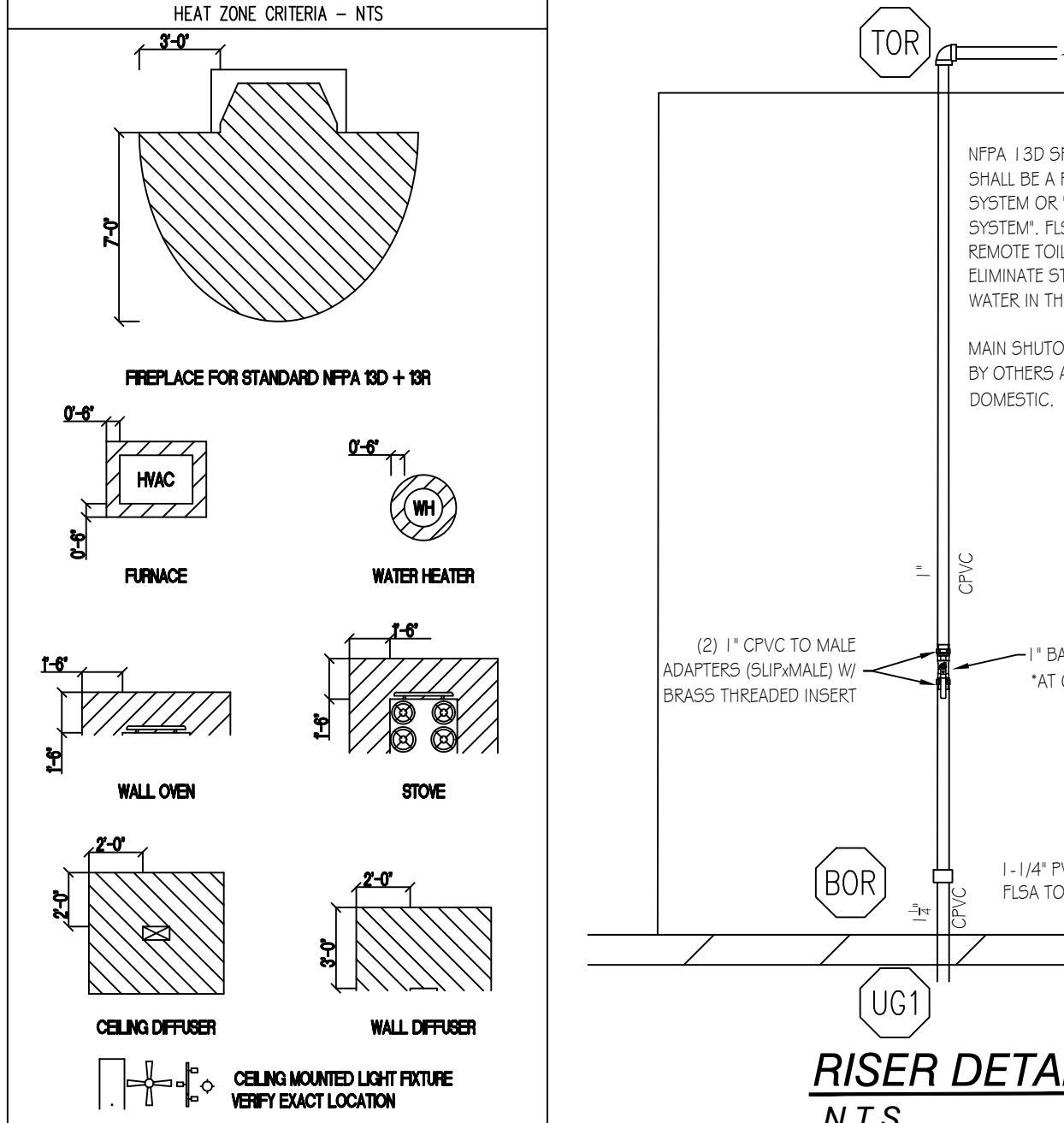
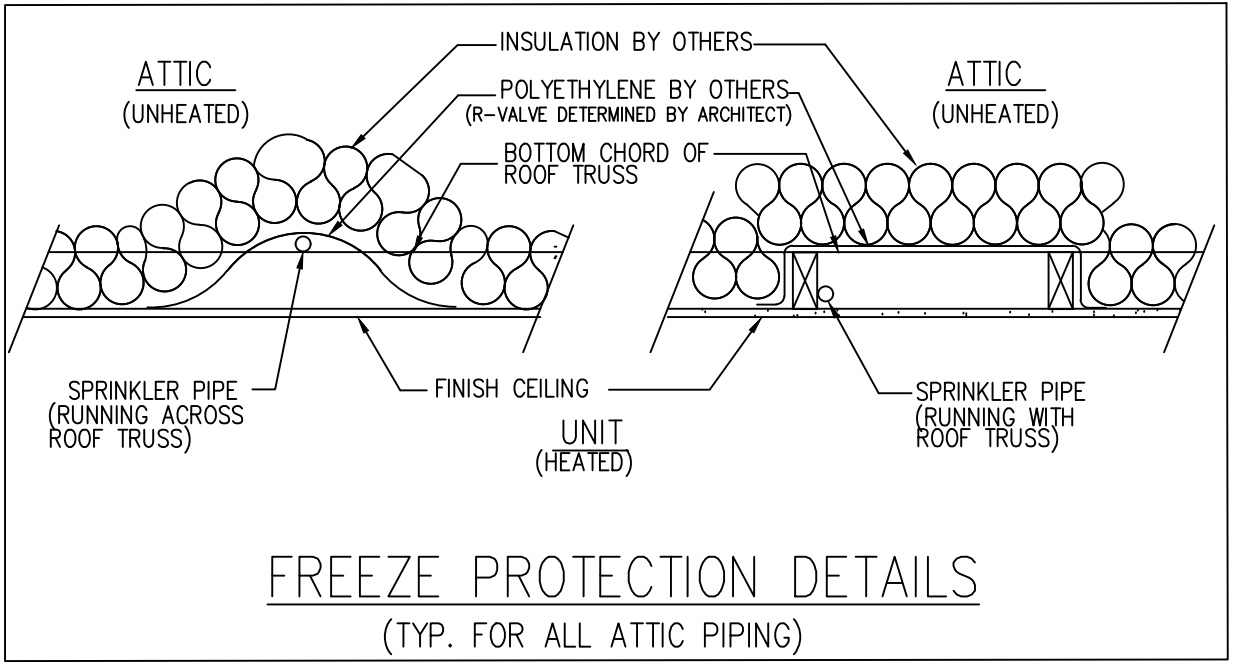
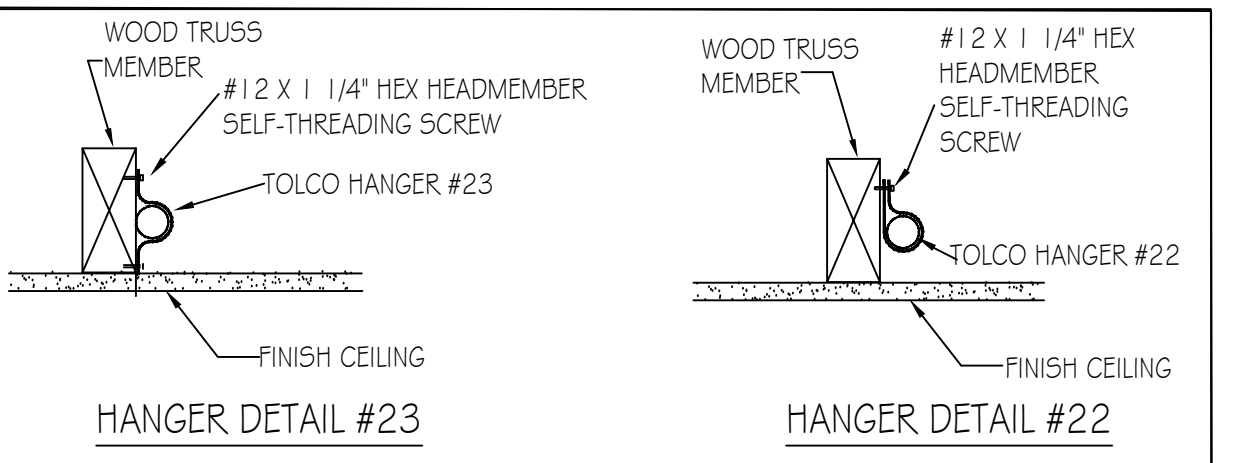
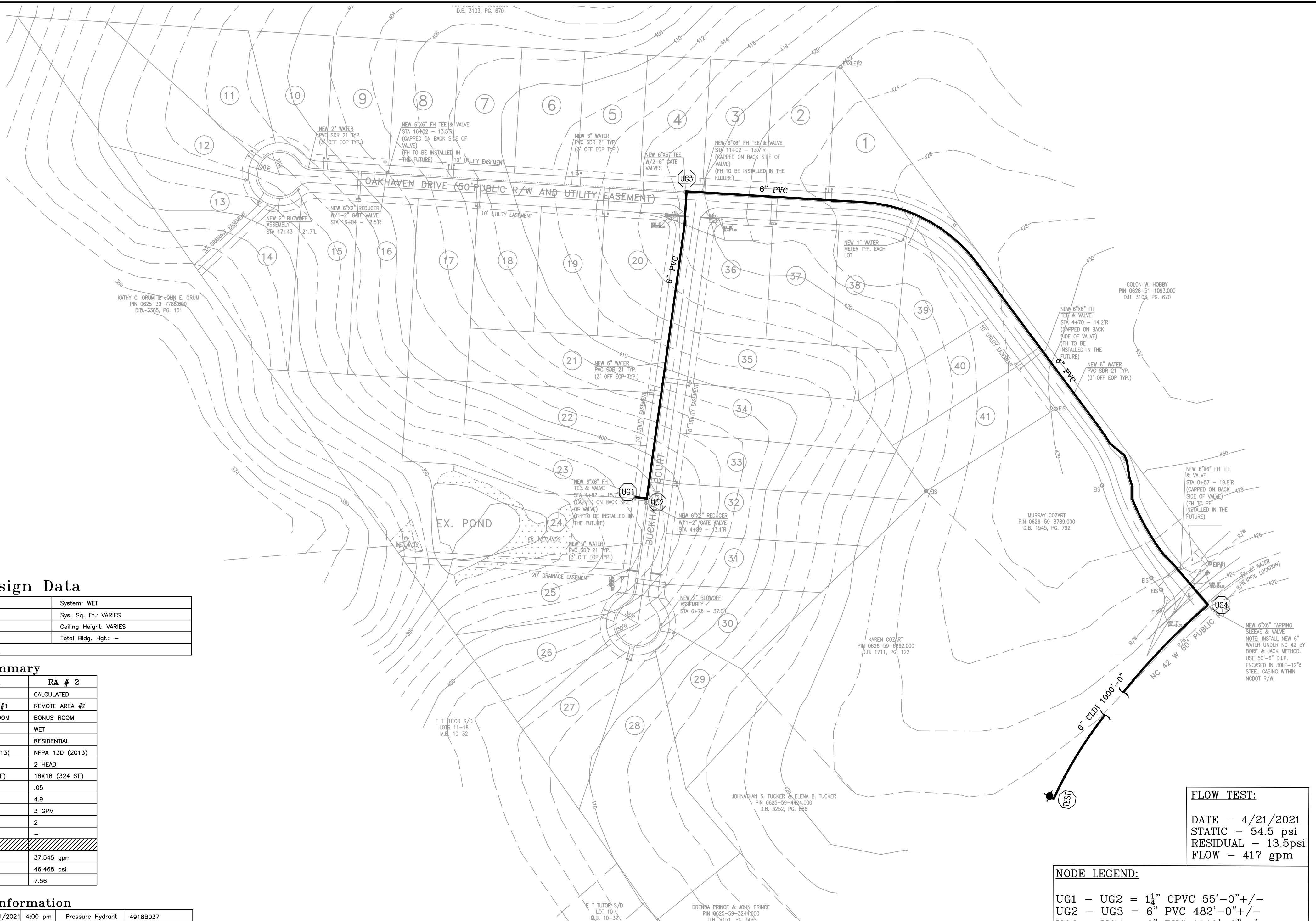


GENERAL NOTES

- 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.



Sprinkler Design Data

Project Name: OAKHAVEN LOT 23	System: WET
Project Street Address: 86 BUCKHAVEN DRIVE.	Sys. Sq. Ft.: VARIES
Suite: -	Floor#: 2
Designed By: HAILEY WEYANT	Phone: (919) 872-3250
Occupancy: RESIDENTIAL	Hazard: LIGHT/RESIDENTIAL
	Ceiling Hgt.: VARIES
	Total Bldg. Hgt.: -

Design Summary

	RA # 1	RA # 2
Design Method	CALCULATED	CALCULATED
Design Area #	REMOTE AREA #1	REMOTE AREA #2
Location	MASTER BEDROOM	BONUS ROOM
Type of System	WET	WET
Hazard Class	RESIDENTIAL	RESIDENTIAL
Criteria Form	NFPA 13D (2013)	NFPA 13D (2013)
Design Area	1 HEAD	2 HEAD
Sprinkler Spacing	20X20 (400 SF)	18X18 (324 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	23,024 gpm	37,545 gpm
P.S.I. Req'd	24,333 psi	46,468 psi
Safety Factor @ TEST	29.97	7.56

Water Supply Information

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

Copy of Water Test Data Included with Calculation is required

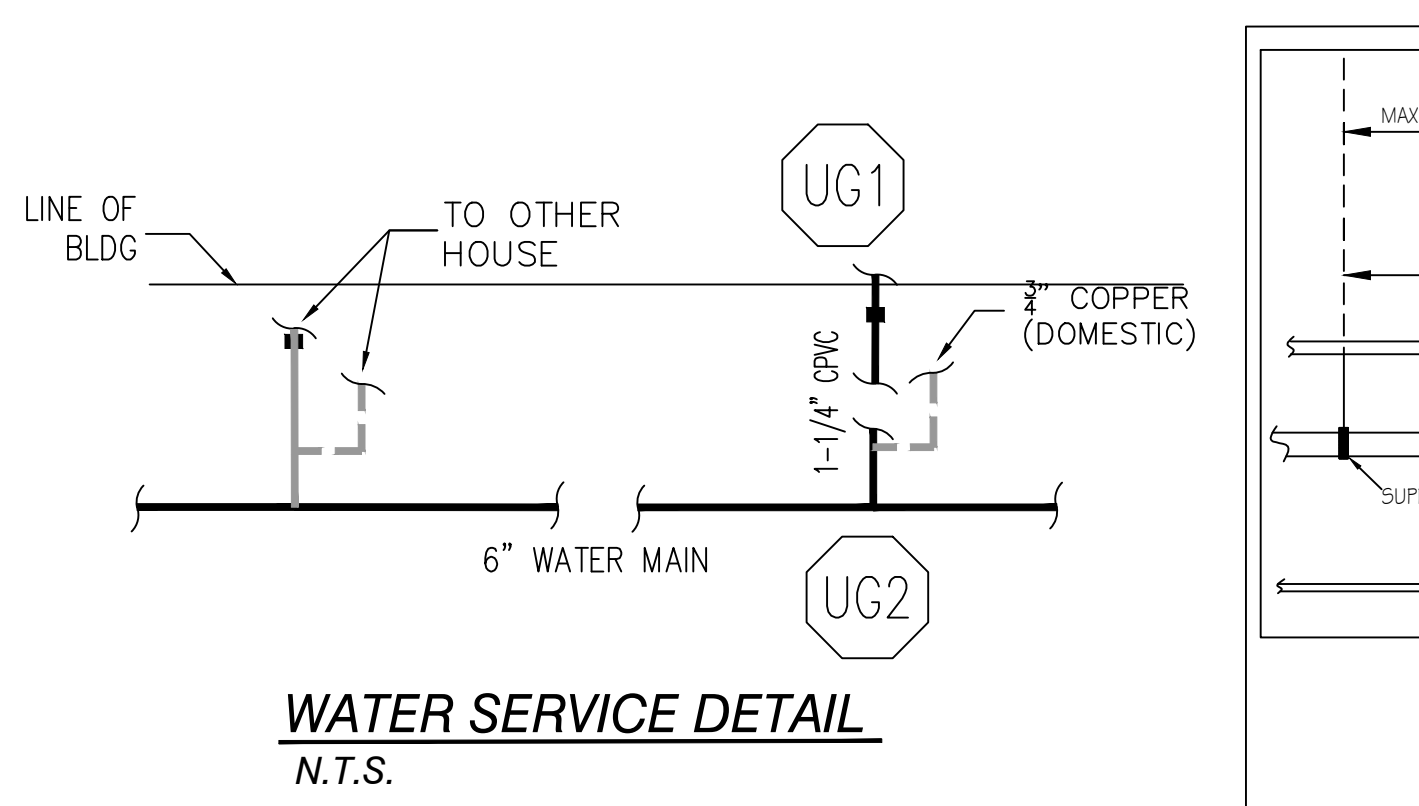


TABLE A - CPVC STANDARD SUPPORT SPACING

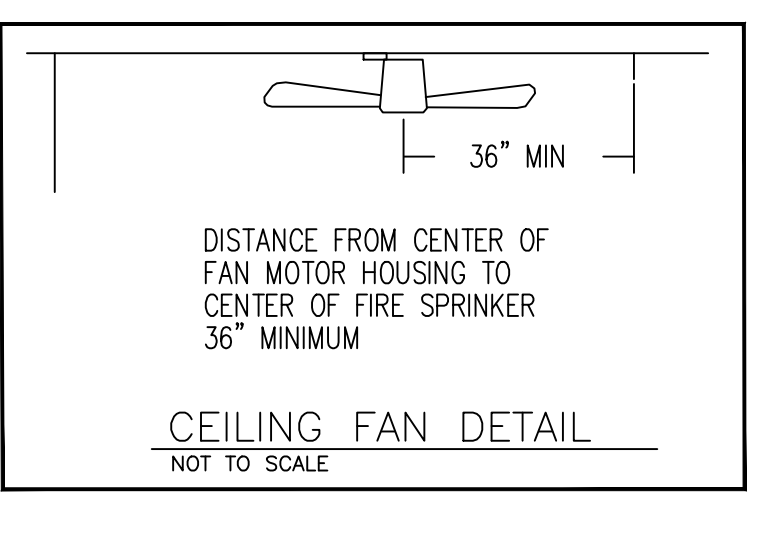
NOMINAL SIZE, INCHES	MAX SUPPORT SPACING, FEET
3/4"	5'-0"
1"	6'-0"
1 1/4"	6'-0"
1 1/2"	7'-0"
2"	8'-0"
2 1/2"	9'-0"
3"	10'-0"

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

NOMINAL PIPE SIZE	LESS THAN 100 PSI	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"



SITE PLAN - FOR HYDRAULIC REFERENCE ONLY

FLOW TEST:

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

NODE LEGEND:

UG1 - UG2 = 1 1/4" CPVC 55'-0"+/-
 UG2 - UG3 = 6" PVC 482'-0"+/-
 UG3 - UG4 = 6" PVC 1149'-0"+/-
 UG4 - TEST = 6" D.I. 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 OF THE GENERAL STATUTES FOR THE STATE OF NORTH CAROLINA.

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JONATHAN STELLA
 LEVEL III AUTOMATIC SPRINKLER SYSTEMS
 #111897
 NORTH CAROLINA STATE LICENSE #29733
 BUILDING PERMIT #: SFD2108-0076

SYSTEM DESIGN CRITERIA

TYPE SYSTEM: WET DRY DELUGE NFPA STANDARD: #13D #13R #14 #20 #22

OCCUPANCY: RESIDENTIAL HAZARD: LIGHT MEDIUM HIGH PIPE ID REQUIRED: NO

MAXIMUM SPACING: VARIES LOCAL HOSE THREADS: N.S.T. SLEEVES REQUIRED: NO

SPRINKLERS ARE REQUIRED TO BE LOCATED IN THE CENTER OF THE CEILING TILES.

PIPE TYPES AND FITTING TYPES

LINE PIPING: CPVC LINE FITTINGS: CPVC

MAIN PIPING: CPVC MAIN FITTINGS: CPVC

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 document.
4. Underground piping to ensure lead-in is plumbed, 2-holed, rodless, 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
(BTS)	Hydraulic Reference Point
(12'-0 AFF)	Elev. Below Top of Steel
(+TOS 12'-0)	Elev. Above Finished Floor
(C)	Ceiling Height
(H)	Denotes Hanger Location
(S)	Denotes Seismic Support
(R)	Room name or use
(S)	Sleeve Location
(F)	FLSA Start Point

SPRINKLER SUMMARY

SYMBOL	TYPE	FINISH	TEMP	ORIE.	K*	NPT	MANUF.	SIN#	ESCUTCHEON	QTY
(BTS)	RES. PENDENT	WHITE	200°	1/2"	4.9	1/2"	VIKING	VK494	CONCEALED	0
(+TOS 12'-0)										0
(C)										0
(H)										0
(S)										0
(R)										0
(S)										0
(F)										0
TOTAL SPRINKLERS THIS PROJECT										22
TOTAL SPRINKLERS THIS DRAWING										0

REVISIONS

DATE	DESCRIPTION	BY
12/21/2021	SUBMITTAL TO GC	RCC

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) 877-0776

JOB #: 22NC1554
 DATE: 12/20/2021
 DRAWN BY: R. COLLINS
 SCALE: AS NOTED

FLSA
 FIRE & LIFE SAFETY AMERICA
 PROTECTING AMERICA

OAKHAVEN LOT 23
 86 BUCKHAVEN DR.
 HOLLY SPRING, NC 27540

DRAWING #: **FP1**
 OF 2

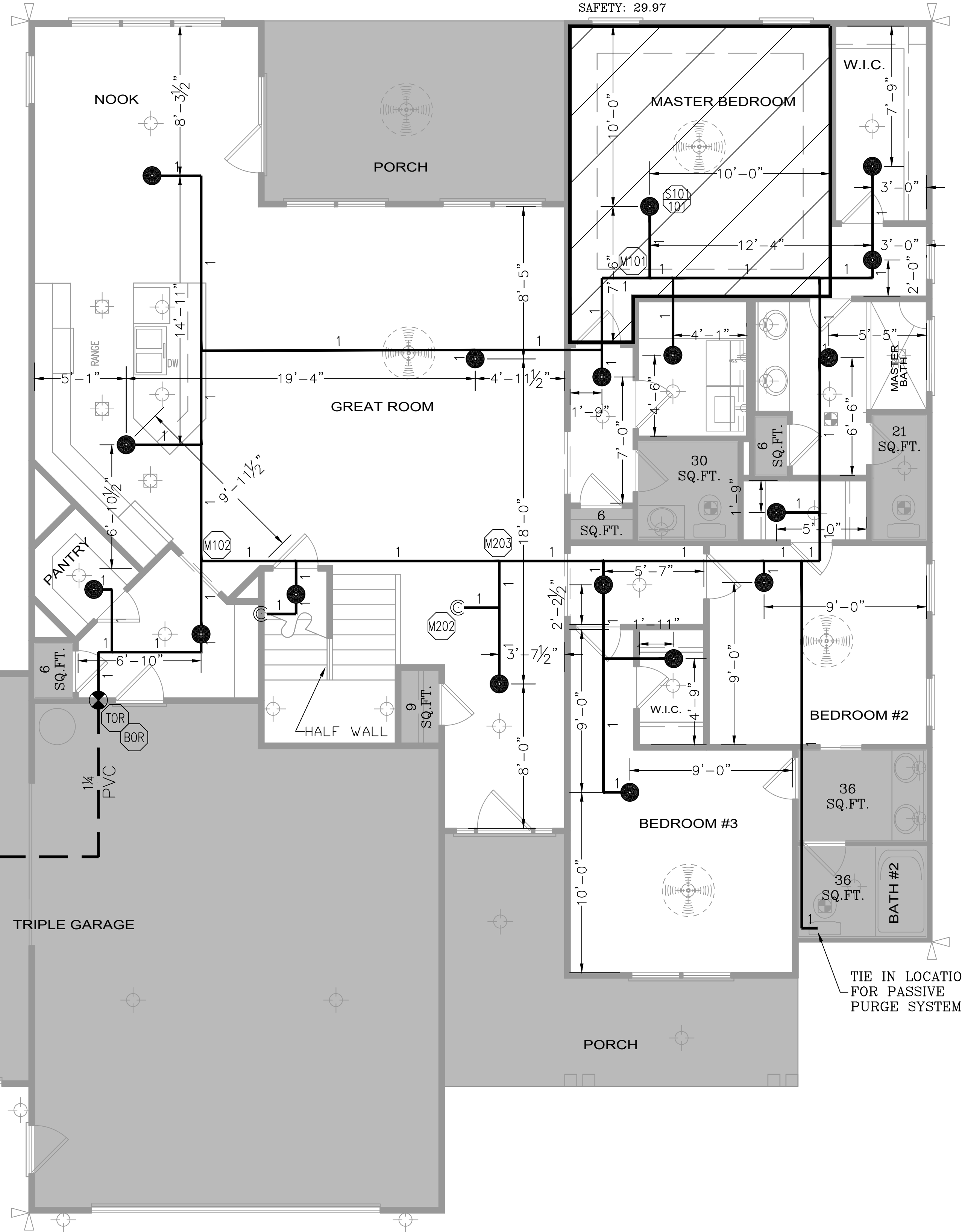
RA1 - MASTER BEDROOM
 Design Area No. 1 - RESIDENTIAL
 Density .05 Area 1 HEADS
 Flow 23.024 gpm @ 24.333 psi
 Includes N/A gpm Hose allowance
 SAFETY: 29.97

SPRINKLER LEGEND

-  NO HEADS REQUIRED
-  REMOTE AREA

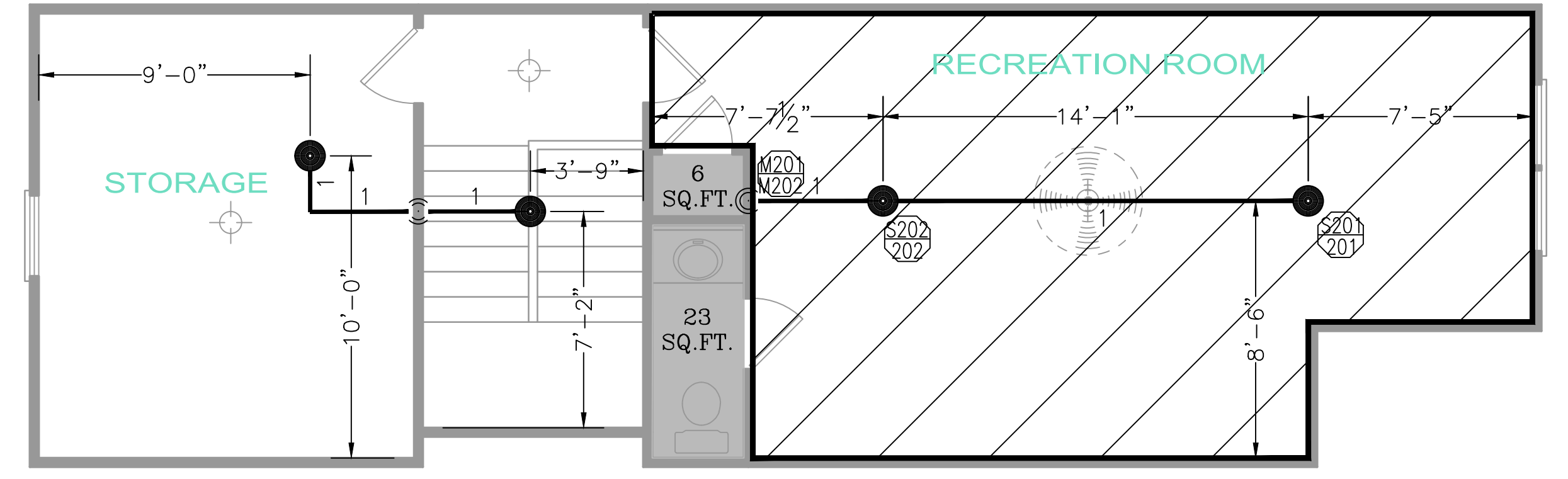
NOTES:
 - PORCHES AND GARAGES ARE OMITTED PER NFPA 13D (2013) 8.3.4
 - CLOSETS 24 SQ. FT. OR LESS IN AREA ARE UNSPRINKLERED PER NFPA 13D (2013) 8.3.3; WALLS AND CEILING TO BE SURFACED WITH NONCOMBUSTIBLE OR LIMITED COMBUSTIBLE MATERIAL AS DEFINED BY NFPA 220
 - BATHROOMS 55 SQ. FT. OR LESS IN AREA ARE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

RA2 - BONUS ROOM
 Design Area No. 2 - RESIDENTIAL
 Density .05 Area 2 HEADS
 Flow 37.545 gpm @ 46.468 psi
 Includes N/A gpm Hose allowance
 SAFETY: 7.56



LEVEL 1 - SPRINKLER PLAN

1/4" = 1' - 0"



LEVEL 2 - SPRINKLER PLAN

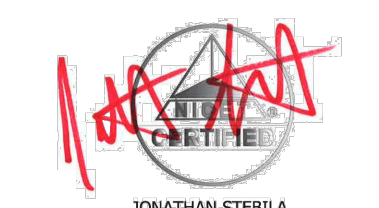
1/4" = 1' - 0"

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NORTH CAROLINA STATE LICENSE #29733
 BUILDING PERMIT #: SFD2108-0076

SYSTEM DESIGN CRITERIA		APPROVING AGENCIES		GENERAL NOTES		LEGEND		SPRINKLER SUMMARY		REVISIONS		JOB INFORMATION							
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"/> #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: <input checked="" type="checkbox"/> LIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> SEVERE	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.	Symbol Description	SYM	TYPE	FINISH	TEMP	ORIF.	K"	NPT	MANUF.	SIN#	ESCUTCHEON	QTY	DATE	DESCRIPTION	BY
OCCUPANCY: RESIDENTIAL	HAZARD: LIGHT	GENERAL CONTRACTOR: WATERMARK HOMES	ADDRESS: 1303 FT BRAGG ROAD SUITE 201	2. M.I.C. Protection: The owner is responsible for all detection/testing/prevention.	Hydraulic Reference Point	RES. PENDENT	WHITE	200°	1/2"	4.9	1/2"	VIKING	VK494	CONCEALED	22	12/21/2021	SUBMITTAL TO GC	RCC	
MAXIMUM SPACING: VARIES	LOCAL HOSE THREADS: N.S.T.	CITY & STATE: FAYETTEVILLE, NC 28305	PHONE NO.: (910) 483-2229	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.	18" BTS Elev. Below Top of Steel														
SPRINKLERS ARE REQUIRED TO BE LOCATED IN THE CENTER OF THE CEILING TILES.	PIPE ID REQUIRED: NO	PHONE NO.: (910) 483-2229	FAX NO.:	4. Underground provider to ensure lead-in is plumbed, 2-holed, rod-d, 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".	12'-0 AFF Elev. Above Finished Floor														
PIPE TYPES AND FITTING TYPES	PIPE ID REQUIRED: NO			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.	+ TOS 12'-0 Elev. of Top of Steel														
LINE PIPING: CPVC	LINE FITTINGS: CPVC			6. Hydrostatic testing will only be performed with water or air depending on adequate temperature. Any other form of testing is excluded.	Ceiling Height														
MAIN PIPING: CPVC	MAIN FITTINGS: CPVC				Denotes Hanger Location														
					Denotes Seismic Support														
					Room name or use														
					Sleeve Location														
					FLSA Start Point														
						TOTAL SPRINKLERS THIS PROJECT		22		TOTAL SPRINKLERS THIS DRAWING		22							

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SITE PLAN AND DETAILS

OAKHAVEN LOT 23
 86 BUCKHAVEN DR.
 HOLLY SPRINGS, NC 27540

DRAWING #: **FP2**
 OF 2