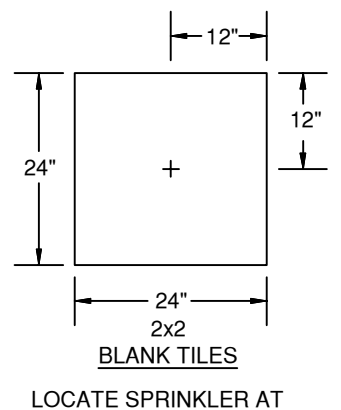


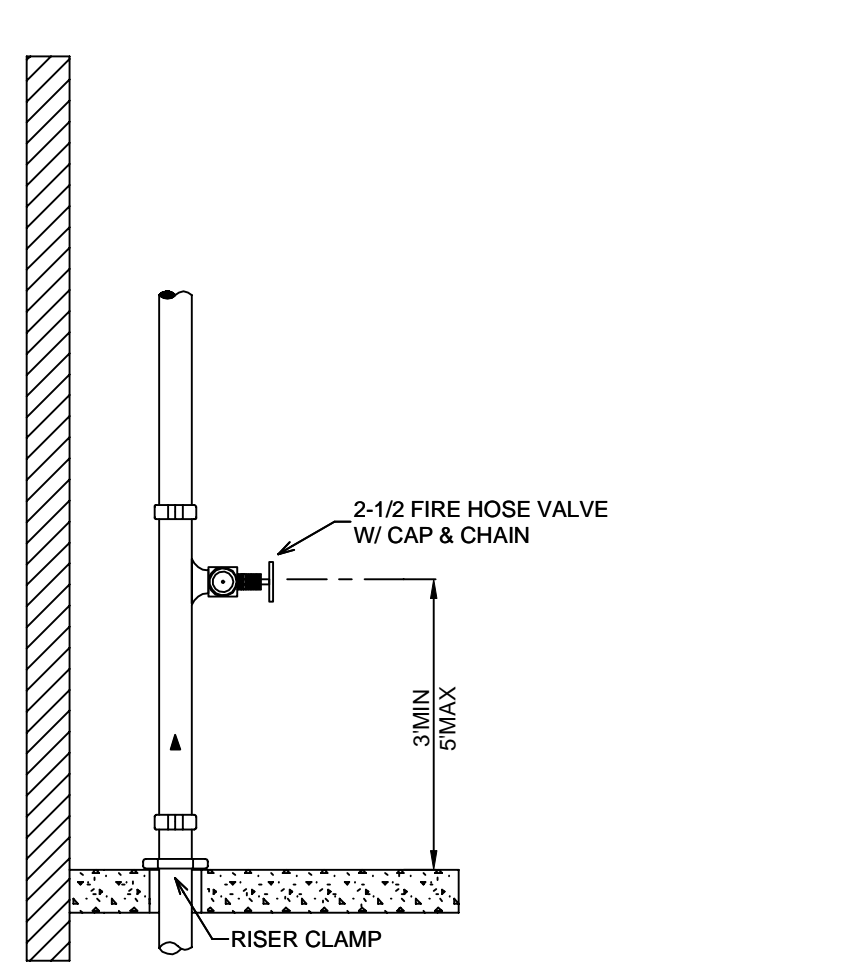
STAIRS SECTION
SCALE= 1/8" : 1'-0"

MANUAL WET STANDPIPE

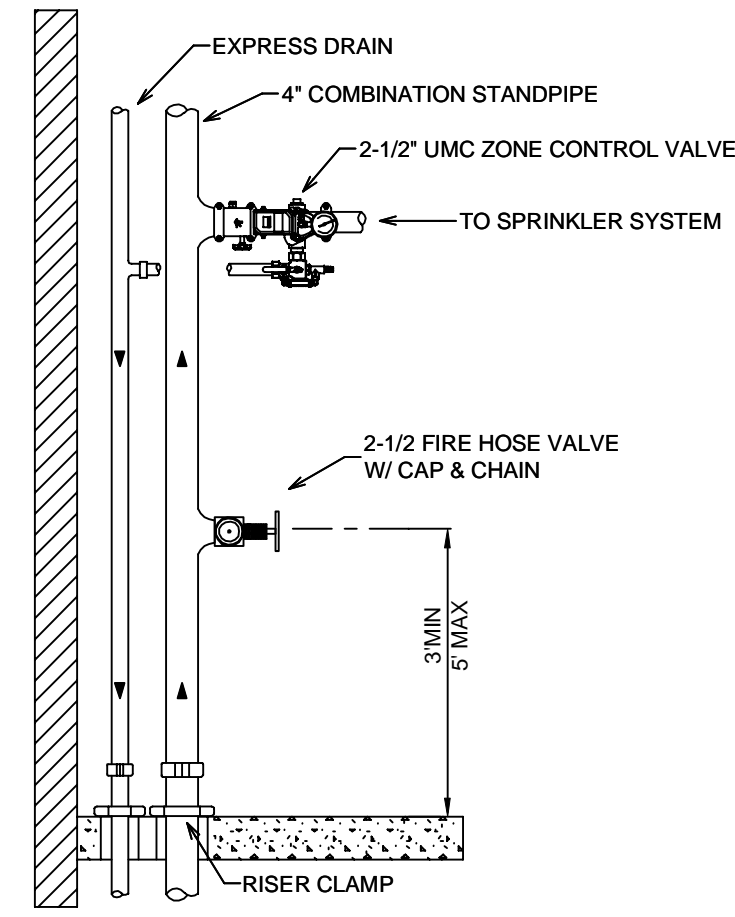
LOCATION: STAIR 2
FLOW: 500 GPM
OUTLET PSI: 100
REQUIRED INLET
PSI: 140.1



SPRINKLER PLACEMENT DETAIL



TYPICAL STAIR w/o ZONE CONTROL
SCALE= N.T.S.



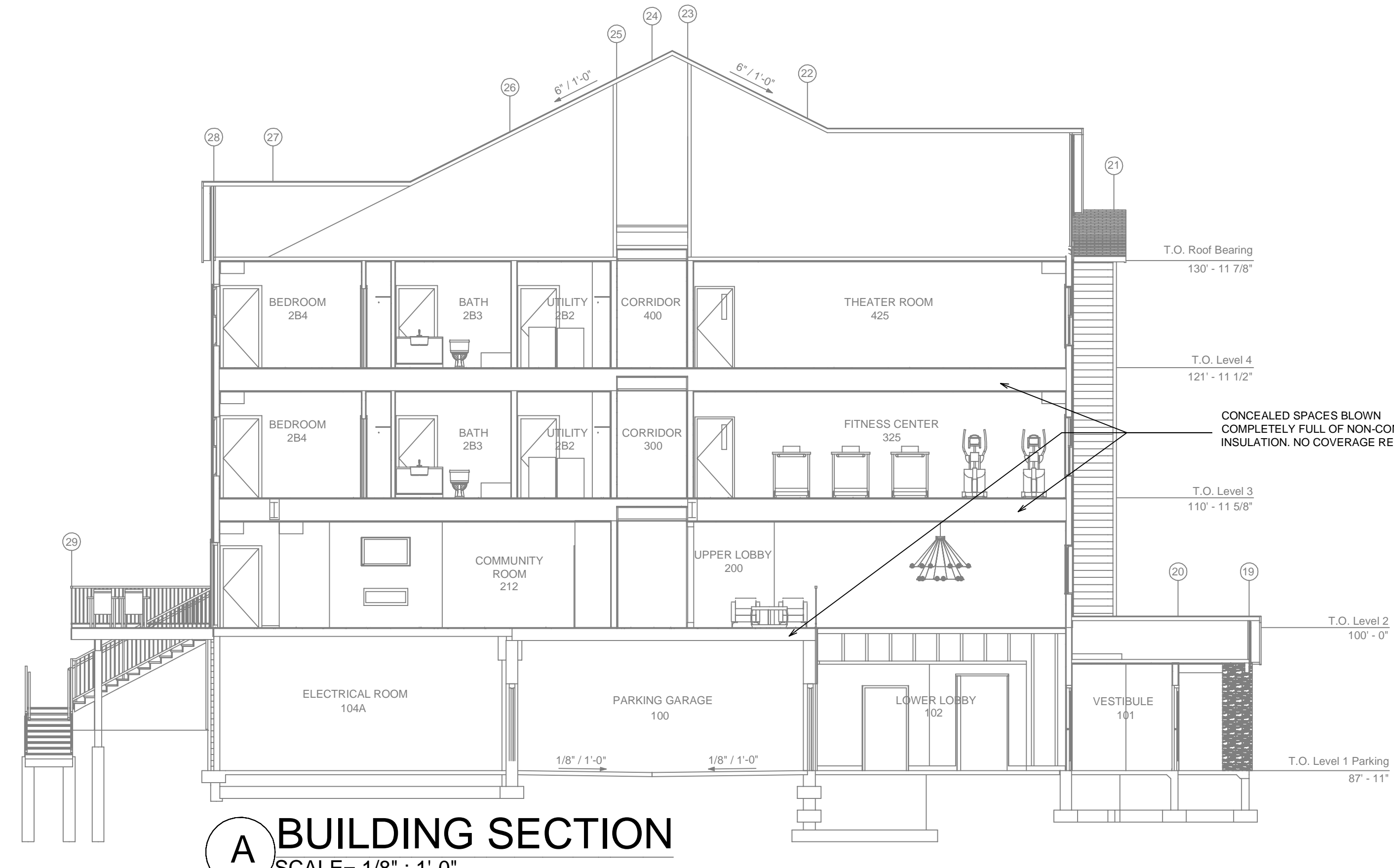
TYPICAL STAIR w/ ZONE CONTROL
SCALE= N.T.S.

SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SN	MFG.	MODEL#	ESCUTCHEON
472		PENDENT	WHITE	155	4.90	1/2"	TY2234	TYCO	LF1	SEMI RECESS
72		SIDEWALL	WHITE	200	5.60	1"	V3510	VICTALUC	V35	SEMI RECESS
108		PENDENT	WHITE	200	5.60	1/2"	TY323	TYCO	TY-FRB	SEMI RECESS
9		SIDEWALL	WHITE	120	8.00	3/4"	TY4332	TYCO	TY-FRB	SEMI RECESS
30		SIDEWALL	WHITE	155	4.00	1/2"	VK486	VKONG	FREEDOM	SEMI RECESS
41		SIDEWALL	WHITE	200	5.60	1/2"	TY3331	TYCO	TY-FRB	SEMI RECESS
188		SIDEWALL	WHITE	155	4.40	1/2"	TY2334	TYCO	LF1	SEMI RECESS
45		UPRIGHT	BRASS	286	14.00	3/4"	TY6137	TYCO	EC-14	N/A
105		UPRIGHT	BRASS	286	5.60	1/2"	TY3191	TYCO	TY-FB	N/A
196		UPRIGHT	BRASS	200	5.60	1/2"	TY313	TYCO	TY-FRB	N/A
205		UPRIGHT	BRASS	200	5.60	1/2"	TY313	TYCO	TY-FRB	N/A
4		PENDENT	CHROME	200	5.60	1"	V3506	VICTALUC	V51	SEMI RECESS
1		SIDEWALL	BRASS	200	11.20	3/4"	TY5332	TYCO	ELOSW20	N/A
46		PENDENT	WHITE	175	4.90	1/2"	TY2334	TYCO	LF1	SEMI RECESS
24		SIDEWALL	WHITE	175	4.40	1/2"	TY2334	TYCO	LF1	SEMI RECESS
1		PENDENT	WHITE	155	2.90	1/2"	TY1231	TYCO	TY-FRB	SEMI RECESS
1536 TOTAL HEADS										

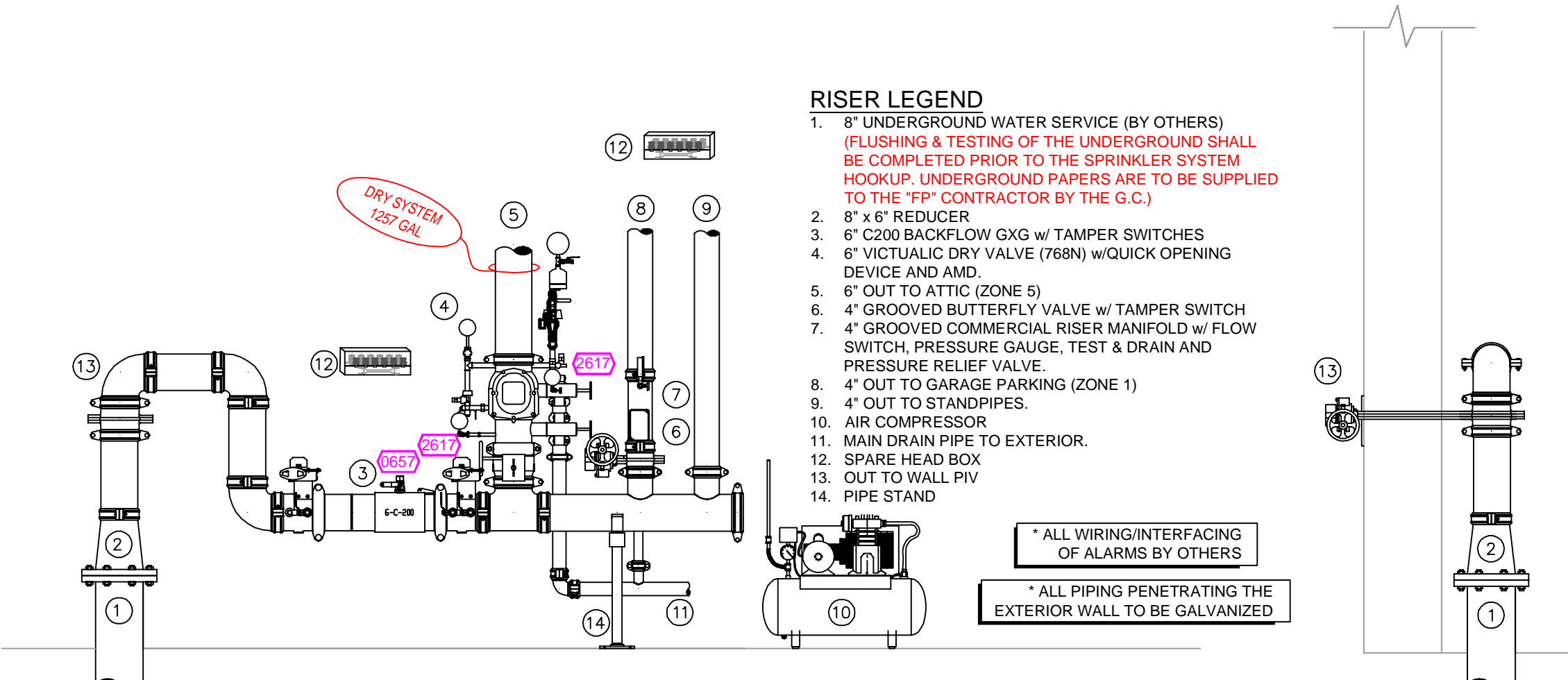
SPRINKLER HEAD LEGEND

PIPE LEGEND

	STEEL WET FIRE SPRINKLER PIPING
	DRY SPRINKLER PIPING
	CPVC BLAZEMASTER SPRINKLER PIPING

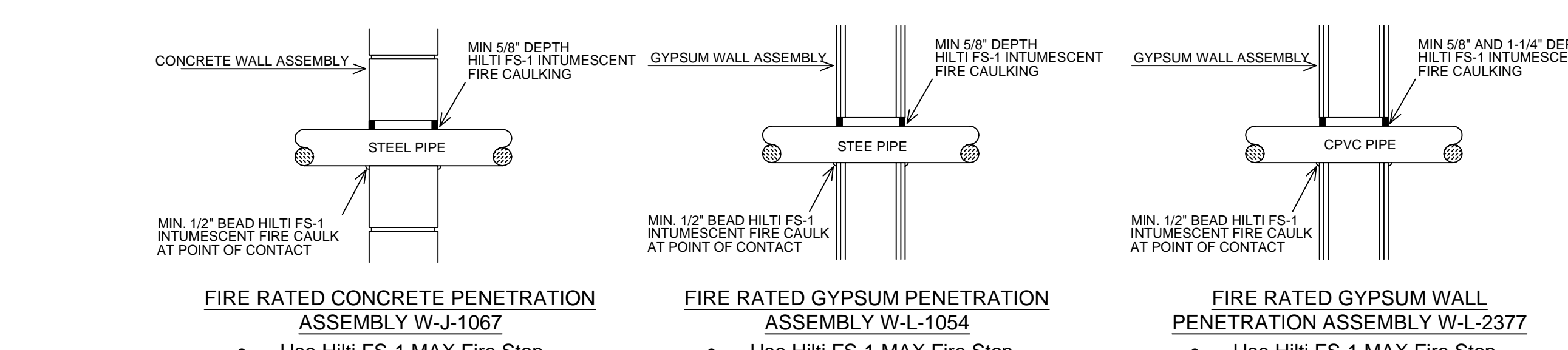


BUILDING SECTION
SCALE= 1/8" : 1'-0"

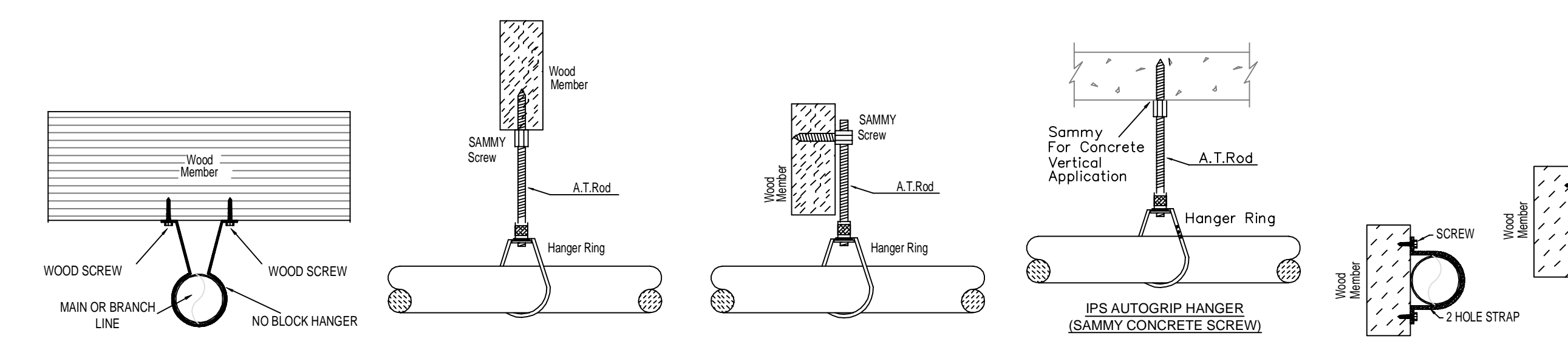


RISER & WALL PIV DETAIL
SCALE= 1/2" : 1'-0"

- GENERAL NOTES**
- MINNESOTA STATE BUILDING CODE (2020)
 - OCCUPANCY: R-2, S-2
 - TYPE OF CONSTRUCTION: VA
 - SPRINKLERED AREAS (APPROXIMATE - SEE ARCHITECTURAL PLANS FOR ACTUAL)
 - LEVEL 1 PARKING = 27,202 S.F. (ZONE 1)
 - LEVEL 2 = 27,108 S.F. (ZONE 2)
 - LEVEL 3 = 27,108 S.F. (ZONE 3)
 - LEVEL 4 = 27,108 S.F. (ZONE 3)
 - ATTIC = 27,108 S.F. (ZONE 4)
 - TOTAL = 108,534 S.F.
 - INSTALLATION STANDARDS:
 - SPRINKLER SYSTEM DESIGNED AND INSTALLED PER NFPA 13 (2016), NFPA 14 (2016).
 - SPRINKLER PIPE TYPES:
 - 2.1. 1" BRANCH LINES TO BE BLAZEMASTER CPVC PIPING WITH CEMENTED FITTINGS
 - 2.2. 1-1/4" THROUGH 2-1/2" MAIN & BRANCH LINES TO BE BLAZEMASTER CPVC PIPING WITH CEMENTED FITTINGS
 - 2.3. 1" BRANCH LINES TO BE MEGA-THREAD PIPING WITH THREADED FITTINGS
 - 2.4. 1-1/4" THROUGH 4" MAIN & BRANCH LINES TO BE MEGA-FLOW PIPING WITH SHORT RADIUS GROOVED FITTINGS
 - 2.5. 1" BRANCH LINES TO BE THREADED SCHEDULE 40 WITH THREADED FITTINGS
 - 2.6. 1/2" THROUGH 6" MAIN & BRANCH LINES TO BE GROOVED SCHEDULE 10 WITH SHORT RADIUS GROOVED FITTINGS.
 - DESIGN CRITERIA:
 - PARKING LEVEL, RISER ROOM & SIMILAR AREAS ARE DESIGNED TO ORDINARY HAZARD GROUP 1
 - RESIDENTIAL UNITS, OFFICES, ATTIC & SIMILAR AREAS ARE DESIGNED TO LIGHT HAZARD
 - REMOTE AREA REDUCTIONS HAVE BEEN TAKEN WHERE APPLICABLE PER NFPA 13 SEC. 11.2.3.2.3
 - NOTES:
 - ALL MATERIAL TO BE NEW AND MEET U.L. STANDARDS
 - HANGERS TO BE INSTALLED IN ACCORDANCE WITH NFPA 13 (2016) - SEE PLAN FOR HANGING REQUIREMENTS
 - DRY SYSTEM PIPE SLOPE INSTALLATION:
 - SPRINKLER MAINS TO BE 1" PER 10 FEET
 - SPRINKLER BRANCH LINES TO BE 1/2" PER 10 FEET
 - DRY SYSTEM CAPACITY:
 - 4.4.1. 1257 GAL.
 - SYMBOLS USED ON DRAWINGS:
 - PIPE ELEVATION A.F.F.
 - PIPE ELEVATION BELOW B.O.D.
 - ROOM HAZARD CLASSIFICATION (ALL ROOMS ARE CONSIDERED LIGHT HAZARD UNLESS NOTED)
 - HYDRAULIC CALCULATION JUNCTION POINT
 - CEILING HEIGHT
 - SCOPE OF WORK:
 - BREITZ-ENZEN TO INSTALL A NEW SPRINKLER SYSTEM IN NEW GLENFIELD APARTMENT BUILDING. THE SYSTEM SHALL HAVE 4 ZONES: ZONE 1 FEEDING LEVEL 1 PARKING, ZONE 2, FED FROM COMBINED STANDPIPE LOCATED IN STAIRWELL 1, FEEDING LEVEL 2, ZONE 3, FED FROM COMBINED STANDPIPE LOCATED IN STAIRWELL 1, FEEDING LEVELS 3 AND 4 (COMBINED), ZONE 4 FEEDING THE ATTIC.
 - ALL AREAS OF THE BUILDING TO BE INSTALLED AND COVERED IN ACCORDANCE WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PER NFPA 13 (2016).



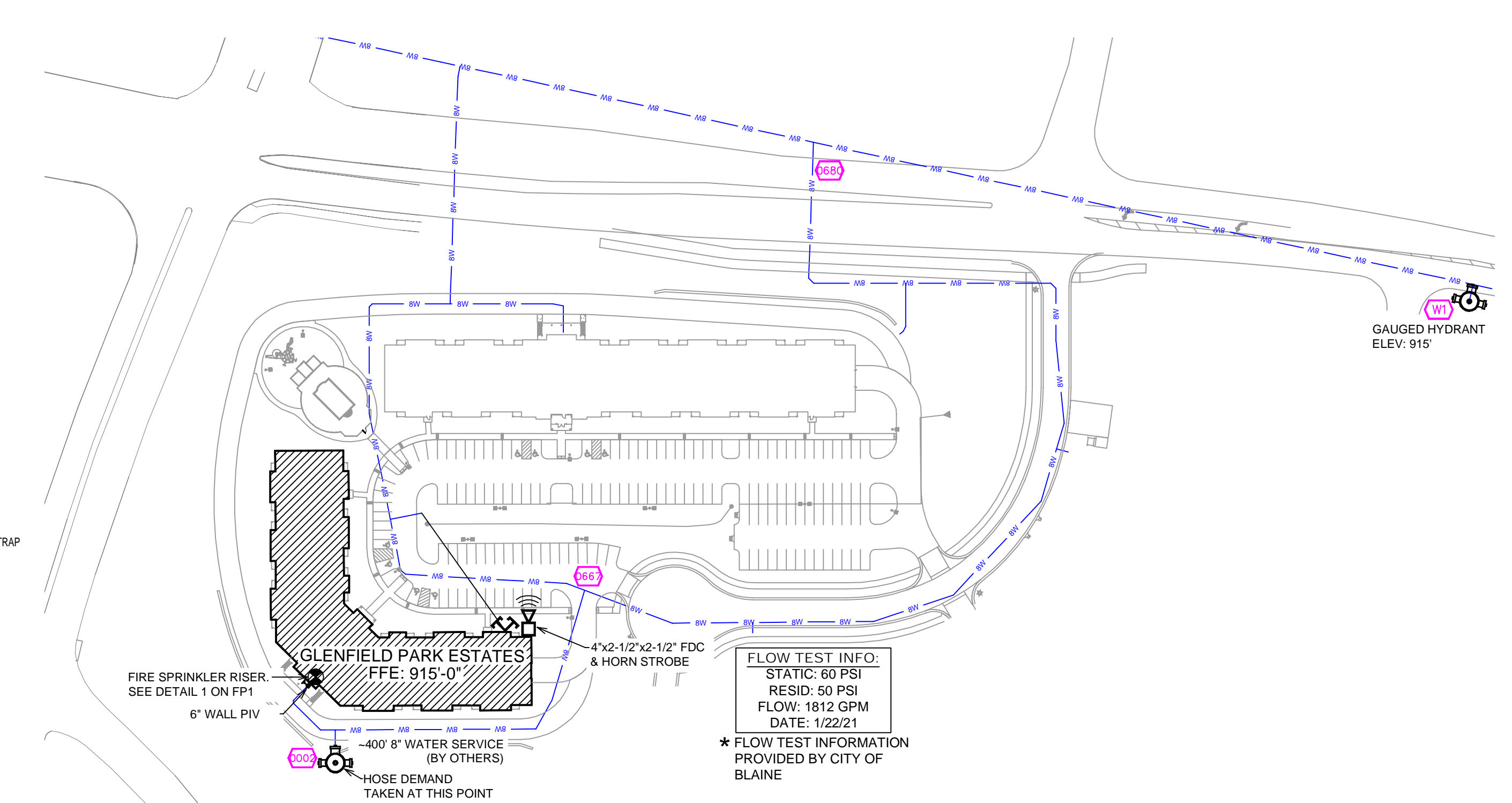
FIRE STOPPING DETAIL



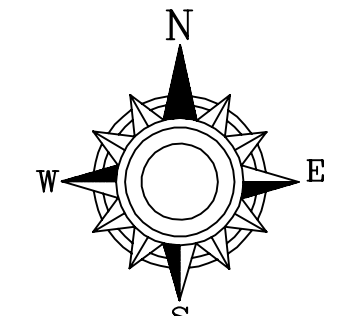
MAXIMUM DISTANCE BETWEEN HANGERS (FT.-IN.)

	NOMINAL PIPE SIZE (IN.)							
	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
STEEL PIPE EXCEPT THREADED LIGHTWALL	NA	12-0	12-0	15-0	15-0	15-0	15-0	15-0
THREADED LIGHTWALL STEEL PIPE	NA	12-0	12-0	12-0	12-0	NA	NA	NA
BLAZEMASTER CPVC	5-6	6-0	6-6	7-0	8-0	9-0	10-0	NA

HANGER DETAILS



SITE PLAN
SCALE: 1" = 100'-0"



GENERAL NOTES

- SYSTEM SHALL PER NFPA 13 (2016) SECTION AND STATE FIRE MARSHAL REQUIREMENTS. ALL LISTED MINIMUM PIPE SIZE SHALL BE 1" NOMINAL PIPE SIZE. ALL FITTINGS SHALL BE WELDED OR GROOVED SHORT RADIUS FITTINGS.
- ALL WELDING PER NFPA 13 (2016) SECTION TO BE DONE WITHOUT APPROVED SHOP DRAWINGS. CONDUITS ARE TO BE FIELD MEASURED PRIOR TO FABRICATION AND INSTALLED BY SPRINKLER CONTRACTOR.
- HIGH TEMPERATURE HEADS ARE TO BE FIELD LABORED WHERE REQUIRED.
- ALL WELDING SHALL BE DONE IN ACCORDANCE WITH NFPA 13 (2016) SECTION 11.2.3.2.3.
- HANGERS ARE TO BE INSTALLED AND COVERED IN ACCORDANCE WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PER NFPA 13 (2016).
- ELECTRICAL WIRING, ALARM DETECTION AND SUPERVISORY BY OWNER SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72 (2013) SECTION 76.2.1.1.1.
- WET SYSTEM PIPING FROM FREEZING.

APPROVAL STAMPS

NO.	DATE	REVISIONS

CONTRACT INFORMATION

Contract No: **C22-35**

Drawing Date: 10/13/2022

Scale: 1/8" = 1'-0"

Drawn By: DVG

Approval By: STATE FIRE MARSHAL DIV.

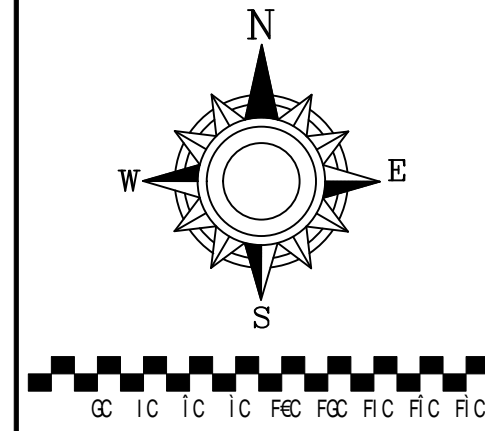
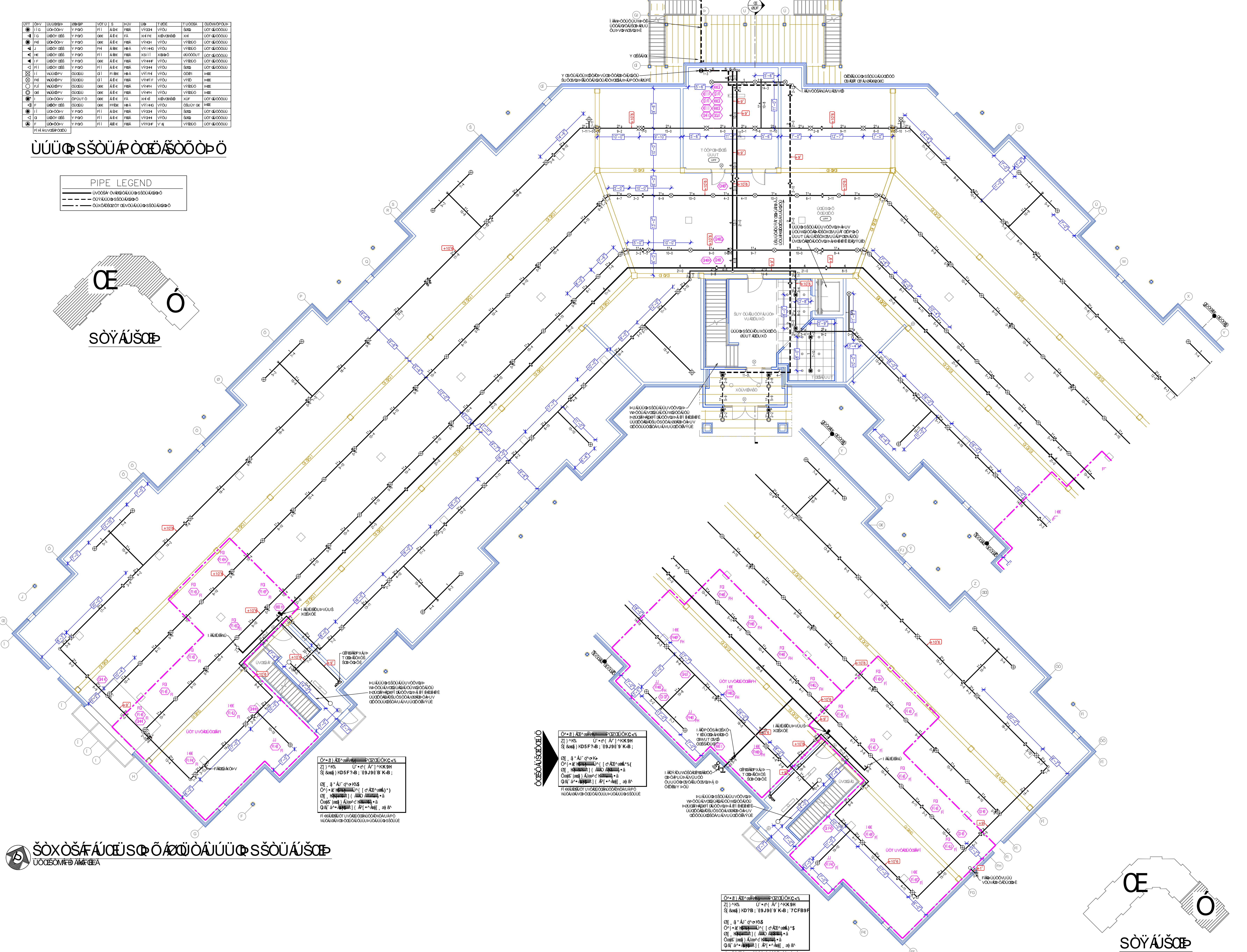
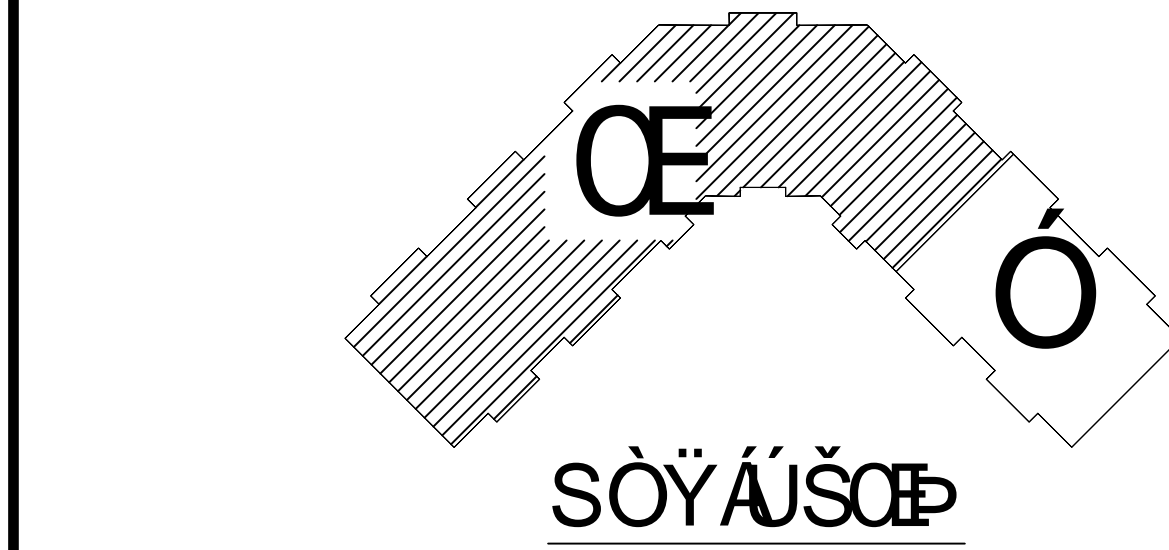
SHEET NO. **FP 1 of 6**

UYT	OBV	UOUPSP	OBSP	UOT	S	BOY	UO	T	OE	YUOSA	OOOUPPOU
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J	H	UO-OBV	PPO	FI	A	BA	VYOH	YVOU	SMB	DOT	QOOUOU
K	I	UO-OBV	PPO	FI	A	BA	VYOH	YVOU	SMB	DOT	QOOUOU
L	F	UO-OBV	PPO	FI	A	BA	VYOH	YVOU	SMB	DOT	QOOUOU
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O	H	UO-OBV	PPO	FI	A	BA	VYOH	YVOU	SMB	DOT	QOOUOU
P	H	UO-OBV	PPO	FI	A	BA	VYOH	YVOU	SMB	DOT	QOOUOU
Q	H	UO-OBV	PPO	FI	A	BA	VYOH	YVOU	SMB	DOT	QOOUOU
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Z	H	UO-OBV	PPO	FI	A	BA	VYOH	YVOU	SMB	DOT	QOOUOU

ΠΥΡΟΣΦΑΙΡΕΣ ΠΡΟΤΥΠΟΥ

PIPE LEGEND

- 100mm Ø Fire Alarm System
- 100mm Ø Fire Alarm System
- 100mm Ø Fire Alarm System



Technical specifications and notes for the fire alarm system components and installation.

ΣΧΗΜΑ ΠΥΡΟΣΦΑΙΡΕΣ ΠΡΟΤΥΠΟΥ
 ΤΕΧΝΙΚΗ ΠΡΟΤΥΠΩΣΗ

Client information and project details table.

ΠΡΟΤΥΠΩΣΗ ΠΥΡΟΣΦΑΙΡΕΣ ΠΡΟΤΥΠΟΥ
 ΚΑΤΑΣΤΑΣΗ

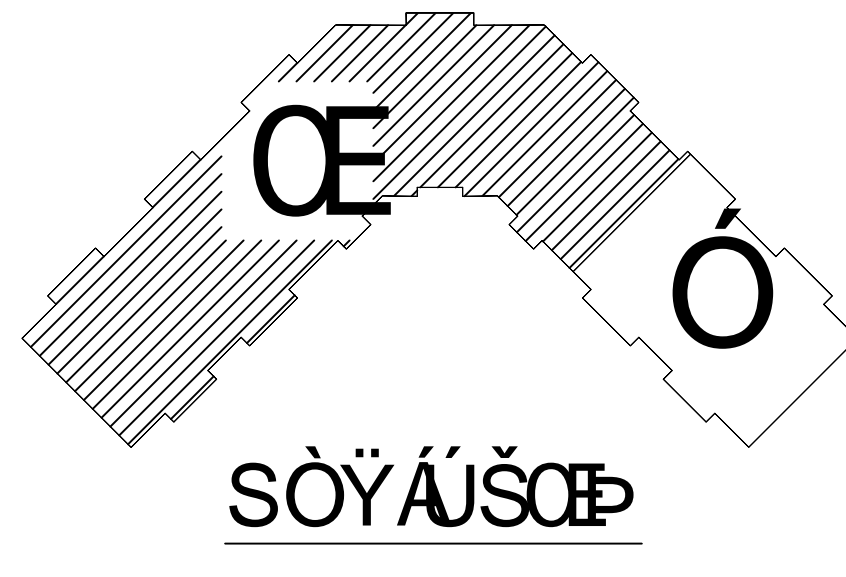
Client and contractor details.

UVT	DBV	UUDRSP	DBSP	UOT	U	S	DUV	U	DBE	YUDOSA	UUDRSP	UUDRSP
1	IG	U0000V	Y PGO	FI	A	E	FBA	VYGH	VYU	SDB	UOT	U0000U
2	J	U0000V	Y PGO	GE	A	E	FBA	VYGH	VYU	SDB	UOT	U0000U
3	K	U0000V	Y PGO	FI	A	E	FBA	VYGH	VYU	SDB	UOT	U0000U
4	L	U0000V	Y PGO	FI	A	E	FBA	VYGH	VYU	SDB	UOT	U0000U
5	M	U0000V	Y PGO	FI	A	E	FBA	VYGH	VYU	SDB	UOT	U0000U
6	N	U0000V	Y PGO	FI	A	E	FBA	VYGH	VYU	SDB	UOT	U0000U
7	O	U0000V	Y PGO	FI	A	E	FBA	VYGH	VYU	SDB	UOT	U0000U
8	P	U0000V	Y PGO	FI	A	E	FBA	VYGH	VYU	SDB	UOT	U0000U
9	Q	U0000V	Y PGO	FI	A	E	FBA	VYGH	VYU	SDB	UOT	U0000U
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11	S	U0000V	Y PGO	FI	A	E	FBA	VYGH	VYU	SDB	UOT	U0000U
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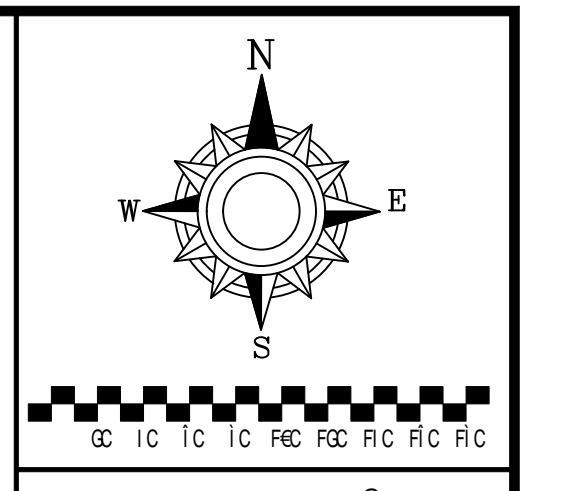
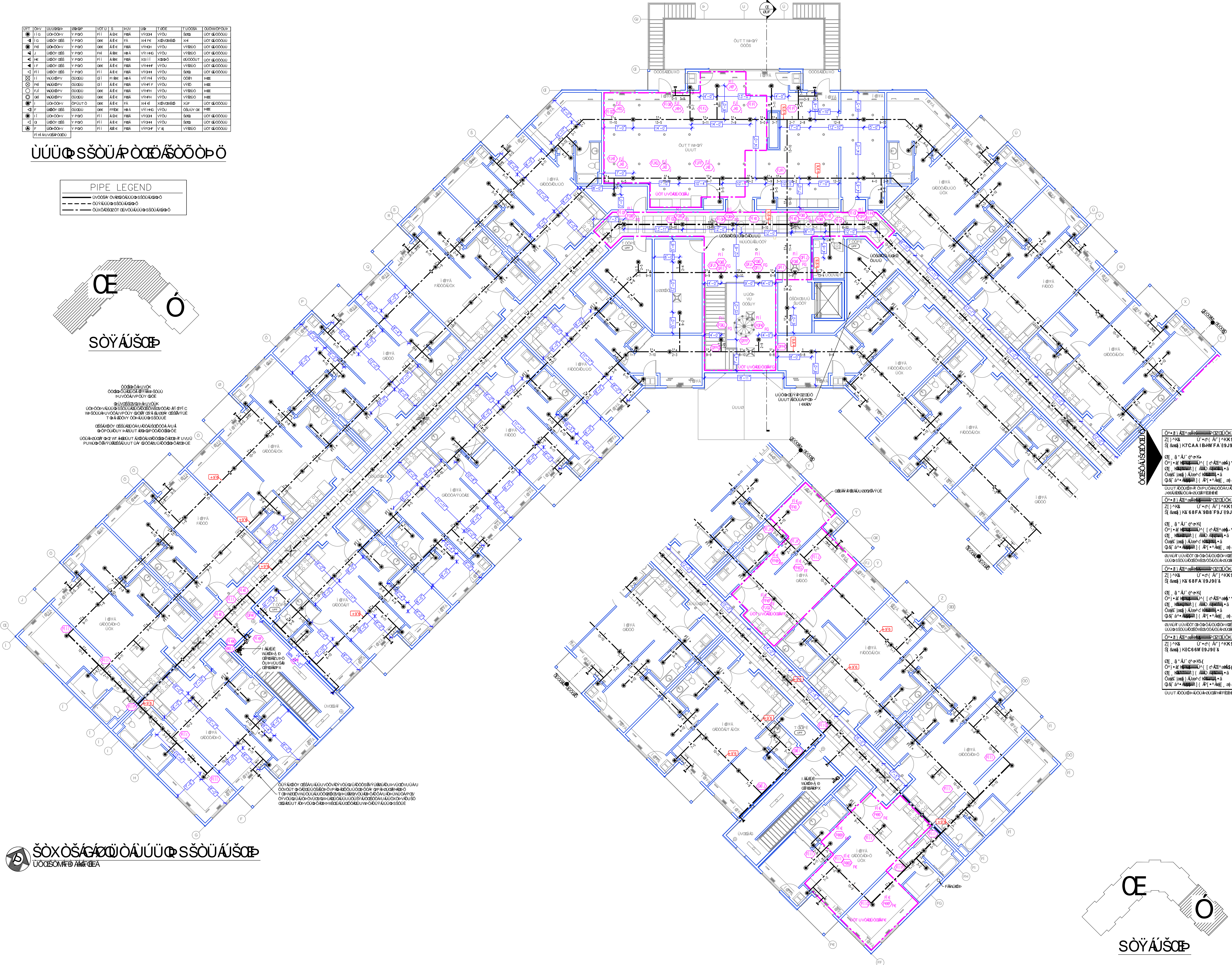
UUTU S S O U A P O O S O O P O

PIPE LEGEND

---	UVTU S S O U A P O O S O O P O
---	UVTU S S O U A P O O S O O P O
---	UVTU S S O U A P O O S O O P O



UVTU S S O U A P O O S O O P O
 UVTU S S O U A P O O S O O P O
 UVTU S S O U A P O O S O O P O



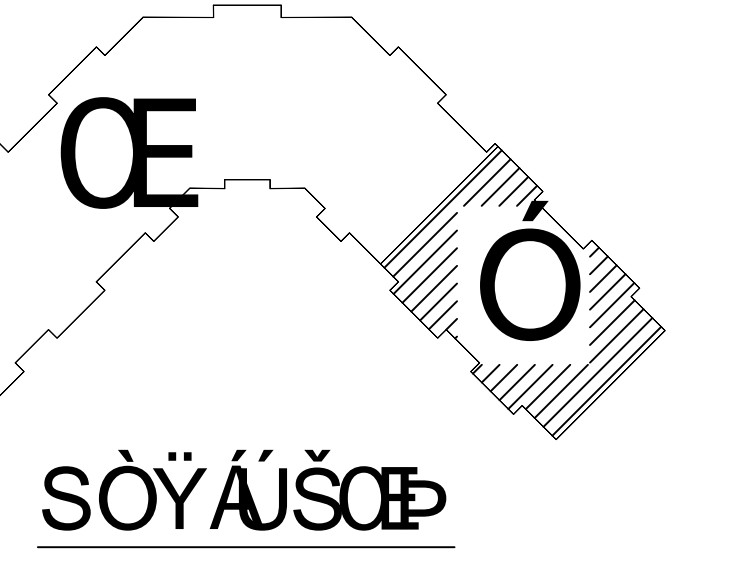
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 UVTU S S O U A P O O S O O P O

UVTU	S	S	O	U	A	P	O	O	S	O	O	P	O
UVTU	S	S	O	U	A	P	O	O	S	O	O	P	O
UVTU	S	S	O	U	A	P	O	O	S	O	O	P	O

UVTU S S O U A P O O S O O P O
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S O X O S A G A U O A U U U S S O U A U S O P
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