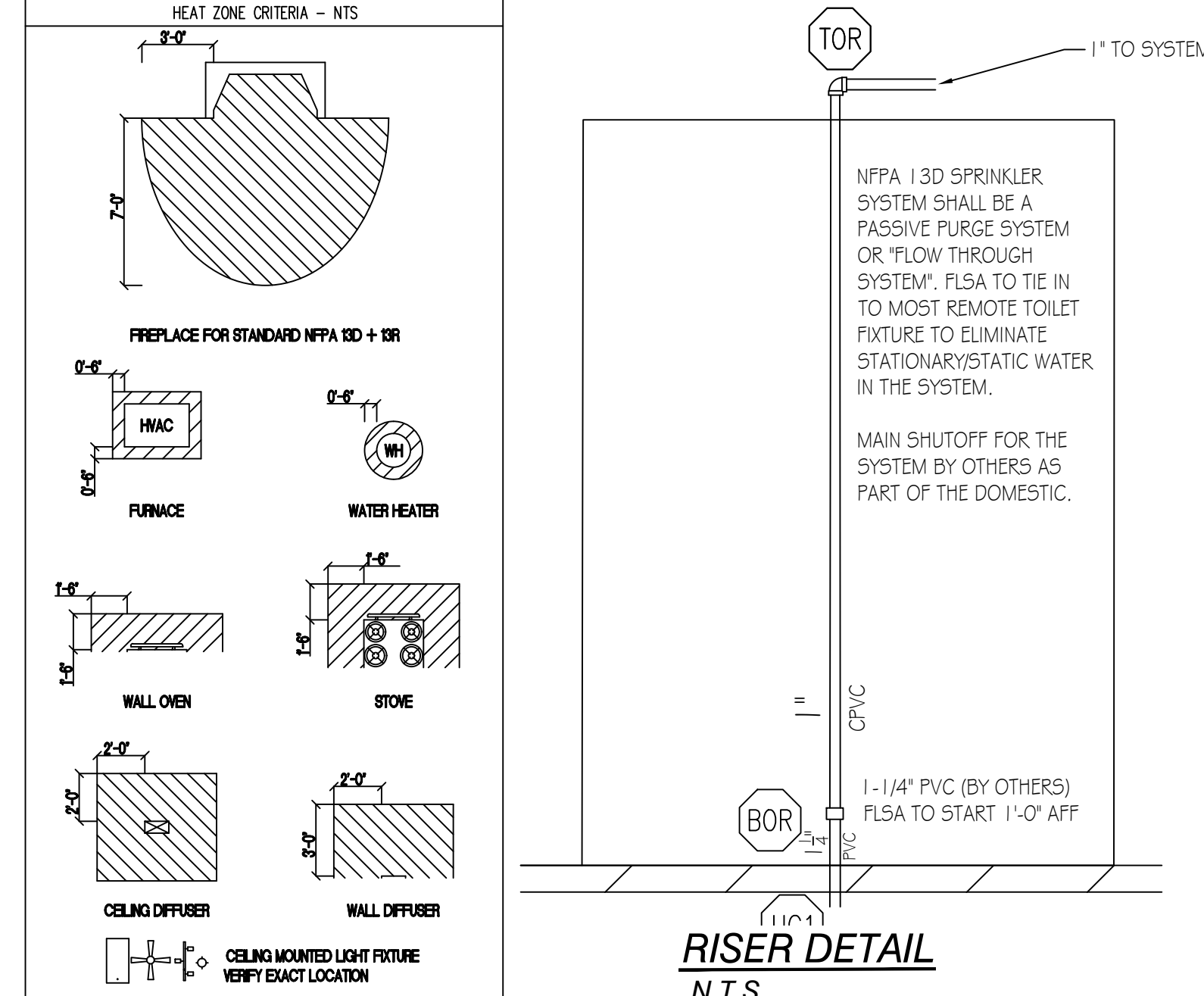
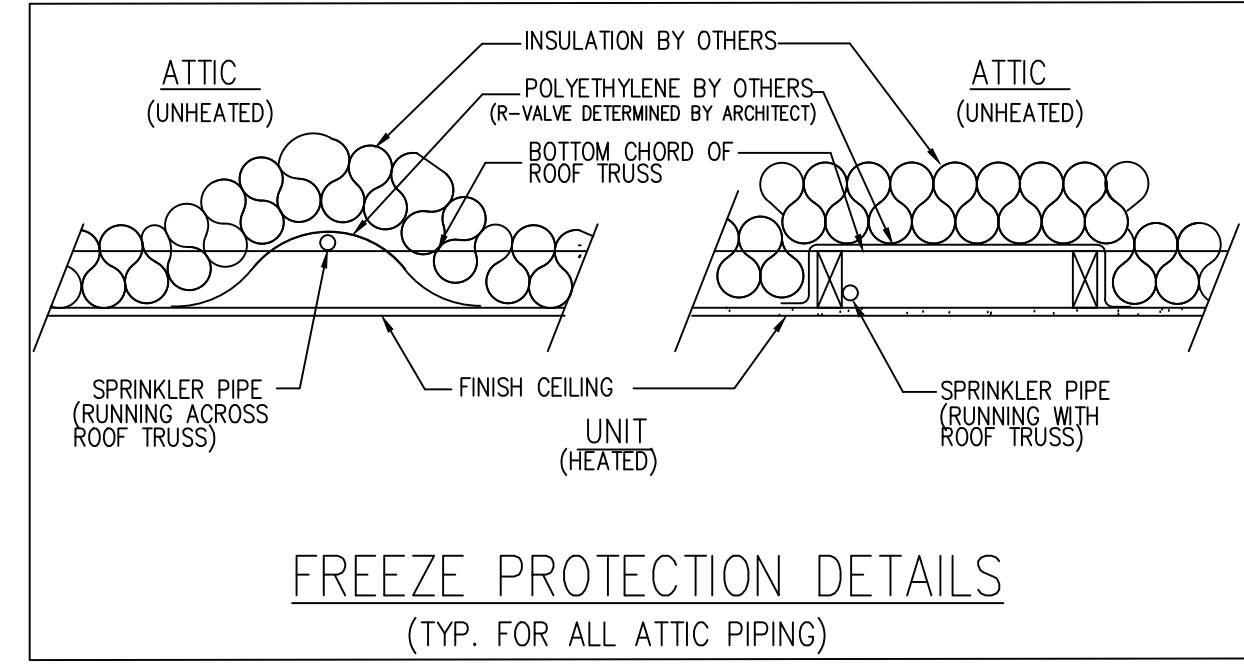
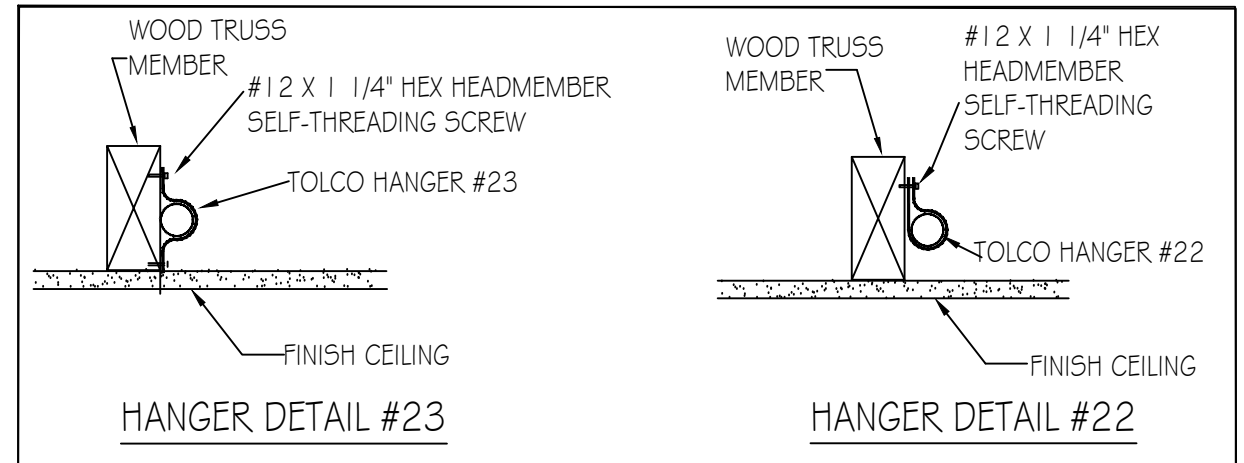
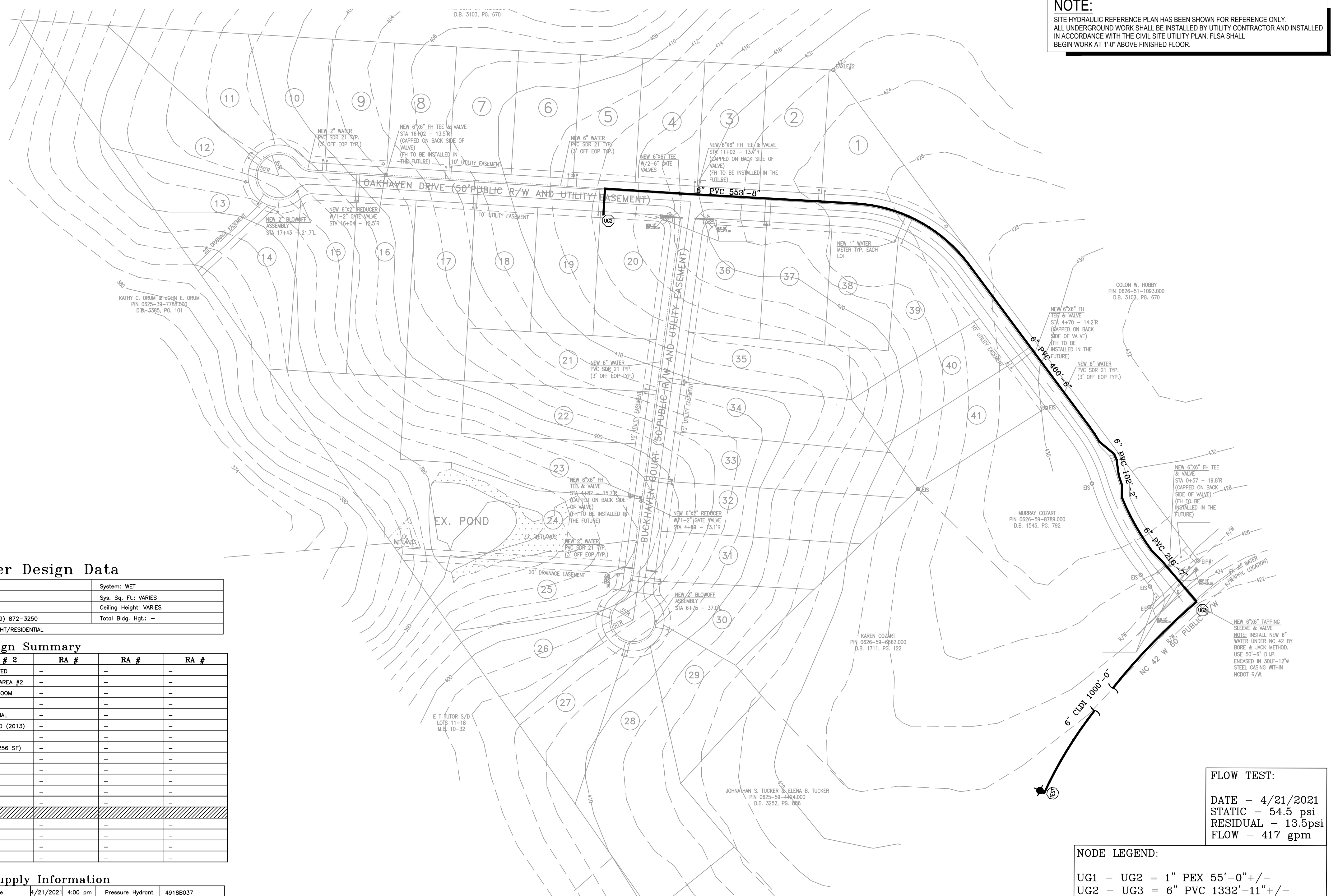


GENERAL NOTES

- 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 06	System: WET
Project Street Address: 256 OAKHAVEN DRIVE	Sys. Sq. Ft.: VARIES
Suite: -	Floor#: 2
Designed By: HALEY WEYANT	Phone: (919) 872-3250
Occupancy: RESIDENTIAL	Hazard: LIGHT/RESIDENTIAL
	Ceiling Height: VARIES
	Total Bldg. Hgt.: -

Design Summary

Design Method	RA # 1	RA # 2	RA #	RA #
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 130 (2013)	NFPA 130 (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	23.03	29.44	-	-
P.S.I. Req'd	39.27	48.17	-	-
Safety Factor @ TEST	15.04	6.02	-	-
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

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" PEX 55'-0"+/-
UG2 - UG3 = 6" PVC 1332'-11"+/-
UG3 - TEST = 6" PVC 1000'-0"+/-

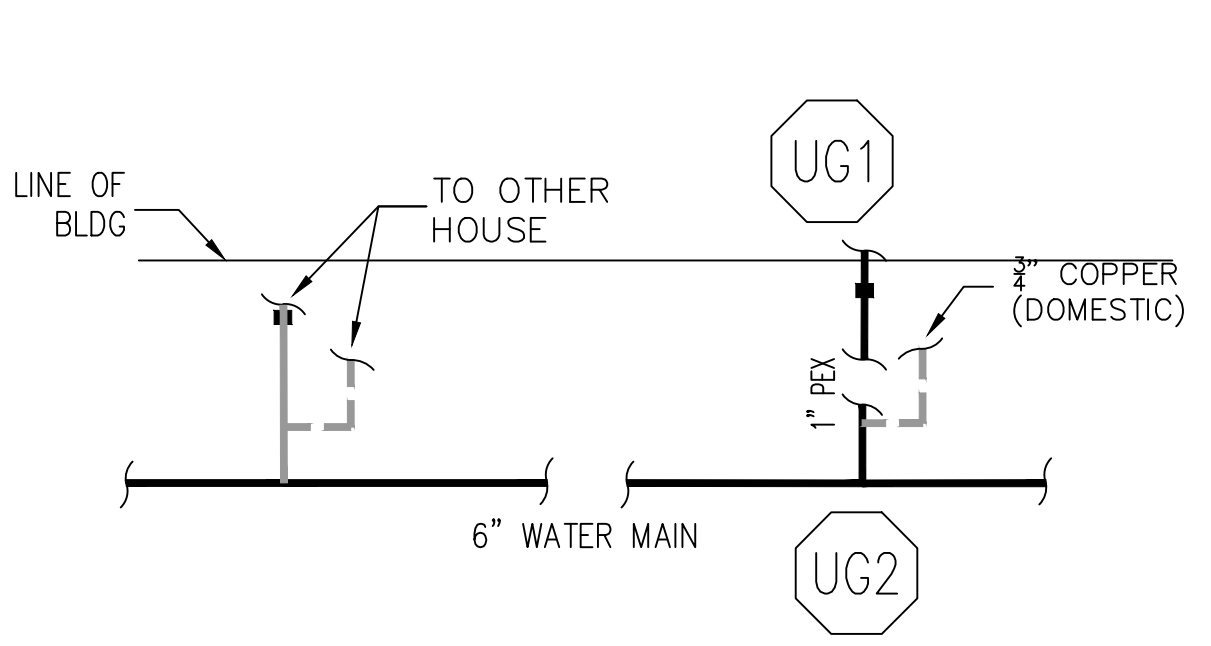


TABLE A - CPVC STANDARD SUPPORT SPACING

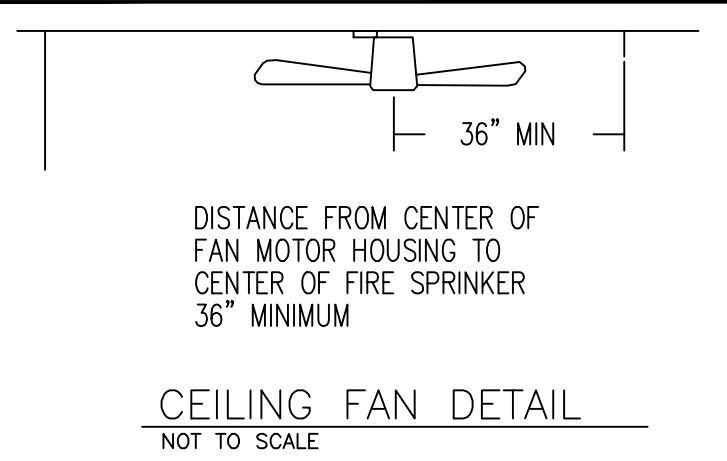
NOMINAL SIZE, INCHES	MAX SUPPORT SPACING, FEET
3/4"	5'-0"
1"	6'-0"
1 1/4"	6'-0"
1 1/2"	7'-0"
2"	8'-0"
2 1/2"	9'-0"
3"	10'-0"

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"



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. 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 THIS DRAWING PURSUANT TO G.S. 55B-15(A)(2).
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- ROANOKE, VA
BALTIMORE, MD
- SPRINGFIELD, VA
DALLAS, TX
- ORLANDO, FL
AUSTIN, FL
ATLANTA, GA
- 1731 Round Rock Drive
Raleigh, NC 27615
PHONE (919) 872-3250
FAX (919) 877-5776
- JONATHAN STEBILA
LEVEL III AUTOMATIC SPRINKLER SYSTEMS
#111897
- NORTH CAROLINA STATE LICENSE #29733
PERMIT NUMBER: SFD2011-0042

	SYSTEM DESIGN CRITERIA TYPE SYSTEM: <input checked="" type="checkbox"/> WET <input type="checkbox"/> DRY <input type="checkbox"/> DELUGE <input type="checkbox"/> PREACTION <input type="checkbox"/> ANTI-FREEZE OCCUPANCY: RESIDENTIAL HAZARD: LIGHT NFPA STANDARD: <input type="checkbox"/> #13 <input type="checkbox"/> #13R <input type="checkbox"/> #14 <input type="checkbox"/> #20 <input type="checkbox"/> #22 <input type="checkbox"/> #231 <input type="checkbox"/> #231C <input type="checkbox"/> #15 <input type="checkbox"/> #16 <input type="checkbox"/> #499 MAXIMUM SPACING: VARIES LOCAL HOSE THREADS: N.S.T. SPRINKLERS ARE REQUIRED TO BE LOCATED IN THE CENTER OF THE CEILING TILES.	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 provider to ensure lead-in is plumbed, 2-holed, redded, flashed, 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 Hydraulic Reference Point 18" BITS Elev. Below Top of Steel 12'-0" AFF Elev. Above Finished Floor + TOS 12'-0" Elev. of Top of Steel (10'-0") Ceiling Height Denotes Hanger Location Denotes Setback Support Room name or use Sleeve Location FLSA Start Point	SPRINKLER SUMMARY TYPE FINISH TEMP ORIF "K" NPT MANUF SIN# ESCUTCHEON QTY. RES. PENDENT WHITE 200 1/2" 4.9 1/2" VIKING VK494 CONCEALED 0 * 18" BITS 0 + TOS 12'-0" 0 (10'-0") 0 Denotes Hanger Location 0 Denotes Setback Support 0 Room name or use 0 Sleeve Location 0 FLSA Start Point 0 TOTAL SPRINKLERS THIS PROJECT 23 TOTAL SPRINKLERS THIS DRAWING 0	GRAPHIC SCALE: 1/8" = 1'-0" REVISIONS DATE DESCRIPTION BY 4/22/2021 SUBMITTAL TO AHJ HCW	JOB #: 21NC1515 DATE: 4/13/2021 DRAWN BY: H. WEYANT SCALE: AS NOTED	FLSA FIRE & LIFE SAFETY AMERICA PROTECTING AMERICA HYD. SITE PLAN, GENERAL NOTES & DETAILS OAK HAVEN LOT 20 227 OAK HAVEN DRIVE HOLLY SPRINGS, NC 27540 DRAWING #: FP1 OF 2
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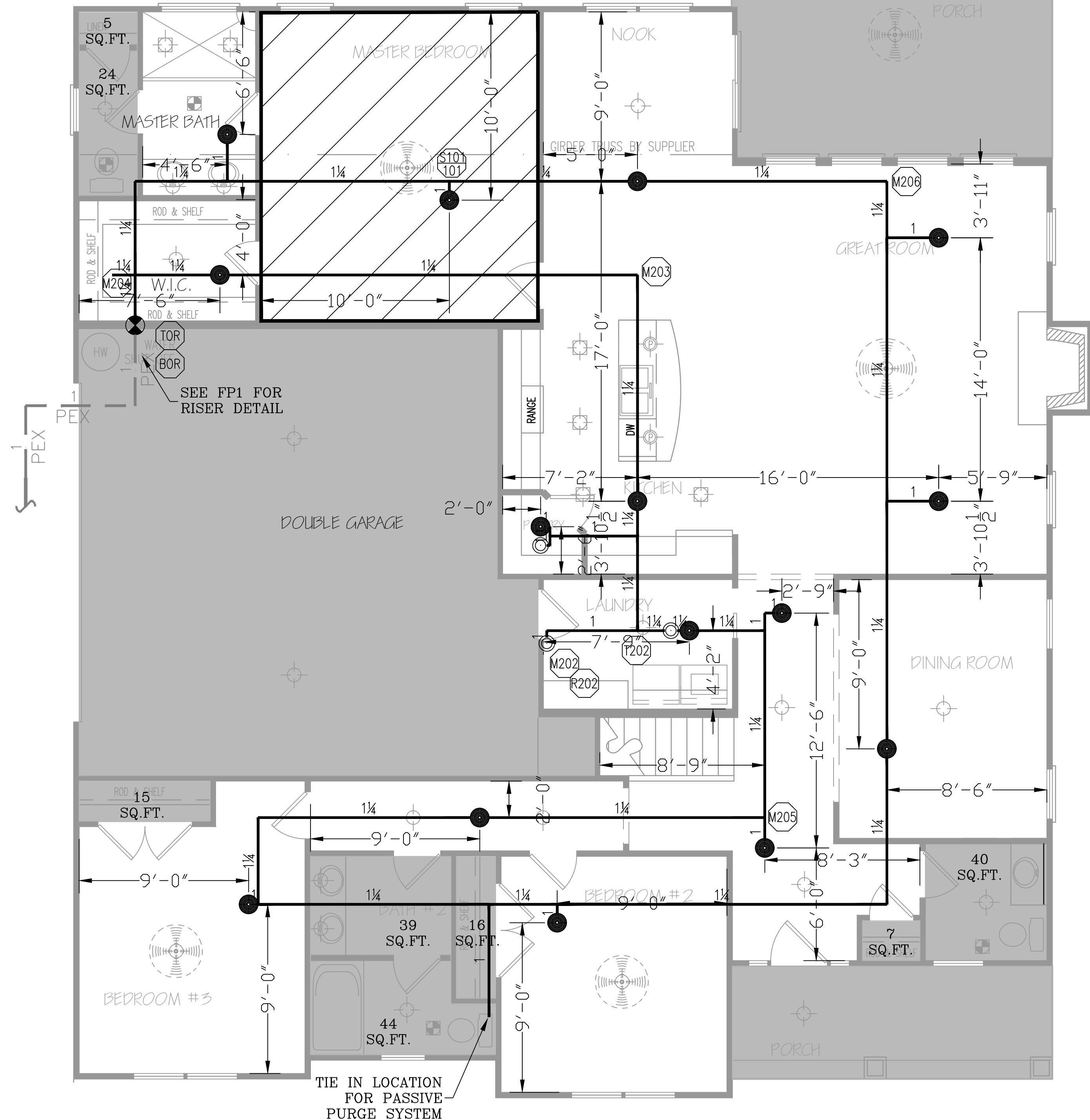
NOTES:

- 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

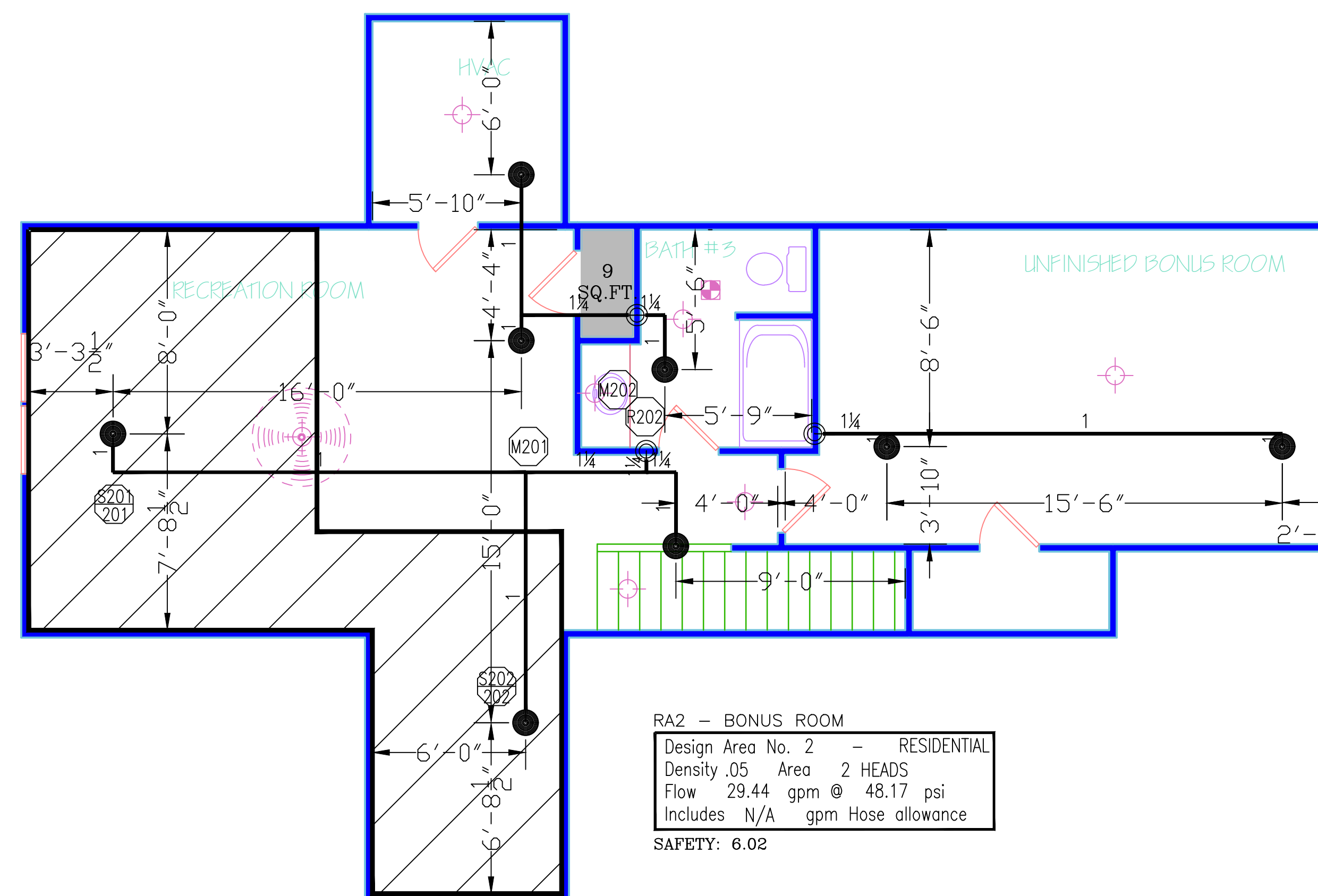
- NO HEADS REQUIRED
- REMOTE AREA

RA1 - MASTER BEDROOM
 Design Area No. 1 - RESIDENTIAL
 Density .05 Area 1 HEADS
 Flow 23.03 gpm @ 39.27 psi
 Includes N/A gpm Hose allowance
 SAFETY: 15.04



LEVEL 1 - SPRINKLER PLAN

1/4" = 1' - 0"



RA2 - BONUS ROOM
 Design Area No. 2 - RESIDENTIAL
 Density .05 Area 2 HEADS
 Flow 29.44 gpm @ 48.17 psi
 Includes N/A gpm Hose allowance
 SAFETY: 6.02

LEVEL 2 - SPRINKLER PLAN

1/4" = 1' - 0"

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DESIGN CRITERIA		APPROVING AGENCIES	
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	APPROVING AUTHORITY: HARNETT COUNTY	UNDERWRITER: N/A
<input type="checkbox"/> PREACTION <input type="checkbox"/> ANTI-FREEZE	<input type="checkbox"/> #24 <input type="checkbox"/> #231 <input type="checkbox"/> #231C <input type="checkbox"/> #15 <input type="checkbox"/> #16 <input type="checkbox"/> #499	GENERAL CONTRACTOR: WATERMARK HOMES	ADDRESS: 1303 FT BRAGG ROAD SUITE 201
OCCUPANCY: RESIDENTIAL	HAZARD: LIGHT	CITY & STATE: FAYETTEVILLE NC, 28305	PHONE NO.: (910) 483-2229
MAXIMUM SPACING: VARIES	LOCAL HOSE THREADS: N.S.T.	FAX NO.:	
PIPE TYPES AND FITTING TYPES			
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.	
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-hole, rodless, 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".	
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		SPRINKLER SUMMARY	
Symbol	Description	SYM	QTY
○	Hydraulic Reference Point		23
●	RES. PENDENT		23
○	18" BTS		0
○	12"-0 AFF		0
○	+ TOS 12"-0		0
○	Calling Height		0
○	Denotes Hanger Location		0
○	Denotes Seismic Support		0
○	Room name or use		0
○	Sleeve Location		0
○	FLSA Start Point		0
TOTAL SPRINKLERS THIS PROJECT		23	
TOTAL SPRINKLERS THIS DRAWING		23	

REVISIONS	
DATE	DESCRIPTION
4/22/2021	SUBMITTAL TO AHJ

RICHMOND, VA CHARLOTTE, NC
 CHESAPEAKE, VA HOUSTON, TX
 ROANOKE, VA RALEIGH, NC
 SPRINGFIELD, VA SAN ANTONIO, TX
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 FAX (919) 877-5775

FLSA
 FIRE & LIFE SAFETY AMERICA

JONATHAN STEBILA
 LEVEL III AUTOMATIC SPRINKLER SYSTEMS
 #111897

NORTH CAROLINA STATE LICENSE #29733
 PERMIT NUMBER: SFD2011-0042

JOB #: 21NC1515
 DATE: 4/13/2021
 DRAWN BY: H. WEYANT
 SCALE: AS NOTED

LEVEL 1 & 2 - SPRINKLER PLAN
OAK HAVEN LOT 20
 227 OAK HAVEN DRIVE
 HOLLY SPRINGS, NC 27540

DRAWING #:
FP2
 OF 2