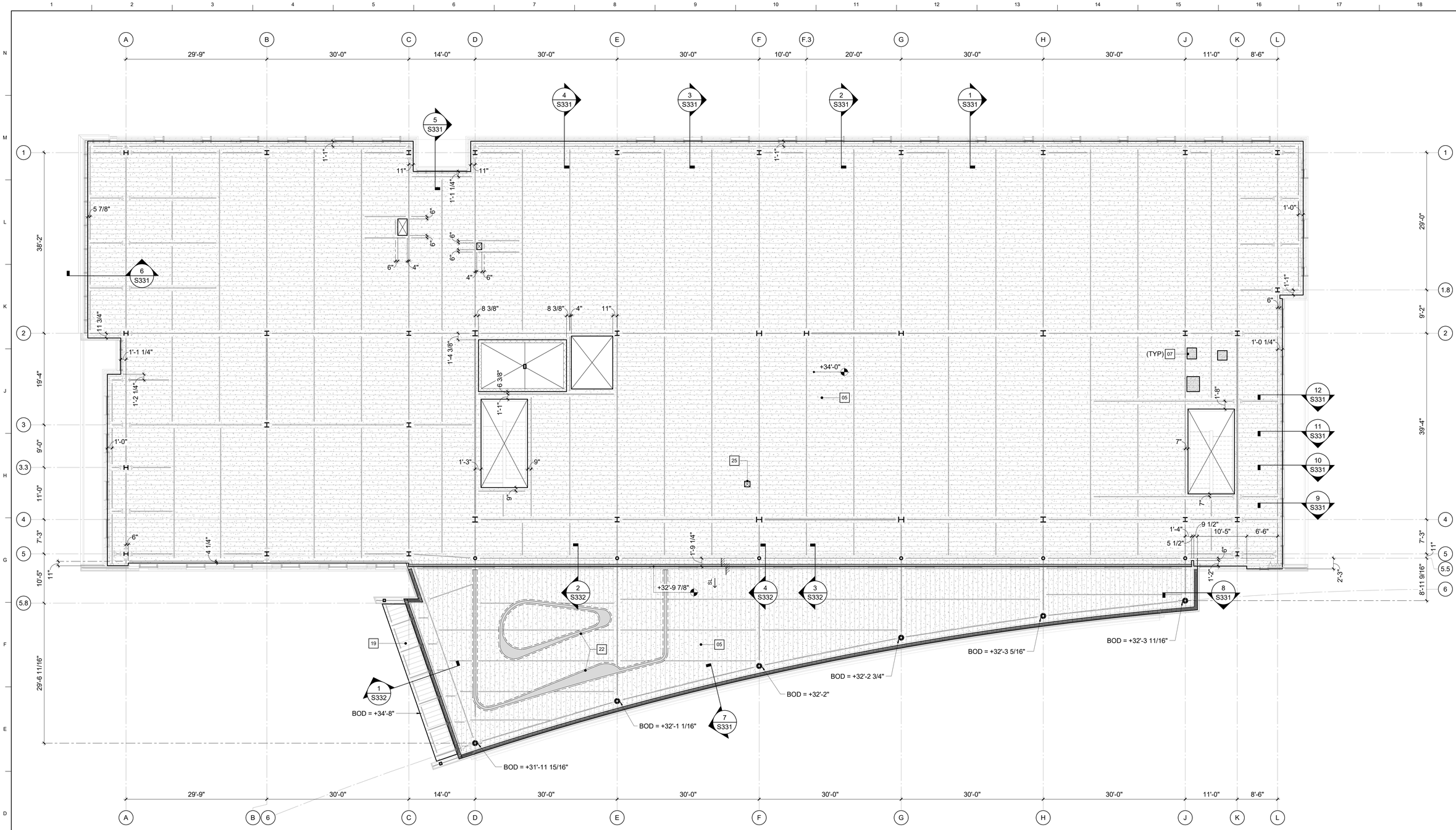

1 THIRD FLOOR SLAB PLAN

S131

1/8" = 1'-0"

0 8 16 32'

FRAMING PLAN NOTES

A. REFERENCE FOUNDATION PLAN AND ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.

B. TOP OF FINISHED FLOOR ELEVATION SHALL BE AS NOTED ON SLAB PLANS.

C. COMPOSITE STEEL BEAM FRAMING MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER), UNLESS OTHERWISE NOTED.

D. STEEL ROOF FRAMING SUPPORTING 3" STEEL ROOF DECK MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER) UNLESS OTHERWISE NOTED.

E. CONCRETE ON ELEVATED METAL DECKS MUST BE POURED TO THE THICKNESS INDICATED.

F. AT STEEL ROOF FRAMING, BOTTOM OF DECK ELEVATIONS ARE SHOWN ON PLAN. INTERMEDIATE ELEVATIONS SHALL BE STRAIGHT LINES BETWEEN GIVEN ELEVATIONS. INTERPOLATE AS REQUIRED FOR INTERMEDIATE BEARING ELEVATIONS, UNLESS OTHERWISE NOTED.

G. COORDINATE AND VERIFY ALL MEMBER LOCATIONS, DIMENSIONS, WEIGHTS, OPENING SIZES, AND CURB DIMENSIONS FOR ALL MECHANICAL EQUIPMENT WITH THE ACTUAL EQUIPMENT FURNISHED. INCLUDE THIS INFORMATION ON THE JOIST AND STRUCTURAL STEEL SHOP DRAWINGS.

H. REFER TO SHEET S100 FOR RADIAL DIMENSION PLAN.

PLAN KEYNOTES

05 3 1/4" LIGHTWEIGHT CONCRETE SLAB ON 2" COMPOSITE FLOOR DECK, (5 1/4" TOTAL) REINFORCED WITH 6x6-W2.9xW2.9 WELDED WIRE REINFORCING LOCATED 1" CLEAR BELOW TOP OF SLAB. FOR SUPPLEMENTAL REINFORCING OVER GIRDER, REFERENCE TYPICAL REINFORCING OVER BEAM PARALLEL TO DECK FLUTES DETAIL.

07 4" THICK HOUSEKEEPING PAD. REFERENCE TYPICAL DETAIL.

19 1 1/2" ROOF DECK. REFERENCE STEEL DECK NOTES.

22 PRECAST CONCRETE CURB OR SEAT WALL, REFER TO LANDSCAPE DRAWINGS. REFERENCE TYPICAL PRECAST WALL CURB DETAIL.

25 12"x12" STERILIZER FLOOR SINK, REFER TO TYPICAL SPACING REQUIREMENTS FOR FLOOR PENETRATIONS 6" TO 24" WIDE.

FLOOR ELEVATION CHART	
LEVEL	**REFERENCE ELEVATION**
First Floor	0'-0"
Second Floor	18'-0"
Third Floor	34'-0"
Penthouse	50'-0"

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REVISION:

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301 N West St., Suite 105
Raleigh, NC 27603
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lynchmykins
CAUTION: COLLABORATIVE STUDIO

SHEET TITLE: THIRD FLOOR SLAB PLAN

SCALE (UNO)

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA ENGINEERING CORPORATION C-4360 STRUCTURAL ENGINEERS

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNEN 12/18/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S131

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Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/R22138_WTCC Tech 4.0_Struc_R22.rvt
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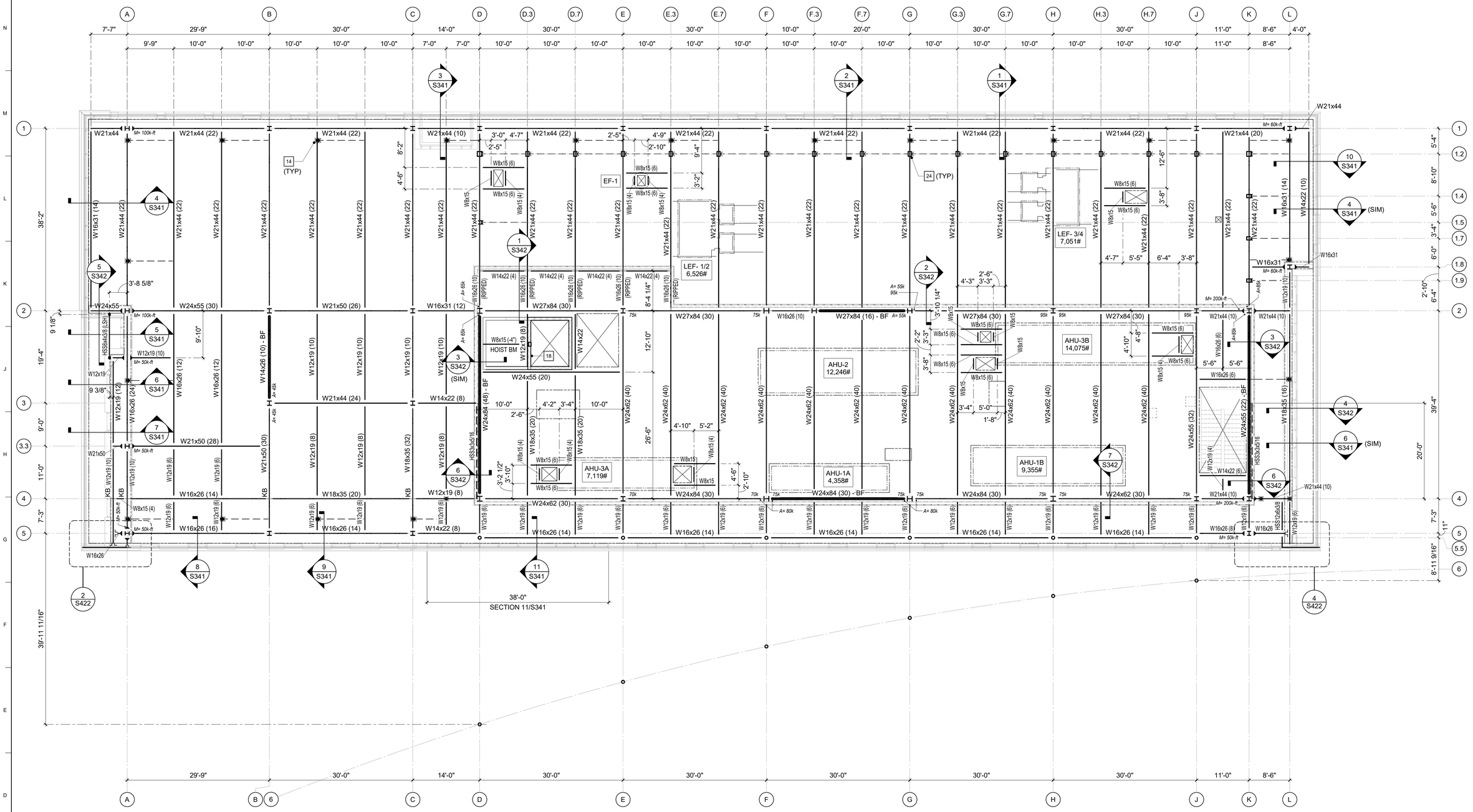
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W21x44 (10)
W21x44 (20)
W27x84 (30)
W27x84 (16) - BF
W24x84 (30) - BF
W24x84 (48) - BF
W24x55 (20)
W24x62 (30)
W24x62 (40)
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W14x26 (10) - BF
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W8x15 (8)
W14x22 (4)
W16x26 (10) (RIPPED)
W16x26 (6)
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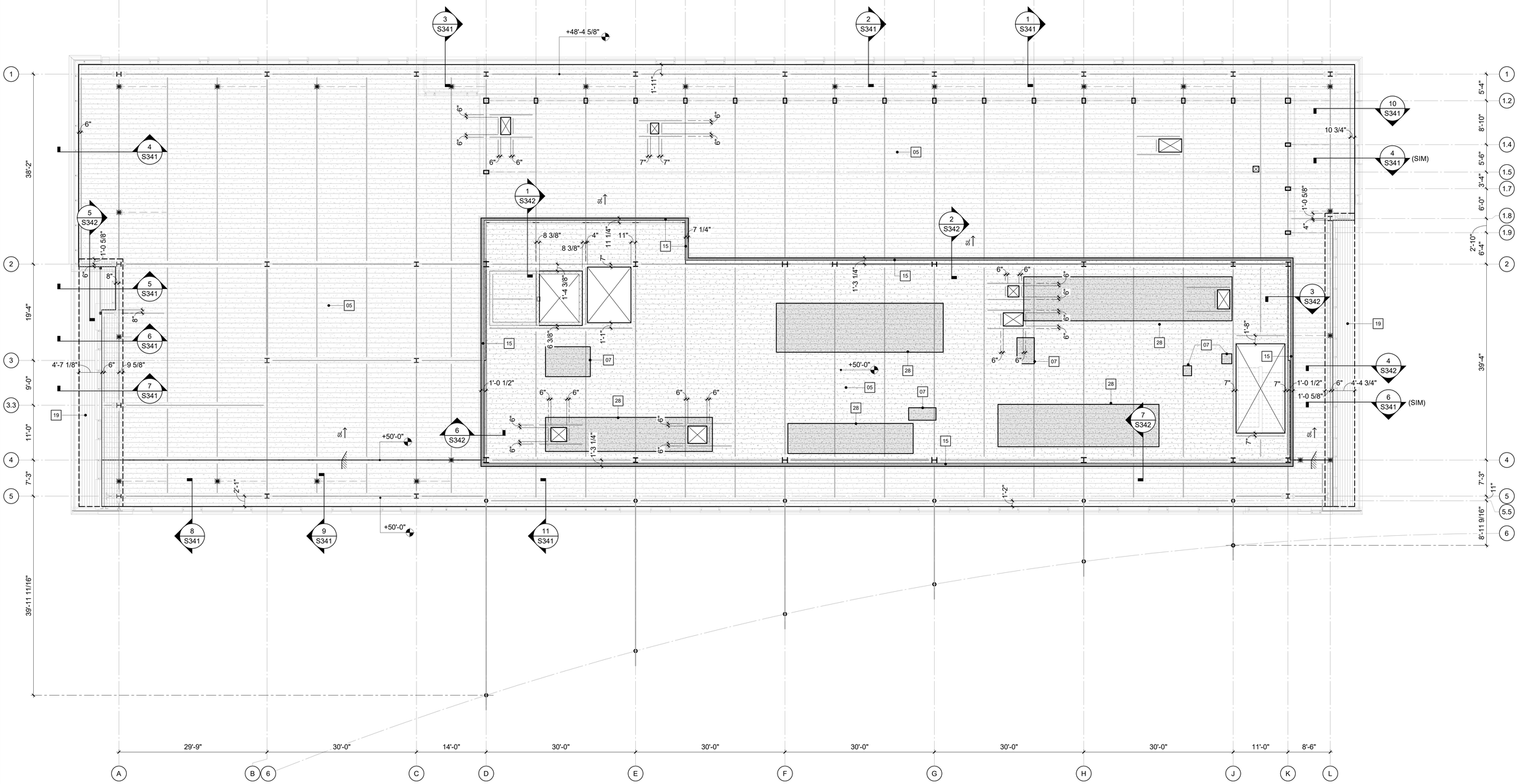

1 PENTHOUSE FLOOR SLAB / ROOF DECK PLAN

S141

1/8" = 1'-0"

0 8 16 32'

FRAMING PLAN NOTES

A. REFERENCE FOUNDATION PLAN AND ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.

B. TOP OF FINISHED FLOOR ELEVATION SHALL BE AS NOTED ON SLAB PLANS.

C. COMPOSITE STEEL BEAM FRAMING MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER), UNLESS OTHERWISE NOTED.

D. STEEL ROOF FRAMING SUPPORTING 3" STEEL ROOF DECK MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER) UNLESS OTHERWISE NOTED.

E. CONCRETE ON ELEVATED METAL DECKS MUST BE POURED TO THE THICKNESS INDICATED.

F. AT STEEL ROOF FRAMING, BOTTOM OF DECK ELEVATIONS ARE SHOWN ON PLAN. INTERMEDIATE ELEVATIONS SHALL BE STRAIGHT LINES BETWEEN GIVEN ELEVATIONS. INTERPOLATE AS REQUIRED FOR INTERMEDIATE BEARING ELEVATIONS, UNLESS OTHERWISE NOTED.

G. COORDINATE AND VERIFY ALL MEMBER LOCATIONS, DIMENSIONS, WEIGHTS, OPENING SIZES, AND CURB DIMENSIONS FOR ALL MECHANICAL EQUIPMENT WITH THE ACTUAL EQUIPMENT FURNISHED. INCLUDE THIS INFORMATION ON THE JOIST AND STRUCTURAL STEEL SHOP DRAWINGS.

H. REFER TO SHEET S100 FOR RADIAL DIMENSION PLAN.

PLAN KEYNOTES

05 3 1/4" LIGHTWEIGHT CONCRETE SLAB ON 2" COMPOSITE FLOOR DECK, (5 1/4" TOTAL) REINFORCED WITH 6x6-W2.9xW2.9 WELDED WIRE REINFORCING LOCATED 1" CLEAR BELOW TOP OF SLAB. FOR SUPPLEMENTAL REINFORCING OVER GIRDER, REFERENCE TYPICAL REINFORCING OVER BEAM PARALLEL TO DECK FLUTES DETAIL.

07 4" THICK HOUSEKEEPING PAD. REFERENCE TYPICAL DETAIL.

15 8" WIDE x 1'-0" TALL CONCRETE CURB.

19 1 1/2" ROOF DECK. REFERENCE STEEL DECK NOTES.

28 6" THICK HOUSEKEEPING PAD. REFERENCE TYPICAL DETAIL.

FLOOR ELEVATION CHART	
LEVEL	**REFERENCE ELEVATION**
First Floor	0'-0"
Second Floor	18'-0"
Third Floor	34'-0"
Penthouse	50'-0"

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HOUSTON | RALEIGH | DENVER

SHEET TITLE
PENTHOUSE SLAB / ROOF DECK FRAMING PLAN

SCALE (U.N.O.)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING

1160 Inspiration Circle, Wendell, NC 27591

ISSUE, DATE
12/20/2023

JOB. NO.
11751-00

DWG. NO.
S141

NOT FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL ENGINEERING CORPORATION C-4360 NC INFRASTRUCTURAL CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNON
12/19/2023

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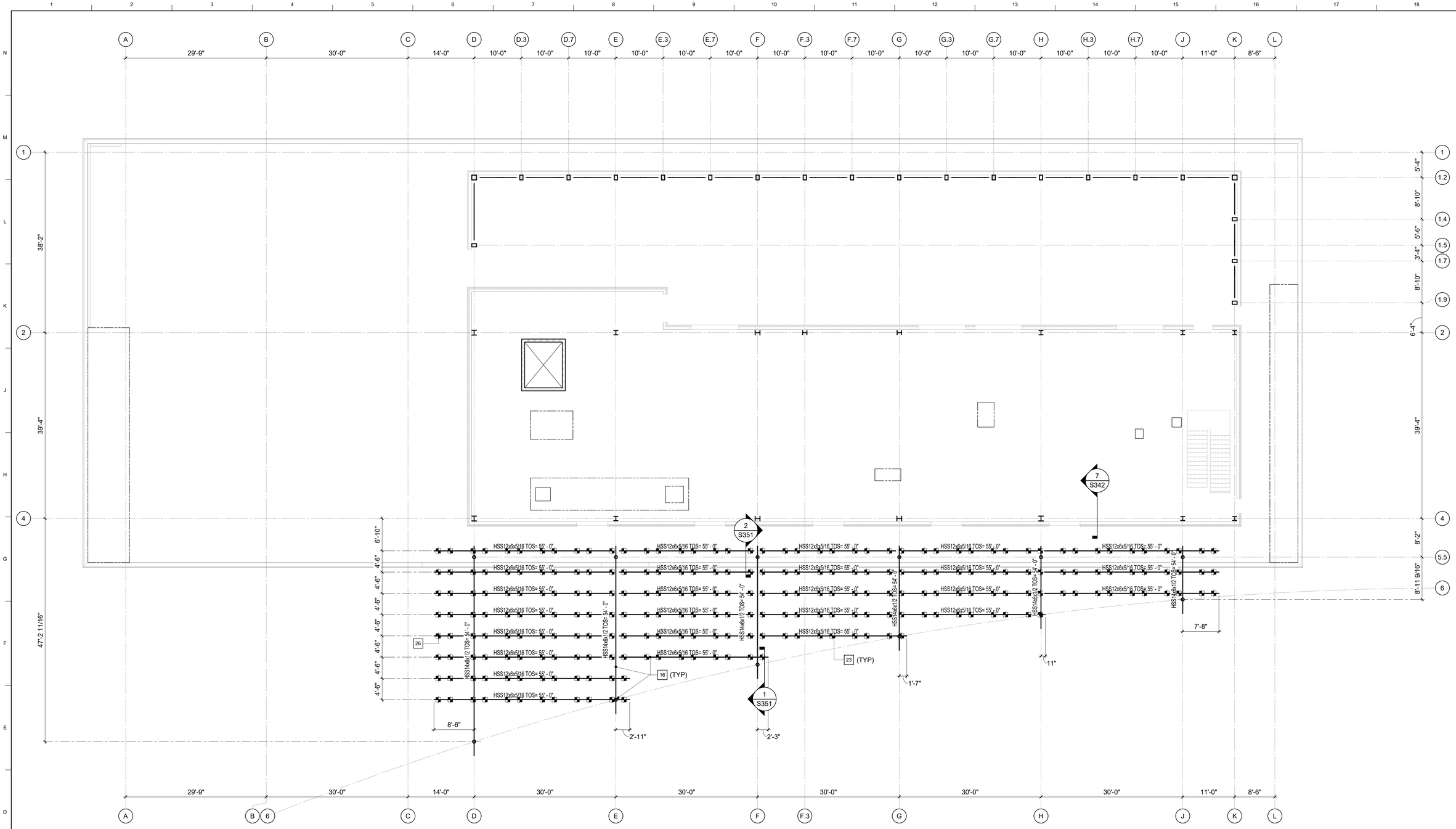

1 PV ARRAY FRAMING PLAN

S150

1/8" = 1'-0"

0 8 16 32'

FRAMING PLAN NOTES

A. REFERENCE FOUNDATION PLAN AND ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.

B. TOP OF FINISHED FLOOR ELEVATION SHALL BE AS NOTED ON SLAB PLANS.

C. COMPOSITE STEEL BEAM FRAMING MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER), UNLESS OTHERWISE NOTED.

D. STEEL ROOF FRAMING SUPPORTING 3" STEEL ROOF DECK MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER) UNLESS OTHERWISE NOTED.

E. CONCRETE ON ELEVATED METAL DECKS MUST BE POURED TO THE THICKNESS INDICATED.

F. AT STEEL ROOF FRAMING, BOTTOM OF DECK ELEVATIONS ARE SHOWN ON PLAN. INTERMEDIATE ELEVATIONS SHALL BE STRAIGHT LINES BETWEEN GIVEN ELEVATIONS. INTERPOLATE AS REQUIRED FOR INTERMEDIATE BEARING ELEVATIONS, UNLESS OTHERWISE NOTED.

G. COORDINATE AND VERIFY ALL MEMBER LOCATIONS, DIMENSIONS, WEIGHTS, OPENING SIZES, AND CURB DIMENSIONS FOR ALL MECHANICAL EQUIPMENT WITH THE ACTUAL EQUIPMENT FURNISHED. INCLUDE THIS INFORMATION ON THE JOIST AND STRUCTURAL STEEL SHOP DRAWINGS.

H. REFER TO SHEET S100 FOR RADIAL DIMENSION PLAN.

PLAN KEYNOTES

16 STRUCTURAL STEEL MEMBERS AND CONNECTIONS ABOVE THE LEVEL 3 ROOF TERRACE TO BE AESS 2. REFER TO SPECIFICATIONS FOR FINISH REQUIREMENTS.

23 FOR PV ATTACHMENT TO FRAME, REFER TO DETAIL 6/S552.

26 PV FRAME ATTACHMENT. REFERENCE TYPICAL PV ARRAY SUPPORT DETAIL.

FLOOR ELEVATION CHART	
LEVEL	**REFERENCE ELEVATION**
First Floor	0'-0"
Second Floor	18'-0"
Third Floor	34'-0"
Penthouse	50'-0"

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SHEET TITLE: PV ARRAY FRAMING PLAN

SCALE (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA PROFESSIONAL ENGINEERING CORP C-4360 STRUCTURAL

NORTH CAROLINA PROFESSIONAL 051551 ENGINEER MICHAEL R. BRANDIS 12/18/2023

ISSUE DATE: 12/20/2023

JOB. NO.: 11751-00

DWG. NO.: S150

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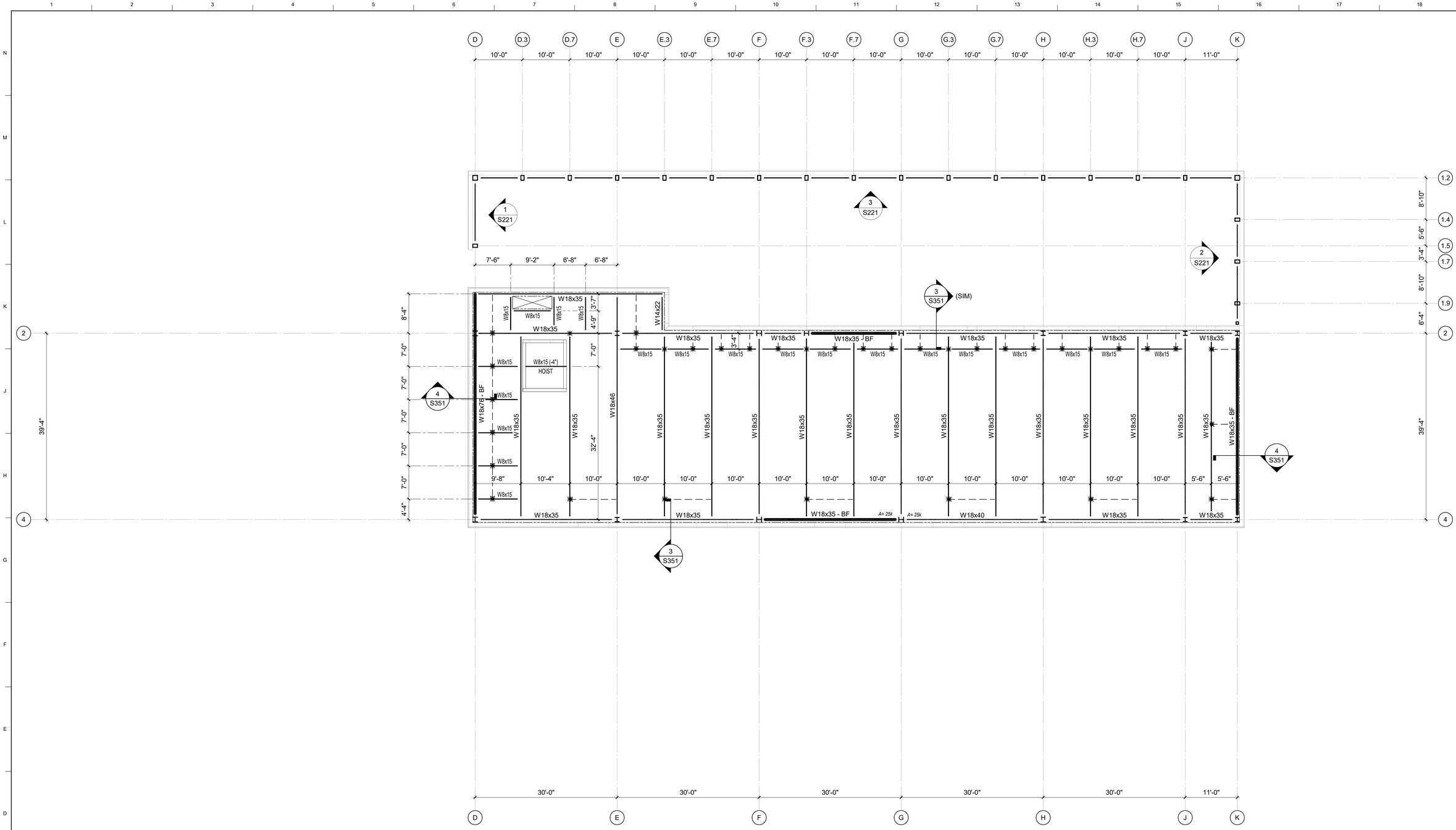

1 PENTHOUSE ROOF AND SCREENWALL FRAMING PLAN

1/8" = 1'-0"

0 8 16 32'

FRAMING PLAN NOTES

A. REFERENCE FOUNDATION PLAN AND ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.

B. TOP OF FINISHED FLOOR ELEVATION SHALL BE AS NOTED ON SLAB PLANS.

C. COMPOSITE STEEL BEAM FRAMING MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER), UNLESS OTHERWISE NOTED.

D. STEEL ROOF FRAMING SUPPORTING 3" STEEL ROOF DECK MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER) UNLESS OTHERWISE NOTED.

E. CONCRETE ON ELEVATED METAL DECKS MUST BE POURED TO THE THICKNESS INDICATED.

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G. COORDINATE AND VERIFY ALL MEMBER LOCATIONS, DIMENSIONS, WEIGHTS, OPENING SIZES, AND CURB DIMENSIONS FOR ALL MECHANICAL EQUIPMENT WITH THE ACTUAL EQUIPMENT FURNISHED. INCLUDE THIS INFORMATION ON THE JOIST AND STRUCTURAL STEEL SHOP DRAWINGS.

H. REFER TO SHEET S100 FOR RADIAL DIMENSION PLAN.

PLAN KEYNOTES

FLOOR ELEVATION CHART	
LEVEL	**REFERENCE ELEVATION**
First Floor	0'-0"
Second Floor	18'-0"
Third Floor	34'-0"
Penthouse	50'-0"

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lynchmykins
STRUCTURAL ENGINEERING STUDIO

SHEET TITLE: PENTHOUSE ROOF AND SCREENWALL FRAMING PLAN

SCALE: (U.N.O.)

on track
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA PROFESSIONAL ENGINEERING CORPORATION C-4360 LYNCH MYKINS STRUCTURAL DESIGNERS, PC

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MARVIN R. BRANNON 12/19/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S160

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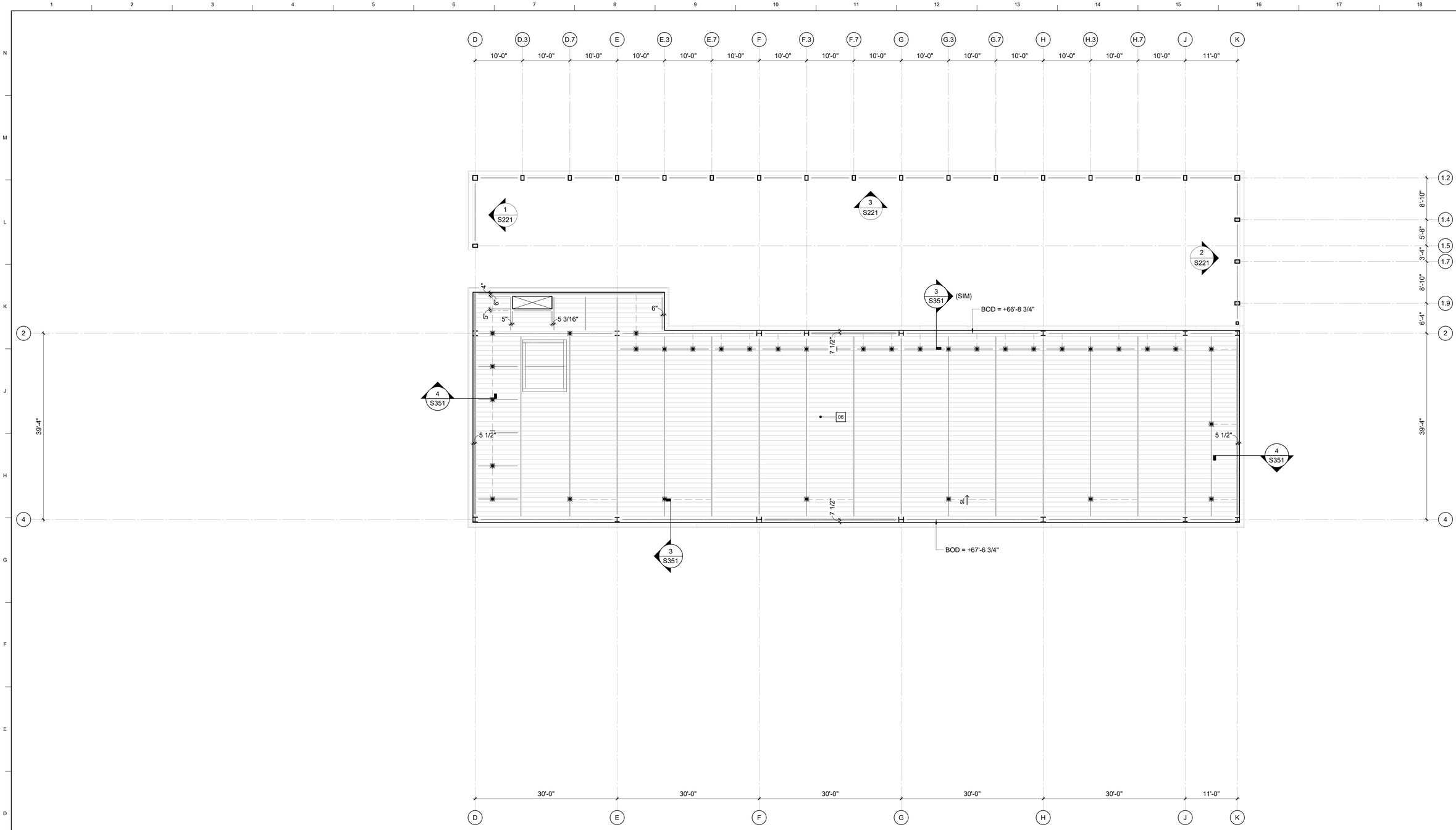

1 PENTHOUSE ROOF DECK PLAN

S161

1/8" = 1'-0"

0 8 16 32'

FRAMING PLAN NOTES

A. REFERENCE FOUNDATION PLAN AND ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.

B. TOP OF FINISHED FLOOR ELEVATION SHALL BE AS NOTED ON SLAB PLANS.

C. COMPOSITE STEEL BEAM FRAMING MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER), UNLESS OTHERWISE NOTED.

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H. REFER TO SHEET S100 FOR RADIAL DIMENSION PLAN.

PLAN KEYNOTES

06 3" ROOF DECK. REFERENCE STEEL DECK NOTES.

FLOOR ELEVATION CHART	
LEVEL	**REFERENCE ELEVATION**
First Floor	0'-0"
Second Floor	18'-0"
Third Floor	34'-0"
Penthouse	50'-0"

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SHEET TITLE: PENTHOUSE ROOF DECK PLAN

SCALE: (U.N.O.)

on track
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA ENGINEERING CORPORATION C-4360

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNON 12/19/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S161

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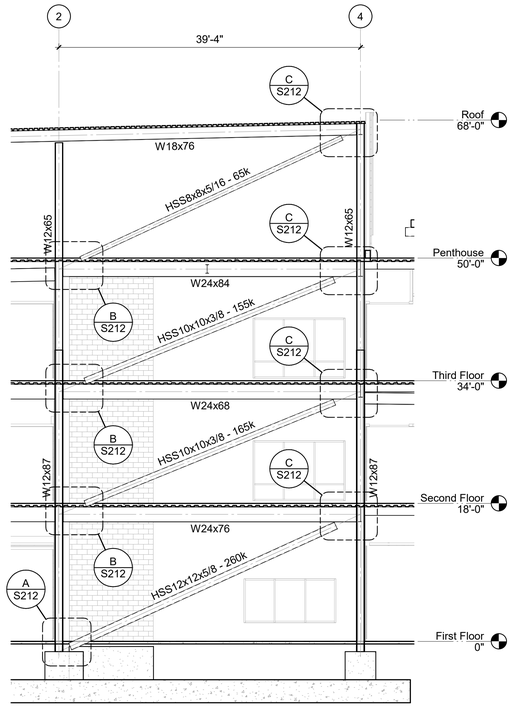
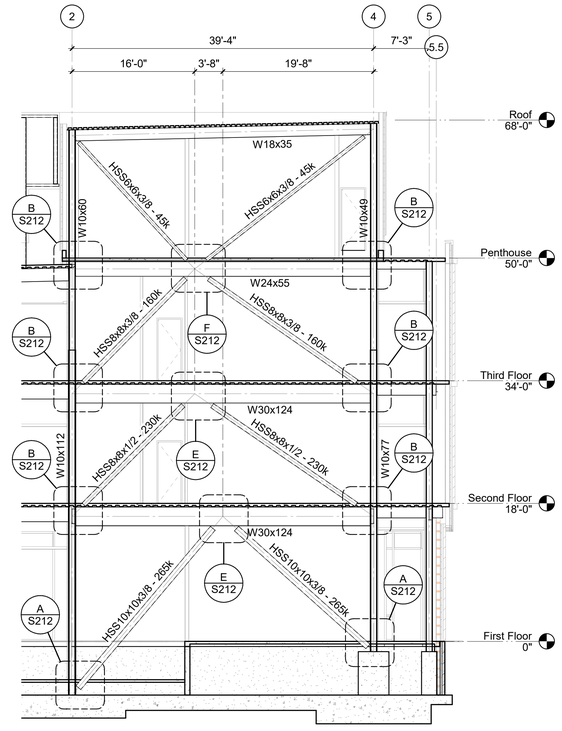


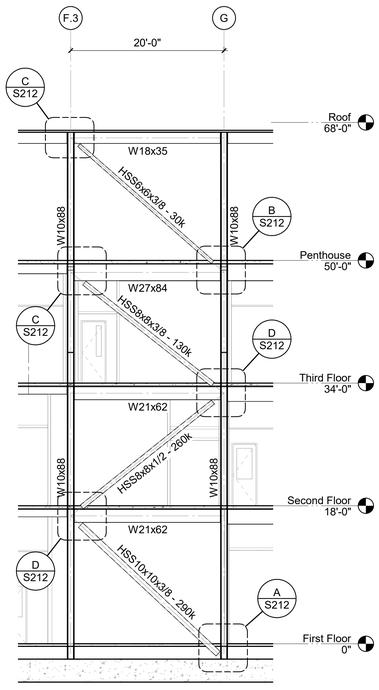
4 FRAME ELEVATION AT GRID D

S211 — 1/8" = 1'-0"



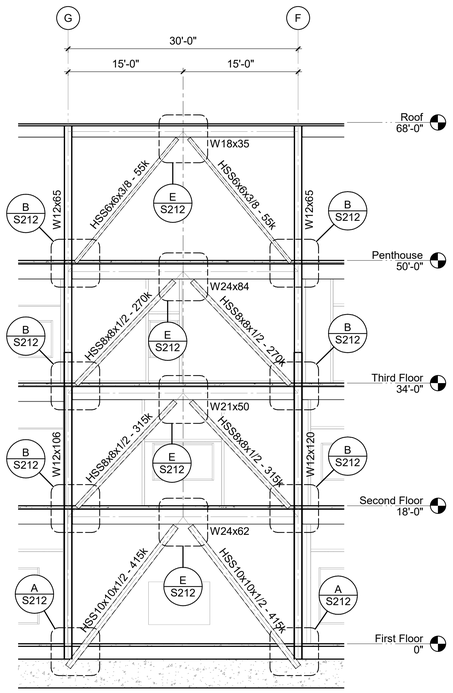
5 FRAME ELEVATION AT GRID K

S211 — 1/8" = 1'-0"



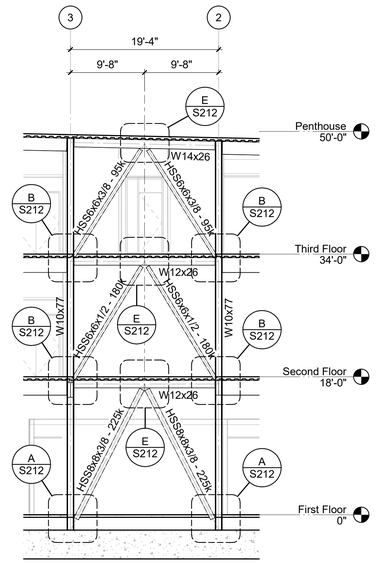
1 FRAME ELEVATION AT GRID 2

S211 — 1/8" = 1'-0"



2 FRAME ELEVATION AT GRID 4

S211 — 1/8" = 1'-0"



3 FRAME ELEVATION AT GRID B

S211 — 1/8" = 1'-0"

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DESIGN COLLABORATIVE

SHEET TITLE: BRACED FRAME ELEVATIONS

SCALE (U.N.O.)

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA PROFESSIONAL ENGINEERING CORPORATION C-4360 MECHANICAL ELECTRICAL PLUMBING STRUCTURAL

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNON 12/18/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S211

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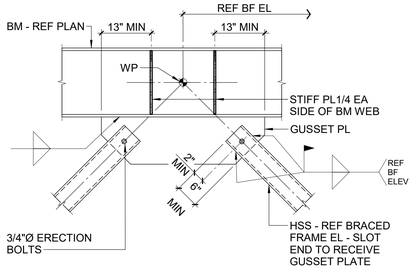
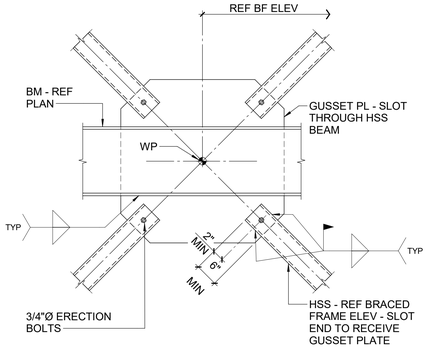
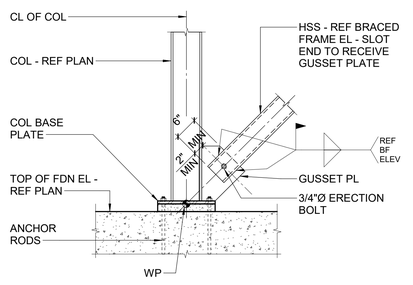


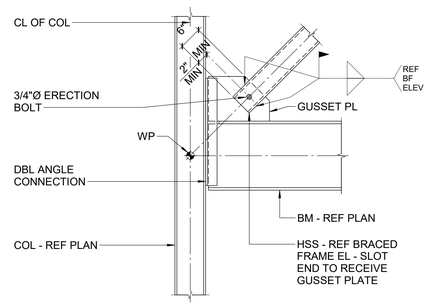
E S212 DETAIL
3/4" = 1'-0"



F S212 DETAIL
3/4" = 1'-0"



A S212 DETAIL
3/4" = 1'-0"



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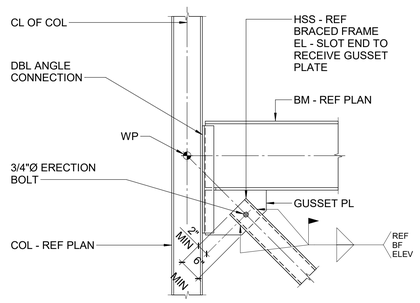
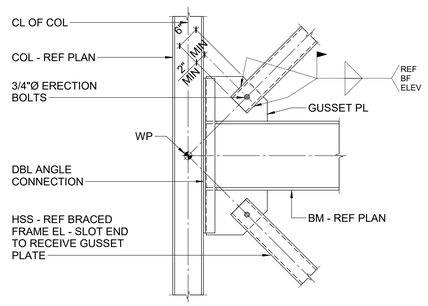
3/4" = 1'-0"



C S212 DETAIL
3/4" = 1'-0"



D S212 DETAIL
3/4" = 1'-0"

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lynchmykins
DESIGNING COLLABORATIVE STUDIOS

SHEET TITLE: BRACED FRAME DETAILS

SCALE: (U.N.O.)

OR NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA PROFESSIONAL ENGINEERING CORPORATE CERTIFICATE OF AUTHORIZATION C-4360 MITCHELL R. BRANNOCK

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MITCHELL R. BRANNOCK
12/18/2023

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: S212

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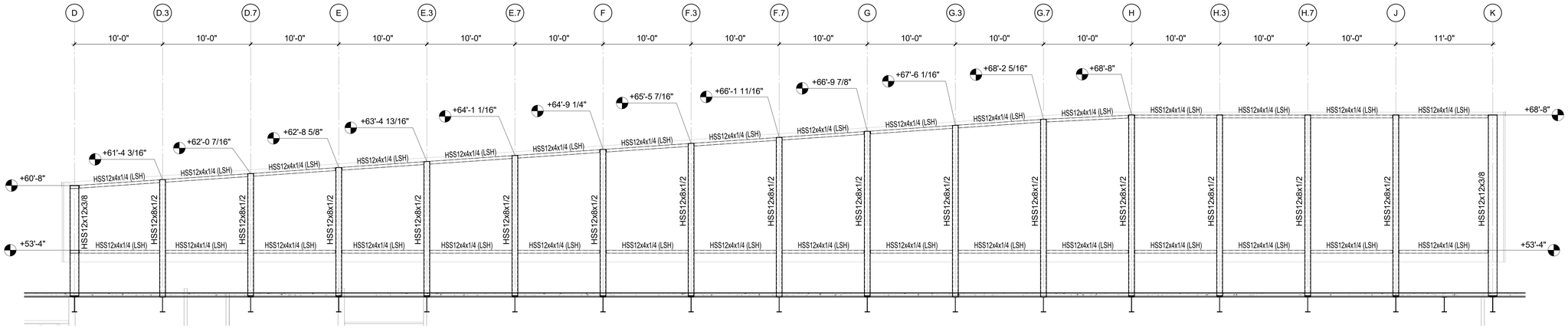
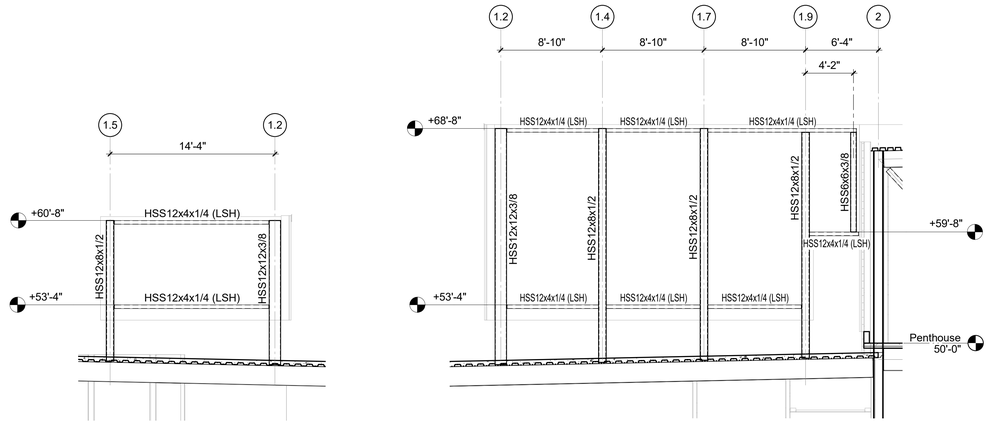


3 SCREENWALL FRAME ELEVATION AT GRID 1.2

S221

3/16" = 1'-0"



1 SCREENWALL FRAME ELEVATION AT GRID D

S221

3/16" = 1'-0"

2 SCREENWALL FRAME ELEVATION AT GRID K

S221

3/16" = 1'-0"

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REVISION:

Structural Engineers
301 N West St., Suite 105
Raleigh, NC 27603
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SHEET TITLE
FRAME ELEVATIONS

SCALE (U.N.O.)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA PROFESSIONAL ENGINEERING CORPORATION C-4360 NORTH CAROLINA PROFESSIONAL LANDSCAPE ARCHITECTURAL CORPORATION C-2780

NORTH CAROLINA PROFESSIONAL 051551 ENGINEER MICHAEL P. BRAMMER
12/16/2023

ISSUE DATE
12/20/2023

JOB. NO.
11751-00

DWG. NO.
S221

NOT FOR CONSTRUCTION

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/R22138_WTCC Tech 4.0_Struc_R22.rvt
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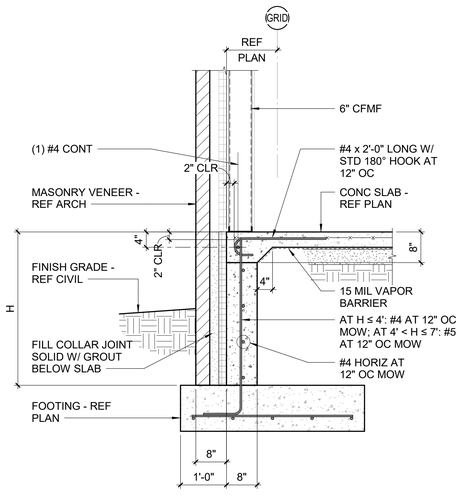

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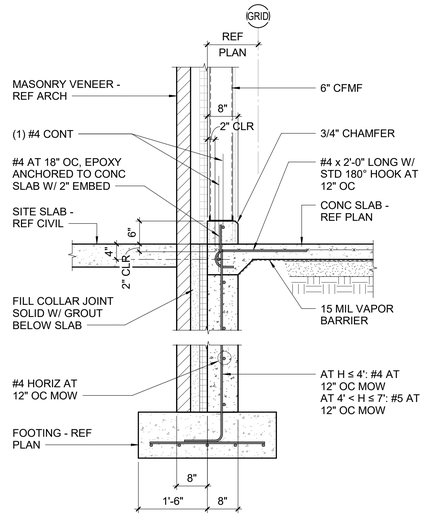
3/4" = 1'-0"



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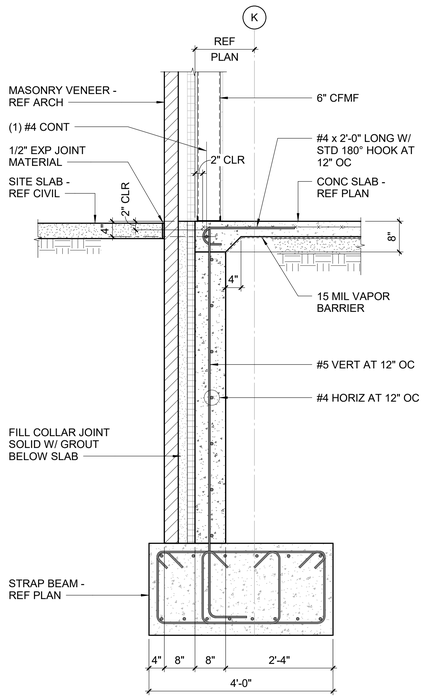

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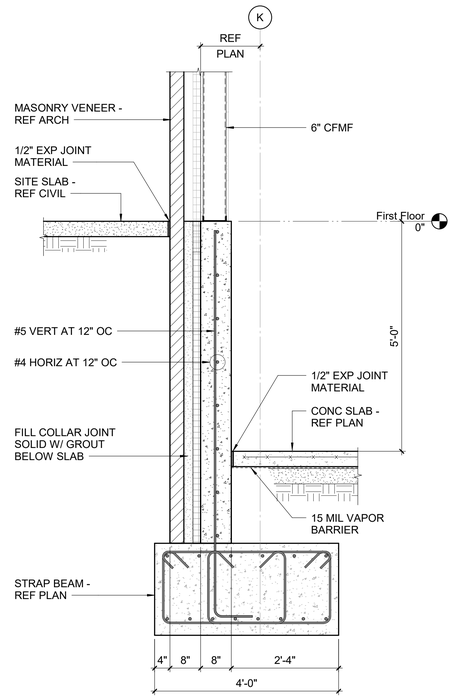

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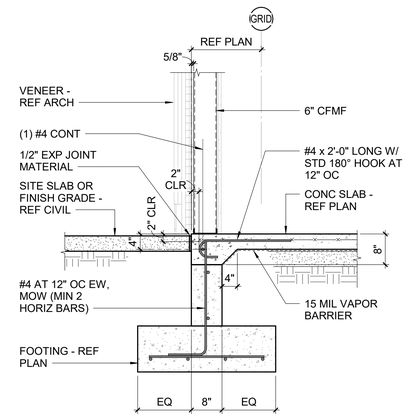
3/4" = 1'-0"



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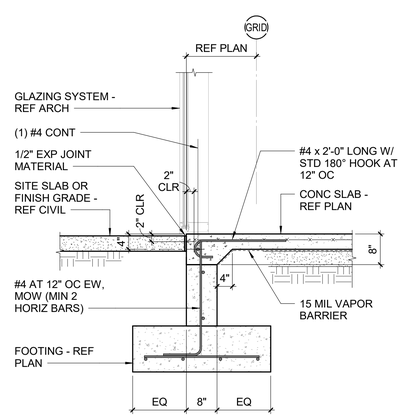

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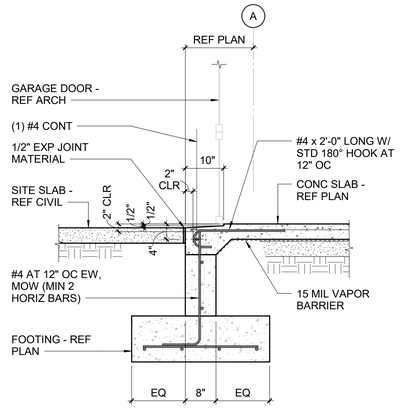

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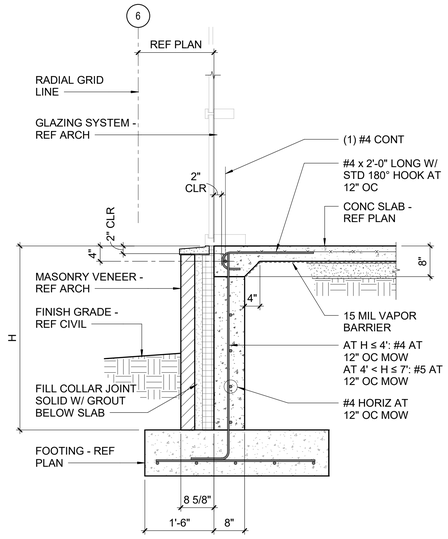

4 S311 SECTION
3/4" = 1'-0"

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lynchmykins
DESIGNING COLLABORATIVE STORIES

SHEET TITLE: FOUNDATION SECTIONS

SCALE (U.N.O.):

JOB NAME:
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S311

NOT FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL ENGINEERING CORPORATION C-4360 STRUCTURAL DISCIPLINE

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL P. BRANDES 12/19/2023

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/R22138_WTCC Tech 4.0_Struc_R22.rvt
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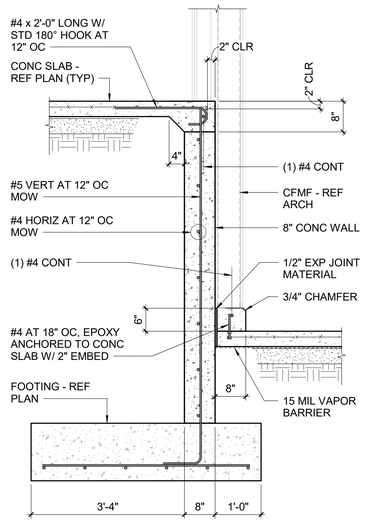

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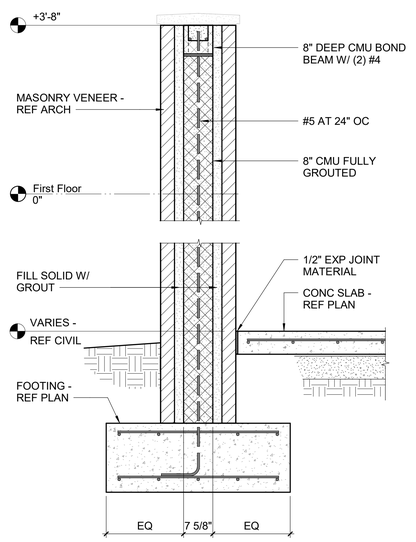

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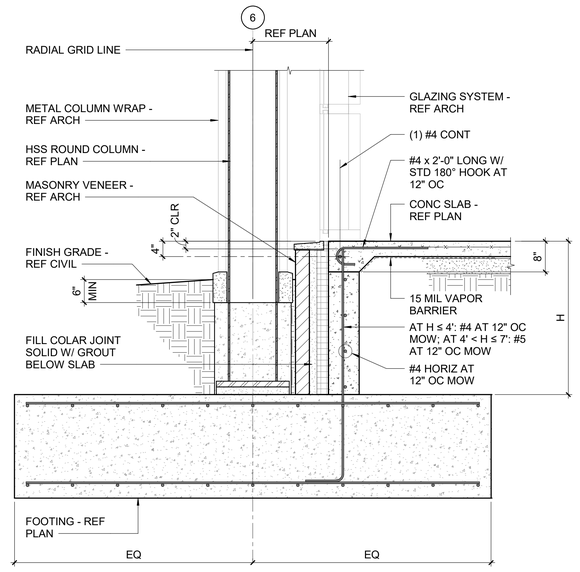

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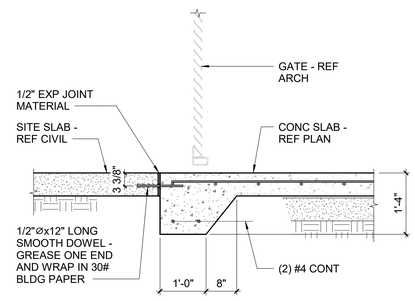

4 S312 **SECTION**
3/4" = 1'-0"

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SHEET TITLE: FOUNDATION SECTIONS

SCALE (U.N.O.)

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NOT FOR CONSTRUCTION

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. S312

NORTH CAROLINA ENGINEERING CORPORATION C-4360 MILLWORK, INC. ARCHITECTURAL STRUCTURAL

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNON 12/18/2023

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/R22138_WTCC Tech 4.0_Struc_R22.rvt
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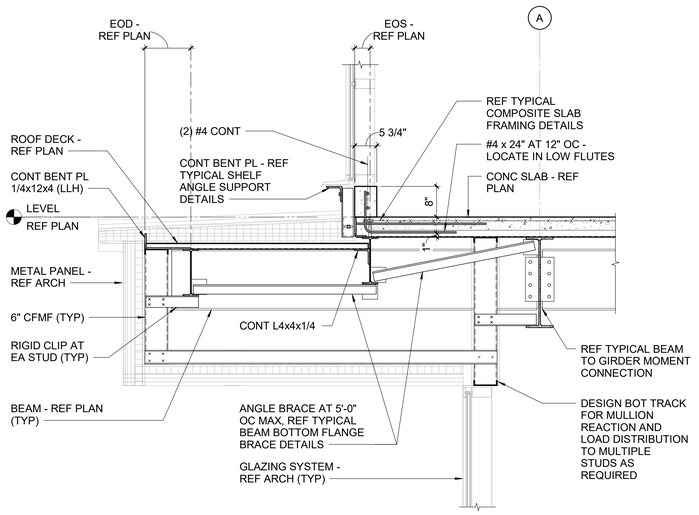

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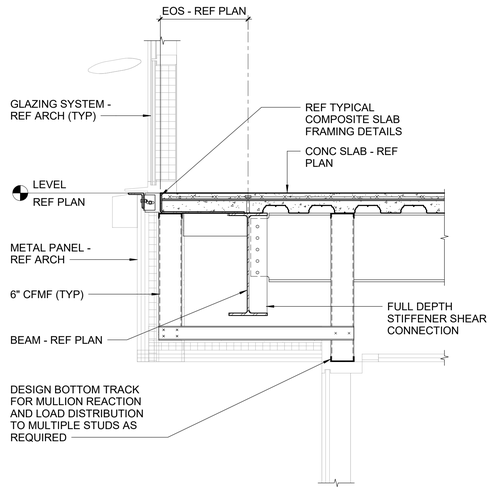

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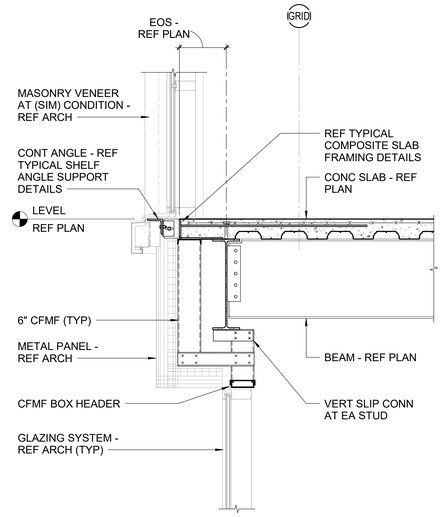

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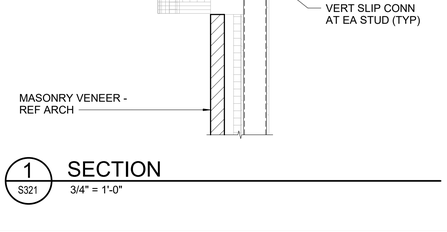

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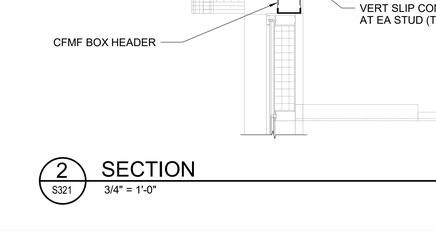

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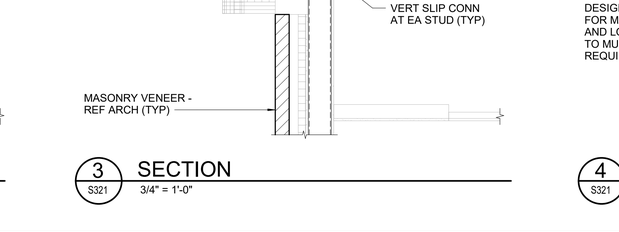

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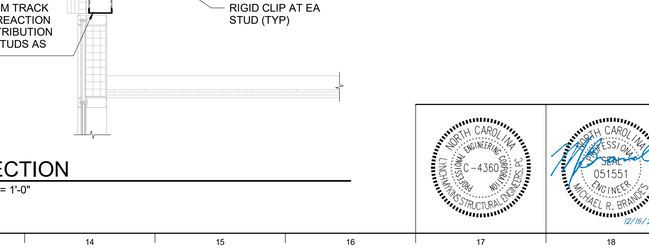

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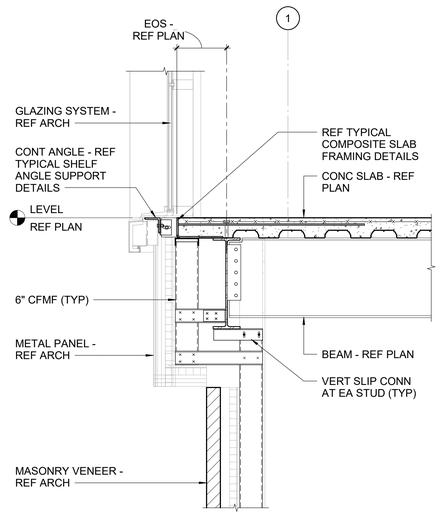

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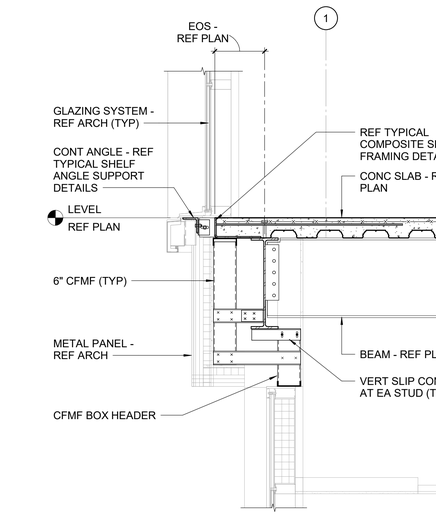

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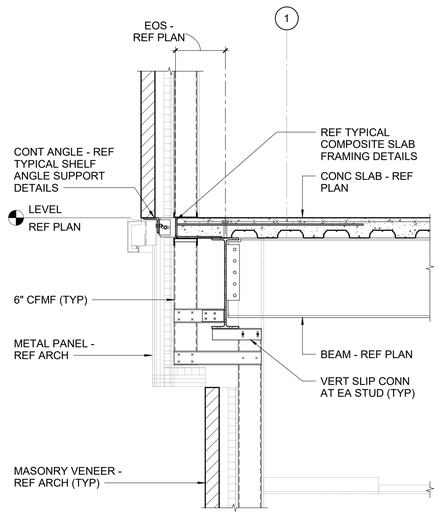

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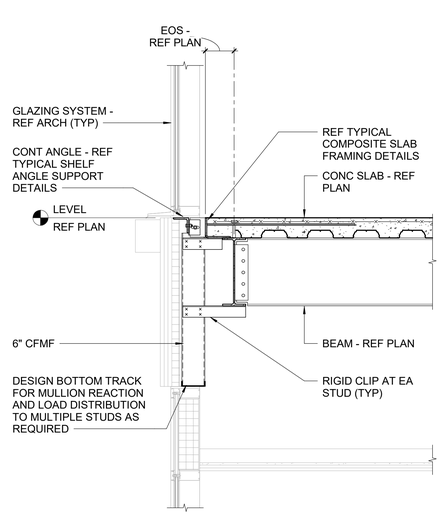

4 S321 SECTION
3/4" = 1'-0"

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SHEET TITLE: FRAMING SECTIONS
SCALE (U.N.O.)

ON FILE
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
S321

NOT FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL ENGINEERING CORPORATION C-4360 MITCHELL, MATTHEWS & ASSOCIATES, INC. STRUCTURAL ENGINEERS

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNONS
12/18/2023

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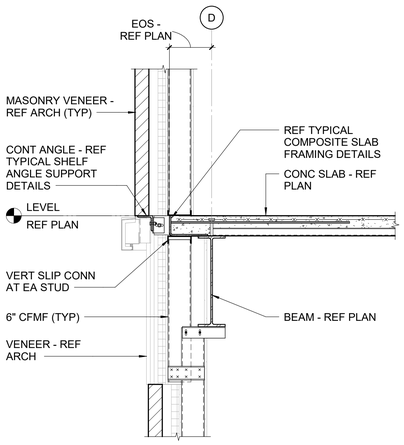

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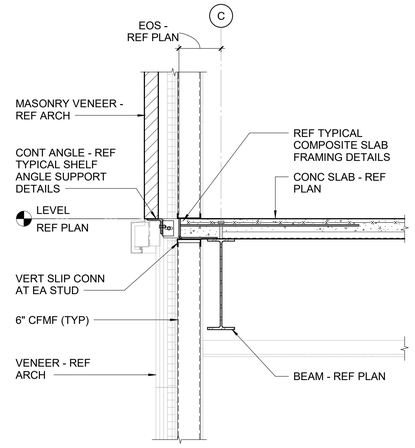

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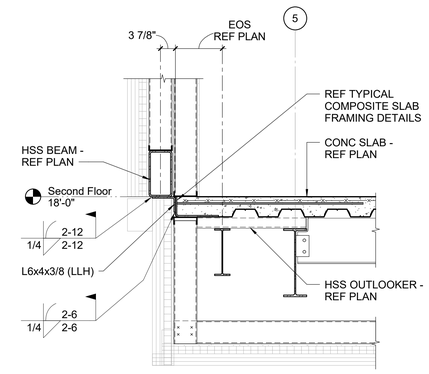

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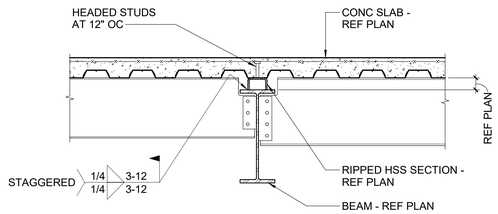

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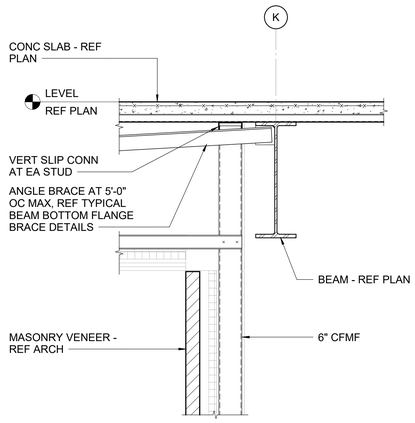

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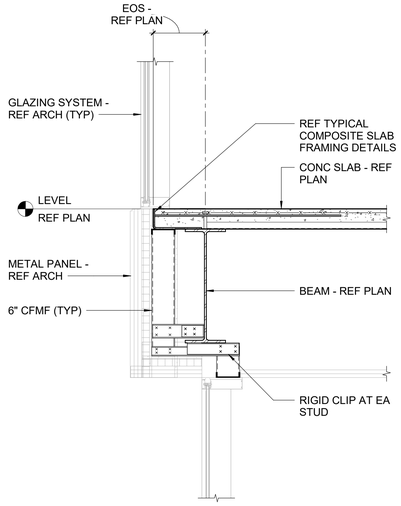

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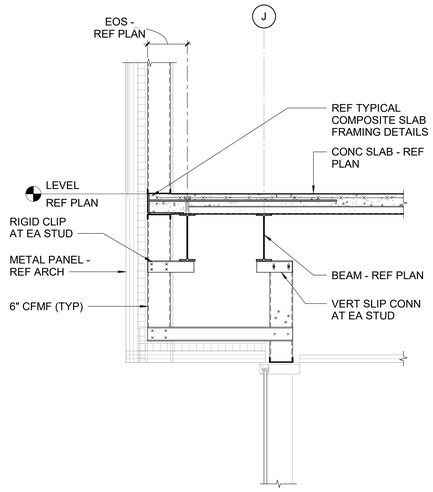

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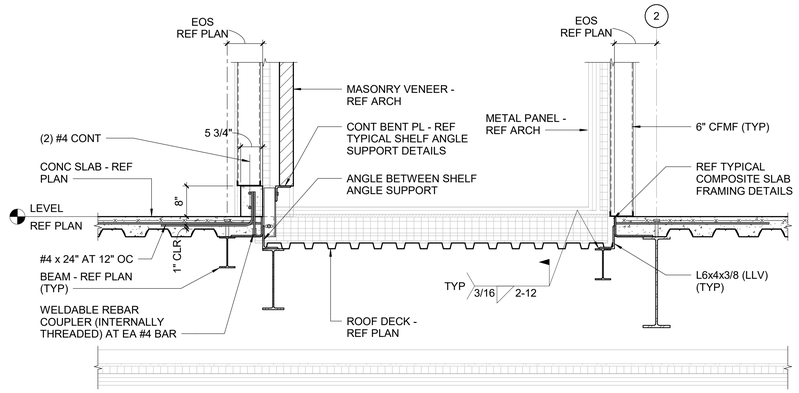

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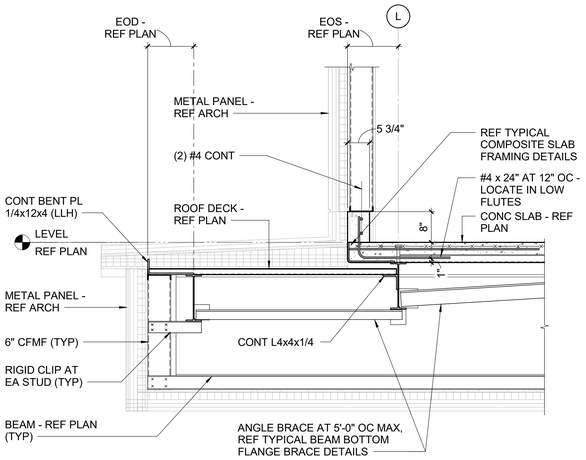

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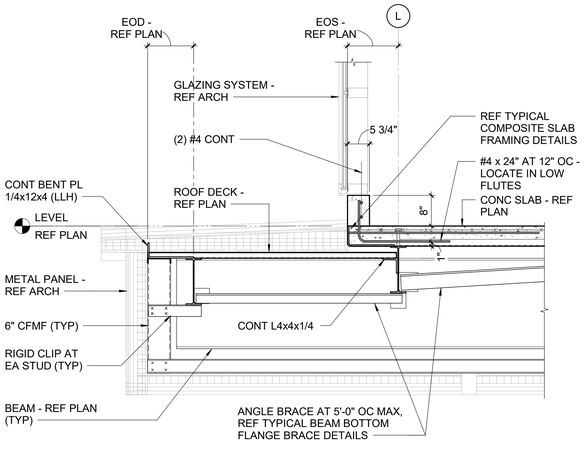

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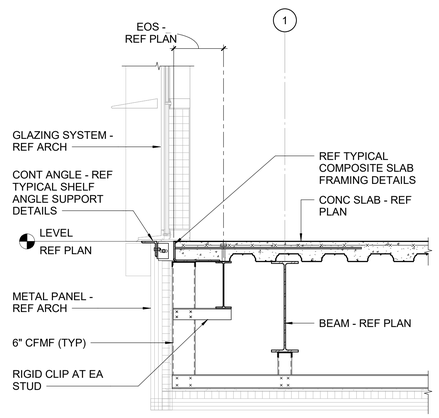

3 S322 SECTION
3/4" = 1'-0"

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CHARLOTTE | RALEIGH | DENVER

SHEET TITLE
FRAMING SECTIONS

SCALE (U.N.O.)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-28932-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA PROFESSIONAL ENGINEER C-4360 STRUCTURAL

NORTH CAROLINA PROFESSIONAL ENGINEER 051551 MICHAEL R. BRANDIS
12/18/2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
S322

NOT FOR CONSTRUCTION

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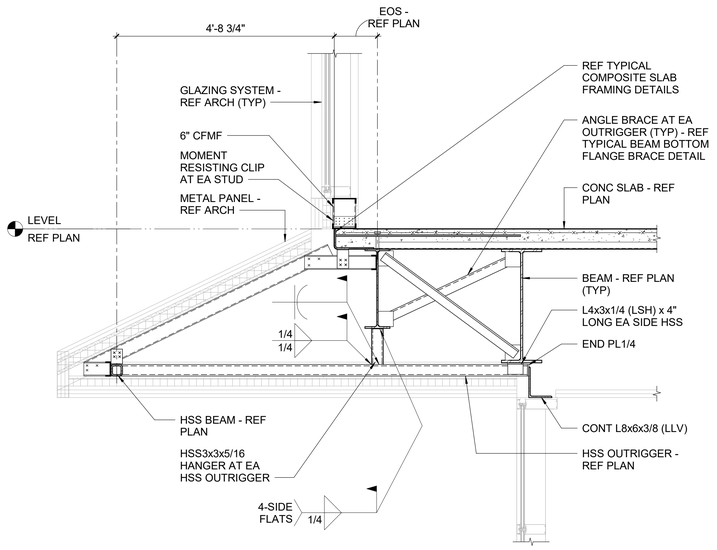

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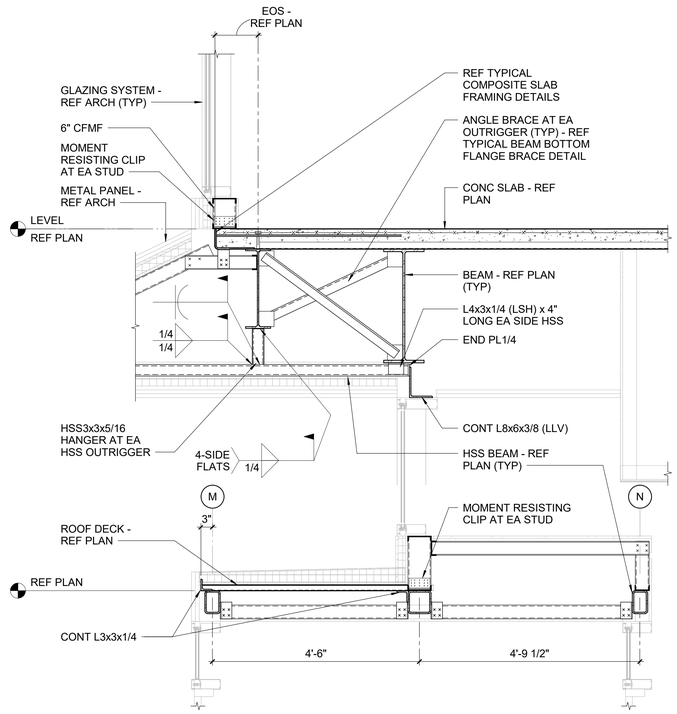

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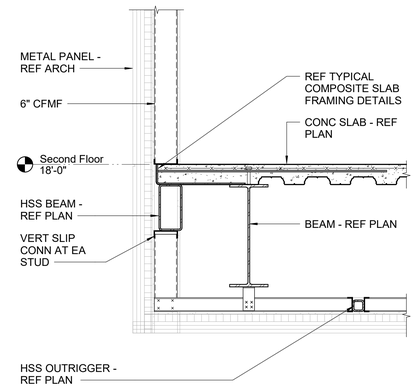

3 S323 **SECTION**
3/4" = 1'-0"

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CULLMAN | FALLSBROOK | DENVER

SHEET TITLE: FRAMING SECTIONS

SCALE (U.N.O.)

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA ENGINEERING CORPORATION C-4360

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNON 12/18/2023

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
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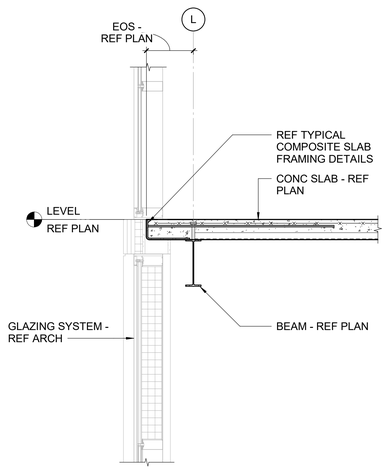

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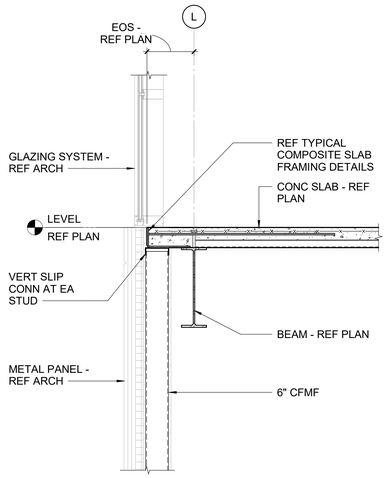
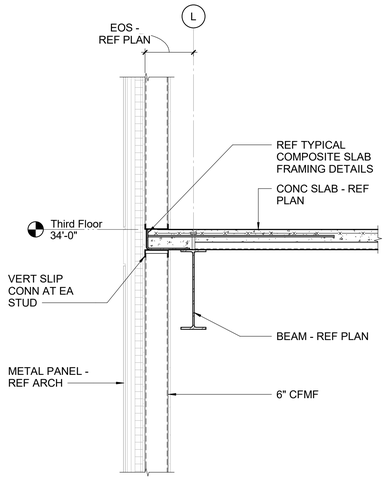
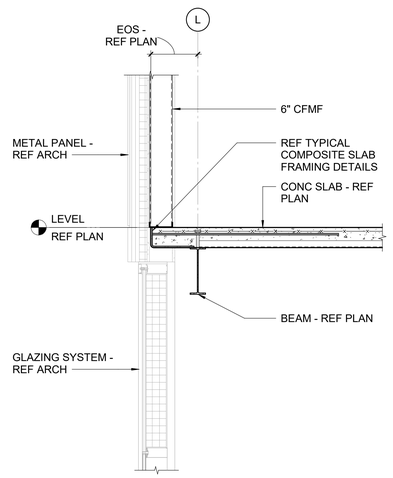


10 S331 SECTION
3/4" = 1'-0"



11 S331 SECTION
3/4" = 1'-0"



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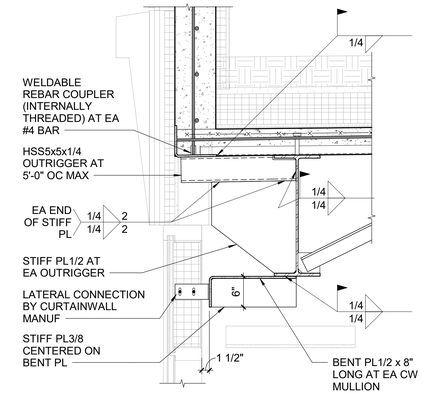

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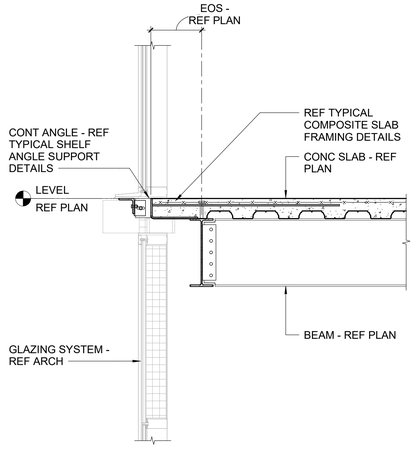

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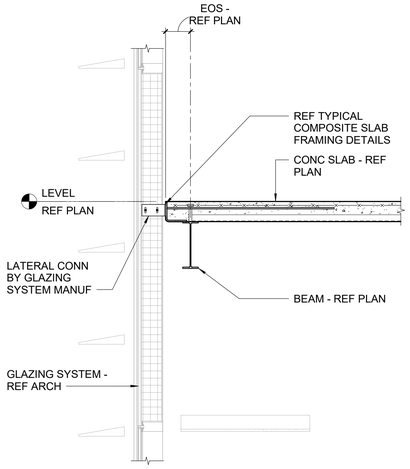

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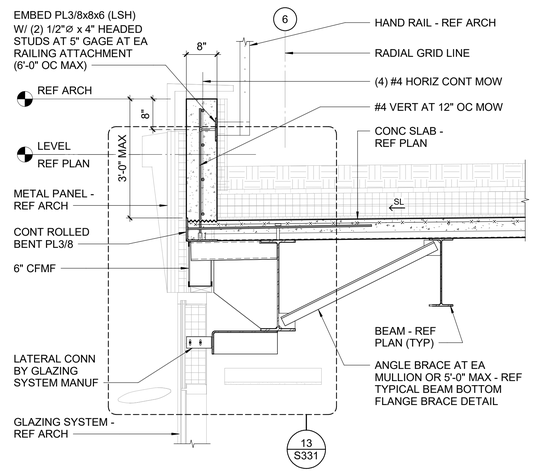

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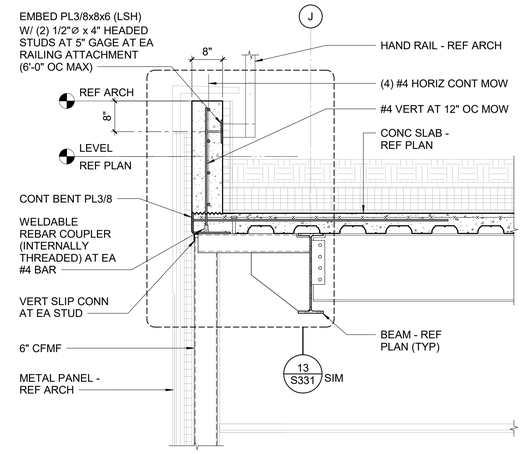
3/4" = 1'-0"



8 S331 SECTION
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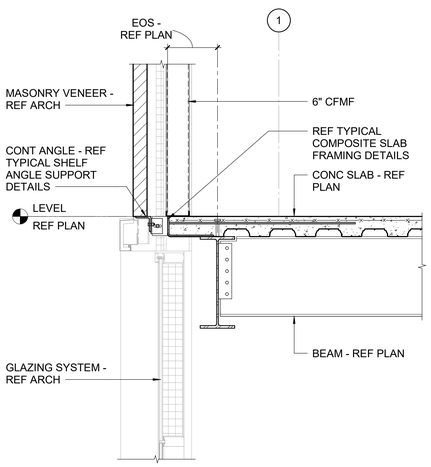

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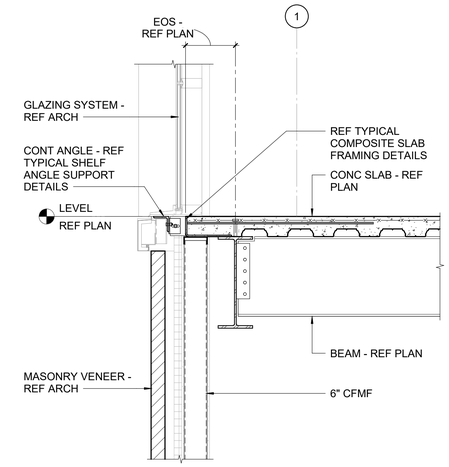

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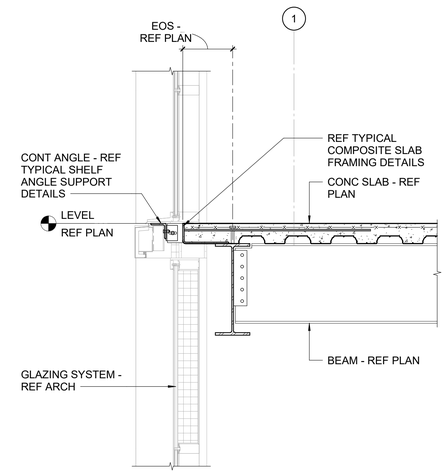

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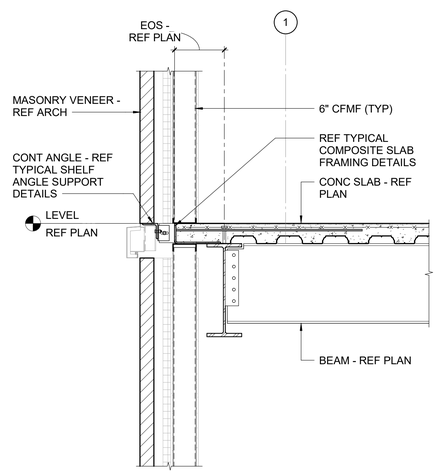

4 S331 SECTION
3/4" = 1'-0"

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CIVILIAN COLLABORATIVE STUDIO

SHEET TITLE
FRAMING SECTIONS

SCALE (U.N.O.)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA BOARD OF EXAMINERS FOR ENGINEERING AND SURVEYING C-4360 PROFESSIONAL ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANDES
12/19/2025

ISSUE DATE
12/20/2023

JOB. NO.
11751-00

DWG. NO.
S331

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Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/R22138_WTCC Tech 4.0_Struc_R22.rvt
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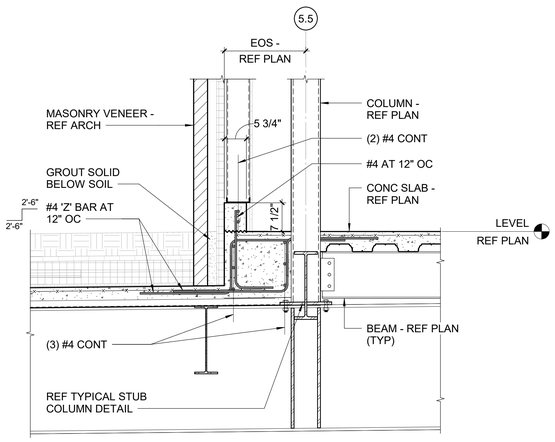

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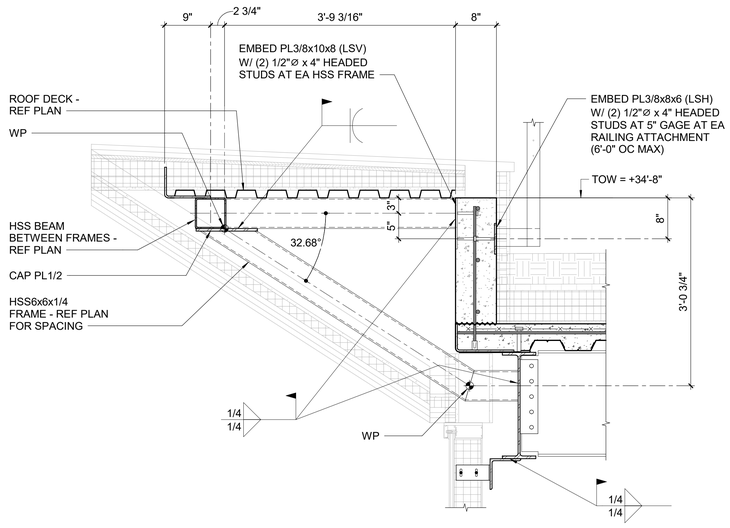
3/4" = 1'-0"



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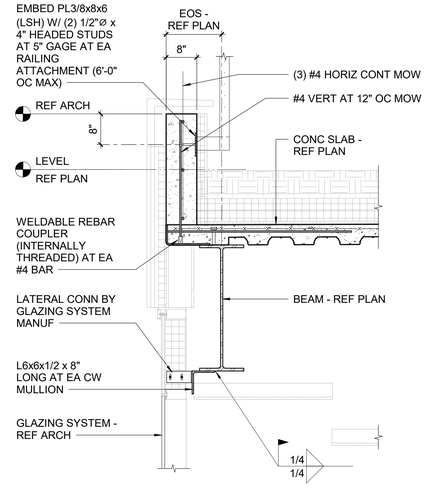
1" = 1'-0"



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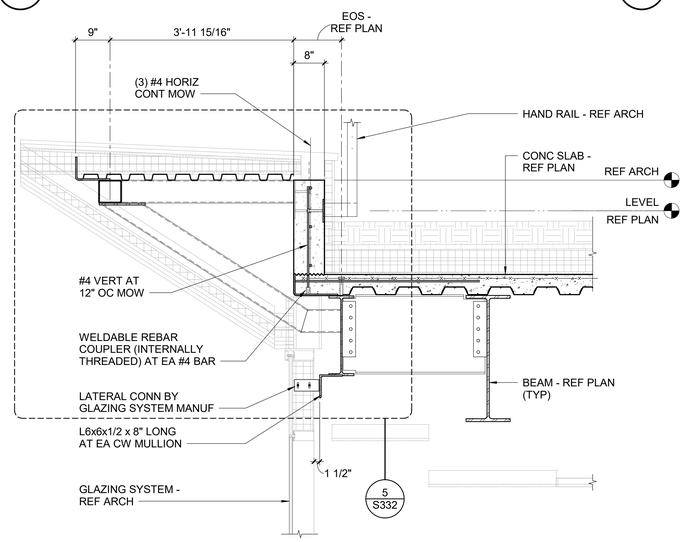
3/4" = 1'-0"



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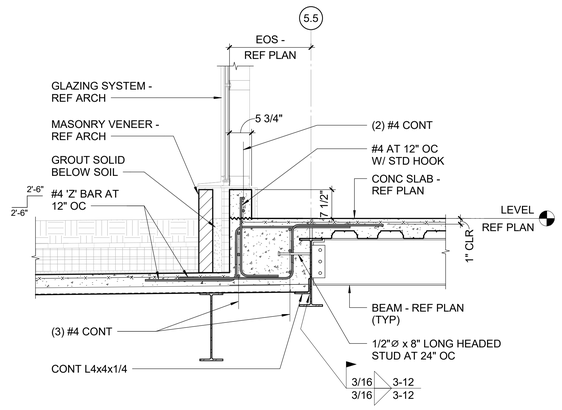

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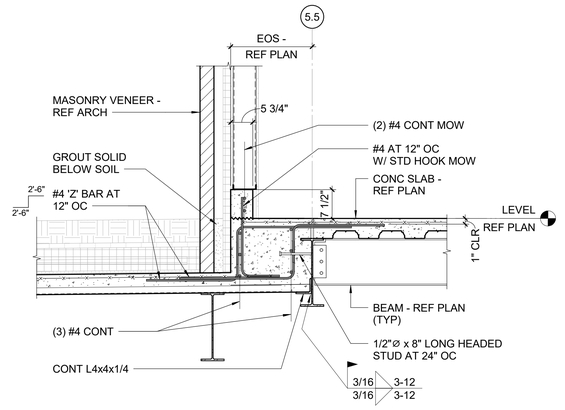
3/4" = 1'-0"



3 S332 SECTION
3/4" = 1'-0"

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SHEET TITLE: FRAMING SECTIONS
SCALE (U.N.O.)

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA ENGINEERING CORPORATION C-4360

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNON
12/18/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S332

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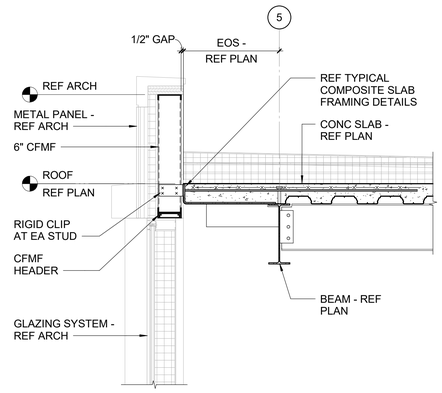

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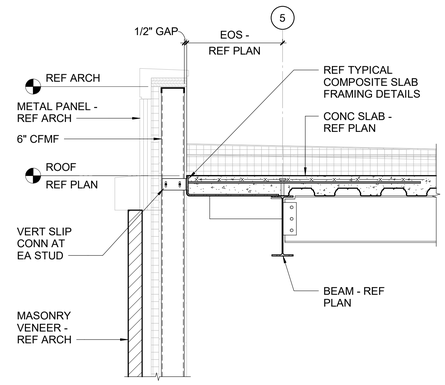

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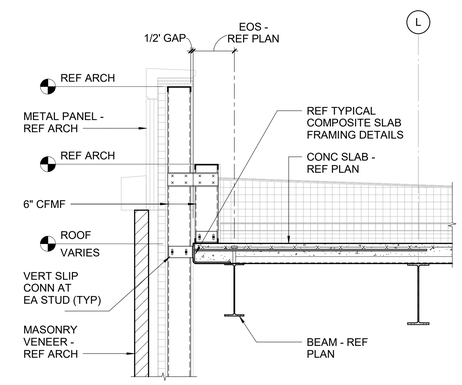

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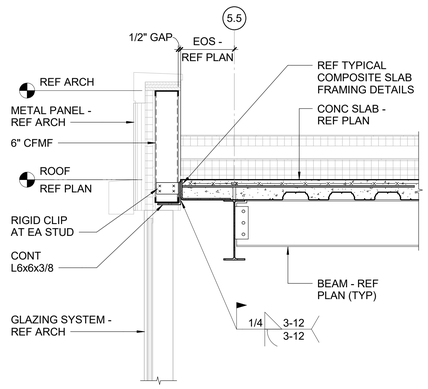

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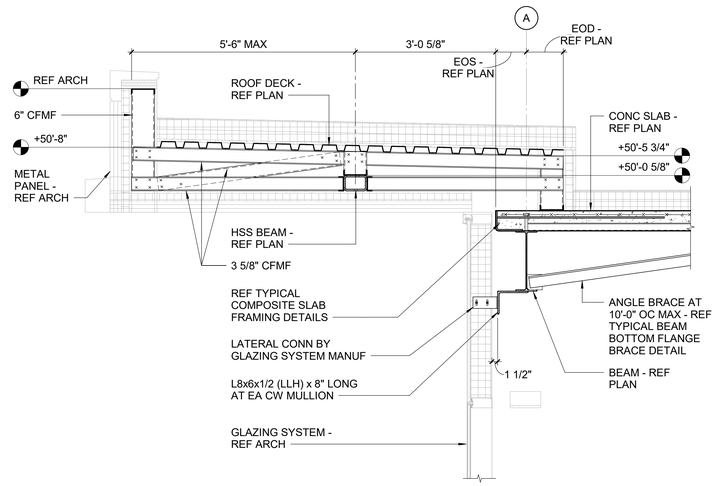

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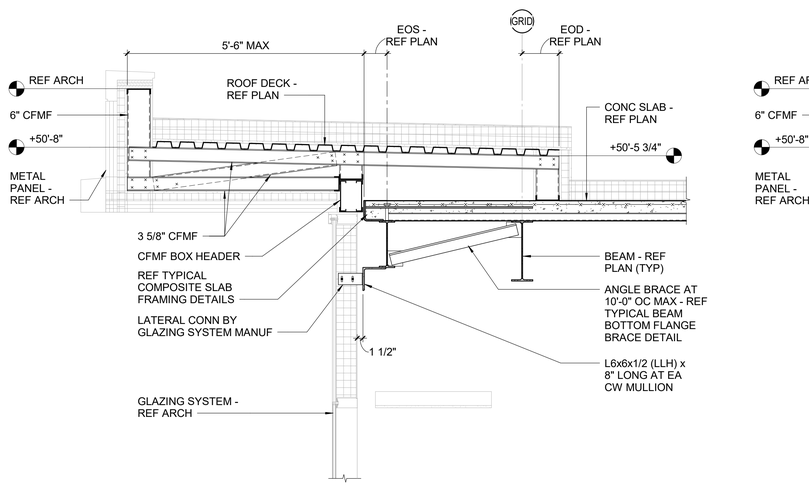

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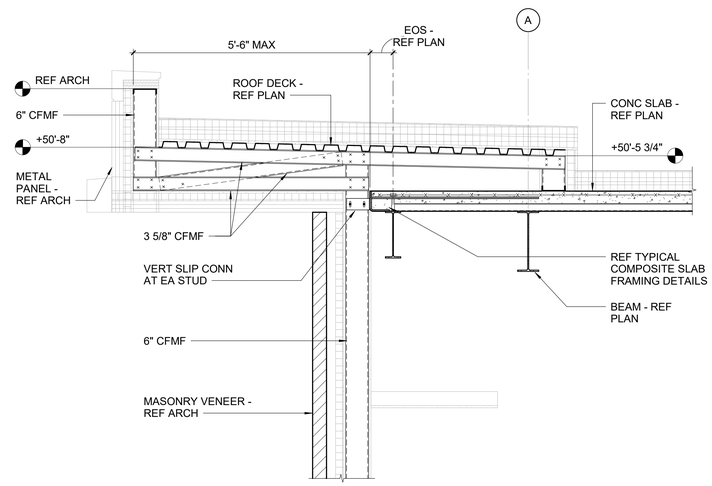

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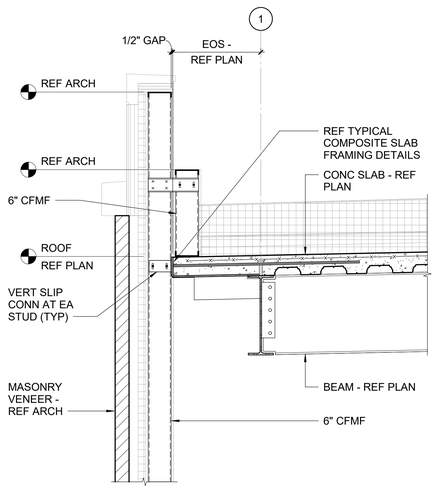

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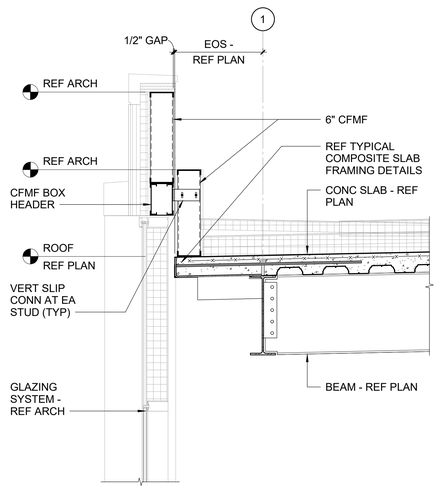

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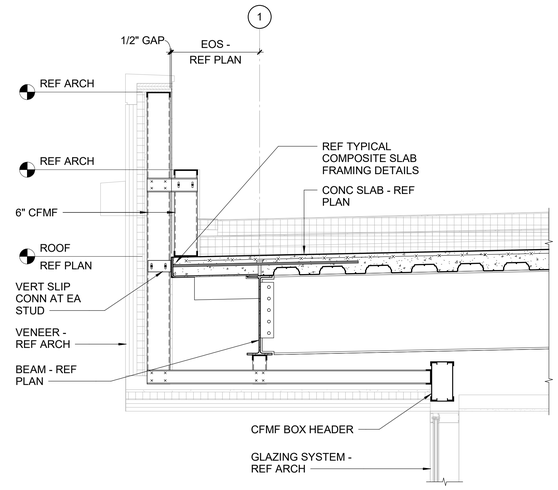

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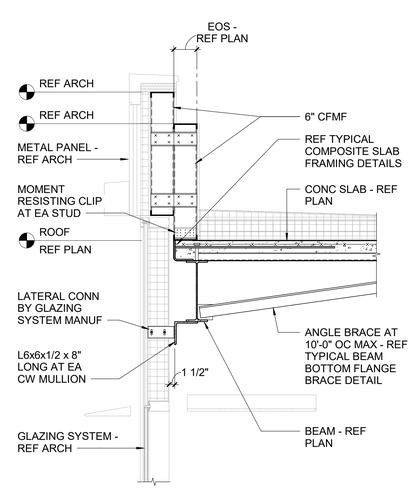

4 S341 SECTION
3/4" = 1'-0"

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ON FILE
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

SHEET TITLE
FRAMING SECTIONS

SCALE (U.N.O.)

ISSUE DATE
12/20/2023

JOB. NO.
11751-00

DWG. NO.
S341

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NORTH CAROLINA PROFESSIONAL ENGINEERING CORPORATION C-4360 MITCHELL/MATTHEWS CONSULTING PA STRUCTURAL ENGINEERS

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNONS
12/18/2023

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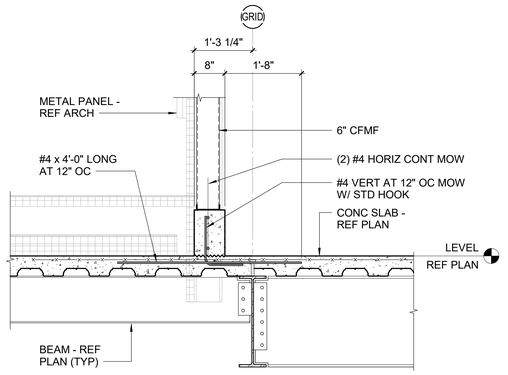

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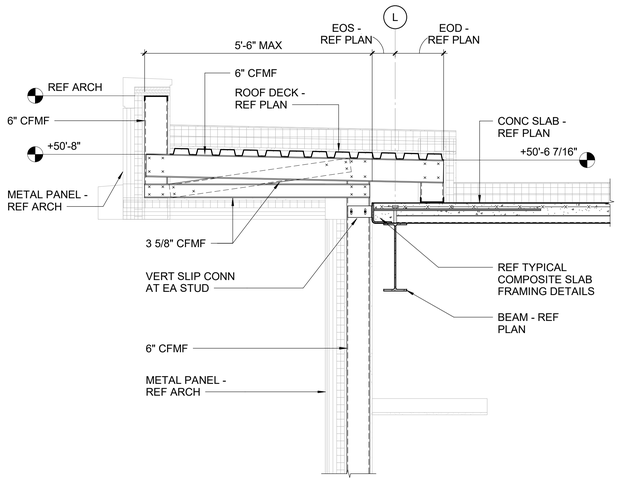

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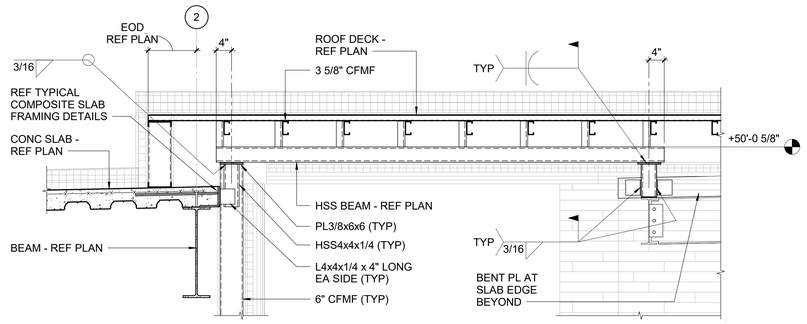

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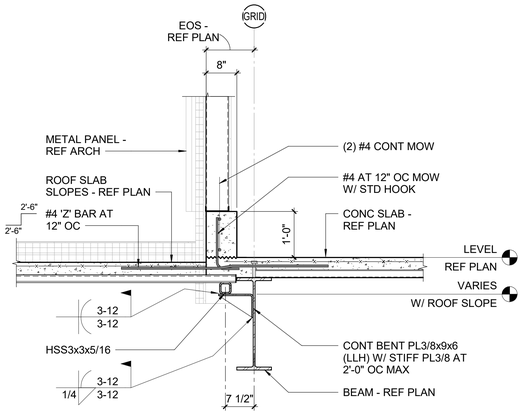

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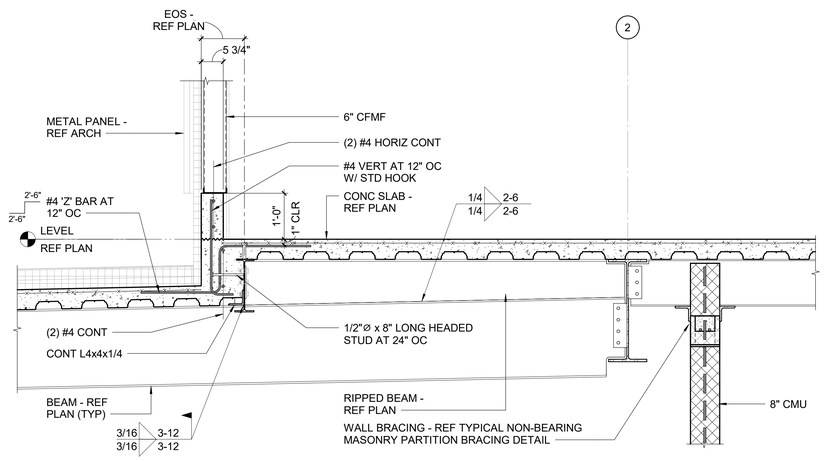

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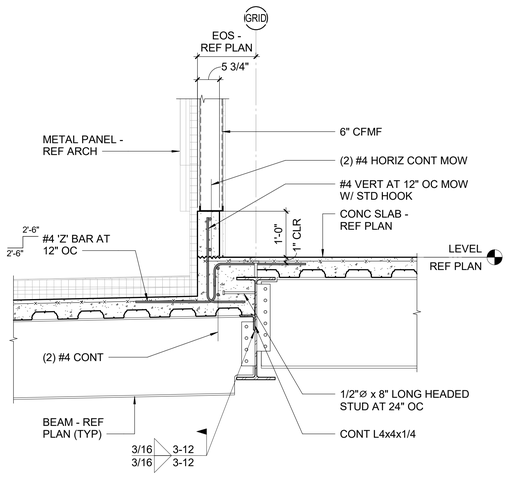

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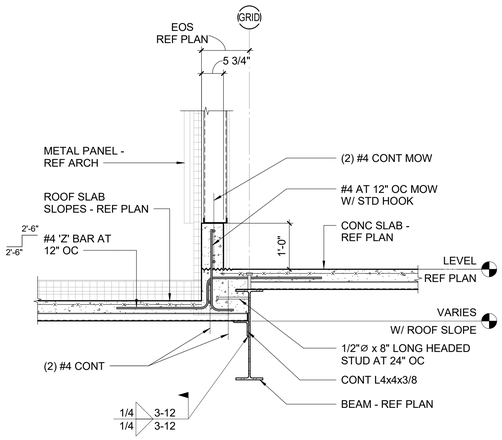

3 S342 **SECTION**
3/4" = 1'-0"

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SHEET TITLE
FRAMING SECTIONS

SCALE (U.N.O.)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA PROFESSIONAL ENGINEERING C-4360 LORD AECK SARGENT INC. STRUCTURAL DIVISION

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNON 12/15/2023

ISSUE DATE
12/20/2023

JOB. NO.
11751-00

DWG. NO.
S342

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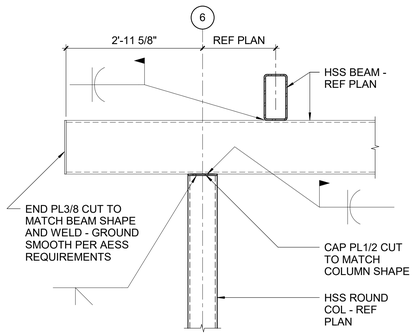

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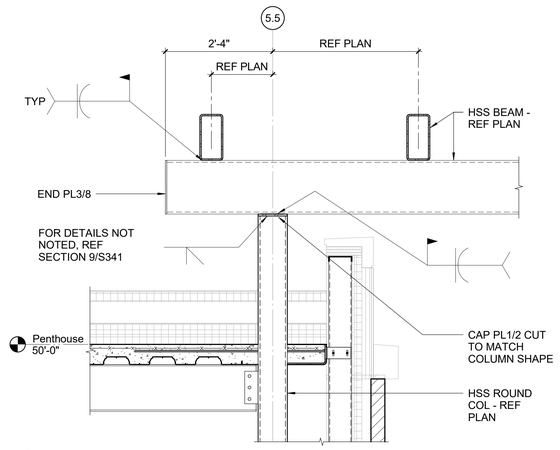

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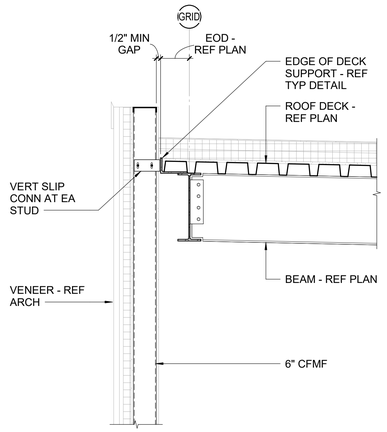

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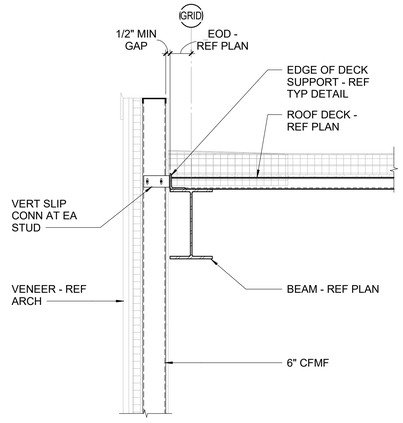

4 S351 SECTION
3/4" = 1'-0"

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PROJECT:
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

SHEET TITLE
FRAMING SECTIONS

SCALE (U.N.O.)

NORTH CAROLINA ENGINEERING CORPORATION C-4360 MECHANICAL ELECTRICAL INFRASTRUCTURAL

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNON 12/18/2023

ISSUE DATE
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JOB. NO.
11751-00

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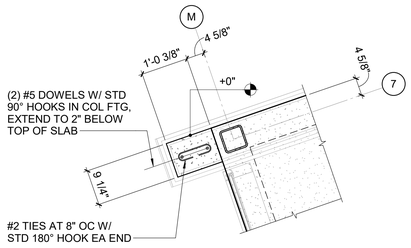
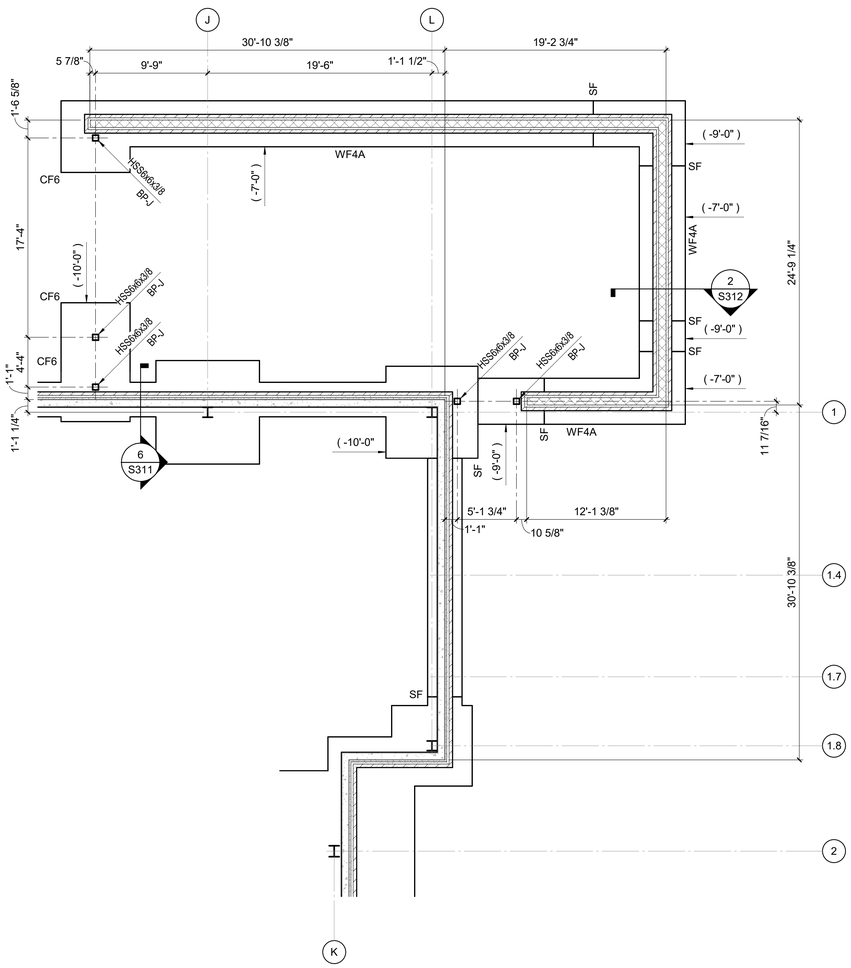
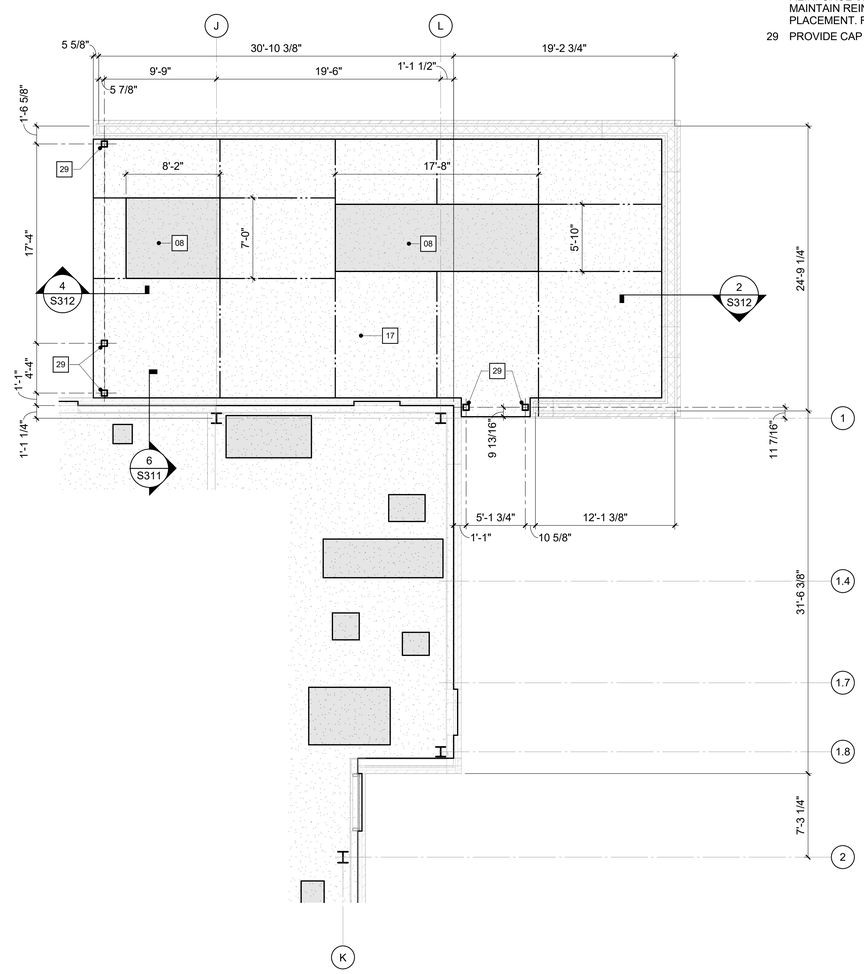


3 PLAN DETAIL
S411 — 3/4" = 1'-0"



1 MECH YARD FOUNDATION PLAN
S411 — 3/16" = 1'-0"



2 MECH YARD SLAB PLAN
S411 — 3/16" = 1'-0"

FOUNDATION PLAN NOTES

A. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS TO NONBEARING WALLS, WALL CONTROL JOINTS AND OPENINGS.
B. UNLESS OTHERWISE NOTED, ALL ELEVATIONS ARE BASED ON A FINISHED FIRST FLOOR REFERENCE OF 0'-0". ACTUAL FINISHED FLOOR ELEVATION IS 312.00'. FINISHED FLOOR ELEVATIONS AT EACH LEVEL ARE INDICATED ON SLAB PLANS. REFERENCE ARCHITECTURAL DRAWINGS FOR FINISHED FLOOR MATERIALS.
C. TOP OF ALL FOOTINGS MUST BE AT ELEVATION -2'-0" UNLESS OTHERWISE NOTED.
D. NOT ALL UTILITY LOCATIONS ARE SHOWN ON PLAN. THE CONTRACTOR MUST COORDINATE THE LOCATIONS, SIZES, AND INVERTS OF UTILITIES. AT LOCATIONS WHERE UTILITIES PASS BELOW THE TOP OF FOOTING ELEVATION, STEP THE TOP OF FOOTING DOWN ON EACH SIDE PER THE "STEPPED FOOTING DETAIL" AND SLEEVE THE UTILITY THROUGH THE FOUNDATION WALL. THE CONTRACTOR MAY, AT HIS/HER OPTION, SLEEVE THE UTILITY THROUGH THE FOUNDATION PER THE "UTILITY SLEEVE DETAIL".
E. UNLESS OTHERWISE INDICATED, EXTEND WALL FOOTINGS A MINIMUM OF 6 INCHES BEYOND ENDS OF WALLS.
F. NOT ALL SITE WALLS ARE SHOWN ON PLAN. CONTRACTOR MUST COORDINATE CIVIL AND LANDSCAPE DRAWINGS FOR SITE WALL INFORMATION.
G. DIMENSIONS SHOWN ON FOUNDATION PLAN ARE TO COLUMN GRIDLINES AND OUTSIDE FACE OF FOUNDATION WALLS, UNLESS OTHERWISE NOTED.

SLAB-ON-GRADE PLAN NOTES

A. REFERENCE ARCHITECTURAL DRAWINGS FOR DIMENSIONS TO NONBEARING WALLS, WALL CONTROL JOINTS AND OPENINGS.
B. UNLESS OTHERWISE NOTED, ALL ELEVATIONS ARE BASED ON A FINISHED FIRST FLOOR REFERENCE OF 0'-0". ACTUAL FINISHED FLOOR ELEVATION IS 312.00'. FINISHED FLOOR ELEVATIONS AT EACH LEVEL ARE INDICATED ON SLAB PLANS. REFERENCE ARCHITECTURAL DRAWINGS FOR FINISHED FLOOR MATERIALS.
C. REFERENCE ARCHITECTURAL DRAWINGS FOR EXACT LIMITS OF SLAB DEPRESSIONS AND OMITTED SLABS.
D. FLOOR SINKS AND DRAINS ARE NOT SHOWN ON PLAN. REFERENCE PME DRAWINGS FOR LOCATIONS.
E. REFERENCE CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR CONCRETE SLABS AND PAVING.
F. SLAB-ON-GRADE JOINTS MUST BE SAWED JOINTS OR KEYED CONSTRUCTION JOINTS, UNLESS OTHERWISE NOTED. CONTRACTOR MUST COORDINATE ALL SLAB JOINTS WITH JOINTS IN BONDED FLOOR FINISHES. REFERENCE ARCHITECTURAL DRAWINGS FOR FLOOR FINISH JOINT LOCATIONS.
G. PLACE (1) #4 x 3'-0" IN MIDDLE OF SLAB AT RE-ENTRANT CORNERS WHERE A SLAB JOINT DOES NOT OCCUR.

PLAN KEYNOTES

08 12" ISOLATED EQUIPMENT PAD, REFER TO TYPICAL ISOLATED EQUIPMENT PAD DETAIL. DIMENSIONS PROVIDED FOR BID ONLY. COORDINATE PAD SIZE AND LOCATION WITH FINAL SELECTED EQUIPMENT, REFER TO MECHANICAL DRAWINGS.
17 6" CONCRETE SLAB-ON-GRADE OVER VAPOR RETARDER AND 6" DEPTH OF POROUS FILL. REINFORCE SLAB WITH #4 AT 12" ON CENTER EACH WAY PLACED 2" CLEAR BELOW TOP OF SLAB. MAINTAIN REINFORCEMENT IN POSITION ON BOLSTERS, CHAIRS OR SPACERS DURING CONCRETE PLACEMENT. REFER TO LANDSCAPE DRAWINGS FOR SLAB SLOPES AND ELEVATIONS.
29 PROVIDE CAP PL1/4 TO MATCH HSS PROFILE.

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DESIGN EXCELLENCE EVERY PROJECT

SHEET TITLE: ENLARGED PLANS
SCALE (U.N.O.)

ON WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S411

NOT FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL ENGINEERING CORPORATION C-4360 WITH STRUCTURAL ENGINEERING

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRAMES
2/15/2025

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/R22138_WTCC Tech 4.0_Struc_R22.rvt
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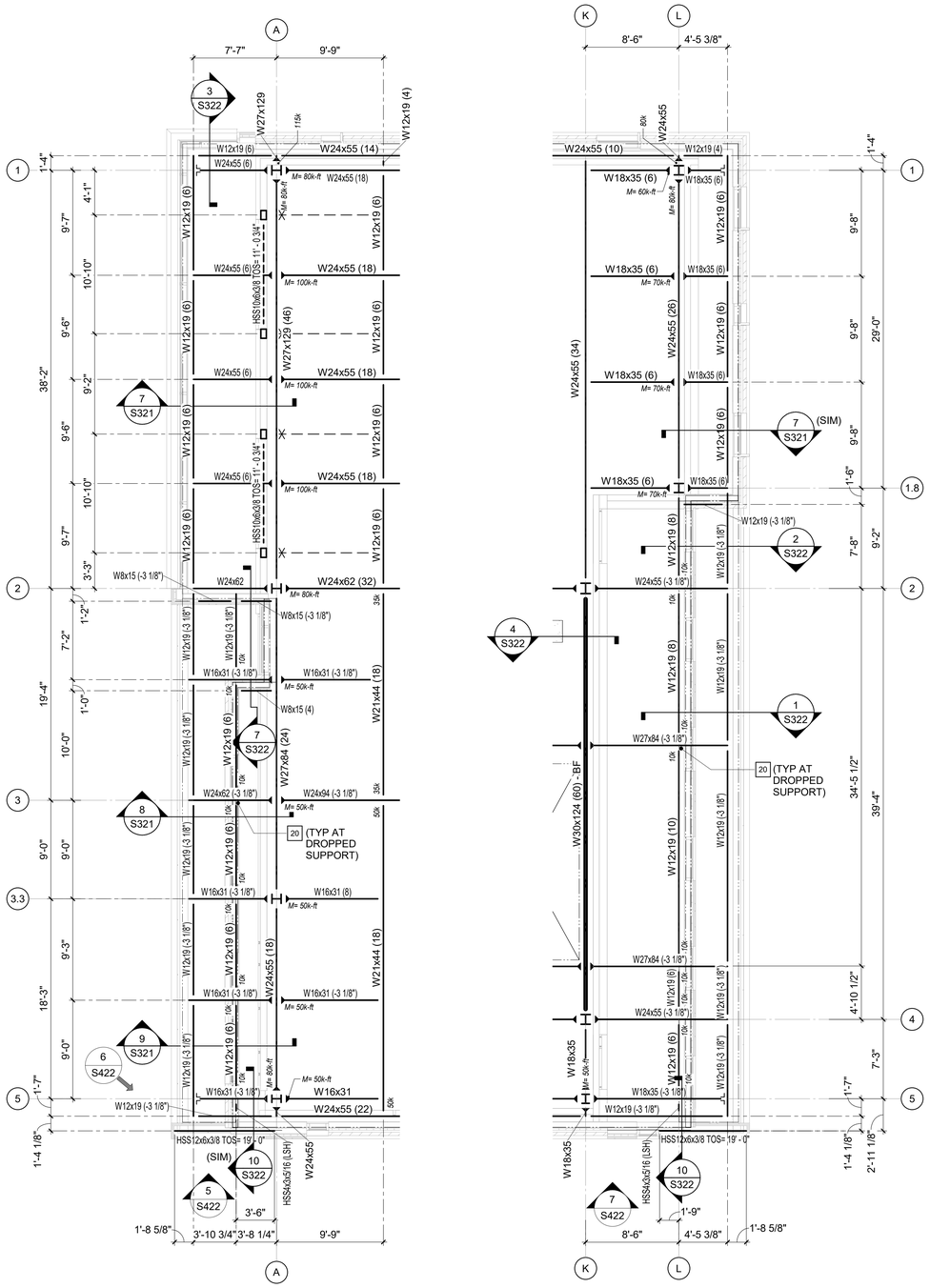

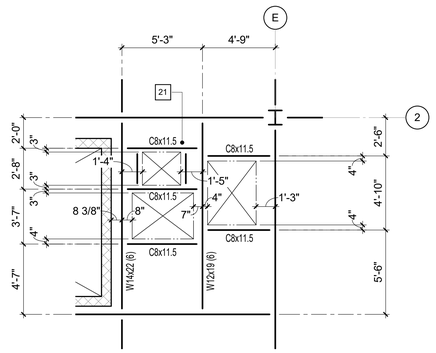

1 S421 ENLARGED SECOND FLOOR FRAMING PLAN - WEST

3/16" = 1'-0"

2 S421 ENLARGED SECOND FLOOR FRAMING PLAN - EAST

3/16" = 1'-0"

6 S421 ENLARGED SECOND FLOOR MECH CHASE FRAMING PLAN

1/4" = 1'-0"

FRAMING PLAN NOTES

A. REFERENCE FOUNDATION PLAN AND ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.

B. TOP OF FINISHED FLOOR ELEVATION SHALL BE AS NOTED ON SLAB PLANS.

C. COMPOSITE STEEL BEAM FRAMING MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER), UNLESS OTHERWISE NOTED.

D. STEEL ROOF FRAMING SUPPORTING 3" STEEL ROOF DECK MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER) UNLESS OTHERWISE NOTED.

E. CONCRETE ON ELEVATED METAL DECKS MUST BE POURED TO THE THICKNESS INDICATED.

F. AT STEEL ROOF FRAMING, BOTTOM OF DECK ELEVATIONS ARE SHOWN ON PLAN. INTERMEDIATE ELEVATIONS SHALL BE STRAIGHT LINES BETWEEN GIVEN ELEVATIONS. INTERPOLATE AS REQUIRED FOR INTERMEDIATE BEARING ELEVATIONS, UNLESS OTHERWISE NOTED.

G. COORDINATE AND VERIFY ALL MEMBER LOCATIONS, DIMENSIONS, WEIGHTS, OPENING SIZES, AND CURB DIMENSIONS FOR ALL MECHANICAL EQUIPMENT WITH THE ACTUAL EQUIPMENT FURNISHED. INCLUDE THIS INFORMATION ON THE JOIST AND STRUCTURAL STEEL SHOP DRAWINGS.

H. REFER TO SHEET S100 FOR RADIAL DIMENSION PLAN.

PLAN KEYNOTES

20 PROVIDE COPED SEATED CONNECTION. REFERENCE TYPICAL COPED BEAM SEAT DETAIL.

21 PROVIDE C8x11.5 FRAMING AROUND DUCT PENETRATIONS. COORDINATE LOCATION OF FRAMING WITH FINAL DUCT SIZES AND PROVIDE MINIMUM 3" SLAB EDGE FROM CENTER OF CHANNEL.

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SHEET TITLE: ENLARGED FRAMING PLANS

SCALE (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S421

NOT FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL ENGINEERING CORPORATION C-4360 MULTIDISCIPLINARY INFRASTRUCTURAL ENGINEERS

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL P. BRANNON 12/18/2023

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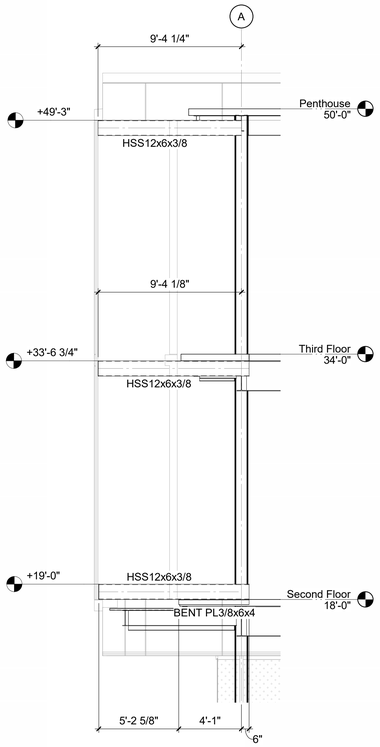
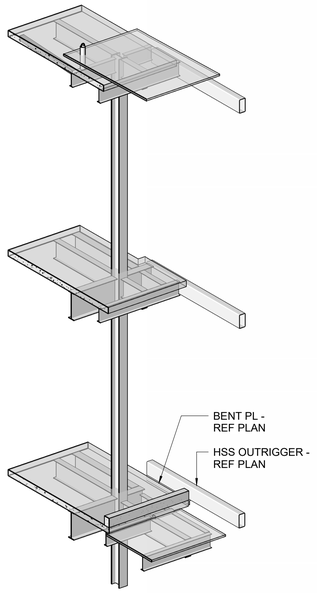
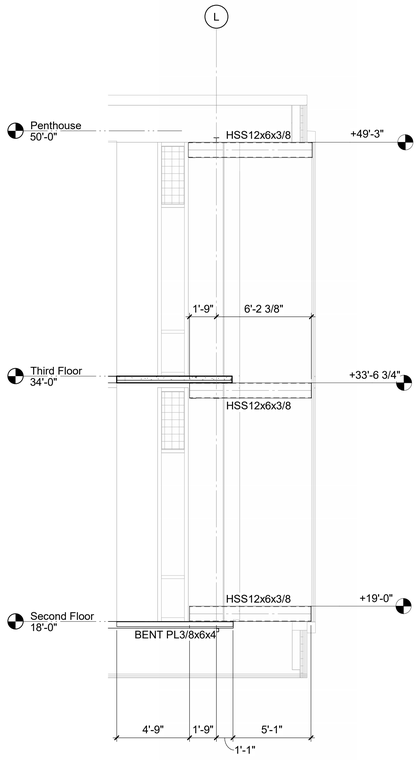


5 S422 FRAME ELEVATION AT WEST WING WALL

1/4" = 1'-0"

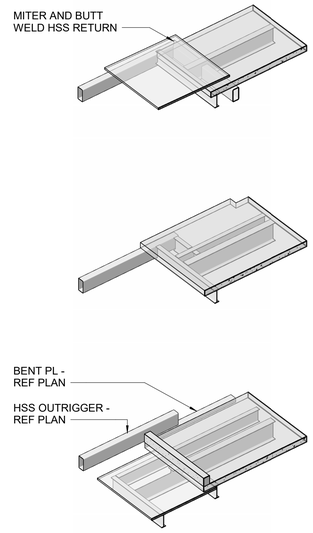


6 S422 3D VIEW - FRAMING AT WEST WING WALL

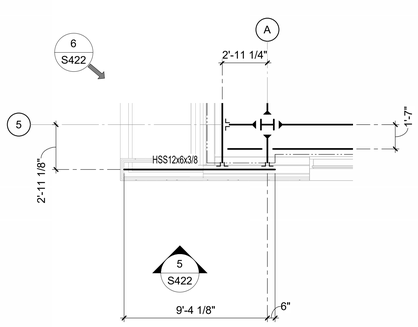


7 S422 FRAME ELEVATION AT EAST WING WALL

1/4" = 1'-0"

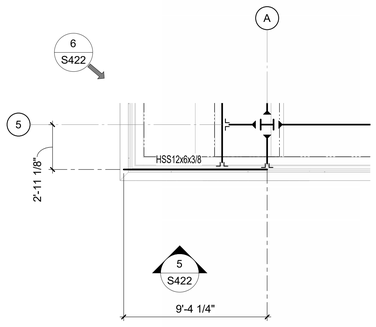


8 S422 3D VIEW - FRAMING AT EAST WING WALL



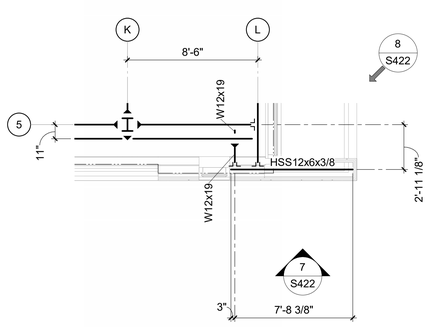
1 S422 ENLARGED THIRD FLOOR FRAMING PLAN

1/4" = 1'-0"



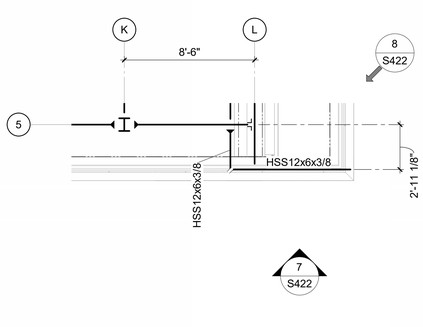
2 S422 ENLARGED PENTHOUSE FLOOR FRAMING PLAN

1/4" = 1'-0"



3 S422 ENLARGED THIRD FLOOR FRAMING PLAN

1/4" = 1'-0"



4 S422 ENLARGED PENTHOUSE FLOOR FRAMING PLAN

1/4" = 1'-0"

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SHEET TITLE
ENLARGED FRAMING PLANS, ELEVATIONS AND 3D VIEWS

SCALE (U.N.O.)

PROJECT
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA ENGINEERING CORPORATION C-4360

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNEN
02/16/2024

ISSUE DATE
12/20/2023

JOB. NO.
11751-00

DWG. NO.
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FRAMING PLAN NOTES

A. REFERENCE FOUNDATION PLAN AND ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.

B. TOP OF FINISHED FLOOR ELEVATION SHALL BE AS NOTED ON SLAB PLANS.

C. COMPOSITE STEEL BEAM FRAMING MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER), UNLESS OTHERWISE NOTED.

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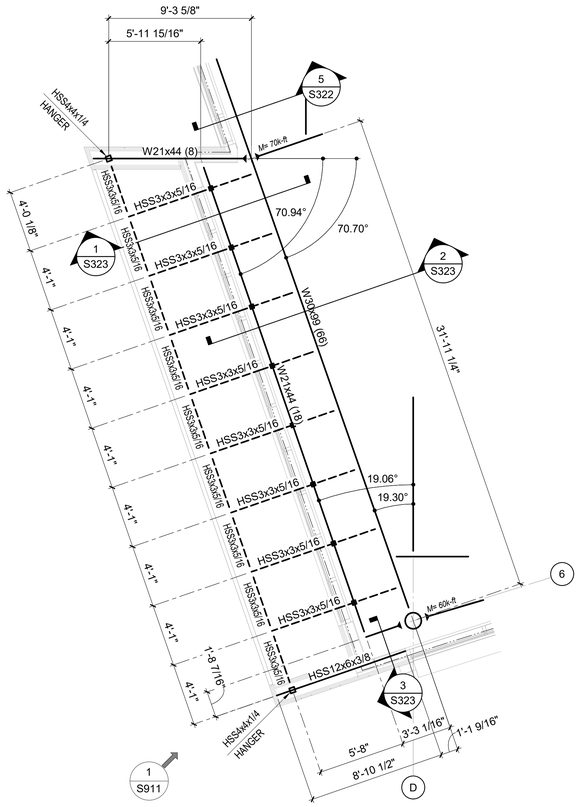
H. REFER TO SHEET S100 FOR RADIAL DIMENSION PLAN.

PLAN KEYNOTES

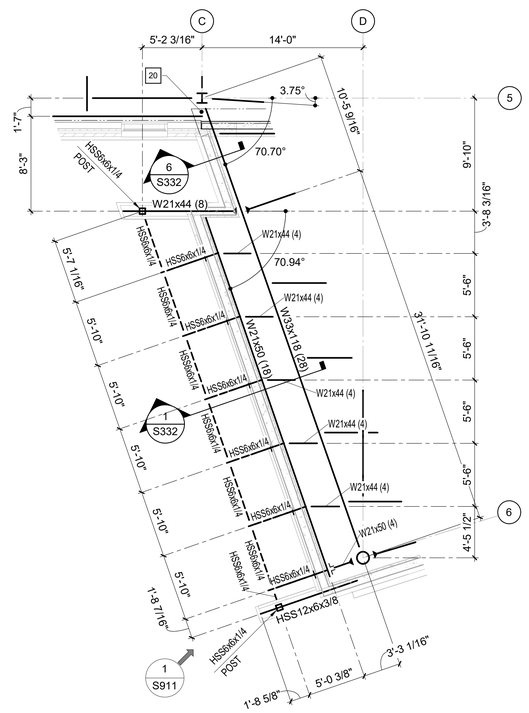
19 1 1/2" ROOF DECK. REFERENCE STEEL DECK NOTES.

20 PROVIDE COPED SEATED CONNECTION. REFERENCE TYPICAL COPED BEAM SEAT DETAIL.



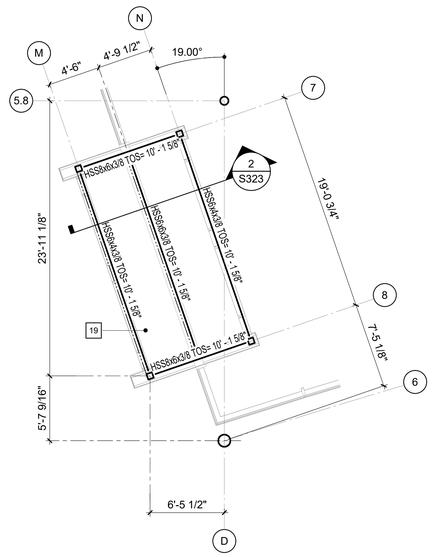
1 S423 ENLARGED SECOND FLOOR FRAMING PLAN

1/4" = 1'-0"



2 S423 ENLARGED THIRD FLOOR FRAMING PLAN

3/16" = 1'-0"



3 S423 ENTRY VESTIBULE FRAMING PLAN

3/16" = 1'-0"

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SHEET TITLE: ENLARGED PLANS

SCALE: (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA ENGINEERING CORPORATION C-4360 STRUCTURAL ENGINEERING MULTIDISCIPLINARY

NORTH CAROLINA PROFESSIONAL ENGINEER 051551 MICHAEL P. BRANDT 12/19/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S423

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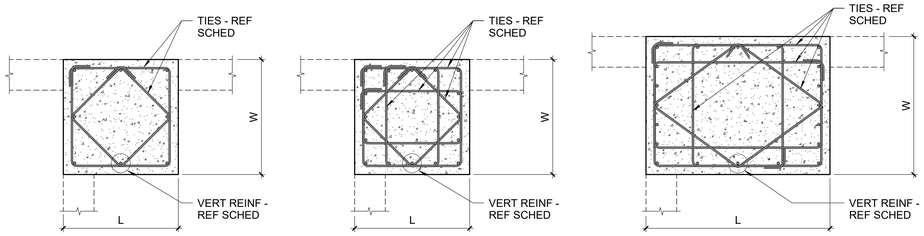
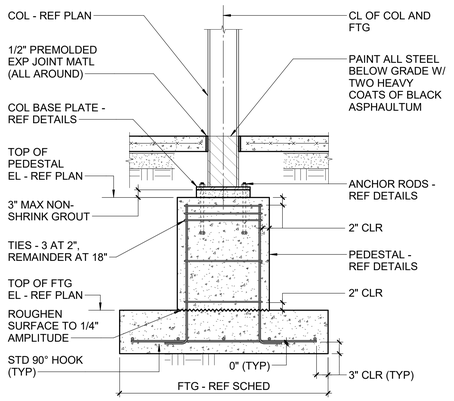


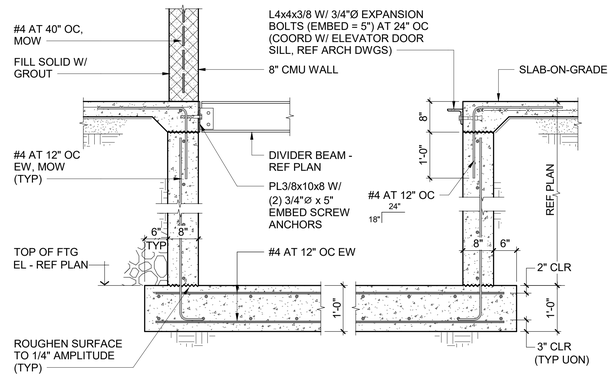
BAR PATTERN A BAR PATTERN B BAR PATTERN C

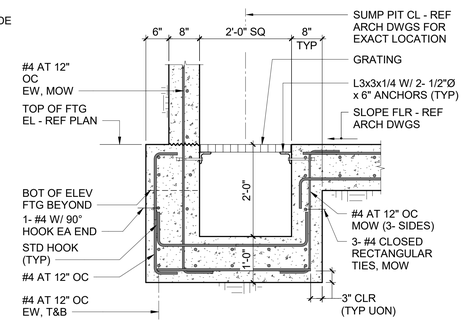
CONCRETE PEDESTAL SCHEDULE

MARK	SIZE		REINFORCING		
	LENGTH (L)	WIDTH (W)	VERTICAL	TIES	PATTERN
P-1	2'-0"	2'-0"	(8) #8	#3 AT 16" OC	A
P-2	2'-2"	2'-2"	(8) #8	#3 AT 16" OC	A
P-3	4'-0"	3'-2"	(20) #8	#3 AT 16" OC	C
P-4	5'-0"	3'-2"	(20) #8	#3 AT 16" OC	C
P-5	4'-0"	4'-0"	(16) #8	#3 AT 16" OC	B
P-6	2'-0"	1'-4"	(8) #7	#3 AT 16" OC	A

9 TYPICAL CONCRETE PEDESTAL DETAILS
S511 NTS







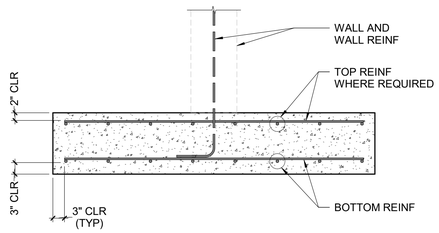
SUMP PIT

7 TYPICAL COLUMN & FOOTING DETAIL
S511 NTS

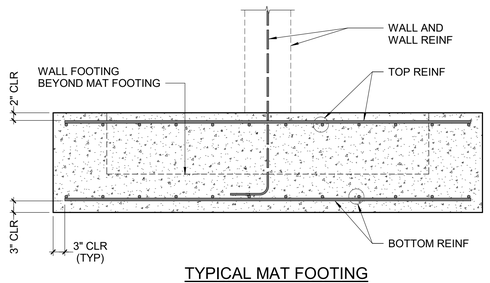
8 TYPICAL ELEVATOR PIT DETAIL
S511 NTS

NOTES:

1. CONCRETE COVERS INDICATED IN THIS DETAIL ARE TYPICAL. REFER TO SECTIONS FOR COVER REQUIREMENTS THAT MAY DIFFER.
2. FOR CONDITIONS WHERE CONCRETE COVER IS NOT SPECIFIED, CONCRETE COVER TO REINFORCING STEEL SHALL CONFORM TO THE MINIMUM COVER RECOMMENDATIONS IN ACI 318.

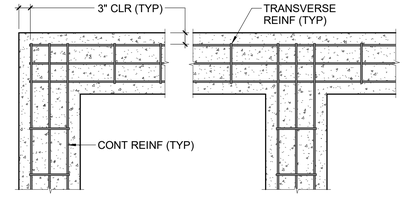


TYPICAL WALL FOOTING (SPREAD FOOTING SIMILAR)

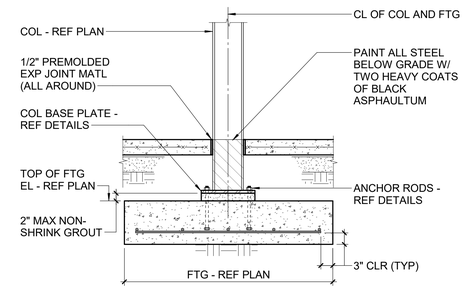


TYPICAL MAT FOOTING

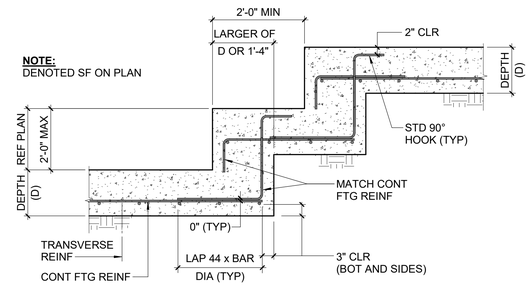
4 TYPICAL CONCRETE COVER TO REINFORCING DETAIL
S511 NTS



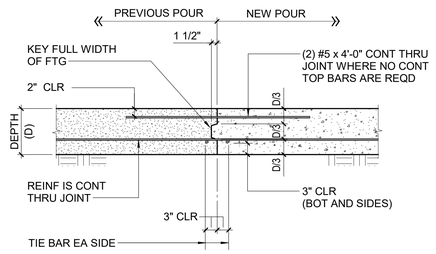
5 TYPICAL WALL FOOTING CORNER AND INTERSECTION DETAILS
S511 NTS



6 TYPICAL COLUMN & FOOTING DETAIL
S511 NTS

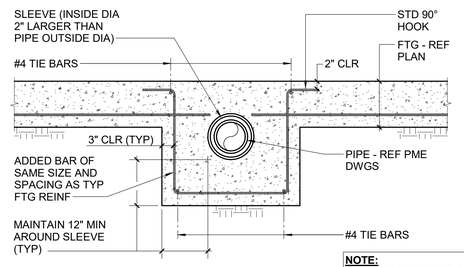


1 TYPICAL STEPPED FOOTING DETAIL
S511 NTS



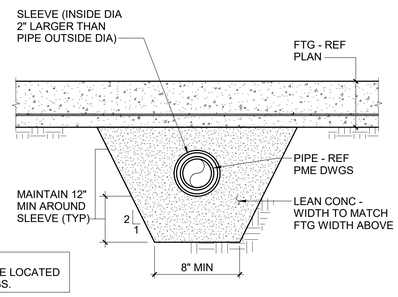
TYPICAL WALL FOOTING CONSTRUCTION JOINT DETAIL

2 TYPICAL WALL FOOTING CONSTRUCTION JOINT DETAIL
S511 NTS



NOTE: SLEEVES MUST NOT BE LOCATED IN OR UNDER COL FTGS.

THROUGH FOOTING



BELOW FOOTING

3 TYPICAL PIPE SLEEVE DETAILS
S511 NTS

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REVISION:

SHEET TITLE: TYPICAL FOUNDATION DETAILS
SCALE (U.N.O.)

WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA PROFESSIONAL ENGINEER C-4360 CIVIL STRUCTURAL MECHANICAL ELECTRICAL INFRASTRUCTURE

NORTH CAROLINA PROFESSIONAL ENGINEER 051551 MICHAEL R. BRANNON 12/18/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S511

NOT FOR CONSTRUCTION

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/R22138_WTCC Tech 4.0_Struc_R22.rvt
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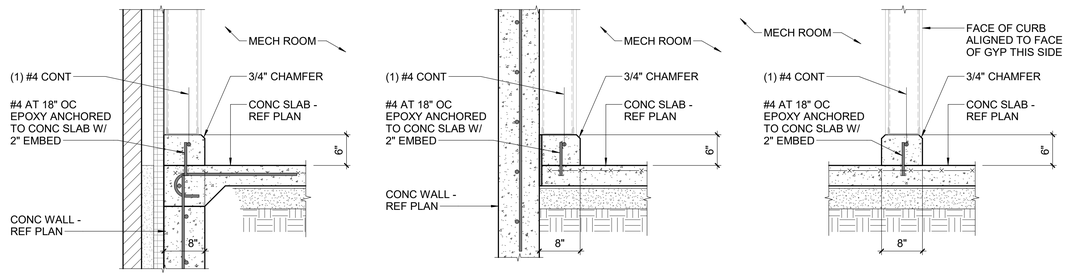
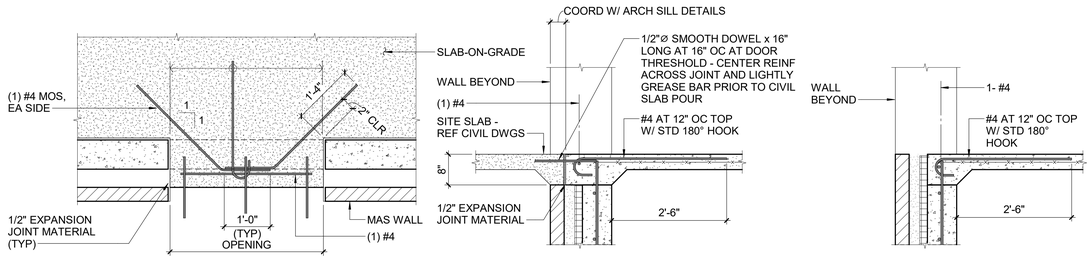


TYPICAL AT EXTERIOR WALL | TYPICAL AT INTERIOR WALL | TYPICAL AT SLAB

9 TYPICAL MECHANICAL ROOM CURB DETAILS

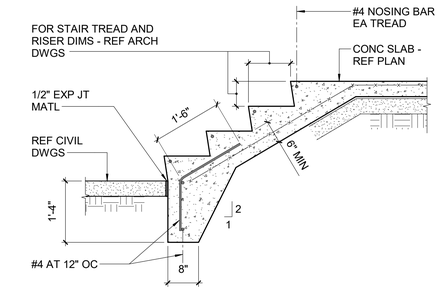
S521 NTS



PLAN | SECTION AT CIVIL SLAB | SECTION BEYOND CIVIL SLAB

7 TYPICAL EXTERIOR DOORS / OPENINGS IN MASONRY DETAIL

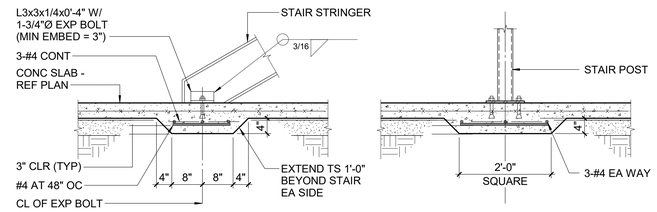
S521 NTS



8 TYPICAL CONCRETE STAIR-ON-GRADE DETAIL

S521 NTS

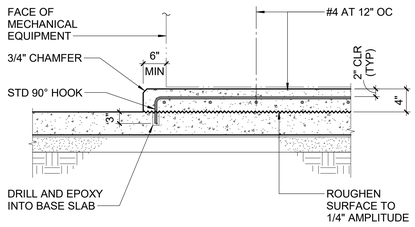
NOTES:
1. REF MECHANICAL/CIVIL DRAWINGS FOR DIMENSIONS AND LOCATION OF CONCRETE PAD.
2. COORDINATE ANY REQUIRED ANCHORAGE NEEDED FOR THE EQUIPMENT.
3. FINISH TOP OF MECHANICAL SLAB/PAD TO BE LEVEL TO 1/8" OVER 20 FEET.



4 TYPICAL THICKENED SLAB AT STAIR LANDING OR POST DETAIL

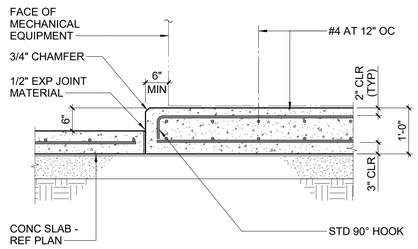
S521 NTS

NOTES:
1. REF MECHANICAL FOR DIMENSIONS AND LOCATION OF CONCRETE PAD.
2. COORDINATE ANY REQUIRED ANCHORAGE NEEDED FOR THE EQUIPMENT.
3. FINISH TOP OF MECHANICAL SLAB/PAD TO BE LEVEL TO 1/8" OVER 20 FEET.



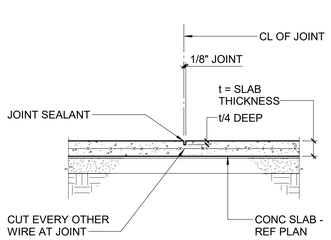
5 TYPICAL HOUSEKEEPING PAD AT SLAB ON GRADE DETAIL

S521 NTS



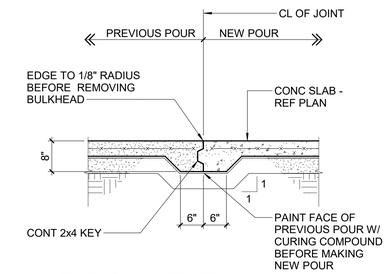
6 TYPICAL ISOLATED EQUIPMENT PAD DETAIL

S521 3/4" = 1'-0"



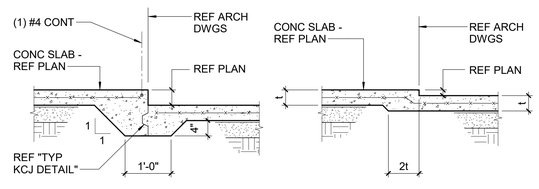
1 TYPICAL SAWED JOINT DETAIL

S521 NTS



2 TYPICAL KEYED CONSTRUCTION JOINT DETAIL

S521 NTS



GREATER THAN 4" | 4" OR LESS

DENOTED THUS: ON PLAN

3 TYPICAL DEPRESSED SLAB DETAILS

S521 NTS

LORD AECK SARGENT

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SHEET TITLE: TYPICAL FOUNDATION AND SLAB-ON-GRADE DETAILS

SCALE (U.N.O.)

PROJECT: WAKE TECH COMMUNITY COLLEGE TECHNOLOGY 4.0 BUILDING
SCO ID # 21-23932-02A
1160 Inspiration Circle, Wendell, NC 27591

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S521

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NORTH CAROLINA PROFESSIONAL ENGINEERING CORPORATION C-4360 MILITARY BUILDINGS NC INFRASTRUCTURAL SYSTEMS

NORTH CAROLINA SEAL 051551 ENGINEER MICHAEL R. BRANNON 12/18/2023

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/R22138_WTCC Tech 4.0_Struc_R22.rvt
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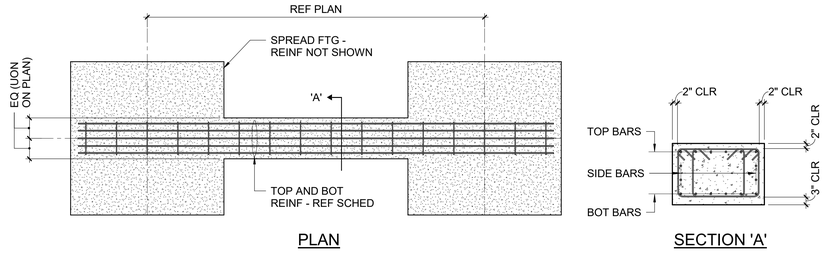
STRAP BEAM SCHEDULE

MARK	SIZE		REINFORCING			STIRRUPS	
	WIDTH	DEPTH	TOP BARS	BOTTOM BARS	SIDE BARS (EACH FACE)	SIZE	SPACING
SB1	2'-0"	3'-9"	(4) #7	(6) #7	(4) #4	#4	12" OC
SB2	4'-0"	2'-0"	(6) #6	(8) #6	--	#4	12" OC



2 S531 TYPICAL STRAP BEAM DETAIL

1/2" = 1'-0"

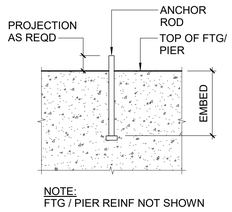
COLUMN BASE PLATE SCHEDULE

MARK	COLUMN BASE PLATE SIZE						ANCHOR RODS				PLATE WASHER			SHEAR LUG		REMARKS
	B	t	N	HOLE DIAMETER	'X'=EDGE DISTANCE	OFFSET	DIAMETER	QUANTITY	EMBEDMENT	HAIRPIN BAR SIZE	SIZE (SQ)	HOLE DIAMETER	THICKNESS	THICKNESS	DEPTH	
BP-A	1'-6"	1 1/2"	1'-6"	1 5/16"	1 1/2"	--	3/4"	4	8"	--	2"	13/16"	1/4"	--	--	
BP-B	1'-6"	2"	1'-6"	1 5/16"	1 1/2"	--	3/4"	4	8"	--	2"	13/16"	1/4"	--	--	
BP-C	1'-8"	1 3/4"	1'-8"	1 5/16"	1 1/2"	--	3/4"	4	8"	--	2"	13/16"	1/4"	--	--	
BP-D	1'-8"	2 1/2"	2'-6"	2 3/4"	3"	2"	1 3/4"	4	8"	#8	4 1/2"	1 13/16"	5/8"	2 1/2"	6"	
BP-E	2'-2"	2 3/4"	3'-0"	2 5/16"	3"	8"	1 1/2"	4	1'-0"	--	4"	1 9/16"	1/2"	2 3/4"	6"	
BP-F	1'-10"	1 3/4"	1'-10"	1 13/16"	2"	--	1"	4	1'-0"	--	3"	1 1/16"	3/8"	--	--	
BP-G	2'-0"	2 1/4"	2'-0"	2 3/4"	3"	--	1 3/4"	4	1'-4"	#8	4 1/2"	1 13/16"	5/8"	2 1/2"	6"	
BP-H	2'-2"	2 1/2"	2'-6"	2 5/16"	3"	2"	1 1/2"	4	1'-6"	#8	4"	1 9/16"	1/2"	2 1/2"	6"	
BP-I	2'-0"	2 3/4"	2'-10"	2 3/4"	3"	2"	1 3/4"	4	1'-4"	--	4 1/2"	1 13/16"	5/8"	2 3/4"	8"	
BP-J	1'-2"	3/4"	1'-2"	1 13/16"	2"	--	1"	4	1'-0"	--	3"	1 1/16"	3/8"	--	--	
BP-K	10"	3/4"	1'-5"	1 5/16"	REF DETAIL	--	3/4"	4	8"	--	2"	13/16"	1/4"	--	--	
BP-L	2'-0"	2 3/4"	2'-10"	3 1/4"	3"	2"	2"	4	1'-4"	#8	5"	2 1/16"	3/4"	2 3/4"	8"	USE 3" GROUT PAD

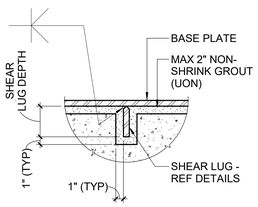
NOTES:

A. PROVIDE MINIMUM FILLET WELD PER AISC AT ALL PLATE WASHERS AT ANCHOR RODS.

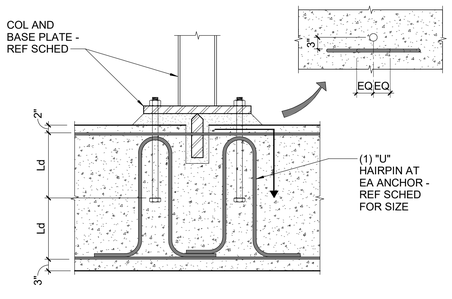
B. AT BP-D, BP-G, BP-H AND BP-L, PROVIDE ADDITIONAL ANCHOR REINFORCING PER DETAIL.



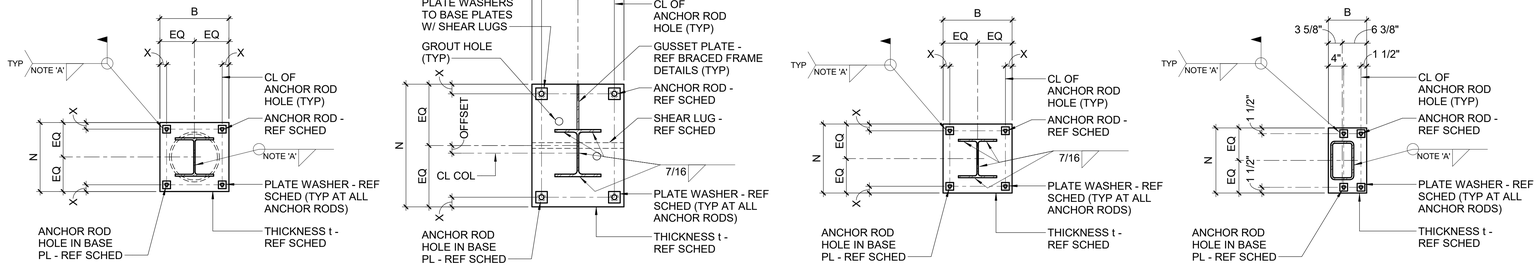
ANCHOR ROD



SHEAR LUG



ANCHOR REINFORCING



1 S531 TYPICAL BASE PLATE AND ANCHOR ROD DETAILS

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SHEET TITLE: TYPICAL FOUNDATION DETAILS

SCALE (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA ENGINEERING CORPORATION C-4360

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNEN 12/19/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S531

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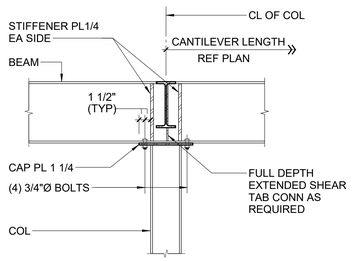
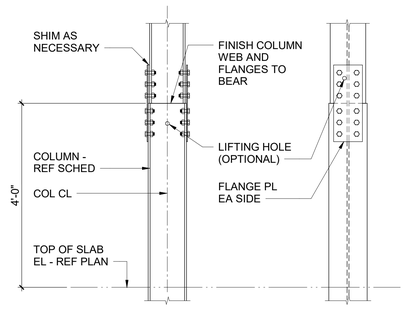
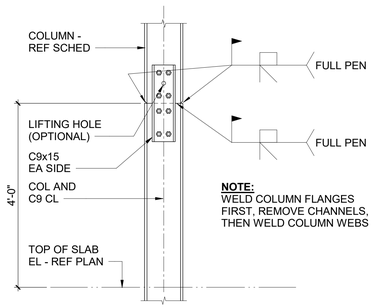


5 TYPICAL BEAM CONTINUOUS OVER COLUMN DETAILS

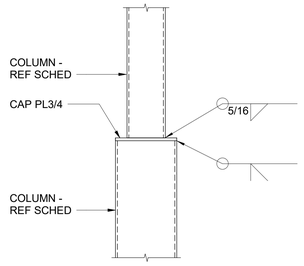
S541 NTS



GRAVITY WF COLUMN CONNECTION



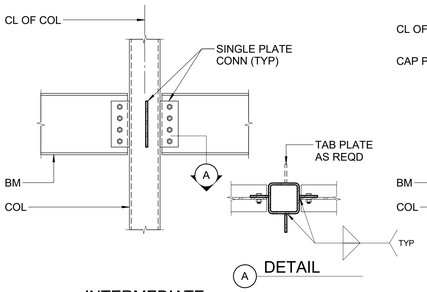
LATERAL WF COLUMN CONNECTION



GRAVITY HSS ROUND COLUMN CONNECTION

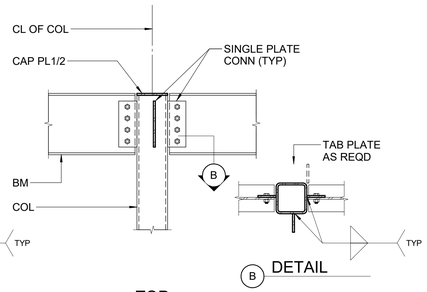
6 TYPICAL COLUMN SPLICE DETAILS

S541 NTS



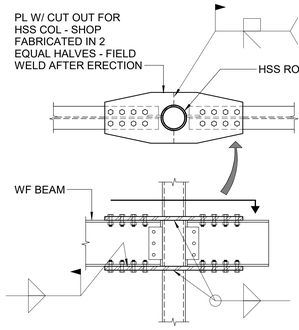
A DETAIL

INTERMEDIATE

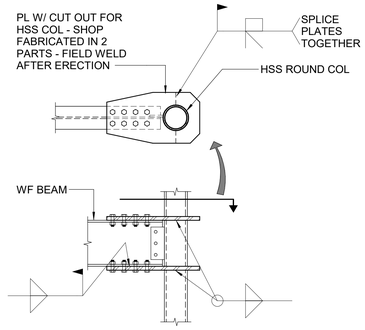


B DETAIL

TOP



WF BEAM TO HSS ROUND COLUMN - BEAM EA SIDE

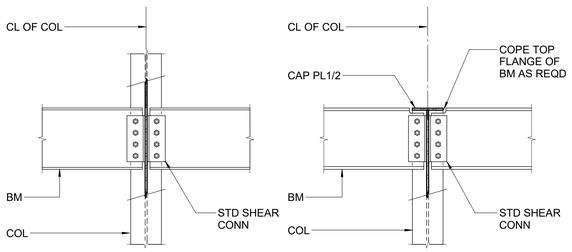


WF BEAM TO HSS ROUND COLUMN - BEAM ONE SIDE

MOMENT CONNECTIONS

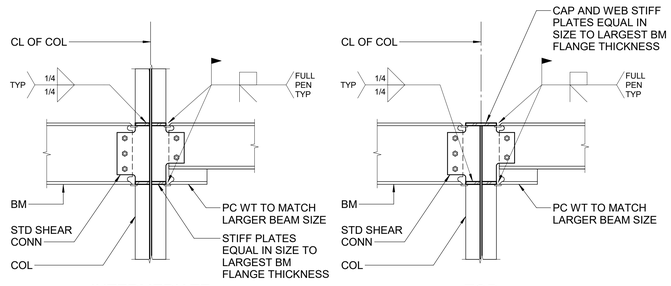
4 TYPICAL BEAM TO HSS COLUMN CONNECTION DETAILS

S541 NTS



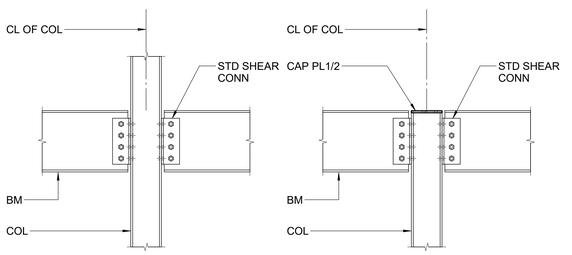
INTERMEDIATE TOP

TO COLUMN WEB



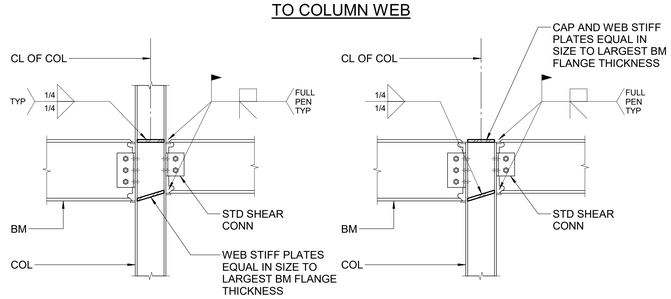
INTERMEDIATE TOP

TO COLUMN WEB



INTERMEDIATE TOP

TO COLUMN FLANGE



INTERMEDIATE TOP

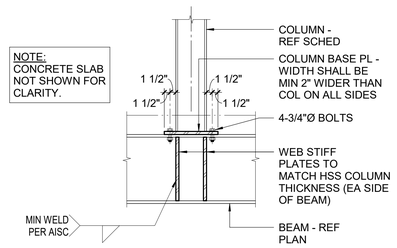
TO COLUMN FLANGE

1 TYPICAL BEAM TO WIDE FLANGE COLUMN STANDARD CONNECTION DETAILS

S541 NTS

2 TYPICAL BEAM TO WIDE FLANGE COLUMN MOMENT CONNECTION DETAILS

S541 3/4" = 1'-0"



3 TYPICAL STUB COLUMN DETAIL

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REVISION:

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Raleigh, NC 27603
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SHEET TITLE: TYPICAL FRAMING DETAILS

SCALE (U.N.O.)

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

ISSUE DATE: 12/20/2023
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DWG. NO. S541

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NORTH CAROLINA ENGINEERING CORPORATION C-4360

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNON 12/19/2023

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/R22138_WTCC Tech 4.0_Struc_R22.rvt
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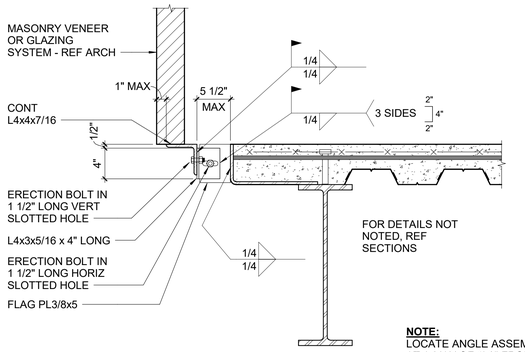
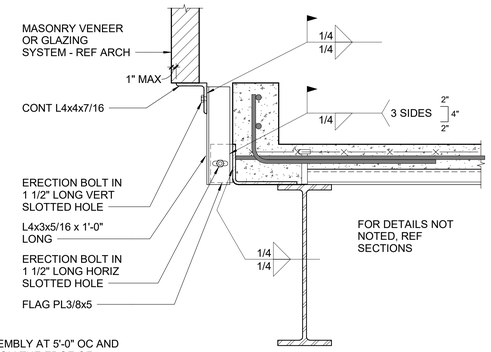


TYPICAL AT FLOOR

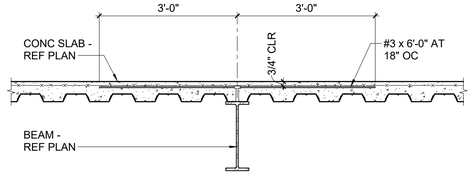


TYPICAL AT RAISED CURB

NOTE:
LOCATE ANGLE ASSEMBLY AT 5'-0" OC AND AT A MAX OF 1'-0" FROM THE EDGE OF MASONRY VENEER PIERS

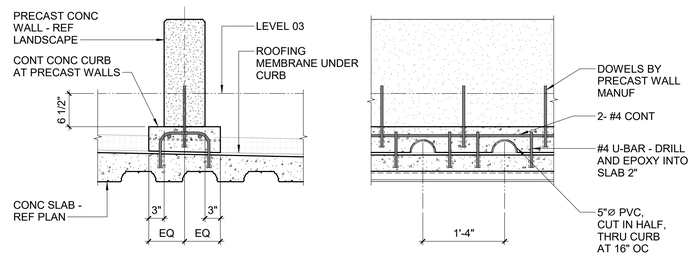
3 S542 TYPICAL SHELF ANGLE SUPPORT DETAILS

NTS



4 S542 TYPICAL REINFORCING OVER BEAM PARALLEL TO DECK FLUTES

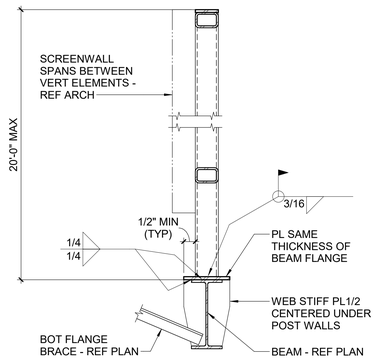
NTS



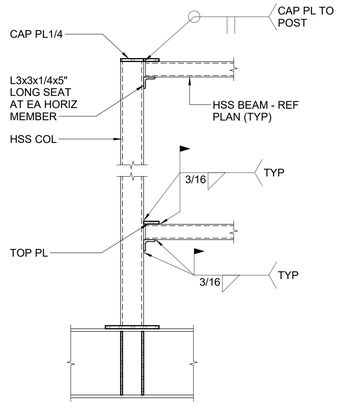
SECTION ELEVATION

5 S542 TYPICAL PRECAST WALL CURB DETAIL

1" = 1'-0"



SECTION

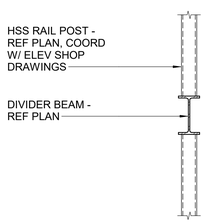


ELEVATION

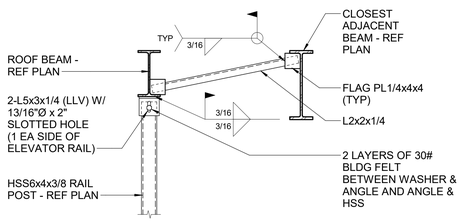
1 S542 TYPICAL SCREENWALL DETAILS

NTS

NOTE:
COORDINATE HOIST BEAMS AND
RAIL POSTS W/ ELEVATOR MANUF



AT DIVIDER BEAM



AT ROOF BEAM

2 S542 TYPICAL ELEVATOR RAIL POST CONNECTION DETAILS

NTS

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DESIGNING COLLABORATIVE STRUCTURES

SHEET TITLE: TYPICAL FRAMING DETAILS
SCALE: (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S542

NOT FOR CONSTRUCTION

NORTH CAROLINA ENGINEERING CORPORATION C-4360 LICENSED PROFESSIONAL ENGINEERS AND LAND SURVEYORS

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNOCK 12/18/2023

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/R22138_WTCC Tech 4.0_Struc_R22.rvt
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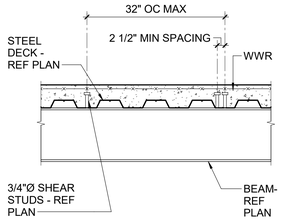
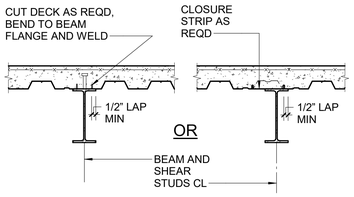
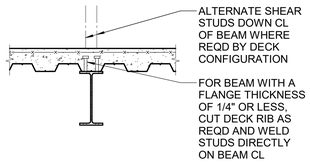


NOTE: SPACE NUMBER OF STUDS SHOWN ON PLAN EQUALLY ALONG BEAM FLANGE IN DECK RIBS. WHERE THE NUMBER OF STUDS EXCEEDS THE NUMBER OF DECK RIBS, PLACE 2 - STUDS IN DECK RIBS STARTING AT BEAM ENDS AND WORKING TOWARDS THE MIDDLE. AN EQUAL NUMBER OF STUDS SHALL BE PLACED ON EACH HALF OF THE BEAM.

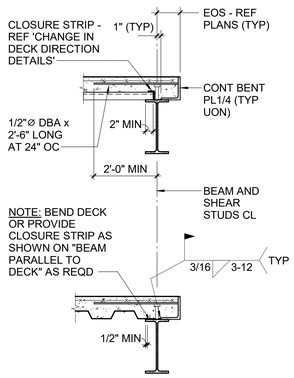
BEAM PERPENDICULAR TO DECK RIBS



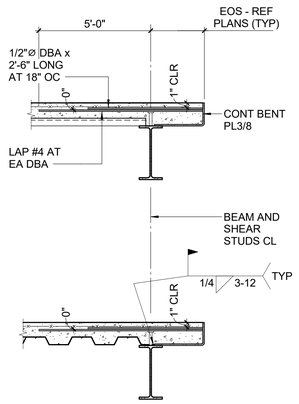
DECK RIBS NOT ON BEAM



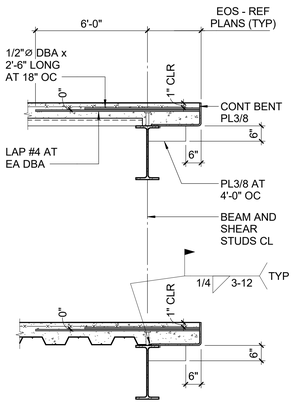
DECK RIB ON BEAM PARALLEL TO DECK RIB



EOS < 1'-0"

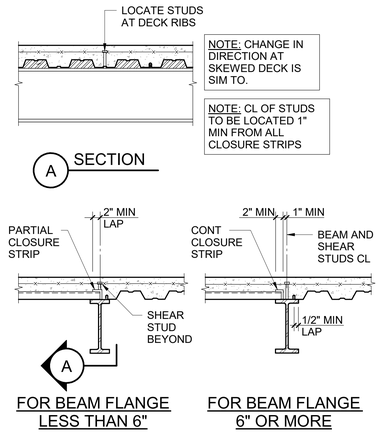


1'-0" ≤ EOS ≤ 1'-4"



1'-4" < EOS ≤ 2'-2"

EDGE CONDITIONS



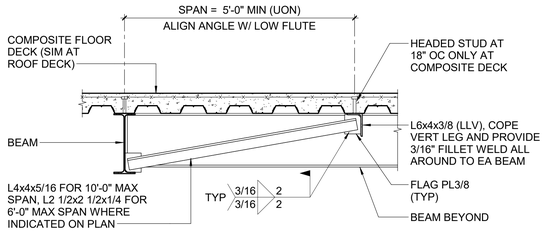
FOR BEAM FLANGE LESS THAN 6"

FOR BEAM FLANGE 6" OR MORE

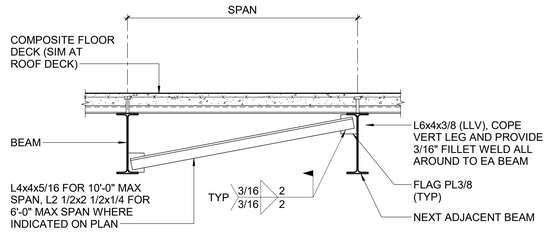
CHANGE IN DECK DIRECTION

4 TYPICAL COMPOSITE SLAB FRAMING DETAILS

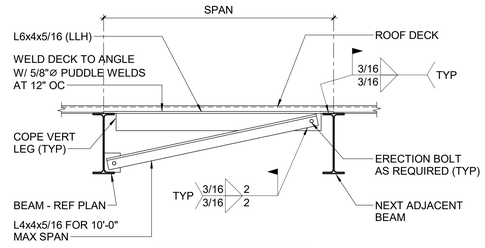
S551 NTS



BRACE PERPENDICULAR TO DECK



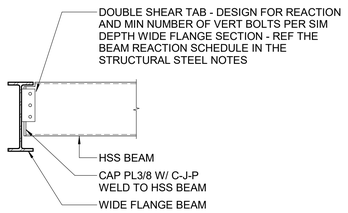
BRACE PARALLEL TO DECK



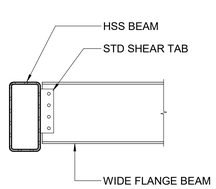
METAL ROOF DECK

3 TYPICAL BEAM BOTTOM FLANGE BEAM BRACE DETAILS

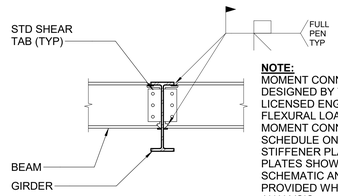
S551 NTS



HSS BEAM TO WIDE FLANGE BEAM

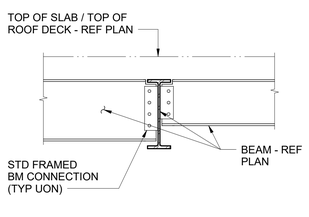


WIDE FLANGE BEAM TO HSS BEAM

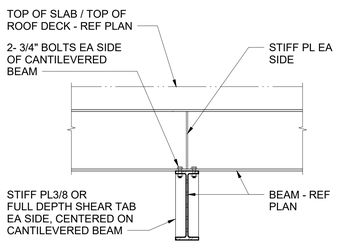


NOTE:
MOMENT CONNECTIONS MUST BE DESIGNED BY THE FABRICATOR'S LICENSED ENGINEER FOR THE FLEXURAL LOADS INDICATED IN THE MOMENT CONNECTION REACTION SCHEDULE ON THIS SHEET. STIFFENER PLATES AND DOUBLER PLATES SHOWN HERE ARE SCHEMATIC AND NEED ONLY BE PROVIDED WHERE REQUIRED BY ANALYSIS.

TYPICAL BEAM TO GIRDER MOMENT CONNECTION



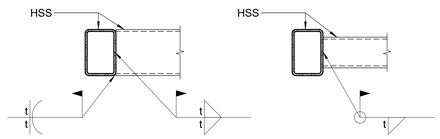
AT INTERIOR BEAM



CANTILEVERED BEAM OVER BEAM

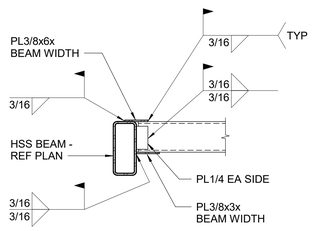
HSS TO HSS NOTES:

1. WHERE CONNECTIONS ARE EXPOSED, ALL ERECTION AIDS MUST BE REMOVED. ANY DEFECTS AS A RESULT OF REMOVAL MUST BE REPAIRED. ALL BOLT HOLES MUST BE PLUG WELDED AND GROUND SMOOTH.
2. WELD THICKNESS 't' = MAX THICKNESS OF HSS BEING JOINED - 1/16".

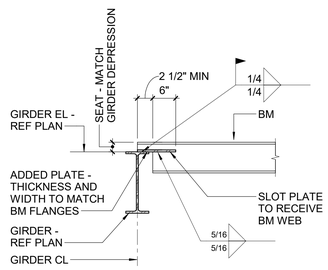


EQUAL DEPTHS UNEQUAL DEPTHS

HSS BEAM TO HSS BEAM



MOMENT CONNECTION



1 TYPICAL BEAM TO BEAM CONNECTION DETAILS

S551 NTS

2 TYPICAL COPED BEAM SEAT DETAIL

S551 NTS

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SHEET TITLE: TYPICAL FRAMING DETAILS

SCALE: (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA PROFESSIONAL ENGINEER C-4360 LORD AECK SARGENT ARCHITECTURAL DESIGN, PC

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNON 12/18/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S551

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Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/R22138_WTCC Tech 4.0_Struc_R22.rvt
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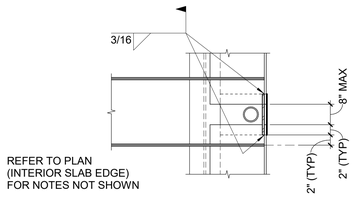
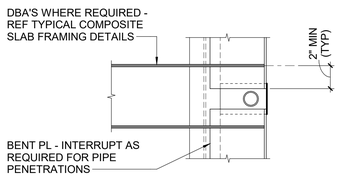
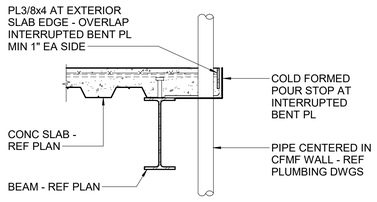


PLAN (EXTERIOR SLAB EDGE)



PLAN (INTERIOR SLAB EDGE)



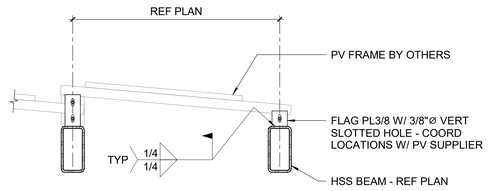
SECTION

NOTES:

1. POSITION STIFF PLATES (WHERE REQUIRED) TO AVOID PIPE PENETRATIONS. REFER TO TYPICAL COMPOSITE SLAB FRAMING DETAILS FOR SPACING REQUIREMENTS.
2. AT CONTRACTOR'S OPTION, PIPE PENETRATIONS MAY BE CORE DRILLED THRU SLAB AND BENT PLATE IN LIEU OF INTERRUPTING BENT PLATE.

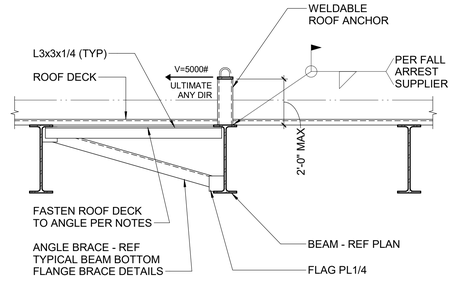
5 S552 TYPICAL PIPE PENETRATION AT SLAB EDGE DETAILS

NTS

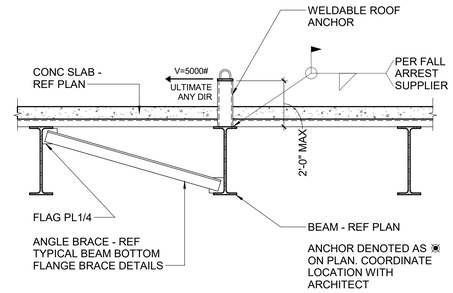


6 S552 TYPICAL PV ARRAY SUPPORT DETAIL

NTS



AT ROOF DECK



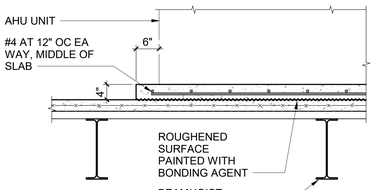
AT ROOF SLAB

4 S552 TYPICAL FALL ARREST ANCHOR DETAILS

NTS

NOTES:

1. REF MECHANICAL FOR DIMENSIONS AND LOCATION OF CONCRETE PAD.
2. COORDINATE ANY REQUIRED ANCHORAGE NEEDED FOR THE EQUIPMENT.
3. FINISH TOP OF MECHANICAL SLAB/PAD TO BE LEVEL TO 1/8" OVER 20 FEET.

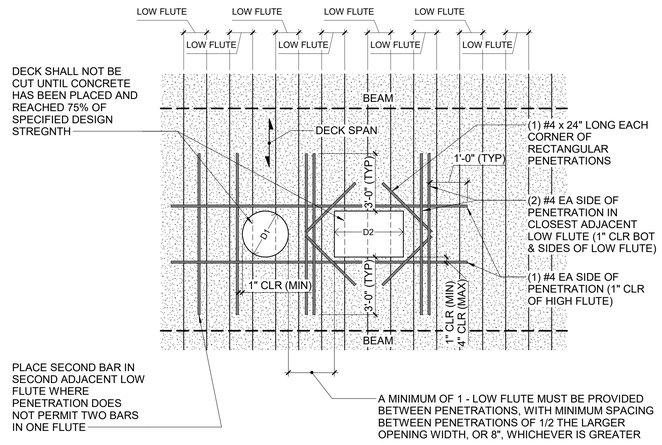


3 S552 TYPICAL HOUSEKEEPING PAD AT ELEVATED SLAB DETAIL

NTS

NOTES:

1. SEE MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS FOR LOCATIONS AND SIZE OF FLOOR PENETRATIONS NOT SPECIFICALLY DETAILED ON THE STRUCTURAL FRAMING PLANS.
2. PENETRATIONS, GREATER THAN 6", BUT LESS THAN OR EQUAL TO 24" IN ANY DIRECTION SHALL BE PERMITTED IN THE ELEVATED SLAB ON METAL DECK WITHOUT ADDITIONAL STRUCTURAL STEEL FRAMING, PROVIDED THE SLAB IS REINFORCED AS INDICATED BELOW.
3. A MINIMUM OF (1) LOW FLUTE MUST BE PROVIDED BETWEEN PENETRATIONS, WITH MINIMUM SPACING BETWEEN PENETRATIONS OF 1/2 THE LARGER OPENING WIDTH, OR 8", WHICHEVER IS GREATER.

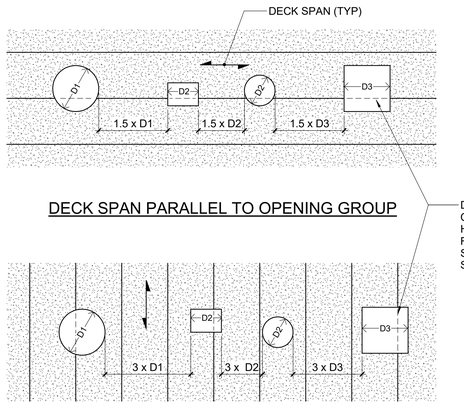


2 S552 TYPICAL SPACING REQUIREMENTS FOR FLOOR PENETRATIONS 6" TO 24" WIDE

NTS

NOTES:

1. SEE MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS FOR LOCATIONS AND SIZE OF FLOOR PENETRATIONS NOT SPECIFICALLY DETAILED ON THE STRUCTURAL FRAMING PLANS.
2. PENETRATIONS, LESS THAN OR EQUAL TO 6" IN ANY DIMENSION SHALL BE PERMITTED IN THE ELEVATED SLAB ON METAL DECK WITHOUT REINFORCING, PROVIDED THE SPACING BETWEEN PENETRATIONS DOES NOT EXCEED THE FOLLOWING, AS DEPICTED BELOW:
   A. WHERE DECK SPAN IS PARALLEL TO THE GROUP OF PENETRATIONS: CLEAR SPACING SHALL NOT BE LESS THAN 1.5 TIMES THE WIDTH / DIAMETER OF THE LARGER ADJACENT PENETRATION OR 4", WHICHEVER IS GREATER.
   B. WHERE DECK SPAN IS PERPENDICULAR TO THE GROUP OF PENETRATIONS: CLEAR SPACING SHALL NOT BE LESS THAN 3 TIMES THE WIDTH OF THE LARGER ADJACENT PENETRATION, OR 8", WHICHEVER IS GREATER.
3. IF THE SPACING REQUIREMENTS BELOW CANNOT BE MET, THE CONTRACTOR SHALL BE PERMITTED TO REINFORE THE SLAB PER THE TYPICAL FLOOR SLAB REINFORCING DETAIL AT OPENINGS LARGER THAN 6".
4. BLOCKOUTS OR DRILLED CORES ARE PERMITTED, HOWEVER, FLOOR DECK SHALL REMAIN CONTINUOUS AND NOT BE CUT UNTIL CONCRETE HAS BEEN PLACED AND HAS REACHED 75% OF IT'S SPECIFIED DESIGN STRENGTH.



DECK SPAN PARALLEL TO OPENING GROUP

DECK SPAN PERPENDICULAR TO OPENING GROUP

1 S552 TYPICAL SPACING REQUIREMENTS FOR FLOOR PENETRATIONS 6" WIDE OR LESS

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SHEET TITLE: TYPICAL FRAMING DETAILS
SCALE (UNO)

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA ENGINEERING CORPORATION C-4360 STRUCTURAL ENGINEERS

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNEN
12/18/2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S552

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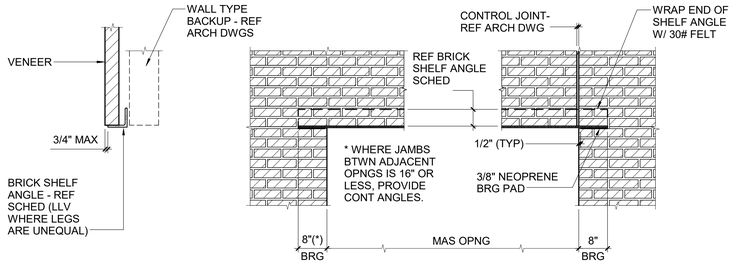
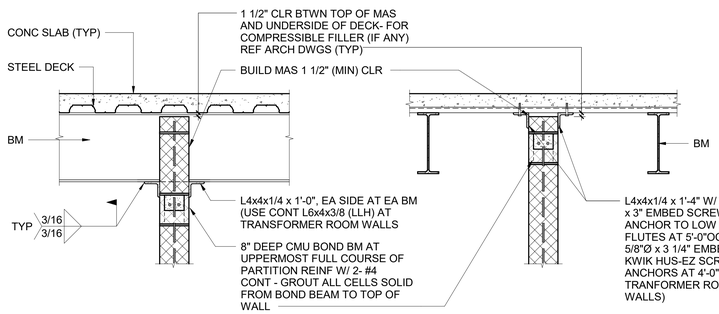
BRICK SHELF ANGLE SCHEDULE	
CLEAR SPAN	SIZE
0 TO 4'-8"	L5x5x5/16
4'-8" TO 8'-0"	L5x5x3/8

NOTES:
1. REFER TO ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF ALL OPENINGS.
2. SHELF ANGLE SCHEDULE APPLIES ONLY TO SHELF ANGLES NOT OTHERWISE DETAILED.
3. BRICK SHELF ANGLES TO BE STAINLESS STEEL UNLESS OTHERWISE NOTED. REFER TO TO STRUCTURAL STEEL NOTES FOR SPECIFICATIONS.



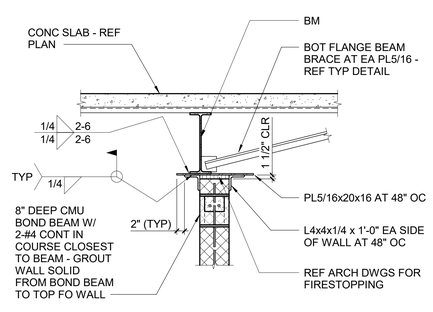
TYPICAL SECTION TYPICAL JAMB JAMB AT CONTROL JOINT

5 LOOSE BRICK SHELF ANGLE DETAILS
S561 NTS

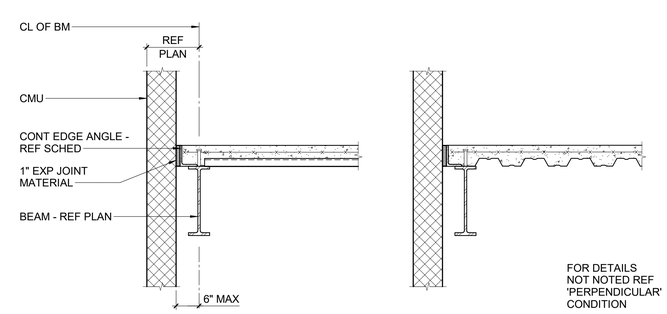


PERPENDICULAR TO BEAMS BETWEEN PARALLEL BEAMS

3 TYPICAL NON-BEARING MASONRY PARTITION BRACING DETAILS
S561 NTS



AT PARALLEL BEAM

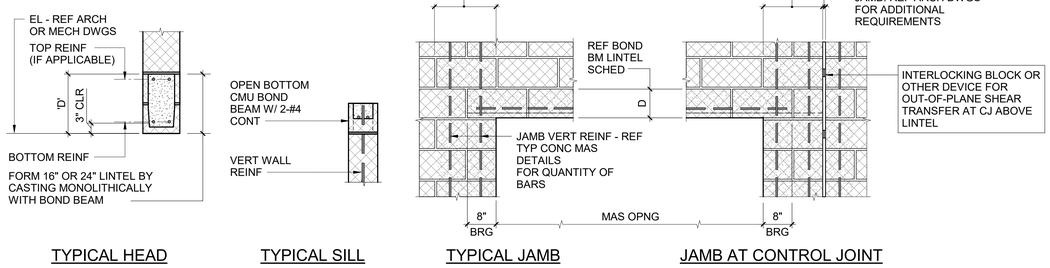


PERPENDICULAR PARALLEL

4 TYPICAL CMU WALL BYPASS DETAILS
S561 NTS

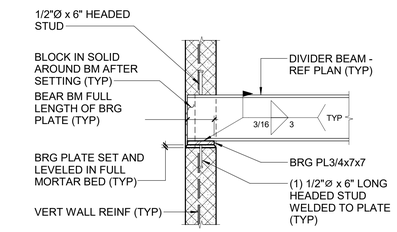
BOND BEAM LINTEL SCHEDULE			
CLEAR SPAN	DEPTH 'D'	REINFORCING	
		8" WIDE	12" WIDE
0 TO 3'-4"	8"	2-#4 BOTTOM	2-#5 BOTTOM
3'-4" TO 4'-8"	16"	2-#4 T &B	2-#5 T & B
4'-9" TO 8'-0"	24"	2-#4 T & B	2-#5 T & B

NOTES:
1. REFER TO ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS; FOR DUCT OPENINGS REFER TO MECHANICAL DRAWINGS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR WIDTH OF LINTEL.
3. SCHEDULE APPLIES ONLY TO LINTELS NOT OTHERWISE SHOWN ON THE DRAWINGS.



TYPICAL HEAD TYPICAL SILL TYPICAL JAMB JAMB AT CONTROL JOINT

1 TYPICAL BOND BEAM LINTEL DETAILS
S561 NTS



2 TYPICAL ELEVATOR DIVIDER BEAM BEARING ON MASONRY DETAIL
S561 NTS

LORD AECK SARGENT
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SHEET TITLE: TYPICAL FRAMING DETAILS
SCALE (U.N.O.)

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: S561

NOT FOR CONSTRUCTION

NORTH CAROLINA ENGINEERING CORPORATION C-4360 MILLER ENGINEERING, PC
NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNEN 12/18/2023

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/R22138_WTCC Tech 4.0_Struc_R22.rvt
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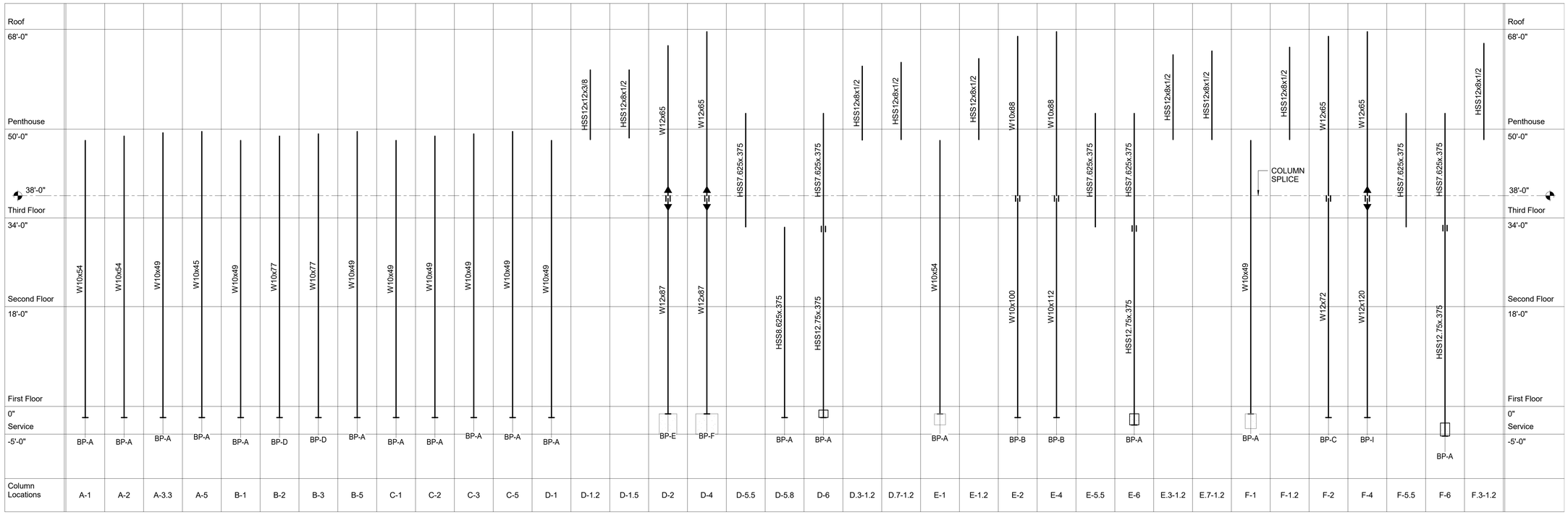

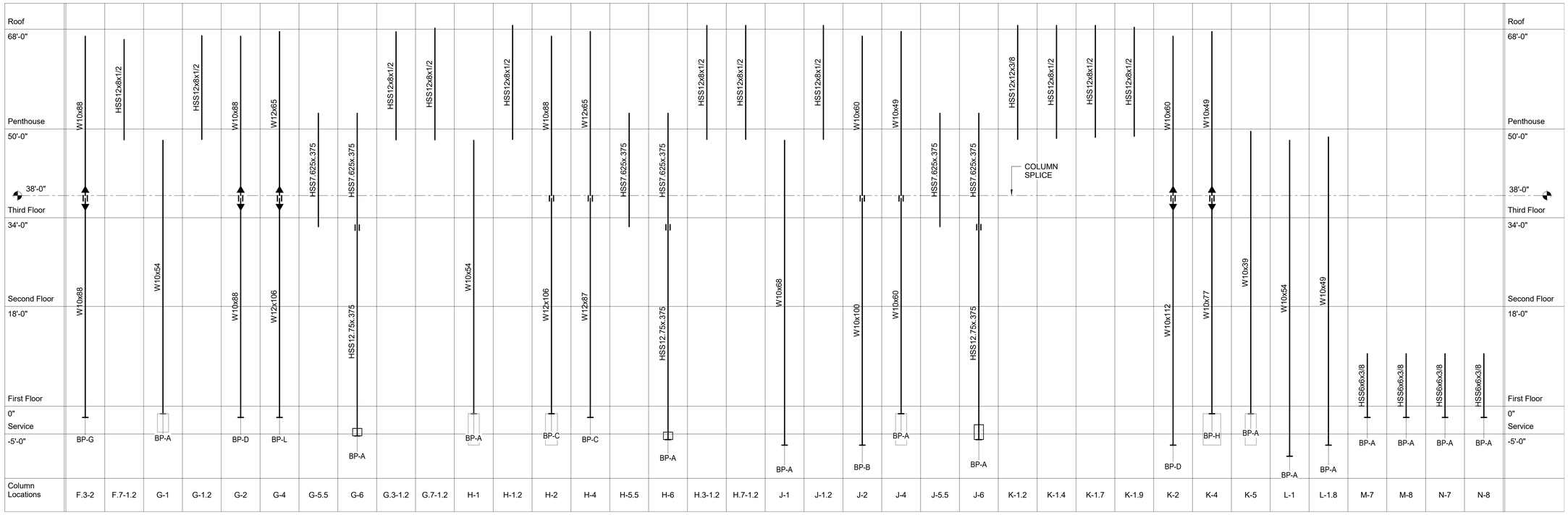

COLUMN SCHEDULE LEGEND:

- ⊥ = BASE PLATE FOUNDED AT TOP OF FOOTING / PIER
- ⊥ = GRAVITY COLUMN SPLICE - REFER TO TYPICAL DETAIL
- ⊥ = LATERAL COLUMN SPLICE - REFER TO TYPICAL DETAIL

NORTH CAROLINA ENGINEERING CORPORATION C-4360 NORTH CAROLINA INFRASTRUCTURAL CORPORATION

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNON 12/19/2023

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DESIGN COLLABORATIVE

SHEET TITLE: COLUMN SCHEDULE

SCALE (UNO):

CM NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: S611

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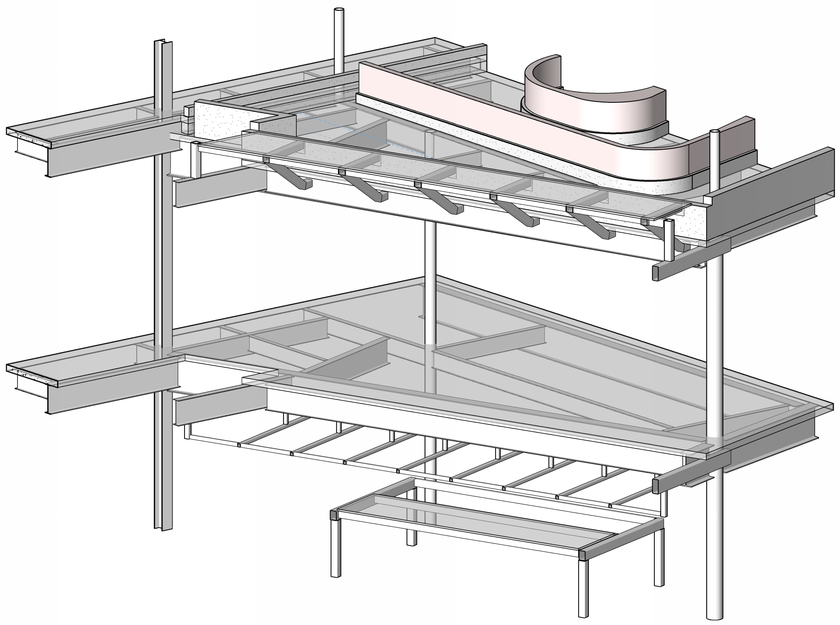
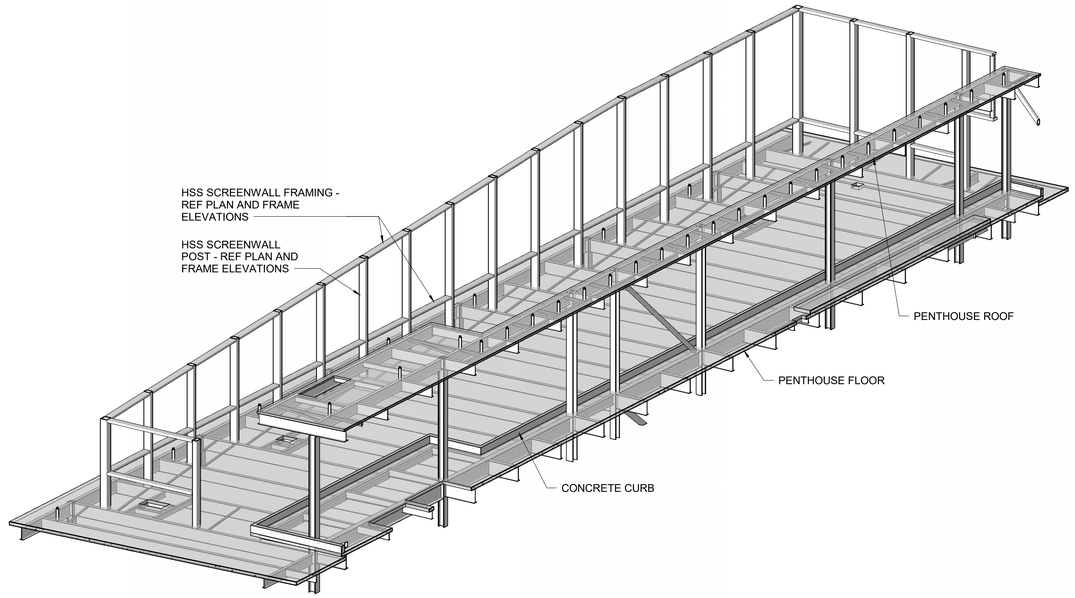


1 S911 3D VIEW - MAIN ENTRY
NTS



2 S911 3D VIEW - SCREENWALL FRAMING
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DESIGNING COLLABORATIVE STRUCTURES

SHEET TITLE: 3D VIEWS
SCALE (U.N.O.)

PROJECT NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NORTH CAROLINA ENGINEERING CORPORATION C-4360 MILLWORK ENGINEERING STRUCTURAL ENGINEERING

NORTH CAROLINA PROFESSIONAL SEAL 051551 ENGINEER MICHAEL R. BRANNON 12/19/2023

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. S911

NOT FOR CONSTRUCTION

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/R22138_WTCC Tech 4.0_Struc_R22.rvt
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PROJECT KEYNOTE LIST

03 30 00.C	Concrete
03 30 00.CS	Concrete Slab
03 30 00.VR	Sheet Vapor Retarder
04 20 00.CM8	8" Concrete Masonry Units
04 20 00.FB	Face Brick
04 20 00.FB1	Face Brick 1
04 20 00.FB2	Face Brick 2
04 20 00.G	Grout
04 20 00.VA	Veneer Anchors
04 20 00.W	Weeps
04 72 00.CS	Cast Stone
05 12 00.BP	Bent Plate
05 12 00.SP	Steel Pipe
05 12 00.TS	Structural Tubing
05 12 00.W	W Shape
05 40 00.FHC	Furring Hat Channel
05 40 00.FR	Framing
05 40 00.J	Joist
05 40 00.S	Stud
05 40 00.T	Track Channel
05 40 00.Z	Z-Furring
05 50 00.BP	Bent Plate
05 50 00.BS	Bar, Square
05 50 00.CWT	Curtain Wall Trim
05 50 00.L	Angle
05 50 00.LS	Angle, Stainless Steel
05 50 00.W	W Shape
05 51 00.CFP	Concrete-Filled Pan
05 51 00.SL	Metal Stair Landing
05 51 00.SP	Steel Plate
05 51 00.SS	Steel Stringer
05 51 33.L	Ladder
05 51 33.SL	Ship Ladder
05 52 13.B	Handrail Bracket
05 52 13.PRS	Pipe Railing, Stainless Steel
05 70 00.CR	Cable Guard Rail
05 70 00.MWP	Blackened Steel Metal Wall Panels
06 10 00.LB	Blocking
06 10 00.LBC	Blocking, Continuous
06 10 00.P34	3/4" Plywood Panel
06 16 43.P5G	5/8" Gypsum Sheathing
06 20 00.T	Trim
06 20 00.WP	Wood Slat Paneling
06 41 00.CBR	Countertop Support Bracket
06 41 00.PL1	Plastic Laminate 1
06 41 00.PL2	Plastic Laminate 2
06 41 00.PL3	Plastic Laminate 3
06 41 00.PL4	Plastic Laminate 4
06 41 00.PLF	Plastic Laminate
06 42 00.LT	L Reveal Trim
06 42 00.MWP	Metal Laminate Wall Paneling
06 42 00.OCT	Outside Corner Reveal Trim
06 42 00.OP	Opaque Finish Panel
06 42 00.WP	Wood Paneling
07 11 13.BD	Bituminous Damp-Proofing
07 21 00.B	Batt Insulation
07 21 00.EC	Edge Insulation Channel
07 21 00.EP	Expanded Polystyrene Insulation
07 21 00.F1	1" Fiber Board Insulation
07 21 00.F2	2" Fiber Board Insulation
07 21 00.XP2	2" Extruded Polystyrene Insulation
07 25 10.TS	Transition Sheet
07 25 10.WRB	Weather-Resistant Barrier
07 42 13.MWP	Metal Wall Panel
07 42 13.S	Subgirt
07 42 13.TBS	Thermal Break Supports
07 42 14.MCC	Metal Composite Material Column Cover
07 42 14.MCM	Metal Composite Material Wall Panel
07 42 14.S	Subgirt
07 42 14.TBS	Thermal Break Support
07 46 10.LMC	Linear Metal Ceiling
07 46 10.LMS	Linear Metal Soffit
07 46 10.LMSS	Linear Metal Suspension System
07 46 10.LMW	Linear Metal Wall Panel
07 46 10.S	Subgirt
07 46 10.TBS	Thermal Break Support
07 46 23.WS	Wood Siding
07 50 00.CB	Cover Board
07 50 00.DS	Deck Sheathing
07 50 00.I	Insulation
07 50 00.ICI	
07 50 00.ICS	Insulation Board Cricket/Saddle
07 50 00.IT	Tapered Insulation
07 50 00.RM	Roof Membrane
07 50 00.TB	Termination Bar
07 50 00.VB	Vapor Barrier
07 50 00.WP	Walk Pads
07 55 56.DM	Drainage Mat
07 55 56.FF	Filter Fabric
07 55 56.HRAM	Hot Rubberized Asphalt Membrane
07 55 56.I	Insulation
07 55 56.MRM	Moisture Retention Mat
07 55 56.RB	Roof Barrier
07 62 00.C	Coping
07 62 00.CFR	Two-Piece Counter Flashing & Receiver
07 62 00.CFRA	Two-Piece Counter Flashing & Receiver - Prefinished Aluminum
07 62 00.PAF	Pre-Finished Aluminum Sheet Metal Flashing
07 62 00.REF	Roof Edge - Fascia
07 62 00.SF	Sheet Metal Flashing
07 62 00.SSF	Stainless Steel Sheet Metal Flashing
07 65 00.CS	Carrier Sheet
07 65 00.CU	Modified Asphalt Coping Underlayment
07 65 00.FMA	Flashing, Modified Asphalt
07 65 00.ME	Metal Edge
07 65 00.TB	Termination Bar
07 71 23.D	Downspout
07 71 23.G	Gutter
07 71 23.SP	Splash Pad
07 72 00.RH	Roof Hatch
07 81 00.IF	Intumescent Sprayed-On Fireproofing
07 81 00.SOF	Sprayed-On Fireproofing
07 84 00.FS	Firestopping
07 84 53.ISP	Spandrel Insulation
07 92 00.JS	Joint Sealant
08 11 13.SD	Steel Door
08 11 13.SF	Steel Frame
08 14 16.FTP	Fixed Transom Panel
08 31 00.D	Access Door
08 36 13.SD	Sectional Door
08 43 13.ET	Extruded Trim
08 43 13.SF	Storefront
08 44 13.BT	Break Metal Trim
08 44 13.CW	Curtain wall
08 44 13.D	Aluminum Door And Frame
08 44 13.ET	Extruded Trim
08 44 13.PSSS	Preformed Silicone Sheet Seal
08 44 13.SS	Custom Integrated Sun Screen
08 44 35.PFG	Interior Protective Framed Glazing Assembly
08 80 00.BGP	Backpainted Glass Panel
08 80 00.F	Fire Rated Glass
08 80 00.ICE	Insulating, Clear, Low E Glass
08 80 00.LA	Laminated Acoustical Glass
08 80 00.M	Mirror Glass, 72"H x 30"W
08 80 00.PF	Pattern Frit Glass
08 80 00.SP	Spandrel
08 80 00.TS	Fully Tempered Glass (Safety)
08 87 00.GF1	Graphic Film 1
08 87 23.SF	Security Film
08 91 00.L	Louver
08 92 00.G	Louvered Gate
09 21 16.BC	Blocking, Continuous
09 21 16.CF	Interior Ceiling Framing
09 21 16.CS	Interior Gypsum Ceiling/Soffit
09 21 16.F	Framing
09 21 16.FHC	Hat-Shaped Furring Channel
09 21 16.FPW	Pony Wall Support
09 21 16.FS	Metal Stud
09 21 16.GBG2	Tile Backing Board, Glass Mat Faced, 1/2"
09 21 16.GSB	Gypsum Shaftliner Board
09 21 16.GW	Gypsum Wallboard
09 21 16.MTC	Acoustic Partition Mullion Trim Cap
09 21 16.SAB	Sound Attenuation Batt
09 21 16.SABM	Mineral Fiber Batt
09 21 16.TB	Reveal Base Trim
09 21 16.TFR1	F Reveal Trim 1
09 21 16.TFR2	F Reveal Trim 2
09 27 00.CC1	Column Cover, 14" Diameter
09 27 00.CC3	Column Cover, 19" Diameter
09 30 00.T2	Tile 2
09 30 00.T3	Tile 3
09 30 00.T4	Tile 4
09 30 00.T5	Tile 5
09 51 00.EPT	Extruded Perimeter Trim
09 51 00.PM	Perimeter Molding
09 54 26.WSC1	Wood Slat Ceiling
09 65 00.RB	Resilient Base
09 65 00.RB1	Resilient Base 1
09 65 00.RB2	Resilient Base 2
09 65 00.RB3	Resilient Base 3
09 65 00.RSS	Resilient Stair Stringer
09 65 00.RST1	Resilient Stair Tread/Riser 1
09 65 00.RST2	Resilient Stair Tread/Riser 2
09 65 00.RTR1	Resilient Tile Rubber 1
09 65 00.RTR2	Resilient Tile Rubber 2
09 66 23.DS	Divider Strip
09 66 23.NSI	Non-Slip Inserts
09 66 23.PCT	Precast Terrazzo
09 66 23.PTR	Precast Terrazzo Tread and Riser
09 66 23.TZ	Terrazzo
09 66 23.TZ1	Terrazzo Color 1
09 66 23.TZ2	Terrazzo Color 2
09 66 23.TZ3	Terrazzo Color 3
09 66 23.TZB1	Terrazzo Base Color 1
09 66 23.TZB2	Terrazzo Base Color 2
09 67 23.RF	Resinous Flooring
09 84 14.AWP1	Acoustic Wall Panel 1
09 91 00.PC1	Paint Color 1
09 91 00.PC2	Paint Color 2
09 91 00.PC3	Paint Color 3
09 91 00.PC4	Paint Color 4
09 91 00.PC5	Paint Color 5
09 91 00.PC7	Paint Color 7
09 96 00.HPC1	High Performance Coating Color 1
10 11 01.MB	Markerboard
10 11 01.MB45	Markerboard, 4'x5'
10 11 01.MB48	Markerboard, 4'x8'
10 11 01.MB410	Markerboard, 4'x10'
10 11 46.AJT	Aluminum J Trim
10 11 46.D	Dry Erase Wallcovering
10 11 46.DP	Dry Erase Projection Wallcovering
10 11 47.AJT	Aluminum J Trim
10 11 47.TW	Tackable Wallcovering
10 11 47.TW1	Tackable Wallcovering Color 1
10 11 47.TW2	Tackable Wallcovering Color 2
10 14 19.DLS	Dimensional Letter Signage
10 14 30.BS	Backlit Signage
10 14 30.MS	Monumental Signage
10 21 13.TC	Toilet Compartment
10 21 13.US	Urinal Screen
10 26 01.CG1	Corner Guard, 3"
10 26 01.CG2	Wall End Guard, 2"
10 28 00.CH	Coat Hook
10 28 00.DCS	Diaper Changing Station
10 28 00.GB	Grab Bar
10 28 00.GB1	Grab Bar (36")
10 28 00.GB2	Grab Bar (42")
10 28 00.GB3	Grab Bar (18")
10 28 00.M	Mirror
10 28 00.MR	Mop And Broom Rack
10 28 00.S	Shelf
10 28 00.SCD	Seat Cover Dispenser
10 28 00.SD	Soap Dispenser
10 28 00.SND	Sanitary Napkin Disposal Unit
10 28 00.SNV	Sanitary Napkin Vendor
10 28 00.TD	Toilet Room Paper Towel Dispenser
10 28 00.TDS	Laboratory Towel Dispenser, Surface Mt.
10 28 00.TH	Toilet Tissue Holder
10 28 00.WR	Waste Receptacle
10 41 16.EKC	Emergency Key Cabinet
10 43 00.AED	Automated External Defibrillator & Cabinet
10 43 00.ECC	Evacuation Chair and Cabinet
10 44 00.DB	Multi-Purpose FE And Bracket
10 44 00.DSR	Multi-Purpose FE And Semi-Recessed Cabinet
10 51 13.L	Locker
10 51 13.LB	Locker Bench
10 71 13.43.SS1	Sun Screen 1
10 71 13.43.SS2	Sun Screen 2
12 24 13.SS1	Shade System 1
12 24 13.SS2	Shade System 2
12 35 53.WSP	Phenolic Resin Work Surface
12 36 00.PLC	Plastic Laminate Countertop
12 36 00.QSC	Quartz Surface Countertop
12 36 00.SOC	Solid Surface Countertop
12 36 00.SOC1	Solid Surface Countertop 1
12 36 00.SOC2	Solid Surface Countertop 2
14 21 00.E	Elevator
26 00 01.LF	Light Fixture

ABBREVIATIONS

A	
&	AND
@	AT
A/C	AIR CONDITIONING
AB	ANCHOR BOLT
ACOUST	ACOUSTICAL
ACT	ACOUSTIC CEILING TILE
AD	AREA DRAIN
ADF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
AV	AUDIO-VISUAL
AVG	AVERAGE
B	
BD	BOARD
BEJ	BRICK EXPANSION JOINT
BLDG	BUILDING
BLKG	BLOCKING
BO	BOTTOM OF
BOT	BOTTOM
BRG	BEARING
BRK	BRICK
BSMT	BASEMENT
BUR	BUILT-UP ROOF
C	
CAB	CABINET
CB	CATCH BASIN
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CFMF	COLD-FORMED METAL FRAMING
CJ	CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CLOS	CLOSET
CM	CENTIMETER
CMU	CONCRETE MASONRY UNIT
CO	CLEAR OPENING, CLEAN OUT
COL	COL
CONC	CONCRETE
CONF	CONFERENCE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CORR	CORRIDOR
CPT	CARPET
CT	CERAMIC TILE
CW	CHILLED WATER
CY	CUBIC YARD
D	
D	DEEP
DBL	DOUBLE
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DWG(S)	DRAWING(S)
E	
E	EAST
EA	EACH
EF	EACH FACE
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EYE WASH, EACH WAY
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXIST	EXISTING
EXP	EXPANSION, EXPOSED
EXT	EXTERIOR
F	
FA	FIRE ALARM
FB	FACE BRICK
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER IN CABINET
FEX	FIRE EXTINGUISHER ON BRACKET
FF	FINISHED FLOOR
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FIN	FINISH
FL	FLOOR, FLOORING
FO	FACE OF
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FP	FIREPROOF
FR	FIRE RATED
FRP	FIBERGLASS REINFORCED PLASTIC
FRT	FIRE RETARDED TREATED
FS	FULL-SIZED
FT	FOOT, FEET
FTG	FOOTING
FURN	FURNISH
FUT	FUTURE
FV	FIELD VERIFY
G	
G	GAS
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GCMU	GLAZED CONCRETE MASONRY UNIT
GD	GRADE
GFRC	GLASS FIBER REINFORCED CONCRETE
GFRG	GLASS FIBER REINFORCED GYPSUM
GL	GLASS
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
H	
HB	HOSE BIBB
HC	HOLLOW CORE
HD	HAND
HDR	HEADER
HDW	HARDWARE
HDWD	HARDWOOD
HK	HOOK(S)
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT, HORSE POWER
HR	HOUR
HS	HEAT STRENGTHENED
HT	HEIGHT
HVAC	HEATING VENTILATION AIR CONDITIONING
HW	HOT WATER
I	
ID	INSIDE DIAMETER
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
J	
JAN	JANITOR
JC	JANITOR CLOSET
JST	JOIST
JT	JOINT
K	
KD	KNOCKDOWN
KG	KILOGRAM
KIT	KITCHEN
KO	KNOCKOUT, KNEE OPENING
KS	KNEE SPACE
L	
L	LONG, LENGTH
LAB	LABORATORY
LAV	LAVATORY
LB	LOAD BEARING
LBS	POUNDS
LEV	LEVEL
LH	LEFT HAND
LHR	LEFT HAND REVERSE
LIN	LINOLEUM
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LP	LOW POINT
LT	LIGHT
LTL	LINTEL
LVR	LOUVER
LW	LIGHTWEIGHT
M	
M	METER
MAINT	MAINTENANCE
MAX	MAXIMUM
MDF	MEDIUM DENSITY FIBERBOARD
MDO	MEDIUM DENSITY OVERLAY
MECH	MECHANICAL
MET	METAL
MEZZ	MEZZANINE
MFG	MANUFACTURING
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MM	MILLIMETER
MNT	MOUNT
MO	MASONRY OPENING
MTG	MOUNTING
MTL	METAL
MULL	MULLION
N	
N	NORTH
NE	NORTHEAST
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NPS	NOMINAL PIPE SIZE
NTS	NOT TO SCALE
NW	NORTHWEST
O	
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFF	OFFICE
OFOI	OWNER FURNISHED OWNER INSTALLED
OH	OVERHEAD, OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OTO	OUT-TO-OUT
P	
PBD	PARTICLE BOARD
PC	PRECAST
PERF	PERFORATED
PL	PLATE, PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLBG	PLUMBING
PLWD	PLYWOOD
PLYWD	PLYWOOD
PNL	PANEL
PNT(D)	PAINT(ED)
POL	POLISHED
PR	PAIR
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
PVG	PAVING
PWD	PLYWOOD
Q	
QT	QUARRY TILE
R	
R	RADIUS, RISER
R/A	RETURN AIR
RB	RESILIENT BASE
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCED, REINFORCING
REQ'D	REQUIRED
RES	RESILIENT
REV	REVISION
RH	RIGHT HAND
RHR	RIGHT HAND REVERSE
RL	RAIN LEADER
RM	ROOM
ROW	RIGHT OF WAY
RTU	ROOFTOP UNIT
RUB	RUBBER
S	
S	SOUTH
S/A	SUPPLY AIR
SI/CONC	SEALED CONCRETE
SCHED	SCHEDULE
SE	SOUTHEAST
SECT	SECTION
SF	SQUARE FOOT
SIM	SIMILAR
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	SERVICE SINK
SST	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STND	STAINED
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SW	SOUTHWEST
SYM	SYMMETRICAL
SYS	SYSTEM
T	
T	TREAD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TC	TOP OF CURB
TEL	TELEPHONE
TEMP	TEMPORARY
THK	THICK, THICKNESS
TO	TOP OF
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TOW	TOP OF WALL
TS	TRANSPARENT
TYP	TYPICAL
U	
UC	UNDERCUT
UH	UNIT HEATER
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UTIL	UTILITY
V	
VB	VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VIF	VERIFY IN FIELD
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING
W	
W	WIDTH, WEST
W/	WITH
WO	WITHOUT
WC	WATER CLOSET, WALL COVERING
WD	WOOD
WGL	WIRE GLASS
WH	WATER HEATER
WP	WATERPROOFING
WT	WEIGHT
WWM	WELDED WIRE MESH

GENERAL PROJECT NOTES

DIMENSIONING

1. DIMENSIONS ON PLANS ARE TO FACE OF CMU OR FACE OF GYPSUM BOARD UNLESS NOTED OTHERWISE.
2. MASONRY DIMENSIONS SHOWN ARE ACTUAL DIMENSIONS.
3. DO NOT SCALE DRAWINGS. USE INDICATED DIMENSIONS ONLY.
4. EXTERIOR DIMENSIONS ARE GIVEN TO THE OUTSIDE FACE OF GLAZING OR MASONRY.

PARTITIONS/FINISHES/GENERAL

1. SEE LIFE SAFETY PLANS, FLOOR PLANS & PARTITION TYPES FOR LOCATION OF FIRE RATED ASSEMBLIES.
2. SEE SECTION 09 06 10 FOR PARTITION TYPE SCHEDULE.
3. PROVIDE CONTINUOUS HORIZONTAL METAL BLOCKING AS SPECIFIED IN ALL PARTITIONS WHERE INDICATED AND WHERE REQUIRED FOR EQUIPMENT AND CASEWORK ATTACHMENT.
4. ALL INTERIOR AND EXTERIOR WOOD BLOCKING SHALL BE TREATED AS CALLED FOR IN SPECIFICATIONS.
5. IN GENERAL, THERE SHALL BE NO BACK-TO-BACK ELECTRICAL, TELEPHONE OR OTHER RECEPTACLES. JUNCTION BOX PERIMETERS SHALL BE PACKED WITH ACOUSTICAL SEALANT.
6. WHEN RECEPTACLES ARE INDICATED AS OCCURRING BACK-TO-BACK THEY SHOULD BE SEPARATED BY 16 INCHES HORIZONTALLY. WHERE DIMENSIONS ARE SHOWN WHICH CONFLICT WITH THIS REQUIREMENT, OBTAIN DIRECTION FROM ARCHITECT.
7. PROVIDE LC-BEAD AND SEALANT JOINT AT ALL INTERSECTIONS OF GYPSUM BOARD WALLS OR GYPSUM BOARD CEILINGS WITH CMU PARTITIONS.
8. MAINTAIN CONTINUITY OF ALL FIRE-RESISTANCE RATED ASSEMBLIES AT RECESSED FIRE EXTINGUISHER CABINETS, CABINETS, TOWEL DISPENSERS, RECEPTACLES, ELECTRICAL PANELS AND OTHER ITEMS. AT GYPSUM BOARD WALLS, INSTALL AN ADDITIONAL LAYER OF GYPSUM BOARD WITHIN PARTITION AROUND ALL SIDES OF ITEM AND AN ADDITIONAL LAYER BEHIND ITEM.
9. WHERE HVAC OR OTHER MECHANICAL, ELECTRICAL AND PLUMBING ITEMS PENETRATE PARTITIONS, STUDS SHALL BE BRACED AND FRAMED TO STRUCTURE AS REQUIRED TO PROVIDE ADEQUATE SUPPORT. ALL PENETRATIONS THROUGH PARTITIONS SHALL BE SEALED TO PROVIDE FIRE, SMOKE AND/OR ACOUSTIC ISOLATION BETWEEN SPACES.
10. BEFORE PATCHING ANY FIRE-RATED CMU PARTITION, FILL ANY EXPOSED CELLS SOLID WITH GROUT.
11. PROVIDE FINISHED WALL UNDER AND BEHIND WALL EQUIPMENT AND CASEWORK.
12. SEE G300 SERIES SHEETS FOR UL PARTITION DESIGNS.
13. FIRE-RESISTANCE-RATED PARTITIONS MUST BE INSTALLED TO RUN CONTINUOUSLY FROM TOP OF FLOOR SLAB TO UNDERSIDE OF FLOOR OR ROOF ABOVE AND TO HORIZONTAL EXTENTS INDICATED.
14. WHERE FIRE-RESISTANCE RATED ASSEMBLIES EXTEND TO EXTERIOR WALL, ASSEMBLY MUST EXTEND TO INSIDE FACE OF CMU OR EXTERIOR SHEATHING.
15. PROVIDE APPLICABLE HEAD-OF-WALL, FLOOR-TO-WALL,PENETRATION, AND JOINT FIRESTOPPING SYSTEMS AT ALL FIRE-RESISTANCE-RATED PARTITIONS. FIRESTOPPING IS IN LIEU OF ACOUSTIC SEALANT.
16. WHERE NON-RATED PARTITIONS INTERSECT FIRE-RESISTANCE-RATED PARTITIONS OR EXTERIOR WALLS, COMPLETE CONTINUOUS FIRE-RESISTANCE-RATED ASSEMBLY, INCLUDING ASSOCIATED FIRESTOPPING, FOR OBSERVATION BY ARCHITECT PRIOR TO INSTALLING NON-RATED PARTITIONS OR OTHER PERMANENT CONSTRUCTION OBSTRUCTING VIEW OF RATED ASSEMBLIES.
17. LABEL FIRE-RESISTANCE-RATED PARTITIONS AS INDICATED IN SECTION 07 84 00.
18. PROVIDE 09 21 16.BC CONTINUOUS BLOCKING WHERE REQUIRED FOR WALL-MOUNTED ITEMS, INCLUDING SIGNAGE.

COORDINATION/INDICATION OF ENGINEERING WORK ON ARCHITECTURAL DRAWINGS

1. WORK OF ENGINEERING DISCIPLINES IS SHOWN ON ARCHITECTURAL DRAWINGS FOR COORDINATION AND CONVENIENCE PURPOSES ONLY. REFER TO APPROPRIATE DISCIPLINE DRAWINGS FOR COMPLETE AND GOVERNING INFORMATION REGARDING WORK OF THOSE DISCIPLINES.
2. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATION OF CEILING MOUNTED MECHANICAL, ELECTRICAL AND PLUMBING FIXTURES.
3. WHERE EXPOSED STRUCTURE CEILING AREAS OCCUR IN ARCHITECTURAL REFLECTED CEILING PLANS, FULL DELINEATION OF STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS IS NOT PROVIDED. SELECTED ELEMENTS AND DEVICES MAY BE SHOWN FOR LOCATION OR COORDINATION (E.G. LIGHT AND SPRINKLER SPACING).
4. WHERE SPRINKLER HEAD LOCATIONS ARE INDICATED IN PLAN, PROVIDE ADDITIONAL SPRINKLER HEADS AS NEEDED TO COMPLY WITH NFPA 13 AT NO ADDITIONAL COST.
5. DO NOT INSTALL WORK REQUIRING ACCESS ABOVE WOOD SLAT CEILINGS EXCEPT WHERE APPROVED IN WRITING BY DESIGNER DURING COORDINATION PROCESS..

SYMBOLS

DETAIL SECTION — SHEET COORDINATE / 1 SIM / A101 / SHEET NUMBER

INTERIOR ELEVATION — 1 SIM (SIM, SIM) / A101

WALL SECTION — SHEET COORDINATE / REF / A101 / SHEET NUMBER

BUILDING ELEVATION — 1 / 1 A101 1 / 1

BUILDING SECTION — SHEET COORDINATE / REF / A101 / REF / A101 / SHEET NUMBER

COLUMN BUBBLE — A

DOOR NUMBER — 100

STOREFRONT TYPE — S01

CEILING HEIGHT — 1' - 0"

ROOM NAME & NUMBER — Room name / 101

PARTITION TYPE — LAS Type Mark1 / X / DIMENSION OF STUD OR MASONRY

FLOOR TRANSITION — VCT1 / VCT2

DETAIL REFERENCE — SHEET COORDINATE / 1 SIM / A101 / SHEET NUMBER

CENTERLINE

SPOT ELEVATION - ALSO USED TO DESIGNATE CEILING HEIGHTS — 10'-0" AFF

REVISION — 1

DRAWING KEYNOTING SYSTEM

A KEYNOTING SYSTEM IS USED ON THE DRAWINGS FOR MATERIAL REFERENCES AND NOTES. REFER TO THE KEY LEGEND ON THE DRAWING FOR THE INFORMATION WHICH RELATES TO EACH KEYNOTE SYMBOL ON THE RESPECTIVE DRAWING.

EACH KEYNOTE SYMBOL CONSISTS OF A 6-DIGIT NUMBER FOLLOWED BY AN ALPHA-NUMERIC SUFFIX. THE 6-DIGIT NUMBER RELATES TO THE SPECIFICATION SECTION WHICH GENERALLY COVERS THE ITEM THAT IS REFERENCED AND THE SUFFIX COMBINED WITH THE 6-DIGIT NUMBER CREATES A KEYNOTE SYMBOL WHICH IDENTIFIES THE SPECIFIC REFERENCE NOTATION USED ON THE DRAWING. THE SUFFIX DOES NOT RELATE TO ANY CORRESPONDING REFERENCE LETTER OR NUMBER IN THE SPECIFICATION.

THE ORGANIZATION OF THE KEYNOTING SYSTEM ON THE DRAWINGS, WITH THE KEYNOTING SYSTEM REFERENCE NUMBER RELATED TO THE SPECIFICATIONS SECTIONS NUMBERING SYSTEM, SHALL NOT CONTROL THE CONTRACTOR IN DIVIDING THE WORK AMONG SUBCONTRACTORS OR IN ESTABLISHING THE EXTENT OF WORK TO BE PERFORMED BY ANY TRADE.

THE KEYNOTE LIST IS NOT A COMPLETE LIST OF THE CONTRACT SPECIFICATIONS NOR IS IT A COMPLETE LIST OF ALL MATERIALS CALLED FOR.

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REVISION:

SHEET TITLE: KEYNOTE LIST / SYMBOLS / LEGEND / GENERAL NOTES

SCALE (U.N.O.)

FOR WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockar, Registered Architect, 9974, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: A001

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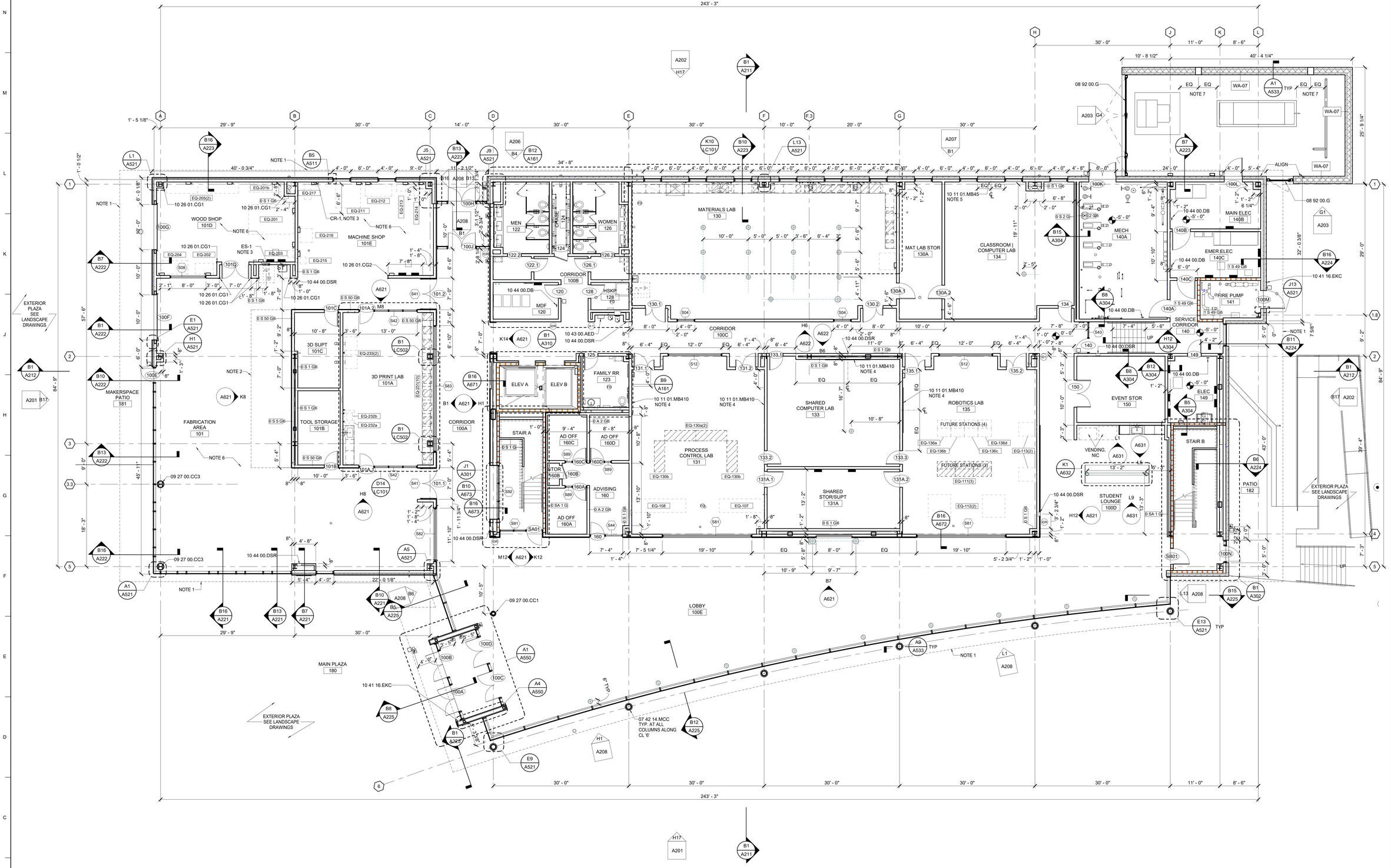

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REVISION

B1 FIRST FLOOR PLAN

MATERIAL KEYNOTES

07 42 14.MCC	Metal Composite Material Column Cover
08 92 00.G	Louvered Gate
09 27 00.CC1	Column Cover, 14" Diameter
09 27 00.CC3	Column Cover, 19" Diameter
10 11 01.MB45	Markerboard, 4'x5'
10 11 01.MB410	Markerboard, 4'x10'
10 26 01.CG1	Corner Guard, 3"
10 26 01.CG2	Wall End Guard, 2"
10 41 16.EKC	Emergency Key Cabinet
10 43 00.AED	Automated External Defibrillator & Cabinet
10 44 00.DB	Multi-Purpose FE And Bracket
10 44 00.DSR	Multi-Purpose FE And Semi-Recessed Cabinet

LEGEND

- FLOOR BOX - SLAB ON GRADE (REFER TO ELECTRICAL AND AV DRAWINGS FOR ADDITIONAL INFORMATION)
- FLOOR BOX - POKE-THROUGH DEVICES (REFER TO ELECTRICAL AND AV DRAWINGS FOR ADDITIONAL INFORMATION)

  NOTE: DIMENSIONED CENTERLINE DENOTES CENTER OF FLOOR BOX OR POKE-THROUGH - SYMBOL IS SHOWN FOR DIMENSION PURPOSES ONLY.

- FD FLOOR DRAIN- REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION
- (IDn) (H1) INTERIOR SIGNAGE - SEE SHEETS A720 & A721 FOR SIGN TYPES AND MOUNTING

GENERAL NOTES

A. UNRATED PARTITION

B. 1-HOUR FIRE-RESISTANCE RATED FIRE BARRIER

C. DIMENSIONS PROVIDED ARE TO FACE OF FINISH UNLESS NOTED OTHERWISE.

D. DOORS ARE TO BE LOCATED 6" OFF ADJACENT PERPENDICULAR PARTITION PER DETAIL B10/A601 U.N.O.

E. ALL INTERIOR PARTITIONS ARE 0 S 49 G 6" ON THE FIRST FLOOR AND 0 S 49 G 3 5/8" ON THE REMAINING FLOORS UNLESS NOTED OTHERWISE.

F. ALL INTERIOR FURRING WALLS ARE 0 S 1 G 2 1/2" UNLESS NOTED OTHERWISE.

G. INTERIOR STOREFRONT ELEVATIONS INDICATED AS (Xxx). SEE SHEET A602 FOR STOREFRONT ELEVATIONS.

H. SEE SHEET G021 FOR TYPICAL MOUNTING HEIGHTS OF WALL-MOUNTED EQUIPMENT AND DEVICES.

I. [ ] AND [//] EQ-XXX DENOTES OWNER FURNISHED, OWNER INSTALLED EQUIPMENT. SEE SHEET A901 FOR OFOI EQUIPMENT SCHEDULE.

SHEET SPECIFIC NOTES

1. OUTLINE OF BUILDING ABOVE.
2. OUTLINE OF SOFFIT ABOVE. SEE REFLECTED CEILING PLANS.
3. LABORATORY CASEWORK ITEMS. SEE LC SERIES DRAWINGS AND SECTION 12 35 53.
4. MARKER BOARDS TO BE INSTALLED AT A HEIGHT OF 32" AFF.
5. MARKER BOARDS TO BE INSTALLED AT A HEIGHT OF 33 1/2" AFF.
6. ALL EXPOSED GYPSUM BOARD ON PARTITIONS IN THIS ROOM TO BE ABUSE-RESISTANT GYPSUM BOARD.
7. PROVIDE SCUPPERS AT EQUIPMENT PAD, ALIGN WITH NEAREST FULL CMU. SEE DETAILS A1/522, E1/522 AND SHEET A202 FOR ADDITIONAL INFORMATION.

PROJECT NORTH

CORPORATE SEAL

LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL

Lauren Dunn Rocker Registered Architect 19714 North Carolina Chapel Hill, NC 12-20-2023

ISSUE DATE 12/22/2023

JOB. NO. 11751-00

DWG. NO. A101

SHEET TITLE: FLOOR PLAN - FIRST FLOOR

SCALE (U.N.O.) 0 8 16 FT

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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B1 SECOND FLOOR PLAN

MATERIAL KEYNOTES

09 27 00.CC1	Column Cover, 14" Diameter
09 27 00.CC3	Column Cover, 19" Diameter
10 11 01.MB45	Markerboard, 4'x5'
10 11 01.MB48	Markerboard, 4'x8'
10 11 01.MB410	Markerboard, 4'x10'
10 11 47.TW1	Tackable Wallcovering Color 1
10 11 47.TW2	Tackable Wallcovering Color 2
10 43 00.AED	Automated External Defibrillator & Cabinet
10 44 00.DB	Multi-Purpose FE And Bracket
10 44 00.DSR	Multi-Purpose FE And Semi-Recessed Cabinet

LEGEND

- FLOOR BOX - SLAB ON GRADE (REFER TO ELECTRICAL AND AV DRAWINGS FOR ADDITIONAL INFORMATION)
- FLOOR BOX - POKE-THROUGH DEVICES (REFER TO ELECTRICAL AND AV DRAWINGS FOR ADDITIONAL INFORMATION)

  NOTE: DIMENSIONED CENTERLINE DENOTES CENTER OF FLOOR BOX OR POKE-THROUGH - SYMBOL IS SHOWN FOR DIMENSION PURPOSES ONLY.

- FD FLOOR DRAIN- REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION
- (Dx) (H1) INTERIOR SIGNAGE - SEE SHEETS A720 & A721 FOR SIGN TYPES AND MOUNTING

GENERAL NOTES

A. UNRATED PARTITION

B. 1-HOUR FIRE-RESISTANCE RATED FIRE BARRIER

C. DIMENSIONS PROVIDED ARE TO FACE OF FINISH UNLESS NOTED OTHERWISE.

D. DOORS ARE TO BE LOCATED 6" OFF ADJACENT PERPENDICULAR PARTITION PER DETAIL B10/A601 U.N.O.

E. ALL INTERIOR PARTITIONS ARE 0 S 49 G 6" ON THE FIRST FLOOR AND 0 S 49 G 3 5/8" ON THE REMAINING FLOORS UNLESS NOTED OTHERWISE.

F. ALL INTERIOR FURRING WALLS ARE 0 S 1 G 2 1/2" UNLESS NOTED OTHERWISE.

G. INTERIOR STOREFRONT ELEVATIONS INDICATED AS (Sxx). SEE SHEET A602 FOR STOREFRONT ELEVATIONS.

H. SEE SHEET G021 FOR TYPICAL MOUNTING HEIGHTS OF WALL-MOUNTED EQUIPMENT AND DEVICES.

I. AND EQ-XXX DENOTES OWNER FURNISHED, OWNER INSTALLED EQUIPMENT. SEE SHEET A901 FOR OFOI EQUIPMENT SCHEDULE.

SHEET SPECIFIC NOTES

1. TYPICAL PARTITION AT ALL SPANDREL LOCATIONS EXPOSED TO THE INTERIOR.
2. MARKERBOARDS TO BE INSTALLED AT A HEIGHT OF 32" AFF.
3. MARKERBOARDS TO BE INSTALLED AT A HEIGHT OF 33 1/2" AFF.
4. ALIGN FACE OF PARTITION WITH SOFFIT PARTITION ABOVE.
5. MCM JOINT TYP., WET SEAL ALL SKY FACING JOINTS.

PROJECT NORTH

CORPORATE SEAL — LORD AECK SARGENT PLANNING & DESIGN, INC. — CERT. NO. 53851 — NORTH CAROLINA — CHAPEL HILL

SEAL — Lauren Dunn Rockar — Registered Architect — 9074 — North Carolina — Chapel Hill, NC — 12-20-2023

ISSUE DATE 12/20/2023

JOB NO. 11751-00

DWG. NO. A102

SHEET TITLE: FLOOR PLAN - SECOND FLOOR

SCALE (U.N.O.) 0 8 16 FT

ON PAGE: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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B1 THIRD FLOOR PLAN

MATERIAL KEYNOTES

05 70 00.CR	Cable Guard Rail
07 42 14.MCC	Metal Composite Material Column Cover
08 80 00.M	Mirror Glass, 72"H x 30"W
09 27 00.CC1	Column Cover, 14" Diameter
10 11 01.MB	Markerboard
10 11 01.MB45	Markerboard, 4'x5'
10 11 01.MB410	Markerboard, 4'x10'
10 11 47.TW1	Tackable Wallcovering Color 1
10 26 01.CG1	Corner Guard, 3"
10 26 01.CG2	Wall End Guard, 2"
10 43 00.AED	Automated External Defibrillator & Cabinet
10 44 00.DB	Multi-Purpose FE And Bracket
10 44 00.DSR	Multi-Purpose FE And Semi-Recessed Cabinet
10 51 13.L	Locker
10 51 13.LB	Locker Bench

LEGEND

- FLOOR BOX - SLAB ON GRADE (REFER TO ELECTRICAL AND AV DRAWINGS FOR ADDITIONAL INFORMATION)
- FLOOR BOX - POKE-THROUGH DEVICES (REFER TO ELECTRICAL AND AV DRAWINGS FOR ADDITIONAL INFORMATION)

  NOTE: DIMENSIONED CENTERLINE DENOTES CENTER OF FLOOR BOX OR POKE-THROUGH - SYMBOL IS SHOWN FOR DIMENSION PURPOSES ONLY.

- FD FLOOR DRAIN- REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION
- (Dx) (H.1) INTERIOR SIGNAGE - SEE SHEETS A720 & A721 FOR SIGN TYPES AND MOUNTING

GENERAL NOTES

A. UNRATED PARTITION

B. 1-HOUR FIRE-RESISTANCE RATED FIRE BARRIER

C. DIMENSIONS PROVIDED ARE TO FACE OF FINISH UNLESS NOTED OTHERWISE.

D. DOORS ARE TO BE LOCATED 6" OFF ADJACENT PERPENDICULAR PARTITION PER DETAIL B10/A601 U.N.O.

E. ALL INTERIOR PARTITIONS ARE 0 S 49 G 6" ON THE FIRST FLOOR AND 0 S 49 G 3 5/8" ON THE REMAINING FLOORS UNLESS NOTED OTHERWISE.

F. ALL INTERIOR FURRING WALLS ARE 0 S 1 G 2 1/2" UNLESS NOTED OTHERWISE.

G. INTERIOR STOREFRONT ELEVATIONS INDICATED AS (SXx). SEE SHEET A602 FOR STOREFRONT ELEVATIONS.

H. SEE SHEET G021 FOR TYPICAL MOUNTING HEIGHTS OF WALL-MOUNTED EQUIPMENT AND DEVICES.

I. [ ] AND [////] EQ-XXX DENOTES OWNER FURNISHED, OWNER INSTALLED EQUIPMENT. SEE SHEET A901 FOR OFOI EQUIPMENT SCHEDULE.

SHEET SPECIFIC NOTES

1. TYPICAL PARTITION AT ALL SPANDREL LOCATIONS EXPOSED TO THE INTERIOR.
2. PROVIDE NINETEEN, TWO-TIER LOCKERS (38 TOTAL QUANTITY).
3. NOT USED.
4. MARKERBOARDS TO BE INSTALLED AT A HEIGHT OF 32" AFF.
5. MARKERBOARDS TO BE INSTALLED AT A HEIGHT OF 33 1/2" AFF.
6. MCM JOINT TYP., WET SEAL ALL SKY FACING JOINTS.
7. TYPICAL SPACING FOR CABLE RAIL VERTICALS BETWEEN COLUMNS.
8. CABLE RAIL POST TYP.

PROJECT NORTH

CORPORATE SEAL

SEAL

Edward Dunn Rocker — Registered Architect — North Carolina — 9814 — 12-20-2023

ISSUE DATE 12/20/2023

JOB NO. 11751-00

DWG. NO. A103

SHEET TITLE: FLOOR PLAN - THIRD FLOOR

SCALE (U.N.O.) 0 8 16 FT

OF WORK: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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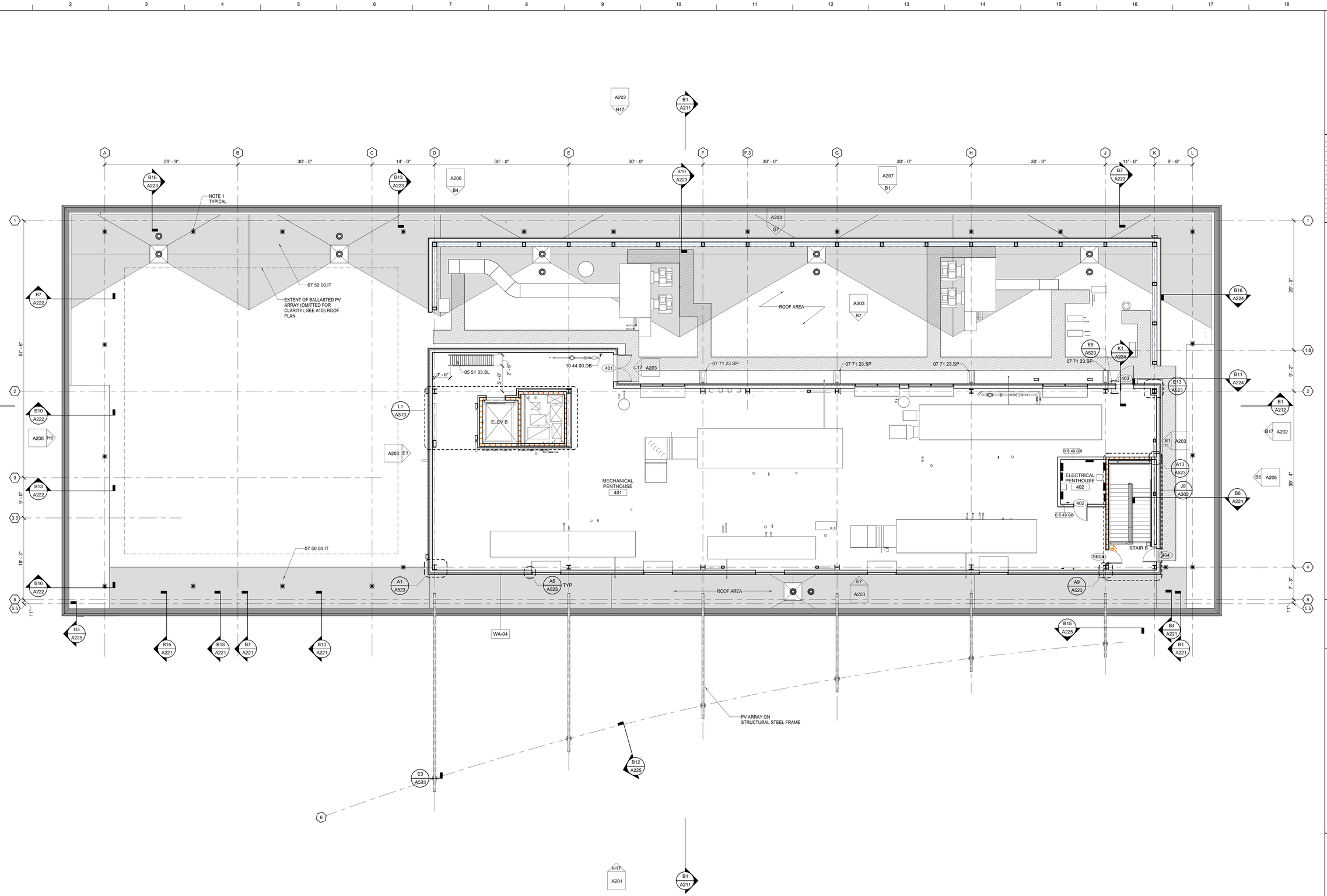

B1 PENTHOUSE FLOOR PLAN

MATERIAL KEYNOTES

05 51 33.SL	Ship Ladder
07 50 00.IT	Tapered Insulation
07 71 23.SP	Splash Pad
10 44 00.DB	Multi-Purpose FE And Bracket

GENERAL NOTES

A. UNRATED PARTITION

B. 1-HOUR FIRE-RESISTANCE RATED FIRE BARRIER

C. DIMENSIONS PROVIDED ARE TO FACE OF FINISH UNLESS NOTED OTHERWISE.

D. DOORS ARE TO BE LOCATED 6" OFF ADJACENT PERPENDICULAR PARTITION PER DETAIL B10/A601 U.N.O.

E. ALL INTERIOR PARTITIONS ARE 0 S 49 G 6" ON THE FIRST FLOOR AND 0 S 49 G 3 5/8" ON THE REMAINING FLOORS UNLESS NOTED OTHERWISE.

F. ALL INTERIOR FURRING WALLS ARE 0 S 1 G 2 1/2" UNLESS NOTED OTHERWISE.

G. INTERIOR STOREFRONT ELEVATIONS INDICATED AS (Sxx). SEE SHEET A602 FOR STOREFRONT ELEVATIONS.

H. SEE SHEET G021 FOR TYPICAL MOUNTING HEIGHTS OF WALL-MOUNTED EQUIPMENT AND DEVICES.

I. [ ] AND [////] EQ-XXX DENOTES OWNER FURNISHED, OWNER INSTALLED EQUIPMENT. SEE SHEET A901 FOR OFOI EQUIPMENT SCHEDULE.

SHEET SPECIFIC NOTES

1. FALL ARREST ANCHOR LOCATIONS; SEE STRUCTURAL DRAWINGS AND SECTION 11 81 29 FOR ADDITIONAL INFORMATION.

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PROJECT NORTH

CORPORATE SEAL

LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. C-0353851 NORTH CAROLINA CHAPEL HILL

SEAL

Lauren Dunn Rockart Registered Architect 39674 North Carolina Chapel Hill, NC

12-20-2023

ISSUE DATE 12/20/2023

JOB. NO. 11751-00

DWG. NO. A104

SHEET TITLE
FLOOR PLAN - PENTHOUSE

SCALE (U.N.O.) 0 8 16 FT

PROJ NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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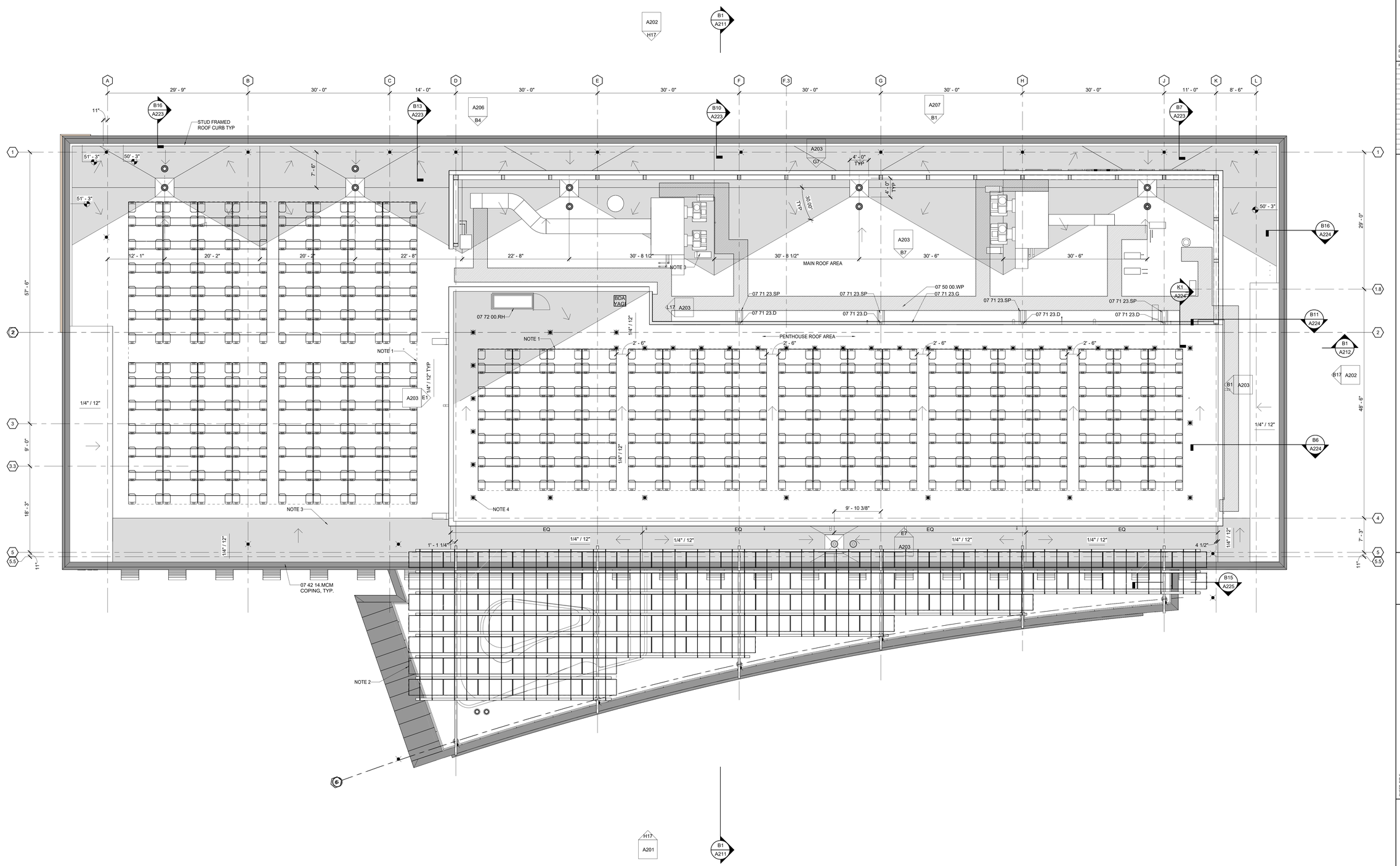

B1 ROOF PLAN

MATERIAL KEYNOTES

07 50 00.WP	Walk Pads
07 72 00.RH	Roof Hatch

GENERAL NOTES

A. ROOF SLOPE AT 1/4" PER FOOT U.N.O.
B. CRICKET VALLEY SLOPES AT 1/8" PER FOOT U.NO.
C. SEE SECTION 07 72 10 FOR PENETRATION FLASHING AND REQUIRED HORIZONTAL AND VERTICAL CLEARANCES. CONTRACTOR TO COORDINATE INSTALLATION TO MAINTAIN CLEARANCES INDICATED.
D. COORDINATE WALKWAY PAD LOCATIONS WITH AS-INSTALLED EQUIPMENT.

SHEET SPECIFIC NOTES

1. OUTLINE OF BALLASTED PV ARRAY (PANELS NOT SHOWN FOR CLARITY)
2. OUTLINE OF PV ARRAY SUPPORTED ON STRUCTURAL STEEL CANOPY (PANELS NOT SHOWN FOR CLARITY)
3. GRAY HATCH INDICATES TAPERED INSULATION, TYP.
4. FALL ARREST ANCHOR LOCATIONS; SEE STRUCTURAL DRAWINGS AND SECTION 11 81 29 FOR ADDITIONAL INFORMATION.

PROJECT NORTH

CORPORATE SEAL

LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL

Lauren Dunn Rockar Registered Architect 9674 North Carolina Chapel Hill, NC
12-20-2023

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PROJECT
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

SHEET TITLE
FLOOR PLAN - OVERALL ROOF

SCALE (U.N.O.)
0 8 16 FT

ISSUE DATE
12/20/2023

JOB. NO.
11751-00

DWG. NO.
A105

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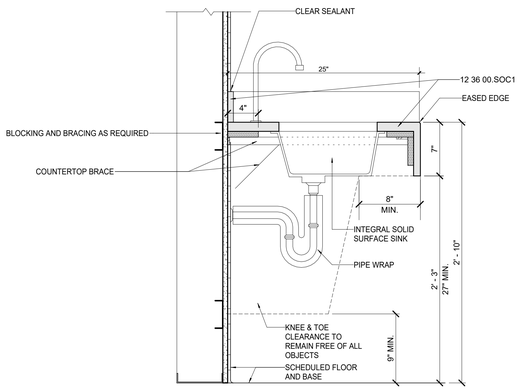
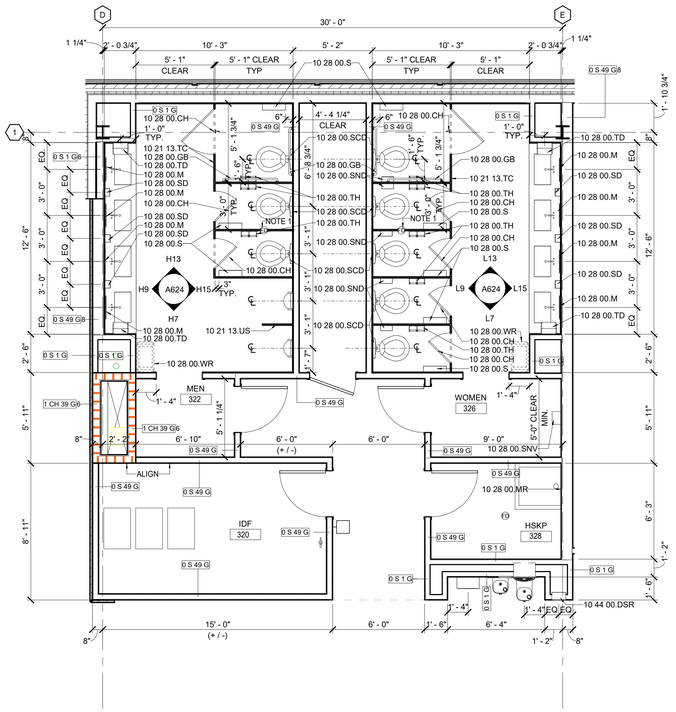


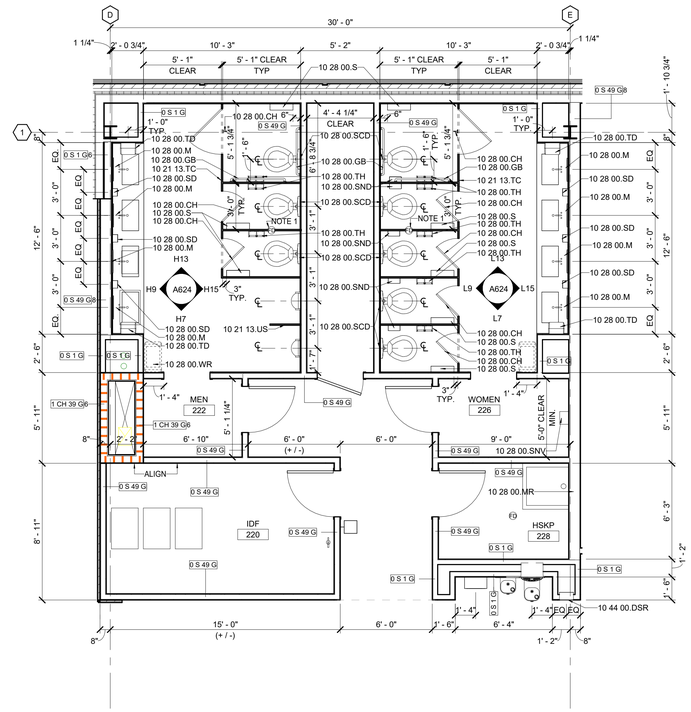
H1 TYPICAL RESTROOM ACCESSIBLE SINK APRON

0 1 2FT



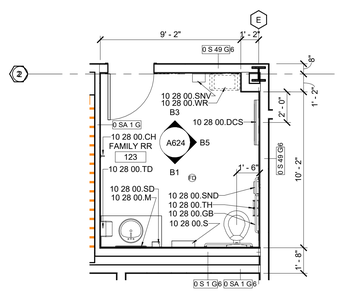
H6 ENLARGED THIRD FLOOR TOILET PLAN

0 4 8FT



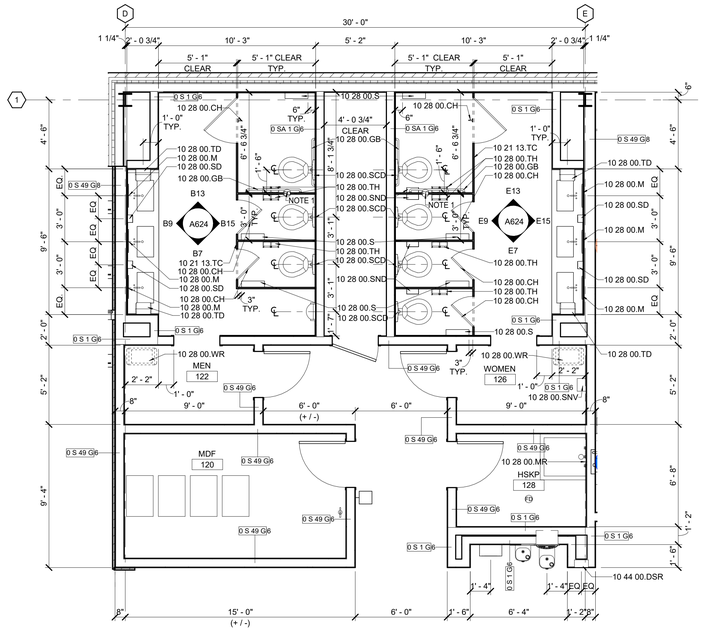
H12 ENLARGED SECOND FLOOR TOILET PLAN

0 4 8FT



B9 ENLARGED FIRST FLOOR TOILET PLAN (RM123)

0 4 8FT



B12 ENLARGED FIRST FLOOR TOILET PLAN

0 4 8FT

MATERIAL KEYNOTES

10 21 13.TC	Toilet Compartment
10 21 13.US	Urinal Screen
10 28 00.CH	Coat Hook
10 28 00.DCS	Diaper Changing Station
10 28 00.GB	Grab Bar
10 28 00.M	Mirror
10 28 00.MR	Mop And Broom Rack
10 28 00.S	Shelf
10 28 00.SCD	Seat Cover Dispenser
10 28 00.SD	Soap Dispenser
10 28 00.SND	Sanitary Napkin Disposal Unit
10 28 00.SNV	Sanitary Napkin Vendor
10 28 00.TD	Toilet Room Paper Towel Dispenser
10 28 00.TH	Toilet Tissue Holder
10 28 00.WR	Waste Receptacle
10 44 00.DSR	Multi-Purpose FE And Semi-Recessed Cabinet
12 36 00.SOC1	Solid Surface Countertop 1

GENERAL NOTES

A. REFER TO G021 FOR TYPICAL MOUNTING HEIGHTS AND LOCATIONS
B. PROVIDE HORIZONTAL AND VERTICAL GRAB BARS AT ALL ACCESSIBLE TOILETS AS INDICATED ON PLANS AND G021.
C. COAT HOOK TO BE INSTALLED ON BACK OF TOILET COMPARTMENT DOOR. TYP. ALL TOILET COMPARTMENT DOORS.

SHEET SPECIFIC NOTES

1. CENTER FLOOR DRAIN BELOW COMPARTMENT PANEL.

LEGEND

FD FLOOR DRAIN- REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION

PROJECT NORTH

CORPORATE SEAL

LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL

Lauren Dunn Rockart 9674 Registered Architect North Carolina Chapel Hill, NC

12·20·2023

ISSUE DATE 12/20/2023

JOB. NO. 11751-00

DWG. NO. A161

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REVISION:

SHEET TITLE ENLARGED PLANS - TOILET ROOMS

SCALE (UNO)

JOB NAME WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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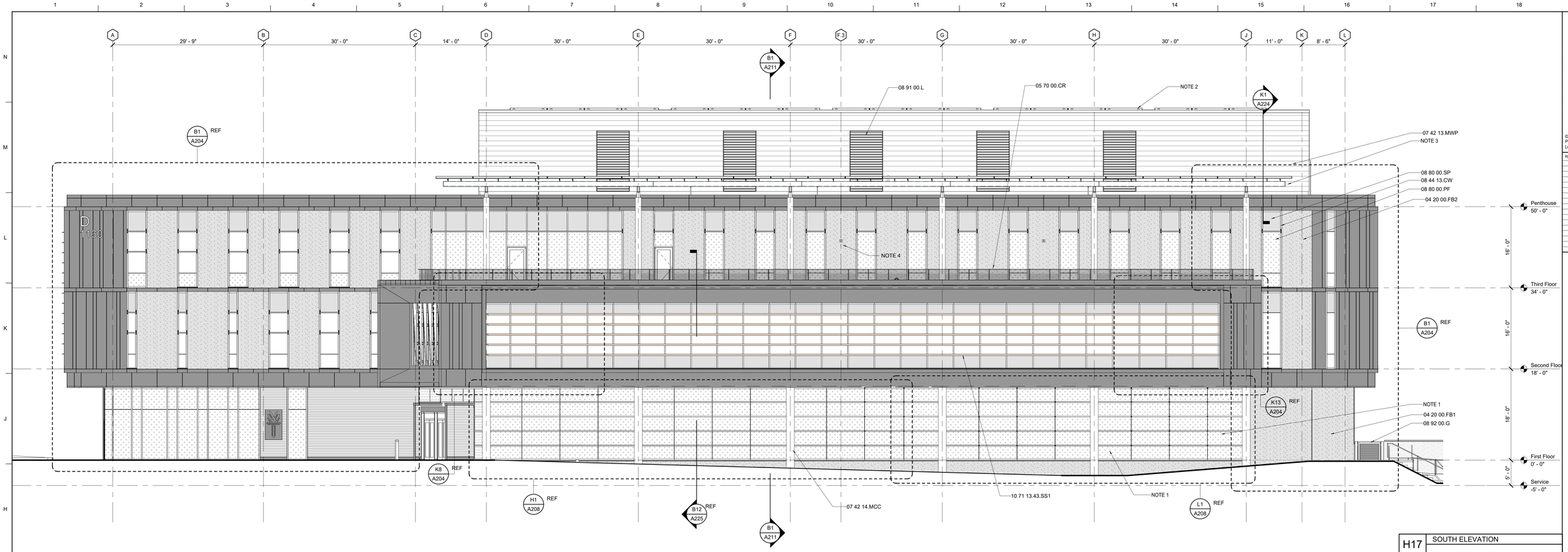

H17 SOUTH ELEVATION

B17 WEST ELEVATION

MATERIAL KEYNOTES

04 20 00.FB1	Face Brick 1
04 20 00.FB2	Face Brick 2
05 70 00.CR	Cable Guard Rail
07 42 13.MWP	Metal Wall Panel
07 42 14.MCC	Metal Composite Material Column Cover
07 42 14.MCM	Metal Composite Material Wall Panel
07 46 10.LMW	Linear Metal Wall Panel
08 36 13.SD	Sectional Door
08 44 13.CW	Curtain wall
08 80 00.ICE	Insulating, Clear, Low E Glass
08 80 00.PF	Pattern Frit Glass
08 80 00.SP	Spandrel
08 91 00.L	Louver
08 92 00.G	Louvered Gate
10 41 16.EKC	Emergency Key Cabinet
10 71 13.43.SS1	Sun Screen 1
10 71 13.43.SS2	Sun Screen 2

GENERAL NOTES

A. FACE BRICK BELOW SECOND FLOOR IS 04 20 00.FB1.
B. FACE BRICK SECOND FLOOR AND ABOVE IS 04 20 00.FB2.
C. SEE G20X SERIES FOR EXTERIOR ASSEMBLY TYPES.

SHEET SPECIFIC NOTES

1. HATCH INDICATES 08 80 00.PF, TYP.
2. PV PANELS TYP.
3. STRUCTURAL STEEL AT PV CANOPY: COLUMNS RECEIVE 1-HR SPRAY APPLIED FIREPROOFING AND MCM COLUMN COVERS; HORIZONTAL STEEL RECEIVES 1-HR INTUMESCENT PAINT.
4. CENTER FIRE ALARM HORN / STROBE BETWEEN CURTAIN WALL., TYP.
5. STRUCTURAL STEEL AT PV CANOPY: EXPOSED STEEL RECEIVES HIGH PERFORMANCE COATING OVER FIREPROOFING AND INTUMESCENT PAINT. REFER TO SECTION 09 96 00.

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REVISION

SHEET TITLE: EXTERIOR ELEVATIONS

SCALE (U.N.O.): 0 8 16 FT

ON page: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockar, Registered Architect, North Carolina, 30174, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A201

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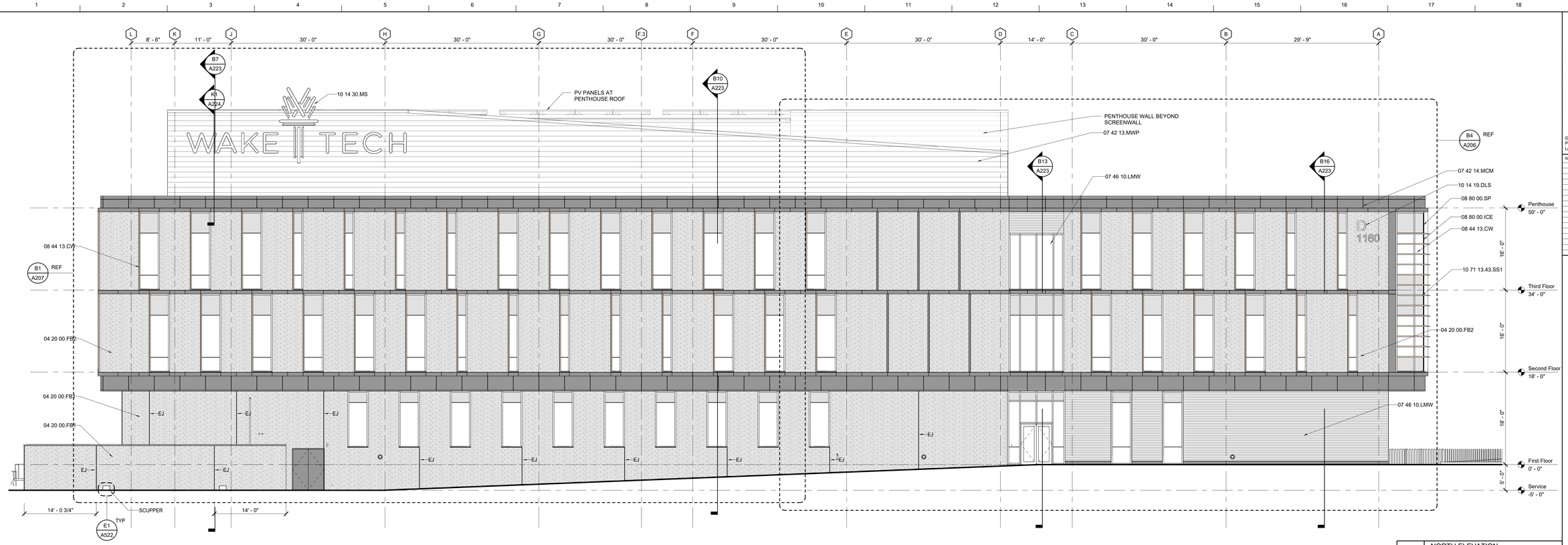
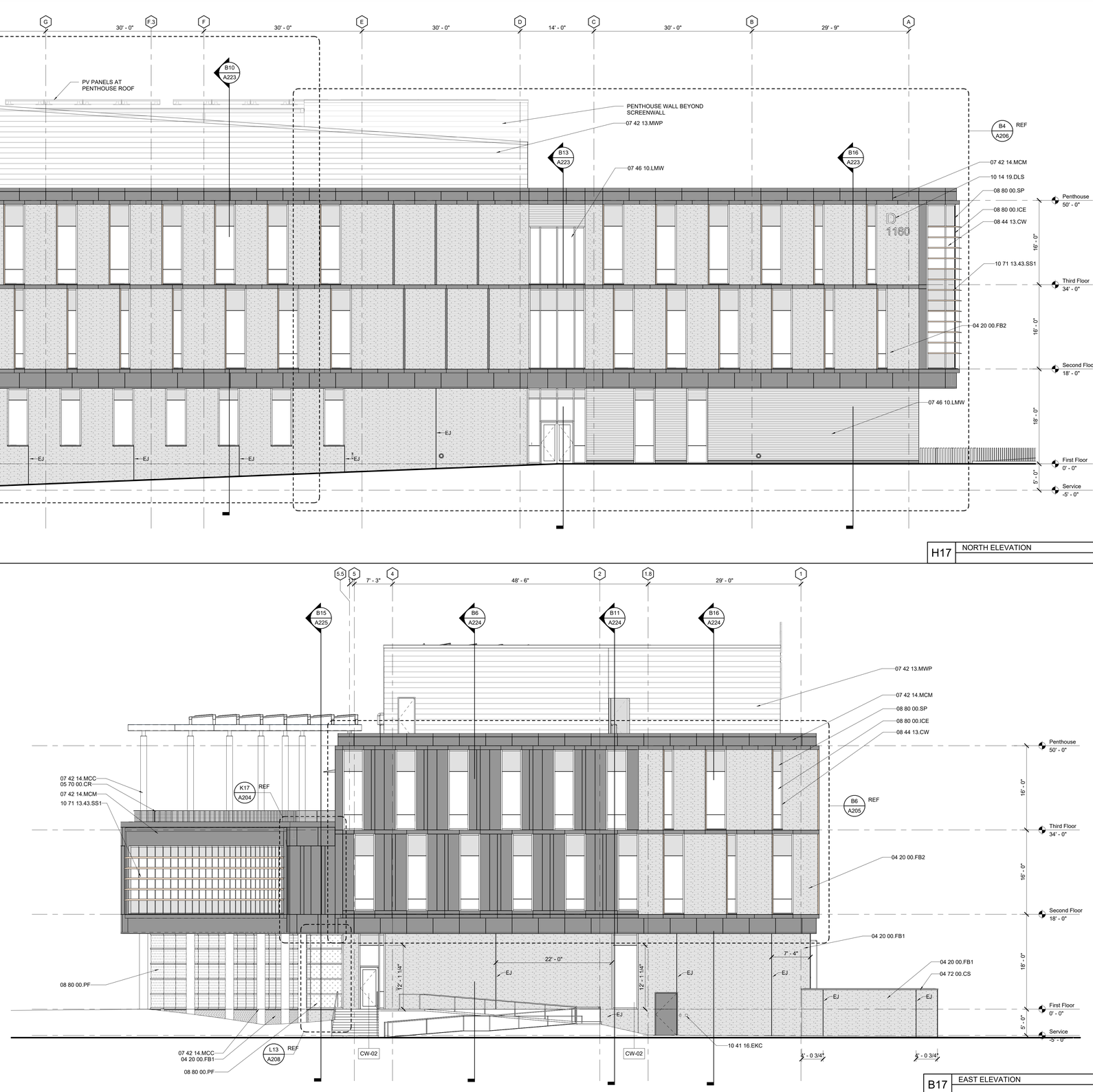


H17 NORTH ELEVATION



B17 EAST ELEVATION

MATERIAL KEYNOTES

04 20 00.FB1	Face Brick 1
04 20 00.FB2	Face Brick 2
04 72 00.CS	Cast Stone
05 70 00.CR	Cable Guard Rail
07 42 13.MWP	Metal Wall Panel
07 42 14.MCC	Metal Composite Material Column Cover
07 42 14.MCM	Metal Composite Material Wall Panel
07 46 10.LMW	Linear Metal Wall Panel
08 44 13.CW	Curtain wall
08 80 00.ICE	Insulating, Clear, Low E Glass
08 80 00.PF	Pattern Frit Glass
08 80 00.SP	Spandrel
10 14 19.DLS	Dimensional Letter Signage
10 14 30.MS	Monumental Signage
10 41 16.EKC	Emergency Key Cabinet
10 71 13.43.SS1	Sun Screen 1

GENERAL NOTES

A. FACE BRICK BELOW SECOND FLOOR IS 04 20 00.FB1.
B. FACE BRICK SECOND FLOOR AND ABOVE IS 04 20 00.FB2.
C. SEE G20X SERIES FOR EXTERIOR ASSEMBLY TYPES.

SHEET SPECIFIC NOTES

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REVISION:

SHEET TITLE: EXTERIOR ELEVATIONS

SCALE (U.N.O.): 0 8 16 FT

SITE NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, North Carolina, Chapel Hill, NC, 39174

12-20-2023

ISSUE DATE: 12/22/2023
JOB NO.: 11751-00
DWG. NO.: A202

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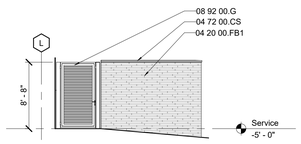
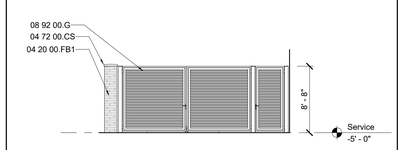
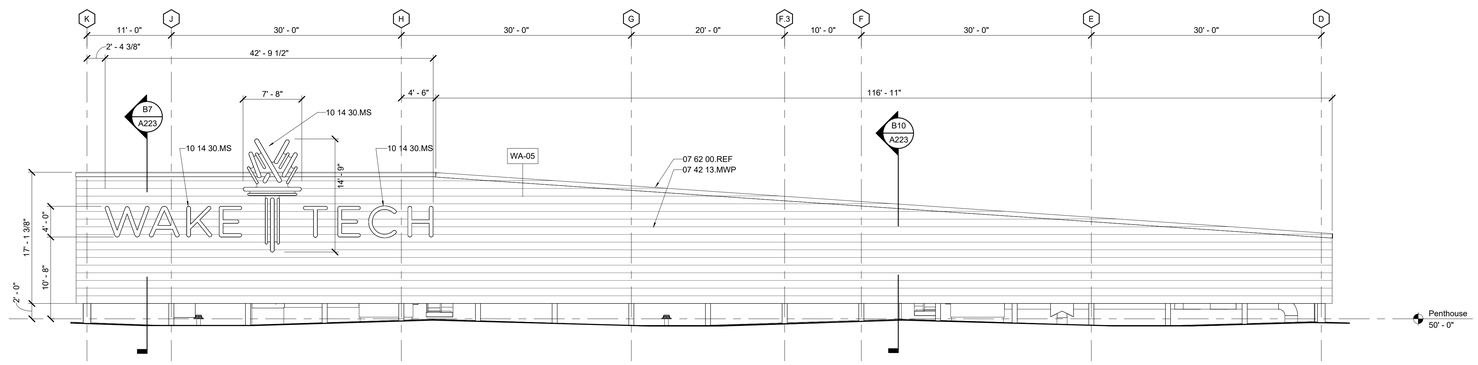


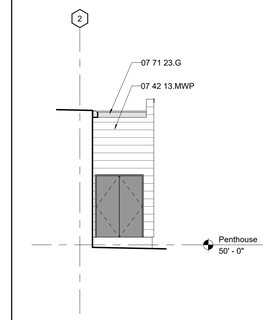
G1 ELEVATION - SERVICE YARD SOUTH WALL



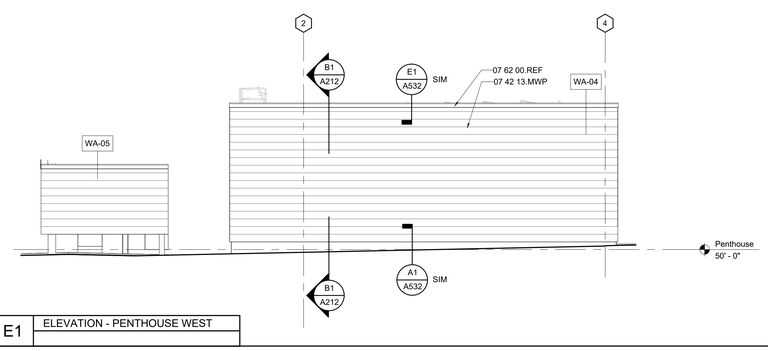
G4 ELEVATION - SERVICE YARD WEST WALL



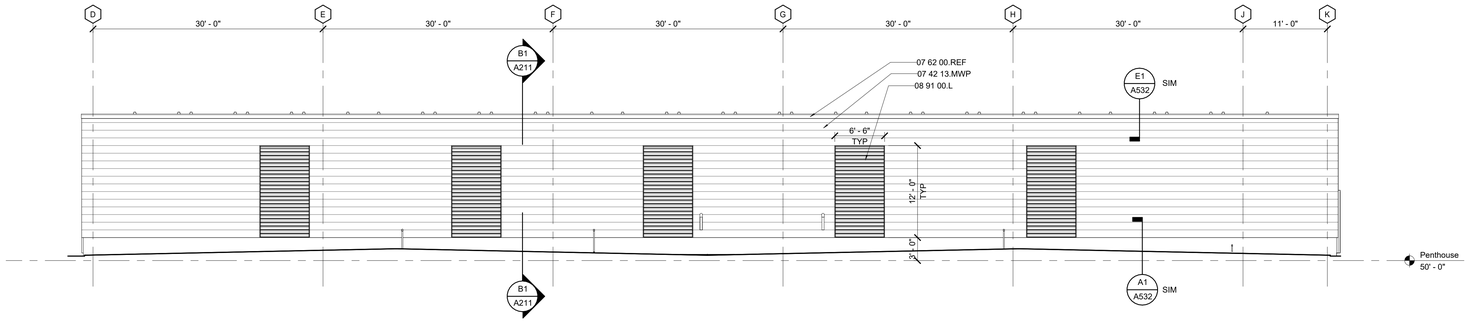
G7 ELEVATION - PENTHOUSE NORTH SCREEN WALL



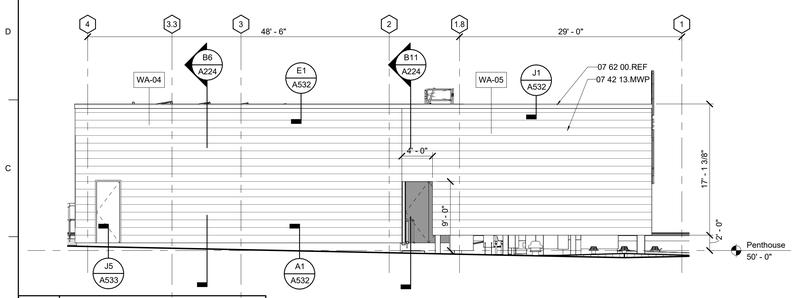
L17 ELEVATION - PENTHOUSE



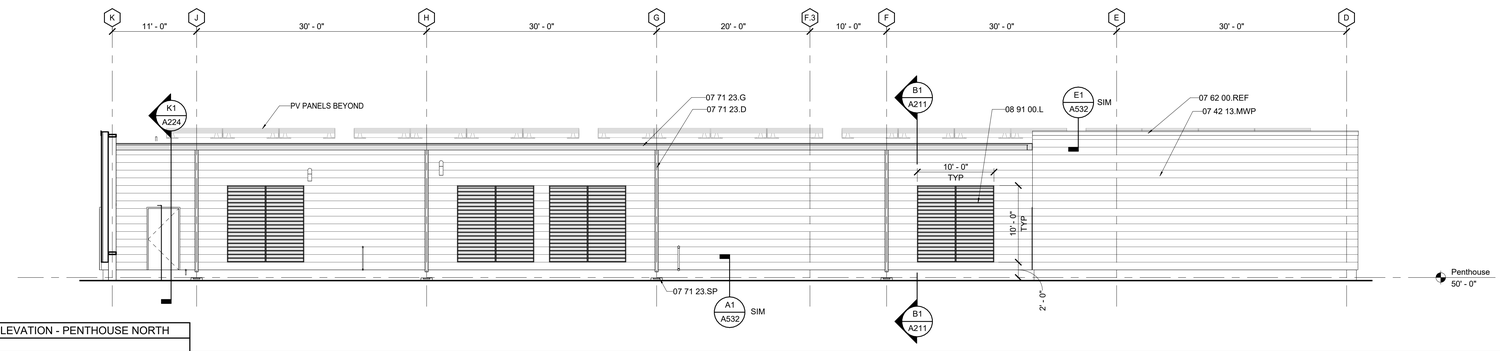
E1 ELEVATION - PENTHOUSE WEST



E7 ELEVATION - PENTHOUSE SOUTH



B1 ELEVATION - PENTHOUSE EAST



B7 ELEVATION - PENTHOUSE NORTH

MATERIAL KEYNOTES

04 20 00.FB1	Face Brick 1
04 72 00.CS	Cast Stone
07 42 13.MWP	Metal Wall Panel
07 62 00.REF	Roof Edge - Fascia
07 71 23.D	Downspout
07 71 23.G	Gutter
07 71 23.SP	Splash Pad
08 91 00.L	Louver
08 92 00.G	Louvered Gate
10 14 30.MS	Monumental Signage

GENERAL NOTES

A. FACE BRICK BELOW SECOND FLOOR IS 04 20 00.FB1.
B. FACE BRICK SECOND FLOOR AND ABOVE IS 04 20 00.FB2.
C. SEE G20X SERIES FOR EXTERIOR ASSEMBLY TYPES.

SHEET SPECIFIC NOTES

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CORPORATE SEAL

LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL

Lauren Dunn Rockart Registered Architect 9074 North Carolina Carrboro, NC

12-20-2023

SHEET TITLE
EXTERIOR ELEVATIONS

SCALE (U.N.O.)
0 8 16FT

ISSUE DATE
12/20/2023

JOB NO.
11751-00

DWG. NO.
A203

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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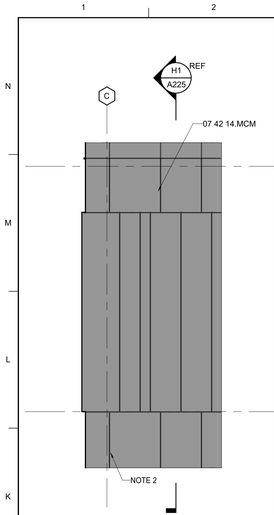
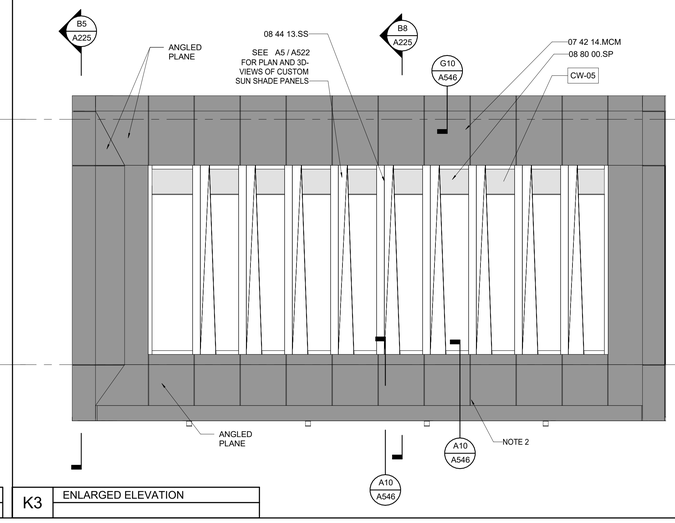


K1 ENLARGED ELEVATION



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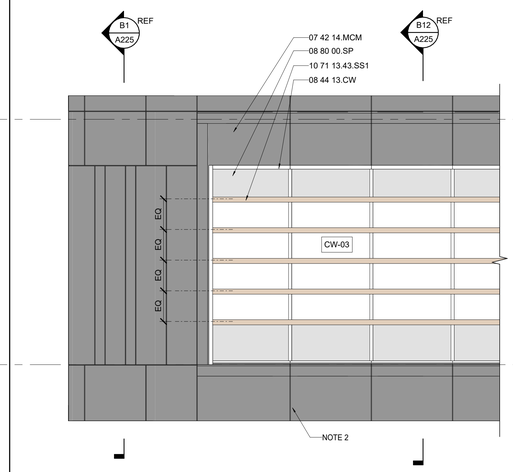
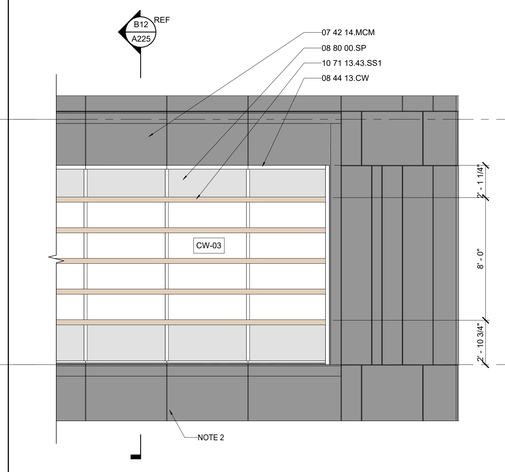
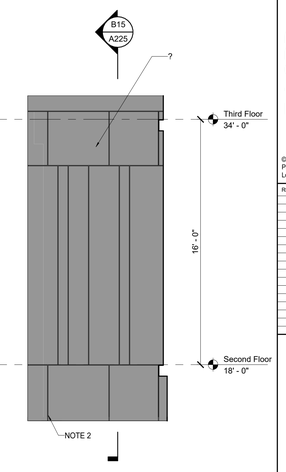


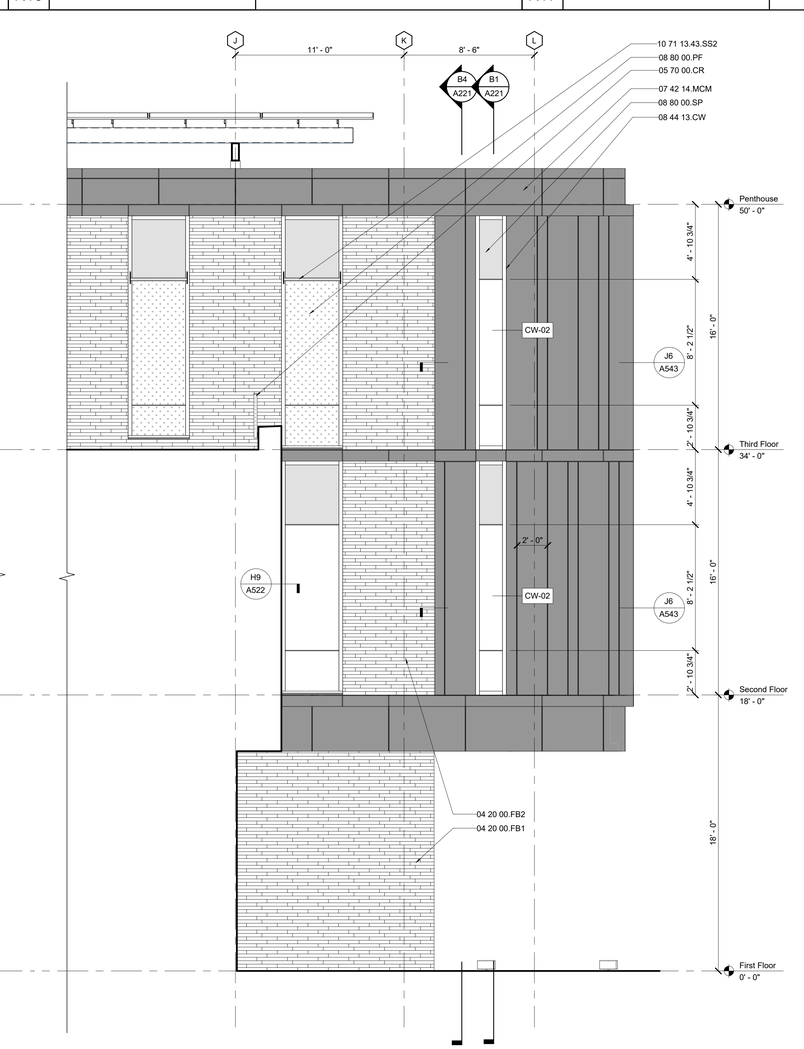
K8 ENLARGED ELEVATION



K13 ENLARGED ELEVATION



K17 ENLARGED ELEVATION



B1 ENLARGED SOUTH ELEVATION

MATERIAL KEYNOTES

04 20 00.FB1	Face Brick 1
04 20 00.FB2	Face Brick 2
05 50 00.CWT	Curtain Wall Trim
05 70 00.CR	Cable Guard Rail
07 42 14.MCM	Metal Composite Material Wall Panel
07 46 10.LMW	Linear Metal Wall Panel
08 44 13.CW	Curtain wall
08 44 13.SS	Custom Integrated Sun Screen
08 80 00.PF	Pattern Frit Glass
08 80 00.SP	Spandrel
10 14 19.DLS	Dimensional Letter Signage
10 14 30.BS	Backlit Signage
10 71 13.43.SS1	Sun Screen 1
10 71 13.43.SS2	Sun Screen 2

GENERAL NOTES

A. FACE BRICK BELOW SECOND FLOOR IS 04 20 00.FB1.
B. FACE BRICK SECOND FLOOR AND ABOVE IS 04 20 00.FB2.
C. SEE G20X SERIES FOR EXTERIOR ASSEMBLY TYPES.

SHEET SPECIFIC NOTES

1. EXIT SIGN MOUNTED MOUNTED ON CURTIANWALL MULLION.
2. MCM JOINT, TYP.

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REVISION:

SHEET TITLE
ENLARGED EXTERIOR ELEVATIONS - SOUTH

SCALE (U.N.O.)
0 4 8 FT

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN
CERT. NO. 53851
NORTH CAROLINA
CHAPEL HILL

SEAL
Lauren Dunn Rockart
Registered Architect
North Carolina
Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
A204

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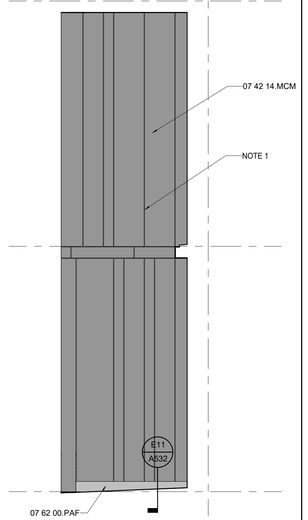
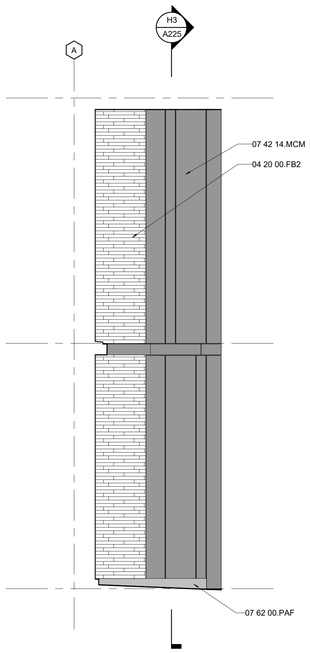


H1 ENLARGED ELEVATION



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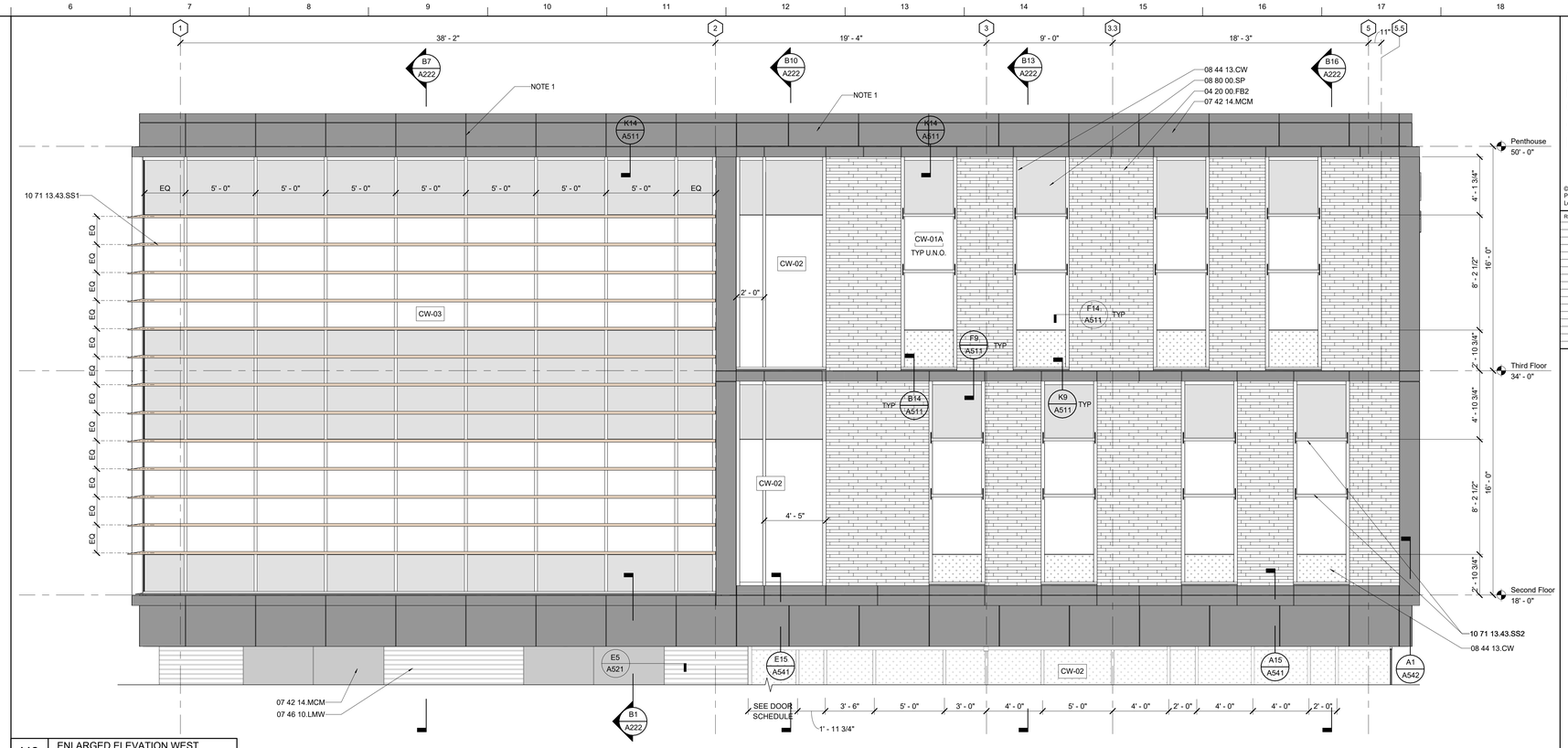
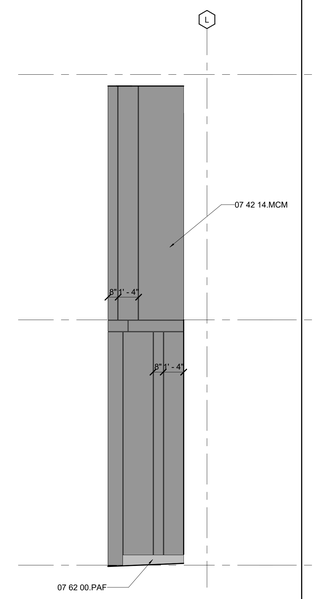
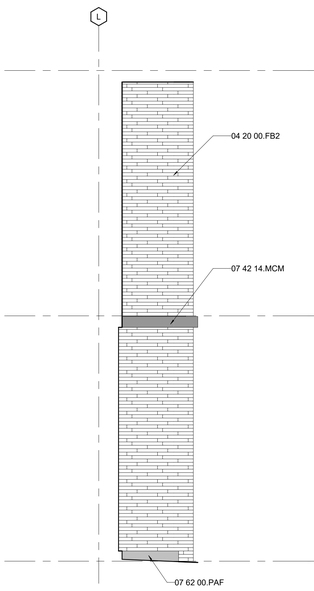


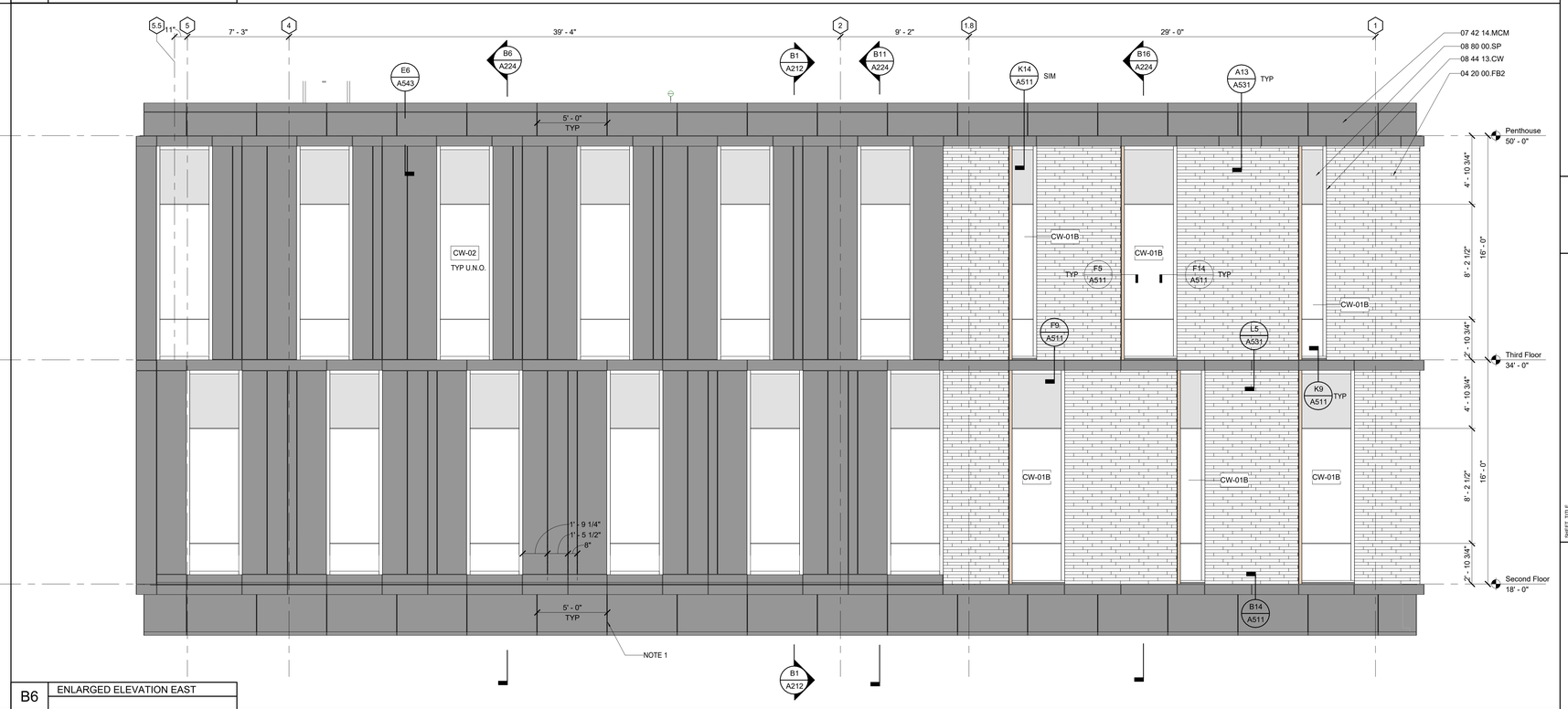
H6 ENLARGED ELEVATION WEST



B1 ELEVATION - EAST INSET SOUTH SIDE



B3 ELEVATION - EAST INSET NORTH SIDE



B6 ENLARGED ELEVATION EAST

MATERIAL KEYNOTES

04 20 00.FB2	Face Brick 2
07 42 14.MCM	Metal Composite Material Wall Panel
07 46 10.LMW	Linear Metal Wall Panel
07 62 00.PAF	Pre-Finished Aluminum Sheet Metal Flashing
08 44 13.CW	Curtain wall
08 80 00.SP	Spandrel
10 71 13.43.SS1	Sun Screen 1
10 71 13.43.SS2	Sun Screen 2

GENERAL NOTES

A. FACE BRICK BELOW SECOND FLOOR IS 04 20 00.FB1.
B. FACE BRICK SECOND FLOOR AND ABOVE IS 04 20 00.FB2.
C. SEE G20X SERIES FOR EXTERIOR ASSEMBLY TYPES.

SHEET SPECIFIC NOTES

1. MCM JOINT, TYP.

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REVISION:

SHEET TITLE
ENLARGED EXTERIOR ELEVATIONS - EAST AND WEST

SCALE (U.N.O.) 0 4 8 FT

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL
Lauren Dunn Rockart Registered Architect North Carolina 30174 Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
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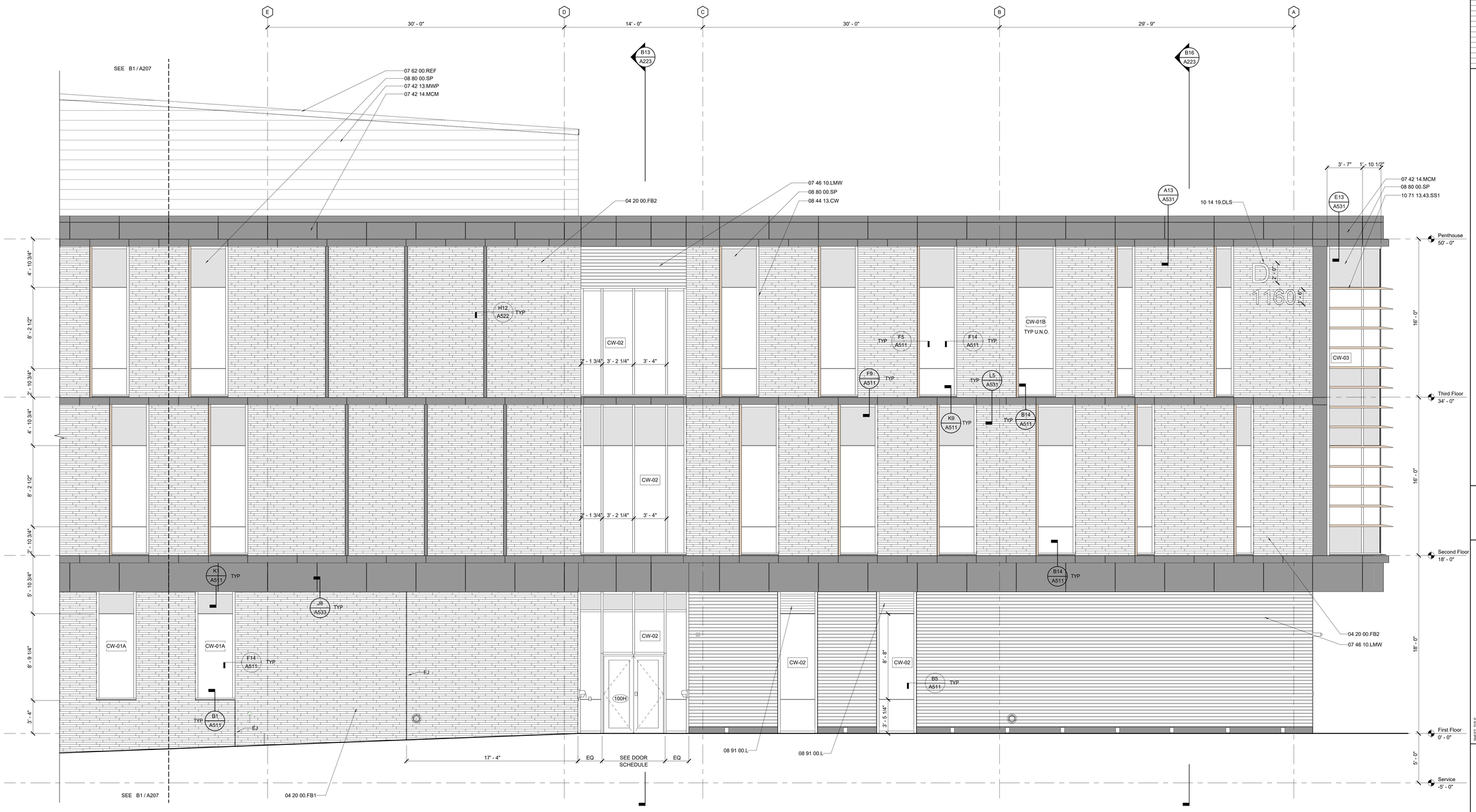

B4 ENLARGED ELEVATION NORTH

MATERIAL KEYNOTES

04 20 00.FB1	Face Brick 1
04 20 00.FB2	Face Brick 2
07 42 13.MWP	Metal Wall Panel
07 42 14.MCM	Metal Composite Material Wall Panel
07 46 10.LMW	Linear Metal Wall Panel
07 62 00.REF	Roof Edge - Fascia
08 44 13.CW	Curtain wall
08 80 00.SP	Spandrel
08 91 00.L	Louver
10 14 19.DLS	Dimensional Letter Signage
10 71 13.43.SS1	Sun Screen 1

GENERAL NOTES

A. FACE BRICK BELOW SECOND FLOOR IS 04 20 00.FB1.
B. FACE BRICK SECOND FLOOR AND ABOVE IS 04 20 00.FB2.
C. SEE 020X SERIES FOR EXTERIOR ASSEMBLY TYPES.

SHEET SPECIFIC NOTES

1. FIRE ALARM HORN / STROBE

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REVISION:

SHEET TITLE
ENLARGED EXTERIOR ELEVATIONS - NORTH

SCALE (U.N.O.)
0 4 8 FT

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN, INC.
CERT. NO. 53851
NORTH CAROLINA
CHAPEL HILL

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North Carolina
Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
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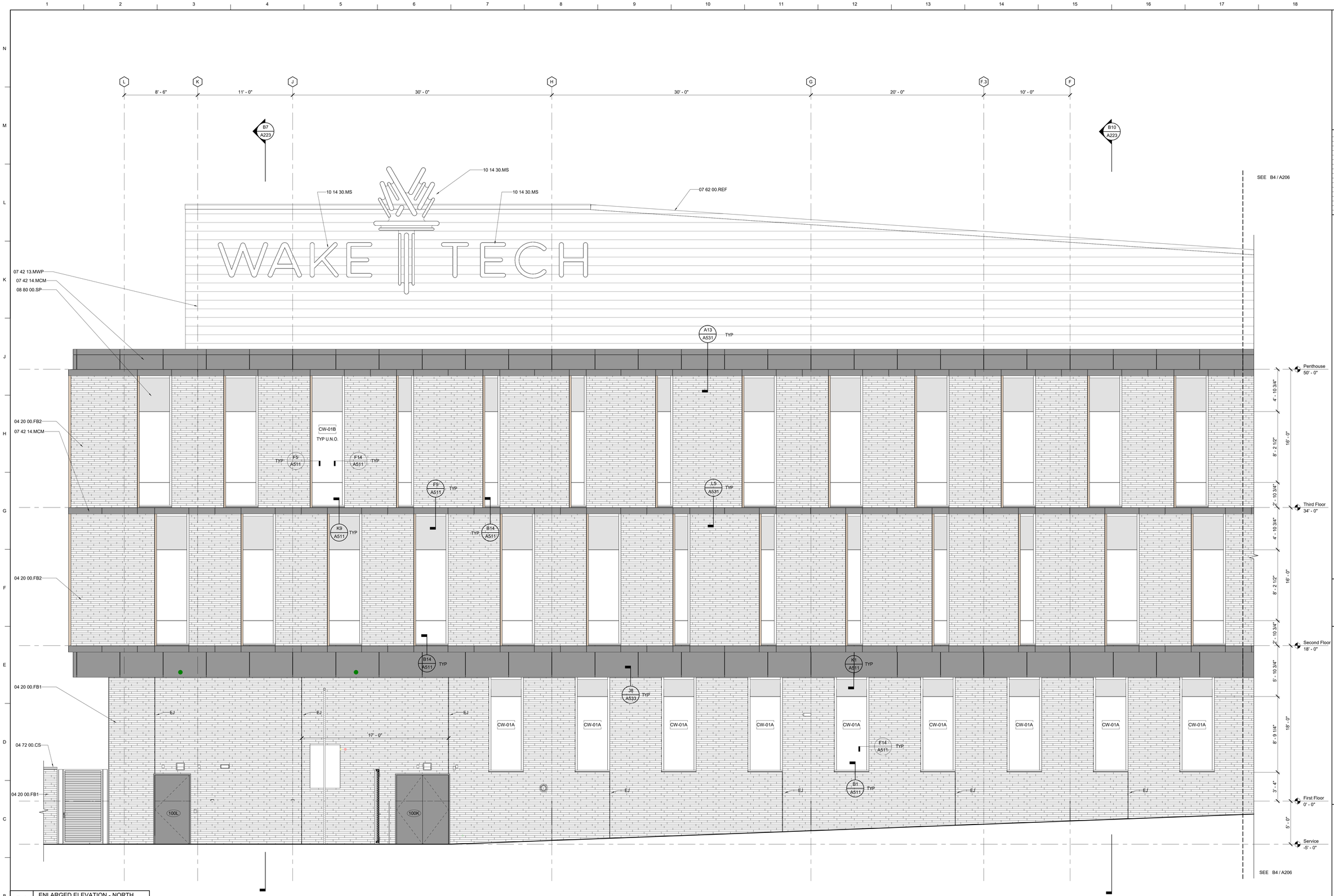

B1 ENLARGED ELEVATION - NORTH

MATERIAL KEYNOTES

04 20 00.FB1	Face Brick 1
04 20 00.FB2	Face Brick 2
04 72 00.CS	Cast Stone
07 42 13.MWP	Metal Wall Panel
07 42 14.MCM	Metal Composite Material Wall Panel
07 62 00.REF	Roof Edge - Fascia
08 80 00.SP	Spandrel
10 14 30.MS	Monumental Signage

GENERAL NOTES

A. FACE BRICK BELOW SECOND FLOOR IS 04 20 00.FB1.
B. FACE BRICK SECOND FLOOR AND ABOVE IS 04 20 00.FB2.
C. SEE G20X SERIES FOR EXTERIOR ASSEMBLY TYPES.

SHEET SPECIFIC NOTES

1. FIRE ALARM HORN / STROBE

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REVISION:

SHEET TITLE
ENLARGED EXTERIOR ELEVATIONS - NORTH

SCALE (U.N.O.)
0 4 8FT

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL
Lauren Dunn Rockart Registered Architect 9674 North Carolina Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
A207

NOT FOR CONSTRUCTION

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/Central_11751-00_V22.rvt
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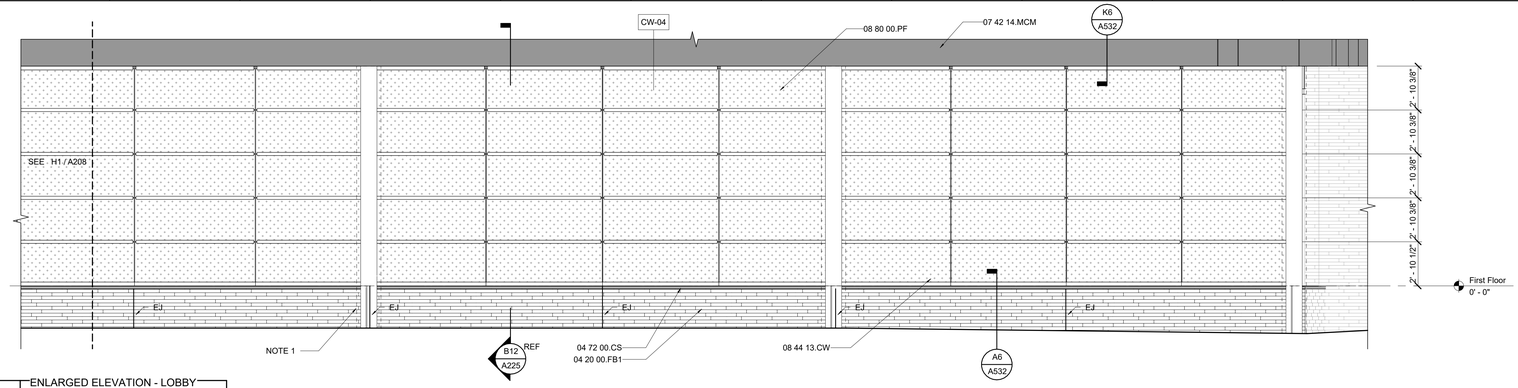
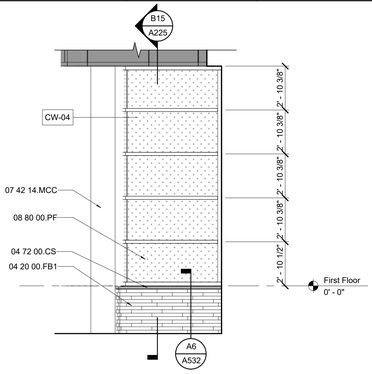


L1 ENLARGED ELEVATION - LOBBY CURTAIN WALL



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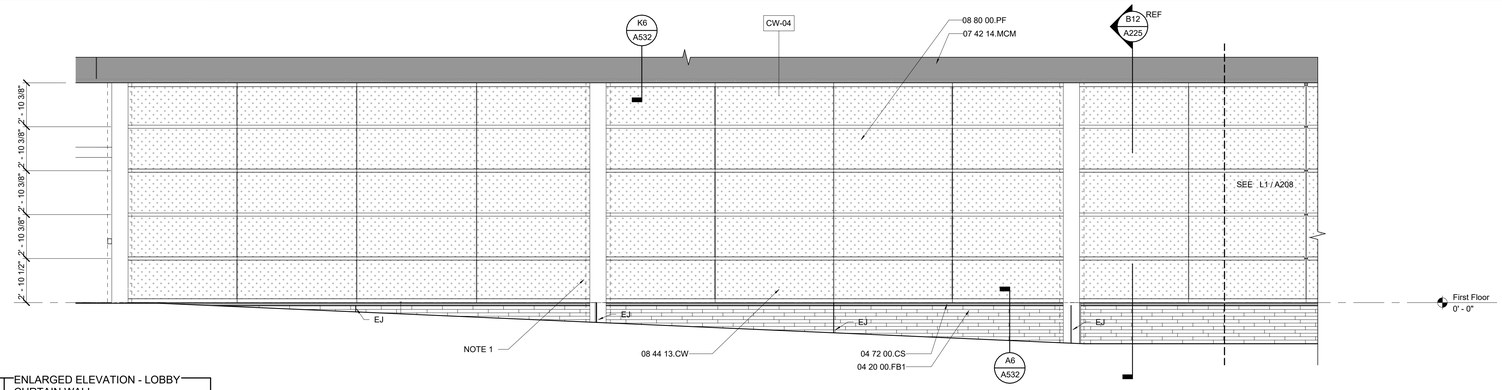

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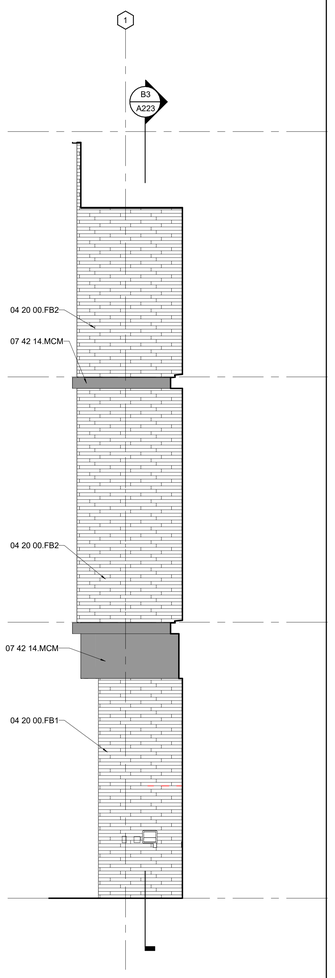

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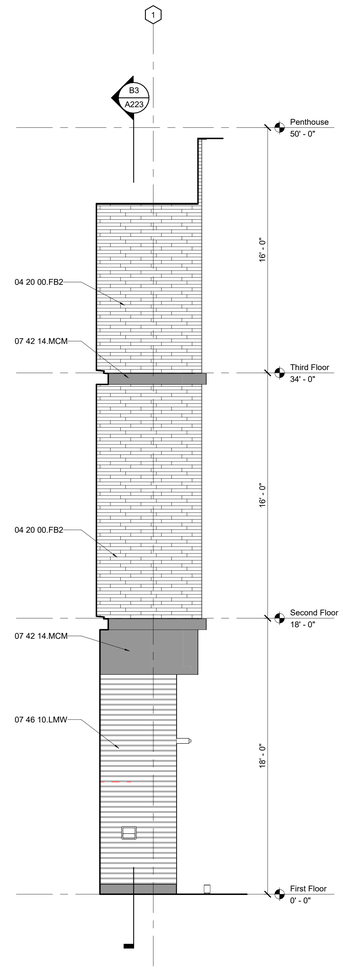

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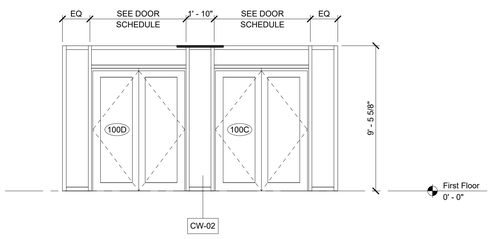
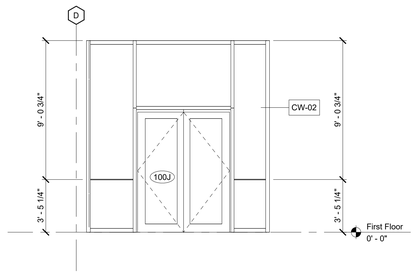
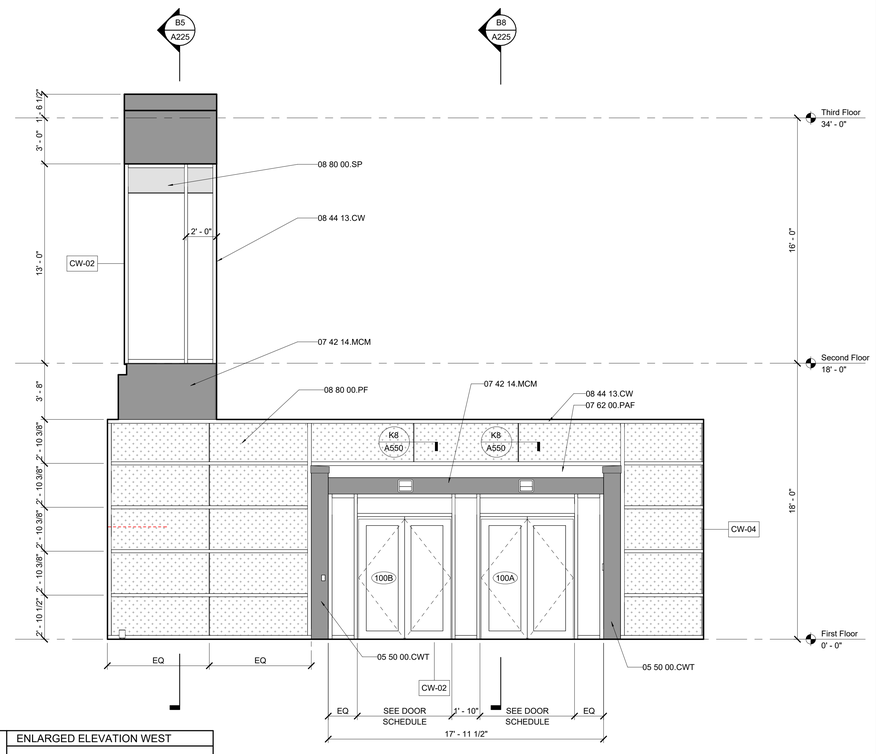


E1 CURTAIN WALL ELEVATION S. VESTIBULE INTERIOR



B1 CURTAIN WALL ELEVATION N. VESTIBULE INTERIOR



B6 ENLARGED ELEVATION WEST

MATERIAL KEYNOTES

04 20 00.FB1	Face Brick 1
04 20 00.FB2	Face Brick 2
04 72 00.CS	Cast Stone
05 50 00.CWT	Curtain Wall Trim
07 42 14.MCC	Metal Composite Material Column Cover
07 42 14.MCM	Metal Composite Material Wall Panel
07 46 10.LMW	Linear Metal Wall Panel
07 62 00.PAF	Pre-Finished Aluminum Sheet Metal Flashing
08 44 13.CW	Curtain wall
08 80 00.PF	Pattern Frit Glass
08 80 00.SP	Spandrel

GENERAL NOTES

A. FACE BRICK BELOW SECOND FLOOR IS 04 20 00.FB1.
B. FACE BRICK SECOND FLOOR AND ABOVE IS 04 20 00.FB2.
C. SEE G20X SERIES FOR EXTERIOR ASSEMBLY TYPES.

SHEET SPECIFIC NOTES

1. COLUMNS NOT SHOWN FOR CLARITY.

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REVISION:

SHEET TITLE
ENLARGED EXTERIOR ELEVATIONS - ENTRIES

SCALE (U.N.O.)
0 4 8 FT

SITE NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN, INC.
CERT. NO. 53851
NORTH CAROLINA
CHAPEL HILL

SEAL
Lauren Dunn Rockar
Registered Architect
North Carolina
Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
A208

NOT FOR CONSTRUCTION

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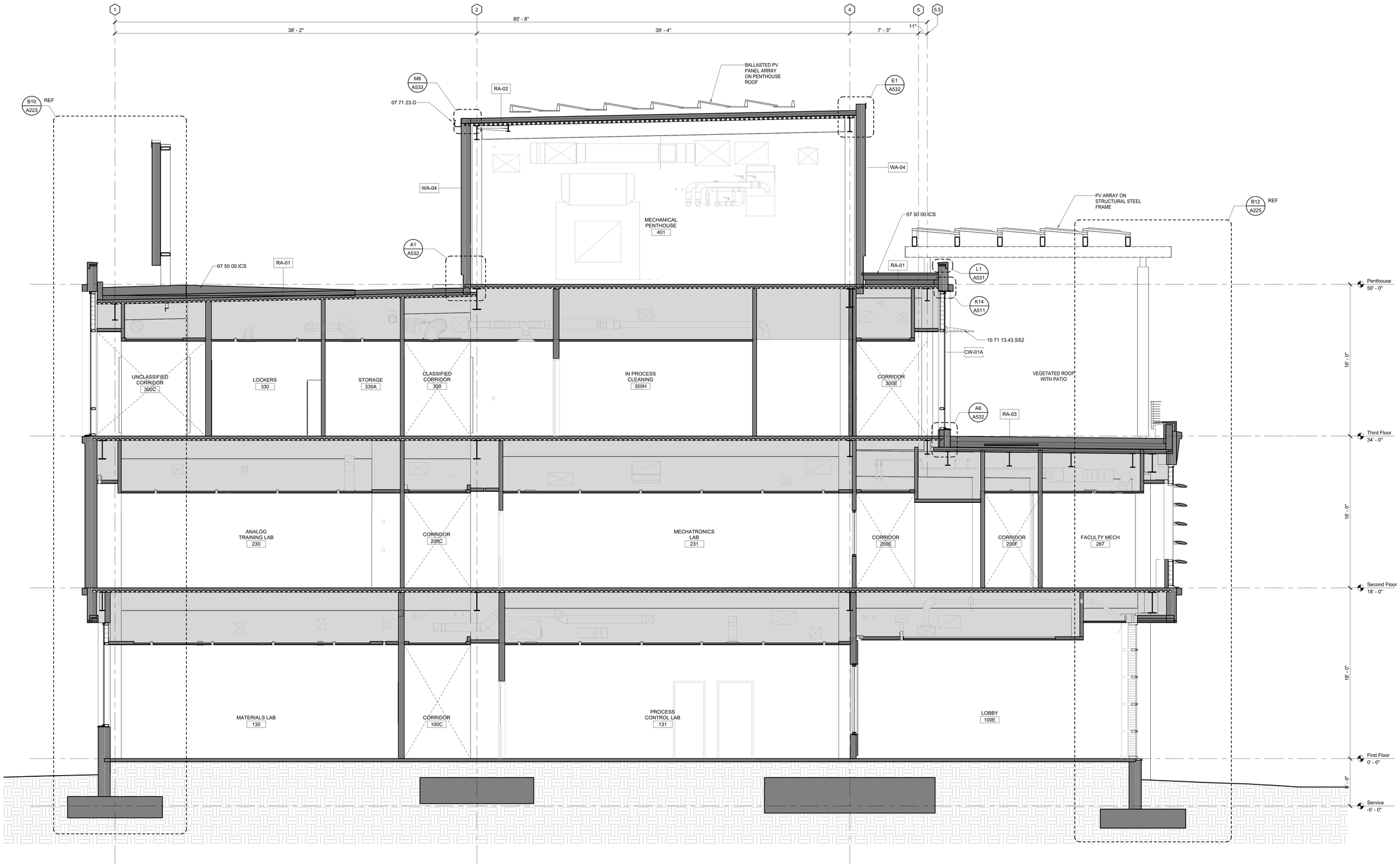

B1 BUILDING SECTION 1

MATERIAL KEYNOTES

07 50 00.ICS	Insulation Board Cricket/Saddle
07 71 23.G	Gutter
10 71 13.43.SS2	Sun Screen 2

GENERAL NOTES

A. SEE G200 SERIES FOR EXTERIOR ASSEMBLIES.

SHEET SPECIFIC NOTES

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REVISION:

SHEET TITLE: BUILDING SECTION

SCALE (UNO): 1/8" = 1'-0"

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, 9814, North Carolina, Chapel Hill, NC, 12·20·2023

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. A211

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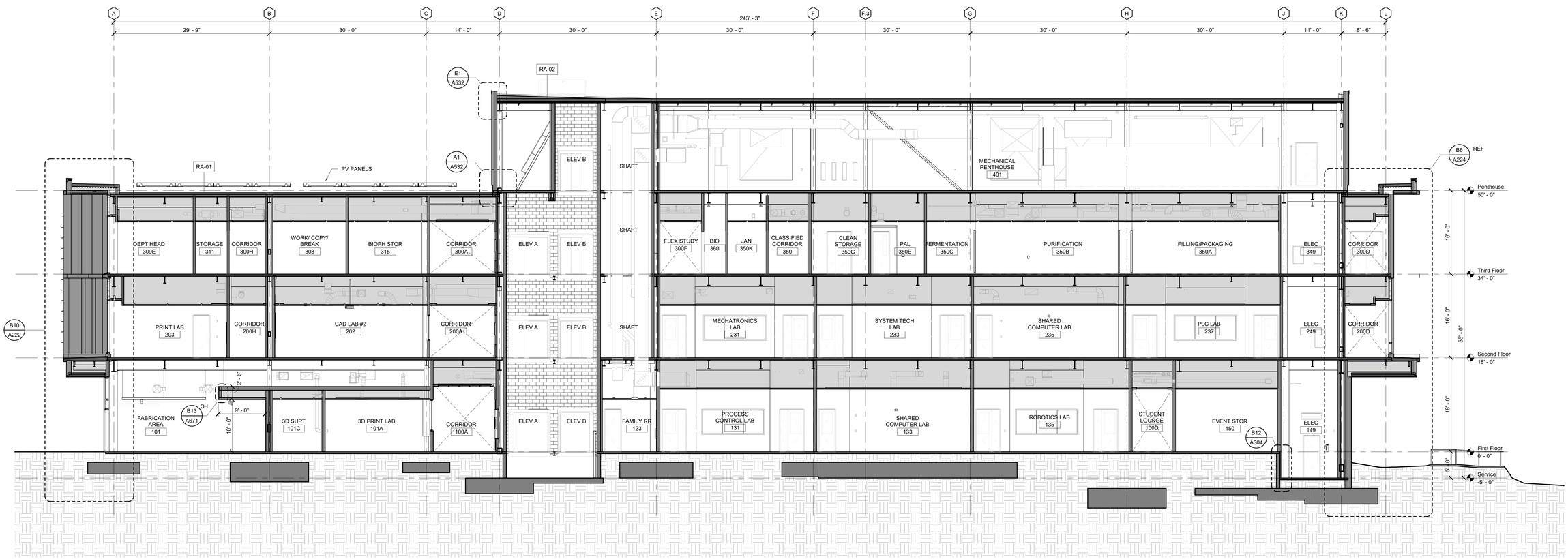

B1 BUILDING SECTION 2

MATERIAL KEYNOTES

GENERAL NOTES

A. SEE G200 SERIES FOR EXTERIOR ASSEMBLIES.

SHEET SPECIFIC NOTES

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REVISION:

SHEET TITLE
BUILDING SECTION

SCALE (UNO)
0 8 16 FT

per work:
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN, INC.
CERT. NO. C-3851
NORTH CAROLINA
CHAPEL HILL

SEAL
Lauren Dunn Rockart
9674
Registered Architect
North Carolina
Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
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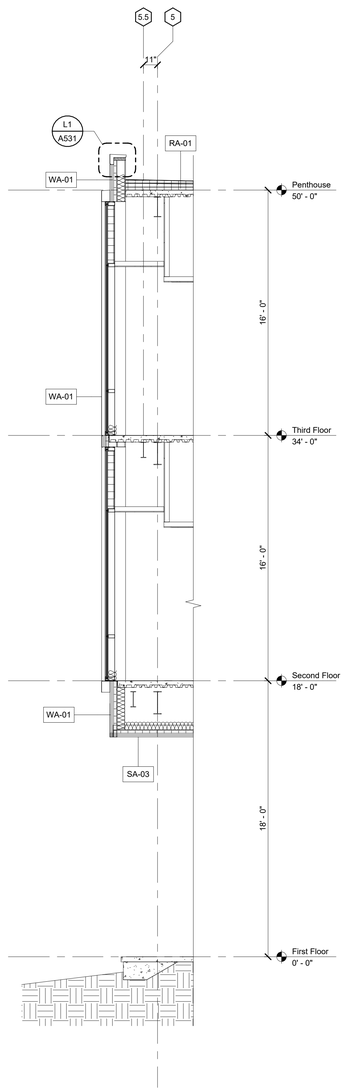
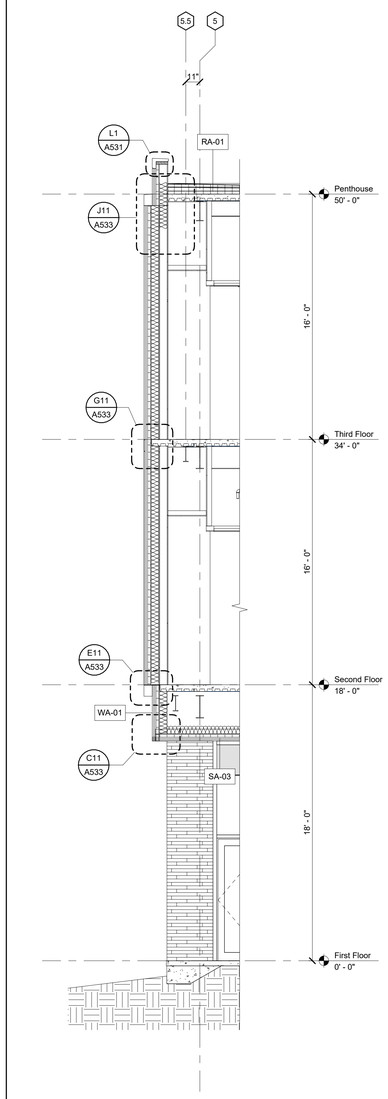


B1 WALL SECTION - SOUTH



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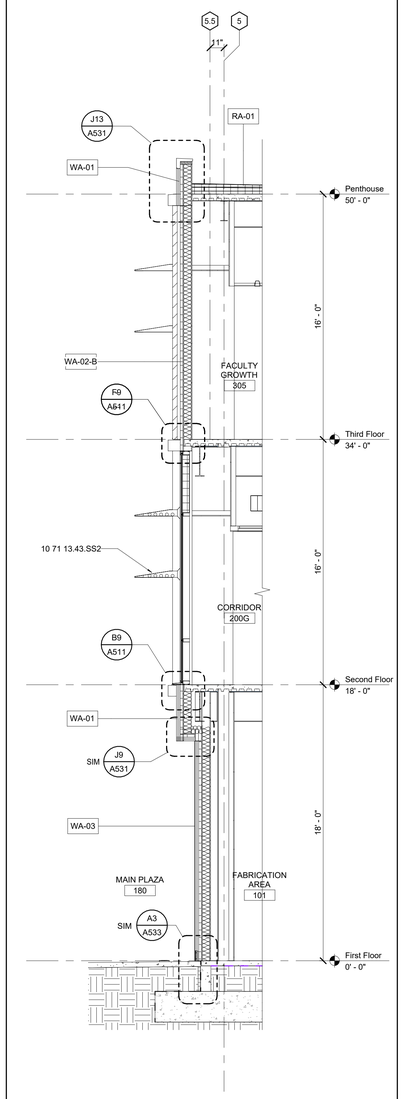

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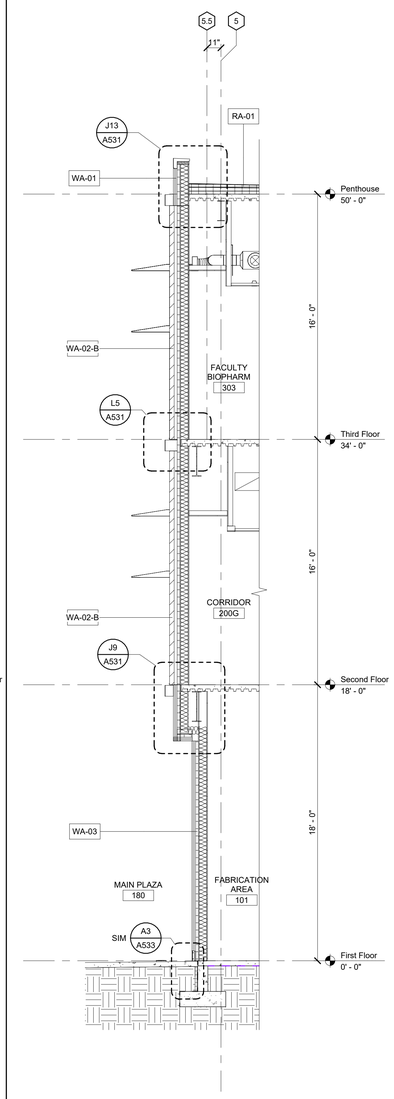
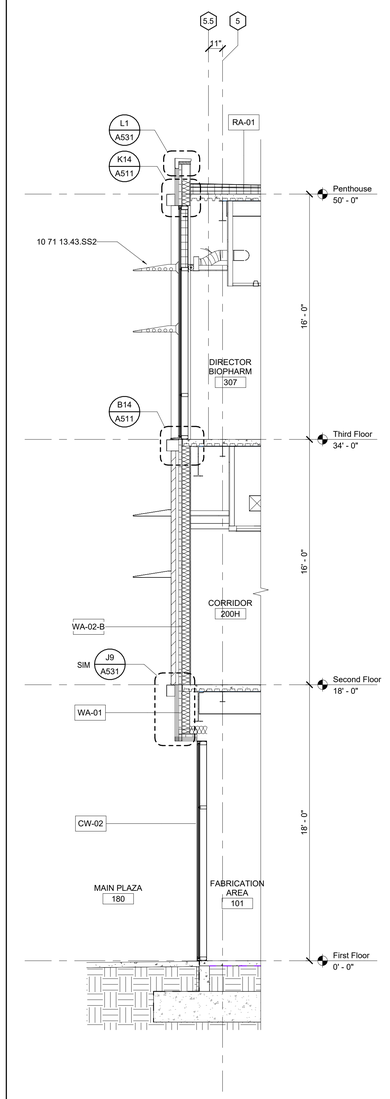
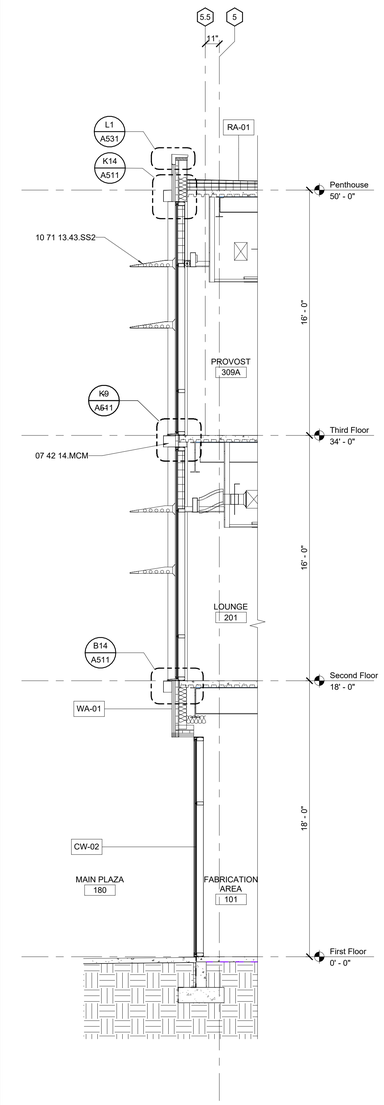


B10 WALL SECTION - SOUTH



B13 WALL SECTION - SOUTH



B16 WALL SECTION - SOUTH

MATERIAL KEYNOTES

07 42 14.MCM Metal Composite Material Wall Panel
10 71 13.43.SS2 Sun Screen 2

GENERAL NOTES

A. REFER TO G200 SERIES FOR EXTERIOR ASSEMBLY TYPES.

SHEET SPECIFIC NOTES

LORD AECK SARGENT

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REVISION:

SHEET TITLE
WALL SECTIONS

SCALE (U.N.O.)
0 6 12FT

PROJECT
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN INC
CERT. NO. 53851
NORTH CAROLINA
CHAPEL HILL

SEAL
Lauren Dunn Rockar
Registered Architect
9674
North Carolina
Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
A221

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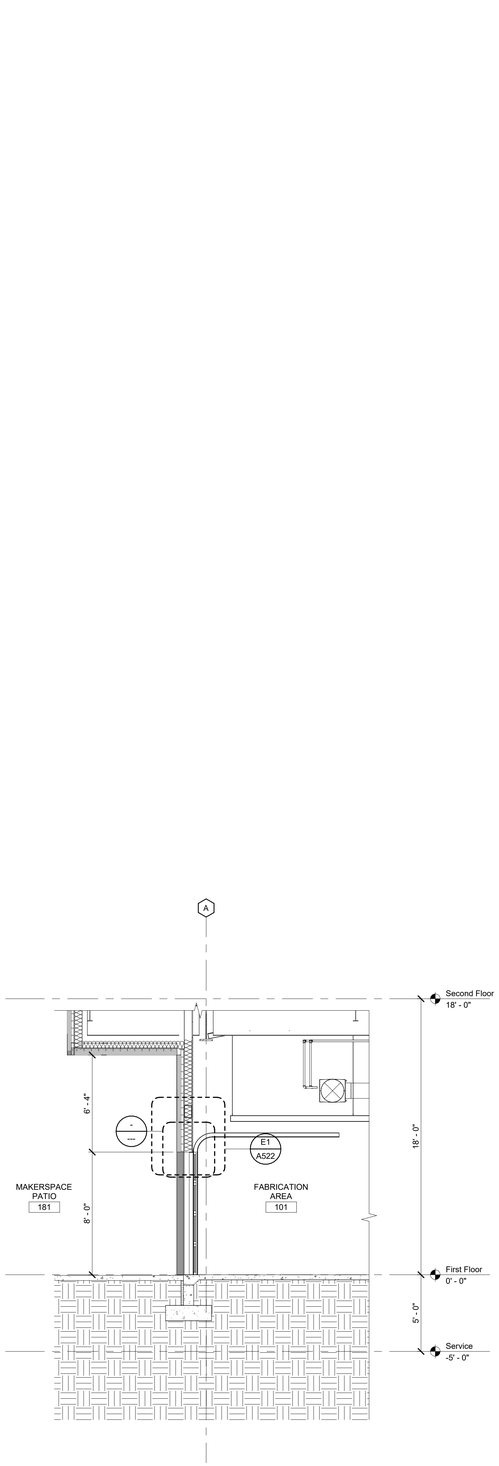

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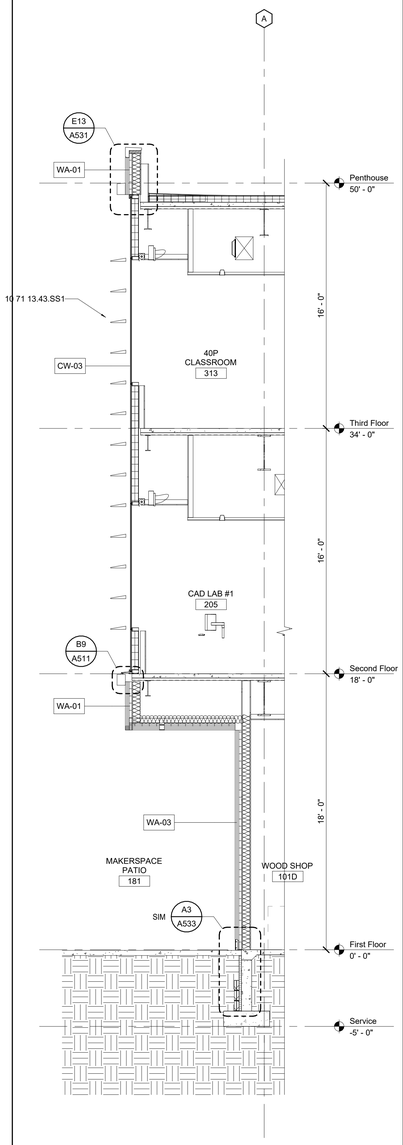

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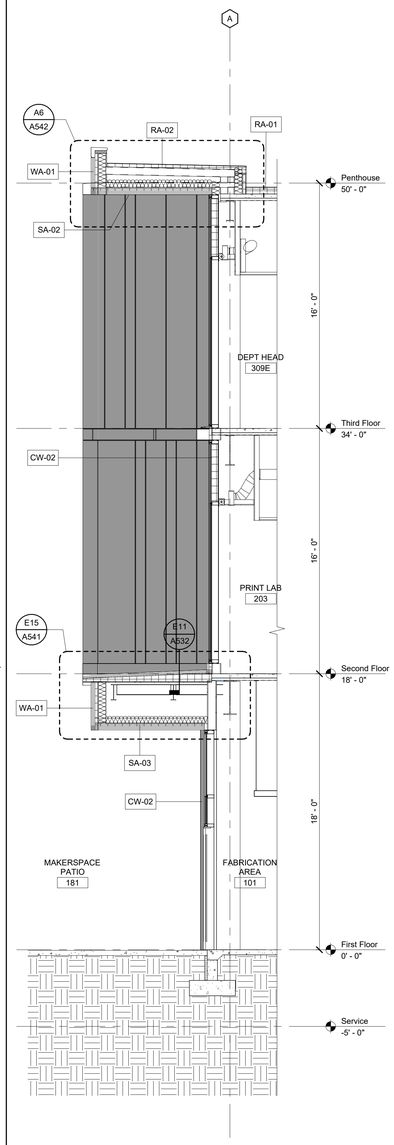

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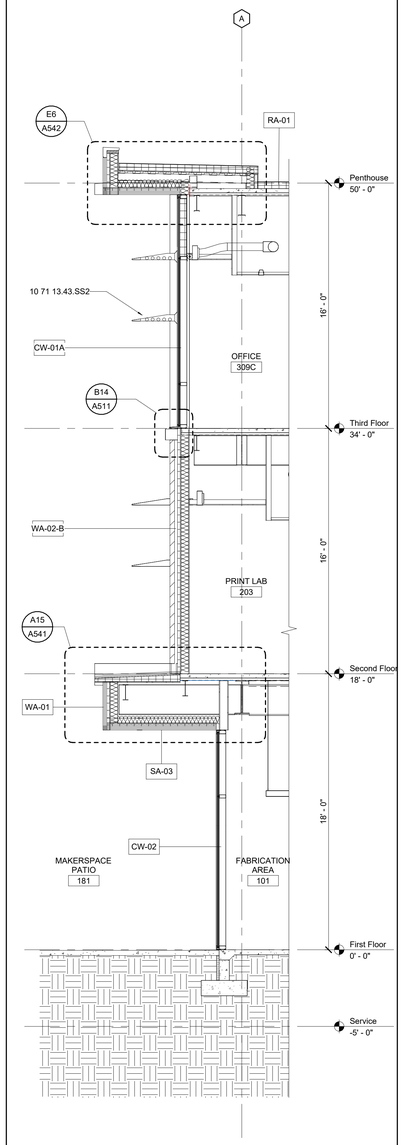

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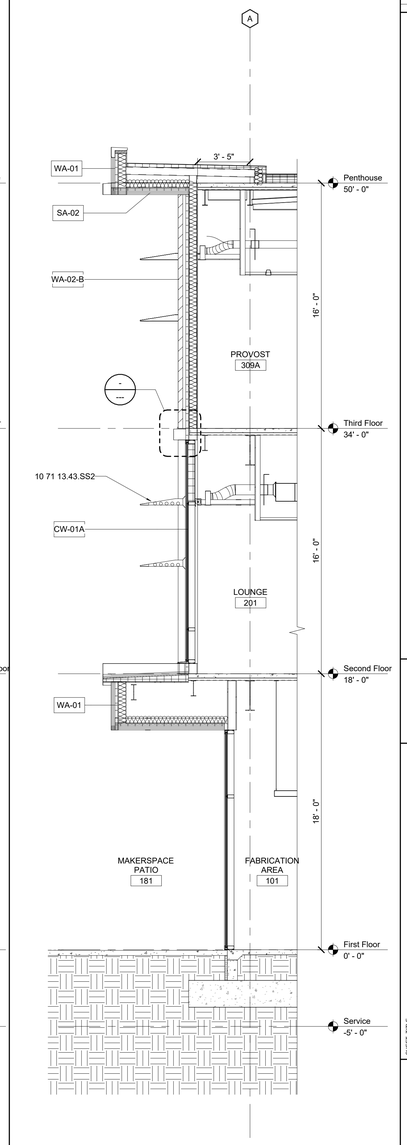

B16 WALL SECTION - WEST

MATERIAL KEYNOTES

10 71 13.43.SS1 Sun Screen 1
10 71 13.43.SS2 Sun Screen 2

GENERAL NOTES

A. REFER TO G200 SERIES FOR EXTERIOR ASSEMBLY TYPES.

SHEET SPECIFIC NOTES

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REVISION:

SHEET TITLE: WALL SECTIONS

SCALE (U.N.O.): 0 6 12FT

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, 9814, North Carolina, Chapel Hill, NC, 12·20·2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A222

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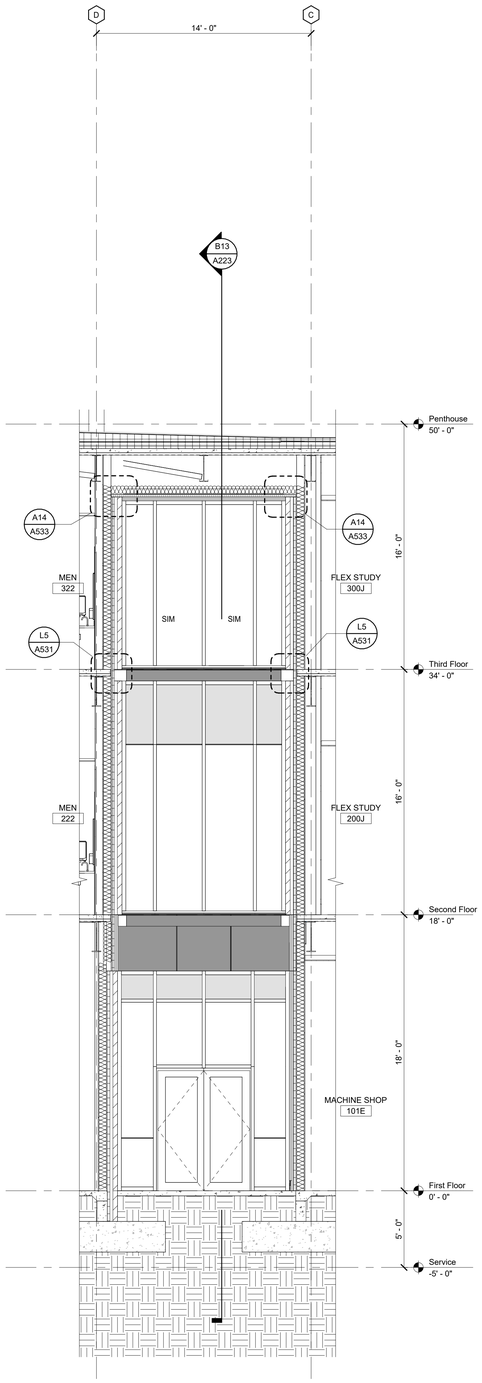

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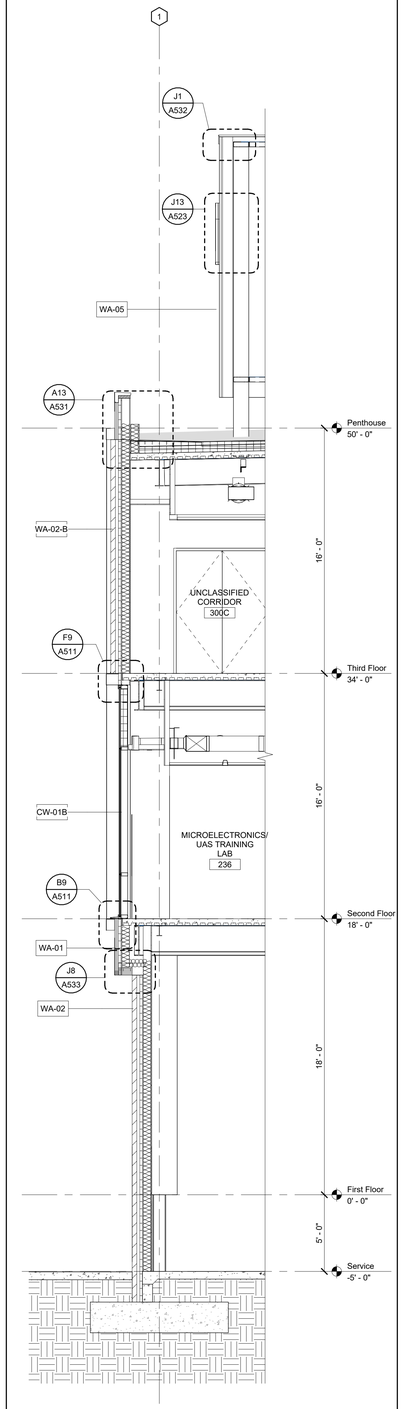

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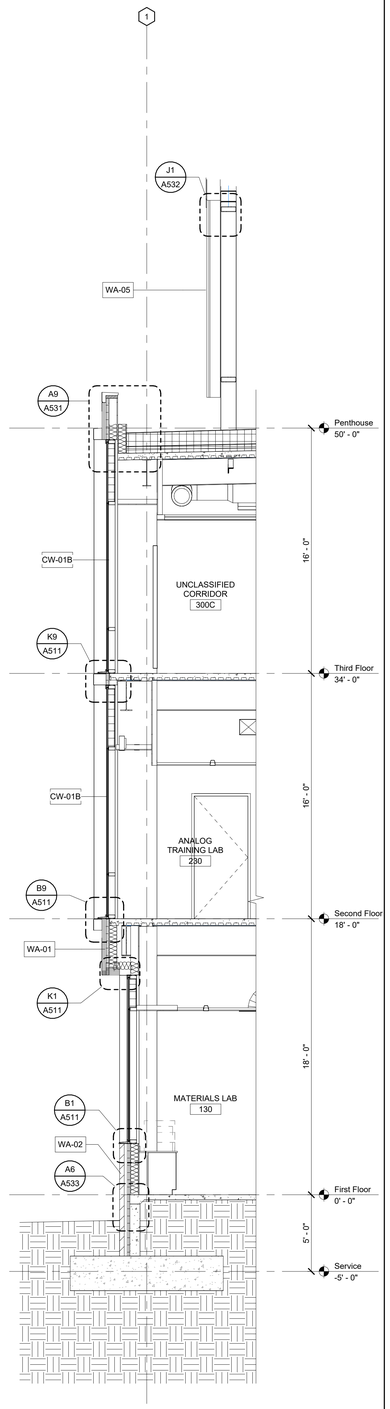

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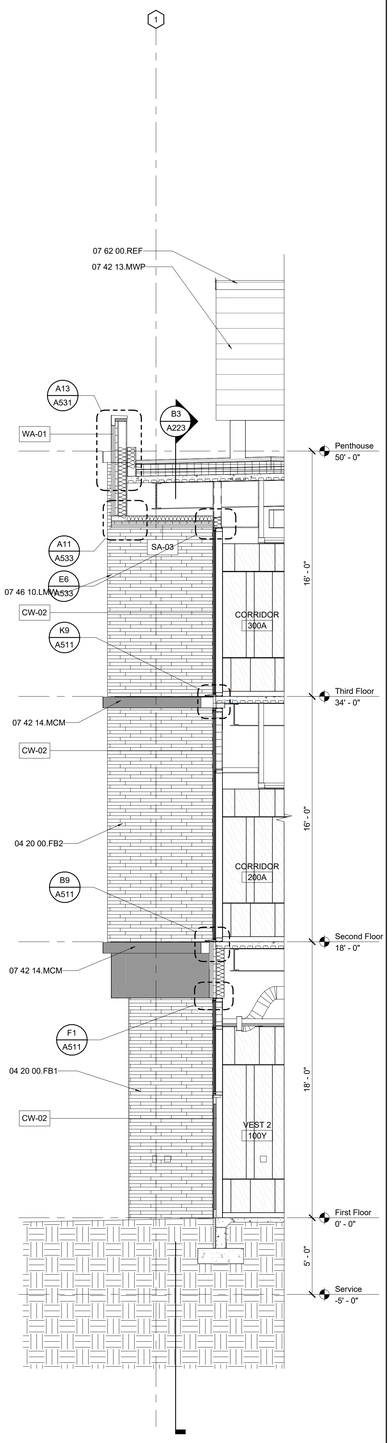

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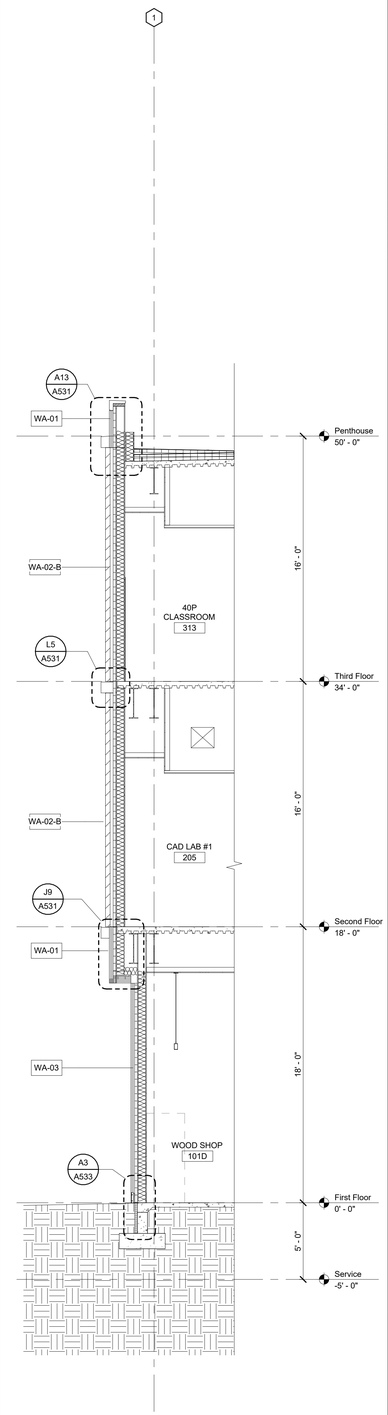

B16 WALL SECTION - NORTH

MATERIAL KEYNOTES

04 20 00.FB1	Face Brick 1
04 20 00.FB2	Face Brick 2
07 42 13.MWP	Metal Wall Panel
07 42 14.MCM	Metal Composite Material Wall Panel
07 46 10.LMW	Linear Metal Wall Panel
07 62 00.REF	Roof Edge - Fascia

GENERAL NOTES

A. REFER TO G200 SERIES FOR EXTERIOR ASSEMBLY TYPES.

SHEET SPECIFIC NOTES

LORD AECK SARGENT

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LordAeckSargent.com

REVISION:

SHEET TITLE: WALL SECTIONS

SCALE (U.N.O.): 0 6 12FT

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockar, Registered Architect, North Carolina, Chapel Hill, NC, 30714, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. A223

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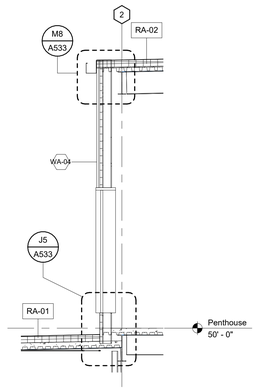
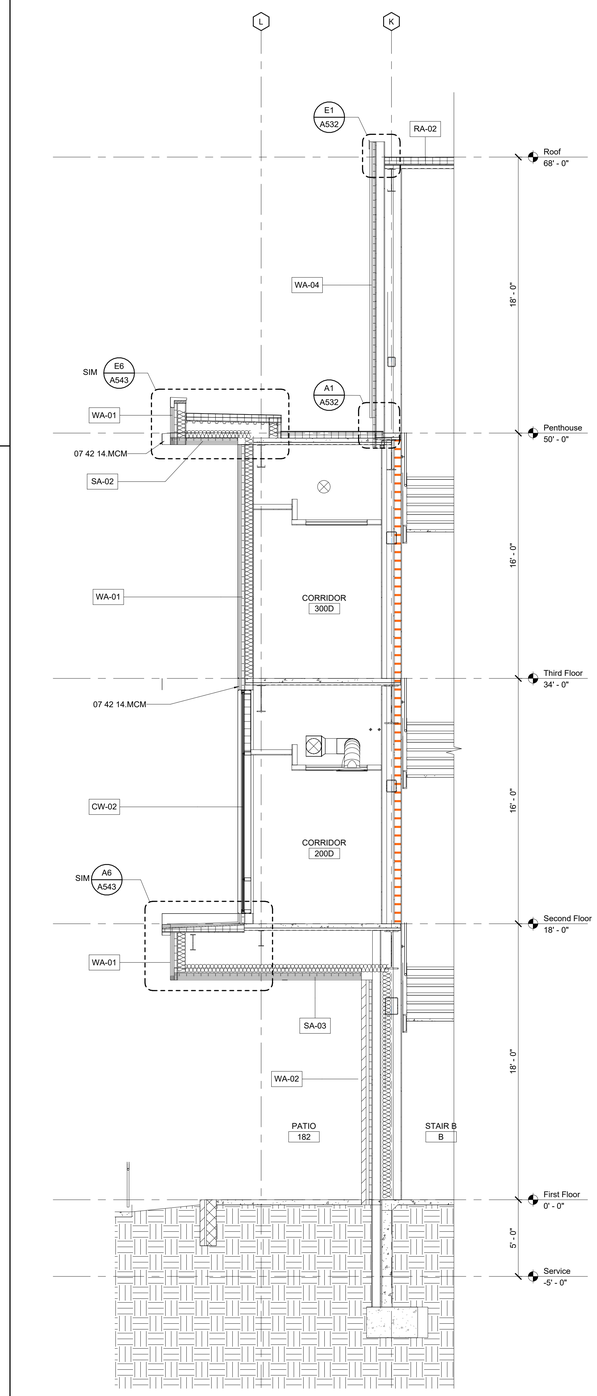
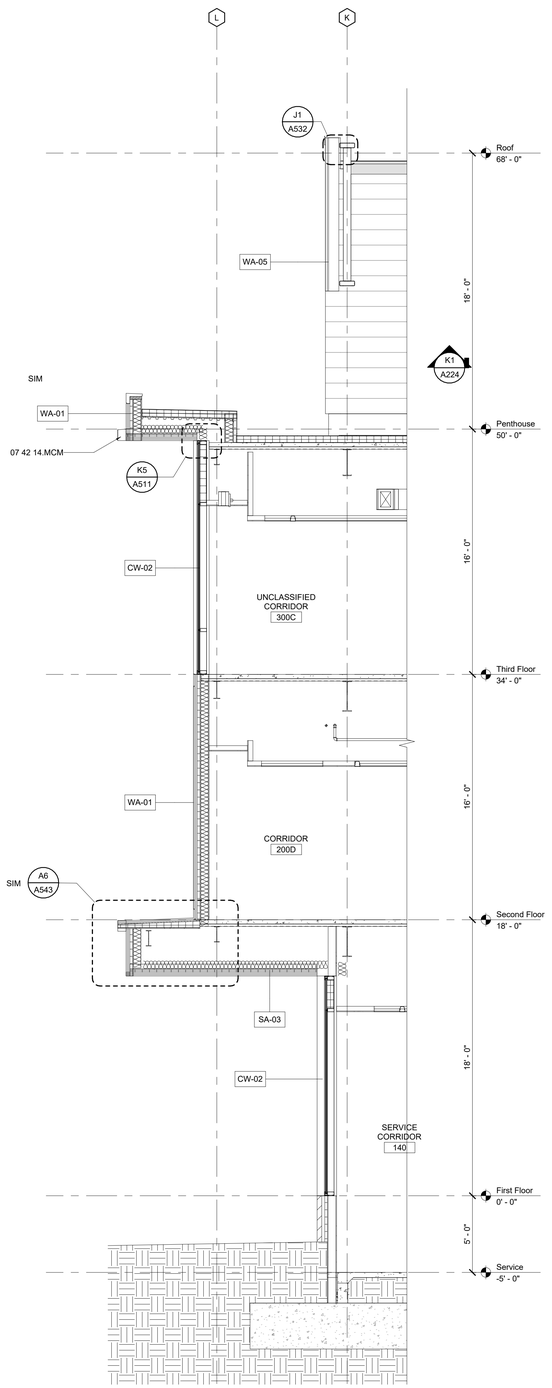


K1 WALL SECTION - PENTHOUSE - NORTH



B6 WALL SECTION - EAST



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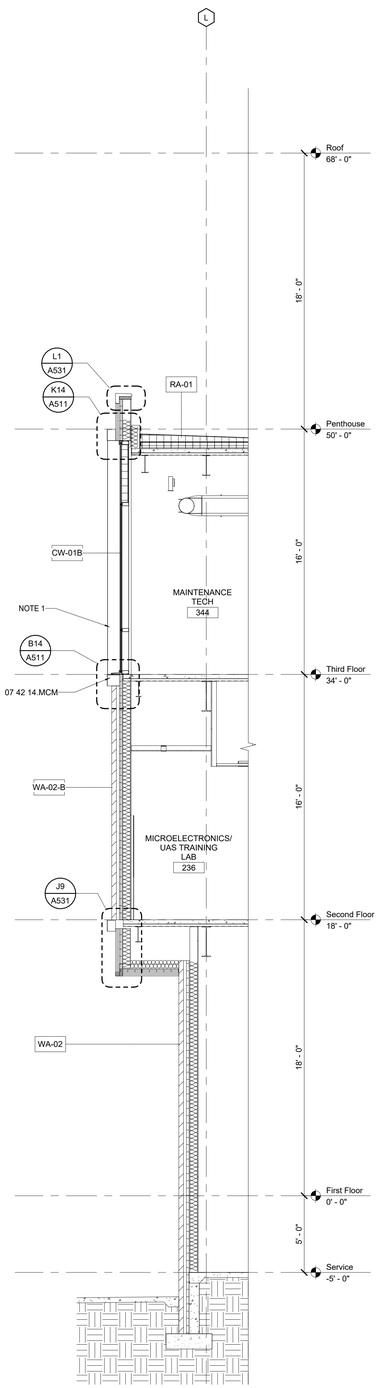

B16 WALL SECTION - EAST

MATERIAL KEYNOTES

07 42 14.MCM Metal Composite Material Wall Panel

GENERAL NOTES

A. REFER TO G200 SERIES FOR EXTERIOR ASSEMBLY TYPES.

SHEET SPECIFIC NOTES

1. CW-01 ALT MULLION JAMB BEYOND (SEE G051).

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REVISION:

SHEET TITLE: WALL SECTIONS

SCALE (U.N.O.): 0 6 12FT

CM: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Sebastian Dunn Rockett, Registered Architect, North Carolina, 39714, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: A224

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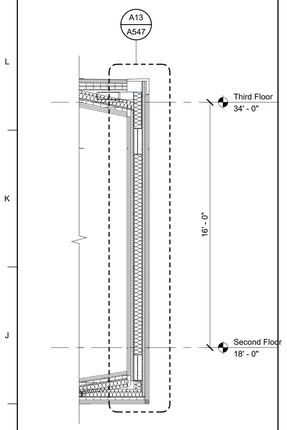
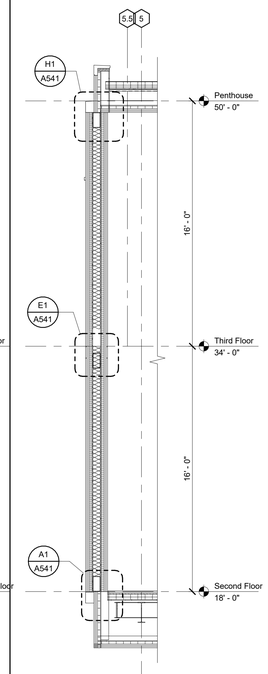
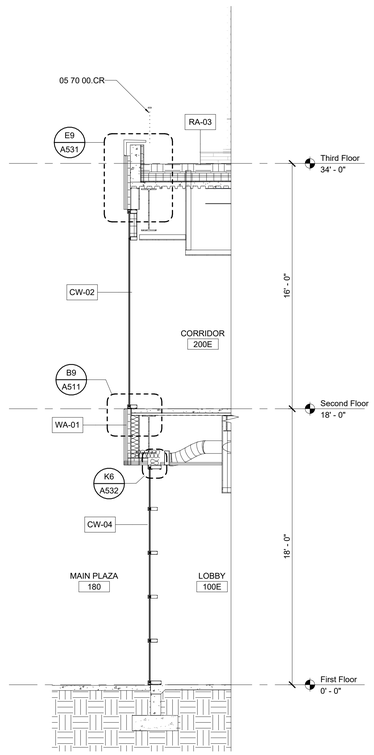


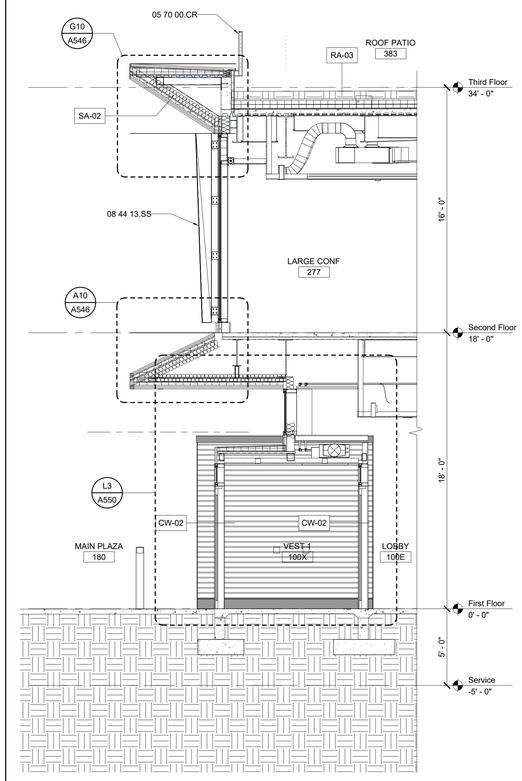
H1 WALL SECTION - TERRACE ACM ROOF



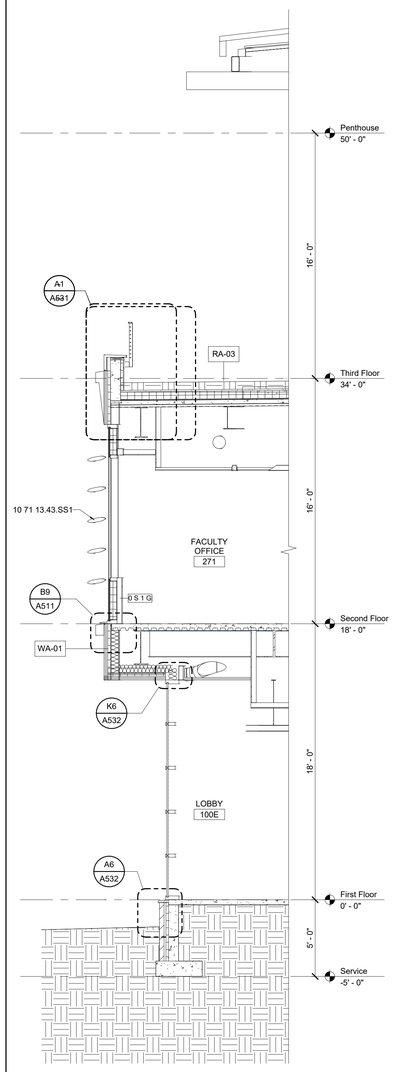
H3 WALL SECTION - SOUTH



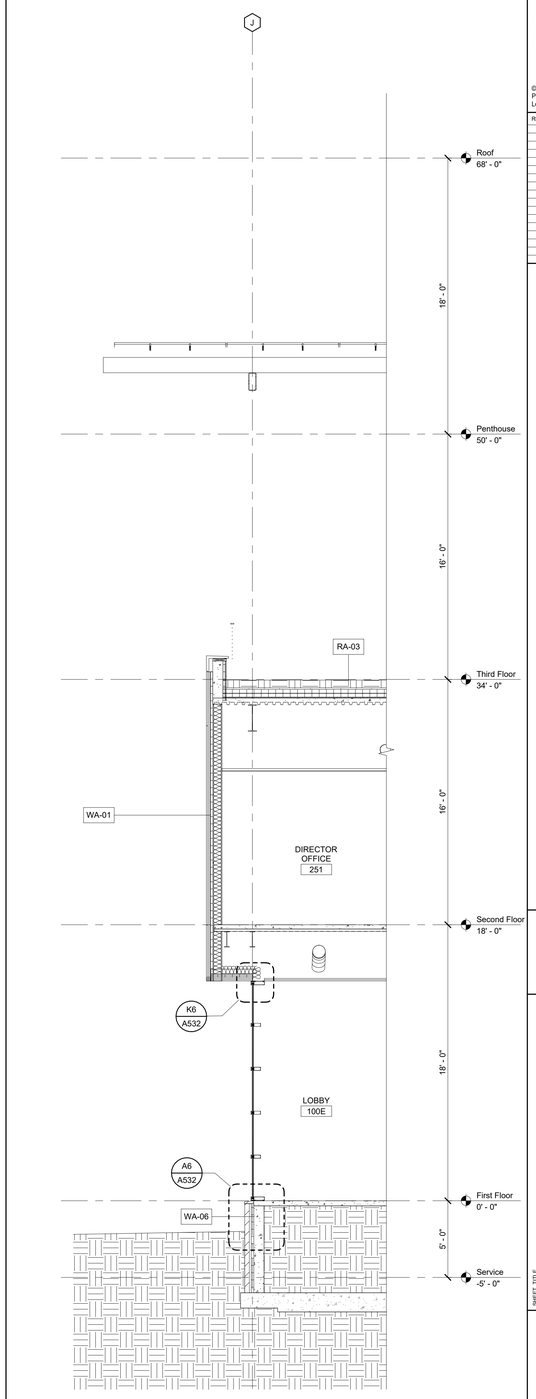
B5 WALL SECTION - WEST GREEN ROOF



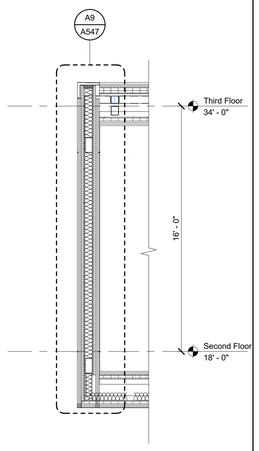
B8 WALL SECTION - WEST GREEN ROOF



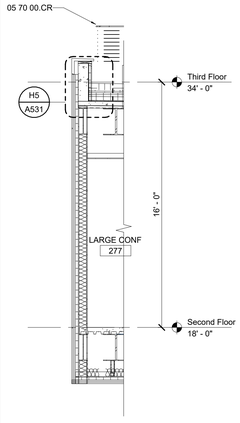
B12 WALL SECTION - SOUTH



B15 WALL SECTION - EAST



B1 WALL SECTION -TERRACE ACM ROOF



B3 WALL SECTION - NORTH GREEN ROOF

MATERIAL KEYNOTES

05 70 00.CR	Cable Guard Rail
08 44 13.SS	Custom Integrated Sun Screen
10 71 13.43.SS1	Sun Screen 1

GENERAL NOTES

SHEET SPECIFIC NOTES

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REVISION:

SHEET TITLE: WALL SECTIONS

SCALE (U.N.O.): 0 6 12FT

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rodgers, Registered Architect, 9674, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A225

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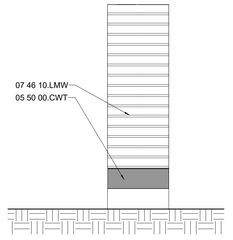
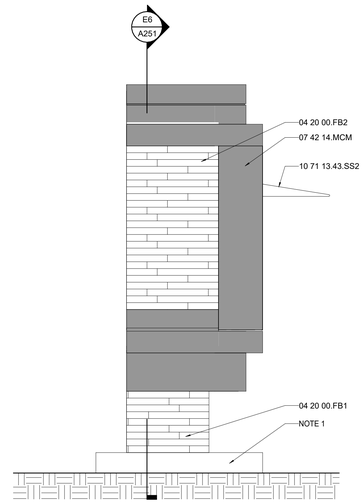
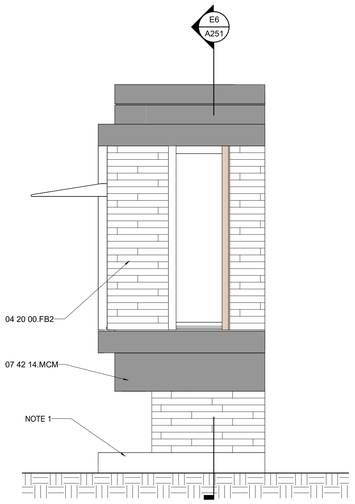


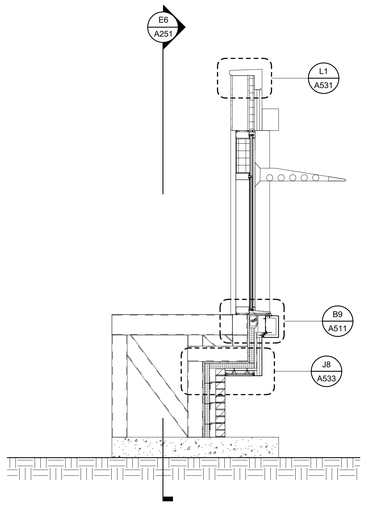
J11 ELEVATION - EAST



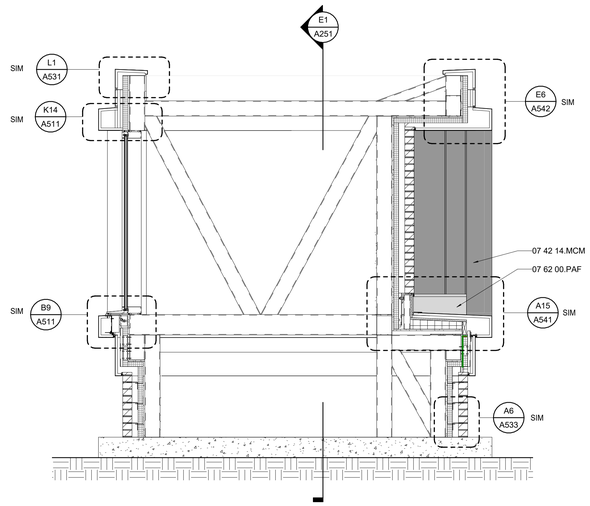
J13 ELEVATION - WEST



J16 ELEVATION - EAST



E1 SECTION - NORTH / SOUTH



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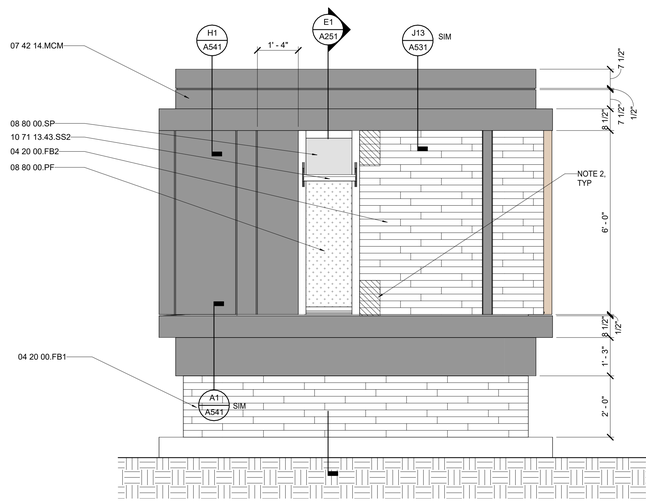
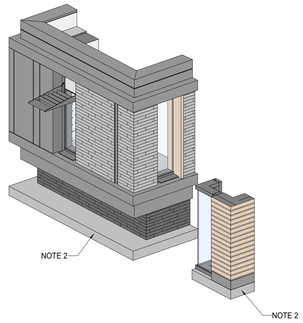
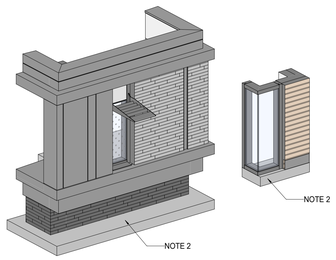


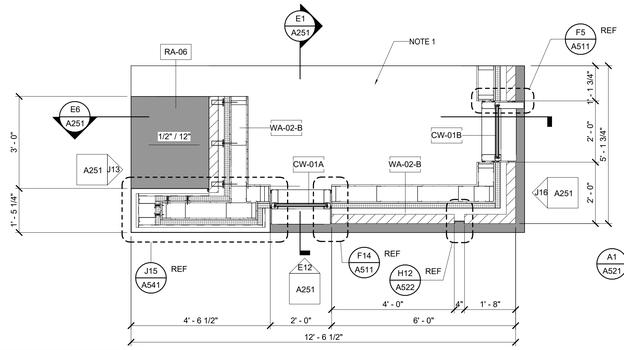
E12 ELEVATION - SOUTH



A1 PERSPECTIVE - SE CORNER



B6 PERSPECTIVE - SW CORNER



B12 FLOOR PLAN

MATERIAL KEYNOTES

04 20 00.FB1	Face Brick 1
04 20 00.FB2	Face Brick 2
05 50 00.CWT	Curtain Wall Trim
07 42 14.MCM	Metal Composite Material Wall Panel
07 46 10.LMW	Linear Metal Wall Panel
07 62 00.PAF	Pre-Finished Aluminum Sheet Metal Flashing
08 80 00.ICE	Insulating, Clear, Low E Glass
08 80 00.PF	Pattern Frit Glass
08 80 00.SP	Spandrel
10 71 13.43.SS2	Sun Screen 2

GENERAL NOTES

SHEET SPECIFIC NOTES

1. CAST-IN-PLACE CONCRETE SLAB ON GRADE.
2. PAUSE INSTALLATION OF BRICK SO THAT THROUGH-WALL FLASHING CAN BE OBSERVED BY ARCHITECT PRIOR TO INSTALLATION OF ADDITIONAL MATERIAL.

LORD AECK SARGENT

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REVISION:

SHEET TITLE: EXTERIOR WALL MOCKUP

SCALE (U/N/O): 0 3 6FT

FOR WORK: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, North Carolina, 39174, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023

JOB. NO. 11751-00

DWG. NO. A251

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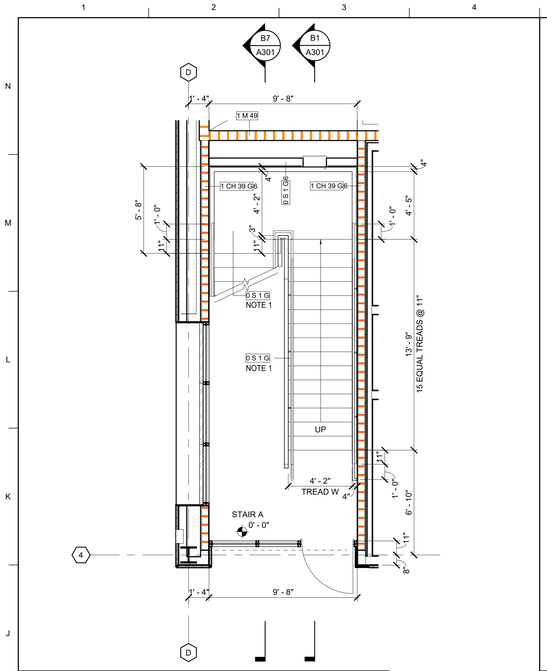
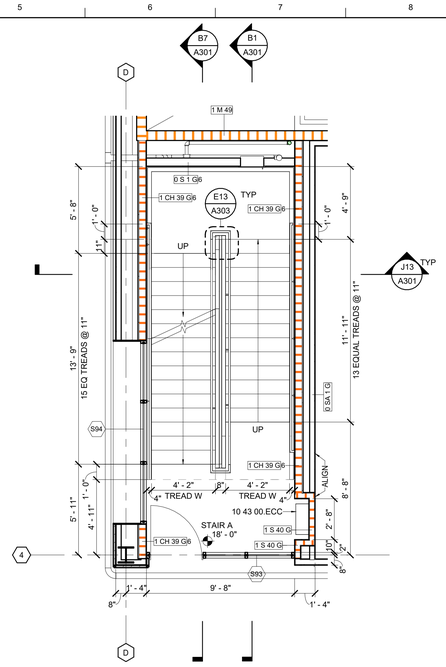


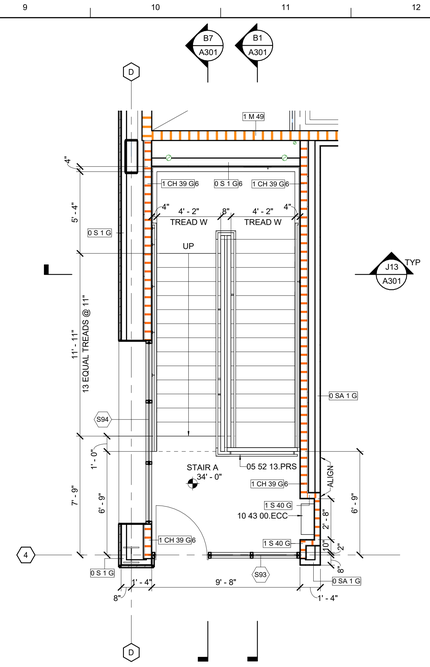
J1 STAIR A - FIRST FLOOR PLAN

0 4 8 FT



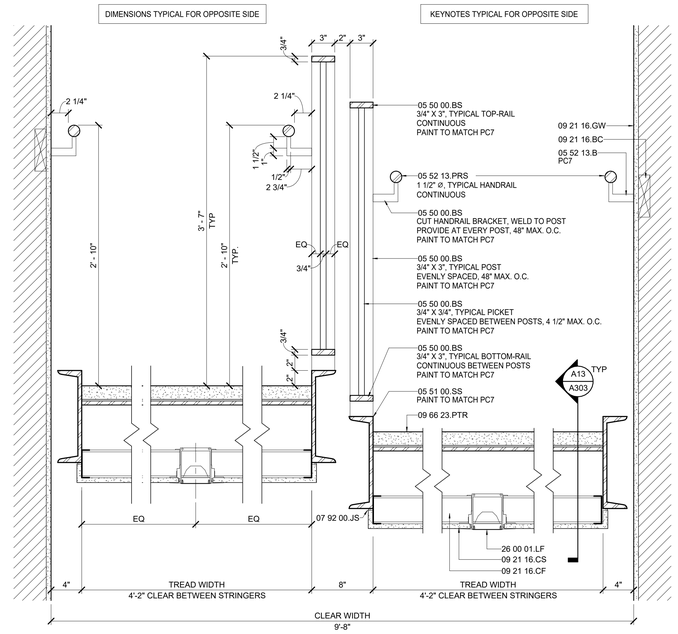
J5 STAIR A - SECOND FLOOR PLAN

0 4 8 FT



J9 STAIR A - THIRD FLOOR PLAN

0 4 8 FT



J13 STAIR A TRANSVERSE SECTION DETAIL

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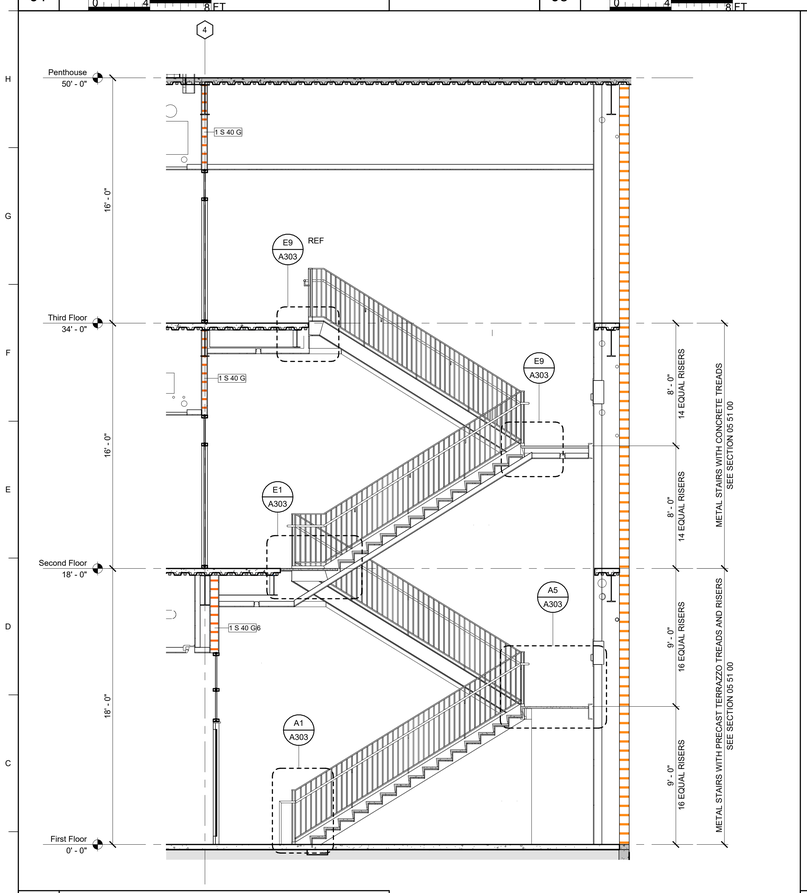

B1 STAIR A - SECTION

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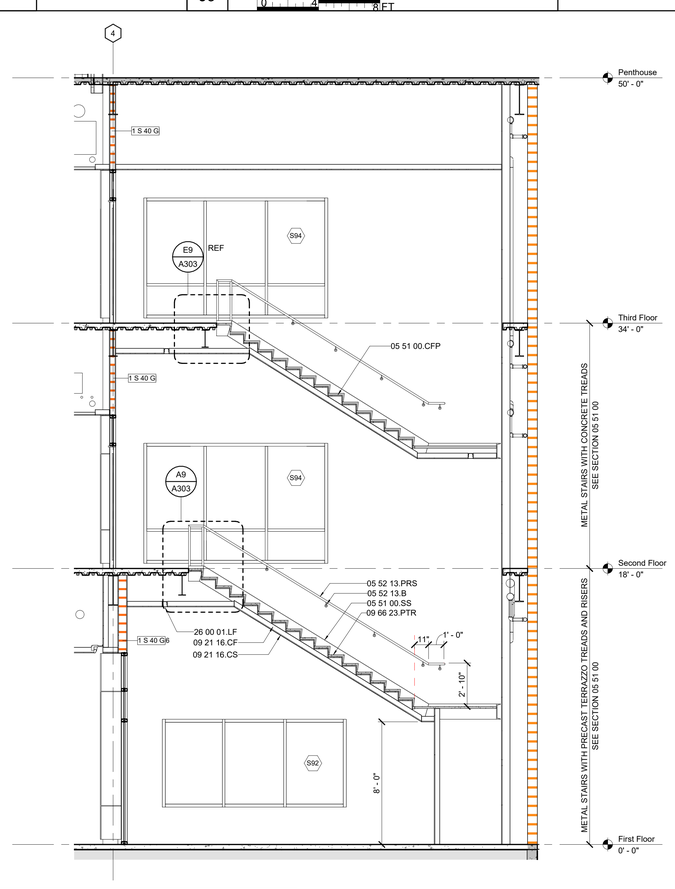

B7 STAIR A - SECTION

0 4 8 FT

MATERIAL KEYNOTES

05 50 00.BS	Bar, Square
05 51 00.CFP	Concrete-Filled Pan
05 51 00.SS	Steel Stringer
05 52 13.B	Handrail Bracket
05 52 13.PRS	Pipe Railing, Stainless Steel
07 92 00.JS	Joint Sealant
09 21 16.BC	Blocking, Continuous
09 21 16.CF	Interior Ceiling Framing
09 21 16.CS	Interior Gypsum Ceiling/Soffit
09 21 16.GW	Gypsum Wallboard
09 66 23.PTR	Precast Terrazzo Tread and Riser
10 43 00.ECC	Evacuation Chair and Cabinet
26 00 01.LF	Light Fixture

GENERAL NOTES

A. UNRATED PARTITION
B. 1-HOUR FIRE-RESISTANCE RATED FIRE BARRIER

C. DIMENSIONS PROVIDED ARE TO FACE OF FINISH UNLESS NOTED OTHERWISE.

D. INTERIOR STOREFRONT ELEVATIONS INDICATED AS (Sxx). SEE SHEET A602 FOR STOREFRONT ELEVATIONS.

E. SEE SHEET G021 FOR TYPICAL MOUNTING HEIGHTS OF WALL-MOUNTED EQUIPMENT AND DEVICES.

F. WHERE FIRE-RATED PARTITIONS EXTEND TO EXTERIOR WALLS, FIRE-RATED ASSEMBLY MUST BE CONTINUED TO INSIDE FACE OF SHEATING TYPICAL.

SHEET SPECIFIC NOTES

1. PARTITION FROM UNDERSIDE OF STAIR STRINGER TO FIRST FLOOR SLAB. EXTERIOR FACE OF FRAMING TO ALIGN WITH INTERIOR FACE OF STRINGER.

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REVISION

CORPORATE SEAL

LORD AECK SARGENT PLANNING & DESIGN INC
CERT. NO. 53851
NORTH CAROLINA
CHAPEL HILL

SEAL

Jaburun Dunn Rocker
Registered Architect
9814
North Carolina
Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023

JOB NO.
11751-00

DWG. NO.
A301

SHEET TITLE
VERTICAL CIRCULATION - STAIR A

SCALE (U.N.O.)

OWNER
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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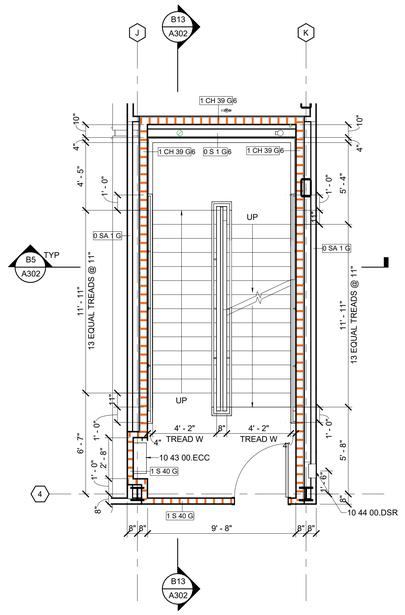

J1 STAIR B - SECOND FLOOR PLAN

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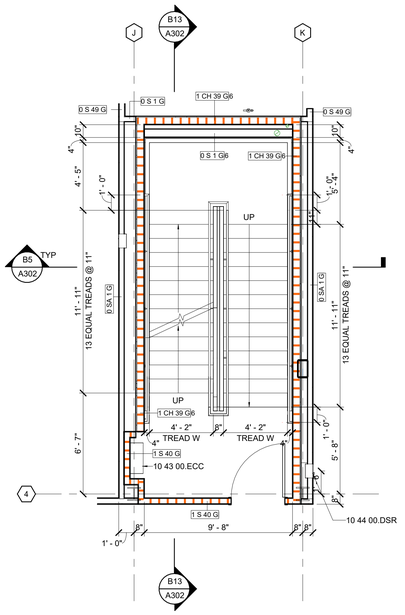
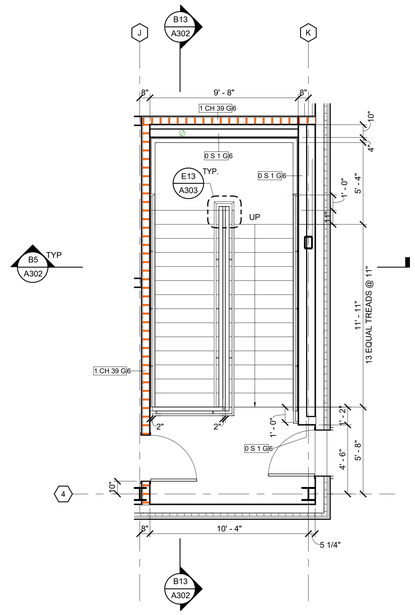


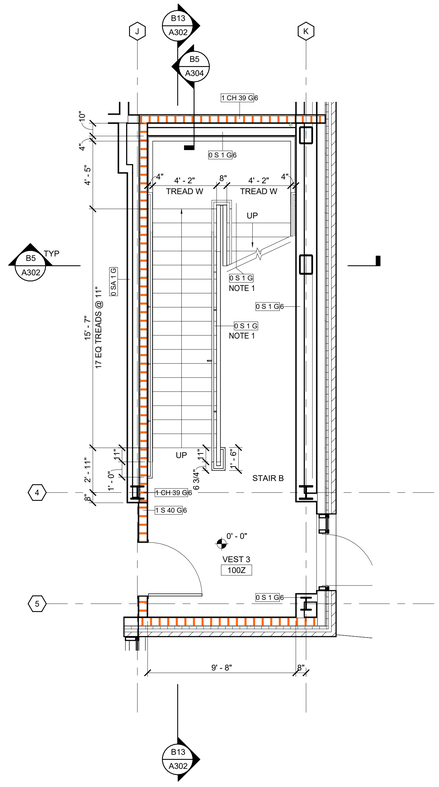
J5 STAIR B -THIRD FLOOR PLAN

0 4 8 FT



J9 STAIR B - PENTHOUSE FLOOR PLAN

0 4 8 FT

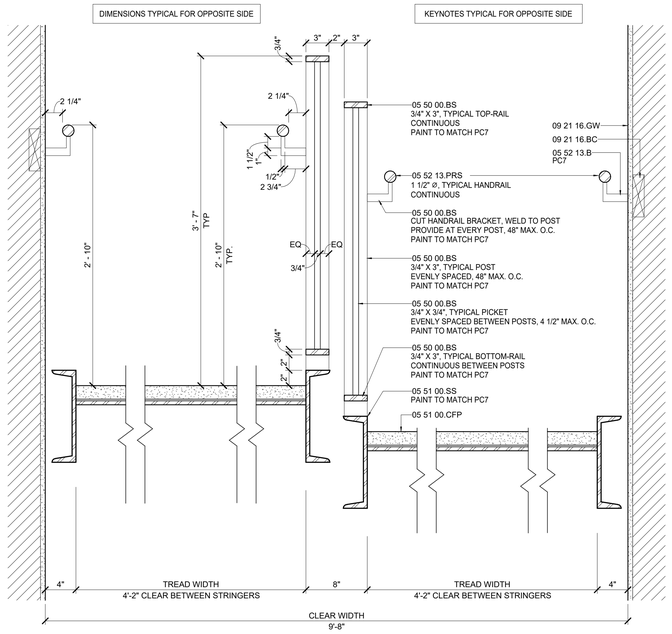


B1 STAIR B - FIRST FLOOR PLAN

0 4 8 FT

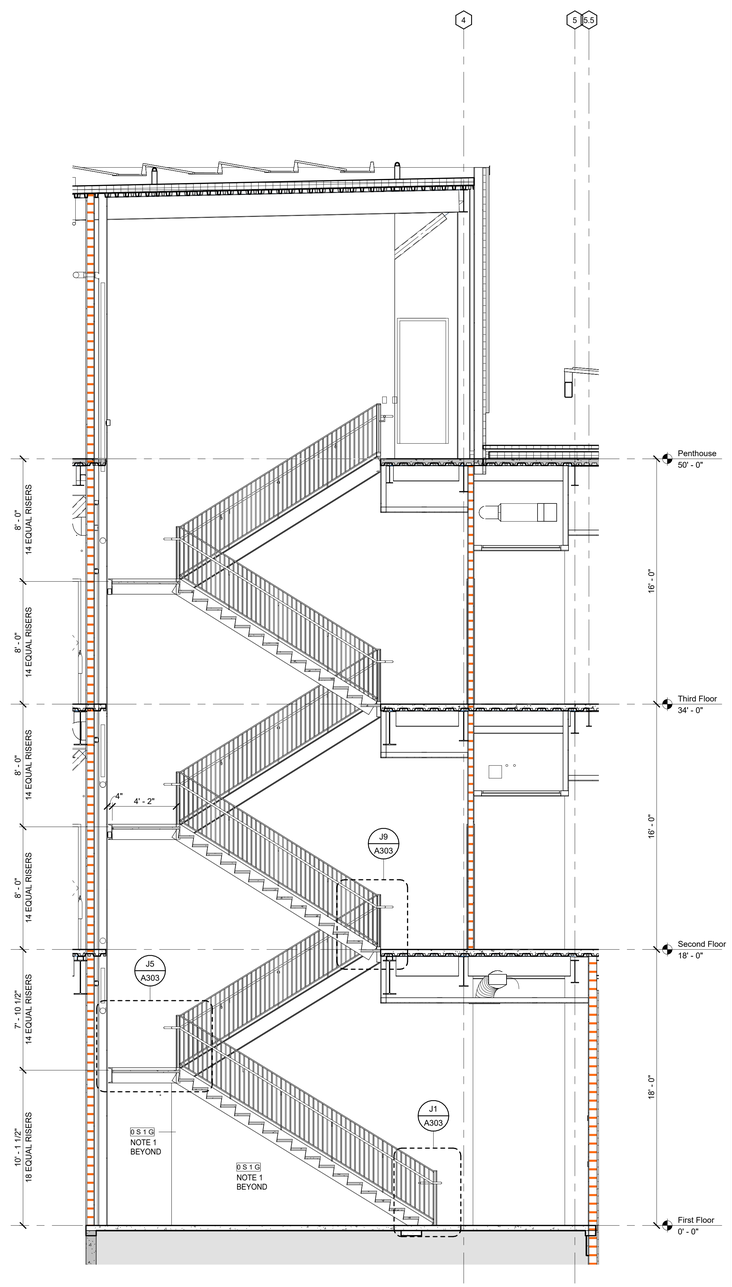
DIMENSIONS TYPICAL FOR OPPOSITE SIDE

KEYNOTES TYPICAL FOR OPPOSITE SIDE



B5 STAIR B TRANSVERSE SECTION DETAIL

0 1 2 FT



B13 STAIR B - SECTION

0 4 8 FT

MATERIAL KEYNOTES

05 50 00.BS	Bar, Square
05 51 00.CFP	Concrete-Filled Pan
05 51 00.SS	Steel Stringer
05 52 13.B	Handrail Bracket
05 52 13.PRS	Pipe Railing, Stainless Steel
09 21 16.BC	Blocking, Continuous
09 21 16.GW	Gypsum Wallboard
10 43 00.ECC	Evacuation Chair and Cabinet
10 44 00.DSR	Multi-Purpose FE And Semi-Recessed Cabinet

GENERAL NOTES

A. UNRATED PARTITION
B. 1-HOUR FIRE-RESISTANCE RATED FIRE BARRIER

C. DIMENSIONS PROVIDED ARE TO FACE OF FINISH UNLESS NOTED OTHERWISE.

D. INTERIOR STOREFRONT ELEVATIONS INDICATED AS (Sxx). SEE SHEET A602 FOR STOREFRONT ELEVATIONS.

E. SEE SHEET G021 FOR TYPICAL MOUNTING HEIGHTS OF WALL-MOUNTED EQUIPMENT AND DEVICES.

F. WHERE FIRE-RATED PARTITIONS EXTEND TO EXTERIOR WALLS, FIRE-RATED ASSEMBLY MUST BE CONTINUED TO INSIDE FACE OF SHEATING TYPICAL.

SHEET SPECIFIC NOTES

1. PARTITION FROM UNDERSIDE OF STAIR STRINGER TO FIRST FLOOR SLAB. EXTERIOR FACE OF FRAMING TO ALIGN WITH INTERIOR FACE OF STRINGER.

LORD AECK SARGENT

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REVISION

SHEET TITLE: VERTICAL CIRCULATION - STAIR B

SCALE (U.N.O.)

ARCHIVE: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, CERT. NO. 53851, NORTH CAROLINA, CHAPEL HILL

SEAL: Lauren Dunn Rockar, Registered Architect, 9674, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. A302

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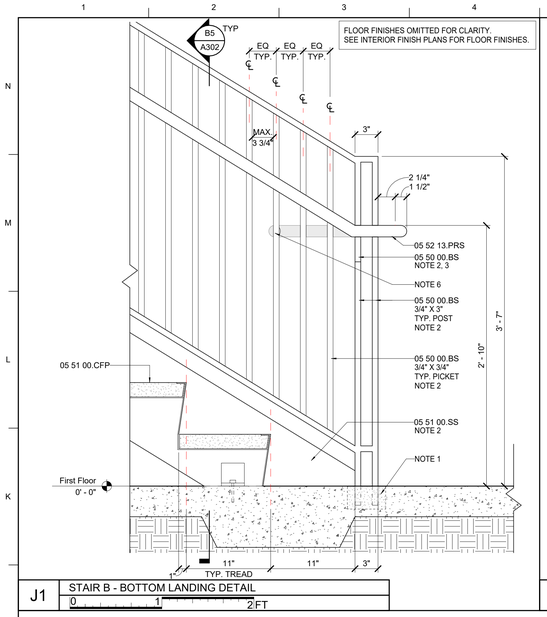
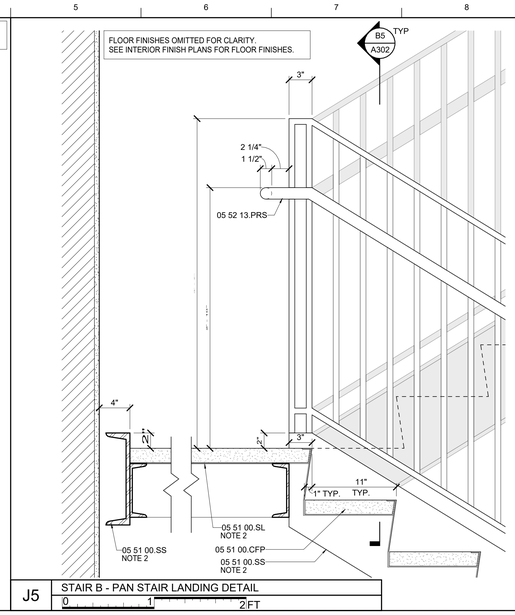


J1 STAIR B - BOTTOM LANDING DETAIL

0 1 2FT



J5 STAIR B - PAN STAIR LANDING DETAIL

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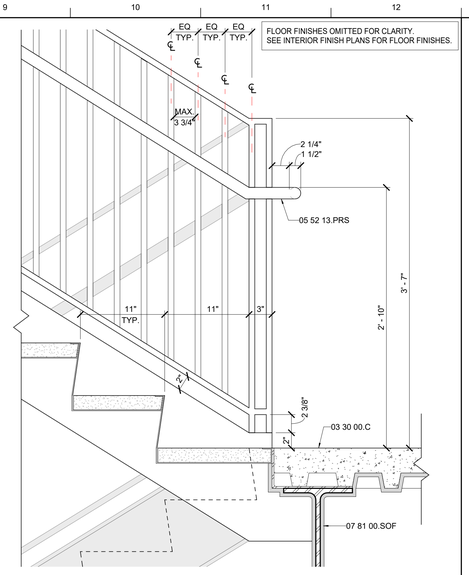

J9 STAIR B - ELEVATED SLAB LANDING DETAIL

0 1 2FT

KEYNOTES

03 30 00.C	Concrete
03 30 00.CS	Concrete Slab
05 50 00.BS	Bar, Square
05 51 00.CFP	Concrete-Filled Pan
05 51 00.SL	Metal Stair Landing
05 51 00.SP	Steel Plate
05 51 00.SS	Steel Stringer
05 52 13.PRS	Pipe Railing, Stainless Steel
07 81 00.SOF	Sprayed-On Fireproofing
07 92 00.JS	Joint Sealant
09 21 16.CF	Interior Ceiling Framing
09 21 16.CS	Interior Gypsum Ceiling/Soffit
09 21 16.GW	Gypsum Wallboard
09 65 00.RST2	Resilient Stair Tread/Riser 2
09 66 23.DS	Divider Strip
09 66 23.NSI	Non-Slip Inserts
09 66 23.PCT	Precast Terrazzo
09 66 23.PTR	Precast Terrazzo Tread and Riser
09 66 23.TZ	Terrazzo

GENERAL NOTES

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REVISION:

E1 STAIR A - TERRAZZO TO RUBBER TREAD TRANSITION

0 1 2FT

E9 STAIR A - RUBBER TREAD TO LANDING TRANSITION

0 1 2FT

E13 GUARD AND HAND RAIL TRANSITION AT LANDING

0 6 12 IN

SHEET SPECIFIC NOTES

1. SLEEVE / CORE & FILL WITH NON-SHRINK GROUT.
2. PAINT TO MATCH PC7.
3. CUT HANDRAIL BRACKET, WELD TO POST. PROVIDE AT EVERY POST, 48" MAX. O.C.
4. RETURN HANDRAIL TO TOP OF STAIR STRINGER AND WELD IN PLACE.
5. COORDINATE DIMENSION WITH THAT REQUIRED FOR RECESSED LIGHT FIXTURE AT ANGLED STAIR CEILINGS.
6. CAP RAILING AT EXPOSED END TYPICAL.
7. ALIGN SEAM OF RESILIENT STAIR TREADS AND LANDING WITH FACE OF STAIR STRINGER.
8. COPE STRINGER TO CLEAR PAN AT CENTER STRINGER.
9. CONNECT STRINGER BACK TO STRUCTURE.

A1 STAIR A - BOTTOM LANDING DETAIL

0 1 2FT

A5 STAIR A - MID LANDING DETAIL

0 1 2FT

A9 STAIR A - TOP LANDING DETAIL

0 1 2FT

A13 PRECAST TERRAZZO TREAD/RISER DETAIL

0 6 12 IN

JOB NAME	WAKE TECH COMMUNITY COLLEGE SCO ID # 21-23932-02A TECHNOLOGY 4.0 BUILDING 1150 Inspiration Circle, Wendell, NC 27591
SHEET TITLE	VERTICAL CIRCULATION - STAIR DETAILS
SCALE (UNO)	
ISSUE DATE	12/20/2023
JOB. NO.	11751-00
DWG. NO.	A303

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockett Registered Architect 9674 North Carolina Chapel Hill, NC 12-20-2023

LORD AECK SARGENT

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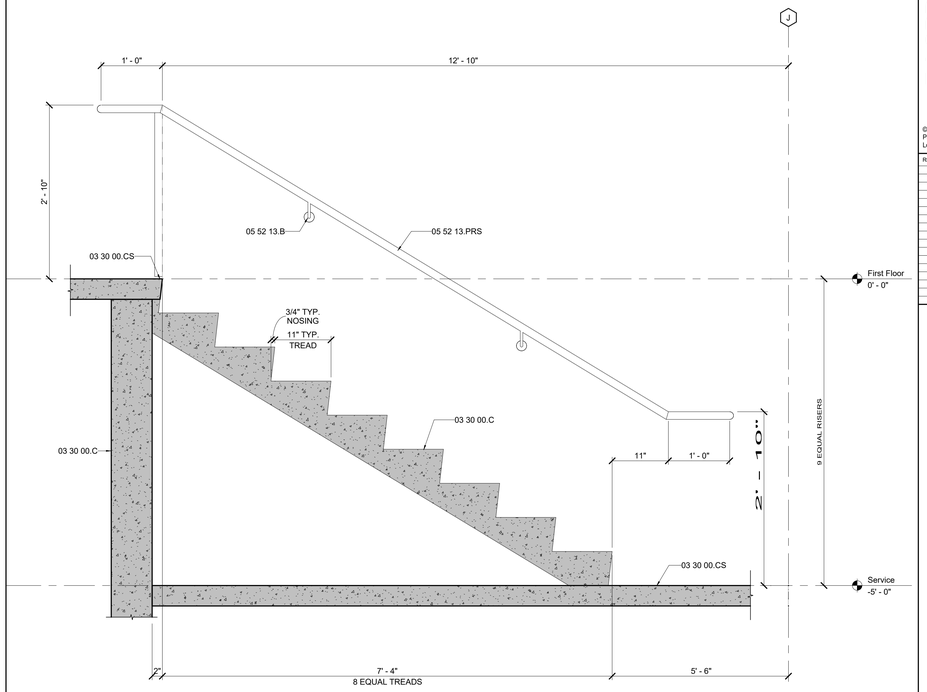
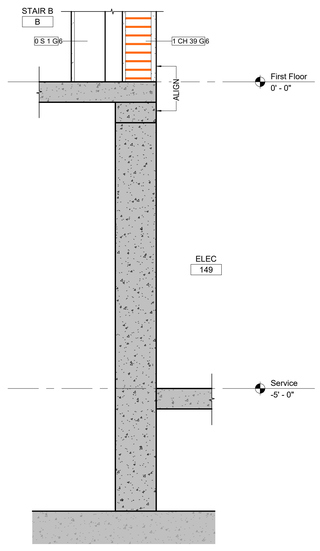
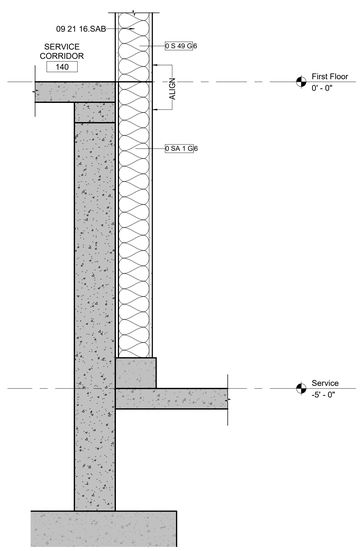


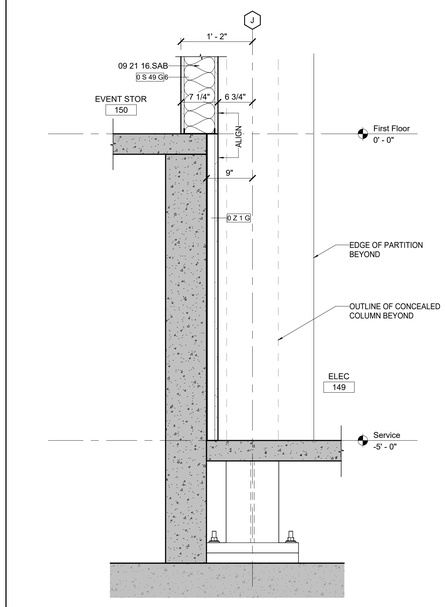
H12 SECTION AT SERVICE LEVEL STAIR



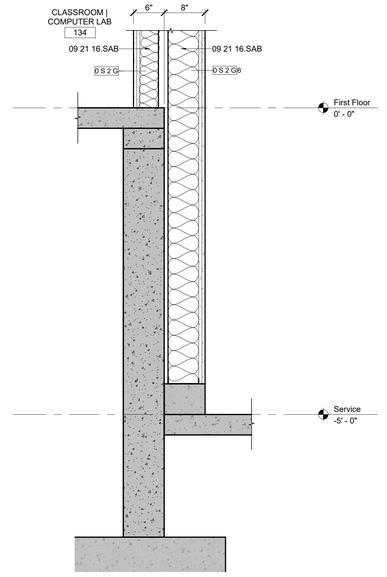
B5 EDGE OF SLAB DETAIL



B8 EDGE OF SLAB DETAIL



B12 EDGE OF SLAB DETAIL



B15 EDGE OF SLAB DETAIL

MATERIAL KEYNOTES

03 30 00.C	Concrete
03 30 00.CS	Concrete Slab
05 52 13.B	Handrail Bracket
05 52 13.PRS	Pipe Railing, Stainless Steel
09 21 16.SAB	Sound Attenuation Batt

GENERAL NOTES

SHEET SPECIFIC NOTES

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REVISION:

SHEET TITLE
VERTICAL CIRCULATION - SERVICE LEVEL
STAIR AND DETAILS

SCALE (U.N.O.) 0 1 2FT

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN NC CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL
Lauren Dunn Rocker
Registered Architect
North Carolina
Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
A304

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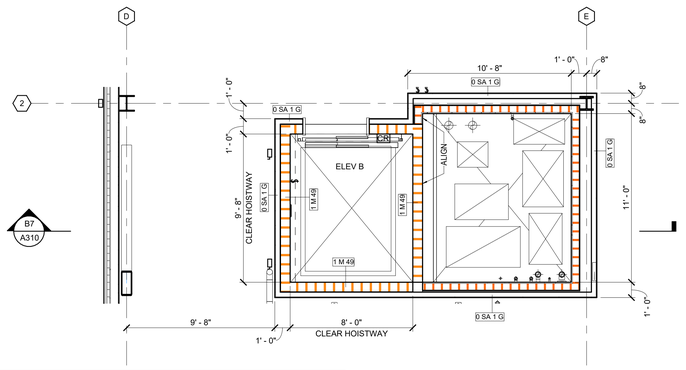
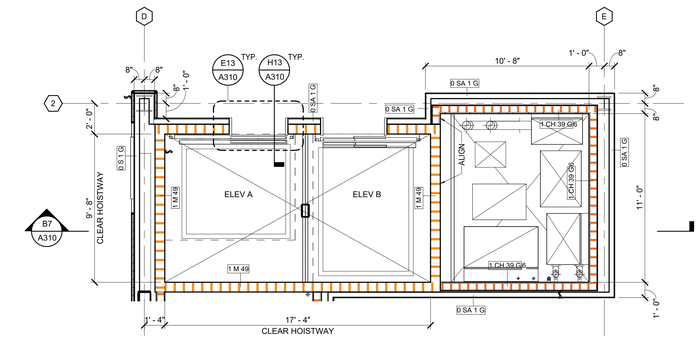
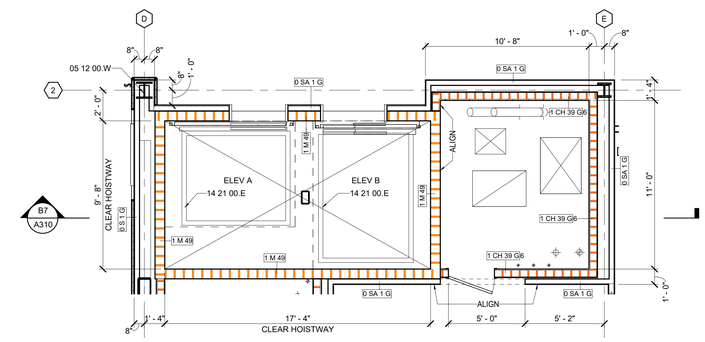


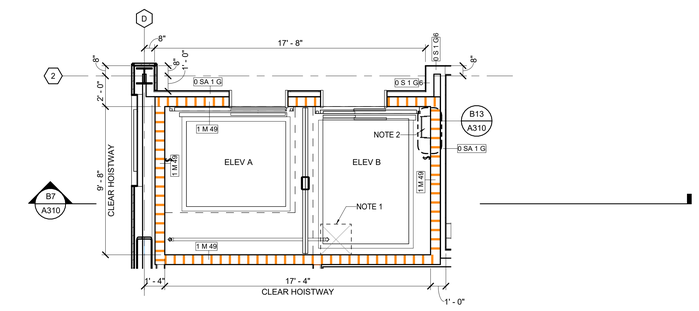
L1 PENTHOUSE - ELEVATOR AND SHAFT PLAN
0 4 8 FT



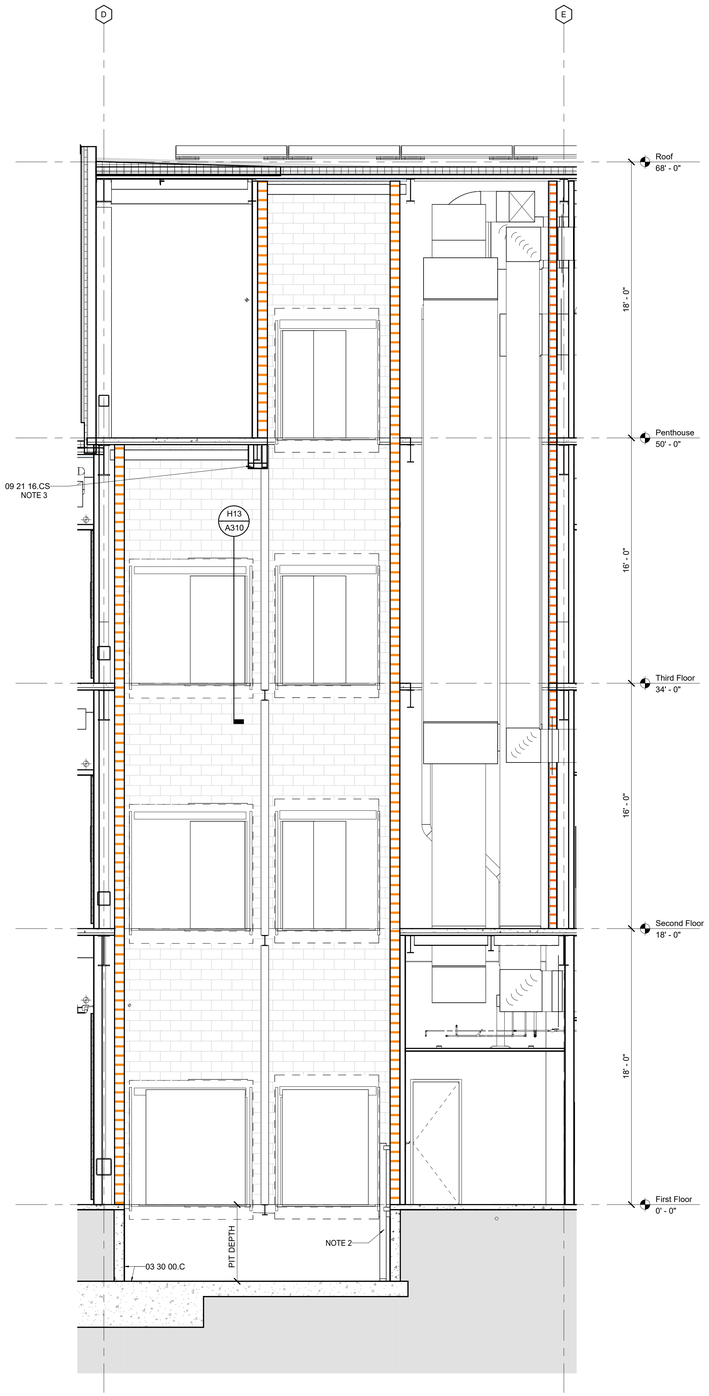
H1 THIRD FLOOR - ELEVATOR AND SHAFT PLAN
0 4 8 FT



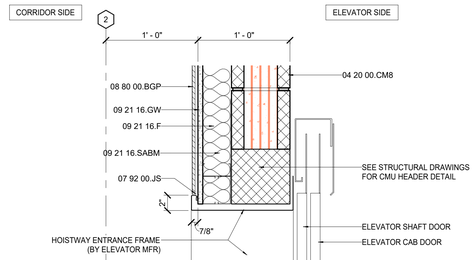
E1 SECOND FLOOR - ELEVATOR AND SHAFT PLAN
0 4 8 FT



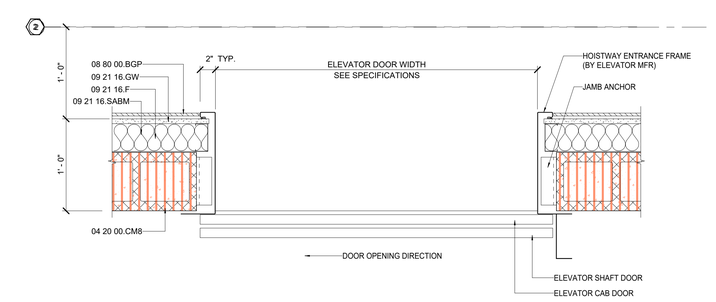
B1 FIRST FLOOR - ELEVATOR PLAN
0 4 8 FT



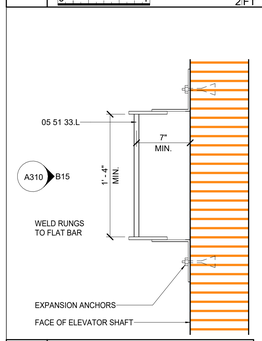
B7 ELEVATOR SECTION
0 4 8 FT



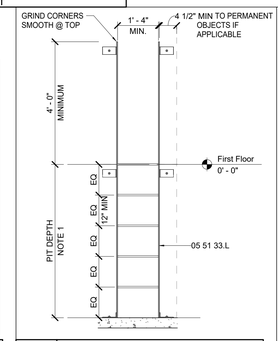
H13 ELEVATOR HEAD AND SILL DETAIL
0 1 2 FT



E13 TYPICAL ELEVATOR JAMB DETAIL
0 1 2 FT



B13 PIT LADDER PLAN DETAIL
0 1 2 FT



B15 PIT LADDER ELEVATION DETAIL
0 2 4 FT

MATERIAL KEYNOTES

03 30 00.C	Concrete	09 21 16.SABM	Mineral Fiber Batt
03 30 00.CS	Concrete Slab	14 21 00.E	Elevator
04 20 00.CM8	8" Concrete Masonry Units		
05 12 00.BP	Bent Plate		
05 12 00.W	W Shape		
05 50 00.W	W Shape		
05 51 33.L	Ladder		
07 81 00.SOF	Sprayed-On Fireproofing		
07 92 00.JS	Joint Sealant		
08 80 00.BGP	Backpainted Glass Panel		
09 21 16.CS	Interior Gypsum Ceiling/Soffit		
09 21 16.F	Framing		
09 21 16.GW	Gypsum Wallboard		

GENERAL NOTES

1. VERIFY HOISTWAY DIMENSIONS WITH APPROVED ELEVATOR MANUFACTURER.

SHEET SPECIFIC NOTES

1. SUMP PIT; FINAL LOCATION TO BE CONFIRMED WITH ELEVATOR MANUFACTURER.
2. PIT LADDER. COORDINATE FINAL LOCATION WITH APPROVED HOISTWAY LAYOUT.
3. GYPSUM BOARD ON METAL STUD COVERING FIREPROOFED BEAM.

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN INC
CERT. NO. 53851
NORTH CAROLINA
CHAPEL HILL

SEAL
Sebastian Dunn Rocker
Registered Architect
North Carolina
9914
Chapel Hill, NC
12-20-2023

LORD AECK SARGENT

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REVISION

SHEET TITLE
VERTICAL CIRCULATION - ELEVATORS

SCALE (U.N.O.)

PROJECT
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

ISSUE DATE
12/20/2023
JOB NO.
11751-00
DWG. NO.
A310

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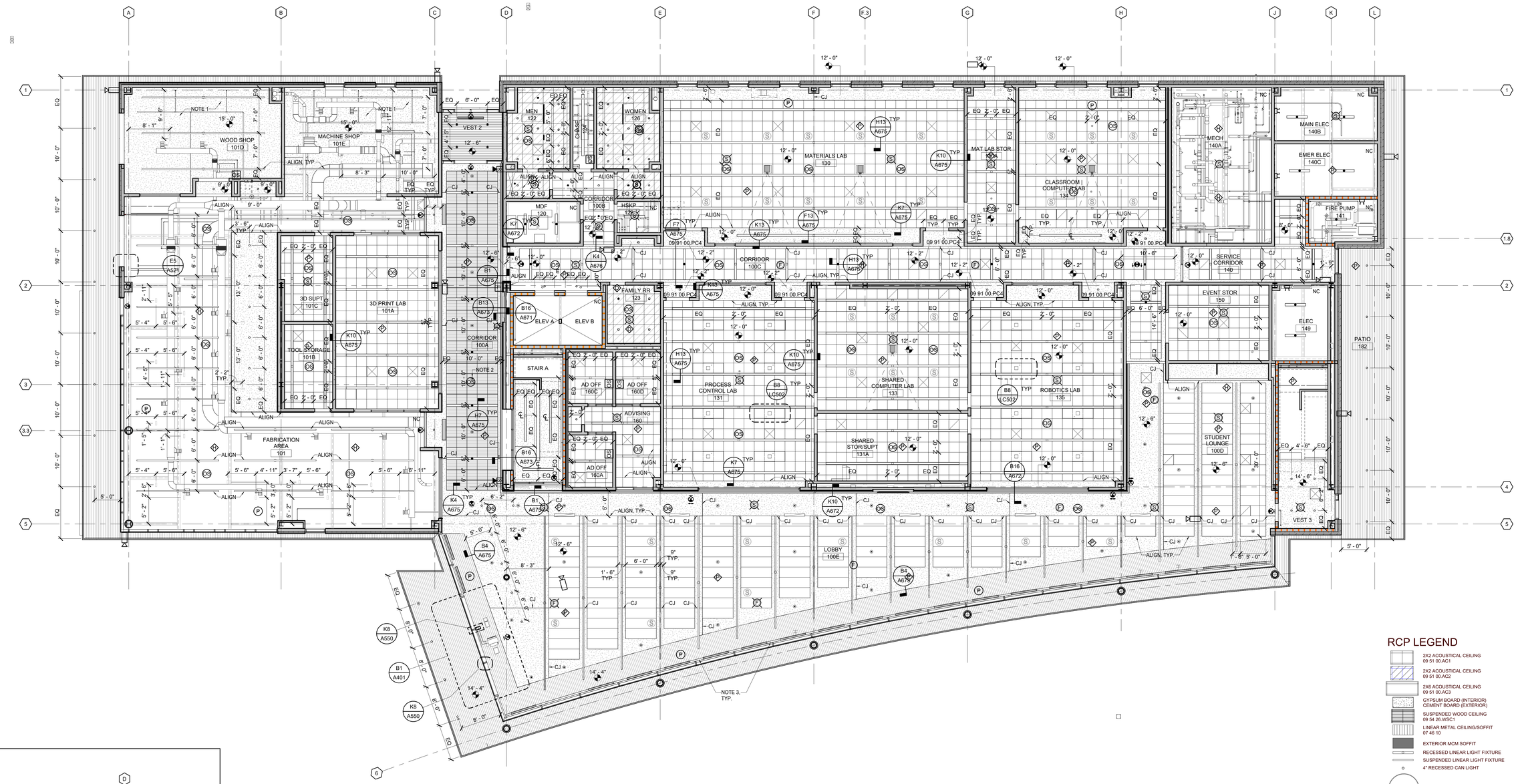

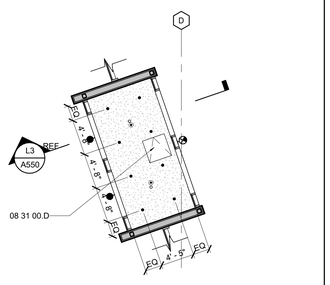

B1 VESTIBULE REFLECTED CEILING PLAN

B4 FIRST FLOOR REFLECTED CEILING PLAN

RCP LEGEND

- 2X2 ACOUSTICAL CEILING 09 51 00.AC1
- 2X2 ACOUSTICAL CEILING 09 51 00.AC2
- 2X6 ACOUSTICAL CEILING 09 51 00.AC3
- GYPSUM BOARD (INTERIOR) CEMENT BOARD (EXTERIOR)
- SUSPENDED WOOD CEILING 09 54 26.WSC1
- LINEAR METAL CEILING/SOFFIT 07 46 10
- EXTERIOR MCM SOFFIT
- RECESSED LINEAR LIGHT FIXTURE
- SUSPENDED LINEAR LIGHT FIXTURE
- 4" RECESSED CAN LIGHT
- CIRCLE PENDANT FIXTURE
- EXIT SIGN
- 24" X 24" SUPPLY DIFFUSER
- 24" X 24" RETURN REGISTER
- 24" X 24" EXHAUST REGISTER
- LINEAR SUPPLY DIFFUSER
- SPRINKLER HEAD
- EMERGENCY SHOWER
- FUME EXTRACTION DEVICE
- LOCAL EXHAUST CONNECTION
- OVERHEAD SERVICE CARRIER, BOTTOM AT 7'-6" AFF 12 35 53.OSC
- CANOPY EXHAUST HOOD
- POWER REEL
- HOSE REEL

MATERIAL KEYNOTES

08 31 00.D	Access Door
09 91 00.PC4	Paint Color 4

GENERAL NOTES

A. UNRATED PARTITION
B. 1-HOUR FIRE-RESISTANCE RATED FIRE BARRIER
C. 2-HOUR FIRE-RESISTANCE RATED FIRE BARRIER
D. CEILING HEIGHT SHALL BE 10'-0" AFF WHERE NOT NOTED OTHERWISE.
E. CEILING TYPE SHALL BE AC1 WHERE NOT NOTED OTHERWISE.
F. CEILING GRID STARTING POINT IS AT THE ROOM CENTER UNLESS DIMENSIONED OTHERWISE. STARTING POINT IS INDICATED AT THE TILE CORNER OR A TILE CENTERLINE.
G. CENTER ALL CEILING-MOUNTED DEVICES (RECESSED LIGHT FIXTURES, SMOKE DETECTORS, CAMERAS, SPRINKLERS, EXIT SIGNS, ETC.) ON CEILING TILE UNLESS NOTED OTHERWISE.
H. CENTER LIGHT FIXTURES IN ROOM UNLESS NOTED OTHERWISE.
I. CEILING-MOUNTED DEVICES INCLUDING MECHANICAL GRILLES, REGISTERS, AND DIFFUSERS, RECESSED LIGHT FIXTURE HOUSINGS, AND SPEAKERS ARE TO MATCH THE COLOR OF THE CEILING HOUSING THEM.
J. MECHANICAL AND ELECTRICAL SCOPE SHOWN FOR LOCATION AND COORDINATION WITH SURROUNDING CONSTRUCTION. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
K. NC = NO CEILING
L. CJ = CONTROL JOINT IN GYPSUM BOARD. PAINT TO MATCH CEILING.
M. WHERE SPRINKLER HEAD LOCATIONS ARE INDICATED IN PLAN, PROVIDE ADDITIONAL SPRINKLER HEADS AS NEEDED TO COMPLY WITH NFPA 13 AT NO ADDITIONAL COST.
N. DO NOT INSTALL WORK REQUIRING ACCESS ABOVE WOOD SLAT CEILINGS EXCEPT WHERE APPROVED IN WRITING BY DESIGNER DURING COORDINATION PROCESS.

SHEET SPECIFIC NOTES

1. PROVIDE ACOUSTICAL INSULATION FULL DEPTH OF CEILING FRAMING IN THIS ROOM.
2. FIELD CUT OPENINGS FOR SPRINKLER HEADS INTO CENTER SLATS AT SUSPENDED WOOD CEILING PER MANUFACTURER'S INSTALLATION INSTRUCTIONS, TYPICAL.
3. CONTINUOUS DIFFUSER GRILLE, SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

PROJECT NORTH

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, 9674, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE 12/20/2023
JOB. NO. 11751-00
DWG. NO. A401

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

SHEET TITLE: REFLECTED CEILING PLAN - FIRST FLOOR
SCALE (U.N.O.) 0 8 16 FT

LORD AECK SARGENT

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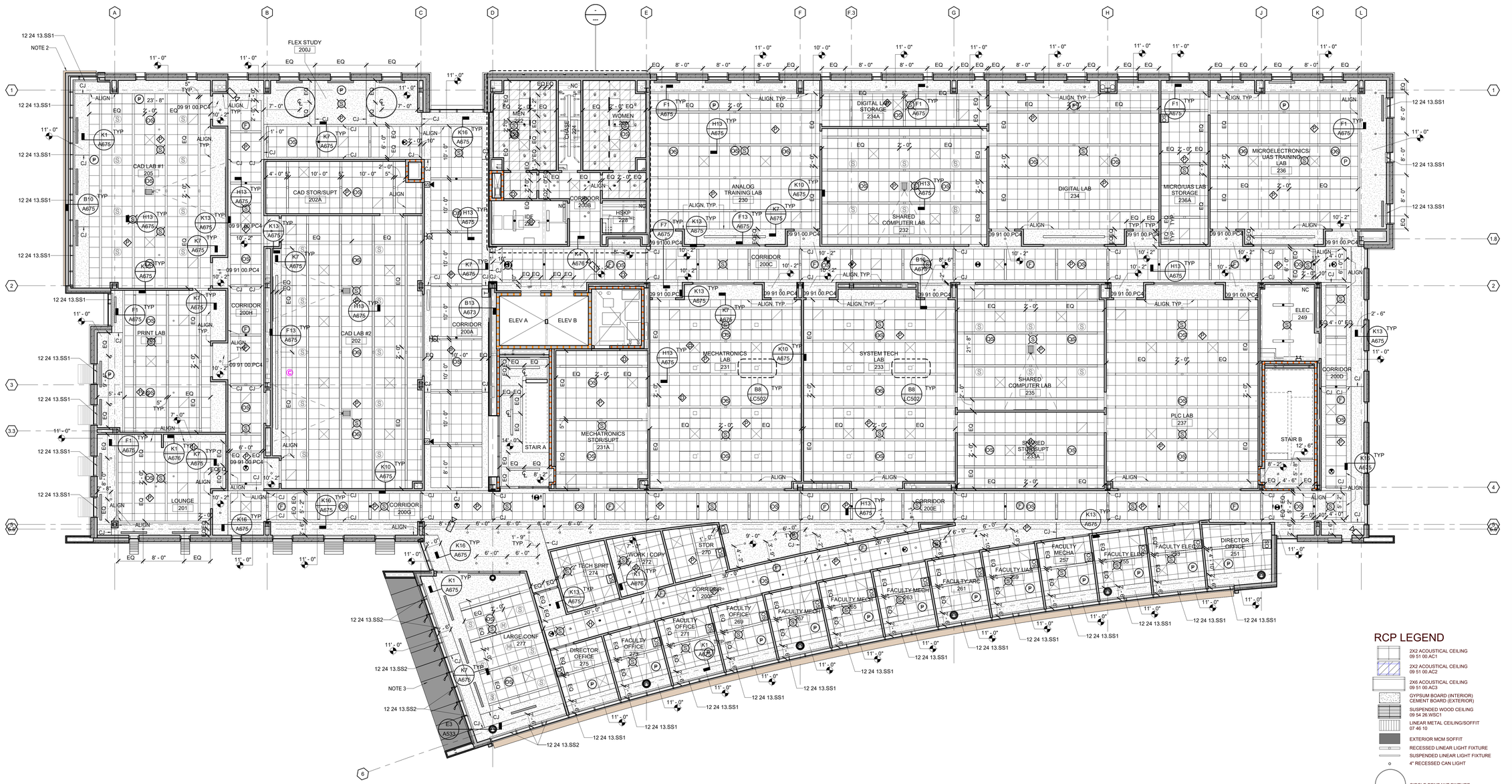

RCP LEGEND

- 2X2 ACOUSTICAL CEILING 09 51 00.AC1
- 2X2 ACOUSTICAL CEILING 09 51 00.AC2
- 2X6 ACOUSTICAL CEILING 09 51 00.AC3
- GYPSUM BOARD (INTERIOR) CEMENT BOARD (EXTERIOR)
- SUSPENDED WOOD CEILING 09 54 26.WSC1
- LINEAR METAL CEILING/SOFFIT 07 46 10
- EXTERIOR MCM SOFFIT
- RECESSED LINEAR LIGHT FIXTURE
- SUSPENDED LINEAR LIGHT FIXTURE
- 4" RECESSED CAN LIGHT
- CIRCLE PENDANT FIXTURE
- EXIT SIGN
- 24" X 24" SUPPLY DIFFUSER
- 24" X 24" RETURN REGISTER
- 24" X 24" EXHAUST REGISTER
- LINEAR SUPPLY DIFFUSER
- SPRINKLER HEAD
- EMERGENCY SHOWER
- FUME EXTRACTION DEVICE
- LOCAL EXHAUST CONNECTION
- OVERHEAD SERVICE CARRIER, BOTTOM AT 7'-6" AFF 12 35 53.OSC
- CANOPY EXHAUST HOOD
- POWER REEL
- HOSE REEL

B1 SECOND FLOOR REFLECTED CEILING PLAN

MATERIAL KEYNOTES

09 91 00.PC4	Paint Color 4
12 24 13.SS1	Shade System 1
12 24 13.SS2	Shade System 2

GENERAL NOTES

A. UNRATED PARTITION
B. 1-HOUR FIRE-RESISTANCE RATED FIRE BARRIER
C. 2-HOUR FIRE-RESISTANCE RATED FIRE BARRIER
D. CEILING HEIGHT SHALL BE 10'-0" AFF WHERE NOT NOTED OTHERWISE.
E. CEILING TYPE SHALL BE AC1 WHERE NOT NOTED OTHERWISE.
F. CEILING GRID STARTING POINT IS AT THE ROOM CENTER UNLESS DIMENSIONED OTHERWISE. STARTING POINT IS INDICATED AT THE TILE CORNER OR A TILE CENTERLINE.
G. CENTER ALL CEILING-MOUNTED DEVICES (RECESSED LIGHT FIXTURES, SMOKE DETECTORS, CAMERAS, SPRINKLERS, EXIT SIGNS, ETC.) ON CEILING TILE UNLESS NOTED OTHERWISE.
H. CENTER LIGHT FIXTURES IN ROOM UNLESS NOTED OTHERWISE.
I. CEILING-MOUNTED DEVICES INCLUDING MECHANICAL GRILLES, REGISTERS, AND DIFFUSERS, RECESSED LIGHT FIXTURE HOUSINGS, AND SPEAKERS ARE TO MATCH THE COLOR OF THE CEILING HOUSING THEM.
J. MECHANICAL AND ELECTRICAL SCOPE SHOWN FOR LOCATION AND COORDINATION WITH SURROUNDING CONSTRUCTION. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
K. NC = NO CEILING
L. CJ = CONTROL JOINT IN GYPSUM BOARD. PAINT TO MATCH CEILING.
M. WHERE SPRINKLER HEAD LOCATIONS ARE INDICATED IN PLAN, PROVIDE ADDITIONAL SPRINKLER HEADS AS NEEDED TO COMPLY WITH NFPA 13 AT NO ADDITIONAL COST.
N. DO NOT INSTALL WORK REQUIRING ACCESS ABOVE WOOD SLAT CEILINGS EXCEPT WHERE APPROVED IN WRITING BY DESIGNER DURING COORDINATION PROCESS.

SHEET SPECIFIC NOTES

1. OUTRIGGER SUN SHADE SYSTEM, TYP.
2. EXTRUDED ALUMINUM BLADE SUNSHADE SYSTEM, TYP.
3. SLOPED SOFFIT.

PROJECT NORTH

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN NC CERT. NO. 53851 CHAPEL HILL NORTH CAROLINA

SEAL: Lauren Dunn Rockar, Registered Architect, 9674, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE 12/20/2023
JOB. NO. 11751-00
DWG. NO. A402

NOT FOR CONSTRUCTION

SHEET TITLE: REFLECTED CEILING PLAN - SECOND FLOOR
SCALE (U.N.O.) 0 8 16 FT

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

LORD AECK SARGENT

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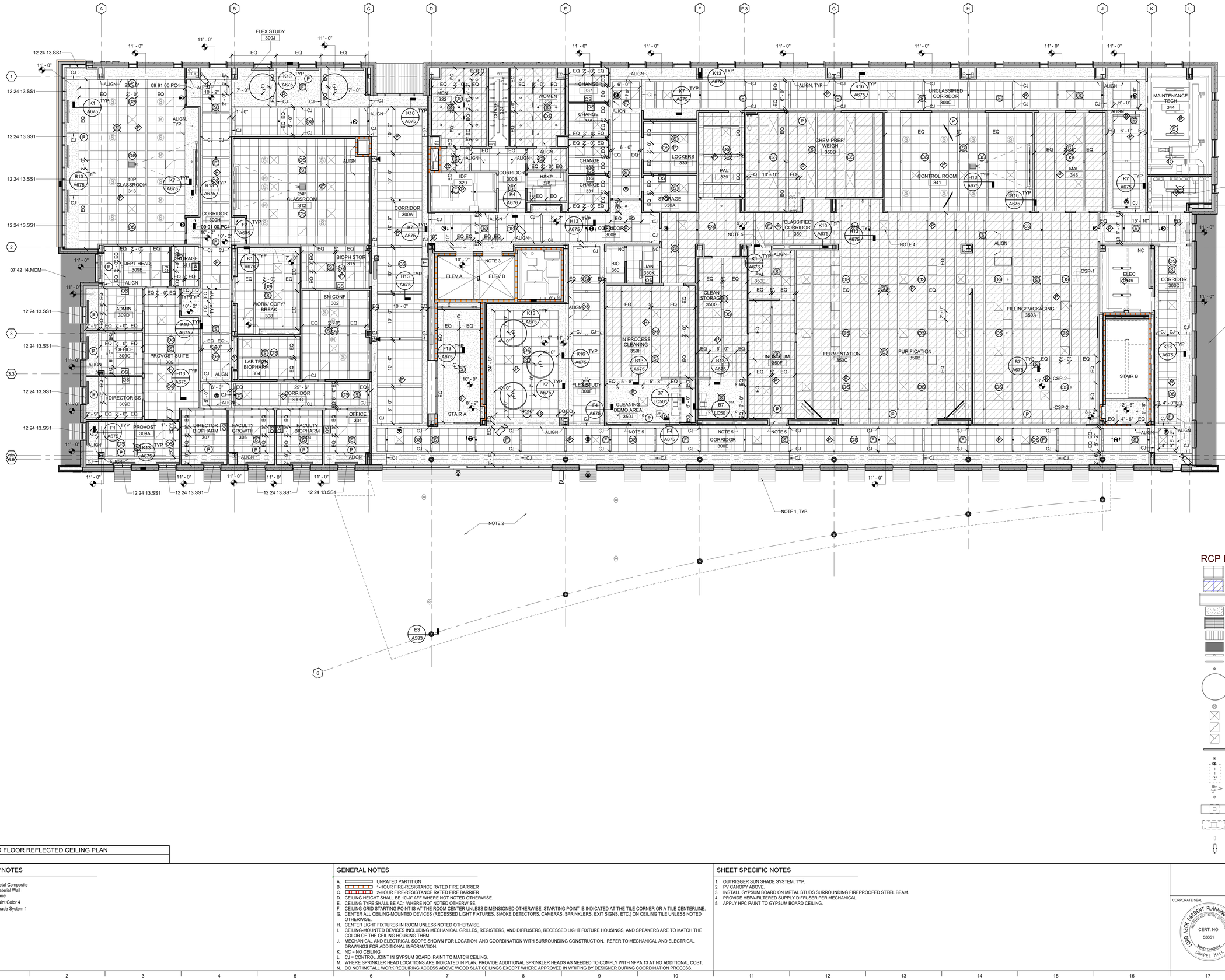

RCP LEGEND

- 2X2 ACOUSTICAL CEILING 09 51 00.AC1
- 2X2 ACOUSTICAL CEILING 09 51 00.AC2
- 2X6 ACOUSTICAL CEILING 09 51 00.AC3
- GYPSUM BOARD (INTERIOR) CEMENT BOARD (EXTERIOR)
- SUSPENDED WOOD CEILING 09 54 26.WSC1
- LINEAR METAL CEILING/SOFFIT 07 46 10
- EXTERIOR MCM SOFFIT
- RECESSED LINEAR LIGHT FIXTURE
- SUSPENDED LINEAR LIGHT FIXTURE
- 4" RECESSED CAN LIGHT
- CIRCLE PENDANT FIXTURE
- EXIT SIGN
- 24" X 24" SUPPLY DIFFUSER
- 24" X 24" RETURN REGISTER
- 24" X 24" EXHAUST REGISTER
- LINEAR SUPPLY DIFFUSER
- SPRINKLER HEAD
- EMERGENCY SHOWER
- FUME EXTRACTION DEVICE
- LOCAL EXHAUST CONNECTION
- OVERHEAD SERVICE CARRIER, BOTTOM AT 7'-6" AFF 12 35 53.OSC
- CANOPY EXHAUST HOOD
- POWER REEL
- HOSE REEL

B1 THIRD FLOOR REFLECTED CEILING PLAN

MATERIAL KEYNOTES

07 42 14.MCM	Metal Composite Material Wall Panel
09 91 00.PC4	Paint Color 4
12 24 13.SS1	Shade System 1

GENERAL NOTES

A. UNRATED PARTITION
B. 1-HOUR FIRE-RESISTANCE RATED FIRE BARRIER
C. 2-HOUR FIRE-RESISTANCE RATED FIRE BARRIER
D. CEILING HEIGHT SHALL BE 10'-0" AFF WHERE NOT NOTED OTHERWISE.
E. CEILING TYPE SHALL BE AC1 WHERE NOT NOTED OTHERWISE.
F. CEILING GRID STARTING POINT IS AT THE ROOM CENTER UNLESS DIMENSIONED OTHERWISE. STARTING POINT IS INDICATED AT THE TILE CORNER OR A TILE CENTERLINE.
G. CENTER ALL CEILING-MOUNTED DEVICES (RECESSED LIGHT FIXTURES, SMOKE DETECTORS, CAMERAS, SPRINKLERS, EXIT SIGNS, ETC.) ON CEILING TILE UNLESS NOTED OTHERWISE.
H. CENTER LIGHT FIXTURES IN ROOM UNLESS NOTED OTHERWISE.
I. CEILING-MOUNTED DEVICES INCLUDING MECHANICAL GRILLES, REGISTERS, AND DIFFUSERS, RECESSED LIGHT FIXTURE HOUSINGS, AND SPEAKERS ARE TO MATCH THE COLOR OF THE CEILING HOUSING THEM.
J. MECHANICAL AND ELECTRICAL SCOPE SHOWN FOR LOCATION AND COORDINATION WITH SURROUNDING CONSTRUCTION. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
K. NC = NO CEILING
L. CJ = CONTROL JOINT IN GYPSUM BOARD. PAINT TO MATCH CEILING.
M. WHERE SPRINKLER HEAD LOCATIONS ARE INDICATED IN PLAN, PROVIDE ADDITIONAL SPRINKLER HEADS AS NEEDED TO COMPLY WITH NFPA 13 AT NO ADDITIONAL COST.
N. DO NOT INSTALL WORK REQUIRING ACCESS ABOVE WOOD SLAT CEILINGS EXCEPT WHERE APPROVED IN WRITING BY DESIGNER DURING COORDINATION PROCESS.

SHEET SPECIFIC NOTES

1. OUTRIGGER SUN SHADE SYSTEM, TYP.
2. PV CANOPY ABOVE.
3. INSTALL GYPSUM BOARD ON METAL STUDS SURROUNDING FIREPROOFED STEEL BEAM.
4. PROVIDE HEPA-FILTERED SUPPLY DIFFUSER PER MECHANICAL.
5. APPLY HPC PAINT TO GYPSUM BOARD CEILING.

PROJECT NORTH

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rocker, Registered Architect, North Carolina, Chapel Hill, NC, 9974, 12-20-2023

ISSUE DATE 12/20/2023
JOB NO. 11751-00
DWG. NO. A403

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

SHEET TITLE: REFLECTED CEILING PLAN - THIRD FLOOR

SCALE (U.N.O.) 0 8 16 FT

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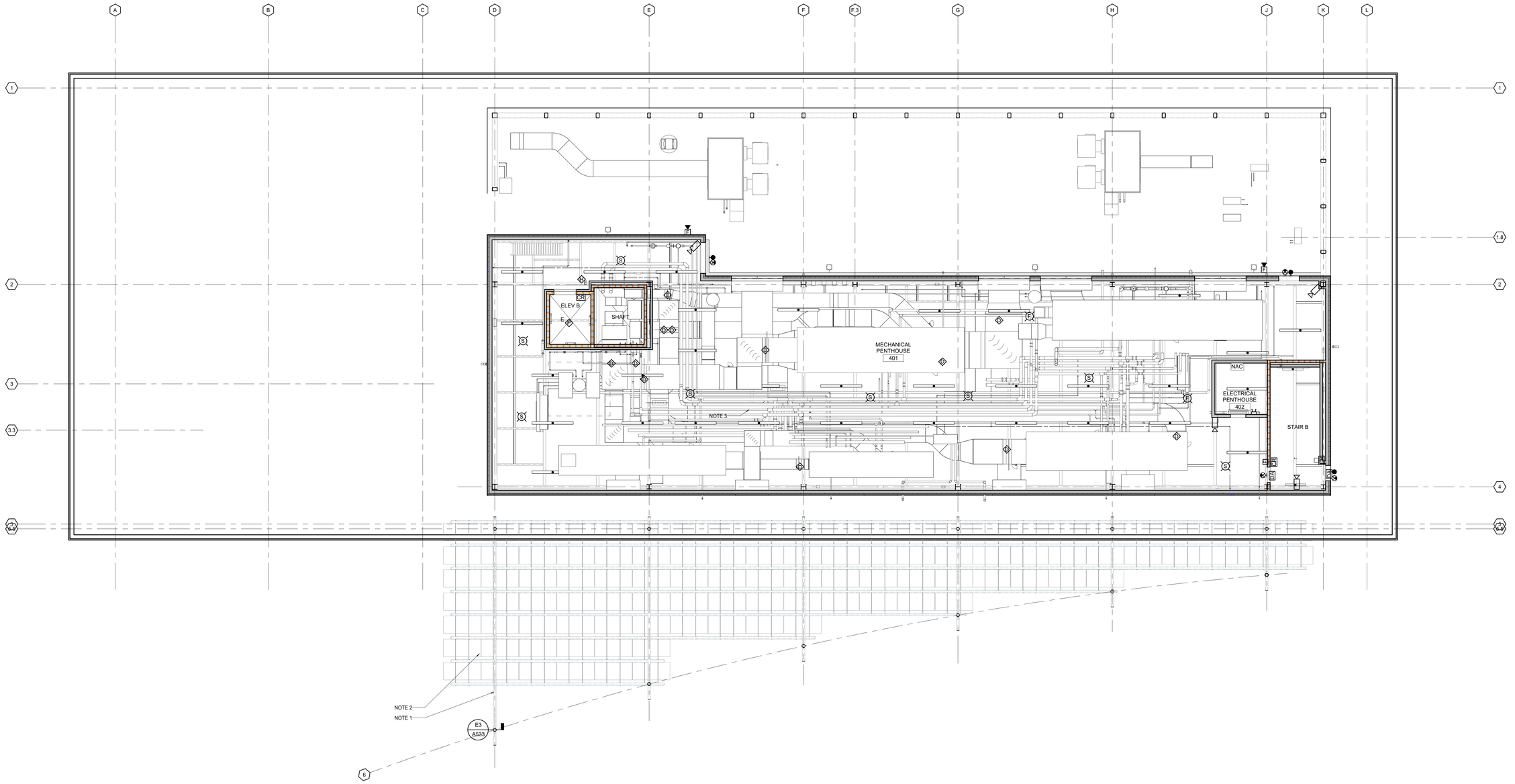

B1 PENTHOUSE REFLECTED CEILING PLAN

MATERIAL KEYNOTES

GENERAL NOTES

A. UNRATED PARTITION
B. 1-HOUR FIRE-RESISTANCE RATED FIRE BARRIER
C. 2-HOUR FIRE-RESISTANCE RATED FIRE BARRIER
D. CEILING HEIGHT SHALL BE 10'-0" AFF WHERE NOT NOTED OTHERWISE.
E. CEILING TYPE SHALL BE AC1 WHERE NOT NOTED OTHERWISE.
F. CEILING GRID STARTING POINT IS AT THE ROOM CENTER UNLESS DIMENSIONED OTHERWISE. STARTING POINT IS INDICATED AT THE TILE CORNER OR A TILE CENTERLINE.
G. CENTER ALL CEILING-MOUNTED DEVICES (RECESSED LIGHT FIXTURES, SMOKE DETECTORS, CAMERAS, SPRINKLERS, EXIT SIGNS, ETC.) ON CEILING TILE UNLESS NOTED OTHERWISE.
H. CENTER LIGHT FIXTURES IN ROOM UNLESS NOTED OTHERWISE.
I. CEILING-MOUNTED DEVICES INCLUDING MECHANICAL GRILLES, REGISTERS, AND DIFFUSERS, RECESSED LIGHT FIXTURE HOUSINGS, AND SPEAKERS ARE TO MATCH THE COLOR OF THE CEILING HOUSING THEM.
J. MECHANICAL AND ELECTRICAL SCOPE SHOWN FOR LOCATION AND COORDINATION WITH SURROUNDING CONSTRUCTION. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
K. NC = NO CEILING
L. CJ = CONTROL JOINT IN GYPSUM BOARD. PAINT TO MATCH CEILING.
M. WHERE SPRINKLER HEAD LOCATIONS ARE INDICATED IN PLAN, PROVIDE ADDITIONAL SPRINKLER HEADS AS NEEDED TO COMPLY WITH NFPA 13 AT NO ADDITIONAL COST.
N. DO NOT INSTALL WORK REQUIRING ACCESS ABOVE WOOD SLAT CEILINGS EXCEPT WHERE APPROVED IN WRITING BY DESIGNER DURING COORDINATION PROCESS.

SHEET SPECIFIC NOTES

1. STRUCTURAL STEEL AT PV CANOPY: COLUMNS RECIEVE 1-HR SPRAY APPLIED FIREPROOFING AND MCM COLUMN COVERS; HORIZONTAL STEEL RECIEVES 1-HR INTUMESCENT PAINT.
2. PV PANELS.
3. STRUCTURAL FRAMING ABOVE.

PROJECT NORTH

CORPORATE SEAL

LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL

Lauren Dunn Rockar Registered Architect 19174 North Carolina Chapel Hill, NC

12-20-2023

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LordAeckSargent.com

REVISION:

SHEET TITLE
REFLECTED CEILING PLAN - PENTHOUSE

SCALE (U.N.O.)
0 8 16 FT

PROJECT
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

ISSUE DATE
12/20/2023

JOB. NO.
11751-00

DWG. NO.
A404

NOT FOR CONSTRUCTION

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/Central_11751-00_v22.rvt
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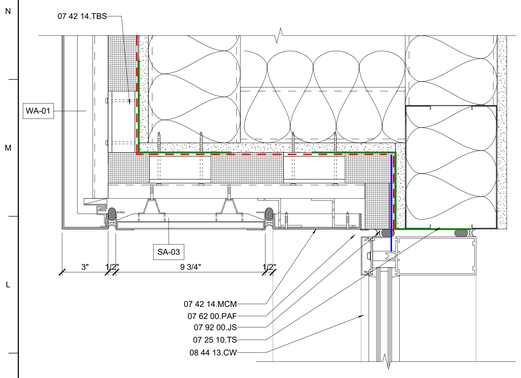
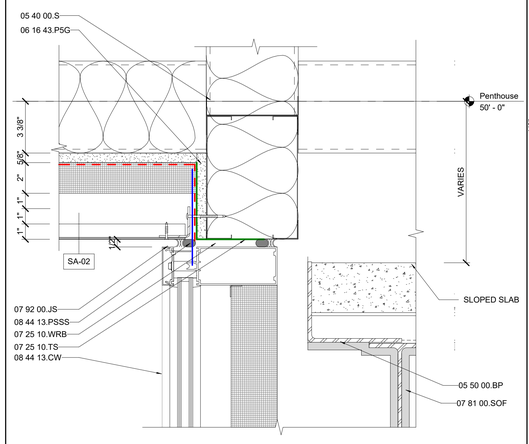
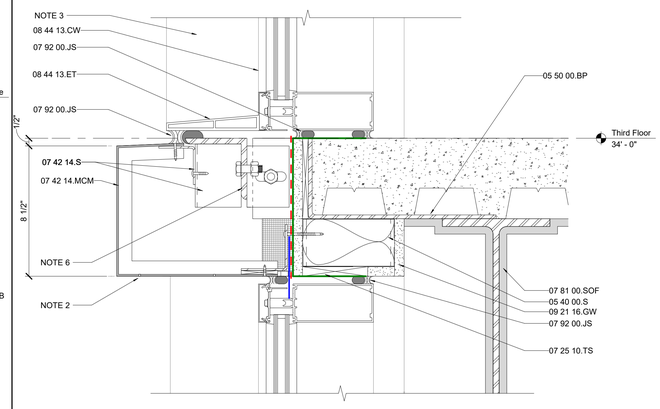


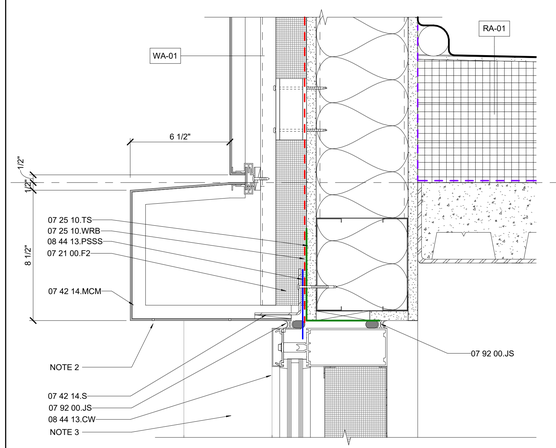
K1 SECTION DETAIL - CURTAIN WALL HEAD



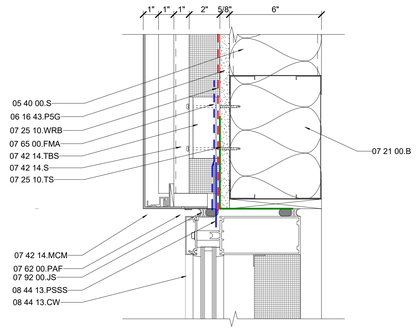
K5 SECTION DETAIL - CURTAIN WALL HEAD @ ROOF SOFFIT



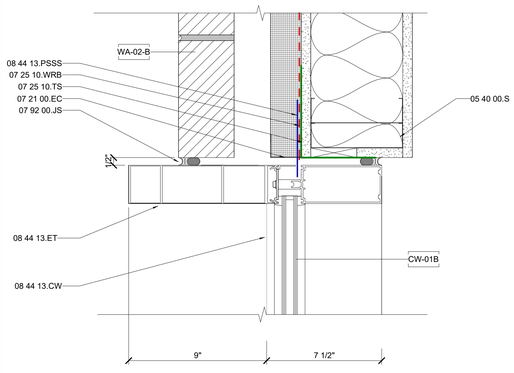
K9 SECTION - CURTAIN WALL SILL



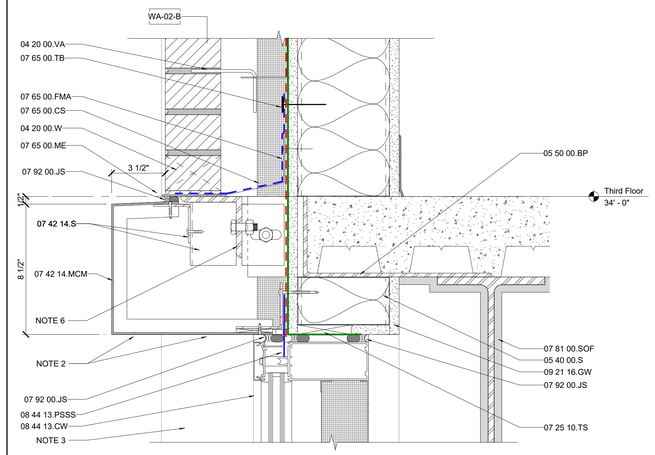
K14 SECTION - CURTAIN WALL HEAD AT MCM



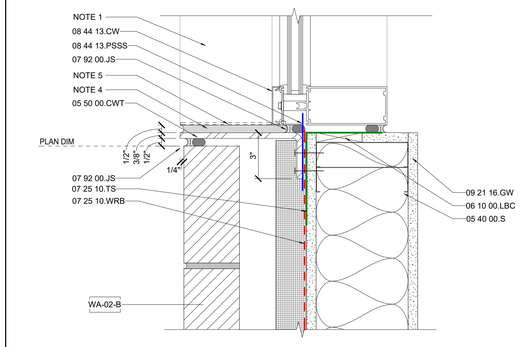
F1 SECTION DETAIL - CURTAIN WALL HEAD AT MCM



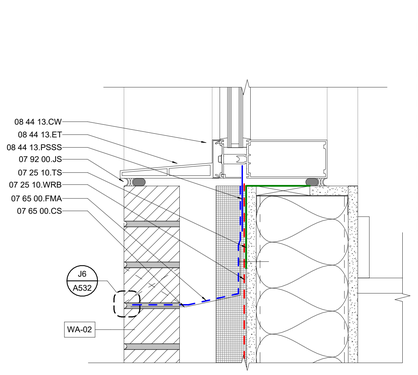
F5 PLAN - JAMB AT BRICK W/ EXTRUDED TRIM



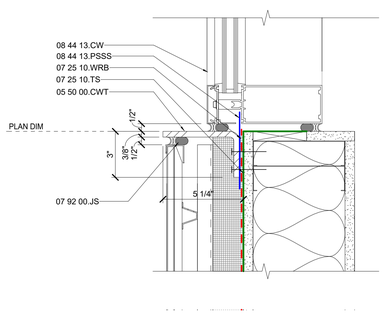
F9 SECTION - CURTAIN WALL HEAD AT BRICK



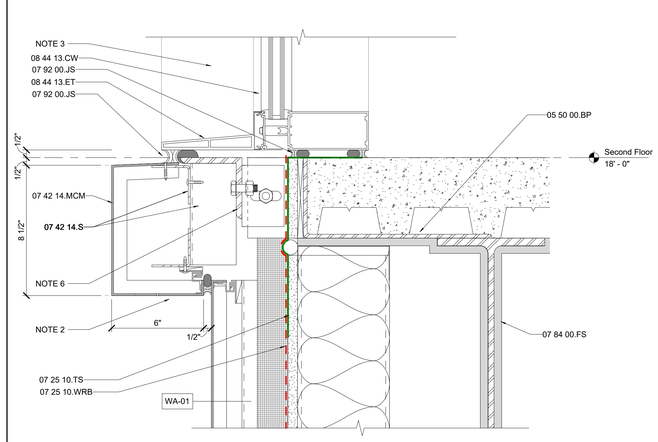
F14 PLAN - JAMB AT BRICK



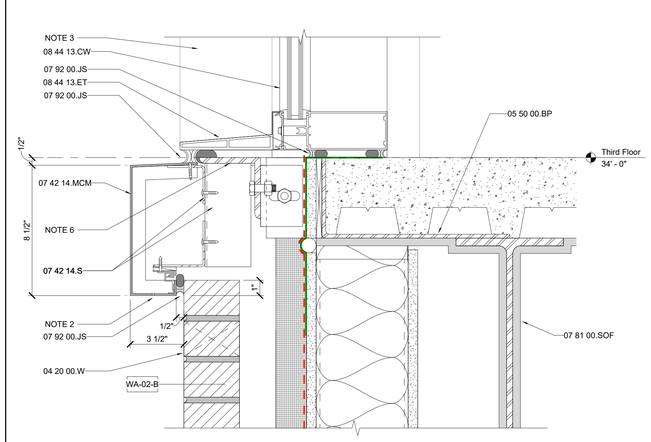
B1 SECTION - SILL AT BRICK



B5 PLAN - JAMB AT LINEAR METAL WALL PANEL



B9 SECTION - CURTAIN WALL SILL AT LEVEL 2



B14 SECTION - CURTAIN WALL SILL

MATERIAL KEYNOTES

04 20 00.VA	Veneer Anchors	07 42 14.S	Subgirt	08 44 13.PSSS	Preformed Silicone Sheet Seal
04 20 00.W	Weeps	07 42 14.TBS	Thermal Break Support	09 21 16.GW	Gypsum Wallboard
05 40 00.S	Stud	07 62 00.PAF	Pre-Finished Aluminum Sheet Metal Flashing		
05 50 00.BP	Bent Plate	07 65 00.CS	Carrier Sheet		
05 50 00.CWT	Curtain Wall Trim	07 65 00.FMA	Flashing, Modified Asphalt		
06 10 00.LBC	Blocking, Continuous	07 65 00.ME	Metal Edge		
06 16 43.P5G	5/8" Gypsum Sheathing	07 65 00.TB	Termination Bar		
07 21 00.B	Batt Insulation	07 81 00.SOF	Sprayed-On Fireproofing		
07 21 00.EC	Edge Closure Channel	07 84 00.FS	Firestopping		
07 21 00.F2	2" Fiber Board Insulation	07 92 00.JS	Joint Sealant		
07 25 10.TS	Transition Sheet	08 44 13.CW	Curtain wall		
07 25 10.WRB	Weather-Resistant Barrier	08 44 13.ET	Extruded Trim		
07 42 14.MCM	Metal Composite Material Wall Panel				

GENERAL NOTES

A. SEE G20X SERIES FOR EXTERIOR ASSEMBLIES.
B. SEAL ALL UPWARD-FACING JOINTS IN MCM PANELS WITH SPECIFIED SEALANT; CONTINUE SEALANT DOWN VERTICAL FACE OF PANEL TO NEXT CHANGE IN PLANE.

SHEET SPECIFIC NOTES

1. EXTRUDED TRIM SILL BELOW, TYPICAL.
2. WEEP HOLES W/ SHOP APPLIED WEEP BLOCK TYPICAL.
3. CURTAIN WALL TRIM JAMB BEYOND.
4. JOINT SEALANT BELOW.
5. PROVIDE ALUMINUM CLOSURE PLATE AT EXTRUDED TRIM SILL.
6. RELIEVING ANGLE; SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

LORD AECK SARGENT

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REVISION

SHEET TITLE: TYPICAL FLASHING DETAILS

SCALE (U.N.O.): 0 6 12 IN

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, 9674, North Carolina, Chapel Hill, NC, 12·20·2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A511

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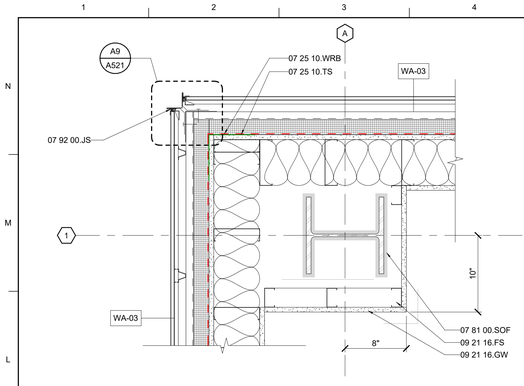
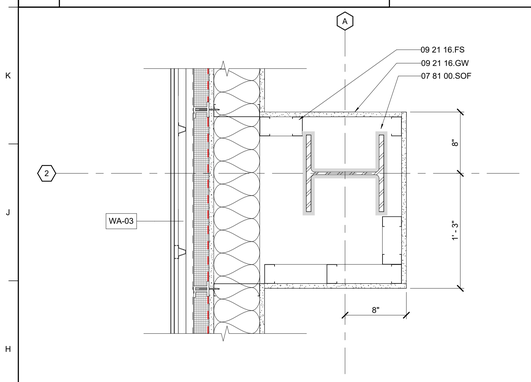
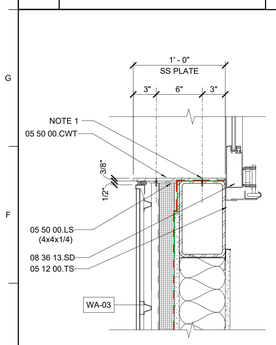


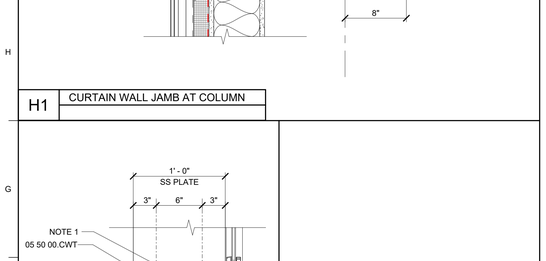
L1 TYPICAL COLUMN SURROUND AT EXT WALL



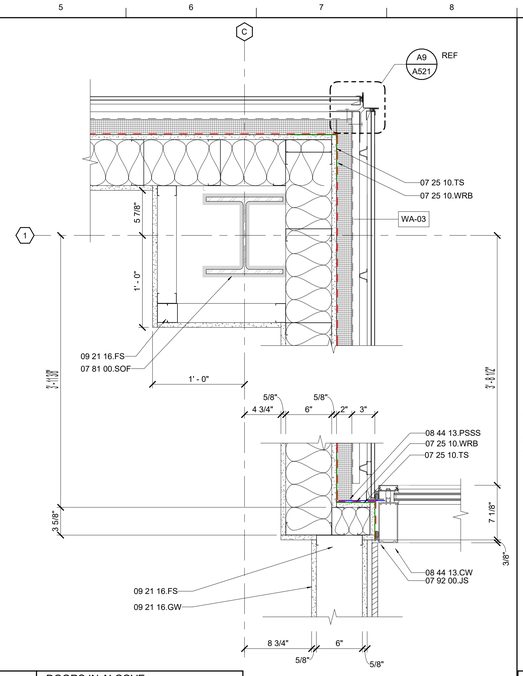
H1 CURTAIN WALL JAMB AT COLUMN



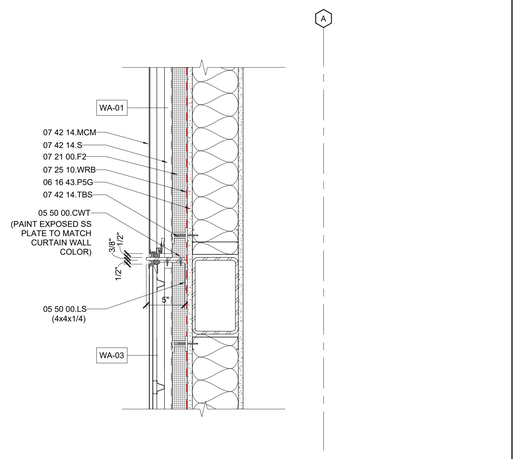
E1 SECTIONAL DOOR JAMB



A1 CURTAIN WALL CORNER

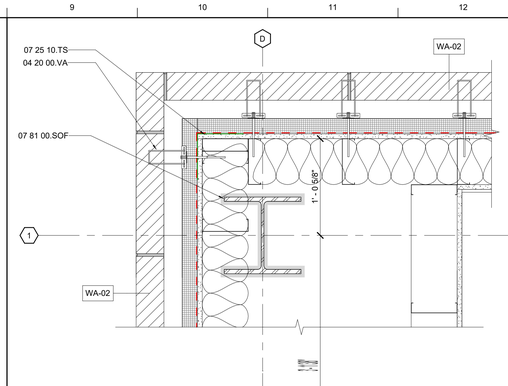


J5 DOORS IN ALCOVE

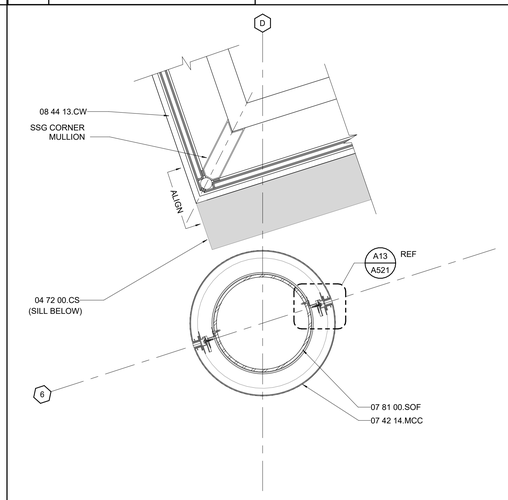


E5 PLAN DETAIL - ABOVE SEGMENTED DOOR JAMB

A5 ANGLED CORNER AT CURTAIN WALL



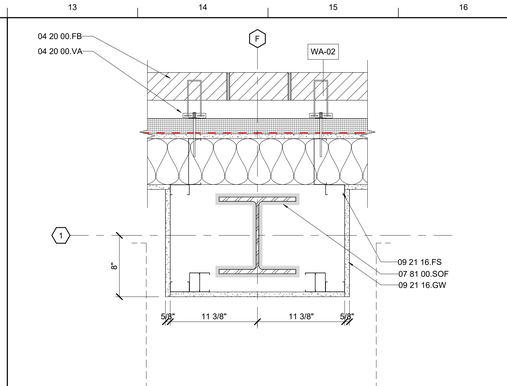
J9 DOORS IN ALCOVE



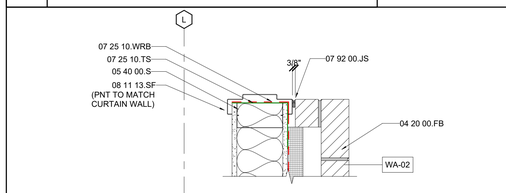
E9 COLUMN AT GRID D-6

A9 PLAN DETAIL - LINEAR METAL SIDING CORNER

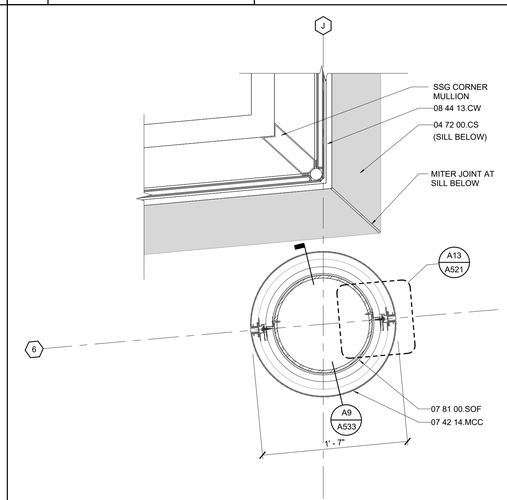
0 3 6 IN



L13 TYPICAL COLUMN SURROUND AT EXT WALL



J13 EXTERIOR DOOR



E13 COLUMN AT J-6

M13 MCM COLUMN COVER

0 3 6 IN

KEYNOTES

04 20 00.FB	Face Brick
04 20 00.VA	Veneer Anchors
04 72 00.CS	Cast Stone
05 12 00.SP	Steel Pipe
05 12 00.TS	Structural Tubing
05 40 00.S	Stud
05 40 00.Z	Z-Furring
05 50 00.CWT	Curtain Wall Trim
05 50 00.LS	Angle, Stainless Steel
06 16 43.P5G	5/8" Gypsum Sheathing
07 21 00.F2	2" Fiber Board Insulation
07 25 10.TS	Transition Sheet
07 25 10.WRB	Weather-Resistant Barrier
07 42 14.MCC	Metal Composite Material Column Cover
07 42 14.MCM	Metal Composite Material Wall Panel
07 42 14.S	Subgirt
07 42 14.TBS	Thermal Break Support
07 46 10.LMS	Linear Metal Soffit
07 62 00.PAF	Pre-Finished Aluminum Sheet Metal Flashing
07 81 00.SOF	Sprayed-On Fireproofing
07 92 00.JS	Joint Sealant
08 11 13.SF	Steel Frame
08 36 13.SD	Sectional Door
08 44 13.CW	Curtain wall
08 44 13.PSSS	Preformed Silicone Sheet Seal
09 21 16.FS	Metal Stud
09 21 16.GW	Gypsum Wallboard
09 27 00.CC3	Column Cover, 19" Diameter

GENERAL NOTES

A. SEE G20X SERIES FOR EXTERIOR ASSEMBLIES.
B. SEAL ALL UPWARD-FACING JOINTS IN MCM PANELS WITH SPECIFIED SEALANT; CONTINUE SEALANT DOWN VERTICAL FACE OF PANEL TO NEXT CHANGE IN PLANE.

SHEET SPECIFIC NOTES

1. COUNTERSUNK TAMPER PROOF STAINLESS STEEL FASTENERS AT 16" O.C. VERTICALLY.

LORD AECK SARGENT

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REVISION:

SHEET TITLE: PLAN DETAILS - FIRST FLOOR

SCALE (U.N.O.): 0 1 2 FT

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockett, Registered Architect, 9814, North Carolina, Chapel Hill, NC, 12.20.2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A521

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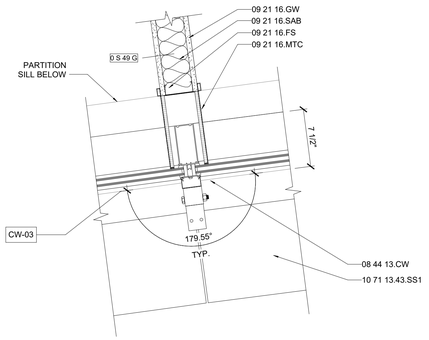

L5 PARTITION AT CURTAIN WALL MULLION

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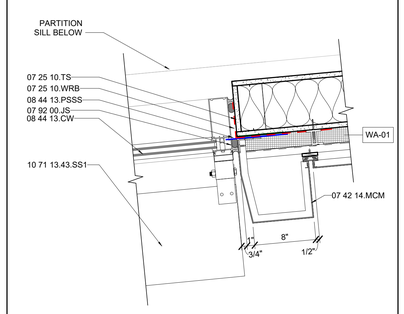

L9 CURTAIN WALL JAMB

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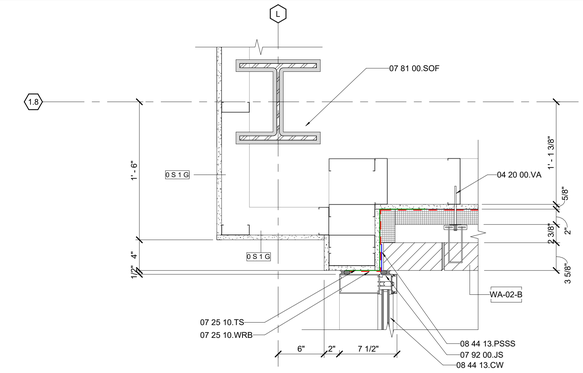

L12 CURTAIN WALL JAMB AT EAST RECESS

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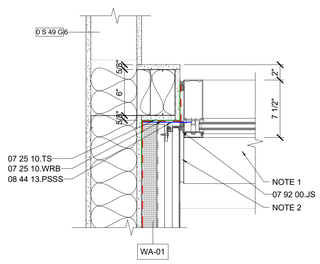
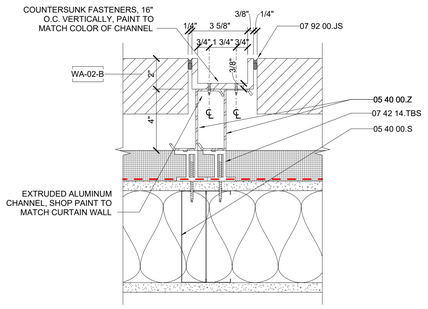


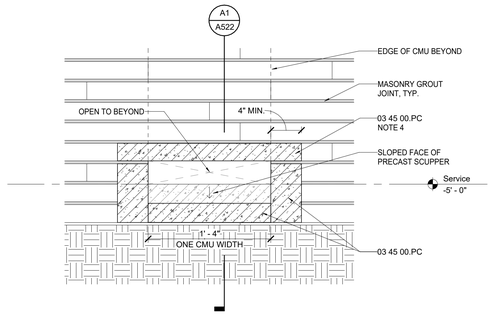
H9 CURTAIN WALL JAMB AT PERPENDICULAR WALL

0 1 2 FT



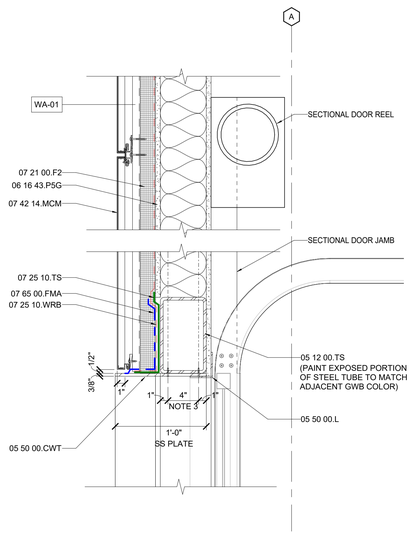
H12 PLAN DETAIL - CHANNEL AT BRICK

0 6 12 IN



E1 ELEVATION DTL - TYP WALL BASE SCUPPER AT GENERATOR ENCLOSURE

0 1 2 FT



E5 SEGMENTED DOOR HEAD

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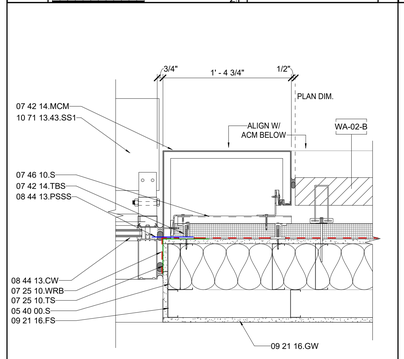

E9 A522 - E9

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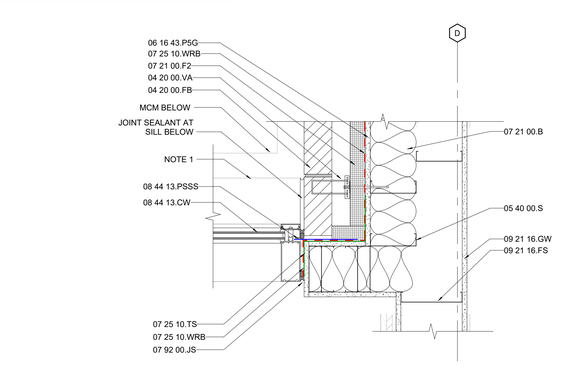
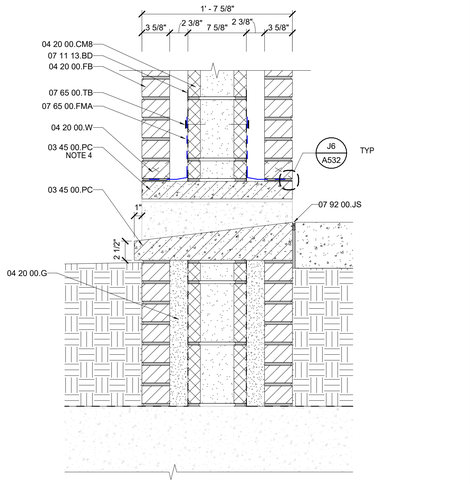


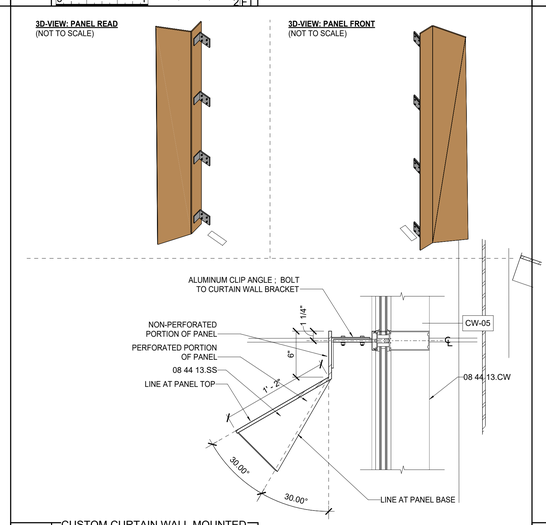
E12 CURTAIN WALL JAMB AT PERPENDICULAR WALL

0 1 2 FT



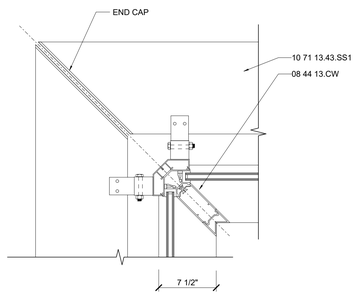
A1 SECTION DETAIL - TYP WALL BASE SCUPPER AT GENERATOR ENCLOSURE

0 1 2 FT



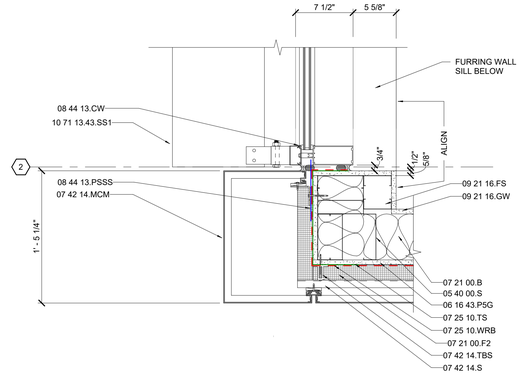
A5 CUSTOM CURTAIN WALL MOUNTED SUN SHADE

0 1 2 FT



A9 CURTAIN WALL AT NW CORNER

0 1 2 FT



A12 CURTAIN WALL JAMB AT RECESS

0 1 2 FT

KEYNOTES

03 45 00.PC	Precast Concrete
04 20 00.CM8	8" Concrete Masonry Units
04 20 00.FB	Face Brick
04 20 00.G	Grout
04 20 00.VA	Veneer Anchors
04 20 00.W	Weeps
05 12 00.TS	Structural Tubing
05 40 00.S	Stud
05 40 00.Z	Z-Furring
05 50 00.CWT	Curtain Wall Trim
05 50 00.L	Angle
06 16 43.P5G	5/8" Gypsum Sheathing
07 11 13.BD	Bituminous Damp-Proofing
07 21 00.B	Batt Insulation
07 21 00.F2	2" Fiber Board Insulation
07 25 10.TS	Transition Sheet
07 25 10.WRB	Weather-Resistant Barrier
07 42 14.MCM	Metal Composite Material Wall Panel
07 42 14.S	Subgirt
07 42 14.TBS	Thermal Break Support
07 46 10.S	Subgirt
07 65 00.FMA	Flashing, Modified Asphalt
07 65 00.TB	Termination Bar
07 81 00.SOF	Sprayed-On Fireproofing
07 92 00.JS	Joint Sealant
08 44 13.CW	Curtain wall
08 44 13.PSSS	Preformed Silicone Sheet Seal
08 44 13.SS	Custom Integrated Sun Screen
09 21 16.FS	Metal Stud
09 21 16.GW	Gypsum Wallboard
09 21 16.MTC	Acoustic Partition Mullion Trim Cap
09 21 16.SAB	Sound Attenuation Batt
10 71 13.43.SS1	Sun Screen 1

GENERAL NOTES

A. SEE G20X SERIES FOR EXTERIOR ASSEMBLIES.
B. SEAL ALL UPWARD-FACING JOINTS IN MCM PANELS WITH SPECIFIED SEALANT; CONTINUE SEALANT DOWN VERTICAL FACE OF PANEL TO NEXT CHANGE IN PLANE.

SHEET SPECIFIC NOTES

1. EXTENDED CURTAIN WALL SILL MULLION BELOW.
2. SEALANT JOINT BETWEEN CURTAINWALL SILL MULLION AND MCM PANEL BELOW.
3. COUNTERSUNK TAMPER PROOF STAINLESS STEEL FASTENERS AT 12" O.C. HORIZONTALLY.
4. PRECAST CONCRETE LINTEL, WELDED WIRE MESH REINFORCED.

LORD AECK SARGENT

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REVISION:

SHEET TITLE: PLAN DETAILS - SECOND & THIRD FLOORS

SCALE (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Benjamin Dunn Rocker, Registered Architect, North Carolina, 39014, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/22/2023
JOB NO.: 11751-00
DWG. NO.: A522

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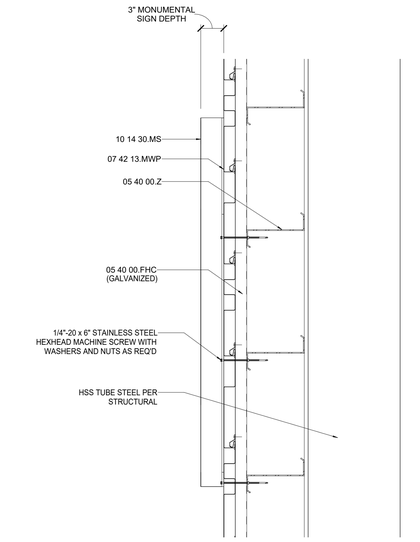
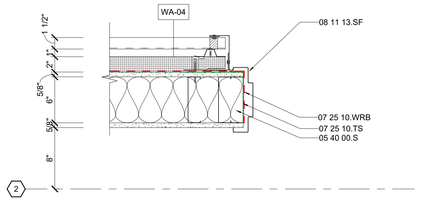
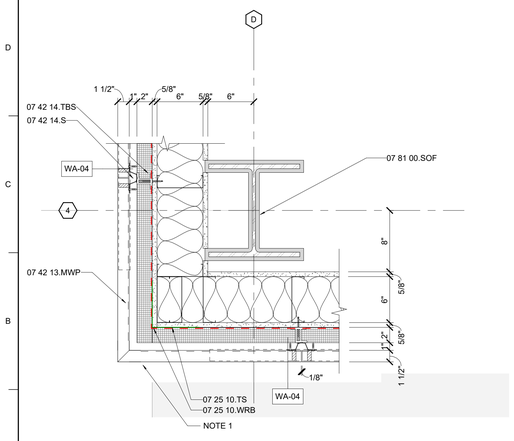


J13 MONUMENTAL SIGNAGE MOUNTING DTL

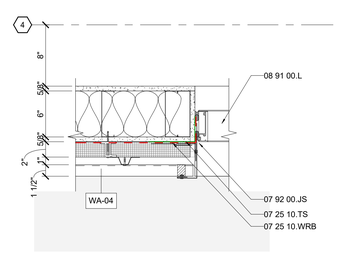


E9 PENTHOUSE EXTERIOR DOOR JAMB

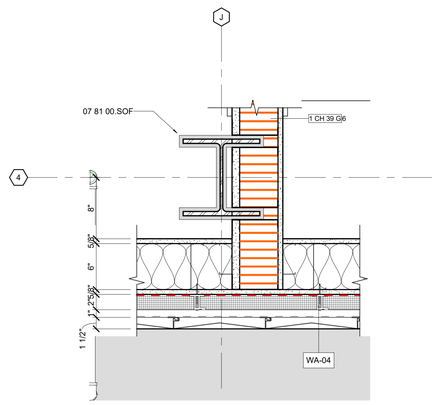
E13 PENTHOUSE CORNER AT SCREEN WALL



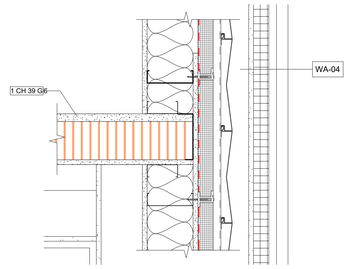
A1 PENTHOUSE CORNER AT STAIR



A5 LOUVER JAMB AT PENTHOUSE WALL



A9 STAIR B FIRE BARRIER AT PENTHOUSE WALL



A13 STAIR B FIRE BARRIER AT PENTHOUSE WALL - EAST

KEYNOTES

05 40 00.FHC	Furring Hat Channel
05 40 00.S	Stud
05 40 00.Z	Z-Furring
07 25 10.TS	Transition Sheet
07 25 10.WRB	Weather-Resistant Barrier
07 42 13.MWP	Metal Wall Panel
07 42 14.S	Subgirt
07 42 14.TBS	Thermal Break Support
07 81 00.SOF	Sprayed-On Fireproofing
07 92 00.JS	Joint Sealant
08 11 13.SF	Steel Frame
08 91 00.L	Louver
10 14 30.MS	Monumental Signage

GENERAL NOTES

A. SEE G20X SERIES FOR EXTERIOR ASSEMBLIES.
B. SEAL ALL UPWARD-FACING JOINTS IN MCM PANELS WITH SPECIFIED SEALANT. CONTINUE SEALANT DOWN VERTICAL FACE OF PANEL TO NEXT CHANGE IN PLANE.

SHEET SPECIFIC NOTES

1. SHOP CUT AND FACTORY MITER INTERNAL AND EXTERNAL CORNERS TYPICAL.

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REVISION:

PROJECT:
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

SHEET TITLE
PLAN DETAILS - PENTHOUSE & ROOF

SCALE (U.N.O.)
0 1 2FT

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL
Lauren Dunn Rockart
Registered Architect
9614
North Carolina
Chapel Hill, NC
12·20·2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
A523

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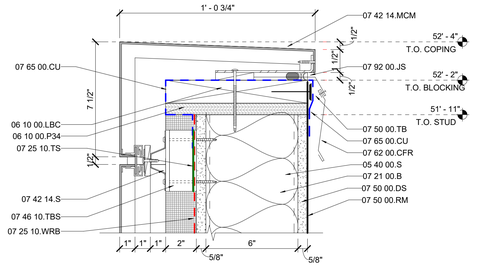

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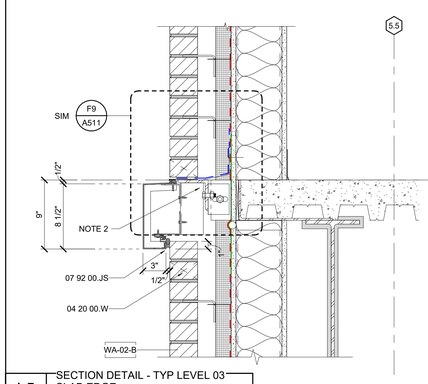

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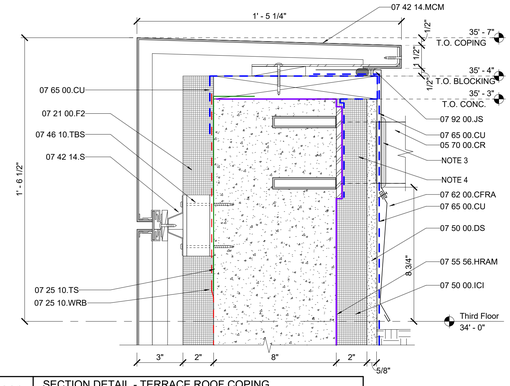
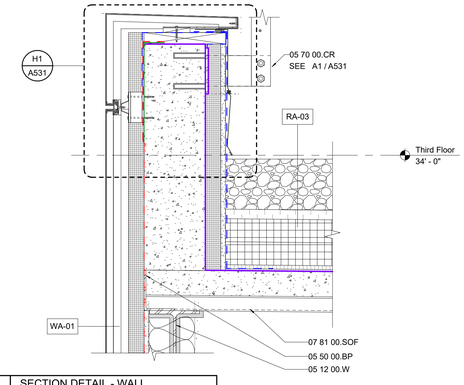
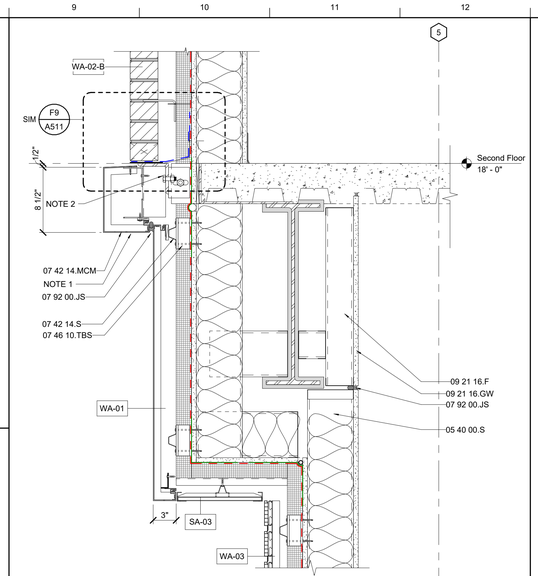


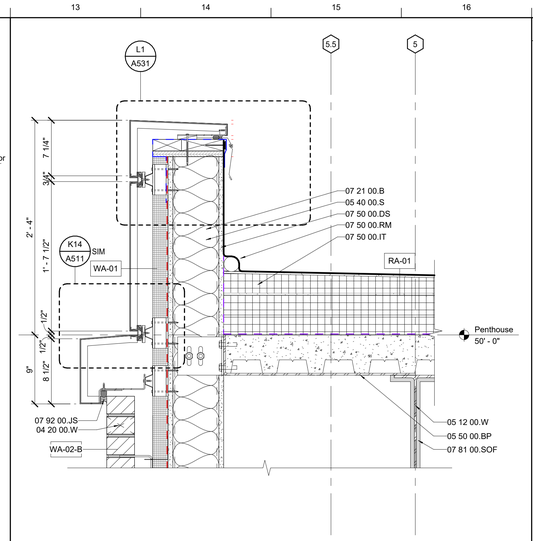
H1 SECTION DETAIL - TERRACE ROOF COPING



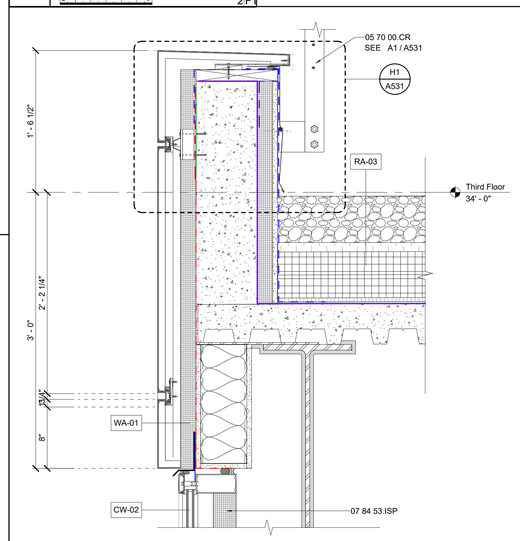
H5 SECTION DETAIL - WALL



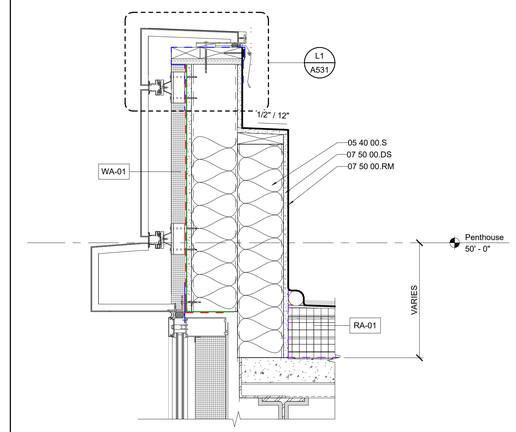
J9 SECTION DETAIL - SOFFIT



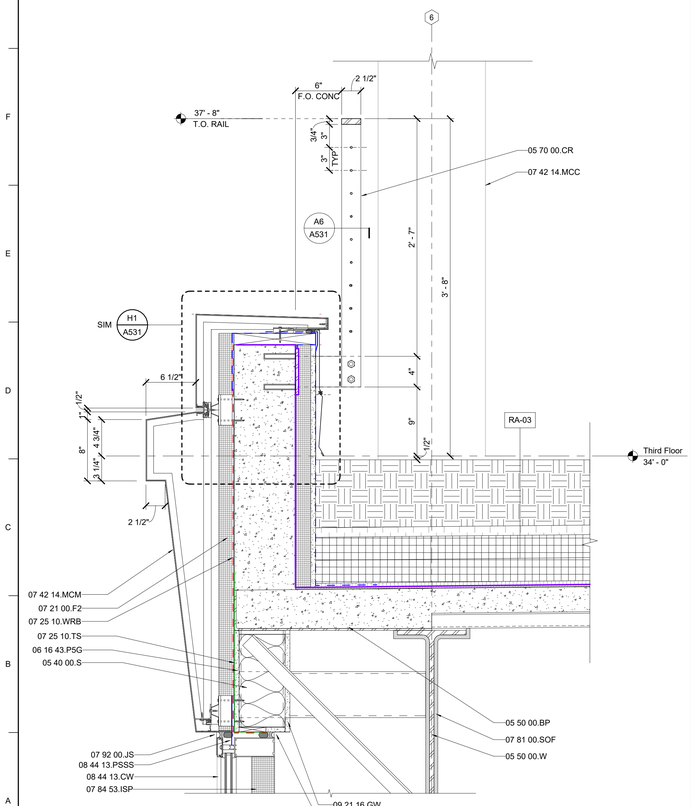
J13 SECTION DETAIL - TYP ROOF EDGE



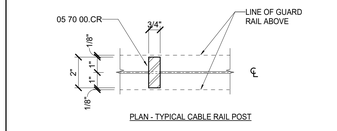
E9 SECTION DETAIL - TERRACE ROOF EDGE



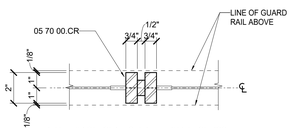
E13 SECTION DETAIL - WEST PARAPET @ CURTAIN WALL



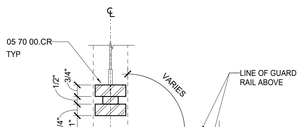
A1 SECTION - TERRACE ROOF EDGE



PLAN - TYPICAL CABLE RAIL POST

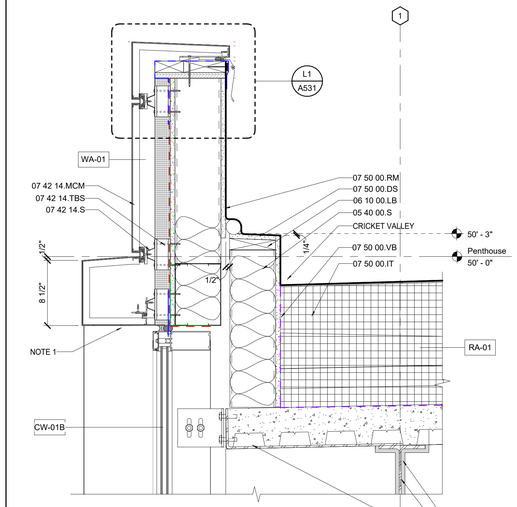


PLAN - TYPICAL CABLE START / TERMINATION POST

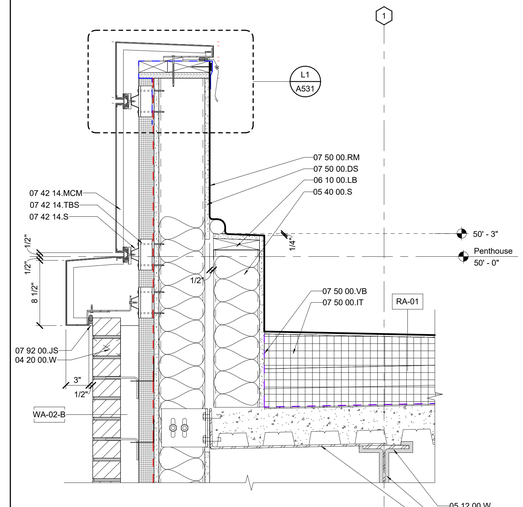


PLAN - TYPICAL CORNER POST

A6 PLAN - TYPICAL CABLE RAIL POSTS



A9 SECTION DETAIL - NORTH PARAPET



A13 SECTION DETAIL - NORTH PARAPET

KEYNOTES

04 20 00.W	Weeps
05 12 00.W	W Shape
05 40 00.S	Stud
05 50 00.BP	Bent Plate
05 50 00.W	W Shape
05 70 00.CR	Cable Guard Rail
06 10 00.LB	Blocking
06 10 00.LBC	Blocking, Continuous
06 10 00.P34	3/4" Plywood Panel
06 16 43.P5G	5/8" Gypsum Sheathing
07 21 00.B	Batt Insulation
07 21 00.F2	2" Fiber Board Insulation
07 25 10.TS	Transition Sheet
07 25 10.WRB	Weather-Resistant Barrier
07 42 14.MCC	Metal Composite Material Column Cover
07 42 14.MCM	Metal Composite Material Wall Panel
07 42 14.S	Subgirt
07 42 14.TBS	Thermal Break Support
07 46 10.TBS	Thermal Break Support
07 50 00.DS	Deck Sheathing
07 50 00.ICI	
07 50 00.IT	Tapered Insulation
07 50 00.RM	Roof Membrane
07 50 00.TB	Termination Bar
07 50 00.VB	Vapor Barrier
07 55 56.HRAM	Hot Rubberized Asphalt Membrane
07 62 00.CFR	Two-Piece Counter Flashing & Receiver
07 62 00.CFRA	Two-Piece Counter Flashing & Receiver - Prefinished Aluminum
07 65 00.CU	Modified Asphalt Coping Underlayment
07 81 00.SOF	Sprayed-On Fireproofing
07 84 53.ISP	Spandrel Insulation
07 92 00.JS	Joint Sealant
08 44 13.CW	Curtain wall
08 44 13.PSSS	Preformed Silicone Sheet Seal
09 21 16.F	Framing
09 21 16.GW	Gypsum Wallboard

GENERAL NOTES

A. SEE G20X SERIES FOR EXTERIOR ASSEMBLIES.
B. SEAL ALL UPWARD-FACING JOINTS IN MCM PANELS WITH SPECIFIED SEALANT; CONTINUE SEALANT DOWN VERTICAL FACE OF PANEL TO NEXT CHANGE IN PLANE.

SHEET SPECIFIC NOTES

1. WEEP HOLES W/ SHOP APPLIED WEEP BLOCK TYPICAL.
2. CONTINUOUS RELIEVING ANGLE.
3. SEALANT AT GUARD RAIL PLATE PENETRATION THROUGH COUNTER FLASHING.
4. WELD STEEL PLATE TO EMBED PRIOR TO INSTALLATION OF 07 55 56.HRAM; FLASH HRAM ONTO STEEL PLATE ON ALL SIDES

LORD AECK SARGENT

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REVISION:

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN INC
CERT. NO. 53851
NORTH CAROLINA
CHAPEL HILL

SEAL
Lauren Dunn Rockett
Registered Architect
9674
North Carolina
Chapel Hill, NC
12·20·2023

ISSUE DATE 12/20/2023
JOB. NO. 11751-00
DWG. NO. A531

SHEET TITLE: SECTION DETAILS
SCALE (UNO): 0 1 2FT

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

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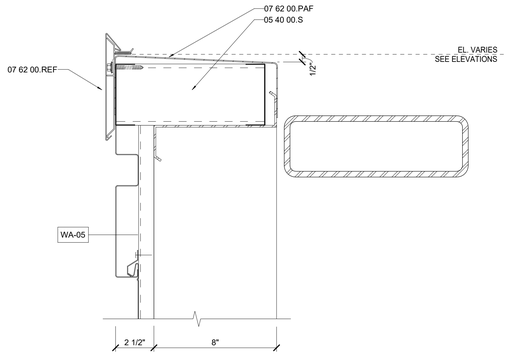

J1 SECTION DETAIL - SCREENWALL FASCIA
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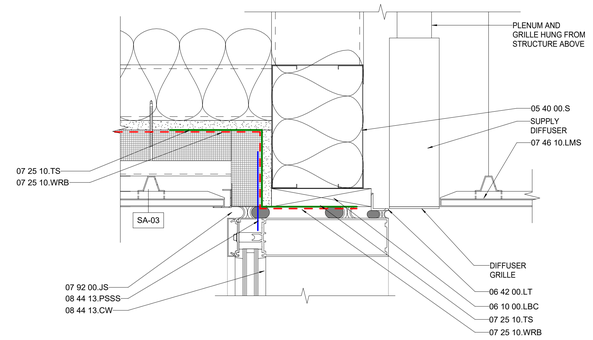
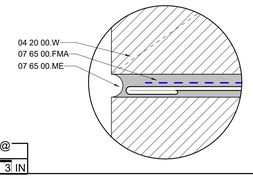


K6 DETAIL - LOBBY CURTAIN WALL HEAD



J6 SECTION DETAIL - METAL EDGE @ GRADE, TYP
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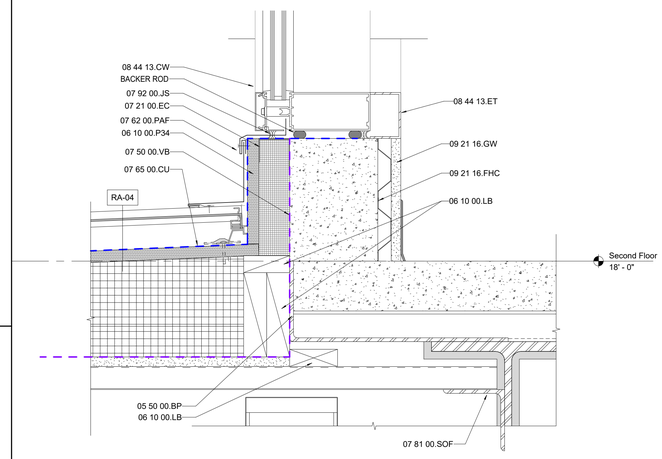

J11 SECTION DETAIL - WEST INSET
0 3 IN

E1 SECTION DETAIL - PENTHOUSE PARAPET
0 3 IN

E6 SECTION DETAIL - TERRACE SILL
0 3 IN

E11 SECTION DETAIL - WEST INSET
0 3 IN

A1 SECTION DETAIL - PENTHOUSE WALL BASE
0 3 IN

A6 SECTION DETAIL - SILL AT LOBBY
0 3 IN

A11 SECTION DETAIL - WEST INSET
0 3 IN

KEYNOTES

03 30 00.VR	Sheet Vapor Retarder
04 20 00.FB	Face Brick
04 20 00.G	Grout
04 20 00.W	Weeps
04 72 00.CS	Cast Stone
05 40 00.S	Stud
05 40 00.Z	Z-Furring
05 50 00.BP	Bent Plate
05 50 00.L	Angle
06 10 00.LB	Blocking
06 10 00.LBC	Blocking, Continuous
06 10 00.P34	3/4" Plywood Panel
06 42 00.LT	L Reveal Trim
07 11 13.BD	Bituminous Damp-Proofing
07 21 00.EC	Edge Closure Channel
07 21 00.F1	1" Fiber Board Insulation
07 21 00.F2	2" Fiber Board Insulation
07 21 00.XP2	2" Extruded Polystyrene Insulation
07 25 10.TS	Transition Sheet
07 25 10.WRB	Weather-Resistant Barrier
07 42 13.MWP	Metal Wall Panel
07 42 13.S	Subgirt
07 42 14.MCM	Metal Composite Material Wall Panel
07 42 14.S	Subgirt
07 42 14.TBS	Thermal Break Support
07 46 10.LMS	Linear Metal Soffit
07 50 00.DS	Deck Sheathing
07 50 00.RM	Roof Membrane
07 50 00.TB	Termination Bar
07 50 00.VB	Vapor Barrier
07 55 56.HRAM	Hot Rubberized Asphalt Membrane
07 62 00.CFR	Two-Piece Counter Flashing & Receiver
07 62 00.PAF	Pre-Finished Aluminum Sheet Metal Flashing
07 62 00.REF	Roof Edge - Fascia
07 62 00.SF	Sheet Metal Flashing
07 65 00.CS	Carrier Sheet
07 65 00.CU	Modified Asphalt Coping Underlayment
07 65 00.FMA	Flashing, Modified Asphalt
07 65 00.ME	Metal Edge
07 65 00.TB	Termination Bar
07 81 00.SOF	Sprayed-On Fireproofing
07 84 00.FS	Firestopping
07 92 00.JS	Joint Sealant
08 44 13.BT	Break Metal Trim
08 44 13.CW	Curtain wall
08 44 13.ET	Extruded Trim
08 44 13.PSSS	Preformed Silicone Sheet Seal
09 21 16.FHC	Hat-Shaped Furring Channel
09 21 16.GW	Gypsum Wallboard
09 65 00.RB	Resilient Base

GENERAL NOTES

A. SEE G20X SERIES FOR EXTERIOR ASSEMBLIES.
B. SEAL ALL UPWARD-FACING JOINTS IN MCM PANELS WITH SPECIFIED SEALANT; CONTINUE SEALANT DOWN VERTICAL FACE OF PANEL TO NEXT CHANGE IN PLANE.

SHEET SPECIFIC NOTES

1. VERTICAL TYPICAL; SPACE AS REQUIRED FOR FASTENING 07 50 00.DS
2. ROOF MEMBRANE TO EXTEND MINIMUM 8 INCHES ABOVE ROOF SURFACE.
3. THROUGH-WALL FLASHING AT FIRST FULL COURSE ABOVE GRADE. TYPICAL; VARIES, COORDINATE WITH GRADING.

LORD AECK SARGENT

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REVISION

SHEET TITLE: SECTION DETAILS
SCALE (UNO)

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, 30714, North Carolina, Chapel Hill, NC
12·20·2023

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. A532

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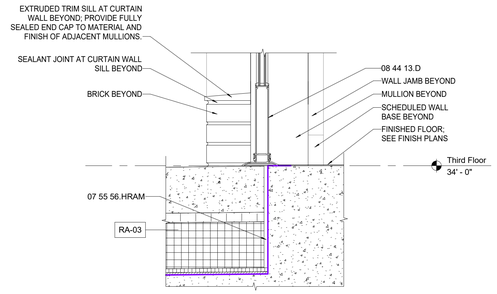
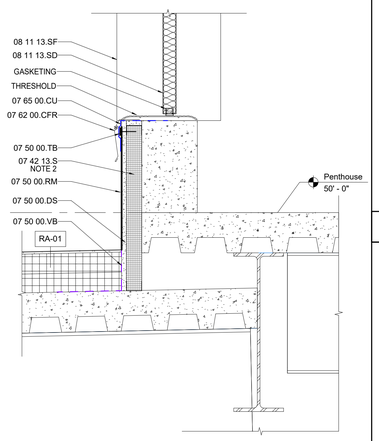
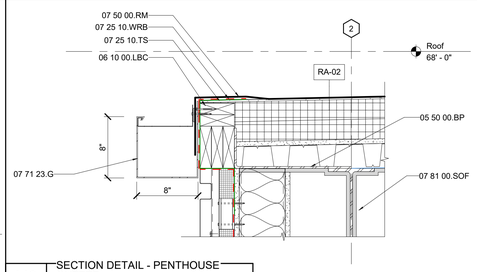


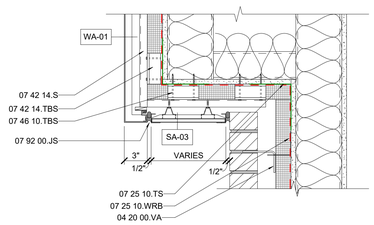
J1 SECTION DETAIL - DOOR THRESHOLD AT TERRACE
0 1 2 FT



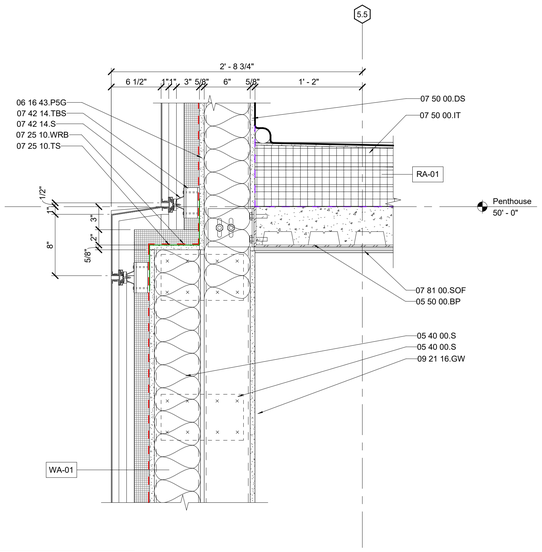
J5 SECTION DETAIL - DOOR THRESHOLD AT PENTHOUSE
0 1 2 FT



M8 SECTION DETAIL - PENTHOUSE GUTTER



J8 SECTION DETAIL - SOFFIT
0 1 2 FT



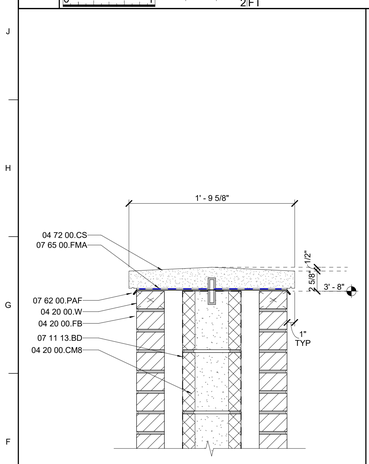
J11 SECTION DETAIL
0 1 2 FT

KEYNOTES

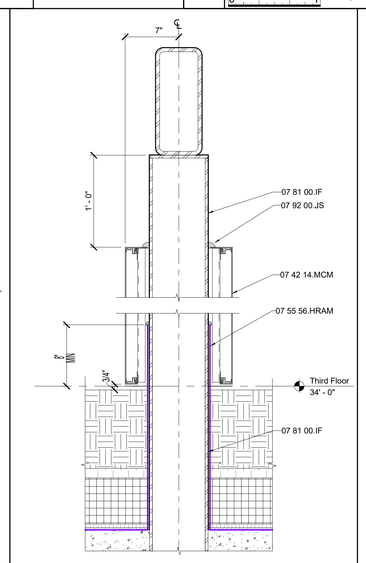
04 20 00.CM8	8" Concrete Masonry Units
04 20 00.FB	Face Brick
04 20 00.G	Grout
04 20 00.VA	Veneer Anchors
04 20 00.W	Weeps
04 72 00.CS	Cast Stone
05 12 00.BP	Bent Plate
05 12 00.TS	Structural Tubing
05 40 00.FHC	Furring Hat Channel
05 40 00.S	Stud
05 50 00.BP	Bent Plate
05 50 00.CWT	Curtain Wall Trim
06 10 00.LB	Blocking
06 10 00.LBC	Blocking, Continuous
06 16 43.P5G	5/8" Gypsum Sheathing
07 11 13.BD	Bituminous Damp-Proofing
07 21 00.B	Batt Insulation
07 21 00.F2	2" Fiber Board Insulation
07 21 00.XP2	2" Extruded Polystyrene Insulation
07 25 10.TS	Transition Sheet
07 25 10.WRB	Weather-Resistant Barrier
07 42 13.S	Subgirt
07 42 14.MCC	Metal Composite Material Column Cover
07 42 14.MCM	Metal Composite Material Wall Panel
07 42 14.S	Subgirt
07 42 14.TBS	Thermal Break Support
07 46 10.LMSS	Linear Metal Suspension System
07 46 10.LMW	Linear Metal Wall Panel
07 46 10.S	Subgirt
07 46 10.TBS	Thermal Break Support
07 50 00.DS	Deck Sheathing
07 50 00.IT	Tapered Insulation
07 50 00.RM	Roof Membrane
07 50 00.TB	Termination Bar
07 50 00.VB	Vapor Barrier
07 55 56.HRAM	Hot Rubberized Asphalt Membrane
07 62 00.CFR	Two-Piece Counter Flashing & Receiver
07 62 00.PAF	Pre-Finished Aluminum Sheet Metal Flashing
07 65 00.CS	Carrier Sheet
07 65 00.CU	Modified Asphalt Coping Underlayment
07 65 00.FMA	Flashing, Modified Asphalt
07 65 00.TB	Termination Bar
07 71 23.G	Gutter
07 81 00.IF	Intumescent Sprayed-On Fireproofing
07 81 00.SOF	Sprayed-On Fireproofing
07 92 00.JS	Joint Sealant
08 11 13.SD	Steel Door
08 11 13.SF	Steel Frame
08 44 13.CW	Curtain wall
08 44 13.D	Aluminum Door And Frame
08 44 13.PSSS	Preformed Silicone Sheet Seal
09 21 16.F	Framing
09 21 16.GW	Gypsum Wallboard

GENERAL NOTES

A. SEE G20X SERIES FOR EXTERIOR ASSEMBLIES.
B. SEAL ALL UPWARD-FACING JOINTS IN MCM PANELS WITH SPECIFIED SEALANT; CONTINUE SEALANT DOWN VERTICAL FACE OF PANEL TO NEXT CHANGE IN PLANE.



E1 SECTION DETAIL - TYP COPING AT GENERATOR ENCLOSURE
0 1 2 FT



E3 SECTION DETAIL - TYP EXTERIOR TERRACE COLUMNS
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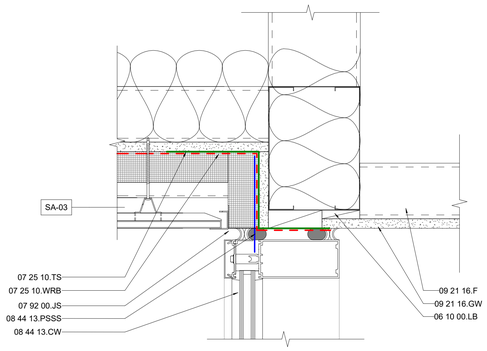
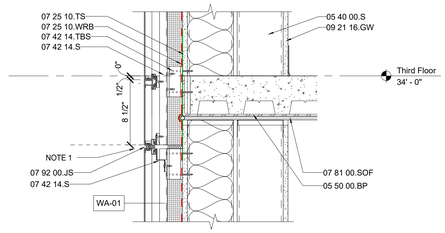


E6 SECTION DETAIL - CURTAIN WALL HEAD AT LEVEL 3
0 6 12 IN



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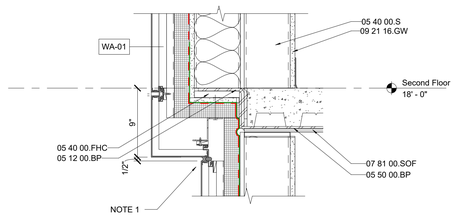
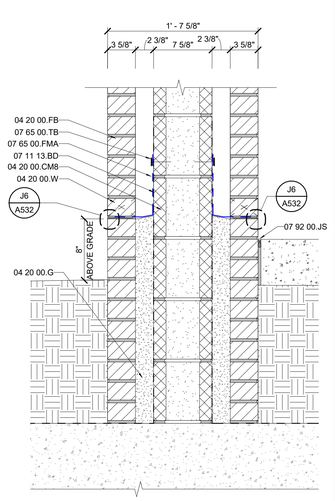


E11 SECTION DETAIL
0 1 2 FT

SHEET SPECIFIC NOTES

1. COUNTER SUNK SS FASTENERS AT 16" O.C.; MATCH FINISH OF PLATE.
2. VERTICAL TYPICAL; SPACE AS REQUIRED FOR FASTENING 07 50 00.DS



A1 SECTION DETAIL - TYP WALL BASE AT GENERATOR ENCLOSURE
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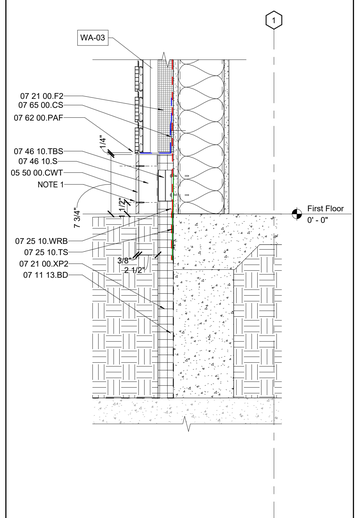
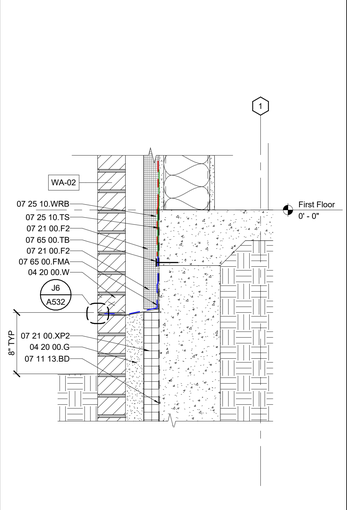
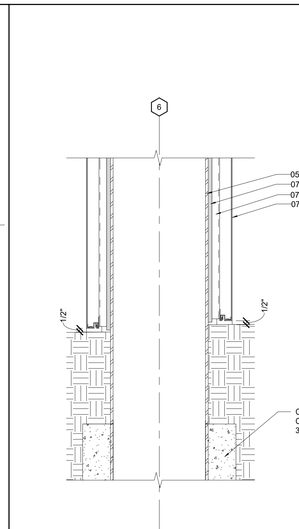


A3 SECTION DETAIL - TYPICAL BASE AT LINEAR METAL WALL
0 1 2 FT



A6 SECTION DETAIL - BRICK AT GRADE
0 1 2 FT



A9 TYPICAL EXTERIOR MCM COLUMN BASE @ LVL 01
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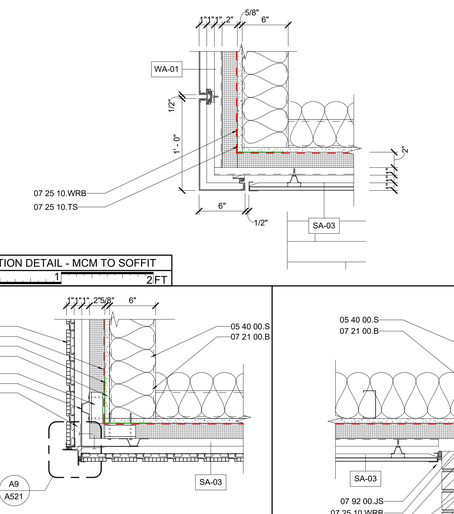
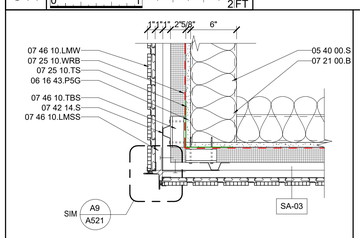


C11 SECTION DETAIL - MCM TO SOFFIT
0 1 2 FT



A11 SECTION DETAIL - LMS TO LMW
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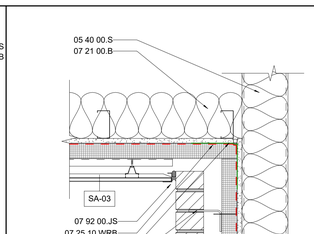

A14 SECTION DETAIL - LMS TO BRICK
0 1 2 FT

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REVISION:

SHEET TITLE: SECTION DETAILS
SCALE (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. — CERT. NO. 53851 — NORTH CAROLINA — CHAPEL HILL

SEAL: Lauren Dunn Rocker, Registered Architect, North Carolina, 9014, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. A533

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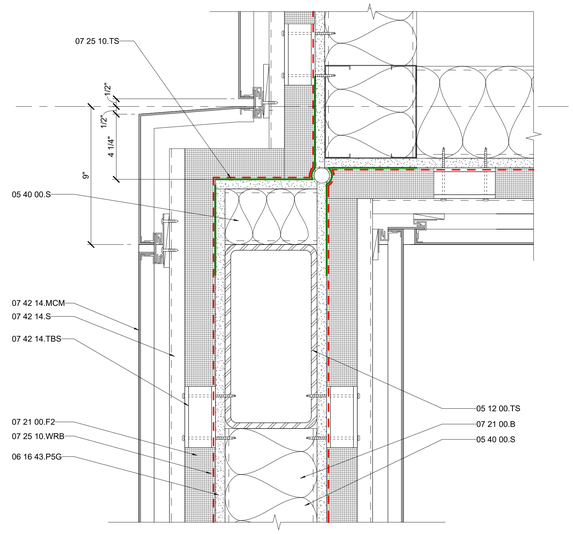
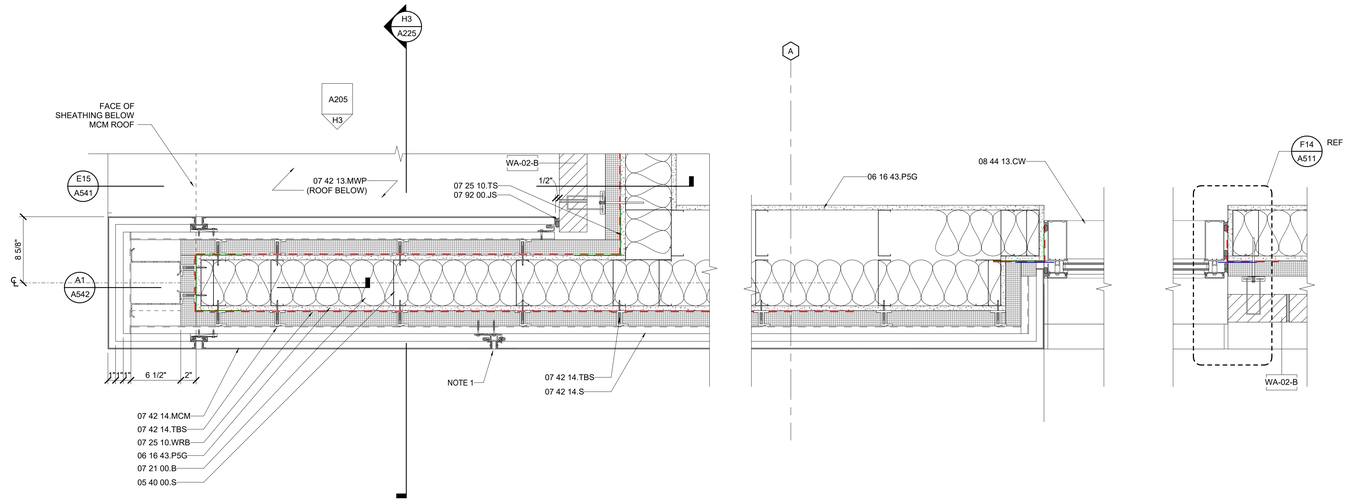
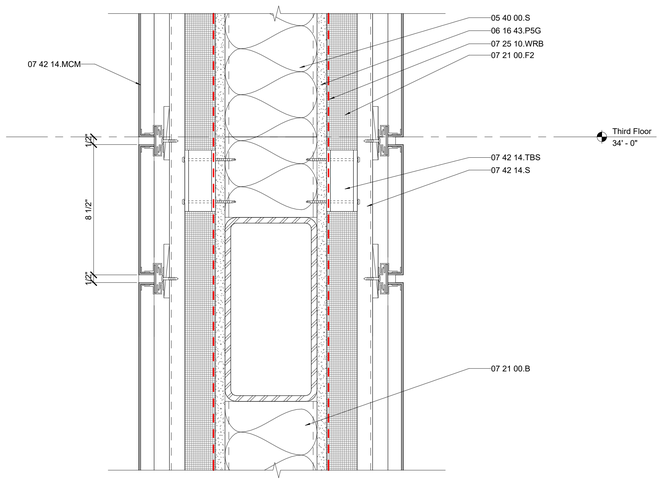


H1 SECTION DETAIL - WEST INSET WALL ROOF INTERSECTION
0 6 12 IN



J15 PLAN DETAIL -WEST SIDE WING WALL
0 1 2 FT



E1 SECTION DETAIL - WEST INSET WALL ROOF INTERSECTION
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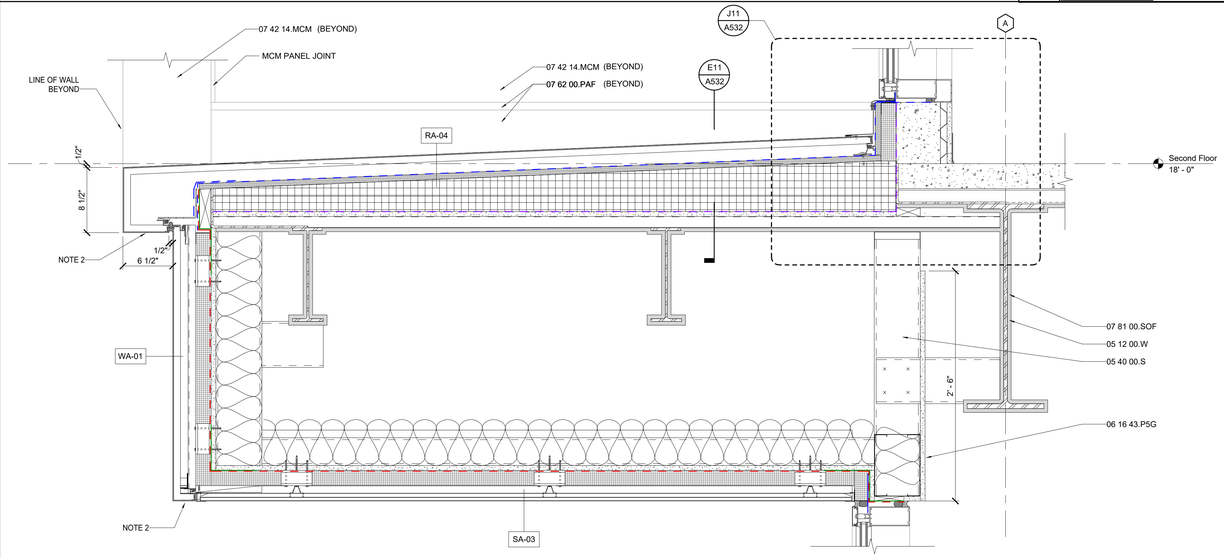
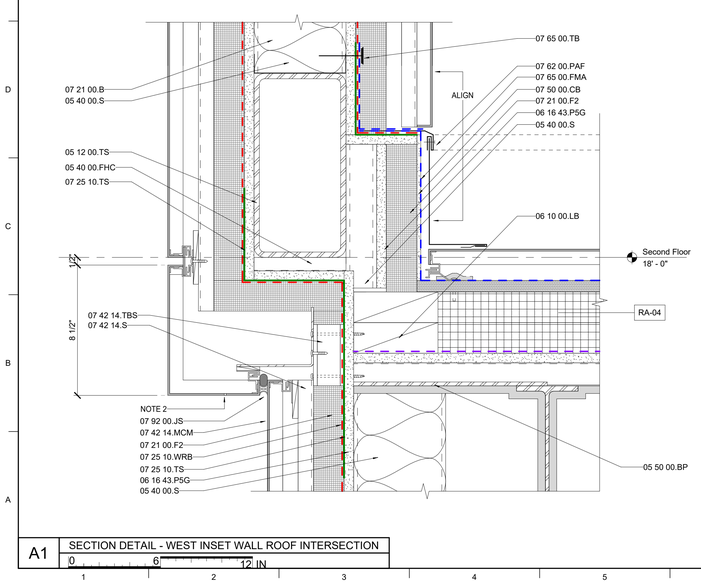


E15 SECTION DETAIL - WEST INSET
0 1 2 FT



A1 SECTION DETAIL - WEST INSET WALL ROOF INTERSECTION
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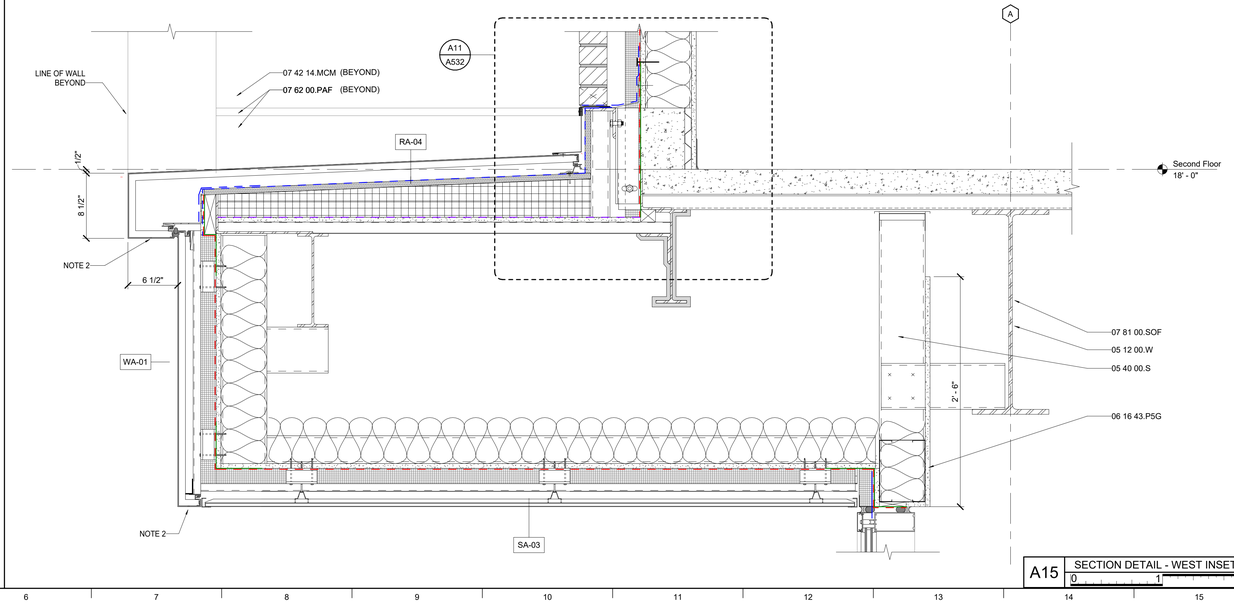

A15 SECTION DETAIL - WEST INSET
0 1 2 FT

KEYNOTES

05 12 00.TS	Structural Tubing
05 12 00.W	W Shape
05 40 00.FHC	Furring Hat Channel
05 40 00.S	Stud
05 50 00.BP	Bent Plate
06 10 00.LB	Blocking
06 16 43.P5G	5/8" Gypsum Sheathing
07 21 00.B	Batt Insulation
07 21 00.F2	2" Fiber Board Insulation
07 25 10.TS	Transition Sheet
07 25 10.WRB	Weather-Resistant Barrier
07 42 13.MWP	Metal Wall Panel
07 42 14.MCM	Metal Composite Material Wall Panel
07 42 14.S	Subgirt
07 42 14.TBS	Thermal Break Support
07 50 00.CB	Cover Board
07 62 00.PAF	Pre-Finished Aluminum Sheet Metal Flashing
07 65 00.FMA	Flashing, Modified Asphalt
07 65 00.TB	Termination Bar
07 81 00.SOF	Sprayed-On Fireproofing
07 92 00.JS	Joint Sealant
08 44 13.CW	Curtain wall

GENERAL NOTES

A. SEE G20X SERIES FOR EXTERIOR ASSEMBLIES.
B. SEAL ALL UPWARD-FACING JOINTS IN MCM PANELS WITH SPECIFIED SEALANT; CONTINUE SEALANT DOWN VERTICAL FACE OF PANEL TO NEXT CHANGE IN PLANE.

SHEET SPECIFIC NOTES

1. SEE ENLARGED ELEVATIONS FOR QUANTITY AND LOCATION OF VERTICAL MCM JOINTS TYPICAL.
2. WEEP HOLES WITH SHOP APPLIED WEEP BLOCK TYPICAL.

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REVISION

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN INC
CERT. NO. 53851 NORTH CAROLINA
CHAPEL HILL

SEAL
Lauren Dunn Rocker
Registered Architect
North Carolina
Chapel Hill, NC
12-20-2023

ISSUE DATE 12/20/2023
JOB. NO. 11751-00
DWG. NO. A541

SHEET TITLE DETAILS - WEST INSET
SCALE (U.N.O.)

FOR WORK
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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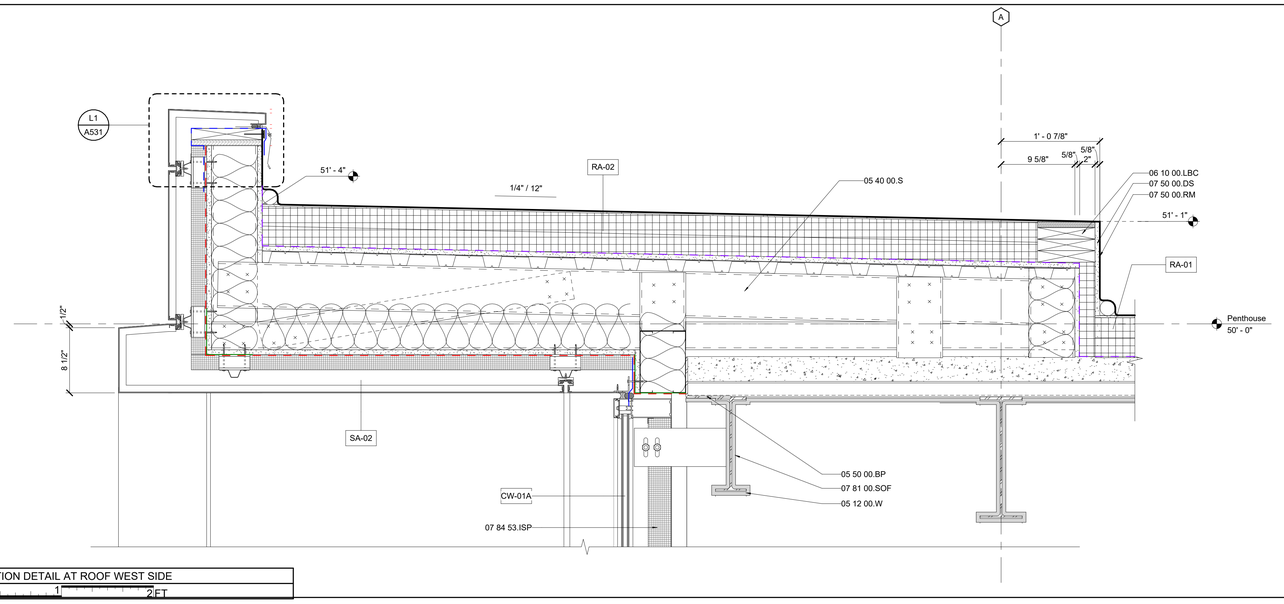
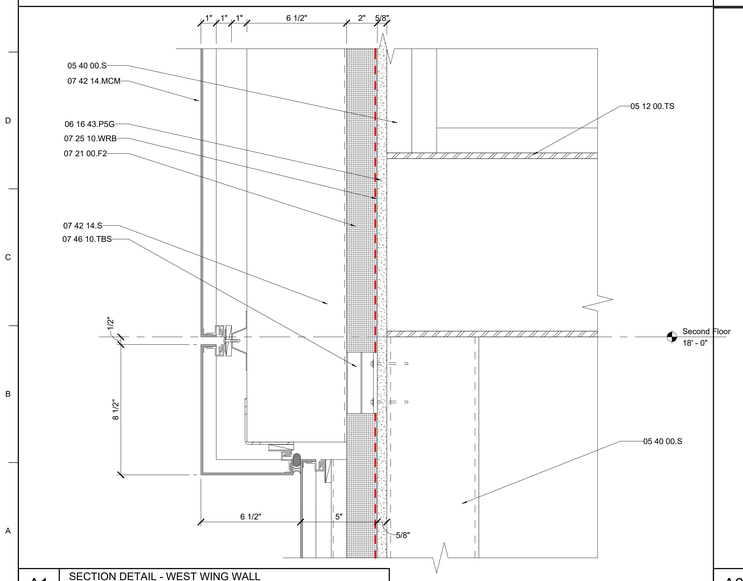


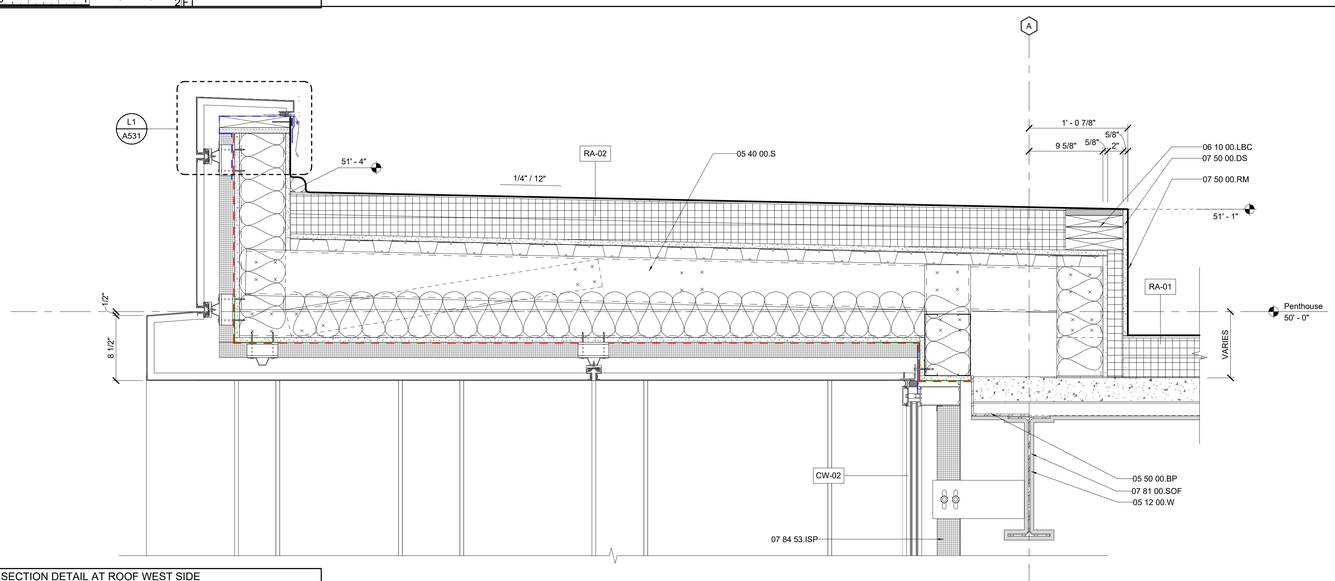
E6 SECTION DETAIL AT ROOF WEST SIDE

0 1 2 FT



A1 SECTION DETAIL - WEST WING WALL

0 6 12 IN



A6 SECTION DETAIL AT ROOF WEST SIDE

0 1 2 FT

KEYNOTES

05 12 00.TS	Structural Tubing
05 12 00.W	W Shape
05 40 00.S	Stud
05 50 00.BP	Bent Plate
06 10 00.LBC	Blocking, Continuous
06 16 43.P5G	5/8" Gypsum Sheathing
07 21 00.F2	2" Fiber Board Insulation
07 25 10.WRB	Weather-Resistant Barrier
07 42 14.MCM	Metal Composite Material Wall Panel
07 42 14.S	Subgirt
07 46 10.TBS	Thermal Break Support
07 50 00.DS	Deck Sheathing
07 50 00.RM	Roof Membrane
07 81 00.SOF	Sprayed-On Fireproofing
07 84 53.ISP	Spandrel Insulation

GENERAL NOTES

A. SEE G20X SERIES FOR EXTERIOR ASSEMBLIES.
B. SEAL ALL UPWARD-FACING JOINTS IN MCM PANELS WITH SPECIFIED SEALANT; CONTINUE SEALANT DOWN VERTICAL FACE OF PANEL TO NEXT CHANGE IN PLANE.

SHEET SPECIFIC NOTES

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SHEET TITLE: DETAILS - WEST INSET

SCALE (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, North Carolina, 39714, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A542

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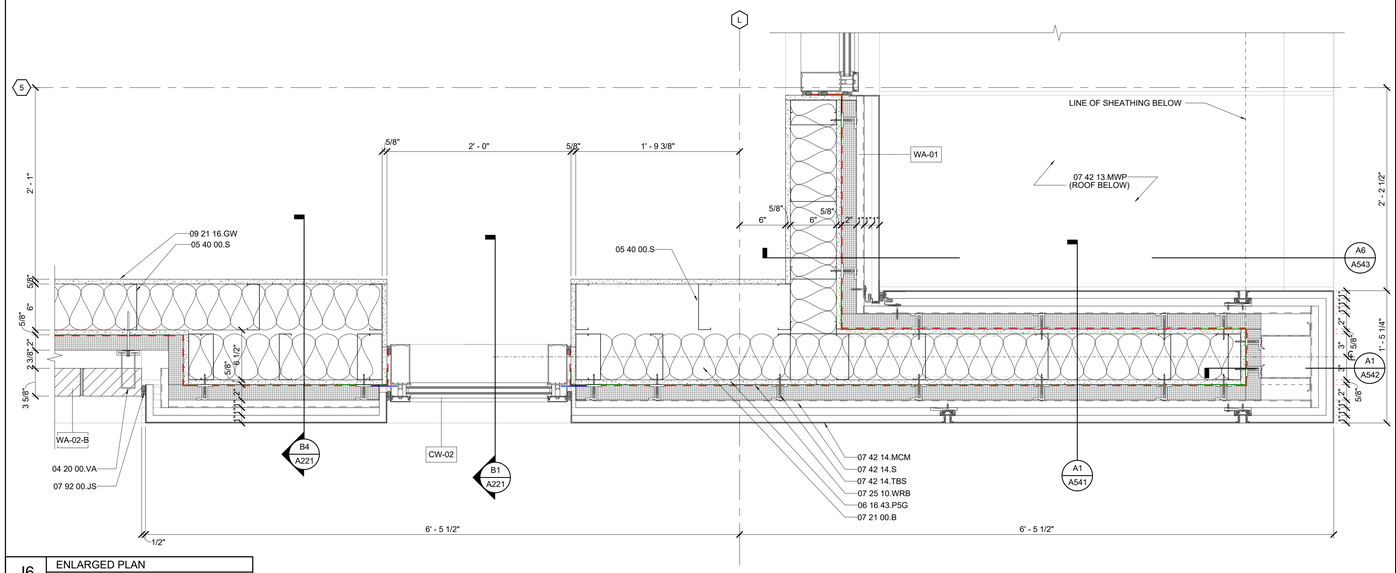

J6 ENLARGED PLAN
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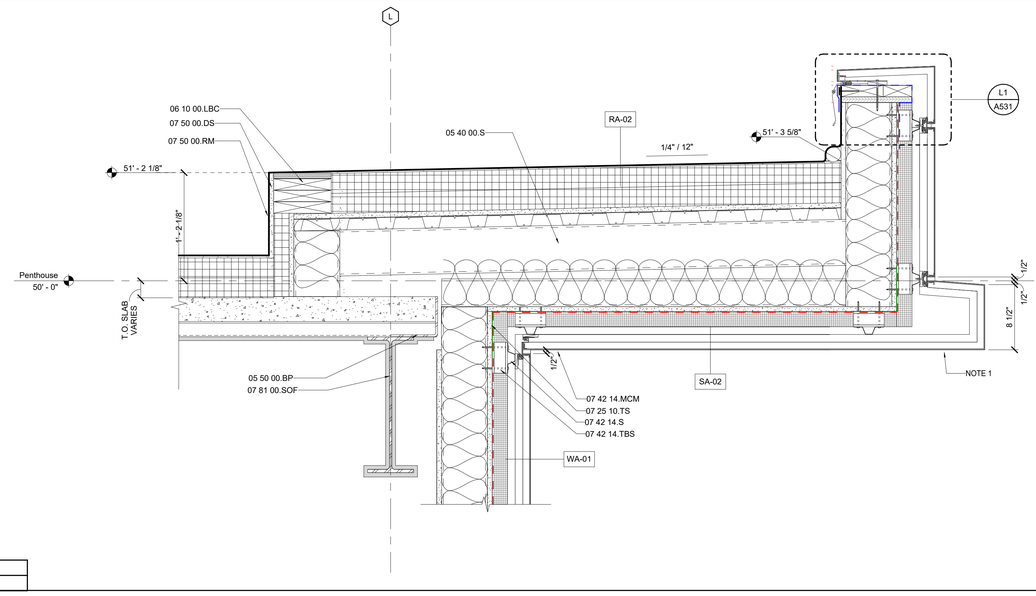
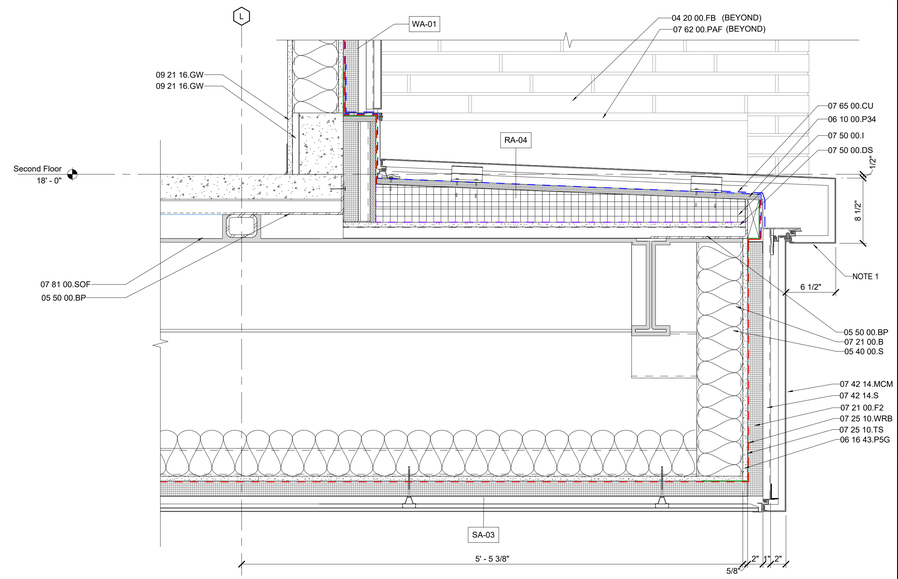


E6 SECTION DETAIL AT EAST SIDE ROOF
0 1 2 FT



A6 SECTION DETAIL
0 1 2 FT

KEYNOTES

04 20 00.FB	Face Brick
04 20 00.VA	Veneer Anchors
05 40 00.S	Stud
05 50 00.BP	Bent Plate
06 10 00.LBC	Blocking, Continuous
06 10 00.P34	3/4" Plywood Panel
06 16 43.P5G	5/8" Gypsum Sheathing
07 21 00.B	Batt Insulation
07 21 00.F2	2" Fiber Board Insulation
07 25 10.TS	Transition Sheet
07 25 10.WRB	Weather-Resistant Barrier
07 42 13.MWP	Metal Wall Panel
07 42 14.MCM	Metal Composite Material Wall Panel
07 42 14.S	Subgirt
07 42 14.TBS	Thermal Break Support
07 50 00.DS	Deck Sheathing
07 50 00.I	Insulation
07 50 00.RM	Roof Membrane
07 62 00.PAF	Pre-Finished Aluminum Sheet Metal Flashing
07 65 00.CU	Modified Asphalt Coping Underlayment
07 81 00.SOF	Sprayed-On Fireproofing
07 92 00.JS	Joint Sealant
09 21 16.GW	Gypsum Wallboard

GENERAL NOTES

A. SEE G20X SERIES FOR EXTERIOR ASSEMBLIES.
B. SEAL ALL UPWARD-FACING JOINTS IN MCM PANELS WITH SPECIFIED SEALANT; CONTINUE SEALANT DOWN VERTICAL FACE OF PANEL TO NEXT CHANGE IN PLANE.

SHEET SPECIFIC NOTES

1. WEEP HOLES W/ SHOP APPLIED WEEP BLOCK TYP.

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REVISION

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

SHEET TITLE
DETAILS - EAST INSET

SCALE (U.N.O.)
0 1 2FT

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN, INC.
CERT. NO. 53851
CHAPEL HILL, NORTH CAROLINA

SEAL
Lauren Dunn Rockar
Registered Architect
North Carolina
Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
A543

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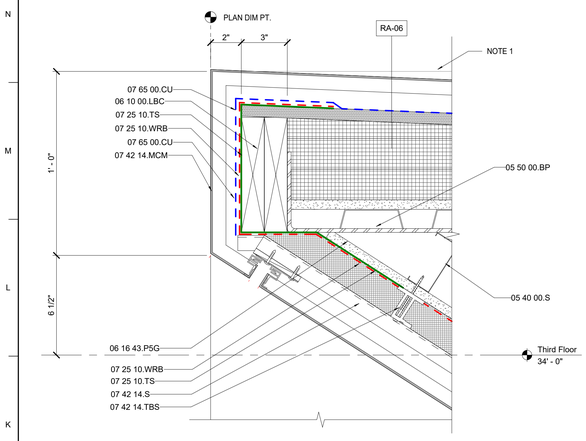
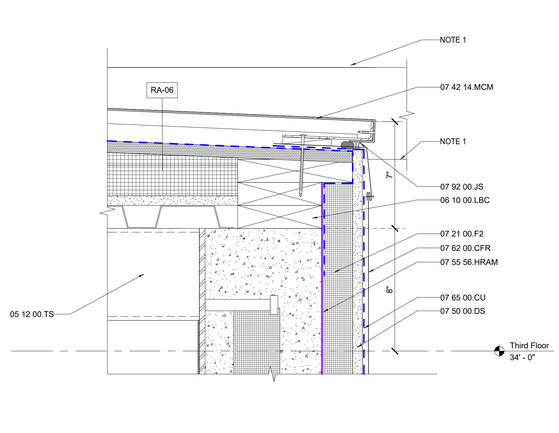


J1 SECTION DETAIL
0 6 12 IN



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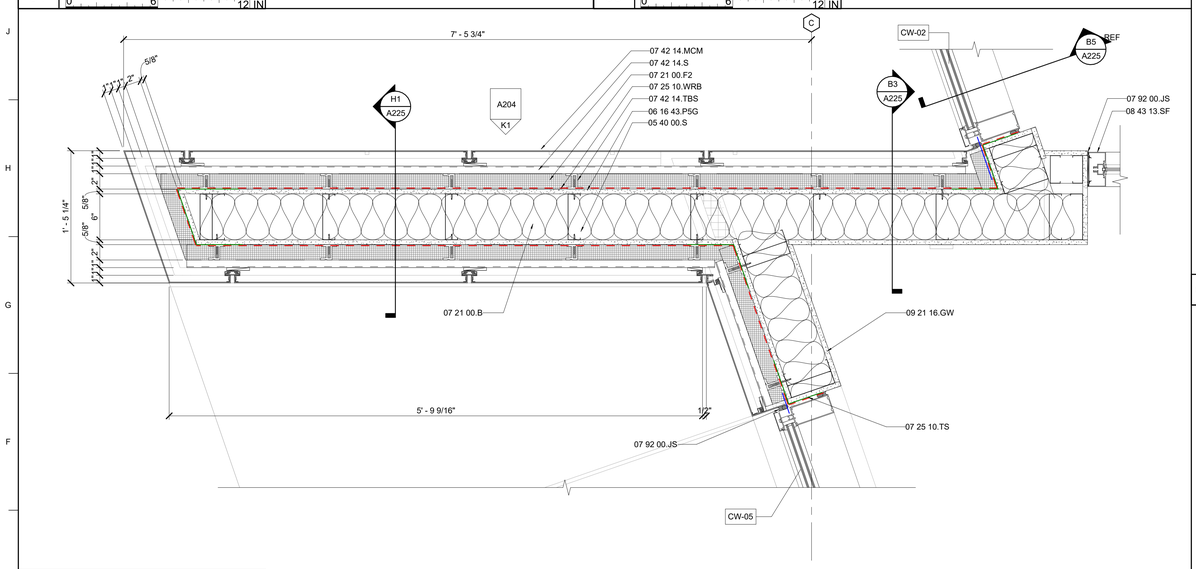
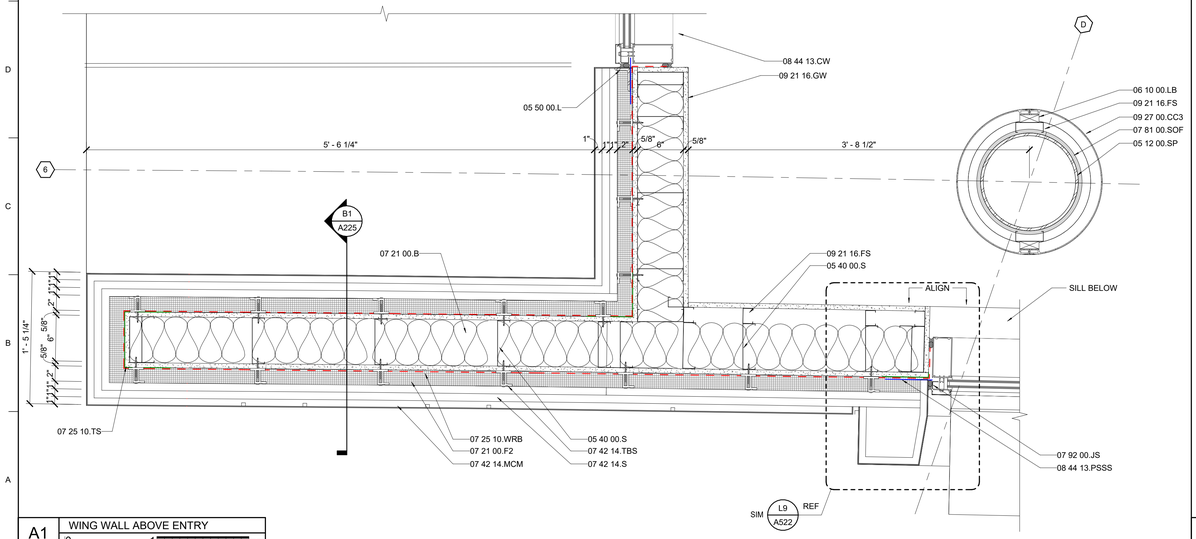
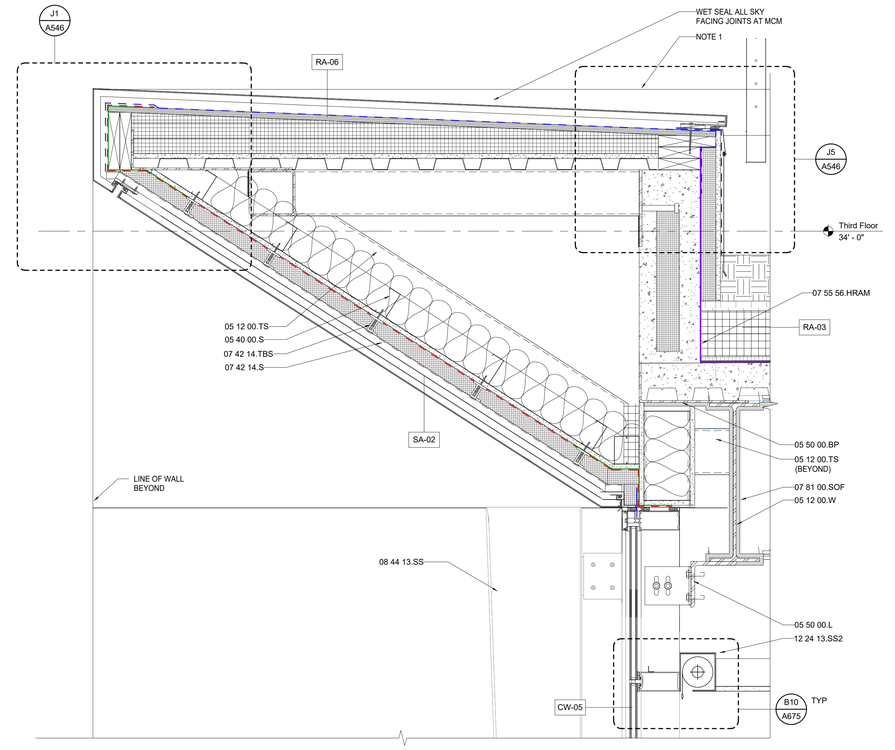


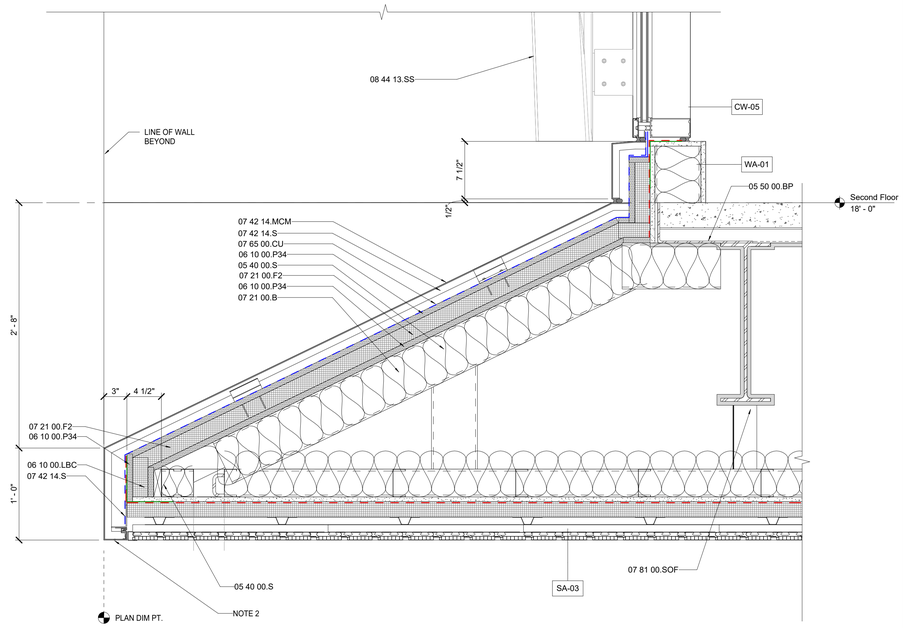
E3 WING WALL ABOVE ENTRY
0 1 2 FT



A1 WING WALL ABOVE ENTRY
0 1 2 FT



G10 SECTION DETAIL - WEST TERRACE ROOF EDGE
0 1 2 FT



A10 SECTION DETAIL - WEST TERRACE ROOF EDGE
0 1 2 FT

KEYNOTES

05 12 00.SP	Steel Pipe
05 12 00.TS	Structural Tubing
05 12 00.W	W Shape
05 40 00.S	Stud
05 50 00.BP	Bent Plate
05 50 00.L	Angle
06 10 00.LB	Blocking
06 10 00.LBC	Blocking, Continuous
06 10 00.P34	3/4" Plywood Panel
06 16 43.P5G	5/8" Gypsum Sheathing
07 21 00.B	Batt Insulation
07 21 00.F2	2" Fiber Board Insulation
07 25 10.TS	Transition Sheet
07 25 10.WRB	Weather-Resistant Barrier
07 42 14.MCM	Metal Composite Material Wall Panel
07 42 14.S	Subgirt
07 42 14.TBS	Thermal Break Support
07 50 00.DS	Deck Sheathing
07 55 56.HRAM	Hot Rubberized Asphalt Membrane
07 62 00.CFR	Two-Piece Counter Flashing & Receiver
07 65 00.CU	Modified Asphalt Coping Underlayment
07 81 00.SOF	Sprayed-On Fireproofing
07 92 00.JS	Joint Sealant
08 43 13.SF	Storefront
08 44 13.CW	Curtain wall
08 44 13.PSSS	Preformed Silicone Sheet Seal
08 44 13.SS	Custom Integrated Sun Screen
09 21 16.FS	Metal Stud
09 21 16.GW	Gypsum Wallboard
09 27 00.CC3	Column Cover, 19" Diameter
12 24 13.SS2	Shade System 2

GENERAL NOTES

A. SEE G20X SERIES FOR EXTERIOR ASSEMBLIES.
B. SEAL ALL UPWARD-FACING JOINTS IN MCM PANELS WITH SPECIFIED SEALANT; CONTINUE SEALANT DOWN VERTICAL FACE OF PANEL TO NEXT CHANGE IN PLANE.

SHEET SPECIFIC NOTES

1. MCM COPING BEYOND.
2. WEEP IN MCM PANEL.

LORD AECK SARGENT

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REVISION

SHEET TITLE: DETAILS - SOUTHWEST INSET
SCALE: (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockar, Registered Architect, 9674, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A546

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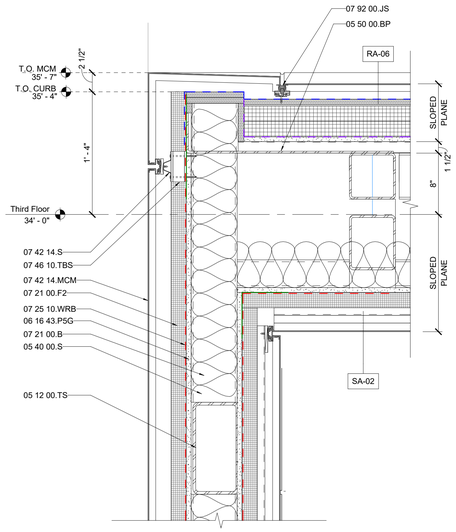

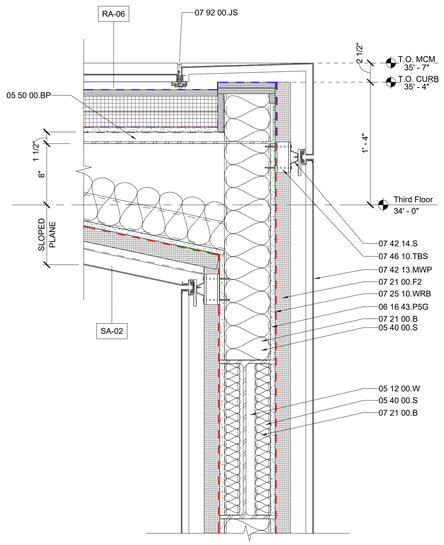

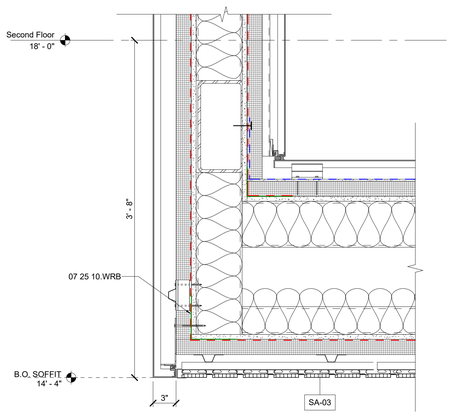

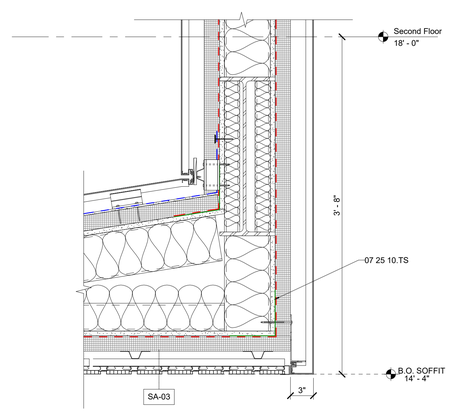

A9 WALL SECTION

A13 WALL SECTION

KEYNOTES

05 12 00.TS	Structural Tubing
05 12 00.W	W Shape
05 40 00.S	Stud
05 50 00.BP	Bent Plate
06 16 43.P5G	5/8" Gypsum Sheathing
07 21 00.B	Batt Insulation
07 21 00.F2	2" Fiber Board Insulation
07 25 10.TS	Transition Sheet
07 25 10.WRB	Weather-Resistant Barrier
07 42 13.MWP	Metal Wall Panel
07 42 14.MCM	Metal Composite Material Wall Panel
07 42 14.S	Subgirt
07 46 10.TBS	Thermal Break Support
07 92 00.JS	Joint Sealant

GENERAL NOTES

A. SEE G20X SERIES FOR EXTERIOR ASSEMBLIES.
B. SEAL ALL UPWARD-FACING JOINTS IN MCM PANELS WITH SPECIFIED SEALANT; CONTINUE SEALANT DOWN VERTICAL FACE OF PANEL TO NEXT CHANGE IN PLANE.

SHEET SPECIFIC NOTES

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REVISION:

SHEET TITLE: DETAILS - SOUTHWEST INSET

SCALE (U.N.O.): 0 1 2FT

SITE NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockar, Registered Architect, North Carolina, 30174, Carrboro, NC, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A547

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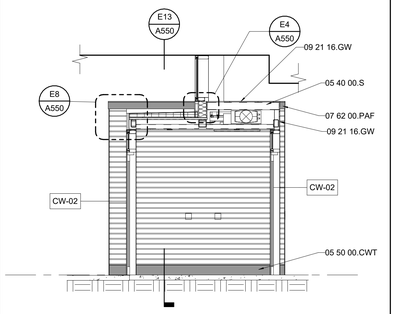
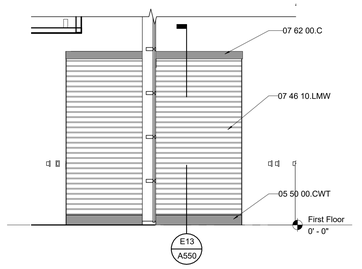
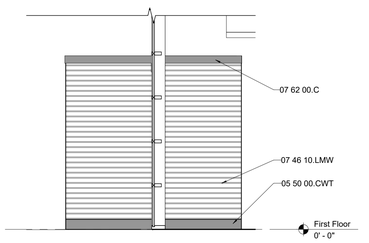


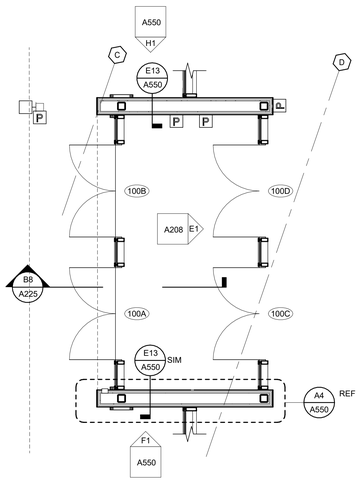
L3 SECTION - VESTIBLE
0 6 12 FT



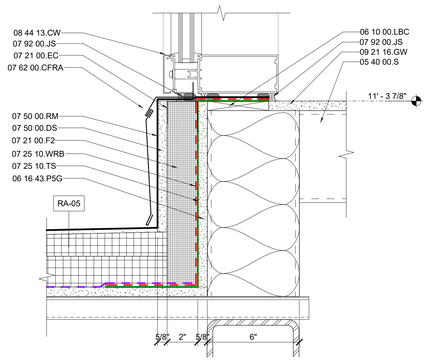
H1 ELEVATION - NORTH SIDE OF VESITBULE
0 6 12 FT



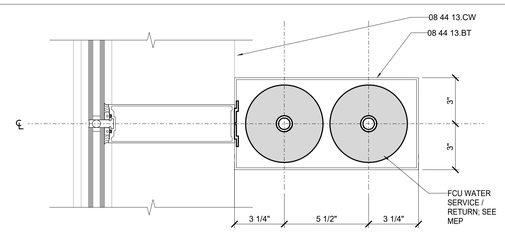
F1 ELEVATION - SOUTH SIDE VESTIBULE
0 6 12 FT



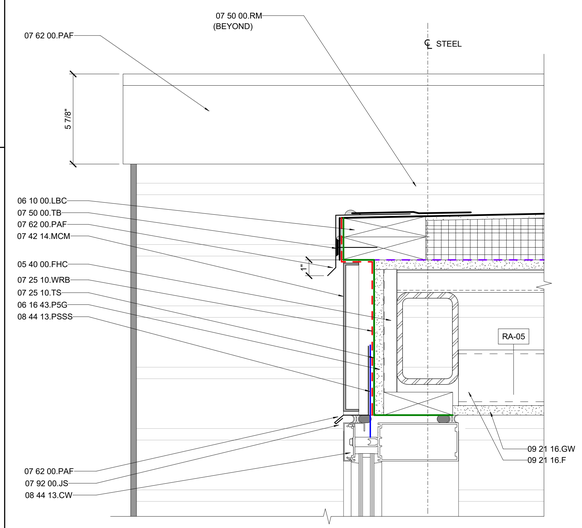
A1 ENLARGED PLAN - VESTIBULE
0 6 12 FT



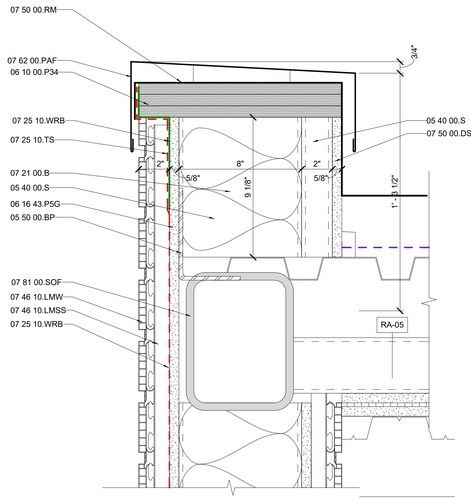
E4 SECTION DETAIL - CURTAIN WALL SILL AT VESTIBULE ROOF
0 6 12 IN

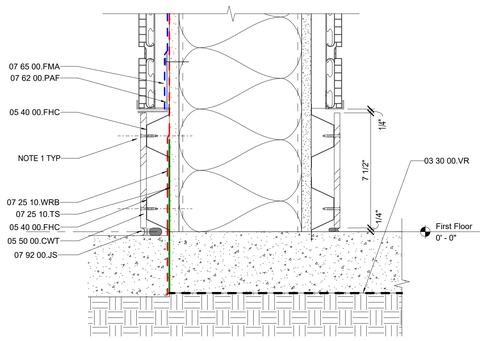


K8 PLAN DETAIL - BREAK METAL TRIM TO CONCEAL FCU PIPING
0 6 12 IN

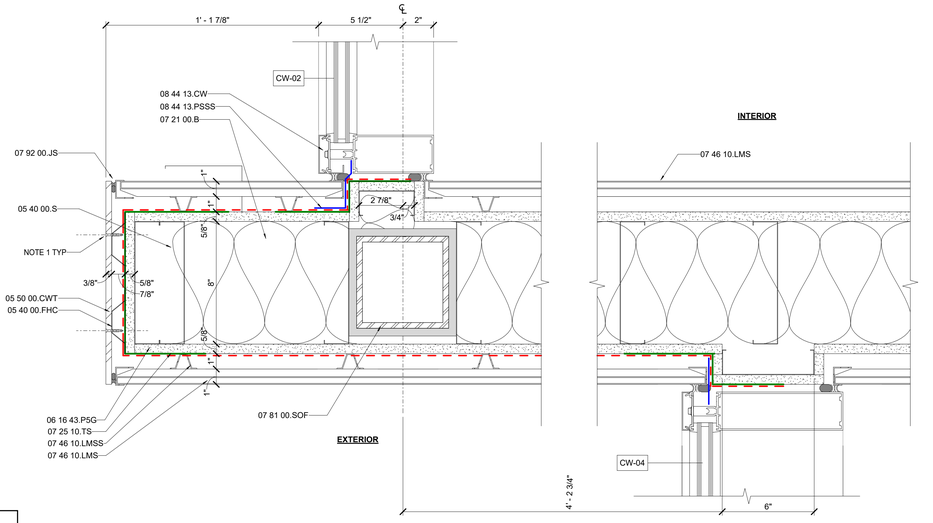


E8 SECTION DETAIL - WEST ROOF EDGE
0 6 12 IN





E13 SECTION DETAIL - VESTIBULE WALL
0 6 12 IN



A4 PLAN DETAIL - VESTIBULE
0 6 12 IN

KEYNOTES

03 30 00.VR	Sheet Vapor Retarder
05 40 00.FHC	Furring Hat Channel
05 40 00.S	Stud
05 50 00.BP	Bent Plate
05 50 00.CWT	Curtain Wall Trim
06 10 00.LBC	Blocking, Continuous
06 10 00.P34	3/4" Plywood Panel
06 16 43.P5G	5/8" Gypsum Sheathing
07 21 00.B	Batt Insulation
07 21 00.EC	Edge Closure Channel
07 21 00.F2	2" Fiber Board Insulation
07 25 10.TS	Transition Sheet
07 25 10.WRB	Weather-Resistant Barrier
07 42 14.MCM	Metal Composite Material Wall Panel
07 46 10.LMS	Linear Metal Soffit
07 46 10.LMSS	Linear Metal Suspension System
07 46 10.LMW	Linear Metal Wall Panel
07 50 00.DS	Deck Sheathing
07 50 00.RM	Roof Membrane
07 50 00.TB	Termination Bar
07 62 00.C	Coping
07 62 00.CFRA	Two-Piece Counter Flashing & Receiver - Prefinished Aluminum
07 62 00.PAF	Pre-Finished Aluminum Sheet Metal Flashing
07 65 00.FMA	Flashing, Modified Asphalt
07 81 00.SOF	Sprayed-On Fireproofing
07 92 00.JS	Joint Sealant
08 44 13.BT	Break Metal Trim
08 44 13.CW	Curtain wall
08 44 13.PSSS	Preformed Silicone Sheet Seal
09 21 16.F	Framing
09 21 16.GW	Gypsum Wallboard

GENERAL NOTES

A. SEE G20X SERIES FOR EXTERIOR ASSEMBLIES.
B. SEAL ALL UPWARD-FACING JOINTS IN MCM PANELS WITH SPECIFIED SEALANT; CONTINUE SEALANT DOWN VERTICAL FACE OF PANEL TO NEXT CHANGE IN PLANE.

SHEET SPECIFIC NOTES

1. COUNTER SUNK SS FASTENERS @ 16" O.C.; MATCH FINISH OF PLATE.

LORD AECK SARGENT

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REVISION:

SHEET TITLE: DETAILS - SOUTH ENTRY VESTIBULE
SCALE (U/N.O.):

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rocker, Registered Architect, 39714, North Carolina, Chapel Hill, NC, 12.20.2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A550

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DOOR SCHEDULE - FIRST FLOOR

DOOR NO.	PR	DOOR 1 TYPE	DOOR 1 WIDTH	DOOR 2 TYPE	DOOR 2 WIDTH	DOOR HEIGHT	DOOR T	DOOR MAT	DOOR FIN	FRAME TYPE	FRAME TRIM HW	FRAME MAT	RATING (MIN.)	GLASS DOOR	GLASS SIDELIGHT	GLASS TRANSOM	DOOR HARDWARE	REMARKS
100K	PR	A : 1	3' - 0"	A : 1	3' - 0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					9.0	ACCESS CONTROL
100L		A : 1	4' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					12.0	ACCESS CONTROL, PANIC
100M		A : 1	4' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					15.0	ACCESS CONTROL
101B		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					25.0	
101C		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					32.0	
101D	PR	D : 1	3' - 0"	D : 1	3' - 0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
120		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					24.0	ACCESS CONTROL
122.1		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					33.0	
122.2		--	3' - 0"	--	0"	8' - 0"	1 3/4"	--		1 : A	2"	STL						CASED OPENING
124		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
125		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					31.0	
126.1		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					33.0	
126.2		--	3' - 0"	--	0"	8' - 0"	1 3/4"	--		1 : A	2"	STL						CASED OPENING
128		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
130.1	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
130.2	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
130A.1		A : 1	3' - 6"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
130A.2		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
130A.5		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD		S : 49		AL					32.0	
131.1	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
131.2	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
131A.1		A : 1	3' - 6"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
131A.2		A : 1	3' - 6"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
133.1		D : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		SF			25.0	
133.2		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					25.0	
133.3		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					25.0	
134		D : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		SF			25.0	
135.1	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
135.2	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
140A		A : 1	4' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
140B		A : 1	4' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					22.0	PANIC
140C		A : 1	4' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					22.0	PANIC
149		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					22.0	PANIC
150	PR	A : 1	3' - 0"	A : 1	3' - 0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					19.0	
160A		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			SF		32.0	FIXED TRANSOM, SEE S89/A602
160B		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
160C		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			SF		32.0	FIXED TRANSOM, SEE S89/A602
160D		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			SF		32.0	FIXED TRANSOM, SEE S89/A602
SB01		C : 2	3' - 6"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL	60	FS			21.0	PANIC

SPECIALTY DOOR SCHEDULE - FIRST FLOOR

DOOR NO.	PR	TYPE	WIDTH	HEIGHT	DOOR MATERIAL	RATING (MIN.)	DOOR HARDWARE	GLASS DOOR	GLASS SIDELIGHT	GLASS TRANSOM	REMARKS
100A	PR	WIDE STILE	3' - 0"	8' - 0"	AL		2.0	TS	TS	TS	PANIC
100B	PR	WIDE STILE	3' - 0"	8' - 0"	AL		1.0	TS	TS	TS	ACCESS CONTROL, AUTO OPERATOR, PANIC
100C	PR	WIDE STILE	3' - 0"	8' - 0"	AL		3.0	TS	TS	TS	
100D	PR	WIDE STILE	3' - 0"	8' - 0"	AL		4.0	TS	TS	TS	POWER OPERATOR
100E		WIDE STILE	3' - 0"	8' - 0"	AL		6.0	TS			ACCESS CONTROL, PANIC
100F		OVERHEAD SECTIONAL DOOR	10' - 0"	8' - 0"	AL		34.0				SEE SECTION 08 36 13
100G		OVERHEAD SECTIONAL DOOR	10' - 0"	8' - 0"	AL		34.0				SEE SECTION 08 36 13
100H	PR	WIDE STILE	3' - 0"	8' - 0"	AL		1.0	TS	TS	TS	ACCESS CONTROL, POWER OPERATOR, PANIC
100J	PR	WIDE STILE	3' - 0"	8' - 0"	AL		3.0	TS	TS	TS	AUTO OPERATOR
100N		WIDE STILE	3' - 4"	8' - 0"	AL		5.0	TS	TS	TS	ACCESS CONTROL, POWER OPERATOR, PANIC
101.1	PR	WIDE STILE	3' - 3"	8' - 0"	AL		18.0	LA		LA	
101.2	PR	WIDE STILE	3' - 3"	8' - 0"	AL		18.0	LA		LA	
101A.1		WIDE STILE	3' - 0"	8' - 0"	AL		25.0	LA	LA	LA	SEE STOREFRONT ELEVATION
101A.2		WIDE STILE	3' - 0"	8' - 0"	AL		25.0	LA	LA	LA	SEE STOREFRONT ELEVATION
140		WIDE STILE	3' - 0"	8' - 0"	AL		17.0	LA	LA	LA	ACCESS CONTROL
160		WIDE STILE	3' - 0"	8' - 0"	AL		25.0	SF	SF	SF	
SA01		WIDE STILE	3' - 4"	8' - 0"	AL	60	21.0				PANIC

DOOR SCHEDULE - SECOND FLOOR

DOOR NO.	PR	DOOR 1 TYPE	DOOR 1 WIDTH	DOOR 2 TYPE	DOOR 2 WIDTH	DOOR HEIGHT	DOOR T	DOOR MAT	DOOR FIN	FRAME TYPE	FRAME TRIM HW	FRAME MAT	RATING (MIN.)	GLASS DOOR	GLASS SIDELIGHT	GLASS TRANSOM	DOOR HARDWARE	REMARKS
200A		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		29.0	
201		C : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		SF			25.0	
202.1	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
202.2	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
202A	UPR	A : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					19.0	
203.1	PR	C : 1	3' - 0"	C : 1	3' - 0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		SF			18.0	
203.2		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					23.0	
204	PR	A : 1	3' - 0"	A : 1	3' - 0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					19.0	
205.1	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
205.2	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
220		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					24.0	ACCESS CONTROL
222.1		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					33.0	
222.2		--	3' - 0"	--	0"	8' - 0"	1 3/4"	--		1 : A	2"	STL						CASED OPENING
224		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
226.1		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					33.0	
226.2		--	3' - 0"	--	0"	8' - 0"	1 3/4"	--		1 : A	2"	STL						CASED OPENING
228		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
230.1	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
230.2	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
231.1	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
231.2	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
231A.1	PR	A : 1	3' - 0"	A : 1	3' - 0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					19.0	
231A.2	UPR	A : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					19.0	
231A.3		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL	60				27.0	
232.1		D : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		SF			25.0	
232.2		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					25.0	
232.3		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					25.0	
233.1	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
233.2	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
233A.1		A : 1	3' - 6"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
233A.2		A : 1	3' - 6"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
234.1	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
234.2	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
234A.1		A : 1	3' - 6"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
234A.2		A : 1	3' - 6"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
235.1		D : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		SF			25.0	
235.2		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					25.0	
235.3		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					25.0	
236.1	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
236.2	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
236A.1		A : 1	3' - 6"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
237.1	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
237.2	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL		LA			18.0	
249		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					13.0	ACCESS CONTROL, PANIC
251		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
253		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
255		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
257		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
259		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
261		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
263		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
265		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
267		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
269		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
270		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"			1 : A	2"						27.0	
271		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
272		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"			1 : A	2"						25.0	
273		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
274		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
275		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
SB02		C : 2	3' - 6"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL	60	FS			21.0	PANIC

SPECIALTY DOOR SCHEDULE - SECOND FLOOR

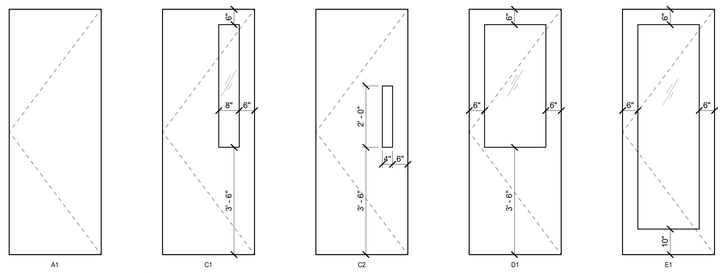
DOOR NO.	PR	TYPE	WIDTH	HEIGHT	DOOR MATERIAL	RATING (MIN.)	DOOR HARDWARE	GLASS DOOR	GLASS SIDELIGHT	GLASS TRANSOM	REMARKS
277		WIDE STILE	3' - 0"	8' - 0"	AL		25.0	LA	LA	LA	
SA02		WIDE STILE	3' - 4"	8' - 0"	AL	60	21.0				PANIC

DOOR SCHEDULE - THIRD FLOOR AND PENTHOUSE

DOOR NO.	PR	DOOR 1 TYPE	DOOR 1 WIDTH	DOOR 2 TYPE	DOOR 2 WIDTH	DOOR HEIGHT	DOOR T	DOOR MAT	DOOR FIN	FRAME TYPE	FRAME TRIM HW	FRAME MAT	RATING (MIN.)	GLASS DOOR	GLASS SIDELIGHT	GLASS TRANSOM	DOOR HARDWARE	REMARKS
301		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
302		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		25.0	FIXED TRANSOM, SEE S49/A602
303		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
304		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
305		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
306	PR	A : 1	3' - 0"	A : 1	3' - 0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					19.0	
307		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
308		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		25.0	FIXED TRANSOM, SEE S49/A602
309		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			SF		26.0	FIXED TRANSOM, SEE S89/A602
309A		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
309B		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
309C		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
309D		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
309E		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			LA		32.0	FIXED TRANSOM, SEE S49/A602
311		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
312		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			SF		25.0	FIXED TRANSOM, SEE S89/A602
313.1		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			SF		25.0	FIXED TRANSOM, SEE S89/A602
313.2		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	S : 49		AL			SF		25.0	FIXED TRANSOM, SEE S89/A602
315		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
320		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					24.0	ACCESS CONTROL
322.1		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					33.0	
322.2		--	3' - 0"	--	0"	8' - 0"	1 3/4"	--		1 : A	2"	STL						CASED OPENING
324		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
326.1		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					33.0	
326.2		--	3' - 0"	--	0"	8' - 0"	1 3/4"	--		1 : A	2"	STL						CASED OPENING
328		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					27.0	
329	PR	A : 1	3' - 0"	A : 1	3' - 0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					16.0	ACCESS CONTROL, PANIC
330		--	3' - 0"	--	0"	8' - 0"	1 3/4"	--		1 : A	2"	STL						CASED OPENING
330A		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					27.0	
331		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					31.0	
333		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					31.0	
335		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					31.0	
337		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					31.0	
339.1		C : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL			SF		30.0	INTERLOCK A
339.2		C : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL			SF		30.0	INTERLOCK A
341		D : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL			LA		27.0	
343.1		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					30.0	INTERLOCK B
343.2		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					30.0	INTERLOCK B
344	PR	A : 1	3' - 0"	A : 1	3' - 0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					18.0	
346	PR	A : 1	3' - 0"	A : 1	3' - 0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					19.0	
347	PR	A : 1	3' - 0"	A : 1	3' - 0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					16.0	ACCESS CONTROL, PANIC
349		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					13.0	ACCESS CONTROL, PANIC
350.1		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					20.0	EXIT ONLY, PANIC
350.2		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					20.0	EXIT ONLY, PANIC
350D	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL			LA		18.0	
350E		C : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL			SF		26.0	INTERLOCK C
350F		C : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL			SF		26.0	INTERLOCK C
350G	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL			SF		18.0	
350H	UPR	D : 1	3' - 0"	A : 1	1' - 6"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL			LA		18.0	
350K		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					27.0	
350K.1		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					28.0	EXIT ONLY
360	PR	A : 1	3' - 0"	A : 1	3' - 0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL					19.0	
SB03		C : 2	3' - 6"	--	0"	8' - 0"	1 3/4"	WD	STN	1 : A	2"	STL	60	FS			21.0	PANIC
401	PR	A : 1	3' - 0"	A : 1	3' - 0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					10.0	
402		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					22.0	PANIC
403		A : 1	4' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					11.0	
404		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL					15.0	ACCESS CONTROL
SB04		A : 1	3' - 0"	--	0"	8' - 0"	1 3/4"	STL	PT	1 : A	2"	STL	60	FS			14.0	ACCESS CONTROL, PANIC

SPECIALTY DOOR SCHEDULE - THIRD FLOOR AND PENTHOUSE

DOOR NO.	PR	TYPE	WIDTH	HEIGHT	DOOR MATERIAL	RATING (MIN.)	DOOR HARDWARE	GLASS DOOR	GLASS SIDELIGHT	GLASS TRANSOM	REMARKS
300A		WIDE STILE - IN	3' - 7 1/2"	8' - 0"	AL		8.0	TS			PANIC
300B		WIDE STILE - IN	3' - 5"	8' - 0"	AL		7.0	TS			AUTO OPERATOR, PANIC
343.3		OVERHEAD RAPID COILING DOOR	6' - 0"	8' - 0"	PVC						SEE SECTION 08 33 23.13
343.4		OVERHEAD RAPID COILING DOOR	6' - 0"	8' - 0"	PVC						SEE SECTION 08 33 23.13
SA03		WIDE STILE	3' - 4"	8' - 0"	AL	60	21.0				PANIC


A1
C1
C2
D1
E1
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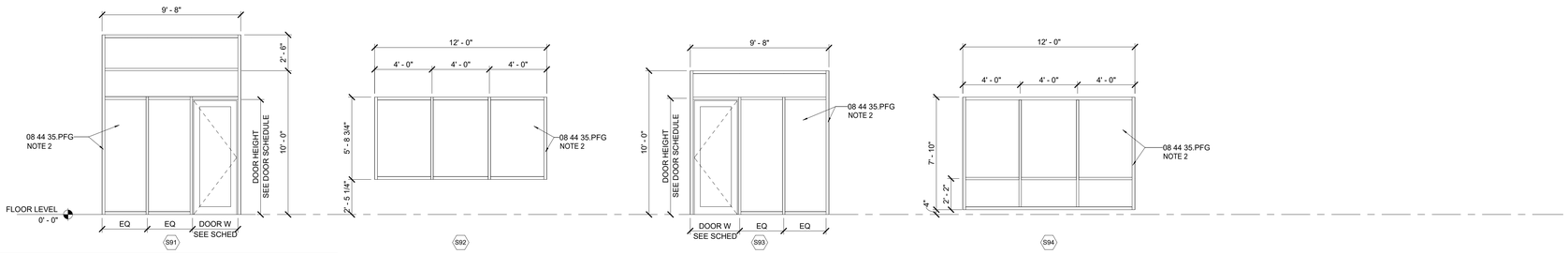
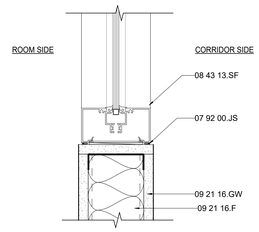
8"
3' - 6"
2' - 0"
4"
3' - 6



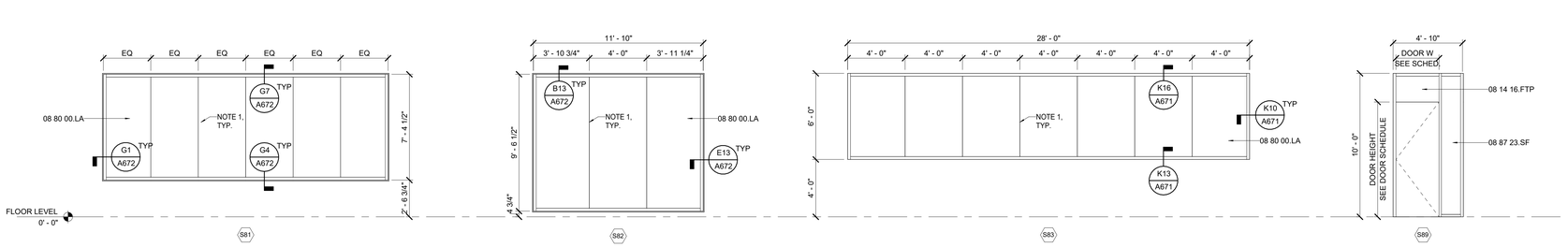
M1 PROTECTED FRAMED GLAZING ASSEMBLY ELEVATIONS

0 4 8 FT



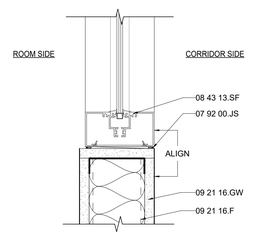
M14 TYPICAL HEAD/SILL/JAMB STOREFRONT DETAIL

0 6 12 IN



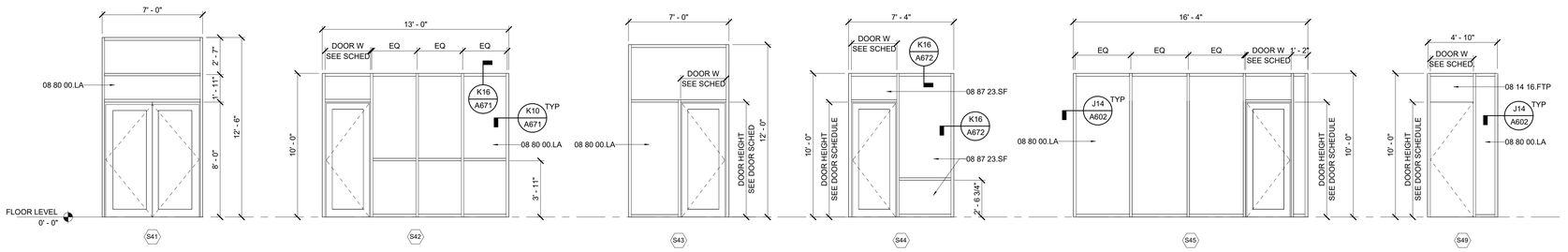
J1 INTERIOR STOREFRONT ELEVATIONS

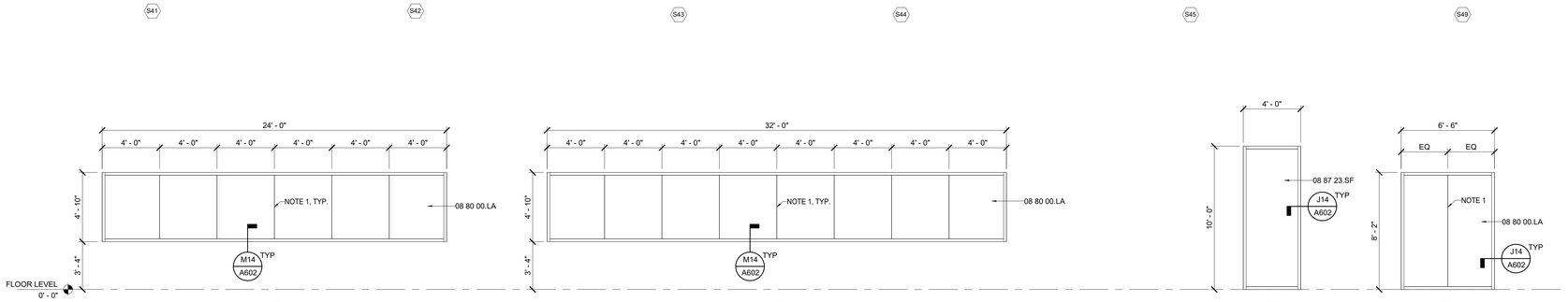
0 4 8 FT

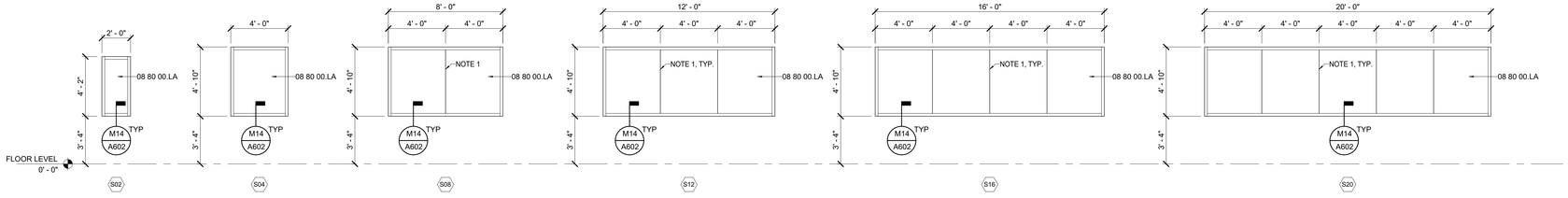


J14 HEAD/JAMB STOREFRONT DETAIL

0 6 12 IN







B1 INTERIOR STOREFRONT ELEVATIONS

0 4 8 FT

MATERIAL KEYNOTES

07 92 00.JS	Joint Sealant
08 14 16.FTP	Fixed Transom Panel
08 43 13.SF	Storefront
08 44 35.PFG	Interior Protective Framed Glazing Assembly
08 80 00.LA	Laminated Acoustical Glass
08 87 23.SF	Security Film
09 21 16.F	Framing
09 21 16.GW	Gypsum Wallboard

GENERAL NOTES

A. INTERIOR STOREFRONT GLAZING TO BE LAMINATED GLASS (08 80 00.LA) TYPICAL UNLESS NOTED OTHERWISE.
B. INTERIOR STOREFRONT FRAMING TO BE STOREFRONT (08 43 13.SF) TYPICAL UNLESS NOTED OTHERWISE

SHEET SPECIFIC NOTES

1. SILICONE GLAZED VERTICAL JOINT.
2. 60 MINUTE RATING.

LORD AECK SARGENT

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Planning & Design, Inc.
LordAeckSargent.com

REVISION:

SHEET TITLE
INTERIOR STOREFRONT ELEVATIONS AND DETAILS

SCALE (U.N.O.)

FOR WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN INC
CERT. NO. 53851
NORTH CAROLINA
CHAPEL HILL

SEAL
Lauren Dunn Rocker
Registered Architect
9974
North Carolina
Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
A602

NOT FOR CONSTRUCTION

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/Central_11751-00_v22.rvt
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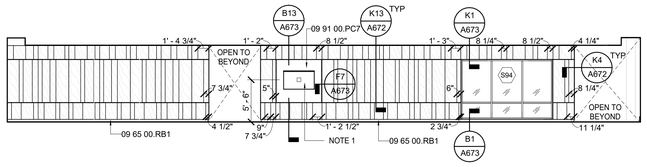
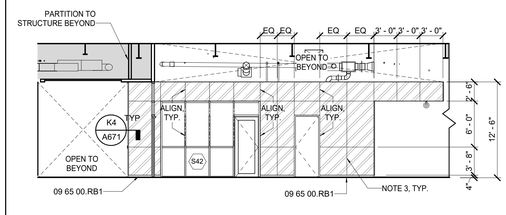
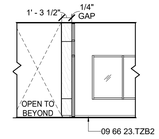


M1 | 300A CORRIDOR-EAST



M8 | 101 MAKERSPACE BOX-SOUTH



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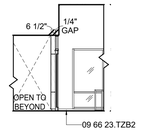
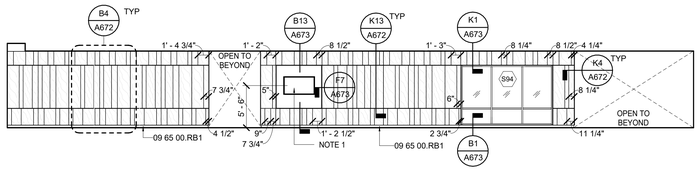


M14 | 200E & 300E STAIR A-WEST



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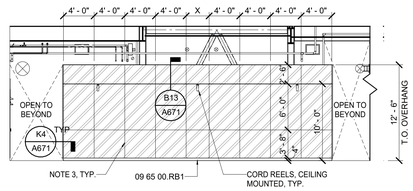

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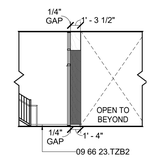

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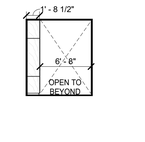
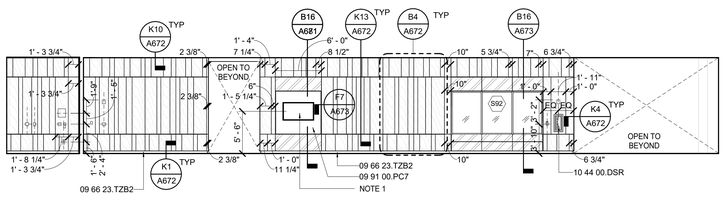


K14 | 100C, 200C, 300B CORRIDOR WEST



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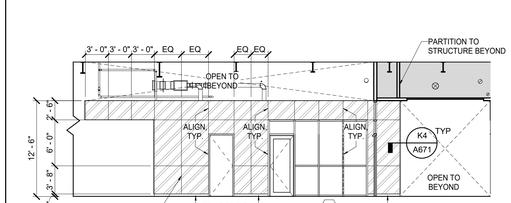

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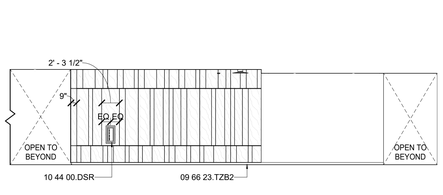

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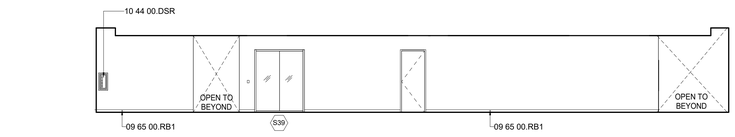

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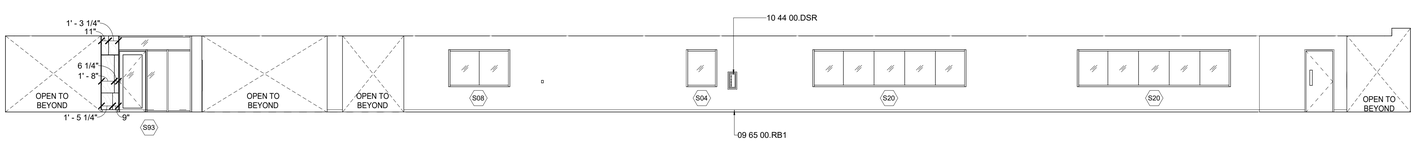

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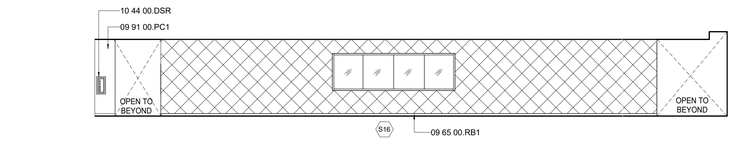
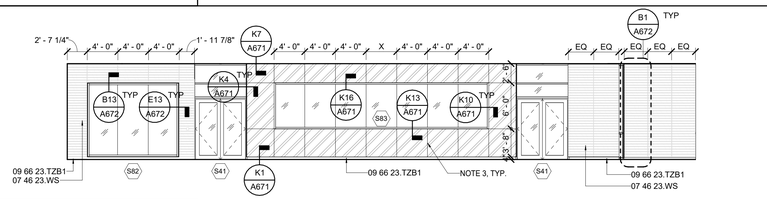


D1 | 200A CORRIDOR-WEST

D8 | 200E CORRIDOR-NORTH



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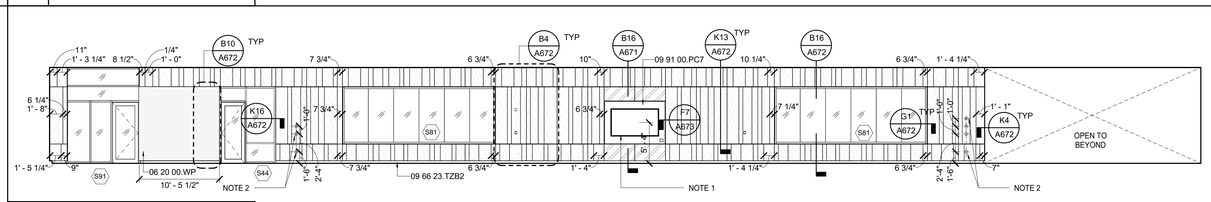

B7 | 100E CORRIDOR-NORTH

MATERIAL KEYNOTES

05 70 00.MWP	Blackened Steel Metal Wall Panels	10 11 47.TW1	Tackable Wallcovering Color 1
06 20 00.WP	Wood Slat Paneling	10 11 47.TW2	Tackable Wallcovering Color 2
06 42 00.MWP	Metal Laminate Wall Paneling	10 44 00.DSR	Multi-Purpose FE And Semi-Recessed Cabinet
06 42 00.WP	Wood Paneling		
07 46 23.WS	Wood Siding		
08 87 00.GF1	Graphic Film 1		
09 30 00.T5	Tile 5		
09 65 00.RB1	Resilient Base 1		
09 66 23.TZB1	Terrazzo Base Color 1		
09 66 23.TZB2	Terrazzo Base Color 2		
09 84 14.AWP1	Acoustic Wall Panel 1		
09 91 00.PC1	Paint Color 1		
09 91 00.PC7	Paint Color 7		

LEGEND

- WOOD PANELING 06 42 00.WP
- METAL LAMINATE WALL PANELS 06 42 00.MWP
- ALTERNATE A6 (CUSTOM METAL WALL PANELS) 05 70 00.MWP
- DECORATIVE WALL TILE 09 30 00.T5
- TACKABLE WALL COVERING 10 11 47.TW1
- TACKABLE WALL COVERING 10 11 47.TW2
- ACOUSTIC WALL PANEL 09 84 14.AWP1
- GRAPHIC FILM 1 08 87 00.GF1

GENERAL NOTES

A. INTERIOR STOREFRONT ELEVATIONS INDICATED AS (Sxx). SEE SHEET A602 FOR STOREFRONT ELEVATIONS.

B. REFER TO SHEET G021 FOR TYPICAL MOUNTING HEIGHTS AND LOCATIONS.
C. SEE EXTERIOR ELEVATIONS AND WALL SECTIONS FOR EXTERIOR GLAZING TYPES.
D. REFER TO A701, A702, A703 AND A704 INTERIOR FINISH PLANS FOR GENERAL FINISHES IN EACH ROOM AND ADDITIONAL ACCENT PAINT COLOR LOCATIONS.
E. REFER TO SHEET A672 FOR INTERIOR DETAILS FOR WOOD PANELING.
F. PRECAST TERRAZZO BASE TZB BE RECESSED AT WOOD PANELING; SEE K1/A672.
G. COLOR OF PRECAST TERRAZZO BASE TO MATCH COLOR OF ADJACENT FLOOR; REFER TO FINISH PLANS AND VERIFY TRANSITION POINT OF PRECAST BASE IN FIELD.
H. ALL WALLS TO BE PAINTED 09 91 00.PC1 UNLESS NOTED OTHERWISE.
I. ALL BIOPHARMA SUITE ROOMS AND SUPPORT ROOM WALLS TO BE PAINTED 09 96 00.HPC1.
J. ALL TACKABLE WALLCOVERING TO RECEIVE ALUMINUM TRIM ON ALL 4 SIDES. TRIM TO BE MITERED AT CORNERS.
K. ALL DRY ERASE WALLCOVERING TO RECEIVE ALUMINUM TRIM ON EDGES NOT ABUTTING ANOTHER SURFACE. TRIM TO BE MUD-IN.
L. ALTERNATE A6: USE CORRESPONDING DETAILS FROM SHEET A681 IN LIEU OF DETAILS TAGGED FOR SHEET A671.

SHEET SPECIFIC NOTES

1. FLAT PANEL DISPLAY; PROVIDE IN-WALL BLOCKING. REFER TO ELECTRICAL AND AV DRAWINGS.
2. ALIGN WALL MOUNTED DEVICES AS INDICATED. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION, TYP.
3. BUTT-JOINT METAL LAMINATE WALL PANELS, TYP.

LORD AECK SARGENT

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REVISION:

SHEET TITLE: INTERIOR ELEVATIONS

SCALE (U.N.O.): 0 8 16 FT

SITE NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, North Carolina, Chapel Hill, NC, 39174, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A621

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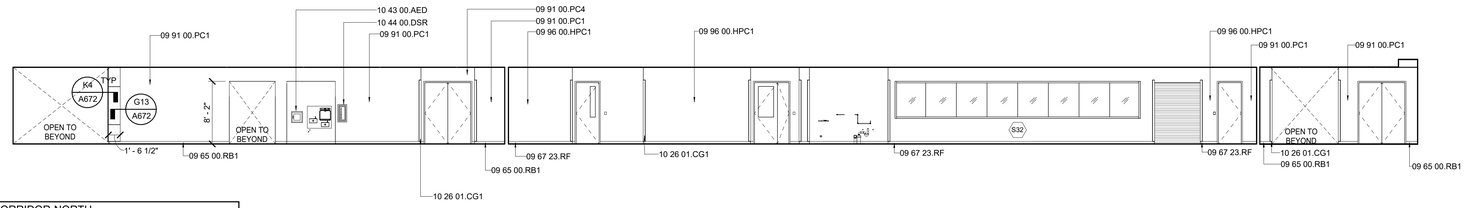
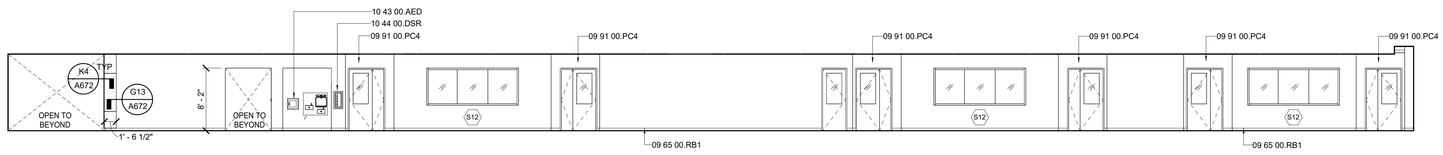
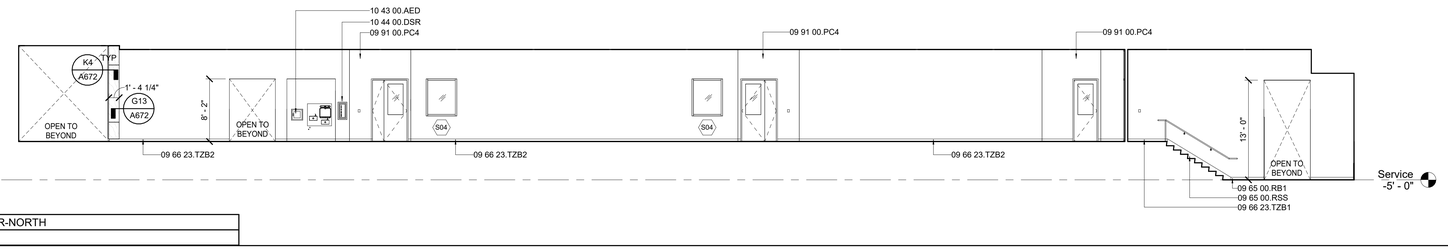


M6 300B AND 350 CORRIDOR-NORTH



K6 200C CORRIDOR-NORTH



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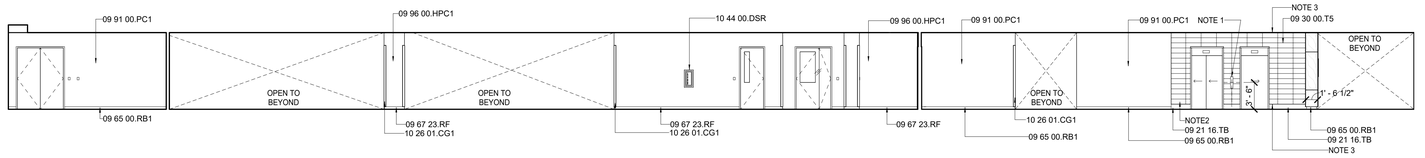
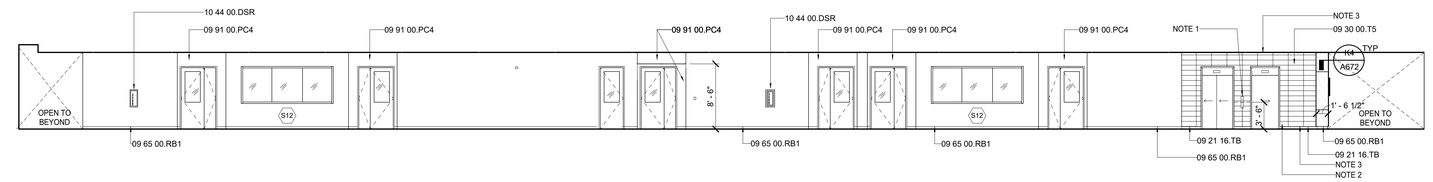
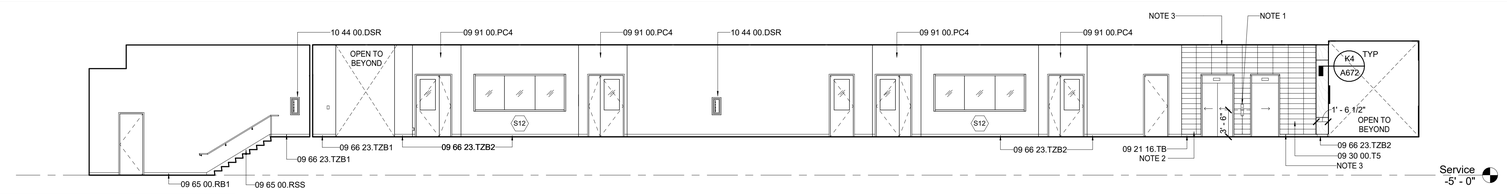


F6 300B AND 350 CORRIDOR-SOUTH



D6 200C CORRIDOR-SOUTH



B6 100C CORRIDOR-SOUTH

MATERIAL KEYNOTES

09 21 16.TB	Reveal Base Trim
09 30 00.T5	Tile 5
09 65 00.RB1	Resilient Base 1
09 65 00.RSS	Resilient Stair Stringer
09 66 23.TZB1	Terrazzo Base Color 1
09 66 23.TZB2	Terrazzo Base Color 2
09 67 23.RF	Resinous Flooring
09 91 00.PC1	Paint Color 1
09 91 00.PC4	Paint Color 4
09 96 00.HPC1	High Performance Coating Color 1
10 26 01.CG1	Corner Guard, 3"
10 43 00.AED	Automated External Defibrillator & Cabinet
10 44 00.DSR	Multi-Purpose FE And Semi-Recessed Cabinet

LEGEND

- WOOD PANELING 06 42 00.WP
- METAL LAMINATE WALL PANELS 06 42 00.MWP
- ALTERNATE A6 (CUSTOM METAL WALL PANELS) 05 70 00.MWP
- DECORATIVE WALL TILE 09 30 00.T5
- TACKABLE WALL COVERING 10 11 47.TW1
- TACKABLE WALL COVERING 10 11 47.TW2
- ACOUSTIC WALL PANEL 09 84 14.AWP1
- GRAPHIC FILM 1 08 87 00.GF1

GENERAL NOTES

A. INTERIOR STOREFRONT ELEVATIONS INDICATED AS (Sxx). SEE SHEET A602 FOR STOREFRONT ELEVATIONS.

B. REFER TO SHEET G021 FOR TYPICAL MOUNTING HEIGHTS AND LOCATIONS.
C. SEE EXTERIOR ELEVATIONS AND WALL SECTIONS FOR EXTERIOR GLAZING TYPES.
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E. REFER TO SHEET A672 FOR INTERIOR DETAILS FOR WOOD PANELING.
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G. COLOR OF PRECAST TERRAZZO BASE TO MATCH COLOR OF ADJACENT FLOOR; REFER TO FINISH PLANS AND VERIFY TRANSITION POINT OF PRECAST BASE IN FIELD.
H. ALL WALLS TO BE PAINTED 09 91 00.PC1 UNLESS NOTED OTHERWISE.
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K. ALL DRY ERASE WALLCOVERING TO RECEIVE ALUMINUM TRIM ON EDGES NOT ABUTTING ANOTHER SURFACE. TRIM TO BE MUD-IN.
L. ALTERNATE A6: USE CORRESPONDING DETAILS FROM SHEET A681 IN LIEU OF DETAILS TAGGED FOR SHEET A671.

SHEET SPECIFIC NOTES

1. ALIGN GROUT LINE WITH CENTER OF ELEVATOR CALL PANEL.
2. FULL TILE AT BOTTOM.
3. SCHLUTER TRIM AT TOP AND BOTTOM OF TILE. REFER TO SPECIFICATIONS.

LORD AECK SARGENT

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REVISION:

SHEET TITLE: INTERIOR ELEVATIONS

SCALE (U.N.O.): 0 8 16 FT

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, North Carolina, Chapel Hill, NC — 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A622

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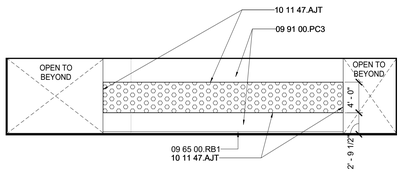
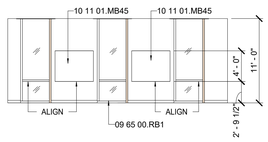
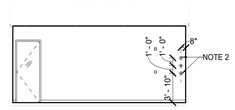


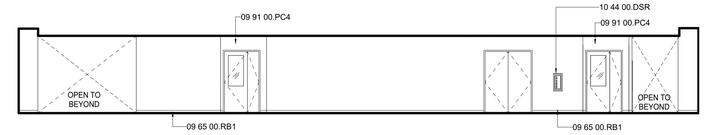
M1 | 200J & 300J FLEX STUDY-SOUTH



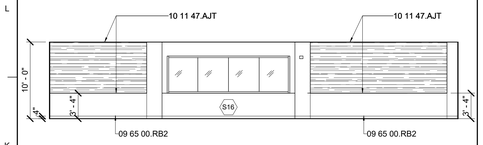
M4 | 200J & 300J FLEX STUDY-NORTH



M7 | 232 SHARED COMPUTER LAB- EAST



M11 | 200H CORRIDOR-EAST



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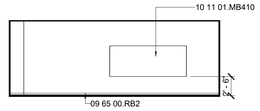

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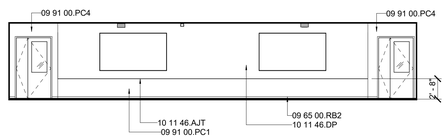
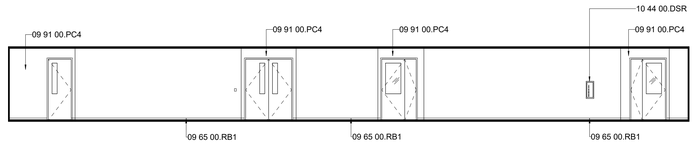


K7 | 202 CAD LAB #2-WEST



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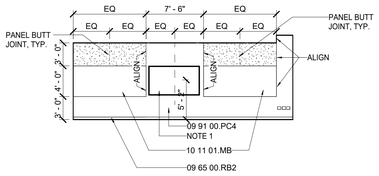
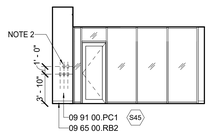
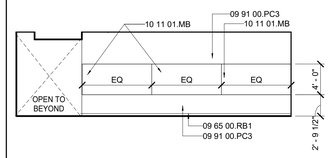


H1 | 277 LARGE CONF-EAST



H4 | 277-LARGE CONF-NORTH

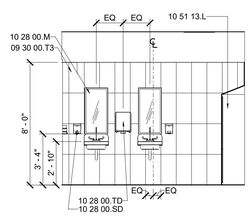


H7 | 300F FLEX STUDY-WEST

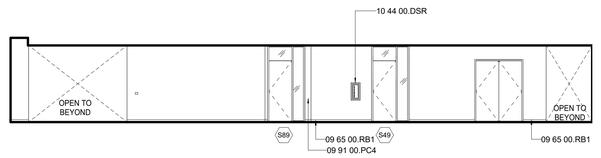
F1 | 302 SM CONF ROOM- SOUTH

F4 | 302 SM CONF-WEST

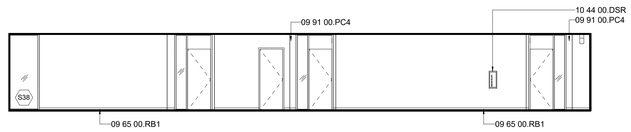
F7 | 302 SM CONF-NORTH



D1 | 330 LOCKERS-NORTH



D11 | 300H CORRIDOR-EAST



B11 | 300H CORRIDOR-WEST

MATERIAL KEYNOTES

09 30 00.T3	Tile 3	10 28 00.M	Mirror
09 65 00.RB1	Resilient Base 1	10 28 00.SD	Soap Dispenser
09 65 00.RB2	Resilient Base 2	10 28 00.TD	Toilet Room Paper Towel Dispenser
09 91 00.PC1	Paint Color 1	10 44 00.DSR	Multi-Purpose FE And Semi-Recessed Cabinet
09 91 00.PC3	Paint Color 3		
09 91 00.PC4	Paint Color 4	10 51 13.L	Locker
10 11 01.MB	Markerboard		
10 11 01.MB45	Markerboard, 4'x5'		
10 11 01.MB48	Markerboard, 4'x8'		
10 11 01.MB410	Markerboard, 4'x10'		
10 11 46.AJT	Aluminum J Trim		
10 11 46.DP	Dry Erase Projection Wallcovering		
10 11 47.AJT	Aluminum J Trim		

LEGEND

- WOOD PANELING 06 42 00.WP
- METAL LAMINATE WALL PANELS 06 42 00.MWP
- ALTERNATE A6 (CUSTOM METAL WALL PANELS) 05 70 00.MWP
- DECORATIVE WALL TILE 09 30 00.TS
- TACKABLE WALL COVERING 10 11 47.TW1
- TACKABLE WALL COVERING 10 11 47.TW2
- ACOUSTIC WALL PANEL 09 84 14.AWP1
- GRAPHIC FILM 1 08 87 00.GF1

GENERAL NOTES

A. INTERIOR STOREFRONT ELEVATIONS INDICATED AS (Sxx). SEE SHEET A602 FOR STOREFRONT ELEVATIONS.
B. REFER TO SHEET G021 FOR TYPICAL MOUNTING HEIGHTS AND LOCATIONS.
C. SEE EXTERIOR ELEVATIONS AND WALL SECTIONS FOR EXTERIOR GLAZING TYPES.
D. REFER TO A701, A702, A703 AND A704 INTERIOR FINISH PLANS FOR GENERAL FINISHES IN EACH ROOM AND ADDITIONAL ACCENT PAINT COLOR LOCATIONS.
E. REFER TO SHEET A672 FOR INTERIOR DETAILS FOR WOOD PANELING.
F. PRECAST TERRAZZO BASE TZB BE RECESSED AT WOOD PANELING; SEE K1/A672.
G. COLOR OF PRECAST TERRAZZO BASE TO MATCH COLOR OF ADJACENT FLOOR; REFER TO FINISH PLANS AND VERIFY TRANSITION POINT OF PRECAST BASE IN FIELD.
H. ALL WALLS TO BE PAINTED 09 91 00.PC1 UNLESS NOTED OTHERWISE.
I. ALL BIOPHARMA SUITE ROOMS AND SUPPORT ROOM WALLS TO BE PAINTED 09 96 00.HPC1.
J. ALL TACKABLE WALLCOVERING TO RECEIVE ALUMINUM TRIM ON ALL 4 SIDES. TRIM TO BE MITERED AT CORNERS.
K. ALL DRY ERASE WALLCOVERING TO RECEIVE ALUMINUM TRIM ON EDGES NOT ABUTTING ANOTHER SURFACE. TRIM TO BE MUD-IN.
L. ALTERNATE A6: USE CORRESPONDING DETAILS FROM SHEET A681 IN LIEU OF DETAILS TAGGED FOR SHEET A671.

SHEET SPECIFIC NOTES

1. FLAT PANEL DISPLAY; PROVIDE IN-WALL BLOCKING. SEE ELECTRICAL AND AV DRAWINGS FOR ADDITIONAL INFORMATION.
2. ALIGN WALL MOUNTED DEVICES VERTICALLY. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION, TYP.

LORD AECK SARGENT

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REVISION:

SHEET TITLE: INTERIOR ELEVATIONS

SCALE (UNO): 0 8 16 FT

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, 9674, Registered Architect, North Carolina, Chapel Hill, NC, 12·20·2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A623

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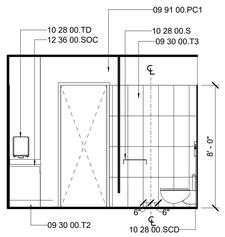
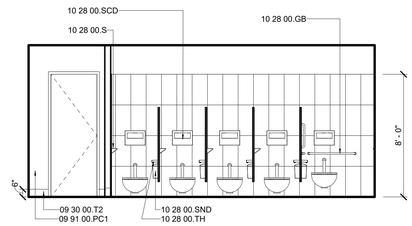


L7 WOMEN 226/326 SOUTH



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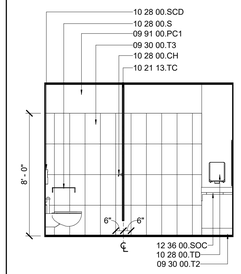

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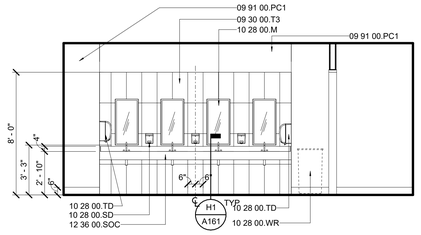

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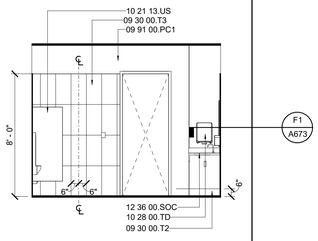

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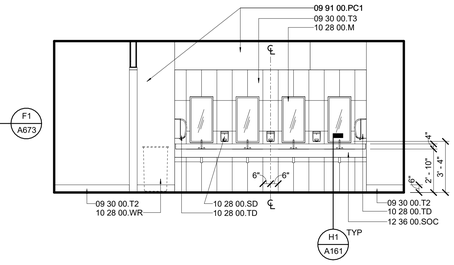

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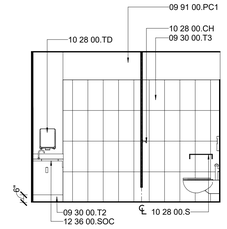

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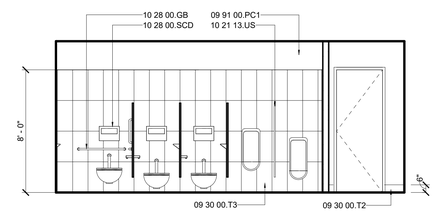


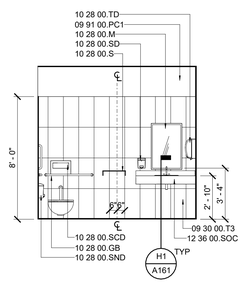
H15 MEN 222/322 EAST

E7 WOMEN 126 SOUTH

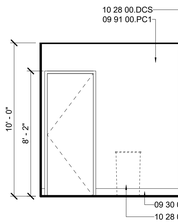
E9 WOMEN 126 WEST

E13 WOMEN 126 NORTH

E15 WOMEN 126 EAST



B1 FAMILY RR 123 SOUTH



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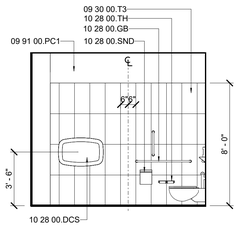

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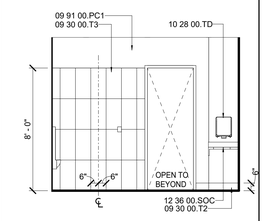

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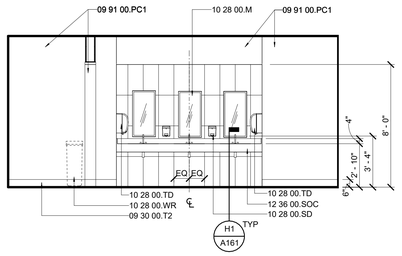
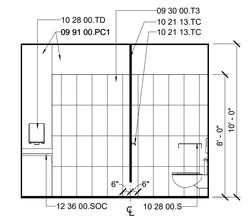
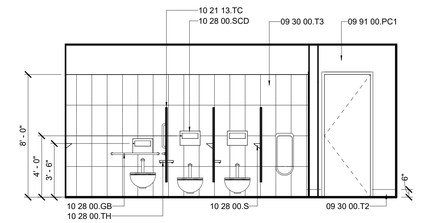


B9 MEN 122 WEST



B13 MEN 122 NORTH



B15 MEN 122 EAST

MATERIAL KEYNOTES

09 30 00.T2	Tile 2
09 30 00.T3	Tile 3
09 91 00.PC1	Paint Color 1
10 21 13.TC	Toilet Compartment
10 21 13.US	Urinal Screen
10 28 00.CH	Coat Hook
10 28 00.DCS	Diaper Changing Station
10 28 00.GB	Grab Bar
10 28 00.M	Mirror
10 28 00.S	Shelf
10 28 00.SCD	Seat Cover Dispenser
10 28 00.SD	Soap Dispenser
10 28 00.SND	Sanitary Napkin Disposal Unit
10 28 00.TD	Toilet Room Paper Towel Dispenser
10 28 00.TH	Toilet Tissue Holder
10 28 00.WR	Waste Receptacle
12 36 00.SOC	Solid Surface Countertop

GENERAL NOTES

A. REFER TO SHEET G021 FOR TYPICAL MOUNTING HEIGHTS AND LOCATIONS.
B. REFER TO SHEET A701, A702 AND A703 INTERIOR FINISH PLANS FOR FINISHES IN ROOMS.
C. ON WALLS INDICATED TO RECEIVE WALL TILE: INSTALL WALL TILE DOWN TO FINISH FLOOR. NO BASE NEEDED.
D. ON WALLS THAT DO NOT RECEIVE WALL TILE: PROVIDE PROCELAIN TILE BASE (T2).
E. EAST AND WEST WALL TILE GROUT LINES TO ALIGN WITH FLOOR TILE GROUT LINES.

SHEET SPECIFIC NOTES

LORD AECK SARGENT

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REVISION:

SHEET TITLE
INTERIOR ELEVATIONS - TOILET ROOMS

SCALE (U.N.O.)
0 6 12FT

FOR WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
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Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
A624

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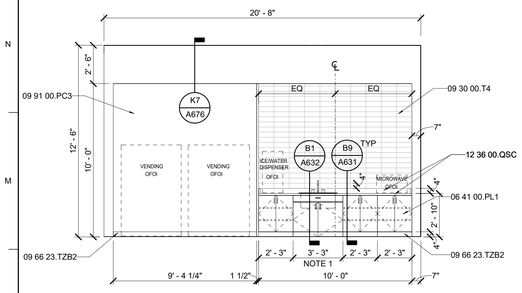
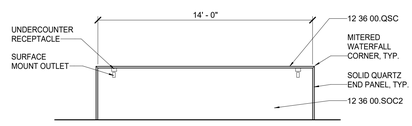


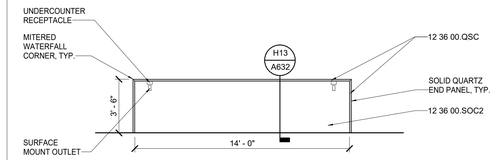
L1 STUDENT LOUNGE 100D - NORTH

0 4 8 FT



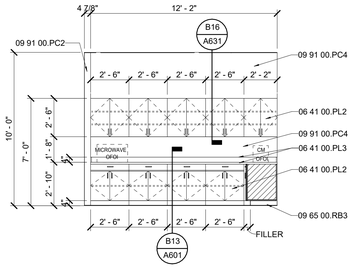
L5 STUDENT LOUNGE 100D - ISLAND SOUTH

0 4 8 FT



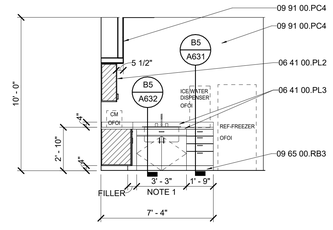
L9 STUDENT LOUNGE 100D - ISLAND NORTH

0 4 8 FT



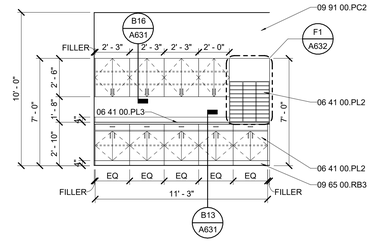
H1 LOUNGE 201 - NORTH

0 4 8 FT



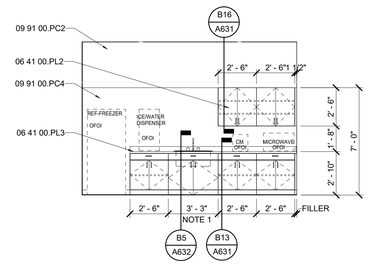
H5 LOUNGE 201 - EAST

0 4 8 FT



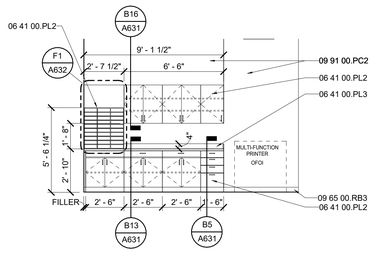
H9 EL272W - WORK/COPY

0 4 8 FT



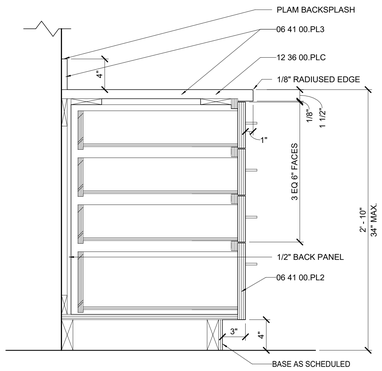
E1 WORK/COPY/BREAK 308 - NORTH

0 4 8 FT



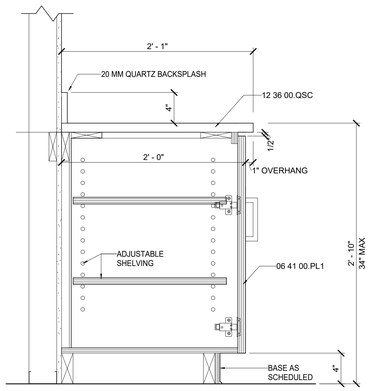
B1 WORK/COPY/BREAK 308 - SOUTH

0 4 8 FT



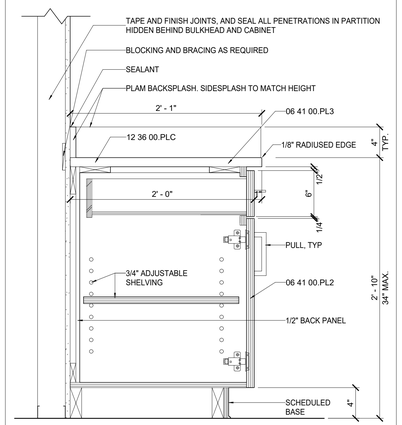
B5 BASE CABINET 4 DRAWER

0 1 2 FT



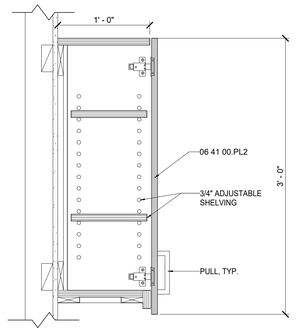
B9 BASE CABINET @ STUDENT LOUNGE 100D

0 1 2 FT



B13 TYPICAL BASE CABINET

0 1 2 FT



B16 TYPICAL UPPER CABINET

0 1 2 FT

MATERIAL KEYNOTES

06 41 00.PL1	Plastic Laminate 1
06 41 00.PL2	Plastic Laminate 2
06 41 00.PL3	Plastic Laminate 3
09 30 00.T4	Tile 4
09 65 00.RB3	Resilient Base 3
09 66 23.TZB2	Terrazzo Base Color 2
09 91 00.PC2	Paint Color 2
09 91 00.PC3	Paint Color 3
09 91 00.PC4	Paint Color 4
12 36 00.PLC	Plastic Laminate Countertop
12 36 00.QSC	Quartz Surface Countertop
12 36 00.SOC2	Solid Surface Countertop 2

GENERAL NOTES

SHEET SPECIFIC NOTES

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REVISION:

SHEET TITLE: CASEWORK ELEVATIONS & DETAILS

SCALE (U.N.O.)

FOR WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockar, Registered Architect, North Carolina, 9974, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023

JOB NO.: 11751-00

DWG. NO.: A631

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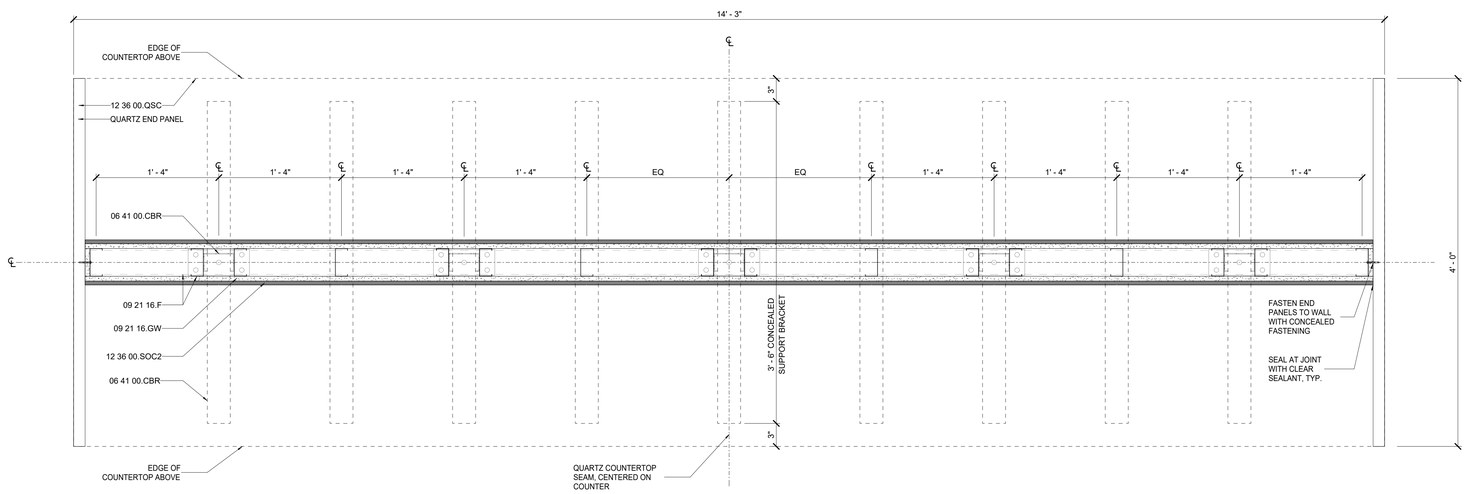
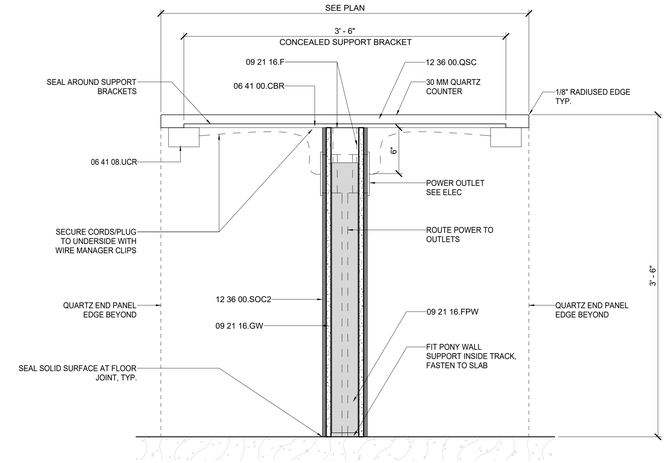
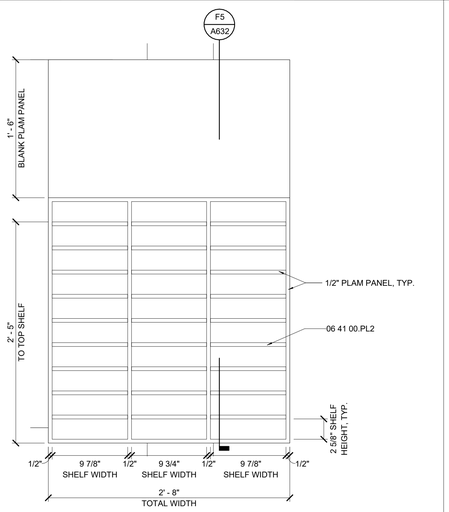


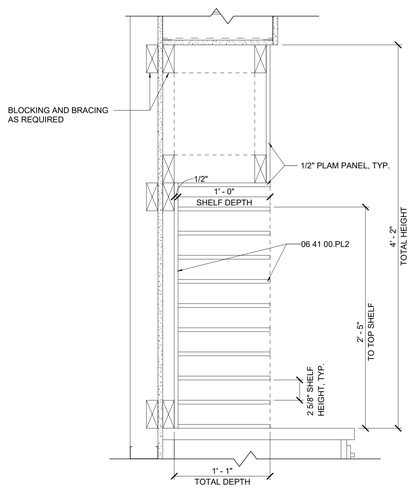
K1 STUDENT LOUNGE 100D - ISLAND PLAN DTL
0 1 2 FT



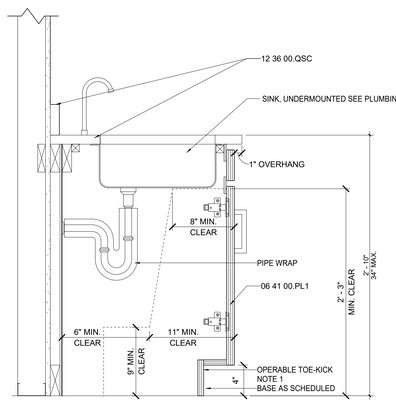
H13 STUDENT LOUNGE 100D - ISLAND SECTION
0 1 2 FT



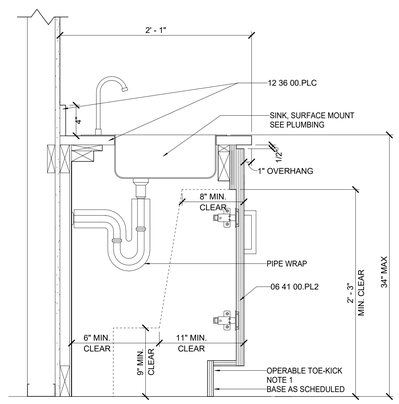
F1 MILLWORK ELEVATION - MAIL SORTER 272 AND 308
0 1 2 FT



F5 MILLWORK DTL - MAIL SORTER 272 AND 308
0 1 2 FT



B1 SINK CABINET AT STUDENT LOUNGE 100D
0 1 2 FT



B5 SINK CABINET AT 201 & 308
0 1 2 FT

MATERIAL KEYNOTES

06 41 00.CBR	Countertop Support Bracket
06 41 00.PL1	Plastic Laminate 1
06 41 00.PL2	Plastic Laminate 2
09 21 16.F	Framing
09 21 16.FPW	Pony Wall Support
09 21 16.GW	Gypsum Wallboard
12 36 00.PLC	Plastic Laminate Countertop
12 36 00.QSC	Quartz Surface Countertop
12 36 00.SOC2	Solid Surface Countertop 2

GENERAL NOTES

SHEET SPECIFIC NOTES

1. TOE KICK OF BASE CABINET TO BE BUILT INTEGRAL TO CABINET TO PROVIDE A MINIMUM OF 30" CLEAR FLOOR SPACE WHEN CABINET DOORS ARE FULLY OPEN.

LORD AECK SARGENT

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REVISION:

SHEET TITLE: CASEWORK DETAILS

SCALE (U.N.O.): 0 1 2 FT

ON SHEET: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN NC CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockar, Registered Architect, North Carolina, Chapel Hill, NC
12-20-2023

ISSUE. DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A632

NOT FOR CONSTRUCTION

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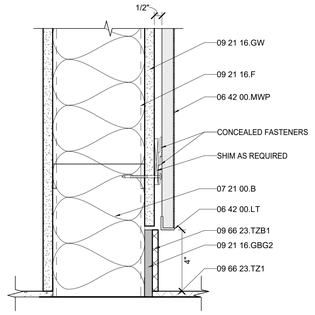
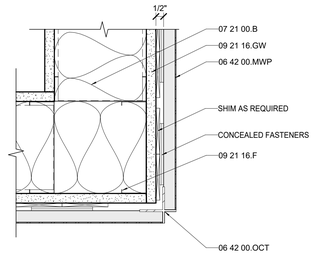


K1 STEEL WALL PANEL AT FLOOR

0 6 12 IN



K4 STEEL WALL PANEL CORNER

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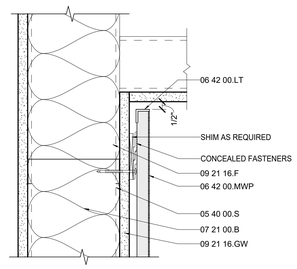

K7 STEEL WALL PANEL AT CEILING

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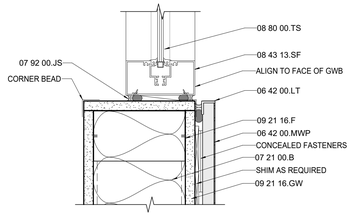

K10 STEEL WALL PANEL JAMB DTL

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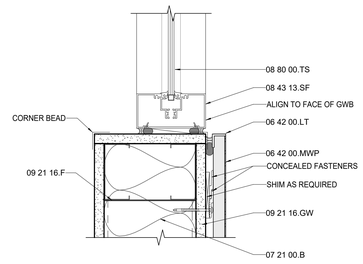

K13 STEEL WALL PANEL SILL DTL

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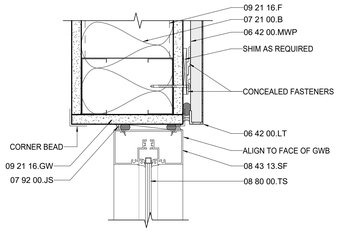

K16 STEEL WALL PANEL HEAD DTL

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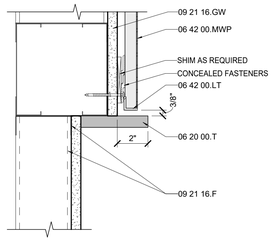

F1 STEEL WALL PANEL AV HEAD DTL

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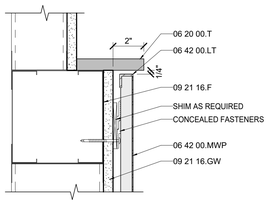

F4 STEEL WALL PANEL AV SILL DTL

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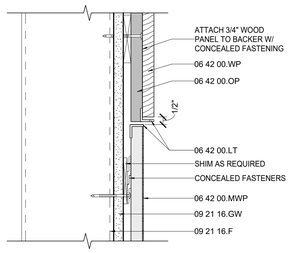
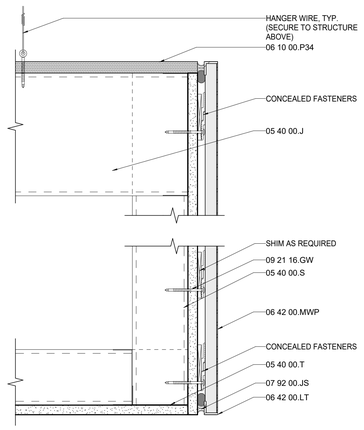


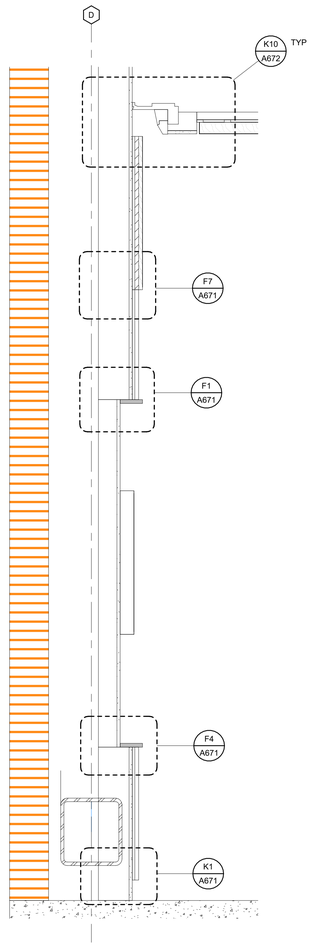
F7 WOOD TO STEEL WALL PANEL JOINT

0 6 12 IN



B13 FABRICATION 101 OVERHANG DTL

0 6 12 IN



B16 METAL LAMINATE WALL PANEL AT DISPLAY SCREEN

0 6 12 IN

MATERIAL KEYNOTES

05 40 00.J	Joist
05 40 00.S	Stud
05 40 00.T	Track Channel
06 10 00.P34	3/4" Plywood Panel
06 20 00.T	Trim
06 42 00.LT	L Reveal Trim
06 42 00.MWP	Metal Laminate Wall Paneling
06 42 00.OCT	Outside Corner Reveal Trim
06 42 00.OP	Opaque Finish Panel
06 42 00.WP	Wood Paneling
07 21 00.B	Batt Insulation
07 92 00.JS	Joint Sealant
08 43 13.SF	Storefront
08 80 00.TS	Fully Tempered Glass (Safety)
09 21 16.F	Framing
09 21 16.GBG2	Tile Backing Board, Glass Mat Faced, 1/2"
09 21 16.GW	Gypsum Wallboard
09 66 23.TZ1	Terrazzo Color 1
09 66 23.TZB1	Terrazzo Base Color 1

GENERAL NOTES

SHEET SPECIFIC NOTES

LORD AECK SARGENT

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REVISION:

SHEET TITLE: INTERIOR DETAILS - METAL LAMINATE WALL PANELS

SCALE: (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, CERT. NO. 53851, NORTH CAROLINA, CHAPEL HILL, NC

SEAL: Sebastian Dunn Rocker, Registered Architect, 39714, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: A671

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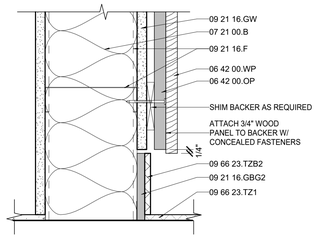
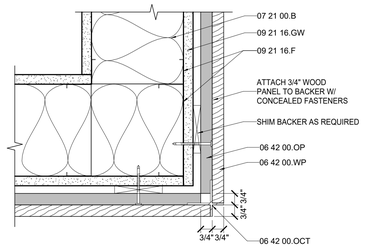


K1 WOOD WALL PANEL AT FLOOR

0 6 12 IN



K4 WOOD WALL PANEL AT CORNER

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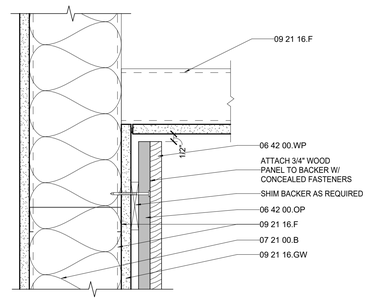
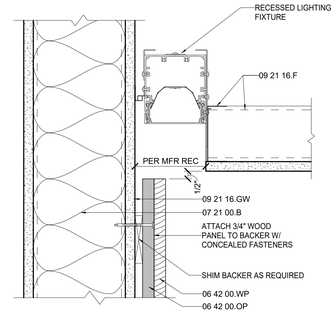


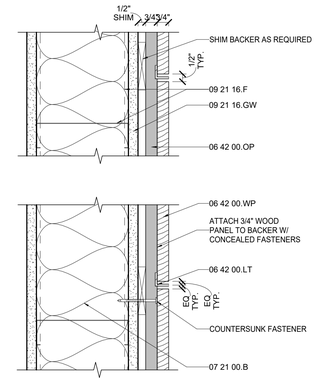
K7 WOOD WALL PANEL AT GWB CEILING

0 6 12 IN



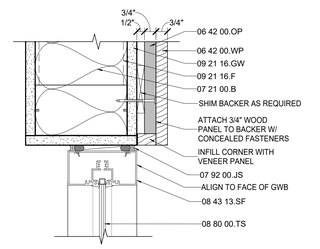
K10 PERIMETER LIGHT FIXTURE @ WOOD WALL PANEL

0 6 12 IN



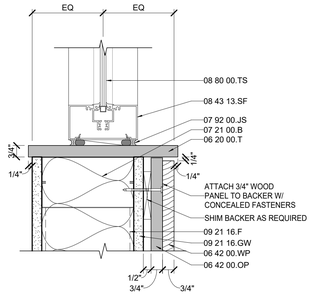
K13 WOOD WALL PANEL HORIZONTAL JOINTS

0 6 12 IN



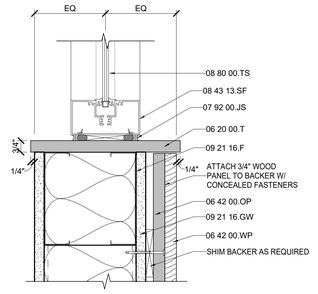
K16 160 ADVISING HEAD/JAMB AT WOOD WALL PANEL DTL

0 6 12 IN



G1 WOOD WALL PANEL JAMB DTL

0 6 12 IN



G4 WOOD WALL PANEL SILL DTL

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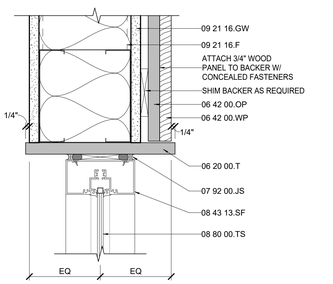
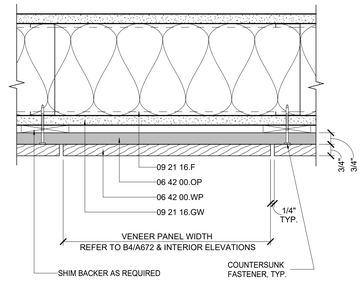


G7 WOOD WALL PANEL HEAD DTL

0 6 12 IN



G10 WOOD WALL PANEL VERTICAL JOINTS

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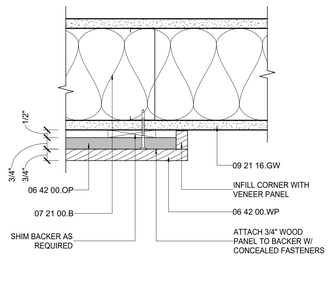
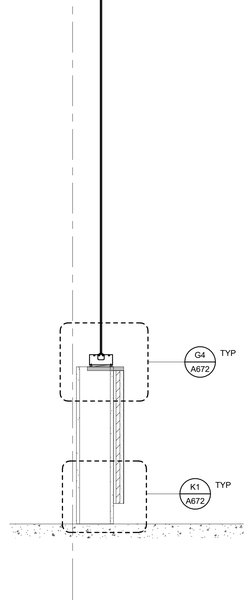


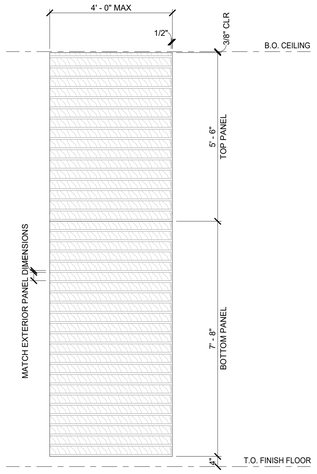
G13 CORRIDOR WOOD WALL PANEL EDGE DTL

0 6 12 IN



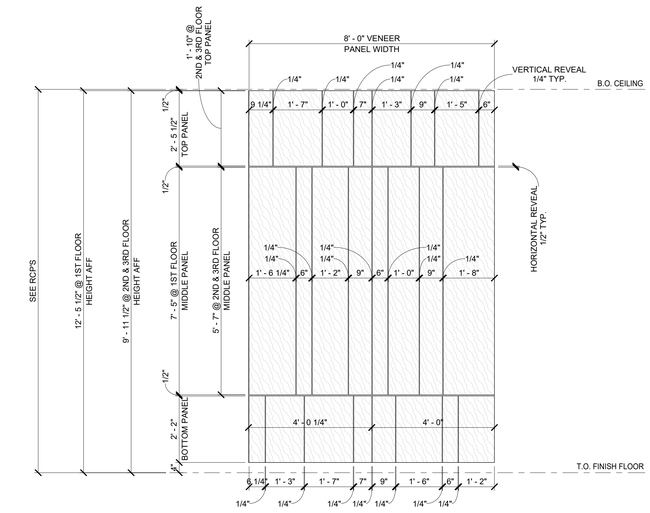
G16 100E WOOD WALL PANEL AT WINDOW

0 1.5 3 FT



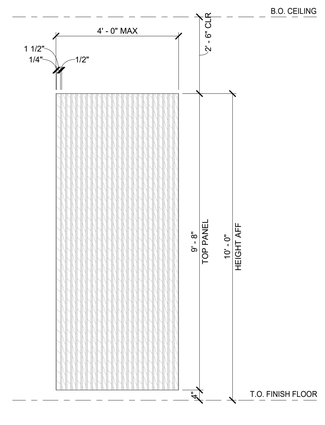
B1 07 46 23.WS - WOOD SIDING

0 3 6 FT



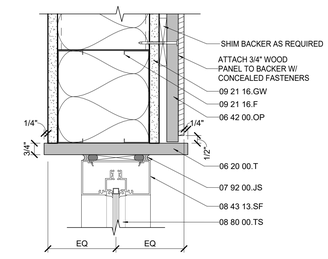
B4 06 42 00.WP - TYP WOOD VENEER PANELING

0 3 6 FT



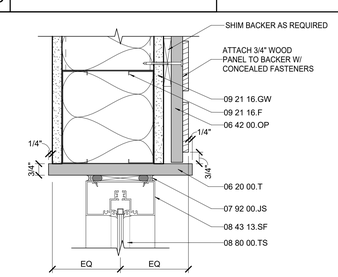
B10 06 20 00.WP - WOOD SLAT PANELING

0 3 6 FT

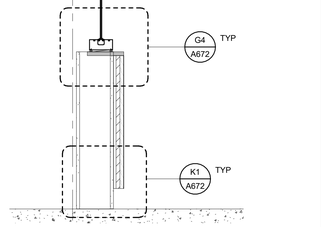


B13 HORIZONTAL SLATS HEAD DTL

E13 HORIZONTAL SLATS JAMB DTL



B13 HORIZONTAL SLATS JAMB DTL



B16 100E WOOD WALL PANEL AT WINDOW

0 1.5 3 FT

MATERIAL KEYNOTES

06 20 00.T	Trim
06 42 00.LT	L Reveal Trim
06 42 00.OCT	Outside Corner Reveal Trim
06 42 00.OP	Opaque Finish Panel
06 42 00.WP	Wood Paneling
07 21 00.B	Batt Insulation
07 92 00.JS	Joint Sealant
08 43 13.SF	Storefront
08 80 00.TS	Fully Tempered Glass (Safety)
09 21 16.F	Framing
09 21 16.GBG2	Tile Backing Board, Glass Mat Faced, 1/2"
09 21 16.GW	Gypsum Wallboard
09 66 23.TZ1	Terrazzo Color 1
09 66 23.TZB2	Terrazzo Base Color 2

GENERAL NOTES

SHEET SPECIFIC NOTES

LORD AECK SARGENT

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REVISION

SHEET TITLE
INTERIOR DETAILS - WOOD WALL PANEL

SCALE (U.N.O.)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN INC
CERT. NO. 53851
NORTH CAROLINA
CHAPEL HILL

SEAL
Lauren Dunn Rockar
Registered Architect
9614
North Carolina
Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023

JOB. NO.
11751-00

DWG. NO.
A672

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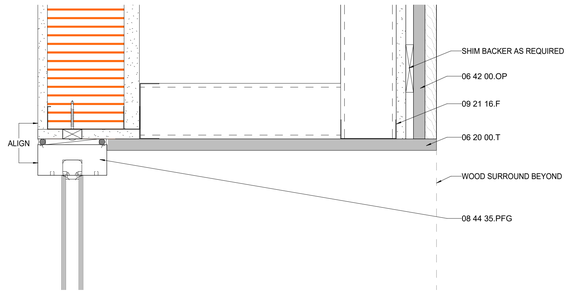
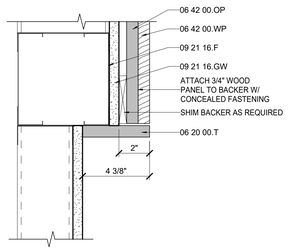
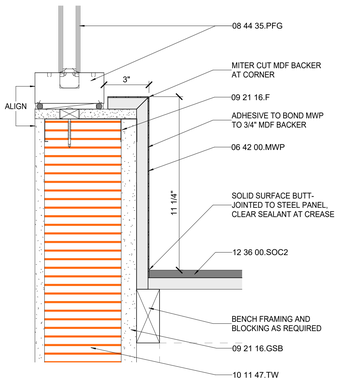


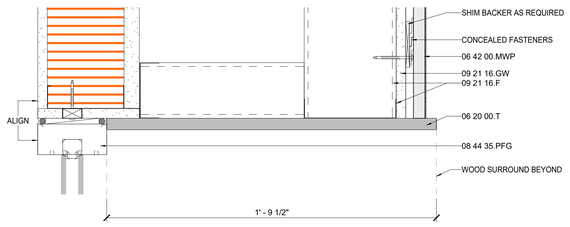
K1 STAIR A WOOD SURROUND SOFFIT DTL
0 6 12 IN



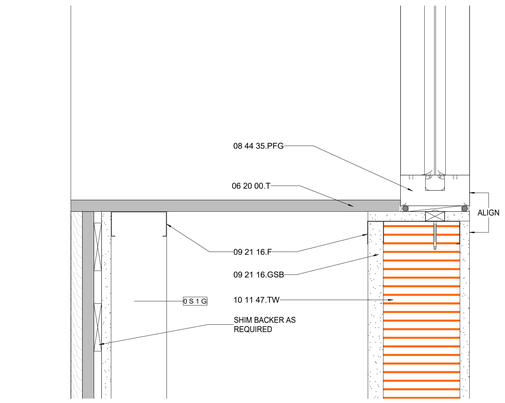
K7 WOOD WALL PANEL AV HEAD DTL
0 6 12 IN



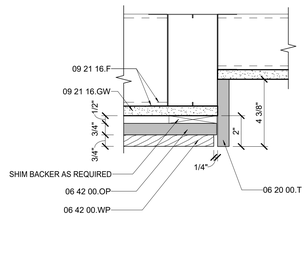
K10 BENCH SILL DTL
0 6 12 IN



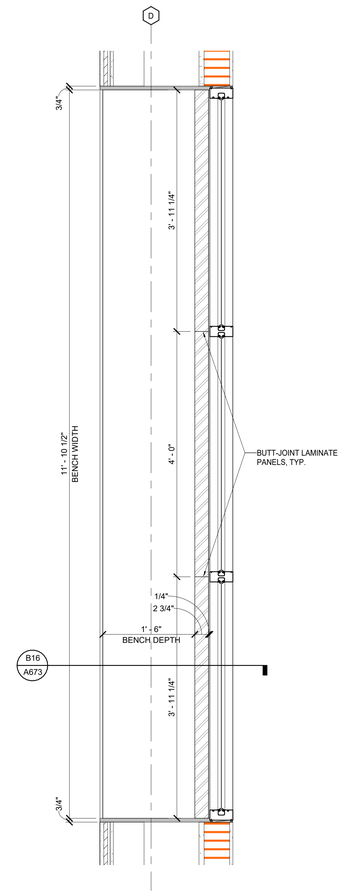
K13 BENCH SOFFIT DTL
0 6 12 IN



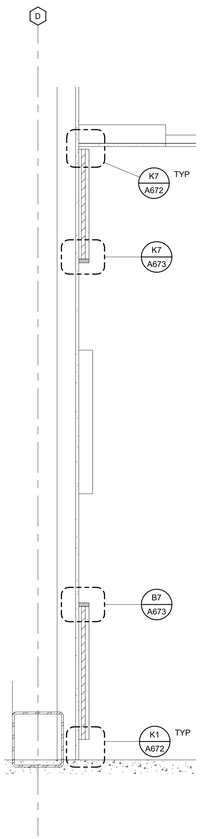
F1 STAIR A WOOD SURROUND JAMB DTL
0 6 12 IN



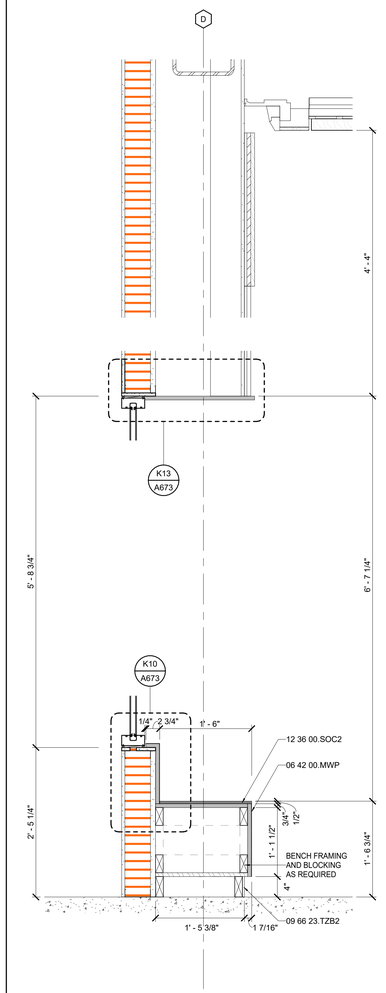
F7 WOOD WALL PANEL AV JAMB DTL
0 6 12 IN



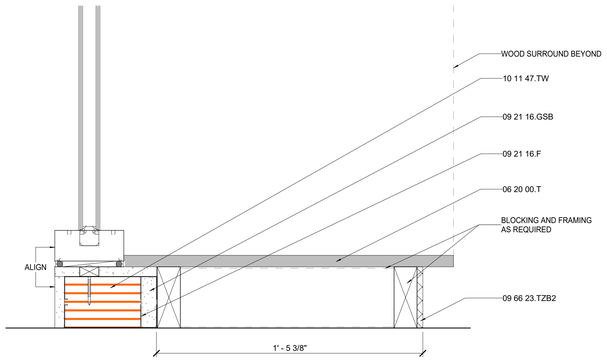
B10 BENCH ALCOVE PLAN DTL
0 1.5 3 FT



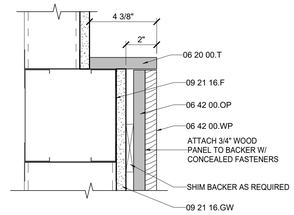
B13 WOOD WALL PANEL AT AV
0 1.5 3 FT



B16 BENCH ALCOVE SECTION DTL
0 1.5 3 FT



B1 STAIR A WOOD SURROUND AT FLOOR
0 6 12 IN



B7 WOOD WALL PANEL AV SILL DTL
0 6 12 IN

MATERIAL KEYNOTES

06 20 00.T	Trim
06 42 00.MWP	Metal Laminate Wall Paneling
06 42 00.OP	Opaque Finish Panel
06 42 00.WP	Wood Paneling
08 44 35.PFG	Interior Protective Framed Glazing Assembly
09 21 16.F	Framing
09 21 16.GSB	Gypsum Shaftliner Board
09 21 16.GW	Gypsum Wallboard
09 66 23.TZB2	Terrazzo Base Color 2
10 11 47.TW	Tackable Wallcovering
12 36 00.SOC2	Solid Surface Countertop 2

GENERAL NOTES

A. TYPICAL AT FIRE-RESISTANCE-RATED ASSEMBLIES, COMPLETE CONTINUOUS RATED ASSEMBLY, INCLUDING FIRE-RESISTANCE-RATED CURTAIN WALL, PRIOR TO INSTALLATION OF ADDITIONAL NON-RATED CONSTRUCTION. DO NOT COVER FIRE-RATED ASSEMBLIES UNTIL WORK HAS BEEN OBSERVED AND APPROVED BY DESIGNER.

SHEET SPECIFIC NOTES

LORD AECK SARGENT

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Planning & Design, Inc.
LordAeckSargent.com

REVISION

SHEET TITLE: INTERIOR DETAILS

SCALE (U.N.O.)

10th Floor
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, North Carolina, Chapel Hill, NC, 9074

12-20-2023

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: A673

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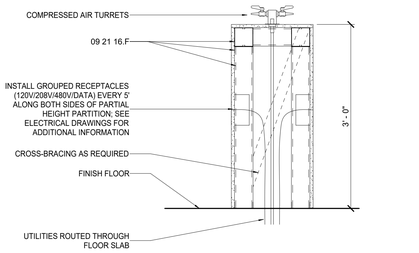
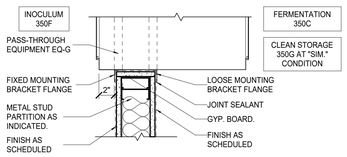


L1 PLC LAB HALF-WALL UTILITIES DTL

0 1.5 3 FT

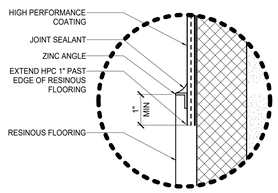


NOTE: INSTALL PASS-THROUGH EQ-G AND JOINT SEALANTS AFTER FINISHES ARE APPLIED.

NOTE: HEAD AND SILL DETAILS SIMILAR.

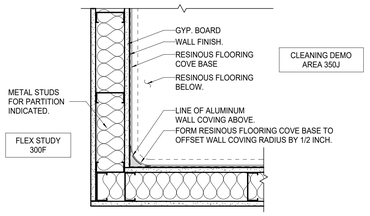
H1 PASS-THROUGH JAMB DETAIL

0 1 2 FT



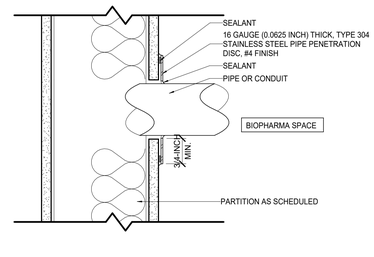
H4 TYP BASE AT RESINOUS FLOOR

0 3 6 IN



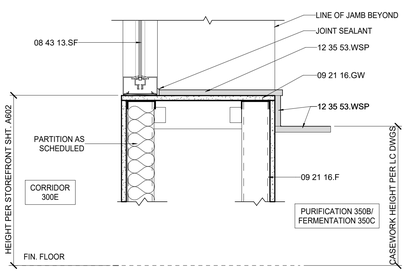
H8 COVE BASE DETAIL AT CLEANING DEMO

0 1 2 FT



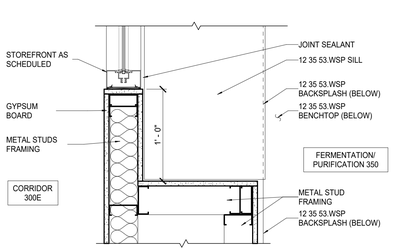
H11 TYP BIOPHARMA PIPE PENETRATION

0 6 12 IN



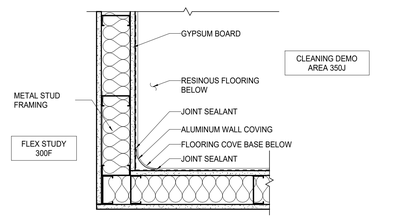
E1 BIOPHARMA - SILL DETAIL

0 1 2 FT



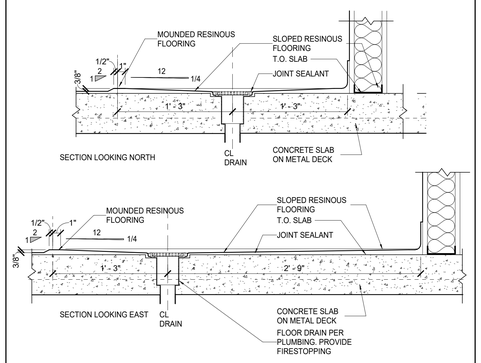
E4 BIOPHARMA - JAMB DETAIL

0 1 2 FT



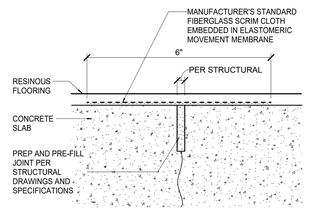
E8 WALL DETAIL AT CLEANING DEMO

0 1 2 FT



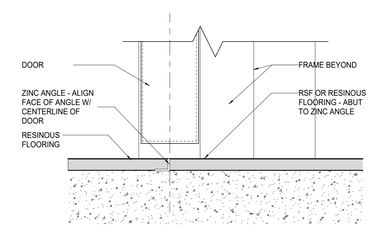
E11 ES/EW DRAIN DETAIL

0 1 2 FT



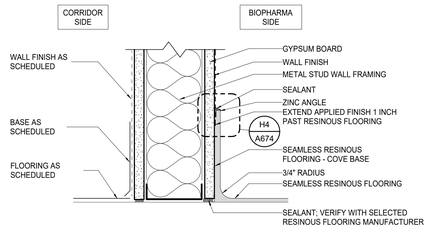
B1 TYP RESINOUS FLOOR JOINT

0 3 6 IN



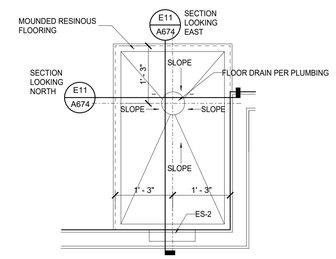
B4 TYP TRANSITION RESINOUS FLOOR

0 3 6 IN



B8 BIOPHARMA - BASE DETAIL

0 6 12 IN



B11 ES/EW DRAIN PLAN

0 2 4 FT

MATERIAL KEYNOTES

08 43 13.SF	Storefront
09 21 16.F	Framing
09 21 16.GW	Gypsum Wallboard
12 35 53.WSP	Phenolic Resin Work Surface

GENERAL NOTES

SHEET SPECIFIC NOTES

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REVISION:

SHEET TITLE: INTERIOR DETAILS - LABORATORIES

SCALE (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
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CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, North Carolina, Chapel Hill, NC, 9074

12-20-2023

ISSUE DATE: 12/20/2023

JOB. NO. 11751-00

DWG. NO. A674

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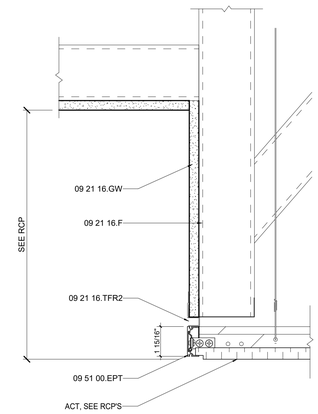

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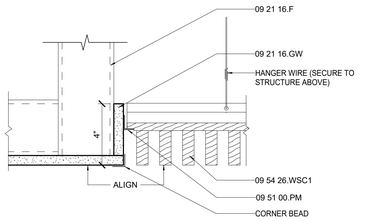
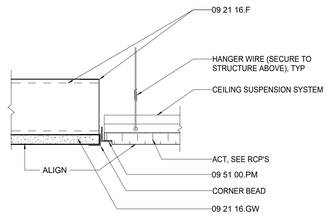
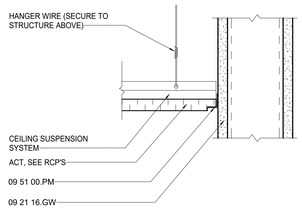


K4 GWB CEILING TO TEGULAR DETAIL



K7 GWB TO ACT CEILING TRANSITION



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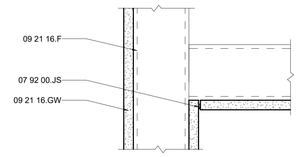

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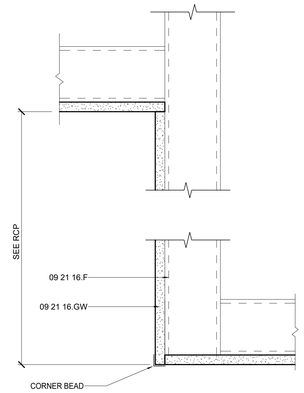

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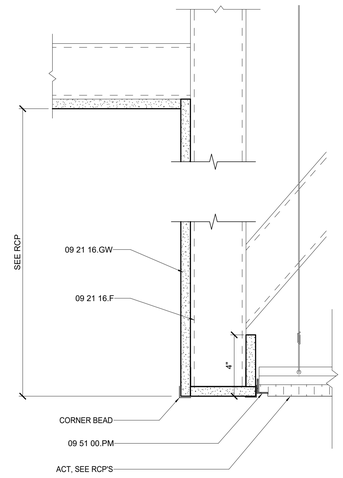

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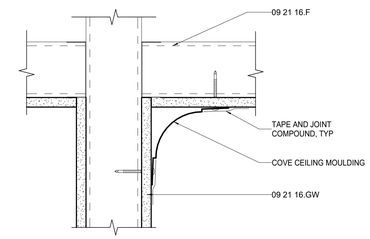
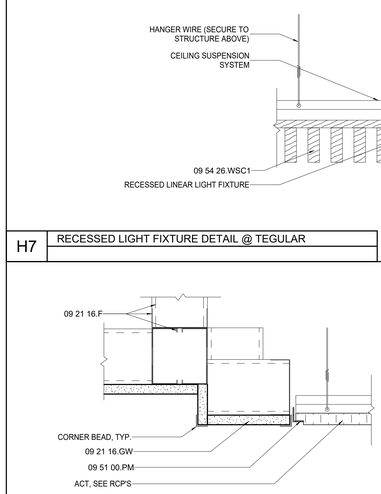


F4 COVE CEILING MOULDING



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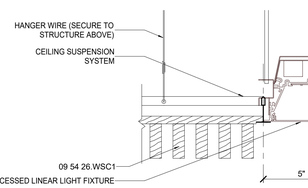
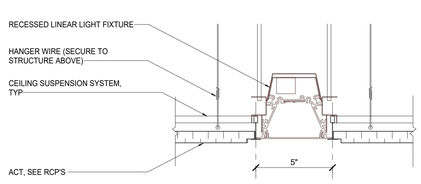
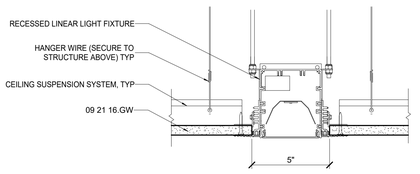


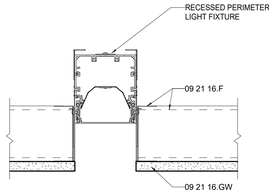
H7 RECESSED LIGHT FIXTURE DETAIL @ TEGULAR



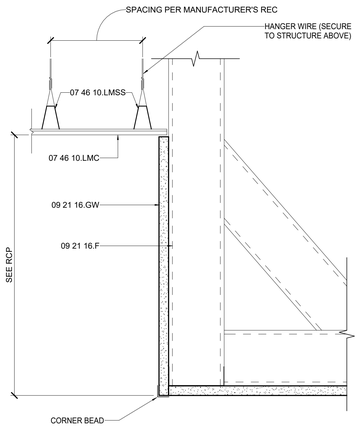
H13 RECESSED LIGHT FIXTURE DETAIL @ ACT



F13 RECESSED LIGHT FIXTURE DETAIL @ GWB



B1 PERIMETER LIGHT FIXTURE DETAIL @ GWB



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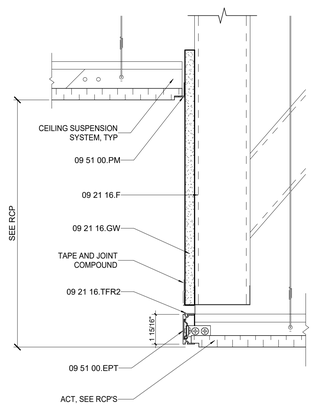

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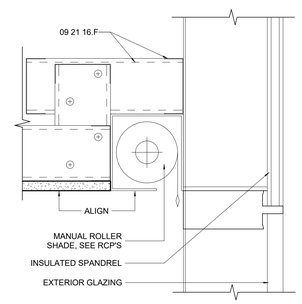
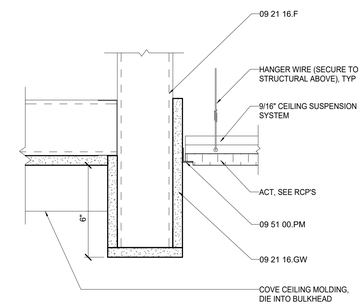
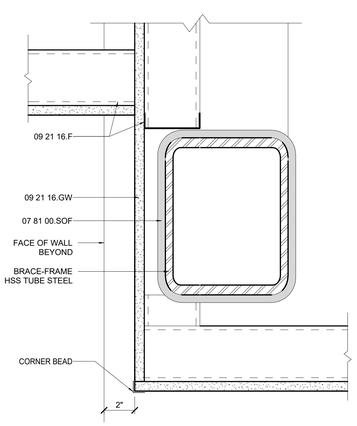


B10 RECESSED SHADE POCKET AT GYPSUM BOARD



B13 GWB TO ACT CEILING TRANSITION



B16 CEILING DETAIL AT BRACED FRAME

MATERIAL KEYNOTES

07 46 10.LMC	Linear Metal Ceiling
07 46 10.LMSS	Linear Metal Suspension System
07 81 00.SOF	Sprayed-On Fireproofing
07 92 00.JS	Joint Sealant
09 21 16.F	Framing
09 21 16.GW	Gypsum Wallboard
09 21 16.TFR2	F Reveal Trim 2
09 51 00.EPT	Extruded Perimeter Trim
09 51 00.PM	Perimeter Molding
09 54 26.WSC1	Wood Slat Ceiling

GENERAL NOTES

SHEET SPECIFIC NOTES

LORD AECK SARGENT

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REVISION:

SHEET TITLE: CEILING DETAILS

SCALE (U.N.O.): 0 6 12 IN

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. REGISTERED ARCHITECTURAL CORPORATION CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockar, Registered Architect, North Carolina, 30174, Chapel Hill, NC
12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO. 11751-00
DWG. NO. A675

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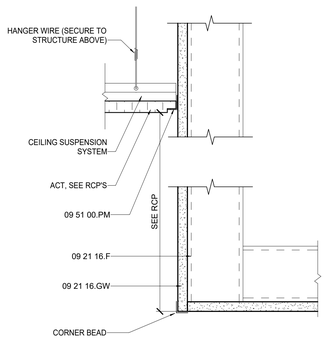
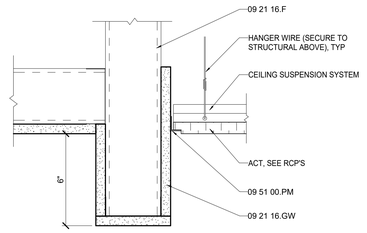
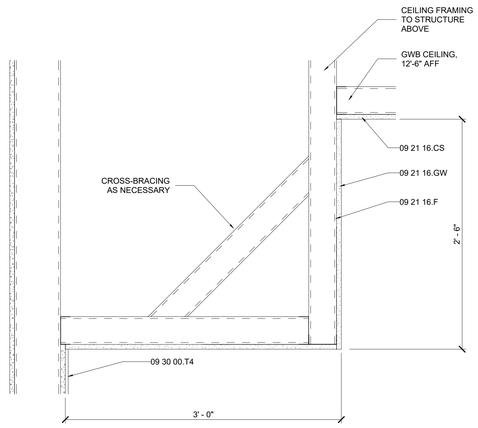


K1 STEPPED GWB SOFFIT DETAIL AT 201, 272, & 350E



K4 GWB TO ACT CEILING TRANSITION



K7 EL100D MILLWORK SURROUND - SOFFIT DTL

MATERIAL KEYNOTES

09 21 16.CS	Interior Gypsum Ceiling/Soffit
09 21 16.F	Framing
09 21 16.GW	Gypsum Wallboard
09 30 00.T4	Tile 4
09 51 00.PM	Perimeter Molding

GENERAL NOTES

SHEET SPECIFIC NOTES

LORD AECK SARGENT

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REVISION:

CPN #####
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

SHEET TITLE
CEILING DETAILS

SCALE (U.N.O.) 0 6 12 IN

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN NC
CERT. NO. 53851
NORTH CAROLINA
CHAPEL HILL

SEAL
Lauren Dunn Rockar
9974
Registered Architect
North Carolina
Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023
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11751-00
DWG. NO.
A676

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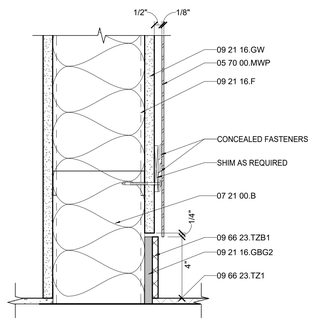

K1 STEEL WALL PANEL AT FLOOR

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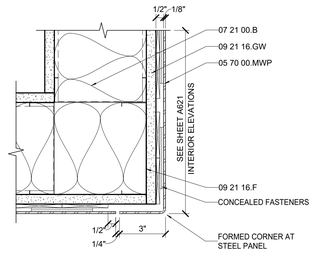

K4 STEEL WALL PANEL CORNER

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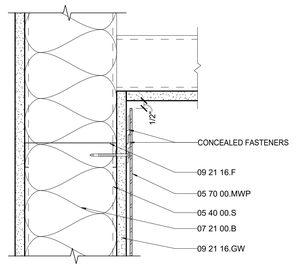

K7 STEEL WALL PANEL AT CEILING

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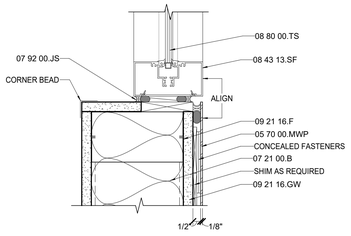

K10 STEEL WALL PANEL JAMB DTL

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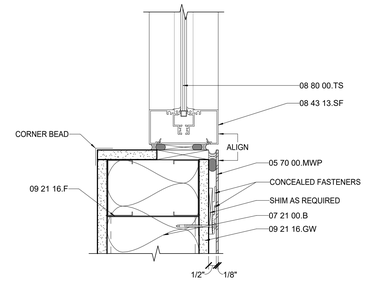

K13 STEEL WALL PANEL SILL DTL

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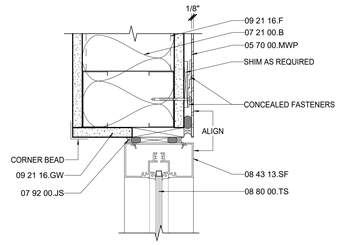

K16 STEEL WALL PANEL HEAD DTL

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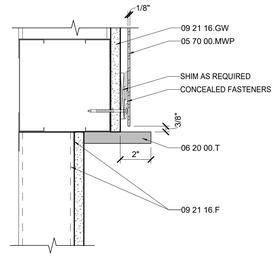

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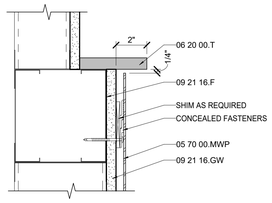

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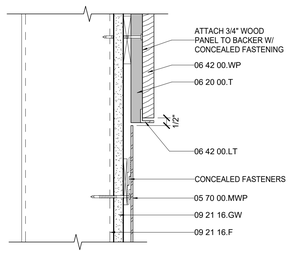
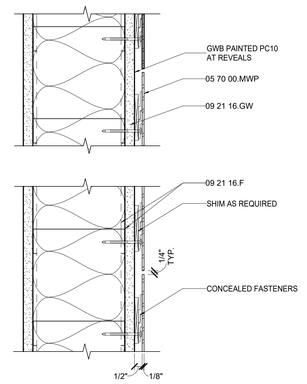


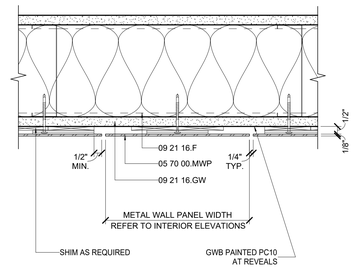
F7 WOOD TO STEEL WALL PANEL JOINT

0 6 12 IN



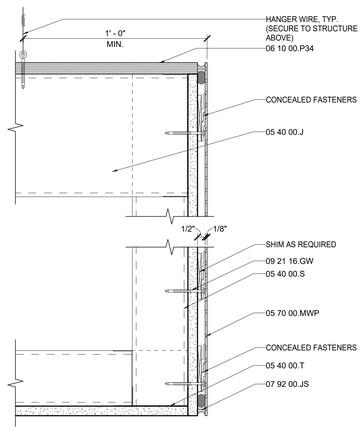
F10 STEEL WALL PANEL HORIZONTAL JOINTS

0 6 12 IN



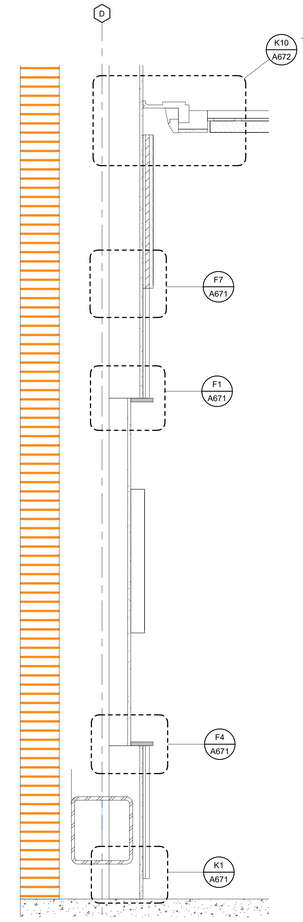
F13 STEEL WALL PANEL VERTICAL JOINTS

0 6 12 IN



B13 FABRICATION 101 OVERHANG DTL

0 6 12 IN



B16 METAL LAMINATE WALL PANEL AT DISPLAY SCREEN

0 1.5 3 FT

MATERIAL KEYNOTES

05 40 00.J	Joist
05 40 00.S	Stud
05 40 00.T	Track Channel
05 70 00.MWP	Blackened Steel Metal Wall Panels
06 10 00.P34	3/4" Plywood Panel
06 20 00.T	Trim
06 42 00.LT	L Reveal Trim
06 42 00.WP	Wood Paneling
07 21 00.B	Batt Insulation
07 92 00.JS	Joint Sealant
08 43 13.SF	Storefront
08 80 00.TS	Fully Tempered Glass (Safety)
09 21 16.F	Framing
09 21 16.GBG2	Tile Backing Board, Glass Mat Faced, 1/2"
09 21 16.GW	Gypsum Wallboard
09 66 23.TZ1	Terrazzo Color 1
09 66 23.TZB1	Terrazzo Base Color 1

GENERAL NOTES

A. ALTERNATE A6: USE CORRESPONDING DETAILS FROM THIS SHEET IN LIEU OF ALL DETAILS TAGGED FOR SHEET A671.

SHEET SPECIFIC NOTES

LORD AECK SARGENT

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LordAeckSargent.com

REVISION

SHEET TITLE
INTERIOR DETAILS - METAL WALL PANELS (ALTERNATE A6)

SCALE (UNO)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-28902-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN
CERT. NO. 53851
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CHAPEL HILL NC

SEAL
Lauren Dunn Rockett
Registered Architect
9674
North Carolina
Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023

JOB. NO.
11751-00

DWG. NO.
A681

NOT FOR CONSTRUCTION

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/Central_11751-00_v22.rvt
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FINISH MATERIAL SCHEDULE

FINISH TAG	SPEC NUMBER	MANUFACTURER	STYLE NAME	STYLE NUMBER	COLOR	SIZE	REMARKS	CONTACT
HARDENED & BURNISHED CONCRETE								
HB	03 35 50	REFER TO SPECIFICATIONS	--	--	--	--	REFER TO SPECIFICATIONS AND DRAWINGS	
HARDENED & POLISHED CONCRETE								
PF	03 35 50	REFER TO SPECIFICATIONS	--	--	--	--	REFER TO SPECIFICATIONS AND DRAWINGS	
DECORATIVE METAL WALL PANEL								
MWP	05 70 00	SEAS	PATINA CARBON STEEL WALL PANEL		PATINA CARBON STEEL W/ POWDER COAT SEALANT	PER DETAILS ON DWGS	REFER TO SPECIFICATIONS AND DRAWINGS	MATT WINGET, MAC@SEAS-TR.COM, 704.516.6599
WOOD SIDING								
WS	07 46 23	REFER TO SPECIFICATIONS	COVE SHIPLAP BOARD SIDING	--	WHITE OAK - STAINED TO MATCH ARCHITECTS SAMPLE	PER DETAILS ON DWGS	REFER TO SPECIFICATIONS AND DRAWINGS	
PLASTIC LAMINATE								
PL1	06 41 00	WILSONART	PREMIUM LAMINATE - SOFT GRAIN FINISH	7981K-12	LANDMARK WOOD	--	CABINETS	APRIL BRICKLE, BRICKLA@WILSONART.COM, 540.537.3431
PL2	06 41 00	WILSONART	STANDARD LAMIANTE- MATTE FINISH	D92-60	DOVE GREY	--	BASE AND UPPER CABINETS	APRIL BRICKLE, BRICKLA@WILSONART.COM, 540.537.3431
PL3	06 41 00/12 36 00	PIONITE	STANDARD LAMINATE - TEXTURED SUEDE FINISH	AV971-SD	MOONLIGHTING PAPEL		COUNTERTOPS AND BACKSPLASHES	BETTY GERULA, BETTY_GERULA@PANOLAM.COM, 704.614.3985
WOOD SLAT PANELING								
WP	06 20 00	REFER TO SPECIFICATIONS	--	--	STAINED TO MATCH ARCHITECTS SAMPLE	--	REFER TO SPECIFICATIONS AND DRAWINGS	
WOOD PANELING								
WP	06 42 00	REFER TO SPECIFICATIONS	--	--	STAINED TO MATCH ARCHITECTS SAMPLE	--	REFER TO SPECIFICATIONS AND DRAWINGS	
GRAPHIC FILM								
GF1	08 87 00	CUSTOM FABRICATED	CUSTOM	--	TBD	TBD	TYPE 1, 2, 3 & 4 - TO BE CUSTOM IMAGES	
STAINLESS STEEL BASE								
TB	09 21 16	PER SPEC SECTION	--	--	BRUSHED STAINLESS STEEL	4"H	REFER TO SPECIFICATIONS AND DRAWINGS	
PORCELAIN TILE								
T1	09 30 00	BEST TILE	STEP IN	--	GREY, MATTE	12" X 24" X 8.5 MM RECTIFIED	INSTALL ASHLAR - 1/8" GROUT JOINT	NANCY PETERS, NPETERS@BESTTILE.COM, 919.986.6256
T3	09 30 00	BEST TILE	OCEAN BLUE PORCELAIN	--	OCEAN BLUE - POLISHED	12" X 24" X 9 MM RECTIFIED	INSTALL VERTICAL STACK BOND - 1/8" GROUT JOINT	NANCY PETERS, NPETERS@BESTTILE.COM, 919.986.6256
T4	09 30 00	STONE PEAK	OCEAN BLUE	--	OCEAN - GLOSSY	4" X 12" X 7MM	INSTALL HORIZONTAL STACK BOND - 1/8" GROUT JOINT	NANCY PETERS, NPETERS@BESTTILE.COM, 919.986.6256
T5	09 30 00	STONE PEAK	OCEAN BLUE	--	OCEAN - GLOSSY	6" X 24" X 8.5MM	INSTALL HORIZONTAL STACK BOND - 1/8" GROUT JOINT	NANCY PETERS, NPETERS@BESTTILE.COM, 919.986.6256
PORCELAIN TILE BASE								
T2	09 30 00	BEST TILE	STEP IN	--	GREY, MATTE	6" X 24" X 8.5 MM RECTIFIED	WALL BASE - CUT FROM 12" X 24", CUT SIDE UP W/ SCHLUTER TOP CAP	NANCY PETERS, NPETERS@BESTTILE.COM, 919.986.6256
LUXURY VINYL TILE								
LVT1	09 65 00	MANNINGTON COMMERCIAL	SPACIA STONE	--	CERAMIC DARK	12" X 24", 4MM	INSTALL ASHLAR - SEE SHEETS A711, A712, A713 FOR PATTERN	JOYCE CAVIN, JOYCE.CAVIN@MANNINGTON.COM, 919.538.1800
LVT2	09 65 00	MANNINGTON COMMERCIAL	SPACIA ABSTRACT		STELLAR ASH	12" X 24", 4MM	INSTALL ASHLAR - SEE SHEETS A711, A712, A713 FOR PATTERN	JOYCE CAVIN, JOYCE.CAVIN@MANNINGTON.COM, 919.538.1800
LVT3	09 65 00	MANNINGTON COMMERCIAL	UNITERRUPTED WOOD	--	HEARTWOOD OAK	7.25" X 48" PLANK, 4MM	INSTALL RANDOM - SEE SHEETS A711, A712, A713 FOR PATTERN	JOYCE CAVIN, JOYCE.CAVIN@MANNINGTON.COM, 919.538.1800
RUBBER FLOORING AND STAIRS								
RST1	09 65 00	JOHNSONITE	RUBBER ONE-PIECE STAIR/TREAD RISER	VIRNSQTR	48 GREY W/ #40 BLACK INSERT		SQUARE PATTERN W/ RUBBER INSERT (STAIRS)	STEPHANIE HARRIS, STEPHANIE.HARRIS@TARKETT.COM, 910.710.3900
RTR1	09 65 00	JOHNSONITE	RAISED SQUARE RUBBER FLOOR TILE	RT48	48 GREY	24" X 24"	RAISED SQUARE PATTERN (LANDINGS)	STEPHANIE HARRIS, STEPHANIE.HARRIS@TARKETT.COM, 910.710.3900
RSS1	09 65 00	JOHNSONITE	RUBBER STRINGERS	RTS-48	48 GREY		STAIRS	STEPHANIE HARRIS, STEPHANIE.HARRIS@TARKETT.COM, 910.710.3900
RST2	09 65 00	MANNINGTON COMMERCIAL	RUBBER ONE-PIECE STAIR/TREAD RISER	COLORSPEC	162 RAIN CLOUD W/ BLACK ABRASIVE INSERT		SCULPTURED PATTERN WITH VISUALLY IMPAIRED STRIP	JOYCE CAVIN, JOYCE.CAVIN@MANNINGTON.COM, 919.538.1800
RTR2	09 65 00	MANNINGTON COMMERCIAL	SCULPTURED RUBBER FLOOR TILE	COLORSPEC	162 RAIN CLOUD	18.125" X 18.125"	SCULPTURED PATTERN (LANDINGS)	JOYCE CAVIN, JOYCE.CAVIN@MANNINGTON.COM, 919.538.1800
RUBBER COVE BASE								
RB1	09 65 00	JOHNSONITE	THERMOSET RUBBER COVE BASE	TYPE TS	TG3 IRON MOUNTAIN	4"H	PROVIDE 120' ROLLS	STEPHANIE HARRIS, STEPHANIE.HARRIS@TARKETT.COM, 910.710.3900
RB2	09 65 00	JOHNSONITE	THERMOSET RUBBER COVE BASE	TYPE TS	48 GREY	4"H	PROVIDE 120' ROLLS	STEPHANIE HARRIS, STEPHANIE.HARRIS@TARKETT.COM, 910.710.3900
RB3	09 65 00	JOHNSONITE	THERMOSET RUBBER COVE BASE	TYPE TS	281 GRIZZLY	4"H	PROVIDE 120' ROLLS	STEPHANIE HARRIS, STEPHANIE.HARRIS@TARKETT.COM, 910.710.3900
TERRAZZO FLOORING								
TZ1	09 65 00	T & M SUPPLY	RESIN COLOR: SW7004 SNOWBOUND 10% GEORGIA WHITE 0 10% GEORGIA WHITE 1 20% GEORGIA WHITE 2 20% ULTRA WHITE 1 20% ULTRA WHITE 2 10% PEPPER HARVEST 1 5% NC BLUE GRAY 0 5% NC BLUE GRAY 1	TM#23-403	--	3/8" THICK	400 GRIT WITH (2) COATS WB ACRYLIC SEALER	CHERYL SIMERLY, CHERYL@CSIMERLY.COM, 704.577.8717
TZ2	09 65 00	T & M SUPPLY	RESIN COLOR: SW7651 FRONT PORCH 5% GEORGIA WHITE 0 20% GEORGIA WHITE 1 20% GEORGIA WHITE 2 5% BLUE BARDIGLIO 0 20% BLUE BARDIGLIO 1 20% BLUE BARDIGLIO 2 10% FW MOP 1	TM#23-941	--	3/8" THICK	400 GRIT WITH (2) COATS WB ACRYLIC SEALER	CHERYL SIMERLY, CHERYL@CSIMERLY.COM, 704.577.8717
TZ3	09 65 00	T & M SUPPLY	RESIN COLOR: SW6991 BLACK MAGIC 10% RAVEN BLACK 0 5% NC BLUE GRAY 0 20% NC BLUE GRAY 2 10% CLEAR PLATE 1 10% ONE SIDED MIRROR 1 15% BLUE BARDIGLIO 1 20% BLUE BARDIGLIO 2 10% CLASSIC MOP 2	TM#23-402	--	3/8" THICK	400 GRIT WITH (2) COATS WB ACRYLIC SEALER	CHERYL SIMERLY, CHERYL@CSIMERLY.COM, 704.577.8717
TERRAZZO PRECAST BASE								
TZB1	09 65 00	T & M SUPPLY	RESIN COLOR: SW7004 SNOWBOUND 10% GEORGIA WHITE 0 10% GEORGIA WHITE 1 20% GEORGIA WHITE 2 20% ULTRA WHITE 1 20% ULTRA WHITE 2 10% PEPPER HARVEST 1 5% NC BLUE GRAY 0 5% NC BLUE GRAY 1	TM#23-403	--	4"H - 3/8" THICK	400 GRIT WITH (2) COATS WB ACRYLIC SEALER	CHERYL SIMERLY, CHERYL@CSIMERLY.COM, 704.577.8717
TZB2	09 65 00	T & M SUPPLY	RESIN COLOR: SW7651 FRONT PORCH 5% GEORGIA WHITE 0 20% GEORGIA WHITE 1 20% GEORGIA WHITE 2 5% BLUE BARDIGLIO 0 20% BLUE BARDIGLIO 1 20% BLUE BARDIGLIO 2 10% FW MOP 1	TM#23-941	--	4"H - 3/8" THICK	400 GRIT WITH (2) COATS WB ACRYLIC SEALER	CHERYL SIMERLY, CHERYL@CSIMERLY.COM, 704.577.8717
RESINOUS FLOORING								
RF1	09 67 00	STONHARD	STONCLAD	GS/GS4	PEWTER	-	REFER TO SPECIFICATIONS	GLENN MURRELL, 919.522.7082
RESINOUS INTERGRAL BASE								
RF1	09 67 00	STONHARD	STONCLAD	GS/GS4	PEWTER	4" INTEGRAL BASE	REFER TO SPECIFICATIONS	GLENN MURRELL, 919.522.7082
CARPET TILE								
CT1	09 68 13	TARKETT	AIDA CLOTH	G0052	INDIGO RUN 57206 W/ CUSTON COLOR BLUE YARN. MATCH...	18" X 36" PLANK	INSTALL VERTICAL ASHLAR	STEPHANIE HARRIS, STEPHANIE.HARRIS@TARKETT.COM, 910.710.3900
CT2	09 68 13	TARKETT	STACK NINE	04332	MINERAL SPRINGS 75007	8" X 36" PLANK	INSTALL VERTICAL ASHALR	STEPHANIE HARRIS, STEPHANIE.HARRIS@TARKETT.COM, 910.710.3900
CT3	09 68 13	MOHAWK GROUP	STEP IT UP II	GT311	COBALT	24" X 24" TILE	INSTALL QUARTER TURN	LORI ZETO, LORI_ZETO@MOHAWKIND.COM, 919.302.6652
CT4	09 68 13	J+J COMMERCIAL FLOORING	KINETEX - GAME CHANGER	1851	3443 UPHEAVEL	24" X 24" TILE	OWNER FURNISHED-CONTRACTOR INSTALLED INSTALL ASHLAR	TIM.BAUCOM, TIM.BAUCOM@JJFLOORING.COM, 919.412.2180
ACOUSTICAL WALL PANELS								
AWP1	09 84 12	MAHARAM	METHOD	466579	010 RELAX	PER DRAWINGS	1" WRAPPED ACOUSTICAL PANELS	JULIA WOODSIDE, JWOODSIDE@MAHARAM.COM, 704.996.0627
PAINTS								
PC1	09 91 00	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	SW7004	SNOWBOUND	--	FIELD COLOR	RUSS HANSEN, RUSSELL.E.HANSEN@SHERWIN.COM, 980.207.9410
PC2	09 91 00	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	SW7015	REPOSE GRAY	--	FIELD COLOR	RUSS HANSEN, RUSSELL.E.HANSEN@SHERWIN.COM, 980.207.9410
PC3	09 91 00	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	SW9150	ENDLESS SEA	--	ACCENT - REFER TO DRAWINGS AND ELEVATIONS	RUSS HANSEN, RUSSELL.E.HANSEN@SHERWIN.COM, 980.207.9410
PC4	09 91 00	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	SW6227	MEDITATIVE	--	ACCENT - REFER TO DRAWINGS AND ELEVATIONS	RUSS HANSEN, RUSSELL.E.HANSEN@SHERWIN.COM, 980.207.9410
PC5	09 91 00	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	SW7017	DORIAN GREY	--	ACCENT - REFER TO DRAWINGS AND ELEVATIONS	RUSS HANSEN, RUSSELL.E.HANSEN@SHERWIN.COM, 980.207.9410
PC6	09 91 00	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	SW7007	CEILING BRIGHT WHITE	--	CEILINGS - REFER TO RCP'S	RUSS HANSEN, RUSSELL.E.HANSEN@SHERWIN.COM, 980.207.9410
PC7	09 91 00	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	SW7069	IRON ORE	--	ACCENT - REFER TO DRAWINGS AND ELEVATIONS	RUSS HANSEN, RUSSELL.E.HANSEN@SHERWIN.COM, 980.207.9410
PC8	09 91 00	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	SW7019	GAUNTLET GREY	--	USE WITH WP1	RUSS HANSEN, RUSSELL.E.HANSEN@SHERWIN.COM, 980.207.9410
HIGH PERFORMANCE COATING								
HPC1	09 96 00	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	SW7004	SNOWBOUND	--	BIOPHARMA AREA	RUSS HANSEN, RUSSELL.E.HANSEN@SHERWIN.COM, 980.207.9410
PORCELAIN MARKER BOARDS								
MB45	10 11 01	CLARIDGE	SERIES 8	--	WHITE	4' X 5'	PORCELAIN ENAMEL STEEL MARKERBOARDS	CLARIDGE@CLARIDGEPRODUCTS.COM
MB48	10 11 01	CLARIDGE	SERIES 8	--	WHITE	4' X 8'	PORCELAIN ENAMEL STEEL MARKERBOARDS	CLARIDGE@CLARIDGEPRODUCTS.COM
MB410	10 11 01	CLARIDGE	SERIES 8	--	WHITE	4' X 10'	PORCELAIN ENAMEL STEEL MARKERBOARDS	CLARIDGE@CLARIDGEPRODUCTS.COM
MB	10 11 01	CLARIDGE	ARISE	--	WHITE	CUSTOM-AS SHOWN ON ELEVATIONS	FRAMELESS PORCELAIN ENAMEL STEEL MARKERBOARDS	CLARIDGE@CLARIDGEPRODUCTS.COM
WRITEABLE WALLCOVERING								
D	10 11 46	KOROSEAL	WALLTALKERS - JUST RITE	--	WHITE - SEMI GLOSS	60" W	INSTALL AT 32" AFF	CHRISTA HOCHSTRASSER, CHOCHSTRASSER@KOROSEAL.COM, 919.698.0569
DP	10 11 46	KOROSEAL	WALLTALKERS - MATTE RITE	--	WHITE - MATTE FINISH	60" W	INSTALL AT AFF	CHRISTA HOCHSTRASSER, CHOCHSTRASSER@KOROSEAL.COM, 919.698.0569
AJT	10 11 46	KOROSEAL	ALUMINUM J-TRIM	JT12-00	CLEAR SATIN	1/4"	REFER TO SPECIFICATIONS, DRAWINGS AND ELEVATIONS	CHRISTA HOCHSTRASSER, CHOCHSTRASSER@KOROSEAL.COM, 919.698.0569
TACKABLE WALLCOVERING								
TW1	10 11 47	KOROSEAL	TAC WALL	--	DEEP SEA	48" W ROLLS	REFER TO SPECIFICATIONS, DRAWINGS AND ELEVATIONS	CHRISTA HOCHSTRASSER, CHOCHSTRASSER@KOROSEAL.COM, 919.698.0569
TW2	10 11 47	KOROSEAL	TAC WALL	--	HARBOR	48" W ROLLS	REFER TO SPECIFICATIONS, DRAWINGS AND ELEVATIONS	CHRISTA HOCHSTRASSER, CHOCHSTRASSER@KOROSEAL.COM, 919.698.0569
AJT	10 11 47	KOROSEAL	ALUMINUM J-TRIM	XXJT	CLEAR SATIN	5/16"	REFER TO SPECIFICATIONS, DRAWINGS AND ELEVATIONS	CHRISTA HOCHSTRASSER, CHOCHSTRASSER@KOROSEAL.COM, 919.698.0569
CORNER GUARDS								
CG1	10 26 01	INPRO	ONE-PIECE STAINLESS STEEL	CO-8	STAINLESS STEEL	3" X 6'H	REFER TO SPECIFICATIONS AND DRAWINGS	ALEXIS CAPPS, ACAPPS@INPROCORP.COM, 704.456.5566
CG2	10 26 01	INPRO	ONE-PIECE STAINLESS STEEL	SCO-8	STAINLESS STEEL	2" X 6'H	REFER TO SPECIFICATIONS AND DRAWINGS	ALEXIS CAPPS, ACAPPS@INPROCORP.COM, 704.456.5566
WINDOW SHADE SYSTEMS								
SS1	12 24 13	MECHOSHADE	ECOVIEL - 1% OPEN	1750 SERIES	TBD	126" W	MANUAL ROLLER SHADE	WHITLIE NOCK, WHITLIE.NOCK@SPRINGSWINDOWFASHIONS.COM.704.439.6238
SS2	12 24 13	MECHOSHADE -DUAL	ECOVIEL - 3% OPEN	1550 SERIES	TBD	126" W	DUAL MANUAL ROLLER SHADE	WHITLIE NOCK, WHITLIE.NOCK@SPRINGSWINDOWFASHIONS.COM.704.439.6238
SS2	12 24 13	MECHOSHADE - DUAL	CHELSEA BLACKOUT - 0% OPEN	SEE SPEC	TBD - W/ SOLID GRAPHITE BACKING	126" W	DUAL MANUAL ROLLER SHADE	WHITLIE NOCK, WHITLIE.NOCK@SPRINGSWINDOWFASHIONS.COM.704.439.6238
SOLID SURFACE MATERIAL								
SOC1	12 36 00	WILSONART	SOLID SURFACE	--	PEACE GREY 9232SS	--	--	APRIL BRICKLE, BRICKLA@WILSONART.COM, 540.537.3431
SOC2	12 36 00	WILSONART	SOLID SURFACE	--	SAHARA NIGHTS 9225SS	--	--	APRIL BRICKLE, BRICKLA@WILSONART.COM, 540.537.3431
SOLID SURFACE INTEGRAL SINK								
SOC	12 36 00	WILSONART	SOLID SURFACE	AV1812	CLEAN WHITE	REFER TO SPECIFICATIONS	REFER TO SPECIFICATIONS	APRIL BRICKLE, BRICKLA@WILSONART.COM, 540.537.3431
QUARTZ MATERIAL								
QC	12 36 00	WILSONART	QUARTZ	--	ENCHANTED ROCK Q4041	3 CM	REFER TO SPECIFICATIONS	APRIL BRICKLE, BRICKLA@WILSONART.COM, 540.537.3431

FINISH ABBREVIATIONS

AC	ACOUTICAL CEILING
AJT	ALUMINUM J TRIM
AWP	ACOUSTICAL WALL PANEL
CG	CORNER GUARDS
CT	CARPET TILE
D	WRITEABLE WALLCOVERING
DGM	DECORATIVE GLASS MARKERBOARD
DP	WRIETEABLE/PROJECTABLE WALLCOVERING
GF	GRAPHIC FILM
GM	GLASS MARKERBOARDS
HB	HARDENED & BURNISHED CONCRETE
HPC	HIGH PERFORMANCE COATING
LMC	LINEAR METAL CEILING
LMS	LINEAR METAL SOFFIT
LMW	LINEAR METAL WALL PANEL
LVT	LUXURY VINYL TILE
MB	MARKERBOARD
MWP	METAL LAMINATE WALL PANEL
PC	PAINT
PF	HARDENED & POLISHED CONCRETE
PL	PLASTIC LAMINATE
PTR	PRECAST TERRAZZO TREAD AND RISER
RB	RESILIENT RUBBER BASE, 4 INCH COVE
RF	RESINOUS FLOORING & INTERGRAL BASE
RN	RESILIENT RUBBER NOSING
RSS	RESILIENT RUBBER STAIR STRINGER
RST	RESILIENT RUBBER STAIR TREAD/RISER
RTR	RESILIENT RUBBER TILE
QC	QUARTZ SURFACE
SOC	SOLID SURFACE
SS	WINDOW SHADE SYSTEM
SSI	STAINLESS STEEL CAB INTERIOR
T	FLOOR & WALL TILE
TB	STAINLESS STEEL BASE
TW	TACKABLE WALLCOVERING
TZ	EPOXY TERRAZZO
TZB	PRECAST TERRAZZO BASE
WS	WOOD SIDING
WSC	WOOD SUSPENDED CEILING
WP	WOOD PANELING

GENERAL FINISH NOTES

A. REFER TO ELEVATIONS FOR SPECIALTY FINISHES AND THEIR LOCATIONS.
B. REFER TO SPECIFICATIONS MANUAL FOR INDIVIDUAL SECTIONS NOTING MANUFACTURER, COLOR, PATTERN, AND SIZES OF APPLIED FINISHES.
C. FLOOR TRANSITIONS SHOULD OCCUR IN THE CENTER OF DOORWAYS OR CASED OPENINGS U.N.O..
D. ALL FLOOR FINISHES ARE EXTENDED UNDER ALL MILLWORK AND CASEWORK U.N.O.
E. INSTALL RESILIENT BASE ON MILLWORK AND CASEWORK U.N.O.
F. REFER TO CEILING PLANS FOR CEILING FINISH MATERAL, HEIGHTS AND NOTES .
G. RESILIENT BASE TO WRAP AROUND ALL DRYWALL CORNER CONDITIONS. REFER TO DETAILS.
H. REFER TO FINISH PLAN SHEETS FOR FLOOR AND WALL FINISH TRANSITIONS.
I. PAINT ALL WALL MOUNTED GRILLES, VENTS, ELECTRICAL PANELS, ACCESS PANELS, ETC TO MATCH ADJACENT WALL UNO.
J. TERRAZZO BASE COLOR TO MATCH ADJACENT TERRAZZO FLOOR COLOR.
K. PRECAST TERRAZZO BASE AT WOOD WALL PANELS TO BE RECESSED. SEE DETAIL K1/A672.
L. SEE A711, A712 AND A713 FOR LVT PATTERN LAYOUT.
M. FINISH ALL SURFACES BEHIND FIXED EQUIPMENT, SUCH AS CABINETRY, CASEWORK, TACWALL, MARKERBOARDS, LOCKERS ETC.

LORD AECK SARGENT
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LordAeckSargent.com

REVISION:

SHEET TITLE: INTERIOR FINISH SCHEDULE
SCALE (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rodgers, Registered Architect, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A700

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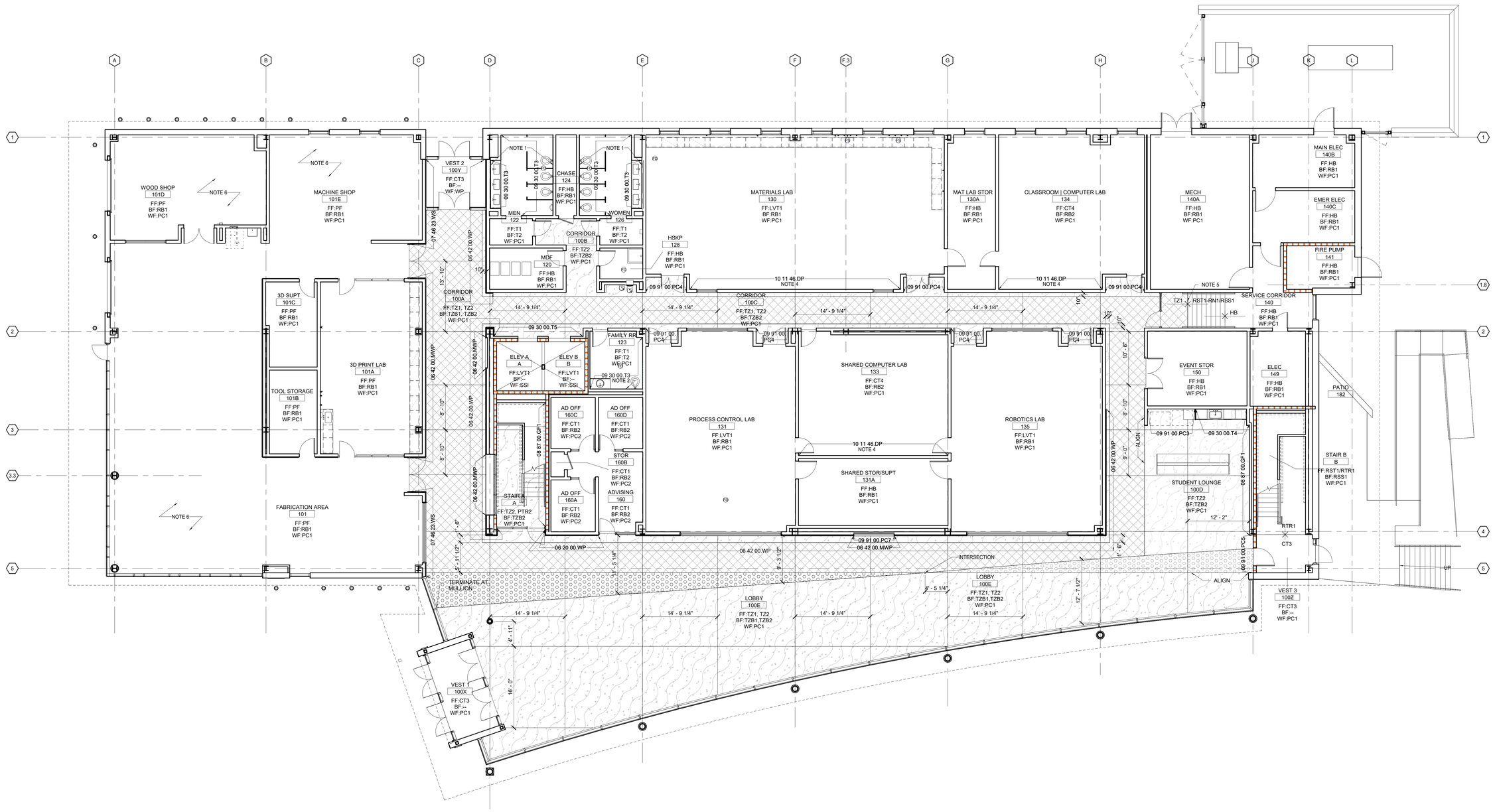

B1 FIRST FLOOR FINISH PLAN

MATERIAL KEYNOTES

06 20 00.WP	Wood Slat Paneling	09 91 00.PC3	Paint Color 3
06 42 00.MWP	Metal Laminate Wall Paneling	09 91 00.PC4	Paint Color 4
06 42 00.WP	Wood Paneling	09 91 00.PC5	Paint Color 5
07 46 23.WS	Wood Siding	09 91 00.PC7	Paint Color 7
08 87 00.GF1	Graphic Film 1	10 11 46.DP	Dry Erase Projection Wallcovering
09 30 00.T3	Tile 3		
09 30 00.T4	Tile 4		
09 30 00.T5	Tile 5		
09 65 00.RST2	Resilient Stair Tread/Riser 2		
09 65 00.RTR2	Resilient Tile Rubber 2		
09 66 23.TZ1	Terrazzo Color 1		
09 66 23.TZ2	Terrazzo Color 2		
09 66 23.TZ3	Terrazzo Color 3		

FLOOR FINISH LEGEND

- TERRAZZO (TZ1/TZP1/TZB1) 09 66 23.TZ1
- TERRAZZO (TZ2/TZP2/TZB2) 09 66 23.TZ2
- TERRAZZO (TZ3) 09 66 23.TZ3
- RUBBER TILE (RTR2/RST2) 09 65 00.RTR2 09 65 00.RST2

FINISH ABBREVIATIONS

FF	FLOOR FINISH
HB	03 35 50 HARDENED & BURNISHED CONCRETE
PF	03 35 50 HARDENED & POLISHED CONCRETE
T	09 30 00 FLOOR TILE
LVT	09 65 00 LUXURY VINYL TILE
TZ	09 66 13 EPOXY TERRAZZO
PTR	09 66 23 PRECAST TERRAZZO TREAD AND RISER
RN	09 65 00 RESILIENT RUBBER NOSING
RST	09 65 00 RESILIENT RUBBER STAIR TREAD/RISER
RTR	09 65 00 RESILIENT RUBBER TILE
RF	09 67 23 RESINOUS FLOORING
CT	09 68 00 CARPET TILE

BE	BASE FINISH
T	09 30 00 WALL BASE TILE
RB	09 65 00 RESILIENT RUBBER BASE, 4 INCH COVE
RSS	09 65 00 RESILIENT RUBBER STAIR STRINGER
TZB	09 66 23 PRECAST TERRAZZO BASE
RF	09 67 23 RESINOUS BASE-INTEGRAL

WF	WALL FINISH
T	09 30 00 WALL TILE
PC	09 91 00 PAINT
HPC	09 96 00 HIGH PERFORMANCE COATING
SSI	14 21 00 STAINLESS STEEL CAB INTERIOR

ROOM FINISH KEY

Room name → ROOM NAME
101 → ROOM NUMBER
FF:Floor Finish → FLOOR
BF:Base Finish → BASE
WF:Wall Finish → WALL

NOTE: FINISHES INDICATED IN ROOM FINISH TAG ARE GENERAL OVERALL FINISHES FOR ROOM UNLESS INDICATED OTHERWISE BY NOTE, DETAIL, AND/OR ELEVATION

GENERAL FINISH NOTES

A. REFER TO ELEVATIONS FOR SPECIALTY FINISHES AND THEIR LOCATIONS.
B. REFER TO SPECIFICATIONS MANUAL FOR INDIVIDUAL SECTIONS NOTING MANUFACTURER, COLOR, PATTERN, AND SIZES OF APPLIED FINISHES.
C. FLOOR TRANSITIONS SHOULD OCCUR IN THE CENTER OF DOORWAYS OR CASED OPENINGS U.N.O.
D. ALL FLOOR FINISHES ARE EXTENDED UNDER ALL MILLWORK AND CASEWORK U.N.O.
E. INSTALL RESILIENT BASE ON MILLWORK AND CASEWORK U.N.O.
F. REFER TO CEILING PLANS FOR CEILING FINISH MATERAL, HEIGHTS AND NOTES.
G. RESILIENT BASE TO WRAP AROUND ALL DRYWALL CORNER CONDITIONS. REFER TO DETAILS.
H. REFER TO FINISH PLAN SHEETS FOR FLOOR AND WALL FINISH TRANSITIONS.
I. PAINT ALL WALL MOUNTED GRILLES, VENTS, ELECTRICAL PANELS, ACCESS PANELS, ETC TO MATCH ADJACENT WALL UNO.
J. TERRAZZO BASE COLOR TO MATCH ADJACENT TERRAZZO FLOOR COLOR.
K. PRECAST TERRAZZO BASE AT WOOD WALL PANELS TO BE RECESSED. SEE DETAIL K1/A672.
L. SEE A711, A712 AND A713 FOR LVT PATTERN LAYOUT.
M. FINISH ALL SURFACES BEHIND FIXED EQUIPMENT, SUCH AS CABINETRY, CASEWORK, TACWALL, MARKERBOARDS, LOCKERS ETC.

SHEET SPECIFIC NOTES

1. EAST AND WEST WALL TILE GROUT LINES TO ALIGN WITH FLOOR TILE GROUT LINES.
2. FLOOR GROUT LINES TO ALIGN WITH WALL GROUT LINES.
3. NOT USED.
4. 10 11 46.DP TO BE INSTALLED AT 32" AFF. TYPICAL.
5. USE RUBBER NOSING AT END TRANSITION OF TERRAZZO ON STAIR.
6. ALL EXPOSED GYPSUM BOARD ON PARTITIONS IN THIS ROOM TO BE ABUSE-RESISTANT GYPSUM BOARD.

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockar, Registered Architect, North Carolina, Chapel Hill, NC, 9714, 12-20-2023

PROJECT NORTH

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A701

SHEET TITLE: INTERIOR FINISH PLAN - FIRST FLOOR
SCALE (U.N.O.): 0 8 16 FT

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

LORD AECK SARGENT

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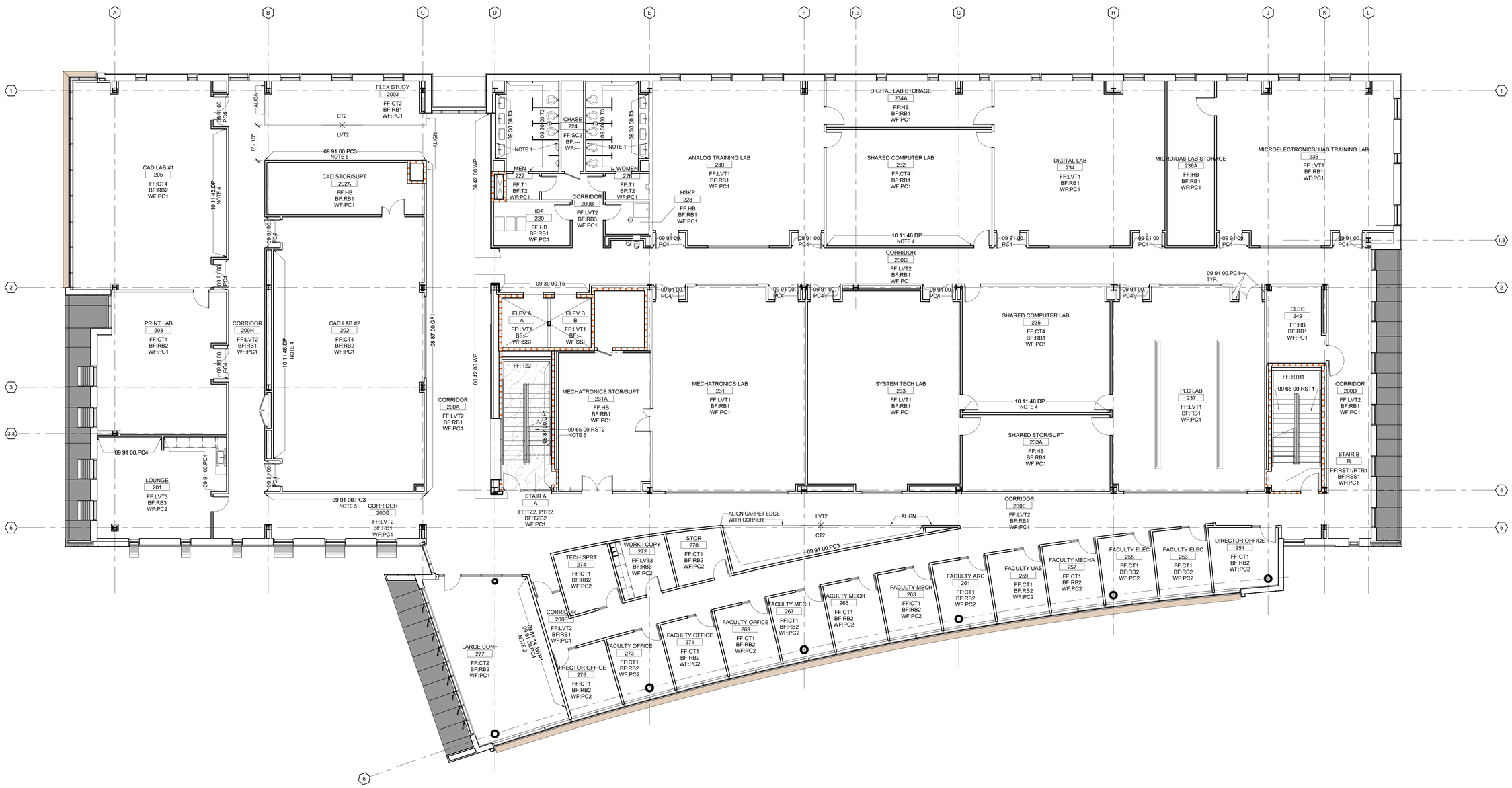

B1 SECOND FLOOR FINISH PLAN

MATERIAL KEYNOTES

06 42 00.WP	Wood Paneling	09 91 00.PC4	Paint Color 4
08 87 00.GF1	Graphic Film 1	10 11 46.DP	Dry Erase Projection Wallcovering
09 30 00.T3	Tile 3		
09 30 00.T5	Tile 5		
09 65 00.RST1	Resilient Stair Tread/Riser 1		
09 65 00.RST2	Resilient Stair Tread/Riser 2		
09 65 00.RTR2	Resilient Tile Rubber 2		
09 66 23.TZ1	Terrazzo Color 1		
09 66 23.TZ2	Terrazzo Color 2		
09 66 23.TZ3	Terrazzo Color 3		
09 84 14.AWP1	Acoustic Wall Panel 1		
09 91 00.PC3	Paint Color 3		

FLOOR FINISH LEGEND

- TERRAZZO (TZ1/TZP1/TZB1) 09 66 23.TZ1
- TERRAZZO (TZ2/TZP2/TZB2) 09 66 23.TZ2
- TERRAZZO (TZ3) 09 66 23.TZ3
- RUBBER TILE (RTR2/RST2) 09 65 00.RTR2 09 65 00.RST2

FINISH ABBREVIATIONS

FF	FLOOR FINISH
HB	03 35 50 HARDENED & BURNISHED CONCRETE
PF	03 35 50 HARDENED & POLISHED CONCRETE
T	09 30 00 FLOOR TILE
LVT	09 65 00 LUXURY VINYL TILE
TZ	09 66 13 EPOXY TERRAZZO
PTR	09 66 23 PRECAST TERRAZZO TREAD AND RISER
RN	09 65 00 RESILIENT RUBBER NOSING
RST	09 65 00 RESILIENT RUBBER STAIR TREAD/RISER
RTR	09 65 00 RESILIENT RUBBER TILE
RF	09 67 23 RESINOUS FLOORING
CT	09 68 00 CARPET TILE

BF	BASE FINISH
T	09 30 00 WALL BASE TILE
RB	09 65 00 RESILIENT RUBBER BASE, 4 INCH COVE
RSS	09 65 00 RESILIENT RUBBER STAIR STRINGER
TZB	09 66 23 PRECAST TERRAZZO BASE
RF	09 67 23 RESINOUS BASE-INTEGRAL

WF	WALL FINISH
T	09 30 00 WALL TILE
PC	09 91 00 PAINT
HPC	09 96 00 HIGH PERFORMANCE COATING
SSI	14 21 00 STAINLESS STEEL CAB INTERIOR

ROOM FINISH KEY

Room name → ROOM NAME
101 → ROOM NUMBER
FF:Floor Finish → FLOOR
BF:Base Finish → BASE
WF:Wall Finish → WALL

NOTE: FINISHES INDICATED IN ROOM FINISH TAG ARE GENERAL OVERALL FINISHES FOR ROOM UNLESS INDICATED OTHERWISE BY NOTE, DETAIL, AND/OR ELEVATION

GENERAL FINISH NOTES

A. REFER TO ELEVATIONS FOR SPECIALTY FINISHES AND THEIR LOCATIONS.
B. REFER TO SPECIFICATIONS MANUAL FOR INDIVIDUAL SECTIONS NOTING MANUFACTURER, COLOR, PATTERN, AND SIZES OF APPLIED FINISHES.
C. FLOOR TRANSITIONS SHOULD OCCUR IN THE CENTER OF DOORWAYS OR CASED OPENINGS U.N.O.
D. ALL FLOOR FINISHES ARE EXTENDED UNDER ALL MILLWORK AND CASEWORK U.N.O.
E. INSTALL RESILIENT BASE ON MILLWORK AND CASEWORK U.N.O.
F. REFER TO CEILING PLANS FOR CEILING FINISH MATERAL, HEIGHTS AND NOTES .
G. RESILIENT BASE TO WRAP AROUND ALL DRYWALL CORNER CONDITIONS. REFER TO DETAILS.
H. REFER TO FINISH PLAN SHEETS FOR FLOOR AND WALL FINISH TRANSITIONS.
I. PAINT ALL WALL MOUNTED GRILLES, VENTS, ELECTRICAL PANELS, ACCESS PANELS, ETC TO MATCH ADJACENT WALL UNO.
J. TERRAZZO BASE COLOR TO MATCH ADJACENT TERRAZZO FLOOR COLOR.
K. PRECAST TERRAZZO BASE AT WOOD WALL PANELS TO BE RECESSED. SEE DETAIL K1/A672.
L. SEE A711, A712 AND A713 FOR LVT PATTERN LAYOUT.
M. FINISH ALL SURFACES BEHIND FIXED EQUIPMENT, SUCH AS CABINETRY, CASEWORK, TACWALL, MARKERBOARDS, LOCKERS ETC.

SHEET SPECIFIC NOTES

1. EAST AND WEST WALL TILE GROUT LINES TO ALIGN WITH FLOOR TILE GROUT LINES.
2. AWP1 INSTALLED ON WALL ABOVE GLASSBOARDS. REFER TO ELEVATIONS ON SHEET A623 FOR SIZES AND EXTENTS .
3. NOT USED.
4. 10 11 46.DP TO BE INSTALLED AT 32" AFF. TYPICAL.
5. REFER TO ELEVATIONS ON A623 FOR WALL FINISH EXTENTS AND INSTALLATION HEIGHTS.
6. RST2 TRANSITION TO BEGIN ON FIRST STAIR TREAD/RISER.

PROJECT NORTH

CORPORATE SEAL

SEAL

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REVISION:

SHEET TITLE
INTERIOR FINISH PLAN - SECOND FLOOR

SCALE (U.N.O.)
0 8 16 FT

PROJECT
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

ISSUE DATE
12/20/2023
JOB NO.
11751-00
DWG. NO.
A702

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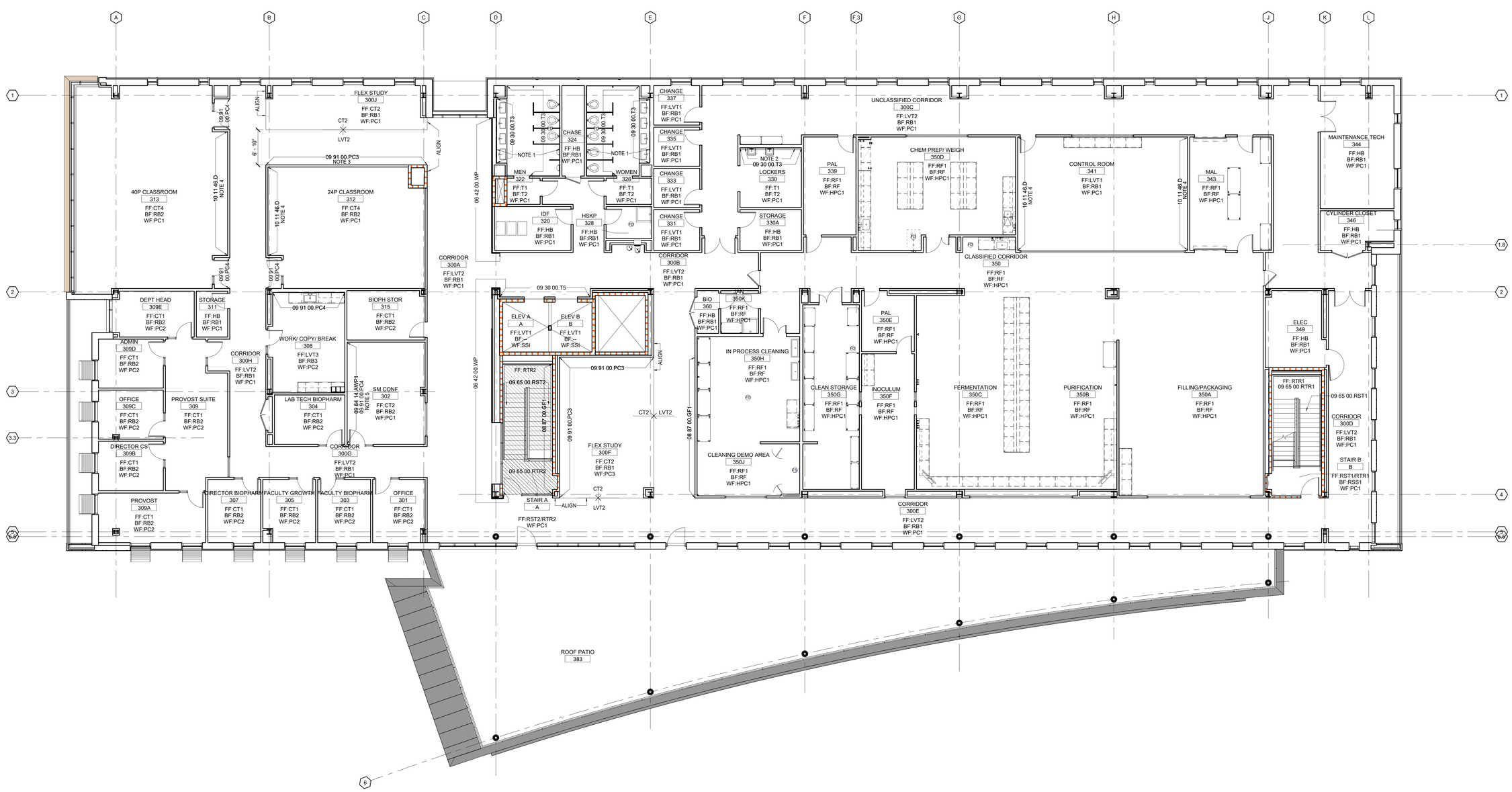

B1 THIRD FLOOR FINISH PLAN

MATERIAL KEYNOTES

06 42 00.WP	Wood Paneling	09 84 14.AWP1	Acoustic Wall Panel 1
08 87 00.GF1	Graphic Film 1	09 91 00.PC3	Paint Color 3
09 30 00.T3	Tile 3	09 91 00.PC4	Paint Color 4
09 30 00.T5	Tile 5	10 11 46.D	Dry Erase Wallcovering
09 65 00.RST1	Resilient Stair Tread/Riser 1		
09 65 00.RST2	Resilient Stair Tread/Riser 2		
09 65 00.RTR1	Resilient Tile Rubber 1		
09 65 00.RTR2	Resilient Tile Rubber 2		
09 66 23.TZ1	Terrazzo Color 1		
09 66 23.TZ2	Terrazzo Color 2		
09 66 23.TZ3	Terrazzo Color 3		

FLOOR FINISH LEGEND

- TERRAZZO (TZ1/TZP1/TZB1) 09 66 23.TZ1
- TERRAZZO (TZ2/TZP2/TZB2) 09 66 23.TZ2
- TERRAZZO (TZ3) 09 66 23.TZ3
- RUBBER TILE (RTR2/RST2) 09 65 00.RTR2 09 65 00.RST2

FINISH ABBREVIATIONS

FF	FLOOR FINISH
HB	03 35 50 HARDENED & BURNISHED CONCRETE
PF	03 35 50 HARDENED & POLISHED CONCRETE
T	09 30 00 FLOOR TILE
LVT	09 65 00 LUXURY VINYL TILE
TZ	09 66 13 EPOXY TERRAZZO
PTR	09 66 23 PRECAST TERRAZZO TREAD AND RISER
RN	09 65 00 RESILIENT RUBBER NOSING
RST	09 65 00 RESILIENT RUBBER STAIR TREAD/RISER
RTR	09 65 00 RESILIENT RUBBER TILE
RF	09 67 23 RESINOUS FLOORING
CT	09 68 00 CARPET TILE

BE	BASE FINISH
T	09 30 00 WALL BASE TILE
RB	09 65 00 RESILIENT RUBBER BASE, 4 INCH COVE
RSS	09 65 00 RESILIENT RUBBER STAIR STRINGER
TZB	09 66 23 PRECAST TERRAZZO BASE
RF	09 67 23 RESINOUS BASE-INTEGRAL

WF	WALL FINISH
T	09 30 00 WALL TILE
PC	09 91 00 PAINT
HPC	09 96 00 HIGH PERFORMANCE COATING
SSI	14 21 00 STAINLESS STEEL CAB INTERIOR

ROOM FINISH KEY

Room name — ROOM NAME
101 — ROOM NUMBER
FF:Floor Finish — FLOOR
BF:Base Finish — BASE
WF:Wall Finish — WALL

NOTE: FINISHES INDICATED IN ROOM FINISH TAG ARE GENERAL OVERALL FINISHES FOR ROOM UNLESS INDICATED OTHERWISE BY NOTE, DETAIL, AND/OR ELEVATION

GENERAL FINISH NOTES

A. REFER TO ELEVATIONS FOR SPECIALTY FINISHES AND THEIR LOCATIONS.
B. REFER TO SPECIFICATIONS MANUAL FOR INDIVIDUAL SECTIONS NOTING MANUFACTURER, COLOR, PATTERN, AND SIZES OF APPLIED FINISHES.
C. FLOOR TRANSITIONS SHOULD OCCUR IN THE CENTER OF DOORWAYS OR CASED OPENINGS U.N.O.
D. ALL FLOOR FINISHES ARE EXTENDED UNDER ALL MILLWORK AND CASEWORK U.N.O.
E. INSTALL RESILIENT BASE ON MILLWORK AND CASEWORK U.N.O.
F. REFER TO CEILING PLANS FOR CEILING FINISH MATERAL, HEIGHTS AND NOTES .
G. RESILIENT BASE TO WRAP AROUND ALL DRYWALL CORNER CONDITIONS. REFER TO DETAILS.
H. REFER TO FINISH PLAN SHEETS FOR FLOOR AND WALL FINISH TRANSITIONS.
I. PAINT ALL WALL MOUNTED GRILLES, VENTS, ELECTRICAL PANELS, ACCESS PANELS, ETC TO MATCH ADJACENT WALL UNO.
J. TERRAZZO BASE COLOR TO MATCH ADJACENT TERRAZZO FLOOR COLOR.
K. PRECAST TERRAZZO BASE AT WOOD WALL PANELS TO BE RECESSED. SEE DETAIL K1/A672.
L. SEE A711, A712 AND A713 FOR LVT PATTERN LAYOUT.
M. FINISH ALL SURFACES BEHIND FIXED EQUIPMENT, SUCH AS CABINETRY, CASEWORK, TACWALL, MARKERBOARDS, LOCKERS ETC.

SHEET SPECIFIC NOTES

1. EAST AND WEST WALL TILE GROUT LINES TO ALIGN WITH FLOOR TILE GROUT LINES.
2. FLOOR GROUT LINES TO ALIGN WITH WALL GROUT LINES.
3. REFER TO ELEVATIONS ON A623 FOR WALL FINISH EXTENTS AND INSTALLATION HEIGHTS
4. 10 11 46.D TO BE INSTALLED AT 32" AFF. TYPICAL.
5. AWP1 INSTALLED FULL LENGTH OF WALL. REFER TO ELEVATIONS ON SHEET A623 FOR SIZES AND EXTENTS .

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, CERT. NO. 53851, NORTH CAROLINA, CHAPEL HILL, NC

SEAL: Jaburun Dunn Rockett, Registered Architect, North Carolina, 9974, Chapel Hill, NC, 12-20-2023

PROJECT NORTH

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: A703

SHEET TITLE: INTERIOR FINISH PLAN - THIRD FLOOR
SCALE (U.N.O.): 0 8 16 FT

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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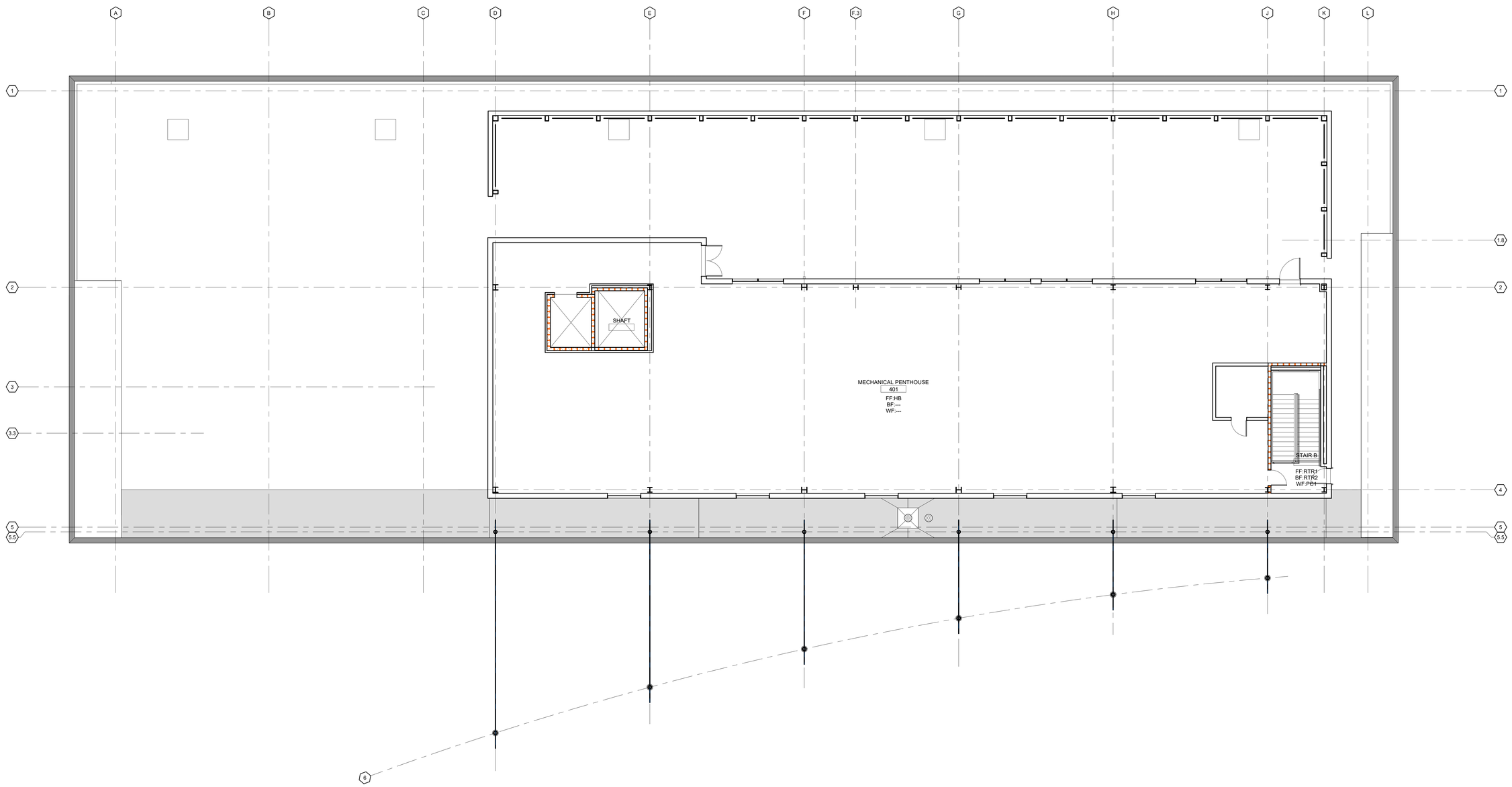

B1 PENTHOUSE FLOOR PLAN

MATERIAL KEYNOTES

FLOOR FINISH LEGEND

- TERRAZZO (TZ1/TZP1/TZB1) 09 66 23.TZ1
- TERRAZZO (TZ2/TZP2/TZB2) 09 66 23.TZ2
- TERRAZZO (TZ3) 09 66 23.TZ3
- RUBBER TILE (RTR2/RST2) 09 65 00.RTR2 09 65 00.RST2

FINISH ABBREVIATIONS

FF	FLOOR FINISH
HB	03 35 50 HARDENED & BURNISHED CONCRETE
PF	03 35 50 HARDENED & POLISHED CONCRETE
T	09 30 00 FLOOR TILE
LVT	09 65 00 LUXURY VINYL TILE
TZ	09 66 13 EPOXY TERRAZZO
PTR	09 66 23 PRECAST TERRAZZO TREAD AND RISER
RN	09 65 00 RESILIENT RUBBER NOSING
RST	09 65 00 RESILIENT RUBBER STAIR TREAD/RISER
RTR	09 65 00 RESILIENT RUBBER TILE
RF	09 67 23 RESINOUS FLOORING
CT	09 68 00 CARPET TILE

BF	BASE FINISH
T	09 30 00 WALL BASE TILE
RB	09 65 00 RESILIENT RUBBER BASE, 4 INCH COVE
RSS	09 65 00 RESILIENT RUBBER STAIR STRINGER
TZB	09 66 23 PRECAST TERRAZZO BASE
RF	09 67 23 RESINOUS BASE-INTEGRAL

WF	WALL FINISH
T	09 30 00 WALL TILE
PC	09 91 00 PAINT
HPC	09 96 00 HIGH PERFORMANCE COATING
SSI	14 21 00 STAINLESS STEEL CAB INTERIOR

ROOM FINISH KEY

Room name — ROOM NAME
101 — ROOM NUMBER
FF:Floor Finish — FLOOR
BF:Base Finish — BASE
WF:Wall Finish — WALL

NOTE: FINISHES INDICATED IN ROOM FINISH TAG ARE GENERAL OVERALL FINISHES FOR ROOM UNLESS INDICATED OTHERWISE BY NOTE, DETAIL, AND/OR ELEVATION

GENERAL FINISH NOTES

A. REFER TO ELEVATIONS FOR SPECIALTY FINISHES AND THEIR LOCATIONS.
B. REFER TO SPECIFICATIONS MANUAL FOR INDIVIDUAL SECTIONS NOTING MANUFACTURER, COLOR, PATTERN, AND SIZES OF APPLIED FINISHES.
C. FLOOR TRANSITIONS SHOULD OCCUR IN THE CENTER OF DOORWAYS OR CASED OPENINGS U.N.O..
D. ALL FLOOR FINISHES ARE EXTENDED UNDER ALL MILLWORK AND CASEWORK U.N.O.
E. INSTALL RESILIENT BASE ON MILLWORK AND CASEWORK U.N.O.
F. REFER TO CEILING PLANS FOR CEILING FINISH MATERAL, HEIGHTS AND NOTES .
G. RESILIENT BASE TO WRAP AROUND ALL DRYWALL CORNER CONDITIONS. REFER TO DETAILS.
H. REFER TO FINISH PLAN SHEETS FOR FLOOR AND WALL FINISH TRANSITIONS.
I. PAINT ALL WALL MOUNTED GRILLES, VENTS, ELECTRICAL PANELS, ACCESS PANELS, ETC TO MATCH ADJACENT WALL UNO.
J. TERRAZZO BASE COLOR TO MATCH ADJACENT TERRAZZO FLOOR COLOR.
K. PRECAST TERRAZZO BASE AT WOOD WALL PANELS TO BE RECESSED. SEE DETAIL K1/A672.
L. SEE A711, A712 AND A713 FOR LVT PATTERN LAYOUT.
M. FINISH ALL SURFACES BEHIND FIXED EQUIPMENT, SUCH AS CABINETRY, CASEWORK, TACWALL, MARKERBOARDS, LOCKERS ETC.

SHEET SPECIFIC NOTES

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, North Carolina, Chapel Hill, NC, 9814, 12-20-2023

PROJECT NORTH

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A704

SHEET TITLE: INTERIOR FINISH PLAN - PENTHOUSE
SCALE (U.N.O.): 0 8 16 FT

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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LVT-1 SPACIA STONE CERAMIC DARK 4mm 12" x 24" INSTALLED ASHLAR
LVT-2 SPACIA ABSTRACT STELLAR ASH 4mm 12" X 24" INSTALLED ASHLAR
LVT-3 UNINTERRUPTED WOOD HEARTWOOD OAK 4mm 7.25" X 48" INSTALLED RANDOM

Scale: Not to Scale

MATERIAL KEYNOTES

GENERAL NOTES

A. DIAGRAM INDICATES GENERAL LVT LAYOUT AND DIRECTION OF TILES ONLY. SEE INTERIOR FINISH PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

ROOM FINISH KEY

Room name 101 → ROOM NAME / ROOM NUMBER
FF:Floor Finish → FLOOR
BF:Base Finish → BASE
WF:Wall Finish → WALL

NOTE: FINISHES INDICATED IN ROOM FINISH TAG ARE GENERAL OVERALL FINISHES FOR ROOM UNLESS INDICATED OTHERWISE BY NOTE, DETAIL, AND/OR ELEVATION

SHEET SPECIFIC NOTES

1.

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REVISION:

SHEET TITLE: LVT PATTERN - FIRST FLOOR

SCALE (U.N.O.): 0 8 16 FT

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 CHAPEL HILL NORTH CAROLINA

SEAL: Lauren Dunn Rockar, Registered Architect, North Carolina, Chapel Hill, NC, 12-20-2023

PROJECT NORTH

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: A711

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LVT-1 SPACIA STONE CERAMIC DARK 4mm 12" x 24" INSTALLED ASHLAR
LVT-2 SPACIA ABSTRACT STELLAR ASH 4mm 12" X 24" INSTALLED ASHLAR
LVT-3 UNINTERRUPTED WOOD HEARTWOOD OAK 4mm 7.25" X 48" INSTALLED RANDOM

Scale: Not to Scale

MATERIAL KEYNOTES

GENERAL NOTES

A. DIAGRAM INDICATES GENERAL LVT LAYOUT AND DIRECTION OF TILES ONLY. SEE INTERIOR FINISH PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

ROOM FINISH KEY

Room name → ROOM NAME
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FF:Floor Finish → FLOOR
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WF:Wall Finish → WALL

NOTE: FINISHES INDICATED IN ROOM FINISH TAG ARE GENERAL OVERALL FINISHES FOR ROOM UNLESS INDICATED OTHERWISE BY NOTE, DETAIL, AND/OR ELEVATION

SHEET SPECIFIC NOTES

1.

PROJECT NORTH

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN NC CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart Registered Architect 9674 North Carolina Chapel Hill, NC 12·20·2023

ISSUE DATE 12/20/2023
JOB. NO. 11751-00
DWG. NO. A712

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REVISION:

SHEET TITLE: LVT PATTERN - SECOND FLOOR

SCALE (UNO) 0 8 16 FT

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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LVT-1 SPACIA STONE CERAMIC DARK 4mm 12" x 24" INSTALLED ASHLAR
LVT-2 SPACIA ABSTRACT STELLAR ASH 4mm 12" X 24" INSTALLED ASHLAR
LVT-3 UNINTERRUPTED WOOD HEARTWOOD OAK 4mm 7.25" X 48" INSTALLED RANDOM

Scale: Not to Scale

MATERIAL KEYNOTES	GENERAL NOTES	ROOM FINISH KEY		SHEET SPECIFIC NOTES
	A. DIAGRAM INDICATES GENERAL LVT LAYOUT AND DIRECTION OF TILES ONLY. SEE INTERIOR FINISH PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.	Room name → ROOM NAME 101 → ROOM NUMBER FF:Floor Finish → FLOOR BF:Base Finish → BASE WF:Wall Finish → WALL NOTE: FINISHES INDICATED IN ROOM FINISH TAG ARE GENERAL OVERALL FINISHES FOR ROOM UNLESS INDICATED OTHERWISE BY NOTE, DETAIL, AND/OR ELEVATION		1.

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REVISION:

SHEET TITLE
LVT PATTERN - THIRD FLOOR

SCALE (U.N.O.) 0 8 16 FT

SITE NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

PROJECT NORTH

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL
Lauren Dunn Rockar
Registered Architect
North Carolina
Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
A713

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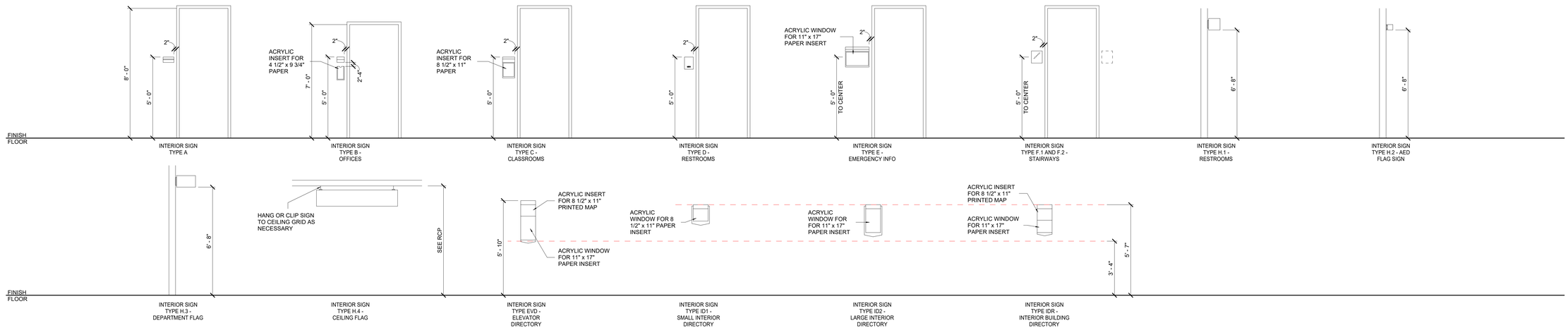

K1 INTERIOR SIGNAGE TYPICAL MOUNTING LOCATIONS

MATERIAL KEYNOTES

GENERAL NOTES

SHEET SPECIFIC NOTES

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REVISION:

SHEET TITLE: INTERIOR SIGNAGE MOUNTING

SCALE (1/2") 0 8/3 16/3 FT

FOR WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN NC CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart Registered Architect 9974 North Carolina Chapel Hill, NC 12-20-2023

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: A720

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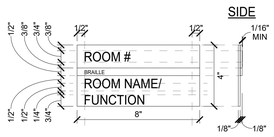
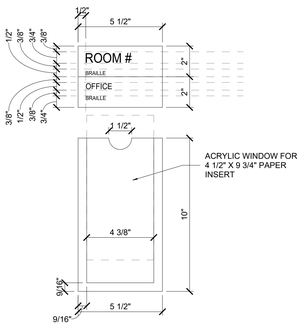
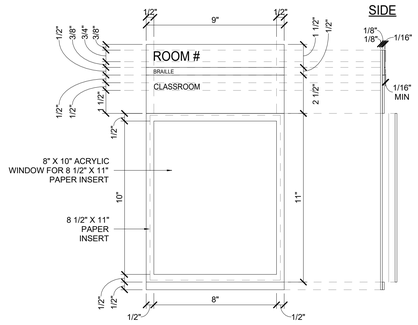


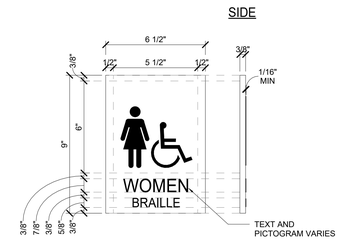
L1 INTERIOR SIGN - TYPE A



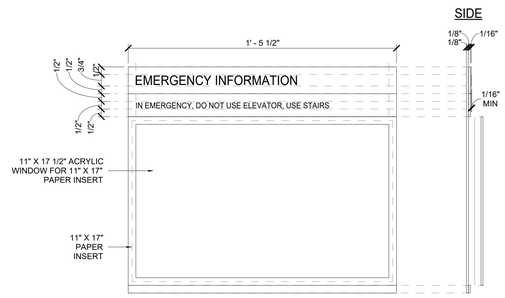
L4 INTERIOR SIGN - TYPE B



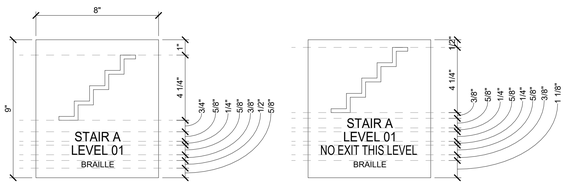
L7 INTERIOR SIGN - TYPE C



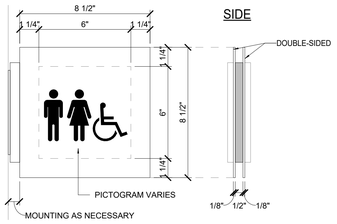
L11 INTERIOR SIGN - TYPE D



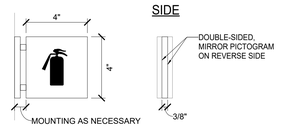
L14 INTERIOR SIGN - TYPE E



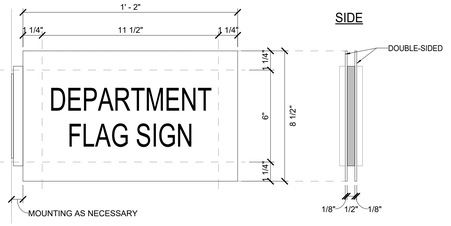
J1 INTERIOR SIGN - TYPE F.1



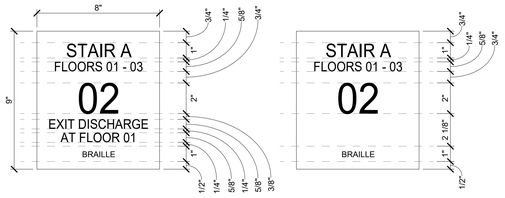
J6 INTERIOR SIGN - TYPE H.1



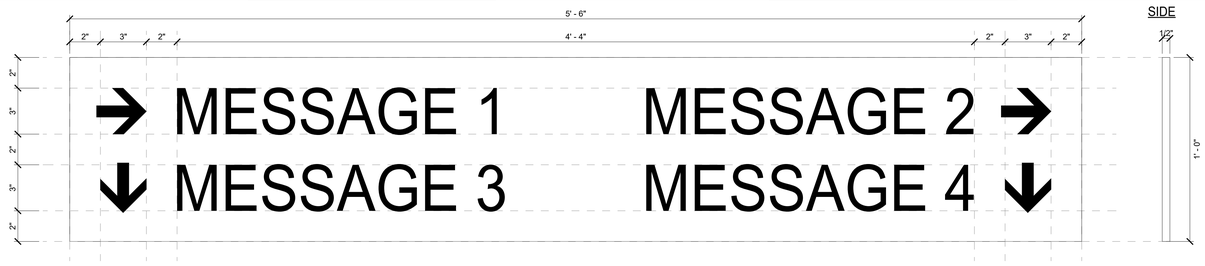
J10 INTERIOR SIGN - TYPE H.2



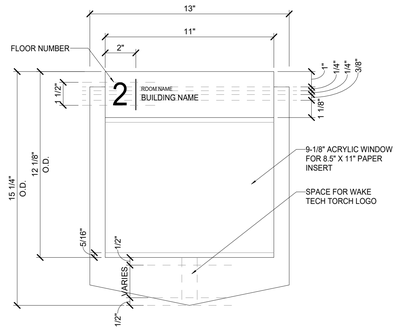
J14 INTERIOR SIGN - TYPE H.3



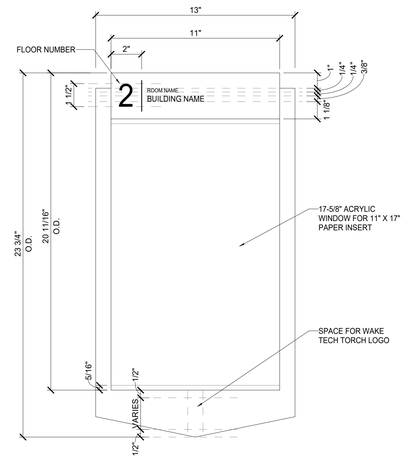
G1 INTERIOR SIGN - TYPE F.2



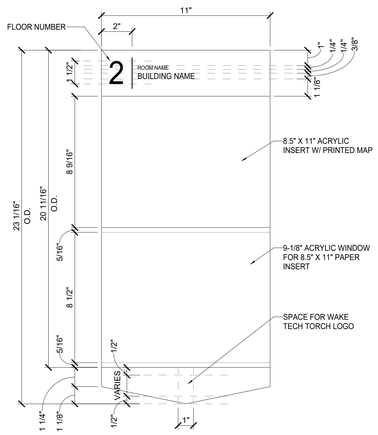
G6 INTERIOR SIGN - TYPE H.4



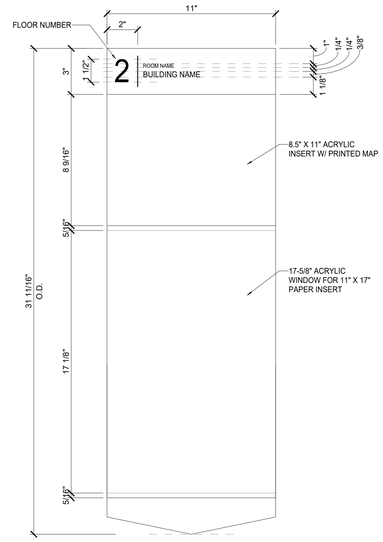
B1 INTERIOR SIGN - TYPE ID1



B7 INTERIOR SIGN - TYPE ID2



B11 INTERIOR SIGN - TYPE IDR



B15 INTERIOR SIGN - TYPE EVD

MATERIAL KEYNOTES

GENERAL NOTES

1. ALL SIGNAGE SHALL COMPLY WITH ADA STANDARDS FOR CHARACTER, BRAILLE, AND PICTOGRAM SIZE AND PLACEMENT
2. ALL SIGNAGE MATERIAL SHALL BE ACRYLIC

SHEET SPECIFIC NOTES

LORD AECK SARGENT

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REVISION

SHEET TITLE
INTERIOR SIGNAGE DETAILS

SCALE (UNO) 6 0 12 IN

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN, INC.
CERT. NO. 53851
NORTH CAROLINA
CHAPEL HILL

SEAL
Lauren Dunn Rockar
Registered Architect
9674
North Carolina
Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
A721

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B1 FIRST FLOOR FURNITURE PLAN

GENERAL NOTES

ALL FURNITURE IS NOT IN CONTRACT (NIC). INFORMATION ON THIS SHEET IS PROVIDED FOR REFERENCE ONLY.

PROJECT NORTH

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rocker, Registered Architect, 9814, North Carolina, Chapel Hill, NC, 12·20·2023

ISSUE DATE: 12/20/2023

JOB NO.: 11751-00

DWG. NO.: A801

LORD AECK SARGENT

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REVISION:

SHEET TITLE: FURNITURE PLAN - FIRST FLOOR

SCALE (U.N.O.): 0 8 16 FT

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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B1 SECOND FLOOR FURNITURE PLAN

GENERAL NOTES

ALL FURNITURE IS NOT IN CONTRACT (NIC). INFORMATION ON THIS SHEET IS PROVIDED FOR REFERENCE ONLY.

PROJECT NORTH

CORPORATE SEAL

LORD AECK SARGENT PLANNING & DESIGN
CERT. NO. 53851
NORTH CAROLINA
CHAPEL HILL

SEAL

Benjamin Dunn Rocker
Registered Architect
9974
North Carolina
Chapel Hill, NC
12·20·2023

ISSUE DATE
12/20/2023

JOB NO.
11751-00

DWG. NO.
A802

SHEET TITLE
FURNITURE PLAN - SECOND FLOOR

SCALE (U.N.O.)
0 8 16 FT

CPI Inside
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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LORD AECK SARGENT

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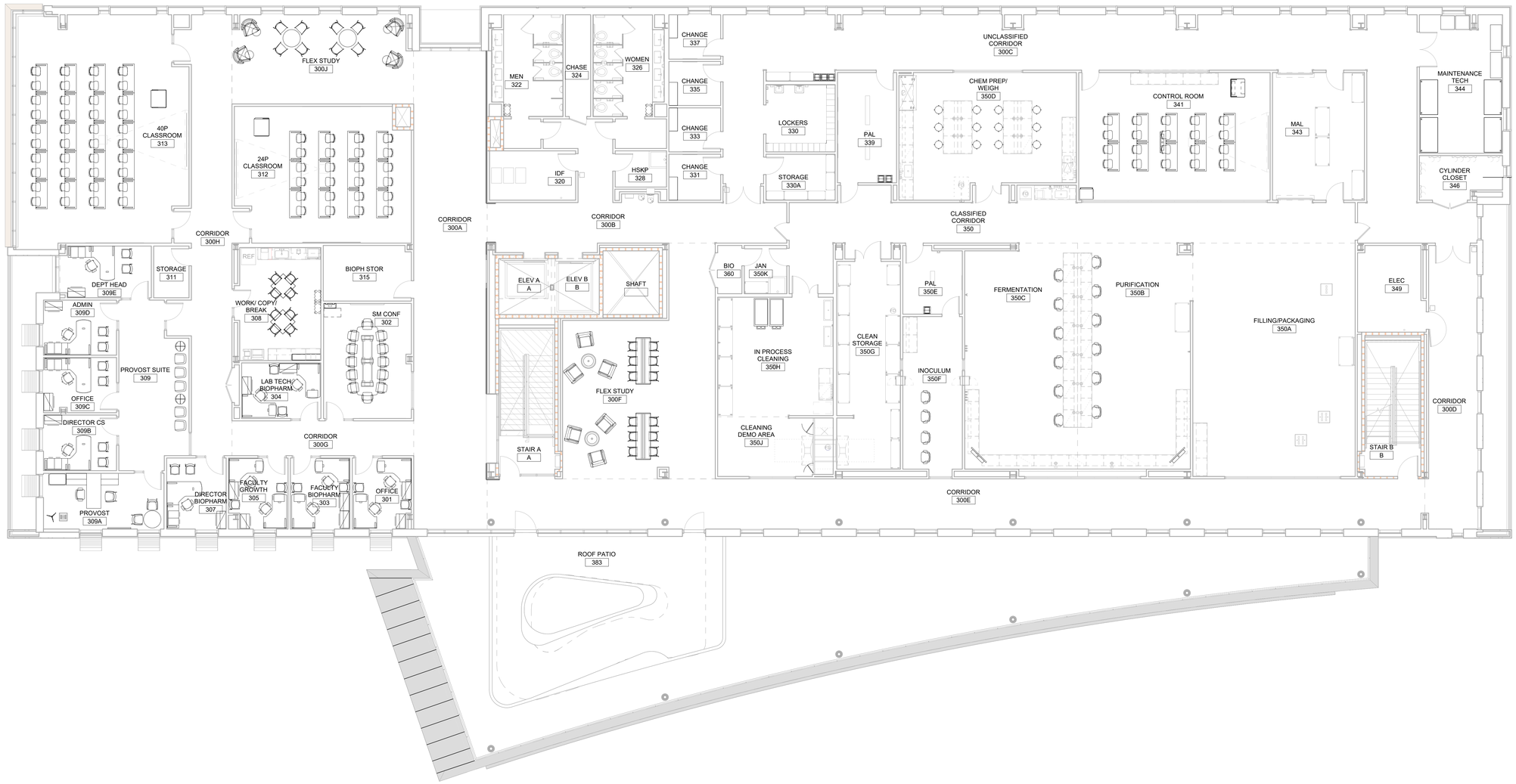

B1 THIRD FLOOR FURNITURE PLAN

GENERAL NOTES

ALL FURNITURE IS NOT IN CONTRACT (NIC). INFORMATION ON THIS SHEET IS PROVIDED FOR REFERENCE ONLY.

PROJECT NORTH

CORPORATE SEAL

LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL

Lauren Dunn Rockar Registered Architect 9674 North Carolina Chapel Hill, NC

12·20·2023

ISSUE DATE 12/20/2023

JOB. NO. 11751-00

DWG. NO. A803

SHEET TITLE
FURNITURE PLAN - THIRD FLOOR

SCALE (U.N.O.) 0 8 16 FT

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

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OFOI - ENGINEERING EQUIPMENT SCHEDULE

Dept.	Lab/Researcher Associated With	EQ Number	QTY if >1 or Future (F)	Description	Manufacturer	Model	Floor Mtd	Width	Depth	Height	Power Requirements	EP	Data	UPS (By Owner)	CW	HW	DI/ PW/ RO	Air	Vac	Specialty Gas (Cylinders)	Drain	Exhaust	Notes
ENGINEERING	SYSTEMS TECH	EQ-101	3	ELECTRICAL WIRING LEARNING SYSTEM	AMATROL	850-MT6B	Y	72"	24"	85"	208VAC/60Hz/3 phase	No	No		No	No	-	Yes	No	-	No	-	
ENGINEERING	SYSTEMS TECH	EQ-102	3	ELECTRICAL MOTOR CONTROL LEARNING SYSTEM	AMATROL	85-MT5SL	N	46.5"	20"	36"	208VAC/60Hz/3 phase	No	No		No	No	-	Yes	No	-	No	-	
ENGINEERING	SYSTEMS TECH	EQ-103	3	FAULT TROUBLESHOOTING SYSTEM	AMATROL	890-FTS1	N	24"	6"	6"		No	No		No	No	-	No	No	-	No	-	
ENGINEERING	SYSTEMS TECH	EQ-104	3	MECHANICAL DRIVES 1 LEARNING SYSTEM	AMATROL	970-ME1	Y	48"	30"	40"	120 VAC/60 Hz/1 phase	No	No		No	No	-	No	No	-	No	-	Requires computer
ENGINEERING	SYSTEMS TECH	EQ-105		BASIC PNEUMATICS LEARNING SYSTEM	AMATROL	85-BP	N	18"	18"	18"	Pneumatic power supply or conditioned (dry and filtered) shop air.	No	No		No	No	-	Yes	No	-	No	-	
ENGINEERING	SYSTEMS TECH	EQ-106		INTERMEDIATE PNEUMATICS LEARNING SYSTEM	AMATROL	85-IP	N	18"	18"	18"		No	No		No	No	-	No	No	-	No	-	
ENGINEERING	PROCESS CONTROL LAB	EQ-107		FILLING STATION	FESTO		Y	120"	36"	72"	120 V	No	No		No	No	-	Yes	No	-	No	-	
ENGINEERING	PROCESS CONTROL LAB	EQ-108		WATER TRANSFER STATION	FESTO		Y	144"	36"	72"	120 V	No	No		No	No	-	Yes	No	-	No	-	
ENGINEERING	MECHATRONICS	EQ-111	3	MECLAB TRAINING SYSTEM	FESTO	3 Stations plus air compressor	N	48"	20"	36"		No	No		No	No	-	Yes	No	-	No	-	
ENGINEERING	ROBOTICS	EQ-112	2	ROBOT CART	SMC	RTS-200	Y	60"	60"	60"		No	No		No	No	-	No	No	-	No	-	
ENGINEERING	ROBOTICS	EQ-113	2	FESTO ROBOT	FESTO	??	Y	36"	48"	84"	230 V AC	No	No		No	No	-	Yes	No	-	No	-	600 kPa (6 bar)
ENGINEERING	MATERIALS LAB	EQ-121	2	OVEN	SoulCeramics	LB-18	N	20"	25.5"	19.5"	240V,13A	No	No		No	No	-	No	No	-	No	-	NEMA 6-20
ENGINEERING	MATERIALS LAB	EQ-122		INSTRON TESTING SYSTEM	INSTRON	6800 series (NEED MODEL NUMBER)	N	44.8"	42.9"	123.5"	208V	No	No		No	No	-	Yes	No	-	No	-	
ENGINEERING	MATERIALS LAB	EQ-123	2	SAMPLE MOUNTING PRESS	TERAPRESS	TP-7001	N	13"	16.5"	19.5"	110V, 50/60 Hz, Single Phase	No	No		Yes	No	-	Yes	No	-	Yes	-	
ENGINEERING	MATERIALS LAB	EQ-124		BELT GRINDER	PACE TECHNOLOGIES	PENTA-7500	N	20"	24.8"	14.8"	110V / 220V 50/ 60 Hz	No	No		Yes	No	-	No	No	-	Yes	-	
ENGINEERING	MATERIALS LAB	EQ-125	3	MANUAL HAND GRINDER	PACE TECHNOLOGIES	PENTA-5000	N	23"	20"	7"		No	No		Yes	No	-	No	No	-	Yes	-	
ENGINEERING	MATERIALS LAB	EQ-126		STARRETT HARDNESS TESTER	STARRETT	#3814	N	6"	18"	24"		No	No		No	No	-	No	No	-	No	-	
ENGINEERING	MATERIALS LAB	EQ-127		CHARPY IMPACT TESTER	SPW Industrial	BZ10128752	N	30"	18"	30"		No	No		No	No	-	No	No	-	No	-	
ENGINEERING	MATERIALS LAB	EQ-128		BRINELL HARDESS TESTER	NEWAGE	NB3010 Series	N	8"	18"	24"	110Vac, 60Hz	No	No		No	No	-	Yes	No	-	No	-	60 psi, 0.4 cfm
ENGINEERING	MATERIALS LAB	EQ-129	2	MICROSCOPE			N	10"	24"	24"	120 V	No	No		No	No	-	No	No	-	No	-	
ENGINEERING	PROCESS CONTROL LAB	EQ-130a	2	MEASURING PRO STATION	FESTO	MPS 404 i4.0	N	82.7"	27.6"	70.9"	120 V	No	No		No	No	-	Yes	No	-	No	-	
ENGINEERING	PROCESS CONTROL LAB	EQ-130b		MEASURING PRO STATION w/ ROBOT	FESTO	MPS 404 i4.0	N	82.7"	27.6"	70.9"	120 V	No	No		No	No	-	Yes	No	-	No	-	
ENGINEERING	MECHATRONICS	EQ-131	10	PNEUMATICS LEARNING SYSTEM	FESTO		N	24"	10"	24"	120 V	No	No		No	No	-	Yes	No	-	No	-	
ENGINEERING	MECHATRONICS	EQ-132	3	LARGE PNEUMATICS LEARNING SYSTEM	FESTO		N	60"	36"	72"		No	No		No	No	-	Yes	No	-	No	-	
ENGINEERING	MECHATRONICS	EQ-133	6	FESTO MECHANICAL DRIVE	FESTO		Y	72"	36"	72"	120 V	No	No		No	No	-	No	No	-	No	-	
ENGINEERING	PRINT LAB	EQ-134		PLOTTER			Y	60"	18"	30"	120 V	No	Yes		No	No	-	No	No	-	No	-	
ENGINEERING	PRINT LAB	EQ-134b	F	24" PLOTTER			Y	39.9"	23.8"	36.7"	100-240 V	No	Yes		No	No	-	No	No	-	No	-	
ENGINEERING	PRINT LAB	EQ-134c	F	36" PLOTTER			Y	51.9"	23.8"	36.7"	100-240 V	No	Yes		No	No	-	No	No	-	No	-	
ENGINEERING	PRINT LAB	EQ-135		SCANNER			Y	60"	18"	30"	120 V	No	No		No	No	-	No	No	-	No	-	
ENGINEERING	ROBOTICS	EQ-136a		FMS-200 didactic equipment	SMC	FMS-201	Y	36"	22"	60"	120 V AC	No	No		No	No	-	Yes	No	-	No	-	
ENGINEERING	ROBOTICS	EQ-136b		FMS-200 didactic equipment	SMC	FMS-202	Y	36"	22"	60"	120 V AC	No	No		No	No	-	Yes	No	-	No	-	
ENGINEERING	ROBOTICS	EQ-136c		FMS-200 didactic equipment	SMC	FMS-203	Y	36"	22"	60"	120 V AC	No	No		No	No	-	Yes	No	-	No	-	
ENGINEERING	ROBOTICS	EQ-136d		FMS-200 didactic equipment	SMC	FMS-204	Y	36"	22"	60"	120 V AC	No	No		No	No	-	Yes	No	-	No	-	
ENGINEERING	MATERIALS LAB	EQ-137	2	FINE POLISHER	PACE TECHNOLOGIES	NANO 2000T	N	30"	28"	13"	110/220V, 50/60 Hz, Single Phase	No	No		Yes	No	-	No	No	-	Yes	-	

OFOI - MAKERSPACE EQUIPMENT SCHEDULE

Dept.	Lab/Researcher Associated With	EQ Number	QTY if >1 or Future (F)	Description	Manufacturer	Model	Floor Mtd	Width	Depth	Height	Power Requirements	EP	Data	UPS (By Owner)	CW	HW	DI/ PW/ RO	Air	Vac	Specialty Gas (Cylinders)	Drain	Exhaust	Notes
MAKER SPACE	WOOD SHOP	EQ-201		SHOPBOT	Shopbot	PRSalpha 96-48-8 PRSalpha 96-48-8 PRSalpha 96-48-8	Y	79"	120"	67"	220v single-phase, 230v 3-phase and 380/460V 3-phase	No	No		No	No	-	No	No	-	No	-	
MAKER SPACE	WOOD SHOP	EQ-201b		DUST COLLECTION CANNISTERS			N	84"	24"	72"		No	No		No	No	-	No	No	-	No	-	
MAKER SPACE	WOOD SHOP	EQ-202		JOBSITE SAW PRO	Sawstop	JSS-120A60	Y	48"	29"	36"	120 VAC 60 Hz, 15 amp	No	No		No	No	-	No	No	-	No	-	
MAKER SPACE	MACHINE SHOP	EQ-203		COMBINATION BELT/DISC SANDER	JET	J-4200A	Y	19"	16"	57.5"	1 PH 1.5HP, 115/220V, 1ph, (prewired 115V)	No	No		No	No	-	No	No	-	No	-	
MAKER SPACE	WOOD SHOP	EQ-204		CABINET SAW	SAWSTOP	Cabinet Saw	Y	70"	36"	34"	120V,1-phase, 14A	No	No		No	No	-	No	No	-	No	-	
MAKER SPACE	WOOD SHOP	EQ-205	2	COMPOUND MITER SAW W/STAND	DEWALT	DWS780	N	84"	30"	70"	120 V	No	No		No	No	-	No	No	-	No	-	
MAKER SPACE	MACHINE SHOP	EQ-211		MILL	JET	JTM-4VS Mill With Newall DP700 DRO	Y	66"	63"	85"	3 HP, 230/460V, 3Ph	No	No		No	No	-	No	No	-	No	-	
MAKER SPACE	MACHINE SHOP	EQ-212		BENCH LATHE w/STAND	JET	Jet BDB-1340A With Collet Closer	Y	71"	32"	61.5"	2HP, 1PH, 230V	No	No		No	No	-	No	No	-	No	-	
MAKER SPACE	MACHINE SHOP	EQ-213		14" METAL/WOOD VERTICAL BANDSAW	JET	J-8201	Y	26"	18.5"	67"	115/230 VA (Prewired 115V)	No	No		No	No	-	No	No	-	No	-	
MAKER SPACE	MACHINE SHOP	EQ-214		15" FLOOR MODEL DRILL PRESS	JET	J-2500	Y	13"	31"	63"	115V 1Ph	No	No		No	No	-	No	No	-	No	-	
MAKER SPACE	MACHINE SHOP	EQ-215		BENCH GRINDER AND PEDESTAL STAND	JET	JBG-6B, JPS-2A	Y	18"	16"	46.5"	115V, 1PH, 370W	No	No		No	No	-	No	No	-	No	-	
MAKER SPACE	MACHINE SHOP	EQ-216		GRINDER WITH STAND	GRIZZLY	G5963	Y	36.5"	33"	64"	115V or 230V, Single-Phase, 60 Hz	No	No		No	No	-	No	No	-	No	-	
MAKER SPACE	MACHINE SHOP	EQ-217		MIG WELDER	LINCOLN	360MP	Y	18"	40.4"	37.3"	480V, 55A	No	No		No	No	-	No	No	Ar	No	-	
MAKER SPACE	3D PRINT LAB	EQ-231	10	3D PRINTER	PRUSA	i3 MK3S	N	19.6"	21.6"	24"	120 V	No	No		No	No	-	No	No	-	No	REQUIRED	
MAKER SPACE	3D PRINT LAB	EQ-232a		WAZER MAIN UNIT	WAZER		N	34"	25.5"	22"	110V, 50/60Hz, 2.0A	No	Yes		No	No	-	No	No	-	Yes		
MAKER SPACE	3D PRINT LAB	EQ-232b		WAZER PUMP BOX	WAZER		N	21"	15"	11"	110-120 VAC; 60Hz; 15A; 1700 W	No	No		Yes	No	-	Yes	No	-	Yes		
MAKER SPACE	3D PRINT LAB	EQ-233	2	LASER CUTTER	EPILOG	Epilog Helix 24	N	36.5"	32"	40"	110 to 240 volts, 50 or 60 Hz, single phase	No	Yes		No	No	-	Yes	No	-	No	350 - 400 CFM, 4" DIAMETER	

OFOI - BIOPHARMA EQUIPMENT SCHEDULE

Dept.	Lab/Researcher Associated With	EQ Number	QTY if >1 or Future (F)	Description	Manufacturer	Model	Floor Mtd	Width	Depth	Height	Power Requirements	EP	Data	UPS (By Owner)	CW	HW	DI/ PW/ RO	Air	Vac	Specialty Gas (Cylinders)	Drain	Exhaust	Notes
BIOPHARMA	FERMENTATION	EQ-301	2	PCS INSTRUMENT PKG	ARTEL	PCS	N	8.8"	13"	5.8"	90 – 260 VAC, 2A	No	No		No	No	-	No	No		No	-	
BIOPHARMA	FERMENTATION	EQ-302		UV-VIS SPECTROPHOTOMETER	THERMO FISHER SCIENTIFIC	GENESYS™ 180, 840-309000	N	15.2"	14"	7.7"		No	No		No	No	-	No	No		No	-	
BIOPHARMA	FERMENTATION	EQ-304	2	MICROSCOPE	ASSOCIATED MICROSCOPE	LEICA DM750	N	15"	15"	16"	5V, 1.5A	No	No		No	No	-	No	No	-	No	-	
BIOPHARMA	FERMENTATION	EQ-305		BIOPROCESS CNTL SYS	EPPENDORF	BioFlo320	N	16"	16"	26"	100 – 120/208 – 240 VAC	No	No		No	No	-	Yes	No	O2, N2, CO2	No	-	
BIOPHARMA	FERMENTATION	EQ-306		CELL VIABILITY ANALYZER	BECKMAN COULTER	Vi-CELL XR	N	15"	16"	17.5"	100V, 120V, 220V, or 240 V	No	No		No	No	-	No	No		No	-	
BIOPHARMA	FERMENTATION	EQ-307	8	pH METER	METTLER TOLEDO	S400	N	9.3"	7.4"	3"	100-240 V, 0.84A	No	No		No	No	-	No	No		No	-	
BIOPHARMA	FERMENTATION	EQ-308a		BIOREACTOR/FERMENTOR	EPPENDORF	BIOFLO 720, 1385200011	Y	31.7"	34.3"	63.1"	200 – 240 V	No	No		No	No	-	Yes	No	O2, N2, CO2	No	-	
BIOPHARMA	FERMENTATION	EQ-308b		BIOREACTOR SUBs			Y	31.7"	31.7"	76"		No	No		No	No	-	No	No	-	No	-	
BIOPHARMA	FERMENTATION	EQ-309		STACKED INCUBATORS	THERMO FISHER SCIENTIFIC	Heracell VIOS 160i CO2 Incubator, 165 L, 13-998-270	Y	25.1"	34.6"	70.8"	120 V	No	No		No	No	-	No	No	CO2	No	-	
BIOPHARMA	FERMENTATION	EQ-313		MICROFUGE 20R CENTRIFUGE	BECKMAN COULTER	MICROFUGE 20R	N	12.2"	26"	11.5"	120V	No	No		No	No	-	No	No		No	-	
BIOPHARMA	FERMENTATION	EQ-314		LIQUID TRNSR PUMP	WATSON MARLOW	530	N	10"	18"	6.2"		No	No		No	No	-	No	No	-	No	-	
BIOPHARMA	FERMENTATION	EQ-315		INCUBATING SHAKER	COLE PARMER	EW-79510-59	N	26.7"	35.2"	36.6"	120 VAC	No	No		No	No	-	No	No	-	No	-	
BIOPHARMA	FERMENTATION	EQ-316		WAVE 25 ROCKER	CYTIVA	WAVE 25	Y	15.9"	22.1"	8.1"	100 to 240 V	No	No		No	No	-	No	No	Liquid Nitrogen	No	-	
BIOPHARMA	FERMENTATION	EQ-317		DEWAR LIQUID N, 50LB	AIRGAS		Y	18.8"	18.8"	32.4"		No	No		No	No	-	No	No	-	No	-	
BIOPHARMA	INOCULUM, CHEM PREP, FERMENTATION	EQ-321	4	BIOSAFETY CABINET	BAKER CO	SG604, Class 2 Type A2	Y	77.8"	30.7"	84"	115 V, 20A	No	No		No	No	-	No	No	-	No	-	
BIOPHARMA	PURIFICATION	EQ-324	2	CENTRIFUGE	THERMO FISHER SCIENTIFIC	Medifuge Centrifuge (75008801)	N	12.8"	17.7"	9.5"	120 V	No	No		No	No	-	No	No	-	No	-	
BIOPHARMA	PURIFICATION	EQ-325		BREWPUB SEPARATOR SKID	GEA		Y	48"	30"	60"		No	No		No	No	-	No	No	CO2	No	-	
BIOPHARMA	PURIFICATION	EQ-326		PROTEIN PURIFICATION	CYTIVA	AKTA START PROTEIN PURIFICATION SYSTEM (29022094)	N	13.4"	11.1"	14.2"	100-120/220-240 VAC	No	No		No	No	-	No	No	-	No	-	
BIOPHARMA	PURIFICATION	EQ-327		LABSCALE TFF SYSTEM RESERVOIR	MILLIPORE SIGMA	LABSCALE TFF (XX42LSS11)	N	11"	8.5"	18"	115V	No	No		No	No	-	No	No	-	No	-	
BIOPHARMA	PURIFICATION	EQ-328		CHROMATOGRAPY COLUMN	MILLIPORE SIGMA	GA072711, GS072711	Y	24"	24"	60"		No	No		No	No	-	No	No	-	No	-	QuikScale® Chromatography Columns (Top 70 and Bottom 70) - GLASS, Tube length 550mm
BIOPHARMA	PURIFICATION	EQ-329		HPLC	AGILENT	1260 Infinity II LC System	N	17.1"	14.1"	36"	100-240 VAC	No	No		No	No	-	No	No	-	No	-	
BIOPHARMA	FILLING/PACKAGING	EQ-331		ISOLATOR (ENCLOSED)	OPTIMA or ESCO		Y	96"	24"	72"		Yes	No		No	No	-	Yes	No	-	No	-	
BIOPHARMA	FILLING/PACKAGING	EQ-332		FLOOR SCALE	METTLER TOLEDO		Y	60"	84"	4"		No	No		No	No	-	No	No	-	No	-	
BIOPHARMA	FILLING/PACKAGING	EQ-333		SOFTWALL CLEANROOM	TECHNICAL AIR PRODUCTS	ISO-8 LOGICLEAN	Y	96"	72"	82"	120 V/1 Ph./60 Hz/10A	No	No		No	No	-	No	No	-	No	-	
BIOPHARMA	FILLING/PACKAGING	EQ-334		4x4 VERITAS FLOOR SCALE	VERITAS/HOGENTOGLER	VFS4X4-5k	Y	48"	48"	4"	100-240VAC	No	No		No	No	-	No	No	-	No	-	
BIOPHARMA	FILLING/PACKAGING	EQ-335	2	VIAL INSPECTION BOOTH	ERGOVU-30 T/B ILLUMINATION	VU-30 Top and Bottom	Y	32"	17"	72"	90 - 240vac	No	No		No	No	-	No	No	-	No	-	ErgoVu-30 Motorized With Top And Bottom Illumination
BIOPHARMA	FILLING/PACKAGING	EQ-336		FREEZE DRYER	LABCONCO	FreeZone (7400040)	N	16"	16"	16"	115V, 60 Hz, 16A	No	No		No	No	-	No	No	-	No	-	Freeze Dryer/FreeZone Triad Cascade Benchtop Freeze Dryer 2.5 Liter -84C Benchtop
BIOPHARMA	FILLING/PACKAGING	EQ-336b		FD VAC PUMP	LABCONCO		N	12"	12"	12"	115V, 60 Hz, 16A	No	No		No	No	-	No	No	-	No	-	
BIOPHARMA	CLEAN STORAGE	EQ-340		-20 FREEZER	THERMO FISHER SCIENTIFIC	TSX2320FA	Y	28"	37.5"	78.6"	115V, 60 Hz	Yes	No		No	No	-	No	No	-	No	-	NEMA 5-15
BIOPHARMA	CLEAN STORAGE	EQ-341		-80 BENCHTOP FREEZER	THERMO FISHER SCIENTIFIC	13-989-128	N	30.8"	25.5"	20"	115V, 16/20 A	No	No		No	No	-	No	No	-	No	-	
BIOPHARMA	IN PROCESS CLEANING	EQ-342	2	STERILIZER W/DRYER	YAMATO	SM501	Y	17.4"	26.1"	42.9"	115 V, 15A	No	No		No	No	-	No	No		No	-	
BIOPHARMA	IN PROCESS CLEANING	EQ-343	2	TABLETOP AUTOCLAVE	FISHERBRAND STERILELITE	STE1622004	N	20"	23"	20"	120 V	No	No		No	No	-	No	No		No	-	
BIOPHARMA	IN PROCESS CLEANING	EQ-345		INTEGRITY TEST INSTRUMENT	MILLIPORE SIGMA	4 SERIES	N	14.6"	16.4"	10"	90–264 V / 50–60 Hz, 3.5A	No	No		No	No	-	Yes	No		No	-	
BIOPHARMA	CHEM PREP / WEIGH	EQ-356		REFRIGERATOR W/FREEZER			Y	30"	30.4"	66.4"	120V, 15a	No	No		No	No	-	No	No	-	No	-	

ACCESSORY AND APPLIANCE SCHEDULE

TAG	DESCRIPTION	PROVIDER	REMARKS
CFCI - CONTRACTOR FURNISHED, CONTRACTOR INSTALLED			
OFOI - OWNER FURNISHED, OWNER INSTALLED			
TOILET ACCESSORIES			
10 28 00.CH	COAT HOOK - PARTITION/WALL MOUNTED	CFCI	
10 28 00.DCS	DIAPER CHANGING STATION - SURFACE MOUNTED	CFCI	FAMILY RESTROOM ONLY
10 28 00.GB	GRAB BAR	CFCI	
10 28 00.M	MIRROR	CFCI	
10 28 00.S	SHELF - PARTITION/WALL MOUNTED	CFCI	
10 28 00.SCD	TOILET SEAT COVER DISPENSER - WALL MOUNTED	OFOI	
10 28 00.SD	SOAP DISPENSER - WALL MOUNTED	OFOI	
10 28 00.SND	SANITARY NAPKIN DISPOSAL - PARTITION/WALL MOUNTED	OFOI	
10 28 00.SNV	SANITARY NAPKIN DISPENSER - WALL MOUNTED	OFOI	
10 28 00.TD	PAPER TOWEL DISPENSER - WALL MOUNTED	OFOI	
10 28 00.TH	TOILET TISSUE DISPENSER - PARTITION/WALL MOUNTED	OFOI	
10 28 00.WC	WASTE RECEPTACLE	OFOI	
APPLIANCES			
	COFFEE MACHINE	OFOI	COUNTERTOP - BREAKROOMS & LOUNGES
	ICE/WATER MACHINE	OFOI	COUNTERTOP - BREAKROOMS & LOUNGES
	MICROWAVE	OFOI	COUNTERTOP - BREAKROOMS & LOUNGES
	REFRIGERATOR	OFOI	FACULTY LOUNGE & BREAKROOM
	VENDING MACHINE -SODA	OFOI	CLEAR SPACE: 74"H X 41"W X 37"D
	VENDING MACHINE - FOOD	OFOI	CLEAR SPACE: 74"H X 48"W X 32"D
MISC. EQUIPMENT			
	TRASH/RECYCLING (FREESTANDING)	OFOI	
	PRINTER/COPIER (FREESTANDING)	OFOI	

GENERAL NOTES

A. THE OFOI EQUIPMENT LIST IS BASED UPON USER PROVIDED SURVEYS AND IS PROVIDED FOR REFERENCE ONLY.
B. REFER TO LABORATORY PLANS FOR LOCATIONS.
C. REFER TO ELECTRICAL DRAWINGS FOR SPECIAL POWER RECEPTACLE TYPES AND ADDITIONAL INFORMATION.

LORD AECK SARGENT

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LordAeckSargent.com

REVISION:

SHEET TITLE
OFOI LABORATORY EQUIPMENT AND ACCESSORY SCHEDULE

SCALE (U.N.O.)

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING

1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL
Lauren Dunn Rodgers Registered Architect 9674 North Carolina Chapel Hill, NC
12-20-2023

ISSUE DATE
12/20/2023
JOB. NO.
11751-00
DWG. NO.
A901

NOT FOR CONSTRUCTION

Autodesk Docs://11751-00 WTCC Industry 4.0 Bldg/Central_11751-00_v22.rvt
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SYMBOLS LEGEND

- BIOSAFETY CABINET - OFOI
- FUME HOOD - SEE SECTIONS 11 53 13 AND 11 53 14
- CANOPY EXHAUST HOOD
- LOCAL EXHAUST CONNECTION (LEX) - SEE MECHANICAL DRAWINGS
- OFOI EQUIPMENT - FOR REFERENCE ONLY
- FLOOR SINK - SEE PLUMBING DRAWINGS
- FLOOR DRAIN - SEE PLUMBING DRAWINGS
- TYP. SERVICE FITTING - SEE SECTION 12 35 53
- EMERGENCY SHOWER (ES), RECESSED - SEE SECTION 12 35 53
- EMERGENCY SHOWER AND EYE/FACE WASH (ES), RECESSED - SEE SECTION 12 35 53
- PEGBOARD/DRYING RACK (PB) - SEE SECTION 12 35 53
- CYLINDER RESTRAINT / CYLINDER (CR) - SEE SECTION 12 35 53
- CEILING MOUNTED LABORATORY SERVICE PANEL - (CSP) REFER TO RCP DRAWINGS FOR LOCATIONS
- CORNER GUARD (CG) - SEE SECTION 10 26 01
- PEDESTAL OUTLET (PD) - SEE SECTION 12 35 53
- GSO — GAS SHUT OFF BOX - REFER TO A100 SERIES DRAWINGS AND PLUMBING DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHT
- FEC — FIRE EXTINGUISHER CABINET - REFER TO A100 SERIES FOR TYPE AND MOUNTING HEIGHT

ELECTRICAL SYMBOLS LEGEND

REFER TO ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR TYPES AND ADDITIONAL INFORMATION

- ELECTRICAL RACEWAY WITH DUPLEX OUTLETS @ 24" O.C. TYPICAL. DATA AS SHOWN ON ELECTRICAL TELE/DATA PLANS
- SPECIAL POWER OUTLET (ie: 208V) AT ELECTRICAL RACEWAY. REFER TO ELECTRICAL FOR TYPE
- DUPLEX ON EMERGENCY POWER AT ELECTRICAL RACEWAY
- 18" — DUPLEX RECEPTACLE OUTLET, WALL/PANEL MOUNTED AT 18" A.F.F.
- 84" — SPECIAL POWER OUTLET, WALL/PANEL MOUNTED AT 84" A.F.F.
- SPECIAL POWER OUTLET, WALL/PANEL MOUNTED
- EP — SPECIAL POWER OUTLET ON EMERGENCY POWER, WALL/PANEL MOUNTED
- SINGLE RECEPTACLE ON EMERGENCY POWER, WALL/PANEL MOUNTED
- ELEC — ELECTRICAL PANEL - REFER TO A-SERIES DRAWINGS, ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR EXACT LOCATIONS AND TYPE

WORK SURFACE LEGEND

ALL WORK SURFACES ARE PHENOLIC U.N.O. ON PLANS

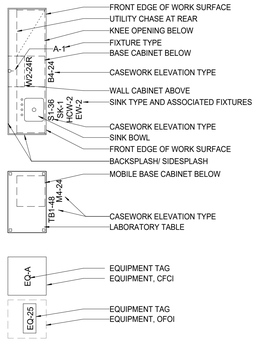
- (S) STAINLESS STEEL

SERVICE FIXTURE LEGEND

A-1	COMPRESSED AIR, LABORATORY GRADE, WALL MOUNTED
A-2	COMPRESSED AIR, LABORATORY GRADE, DECK MOUNTED
A-4	COMPRESSED AIR, LABORATORY GRADE, CEILING PANEL AND OVERHEAD SERVICE CARRIER MOUNTED
A-5	COMPRESSED AIR, LABORATORY GRADE, PANEL MOUNTED AT FUME HOOD
A-5a	COMPRESSED AIR, WALL MOUNTED WITH VALVE, CONNECTED TO FUME HOOD PER PLUMBING.
CO2-1	CARBON DIOXIDE, WALL MOUNTED
CO2-2	CARBON DIOXIDE, WALL MOUNTED, HARD CONNECTED WITH VALVE, PER PLUMBING
CW-1	COLD WATER, HARD CONNECTION TO EQUIPMENT, WALL MOUNTED AT 18" A.F.F., REFER TO PLUMBING
CW-7	COLD WATER, HARD CONNECTION TO EQUIPMENT, WALL MOUNTED AT 48" A.F.F., REFER TO PLUMBING
ES-1	EMERGENCY SHOWER AND EYE/FACE WASH (BARRIER FREE), RECESS MOUNTED
ES-2	EMERGENCY SHOWER (BARRIER FREE), RECESS MOUNTED
EW-2	EMERGENCY EYE WASH, DECK MOUNTED
EW-3	EMERGENCY EYE WASH (BARRIER FREE), DECK MOUNTED
EW-4	EMERGENCY EYE WASH, WALL MOUNTED
G-1	NATURAL GAS, WALL MOUNTED
G-5	NATURAL GAS, PANEL MOUNTED AT FUME HOOD
G-5a	NATURAL GAS, WALL MOUNTED WITH VALVE, CONNECTED TO FUME HOOD PER PLUMBING.
HCW-2	HOT/COLD WATER MIXING FAUCET, DECK MOUNTED
HCW-3	HOT/COLD WATER MIXING FAUCET, PANEL MOUNTED
HCW-4	HOT/COLD WATER MIXING FAUCET, DECK MOUNTED
O2-1	OXYGEN, WALL MOUNTED
N2-1	NITROGEN, WALL MOUNTED.
N2-5	NITROGEN, PANEL MOUNTED AT FUME HOOD
PW-1	DI WATER, PLUMBING VALVE - CAPPED, WALL MOUNTED AT 76" A.F.F, REFER TO PLUMBING
PW-2	DI WATER, DECK MOUNTED

NOTES:
1. SEE PLUMBING SPECIFICATIONS FOR PIPING REQUIREMENTS.
2. SEE SECTIONS 11 53 00 & 12 35 53 FOR ADDITIONAL REQUIREMENTS.

CASEWORK SYMBOLS LEGEND



LABORATORY SINK SCHEDULE

Type Mark	Description	Sink Size	Comments
SK-1	PHENOLIC WORK SURFACE WITH EPOXY RESIN UNDERMOUNT SINK	25"L x 15"W x 10"D	SEE SECTION 12 35 53 FOR ADDITIONAL REQUIREMENTS
SK-3	PHENOLIC WORK SURFACE WITH STAINLESS STEEL UNDERMOUNT SINK, BARRIER FREE	14"/20"L x 15"W x 10/3"D	SEE SECTION 12 35 53 FOR ADDITIONAL REQUIREMENTS
SK-9	STAINLESS STEEL SCULLERY SINK, FLOOR MOUNTED, SINGLE COMPARTMENT, TWO-STATION W/KNEE OPERATED FAUCETS	42"L x 20"W x 8"D	SEE SECTION 12 35 53 FOR ADDITIONAL REQUIREMENTS

FUME HOOD SCHEDULE

REFER TO LC501 FOR FUME HOOD PANEL SERVICE LOCATION IDENTIFICATION

Type Mark	Width	Description	Left Cup Sink	Left Panel Service 1	Left Panel Service 2	Left Panel Service 3	Left Panel Service 4	Left Panel Servic e 5	Right Cup Sink	Right Panel Service 1	Right Panel Service 2	Right Panel Service 3	Right Panel Service 4	Right Panel Service 5	Comments
FH-1A-B	4' - 0"	POLYPROPYLENE CHEMICAL FUME HOOD, BENCH MOUNTED, BARRIER FREE HEIGHT	N	120V					N	120V					REFER TO SECTION 11 53 14
FH-2A-B	6' - 0"	CHEMICAL FUME HOOD, BENCH MOUNTED, BARRIER FREE HEIGHT	N	120V	A-5	G-5			N	120V	A-5	G-5			REFER TO SECTION 11 53 13

CANOPY HOOD SCHEDULE

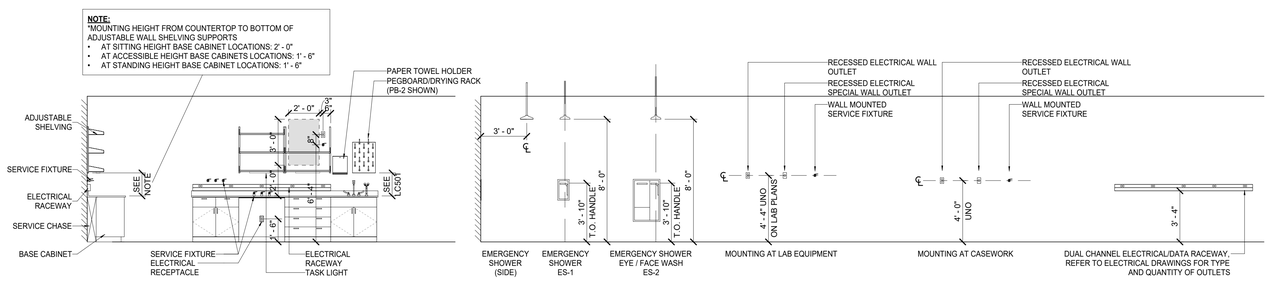
Type Mark	Width	Depth	Description	Comments
EXH-1	5' - 0"	2' - 0"	CANOPY HOOD, STAINLESS STEEL	BOTTOM OF HOOD MOUNTED AT 7'-6" AFF. SEE SECTION 11 53 15 FOR ADDITIONAL INFORMATION.

NOTE: REFER TO A400 SERIES DRAWINGS FOR REFLECTED CEILING PLANS, INCLUDING CEILING HEIGHTS..

CFCI EQUIPMENT SCHEDULE

Type Mark	Description	Comments
EQ-A	AUTOCLAVE	SEE SECTION 11 53 00
EQ-B	MOD. WALL PANEL	SEE SECTION 11 53 00
EQ-C	UNDERCOUNTER GLASSWARE WASHER	SEE SECTION 11 53 00
EQ-D	PURIFIED WATER SYSTEM AND STORAGE TANK	SEE SECTION 11 53 00
EQ-E	ICE MACHINE AND BIN	SEE SECTION 11 53 00
EQ-F	PURIFIED WATER DISPENSER	SEE SECTION 11 53 00
EQ-Fa	PURIFIED WATER RESERVOIR (25L)	SEE SECTION 11 53 00
EQ-Fb	PURIFIED WATER RESERVOIR (50L)	SEE SECTION 11 53 00
EQ-G	STAINLESS STEEL PASS-THROUGH CHAMBER	SEE SECTION 11 53 00

TYPICAL LABORATORY MOUNTING HEIGHTS



LABORATORY GENERAL NOTES

1. CAREFULLY EXAMINE THE LABORATORY CASEWORK DRAWINGS AND SPECIFICATIONS AND ALL OTHER DRAWINGS AND SPECIFICATIONS TO PROPERLY DETERMINE CONTRACT REQUIREMENTS.
2. REFER TO ARCHITECTURAL FLOOR PLANS FOR ROOM DIMENSIONS . FIELD-CHECK ALL DIMENSIONS BEFORE FABRICATION.
3. SEE REFLECTED CEILING PLANS FOR LOCATIONS OF OVERHEAD SERVICE CARRIERS AND ANY OTHER FURNISHINGS THAT PENETRATE THE CEILING.
4. COORDINATE LOCATION OF EQUIPMENT, INCLUDING BUT NOT LIMITED TO OVERHEAD SERVICE CARRIERS, FUME HOODS, OR ANY OTHER ITEMS THAT MAY INTERFERE WITH LIGHTING, STRUCTURAL, OR MECHANICAL SYSTEMS. BRING DISCREPANCIES TO ARCHITECT'S ATTENTION IMMEDIATELY.
5. SPACE AND POSITION ANY TYPE OF UNISTRUT, SLOTTED STANDARD FRAME, WALL SHELVING OR REAGENT SHELVING SUPPORTS USED FOR RACKS, SHELVING, ETC. TO CLEAR FITTINGS, ELECTRICAL PEDESTALS, AND SINKS.
6. OVERALL LENGTH OF TOPS SHALL BE DETERMINED BY CASEWORK AND/OR DIMENSIONS AS INDICATED ON LABORATORY DRAWINGS. SUCH LENGTHS SHALL REMAIN CONSTANT REGARDLESS OF MANUFACTURER'S STANDARDS. TOPS SHALL OVERHANG 1 INCH AT EACH END AND 1 INCH FROM THE FRONT OF BASE CABINET OR HORIZONTAL RAIL U.N.O. IF OVERALL DIMENSIONS ARE GIVEN, THE 1 INCH OVERHANG IS INCLUDED.
7. OVERALL (NOMINAL) HEIGHT OF BASE CABINET TOPS MUST BE MAINTAINED AS SHOWN ON DRAWINGS.
8. BEGIN INSTALLATION OF CASEWORK AT THE HIGH POINT OF THE ROOM WITH LEVELERS SCREWED IN AS FAR AS POSSIBLE.
9. SCRIBE WORK SURFACES AND SPLASHES TO MATCH IRREGULARITIES AND CONTOURS OF WALLS.
10. ALL EXPOSED-TO-VIEW COUNTERTOP EDGES, BACKS OF SPLASHES, ALL EDGES OF TABLES, BACKS OF COUNTERTOPS AND SPLASHES HELD AWAY FROM WALL SHALL BE FILLED, SEALED, AND FINISHED. SEAL ALL BACK SPLASHES AND COUNTERTOPS TO WALL WITH SEALANT AS SPECIFIED.
11. PROVIDE FILLER PANELS BETWEEN BACK OF CABINETS OR HOODS AND WALLS AT EXPOSED ENDS AND WHEN BASE CABINETS AND/OR HOODS ARE SET BACK-TO-BACK. PROVIDE FILLER EVEN WHERE NO BASE CABINET OCCURS BUT BENCH IS PRESENT.
12. SEE SEQUENCING ARTICLE IN SECTION 12 35 53 FOR INSTALLATION OF WALL BASE IN SPACES WITH LAB CASEWORK.
13. ALL CASEWORK, FUME HOODS AND ANY OTHER FURNISHINGS WITH EXPOSED-TO-VIEW BACKS AND SIDES SHALL BE FINISHED.
14. UNLESS OTHERWISE NOTED, ALL UNISTRUT BRACKETS AND FITTINGS INDICATED ON LABORATORY CASEWORK DRAWINGS SHALL BE SUPPLIED AND INSTALLED BY LABORATORY CASEWORK MANUFACTURER. ALL UNISTRUT OR OTHER PIPE SUPPORT BRACKETS AND SYSTEMS TO BE PREFINISHED. COLOR TO BE SELECTED BY ARCHITECT TO MATCH LABORATORY CASEWORK COLOR.
15. FOR PLUMBING SERVICE FITTING TYPES, LOCATIONS AND ORDER, SEE LABORATORY CASEWORK FLOOR PLANS AND DETAILS. THESE FITTINGS SHALL BE SUPPLIED AND INSTALLED FINGER TIGHT IN THEIR PROPER LOCATION FOR FINAL CONNECTION INDICATED IN PLUMBING.
16. LABORATORY CASEWORK INSTALLER SHALL PROVIDE ALL BENCH MOUNTED ELECTRICAL PEDESTALS FOR INSTALLATION. SEE ELECTRICAL AND LABORATORY CASEWORK DRAWINGS AND SPECIFICATIONS FOR QUANTITY, TYPE, AND LOCATION OF PEDESTALS.
17. ALL EXPOSED PIPING AND CONDUIT SHALL BE PAINTED.
18. ALL PENETRATIONS THROUGH WORK SURFACES SHALL BE CAULKED BY LABORATORY CASEWORK INSTALLER WITH SEALANT AS SPECIFIED.
19. ARCHITECT SHALL SELECT COLORS FOR ALL COMPONENTS OF PROJECT INDICATED ON THESE DRAWINGS.
20. FUME HOODS ARE TO BE PRE-WIRED AND PRE-PLUMBED.
21. FUME HOOD SUPPLIER TO PROVIDE TRANSITION COLLAR FOR CONNECTION TO EXHAUST DUCT.
22. TACKBOARDS AND MARKER BOARDS IF SHOWN ON LABORATORY CASEWORK DRAWINGS ARE FOR COORDINATION PURPOSES ONLY.
23. PROVIDE 2 INCH WIDE FILLER PANEL AT ALL BASE AND WALL CABINET LOCATIONS ADJACENT TO WALLS U.N.O. ON LABORATORY CASEWORK FLOOR PLANS.
24. PROVIDE 3 INCH WIDE FILLER PANEL AT ALL INSIDE CORNER BASE AND WALL CABINET LOCATIONS U.N.O. ON LABORATORY CASEWORK PLANS.
25. WHERE WALL MOUNTED SHELVING OR CABINETS OCCUR ABOVE FLOOR MOUNTED CABINETS, KNEE OPENINGS OR TABLES, ALIGN UPPER UNITS WITH LOWER UNITS, U.N.O.
26. HIGH CASEWORK, FREE-STANDING CABINETS, AND SHELVING UNITS SHALL BE SECURED TO THE WALL TO PREVENT TIPPING OR MOVEMENT.
27. ALL CASEWORK TOPS THAT ABUT WALLS, FUME HOODS AND TALL STORAGE CABINETS SHALL HAVE BACKSPLASH AND/OR SIDESPLASH. EXCEPTION SHALL BE AT MOVABLE TABLES THAT ABUT WALLS OR FUME HOODS.
28. AT WALL CASEWORK LOCATIONS, MOUNT SERVICE FIXTURES CENTERED WITH THE CABINET BELOW AND SHELVING ABOVE, U.N.O.
29. WHERE MULTIPLE SERVICE FIXTURES OCCUR, SPACE 6 INCHES APART, U.N.O.
30. CENTER ALL SINKS IN SINK CABINET U.N.O. ON LABORATORY CASEWORK DETAILS. PROVIDE MARINE EDGE WORK SURFACE AT ALL SINK CABINET LOCATIONS.
31. ALL SHELVING SUPPORT STANDARDS, BRACKETS AND FITTINGS INDICATED ON LABORATORY CASEWORK DRAWINGS SHALL BE PROVIDED BY LABORATORY CASEWORK MANUFACTURER.
32. HOLD ELECTRICAL RACEWAY 4" FROM OUTSIDE CORNER OF WALLS U.N.O.
33. OVERALL LENGTH OF ELECTRICAL RACEWAY IS INDICATED ON LABORATORY CASEWORK DRAWINGS. RACEWAY STOPS AT THE EDGE OF THE WORK SURFACE, EDGE OF TABLE WORK SURFACE, OR END OF BASE CABINET U.N.O. ON LABORATORY CASEWORK DRAWINGS.

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REVISION:

SHEET TITLE: LABORATORY CASEWORK GENERAL NOTES, LEGENDS & SCHEDULES

SCALE (U.N.O.)

KEY MAP

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN NC, CERT. NO. 53851, NORTH CAROLINA, CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, 9674, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: LC001

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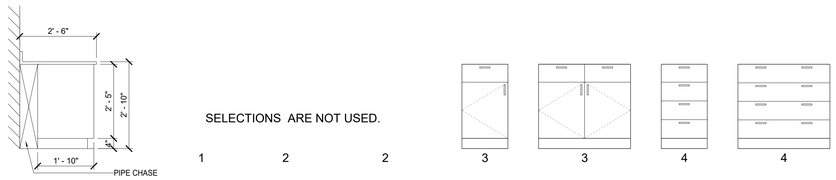

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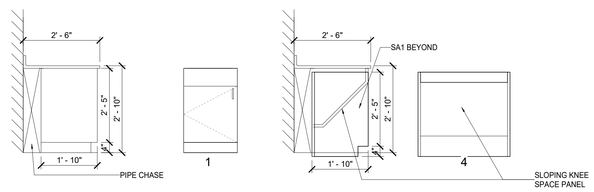

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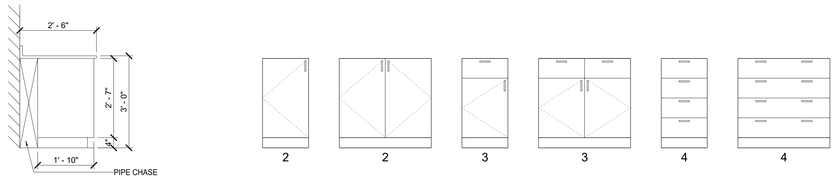

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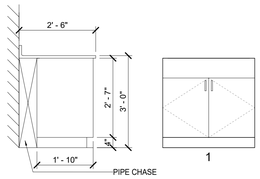

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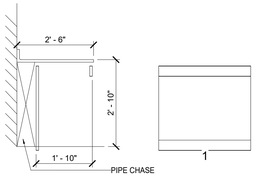
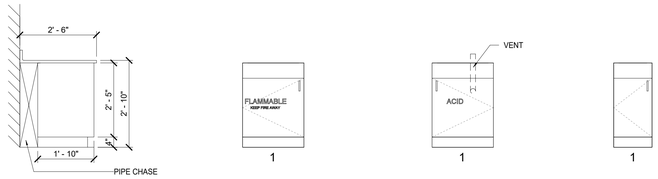
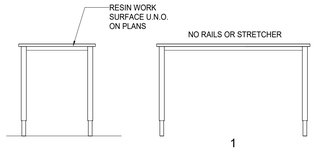


TYPE: KNEE OPENING ACCESSIBLE HEIGHT - KOA



TYPE: ACCESSIBLE HEIGHT FLAMMABLE - FA CORROSIVE - CA FUME HOOD BASE CABINETS - FBA



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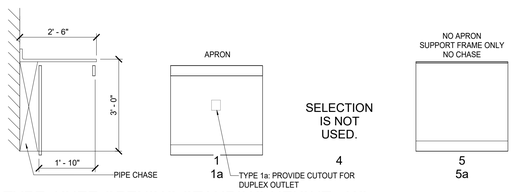

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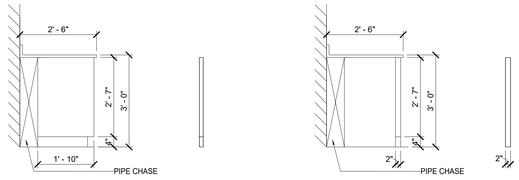
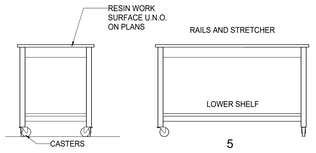


TYPE: PEDESTAL LEG - PL TYPE: TABLE LEG - TL



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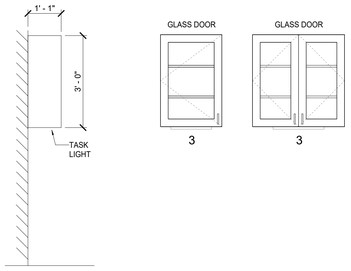

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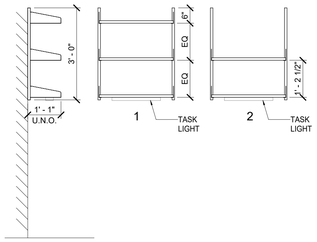
(ALL CABINETS 13 INCHES DEEP UNO)



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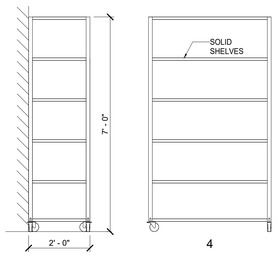
(ALL SHELVES 13 INCHES DEEP UNO)



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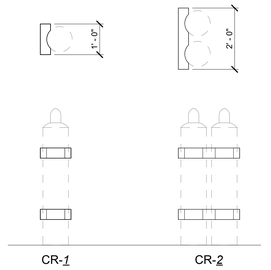

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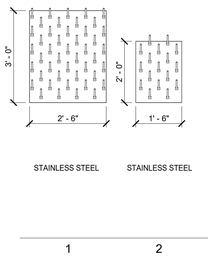
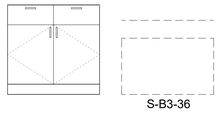


PEGBOARD/DRYING RACKS - PB

CASEWORK KEY LEGEND



GENERAL NOTES

A. GC TO COORDINATE REQUIRED CONTINUOUS METAL BLOCKING WITH LABORATORY CASEWORK MANUFACTURER.

SHEET SPECIFIC NOTES

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REVISION:

SHEET TITLE: LABORATORY CASEWORK MENU

SCALE (U.N.O.): 0 2 4 FT

ON PAGE: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockart, Registered Architect, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: LC002

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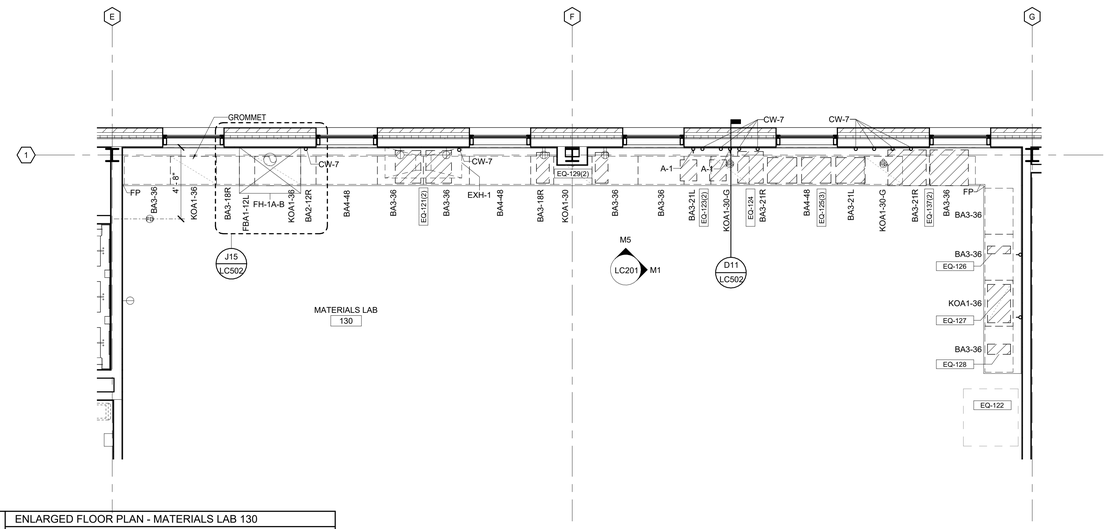
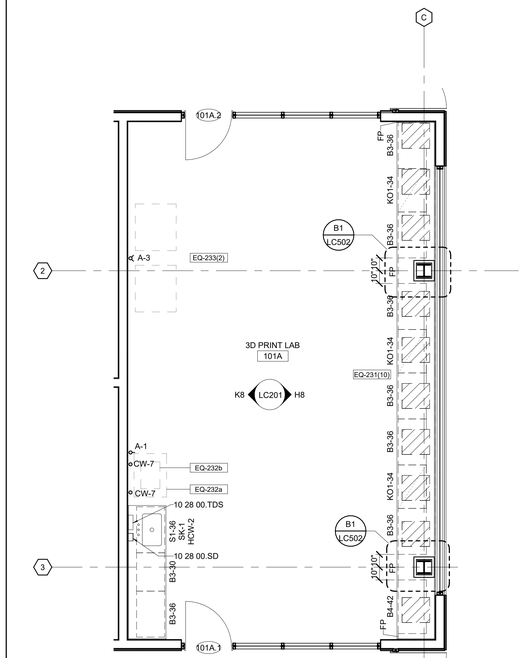


K10 ENLARGED FLOOR PLAN - MATERIALS LAB 130



D14 ENLARGED FLOOR PLAN - 3D PRINT LAB 101A

MATERIAL KEYNOTES

GENERAL NOTES

A. REFER TO LC001 FOR LABORATORY GENERAL NOTES, LABORATORY LEGENDS, LABORATORY SCHEDULES, AND TYPICAL LABORATORY MOUNTING HEIGHTS.
B. REFER TO A901 FOR OWNER-FURNISHED OWNER INSTALLED (OFOI) EQUIPMENT SCHEDULE. OFOI EQUIPMENT IS SHOWN FOR REFERENCE ONLY.
C. REFER TO ENLARGED LABORATORY PLANS AND SHEET LC002 FOR CASEWORK SIZES AND TYPES.
D. REFER TO LC502 FOR OVERHEAD SERVICE CARRIER AND CEILING SERVICE PANEL TYPES AND REQUIRED SERVICES.
E. REFER TO LC500 SERIES FOR LABORATORY DETAILS.
F. REFER TO A400 SERIES REFLECTED CEILING PLANS FOR CEILING SERVICE PANEL AND OVERHEAD SERVICE CARRIER LOCATIONS.
G. ELECTRICAL RACEWAY LOCATION AND LENGTH ARE PER LABORATORY DRAWINGS. ELECTRICAL RECEPTACLE LOCATIONS ARE PER LABORATORY DRAWINGS. SEE ELECTRICAL DRAWINGS FOR RACEWAY TYPES AND INFORMATION. CONVENIENCE OUTLETS, DATA OUTLETS AND OUTLETS LOCATED OUTSIDE OF THE LABORATORIES ARE NOT SHOWN ON LABORATORY DRAWINGS.
H. ELECTRICAL PANELS ARE SHOWN FOR COORDINATION PURPOSES ONLY. REFER TO ELECTRICAL AND A100 SERIES PLANS FOR EXACT LOCATIONS AND ADDITIONAL INFORMATION.
I. LABORATORY PLUMBING SERVICE FIXTURE LOCATIONS AND TYPES ARE PER LABORATORY DRAWINGS AND SPECIFICATIONS. REFER TO PLUMBING FOR PIPING AND FINAL CONNECTIONS.
J. REFER TO A-SERIES DRAWINGS FOR VISUAL DISPLAY BOARD/SURFACE AND PROJECTOR LOCATIONS.
K. GAS SHUT OFF BOXES ARE SHOWN FOR COORDINATION PURPOSES ONLY. REFER TO A100 SERIES PLANS FOR EXACT LOCTATIONS. REFER TO PLUMBING DRAWINGS AND SPECIFICATIONS FOR TYPE AND ADDITIONAL INFORMATION.
L. ALL WORK SURFACES ARE PHENOLIC UNLESS NOTED OTHERWISE.

SHEET SPECIFIC NOTES

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN NC
CERT. NO. 53851
NORTH CAROLINA
CHAPEL HILL

PROJECT NORTH

SEAL
Lauren Dunn Rockart
Registered Architect
9674
North Carolina
Chapel Hill, NC
12·20·2023

ISSUE DATE 12/20/2023
JOB. NO. 11751-00
DWG. NO. LC101

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REVISION

SHEET TITLE
ENLARGED LAB PLANS - FIRST FLOOR

SCALE (UNO) 1/4" = 1'-0" 0 4 8FT

PROJECT
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-28932-02A
TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

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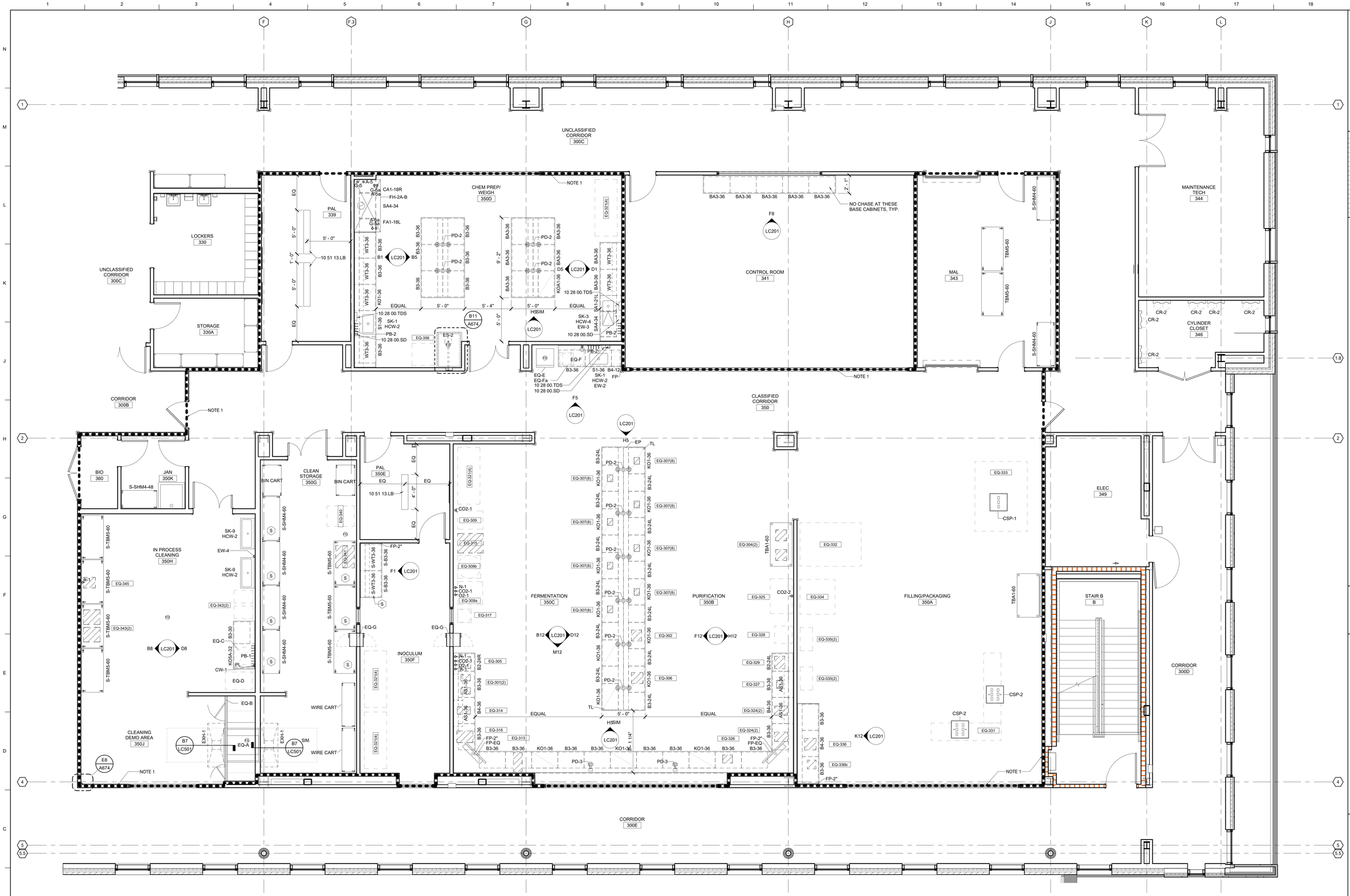

B1 ENLARGED LABORATORY PLAN - THIRD FLOOR

MATERIAL KEYNOTES

10 28 00.SD	Soap Dispenser
10 28 00.TDS	Laboratory Towel Dispenser, Surface Mt.
10 51 13.LB	Locker Bench

GENERAL NOTES

A. REFER TO LC001 FOR LABORATORY GENERAL NOTES, LABORATORY LEGENDS, LABORATORY SCHEDULES, AND TYPICAL LABORATORY MOUNTING HEIGHTS.
B. REFER TO A901 FOR OWNER-FURNISHED OWNER INSTALLED (OFOI) EQUIPMENT SCHEDULE. OFOI EQUIPMENT IS SHOWN FOR REFERENCE ONLY.
C. REFER TO ENLARGED LABORATORY PLANS AND SHEET LC002 FOR CASEWORK SIZES AND TYPES.
D. REFER TO LC502 FOR OVERHEAD SERVICE CARRIER AND CEILING SERVICE PANEL TYPES AND REQUIRED SERVICES.
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H. ELECTRICAL PANELS ARE SHOWN FOR COORDINATION PURPOSES ONLY. REFER TO ELECTRICAL AND A100 SERIES PLANS FOR EXACT LOCATIONS AND ADDITIONAL INFORMATION.
I. LABORATORY PLUMBING SERVICE FIXTURE LOCATIONS AND TYPES ARE PER LABORATORY DRAWINGS AND SPECIFICATIONS. REFER TO PLUMBING FOR PIPING AND FINAL CONNECTIONS.
J. REFER TO A-SERIES DRAWINGS FOR VISUAL DISPLAY BOARD/SURFACE AND PROJECTOR LOCATIONS.
K. GAS SHUT OFF BOXES ARE SHOWN FOR COORDINATION PURPOSES ONLY. REFER TO A100 SERIES PLANS FOR EXACT LOCTATIONS. REFER TO PLUMBING DRAWINGS AND SPECIFICATIONS FOR TYPE AND ADDITIONAL INFORMATION.
L. ALL WORK SURFACES ARE PHENOLIC UNLESS NOTED OTHERWISE.

SHEET SPECIFIC NOTES

1. EXPOSED PIPING PENETRATIONS OF PARTITIONS AND GYPSUM BOARD CEILINGS IN ROOMS WITHIN THIS BOUNDARY TO BE SEALED AS INDICATED IN DETAIL H11/A674.

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REVISION

PROJECT NORTH

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rocker, Registered Architect, North Carolina, Chapel Hill, NC, 9914, 12-20-2023

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: LC103

SHEET TITLE: ENLARGED LAB PLAN - BIOPHARMA SUITE

SCALE (1/4 IN.): 0 4 8 FT

PROJECT: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

NOT FOR CONSTRUCTION

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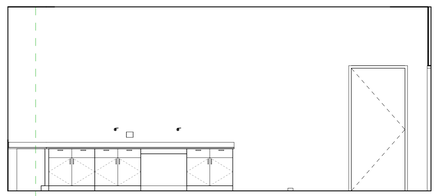
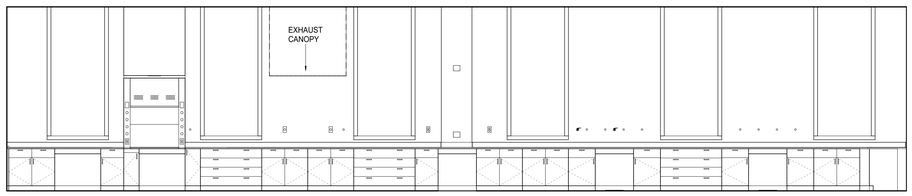


M1 MATERIALS LAB EAST



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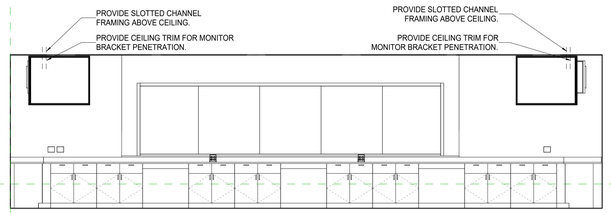
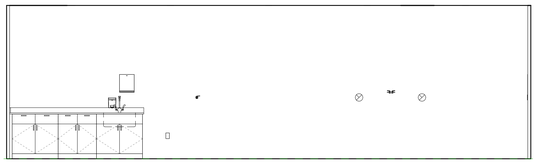


M12 FERMENTATION SOUTH



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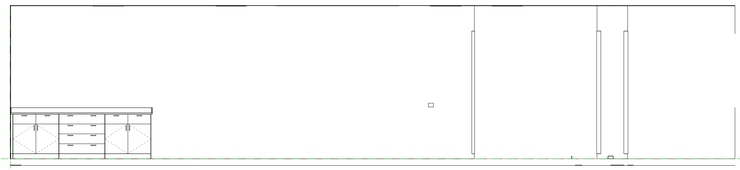
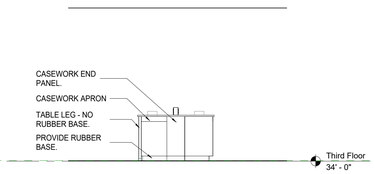
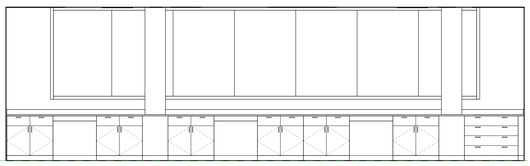


K12 FILLING WEST



H5 PURIFICATION LAB NORTH



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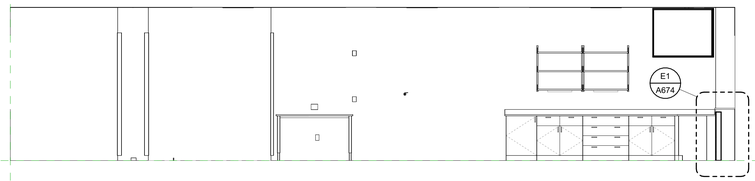
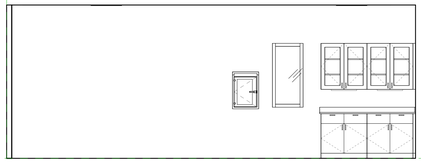
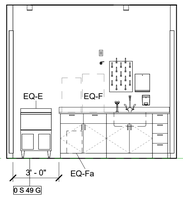


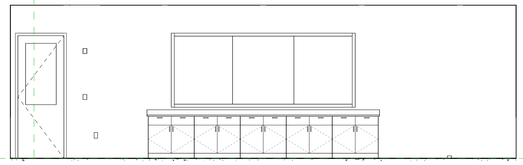
H12 PURIFICATION EAST



F1 INOCULUM WEST



F5 CLASSIFIED CORRIDOR



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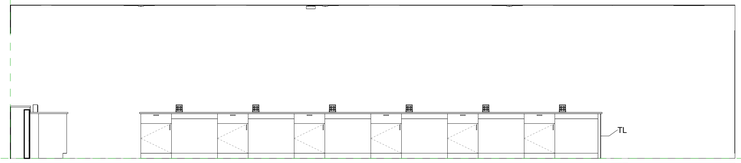

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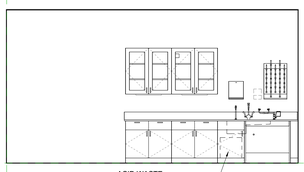
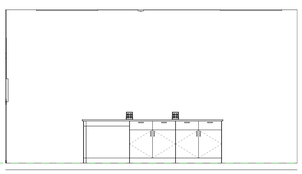
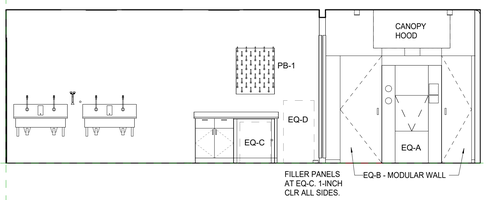


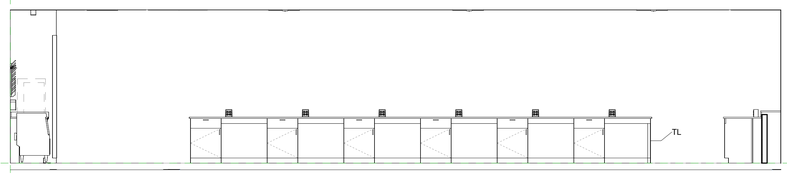
D1 CHEM PREP EAST



D5 CHEM PREP BENCH WEST

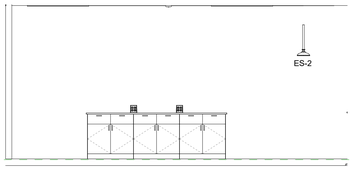


D8 IN PROCESS CLEANING EAST

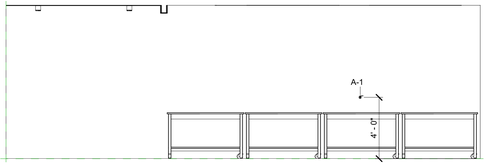


D12 FERMENTATION EAST

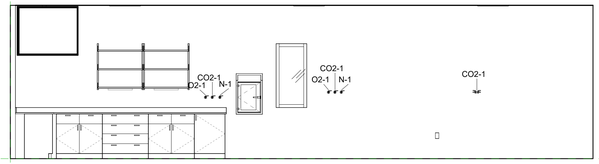
B1 CHEM PREP WEST



B5 CHEM PREP BENCH EAST



B8 IN PROCESS CLEANING WEST



B12 FERMENTATION WEST

MATERIAL KEYNOTES

GENERAL NOTES

A. ELEVATIONS ARE FOR REFERENCE ONLY.
B. REFER TO LC001 FOR LABORATORY GENERAL NOTES.
C. REFER TO LC000 SERIES FOR LABORATORY LEGENDS, LABORATORY SCHEDULES, AND TYPICAL LABORATORY MOUNTING HEIGHTS.
D. REFER TO ENLARGED LABORATORY PLANS AND SHEET LC002 FOR CASEWORK SIZES AND TYPES.
E. REFER TO LC500 SERIES FOR LABORATORY DETAILS.
F. OFOI EQUIPMENT IS NOT SHOWN FOR CLARITY.
G. REFER TO TELECOM DRAWINGS FOR DATA OUTLET LOCATIONS.
H. SERVICE LINES FROM CEILING SERVICE PANELS TO MOVABLE BENCH SYSTEMS OR LABORATORY TABLES ARE NOT SHOWN FOR CLARITY.

SHEET SPECIFIC NOTES

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REVISION:

SHEET TITLE
LABORATORY ELEVATIONS

SCALE (24x36) 1/4" = 1'-0" 0 4 8 FT

JOB NAME
WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1160 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL
LORD AECK SARGENT PLANNING & DESIGN NC CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL
Lauren Dunn Rockett Registered Architect 9674 North Carolina Chapel Hill, NC
12.20.2023

ISSUE DATE
12/20/2023

JOB. NO.
11751-00

DWG. NO.
LC201

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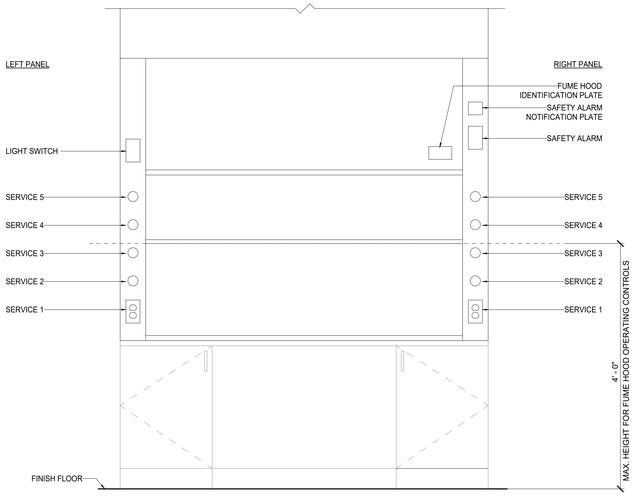
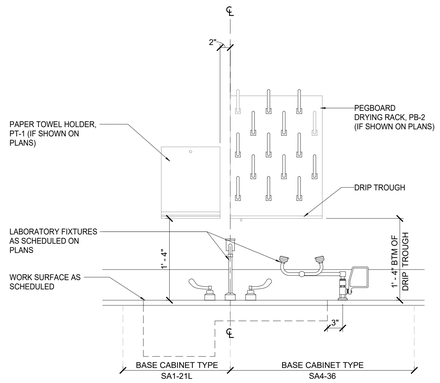
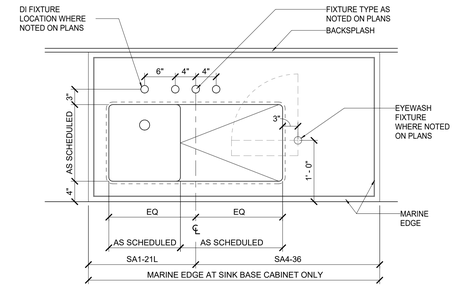


H1 FUME HOOD SERVICE LOCATIONS (0, 2 FT)

NOTE: DETAIL APPLIES TO FUME HOOD FH-2A-B. FUME HOOD FH-1A-B IS SIMILAR.

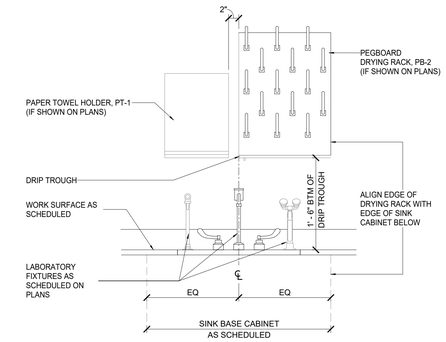


L7 TYP BARRIER FREE LAB SINK ELEVATION - WALL LOCATION (0, 2 FT)

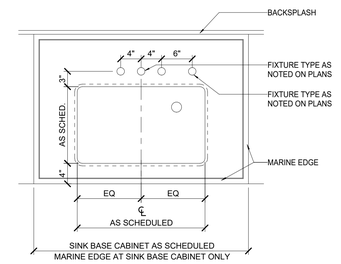


BARRIER FREE SINK LAYOUT

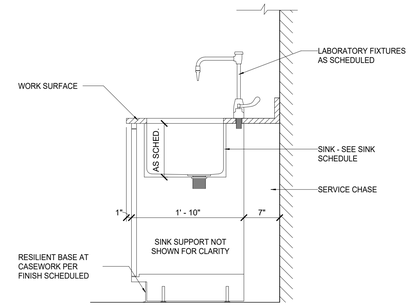
L11 TYP BARRIER FREE LAB SINK FIXTURE LAYOUT (0, 2 FT)



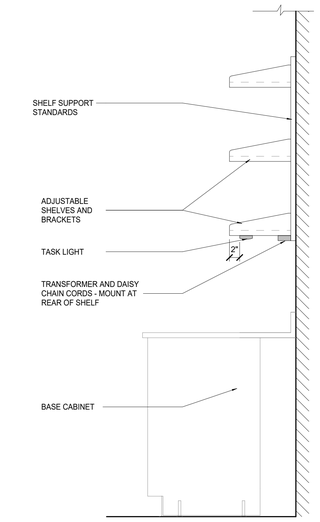
H7 TYP LAB SINK ELEVATION - WALL LOCATION (0, 2 FT)



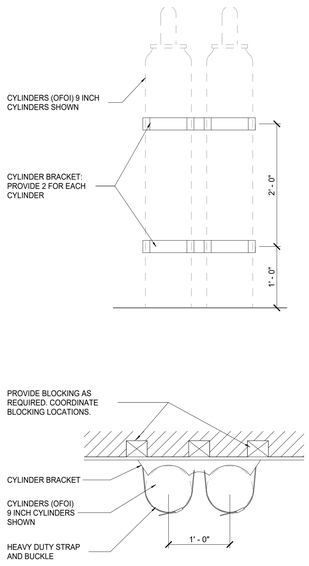
H11 TYP LAB SINK FIXTURE LAYOUT (0, 2 FT)



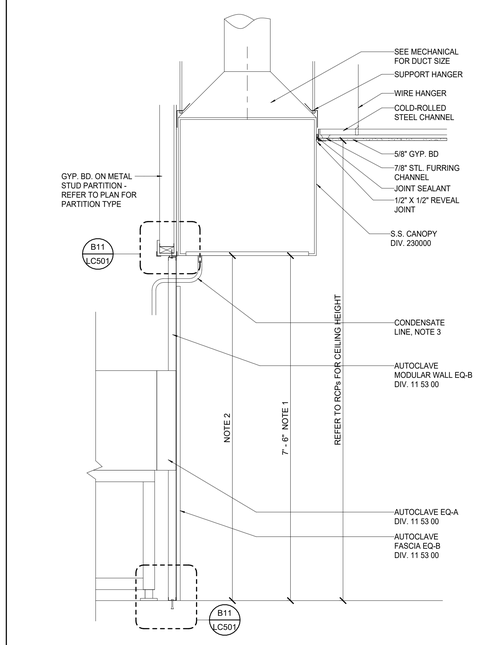
H15 TYPICAL SECTION AT WALL SINK (0, 2 FT)



B1 TYPICAL TASK LIGHT LOCATION (0, 2 FT)

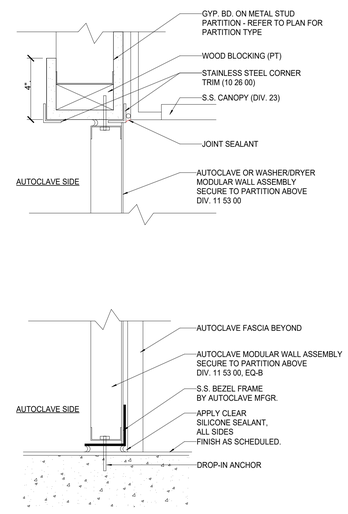


B4 CYLINDER BRACKET DETAILS (0, 2 FT)

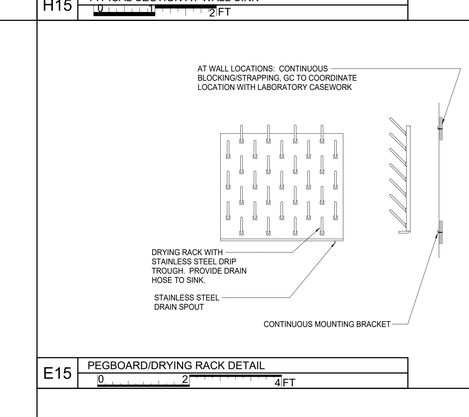


1. NOTE: AT "SIM." CONDITION OCCURING WITHIN CLEAN STORAGE ROOM 350G, OMIT MODULAR WALL.

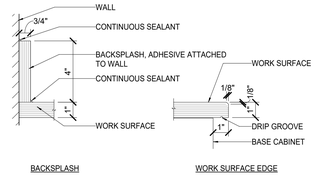
B7 SECTION AT AUTOCLAVE (0, 2, 4 FT)



B11 AUTOCLAVE - SILL/HEAD DETAIL (0, 1, 2 FT)



E15 PEGBOARD/DRYING RACK DETAIL (0, 2, 4 FT)



B15 COUNTERTOP EDGE/BACKSPLASH (0, 6, 12 IN)

MATERIAL KEYNOTES

GENERAL NOTES

SHEET SPECIFIC NOTES

1. REFER TO SECTION 11 53 15 AND MECHANICAL DRAWINGS FOR CANOPY HOOD SIZE AND REQUIREMENTS. COORDINATE MOUNTING HEIGHT AND LOCATION WITH SELECTED STERILIZER PRIOR TO CANOPY HOOD INSTALLATION.
2. COORDINATE REQUIRED HEIGHT WITH SELECTED STERILIZER MANUFACTURER.
3. DRAIN CONDENSATE TO FLOOR SINK BEHIND MODULAR WALL PANEL.

LORD AECK SARGENT

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REVISION:

SHEET TITLE: LABORATORY DETAILS

SCALE (U.N.O.)

JOB NAME: WAKE TECH COMMUNITY COLLEGE
SCO ID # 21-23932-02A
TECHNOLOGY 4.0 BUILDING
1193 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rockett, Registered Architect, North Carolina, 39714, Chapel Hill, NC

12-20-2023

ISSUE DATE: 12/20/2023
JOB NO.: 11751-00
DWG. NO.: LC501

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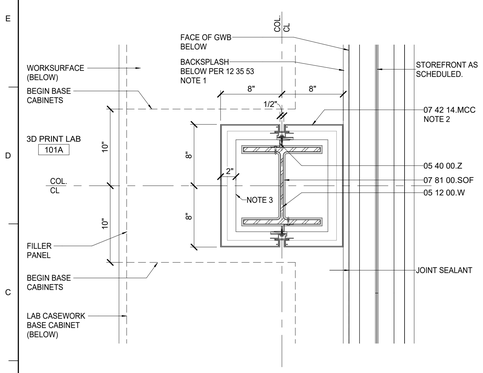
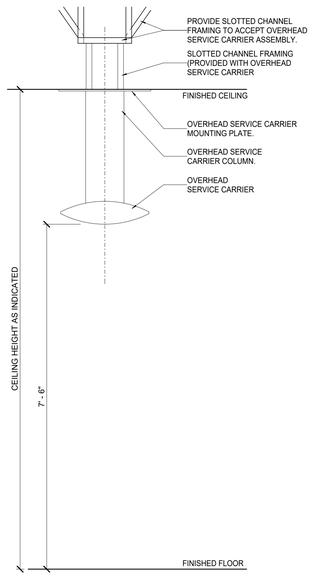
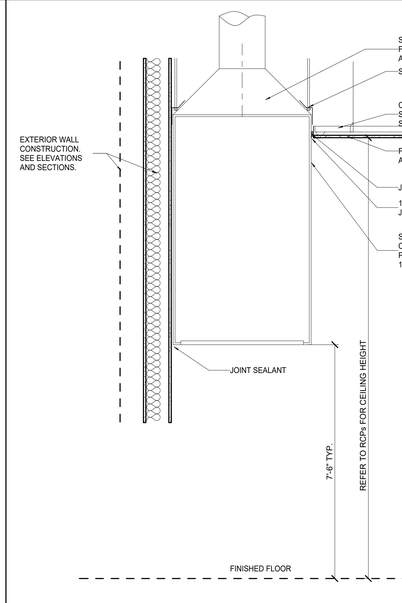


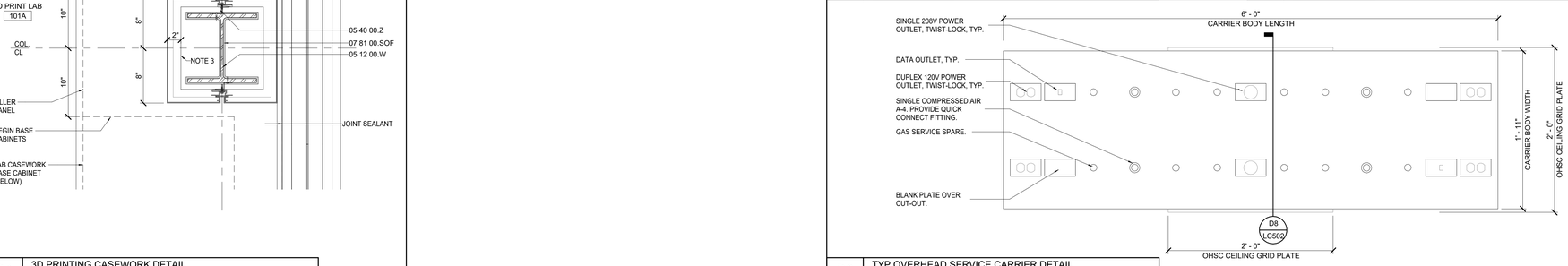
B1 3D PRINTING CASEWORK DETAIL
0 1 2 FT



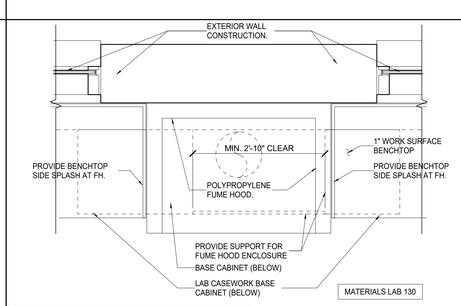
D8 SECTION AT OVERHEAD SERVICE CARRIER
0 2 4 FT



D11 SECTION AT EXHAUST HOOD
0 2 4 FT

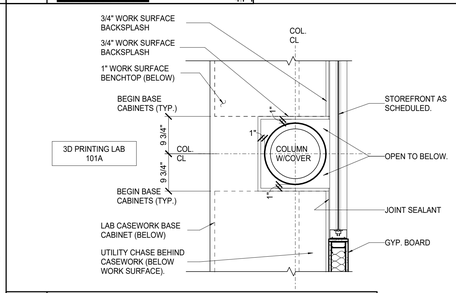


B8 TYP OVERHEAD SERVICE CARRIER DETAIL
0 1 2 FT

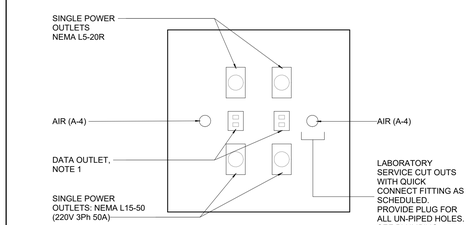


J15 FUME HOOD DETAIL - MATERIALS
0 2 4 FT

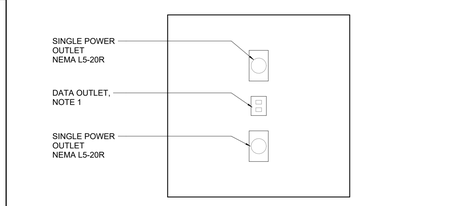
NOTE: DO NOT EXTEND CASEWORK BENCHTOP BELOW FUME HOOD.



G15 3D PRINTING CASEWORK DETAIL
0 2 4 FT



CSP-2
24" x 24"



CSP-1
24" x 24"

B15 CEILING SERVICE PANEL TYPES
0 1 2 FT

MATERIAL KEYNOTES

05 12 00.W	W Shape
05 40 00.Z	Z-Furring
07 42 14.MCC	Metal Composite Material Column Cover
07 81 00.SOF	Sprayed-On Fireproofing

GENERAL NOTES

SHEET SPECIFIC NOTES

1. BACKSPLASH TO CONTINUE BEHIND COLUMN COVER.
2. COLUMN COVER TO SIT ON TOP OF WORKSURFACE AND EXTEND 6" ABOVE FINISHED CEILING. PROVIDE SEALANT JOINT AT BASE OF COLUMN COVER.
3. SET CUT EDGE OF LABORATORY WORKSURFACE 2" TYPICAL INSIDE EXTERIOR EXTENTS OF COLUMN COVER.

LORD AECK SARGENT

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REVISION:

SHEET TITLE: LABORATORY DETAILS
SCALE (UNO):

JOB NAME: WAKE TECH COMMUNITY COLLEGE
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TECHNOLOGY 4.0 BUILDING
1150 Inspiration Circle, Wendell, NC 27591

CORPORATE SEAL: LORD AECK SARGENT PLANNING & DESIGN, INC. CERT. NO. 53851 NORTH CAROLINA CHAPEL HILL

SEAL: Lauren Dunn Rocker, Registered Architect, 9674, North Carolina, Chapel Hill, NC, 12-20-2023

ISSUE DATE: 12/20/2023
JOB. NO.: 11751-00
DWG. NO.: LC502

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