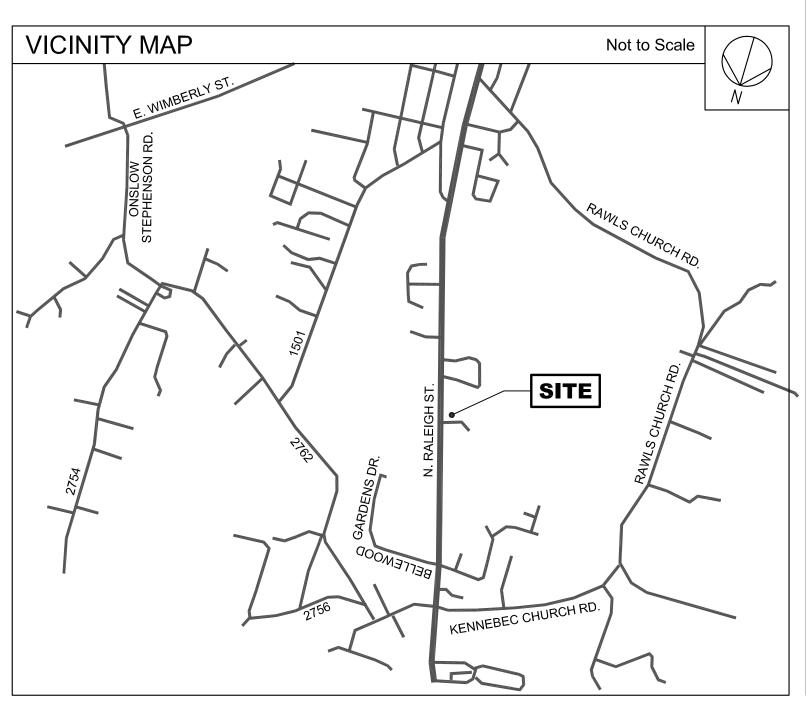
ABBRE	ABBREVATIONS				
AC.	ACRE	SIM.	SIMILAR		
A.F.F.	ABOVE FINISH FLOOR	SQ. FT. / SF.	SQUARE FEET		
CONC.	CONCRETE	TYP.	TYPICAL		
CMU	CONCRETE MASONRY UNIT	U.N.O.	UNLESS NOTED OTHERWISE		
ELEC.	ELECTRICAL				
ELEV.	ELEVATION				
HC.	HANDICAP				
MAX.	MAXIMUM				
MECH.	MECHANICAL				
MIN.	MINIMUM				
NOM.	NOMINAL				



2018 APPENDIX B BUILDING CODE SUMMARY

Address:	1501 N. Raleigh Street	Zip Code:	27501 /	ALLO
Owner/Authorized Agent:	Linderman Properties, LLC Phone: 919-6	12-3000 Email: john.linde	rman@avisonyoung.com	
Owned By:		Private	State	Buildir
Code Enforcement Jurisdicti	ion: 🛛 City <u>Angier</u> [County	State	Buildir

PROJECT COORDIN	ATOR: Tommy Wing			
DESIGNER	FIRM	NAME	LICENSE #	# TELEPHONE #
Architectural	EA Studio Architecture + Interiors, PLLC	Tommy Wing, RA	12759	919-656-2317
Civil	N/A	N/A	N/A	N/A
Electrical	GreenTech Consulting, Inc.	Hemant Sura, PE	23527	919-859-8884
Fire Alarm	N/A	N/A	N/A	N/A
Plumbing	N/A	N/A	N/A	N/A
Mechanical	N/A	N/A	N/A	N/A
Sprinkler-Standpipe	N/A	N/A	N/A	<u>N/A</u>
Structural (Frame)	RPA Engineering, PA	Mark Roy, PE	17348	252-321-6027
Retaining Walls > 5' High	NI/A	NI/A	NI/A	NI/A

2018 NC BUILDING CODE:		☐ Addition	⊠ Renovation (New Exterior Canopies
	☐ 1st Time Interior	Completion Sr	nell / Core

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

Constructed: (date)	1977	Current Occupancy:	Mercan	tile and Bus	iness	
Renovated:		Proposed Occupancy:	No Cha	nge		
OCCUPANCY CATEG	ORY (Table 1	604.5): Current:	⊠ II	□ III	□ IV	

Proposed: No Change

Construction Type:	☐ I-A ☐ I-B	☐ II-A ☐ II-B	☐ III-A ☐ III-B	□ IV	□ V-A ⊠ V-B

Sprinklers:	⊠ No	☐ Yes ☐ NFPA 13	☐ NFPA 13R ☐ NFPA 13D
Standpipes:	⊠ No □ Yes	Class	☐ III ☐ Wet ☐ Dry

Standpipes:	⊠ No ∐ Yes	Class I II III	☐ vvet ☐ Dry
Fire District:	⊠ No ☐ Yes	Flood Hazard Area:	⊠ No ☐ Yes

Special Inspections Required: ☐ No ☐ Yes

Gross Building Area Ta	ss Building Area Table:				
FLOOR	EXISTING (SQ. FT.)	NEW (SQ. FT.)	SUB-TOTALS (SQ. FT.)		
First Floor	12,576	0	12,576		
TOTAL	12,576	0	12,576		

ALLOWABLE AREA:

Primary Occupancy Classification:

Timary Codepartoy Gladelineagerii
Assembly
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-2 Condition ☐ 1 ☐ 2
☐ I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ I-4
Mercantile 🔀
Residential R-1 R-2 R-3 R-4
Storage S-1 Moderate S-2 Low High-piled
☐ Parking Garage ☐ Open ☐ Closed ☐ Repair Garage
Utility and Miscellaneous
Accessory Occupancy Classification: N/A

Incidental Uses (Table 509):	N/A
Special Uses (Chapter 4 - Lis	t Code Sections):

Mixed Occupancy:	□ No	⊠ Yes *	Separation:	0	Hr.	Exception: _	508.3
* The building contain	ns both Merc	antile and Business Occup	ancies.				

\boxtimes	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.						
Actual Area of Occupancy A	+	Actual Area of Occupancy B				
Allowable Area of Occupancy A	•	Allowable Area of Occupancy B	<u>≤</u> 1			

	,			
SPACE DESIGNATION	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (SF) (ACTUAL)	(C) AREA FOR FRONTAGE INCREASE (SF) ^{1,5}	(D) ALLOWABLE AREA PER STORY OR UNLIMITED ^{2,3}

12,576 9,000 6,750 (75%)

15,750

¹Frontage area increases from Section 506.2 are computed thus:

Mercantile *

a. Perimeter which fronts a public way or open space having 20 feet minimum width (F) = 540 ft b. Total Building Perimeter (P) = 540 ft

c. Ratio (F/P) = <u>1</u>

d. W = Minimum width of public way = $\frac{> 30 \text{ ft}}{}$ (W) e. Percent of frontage increase $I_f = 100[F/P - 0.25] \times W/30 = \frac{75}{}$ %

²Unlimited area applicable under conditions of Section 507

 3 Maximum Building Area = total number of stories in the building x D (506.4)

⁴The maximum area of parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with 412.3.1.

⁵Frontage increase is based on the unsprinklered area in Table 506.2.

ALLOWABLE HEIGHT:

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE 1
Building Height in Feet (Table 504.3)	40'	27'	N/A
Building Height in Stories (Table 504.4)	1	1	N/A

Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE		RATING	DETAIL#	DESIGN#	DESIGN#	DESIGN#
	SEPARATION	REQ'D.	PROVIDED	AND	FOR	FOR RATED	FOR
	DISTANCE		(W/*	SHEET#	RATED	PENETRATION	RATED
	(FEET)		REDUCTION)		ASSEMBLY		JOINTS
Structural frame,							
including columns,		0 HR	N/A	N/A	N/A	N/A	N/A
girders, trusses							
Bearing walls							
Exterior							
North							
East	> 30'	0 HR	N/A	N/A	N/A	N/A	N/A
West]	01110	IN/A	11/74	IN/A	IN/A	IN/A
South							
Interior		0 HR	N/A	N/A	N/A	N/A	N/A
Nonbearing walls							
and partitions							
Exterior							
North							
East	> 30'	0 HR	EXISTING	N/A	N/A	N/A	N/A
West]	01110	LXISTING	11//	IN/A	IN/A	13/73
South							
Interior Walls and Partitions		0 HR	EXISTING	N/A	N/A	N/A	N/A
Floor construction							
Including supporting		0 HR	EXISTING	N/A	N/A	N/A	N/A
beams and joists							
Floor Ceiling Assembly		N/A	N/A	N/A	N/A	N/A	N/A
Columns Supporting Floors		0 HR	EXISTING	N/A	N/A	N/A	N/A
Roof construction							
Including supporting		0 HR	EXISTING	N/A	N/A	N/A	N/A
beams and joists							
Roof Ceiling Assembly		0 HR	EXISTING	N/A	N/A	N/A	N/A
Columns Supporting Roof		0 HR	EXISTING	N/A	N/A	N/A	N/A
Shaft Enclosures - Exit		N/A	N/A	N/A	N/A	N/A	N/A
Shaft Enclosures - Other		N/A	N/A	N/A	N/A	N/A	N/A
Corridor Separation		N/A	N/A	N/A	N/A	N/A	N/A
Fire Barrier Separation		N/A	N/A	N/A	N/A	N/A	N/A
Fire Partition Separation		1 HR	EXISTING	N/A	N/A	N/A	N/A
Party / Fire Wall Separation		N/A	N/A	N/A	N/A	N/A	N/A
Smoke Barrier Separation		N/A	N/A	N/A	N/A	N/A	N/A
Tenant/Dwelling Unit Separa	ation	N/A	N/A	N/A	N/A	N/A	N/A

Indicate section number permitting reduction

Incidental Use Separation

PERCENTAGE OF WALL OPENING CALCULATIONS

Fire Separation Distance (Feet) from Property Lines	Degree of Openings	Allowable Area	Actual Shown
	Protection (Table 705.8)	(%)	on Plans (%)
N/A			

N/A N/A N/A N/A N/A

LIFE SAFETY SYSTEM REQUIREMENTS: NO CHANGES - EXTERIOR ALTERATIONS ONLY

Emergency Lighting:	No	☐ Yes		
Exit Signs:	No	☐ Yes		
Fire Alarm:	No	☐ Yes		
Smoke Detection Systems:	No	☐ Yes	☐ Partia	al
Panic Hardware:	No	☐ Yes		

LIFE SAFETY PLAN REQUIREMENTS: NO CHANGES - EXTERIOR ALTERATIONS ONLY

Life Safety Plan Sheet #:	N/A
---------------------------	-----

☐ Fire and/or smoke rated wall locations (Chapter 7)

Assumed and real property line locations (if not on site plan)

Exterior wall opening area with respect to distance to assumed property lines (705.8)

Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)

Occupant loads for each area

☐ Exit access travel distances (1017)

☐ Common path of travel distances (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 (1008.1.9.9)

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 (SEC. 1107):

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	UNITS	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE TYPE A, OR TYPE B UNITS PROVIDED			
	N/A									

	TOTAL # O	F SPACES	# OF ACCESS	IBLE SPACES PROVIDED	TOTAL #
PARKING AREA	ARKING AREA REQUIRED PROVIDE		REGULAR WITH 5'	VAN SPACES WITH	PROVIDE
			ACCESS AISLE	8' ACCESS AISLE	
TOTAL	2	2	1	1	2

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1):

USES:	WATERO	CLOSETS	URINALS	LAVA	TORIES	SHOWERS/	DRINKING	FOUNTAINS
Retail and Business	MALE	FEMALE		MALE	FEMALE	TUBS	REGULAR	ACCESSIBLE
EXISTING							7	
NEW		1	N/A - EXTE	RIOR	ALTERATI	ONS ONLY		
REQUIRED							-	

SPECIAL APPROVALS: N/A - None Required

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

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 (Remainder of this section not applicable)

Exempt Building:
No Yes (Provide code or statutory reference): _____

Method of Compliance: Energy Code Performance Prescriptive ASHRAE 90.1 Performance Prescriptive (If "Other" specify source here)

STRUCTURAL DESIGN SUMMARY: SEE STRUCTURAL SHEETS

N/A - EXTERIOR ALTERATION ONLY MECHANICAL DESIGN SUMMARY:

ACCESSIBLE PARKING (SEC. 1106):

N/A - None Required

N/A - EXTERIOR ALTERATIONS ONLY **ENERGY SUMMARY:**

□ 3 □ 4A □ 5A Climate Zone:

ELECTRICAL DESIGN SUMMARY: SEE ELECTRICAL SHEETS

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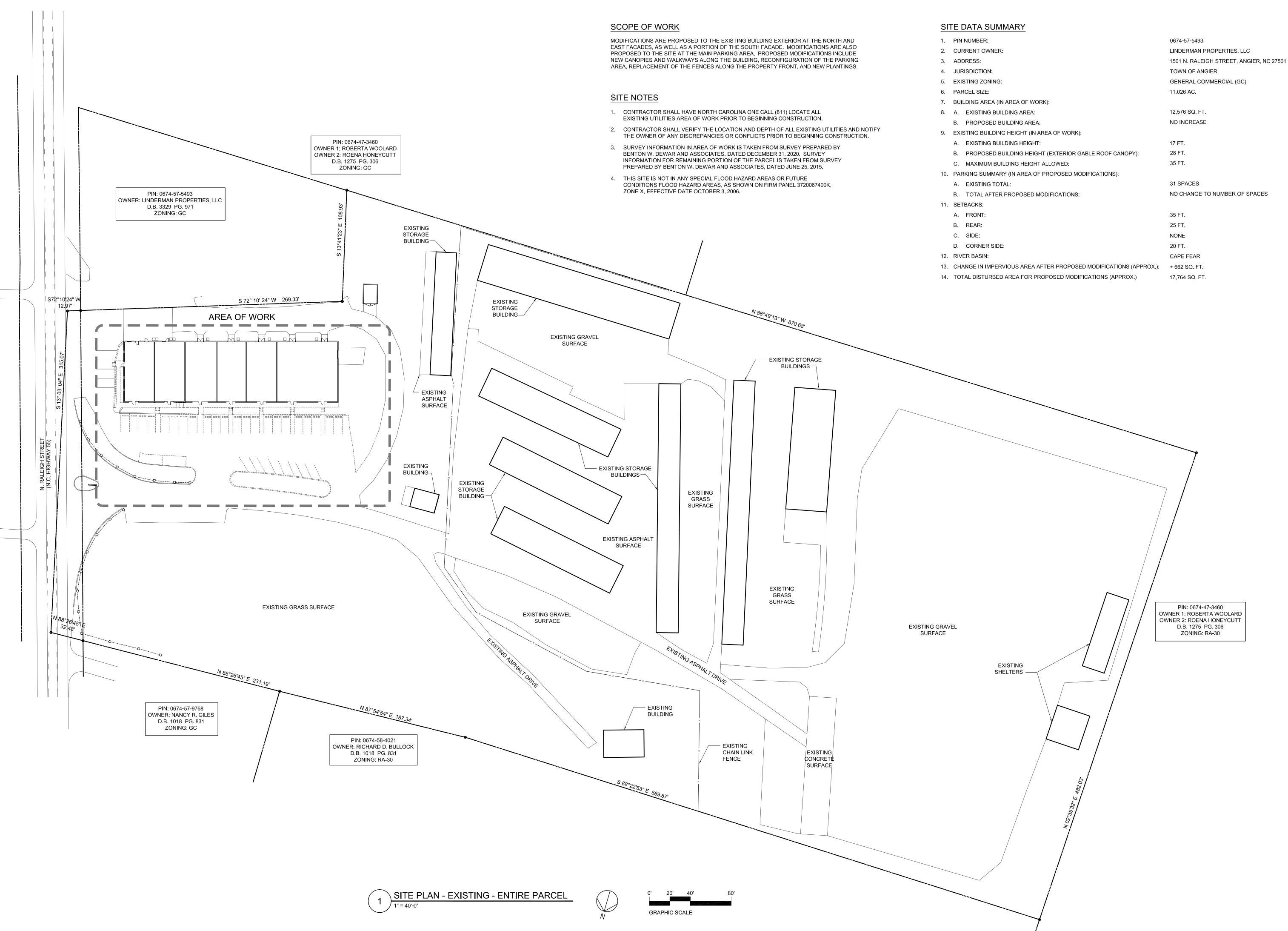
04/02/2021

SHEET TITLE

BUILDING SUMMARY

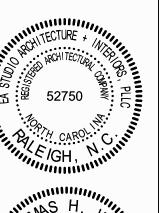
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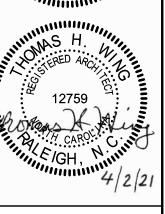
^{*} Mercantile and Business Occupancies have the same Table 506.2 Allowable Area (9,000 SF)











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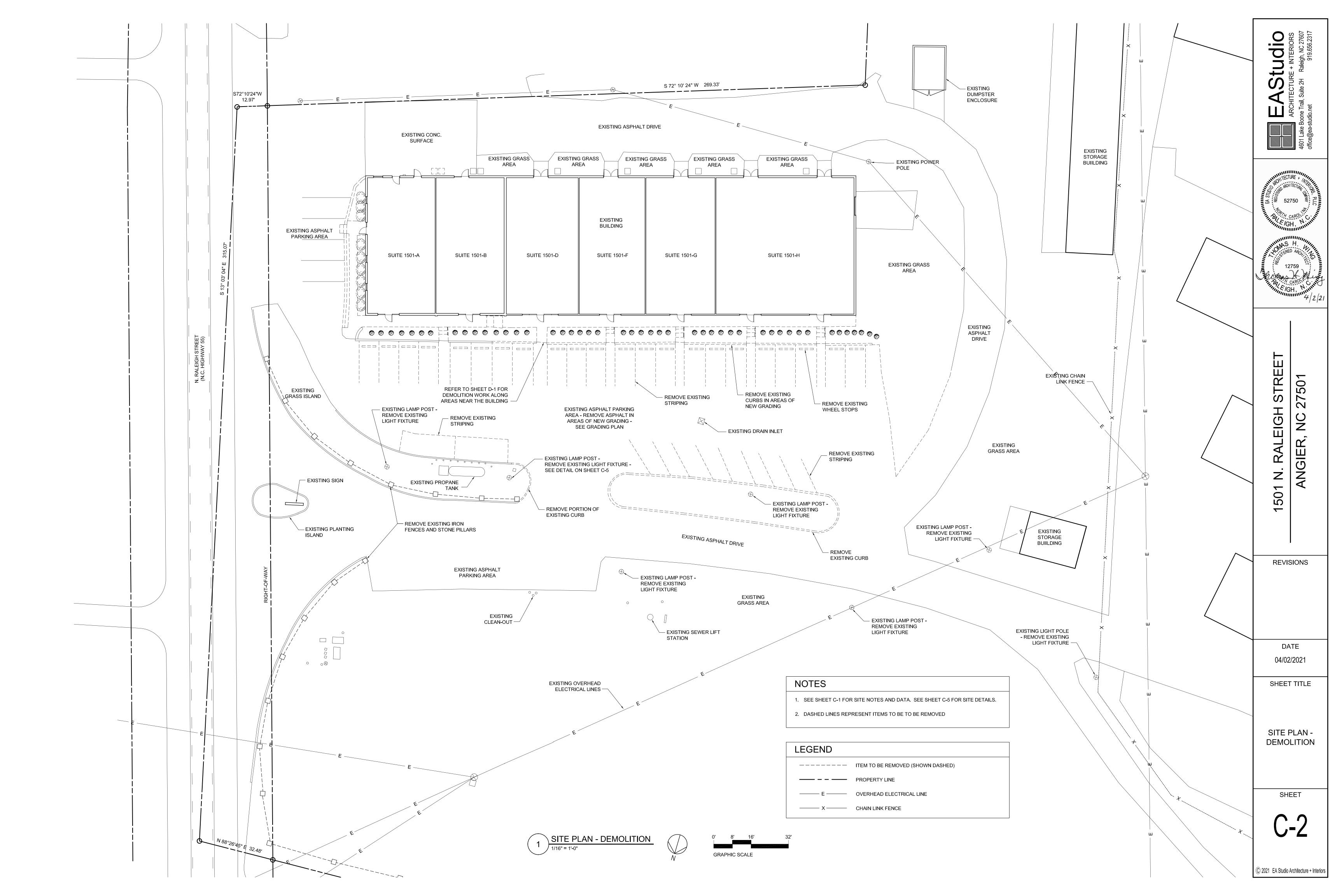
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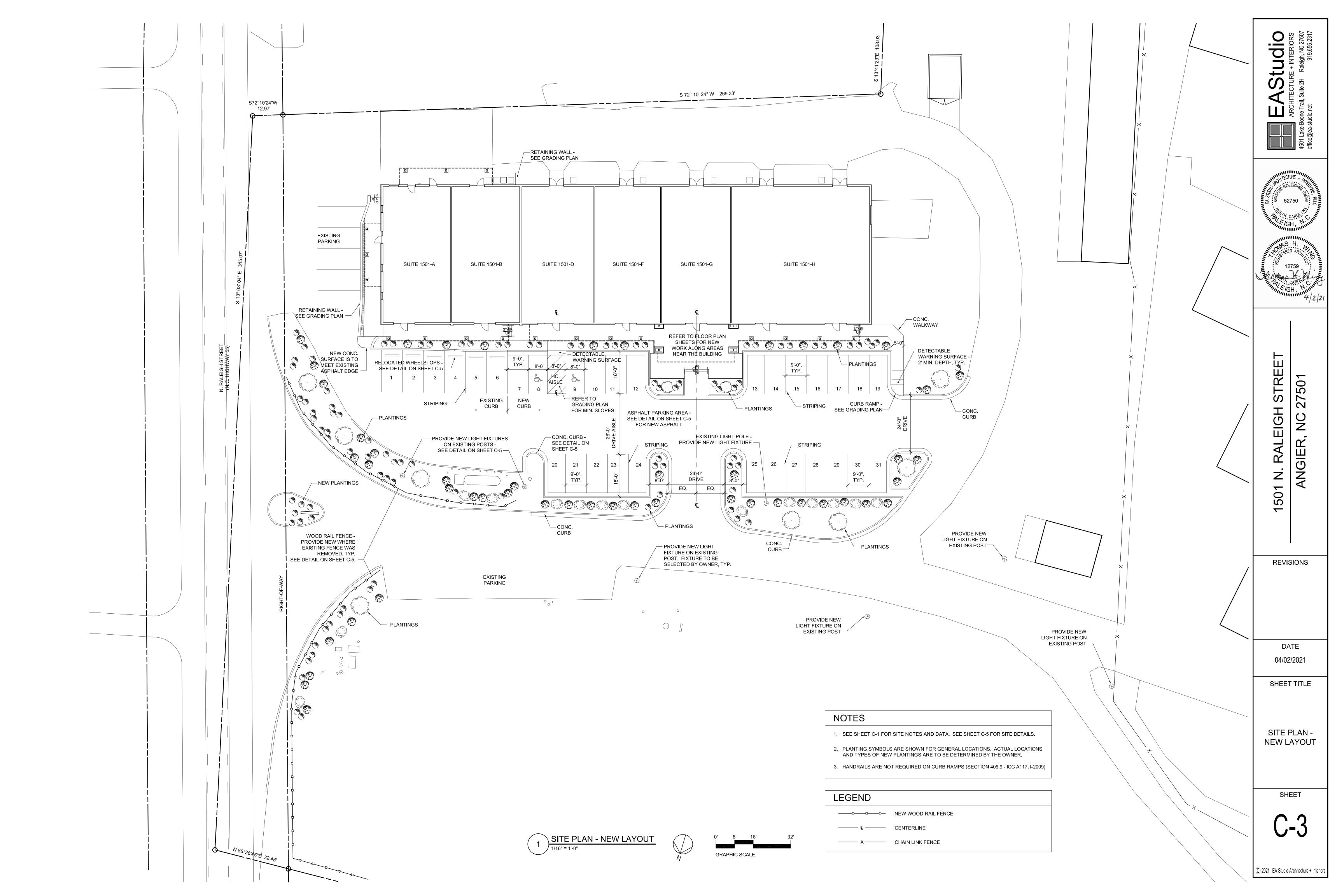
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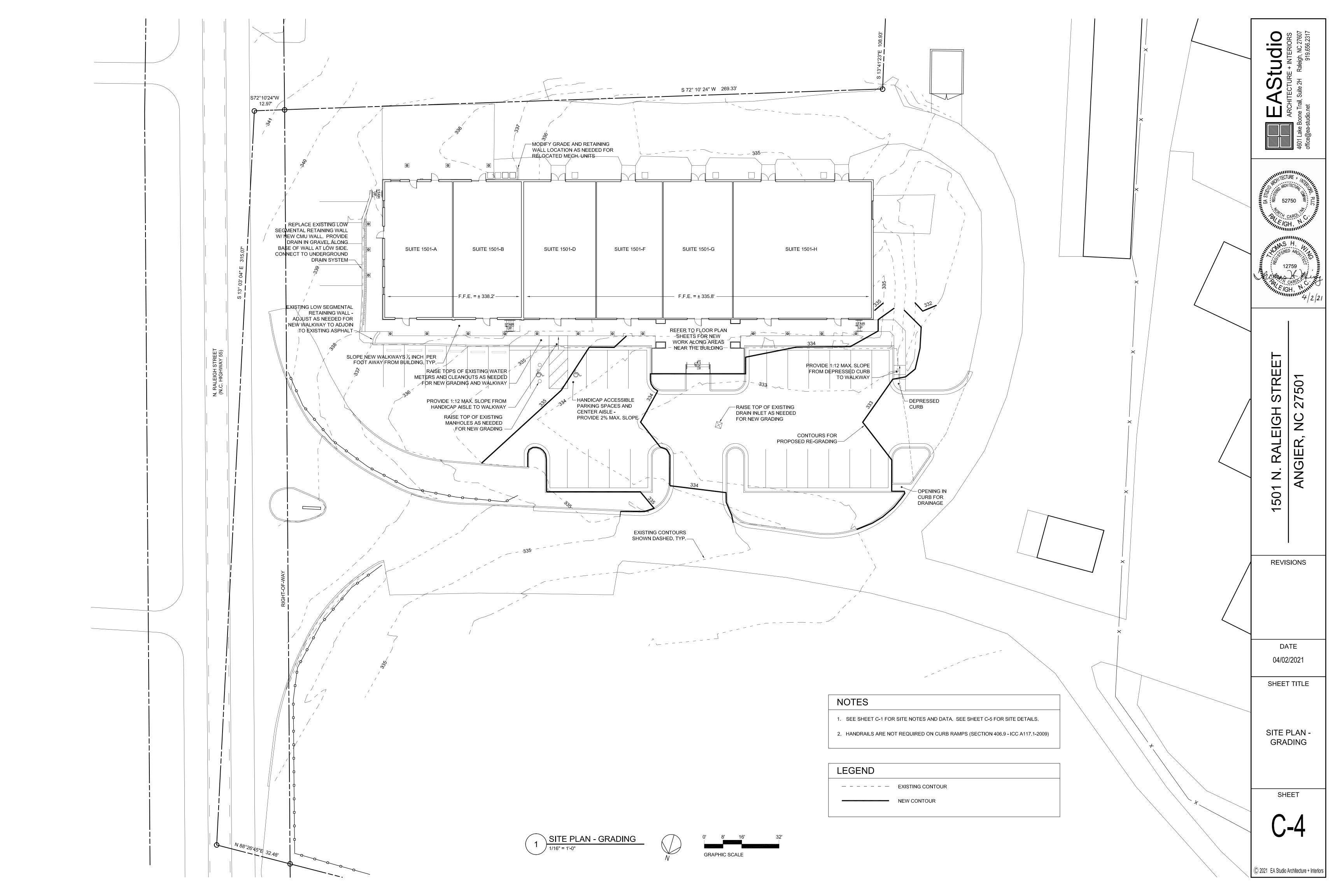
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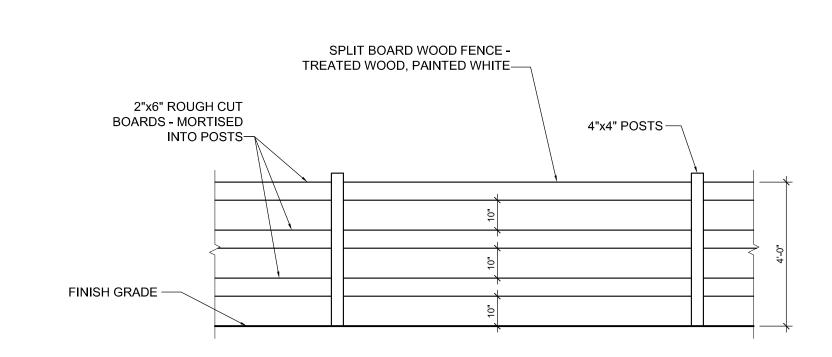
SITE PLAN -**EXISTING** -**ENTIRE PARCEL**

SHEET



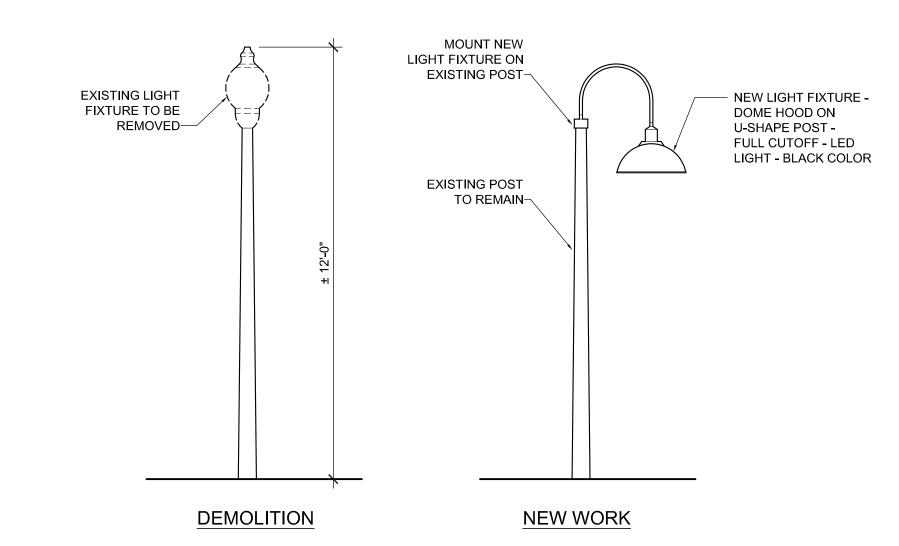






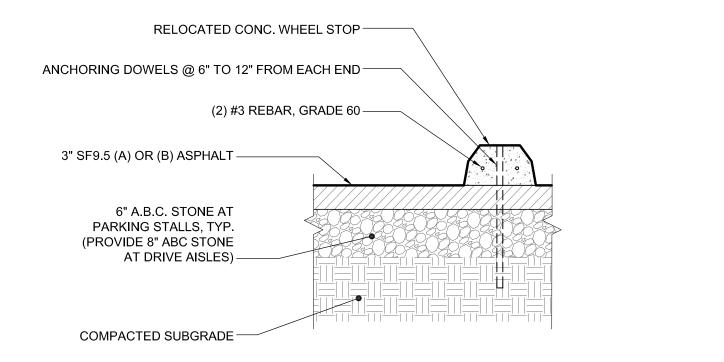
FENCE - ELEVATION DETAIL

3/8" = 1'-0"



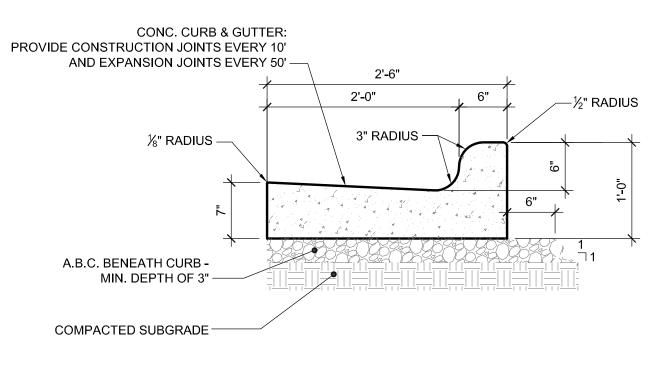


- 1. CONCRETE SHALL BE 3,000 P.S.I.
- 2. EXPANSION JOINTS ARE TO HAVE JOINT FILLER AND SEALER
- 3. FINISH ALL CONCRETE WITH A CURING COMPOUND
- 4. COMPACTED SUBGRADE TO BE 95% MAX. STANDARD PROCTOR DRY DENSITY



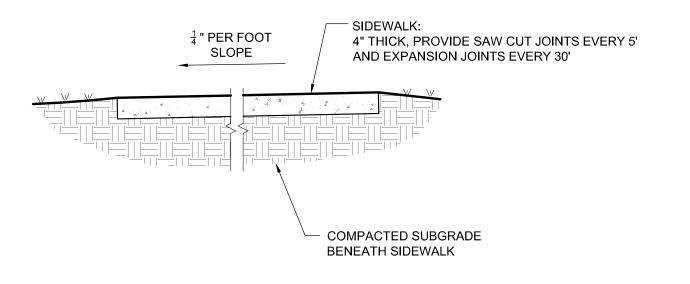
PAVEMENT - SECTION DETAIL

1" = 1'-0"

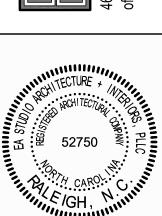


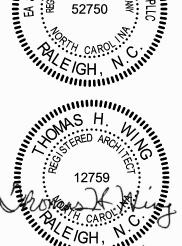
CURB & GUTTER - SECTION DETAIL

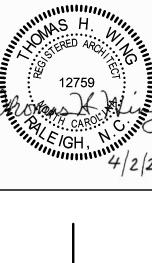
1" = 1'-0"



SIDEWALK - SECTION DETAIL







STRE 7501 RALEIGH ANG 1501 N.

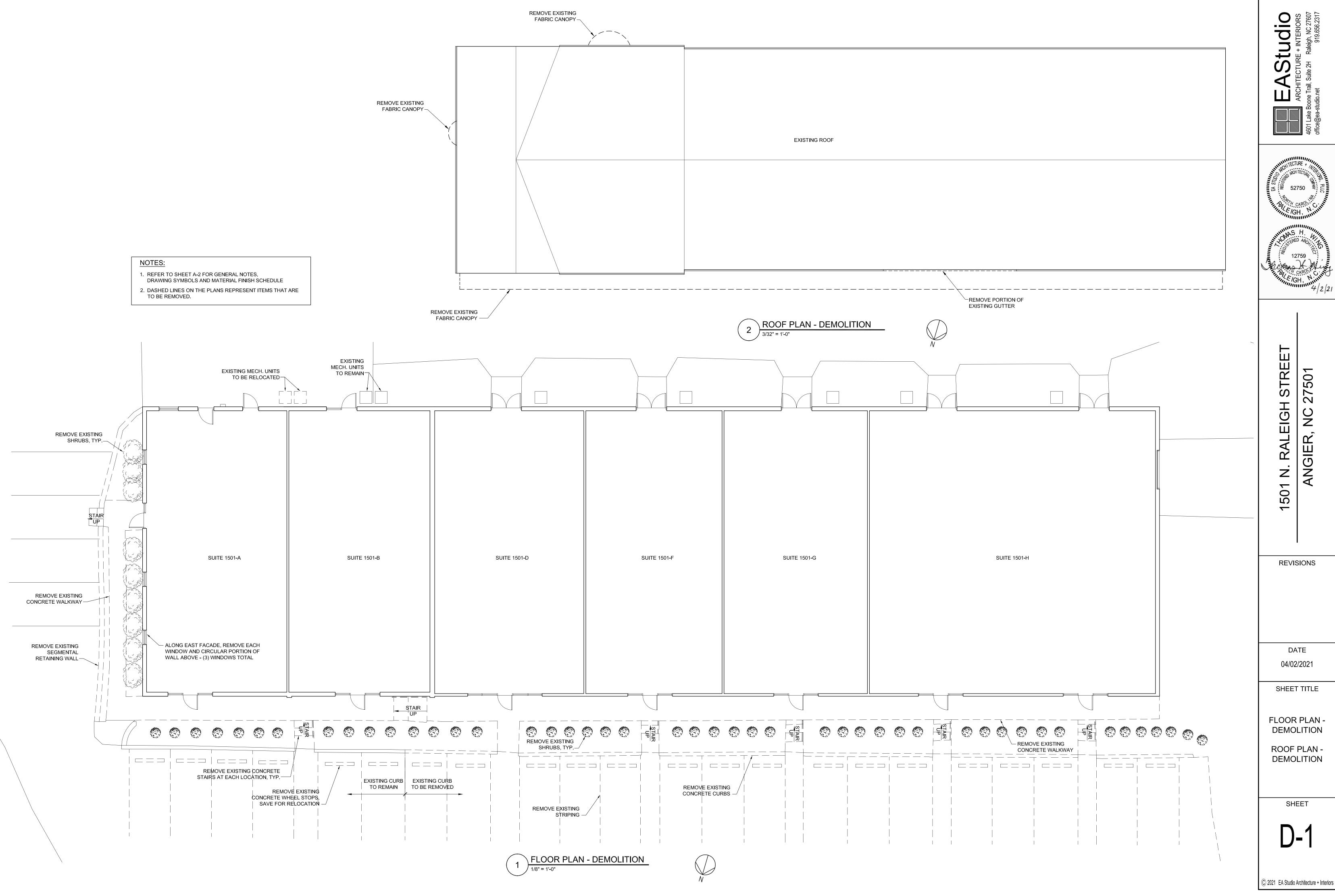
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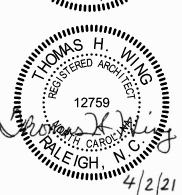
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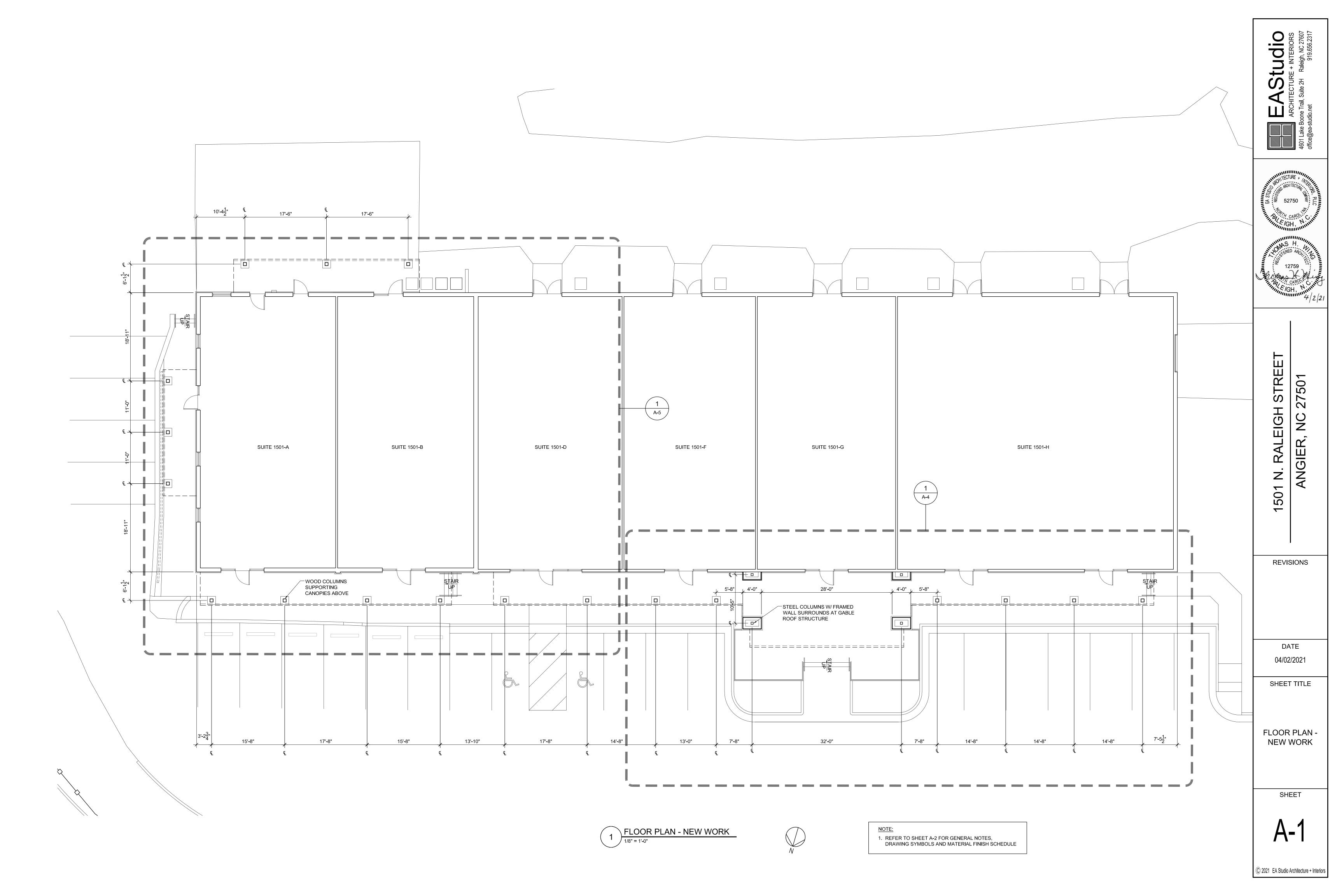
SHEET TITLE

SITE **DETAILS**

SHEET







MATERIAL FINISHES				
TYPE	MATERIAL	DESCRIPTION		
ROOF	STANDING SEAM METAL PANELS	BROWN COLOR AT CANOPIES, DARK RED COLOR AT CENTER AWNING		
GUTTERS AND DOWNSPOUTS	ALUMINUM	BROWN COLOR		
	EXISTING EXPOSED FINISHES	PAINTED - BEIGE COLOR		
	MANUFACTURED STONE VENEER AT WALL AND COLUMN BASES AND AT SIDES OF RAISED PATIO	GRAY / BROWN COLOR		
WALLS	FIBER CEMENT ON NEW WALLS AT COVERED ENTRY	BOARD AND BATTEN SIGING - VERTICAL PATTERN PAINTED - BEIGE COLOR		
	FIBER CEMENT ON PORTION OF REAR WALL WHERE PLYWOOD IS REMOVED	LAP SIDING - HORIZONTAL PATTERN, PAINTED - BEIGE COLOR		
CEILINGS	EXTERIOR GRADE PLYWOOD	PAINTED		
EXPOSED CANOPY COLUMNS AND BRACKETS	ROUGH CUT CEDAR	STAINED - LIGHT BROWN COLOR		
RAILINGS AND FENCES AT BUILDING	GALVANIZED STEEL	PAINTED - BLACK COLOR		
FENCE AT PROPERTY FRONT	TREATED WOOD	PAINTED - WHITE COLOR		

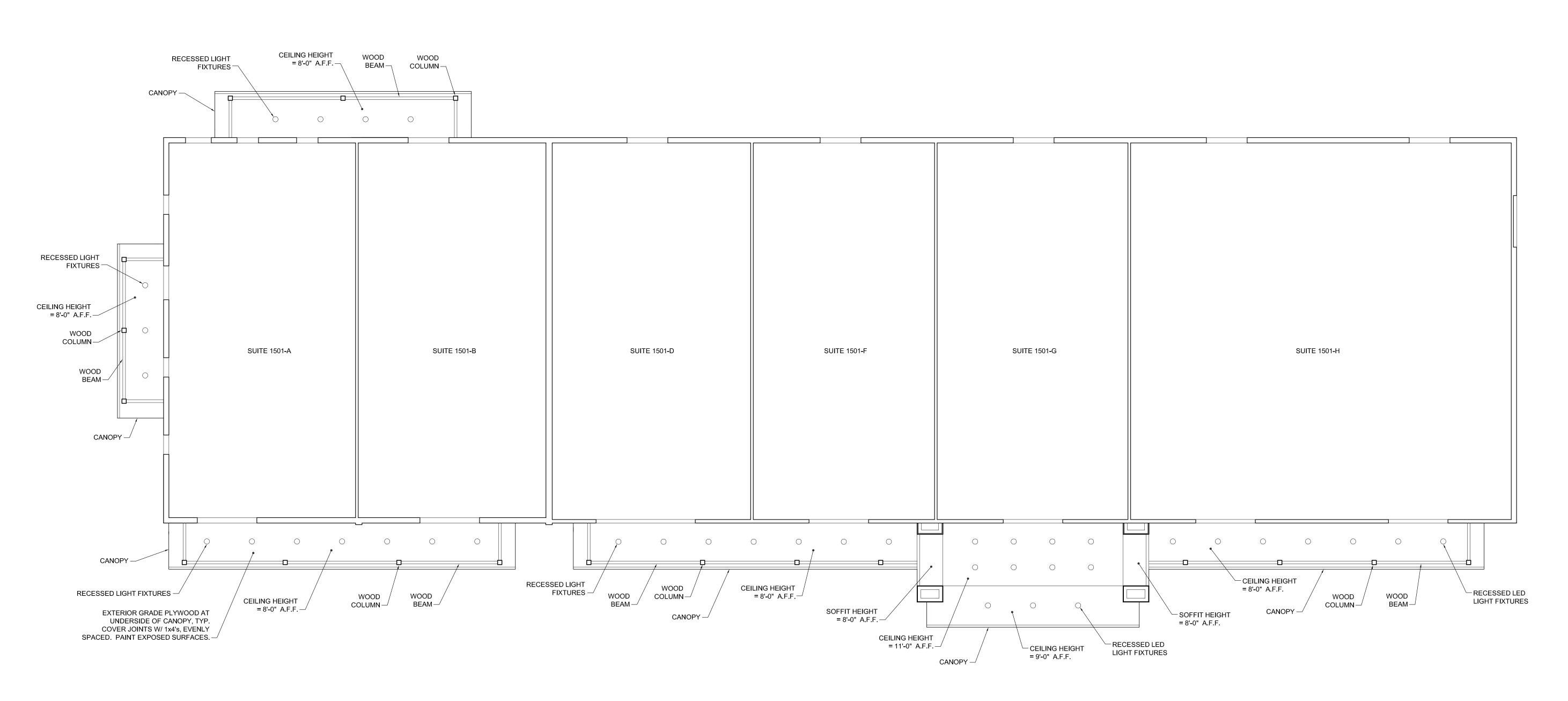
- 1. ACTUAL COLOR AND PATTERN SELECTIONS ARE TO BE MADE BY THE OWNER FROM MANUFACTURER'S STANDARDS. UNLESS IT IS NOTED TO MATCH EXISTING FINISHES.
- 2. SEE DRAWINGS FOR MATERIAL LOCATIONS AND NOTES ON ADDITIONAL MATERIALS.
- 3. MATERIAL INSTALLATIONS ARE TO BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. SURFACES TO RECEIVE PAINT ARE TO BE PREPARED AND PRIMED IN ACCORDANCE WITH MANUFACTURER REQUIREMENTS.
- 4. PROVIDE MANUFACTURER'S STANDARD WARRANTY FOR EACH MATERIAL.

GENERAL NOTES

- . EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY CONTRACTOR WHERE DEMOLITION IS TO OCCUR. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY INCONSISTENCIES PRIOR TO STARTING ANY WORK.
- 2. WHERE DEMOLITION IS CALLED FOR, ALL RELATED ITEMS AND ASSEMBLIES ARE TO BE REMOVED. WHERE THE CONTRACTOR CAN DEMONSTRATE THAT A COMPONENT THAT WOULD OTHERWISE BE REMOVED CAN INSTEAD BE REUSED, THEN, UPON APPROVAL OF THE OWNER, THE COMPONENT MAY BE REUSED.
- 3. WHERE DEMOLITION HAS OCCURED, CONTRACTOR IS TO PATCH AND REPAIR ANY DAMAGED ADJACENT SURFACES AND MATERIALS THAT ARE TO REMAIN. WHERE EXISTING WALL SURFACES THAT ARE TO REMAIN ARE REPAIRED OR PATCHED, THE CONTRACTOR IS TO PRIME, FILL, AND PAINT TO MATCH EXISTING CONDITIONS.
- 4. SURFACES RECEIVING NEW FINISHES SHALL HAVE FOREIGN MATTER AND LOOSE DEBRIS REMOVED (TAPES, ADHESIVES, NAILS, SCREWS, ETC). THE SURFACES SHALL BE SCRAPED, SANDED, AND PREPARED TO ACCEPT THE NEW FINISH. VOIDS SHALL BE PATCHED AND REPAIRED.
- 5. CONTRACTOR SHALL PROTECT DUCT OPENINGS AND RETURN AIR FROM CONTAMINATION WITH CONSTRUCTION DEBRIS AND DUST, AND SHALL WRAP AND PROTECT EXISTING ELECTRICAL EQUIPMENT TO PREVENT DAMAGE BY INFILTRATION OF DUST.
- . CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF DEBRIS ACCUMULATED DURING DEMOLITION AND CONSTRUCTION.
- . NEW WALL SIGNAGE IS TO BE DONE BY A SEPARATE SIGNAGE CONTRACTOR. WHERE REMOVAL OF EXISTING WALL SIGNAGE IS REQUIRED TO BE DONE BY SEPARATE SIGNAGE CONTRACTOR(S), THE GENERAL CONTRACTOR IS TO COORDINATE THEIR WORK WITH THE WORK OF THE SIGNAGE CONTRACTOR(S).

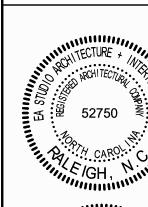
DRAWING SYMBOLS TAKEN FROM FACE OR EDGE OF WALL, U.N.O. CENTERLINE APPROXIMATE DIMENSION OR ELEVATION -CONTRACTOR TO FIELD VERIFY COLUMN GRID LINES WINDOW LABEL -SEE FLOOR PLAN AND ELEVATIONS CEILING RECESSED LIGHT FIXTURES -SEE REFLECTED CEILING PLAN AND ELECTRICAL PLANS

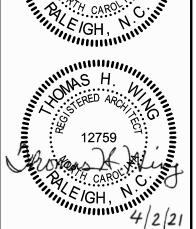
SECTION REFERENCE -NUMBER ON TOP IS THE ELEVATION LABEL, NUMBER ON BOTTOM IS THE SHEET LABEL EXTERIOR ELEVATION REFERENCE -NUMBER ON TOP IS THE ELEVATION LABEL, NUMBER ON BOTTOM IS THE SHEET LABEL





FUGIO RE + INTERIORS Raleigh, NC 27607 919.656.2317





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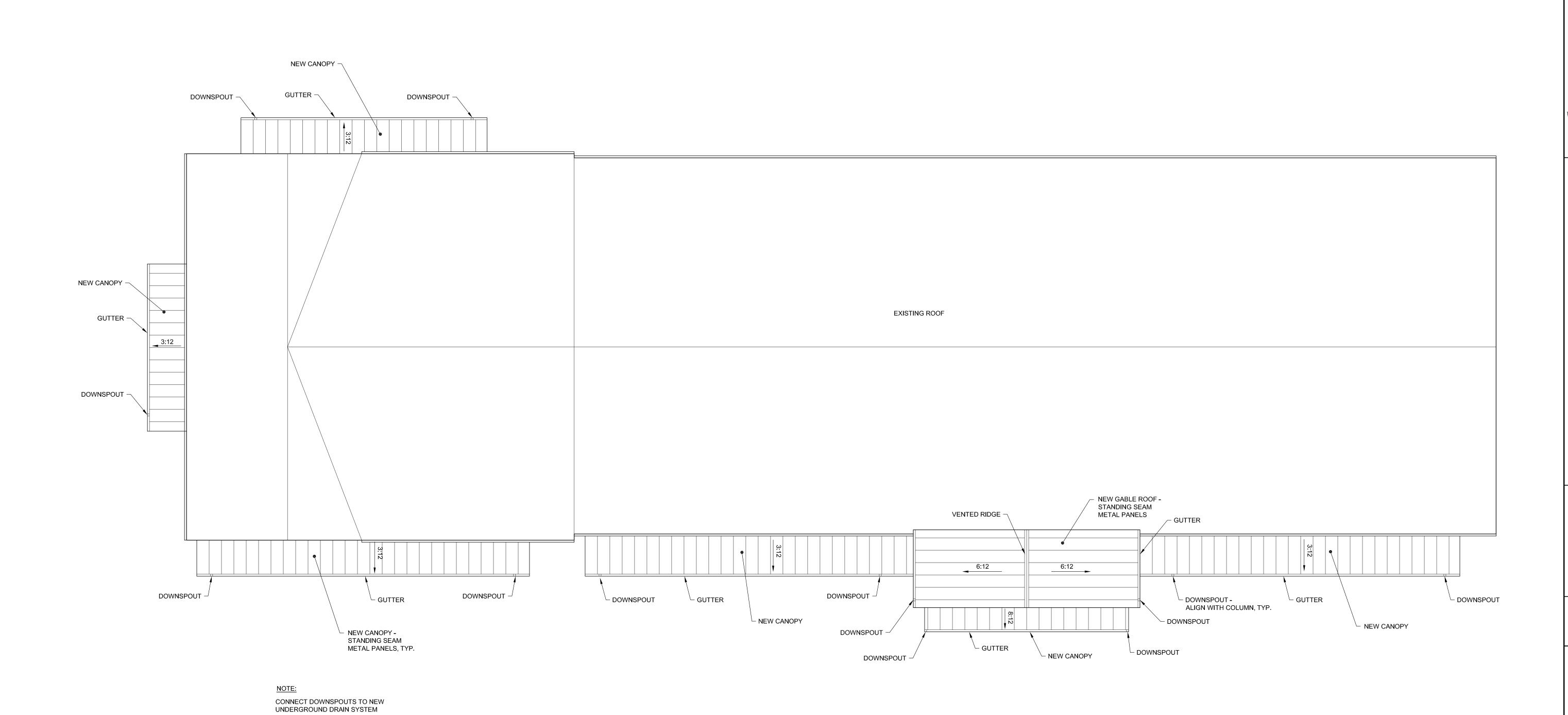
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04/02/2021

REFLECTED CEILING PLAN **NEW WORK**

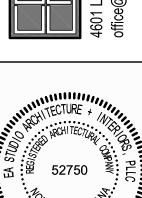
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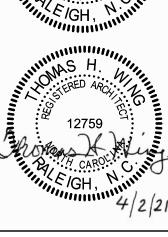
1 ROOF PLAN - NEW WORK



REFER TO SHEET A-2 FOR GENERAL NOTES, DRAWING SYMBOLS AND MATERIAL FINISH SCHEDULE







STREE 1501 N. RALEIGH ANGIER, NC 2

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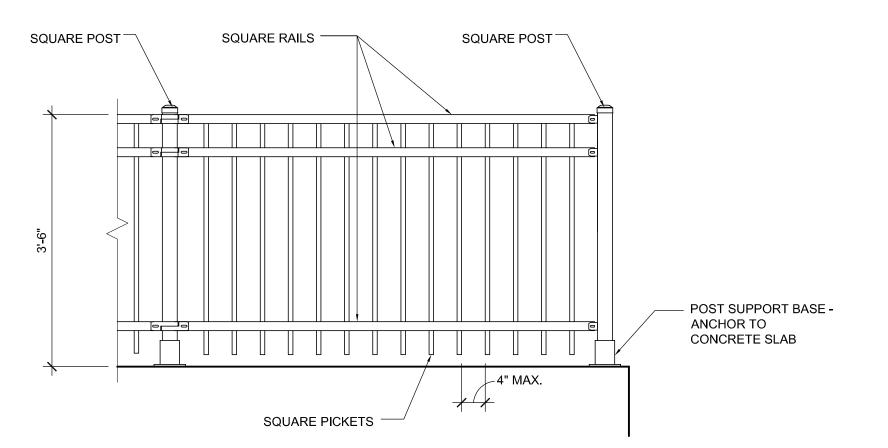
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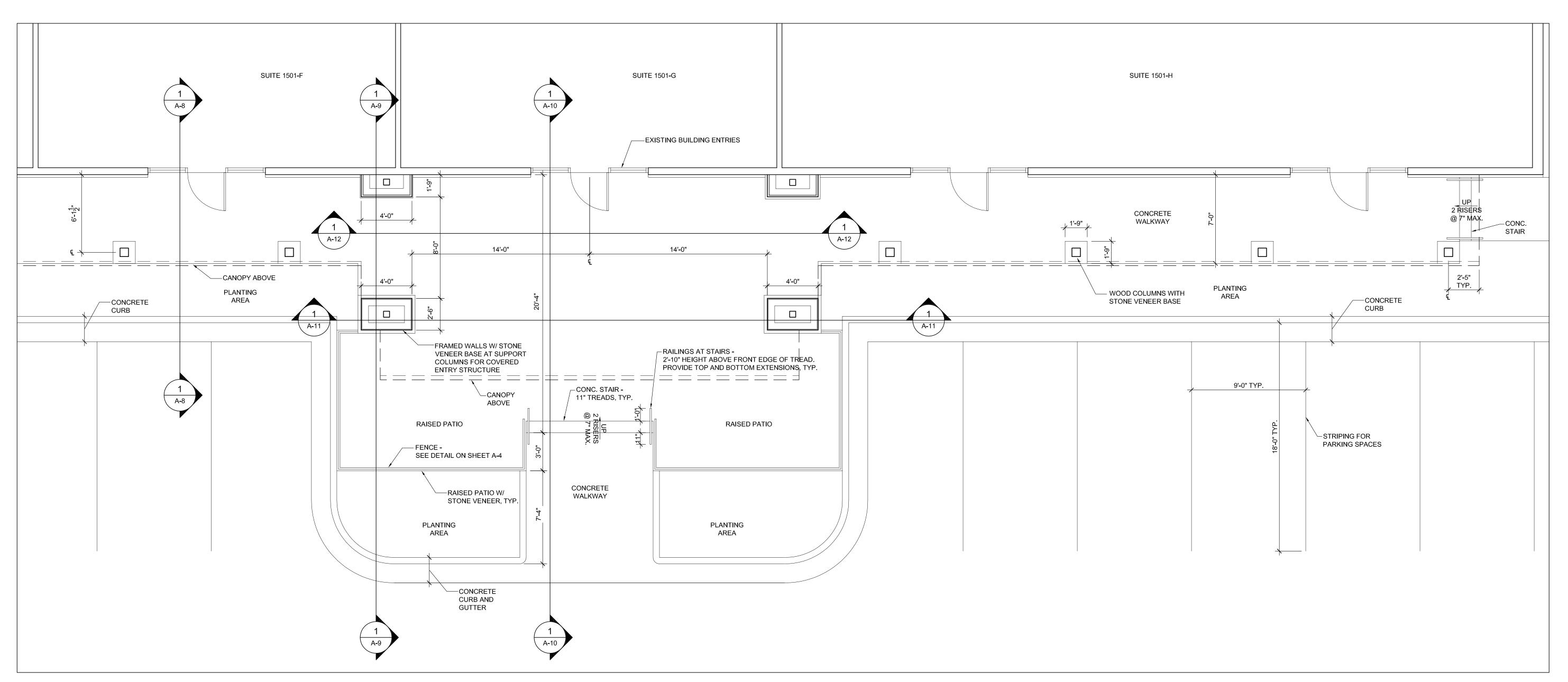
ROOF PLAN -NEW WORK

SHEET

- 1. FENCE IS TO BE WELDED COMMERCIAL ORNAMENTAL GALVANIZED STEEL, BLACK COLOR.
- 2. THE FENCE SHALL BE DESIGNED TO RESIST A LOAD OF 50 POUNDS PER LINEAR FOOT AND A SINGLE CONCENTRATED LOAD OF 200 POUNDS.
- 3. THE FENCE IS TO HAVE NO OPENING GREATER THAN 4"



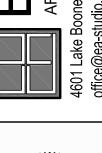




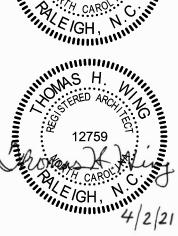


REFER TO SHEET A-2 FOR GENERAL NOTES, DRAWING SYMBOLS AND MATERIAL FINISH SCHEDULE









ANG 1501 N.

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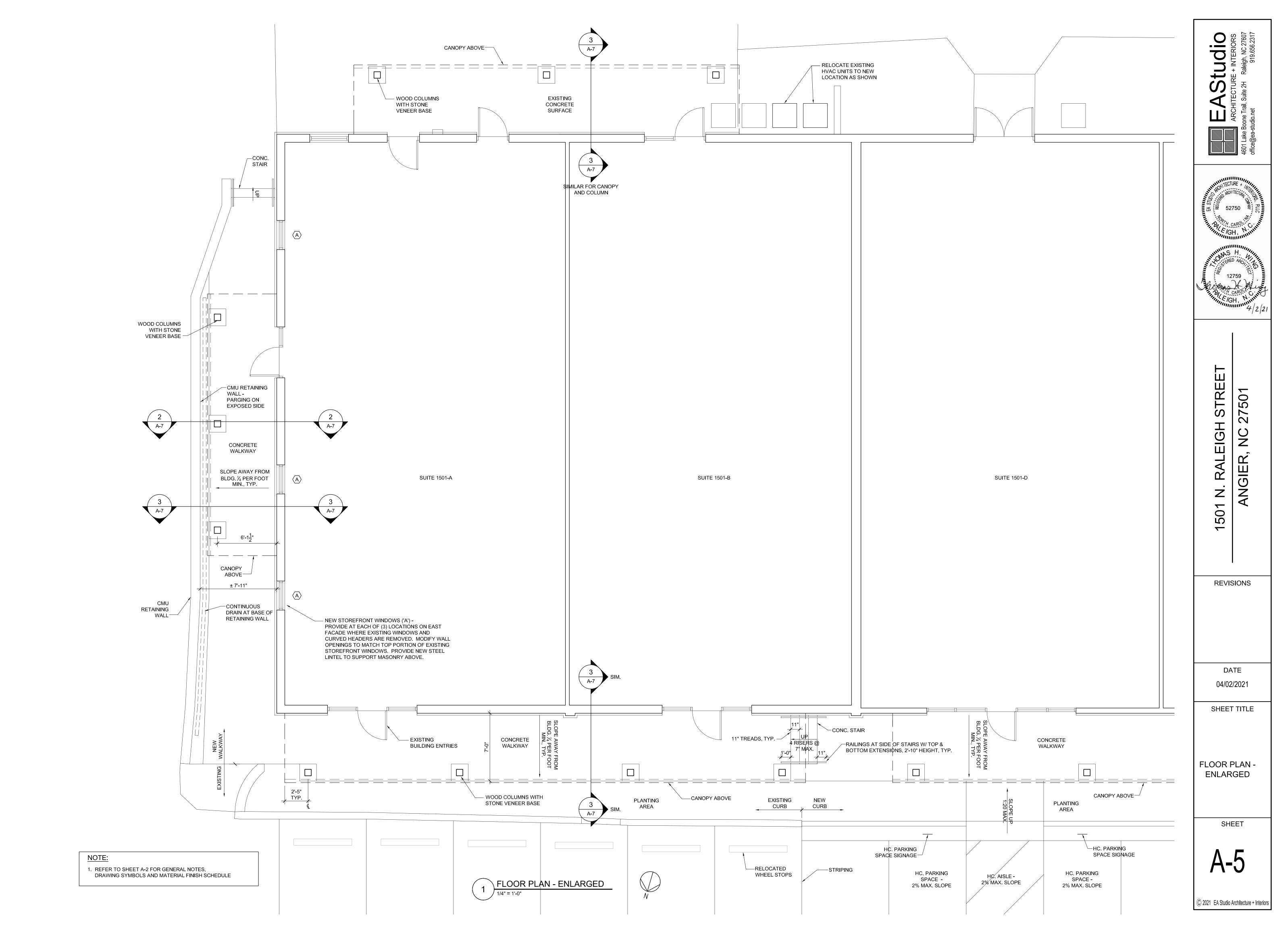
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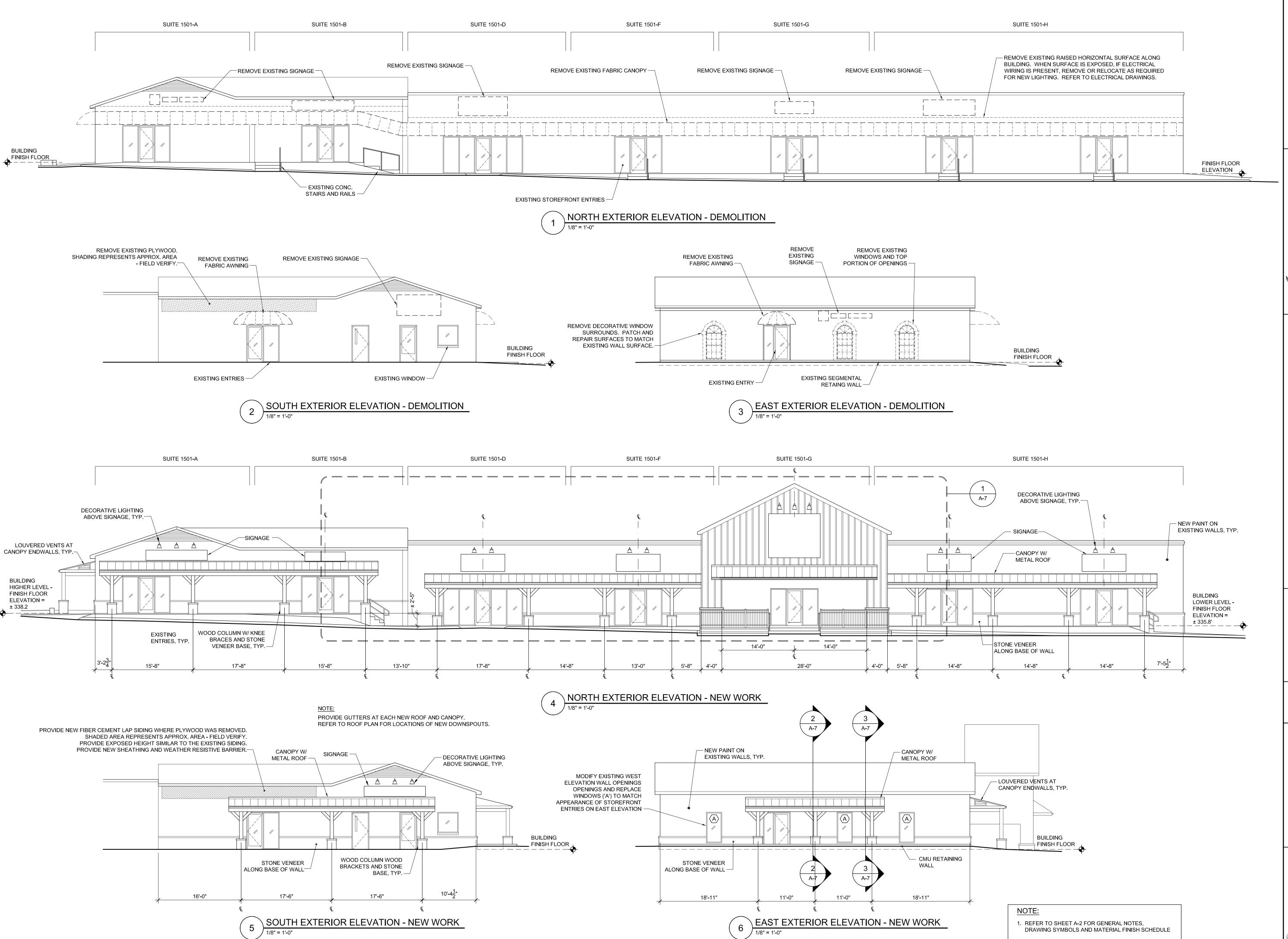
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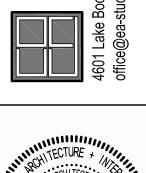
SHEET TITLE

FLOOR PLAN -**ENLARGED**

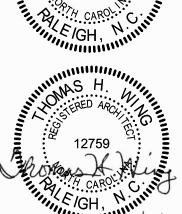
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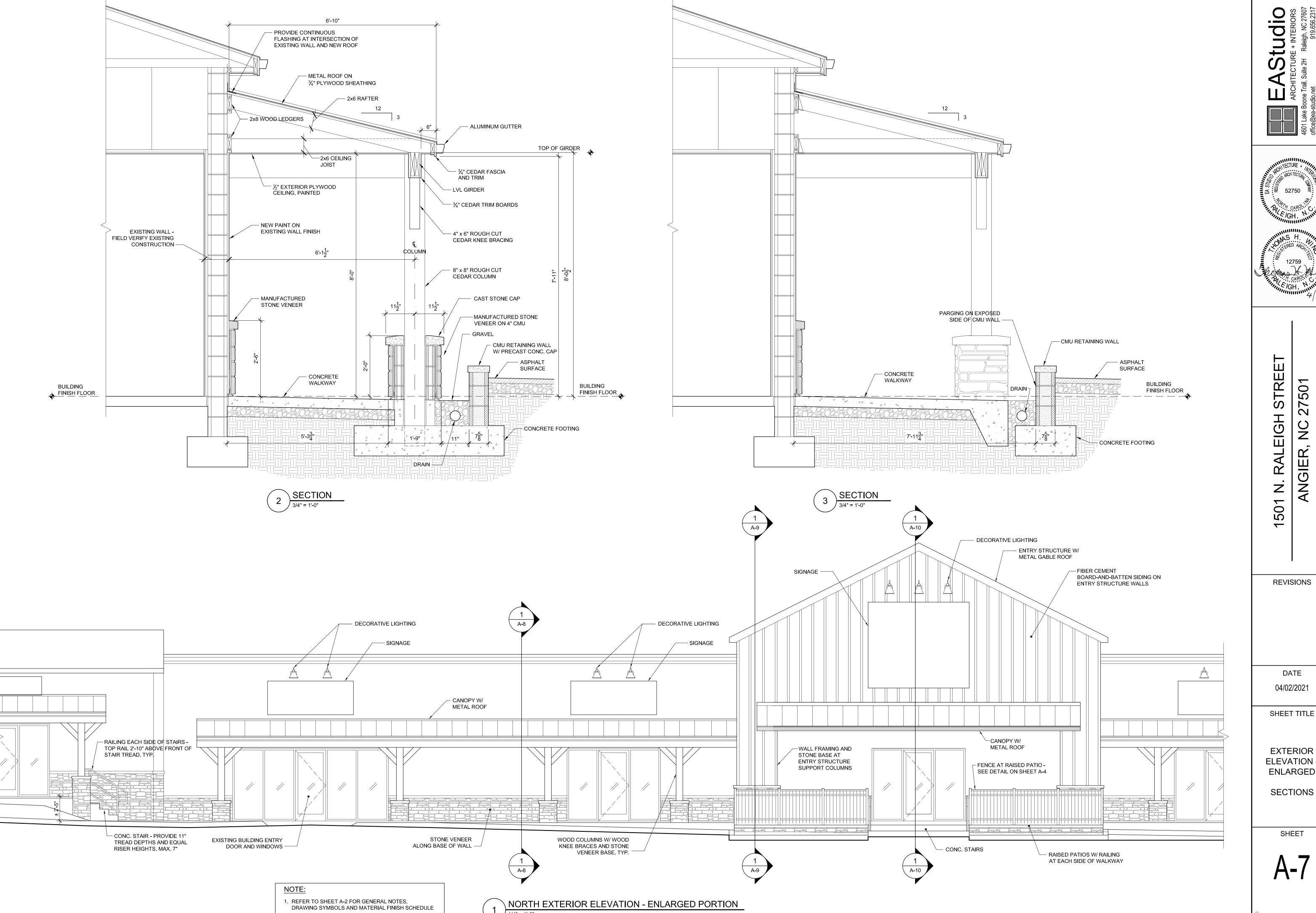
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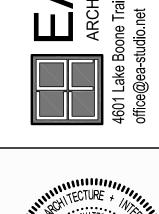
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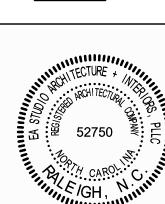
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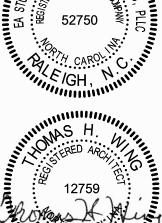
EXTERIOR ELEVATIONS -**DEMOLITION** AND **NEW WORK**

SHEET









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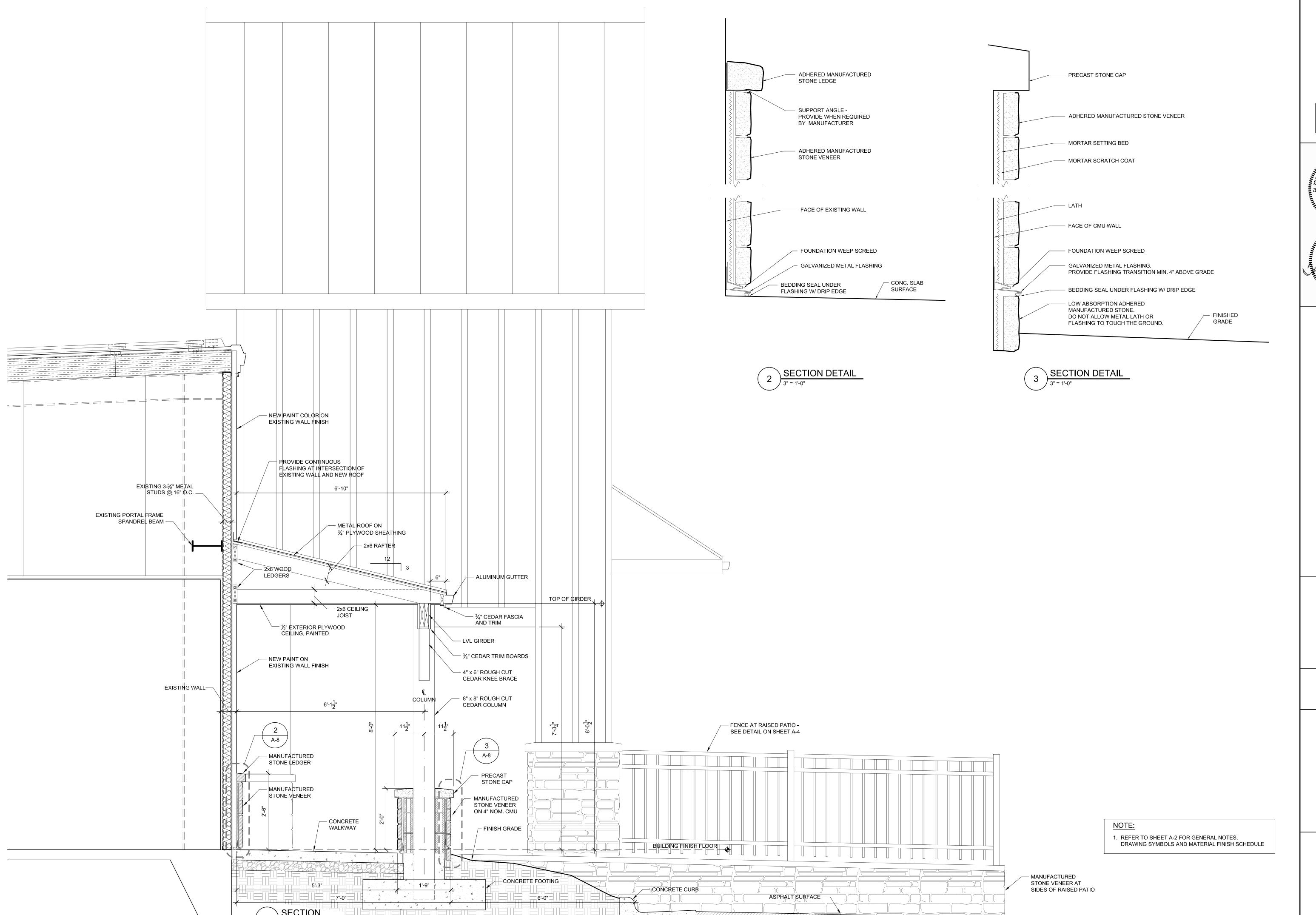
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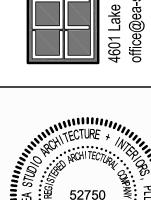
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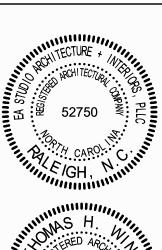
ELEVATION -ENLARGED

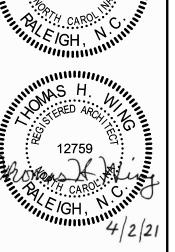
SECTIONS

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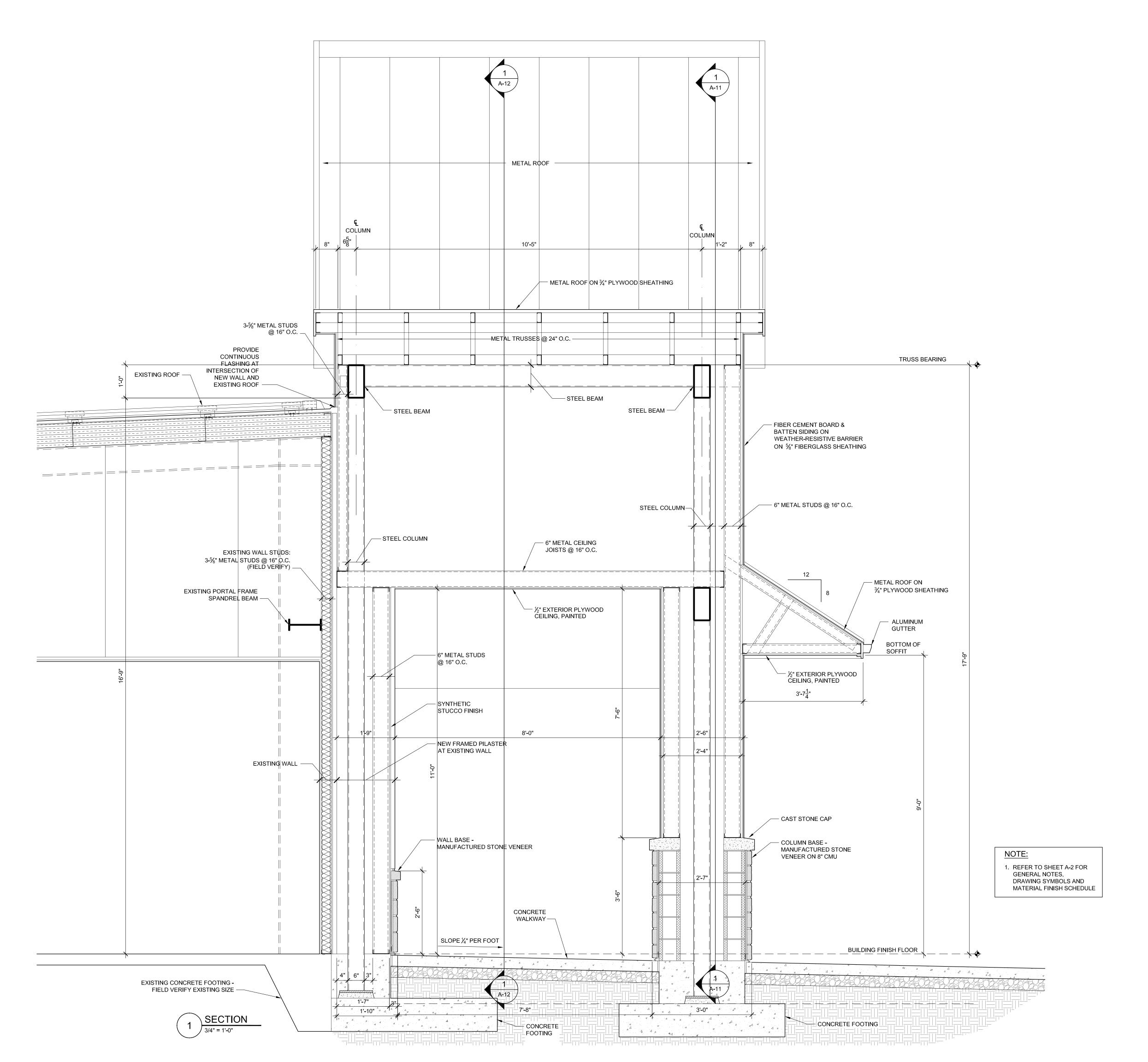
REVISIONS

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SHEET TITLE

SECTION

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501

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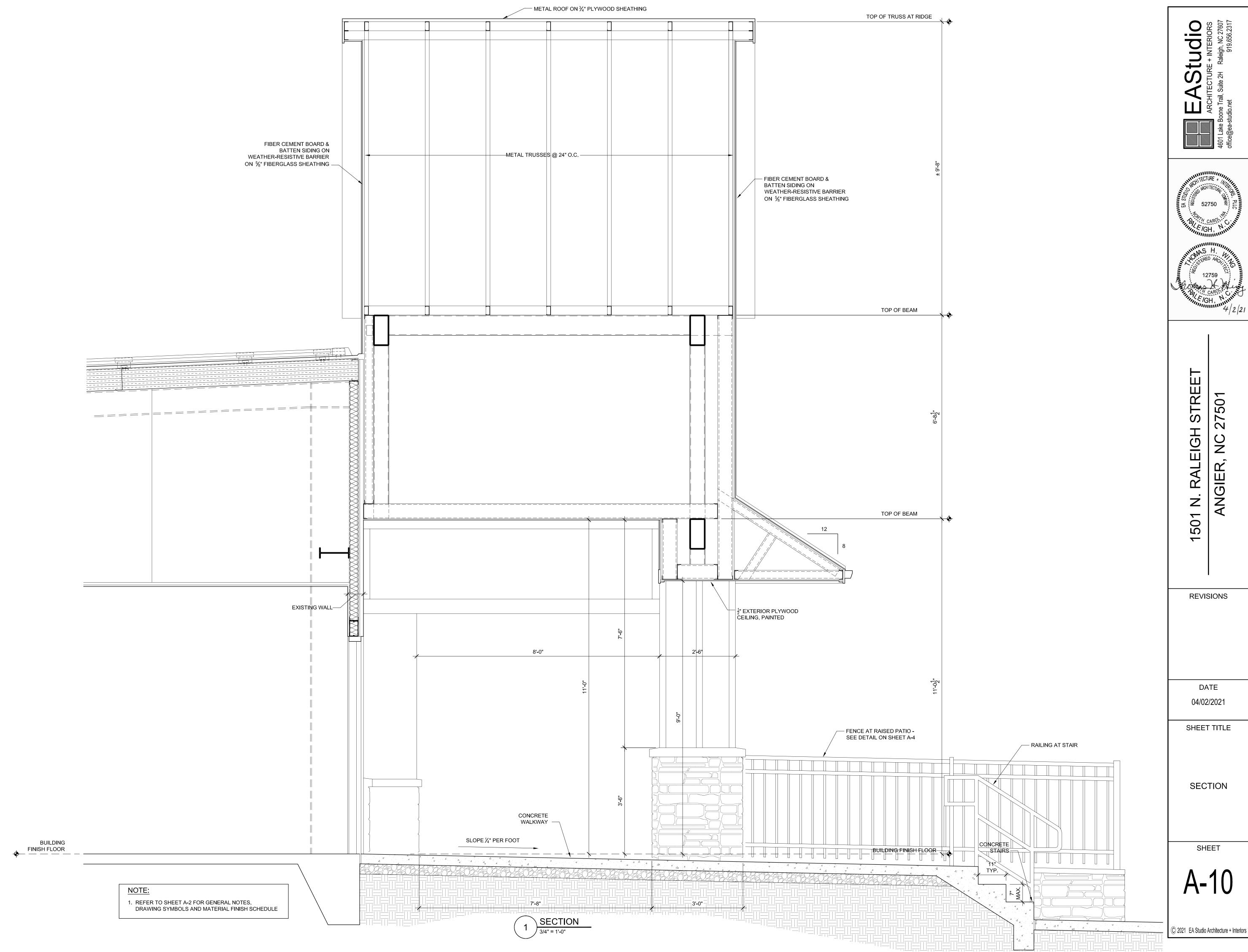
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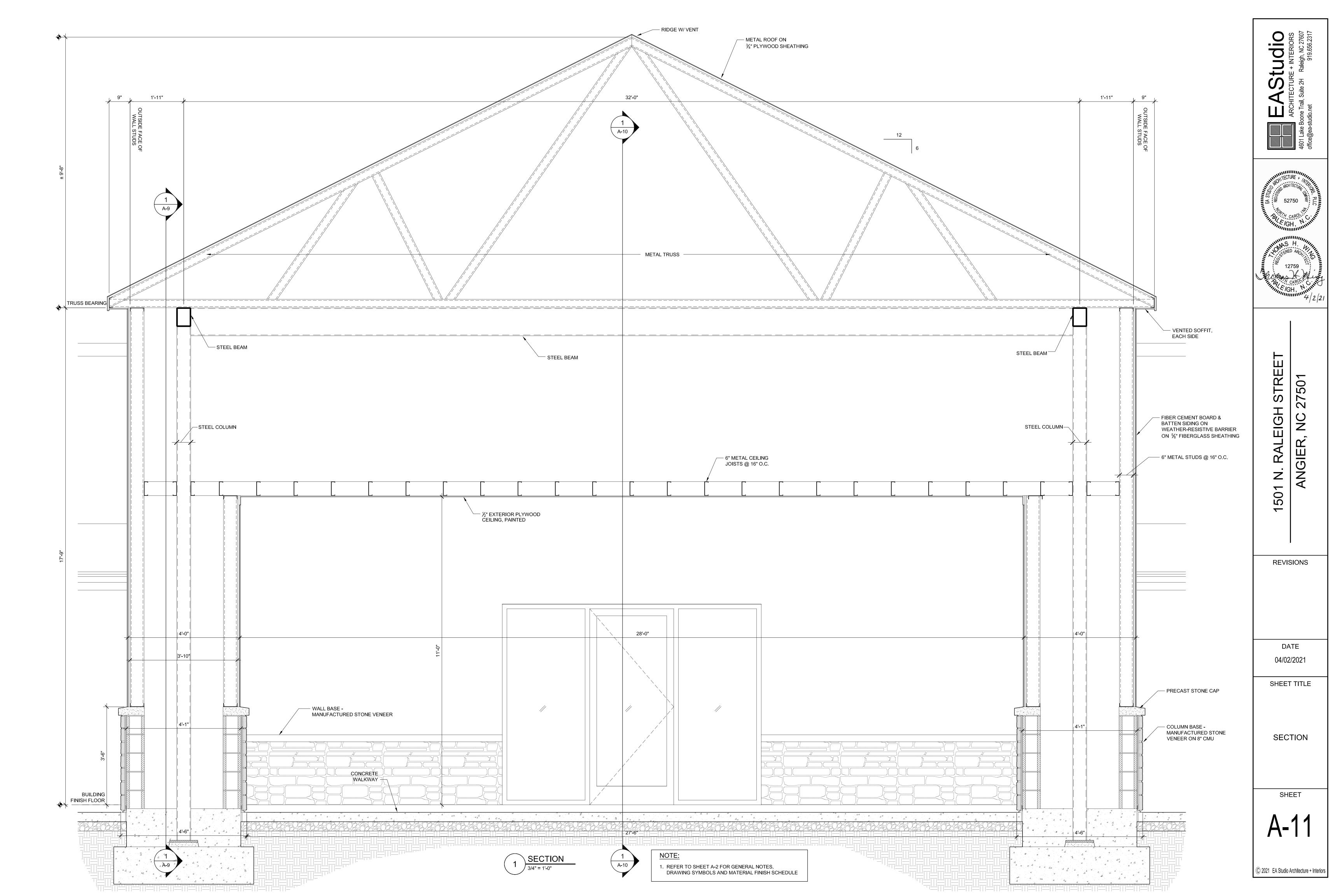
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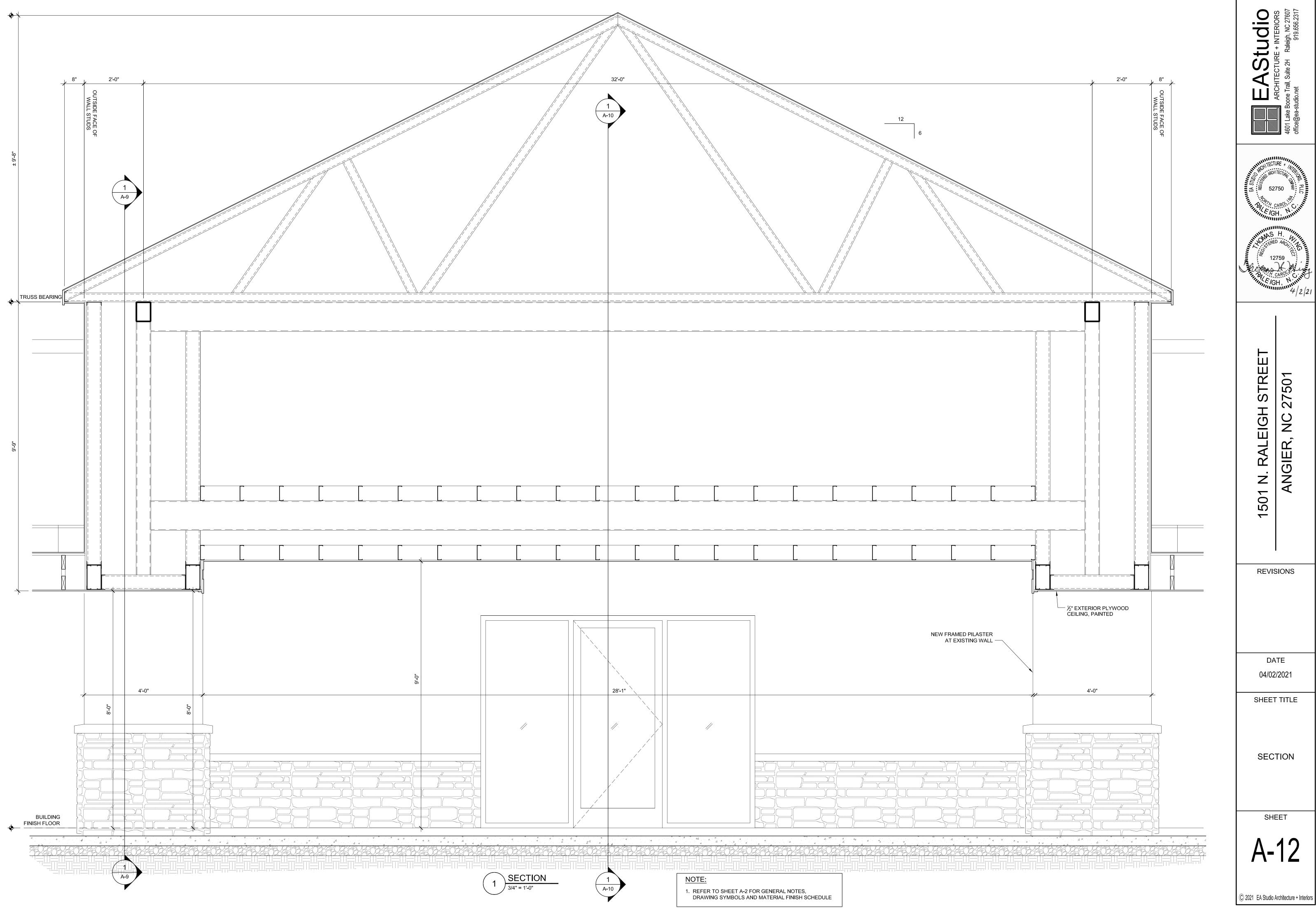
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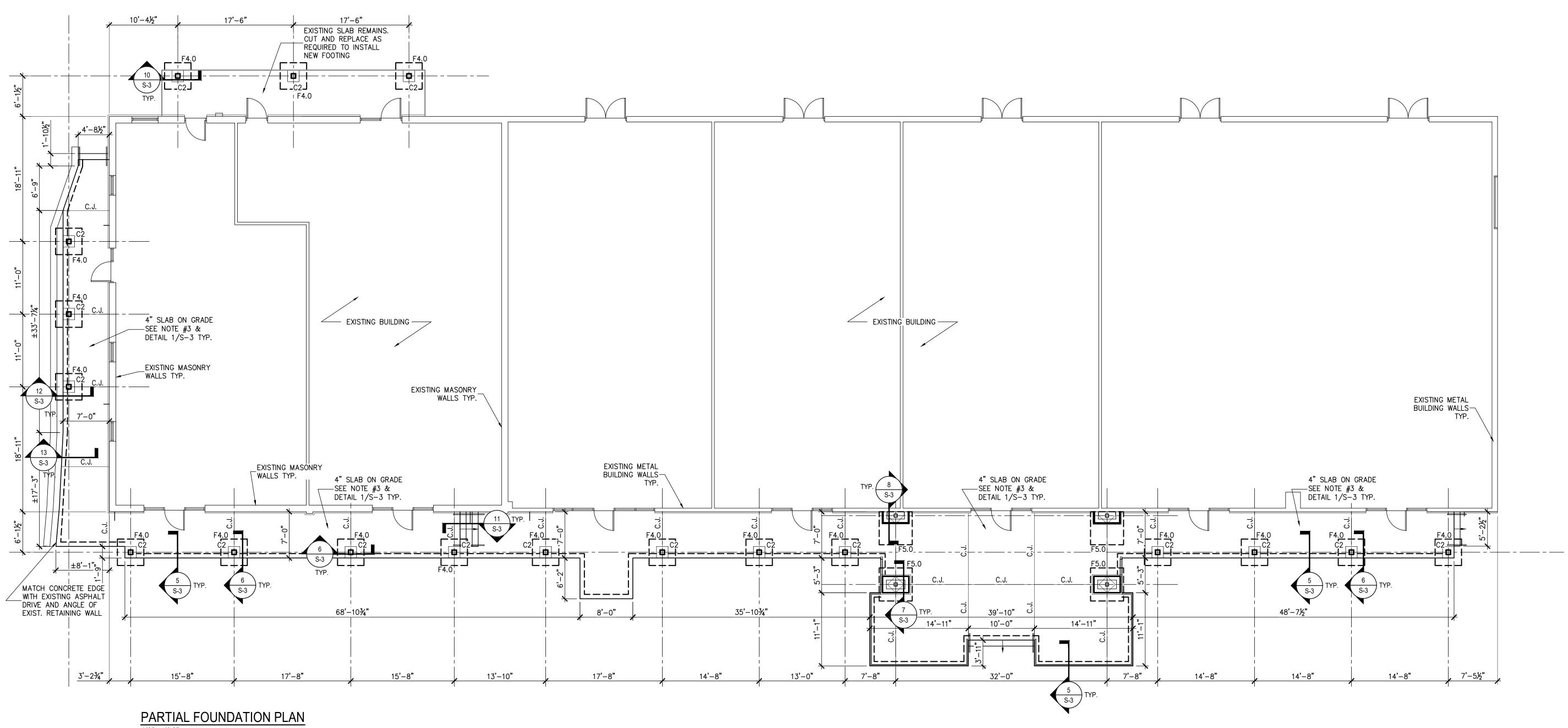
SHEET











1/8" = 1'-0"

FOUNDATION PLAN NOTES:

- 1. SEE SHEET S-5 FOR DESIGN CRITERIA, GENERAL STRUCTURAL NOTES & SCHEDULES.
- 2. TOP OF SLAB REFERENCE ELEVATION = 0'-0" UNLESS OTHERWISE NOTED. MATCH EXISTING SLAB ELEVATION = 0'-0". SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR ACTUAL SITE ELEVATIONS.
- 3. CONCRETE FLOOR SLAB IS 4" THICK WITH 6 x 6 W 2.1 x W 2.1 WELDED WIRE FABRIC, PROVIDE 10 MIL VAPOR BARRIER AND 4" COMPACTED GRANULAR BASE UNDER SLAB. PROVIDE ¼" SLOPE PER FOOT AWAY FROM BUILDING TYP. U.N.O. SEE 1/S-3 FOR MORE DETAIL
- 4. THE TOP OF ALL EXTERIOR COLUMN FOOTINGS SHALL BE AT ELEVATION -1'-4" UNLESS OTHERWISE NOTED ON THE
- 5. SEE 4/S-3 FOR SLAB CORNER REINFORCEMENT DETAIL. 6. FOR FOOTING, BASE PLATE AND ANCHOR BOLT DETAIL, SEE SHEET S-3

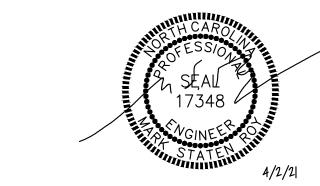
F4.0 	DENOTES COLUMN CONCRETE SPREAD FOOTING WITH FOOTING MARK — SEE FOOTING SCHEDULE FOR SIZE AND REINFORCING
C3	DENOTES STEEL COLUMN WITH COLUMN MARK AND ISOLATION JOINT — SEE COLUMN SCHEDULE ON THIS SHEET FOR COLUMN SIZE, BASE PLATE SIZE AND QUANTITY, AND SIZE OF ANCHOR BOLTS. SEE DETAIL 7 & 8/S-3 FOR ADDITIONAL INFORMATION

FOUNDATION PLAN LEGEND

C3	DENOTES STEEL COLUMN WITH COLUMN MARK AND ISOLATION JOINT — SEE COLUMN SCHEDULE ON THIS SHEET FOR COLUMN SIZE, BASE PLATE SIZE AND QUANTITY, AND SIZE OF ANCHOR BOLTS. SEE DETAIL 7 & 8/S-3 FOR ADDITIONAL INFORMATION
 C.J.	DENOTES SLAB ON GRADE CONSTRUCTION OR SAWCUT CONTROL JOINT — SEE DETAILS 3/S-3 AND 2/S-3 FOR ADDITIONAL INFORMATION
U.O.N. DENOTES 'UNLESS OTHERWISE NOTED'	

FOOTING SCHEDULE				
MARK	FTG. SIZE	REINFORCEMENT	REMARKS	
F3.0	3'-0" x 3'-0" x 1'-0"	(4) #5 EA. WAY, BOTT.	_	
F4.0	4'-0" x 4'-0" x 1'-0"	(5) #5 EA. WAY, BOTT.	_	
F5.0	5'-0" x 5'-0" x 1'-0"	(6) #5 EA. WAY, BOTT.	_	
_	_	_	_	

COLUMN SCHEDULE				
MARK	COL. SIZE	BASE P SIZE	ANCH. BOLT DIA.	REMARKS
C1	HSS 6 x 6 x 5/16	¾" × 12" × 1'-0"	3/4"	4 BOLTS
C2	8x8 WOOD POST	'CB88' SIMPSON	PER MFR'S SPEC	POST ROUGH CUT CEDAR



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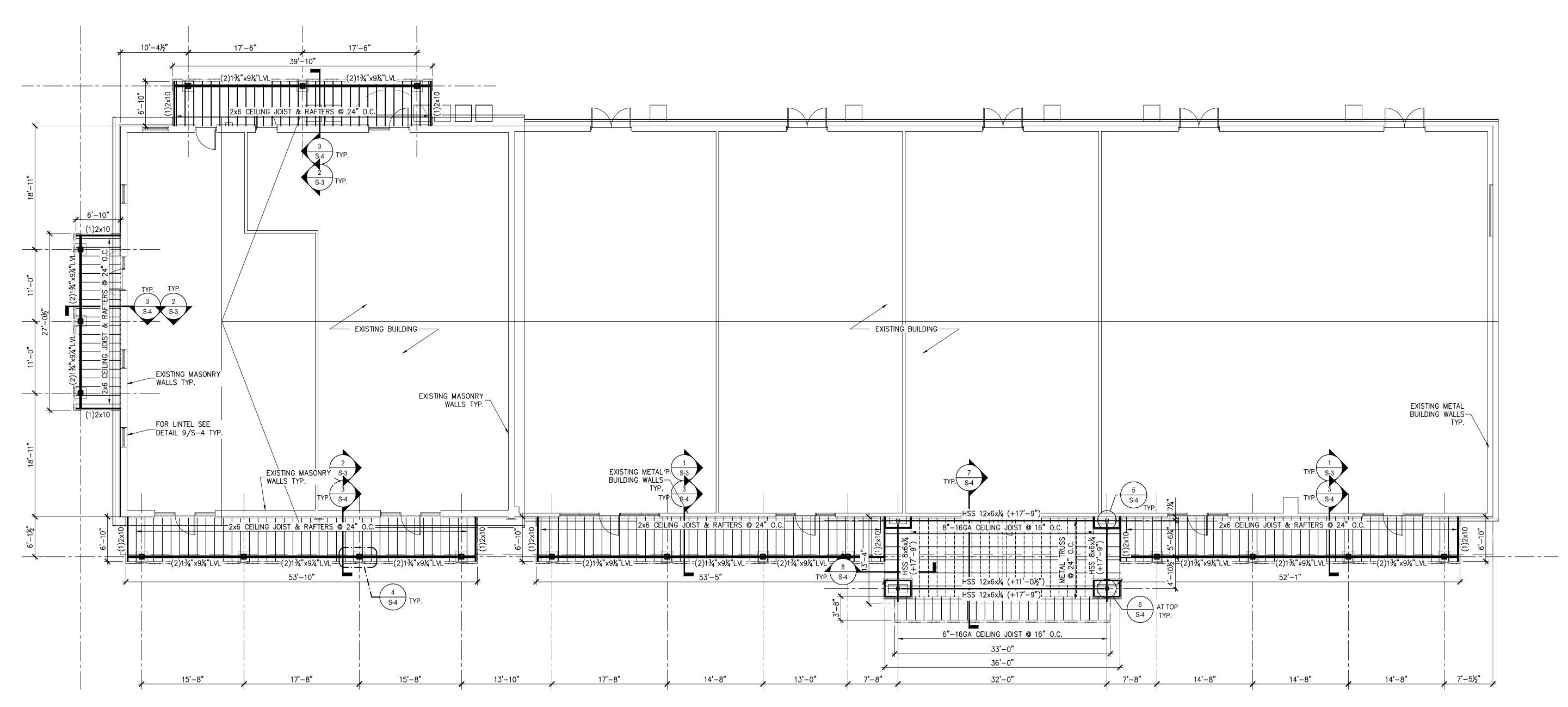
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DATE 04/02/2021

SHEET TITLE

FOUNDATION PLAN & PLAN NOTES

SHEET



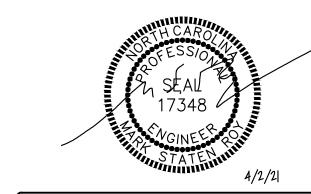
PARTIAL ROOF FRAMING PLAN

1/8" = 1'-0"

ROOF FRAMING PLAN NOTES:

- 1. SEE SHEET S-5 FOR DESIGN CRITERIA, GENERAL STRUCTURAL NOTES AND SCHEDULES.
- 2. ALL BUILDING DIMENSIONS ARE FROM FACE TO FACE OF STUD WALLS, U.N.O.
- 3. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL
- 4. SEE DETAIL9/S-4 FOR LINTEL DETAIL IN EXISTING WALL. USE AS NEEDED.

ROOF FRAMING PLAN LEGEND			
+XX'-X" JOIST / RA		JOIST / RAFTERS BEARING ELEVATION SEE PLAN	
	U.N.O.	DENOTES 'UNLESS NOTED OTHERWISE'	



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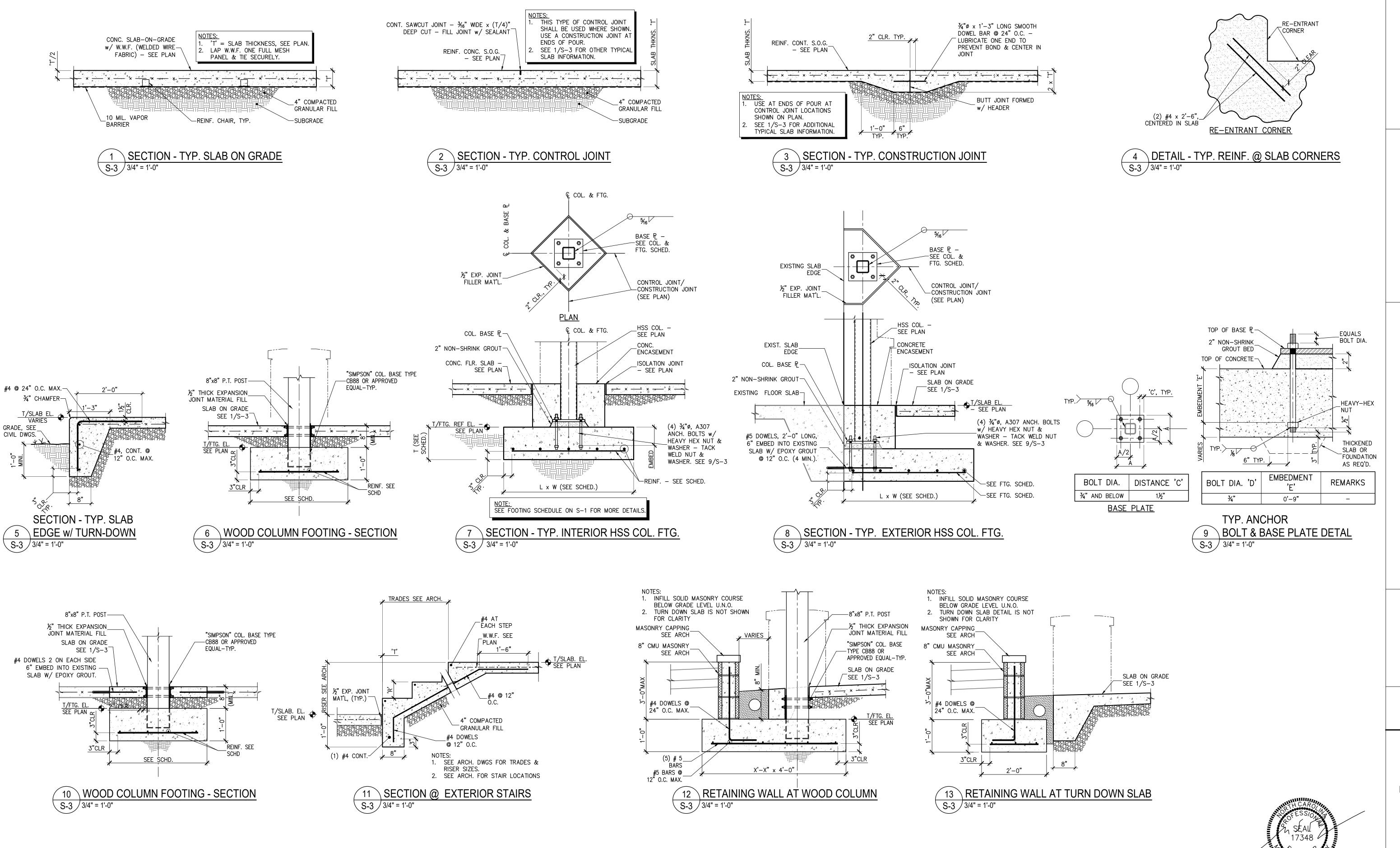
DATE 04/02/2021

SHEET TITLE

PARTIAL ROOF FRAMING PLAN & PLAN NOTES

SHEET

S-2



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SHEET TITLE

FOUNDATION DETAILS & SECTIONS

SHEET

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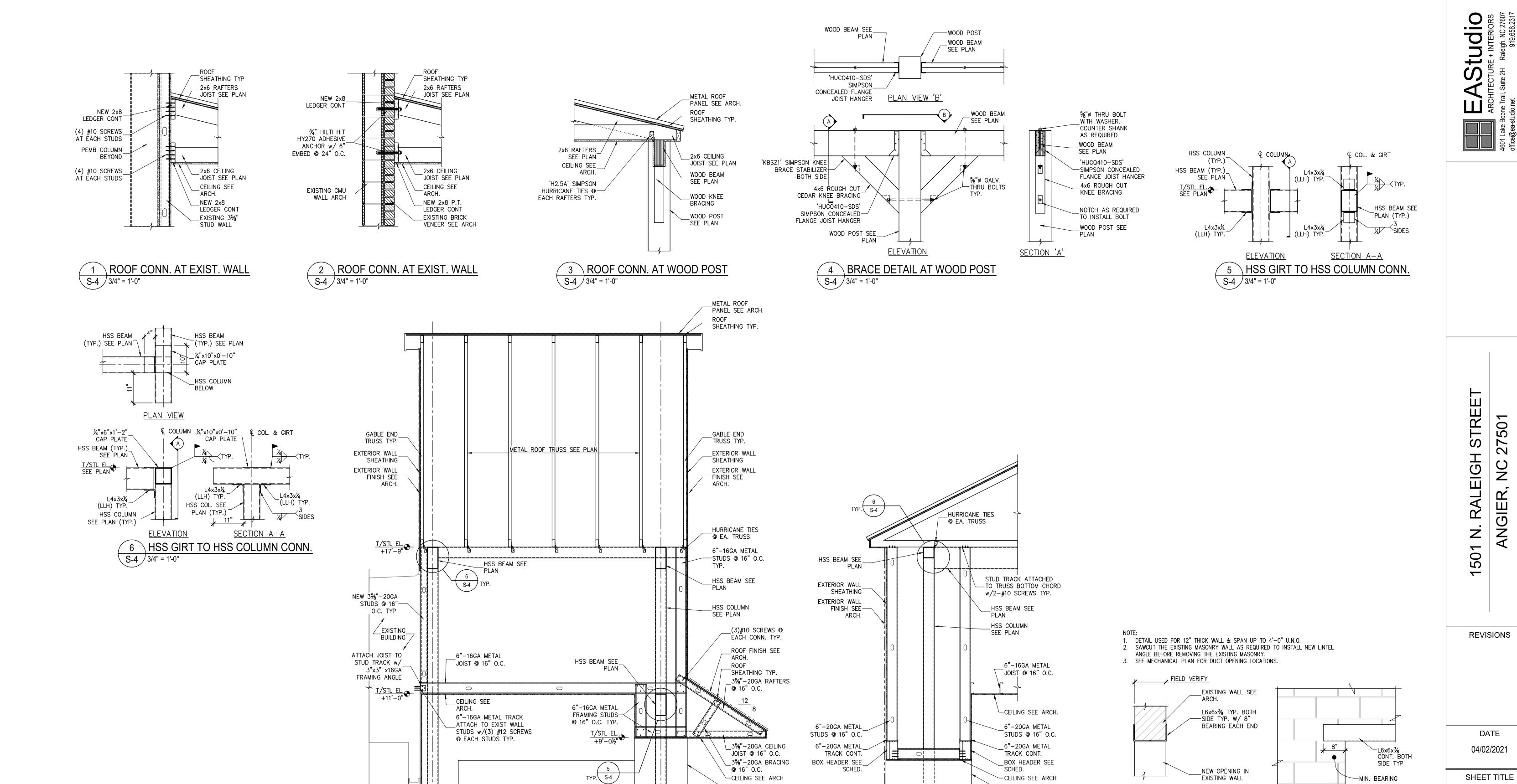
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S-3



COLUMN

7 SECTION

S-4 / 3/4" = 1'-0"

CASEMENT BEYOND

COLUMN

8 SECTION

S-4 3/4" = 1'-0"

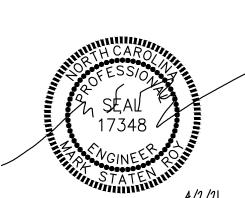
CASEMENT BEYOND

DETAIL - NEW

S-4 $\sqrt{3/4"} = 1'-0"$

○ OPENING AT EXISTING WALL

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_EXISTING WALL SEE ARCH.

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S-4

SHEET

FRAMING DETAILS & SECTIONS

GENERAL STRUCTURAL NOTES:

- METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.
- 1.2. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL, ELECTRICAL, AND CIVIL DRAWINGS FOR SLEEVES, CURBS, INSERTS OR OPENINGS NOT HEREIN INDICATED.
- 1.3. COORDINATE THESE DRAWINGS WITH THE ARCHITECTURAL, ELECTRICAL, AND CIVIL DRAWINGS. 1.4. VERIFY ALL FLOOR AND ROOF OPENING SIZES AND LOCATIONS, EQUIPMENT PAD SIZES AND LOCATIONS,
- ANCHOR BOLT LAYOUTS, ETC., WITH EQUIPMENT SELECTED. VERIFY BUILDING LOCATION AND ORIENTATION WITH OWNER AND LOT SETBACK REQUIREMENTS BEFORE ANY
- CONSTRUCTION IS STARTED ON THE PROJECT. 1.6. CONTRACTOR SHALL VERIFY ALL EXISTING CONSTRUCTION DIMENSIONS WHICH IMPACT NEW CONSTRUCTION
- PRIOR TO FABRICATING ANY REBAR, STEEL, TRUSSES, ETCETERA.
- 1.7. DO NOT CUT, NOTCH, OR OTHERWISE MODIFY ANY STRUCTURAL MEMBERS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS WITHOUT APPROVAL OF THE ENGINEER OF RECORD. 1.8. CUTTING OF STEEL MEMBERS AND INSTALLATION OF HOLES IN STEEL MEMBERS SHALL BE DONE BY CUTTING
- OR DRILLING. DO NOT USE TORCHES FOR CUTTING UNLESS APPROVED BY THE ENGINEER OF RECORD. 1.9. CONTRACTOR IS RESPONSIBLE FOR DESIGN AND INSTALLATION OF ALL SHORING REQUIRED TO SUPPORT NEW AND EXISTING STRUCTURAL ELEMENTS.

2. <u>FOUNDATION</u>

- ALL FOOTINGS SHALL BE ON UNDISTURBED SOIL OR 98% COMPACTED FILL PER ASTM D698. 2.2. NO FOOTINGS OR SLABS SHALL BE POURED INTO OR AGAINST SUBGRADE CONTAINING FREE WATER, FROST,
- ICE OR LOOSE MATERIAL. 2.3. EXCAVATIONS FOR FOOTINGS SHALL HAVE THE SIDES AND BOTTOMS TEMPORARILY LINED WITH 6 MIL. POLYETHYLENE IF PLACEMENT OF CONCRETE DOES NOT OCCUR WITHIN 24 HRS OF THE EXCAVATION OF THE
- 2.4. ADVERSE FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION SUCH AS SOFT SOILS, ORGANIC MATTER.
- ETC., SHALL BE REPORTED TO THE ENGINEER BEFORE FURTHER CONSTRUCTION IS ATTEMPTED. 2.5. IF UNDERMINING OF FOOTINGS OCCURS, FILL VOIDS WITH LEAN CONCRETE MIX. DO NOT ATTEMPT TO REPLACE AND RECOMPACT SOIL.

- ALL PLACED CONCRETE, SHALL HAVE NORMAL WEIGHT COARSE AGGREGATES, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3,000 PSI AT 28 DAYS.
- 3.2. GROUT FOR BASE PLATES SHALL BE NON-METTALIC, NON-SHRINKABLE GROUT, AND SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH, AT 28 DAYS, OF 5000 PSI.
- 3.3. NO CALCIUM CHLORIDE SHALL BE USED IN ANY CONCRETE.
- 3.4. CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH 3/4" x 45 DEGREE CHAMFER, UNLESS
- 3.5. HORIZONTAL FOOTING AND HORIZONTAL WALL REINFORCING SHALL BE CONTINUOUS, AND SHALL HAVE 90 DEGREE BENDS AND EXTENSIONS, OR CORNER BARS OF EQUIVALENT SIZE LAPPED, WITH A CLASS B TENSION SPLICE, AT CORNERS AND INTERSECTIONS. TOP BAR CRITERIA SHALL APPLY IF 12" OR MORE OF FRESH CONCRETE IS PLACED BELOW BAR.
- 3.6. SEE ARCHITECTURAL DRAWINGS FOR ALL WATERPROOFING / DAMPPROOFING DETAILS.
- 3.7. SEE ARCHITECTURAL DRAWINGS FOR TYPE AND LOCATION OF FLOOR FINISHES.
- 3.8. ALL REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60. 3.9. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- 3.10. DETAIL AND FABRICATE REINFORCING STEEL IN ACCORDANCE WITH THE ACI DETAILING MANUAL. 3.11. AT CORNERS AND INTERSECTIONS, PROVIDE BARS OF THE SAME NUMBER AND SIZE AS THE LONGITUDINAL BARS IN THE FOOTING.

4. <u>COLD-FORMED STEEL FRAMED TRUSSES</u>

- PROVIDE WHERE SHOWN. COMPLY WITH APPLICABLE REQUIREMENTS OF AISI STANDARD FOR COLD-FORMED STEEL FRAMING - TRUSS DESIGN, LATEST EDITION, AND AISI STANDARD FOR COLD-FORMED STEEL FRAMING - GENERAL PROVISIONS, LATEST EDITION.
- 4.2. STORE, HANDLE AND ERECT TRUSSES IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.
- 4.3. TIE DOWN ANCHORS: CONNECT TRUSS TO SUPPORTING STRUCTURE AS PER MANUFACTURER'S RECOMMENDATION AT EACH END OF EACH ROOF TRUSS, UNLESS OTHERWISE NOTED.
- 4.4. TRUSS HANGERS: AT EACH TRUSS END THAT DOES NOT HAVE A STANDARD BEARING CONNECTION, PROVIDE
- AN ENGINEERED CONNECTION THAT IS CAPABLE OF SUPPORTING THE REQUIRED REACTION. 4.5. COORDINATE TRUSS PROFILES AND OVERHANG DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
- 4.6. THE CONTRACTOR SHALL SUBMIT TRUSS SHOP AND LAYOUT DRAWINGS FOR APPROVAL, PRIOR TO THE FABRICATION OF THE TRUSSES. ALL TRUSS DRAWINGS SHALL BE SEALED BY A NORTH CAROLINA PROFESSIONAL ENGINEER.
- 4.7. ROOF TRUSS DESIGN LOADS:

TOP CHORD: LIVE LOAD DEAD LOAD ______ 10 PSF LIVE LOAD _ 0 PSF

10 PSF DEAD LOAD 4.8. SEE 'STRUCTURAL DESIGN CRITERIA' FOR WIND AND SEISMIC REQUIREMENTS.

5. COLD FORMED METAL FRAMING

- ALL STUDS, JOISTS AND ACCESSORIES SHALL BE AS SHOWN ON THE DRAWINGS AND AS REQUIRED BY THE MANUFACTURER'S SPECIFICATIONS.
- 5.2. ALL STRUCTURAL MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE (AISI) 'SPECIFICATION FOR THE DESIGN OF COLD FORMED STRUCTURAL MEMBERS', LATEST
- 5.3. ALL STRUCTURAL MEMBERS SHALL BE FORMED OF CORROSION RESISTANT STEEL, CORRESPONDING TO THE REQUIREMENT OF ASTM-A446, WITH A MINIMUM YIELD STRENGTH OF 40 KSI.
- 5.4. ALL STRUCTURAL MEMBERS SHALL BE ZINC COATED AND CONFORM TO ASTM-A525.
- 5.5. INSTALL JACK AND KING STUDS AT ALL WINDOW AND DOOR OPENINGS IN EXTERIOR WALLS AND INTERIOR LOAD-BEARING WALLS PER THE BOX BEAM HEADER SCHEDULE.
- 5.6. ALL EXTERIOR STUD WALLS ARE LOAD BEARING UNLESS OTHERWISE NOTED. SEE ARCHITECTURAL DETAILS FOR ADDITIONAL INFORMATION ON CONNECTIONS. ALL EXTERIOR WALL STUDS SHALL BE 6", 16 GA., SPACED AT 16" O.C., UNLESS OTHERWISE NOTED. STUD TRACK GAUGE SHALL MATCH THE STUD GAUGE SPECIFIED UNLESS OTHERWISE NOTED.
- 5.7. BOTTOM TRACK SHALL BE ATTACHED WITH 'HILTI X-U' POWDER ACTUATED FASTENERS (0.157" SHANK DIAMETER) WITH 1¾" EMBEDMENT AT 12" O.C.
- 5.8. ALL STUDS INSTALLED BELOW STEEL BEAMS OR OTHER LOAD BEARING STRUCTURAL MEMBERS SHALL BE ATTACHED WITH A CONTINUOUS DEFLECTION TRACK OR DEFLECTION CLIPS EQUIVALENT TO 'VERTITRACK' OR 'VERTICLIP' FROM 'THE STEEL NETWORK'.

6. **WOOD FRAMING**

- ALL STRUCTURAL WOOD MEMBERS SHALL BE No. 2 SOUTHERN YELLOW PINE, 19% MAXIMUM MOISTURE
- CONTENT, UNLESS OTHERWISE NOTED. INTERIOR NON BEARING PARTITIONS MAY BE No. 2 SPRUCE (SPF). 6.2. ALL WOOD FRAMING, DIRECTLY EXPOSED TO WEATHER, OR IN DIRECT CONTACT WITH MASONRY, SOIL OR
- CONCRETE, SHALL BE PRESSURE TREATED, UNLESS OTHERWISE NOTED. 6.3. ALL LVL's, DIRECTLY EXPOSED TO WEATHER, OR IN DIRECT CONTACT WITH MASONRY, SOIL OR CONCRETE,
- SHALL BE EXTERIOR GRADE, UNLESS NOTED OTHERWISE. 6.4. ALL METAL CONNECTORS SHALL BE HOT DIP GALVANIZED. INSTALL ALL CONNECTORS PER THE MANUFACTURER'S RECOMMENDATIONS. METAL CONNECTOR DESIGNATIONS INDICATED ON PLANS, ARE FOR
- 'SIMPSON STRONG-TIE' ANCHORS. ANCHORS FROM OTHER MANUFACTURERS MAY BE USED, PROVIDED THEY HAVE EQUIVALENT STRENGTH.
- 6.5. ALL NAILED CONNECTIONS SHALL BE IN ACCORDANCE WITH NORTH CAROLINA STATE BUILDING CODE TABLE 2304.9.1, - FASTENING SCHEDULE, UNLESS OTHERWISE NOTED. FRAMING CONNECTIONS THAT ARE BOLTED OR SCREWED, SHALL BE INSTALLED IN ACCORDANCE WITH THE
- LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD. 6.7. PROVIDE STUDS AND HEADERS AT ALL EXTERIOR WALLS AND INTERIOR BEARING WALLS AS FOLLOWS,

UNLESS OTHERWISE NOTED:		
OPENING WIDTH	<u>STUDS</u>	<u>HEADER</u>
0'-0" TO 6'-0"	2 KING STUDS, 1 JACK STUD	(2) 2 x 10 @ 2 x 4 WALL
		(3) 2 x 10 @ 2 x 6 WALL
6'-1" TO 8'-0"	2 KING STUDS, 2 JACK STUDS	(2) 2 x 10 @ 2 x 4 WALL
		(3) 2 x 10 @ 2 x 6 WALL
8'-1" TO 12'-0"	3 KING STUDS, 2 JACK STUDS	(2) 2 x 12 @ 2 x 4 WALL
		(3) 2 x 12 @ 2 x 6 WALL
		• •

7. WOOD DECKING/SHEATHING

- 7.1. WALL SHEATHING SHALL BE 15/32" PLYWOOD OR ORIENTED STRAND BOARD (OSB), UNLESS OTHERWISE NOTED. ATTACH WALL SHEATHING TO FRAMING WITH 10d NAILS @ 4" O.C. AT PANEL EDGES AND 12" O.C. AT INTERIOR MEMBERS. PROVIDE SOLID BLOCKING AT PANEL EDGES (48" O.C.).
- 7.2. ROOF SHEATHING SHALL BE 34" PLYWOOD UNLESS OTHERWISE NOTED. ATTACH ROOF SHEATHING TO FRAMING WITH 8d NAILS @ 4" O.C. AT PANEL EDGES AND 12" O.C. AT INTERIOR MEMBERS. PROVIDE SOLID BLOCKING AT PANEL EDGES (48" O.C.).

STRUCTURAL DESIGN CRITERIA:

	DESIGN LOADS:			
1.1.	ROOF DEAD LOAD	<u>MAX</u>	MIN (FOR UPLIFT) 2 PSF 2 PSF 3 PSF	
	ROOFING	2 PSF	2 PSF	
	SHEATHING	2 PSF	2 PSF	
	ROOF FRAMING	4 PSF	3 PSF	
	MISC	2 PSF	0 PSF	
		10 PSF	7 PSF	
1.2.	LIVE LOADS		05 00 D05 1111111111 0D 0110111 101D	
			OF 20 PSF MINIMUM OR SNOW LOAD	
4 7	1ST FLOOR LIVE LOAD) 100 PSF		
1.3.		45 005 (4110)50	10)	
	GROUND SNOW LOAD			
	SNOW LOAD IMPORTAN			
	SNOW EXPOSURE FAC			
	SNOW THERMAL FACTOR SNOW LOAD =			
	BASIC DESIGN ROOF S		CF.	
1.4.		SNOW LOAD - 10.0 F	JF	
1.7.	BASIC WIND SPEED: \	/ult = 116 MDH /ANC	IED NO	
	RISK CATEGORY:	Ture – Tro Mirti (Aine	III IV	
	WIND EXPOSURE CATE	CORY 'R' (ASCE 7_	 ''' 'V	
			A, Vy =N/A (EXISTING BLDG.)	
	INTERNAL PRESSURE		A, VY -N/A (EXISTING BLDG.)	
1.5.	SEISMIC LOADS (N.C. STA			
1.5.	SEISMIC IMPORTANCE			
	RISK CATEGORY	I X II	III IV	
	COMPLIANCE WITH S	ECTION 1616.4 ONLY	III IV P YES _X_ NO B _X_ C D TION: Ss _17.1 % g S1 _8.2 % g Sps _18.3 % Sp1 _13.2 %	
	SEISMIC DESIGN CAT	EGORY: A	B X C D	
	MAPPED SPECTRAL	RESPONSE ACCELERA	TION: Ss 17.1 % q S1 8.2 % q	
	SPECTRAL RESPONS	E COEFFICIENTS: S	Sps <u>18.3 %</u> Spi <u>13.2 %</u>	
	SEISMIC RESPONSE	COEFFICIENT: CS <u>0.</u>	036	
	RESPONSE MODIFICA	TION FACTOR, R	2.00 (MASONRY WALLS & BRACING COMBIN	ATION.)
	SITE CLASSIFICATION	l: B	C <u>X</u> DEF	•
	BASIC STRUCTURAL SYSTI	EM:		
	X BEARING WALL	DUAL w/ SF	ECIAL MOMENT FRAME	
	BUILDING FRAM	E DUAL w/ IN	TERMEDIATE R/C OR SPECIAL STEEL	
	MOMENT FRAME	: inverted f	PENDULUM	
	SEISMIC BASE SHEAR	Vx = N/A Vy = 1	N/A (EXISTING BLDG.)	
	ANALYSIS PROCEDURE:	_ SIMPLIFIED <u>X</u> E0	QÚIVALENT LATERAL FORCE MODAL	
	A DOLLITEOTUDAL MEGUANII	OAL COMPONENTO AN	IOLIODEDO VEC V NO	

FOUNDATION DESIGN CRITERIA:

LATERAL LOAD RESISTANCE.

MINIMUM FOOTING BEARING DEPTH BELOW GRADE IS 12 INCHES.

LATERAL DESIGN CONTROL: ___ EARTHQUAKE X WIND

FOUNDATION DESIGN IS BASED ON A PRESUMPTIVE SOIL BEARING CAPACITY OF 1,500 PSF. CONTRACTOR SHALL FIELD VERIFY THE SOIL BEARING CAPACITY PRIOR TO START OF CONSTRUCTION.

ARCHITECTURAL, MECHANICAL COMPONENTS ANCHORED? ___ YES _X NO

1.6. ALL DESIGN LOADS ARE PER NORTH CAROLINA STATE BUILDING CODE 2018 EDITION.

WIND LOADS CONTROL THE LATERAL LOAD DESIGN. THE BUILDING UTILIZES SHEAR WALLS FOR

C	CONCRETE REBAR SPLICE SCHEDULE					
BAR	LAP LENGTH (in.)					
SIZE	f'c = 3000 psi	f'c = 4000 psi	f'c = 5000 psi			
#4	22	19	17			
# 5	28	24	21			
#6	32	29	26			

- 1. CONCRETE IS NORMAL WEIGHT CONCRETE. IF LIGHTWEIGHT CONCRETE IS USED, MULTIPLY LENGTHS IN TABLE BY 1.3.
- BAR YIELD STRENGTH (fy) IS 60 KSI.
- BAR SPACING AND COVER REQUIREMENTS OF ACI SECTION 25.4.2.2 ARE ASSUMED TO BE MET. IF NOT, MULTIPLY LENGTHS IN TABLE BY 1.5.
- REDUCTION OF EXCESS REINFORCEMENT NOT TAKEN.
- 5. IF MORE THAN 12" OF FRESH CONCRETE IS CAST IN MEMBER BELOW HORIZONTAL SPLICE, MULTIPLY LENGTHS IN TABLE BY 1.3.

EXPOSED CONCRETE FINISH SCHEDULE		
AREA	FINISH	COMMENTS
ALL CURBS, UNLESS OTHERWISE NOTED	SMOOTH FORM	
EXTERIOR CONCRETE PAVEMENT, SIDEWALKS	COARSE BROOM	
SLAB ON GRADE	TROWEL	
EXT. EQUIP. PADS	COARSE BROOM	
EXTERIOR STAIRS	COARSE BROOM	
_	_	

CONCRETE MATERIALS SCHEDULE		
LOCATION	MINIMUM COMPRESSIVE STRENGTH (AT 28 DAYS)	REMARKS
FOUNDATIONS	3000 PSI	_
FLOOR SLAB, EQUIPMENT PADS	4000 PSI	-

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REVISIONS

DATE 04/02/2021

SHEET TITLE

DESIGN CRITERIA, NOTES AND SCHEDULES

SHEET

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RPA Project No.: 2021093

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GENERAL NOTES-ELECTRICAL

- 1. ALL WORK SHALL CONFORM TO THE LATEST NATIONAL ELECTRICAL CODE, STATE CODE, & LOCAL AUTHORITY REQUIREMENTS.
- 2. THE CONTRACTOR SHALL VISIT THE PREMISES AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL DETAILS OF THE WORK AND WORKING CONDITIONS. VERIFY ALL FIELD CONDITIONS INCLUDING LOCATION OF UTILITY LINES, STRUCTURES, AND ADVISE THE ENGINEER OF ANY DISCREPANCY THAT MAY PREVENT OR HINDER THE SPECIFIED WORK FROM BEING COMPLETED.
- 3. THE CONTRACTOR SHALL STUDY THE STRUCTURE AND FINISH CONDITIONS AFFECTING HIS WORK AND SHALL COORDINATE HIS WORK ACCORDINGLY. THE CONTRACTOR SHALL PROVIDE ALL ACCESSORIES, HANGERS, AND ANCHORS AS NECESSARY TO MEET SUCH CONDITIONS WITHOUT ANY ADDITIONAL COST TO THE OWNER.
- 4. PRIOR TO ACCOMPLISHING ANY WORK IN ANY AREA, ALL WORK SHALL BE PLANNED AND COORDINATED WITH OTHER TRADES AND THE OWNER. THE CONDUIT ROUTING SHALL BE COORDINATED WITH DUCT WORK, AND OTHER OBSTACLES SO AS TO PROVIDE THE MOST EFFICIENT AND AESTHETICALLY PLEASING INSTALLATION.
- 5. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND ARRANGE INSPECTIONS NECESSARY FOR THE INSTALLATION OF HIS WORK AND FURNISH THE ENGINEER WITH CERTIFICATES OF INSPECTIONS FROM ALL AUTHORITIES HAVING JURISDICTION.
- 6. PROPERLY SUPPORT ALL WORK AND EQUIPMENT INSTALLED UNDER THIS CONTRACT. STUDY ALL DRAWINGS, MANUFACTURER'S INSTRUCTIONS, AND CATALOG DATA TO DETERMINE HOW EQUIPMENT ACCESSORIES, AND RELATED ITEMS ARE TO BE SUPPORTED, MOUNTED, OR SUSPENDED. PROVIDE ALL BOLTS, INSERTS, BRACKETS, STRUCTURAL SUPPORTS, AND ACCESSORIES FOR PROPER SUPPORT OF EQUIPMENT FURNISHED UNDER THIS CONTRACT.
- 7. PROVIDE GREEN EQUIPMENT GROUNDING CONDUCTOR WITH ALL FEEDER AND BRANCH CIRCUITS.
- 8. THE CONTRACTOR SHALL USE THE ARCHITECTURAL PLANS FOR EXACT DIMENSIONS. DO NOT SCALE THESE PLANS.
- 9. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR.
- 10. ALL ELECTRICAL EQUIPMENT SHALL BE UL LABELED WHERE CATEGORY EXISTS FOR SUCH EQUIPMENT. OTHER THIRD PARTY LABELS ACCEPTABLE TO THE LOCAL INSPECTOR MAY BE USED.
- 11. ALL POWER WIRING SHALL BE THW/THWN COPPER (TYPICAL)
- 12.ELECTRICAL DEVICES REQUIRED TO BE ADA ACCESSIBLE SHALL BE INSTALLED PER ANSI A117.1.
- 13. ELECTRICAL CONTRACTOR SHALL PROVIDE A.I.C. PLAQUES ON ALL THE SERVICE DISCONNECTS PER NEC 110.24.

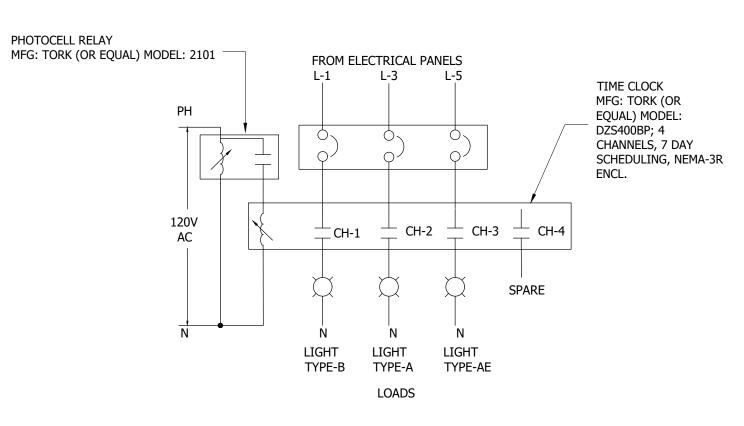
10 60 2 ²	OAD CENTER "L" 00A, 1PH, 3W, 0A MCB 40/120V 0 KAIC 3#4 IN 1"C METER FOR EXTERIOR LIGHTING
3/4"X10' GROUND ROD	EXISTING ELECTRICAL SERVICE

ELEC	TRICAL RISER DIAG	RAM
SCALE:	NTS	

VOLTAGE :		/ 120V			MO	UNTING:			TPE.			11144 1 2 2		IAIN CIRCUIT BRE
BRAN	CH CIRCUIT		DE	/ICE		PH	ASE LO	ADS		DEV	ICE		BRANCH CIRC	UIT
LOAD	WIRE SIZE	VA	TRIP	POLE	СКТ	LEG-1	×	LEG-2	СКТ	POLE	TRIP	VA	WIRE SIZE	LOAD
EXTERIOR WALL LIGHTS	4#10	221	20	ı	1	227			2	ı	20	6	2#12,1#12G IN 3/4"C	TIME SWITCH
EXTERIOR CAN LIGHTS	I#10G	390	20	ı	3			570	4	ı	20	180	2#12,1#12G IN 3/4"C	RECEPTACLE
EXTERIOR CAN LIGHTS	IN 3/4"C	180	20	ı	5	180			6	I		0		SPACE
SPARE		0	20	ı	7			0	8	ı		0		SPACE
SPARE		0	20	ı	9	0			10	ı		0		SPACE
SPARE		0	20	I	11			0	12	ı		0		SPACE
kVA LOAD	0.98	LOA	D PEF	R PH II	N VA	407	0	570				10,000	AMPS	
AMPERE LOAD	2.35	LOAD I	PER P	HINA	MPS	3.4	0.0	4.8			ı	MIN. IN	TERRUPTING CA	AP. (RMS SYM. AM
	DEMAND	LOAD I	PER P	HINA	MPS	4.1	0.0	5.7						
	CONNECTED	DEN	MAND		1. C	OPPER B	US							
LIGHTING			996											
RECEPTACLES	180		180											
COMPUTERS	0		0											
HVAC	0		0											
OTHER	0		0											
TOTAL DE	MAND LOAD		1.18	IZV/A		DEMAND FA	ACTOD -	1.20						

LIGHTING FIXTURE SCHEDULE (THE OWNER MAY SELECT OTHER LIGHT MFR AND TYPE WITH CLOSE PROXIMITY OF WATTAGE)

DRAWING SYMBOL	MANUFACTURER	MODEL NUMBER	MOUNTING	MOUNTING ACCESSORIES	LAMP TYPE	LAMP WATTAGE	VOLTAGE	DESCRIPTION
Α	HIGHLINE	AL4-VA1-U-C-DM-15W-40K-C-SFW-HZ-CR	RECESSED	AS PER MFR. REQUIREMENTS	LED	15	120	LED 4" RECESSED CAN LIGHT, CREE, NON DIMMABLE, 1000 LUMENS, CHANNEL BAR HANGER MOUNT, SELF FLANGED WHITE REFLECTOR, UL LISTED FOR DAMP LOCATION
AE	HIGHLINE	AL4-VA1-U-C-DM-15W-40K-EM-C-SFW-HZ- CR	RECESSED	AS PER MFR. REQUIREMENTS	LED	15	120	LED 4" RECESSED CAN LIGHT, CREE, NON DIMMABLE, 1000 LUMENS, CHANNEL BAR HANGER MOUNT, SELF FLANGED WHITE REFLECTOR, UL LISTED FOR DAMP LOCATION, 90 MINUTE BATTERY BACK
В	HI-LITE MFG. CO., INC	H-18110-91/HL-H-91/13W/LED2/27/WBCM- 1	WALL MOUNT	AS PER MFR. REQUIREMENTS	LED	13	120	WALL MOUNT LED GOOSE NECK, BLACK PAINT, 22" ARM, LED LAMP, 13 W, 1250 LUMENS



LIGHTING CONTROLS DETAIL

ENERGY CODE SUMMARY

ELECTRICAL SYSTEM & EQUIPMENT

METHOD OF COMPLIANCE

ENERGY CODE PRESCRIPTIVE PERFORMANCE ASHRAE 90.1 PRESCRIPTIVE PERFORMANCE

LIGHTING SCHEDULE (EACH FIXTURE TYPE)

LAMP TYPE REQUIRED IN FIXTURE REFER TO LIGHTING SCHEDULE NUMBER OF LAMPS IN FIXTURE REFER TO LUMINAIRE SCHEDULE BALLAST TYPE USED IN THE FIXTURE REFER TO LUMINAIRE SCHEDULE NUMBER OF BALLASTS IN FIXTURE REFER TO LUMINAIRE SCHEDULE TOTAL WATTAGE PER FIXTURE REFER TO LUMINAIRE SCHEDULE N.A. KW SPECIFIED VS

TOTAL INTERIOR WATTAGE SPECIFIED VS N.A. KW ALLOWED ALLOWED

(WHOLE BUILDING OR SPACE BY SPACE METHOD)

TOTAL EXTERIOR WATTAGE SPECIFIED VS ALLOWED

ADDITIONAL ENERGY EFFICIENCY PACKAGE

- C406.4 ENHANCED DIGITAL LIGHTING CONTROLS
- C406.6 DEDICATED OUTSIDE AIR SYSTEM

0.797 KW SPECIFIED VS 1.75 KW ALLOWED

SECTION C406

- C406.2 MORE EFFICIENT MECHANICAL EQUIPMENT C406.3 REDUCED LIGHTING POWER DENSITY
- C406.5 ON SITE RENEWABLE ENERGY
- C406.7 REDUCED ENERGY USE IN SERVICE WATER HEATING

ELECTRICAL LEGEND:				
OA	4" RECESSED LED CAN LIGHT			
OAE	4" RECESSED LED CAN LIGHT WITH 90 MIN BATTERY BACK UP POWER			
Ď _В	EXTERIOR WALL LED LIGHT			
	DUPLEX SPECIFICATION GRADE RECEPTACLE, 20A, 120V, MOUNT 18" AFF UNO; SUFFIX AS FOLLOWS G- GROUND FAULT; WP-WEATHERPROOF; TP- TAMPER PROOF			
	ELECTRICAL PANELBOARD			
<u>®</u>	PHOTOCELL RELAY			
	BRANCH CIRCUIT, OR FEEDER WIRING, RUN IN CONDUIT AND CIRCUIT HOMERUN TO PANELBOARD INDICATED. SINGLE PHASE CIRCUIT SHALL CONTAIN 1 #12 PHASE CONDUCTOR, 1 #12 NEUTRAL CONDUCTOR AND 1 #12 GROUNDING CONDUCTOR IN 3/4" CONDUIT, MINIMUM.			

GROUNDING CONDUCTOR IN 3/4" CONDUIT, MINIMUM. CONDUCTORS LARGER THAN #12, AND CONDUIT LARGER THAN 3/4", SHALL BE AS INDICATED. WHERE "MULTIPLE PHASED" ELECTRICAL LOADS ARE REQUIRED, PROVIDE ADDITIONAL PHASE CONDUCTORS. MULTIPLE SINGLE PHASE CONDUCTORS MAY BE GROUPED TOGETHER IN A COMMON CONDUIT AS ALLOWED AND IN ACCORDANCE WITH THE NEC, AND/OR AT THE CONTRACTOR'S DISCRETION. CONTRACTOR SHALL PROVIDE ADDITIONAL "SWITCH LEG" CONDUCTORS, AS REQUIRED TO ACHIEVE FIXTURE CONTROL INDICATED ON PLANS. NEUTRAL AND GROUNDING CONDUCTORS SHALL BE SHARED IN ACCORDANCE WITH AND AS ALLOWED BY THE NEC.

STANDARD ABBREVIATIONS

- AMPERES OR ABOVE COUNTER - ABOVE FINISHED FLOOR AFF AFG - ABOVE FINISHED GROUND

- CONDUIT

- EXISTING EX - ELECTRICAL CONTRACTOR

- EQUIPMENT GROUNDING CONDUCTOR OR GROUND FAULT CIRCUIT INTERRUPTER - GROUND FAULT CIRCUIT INTERRUPTER

- GENERAL CONTRACTOR - NEUTRAL CONDUCTOR

- PHASE - PANELBOARD

- RECEPTACLE - TYPICAL - UNLESS NOTED OTHERWISE

- VOLTS

- WATTS, WIRES -WEATHERPROOF WHILE IN USE

REVISIONS

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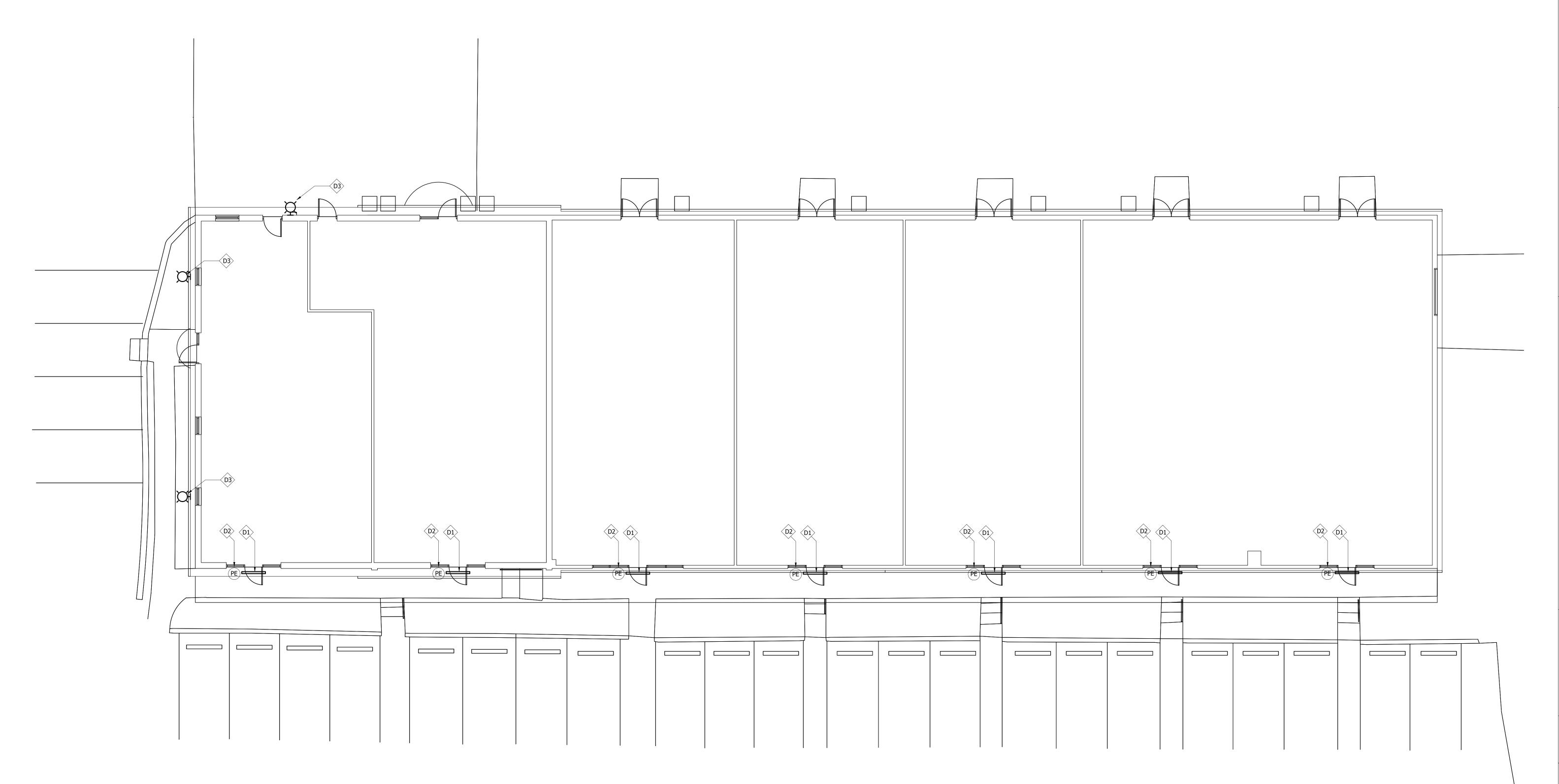
04-02-2021

SHEET TITLE

ELECTRICAL COVERSHEET

SHEET

E1



1 ELECTRICAL DEMOLITION PLAN SCALE: 1/8"=1'-0"

DEMOLITION NOTES:

- REMOVE SURFACE MOUNT 4' FLUORESCENT STRIP LIGHT. REMOVE WIRING AND CONDUIT.
- REMOVE CONDUIT MOUNT PHOTOCELL RELAY AND WIRING. WIRING SHALL BE REMOVED BACK TO THE PANELBOARD OR THE NEAREST JUNCTION BOX. VERIFY IN FIELD.
- D3 REMOVE SURFACE MOUNT WALL LIGHT. REMOVE WIRING AND CONDUIT.

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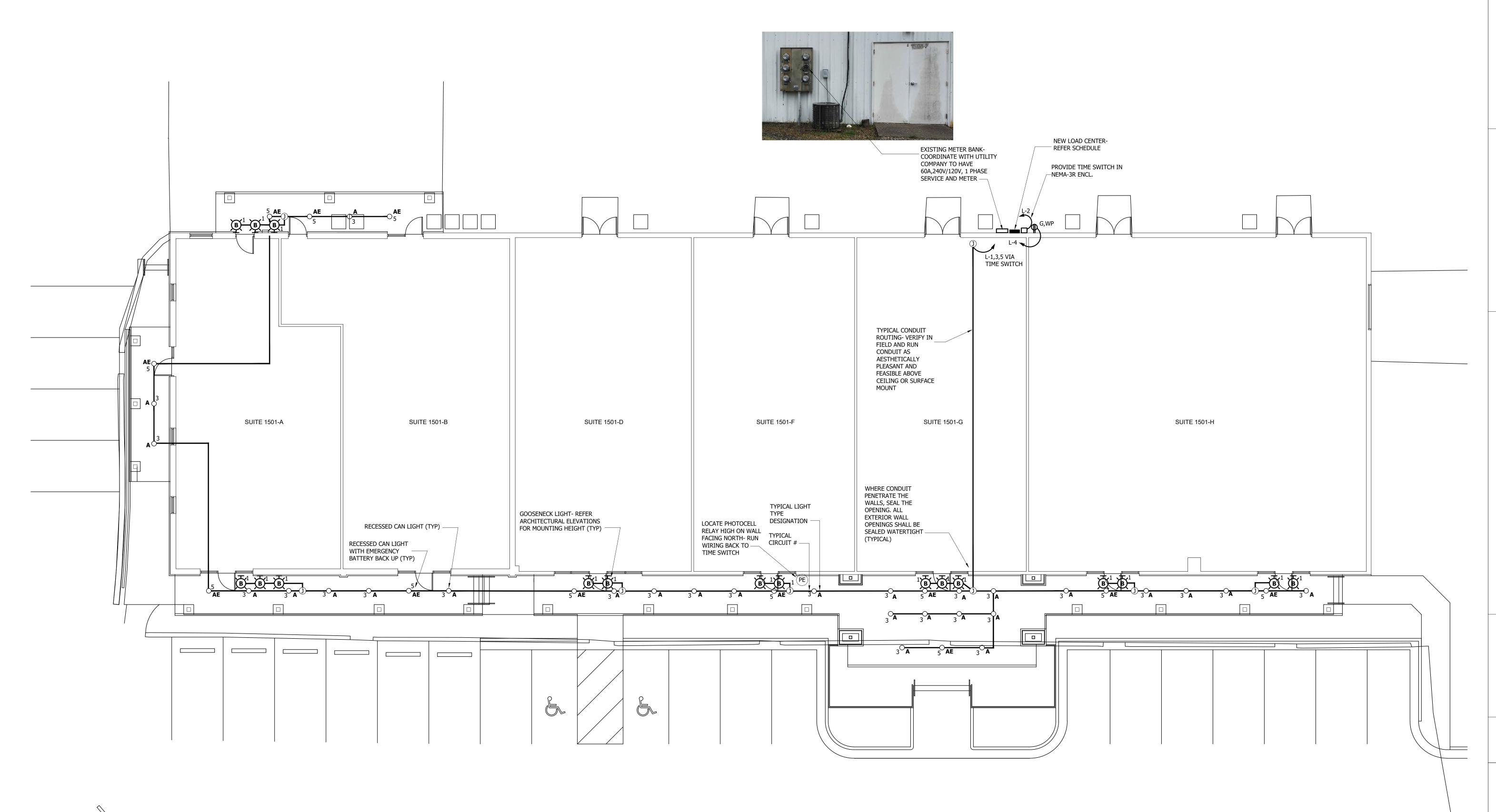
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SHEET TITLE

ELECTRICAL DEMOLITION PLAN

SHEET

E2



\ ELECTRICAL NEW WORK PLAN

LIGHTING NOTES:

1. CONNECT EMERGENCY LIGHT AHEAD OF LIGHT SWITCH TO AN UNSWITCHED CONDUCTOR.

2. ALL DEVICES REQUIRED TO BE ADA ACCESSIBLE WILL BE INSTALLED PER ANSI A117.

3. ALL LIGHTS CIRCUIT SHALL BE WIRED THRU TIME SWITCH.

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DATE 04-02-2021

SHEET TITLE

ELECTRICAL **NEW WORK** PLAN

SHEET

E3

ELECTRICAL SPECIFICATIONS

SECTION 16010 - GENERAL PROVISIONS

PART 1 - GENERAL

1.1 CODES AND STANDARDS - THE LATEST EFFECTIVE PUBLICATIONS OF ALL APPLICABLE STANDARDS, CODES, ETC., AS THEY APPLY, FORM PART OF THESE SPECIFICATIONS AS IF WERE WRITTEN FULLY HEREIN AND CONSTITUTE MINIMUM REQUIREMENTS. THE FOLLOWING WILL BE REFERRED TO THROUGHOUT IN ABBREVIATED FORMS.

A. NATIONAL ELECTRICAL CODE, (NFPA 70) (NEC).

B. INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)

C. RULES AND REGULATIONS OF LOCAL ELECTRIC UTILITY COMPANY.

D. NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA).

E. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).

F. APPLICABLE LOCAL CODES.

G. UNDERWRITER'S LABORATORIES, INC. (UL).

H. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA).

1.2 SCOPE OF WORK - PROVIDE ALL WORK REQUIRED FOR THIS DIVISION INCLUDING ALL LABOR, MATERIALS, EQUIPMENT, APPURTENANCES AND SERVICES TO PROVIDE COMPLETE ELECTRICAL SYSTEMS AS SHOWN ON THE DRAWINGS AND SPECIFIED IN THIS DIVISION OF THE SPECIFICATIONS. THE WORD "PROVIDE" SHALL MEAN "FURNISH AND INSTALL COMPLETE AND READY FOR USE".

1.3 THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO DETERMINE THE EXTENT OF THE WORK. LACK OF KNOWLEDGE OF EXISTING CONDITIONS WILL NOT BE CONSIDERED A BASIS FOR CHANGE ORDERS. PRIOR TO ORDERING EQUIPMENT, VERIFY THAT EQUIPMENT TO BE PROVIDED UNDER THIS CONTRACT IS ACCEPTABLE AND CAN FIT INTO BLDG. AND ROOM. EXPENSE INCURRED BY THE CONTRACTOR, WHICH IN THE ENGINEER'S OPINION COULD HAVE BEEN AVOIDED BY THIS STEP, SHALL NOT BE A BASIS FOR CHANGE ORDERS.

1.4 DRAWINGS AND SPECIFICATIONS - THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT, CHARACTER AND ARRANGEMENT OF EQUIPMENT, FIXTURES AND CONDUIT AND WIRING SYSTEMS. IT IS THE INTENTION OF THESE SPECIFICATIONS AND DRAWINGS TO FULLY COVER ALL WORK AND MATERIALS FOR A COMPLETE, FIRST-CLASS ELECTRICAL INSTALLATION, AND ANY DEVICES SUCH AS PULL BOXES AND DISCONNECT SWITCHES, USUALLY EMPLOYED IN THIS CLASS OF WORK, THOUGH NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS OR IN THIS SPECIFICATION, BUT WHICH MAY BE NECESSARY FOR THE SATISFACTORY COMPLETION OF THE WORK, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AS A PART OF HIS TOTAL WORK UNDER THIS DIVISION. CONSULT THE SPECIFICATIONS AND DRAWINGS OF ALL OTHER TRADES AND PERFORM ALL ELECTRICAL WORK REQUIRED THEREIN. COOPERATE WITH ALL OTHER CONTRACTORS OR SUBCONTRACTORS TO FURNISH COMPLETE WORKABLE SYSTEMS.

1.5 DURING CONSTRUCTION, KEEP AN ACCURATE RECORD OF ALL DEVIATIONS BETWEEN THE WORK AS SHOWN ON THE CONTRACT DRAWINGS AND THAT WHICH IS ACTUALLY INSTALLED ON A SET OF BLUE LINE PRINTS OF THE ELECTRICAL DRAWINGS, AND NOTE CHANGES THEREON WITH RED MARKS, IN A NEAT AND ACCURATE MANNER. WHEN ALL REVISIONS HAVE BEEN SHOWN ON THESE PRINTS TO INDICATE THE WORK AS FINALLY INSTALLED, THE PRINTS SHALL BE DELIVERED TO THE ENGINEER, BEFORE FINAL PAYMENT.

1.6 PERMITS, INSPECTION AND TESTS - THE RIGHT IS RESERVED TO INSPECT AND TEST ANY PORTION OF THE INSTALLATION/EQUIPMENT DURING THE PROGRESS OF ITS ERECTION. THIS CONTRACTOR SHALL TEST ALL WIRING FOR CONTINUITY AND GROUNDS BEFORE CONNECTING ANY FIXTURES OR DEVICES. THIS CONTRACTOR SHALL TEST THE ENTIRE SYSTEM WHEN THE WORK IS FINALLY COMPLETED TO INSURE THAT ALL PORTIONS ARE FREE FROM SHORT CIRCUITS AND GROUNDS.

1.7 SECURE AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS. INSPECTION CERTIFICATES FROM LOCAL AUTHORITIES HAVING JURISDICTION SHALL BE DELIVERED TO THE OWNER BEFORE FINAL PAYMENT.

1.8 SUBMITTALS - SUBMIT SHOP DRAWINGS, PRODUCT DATA AND SAMPLES WITHIN THIRTY (30) DAYS OF AWARD OF CONTRACT AND IN ACCORDANCE WITH THE GENERAL CONDITIONS AND SUPPLEMENTARY CONDITIONS. SUBMITTALS ARE REQUIRED FOR ALL ITEMS PROVIDED UNDER THIS SPECIFICATION. REVIEW OF SUBMITTALS BY THE ENGINEER AND ANY ASSOCIATED ACTION TAKEN BY THE ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF ANY REQUIREMENTS SET FORTH BY THE CONTRACT DOCUMENTS.

PART 2 - PRODUCTS

2.1 MANUFACTURING STANDARDS - MATERIALS SHALL BE NEW AND APPROVED AND LABELED BY UL WHEREVER STANDARDS HAVE BEEN ESTABLISHED BY THAT AGENCY. DEFECTIVE EQUIPMENT OR EOUIPMENT DAMAGED IN THE COURSE OF INSTALLATION OR TEST SHALL BE REPLACED OR REPAIRED IN A MANNER MEETING THE APPROVAL OF THE OWNER. ALL ITEMS OF THE SAME TYPE AND RATING SHALL BE IDENTICAL.

2.2 TRADE NAMES - UNLESS SPECIFICALLY IDENTIFIED OTHERWISE, MANUFACTURERS' NAMES AND CATALOG NUMBERS INDICATED HEREIN AND ON THE DRAWINGS ARE NOT INTENDED TO BE PROPRIETARY DESIGNATIONS. THEY ARE TO INDICATE GENERAL TYPE AND QUALITY OF MATERIALS AND EQUIPMENT REQUIRED. EQUIPMENT AND MATERIALS BY OTHER MANUFACTURERS WHICH IN THE OPINION OF THE ENGINEER ARE OF EQUAL QUALITY AND WHICH WILL PRODUCE THE SAME RESULTS WILL BE CONSIDERED ACCEPTABLE.

2.3 MOTORS - MOTORS SHALL HAVE DISCONNECTING MEANS AND CONTROLLERS. CONTROLLERS SHALL HAVE THERMAL OVERLOAD PROTECTION AND PHASE OUTAGE PROTECTION RELAYS.

2.4 DISCONNECT SWITCHES AND POWER WIRING UP TO AND INCLUDING MOTOR CONNECTIONS FOR ALL EQUIPMENT PROVIDED UNDER OTHER DIVISIONS OF THIS SPECIFICATION SHALL BE INCLUDED IN THIS DIVISION. WHERE MANUAL MOTOR CONTROL SWITCHES FOR SINGLE PHASE MOTORS ARE INDICATED, THEY SHALL BE PROVIDED AND WIRED COMPLETE UNDER THIS DIVISION. MOTOR CONTROLLERS AND MOTOR STARTERS FURNISHED UNDER OTHER DIVISIONS SHALL BE SET IN PLACE AND CONNECTED TO SOURCE AND LOAD UNDER THIS DIVISION. IN GENERAL, MOTORS WILL BE PROVIDED WITH THE EQUIPMENT THEY DRIVE AND ARE NOT PART OF THIS WORK UNDER THIS DIVISION, EXCEPT THAT THEY SHALL BE CONNECTED HEREUNDER.

2.5 OBTAIN APPROVED SHOP DRAWINGS SHOWING WIRING DIAGRAMS, CONNECTION DIAGRAMS, ROUGHING-IN AND HOOKUP DETAILS, FROM OTHER INVOLVED CONTRACTORS FOR ALL EQUIPMENT AND COMPLY THEREWITH.

2.6 CONTROL, INTERLOCK, AND INTERNAL EQUIPMENT WIRING REGARDLESS OF VOLTAGE WILL BE PROVIDED BY OTHERS UNLESS

2.7 GROUNDING - THE ENTIRE ELECTRICAL SYSTEM, INCLUDING EQUIPMENT FRAMES, CONDUIT, SWITCHES, CONTROLLERS, WIREWAYS, NEUTRAL CONDUCTORS, AND ALL OTHER SUCH EQUIPMENT SHALL BE PERMANENTLY AND EFFECTIVELY GROUNDED IN ACCORDANCE WITH THE NEC. GROUND RODS SHALL BE COPPER CLAD STEEL, 3/4" DIAMETER BY 10'-0" LONG. GROUNDING OF EACH TRANSFORMER SECONDARY SHALL BE PROVIDED AND EACH SHALL BE CONSIDERED AS A SEPARATE SERVICE GROUND. PROVIDE A SEPARATE GROUND CONDUCTOR IN ALL BRANCH CIRCUIT CONDUITS SIZED IN ACCORDANCE WITH THE NEC.

2.8 SCHEDULE OF WORK - THE SCHEDULE OF THE ELECTRICAL WORK SHALL BE ARRANGED TO SUIT THE PROGRESS OF WORK BY THE OTHER TRADES AND SHALL IN NO WAY RETARD PROGRESS OF CONSTRUCTION OF THE PROJECT.

2.9 WORK UNDER THIS DIVISION SHALL PROCEED IN ADVANCE OF THE WORK OF OTHERS WHENEVER POSSIBLE, ELIMINATING ALL CUTTING AND PATCHING. WHEN SUCH PROCEDURE IS IMPOSSIBLE, CUTTING AND PATCHING SHALL BE DONE IN AN APPROVED MANNER. CUTTING SHALL NOT ENDANGER STRUCTURAL INTEGRITY IN ANY WAY. PATCHING SHALL EXACTLY MATCH CONTIGUOUS WORK. ACTUAL WORK OF CUTTING AND PATCHING OF EXISTING SURFACES SHALL BE PERFORMED BY THE SUBCONTRACTOR WHO ORIGINALLY PREPARED THESE SURFACES, E.G., CUTTING AND PATCHING OF MASONRY WALL WILL BE PERFORMED BY THE MASONRY SUBCONTRACTOR. COSTS OF SUCH CUTTING AND PATCHING SHALL BE BORNE BY THE ELECTRICAL SUBCONTRACTOR. CUTTING SHALL BE CAREFULLY DONE AND DAMAGE TO BUILDING, PIPING, WIRING OR EQUIPMENT AS A RESULT OF CUTTING SHALL BE REPAIRED BY SKILLED MECHANICS OF TRADE INVOLVED.

2.10 LABELING OF EQUIPMENT - ALL PANELBOARDS, CABINETS, SAFETY SWITCHES, MOTOR DISCONNECT SWITCHES, AND MOTOR CONTROLLERS SHALL BE IDENTIFIED BY MACHINE ENGRAVED LAMINATED PLASTIC DESIGNATION PLATES PERMANENTLY ATTACHED THERETO WITH SELF-TAPPING SCREWS OR RIVETS. ALL COMPONENT PARTS OF EACH ITEM OF EQUIPMENT OR DEVICE SHALL BEAR THE MANUFACTURER'S NAMEPLATE, GIVING NAME OF MANUFACTURER, DESCRIPTION, SIZE, TYPE, SERIAL AND MODEL NUMBER AND ELECTRICAL CHARACTERISTICS IN ORDER TO FACILITATE MAINTENANCE OR REPLACEMENT.

2.11 COORDINATION - COOPERATE AND COORDINATE EFFORTS WITH ALL CONTRACTORS ON THE PROJECT. THIS IS ESPECIALLY IMPORTANT IN DETERMINING EXACT LOCATIONS OF ALL SWITCHES, RECEPTACLES AND LIGHTING FIXTURES. ARRANGE LIGHTING FIXTURES IN ACCORDANCE WITH THE ARCHITECTURAL REFLECTED CEILING PLANS UNLESS OTHERWISE INDICATED. COORDINATE LIGHTING FIXTURE LOCATIONS WITH GRILLES, DIFFUSERS, ACCESS PANELS, ETC. VERIFY CEILING AND WALL CONSTRUCTION AND MATERIAL PRIOR TO ORDERING LIGHTING FIXTURES OR OTHER DEVICES TO ENSURE PROPER FIXTURE OR DEVICE IS FURNISHED TO MATCH CONSTRUCTION. THIS VERIFICATION MUST BE EXECUTED REGARDLESS OF INFORMATION PLACED ON THE DRAWINGS. ANY COST INCURRED WHICH IN THE OPINION OF THE OWNER, COULD HAVE BEEN AVOIDED BY THIS STEP SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

2.12 GUARANTEE OF WORK - CONTRACTOR GUARANTEES BY HIS ACCEPTANCE OF THE CONTRACT THAT ALL WORK INSTALLED IS FREE FROM ANY AND ALL DEFECTS IN WORKMANSHIP AND/OR MATERIALS, AND THAT THE APPARATUS WILL DEVELOP CAPACITIES AND CHARACTERISTICS SPECIFIED, AND THAT IF, DURING THE PERIOD OF ONE YEAR OR AS OTHERWISE SPECIFIED, FROM DATE OF CERTIFICATE OF COMPLETION AND ACCEPTANCE OF THE WORK ANY SUCH DEFECTS IN WORKMANSHIP, MATERIAL OR PERFORMANCE APPEAR, HE WILL, WITHOUT COST TO THE OWNER, REMEDY SUCH DEFECTS WITHIN A REASONABLE TIME TO BE SPECIFIED IN NOTICE. IN DEFAULT THEREOF, THE OWNER MAY HAVE SUCH WORK DONE AND CHARGE COST TO CONTRACTOR. EQUIPMENT GUARANTEES FROM DATE OF "START-UP" WILL NOT BE RECOGNIZED.

RACEWAY, FITTINGS AND BOXES

A. RACEWAYS - CONDUIT SHALL BE HOT-DIPPED, ZINC COATED OR RIGID STEEL (RS), INTERMEDIATE METAL CONDUIT (IMC), ELECTRICAL METALLIC TUBING (EMT), OR SCHEDULE 40 POLYVINYL CHLORIDE (PVC).

B. FLEXIBLE CONDUIT SHALL BE GALVANIZED, CONTINUOUS SPIRAL, SINGLE STRIP TYPE. FLEXIBLE CONDUIT SHALL BE COVERED WITH PVC JACKET IN WET OR DAMP LOCATIONS. PROVIDE SUITABLE FITTINGS WITH GROUND CONNECTOR.

C. FITTINGS - ALL CONDUIT ENTERING OR LEAVING OUTLET, JUNCTION OR PULL BOXES, AND CABINETS AND ALL CONDUIT STUBS SHALL HAVE BUSHINGS. PROVIDE INSULATING BUSHINGS WHERE REQUIRED BY NEC. PROVIDE EXPANSION FITTINGS WITH BONDING JUMPER WHERE CONDUITS CROSS EXPANSION JOINTS.

1. FITTINGS FOR RS AND IMC SHALL BE THREADED TYPE.

2. FITTINGS FOR EMT SHALL BE THREADLESS, APPROVED FOR THE CONDITIONS ENCOUNTERED AND MAY BE CAST SETSCREW TYPE OR COMPRESSION TYPE.

D. FITTINGS FOR PVC SHALL BE PVC, PRIMED AND GLUED.

E. OUTLET BOXES AND JUNCTION BOXES - OUTLET BOXES SHALL BE PRESSED STEEL, ELECTRO-GALVANIZED OR CADMIUM PLATED WITH CLEAN CUT, EASILY REMOVABLE KNOCKOUTS. EXCEPT AS NOTED HEREINAFTER MINIMUM SIZE OUTLET BOX SHALL BE 4" SQUARE, 1 1/2" DEEP, AND SHALL BE INCREASED IN DIMENSIONS TO ACCOMMODATE CONDUCTORS, CONDUITS, AND DEVICES AS REQUIRED BY THE NEC. SHALLOWER BOXES MAY BE USED WHERE REQUIRED BY STRUCTURAL CONDITIONS. PROVIDE SUITABLE PLASTER-RINGS TO MATCH WALL CONSTRUCTION AND DEVICE. CEILING AND BRACKET OUTLET BOXES SHALL BE NOT LESS THAN 4" OCTAGONAL, 1 1/2" DEEP EXCEPT THAT SMALLER BOXES MAY BE USED WHERE REQUIRED BY PARTICULAR FIXTURE TO BE INSTALLED.

F. NON METALLIC OUTLET BOXES MAY BE PROVIDED IN PVC RACEWAY SYSTEMS. OUTLET BOXES IN WET OR DAMP LOCATIONS SHALL BE CAST-METAL, THREADED HUB-TYPE WITH GASKETS.

G. JUNCTION OR PULL BOXES NOT OVER 100 CUBIC INCHES IN VOLUME SHALL BE STANDARD OUTLET BOXES. JUNCTION BOXES OVER 100 CUBIC INCHES IN VOLUME SHALL BE CONSTRUCTED OF CODE GAGE, GALVANIZED SHEET STEEL. JUNCTION BOXES SHALL HAVE REMOVABLE COVERS AND SHALL BE ACCESSIBLE AFTER COMPLETION OF WORK.

H. RACEWAY AND FITTING INSTALLATION - RUN CONDUITS CONCEALED WITHIN WALLS, ABOVE CEILINGS AND WITHIN OR BELOW FLOORS. CONDUITS MAY BE RUN EXPOSED IN MECHANICAL ROOMS AND SPACES WITH EXPOSED CONSTRUCTION. CONDUIT SHALL BE SUPPORTED AT INTERVALS OF NOT MORE THAN 8'. RUN EXPOSED CONDUIT PARALLEL OR PERPENDICULAR TO WALLS, STRUCTURAL MEMBERS, OR INTERSECTIONS OF VERTICAL PLANES AND CEILING. CONDUIT LARGER THAN 1" NOMINAL DIAMETER SHOWN IN FLOOR SLAB SHALL BE RUN UNDER THE SLAB. CONDUIT 1" AND SMALLER MAY BE RUN IN THE FLOOR SLAB WHERE PRACTICABLE.

I. SUPPORT CONDUITS BY PIPE STRAPS, WALL BRACKETS, STRAP HANGERS, OR CEILING TRAPEZE.

J. RUN ALL CONDUITS TOGETHER AS POSSIBLE IN A NEATLY MATTER.

K. DO NOT INSTALL EMT OUTDOORS, OR UNDERGROUND, OR ENCASED IN CONCRETE, OR IN HAZARDOUS AREAS, OR IN AREAS SUBJECT TO SEVERE PHYSICAL DAMAGE.

L. DO NOT INSTALL PVC IN OR THROUGH FIRE RATED ASSEMBLIES, IN OR THROUGH ANY WALLS, IN OR THROUGH ANY CEILINGS, IN HAZARDOUS AREAS, IN AREAS SUBJECT TO SEVERE PHYSICAL DAMAGE, OR EXPOSED ANYWHERE IN THE

M. CONDUIT RUN UNDERGROUND, UNDER SLAB, OR WITHIN CONCRETE ENCASEMENT MAY BE POLYVINYL CHLORIDE (PVC) OR RS OR IMC CONDUIT PROTECTED WITH 2 COATS OF BITUMASTIC PAINT. CONVERT PVC TO RS OR IMC BEFORE RISING THROUGH FLOOR SLAB OR RISING OUT OF SOIL. CONDUIT RUN BENEATH SLAB SHALL BE PROPERLY SUSPENDED FROM SLAB SUCH THAT SUB-SLAB SETTLEMENT WILL NOT ADVERSELY AFFECT ELECTRICAL SYSTEM.

N. SERVICE ENTRANCE CONDUITS SHALL BE DIRECT BURIED RS OR IMC, AS NOTED.

O. SLEEVES - ALL ELECTRICAL SYSTEM CONDUIT SHALL HAVE SLEEVES WHERE CONDUIT PASSES THROUGH CONCRETE SLABS EXCEPT CONCRETE SLABS IN CONTACT WITH GRADE. ALL CONDUIT 1 1/4 INCH AND LARGER RUNNING CONCEALED ABOVE CEILING SHALL HAVE SLEEVES WHERE THE CONDUIT PASSES THROUGH MASONRY, TILE AND GYPSUM WALL CONSTRUCTION. SLEEVES SHALL BE CONSTRUCTED OF GALVANIZED STEEL PIPE, SCHEDULE 40. PROVIDE ESCUTCHEON PLATES FOR ALL EXPOSED CONDUIT PASSING THROUGH WALLS, FLOORS AND CEILINGS. WHERE PLATES ARE PROVIDED FOR CONDUITS PASSING THROUGH SLEEVES, WHICH EXTEND ABOVE THE FLOOR SURFACE, PROVIDE DEEP RECESSED PLATES TO CONCEAL THE SLEEVES. TERMINATE SLEEVES FLUSH WITH WALL, PARTITIONS AND CEILINGS. IN AREAS WHERE CONDUITS ARE CONCEALED, AS IN CHASES, TERMINATE SLEEVES FLUSH WITH FLOOR. IN FINISHED AREAS, WHERE CONDUITS ARE EXPOSED, EXTEND SLEEVES 1/2 INCH ABOVE FINISHED FLOOR, EXCEPT IN ROOMS HAVING FLOOR DRAINS EXTEND SLEEVES 1 INCH ABOVE FLOOR. FASTEN SLEEVES SECURELY IN FLOORS, WALLS, SO THAT THEY WILL NOT BECOME DISPLACED WHEN CONCRETE IS POURED OR WHEN OTHER CONSTRUCTION IS BUILT AROUND THEM. WHERE SLEEVES PASS THROUGH FLOORS OR FIRE RATED WALLS PROVIDE PROPER SEALANT AROUND CONDUIT TO MAINTAIN FIRE RATING.

CONDUCTORS

A. CONDUCTORS AND INSULATION - WIRE AND CABLE SHALL BE SOFT DRAWN, ANNEALED COPPER WITH 600 VOLT COLOR CODED INSULATION. MINIMUM WIRE SIZE SHALL BE #12 AWG. INSULATION FOR CONDUCTOR SIZES #12 AND #10 SHALL BE TYPE THW OR RHW FOR INSTALLATION IN ORDINARY DRY LOCATIONS AND TYPE THWN FOR INSTALLATION IN WET LOCATIONS. WET LOCATIONS WILL INCLUDE SERVICE CONDUITS, CONDUIT UNDERGROUND, RACEWAYS INSTALLED IN CONCRETE FLOOR SLABS IN DIRECT CONTACT WITH THE EARTH AND RACEWAYS REGULARLY SUBJECT TO MOISTURE OR CONDENSATION. CONDUCTORS SIZES LARGER THAN #10 SHALL HAVE TYPE XHHW-2 INSULATED. CONDUCTORS NO. 8 AWG AND LARGER DIAMETER SHALL BE STRANDED. CONDUCTORS NO. 10 AWG AND SMALLER DIAMETER SHALL BE SOLID, EXCEPT THAT CONDUCTORS FOR REMOTE-CONTROL AND SIGNAL CIRCUITS, CLASSES 1, 2, AND 3, MAY BE STRANDED.

B. BRANCH CIRCUIT CONDUCTORS IN FLUORESCENT FIXTURE RACEWAYS AND DROPS TO SINGLE FLUORESCENT FIXTURES SHALL BE TYPE THHN OR XHHW.

C. METAL CLAD (MC) CABLE SHALL BE ALLOWED FOR BRANCH CIRCUITING 20A, 120V OR LESS.

D. PROVIDE A SEPARATE GROUND CONDUCTOR IN ALL RACEWAYS SIZED IN ACCORDANCE WITH THE NEC.

E. JOINTS AND TERMINATIONS - FOR CONDUCTORS #12 AND #10 ALL FIXTURE AND BRANCH CIRCUITS JOINTS IN JUNCTION AND OUTLET BOXES SHALL BE MADE WITH UL LISTED PRESSURE TYPE CONNECTORS RATED AT 600 VOLTS AND 105 DEGREES C. CONNECTORS SHALL BE IDEAL INDUSTRIES "WING-NUT" OR BUCHANNAN "B-CAP", 3M "SCOTCH-LOK" CONNECTORS OR EQUAL. WIRE #8 AND LARGER SHALL BE JOINED OR TERMINATED WITH SOLDERLESS PRESSURE CONNECTORS PROPERLY

F.COLOR CODE: COMPLY WITH THE FOLLOWING: COLOR 240/120V, 1 PH, 3 W ONE HOT LEG - BLACK; ONE HOT LEG - RED NEUTRAL WHITE GROUND GREEN

TAPED IN LAYERS TO FORM A MOISTURE-TIGHT JOINT.

WIRING DEVICES

A. WIRING DEVICES SHALL BE "SPECIFICATION GRADE" AS MANUFACTURED BY GENERAL ELECTRIC, SLATER (MEDALIST), ARROW-HART, BRYANT, HUBBELL OR PASS & SEYMOUR.

B. LOCAL SWITCHES SHALL BE SINGLE POLE, DOUBLE POLE, THREE WAY AND FOUR WAY AS SHOWN ON THE DRAWINGS, BLACK PLASTIC CUP WITH RED PLASTIC COVER AND IVORY PLASTIC HANDLE, BACK OR SIDE WIRED, 20 AMPERE, 120-277

C. DUPLEX CONVENIENCE RECEPTACLES SHALL BE STAINLESS STEEL, 20 AMPERE, 125 VOLTS, 2 POLE, 3 WIRE NEMA AND ASA STANDARD, GROUNDING TYPE.

D. WEATHERPROOF RECEPTACLES SHALL BE IN CAST METAL BOX WITH GASKETED, WEATHERPROOF, CAST-METAL COVER PLATE AND GASKETED CAP OVER EACH RECEPTACLE OPENING. CAPS SHALL BE PROVIDED WITH A SPRING-HINGED FLAP.

E. GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLES SHALL CONFORM TO NEC, SHALL BE UL LISTED, IVORY PLASTIC, SHALL HAVE A "PUSH-TO-TEST" BUTTON AND VISIBLE INDICATION OF A TRIPPED CONDITION.

F. DEVICE PLATES ON UNFINISHED WALLS AND ON FITTINGS, SHALL BE ZINC-COATED SHEET STEEL HAVING ROUNDED OR BEVELED EDGES. ON FINISHED WALLS, PLATES SHALL BE SATIN FINISHED TYPE 302, ALLOY 18-8 STAINLESS STEEL WITH BEVELED EDGES.

PANELBOARDS (OR LOAD CENTERS)

A. PANELBOARDS - PANELBOARDS SHALL BE DEAD-FRONT, CIRCUIT BREAKER EQUIPPED WITH TRIP RATINGS AND FRAME SIZES AS SHOWN ON THE DRAWINGS. ALL CURRENT-CARRYING PARTS OF THE BUS ASSEMBLY SHALL BE PLATED.

B. EACH PANELBOARD SHALL BE PROVIDED WITH A HINGED COVER WITH A FLUSH LATCH AND LOCK WITH TWO KEYS AND KEYED THE SAME AS ALL OTHER PANELBOARDS. EACH PANEL SHALL BE EQUIPPED WITH TYPEWRITTEN DIRECTORY CARD, CARD HOLDER, TRANSPARENT PROTECTION AND COMPLETE IDENTIFYING DATA ON INSIDE OF DOOR.

LIGHTING FIXTURES

A. FIXTURES - FIXTURES SHALL BE AS INDICATED IN SCHEDULE.

B. LAMPS - UNLESS OTHERWISE NOTED ALL LIGHT FIXTURES SHALL BE LED.

C. LED LIGHTS- LIGHTS MUST BE UL LISTED, MEET IES STANDARDS LM-79, LM-80, TM-21. ALL LED FROM THE SAME BATCH AND COMPATIBLE WITH DIMMER.

D. NO FIXTURES SHALL BE HUNG WITH ZIP-CLIPS.

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REVISIONS

DATE

04-02-2021

SHEET TITLE

ELECTRICAL **SPECIFICATIONS**

SHEET