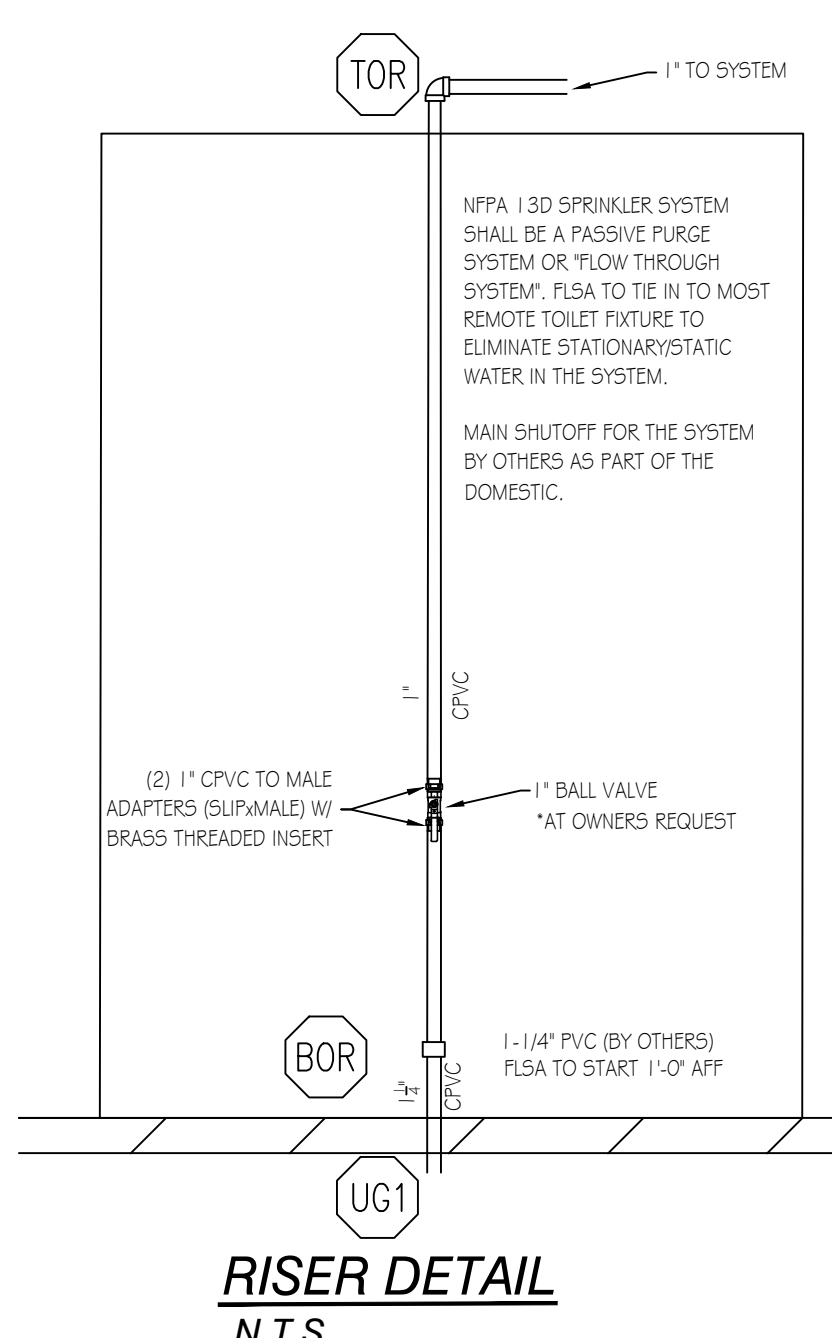
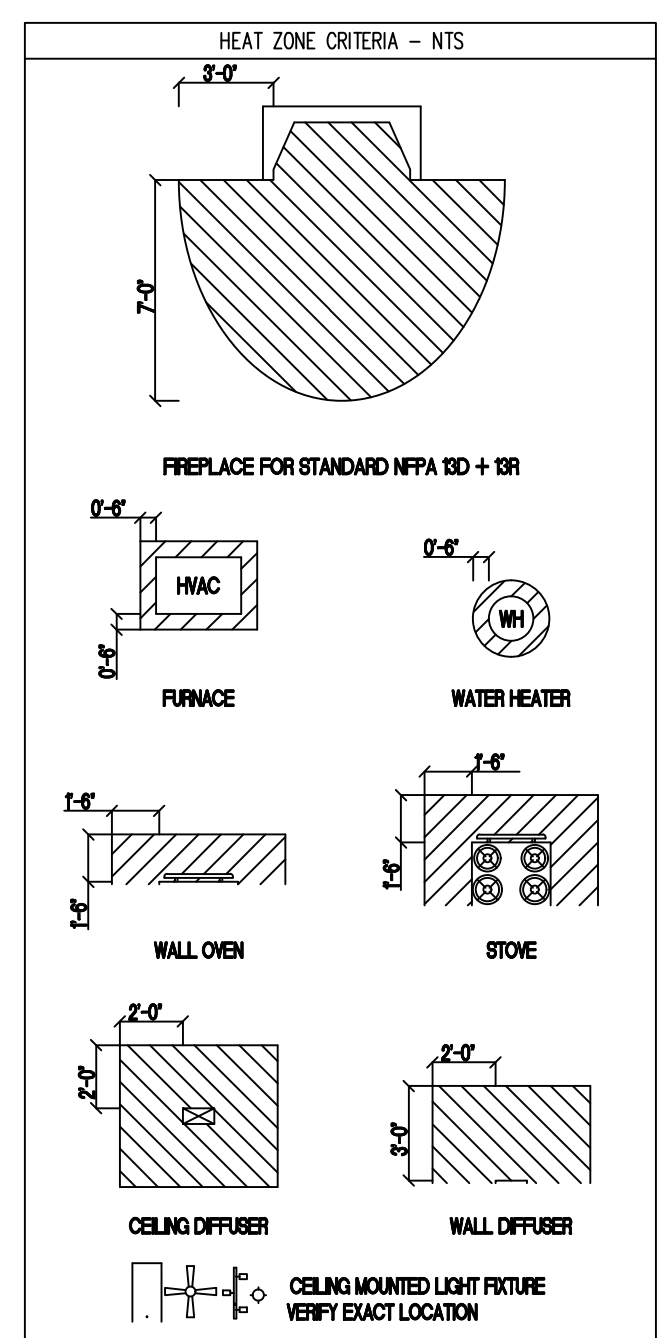
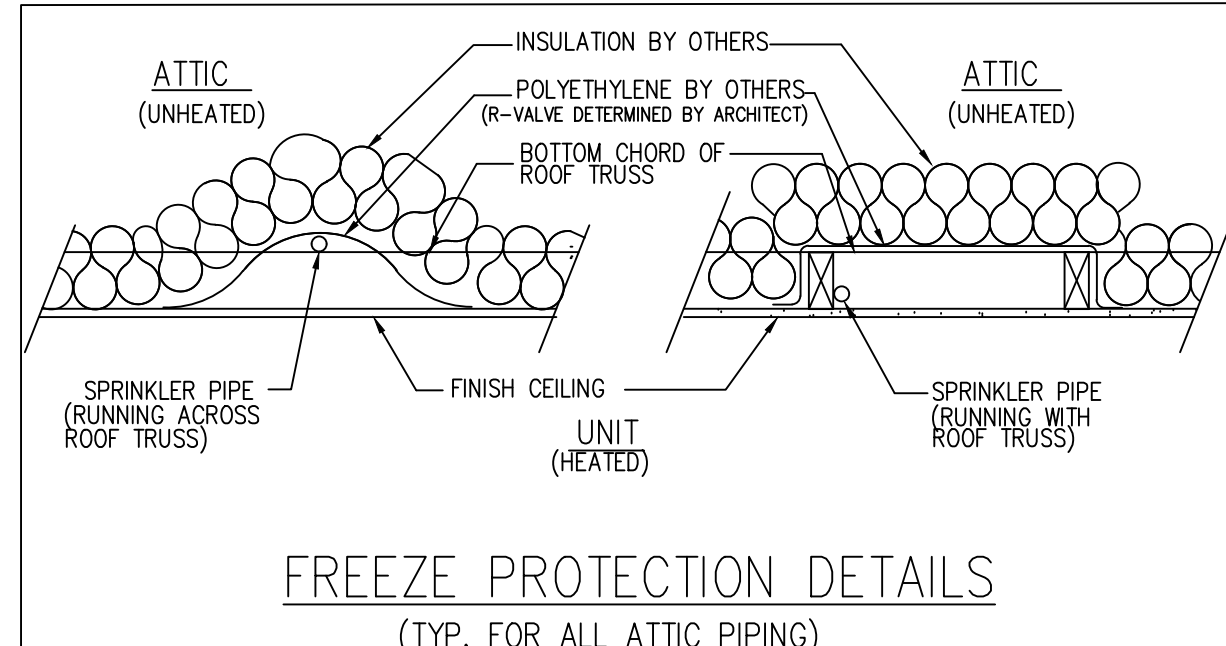
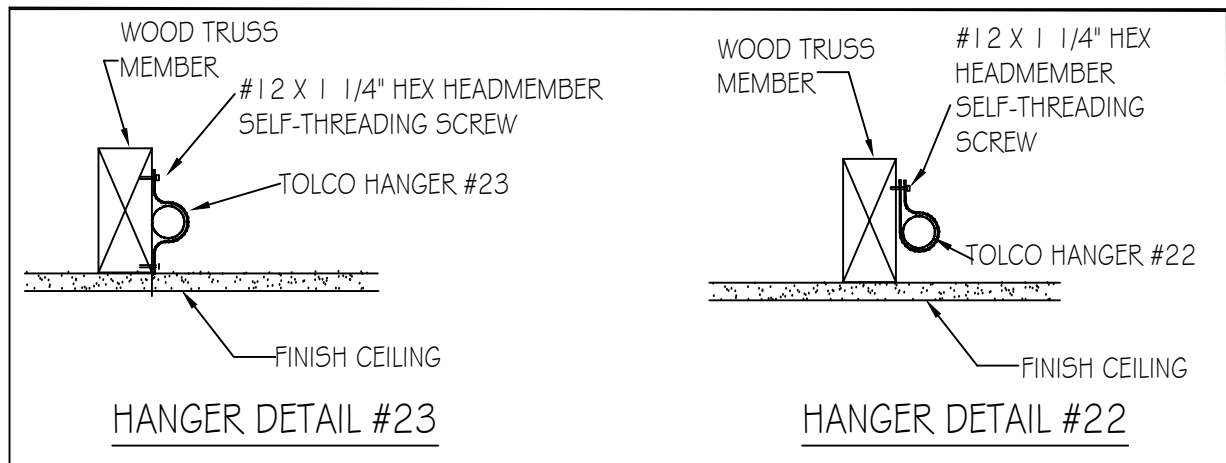
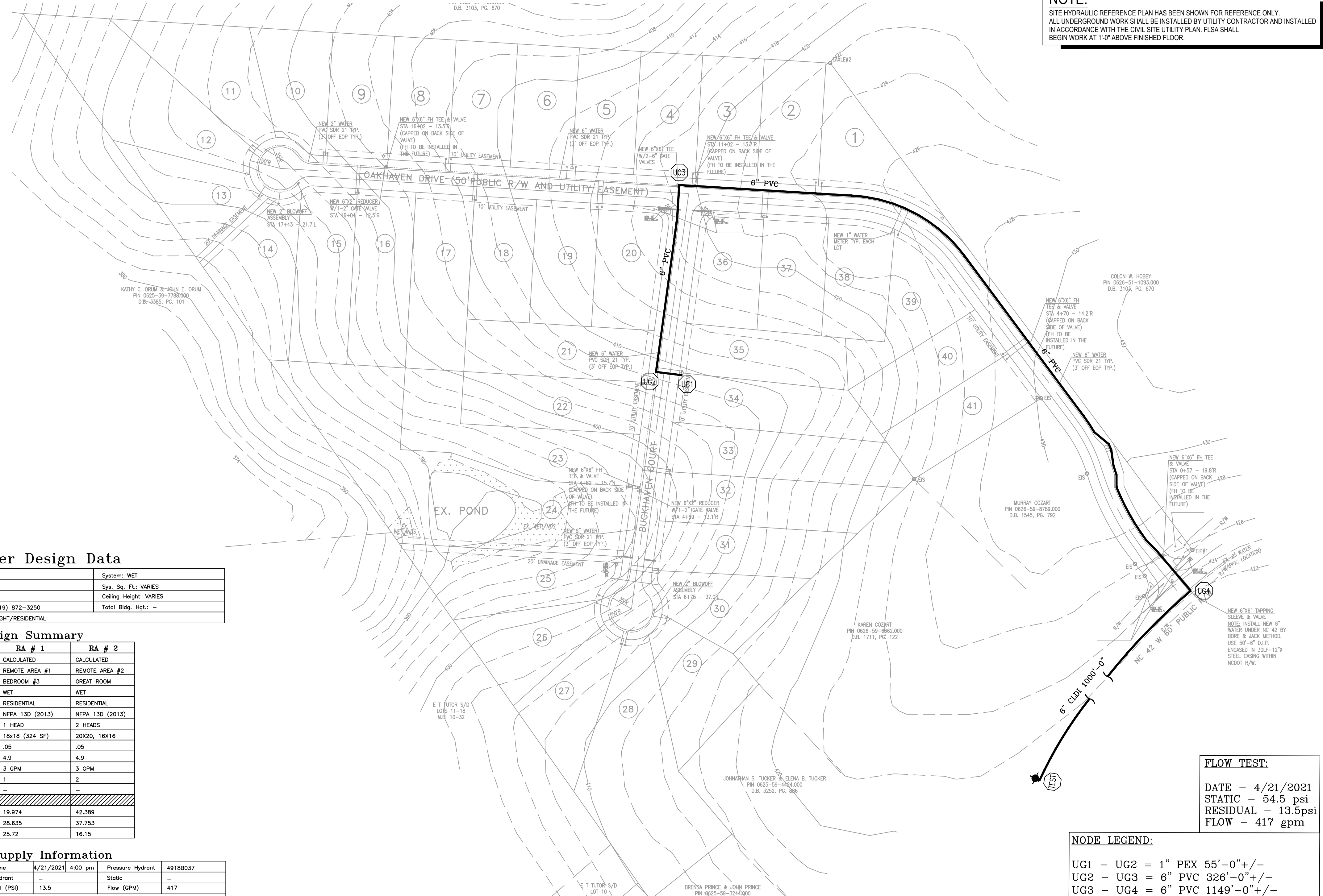


GENERAL NOTES

- 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.
- 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 34	System: WET
Project Street Address: 63 BUCKHAVEN DRIVE	Sys. Sq. Ft.: VARIES
Suite: -	Floor#: 2
Designed By: R. COLLINS	Phone: (919) 872-3250
Occupancy: RESIDENTIAL	Hazard: LIGHT/RESIDENTIAL
	Total Bldg. Hgt.: -

Design Summary

	RA # 1	RA # 2
Design Method	CALCULATED	CALCULATED
Design Area #	REMOTE AREA #1	REMOTE AREA #2
Location	BEDROOM #3	GREAT ROOM
Type of System	WET	WET
Hazard Class	RESIDENTIAL	RESIDENTIAL
Criteria Form	NFPA 13D (2013)	NFPA 13D (2013)
Design Area	1 HEAD	2 HEADS
Sprinkler Spacing	18x18 (324 SF)	20x20, 16x16
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	19.974	42.589
P.S.I. Req'd	28.635	37.753
Safety Factor @ TEST	25.72	16.15

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

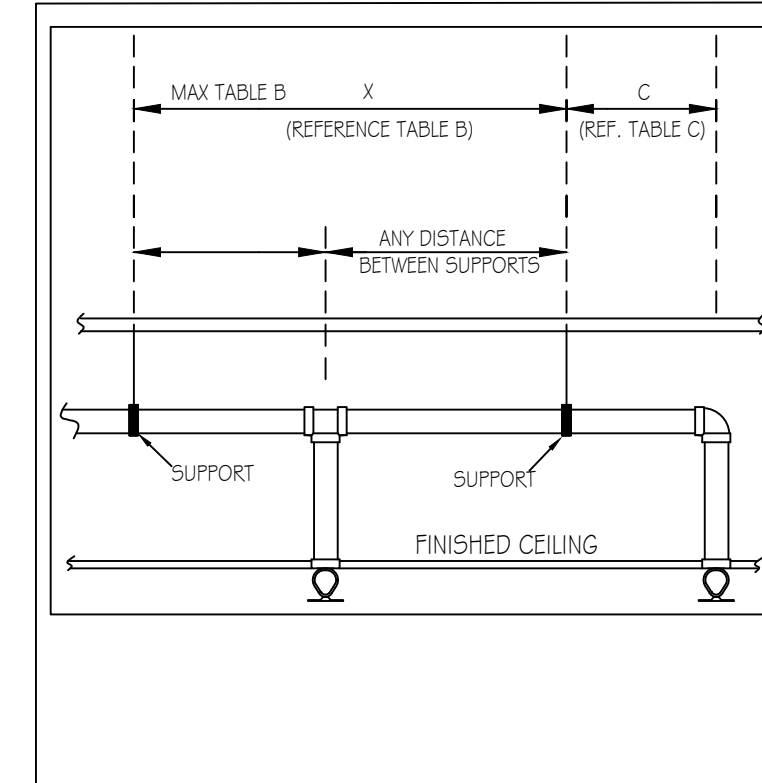
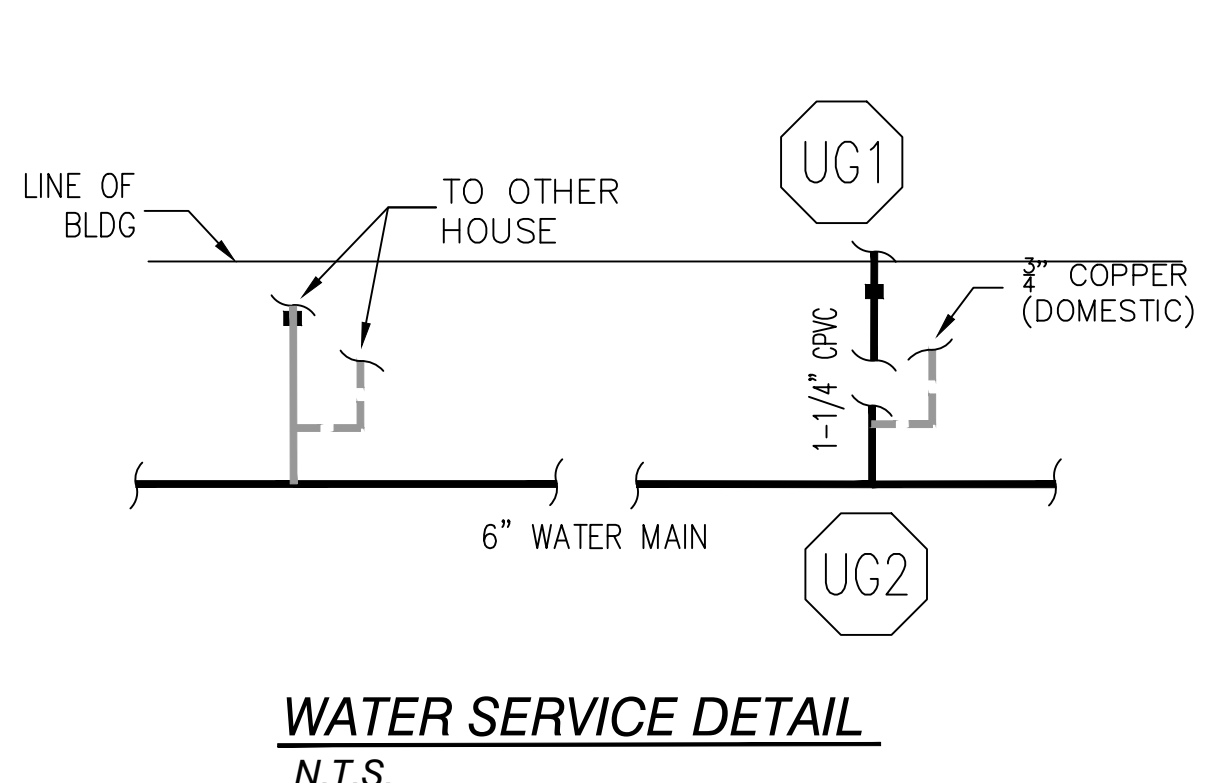


TABLE A - CPVC STANDARD SUPPORT SPACING

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	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	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" PEX 55'-0"+/-
UG2 - UG3 = 6" PVC 326'-0"+/-
UG3 - UG4 = 6" PVC 1149'-0"+/-
UG3 - TEST = 6" PVC 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 NEW SPRINKLER SYSTEM INTO MOST REMOTE TOILET 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.
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<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 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</p> <p>HAZARD: <input checked="" type="checkbox"/> LIGHT <input type="checkbox"/> #13D <input type="checkbox"/> #13R <input type="checkbox"/> #14 <input type="checkbox"/> #20 <input type="checkbox"/> #22</p> <p>OCCUPANCY: <input checked="" type="checkbox"/> RESIDENTIAL <input type="checkbox"/> HAZARD: <input type="checkbox"/> LIGHT <input type="checkbox"/> #13D <input type="checkbox"/> #13R <input type="checkbox"/> #14 <input type="checkbox"/> #20 <input type="checkbox"/> #22</p> <p>MAXIMUM SPACING: <input checked="" type="checkbox"/> VARIES <input type="checkbox"/> LOCAL HOSE THREADS: <input checked="" type="checkbox"/> N.S.T. <input type="checkbox"/> SLEEVES REQUIRED: <input checked="" type="checkbox"/> NO</p> <p>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 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 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.</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> <p>Symbol Description</p> <p>Hydraulic Reference Point</p> <p>18" BTS Elev. Below Top of Steel</p> <p>12'-0" AFF Elev. Above Finished Floor</p> <p>+105 12'-0" Elev. Top of Steel</p> <p>Ceiling Height</p> <p>Denotes Hanger Location</p> <p>Denotes Seismic Support</p> <p>Room name or use</p> <p>Sleeve Location</p> <p>FLSA Start Point</p>		<p>SPRINKLER SUMMARY</p> <table border="1"> <thead> <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> </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>20</td> </tr> </tbody> </table> <p>TOTAL SPRINKLERS THIS PROJECT: 20</p>		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	<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>#</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>12/21/2021</td> <td>SUBMITTAL TO AHJ</td> <td>RCC</td> </tr> </tbody> </table>		#	DATE	DESCRIPTION	BY	1	12/21/2021	SUBMITTAL TO AHJ	RCC	<p>GRAPHIC SCALE: 1/4" = 1' - 0"</p> <p>0 2 4 6 8 10 12 14 16 18</p>		<p>1721 Round Rock Drive Raleigh, NC 27615 PHONE (919) 872-3250 FAX (919) 877-8776</p> <p>1721 Round Rock Drive Raleigh, NC 27615 PHONE (919) 872-3250 FAX (919) 877-8776</p>		<p>1721 Round Rock Drive Raleigh, NC 27615 PHONE (919) 872-3250 FAX (919) 877-8776</p>		<p>1721 Round Rock Drive Raleigh, NC 27615 PHONE (919) 872-3250 FAX (919) 877-8776</p>	
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<p>PIPE TYPES AND FITTING TYPES</p> <p>LINE PIPING: CPVC</p> <p>LINE FITTINGS: CPVC</p>		<p>GENERAL CONTRACTOR: WATERMARK HOMES</p> <p>ADDRESS: 1303 FT BRAGG ROAD SUITE 201</p> <p>CITY & STATE: FAYETTEVILLE, NC 28305</p> <p>PHONE NO.: (910) 483-2229</p> <p>FAX NO.:</p>		<p>JOB #: 22NC1550</p> <p>DATE: 12/19/2021</p> <p>DRAWN BY: R. COLLINS</p> <p>SCALE: AS NOTED</p>		<p>HYD. SITE PLAN, GENERAL NOTES & DETAILS</p> <p>OAKHAVEN LOT 34</p> <p>63 BUCKHAVEN DR.</p> <p>HOLLY SPRINGS, NC 27540</p>		<p>DRAWING #: FP1</p> <p>OF 2</p>																																									

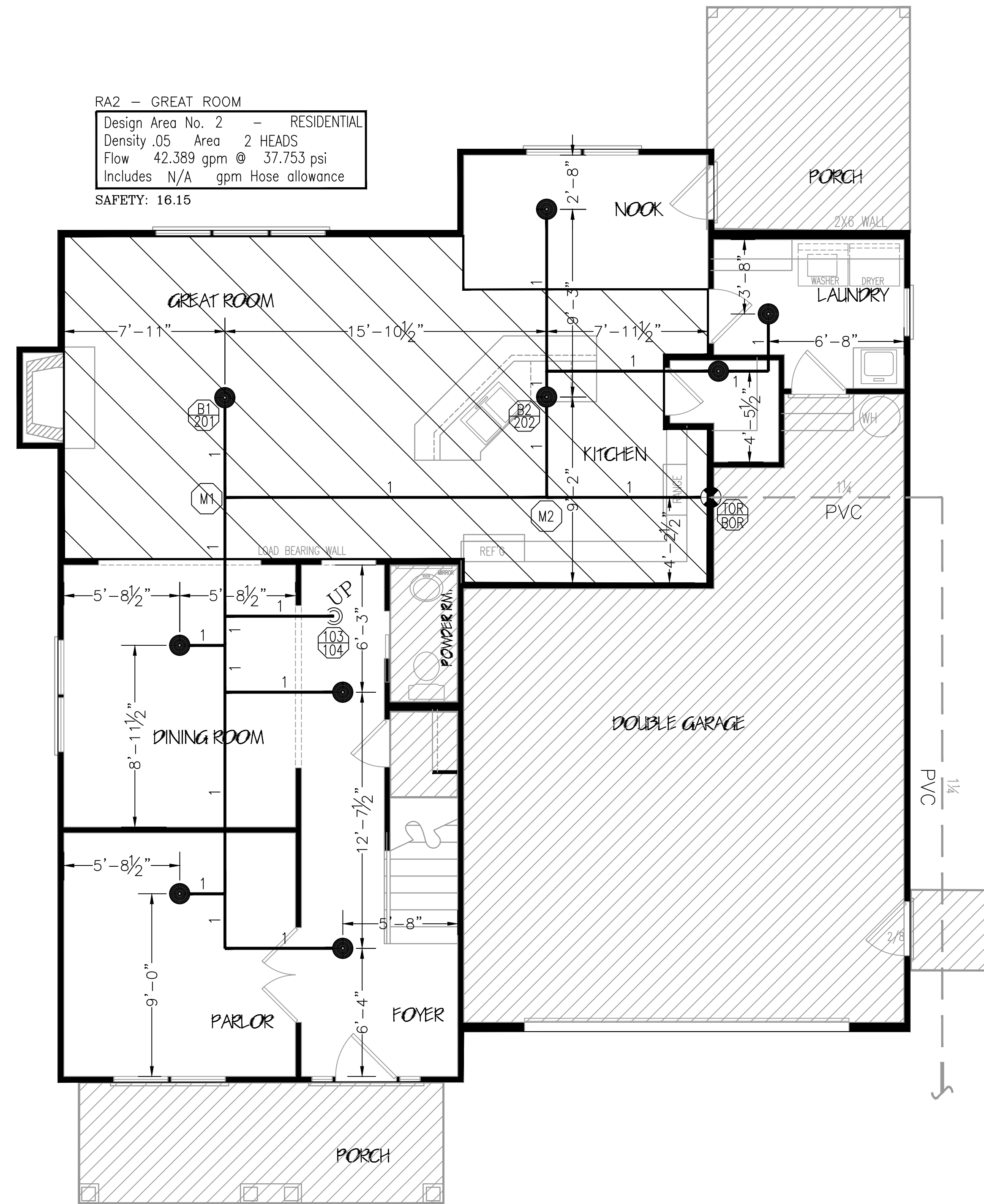
NOTES:

- 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

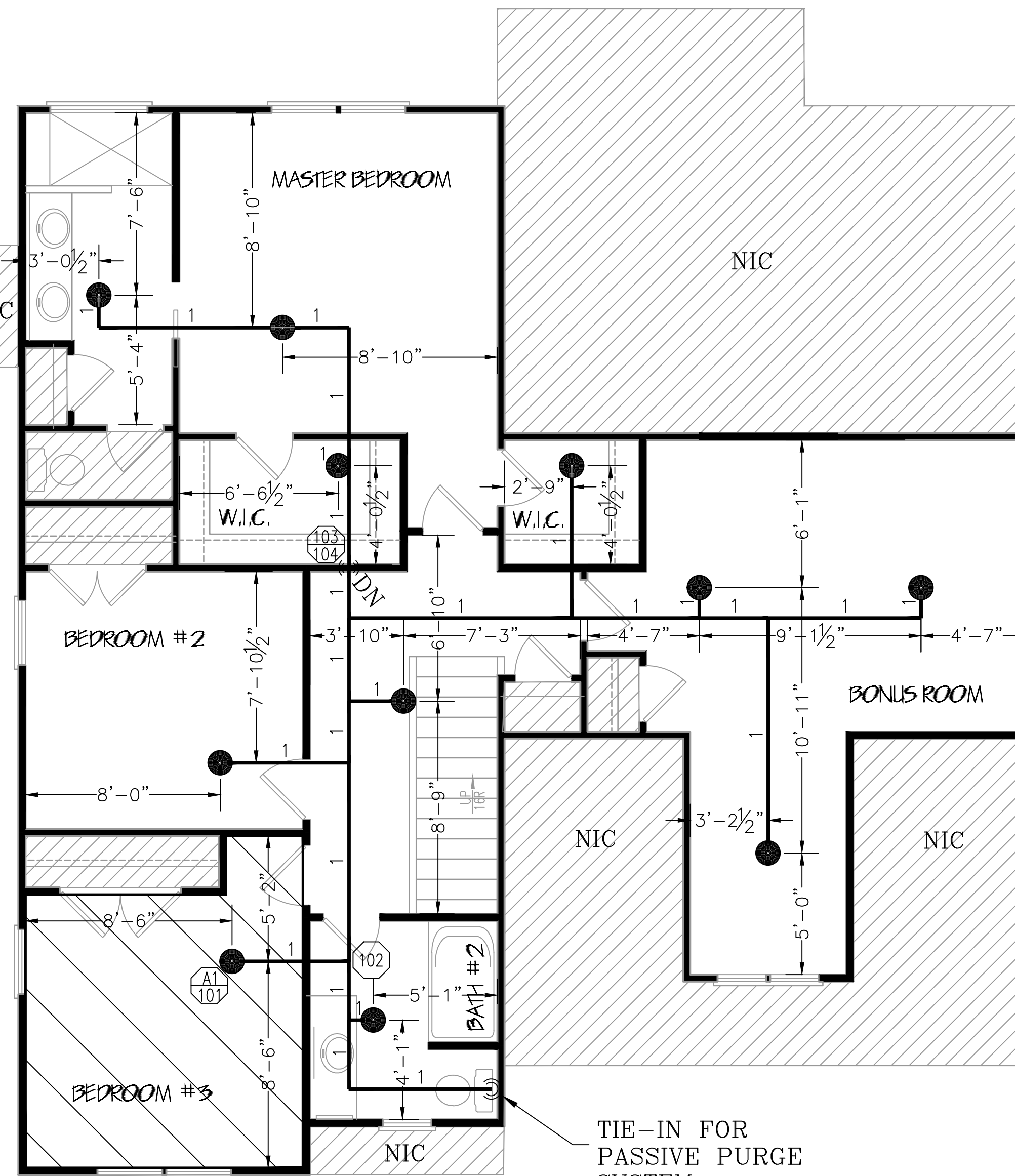
SPRINKLER LEGEND

- NO HEADS REQUIRED
- REMOTE AREA

RA2 - GREAT ROOM
 Design Area No. 2 - RESIDENTIAL
 Density .05 Area 2 HEADS
 Flow 42,389 gpm @ 37.753 psi
 Includes N/A gpm Hose allowance
 SAFETY: 16.15



LEVEL 1 - SPRINKLER PLAN
 1/4" = 1' - 0"



RA1 - BEDROOM #3
 Design Area No. 1 - RESIDENTIAL
 Density .05 Area 1 HEADS
 Flow 19,974 gpm @ 28.635 psi
 Includes N/A gpm Hose allowance
 SAFETY: 25.72

LEVEL 2 - SPRINKLER PLAN
 1/4" = 1' - 0"

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

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: LIGHT	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	SYMBOL	DESCRIPTION	TYPE	FINISH	TEMP	ORIE	K" NPT	MANUF	SIN#	ESCUTCHEON	QTY	DATE	DESCRIPTION	BY
OCCUPANCY: RESIDENTIAL	LOCAL HOSE THREADS: N.S.T.	GENERAL CONTRACTOR: WATERMARK HOMES		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	20	12/21/2021	SUBMITTAL TO AHJ	RCC	
MAXIMUM SPACING: VARIES	PIPE ID REQUIRED: NO	ADDRESS: 1303 FT BRAGG ROAD SUITE 201		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.		CITY & STATE: FAYETTEVILLE, NC 28305		4. Underground provider to ensure lead-in is plumbed, 2-holed, rodged, 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														
		PHONE NO.: (910) 483-2229		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														
		FAX NO.:		6. Hydrostatic testing will only be performed with water or air depending on adequate temperature. Any other form of testing is excluded.	10'-0 Ceiling Height														
					Denotes Hanger Location														
					Denotes Seismic Support														
					Room name or use														
					Sleeve Location														
					FLSA Start Point														

1721 Round Rock Drive
 Raleigh, NC 27615
 PHONE (919) 872-3250
 FAX (919) 877-8776

FLSA
 FIRE & LIFE SAFETY AMERICA
 PROTECTING AMERICA

JOB #: 22NC1550
 DATE: 12/19/2021
 DRAWN BY: R. COLLINS
 SCALE: AS NOTED

LEVEL 1 & 2 FIRE PROTECTION PLANS
 OAKHAVEN LOT 34
 63 BUCKHAVEN DR.
 HOLLY SPRINGS, NC 27540

DRAWING #:
FP2
 OF 2