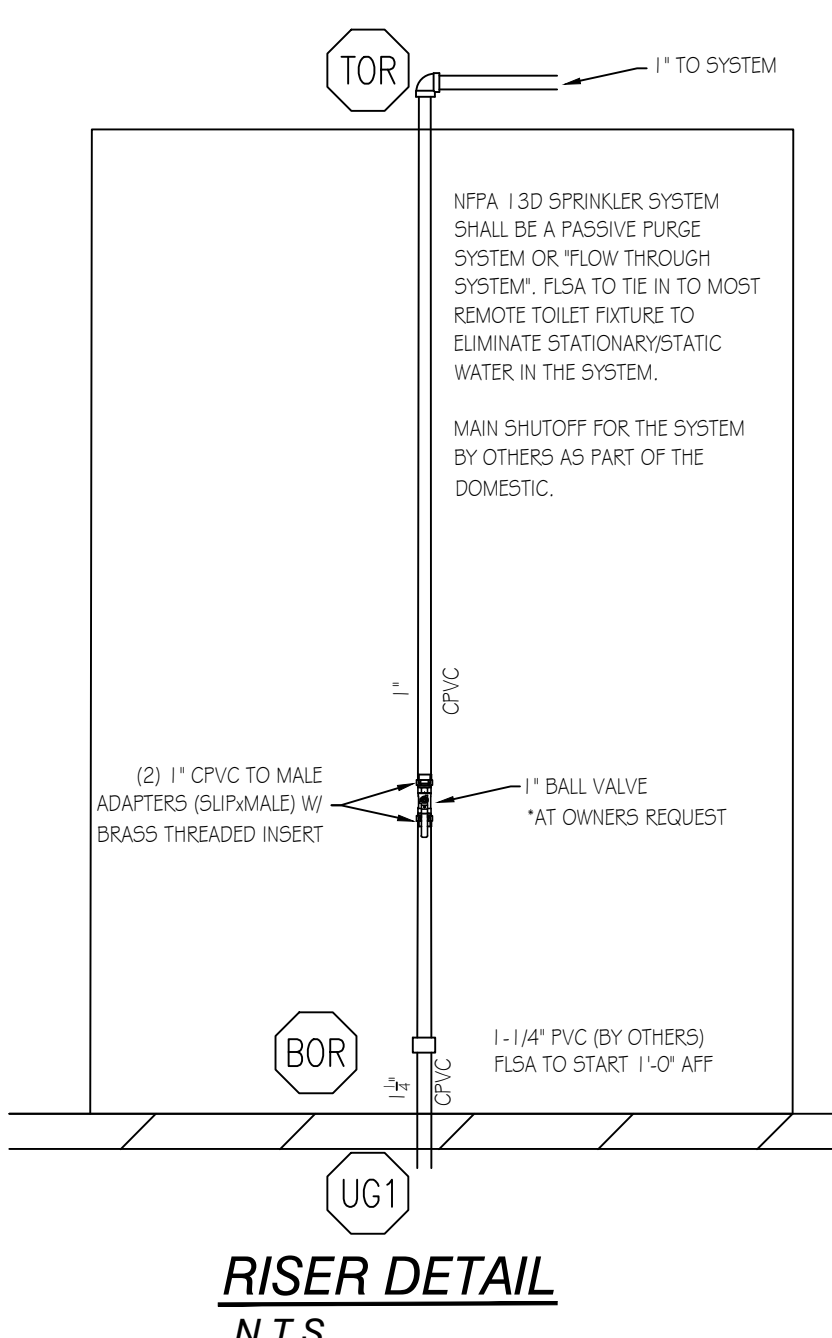
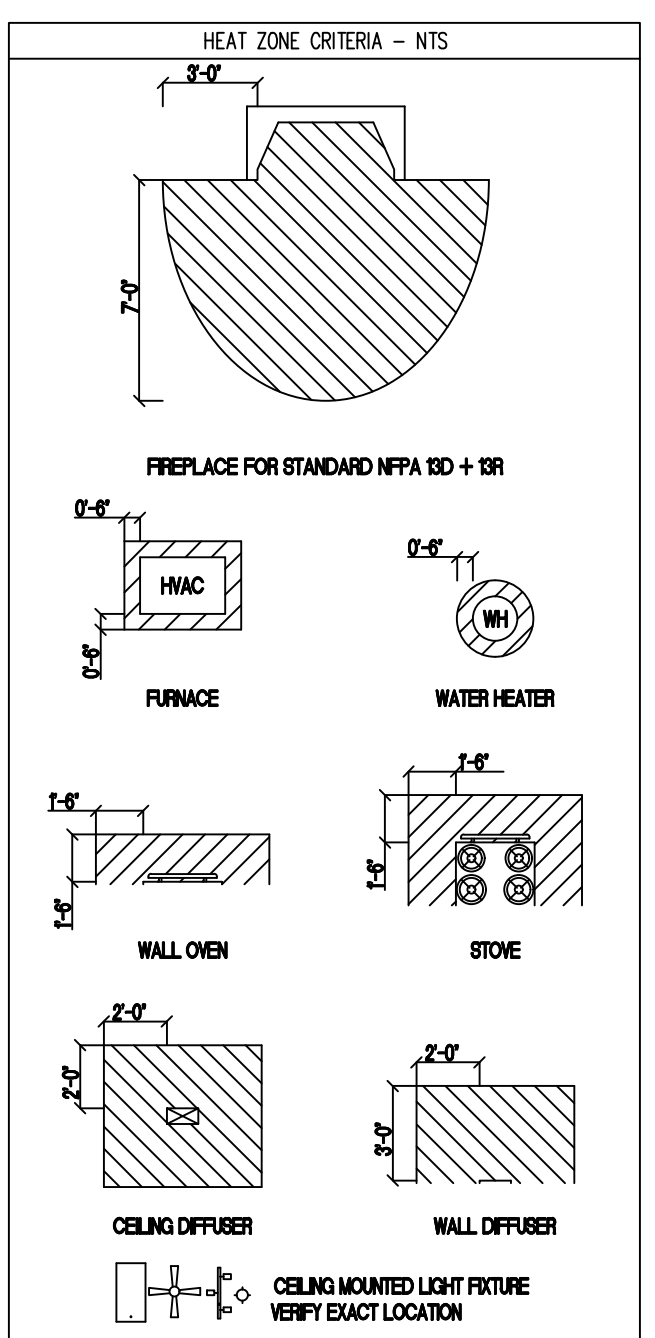
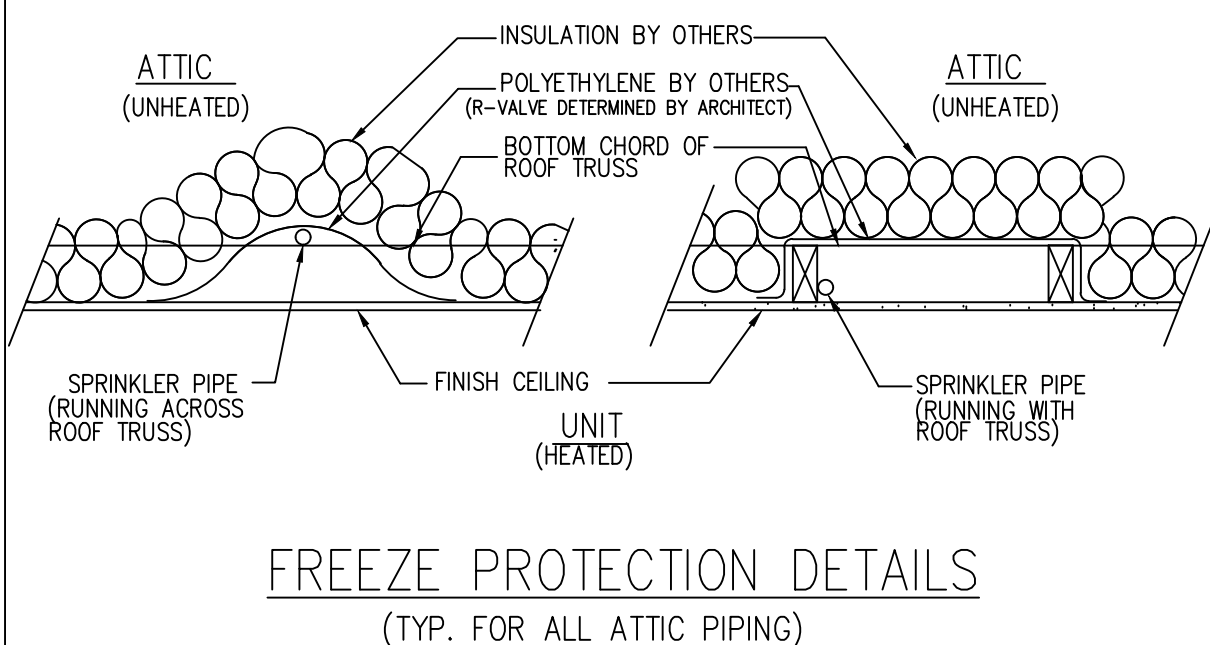
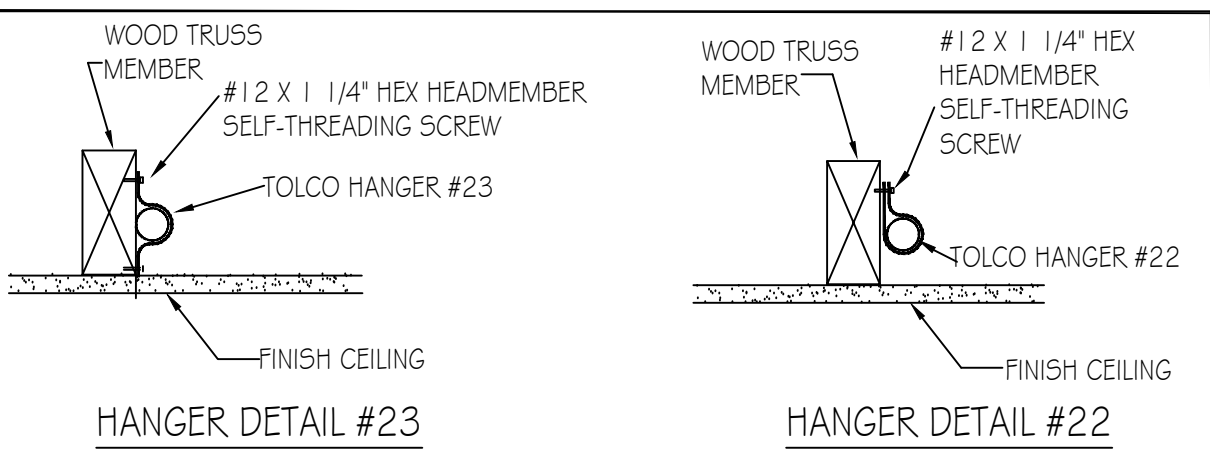
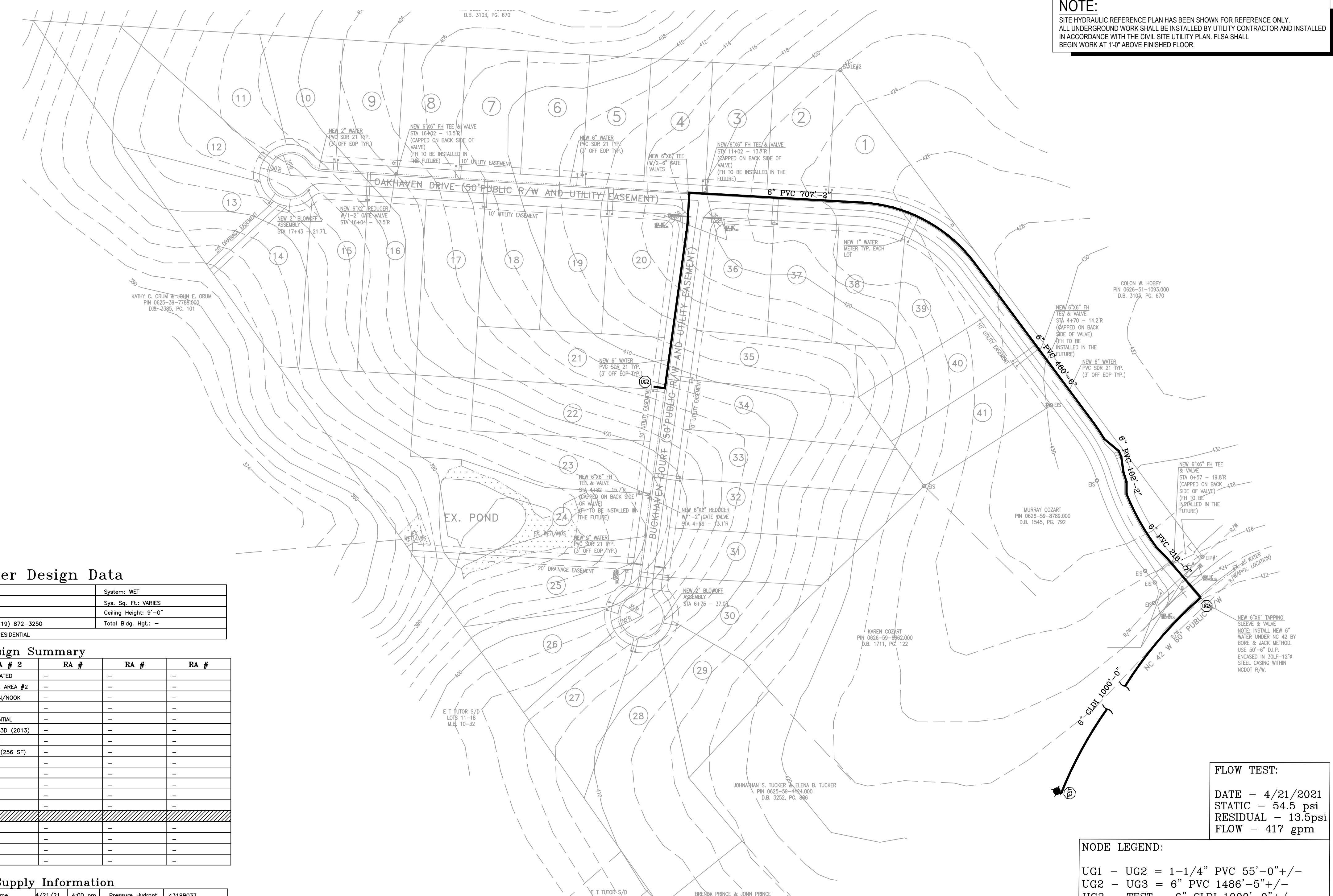


GENERAL NOTES

- 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 21	System:	WET
Project Street Address:	54 BUCKHAVEN DR	Sys. Sq. Ft.:	VARIES
Suite:	-	Floor:	1
Designed By:	HALLEY WEYANT	Phone:	(819) 872-3250
Occupancy:	RESIDENTIAL	Hazard:	RESIDENTIAL
		Ceiling Height:	9'-0"
		Total Bldg. Hgt.:	-

Design Summary

Design Method	RA # 1	RA # 2	RA #	RA #	RA #
Design Method	CALCULATED	CALCULATED	-	-	-
Design Area #	REMOTE AREA #1	REMOTE AREA #2	-	-	-
Location	MASTER BEDROOM	KITCHEN/NOOK	-	-	-
Type of System	WET	WET	-	-	-
Hazard Class	RESIDENTIAL	RESIDENTIAL	-	-	-
Criteria Form	NFPA 13D (2013)	NFPA 13D (2013)	-	-	-
Design Area	1 HEADS	2 HEAD	-	-	-
Sprinkler Spacing	20X20 (400 SF)	16X16 (256 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	23.02	28.99	-	-	-
P.S.I. Req'd	29.54	23.88	-	-	-
Safety Factor @ TEST	24.77	30.33	-	-	-
Volume of Dry System	-	-	-	-	-

Water Supply Information

Tested by	-	Date/Time	4/21/21	4:00 pm	Pressure Hydrant	43188037
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

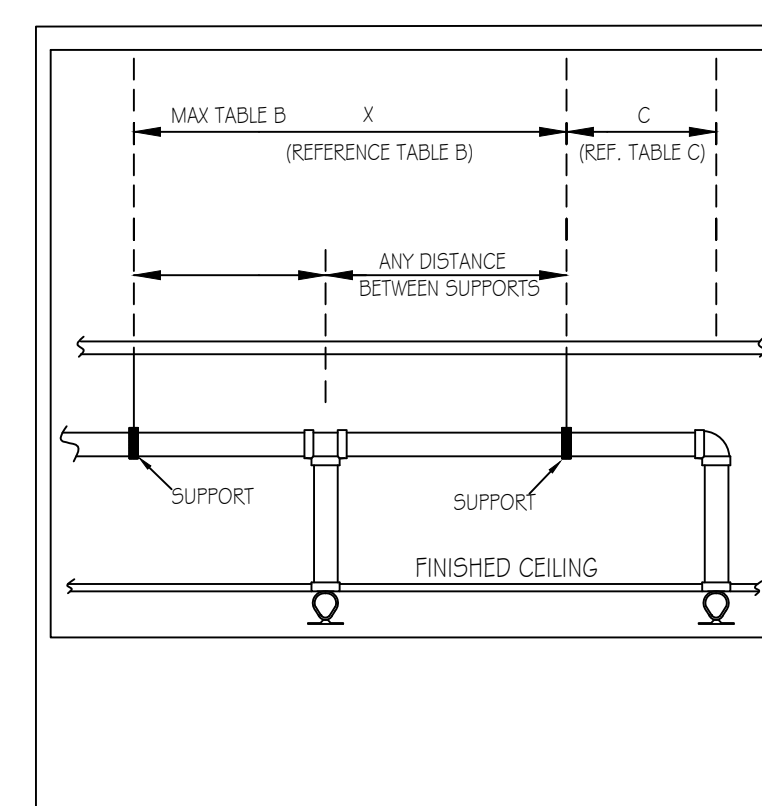
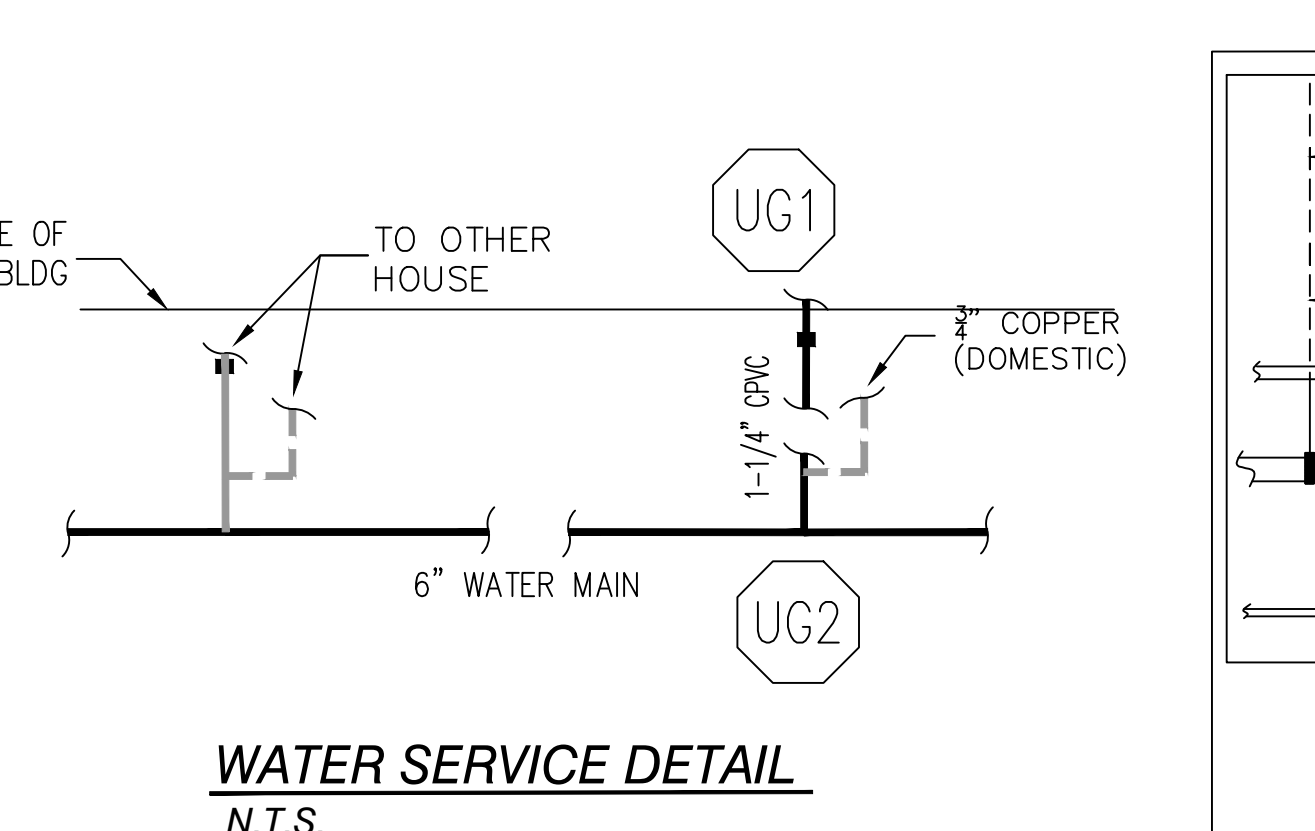


TABLE A - CPVC STANDARD SUPPORT SPACING

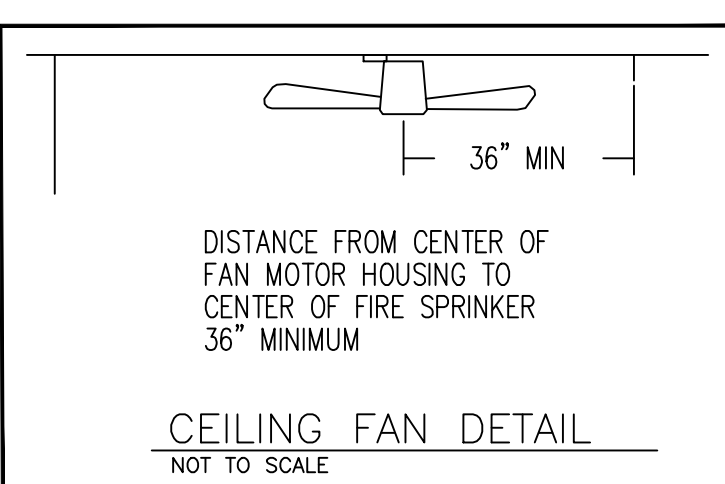
NOMINAL SIZE, INCHES	MAX SUPPORT SPACING, FEET
3/4"	5'-0"
1"	6'-0"
1 1/2"	7'-0"
2"	8'-0"
2 1/2"	9'-0"
3"	10'-0"

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

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



SITE PLAN - FOR HYDRAULIC REFERENCE ONLY

N.T.S.

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

NODE LEGEND:
UG1 - UG2 = 1-1/4" PVC 55'-0"+/-
UG2 - UG3 = 6" PVC 1486'-5"+/-
UG3 - TEST = 6" CLDI 1000'-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 OR THE GENERAL STATUTES FOR THE STATE OF NORTH CAROLINA.
- EXCLUSIVE USE PURSUANT TO G.S. 80C-25(b) IS FOR FIRE & LIFE SAFETY AMERICA, INC. AND FIRE & LIFE SAFETY AMERICA, INC. SHALL PERFORM ANY AND ALL INSTALLATION WORK AND OTHER WORK PERFORMED IN RELIANCE ON THE DRAWING PURSUANT TO G.S. 85B-15(A)(3).
- INSTALLATION WORK OR ANY OTHER WORK PERFORMED BY ANOTHER PERSON OR ENTITY IN RELIANCE UPON THIS DRAWING OR ANY COPY THEREOF IS STRICTLY PROHIBITED.
- COPYRIGHT FIRE & LIFE SAFETY AMERICA, INC. ALL RIGHTS RESERVED.



SYSTEM DESIGN CRITERIA 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 type="checkbox"/> #13D <input type="checkbox"/> #13R <input type="checkbox"/> #14 <input type="checkbox"/> #20 <input type="checkbox"/> #22 <input type="checkbox"/> PREACTION <input type="checkbox"/> ANTI-FREEZE <input type="checkbox"/> #24 <input type="checkbox"/> #21 <input type="checkbox"/> #23C <input type="checkbox"/> #15 <input type="checkbox"/> #16 <input type="checkbox"/> #409 OCCUPANCY: RESIDENTIAL HAZARD: LIGHT PIPE ID REQUIRED: NONE SLEEVES REQUIRED: NO MAXIMUM SPACING: VARIES LOCAL HOSE THREADS: N.T.S.		APPROVING AGENCIES APPROVING AUTHORITY: HARNETT COUNTY UNDERWRITER: N/A GENERAL CONTRACTOR: WATERMARK HOMES ADDRESS: 1303 FT BRAGG ROAD SUITE 201 CITY & STATE: FAYETTEVILLE NC, 28305 PHONE NO.: (910) 483-2229 FAX NO.:		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. 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. 4. Underground piping to ensure lead-in is plumbed, 2-holed, rodded, flushed, 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. 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. 6. Hydrostatic testing will only be performed with water or air depending on adequate temperature. Any other form of testing is excluded.		LEGEND Symbol Description • 18" BTS Elev. Below Top of Steel [] 12'-0" AFF Elev. Above Finished Floor + 105 12'-0" Elev. Top of Steel [] Ceiling Height [] Denotes Hanger Location [] Denotes Seismic Support [] Room name or use [] Sleeve Location [] FLSA Start Point		SPRINKLER SUMMARY <table border="1"> <thead> <tr> <th>SYMBOL</th> <th>TYPE</th> <th>FINISH</th> <th>TEMP</th> <th>ORIE.</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>CONCEALED</td> <td>0</td> </tr> <tr> <td colspan="10">TOTAL SPRINKLERS THIS PROJECT</td> <td>20</td> </tr> <tr> <td colspan="10">TOTAL SPRINKLERS THIS DRAWING</td> <td>0</td> </tr> </tbody> </table>		SYMBOL	TYPE	FINISH	TEMP	ORIE.	K*	NPT	MANUF.	SIN#	ESCUTCHEON	QTY	•	RES. PENDENT	WHITE	200°	1/2"	4.9	1/2"	VIKING	VK494	CONCEALED	0	TOTAL SPRINKLERS THIS PROJECT										20	TOTAL SPRINKLERS THIS DRAWING										0	GRAPHIC SCALE: 1/8" = 1'-0" REVISIONS <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>12/20/2021</td> <td>SUBMITTAL TO AHJ</td> <td>ICW</td> </tr> </tbody> </table>		NO.	DATE	DESCRIPTION	BY	1	12/20/2021	SUBMITTAL TO AHJ	ICW	RICHMOND, VA CHESAPEAKE, VA ROANOKE, VA SPRINGFIELD, VA ORLANDO, FL HOUSTON, TX SAN ANTONIO, TX DALLAS, TX AUSTIN, TX CHARLOTTE, NC RALEIGH, NC BALTIMORE, MD ATLANTA, GA FLSA 1721 Round Rock Drive Raleigh, NC 27615 PHONE (919) 872-8200 FAX (919) 877-8776 JOB #: 22NC1552 DATE: 12/17/2021 DRAWN BY: H. WEYANT SCALE: AS NOTED OAKHAVEN LOT 21 54 BUCKHAVEN DRIVE HOLLY SPRINGS, NC 27540 DRAWING #: FP1 OF 2	
SYMBOL	TYPE	FINISH	TEMP	ORIE.	K*	NPT	MANUF.	SIN#	ESCUTCHEON	QTY																																																							
•	RES. PENDENT	WHITE	200°	1/2"	4.9	1/2"	VIKING	VK494	CONCEALED	0																																																							
TOTAL SPRINKLERS THIS PROJECT										20																																																							
TOTAL SPRINKLERS THIS DRAWING										0																																																							
NO.	DATE	DESCRIPTION	BY																																																														
1	12/20/2021	SUBMITTAL TO AHJ	ICW																																																														

NOTES:

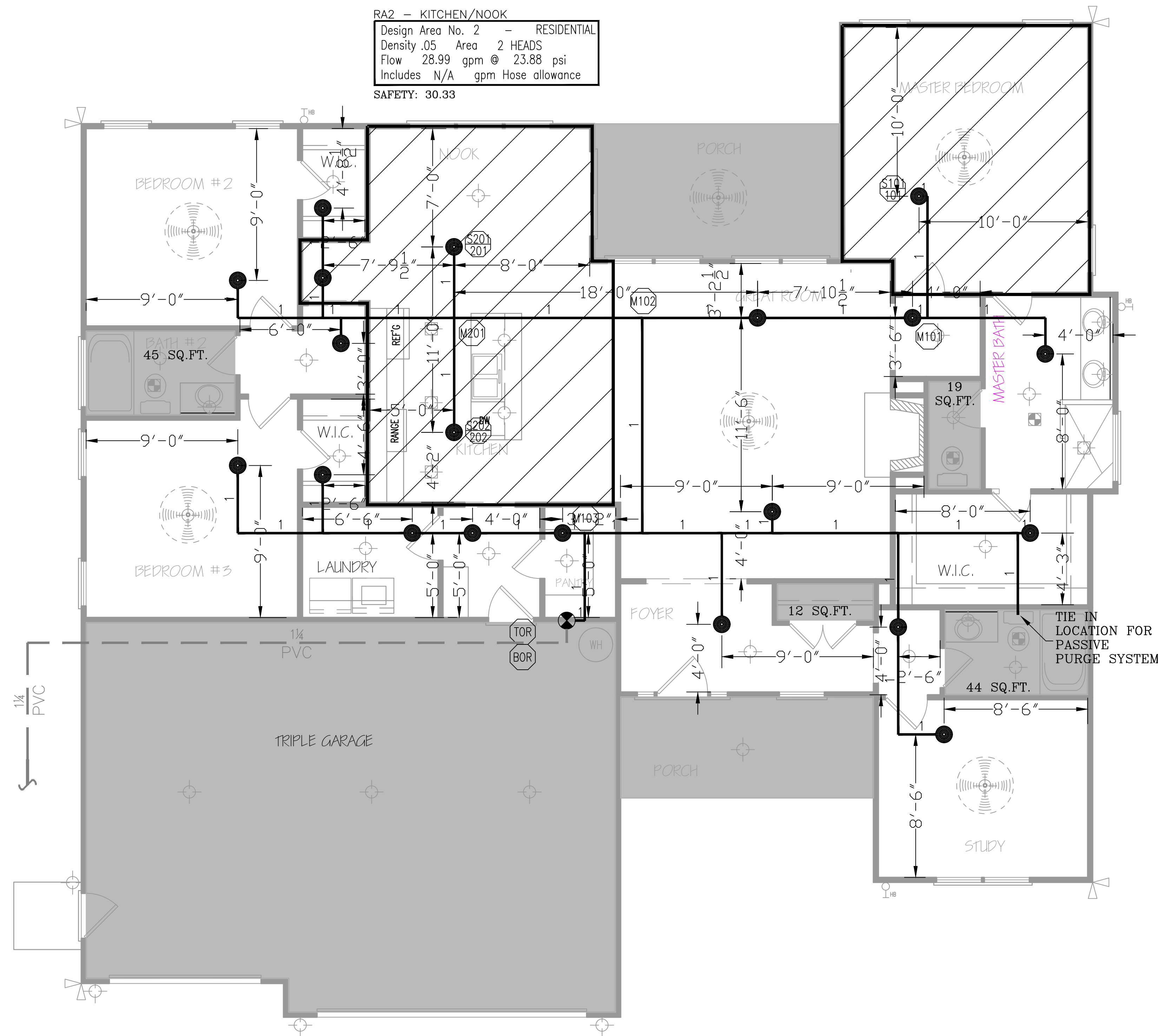
- PORCHES AND GARAGES ARE OMITTED PER NFPA 13D (2013) 8.3.4
- CLOSETS 24 SQ. FT. OR LESS IN AREA ARE UNSPRINKLERED PER NFPA 13D (2013) 8.3.3; WALLS AND CEILING TO BE SURFACED WITH NONCOMBUSTIBLE OR LIMITED COMBUSTIBLE MATERIAL AS DEFINED BY NFPA 220
- BATHROOMS 55 SQ. FT. OR LESS IN AREA ARE UNSPRINKLERED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

SPRINKLER LEGEND

- NO HEADS REQUIRED
- REMOTE AREA

RA1 - MASTER BEDROOM
 Design Area No. 1 - RESIDENTIAL
 Density .05 Area 1 HEADS
 Flow 23.02 gpm @ 29.54 psi
 Includes N/A gpm Hose allowance
 SAFETY: 24.77

RA2 - KITCHEN/NOOK
 Design Area No. 2 - RESIDENTIAL
 Density .05 Area 2 HEADS
 Flow 28.99 gpm @ 23.88 psi
 Includes N/A gpm Hose allowance
 SAFETY: 30.33



SPRINKLER PLAN
 1/8" = 1' - 0"

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 OR THE GENERAL STATUTES FOR THE STATE OF NORTH CAROLINA.

EXCLUSIVE USE PURSUANT TO G.S. 89C-25(8) IS FOR FIRE & LIFE SAFETY AMERICA, INC. AND FIRE & LIFE SAFETY AMERICA, INC. SHALL PERFORM ANY AND ALL INSTALLATION WORK AND OTHER WORK PERFORMED IN RELIANCE ON THE DRAWING PURSUANT TO G.S. 55B-15(A)(2).

INSTALLATION WORK OR ANY OTHER WORK PERFORMED BY ANOTHER PERSON OR ENTITY IN RELIANCE UPON THIS DRAWING OR ANY COPY THEREOF IS STRICTLY PROHIBITED.

COPYRIGHT FIRE & LIFE SAFETY AMERICA, INC., ALL RIGHTS RESERVED.

JONATHAN STERILA
 LEVEL III AUTOMATIC SPRINKLER SYSTEMS
 #111897
 NORTH CAROLINA STATE LICENSE #29733

SYSTEM DESIGN CRITERIA		APPROVING AGENCIES		GENERAL NOTES		LEGEND		SPRINKLER SUMMARY		REVISIONS		FLSA																																																																											
TYPE SYSTEM: <input checked="" type="checkbox"/> WET <input type="checkbox"/> DRY <input type="checkbox"/> DELUGE NFPA STANDARD: <input type="checkbox"/> #13 <input checked="" type="checkbox"/> #13D <input type="checkbox"/> #13R <input type="checkbox"/> #14 <input type="checkbox"/> #20 <input type="checkbox"/> #22 <input type="checkbox"/> PREACTION <input type="checkbox"/> ANTI-FREEZE HAZARD: LIGHT PIPE ID REQUIRED: NO OCCUPANCY: RESIDENTIAL LOCAL HOSE THREADS: N.S.T. SLEEVES REQUIRED: NO MAXIMUM SPACING: VARIES SPRINKLERS ARE REQUIRED TO BE LOCATED IN THE CENTER OF THE CEILING TILES.		APPROVING AUTHORITY: HARNETT COUNTY UNDERWRITER: N/A		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.L.C. Protection: The owner is responsible for all detection/testing/prevention. 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. 4. Underground provider to ensure lead-in is plumbed, 2-holed, rodded, flushed, 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". 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. 6. Hydrostatic testing will only be performed with water or air depending on adequate temperature. Any other form of testing is excluded.		<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 Elev. Below Top of Steel</td></tr> <tr><td></td><td>12'-0" AFF Elev. Above Finished Floor</td></tr> <tr><td></td><td>+ TOS 12'-0 Elev. of Top of Steel</td></tr> <tr><td></td><td>Ceiling Height</td></tr> <tr><td></td><td>Denotes Hanger Location</td></tr> <tr><td></td><td>Denotes Seismic 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 Elev. Below Top of Steel		12'-0" AFF Elev. Above Finished Floor		+ TOS 12'-0 Elev. of Top of Steel		Ceiling Height		Denotes Hanger Location		Denotes Seismic Support		Room name or use		Sleeve Location		FLSA Start Point	<table border="1"> <tr><th>SYM</th><th>TYPE</th><th>FINISH</th><th>TEMP</th><th>ORIE.</th><th>"K"</th><th>NPT</th><th>MANUF.</th><th>SIN#</th><th>ESCUTCHEON</th><th>QTY</th></tr> <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>CONCEALED</td><td>20</td></tr> <tr><td colspan="10">TOTAL SPRINKLERS THIS PROJECT</td><td>20</td></tr> <tr><td colspan="10">TOTAL SPRINKLERS THIS DRAWING</td><td>20</td></tr> </table>		SYM	TYPE	FINISH	TEMP	ORIE.	"K"	NPT	MANUF.	SIN#	ESCUTCHEON	QTY	●	RES. PENDENT	WHITE	200°	1/2"	4.9	1/2"	VIKING	VK494	CONCEALED	20	TOTAL SPRINKLERS THIS PROJECT										20	TOTAL SPRINKLERS THIS DRAWING										20	<table border="1"> <tr><th>#</th><th>DATE</th><th>DESCRIPTION</th><th>BY</th></tr> <tr><td>1</td><td>12/20/2021</td><td>SUBMITTAL TO AHJ</td><td>ICW</td></tr> </table>		#	DATE	DESCRIPTION	BY	1	12/20/2021	SUBMITTAL TO AHJ	ICW	RICHMOND, VA CHESAPEAKE, VA ROANOKE, VA SPRINGFIELD, VA ORLANDO, FL HOUSTON, TX SAN ANTONIO, TX DALLAS, TX AUSTIN, TX CHARLOTTE, NC RALEIGH, NC BALTIMORE, MD ATLANTA, GA 1721 Round Rock Drive Raleigh, NC 27715 PHONE (919) 872-3250 FAX (919) 877-0770 FLSA FIRE & LIFE SAFETY AMERICA PROTECTING AMERICA	
Symbol	Description																																																																																						
	Hydraulic Reference Point																																																																																						
	18" BTS Elev. Below Top of Steel																																																																																						
	12'-0" AFF Elev. Above Finished Floor																																																																																						
	+ TOS 12'-0 Elev. of Top of Steel																																																																																						
	Ceiling Height																																																																																						
	Denotes Hanger Location																																																																																						
	Denotes Seismic Support																																																																																						
	Room name or use																																																																																						
	Sleeve Location																																																																																						
	FLSA Start Point																																																																																						
SYM	TYPE	FINISH	TEMP	ORIE.	"K"	NPT	MANUF.	SIN#	ESCUTCHEON	QTY																																																																													
●	RES. PENDENT	WHITE	200°	1/2"	4.9	1/2"	VIKING	VK494	CONCEALED	20																																																																													
TOTAL SPRINKLERS THIS PROJECT										20																																																																													
TOTAL SPRINKLERS THIS DRAWING										20																																																																													
#	DATE	DESCRIPTION	BY																																																																																				
1	12/20/2021	SUBMITTAL TO AHJ	ICW																																																																																				
PIPE TYPES AND FITTING TYPES LINE PIPING: CPVC LINE FITTINGS: CPVC MAIN PIPING: CPVC MAIN FITTINGS: CPVC		GENERAL CONTRACTOR: WATERMARK HOMES ADDRESS: 1303 FT BRAGG ROAD SUITE 201 CITY & STATE: FAYETTEVILLE NC, 28305 PHONE NO.: (910) 483-2229 FAX NO.:		JOB #: 22NC1552 DATE: 12/17/2021 DRAWN BY: H. WEYANT SCALE: AS NOTED		SPRINKLER PLAN OAK HAVEN LOT 21 54 BUCKHAVEN DR HOLLY SPRINGS, NC 27540		DRAWING #: FP2 OF 2																																																																															