

A

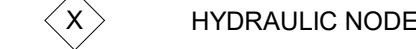
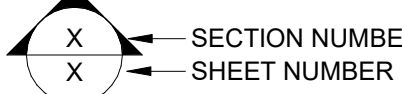
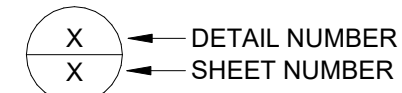
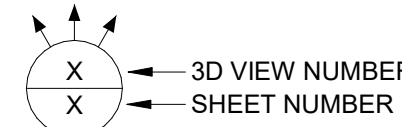
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C

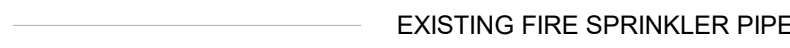
D

## FIRE SPRINKLER LEGEND

### ANNOTATION SYMBOLS



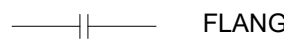
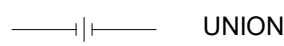
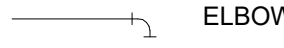
### FIRE SPRINKLER PIPING



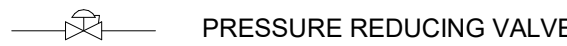
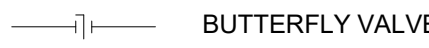
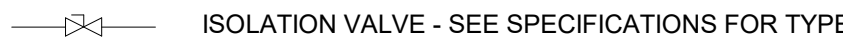
### ABBREVIATIONS

AFF ABOVE FINISHED FLOOR  
GALV GALVANIZED  
GPM GALLONS PER MINUTE  
OS&Y OUTSIDE STEM & YOKE  
W/ WITH

### PIPE FITTINGS



### VALVES



NOTE: THIS IS A STANDARD LEGEND. NOT ALL PIPE TYPES AND SYMBOLS ARE NECESSARILY UTILIZED IN THE DRAWINGS.

## SCOPE OF WORK

1. MODIFY THE EXISTING FIRE SUPPRESSION SYSTEM IN THE AREAS OUTLINE IN THIS SET PER THE NEW ROOM LAYOUTS.
2. REFER TO ARCHITECTURAL SHEETS FOR OCCUPANCY, CONSTRUCTION TYPE, LEVEL OF ALTERATION AND TOTAL BUILDING AREA.
3. BACKFLOW PREVENTER, REMOTE FIRE DEPARTMENT CONNECTION AND BOOSTER PUMP LOCATED OUTSIDE OF THE BUILDING IN VAULTS. ITEMS TO REMAIN AS IS.

## CODES AND STANDARDS

1. 2022 OREGON STRUCTURAL CODE-AS AMENDED
2. 2022 OREGON FIRE CODE-AS AMENDED
3. 2019 NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS.
4. LOCAL CODES AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

## PIPING REQUIREMENTS

### SPRINKLER PIPING, ABOVE GROUND (STEEL PIPE):

1. THREADED PIPING: 1-INCH AND LARGER - ASTM A135 OR 795, GRADE A, SCHEDULE 40, WRW, BLACK STEEL PIPE.
2. GROOVED PIPING: 1-1/4" - ASTM A135 OR 795, GRADE A SCHEDULE 40, WRW, BLACK STEEL PIPE, ROLL GROOVED ENDS.
3. GROOVED PIPING: 1-1/2" AND LARGER - ASTM A135 OR 795, GRADE A SCHEDULE 10 OR SCHEDULE 40, WRW, BLACK STEEL PIPE, ROLL GROOVED ENDS.

## FIRE SPRINKLER DEMAND

THE HAZARD CLASSIFICATION FOR THE REMODELED AREA IS MAINTAINED AT LIGHT HAZARD. NO PRELIMINARY WATER CALCULATIONS ARE PROVIDED. IT IS THE RESPONSIBILITY OF THE FIRE SPRINKLER CONTRACTOR TO COORDINATE WITH THE AHJ TO DETERMINE WETHER HYDRAULIC CALCULATIONS ARE REQUIRED FOR ANY ADDITIONAL SPRINKLER HEADS BEING INSTALLED AS PART OF THE RENOVATION.

## SEISMIC DESIGN CRITERIA

MAX. SPECTRAL RESPONSE ACCELERATION (SHORT PERIOD)  $S_{DS} = 0.37$

MAPPED SPECTRAL ACCELERATION (SHORT PERIOD)  $S_s = 0.39$

SEISMIC DESIGN CATEGORY D

THE FIRE SUPPRESSION SYSTEM SHALL HAVE SEISMIC BRACING SINCE THE SEISMIC DESIGN CATEGORY IS C OR D IN ACCORDANCE WITH ASCE 7-16 SECTION 13.1.4.

## SEISMIC CLEARANCE

NOMINAL PIPE SIZE (IN.)	CORE DRILL HOLE OR PIPE SLEEVE SIZE (IN.)	PROVIDE CLEARANCE AT ALL LOCATIONS WHERE PIPING PENETRATES WALLS, FLOORS, AND FOUNDATIONS. NO CLEARANCE IS REQUIRED WHEN PENETRATING GYPSUM BOARD OR EQUALLY FRANGIBLE CONSTRUCTION THAT IS NOT REQUIRED TO HAVE A FIRE RESISTANCE RATING.
1	3	
1 1/4	4	
1 1/2	4	
2	4	
2 1/2	6	
3	6	
4	8	
6	10	
8	12	

FLEXIBLE COUPLINGS MAY BE INSTALLED WITHIN 12" OF THE WALL SURFACE ON EACH SIDE, OR WITHIN 12" ABOVE FLOOR AND 24" BELOW FLOOR INSTEAD OF PROVIDING CLEARANCE.

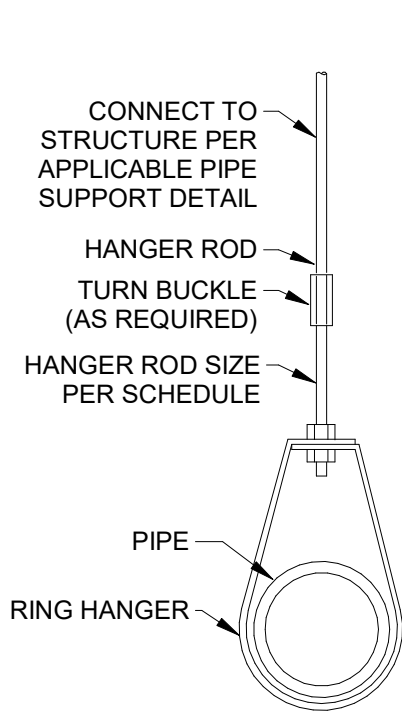
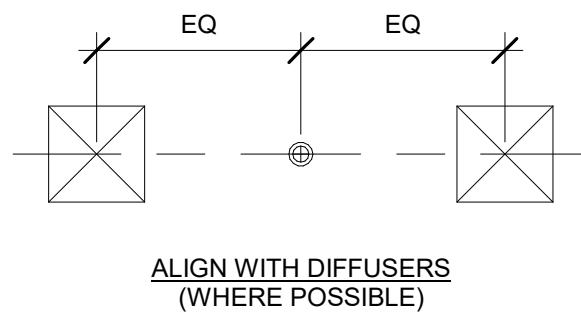
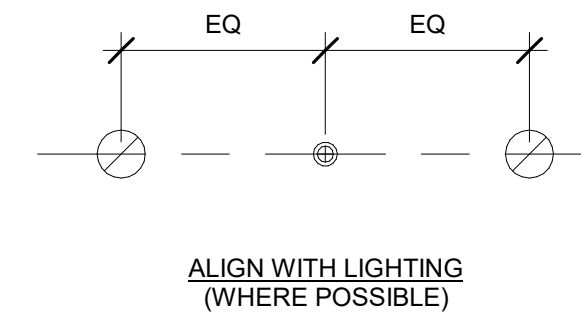
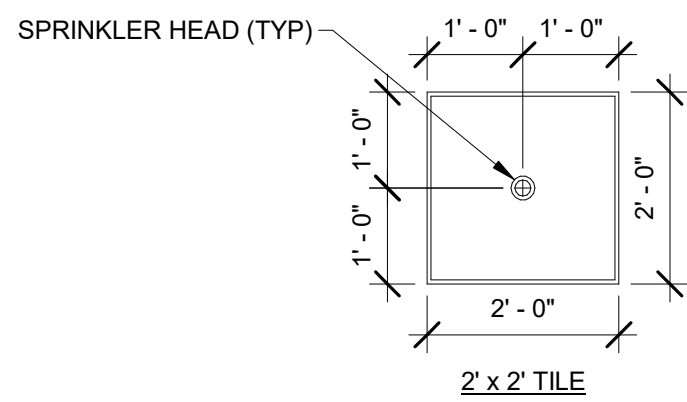
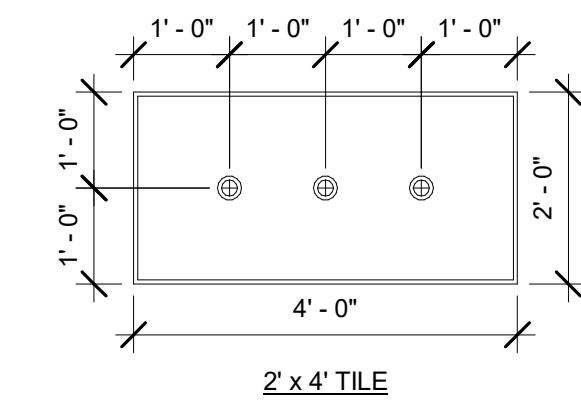
FIRE CAULK HOLE AND PROVIDE SPLIT CHROME WALL PLATES AT ALL EXPOSED WALL LOCATIONS.

## GENERAL NOTES

1. FIRE SUPPRESSION DELEGATED DESIGN DRAWINGS ARE INTENDED TO SHOW GENERAL ARRANGEMENT OF FIRE SUPPRESSION EQUIPMENT. FINAL SIZE AND LOCATION SHALL BE COORDINATED BY FIRE SUPPRESSION DESIGNER OF RECORD.
2. FIRE SUPPRESSION DESIGN SHALL BE COMPLETED BY AN INDIVIDUAL WHO IS CERTIFIED AS A PROFESSIONAL ENGINEER OR A LEVEL III OR IV TECHNICIAN BY NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) IN THE AUTOMATIC SPRINKLER SYSTEM LAYOUT SUBFIELD OF FIRE PROTECTION ENGINEERING TECHNOLOGY.
3. THE FIRE SUPPRESSION CONTRACTOR SHALL CONDUCT A HYDRANT FLOW TEST IN ACCORDANCE WITH NFPA 291 PRIOR TO DESIGNING THE SPRINKLER SYSTEM.
4. FIRE SUPPRESSION SYSTEM SHALL BE HYDRAULICALLY CALCULATED.
5. PROVIDE FIRE SUPPRESSION DRAWINGS AND ASSOCIATED CALCULATIONS TO THE ENGINEER FOR APPROVAL.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING SHOP DRAWINGS AND CALCULATIONS TO THE AHJ AND RECEIVING APPROVAL PRIOR TO STARTING CONSTRUCTION.
7. CONTRACTOR IS RESPONSIBLE FOR NECESSARY AND ASSOCIATED PERMITTING FEES.
8. CONTRACTOR TO PROVIDE A LISTED FIRESTOPPING SYSTEMS ASSEMBLY AT PIPE AND THROUGH PENETRATIONS PASSING THROUGH RATED CONSTRUCTION (FIRE RATED WALLS, FLOORS, CEILINGS, ETC.)
9. MATERIALS AND WORKMANSHIP SHALL CONFORM TO STATE ADOPTED CODES AND REGULATIONS AS AMENDED.
10. COORDINATE FIRE SUPPRESSION SYSTEM DESIGN WITH OTHER TRADES PRIOR TO ANY FABRICATION OR INSTALLATION. DESIGN SHALL INCLUDE ROUTING, OFFSETS AND TRANSITIONS REQUIRED FOR A COMPLETE AND COORDINATED INSTALLATION.
11. CONTRACTOR SHALL PROVIDE REQUIRED PIPE, FITTINGS, VALVES, AND OTHER INCIDENTAL DEVICES REQUIRED FOR A COMPLETE, FUNCTIONING SYSTEM. EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND PROVIDING PIPE SLEEVES, CORE DRILLING, FLOOR/WALL/CEILING CUTTING AND PATCHING.
13. CONTRACTOR SHALL PROVIDE NECESSARY TEST CONNECTIONS, DRAINS AND PIPE DISCHARGE TO AN APPROVED SAFE POINT OUTSIDE OF THE BUILDING.
14. FIRE SUPPRESSION SYSTEM SHALL BE TESTED AND INSPECTED IN ACCORDANCE WITH NFPA 13 AND ANY OTHER APPLICABLE NFPA STANDARDS.
15. PROVIDE SYSTEM TESTING AND CERTIFICATION DOCUMENTATION TO BE INCLUDED IN THE PROJECT O&M MANUAL.
16. CONTRACTOR SHALL PROVIDE REQUIRED SPARE SPRINKLER HEADS, HEAD CABINET(S), SIGNS, HYDRAULIC PLACARDS AND SYSTEM INFORMATION DISPLAYS AS SPECIFIED IN NFPA 13.
17. SPRINKLER HEAD AND ESCUTCHEON FINISHES TO BE COORDINATED WITH ARCHITECT UNLESS OTHERWISE INDICATED.
18. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND CONTRACTOR RESPONSIBILITIES.

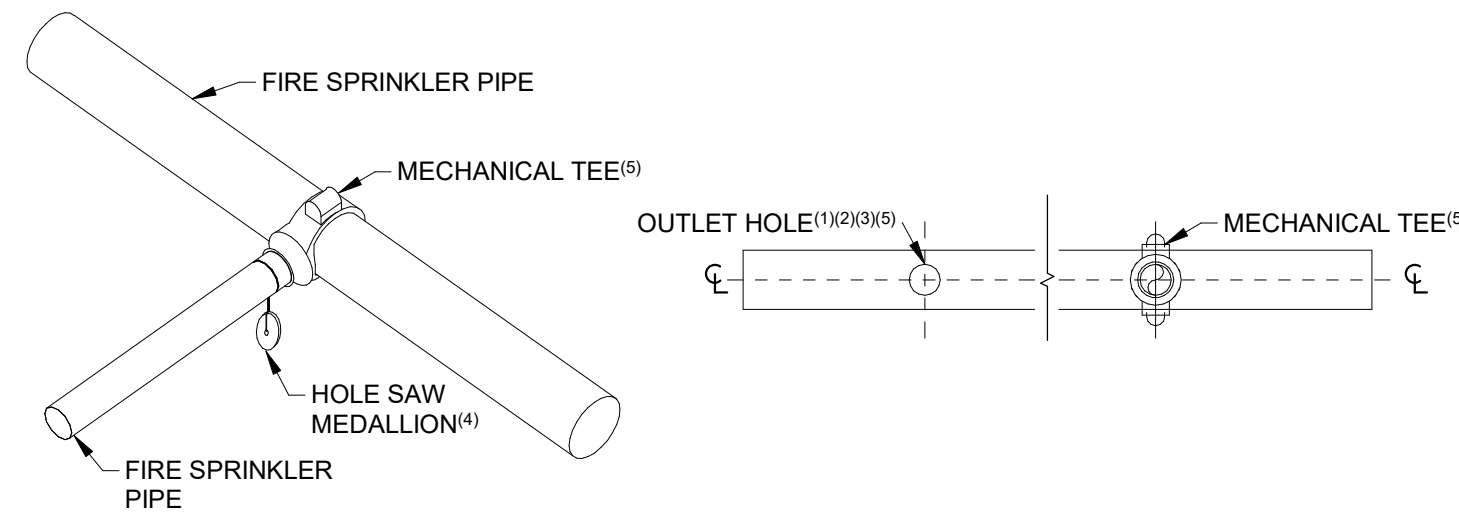
## FIRE SHEET INDEX

NUMBER	SHEET NAME
F0.01	FIRE SUPPRESSION NOTES & DETAILS
F3.00	FIRE SUPPRESSION OVERALL PLAN
F5.10	FIRE SUPPRESSION PLANS



HANGER ROD SCHEDULE	
PIPE SIZE	ROD SIZE
4"ø & LESS	3/8"ø
5, 6, 8"ø	1/2"ø
10 & 12"ø	5/8"ø

HANGER SPACING CHART			
PIPE SIZE	DISTANCE BETWEEN HANGERS		
	STEEL PIPE	CPVC PIPE	THINWALL
3/4"	N/A	5'-6"	N/A
1"	12'-0"	6'-0"	12'-0"
1 1/4"	12'-0"	6'-6"	12'-0"
1 1/2"	15'-0"	7'-0"	12'-0"
2"	15'-0"	8'-0"	12'-0"
2 1/2"	15'-0"	9'-0"	12'-0"
3"	15'-0"	10'-0"	12'-0"
4"	15'-0"	N/A	N/A
6"	15'-0"	N/A	N/A



1. OUTLET HOLE SHALL BE DRILLED ON CENTER AND PERPENDICULAR TO THE CENTERLINE OF THE PIPE.
2. REMOVE ANY BURRS AND SHARP EDGES FROM THE OUTLET HOLE.
3. PIPE SURFACE SHALL BE CLEAN, SMOOTH AND FREE FROM INDENTATIONS THAT COULD AFFECT GASKET SEALING.
4. HOLE SAW MEDALLION SHALL BE ATTACHED TO THE MECHANICAL TEE AS VISUAL VERIFICATION THAT PIPE HAS BEEN CLEARED OF CUTTING DEBRIS.
5. FIRE SPRINKLER CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURER'S REQUIREMENTS FOR INSTALLATION.

## MECHANICAL TEE DETAIL

N.T.S.

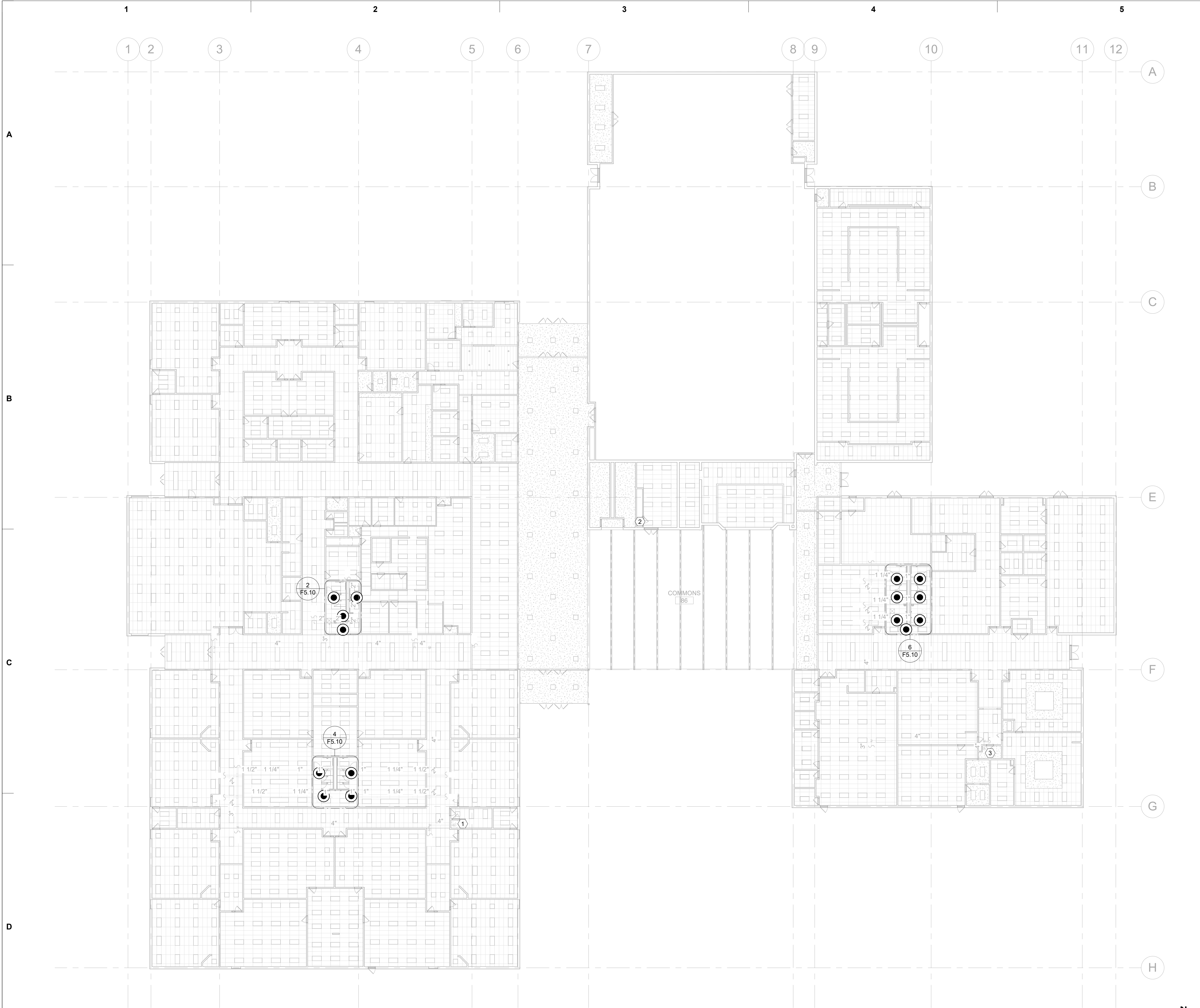
## 1 ACCEPTABLE SPRINKLER HEAD LOCATIONS

N.T.S.

## 2 PIPE HANGER REQUIREMENT

N.T.S.

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# KEY NOTES:

1. FIRE RISER #1 THAT FEEDS TWO OF THE BATHROOMS BEING REMODELED.

2. FIRE RISER #2 NO SCOPE ON THIS SYSTEM.

3. FIRE RISER #3 THAT FEEDS ONE OF THE BATHROOMS BEING REMODELED.

4. EXISTING FIRE SUPPRESSION PIPING ROUTING SHOWN FOR REFERENCE ONLY. FIRE SPRINKLER CONTRACTOR TO VERIFY PIPE SIZES AND FINAL LOCATIONS BEFORE INSTALLATION.

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RUSSELL J. WILLIAMS

Stamp  
EXPIRES: JUNE 30, 2026

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DRAWING REVISIONS

#	Date	Description
1	01/28/2026	BID SET

OBSIDIAN MIDDLE SCHOOL  
MODERNIZATION

REDMOND SCHOOL DISTRICT

BID SET

Drawing Title:  
FIRE SUPPRESSION  
OVERALL PLAN

Sheet No.

F3.00

Date :  
2026-01-30

Project No.  
25033

1 FIRE SUPPRESSION OVERALL PLAN  
1" = 20'-0" @ FULL SIZE



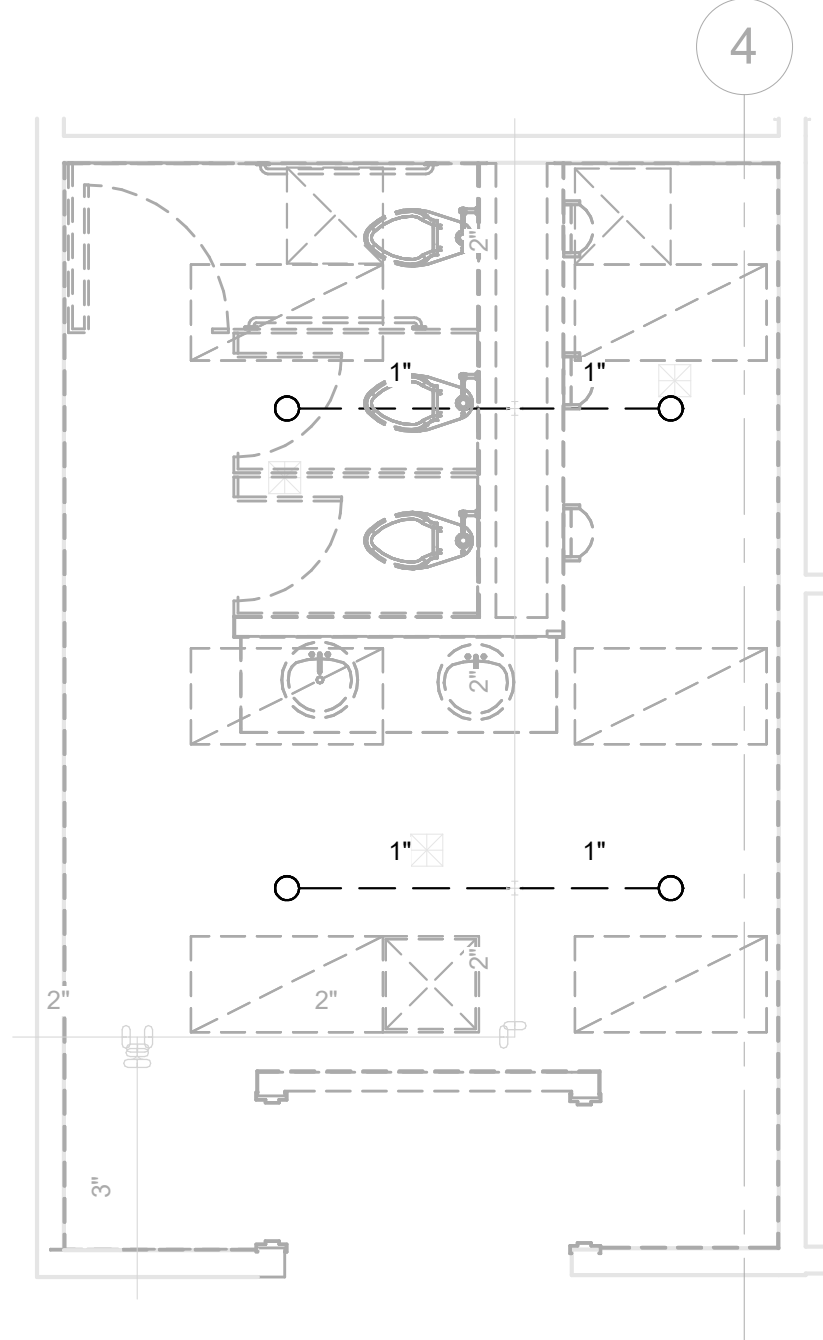
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## HAZARD CLASSIFICATION

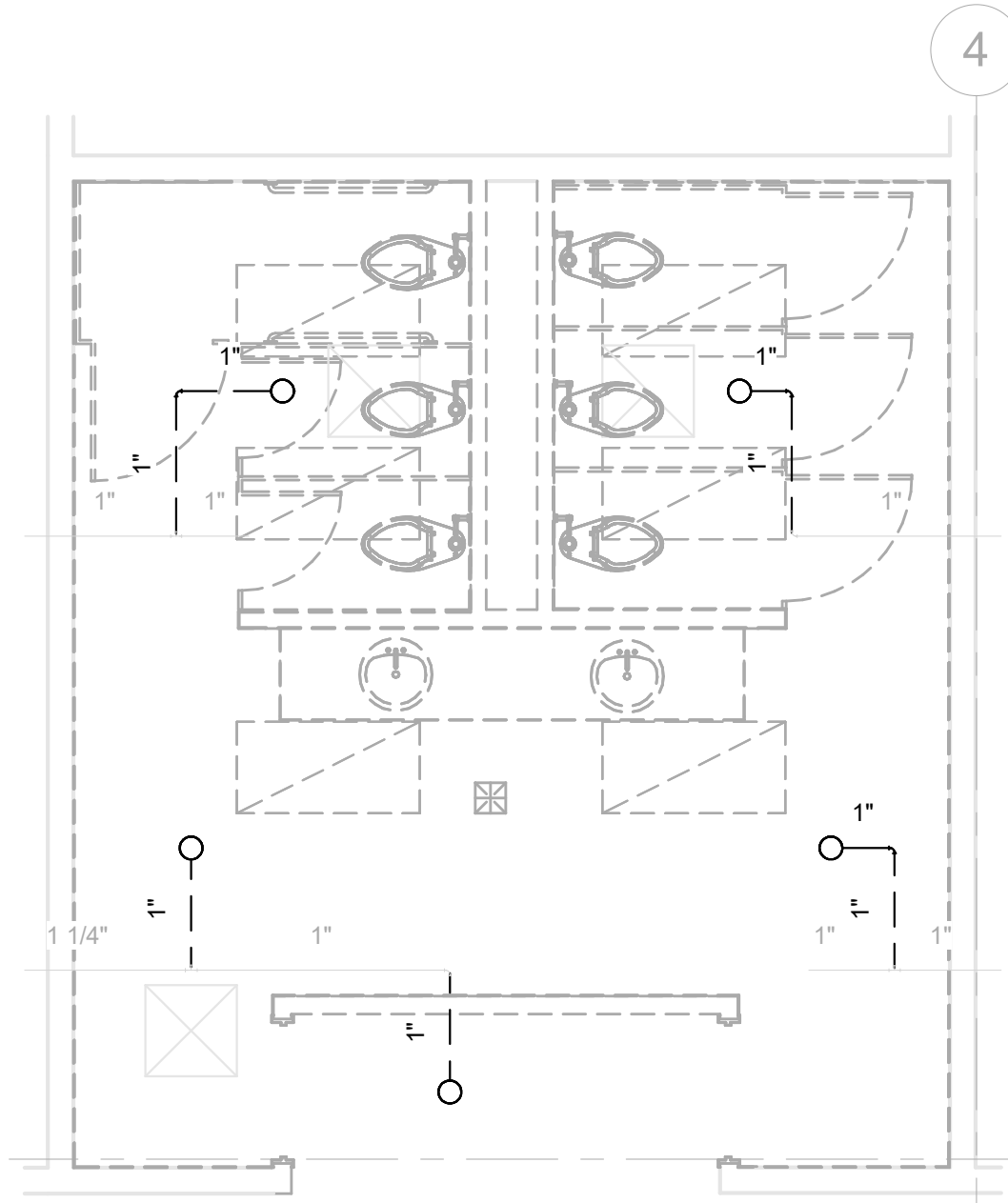
AREA	HAZARD CLASS	MINIMUM DENSITY (GPM/FT²)	MIN. HYDRAULIC DESIGN AREA (FT²)	HOSE DEMAND (GPM)	DURATION (MINS)
	LIGHT HAZARD	0.10	1500	100	30

## F - Sprinkler Schedule

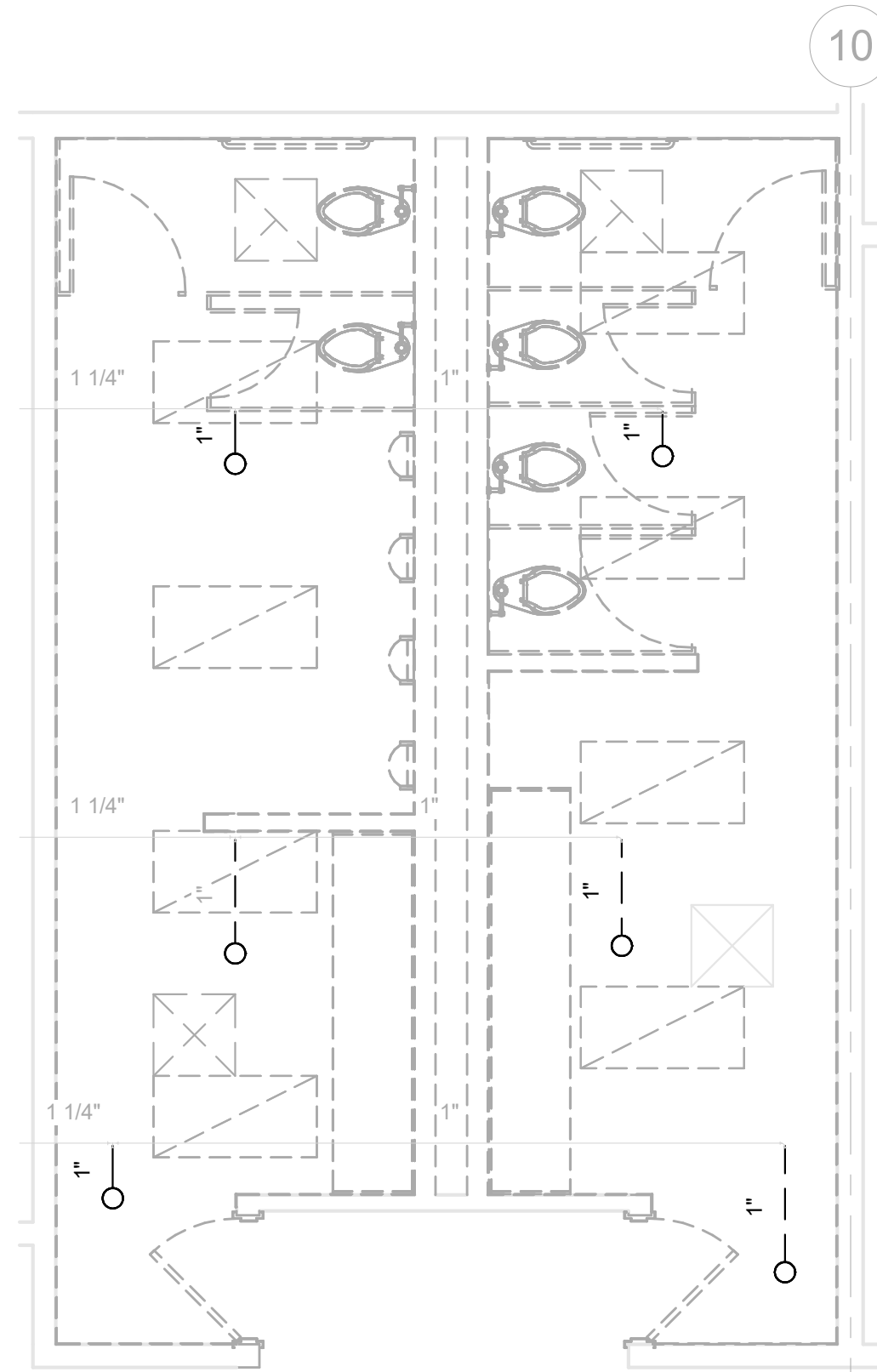
Symbol	K-Factor	Response	Orientation	Connection Size	Temperature Rating	Description	Count
○	5.6	Quick	Pendent	1/2"	175 °F	NEW	15
●	5.6	Quick	Pendent	1/2"	175 °F	EXISTING TO BE DEMOLISHED	15



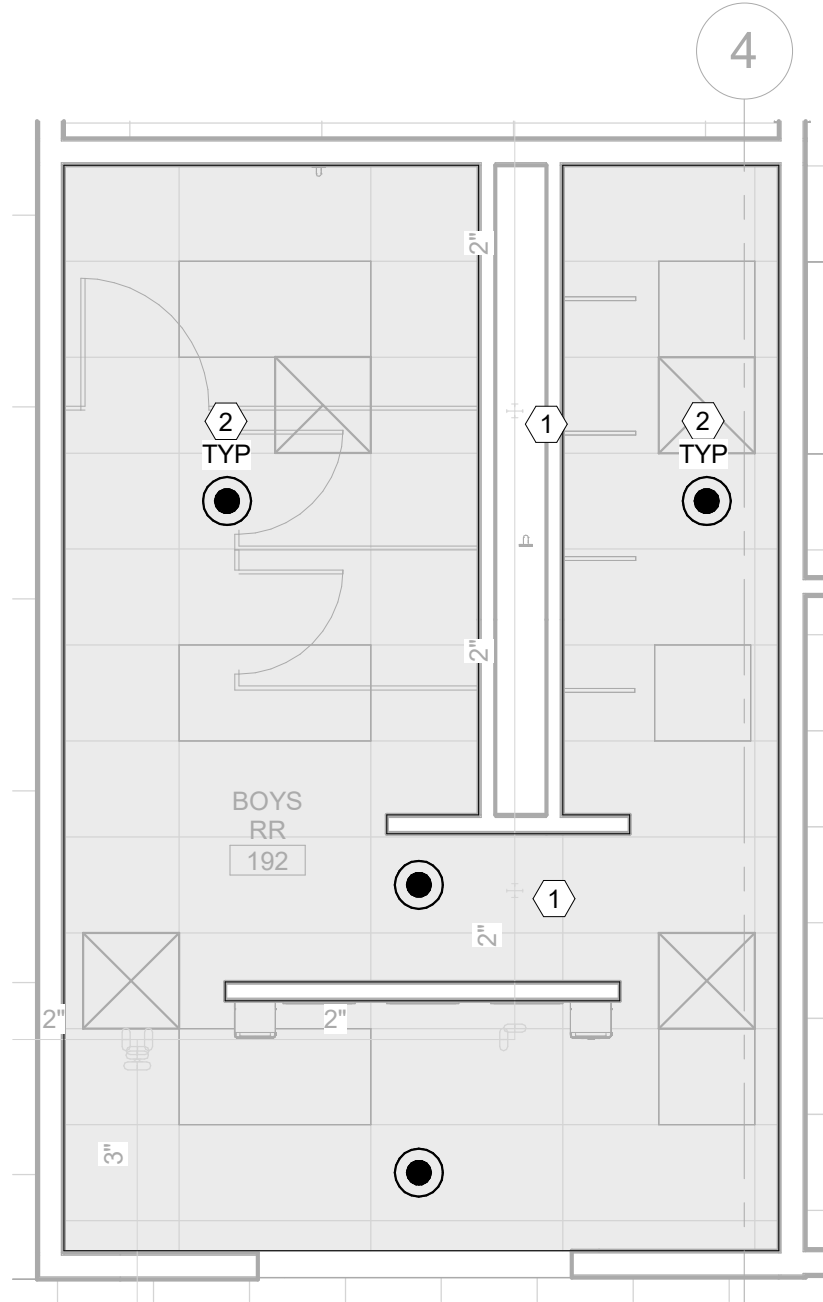
1 FIRE SUPPRESSION DEMOLITION PLAN - BOYS' WEST  
1/4" = 1'-0" @ FULL SIZE



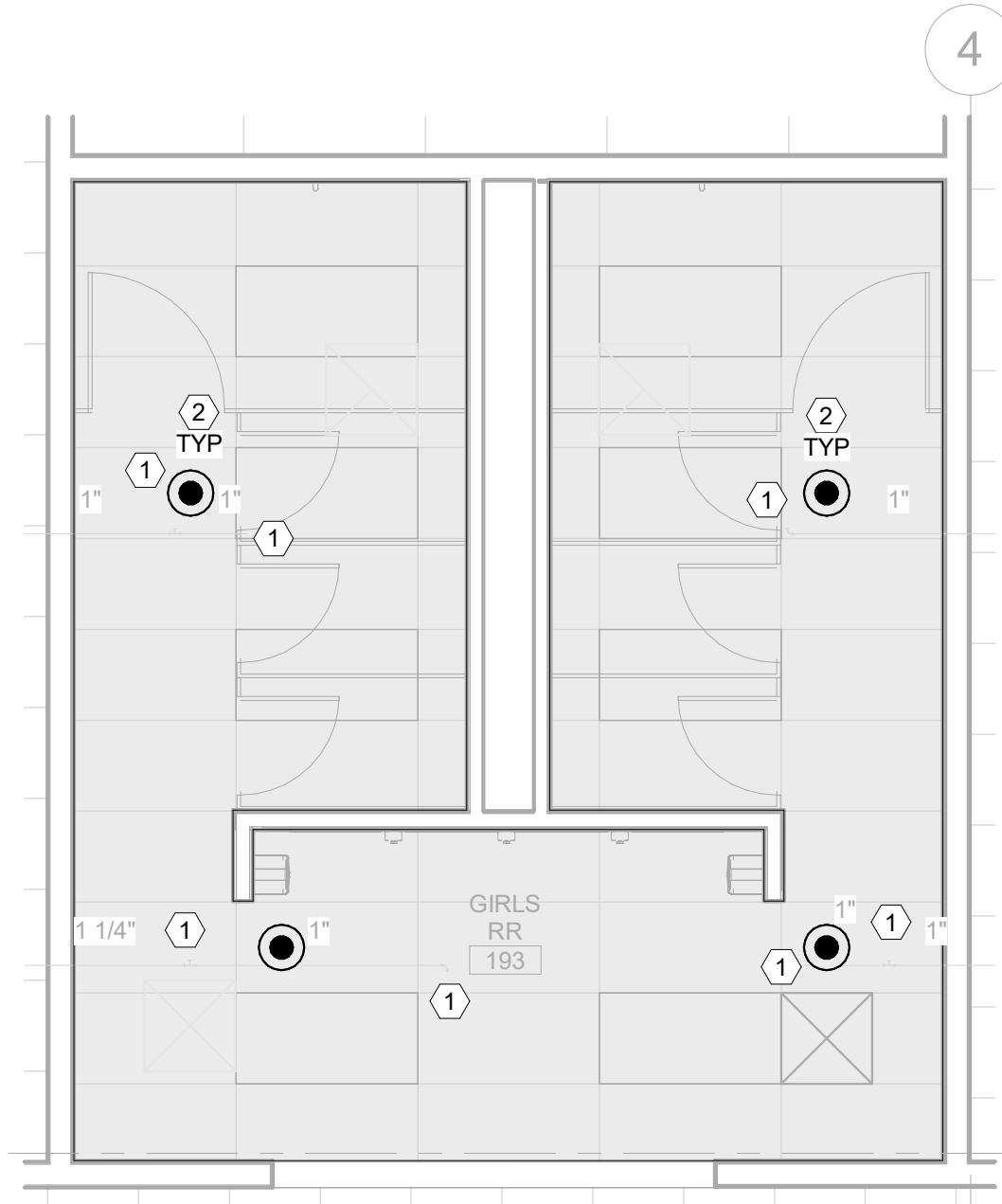
3 FIRE SUPPRESSION DEMOLITION PLAN - GIRLS' WEST  
1/4" = 1'-0" @ FULL SIZE



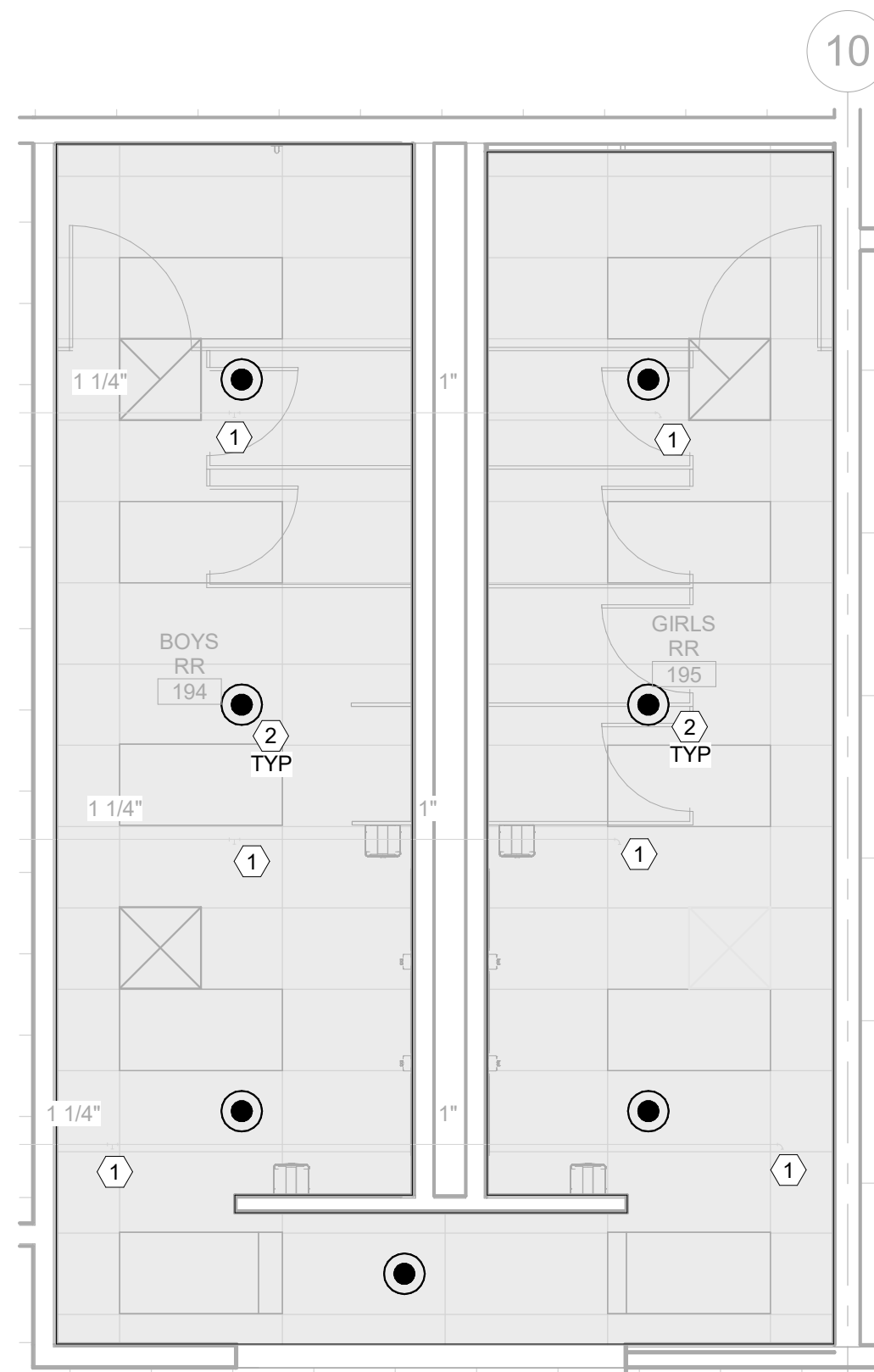
5 FIRE SUPPRESSION DEMOLITION PLAN - EAST RESTROOM  
1/4" = 1'-0" @ FULL SIZE



2 FIRE SUPPRESSION PLAN - BOYS' WEST  
1/4" = 1'-0" @ FULL SIZE



4 FIRE SUPPRESSION PLAN - GIRLS' WEST  
1/4" = 1'-0" @ FULL SIZE



6 FIRE SUPPRESSION PLAN - EAST RESTROOM  
1/4" = 1'-0" @ FULL SIZE

## FIRE SUPPRESSION DEMOLITION PLAN NOTES:

- CONTRACTOR SHALL COORDINATE ALL SYSTEM SHUTDOWNS AND NECESSARY FIRE WATCHES WITH THE FIRE DEPARTMENT DURING DEMOLITION AND CONSTRUCTION. FIRE WATCHES SHALL BE PROVIDED AS REQUIRED BY THE FIRE DEPARTMENT AND THE OFC.
- DEMOLITION AND REPLACEMENT OF FIRE SPRINKLER SYSTEM SHALL INCLUDE COMPONENTS THAT DO NOT MEET THE REQUIREMENTS OF NFPA 25.
- CONTRACTOR TO FIELD VERIFY EXISTING PIPE ROUTING AND TIE IN LOCATIONS PRIOR TO SYSTEM SHUTDOWN AND DEMOLITION.
- OWNER IS RESPONSIBLE FOR MAINTAINING BUILDING TEMPERATURE ABOVE 40°F.

## FIRE SUPPRESSION PLAN NOTES:

- FIRE SPRINKLER FINISHES:  
A. ROOMS WITH CEILINGS - MATCH EXISTING COLOR AND STYLE.
- PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE FIRESTOPPED, TESTED AND INSPECTED IN ACCORDANCE WITH OSSC.
- FIRE SPRINKLER PROTECTION SHALL BE REQUIRED THROUGHOUT BUILDING UNLESS OMITTED BY NFPA 13.

## KEY NOTES:

- UTILIZE EXISTING OUTLETS WHERE POSSIBLE.
- PRELIMINARY FIRE SPRINKLER LOCATION. CONTRACTOR TO DETERMINE FINAL LOCATION.

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#	Date	Description
1	01/28/2026	BID SET

OBSIDIAN MIDDLE SCHOOL  
MODERNIZATION  
REDMOND SCHOOL DISTRICT  
BID SET

Drawing Title: FIRE SUPPRESSION PLANS	Date: 2026-01-30	Project No. 25033
Sheet No. F5.10	Revised:	

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