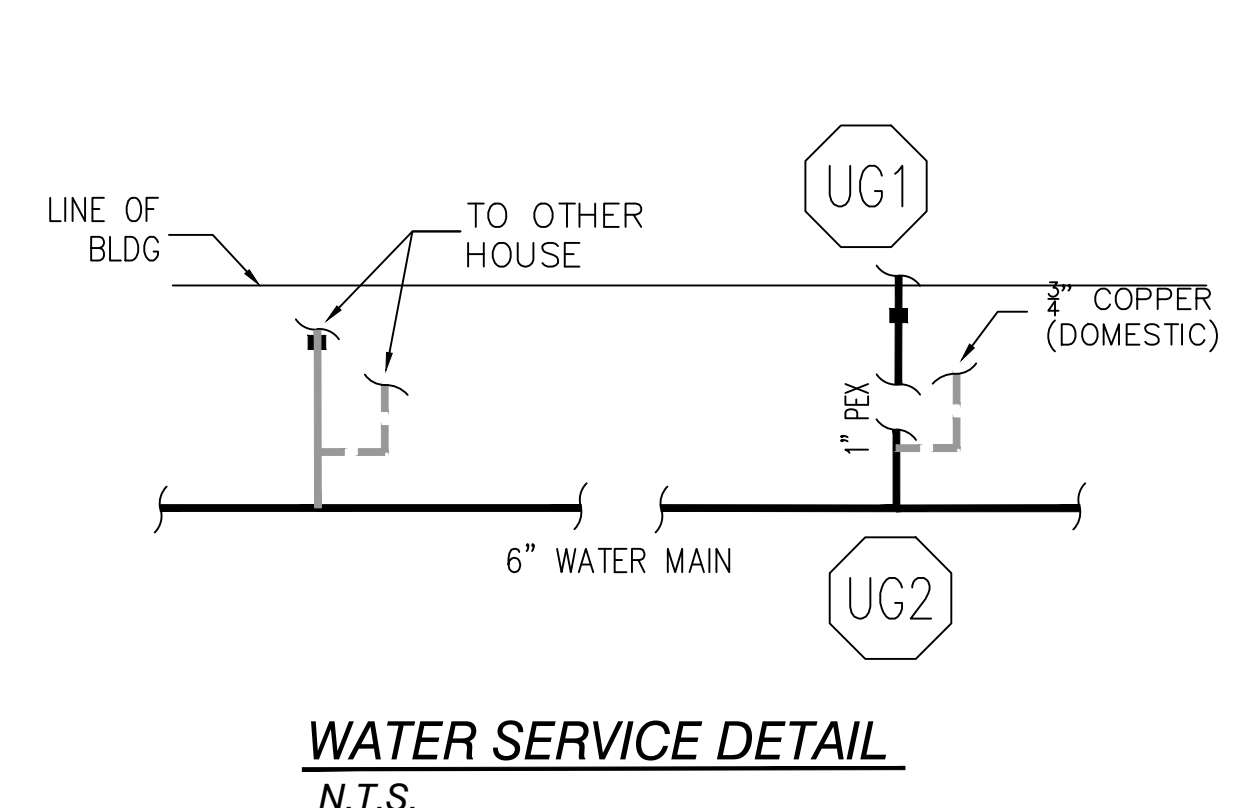
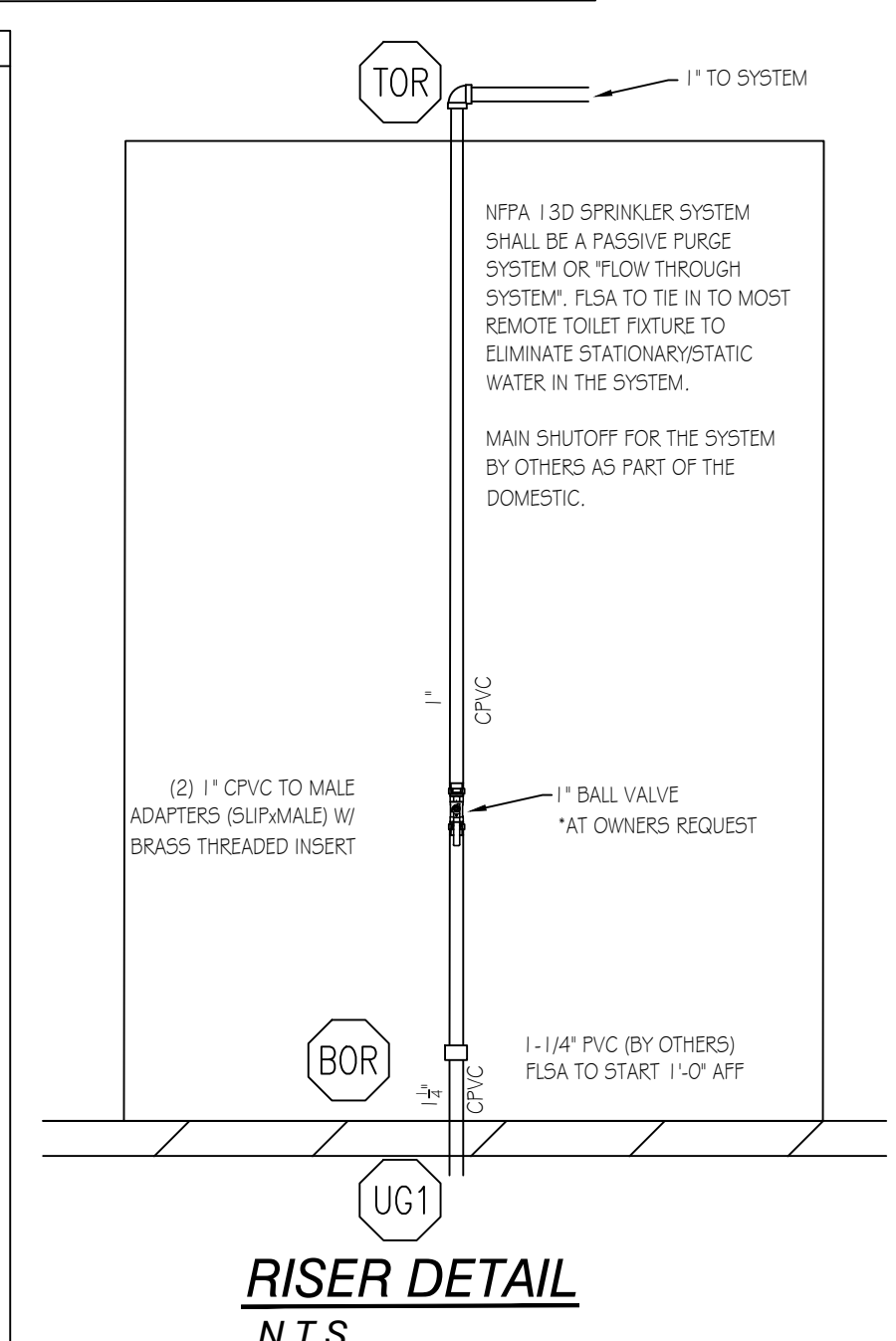
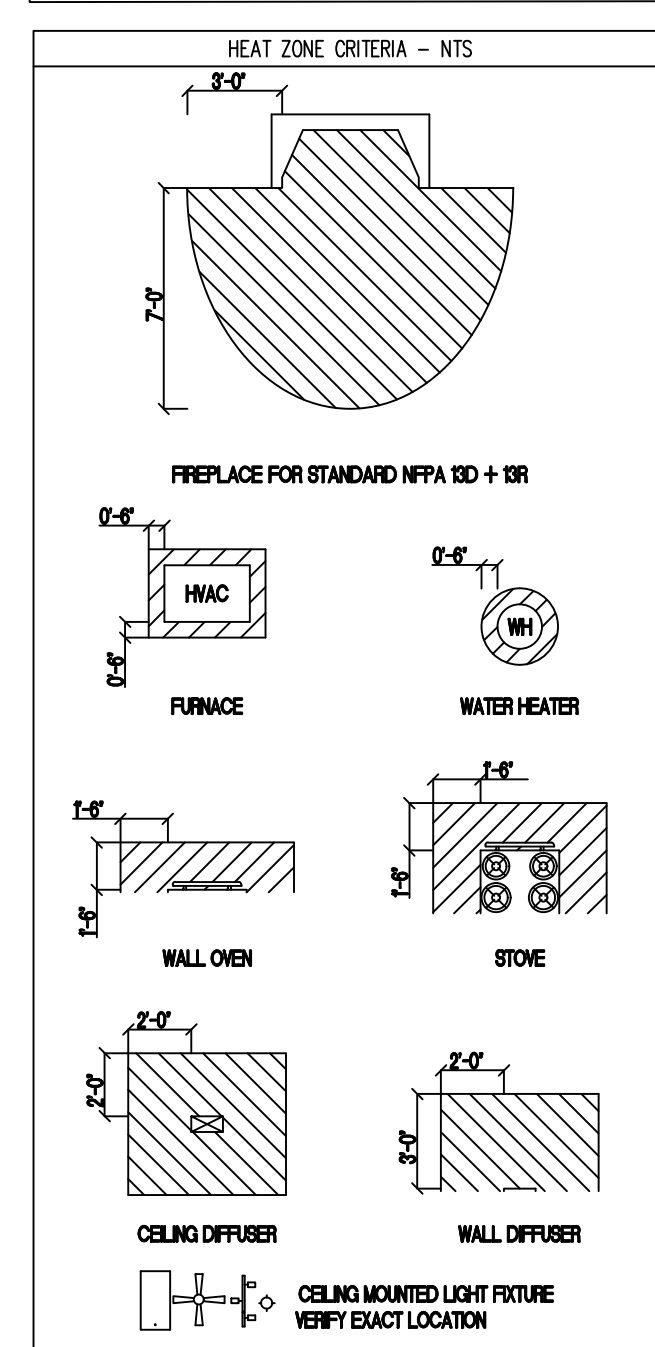
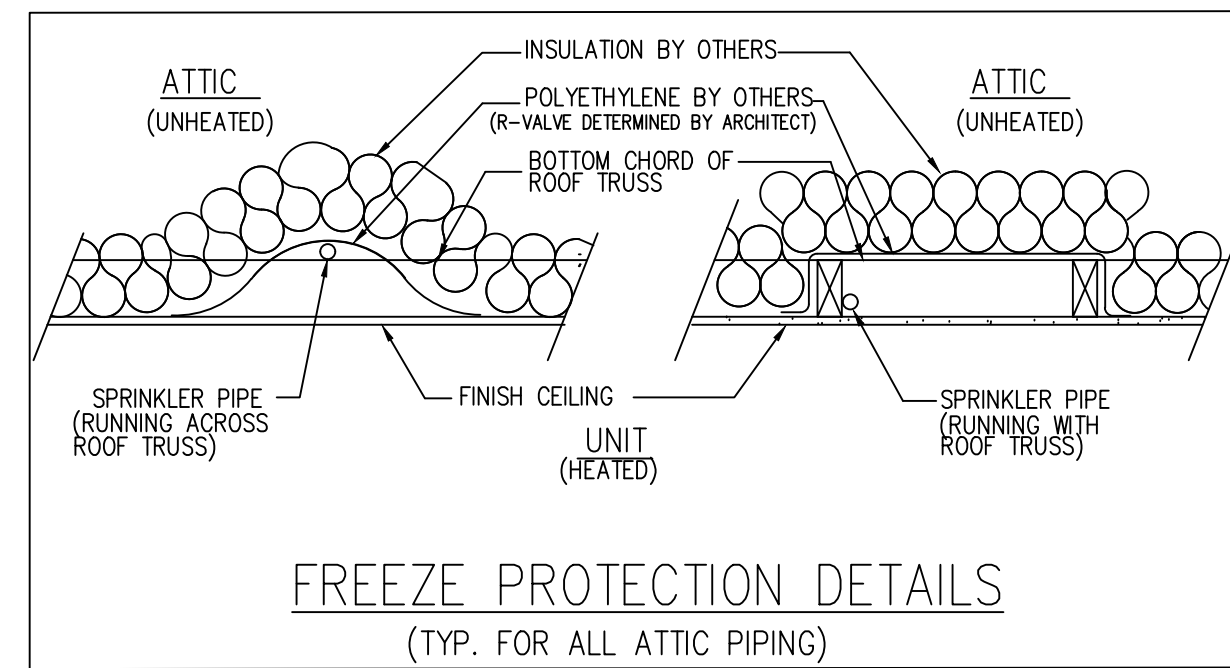
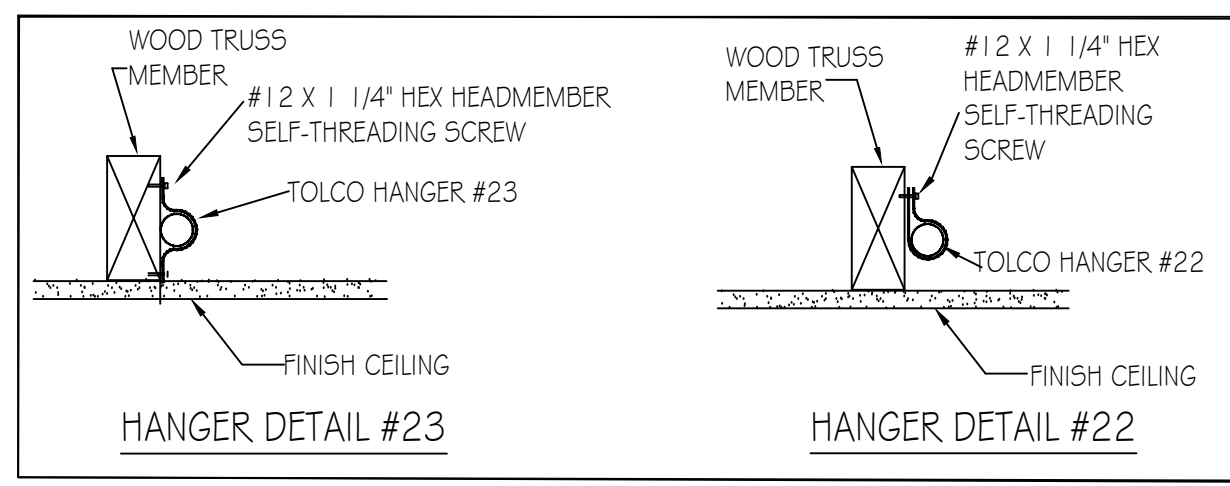


GENERAL NOTES

- THIS WET PIPE FIRE SPRINKLER SYSTEM IS DESIGNED AS LIGHT HAZARD/RESIDENTIAL OCCUPANCY WITH A DESIGN DENSITY OF .05 GPM/2 SPRINKLERS MAX IN ACCORDANCE WITH 13D (2013 EDITION) AND NFPA 13-11.3.1.1.
- HYDRAULIC CALCULATIONS ARE BASED UPON FLOW DATA PERFORMED BY FLSA ON 04/21/2021 AT 4:00PM. HYDRAULIC CALCULATIONS TO BE BASED ON NFPA 13D (2013 EDITION).
- FIRE SPRINKLER OVERHEAD PIPE AND FITTINGS ARE TO BE CPVC PIPE LISTED FOR FIRE PROTECTION USED UNLESS NOTED OTHERWISE.
- ALL HANGERS TO BE U.L. LISTED FOR FIRE PROTECTION SERVICES. HANGERS SHALL BE INSTALLED IN ACCORDANCE WITH THEIR LISTING. SPACING AND LOCATION TO COMPLY WITH NFPA 13.
- ALL EQUIPMENT TO BE U.L. LISTED FOR FIRE PROTECTION SERVICES AND LISTED IN ACCORDANCE WITH ITS LISTING.
- PENDENT SPRINKLERS ARE TO BE SPACED A MAXIMUM OF 18 FT. X 18 FT. AND A MINIMUM OF 8 FT. APART. PENDANTS MAY BE A MAXIMUM OF 9'-0" OFF OF ANY WALL.
- IN AREAS WHERE WET-TYPE SPRINKLER SYSTEM PIPING HAS BEEN INSTALLED, IT IS THE OWNERS' RESPONSIBILITY TO PROVIDE ADEQUATE HEAT. (AMBIENT TEMPERATURE OF A MINIMUM 40°F)
- ALL DRAINAGE TO COMPLY WITH NFPA 13D AND CONTRACT DOCUMENTS.
- [X'-X'] DENOTES CENTERLINE OF PIPE AFF.
- ALL SPRINKLER HEADS SHALL BE LISTED RESIDENTIAL SPRINKLER HEADS IN ACCORDANCE WITH 7.5.1 OF NFPA 13D.
- FLSA POINT OF CONNECTION IS AT 1'-0" AFF.
- UNDERGROUND PIPING TO BE FLUSHED PRIOR TO SPRINKLER PIPE CONNECTION. FLUSHING IS TO BE COMPLETED BY OTHERS.
- PIPING TO SPRINKLER HEADS 1" CPVC UNLESS OTHERWISE NOTED.

NOTE:
SITE HYDRAULIC REFERENCE PLAN HAS BEEN SHOWN FOR REFERENCE ONLY.
ALL UNDERGROUND WORK SHALL BE INSTALLED BY UTILITY CONTRACTOR AND INSTALLED IN ACCORDANCE WITH THE CIVIL SITE UTILITY PLAN. FLSA SHALL BEGIN WORK AT 1'-0" ABOVE FINISHED FLOOR.



Sprinkler Design Data

Project Name: OAKHAVEN LOT 18	System: WET
Project Street Address: 265 OAKHAVEN DRIVE	Sys. Sq. Ft.: VARIES
Floor: 2	Ceiling Height: VARIES
Designed By: HALEY WEYANT	Phone: (919) 872-3250
Occupancy: RESIDENTIAL	Hazard: LIGHT/RESIDENTIAL

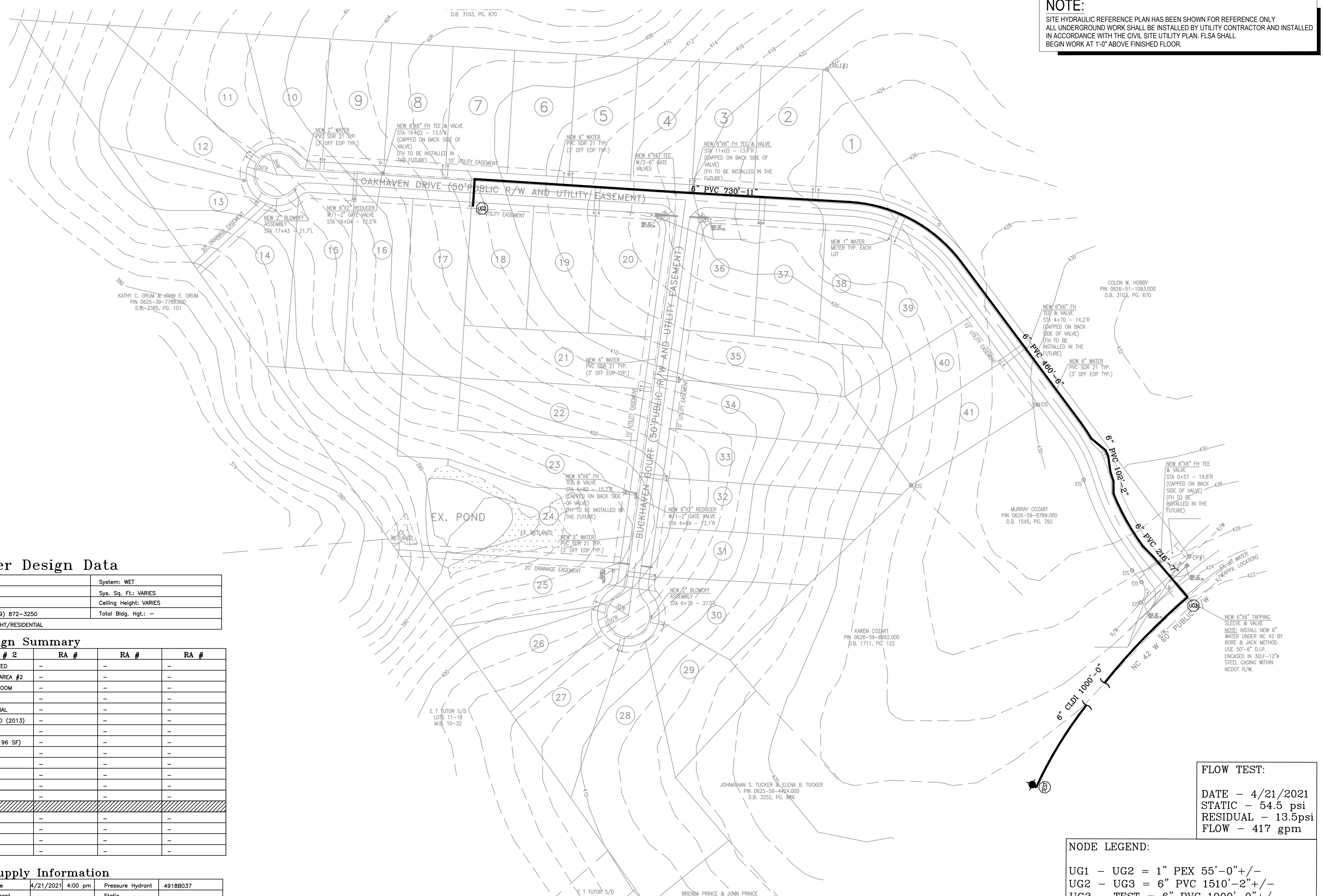
Design Summary

Design Method	RA # 1	RA # 2	RA #	RA #
Design Area #	REMOTE AREA #1	REMOTE AREA #2	-	-
Location	BEDROOM #2	BONUS ROOM	-	-
Type of System	WET	WET	-	-
Hazard Class	RESIDENTIAL	RESIDENTIAL	-	-
Criteria Form	NFPA 130 (2013)	NFPA 130 (2013)	-	-
Design Area	1 HEADS	2 HEAD	-	-
Sprinkler Spacing	20X20 (400 SF)	14X14 (196 SF)	-	-
Density	.05	.05	-	-
K-Factor	4.9	4.9	-	-
Domestic Flow	3 GPM	3 GPM	-	-
# Design Sprinklers	1	2	-	-
Special Application Spk.	-	-	-	-
Requirement @ TEST	-	-	-	-
G.P.M. Req'd	23.03	29.27	-	-
P.S.I. Req'd	34.18	28.87	-	-
Safety Factor @ TEST	20.12	25.33	-	-
Volume of Dry System	-	-	-	-

Water Supply Information

Tested by	-	Date/Time	4/21/2021 4:00 pm	Pressure Hydrant	49188037
Hydrant Elevation	-	Flow Hydrant	-	Static	-
Static (PSI)	54.5	Residual (PSI)	13.5	Flow (GPM)	417

Copy of Water Test Data Included with Calculation is required



FLOW TEST:
DATE - 4/21/2021
STATIC - 54.5 psi
RESIDUAL - 13.5psi
FLOW - 417 gpm

NODE LEGEND:
UG1 - UG2 = 1" PEX 55'-0"+/-
UG2 - UG3 = 6" PVC 1510'-2"+/-
UG3 - TEST = 6" PVC 1000'-0"+/-

SITE PLAN - FOR HYDRAULIC REFERENCE ONLY

TABLE A - CPVC STANDARD SUPPORT SPACING

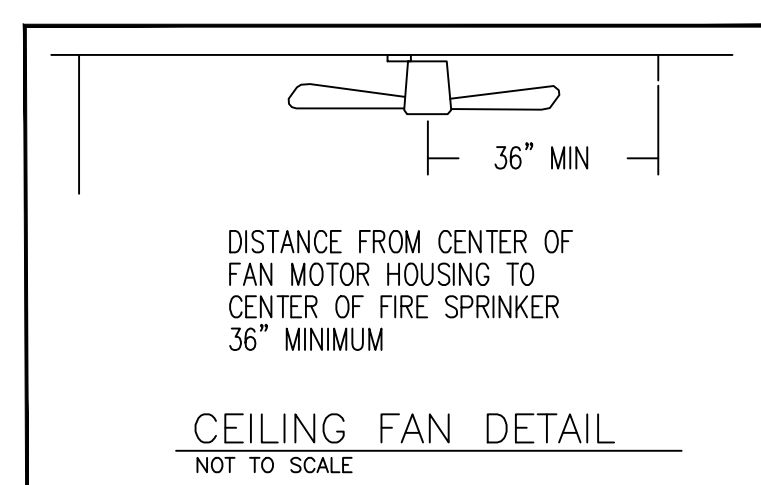
NOMINAL SIZE, INCHES	MAX SUPPORT SPACING, FEET
3/4"	5'-0"
1"	6'-0"
1 1/4"	6'-6"
1 1/2"	7'-0"
2"	8'-0"
2 1/2"	9'-0"
3"	10'-0"

TABLE B - MAX SUPPORT SPACING DISTANCE IN LINE SPRINKLER HEAD DROP TEE

NOMINAL PIPE SIZE	LESS THAN 100 PSI	MORE THAN 100 PSI
3/4"	4'-0"	3'-0"
1"	5'-0"	4'-0"
1 1/4"	6'-0"	5'-0"
1 1/2" - 3"	7'-0"	7'-0"

TABLE C - MAX SUPPORT SPACING DISTANCE END SPRINKLER HEAD DROP ELBOW

NOMINAL PIPE SIZE	LESS THAN 100 PSI	MORE THAN 100 PSI
3/4"	4'-0"	3'-0"
1"	5'-0"	4'-0"
1 1/4"	6'-0"	5'-0"
1 1/2" - 3"	7'-0"	7'-0"



SCOPE OF WORK

- FLSA TO BEGIN WORK AT 1'-0" AFF
 - FLSA TO INSTALL AUTOMATIC SPRINKLER SYSTEM UNDER NFPA 13D (2013) TO PROTECT NEW RESIDENTIAL HOME
 - FLSA TO TIE THE NEW SPRINKLER SYSTEM INTO PLUMBING FOR A PASSIVE PURGE SYSTEM.
 - ALL PIPING TO BE CPVC.
 - ALL UNDERGROUND AND RUN-IN BY OTHERS
- THIS FIRE SPRINKLER PLANNING AND DESIGN DRAWING HAS BEEN PREPARED BY FIRE & LIFE SAFETY AMERICA, INC. AS A LICENSED FIRE SPRINKLER CONTRACTOR UNDER ARTICLE 2 OF CHAPTER 87 OF THE GENERAL STATUTES FOR THE STATE OF NORTH CAROLINA.
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- COPYRIGHT FIRE & LIFE SAFETY AMERICA, INC. ALL RIGHTS RESERVED.
- NORTH CAROLINA STATE LICENSE #29733
PERMIT NUMBER: -

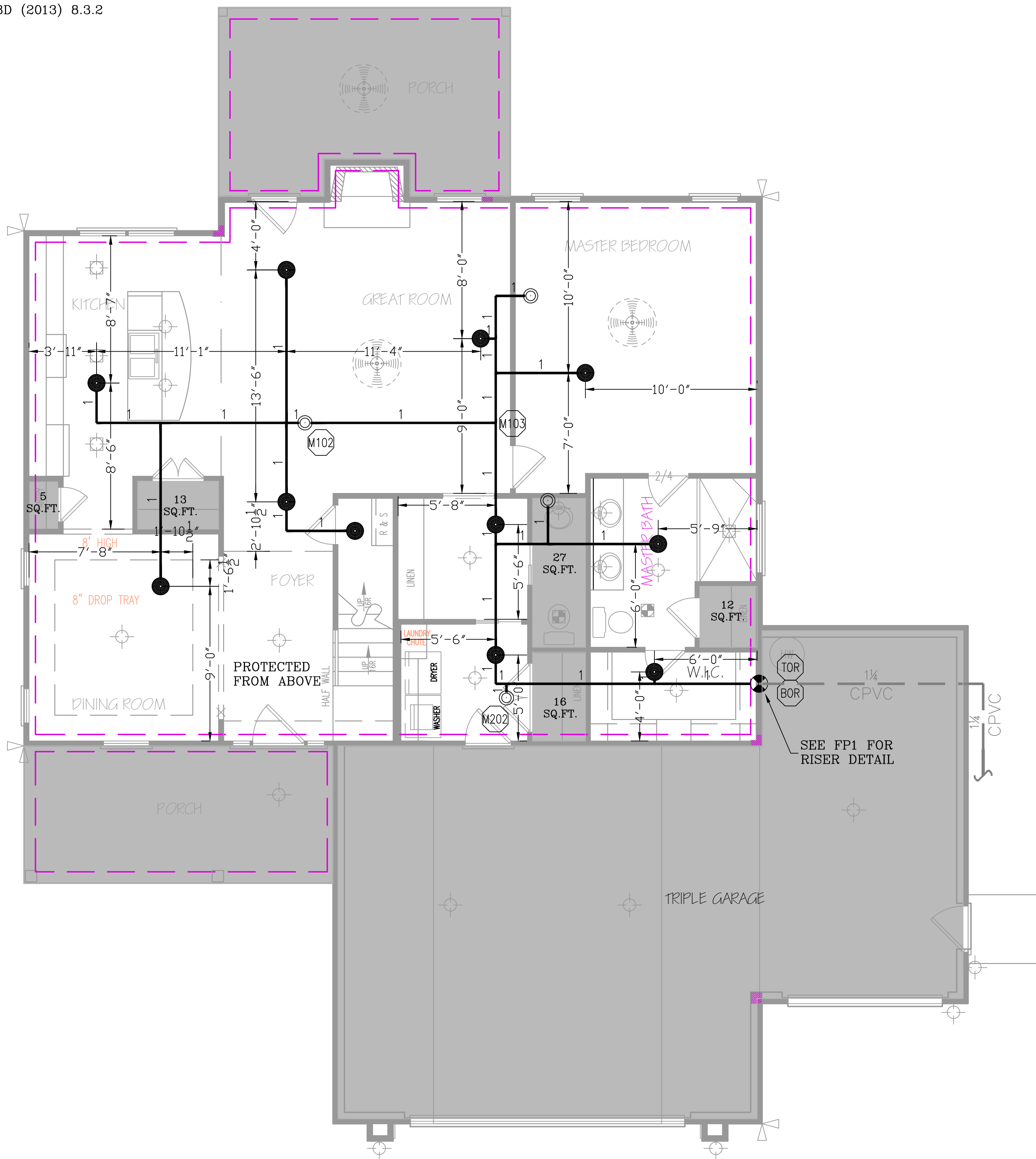
<p>SYSTEM DESIGN CRITERIA</p> <p>TYPE SYSTEM: <input checked="" type="checkbox"/> WET <input type="checkbox"/> DRY <input type="checkbox"/> DELUGE <input type="checkbox"/> NFPA STANDARD: <input type="checkbox"/> #13 <input checked="" type="checkbox"/> #13R <input type="checkbox"/> #14 <input type="checkbox"/> #20 <input type="checkbox"/> #22 <input type="checkbox"/> PREACTION <input type="checkbox"/> ANTI-FREEZE</p> <p>OCCUPANCY: RESIDENTIAL HAZARD: LIGHT PIPE REQUIRED: NO SLEEVES REQUIRED: NO</p> <p>MAXIMUM SPACING: VARIES LOCAL HOSE THREADS: N.S.T. SPRINKLERS ARE REQUIRED TO BE LOCATED IN THE CENTER OF THE CEILING TILES.</p>		<p>APPROVING AGENCIES</p> <p>APPROVING AUTHORITY: HARNETT COUNTY</p> <p>UNDERWRITER: N/A</p> <p>GENERAL CONTRACTOR: WATERMARK HOMES</p> <p>ADDRESS: 1303 FT BRAGG ROAD SUITE 201 CITY & STATE: FAYETTEVILLE, NC 28305</p> <p>PHONE NO.: (910) 483-2229 FAX NO.:</p>		<p>GENERAL NOTES</p> <p>1. Freeze Protection: The owner is responsible for maintaining a min. of 40°F temperature for all wet systems and portions of other systems containing water.</p> <p>2. M.I.C. Protection: The owner is responsible for all detection testing prevention.</p> <p>3. Design is subject to minor deviations arising from field conditions and/or trade coordination. Such deviations shall not affect code compliance or scope of work and shall not require resubmittal except in "as-built" if required by contract documents.</p> <p>4. Underground provider to ensure lead-in is plumb, 2-holed, rodded, threaded, thrust blocked and a fully executed underground test certificate required per NFPA to be provided to FLSA prior to connection. FLSA is not responsible for damage to its system or components due to debris entering the system from underground water lines provided "by others".</p> <p>5. This drawing is property of Fire and Life Safety America and is not to be duplicated and/or distributed without written authorization from FLSA.</p> <p>6. Hydrostatic testing will only be performed with water or air depending on adequate temperature. Any other form of testing is excluded.</p>		<p>LEGEND</p> <table border="1"> <tr> <th>Symbol</th> <th>Description</th> </tr> <tr> <td>○</td> <td>Hydraulic Reference Point</td> </tr> <tr> <td>⊕</td> <td>18" BTS</td> </tr> <tr> <td>⊕</td> <td>12'-0" AFF</td> </tr> <tr> <td>⊕</td> <td>Elev. Above Finished Floor</td> </tr> <tr> <td>⊕</td> <td>+ TOS 12'-0"</td> </tr> <tr> <td>⊕</td> <td>Elev. of Top of Steel</td> </tr> <tr> <td>⊕</td> <td>Calling Height</td> </tr> <tr> <td>⊕</td> <td>Denotes Hanger Location</td> </tr> <tr> <td>⊕</td> <td>Denotes Setback Support</td> </tr> <tr> <td>⊕</td> <td>Room name or use</td> </tr> <tr> <td>⊕</td> <td>Sleeve Location</td> </tr> <tr> <td>⊕</td> <td>FLSA Start Point</td> </tr> </table>		Symbol	Description	○	Hydraulic Reference Point	⊕	18" BTS	⊕	12'-0" AFF	⊕	Elev. Above Finished Floor	⊕	+ TOS 12'-0"	⊕	Elev. of Top of Steel	⊕	Calling Height	⊕	Denotes Hanger Location	⊕	Denotes Setback Support	⊕	Room name or use	⊕	Sleeve Location	⊕	FLSA Start Point	<p>SPRINKLER SUMMARY</p> <table border="1"> <thead> <tr> <th>SYM</th> <th>TYPE</th> <th>FINISH</th> <th>TEMP</th> <th>ORIF</th> <th>"K"</th> <th>NPT</th> <th>MANUF</th> <th>SIN#</th> <th>ESCUTCHEON</th> <th>QTY.</th> </tr> </thead> <tbody> <tr> <td>●</td> <td>RES. PENDENT</td> <td>WHITE</td> <td>200°</td> <td>1/2"</td> <td>4.9</td> <td>1/2"</td> <td>VIKING</td> <td>VK494</td> <td>CNCEALD</td> <td>0</td> </tr> <tr> <td>+</td> <td>DATE</td> <td>DESCRIPTION</td> <td>BY</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Δ</td> <td>5/26/2021</td> <td>SUBMITTAL TO AHJ</td> <td>HCW</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		SYM	TYPE	FINISH	TEMP	ORIF	"K"	NPT	MANUF	SIN#	ESCUTCHEON	QTY.	●	RES. PENDENT	WHITE	200°	1/2"	4.9	1/2"	VIKING	VK494	CNCEALD	0	+	DATE	DESCRIPTION	BY								Δ	5/26/2021	SUBMITTAL TO AHJ	HCW								<p>GRAPHIC SCALE: 1/8" = 1' - 0"</p> <p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>5/24/2021</td> <td>SUBMITTAL TO AHJ</td> <td>HCW</td> </tr> </tbody> </table> <p>1731 Round Rock Drive Raleigh, NC 27615 PHONE (919) 872-3250 FAX (919) 877-5776</p> <p>FLSA FIRE & LIFE SAFETY AMERICA PROTECTING AMERICA</p> <p>JONATHAN STEBILA LEVEL III AUTOMATIC SPRINKLER SYSTEMS #111897</p> <p>HYD. SITE PLAN, GENERAL NOTES & DETAILS</p> <p>OAKHAVEN LOT 18 FP1 265 OAKHAVEN DRIVE HOLLY SPRINGS, NC 27540</p> <p>DRAWING #: DATE: 5/24/2021 DRAWN BY: H. WEYANT SCALE: AS NOTED</p> <p>OF 2</p>		NO.	DATE	DESCRIPTION	BY	1	5/24/2021	SUBMITTAL TO AHJ	HCW
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NOTES:

- PORCHES AND GARAGES ARE OMITTED PER NFPA 13D (2013) 8.3.4
- CLOSETS 24 SQ. FT. OR LESS IN AREA ARE UNSPRINKLERED PER NFPA 13D (2013) 8.3.3; WALLS AND CEILING TO BE SURFACED WITH NONCOMBUSTIBLE OR LIMITED COMBUSTIBLE MATERIAL AS DEFINED BY NFPA 220
- BATHROOMS 55 SQ. FT. OR LESS IN AREA ARE UNSPRINKLERED PER NFPA 13D (2013) 8.3.2

SPRINKLER LEGEND

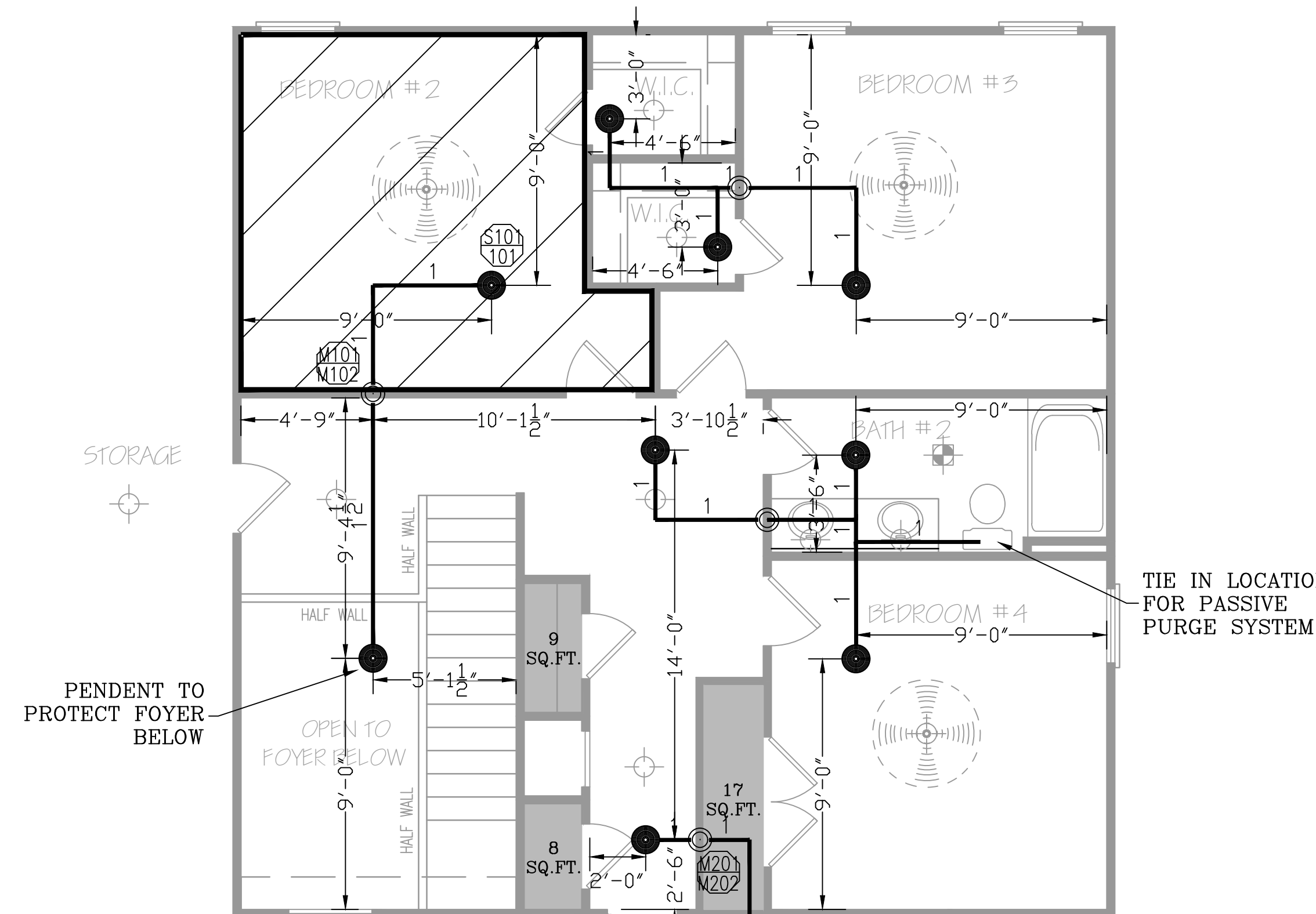
- NO HEADS REQUIRED
- REMOTE AREA



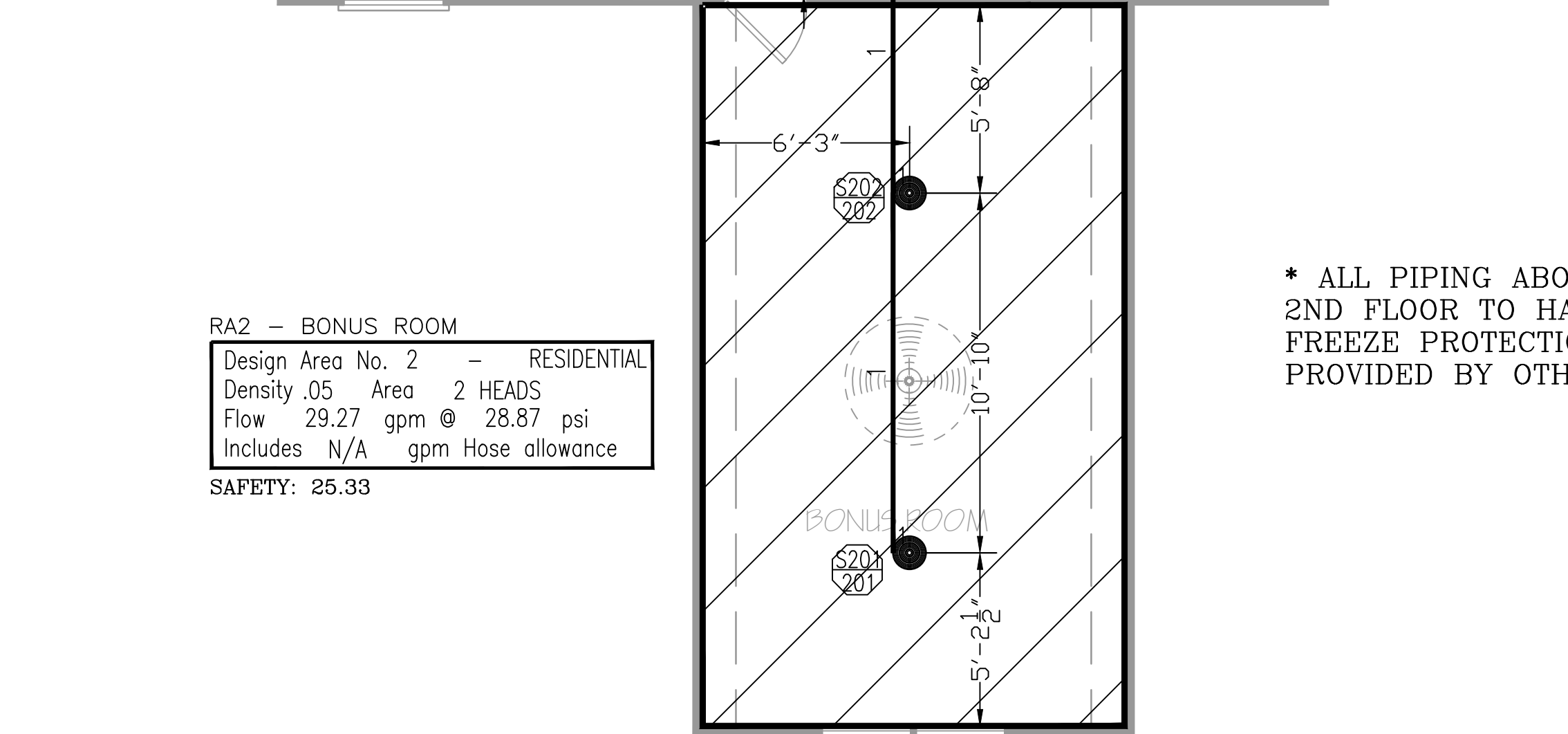
LEVEL 1 - SPRINKLER PLAN

1/4" = 1' - 0"

RA1 - BEDROOM #2
 Design Area No. 1 - RESIDENTIAL
 Density .05 Area 1 HEADS
 Flow 23.03 gpm @ 34.18 psi
 Includes N/A gpm Hose allowance
 SAFETY: 20.12



RA2 - BONUS ROOM
 Design Area No. 2 - RESIDENTIAL
 Density .05 Area 2 HEADS
 Flow 29.27 gpm @ 28.87 psi
 Includes N/A gpm Hose allowance
 SAFETY: 25.33



LEVEL 2 - SPRINKLER PLAN

1/4" = 1' - 0"

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SYSTEM DESIGN CRITERIA		APPROVING AGENCIES	
TYPE SYSTEM: <input checked="" type="checkbox"/> WET <input type="checkbox"/> DRY <input type="checkbox"/> DELUGE <input type="checkbox"/> PREACTION <input type="checkbox"/> ANTI-FREEZE	NFPA STANDARD: <input type="checkbox"/> #13 <input type="checkbox"/> #13D <input type="checkbox"/> #13R <input type="checkbox"/> #14 <input type="checkbox"/> #20 <input type="checkbox"/> #22 <input type="checkbox"/> #24 <input type="checkbox"/> #231 <input type="checkbox"/> #231C <input type="checkbox"/> #15 <input type="checkbox"/> #16 <input type="checkbox"/> #449	APPROVING AUTHORITY: HARNETT COUNTY	UNDERWRITER: N/A
OCCUPANCY: RESIDENTIAL	HAZARD: LIGHT	GENERAL CONTRACTOR: WATERMARK HOMES	ADDRESS: 1303 FT BRAGG ROAD SUITE 201
MAXIMUM SPACING: VARIES	LOCAL HOSE THREADS: N.S.T.	CITY & STATE: FAYETTEVILLE, NC 28305	PHONE NO.: (910) 483-2229
PIPE TYPES AND FITTING TYPES		FAX NO.:	
LINE PIPING: CPVC	LINE FITTINGS: CPVC		
MAIN PIPING: CPVC	MAIN FITTINGS: CPVC		

GENERAL NOTES	
1. Freeze Protection: The owner is responsible for maintaining a min. of 40° F temperature for all wet systems and portions of other systems containing water.	
2. M.I.C. Protection: The owner is responsible for all detection/testing/prevention.	
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LEGEND		SPRINKLER SUMMARY	
	Hydraulic Reference Point	SYM	QTY
	RES. PENDENT	TYPE	FINISH
	Elev. Below Top of Steel	TEMP	ORIF
	Elev. Above Finished Floor	"K"	NPT
	Elev. of Top of Steel	MANUF.	SIN#
	Calling Height	ESCUICHEON	
	Denotes Hanger Location		
	Denotes Sismic Support		
	Room name or use		
	Sleeve Location		
	FLSA Start Point		
TOTAL SPRINKLERS THIS PROJECT		22	
TOTAL SPRINKLERS THIS DRAWING		22	

REVISIONS		
DATE	DESCRIPTION	BY
5/26/2021	SUBMITTAL TO AHJ	HCW

RICHMOND, VA CHESAPEAKE, VA ROANOKE, VA SPRINGFIELD, VA ORLANDO, FL
 HOUSTON, TX SAN ANTONIO, TX DALLAS, TX AUSTIN, FL
 CHARLOTTE, NC RALEIGH, NC BALTIMORE, MD ATLANTA, GA

1731 Round Rock Drive
 Raleigh, NC 27615
 PHONE (919) 872-3250
 FAX (919) 877-5775

FLSA
 FIRE & LIFE SAFETY AMERICA
 PROTECTING AMERICA

JOB #: 21NC1522
 DATE: 5/24/2021
 DRAWN BY: H. WEYANT
 SCALE: AS NOTED

SPRINKLER PLAN
OAKHAVEN LOT 18
 265 OAKHAVEN DRIVE
 HOLLY SPRINGS, NC 27540

DRAWING #:
FP2
 OF 2

JONATHAN STERBELA
 LEVEL III AUTOMATIC SPRINKLER SYSTEMS
 #111897
 NORTH CAROLINA STATE LICENSE #29733
 PERMIT NUMBER: -