1'-0"			
1-1/2" =	CS SHEE	COVER SHEET & INDEX TO DRAWINGS	PROJEC
SCALE:	BCS	BUILDING CODE SUMMARY	
		DEFENDED OUDVITTALO DY OTUED	H
= 1'-0"	SP	DEFERRED SUBMITIALS BY OTHER	
SCALE: 1"	S1 S2	FOUNDATION PLAN & ANCHOR BOLT PLAN FOUNDATION & FOOTING DETAILS	
4" = 1'0"	G1 G2	BUILDING FLOOR PLAN 2 HOUR RATED WALL UL DETAIL	
SCALE: 3/4			
SCALE: 1/2" = 1'-0"			PROJECT TEAM: BUILDING DEPAR HARNETT COUNTY
CALE: 1/4" = 1'-0"			INSPECTION DEPARTM 420 MCKINNEY PARK LILLINGTON, NC 2754 910-893-2793
`-0" S(
SCALE: 3/16" = 1			
ALE: 1/8" = 1'-0"			
			CODE REVIEW: APPLICABLE CODES INCLUDE LIMITED TO THE FOLLOWING: BUILDING
WG\Harnett−Airport−Foundation−1≿			FIRE PREVENTION ENERGY
Drawing File: H:\2023\Ostendorf Hanger 2023-06-09\D Plotted by: baot Plotted Date: Feb 05, 2024 - 4:24pm			

615 AIRPORT ROAD



2018 NORT	TH CAROL	INA BUILDING	CODE SUI	MMARY: A	PPENDIX
Name of Project: HARNET	T REGIONAL AIRPORT I	HANGAR		ParlD / PIN: /	0417004916000
Proposed Use: <u>AIRCRAF</u>	T HANGAR (U)		004 1070		inhlanda suina som
Owner or Authorized Agent: Owned By:			-824-1238 te	_ E—Mail Draynor@n State	ighlandpaving.com
Code Enforcement Jurisdictio	on: 🗹 🤇	Xity <u>ERWIN</u> Coun	ty	StateN	ORTH CAROLINA
CONTACT: KELLY J	. DODSON		_		
DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	N/A	N/A	N/A	N/A	N/A
Civil Electrical	4D JCE	SCOTT BROWN DOUGLAS L. JENKINS	NC PE 27452 NC PE 28803	(910) 426–6777 (910) 822–1724	sbrown@4dsitesolutio
Fire Alarm	N/A .ICF	N/A DOUGLAS I JENKINS	N/A NC PF 28803	N/A (910) 822–1724	N/A buddvi@ienkinsco
Mechanical	JCE	DOUGLAS L. JENKINS	NC PE 28803	(910) 822–1724	buddyj@jenkinsco
Sprinkler-Standpipe Structural :	JCE	N/A KELLY J. DODSON	N/A NC PE 42009	N/A (910) 822–1724	N/A kellyd@jenkinsce
INTERIOR WALLS Retaining Walls >5' Hiah	N/A N/A	N/A N/A	N/A	N/A	N/A N/A
Building	JCE	KELLY J. DODSON	NC PE 42009	(910) 822–1724	kellyd@jenkinsce
2018 NORTH CAROLINA BUILD	DING CODE:	New Building	Shell / Core	First Time Int	erior Completions
2018 NORTH CAROLINA EXIST (check all that apply)	ING BUILDING CODE:	Prescriptive Repair	Alteration Leve	el I 🔲 Histo el II 🔲 Chai	oric Property nge of Use
CONSTRUCTED: (date)	<u> </u>	Chapter 14 CURRENT USE (S) (Ch. 3	Alteration Level): <u>N/A</u>		
	<u>N/A</u> (Table 1604 5):	PROPOSED USE (S) (Ch.	3): AIRCRAFT HAN	GAR (GROUP III — NFPA II	409)
	עזעטוש 1004.3):		r10p0Sed: .		
BASIC BUILDING DATA			_		
Construction Type: (check all that apply)	□ I–A □ I–B	□ II–A ✓ II–B	⊔ III–A □ III–B		□ V–A □ V–B
Sprinklers: Standpiper	□ Partial Class □ I	□ NFPA 13 □ II □ II	□ NFPA 13R □ Wet □ Dev	🗋 NFPA 13D	
Primary Fire District:		Yes (APPENDIX D)	Flood Hazard Area:	🗹 No 🗆 Ye	es
Special Inspections Required:	S No 🗆		A TABLE		
FLOOR	EXISTING (a ft)	NEW (sa ft)		SUBTOTAL
GROUND I FVFI	N/A		9.000		9.000
					-,
TOTAL SPACE AREA	N/A		9,000		9,000
Primary Occupancy Classifica	ation(s):		<u> </u>	<u> </u>	
Assembly Business	⊔ A−1 □	□ A-2	⊔ A-3	∐ A−4	⊔ A–5
Educational Factory	□ □ F−1 M/	oderate 🖵 F-2 Low			
Hazardous	□ H−1 De	etonate 🗆 H-2 Deflagrate	□ H-3 Combust	□ H-4 Health	🗆 H-5 HPM
Institutional I-1 Condition	⊔ I−1 □ 1	□ I−2 □ 2	3-ا 🖵	∟ I−4	
I-2 Condition I-3 Condition	□ 1 □ 1	□ 2 □ 2 □ 3 □ 4	□ 5		
Mercantile		 מ.ס	□ □ _7	□ ₽_ 4	
Storage	□ K−1 □ S−1 M	oderate G S-2	Low	□ N-+ □ High-piled	
Utility and Miscella	⊔ Parking neous 🗹	Garage 💷 Open 🗔 Encl	osed	💷 Repair Garag	e
Accessory Occupancy Classifi Incidental Uses (Table 50)	ication(s):	NONE			
This separation is not	t exempt as a Non-s	eparated Use (see exceptions).			
Special Uses (Chapter 4):	······································	······································	□ 407 □ 408 □ 419 □ 420	u +∪y u 410 □ □ 421 □ 422 □	∎ 411 🖬 412 🗌 1 423 🔲 424 🗌
Special Provisions (Chapter	□ 426 □ 427 5): □ 510.2	□ 428 □ 429 □ 430 □ 510.3 □ 510.4 □ 510.5	□ 510.6 □ 510.7	🗆 510.8 🔲 510.9	
Mixed Occupancy:	Darated Use (508 3)	□ Yes Separation: <u>0 Hr</u> (508,3.1)	Exception:		
	ed Use (508.4) Se	e below for area calculations fo	r each story, the area	of the occupancy sho the allowable floor	all be a of
each us	se shall not exceed 1		uvided by	and anomable noor are	G UI
Separated Use Formula 508.	4.2: <u>Actual</u> Ar	ea of Occupancy A	Actual Area of O	ccupancy B	< 1
	Allowable A	rea of Occupancy A +	Allowable Area of	Occupancy B	<u> </u>
		N/A +	N/A N/A	= <u>-</u>	<u> </u>
		,			
		(A)	(B)	(C)	(D)
STORY NUMBER	DESCRIPTION AND USE	BLDG AREA PER STORY	IABLE 506.2 4 AREA	AREA FOR FRONTAGE	ALLOWABLE AREA PER STOR
	RCRAFT HANGAR	9.000	8500	6113	14613
¹ Frontage area increases a. Perimeter which fr	from Section 506.3 onts a public way or	are computed thus: open space having 20 feet min	imum width =	.120 (1	F)
b. Total Building Peri c. Ratio (F/P)=	meter =390 31 (F	(P)	<i>1.</i>	. 1	<u> </u>
d. W = Minimum widt e. Percent of frontag	th (weighted average) e increase = l _f	ot public way = 150 = 100 [F/P - 0.25] x W	(W) where W /30 = 71 (%)	=(L₁Xw+L ≵w) (Equation 5-) ⊉F (Equati —5)
	FRONTA	GE INCREASE WORKSHEET for CA	LCULATIONS:	·	
EXTERIOR WALL	(F) (OPEN TOT	P) (W) (weighted avera AL WIDTH OF PUBLIC W	ge) (%) AY FROM CALC	(B) FROM TABLE	AREA INCREASE FO COLUMN (C) ABOV
LEN	GTH (feet) LENGT	I (feet) OR OPEN SPACE (fe	eet) ABOVE	ABOVE	(% * TABLE AREA)
North South	75 3 75 3	90 <u>30</u> 9030			
East	120 3	90 30			
TOTAL	75 3	90 <u>26</u> 90 240	71	8500	(71*8500 =6113)
EXAMPLE	75 1	00 25	42	23,500	(.42*23,500 = 9,87
² Unlimited area applicable ³ Maximum Building Area	under conditions of Se = total number of st	ections 507 ories in the building x D (maxin	num 3 stories) (Sectio	n 506.2).	
4 The maximum area of a	open parking garages	must comply with Table 406.5.4	. The maximum area	of air traffic control	towers must
5 Frontage increase is bas	sed on the unsprinkle	red area value in Table 506.2.			
III					

SUBTOTAL
9,000
9,000



BUILDING	CODE	SUMMARY	(continued)

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

ALLOWABLE HEIGHT ALLOWABLE SHOWN ON PLANS Building Height in Feet (Table 504.3) 31' – 0" 65 Building Height in Stories (Table 504.4) 3 1

CODE REFERENCE

N/A

N/A

	FIF	RE PROTECTION	REQUIREMENTS				
BUILDING ELEMENT	FIRE SEPARATION DISTANCE (feet)	RATING ** (1 REQ'D III-B	ABLE 601) PROVIDED (w/ * REDUCTION	- Detail # AND Sheet #	DESIGN # FOR RATED ASSEMBLY	Sheet # For rated Penetration	Sheet # For rated Joints
Structural Frame, including columns girders trusses	N/A	0	0	N/A	N/A	N/A	N/A
Bearing Walls				• • • •	• • •		
Exterior	N/A	2	2	N/A	N/A	N/A	N/A
North	N/A	2	2	G1	UL V421	G2	G2
East	N/A	$\overline{\gamma}$	$\overline{\gamma}$	N/A	N/A	N/A	N/A
West	N/A	0	0	N/A	N/A	N/A	N/A
South	N/A	0	0	N/A	N/A	N/A	N/A
Interior	N/A	0	0	N/A	N/A	N/A	N/A
Nonbearing walls and partitions Exterior walls	N/A	0	0	N/A	N/A	N/A	N/A
North	N/A	0	0	N/A	N/A	N/A	N/A
East	N/A	0	0	N/A	N/A	N/A	N/A
West	N/A	0	0	N/A	N/A	N/A	N/A
South	N/A	0	0	N/A	N/A	N/A	N/A
Interior Non-Bearing Walls	N/A	0	0	N/A	N/A	N/A	N/A
Floor construction including supporting beams and jo	ists	0	0	N/A	N/A	N/A	N/A
Floor Ceiling Assembly		0	0	N/A	N/A	N/A	N/A
Columns Supporting Floors		0	0	N/A	N/A	N/A	N/A
Roof construction including supporting beams and jo	ists	0	0	N/A	N/A	N/A	N/A
Roof Ceiling Assembly		0	0	N/A	N/A	N/A	N/A
Columns Supporting Roof		0	0	N/A	N/A	N/A	N/A
Shaft Enclosures — Exit		0	0	N/A	N/A	N/A	N/A
Shaft Enclosures — Other		0	0	N/A	N/A	N/A	N/A
Corridor Separation		0	0	N/A	N/A	N/A	N/A
Occupancy / Fire Barrier Separation		0	0	N/A	N/A	P1	N/A
Party/Fire Wall Separation	0	0	N/A	N/A	N/A	N/A	
Smoke Barrier Separation	0	0		· · ·			
Smoke Partition	0	0	N/A	N/A	N/A	N/A	
OWNER/Dwelling Unit/ Sleeping Unit Separation	0	0	N/A	N/A	N/A	N/A	
Incidental Use Separation		0	0	N/A	N/A	N/A	N/A

PERCENTAGE OF WALL OPENING CALCULATIONS

EXTERIOR WALL	FIRE SEPARATION DISTANCE (feet) FROM PROPERTY LINE	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
North	N/A	N/A	N/A	N/A
South	N/A	N/A	N/A	N/A
East	N/A	N/A	N/A	N/A
West	N/A	N/A	N/A	N/A

LIFE SAFETY SYSTEM REQUIREMENTS 🖌 Yes 🖌 Yes 🗆 No No No No No No No 🛛 Yes 🗆 Yes Partial 🛛 Duct Detectors 🛛 Yes

LIFE SAFETY PLAN REQUIREMENTS

- Life Safety Plan Sheet #- 15
- Fire and/or smoke rated wall locations (Chapter 7)
- 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)

Emergency Lighting:

Smoke Detection Systems:

Carbon Monoxide Detection:

Life Safety Systems Generator:

Exit Signs: Fire Alarm:

- □ 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
- \square A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for

🖵 Yes

- purposes of occupancy separation
- □ Location of doors with panic hardware (1010.1.10) \square 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)
- \square Location of doors equipped with hold-open devices
- Location of emergency escape windows (1030)
- \square The square footage of each fire area (903)
- □ The square footage of each smoke compartment for Occupancy Classification I-II (407.5) D Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DW	Elling Units	(SECTION	1107)
		•	•

TOTAL UNITS	ACCESSIBLE	ACCESSIBLE	type a	type a	type B	type B	TOTAL
	UNITS	UNITS	Units	Units	Units	Units	ACCESSIBLE UNITS
	REQUIRED	PROVIDED	Required	Provided	Required	Provided	PROVIDED
NONE REQUIRED							

ACCESSIBLE PARKING (SECTION 1106)

ACCESSIBLE PARKING (SECTION 1106)							
	TOTAL # OF PARKING SP/	ACES	# OF ACCESSIBLE	TOTAL //			
LOT OR PARKING AREA	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	VAN SPACES 132" ACCESS AISLE	WITH 96" ACCESS AISLE	ACCESSIBLE PROVIDED	
EE CIVIL DRAWING							
OTAL							

	USE
	L L
	L 4
	***Note: This
	Special approva
	ENERGY REQUIREMENT The following of be provided. Experformance m proposed desig
	Exempt Building:
	Climate Z
	Method of Energy Cc ASHRAE 9 Other:
	THERMAL ENVELOPE: Roof/ceili Descr U- Vc R- Vc Skylig
	Total
	Exterior N Descr
	R— Vo R— Vo Openi
	Walls bel Descr U- Va R- Va
	Floors ov Descr U-Vc
	R– Vo
	Floors sl o Descr
	U— Vo R— Vo Horizo slab I
	ELECTRICAL SUMMAR

BUILDING CODE SUMMARY (continued)	$\overline{\square}$	S.
PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)		RS, PA
USE MALE FEMALE UNISEX URINALS URINALS ALCESSIBLE SINK MALE FEMALE UNISEX 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		GINEE CINEE LEG NC 2
PROVIDED (TOTAL) 0 0 0 0 0		VG EN
***NOTE: THIS BUSINESS HAS OCCUPANT LOADS LESS THAN 25. NO HI-LOW DRINKING FOUNTAIN IS REQUIRED.		SULTIN SULTIN MBER G
SPECIAL APPROVALS: Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, ICC, etc., describe below)		
N/A		DFFICE
ENERGY SUMMARY ENERGY REQUIREMENTS:		7
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		CARO D
proposed design. Existing building envelope complies with code: 🛛 (If checked, the remainder of this section is not applicable.)		SORTH ESSION TO
Exempt Building: 🔍 Provide code or statutory reference: Climate Zone: 🗹 3A 🔍 4A 🔍 5A HARNETT COUNTY		42009
Method of Compliance: Energy Code: 🖵 Performance 🗹 Prescriptive Value of total assembly: -		CONTRACTOR OF
ASHRAE 90.1:		05 FEBRUARY 2024
THERMAL ENVELOPE: (Prescriptive method only) Roof/ceiling Assembly (each assembly) Description of assembly:		ED BY KJD 6-09
U-Value of insulation: R-10 + R-19 FC		СНЕСК 23-0
Skylights in each assembly:NONE U—Value of skylight: Total square footage of skylights in each assembly:		ED / BY: 202 FBRU
Exterior Walls (each assembly) Description of assembly: METAL BUILDING WALL PANEL WITH R-19 INSULATION		DESIGN DRAWN PROJEC DATE:
U-Value of total assembly: R-Value of insulation: R-taine		
U-Value of assembly: 0.31 (0.32 MAX) Solar heat gain coefficient: 0.23 (0.25 MAX)		SES ON MENT O
Projection factor: Door R- Values: 2.7		PURPC
Walls below grade (each assembly) Description of assembly: <u>N/A</u> U-Value of total assembly:		REVIEW SIGN D CONSTR
R-Value of insulation:		L] FOR FOR OF UILDER
Description of assembly:		AWING ARY [] ARY [] AWING A AWING A
R- Value of insulation: Floors slab on grade		NAL DR. RELIMINA NAL DR./- WNER/-
Description of assembly: 6" CONCRETE SLAB U-Value of total assembly: R-Value of insulation:		
Horizontal/vertical requirement: slab heated:		
mechanical summary (see drawing sheetM1)		
ELECTRICAL SUMMARY (SEE DRAWING SHEET <u>E1</u>)		
		R I
		Ŭ
		A A
		Т <i>Н</i> 8339 RY
CUMBERLAND COUNTY		MA ¹ ²
BUILDING CODE SUMMARY	M V	D Z Z M
for:	ATEC	AIA
	R R	
HARNETT REGIONAL AIRPORT HANGAR	5 5	
	4	
	202	
ERWIN, NORTH CAROLINA, 28339	FEB	
	С	
	REV1	
		PROJE SHEET
		RCZLI







" 4		
1'- 		
П		<u>REINFORCING STEEL</u> ALL REINFORCING STEEL SHALL BE DEFC
8"		A615, GRADE 60. ALL REINFORCING STEEL SHALL BE MANU
- - -		IN ACCORDANCE WITH A.C.I. 315R, 318R AND A.C.I. SP 6 WELDED WIDE FARRIC SHALL CONFORM 1
ALE:		PRACTICAL. WELDED WIRE FABRIC SHALL BE LAPPED AT LEAS
° 0 ∾ 0		REINFORCEMENT SHALL BE BENT COLD A
2,-0		SPLICES: REINFORCEMENT IN CONCRETE AND MASC
		UNLESS OTHERWISE SPECIFIED ON DRAWINGS: BAR SIZE:
)" 1-0"		#3 1'-6" #4 2'-0"
, (#5 2'-6 "
-" 6 "		PLACEMENT: REINFORCEMENT SHALL BE ACCURATELY
		OR OTHER APPROVED CHAIRS, SPACERS OR TIES, AND SECURE
έω 		EXCEPT WHERE OTHERWISE NOTED. REIN
2'-		FOLLOWS: CONCRETE DEPOSITE
0		FORMED CONCRETE EXTERIOR FACES OF
		TO TOP OF SLABS-
, 1 [°] 3/4"		REINFORCING BEFORE IT IS PLACED. PROVIDE #5 "HAIRPIN" X 20' LONG AT F
ALE:		ANCHOR BOLTS SHALL BE (A-3077) HIG
° ∎ ⊂ °		SOIL TREATMENT: ADMINISTRATION AS ACCEPTABLE
, 4 —		<u>GENERAL CONDITIONS</u> THE GENERAL CONTRACTOR SHALL MAKE
.0		THE GENERAL CONTRACTOR SHALL BE RI WITH THE REQUIREMENTS
,		OF THE OCCUPATIONAL SAFETY AND HEA THE WORK ON THIS PROJECT.
,2 ∎ ∎ 2,		SOIL COMPACTION AND TESTING THE GENERAL CONTRACTOR SHALL OBTAI
, - -, -, -, -, -, -, -, -, -, -, -, -, -,		SUCH AS S&ME OR LAW ENGINEERING FOR THE PURPOSE OF DET
		CONDITIONS AND THE BEARING CAPACITIES OF ALL AREAS BELC
ώ —		POSSIBLE, BUT PRIOR TO PI ACEMENT OF ANY REINFORCING AND C
		CONCRETE WORK
1'-0"		1. ALL CONCRETE FOR THE PROJECT WITH ASTM C-94. ALL SECTIONS
, 4 , , , , , , , , , ,		2. FORM WORK - ALL FORMS TO BE SUCH A MANNER AS TO HAVE SUFF
: 1/4		OF THE CONSTRUCTION AS A LIQUID FORMS TO BE BUILT TIGHT, TRUE T
		BRACED, WIRED AND SPIKED OR OT 3. CONCRETE - MINIMUM OF 3,500 P MINIMUM OF FIVE SACKS OF CEMEN
° – ∎ ∿		OF 4" SLUMP. 4. FINISHING – IN ACCORDANCE WITH
10'-		IN LINE, FREE OF HONEYCOMB. BUI TROWEL FINISH. WALKS SHALL HAVE
.0 –		5. REMOVAL OF FORMS - FORMS SHA
, , , , , , , , , , , , , , , , , , ,		CONCRETE. IMMEDIATELY AFTER THE IMPERFECT WORK SHALL BE
3"5 [°] . 3/16		PATCHED IN A NEAT AND WORKMAN OPINION OF THE OWNER,
2'-8		REMOVED IS SEVEN (7) DAYS FOR
sc L o		6. CURING – USE MEMBRANE CURING FOLLOWING FINISHING.
, 9 1 0		PROTECT FROM FREEZING WEATHER, METHODS.
1,-0		
τω 		
• 4 − ¹		
cn .		
5 NR.dw		
ec 2023		
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port-Fc		
nett-Air		
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3\0ster 2024 -		
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g File: ⊣ by: b Date: Jc		
ted ted	\mathbf{X}	

EFORMED STEEL BARS CONFORMING TO A.S.T.M. ANUFACTURED, DETAILED, FABRICATED AND PLACED

A TO A.S.T.M. A185, IN AS LONG A LENGTH AS IS EAST ONE GRID WIDTH PLUS 2". D AND SHALL NOT BE WELDED.

ASONRY SHALL HAVE LAP LENGTHS AS FOLLOWS,

IN MASONRY: 2'-0" 2'-6" 3'-0"

Y PLACED AND SUPPORTED BY CONCRETE, METAL, IRED AGAINST DISPLACEMENT DURING CONCRETE

CINFORCEMENT SHALL HAVE CONCRETE COVER ASITED AGAINST EARTH3"TE AGAINST EARTH2"OF WALLS1"S-ON-GRADE3/4"

R DIRT SHALL BE REMOVED FROM THE

HIGH STRENGTH.

KE ADEQUATE SANITARY PROVISIONS. RESPONSIBLE FOR JOB SAFETY AND COMPLIANCE EALTH ACT AS IT MAY REGARD ANY PHASE OF

TAIN THE SERVICES OF A TESTING LABORATORY, DETERMINING THE SUITABILITY OF THE SUBSURFACE

LOW CONCRETE (2000psf ASSUMED).. BE SUBMITTED PRIOR TO EXCAVATING, WHERE

CONCRETE.

T SHALL BE "READY MIX" AND SHALL COMPLY OF THE CONCRETE WORK SHALL COMPLY WITH IENTS.

E CAREFULLY BUILT AND SECURED IN PLACE IN IFFICIENT STRENGTH TO CARRY THE DEAD WEIGHT UID, WITHOUT DEFLECTION OR VIBRATION. TO POSITION AND DIRECTION, THOROUGHLY OTHERWISE FASTENED TOGETHER. PSI COMPRESSIVE STRENGTH AT 28 DAYS, ENT PER CUBIC YARD OF CONCRETE, MAXIMUM

TH THE LATEST A.C.I. CODE, PLUMB, LEVEL, TRUE BUILDING SLAB SHALL HAVE A HARD STEEL AVE BROOMED FINISH AND EXPANSION JOINTS AT D DUMMY JOINTS AS SHOWN ON THE SITE PLAN. SHALL BE CAREFULLY REMOVED SO AS NOT TO

HE FORMS ARE REMOVED ALL DAMAGE OF

ANLIKE MANNER OR IF BADLY DAMAGED, IN THE HE MINIMUM TIME BEFORE ANY FORMS CAN BE OR SUCH MEMBERS AS ARE SUBJECT TO BENDING

ING METHOD. USE MFG. RATE, SPRAY IMMEDIATELY

DESIGN NO. V421

AUGUST 4, 2023

NONBEARING WALL RATINGS - 1 & 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.

VERTICAL SECTION

1. GIRTS — "Z" OR "C" SHAPED GIRTS, 0.056 TO 0.120 IN. THICK STEEL, 6 TO 12 IN. DEEP, WITH 2 TO 4 IN. WIDE FLANGES. GIRTS PLACED HORIZONTALLY (WITH FLANGES UP OR DOWN) AND SPACED MAX 48 IN. OC. GIRTS ARE SECURED TO COLUMNS WITH GIRT CLIPS, ITEM 2, OR BOLTED TO THE COLUMN THROUGH THE GIRT FLANGE.

2. GIRT CLIPS — (NOT SHOWN) — STEEL SECURED TO COLUMN BY WELDS OR BOLTS.

3. STEEL WALL PANELS — MIN NO. 26 MSG, MIN 16 IN. WIDE COATED STEEL PANELS. PANEL JOINTS OFFSET 6 IN. FROM GYPSUM SHEATHING JOINTS. IF ONE LAYER OF EXTERIOR WALLBOARD IS USED, PANELS ARE FASTENED TO THE HORIZONTAL GIRTS WITH 1-1/2 IN. (MIN) LONG NO. 12-14 Self-Drilling screws 12 IN. OC. IF TWO LAYERS OF EXTERIOR WALLBOARD ARE USED, PANELS ARE FASTENED TO THE HORIZONTAL GIRTS WITH 2 IN. (MIN) LONG NO. 12-14 SELF-DRILLING SCREWS 12 IN. OC. VERTICAL RAISED RIB PROFILES OF ADJACENT PANELS ARE OVERLAPPED APPROXIMATELY 3 IN. AND ATTACHED TO EACH OTHER WITH 7/8 IN. LONG 1/4-14 (MIN) SELF-DRILLING SCREWS (STITCH SCREWS) 24 IN. OC (MAX) ALONG THE

3A. STEEL SIDING OR BRICK - (OPTIONAL, NOT SHOWN) FOR FIRE RESISTANCE RATINGS FROM INSIDE OF WALL ONLY, STEEL SIDING OR BRICK VENEER MEETING THE REQUIREMENTS OF LOCAL CODE AGENCIES, MAY BE INSTALLED OVER ADDITIONAL FURRING CHANNELS (NOT SHOWN), ITEM 4, ON EXTERIOR OF WALL IN PLACE OF STEEL WALL PANELS. BRICK VENEER ATTACHED TO FURRING CHANNELS WITH CORRUGATED METAL WALL TIES ATTACHED TO EACH FURRING CHANNEL WITH STEEL SCREWS, NOT MORE THAN EACH SIXTH COURSE OF BRICK. WHEN A MINIMUM 3-3/4 IN. THICK BRICK VENEER FACING IS USED. THE FIRE RESISTANCE RATING APPLIES FROM EITHER SIDE OF THE WALL.

FURRING CHANNELS — HAT SHAPED, MINIMUM 25 MSG GALV STEEL, APPROXIMATELY 2-5/8 IN WIDE, 7/8 IN. DEEP, SPACED 24 IN. OC PERPENDICULAR TO GIRTS. CHANNELS ARE SECURED TO EACH GIRT WITH 3/8 IN. (MIN) LONG SELF-DRILLING PAN HEAD SHEET STEEL TYPE SCREWS. TWO SCREWS ARE USED AT EACH FASTENING LOCATION, ONE THROUGH EACH LEG OF THE FURRING CHANNEL.

GYPSUM BOARD* — ANY 1/2 IN. THICK UL CLASSIFIED GYPSUM BOARD THAT IS ELIGIBLE FOR USE IN 5. DESIGN NO. X515. ANY 5/8 IN. THICK UL CLASSIFIED GYPSUM BOARD THAT IS ELIGIBLE FOR USE IN DESIGN NOS. L501, G512 OR U305. SEE TABLE UNDER ITEM 6 FOR NUMBER OF LAYERS AND THICKNESS ON INTERIOR FACE OF WALL. ANY 5/8 IN. OR 1/2 IN. THICK GYPSUM BOARD APPLIED HORIZONTALLY OR VERTICALLY. FIRST LAYER ATTACHED TO FURRING CHANNELS, ITEM 4, USING 1 IN. LONG TYPE S BUGLE HEAD GYPSUM BOARD SCREWS SPACED 24 IN. OC. VERTICALLY AND HORIZONTALLY. SECOND LAYER ATTACHED TO FURRING CHANNELS USING 1-5/8 IN. LONG TYPE S BUGLE HEAD GYPSUM BOARD SCREWS SPACED 12 IN. OC. VERTICALLY AND 24 IN. OC. HORIZONTALLY. THIRD LAYER. WHEN USED. ATTACHED TO FURRING CHANNELS USING TYPE S BUGLE HEAD GYPSUM BOARD SCREWS SPACED 12 IN. OC. VERTICALLY AND 24 IN. OC. HORIZONTALLY, 1-7/8 IN. LONG FOR 1/2 IN. GYPSUM BOARD AND 2-1/4 IN. LONG FOR 5/8 IN. GYPSUM BOARD. FOURTH LAYER, WHEN USED, ATTACHED TO STEEL STRAPPING USING 1 IN. LONG (MIN) BUGLE HEAD DRYWALL SCREWS SPACED 8 IN. OC. STEEL STRAPPING FROM FLAT STOCK, 1-1/2 IN. WIDE, FABRICATED FROM 0.020 IN. THICK (25 GAUGE) GALV STEEL. STEEL STRAPPING LOCATED VERTICALLY AND ATTACHED TO THIRD LAYER OF GYPSUM BOARD AT EACH VERTICAL JOINT AND INTERMEDIATE STUD USING 2-5/8 IN. TYPE S BUGLE HEAD DRYWALL SCREWS 12 IN. OC. THE HORIZONTAL OR VERTICAL JOINTS OF THE WALLBOARD ARE OFFSET 24 IN. WHEN 2 SUCCESSIVE LAYERS ARE APPLIED IN THE SAME ORIENTATION.

AMERICAN GYPSUM CO (VIEW CLASSIFICATION) — CKNX.R14196

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO (VIEW CLASSIFICATION) - CKNX.R19374

CABOT MANUFACTURING ULC (VIEW CLASSIFICATION) - CKNX.R25370

CERTAINTEED GYPSUM INC (VIEW CLASSIFICATION) - CKNX.R3660

CGC INC (VIEW CLASSIFICATION) - CKNX.R19751

CERTAINTEED GYPSUM INC (VIEW CLASSIFICATION) - CKNX.R18482

GEORGIA-PACIFIC GYPSUM L L C (VIEW CLASSIFICATION) - CKNX.R2717

NATIONAL GYPSUM CO (VIEW CLASSIFICATION) - CKNX.R3501

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM (VIEW CLASSIFICATION) - CKNX.R7094

PANEL REY S A (VIEW CLASSIFICATION) - CKNX.R21796

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD (VIEW CLASSIFICATION) - CKNX.R19262

THAI GYPSUM PRODUCTS PCL (VIEW CLASSIFICATION) - CKNX.R27517

UNITED STATES GYPSUM CO (VIEW CLASSIFICATION) - CKNX.R1319

USG BORAL DRYWALL SFZ LLC (VIEW CLASSIFICATION) - CKNX.R38438

USG MEXICO S A DE C V (VIEW CLASSIFICATION) - CKNX.R16089

5A. GYPSUM BOARD* --- (AS AN ALTERNATE TO ITEM 5) -- FASTENED AS DESCRIBED IN ITEM 5. 5/8 IN. THICK, 4 FT. WIDE, PAPER SURFACED, APPLIED VERTICALLY ONLY. NATIONAL GYPSUM CO - TYPE SBWB

5B. GYPSUM BOARD* — (AS AN ALTERNATE TO ITEMS 5 AND 5A) — NOMINAL 5/8 IN. THICK, 4 FT WIDE PANELS, APPLIED VERTICALLY ONLY AND SECURED AS DESCRIBED IN ITEM 5. PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM - TYPE QUIETROCK ES

5C. WALL AND PARTITION FACINGS AND ACCESSORIES* -(AS AN ALTERNATE TO ITEMS 5 THROUGH 5C) -NOMINAL 5/8 IN. THICK, 4 FT WIDE PANELS, APPLIED VERTICALLY ONLY AND SECURED AS DESCRIBED IN ITEM 5.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM - TYPE QUIETROCK 527

5D. GYPSUM BOARD* — (AS AN ALTERNATE TO 5/8 IN. TYPE FSW IN ITEM 5) — NOM. 5/16 IN. THICK GYPSUM PANELS APPLIED VERTICALLY OR HORIZONTALLY. TWO LAYERS OF 5/16 IN. FOR EVERY SINGLE LAYER OF 5/8 IN. GYPSUM BOARD DESCRIBED IN ITEM 5. HORIZONTAL JOINTS ON THE SAME SIDE NEED NOT BE STAGGERED. INNER LAYER OF EACH DOUBLE 5/16 IN. LAYER ATTACHED WITH FASTENERS, AS DESCRIBED IN ITEM 5, SPACED 24 IN. OC. OUTER LAYER OF EACH DOUBLE 5/16 IN. LAYER ATTACHED PER ITEM 5. NATIONAL GYPSUM CO — TYPE FSW

6. GYPSUM BOARD* - SEE FOLLOWING TABLE FOR NUMBER OF LAYERS ON EXTERIOR FACE OF WALL, ANY EXTERIOR GRADE 5/8 IN THICK GYPSUM WALLBOARD OR GYPSUM SHEATHING APPLIED HORIZONTALLY OR VERTICALLY. FIRST LAYER ATTACHED TO GIRTS, ITEM 1, USING 1-1/4 IN. LONG (MIN) SELF-DRILLING BUGLE-HEAD SHEET STEEL TYPE GYPSUM BOARD SCREWS SPACED 8 IN. OC. HORIZONTALLY. SECOND LAYER, WHEN USED, ATTACHED TO GIRTS USING 1-5/8 IN. LONG (MIN) SELF-DRILLING BUGLE-HEAD SHEET STEEL TYPE GYPSUM BOARD SCREWS SPACED 8 IN. OC HORIZONTALLY. THE HORIZONTAL OR VERTICAL JOINTS OF THE GYPSUM BOARD ARE OFFSET 24 IN. IF 2 SUCCESSIVE LAYERS ARE APPLIED IN THE SAME ORIENTATION.

	FIRE RESISTANCE FROM BOTH	SIDES OF WALL
RATING	LAYERS 5/8 IN. GYPSUM BOARD (ITEM 5) ON INTERIOR FACE	LAYERS 5/8 IN. GYPSUM BOA (ITEM 6) ON EXTERIOR FACE
1	1	1
2	2	2
2	3	1
	FIRE RESISTANCE FROM INSID	E OF WALL
RATING	LAYERS 5/8 IN. GYPSUM BOARD (ITEM 5) ON INTERIOR FACE	LAYERS 5/8 IN. GYPSUM BOAI (ITEM 6) ON EXTERIOR FACE
1	3	0
2	4	0

ANY 1/2 IN. THICK UL CLASSIFIED GYPSUM BOARD THAT IS ELIGIBLE FOR USE IN DESIGN NO. X515. ANY 5/8 IN. THICK UL CLASSIFIED GYPSUM BOARD THAT IS ELIGIBLE FOR USE IN DESIGN NOS. L501. G512 OR U305. SEE GYPSUM BOARD (CKNX) CATEGORY FOR NAMES OF CLASSIFIED COMPANIES.

COLUMN PROTECTION - (NOT SHOWN) - HORIZONTAL WALL GIRTS, ITEM 1, ARE ATTACHED TO VERTICAL STRUCTURAL STEEL COLUMNS. SEE COLUMN DESIGN NOS. X524 AND X530 FOR PROTECTION OF COLUMNS. 8. BATTS AND BLANKETS* — (OPTIONAL, NOT SHOWN) — GLASS FIBER BATTS PLACED IN THE CAVITIES OF EXTERIOR WALLS.

SEE BATTS AND BLANKETS* (BZJZ) - CATEGORY FOR NAMES OF MANUFACTURERS.

8A. FIBER, SPRAYED* — AS AN ALTERNATE TO BATTS AND BLANKETS (ITEM 8) — (100% BORATE FORMULATION) - SPRAY APPLIED CELLULOSE MATERIAL. THE FIBER IS APPLIED WITH WATER TO COMPLETELY FILL THE ENCLOSED CAVITY IN ACCORDANCE WITH THE APPLICATION INSTRUCTIONS SUPPLIED WITH THE PRODUCT WITH A NOMINAL DRY DENSITY OF 2.7 LB/FT3. ALTERNATE APPLICATION METHOD: THE FIBER IS APPLIED WITHOUT WATER OR ADHESIVE AT A NOMINAL DRY DENSITY OF 3.5 LB/FT3, IN ACCORDANCE WITH THE APPLICATION INSTRUCTIONS SUPPLIED WITH THE PRODUCT. APPLEGATE GREENFIBER ACQUISITION LLC - INSULMAX AND SANCTUARY FOR USE WITH WET OR DRY APPLICATION.

8B. FIBER, SPRAYED* — AS AN ALTERNATE TO BATTS AND BLANKETS (ITEM 8) AND ITEM 8A - SPRAY APPLIED CELLULOSE INSULATION MATERIAL. THE FIBER IS APPLIED WITH WATER TO INTERIOR SURFACES IN ACCORDANCE WITH THE APPLICATION INSTRUCTIONS SUPPLIED WITH THE PRODUCT. APPLIED TO COMPLETELY FILL THE ENCLOSED CAVITY. MINIMUM DRY DENSITY OF 4.3 POUNDS PER CUBIC FT. NU-WOOL CO INC - CELLULOSE INSULATION

8C. FIBER, SPRAYED* — AS AN ALTERNATE TO BATTS AND BLANKETS (ITEM 8) — SPRAY APPLIED CELLULOSE FIBER. THE FIBER IS APPLIED WITH WATER TO COMPLETELY FILL THE ENCLOSED CAVITY IN ACCORDANCE WITH THE APPLICATION INSTRUCTIONS SUPPLIED WITH THE PRODUCT. THE MINIMUM DRY DENSITY SHALL BE 4.30 LBS/FT3.

INTERNATIONAL CELLULOSE CORP - CELBAR-RL

9. JOINT TAPE AND COMPOUND — (NOT SHOWN, OPTIONAL) — VINYL OR CASEIN, DRY OR PREMIXED JOINT COMPOUND APPLIED IN TWO COATS TO JOINTS AND SCREW HEADS OF FACE LAYER OF GYPSUM BOARD. PAPER OR GLASS FIBER TAPE EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS. * 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 2023-08-04

ARD ARD

Wall Assembly — The fire rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features: A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC.

B. Gypsum Board* — Two layers of nom 1/2 in. thick gypsum wallboard, as specified in the individual Wall and Partition Design. Max diam of opening is 6 in.

2. Pipe or Conduit — One nom 4 in. diam Schedule 10 (or heavier) steel pipe, steel conduit or electrical metallic tube (EMT) to be centered within opening. The annular space shall be min 1/4 in. to max 1-1/4 in. Pipe or conduit to be rigidly supported on both sides of wall assembly. 3. Forming Material* — Min 2-1/2 in. thickness of min 4.0 pcf mineral wool forming material firmly packed into annular space and stud cavity in area of wall opening as a permanent form. Forming material to be recessed min 1 in. from both surfaces of wall to accommodate the caulk fill material. THERMAFIBER INC — Type SAF

4. Fill, Void or Cavity Material* — Caulk — Min 1 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. UNITED STATES GYPSUM CO — Type AS

*Bearing the UL Classification Marking Last Updated on 2010-12-02

BUILDING PROFILE

Width (ft) = 120	Eave	Height (ft)	=	26
Length $(ft) = 75$	Roof	Slope (Rise/12)	=	1.0:12

BUILDING LOADS

- A) THIS IS TO CERTIFY THAT THIS STRUCTURE IS DESIGNED UTILIZING THE LOADS INDICATED AND APPLIED AS REQUIRED BY NCBC 18 / IBC 15
- THIS CERTIFICATION IS LIMITED TO THE STRUCTURAL DESIGN OF THE FRAMING AND COVERING B) PARTS MANUFACTURED BY THE BUILDING MANUFACTURER AND AS SPECIFIED IN THE CONTRACT. ACCESSORY ITEMS SUCH AS DOORS, WINDOWS, LOUVERS, TRANSLUCENT PANELS, VENTILATORS ARE NOT INCLUDED. ALSO EXCLUDED ARE OTHER PARTS OF THE PROJECT NOT PROVIDED BY THE BUILDING MANUFACTURER SUCH AS FOUNDATIONS, MASONRY WALLS, MECHANICAL EQUIPMENT AND THE ERECTION AND INSPECTION OF THE BUILDING. THE BUILDING SHOULD BE ERECTED ON A PROPERLY DESIGNED FOUNDATION IN ACCORDANCE WITH THE BUILDING MANUFACTURER'S DESIGN MANUAL, THE ATTACHED DRAWINGS, AND GOOD ERECTION PRACTICES. THE END USER AND/OR ENGINEER OF RECORD IS TO CONFIRM THAT THESE LOADS COMPLY WITH REQUIREMENTS OF THE LOCAL BUILDING DEPT.

OCCUPANCY/RISK_CATEGORY	<u>II — Normal is 1.0000 le 1.00</u>
WIND LOAD ULTIMATE	<u>120</u> MPH <u>NOMINAL 92.95</u> MPH <u>WIND EXPOSURE C</u>
CLOSURE TYPE	Enclosed INTERNAL WIND COEF0.18 / 0.18
GROUND SNOW LOAD	10.00 PSF ROOF SNOW LOAD 7 PSF Ce 1.0000 Ct 1.00
SNOW BANKING LOADS	PER CODE
COLLATERAL_DEAD_LOAD	PSF
ROOF LIVE LOAD	20.00 PSF (REDUCIBLE Yes)
DEAD_LOAD	2.000 PSF (FOR ROOF PANELS AND PURLINS)
SEISMIC	
SPECTRAL RESPONSE Ss 0.1	860 S1 0.0860 Sds 0.1984 Sd1 0.1376
SITE CLASS D	DESIGN RISK CATEGORY <u>C</u> Cs <u>0.0662</u>
RESPONSE MODIFICATION FACTOR,	R 3.000* FRAMES 3.000* BRACING
	VETCH (LATERAL DIRECTIONS) - ORDINARY STEEL WONENT ERAMES

SIC SEISMIC FORCE RESISTING SYSTEM (LATERAL BASIC SEISMIC FORCE RESISTING SYSTEM (REW) = ORDINARY STEEL CONCENTRICALLY BRACED FRAMES BASIC SEISMIC FORCE RESISTING SYSTEM (LEW) = ORDINARY STEEL MOMENT FRAMES BASIC SEISMIC FORCE RESISTING SYSTEM (LONGITUDINAL DIRECTIONS) = ORDINARY STEEL CONC. BRACED FRAMES ANALYSIS PROCEDURE

= EQUIVALENT LATERAL FORCE PROCEDURE

<u>SE</u>	RVICEA	BITHA	CRITERIA		SEISMIC RE	SISTANCI	E	 _
	MINIA	IUM DES	IGN DEFLECTIONS					
Endwall Column	=	120	Roof Panel	(Live)	-	60		
Endwall Rafter (Live)	=	180	Roof Panel	(Wind)		60		
Endwall Rafter (Wind)	=	180	Rigid Fram	e (Horz)		60		
Wall Girt	=	90	Rigid Fram	e (Vert)	=	180		
Roof Purlin (Live)	101	150	Rigid Fram	e (Seismic)	=	50		
Roof Purlin (Wind)	-	150						
Wall Panel	=	60						
	GEN	ERAL I	NOTES					

- A) THE STRUCTURE UNDER THIS CONTRACT HAS BEEN DESIGNED AND DETAILED FOR THE LOADS AND CONDITIONS STIPULATED IN THE CONTRACT AND SHOWN ON THESE DRAWINGS. ANY ALTERATIONS TO THE STRUCTURAL SYSTEM OR REMOVAL OF ANY COMPONENT PARTS, OR THE ADDITION OF OTHER CONSTRUCTION MATERIALS OR LOADS MUST BE DONE UNDER THE ADVICE AND DIRECTION OF A REGISTERED ARCHITECT, CIVIL OR STRUCTURAL ENGINEER.
- THE BUILDING MANUFACTURER WILL ASSUME NO RESPONSIBILITY FOR ANY LOADS NOT INDICATED. B) THIS METAL BUILDING IS DESIGNED WITH THE BUILDING MANUFACTURER'S STANDARD PRACTICES WHICH ARE BASED ON PERTINENT PROCEDURES AND RECOMMENDATIONS OF THE FOLLOWING ORGANIZATIONS AND CODES.
- 1. AMERICAN INSTITUTE OF STEEL CONSTRUCTION: " AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS-ALLOWABLE STRESS DESIGN
- 2. AMERICAN IRON AND STEEL INSTITUTE: "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL
- 3. AMERICAN WELDING SOCIETY: "STRUCTURAL WELDING CODE" AWS D1.1.
- 4. METAL BUILDING MANUFACTURER'S ASSOCIATION: "LOW RISE BUILDING SYSTEMS MANUAL"
- C) 1) MATERIAL PROPERTIES OF STEEL PLATE USED IN THE FABRICATION OF PRIMARY RIGID FRAMES, AND OTHER MALERAL PROFERIES OF SIELE FLATE USED IN THE FABRICATION OF PRIMARY REGID FOOMES, AND OTHER PRIMARY STRUCTURAL EXCLUSIVE OF COLD-FORMED SECTIONS, CONFORM TO AST2 MITH A MINIMUM YIELD POINT OF 55,000 psi. FLANGES GREATER THAN 1" IN THECKNESS OR 12" IN WIDTH CONFORM TO AST2 WITH A MINIMUM YIELD POINT OF 50,000 psi. WEB MATERIAL CONFORMS TO ASTM-AS29 WITH A MINIMUM YIELD POINT OF 55,000 psi. 2) MATERIAL PROPERTIES OF PIPE SECTIONS CONFORM TO ASTM-A500, GRADE B WITH A MINIMUM YIELD
- POINT OF 42,000 psi.
- 3) MATERIAL PROPERTIES OF TUBE SECTIONS CONFORM TO ASTM-A500, GRADE B WITH A MINIMUM YIELD POINT OF 46,000 psi.
- 4) MATERIAL PROPERTIES OF HOT ROLLED CHANNEL AND ANGLE MEMBERS CONFORM TO THE REQUIREMENTS OF ASTM-A529 WITHMINIMUM YIELD POINT OF 50,000 PSI. HOT ROLLED W-SHAPED MEMBERS CONFORM TO THE REQUIREMENTS OF ASTM-AS92/WITH MINIMUM YIELD POINT OF 50,000 PSI.
- 5) MATERIAL PROPERTIES OF COLD FORMED LIGHT GAGE STEEL MEMBERS CONFORM TO EITHER ASTM A653-06 GR 55 OR A1011-04 HSLAS GRADE 55 WITH YIELD OF 55,000 psi. 6) MATERIAL PROPERTIES OF ROOF/WALL SHEETING, BASE METAL CONFORM TO ASTM-A792 GRADES 80 CLASS 1, 2 OR 3
- WITH A MINIMUM YIELD STRENGTH OF 80,000 PSI. COATING OF BASE MATERIAL IS 55% ALUMINUM-ZINC ALLOY IN ACCORDANCE WITH AZ55 SPECIFICATIONS.
- 7) CABLE UTILIZED FOR BRACING CONFORMS TO ASTM A475. CABLE BRACING IS TO BE INSTALLED TO A TAUT CONDITION.
- 8) ROD LITH IZED FOR BRACING MEMBERS CONFORM TO ASTM-A36 WITH MINIMUM YIELD POINT OF 36.000 PSI 8) ROD UTILIZED FOR BRACING MEMBERS CONFORM TO ASTM-A36 WITH MINIMUM YIELD POINT OF 36,000 PSI.
 9) IT IS THE RESPONSIBILITY OF ERECTOR TO ENSURE PROPER BOLT TIGHTNESS IN ACCORDANCE WITH APPLICABLE "RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING A-325 OR A-490 BOLTS". ALL A-325 BOLTS IN PRIMARY FRAMING MUST BE "SNUG-TIGHT", EXCEPT AS FOLLOWS:
 "FULLY-PRETENSION" A-325 BOLTS IF:
 a) BUILDING LOCATED IN A HIGH SEISMIC AREA. FOR IBC-BASED CODE, "HIGH SEISMIC AREA" IS DEFINED AS "SEISMIC DESIGN CATEGORY" OF "D", "E" OR "F".
 b) BUILDING SUPPORTS A CRANE SYSTEM WITH A CAPACITY GREATER THAN 5.00 TONS.
 c) BUILDING SUPPORTS A CRANE SYSTEM WITH A CAPACITY GREATER THAN 5.00 TONS.

- e) BUILDING SUPPORTS MACHINERY THAT CREATES VIBRATION, IMPACT OR STRESS REVERSALS ON THE CONNECTIONS.
- d) ANY CONNECTION DESIGNATED IN THESE DRAWINGS AS "A-325 SC".

10) SECONDARY MEMBERS AND FLANGE BRACE CONNECTIONS SHALL ALWAYS BE SNUG TIGHT, UNO.

- 11) ANCHOR BOLTS 3/4" IN DIAMETER THRU 1 1/4" IN DIAMETER CONFORM TO A.S.T.M. F1554 GR. 36. ANCHOR BOLTS 1/2" IN DIAMETER CONFORM TO A.S.T.M. A-307.
 D) UNLESS NOTED OTHERWISE ON FRAMING COLOR CHART: ALL STEEL MEMBERS EXCEPT BOLTS, FASTENERS, CABLE
- AND RODS SHALL RECEIVE ONE COAT OF STANDARD RED OXIDE SHOP PRIMER. E) SHOP AND FIELD INSPECTIONS AND ASSOCIATED FEES ARE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS STIPULATED OTHERWISE IN THE CONTRACT.

APPROVAL NOTES

- THE FOLLOWING CONDITIONS APPLY IN THE EVENT THAT THESE DRAWINGS ARE USED AS APPROVAL DRAWINGS: A) IT IS IMPERATIVE THAT ANY CHANGES TO THESE DRAWINGS:
 - 1) BE MADE IN CONTRASTING INK.
 - 2) HAVE ALL INSTANCES OF CHANGE CLEARLY INDICATED.
 - 3) BE LEGIBLE AND UNAMBIGUOUS.
- B) DATED SIGNATURE IS REQUIRED ON ALL PAGES.
- C) MANUFACTURER RESERVES THE RIGHT TO RESUBMIT DRAWINGS WITH EXTENSIVE OR COMPLEX CHANGES REQUIRED D AVOID MISFABRICATION, THIS MAY IMPACT THE DELIVERY SCHEDULE.
- D) APPROVAL OF THESE DRAWINGS INDICATES CONCLUSIVELY THAT THE MANUFACTURER HAS CORRECTLY INTERPRETED THE CONTRACT REQUIREMENTS, AND FURTHER CONSTITUTES AGREEMENT THAT THE BUILDING AS DRAWN, OR AS DRAWN WITH INDICATED CHANGES REPRESENTS THE TOTAL OF THE MATERIALS TO BE SUPPLIED BY MANUFACTURER.
- E) ANY CHANGES NOTED ON THE DRAWINGS NOT IN CONFORMANCE WITH THE TERMS AND REQUIREMENTS OF THE CONTRACT BETWEEN MANUFACTURER AND ITS CUSTOMER ARE NOT BINDING ON MANUFACTURER UNLESS SUBSEQUENTLY SPECIFICALLY ACKNOWLEDGED AND AGREED TO IN WRITING BY CHANGE ORDER OR SEPARATE DOCUMENTATION, MANUFACTURER RECOGNIZES THAT RUBBER STAMPS ARE ROUTINELY USED FOR INDICATING APPROVAL, DISAPPROVAL, REJECTION, OR MERE REVIEW OF THE DRAWINGS SUBMITTED. HOWEVER, MANUFACTURER DOES NOT ACCEPT CHANGES OR ADDITIONS TO CONTRACTUAL TERMS AND CONDITIONS THAT MAY APPEAR WITH USE OF A STAMP OR SIMILAR INDICATION OF APPROVAL, DISAPPROVAL, ETC., SUCH LANGUAGE APPLIED TO MANUFACTURER'S DRAWINGS BY THE CUSTOMER, ARCHITECT, ENGINEER, OR ANY OTHER PARTY WILL BE CONSIDERED AS UNACCEPTABLE ALTERATIONS TO THESE DRAWING NOTES, AND WILL NOT ALTER THE CONTRACTUAL RIGHTS AND OBLIGATIONS EXISTING BETWEEN MANUFACTURER AND ITS CUSTOMER.

SAFETY COMMITMENT

- THE BUILDING MANUFACTURER HAS A COMMITMENT TO MANUFACTURE QUALITY BUILDING COMPONENTS THAT CAN BE SAFELY ERECTED. HOWEVER, THE SAFETY COMMITMENT AND JOB SITE PRACTICES OF THE ERECTOR ARE BEYOND THE CONTROL OF THE BUILDING MANUFACTURER.
- IT IS STRONGLY RECOMMENDED THAT SAFE WORKING CONDITIONS AND ACCIDENT PREVENTION PRACTICES BE THE TOP PRIORITY OF ANY JOB SITE.
- C) LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS SHOULD ALWAYS BE FOLLOWED TO HELP INSURE WORKER SAFETY.
- MAKE CERTAIN ALL EMPLOYEES KNOW THE SAFEST AND MOST PRODUCTIVE WAY OF ERECTING A BUILDING. EMERGENCY PROCEDURES SHOULD BE KNOWN TO ALL EMPLOYEES. F)
- DAILY MEETINGS HIGHLIGHTING SAFETY PROCEDURES ARE ALSO RECOMMENDED. THE USE OF HARD HATS, RUBBER SOLE SHOES FOR ROOF WORK, PROPER EQUIPMENT FOR HANDLING MATERIAL, AND SAFETY NETS WHERE APPLICABLE. ARE RECOMMENDED

ERECTOR / CONTRACTOR RESPONSIBILITIES

- A) IT IS THE RESPONSIBILITY OF THE ERECTOR/CONTRACTOR TO INSURE THAT ALL PROJECT PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE REQUIREMENTS OF ANY COVENING BUILDING AUTHORITIES. THE SUPPLYING OF SEALED ENGINEERING DATA AND DRAWINGS FOR THE METAL BUILDING SYSTEM DOES NOT IMPLY OR CONSTITUTE AN AGREEMENT THAT THE BUILDING MANUFACTURER OR ITS DESIGN ENGINEER IS ACTING AS THE ENGINEER OF RECORD OR DESIGN PROFESSIONAL FOR A CONSTRUCTION PROJECT.
- REQUIRED.
- CORRECTLY INTERPRETED AND APPLIED THE REQUIREMENTS OF THE CONTRACT DRAWINGS AND SPECIFICATIONS. (SECT. 4.4.1 AISC CODE OF STANDARD PRACTICES, LATEST ED.)
- MANUFACTURER ARE THE RESPONSIBILITY OF THE CONTRACTORS AND ENGINEERS OTHER THAN THE BUILDING MANUFACT-URER'S ENGINEERS UNLESS SPECIFICALLY INDICATED.
- AFTER THE ERECTOR/CONTRACTOR LEARNS OF THE DEFECT. THE MANUFACTURER WILL NOT BE LIABLE FOR ANY DEFECT UNLESS CLAIM IS MADE WITHIN ONE (1) YEAR AFTER DATE OF THE ORGINAL SHIPMENT BY THE MANUFACTURER TO CONTRACTOR OR HIS CUSTOMER. THE MANUFACTURER WILL BE GIVEN A REASONABLE OPPORTUNITY TO INSPECT DEFECTIVE MATERIALS

IF A DEFERT IS OF SUCH NATURE THAT IT CAN BE REMEDIED BY A FIELD OPERATION AT THE JOB SITE WITHOUT THE NECESSITY OF RETURNING THE MATERIAL TO THE MANUFACTURER, THEN UPON WRITEN AUTHORIZATION OF THE MANUFACTURER THE CONTRACTOR MAY REPAIR OR CAUSE THE MATERIAL TO BE REPAIRED AND THE MANUFACTURER WILL REMBURSE THE CONTRACTOR FOR THE COST OF THE REPAIR IN ACCORDANCE WITH THE WRITTEN AUTHORIZATION.

THE CORRECTION OF MINOR MISFITS BY THE USE OF DRIFT PINS TO DRAW THE COMPONENTS IN TO LINE, MODERATE AMOUNTS OF REAMING, CHIPPING AND CUTTING, AND THE REPLACEMENT OF MINOR SHORTAGES OF MATERIAL ARE A NORMAL PART OF ERECTION AND ARE NOT SUBJECT TO CLAIM.

- TEMPORARY SUPPORTS WILL SECURE THE STEEL FRAMING, OR ANY PARTLY ASSEMBLED STEEL FRAMING, AGAINST LOADS COMPARABLE IN INTENSITY TO THOSE FOR WHICH THE STRUCTURE WAS DESIGNED, RESULTING FROM WIND, SEISMIC FORCES AND ERECTION OPERATIONS. BUT NOT THE LOADS RESULTING FROM THE PERFORMANCE OF WORK BY OR THE ACTS OF OTHERS, NOR SUCH UNPREDICTABLE LOADS AS THOSE DUE TO TORNADO, EXPLOSION OR COLLISION (SECT. 7.10.3 AISC CODE OF STANDARD PRACTICE, LATEST ED.)
- J) METAL BUILDING MANUFACTURER IS NOT RESPONSIBLE FOR THE DESIGN, MATERIAL AND WORKMANSHIP OF FOUNDATION. ANCHOR BOLT PLANS PREPARED BY MBM ARE INTENDED TO SHOW ONLY LOCATION, DIAMETER AND PROJECTION OF THE ANCHOR RODS REQUIRED TO ATTACH THE METAL BUILDING SYSTEM TO FOUNDATION. IT IS RESPONSIBILITY OF THE END CUSTOMER TO ENSURE THAT ADEQUATE PROVISIONS ARE MADE FOR SPECIFYING ROD EMBEDMENT, BEARING VALUES, TIE RODS AND OTHER ASSOCIATED ITEMS EMBEDDED IN THE CONCRETE FOUNDATION, AS WELL AS FOUNDATION DESIGN FOR THE LOADS IMPOSED BY MB SYSTEM, OTHER IMPOSED LOAD, AND THE BEARING CAPACITY OF THE SOIL AND OTHER CONDITIONS OF THE BUILDING SITE (MBMA D6 SECTIONS 3.2.2 AND A3)

K) METAL BUILDING MANUFACTURER DOES NOT PROVIDE ANY FIELD SUPERVISION FOR THE ERECTION, NOR DOES MBM PERFORM ANY INSPECTIONS DURING OR AFTER ERECTION.

IT IS THE RESPONSIBILITY OF THE CUSTOMER TO PROVIDE ALL DOCUMENTATION REQUIRED FOR ANY ACCESSORIES NOT PROVIDED BY MBM TO THEIR LOCAL PERMITTING OFFICE. ALL ACCESSORIES MUST COMPLY AND MEET ALL DESIGN REQUIREMENTS PER LOCAL CODES.

ALL VEHICULAR FRAMED OPENINGS SUPPLIED ON THIS PROJECT HAVE BEEN DESIGNED TO SUPPORT WIND LOADS NORMAL TO A DOOR SYSTEM, BASED ON THE STANDARD BUILDING CODE CRITERIA THE VEHICULAR FRAMED OPENING HAS NOT BEEN DESIGNED FOR ANY ADDITIONAL MOMENT OR CATENARY FORCE FROM THE DOOR SYSTEM. ANY CHANGES TO THE INFORMATION SHOWN HERE WOULD REQUIRE AN ENGINEERING INVESTIGATION AND POSSIBLE BUILDING REINFORCEMENT.

		FRAM	AING	COLO	RS		
Rigid Frame Flange brac Angle:	: RÓ ≊: RO RO	RGG	0 – Re P – Gr Z – Ga	d Oxide ey Prim Wanized	er	5.4	
	Grt	Pur	EvSt	Jmb	88	Col	Raf
U SECTIONE	RO	RO	RÓ	RO	RO	RO	RO
C SECTION:	RO	RO	RO	RO	RO	RO	RO
D SECTION:	RO	RO	RO	RO	R0	RO	RO
Z SECTION:	RO	RO	RÓ	RO	RO	RO	RO
E SECTION:	RO	RO	RO	RO	RO	RO	RO
R SECTION:	RO	RO	RO	RO	RO	RO	RO
W SECTIONS	RO	RO	RO	RD	RO	RO	RO

WHEN GALVANIZED PROVIDED: ALL FINISHED PRIMARY BUILT-UP AND HOT ROLL MEMBERS ARE HOT DIPPED GALVANIZED. ALL SECONDARY COLD FORMED MEMBERS ARE PRE-GALVANIZED.

BUILDING DESIGNED & MANUFACTURED BY AN IAS ACCREDITED FACILITY.

	LUNS.	
ROOF:	GALVALUME	
LINER:	COLOR	
DOOR PANEL:	SADDLE TAN	_
SOFFIT:	COLOR	
WALLS:	SADDLE TAN	╠╴
GABLE:	KOKO BROWN	IIL
EAVE:	KOKO BROWN	
CORNER:	KOKO BROWN	
FRAMED OPENINGS:	KOKO BROWN	
GUTTER:	KOKO BROWN	ľ
DOWNSPOUTS:	KOKO BROWN	
BASE:	KOKO BROWN	

001.000

- B) THE CONTRACTOR MUST SECURE ALL REQUIRED APPROVALS AND PERMITS FROM THE APPROPRIATE AGENCY AS
- C) APPROVAL OF THE MANUFACTURER'S DRAWINGS AND CALCULATIONS INDICATE THAT THE BUILDING MANUFACTURER
- D) WHERE DISCREPANCIES EXIST BETWEEN THE MANUFACTURER'S STRUCTURAL STEEL PLANS AND THE PLANS FOR OTHER TRADES, THE STRUCTURAL STEEL PLANS SHALL GOVERN. (SECT. 3.3 AISC CODE OF STANDARD PRACTICE LATEST ED.) E) DESIGN CONSIDERATIONS OF ANY MATERIALS IN THE STRUCTURE WHICH ARE NOT FURNISHED BY THE BUILDING

- URER'S ENGINEER'S UNLESS SPECIFICALLY INDICATED. F) THE ERECTOR/CONTRACTOR IS RESPONSIBLE FOR ALL ERECTION OF STEEL AND ASSOCIATED WORK IN COMPLIANCE WITH THE BUILDING MANUFACTURER'S "FOR CONSTRUCTION" DRAWINGS. (C) PRODUCTS SHIPPED TO ERECTOR/CONTRACTOR OR HIS CUSTOMER SHALL BE INSPECTED BY ERECTOR/CONTRACTOR IMMEDIATELY UPON ARRIVAL CLAIMS FOR SHORTAGES OR DEFECTIVE MATERIAL IF NOT PACKAGED MUST BE SENT TO THE MANUFACTURER IN WRITING WITHIN FIVE (5) DAYS AFTER RECEIPT OF THE SHIPMENT. HOWEVER, IF A DEFECT IS OF SUCH A NATURE THAT REASONABLE VISUAL INSPECTION WOULD FAIL TO DISCLOSE IT, THEN THE CLAIM MUST BE MADE WITHIN FIVE (5) DAYS AFTER THE EDECTOR /CONTRACTOR LEAVE OF THE DEFECT THE MANUFACTURER WILL NOT DE LAVE E GOR ANY DEFECT IN SES

UPON RECEIPT OF CLAIM BY CONTRACTOR.

H) ALL BRACING AS SHOWN AND PROVIDED BY THE MANUFACTURER FOR THIS BUILDING IS REQUIRED AND SHALL BE INSTALLED BY THE ERECTOR AS A PERMANENT PART OF THE STRUCTURE.
 INSTALLED BY THE ERECTOR AS A PERMANENT PART OF THE STRUCTURE.
 TEMPORARY SUPPORTS, SUCH AS TEMPORARY GUYS, BRACES, FALSE WORK, CRIBBING OR OTHER ELEMENTS REQUIRED FOR THE ERECTION OPERATION WILL BE DETERMINED AND FURNISHED AND INSTALLED BY THE ERECTOR. THESE

COMPONENTS & CLADDING (unfactored)

psf /

-34.755 psf

psf / -42.695 psf

Wall Field Values = 32.081

Wall Edge Values = 32.081

✤ Dia= 3/4"
✿ Dia= 7/8"

Wayne Brad Baker, P.E. 235 Sanders Rd. Hahira, GA 31632

IS	SUE	DET	CHK	DATE
			_	
STEELCOR BUILD	DINGS			
ERWIN HANGAR				
^{јов но:} 8245		DATE:	/26/	/23
ERWIN, NC 28	339			
ANCHOR BOLT	DETAILS			
DRAWING NO: PAGE 1.1	DRAWN BY: DAR	SPW	i: S	NONE

FRAME LINES: 1	FRAME LINES: 2 3 4		
	P	COLUMN LINE	Wayne Brad Baker, P.E. 235 Sanders Rd.
	H V	H	Hahira, GA 31632
RIGID FRAME: BASIC COLUMN REACTIONS (K)	RIGID FRAME: ANCHOR BOLTS & BASE PLATES	ENDWALL COLUMN: BASIC COLUMN REACTIONS (K)	BRAU BRAU
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Frm Col AncBolt Base_Plate (in) Grout Line Line Qty Dia Width Length Thick (in)	Wind Wind Frm Col Press Suct -MIN_SNOW E1UNB_SL_L- E1UNB_ Line Line Horz Horz Horz Vert Horz Vert 1 H -3.6 3.9 0.0 4.1 0.0 3.6 0.0 1 B -3.6 3.9 0.0 4.1 0.0 2.0 0.0	_SL_R Vert 2.0 3.6
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 A 4 0.875 10.00 12.30 0.500 0.0 1 A 4 0.875 10.00 12.50 0.500 0.0 1 H 4 0.750 8.000 8.000 0.375 0.0 1 B 4 0.750 8.000 8.000 0.375 0.0 1 B 4 0.750 8.000 8.000 0.375 0.0	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Frm Col AncBolt Base_Plate (in) Grout Line Qty Dia Width Length Thick (in) 2 I 4 0.875 10.00 13.00 0.625 0.0 2 A 4 0.875 10.00 13.00 0.625 0.0	5 I 0.6 0.3 1.8 0.6 -2.1 -3.1 Seis Seis Seis Frm Col Left Right Long -MIN_SNOW E2UNB_SL_L- Line Line Vert Vert Horz Vert Horz Vert 5 A 0.0 0.0 0.0 0.9 0.0 0.7	-1.0 -2.0 -3.5 4.0 -2.1 -3.5 - E2UNB_SL_R- E2PAT_LL_1- E2PAT_LL_2- Horz Vert Horz Vert 0.0 0.2 0.0 1.7 0.0 -0.2
Frame Column F1UNB_SL_R- Line Horiz Vert 1 I 0.0 -1.0 1 A 0.0 -1.1 1 H 0.0 2.3 1 B 0.0 4.1	RIGID FRAME: ANCHOR BOLTS & BASE PLATES	$ \begin{bmatrix} 5 & C & 0.0 & 0.0 & 0.0 & 0.0 & 2.4 & 0.0 & 1.5 \\ 5 & D & 0.0 & 0.0 & 0.0 & 0.0 & 2.1 & 0.0 & 2.6 \\ 5 & E & 0.0 & 0.0 & 0.0 & 0.0 & 2.2 & 0.0 & 2.1 \\ 5 & F & 0.0 & 0.0 & 0.0 & 0.0 & 2.1 & 0.0 & 0.2 \\ 5 & G & 0.0 & 0.0 & 0.0 & 0.0 & 2.4 & 0.0 & 0.6 \\ 5 & I & 0.0 & 0.0 & 0.0 & 0.0 & 0.9 & 0.0 & 0.2 \\ \end{bmatrix} $	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Frame Column Dead Collateral Live Snow Wind_Left1 -Wind_Right1 Line Line Horiz Vert	Line Line Qty Dia Width Length Thick (in) 3 I 4 0.875 10.00 13.00 0.750 0.0 3 A 4 0.875 10.00 13.00 0.750 0.0	Frm Col E2PAT_LL_3- E2PAT_LL_4- E2PAT_LL_5- E2PAT_LL_6 Line Line Horz Vert Horz Vert Horz Vert 5 A 0.0 0.0 0.0 0.0 0.0 0.0 2.1 5 D 0.0 2.1 0.0 -0.3 0.0 0.1 0.0 2.2 5 D 0.0 2.1 0.0 -0.3 0.0 0.1 0.0 2.2	6- E2PAT_LL_7- t Horz Vert 0 0.0 -0.2 3 0.0 2.5 1 0.0 2.1
Line Line Horiz Vert H	RIGID FRAME: ANCHOR BOLTS & BASE PLATES	5 E 0.0 4.9 0.0 2.1 0.0 -0.3 0.0 2. 5 F 0.0 2.1 0.0 4.9 0.0 2.1 0.0 2. 5 G 0.0 -0.3 0.0 2.0 0.0 5.1 0.0 2. 5 I 0.0 0.0 -0.2 0.0 1.7 0.0 -0.	2 0.0 2.2 1 0.0 2.1 5 0.0 2.3 .2 0.0 2.0
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	NOTES FOR REACTIONS Building reactions are based on the following building data:	WALL COLUMN: ANCHOR BOLTS & BASE PLATES Col AncBolt Base_Plate (in) Grout
Frame Column Dead	GENERAL NOTES	Width (ft) = 120.0 Line Length (ft) = 75.0 5 Eave Height (ft) = 26.0/26.0 5 Roof Slope (Rise/12) = 1.0/1.0 5	Line Qty Dia Width Length Thick (in) A 4 0.750 8.000 12.00 0.375 0.0 C 4 0.750 8.000 8.250 0.375 0.0
Frame Column Wind_Left2- -Wind_Right2- Wind_Long1- Wind_Long2- -Seismic_Left Seismic_Right Line Line Horiz Vert Horiz Long Horiz Long A Horiz Horiz Horiz Horiz <t< td=""><td> FOUNDATION DESIGN AND CONSTRUCTION ARE NOT THE RESPONSIBILITY OF METAL BUILDING MANUFACTURER. ALL REACTIONS ARE UNFACTORED. </td><td>Dead Load (psf) = 2.0 5 Collateral Load (psf) = 3.0 5 Roof Live Load(psf) = 20.0 5 Frame Live Load(psf) = 12.0 5 Snow Load (psf) = 7.0 5</td><td>D 4 0.750 8.000 8.250 0.375 0.0 E 4 0.750 8.000 8.250 0.250 0.0 F 4 0.750 8.000 8.250 0.375 0.0 G 4 0.750 8.000 8.250 0.375 0.0</td></t<>	 FOUNDATION DESIGN AND CONSTRUCTION ARE NOT THE RESPONSIBILITY OF METAL BUILDING MANUFACTURER. ALL REACTIONS ARE UNFACTORED. 	Dead Load (psf) = 2.0 5 Collateral Load (psf) = 3.0 5 Roof Live Load(psf) = 20.0 5 Frame Live Load(psf) = 12.0 5 Snow Load (psf) = 7.0 5	D 4 0.750 8.000 8.250 0.375 0.0 E 4 0.750 8.000 8.250 0.250 0.0 F 4 0.750 8.000 8.250 0.375 0.0 G 4 0.750 8.000 8.250 0.375 0.0
Frame Column -MIN_SNOW F3UNB_SL_L- F3UNB_SL_R- Line Line Horiz Vert Horiz Vert 3 I 11.0 13.2 7.4 9.8 7.4 6.0 3 A -11.0 13.2 -7.4 6.0 -7.4 9.8	 3 ULTIMATE WIND LOADS ARE USED TO DERIVE THE WIND REACTION. 4. ANCHOR BOLTS SHALL BE ACCURATELY SET TO 	Wind Speed (mph) = 120.0 Wind Code = NCBC 18 (IBC 15) Exposure = C Enclosed/Open/Partial = ENCLOSED Importance Wind = 1.00	I 4 0.750 8.000 12.00 0.375 0.0
Frame Column Dead Collateral Live Snow Wind_Left1 -Wind_Right1 Line Line Horiz Vert Horiz Horiz Vert Hor	A TOLLERANCE OF +/- 1/8" IN BOTH ELEVATION AND LOCATION. 5. COLUMN BASE PLATES ARE DESIGNED NOT TO EXCEED A BEARING PRESSURE OF 1050	Importance Seismic = 1.00 Seismic Zone = C Seismic Coeff (Fa*Ss) = 0.30	
Frame Column Wind_Left2- -Wind_Right2- Wind_Long1- Wind_Long2- -Seismic_Left Seismic_Right Line Line Horiz Vert Horiz	POUNDS PER SQUARE INCH.	BUILDING BRACING REACTIONS # Reactions(k.) Panel_Shear	ISSUE DET CHK DATE
Frame Column -MIN_SNOW F4UNB_SL_L- F4UNB_SL_R- Line Line Horiz Vert Horiz Vert 4 I 11.0 13.2 7.4 9.8 7.4 6.0 4 A -11.0 13.2 -7.4 6.0 -7.4 9.8		L_EW 1 F_SW A 2,3 21.2 23.8 2.4 2.7 (ID/TT) Loc Line Line Horz Vert Horz Vert Wind Seis Note (h)	STEELCOR BUILDINGS
ANCHOR BOLT SUMMARY		R_EW 5 C,D 1.7 2.4 0.4 0.6 F,G 1.7 2.4 0.4 0.6 B_SW I 3,2 21.2 23.8 2.4 2.7 (h)Rigid frame at endwall	ERWIN HANGAR JOB NO: DATE: 8245 10/26/23 LOCATION: ERVINE NO. 000000
Qty Locate (in) Type (in) Type (in) EFLECT LOADINGS FOR ACTUAL TRIBUTARY AREA AND ARE \$ 36 Endwall 3/4" GR36 1.50 1.50 1000000000000000000000000000000000000	NOT INTENDED THERWISE.		DRAWING MALE: ANCHOR BOLT REACTIONS DRAWING HO: PAGE 1.2 DRAWN BY: CHECKED BY: SCALE: PAGE 1.2 DAR SPW NONE

LADIC	141.2.1.1	Web Depth
MARK	weight	Start/End
RF2-1	1307	12.0/21.9
		21.9/44.0
		44.0/44.0
RF2-2	1146	44.0/26.5
		26.5/24.0
		24.0/24.0
RF2-3	919	24.0/24.0
		24.0/31.5
		31.5/34.0

Web	PLATE	Outside Flange	Inside Flange
THICK	Length	W x Thk x Length	W x Thk x Length
0.313	10'-9 3/16"	8 x 3/8" x 20'-0"	8 x 3/8" x 19'-5 3/16"
0.313	14'-11	8 x 3/8" x 5'-3 9/16"	B x 3/8" x 2'-0"
		8 x 5/16" x 5'-3 9/16"	
0.250	13'-0 1/16"	8 x 5/16" x 15"-1 7/8"	8 x 5/16" x 15'-1 11/16"
0.250	2'-0	8 x 1/4" x 9'-6"	8 x 5/16" x 10'-0 1/8"
0.188	10"-0"		
0.188	10'-0 1/4"	6 x 1/4" x 20'-0"	6 x 1/4" x 10'-0 3/16"
0.188	14"-11"	6 x 1/4" x 10'-0 1/4"	6 x 1/4" x 19'-9 5/8"
0.188	5'-1"		

WING NO: PAGE 2.3

CHECKED BY: SPW

DAR

SPLICE B	OLT	TABLE				
MARK	Qty Top	Bot	Int	TYPE	DIA	Length
SP-1 SP-2 SP-3	4 4 4	4 4 4	2 0 2	A325 A325 A325	7/8" 3/4" 5/8"	2 1/2" 2" 2"
BASE PLA	TE T	ABLE	_			1
COL MARK	Widt	PLATI	E SIZ HICK	ZE Lengti	1	
BP-1	10"	5,	/8"	1"-1"]

MADIZ	Wataba	Web Depth	Web	PLATE	Outside Flange	Inside Flange
MARK	weight	Stort/End	THICK	Lenoth	W x Thk x Length	W x Thk x Length
RF4-1	1678	12.0/33.9	0.313	10'-9 5/16"	8 x 3/8" x 20"-0"	8 x 3/8" x 19'-5 5/16"
		33.9/55.0	0.313	14'-11"	8 x 3/8" x 5'-3 11/16"	8 x 3/8" x 2'-0"
	1				8 x 5/16" x 5'-3 9/16"	
RF4-2	1163	50.0/29.2	0.250	13'-0 1/16"	8 x 5/16 x 15'-1 7/8	8 x 5/16" x 15'-1 11/16
		29.2/26.0	0.250	2'-0"	B x 1/4" x 9'-6"	8 x 5/16" x 10'-0 1/8"
		26.0/20.0	0.188	10'-0		-
RF4-3	851	20.0/20.0	0.188	10'-0 1/4"	6 x 1/4" x 20'-0"	6 x 1/4" x 10'-0 3/16"
		20.0/29.1	0.188	14'-11"	$6 \times 1/4" \times 10' - 0 1/4"$	6 x 1/4" x 19'-9 5/8"
		29.1/32.0	0.188	5'-1"		

CHECKED BY: SCALE: SPW NONE

FLANGE BRACES: (1) One Side; (2) Two Sides FBxxA(1): xx=length(in) A - L2x2x14

	SPECIAL	BOLTS	YPE		LENG	тн	WASH
	2	4 /	1325	5/8	2"	<u>111</u>	0
A325 BOLTS		IQUAN 4 4 EMBER RAME LIN ARK P T-7 8 G-12 8 G-13 8 G-15 8 B-1 L B-2 L	TPE A325 ABLE E A & ART X7DC ¹ x25Z1 x25Z1 x25Z1 x25Z1 x25Z1 3X3X1 3X3X1	□IA 5/8 12 6 6 4 4 88 88 88 88 88	LENGTH 21'-4 11'-11 25'-7 23'-7 23'-9 23'-9 22'-6	1H 1/4 1/2 1/2 1/2 5/1 1/4 13/	<u>wash</u> 0 (2" 6" 16"
BOLTS (EACH END)							
ANGLE LEG UP							
]>-		Wa	yne I 235 Hahir	Brad Sand a, GA	Baker, ers Rd. A 3163	P.E 2	E.
			10 FE	EAL		2	
BRAD BALL							
		ISSU	E		DET C	нк	DATE
	STEELCO	R BUILDI	NGS		- International Action	4	
	CUSTOMER:						
	JOB NO: 8745	HANGAK			DATE:	26/2	3
	LOCATION: FRWIN	NC 283	39		1 10/2	20/2	J
	DRAWING NAME SIDEW	ALL FRAMIN	G LAYO	UT			
	DRAWING NO: PAGE	3		Y:	CHECKED BY: SPW	SCALL	NONE

8245 DATE: 10/26/			
ERWIN, NC 283	39 RAMING		
PAGE 4.1	DRAWN BY: DAR	CHECKED BY: SPW	SCALE: NONE

ROOF SHEETING PLAN PANELS: 26 GA. PBR - GALVALUME [A] SOFFIT PANELS: 26 GA. PBR - NEED COLOR

SIDEWALL SHEETING & TRIM: FRAME LINE I PANELS: 26 GA. PBR - SADDLE TAN

ļ	FRA	1 TABLE ME LINE A	&c	
	♦ID	PART	LENGTH	DETAIL
	1 2 3 4 5 6 7 8 9 0 10 11 2	DRIP BASE DRIP BASE GUTTER GUTTER EAVE TRM GUTEND L CORBOX L GUTEND R CORBOX R R JAMB R HEAD	20'-3" 15'-3" 20'-3" 15'-0" 20'-3" 15'-0" 1" 1'-0" 1" 1'-0" 7'-3" 3'-3"	TRIM_16 TRIM_16 TRIM_1 TRIM_120 TRIM_120 TRIM_22 TRIM_2 TRIM_2 TRIM_2 TRIM_2 TRIM_2 TRIM_8 TRIM_61

, , , , , , , , , , , , , , , , , , ,			
= 1'-0	SHEE	T INDEX:	
8" 1-1/2"	CS	COVER SHEET & INDEX TO DRAWINGS	PROJECT
0 4"	BCS	BUILDING CODE SUMMARY	
2'-0"	LS	BUILDING LIFE SAFETY – EGRESS PLAN	
-0" 1'-0"	SP	DEFERRED SUBMITTALS BY OTHER	
-8" 0 6" 1'	S1 S2	FOUNDATION PLAN & ANCHOR BOLT PLAN FOUNDATION & FOOTING DETAILS	
4' 0 8" 1'-4" 2'-	G1	BUILDING FLOOR PLAN	
$0 2^{\prime} - 8^{\prime\prime} 5^{\prime} - 4^{\prime\prime} 10^{\prime} - 8^{\prime\prime} 0 2^{\prime\prime} 4^{\prime\prime} 8^{\prime} 0 1^{\prime} 2^{\prime}$ $0 1^{\prime} 2^{\prime} = 1^{\prime} - 0^{\prime\prime}$ SCALE: 3/16" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0"			PROJECT TEAM: BUILDING DEPAR HARNETT COUNTY INSPECTION DEPARTM 420 MCKINNEY PARKY LILLINGTON, NC 2754 910–893–2793
2023 NR.dwg CALE: 1/8" = 1'-0"			CODE REVIEW: APPLICABLE CODES INCLUDE LIMITED TO THE FOLLOWING:
Drawing File: H:\2023\Ostendorf Hanger 2023-06-09\DWG\Harnett-Airport-Foundation-18 Dec Plotted by: boot Plotted Date: Jan 29, 2024 - 2:06pm			BUILDING

<u>T:</u>

ARNETT REGIONAL AIRPORT HANGAR

615 AIRPORT ROAD ERWIN, NORTH CAROLINA 28339

RTMENT:

IENT **WAY** 46

PROJECT DESIGNER: JENKINS CONSULTING ENGINEERS, P.A. OFFICE in EUREKA SPRINGS, NC KELLY J. DODSON, PE 1606 MCARTHUR ROAD FAYETTEVILLE, NC 28311-1002 910-822-1724

BUT ARE NOT 2018 NC EXISTING BUILDING CODE 2018 NC BUILDING CODE 2018 NC FIRE CODE 2018 NC ENERGY CONSERVATION CODE

BUILDING DATA:

NORTH

"+							
1'-0"	2018 NO	RTH CAI	ROLIN	IA BUILDING	CODE SUN	MMARY: A	PPENDIX B
II	Name of Project: <u>HAR</u> Address:615	NETT REGIONAL AI	RPORT HAN	IGAR		ParID / PIN: / Zip Code:	0417004916000 28339
/2"	Proposed Use:AIR Owner or Authorized Age	CRAFT HANGAR (U ent: BRIAN F) Raynor	Phone910	-824-1238	_ E-Mail braynor@hi g	hlandpaving.com
- - -	Owned By: Code Enforcement Jurisc	diction:	_ □City/ _ ☑City	/County₽riva Coun	te ty	State State0	RTH CAROLINA
↓ ▲ ■ 4,	CONTACT: KELL	LY J. DODSON					
sc/		FIRM		NAME			F-MAII
*0 	Architectural	1	I/A	N/A	N/A	N/A	N/A
N	Civil Electrical	4D JCE		SCOTT BROWN DOUGLAS L. JENKINS	NC PE 27452 NC PE 28803	(910) 426–6777 (910) 822–1724	sbrown@4dsitesolutions.com buddyj@jenkinsce.pro
. 0	Fire Alarm Plumbing	JCE	I/A	n/a Douglas L. Jenkins	N/A NC PE 28803	N/A (910) 822–1724	N/A buddyj@jenkinsce.pro
,	Mechanical Sprinkler—Standpipe		I/A	DOUGLAS L. JENKINS N/A	NC PE 28803 N/A	(910) 822–1724 N/A	buddyj@jenkinsce.pro N/A
"	Structural : INTERIOR WALLS		I/A	KELLY J. DODSON N/A	NC PE 42009 N/A	(910) 822–1724 N/A	kellyd @ jenkinsce.pro N/A
	Retaining Walls >5' H Building	ligh N JCE		N/A KELLY J. DODSON	N/A NC PE 42009	N/A (910) 822–1724	N/A kellyd @ jenkinsce.pro
o ■ ŏ							
2,-8	2018 NORTH CAROLINA E	BUILDING CODE:		✓ New Building □ Addition	🔲 Shell / Core 🔲 Phased Consti	□First Time Inte ruction – Shell Core	ior Completions
-0	2018 NORTH CAROLINA E	Existing Building	CODE:	Prescriptive	Alteration Level	el I 🔲 Histor	ic Property
.4 =	(check all that app	ly)		🔲 Repair 🔲 Chapter 14	Alteration Level	el II 🔲 Chang el III	je of Use
1'- 5/4"	CONSTRUCTED: (dd RENOVATED: (date)	ate) <u>N/A</u>) <u>N/A</u>		CURRENT USE (S) (Ch. 3 PROPOSED USE (S) (Ch.	i): <u>N/A</u> 3): <u>AIRCRAFT HANC</u>	GAR (GROUP III - NFPA	409)
۳۵ – ۵۵ ۲	OCCUPANCY RISK CATEG	ORY (Table 10	604.5): Cl	urrent: <u>N/A</u>	Proposed: .		
SCA	BASIC BUILDING DATA	—					
, 4 —	(check all that apply)		I-A I-B Dartial				□ V-A □ V-B
	Sprinkiers: N Standpipes: N Deimany Fire District:	lo Class 🗆	Partial No D Yo		Wet Dry		
1'-0"	Special Inspections Requ	ired:	No 🗆 Ye	es (Affendia D) es	rioou nazara Area.		
	FLOOR	EXIS	TING (sa ft		A TABLE NEW (sg. ft)		SUBTOTAL
1,	GROUND LEVEL		N/A		9,000		9,000
CALE:							
o _∎ ŭ	TOTAL SPACE AREA		N/A		9,000		9,000
ω							
.0	Primary Occupancy Class	sification(s):		ALLOWABLE AREA	— • •		
	Assembly Business		A-1	□ A-2	□ A-3	□ A-4	G-A D
/4"	Factory		F-1 Moder	rate 🗆 F-2 Low	U 4 7 Combust		
, − 2,	Institutional						
SCA 0	I-2 Conditi				□ 5		
	Mercantile Residential		R-1	□ R−2	□ R-3	□ R-4	
10	Storage		S-1 Mode Parking Go	rate	Low	☐ High−piled □ Repair Garage	
1,-0	Utility and Mis Accessory Occupancy Cla	cellaneous 🗹		NONE			
5'-4" 6" =	Incidental Uses (Table This separation is	509): not exempt as a	NO Non-sepo	DNE arated Use (see exceptions).			
-8" ⁵	Special Uses (Chapter 4): 🗆 402 [□ 414 [⊒ 403 ⊑ ⊒ 415 ⊑	□ 404 □ 405 □ 406 □ 416 □ 417 □ 418	□ 407 □ 408 □ 419 □ 420	□ 409 □ 410 □ □ 421 □ 422 □	411 🗹 412 🗆 413 423 🔲 424 🔲 425
2'- CALE:	Special Provisions (Chap	□ 426 ter 5):	□ 427 □ □ 510.2 □	428 429 430 510.3 510.4 510.5	🗆 510.6 🛛 510.7	🗆 510.8 🔲 510.9	
o _∎ ŭ	Mixed Occupancy:	□ separated Use (No 🗆) Yes Separation: <u>0 Hr</u> 08.3.1)	r. Exception:		
16,	□ Sep suc	parated Use (508.4 In that the sum o	l) ——See I f the ratio	below for area calculations fo s of the actual floor area of	or each story, the area each use divided by	a of the occupancy sha the allowable floor area	l be of
.0	eac	n use shall not e	xceed 1.	of Occurrency A	Astual Area of O	an a	
	Separated Use Formula	508.4.2: <u>A</u>	wable Area	of Occupancy A +	Allowable Area of	Occupancy B	<u>≤</u> 1
		_	N	N/A +	N/AN/A	=	_≤ 1.00
,4 -							
		DESCRIPTION		(A) BLDG AREA	(B) TABLE 506.2 4	(C) AREA FOR	(D) ALLOWABLE
	STORT NOMBER	AND USE		PER STORY (ACTUAL)	AREA	FRONTAGE INCREASE ^{1, 5}	AREA PER STORY OR UNLIMITED ^{2, 3}
бмр		AIRCRAFT HANGA	ĸ	9,000	8500	6113	14613
323 NR.							
Dec 2(Frontage area increa a. Perimeter whic b. Total Building 	ases from Section h fronts a public Perimeter =	506.3 are way or op 390	e computed thus: en space having 20 feet min (P)	imum width =	.120 (F)	
tion-18	c. Ratio $(F/P) =$ d. W = Minimum	width (weighted o	(F/P) verage) of) public way = 150 = 100 [F/P 0.05]	(W) where W	=(L ₁ Xw+LXw)	₂⁄F (Equation 5−4)
-Founda	e. rencent of tro	nage increase =	+ = FRONTAGE	INCREASE WORKSHEET for CA	LCULATIONS:	(c nortaupz)	9
·Airport-	EXTERIOR WALL	(F) OPEN	(P) TOTAL	(W) (weighted avera WIDTH OF PUBLIC W	ge) (%) AY FROM CALC.	(B) FROM TABLE	AREA INCREASE FOR COLUMN (C) ABOVE
łarnett –	North	LENGTH (feet) 75	LENGTH (1 390	feet) OR OPEN SPACE (fe	eet) ABOVE	ABOVE	(% * TABLE AREA)
\DWG\	South East	75 120	390 390	30 30			
60-90-	West TOTAL	120 75	390 390	26 240	71	8500 (71*8500 =6113)
r 2023-	EXAMPLE	75	100	25	42	23,500 (.42*23,500 = 9,870)
. Hange	 3 Maximum Building Ar 4 The maximum area 	rea = total number of open parking of	er of storie	es in the building x D (maxim to comply with Table 406.5.4	num 3 stories) (Sectio . The maximum area	n 506.2). of air traffic control to	wers must
stendorf - 2:06	comply with Table 4 5 Frontage increase is	12.3.1 based on the un	sprinklered	area value in Table 506.2	maximum urea		
2023\0: !9, 2024							
le: H:\'s baot 3: Jan 2							
wing Fil ted by: ted Date							

SUBTOTAL
9,000
9,000

BUILDING CODE SUMMARY (continued)

ALLOWABLE HEIGHT					
	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE		
Building Height in Feet (Table 504.3)	65	31' - 0"	N/A		
Building Height in Stories (Table 504.4)	3	1	N/A		
1. Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.					

	FIR	RE PROTECTION	REQUIREMENTS				
	FIRE	RATING ** (TABLE 601)	DETAIL #	DESIGN #	SHEET #	SHEET #
BUILDING ELEMENT	DISTANCE (feet)	REQ'D	(w/ * REDUCTION	and Sheet #	FOR RATED ASSEMBLY	For ratëd Penetration	For ratëd Joints
Structural Frame, including columns, girders, trusses	N/A	0	0	N/A	N/A	N/A	N/A
Bearing Walls Exterior	N/A	0	0	N/A	N/A	N/A	N/A
North	N/A	0	0	N/A	N/A	N/A	N/A
East	N/A	0	0	N/A	N/A	N/A	N/A
West	N/A	0	0	N/A	N/A	N/A	N/A
South	N/A	0	0	N/A	N/A	N/A	N/A
Interior	N/A	0	0	N/A	N/A	N/A	N/A
Nonbearing walls and partitions Exterior walls	N/A	0	0	N/A	N/A	N/A	N/A
North	N/A	0	0	N/A	N/A	N/A	N/A
East	N/A	0	0	N/A	N/A	N/A	N/A
West	N/A	0	0	N/A	N/A	N/A	N/A
South	N/A	0	0	N/A	N/A	N/A	N/A
Interior Non-Bearing Walls	N/A	0	0	N/A	N/A	N/A	N/A
Floor construction including supporting beams and joists	3	0	0	N/A	N/A	N/A	N/A
Floor Ceiling Assembly		0	0	N/A	N/A	N/A	N/A
Columns Supporting Floors		0	0	N/A	N/A	N/A	N/A
Roof construction including supporting beams and joists	3	0	0	N/A	N/A	N/A	N/A
Roof Ceiling Assembly		0	0	N/A	N/A	N/A	N/A
Columns Supporting Roof		0	0	N/A	N/A	N/A	N/A
Shaft Enclosures — Exit		0	0	N/A	N/A	N/A	N/A
Shaft Enclosures - Other		0	0	N/A	N/A	N/A	N/A
Corridor Separation		0	0	N/A	N/A	N/A	N/A
Occupancy / Fire Barrier Separation		0	0	N/A	N/A	P1	N/A
Party/Fire Wall Separation		0	0	N/A	N/A	N/A	N/A
Smoke Barrier Separation		0	0	,	,	,	
Smoke Partition		0	0	N/A	N/A	N/A	N/A
OWNER/Dwelling Unit/ Sleeping Unit Separation		0	0	N/A	N/A	N/A	N/A
Incidental Lise Separation		0	0	N /A	N /A	N /A	

PERCENTAGE OF WALL OPENING CALCULATIONS

EXTERIOR WALL	FIRE SEPARATION DISTANCE (feet) FROM PROPERTY LINE	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
North	N/A	N/A	N/A	N/A
South	N/A	N/A	N/A	N/A
East	N/A	N/A	N/A	N/A
West	N/A	N/A	N/A	N/A

LIFE SAFETY SYSTEM REQUIREMENTS Yes 🗆 No

Emergency Lighting: Exit Signs: Fire Alarm: Smoke Detection Systems: Carbon Monoxide Detection:	 Yes Yes Yes Yes Yes Yes 	No No No No No No No No	Partial 🖵 Duct Detectors
Carbon Monoxide Detection: Life Safety Systems Generator:	⊔ Yes □ Yes	No No	

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: _____LS

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

- Assumed and real property line locations (if not on the site plan)
- Exterior wall opening area with respect to distance to assumed property lines (705.8)
 Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
 Occupant loads for each area

🗹 Exit access travel distances (1017)

Common path of travel distances [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

 \square 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 plane 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 (903)

□ The square footage of each smoke compartment for Occupancy Classification I-II (407.5) D Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE	DWELLING	UNITS	(SECTION	1107)

TOTAL UNITS	ACCESSIBLE	ACCESSIBLE	TYPE A	TYPE A	type B	type B	TOTAL
	UNITS	UNITS	UNITS	UNITS	Units	Units	ACCESSIBLE UNITS
	REQUIRED	PROVIDED	REQUIRED	PROVIDED	Required	Provided	PROVIDED
NONE REQUIRED							

ACCESSIBLE PARKING (SECTION 1106)							
107.00	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL //	
lot or Parking Area	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	VAN SPACES 132" ACCESS AISLE	WITH 96" ACCESS AISLE	ACCESSIBLE PROVIDED	
SEE CIVIL DRAWING							
TOTAL							

USE
***Note: This
Special approv
ENERGY REQUIREMI The following be provided. E performance r proposed desi Existing building er Exempt Building: Climate 2 Method of Energy 0 ASHRAE Other:
THERMAL ENVELOPI Roof/ce Desc U- \ R- \ Skyli Tota
Exterior Desc U- V R- V Oper
Walls be Desc U- V R- V
Floors of Desc U- V R- V
Floors s Desc U– V R– V Horiz slab
MECHANICAL SUMM Electrical summa

BUILDING CODE SUMMARY (continued)	
PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)	RS, PA
USE MALE FEMALE UNISEX URINALS MALE FEMALE UNISEX TUBS REGULAR ACCESSIBLE SINK UTILITY (U) 0 0 0 0 0 0 0 0 0 0 0	CORTH CONTH
PROVIDED (TOTAL) 0 0 0 0 0 0	G ENG POTO kell ETTE VIL
***NOTE: THIS BUSINESS HAS OCCUPANT LOADS LESS THAN 25. NO HI-LOW DRINKING FOUNTAIN IS REQUIRED.	ULTIN MBER C-3
SPECIAL APPROVALS: Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, ICC, etc., describe below) N/A ENERGY SLIMMARY	OFFICE IN EUR CORPORATION NU 100.822.1724
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.	SRIH CAROLINA
Existing building envelope complies with code: 🔍 (If checked, the remainder of this section is not applicable.) Exempt Building: 🔍 Provide code or statutory reference:	SEAL 42009
Climate Zone: 🗹 3A 🗆 4A 💷 5A HARNETT COUNTY	ALL CONFERS
Energy Code: Performance Prescriptive ASHRAE 90.1: Performance Prescriptive Other: Performance (specify source)	29 JANUARY 2024
THERMAL ENVELOPE: (Prescriptive method only) Roof/ceiling Assembly (each assembly) Description of assembly: METAL BUILDING ROOF PANEL U- Value of total assembly:	SNED / CHECKED BY: KJD NN BY: ECT #: 2023-06-09 : JANUARY 2024
Exterior Walls (each assembly) Description of assembly: METAL BUILDING WALL PANEL WITH R-19 INSULATION	DESIC DRAW PROJ DATE 29
U- Value of total assembly: R- Value of insulation: R-19 Openings (windows or doors with glazing) U- Value of assembly: 0.31 (0.32 MAX) Solar heat gain coefficient: 0.23 (0.25 MAX) Projection factor:	PURPOSES ONLY VELOPMENT ONLY JCTION
Walls below grade (each assembly) Description of assembly: <u>N/A</u> U-Value of total assembly:	REVIEW ESIGN DE CONSTRU
R-Value of insulation:] FOR
Description of assembly:	DRAWING INARY [] DRAWING DRAWING ACTOR/B
Floors slab on grade 6" CONCRETE SLAB U- Value of total assembly:	FINAL I PRELIM FINAL I - CONTR
mechanical summary (see drawing sheet <u>M1</u>) Electrical summary (see drawing sheet <u>E1</u>)	
CUMBERLAND COUNTY BUILDING CODE SUMMARY for:	NTY AIRPORT HANGAR rt rd. erwin, nc 28339 CODE SUMMARY
AIRPORT RD ERWIN, NORTH CAROLINA, 28339	PROJECT: HARNETT COUI 615 AIRPOR SHEET: BUILDING
	BCS

29

" 4	
1'- 	
П	<u>REINFORCING STEEL</u> ALL REINFORCING STEEL SHALL BE DEFC
8"	A615, GRADE 60. ALL REINFORCING STEEL SHALL BE MANU
- - -	IN ACCORDANCE WITH A.C.I. 315R, 318R AND A.C.I. SP 6
ALE:	PRACTICAL. WELDED WIRE FABRIC SHALL BE LAPPED AT LEAS
° 0 ∾ 0	REINFORCEMENT SHALL BE BENT COLD A
2,-0	SPLICES: REINFORCEMENT IN CONCRETE AND MASC
	UNLESS OTHERWISE SPECIFIED ON DRAWINGS: BAR SIZE:
)" 1-0"	#3 1'-6" #4 2'-0"
, (#5 2'-6 "
-" 6 "	PLACEMENT: REINFORCEMENT SHALL BE ACCURATELY
	OR OTHER APPROVED CHAIRS, SPACERS OR TIES, AND SECURE
έω 	EXCEPT WHERE OTHERWISE NOTED. REINI
2'-	FOLLOWS: CONCRETE DEPOSITE
0	FORMED CONCRETE EXTERIOR FACES OF
	TO TOP OF SLABS-
, 1 [°] 3/4"	REINFORCING BEFORE IT IS PLACED.
ALE:	ANCHOR BOLTS SHALL BE (A-3077) HIG
° T ∎ °	SOIL TREATMENT: ADMINISTRATION AS ACCEPTABLE
,4	GENERAL CONDITIONS THE GENERAL CONTRACTOR SHALL MAKE
.0	THE GENERAL CONTRACTOR SHALL BE RI WITH THE REQUIREMENTS
,	OF THE OCCUPATIONAL SAFETY AND HEA THE WORK ON THIS PROJECT.
/2 " =2'	SOIL COMPACTION AND TESTING THE GENERAL CONTRACTOR SHALL OBTAI
, -	SUCH AS S&ME OR LAW ENGINEERING FOR THE PURPOSE OF DET
	CONDITIONS AND THE BEARING CAPACITIES OF ALL AREAS BELC
m —	THE SOIL AND BEARING REPORT SHALL I POSSIBLE, BUT PRIOR TO PLACEMENT OF ANY REINFORCING AND O
	CONCRETE WORK
1'-0"	1. ALL CONCRETE FOR THE PROJECT S WITH ASTM C-94. ALL SECTIONS
, 4 , ,	ALL A.S.I.M. AND A.C.I. REQUIREMENT 2. FORM WORK — ALL FORMS TO BE SUCH & MANNER AS TO HAVE SUFF
2,1/4	OF THE CONSTRUCTION AS A LIQUIE FORMS TO BE BUILT TIGHT, TRUE T
	BRACED, WIRED AND SPIKED OR OT 3. CONCRETE – MINIMUM OF 3,500 P
o _∎ ŏ	OF 4" SLUMP. 4 FINISHING - IN ACCORDANCE WITH
10'-8	IN LINE, FREE OF HONEYCOMB. BUI TROWEL FINISH. WALKS SHALL HAVE
• 0	APPROXIMATELY 50'-0" O.C. AND E 5. REMOVAL OF FORMS - FORMS SHA
.4 1	IMPAIR THE FACE OF THE CONCRETE. IMMEDIATELY AFTER THE
° 5'- ∕16"	PATCHED IN A NEAT AND WORKMAN OPINION OF THE OWNER.
2'-8' E: 3	THE WORK SHALL BE REBUILT. THE REMOVED IS SEVEN (7) DAYS FOR
SCAL	STRESSES, SUCH AS SLABS. 6. CURING - USE MEMBRANE CURING
<u>و</u>	PROTECT FROM FREEZING WEATHER, METHODS.
1'-0"	
ω	
⁴ , 1/8	
o _∎ ŏ	
uR.dwg	
2023	
18 Dec	
dation-	
rt-Four	
tt-Airpo	
)\Harne:	
∋WQ/60	
13-06-1	
je r 202	
irf Hanç J7pm	
Ostendc ?4 - 2:(
\2023\ t 29,20	
File: H:\ : bao ite: Jan	
wing - ted by	

EFORMED STEEL BARS CONFORMING TO A.S.T.M. ANUFACTURED, DETAILED, FABRICATED AND PLACED

A TO A.S.T.M. A185, IN AS LONG A LENGTH AS IS EAST ONE GRID WIDTH PLUS 2". D AND SHALL NOT BE WELDED.

ASONRY SHALL HAVE LAP LENGTHS AS FOLLOWS,

IN MASONRY: 2'-0" 2'-6" 3'-0"

Y PLACED AND SUPPORTED BY CONCRETE, METAL, IRED AGAINST DISPLACEMENT DURING CONCRETE

CINFORCEMENT SHALL HAVE CONCRETE COVER ASITED AGAINST EARTH3"TE AGAINST EARTH2"OF WALLS1"S-ON-GRADE3/4"

R DIRT SHALL BE REMOVED FROM THE

HIGH STRENGTH.

KE ADEQUATE SANITARY PROVISIONS. RESPONSIBLE FOR JOB SAFETY AND COMPLIANCE EALTH ACT AS IT MAY REGARD ANY PHASE OF

TAIN THE SERVICES OF A TESTING LABORATORY, DETERMINING THE SUITABILITY OF THE SUBSURFACE

LOW CONCRETE (2000psf ASSUMED).. BE SUBMITTED PRIOR TO EXCAVATING, WHERE

CONCRETE.

T SHALL BE "READY MIX" AND SHALL COMPLY OF THE CONCRETE WORK SHALL COMPLY WITH IENTS.

E CAREFULLY BUILT AND SECURED IN PLACE IN IFFICIENT STRENGTH TO CARRY THE DEAD WEIGHT UID, WITHOUT DEFLECTION OR VIBRATION. TO POSITION AND DIRECTION, THOROUGHLY OTHERWISE FASTENED TOGETHER. PSI COMPRESSIVE STRENGTH AT 28 DAYS, ENT PER CUBIC YARD OF CONCRETE, MAXIMUM

TH THE LATEST A.C.I. CODE, PLUMB, LEVEL, TRUE BUILDING SLAB SHALL HAVE A HARD STEEL AVE BROOMED FINISH AND EXPANSION JOINTS AT D DUMMY JOINTS AS SHOWN ON THE SITE PLAN. SHALL BE CAREFULLY REMOVED SO AS NOT TO

HE FORMS ARE REMOVED ALL DAMAGE OF

ANLIKE MANNER OR IF BADLY DAMAGED, IN THE HE MINIMUM TIME BEFORE ANY FORMS CAN BE OR SUCH MEMBERS AS ARE SUBJECT TO BENDING

ING METHOD. USE MFG. RATE, SPRAY IMMEDIATELY

ARPORT ROAD H SITE DEVELOPMEN

NEILL'S CREEK TOWNSHIP NEAR ERWIN, NORTH CAROLINA HARNETT COUNTY

INDEX OF DRAWINGS

G1.0 - PROJECT NOTES

C1.0 - EXISTING CONDITIONS

C2.0 - SITE PLAN

C3.0 - GRADING AND EROSION CONTROL PLAN C4.0 - UTILITY PLAN

OWNER/DEVELOPER

BRIAN RAYNOR 2031 Middle Road Fayetteville, North Carolina 27312 910-824-1238 Contact: Brian Raynor email: braynor@highlandpaving.com **REGIONAL LAND SURVEYORS, INC** 8642 West Market Street, Suite 100 Greensboro, North Carolina 27409 910-336-665-8155 Contact: David Clark, PLS email: aclark@regionallandsurvyors.com

THE CONTRACTOR MUST CONTACT NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 A MINIMUM OF 72 HOURS PRIOR TO DIGGING IN ORDER TO HAVE THE EXISTING UTILITIES LOCATED

Ar	١G	A	R	
T	PL	. A		S

REVISIONS

PROJECT NAME

AIRPORT ROAD HANGAR

PIN: 0579-82-7353.000 **AIRPORT ROAD** NEILL'S CREEK TOWNSHIP **NEAR ERWIN** HARNETT COUNTY **NORTH CAROLINA**

CLIENT

BRIAN RAYNOR

2031 Middle Road Fayetteville, NC 28312 Phone: (910) 824-1238 Fax: (910) 678-9988

PROJECT INFORMATION

DESIGNED BY:	SCOTT
DRAWN BY:	SCOTT
CHECKED BY:	CHRIS
PROJECT NUMBER:	1942

DRAWING SCALE

SEE SHEETS

DATE RELEASED

OCTOBER 16, 2023

SURVEYOR

C5.0 - SITE & EC DETAILS

C5.1 - WATER DETAILS

2022 HRW REQUIRED UTILITY NOTES

<u>WATER</u>

(REVISION 10- APRIL 19, 2022) THE FOLLOWING UTILITY NOTES SHOULD BE ADDED TO THE COVERSHEET OF UTILITY PLANS FOR PROJECTS LOCATED IN HARNETT COUNTY:

A. THE FIRE MARSHAL'S OFFICE SHALL APPROVE ALL HYDRANT TYPES AND LOCATIONS IN NEW SUBDIVISIONS. HOWEVER, HARNETT REGIONAL WATER (HRW) PREFERS THE CONTRACTORS TO INSTALL ONE OF THE FOLLOWING FIRE HYDRANTS:

- 1. MUELLER SUPER CENTURION 250 A-423 MODEL WITH A 5¼" MAIN VALVE OPENING THREE WAY (TWO HOSE NOZZLES AND ONE PUMPER NOZZLE);
- 2. AMERICAN DARLING MARK B-84-B MODEL WITH A 51/4" MAIN VALVE OPENING THREE WAY (TWO HOSE NOZZLES AND ONE PUMPER NÓŻZLE);
- 3. WATEROUS PACER B-67-250 MODEL WITH A 51/4" MAIN VALVE OPENING THREE WAY (TWO HOSE NOZZLES AND ONE PUMPER NOZZLE) OR APPROVED EQUAL FOR STANDARDIZATION.
- *ALL FIRE HYDRANTS LISTED ABOVE MUST HAVE "AMERICAN NATIONAL FIRE HOSE CONNECTION SCREW THREADS" NST/NH HOSE THREADS. B.FIRE HYDRANTS ARE INSTALLED AT CERTAIN ELEVATIONS. ANY GRADE CHANGE NEAR ANY FIRE HYDRANT, WHICH IMPEDES ITS OPERATION, SHALL BECOME THE RESPONSIBILITY OF THE UTILITY CONTRACTOR FOR CORRECTION. CORRECTIONS WILL BE MONITORED BY THE HRW UTILITY CONSTRUCTION INSPECTOR AND THE HARNETT COUNTY FIRE MARSHAL.
- C.THE PROFESSIONAL ENGINEER (PE) SHALL OBTAIN AND PROVIDE THE NCDEQ "AUTHORIZATION TO CONSTRUCT" PERMIT TO THE UTILITY CONTRACTOR BEFORE THE CONSTRUCTION OF THE WATER LINE SHALL BEGIN. THE UTILITY CONTRACTOR MUST POST A COPY OF THE NCDEQ "AUTHORIZATION TO CONSTRUCT" PERMIT ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY (NCDEQ) ON SITE PRIOR TO THE START OF CONSTRUCTION. THE PERMIT MUST BE MAINTAINED ON SITE THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS OF THE PROPOSED WATER LINES THAT WILL SERVE THIS PROJECT.
- D.THE UTILITY CONTRACTOR SHALL NOTIFY HARNETT REGIONAL WATER (HRW) AND THE PROFESSIONAL ENGINEER (PE) AT LEAST TWO DAYS PRIOR TO CONSTRUCTION COMMENCING. THE UTILITY CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION CONFERENCE WITH MR. CHAD EVERETTE, HRW UTILITY CONSTRUCTION INSPECTOR AT LEAST TWO (2) DAYS BEFORE CONSTRUCTION WILL BEGIN AND THE UTILITY CONTRACTOR MUST COORDINATE WITH HRW FOR REGULAR INSPECTION VISITATIONS AND ACCEPTANCE OF THE WATER SYSTEM(S). CONSTRUCTION WORK SHALL BE PERFORMED ONLY DURING THE NORMAL WORKING HOURS OF HRW WHICH IS 8:00 AM - 5:00 PM MONDAY THROUGH FRIDAY. HOLIDAY AND WEEKEND WORK IS NOT PERMITTED BY HRW.
- E. THE PROFESSIONAL ENGINEER (PE) SHALL PROVIDE HRW AND THE UTILITY CONTRACTOR WITH A SET OF NCDEQ APPROVED PLANS MARKED "RELEASED FOR CONSTRUCTION" AT LEAST TWO DAYS PRIOR TO CONSTRUCTION COMMENCING. THE REGISTERED LAND SURVEYOR (RLS) SHOULD STAKE OUT ALL LOT CORNERS AND THE GRADE STAKES FOR THE PROPOSED FINISH GRADE FOR EACH STREET BEFORE THE UTILITY CONTRACTOR BEGINS CONSTRUCTION OF THE WATER LINE(S). THE GRADE STAKES SHOULD BE SET WITH A CONSISTENT OFFSET FROM THE STREET CENTERLINE SO AS NOT TO INTERFERE WITH THE STREET GRADING AND UTILITY CONSTRUCTION.
- F. THE UTILITY CONTRACTOR SHALL PROVIDE THE HRW UTILITY CONSTRUCTION INSPECTOR WITH MATERIAL SUBMITTALS AND SHOP DRAWINGS FOR ALL PROJECT MATERIALS PRIOR TO THE CONSTRUCTION OF ANY WATER LINE EXTENSION(S), AND ASSOCIATED WATER SERVICES IN HARNETT COUNTY. THE MATERIALS TO BE USED ON THE PROJECT MUST MEET THE ESTABLISHED SPECIFICATIONS OF HRW AND BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION. ALL SUBSTANDARD MATERIALS OR MATERIALS NOT APPROVED FOR USE IN HARNETT COUNTY FOUND ON THE PROJECT SITE MUST BE REMOVED IMMEDIATELY WHEN NOTIFIED BY THE HRW UTILITY CONSTRUCTION INSPECTOR.
- G.THE WATER MAIN(S), FIRE HYDRANTS, SERVICE LINES, METER SETTERS AND ALL ASSOCIATED APPURTENANCES SHALL BE CONSTRUCTED IN STRICT IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE HARNETT REGIONAL WATER (HRW). THE UTILITY CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE THE NEWLY INSTALLED WATER MAIN(S), WATER SERVICE LINES AND ALL ASSOCIATED METER SETTERS AND METER BOXES FOR OTHER UTILITY COMPANIES AND THEIR CONTRACTORS UNTIL THE NEW WATER MAIN(S) HAVE BEEN APPROVED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF ENVIRONMENTAL HEALTH, PUBLIC WATER SUPPLY SECTION (NCDEQ, DEH, PWS) AND ACCEPTED BY HRW.
- H. PRIOR TO ACCEPTANCE, ALL SERVICES WILL BE INSPECTED TO ENSURE THAT THEY ARE INSTALLED AT THE PROPER DEPTH. ALL METER BOXES MUST BE FLUSH WITH THE GROUND LEVEL AT FINISH GRADE AND THE METER SETTERS MUST BE A MINIMUM OF 8" BELOW THE METER BOX LID. METER SETTERS SHALL BE CENTERED IN THE METER BOX AND SUPPORTED BY BRICK, BLOCK OR STONE.
- I. THE UTILITY CONTRACTOR SHALL PROVIDE THE PROFESSIONAL ENGINEER (PE) AND HRW UTILITY CONSTRUCTION INSPECTOR WITH A SET OF RED LINE DRAWINGS IDENTIFYING THE COMPLETE WATER SYSTEM INSTALLED FOR EACH PROJECT. THE RED LINE DRAWINGS SHOULD IDENTIFY THE MATERIALS, PIPE SIZES AND APPROXIMATE DEPTHS OF THE WATER LINES AS WELL AS THE GATE VALVES, FIRE HYDRANTS, METER SETTERS, BLOW OFF ASSEMBLIES AND ALL ASSOCIATED APPURTENANCES FOR ALL WATER LINE(S) CONSTRUCTED IN HARNETT COUNTY. THE RED LINE DRAWINGS SHOULD CLEARLY IDENTIFY ANY DEVIATIONS FROM THE NCDEQ APPROVED PLANS. ALL CHANGE ORDERS MUST BE APPROVED BY HRW AND THE PROFESSIONAL ENGINEER (PE) IN WRITING AND PROPERLY DOCUMENTED IN THE RED LINE FIELD DRAWINGS.
- J. POTABLE WATER MAINS CROSSING OTHER UTILITIES AND NON-POTABLE WATER LINES (SANITARY SEWER, STORM SEWER, RCP, ETC.) SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF TWENTY-FOUR (24") INCHES BETWEEN THE POTABLE WATER MAIN AND ALL OTHER UTILITIES. NCDOT REQUIRES THE NEW WATER MAINS TO BE INSTALLED UNDER THE STORM WATER LINES. THE POTABLE WATER MAIN SHALL BE INSTALLED WITH TWENTY-FOUR (24") INCHES OF VERTICAL SEPARATION AND WITH DUCTILE IRON PIPE WHEN DESIGNED TO BE PLACED UNDER A NON- POTABLE WATER LINE SUCH AS SANITARY SEWER OR STORM SEWER LINES. IF THESE SEPARATIONS CANNOT BE MAINTAINED THEN THE WATER MAIN SHALL BE INSTALLED WITH DUCTILE IRON PIPE. BOTH THE POTABLE WATER MAIN AND THE NON-POTABLE WATER LINE MUST BE CAST IRON OR DUCTILE IRON PIPE (DIP) IF THE STATE MINIMUM SEPARATIONS CANNOT BE MAINTAINED. THE DUCTILE IRON PIPE MUST BE LAID SO THE MECHANICAL JOINTS ARE AT LEAST (10') FEET FROM THE POINT WHERE THE POTABLE WATER MAIN CROSSES THE NON-POTABLE WATER LINE.
- K.POTABLE WATER MAINS INSTALLED PARALLEL TO NON-POTABLE WATER LINES (SANITARY SEWER, STORM SEWER, RCP, ETC.) SHALL BE LAID TO PROVIDE A MINIMUM HORIZONTAL DISTANCE OF TEN (10') FEET BETWEEN THE POTABLE WATER MAIN AND SANITARY SEWER MAINS, SEWER LATERALS AND SERVICES. THE HORIZONTAL SEPARATION BETWEEN THE POTABLE WATER MAIN AND ANY OTHER UTILITY OR STORM SEWER SHALL NOT BE LESS THAN FIVE (5') FEET. THE POTABLE WATER MAIN MUST BE DUCTILE IRON PIPE IF THIS HORIZONTAL SEPARATION OF TEN (10') FEET CANNOT BE MAINTAINED. THE DUCTILE IRON PIPE SHALL EXTEND AT LEAST TEN (10') FEET BEYOND THE POINT WHERE THE MINIMUM REQUIRED HORIZONTAL SEPARATION OF TEN (10') FEET CAN BE RE-ESTABLISHED.
- L.METER SETTERS SHALL BE INSTALLED IN PAIRS ON EVERY OTHER LOT LINE WHERE POSSIBLE TO LEAVE ADEQUATE SPACE FOR OTHER UTILITIES TO BE INSTALLED AT A LATER TIME. THE METER SETTERS SHALL BE INSTALLED AT LEAST ONE (1') FOOT INSIDE THE RIGHT-OF-WAY AND AT LEAST THREE (3') TO FIVE (5') FEET FROM THE PROPERTY LINE BETWEEN THE LOTS.
- M. HRW REQUIRES THAT METER BOXES FOR 34" SERVICES SHALL BE 12" WIDE X 17" LONG ABS PLASTIC BOXES AT LEAST 18" IN HEIGHT WITH CAST IRON LIDS/COVERS. METER BOXES FOR 1" SERVICES SHALL BE 17" WIDE X 21" LONG ABS PLASTIC BOXES AT LEAST 18" IN HEIGHT WITH PLASTIC LIDS AND CAST IRON FLIP COVERS IN THE CENTER OF THE LIDS. METER BOXES FOR 2" SERVICES SHALL BE 20" WIDE X 32" LONG ABS PLASTIC BOXES AT LEAST 20" IN HEIGHT WITH PLASTIC LIDS AND CAST IRON FLIP COVERS IN THE CENTER OF THE LIDS.
- N. MASTER METERS MUST BE INSTALLED IN CONCRETE VAULTS SIZED FOR THE METER ASSEMBLY AND ASSOCIATED APPURTENANCES SO AS TO PROVIDE AT LEAST EIGHTEEN (18") INCHES OF CLEARANCE BETWEEN THE BOTTOM OF THE CONCRETE VAULT AND THE BOTTOM OF THE METER SETTER. THE MASTER METER MUST BE PROVIDED TEST PORTS IF THE METER IS NOT EQUIPPED WITH TEST PORTS FROM THE MANUFACTURER IN ACCORDANCE WITH THE HRW ESTABLISHED STANDARD SPECIFICATIONS AND DETAILS. DUCTILE IRON PIPE MUST BE USED FOR THE MASTER METER VAULT PIPING AND VALVE VAULT PIPING. THE UTILITY CONTRACTOR MUST PROVIDE SHOP DRAWINGS FOR THE METER VAULTS TO HRW PRIOR TO ORDERING THE CONCRETE VAULTS.
- 0. THE UTILITY CONTRACTOR WILL INSTALL POLYETHYLENE SDR-9 WATER SERVICE LINES THAT CROSS UNDER THE PAVEMENT INSIDE A SCHEDULE 40 PVC CONDUIT TO ALLOW FOR REMOVAL AND REPLACEMENT IN THE FUTURE. TWO (2) INDEPENDENT 34" WATER SERVICE LINES MAY BE INSTALLED INSIDE ONE (1) - TWO (2") INCH SCHEDULE 40 PVC CONDUIT OR TWO (2) INDEPENDENT 1" WATER SERVICE LINES MAY BE INSTALLED INSIDE ONE

(1) - THREE (3") INCH SCHEDULE 40 PVC CONDUIT, BUT EACH WATER SERVICE SHALL BE TAPPED DIRECTLY TO THE WATER MAIN. SPLIT SERVICES ARE NOT ALLOWED BY HRW. IF

SIDEWALKS ARE PROPOSED, THE CONDUIT MUST EXTEND PAST THE SIDEWALK P.THE WATER MAIN(S), FIRE HYDRANTS, GATE VALVES, SERVICE LINES, METER SETTERS AND ASSOCIATED APPURTENANCES MUST BE RATED FOR 200 PSI AND HYDROSTATICALLY PRESSURE TESTED TO 200 PSI. THE HYDROSTATIC PRESSURE TEST(S) MUST BE WITNESSED BY THE HRW UTILITY CONSTRUCTION INSPECTOR. THE UTILITY CONTRACTOR MUST NOTIFY HRW WHEN THEY ARE READY TO BEGIN FILLING IN LINES AND COORDINATE WITH HARNETT REGIONAL WATER TO WITNESS ALL PRESSURE TESTING.

- INSPECTOR AND TESTED IN THE HRW LABORATORY.
- PIPE USED FOR WATER MAINS IN HARNETT COUNTY.
- PIPE BEFORE BACKFILLING.
- AND PROPERLY DOCUMENTED IN THE RED LINE FIELD DRAWINGS.
- GRADING AND STREET CONSTRUCTION.
- POWER, FIBER OPTIC,
- AS-BUILT RECORD DRAWINGS SUBMITTED TO HRW.
- ANY AND ALL REPAIRS DUE TO DAMAGES RESULTING FROM FAILURE TO LOCATE THE NEW

SANITARY SEWER

- IMPROVEMENTS.

Q. THE UTILITY CONTRACTOR SHALL CONDUCT A PNEUMATIC PRESSURE TEST USING COMPRESSED AIR OR OTHER INERT GAS ON THE STAINLESS STEEL TAPPING SLEEVE(S) PRIOR TO MAKING THE TAP ON THE EXISTING WATER MAIN. THIS PNEUMATIC PRESSURE TEST MUST BE WITNESSED BY THE HRW UTILITY CONSTRUCTION INSPECTOR. THE UTILITY CONTRACTOR SHALL USE <u>ROMAC</u>BRAND STAINLESS STEEL TAPPING SLEEVE(S) OR APPROVED EQUAL FOR ALL TAPS MADE IN HARNETT COUNTY. ALL NEW WATER LINE EXTENSIONS MUST BEGIN WITH A RESILIENT WEDGE TYPE GATE VALVE SIZED EQUAL TO THE DIAMETER OF THE NEW WATER LINE EXTENSION IN ORDER TO PROVIDE A MEANS OF ISOLATION BETWEEN HARNETT REGIONAL WATER'S EXISTING WATER MAINS AND THE NEW WATER LINE EXTENSIONS UNDER CONSTRUCTION.

R.ALL WATER MAINS WILL BE CONSTRUCTED WITH SDR-21 PVC PIPE OR CLASS 50 DUCTILE IRON PIPE RATED FOR AT LEAST 200 PSI OR GREATER. ALL PIPES MUST BE PROTECTED DURING LOADING, TRANSPORT, UNLOADING, STAGING, AND INSTALLATION. PVC PIPE MUST BE PROTECTED FROM EXTENDED EXPOSURE TO SUNLIGHT PRIOR TO INSTALLATION.

S.ALL WATER MAINS WILL BE FLUSHED AND DISINFECTED IN STRICT ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE HARNETT REGIONAL WATER. ALL WATER SAMPLES COLLECTED FOR BACTERIA TESTING WILL BE COLLECTED BY THE HRW UTILITY CONSTRUCTION

T. ALL FITTINGS LARGER THAN TWO (2") INCHES DIAMETER SHALL BE DUCTILE IRON. HRW REQUIRES THAT MECHANICAL JOINTS BE ASSEMBLED WITH GRIP RINGS AS "MEGALUG" FITTINGS ARE NOT APPROVED BY HARNETT REGIONAL WATER FOR PIPE SIZES SMALLER THAN TWELVE INCHES (12") DIAMETER. PVC PIPE USED FOR WATER MAINS SHALL BE CONNECTED BY SLIP JOINT OR MECHANICAL JOINT WITH GRIP RINGS. GLUED PIPE JOINTS ARE NOT ALLOWED ON PVC

HRW REQUIRES THAT THE UTILITY CONTRACTOR INSTALL TRACER WIRE IN THE TRENCH WITH ALL WATER LINES. THE TRACER WIRE SHALL BE 12 GA. INSULATED, SOLID COPPER CONDUCTOR AND IT SHALL BE TERMINATED AT THE TOP OF THE VALVE BOXES OR MANHOLES. NO SPLICED WIRE CONNECTIONS SHALL BE MADE UNDERGROUND ON TRACER WIRE INSTALLED IN

V.THE UTILITY CONTRACTOR WILL PROVIDE PROFESSIONAL ENGINEER (PE) AND THE HRW UTILITY CONSTRUCTION INSPECTOR WITH A SET OF RED LINE FIELD DRAWINGS TO IDENTIFY THE INSTALLED LOCATIONS OF THE WATER LINE(S) AND ALL ASSOCIATED SERVICES. ALL CHANGE ORDERS MUST BE PRE-APPROVED BY HRW AND THE PROFESSIONAL ENGINEER (PE) IN WRITING

W. THE UTILITY CONTRACTOR SHALL SPOT DIG TO EXPOSE EACH UTILITY PIPE OR LINE WHICH MAY CONFLICT WITH CONSTRUCTION OF PROPOSED WATER LINE EXTENSIONS WELL IN ADVANCE TO VERIFY LOCATIONS OF THE EXISTING UTILITIES. THE UTILITY CONTRACTOR SHALL PROVIDE BOTH HORIZONTAL AND VERTICAL CLEARANCES TO THE PROFESSIONAL ENGINEER (PE) TO ALLOW THE PE TO ADJUST THE WATER LINE DESIGN IN ORDER TO AVOID CONFLICTS WITH EXISTING UNDERGROUND UTILITIES. THE UTILITY CONTRACTOR SHALL COORDINATE WITH THE UTILITY OWNER AND BE RESPONSIBLE FOR TEMPORARY RELOCATION AND/OR SECURING EXISTING UTILITY POLES, PIPES, WIRES, CABLES, SIGNS AND/OR UTILITIES INCLUDING SERVICES IN ACCORDANCE WITH THE UTILITY OWNER REQUIREMENTS DURING WATER LINE INSTALLATION,

X.PRIOR TO THE COMMENCEMENT OF ANY WORK WITHIN ESTABLISHED UTILITY EASEMENTS OR NCDOT RIGHT-OF-WAYS THE UTILITY CONTRACTOR IS REQUIRED TO HAVE A SIGNED NCDOT ENCROACHMENT AGREEMENT POSTED ON SITE AND NOTIFY ALL CONCERNED UTILITY COMPANIES IN ACCORDANCE WITH G.S. 87-102. THE UTILITY CONTRACTOR MUST CALL THE NC ONE CALL CENTER AT 811 OR (800) 632-4949 TO VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION. EXISTING UTILITIES SHOWN IN THESE PLANS ARE TAKEN FROM MAPS FURNISHED BY VARIOUS UTILITY COMPANIES AND HAVE NOT BEEN PHYSICALLY LOCATED OR VERIFIED BY THE P.E. (I.E. TELEPHONE, CABLE, WATER, SEWER, ELECTRICAL

NATURAL GAS, ETC.). THE UTILITY CONTRACTOR WILL BE RESPONSIBLE TO REPAIR ANY AND ALL DAMAGES TO THE SATISFACTION OF THE RELATED UTILITY COMPANY.

Y.THE UTILITY CONTRACTOR SHALL PROVIDE HRW WITH AT LEAST ONE (1) FIRE HYDRANT WRENCH AND ONE (1) BREAK-AWAY FLANGE KIT FOR EVERY SUBDIVISION WITH FIRE HYDRANTS DEVELOPED IN HARNETT COUNTY. THESE ITEMS MUST BE PROVIDED TO HRW BEFORE THE FINAL INSPECTION WILL BE SCHEDULED BY THE HRW UTILITY CONSTRUCTION INSPECTOR. IN ADDITION. THE UTILITY CONTRACTOR SHALL INSTALL A 4" X 4" CONCRETE VALVE MARKER AT THE EDGE OF THE RIGHT-OF-WAY TO IDENTIFY THE LOCATION OF EACH GATE VALVE INSTALLED IN THE NEW WATER SYSTEM WITH THE EXCEPTION OF THE FIRE HYDRANT ISOLATION VALVES. THE CONTRACTOR SHALL MEASURE THE DISTANCE FROM THE CENTER OF THE CONCRETE MARKER TO THE CENTER OF THE VALVE BOX. THIS DISTANCE (IN LINEAR FEET) SHALL BE STAMPED ON THE BRASS PLATE LOCATED ON THE TOP OF THE CONCRETE VALVE MARKER. IN LIEU OF INSTALLING THE CONCRETE VALVE MARKERS, THE UTILITY CONTRACTOR MAY PROVIDE AT LEAST TWO MEASUREMENTS FROM TWO INDEPENDENT PERMANENT ABOVE GROUND STRUCTURES TO THE PROFESSIONAL ENGINEER (PE) IN THE RED LINE DRAWINGS TO IDENTIFY THE VALVE LOCATIONS. THE PROFESSIONAL ENGINEER (PE) MUST INCLUDE THESE MEASUREMENTS IN THE

Z.THE UTILITY CONTRACTOR WILL BE RESPONSIBLE FOR ANY AND ALL REPAIRS DUE TO LEAKAGE DAMAGE FROM POOR WORKMANSHIP DURING THE ONE

YEAR WARRANTY PERIOD ONCE THE WATER SYSTEM IMPROVEMENTS HAVE BEEN ACCEPTED BY HARNETT REGIONAL WATER. HARNETT REGIONAL WATER WILL PROVIDE MAINTENANCE AND REPAIRS WHEN REQUESTED AND BILL THE DEVELOPER AND/OR UTILITY CONTRACTOR IF NECESSARY DUE TO LACK OF RESPONSE WITHIN 48 HOURS OF NOTIFICATION OF WARRANTY WORK. THE UTILITY CONTRACTOR WILL BE RESPONSIBLE FOR

WATER LINES AND ASSOCIATED APPURTENANCES FOR OTHER UTILITIES AND THEIR CONTRACTORS UNTIL THE WATER LINES HAVE BEEN APPROVED BY NCDEQ AND ACCEPTED BY HRW. THE FINAL INSPECTION OF WATER SYSTEM IMPROVEMENTS CANNOT BE SCHEDULED WITH HRW UNTIL THE STREETS HAVE BEEN PAVED; THE RIGHTS-OF-WAY AND UTILITY EASEMENTS HAVE BEEN SEEDED AND STABILIZED WITH AN ADEQUATE STAND OF GRASS IN PLACE TO PREVENT EROSION ISSUES ON SITE.

AA THE ENGINEER OF RECORD IS RESPONSIBLE TO ENSURE THAT CONSTRUCTION IS, AT ALL TIMES, IN COMPLIANCE WITH ACCEPTED SANITARY ENGINEERING PRACTICES AND APPROVED PLANS AND SPECIFICATIONS. NO FIELD CHANGES TO THE APPROVED PLANS ARE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL BY HRW. A COPY OF EACH ENGINEER'S FIELD REPORT IS TO BE SUBMITTED TO HRW AS EACH SUCH INSPECTION IS MADE ON SYSTEM IMPROVEMENTS OR TESTING IS PERFORMED BY THE CONTRACTOR. WATER AND SEWER INFRASTRUCTURE MUST PASS ALL TESTS REQUIRED BY HRW SPECIFICATIONS

AND THOSE OF ALL APPLICABLE REGULATORY AGENCIES. THESE TESTS INCLUDE, BUT ARE NOT LIMITED TO: AIR TEST, VACUUM TEST, MANDREL TEST, VISUAL TEST, PRESSURE TEST, BACTERIOLOGICAL TEST, ETC. A HRW INSPECTOR MUST BE PRESENT DURING TESTING AND ALL TEST RESULTS SHALL BE SUBMITTED TO HRW. ALL TESTS MUST BE SATISFIED BEFORE THE FINAL INSPECTION WILL BE SCHEDULED WITH THE HRW INSPECTOR. THE ENGINEER OF RECORD MUST REQUEST IN WRITING TO SCHEDULE THE FINAL INSPECTION ONCE ALL CONSTRUCTION IS COMPLETE. THE DEVELOPER'S ENGINEER OF RECORD AND THE HRW UTILITY CONSTRUCTION INSPECTOR SHALL PREPARE A WRITTEN PUNCH LIST OF ANY DEFECTS OR DEFICIENCIES NOTED DURING THE FINAL INSPECTION, SHOULD ANY EXIST. UPON COMPLETION OF THE PUNCH LIST, THE DEVELOPER'S ENGINEER OF RECORD WILL SCHEDULE ANOTHER INSPECTION. IN THE EVENT THE NUMBER OF INSPECTIONS PERFORMED BY THE HRW EXCEEDS TWO, ADDITIONAL FEES MAY BE ASSESSED TO THE DEVELOPER.

THE PROFESSIONAL ENGINEER (PE) SHALL OBTAIN AND SUPPLY A COPY OF THE SEWER PERMIT FOR THE CONSTRUCTION AND OPERATION OF THE WASTEWATER COLLECTION SYSTEM TO THE UTILITY CONTRACTOR BEFORE THE CONSTRUCTION OF THE SANITARY SEWER LINE, SEWER LIFT STATION AND ASSOCIATED FORCE MAIN SHALL BEGIN. THE UTILITY CONTRACTOR MUST POST A COPY OF THE SEWER PERMIT ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY (NCDEQ) ON SITE PRIOR TO THE START OF CONSTRUCTION. THE PERMIT MUST BE MAINTAINED ON SITE DURING THE CONSTRUCTION OF THE SEWER SYSTEM

B.THE UTILITY CONTRACTOR SHALL NOTIFY HARNETT REGIONAL WATER (HRW) AND THE PROFESSIONAL ENGINEER (PE) AT LEAST TWO DAYS PRIOR TO CONSTRUCTION COMMENCING. THE UTILITY CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION CONFERENCE WITH MR. CHAD EVERETTE, HRW UTILITY CONSTRUCTION INSPECTOR AT LEAST TWO (2) DAYS BEFORE

CONSTRUCTION WILL BEGIN AND THE UTILITY CONTRACTOR MUST COORDINATE WITH HRW FOR REGULAR INSPECTION VISITATIONS AND ACCEPTANCE OF THE WASTEWATER SYSTEM(S). CONSTRUCTION WORK SHALL BE PERFORMED ONLY DURING THE NORMAL WORKING HOURS OF HRW WHICH IS 8:00 AM - 5:00 PM MONDAY THROUGH FRIDAY. HOLIDAY AND WEEKEND WORK IS NOT PERMITTED BY HRW.

C.THE PROFESSIONAL ENGINEER (PE) SHALL PROVIDE HRW WITH A SET OF NCDEQ APPROVED PLANS MARKED "RELEASED FOR CONSTRUCTION" AT LEAST TWO DAYS PRIOR TO CONSTRUCTION COMMENCING. HRW WILL STAMP THE APPROVED PLANS AS "RELEASED FOR CONSTRUCTION" AND PROVIDE COPIES TO THE UTILITY CONTRACTOR. THE REGISTERED LAND SURVEYOR (RLS) SHALL STAKE OUT ALL LOT CORNERS AND ESTABLISH GRADE STAKES FOR THE PROPOSED FINISH GRADE FOR EACH STREET AND SEWER LINE BEFORE THE UTILITY CONTRACTOR BEGINS CONSTRUCTION OR INSTALLATION OF THE MANHOLES, SANITARY SEWER GRAVITY LINE(S), SEWER LIFT STATIONS AND/OR SANITARY SEWER FORCE MAIN(S). THE GRADE STAKES SHOULD BE SET WITH A CONSISTENT OFFSET FROM THE STREET CENTERLINE SO AS NOT TO INTERFERE WITH THE STREET GRADING OR UTILITY CONSTRUCTION.

D.THE UTILITY CONTRACTOR SHALL PROVIDE THE HRW UTILITY CONSTRUCTION INSPECTOR WITH MATERIAL SUBMITTALS AND SHOP DRAWINGS FOR ALL PROJECT MATERIALS PRIOR TO THE CONSTRUCTION OF ANY GRAVITY SEWER LINE(S), MANHOLE(S), SEWER LIFT STATION(S) AND ASSOCIATED FORCE MAIN(S) IN HARNETT COUNTY. THE MATERIALS TO BE USED ON THE PROJECT MUST MEET THE ESTABLISHED SPECIFICATIONS OF HRW AND BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION. ALL SUBSTANDARD MATERIALS OR MATERIALS NOT APPROVED FOR USE IN HARNETT COUNTY FOUND ON THE PROJECT SITE MUST BE REMOVED IMMEDIATELY WHEN NOTIFIED BY THE HRW UTILITY CONSTRUCTION INSPECTOR.

E.THE SANITARY SEWER LATERAL CONNECTIONS SHOULD BE INSTALLED 90° (PERPENDICULAR) TO THE SANITARY SEWER GRAVITY LINES WITH SCHEDULE 40 PVC PIPE. HRW REQUIRES THE UTILITY CONTRACTOR TO PROVIDE THE PROFESSIONAL ENGINEER (PE) WITH ACCURATE MEASUREMENTS FOR LOCATING SANITARY SEWER SERVICE LATERAL AND ASSOCIATED EACH SANITARY SEWER CLEAN-OUT. THESE MEASUREMENTS SHOULD BE TAKEN FROM THE NEAREST DOWNSTREAM MANHOLE UP ALONG THE SANITARY SEWER MAIN TO THE IN-LINE WYE FITTING (OR TAPPING SADDLE) AND THEN ANOTHER MEASUREMENT FROM THE IN-LINE WYE FITTING (OR TAPPING SADDLE) TO THE 4" X 4" LONG SWEEP COMBINATION WYE FITTING AT THE BOTTOM OF THE SEWER CLEAN-OUT STACK. THESE FIELD MEASUREMENTS MUST BE PROVIDED TO THE PROFESSIONAL ENGINEER (PE) IN THE RED LINE DRAWINGS FROM THE UTILITY CONTRACTOR FOR PROPER DOCUMENTATION IN THE AS-BUILT RECORD DRAWINGS SUBMITTED TO HRW.

HARNETT COUNTY. THE TRACER WIRE MAY BE SECURED WITH DUCT TAPE TO THE TOP OF THE F. THE UTILITY CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE THE NEWLY INSTALLED SANITARY SEWER GRAVITY LINE(S), SANITARY SEWER FORCE MAIN(S), SANITARY SEWER SERVICE LATERAL(S) AND ALL ASSOCIATED SEWER CLEAN-OUT(S) IN THE PROPOSED SANITARY SEWER SYSTEM FOR OTHER UTILITY COMPANIES AND THEIR CONTRACTORS UNTIL THE NEW SANITARY SEWER LINE(S) AND ASSOCIATED APPURTENANCES HAVE BEEN APPROVED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY (NCDEQ) AND ACCEPTED BY HRW. ALL NEW SANITARY SEWER LINES MUST HAVE AT LEAST THREE (3 FT.) FEET OF COVER AND EXTEND UNDER ALL EXISTING WATER MAIN AND STORM WATER LINES WITH A LEAST 24" OF VERTICAL CLEARANCE BELOW THE BOTTOM OF THE EXISTING WATER MAIN AND STORM WATER LINES. ALL DUCTILE IRON SEWER PIPING MUST BE 401 EPOXY COATED OR APPROVED EQUAL.

> G.THE SANITARY SEWER GRAVITY LINE(S), MANHOLE(S), SANITARY SEWER SERVICE LATERAL(S) AND ASSOCIATED CLEAN-OUT(S) SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE HARNETT REGIONAL WATER. THE SANITARY SEWER GRAVITY LINE(S) MUST PNEUMATICALLY PRESSURE TESTED WITH COMPRESSED AIR AT 5 PSI AND THE SANITARY SEWER FORCE MAIN(S) MUST HYDROSTATICALLY PRESSURE TESTED WITH WATER OR AIR AT 200 PSI. SANITARY SEWER MANHOLES MUST BE VACUUM TESTED TO 10 INCHES OF MERCURY AND CANNOT DROP BELOW 9 INCHES IN 60 SECONDS FOR 4 FT. DIAMETER MANHOLES, 75 SECONDS FOR 5 FT. DIAMETER MANHOLES. THE TEST MUST BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS: FOR DUCTILE IRON PIPELINES TEST IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF ASTM C924. FOR PVC PIPELINES TEST IN ACCORDANCE WITH ASTM F1417-98 AND UBPPA UNI-B-6. VACUUM TESTING SHALL BE PERFORMED IN ACCORDANCE WITH ASTM C1244. THE HRW UTILITY CONSTRUCTION INSPECTOR AND ENGINEER MUST WITNESS ALL TESTS MENTIONED ABOVE.

PRIOR TO ACCEPTANCE, ALL SEWER SERVICE LATERALS WILL BE INSPECTED TO ENSURE THAT THEY ARE INSTALLED AT THE PROPER DEPTH. ALL SEWER CLEAN-OUTS MUST BE INSTALLED SO THE 4" X 4" LONG SWEEP COMBINATION WYE IS AT LEAST THREE (3') FEET BUT NO MORE THAN FOUR (4') FEET BELOW THE FINISH GRADE UNLESS OTHERWISE APPROVED IN WRITING BY HRW. THE SEWER CLEANOUTS SHALL HAVE A FOUR (4") SCHEDULE 40 PVC PIPE STUBBED UP FROM BOTH ENDS OF THE 4" X 4" LONG SWEEP COMBINATION WYE TO BE AT LEAST TWO (2') FEET ABOVE THE FINISH GRADE AND COVER EACH END WITH A FOUR (4") INCH TEMPORARY CAP TO KEEP OUT DIRT, SAND, ROCKS, WATER AND CONSTRUCTION DEBRIS. THE VERTICAL STACK ON EACH CLEAN-OUT MUST BE PROVIDED WITH A CONCRETE DONUT FOR PROTECTION.

I. ONCE THE SANITARY SEWER GRAVITY LINE(S) HAVE BEEN INSTALLED, PNEUMATICALLY PRESSURE TESTED AND IN PLACE FOR AT LEAST 30 DAYS, THE UTILITY CONTRACTOR MUST CONTACT THE HRW UTILITY CONSTRUCTION INSPECTOR TO WITNESS THE MANDREL TEST ON EACH PVC SANITARY SEWER GRAVITY LINE. THE UTILITY CONTRACTOR WILL NOTIFY HRW TO SCHEDULE THE MANDREL TESTING. THE MANDREL AND PROVING RING MUST BE SUPPLIED BY THE UTILITY CONTRACTOR. CLOSED CIRCUIT VIDEO CAMERA INSPECTIONS (AT THE UTILITY CONTRACTOR'S EXPENSE) MAY BE REQUIRED BY THE HRW UTILITY CONSTRUCTION INSPECTOR IF THE MANDREL AND MIRROR TAMPING TESTING CANNOT BE COMPLETED WITH SATISFACTORY RESULTS. THE SANITARY SEWER LINES SHOULD BE FLUSHED CLEAN USING A SEWER BALL OF THE PROPER DIAMETER BEFORE ANY MANDREL TESTING CAN BE PERFORMED. THE UTILITY CONTRACTOR IS RESPONSIBLE TO REMOVE ALL DIRT, SAND, SILT, GRAVEL, MUD AND DEBRIS FROM THE NEWLY CONSTRUCTED SEWER LINES EXERCISING CARE TO KEEP THE HARNETT REGIONAL WATER'S EXISTING SANITARY SEWER SYSTEMS CLEAN. SANITARY SEWER FORCE MAIN(S) SHALL BE PRESSURE TESTED TO 200 PSI FOR AT LEAST 2 HOURS LIKE WATER LINES.

J. THE UTILITY CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE THE NEWLY INSTALLED SANITARY SEWER SYSTEM(S) FOR OTHER UTILITY COMPANIES AND THEIR CONTRACTORS UNTIL THE NEW SANITARY SEWER SYSTEM(S) HAVE BEEN APPROVED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY (NCDEQ) AND ACCEPTED BY HRW.

K.HRW REQUIRES THAT THE UTILITY CONTRACTOR INSTALL TRACER WIRE IN THE TRENCH WITH ALL SANITARY SEWER FORCE MAINS. THE TRACER WIRE SHALL BE 12 GA. INSULATED, SOLID COPPER CONDUCTOR AND IT SHALL BE TERMINATED AT THE TOP OF THE VALVE BOXES OR MANHOLES. NO SPLICED WIRE CONNECTIONS SHALL BE MADE UNDERGROUND ON TRACER WIRE INSTALLED IN HARNETT COUNTY. THE TRACER WIRE MAY BE SECURED WITH DUCT TAPE TO THE TOP OF THE PIPE BEFORE BACKFILLING. THE TRACER WIRE IS NOT REQUIRED FOR THE GRAVITY SEWER LINE(S) BETWEEN MANHOLES.

L. THE UTILITY CONTRACTOR SHALL PROVIDE THE PROFESSIONAL ENGINEER (PE) AND HRW UTILITY CONSTRUCTION INSPECTOR WITH A SET OF RED LINE DRAWINGS IDENTIFYING THE COMPLETE SEWER SYSTEM INSTALLED FOR EACH PROJECT. THE RED LINE DRAWINGS SHOULD IDENTIFY THE MATERIALS, PIPE SIZES AND APPROXIMATE DEPTHS OF THE SEWER LINES AS WELL AS THE INSTALLED LOCATIONS OF THE MANHOLE(S), SANITARY SEWER GRAVITY LINE(S), SANITARY SEWER SERVICE LATERALS, CLEAN-OUTS, SEWER LIFT STATION(S) AND ASSOCIATED FORCE MAIN(S). THE RED LINE DRAWINGS SHOULD CLEARLY IDENTIFY ANY DEVIATIONS FROM THE NCDEQ APPROVED PLANS. ALL CHANGE ORDERS MUST BE APPROVED BY HRW AND THE PROFESSIONAL ENGINEER (PE) IN WRITING AND PROPERLY DOCUMENTED IN THE RED LINE FIELD DRAWINGS.

PRIOR TO THE COMMENCEMENT OF ANY WORK WITHIN ESTABLISHED UTILITY EASEMENTS OR М. NCDOT RIGHT-OF-WAYS THE UTILITY CONTRACTOR IS REQUIRED TO NOTIFY ALL CONCERNED UTILITY COMPANIES IN ACCORDANCE WITH G.S. 87-102. THE UTILITY CONTRACTOR MUST CALL THE NC ONE CALL CENTER AT 811 OR (800) 632-4949 TO VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION. EXISTING UTILITIES SHOWN IN THESE PLANS ARE TAKEN FROM MAPS FURNISHED BY VARIOUS UTILITY COMPANIES AND HAVE NOT BEEN PHYSICALLY LOCATED BY THE P.E. (I.E. TELEPHONE, CABLE, WATER, SEWER, ELECTRICAL POWER, FIBER OPTIC, NATURAL GAS, ETC.).

N. THE UTILITY CONTRACTOR SHALL SPOT DIG TO EXPOSE EACH EXISTING UTILITY PIPE OR LINE WHICH MAY CONFLICT WITH CONSTRUCTION OF PROPOSED SANITARY SEWER LINE EXTENSIONS WELL IN ADVANCE TO VERIFY LOCATIONS OF THE EXISTING UTILITIES. THE UTILITY CONTRACTOR SHALL PROVIDE BOTH HORIZONTAL AND VERTICAL CLEARANCES TO THE PROFESSIONAL ENGINEER (PE) TO ALLOW THE PE TO ADJUST THE SANITARY SEWER LINE DESIGN IN ORDER TO AVOID CONFLICTS WITH EXISTING UNDERGROUND UTILITIES. THE UTILITY CONTRACTOR SHALL COORDINATE WITH THE UTILITY OWNER AND BE RESPONSIBLE FOR TEMPORARY RELOCATION OF EXISTING UTILITIES AND/OR SECURING EXISTING UTILITY POLES, PIPES, WIRES, CABLES, SIGNS AND/OR UTILITIES INCLUDING SERVICES IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS DURING SANITARY SEWER LINE INSTALLATION, GRADING AND STREET CONSTRUCTION.

O. WHEN MAKING A TAP ON AN EXISTING SEWER FORCE MAIN, THE UTILITY CONTRACTOR MUST HAVE A PERMIT FROM THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY (NCDEQ) PRIOR TO BEGIN THE TAP WORK. THE UTILITY CONTRACTOR SHALL CONDUCT A

PNEUMATIC PRESSURE TEST USING COMPRESSED AIR OR OTHER INERT GAS ON THE STAINLESS STEEL TAPPING SLEEVE AND GATE VALVE PRIOR TO MAKING THE TAP ON AN EXISTING SANITARY SEWER FORCE MAIN. THIS PNEUMATIC PRESSURE TEST MUST BE WITNESSED BY THE HRW UTILITY CONSTRUCTION INSPECTOR. THE UTILITY CONTRACTOR SHALL USE ROMAC BRAND STAINLESS STEEL TAPPING SLEEVE(S) OR APPROVED EQUAL FOR ALL TAPS MADE ON SANITARY SEWER FORCE MAINS IN HARNETT COUNTY. THE UTILITY CONTRACTOR SHALL USE ROMAC BRAND STYLE "CB" SEWER SADDLES WITH STAINLESS STEEL BANDS OR APPROVED EQUAL FOR ALL TAPS MADE ON EXISTING SANITARY SEWER GRAVITY LINES IN HARNETT COUNTY.

P.THE UTILITY CONTRACTOR SHALL PROVIDE A GREASE TRAP FOR EACH SANITARY SEWER SERVICE LATERAL THAT WILL BE CONNECTED TO A RESTAURANT, FOOD PROCESSING FACILITY AND ANY OTHER COMMERCIAL OR INDUSTRIAL FACILITY AS REQUIRED BY THE HARNETT COUNTY FAT, OIL & GREASE ORDINANCE. THE GREASE TRAP MUST BE RATED FOR A MINIMUM CAPACITY OF AT LEAST 1,000 GALLONS UNLESS OTHERWISE APPROVED IN WRITING BY THE HRW PRE-TREATMENT COORDINATOR. GARBAGE DISPOSALS SHOULD NOT BE INSTALLED IN HOMES AND BUSINESSES THAT DISCHARGE WASTEWATER TO THE HARNETT REGIONAL WATER'S SANITARY SEWER SYSTEM AS THEY ARE NOT APPROVED BY HRW.

Q. EACH SEWER LIFT STATION MUST BE PROVIDED WITH THREE PHASE POWER (AT LEAST 480 VOLTS) AND CONSTRUCTED TO MEET THE MINIMUM REQUIREMENTS OF THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE (NEC) AND HARNETT REGIONAL WATER STANDARD SPECIFICATIONS AND DETAILS. IF THREE PHASE POWER IS NOT AVAILABLE FROM THE POWER COMPANY OTHER ARRANGEMENTS MUST BE APPROVED BY HRW ENGINEERING PRIOR TO THE START OF CONSTRUCTION.

R.WHERE A NEW SANITARY SEWER FORCE MAIN IS CONNECTED TO AN EXISTING MANHOLE IN THE HARNETT REGIONAL WATER SEWER COLLECTIONS SYSTEM, THE UTILITY CONTRACTOR MUST PROVIDE A PROTECTIVE COATING (EPOXY) FOR THE INTERIOR SURFACES OF THE MANHOLE TO PROTECT IT AGAINST CORROSION, EROSION AND DETERIORATION FROM THE RELEASE OF SEWER GASES SUCH AS METHANE AND HYDROGEN SULFIDE.

S.THE SEWER LIFT STATION DESIGN AND ASSOCIATED EQUIPMENT MUST MEET OR EXCEED THE MINIMUM REQUIREMENTS FOR HARNETT COUNTY SEWER LIFT STATIONS. EACH SANITARY SEWER LIFT STATION MUST BE CONSTRUCTED WITH AN ALL-WEATHER ACCESS ROAD THAT IS AT LEAST 20 FEET WIDE. THE LIFT STATION SITE MUST BE COVERED WITH WEED BLOCKING MATERIAL AND AT LEAST SIX (6") INCHES OF ABC STONE (CRUSH AND RUN).

T. ONCE A SEWER LIFT STATION HAS BEEN INSTALLED, THE UTILITY CONTRACTOR IS RESPONSIBLE TO SCHEDULE A DRAW DOWN TEST WITH HRW ENGINEERING AND COLLECTIONS STAFF. THE PROFESSIONAL ENGINEER (PE), THE ELECTRICIAN, THE ORIGINAL EQUIPMENT MANUFACTURERS (OEM) REPRESENTATIVES [FOR BOTH THE PUMPS AND THE GENERATOR]. THIS DRAW DOWN TEST MUST BE COMPLETED WITH POWER SUPPLIED FROM THE ELECTRICAL UTILITY COMPANY AND WITH POWER SUPPLIED BY THE EMERGENCY GENERATOR WITH SATISFACTORY RESULTS BEFORE FINAL INSPECTIONS ARE CONDUCTED BY THE HRW UTILITY CONSTRUCTION INSPECTOR

U. ONCE THE UTILITY CONTRACTOR COMPLETES THE INSTALLATION OF A SEWER LIFT STATION, THE PROFESSIONAL ENGINEER (PE) MUST SUBMIT THE SEWER PERMIT CERTIFICATION AND AS-BUILT RECORD DRAWINGS TO THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY (NCDEQ) AND HRW FOR FINAL APPROVAL. THE UTILITY CONTRACTOR MUST SUPPLY HRW ENGINEERING STAFF WITH THREE ORIGINAL OPERATION & MAINTENANCE (O&M) MANUALS ALONG WITH THE ASSOCIATED PUMP CURVES AND ELECTRICAL SCHEMATICS FOR THE ASSOCIATED SEWER LIFT STATION EQUIPMENT INCLUDING ALL WARRANTY INFORMATION AND DOCUMENTATION.

V.ONCE THE UTILITY CONTRACTOR COMPLETES THE INSTALLATION OF A SEWER LIFT STATION, THE DEVELOPER MUST PAY HRW THE ESTABLISHED SYSTEM CONTROL AND DATA ACQUISITION (SCADA) FEES BEFORE THE SCADA SYSTEM WILL BE INSTALLED AT THE NEW SEWER LIFT STATION. THE SCADA SYSTEM MUST BE INSTALLED AND OPERATIONAL BEFORE THE UTILITIES MAY BE ACCEPTED BY HRW AND PLACED INTO OPERATION.

W. HRW REQUIRES THE UTILITY CONTRACTOR TO PROVIDE ALL NECESSARY EQUIPMENT AND DEVICES FOR THE TESTING AND INSPECTION OF THE SANITARY SEWER SYSTEM. THE EQUIPMENT AND DEVICES MAY INCLUDE BUT NOT LIMITED TO LAMPING WITH MIRRORS, MANDRELS, SEWER BALLS, PLUGS, AIR COMPRESSORS AND ASSOCIATED COMPRESSED AIR LINES. IF THE HRW UTILITY CONSTRUCTION INSPECTOR DEEMS THAT A CLOSED CIRCUIT VIDEO CAMERA INSPECTION OF THE NEWLY CONSTRUCTED SEWER SYSTEM IS NECESSARY, THEN ALL COSTS FOR THE CLOSED CIRCUIT CAMERA INSPECTION WILL BE THE RESPONSIBILITY OF THE UTILITY CONTRACTOR. ALL CLOSED CIRCUIT VIDEO CAMERA INSPECTIONS MUST BE RECORDED ON VHS TAPES THAT WILL RELEASED TO HRW FOR RECORD KEEPING, REVIEW AND APPROVAL OF THE SEWER SYSTEM.

X.ANY USE OF SEWER PLUGS TO TEMPORARILY BLOCK HARNETT REGIONAL WATER'S EXISTING SANITARY SEWER LINES MUST BE COORDINATED WITH THE HRW COLLECTIONS SUPERVISOR AT LEAST TWO (2) DAYS IN ADVANCE OF INSTALLING THE PLUGS. THE SEWER PLUGS MUST BE REMOVED AS SOON AS POSSIBLE ONCE THE NEW SANITARY SEWER LINES HAVE BEEN INSPECTED, PRESSURE TESTED, MANDREL TESTED, APPROVED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY (NCDEQ) AND ACCEPTED BY HRW TO ALLOW THE SEWER TO FLOW AS DESIGNED IN HARNETT REGIONAL WATER'S EXISTING SANITARY SEWER LINES OR WHEN SO ORDERED BY THE HRW COLLECTIONS SUPERVISOR TO LIMIT INTERRUPTIONS TO THE NORMAL FLOW OF THE SANITARY SEWER COLLECTION SYSTEM(S). THE UTILITY CONTRACTOR MUST PROVIDE THE PUMPS HOSES AND NECESSARY CONNECTORS FOR A TEMPORARY PUMP AROUND SETUP IF REQUIRED BY THE HRW COLLECTIONS SUPERVISOR. MR. RANDOLPH CLEGG, HRW COLLECTIONS SUPERVISOR MAY BE CONTACTED BETWEEN 8:00 AM AND 5:00 PM MONDAY THROUGH FRIDAY AT (910) 893-7575

EXTENSION 3241.

Y.THE UTILITY CONTRACTOR WILL BE RESPONSIBLE FOR ANY AND ALL REPAIRS DUE TO LEAKAGE OR DAMAGE RESULTING FROM POOR WORKMANSHIP DURING THE ONE (1) YEAR WARRANTY PERIOD ONCE THE SEWER SYSTEM IMPROVEMENTS HAVE BEEN APPROVED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY (NCDEQ) AND ACCEPTED BY HRW. THE UTILITY CONTRACTOR WILL BE RESPONSIBLE FOR ANY AND ALL REPAIRS DUE TO DAMAGES RESULTING FROM FAILURE TO LOCATE THE NEW SANITARY SEWER LINES AND ASSOCIATED APPURTENANCES FOR OTHER UTILITIES AND THEIR CONTRACTORS UNTIL THE SANITARY SEWER LINES HAVE BEEN APPROVED BY NCDEQ AND ACCEPTED BY HRW. HRW WILL PROVIDE MAINTENANCE AND WARRANTY REPAIRS IF NECESSARY DUE TO LACK OF RESPONSE WITHIN 48 HOURS OF NOTIFICATION OF WARRANTY WORK. HRW WILL INVOICE THE DEVELOPER AND/OR UTILITY CONTRACTOR FOR MATERIALS AND LABOR IN SUCH CASES.

Z.IN DEVELOPMENTS AND PROJECTS THAT REQUIRE UTILITY EASEMENTS TO BE ESTABLISHED FOR FUTURE HRW RIGHT-OF-WAY, THE REGISTERED LAND SURVEYOR (RLS) MUST PROVIDE THE HRW RIGHT-OF-WAY AGENT WITH AN OFFICIAL COPY OF THE RECORDED PLAT AND LEGAL DESCRIPTION OF THE SAID EASEMENT AS RECORDED WITH THE HARNETT COUNTY REGISTER OF DEEDS. THE RECORDED DOCUMENTS MUST BE PROVIDED TO THE HRW RIGHT-OF-WAY AGENT BEFORE THE UTILITY IMPROVEMENTS WITHIN THE SAID EASEMENT CAN BE PLACED INTO OPERATION. ANY AND ALL EASEMENTS THAT MUST BE OBTAINED FROM ADJOINING PROPERTY OWNERS MUST BE PROVIDED TO HRW BY THE DEVELOPER AT NO COST TO HARNETT COUNTY. THE FINAL INSPECTION OF ALL SANITARY SEWER SYSTEM IMPROVEMENTS CANNOT BE SCHEDULED WITH HRW UNTIL THE STREETS HAVE BEEN PAVED; THE RIGHTS-OF-WAY AND UTILITY EASEMENTS HAVE BEEN SEEDED AND STABILIZED WITH AN ADEQUATE STAND OF GRASS IN PLACE TO PREVENT EROSION ISSUES ON SITE.

AA. THE ENGINEER OF RECORD IS RESPONSIBLE TO ENSURE THAT CONSTRUCTION IS, AT ALL TIMES, IN COMPLIANCE WITH ACCEPTED SANITARY ENGINEERING PRACTICES AND APPROVED PLANS AND SPECIFICATIONS. NO FIELD CHANGES TO THE APPROVED PLANS ARE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL BY HRW. A COPY OF EACH ENGINEER'S FIELD REPORT IS TO BE SUBMITTED TO HRW AS EACH SUCH INSPECTION IS MADE ON SYSTEM IMPROVEMENTS OR TESTING IS PERFORMED BY THE CONTRACTOR. WATER AND SEWER INFRASTRUCTURE MUST PASS ALL TESTS REQUIRED BY HRW SPECIFICATIONS AND THOSE OF ALL APPLICABLE REGULATORY AGENCIES. THESE TESTS INCLUDE, BUT ARE NOT LIMITED TO: AIR TEST, VACUUM TEST, MANDREL TEST, VISUAL TEST, PRESSURE TEST, BACTERIOLOGICAL TEST, ETC. A HRW INSPECTOR MUST BE PRESENT DURING TESTING AND ALL TEST RESULTS SHALL BE SUBMITTED TO HRW. ALL TESTS MUST BE SATISFIED BEFORE THE FINAL INSPECTION WILL BE SCHEDULED WITH THE HRW INSPECTOR. THE ENGINEER OF RECORD MUST REQUEST IN WRITING TO SCHEDULE THE FINAL INSPECTION ONCE ALL CONSTRUCTION IS COMPLETE. THE DEVELOPER'S ENGINEER OF RECORD AND THE HRW UTILITY CONSTRUCTION INSPECTOR SHALL PREPARE A WRITTEN PUNCH LIST OF ANY DEFECTS OR DEFICIENCIES NOTED DURING THE FINAL INSPECTION SHOULD ANY EXIST. UPON COMPLETION OF THE PUNCH LIST, THE DEVELOPER'S ENGINEER OF RECORD WILL SCHEDULE ANOTHER INSPECTION. IN THE EVENT THE NUMBER OF INSPECTIONS PERFORMED BY THE HRW EXCEEDS TWO, ADDITIONAL FEES MAY BE ASSESSED TO THE DEVELOPER.

REVISIONS

PROJECT NAME

AIRPORT ROAD HANGAR

PROJECT NOTES

CLIENT

BRIAN RAYNOR

2031 Middle Road Fayetteville, NC 28312 Phone: (910) 824-1238 Fax: (910) 678-9988

PROJECT INFORMATION

DESIGNED BY:	SCOTT
DRAWN BY:	SCOTT
CHECKED BY:	CHRIS
PROJECT NUMBER:	1942

DRAWING SCALE

SEE SHEETS

DATE RELEASED

OCTOBER 16, 2023

SHEET NUMBER

HORIZONTAL: 1"=20'

SCOTT

SCOTT

CHRIS

1942

DATE RELEASED

OCTOBER 16, 2023

SHEET NUMBER

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ΩTY.	TYPE	PLANTING SIZE	MIN. HEIGHT	SCIENTIFIC NAME
	UNDERSTORY TREES			
2	WILLOW OAK	2" CALIPER	6'	QUERCUS PHELLOS

1. HEIGHT AND SPREAD OF TREE SPECIMEN SHALL MEET REQUIREMENTS OF THE AMERICAN ASSOCIATION OF NURSERYMEN, AMERICAN STANDARD FOR NURSERY STOCK.

 SITE LIGHTING PLANS REQUIRE LIGHTS TO BE A MIN. OF 15 FEET FROM TREES. ANY ADJUSTMENTS IN THE FIELD NEED TO COMPLY WITH THIS STANDARD AND BE APPROVED BY COUNTY STAFF. 3. EACH TREE MUST BE PLANTED SUCH THAT THE ROOT FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL. TREES WHERE THE ROOT FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT COVER THE ROOT FLARE WITH MULCH. 4. DO NOT PLACE MULCH IN CONTACT WITH THE TREE TRUNK. KEEP MULCH A MIN. OF 4" AWAY FROM THE TRUNK

5. ANY CHANGES TO THE PROPOSED PLANT SCHEDULE MUST BE APPROVED BY THE DESIGNER OF RECORD AND THE COUNTY. IN CASES WHERE THE PLANT SCHEDULE ONLY INCLUDES THE PLANT TYPE AND DOES NOT INCLUDE THE PLANT SPECIES, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT TO THE COUNTY FOR APPROVAL, A DETAILED PLANT SCHEDULE AND ASSOCIATED PLANTING PLAN PREPARED BY A PROFESSIONAL KNOWLEDGEABLE ABOUT PLANT MATERIAL AND DESIGN, PRIOR TO PROCEEDING WITH INSTALLATION.

*THIS LANDSCAPING PLAN IS THE MINIMUM REQUIRED TO MEET WITH HARNET COUNTY ZONING ORDINANCE. THE OWNER OR DEVELOPER IS ENCOURAGED TO CONSULT WITH A LANDSCAPE ARCHITECT IN ORDER TO DEVELOP A PLAN THAT IS MORE IN DEPTH THAN THE MINIMUM REQUIREMENTS. THIS PLAN IS FOR PERMITTING PURPOSES ONLY.

25'R

-24' GATE WITH KNOX BOX **PROJECT NAME** ROAD ____ OWNER'S CONSENT AS THE OWNER OF RECORD, I HEREBY FORMALLY CONSENT TO THE PROPOSED DEVELOPMENT SHOWN ON THE SITE PLAN AND ALL REGULATIONS AND REQUIREMENTS OF THE HARNETT COUNTY ORDINANCES. DATE OWNER'S SIGNATURE CLIENT 2031 Middle Road

AD SITE

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

REVISIONS

AIRPORT HANGAR

SITE PLAN

BRIAN RAYNOR

Fayetteville, NC 28312 Phone: (910) 824-1238

Fax: (910) 678-9988

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DRAWING SCALE

HORIZONTAL: 1"=20'

DATE RELEASED

OCTOBER 16, 2023

C-2.0

SHEET NUMBER

THE CONTRACTOR MUST CONTACT NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 A MINIMUM OF 72 HOURS PRIOR TO DIGGING IN ORDER TO HAVE THE EXISTING UTILITIES LOCATED

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DRAWING SCALE

HORIZONTAL: 1"=20'

DATE RELEASED

OCTOBER 16, 2023

SHEET NUMBER

C-4.0

27

EX 6" PVC WL

— LIGE —

EX 3" PVC FORCE MAIN

195 _____ UGE _____

PROJECT NUMBER:	

