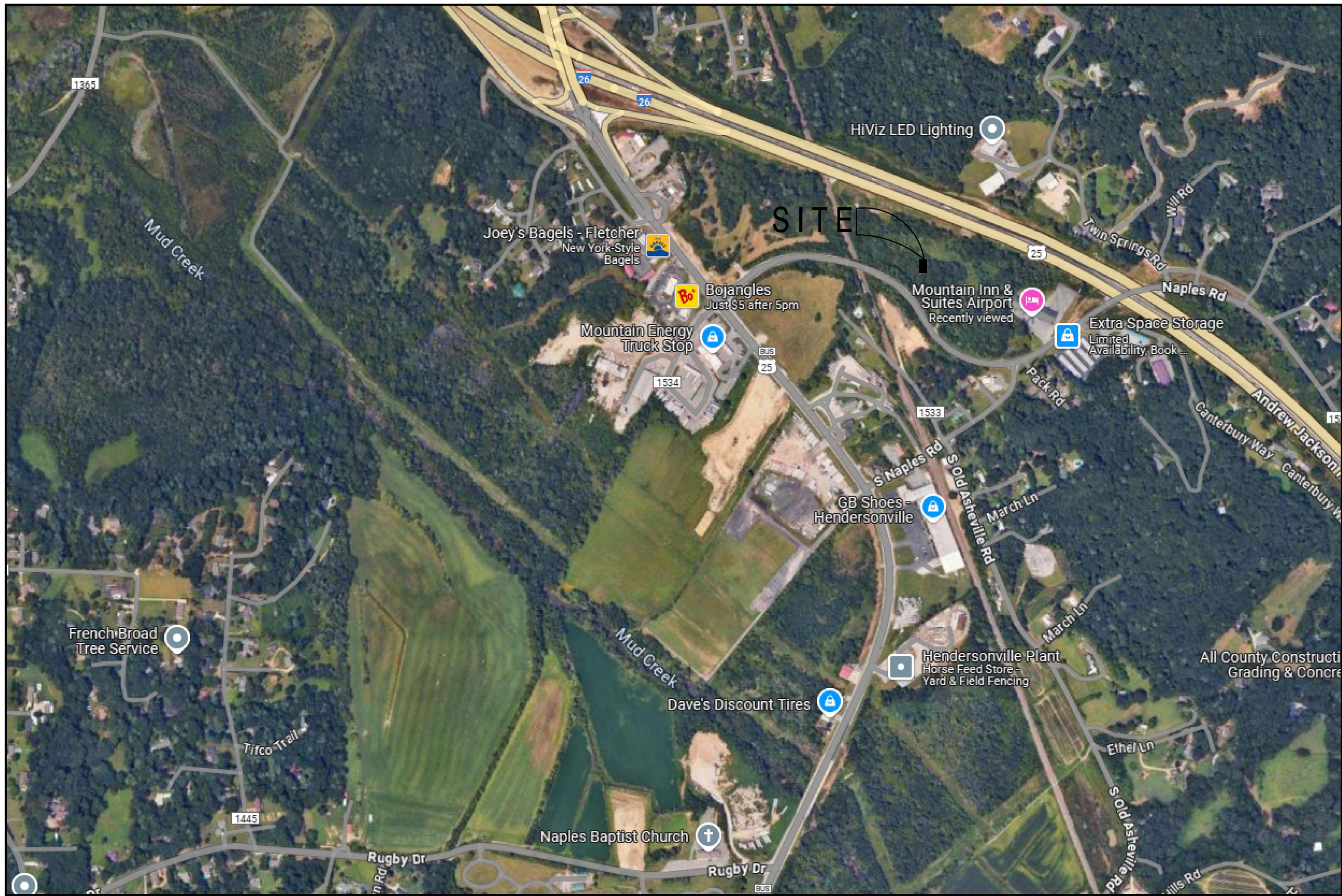


A.F.F.	ABOVE FINISH FLOOR
ACOUS.	ACOUSTICAL
ADJ.	ADJUSTABLE
ALUM.	ALUMINUM
&	AND
<	ANGLE
ARCH.	ARCHITECTURAL
@	AT
BD.	BOARD
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM
BOT.	BOTTOM
CAB.	CABINET
CEM.	CEMENT
CL.	CENTERLINE
CER.	CERAMIC
CLG.	CEILING
CLKG.	CAULKING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
C.M.U.	CONCRETE MASONRY UNIT
CONT.	CONTINUOUS
DET.	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DR.	DOOR
DBL.	DOUBLE
DN.	DOWN
DS.	DOWNSPOUT
DWG.	DRAWING
(E)	EXISTING
E.P.	ELECTRICAL PANELBOARD
EA.	EACH
ELEV.	ELEVATION
ELEC.	ELECTRICAL
EMER.	EMERGENCY
EQ.	EQUAL
E.W.C.	ELECTRIC WATER COOLER
F.E.	FIRE EXTINGUISHER
F.O.	FACE OF
F.O.F.	FACE OF FINISH
F.O.S.	FACE OF STUDS
F/F	FINISH TO FINISH
F.R.	FIRE RETARDANT
F.S.	FULL SIZE
FIN.	FINISH
FL.	FLOOR
FLUOR.	FLUORESCENT
FT.	FOOT, FEET
F.V.	FIELD VERIFY
G.B.	GRAB BAR
G.C.	GENERAL CONTRACTOR
GA.	GAUGE
G.F.R.C.	GLASS FIBER REINFORCED CEMENT
GL.	GLASS
GYP.	GYPSPUM
H.C.	HOLLOW CORE
H.M.	HOLLOW METAL
HC.	HANDICAPPED
HDWD.	HARDWOOD
HORIZ.	HORIZONTAL
HGT.	HEIGHT
HR.	HOOR
H.T.	HANGER-TIGHT UNIT
HVAC	HEATING, VENTILATION, AIR CONDITIONING
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
IT.	JOINT
LT.	LAMINATE
LAM.	LIGHT
MIR.	MIRROR
MAX.	MAXIMUM
MECH.	MECHANICAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MTL.	METAL
N.	NORTH
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
(N)	NEW
NO.	NUMBER
NOM.	NOMINAL
OPNG.	OPENING
OPP.	OPPOSITE
P.LAM.	PLASTIC LAMINATE
PL.	PLATE
PLAS.	PLASTER
PLYWD.	PLYWOOD
PR.	PAIR
PT.	POINT
#	POUND OR NUMBER
R.	RISER
RAD.	RADIUS
REQ'D.	REQUIRED
RESIL.	RESILIENT
RM.	ROOM
R.O.	ROUGH OPENING
S.	SOUTH
S.C.	SOLID CORE
S.S.	STAINLESS STEEL
SCHED.	SCHEDULE
SH.T.	SHEET
SIM.	SIMILAR
SPEC.	SPECIFICATION

SQ.	SQUARE
STD.	STANDARD
STL.	STEEL
STOR.	STORAGE
SUSP.	SUSPENDED
T.C.	TIME CLOCK
T.O.	TOP OF
TEL.	TELEPHONE
THK.	THICK
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
W.	WEST
W/	WITH
W/C	WATER CLOSET
W/O	WITHOUT
W/R	WATER RESISTANT
WD.	WOOD
WT.	WEIGHT



LOCATION MAP - 399 NAPLES RD.- SEE CIVIL

The diagram illustrates three standard architectural symbols and their meanings:

- North Arrow:** A square symbol with a stylized arrow pointing upwards. Above the square is a horizontal bar divided into three equal segments, with the word "NORTH" centered above it. Below the symbol is the text: "NORTH ARROW INDICATING THE ORIENTATION OF THE DRAWING".
- Enlarged Detail:** A symbol consisting of a large rectangle with a smaller rectangle inside it. An arrow points from the larger rectangle to the smaller one. To the right of the smaller rectangle is the text: "LINE DEPICTING AREA TO BE ENLARGED IN MORE DETAIL". Below the smaller rectangle is the text: "DETAIL NUMBER" (with a circled 'A' as an example). To the right of the larger rectangle is the text: "SHEET NUMBER" (with a circled 'A' as an example). Below the larger rectangle is the text: "ENLARGED DETAIL".
- Section Cut Indication:** A symbol consisting of a vertical rectangle with a diagonal line running from the top-left corner to the bottom-right corner. To the right of the rectangle is the text: "SECTION DEPICTED BY A LETTER" (with a circled 'A' as an example). Below the rectangle is the text: "LINE WHICH SECTION IS CUT THROUGH" (with a circled 'A' as an example). To the right of the rectangle is the text: "DETAIL NUMBER" (with a circled 'A' as an example). Below the rectangle is the text: "SHEET NUMBER" (with a circled 'A' as an example). Below the rectangle is the text: "SECTION CUT INDICATION".

COUNTY JURISDICTION: HENDERSON
STATE JURISDICTION: NORTH CAROLINA
APPLICABLE CODES: N.C.B.C. 2018 BUILDING, PLUMBING,
MECHANICAL, ENERGY CONSERVATION, FIRE PREVENTION CODES

WILDE ENGINEERING - NC FIRM LIC. NO. P-2182
MECHANICAL, ELECTRICAL & PLUMBING (MEP)
 15822 KELLY PARK CIRCLE
 HUNTSVILLE, NC
 ph: 704-439-7038

19545 GREENTREE WAY, SUITE B
CORNELIUS, NC 28031

724 5TH AVE. WEST
HENDERSONVILLE, NC 28729

ENCLOSED AREA: 3,276 SF. GROSS
COVERED AREA: 380 SF. TOTAL

TOTAL AREA UNDER ROOF: 3,656 SF. (TABLE 506.2 GROUP A-3 6,000
/24,000 A1 SPINKLED MAX AREA ALLOWABLE)

BUILDING HEIGHT: ±25'-0" (TABLE 504.3 A-3 40' NS/60' SPINKLED MAX
ALLOWABLE)

NUMBER OF STORIES: 1 (TABLE 504.4 A-3 1 NS/2 SPINKLED
ALLOWABLE STORIES)

CONSTRUCTION TYPE: VB, S1 SPINKLED ONE STORY (NO RATINGS
REQ. TABLE 601)

OCCUPANCY GROUP: MIXED OFFICE AREA (B) & A3 ASSEMBLY (SEE
NOTE 1)

FIRE RATINGS FOR BUILDING ELEMENTS REQUIRED- 0 HR (TABLE 601)
FIRE SEPARATION RATINGS FOR EXTERIOR WALLS REQUIRED- 0 HR
(TABLE 602)

NOTE 1:
FOR THE PURPOSES OF THIS BUILDING CODE ANALYSIS THE OFFICE
AREAS ARE CONSIDERED AS A-3 BECAUSE THE OFFICES ARE
ANCILLARY USES TO THE ASSEMBLY A-3 USE AND THE
REQUIREMENTS FOR A-3 USES ARE MORE RESTRICTIVE.

NOTE2:
BASED ABOVE IN NOTE 1 THE OFFICES ARE ANCILLARY USES TO
THE ASSEMBLY A-3 USE THEREFORE NO SEPARATION FIRE RATINGS
ARE CONSIDERED.

DATE	SHEET	SHEET TITLE
	CS-1	COVER SHEET- NOTES-LOCATION MAP
		ARCHITECTURAL
	A-1.0	FLOOR PLAN
	A-2.0	ROOF PLAN
	A-3.1	ELEVATIONS- FRONT (EAST) & RIGHT SIDE (NORTH)
	A-3.2	ELEVATIONS - REAR (WEST) & LEFT SIDE (EAST)
	A-4	BUILDING SECTIONS- 'A-A' & 'B-B', SECTION DETAILS

	S-0.00	GENERAL NOTES
	S-0.01	GENERAL NOTES
	S-1.00	TYPICAL DETAILS
	S-1.01	TYPICAL DETAILS
	S-1.02	TYPICAL DETAILS
	S-1.03	TYPICAL DETAILS
	S-2.00	FOUNDATION PLAN & ROOF PLAN
	S-3.00	FOUNDATION SECTIONS
	S-4.00	FRAMING SECTIONS

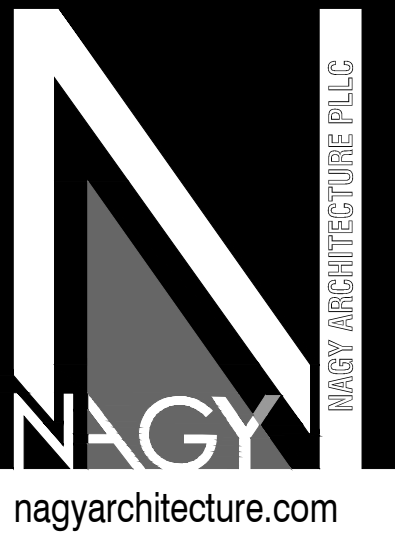
E-01	ELECTRICAL COVER SHEET
E-02	ELECTRICAL SPECIFICATIONS
E-03	ELECTRICAL DETAILS
E-04	ELECTRICAL POWER RISER DIAGRAM
E-10	ELECTRICAL SITE PLAN
E-21	ELECTRICAL POWER PLAN
E-31	ELECTRICAL LIGHTING PLAN

	M-00	MECHANICAL COVER SHEET
	M-01	MECHANICAL SCHEDULES
	M-02	MECHANICAL SCHEDULES
	M-1	MECHANICAL plan

	P-00	PLUMBING COVER SHEET
	P-1	PLUMBING PLAN

P-00	PLUMBING COVER SHEET
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FP-O	FIRE PROTECTION COVER SHEET
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341 N main Street
Hendersonville, NC 28792
Luis Graef: President



PROJECT:
The Orchards at Naples Road
Apartment Complex
REC Building
Hendersonville, North Carolina

[illegible]

DWG INFO :
 ISSUE DATE: 05/02/25
 PROJECT #: 22105
 DRAWN BY: GAN , LBN
 CHECKED BY: GAN

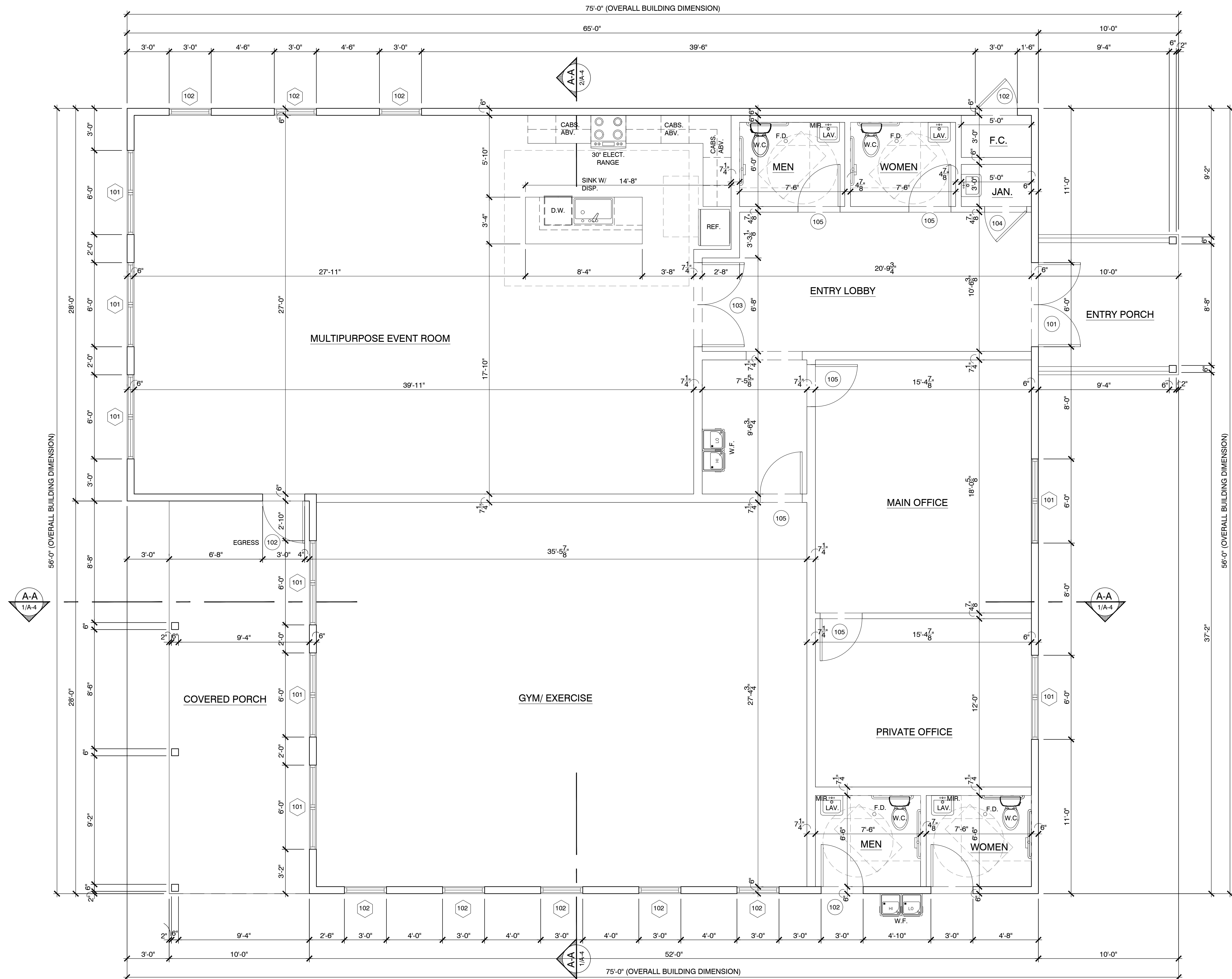
DWG DESCRIPTION :
COVER SHEET.
ISSUE FOR REVIEW ONLY NOT
ISSUE FOR BUILDING PERMIT.

SHEET #:
CS-1

REC BUILDING EXTERIOR DOOR SCHEDULE							
No.	TYPE	W x H	R. O. W. x H.	OPER.	MATER.	SILL	REMARKS
101	FRONT DOOR	(2)3'-0" X 8'-0"	76" X 96"	XX	VINYL/GLS.	MTWS	TEMP. GLASS
102	FRENCH DOOR	3'-0" X 8'-0"	40" X 96"	X	VINYL/GLS.	MTWS	TEMP. GLASS

REC BUILDING INTERIOR DOOR SCHEDULE					
No.	TYPE	W x H	MATER.	SILL	REMARKS
103	DOUBLE DR.	(2)3'-0"X8'-0"	WOOD	-	S.C. W/ SELF CLOSURE
104	SINGLE DR.	3'-0"X8'-0"	WOOD	-	-
105	SINGLE DR.	3'-0"X8'-0"	WOOD	-	S.C. W/ SELF CLOSURE

REC BUILDING WINDOW SCHEDULE							
No.	TYPE	W x H	R. O. W x H	OPER.	MATERIAL	SILL	REMARKS
101	DOUBLE FIXED	(2) 36" X 84"	72" X 84"	OO	VINYL/GLS.	@ 2'-0" A.F.F.	(2) PANE TEMPERED GLASS
102	FIXED	36" X 84"	36" X 84"	O	VINYL/GLS.	@ 2'-0" A.F.F.	(1) PANE TEMPERED GLASS
103	FIXED	24" X 24"	24" X 24"	O	VINYL/GLS.	@ 11'-10" 18'-10" A.F.F.	(1) PANE



GENERAL PLAN NOTES

- ALL PARTITIONS ARE DIMENSIONED FROM FACE OF WALL TO FACE OF WALL, UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS MARKED CLEAR OR CLR SHALL BE MAINTAINED AND SHALL ALLOW FOR THICKNESS OF ALL WALL FINISHES, UNLESS OTHERWISE NOTED.
- ALL EXPOSED GYPSUM BOARD EDGES TO HAVE METAL EDGE TRIM, UNLESS OTHERWISE NOTED.
- ALL WORK SHALL BE ERECTED AND INSTALLED PLUMB, LEVEL, SQUARE AND TRUE, AND IN PROPER ALIGNMENT.
- TRIM THE BOTTOM OF DOORS TO CLEAR THE TOP OF ALL FINISHED FLOORS, AS APPLICABLE BY 1/4" MAXIMUM, UNLESS OTHERWISE NOTED. VERIFY SLAB CONDITIONS, TRIM EACH DOOR TO FIT CONDITIONS. WHERE RADICAL VARIATIONS IN FLOOR ELEVATION OCCUR EXIST, DOORS SHALL BE ORDERED WITH BOTTOM STILE SIZED TO ACCOMMODATE THESE UNDERCUT CONDITIONS.
- ALL MILLWORK TO BE FASTENED TO THE PARTITION THEY ADJOIN. PROVIDE BLOCKING FOR ALL MILLWORK.
- ALL NEW GYPSUM BOARD TO BE 5/8" TYPE "X" UNLESS OTHERWISE NOTED.
- PRIME AND PAINT INTERIOR WALLS W/ MIN. 2 FINISH COATS (MATTE WHITE OR COLOR SELECTED BY OWNER).
- PRIME AND PAINT WALLS IN RESTROOM W/ MIN. 2 COATS MOISTURE RESISTANT WASHABLE PAINT (SATIN/EGGSHELL, WHITE).
- PRIME AND PAINT ALL INTERIOR CASEWORK WOOD TRIM W/ MIN. 2 COATS (SEMI GLOSS WHITE).
- FLOOR FINISH TO BE SELECTED BY OWNER (T.B.D.)
- RESTROOM FLOORS ARE TO BE COVERED IN V.C.T. OR TILE (SELECTED BY OWNER) WITH VINYL BASE AT WALLS (SELECTED BY OWNER).
- ALL WALL MOUNTED ITEMS & FIXTURES SHALL HAVE PROPER SOLID BACKING INSTALLED IN THE WALL SYSTEM PRIOR TO HANGING WALLBOARD.

BUILDING CODE INFORMATION

COUNTY JURISDICTION: HENDERSON
STATE JURISDICTION: NORTH CAROLINA
APPLICABLE CODES: N.C.B.C. 2018 BUILDING, PLUMBING, MECHANICAL, ENERGY CONSERVATION, FIRE PREVENTION CODES

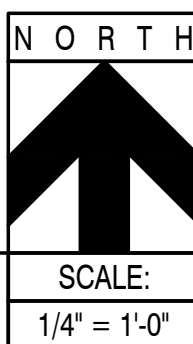
PLUMBING FIXT. REQ.

N.C.B.C. 2018 BUILDING TABLE 1004.1.2 & PLUMBING TABLE 403.1
TABLE 1004.1.2 OCCUPANCY PER USE:
BUSINESS OCCUPANCY-OFFICE AREA: 470 SF. @100 GROSS SF.
PERSONS TOTAL: 4.7 (8) TOTAL 2.8 (3) EA. SEX
ASSEMBLY OCCUPANCY-MULTIPURPOSE ROOM AREA: 880 SF. @15 NET SF.
PERSONS TOTAL: 58.7 (59) TOTAL 29.5 (30) EA. SEX
ASSEMBLY OCCUPANCY-GYM/WORKOUT ROOM AREA: 958 SF. @50 GROSS SF.
PERSONS TOTAL: 19.2 (20) TOTAL 10 EA. SEX
ASSEMBLY OCCUPANCY-OUTDOOR PORCH AREA: 280 SF. @15 NET SF.
PERSONS TOTAL: 18.7 (19) TOTAL 9.5 (10) EA. SEX
TOTAL PERSONS ALL USES AND OCCUPANCIES: 101.2 (102) TOTAL 51 EA. SEX.
TABLE 403.1 MINIMUM REQUIRED FIXTURES: A-3 WITHOUT PERMANENT SEATING
V.C. - 1 PER 125 MEN AND 1 PER 65 WOMEN = 1 EA. SEX.
LAV. - 1 PER 200 EA. SEX.
SERVICE SINK- 1 REQ.
DRINKING FOUNTAIN- 1 PER 500 TOTAL PERSONS

NOTE1:
RESTROOMS REQUIREMENTS WERE CALCULATED ON THE BUILDING TOTAL OCCUPANCY TOTALS FOR EACH SEX HOWEVER SINCE THE OFFICE IS AND ANCILLARY COMPONENT OF THE ASSEMBLY USES.
NOTE2:
ADDITIONAL RESTROOM FACILITIES HAVE BEEN ADDED ABOVE THE MINIMUM CODE REQUIREMENTS AS THERE WILL BE AN OUTDOOR POOL OPERATED SEASONALLY AND THE RESTROOMS WILL BE OPERATED ACCORDINGLY.

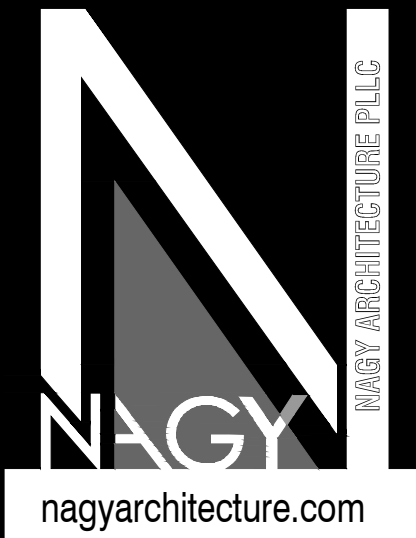
BUILDING INFORMATION

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TOTAL AREA UNDER ROOF: 3,656 SF. (TABLE 506.2 GROUP A-3 6,000 /24,000 S1 SPRINKLED MAX AREA ALLOWABLE)
BUILDING HEIGHT: ±25'-0" (TABLE 504.3 A-3 40' NS/60' SPRINKLED MAX. ALLOWABLE)
NUMBER OF STORIES: 1 (TABLE 504.4 A-3 1 NS/2 SPRINKLED ALLOWABLE STORIES)
CONSTRUCTION TYPE: VB, S1 SPRINKLED ONE STORY (NO RATINGS REQ. TABLE 601)
OCCUPANCY GROUP: MIXED OFFICE AREA (B) & A3 ASSEMBLY (SEE NOTE 1)
FIRE RATINGS FOR BUILDING ELEMENTS REQUIRED- 0 HR (TABLE 601)
FIRE SEPARATION RATINGS FOR EXTERIOR WALLS REQUIRED- 0 HR (TABLE 602)
NOTE 1:
FOR THE PURPOSES OF THIS BUILDING CODE ANALYSIS THE OFFICE USES (B) ARE CONSIDERED AS A-3 BECAUSE THE OFFICES ARE ANCILLARY USES TO THE ASSEMBLY A-3 USE AND THE REQUIREMENTS FOR A-3 USES ARE MORE RESTRICTIVE.
NOTE2:
AS STATED ABOVE IN NOTE 1 THE OFFICES ARE ANCILLARY USES TO THE ASSEMBLY A-3 USE THEREFORE NO SEPARATION FIRE RATINGS ARE CONSIDERED.



FLOOR PLAN

1



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SIGNATURE

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341 N main Street
Hendersonville, NC 28792
Luis Graef: President



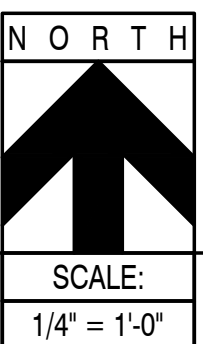
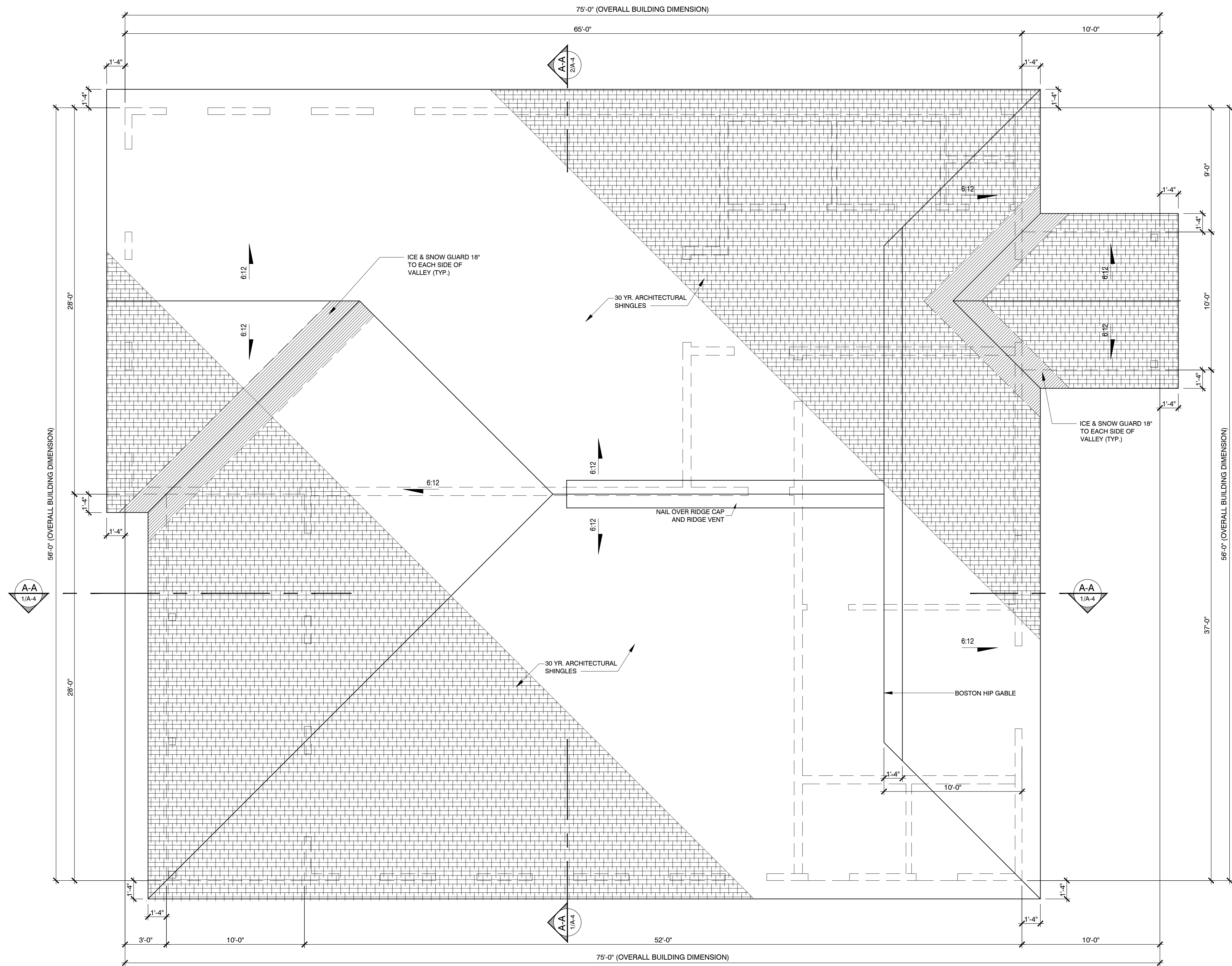
PROJECT:
The Orchards at Naples Road
Apartment Complex
REC Building
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO:
ISSUE DATE: 05/02/25
PROJECT #: 22105
DRAWN BY: GAN, LBN
CHECKED BY: GAN

DWG DESCRIPTION:
OVERALL FIRST FLOOR PLAN.
ISSUE FOR REVIEW ONLY NOT
ISSUE FOR BUILDING PERMIT.

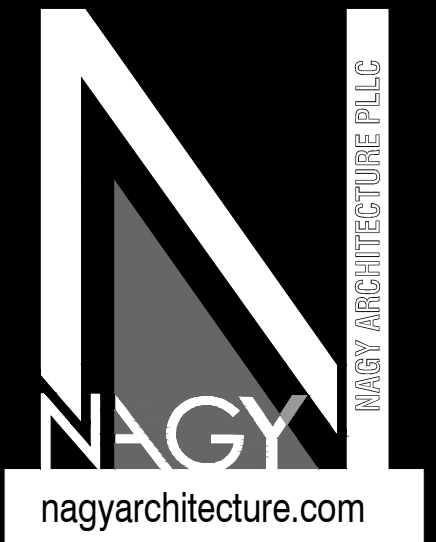
SHEET #:
A-1.1



ROOF PLAN

1

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SHEET #:
A-2.0

EXTERIOR FINISHES

1 COMPOSITE LAP SIDING

- MANUFACTURER - LP SMARTSIDE - VERIFY WITH OWNER.
- CEDAR TEXTURE 76 SERIES LAP.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: DARK GREEN (6192 COASTAL PLAIN). VERIFY COLOR WITH OWNER.
- G.C. SHALL SUBMIT SAMPLES FOR OWNERS REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIAL.

2 COMPOSITE LAP PANEL SIDING

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.

2a BATTENS (LOCATED AT 16" O.C. JOINTS IN FIBER CEMENT PANEL SIDING)

- MANUFACTURER - 2-1/2" LP SMARTSIDE 190 SERIES.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.

3 COMPOSITE SKIRT BOARD TRIM

- MANUFACTURER - 11.21" LP SMARTSIDE 440 SERIES.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

4 42" HIGH ALUM. GUARDRAIL & BALLUSTERS TO REJECT A 4" SPHERE (FINAL DESIGN SEL. BY OWNER)

5 BALCONY COLUMNS

- 6X6 PT WOOD COLUMNS.
- COLOR: PAINT WHITE TO MATCH WINDOW TRIMS

6 FRONT AND REAR GABLES & ACCENT UPPER ENTRY WALLS

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.
- G.C. SHALL SUBMIT SAMPLES FOR OWNERS REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIALS.

6 FRONT AND REAR GABLES & ACCENT UPPER ENTRY WALLS

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.
- G.C. SHALL SUBMIT SAMPLES FOR OWNERS REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIALS.

7 WINDOW & CORNER TRIM

- MANUFACTURER - 3-1/2" LP SMARTSIDE 440 SERIES.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

8 COMPOSITE CLADDING

- MANUFACTURER - NICHHA BRICK SERIES.
- COLOR AND STYLE - PLYMOUTH BRICK.
- INSTALL PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- G.C. SHALL SUBMIT SAMPLES FOR OWNERS REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIALS.

9 BELT LINE TRIM BOARD

- MANUFACTURER - 3-1/2" LP SMARTSIDE 540 SERIES.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

10 ROOFING

- MANUFACTURER - ATLAS ROOFING, PINNACLE HP - HIGH PERFORMANCE
- ARCHITECTURAL SHINGLE - SIGNATURE GOLD SERIES SHINGLE.
- ASPHALT COMPOSITION SHINGLES.
- ARCHITECTURAL SHINGLE, CLASS C UL RATING.
- 130 MPH WIND RESISTANCE WARRANTY, 35 YEAR LIMITED WARRANTY.
- COLOR: WEATHERED WOOD.

11 COMPOSITE PANEL SIDING

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: DARK GREEN (6192 COASTAL). VERIFY COLOR WITH OWNER.
- BREEZEWAY INTERIOR - COMPOSITE PANEL SIDING (HIDDEN)

12 BREEZEWAY INTERIOR - COMPOSITE PANEL SIDING (HIDDEN)

- LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (NICKLE GAP (7.88").
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS (VERTICAL).
- COLOR: LIGHT GREEN - VERIFY WITH OWNER.

13 'Z' FLASHING

- COLOR: PAINT - TO MATCH ADJACENT SURFACE.

14 FASCIA BOARD

- BREAK METAL FASCIA - VERIFY WITH OWNER.
- CEDAR TEXTURE PANEL (38 SERIES)
- COLOR: WHITE - VERIFY WITH OWNER.
- INSTALLATION PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

14a EAVE SOFFIT (NOT SHOWN)

- LP SMARTSIDE (38 SERIES).
- CEDAR TEXTURE PANEL VENTED SOFFIT.
- INSTALL SOFFIT PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

14b BREEZEWAY SOFFIT (NOT SHOWN)

- LP SMARTSIDE (38 SERIES).
- CEDAR TEXTURE NON VENTED. (76 SERIES).
- INSTALL SOFFIT PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

15 FRIEZE BOARD

- LP SMARTSIDE 7.21" (540 SERIES).
- CEDAR TEXTURE PANEL (38 SERIES)
- COLOR: WHITE - VERIFY WITH OWNER.
- INSTALLATION PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

NOTE:

GUTTERS AND DOWNSPOUTS (NOT SHOWN FOR CLARITY)

- SHALL BE PROVIDED AND INSTALLED WITH SIZES CONFORMING TO THE LATEST INTERNATIONAL PLUMBING CODE W/ NC AMENDMENTS.
- DOWNSPOUTS SHALL CONNECT TO AN UNDERGROUND DRAIN LINE AND EXTEND TO DRAIN INLET OR TO DAYLIGHT. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION ON UNDERGROUND DRAIN LINES. - PAINT WHITE.

- CONNECT ALL DOWNSPOUTS TO COMMON COLLECTOR LINE (TYP.) - SEE CIVIL PLANS.

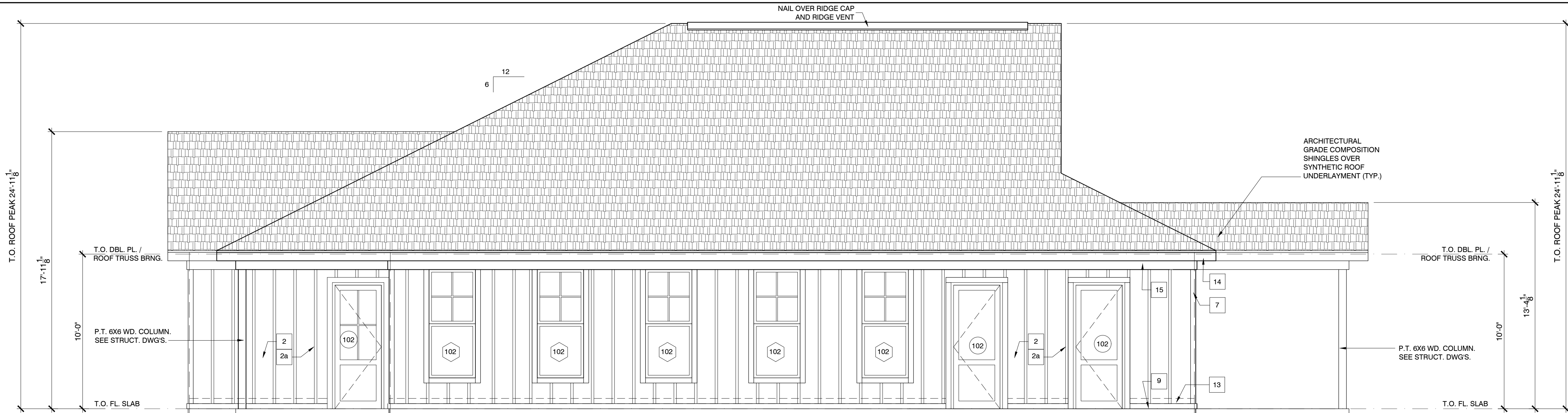
- INSTALL CORNER GUARD AT 90° GUTTER CORNERS TO PREVENT OVERSPILL AT ROOF VALLEYS.

EXTERIOR DOORS

- COLOR: SHERWIN WILLIAMS LIGHT - SW 6191 CONTENTED/ DARK - SW 6192 COASTAL PLAIN.

EXHAUST AND VENT HOODS

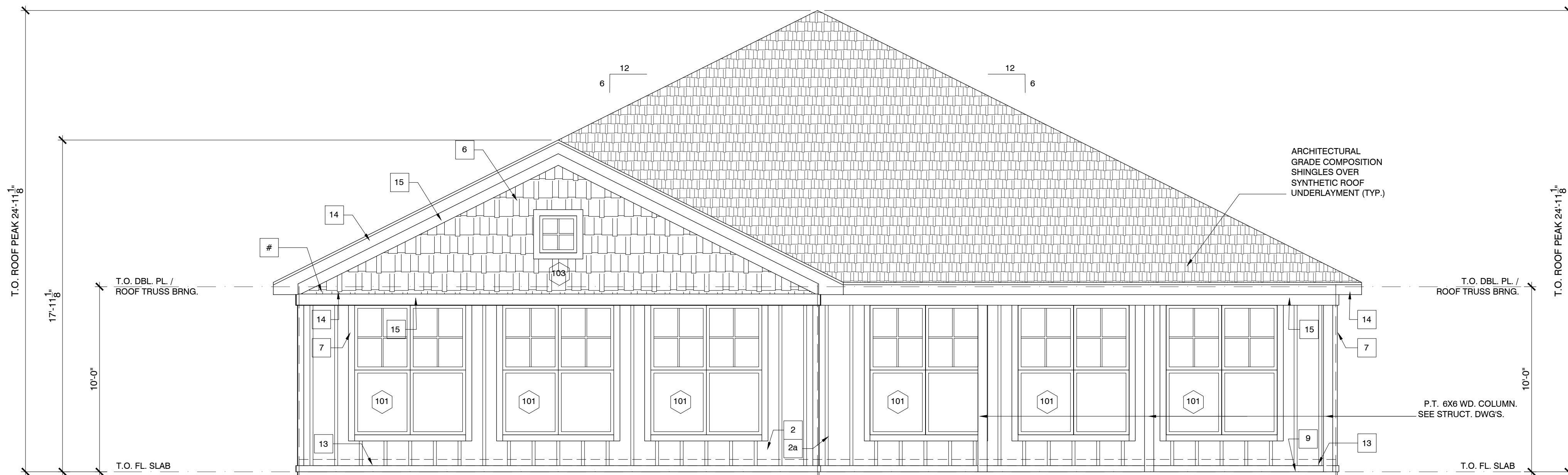
- PAINT ALL BATH FAN AND DRYER VENT HOODS TO MATCH ADJACENT SURFACES.



LEFT SIDE (SOUTH) ELEVATION

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

2



REAR (WEST) ELEVATION

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

1

NOTICE: THE CONTENT OF THIS DRAWING IS THE INTELLECTUAL PROPERTY OF NAGY ARCHITECTURE PLLC AND MAY BE SUBJECT TO COPYRIGHT.



NAGY ARCHITECTURE PLLC
1388 NW 2nd Avenue, St. #4A
Boca Raton, Florida 33432
Mob: 561-289-1634
Tel: 561-549-1986

SIGNATURE

CLIENT:
The Orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President



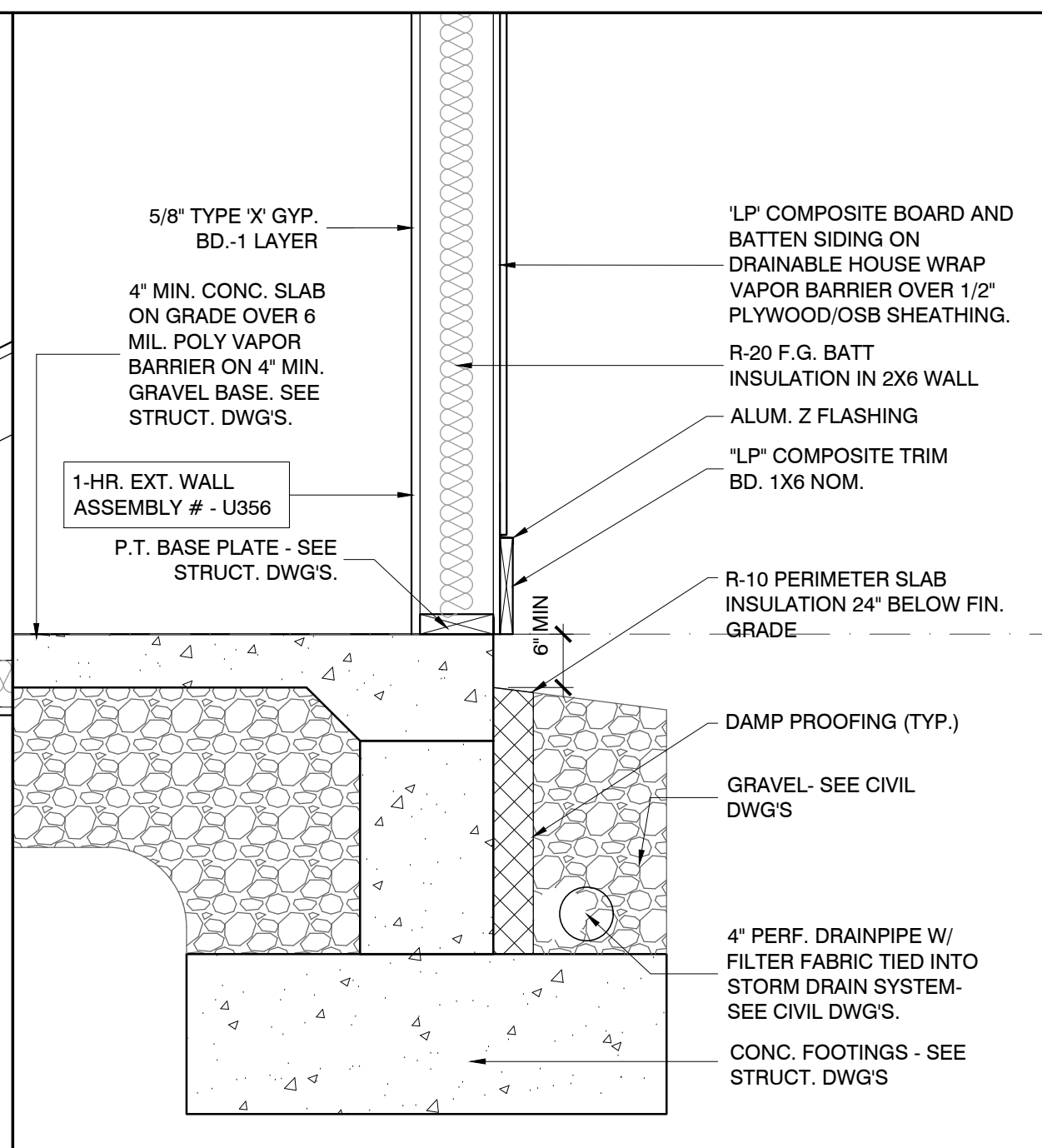
PROJECT:
The Orchards at Naples Road
Apartment Complex
REC Building
Hendersonville, North Carolina

#	REVISIONS	DATE

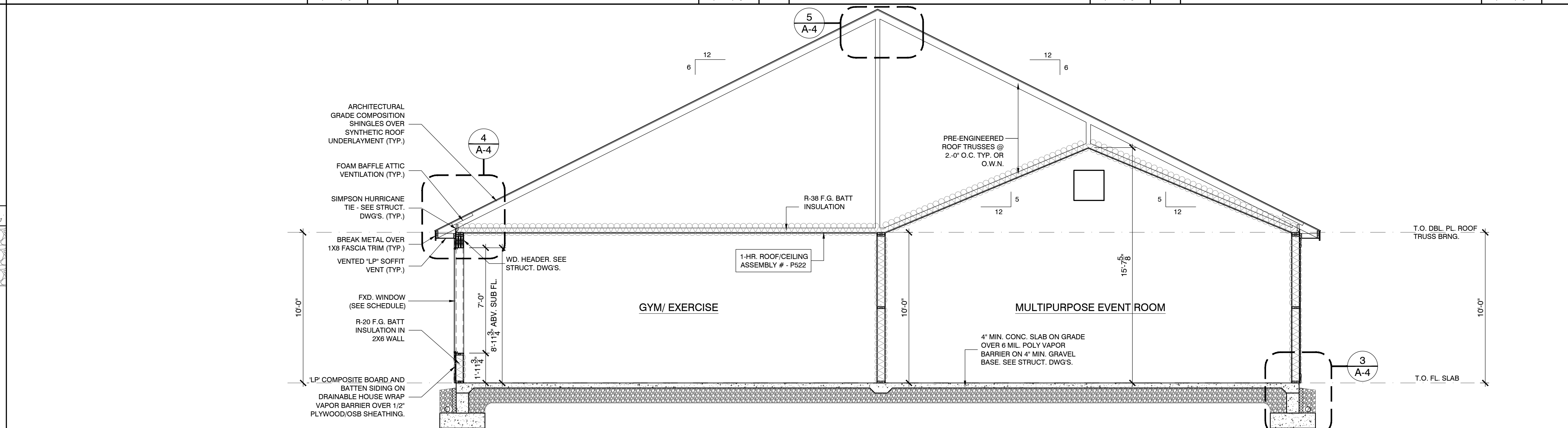
DWG INFO:
ISSUE DATE: 05/02/25
PROJECT #: 22105
DRAWN BY: GAN, LBN
CHECKED BY: GAN

DWG DESCRIPTION:
REAR & LEFT ELEVATIONS.
ISSUE FOR REVIEW ONLY NOT
ISSUE FOR BUILDING PERMIT.

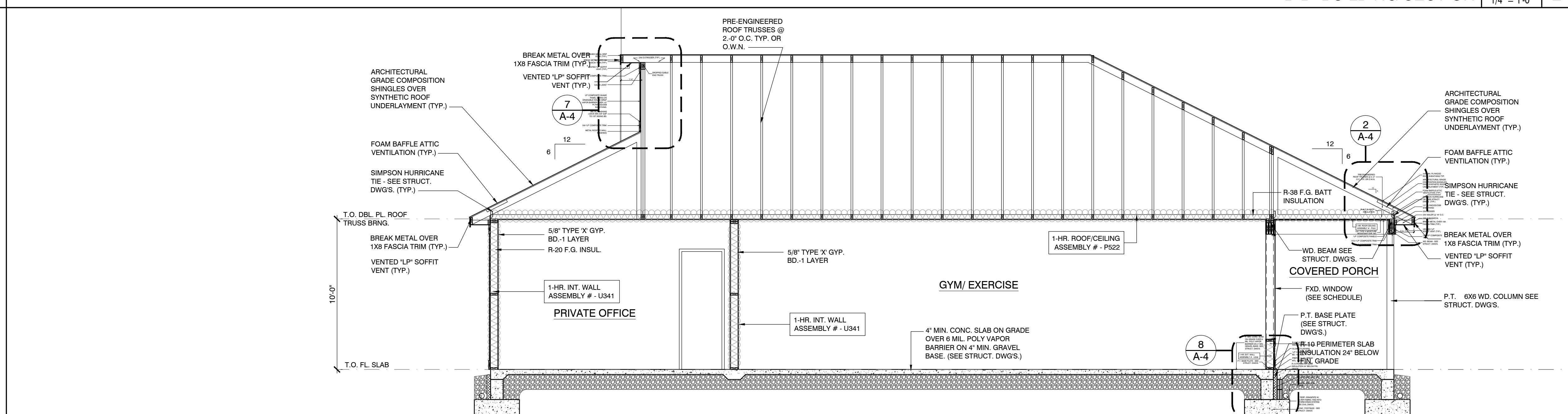
SHEET #:
A-3.2



SECTION DETAIL	SCALE:	3
	1" = 1'-0"	



"B-B" BUILDING SECTION	SCALE:	2
	1/4" = 1'-0"	



	2015	
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STRUCTURAL ABBREVIATIONS

ABBREV.	DEFINITION	ABBREV.	DEFINITION
A.B.	anchor bolts	HOF	horizontal outer face
ABV	above	HKR	hook
ADGNL	additional	HR	horizontal
AFF	above finished floor	IF	inner face
ALT	alternate	INT	interior
ARCH	architectural	IT	joint
B, BOT	bottom	K	kips (1000 lbs)
B/xxx	bottom of xxx	L, LEN	length
BAL	balance	LAT	lateral
BB	bond beam	LBS	pounds
BCX	bottom chord extension	LE	left end
BL	flush edge	LH	long leg horizontal
BLDG	building	LLO	long leg outstanding
BLW	below	LJV	long leg vertical
BM	beam	LONG	longitudinal
BRG	bearing	MAS	masonry
BRK	break	MKS	maximum
BTWN	between	MECH	mechanical
CLR	clear, control joint	MFR	manufacturer
CMU	conc. masonry unit	MIN	minimum
COL	column	MTL	metal
CONC	concrete	NOM	nominal
CONST	construction	OC, O/C	on center
CONT	continuous	OP	opposite
CTR	center	OPNG	opening
DBA	deformed bar anchor	PRC	precast
DET DTL	detailed	PL	plate
DM	dimension	RE	right end
DWGS	drawings	REF	Reference
DWL	dowel	REINF	reinforcement
EA	each	REQD	required
EE	each end	RET	retaining
EFF	each face	SOG	slab on grade
EFF	effective	slp	slip critical
EL, ELEV	elevation point	SCHED	schedule
ECC	edge of concrete	SECT	section
EOD	edge of slab	slp	slip
EOM	edge of masonry	SPA	spacing
EOS	edge of slab	STNFR	stiffener
EW	each side	STL	steel
EXIST	existing	SUPPL	supplier
EXP	expansion	Tmax	top of xxx
EXT	exterior, extension	TCX	top chord extension
FL, FLR	floor	THK	thick, thickness
FOB	face of brick	TRAN	transverse
FOM	face of masonry	TYP	typical
FOS	face of stud	UNO	unless noted otherwise
FP	full penetration	VERT	vertical
FTG	foot, feet	W	width in field
FB	footing	WVF	welded wire fabric
GB	grade beam		
GEN	general		
HEF	horizontal each face		
HIF	horizontal inner face		

1.0 GENERAL NOTES:

- THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES AND THE SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES AND OTHER ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. THE ENGINEER WILL NOT ADVISE ON NOR ISSUE DIRECTION AS TO SAFETY PRECAUTIONS AND PROGRAMS.
- THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY GUYING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL ALL STRUCTURAL WORK AND CONNECTIONS HAVE BEEN COMPLETED. THE INVESTIGATION, DESIGN, SAFETY, ADEQUACY AND INSPECTION OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE METHODS, TECHNIQUES AND SEQUENCES OF PROCEDURES TO PERFORM THE WORK. THE SUPERVISION OF THE WORK IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO APPROVAL BY THE ENGINEER.
- ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH THE SUPPLIER'S INSTRUCTIONS AND REQUIREMENTS.
- LOADING APPLIED TO THE STRUCTURE DURING THE PROCESS OF CONSTRUCTION IS THE CONTRACTORS RESPONSIBILITY AND SHALL NOT EXCEED THE SAFE LOAD... CARRYING CAPACITY OF THE STRUCTURAL MEMBERS. THE LIVE LOADINGS USED IN THE DESIGN OF THIS STRUCTURE ARE INDICATED IN THE "DESIGN CRITERIA NOTES". DO NOT APPLY ANY CONSTRUCTION LOADS UNTIL STRUCTURAL FRAMING IS PROPERLY CONNECTED TOGETHER AND UNTIL ALL TEMPORARY BRACKING IS IN PLACE.
- ALL ASTM AND OTHER REFERENCES ARE PER THE LATEST EDITIONS OF THESE STANDARDS, UNLESS OTHERWISE NOTED.
- SHOP DRAWINGS AND OTHER ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE GENERAL CONTRACTOR BEFORE SUBMITTAL, AND SHALL BEAR THE CONTRACTORS APPROVAL STAMP ACCEPTING RESPONSIBILITY FOR DIMENSIONS, QUANTITIES AND COORDINATION WITH OTHER TRADES. IF SHOP DRAWINGS AND OTHER SUBMITTALS DO NOT BEAR THE CONTRACTORS APPROVAL STAMP, THEY WILL NOT BE REVIEWED AND WILL BE RETURNED. NO EXCEPTIONS. THE ENGINEERS REVIEW IS TO BE FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS. THE ENGINEERS REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK, AND COORDINATE THE SHOP DRAWINGS PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, DIMENSIONS, ETC. ALL SUBMITTALS INCLUDING CONCRETE MIX DESIGNS, CMU SPECS, ETC. MUST BE DATED AND NO MORE THAN ONE (1) YEAR OLD.
- SHOP DRAWINGS SHALL NOT BE USED AS AN EMERGENCY SHEETER.
- 2018 NORTH CAROLINA EXISTING BUILDING CODE REFERENCES PER CHAPTER 34, EXISTING STRUCTURES, SECTION 3401.5 ALTERATIONS. BUILDING ALTERATIONS SHALL COMPLY WITH SECTION 403 OF THE 2015 INTERNATIONAL EXISTING BUILDING CODE :
 - A. SECTION 403.1:
 - PROPOSED ALTERATION SHALL BE SUCH THAT THE EXISTING BUILDING OR STRUCTURE WILL BE NO LESS CONFORMING TO THE PROVISIONS OF THE INTERNATIONAL BUILDING CODE THAN THE BUILDING PRIOR TO THE ALTERATIONS.
 - B. SECTION 403.3:
 - THE EXISTING GRAVITY LOAD CARRYING STRUCTURAL ELEMENTS DUE TO ALTERATIONS OF THE STRUCTURE SHALL NOT CAUSE ANY INCREASE OF MORE THAN 5 PERCENT TO EXISTING STRUCTURAL ELEMENTS. THEREFORE ADDITIONAL STRENGTHENING OF GRAVITY LOAD CARRYING ELEMENT SHALL NOT BE REQUIRED.
 - C. SECTION 403.4:
 - ANY ALTERATIONS TO EXISTING STRUCTURAL ELEMENTS CARRYING LATERAL LOADS SHALL NOT DECREASE THE CAPACITY OF ANY EXISTING LATERAL CARRYING STRUCTURAL ELEMENT.
 - D. SECTION 403.6:
 - THE EXISTING BUILDING'S EXTERIOR MASONRY WALL ARE REINFORCED SUCH THAT NO EVALUATION OF THE EXISTING WALL ANCHORAGE AT THE ROOF LINE IS REQUIRED TO SEISMIC FORCES.
 - E. SECTION 403.7:
 - EXISTING MASONRY PARAPETS ARE REINFORCED SUCH THAT NO ADDITIONAL BRACES ARE REQUIRED TO RESIST OUT OF PLANE SEISMIC FORCES.
- IF THE CONTRACTOR CANNOT CONSTRUCT ANY PORTION OF THE WORK IDENTIFIED IN THE DRAWINGS IN ACCORDANCE WITH THESE DRAWINGS AND SPECIFICATIONS THEN THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH THE WORK. WORK THAT DOES NOT COMPLY WITH THE DRAWINGS MAY REQUIRE REMOVAL, TESTING, OR ENGINEERING EVALUATION AT THE CONTRACTORS EXPENSE.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH NEW WORK IN AREAS AFFECTED BY EXISTING CONDITIONS. STRUCTURAL ENGINEER SHALL BE INFORMED IN WRITING OF CONFLICTS BETWEEN EXISTING AND PROPOSED NEW CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL DIMENSIONS SHOWN ON THE CONTRACT DOCUMENTS. INCONSISTENCIES ON THE STRUCTURAL DRAWINGS OR BETWEEN THE STRUCTURAL DRAWINGS AND ANY OTHER CONTRACT, SHOP, FABRICATION, OR OTHER DRAWINGS OR INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH AFFECTED WORK.

2.0 DESIGN CRITERIA NOTES:

- THE PRIMARY DESIGN STANDARDS AND/OR CRITERIA INCLUDE BUT NOT LIMITED TO THE FOLLOWING:
 - GENERAL: BLDG CODE (N.C.B.C.2018, AS AMENDED, ASCE 7-10)
 - CONCRETE: ACI 318
 - MASONRY: ACI 530
 - STRUCTURAL STEEL: AISC 341
 - STEEL JOISTS / GIRDERS: SJI
 - METAL DECK: SDI
 - COLD-FORMED METAL: NAS
- DESIGN GRAVITY SUPER IMPOSED DEAD LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS (SELF WEIGHT OF STRUCTURE IS NOT INCLUDED):
 - ROOF: 20 PSF MAX. 10 PSF MIN.
 - FLOORS - TYPICAL: 15 PSF
 - PARTITION ALLOWANCE: 0 PSF
- DESIGN GRAVITY LIVE LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS:
 - SLAB ON GRADE: 200 PSF
 - ROOF, TYPICAL: 20 PSF MIN.
 - STAIRS: 100 PSF
 - APARTMENT/CORRIDOR: 40 PSF
 - BALCONY: 60 PSF
- DESIGN LATERAL LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS: WIND LOADS PER ASCE7-10:
 - BASIC WIND SPEED (3 SECOND GUST): 115 MPH
 - RISK CATEGORY: II
 - REINFORCING STEEL: 60,000 PSI
 - HEIGHT "h": 17.8ft
 - INTERNAL PRESSURE COEFFICIENT "Gcpi": +/- 0.18

COMPONENTS & CLADDING PRESSURES (PSF):

TRIBUTARY AREA (FT²)				
	ZONE	A ≤ 10	A = 50	A = 100
WALLS	ZONE 4 (-)	-25.8	-23.3	-22.2
	ZONE 5 (-)	-31.9	-26.9	-24.7
	ZONE 4&5 (+)	+23.8	+21.3	+20.2
	ZONE 1 (-)	-29.8	-27.0	-25.8
ROOF	ZONE 2 (+)	-39.0	-32.9	-30.2
	ZONE 3 (-)	-47.5	-53.7	-47.8
	ALL ZONES (+)	+16.0	+16.0	+16.0
	ALL ZONES (-)	-16.0	-16.0	-16.0

- NOTES:
* CORNER & EDGE ZONES SHALL EXTEND 10'-0" FROM BUILDING EDGES.
** - INDICATES POSITIVE AND + INDICATES NEGATIVE (SUCTION).

NET ROOF SUCTION 12 PSF

WING MAIN WIND FORCE RESISTING SYSTEM	NORTHSOUTH LIGHT FRAME SHEAR WALLS 10 KIPS	EAST/WEST LIGHT FRAME SHEAR WALLS 10 KIPS
WIND BASE SHEAR "Go"		

SEISMIC LOADS PER N.C.B.C. 2018: SITE CLASS: SHORT PERIOD DESIGN SPECTRAL RESPONSE "S_{ss}" SECOND PERIOD DESIGN SPECTRAL RESPONSE "S₀₁" SEISMIC USE GROUP: IMPORTANCE FACTOR "I_p" SEISMIC DESIGN CATEGORY:

WING SEISMIC FORCE RESISTING SYSTEM	NORTHSOUTH LIGHT FRAME SHEAR WALLS 6 KIPS	EAST/WEST LIGHT FRAME SHEAR WALLS 6 KIPS
SEISMIC BASE SHEAR "Go"		

- DESIGN SNOW LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS: DRIFTING SNOW LOADS PER ASCE 7-10: NONE WHERE "Pg" IS LESS THAN 10 PSF
- 50 YEAR GROUND SNOW LOAD "Pg": 15 PSF EXPOSURE FACTOR "Ce": 1.0 THERMAL FACTOR "Ct": 1.0 IMPORTANCE CATEGORY CLASSIFICATION: II IMPORTANCE FACTOR "Is": 1.0 NET FLAT ROOF SNOW LOAD "Pf": 10.5 PSF

- THIS STRUCTURE HAS BEEN DESIGNED WITH "SAFETY FACTORS" IN ACCORDANCE WITH GENERALLY ACCEPTED PRINCIPLES OF STRUCTURAL ENGINEERING. THE FUNDAMENTAL NATURE OF THE "SAFETY FACTOR" IS TO COMPENSATE FOR UNCERTAINTIES IN THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL BUILDING COMPONENTS. IT IS INTENDED THAT "SAFETY FACTORS" BE USED SO THAT THE LOAD CARRYING CAPACITY OF THE STRUCTURE DOES NOT FALL BELOW THE DESIGN LOAD AND THAT THE BUILDING WILL PERFORM UNDER DESIGN LOAD WITHOUT DISTRESS. WHILE THE USE OF "SAFETY FACTORS" IMPLIES SOME EXCESS CAPACITY BEYOND DESIGN LOAD, SUCH EXCESS CAPACITY CANNOT BE ADEQUATELY PREDICTED AND SHALL NOT BE RELIED UPON.
- BUILDING SHALL NOT BE USED AS AN EMERGENCY SHEETER.
- 2018 NORTH CAROLINA EXISTING BUILDING CODE REFERENCES PER CHAPTER 34, EXISTING STRUCTURES, SECTION 3401.5 ALTERATIONS. BUILDING ALTERATIONS SHALL COMPLY WITH SECTION 403 OF THE 2015 INTERNATIONAL EXISTING BUILDING CODE :
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 - B. SECTION 403.3:
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 - C. SECTION 403.4:
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 - D. SECTION 403.6:
 - THE EXISTING BUILDING'S EXTERIOR MASONRY WALL ARE REINFORCED SUCH THAT NO EVALUATION OF THE EXISTING WALL ANCHORAGE AT THE ROOF LINE IS REQUIRED TO SEISMIC FORCES.
 - E. SECTION 403.7:
 - EXISTING MASONRY PARAPETS ARE REINFORCED SUCH THAT NO ADDITIONAL BRACES ARE REQUIRED TO RESIST OUT OF PLANE SEISMIC FORCES.

3.0 DEFERRED SUBMITTAL NOTES:

- SHOP DRAWINGS AND OTHER ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION.
- IN NO CASE SHALL REPRODUCTION OF THE CONTRACT DRAWINGS BE USED AS SHOP DRAWINGS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER OF RECORD. CONTRACTOR SHALL PROVIDE IN HIS SCHEDULE FOR SHOP DRAWING REVIEW AND RETURN TIME, A MINIMUM OF FIFTEEN (15) WORKING DAYS IN THE STRUCTURAL ENGINEERS OFFICE.
- ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE GENERAL CONTRACTOR BEFORE SUBMITTAL, AND SHALL BEAR THE CONTRACTORS APPROVAL STAMP ACCEPTING RESPONSIBILITY FOR DIMENSIONS, QUANTITIES AND COORDINATION WITH OTHER TRADES. IF SHOP DRAWINGS AND OTHER SUBMITTALS DO NOT BEAR THE CONTRACTORS APPROVAL STAMP, THEY WILL NOT BE REVIEWED AND WILL BE RETURNED. NO EXCEPTIONS.
- ALL SHOP DRAWINGS AND CALCULATIONS FOR DELEGATED DESIGN REQUIRING AN ENGINEER'S SEAL SHALL BE SEALED PRIOR TO SUBMISSION FOR REVIEW. IF SHOP DRAWINGS AND OTHER SUBMITTALS DO NOT BEAR THE DELEGATED ENGINEERS SEAL, THEY WILL NOT BE REVIEWED AND WILL BE RETURNED. NO EXCEPTIONS.
- WHERE NOTED SEALED DRAWINGS OR CALCULATIONS ARE REQUIRED TO BE SEALED AND SIGNED BY A LICENSED STRUCTURAL ENGINEER IN THE PROJECT STATE, NOTE THAT PLACEMENT OR LAYOUT PLANS FOR TRUSSES AND JOISTS DO NOT REQUIRE ENGINEERS SEAL.
- THE ENGINEER OR RECORDS (EOR) REVIEW IS TO BE FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS. THE EOR REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK AND COORDINATE THE SHOP DRAWINGS PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, DIMENSIONS, ETC. ALL SUBMITTALS INCLUDING CONCRETE MIX DESIGNS, CMU SPECS, ETC. MUST BE DATED AND NO MORE THAN ONE (1) YEAR OLD.
- AS A MINIMUM, SUBMIT THE FOLLOWING ITEMS FOR REVIEW:
 - A. CONCRETE MIX DESIGNS,
 - B. REINFORCING STEEL SHOP DRAWINGS
 - C. PRE-MANUFACTURED WOOD SYSTEM/TRUSSES SHOP DRAWINGS WITH CALCULATIONS.OTHER SUBMITTALS MAY BE REQUIRED PER THE "SCHEDULE OF SPECIAL INSPECTIONS" OR THE SEPARATE NOTES CONTAINED HEREIN.
- ANY SHOP DRAWINGS WITH LANGUAGE LIMITING REVIEWER RESPONSES SUCH AS BUT NOT LIMITED TO THE FOLLOWING WILL NOT BE REVIEWED AND WILL BE RETURNED. NO EXCEPTIONS.
 - A. "RESPONSES SUCH AS 'GO' TO VERIFY" OR "ARCH TO VERIFY" ARE NOT ACCEPTABLE ANSWERS"
 - B. "CLOUDS MARKED IN MANNER WILL BE CONSIDERED NOT ADDRESSED"
- SHOP DRAWINGS SHALL NOT BE USED AS RFI'S AND ARE TO BE CONSIDERED COMPLETELY SEPARATE SUBMITTALS.

4.0 SITE PREPARATION NOTES:

- WITHIN AN AREA A MINIMUM OF 5 FEET BEYOND THE BUILDING LIMITS, EXCAVATE A MINIMUM OF 2' OF EXISTING SOIL. REMOVE ALL ORGANICS, PAVEMENT, ROOTS, DEBRIS AND OTHERWISE UNSUITABLE MATERIAL.
- THE SURFACE OF THE EXPOSED SUBGRADE SHALL BE INSPECTED BY PROBING OR TESTING TO CHECK FOR POCKETS OF SOFT OR UNSUITABLE MATERIAL. EXCAVATE UNSUITABLE SOIL AS DIRECTED BY THE GEOTECHNICAL ENGINEER / TESTING AGENCY.
- PROOF-ROD THE SURFACE OF THE EXPOSED SUBGRADE WITH A LOADED TANDEM AXLE DUMP TRUCK REMOVE ALL SOILS WHICH PUMP OR DO NOT COMPACT PROPERLY AS DIRECTED BY THE GEOTECHNICAL ENGINEER/TESTING AGENCY.
- FILL ALL EXCAVATED AREAS WITH APPROVED CONTROLLED FILL. PLACE 8 IN INCH LOOSE LIFTS AND COMPACT TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D - 698.
- ALL CONTROLLED FILL MATERIAL SHALL BE A SELECT GRANULAR MATERIAL FREE FROM ALL ORGANICS OR OTHERWISE DELETERIOUS MATERIAL WITH NOT MORE THAN 20% BY WEIGHT PASSING A NO. 200 SIEVE (CLASSIFIED AS SC, SM, SP OR BETTER IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM) AND WITH A PLASTICITY INDEX NOT EXCEEDING 6%.
- PROVIDE FIELD DENSITY TESTS FOR EACH 3,000 S.F. OF BUILDING AREA FOR EACH LIFT OF CONTROLLED FILL.

5.0 FOUNDATION NOTES: (TYP)

- FOUNDATION DESIGN IS BASED ON GEOTECHNICAL REPORT BY BLE CORP. DATED 03/31/2025
- ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS", HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305 COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.
- ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60, UNLESS OTHERWISE NOTED.
- SEE "CAST-IN-PLACE CONCRETE NOTES" FOR MINIMUM CONCRETE COVER REQUIREMENTS, AND CONCRETE ELEMENT PROPERTIES.
- ALL REINFORCING MARKED CONTINUOUS (CONT.) ON THE PLANS AND DETAILS SHALL BE LAPPED L.T.S AT SPLICES UNLESS OTHERWISE NOTED SEE EMBEDMENT & LAP SPLICE SCHEDULE.
- NO UNBALANCED BACKFILLING SHALL BE DONE AGAINST FOUNDATION WALLS UNLESS WALLS ARE SECURELY BRACED AGAINST OVERTURNING EITHER BY TEMPORARY BRACING OR BY PERMANENT CONSTRUCTION.
- PRIOR TO COMMENCING ANY FOUNDATION WORK, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COORDINATING WORK WITH ANY EXISTING UTILITIES. FOUNDATIONS SHALL BE LOWERED WHERE REQUIRED TO AVOID UTILITIES. STRUCTURAL ENGINEER MUST BE NOTIFIED IF FOOTINGS ARE LOWERED MORE THAN 2 FEET RELATIVE TO THAT WHICH IS SHOWN.
- UNLESS OTHERWISE NOTED, THE CENTERLINES OF COLUMN FOUNDATIONS SHALL BE LOCATED ON COLUMN CENTERLINES.
- ALL RETAINING WALLS SHALL HAVE AT LEAST 12" OF FREE - DRAINING GRANULAR BACKFILL FULL HEIGHT OF WALL. PROVIDE VERTICAL CONTROL JOINTS NOT TO EXCEED 25 FEET O.C. NOR 3 TIMES THE WALL HEIGHT. MAXIMUM LENGTH OF WALL POURS SHALL NOT EXCEED 50 FEET IN ANY SINGLE POUR.
- BOTTOM OF EXTERIOR FOUNDATIONS SHALL BEAR AT A MINIMUM DEPTH OF 1'-6" BELOW FINAL GRADE FOR FROST PROTECTION.
- ALL FOOTINGS HAVE BEEN DESIGNED BASED UPON AN ASSUMED SOIL BEARING PRESSURE OF 2500 PSF. ALL FOOTINGS SHALL BEAR ON UNDISTURBED, FIRM NATURAL SOIL OR COMPACTED FILL. ALL FOUNDATION EXCAVATIONS SHALL BE EVALUATED BY THE GEOTECHNICAL ENGINEER/TESTING AGENCY PRIOR TO POURING FOUNDATION CONCRETE.
- TOP OF FOOTING ELEVATION SHALL BE AS SHOWN ON THE FOUNDATION PLAN. THESE ELEVATIONS ARE A MAXIMUM AND SHALL BE LOWERED AS REQUIRED TO OBTAIN THE REQUIRED DESIGN BEARING PRESSURE. STRUCTURAL ENGINEER MUST BE NOTIFIED IF FOOTINGS ARE LOWERED MORE THAN 2 FEET RELATIVE TO THAT WHICH IS SHOWN.
- WHERE FOOTING EXCAVATIONS MUST REMAIN OPEN OVERNIGHT OR IF RAINFALL BECOMES IMMINENT WHILE BEARING SOILS ARE EXPOSED, A 2" TO 4" THICK MID MAT OF UNREINFORCED LEAN (f_c = 2000psi) CONCRETE SHALL BE PLACED ON THE BEARING SOILS BEFORE PLACEMENT OF THE FOOTING REINFORCING.

6.0 SLAB ON GRADE NOTES:

- PROVIDE CONCRETE SLABS OVER A VAPOR BARRIER PER ARCHITECT DRAWINGS AND 4" OF POROUS FILL. CONCRETE SLABS SHALL HAVE A MAXIMUM SLUMP OF 5 INCHES, USING TYPE 1 CEMENT.
- ALL WELDED WIRE FABRIC SHALL BE IN ACCORDANCE WITH ASTM A-185. LAP ADJOINING PIECES AT LEAST ONE FULL MESH.
- ALL POROUS FILL MATERIAL SHALL BE A CLEAN GRANULAR MATERIAL WITH 100% PASSING A 1/12" SIEVE AND NO MORE THAN 5% PASSING A NO. 4 SIEVE. POROUS FILL SHALL BE COMPACTED TO 95% MAX. DRY DENSITY PER ASTM D-698.
- SLAB JOINTS SHALL BE FILLED WITH APPROVED MATERIAL. THIS SHOULD TAKE PLACE AS LATE AS POSSIBLE, PREFERABLY 4 TO 6 WEEKS AFTER THE SLAB HAS BEEN CAST. PRIOR TO FILLING, REMOVE ALL DEBRIS FROM THE SLAB JOINTS, THEN FILL IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AS FOLLOWS: 8" SLABS - FILL WITH EPOXY RESIN OTHER SLABS - FILL WITH FILL MOLDED OR ELASTOMERIC SEALANT
- UNLESS OTHERWISE APPROVED, ALL SLAB REINFORCEMENT SHALL BE SECURED INTO POSITION WITH PLASTIC TYPED OR STAINLESS STEEL BAR SUPPORTS. BRICK OR OTHER MASONRY ARE NOT PERMITTED FOR USE AS SUPPORTS.
- WALKWAYS AND OTHER EXTERIOR SLABS ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS. SEE THE SITE PLAN AND ARCHITECTURAL DRAWINGS FOR LOCATIONS, DIMENSIONS, ELEVATIONS, JOINTING DETAILS AND FINISH DETAILS. PROVIDE 4" WALKS REINFORCED WITH 6X6 - W/ 4X4 W/ 1 WVF UNLESS OTHERWISE NOTED.
- SLABS TO BE PERMANENTLY EXPOSED TO WEATHER SHALL BE AIR ENTRAINED TO 5% (+/- 1%) WITH AN ADMIXTURE THAT CONFORMS TO ASTM C-260.
- SLABS NOT PERMANENTLY EXPOSED TO WEATHER SHALL NOT BE AIR ENTRAINED AND ENTRAPPED AIR SHALL BE LIMITED TO 3%.
- ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS", HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305 COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.
- IN ORDER TO AVOID CONCRETE SHRINKAGE CRACKING, PLACE CONCRETE SLABS IN AN ALTERNATING LANE (OR CHECKERBOARD) PATTERN. THE MAXIMUM LENGTH OF SLAB CAST IN ANY ONE CONTINUOUS POUR IS RECOMMENDED TO BE LESS THAN 100 FEET. THE MAXIMUM SPACING OF CONTROL JOINTS SHALL BE 3 TIMES THE SLAB THICKNESS IN FEET. (EXAMPLE 4" SLAB X 3 = 12'-0" CJ SPACING TYPICAL.)
- THE USE OF POLYPROPYLENE FIBERS (IN LIEU OF WELDED WIRE FABRIC) IS PROHIBITED WITHOUT THE WRITTEN AUTHORIZATION OF THE ENGINEER.
- SEE THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF DEPRESSED SLAB AREAS AND DRAINS. SLOPE SLAB TO DRAINS WHERE SHOWN.
- THE MINIMUM TOLERANCE OF ALL SLABS SHALL BE IN ACCORDANCE WITH ACI 301, TYPE A.

7.0 POST-INSTALLED ANCHORS:

- POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER-OF-RECORD (E.O.R.) PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR. HOLES SHALL BE DRILLED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURERS PRINTED INSTALLATION INSTRUCTIONS (MPI). SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERSTENT EQUIVALENT PERFORMANCE VALUES MINIMUM OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARDS. PROVIDE SPECIAL INSPECTIONS AS REQUIRED BY THE ANCHORS EVALUATION REPORT. THE CONTRACTOR SHALL OBTAIN CONTRACT MANUFACTURERS REPRESENTATIVE FOR THE INITIAL TRAINING AND INSTALLATION OF ANCHORS AND FOR PRODUCT RELATED QUESTIONS AND AVAILABILITY. CALL SIMPSON STRONG-TIE AT (800) 999-5999.
- FOR ANCHORING INTO CRACKED AND UNCRACKED CONCRETE:
 - A. MECHANICAL ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 355.2 AND / OR ICC-ES AC109 FOR CRACKED AND UNCRACKED CONCRETE. PRE-APPROVED PRODUCTS INCLUDE:
 - 1. SIMPSON STRONG-TIE "STRONG-BOLT Z" (ICC-ES ESR-2713)
 - 2. SIMPSON STRONG-TIE "TITEN HD" / "TITEN HD-RD" & "TITEN HD-CS" (ICC-ES ESR-2713)
 - 3. SIMPSON STRONG-TIE "STRONG-TIE STEEL TITEN HD" (APMO-JUES ER-493)
 - 4. SIMPSON STRONG-TIE "TITEN TURBO" (APMO-JUES ER-712)
 - B. ADHESIVE ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH AC108.4 AND ICC-ES AC308 FOR CRACKED AND UNCRACKED CONCRETE. ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS. HOLES SHALL BE DRY AT THE TIME OF INSTALLATION. AC108.4 TEMPERATURE CATEGORY "B" ASSUMED IN DESIGN. PRIOR TO INSTALLATION OF ADHESIVE ANCHORS IN HORIZONTAL OR UPWARDLY INCURRED ORIENTATIONS RESISTING TENSION TENSION LOADS, INSTALLERS ARE REQUIRED TO BE CERTIFIED IN ACCORDANCE WITH THE AC108.4 ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM AND MUST BE CONTINUOUSLY INSPECTED.
 - 1. THREADED ROD & REBAR AS ANCHOR ELEMENTS - SIMPSON STRONG-TIE "SET-3G" (ICC-ES ESR-4067)
 - 2. THREADED ROD & REBAR AS ANCHOR ELEMENTS - SIMPSON STRONG-TIE "SET-XP" (ICC-ES ESR-2508)
 - 3. THREADED ROD & REBAR AS ANCHOR ELEMENTS - SIMPSON STRONG-TIE "AT-XP" (APMO-JUES ER-263)
 - 4. POST INSTALLED REINFORCING BARS USING THE AC308.4 DEVELOPMENT LENGTH PROVISION - SIMPSON STRONG-TIE "SET-3G" (ICC-ES ESR-2508)
 - 5. POST INSTALLED REINFORCING BARS USING THE AC308.4 DEVELOPMENT LENGTH PROVISION - SIMPSON STRONG-TIE "SET-XP" (ICC-ES ESR-2508)
- SIMPSON STRONG-TIE CLEAN DUX DUST EXTRACTION SYSTEM IN APPROVED FOR USE WITH THE PRODUCTS LISTED ABOVE TO DRILL AND CLEAN HOLES.
- FOR ANCHORING INTO GROUT-FILLED CONCRETE MASONRY UNITS:
 - A. MECHANICAL ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC201 (EXPANSION ANCHORS) OR ICC-ES AC106 (SCREW ANCHORS) PRE-APPROVED PRODUCTS INCLUDE:
 - 1. SIMPSON STRONG-TIE "STRONG-BOLT Z" (APMO-JUES ER-240)
 - 2. SIMPSON STRONG-TIE "WEDGE-BOLT Z" (ICC-ES ESR-1396)
 - 3. SIMPSON STRONG-TIE "TITEN HD" & STAINLESS STEEL, TITEN HD" (ICC-ES ESR-1056)
 - 4. SIMPSON STRONG-TIE "TITEN TURBO" (APMO-JUES ER-716)
 - B. ADHESIVE ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH (ICC-ES AC208) PRE-APPROVED PRODUCTS INCLUDE:
 - 1. SIMPSON STRONG-TIE "SET-XP" (APMO-JUES ER-265)
 - 2. SIMPSON STRONG-TIE "AT-XP" (APMO-JUES ER-261)
 - 3. SIMPSON STRONG-TIE "ET-HP" (APMO-JUES ER-241)
- ADHESIVE ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC206 FOR PERFORMANCE IN HOLLOW CONCRETE MASONRY. PRE-APPROVED PRODUCTS INCLUDE:
 - 1. SIMPSON STRONG-TIE "STAINLESS STEEL, TITEN HD" (ICC-ES ESR-1056)
 - 2. SIMPSON STRONG-TIE "TITEN TURBO" (APMO-JUES ER-716)
- ADHESIVE ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC208 FOR PERFORMANCE IN HOLLOW CONCRETE MASONRY USING MANUFACTURERS RECOMMENDED SCREEN TUBES. PRE-APPROVED PRODUCTS INCLUDE:
 - 1. SIMPSON STRONG-TIE "SET-XP" (APMO-JUES ER-265)
 - 2. SIMPSON STRONG-TIE "AT-XP" (APMO-JUES ER-261)
- FOR ANCHORING INTO UNREINFORCED MASONRY
 - A. ADHESIVE ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC260 FOR PERFORMANCE IN UNREINFORCED MASONRY CONFIGURATIONS A, B, AND C. PRE-APPROVED PRODUCTS INCLUDE:
 - 1. SIMPSON STRONG-TIE "ET-HP" (ICC-ES ER-3638)
 - B. POWDER-ACTUATED FASTENERS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC270. PRE-APPROVED PRODUCTS INCLUDE:
 - 1. SIMPSON STRONG-TIE "POWDER-ACTUATED FASTENERS" (ICC-ES ESR-2138)
 - C. GAS-ACTUATED FASTENERS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC270. PRE-APPROVED PRODUCTS INCLUDE:
 - 2. SIMPSON STRONG-TIE "GAS ACTUATED FASTENERS" (ICC-ES ESR-2811)
- FOR ANCHORING LOW VELOCITY AND THREADED STUDS INTO CONCRETE, MASONRY AND STEEL.

8.0 CAST-IN-PLACE CONCRETE NOTES:

- CONCRETE MIXES SHALL BE DESIGNED PER ACI 301 CHAPTER 3. USING PORTLAND CEMENT CONFORMING TO ASTM C-150 OR C-595 AGGREGATE CONFORMING TO ASTM C-33, AND ADMIXTURES CONFORMING TO ASTM C-494, C-1017, C-618, C-989 AND C-260. CONCRETE SHALL BE READY-MIXED IN ACCORDANCE WITH ASTM C-64.
- CONCRETE SHALL CONFORM TO THE FOLLOWING COMPRESSIVE STRENGTH, SLUMP AND UNIT WEIGHT RATIO REQUIREMENTS:

ELEMENT	MIN. f _c (28 DAYS)	SLUMP*	UNIT WEIGHT
CONCRETE NOTED	3000 PSI	2" TO 4"	145 PCF
FOOTINGS	3000 PSI	2" TO 4"	145 PCF
SLABS-ON-GRADE	3000 PSI	2" TO 4"	145 PCF

*AT CONTRACTORS OPTION, AN APPROVED ADMIXTURE MAY BE USED TO PRODUCE FLOWABLE CONCRETE. MAXIMUM SLUMP SHALL NOT EXCEED 10 INCHES. THE CONTRACTOR SHALL SUBMIT TEST RESULTS OF THE PROPOSED CONCRETE MIXES ALONG WITH THE MANUFACTURERS TECHNICAL DATA FOR APPROVAL PRIOR TO POURING CONCRETE.
- ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS", HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305. COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.
- WATER REDUCING ADMIXTURE SHALL BE USED IN ALL CONCRETE.
- AIR ENTRAINING ADMIXTURE IN ACCORDANCE WITH ACI 301 TABLE 3.4.1 SHALL BE USED IN ALL CONCRETE EXPOSED TO FREEZING AND THAWING DURING CONSTRUCTION AND/OR SERVICE CONDITIONS.
- WATER/CEMENT RATIO SHALL NOT EXCEED 0.50 FOR ANY CONCRETE SUBJECTED TO FREEZING/THAWING.
- ALL PUMPED CONCRETE SHALL HAVE A WATER/CEMENT RATIO LESS THAN 0.50 AND SHALL CONTAIN A HIGH RANGE WATER REDUCING ADMIXTURE (SUPERPLASTICIZER).
- IN NO CASE SHALL A WATER/CEMENT RATIO EXCEED THE FOLLOWING:

f _c 3000 PSI	0.60 MAX. w/c RATIO
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- ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60 U.N.O. - EXCEPT THAT REINFORCING WHICH IS REQUIRED TO BE WELDED SHALL CONFORM TO ASTM A706. ALL WELDING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH AWS D1.4. EPOXY COATED REINFORCING SHALL CONFORM TO ASTM A-775.
- ALL WELDED WIRE FABRIC (WVF) SHALL CONFORM TO ASTM A-185.
- ALL REINFORCING STEEL SHALL BE SET AND TIED IN PLACE PRIOR TO POURING OF CONCRETE. DO NOT FIELD BEND BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE UNLESS SPECIFICALLY INDICATED OR APPROVED BY THE ENGINEER.
- REINFORCING STEEL, INCLUDING HOOKS AND BENDS, SHALL BE DETAILED IN ACCORDANCE WITH ACI 315. ALL REINFORCING STEEL INDICATED AS BEING CONTINUOUS (CONT) SHALL BE LAPPED "L.T.S" PER EMBEDMENT AND LAP SPLICE SCHEDULE UNLESS OTHERWISE NOTED.
- UNLESS OTHERWISE NOTED, THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:
 - A. CONCRETE EXPOSED TO EARTH OR WEATHER:
 - #6 BAR, W31 OR D31 WIRE & SMALLER - 2"
 - #6 BAR, W31 OR D31 WIRE & SMALLER - 1 1/2"
 - B. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: SLABS, WALLS & JOISTS - 1 1/2" #14 AND #18 BARS - 3/4" #11 BAR AND SMALLER - 3/4"
 - C. SHELLS, FOLDED PLATE MEMBERS - 1 1/2" PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS - 3/4" SHELLS, FOLDED PLATE MEMBERS - 3/4" #6 BAR AND LARGER - 1/2" #6 BAR, W31 OR D31 WIRE AND SMALLER - 1/2" CONCRETE CAST AGAINST EARTH - 3"
- BAR SUPPORTS AND HOLDING BARS SHALL BE PROVIDED FOR ALL REINFORCING STEEL TO INSURE MINIMUM CONCRETE COVER AND PLACEMENT. BAR SUPPORTS SHALL BE PLASTIC TYPED OR STAINLESS STEEL.
- ALL EDGES OF PERMANENTLY EXPOSED CONCRETE SURFACES SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH DOCUMENTATION THAT ALL MATERIALS CONFORM TO THE QUALITY STANDARDS SPECIFIED IN THE GENERAL BUILDING CODE.
- IN ORDER TO AVOID CONCRETE SHRINKAGE CRACKING, PLACE CONCRETE SLABS IN AN ALTERNATING LANE PATTERN. THE MAXIMUM LENGTH OF SLAB

9.0 PLYWOOD/GYPBOARD SHEATHING TO WOOD NOTES:

- ALL PLYWOOD CONSTRUCTION SHALL BE IN ACCORDANCE WITH AMERICAN PLYWOOD ASSOCIATION (APA) SPECIFICATIONS.
- ALL ROOF PANEL SHEATHING SHALL BE 7/16" (NOM.) TYPE CDX, EXP. 1 APA RATED 24/16 SHEATHING. SUITABLE EDGE SUPPORT SHALL BE PROVIDED BY USE OF PANEL CLIPS OR BLOCKING BETWEEN FRAMING, UNLESS OTHERWISE NOTED. CONNECT ROOF SHEATHING WITH 6d COMMON NAILS AT 6" O/C AT SUPPORTED PANEL EDGES AND 12" O/C AT INTERMEDIATE SUPPORTS.
- ALL FLOOR SHEATHING SHALL BE 1932" (NOM.) APA RATED STURD-1-FLOOR, @ 16" O.C. EXP. 1, WITH TONGUE AND GROOVE EDGE. UNLESS OTHERWISE NOTED, CONNECT FLOOR SHEATHING WITH 10d COMMON NAILS SPACED 6" O/C AT SUPPORTED EDGES AND 12" O/C AT INTERMEDIATE SUPPORTS. FIELD-GLUE USING ADHESIVES MEETING APA SPECIFICATIONS AFG-01, APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- ALL WALL PANEL SHEATHING, INCLUDING DESIGNATED SHEAR WALLS, SHALL BE 7/16" (NOM.) TYPE CDX, EXP. 1 APA RATED 24/16 SHEATHING. UNLESS OTHERWISE INDICATED, CONNECT WALL SHEATHING WITH 10d COMMON NAILS SPACED 6" O/C AT SUPPORTED PANEL EDGES AND 12" O/C AT INTERMEDIATE SUPPORTS. SEE SHEAR WALL SCHEDULE FOR FASTENING REQUIREMENTS.
- INSTALL ALL PLYWOOD SHEATHING WITH THE LONG DIMENSION OF THE PANEL ACROSS SUPPORTS AND WITH PANEL CONTINUOUS OVER TWO OR MORE SPANS. STAGGER PANEL END JOINTS. ALLOW 18" SPACING AT PANEL ENDS AND EDGES UNLESS OTHERWISE RECOMMENDED BY THE SHEATHING MANUFACTURER.
- ALL NAILING SHALL BE CAREFULLY DRIVEN AND NOT OVERDRIVEN. THE USE OF PNEUMATIC NAIL GUNS MAY BE USED PROVIDED (1) NAIL IS INSTALLED FOR EVERY OVERDRIVEN NAIL (THOSE SUNK > 1/8" INTO SHEATHING), THE USE OF STAPLES IS PROHIBITED.
- ALL EXTERIOR WALLS SHALL BE SHEATHED ON BOTH FACES WITH GYP-BOARD SHEATHING (SEE ARCH. DWGS. FOR THICKNESS) AND CONNECTED WITH 5d COOLER NAILS SPACED 7" O/C AT SUPPORTED PANEL EDGES AND INTERMEDIATE SUPPORTS.
- PROVIDE 2x BLOCKING AT UNSUPPORTED PANEL EDGES AS FOLLOWS: ROOFS AND FLOORS - ONLY WHERE INDICATED ON PLAN WALLS - PER THE SHEAR WALL SCHEDULE ON SHEET S1.2.

10.0 WOOD FRAMING NOTES:

- ALL WOOD FRAMING MATERIAL SHALL BE SURFACED DRY AND USED AT 19% MAXIMUM MOISTURE CONTENT. ALLOWABLE STRESS REQUIREMENTS OF ALL MATERIAL SHALL BE IN ACCORDANCE WITH THE U NATING AS NOTED BELOW.
- ALL STUD AND WALL FRAMING SHALL BE EITHER OF THE FOLLOWING:
A. NO. 2 GRADE SOUTHERN YELLOW PINE (SYP)
B. NO. 2 GRADE SPRUCE-PINE-FIR (SPF)
- ALL JOIST, RAFTER & MISC. FRAMING SHALL BE NO. 2 GRADE, SOUTHERN PINE. PROVIDE FULL-DEPTH (OR METAL) BRIDGING AT MIDSPAN AND AT A MAXIMUM SPACING OF 8'-0" O/C IN BETWEEN.
- ALL FRAMING EXPOSED TO THE WEATHER OR IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE-TREATED IN ACCORDANCE WITH THE AMERICAN WOOD PRESERVERS ASSOCIATION SPECIFICATIONS, WHERE POSSIBLE. ALL CUTS AND HOLES SHOULD BE COMPLETED BEFORE TREATMENT. CUTS AND HOLES DUE TO ON-SITE FABRICATION SHALL BE BRUSHED WITH 2 COATS OF COPPER NAPHTHENATE SOLUTION CONTAINING A MINIMUM OF 2% METALLIC COPPER IN SOLUTION (PER AWWA STD. M4).
- THE CONTRACTOR SHALL CAREFULLY SELECT LUMBER TO BE USED IN LOADBEARING APPLICATIONS. THE LENGTH OF SPLIT ON THE WIDE FACE OF 2" NOMINAL LOADBEARING FRAMING SHALL BE LIMITED TO LESS THAN 1/2 OF THE WIDE FACE DIMENSION. THE LENGTH OF SPLIT ON THE WIDE FACE OF 3" (NOMINAL) AND THICKER LUMBER SHALL BE LIMITED TO 1/2 OF THE NARROW FACE DIMENSION.
- ALL NAILING NOT OTHERWISE INDICATED SHALL BE IN ACCORDANCE WITH THE "NAILING SCHEDULE" ON SHEET S1.1. NAILING SHALL NOT BE OVERDRIVEN.
- PROVIDE DOUBLE JOISTS UNDER ALL PARTITIONS, WHICH RUN PARALLEL WITH JOISTS AND UNDER ALL CONCENTRATED LOADS FROM FRAMING ABOVE.
- PROVIDE HEADER BEAMS OF THE SAME SIZE AS JOISTS OR RAFTERS TO FRAME AROUND OPENINGS IN THE PLYWOOD DECK UNLESS OTHERWISE INDICATED.
- STRUCTURAL STEEL PLATE CONNECTORS SHALL CONFORM TO ASTM A-36 SPECIFICATIONS AND BE 1/4" THICK UNLESS OTHERWISE INDICATED. BOLTS CONNECTING WOOD MEMBERS SHALL BE PER ASTM A-307 AND BE 3/4" DIAMETER UNLESS OTHERWISE INDICATED. PROVIDE WASHERS FOR ALL BOLT HEADS AND NUTS IN CONTACT WITH WOOD SURFACES.
- BOLT HOLES SHALL BE CAREFULLY CENTERED AND DRILLED NOT MORE THAN 1/16" LARGER THAN THE BOLT DIAMETER. BOLTED CONNECTIONS SHALL BE SNUGGED TIGHT BUT NOT TO THE EXTENT OF CRUSHING WOOD UNDER WASHERS.
- PREFABRICATED "MICRO-LAM" LUMBER HEADERS AND BEAMS SHALL BE AS MANUFACTURED BY "TRUSS JOIST McMillan Corp.". BOISE, IDAHO OR APPROVED EQUAL. MICRO-LAM MATERIAL SHALL BE 2.0" SOUTHERN PINE. DO NOT CUT OR NOTCH MICRO-LAM MATERIAL WITHOUT THE MANUFACTURER'S APPROVAL.
- PREFABRICATED METAL JOIST HANGERS, HURRICANE CLIPS, HOLD-DOWN ANCHORS AND OTHER ACCESSORIES SHALL BE AS MANUFACTURED BY "SIMPSON STRONG-TIE COMPANY" (TEL 800-999-5099), OR APPROVED EQUAL. INSTALL ALL ACCESSORIES PER THE MANUFACTURER'S REQUIREMENTS. ALL STEEL SHALL HAVE A MINIMUM THICKNESS OF 0.04 INCHES (PER ASTM A446, GRADE A) AND BE GALVANIZED (COATING G60).
- HOLES AND NOTCHES DRILLED OR CUT INTO WOOD FRAMING SHALL NOT EXCEED THE REQUIREMENTS OF N.C.B.C. 2018.
- ALL PLATES, ANCHORS, NAILS, BOLTS, NUTS, WASHERS, AND OTHER MISCELLANEOUS HARDWARE SHALL BE HOT DIP GALVANIZED.

11.0 PRE-ENGINEERED WOOD TRUSS NOTES:


- WOOD TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE FOLLOWING LOADS:
A. MINIMUM GRAVITY LOADING:
ROOF TRUSSES
TOP CHORD LIVE LOAD: 20 PSF
DEAD LOAD: 8 PSF
FLOOR TRUSSES
40 PSF
15 PSF
BOTTOM LIVE LOAD: 10 PSF
DEAD LOAD: 5 PSF
- WIND LOADING CASE: (PER N.C.B.C. 2002, SECTION 1609.8) SEE 'DESIGN CRITERIA NOTES FOR WIND COMPONENT CRITERIA ON THE SURFACE AREA
TOP CHORD LOADING: P - (TOP CHORD DL X 8)
NET UPLIFT: P + Pv X 1 X Kh X (Gc) WITH Gp PER BOCA FIG. 1609.8.1(2) ON THE SURFACE AREA
BOTTOM CHORD LOADING: P - (BOTTOM CHORD DL X 8)
NET UPLIFT: P + Pv X 1 X Kh X (Gcp) WITH Gp1 AS NOTED HEREIN
- WOOD TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATION OF THE NATIONAL FOREST PRODUCTS ASSOCIATION. THE DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES OF THE TRUSS PLATE INSTITUTE AND N.C.B.C. 2303.4
- WOOD MATERIALS SHALL BE SOUTHERN PINE, DOUGLAS FIR OR LARCH AND SHALL BE KILN DRIED AND USED AT 19% MAXIMUM MOISTURE CONTENT. PROVIDE GRADE NO. 2 OR AS REQUIRED TO SATISFY STRESS REQUIREMENTS.
- CONNECTOR PLATES SHALL BE NOT LESS THAN 0.036 INCHES (20 GAUGE) IN COATED THICKNESS, SHALL MEET OR EXCEED ASTM GRADE A OR HIGHER AND SHALL BE HOT DIPPED GALVANIZED ACCORDING TO ASTM A-525 (COATING G60). MINIMUM STEEL YIELD STRESS SHALL BE 33,000 PSI.
- TRUSSES SHALL BE FABRICATED IN A PROPERLY EQUIPPED MANUFACTURING FACILITY OF A PERMANENT NATURE. TRUSSES SHALL BE MANUFACTURED BY EXPERIENCED WORKMEN USING PRECISION CUTTING, JOING AND PRESSING EQUIPMENT UNDER THE REQUIREMENTS IN QUALITY CONTROL STANDARD QST-88 OF THE TRUSS PLATE INSTITUTE.
- SECONDARY BENDING STRESSES IN TRUSS TOP AND BOTTOM CHORDS DUE TO DEAD, LIVE AND WIND LOADS SHALL BE CONSIDERED IN THE DESIGN. LOAD DURATION FACTORS SHALL BE PER THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION".
- WOOD TRUSSES SHALL BE ERECTED IN ACCORDANCE WITH THE TRUSS MANUFACTURER'S REQUIREMENTS. THIS WORK SHALL BE DONE BY A QUALIFIED AND EXPERIENCED CONTRACTOR. TRUSS ERECTION BY AN INEXPERIENCED OR NON-QUALIFIED CONTRACTOR CAN RESULT IN CONSTRUCTION COLLAPSE AND/OR SERIOUS INJURY AND DAMAGE.
- THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY AND PERMANENT BRACING AS REQUIRED FOR SAFE ERECTION AND PERFORMANCE OF THE TRUSSES. THE GUIDELINES SET FORTH BY THE TRUSS PLATE INSTITUTE PUBLICATION "HB-91, COMMENTARY AND RECOMMENDATIONS FOR HANDLING, INSTALLING AND BRACING METAL PLATE CONNECTED WOOD TRUSSES" SHALL BE A MINIMUM REQUIREMENT.
- TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED, DRILLED NOR OTHERWISE ALTERED IN ANY WAY WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
- SUBMIT COMPLETE SHOP DRAWINGS FOR ALL WOOD TRUSSES SHOWING MEMBER SIZES, SPECIES, GRADE, MOISTURE CONTENT, SPAN, CAMBER, DIMENSIONS, CHORD PITCH, BRACING REQUIREMENTS AND LOADINGS. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN _____.
- SEE THE "SCISSOR TRUSS NOTE" FOR ADDITIONAL REQUIREMENTS.

12.0 LAMINATED VENEER LUMBER (LVL) NOTES:

- SUBMIT MANUFACTURER'S DESCRIPTIVE LITERATURE INDICATING MATERIAL COMPOSITION, THICKNESS, DIMENSIONS, LOADING AND FABRICATION DETAILS.
- SUBMIT MANUFACTURER'S LITERATURE INDICATING INSTALLATION DETAILS, INCLUDE LOCATIONS AND DETAILS OF BEARING, BLOCKING, BRIDGING AND CUTTING FOR WORK BY OTHERS.
- LVL BASIS OF DESIGN IS PER 2.0E GP LAM HAVING THE FOLLOWING PROPERTIES:
A. QUALIFIED TO ASTM D 5456 BY APA- THE ENGINEERED WOOD ASSOCIATION.
B. MODULUS OF ELASTICITY E = 2.0 x 10 PSI
C. SHEAR MODULUS OF ELASTICITY G = 0.125 x 10 PSI
D. FLEXURAL STRESS Fb = 2,000 PSI
E. HORIZONTAL SHEAR Fv = 265 PSI
F. COMPRESSION PERP. TO GRAIN Fc = 845 PSI
- DELIVER MATERIALS TO THE JOB SITE IN MANUFACTURER'S ORIGINAL PACKAGING, CONTAINERS AND BUNDLES WITH MANUFACTURER'S IDENTIFICATION INTACT AND LEGIBLE.
- STORE AND HANDLE MATERIALS TO PROTECT AGAINST CONTACT WITH DAMP AND WET SURFACES, EXPOSURE TO WEATHER, BREAKAGE AND DAMAGE. PROVIDE AIR CIRCULATION UNDER COVERING AND AROUND STACKS OF MATERIALS.
- EXCEPT FOR CUTTING TO LENGTH, GP LAM LVL BEAMS AND HEADERS SHALL NOT BE CUT, DRILLED OR NOTCHED, EXCEPT AS NOTED IN MANUFACTURER'S LITERATURE.
- PROVIDE GP LAM LVL BEAMS AND HEADERS WHERE INDICATED ON DRAWINGS USING HANGERS AND ACCESSORIES SPECIFIED.
- INSTALL GP LAM LVL BEAMS AND HEADERS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

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NC CERTIFICATE OF LICENSE # P-1893

SIGNATURE:

CLIENT:

The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President



PROJECT:

The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

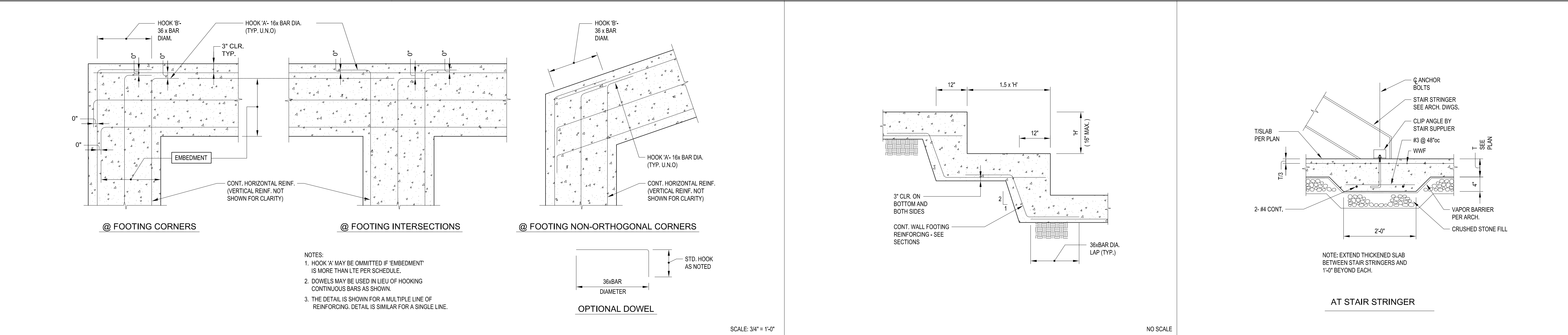
#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DESCRIPTION :

GENERAL NOTES

SHEET #:
S-0.01



1

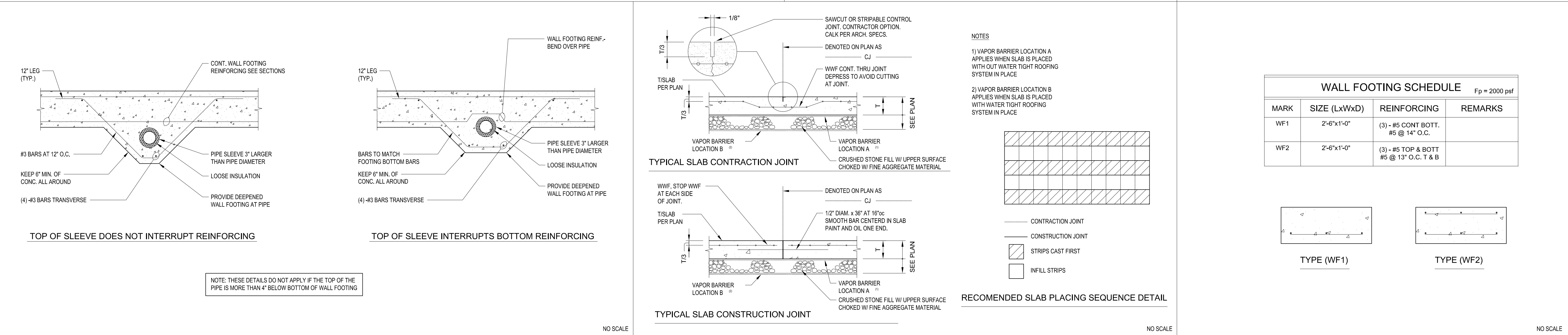
TYP. STRIP FOOTING CORNER INTERSECTION & NON-ORTHOGONAL

2

STEPPED FOOTING

3

TYP. THICKENED SLAB DETAIL



4

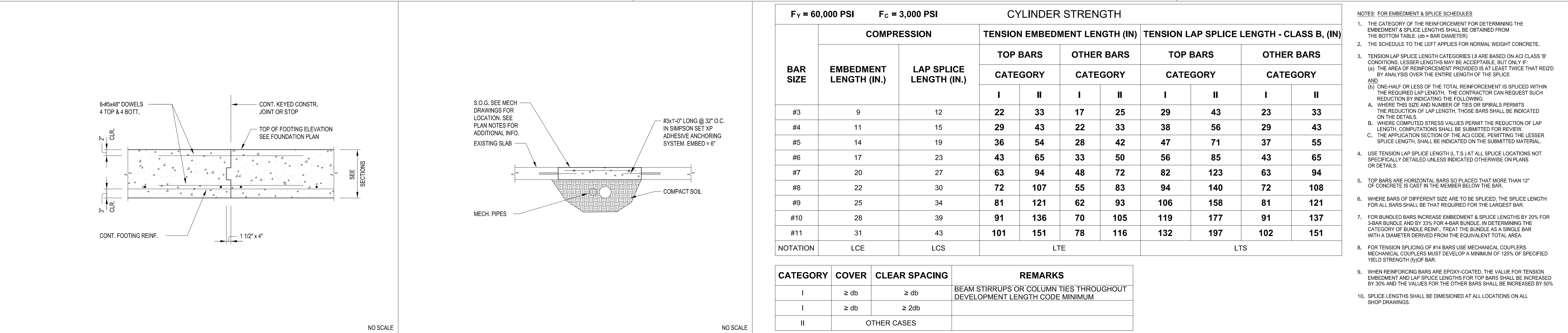
TYP. STRIP FOOTING CORNER INTERSECTION & NON-ORTHOGONAL

5

TYP. SLAB CONSTRUCTION/ CONTROL JOINT

6

WALL FOOTING SCHEDULE



7

TYP. FOOTING CONST. JOINT

8

TYP. TRENCH DETAIL

EMBEDMENT AND LAP SPLICE SCHEDULE

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NC CERTIFICATE OF LICENSE # P-1893

SIGNATURE:

CLIENT:

The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President

PROJECT:

The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO:

ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DESCRIPTION:

TYPICAL DETAILS

SHEET #:

S-1.00

WALL STUD SCHEDULE

MARK	LEVEL	STUDS	SPACING
W1	B - ROOF <small>NOTES: (H) (S)</small>	2 x 6 SPF NO. 2	24" O.C.
W2	B - 1	(3)2 x 4 SPF NO. 2	24" O.C.
	1 - 3	(2)2 x 4 SPF NO. 2	24" O.C.
	3 - ROOF	2 x 4 SPF NO. 2	24" O.C.
W3	1 - ROOF	2 x 4 SPF NO. 2	24" O.C.

NOTES:
1. 2x6 STUDS WITH SAME SPECIES AND GRADE CAN BE SUBSTITUTED FOR 2x4 STUDS WHERE INDICATED ON ARCH DWGS. TO ACCOMMODATE M.E.P. CHASES, ETC.
2. SPF DENOTES SPRUCE-PINE-FIR.
3. BRACE AT 1/3 POINTS.
4. BRACE AT MID-POINT.
5. NO ADDITIONAL BRACING REQUIRED WHERE WALL TYPE IS WITHIN A SHEAR WALL.

FASTENING REQUIREMENTS FOR MULTIPLE MEMBERS

PIECES IN MEMBER	MAX. SPAN	NAILED 16d COMMON	MAX. SPAN	NAILED 16d COMMON
2	20'	2 ROWS AT 12" oc	20'	2 ROWS AT 24" oc STAGGER AT 12"
	30'	3 ROWS AT 12" oc	40'-6"	2 ROWS AT 12" oc
3	15'	2 ROWS AT 12" oc	15'	2 ROWS AT 24" oc STAGGER AT 12"
	22'-6"	3 ROWS AT 12" oc	30'	2 ROWS AT 12" oc
4	-	N / A	13'-6"	2 ROWS AT 24" oc STAGGER AT 12"
	-	N / A	27'	2 ROWS AT 12" oc

NOTES:
1. TOP AND BOTTOM ROWS OF CONNECTORS SHALL BE 2" FROM EDGE
2. BOLT HOLES ARE TO BE THE SAME DIAMETER AS THE BOLT. EVERY BOLT MUST BOLT HOLES ARE EXTEND THROUGH THE FULL THICKNESS OF THE MEMBER. USE WASHERS UNDER HEAD AND NUT. CARRIAGE BOLTS MAY BE USED, BUT THE OUTERMOST OF THE HEAD MAY NOT BE DRAWN IN BEYOND FLUSH WITH THE OUTSIDE FACE OF THE LVL MEMBER.
3. FOR THREE-PIECE MEMBER, SPECIFIED NAILING IS FROM EACH SIDE.
4. FOUR-PLY MEMBERS, REGARDLESS OF DEPTH, MUST BE BOLTED.

MULTIPLE MEMBERS

1

WALL STUD SCHEDULE

2

FASTENING REQUIREMENTS

3

WOOD HEADER SCHEDULE

TYP. WOOD HEADER SCHEDULE

WALL STUDS	ROUGH OPENING WIDTH "W"	SIZE	2x4 STUD WALLS	
			JACKS	KINGS
2x4	"W" ≤ 3'-0"	(2) 2x8 w/ 1/2" PLYWOOD PL	SINGLE	SINGLE
2x4	3'-0" < "W" < 6'-0"	(2) 2x8 w/ 1/2" PLYWOOD PL	SINGLE	DOUBLE
2x4	6'-0" < "W" < 9'-0"	(2) 2x10 w/ 1/2" PLYWOOD PL	DOUBLE	DOUBLE
2x4	9'-0" < "W" < 12'-0"	(2) 1 3/4" X 11" LVL	DOUBLE	TRIPLE
2x4	12'-0" > "W"	SEE SECTIONS	—	—

NOTE:
SEE "LOOSE LINTEL" SCHEDULE FOR BRICK SHELF ANGLES

TYP. WOOD HEADER SCHEDULE

WALL STUDS	ROUGH OPENING WIDTH "W"	SIZE	2x6 STUD WALLS	
			JACKS	KINGS
2x6	"W" ≤ 3'-0"	(3) 2x8 w/ 1/2" PLYWOOD PL	SINGLE	SINGLE
2x6	3'-0" < "W" < 6'-0"	(3) 2x8 w/ 1/2" PLYWOOD PL	SINGLE	DOUBLE
2x6	6'-0" < "W" < 9'-0"	(3) 2x10 w/ 1/2" PLYWOOD PL	DOUBLE	DOUBLE
2x6	9'-0" < "W" < 12'-0"	(3) 1 3/4" X 11" LVL	DOUBLE	TRIPLE
2x6	12'-0" > "W"	SEE SECTIONS	—	—

4

JOIST SCHEDULE

JOIST SCHEDULE

MARK	MEMBER	SPACING
J1	2 x 10 SPF NO.2	16" OC

NOTES:
1. WHERE DOUBLE JOISTS ARE REQUIRED, PROVIDE "TYPICAL POST" AT EACH END. SEE POST SCHEDULE ON S1.00 SERIES SHEETS.
2. 2x8 BLOCKING OR 2x12 BLOCKING @ 6'-0" O.C. MAX AS BRIDGING.

5

STEEL LINTEL SCHEDULE

STEEL LINTEL SCHEDULE

CLEAR OPENING	ONE ANGLE FOR EA. 4" FOR 4", 8" & 12" WALLS	6" WALL	10" WALL	MIN. BRG.
0'-8" TO 3'-4"	L 3 1/2 x 3 1/2 x 1/4	WT 5 x 6	(2) L 4 x 4 x 1/4	4"
3'-4" TO 5'-4"	L 4 x 3 1/2 x 1/4 (LLV)	WT 5 x 6	(2) L 4 x 4 x 5/16	6"
5'-4" TO 7'-4"	L 5 x 3 1/2 x 5/16 (LLV)	WT 7 x 11	(2) L 6 x 4 x 1/4 (LLV)	8"
7'-4" TO 10'-0"	L 6 x 3 1/2 x 5/16 (LLV)	WT 7 x 13	(2) L 6 x 4 x 5/16 (LLV)	8"

NOTES:
1. WHERE LINTELS BEAR ON HOLLOW MASONRY UNITS FILL ALL CORES UNDER BEARING WITH GROUT FROM BOTTOM OF LINTEL TO 16" MIN. BELOW LINTEL.
2. THESE LINTELS ARE NOT DESIGNED FOR LINTELS THAT CARRY FLOOR LOAD.
3. ALL LINTELS ARE GALVANIZED UNLESS NOTED OTHERWISE.

WOOD BEAM SCHEDULE

MARK	SIZE	POST
B1	(2)2x12 SPF NO.2	SEE PLAN
B2	(2)1-3/4x11-7/8 LVL (2.0E)	SEE PLAN
B3	(3)1-3/4x14 LVL (2.0E)	SEE PLAN
B4	(2)2x10 SPF NO.2	SEE PLAN
B5	(3)1-3/4x11-7/8 LVL (2.0E)	SEE PLAN

NOTES:
1. SEE WALL OPENING SCHEDULE. TYPICAL FOR OPENING FRAMING NOT SPECIFICALLY NOTED ON THE PLANS.
2. SEE TYPICAL POST SCHEDULE & ELEVATION ON S1.00 SERIES SHEETS
3. IF NO POST IS SHOWN ON PLAN, USE (2) WALL STUDS UNDER BEAM

WOOD HEADER SCHEDULE

MARK	SIZE	JACKS	KINGS
H1	(3)1-3/4x9-1/4 LVL (2.0E)	TRIPLE	DOUBLE
H2	(3)2x12 SPF NO.2	DOUBLE	DOUBLE

NOTES:
1. SEE WALL OPENING SCHEDULE. TYPICAL FOR OPENING FRAMING NOT SPECIFICALLY NOTED ON THE PLANS.

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WOOD BEAM SCHEDULE

WOOD POST SCHEDULE

MARK	SIZE	CONNECTION	
		BASE	CAP
P1	6x6 SPF NO. 2	PBS66	CC64/ECC64
P2	5.25x5.25 PSL 2.0E	PBS66	CC64/ECC64
P3	(3)2x6 SPF NO. 2		
P4	HSS3-1/2x3-1/2x3/16		
P5	4x4 SPF NO. 2	PBS44	CC44/ECC44
P6	3.5x3.5 PSL 2.0E	PBS44	CC44/ECC44
P7	3.5x5.25 PSL 2.0E	PBS46	CC46
P8	(3)2x4 SPF NO. 2		

ALL POSTS SHALL BE SPRUCE PINE FIR-NO. 2 OR BETTER
USED TO BUILD UP STUDS SHALL BE 10d COMMON WIRE NAILS
W/ MINIMUM DIAMETER= 0.148 IN. AND MINIMUM LENGTH= 3 IN.
SEE NAILING SCHEDULE BELOW

DECKING LAYOUT @ BLOCKED DIAPHRAGMS

NOTES:
1. BOUNDARY NAILING SHALL INCLUDE NAILING OVER LENGTH OF SHEAR WALLS
2. BOUNDARY NAILING SHALL INCLUDE NAILING ALONG ALL CONTINUOUS PANEL JOINTS
3. BOUNDARY NAILING SHALL INCLUDE NAILING ENTIRE PERIMETER OF DECKING
4. SPACE PANELS 1/8" MINIMUM FOR PANEL EXPANSION (ENDS AND EDGES)

DECKING LAYOUT @ UNBLOCKED DIAPHRAGMS

NOTES:
1. SUPPORTED EDGE NAILING SHALL INCLUDE NAILING OVER LENGTH OF SHEAR WALLS
2. SUPPORTED EDGE NAILING SHALL INCLUDE NAILING ENTIRE PERIMETER OF DECKING
3. SPACE PANELS 1/8" MINIMUM FOR PANEL EXPANSION (ENDS AND EDGES)

7

WOOD HEADER SCHEDULE

8

NAIL FASTENER SCHEDULE

CONNECTION, LOCATION

NAIL

NUMBER OR SPACING

BAND JOIST TO SILL OR TOP PLATE, TOE NAIL	8d	6" o.c.
JOIST TO BAND JOIST, FACE NAIL	16d COMMON	3
JOIST TO SILL OR GIRDER, TOE NAIL	8d COMMON	3
BRIDGING TO JOIST, TOE NAIL EACH END	8d COMMON	2
LEDGER STRIP	16d COMMON	3 AT EACH JOIST
1x6 OR LESS SUBFLOOR TO EACH JOIST, FACE NAIL	8d COMMON	2
OVER 1x6 SUBFLOOR TO EACH JOIST, FACE NAIL	8d COMMON	3
2-INCH SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	16d COMMON	2
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d COMMON	16" O.C.
TOP OR SOLE PLATE TO STUD, END NAIL	16d COMMON	2
STUD TO SOLE PLATE, TOE NAIL	8d COMMON	4
DOUBLED STUDS, FACE NAIL	10d COMMON	24" O.C.
DOUBLED TOP PLATES, FACE NAIL	10d COMMON	16" O.C.
TOP PLATES, LAP AND INTERSECTIONS, FACE NAIL	16d COMMON	2
CONTINUOUS HEADER, TWO PIECES	16d COMMON	16" O.C. ALONG EDGE
CEILING JOISTS TO PLATE, TOENAIL	8d COMMON	3
CONTINUOUS HEADER TO STUD, TOENAIL	8d COMMON	4
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	16d COMMON	3
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	16d COMMON	3
RAFTER TO PLATE, TOE NAIL	8d COMMON	3
1-INCH BRACE TO EACH STUD AND PLATE, FACE NAIL	8d COMMON	2
WIDER THAN 1x8 SHEATHING TO EACH BEARING, FACE NAIL	8d COMMON	3
BUILT-UP CORNER STUDS	16d COMMON	24" O.C.
BUILT-UP GIRDER OR BEAMS, THREE MEMBERS	20d COMMON	32" O.C. TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
2" PLANKS, AT EA. BEARING	16d COMMON	2
COLLAR TIE TO RAFTER, FACE NAIL	10d COMMON	3
JACK RAFTER TO HIP, TOE NAIL OR FACE NAIL	10d COMMON 16d COMMON	3 2
ROOF RAFTER TO 2-by RIDGE BEAM, TOE NAIL OR FACE NAIL	16d COMMON 16d COMMON	2 2
JOIST TO BAND JOIST, FACE NAIL	16d COMMON	3

9

POST SCHEDULE

10

TYPICAL DECKING LAYOUT DETAILS

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NC CERTIFICATE OF LICENSE # P-1993

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Luis Graef: President

PROJECT:

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Apartment Complex
Hendersonville, North Carolina

DWG INFO:

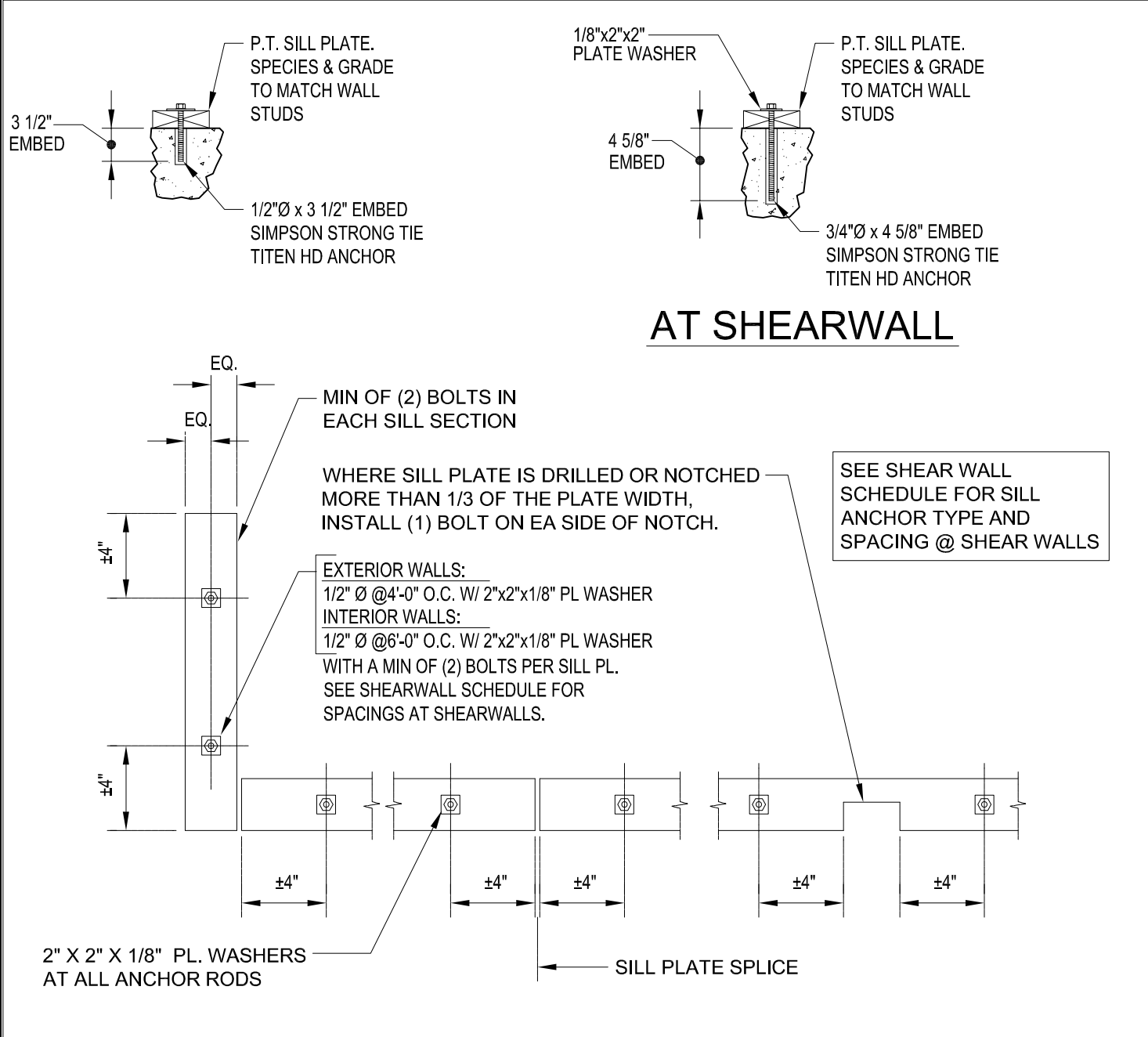
ISSUE DATE: 09/27/24
PROJECT #: 22105
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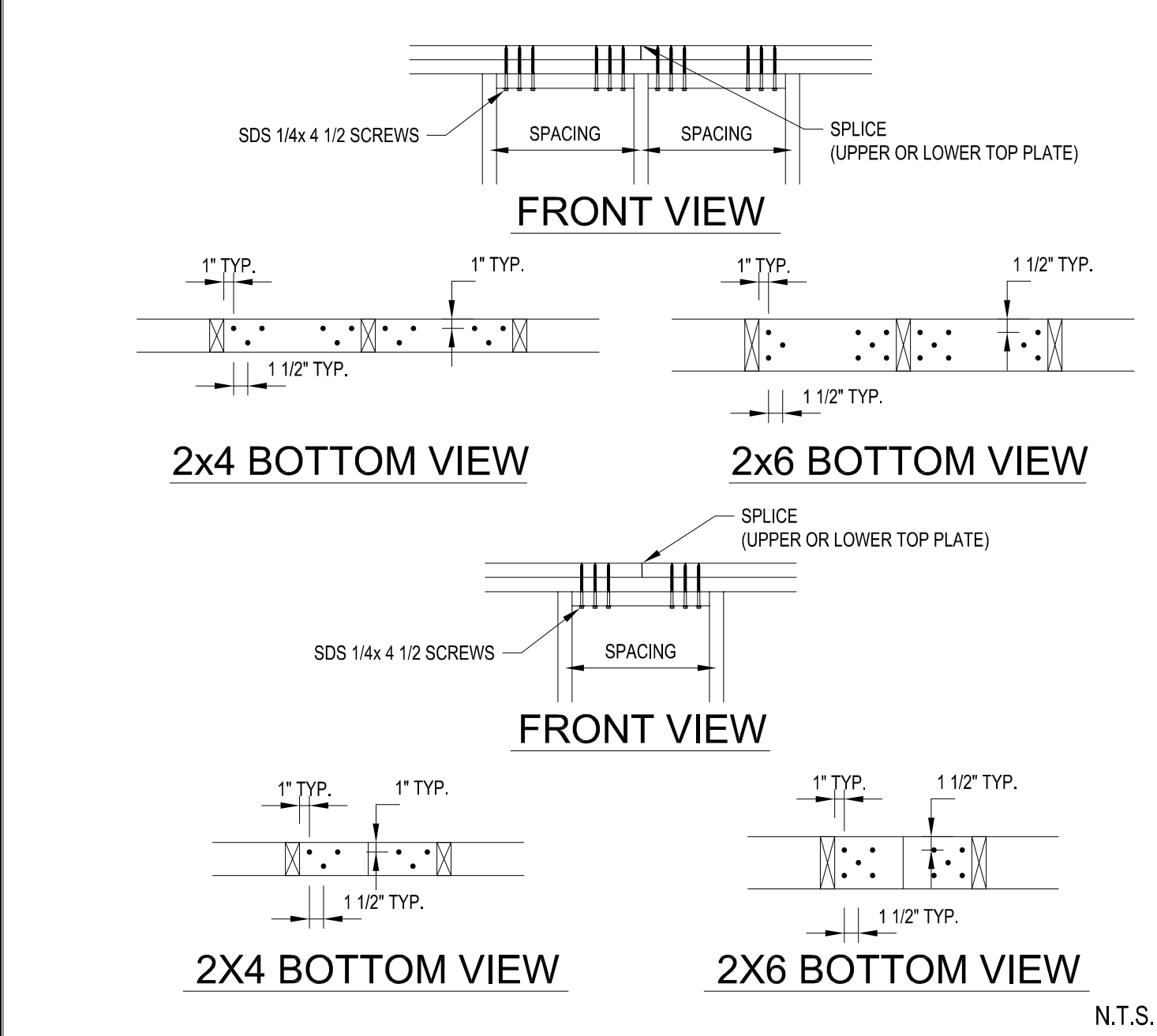
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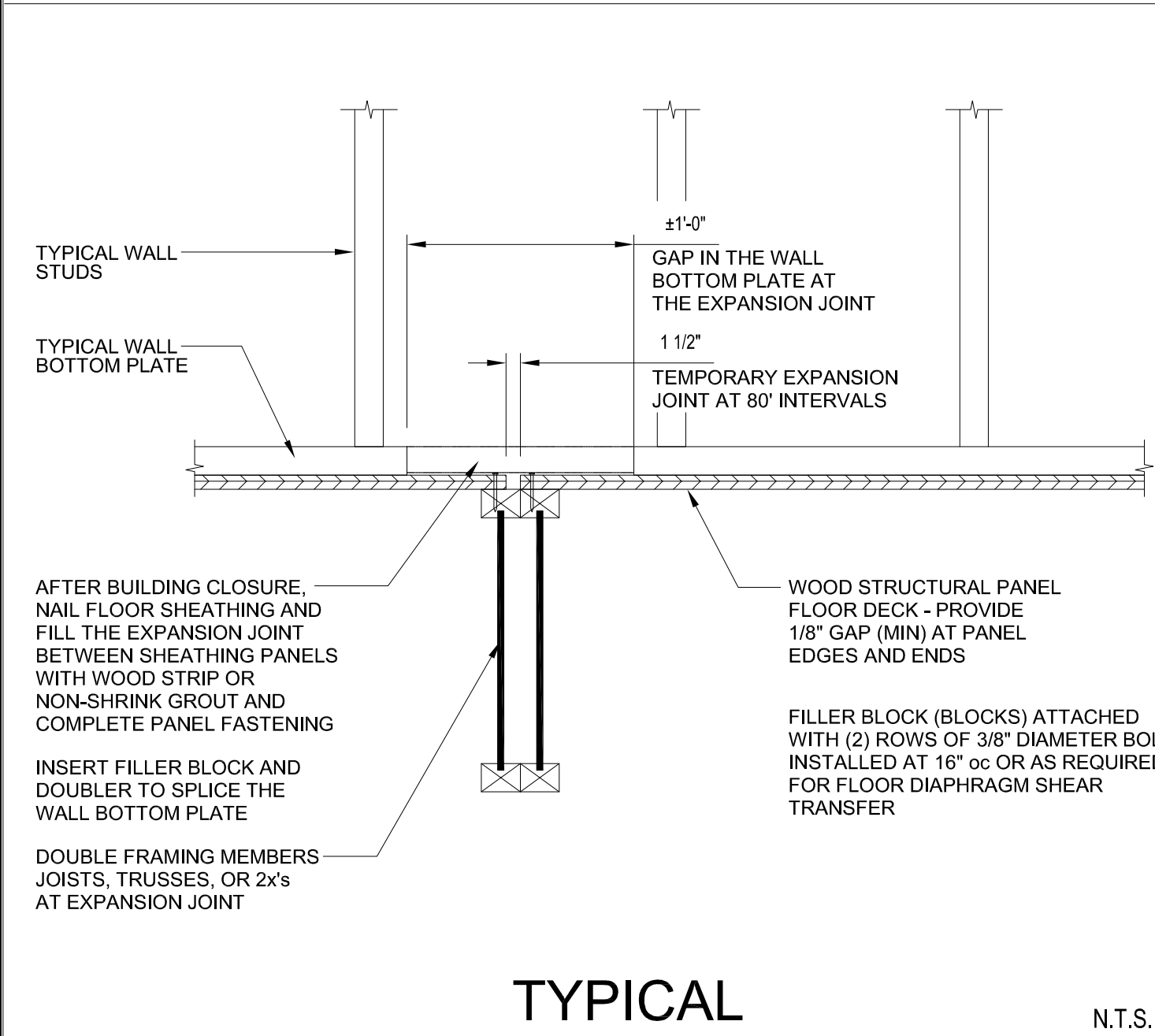
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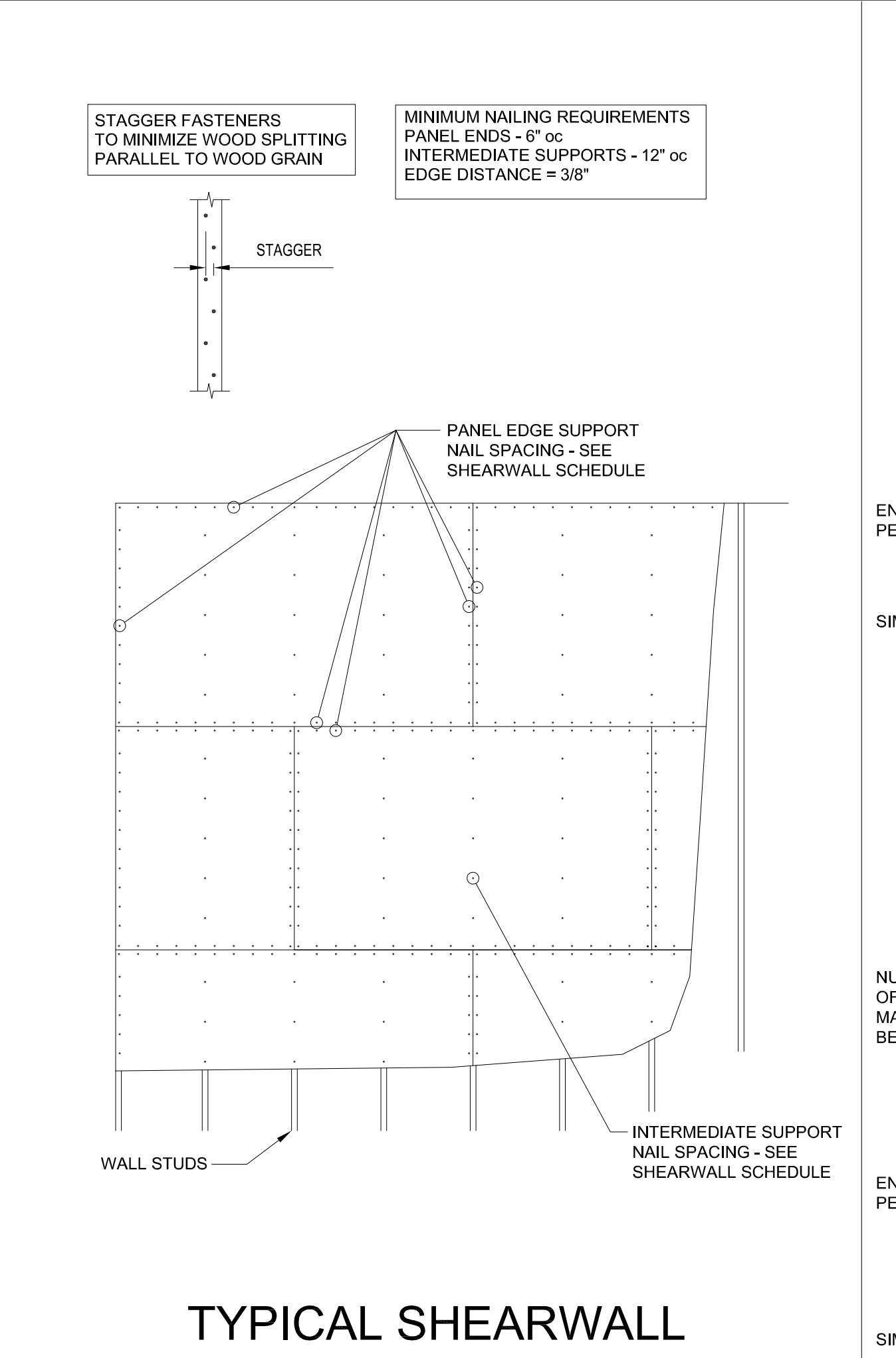
1 TYP. SILL PLATE BOLTING @ S.O.G.



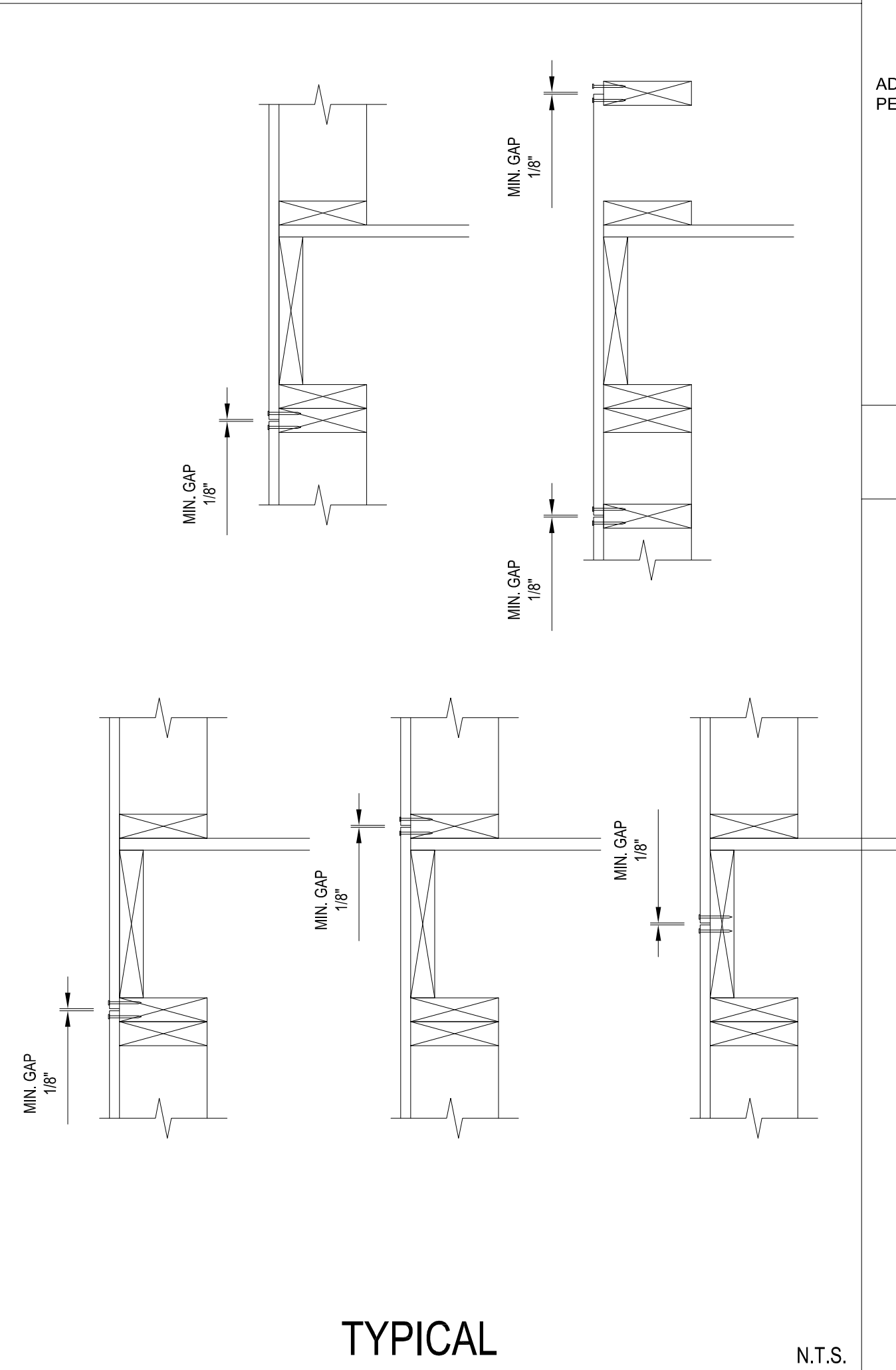
5 TOP PLATE SPLICE DETAILS



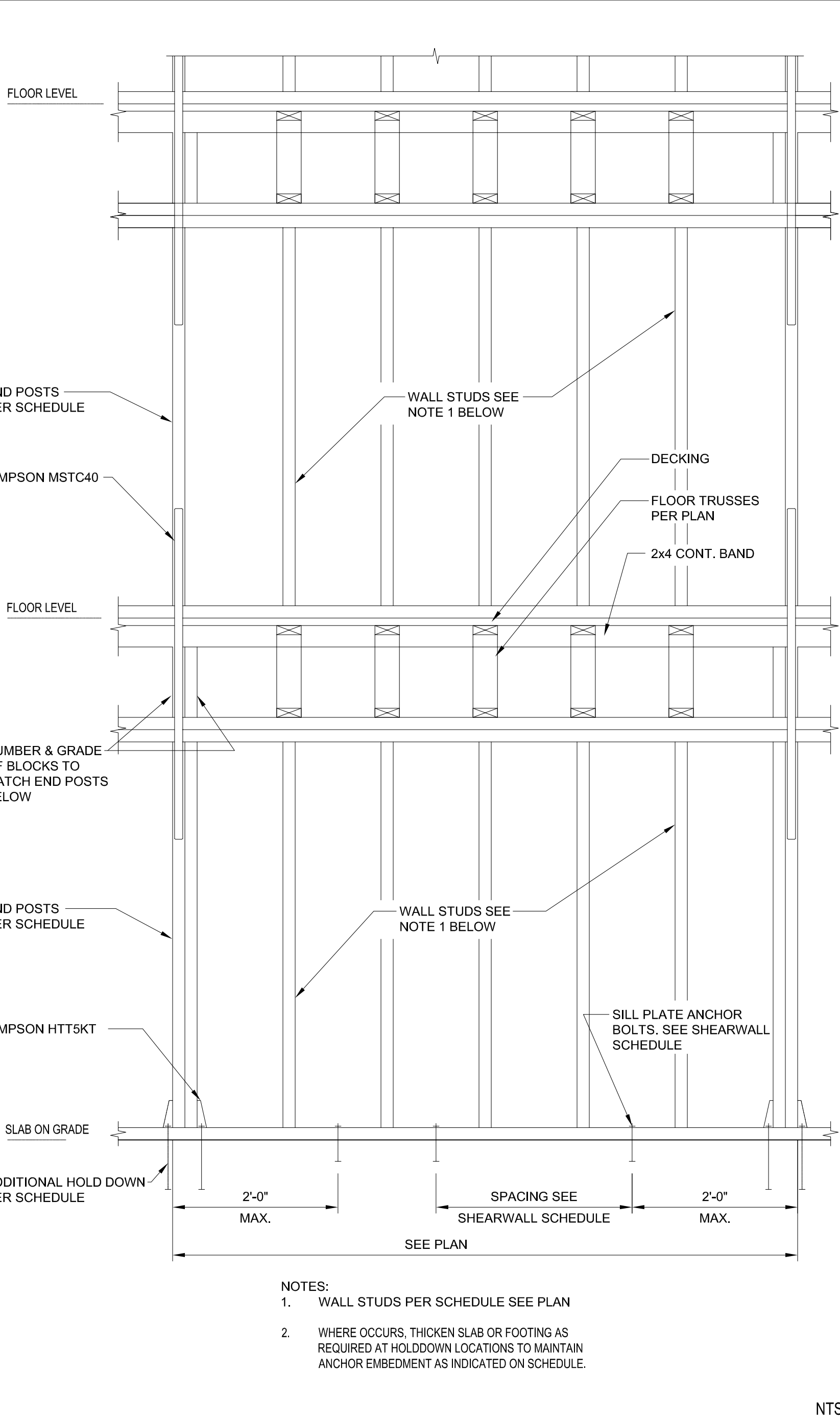
6 FLOOR EXPANSION JOINT



2 TYPICAL SHEARWALL
2 PANEL NAILING / SCREWING



7 STORY TO STORY SHEATHING

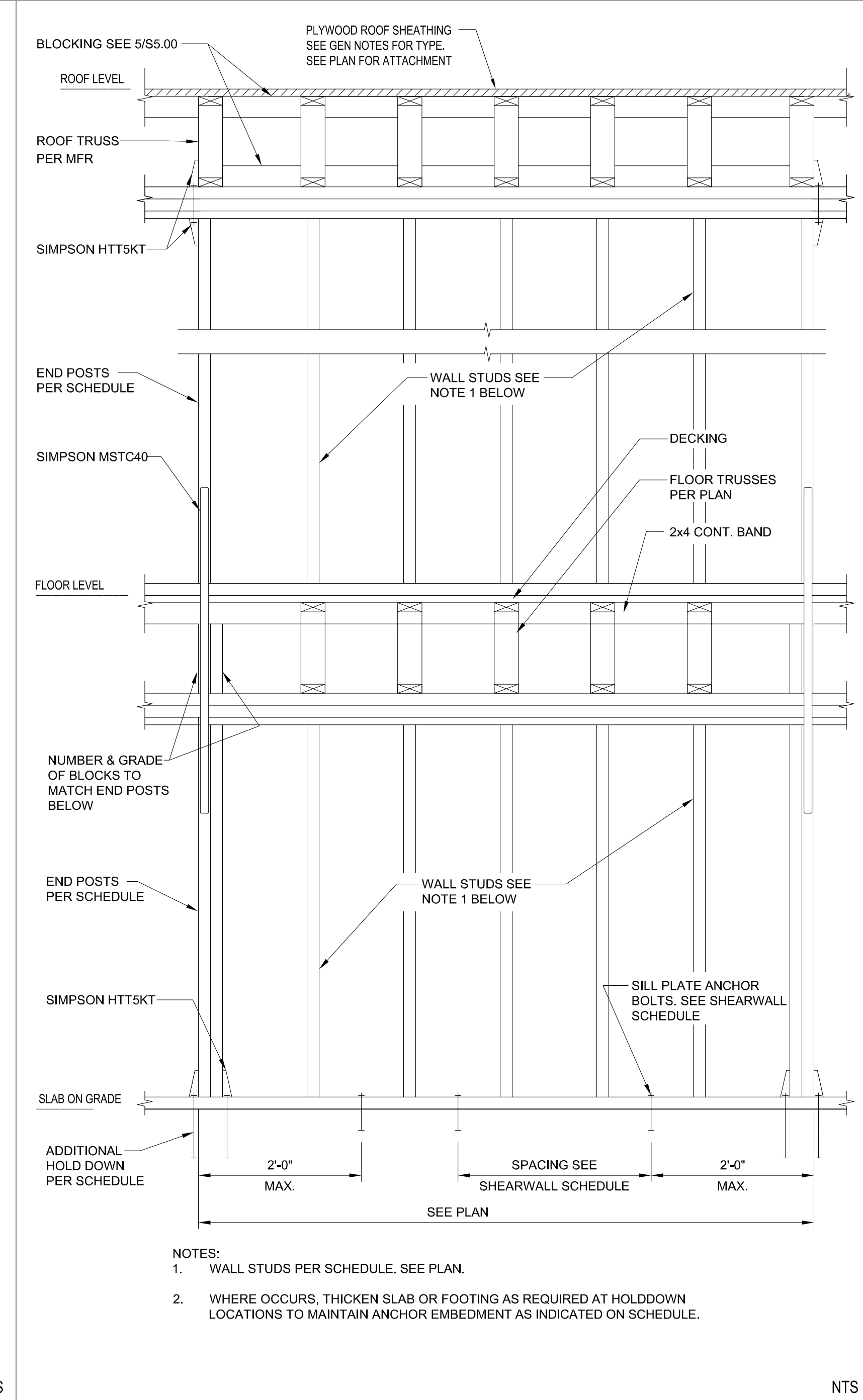


3 SW1 & SW2 ELEVATION

SHEAR WALL SCHEDULE									
MARK	FLOOR	PANEL TYPE SEE ARCH ASSEMBLY	# OF PANELS (NOTE #3)	PANEL NAILING			BLOCKING REQUIRED (NOTE #4)	END POST (NOTE #2)	SILL PLATE ANCHORING
				NAIL SIZE	EDGE SUPPORT NAIL SPACING	INTERMEDIATE SUPPORT NAIL SPACING			
SW-1	B - 3	7/16" PLYWOOD	SINGLE	8d	4" O.C.	12" O.C.	YES	(2)2x6 SPF NO.2	3/4" Ø x 4 5/8" EMBED TITEN HD @ 32" O.C.
	3 - Roof	7/16" PLYWOOD	SINGLE	8d	6" O.C.	12" O.C.	YES	(2)2x6 SPF NO.2	
SW-2	B - 3	5/8" GYP.	SINGLE	6d COOLER	6" O.C.	6" O.C.	YES	(4)2x4 SPF NO.2	3/4" Ø x 4 5/8" EMBED TITEN HD @ 32" O.C.
	3 - Roof	5/8" GYP.	SINGLE	6d COOLER	6" O.C.	6" O.C.	YES	(3)2x4 SPF NO.2	
SW-3	B - 3	5/8" GYP.	SINGLE	6d COOLER	6" O.C.	6" O.C.	YES	(4)2x4 SPF NO.2	3/4" Ø x 4 5/8" EMBED TITEN HD @ 32" O.C.
	3 - Roof	5/8" GYP.	SINGLE	6d COOLER	6" O.C.	6" O.C.	YES	(3)2x4 SPF NO.2	

NOTES:
1. SEE 8/S1.2 FOR PERFORATED SHEAR WALL ELEVATION.
2. END POST HOLD DOWN, USE SIMPSON HTT4 W/ 5/8"Ø KWIK BOLT 3 (EMBED = 4")
3. "SINGLE" INDICATES PLYWOOD SHEATHING ON ONE SIDE OF WALL STUDS.
4. ALL FOUR SIDES OF EACH PANEL MUST BE CONTINUOUSLY BLOCKED (TYPICAL)

8 SHEARWALL SCHEDULE



4 SW3 ELEVATION

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DWG INFO:

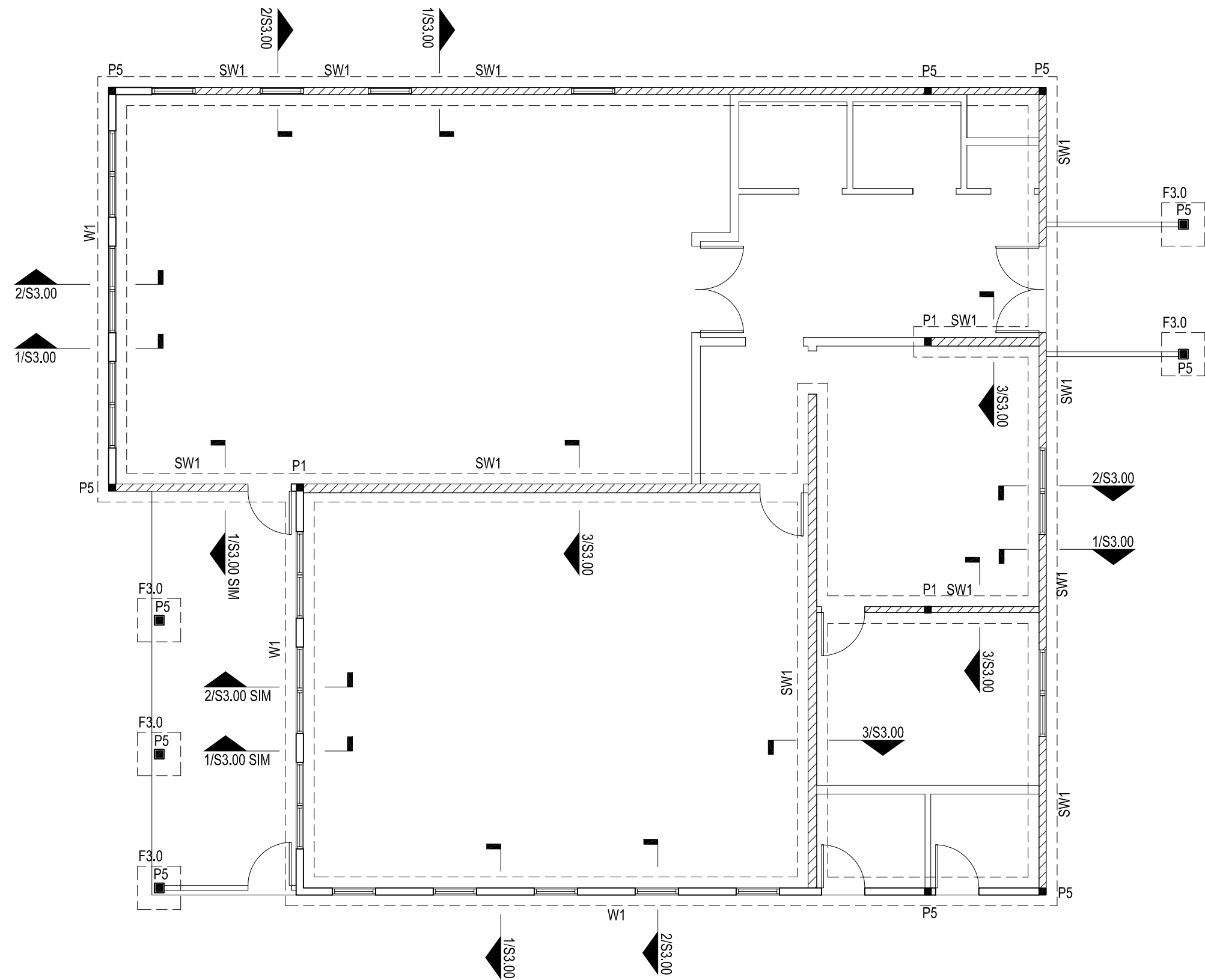
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DESCRIPTION:

TYPICAL DETAILS

SHEET #:

S-1.02



FOUNDATION PLAN

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

LEGEND:

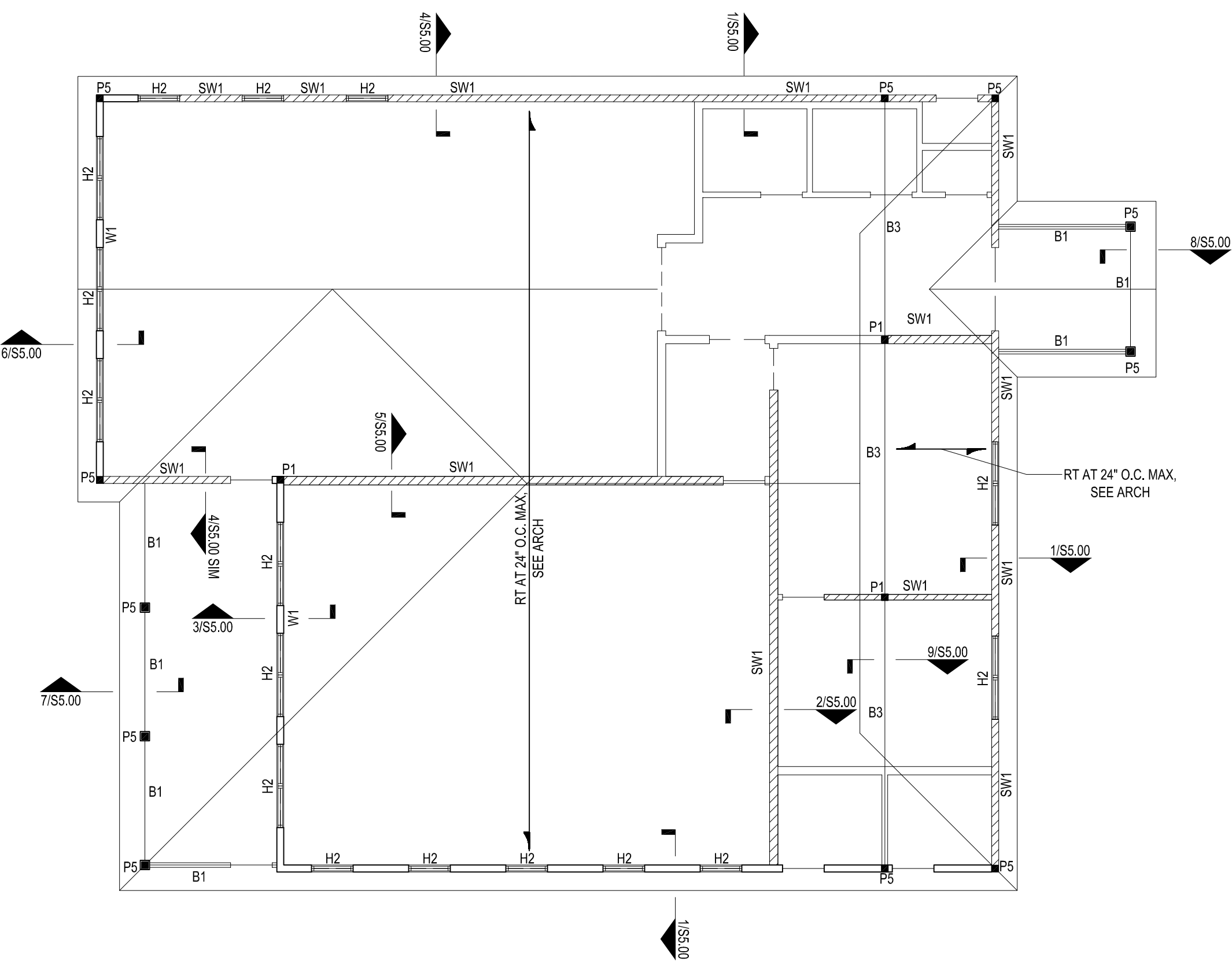
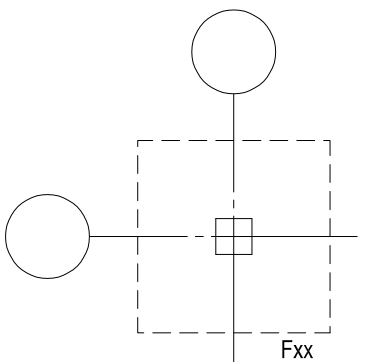
1. INDICATES SHEAR WALL LOCATION AND LABEL
2. INDICATES LOAD BEARING WALL AND LABEL
3. INDICATES NON-STRUCTURAL WALL
4. INDICATES LOAD BEARING WALL BELOW
5. INDICATES WALL OPENING
6. INDICATES WALL OPENING BELOW
7. INDICATES DIRECTION OF FLOOR OR ROOF FRAMING
8. INDICATES WOOD BEAM LABEL. SEE WOOD BEAM SCHEDULE ON S1.00 SERIES SHEETS
9. INDICATES WOOD POST LABEL. SEE S1.05 FOR SCHEDULE AND DETAIL.

FOUNDATION PLAN NOTES:

1. ELEVATIONS FOR FOOTINGS, SLABS, STEEL, WALLS, FLOORS, ELEVATOR PITS, ETC. ARE REFERENCED + OR - FROM DATUM ELEVATION ON SHEET S2.02 (I.E. T/S.L. +2'-6", T/W -5'-3", T/S.T.L. -6' 1/4", ETC.).
2. T/FTG ELEVATIONS SHOWN ON PLAN ARE FOR STRIP AND SPREAD FOOTINGS. T/FTG ELEVATION AROUND PERIMETER SHALL BE -2'-0" U.N.O. WITH FOOTING STEPS SHOWN IN RELATIVE LOCATIONS. SEE S1.00 SERIES SHEETS "TYPICAL DETAILS" FOR FOOTING STEP AND SPACING REQUIREMENTS.
3. TYPICAL SLAB ON GRADE (S.O.G.) IS 4" NORMAL WEIGHT CONCRETE REINFORCED WITH 6x6-W1.4xW1.4 WWF (FLAT SHEETS) ON 6" CRUSHED STONE BASE. SEE ARCHITECTURAL DRAWINGS FOR VAPOR BARRIER REQUIREMENTS. SEE S2.00 FOR SLAB CONTROL JOINT LAYOUT.
4. SUPPORT WWF AT 1" FROM TOP OF S.O.G. WITH SAND PLATES (CHAIRS WITH PLATE BASES) OR OTHER ACCEPTABLE DEVICES. BRICKS ARE NOT PERMITTED.
5. NO UNDERCUTTING AND BACKFILLING IS PERMITTED UNDER ANY FOOTING DUE TO HIGH ALLOWABLE BEARING PRESSURES USED IN FOOTING DESIGN. LEAN CONCRETE (f'c= 2000psi) OR FOOTING CONCRETE SHALL BE USED TO "BACKFILL" ANY OVEREXCAVATION.
6. CONTRACTOR SHALL SHORE ALL WALLS RECEIVING BACKFILL ON ONLY ONE SIDE OR RECEIVING UNEQUAL LEVELS OF BACKFILL ON OPPOSITE SIDES, UNLESS NOTED OTHERWISE IN THE DETAILS. ANY WALLS FOR WHICH SHORING IS INDICATED AS REQUIRED IN THE PLANS OR DETAILS SHALL BE SHORED REGARDLESS OF BACKFILL CONDITIONS.
7. W1 TYP U.N.O., WF1 TYP U.N.O., SEE 8/S-1.02 FOR SHEARWALLS W/ OPENINGS.
8. ALL STUDS TO ALIGN W/ TRUSSES

9. DIMENSIONS SHOWN ON PLAN ARE TO CENTERLINE OF COLUMN OR CENTERLINE OF WALL U.N.O.
10. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND DRAWINGS OF OTHER DISCIPLINES FOR LOCATIONS AND DIMENSIONS OF OPENINGS, DEPRESSIONS, AND NON-STRUCTURAL MASONRY.
11. SEE S1.00 SERIES SHEETS FOR "GENERAL NOTES" AND FOR "TYPICAL DETAILS". TYPICAL DETAILS ARE GENERALLY NOT CUT ON PLANS BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS. WHERE TYPICAL DETAILS ARE CUT IN PLAN, THE INTENT IS TO ILLUSTRATE THE TYPE OF CONDITION AT WHICH THAT DETAIL IS INTENDED TO APPLY RATHER THAN EVERY OCCURRENCE OF THAT DETAIL.
12. SEE S1.00 SERIES SHEETS FOR FOOTING SCHEDULE.
13. SEE S1.00 SERIES SHEETS FOR COLUMN SCHEDULE AND BASE PLATE DETAILS.
14. ALL STRUCTURAL WALLS SHOWN ARE TYPE "W1" U.N.O.
15. FOOTINGS ARE NOTED ON PLAN WITH THE FOLLOWING DESIGNATIONS:

Fxx = FOOTING MARK PER SCHEDULE ON S1.00



ROOF FRAMING PLAN

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

ROOF FRAMING PLAN NOTES:

1. SEE PLAN FOR TRUSS BEARING ELEVATION, U.N.O. ON PLAN AS (+X-X") OR (-X-X") AS REFERENCED FROM NOMINAL DATUM.
2. WOOD TRUSS FABRICATOR SHALL REFERENCE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONAL INFORMATION.
3. TYPICAL ROOF DECK OVER WOOD SUPPORT SHALL BE 3/4" TONGUE AND GROOVED EXPOSURE 1, OSB OR PLYWOOD SHEATHING. ATTACH PER GENERAL NOTES ON S1.00 SERIES SHEETS, WOOD FRAMING NOTES U.N.O. ON DRAWINGS.
4. WHERE AVAILABLE, DIMENSIONS AND LOCATIONS FOR OPENINGS ARE SHOWN ON THE LOWEST LEVEL ON WHICH THE OPENING FIRST OCCURS AND ON SUBSEQUENT LEVELS WHERE DIMENSIONS OR LOCATIONS VARY.
5. SHEATH REMAINING LENGTH OF WALL (BEYOND MIN. SHEAR WALL LENGTH AS PER SCHEDULE) WITH EQUIVALENT NON-SHEAR WALL SHEATHING THICKNESS AND GWB PER ARCH. DWGS. ATTACH NON-SHEAR WALL SHEATHING WITH 10d NAILS @ 16" O.C.
6. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND DRAWINGS OF OTHER DISCIPLINES FOR LOCATIONS AND DIMENSIONS OF OPENINGS, DEPRESSIONS, AND NON-STRUCTURAL MASONRY.
7. SEE S1.00 SERIES SHTS. FOR "GENERAL NOTES" AND FOR "TYPICAL DETAILS". TYPICAL DETAILS ARE GENERALLY NOT CUT ON PLANS BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS. WHERE TYPICAL DETAILS ARE CUT IN PLAN, THE INTENT IS TO ILLUSTRATE THE TYPE OF CONDITION AT WHICH THAT DETAIL IS INTENDED TO APPLY RATHER THAN EVERY OCCURRENCE OF THAT DETAIL.
8. SEE S1.00 SERIES SHTS. FOR SHEAR WALL INFORMATION.
9. SEE S1.00 SERIES SHEETS FOR WOOD JOIST AND ALL BEAM SCHEDULES.
10. SEE S1.00 SERIES SHEETS FOR BEARING WALL SCHEDULES.
11. DIMENSIONS SHOWN ON PLAN ARE TO CENTERLINE OF WALL U.N.O.
12. ALL STRUCTURAL WALLS SHOWN ARE TYPE "W1" U.N.O.
13. SEE 3/S1.03 FOR TYPICAL DECKING LAYOUT DETAILS. USE UNBLOCKED DIAPHRAGM U.N.O.
14. INDICATES WOOD POST LABEL. SEE S1.05 FOR SCHEDULE AND DETAIL.
15. SEE 1/S1.05 FOR WALL OPENINGS

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DWG INFO:
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DESCRIPTION:
BUILDINGS 1 & 6 BASEMENT
FOUNDATION PLAN

SHEET #:
S-2.00

<div><p>SEE FOOTING SCHEDULE FOR FOOTING INFORMATION</p><p>SCALE: 3/4" = 1'-0"</p></div>	<div><p>SEE FOOTING SCHEDULE FOR FOOTING INFORMATION</p><p>SCALE: 3/4" = 1'-0"</p></div>	<div><p>SEE FOOTING SCHEDULE FOR FOOTING INFORMATION</p><p>SCALE: 3/4" = 1'-0"</p></div>				
1	TYP. PERIMETER BRICK WALL	2	TYP. PERIMETER BRICK AT WINDOW	3	TYP. INTERIOR WALL AT SHEAR WALL	

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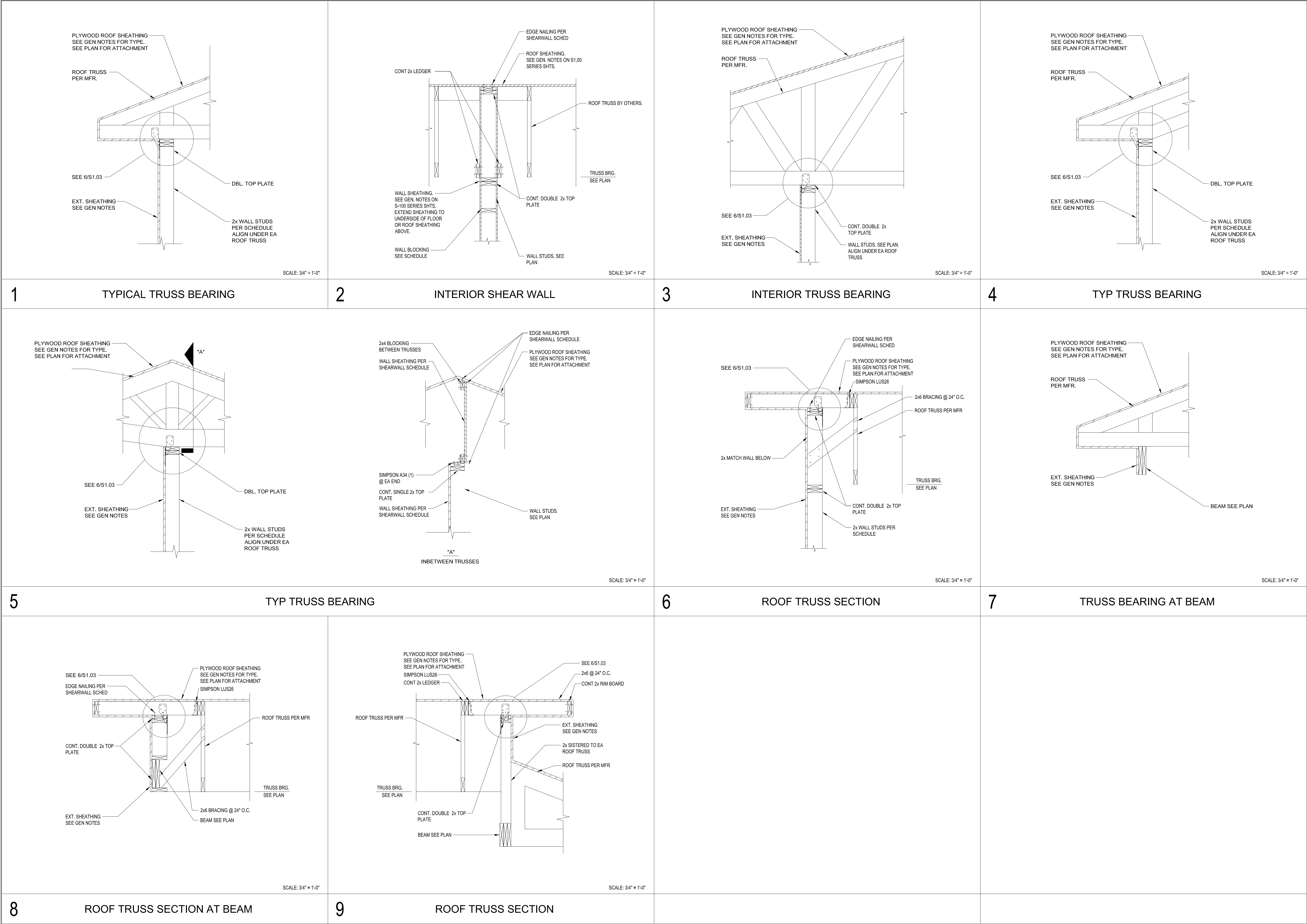
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Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DESCRIPTION :
FOUNDATION
SECTIONS

SHEET #:
S-3.00



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|---------|---|--|-----|---|--|
| GENERAL | THE WORK COVERED BY THESE SPECIFICATIONS CONSISTS OF FURNISHING ALL LABOR, EQUIPMENT, MATERIALS AND SUPPLIES NECESSARY FOR THE COMPLETE AND SATISFACTORY OPERATING ELECTRICAL SYSTEMS AS SHOWN ON THE PLANS. | | 5. | ATTACH BOXES TO STUD WORK USING CADD BAR STRAPS THAT CONNECT TO TWO ADJACENT STUDS TO PREVENT TWISTING OF BOX IN WALL. | |
| | ALL WORK SHALL BE IN ACCORDANCE WITH THE 2020 NATIONAL ELECTRICAL CODE, NFPA, STATE BUILDING CODE, AND ANY OTHER LOCAL REQUIREMENTS THAT MAY APPLY. | | | ALL OUTLET BOXES (INCLUDING TELEPHONE, CABLE TV, AND COMPUTER) SHALL HAVE COVER PLATES. BLANK IF NOT USED. | |
| A. | CONDUCTOR SHALL BE OBTAINED AND PAY FOR ALL ELECTRICAL PERDS, SWITCHBOARDS, FIRE ALARMS, TELECOMMUNICATIONS, ETC. FOR APPROVAL AS APPLICABLE FOR THE PROJECT. ONE COMPLETE SET OF APPROVED SUBMITTALS SHALL BE MAINTAINED AT THE JOB SITE. | | 4. | F. ALL EXTERIOR BOXES SHALL BE WATER-TIGHT. | |
| B. | ALL COST ASSOCIATED WITH SUBSTITUTED EQUIPMENT TO COMPLY WITH THE BASIS OF DESIGN, INCLUDING PROVIDING MAINTENANCE ACCESS, CLEARANCE, WIRING, REPLACEMENT OF OTHER SYSTEM COMPONENTS, BUILDING ALTERATIONS, METHODS, ETC., SHALL BE INCLUDED IN THE ORIGINAL BIDD. NO ADDITIONAL COSTS ASSOCIATED WITH SUBSTITUTED EQUIPMENT WILL BE APPROVED AFTER BIDS HAVE BEEN ACCEPTED AND ALL COSTS WILL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. TESTS SHALL BE GIVEN TO THE OWNER WHERE SUCH EQUIPMENT AND METHODS RESULT IN LESS EXPENSE TO THE CONTRACTOR. | | | CONDUCTORS: | |
| C. | ON-SITE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE JOB PROGRAMS. | | 5. | A. CONDUCTORS SHALL BE MANUFACTURED BY SOUTHWIRE (SIMPULL), ENCORE (SUPERSLICK), OR UNITED COPPER (SLK, CERRO (SLP), OR APPROVED EQUIVAL, "PRE-LUBRICATED" BY THE MANUFACTURER. | |
| D. | COMPLETELY ADEQUATE HOUSING SHALL BE PROVIDED FOR ALL MATERIALS STORED ON JOB SITE. ONLY CONDUIT MAY BE STORED OUTSIDE, BUT NOT IN CONTACT WITH THE GROUND. | | | B. ALL CONDUCTORS SHALL BE CONDUCTOR RATED 75° C WET/DRY EXCEPT WHERE OTHERWISE NOTED OR REQUIRED BY THE FULL OR OTHER CODES. | |
| E. | THE CONDUIT AND NEUTRAL SYSTEM SHALL BE GROUNDED AT THE MAIN SERVICE EQUIPMENT. GROUNDING ELECTRODE SYSTEM SHALL BE INSTALLED PER NEC 250. | | 6. | C. ALL CONDUCTORS SHALL BE SINGLE INSULATED CONDUCTOR, THHN/THWN-2, SIZES #10 AWG AND SMALLER SHALL BE SOLID, SIZES #8 AWG AND LARGER SHALL BE STRANDED. | |
| F. | PROVIDE AN INTERSYSTEM BONDING TERMINATION DEVICE AT THE MAIN ELECTRICAL SERVICE PER NEC 250.94. | | | D. BRANCH CIRCUITS SHALL NOT BE SMALLER THAN #12 AWG. CONTROL WIRING MAY BE #14 AWG. | |
| G. | WIRING SHALL BE TESTED FOR CONTINUITY AND GROUNDS BEFORE BEING ENERGIZED. FAULTY WIRING SHALL BE REPLACED AT NO ADDITIONAL EXPENSE TO THE OWNER. | | 7. | E. CONDUCTORS SHALL BE GREEN OR BROWN OR RED/BLUE FOR 120/240 VOLT SYSTEMS, AND BROWN/ORANGE/YELLOW FOR 277/480 VOLT SYSTEMS FOR A AND B PHASES, RESPECTIVELY. NEUTRAL SHALL BE WHITE FOR 120/240 VOLT SYSTEMS AND NATURAL GRAY FOR 277/480 VOLT SYSTEMS. GROUND CONDUCTOR SHALL BE GREEN ON ALL SYSTEMS. ALL CONDUCTOR SIZES SHALL BE ALLOWED INSULATION. THE USE OF COLORED TAPE ON LARGER WIRE SIZES SHALL NOT BE ALLOWED. | |
| H. | THE ELECTRICAL CONTRACTOR SHALL CONNECT ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS (UNLESS OTHERWISE NOTED), EXCEPT FOR CONTROL WIRING FOR EQUIPMENT NOT PROVIDED BY THE ELECTRICAL CONTRACTOR. WIRING FOR SUCH EQUIPMENT SHALL BE PROVIDED BY THE RESPECTIVE DISCIPLINE. | | | F. INSULATION SHALL BE DUAL RATED TYPE THHN/THWN-2 FOR FEEDERS AND BRANCH CIRCUITS. FIXTURE TAPS SHALL BE #12 THHN/THWN-2 IN FLX WITH GREEN #12 AWG GROUNDING CONDUCTOR. | |
| I. | ALL ELECTRICAL JUNCTION BOXES, SWITCHGEAR, CABLE, VOICE/DATA OUTLETS, LOW VOLTAGE CABINETS, EMERGENCY RECEPTACLES, ETC. SHALL BE LABELED ACCORDING TO PANEL/RACK AND CIRCUIT NUMBER. | | 8. | G. ALL CONDUCTORS SHALL BE IN CONDUIT. | |
| J. | UPON COMPLETION OF WORK, CONTRACTOR SHALL PRESENT ENGINEER WITH CERTIFICATE OF APPROVAL FROM LOCAL INSPECTOR AND/OR AUTHORITY HAVING JURISDICTION BEFORE WORK WILL BE APPROVED FOR FINAL PAYMENT. | | | H. WIRING TO LIGHTING FIXTURES SHALL BE AS REQUIRED BY UL LABEL. | |
| K. | CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR. EFFECTIVE DATE THE PROJECT IS ACCEPTED BY THE OWNER. ANY IMPERFECT MATERIALS OR WORKMANSHIP SHALL BE REPLACED WITHOUT ADDED COST TO THE PROJECT. | | 9. | I. MULTI-WIRE BRANCH CIRCUITS SHALL NOT BE ALLOWED, UNLESS EXPLICITLY INDICATED ON THE DRAWINGS. WHERE EXPLICITLY INDICATED ON THE DRAWINGS: | |
| L. | IT SHALL NOT BE THE INTENT OF ISSUED PLANS AND/OR SPECIFICATIONS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE ELECTRICAL CONTRACTOR SHALL INITIATE THE PROCESSING AND INSTALL ALL NECESSARY ITEMS FOR A COMPLETE AND OPERATING SYSTEM. | | | 1) ALL 20A MIC WIRE RECEPTACLE CIRCUITS SHALL UTILIZE #10 AWG NEUTRAL CONDUCTOR. | |
| M. | THE WORD "PROVIDE" MEANS THAT THIS CONTRACTOR SHALL FURNISH, FABRICATE, ERECT, CONNECT, AND COMPLETELY INSTALL SYSTEMS IN PROPER OPERATING CONDITION. ALL LABOR, MATERIALS, OPTIONS, ACCESSORIES AND INCIDENTAL MATERIALS REQUIRED SHALL BE INCLUDED AS PART OF THIS WORK TO COMPLETE THE INSTALLATION. | | 10. | OR | |
| N. | THE WORD "CONNECT" MEANS THAT THIS CONTRACTOR SHALL PROVIDE (SEE DEFINITION ABOVE) ALL DISCONNECTING MEANS, OVERCURRENT PROTECTION AND WIRING REQUIRED TO PLACE THE EQUIPMENT AND SYSTEMS IN PROPER OPERATING CONDITION AND TO COMPLY WITH CODE REQUIREMENTS. | | | 2) ONLY WHERE PERMITTED UNDER "RACEWAYS", MC CABLE ASSEMBLIES CAN BE AFC "SUPER NEUTRAL" OR EQUAL, UNLESS OTHERWISE INDICATED ON THE DRAWINGS. WHERE MULTI-WIRE BRANCH CIRCUITS ARE EXPLICITLY INDICATED ON THE DRAWINGS, THEY SHALL BE INSTALLED PER NEC 210.4. MEANS SHALL BE PROVIDED TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES IN ADDITION TO OTHER REQUIREMENTS PER NEC 210.4. | |
| O. | CONTRACTOR SHALL COORDINATE THE ROUGH-IN OF ALL OUTLET LOCATIONS WITH ARCHITECTURAL FLOOR PLANS, ELEVATIONS, AND MILLWORK SHOP DRAWINGS REFER TO ROUGH-IN. | | 11. | J. JOINTS IN #10 AWG AND SMALLER SHALL BE MADE UP WITH CRIMPED CONNECTORS WITH INSULATING CAPS (NO TAPES OR WIRENUTS (MAXIMUM OF 3 CONNECTORS UNDER ANY CONDUCTOR OR WIRENUT). LARGER WIRE SHALL USE SPIT BOLTS OR BOLTED CLAMPS. | |
| P. | ELECTRICAL CONTRACTOR SHALL NOT SCALE PLANS. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT, UNLESS OTHERWISE NOTED. | | | K. ALL WIRING LUGS THROUGHOUT THE PROJECT, INCLUDING, BUT NOT LIMITED TO, BREAKERS, PANELBOARD/SWITCHBOARD LUGS, SAFETY SWITCH LUGS, MOTOR STARTER LUGS, TRANSFORMERS LUGS, WIRING DEVICE TERMINALS, AND ALL EQUIPMENT LUGS/TERMINALS SHALL BE RATED FOR USE WITH 75 DEGREE INSULATED CONDUCTORS AT THEIR 75 DEGREE AMPACITY AND SHALL BE SIZED AND SELECTED TO MATCH THE CONDUCTOR SIZE AND MATERIAL. | |
| Q. | CONTRACTOR SHALL TEST ALL "LIFE SAFETY" EQUIPMENT AND SYSTEMS FOR PROPER FUNCTION AND OPERATION. UPON SUCCESSFUL COMPLETION OF TESTS, CONFIRMATION SHALL BE SENT TO THE ENGINEER OF RECORD IN THE FORM OF A LETTER STATING THE TESTS PERFORMED, THE RESULTS, AND THE DATE TESTS WERE SUCCESSFULLY COMPLETE. "LIFE SAFETY" EQUIPMENT AND SYSTEMS AS CONSIST OF THE AS SPECIFIED IN THE PLANS AND/OR SPECIFICATIONS TO FURNISH AND INSTALL ALL NECESSARY ITEMS FOR A COMPLETE AND OPERATING SYSTEM. | | 12. | L. WIRE WITHIN PANELBOARDS SHALL BE NEATLY TRAINED, SQUARED, BUNCHED, AND TAGGED. | |
| R. | IF DURING THE COURSE OF WORK, THE CONTRACTOR DISCOVERS A PROBLEM WITH THE PERFORMANCE OF THE INSTALLATION RELATIVE TO THE PLANS AND SPECIFICATIONS, THE NEC, STATE OR CODES OR REQUIREMENTS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROBLEM TO THE ATTENTION OF THE ARCHITECT AND/OR ENGINEER FOR RESOLUTION PRIOR TO THE EXECUTION OF THE WORK. | | | N. ALL SYSTEM FUTURE CONNECTIONS SHALL COMPLY WITH NEC 605. | |
| S. | WHERE THERE ARE CONFLICTS BETWEEN THE PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL BRING THE ISSUE TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO THE EXECUTION OF THE WORK OR ORDERING ANY MATERIAL. NO ADDITIONAL COSTS SHALL BE WARRANTED WITHOUT A CHANGE TO THE PROJECT SCOPE. | | 13. | O. ALL WIRING LUGS THROUGHOUT THE PROJECT, INCLUDING, BUT NOT LIMITED TO, BREAKERS, PANELBOARD/SWITCHBOARD LUGS, SAFETY SWITCH LUGS, MOTOR STARTER LUGS, TRANSFORMERS LUGS, WIRING DEVICE TERMINALS, AND ALL EQUIPMENT LUGS/TERMINALS SHALL BE RATED FOR USE WITH 75 DEGREE INSULATED CONDUCTORS AT THEIR 75 DEGREE AMPACITY AND SHALL BE SIZED AND SELECTED TO MATCH THE CONDUCTOR SIZE AND MATERIAL. | |
| T. | THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PROVIDING TEMPORARY POWER AND LIGHTING FOR ALL TRADES. NO TIME SHALL EXISTING BUILDING EQUIPMENT BE UTILIZED WITHOUT WRITTEN PERMISSION FROM THE OWNER. | | | P. CIRCUIT JOINTS SHALL NOT BE MADE ON DEVICE TERMINALS. | |
| U. | COORDINATE LOCATION AND REQUIREMENTS FOR ELECTRICAL SERVICE WITH THE POWER COMPANY. WHERE MORE THAN ONE SERVICE IS SUPPLIED TO A BUILDING, PROVIDE IDENTIFICATION AT EACH SERVICE PER NEC 320-2(B). | | 14. | M. WIRE WITHIN PANELBOARDS SHALL BE NEATLY TRAINED, SQUARED, BUNCHED, AND TAGGED. | |
| V. | COORDINATE LOCATION AND REQUIREMENTS FOR TELEPHONE SERVICE WITH THE TELEPHONE COMPANY. | | | N. | |

- BOXES, ETC. HAVEN BEEN REMOVED DURING THE DEMOLITION PHASE, EITHER FOR TEMPORARY WORK OR PERMANENTLY.

8. **TELECOMMUNICATIONS:**

 - A. FURNISH A COMPLETE TELEPHONE CONDUIT SYSTEM AS INDICATED ON THE DRAWINGS.
 - B. TELECOMMUNICATION OUTLETS SHALL CONSIST OF A 4" SQUARE DEEP BOX WITH SINGLE GANG SPLIT RING, PROTECT BLANK PLATE WITH KNOCKOUTS FOR OUTLETS, AS PERMANENT COVERS WILL BE PROVIDED BY A SEPARATE INSTALLER.
 - C. PROVIDE MINIMUM 1" RACEWAY, UNLESS OTHERWISE NOTED, FROM EACH BOX TO ABOVE NEAREST ACCESSIBLE CEILING SPACE FOR J-HOOK SYSTEM OR TO CABLE TRAY AS APPLICABLE. PROVIDE MINIMUM 21/2" TEST NYLON PLUG CORD AND NYLON BUSHINGS IN ALL EMPTY RACEWAYS.
 - D. PROVIDE RACEWAYS FOR ALL EXTERIOR AND/OR EXPOSED LOCATIONS.
 - E. PROVIDE GROUNDING FOR ALL TELEPHONE/DATA SYSTEMS AND EQUIPMENT PER REQUIREMENTS AND SPECIFICATIONS FURNISHED BY THE OWNERS DESIGNATED VENDOR.
 - F. ALL LOW-VOLTAGE WIRING SHALL BE PLENUM-RATED.
 - G. CONTRACTOR SHALL FURNISH AND INSTALL A #6 AWG GREEN INSULATED COPPER WIRE IN CONDUIT FROM THE MAIN ELECTRICAL GROUNDING BAR TO TELECOMMUNICATIONS GROUNDING BUS BAR.
 - H. PROVIDE MOUNTING BACKBOARDS FOR COMMUNICATIONS EQUIPMENT. BACKBOARDS SHALL BE OF 3/4" TYPE AC, EXTERIOR PLYWOOD, PAINTED BOTH SIDES AND ALL EDGES WITH 2 COATS OF GRAY FLAME RETARDANT PAINT.
 - I. VERIFY SITE LOCATION OF TELEPHONE SERVICES WITH APPROPRIATE VENDOR, PRIOR TO STARTING. TELEPHONE SERVICE CONTRACT SHALL BE PROVIDED TO THE PROPERTY LINE OR POINT AS DIRECTED BY THE LOCAL UTILITY.

9. **LIGHTING FIXTURES:**

 - A. TYPES AND MANUFACTURERS ARE SCHEDULED ON THE PLANS. EQUIVALENT FIXTURES BY OTHERS MAY BE SUBMITTED ONLY AS INDICATED ON THE PLANS AND ARE SUBJECT TO THE APPROVAL OF THE OWNER AND ENGINEER.
 - B. ALL FIXTURES SHALL BE U.L. LISTED AND LABELED.
 - C. LAMPS SHALL BE GENERAL ELECTRIC, PHILIPS, OR OSRAM/SYLVANIA EXCEPT WHERE OTHERWISE NOTED IN THE LIGHTING FIXTURE SCHEDULE OR OTHERWISE NOTED. ALL FIXTURES SHALL BE EQUIPPED WITH LAMPS.
 - D. BALLASTS SHALL BE AS INDICATED IN THE LIGHTING FIXTURE SCHEDULE OR AS OTHERWISE NOTED.
 - E. ALL FIXTURES SHALL BE PROVIDED FOR PROPER VOLTAGE BASED ON THE CIRCUIT ASSIGNMENT INDICATED ON THE PLANS.
 - F. CATALOG NUMBERS ARE FOR GENERAL IDENTIFICATION OF FIXTURES ONLY. ALL RELATED PARTS, SUCH AS PLASTER BOXES, COUPLERS, SHIELDS, MOUNTING STAYS, CANOPES, CONNECTORS, STRAPS, NIPPLES, HARDWARE, ACCESSORIES, ETC., TO FIT THEM PROPERLY TO THE CONSTRUCTION, SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. CONTRACTOR SHALL PROVIDE SUITABLE TRIM AND APPURTENANCES TO MOUNT FIXTURES IN TYPE OF CEILING OR WALL AS SPECIFIED IN ARCHITECTURAL FINISH SCHEDULES REGARDLESS OF CATALOG NUMBER GIVEN.
 - G. ALL FIXTURES SHALL BE GROUND PER THE NEC.
 - H. FIXTURES CONNECTED WITH FLEX TO THE RIGID RACEWAY PORTION OF THE WIRING SYSTEM SHALL CARRY A GROUNDING JUMPER WITHIN THE FLEX. THE JUMPER SHALL BE FASTENED TO BOTH THE FIXTURE AND THE RACEWAY SYSTEM WITH A STEEL CITY "G" CLIP OR APPROVED EQUIVALENT. PHASE AND GROUND CONDUCTORS RUN IN FLEX SHALL BE #12 AWG MINIMUM. MAXIMUM FLEX LENGTH SHALL BE 6'-0".
 - I. SURFACE MOUNTED FLUORESCENT FIXTURES INSTALLED ON COMBUSTIBLE MATERIAL SHALL BE MOUNTED AT LEAST 1/4" FROM THE SURFACE OF THE MATERIAL, EXCEPT FOR FIXTURES WHICH ARE PLAINLY MARKED AS U.L. APPROVED FOR MOUNTING DIRECTLY TO SUCH SURFACES.
 - J. MOUNT ALL FIXTURES PLUMB AND SQUARE WITH ROWS ALIGNED.
 - K. FLUORESCENT LUMINAIRE THAT UTILIZE DROVE-ENDED LAMPS AND CONTAIN BALLAST(S) THAT CAN BE SERVICED IN PLACE SHALL HAVE A DISCONNECT MEANS WITH INTEGRAL OR EXTERNAL TO EACH LUMINAIRE PER NEC 410.130(G).
 - L. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF FIXTURES.
 - M. CONTRACTOR SHALL COORDINATE FIXTURE TYPE AND TRIM WITH CEILING CONSTRUCTION AND MUST ACCORDINGLY NOTIFY ALL EXPERTS.
 - N. ALL LIGHTING FIXTURES SHALL BE THERMALLY PROTECTED PER THE NEC.
 - O. FIXTURES IN CONTACT WITH INSULATION SHALL BE RATED.
 - P. FOR RECESSED LIGHTING FIXTURES IN FIRE RATED CEILINGS, PROVIDE A MANUFACTURER APPROVED AND LISTED FIRE RATED COVER OR FASTENER OVER THE FIXTURE TO MAINTAIN THE INTEGRITY OF THE CEILING FIRE RATING. ANY LIGHTING FIXTURES INSTALLED UNDER THE FIRE RATED CAP SHALL BE SUITABLE FOR THE INSTALLATION.

10. **LIGHTING CONTROLS:**

 - A. FURNISH AND INSTALL WHERE SHOWN AN ELECTRONIC TIME CONTROLLER AS MANUFACTURED BY TORK (NSI), PARAGON, INTERMATIC, OR APPROVED EQUIV. CONTACTS SHALL BE SPST OR AS INDICATED, RATED 120V/277V AT 20A BALLAST LOAD, AND MINIMUM 30,000 SWITCHING CYCLES. PROVIDE WITH THE NUMBER OF CHANNELS AS INDICATED (MINIMUM 2 CHANNELS) OR AS REQUIRED TO MEET THE INTENT OF THE DRAWINGS. EACH CHANNEL SHALL BE INDIVIDUALLY PROGRAMMABLE WITH 128 ON-OFF OPERATIONS PER WEEK PLUS FOUR SEASONAL SCHEDULES TO MODIFY THE BASIC PROGRAM AND A HOLIDAY SCHEDULE THAT OVERRIDES THE WEEKLY PROGRAM. THE TIME CONTROLLER SHALL BE PROVIDED WITH A PHOTOELECTRIC SENSOR, ASTRONOMIC DIAL, AND A BATTERY BACKED-UP, NON-VOLATILE MEMORY FOR SCHEDULES AND TIME CLOCK.
 - B. LIGHTING CONTACTORS SHALL SWITCH LOADS AT THE VOLTAGE AND AMPERE RATING INDICATED AND SHALL HAVE THE NUMBER OF POLES INDICATED. PROVIDE THE FIXTURES TO BE CONTROLLED. THE CONTACTOR AND CONTACTS SHALL BE CONTINUOUSLY RATED FOR THE LOAD RESIZED, INCLUDING TUNGSTEN FILAMENT, INDUCTIVE, AND HIGH-INRUSH BALLAST LOADS.
 - C. ALL LIGHTING CONTACTORS SHALL BE ELECTRICALLY HELD AND BE INSTALLED IN A NEMA 1 ENCLOSURE, UNLESS OTHERWISE NOTED.

11. **EQUIPMENT IDENTIFICATION:**

 - A. PROVIDE ENGRAVED PHENOLIC NAMEPLATES FOR ALL ELECTRICAL EQUIPMENT SUPPLIED FOR THE PROJECT, INCLUDING BUT NOT LIMITED TO: WIRING TUBES, SAFETY SWITCHES, DISCONNECTS, TRANSFORMERS, PANELBOARDS, SWITCHBOARDS, ETC. NAMEPLATE SHALL INDICATE THE DEVICE NAME, SYSTEM VOLTAGE (VOLTAGE/PHASE/WIRE), AND UPSTREAM DEVICE AND CIRCUIT. PROVIDE NAMEPLATES FOR CIRCUIT BREAKERS IN SWITCHGEARS, SWITCHBOARDS AND DISTRIBUTION PANELS.
 - B. NAMEPLATE COLORS SHALL BE AS FOLLOWS:

120/208V EQUIPMENT	BLUE SURFACE WITH WHITE CORE
FIRE ALARM SYSTEM	BRIGHT RED SURFACE WITH WHITE CORE
SECURITY SYSTEMS	BURGUNDY SURFACE WITH WHITE CORE
TELEPHONE SYSTEMS	ORANGE SURFACE WITH WHITE CORE
DATA SYSTEMS	BROWN SURFACE WITH WHITE CORE
PAGING SYSTEMS	PURPLE SURFACE WITH WHITE CORE
 - C. NAMEPLATES UP TO 8 SQUARE INCHES SHALL NOT BE LESS THAN 1/16" THICK. NAMEPLATES LARGER THAN 8 SQUARE INCHES SHALL NOT BE LESS THAN 1/8" THICK.
 - D. LETTERING HEIGHT SHALL BE 1/32" MINIMUM.
 - E. NAMEPLATES SHALL BE ATTACHED TO THE SURFACE OF THE DRAWING USING SELF-TAPPING SCREWS, EXCEPT RITS SHALL BE USED WHERE END OF SCREW IS NOT PROTECTED, QUALITY AS FOLLOWS:

UP TO 5 SQUARE INCHES:	2 SCREWS.
5 TO 12 SQUARE INCHES:	4 SCREWS.
ABOVE 12 SQUARE INCHES:	6 SCREWS.

12. **DISCONNECTS:**

 - A. DISCONNECT SWITCHES SHALL BE HEAVY-DUTY TYPE IN NEMA 1 ENCLOSURES, UNLESS OTHERWISE NOTED, FUSED OR NON-FUSED AS INDICATED. SWITCHES SHALL HAVE REJECTION-TYPE FUSE CLIPS. SWITCHES SHALL BE BY EATON, SQUARE-D, GENERAL ELECTRIC, OR APPROVED EQUIV. WHERE FED FROM A LOAD CENTER, GENERAL-DUTY SWITCHES SHALL BE PERMITTED.
 - B. FUSES LESS THAN 60A SHALL BE CLASS RK5, DUAL-ELEMENT, TIME-DELAY WITH INDICATION.
 - C. FUSES GREATER THAN 60A SHALL BE CLASS J, DUAL-ELEMENT, TIME-DELAY WITH INDICATION.
 - D. A SET OF 3 SPARE FUSES OF EACH SIZE AND TYPE SHALL BE FURNISHED TO THE OWNER.

13. **PANELBOARDS:**

 - A. PANELBOARDS SHALL BE PROVIDED AS MANUFACTURED BY EATON, SQUARE-D, GENERAL ELECTRIC, OR APPROVED EQUIV. ALL NEW EQUIPMENT FOR THE PROJECT SHALL BE BY THE SAME MANUFACTURER. LOAD CENTER TYPE PANELBOARDS SHALL BE USED WHERE THE PANELBOARD SERVES A DWELLING UNIT.
 - B. ALL BUSSING, INCLUDING NEUTRAL AND GROUND, SHALL BE COPPER.
 - C. ALL BREAKERS SHALL BE AUTOMATIC THERMAL-MAGNETIC OR FUSED CLASS BOLT-ON TYPE, CALIBRATED FOR 40 DEGREE C, OR AMBIENT COMPENSATION, UNLESS OTHERWISE NOTED. PANELS SHALL BE FULLY RATED (AIC). NO SERIES ARC RATINGS ARE ALLOWED.
 - E. PANELS SHALL HAVE FULL SIZE EQUIPMENT GROUNDING BARS AND NEUTRAL BARS, EXCEPT WHERE INDICATED TO BE 200%.
 - F. ALL PANELBOARD AND BREAKER LUGS SHALL BE SIZED AND RATED PER THE CONDUCTOR SIZE AND MATERIAL.
 - G. LIGHTING AND APPLIANCE PANELS (100A-600A) SHALL HAVE FRONT ACCESSIBLE HINGED DOOR-IN-DOOR COVERS WITH DEAD FRONT, SHALL BE 20" WIDE MINIMUM WITH MINIMUM 4" WIDE WIRING GUTTERS.
 - H. DISTRIBUTION PANELS (600A-1200A) SHALL HAVE FRONT ACCESSIBLE DEAD FRONT COVERS. PROVIDE HANDLE LOCK-ON DEVICES FOR ALL CIRCUIT BREAKERS CONNECTED TO EMERGENCY, EXIT, NIGHT LIGHTING, FIRE ALARM, TELEPHONE BOARDS, AND SECURITY SYSTEMS.
 - I. BREAKERS USED FOR SWITCHING SHALL BE BY EATON, SQUARE-D, OR APPROVED EQUIV.
 - J. BREAKERS USED FOR HEATING, AIR-CONDITIONING AND/OR REFRIGERATION SHALL BE HACR RATED.
 - K. GROUND-FAULT CIRCUIT-INTERRUPTER (GFCI) PROTECTION FOR PERSONNEL SHALL BE PROVIDED FOR ALL LOCATIONS PER NEC 210.8, INSTALLED IN A READILY ACCESSIBLE LOCATION, SUCH AS A WHERE A DEVICE LOCATION IS NOT ACCESSIBLE, THE GFCI PROTECTION SHALL BE PROVIDED WITH THE BREAKER SERVING THE DEVICE.
 - M. ARC-FAULT CIRCUIT-INTERRUPTER (AFCI) PROTECTION SHALL BE PROVIDED FOR ALL LOCATIONS PER NEC 210.12, INSTALLED IN A READILY ACCESSIBLE LOCATION. THESE INCLUDE ALL 120V, 15A AND 20A BRANCH CIRCUITS IN DWELLING UNITS, DORMITORY/STUDENT HOUSING UNITS AND HOTEL/MOTEL GUEST ROOMS/SUITES AS DEFINED BY THE NEC.

14. **CIRCUIT BREAKERS:**

 - A. ALL CIRCUIT BREAKERS SHALL BE 1200A OR HIGHER, OR CAPABLE OF BEING RATED 1200A OR HIGHER (IE ADJUSTABLE LONG-TIME PICKUP OR REPLACEABLE TRIP/RATING PLUG). SHALL BE PROVIDED WITH AN ENERGY-REDUCING MAINTENANCE SWITCH WITH LOCAL STATUS INDICATOR PER NEC 240.87(B).

15. **FIRE ALARM SYSTEM:**

 - N. SYSTEM SHALL BE A CENTRALIZED, ANALOG, ADDRESSABLE, FULLY ELECTRONICALLY SUPERVISED (INCLUDING AUXILIARY SYSTEMS INTERCONNECT WIRING) SYSTEM LISTED BY UL IN COMPLIANCE WITH ALL APPLICABLE NFPA 72 AND OTHER STANDARDS AS WELL AS THE AMERICAN'S WITH DISABILITIES ACT (ADA). ALL FINAL CONNECTIONS, TESTING AND ADJUSTMENTS SHALL BE PERFORMED BY OR UNDER DIRECT SUPERVISION OF AN AUTHORIZED FACTORY REPRESENTATIVE. SYSTEM SHALL BE SIMPLEX, NOTIFIER, SIEMENS, OR APPROVED EQUAL AS ACCEPTED BY THE ENGINEER. SYSTEM SHALL HAVE A 24HR MINIMUM BATTERY BACKUP.
 - O. INITIATING DEVICE ACTIVATION SHALL CAUSE OPERATION OF THE PROPER ALARM CIRCUIT IN THE CONTROL PANEL, AND OPERATE ALL AUDIBLE AND VISUAL INDICATING ALARMS. ALL AIR HANDLING UNITS SHALL BE STOPPED UPON ANY ALARM INPUT. EACH AIR HANDLER UNIT SHALL BE PROVIDED WITH A SYSTEM CONTROLLED RELAY TO EFFECT SHUTDOWN. ALL ALARM DEVICES AND LAMPS SHALL CONTINUE TO OPERATE UNTIL THE INITIATING DEVICE IS RESET. SUBSEQUENT ALARMS SHALL RESOUND THE SYSTEM. AN AUDIBLE AND VISUAL SIGNAL SHALL INDICATE SYSTEM TROUBLE. THE CONTROL PANEL SHALL PROVIDE FOR ACTIVATING A UL LISTED CENTRAL STATION SIGNAL FOR NOTIFYING THE FIRE DEPARTMENT.
 - P. MANUAL STATIONS SHALL BE NON-CODED, WITH DUAL-ACTION PULL AND KEY TYPE RESET, SEMI-FLUSH MOUNTED. COMBINATION LIGHT AND HORN SIGNALS SHALL BE FLUSH MOUNTED. WIRING SHALL BE AS REQUIRED TO MEET THE DATE OF ACCEPTANCE BY THE PROFESSIONAL ENGINEER. ALL J-BOXES USED FOR THE FIRE ALARM SYSTEM SHALL BE PAINTED RED.
 - Q. SPRINKLER SYSTEM TAMPER SWITCHES SHALL BE CONNECTED INTO A COMMON ZONE WHICH SHALL DISTINGUISH BETWEEN A CONDUIT FAULT AND A CLOSED VALVE. A CLOSED VALVE SHALL BE INDICATED AS AN ALARM CONDITION, BUT WILL NOT ACTIVATE THE AUDIO-VISUAL DEVICES AND SHALL CAUSE A SUPERVISORY SIGNAL TO BE TRANSMITTED TO THE CENTRAL STATION.
 - R. CONDUCTORS SHALL BE PLENUM-RATED AND INSTALLED IN CONDUIT AND INSTALLED IN COMPLIANCE WITH NFPA 70, ARTICLE 760. IN ADDITION TO WIRING METHODS 300.4.
 - S. ALL FIRE ALARM WIRINGS SHALL BE CLASS B.
 - T. PROVIDE ALL REQUIRED MEASURES, POWER EXTENDERS, PROGRAMMING, ETC. FOR A COMPLETE AND OPERATIONAL SYSTEM.
 - U. SUBMIT FIRE ALARM SHOP DRAWINGS CONSISTING OF PRODUCT DATA, TO THE ENGINEER AND FOR APPROVAL.
 - V. SUBMIT NFPA 72 CERTIFICATION REPORT AND SUBMIT TO ENGINEER AND AUTHORITY HAVING JURISDICTION.
 - W. WARRANTY - ALL WORK PERFORMED AND ALL MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE FREE FROM DEFECTS AND SHALL REMAIN SO FOR A PERIOD OF AT LEAST TWO YEARS FROM THE DATE OF ACCEPTANCE BY THE PROFESSIONAL ENGINEER. AND/OR OWNER. THE FULL COST OF MAINTENANCE, LABOR, AND MATERIALS REQUIRED TO CORRECT ANY DEFECT DURING THIS TWO YEAR PERIOD SHALL BE IMMEDIATELY CORRECTED AT NO ADDITIONAL COST TO THE OWNER. ANY DEFECTS



- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE

CLIENT

The Orchards at Naples Road, LLC
341 N Main Street
Hendersonville, NC 28792
Luis Graef: President



PROJECT

The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

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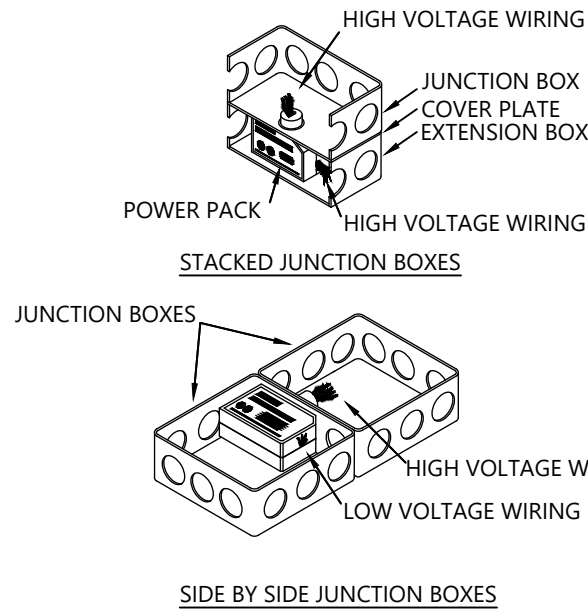
DWG INFO:
 ISSUE DATE: 4/11/25
 PROJECT #: 22105
 DRAWN BY: MFL
 CHECKED BY: JK

DWG DESCRIPTION :

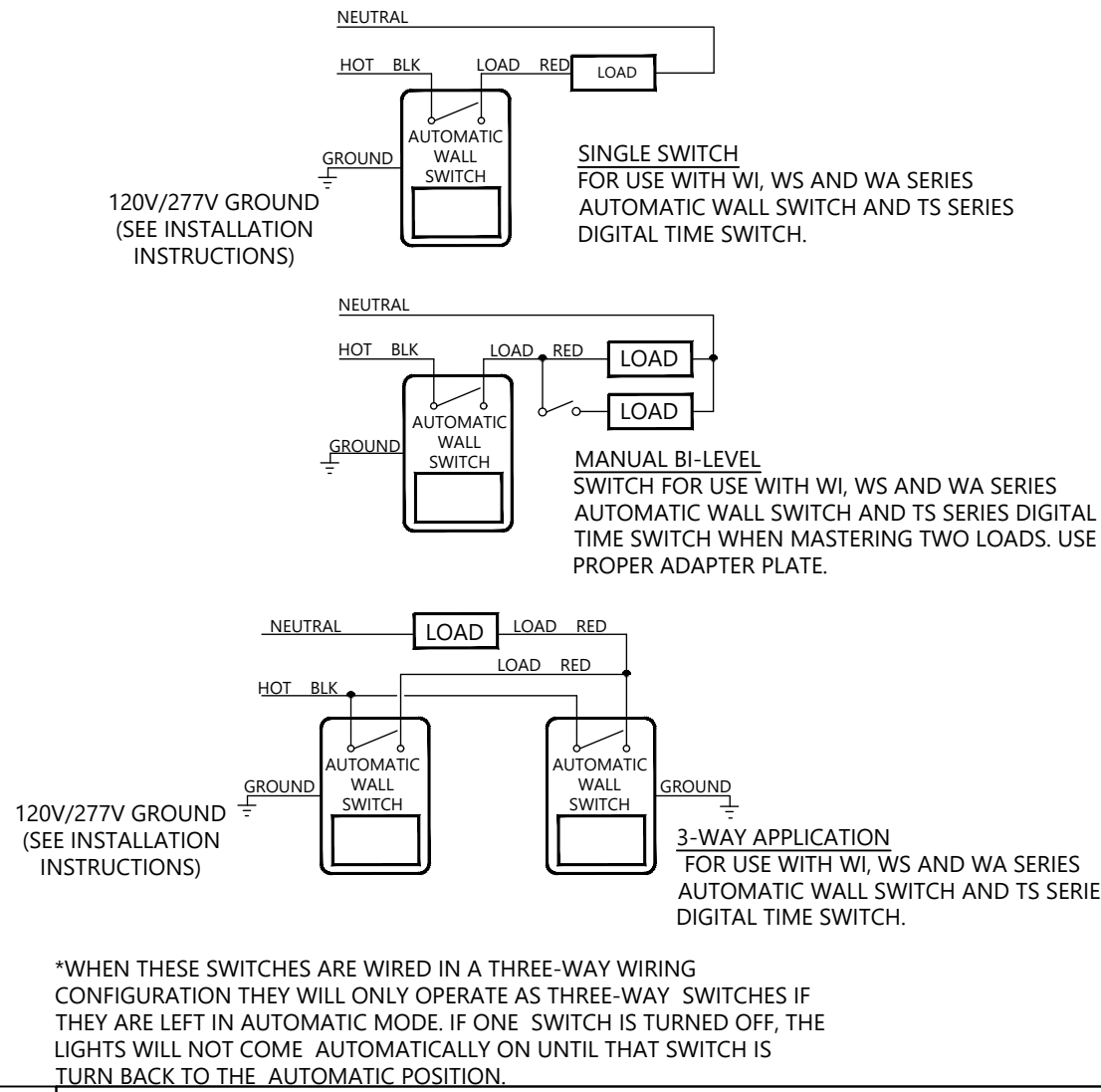
ELECTRICAL SPECIFICATIONS

SHEET #

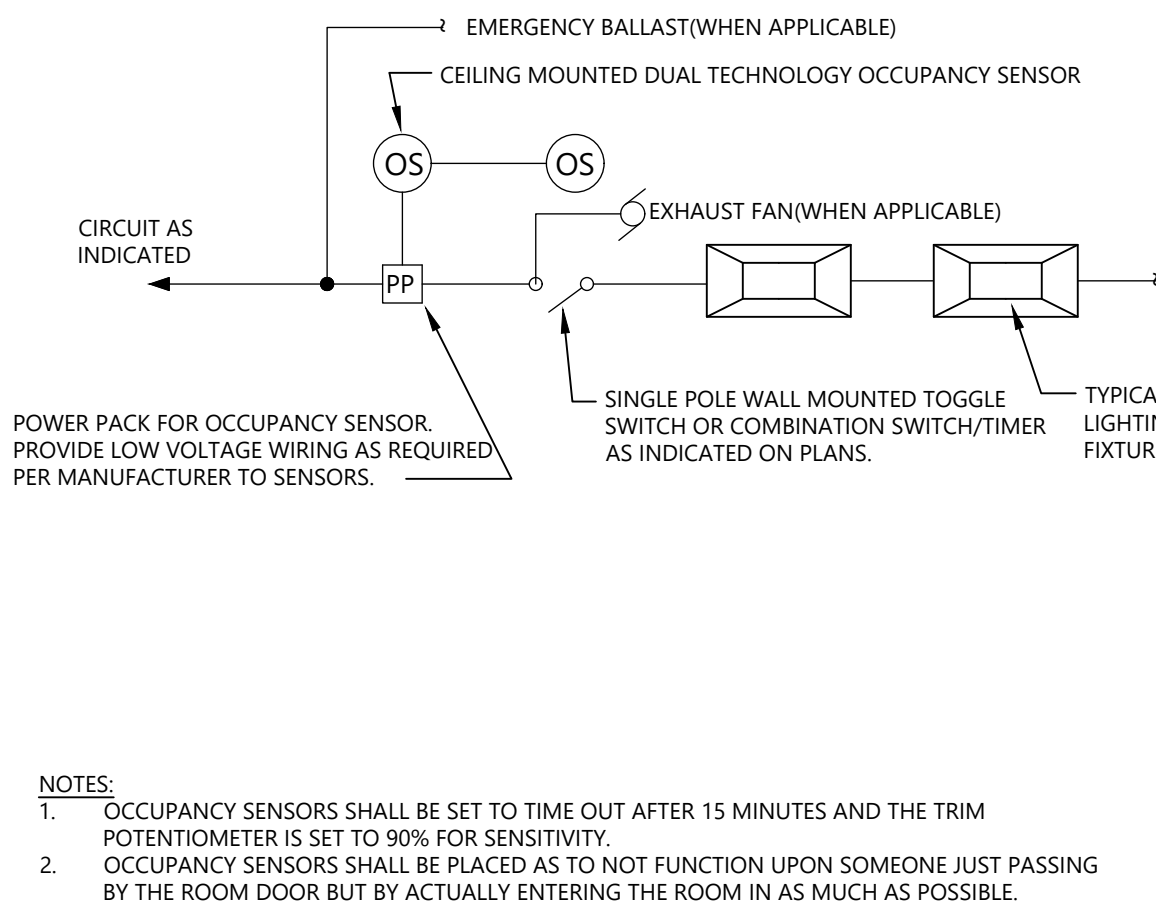
E-02



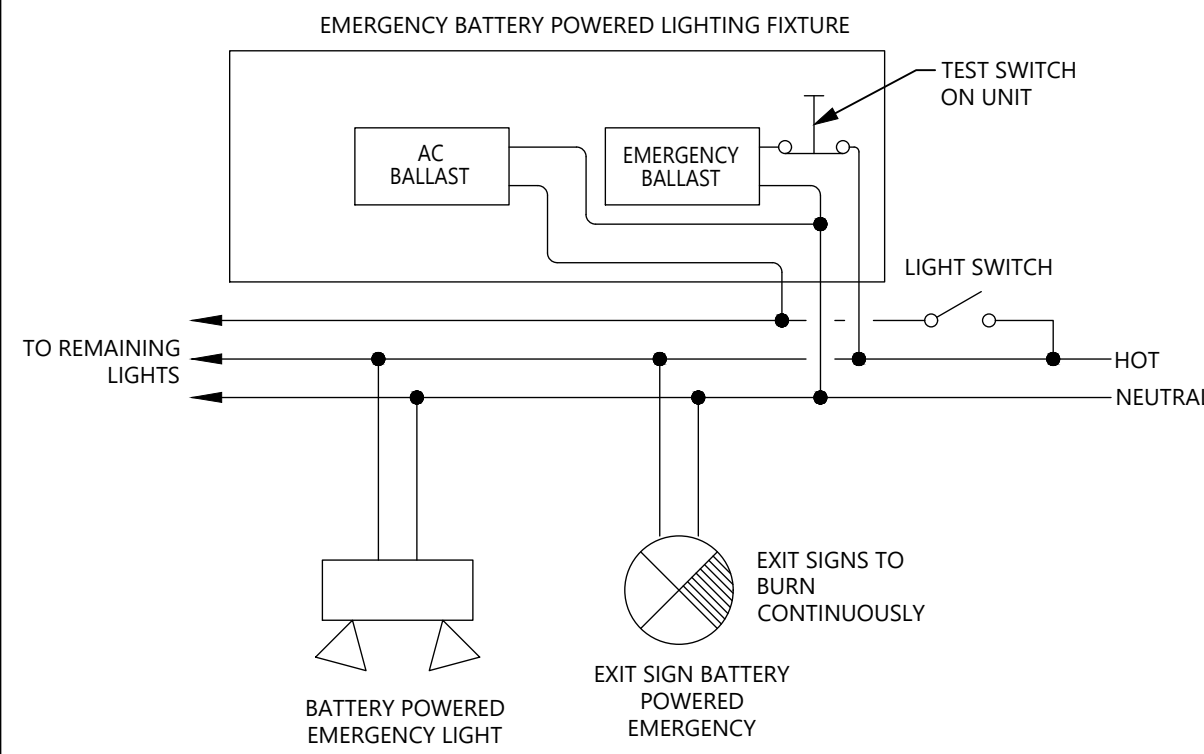
1 POWER PACK INSTALLATION



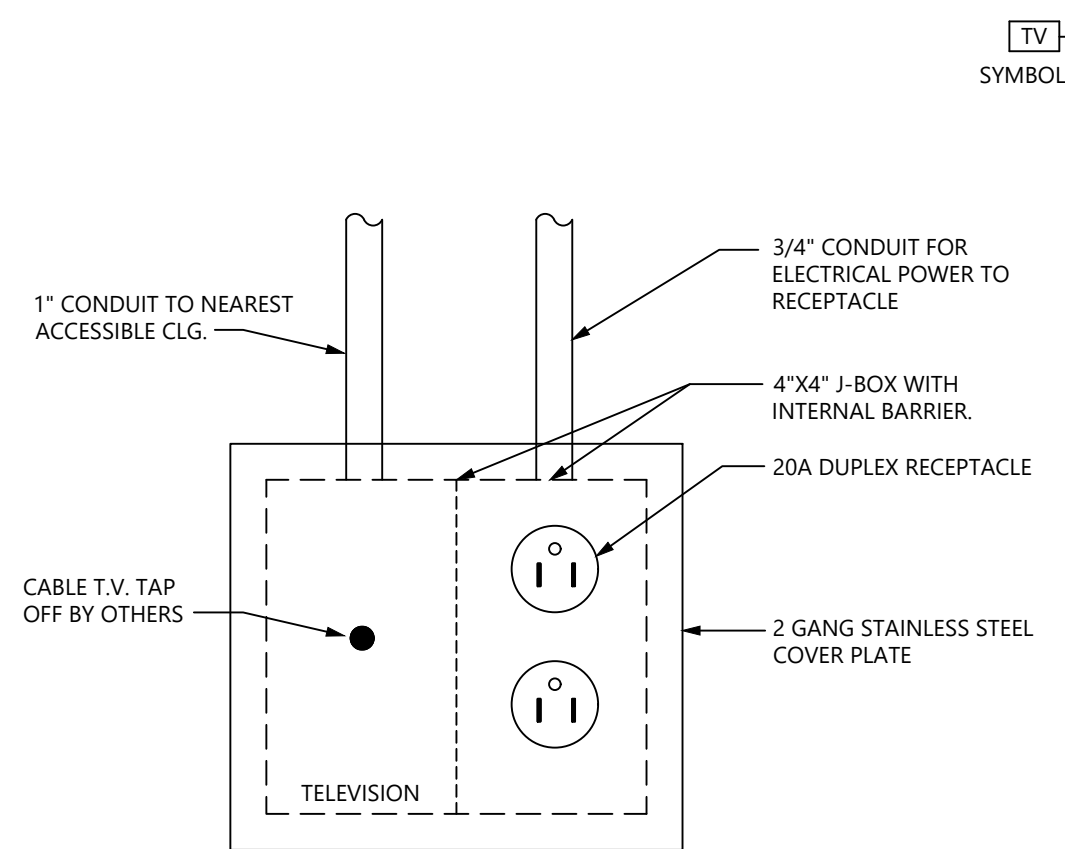
2 SINGLE POLE OCC. SENSOR SWITCH



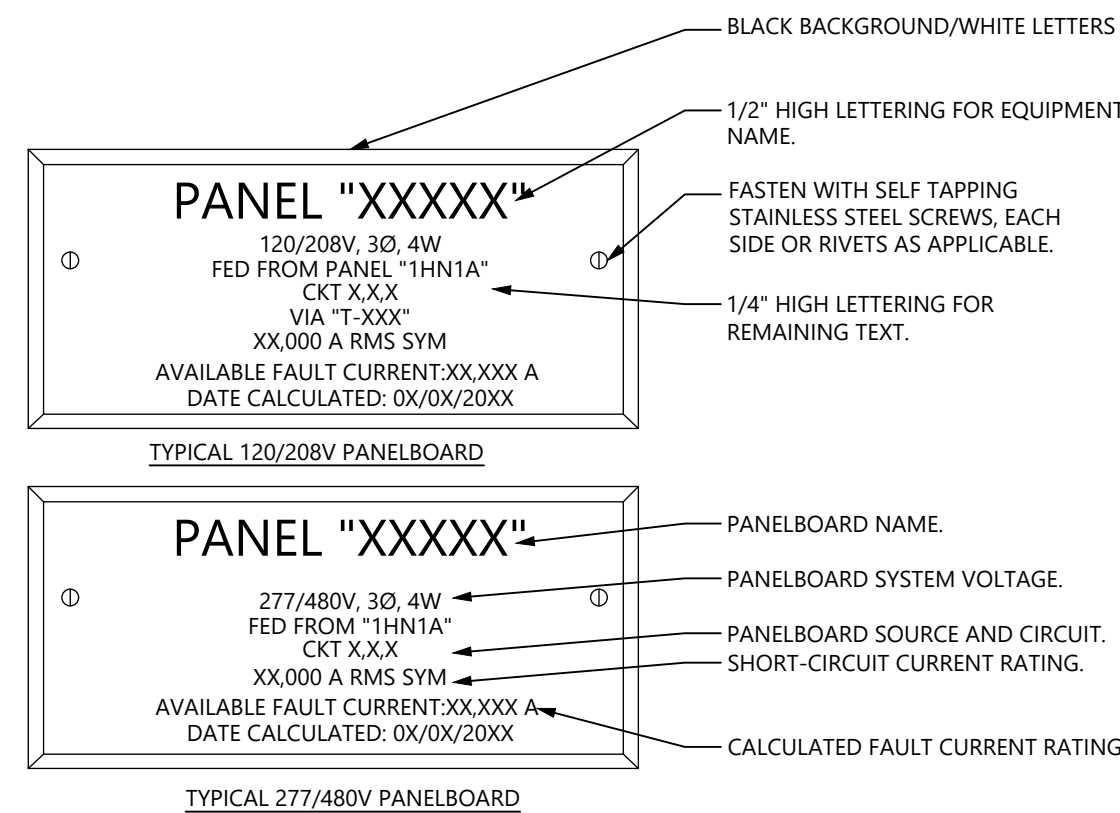
3 TYPICAL CEILING MOUNTED OCCUPANCY SENSOR WIRING DIAGRAMS



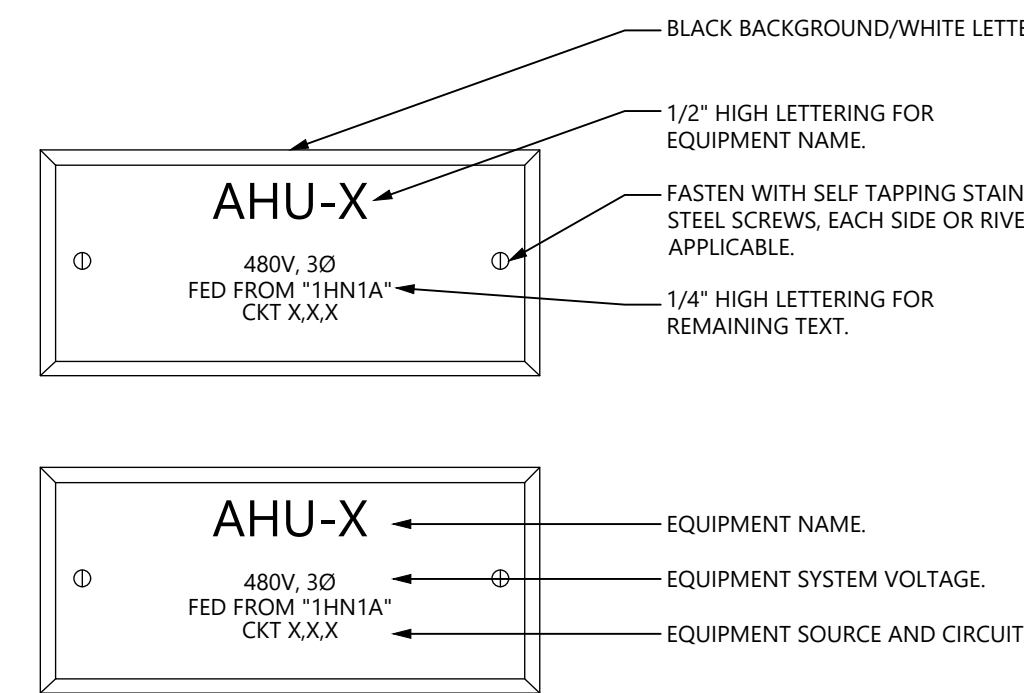
4 SWITCHED EMERGENCY LIGHTING WIRING



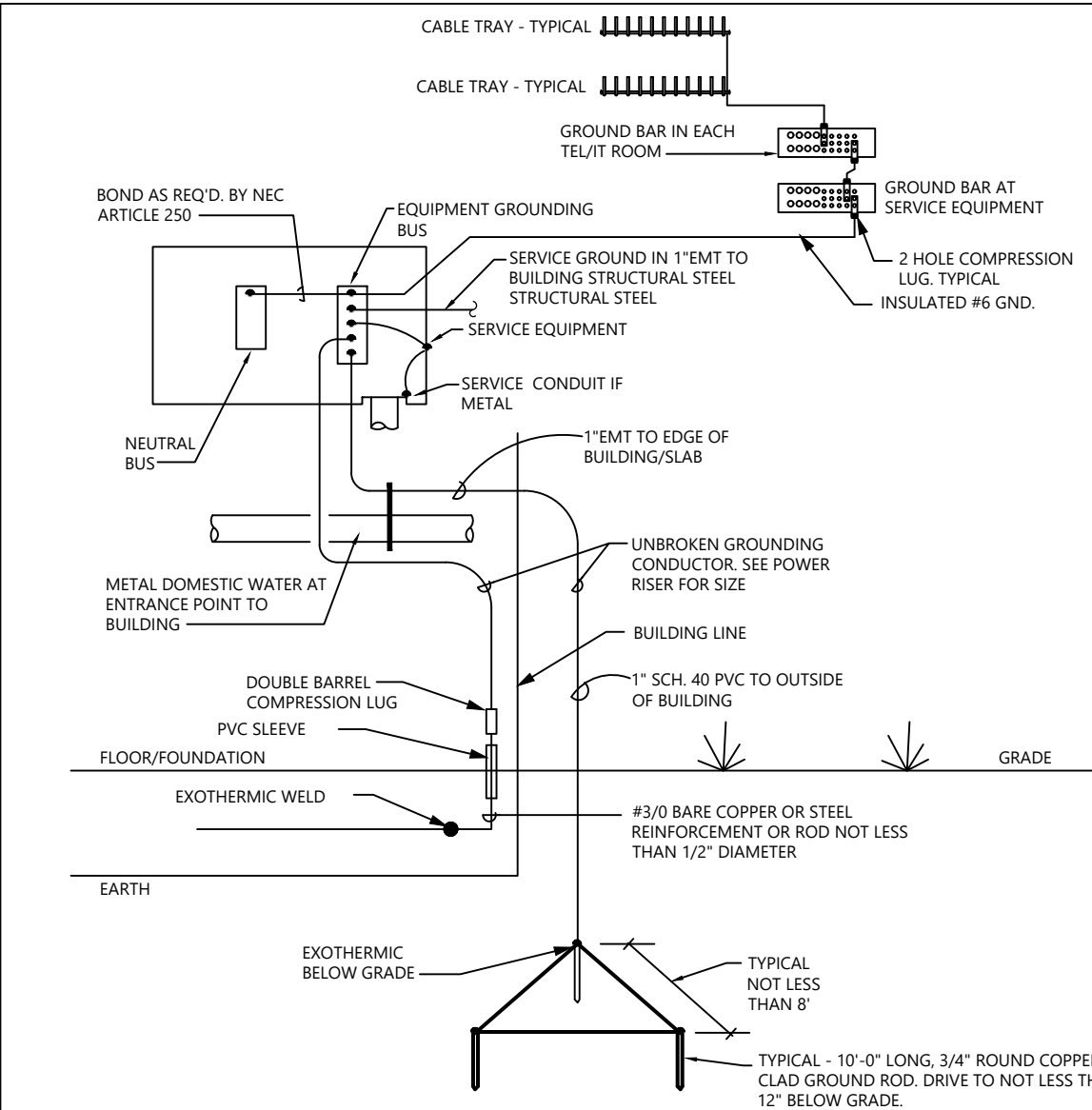
5 TYPICAL TELEVISION OUTLET DETAIL



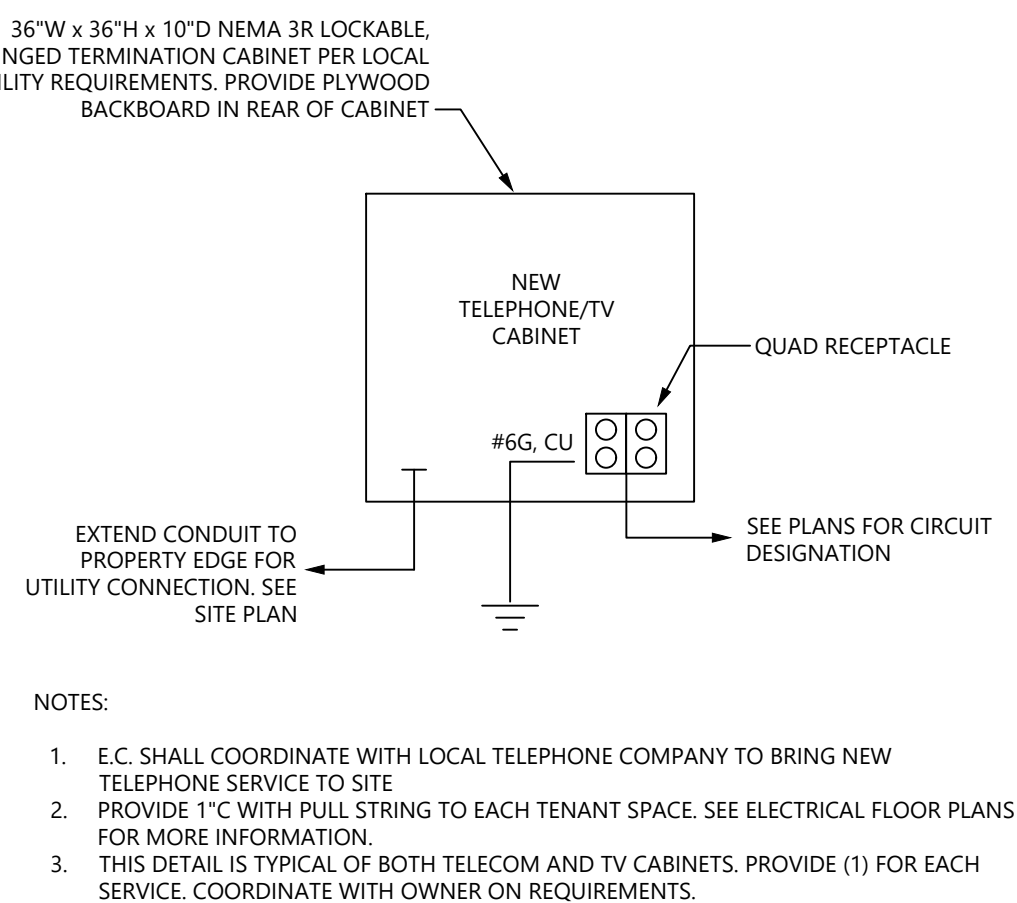
6 TYPICAL NAMEPLATE DIAGRAM



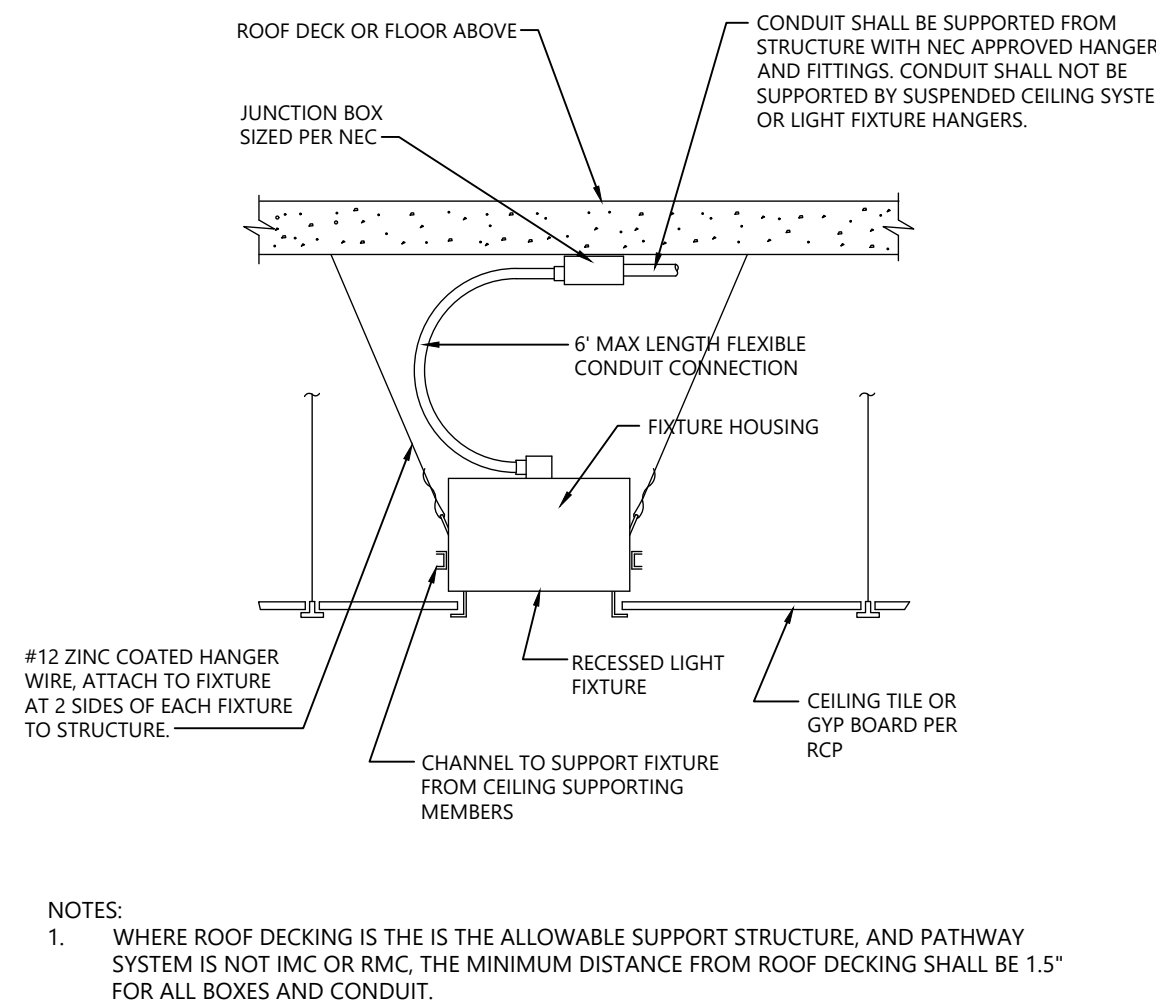
7 EQUIPMENT NAMEPLATE DIAGRAM



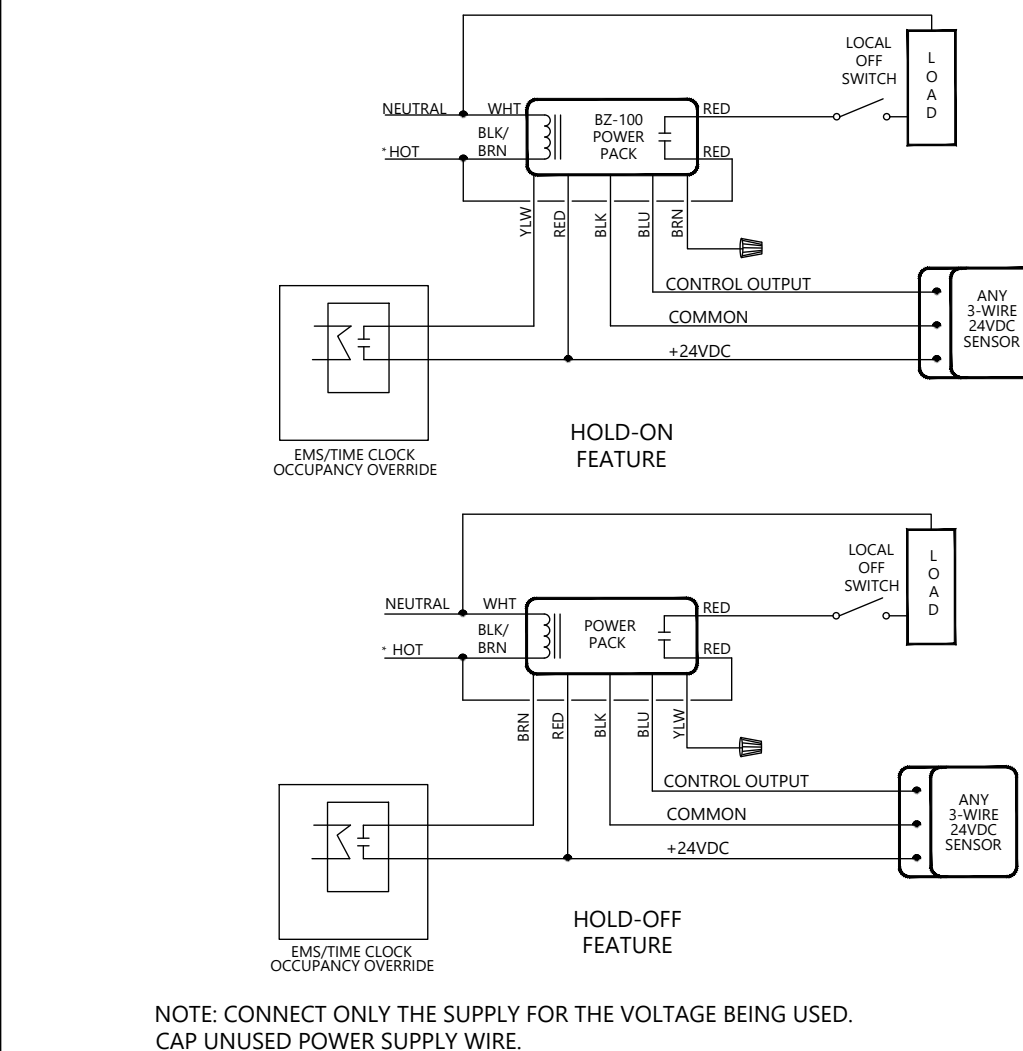
8 SERVICE GROUND DIAGRAM



9 TYPICAL TELEPHONE/TV RISER DIAGRAM

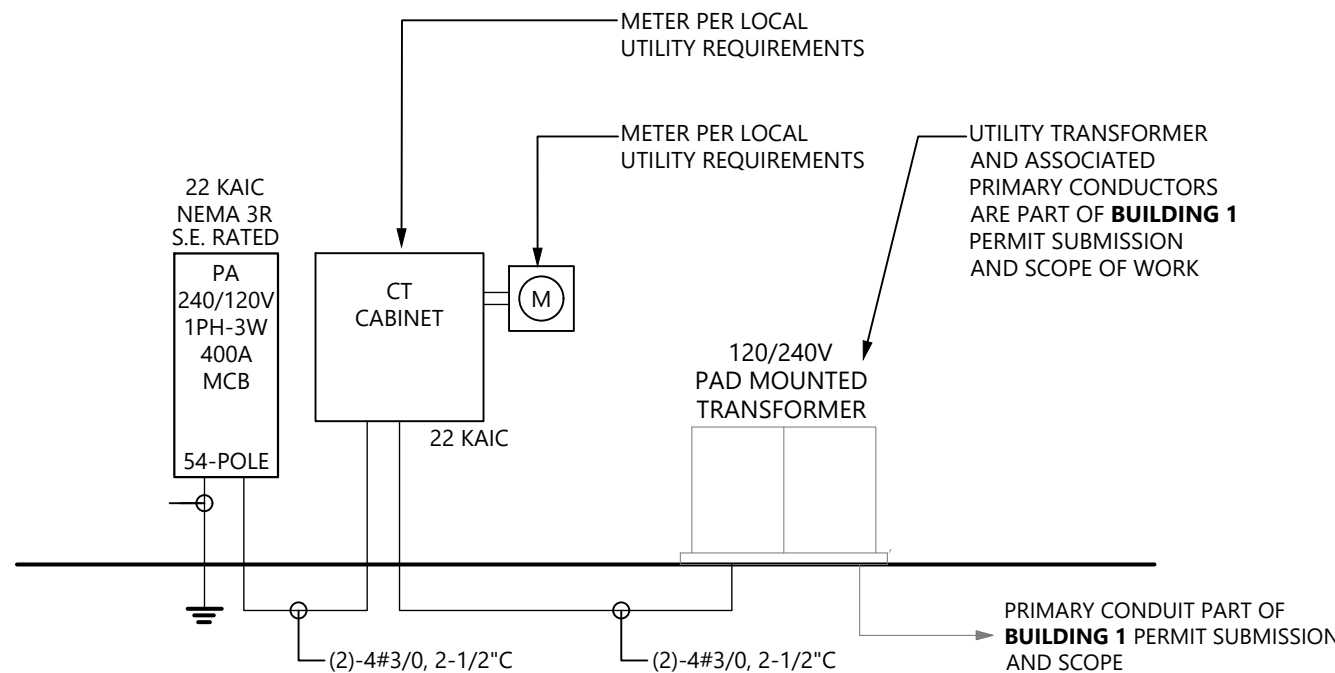


10 TYPICAL RECESSED DOWN LIGHT FIXTURE INSTALLATION DIAGRAM



11 POWER PACK WIRING DIAGRAM

#	REVISIONS	DATE



1 POWER RISER DIAGRAM
NOT TO SCALE

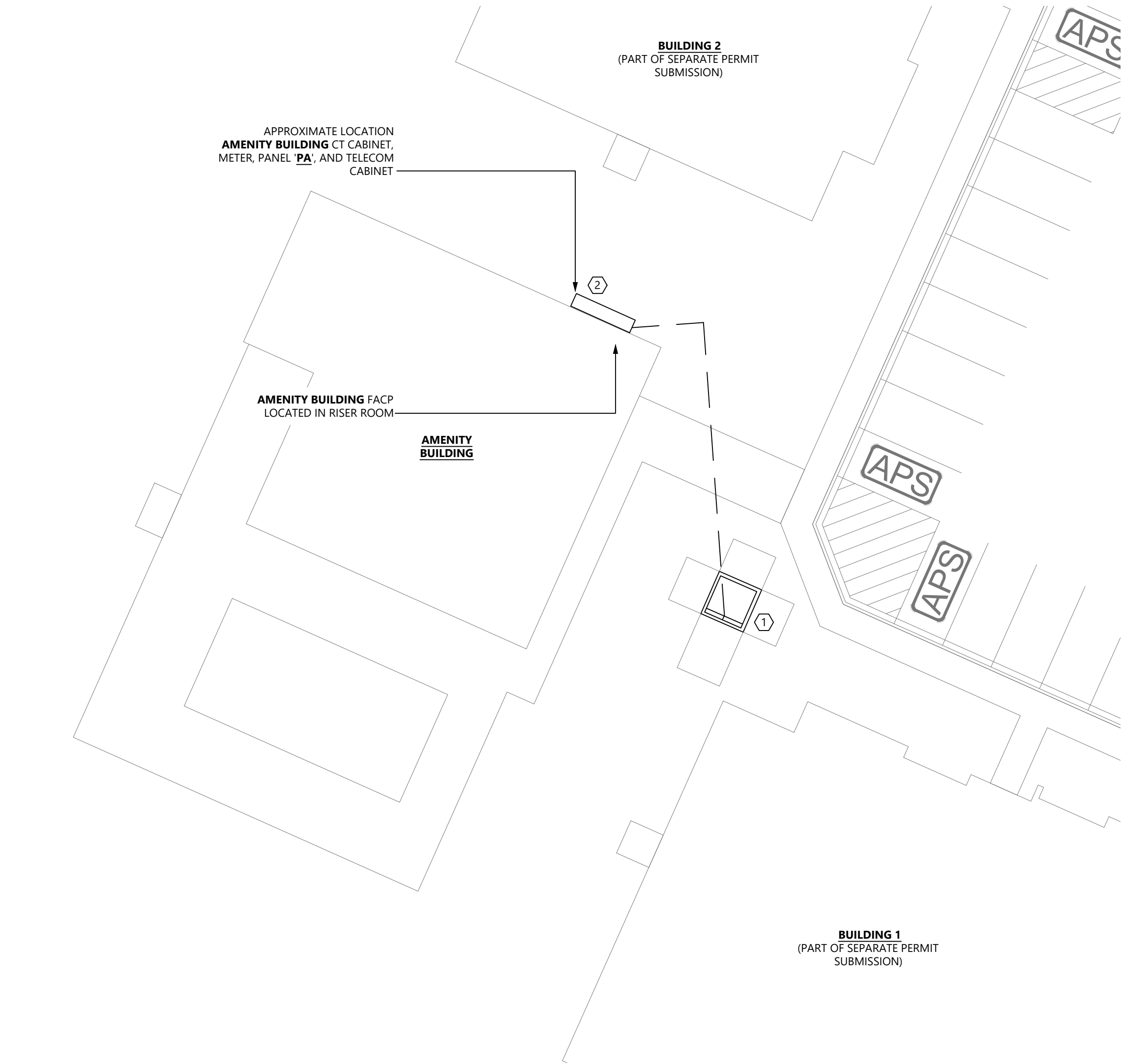
MECHANICAL EQUIPMENT CONNECTION SCHEDULE - AMENITY BUILDING													
TAG	EQUIPMENT DESCRIPTION	EQUIPMENT CHARACTERISTICS			FLA	MCA	MOCp	FEEDER	DISCONNECT SWITCH				NOTES
		VOLTAGE	PHASE	KW					SIZE	POLE	FUSE	NEMA	
AHU-A	AIR HANDLER	240	1	-	-	31.5	35	3#8,1#10G,1"C	60	2	35	1	1,3
AHU-B	AIR HANDLER	240	1	-	-	31.5	35	3#8,1#10G,1"C	60	2	35	1	1,3
HP-A	HEAT PUMP	240	1	-	-	31.8	35	3#8,1#10G,1"C	60	2	35	3R	1
HP-B	HEAT PUMP	240	1	-	-	31.8	35	3#8,1#10G,1"C	60	2	35	3R	1
ECUH-A	WALL UNIT HEATER	240	1	2.00	-	-	15	3#12,1#12G,3/4"C	INTEGRAL				1
EF-A	INLINE EXHAUST FAN	120	1	-	-	-	20	2#12,1#12G,3/4"C	MOTOR SNAP SWITCH				1,4
EF-B	EXHUAUST FAN	120	1	-	-	-	20	2#12,1#12G,3/4"C	MOTOR SNAP SWITCH				1,2
EWH-1	WATER HEATER	240	1	5.10	-	-	30	2#10,1#10G,3/4"C	60	2	30	1	1
NOTES:													
1	COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.												
2	FAN POWERED VIA LOCAL LIGHTING CIRCUIT. CONNECT TO SWITCH SHOWN ON ENLARGED UNIT PLANS												
3	PROVIDE POWER FOR CONDENSATE REMOVAL PUMP AND WATER LEVEL DETECTION DEVICE												
4	FAN TO OPERATE CONTINUOUSLY.												

LIGHT FIXTURE SCHEDULE								
TYPE	DESCRIPTION	LUMENS	CCT	WATTS	DRIVER	VOLTAGE	MANUFACTURER	REMARKS
A	6" RECESSED LED DOWNLIGHT	2,000	3500K	21W	0-10V DIMMING	UNIV	PORTFOLIO	LD6C MINIMUM 10% DIMMING DLC/ENERGY STAR LISTED
B	6" PENDANT CYLINDER	2,000	3500K	25W	INTEGRAL LED DRIVER	UNIV	HALO	HCC6 PENDANT MOUNTED ENERGY STAR LISTED
C	6" RECESSED DOWNLIGHT, ADJUSTABLE	2,000	3500K	21W	0-10V DIMMING	UNIV	PORTFOLIO	LDA6A MINIMUM 10% DIMMING
D	SURFACE MOUNTED LED CANOPY LIGHT	2,000	3500K	28W	INTEGRAL LED DRIVER	UNIV	EATON	TT CONDUIT SHALL PENETRATE FROM THE TOP OF THE CANOPY UL LISTED WET LOCATION DLC LISTED
E1	EXTERIOR EMERGENCY BATTERY EGRESS LIGHT AIMABLE	-	3500K	2W	INTEGRAL LED DRIVER	120V	EXIT LIGHT CO.	EL-LWET TEST SWITCH PROVIDED SEALED 90 MINUTE BATTERY WHITE
E2	EXTERIOR EMERGENCY BATTERY EGRESS LIGHT AND EXIT COMBO	-	3500K	3W	INTEGRAL LED DRIVER	120V	EXIT LIGHT CO.	WLFCombo TEST SWITCH PROVIDED SEALED 90 MINUTE BATTERY WET LOCATION LISTED RATED FOR OUTDOOR USE WHITE HOUSING, RED LETTERING
F	INTERIOR/EXTERIOR EMERGENCY EGRESS (LOW PROFILE)	-	3500K	17W	INTEGRAL LED DRIVER	UNIV	LIGHTALARMS	CAMRAY UL LISTED WET LOCATION LS CODE 101 COMPLIANT PROVIDE 90 MIN. REMOTE BATT.
G	4 FT. LED STRIP	5,000	3500K	42W	INTEGRAL LED DRIVER (STANDARD 0-10V DIMMING)	UNIV	COOPER	SNX PROVIDE CHAIN FOR PENDANT MOUNTING PROVIDE WIRE GUARD LENSED DLC LISTED
NOTES:								
1	ALL FIXTURES SHALL BE LED UNLESS OTHERWISE SPECIFIED. COLOR TEMPERATURE SHALL BE 3500K UNLESS OTHERWISE NOTED.							
2	LED DRIVERS SHALL BE PROVIDED AS PER MANUFACTURER RECOMMENDATIONS.							
3	COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT FIXTURE LOCATIONS.							
4	FIXTURES IN FIRE RATED CEILING SHALL BE PROVIDED WITH FIRE RATED TENTS AS REQUIRED.							
5	SUSPEND ALL FOUR CORNERS WITH WIRE TO STRUCTURE. DO NOT ALLOW GRID ALONE TO SUPPORT FIXTURE.							
6	FIXTURES WITH EMERGENCY BATTERY PACKS SHALL BE SUPPLIED WITH 1100 LUMEN INVERTERS.							
7	PROVIDE INTEGRAL SURGE PROTECTION ON ALL EXTERIOR LED DRIVER FIXTURE TYPES.							
8	DIMMING OF FIXTURES SHALL BE WITH A SWITCH AS RECOMMENDED BY THE DRIVER MANUFACTURER. COORDINATE COMPATABILITY OF ALL SWITCHES WITH APPROVED FIXTURES PRIOR TO ORDERING.							
9	THE CONTRACTOR SHALL VERIFY THE LEAD TIME OF ALL PRODUCTS SPECIFIED IN THIS SCHEDULE AT THE TIME OF PACKAGE QUOTE.							
10	DURING THE BID PROCESS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DELIVERY/SCHEDULING ISSUES.							
11	NO SUBSTITUTIONS WILL BE ALLOWED DUE TO LACK OF COORDINATION OF DELIVERY DATES AND CONSTRUCTION SCHEDULE AFTER BID.							
12	ALL EXPEDITED EXPENSES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.							
13	FIXTURES TO BE INSTALLED IN CEILINGS, INDICATED ON ARCHITECTURAL PLANS AS HAVING INSULATION IN CONTACT WITH CEILING SURFACE, SHALL BE IC RATED BY MANUFACTURER.							
14	LED DRIVERS LOCATED IN UNCONDITIONED SPACES SHALL BE RATED FOR 90 DEGREES F.							
15	PROVIDE 90 MINUTE EMERGENCY BATTERY BACK UP. EMERGENCY BACK UP SHALL BE BASED ON TYPE OF FIXTURE, LED DRIVER, BALLAST, ETC. EMERGENCY BACKUP SHALL BE DUAL INPUT FOR BOTH SWITCHING AND CHARGING. PROVIDE UNSWITCHED "HOT" FROM LOCAL CIRCUIT UNLESS OTHERWISE INDICATED ON PLANS. PROVIDE WITH INDICATOR LIGHT. INSTALL LED INDICATOR ON LIGHT FIXTURE UNLESS DECORATIVE. DECORATIVE FIXTURES SHALL HAVE INDICATOR PLACED AT LOCAL CEILING. BODINE, PHILLIPS, POWER SENTRY OR EQUAL.							
16	CONTRACTOR SHALL INCLUDE IN BID LABOR AND MATERIAL FOR UP TO (3) ADDITIONAL EXIT SIGNS AND (5) ADDITIONAL EMERGENCY BUGEYE FIXTURES AS REQUIRED BY LOCAL AHJ.							

NEW PANEL: PA												
VOLTAGE: 120/ 240								MOUNTING: SURFACE				
PHASE / WIRE: 1ϕ/ 3W								MAIN: CIRCUIT BREAKER				
AMPS: 200												
AIC: 22,000												
LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	L1	L2	CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA	
0.90	12	20	REC - GENERAL	1	●		2	REFRIGERATOR (NOTE #7)	20	12	0.50	
0.72	12	20	REC - GENERAL	3		●	4	REC - COUNTERTOP	20	12	0.36	
1.08	12	20	REC - OFFICE	5	●		6	REC - COUNTERTOP	20	12	0.36	
0.72	12	20	REC - OFFICE	7		●	8	DISHWASHER (NOTE #7)	20	12	0.75	
1.00	12	20	REC - IT BOARD	9	●		10	DISPOSAL	20	12	0.78	
1.08	12	20	REC - GYM	11		●	12	RANGE HOOD	50	6	4.00	
1.00	12	20	REC - BIKE	13	●		14			6	4.00	
1.00	12	20	REC - BIKE	15		●	16	RANGE HOOD	20	12	0.40	
1.00	12	20	REC - TREADMILL	17	●		18	FACP (NOTE #8)	20	12	1.00	
1.00	12	20	REC - TREADMILL	19		●	20	LIGHTING	20	12	1.10	
1.00	12	20	REC - BIKE	21	●		22	FIRE ALARM BELL	20	12	0.10	
0.90	10	20	REC - GENERAL	23		●	24	LIGHTING	20	12	0.90	
0.90	10	20	REC - GENERAL	25	●		26	LIGHTING	20	12	0.82	
0.50	12	20	EWG (NOTE #7)	27		●	28	LIGHTING - EXTERIOR	20	10	0.70	
0.50	12	20	EWG (NOTE #7)	29	●		30	GPS UNITS	20	10	0.45	
0.72	12	20	REC - MAINTENANCE	31		●	32	EXHAUST FAN EF-A	20	12	0.10	
3.00	10	35	AHU-A	33	●		34	ECUH-A	20	12	1.00	
3.00	10	35		35		●	36			12	1.00	
3.00	10	35	AHU-B	37	●		38	ECUH-A	20	12	1.00	
3.00	10	35		39		●	40			12	1.00	
3.10	10	35	HP-A	41	●		42	ECUH-A	20	12	1.00	
3.10	10	35		43		●	44			12	1.00	
3.10	10	35	HP-B	45	●		46	GPS UNITS	20	10	0.45	
3.10	10	35		47		●	48	IT CABINET	20	12	1.00	
2.55	10	30	EWH-1	49	●		50	SPARE	20		0.00	
2.55	10	30		51		●	52	SPARE	20		0.00	
0.00		20	SPARE	53	●		54	SPARE	20		0.00	
SUB TOTALS											23.8	
43.5												
LOAD (kVA)			Conn.	D.F.	Dmd.	DAD PER PHASE						
LIGHTS			3.5	1.25	4.4					CONNECTED		
HEATING			6.0	1.00	6.0	L1=	33.6	kVA	279.9 AMPS			
COOLING			24.4	1.00	24.4	L2=	33.7	kVA	280.8 AMPS			
VENTILATION			0.0	1.00	0.0							
MOTORS			0.1	1.00	0.1					DEMAND		
KITCHEN			0.0	0.65	0.0	L1-	33.8	kVA	281.6 AMPS			
REC. (1st 10kVA)			7.0	1.00	7.0	L2-	34.4	kVA	286.5 AMPS			
REC. (>10kVA)			0.0	0.50	0.0							
WATER HEATER			5.1	1.00	5.1					DEMAND AT 125%		
MISC.			21.2	1.00	21.2	L1=	42.2	kVA	352.0 AMPS			
SPARE			0.0	1.00	0.0	L2=	43.0	kVA	358.1 AMPS			
NOTES:												
1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.												
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.												
3. ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.												
4. ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.												
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.												
6. PROVIDE METAL DIRECTORY FRAME.												
7. PROVIDE CLASS A GFI (6mA-PERSONNEL) BRKR (250' MAX).												
8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.												
9. PANEL SHALL BE NEMA 3R RATED.												
10. THIS PANEL SHALL BE UL LISTED AS SERVICE ENTRANCE EQUIPMENT.												

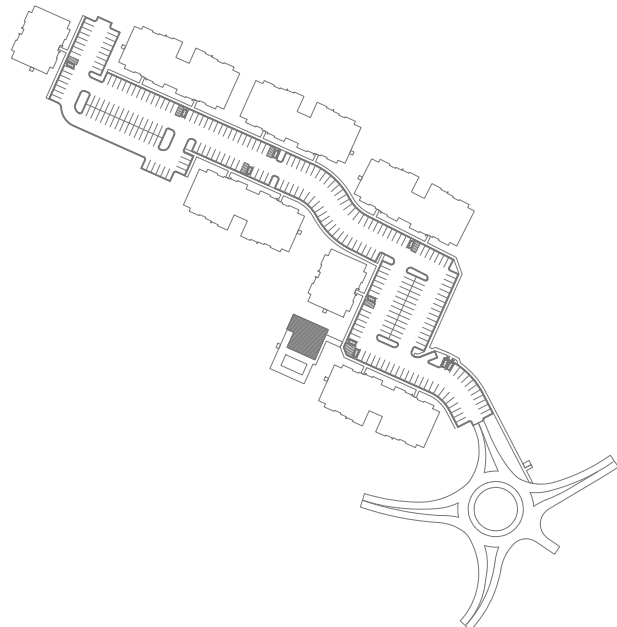
SITE PLAN NOTES:

1. UTILITY TRANSFORMER, PART OF BUILDING 1 PERMIT SUBMISSION AND SCOPE OF WORK.
2. PROVIDE (2)-4" CONDUIT FROM MAIN TELECOM/INTERNET BOX TO PROPERTY LINE FOR TELEPHONE AND INTERNET SERVICE. CONDUIT LOCATION, SIZE, AND BENDING RADIUS SHALL BE COORDINATED WITH UTILITY BEFORE INSTALLATION.E.C. TO PROVIDE UP TO 150' OF ADDITIONAL (2)-4" CONDUIT AND COMPLETE INSTALLATION BASED ON UTILITY COORDINATION.
3. ALL LOW VOLTAGE CONDUIT RUNS SHALL HAVE HAND HOLES/PULL BOXES SUPPLIED AT 150' INTERVALS UNLESS OTHERWISE INDICATED BY LOCAL UTILITY. MINIMUM SIZE SHALL BE 36" X 36".



1 ELECTRICAL SITE PLAN - AMENITY BUILDING
1/16"=1'-0"

KEY PLAN
(NOT TO SCALE)



- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE:

CLIENT:
The Orchards at Naples Road, LLC
341 N Main Street
Hendersonville, NC 28792
Luis Graef: President



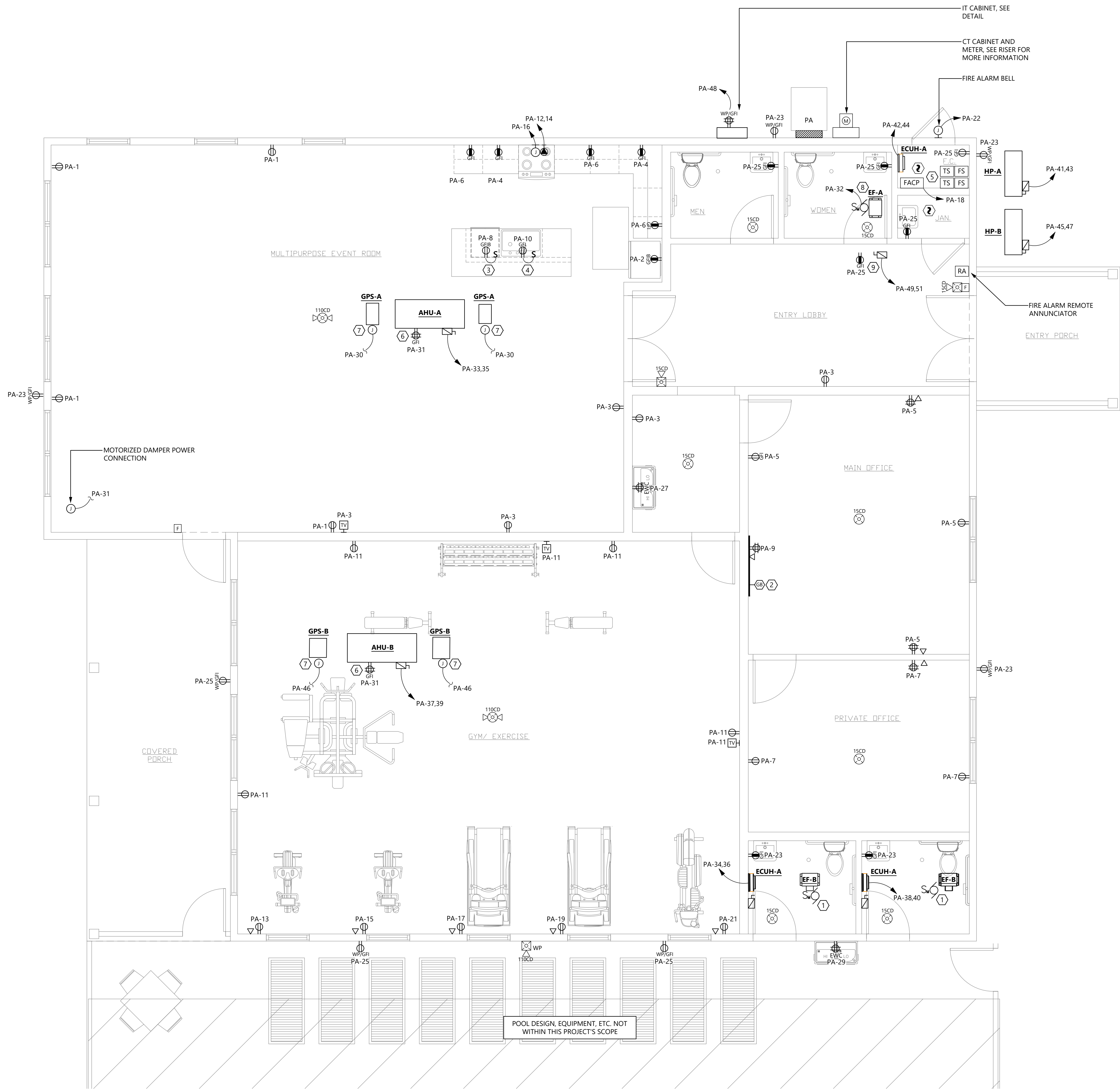
PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

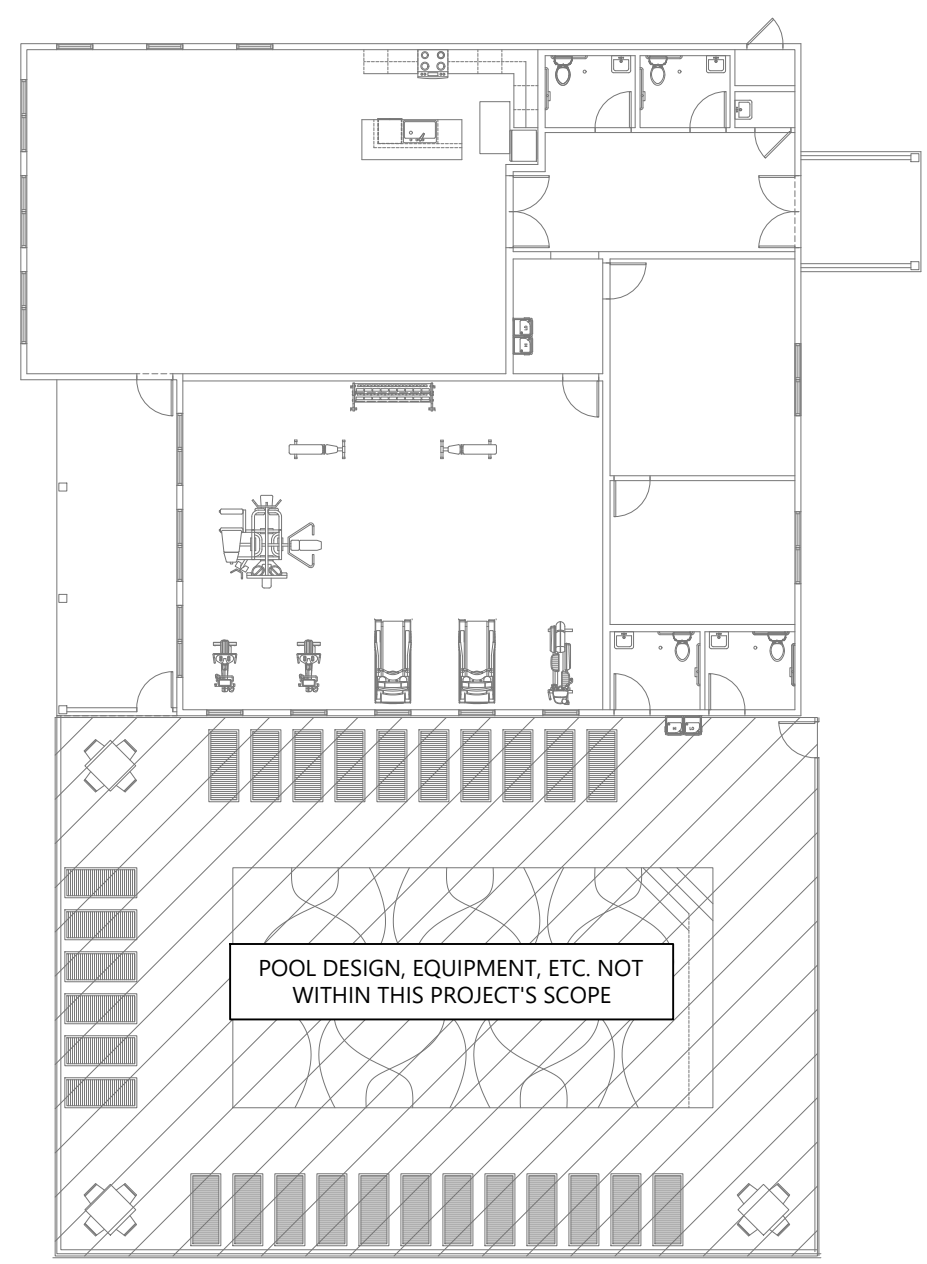
DWG INFO:
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: MFL
CHECKED BY: JK

DWG DESCRIPTION:
ELECTRICAL SITE PLAN -
AMENITY BUILDING

SHEET #:
E-10



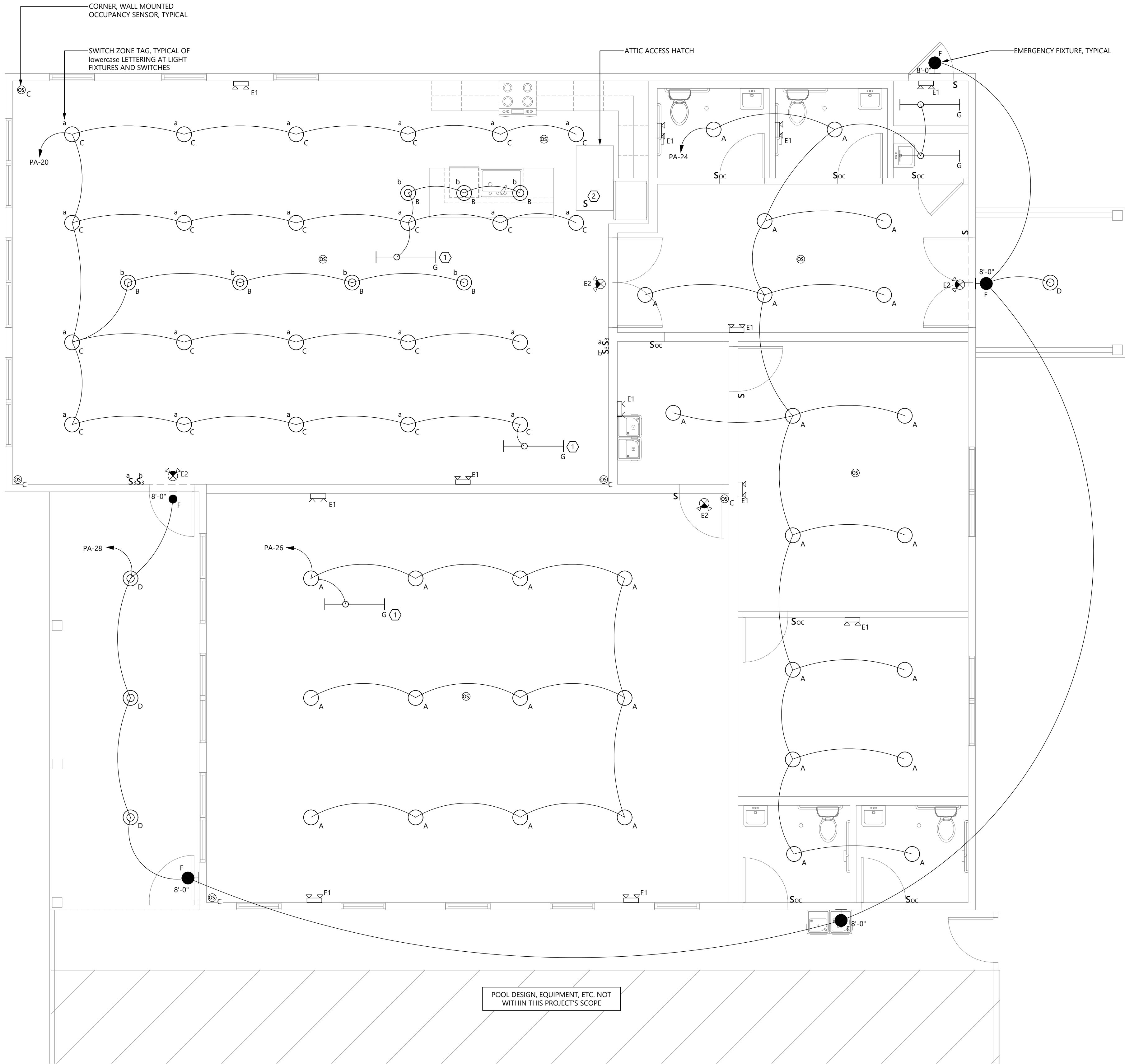
1 POWER PLAN PLAN
1/4"=1'-0"



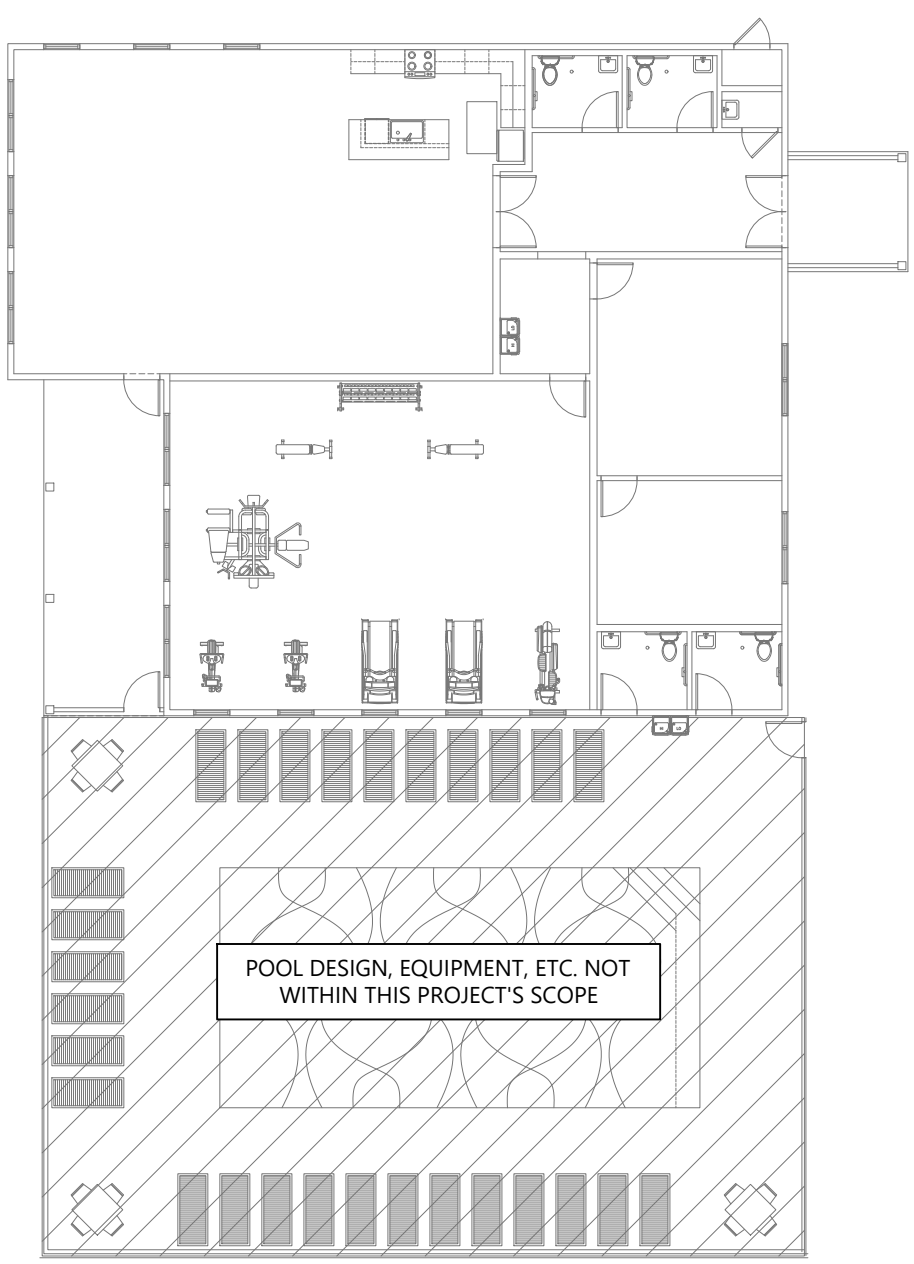
2 OVERALL PLAN
1/16"=1'-0"

- POWER PLAN GENERAL NOTES:
- CONTRACTOR SHALL PROVIDE DETAILED AS-BUILT DRAWINGS. PROVIDE COPY OF AS-BUILT DRAWINGS TO OWNER AND ENGINEER AT PROJECT COMPLETION.
 - LABEL ALL RECEPTACLES WITH CIRCUIT AND PANEL INFORMATION.
 - ALL CONDUIT SHALL BE CONCEALED IN WALL AND CEILINGS IN FINISHED SPACES.
 - COORDINATE ALL FINAL RECEPTACLE, TV BOX, ETC. LOCATIONS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
 - ALL MECHANICAL AND PLUMBING EQUIPMENT POWER LOCATIONS SHALL BE COORDINATED WITH M.C. AND P.C. PRIOR TO ROUGH-IN.
- POWER PLAN KEYED NOTES:
- CONNECT TO LOCAL LIGHTING CIRCUIT. FAN TO BE CONTROLLED WITH ROOM LIGHTING CONTROLS.
 - DATA RACK PLYWOOD BACKBOARD. COORDINATE LOCATION WITH OWNER PRIOR TO ROUGH-IN. PROVIDE (2)-1" FROM BACKBOARD LOCATION TO PROPERTY EDGE FOR INTERNET PROVIDER CABLE ROUTING. SEE OVERALL ELECTRICAL PLAN (SAME SHEET) FOR APPROXIMATE LOCATIONS.
 - DISHWASHER DISCONNECT SWITCH. INSTALL IN CABINET BELOW SINK.
 - DISPOSAL POWER AND SWITCH. MOUNT SWITCH ABOVE COUNTER.
 - ALL TAMPER/FLOW SWITCH LOCATIONS, QUANTITIES, ETC. SHALL BE COORDINATED WITH FIRE PROTECTION CONTRACTOR PRIOR TO ORDERING OF EQUIPMENT.
 - MOUNT MAINTENANCE AND PUMP RECEPTACLE AT AIR HANDLER UNIT.
 - POWER FOR GPS UNIT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH M.C. PRIOR TO ROUGH-IN.
 - FAN TO OPERATE CONTINUOUSLY. CONNECT TO CIRCUIT SHOWN.
 - WATER HEATER AND LEAK DETECTOR POWER. SHOWN HERE FOR CLARITY. COORDINATE FINAL LOCATION WITH P.C. PRIOR TO ROUGH-IN. MOUNT LEAK DETECTOR RECEPTACLE ADJACENT TO WATER HEATER.

#	REVISIONS	DATE



1 POWER PLAN PLAN
1/4"=1'-0"

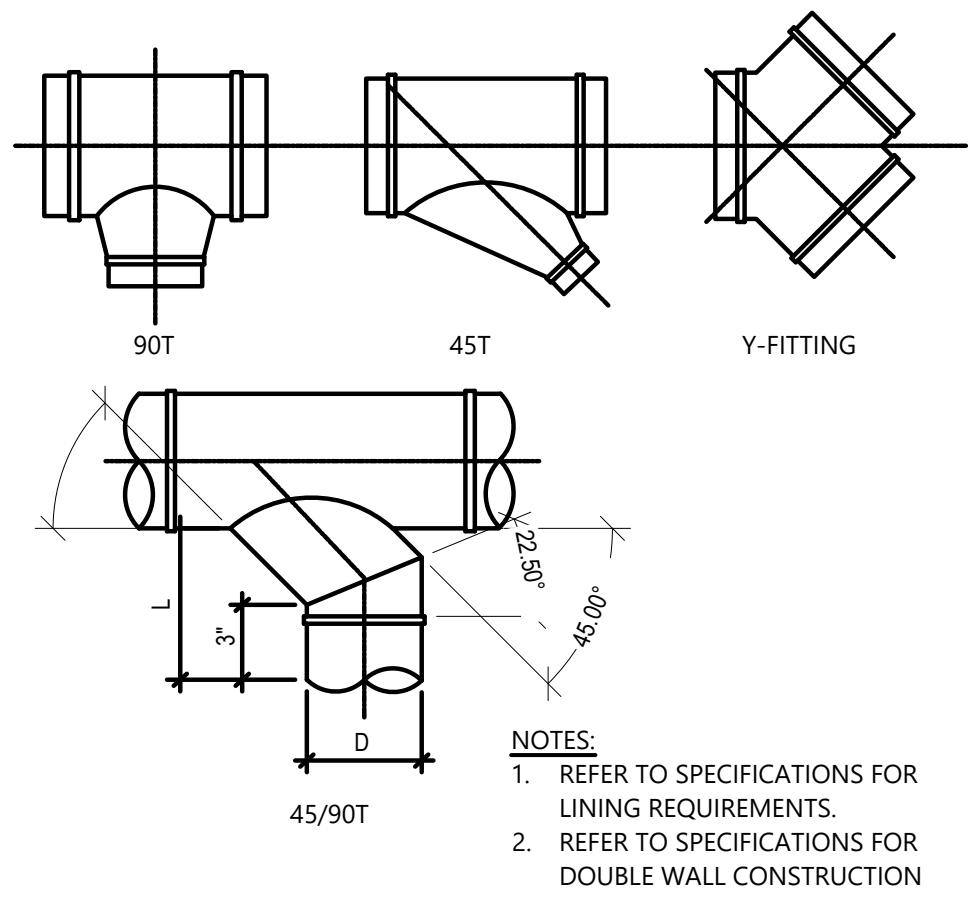


2 OVERALL PLAN
1/16"=1'-0"

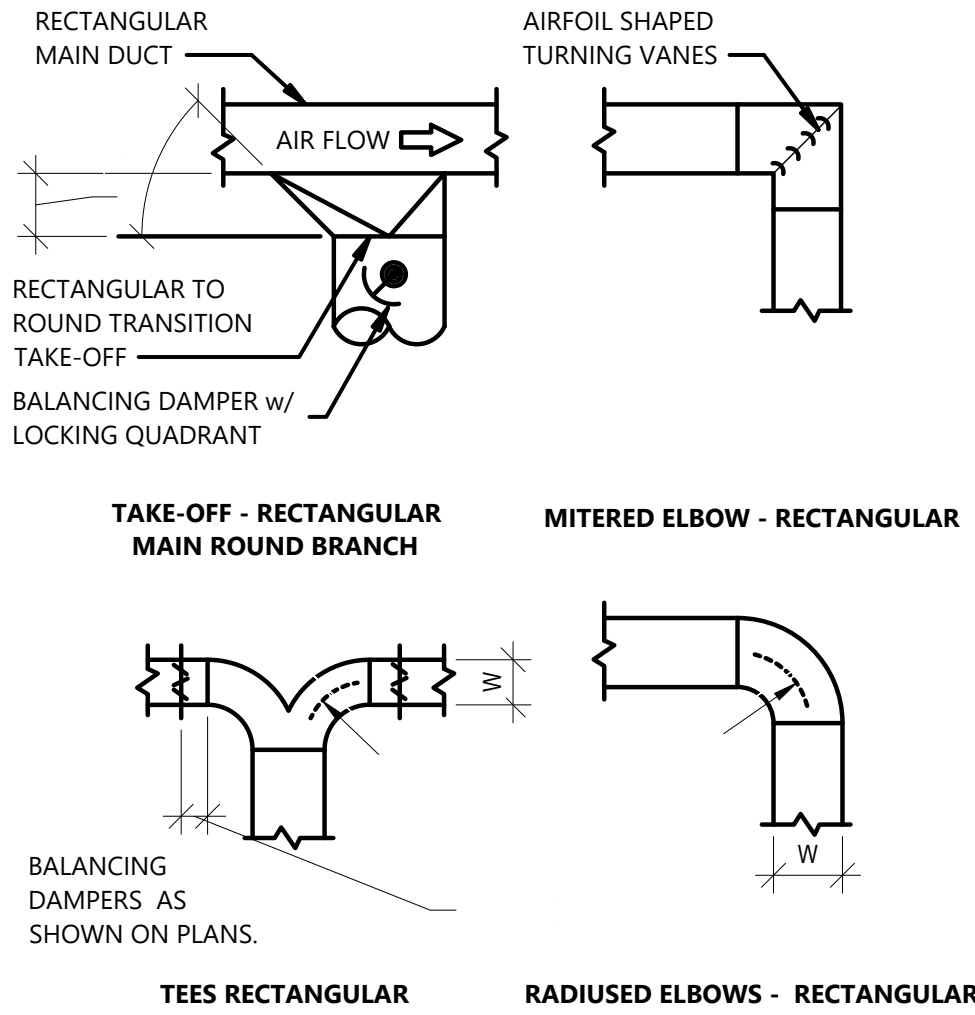
- LIGHTING GENERAL NOTES:**
- CONTRACTOR SHALL PROVIDE DETAILED AS-BUILT DRAWINGS. PROVIDE COPY OF AS-BUILT DRAWINGS TO OWNER AND ENGINEER AT PROJECT COMPLETION.
 - CONTRACTOR SHALL COORDINATE LIGHT FIXTURE LOCATION WITH MECHANICAL CONTRACTOR AND NEW DUCTWORK PRIOR TO ROUGH-IN. RELOCATION OF DUCTWORK FOR CONFLICT WITH NEW LIGHTING WILL BE AT EXPENSE OF CONTRACTOR.
 - PROVIDE 90 MINUTE BATTERY BACKUP FOR ALL EMERGENCY FIXTURES SHOWN ON THIS PLAN. CONNECT TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCHING.
 - SITE AND LANDSCAPE LIGHTING BY OTHERS.
 - EXTERIOR LIGHT FIXTURES SHALL BE CONTROLLED VIA PHOTOCELL MOUNTED ON NORTH FACING ROOF.
 - ALL LIGHTING FIXTURE LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL REFLECTED CEILING PLAN.

- LIGHTING KEYED NOTES:**
- STRIP LIGHT SHALL BE MOUNTED IN ATTIC SPACE FOR COORDINATE LOCATION(S) WITH MECHANICAL EQUIPMENT, DUCT, PIPING, ETC. PRIOR TO ROUGH-IN.
 - SWITCH SHALL BE LOCATED AT ATTIC ACCESS LOCATION TO CONTROL 'G' FIXTURES IN ATTIC SPACE.

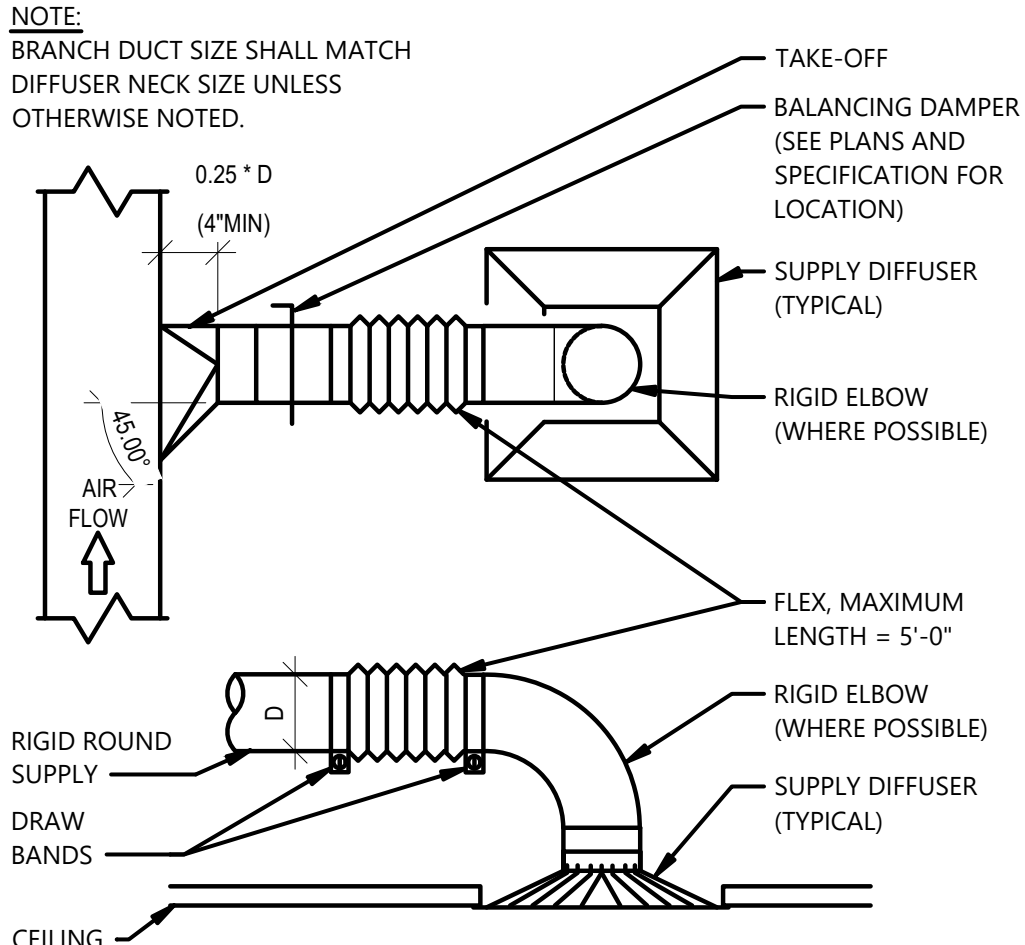
#	REVISIONS	DATE



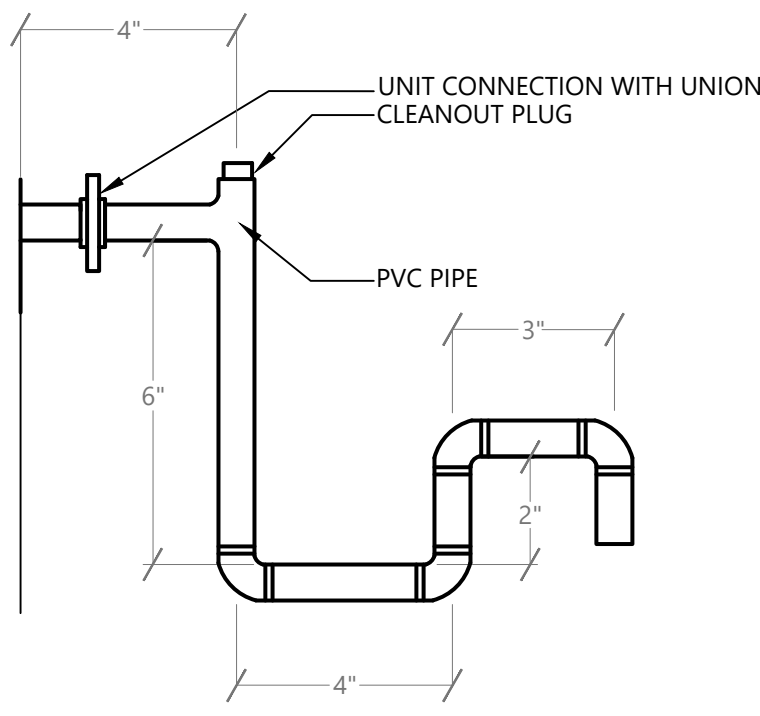
NO SCALE
① ROUND DUCT FITTINGS DETAIL



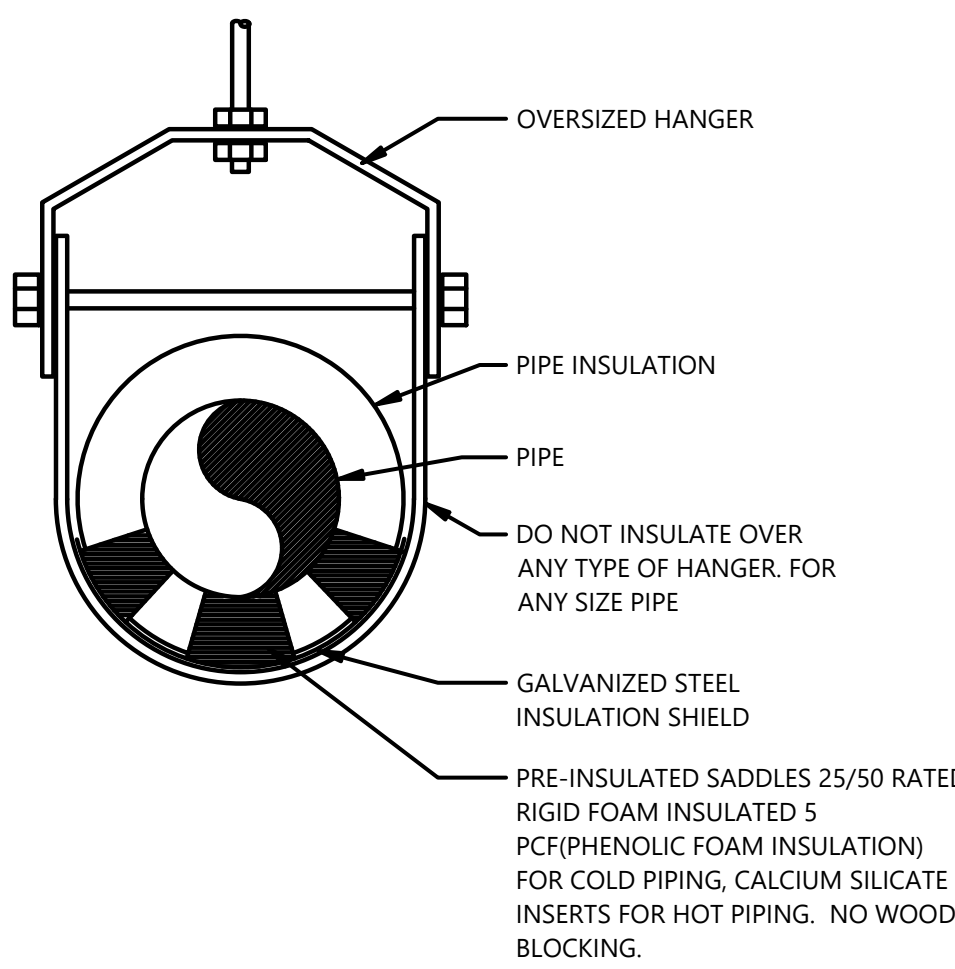
NO SCALE
② RECTANGULAR DUCT FITTINGS DETAIL



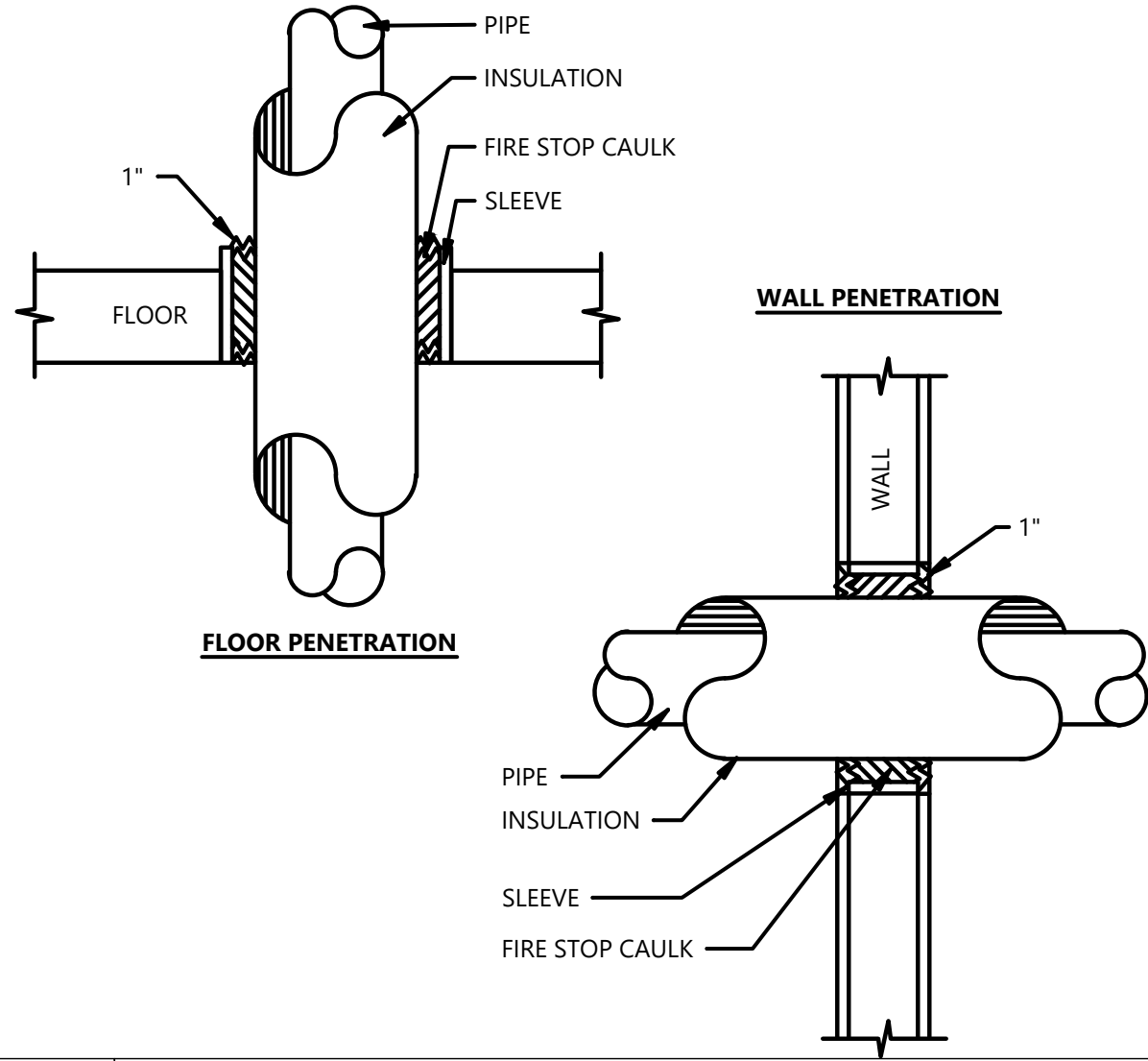
NO SCALE
③ ROUND BRANCH DUCT TAKE-OFF DETAIL



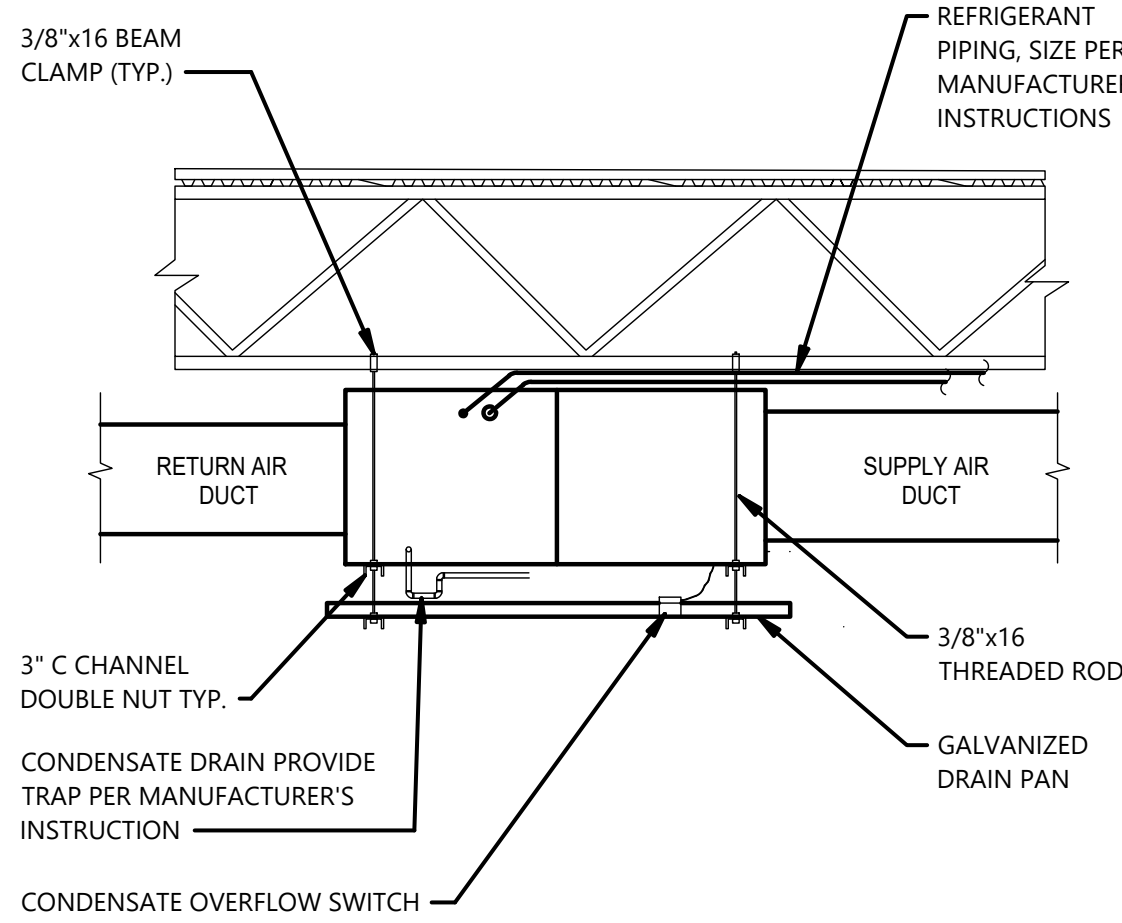
NO SCALE
④ DRAIN CONNECTION DETAIL



NO SCALE
⑤ TYPICAL PIPE HANGER DETAIL



NO SCALE
⑥ PIPE PENETRATION DETAILS



NO SCALE
⑦ AIR HANDLING UNIT DETAIL

Building Code - 2018 North Carolina NCBC

Prescriptive	<input type="checkbox"/> Energy Cost Budget	2018 NCECC
Thermal Zone		3A
winter dry bulb		18°F
summer dry bulb		94°F
Interior design conditions		
winter dry bulb		70°F
summer dry bulb		75°F
relative humidity		50%RH
Building heating load		93.6 MBH
Building cooling load		62.1 MBH
Mechanical Space Conditioning System		
Unitary description of unit		2x 4-TON DX SPLITS
heating efficiency (HSPF2)		8.2
cooling efficiency (SEER2)		17
heat output of unit		48 MBH
cooling output of unit		48 MBH
Equipment schedules with motors (mechanical systems)		N/A
motor horsepower		SEE EQUIPMENT SCHEDULES
number of phases		SEE EQUIPMENT SCHEDULES
minimum efficiency		SEE EQUIPMENT SCHEDULES
motor type		SEE EQUIPMENT SCHEDULES
# of poles		SEE EQUIPMENT SCHEDULES

MECHANICAL GENERAL NOTES

- COMPLY WITH ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
- DUCTWORK IS PERMITTED TO BE ABOVE ELECTRICAL EQUIPMENT ONLY IF IT IS INSTALLED OUTSIDE OF THE DEDICATED ELECTRICAL SPACE DEFINED AS THE SPACE EQUAL TO THE WIDTH AND DEPTH OF THE ELECTRICAL EQUIPMENT AND EXTENDING FROM THE FLOOR TO A HEIGHT OF 6'-0" ABOVE THE EQUIPMENT OR TO THE STRUCTURAL CEILING, WHICHEVER IS LOWER. DUCTWORK INSTALLED ABOVE ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH PROTECTION TO AVOID DAMAGE FROM CONDENSATION, LEAKS, BREAKS, ETC. REFER TO THE NEC FOR EXACT DEFINITION OF DEDICATED ELECTRICAL SPACE.
- ALL ISOLATION VALVES, EQUIPMENT, CONTROLS, ETC. REQUIRING ACCESS/SERVICE SHALL BE INSTALLED WITHIN 18" OF THE CEILING FOR EASY ACCESSIBILITY. LOCATIONS SHALL BE INDICATED ON THE CEILING GRID PER THE SPECIFICATIONS.
- ANY DEVICE REQUIRING A THERMOSTAT FOR CONTROL SHALL BE FURNISHED WITH A THERMOSTAT WHETHER INDICATED ON THE DRAWINGS OR NOT.
- COORDINATE EXACT THERMOSTAT LOCATION WITH OWNER PRIOR TO INSTALLATION. STANDARD DEFAULT: INSTALL THE TOP OF ALL THERMOSTATS, SENSORS, AND SWITCHES AT 4'-0" ABOVE FINISHED FLOOR. DEVICES ON A PERIMETER WALL SHALL BE MOUNTED ON A FOAM-FILLED ELECTRICAL BOX, WITH ALL GAPS BETWEEN BOX AND WALL SEALED TO PREVENT INFILTRATION.
- PROVIDE ALL MISCELLANEOUS STEEL AND ITEMS REQUIRED FOR THE PROPER INSTALLATION OF ALL PIPE, SHEET METAL AND EQUIPMENT.
- COORDINATE FLOOR, WALL & ROOF PENETRATIONS ETC. WITH ARCHITECTURAL/STRUCTURAL TRADES. FIRESTOP SHALL BE PROVIDED IN HOLES AND PENETRATIONS IN RATED ASSEMBLIES. ALL PIPING, DUCTS, VENTS, ETC., EXTENDING THROUGH WALLS AND ROOF SHALL BE FLASHED.
- EQUIPMENT OPERATED DURING CONSTRUCTION SHALL USE FILTERED MEDIA TO PREVENT CONSTRUCTION DEBRIS FROM ENTERING COILS, DUCTWORK SYSTEMS, AIR TERMINALS ETC. AT COMPLETION OF CONSTRUCTION, MECHANICAL CONTRACTOR SHALL CLEAN ALL SYSTEMS WITH ALL CONTROL DEVICES WIDE OPEN AND REMOVE ANY REMAINING DEBRIS PRIOR TO TEST AND BALANCING. MECHANICAL CONTRACTOR SHALL REPLACE ALL FILTRATION WITH NEW FILTERS AT COMPLETION OF CONSTRUCTION. ANY DUCTWORK, AIR TERMINALS, AND/OR OTHER EQUIPMENT UPSTREAM OF FILTRATION SHALL BE CLEANED THOROUGHLY OF CONSTRUCTION DEBRIS BEFORE HANDING OVER TO OWNER.
- ALL MECHANICAL EQUIPMENT SHALL BE U.L. LISTED AND LABELED AS A COMPLETE PACKAGE, NOT THROUGH INDIVIDUAL COMPONENTS OR PARTS. PROVIDE REQUIRED 3RD PARTY FIELD UL LISTING SERVICES AS REQUIRED TO COMPLY.
- UPON PROJECT COMPLETION, THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER INSTALLATION INFORMATION INCLUDING RECORD SUBMITTALS (WITH ANY SUBMITTAL REVIEW COMMENTS ADDRESSED) AND O&M MANUALS FOR EACH PIECE OF EQUIPMENT INCLUDING ALL SELECTED OPTIONS, THE NAME AND ADDRESS OF AT LEAST ONE SERVICE AGENCY, FULL CONTROL SYSTEM O&M AND CALIBRATION INFORMATION INCLUDING WIRING DIAGRAMS, SCHEMATICS, FULL SEQUENCE OF OPERATION, AND PROGRAMMED SETPOINTS. IN ADDITION, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO HIRE A REGISTERED DESIGN PROFESSIONAL TO COMMISSION THE INSTALLED SYSTEM AND PROVIDE THE OWNER AND CODE REVIEWER A SEALED STATEMENT OF SYSTEM COMMISSIONING.
- PROVIDE A ONE YEAR WARRANTY FOR ALL WORK PERFORMED BEGINNING ON THE DAY THE SYSTEM IS COMPLETELY OPERATIONAL AND ACCEPTABLE BY THE OWNER.

SHEET METAL GENERAL NOTES

- STANDARD DUCTWORK SHALL BE GALVANIZED OR ALUMINUM SHEET METAL CONSTRUCTED IN ACCORDANCE WITH THE LATEST SMACNA STANDARDS. ALL CONCEALED SUPPLY, RETURN AND OUTSIDE AIR DUCTWORK SHALL BE WRAPPED WITH 2" THICK DUCT WRAP WITH VAPOR BARRIER. INSULATION (INCLUDING FLEXIBLE DUCT INSULATION) SHALL HAVE A MINIMUM INSTALLED R-VALUE OF 6.0.
- ALL DUCTWORK SHALL BE SEALED PER THE REQUIREMENTS OF THE STATE MECHANICAL CODE. SEAL LOW PRESSURE SUPPLY, RETURN, OUTSIDE AIR, AND EXHAUST DUCTWORK FOR POSITIVE/NEGATIVE 2" PRESSURE CLASS, SMACNA SEAL CLASS A, SMACNA LEAKAGE CLASS 4.
- NOT ALL REQUIRED OFFSETS AND FITTINGS ARE INDICATED ON DRAWINGS, BUT SHALL BE PROVIDED. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR CLEARANCES. SIGNIFICANT ALTERATIONS TO DUCT ROUTING SHALL BE APPROVED BY ARCHITECT/ENGINEER BEFORE PROCEEDING IN ORDER TO ENSURE ADEQUATE STATIC PRESSURE IS AVAILABLE.
- DUCTWORK LAYOUT HAS BEEN DESIGNED TO MINIMIZE SOUND TRANSMISSION. ALL FITTINGS SHALL BE PROVIDED AS INDICATED.
- WATERTIGHT CONCRETE CURBS SHALL BE PROVIDED AROUND ELEVATED FLOOR SLAB PENETRATIONS.
- UNLESS OTHERWISE NOTED, ALL DUCTWORK ABOVE CEILING OR EXPOSED IS OVERHEAD AND AS HIGH AS POSSIBLE TO THE UNDERSIDE OF THE STRUCTURE, WITH SPACE FOR INSULATION WHERE REQUIRED. DUCTWORK AND ASSOCIATED COMPONENTS SHALL CLEAR DOORS AND WINDOWS.
- PROVIDE FLEXIBLE CONNECTIONS IN ALL DUCTWORK SYSTEMS CONNECTED TO MECHANICAL EQUIPMENT THAT REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS SHALL BE PROVIDED AT THE POINT OF CONNECTION TO THE EQUIPMENT UNLESS OTHERWISE NOTED.
- RADIUS ELBOWS SHALL HAVE CENTERLINE RADIUS OF CURVATURE 1.5 TIMES THE DUCT DIAMETER OR WIDTH IN THE PLANE OF TURN. WHERE SQUARE (MITERED) ELBOWS ARE SHOWN, INSTALL TURNING VANES.
- DUCTWORK SIZES ARE INSIDE CLEAR DIMENSIONS. DUCTS CONNECTED TO EQUIPMENT SHALL EQUAL EQUIPMENT CONNECTION SIZE UNLESS NOTED OTHERWISE.
- MAXIMUM LENGTH ON FLEXIBLE DUCT SHALL BE 5'-0", UNLESS OTHERWISE NOTED ON DETAILS OR SPECIFICATIONS.
- THE MECHANICAL CONTRACTOR SHALL BALANCE ALL MECHANICAL SYSTEMS TO THE PERFORMANCE SPECIFICATIONS INDICATED ON PLANS AND PROVIDE THE ENGINEER WITH THREE COPIES OF A COMPLETE TEST AND BALANCE REPORT. THE REPORT IS TO BE ISSUED A MINIMUM OF TWO WEEKS PRIOR TO PROJECT COMPLETION. THE TEST AND BALANCE REPORT WILL BE SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER. ANY ADDITIONAL TESTING, ADJUSTING AND BALANCING REQUIRED (AT ENGINEER'S REQUEST) AFTER REVIEW OF THE INITIAL REPORT SHALL BE PROVIDED AT NO ADDITIONAL COST. TESTING AND BALANCING CONTRACTOR TO CONFIRM FILTERS ARE CLEAN, AND FREE OF DEBRIS PRIOR TO BEGINNING WORK. THE MECHANICAL CONTRACTOR SHALL REPLACE ANY DIRTY FILTERS, AS NEEDED. TEST AND BALANCE REPORT TO BE COMPLETED BY AN INDEPENDENT, CERTIFIED TEST AND BALANCE CONTRACTOR.

HVAC PIPING GENERAL NOTES

- CONDENSATE DRAIN PIPING SHALL BE SCHEDULE 40 PVC PIPE (OR TYPE 'L' HARD DRAWN COPPER WHEN IN PLENUM) AND FITTINGS. DRAINS FROM AIR HANDLING UNITS SHALL BE TRAPPED. CONDENSATE DRAINS SHALL BE INSULATED WITH 1/2" THICK ARMAFLEX INSULATION. MINIMUM DRAIN SIZE SHALL BE 3/4". CONDENSATE LINE SHALL BE SLOPED AS REQUIRED BY CODE.
- ALL REFRIGERANT PIPE SHALL BE NITROGENIZED ACR COPPER TUBE. SIZE, INSULATE, AND INSTALL REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS. REFRIGERANT PIPING INSULATION EXPOSED OUTDOORS SHALL BE COVERED WITH AN OUTER ALUMINUM JACKET.
- PROVIDE UNIONS, FLANGES OR COUPLINGS AT CONNECTION TO ALL VALVES AND EQUIPMENT. DO NOT USE DIRECT WELDED OR THREADED CONNECTIONS TO VALVES, EQUIPMENT OR OTHER APPARATUS. PROVIDE NON-CONDUCTING DIELECTRIC UNIONS WHENEVER CONNECTING DISSIMILAR METALS.
- MECHANICAL CONTRACTOR SHALL PROVIDE PRE-PRINTED COLOR-CODED PIPE LABELS WITH 1-1/2" HIGH LETTERING INDICATING SERVICE AND FLOW DIRECTION. ALL PIPING TO MATCH EXISTING FACILITIES STANDARD (IF APPLICABLE). OTHERWISE, PIPE LABELS SHALL MATCH THE FOLLOWING: REFRIGERANT PIPING, YELLOW BACKGROUND, BLACK LETTERING. NATURAL GAS PIPING, YELLOW BACKGROUND, BLACK LETTERING.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
	THERMOSTAT / TEMP SENSOR (4'-0" AFF TO TOP)
	SUPPLY GRILLE
	RETURN AIR GRILLE
	EXHAUST AIR GRILLE
	CEILING RADIATION DAMPER
	MVD (MANUAL VOLUME DAMPER)
	DIFFUSER TAG
	NECK SIZE
	AIRFLOW-(TYPICAL QUANTITY)
AHU	AIR HANDLING UNIT
HP	HEAT PUMP
EE	EXHAUST FAN
ECUH	ELECTRIC CABINET UNIT HEATER
MOD	MOTORIZED DAMPER

#	REVISIONS	DATE

INDOOR UNIT SPLIT SYSTEM SCHEDULE															
MARK	NOTES	INDOOR UNIT DATA									ELECTRICAL DATA				WEIGHT
		MFR	MODEL NO.	NOM. CAP. (MBH)	SUPPLY AIR FAN					ELECTRIC HEATER	VOLTAGE/PH	MCA	MOCP		
					SA	OA	ESP	FLA	HP	(KW)					
					(CFM)	(CFM)	(IN. W.C.)								
AHU-A	1-10	GOODMAN	AHVE48	48	1400	200	0.2	5.2	3/4	5	230/1	31.5	35	158	
AHU-B	1-10	GOODMAN	AHVE48	48	1400	200	0.2	5.2	3/4	5	230/1	31.5	35	158	

- NOTES:
- 1

FACTORY DISCONNECT.
- 2

PROVIDE 7-DAY PROGRAMMABLE CONTROLS W/ STANDARD WALL THERMOSTAT.
- 3

MERV-8 PRIMARY FILTERS - THROW-AWAY TYPE.
- 4

REFRIGERANT LINESET - SIZE, INSULATE, & ROUTE PIPING PER MANUFACTURER'S INSTRUCTIONS. PENETRATE THRU WALL SEALED WEATHERTIGHT.
- 5

CONDENSATE REMOVAL PUMP - EQUIVALENT TO LITTLE GIANT VCMA-15.
- 6

SECONDARY CONDENSATE OVERFLOW DRAIN PAN WITH UL 508 WATER LEVEL DETECTION DEVICE (EC TO PROVIDE SEPARATE CIRCUIT) TO SHUTOFF EQUIPMENT UPON ACTIVATION.
- 7

VARIABLE SPEED ECM BLOWER MOTOR.
- 8

FULLY COMMUNICATING.
- 9

ELECTRONIC EXPANSION VALVE.
- 10

PROVIDE HEATER KIT MODEL HKTS05X1 WITH SINGLE POINT WIRING KIT.

OUTDOOR UNIT SPLIT SYSTEM SCHEDULE												
MARK	NOTES	MFR	MODEL NO.	REFRIG. TYPE	OUTDOOR UNIT DATA							WEIGHT
					REFRIG. COOLING PERFORMANCE		REFRIG. HEATING PERFORMANCE		ELECTRICAL DATA			
					NOM. CAP.	SEER2	NOM. CAP	HSPF2	VOLTAGE/PH	MCA	MOCP	
					(MBH)		(MBH)					
HP-A	1-3	GOODMAN	GZV6SA48	R32	48	17	48	8.2	230/1	31.8	35	185
HP-B	1-3	GOODMAN	GZV6SA48	R32	48	17	48	8.2	230/1	31.8	35	185

- NOTES:
- 1

PROVIDE 4" CONCRETE HOUSEKEEPING PAD.
- 2

EC TO PROVIDE ELECTRICAL DISCONNECT.
- 3

VARIABLE SPEED SWING COMPRESSOR.

FAN SCHEDULE															
MARK	NOTES	MANUFACTURER	MODEL NO.	SERVICE	LOCATION	TYPE	FAN DATA				ELECTRICAL DATA				WEIGHT
							AIRFLOW (CFM)	RPM	ESP (IN. W.C.)	MOTOR DATA (HP)	VOLTS	PHASE	MCA (A)	MOCP (A)	
EF-A	1-3	GREENHECK	CSP-A200	EXHAUST	RECREATION/ADMIN. BLDG	INLINE	200	825	0.15	135W	115	1	-	-	23
EF-B	1, 2, 4	BROAN	XB80	EXHAUST	RECREATION/ADMIN. BLDG	CEILING MOUNT	80	-	0.1	5.8W	115	1	-	-	12.5

- NOTES:
- 1

FACTORY MOUNTED DISCONNECT.
- 2

GRAVITY OPERATED DAMPER.
- 3

FAN SHALL RUN CONTINUOUSLY WHILE BUILDING IS OCCUPIED.
- 4

EC TO PROVIDE WALL SWITCH.

ELECTRIC UNIT HEATER SCHEDULE									
MARK	NOTES	MANUFACTURER	MODEL NO.	MOUNTING	ELECTRICAL DATA				
					CAPACITY (KW)	VOLTS	PHASE	AMPS	
ECUH-A	1-5	QMARK	CWH1202DSF	WALL	2	240	1	8.3	

- NOTES:
- 1

FACTORY MOUNTED DISCONNECT AND THERMOSTAT.
- 2

PROVIDE SUMMER TIME SWITCH.
- 3

PROVIDE SEMI-RECESSED MOUNTING FRAME.
- 4

MOUNT HEATER @ 24" A.F.F.
- 5

U.L. LISTED.

AIR TERMINAL SCHEDULE (GRILLES, REGISTERS AND DIFFUSERS)									
MARK	NOTES	MANUFACTURER	MODEL NO.	AIR TERMINAL TYPE	NECK SIZE	FACE SIZE	MATERIAL	MAX APD	MAX NC
					Ø (IN.)	(CFM)		(IN. W.C.)	
SD-1A	1-3	PRICE	SPD	SQUARE PLAQUE DIFFUSER	SEE PLANS	24"x24"	STEEL	0.10	25
SD-1B	1-3		SPD	SQUARE PLAQUE DIFFUSER	SEE PLANS	12"x12"	STEEL		
RG-1	1-3		PDDR	PERFORATED RETURN GRILLE	SEE PLANS	24"x24"	STEEL		
EG-1	1-3		80	EGGCRATE RETURN/EXHAUST GRILLE	SEE PLANS	12"x12"	STEEL		

- NOTES:
- 1

BALANCING DAMPER PLACMENT ON PLANS IS COORDINATED WITH CEILING TYPES FOR ACCESSIBILITY AS PERMITTED BY THE DUCT LAYOUT.
- 2

WHERE DAMPER IS INACCESSIBLE, CONTRACTOR IS TO INSTALL A REMOTE CABLE-OPERATED ROD/DAMPER SYSTEM (EQUAL TO DURO ZONE: COD) TO AVOID ACCESS PANEL
- 3

COLOR: SELECTION BY ARCHITECT FROM MANUFACTURER STANDARD OFFERING (DEFAULT: WHITE)
- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN TO COORDINATE MOUNTING TYPES

LOUVER SCHEDULE															
MARK	NOTE LEGEND				MANUFACTURER	MODEL NO.	AIRFLOW DIRECTION	SERVICE	LOUVER SIZE		AIRFLOW	FREE AREA	MAX VELOCITY	MAX APD	MATERIAL
	1	2	3	4					H (IN.)	W (IN.)					
L-1	X	X	X	X	RUSKIN	ELF6375DX	INTAKE	AMENITIES OA	22	18	760	1.16	657	0.07	ALUMINUM

- NOTES:
- 1

COORDINATE FINAL FINISH/COLOR WITH ARCHITECT.
- 2

PROVIDE BIRD/INSECT SCREEN.
- 3

PROVIDE MOTORIZED DAMPER. DAMPER SHALL OPEN WHEN AHU-A OR AHU-B IS ENERGIZED.
- 4

REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS.



- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE:

CLIENT:
The Orchards at Naples Road, LLC
341 N Main Street
Hendersonville, NC 28792
Luis Graef: President



PROJECT:

The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

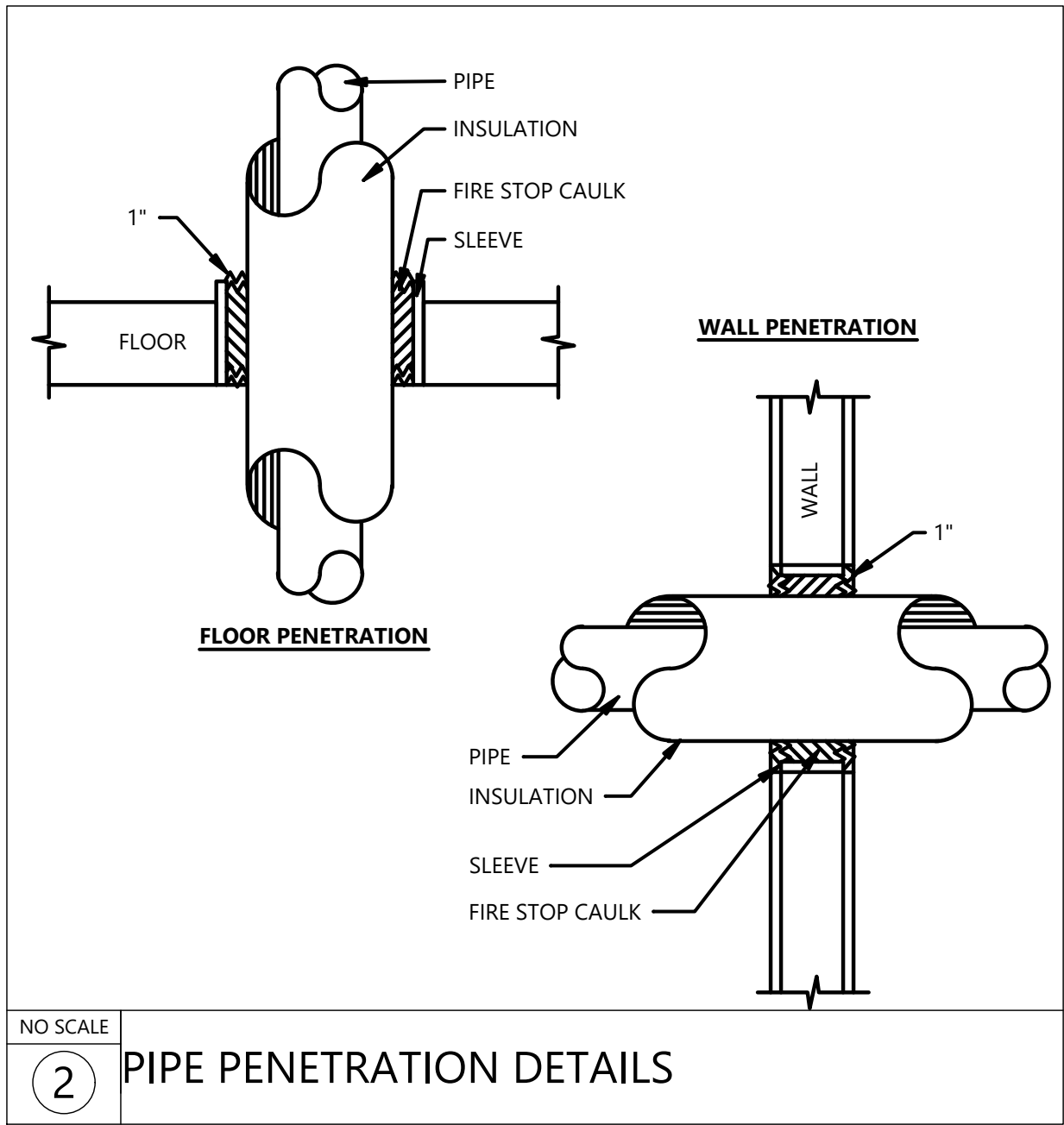
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ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: RS
CHECKED BY: JK

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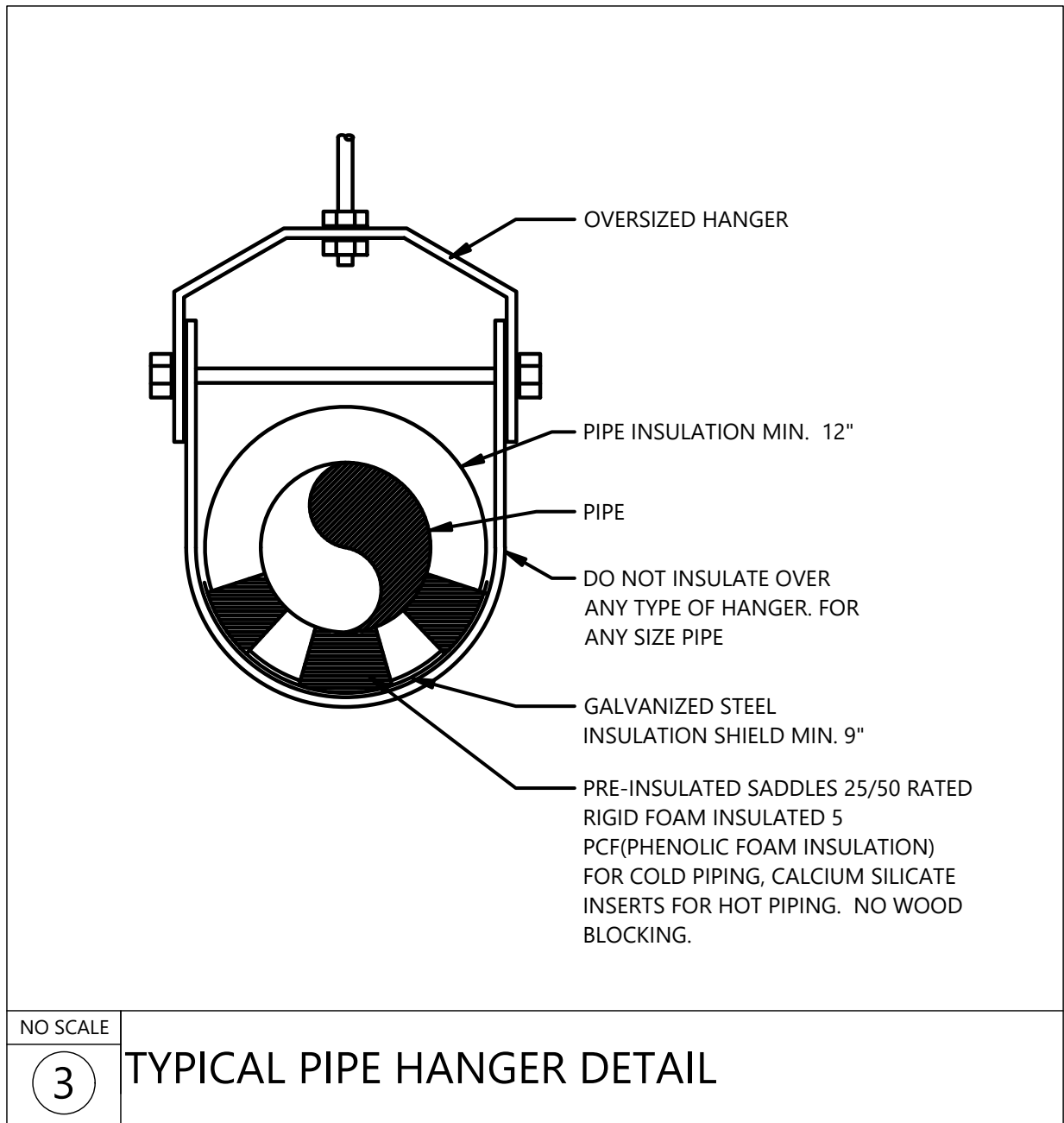
MECHANICAL
SCHEDULES

SHEET #:

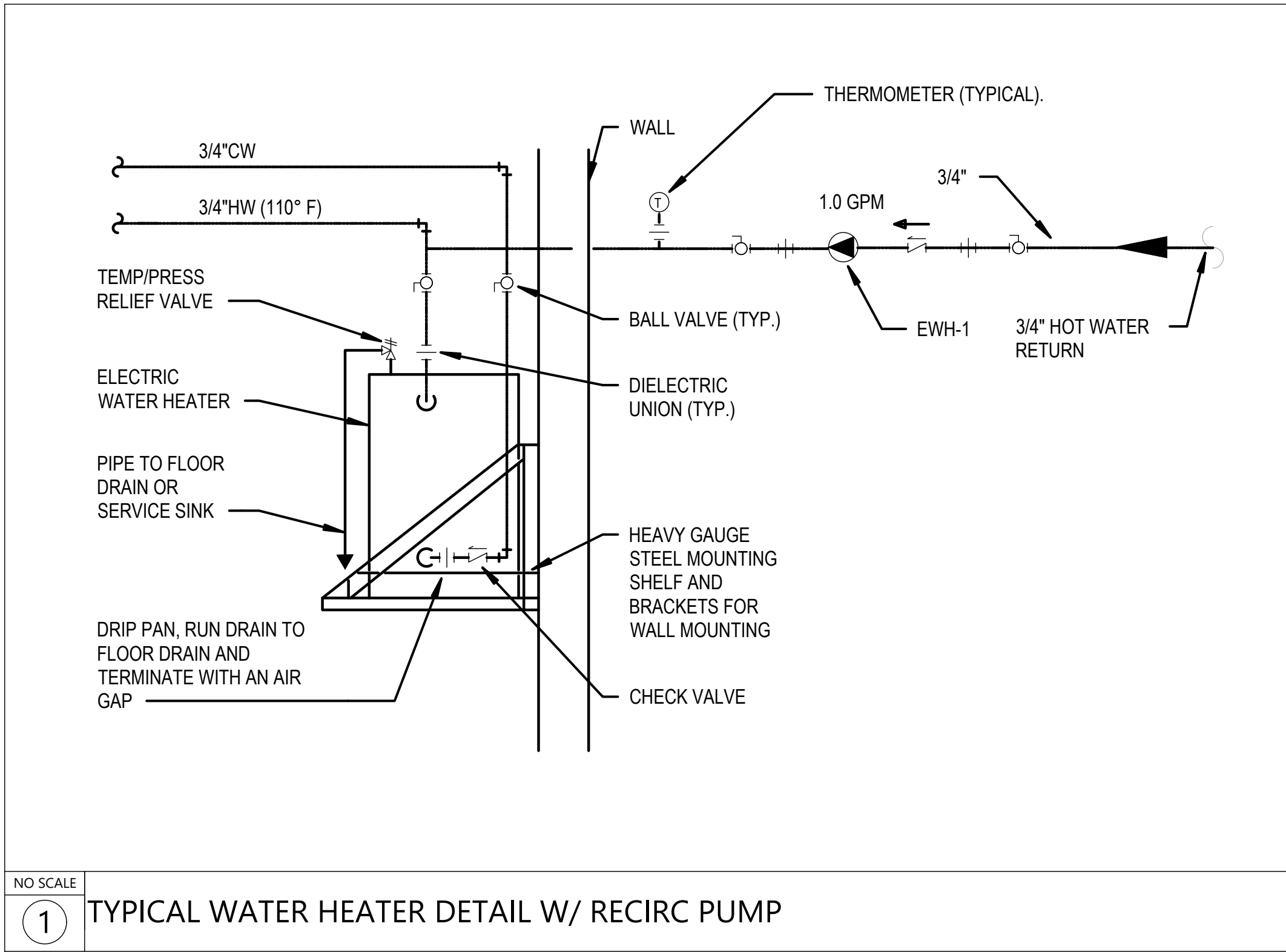
M-01



NO SCALE
2 PIPE PENETRATION DETAILS












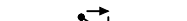



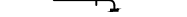

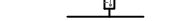
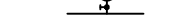

NO SCALE
3 TYPICAL PIPE HANGER DETAIL



NO SCALE
1 TYPICAL WATER HEATER DETAIL W/ RECIRC PUMP

PLUMBING FIXTURE SCHEDULE - AMENITIES BUILDING															
TAG		MANUFACTURER	MODEL	WATER CONSUMPTION	FINISH	ADA	MOUNTING	CONNECTION	OPERATION	ACCESSORIES	RUNOUT PIPE SIZE				COMMENTS
											CW	HW	W	V	
WATER CLOSET	<u>WC-1</u> BOWL	KOHLER	KINGSTON/K-25077-0	1.28 GPF EPA "WATERSENSE"	WHITE VITREOUS CHINA	YES	FLOOR	TANK	MANUAL	SEAT: BEMIS LUSTRA K4650	3/4"	-	4"	2"	-
LAVATORY	<u>LAV-1</u> BOWL	KOHLER	KINGSTON/K-2005	-	WHITE VITREOUS CHINA	YES	WALL	-	FAUCET	-	1/2"	1/2"	1-1/4"	1-1/4"	-
	<u>LAV-1</u> FAUCET	KOHLER	CORALAIS/L-15240-4NDRA	.5 GPM EPA "WATERSENSE"	POLISHED CHROME	YES	DECK	4" CENTERS	MANUAL	ASSE 1070 THERMOSTATIC MIXING VALVE					-
KITCHEN SINK	<u>KS-1</u> BOWL	AMERICAN STANDARD	DECORUM/9024.004EC	-	WHITE VITREOUS CHINA	YES	WALL	-	FAUCET	AIR ADMITTANCE VALVE (AAV)	-	-	1-1/2"	1-1/2"	-
	<u>KS-1</u> FAUCET	-	-	1.5 GPM EPA "WATERSENSE"	POLISHED CHROME	YES	DECK	SINGLE HOLE	MANUAL	-	1/2"	1/2"	-	-	-
HOSE BIBB	<u>HB-1</u>	WOODFORD	MODEL 65EP	-	POLISHED CHROME	-	WALL	-	MANUAL	-	1/2"	-	-	-	FREEZELESS
OUTDOOR SHOWER	<u>OS-1</u>	PRIER	C-108SH1	-	STAINLESS STEEL	-	EXTERIOR WALL	-	MANUAL	PRESSURE BALANCED SHOWER VALVE	1/2"	1/2"	-	-	FREEZELESS AND SELF DRAINING
WATER COOLER	<u>EW-1</u>	ELKAY	LZSTL8LC	-	GRAY GRANITE	-	INTERIOR WALL	-	MANUAL	-	1/2"	-	4"	2"	-
WATER COOLER	<u>EW-2</u>	ELKAY	EDFP217FPK	-	GRAY GRANITE	-	EXTERIOR WALL	-	MANUAL	-	1/2"	-	4"	2"	FREEZE-RESISTANT KIT
FLOOR DRAIN	<u>FD-1</u>	ZURN	Z415B	-	CAST BRASS	-	FLOOR	-	-	-	-	-	4"	2"	-
FLOOR CLEANOUT	<u>FCO</u>	ZURN	Z1400	-	CAST IRON	-	FLOOR	-	-	-	-	-	4"	-	-
FLOOR DRAIN	<u>FD-1</u>	ZURN	Z415B	-	CAST IRON	-	FLOOR	-	-	-	-	-	4"	-	-
UTILITY SINK	<u>US-1</u> BOWL	MUSTEE	18W	-	DURASTONE	-	WALL	-	FAUCET	AIR ADMITTANCE VALVE (AAV)	-	-	1-1/2"	1-1/2"	-
	<u>US-1</u> FAUCET	MUSTEE	93.6	-	POLISHED CHROME	YES	DECK	4" CENTERS	MANUAL	-	1/2"	1/2"	-	-	-

ELECTRIC TANK WATER HEATER SCHEDULE - AMENITIES BUILDING						
Tag	Service	Location	HEATING INPUT (KW)	Volt/Ph	Mfg/Model #	Gallons
EWH	JANITOR'S CLOSET	ON WALL ABOVE UTILITY SINK	9KW	240V/1ph	AMERICAN STANDARD/ENS40L-6	40
					Notes	-

PLUMBING LEGEND			
NEW PIPING	ABBR.	DESCRIPTION	
	CW	COLD WATER PIPING	
	HW	HOT WATER PIPING	
	HWR	HOT WATER RETURN PIPING	
	W	SANITARY WASTE PIPING	
	V	SANITARY VENT PIPING	
	D	DRAIN	
	-	ELBOW DOWN	
	-	ELBOW UP	
	-	PIPE CONTINUES	
	-	BALL VALVE	
	CV	CHECK VALVE	
	FCO	FLOOR CLEAN OUT	
	WCO	WALL CLEAN OUT	
	YCO	YARD CLEAN OUT	
	HB	HOSE BIBB/WALL HYDRANT	
	SA	SHOCK ARRESTOR - SUFFIX INDICATES PDI SIZE	
	-	THERMOMETER	
	-	PRESSURE GAUGE	
ADDITIONAL ABBREVIATIONS			
ABV	ABOVE	KW	KILOWATT
AFF	ABOVE FINISHED FLOOR	LAV	LAVATORY
AFG	ABOVE FINISHED GRADE	MBH	1,000 BTUH
BAS	BUILDING AUTOMATION SYSTEM	MFG	MANUFACTURER
BEL	BELOW	MH	MOUNTING HEIGHT
BFF	BELOW FINISHED FLOOR	PH	PHASE
BTUH	BRITISH THERMAL UNIT / HOUR	PSI	POUNDS PER SQUARE INCH
CFH	CUBIC FEET PER HOUR	SF	SQUARE FEET
CLG	CEILING	SFU	SUPPLY FIXTURE UNITS
CONT	CONTINUATION	T&P	TEMPERATURE AND PRESSURE
DFU	DRAINAGE FIXTURE UNIT (WASTE)	TYP	TYPICAL
DN	DOWN	UR	URINAL
(E)	EXISTING	VB	VACUUM BREAKER
EX	EXISTING	VLV	VALVE
FEE	FINISHED FLOOR ELEVATION	VTR	VENT THRU ROOF
FIN	FINISH	WC	WATER COLUMN
FL	FLOOR	EC	ELECTRICAL CONTRACTOR
FR	FROM	GC	GENERAL CONTRACTOR
FU	FIXTURE UNITS	MC	MECHANICAL CONTRACTOR
GPC	GALLONS PER CYCLE (METERING)	PC	PLUMBING CONTRACTOR
GPF	GALLONS PER FLUSH		
GPM	GALLONS PER MINUTE		
HP	HORSE POWER		
INV	INVERT ELEVATION		

PLUMBING MATERIALS AND NOTES	
DOMESTIC WATER PIPING:	
1. DOMESTIC WATER PIPING AND JOINTS ABOVE GRADE: PROVIDE TYPE 1" HARD DRAWN SEAMLESS COPPER TUBING (ASTM B 88) AND CAST COPPER ALLOY FITTINGS (ASME B16.18). JOINTS 2" AND SMALLER SHALL BE LEAD FREE 95-5 TIN/SILVER SOLDER JOINTS (ASTM B 32).	
2. STERILIZE THE DOMESTIC WATER SYSTEM IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION'S SPECIFICATIONS AND LOCAL HEALTH DEPARTMENT REGULATIONS.	
3. INSULATE DOMESTIC WATER PIPING ABOVE GRADE (EXCEPT EXPOSED CONNECTIONS TO PLUMBING FIXTURES) WITH GLASS FIBER INSULATION HAVING A VAPOR BARRIER AND JACKET. PIPE INSULATION SHALL HAVE A CONDUCTIVITY NOT EXCEEDING 0.27 BTUH x SQ. FT. FOLLOW SCHEDULE BELOW:	
SERVICE TYPE	PIPE SIZES INSULATION THICKNESS
DOMESTIC HOT WATER & CIRCULATION	1/2" - 1-1/2" 1"
DOMESTIC HOT WATER & CIRCULATION	1-1/2" - 4" 1-1/2"
DOMESTIC COLD WATER	1/2" - 1-1/4" 1/2"
DOMESTIC COLD WATER	1-1/2" - 4" 1"
4. DOMESTIC WATER PIPING INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS AND ADHESIVES ARE REQUIRED TO MEET A FLAME-SPREAD RATING OF 25 OR LESS AND A SMOKE-DEVELOPED RATING OF 50 OR LESS, AS TESTED BY ASTM E84 (NFPA 255) METHOD AND SHALL BE PLENUM RATED. PROVIDE PVC JACKET FOR EXPOSED PIPING IN MECHANICAL ROOMS. INSULATION SHALL BE CONTINUOUS AT ALL HANGERS. PROVIDE GALVANIZED STEEL SHIELD BETWEEN PIPE HANGER AND INSULATION.	
5. PROVIDE TWO-PIECE, BRONZE OR BRASS BODY, FULL PORT, 600 PSI WOG, BALL TYPE SHUT-OFF VALVES WITH BLOW-OUT PROOF STEMS AND ADJUSTABLE PACKING GLANDS. VALVES SHALL BE LEAD FREE PER NSF 61, ANNEX G REQUIREMENTS. INSTALL VALVES IN A LOCATION THAT PERMITS ACCESS FOR SERVICE WITHOUT DAMAGE TO THE BUILDING OR FINISHED MATERIALS.	
6. PROTECT COPPER PIPING AGAINST CONTACT WITH DISSIMILAR METALS. ALL HANGERS, SUPPORTS, ANCHORS AND CLIPS SHALL BE COPPER OR COPPER PLATED. WHERE COPPER PIPING IS CARRIED ON TRAPEZE HANGERS WITH OTHER PIPING, PROVIDE A PERMANENT ELECTROLYTIC ISOLATION MATERIAL TO PREVENT CONTACT WITH DISSIMILAR OTHER METALS.	
7. PROTECT COPPER PIPING AGAINST CONTACT WITH ALL MASONRY, WHERE COPPER IS SLEEVED THROUGH MASONRY, PROVIDE COPPER OR RED BRASS SLEEVES. WHERE COPPER MUST BE CONCEALED IN OR AGAINST MASONRY, PARTITIONS, PROVIDE A HEAVY COATING OF ASPHALTIC ENAMEL ON THE COPPER PIPING AND 15# ASPHALT SATURATED FELT BETWEEN THE PIPING AND THE MASONRY PARTITION.	
8. DOMESTIC WATER SUPPLY PIPING SHALL BE TESTED AND PROVED WATERTIGHT UNDER A WATER PRESSURE OF NO LESS THAN THE WORKING PRESSURE OF THE SYSTEM, OR AN AIR TEST OF NO LESS THAN ONE-HUNDRED (100) PSI. THIS PRESSURE SHALL BE HELD FOR AT LEAST FIFTEEN (15) MINUTES. WATER USED IN TESTING SHALL BE OBTAINED FROM A POTABLE SOURCE OF SUPPLY.	
SANITARY WASTE / VENT PIPING:	
1. SANITARY WASTE BELOW GRADE: PROVIDE SCHEDULE 40 PVC PIPE AND SOCKET FITTINGS (ASTM D 2665) WITH SOLVENT WELD JOINTS (ASTM D2855). FOAM CORE PVC PIPE IS <u>NOT</u> APPROVED.	
2. SANITARY WASTE/VENT ABOVE GRADE: PROVIDE SERVICE WEIGHT CAST IRON NO-HUB PIPE AND FITTINGS (CISPI 301) WITH NEOPRENE GASKET AND STAINLESS STEEL CLAMP JOINTS (CISPI 310).	
3. SLOPE SANITARY WASTE PIPING AT 1/4" PER FOOT MINIMUM FOR PIPING 2-1/2" AND SMALLER AND 1/8" PER FOOT MINIMUM FOR PIPING 3" AND LARGER UNLESS NOTED OTHERWISE.	
4. WHERE WASTE PIPING IS EXPOSED IN REST ROOM AREAS, PROVIDE CHROME PLATED BRASS PIPING, REMOVABLE P-TRAPS, MATCHING STOPS AND ESCUTCHEONS FOR ALL LAVATORIES.	
5. SANITARY WASTE AND VENT SYSTEMS SHALL BE TESTED AND PROVED WATER TIGHT UNDER A HEAD PRESSURE OF NO LESS THAN 10 FT. THIS PRESSURE SHALL BE HELD FOR A PERIOD OF NO LESS THAN 15 MINUTES.	
6. INSULATE MECHANICAL ROOM FLOOR DRAIN BODIES, P-TRAP AND HORIZONTAL DRAIN PIPING ABOVE GRADE WITH 1" THICK GLASS FIBER INSULATION WITH VAPOR BARRIER AND JACKET.	

PLUMBING GENERAL NOTES	
GENERAL REQUIREMENTS:	
1. PLUMBING WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE 2018 NORTH CAROLINA STATE PLUMBING CODE AND WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.	
2. SCOPE: PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED FOR THE COMPLETION AND OPERATION OF ALL PLUMBING SYSTEMS IN ACCORDANCE WITH ALL APPLICABLE CODES.	
3. PERMITS: APPLY AND PAY FOR ALL NECESSARY PERMITS, FEES AND INSPECTIONS REQUIRED BY ANY PUBLIC AUTHORITY HAVING JURISDICTION. ACREAGE CHARGES, FACILITIES CHARGES AND BOND PROPERTY ASSESSMENTS ARE NOT TO BE CONSTRUED TO BE A PART OF THIS CONTRACT.	
4. WARRANTY: PROVIDE A ONE YEAR WARRANTY, FROM THE DATE OF ACCEPTANCE OF WORK BY THE OWNER, FOR ALL PLUMBING MATERIALS AND EQUIPMENT.	
5. COORDINATE ALL PLUMBING PIPING LOCATIONS, ROUGH-IN LOCATIONS AND EQUIPMENT LOCATIONS WITH OTHER TRADES TO AVOID CONFLICTS AND INTERFERENCES. FINAL PIPING AND EQUIPMENT LOCATIONS SHALL BE A CODE COMPLIANT INSTALLATION FOR ALL TRADES.	
6. FIELD VERIFY PROPER OPERATION OF EXISTING SYSTEMS BEFORE STARTING CONSTRUCTION. NOTIFY THE ARCHITECT / ENGINEER OF RECORD OF ANY PROBLEMS OR DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND EXISTING CONDITIONS AND/OR ANY POTENTIAL PROBLEMS OBSERVED BEFORE CONTINUING WORK IN THE EFFECTED AREAS.	
7. WHERE DISCREPANCIES ARE FOUND IN THE DRAWINGS AND SPECIFICATIONS THE MORE STRINGENT SHALL APPLY. CONTACT ENGINEER FOR CLARIFICATION.	
8. ALL PIPING SHALL BE MANUFACTURED IN THE UNITED STATES OF AMERICA.	
9. ALL VALVES, BACKFLOW PREVENTERS, BOOSTER PUMPS, ETC. SERVING THE DOMESTIC WATER SYSTEM SHALL MEET LEAD FREE STANDARDS PER ANSI/NSF 372 AND NSF 61, ANNEX G.	
10. CUT WALLS, FLOORS AND CEILINGS AS REQUIRED FOR INSTALLATION OF PLUMBING WORK. ALL CUTTING SHALL BE HELD TO A MINIMUM. PATCH AND FINISH SURFACES TO MATCH ADJOINING SURFACES.	
11. PLUMBING PLANS SHALL NOT BE SCALED. REFERENCE THE ARCHITECTURAL PLANS FOR ALL LOCATIONS OF PLUMBING FIXTURES, WALLS, DOORS, WINDOWS, ETC.	
12. PLUMBING PIPING AND SPECIALTIES SHALL BE LOCATED CONCEALED IN WALLS, PARTITIONS OR ABOVE CEILINGS UNLESS NOTED OTHERWISE. PLUMBING PIPING IN EXPOSED AREAS SHALL BE RUN TIGHT TO UNDERSIDE OF STRUCTURE. PROVIDE ACCESS DOORS FOR CONCEALED SPECIALTIES.	
13. DO NOT INSTALL PLUMBING PIPING IN AREAS SUBJECT TO FREEZING TEMPERATURES. INSTALL PLUMBING PIPING SHOWN IN EXTERIOR WALLS ON THE CONDITIONED SIDE OF THE WALL INSULATION.	
14. PROVIDE NON-CONDUCTING DIELECTRIC UNIONS WHENEVER CONNECTING DISSIMILAR METALS.	
15. ATTACH HANGERS TO STRUCTURE. HANGERS SHALL NOT ATTACH TO THE DECK.	
16. PROVIDE ACCESS DOORS FOR VALVES, WATER HAMMER ARRESTORS, TRAP PRIMERS, ETC. CONCEALED IN MASONRY WALLS, GYPSBOARD WALLS AND/OR CEILINGS THAT WILL REQUIRE MAINTENANCE ACCESS.	
17. CORE DRILL THROUGH MASONRY (CMU BLOCK) WALLS FOR ALL PIPE PENETRATIONS. WHEN DRILLING OPENINGS FOR INSULATED PIPES THE OPENING'S DIAMETER SHALL BE LARGE ENOUGH FOR PIPE INSULATION TO REMAIN CONTINUOUS PASSING THROUGH THE OPENING. SEAL WATER TIGHT. PROVIDE ESCUTCHEONS IN EXPOSED FINISHED AREAS.	
18. PLUMBING SYSTEMS INCLUDE, BUT ARE NOT LIMITED TO: PLUMBING FIXTURES, DOMESTIC WATER SYSTEM, SANITARY WASTE AND VENT SYSTEM, NATURAL GAS SYSTEM.	
PLUMBING FIXTURES AND EQUIPMENT:	
1. PROVIDE COMPLETE PLUMBING FIXTURES AND EQUIPMENT. INCLUDE SUPPLIES, STOPS, VALVES, FAUCETS, DRAINS, TRAPS, TAIL PIECES, ESCUTCHEONS, ETC.	
2. PLUMBING FIXTURES AND EQUIPMENT SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS.	
3. NO PRIVATE LABELED MATERIALS WILL BE ACCEPTED AS EQUALS TO PRODUCTS SPECIFIED HEREIN.	
4. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SUBSTITUTIONS TO SPECIFIED PLUMBING FIXTURES AND EQUIPMENT INCLUDING BUT NOT LIMITED TO: PROVIDING MAINTENANCE ACCESS CLEARANCE, PIPING, ELECTRICAL, REPLACEMENT OF OTHER SYSTEM COMPONENTS, BUILDING ALTERATIONS, ETC. AND ANY MODIFICATIONS TO ASSOCIATED MECHANICAL, ELECTRICAL OR PLUMBING SYSTEMS REQUIRED BY THE EQUIPMENT'S INSTALLATION INSTRUCTIONS. ALL COSTS ASSOCIATED WITH SUBSTITUTIONS SHALL BE INCLUDED IN THE ORIGINAL BASE BID.	

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CLIENT:
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341 N Main Street
Hendersonville, NC 28792
Luis Graef, President

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO:
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: JS
CHECKED BY: JK

DWG DESCRIPTION:
PLUMBING COVER SHEET

SHEET #:
P-00

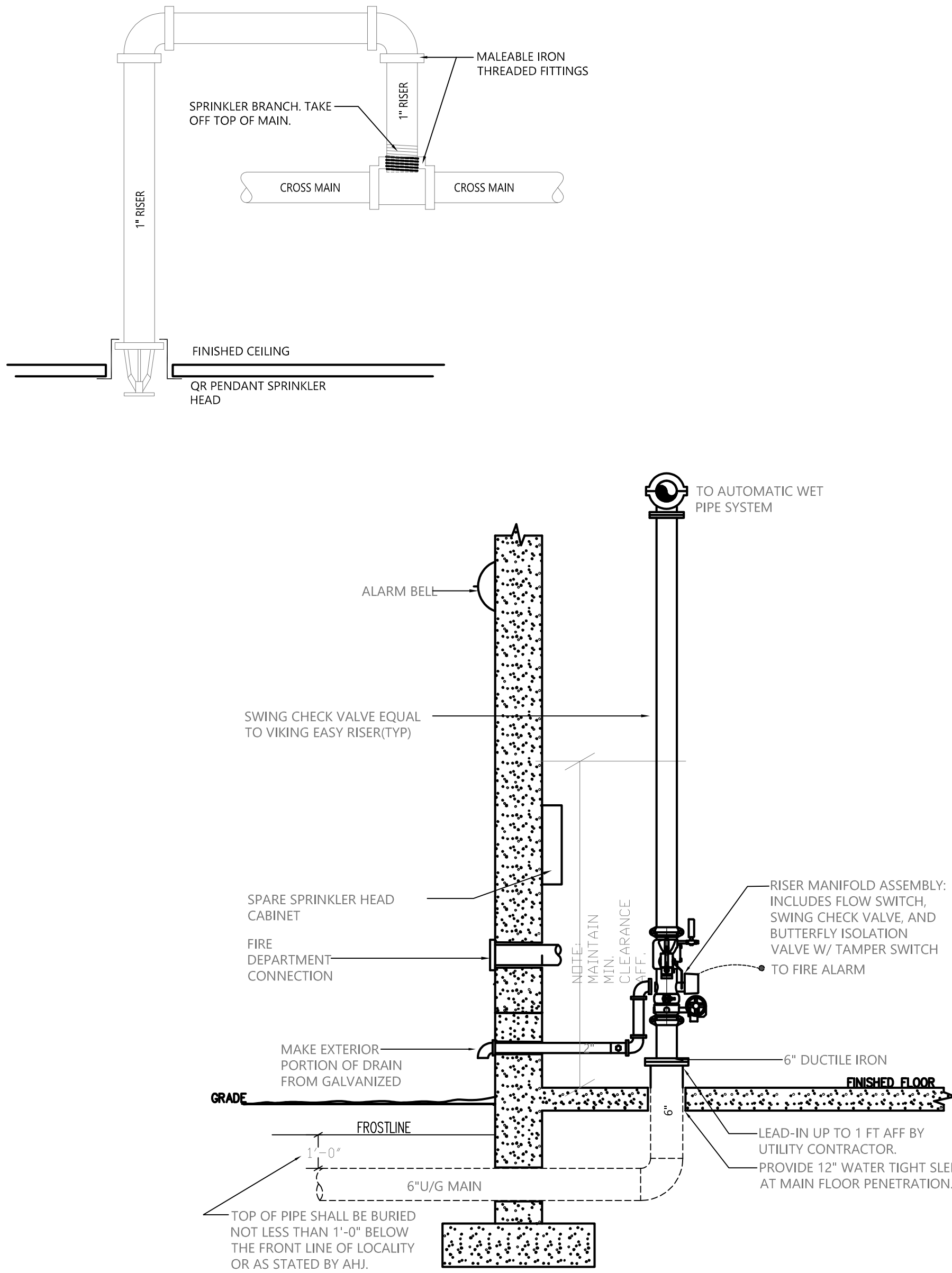
SPRINKLER DESIGN CRITERIA					
OCCUPANCY	HAZARD	REMOTE AREA	HOSE STREAM	MAX HEAD COVERAGE	REMARKS
LIGHT HAZARD	0.10 GPM/SF	1500 SF	100 GPM	225 SF/HD	QR RESIDENTIAL SPRINKLERS THROUGHOUT

- SPRINKLER CONTRACTOR SHALL VERIFY FINISH OF ESCUTCHEON/FACEPLATE WITH ARCHITECT/OWNER.
- SPRINKLER HEADS SHALL MATCH OWNER STANDARDS.
- ESCUTCHEONS SHALL BE COMPATIBLE WITH MAKE AND MODEL OF HEAD TYPES.
- ESCUTCHEONS SHALL BE INSTALLED TO ACCOUNT/ADJUST FOR CEILING TILE DEFLECTION.

- GENERAL PROJECT NOTES:
- MOUNT SPRINKLERS WITHIN CENTER OF A.C.T.
 - SPRINKLERS SHALL BE A MINIMUM 4" FROM WALLS/OBSTRUCTION.
 - SPRINKLERS SHALL BE INSTALLED A MINIMUM OF 6'-0" APART.
 - SOFFITS ARE TO BE SPRINKLED, UNLESS ARE APPLICABLE TO EXEMPTION PER NFPA 8.6.5.1.2.
 - PROVIDE ADDITIONAL FIRE SPRINKLERS, AS MAY BE DIRECTED BY FIRE MARSHALL, AT NO ADDITIONAL COST TO OWNER.
 - PROVIDE UPRIGHT HEADS WITHIN OPEN CEILINGS.
 - PROVIDE SEMI RECESSED HEADS WITHIN A.C.T. CEILINGS.
 - PROVIDE CONCEALED HEADS WITHIN GYPSUM CEILINGS.
 - COORDINATE SPRINKLERS WITH LIGHTING/RCP, MECHANICAL, AND ALL OTHERS TRADES WITHIN PLANE OF CEILING.

Scope of Work:

PROJECT CONSISTS OF INSTALLING NEW WET SPRINKLER SYSTEM THROUGHOUT ALL APARTMENT BUILDINGS ON SITE.



DEFERRED SUBMISSION

THE FIRE PROTECTION DRAWINGS AND SPECIFICATIONS WITHIN THE WILDE ENGINEERING DOCUMENT SET ARE PERFORMANCE BASED AND INTENDED TO CONVEY SCOPE OF THE WORK. THE FIRE PROTECTION CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL AS A DEFERRED SUBMITTAL TO THE LOCAL AHJ SHOP DRAWINGS AND HYDRAULIC CALCULATIONS INDICATING THE SPRINKLER SYSTEM LAYOUT, INCLUDING FINAL HEAD LOCATIONS AND MAIN/LEADER PIPING SIZING. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE THESE DOCUMENTS SEALED BY A LICENSED FIRE PROTECTION ENGINEER.

FIRE PROTECTION SPECIFICATIONS

- FIRE PROTECTION CONTRACTOR TO PROVIDE DESIGN AND INSTALLATION FOR NEW FIRE SPRINKLER SYSTEMS FOR NEW APARTMENTS BUILDINGS. FIRE PROTECTION SYSTEMS SHALL BE HYDRAULICALLY CALCULATED AND DESIGNED. FIRE PROTECTION CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL NECESSARY EQUIPMENT INCLUDING PIPE, FITTINGS, VALVES AND ACCESSORIES. FIRE PROTECTION CONTRACTOR SHALL PROVIDE HYDRAULIC CALCULATIONS, DESIGN OF SPRINKLER SYSTEMS, TESTING, MATERIAL AND LABOR FOR COMPLETE FIRE PROTECTION SYSTEM.
- SPRINKLER SYSTEMS SHALL BE DESIGNED TO MEET STANDARDS OF NFPA 13R 2013ED. THE DESIGN SHALL ALSO MEET THE REQUIREMENTS OF THE OWNER'S INSURANCE COMPANY AND THE LOCAL AUTHORITY HAVING JURISDICTIONS.
- SUBCONTRACTOR SHALL PROVIDE COPIES OF DESIGN CALCULATIONS, DRAWINGS AND ALL SUBMITTAL DATA TO ALL AUTHORITY HAVING JURISDICTIONS, OWNER'S INSURANCE COMPANY AND ARCHITECT. FIRE PROTECTION CONTRACTOR TO PROVIDE COPIES OF MATERIAL DATA AND TEST CERTIFICATES FOR ABOVE GROUND PIPING STARTING AT 1'-0" ABOVE FINISHED FLOOR AT LEAD IN LOCATIONS TO AUTHORITY HAVING JURISDICTION, OWNER AND ENGINEER OF RECORD AS RECORD OF COMPLETION.
- OPERATION AND MAINTENANCE MANUALS TO BE PROVIDED TO THE OWNER BY THE FIRE PROTECTION CONTRACTOR.
- FIRE PROTECTION CONTRACTOR TO PROVIDE TRAINING FOR OWNER TO FAMILIARIZE THEMSELVES WITH BASIC FUNCTION OF THE FIRE SPRINKLER SYSTEMS, LOCATION OF RISER, MAINTENANCE REQUIREMENTS PER NFPA 25, EMERGENCY CONTACTS AND SHUT OFF VALVE LOCATIONS.
- ALL PIPE INSIDE THE UNITS WILL BE FIRE RATED CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE ASME B1.20.1, ASTM F441. ALL FITTINGS WILL BE CHLORINATED POLYVINYL CHLORIDE ASTM F439. THESE FITTINGS AND PIPE WILL BE JOINED BY SOLVENT CEMENT FOR ASTM F493. ALL CPVC PIPE AND CPVC FITTINGS TO BE UL/FM LISTED AND APPROVED.
- GATE VALVES WILL BE MADE OF AN IRON BODY, BRONZE TRIM, RISING OUTSIDE SCREW AND YOKE WITH SOLID WEDGE UL/FM LISTED AND APPROVED.
- SPRINKLER HEADS: PROVIDE 155" QUICK RESPONSE RESIDENTIAL SPRINKLERS IN THE PENDENT POSITION WITHIN THE UNITS ON THE LOWER FLOORS AND SIDEWALL SPRINKLERS ON THE TOP FLOOR OF ALL BUILDINGS. PROVIDE 155" DRY SIDEWALL SPRINKLERS IN ALL BREEZEWAYS IN ALL BUILDING TYPES.
- FIRE PROTECTION CONTRACTOR TO INSTALL PIPING IN ACCORDANCE WITH NFPA 13R 2013 ED. SEAL PIPING AND SLEEVE PENETRATIONS TO ACHIEVE FIRE RESISTANCE TO FIRE SEPARATION AS REQUIRED.

FIRE PROTECTION CRITERIA

- NEW CONSTRUCTION IS 7 MULTI STORY APARTMENT BUILDINGS VARYING IN SIZE WITH A NEW WET SPRINKLER SYSTEM DESIGNED PER NFPA-13R 2013 ED. CPVC SPRINKLER PIPE WILL BE RAN WITHIN THE TRUSSES BETWEEN FLOORS WITH THE SPRINKLER HEADS BEING FED FROM THIS PIPE. THE SITE IS LOCATED IN HENDERSONVILLE, NC.
- FIRE SPRINKLER ACCEPTANCE TESTING SHALL BE PROVIDED PER NFPA-13R 2013 ED.
- SPRINKLER SYSTEM FOR THE BUILDING SHALL BE WET PIPE SPRINKLER SYSTEM, DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA-13R 2013 ED.
- THESE APARTMENT BUILDINGS WILL BE DESIGNED FOR LH OCCUPANCY PER NFPA-13R 2013ED. SPRINKLERS WILL BE RESIDENTIAL SPRINKLERS WITH SPRINKLER SPACING PER SPRINKLER SPECIFICATION SHEETS USED IN DESIGN. FIRE PROTECTION CONTRACTOR WILL BE A FULLY AUTOMATIC FIRE SPRINKLER SYSTEM AND WILL BE RESPONSIBLE FOR PROVIDING HYDRAULIC CALCULATIONS FOR THE FIRE SPRINKLER SYSTEM.
- STRUCTURAL SUPPORT AND STRUCTURAL OPENINGS FOR THE FIRE PROTECTION SYSTEM INCLUDING LIVE AND DEAD LOADS SHALL BE COORDINATED WITH THE STRUCTURAL ENGINEER. CPVC PIPE WILL BE LOCATED WITH A WALL CAVITY IN THE UNIT. ALL PENETRATIONS THRU STRUCTURAL MEMBERS SHALL BE COORDINATED WITH THE STRUCTURAL ENGINEER PRIOR TO CORING OR SUPPORTING TO ENSURE PROPER WEIGHT DISTRIBUTION AND TO AVOID WEAKENED STRUCTURE. ALL FIRE PROTECTION PIPING PENETRATIONS SHALL BE PROPERLY SEALED WITH APPROVED FIRE RATED CAULK.
- FIRE PROTECTION CONTRACTOR WILL BE RESPONSIBLE FOR ENSURING SEISMIC BRACING OF THE FIRE PROTECTION MAIN PIPING AND BRANCH LINE PIPE WILL BE SUPPLIED IF APPLICABLE.
- SPRINKLERS IN BATHROOMS 55 SQFT AND SMALLER ARE PERMITTED TO BE OMITTED PER NFPA 13R 2013ED SECTION 6.6.2. SPRINKLERS IN CLOTHES CLOSETS, LINEN CLOSETS AND PANTRIES ARE PERMITTED TO BE OMITTED PER NFPA 13-R 2013ED. SECTION 6.6.3. SPRINKLERS ARE PERMITTED TO BE OMITTED IN CLOSETS ON BALCONIES PER NFPA 13-R 2013 ED. SECTION 6.6.7
- PENDENT SPRINKLERS SHALL BE LOCATE AT LEAST 3FT FROM CEILING FANS AND LIGHT FIXTURES PER NFPA 13R-2013 ED. SECTION 6.4.6.3.4.1. SIDEWALL SPRINKLERS SHALL BE LOCATED AT LEAST 5FT FROM CEILING FANS AND LIGHT FIXTURES PER NFPA 13R-2013 ED. SECTION 6.4.6.3.5.1

FIRE PROTECTION GENERAL NOTES

- ALL WORK TO BE PERFORMED BY A FIRE PROTECTION CONTRACTOR LICENSED IN THE STATE OF NORTH CAROLINA AND IS CAPABLE OF HANDLING THE WORK OF THE SIZE AND SCOPE INDICATED ON THE PLANS. ALL WORK SHALL BE PERFORMED BY OTHERS. ALL WORK SHALL BE NEAT AND PROFESSIONAL, AND SHALL MEET ALL SAFETY REQUIREMENTS SPECIFIED BY CODE OR RECOMMENDED MANUFACTURER.
- ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. CLEARANCES SHALL BE MAINTAINED AND EQUIPMENT SHALL BE INSTALLED TO ALLOW FOR EASE OF SERVICE.
- ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE NORTH CAROLINA STATE BUILDING CODES AND WITH REQUIREMENTS OF ALL LOCAL AUTHORITY HAVING JURISDICTIONS.
- THE FIRE PROTECTION CONTRACTOR SHALL WARRANTY ALL OF THEIR WORK TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF 12 MONTHS, STARTING AT THE DATE WHEN THE SYSTEM IS DETERMINED TO BE PUT INTO SERVICE AND COMPLETE. IF DURING THE WARRANTY PERIOD ANY PORTION OF THE SYSTEM(S) IS FOUND TO BE DEFECTIVE, THE FIRE PROTECTION CONTRACTOR SHALL REPAIR OR REPLACE THAT PORTION OF THE SYSTEM IN A TIMELY MANNER AND AT NO EXPENSE TO THE OWNER. THIS WARRANTY SHALL BE IN ADDITION TO ANY MANUFACTURER'S WARRANTY.
- THE FIRE PROTECTION CONTRACTOR SHALL PREPARE AND SUBMIT A SET OF NFPA SHOP DRAWINGS SHOWING THE PIPE ROUTES, HANGER LOCATIONS AND PLACEMENT OF SPRINKLERS. THESE DRAWINGS SHALL INDICATE REMOTE AREAS AND DENSITIES ALONG WITH SPACING OF THE SPRINKLER HEADS WITHIN THE BUILDING. THE DRAWINGS SHALL CROSS REFERENCE NODES AND PIPES USED TO PREPARE HYDRAULIC CALCULATIONS. THE HYDRAULIC CALCULATIONS SHALL BE PERFORMED AND BASED ON THE PREPARED DRAWINGS BY THE FIRE PROTECTION CONTRACTOR. THE HYDRAULIC CALCULATIONS SHALL PROVE THE WATER PRESSURES AND FLOWS AT THE SITE ARE SUFFICIENT TO MEET SPRINKLER REQUIREMENTS.
- PIPE AND EQUIPMENT SUPPORTS AND HANGERS SHALL MEET LOCAL SEISMIC REQUIREMENTS OF THE NORTH CAROLINA BUILDING CODE AND NFPA STANDARDS. SEISMIC CALCULATIONS SHALL BE PERFORMED TO DETERMINE THE TYPE OF SEISMIC BRACES AND RESTRAINTS THAT SHALL BE USED FOR THE SPRINKLER SYSTEM IF APPLICABLE.
- REFER TO PLUMBING PLANS FOR RISER ROOM LOCATIONS AND BUILDING LAYOUTS



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Luis Graef, President



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Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO:
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: JS
CHECKED BY: JK

DWG DESCRIPTION:
FIRE
PROTECTION
COVER SHEET

SHEET #:
FP-0