

Basement Level Sprinkler Legend

BASEMENT SPRINKLER PLAN

SCALE: 1/4" = 1'-0"

Pipe hangers shall be installed as required by NFPA for supporting sprinkler piping. No other piping and/or devices are to be attached to the sprinkler pipe hanger system unless the hanger has been specifically designed for the additional loading. THIS CONTRACT DOES NOT INCLUDE ANY MATERIAL OR DEVICE TO IMPROVE THE STRUCTURAL STRENGTH OF THE BUILDING TO ENABLE IT TO CARRY THE LOAD OF THE FIRE PROTECTION SYSTEM.

HEAD SPACING INFORMATION							Note: IPS iron-pipe size; CTS-copper tube size.												
HEAD TYPE	SYMBOL	MIN DISTANCE BETWEEN SPK.	MAX DISTANCE BETWEEN SPK.	MAX COVERAGE SQ. FT.	MAX DISTANCE FROM WALL	MAXIMUM THROW	Nominal Pipe Size (in.)	1/4"	1"	1-1/4"	1-1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"	8"
TYCO TY2534		8'-0"	20' x 20'	400	10'-0"	N/A	Steel pipe except threaded lightwall	N/A	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
VIKING VK467		9'-0"	16' x 16'	256	8'-0"	N/A	Threaded Lightwall Steel pipe	N/A	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	N/A	N/A	N/A	N/A	N/A	N/A
TYCO TY3521		8'-0"	14' x 14'	196	7'-0"	N/A	Copper Tube	8'-0"	8'-0"	10'-0"	10'-0"	12'-0"	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
							CPVC	5'-6"	6'-0"	6'-6"	7'-0"	8'-0"	9'-0"	10'-0"	N/A	N/A	N/A	N/A	N/A

Total Sprinkler Legend										
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Temp	
	Tyco	TY2534	LFII	91	4.9	Concealed Pendent	1/2	Fast	200°F	
	Viking	VK467	Freedom	22	4.9	Upright	1/2	Fast	175°F	
	Tyco	TY3521	RFII	3	5.6	Horizontal Concealed Sidewall	1/2	Quick	212°F	
	Tyco	TY3535	DS-C	5	5.6	Concealed Pendent	1	Quick	200°F	
				Total = 121						

GENERAL INFORMATION

1. INTERNATIONAL BUILDING CODE (2021)
 1.1 ZONING: RV SINGLE FAMILY RESIDENCE (UNSERVED)
 1.2 TYPE OF CONSTRUCTION: NEW CONSTRUCTION OF A-2 STORY SINGLE FAMILY HOUSE W/ BASEMENT
 1.3 SPRINKLERED AREAS (APPROXIMATE - SEE ARCHITECTURAL PLANS FOR ACTUAL)
 TOTAL SQFT = 9,518 S.F.
 1.4 DESIGN & INSTALLATION STANDARDS: NFPA 13D (2013), NFPA (2019)

2. SPRINKLER PIPE TYPES:
 2.1 ALL THREADED PIPE TO BE SCHEDULE 40 BLACK STEEL w/ THREADED FITTINGS
 2.2 ALL WELDED LINE & MAIN PIPING (SIZE 1 1/2") TO BE BLK SCHEDULE 10 w/ GROoved FITTINGS
 DRY
 2.5 ALL THREADED PIPE TO BE SCHEDULE 40 BLACK STEEL w/ THREADED FITTINGS
 2.6 ALL WELDED LINE & MAIN PIPING (SIZE 1 1/2") TO BE BLK SCHEDULE 10 w/ GROoved FITTINGS

3. DESIGN CRITERIA:

3.1 ALL AREAS PROTECTED ACCORDING TO NFPA 13D WITH SPRINKLER FLOW DETERMINED BY REQUIREMENTS SET FORTH BY NFPA 13D AND SPRINKLER HEAD LISTING DATA. PIPING IS SIZED ACCORDINGLY BY HYDRAULIC CALCULATION. SPRINKLER HEADS ARE LOCATED IN ACCORDANCE WITH NFPA 13D SPRINKLER DISCHARGE CRITERIA. SYSTEM DESIGNED USING A TANK AND PUMP SYSTEM FOLLOWING THE REQUIREMENTS SET FORTH BY NFPA 13D. 300 GALLON TANK REQUIRED TO MEET SYSTEM DEMAND OF 30 GPM FOR 10 MIN

SPRINKLER PROTECTION IS PROVIDED FOR LIVING AREAS AND THE FOLLOWING AREAS PER 13D:

• CLOSETS OVER 24 S.F.

• BATHROOMS OVER 55 S.F.

SPRINKLER PROTECTION IS NOT PROVIDED FOR THE FOLLOWING AREAS:

• CLOSETS UNDER 24 S.F. PER 8.3.3

• BATHROOMS UNDER 55 S.F. PER 8.3.3

4. NOTES:

4.1 INSULATION TO BE ADDED IN ROOF STRUCTURE TO PROTECT WET SYSTEM PIPE FROM COLD

4.2 ALL MATERIAL TO BE NEW AND APPROVED STAINLESS STEEL

4.3 HANGERS TO BE INSTALLED IN ACCORDANCE WITH NFPA 13 - SEE PLAN FOR HANGING REQUIREMENTS

4.4 ALL SPRINKLERS INSTALLED PER NFPA 13 & MFG. DESIGN DATA

4.5 ALL SPRINKLERS 200° F UNLESS NOTED OTHERWISE

4.6 ALL PIPING TO BE HYDROSTATICALLY TESTED AT 200 PSI FOR TWO HOURS

4.7 ALL PIPING TO BE COATED AND PAINTED TO FIRE CAULKED

4.8 ALL UNDERGROUND PIPING BY OTHERS

4.9 UNDERGROUND INSTALLATION, FLUSHING, AND TESTING TO BE PERFORMED BY OTHERS PRIOR TO CONSTRUCTION OF THE SYSTEM

4.10 CEILING CONSTRUCTION TO BE GYP UNLESS NOTED OTHERWISE

DRY SYSTEM PIPE SLOPE INSTALLATION

DRY SYSTEM PIPE SLOPE TO BE 1/2" PER 10'-0" (NONREFRIGERATED AREAS)

SPRINKLER MAINS TO BE 1/2" PER 10'-0" (REFRIGERATED AREAS)

SPRINKLER BRANCH LINES TO BE 1/2" PER 10'-0"

DRY SYSTEM CAPACITY

15 GALLONS

5. SYMBOLS USED ON DRAWINGS:

★ x FF: PIPE ELEVATION ABOVE FINISH FLOOR

★ x TS: PIPE ELEVATION BELOW TOP OF STEEL

OH1: ROOM HAZARD CLASSIFICATION (ALL ROOMS ARE CONSIDERED LIGHT HAZARD U.N.O.)

HYDRAULIC CALCULATION JUNCTION POINT

9'-0": CEILING HEIGHT

WET BLACK STEEL PIPE

WET PVC PIPE

DRY BLACK STEEL PIPE

6. SCOPE OF WORK:

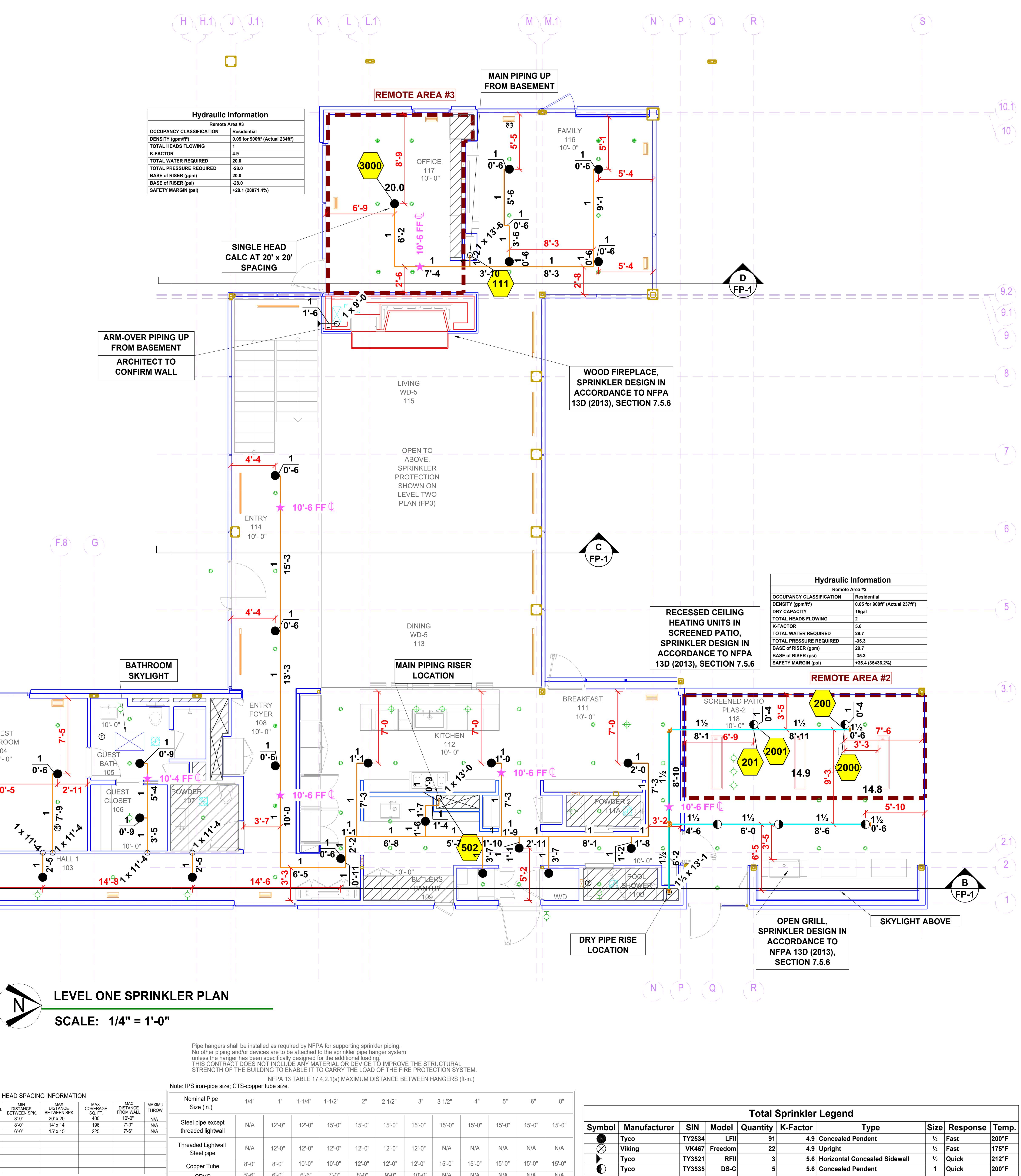
6.1 INSTALL A COMPLETE SINGLE ZONE WET FIRE SPRINKLER SYSTEM TO COVER ALL AREAS OF BUILDING

6.2 INSTALL A COMPLETE SINGLE ZONE DRY FIRE SPRINKLER SYSTEM TO COVER ALL AREAS OF BUILDING

6.3 ALL AREAS OF THE BUILDING TO BE INSTALLED AND COVERED IN ACCORDANCE WITH THE LOCAL AUTHORITY HAVING JURISDICTION, AND NFPA 13D

OWNERS RESPONSIBILITY NOTE:

IT IS THE BUILDING OWNERS RESPONSIBILITY TO PROVIDE ADEQUATE HEAT FOR ALL AREAS CONTAINING WATER FILLED PIPES AND TO MAINTAIN THE SPRINKLER SYSTEM IN PROPER WORKING ORDER PER NFPA 25 AND LOCAL CODE

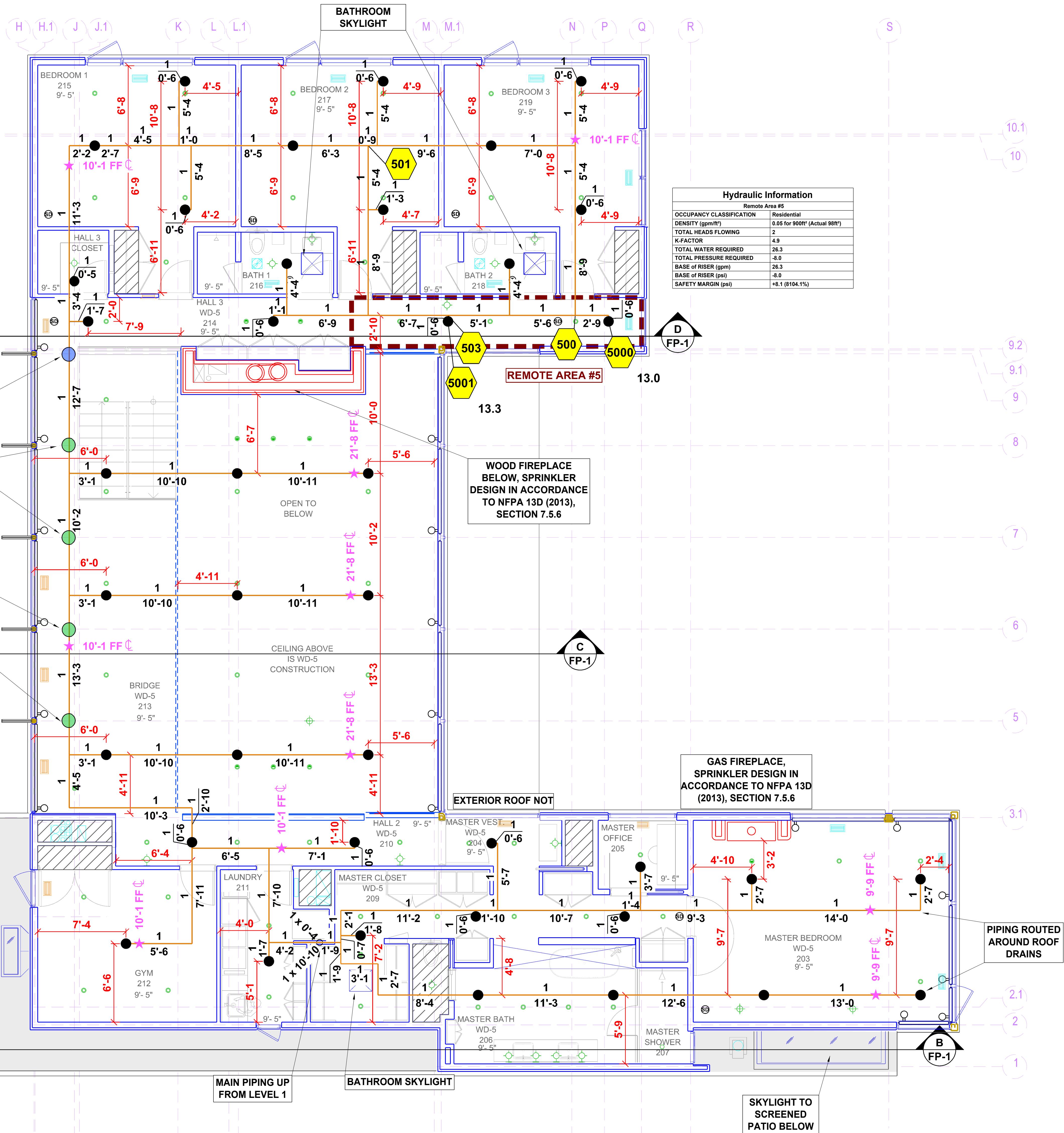
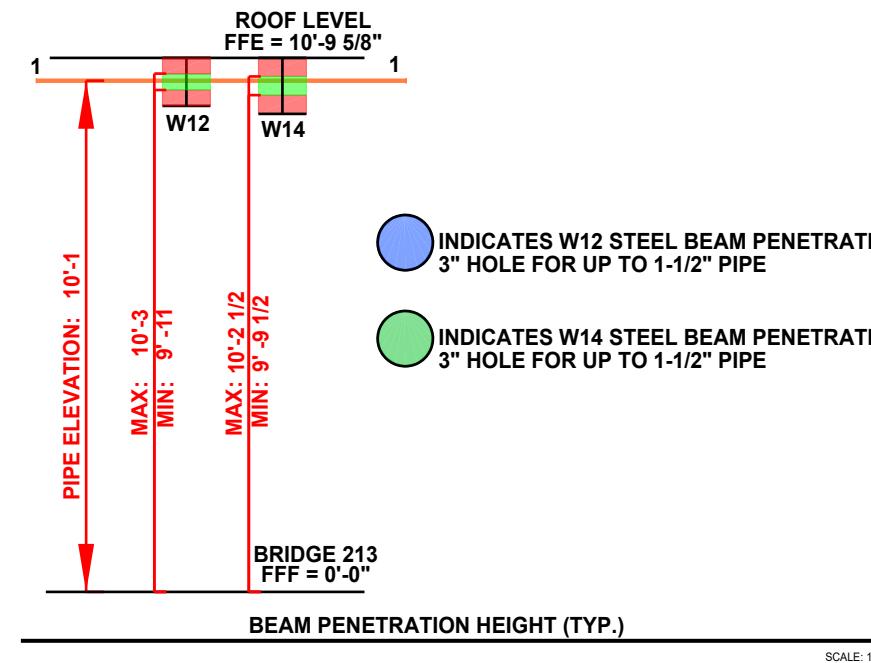


Level One Sprinkler Legend									
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Temp.
●	Tyco	TY2534	LFII	34	4.9	Concealed Pendent	1/2	Fast	200°F
●	Tyco	TY3521	RFII	2	5.6	Horizontal Concealed Sidewall	1/2	Quick	212°F
●	Tyco	TY3535	DS-C	5	5.6	Concealed Pendent	1	Quick	200°F
Total = 41									

LICENSE # 107731
 DATE 10/27/2025
 DRAWN BY DA
 SHEET NUMBER FP3

LAKE GENEVA RESIDENCE
 N1973 DUCK CREEK PASS,
 LAKE GENEVA, WI
 53147

OWNERS RESPONSIBILITY NOTE:
IT IS THE BUILDING OWNERS RESPONSIBILITY
TO PROVIDE ADEQUATE HEAT FOR ALL
AREAS CONTAINING WATER FILLED PIPES AND
TO MAINTAIN THE SPRINKLER SYSTEM IN PROPER
WORKING ORDER PER NFPA 25 AND LOCAL CODE



LEVEL TWO SPRINKLER PLAN

SCALE: 1/4" = 1'-0"

Level Two Sprinkler Legend											
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Spacing
●	Tyco	TY2534	LFII	50	4.9	Concealed Pendent	1/2"	Fast	Brass	200°F	Max 20' x 20'
Total = 50											

WATER FLOW INFORMATION

FLOW TEST DATE		HEAD SPACING INFORMATION									
FLOW TEST LOCATION	SYMBOL	MIN DISTANCE BETWEEN SPK	MAX DISTANCE BETWEEN SPK	MAX COVERAGE SPK FT	MAX DISTANCE FROM WALL	MAX THROAT					
TYCO TY2534		8'-0"	20' x 20'	400	10'-0"	N/A					
Steel pipe except threaded lightwall	N/A	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
Threaded lightwall	N/A	12'-0"	12'-0"	12'-0"	12'-0"	N/A	N/A	N/A	N/A	N/A	N/A
Steel pipe	N/A	12'-0"	12'-0"	12'-0"	12'-0"	N/A	N/A	N/A	N/A	N/A	N/A
Copper Tube	8'-0"	8'-0"	10'-0"	10'-0"	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
CPVC	5'-6"	6'-0"	6'-6"	7'-0"	8'-0"	9'-0"	10'-0"	N/A	N/A	N/A	N/A

PER SPRINKLER COMPANY SPECIFICATION DATA SHEETS

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Temp.
●	Tyco	TY2534	LFII	91	4.9	Concealed Pendent	1/2"	Fast	200°F
●	Viking	VK467	Freedom	22	4.9	Upright	1/2"	Fast	175°F
●	Tyco	TY3521	RFI	3	5.6	Horizontal Concealed Sidewall	1/2"	Quick	212°F
●	Tyco	TY3535	DS-C	5	5.6	Concealed Pendent	1"	Quick	200°F
Total = 121									

WOOD STOVE,
SPRINKLER
DESIGN IN
ACCORDANCE TO
NFPA 13D (2013),
SECTION 7.5.6

PIPING ROUTED
AROUND ROOF DRAINS

LICENSE # 107731
DATE 10/27/2025
DRAWN BY DA
SHEET NUMBER FP4

LAKE GENEVA RESIDENCE
N1973 DUCK CREEK PASS,
LAKE GENEVA, WI
53147